

19&22" LED COLOR TV Service Manual

MODEL NO.:

TLE19/22H400DB

Contents

Safety Notice03

Supported Operating Modes04

Specifications05

Location and Function of Controls.....06

Exploded view and mechanical parts list08

Illustration of actual object09

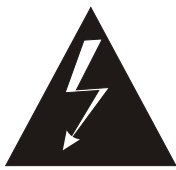
Driver PCB Principle Diagrams.....12

Inverter PCB Principle Diagram..... 19

DVD PCB Principle Diagrams-----21

Block Diagram..... 25

Safety Notice

 CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN 	TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
 This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.	 This symbol indicates important instructions accompanying the product.

Read this Manual

Read this manual thoroughly before operating the unit.

Keep this manual

Keep this manual for future reference.

Observe all warnings

All warnings on the product and in the manual must be observed closely.

Follow all instructions

All operating instructions in the manual must be followed.

Do not insert liquids or objects

Liquids or objects could result in fire or electrical shock. Use special caution in households where children are present. If liquids or objects should enter the LED TV, immediately turn off the power switch, disconnect the power plug from the DC outlet and contact the qualified service personnel.

- Do not place the LED TV near the bathtub, bathroom, kitchen sink, wet basement or swimming pool, and the like.
- Do not expose the LED TV to rain or moisture.
- Do not place flower vases, pots, cups, cosmetics, liquids as water, etc on or around the LED TV.
- Do not place metals, combustibles, etc on or around the LED TV.
- Do not drip or splash liquid of any kind on the LED TV.

Do not give the LED TV any shock or impact

If the LED TV should be shocked and/or broken, it could result in an injury, and continued use could result in fire or electrical shock.

If the glass panel is broken or damaged, immediately turn off the power switch, disconnect the power plug from the DC power outlet and contact the qualified service personnel.

Prevent the unit from falling

- Fasten the LED TV to a wall using a cord or chain which is sufficient to support the weight of the LED TV. Before moving the LED TV, the cord or chain should be removed.
- Avoid children to climb on the LED TV.
- Do not place the LED TV on a bed, sofa, rug, similar surface. Do not place the LED TV on an unstable cart, stand, or table. The LED TV may fall, causing serious damage to the LED TV and/or serious personal injury, death.
- When the product is used on a trolley, care should be taken to avoid quick stops, excessive force, and uneven surfaces that may cause the product and trolley to overturn.

Supported Operating Modes

COMPONENT VIDEO (YPbPr) INPUT

Mode	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
576i/50	720X576	15.63	50.00
480i/60	640X480	15.73	60.00
576p/50	720X576	31.25	50.00
480p/60	640X480	31.47	60.00
720p/60	1280X720	45.00	60.00
1080i/50	1920X1080	28.13	50.00
1080i/60	1920X1080	33.75	60.00
1080p/50	1920X1080	56.25	50.00
1080p/60	1920X1080	67.50	60.00

RGB INPUT

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Comment
640x480	31.5	60	DOS
800x600	37.9	60	VESA
1024x768	48.4	60	VESA
1280X768	64.0	60	VESA
1360X768	47.7	60	VESA

HDMI INPUT

Mode	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
480i	640X480	31.47	60.00
576p	720X576	31.25	50.00
720p/60	1280X720	45.00	60.00
1080i/50	1920X1080	28.13	50.00
1080i/60	1920X1080	33.75	60.00
1080p/50	1920X1080	56.25	50.00
1080p/60	1920X1080	67.50	60.00

- Modes, which are not listed in the above table, may not be supported. For an optimal picture is recommended to choose a mode listed in the table.
- The incoming display modes compatible with WINDOWS as shown in the table above.
- Sometimes, the image may be disrupted due to the frequency standard from the VGA card. However, this is not an error. You may improve this situation by activating the automatic adjustment or by manually changing the phase and the clock settings in the menu.
- To extend the service life of the product, we recommend that you use your computer's power management function.

Specifications

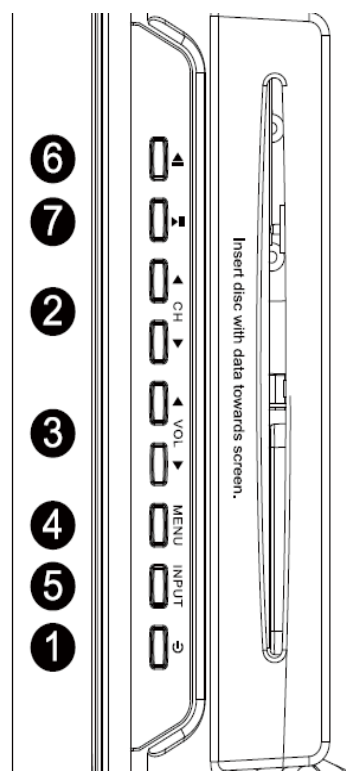
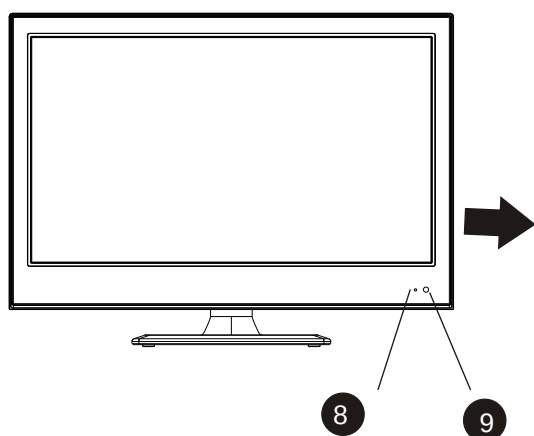
MODEL	LTE19/22H400DB
PC Resolution	
Maximum Mode	1360 X 768@ 60Hz
Input Source	
Sync.	H/V separate, TTL, P. or N.
Video Signal	1Vp-p @ 75 ohm
RGB Signal	0.7 Vp-p @ 75 ohm
TV	
Color System	ATV: PAL, SECAM
Sound System	BG, DK, I
Video	
Color System	PAL/SECAM
Video Format	CVBS, RGB
Power Supply	
Input	AC 110V-240V
Power Consumption	
Working	32W
Standby	< 3W
Environmental Considerations	
Operating Temperature	10°C ~ 40 °C (50°F ~ 104°F)
Operating Humidity	10% ~ 80%
Audio Characteristics	
Audio Input	RCA Jack (L, R), 0.5Vrms (-9dB)
Audio Input (PC)	Ø3.5 Stereo, 0.5Vrms (-9dB)
Frequency Response	RF: 100Hz~10KHz (at ± 3dB) A/V: 100Hz~12KHz (at ± 3dB)
Dimension (WXDXH) mm	
Without Stand	465*48*309
With Stand	465*150*366
Weight (Kg)	
Net Weight	≈3.5
Gross Weight	≈4.5

Note:

- Design and specifications are subject to change without notice.
- Weight and dimensions shown are approximate values only.

Location and Function of Controls

FRONT PANEL



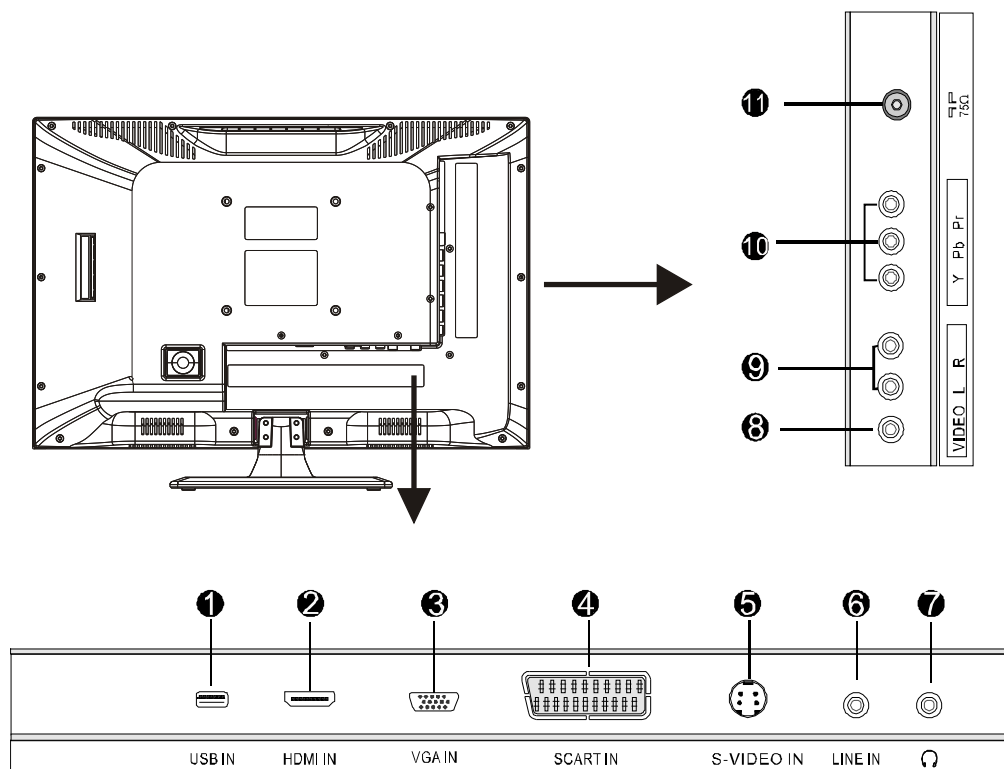
Item	Button Name	Description
①		Switch on the LED TV when at standby mode and vice versa.
②	CH	When you are watching the TV program, press this button to increase channel number. In the main-menu, press to select menu item.
③	VOL	Increase or decrease the volume. Adjust the values of the selected menu item in the OSD menu.
④	MENU	Enter or exit from the menu.
⑤	INPUT	Press to display "SOURCE" menu, then press button to select a input sources.
⑥		To eject the disc.
⑦		Press to play or pause the disc.
⑧	Power Indicator	Illuminates red in standby mode. Illuminates green when the LED TV is switched on.
⑨	Remote Sensor	Infrared sensor for the remote control.

Note:

If there is no signal input for 5 minutes , it will switch to standby mode automatically.

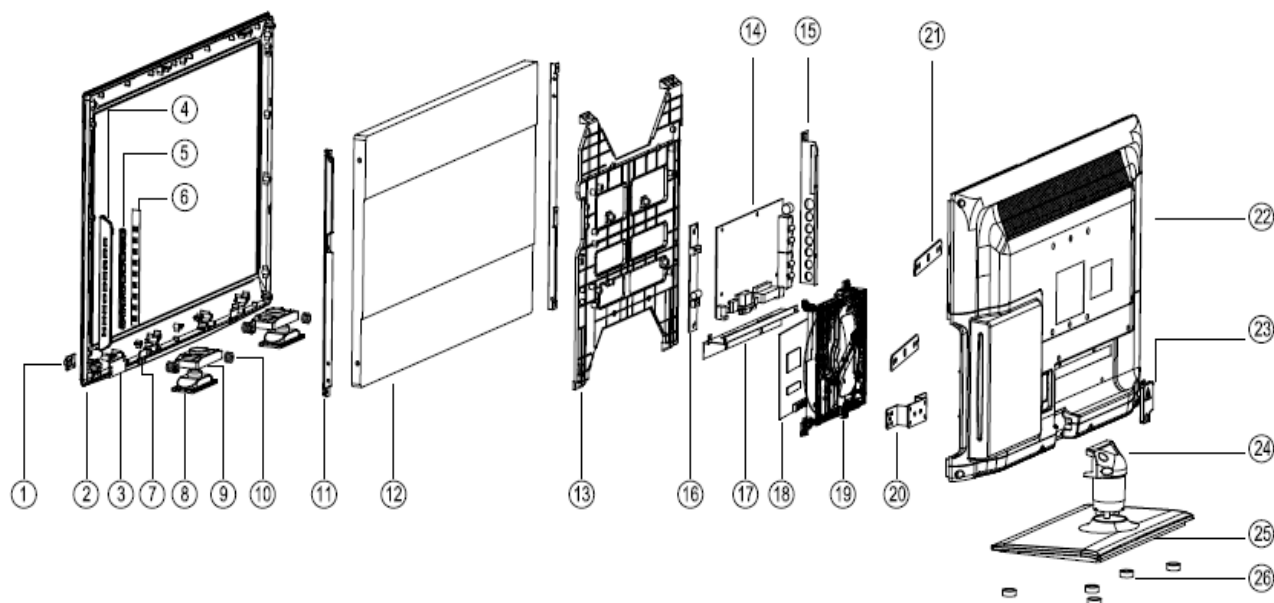
Control Buttons and Terminals

REAR PANEL



- ❶ USB Input Connector: Connect it to the USB.
- ❷ HDMI Input Connectors: Connect it to the HDMI of DVD or other external equipment.
- ❸ VGA Input Terminal: Connect it to the D-Sub 15 pins analog output connector of the PC with the VGA cable.
- ❹ SCART In Connector: Connect the AV system using a SCART lead.
- ❺ S-Video In Connector: Connect the S-Video
- ❻ LINE IN (VGA Audio) Terminal: Connect it to the audio output terminal of PC.
- ❼ Headphone Output Terminal: Connect the headphone.
- ❽ VIDEO Terminal: Connect it to Video output terminal of DVD
- ❾ Audio Input Terminals: Connect them to the audio output terminal of DVD with AV/YPbPr mode.
- ❿ YPbPr Component Video Input Terminals: Connect them to the YPbPr component output terminal of DVD or other external equipment.
- ⓫ RF Input Socket: Connect antenna or cable 75 ohm coaxial to receive TV signal.

Exploded view and mechanical parts list



19/22 Inch LED TV Model No: TLE19H400DB/TLE22H400DB

- | | | | | | | |
|-----------------|---------------------|-------------------|-------------------------|---------------------|-----------------------|---------------|
| ① Lens | ⑤ 7 key Button | ⑨ Speaker bracket | ⑬ Main PCBA bracket | ⑰ Down I/O Bracket | ⑳ Wallmount bracket | ㉕ Base |
| ② Front cover | ⑥ KEY PCB | ⑩ Speaker rubber | ⑭ Main PCB | ⑱ DVD Control board | ㉒ Back cover | ㉖ Rubber feet |
| ③ IR PCB | ⑦ Press panel matel | ⑪ Panel bracket | ⑮ Slide I/O Bracket | ⑲ DVD rollerkit | ㉓ AC power cord cover | |
| ④ 7 key bracket | ⑧ Speaker | ⑫ LED Panel | ⑯ Constant current PCBA | ㉔ Hinge | ㉔ Stand base | |

Illustration of actual object(1)

PCB name : Drive PCB (obverse)

Drive PCB Model No MTK 8223L



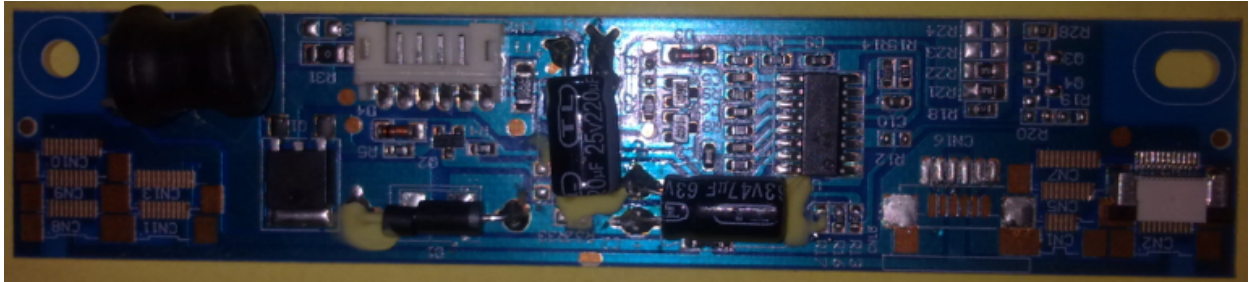
Illustration of actual object (2)



Illustration of actual object(3)

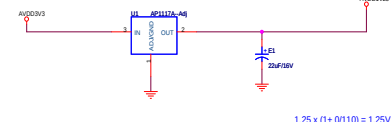
PCB name : Inverter PCB (obverse)

PCB Model No.: HQ-LED60N1

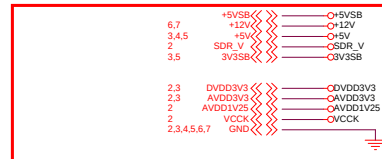
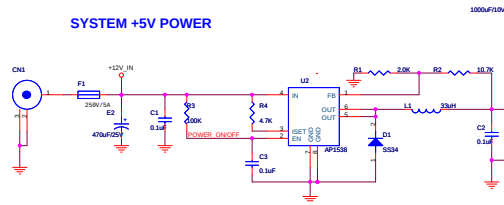


Driver PCB Principle Diagram

ANALOG POWER AVDD1V25



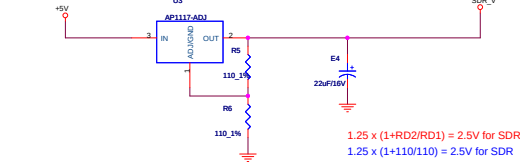
SYSTEM +5V POWER



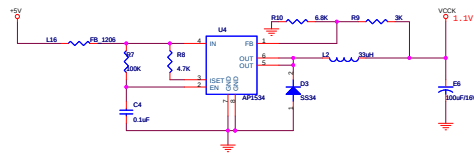
Control Interface

2.3 OPWRSB <<> OPWRSB

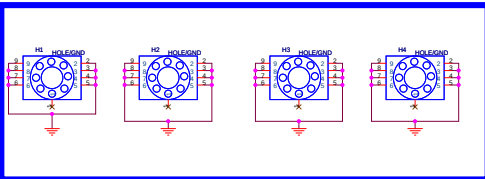
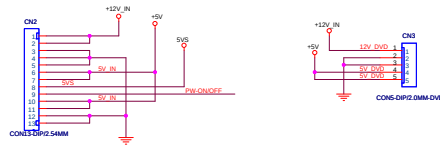
DRAM POWER



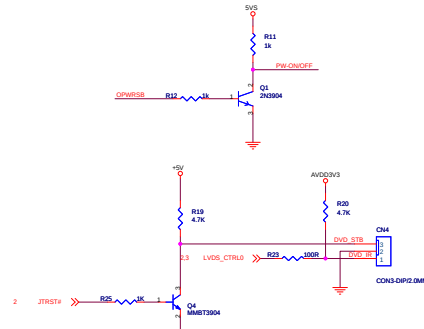
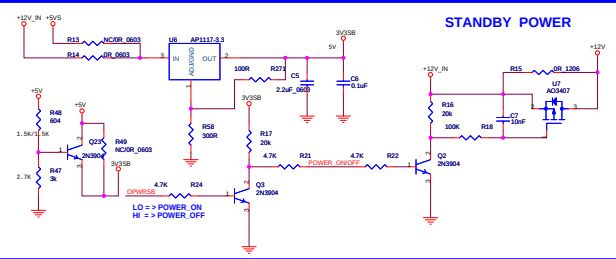
VCCK POWER



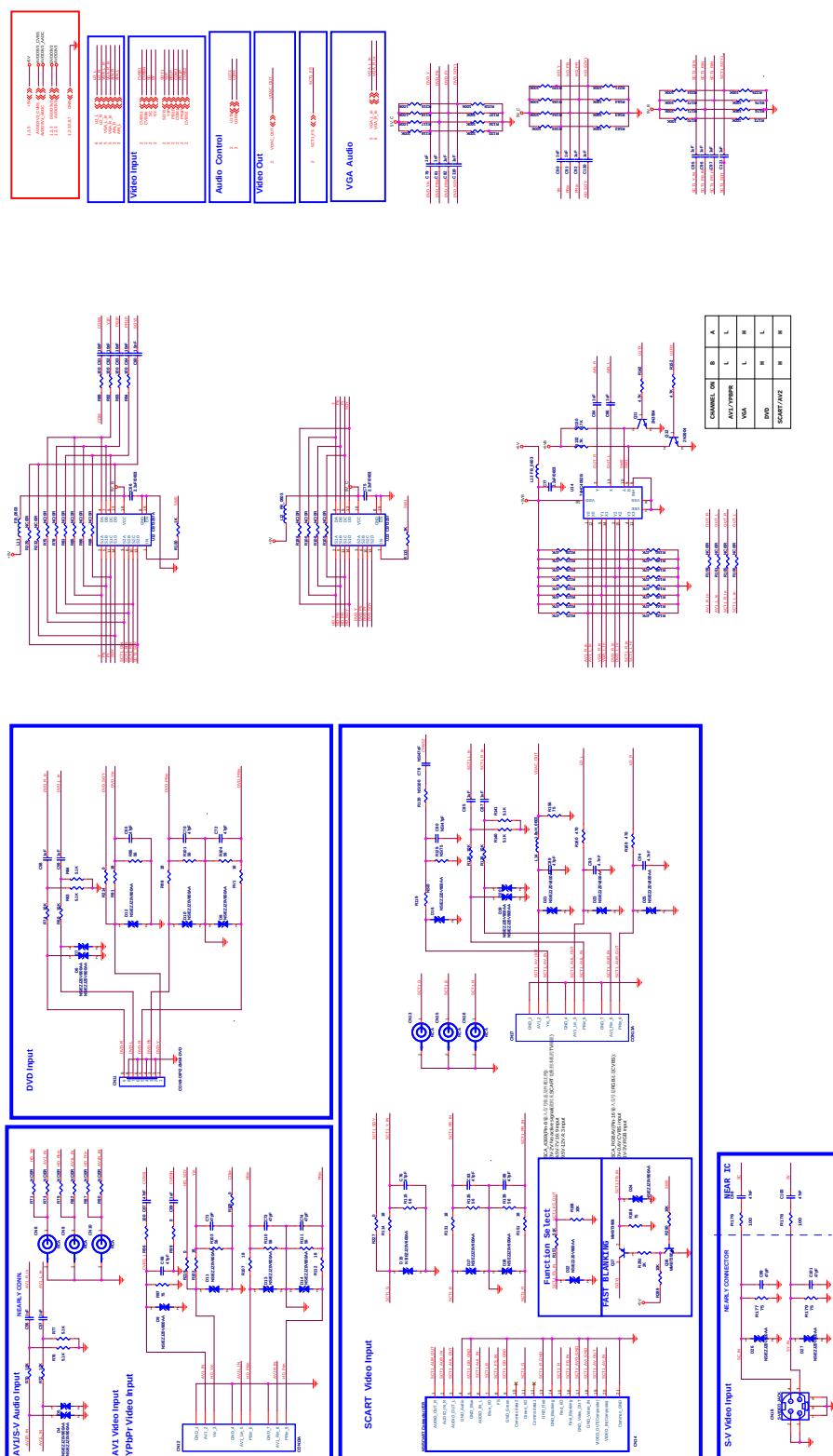
ANALOG POWER AVDD3V3



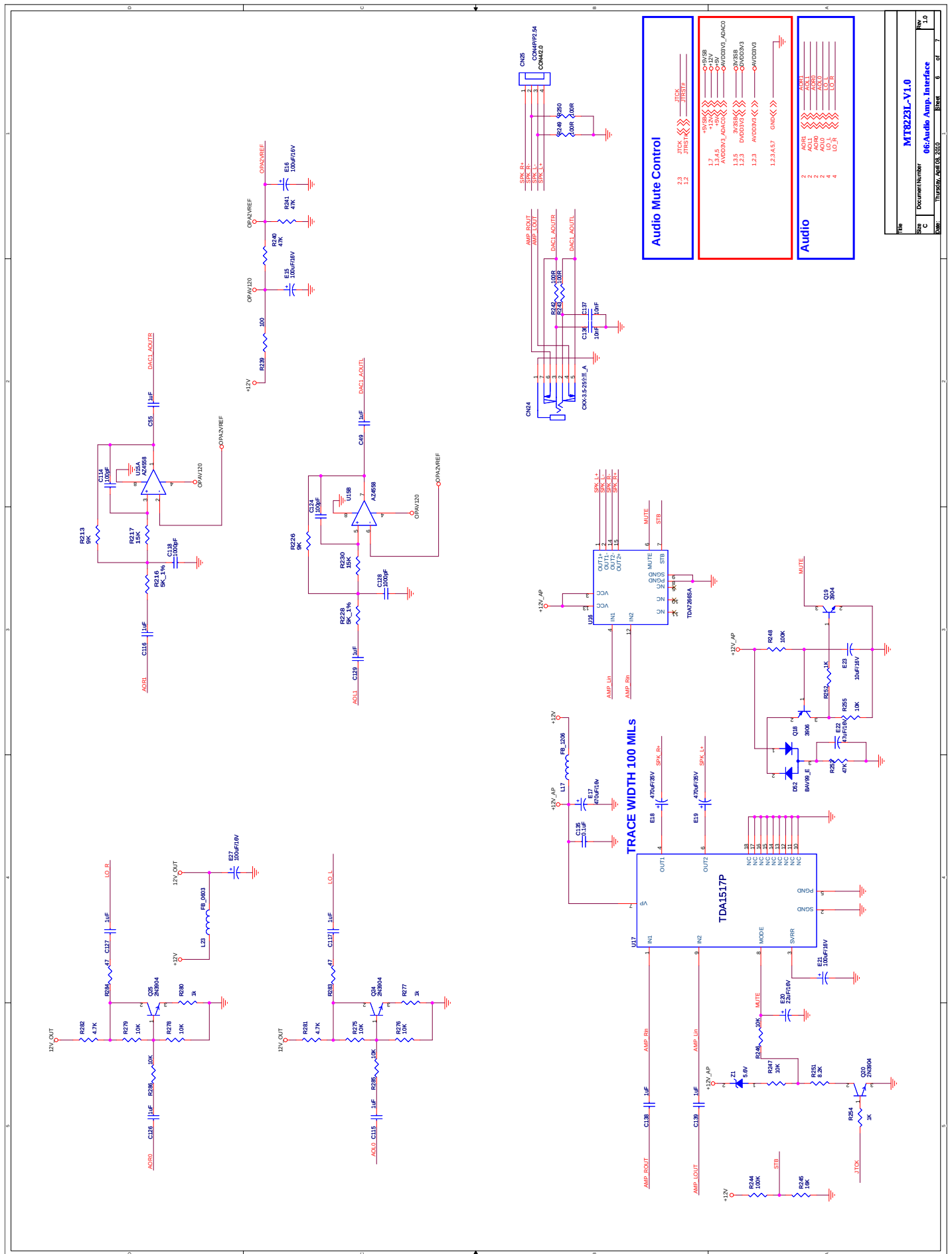
STANDBY POWER



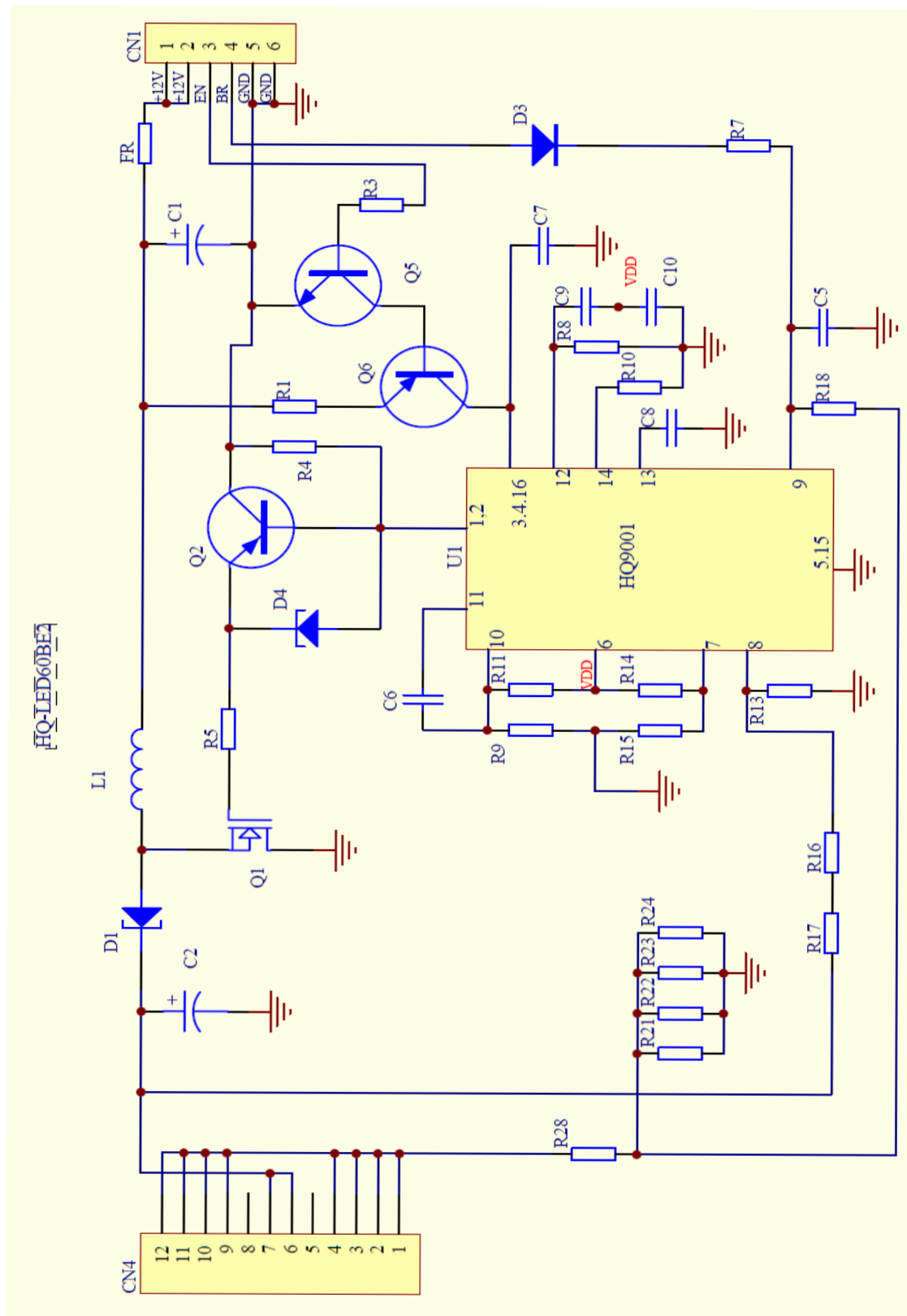








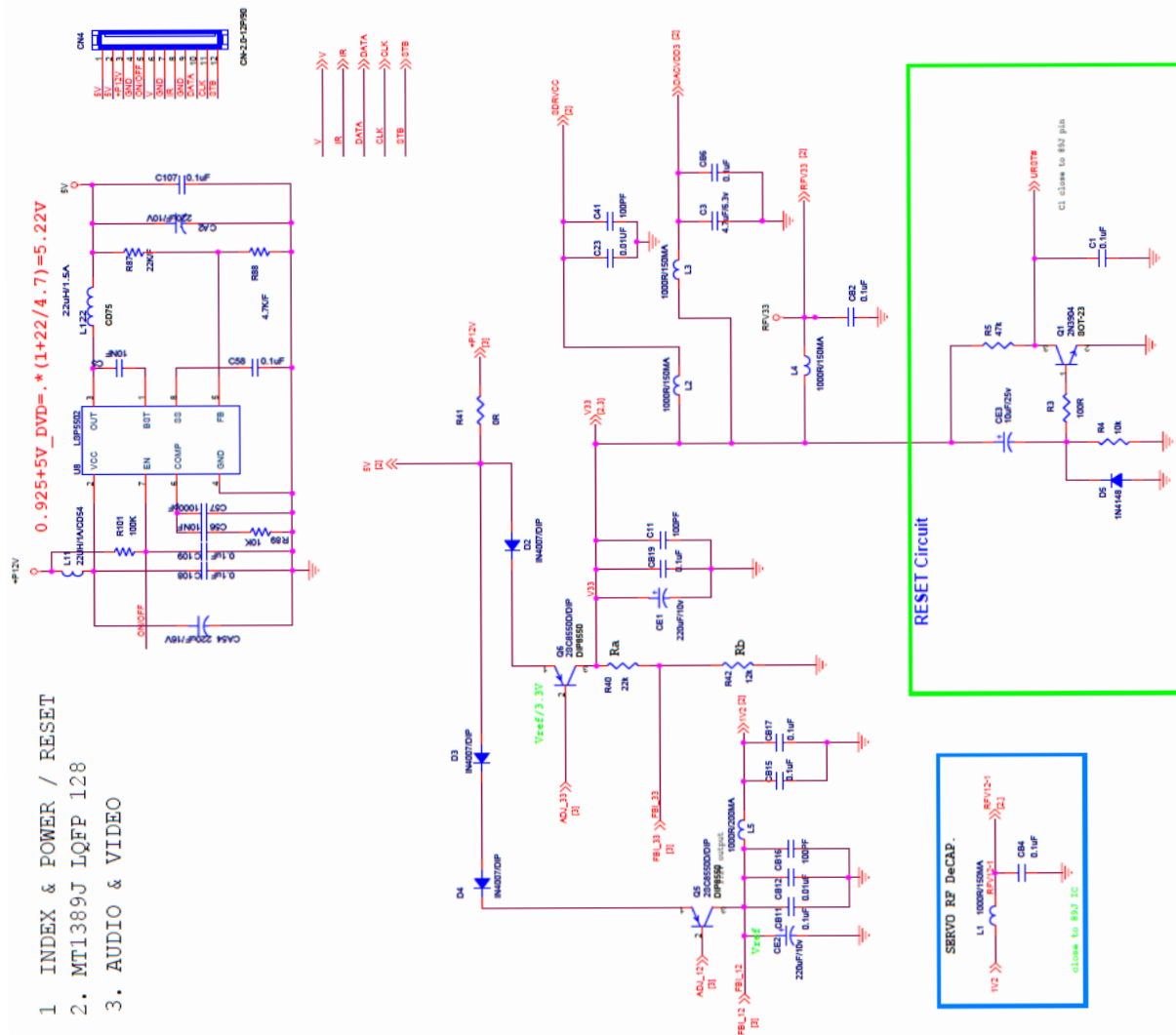




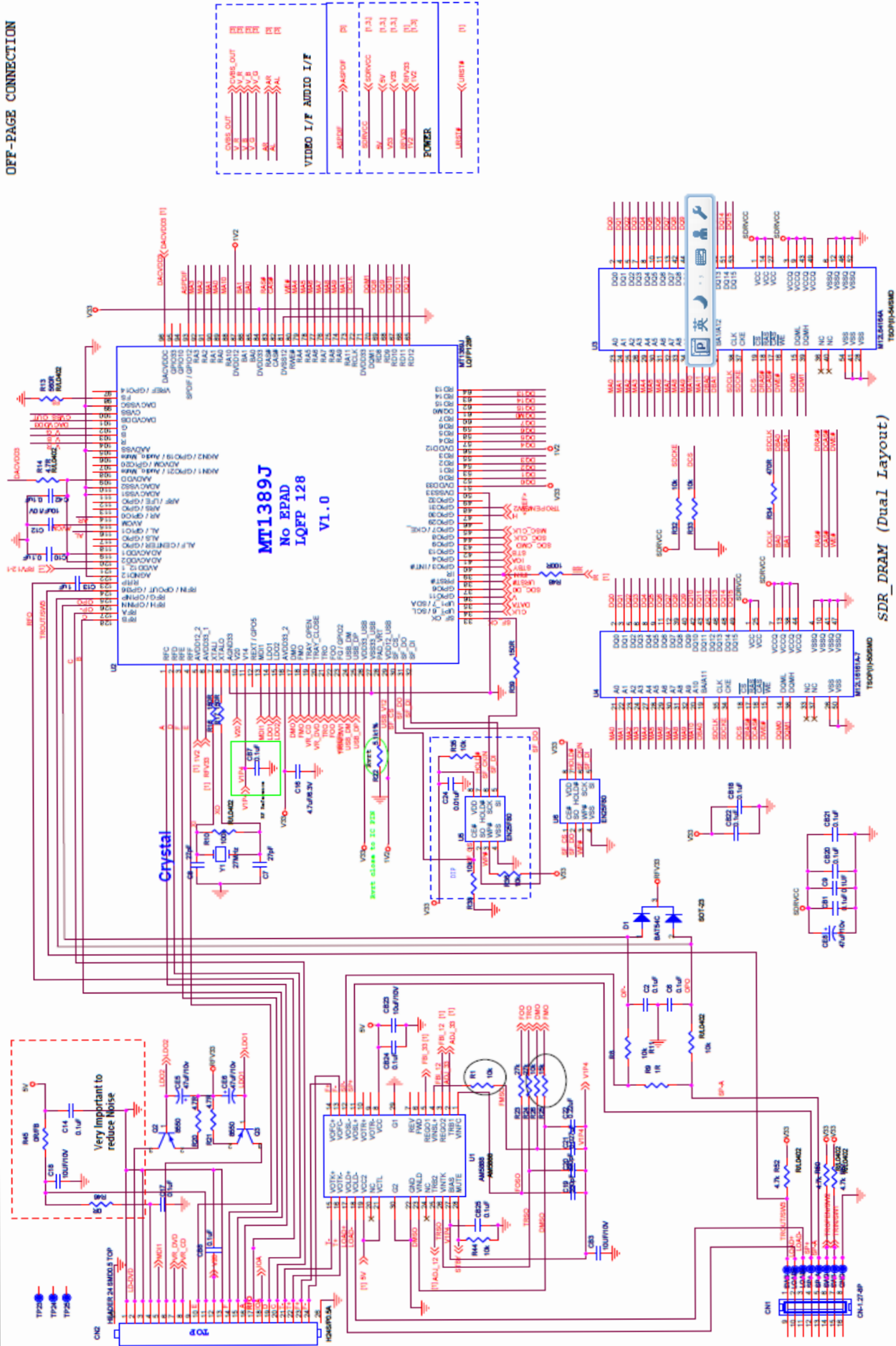
DVD PCB principle Diagram

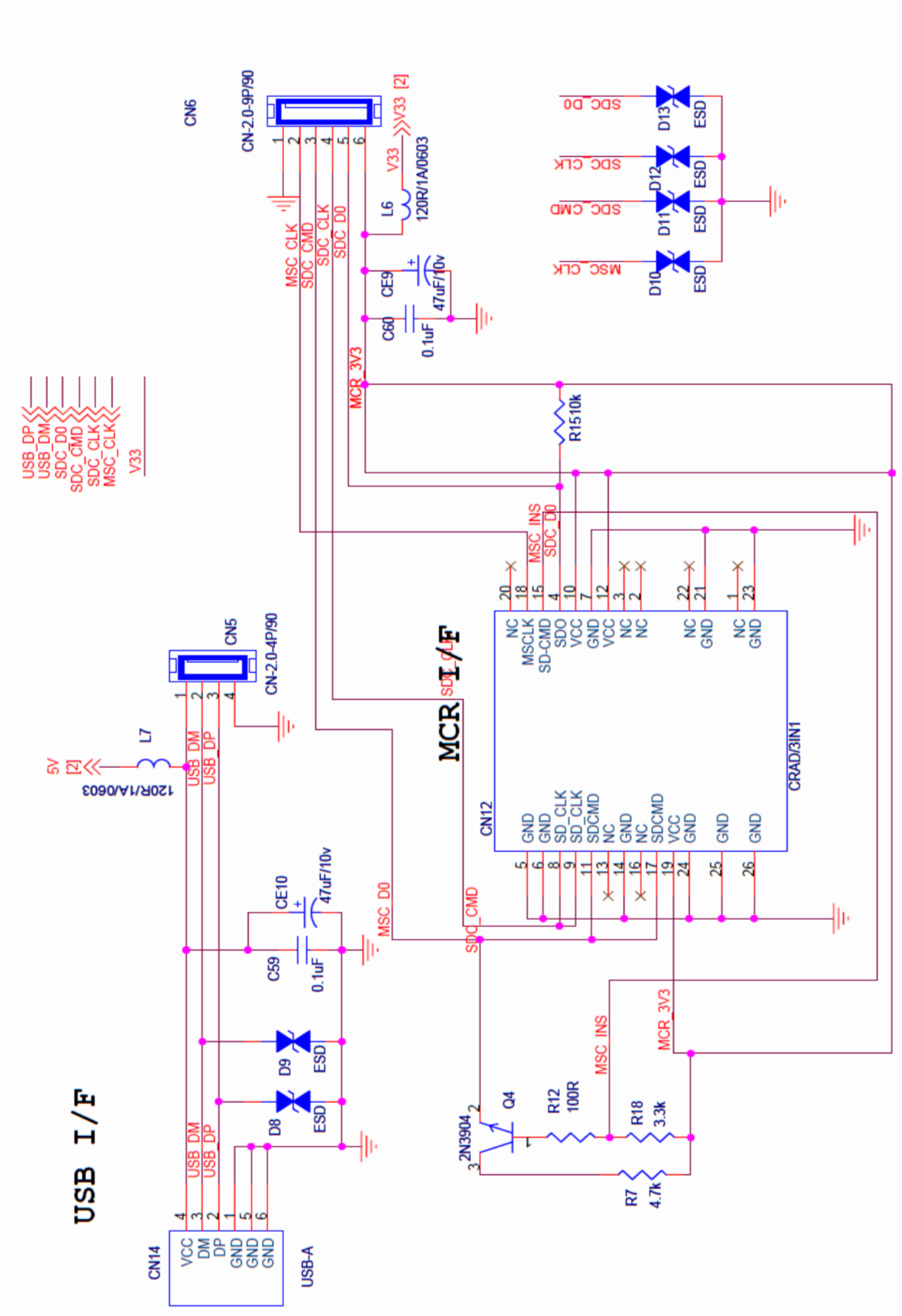
MT1389J General GPIO List

Name	PIN	Features
GPIO5	12	TRICLOSER
GPIO_A	19	VR_CD
GPIO_B	20	VR_DVD
GPIO2	23	TRIN
GPIO_6	34	VBACK
GPIO_7	35	VSDA
GPIO11	36	FXD
GPIO6	37	SD_D0
GPIO3	40	SD_D1
GPIO4	41	SD_D2
GPIO13	42	SD_D3
GPIO9	43	SD_D4
GPIO8	44	SD_D5
GPIO7	45	SD_D6
GPIO29	46	SD_D7
GPIO30	47	SD_D8
GPIO31	48	SD_D9
GPIO32	49	SD_D10
GPIO12	93	SD_D11
GPIO10	94	SD_D12
GPIO33	95	SD_D13
GPIO14	97	SD_D14
GPIO19	106	SD_D15
GPIO20	107	SD_D16
GPIO21	108	SD_D17
GPIO16	124	SD_D18



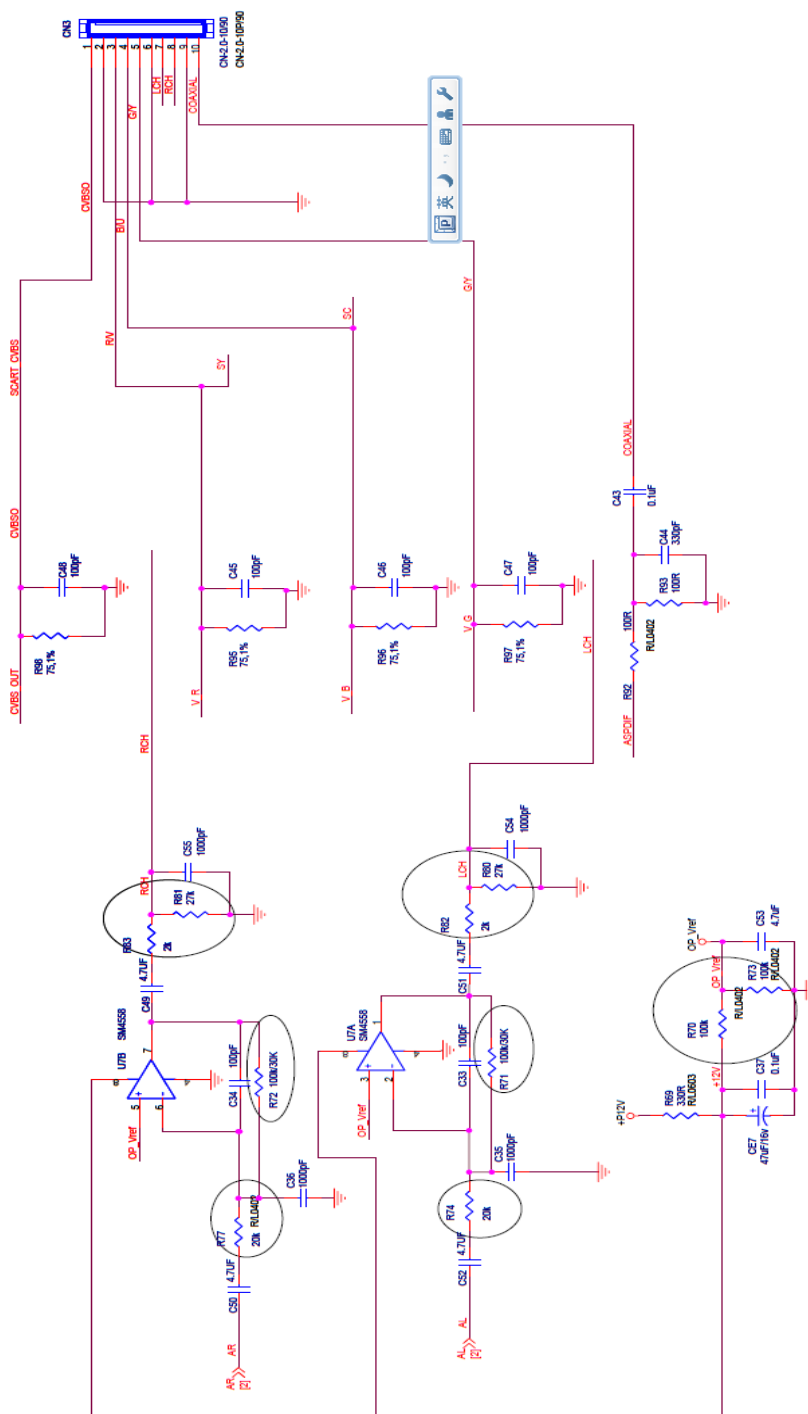
OFF-PAGE CONNECTION





OFF-PAGE CONNECTION

CHS OUT	CHS OUT	P2-1
V R	V R	P2-2
V B	V B	P2-3
V G	V G	P2-4
ASPOF	ASPOF	P2-5
+P2V	+P2V	[1]
SV	SV	[1,2,3]



Block Diagram

