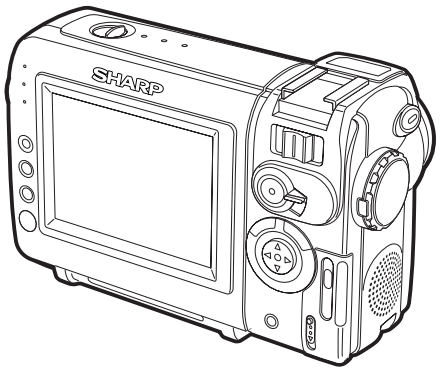
SHARP SERVICE MANUAL

S01B8VL-NZ10S

LIQUID CRYSTAL DIGITAL CAMCORDER PAL



MODELS VL-NZ10S VL-NZ10H VL-NZ10E

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

CONTENTS

SERVICE MANUAL LIQUID CRYSTAL DIGITAL CAMCORDER PAL MODELS VL-NZ10S/H/E

SHARP CORPORATION

1. SPECIFICATIONS

Signal System:	PAL standard
Recording System:	2 rotary heads, helical scanning system
Cassette:	Digital VCR Mini DV video cassette
Recording/Playback Time:	90 minutes (DVM60, LP mode)
Tape Speed:	SP mode: 18.831 mm/second LP mode: 12.568 mm/second
Pickup Device:	1/4" (6.4 mm, effective size: 4.5 mm) CCD image sensor (with approx. 800,000 pixels including optical black)
Lens:	10 × optical/300 × digital power zoom lens (F1.8, f=3.6-36.0 mm), full-range auto focus
Lens Filter Diameter:	27 mm
Monitor:	3" (7.5 cm) full-color LCD screen (TFT active matrix)
Microphone:	Electret stereo microphone
Color Temperature Compensation:	Auto white balance with white balance lock, outdoor or indoor
Minimum Illumination:	1 lux* (with gain-up, F1.8)
Still Image Compression System:	JPEG base line conformance
Still Image Recording Format:	JPEG (Exif2.1)
Still Image Recording Medium:	SD Memory Card, MultiMediaCard
Power Requirement:	DC 7.4 V
Power Consumption:	4.5 W (during camera recording in Full Auto mode with zoom motor off and backlight in normal mode)
Operating Temperature:	0°C to +40°C
Operating Humidity:	30% to 80%
Storage Temperature:	–20°C to +60°C
Dimensions (approx.):	136.1 mm (W) × 86.3 mm (H) × 58.6 mm (D)
Weight (approx.):	455 g (without battery pack, lithium battery, video cassette, lens cap, lens hood, hand strap, shoulder strap and card)

AC Adapter/Battery Charger (UADP-0334TAZZ)

Power Requirement:	AC 110-240 V, 50/60 Hz
DC Output:	7.8 V
Power Consumption:	23 W
Dimensions (approx.):	70mm (W) × 43.5mm (H) × 113 mm (D)
Weight (approx.):	170 g

MultiMedia Card (Supplied Accessory)

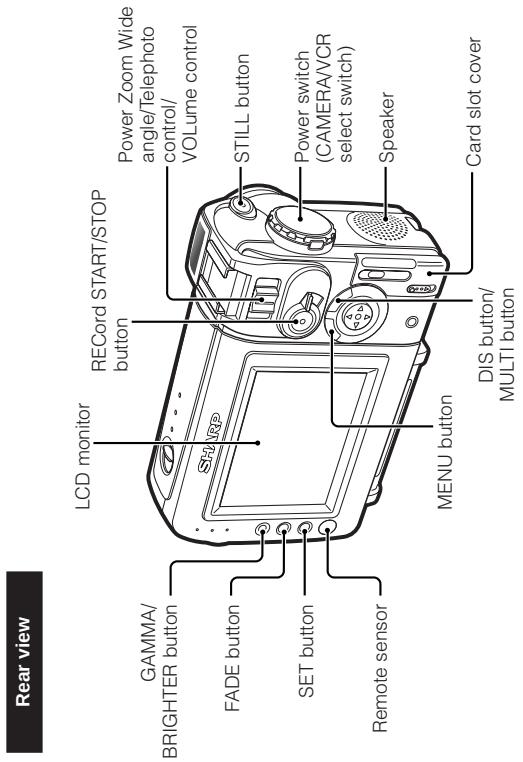
Memory Capacity:	8 MB
Power Requirement:	3 V
Operating Temperature:	0°C to +40°C
Storage Temperature:	–20°C to +65°C

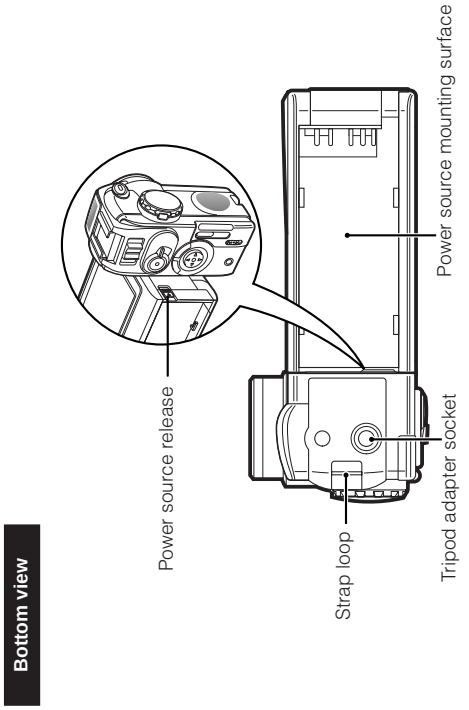
Specifications are subject to change without notice.

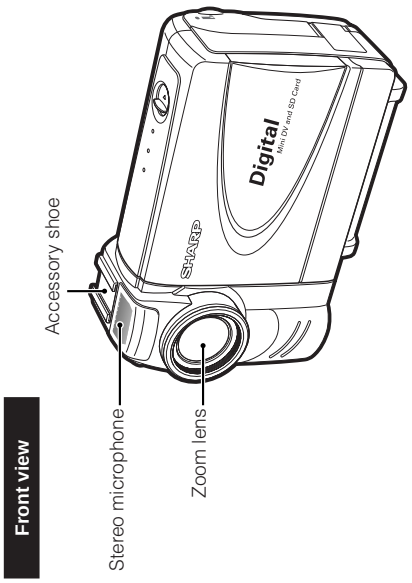
*Minimum illumination: Since there is no widely accepted testing procedure for determining minimum illumination capability, lux ratings are comparable only between models from the same manufacturer.

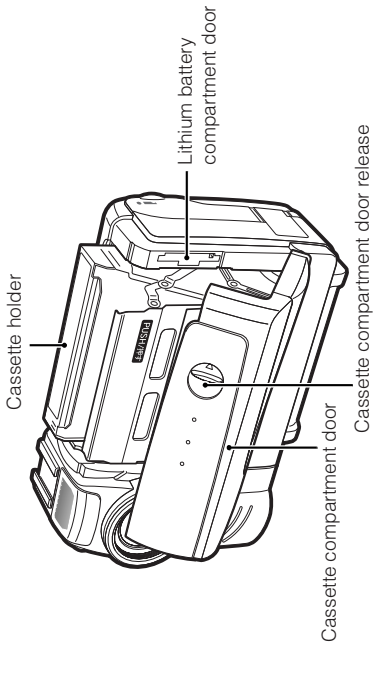
2. PART NAMES

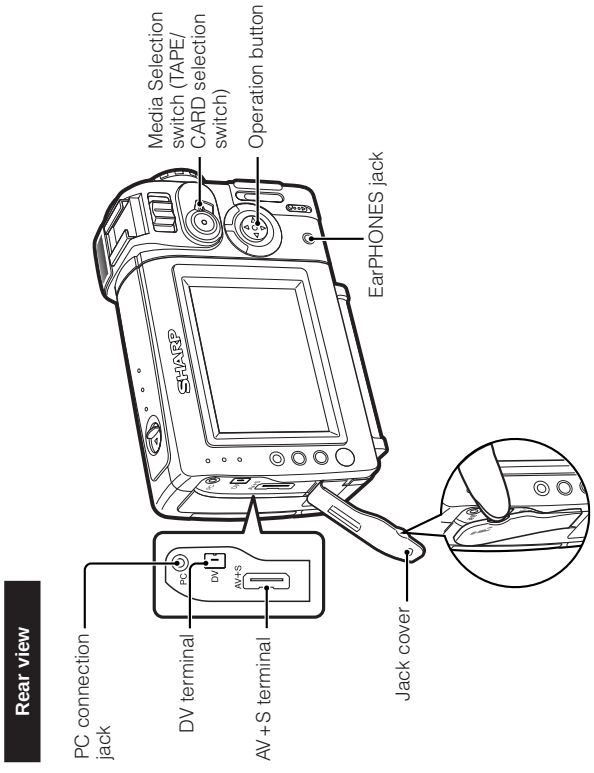
For details on the use of each control.









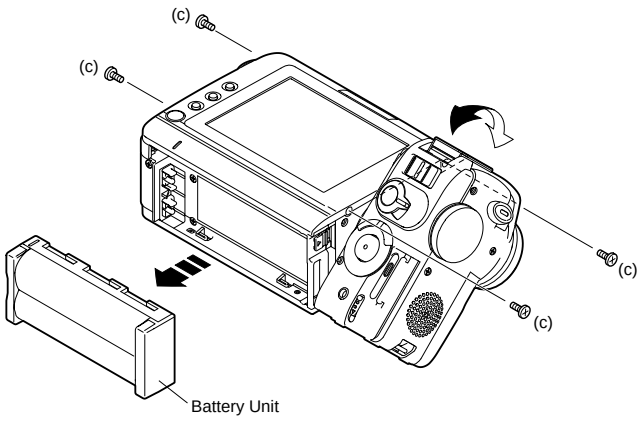


3. DISASSEMBLY OF THE SET

Note:

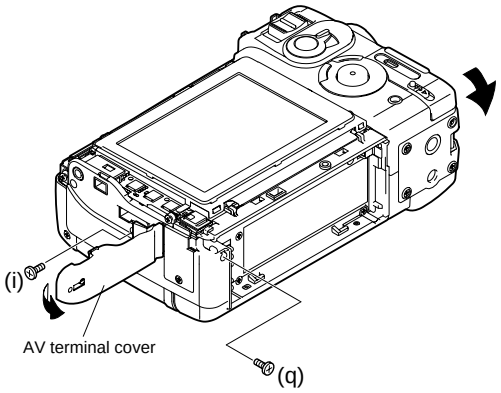
Before removing the cabinet, turn off the power supply, and ascertain that the battery have been removed.

1.



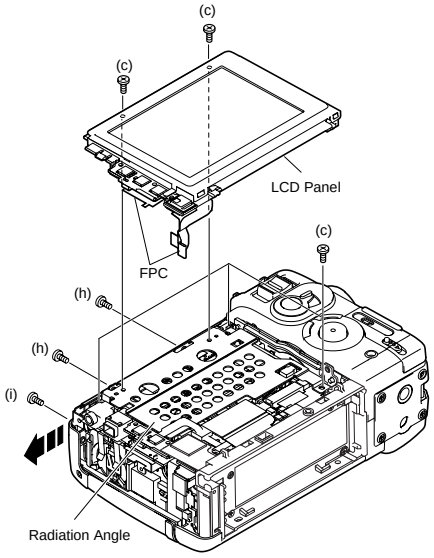
1) Remove the battery unit.
2) Remove the 4 screws ((c)XiPSN17P03000).

2.



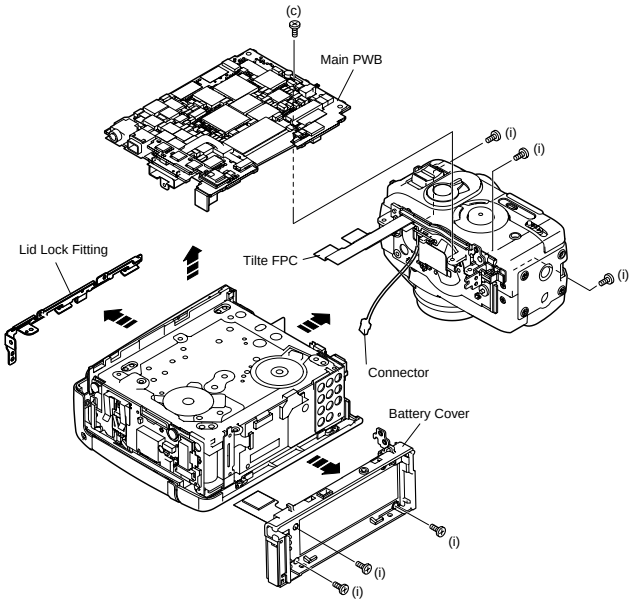
1) Remove the 1 screw ((i)XiPSF17P03000) and 1 screw ((q)LX-HZ0050TAFF) to detach the AV terminal cover.

3.



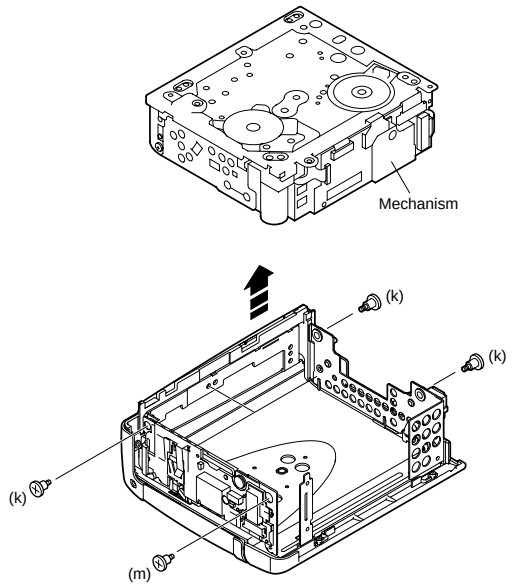
1) Remove the 1 screw ((i)XiPSF17P03000) and 2 screws ((h)XiPSF17P02000).
2) Remove the 2 screws ((c)XiPSN17P03000) to detach the VCR operation PWB. Then remove the FPC of the LCD panel and FPC of the reflector to detach the LCD panel.
3) Remove the 3 screws ((c)XiPSN17P03000) to detach the radiation angle.

4.



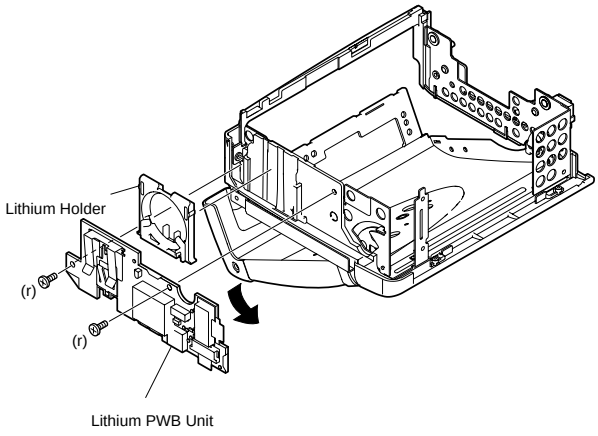
1) Remove the 1 screw ((c)XiPSN17P03000) and disconnect the tilt FPC to detach the main PWB.
2) Remove the lid lock fitting.
3) Remove the 4 screws ((i)XiPSF17P03000) to detach the battery cover.
4) Remove the 2 screws ((i)XiPSF17P03000) and disconnect the connector to detach the lens section.

5.



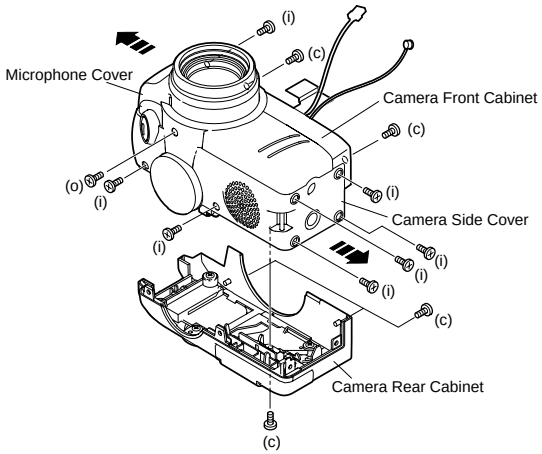
1) Take the mechanism out.
2) Remove the 3 floating screws A ((k)LX-BZ0251TAFD) and 1 floating screw B ((m)LX-BZ0253TAFN).

6.



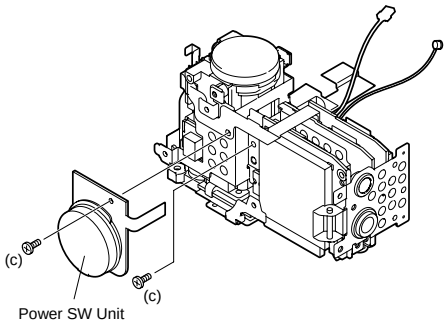
1) Remove the lithium holder and 2 screws ((r)XiPSN17P04000) to detach the lithium PWB unit.

7.



1) Remove the 3 screws ((c)XiPSN17P03000) and 4 screws ((i)XiPSF17P03000) fixing the camera rear cabinet to detach it. (Note: When detaching the camera rear cabinet, pay attention to the FPC of the camera operation unit.)
2) Remove the 2 screws ((c)XiPSN17P03000) and detach the camera side cover in the direction of the arrow. (Note: When detaching the side cover, pat attention to the lead wire of the speaker.)
3) Remove the 1 screw ((i)XiPSF17P03000) and 1 screw ((o)XiPSN17P06000) and detach the microphone cover in the direction of the arrow. (Note: When detaching the microphone cover, pay attention to the lead wire of the microphone.)
4) Remove the 2 screws ((c)XiPSN17P03000) and camera front cabinet.

8.



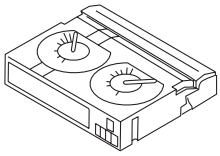
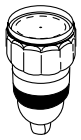
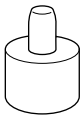
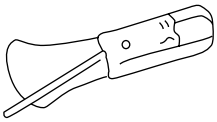
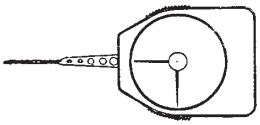
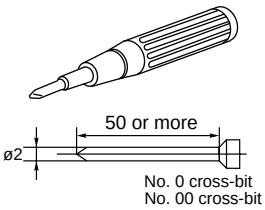
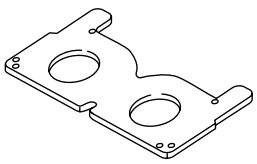
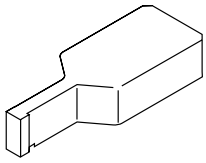
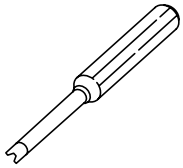
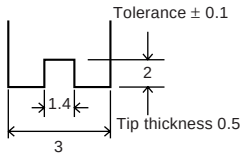
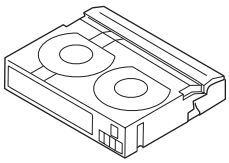
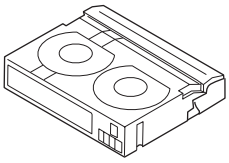
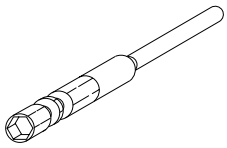
1) Remove the 1 screw ((c)XiPSN17P03000) to detach the power SW unit. (Note: When detaching the power SW unit, pay attention to the FPC.)
2) Remove the 1 screw ((c)XiPSN17P03000) to detach the lens unit.

4. MECHANISM ADJUSTMENT JIGS AND PARTS

4-1. Mechanism check adjustment jigs

Configuration
1. Name
2. Part No.
3. Code
* Model, Uses Remarks

<Note: The entries of list>

 1. PB-use cassette Torque meter 2. 9DASD-1015 3. DB * 1mN·m/1.5mN·m	 1. Torque gauge 2. JiGTG0045 3. CN * For use in VS-REW winding torque measurement.	 1. Torque gauge head 2. 9EQTGH-DH5000 3. BW * For use with the torque gauge listed left.	 1. Tension gauge 4N 2. JiGSG0400 3. BK * For measurement of pinch roller pressure.	 1. Dial tension gauge 2. 9DAPTG-10-10W 3. CA * PTG-10
 1. Torque screwdriver 150mN·m 2. JiGTD1500RTDH 3. CB	 1. Master plane 2. 9EQMP-VLPD1 3. CL * For checking reel base height.	 1. Height adjustment jig 2. 9DAHG-PD1 3. BZ * For height adjusting.	 1. Height adjustment screwdriver 2. 9EQDRiVER-DH5 3. BC * For guide roller adjustment.	* For Tu guide adjustment. * For T roller adjustment. * Bit shape (see figure below). 
 1. Alignment tape – (I) 2. VR3-GAZXS 3. CF * For tape running adjustment.	 1. Alignment tape – (II) 2. VR3-JPZQS 3. CG * For SW point adjustment. * 90ADVC-TAPEPAL can use, too.	 1. For hexagon nut opposite side 3mm bit. 2. 95CM22001 3. BL * For S guide hexagon nut installation.	<Miscellaneous> (1) Slide caliper (2) Precision screwdrivers (Phillips head and slotted) (3) Radio needle-nose pliers (4) Tweezers	

4-2. Parts for regular periodic inspection and maintenance

Configuration
1. Name
2. Part No.
3. Code
* Model, Uses Remarks

<Note: The entries of list>

1. Oil Cosmo Hydro HV22 2. 9EQ-Oil-HV22 3. AE * Cosmo Petroleum K.K.	1. Cleaning paper 2. JiGDUSPER 3. AP * DUSPER ∑ (SIGMA) (Ozu Co., LTD.)	1. Grease: Moly Coat YM-103 2. 99FGREASE-YM103 * Dow corning	1. Cleaning liquid: Industrial-use ethyl alcohol * Commercially available item
		1. Screw lock (1401B) * Three Bond	1. Extremely thin cotton swab * Commercially available item

<How to make jigs for mechanism checking and adjustment>

(1) Reel hub for back tension measurement (Fig. 1)
   1) Obtain a commercially available cassette tape reel hub. (Disassemble the cassette tape and remove the tape from the reel hub.)
   2) Paste one end of a string (about 20cm long) to the reel hub with (for example) cellophane tape.
   3) Paste the weight of about 0.21N on the upper side reel hub.

(2) String for use in pinch roller snap-fit force measurement (Fig. 2)
   1) Obtain an approximately 20cm length of commercially available string.
   2) Tie the 2 ends together to form a loop.

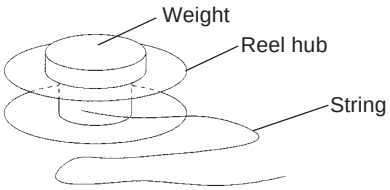


Fig. 1

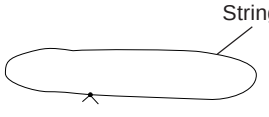


Fig. 2

5. INSPECTION AND MAINTENANCE ITEMS AND INTERVALS

In order to keep the mechanical section always in good condition, perform the following inspection and maintenance at regular intervals.
In addition, after repair, perform the following maintenance items regardless of how long the user has been using the unit.

5-1. List of inspection and maintenance items

○ • • • Replace. □ • • • Clean. △ • • • Lubricate. ★ • • • Check.

	Inspection and maintenance location	Time of use (h) 500	1,000	1,500	2,000	3,000	Symptoms that indicate need for maintenance	Remarks
Tape running system	Tape running section (see section 7-3)	□	□	□	□	□	• Block-type noise • Head hole clogging • Tape damage	**Note:** Replace the drum ass'y if the video head is cleaned but the envelope still does not appear. (When the envelope is normal, refer to "10. USEFUL TIPS".)
	Drum section, Video head (see section 7-3)	□	□	□	□	□		
		<Rollers> • Replace if there is anything abnormal in the rotation, or if there is run-out (that becomes large). <Other than the above> • Clean the section that contacts the tape (especially the lower drum helical section). Use the specified cleaning liquid.						
Drive system	Timing belt	—	★○	—	★○	★○	• The tape fails to run. • The tape becomes slack. • Block-type noise • Abnormal noise	• Replace if there is anything abnormal.
	Pinch roller	□	□	□	□○	□		
	Capstan motor	—	○	—	○	○		
	Swing arm S reel base, Tu reel base	—	★○	—	★○	★○		
	Center pulley shaft Intermediate pulley shaft Swing arm boss Intermediate gear A shaft, Intermediate gear B shaft	—	△	—	△	△	• Abnormal noise	• Lubricate with oil. [Oil] Cosmo Hydro HV22 **Note:** Apply oil to the shaft, then wipe lightly with a cloth.
	Loading motor Mode switch	—	★○	—	★○	★○	• Cannot eject. • Fails to enter a mode.	• Replace if anything is abnormal (including the noise).
Performance checks	Abnormal noise	★	★	★	★	★	• The tape fails to run. • The tape becomes slack. • Tape damage • The play-back image is abnormal.	• Replace any part that fails to perform within the standard.
	PB · VS/R winding torque	—	★	—	★	★		
	PB · VS/R · loading back tension Tu reel base ratchet torque S reel base no-load torque	—	★	—	★	★		

[Oil] Cosmo Hydro HV22 [Screw lock] Three Bond 1401B
[Grease] Moly Coat YM-103 [Cleaning liquid] Industrial-use ethyl alcohol

5-2. Precautions

(1) When replacing any part, always replace the cut washer that was removed with a new one.
(2) This mechanism does not have control adjustment. If the control cannot be set as required, clean and or replace parts.
(3) On the oil
  a) Always use the specified oil. (Using another kind of oil can cause various kinds of trouble.)
  b) Always use clean oil, without any mixed-in dirt, to lubricate bearings. (Using oil with dirt mixed in can cause the bearings to wear or to stick.)
  c) One drop of oil is the amount shown in the Fig. 1, on the point of a pin.
(4) Perform circuit repair, tape running adjustment, etc. with the cassette controller assembly attached to the mechanism.
(5) When operating the mechanism separately, apply voltage to the loading motor. However, the terminal voltage must be DC3V~4V.
  (When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause a trouble.)
  (Forcing the gears to turn by hand entails danger of breakage.)
  If the mechanism is separated from the unit, the capstan motor may rub and be damaged if spacing under the mechanism is inadequate.
(6) To install the cassette controller, push section A in the Fig. 2. Do not push anything else.
(7) Do not deform any of the mechanical parts.

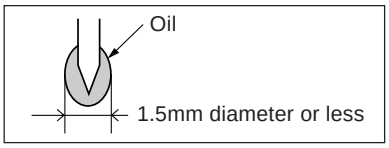


Fig. 1

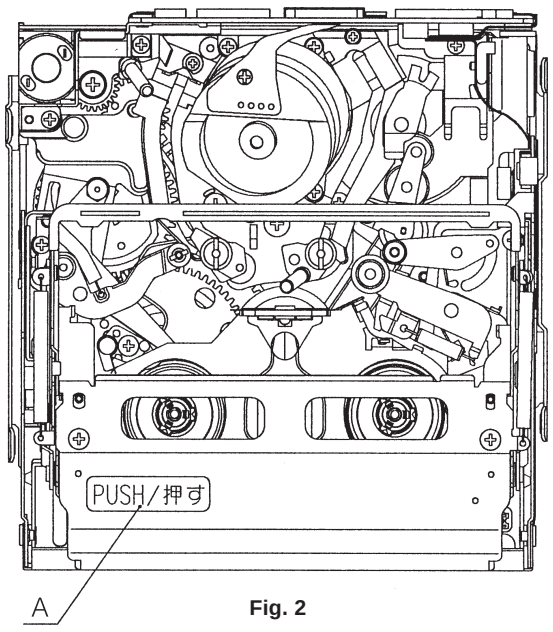


Fig. 2

6. MECHANICAL ADJUSTMENTS AND CHECKS

The items discussed here relate to general on-site servicing (field servicing). Adjustments and replacements that require sophisticated facilities, jigs and technology are omitted.
In addition, in order to maintain the characteristics that the unit has when it is new, not only are inspection and maintenance necessary, but it is absolutely necessary that, for example, the tape not be damaged, and always use jigs for adjustments that require them.

<Precautions>
(1) Always set the power supply and state of the unit as follows Notes for mechanism adjustments and checks.
- AC adapter used, with cassette controller assembly
- AC adapter used, without cassette controller assembly (Independent Mechanism)
- DC3V, without cassette controller assembly (Independent Mechanism)

(2) When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause a trouble.
(3) Always run the tape with the cassette controller assembly attached.

6-1. Checking the playback (recording) winding torque

AC adapter used, with cassette controller assembly

(1) Set the torque cassette with the cassette controller assembly attached, then, in SP recording mode (playback mode if a signal has already been recorded in SP mode on the tape), confirm that the torque on the winding side is within the standard.
<Winding torque standard in record (playback) mode>
(If there is torque ripple, read the center value.)
0.70 +0.4/-0.3mN·m, ripple 0.4mN·m or less

6-2. Checking the rewinding playback (VS-REW) winding torque

AC adapter used, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, press the DOWN switch, using the adhesive tape and referring to 8-3, operate in the TEST mode (T01) to rewind, and set the rewinding playback (VS-REW) mode.
(2) Set the torque gauge on the S reel base, press the front end of tension post with your finger in the arrow A direction so as to ascertain that the winding torque is as specified. (Check without rotating the torque gauge.)
<Rewinding playback (VS-REW) winding torque standard>
(If torque ripple exists, read its center value.)
1.6 ± 0.6mN·m, ripple 0.5mN·m or less
(3) After checking the winding torque remove the torque gauge, and remove the adhesive tape used in item (1) above (refer to 8-3). The STANDBY mode is set automatically.

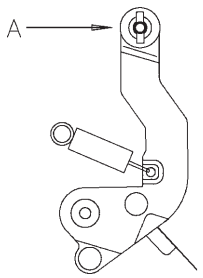


Fig. 1. Removal of tension band when measuring the rewinding playback (VS-REW) winding torque

6-3. Checking of reel base height

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly (refer to 8-2).
(2) Referring to 8-1, apply DC3V to the loading motor and put the system into playback mode.
(3) Taking adequate care so that the master plane does not contact drum, running parts (guide roller, etc.), or the MIC contacts. Fit the master plane holes to the 2 guides (A and B) in Fig. 2.
(4) Confirm that the heights of the S reel base reel receiving surface and the Tu reel base reel receiving surface below the master plane top surface are within the set values, using, for example, a slide calliper (Fig. 3).
When checking the S reel base height, press the front end of tension post in the arrow A direction with your finger to release the tension band, and then check the height in this state (Fig. 1).
(5) If the height is not within set values, replace the washer under the reel base, and adjust as specified.
Note: After the adjustment, make sure that the reel bases rotate smoothly.

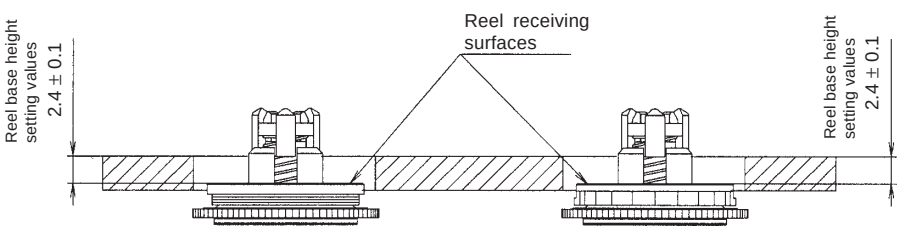


Fig. 3

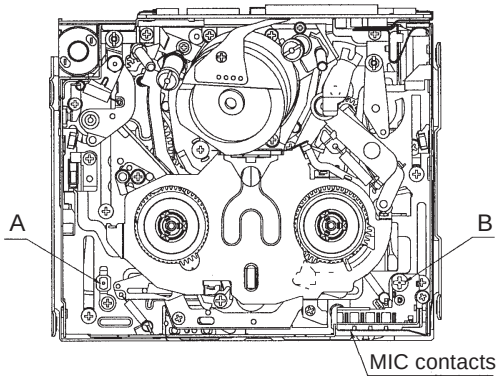


Fig. 2

6-4. Back tension torque check and adjustment in record (playback) mode

AC adapter used, with cassette controller assembly

(1) Checking

Set the torque cassette (SD-1015), and make sure in the SP record mode that the supply side torque is within the standard shown below (or in the playback mode for the tape on which the signal has been SP-recorded).

<Standard>

(If torque ripple exists, read its center value.)

0.7 ± 0.1mN·m

(2) Adjustment (Fig. 4)

If the value is out of standard range, adjust, using the screw 1 shown in Fig. 4.

1. Loosen the screw 2 slightly.
2. Adjust to turning the screw 1. When back tension is too high, turn the screw 1 counterclockwise (CCW).
   When back tension is too low, turn the screw 1 clockwise (CW).
3. After adjustment fix the angle with the screw 2. (At this time take care so as to prevent excessive tightening.) Apply Screw Lock to the screw 1.

<Caution>

Screw tightening torque: 0.04N·m

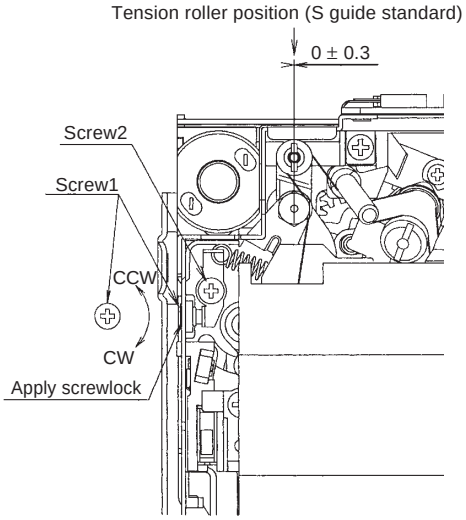


Fig. 4. Check (tape exists)

6-5. Checking and adjustment of tension roller position in record (playback) mode

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Checking

Before winding the 60-min tape make sure that the tension roller is in the same position as S guide as shown in Fig. 4.

If not, take out the tape and adjust in the following procedure.

(2) Adjustment (Fig. 5)

1. Set the playback mode without loading the tape.
2. Loosen the screw 3 slightly (to such an extent that the tension band holder 4 can be moved).
3. If the tension roller is inside from the specified position, shift the tension band holder 4 in the arrow Ⓐ direction. If the tension roller is outside, shift the tension band holder in the arrow Ⓑ direction, and fix with the screw 3. (Proper shift must be 0.2 to 0.6mm outside from the specified position.)
4. Check the position by the procedure described in item (1) Checking above.
5. If the position is not specified position, adjust again.

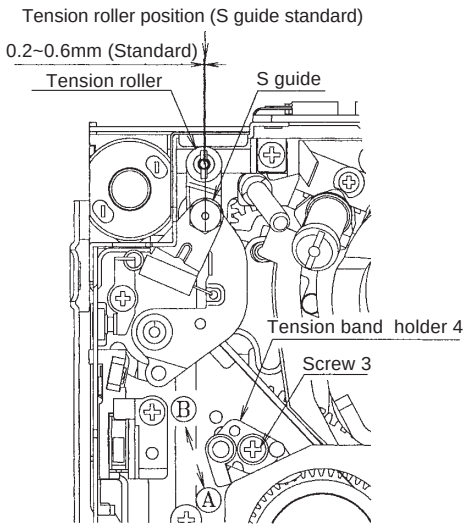


Fig. 5. Position adjustment (tape does not exist)

6-6. Checking of supply S reel base no-load torque

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode (refer to 8-1).

(2) Move the swing arm toward the Tu reel base side.
Be careful not to cause damage to the gears and other parts in the process. (Fig. 6)

(3) Set a back tension measurement reel hub on the S reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

<FF back tension standard>

(If the tension fluctuates, read its center value.)

30mN or less

6-7. Checking of loading back tension

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode. (refer to 8-1)

(2) Move the swing arm toward the S reel base side. Be careful not to cause damage to the gears and other parts in the process. (Fig. 7)

(3) Set a back tension measurement reel hub on the Tu reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

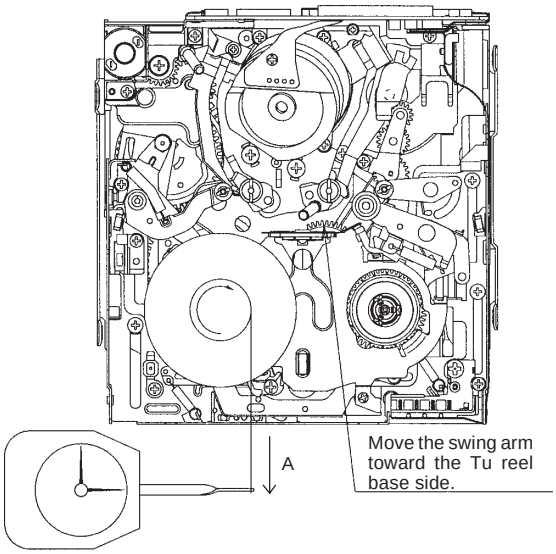


Fig. 6. S reel base no-load torque measurement method

<REW back tension standard>

(If the tension fluctuates, read its center value.)

15 ± 12mN

6-8. Checking of winding Tu reel base ratchet torque

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into standby mode. (refer to 8-1)

(2) Move the swing arm toward the S reel base side.
Be careful not to cause damage to the gears and other parts in the process. (Fig. 8)

(3) Set a back tension measurement reel hub on the Tu reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

<Winding Tu reel base ratchet torque standard >

(If the tension fluctuates, read its center value.)

100mN or less

6-9. Checking of rewinding playback (VS-REW) back tension

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into rewinding playback (VS-REW) mode. (refer to 8-1)

(2) Move the swing arm toward the S reel base side.
Be careful not to cause damage to the gears and other parts in the process.

(3) Set a torque gauge on the Tu reel base.

(4) Turning the torque gauge to counterclockwise (1 turn for 3 seconds), then confirm that the torque is within the standard.

<Rewinding playback (VS-REW) back tension standard value>

(If the tension fluctuates, read its center value.)

0.70 +0.6/-0.3mN·m

6-10. Checking of pinch pressing force

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Set the pinch roller pressing force measuring thread on the pinch lever (position A , Fig. 9).

(2) Set the mechanism to the playback mode, press the pinch roller against the capstan shaft.

(3) Fit the tension gauge to the pinch roller pressing force measuring thread, pull in the arrow B direction shown in Fig. 11 to separate a little the pinch roller from the capstan shaft.

(4) Gradually return the pinch roller, and when the pinch roller contacts parallel the capstan shaft, read the value (see Fig. 10) to make sure that the value conforms to the standard shown below.

<Standard>

1.8 +0.3/-0.5N

<Caution>

After making this measurement, quickly release the system from playback mode and remove the pinch roller from the capstan shaft. (If the pinch roller is left fitted onto the capstan shaft for a long time, the pinch roller will be deformed.)

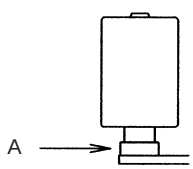


Fig. 9

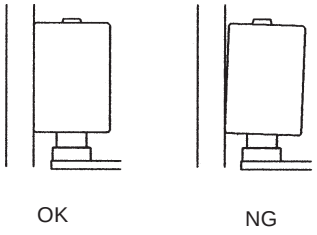


Fig. 10

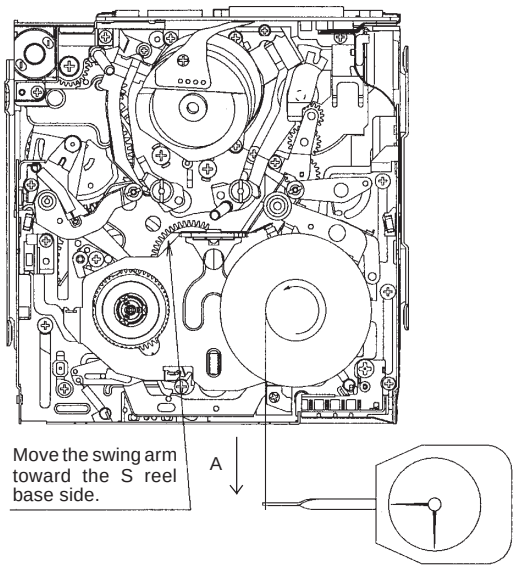


Fig. 7. Loading back tension measurement method

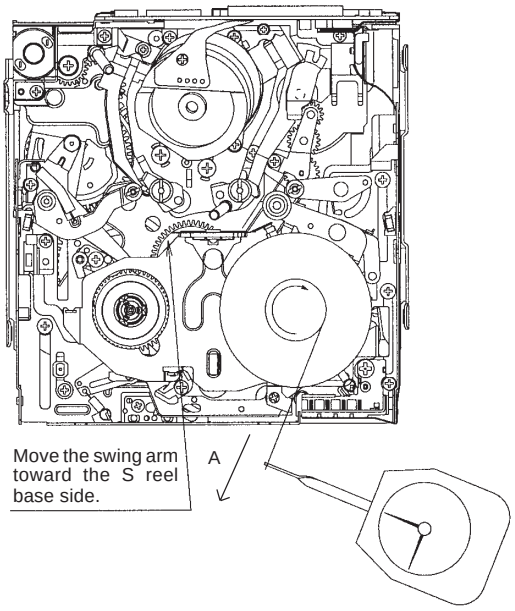


Fig. 8. Winding Tu reel base ratchet torque measurement method

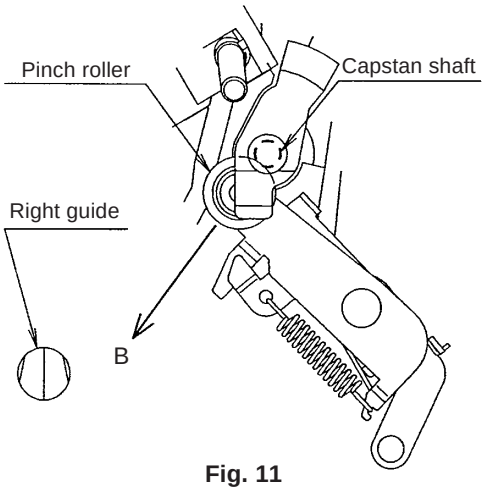


Fig. 11

7. TAPE RUNNING ADJUSTMENT

7-1. Adjustment locations

<Replacement parts>
· T roller, arm
· Tu guide, arm
· Slide chassis

→ Adjust the height of only replaced parts with the adjusting jig. Adjustment procedure 7-2

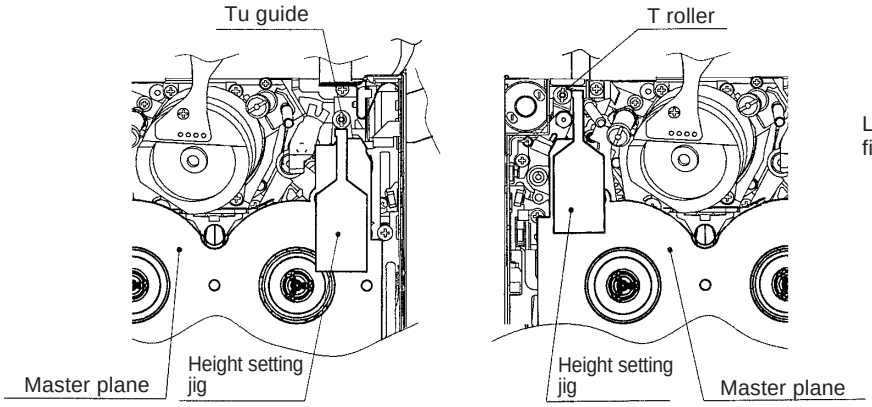
<Replacement parts other than those shown above>
· S guide
· Pole base
· Guide roller
· Drum assembly
· Capstan motor, etc.

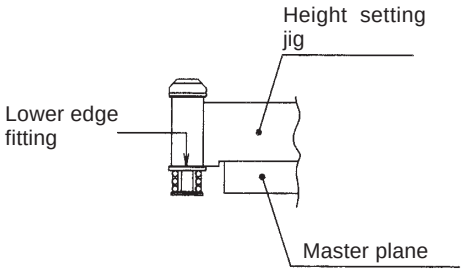
→ Height presetting is not necessary.

→ Cassette controller installation → Running adjustment preparation Adjustment procedure 7-3 → Running rough adjustment Adjustment procedure 7-4 → Running final adjustment Adjustment procedure 7-5

7-2. Running height adjustment

· After replacement of T roller or Tu guide adjust the height . (Adjust only the replaced parts.)
· After height adjustment do not turn the T roller. If crease is found on the tape of Tu guide, remove the crease by rotating. (As for details refer to the “Running rough adjustment”.)
· After height adjustment of T roller or Tu guide, apply Screw lock to an end of shaft. (After replacement of S guide apply Screw lock to same point, too.)





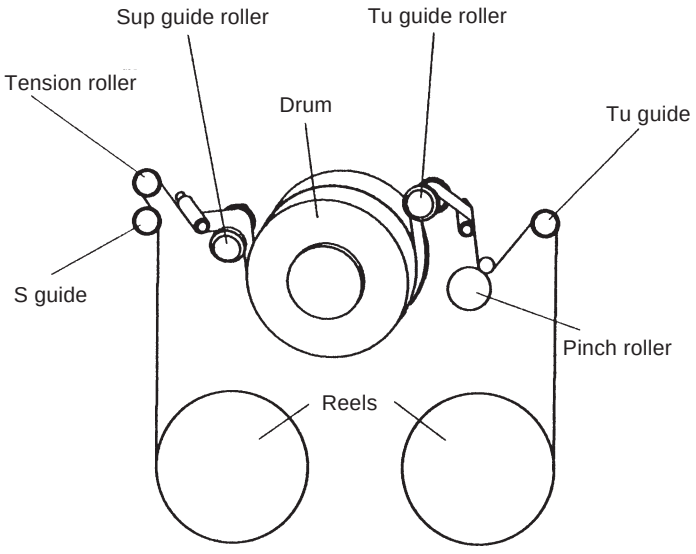
Fit height the par on low edge fitting.
After setting adjustment jigs, turn T roller counterclockwise to 315°.

7-3. Preparation for tape running adjustment

Meters, jig… Oscilloscope, Adjustment remote control, Height adjustment screw driver, Alignment tape (for tape running adjustment, for switch point adjustment), Master plane, Height adjustment jig.

<Method and description>

(1) Clean the tape running surface (especially, adequately clean the drum surface and the lower drum helicam surface).
(2) Attach the cassette controller.
(3) Connect an oscilloscope to each TP on the relay circuit board.
(4) Turn the AC adapter power ON.
(5) Using the adjustment remote control unit, put the system TEST mode T-05.
(6) Replay the alignment tape for running adjustment, and make sure that the tape is running in the SP mode.
(7) Check the oscilloscope playback envelope, then, at +1/4 shift and -1/4 shift, check whether all of it is flat. If it is not, perform the following adjustment so that it becomes flat.
(Each time you push the PLAY key, the shift will change; [+1/4 shift] → [Normal] → [-1/4 shift] → [Normal], in order.)



7-4. Running rough adjustment

(With cassette controller)

1) Su, Tu guide roller height adjustment

<Method and description>

(1) Loosen the guide roller lock screw, then tighten loosely so that the roller turns easily.
(2) Replay an alignment tape, and adjust the Sup, Tu guide roller so that the envelope sides of entrance and exit are flat.
(3) Perform ± 1/4 shift, then, as in the above case, adjust until the envelope becomes flat.
* If running is difficult for the entrance changed, turn the T roller to counterclockwise 180°. (refer to Fig. 1)

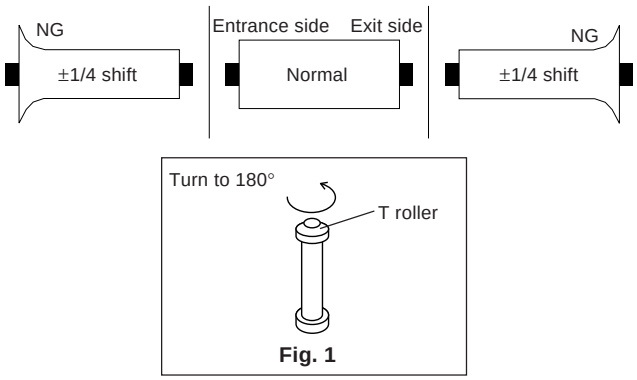
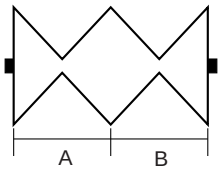


Fig. 1

2) Check of V/SR envelope wave form

<Method and description>

(1) Confirm that the envelope waveform peaks in V/SR mode are uniform.
(2) If they are not uniform, fine-adjust the guide roller and the Tu guide.

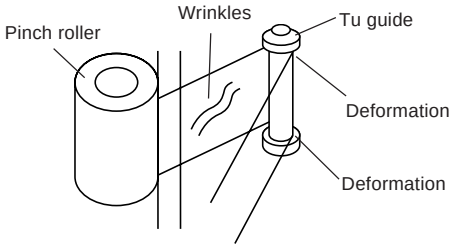


Adjust so that A ≒ B.

3) Check of tape wrinkles

<Method and description>

(1) Check that the tape is not distorted between the Tu guide and pinch in the PB mode and the V/SR mode.
⇨If crease is found, make an adjustment in the range of ±180°.
⇨After adjustment apply Screw Lock.



4) Check the rising time of the envelope wave form

<Method and description>

(1) Check the rising time of the envelope when switching from V/SR mode to PB mode. (Within 5 sec)
(2) Check the rising time of the envelope when switching from STOP mode to PB mode. (Within 5 sec)

7-5. Final running adjustment

(With cassette controller)

1) Adjustment of Sup and Tu guide roller height

<Method and description>

(1) Perform ± 1/4 shift, then if the envelope wave's ratio of MAX. to MIN. are 60% or less, adjust again the height of guide roller. (Refer to Fig. 2)
(2) Finally adjust the lock screw of Sup and Tu guide roller.
(3) Once perform unloading and then loading to set the PB mode, and make sure that the envelope waveform does not change.

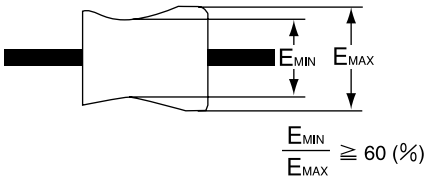


Fig. 2

2) Adjustment of playback SWP

<Method and description>

(1) Playback the alignment tape for switch point adjustment.
(2) Perform SWP automatic adjustment with adjustment remote control.

* When replacing the mechanism and drum, adjust the phase and equalizer using the adjustment remote control. (Refer to "9. ADJUSTING THE ELECTRICAL CIRCUITS".)

8. MECHANICAL SECTION ASSEMBLY AND PARTS REPLACEMENT (DISASSEMBLY AND REASSEMBLY)

Mechanical section disassembly and reassembly are explained in this section.
For removal of the cabinet, etc., refer to **3. DISASSEMBLY OF THE SET.**

<Precautions>

1. Always replace cut washers that have been removed, for example in parts replacement, with new ones.
2. When reassembling, be careful not to allow screws, washers or foreign matter to enter. They can cause mechanical misoperation.
3. Use the cleaning liquid, oil, grease and screw lock that are specified below. Use of any other kind can cause mechanical misoperation.

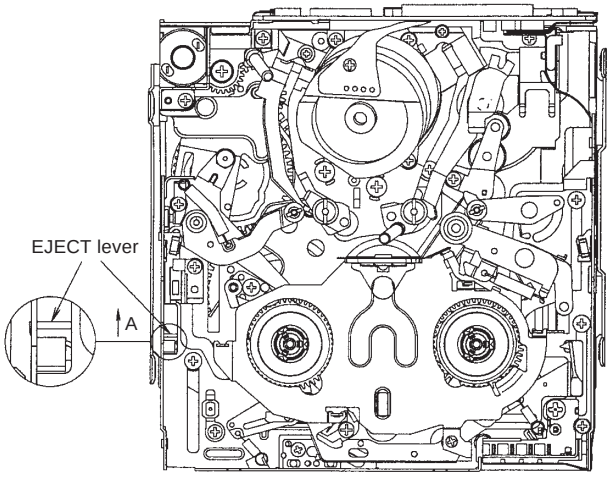
Oil: Cosmo Petroleum : Cosmo Hydro HV22	Screw lock: Three Bond :1401B
Grease: Dow Corning : Moly Coat YM-103	Cleaning liquid: Industrial-use ethyl alcohol

8-1. On the mechanical modes

When operating the mechanism separately, apply DC3~4V to the loading motor.
(When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause operational problems.)

(1) EJECT mode

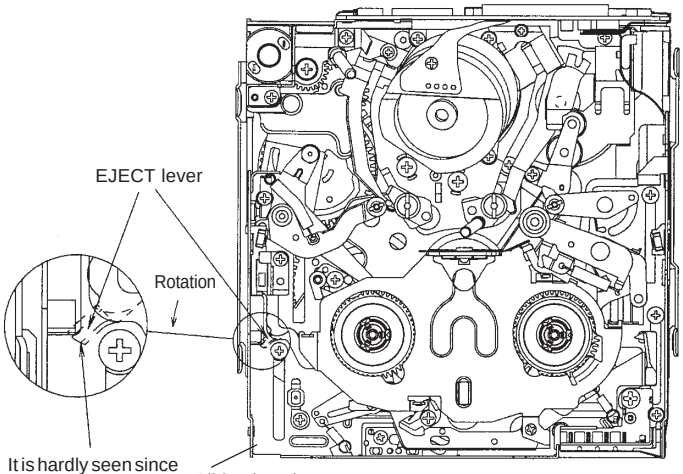
The mechanism position to take out the cassette where the EJECT lever is extremely shifted in the A direction. (It is impossible to lock the cassette controller assembly in this mode.)



EJECT mode diagram

(2) STANDBY mode

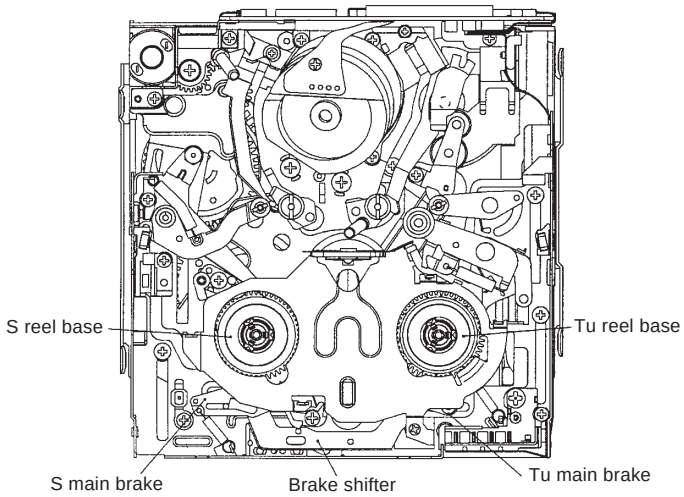
The mechanism position to set the cassette where the slide chassis is at the farthest position from the drum and the EJECT lever is in counterclockwise rotated position (position where the cassette controller assembly can be locked).



STANDBY mode diagram

(3) LOADING START mode

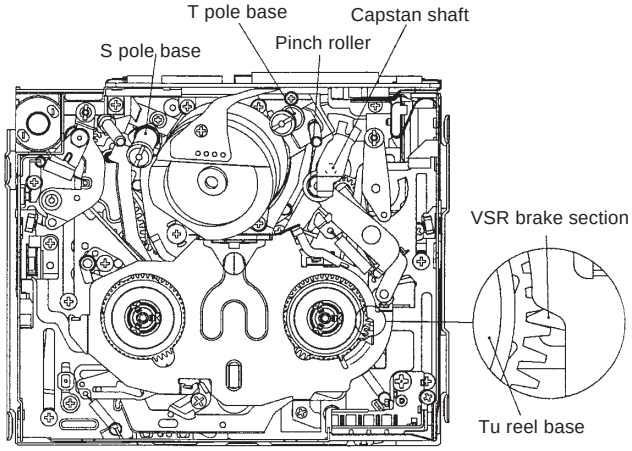
This is the mode where the tape is wound around the winding reel when a cassette with visible wind start leader tape is loaded. (The brake shifter moves to the left, the S main brake is separated from the S reel base and the Tu main brake is separated from the Tu reel base.)



LOADING START mode diagram

(4) REWINDING (VSR) mode

The mechanism position to rewind the tape (fast rewinding playback). The S and T pole base is pressed, the pinch roller is pressed to the capstan shaft, the brake shifter VSR brake section engages with the Tu reel base gear.

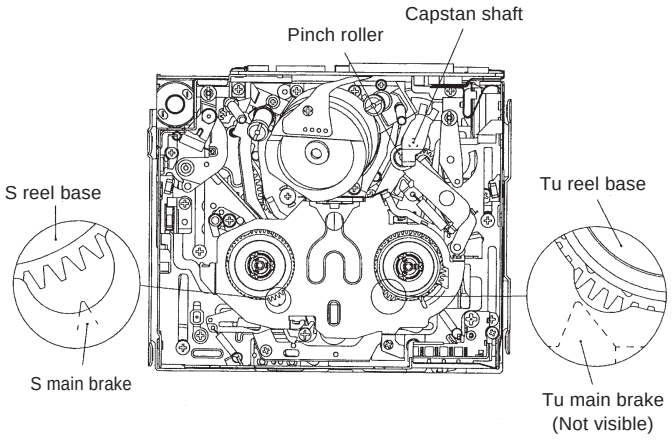


REWINDING (VSR) mode diagram

(5) PLAYBACK (RECORD, FF, VSF) mode

The mechanism position for playback, record, FF and fast feed playback.

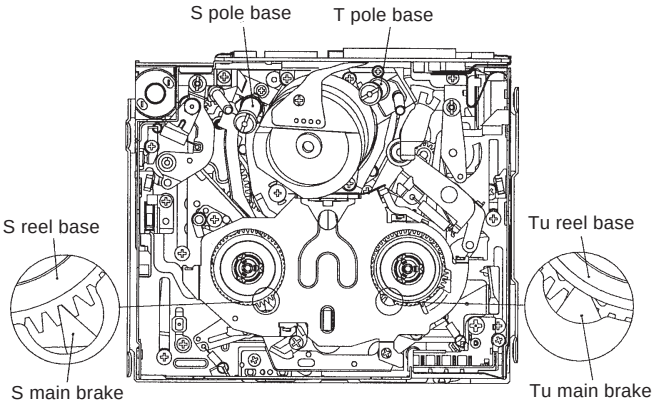
The pinch roller is pressed to the capstan shaft, and the S/Tu main brake is separated from the S/Tu reel base.



PLAYBACK mode diagram (RECORD, FF, VSF)

(6) STOP mode

The system is in the STOP (Rec Lock in CAMERA mode) position; the S and the T pole bases are snap-fitted to the drum base, the S brake is in contact with the S reel base, and the Tu brake is in contact with the Tu reel base.



STOP mode diagram

8-2. Cassette controller assembly

<Removing>

(1) Apply DC3V to the loading motor to enter the standby mode.
Press the lock lever in the arrow direction to raise the cassette controller. (See Fig. 1; Ⓐ or Ⓑ direction.)

(2) Turn the damper lever in the arrow Ⓒ direction to release the engagement of the damper bar. (See Fig. 2.)

(3) Remove two screws Ⓔ, and remove the down guide Ⓓ in the arrow Ⓕ direction. (See Figs. 3 and 4.)
Take care that the slide chassis is provided with the down guide positioning Ⓖ or Ⓗ.

(4) Slide the cassette controller in the arrow Ⓘ direction, remove the outer link shaft (both sides) toward the inside of the mechanism, and turn the cassette controller in the arrow Ⓙ direction. (See Fig. 5.)

(5) Slide the cassette controller in the arrow Ⓚ direction. (See Fig. 6.)

<Installing>

(1) Apply DC3V to the loading motor to enter the standby mode.

(2) For assembly, reverse the removing procedure (5) thru (2).
Tightening torque of two screws Ⓔ: 40±4mN.m

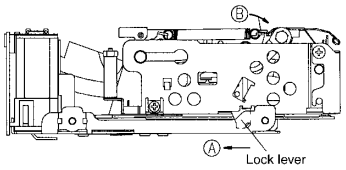


Fig. 1.

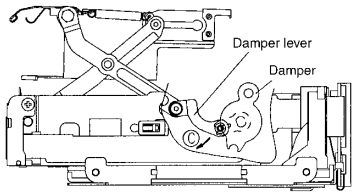


Fig. 2.

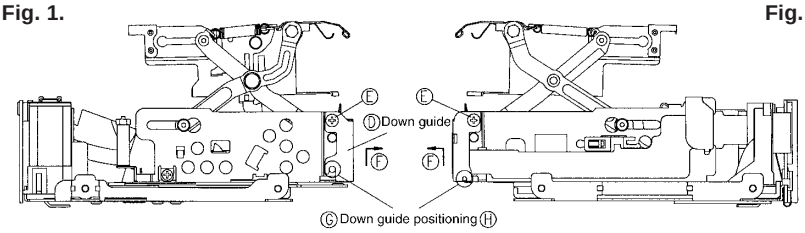


Fig. 3.

Fig. 4.

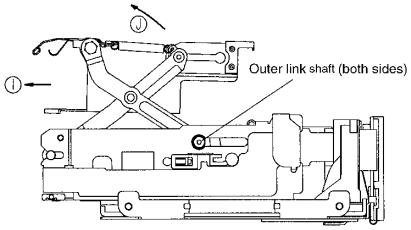


Fig. 5.

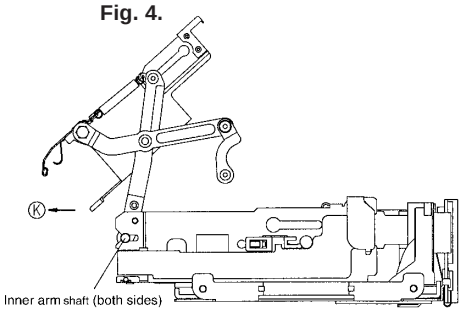


Fig. 6.

8-3. How to operate with the circuit board without the cassette controller assembly.

In this method, if the procedure is followed incorrectly there is danger of damaging the mechanism and the tape, so except in special cases, such as when measuring the VSR torque, do not perform this procedure. Normally operate this unit with the cassette controller assembly attached.
Be sure to follow each caution mentioned.

(1) Apply DC3 ~ 4V to the loading motor to enter the standby mode.
(2) Securely press the movable piece Ⓛ of the down SW with cellophane tape or similar to turn on SW. (Take care that the movable piece turns only in the shown arrow direction.)

Note: To enter REC mode, press the pin of the recognition switch Ⓜ.
(Unnecessary in other modes.)

(3) Set the test mode (T-01) with the adjustment remote controller without putting the tape, and the mechanical operation will become possible with the mode key.
(4) For ejection, remove the tape of (2).

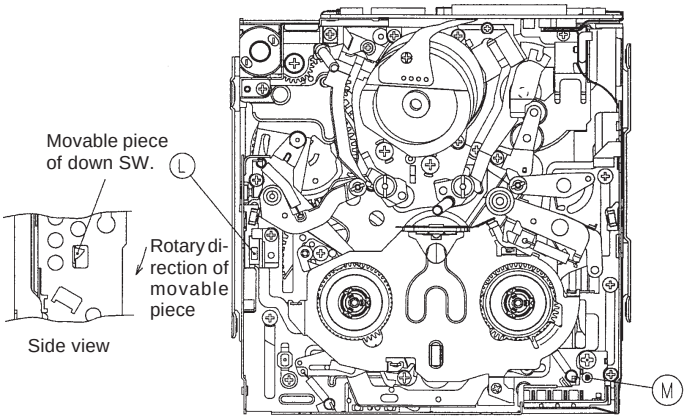


Fig. 7. LOADING START mode

8-4. Phase matching

Referring to Figs. 8 and 9, align the phase for the following parts.
(1) Eject lever (2) Eject control lever (3) Mode SW (4) Main cam (5) Sub cam
Note: Before disassembly, sufficiently check the marker position.
Note: When installing the joining gears, verify that the phase matching holes of the main cam and subcam are aligned to the hole of the chassis.
Note: After the phase is aligned, turn the mode SW with hand, and verify that it turns nearly one turn.
(After verification, return it to the original position.)

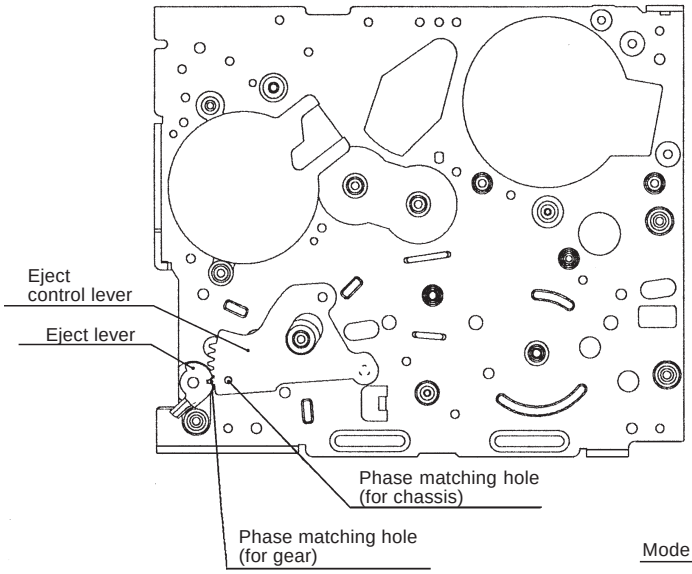


Fig. 8

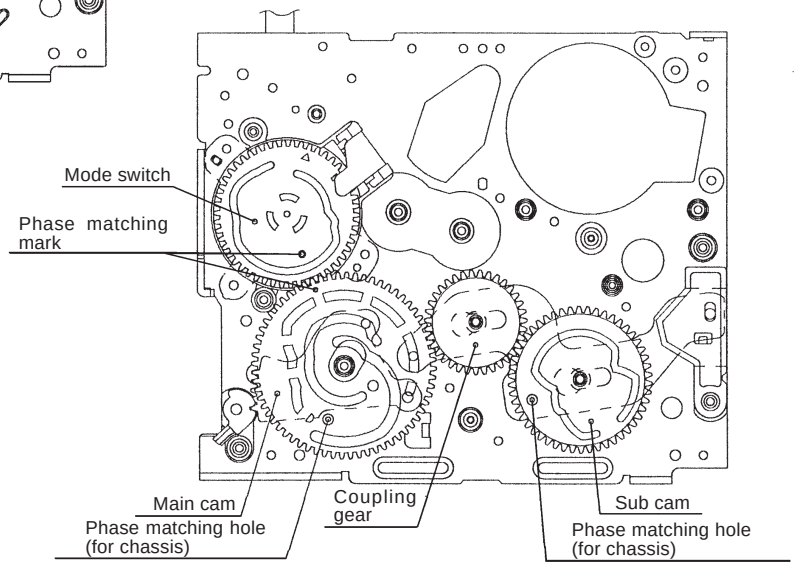


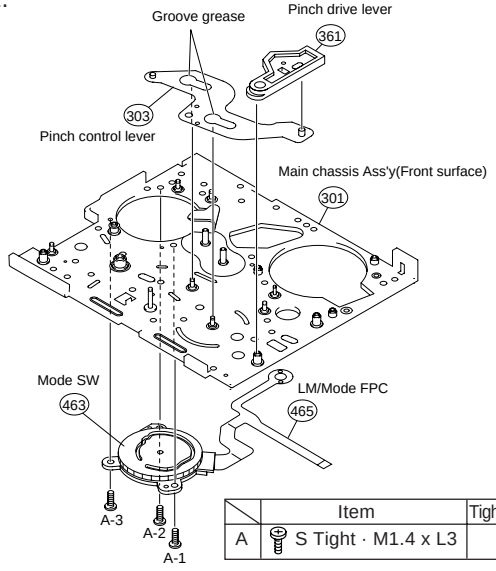
Fig. 9

8-5. Reassembly

8-5-1. Reassembly in side of the main chassis.

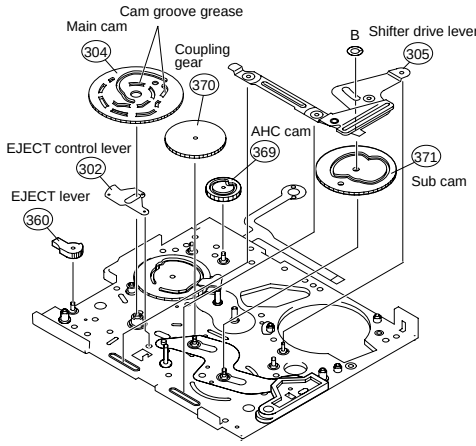
Note) Numbers before part names are given as a guide to the order of assembly.
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application side of the main chassis).

1.



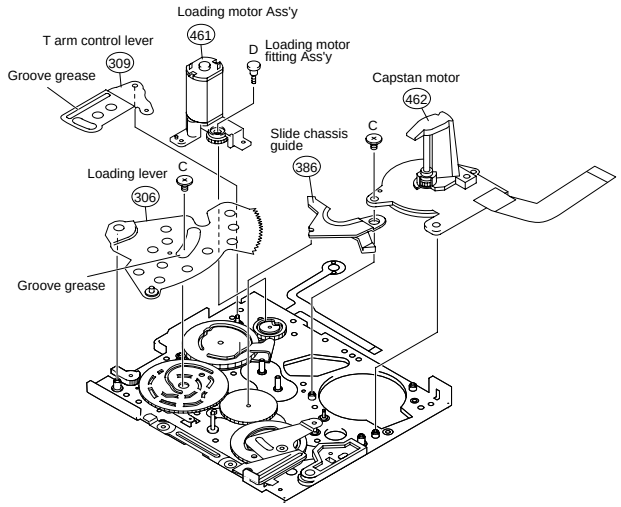
	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	3

2.



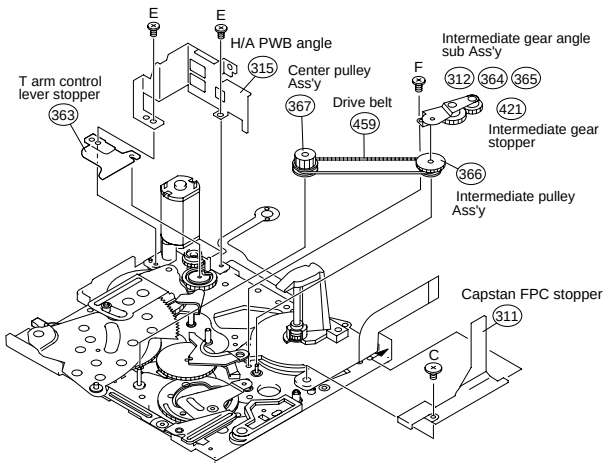
	Item	Tightening torque	Quantity
B	CWø1.2-ø3.0-t0.25	————	1

3.



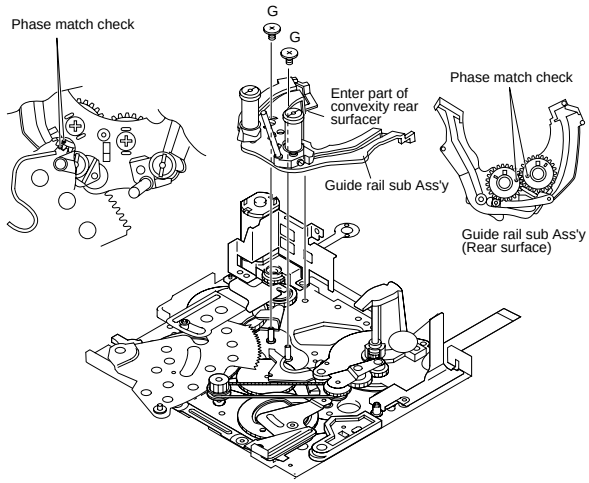
	Item	Tightening torque	Quantity
C	Special screw · M1.4 x L1.6	40mN·m	2
D	Special screw with step· M1.4 x L6.25	70mN·m	1

4.



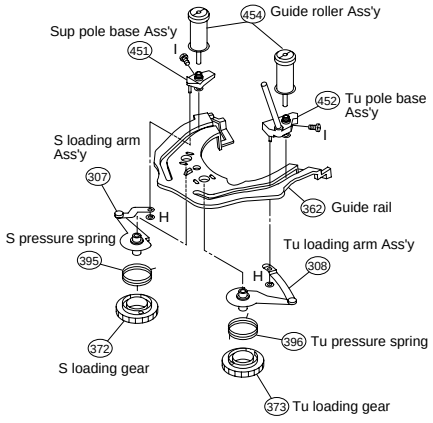
	Item	Tightening torque	Quantity
C	Special screw · M1.4 x L1.6	40mN·m	1
E	S Tight · M1.4 x L4	70mN·m	2
F	S Tight · M1.4 x L2	70mN·m	1

5.



	Item	Tightening torque	Quantity
G	Special head screw · M1.4 x L1.5	40mN·m	2

6.

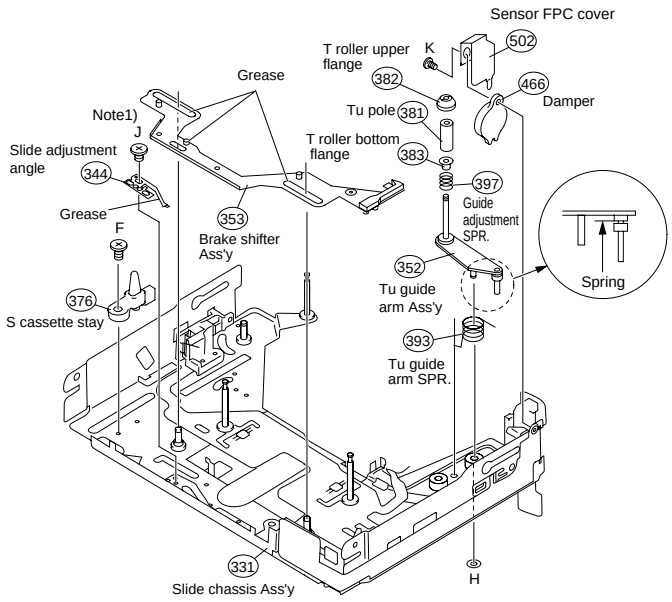


	Item	Tightening torque	Quantity
H	CWø0.7-ø2.2-t0.25	————	2
I	Special screw · M1.2 x L1.8	5mN·m (Tentative tightening)	2

8-5-2. Reassembly in side of the Slide chassis.

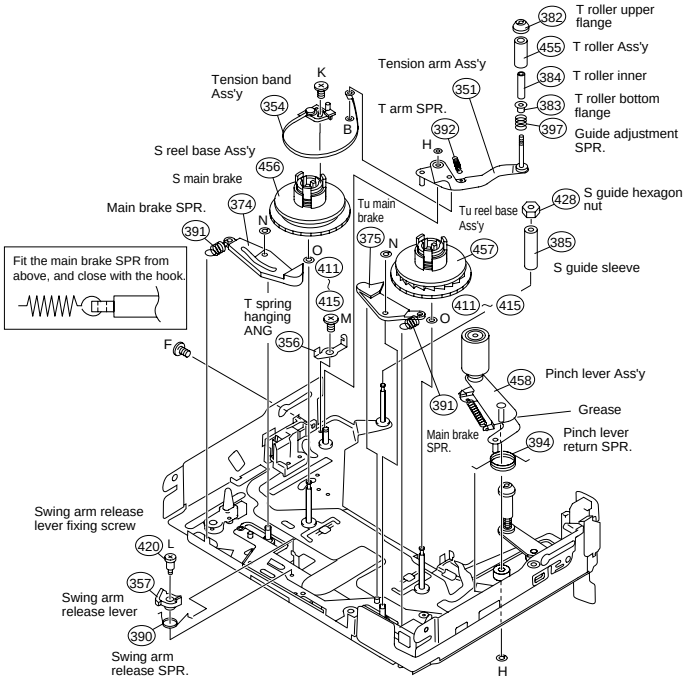
Note) Numbers before part names are given as a guide to the order of assembly.
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application side of the slide chassis)

1.



	Item	Tightening torque	Quantity
F	S Tight · M1.4 x L2	40mN·m	1
H	CWø0.7-ø2.2-t0.25	———	1
J	Special screw · M1.2 x L1 Note 1: Use the No. 00 bit.	40mN·m	1
K	Special head screw · M1.4 x L2	40mN·m	1

2.



Note 1: Take care for scratch and hit mark on (381), (382), (383), (384) and (455). Handle the tension band with care against deformation.
Note 2: After lightly tightening (428) arm area against deformation, apply screw-lock on the tip of the shaft.

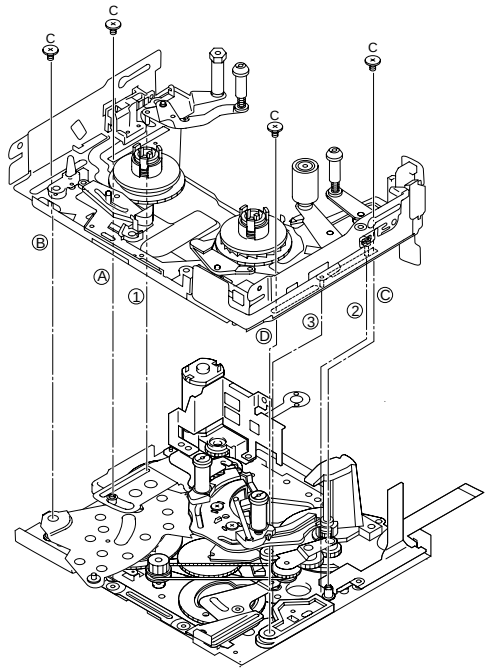
	Item	Tightening torque	Quantity
B	CWø1.2-ø3.0-t0.25	———	1
F	S Tight · M1.4 x L2	40mN·m	1
H	CWø0.7-ø2.2-t0.25	———	2
K	Special head screw · M1.4 x L2	40mN·m	1
L	Special screw with step· M1.4 x L1	40mN·m	1
M	Type 2 minuteness M1.4 x L1	40mN·m	1
N	CWø0.7-ø1.8-t0.1	———	2
O	Wø1.2-ø2.5-t0.3	———	2

8-5-3. Main chassis assembly and slide chassis assembly assembling method

(1) Enter the coupling mode. (In this position, the cam groove of the T arm operation lever in the figure is parallel to the side of the main chassis, and the poll base is slightly moved.)

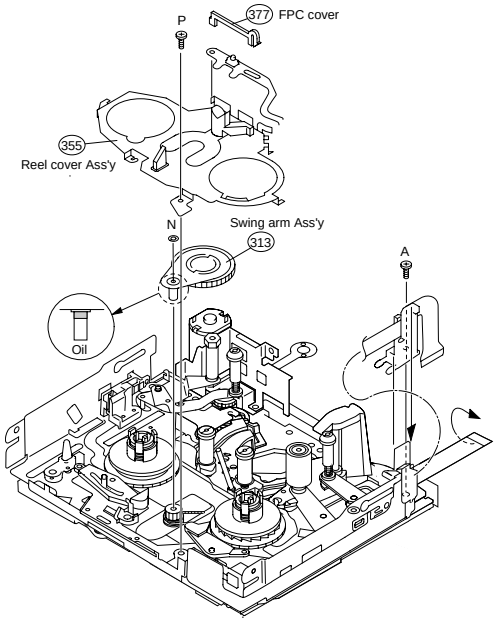
(2) Insert the slide chassis side operation pins (① tension arm, ② Tu guide arm, ③ pinch lever) in the position shown below at the main chassis side, move the slide chassis in the arrow direction, using Ⓐ to Ⓓ as guides, insert the loading lever operation pin into the groove of slide chassis, and install with the 4 screws.

1.



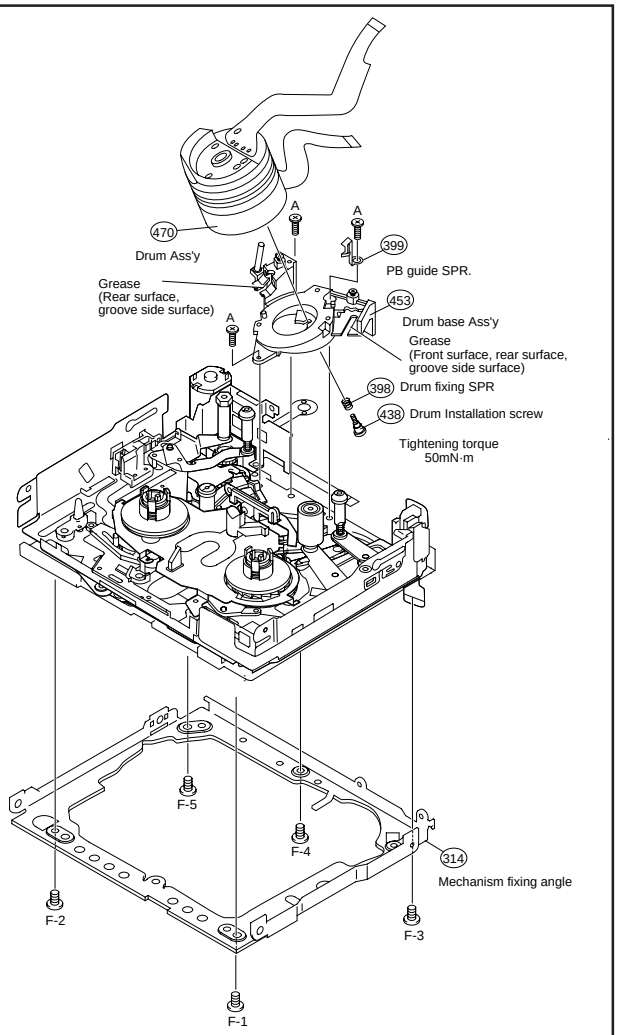
	Item	Tightening torque	Quantity
C	Special screw · M1.4 x L1.6	40mN·m	4

2.



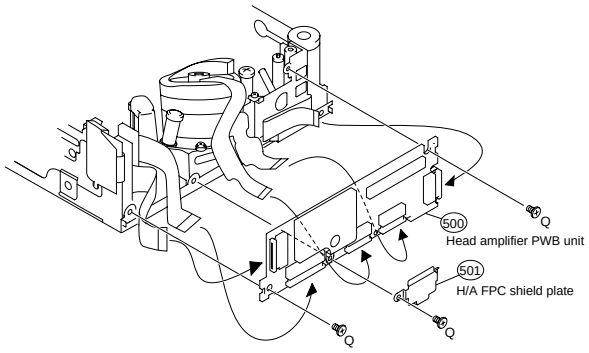
	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	40mN·m	1
N	CWø0.7-ø1.8-t0.1	———	1
P	Type 1 minuteness M1.4 x L1	40mN·m	1

3.



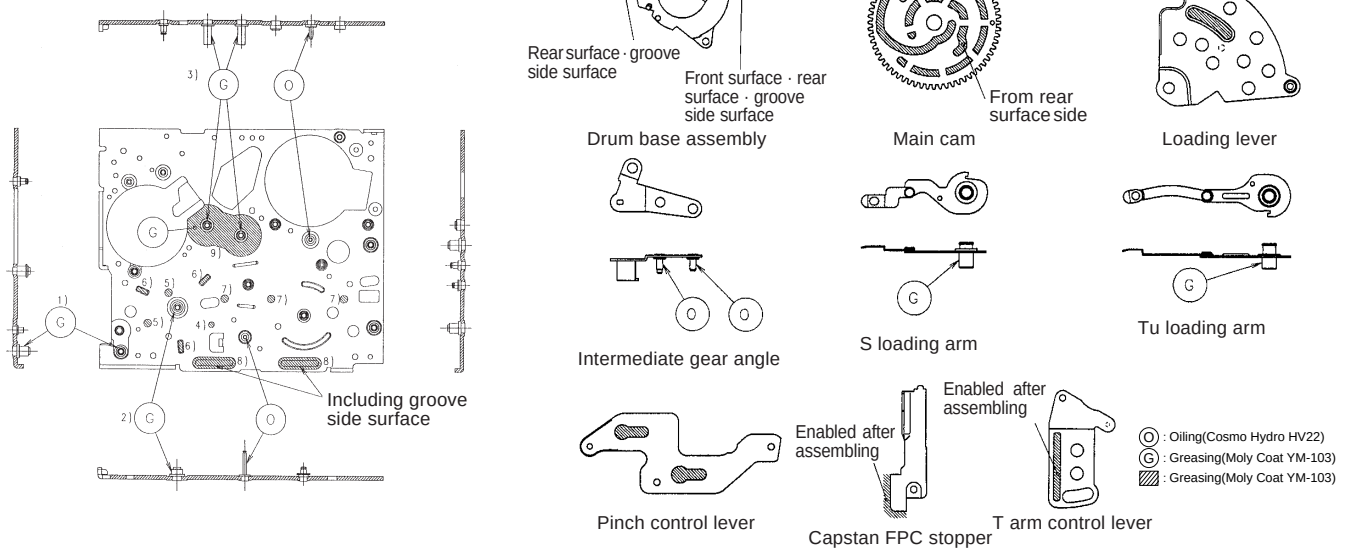
	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	3
F	S Tight · M1.4 x L2	70mN·m	5

4.

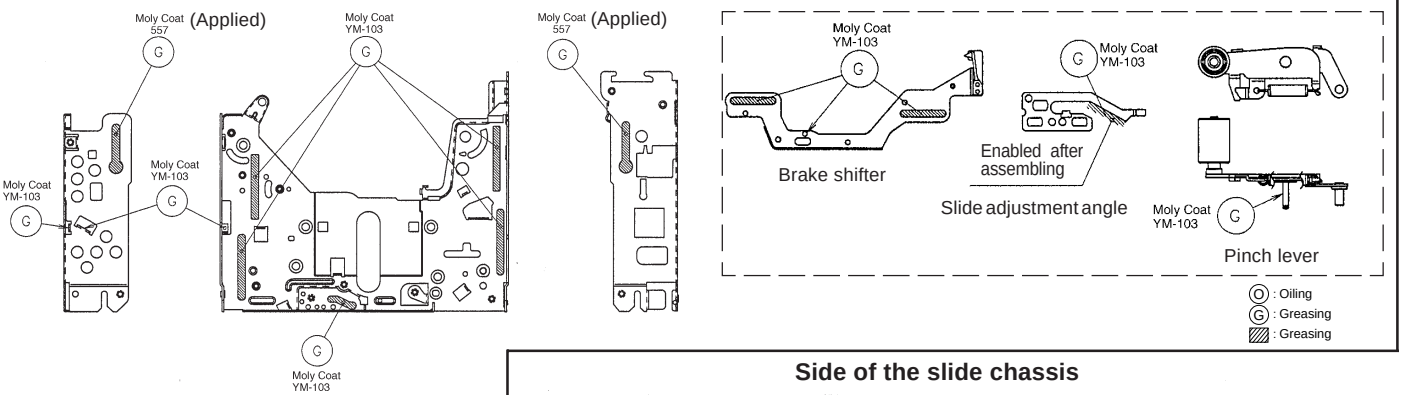


	Item	Tightening torque	Quantity
Q	Type 2 minuteness M1.4 x L2	40mN·m	3

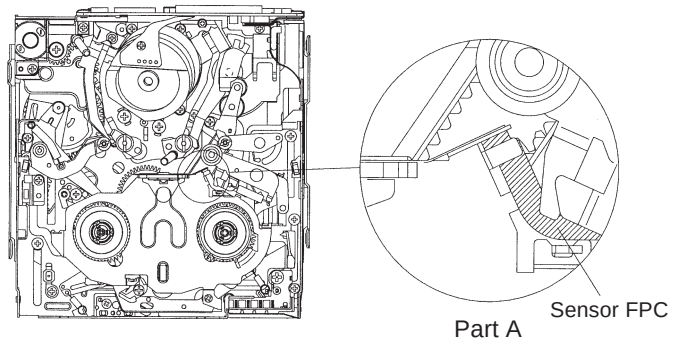
GREASE/OIL APPLICATION



Side of the main chassis



Side of the slide chassis



Sensor FPC wiring

8-6. Removing the cassette

(1) Apply DC3V to the loading motor unload slightly.
(2) After the tape is slackened, turn the rotor (lower side of mechanism) of capstan motor to tighten the tape. (Arrow direction, Fig. 1)
(3) Repeat the operations (1) and (2). After the pole base has been completely unloaded, ascertain that the tape is not loose.
(4) Finally apply again DC3V to the loading motor, so that the cassette controller ejects.
(5) Take out the cassette.

Note) DC3V is applied to the loading motor as shown Fig 1. Then, the mechanism moves in the unloading direction.

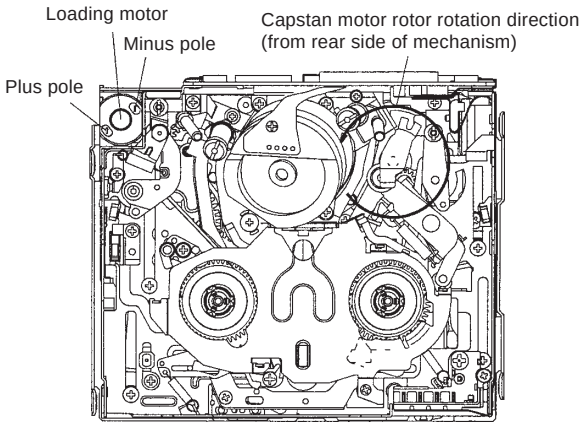


Fig. 1

9. ADJUSTING THE ELECTRICAL CIRCUITS

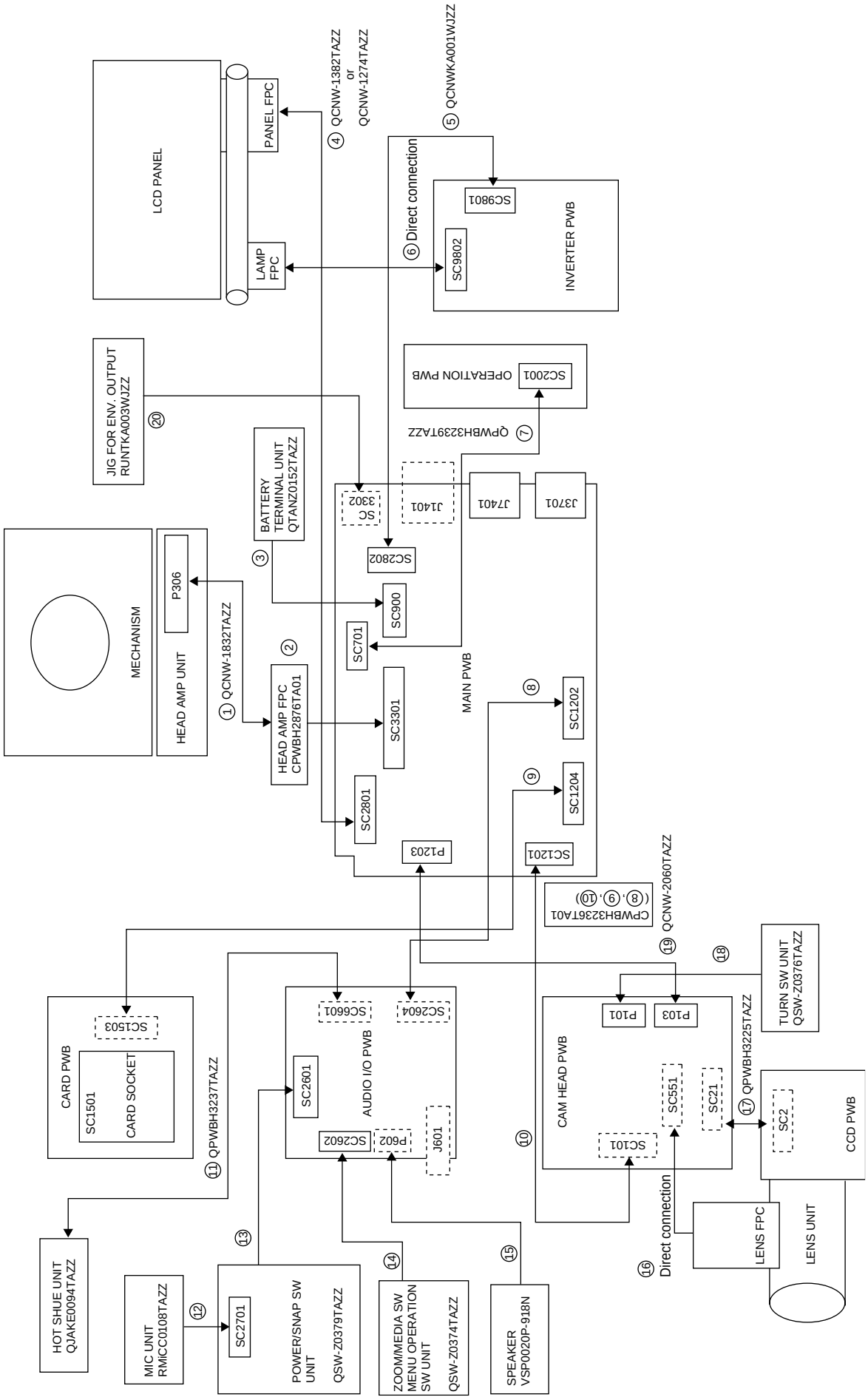
Before starting the electric circuit adjustment

- The adjustment methods described herein are used, in most cases, when the expendable mechanical parts, including the video head, have been replaced, at which time the electrical circuits need to be readjusted. Before adjusting the electrical circuits, make sure that the mechanism works properly (i.e., the mechanism is properly adjusted). Incase of the occurrence of any problem to the electrical circuits, be sure to use the specified measuring instruments to locate the area to which the problem is occurring, and then take the necessary action, including repair, replacement or adjustment, exactly as instructed in the electrical adjustment methods that will follow.
  Do not attempt to make adjustments without using the proper measuring instruments.
- This machine is configured so that the electrical circuits inside its PWB unit are composed, for the most part, of high-density, small surface-mounted component parts for downsized machine body.
  To perform repair service or parts replacement, do so using a soldering iron, but in as short a time as possible; this is because surface-mounted component parts are generally so small in size and susceptible to heat, as compared with the large discrete parts used in TV sets, desk-top video decks, etc., that attempting to heat their electrodes for a longer time than is necessary with a soldering iron may result in their becoming defective.
  This applies particularly when replacing the laminated chip capacitors.
  For this purpose, ceramic soldering irons with a temperature regulator are recommended (iron tip temperature 250°C and soldering time 5 seconds or shorter).

VL-NZ10S/H/E Specifications of service jigs

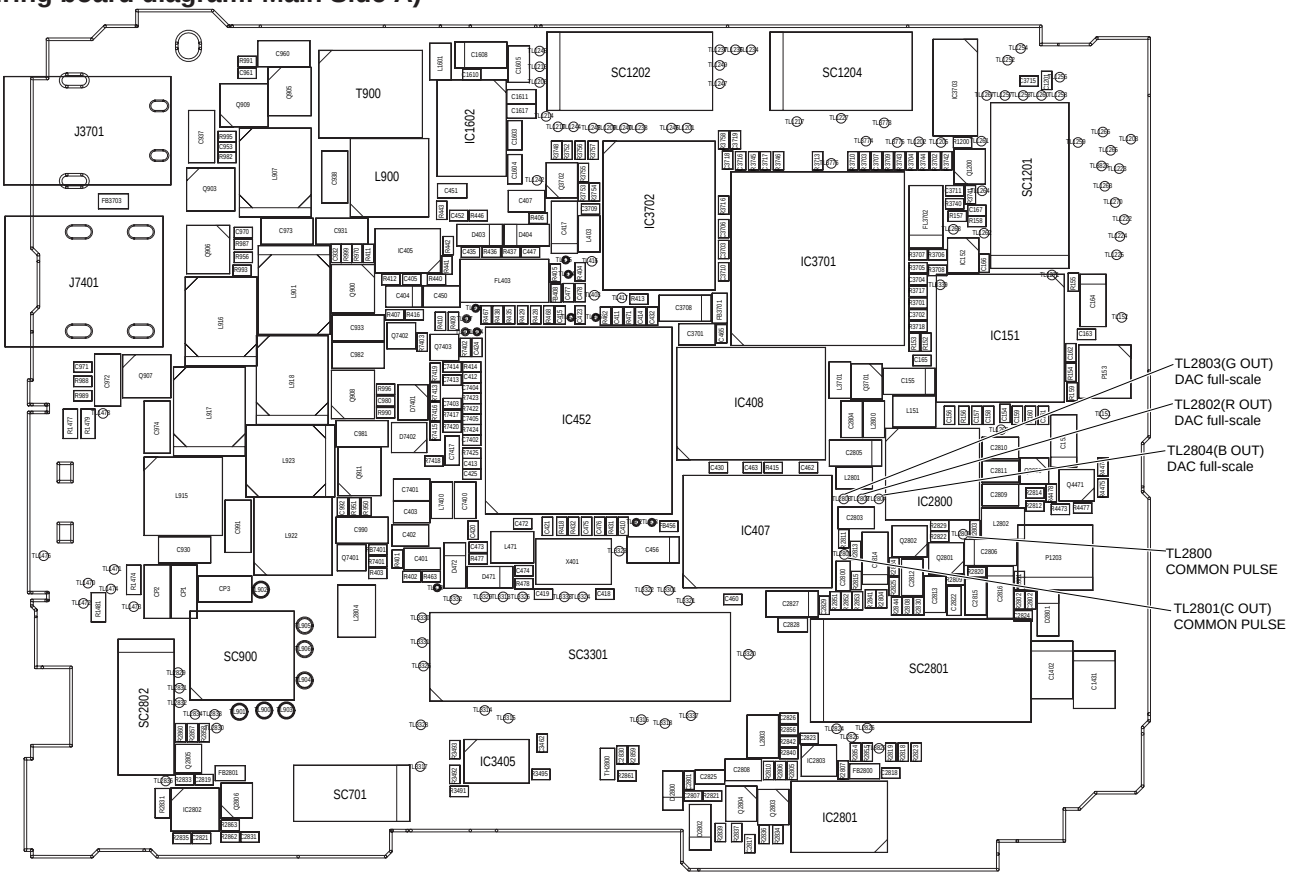
No.	Connection section	Connector REF. No.	No. of pins	New or Continuation	Part cord	Price code
1	H/A_PWB–H/A_FPC	P306–	80B-B	C	QCNW-1832TAZZ	BV
2	H/A_FPC–Main	–SC3301	80B-B		CPWBH2876TA01 Product unit use	AS
3	Main–Battery Terminal	SC900←	20B-B		QTANZ0152TAZZ Product unit use	AN
4	Main–LCD Panel	SC2801–LCD Panel	24	C	QCNW-1382TAZZ or QCNW-1274TAZZ	BD AZ
5	Main–Inverter PWB	SC2802–SC9801	9	N	QCNWKA001WJZZ	AS
6	Inverter–Lamp Unit	SC9802–LAMP			Direct connection : High tension caution	—
7	Main–Operation PWB	SC701–SC2001	6		QPWBH3239TAZZ Product unit use	AD
8	Main–AIO PWB	SC1202–SC2604			CPWBH3236TA01 Product unit use	AX
9	Main–Card PWB	SC1204–SC1503			CPWBH3236TA01 Product unit use	AX
10	Main–Cam Head	SC1201–SC101			CPWBH3236TA01 Product unit use	AX
11	AIO–Hot Shoe Unit	SC6601←			QPWBH3237TAZZ Product unit use	AG
12	Power/Snap SW Unit–Mic Unit	SC2701←			RMiCC0108TAZZ Product unit use	AP
13	AIO–Power/Snap SW Unit	SC2601←			QSW-Z0379TAZZ Product unit use	AW
14	AIO–Zoom/Media SW Unit	SC2602←			QSW-Z0374TAZZ Product unit use	AY
15	AIO–Speaker	P602←			VSP0020P-918N Product unit use	AL
16	Cam Head–Lens	SC551←			Direct connection	—
17	Cam Head–CCD PWB	SC2–SC21			QPWBH3225TAZZ Product unit use	
18	Cam Head–Turn SW Unit	P101←			QSW-Z0376TAZZ Product unit use	AF
19	Cam Head–Main	P103–P1203	12		QCNW-2060TAZZ Product unit use	AD
20	TP Jig for Envelope confirmation	SC3302←	10PB-B	N	RUNTKA003WJZZ	BF

VL-NZ10S/H/E Service jig configuration

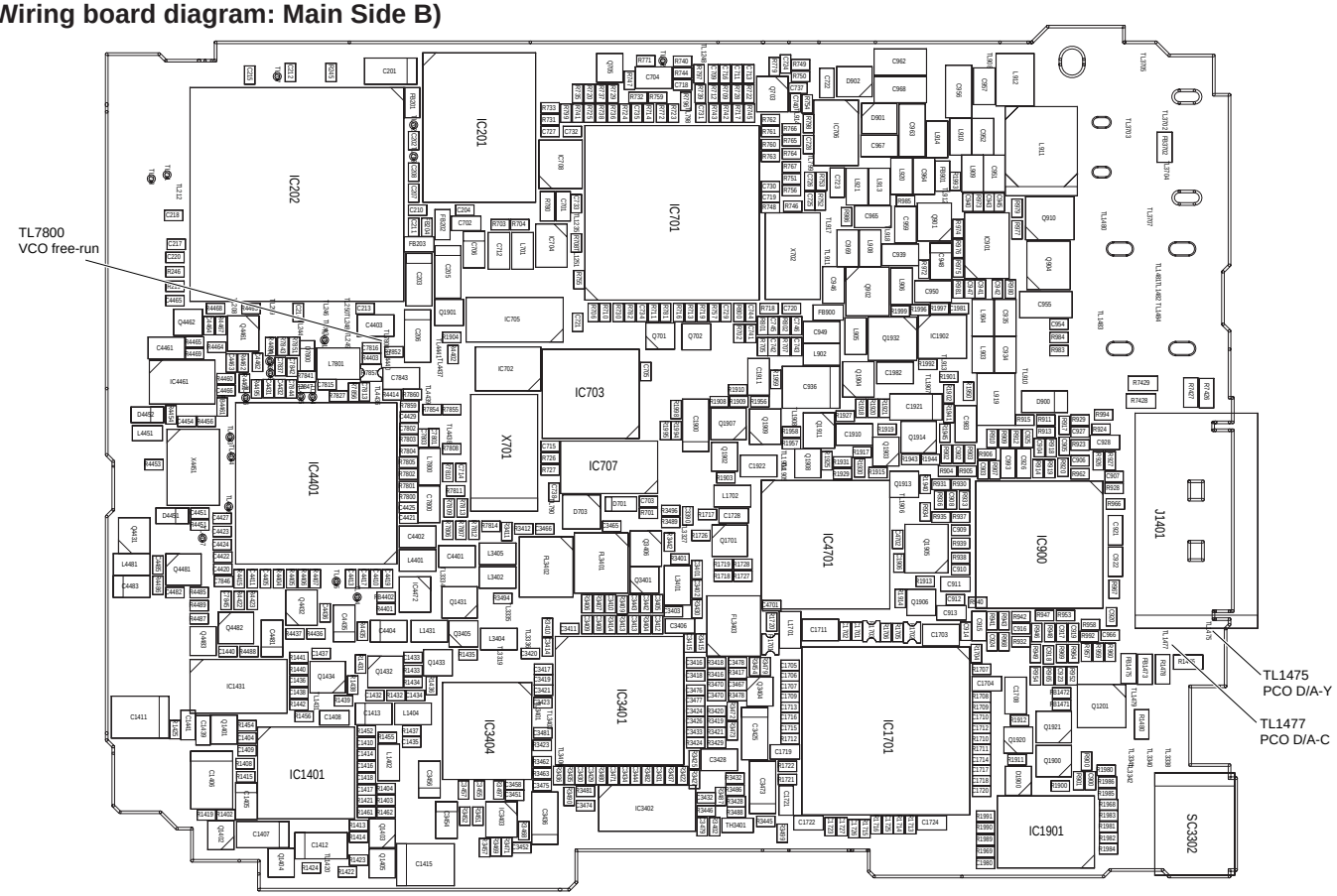


[TEST POINT]

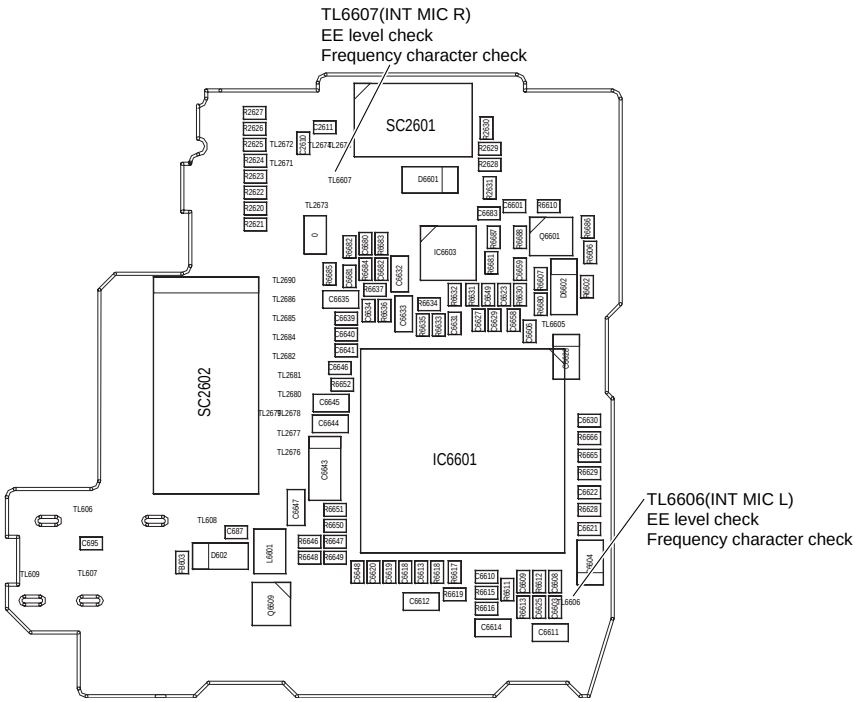
(Wiring board diagram: Main Side A)



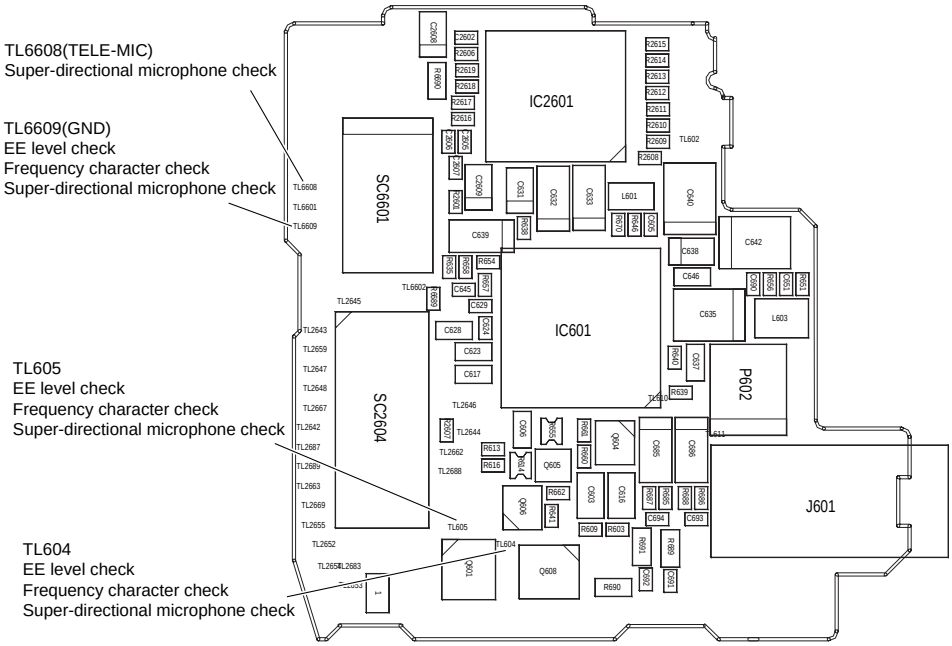
(Wiring board diagram: Main Side B)



(Wiring board diagram: AIO Side A)



(Wiring board diagram: AIO Side B)



[Making adjustments]
Adjusting the servo system controller and related parts
1. Setting the system codes

Replacement of IC705 E²PROM requires the following data to be set in this order.

[Procedure]

Set the unit to the VCR mode and set the data for each address.

Code	1. Model code		2. Destination code			3. Specification code			4. Menu selection code			5. Software switching code		6. Calender switching	
Address	01	09		02	0A		03	0B		04	0C	05	0D	07	0F
Data	00	FF	S	0A	F5	S	36	C9	S	00	FF	00	FF	01	FE
			H	0D	F2	H	3E	C1	H	08	F7				
			E	0B	F4	E	3E	C1	E	00	FF				

When replacing the IC705 E²PROM, first make the following settings and then start the adjustments.

(1) Electromagnetic conversion

Address	27	28	2B	*105	25	26
Data	40	90	90	80	40	90

* The address uses only when replacing the IC302.

• Adjustment with automatic machine

Mode	VCR ADJ mode
Procedure	1) Using the 12 command, set the VCR adjustment mode. 2) Using the 20 command, give the E²PROM write permission. 3) Set the system code with the 22 command for each type. 4) Using the command, set write inhibition. 5) Using the command, cancel the adjustment mode.
Examples	• During E²PROM (IC705) replacement.

• Manual adjustment

Mode	VCR ADJ mode
Procedure	1) Set the CAM/OFF/VCR selection switch to VCR. 2) Press “CONTINUE” → ”VCR adjustment” on the remote controller to set the VCR adjustment mode. (At this time an indication “VCR ADJ” appears at the left lower side.) Enter a setting corresponding to the address. <Setting method> 3) Adjust the address by moving up and down the blinking numeral with the FF and REW key, and fix the address by pressing the PB key. 4) Adjust to the setting by moving up and down the blinking numeral with the FF or REW key, and set data by pressing the PB key. 5) Press the STOP key to set the address set state. 6) Repeat the operations 3), 4) and 5) as much as input addresses. After completion of input of all items hold down the “CONTINUE” key to cancel the VCR adjustment mode. 7) Set the CAM/OFF/VCR selection switch to OFF.
Examples	• During E²PROM (IC705) replacement.

2. HSWP adjustment

Mode	VCR ADJ mode
Procedure	1) Play back the alignment tape in the video mode. 2) Press the "CONTINUE" and "HSWP ADJ" keys on the adjustment remote control in this order. → This executes the HSWP adjustment. When the adjustment is successful, the LCD lights up [OK] and the cassette is automatically ejected. If not properly adjusted, the LCD lights up [NG].
Examples	• During mechanism replacement. • During E²PROM replacement (IC302 inside the head amplifier circuit board).

3. SHUT OFF adjustment

Mode	VCR ADJ mode
Procedure	1) Load a recordable tape, and set the camera mode. 2) Press the "CONTINUE" and then the "TEST SEL" on the remote control for adjustment to enter the TEST mode (T-01 blinks). 3) Select T-03 with the FF or REW key and then press the PB key. 4) Observing the power voltage from TL900(-), set it so that TL904(+) obtains 6.00V ± 50mV. 5) Press the MENU button on the main unit. Turn off the power and the adjustment is completed.
Examples	• During microcomputer (IC701) , REGULATOR (IC704) or E²PROM (IC705) replacement.

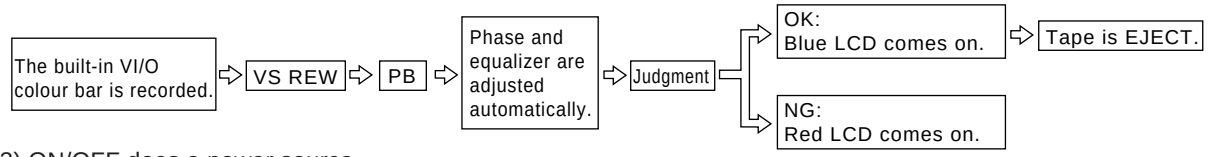
ADJUSTING THE ELECTROMAGNETIC CONVERSION CIRCUIT SYSTEM

1. PLL VCO adjustment

Mode	VCR ADJ mode
Procedure	1) Playback the alignment tape (or a self-recorded tape). 2) Call the adjustment mode (V-ADJ). 3) Set the address "2A" and call the data. 4) Set the called data with the FF/REW key to the point where the playback screen appears. (At this time, the screen full of block noise is OK.)
Examples	• During E^2PROM replacement. • During circuit board (Main) replacement.

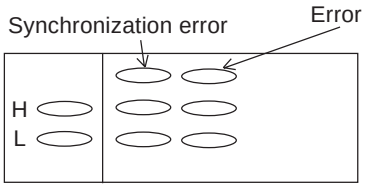
2. Phase and equalizer adjustment → (Performed in the VCR mode)

Mode	VCR ADJ mode
Procedure	1) Load a self-recorded tape into the deck. 2) After playback for 3 minutes, select the test mode 0F using the remote control for adjustment to start the automatic adjustment. (The following sequence is automatically performed.)



3) ON/OFF does a power source.
4) Error rate check
Select and fix the TEST MODE 0B on the adjustment remote control.
5) Manual adjustment method (video adjustment mode)
* Perform this adjustment with the self-recording/playback in the LP mode.
For phase, vary the data for the address 26 and 2B, and for equalizer, vary the data for the address 25 and 27, to set the error rate is made as small as possible.

	Phase	Equalizer
H ch side	2B	27
L ch side	26	25

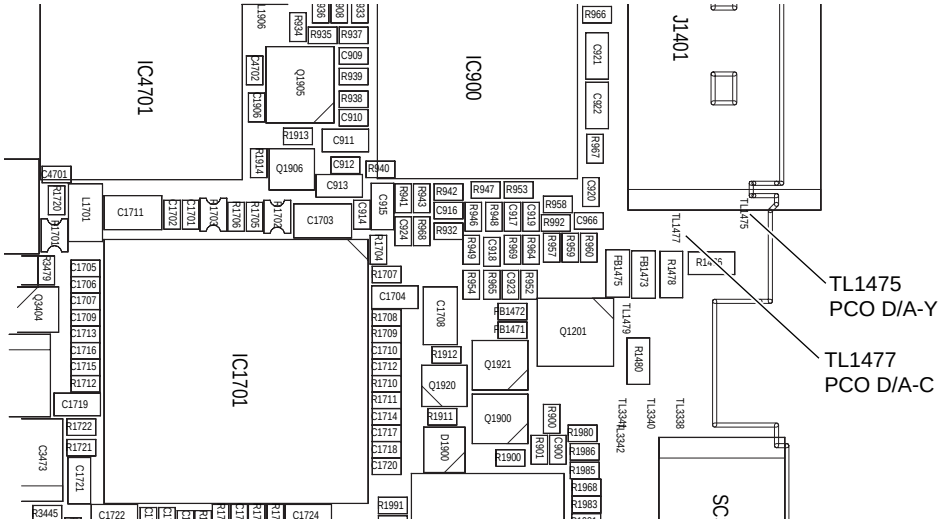


Synchronization error	20 or less
Error rate	200 or less (SP Mode)
	330 or less (LP Mode)

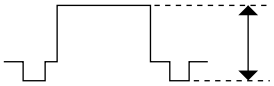
Examples	• During mechanism replacement. • During circuit board (Main) replacement. • During E^2PROM replacement.

ADJUSTING THE VIDEO I/O CIRCUIT SYSTEM

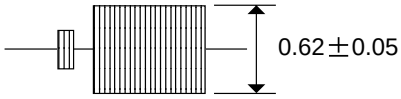
(Wiring board diagram: Main Side B)



1. PCO D/A-Y adjustment

Test point	TL1475 (connected to oscilloscope)	Address	VCR ADJ 22
Mode	VCR STOP mode		
Procedure	1) Connect the AVS cable and then connect it to the monitor (TO). 2) Call the adjustment mode (V-ADJ). 3) Set the address to "22", and call the date. (100% white signal is output.) 4) Vary the data with the FF and REW keys to set the signal appearing at TL1475 to 1.0Vp-p ± 0.05Vp-p. 		
Examples	• During E²PROM replacement. • During IC4401 replacement. • During IC1401 replacement.		

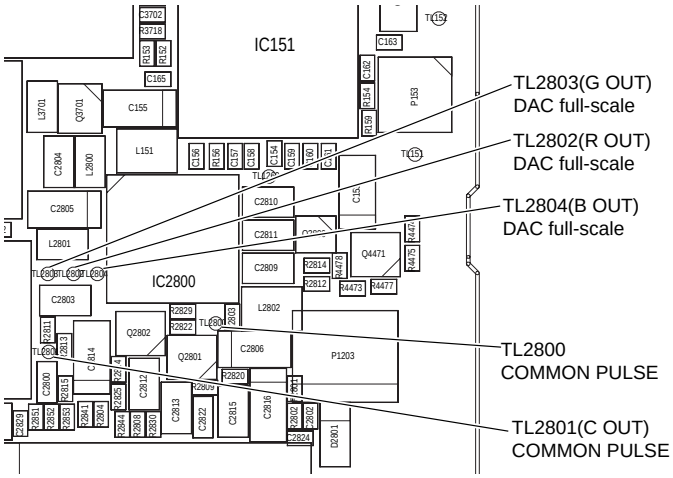
2. PCO D/A-C adjustment

Test point	TL1477	Address	VCR ADJ 23
Mode	VCR STOP mode		
Procedure	1) Connect the AVS cable and then connect it to the monitor (TO). 2) Call the adjustment mode (V-ADJ). 3) Set the address to "23", and call the data. 4) Vary the data with the FF and REW keys to set the signal appearing at TL1477 to 0.62Vp-p ± 0.05Vp-p. 		
Examples	• During E²PROM replacement. • During IC4401 replacement. • During IC1401 replacement.		

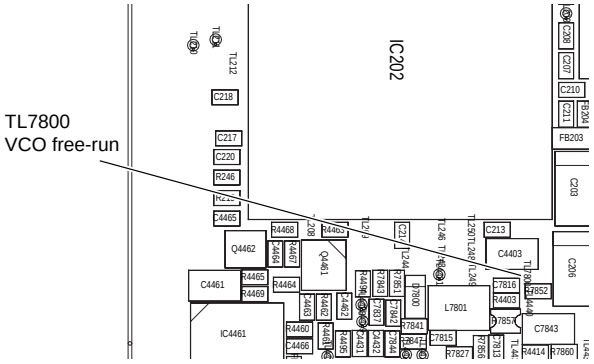
ADJUSTING THE LCD CIRCUIT

* To make this adjustment, set the backlight switch to the "NORMAL" position.

(Wiring board diagram: Main Side A)



(Wiring board diagram: Main Side B)



Adjustment procedure and connecting same as the VCR section.

1. VCO free-run adjustment

Test point	TL7800	Address	VCR ADJ 32
Mode	VCR AV input		
Procedure	1) Input the white 100% signal to AV input. 2) Connect the digital voltmeter to TL7800, and adjust DC voltage value to the specified adjustment value with VCR ADJ 32.		
Adjustment rating	2.00 ± 0.1V		
Examples	• During E^2PROM (IC705) replacement. • During VIO ENG (IC4401) replacement.		

2. DAC full-scale adjustment

Test point	TL2802(R OUT), TL2803(G OUT), TL2804(B OUT)
Address	VCR ADJ 3D(R), VCR ADJ 3E(G), VCR ADJ 3F(B)
Mode	VCR AV input
Procedure	1) Set the VCR ADJ 83/93/C0 to 00/77/00. (At this time, LCD can not be displayed.) 2) With the VCR ADJ 3D, adjust the output voltage of TL2802 and the DC voltage value of the digital voltmeter to the specified adjustment values. 3) Similarly with the VCR ADJ 3E/3F, adjust the output voltage of TL2803/2804 and the DC voltage value of the digital voltmeter to the specified adjustment values. (Same as Item (2)) 4) Return the VCR ADJ 83/93/C0 to the initial value. (Initialization: C5/7F/28)
Adjustment rating	0.78V ± 10mV
Examples	• During E^2PROM (IC705) replacement. • During VIO ENG (IC4401) replacement.

3. COMMON PULSE adjustment

Test point	TL2801(C OUT)	Address	VCR ADJ 29(C)
Mode	VCR AV input		
Procedure	1) Connect TL2800 to GND. 2) With VCR ADJ 29, adjust the output voltage of TL2801 and the DC voltage value of the digital voltmeter to the specified adjustment values.		
Adjustment rating	6.95V ± 50mV		
Examples	• During E^2PROM (IC705) replacement.		

4. COM-BIAS adjustment

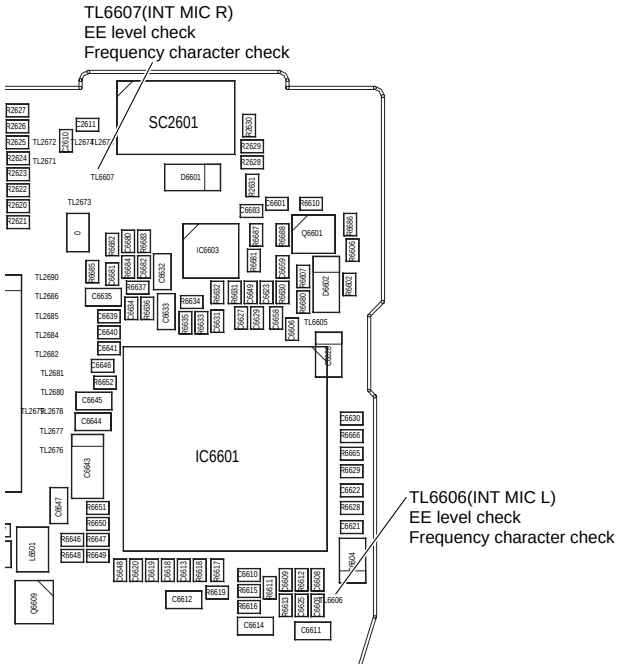
Test point	LCD panel display surface	Address	VCR ADJ 33
Mode	VCR AV input		
Procedure	1) Input the white 100% signal to AV input. 2) Set up the illuminance meter (TOPCON IM-3) on the LCD panel surface. (The outside light must not enter.) 3) Minimize the ripple of the output waveform of the illuminance meter.		
Adjustment rating	Minimum  Response time A0.6sec		
Remark	Make this adjustment after 5-minute or longer aging.		
Examples	• During LCD Panel replacement. • During IC705 replacement.		

5. White Balance adjustment

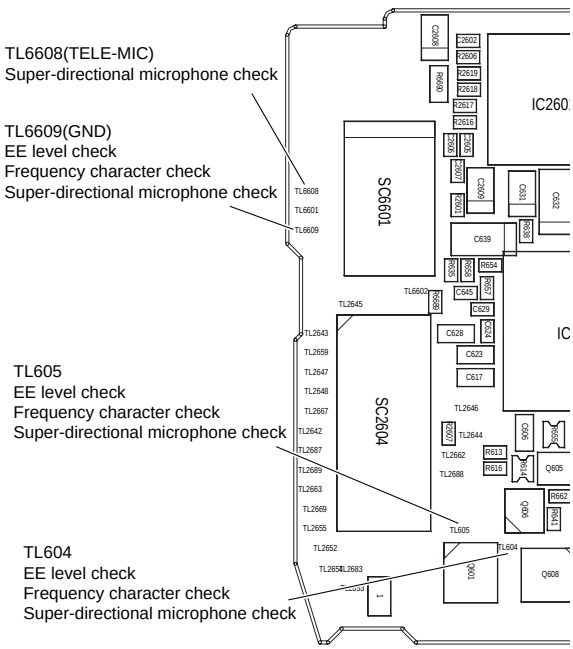
Test point	LCD panel display surface	Address	VCR ADJ 84, VCR ADJ 86
Mode	VCR AV input		
Procedure	1) Input the white 40% signal to AV input. 2) Input the white 40% signal to the standard monitor, and adjust it to become equal to that of the screen.		
Adjustment rating	Standard monitor		
Remark	Make this adjustment after 5-minute or longer aging.		
Examples	• During LCD monitor replacement. LCD Panel • During IC4401, IC705 replacement.		

ADJUSTING THE MIC AMP CIRCUIT

(Wiring board diagram: AIO Side A)



(Wiring board diagram: AIO Side B)



1. EE level check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM), Zoom Mic "OFF"	Adjustment rating	-9dBs ± 3dB
Test signal	1kHz -54dBs sine wave		
Procedure	1) Input 1kHz, -54dBs sine wave into TL6606(INT MIC L) and TL6607(INT MIC R). 2) Make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits.		
Remark	TL6609: GND		

2. Frequency character check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM) Parameter; Zoom Mic "OFF"	Adjustment rating	(1kHz standard) 100Hz: -11dBs ± 3dB 10kHz: 0dBs ± 3dB
Test signal	100Hz, 10kHz -54dBs sine wave		
Procedure	1) Input 100Hz, -54dBs sine wave and then 10kHz, -54dBs sine wave into TL6606(INT MIC L) and TL6607(INT MIC R). 2) At this time make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits (1kHz standard).		
Remark	TL6609: GND		

3. Super-directional microphone check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM), Zoom MIC "TELE"	Adjustment rating	-14dBs ± 3dB
Test signal	1kHz -54dBs sine wave		
Procedure	1) Input 1kHz, -54dBs sine wave into TL6608(TELE-MIC). 2) Make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits.		
Remark	TL6609: GND		

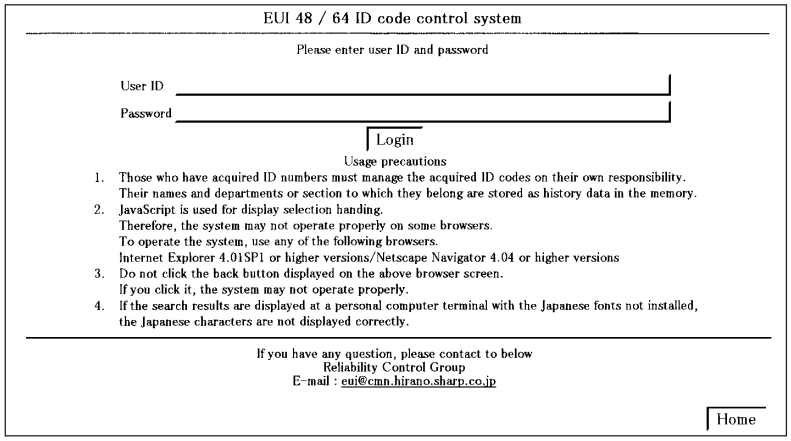
DV INTERFACE (IEEE1394) ID SETTING

This unit has a DV interface function conforming to IEEE1394. Therefore, each individual ID number must be used for each unit. Since this ID is written on the E^{2}PROM (IC302) on the head amp PWB, the ID must be newly written when replacing this IC or the head amp PWB.

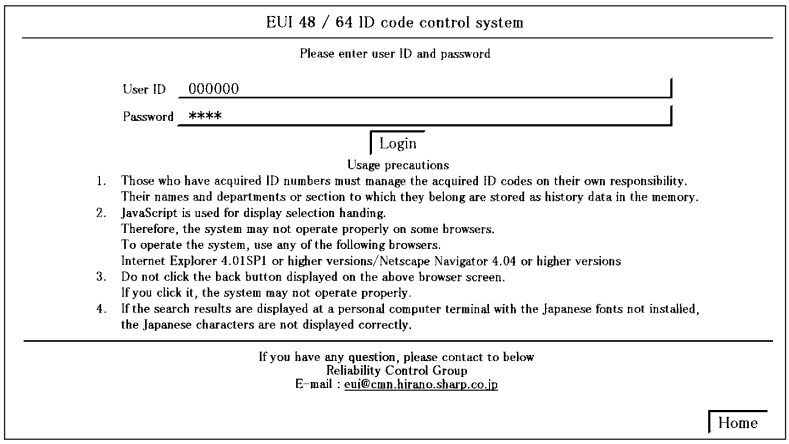
Address	180, 17F, 17E	Mode	VCR
Adjustment rating	ID number obtained from the URL below		
Procedure	1) Refer to the ID code application below. 2) Set the data acquired in step 1) to the corresponding address in the VCR adjustment mode. * Download an ID number or write it on the main unit according to the notice from the AV Systems Group "Issue No. S8-001".		
Examples	• During E^{2}PROM (IC302: on the H/A unit) replacement. • During the H/A unit (RAMP-0035TAN4) replacement.		

■ ID code is acquired

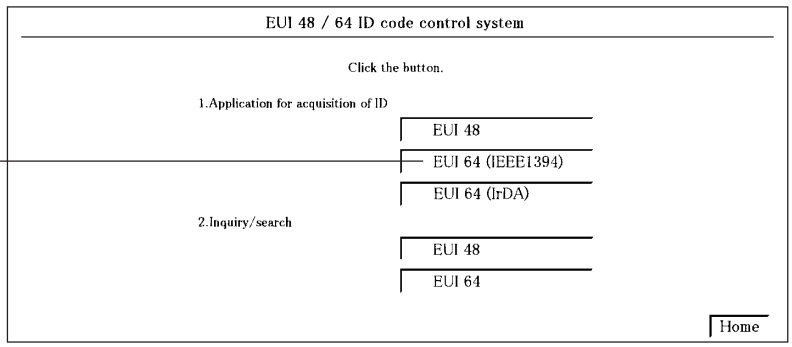
1. Connect with the EUI48/64 ID code control system.
   (1) Start the Internet Explorer or Netscape Navigator.
   (2) Access the following address.
   (URL:http://www.rcg.kami.sharp.co.jp/quics/e_index.html)
   Select the "EUI48/64 ID code control system" from the "Service" item.
   Note: If you want to establish a connection by directly inputting the URL, please input the following.
   URL:http://www1.rcg.kami.sharp.co.jp:7000/adrs_agt/adrs_dba/ide00010.main
   The login screen will appear.



   (3) For the [User ID], input the [Password].
   Click on [Login].

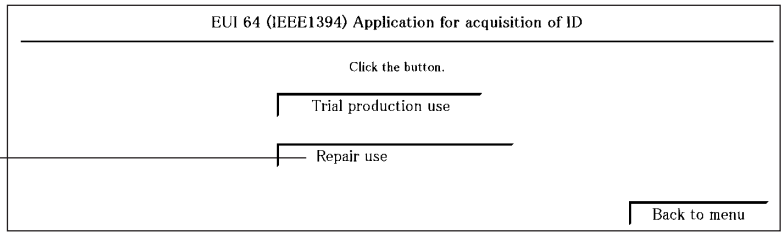


   (4) Click on [EUI 64 (IEEE 1394)] from the
   [1. Application for acquisition of ID].

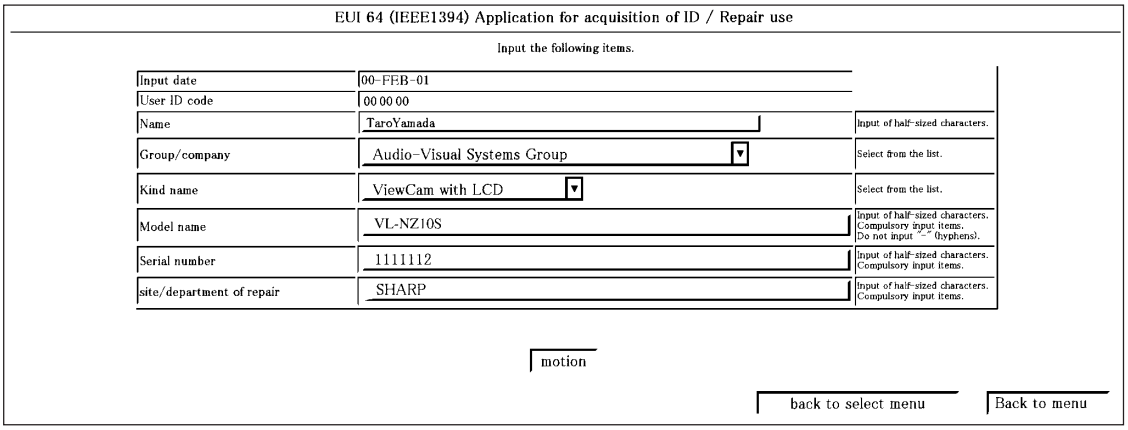


Click

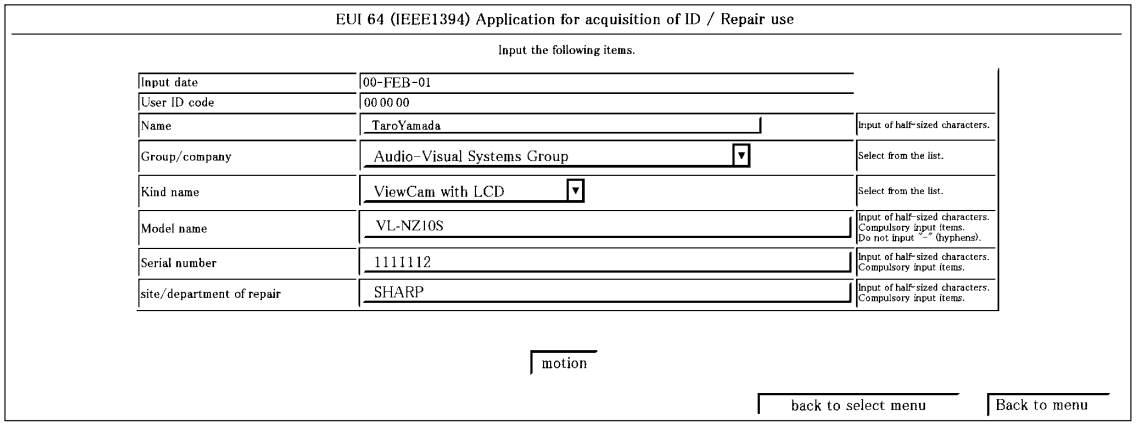
(5) Click on [Repair use].



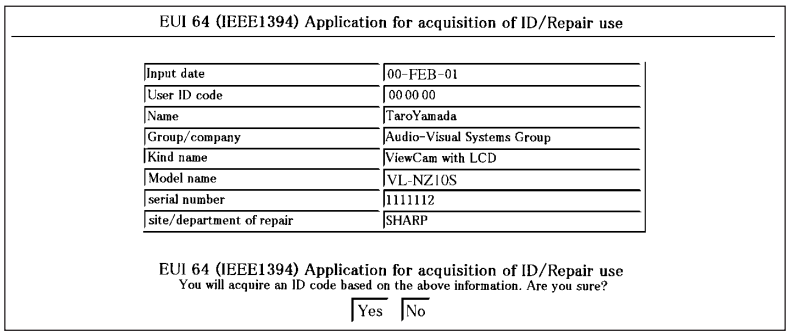
(6) Input the necessary information for the application.
For the indispensable input items, be sure to input them.
Select the [Group/company] and [Kind name] from the list.
Input the [Model name].
Input the [Serial number].
Input the [Site/department of repair].



(7) Click on [motion].
The confirmation screen will appear.



(8) Click on [Yes].



2. Print the application result.
(1) Print out the application result screen.
Control the application result as evidence.
To print it, select "Print (P)" from the "File (F)" in the menu bar or click on the print button in the tool bar.
(2) Click on [Menu] to complete the application.
If you create applications in succession, repeat steps (1)~(8).
To complete it, click on [End] in the menu screen.

MODEL ID SETTING

Address	VCR ADJ FD, FE, FF	Mode	VCR STOP mode	Adjustment rating	10, 20, 19
Procedure	1) Set the unit to the VTR adjustment mode with command 12. 2) Give E^2PROM write enable with command 20. 3) Assign a MODEL ID to each address.				
Examples	• During E^2PROM (IC705) replacement.				

Address	FDh	FEh	FFh	Model
Data	10h	20h	1Bh	S
			1Ch	H
			1Dh	E

9-2. Camera Section Adjustments

9-2-1. Camera section service

(1) Camera adjustment is performed after the set has been completed.

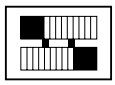
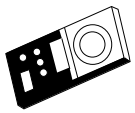
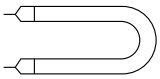
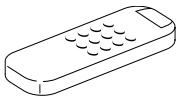
(2) Subjects, measuring instruments and jigs needed for camera section service and adjustments

• Gray scale chart • Color bar chart • Oscilloscope • Digital voltmeter • Halogen lamp: 2 pcs. • Vector scope	• Frequency counter • Illumination meter • Color temperature meter • Color temperature conversion filter HOYA "LB-165" • Color video monitor	• Video output cable • AC adapter • Extension cables • Remote control unit for servicing

9-2-2. List of camera jigs and tools

Configuration

<Note: The entries of list> 1. Name 2. Part No. 3. Code

 1. Gray scale chart (390 x 520 mm) 2. JiGCHART-1 3. CP	 1. Color bar chart (240 x 320 mm) 2. JiGCHART-4 3. DA	 1. Illumination meter (0 to 3000 lux) 2. JiGMETER-1 3. CT	 1. Color temperature meter (1600 to 40000 degrees K) 2. JiGMETER-2 3. EL
1. Color temperature conversion filter (3200 degrees K ⇒ 6800 degrees K) 2. JiGHOYA-LB165 3. BN	 1. PC plate connector drawer 2. JiGTH-SS10 3. AW	 1. Remote control until for servicing 2. RRMCG0033TASA 3. BT	

9-2-3. Adjusting the camera unit

(1) Preparations for adjustments and items to be checked

1) Set up the light box so that the entire pattern is evenly lit. Set the color temperature to 3200°K.
2) Use test patterns that are not dirty nor discoloured.
3) If the electrical circuitry gets in trouble, be sure to pinpoint the trouble spot with a measuring instrument and repair or replace the defective part.

(2) Remote control for servicing RRMCG0033TASA

To adjust the camera section of this machine, the remote control for servicing (RRMCG0033TASA) is used. The adjustment is made in such a manner that the remote control writes necessary data by way of the microprocessor to the specific addresses on the E^2PROM (IC3703).

1) To adjust the camera:
Press the "CONTINUE" key first and then the "CAM ADJ" key.
This will show

CAM ADJ
□□□□

on the LCD screen, thereby having the camera unit ready for the adjustments.

2) Descriptions of the displays

CAM □□□□ ADJ □□□□
(Address value) (Data value)

(Indicates the camera adjustment mode.)

* The address values for this machine range from 0000 to 07FF.
* The data include byte data (the last two digits are effective) and 2-byte data (the last three digits are effective).

3) Descriptions of the remote control keys

"FF" key: Increases the address and data values.
"REW" key: Decreases the address and data values.
"PLAY" key: Specifies addresses and calls the data.
This key also fixes the data values.
"STOP" key: Clears the data to enable the selection of address.

4) Operation flow

→ FF or REW → PLAY → FF or REW → PLAY → STOP →

Address is selected and specified, with the data called. Then the called data are selected and fixed. The operation flows in this sequence.

5) When the adjustment is complete:
Press the "CONTINUE" key to let the "CAM ADJ" display disappear from the screen.
Note: Before terminating the adjustments, make sure that the adjustment mode is neither the auto-focus function adjustment mode nor the camera signal system adjustment mode (these modes are mentioned later).

- Camera unit adjustment modes
The camera unit is adjusted in two types of modes: the auto-focus function adjustment mode and the camera signal system adjustment mode.

Note: E^2PROM contains the adjustment item data as shown below. If it is changed, data rewriting and confirmation of latest data must be performed.
1) E^2PROM(IC3703) on the Main unit
Lens data and Signal system adjustment data

(3) Auto-focus function adjustment mode

- The camera unit uses a microprocessor-controlled auto-focus zoom lens.
The auto-focus circuit incorporated in this unit is designed to execute the image processing where the focusing action is done by taking advantage of the fact that the high-frequency components in the image signals increase as the focus intensifies. Moreover, to achieve high magnifying power with a small lens, the camera unit incorporates the inner focus system in which the focus is shifted by moving the master lens (rear lens) back and forth. This inner focus system is a full-range focus type by which the focus can be shifted from approximately 10 mm to the infinity. It should be noted, however, that since the closest subject distance at the telephoto end is fixed at 1.5 m, subjects in a closer range than 1.5 m at the telephoto end will be out of focus. For this reason, the unit is designed so the zoom control is automatically shifted to the wide angle side until the position is found where the subject can be focused on.

In the auto-focusing system of this until, the following constitute the important factors:
- Master lens position detection data
- Iris position detection data
- Zoom lens position detection data

These detection data are handled and stored by the microprocessor, lens by lens, into the E^2PROM.
Therefore, in the following cases, (3) auto-focus function adjustment is required:
- When the lens has been replaced
- When the CCD has been replaced
- When the E^2PROM has been replaced
- When the CCD PWB and Camera PWB has been replaced

1) Shifting to the auto-focus function adjustment mode
Set the data for the address "0000" to "□□01".
⇩
This makes the screen fade temporarily in white and shifts to the auto-focus function adjustment mode.

* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.
* In this adjustment mode, the lens can not be operated.

2) Shifting to the normal operation mode
Set the data for the address "0000" to "□□FF".
⇩
This makes the screen fade temporarily in white and shifts to the normal operation mode.
⇩
Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

(4) Camera signal system adjustment mode

In the camera signal system adjustment mode, the automatic white balance is disabled to allow for the adjustment of the camera unit. At this time, the white balance mode is fixed at the INDOORS mode and the focus mode is switched to the manual focus mode.

1) Shifting to the camera signal system adjustment mode

Set the data for the address "0000" to "□□00".

⇩

This shifts the camera signal system adjustment mode.

* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.

2) Shifting to the normal operation mode

Set the data for the address "0000" to "□□FF".

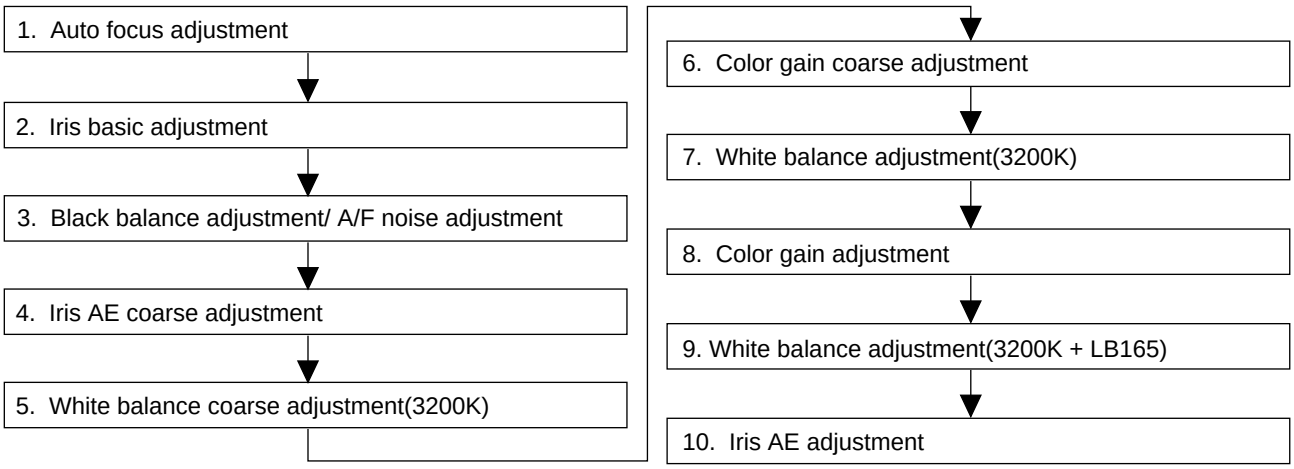
⇩

This shifts the mode to the normal operation mode.

⇩

Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

(5) Camera unit adjustment procedure



* The above 1. Auto-focus function adjustment in the auto-focus function adjustment mode, whereas the other adjustments are made in the camera signal system adjustment mode.

(6) Replacement procedure of gyro unit

1) When replacing E^2PROM on lens unit of camera head with the gyro unit not replaced

Since the adjustment data of gyro is written in E^2PROM, copy the data of addresses 004C(004D) and rewrite them after replacement.

2) When replacing the gyro sensor: RMC0001

After replacing with the specified gyro sensor, write the following data in the addresses 004C(004D).

Ref No.	Part code	Address	Data
RMC0001	Replacement with RSNSG0004CE01	004C (004D)	02D0 (02D0)

9-2-4. Adjustment procedures

Item	Adjustment method

(1) Auto-focus adjustment

Set the unit to the auto-focus function adjustment mode and write data to the address "0000" one after another. This executed the adjustments automatically. The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "FF" is written to the address. After each adjustment, make sure that the adjustment has been made properly, and then go on to the next adjustment item.

Address	Data	Adjustment item
0000	0012	WIDE end adjustment
	0006	WIDE end focus ∞ position adjustment
	0008	TELE end focus ∞ position adjustment
	000D	Zoom tracking adjustment

Note 1: To adjustment of ∞ position is executed by actually picking up the image of subject. For this adjustment use the subject with clear profile.
Especially, if the adjustment of TELE end focus ∞ position is made without picking up the image of remote subject, adjustment failure may occur.
Adjustment of WIDE end focus ∞ position: 3 m or more
Adjustment of TELE end focus ∞ position: 50 m or more

Note 2: In case of ∞ position adjustment the field depth is important to ensure the adjustment accuracy. If the field depth is high, the focus becomes too stable , which may cause incorrect adjustment of ∞ position. Therefore the adjustment must be made with low field depth (with iris opened).

The iris can be opened with the high-speed shutter.
1. It returns to the normal operation mode.
2. In the normal operation mode, set the high-speed shutter mode until the iris is opened. (Refer to the operation manual.)
3. Display “CAM ADJ” with the remote control for service.
4. It shifts to the auto-focus adjustment mode.
5. Perform the ∞ position adjustment.
6. After completing the ∞ position adjustment, return the high-speed shutter mode to the normal mode.

(2) Iris basic adjustment

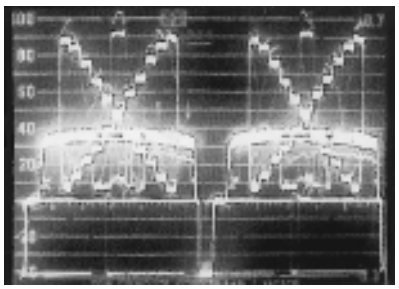
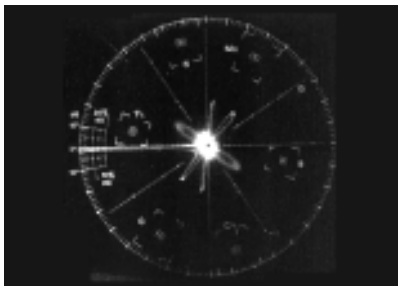
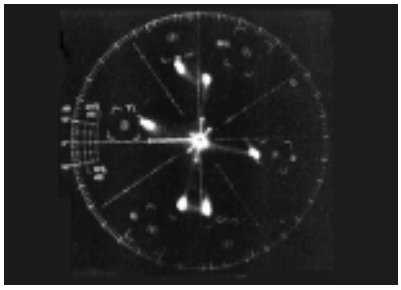
This is for adjusting the operating point of the hole element installed in the iris meter of the lens.
The adjustment is automatically done by sequentially writing the data at the address "0001" in the camera signal system adjustment mode.The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "00FF" is written to the address.

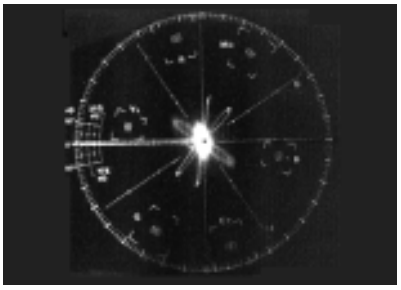
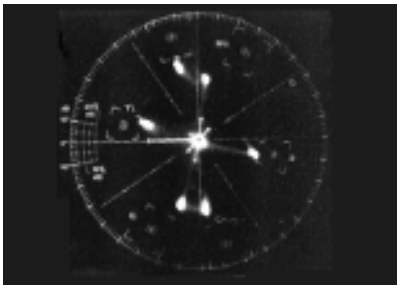
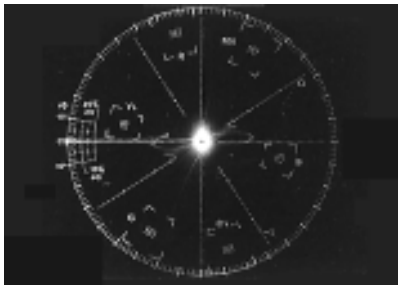
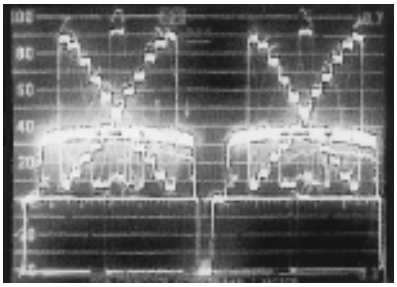
Address	Data	Adjustment item
0001	0009	Hall offset adjustment
	000A	Iris offset adjustment
	000B	Iris close adjustment

In the camera signal system adjustment mode (write the data "□□00" to the address "0000"), set the unit to the adjustment mode.

(3) Black balance adjustment/ A/F noise adjustment

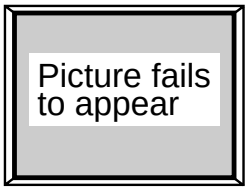
1) Prior to the adjustment, initialize the data for the addresses "0026", "0028", "002A", "002C", "002E", "0030".
Write "FFFF" to all of these address.
2) Write the data "□□01" to the address "0001" This starts the adjustment automatically.
When the adjustment is completed properly, the data "00FF" is written automatically.

Item	Adjustment method
(4) Iris AE coarse adjustment • Measurement terminal: S terminal luminance signal output (75 Ω termination) • Address: "0002" AE_CVT • Measuring instrument: Oscilloscope (horizontal sync) • Object: Grey scale • Data variation width: "0000" to "00FE"	(1) Video output is observed with the oscilloscope in the grey scale standard record state, the data of address "0002" is rewritten, and the luminance signal level is adjusted white to 735 ± 10mVp-p.  10IRE/div (71.4mV/div)
(5) White balance coarse adjustment (3200K) • Measurement terminal: EE output • Address: "0090" INDOOR_W/B_R "0092" INDOOR_W/B_B • Measuring instrument: Vector scope • Object: Grey scale • Data variation width: "0000" to "03FF"	(1) Indication on the vector scope is observed in the grey scale standard record state, data of address "0090" and "0092" are rewritten, and an adjustment is made so that the luminous dot is located in the position of burst ratio: R-Y 0 ± 5% B-Y 0 ± 5% 
(6) Color gain coarse adjustment • Measurement terminal: EE output • Address: "0338" CGIN RYG "033A" CGIN BYG "033B" CGIN YLYG "0335" CMAT RYG "0333" CMAT BYG "0334" CMAT YLYG • Measuring instrument: Vector scope • Object: Color bar chart • Data variation width: "0000" to "00FF"	(1) The color bar chart is imaged, and the picture angle is adjusted so as to get white level 630 mV. Indication on the vector scope is observed, the data of address "0338", "033A", "033B", "0335", "0333" and "0334" are rewritten, and setting is made so that the red and blue and yellow luminous dots are located in the following positions. (The gain of vector scope must be set on 75% amplitude point on the B-Y axis.)  Adjustment address Red amplitude 1.65 ± 0.1 time (burst ratio) : "0338" Blue amplitude 1.25 ± 0.1 time (burst ratio) : "033A" Yellow amplitude 1.35 ± 0.1 time (burst ratio) : "033B" Red phase 105° ± 2° : "0335" Blue phase 339° ± 2° : "0333" Yellow phase 166° ± 2° : "0334"

Item	Adjustment method
(7) White balance adjustment(3200K) • Measurement terminal: EE output • Address: "0090" INDOOR_W/B R "0092" INDOOR_W/B R • Measuring instrument: Vector scope • Object: Grey scale • Data variation width: "0000" to "03FF"	(1) White balance adjustment is performed repeatedly. 
(8) Color gain adjustment • Measurement terminal: EE output • Address: "0338" CGIN RYG "033A" CGIN BYG "033B" CGIN YLYG "0335" CMAT RYG "0333" CMAT BYG "0334" CMAT YLYG • Measuring instrument: Vector scope • Object: Waveform monitor color bar chart • Data variation width: "0000" to "00FF"	(1) Color gain adjustment is performed repeatedly.  Adjustment address Red amplitude 1.65 ± 0.05 time (burst ratio) : "0338" Blue amplitude 1.25 ± 0.05 time (burst ratio) : "033A" Yellow amplitude 1.35 ± 0.1 time (burst ratio) : "033B" Red phase 105° ± 1° : "0335" Blue phase 339° ± 2° : "0333" Yellow phase 166° ± 2° : "0334"
(9) White balance adjustment (3200K + LB165) • Measurement terminal: EE output • Address: "0016" OUTDOOR R "0018" OURDOOR B • Measuring instrument: Vector scope • Object: Grey scale • Data variation width: "0000" to "03FF"	(1) The color temperature conversion filter (LB165) is mounted in front of lens. (2) Indication of vector scope is observed in the grey scale standard record state, and an adjustment is made so that the luminous dots are located in the following positions: R-Y 0 ± 5% (burst ratio) B-Y 0 ± 5% (burst ratio) 
(10) Iris AE adjustment • Measurement terminal: S terminal luminance signal output (75 Ω termination) • Address: "0002" AE_CVT • Measuring instrument: Oscilloscope (horizontal sync) • Object: Grey scale • Data variation width: "0000" to "00FE"	(1) Set the unit to the normal operation mode (write the data "□□ FF" to the address "0000"). (2) Video output is observed with the oscilloscope in the grey scale standard record state, the data of address "0002" is rewritten, and the luminance signal level is adjusted white to 714 ± 10mVp-p.  10IRE/div (71.4mV/div)

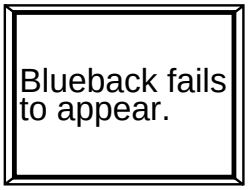
10. USEFUL TIPS (PROBLEMS DIFFER FROM THOSE FOUND ON VHS OR 8MM DECKS BECAUSE THE SIGNALS ARE DIGITALLY PROCESSED.)

Camera (EE mode)



Major circuits to be checked
- CCD
- Camera circuits (CDS, ADC, CAM ENGINE)
- MECHA/SYSTEM MiCON (IC701)
- VIDEO I/O (IC1401)
- VIO ENGINE (IC4401)

VCR (EE mode)

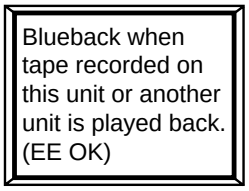


Major circuits to be checked
- MECHA/SYSTEM MiCON (IC701)
- CAM ENGINE (IC202)
- REC/PB ENGINE (IC452)

Camera (REC mode)
VCR (PB mode)

Major circuits to be checked
- CAM ENGINE (IC202)
- REC/PB ENGINE (IC452)

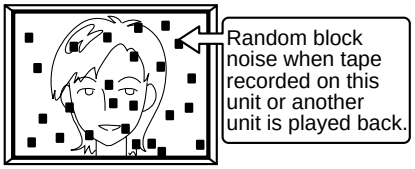
Camera (REC mode)
VCR (PB mode)



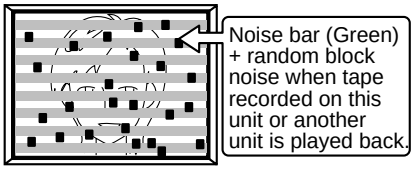
Major circuits to be checked
- EQ/PLL (IC3401)
- Head amplifier (IC301)

* Dirty or defective video head

Camera (REC mode)
VCR (PB mode)



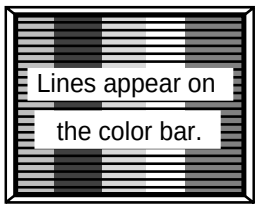
or



Major circuits to be checked
- EQ/PLL (IC3401)
- Head amplifier (IC301)

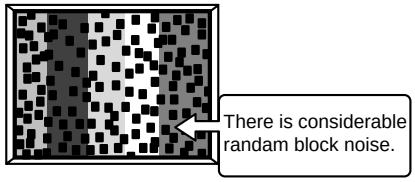
* Dirty or defective video head

VCR (PB mode) + color bar



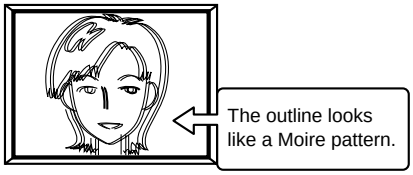
Major circuits to be checked
- CAM ENGINE (IC202)

VCR (PB mode) + color bar



Major circuits to be checked
- Adjustment of the electromagnetic conversion circuit system.

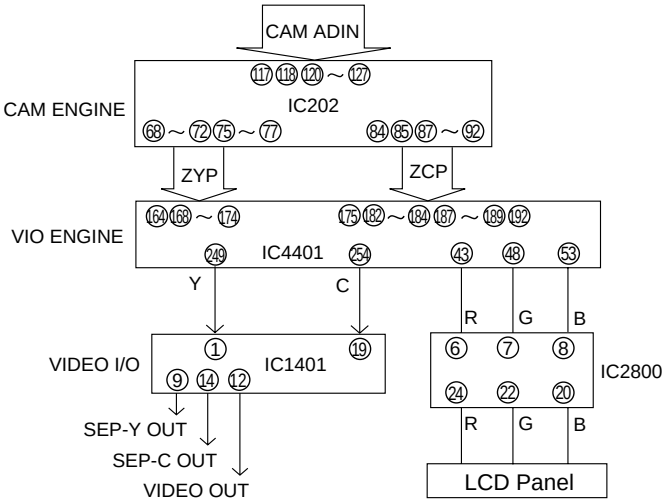
Camera (EE mode)



Major circuits to be checked
- Y data between CAM ENGINE (IC202) and VIO ENGINE (IC4401) is missing.

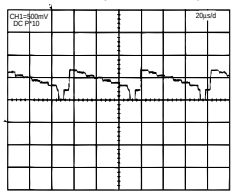
11. SIGNAL FLOW DIAGRAMS

11-1. EE MODE FLOW (VIDEO)

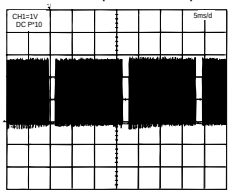


WAVEFORM DIAGRAM (DURING COLOR BAR RECORDING)

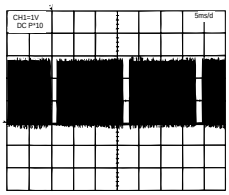
IC4401 249pin Y/YC Output



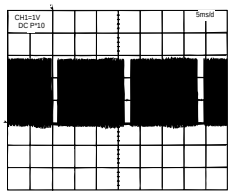
IC4401 170pin ZYP3 Input



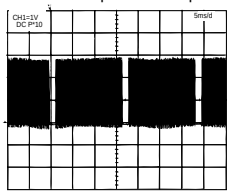
IC4401 124pin CDY3 Output



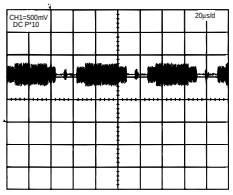
IC4401 134pin CDC3 Output



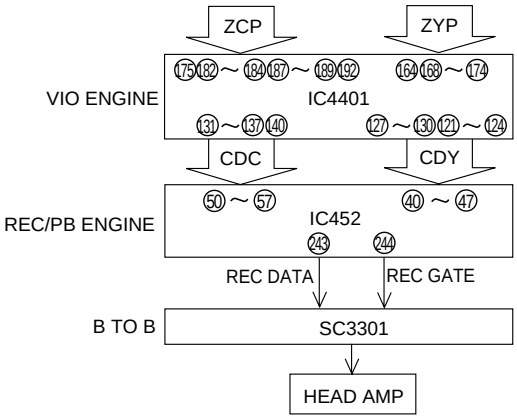
IC4401 184pin ZCP3 Input



IC4401 254pin C Output

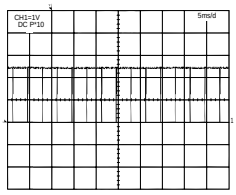


11-2. FLOW IN REC MODE (VIDEO)

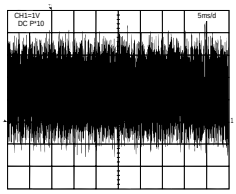


WAVEFORM DIAGRAM (DURING COLOR BAR RECORDING)

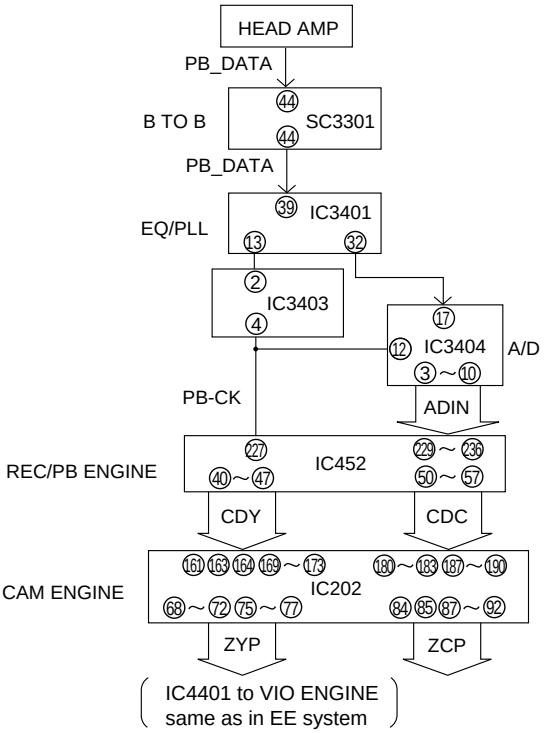
IC452 244pin Rec GATE Output



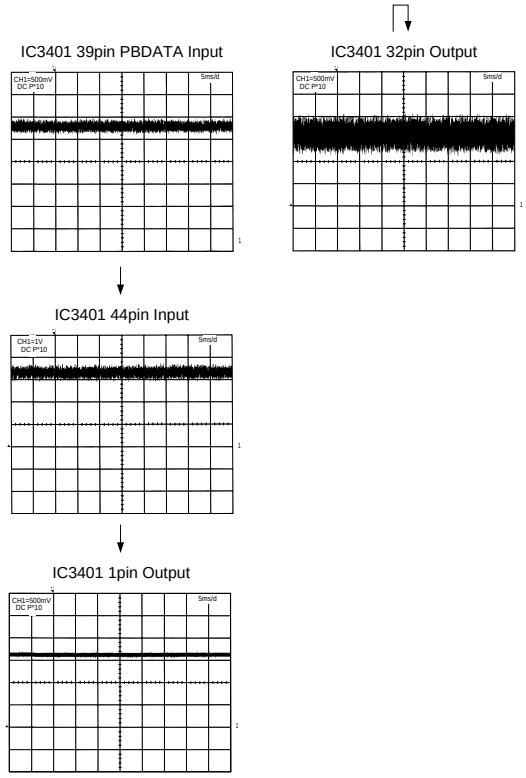
IC452 243pin Rec DATA Output



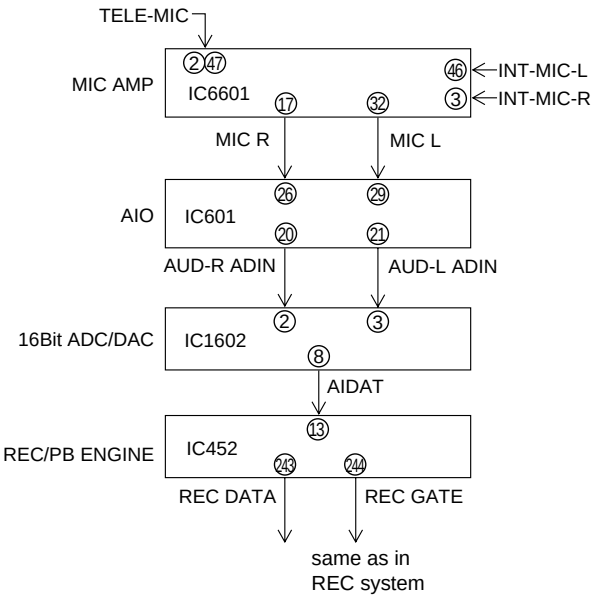
11-3. FLOW IN PB MODE (VIDEO)



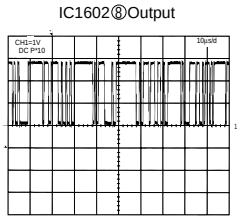
WAVEFORM DIAGRAM (DURING COLOR BAR PLAYBACK)



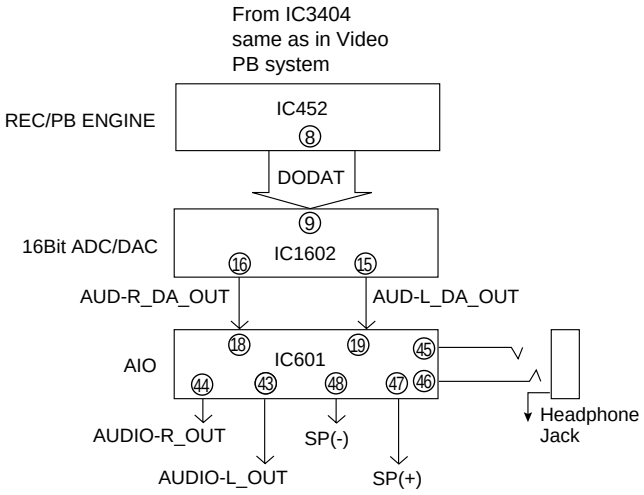
11-4. FLOW IN REC MODE (AUDIO)



WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

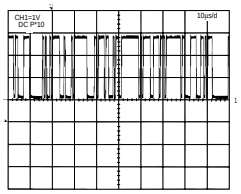


11-5. FLOW IN PB MODE (AUDIO)



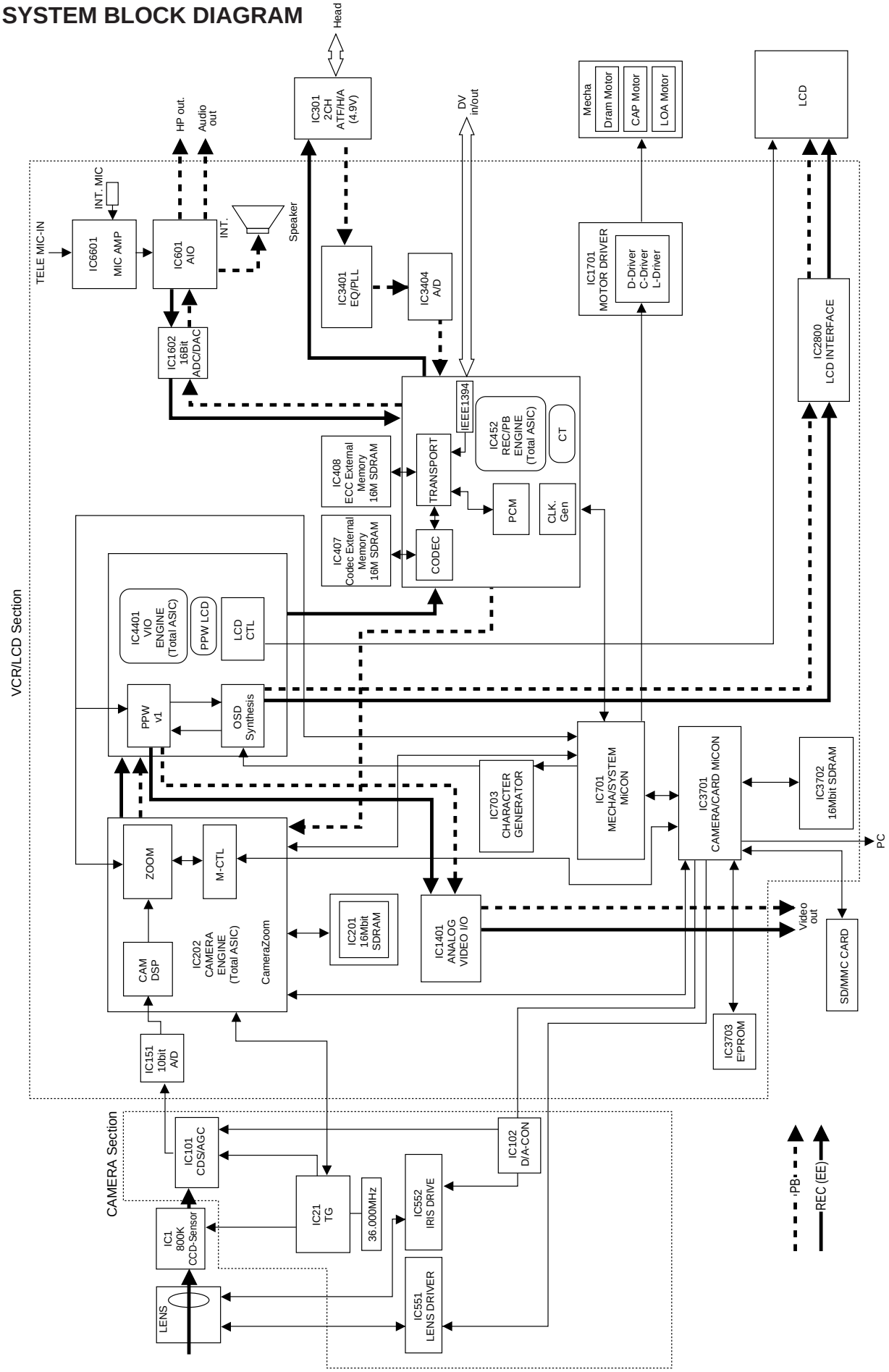
WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

IC1602 ⑨ DODAT Input

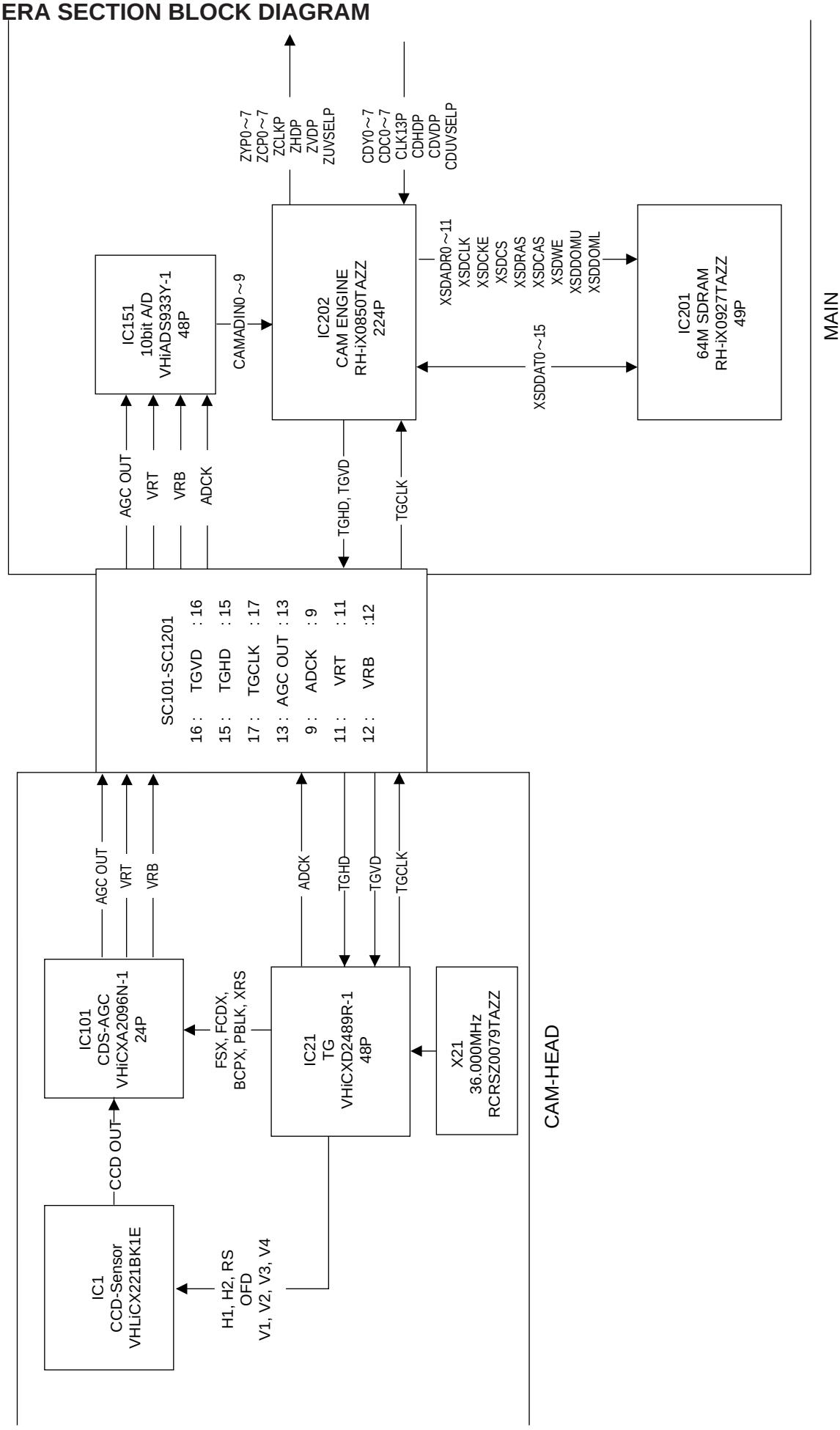


12. BLOCK DIAGRAMS

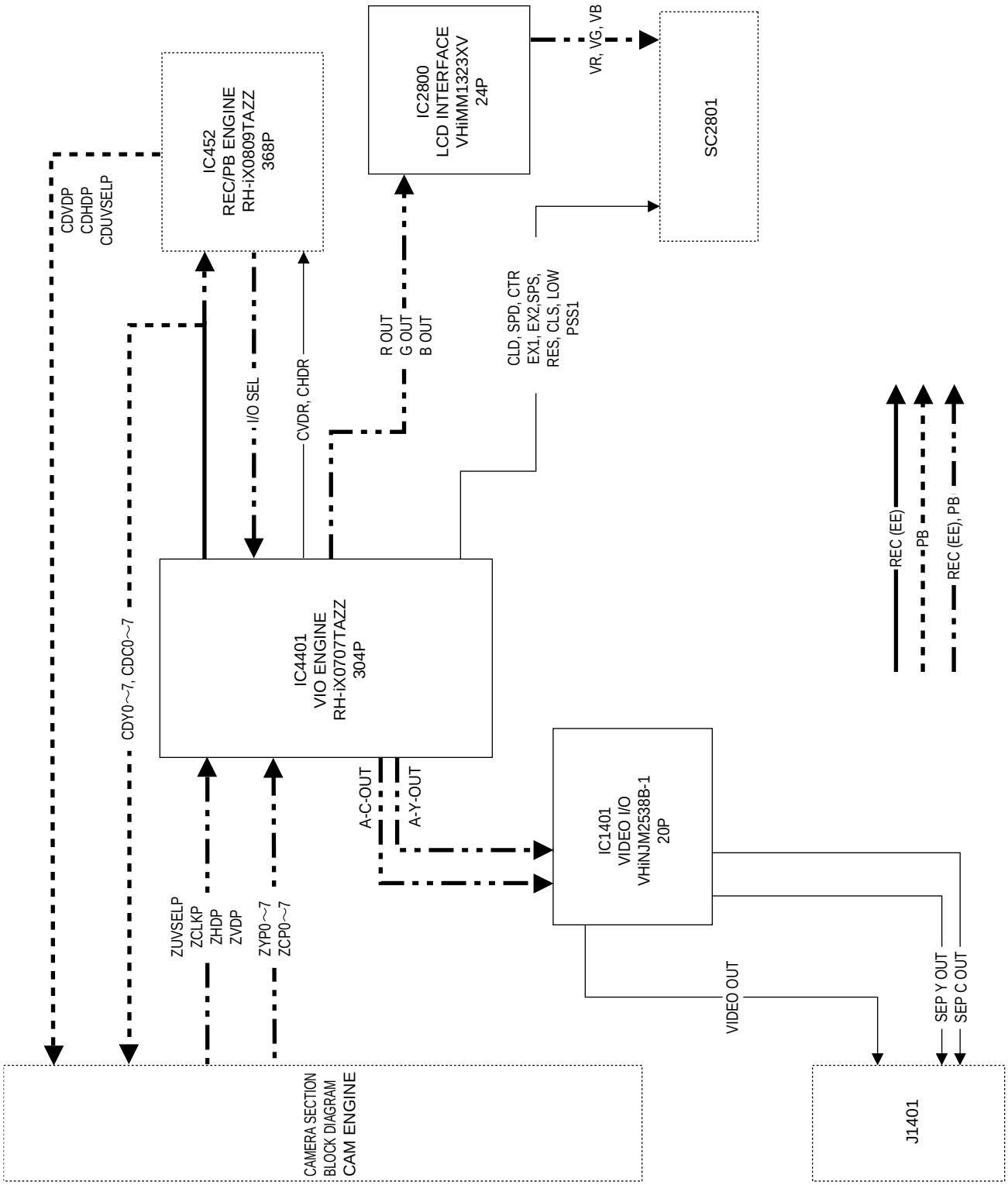
12-1. SYSTEM BLOCK DIAGRAM



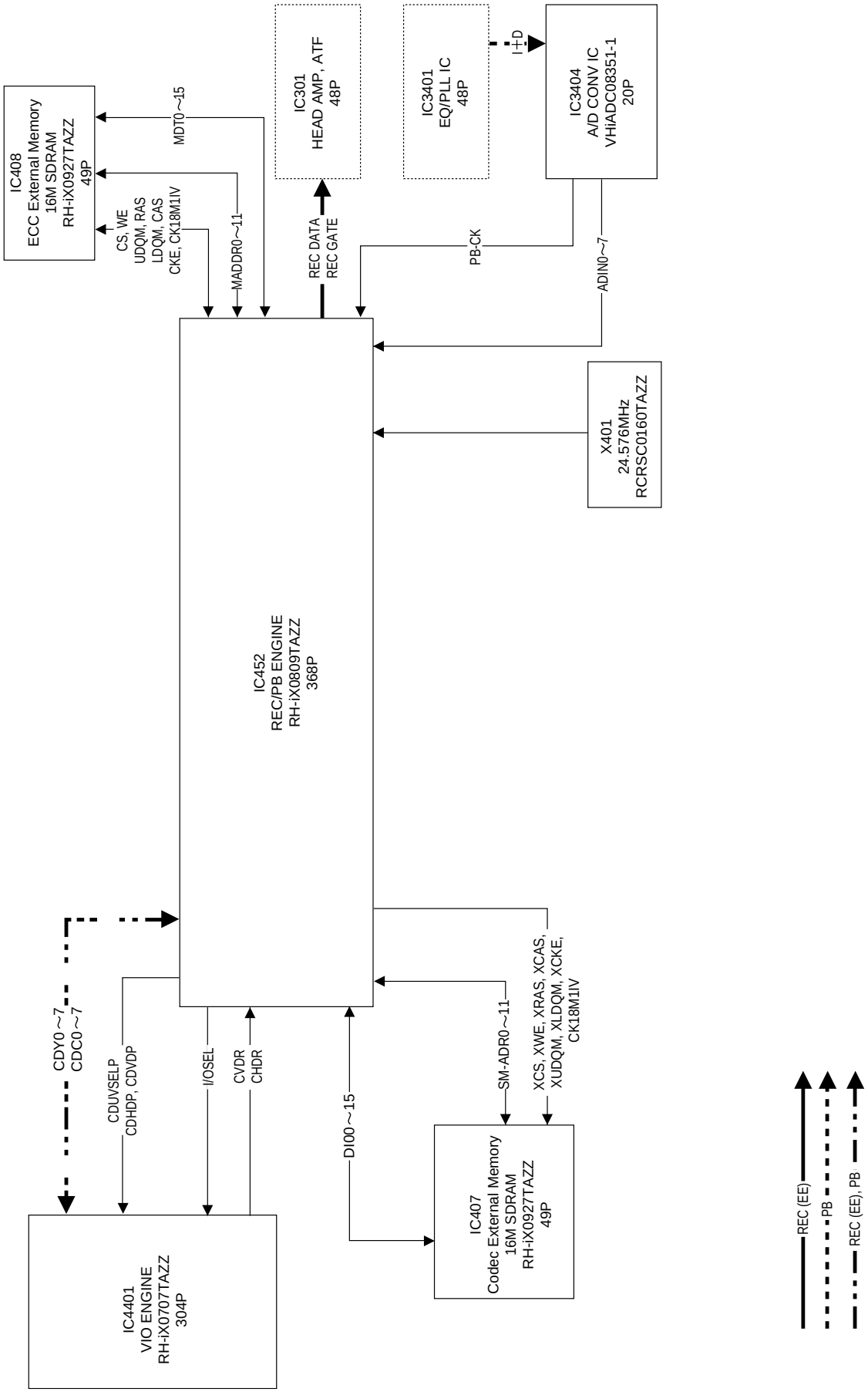
12-2. CAMERA SECTION BLOCK DIAGRAM



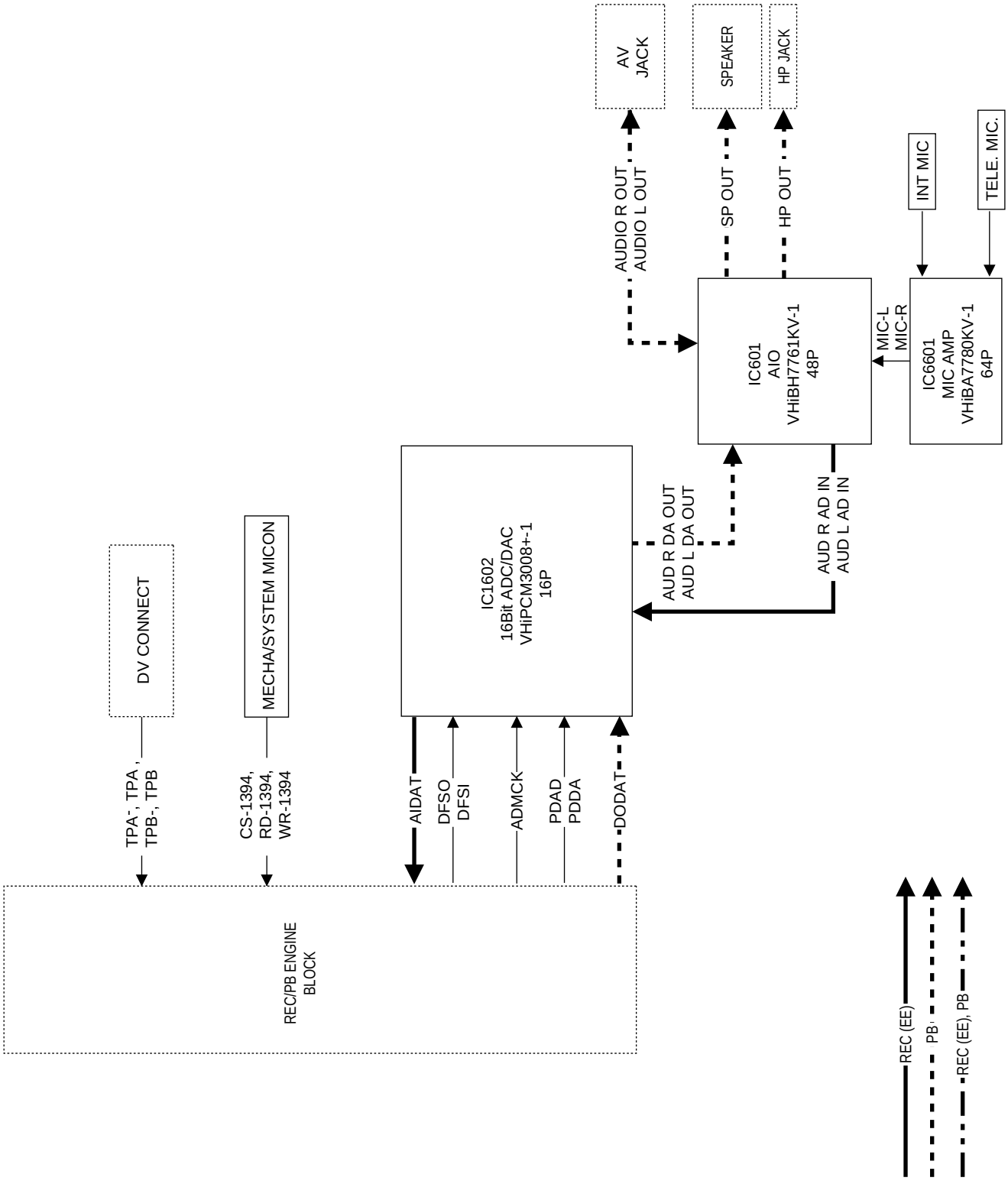
12-3. VIO ENGINE SECTION BLOCK DIAGRAM



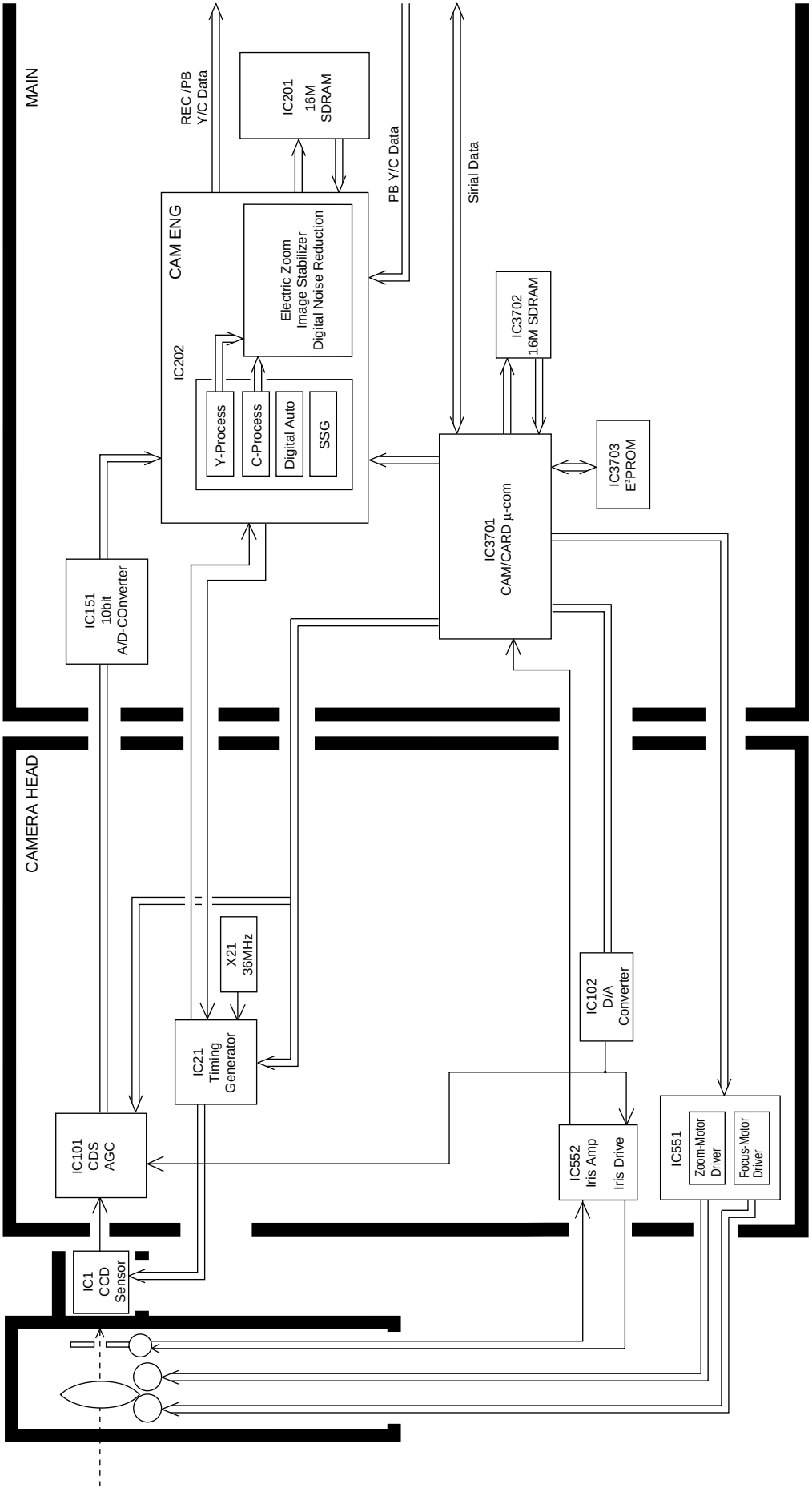
12-4. REC/PB SECTION BLOCK DIAGRAM



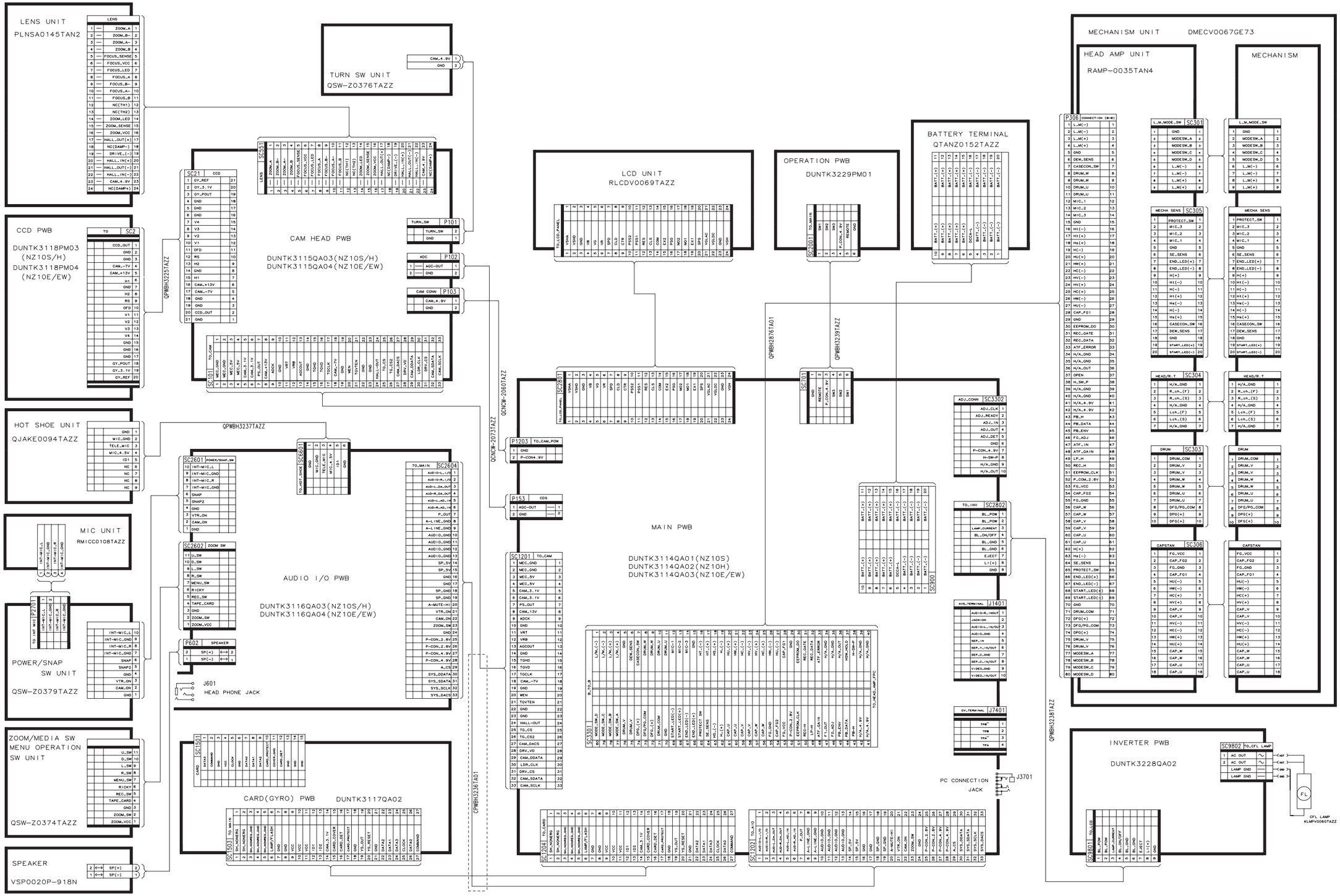
12-5. AUDIO/DIGITAL OUTPUT SECTION BLOCK DIAGRAM



12-6. CAMERA CIRCUIT BLOCK DIAGRAM

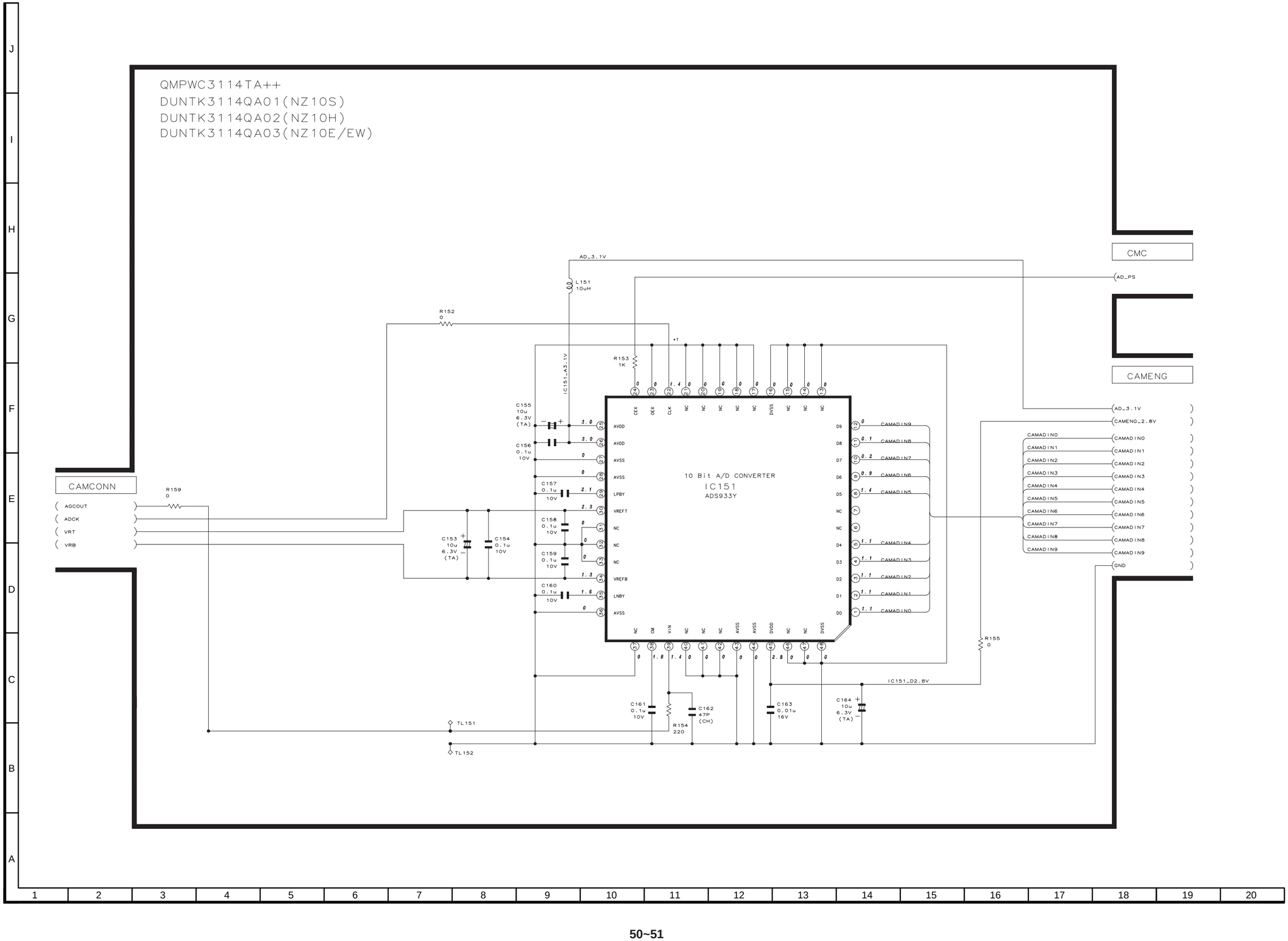


13. SCHEMATIC DIAGRAMS 13-1. OVERALL SCHEMATIC DIAGRAM

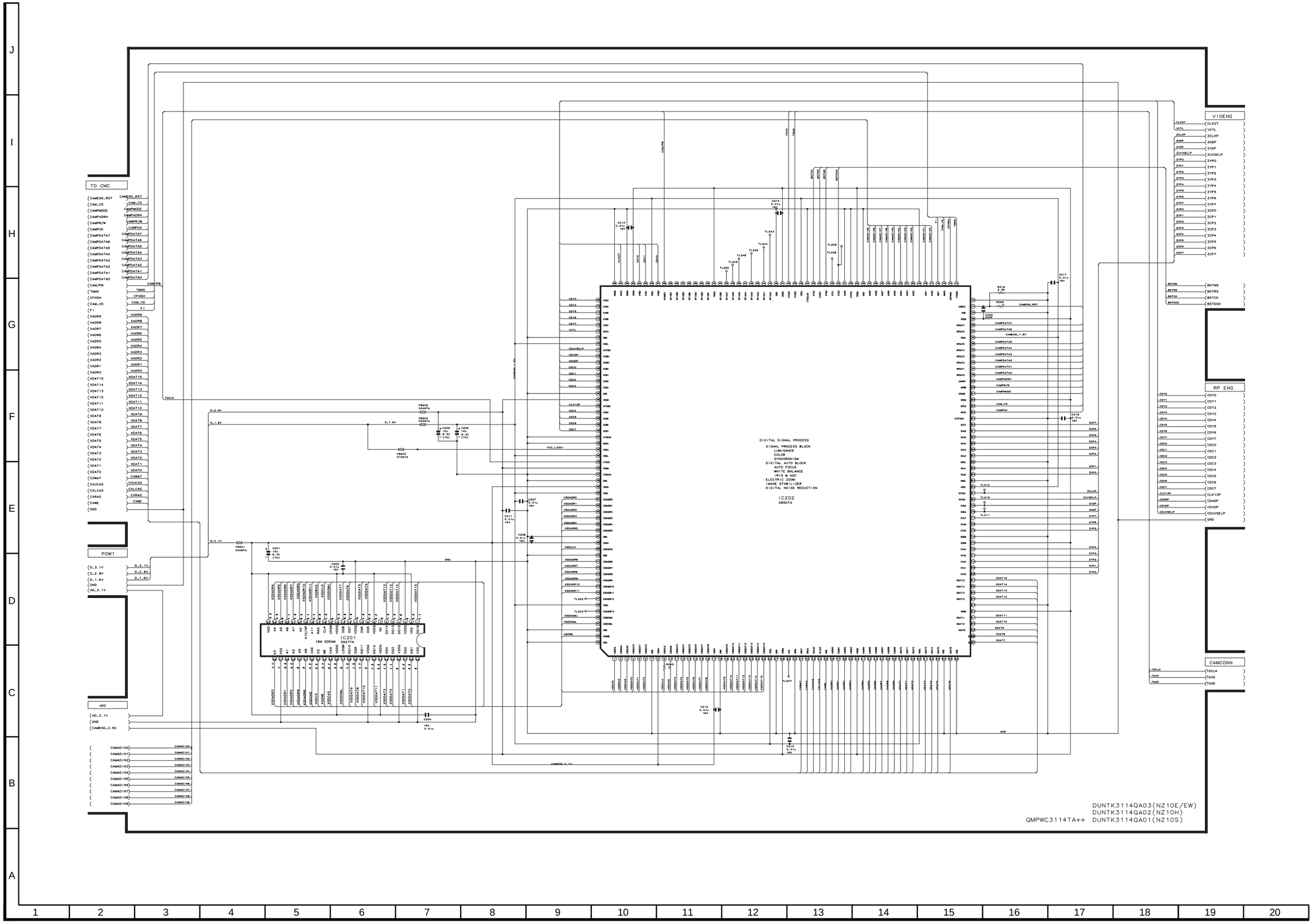


13-2. ADC SCHEMATIC DIAGRAM

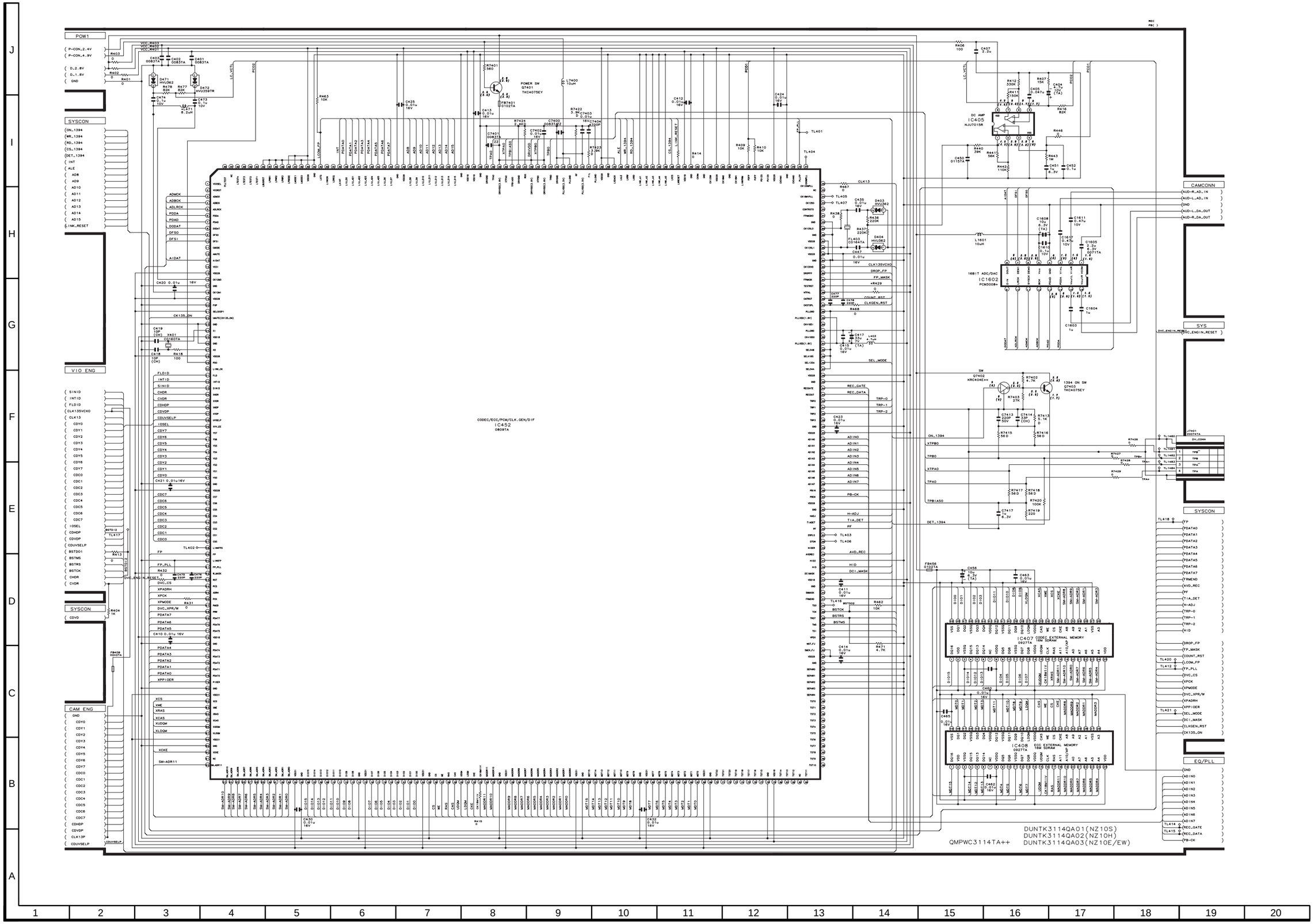
QMPWC3114TA++
DUNTK3114QA01(NZ10S)
DUNTK3114QA02(NZ10H)
DUNTK3114QA03(NZ10E/EW)



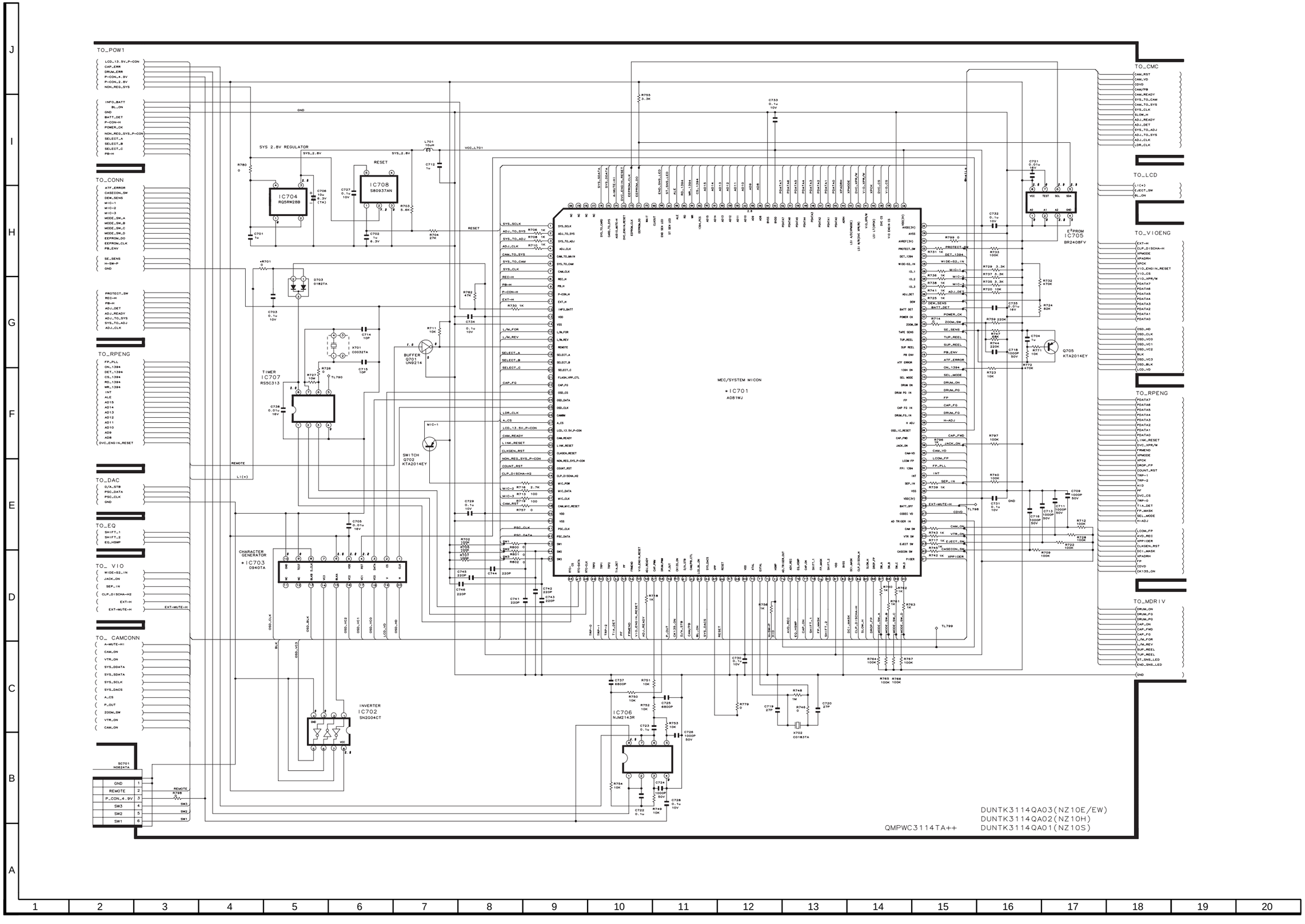
13-3. CAMERA ENGINE SCHEMATIC DIAGRAM



13-4. REC/PB ENGINE SCHEMATIC DIAGRAM

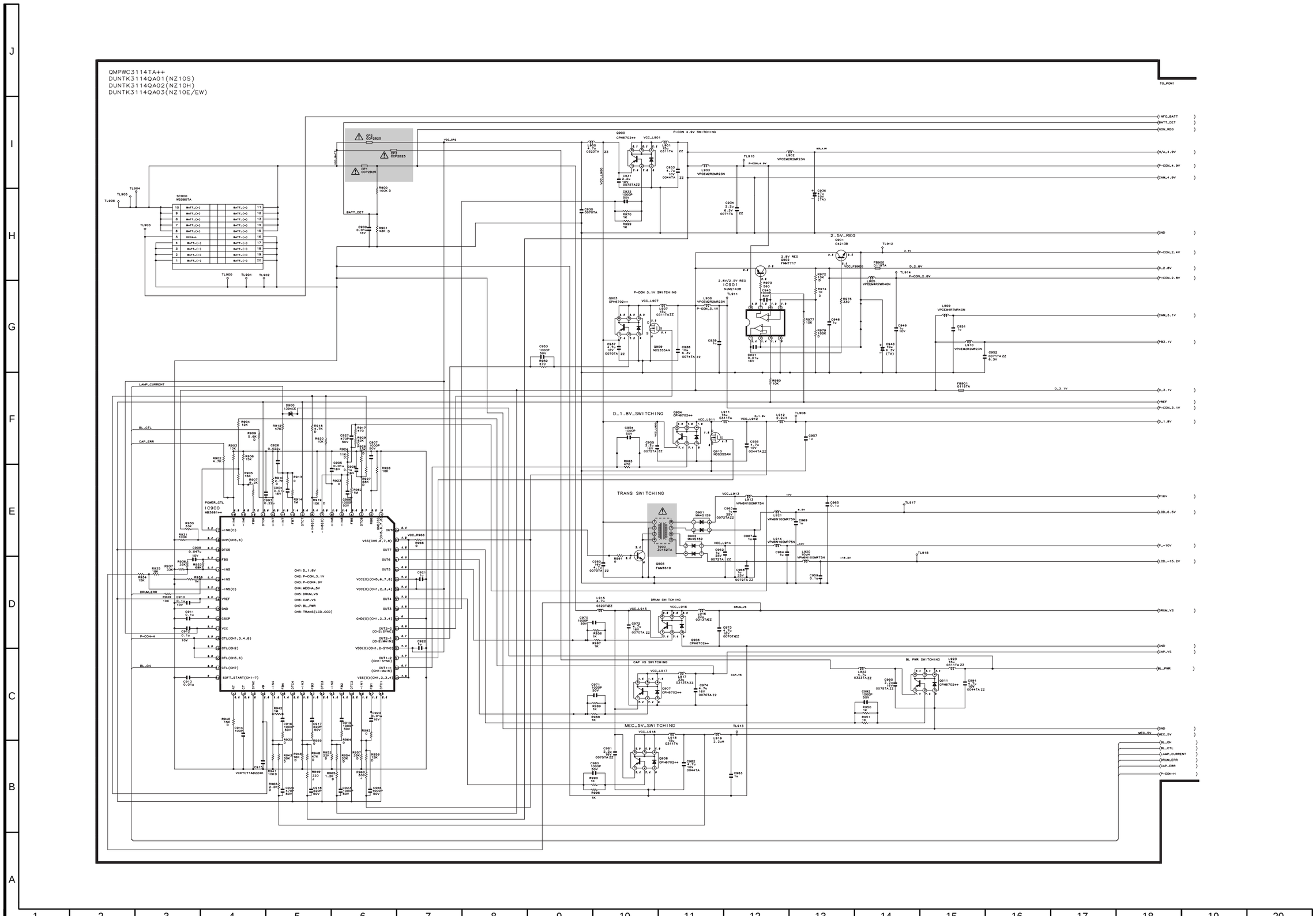


13-5. MEC/SYS MiCON SCHEMATIC DIAGRAM

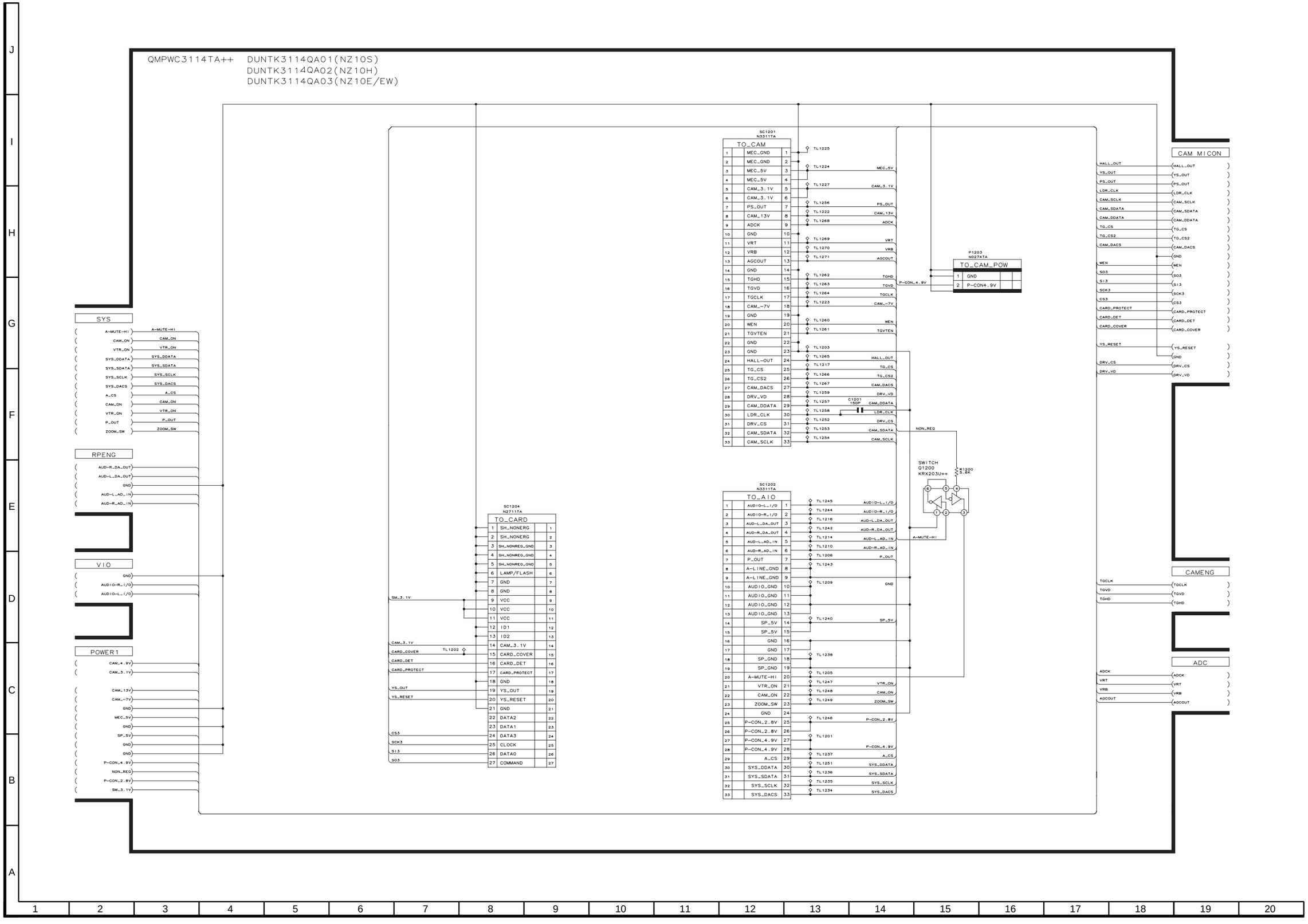


13-6. POWER2 SCHEMATIC DIAGRAM

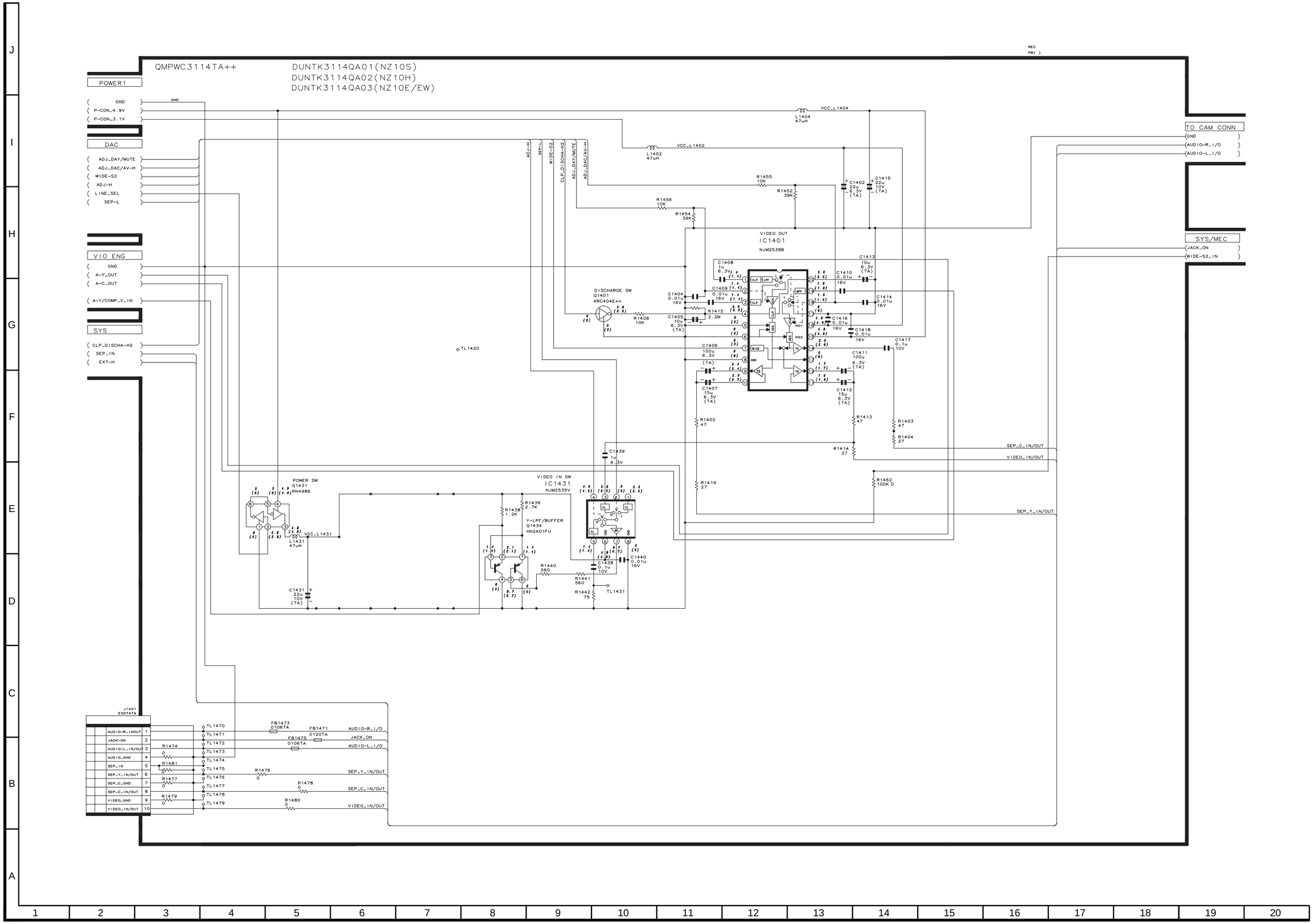
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



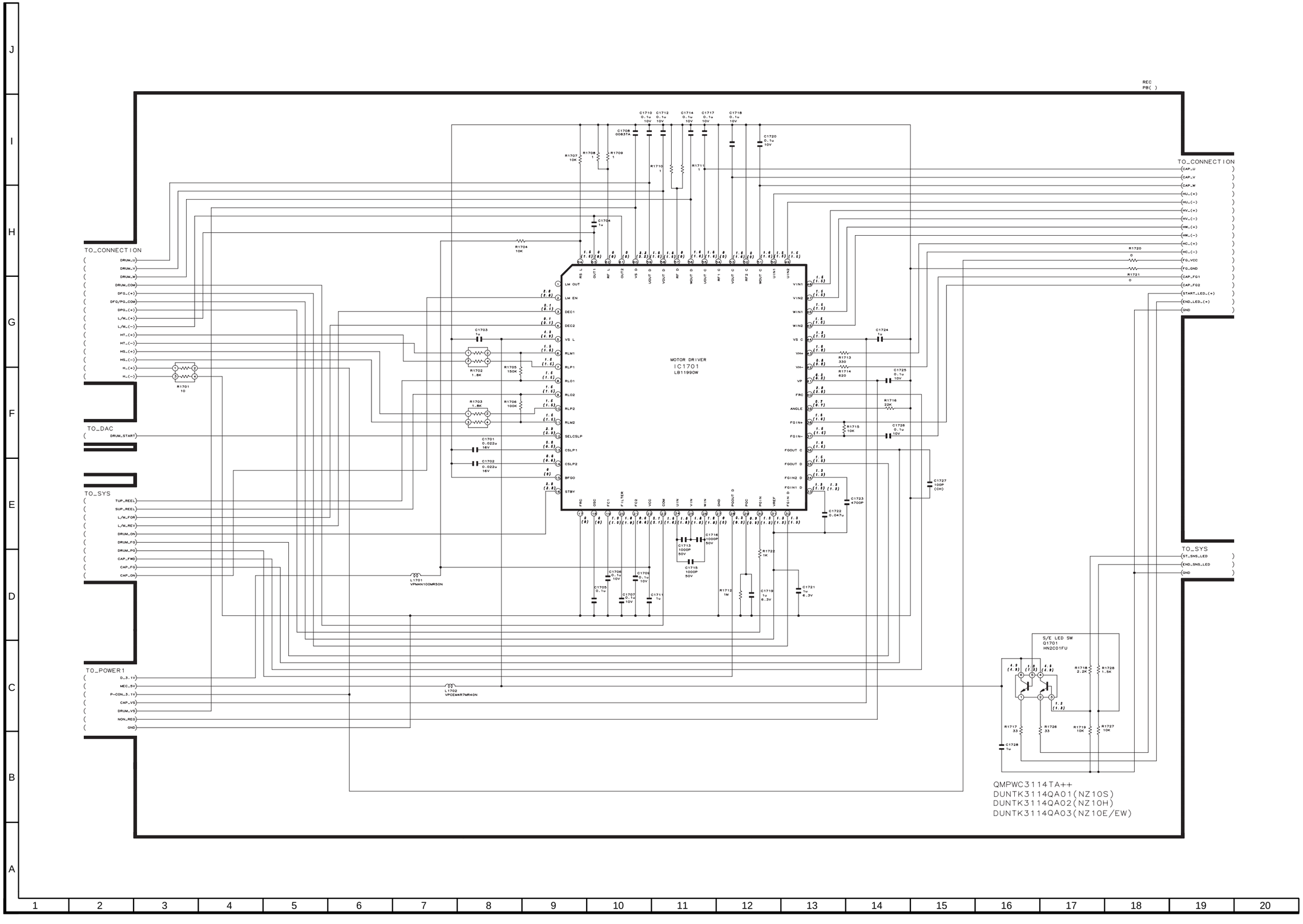
13-7. CAMERA CONN SCHEMATIC DIAGRAM



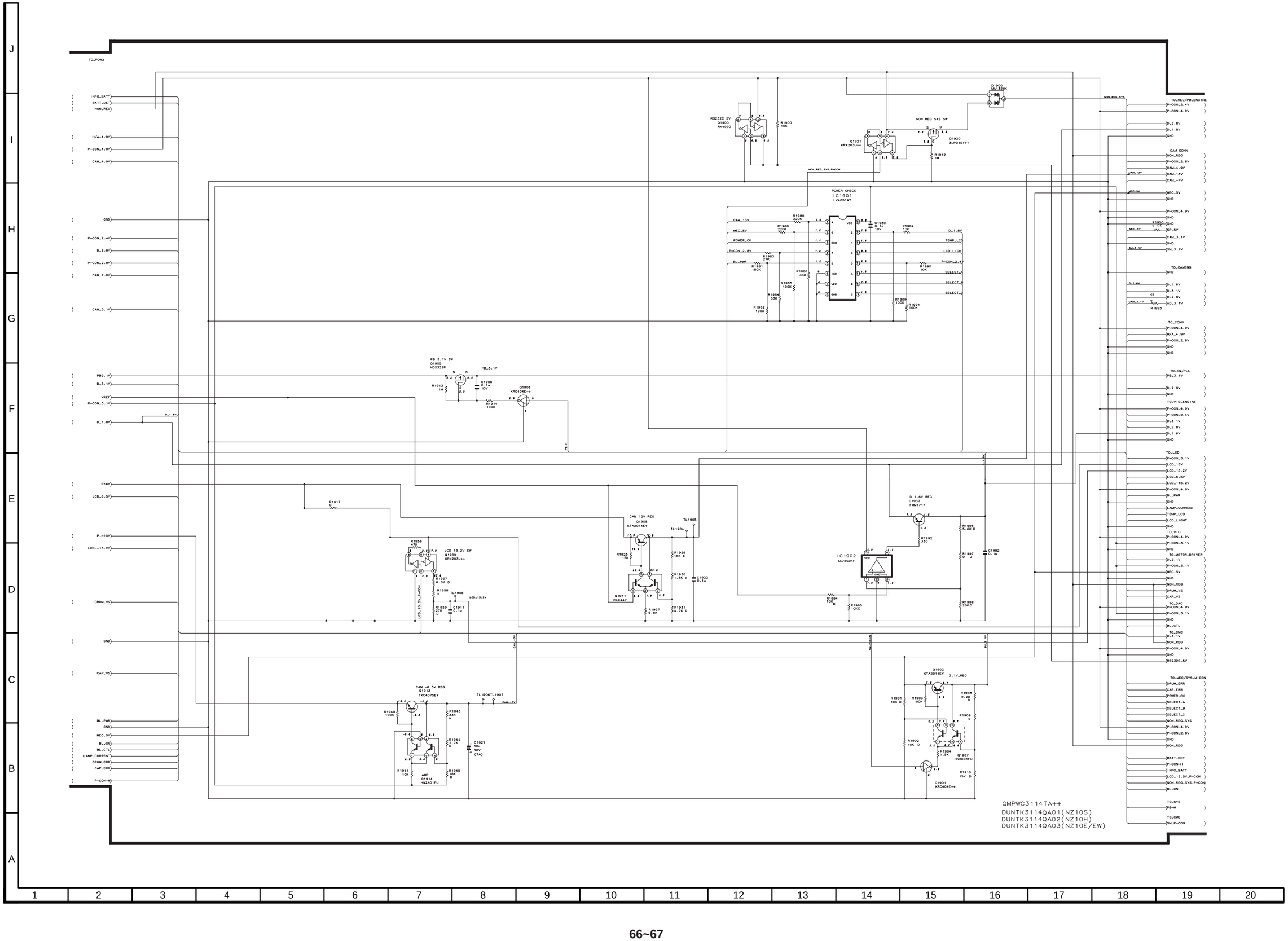
13-8. VIDEO I/O SCHEMATIC DIAGRAM



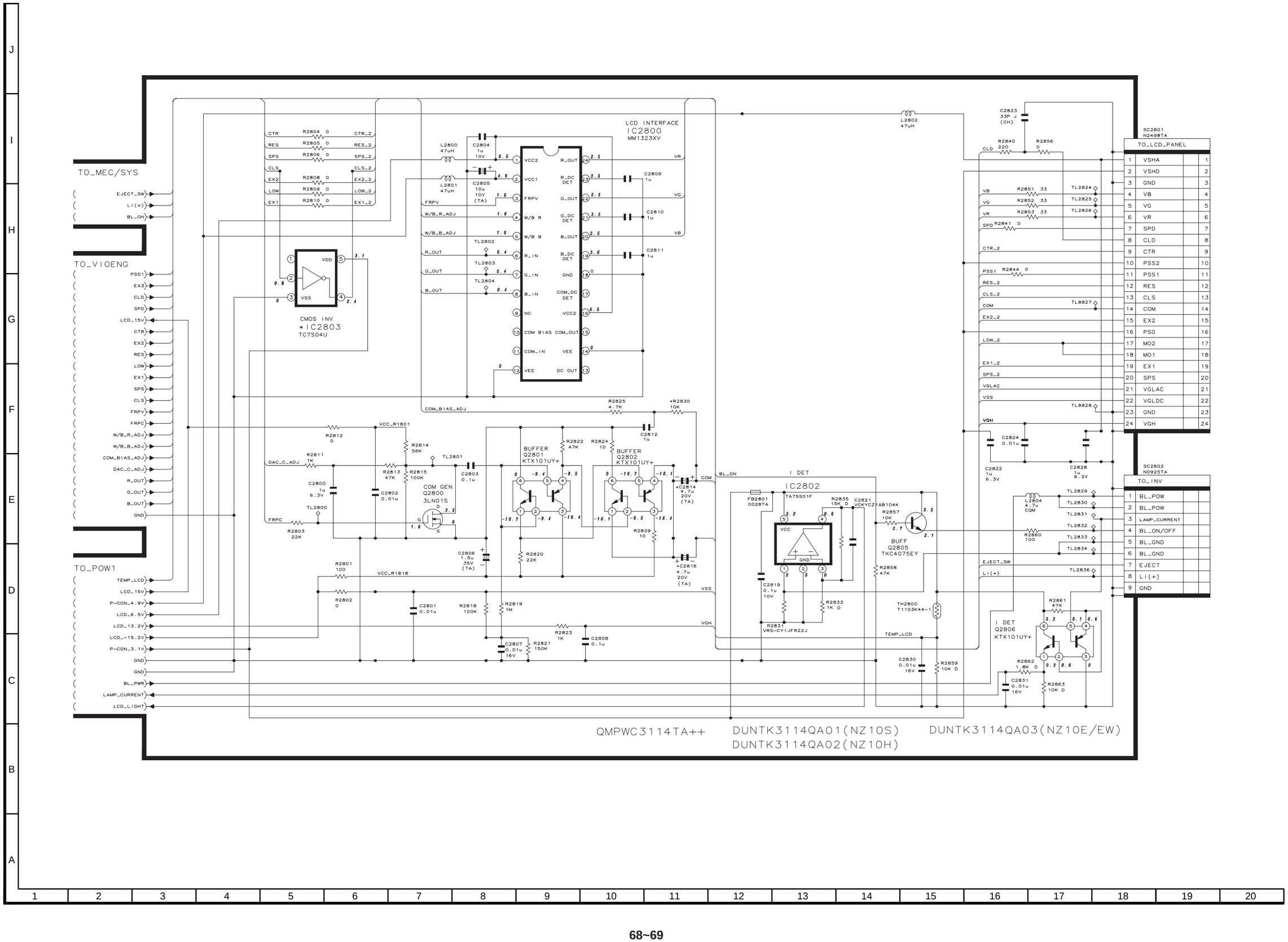
13-9. MOTOR DRIVER SCHEMATIC DIAGRAM



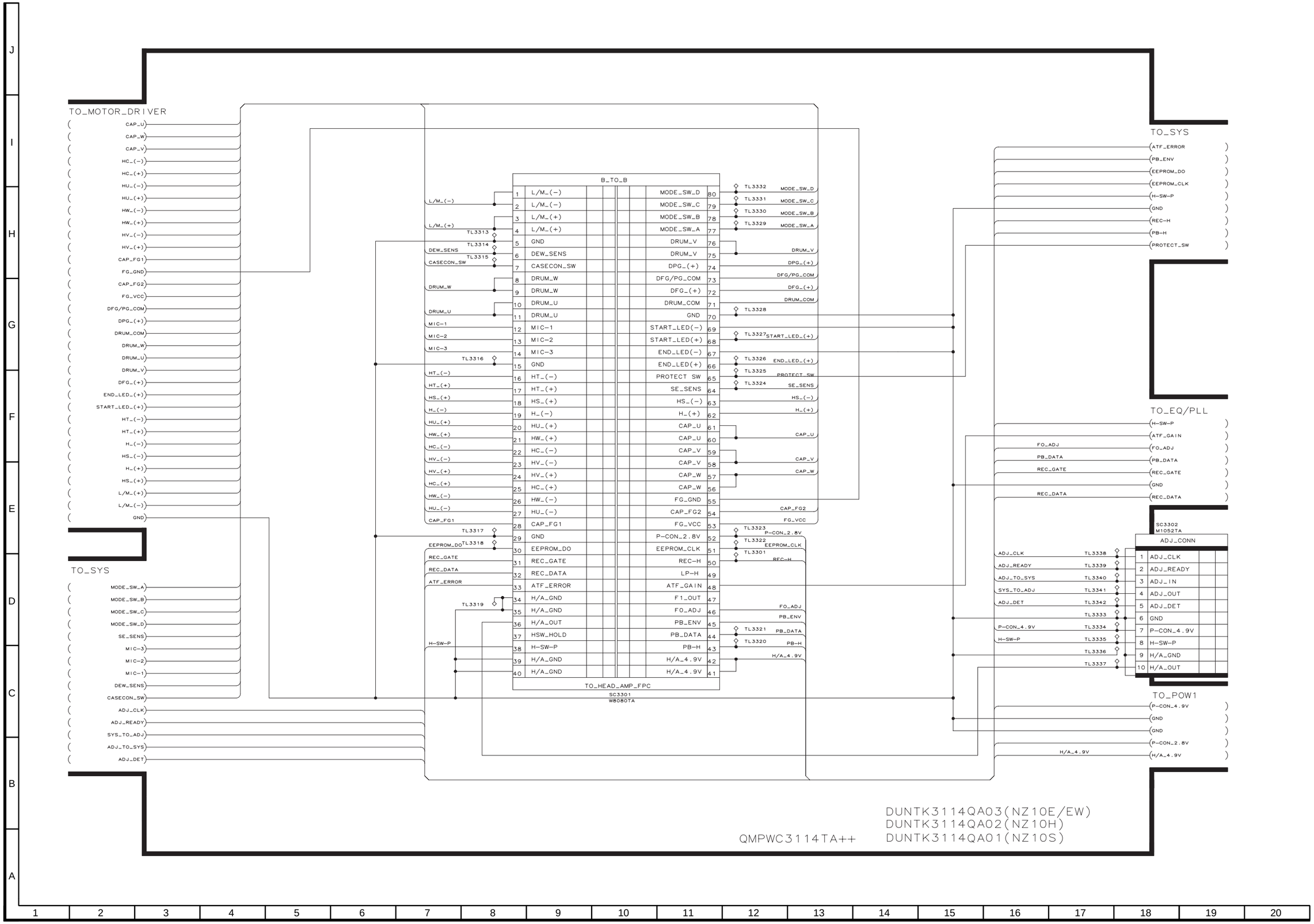
13-10. POWER1 SCHEMATIC DIAGRAM



13-11. LCD SCHEMATIC DIAGRAM

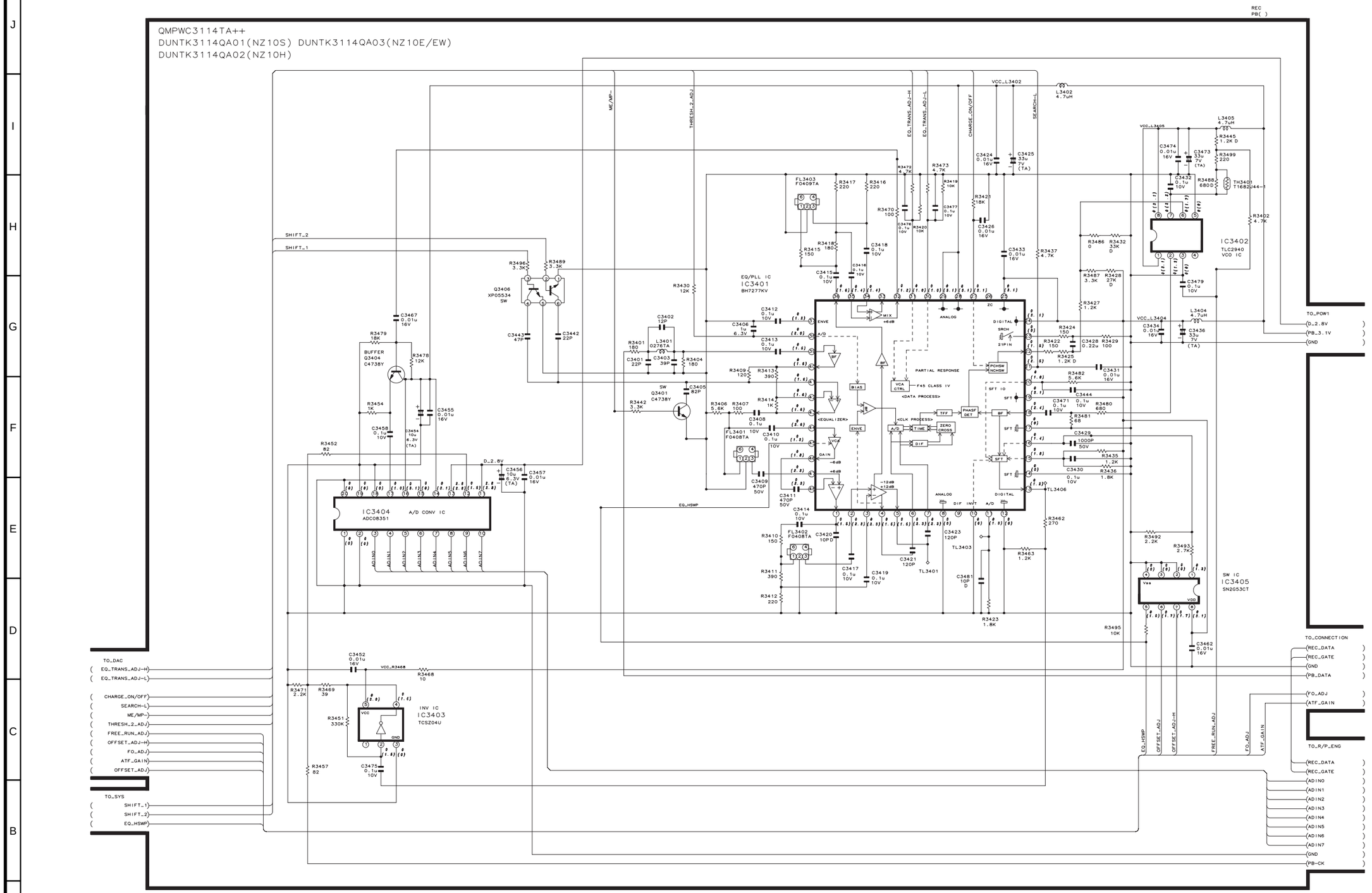


13-12. CONNECTION(B-B) SCHEMATIC DIAGRAM

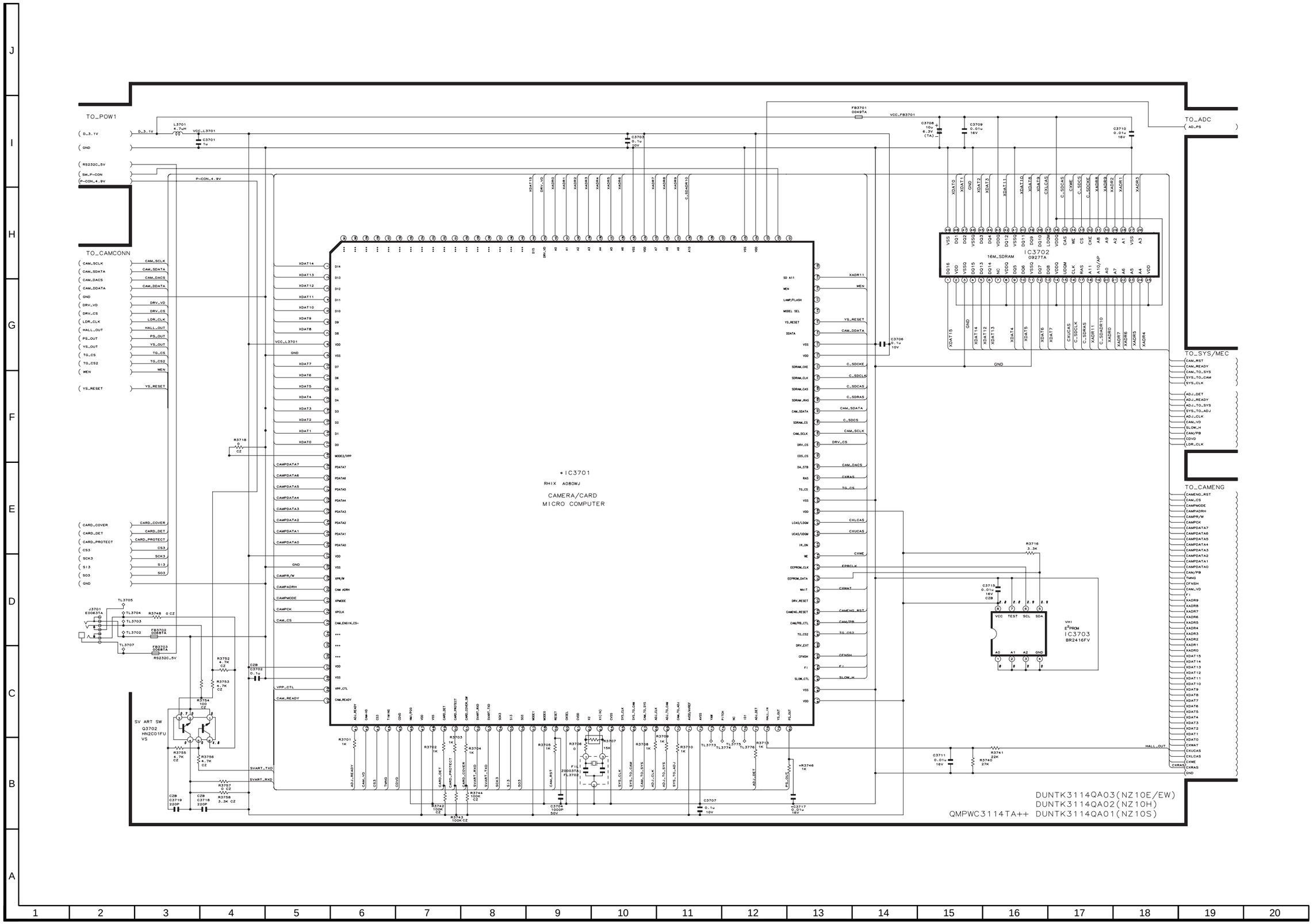


13-13. EQ/PLL SCHEMATIC DIAGRAM

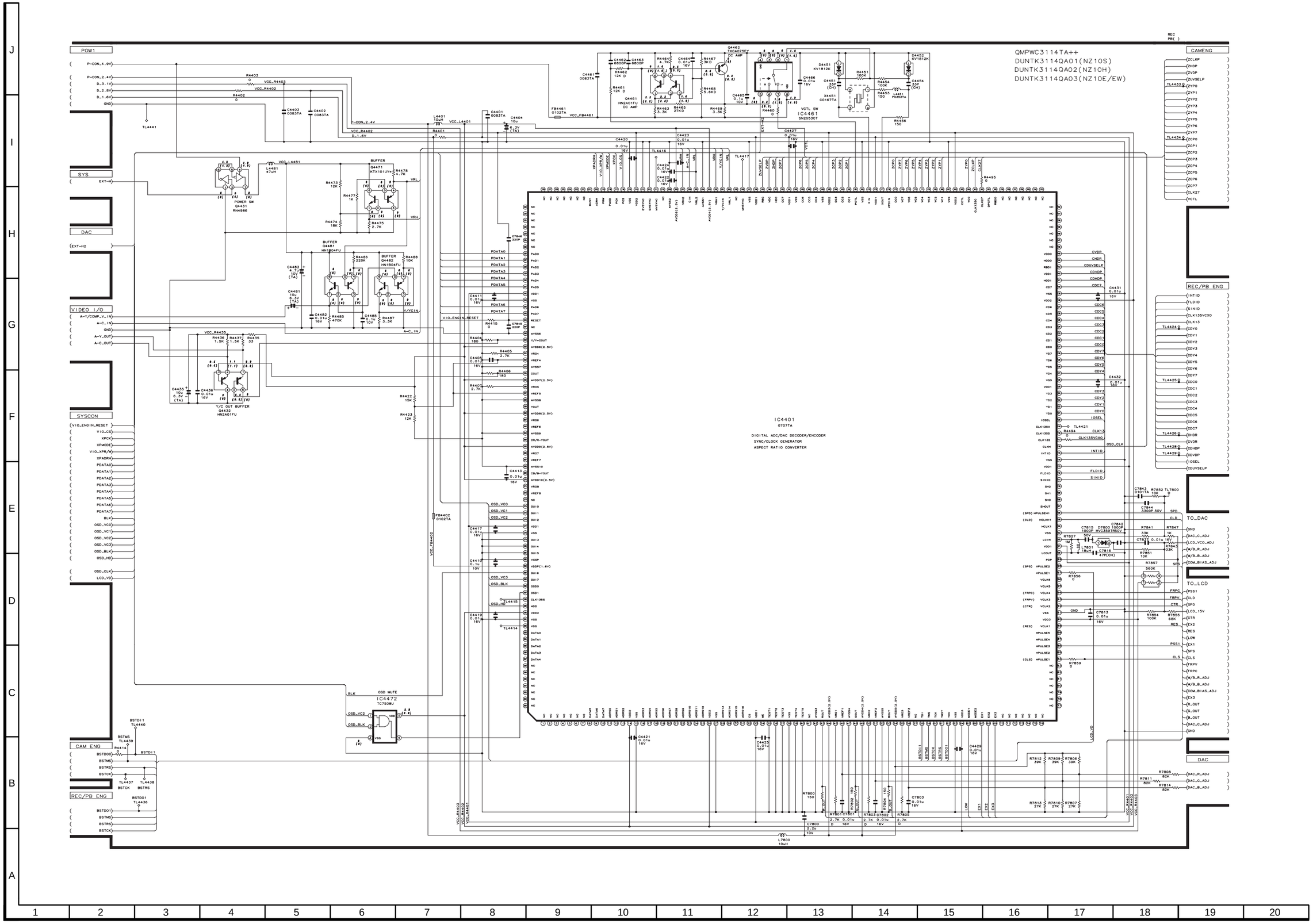
QMPWC3114TA++
DUNTK3114QA01(NZ10S) DUNTK3114QA03(NZ10E/EW)
DUNTK3114QA02(NZ10H)



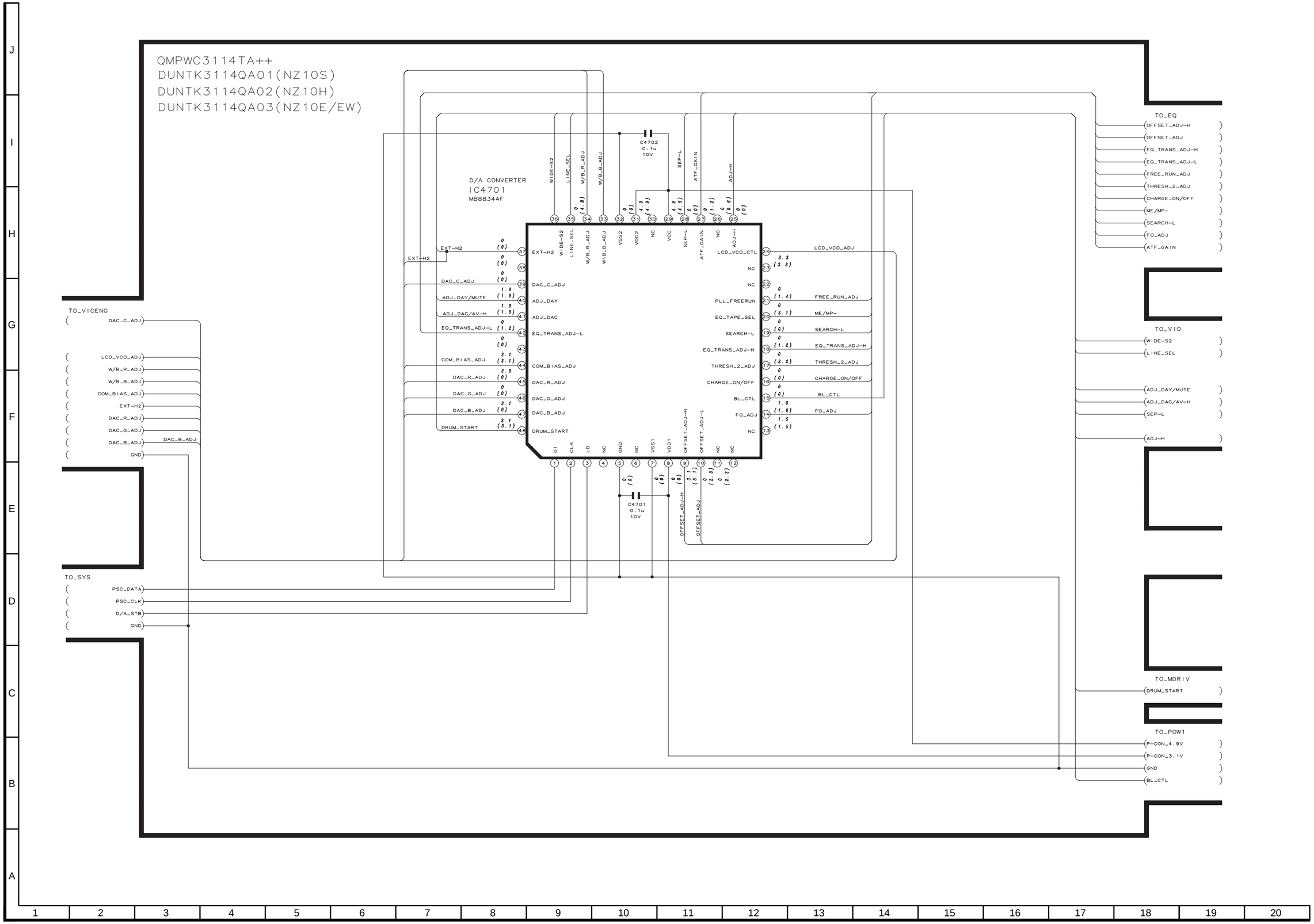
13-14. CAM/CARD MICON SCHEMATIC DIAGRAM



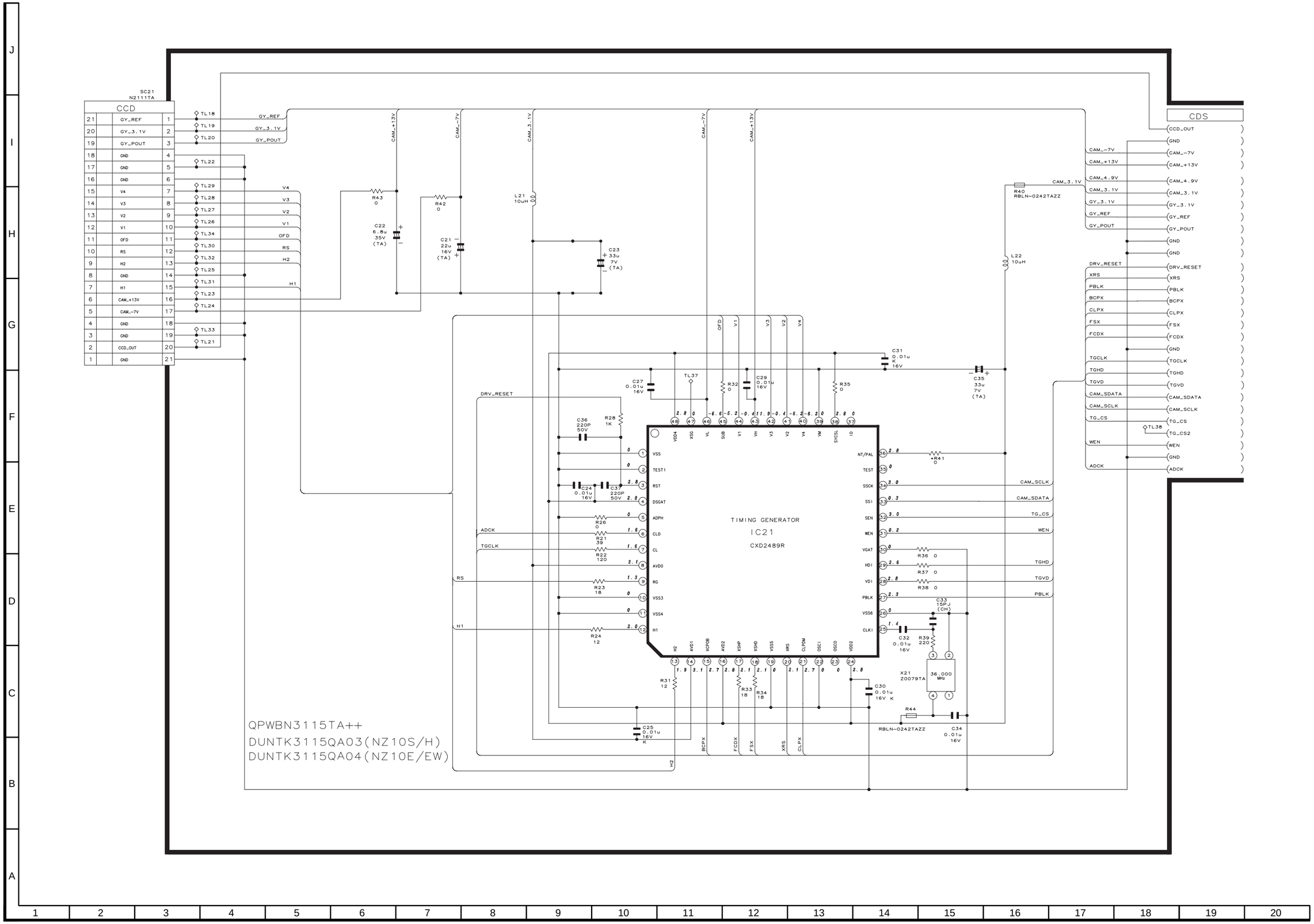
13-15. VIO ENGINE SCHEMATIC DIAGRAM



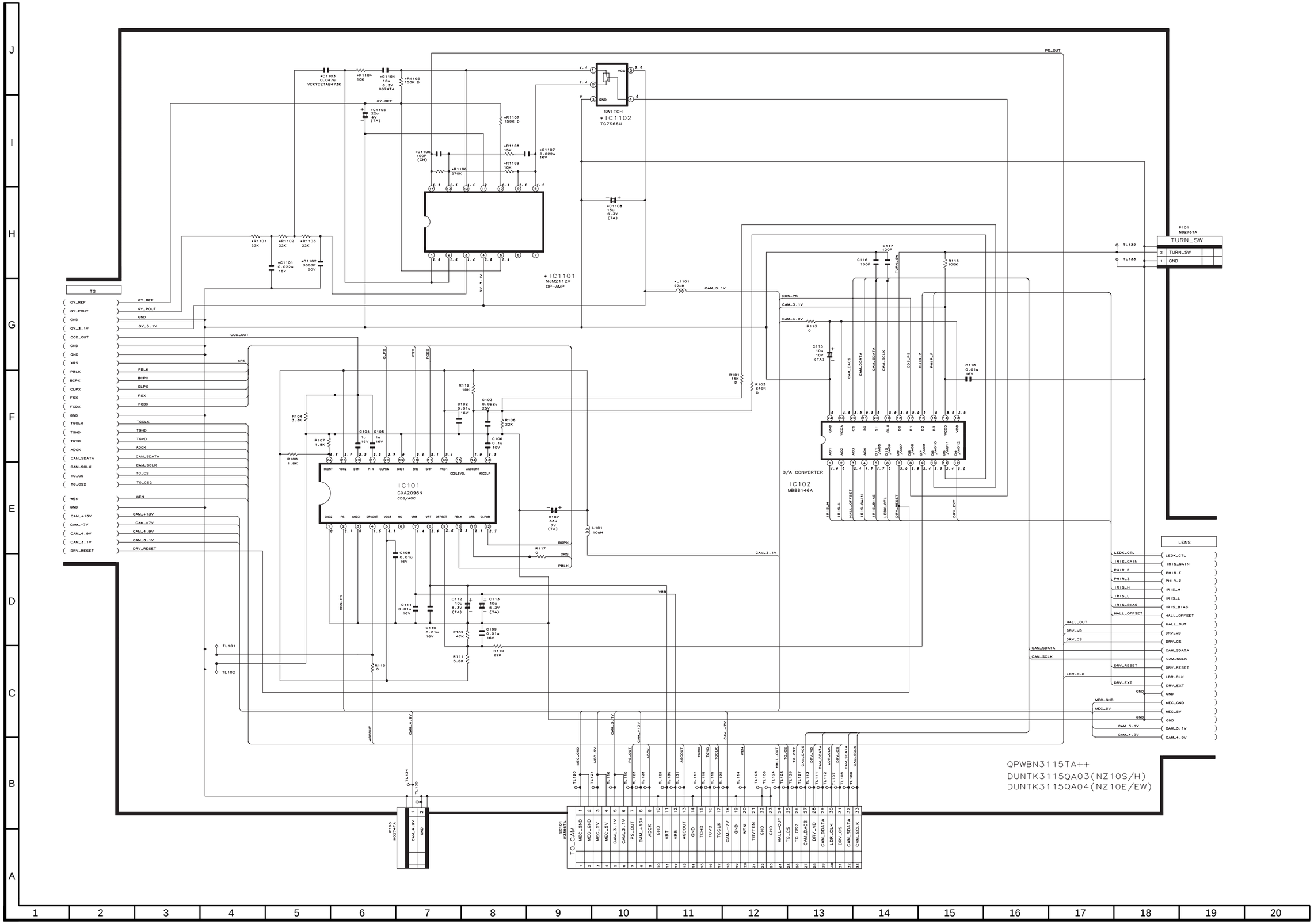
13-16. DAC SCHEMATIC DIAGRAM



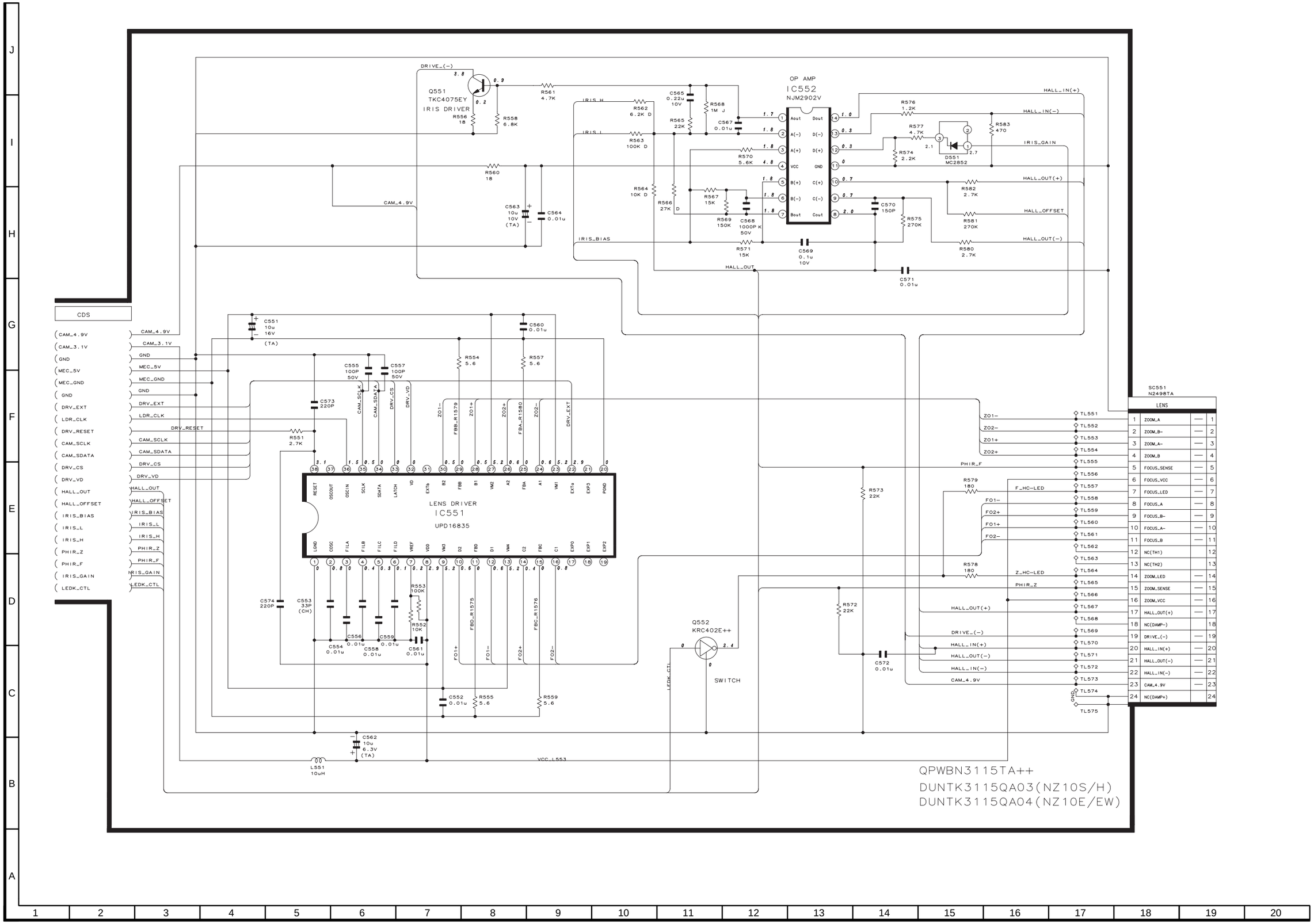
13-17. TG SCHEMATIC DIAGRAM



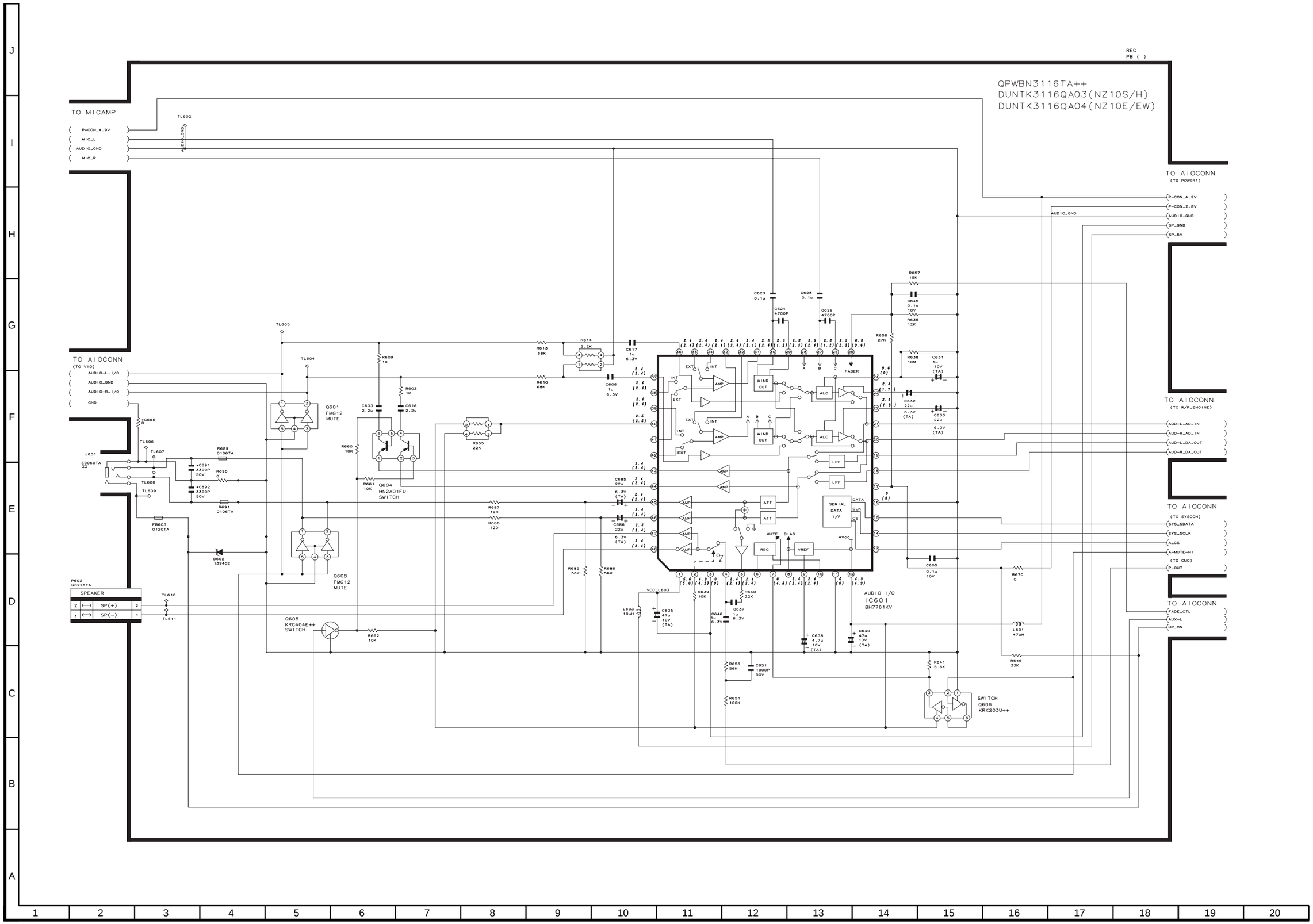
13-18. CDS SCHEMATIC DIAGRAM



13-19. LENS DRIVE SCHEMATIC DIAGRAM



13-20. AIO SCHEMATIC DIAGRAM



13-21. AIO CONN SCHEMATIC DIAGRAM

QPWBN3116TA++
DUNTK3116QA03(NZ10S/H)
DUNTK3116QA04(NZ10E/EW)

REC
PB( )

SC2604
W3396TA

AUDIO-L_I/O
AUDIO-R_I/O
AUD-L_DA_OUT
AUD-R_DA_OUT
AUD-L_AD_IN
AUD-R_AD_IN
P_OUT
AUDIO_GND
AUDIO_GND
SP_5V
SP_GND
A-MUTE-HI
VTR_ON
CAM_ON
ZOOM_SW
P-CON_2.8V
P-CON_4.9V
A_CS
SYS_DDATA
SYS_SDATA
SYS_SCLK
SYS_DACS

TL2645 TL2646 TL2643 TL2644 TL2659 TL2647 TL2648 TL2667 TL2642 TL2662 TL2687 TL2688 TL2689 TL2663 TL2669 TL2655 TL2683 TL2652 TL2653 TL2654

+R2607 0

1	AUDIO-L_I/O
2	AUDIO-R_I/O
3	AUD-L_DA_OUT
4	AUD-R_DA_OUT
5	AUD-L_AD_IN
6	AUD-R_AD_IN
7	P_OUT
8	A-LINE_GND
9	A-LINE_GND
10	AUDIO_GND
11	AUDIO_GND
12	AUDIO_GND
13	AUDIO_GND
14	SP_5V
15	SP_5V
16	GND
17	GND
18	SP_GND
19	SP_GND
20	A-MUTE-HI
21	VTR_ON
22	CAM_ON
23	ZOOM_SW
24	GND
25	P-CON_2.8V
26	P-CON_2.8V
27	P-CON_4.9V
28	P-CON_4.9V
29	A_CS
30	SYS_DDATA
31	SYS_SDATA
32	SYS_SCLK
33	SYS_DACS

TO_MAIN

C2605 100P
C2606 100P
C2602 0.01u 16V
C2608 10u 6.3V (TA)
R2601 0
R2606 0
C2609 4.7u 10V (TA)
C2607 0.1u 10V

I/O EXPANDER
D/A CONVERTER
IC2601
MB88146A

R2621 100K
R2622 100K
R2623 100K
R2624 100K
R2625 100K
R2626 100K
R2627 100K

TO AIO

P-CON_2.8V
AUDIO_GND
SP_GND
SP_5V
P-CON_4.9V
AUD-L_AD_IN
AUD-R_AD_IN
AUD-L_DA_OUT
AUD-R_DA_OUT
SYS_SCLK
SYS_SDATA
A_CS
A-MUTE-HI
AUX-L
HP_ON
P_OUT
AUDIO_GND
AUDIO-L_I/O
AUDIO-R_I/O
FADE_CTL
GND

TO MICAMP

GND
ZOOM_CTL
MIC_ON
ID1
INT-MIC_L
INT-MIC_GND
INT-MIC_R

SC2601
N1090TA
ZOOM/POWER_SW

10	INT-MIC_L
9	INT-MIC_GND
8	INT-MIC_R
7	INT-MIC_GND
6	SNAP
5	SNAP2
4	GND
3	VTR_ON
2	CAM_ON
1	GND

SNAP TL2671
SNAP2 TL2672
TL2673
TL2674
VTR_ON TL2675
CAM_ON

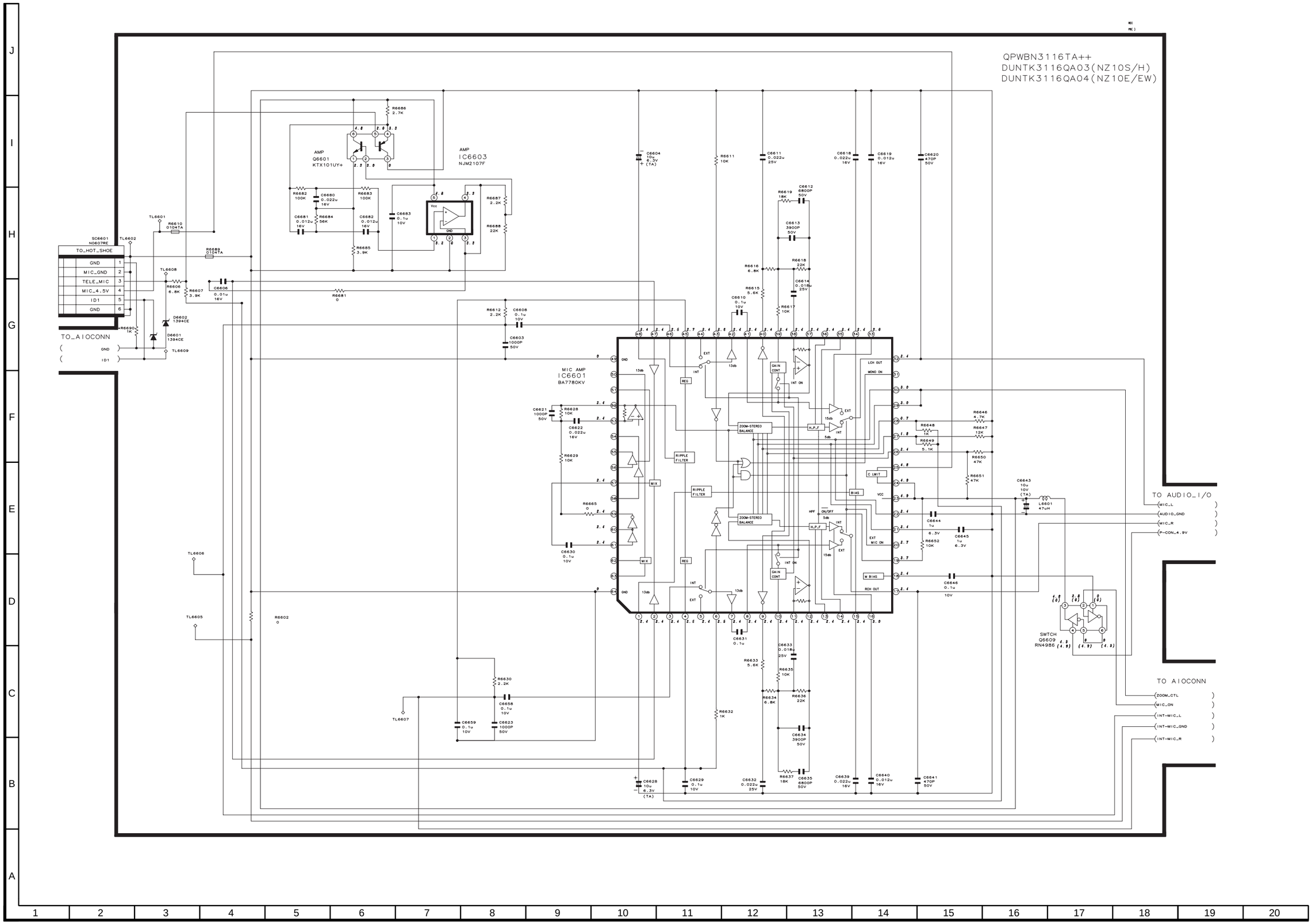
+C2611 1000P
+C2610 1000P

SC2602
N1160TA
TO SW_UNIT

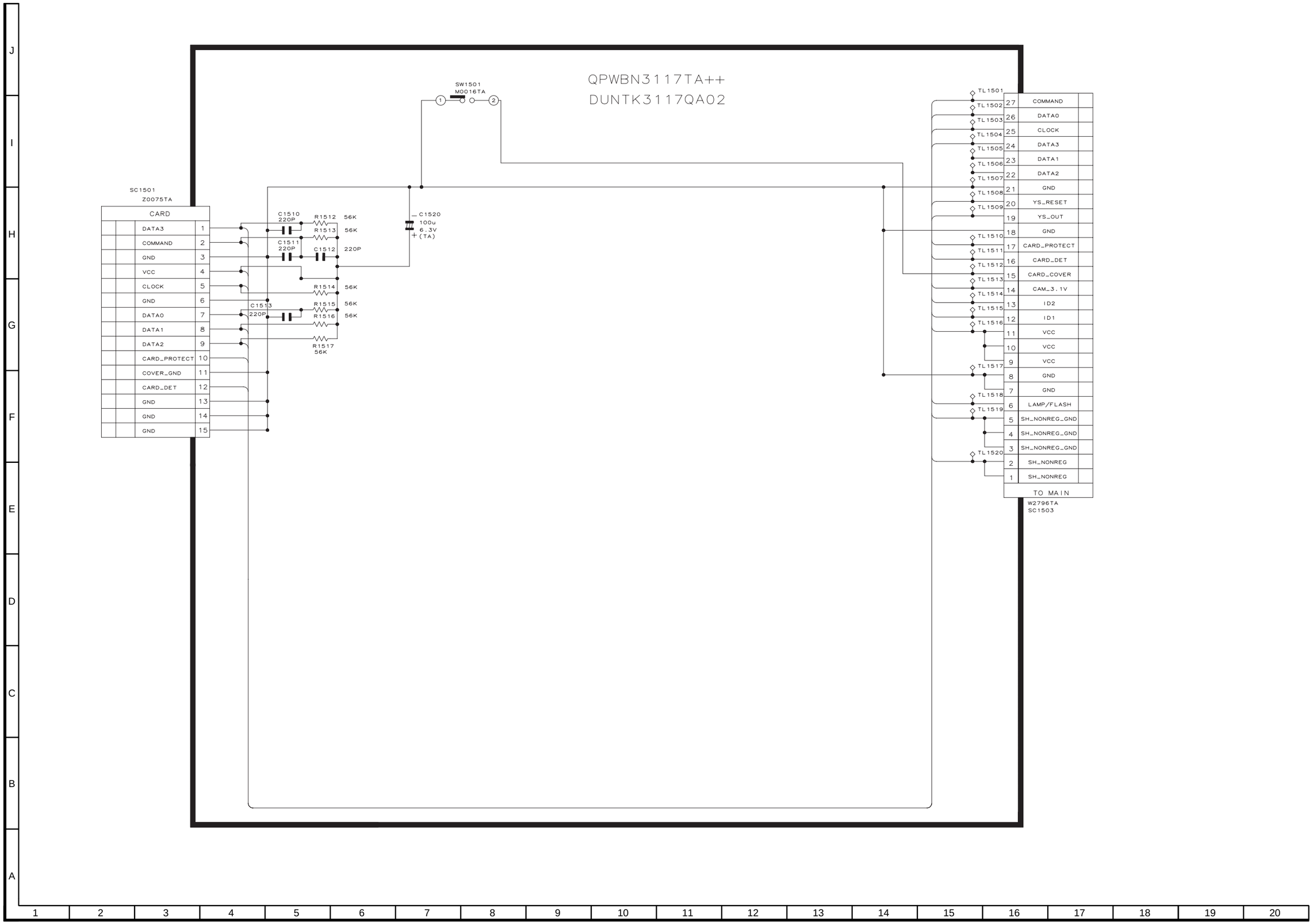
11	U_SW
10	D_SW
9	L_SW
8	R_SW
7	MENU_SW
6	RICKY
5	REC_SW
4	TAPE_CARD
3	GND
2	ZOOM_SW
1	ZOOM_VCC

U_SW TL2676
D_SW TL2677
L_SW TL2678
R_SW TL2679
MENU_SW TL2680
RICKY TL2681
REC_SW TL2682
TAPE/CARD TL2684
TL2685
GND
ZOOM_SW TL2686
P-CON_2.8V TL2690

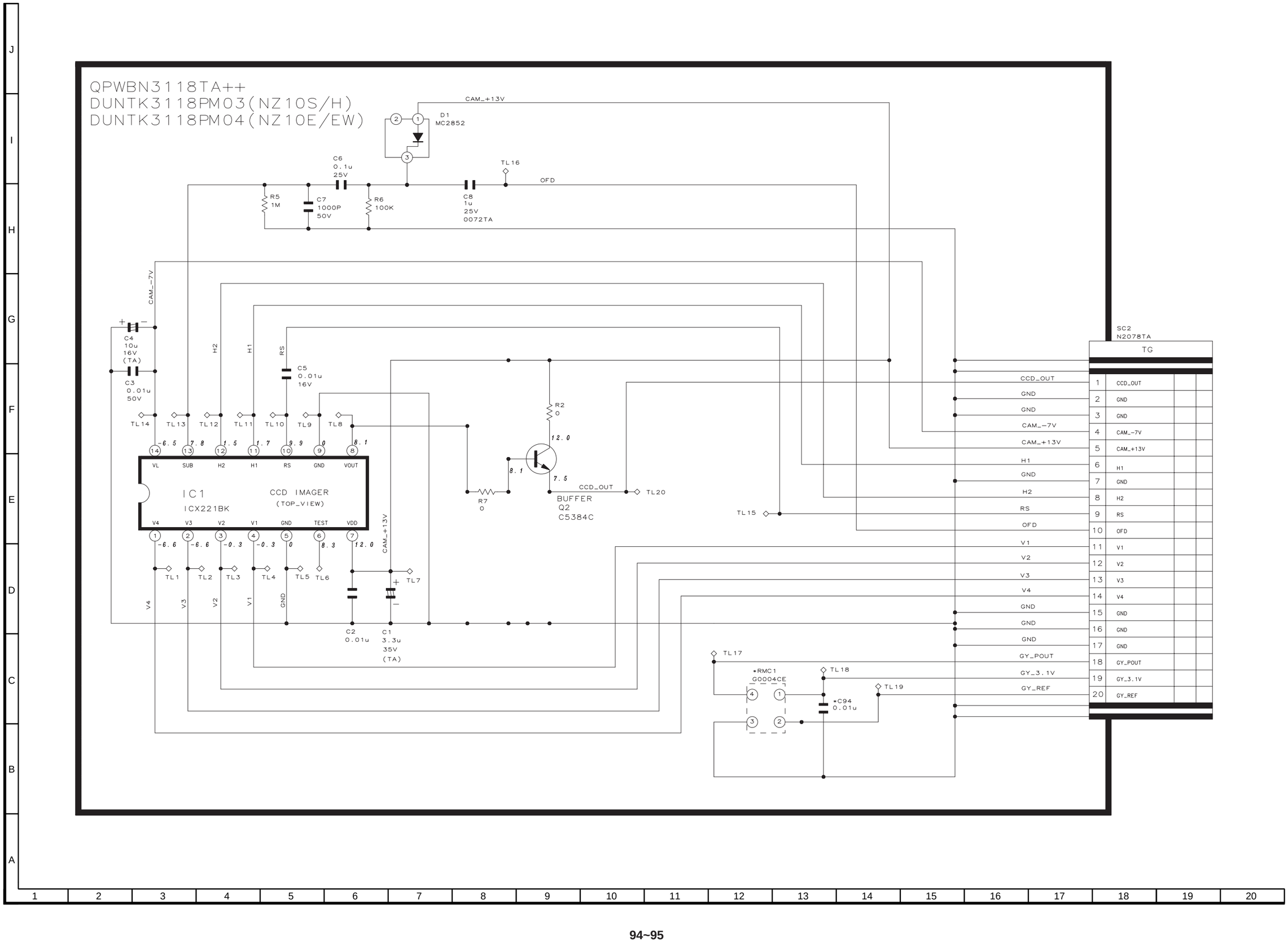
13-22. MIC AMP SCHEMATIC DIAGRAM



13-23. CARD SCHEMATIC DIAGRAM

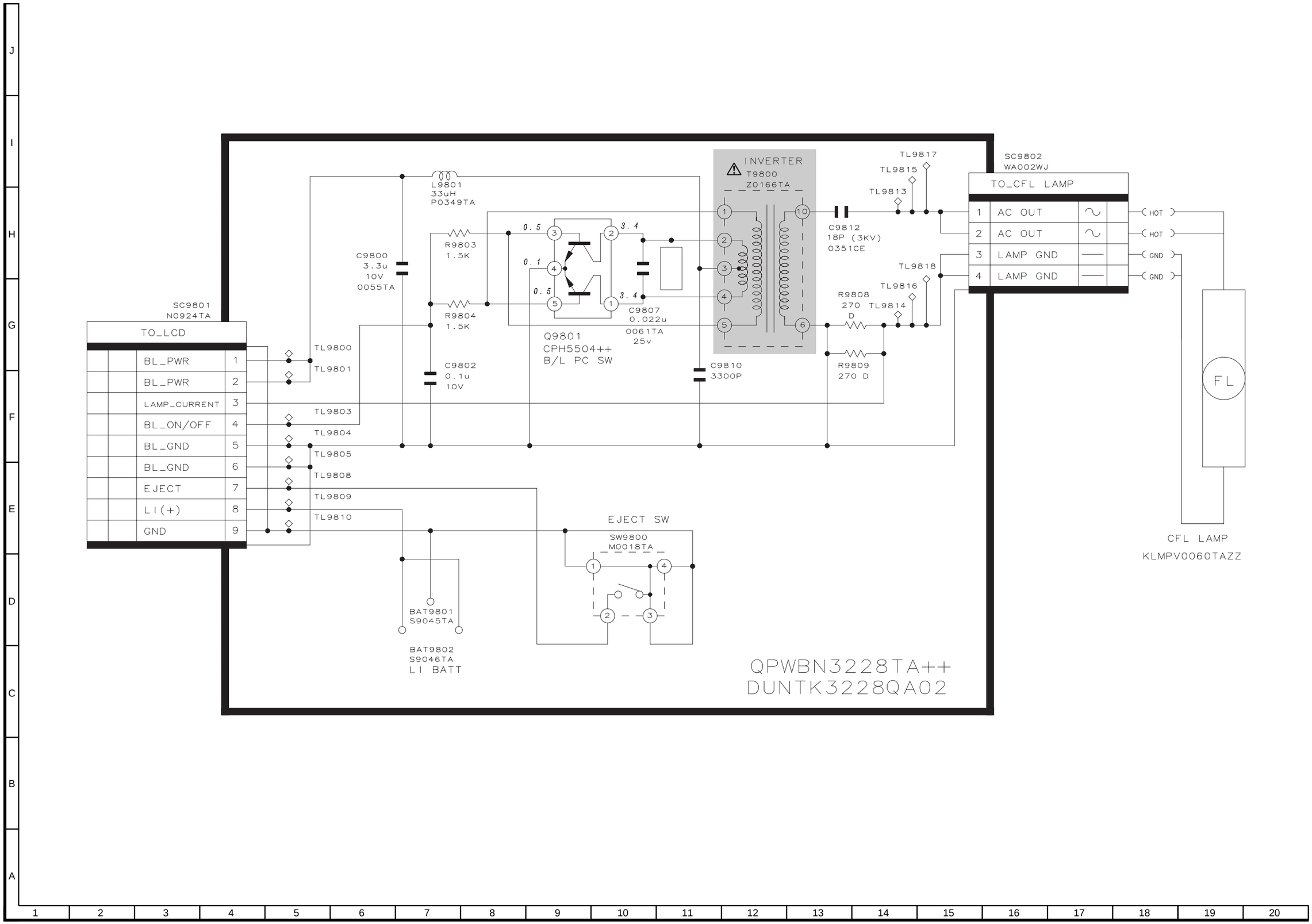


13-24. CCD SCHEMATIC DIAGRAM

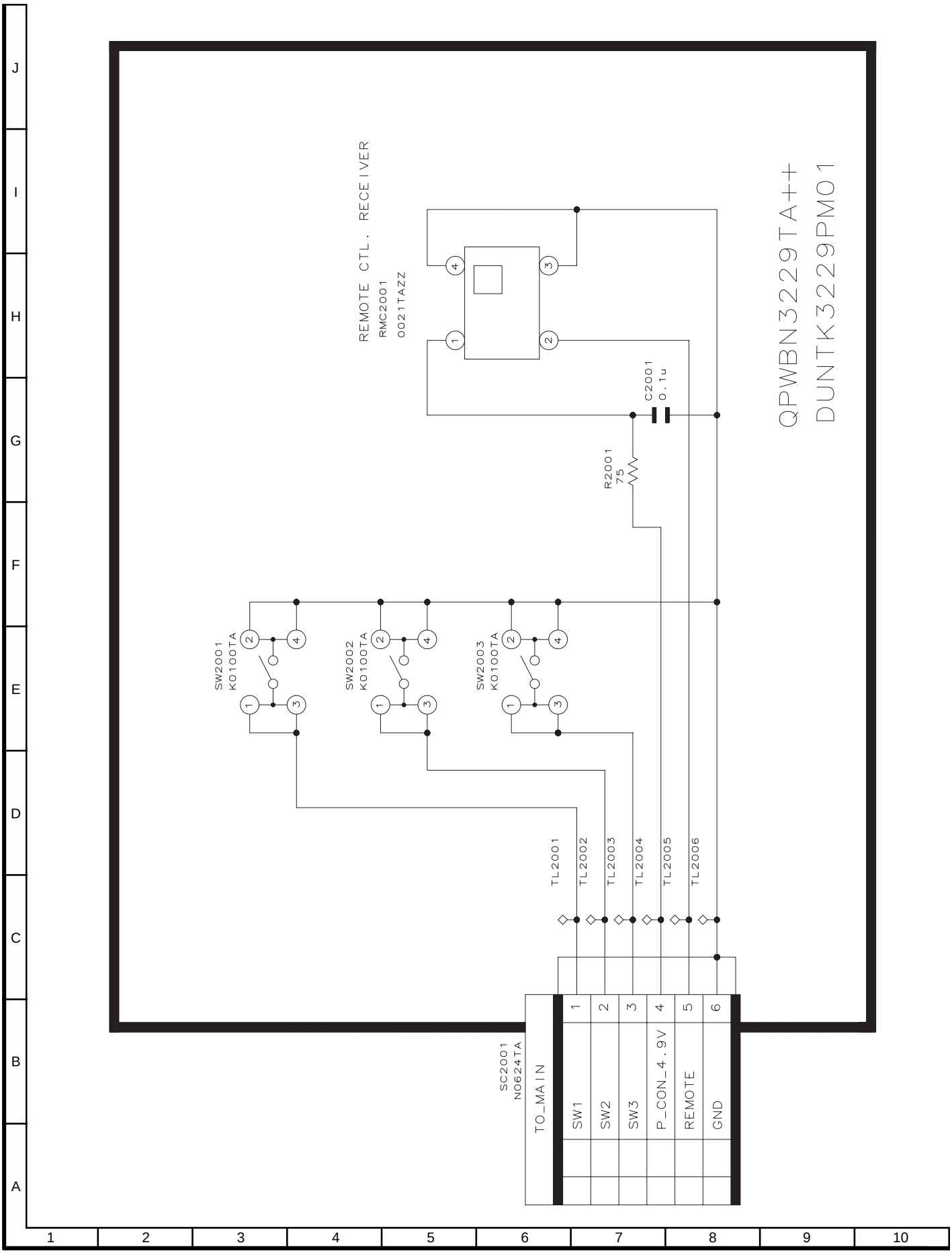


13-25. INVERTER SCHEMATIC DIAGRAM

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

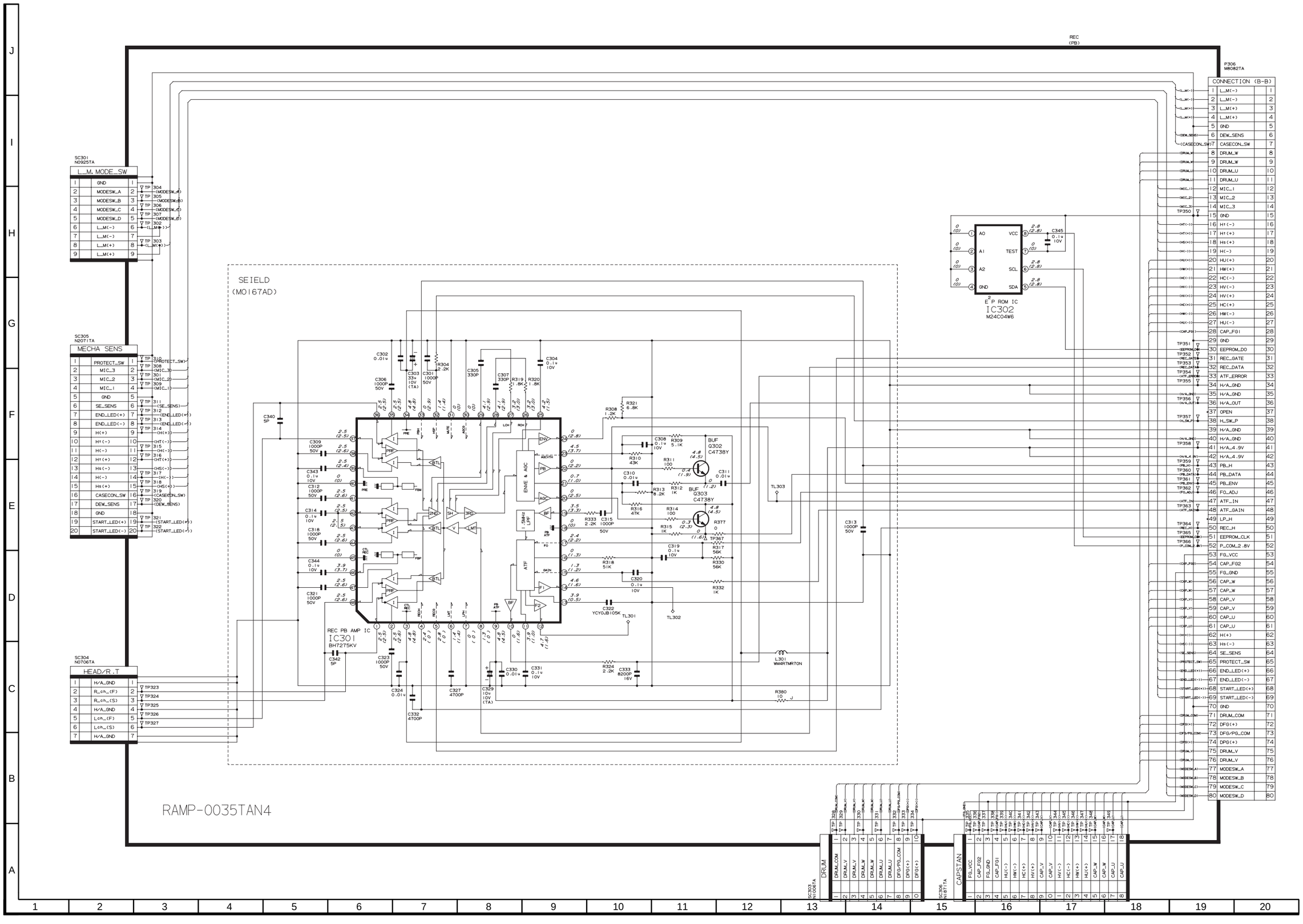


13-26. OPERATION SCHEMATIC DIAGRAM

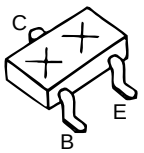


- M E M O -

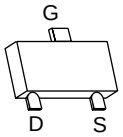
13-27. HEAD AMP SCHEMATIC DIAGRAM



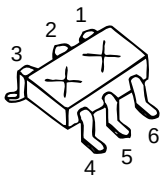
14. SEMICONDUCTOR LEAD IDENTIFICATION



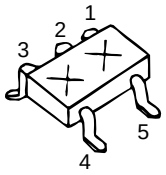
2SC4738Y KRC402E
FMMT717 KRC404E
FMMT619 KTA2014EY
2SC5384C KTC4075EY
2SC4213B UN9214



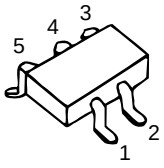
3LN01S
3LP01S



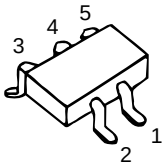
HN2A01FU RN4986
HN1B04FU RN4990
HN2C01FU
XP05534
KRX203U
KTX101UY



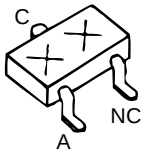
2SC4944Y TCSZ04U
TA75S01F NJM2107F
TC7S08U
S80937AN



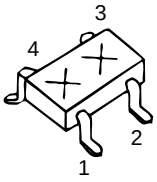
CPH5504



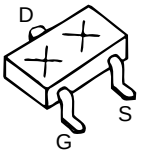
FMG12



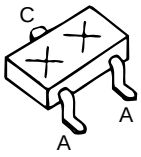
MC2852



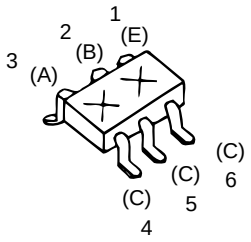
RQ5RW28B



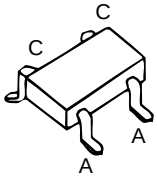
NDS332P
NDS355AN



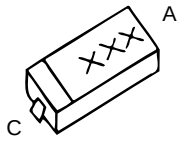
MA132WK
DX0182TA



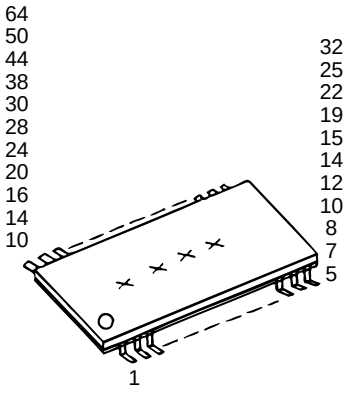
CPH6702



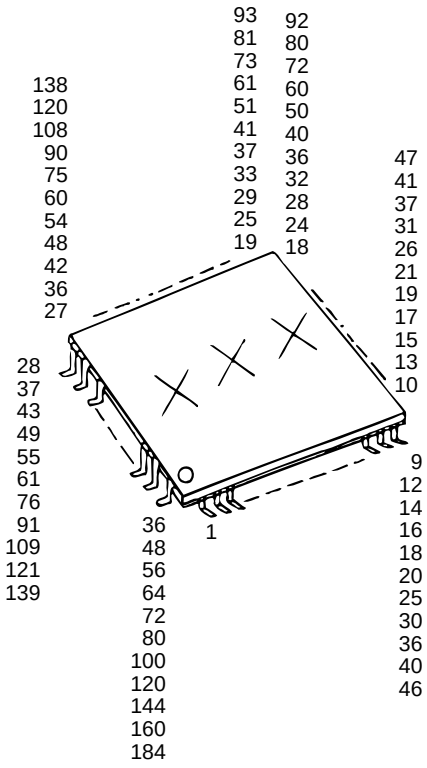
MA4S159



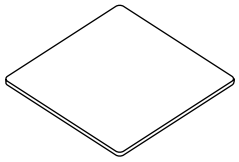
KV1812K HVU362
EX1394CE
HVC359TR



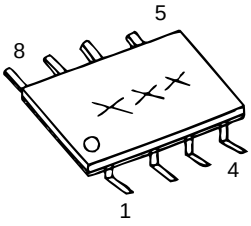
NJM2538B MM1323XV
UPD16835 ADC08351
NJM2902V CXA2096N
LV4051AT PCM3008
MB88146A IX0931TA



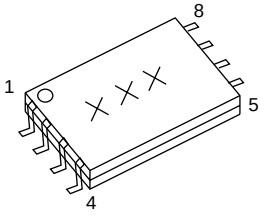
BH7277KV CXD2489R
BA7780KV LB11990W
MB3881++ BH7761KV
MB88344F ADS933Y



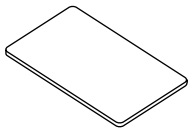
IX0850TA
IX0809TA
IX0707TA



NJM2143R
TLC2940
SN2G04CT
SN2G53CT



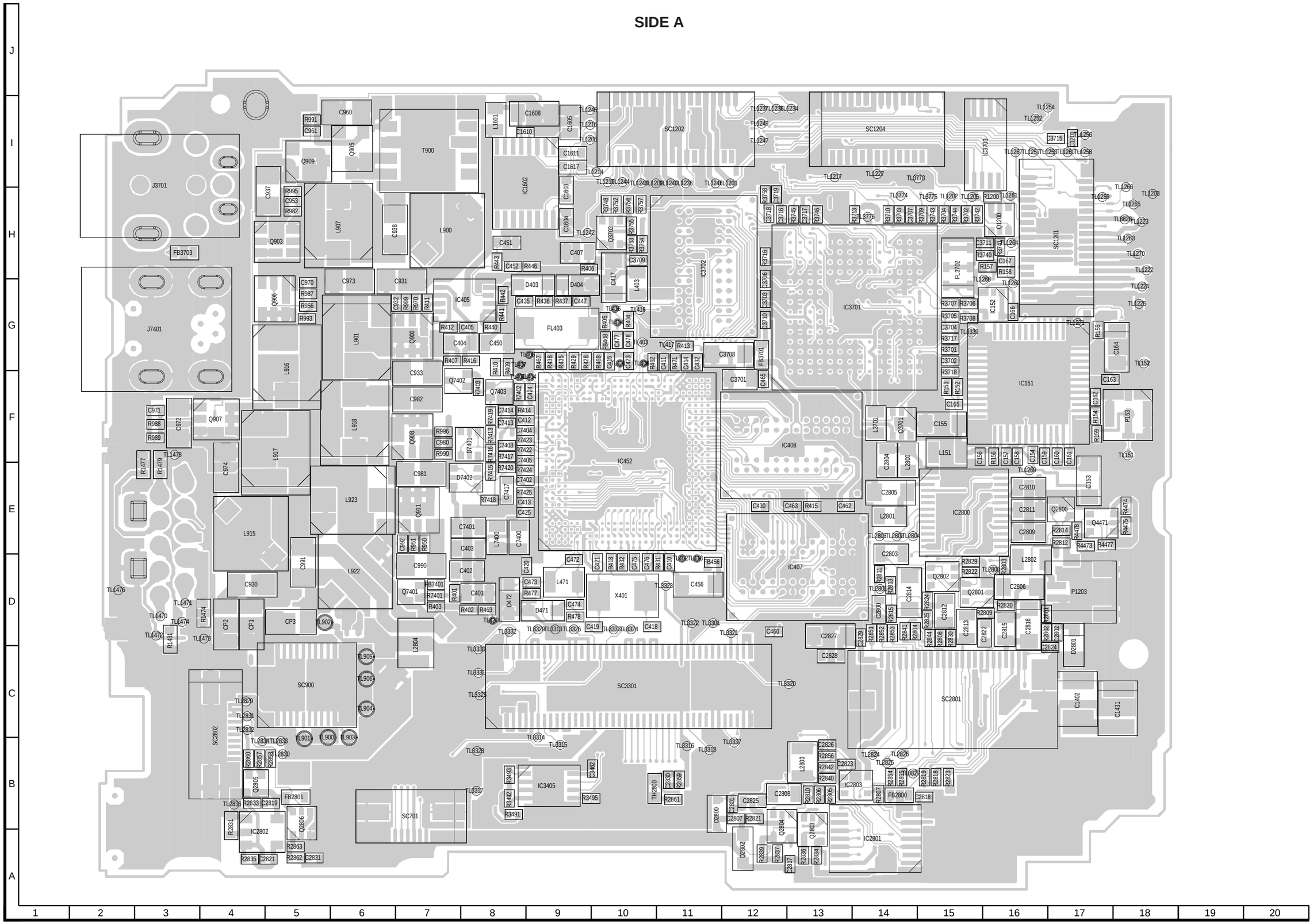
NJM2535V
RS5C313/
BR2408FV
BR2416FV
NJU7015R



IX0927TA

16. PRINTED WIRING BOARD ASSEMBLIES MAIN PWB

SIDE A


J
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J7401
FB3703
T900
L900
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L907
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SC2802
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SC2801
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IC3702
IC3703
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IC405
IC452
IC408
IC407
IC2800
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IC2803
IC2801
IC151
IC152
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L2801
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L2803
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P153
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C1605
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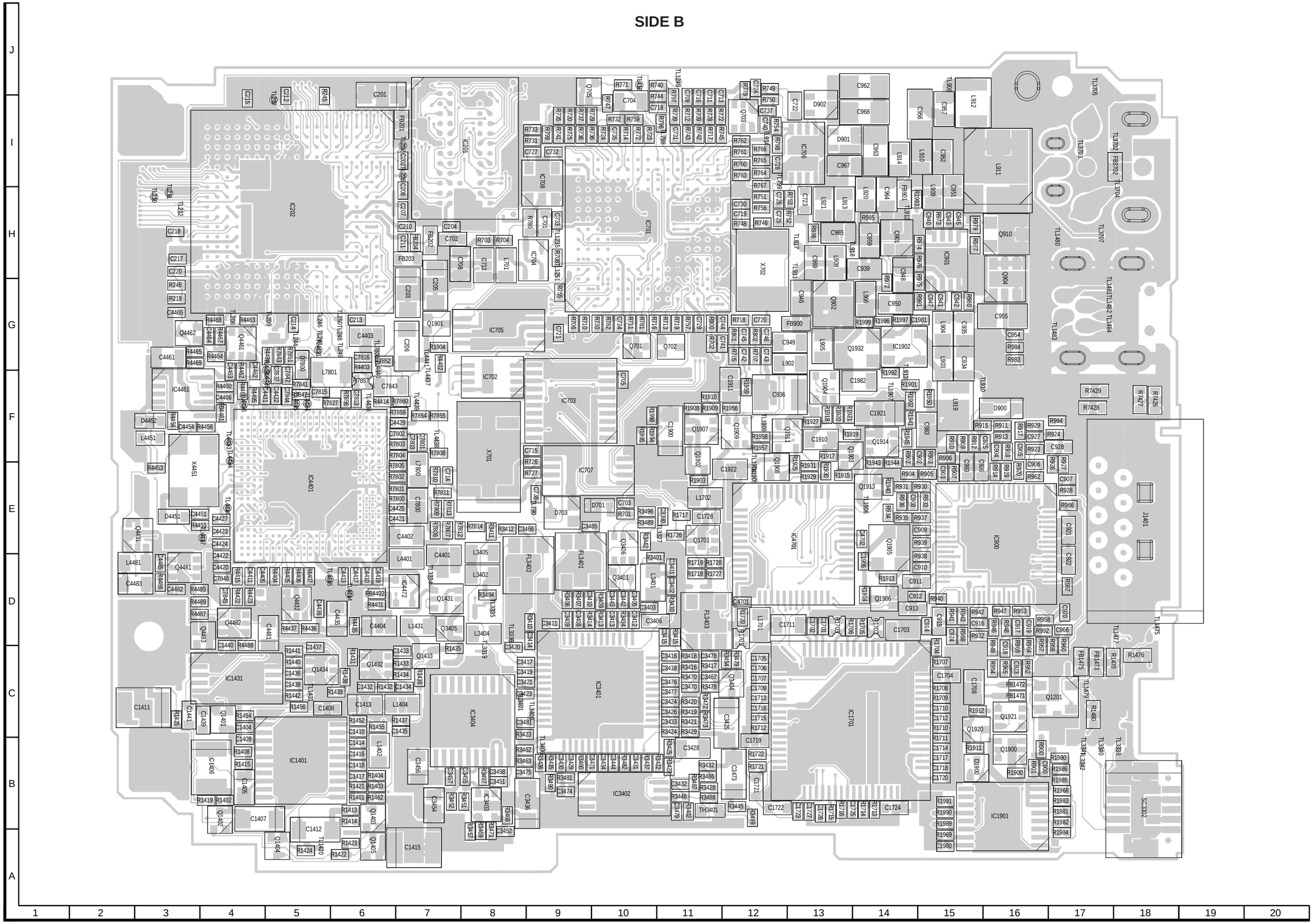
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CAMERA HEAD PWB

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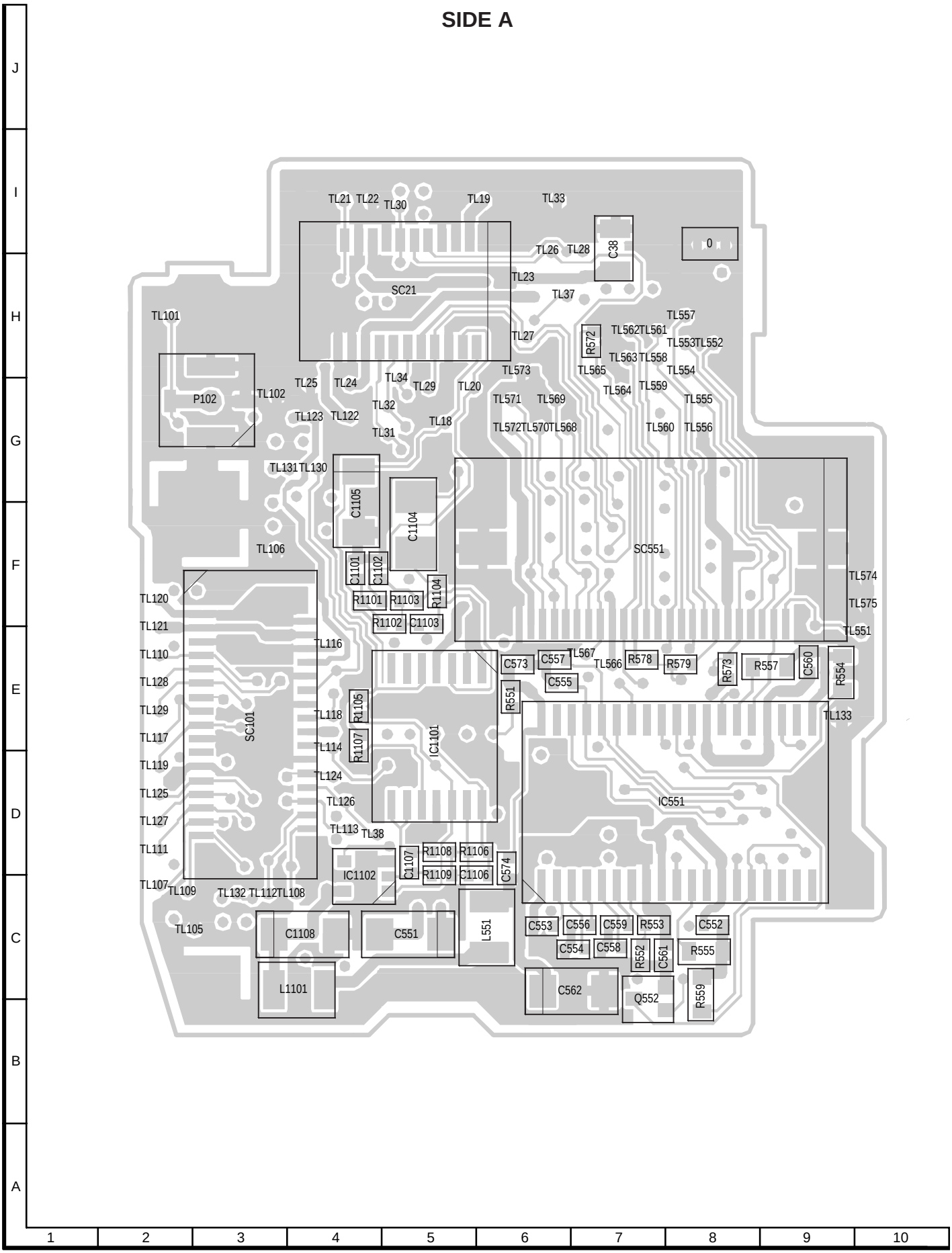

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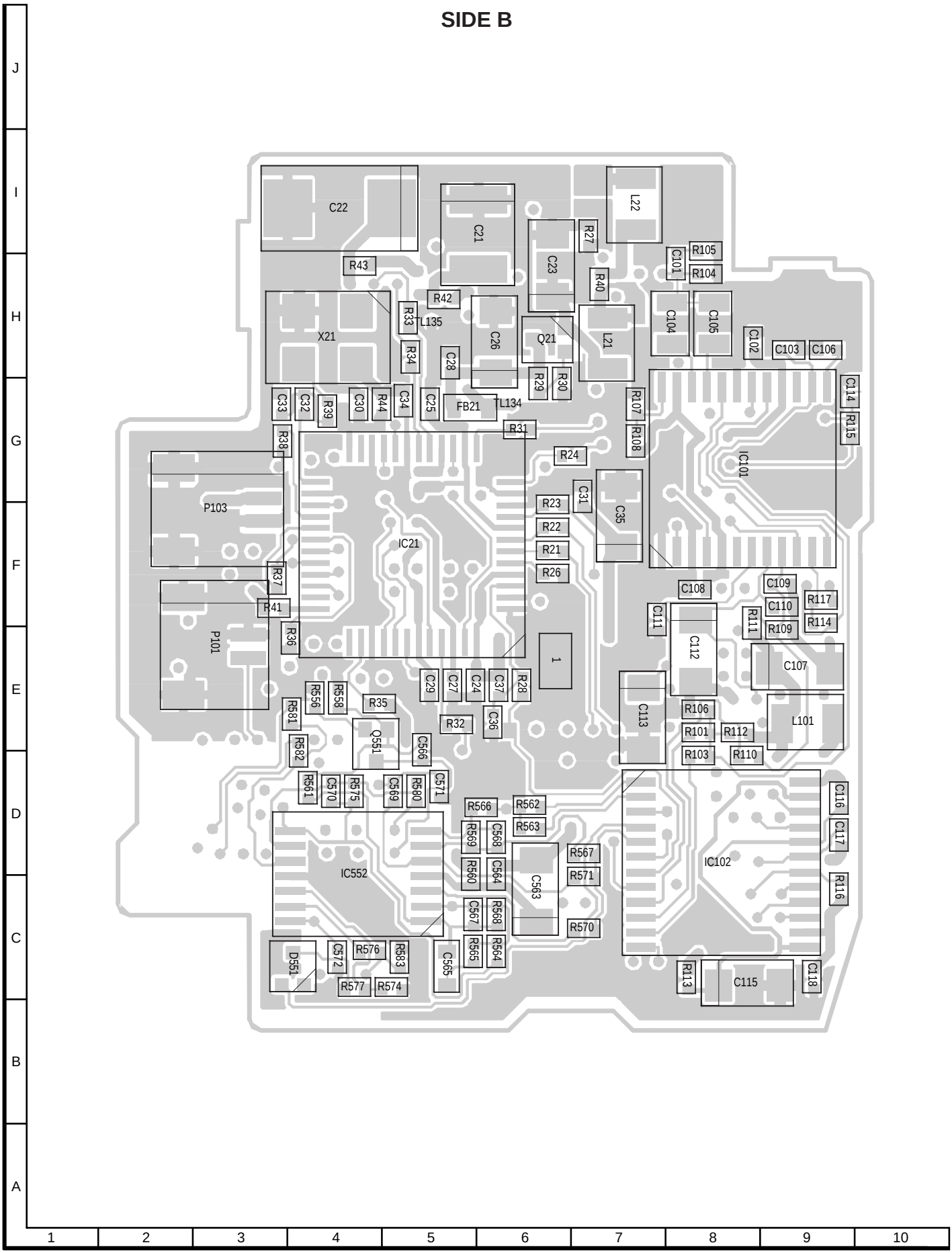
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AUDIO I/O PWB

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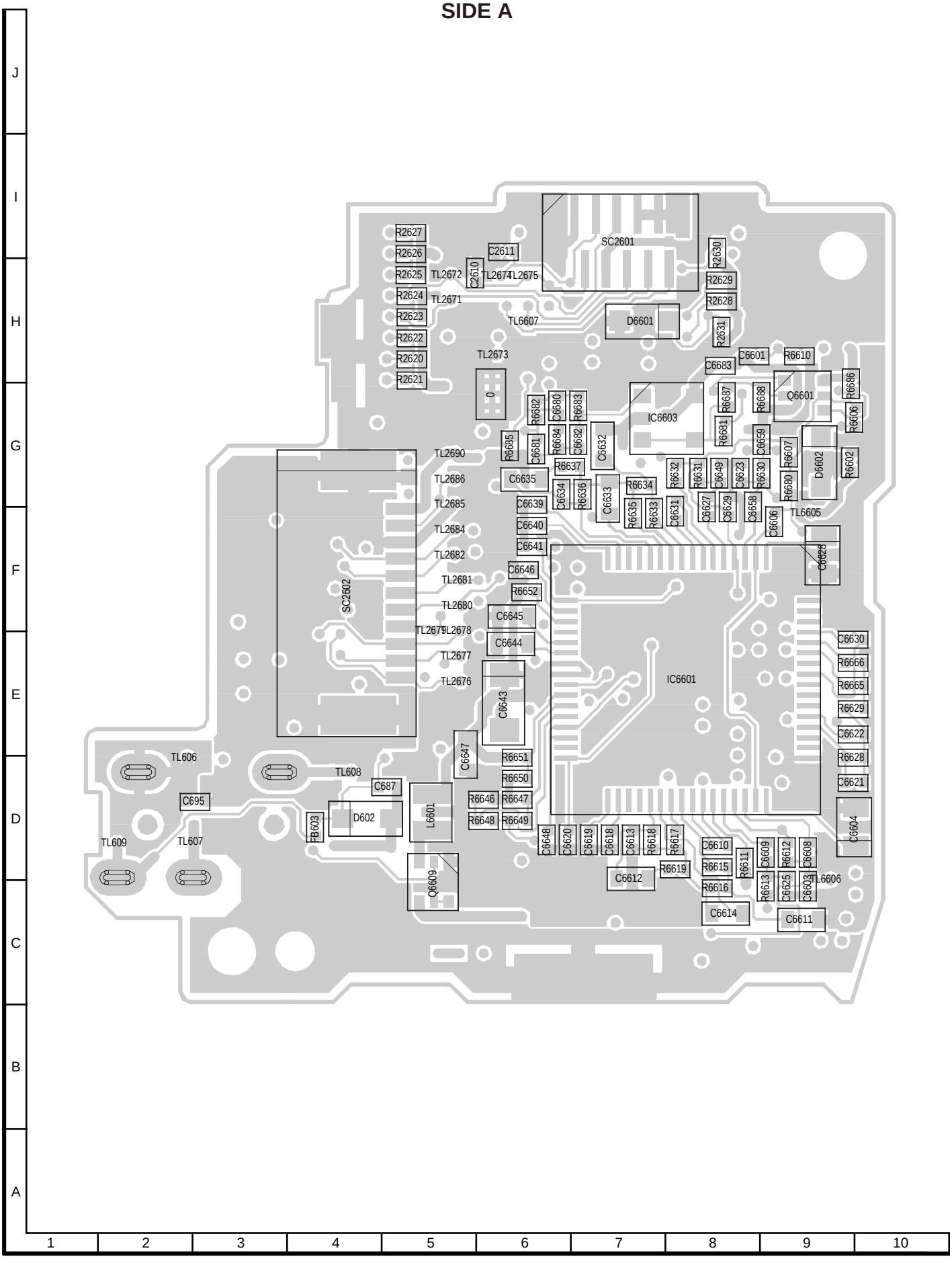

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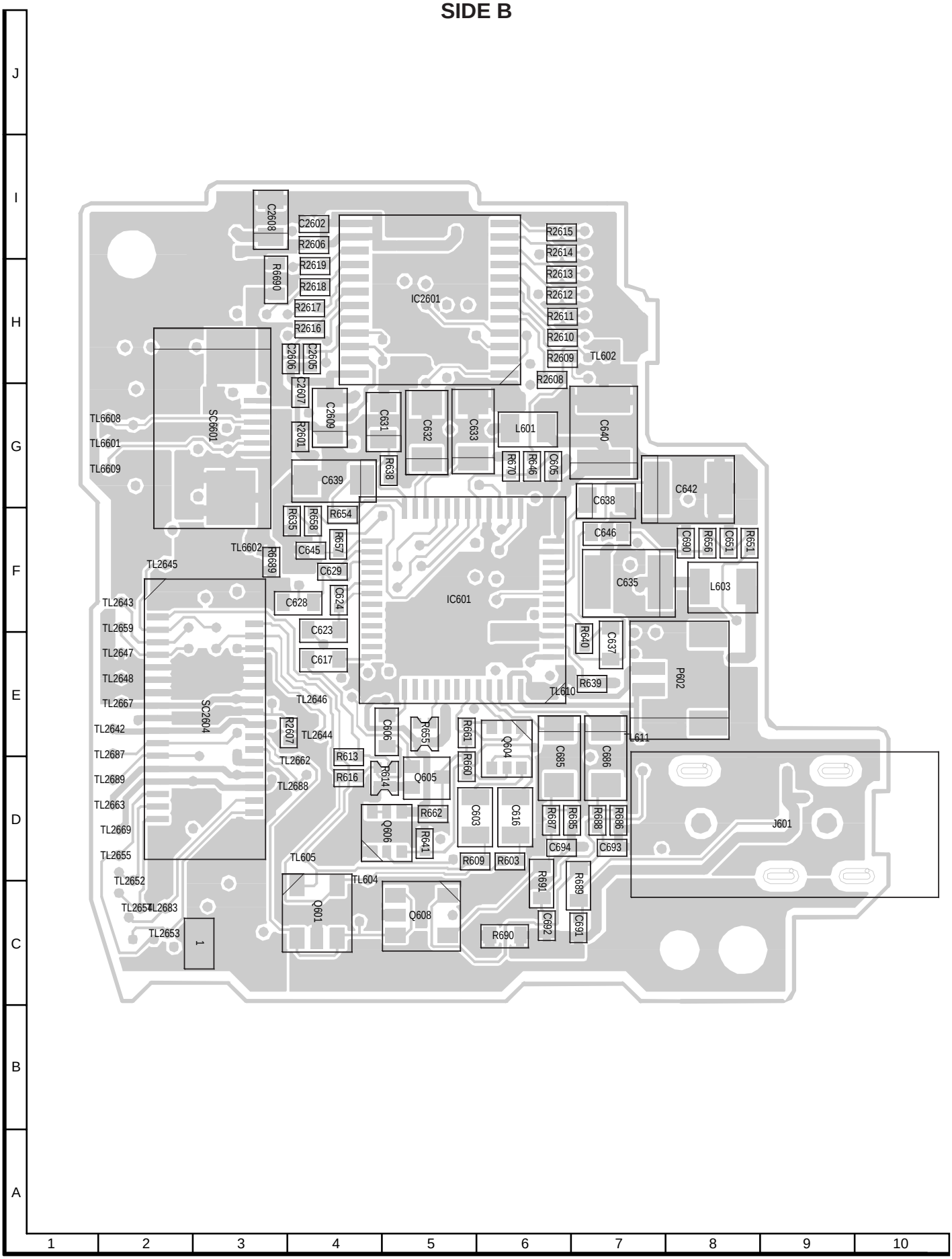
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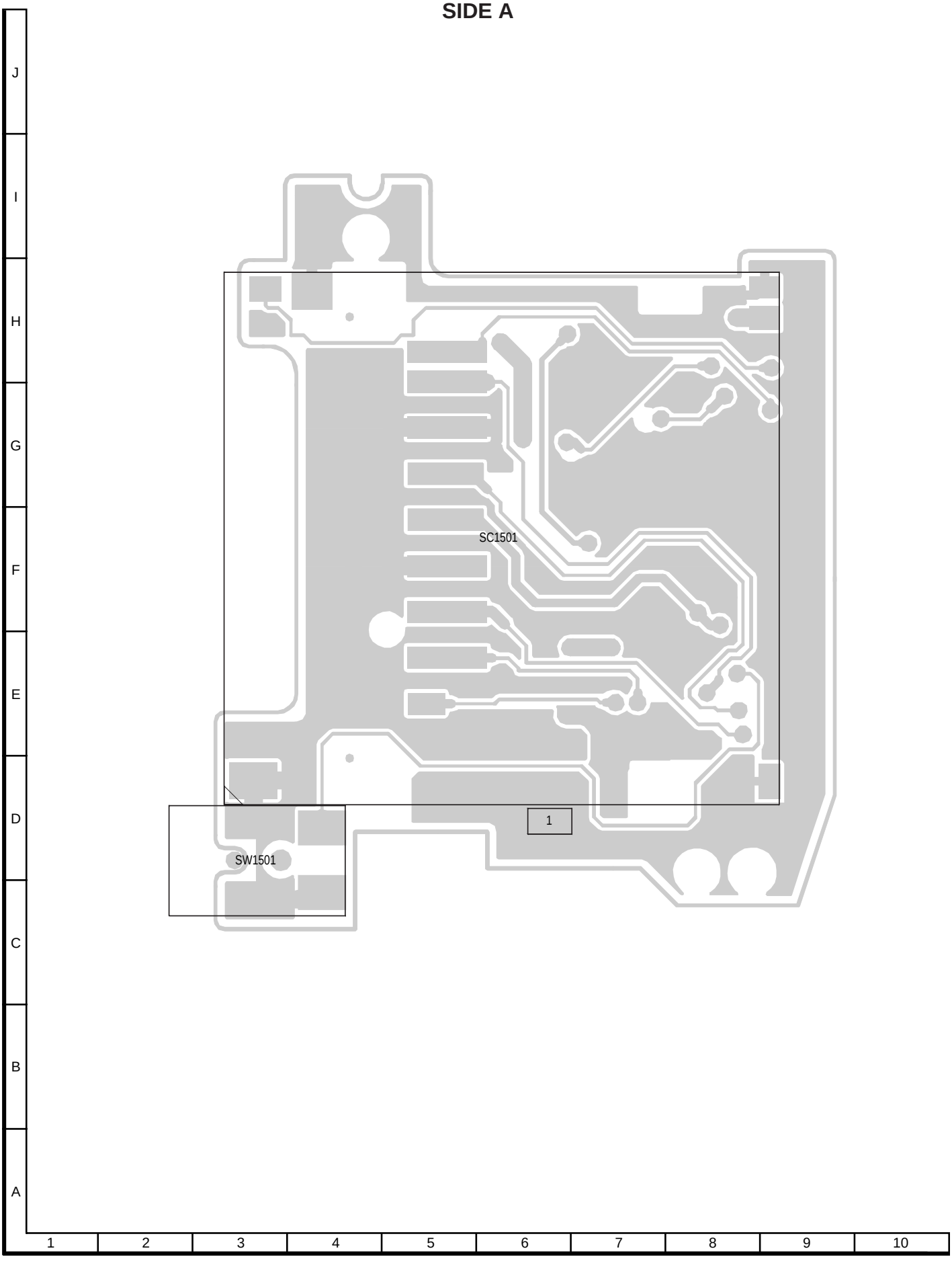
CARD PWB

SIDE A



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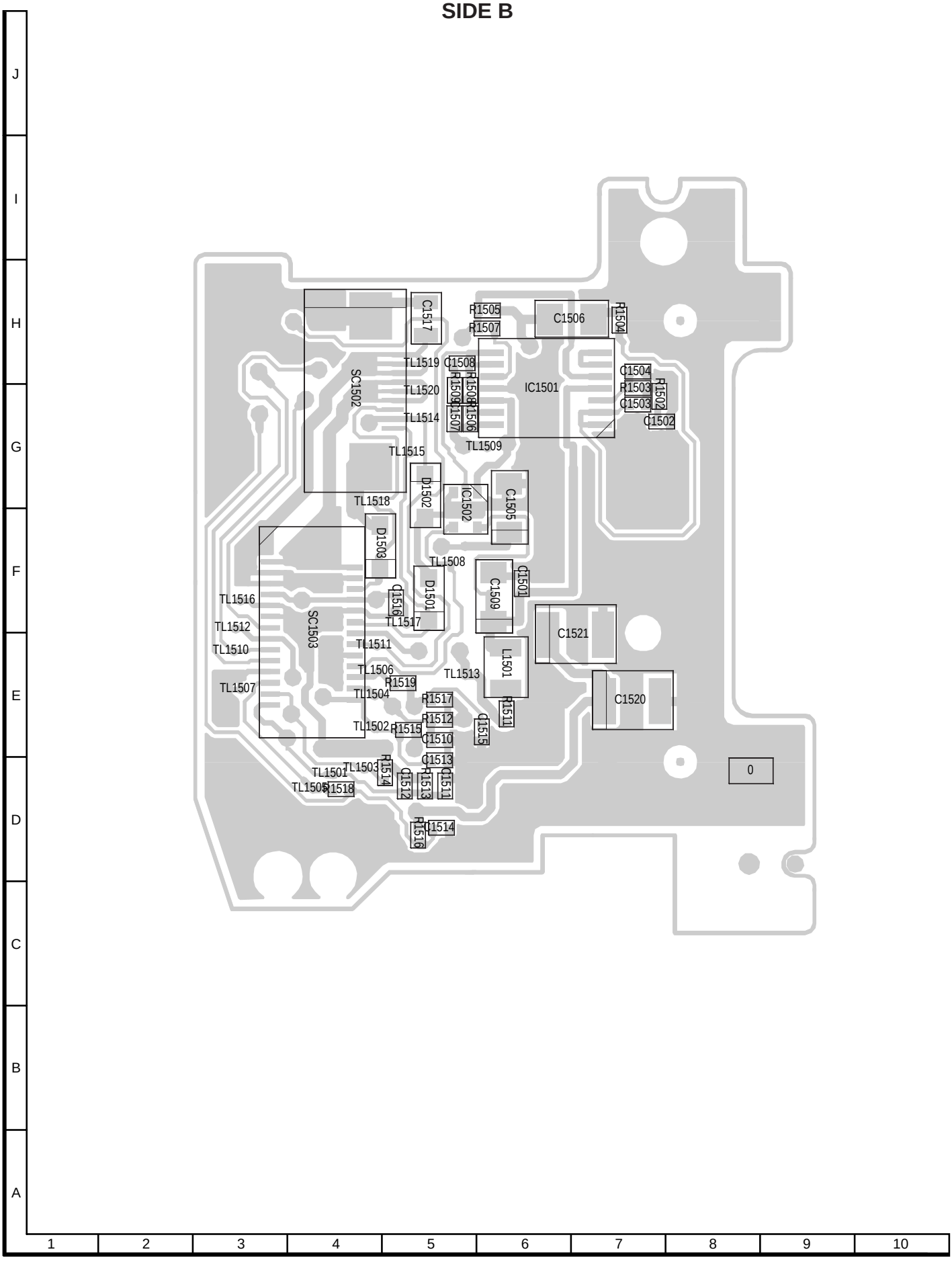
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CCD PWB

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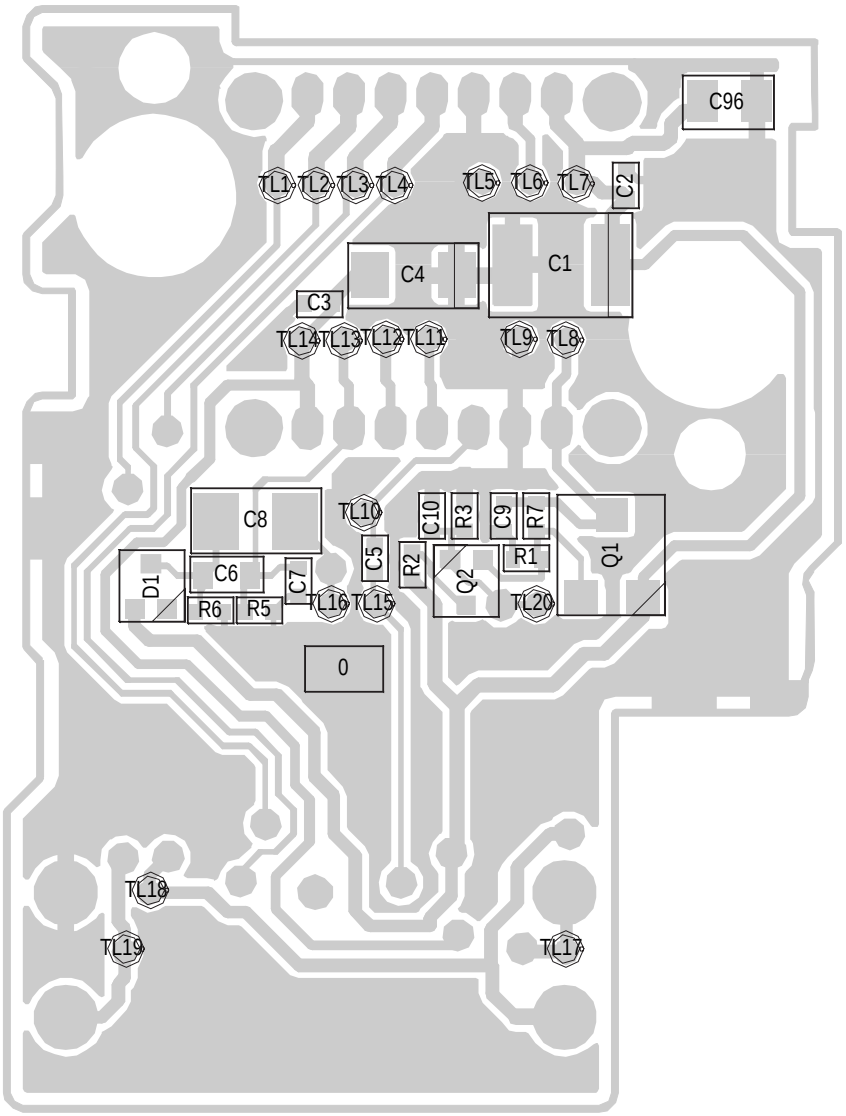

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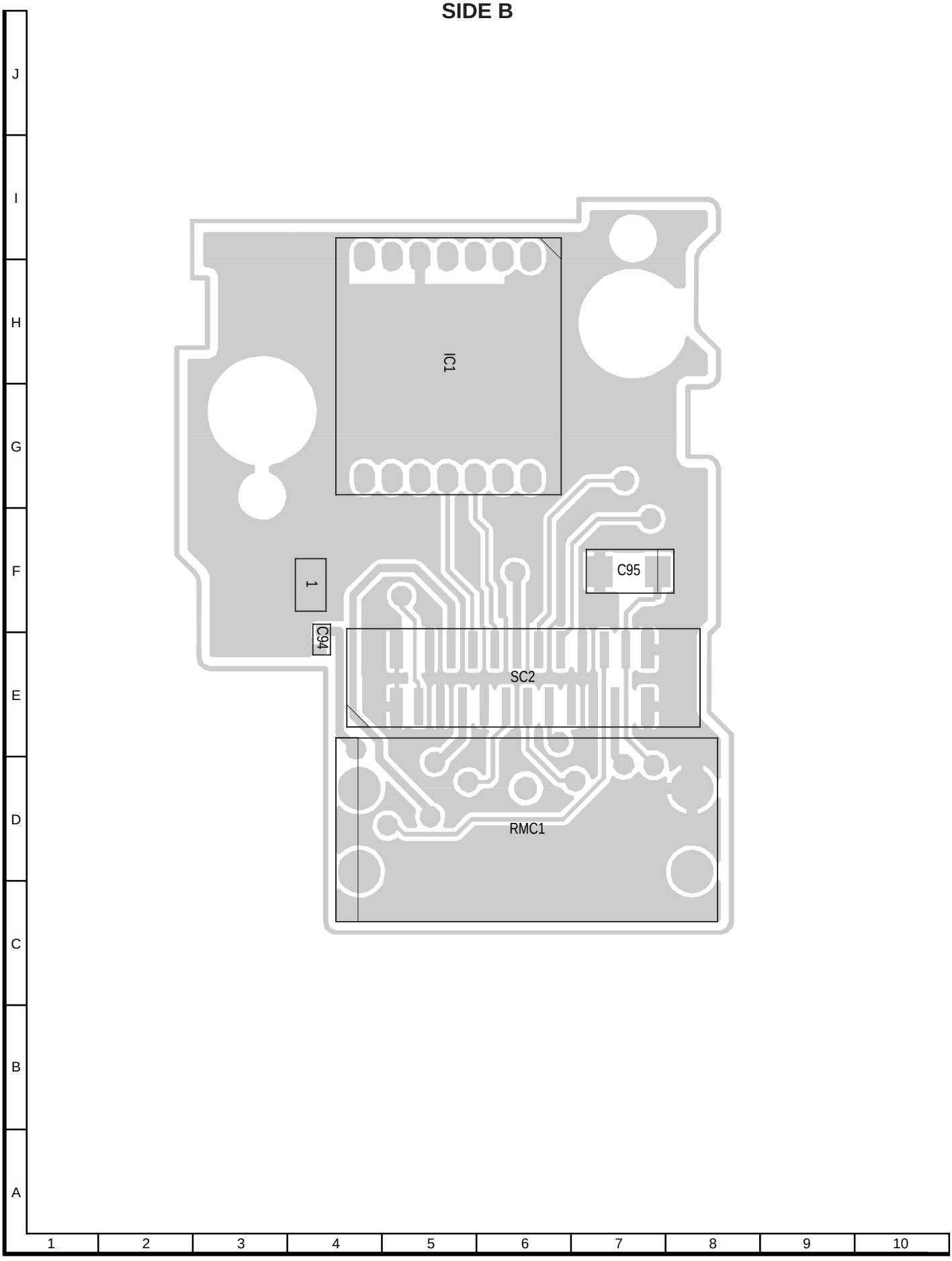

INVERTER PWB

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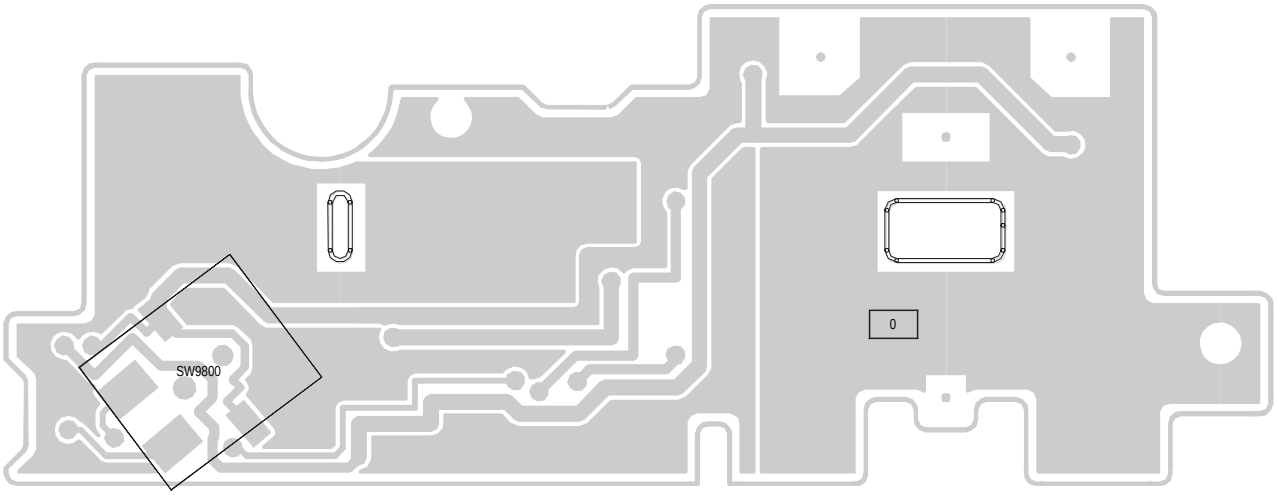

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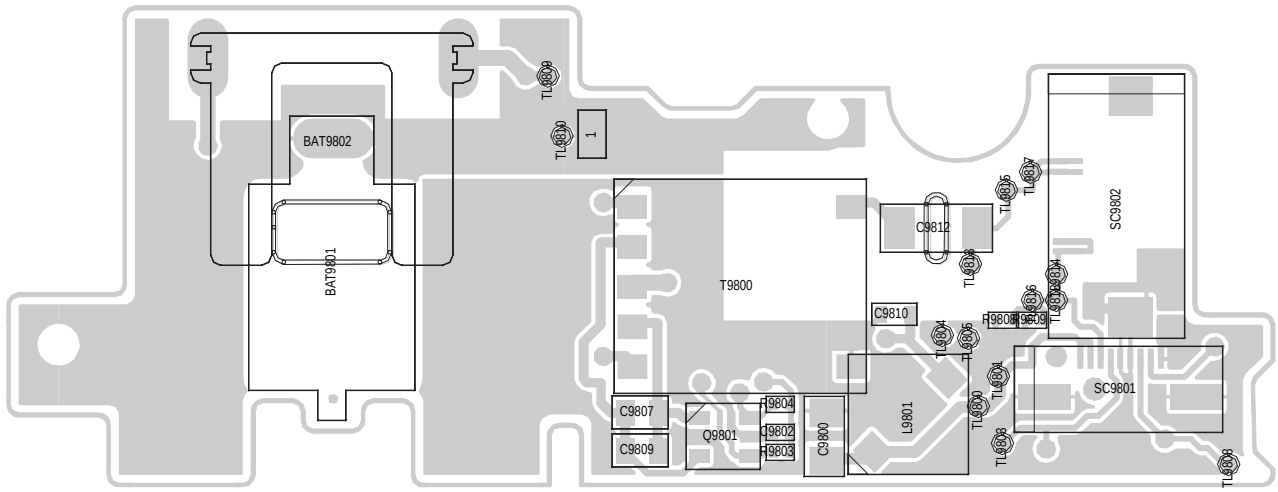
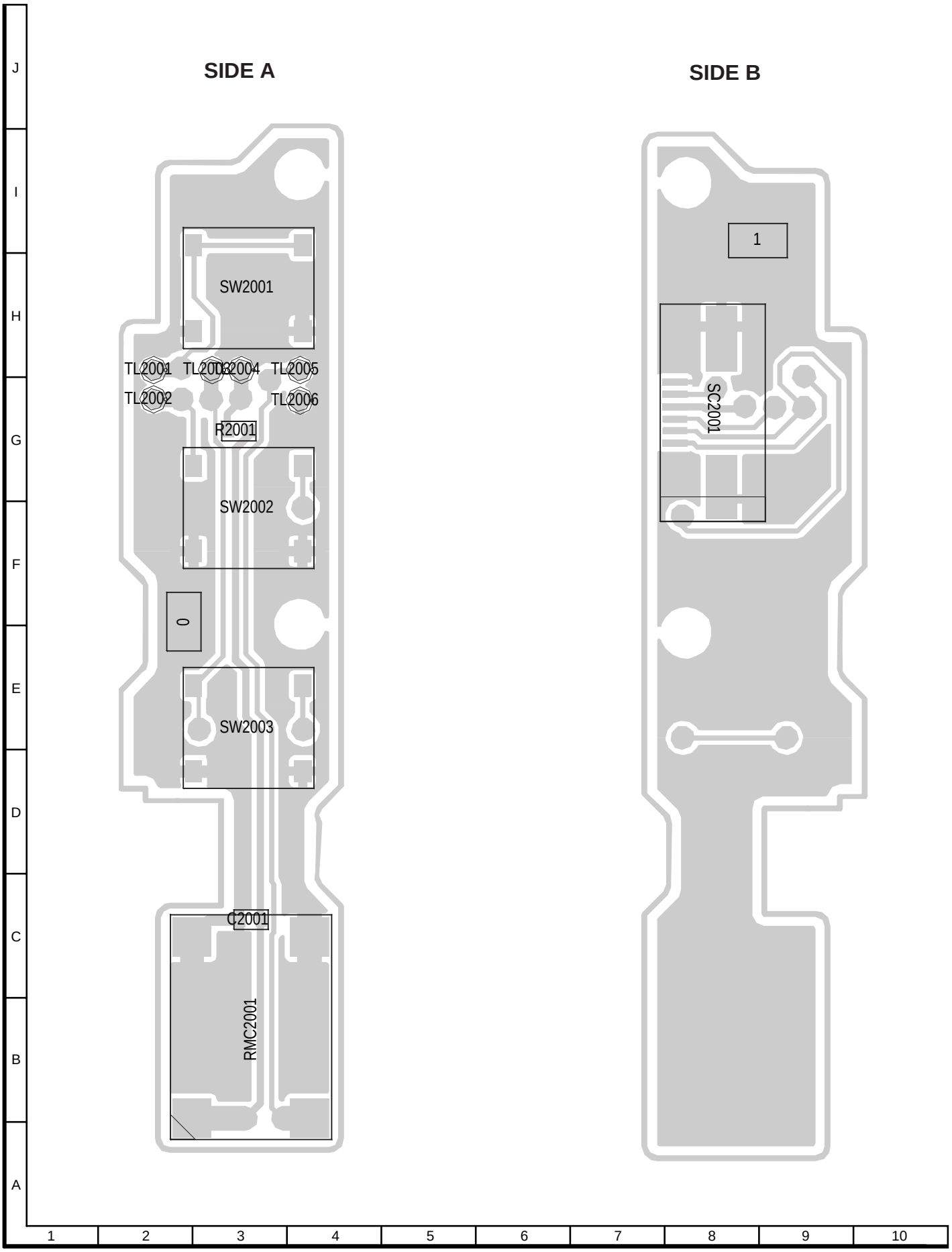
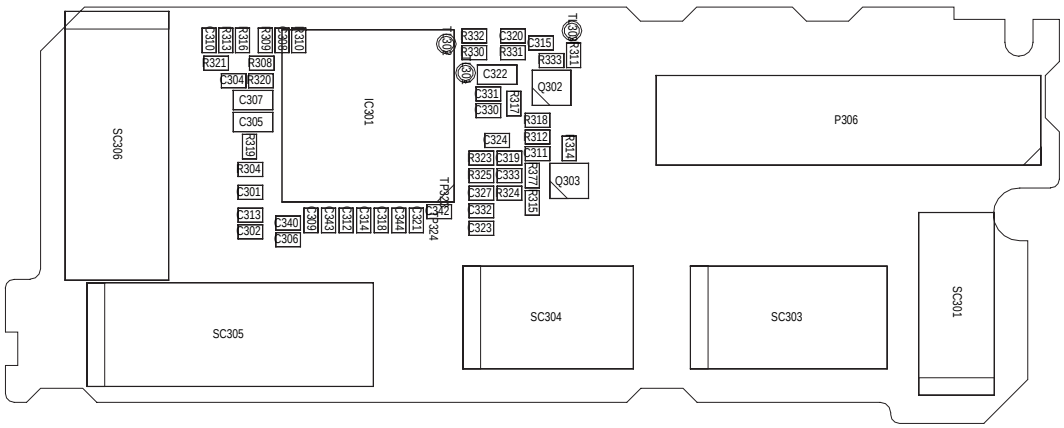


OPERATION PWB

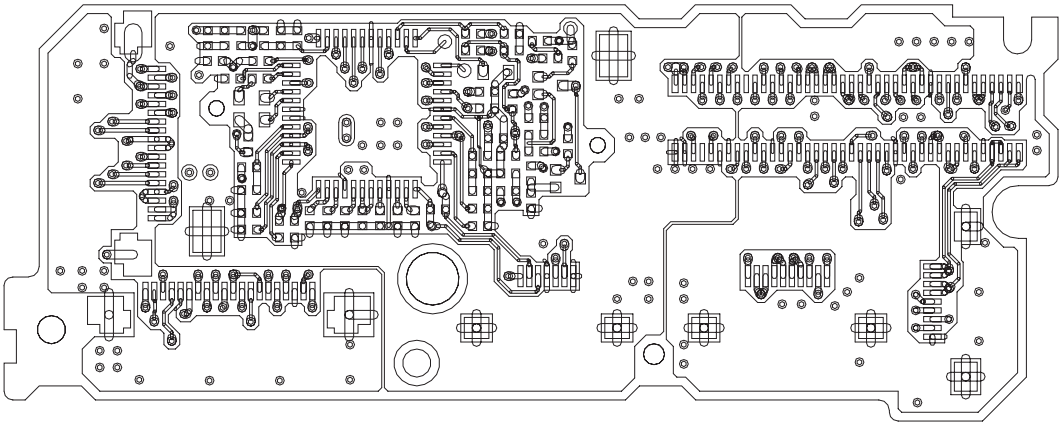


HEAD AMP PWB

Component Side SIDE A



Wiring Side SIDE A



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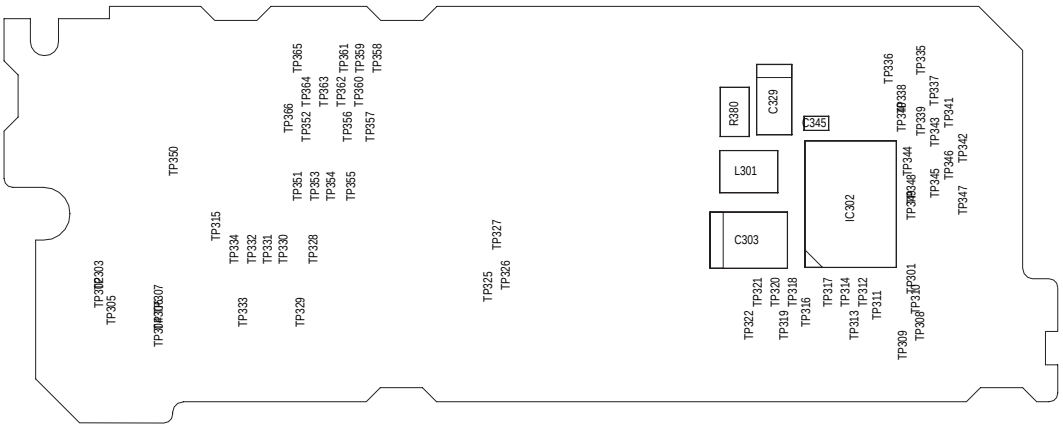
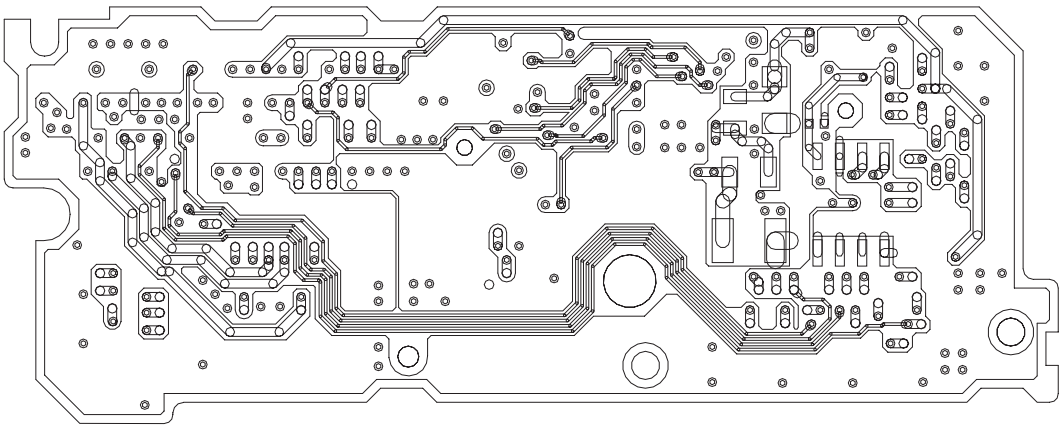
Component Side SIDE B



Wiring Side SIDE B



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16. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

"HOW TO ORDER REPLACEMENT PARTS"

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER **2. REF. NO.**
3. PART NO. **4. DESCRIPTION**
5. PRICE CODE

⚠ MARK: SAFETY RELATED PARTS

PWB ASSEMBLY IS NOT REPLACEMENT ITEM

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES *(NOT REPLACEMENT ITEM)*

	DUNTK3114QA01	MAIN PWB Unit(VL-NZ10S)	—
	DUNTK3114QA02	MAIN PWB Unit(VL-NZ10H)	—
	DUNTK3114QA03	MAIN PWB Unit (VL-NZ10E/EW)	—
	DUNTK3115QA03	CAMERA HEAD PWB Unit (VL-NZ10S/H)	—
	DUNTK3115QA04	CAMERA HEAD PWB Unit (VL-NZ10E/EW)	—
	DUNTK3116QA03	AUDIO I/O PWB Unit (VL-NZ10S/H)	—
	DUNTK3116QA04	AUDIO I/O PWB Unit (VL-NZ10E/EW)	—
	DUNTK3117QA02	CARD PWB Unit	—
	DUNTK3118PM03	CCD PWB Unit (VL-NZ10S/H)	—
	DUNTK3118PM04	CCD PWB Unit (VL-NZ10E/EW)	—
	DUNTK3228QA02	INVERTER PWB Unit	—
	DUNTK3229PM01	OPERATION PWB Unit	—
	RAMP-0035TAN4	HEAD AMP PWB Unit	—

Ref. No.	Part No.	★	Description	Code

DUNTK3114QA01(VL-NZ10S) DUNTK3114QA02(VL-NZ10H) DUNTK3114QA03(VL-NZ10E/EW) MAIN PWB UNIT

INTEGRATED CIRCUITS

⚠	CP1	VHiCCP2B25/-1	CCP2B25	AD
⚠	CP2	VHiCCP2B25/-1	CCP2B25	AD
⚠	CP3	VHiCCP2B25/-1	CCP2B25	AD
	IC151	VHiADS933Y/-1	ADS933Y, 10Bit A/D Converter	AR
	IC201	RH-iX0927TAZZQ	IX0927TA, 16M SDRAM	AY
	IC202	RH-iX0850TAZZQ	IX0850TA, Digital Signal Process	BC
	IC405	VHiNJU7015R-1Y	NJU7015R, DC Amp	AF
	IC407	RH-iX0927TAZZY	IX0927TA, Codec External Memory 16M SDRAM	AY
	IC408	RH-iX0927TAZZY	IX0927TA, ECC External Memory 16M SDRAM	AY
	IC452	RH-iX0809TAZZ	IX0809TA, Codec/ECC/ PCM/CLK. GenDif	BM
	IC701	RH-iXA081WJPZQ	IXA081WJ, Mec/System Micon	BA
	IC702	VHiSN2G04CT-1	SN2G04CT, Inverter	AE
	IC703	RH-iX0940TAZZY	IX0940TA, Character Generator	AL
	IC704	VHiRQ5RW28B-1	RQ5RW28B, Sys 2.8V Regulator	AE
	IC705	VHiBR2408FV-1Y	BR2408FV, E²PROM	AF
	IC706	VHiNJM2143R-1	NJM2143R	AE
	IC707	VHiRS5C313/-1	RS5C313, Timer	AL
	IC708	VHiS80937AN-1	S80937AN, Reset	AD
	IC900	VHiMB3881++-1	MB3881++, Power CTL	AT
	IC901	VHiNJM2143R-1	NJM2143R, 2.8V/2.5V Reg	AE
	IC1401	VHiNJM2538B-1	NJM2538B, Video Out	AM
	IC1431	VHiNJM2535V-1	NJM2535V, Video In SW	AE
	IC1602	VHiPCM3008+-1Y	PCM3008+, 16Bit ADC/DAC	AN
	IC1701	VHiLB11990W-1	LB11990W, Motor Driver	AR
	IC1901	VHiLV4051AT-1	LV4051AT, Power Check	AE
	IC1902	VHiTA75S01F-1	TA75S01F	AD
	IC2800	VHiMM1323XV-1	MM1323XV, LCD Interface	AN
	IC2802	VHiTA75S01F-1	TA75S01F, I DET	AD
	IC2803	VHiTC7S04U/-1	TC7S04U, CMOS Inv	AE
	IC3401	VHiBH7277KV-1	BH7277KV, EQ/PLL IC	AX
	IC3402	VHiTLC2940/-1	TLC2940, VCO IC	AM
	IC3403	VHiTCSZ04U/-1	TCSZ04U, Inv IC	AE
	IC3404	VHiADC08351-1	ADC08351, A/D Conv IC	AN
	IC3405	VHiSN2G53CT-1	SN2G53CT, SW IC	AE
	IC3701	RH-iXA080WJPZQ	IXA080WJ, Camera/Card Micro Computer	BA
	IC3702	RH-iX0927TAZZY	IX0927TA, 16M SDRAM	AY
	IC3703	VHiBR2416FV-1Y	BR2416FV, E²PROM	AG
	IC4401	RH-iX0707TAZZ	IX0707TA, Digital ADC/DAC Decoder/Encoder	BC
	IC4461	VHiSN2G53CT-1	SN2G53CT, VCTL SW	AE
	IC4472	VHiTC7S08U/-1	TC7S08U, OSD Mute	AE
	IC4701	VHiMB88344F-1	MB88344F, D/A Converter	AV

TRANSISTORS

Q701	VSUN9214///-1	UN9214	AB
Q702	VSKTA2014EY-1Y	KTA2014EY	AB
Q705	VSKTA2014EY-1Y	KTA2014EY	AB
Q900	VSCPH6702++-1	CPH6702++	AD
Q901	VS2SC4213B/-1	2SC4213B	AC
Q902	VSFMMT717//-1	FMMT717	AE
Q903	VSCPH6702++-1	CPH6702++	AD
Q904	VSCPH6702++-1	CPH6702++	AD
Q905	VSFMMT619//-1	FMMT619	AE
Q906	VSCPH6702++-1	CPH6702++	AD
Q907	VSCPH6702++-1	CPH6702++	AD
Q908	VSCPH6702++-1	CPH6702++	AD
Q909	VSNDS355AN/-1	NDS355AN	AE

Ref. No.	Part No.	★	Description	Code
Q910	VSNDS355AN/-1		NDS355AN	AE
Q911	VSCPH6702++-1		CPH6702++	AD
Q1200	VSKRX203U++-1Y		KRX203U++	AB
Q1401	VSKRC404E++-1Y		KRC404E++	AB
Q1431	VSRN4986///-1		RN4986	AB
Q1434	VSHN2A01FU/-1		HN2A01FU	AC
Q1701	VSHN2C01FU/-1		HN2C01FU	AC
Q1900	VSRN4990///-1		RN4990	AC
Q1901	VSKRC404E++-1Y		KRC404E++	AB
Q1902	VSKTA2014EY-1Y		KTA2014EY	AB
Q1905	VSNDS332P//-1		NDS332P	AD
Q1906	VSKRC404E++-1Y		KRC404E++	AB
Q1907	VSHN2C01FU/-1		HN2C01FU	AC
Q1908	VSKTA2014EY-1Y		KTA2014EY	AB
Q1909	VSKRX203U++-1Y		KRX203U++	AB
Q1911	VS2SC4944Y/-1		2SC4944Y	AC
Q1913	VSKTC4075EY-1Y		KTC4075EY	AB
Q1914	VSHN2A01FU/-1		HN2A01FU	AC
Q1920	VS3LP01S+++-1Y		3LP01S+++	AC
Q1921	VSKRX203U++-1Y		KRX203U++	AB
Q1932	VSFMMT717//-1		FMMT717	AE
Q2800	VS3LN01S///-1		3LN01S	AC
Q2801	VSKTX101UY+-1Y		KTX101UY+	AB
Q2802	VSKTX101UY+-1Y		KTX101UY+	AB
Q2805	VSKTC4075EY-1Y		KTC4075EY	AB
Q2806	VSKTX101UY+-1Y		KTX101UY+	AB
Q3401	VS2SC4738Y/-1		2SC4738Y	AA
Q3404	VS2SC4738Y/-1		2SC4738Y	AA
Q3406	VSXP05534//-1		XP05534	AD
Q3702	VSHN2C01FU/-1		HN2C01FU	AC
Q4431	VSRN4986///-1		RN4986	AB
Q4432	VSHN2A01FU/-1		HN2A01FU	AC
Q4461	VSHN2A01FU/-1		HN2A01FU	AC
Q4462	VSKTC4075EY-1Y		KTC4075EY	AB
Q4471	VSKTX101UY+-1Y		KTX101UY+	AB
Q4481	VSHN1B04FU/-1		HN1B04FU	AC
Q4482	VSHN1B04FU/-1		HN1B04FU	AC
Q7401	VSKTC4075EY-1Y		KTC4075EY	AB
Q7402	VSKRC404E++-1Y		KRC404E++	AB
Q7403	VSKTC4075EY-1Y		KTC4075EY	AB

DIODES

D403	VHDHVU362//-1		HVU362	AE
D404	VHDHVU362//-1		HVU362	AE
D471	VHDHVU362//-1		HVU362	AE
D472	VHDHVU359TR-1		HVU359TR	AE
D703	RH-DX0182TAZZ		DX0182TA	AD
D900	RH-EX1394CEZZ		Zener Diode, EX1394CE	AB
D901	VHDMA4S159/-1		MA4S159	AC
D902	VHDMA4S159/-1		MA4S159	AC
D1900	VHDMA132WK/-1		MA132WK	AA
D4451	VHDKV1812K/-1		KV1812K	AD
D4452	VHDKV1812K/-1		KV1812K	AD
D7800	VHDHVC359TR-1		HVC359TR	AD

PACKAGED CIRCUITS

TH2800	VHHT1103K44-1		Thermistor	AD
TH3401	VHHT1682J44-1		Thermistor	AC
X401	RCRSC0160TAZZ		Crystal, CRSC0160TA	AH
X701	RCRSC0032TAZZ		Crystal, CRSC0032TA	AG
X702	RCRSC0183TAZZ		Crystal, CRSC0183TA	AH
X4451	RCRSC0167TAZZ		Crystal, CRSC0167TA	AM

COILS AND TRANSFORMER

FL403	RFiLC0164TAZZ		Filter	AH
FL3401	RCiLF0408TAZZ		Coil, CiLF0408TA	AG
FL3402	RCiLF0408TAZZ		Coil, CiLF0408TA	AG
FL3403	RCiLF0409TAZZ		Coil, CiLF0409TA	AG
FL3702	RFiLZ0003TAZZY		Filter	AD
L151	VPD9M100KR86N		Peaking, 10µH	AC
L403	VPCEM4R7MR40N		Peaking, 4.7µH	AC
L471	VPD9M8R2J2R0N		Peaking, 8.2µH	AC
L701	VPMAN100MR50N		Peaking, 10µH	AC
L900	RCiLP0323TAZZ		Coil, 4.7µH	AD
L901	RCiLP0311TAZZ		Coil, 15µH	AE
L902	VPCEM2R2MR23N		Peaking, 2.2µH	AC
L903	VPCEM2R2MR23N		Peaking, 2.2µH	AC
L905	VPCEM4R7MR40N		Peaking, 4.7µH	AC
L907	RCiLP0311TAZZ		Coil, 15µH	AE
L908	VPCEM2R2MR23N		Peaking, 2.2µH	AC
L909	VPCEM4R7MR40N		Peaking, 4.7µH	AC
L910	VPCEM2R2MR23N		Peaking, 2.2µH	AC
L911	RCiLP0311TAZZ		Coil, 15µH	AE
L912	VPBAM2R2M090N		Peaking, 2.2µH	AC
L913	VPM6N100MR75N		Peaking, 10µH	AC
L914	VPM6N100MR75N		Peaking, 10µH	AC
L915	RCiLP0323TAZZ		Coil, 4.7µH	AD
L916	RCiLP0313TAZZ		Coil, 33µH	AE
L917	RCiLP0313TAZZ		Coil, 33µH	AE
L918	RCiLP0311TAZZ		Coil, 15µH	AE
L919	VPBAM2R2M090N		Peaking, 2.2µH	AC
L920	VPM6N100MR75N		Peaking, 10µH	AC
L921	VPM6N100MR75N		Peaking, 10µH	AC
L922	RCiLP0323TAZZ		Coil, 4.7µH	AD
L923	RCiLP0311TAZZ		Coil, 15µH	AE
L1402	VPCEM470M3R7N		Peaking, 47µH	AC
L1404	VPCEM470M3R7N		Peaking, 47µH	AC
L1431	VPCEM470M3R7N		Peaking, 47µH	AC
L1601	VPMAN100MR50N		Peaking, 10µH	AC
L1701	VPMAN100MR50N		Peaking, 10µH	AC
L1702	VPCEM4R7MR40N		Peaking, 4.7µH	AC
L2800	VPCEM470M3R7N		Peaking, 47µH	AC
L2801	VPCEM470M3R7N		Peaking, 47µH	AC
L2802	VPD9M470J6R6N		Peaking, 47µH	AC
L2804	VPCQM4R7MR22NY		Peaking, 4.7µH	AB
L3401	RCiLP0276TAZZ		Coil, CiLP0276TA	AC
L3402	VPCEM4R7MR40N		Peaking, 4.7µH	AC
L3404	VPCEM4R7MR40N		Peaking, 4.7µH	AC
L3405	VPCEM4R7MR40N		Peaking, 4.7µH	AC
L3701	VPMAN4R7MR37N		Peaking, 4.7µH	AC
L4401	VPCEM100MR70N		Peaking, 10µH	AC
L4451	RCiLP0353TAZZY		Coil, CiLP0353TA	AC
L4481	VPCEM470M3R7N		Peaking, 47µH	AC
L7400	VPMAN100MR50N		Peaking, 10µH	AC
L7800	VPCEM100MR70N		Peaking, 10µH	AC
L7801	VPD9M180J2R4N		Peaking, 18µH	AC
⚠ T900	RTRNZ0152TAZZ		Power Transformer	AF

CAPACITORS

C153	VCSATA0JJ106M	10	6.3V	Tantalum	AD
C154	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C155	VCSATA0JJ106M	10	6.3V	Tantalum	AD
C156	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C157	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C158	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C159	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C160	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C161	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C162	VCCCCZ1HH470J	47p	50V	Ceramic	AB
C163	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C164	VCSATA0JJ106M	10	6.3V	Tantalum	AD
C201	VCSATA0JJ106M	10	6.3V	Tantalum	AD
C202	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C204	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C205	VCSATA0JJ106M	10	6.3V	Tantalum	AD
C206	VCSATA0JJ106M	10	6.3V	Tantalum	AD
C207	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C208	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C211	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C212	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C213	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C214	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C215	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C217	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C218	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C220	VCKYCZ1HB221K	220p	50V	Ceramic	AA
C401	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD
C402	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD
C403	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD
C404	VCSAPR1AJ475M	4.7	10V	Tantalum	AD

Ref. No.	Part No.	★	Description			Code
C405	VCKYCZ1AB473K		0.047	10V	Ceramic	AB
C407	RC-KZ0083TAZZ		2.2	10V	Ceramic	AD
C410	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C411	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C412	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C413	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C414	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C415	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C417	VCSATA0JJ336M		33	6.3V	Tantalum	AD
C418	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C419	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C420	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C421	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C423	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C424	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C425	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C430	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C432	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C435	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C447	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C450	RC-KZ0115TAZZ		4.7	6.3V	Ceramic	AD
C451	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C452	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C456	VCSATA0JJ106M		10	6.3V	Tantalum	AD
C460	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C462	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C463	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C465	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C473	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C474	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C475	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C476	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C477	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C478	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C701	VCKYCY1AF105Z		1	10V	Ceramic	AC
C702	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C703	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C704	VCKYTV1AB105K		1	10V	Ceramic	AD
C705	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C706	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C709	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C711	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C712	VCKYTV1AB105K		1	10V	Ceramic	AD
C713	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C714	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C715	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C716	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C718	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C719	VCCCCZ1HH270J		27p	50V	Ceramic	AB
C720	VCCCCZ1HH270J		27p	50V	Ceramic	AB
C721	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C722	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C723	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C724	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C725	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C726	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C727	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C728	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C729	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C730	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C731	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C732	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C733	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C734	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C735	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C737	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C738	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C741	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C742	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C743	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C744	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C745	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C746	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C900	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C904	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C905	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C906	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C907	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C908	VCKYCZ1AB473K		0.047	10V	Ceramic	AB
C910	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C911	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C912	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C913	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C914	VCCCCZ1HH101J		100p	50V	Ceramic	AB
C915	VCKYCY1AB224K		0.22	10V	Ceramic	AB
C916	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C917	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C918	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C919	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C920	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C921	VCKYCY1AF105Z		1	10V	Ceramic	AC
C922	VCKYCY1AF105Z		1	10V	Ceramic	AC
C923	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C924	VCKYCZ1HB471K		470p	50V	Ceramic	AB
C926	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C927	VCKYCZ1HB471K		470p	50V	Ceramic	AB
C928	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C930	RC-KZ0070TAZZ		4.7	16V	Ceramic	AD
C931	RC-KZ0075TAZZ		2.2	16V	Ceramic	AC
C932	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C933	RC-KZ0044TAZZ		4.7	10V	Ceramic	AD
C934	RC-KZ0071TAZZ		2.2	6.3V	Ceramic	AD
C936	VCSATE1AJ476M		47	10V	Tantalum	AD
C937	RC-KZ0070TAZZ		4.7	16V	Ceramic	AD
C938	RC-KZ0074TAZZ		10	6.3V	Ceramic	AF
C939	VCKYTV1AB105K		1	10V	Ceramic	AD
C941	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C943	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C946	VCKYTV1AB105K		1	10V	Ceramic	AD
C948	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C949	VCKYTV1AB105K		1	10V	Ceramic	AD
C951	VCKYTV1AB105K		1	10V	Ceramic	AD
C952	RC-KZ0071TAZZ		2.2	6.3V	Ceramic	AD
C953	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C954	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C955	RC-KZ0075TAZZ		2.2	16V	Ceramic	AC
C956	RC-KZ0044TAZZ		4.7	10V	Ceramic	AD
C957	VCKYTV1AB105K		1	10V	Ceramic	AD
C959	VCKYTV1EB104K		0.1	25V	Ceramic	AB
C960	RC-KZ0070TAZZ		4.7	16V	Ceramic	AD
C962	RC-KZ0072TAZZ		1	25V	Ceramic	AC
C963	RC-KZ0072TAZZ		1	25V	Ceramic	AC
C964	VCKYTV1CF105Z		1	16V	Ceramic	AB
C965	VCKYTV1EB104K		0.1	25V	Ceramic	AB
C966	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C967	VCKYTV1AB105K		1	10V	Ceramic	AD
C968	RC-KZ0072TAZZ		1	25V	Ceramic	AC
C969	VCKYTV1CF105Z		1	16V	Ceramic	AB
C970	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C971	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C972	RC-KZ0070TAZZ		4.7	16V	Ceramic	AD
C973	RC-KZ0070TAZZ		4.7	16V	Ceramic	AD
C974	RC-KZ0070TAZZ		4.7	16V	Ceramic	AD
C980	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C981	RC-KZ0075TAZZ		2.2	16V	Ceramic	AC
C982	RC-KZ0044TAZZ		4.7	10V	Ceramic	AD
C983	VCKYTV1AB105K		1	10V	Ceramic	AD
C990	RC-KZ0075TAZZ		2.2	16V	Ceramic	AC
C991	RC-KZ0044TAZZ		4.7	10V	Ceramic	AD
C992	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C993	VCKYCY1AB224K		0.22	10V	Ceramic	AB
C1201	VCCCCZ1HH151J		150p	50V	Ceramic	AB
C1402	VCSATK0JJ226MY		22	6.3V	Tantalum	AE
C1404	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C1405	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C1406	VCSATE0JJ107M		100	6.3V	Tantalum	AE
C1407	VCSATA0JJ156M		15	6.3V	Tantalum	AC
C1408	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1409	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C1410	VCKYCZ1CB103K		0.01	16V	Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C1411	VCSATE0JJ107M	100	6.3V Tantalum	AE
C1412	VCSATA0JJ156M	15	6.3V Tantalum	AC
C1413	VCSAPR0JJ106M	10	6.3V Tantalum	AD
C1414	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C1415	VCSATE1AJ226M	22	10V Tantalum	AD
C1416	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C1417	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1418	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C1431	VCSATK1AJ226MY	22	10V Tantalum	AE
C1438	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1439	VCKYCY0JF105Z	1	6.3V Ceramic	AB
C1440	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C1603	VCKYCY0JB105K	1	6.3V Ceramic	AC
C1604	VCKYCY0JB105K	1	6.3V Ceramic	AC
C1605	RC-KZ0071TAZZ	2.2	6.3V Ceramic	AD
C1608	VCSATA0JJ106M	10	6.3V Tantalum	AD
C1610	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1611	VCKYCY1AB474K	0.47	10V Ceramic	AC
C1617	VCKYCY1AB474K	0.47	10V Ceramic	AC
C1701	VCKYCZ1CB223K	0.022	16V Ceramic	AC
C1702	VCKYCZ1CB223K	0.022	16V Ceramic	AC
C1703	VCKYTV1AB105K	1	10V Ceramic	AD
C1704	VCKYCY1AF105Z	1	10V Ceramic	AC
C1705	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C1706	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1707	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1708	RC-KZ0083TAZZ	2.2	10V Ceramic	AD
C1709	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1710	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1711	VCKYTV1AB105K	1	10V Ceramic	AD
C1712	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1713	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C1714	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1715	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C1716	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C1717	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1718	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1719	VCKYCY0JF105Z	1	6.3V Ceramic	AB
C1720	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1721	VCKYCY0JF105Z	1	6.3V Ceramic	AB
C1722	VCKYCY1CB473K	0.047	16V Ceramic	AA
C1723	VCKYCZ1EB472K	4700p	25V Ceramic	AB
C1724	VCKYCY1AF105Z	1	10V Ceramic	AC
C1725	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1726	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C1727	VCCCCZ1HH101J	100p	50V Ceramic	AB
C1728	VCKYCY1AF105Z	1	10V Ceramic	AC
C1906	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C1911	VCKYTV1EB104K	0.1	25V Ceramic	AB
C1921	VCSATA1CJ106M	10	16V Tantalum	AD
C1922	VCKYTV1EB104K	0.1	25V Ceramic	AB
C1980	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C1982	VCKYTV1EB104K	0.1	25V Ceramic	AB
C2800	VCKYCY0JF105Z	1	6.3V Ceramic	AB
C2801	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
C2802	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
C2803	VCKYTV1EB104K	0.1	25V Ceramic	AB
C2804	VCKYTV1AB105K	1	10V Ceramic	AD
C2805	VCSATA1AJ106M	10	10V Tantalum	AC
C2806	VCSATA1VJ155M	1.5	35V Tantalum	AC
C2807	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C2808	VCKYTV1EB104K	0.1	25V Ceramic	AB
C2809	VCKYTV1AB105K	1	10V Ceramic	AD
C2810	VCKYTV1AB105K	1	10V Ceramic	AD
C2811	VCKYTV1AB105K	1	10V Ceramic	AD
C2812	VCKYTV1AB105K	1	10V Ceramic	AD
C2814	VCSATA1DJ475M	4.7	20V Tantalum	AC
C2816	VCSATA1DJ475M	4.7	20V Tantalum	AC
C2819	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C2821	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C2822	VCKYCY0JB105K	1	6.3V Ceramic	AC
C2823	VCCCCZ1HH330J	33p	50V Ceramic	AB
C2824	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
C2828	VCKYCY0JB105K	1	6.3V Ceramic	AC
C2830	VCKYCZ1CB103K	0.01	16V Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C2831	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3401	VCCCCZ1HH220J	22p	50V Ceramic	AB
C3402	VCCCCZ1HH120J	12p	50V Ceramic	AB
C3403	VCCCCZ1HH390J	39p	50V Ceramic	AB
C3405	VCCCCZ1HH820J	82p	50V Ceramic	AB
C3406	VCKYCY0JB105K	1	6.3V Ceramic	AC
C3408	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3409	VCKYCZ1HB471K	470p	50V Ceramic	AB
C3410	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3411	VCKYCZ1HB471K	470p	50V Ceramic	AB
C3412	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3413	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3414	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3415	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3416	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3417	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3418	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3419	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3420	VCCCCZ1HH100D	10p	50V Ceramic	AB
C3421	VCCCCZ1HH121J	120p	50V Ceramic	AB
C3423	VCCCCZ1HH121J	120p	50V Ceramic	AB
C3424	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3425	VCSATA0JJ336M	33	6.3V Tantalum	AD
C3426	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3428	VCKYTV1CB224K	0.22	16V Ceramic	AB
C3429	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C3430	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3431	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3432	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3433	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3434	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3436	VCSATA0JJ336M	33	6.3V Tantalum	AD
C3442	VCCCCZ1HH220J	22p	50V Ceramic	AB
C3443	VCCCCZ1HH470J	47p	50V Ceramic	AB
C3444	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3452	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3454	VCSAPR0JJ106M	10	6.3V Tantalum	AD
C3455	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3456	VCSAPR0JJ106M	10	6.3V Tantalum	AD
C3457	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3458	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3462	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3467	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3471	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3473	VCSATA0JJ336M	33	6.3V Tantalum	AD
C3474	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3475	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3476	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3477	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3479	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3481	VCCCCZ1HH100D	10p	50V Ceramic	AB
C3701	VCKYTV1AB105K	1	10V Ceramic	AD
C3702	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C3703	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3704	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C3706	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3707	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C3708	VCSATA0JJ106M	10	6.3V Tantalum	AD
C3709	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3710	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3711	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3715	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3717	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C3718	VCKYCZ1HB221K	220p	50V Ceramic	AA
C3719	VCKYCZ1HB221K	220p	50V Ceramic	AA
C4401	RC-KZ0083TAZZ	2.2	10V Ceramic	AD
C4402	RC-KZ0083TAZZ	2.2	10V Ceramic	AD
C4403	RC-KZ0083TAZZ	2.2	10V Ceramic	AD
C4404	VCSAPR0JJ106M	10	6.3V Tantalum	AD
C4405	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C4410	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C4411	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C4413	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C4417	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C4419	VCKYCZ1CB103K	0.01	16V Ceramic	AB

Ref. No.	Part No.	★	Description			Code
C4420	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4421	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4422	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4423	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4424	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4425	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4427	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4429	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4431	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4432	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4435	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C4436	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4451	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C4454	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C4461	RC-KZ0083TAZZ		2.2	10V	Ceramic	AD
C4462	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C4463	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C4464	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4465	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C4466	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4481	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C4482	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C4483	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C4485	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4701	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4702	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7400	RC-KZ0083TAZZ		2.2	10V	Ceramic	AD
C7401	RC-KZ0083TAZZ		2.2	10V	Ceramic	AD
C7402	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7403	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7404	VCKYCZ1EB472K		4700p	25V	Ceramic	AB
C7413	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C7414	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C7417	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C7800	RC-KZ0083TAZZ		2.2	10V	Ceramic	AD
C7801	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7802	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7803	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7813	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7815	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7816	VCCCCZ1HH470J		47p	50V	Ceramic	AB
C7837	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C7842	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7843	RC-KZ0101TAZZ		3.3	6.3V	Ceramic	AD
C7844	VCKYCZ1HB332K		3300p	50V	Ceramic	AA
C7845	VCCCCZ1HH221J		220p	50V	Ceramic	AB
C7846	VCCCCZ1HH221J		220p	50V	Ceramic	AB

RESISTORS

R152	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R153	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R154	VRS-CZ1JF221J		220	1/16W	Metal Oxide	AA
R155	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R159	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R219	VRS-CZ1JF222J		2.2k	1/16W	Metal Oxide	AA
R245	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R246	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R401	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R402	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R403	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R404	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R406	VRS-CZ1JF101J		100	1/16W	Metal Oxide	AA
R407	VRS-CZ1JF153J		15k	1/16W	Metal Oxide	AA
R409	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R410	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R411	VRS-CZ1JF154J		150k	1/16W	Metal Oxide	AA
R412	VRS-CZ1JF334J		330k	1/16W	Metal Oxide	AA
R413	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R414	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R415	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R416	VRS-CZ1JF823J		82k	1/16W	Metal Oxide	AA
R418	VRS-CZ1JF101J		100	1/16W	Metal Oxide	AA
R429	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R431	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R432	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R436	VRS-CZ1JF224J		220k	1/16W	Metal Oxide	AA
R437	VRS-CZ1JF224J		220k	1/16W	Metal Oxide	AA
R438	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R440	VRS-CZ1JF393J		39k	1/16W	Metal Oxide	AA
R441	VRS-CZ1JF563J		56k	1/16W	Metal Oxide	AA
R442	VRS-CZ1JF114J		110k	1/16W	Metal Oxide	AB
R443	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R446	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R462	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R463	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R467	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R468	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R471	VRS-CZ1JF472J		4.7k	1/16W	Metal Oxide	AA
R477	VRS-CZ1JF823J		82k	1/16W	Metal Oxide	AA
R478	VRS-CZ1JF823J		82k	1/16W	Metal Oxide	AA
R701	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R702	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R703	VRS-CZ1JF562J		5.6k	1/16W	Metal Oxide	AA
R704	VRS-CZ1JF273J		27k	1/16W	Metal Oxide	AA
R705	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R706	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R707	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R708	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R709	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R710	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R711	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R712	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R713	VRS-CZ1JF101J		100	1/16W	Metal Oxide	AA
R714	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R716	VRS-CZ1JF272J		2.7k	1/16W	Metal Oxide	AA
R717	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R718	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R719	VRS-CZ1JF101J		100	1/16W	Metal Oxide	AA
R720	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R722	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R723	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R724	VRS-CZ1JF823D		82k	1/16W	Metal Oxide	AB
R725	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R726	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R727	VRS-CZ1JF106J		10M	1/16W	Metal Oxide	AA
R728	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R729	VRS-CZ1JF332J		3.3k	1/16W	Metal Oxide	AA
R730	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R731	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R732	VRS-CZ1JF474D		470k	1/16W	Metal Oxide	AA
R733	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R735	VRS-CZ1JF332J		3.3k	1/16W	Metal Oxide	AA
R736	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R737	VRS-CZ1JF332J		3.3k	1/16W	Metal Oxide	AA
R738	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R739	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R740	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA
R741	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R742	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R743	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R744	VRS-CZ1JF224J		220k	1/16W	Metal Oxide	AA
R745	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R746	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R747	VRS-CZ1JF683J		68k	1/16W	Metal Oxide	AA
R748	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA
R749	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R750	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R751	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R752	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R753	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R754	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R755	VRS-CZ1JF332J		3.3k	1/16W	Metal Oxide	AA
R756	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R757	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R759	VRS-CZ1JF224J		220k	1/16W	Metal Oxide	AA
R760	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R761	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R762	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R763	VRS-CZ1JF102J		1k	1/16W	Metal Oxide	AA
R764	VRS-CZ1JF104J		100k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R765	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R766	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R767	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R771	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R772	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R779	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R780	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R782	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R796	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R797	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R798	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R799	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R800	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R801	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R802	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R900	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R901	VRS-CZ1JF433D		43k 1/16W Metal Oxide	AA
R902	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R903	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R904	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R905	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R906	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R907	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R909	VRS-CZ1JF562D		5.6k 1/16W Metal Oxide	AB
R910	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R912	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R913	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R914	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R917	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R918	VRS-CZ1JF472D		4.7k 1/16W Metal Oxide	AB
R919	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R920	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R923	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R924	VRS-CZ1JF113D		11k 1/16W Metal Oxide	AA
R926	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R927	VRS-CZ1JF683D		68k 1/16W Metal Oxide	AB
R928	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R929	VRS-CZ1JF823D		82k 1/16W Metal Oxide	AB
R930	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R931	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R932	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R933	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R934	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R935	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R936	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R937	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R938	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R939	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R940	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R941	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R942	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R943	VRS-CZ1JF303D		30k 1/16W Metal Oxide	AA
R946	VRS-CZ1JF163D		16k 1/16W Metal Oxide	AA
R948	VRS-CZ1JF473D		47k 1/16W Metal Oxide	AB
R949	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R950	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R951	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R952	VRS-CZ1JF223D		22k 1/16W Metal Oxide	AB
R954	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R956	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R957	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R959	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R960	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R962	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R964	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R965	VRS-CZ1JF122D		1.2k 1/16W Metal Oxide	AB
R966	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R968	VRS-CZ1JF222D		2.2k 1/16W Metal Oxide	AA
R969	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R970	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R972	VRS-CZ1JF133D		13k 1/16W Metal Oxide	AA
R973	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R974	VRS-CZ1JF102D		1k 1/16W Metal Oxide	AA
R975	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R977	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R979	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R980	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R982	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R983	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R987	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R988	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R989	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R990	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R991	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R992	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R996	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R999	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1200	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R1402	VRS-CZ1JF470J		47 1/16W Metal Oxide	AA
R1403	VRS-CZ1JF470J		47 1/16W Metal Oxide	AA
R1404	VRS-CZ1JF270J		27 1/16W Metal Oxide	AA
R1408	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1413	VRS-CZ1JF470J		47 1/16W Metal Oxide	AA
R1414	VRS-CZ1JF270J		27 1/16W Metal Oxide	AA
R1415	VRS-CZ1JF225J		2.2M 1/16W Metal Oxide	AA
R1419	VRS-CZ1JF270J		27 1/16W Metal Oxide	AA
R1438	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R1439	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R1440	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1441	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1442	VRS-CZ1JF750J		75 1/16W Metal Oxide	AA
R1452	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R1454	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R1455	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1456	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1462	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R1474	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1476	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1477	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1478	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1479	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1480	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1481	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1701	VRK-SA1JF100J		10 1/16W Metal Composition	AB
R1702	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R1703	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R1704	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1705	VRS-CZ1JF154J		150k 1/16W Metal Oxide	AA
R1706	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1707	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1708	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1709	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1710	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1711	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1712	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1713	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R1714	VRS-CZ1JF621J		620 1/16W Metal Oxide	AA
R1715	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1716	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1717	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R1718	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1719	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1720	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1721	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1722	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1726	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R1727	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1728	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R1900	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1901	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R1902	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R1903	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1904	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R1908	VRS-CZ1JF222D		2.2k 1/16W Metal Oxide	AA
R1909	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1910	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R1912	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R1913	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1914	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1917	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1925	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R1927	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R1929	VRS-CZ1JF163D		16k 1/16W Metal Oxide	AA
R1930	VRS-CZ1JF182D		1.8k 1/16W Metal Oxide	AB
R1931	VRS-CZ1JF472D		4.7k 1/16W Metal Oxide	AB
R1940	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1941	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1943	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R1944	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R1945	VRS-CZ1JF183D		18k 1/16W Metal Oxide	AB
R1950	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1956	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R1957	VRS-CZ1JF682D		6.8k 1/16W Metal Oxide	AB
R1958	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1959	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1968	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R1969	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1980	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R1981	VRS-CZ1JF184J		180k 1/16W Metal Oxide	AA
R1982	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1983	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R1984	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R1985	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1986	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R1989	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1990	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1991	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1992	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R1993	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1994	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R1995	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R1996	VRS-CZ1JF562D		5.6k 1/16W Metal Oxide	AB
R1997	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1998	VRS-CZ1JF203D		20k 1/16W Metal Oxide	AA
R2801	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R2802	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2803	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R2804	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2805	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2806	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2808	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2809	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2810	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2811	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R2812	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2813	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R2814	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R2815	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R2818	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R2819	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R2820	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R2821	VRS-CZ1JF154J		150k 1/16W Metal Oxide	AA
R2822	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R2823	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R2824	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R2825	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R2829	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R2830	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R2831	VRS-CY1JFR22J		0.22 1/16W Metal Oxide	AA
R2833	VRS-CZ1JF102D		1k 1/16W Metal Oxide	AA
R2835	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R2840	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R2841	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2844	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2851	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R2852	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R2853	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R2856	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2857	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R2858	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R2859	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R2860	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R2861	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R2862	VRS-CZ1JF182D		1.8k 1/16W Metal Oxide	AB
R2863	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R3401	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3402	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3404	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3406	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R3407	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3409	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R3410	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3411	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3412	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3413	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3414	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3415	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3416	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3417	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3418	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3419	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3420	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3421	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R3422	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3423	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R3424	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3425	VRS-CZ1JF122D		1.2k 1/16W Metal Oxide	AB
R3427	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R3428	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R3429	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3430	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R3432	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R3435	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R3436	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R3437	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3442	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3445	VRS-CZ1JF122D		1.2k 1/16W Metal Oxide	AB
R3451	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R3452	VRS-CZ1JF820J		82 1/16W Metal Oxide	AA
R3454	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3457	VRS-CZ1JF820J		82 1/16W Metal Oxide	AA
R3462	VRS-CZ1JF271J		270 1/16W Metal Oxide	AA
R3463	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R3468	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R3469	VRS-CZ1JF390J		39 1/16W Metal Oxide	AA
R3470	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3471	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R3472	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3473	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3478	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R3479	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R3480	VRS-CZ1JF681J		680 1/16W Metal Oxide	AA
R3481	VRS-CZ1JF680J		68 1/16W Metal Oxide	AB
R3482	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R3486	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3487	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3488	VRS-CZ1JF681D		680 1/16W Metal Oxide	AB
R3489	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3492	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R3493	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R3495	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3496	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3499	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3701	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3702	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3703	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3704	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3705	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3706	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3707	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R3708	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3709	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3710	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3713	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3716	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3718	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3740	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R3741	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R3742	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R3743	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R3744	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R3746	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3748	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3752	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3753	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3754	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3755	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3756	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3757	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3758	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4401	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4402	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4403	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4404	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R4405	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4406	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R4407	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4414	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4415	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4422	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R4423	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R4435	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R4436	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4437	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4451	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R4453	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R4454	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R4456	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R4460	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4461	VRS-CZ1JF123D		12k 1/16W Metal Oxide	AA
R4462	VRS-CZ1JF123D		12k 1/16W Metal Oxide	AA
R4463	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4464	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4465	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R4467	VRS-CZ1JF302D		3k 1/16W Metal Oxide	AA
R4468	VRS-CZ1JF562D		5.6k 1/16W Metal Oxide	AB
R4469	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4473	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R4474	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R4475	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4477	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4478	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4485	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R4486	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R4487	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4488	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R4494	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4495	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R7401	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7402	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R7403	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R7413	VRS-CZ1JF512D		5.1k 1/16W Metal Oxide	AA
R7415	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7416	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7417	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7418	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7419	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R7420	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R7422	VRS-CZ1JF392D		3.9k 1/16W Metal Oxide	AB
R7423	VRS-CZ1JF392D		3.9k 1/16W Metal Oxide	AB
R7424	VRS-CZ1JF242D		2.4k 1/16W Metal Oxide	AA
R7426	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R7427	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R7428	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R7429	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R7800	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R7801	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R7802	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R7803	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R7804	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R7805	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R7806	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R7807	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R7808	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7809	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R7810	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R7811	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7812	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R7813	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R7814	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7827	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R7841	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R7843	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R7847	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R7851	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7852	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7854	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R7855	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R7856	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R7857	VRK-SA1JF564J		560k 1/16W Metal Composition	AC
R7859	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA

BALUNES

FB201	RBLN-0049TAZZ	Balun, BLN-0049TA	AD
FB202	RBLN-0049TAZZ	Balun, BLN-0049TA	AD
FB203	RBLN-0049TAZZ	Balun, BLN-0049TA	AD
FB204	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB408	RBLN-0242TAZZY	Balun, BLN-0242TA	AB
FB456	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB900	RBLN-0119TAZZ	Balun, BLN-0119TA	AC
FB901	RBLN-0119TAZZ	Balun, BLN-0119TA	AC
FB1471	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
FB1473	RBLN-0106TAZZ	Balun, BLN-0106TA	AB
FB1475	RBLN-0106TAZZ	Balun, BLN-0106TA	AB
FB2801	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB3701	RBLN-0049TAZZ	Balun, BLN-0049TA	AD
FB3702	RBLN-0068TAZZY	Balun, BLN-0068TA	AA
FB3703	RBLN-0068TAZZY	Balun, BLN-0068TA	AA
FB4402	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB4461	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB7401	RBLN-0102TAZZY	Balun, BLN-0102TA	AB

MISCELLANEOUS PARTS

J1401	QJAKE0074TAZZ	Jack, 10Pin	AH
J3701	QJAKE0063TAZZ	Jack, 7Pin	AF
J7401	QJAKZ0074TAZZ	Jack, 4Pin	AG
P1203	QPLGN0274TAZZ	Plug, 2Pin	AC
SC701	QSOCN0624TAN1Y	Socket, 6Pin	AD
SC1201	QSOCN3311TAN1	Socket, 33Pin	AG
SC1202	QSOCN3311TAN1	Socket, 33Pin	AG
SC1204	QSOCN2711TAN1	Socket, 27Pin	AG
SC2801	QSOCN2498TAZZY	Socket, 24Pin	AE
SC2802	QSOCN0925TAN1	Socket, 9Pin	AE
SC900	QCNCW2080TAZZ	Connector, 20Pin	AF
SC3301	QCNCW8080TAZZ	Connector, 80Pin	AH
SC3302	QCNCM1052TAZZY	Connector, 10Pin	AE

DUNTK3115QA03(VL-NZ10S/H)
DUNTK3115QA04(VL-NZ10E/EW)
CAMERA HEAD PWB UNIT

INTEGRATED CIRCUITS

IC21	VHiCXD2489R-1Y	CXD2489R, Timing Generator	AW
IC101	VHiCXA2096N-1	CXA2096N, CDS/AGC	AQ
IC102	VHiMB88146A-1	MB88146A, D/A Converter	AH
IC551	VHiUPD16835-1	UPD16835, Lens Driver	AM
IC552	VHiNJM2902V-1	NJM2902V, Op Amp	AD
IC1101	VHiNJM2112V-1	NJM2112V, Op Amp	AF
IC1102	VHiTC7S66U/-1	TC7S66U, Switch	AE

Ref. No.	Part No.	★	Description	Code
	TRANSISTORS			
Q551	VSKTC4075EY-1Y		KTC4075EY	AB
Q552	VSKRC402E++-1Y		KRC402E++	AB
	DIODE			
D551	VHDMC2852//-1		MC2852	AB
	PACKAGED CIRCUIT			
X21	RCRSZ0079TAZZ		Crystal, CRSZ0079TA	AR
	COILS			
	PFiLW0085TAZZ		Filter	AS
L21	VPD9M100KR86N		Peaking, 10µH	AC
L22	VPD9M100KR86N		Peaking, 10µH	AC
L101	VPAWM100K1R5N		Peaking, 10µH	AC
L551	VPD9M100KR86N		Peaking, 10µH	AC
L1101	VPD9M220K2R0N		Peaking, 22µH	AC
	CAPACITORS			
C21	VCSATE1CJ226M		22 16V Tantalum	AE
C22	VCSATJ1VJ685M		6.8 35V Tantalum	AE
C23	VCSATA0JJ336M		33 6.3V Tantalum	AD
C24	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C25	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C27	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C29	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C30	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C31	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C32	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C33	VCCCCZ1HH150J		15p 50V Ceramic	AB
C34	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C35	VCSATA0JJ336M		33 6.3V Tantalum	AD
C36	VCKYCZ1HB221K		220p 50V Ceramic	AA
C37	VCKYCZ1HB221K		220p 50V Ceramic	AA
C102	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C103	VCKYCZ1EF223Z		0.022 25V Ceramic	AB
C104	VCKYTV1CB105K		1 16V Ceramic	AC
C105	VCKYTV1CB105K		1 16V Ceramic	AC
C106	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C107	VCSATA0JJ336M		33 6.3V Tantalum	AD
C108	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C109	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C110	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C111	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C112	VCSATA0JJ106M		10 6.3V Tantalum	AD
C113	VCSATA0JJ106M		10 6.3V Tantalum	AD
C115	VCSATA1AJ106M		10 10V Tantalum	AC
C116	VCCCCZ1HH101J		100p 50V Ceramic	AB
C117	VCCCCZ1HH101J		100p 50V Ceramic	AB
C118	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C551	VCSATA1CJ106M		10 16V Tantalum	AD
C552	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C553	VCCCCZ1HH330J		33p 50V Ceramic	AB
C554	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C555	VCCCCZ1HH101J		100p 50V Ceramic	AB
C556	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C557	VCCCCZ1HH101J		100p 50V Ceramic	AB
C558	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C559	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C560	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C561	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C562	VCSATA0JJ106M		10 6.3V Tantalum	AD
C563	VCSATA1AJ106M		10 10V Tantalum	AC
C564	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C565	VCKYCY1AB224K		0.22 10V Ceramic	AB
C567	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C568	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C569	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C570	VCCCCZ1HH151J		150p 50V Ceramic	AB
C571	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C572	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C573	VCKYCZ1HB221K		220p 50V Ceramic	AA
C574	VCKYCZ1HB221K		220p 50V Ceramic	AA
C1101	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C1102	VCKYCZ1HB332K		3300p 50V Ceramic	AA
C1103	VCKYCZ1AB473K		0.047 10V Ceramic	AB
C1104	RC-KZ0074TAZZ		10 6.3V Ceramic	AF
C1105	VCSATA0GJ226M		22 4V Tantalum	AD
C1106	VCCCCZ1HH101J		100p 50V Ceramic	AB
C1107	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C1108	VCSATA0JJ156M		15 6.3V Tantalum	AC
	RESISTORS			
R21	VRS-CZ1JF390J		39 1/16W Metal Oxide	AA
R22	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R23	VRS-CZ1JF180J		18 1/16W Metal Oxide	AA
R24	VRS-CZ1JF120J		12 1/16W Metal Oxide	AB
R26	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R28	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R31	VRS-CZ1JF120J		12 1/16W Metal Oxide	AB
R32	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R33	VRS-CZ1JF180J		18 1/16W Metal Oxide	AA
R34	VRS-CZ1JF180J		18 1/16W Metal Oxide	AA
R35	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R36	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R37	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R38	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R39	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R41	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R42	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R43	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R101	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R103	VRS-CZ1JF244D		240k 1/16W Metal Oxide	AA
R104	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R106	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R107	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R108	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R109	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R110	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R111	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R112	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R113	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R115	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R116	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R117	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R551	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R552	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R553	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R554	VRS-CY1JF5R6J		5.6 1/16W Metal Oxide	AA
R555	VRS-CY1JF5R6J		5.6 1/16W Metal Oxide	AA
R556	VRS-CZ1JF180J		18 1/16W Metal Oxide	AA
R557	VRS-CY1JF5R6J		5.6 1/16W Metal Oxide	AA
R558	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R559	VRS-CY1JF5R6J		5.6 1/16W Metal Oxide	AA
R560	VRS-CZ1JF180J		18 1/16W Metal Oxide	AA
R561	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R562	VRS-CZ1JF622D		6.2k 1/16W Metal Oxide	AA
R563	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R564	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R565	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R566	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R567	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R568	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R569	VRS-CZ1JF154J		150k 1/16W Metal Oxide	AA
R570	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R571	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R572	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R573	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R574	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R575	VRS-CZ1JF274J		270k 1/16W Metal Oxide	AA
R576	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R577	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R578	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R579	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R580	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R581	VRS-CZ1JF274J		270k 1/16W Metal Oxide	AA
R582	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R583	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1101	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1102	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R1103	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1104	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1105	VRS-CZ1JF154D		150k 1/16W Metal Oxide	AB
R1106	VRS-CZ1JF274J		270k 1/16W Metal Oxide	AA
R1107	VRS-CZ1JF154D		150k 1/16W Metal Oxide	AB
R1108	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R1109	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
			BALUNES	
R40	RBLN-0242TAZZY		Balun, BLN-0242TA	AB
R44	RBLN-0242TAZZY		Balun, BLN-0242TA	AB
			MISCELLANEOUS PARTS	
P101	QPLGN0276TAZZ		Plug, 2Pin	AD
P103	QPLGN0274TAZZ		Plug, 2Pin	AC
SC21	QSOCN2111TAN1		Socket, 21Pin	AF
SC101	QCNCW3396TAZZY		Connector, 33Pin	AG
SC551	QSOCN2498TAZZY		Socket, 24Pin	AE

DUNTK3116QA03(VL-NZ10S/H)
DUNTK3116QA04(VL-NZ10E/EW)
AUDIO I/O PWB UNIT

			INTEGRATED CIRCUITS	
IC601	VHiBH7761KV-1		BH7761KV, Audio I/O	AS
IC2601	VHiMB88146A-1		MB88146A, I/O Expander	AH
IC6601	VHiBA7780KV-1		BA7780KV, Mic Amp	AT
IC6603	VHiNJM2107F-1		NJM2107F, Amp	AE
			TRANSISTORS	
Q601	VSFMG12////-1		FMG12	AD
Q604	VSHN2A01FU/-1		HN2A01FU	AC
Q605	VSKRC404E++-1Y		KRC404E++	AB
Q606	VSKRX203U++-1Y		KRX203U++	AB
Q608	VSFMG12////-1		FMG12	AD
Q6601	VSKTX101UY+-1Y		KTX101UY+	AB
Q6609	VSRN4986///-1		RN4986	AB
			DIODES	
D602	RH-EX1394CEZZ		Zener Diode, EX1394CE	AB
D6601	RH-EX1394CEZZ		Zener Diode, EX1394CE	AB
D6602	RH-EX1394CEZZ		Zener Diode, EX1394CE	AB
			COILS	
L601	VPCEM470M3R7N		Peaking, 47µH	AC
L603	VPD9M100KR86N		Peaking, 10µH	AC
L6601	VPCBM470K2R4N		Peaking, 47µH	AC
			CAPACITORS	
C603	VCKYTV1CF225Z		2.2 16V Ceramic	AC
C605	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C606	VCKYCY0JB105K		1 6.3V Ceramic	AC
C616	VCKYTV1CF225Z		2.2 16V Ceramic	AC
C617	VCKYCY0JB105K		1 6.3V Ceramic	AC
C623	VCKYCY1CB104K		0.1 16V Ceramic	AB
C624	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C628	VCKYCY1CB104K		0.1 16V Ceramic	AB
C629	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C631	VCSAPR1AJ105M		1 10V Tantalum	AD
C632	VCSATA0JJ226M		22 6.3V Tantalum	AD
C633	VCSATA0JJ226M		22 6.3V Tantalum	AD
C635	VCSATE1AJ476M		47 10V Tantalum	AD
C637	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C638	VCSAPR1AJ475M		4.7 10V Tantalum	AD
C640	VCSATE1AJ476M		47 10V Tantalum	AD
C645	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C646	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C651	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C685	VCSATA0JJ226M		22 6.3V Tantalum	AD
C686	VCSATA0JJ226M		22 6.3V Tantalum	AD
C691	VCKYCZ1HB332K		3300p 50V Ceramic	AA
C692	VCKYCZ1HB332K		3300p 50V Ceramic	AA
C2602	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C2605	VCCCCZ1HH101J		100p 50V Ceramic	AB
C2606	VCCCCZ1HH101J		100p 50V Ceramic	AB
C2607	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C2608	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C2609	VCSAPR1AJ475M		4.7 10V Tantalum	AD
C2610	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C2611	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C6603	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C6604	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C6606	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C6608	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C6610	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C6611	VCKYCY1EB223K		0.022 25V Ceramic	AA
C6612	VCKYCY1HB682K		6800p 50V Ceramic	AA
C6613	VCKYCZ1HB392K		3900p 50V Ceramic	AA
C6614	VCKYCY1EB183K		0.018 25V Ceramic	AA
C6618	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C6619	VCKYCZ1CB123K		0.012 16V Ceramic	AB
C6620	VCKYCZ1HB471K		470p 50V Ceramic	AB
C6621	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C6622	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C6623	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C6628	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C6629	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C6630	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C6631	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C6632	VCKYCY1EB223K		0.022 25V Ceramic	AA
C6633	VCKYCY1EB183K		0.018 25V Ceramic	AA
C6634	VCKYCZ1HB392K		3900p 50V Ceramic	AA
C6635	VCKYCY1HB682K		6800p 50V Ceramic	AA
C6639	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C6640	VCKYCZ1CB123K		0.012 16V Ceramic	AB
C6641	VCKYCZ1HB471K		470p 50V Ceramic	AB
C6643	VCSATA1AJ106M		10 10V Tantalum	AC
C6644	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C6645	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C6646	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C6658	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C6659	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C6680	VCKYCZ1CB223K		0.022 16V Ceramic	AC
C6681	VCKYCZ1CB123K		0.012 16V Ceramic	AB
C6682	VCKYCZ1CB123K		0.012 16V Ceramic	AB
C6683	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
			RESISTORS	
C695	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R603	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R609	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R613	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R614	VRK-SA1JF222J		2.2k 1/16W Metal Composition	AB
R616	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R635	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R638	VRS-CZ1JF106J		10M 1/16W Metal Oxide	AA
R639	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R640	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R641	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R646	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R651	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R655	VRK-SA1JF223J		22k 1/16W Metal Composition	AB
R656	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R657	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R658	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R660	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R661	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R662	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R670	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R685	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R686	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R687	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R688	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R690	VRS-CY1JF000J		0 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R2601	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2606	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2607	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2608	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R2609	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2610	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2611	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2612	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2613	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2614	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2615	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2616	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2617	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2618	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2619	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2621	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2622	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2623	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2624	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2625	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2626	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2627	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2628	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2629	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2630	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R2631	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R6602	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R6606	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R6607	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R6611	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R6612	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R6615	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R6616	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R6617	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R6618	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R6619	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R6628	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R6629	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R6630	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R6632	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R6633	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R6634	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R6635	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R6636	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R6637	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R6646	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R6647	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R6648	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R6649	VRS-CZ1JF512J	5.1k	1/16W Metal Oxide	AB
R6650	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R6651	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R6652	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R6665	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R6681	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R6682	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R6683	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R6684	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R6685	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R6686	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA
R6687	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R6688	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R6690	VRS-CY1JF102J	1k	1/16W Metal Oxide	AA

BALUNES

FB603	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
R689	RBLN-0106TAZZ	Balun, BLN-0106TA	AB
R691	RBLN-0106TAZZ	Balun, BLN-0106TA	AB
R6610	RBLN-0104TAZZY	Balun, BLN-0104TA	AB
R6689	RBLN-0104TAZZY	Balun, BLN-0104TA	AB

MISCELLANEOUS PARTS

J601	QJAKE0060TAZZ	Jack, 4Pin	AE
P602	QPLGN0276TAZZ	Plug, 2Pin	AD
SC2601	QSOCN1090TAZZY	Socket, 10Pin	AD
SC2602	QSOCN1160TAZZ	Socket, 11Pin	AD
SC2604	QCNCW3396TAZZY	Connector, 33Pin	AG
SC6601	QSOCN0607REN1	Socket, 6Pin	AC

DUNTK3117QA02
CARD PWB UNIT

CAPACITORS

C1510	VCKYCZ1HB221K	220p	50V	Ceramic	AA
C1511	VCKYCZ1HB221K	220p	50V	Ceramic	AA
C1512	VCKYCZ1HB221K	220p	50V	Ceramic	AA
C1513	VCKYCZ1HB221K	220p	50V	Ceramic	AA
C1520	VCSATE0JJ107M	100	6.3V	Tantalum	AE

RESISTORS

R1512	VRS-CZ1JF563J	56k	1/16W	Metal Oxide	AA
R1513	VRS-CZ1JF563J	56k	1/16W	Metal Oxide	AA
R1514	VRS-CZ1JF563J	56k	1/16W	Metal Oxide	AA
R1515	VRS-CZ1JF563J	56k	1/16W	Metal Oxide	AA
R1516	VRS-CZ1JF563J	56k	1/16W	Metal Oxide	AA
R1517	VRS-CZ1JF563J	56k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

SC1501	QSOCZ0075TAZZY	Socket, 15Pin	AM
SC1503	QCNCW2796TAZZ	Connector, 27Pin	AG
SW1501	QSW-M0016TAZZ	Switch	AD
	PSLDM3376TAFW	Shield	AC

DUNTK3118PM03(VL-NZ10S/H)
DUNTK3118PM04(VL-NZ10E/EW)
CCD PWB UNIT

TRANSISTOR

Q2	VS2SC5384C/-1	2SC5384C	AB

DIODE

D1	VHDMC2852//-1	MC2852	AB

CAPACITORS

C1	VCSATE1VJ335M	3.3	35V	Tantalum	AD
C2	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C3	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C4	VCSATA1CJ106M	10	16V	Tantalum	AD
C5	VCKYCZ1CB103K	0.01	16V	Ceramic	AB
C6	VCKYCY1EB104KY	0.1	25V	Ceramic	AB
C7	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C8	RC-KZ0072TAZZ	1	25V	Ceramic	AC
C94	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB

RESISTORS

R2	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R5	VRS-CZ1JF105J	1M	1/16W	Metal Oxide	AA
R6	VRS-CZ1JF104D	100k	1/16W	Metal Oxide	AB
R7	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

SC2	QSOCN2078TAZZ	Socket, 20Pin	AE
RMC1	RSNSG0004CEZZ	Gyro Sensor	AX

DUNTK3228QA02
INVERTER PWB UNIT

TRANSISTOR

Q9801	VSCPH5504++-1Y	CPH5504++	AE

Ref. No.	Part No.	★	Description	Code
	COIL AND TRANSFORMER			
L9801	RCiLP0349TAZZY		Coil, 33µH	AD
⚠ T9800	RTRNZ0166TAZZY		Transformer	AK
	CAPACITORS			
C9800	RC-KZ0055TAZZ		3.3 16V Ceramic	AD
C9802	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C9807	RC-CZ0061TAZZY		0.022 25V Ceramic	AD
C9810	VCKYCY1HB332K		3300p 50V Ceramic	AA
C9812	RC-KZ0351CEZZ		18p 3kV Ceramic	AD
	RESISTORS			
R9803	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R9804	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R9808	VRS-CZ1JF271D		270 1/16W Metal Oxide	AB
R9809	VRS-CZ1JF271D		270 1/16W Metal Oxide	AB
	MISCELLANEOUS PARTS			
SC9801	QSOCN0924TAN1Y		Socket, 9Pin	AD
SC9802	QCNCWA002WJZZY		Connector, 4Pin	AE
SW9800	QSW-M0018TAZZ		Switch, Eject	AC
BAT9801	QTANS9045TAFW		Terminal, Li Batt	AC
BAT9802	QTANS9046TAFW		Terminal, Li Batt	AC

DUNTK3229PM01 OPERATION PWB UNIT

	CAPACITOR			
C2001	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
	RESISTOR			
R2001	VRS-CZ1JF750J		75 1/16W Metal Oxide	AA
	MISCELLANEOUS PARTS			
RMC2001	RRMCU0021TAZZY		Remote Receiver	AK
SC2001	QSOCN0624TAN1Y		Socket, 6Pin	AD
SW2001	QSW-K0100TAZZ		Switch	AC
SW2002	QSW-K0100TAZZ		Switch	AC
SW2003	QSW-K0100TAZZ		Switch	AC

RAMP-0035TAN4 HEAD AMP PWB UNIT

	INTEGRATED CIRCUITS			
IC301	VHiBH7275KV-1		BH7275KV, REC/PB Amp IC	AU
IC302	VHiM24C04W6-1		M24C04W6, E²PROM IC	AE
	TRANSISTORS			
Q302	VS2SC4738Y/-1		2SC4738Y	AA
	or			
	VS2SC4617B/-1		2SC4617B	AA
	or			
	VS2SC5383F/-1		2SC5383F	AB
Q303	VS2SC4738Y/-1		2SC4738Y	AA
	or			
	VS2SC4617B/-1		2SC4617B	AA
	or			
	VS2SC5383F/-1		2SC5383F	AB
	COIL			
L301	VPAWM4R7MR70N		Coil, 4.7µH	AC
	CAPACITORS			
C301	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C302	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C303	VCSATE1AJ336M		33 10V Tantalum	AG
C304	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C305	VCCCCY1HH331J		330p 50V Ceramic	AA
C306	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C307	VCCCCY1HH331J		330p 50V Ceramic	AA
C308	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C309	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C310	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C311	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C312	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C313	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C314	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C315	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C318	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C319	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C320	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C321	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C322	VCKYCY0JB105K		1 6.3V Ceramic	AC
C323	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C324	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C327	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C329	VCSATA1AJ106M		10 10V Tantalum	AC
C330	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C331	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C332	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C333	VCKYCZ1CB822K		8200p 16V Ceramic	AB
C340	VCCCCZ1HH5R0C		5p 50V Ceramic	AC
C342	VCCCCZ1HH5R0C		5p 50V Ceramic	AC
C343	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C344	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C345	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
	RESISTORS			
R304	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R308	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R309	VRS-CZ1JF512J		5.1k 1/16W Metal Oxide	AB
R310	VRS-CZ1JF433J		43k 1/16W Metal Oxide	AA
R311	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R312	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R313	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R314	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R315	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R316	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R317	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R318	VRS-CZ1JF513J		51k 1/16W Metal Oxide	AA
R319	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R320	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R321	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R324	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R330	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R332	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R333	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R377	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R380	VRS-TV1JD100J		10 1/16W Metal Oxide	AA
	MISCELLANEOUS PARTS			
P306	QCNCM8082TAZZ		Plug, 80Pin	AK
SC301	QSOCN0925TAN1		Connector, 9Pin	AE
SC303	QSOCN1006TAN1		Connector, 10Pin	AE
SC304	QSOCN0706TAN1		Connector, 7Pin	AE
SC305	QSOCN2071TAZZ		Connector, 20Pin	AD
SC306	QSOCN1871TAZZ		Connector, 18Pin	AE

MECHANISM PARTS

Ref. No.	Part No.	★	Description	Code
301	LCHSM0181GEZZ		Main Chassis Ass'y	AQ
302	MLEVF0539GEFW		Eject Control Lever	AD
303	MLEVF0502GEFW		Pinch Control Lever	AD
304	NGERH3062GEFW		Main Cam	AD
305	MLEVF0503GEZZ		Shifter Drive Lever Ass'y	AE
306	MLEVF0505GEFW		Loading Lever	AD
307	MARMM0130GEZZ		S Loading Arm Ass'y	AF
308	MARMM0131GEZZ		Tu Loading Arm Ass'y	AF
309	MLEVF0508GEFW		T Arm Control Lever	AD
311	LANGG9121GEFW		CAP FPC Stopper	AD
312	LANGF9016GEZZ		Intermediate Gear ANG Ass'y	AG
313	MARMM0132GEZZ		Swing Arm Ass'y	AG
314	LANGJ0055GEFW		Mechanism Fixing Angle	AH
315	LANGJ0054GEFW		Head amp PWB ANG	AE
324	RDTCH0039GEZZ		Dew Sensor	AD
330	CCHSS0050GE03		Sensor FPC Affixing Slide Chassis	AY
331	LCHSS0050GEZZ		Slide Chassis Ass'y	AN
332	CPWBH6079GE01		Sensor FPC Ass'y	AV
334	LHLDP0104GEZZ		S-LED Holder	AC
335	LHLDP0105GEZZ		Tu-LED Holder	AC
337	LHLDZ0115GEZZ		Sensor FPC Guide	AC
338	QSW-M0035TAZZ		Down SW	AC
339	QTANZ0006GEZZ		Mic Contact SW	AG
340	RH-PX0180TAZZ		Cassette LED	AE
341	RH-PX0211TAZZY		S/E Sensor	AD
342	RDTCM0006TAZZ		Reel Sensor	AC
344	LANGG9124GEFW		Slide Adjustment ANG	AC
345	LANGG9126GEFW		Down Guide	AE
347	TLABH0590GEZZ		Cassette Control Caution Label	AB
351	MLEVF0542GEZZ		Tension Arm Ass'y	AG
352	MLEVF0511GEZZ		Tu Guide Arm Ass'y	AG
353	MLEVF0512GEZZ		Brake Shifter Ass'y	AE
354	LBNDK3022GEZZ		Tension Band Ass'y	AF
355	LANGA0073GEZZ		Reel Cover Ass'y	AG
356	LANGJ0038GEFW		T Spring Hanging ANG	AC
357	MLEVP0302GEZZ		Swing Arm Release Lever	AC
360	MLEVP0329GEZZ		Eject Lever	AC
361	MLEVP0296GEZZ		Pinch Drive Lever	AB
362	PGiDM0156GEZZ		Guide Rail	AC
363	PGiDM0186GEZZ		T Arm Control Lever Stopper	AC
364	NGERH1300GEZZ		Intermediate Gear A Ass'y	AE
365	NGERH1301GEZZ		Intermediate Gear B Ass'y	AB
366	NPLYV0164GEZZ		Intermediate Pulley Ass'y	AC
367	NPLYV0165GEZZ		Center Pulley Ass'y	AC
369	NGERH1302GEZZ		AHC Cam	AB
370	NGERH1303GEZZ		Coupling Gear	AB
371	NGERH1304GEZZ		Sub Cam	AC
372	NGERH1305GEZZ		S Loading Gear	AC
373	NGERH1306GEZZ		Tu Loading Gear	AC
374	MLEVP0333GEZZ		S Main Brake	AC
375	MLEVP0309GEZZ		Tu Main Brake	AB
376	LHLDX1046GEZZ		S Cassette Stay	AC
377	LHLDZ2024GEZZ		FPC Cover	AB
381	PGiDP0031GEFW		Tu Pole	AD
382	PGiDS0046GEFW		T Roller Upper Flange	AE
383	PGiDS0047GEFW		T Roller Bottom Flange	AE
384	NSFTL0761GEFW		T Roller Inner	AE
385	PGiDP0042GEFW		S Guide Sleeve	AD
386	PGiDM0170GEZZ		Slide Chassis Guide	AC
390	MSPRD0184GEFJ		Swing Arm Release SPR.	AC
391	MSPRT0417GEFJ		Main Brake SPR.	AB
392	MSPRT0436GEFW		T Arm SPR.	AB
393	MSPRD0178GEFJ		Tu Guide Arm SPR.	AB
394	MSPRD0179GEFJ		Pinch Lever Return SPR.	AB
395	MSPRD0180GEFJ		S Pressure SPR.	AB
396	MSPRD0181GEFJ		Tu Pressure SPR.	AB
397	MSPRC0220GEFJ		Guide Adjustment SPR.	AA
398	MSPRC0221GEFJ		Drum Fixing SPR.	AA
399	MSPRP0185GEZZ		PB Guide SPR.	AC
401	LX-WZ1071GE02		CW ø 0.7 ø 1.8t0.1	AC
402	LX-WZ1104GE06		CW ø 0.7 ø 2.2t0.25	AB
403	LX-WZ1029GE00		CW ø 1.2 ø 3t0.25	AA
411	LZ-WZ1105GE00		W ø 1.2 ø 2.5t0.13	AA
412	LZ-WZ1106GE00		W ø 1.2 ø 2.5t0.2	AA
413	XWHJZ12-03025		W ø 1.2 ø 2.5t0.3	AA
414	XWHJZ12-04025		W ø 1.2 ø 2.5t0.4	AA
415	XWHJZ12-05025		W ø 1.2 ø 2.5t0.5	AA
420	LX-BZ3202GEFF		Swing Arm Release Lever Fixing Screw	AC
421	LHLDZ2025GEZZ		Intermediate Gear Stopper	AB
425	LX-BZ0107GEFF		Special Screw M1.2 x L1	AB
426	LX-BZ0108GEFF		Special Screw M1.2 x L3.3	AA
428	LX-NZ0102GEFW		S Guide Hexagon Nut	AC
429	LX-BZ3203GEFF		Type 1 Minuteness Screw M1.4 x L1	AB
430	LX-BZ3185GEFN		Special Screw M1.4 x L2	AB
431	LX-BZ3135GEFF		Type 2 Minuteness Screw M1.4 x L1	AA
432	LX-BZ3201GEFF		Special Head Screw M1.4 x L2	AB
433	LX-BZ3132GEFF		Special Head Screw M1.4 x L1.5	AA
434	LX-BZ3131GEFN		Special Screw M1.4 x L1.6	AA
435	LX-HZ3089GEFF		S Tight Screw M1.4 x L2	AA
436	LX-HZ3076GEFF		S Tight Screw M1.4 x L3	AA
437	LX-HZ3088GEFF		L Motor Installation Screw	AB
438	LX-BZ3225GEFF		Drum Installation Screw	AC
439	LX-BZ3181GEFN		GR Lock Screw	AD
440	LX-HZ3084GEFF		S Tight Screw M1.4 x L4	AC
451	LPOLM0065GEZZ		Sup Pole Base Ass'y	AK
452	LPOLM0066GEZZ		Tu Pole Base Ass'y	AK
453	CGiDM0158GE03		Drum Base Ass'y	AH
454	NROLM0046GEZZ		Guide Roller Ass'y	AM
455	NROLM0045GEZZ		T Roller Ass'y	AK
456	NDAiV1076GEZZ		S Reel Base Ass'y	AM
457	NDAiV1077GEZZ		Tu Reel Base Ass'y	AK
458	MLEVF0526GEZZ		Pinch Lever Ass'y	AP
459	NBLTT0016GEZZ		Drive Belt	AD
461	RMOTM1080GEZZ		L Motor Ass'y	AQ
462	RMOTV1023GEZZ		Capstan Motor	AY
463	QSW-R0039GEZZ		Mode SW	AE
465	QPWBH5911GEZZ		LM/Mode FPC	AG
466	PDMP-0032GEZZ		Damper	AF
470	DDRMV0069GE03		Drum Ass'y	BZ
500	RAMP-0035TAN4		Head Amp PWB Unit	—
501	PSLDM3352TAFW		H/A FPC Shield Plate	AX
502	LANGG9125GEFW		Sensor FPC Cover	AC

CASSETTE CONTROL PARTS

Ref. No.	Part No.	★	Description	Code
600	CHLDX3093GE01		Cassette Control Ass'y	AT
601	LHLDX3093GEZZ		Housing Ass'y	AT
602	LANGF9655GEZZ		Top Cover Ass'y	AG
603	MSPRT0434GEFJ		Lock SPR	AB
604	MSPRT0435GEFJ		UP-SPR	AB
610	TLABH0589GEZZ		Cassette Control Lock Label	AB
434	LX-BZ3131GEFN		Special Screw M1.4 x L1.6	AA

CABINET PARTS LIST

Ref. No.	Part No.	★	Description	Code
1	CLNS-0145RMAA		Lens Ass'y(NE10S/H)	
1	CLNS-0145RMAB		Lens Ass'y(NE10E)	
2	CANGK0661TA01		Camera, PWB Fixing Angle Ass'y	AQ
2-1	PSLDM9194TAZZ		Camera PWB Shield Plate	AC
2-2	DUNTK3115QA03		Camera Head PWB Unit (NZ10S/H)	—
2-2	DUNTK3115QA04		Camera Head PWB Unit (NZ10E/EW)	—
2-3	DUNTK3116QA03		Audio I/O PWB Unit (NZ10S/H)	—
2-3	DUNTK3116QA04		Audio I/O PWB Unit (NZ10E/EW)	—
2-4	PSLDM3376TAFW		Shield Case	AC
2-7	QPWBH3235TAZZ		CCD-FPC	AE
3	CCABC6117TAK1		KS Camera Front Cabinet	AX
3-2	GCOVA1835TASA		Front Grip Cover	AG
3-3	LHLDZ1653TAZZ		Camera Front Cabinet Holder	AC
3-4	GCOVA3127TASA		Lens Decoration Cover	AR
3-5	QEARP0340TAZZ		Lens Decoration Cover Earth Sheet	AB
3-6	HiNDP0247TASA		Lens Hood Nameplate	AD
4	CCOVA1843TAK1		KS Microphone Cover	AY
4-2	QEARP0329TAZZ		Microphone Grill Earth Sheet	AD
4-3	PMLT-0239TAZZ		Microphone Molt	AB
4-4	PFLT-0039TAZZ		Microphone Spacer	AB
4-5	HDECA0705TASA		Microphone Grill Earth Sheet	AK
4-6	RMiCC0108TAZZ		Microphone Unit	AP
4-7	LHLDZ1640TAZZ		Microphone Holder	AC
4-8	PMLT-0240TAZZ		Microphone Sound Isolation Moil	AB
4-9	JBTN-0361TASA		Still Button	AG
4-10	QEARP0330TAFW		Still Button Earth Plate	AC
4-11	GCOVA1826TAKA		Still Button Cover	AE
5	CCOVA1823TAK1		KS Camera Side Cover	AQ
5-3	VSP0020P-918N		Speaker	AL
5-4	QEARP0344TAZZ		Speaker Earth Sheet	AB
5-5	LANGK0513TAFW		Speaker Hold Angle	AC
6	CCABD6125TAK1		KS Camera Rear Cabinet	BC
6-2	PMLT-0242TAZZ		Operation Button Blindfold Spacer	AC
6-3	PMLT-0241TAZZ		Card Lid Spacer	AA
6-4	JBTN-0360TASA		Camera Operation Button	AG
6-5	GFTAS1018TAKA		Card Lid	AH
6-6	GMADi0038TASA		Card Lid Window	AD
6-7	JKNBP0233TASA		Card Lid Knob	AC
6-8	LHLDZ1641TA00		Card Lid Lock	AC
6-9	MSPRT0064TAFJ		Card Lid Knob Spring	AA
6-10	LHLDZ1642TAZZ		Card Lid Lock Holder	AC
6-11	MSPRD0089TAFJ		Card Lid Shaft Spring	AB
6-12	LANGK0659TAZZ		Card Lid Shaft Angle	AE
6-13	NSFTZ0178TAFW		Card Lid Shaft	AA
6-14	QSW-Z0374TAZZ		Camera Operation Unit	AY
6-16	LANGK0660TAFW		Rear Cabinet Fixing Angle	AD
7	CCABA6230TAK1		KS V Frame	BE
7-2	LSTYM0036TAZZ		Stay L Ass'y	AL
7-3	PSPAG0138TA00		Floating Rubber	AC
7-4	LSTYM0035TAZZ		Stay R Ass'y	AN
7-5	PMLT-0244TAZZ		Lid Catch Spacer	AB
7-6	TLABH0458TAZZ		Lithium Exchange Label	AC
7-7	GFTAC3013TASA		Cassette Lid	AX
7-8	PMLT-0243TAZZ		Dust Protection Spacer	AB
7-9	LANGK0669TAZZ		Lid Lock Ass'y	AM
7-10	JKNBP0236TASA		Cassette Lid Open Knob	AF
7-11	GCOVA1841TAKA		Cassette Lid Cover	AL
7-12	PTPEH0079TAZZ		Cassette Lid Decoration Cover Fitting Tape	AD
7-13	GCOVA1825TAKA		Cassette Lid Decoration Cover	AN
7-14	TLABZ0585TAZZ		Feature Label A	AD
8	CANGK0651TA01		KS Radiation Angle	AH
9	PSHEP0228TAZZ		LCD Insulation Sheet	AB
10	CCOVA1840TAK2		KS Terminal Side Cover	AR
10-1	LANGK0672TAFW		Terminal Fitting Angle	AE
10-2	GCOVH1289TASA		AV Terminal Cover	AE
10-3	PSHEP0229TAZZ		LCD Covering Sheet A	AC
11	CCABB6263TAK1		LCD Cabinet	AX
11-1	GCOVA1827TAKA		LCD Mask	AL
11-2	PTPEH0077TAZZ		LCD Mask Fitting Tape	AE
11-3	QEARP0332TAFW		VCR Operation Earth Plate	AD
11-4	GCOVA1828TAZZ		R/C Light Reception Cover	AD
11-5	TLABH0459TAZZ		Turn Caution Label	AC
11-6	HBDGB0063TASA		Sharp Badge	AG
11-7	JBTN-0358TASA		VCR Operation Button	AF
13	CCOVA1821TAK1		Battery Cover	AR
13-1	JKNBP0235TASA		Battery Lock Knob	AC
13-2	MSPRC0152TAFJ		Battery Lock Spring	AA
13-3	LANGK0667TAFW		Battery Lock Fixing Angle	AD
13-4	QTANZ0152TAZZ		Battery Terminal Unit	AN
14	CCOVA3126TA01		Tilt Frame V	BD
14-1	PSPAZ0411TAZZ		Nolgraido	AF
14-2	LANGK0665TAFW		Tilt Frame C	AK
14-3	QEARP0333TAFW		Tilt Earth Plate	AB
14-4	PSPAZ0410TAZZ		Tilt Spacer	AF
14-5	LANGK0666TAFW		Stopper Angle	AC
14-6	QEARP0343TAFW		Tilt C Earth Plate	AC
14-7	QSW-Z0376TAZZ		Turn SW Unit	AF
14-8	LHLDZ1645TAZZ		FPC Holder	AD
14-9	CPWBH3236TA01		Tilt FPC	AX
14-10	QCNW-2060TAZZ		Power Cable(2pin)	AD
14-11	PGiDH0015TAFW		FPC Guide	AC
14-12	PFLT-0040TAZZ		Wire Fitting Tape	AA
14-13	PMLT-0249TAZZ		Sound Isolation Spacer B	AA
14-14	PSLDM9190TAZZ		Gasket	AD
14-15	PSHEP0252TAZZ		Tilt Insulation Sheet	AA
15	CHLDZ1646TA01		KS LCD Holder	AH
15-1	RLCDV0069TAZZ		LCD Panel	BT
15-2	CANGK0652TA01		KS LCD Earth Plate	AF
15-3	PSHEP0044TAZZ		Prism Sheet	AG
15-4	PSHEP0045TAZZ		Diffusion Sheet	AD
15-5	PGiDM0037TAZZ		Light Guide Plate	AG
15-6	PMiR-0021TAZZ		Reflection Sheet	AC
15-7	KLMPV0060TAZZ		Lamp Unit	AT
16-1	LANGT0468TASA		Shoe Angle	AF
16-2	QJAKE0094TAZZ		Shoe Terminal Unit	AM
16-3	QPWBH3237TAZZ		Shoe FPC	AG
16-4	QSW-Z0379TAZZ		Power SW Unit	AW
16-5	DUNTK3117QA02		Card PWB Unit	—
16-8	QPWBH3238TAZZ		Lithium FPC	AD
16-9	DUNTK3228QA02		Inverter PWB Unit	—
16-10	LANGK0668TAFW		Lid Lock Catch Angle	AE
16-11	QPWBH3239TAZZ		VCR Operation FPC	AD
16-12	DUNTK3114QA01		Main PWB Unit(NZ10S)	—
16-12	DUNTK3114QA02		Main PWB Unit(NZ10H)	—
16-12	DUNTK3114QA03		Main PWB Unit(NZ10E/EW)	—
18	LHLDB1028TASA		Lithium Holder	AD
19	TLABM2242TAZZ		Model Label(NZ10S)	AE
19	TLABM2243TAZZ		Model Label(NZ10H)	AD
19	TLABM2244TAZZ		Model Label(NZ10E)	AE
19	TLABM2245TAZZ		Model Label(NZ10EW)	AE
a	LX-HZ0050TAFN		M1.7-4 N	AA
c	XiPSN17P03000		M1.7-3 N	AA
d	LX-BZ0221TAFC		M1.7-2 ROC	AB
e	XiPSN17P02000		M1.7-2 N	AA
g	LX-BZ0238TAFN		M1.7-6 N with Washer	AC
h	XiPSF17P02000		M1.7-2 F	AA
i	XiPSF17P03000		M1.7-3 F	AA
k	LX-BZ0251TAFD		Floating Screw A	AB
m	LX-BZ0253TAFN		Floating Screw B	AB
o	XiPSN17P06000		M1.7-6 N	AA
p	LX-HZ0063TAFN		M1.7-6 N Tapping	AA
q	LX-HZ0050TAFF		M1.7-4 F	AA
r	XiPSN17P04000		M1.7-4 N	AA
s	LX-HZ0084TAFN		M1.7-3 N	AA

CAMERA UNIT PARTS LIST

Ref. No.	Part No.	★	Description	Code
1	PFiLW0084TAZZ		Crystal Filter	AS
2	PCOVM8033TA00		Dust Protection Rubber	AC
3	CLNS-0145RMAA		CCD Service(NZ10S/H)	
3	CLNS-0145RMAB		CCD Service(NZ10E)	
4	LX-HZ0073TAFD		M1.7 X 5 Tap	AA
5	DUNTK3118PM03		CCD PWB Unit(NZ10S/H)	—
5	DUNTK3118PM04		CCD PWB Unit(NZ10E/EW)	—
6	XiPSN17P02000		M1.7 X 2 Small Screw (Silver)	AA
7	PSLDM3375TAMS		Shield Case	AD
8	QPWBH3235TAZZ		CCD=Camera FPC	AE
9	LANGK0662TAFW		Lens Fixing Angle	AG
10	LX-HZ0050TAFN		M1.7-4 N	AA

SUPPLIED ACCESSORIES

ACCESSORIES

Ref. No.	Part No.	★	Description	Code
⚠	QACCB0016TAZZ		AC Cable(NZ10H/EW)	AV
⚠	QACCK0006TAZZ		AC Cable(NZ10S/E)	AL
	QCNW-1914TAZZ		PC Cable	BG
	QCNW-1927TAZZ		AV/S Cable(NZ10E/EW)	AT
	QCNW-1976TAZZ		AV/S Cable(NZ10S/H)	AY
	QCNW-2058TAZZ		DC Cable	AQ
	QCNW-2044TAZZ		Headphone Cable (NZ10S/H)	AM
	QCNW-2045TAZZ		DV Cable(NZ10S/H)	AX
	RRMCG0104TASA		Remote Control	AN
⚠	UADP-0334TAZZ		AC Adapter	BE
	CDSKA0063TA01		MMC Card	BP
	GCOVH1291TASA		Lens Cap	AH
	GCOVH3061TASA		Lens Hood	AN
	GDAi-1059TAZZ		Tripod Adapter	AN
	RMiCC0107TAZZ		Zoom Microphone (NZ10S/E/EW)	BF
	CDSKA0059TA01		CD-ROM	AK
	TiNS-6048TAZZ		PC Soft Licence	AG
	TiNSL0295TAZZ		Operation Manual (German/French)(NZ10S)	AX
	TiNSL0296TAZZ		Operation Manual (Dutch/Italian/Spanish) (NZ10S)	AY
	TiNSL0297TAZZ		Operation Manual (Swedish/Portuguese/English) (NZ10S)	AX
	TiNSE0154TAZZ		Service Guide(NZ10H)	AA
	TiNSE0430TAZZ		Operation Manual(NZ10H)	AS
	TiNSE0431TAZZ		Quick User Guide(NZ10H)	AG
	TiNSL0298TAZZ		Operation Manual(NZ10E)	AY
	TiNSL0299TAZZ		Operation Manual (NZ10EW)	AY
	QPLGA0010GEZZ		Plug Converter(NZ10E)	AF
	UBATi0087TAZZ		Battery Pack	BE
	UBATL0011TAZZ		Lithium Battery(X2)	AE
	UBNDS0029TAZZ		Shoulder Strap	AU
	UBNDT0140TASA		Hand Strap	AM
	JHNDM0003TASA		Grip Handle	AL

ACCESSORIES
(NOT REPLACEMENT ITEM)

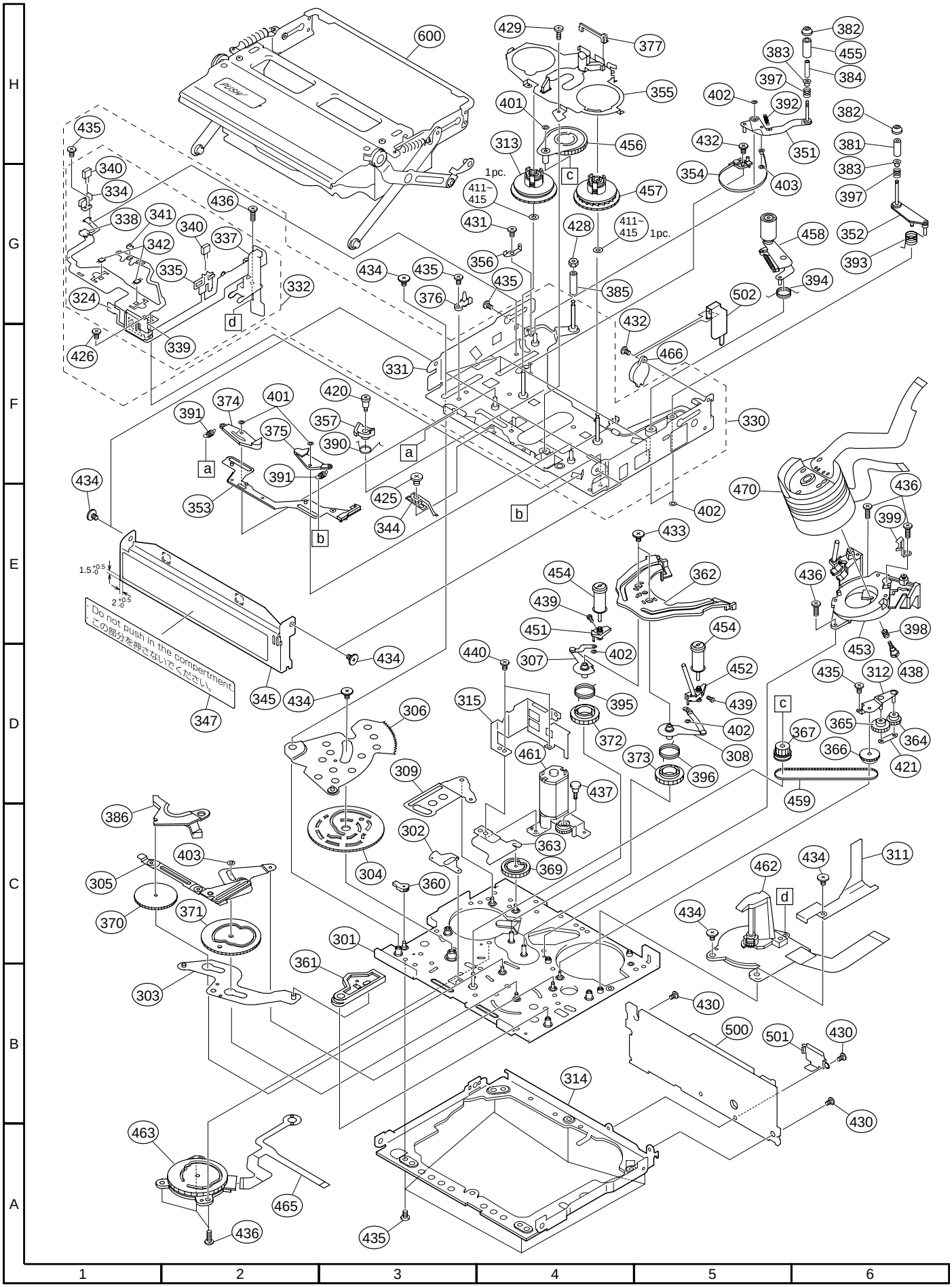
Ref. No.	Part No.	★	Description	Code
	TGANE0057TAZZ		Guarantee Card(NZ10H)	—
	TGANL0004TAZZ		Guarantee Card(NZ10S/H)	—
	TLABK0001TAZZ		No. Card(x2)	—

Ref. No.	Part No.	★	Description	Code

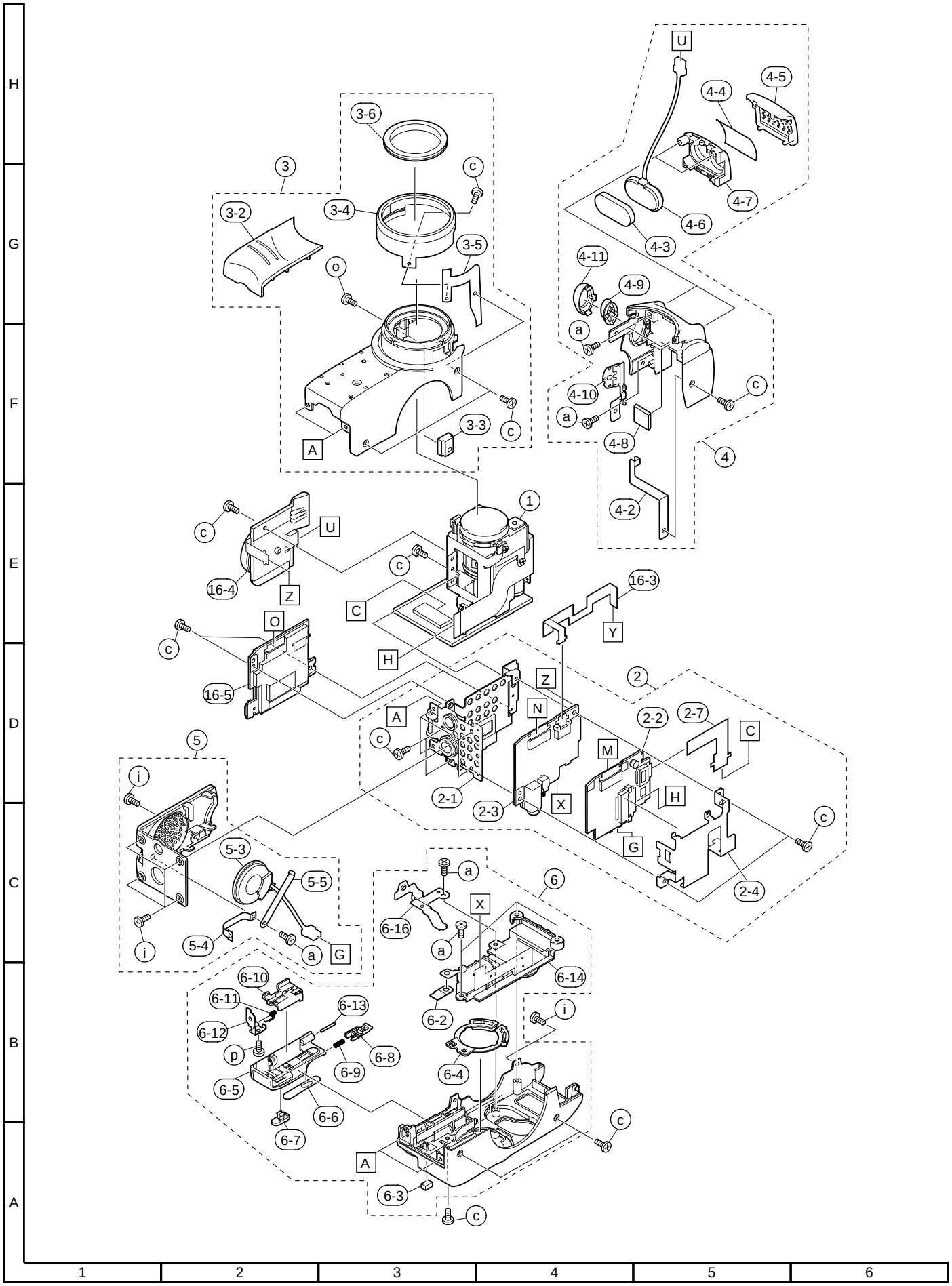
PACKING PARTS
(NOT REPLACEMENT ITEM)

SPAKC7659TAZZ	Packing Case(NZ10S)	—
SPAKC7660TAZZ	Packing Case(NZ10H)	—
SPAKC7661TAZZ	Packing Case(NZ10E/EW)	—
SPAKA6405TAZZ	Packing Add. (Top)	—
SPAKA6406TAZZ	Packing Add. (Bottom)	—
SPAKA6407TAZZ	Packing Add.	—
SPAKF0286TAZZ	AC Adapter Pad	—
SPAKP6108TAZZ	Side Pad	—
SPAKP6121TAZZ	Wrapping Paper	—
SSAKA0087TAZZ	Plastic Bag(NZ10H/E/EW)	—
SSAKA0117TAZZ	Plastic Bag(NZ10S)	—
SPAKF0292TAZZ	Spacer	—
SPAKF0293TAZZ	Bottom Spacer	—

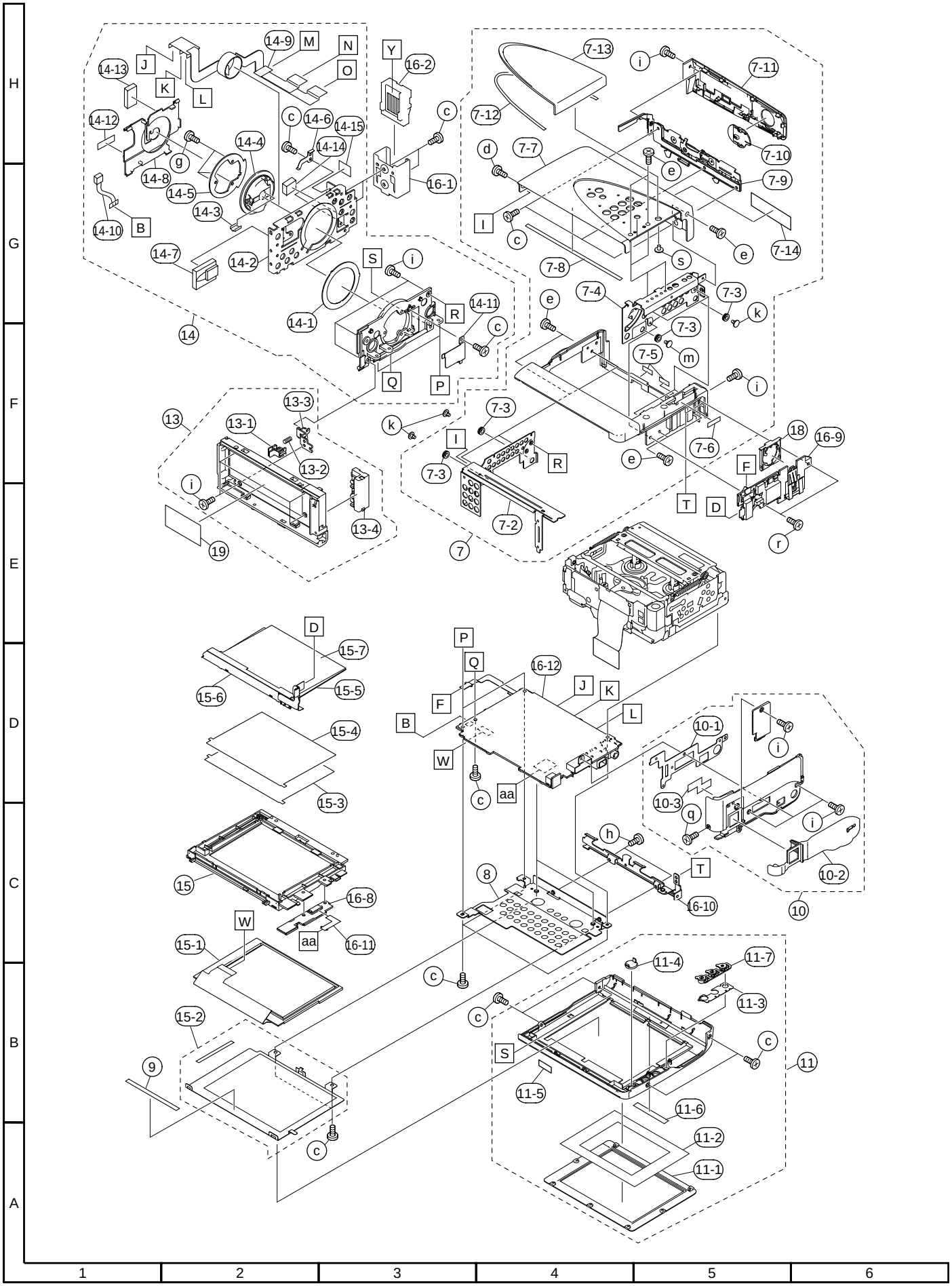
MECHANISM CHASSIS EXPLODED VIEW



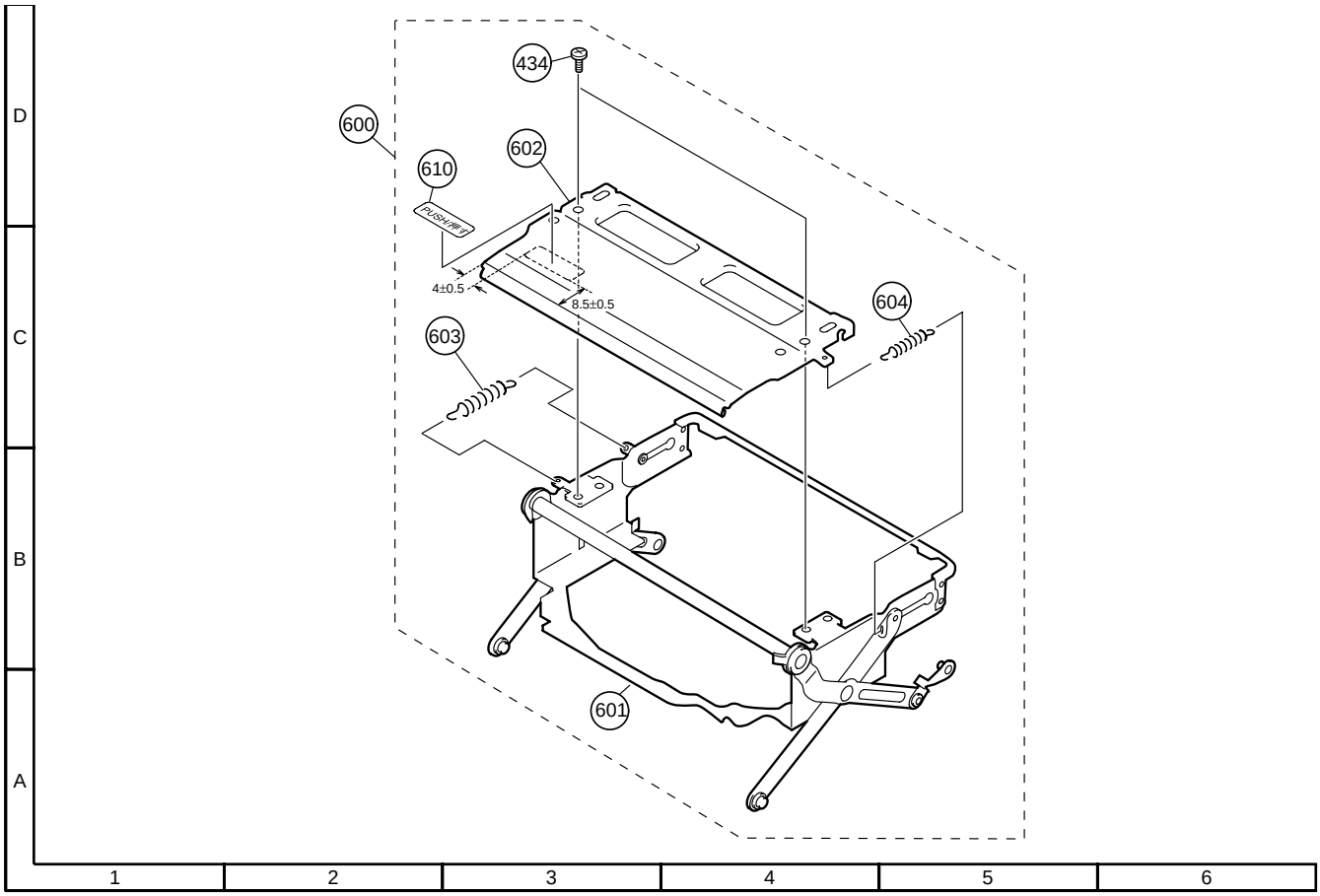
LENS UNIT EXPLODED VIEW



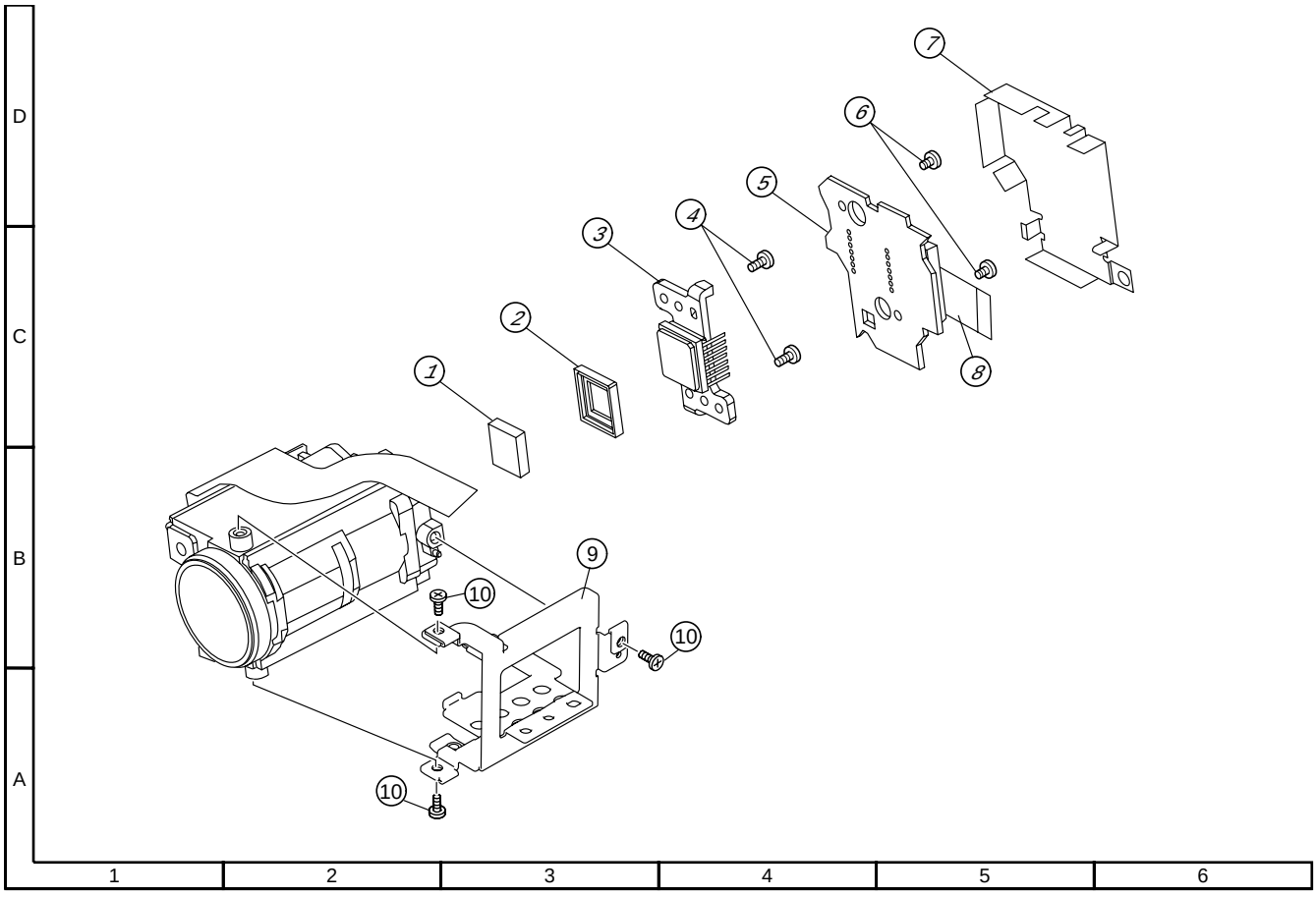
CABINET EXPLODED VIEW



CASSETTE CONTROL EXPLOOD VIEW



CAMERA UNIT EXPLOOD VIEW



VL-NZ10S/H/E SERVICE JIG SPECIFICATIONS

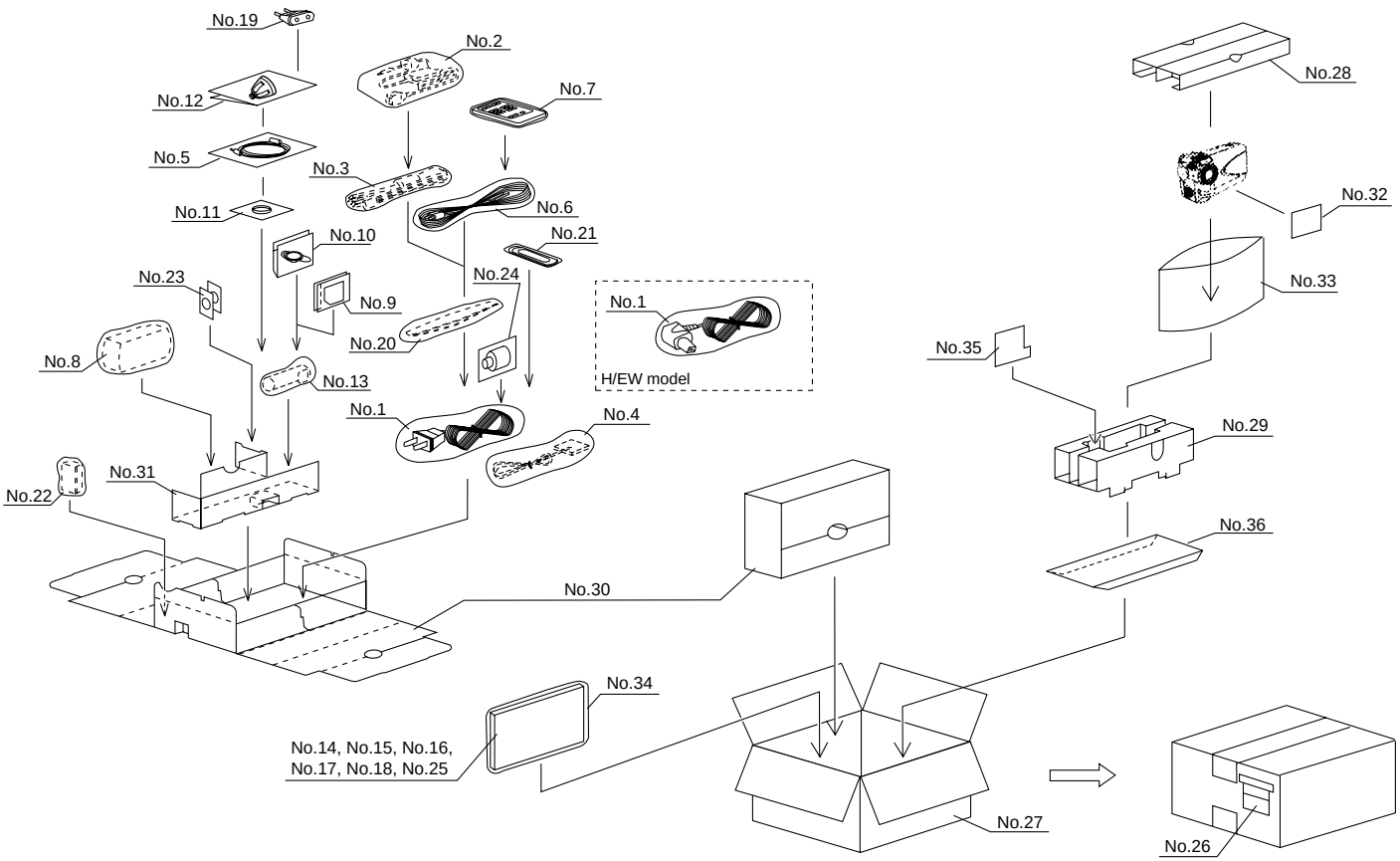
1-1. Adjusting jigs for checking the mechanism

No.	Name	New part	Type number, Application	Part code	Code
1	PB-use cassette torque meter		1mN·m/1.5mN·m	9DASD-1015	DB
2	Torque gauge		For use in VS-REW take up torque adjustment	JiGTG0045	CN
3	Torque gauge head		For use with the above torque gauge	9EQTGH-DH5000	BW
4	Tension gauge 4N		For measuring of pinch roller pressure	JiGSG0400	BK
5	Dial tension gauge		PTG-10	9DAPTG-10-10W	CA
6	Torque screwdriver 150mN·m		No. 0 cross bit, No. 00 cross bit	JiGTD1500RTDH	CB
7	Master plane		For checking the reel base height	9EQMP-VLPD1	CL
8	Height adjustment jig		For height adjusting	9DAHG-PD1	BZ
9	Height adjustment screwdriver		For guide roller adjustment. For Tu guide adjustment. For T roller adjustment. Bit shape.	9EQDRiVER-DH5	BC
10	Alignment tape - I		For tape running adjustment	VR3-GAZXS	CF
11	Alignment tape - II		For Switching Point adjustment	VR3-JPZQS	CG
12	For hexagon nut opposite side 3mm bit		For S guide hexagon nut installation.	95CM22001	BL
13	Reel hub for back tension measurement		Refer to Service Manual.	Prepared in the service station.	–
14	String for measuring the pinch roller pressure		Refer to Service Manual.	Prepared in the service station.	–

1-2. Parts for periodical inspection and maintenance

No.	Name	New part	Type number, Application	Part code	Code
1	Oil		Cosmo Hydro HV22	9EQ-OiL-HV22	AE
2	Cleaning paper		Dusper ∑ (SIGMA) ozu Co., LTD	JiGDUSPER	AP
3	Grease: Moly Coat YM-103		Dow corning	99FGREASE-YM103	AH

17. PACKING OF THE SET



ACCESSORIES

No.	Model	Parts Code	Description	Remarks
1	NZ10H/EW	QACCB0016TAZZ	AC Cable	⚠
	NZ10S/E	QACCK0006TAZZ	AC Cable	⚠
2	– Common parts –	QCNW-1914TAZZ	PC Cable	
3	NZ10E/EW	QCNW-1927TAZZ	AV/S Cable	
	NZ10S/H	QCNW-1976TAZZ	AV/S Cable	
4	– Common parts –	QCNW-2058TAZZ	DC Cable	
5	NZ10S/H	QCNW-2044TAZZ	Headphone Cable	
6	NZ10S/H	QCNW-2045TAZZ	DV Cable	
7	– Common parts –	RRMCG0104TASA	Remote Control	
8	– Common parts –	UADP-0334TAZZ	AC Adapter	⚠
9	– Common parts –	CDSKA0063TA01	MMC Card	
10	– Common parts –	GCOVH1291TASA	Lens Cap	
11	– Common parts –	GCOVH3061TASA	Lens Hood	
12	– Common parts –	GDAi-1059TAZZ	Tripod Adapter	
13	NZ10S/E/EW	RMiCC0107TAZZ	Zoom Microphone	
14	– Common parts –	CDSKA0059TA01	CD-ROM	
15	– Common parts –	TiNS-6048TAZZ	PC Soft Licence	
16	NZ10S	TiNSL0295TAZZ	Operation Manual (German/French)	
	NZ10S	TiNSL0296TAZZ	Operation Manual (Dutch/Italian/Spanish)	
	NZ10S	TiNSL0297TAZZ	Operation Manual (Swedish/Portuguese/English)	
	NZ10E	TiNSL0298TAZZ	Operation Manual	
	NZ10EW	TiNSL0299TAZZ	Operation Manual	
	NZ10H	TiNSE0430TAZZ	Operation Manual	
17	NZ10H	TiNSE0154TAZZ	Service Guide	
18	NZ10H	TiNSE0431TAZZ	Quick User Guide	
19	NZ10E	QPLGA0010GEZZ	Plug Converter	
20	– Common parts –	UBNDS0029TAZZ	Shoulder Strap	
21	– Common parts –	UBNDT0140TASA	Hand Strap	
22	– Common parts –	UBATi0087TAZZ	Battery Pack	
23	– Common parts –	UBATL0011TAZZ	Lithium Battery(X2)	
24	– Common parts –	JHNDM0003TASA	Grip Handle	

ACCESSORIES *(NOT REPLACEMENT ITEM)*

No.	Model	Parts Code	Description	Remarks
25	NZ10H	TGANE0057TAZZ	Guarantee Card	★
	NZ10S/H	TGANL0004TAZZ	Guarantee Card	★
26	– Common parts –	TLABK0001TAZZ	No. Card(x2)	★

PACKING PARTS *(NOT REPLACEMENT ITEM)*

No.	Model	Parts Code	Description	Remarks
27	NZ10S	SPAKC7659TAZZ	Packing Case	★
	NZ10H	SPAKC7660TAZZ	Packing Case	★
	NZ10E/EW	SPAKC7661TAZZ	Packing Case	★
28	– Common parts –	SPAKA6405TAZZ	Packing Add. (Top)	★
29	– Common parts –	SPAKA6406TAZZ	Packing Add. (Bottom)	★
30	– Common parts –	SPAKA6407TAZZ	Packing Add.	★
31	– Common parts –	SPAKF0286TAZZ	AC Adapter Pad	★
32	– Common parts –	SPAKP6108TAZZ	Side Pad	★
33	– Common parts –	SPAKP6121TAZZ	Wrapping Paper	★
34	NZ10H/E/EW	SSAKA0087TAZZ	Plastic Bag	★
	NZ10S	SSAKA0117TAZZ	Plastic Bag	★
35	– Common parts –	SPAKF0292TAZZ	Spacer	★
36	– Common parts –	SPAKF0293TAZZ	Bottom Spacer	★

MARK ★ Not Replacement Item

SHARP

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