



LCD TV
Service Manual

**MODEL:
LCT-19HE02ST**

CONTENTS

SAFETY PRECAUTION	4
SPECIFICATION.....	6
INSTALLATION	7
APPEARANCE & FUNCTION CONTROL.....	8
MENU SCREENS	12
TROUBLESHOOT	14

APPENDIX.....	15
----------------------	-----------

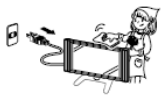
- 1) SCHEMATIC DIAGRAM OF CHASSIS
- 2) WIRING DIAGRAM
- 3) EXPLODED VIEW AND PART LIST

IMPORTANT SAFETY PRECAUTIONS

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your LCD colour TV product, please read the following precautions carefully before using the product.

1. Read instructions—All operating instructions must be read and understood before the product is operated.
2. Keep this manual in a safe place—These safety and operating instructions must be kept in a safe place for future reference.
3. Observe warnings—All warnings on the product and in the instructions must be observed closely.
4. Follow instructions—All operating instructions must be followed.
5. Attachments—Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
6. Power source—This product must operate on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company.
7. AC cord protection—The AC cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
8. Overloading—Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
9. Entering of objects and liquids—Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
10. Servicing—Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
11. Repair—If any of the following conditions occurs, unplug the AC cord from the AC outlet, and request a qualified service person to perform repairs.
 - a. When the AC cord or plug is damaged.
 - b. When a liquid was spilled on the product or when objects have fallen into the product.
 - c. When the product has been exposed to rain or water.
 - d. When the product does not operate properly as described in the operating instructions.
Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
 - e. When the product has been dropped or damaged.
 - f. When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.
12. Replacement parts—In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
13. Safety checks—Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
14. Wall or ceiling mounting—When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.

- **Cleaning**—Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.



- **Water and moisture**—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.



- Do not place vases or any other water-filled containers on this product. The water may spill onto the product causing fire or electric shock.



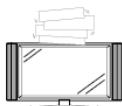
- **Stand**—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.



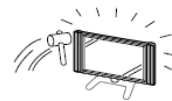
- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.



- **Ventilation**—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.



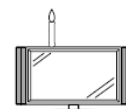
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or impact applied. If the LCD panel is broken be careful not to be injured by broken glass.



- **Heat sources**—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).



- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.



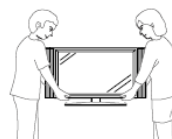
- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.



The LCD panel is a very high technology product with 3,147,264 thin film transistors, giving you fine picture details. Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or red. This is within product specifications and does not constitute a fault.

Precautions when transporting the TV

When transporting the TV, never carry it by holding onto the speakers. Be sure to always carry the TV by two people holding it with two hands—one hand on each side of the TV.



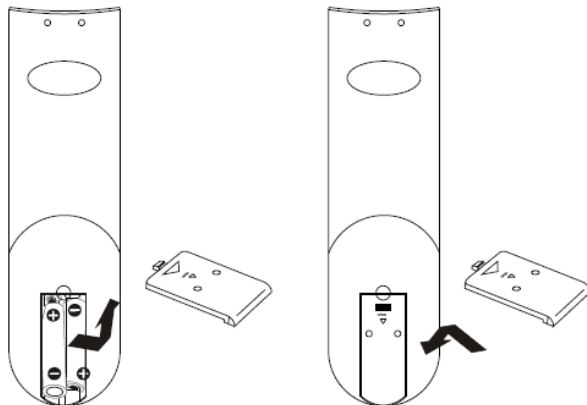
SPECIFICATION

Receiving System:	B/G, D/K, I
Colour System:	PAL,NTSC,SECAM
LCD Panel:	482.6mm(19 inch) diagonal
Ext.Antenna:	75 Ohm Coaxial Cable
Ext. In/Out:	EARPHONE, RCA, YPbPr, SCART, PC(VGA/AUDIO)IN
Speaker:	8OHMX2
Audio Output:	< 3W
Power consumption:	37~40W
Standby power consumption:	4.2~4.5W
Power Supply:	AC 110-240V 50/60Hz
Dimension:	W466X D415.7XH206(mm)
Net Weight:	7.00KG

Note:Design and specifications are subject to change without prior notice.

INSTALLATION

Requires two AAA batteries(supplied).



Procedure

1. Turn the remote control face down. Remove batterycover by pressing down on the marking on the cover and sliding it off in the direction indicated.
2. Install batteries matching(+) and(-) polarity signs.
3. Replace the battery cover by sliding in reverse until the lock snaps.

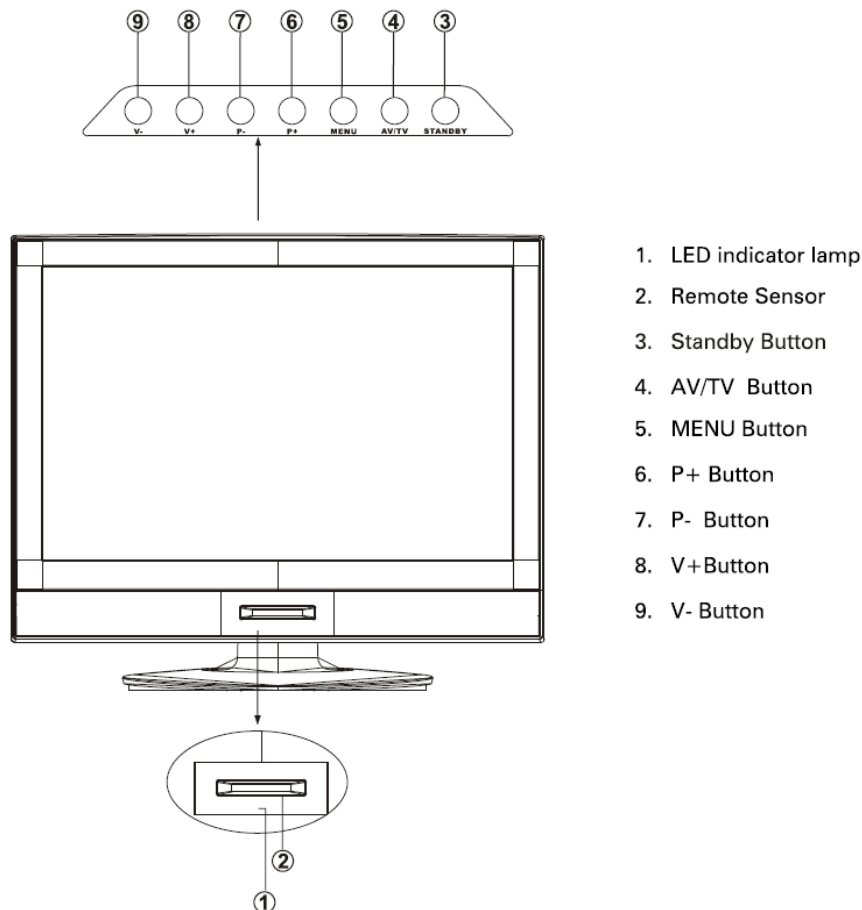
Note: Incorrect installation can cause battery leakage and corrosion that will damage the Remote control.

Precautions

- Replace batteries in pair. Do not mix battery types(zinc carbon with alkaline).
- Do not mix battery types(zinc carbon with alkaline).
- Do not recharge, heat, short-circuit, disassemble, or burn batteries.

APPEARANCE & FUNCTION CONTROL

Front View of LCD Set



To turn the TV power ON

Put the TV set on the correct place, then connect the DC plug of the AC-DC adaptor to the DC 12V socket at the back of the TV set. Connect the adaptor main cord to the wall outlet, then the LED indicator lamp turns red/green and the TV set is at Standby/work Mode. At Standby Mode, if Standby Button is pressed the power indicator will change to green. It takes a few seconds before the picture appears.

To turn the TV power OFF

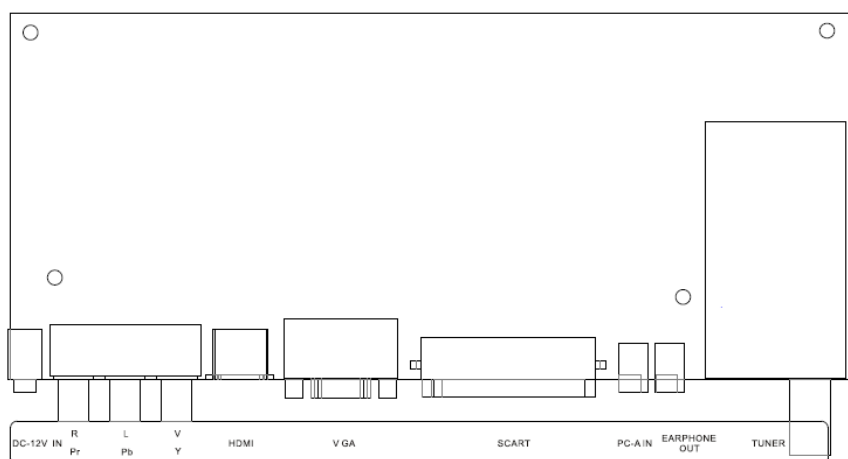
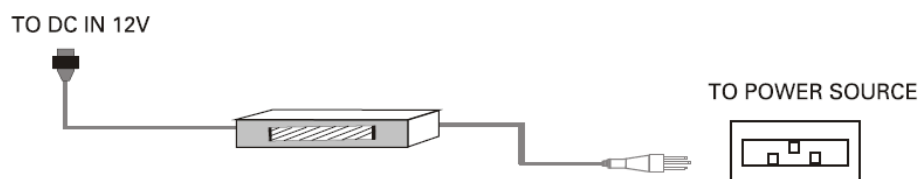
Press the Standby Button to make the TV set in Standby Mode, then disconnect the power plug from the wall outlet.

NOTE

If TV is the selected input without signal received and NO operation is performed for about 5 minutes continuously, the TV set will enter standby mode. For any inputs other than TV, the TV set will not enter standby mode automatically without users instruction. If you are not going to use this TV set for a long time, switch off the set and disconnect the power plug from the wall outlet.

Rear View of LCD TV

DC IN 12V
HEADPHONE
PC IN
FULL-SCART
RF INPUT(ANT.)
YPbPr,RCA



NOTE

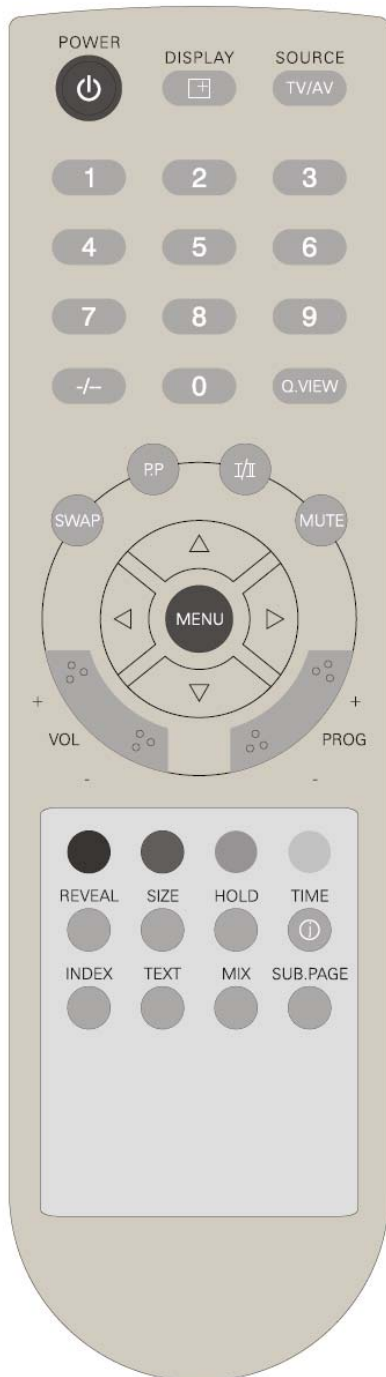
Precautions when connecting to other equipment

When using external equipment with this TV set, please read the instruction manual of the external equipment.

Switch off all power supplies to the equipment and TV set before connection.

Always ensure that the input and output terminals are correctly connected.

Remote Controller



POWER ON/STANDBY button

Press this button to switch on the TV when at standby mode or enter standby mode.

DISPLAY Button

Press this button to display the setting on the screen.

TV/AVButton

Press "AV/TV" button, the will be some word show on the right top of the screen, press "P+/-" to select the AV source, and then press "V+/-" to enter AV mode.

TV
PC
SCART
AV
YPbPr
PC
HDMI

DIGIT Button(0-9)

This TV allows you to select channels from 0 to 255. Press this button to select one-digit, two digit or three -digital channels input options.

To select a one-digit channel(e.g. Channel 8),press this "-/-" button to change channel selection to "--' on screen display and press the "8" button only.

To select a two-digit channel(e.g. Channel 28),press this "-/-" button to change channel selection to "--' on screen display and press "2" and "8" buttons.

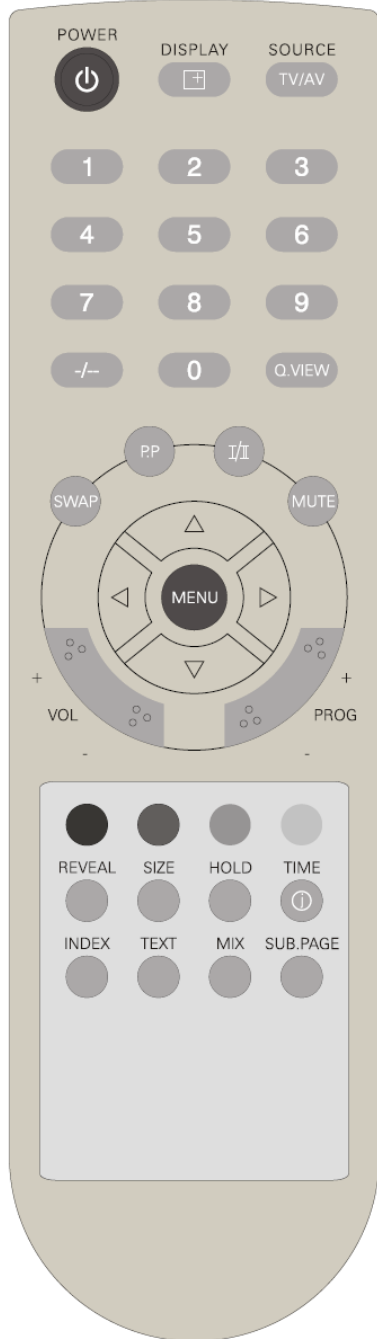
To select a three-digit channel(e.g. Channel 128), press this "-/-" button to change channel selection to "---' on screen display and press "1", "2" and "8" buttons.

Q.VIEW Button

Press this button to return to the previously viewed program.

Teletext Operation

For models with Teletext function only.



COLOUR Button

Press this button to access directly to the corresponding pages displayed at the lower part of the teletext screen.

REVEAL Button

Press this button to reveal the hidden information for some Teletext pages(e.g. answers to puzzles or riddles). Press again to hide the information.

SIZE Button

Press this button to change the teletext screen display Mode among the following:

- Upper half screen enlarged
- Lower half screen enlarged
- Normal screen state

HOLD Button

Press this button to hold the Teletext page on display to prevent the page from changing. Press again to release the hold state.

TIME Button

Press this button to set the sleep timer, the order shown below(minutes):

0 - 15 - 30 - 45 - 60

When the preset length of time has passed, the TV set enters standby mode.

INDEX Button

Press the button to go to the index page.

TEXT Button

Press this button to enter or exit the teletext mode.

MIX Button

Press this button enter to mix mode.(For SUBTITLE or NEWSFLASH page, please use mix mode). Press this button again to exit.

SUB.PAGE

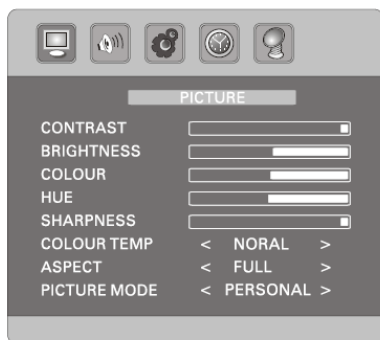
Press this button to display subpage.

MENU SCREENS

This TV allows you to adjust any setting from the menu screens using “MENU” , “V+/-” and “P+/-” buttons.

Press “MENU” button to display the menu, press “P+/-” to change menu from one to another, “V+/-” to enter the chosen menu, press “P+/-” to select the item, and then press “V+/-” to adjust each item.

Press “MENU” again to exit the menu mode.



PICTURE MENU

You can adjust the contrast, brightness, hue(NTSC only) colour,sharpness.

COLOUR TEMP: NORMAL / WARM / COOL

PICTURE MODE: NORMAL / SOFT / RICH /CUSTOM

ASPECT: <FULL,ZOOM1, ZOOM2,4:3: PANORAMA



SOUND MENU

Enter sound menu, you can adjust

BASS:Treble balance with the custom mode

Sound mode:normal,news,music,custom

AVC:auto volume control



SET UP MENU

NOISE DURACE: <weak,middle,strong>

TV Language:west, east ,russian,ARABIC

FARSI



OSD MENU

You can choose the language, adjust the H-position, V-position, duration and halftone.
Duration 15~60 seconds



TUNE MENU

AUTO SCAN: Press “V+/-” to begin auto search program, and press menu to exit auto search.

CHANNEL: The number is the current channel, and you can also change channel from one to another.

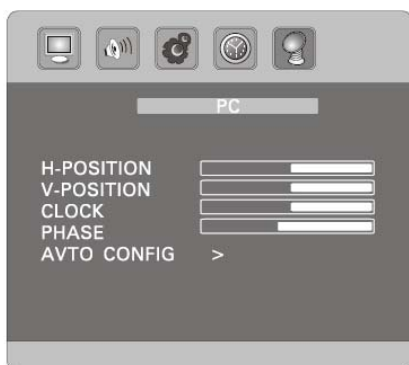
COLOUR SYS. PAL/NTSC/SECAM (optional)

SOUND SYS. B/G,D/K,I,M,L,L’ (optional)

SKIP: Set this item on to skip the channel which you are watching.

MANUAL: To start searching until a program is searched, or press “MUNE” to exit.

Fine Tune: Frequency data can be fine-tuned in upward or downward by the VOL+/- buttons.



PC MENU(under PC mode only)

You can adjust the CONTRAST, BRIGHTNESS

HPOS/VPOS Press the VOL +/- buttons to adjust the picture Horizontal and Vertical position.

CLOCK Press the VOL +/- to minimize any vertical bars or stripes visible on the screen background.

PHASE When necessary, adjust the pixel phase of the picture to avoid picture interference.

AUTO CONFIG To adjust the screen position automatically. It will take a few seconds and during this process the screen will be black.

NOTE:

If the set is cold, there may be a small “flicker” when the set is switched on. It is normal, There is nothing wrong with the set.

If possible, use the VESA 1024X768@60HZ video mode to obtain the best image quality for your LCD monitor. Under other resolutions some scaled or processed pictures may appear on the screen.

Some dot defects may appear on the screen, like red, green or blue Spots, However, this will have no impact or effect on the monitor performance.

Do not press the LCD screen with your finger for a long time as it may incur some damage to the screen.

TROUBLESHOOT

Before calling for service, you can check the following items on symptoms and solutions.

No picture:

Check other channel, maybe station problem.
Adjust the tuning control.
Ensure that the input setting is at TV state.
Ensure that the LCD is on.
Ensure that the equipment is connected properly.

No sound and distorted sound:

Ensure that the input settings for the TV and sound are proper.
Adjust the tuning control.
Probably local interference, such as an appliance.
Re-orient aerial(if indoor type).
Ensure that the equipment is connected properly.

No remote Control:

Check the battery are installed with the correct polarity.
Point the remote control unit at the remote control sensor and operate.
Remove the obstacles between the remote control and the remote control sensor.
Operate the remote control unit at a distance of not more than 8 meters from the remote control sensor.

Troubleshooting tips(PC mode):

“NO SYNC SIGNAL” or “POWER SAVE” displayed

Check if the wire is connected correctly.
Ensure the computer or other equipments are at power on mode.
Ensure the computer is not at power save mode.
Ensure the TV input setting is at pc mode.

“Invalid Scan Fred” displayed

Check if the input setting is compatible to the monitor specification.
Check if the wire is connected correctly.

Led lamp indicator on but no picture

Check the monitor setting :contrast ,brightness.
Check if the wire is connected correctly.

Some unusual spots on screen:

Some dot defects may appear on the screen, like red, green or blue, Spots, However, this will have no impact or effect on the monitor performance.

CAUSE OF INTERFERENCE

Incorporated in your TV receiver are the most up-to-date devices to eliminate interference. Local radiation however, can create disturbances which visibly affect your picture. Proper installation, a good aerial are your best safe-guards against these disturbances.

RF INTERFERENCE

Moving ripples across the screen are caused by nearby transmitting or receiving short-wave radio equipment.

DIATHERMY

Herringbone pattern and partial picture loss can result from the operation of diathermy equipment from a nearby doctor's surgery or hospital.

SNOW

Weak TV signals from long distant stations result in an instead picture and give the effect of falling snow. An antenna adjustment or antenna amplifier may be needed.

GHOST

Multiple image caused by TV signals reflected back from surrounding buildings, hills, aircraft, ect. Is minimized by correct aerial positioning.

CAR IGNITION

Nearby cars and electrical motors can cause small streaks across the picture or make the picture roll.

APPENDIX

The schematic diagram illustrates the power supply and standby control circuit. The top section shows a DC-DC converter using the MP1430 IC, converting a 12V input to a 5V output. The bottom section shows a standby control circuit using a 5Vstb input and a transistor (Q13) to control the power-on/off signal.

Power Supply Section:

- Input:** J900 DC-JACK-2mm provides PWR-IN (12V) and AGND.
- Filtering:** F900 4A/12V fuse and CA102 470uF/16V capacitor filter the input.
- IC:** U31 MP1430 is the DC-DC converter IC.
- Feedback:** R54 7.5K and C286 0.1uF form the feedback network.
- Output Filter:** L96 10uH inductor and C12 10nF capacitor filter the output.
- Output:** POWER+5V and 5Vstb.

Standby Control Section:

- Input:** J907 NC/CON8_2.0 provides PWR-IN, 5Vstb, and STANDBY.
- Transistor:** Q13 NC/3904 is the standby control transistor.
- Resistors:** R333 NC/10K, R348 NC, and R340 NC/4.7K.
- Output:** POWER-ON/OFF (POWER-ON/OFF).

[illegible]

Title				
<Title>				
Size A3	Document Number MST9E19A			Rev 2.0
Date:	Thursday, May 10, 2007	Sheet	3	of 14

Vcc3.3for MST9E19A analog

$$0.81 \cdot (1 + R_{up}/R_{down}) = 1.8V \text{---} R_{up} = 10K, R_{down} = 8.2K$$

Vcc1.8 for MST9E19A

+3.3AVDD for AVDD_HDMI

+3.3AVDD for AVDD_AU

+3.3AVDD for AVDDA

+3.3AVDD for AVDD_SIF

3.3V for AVDDPLL2

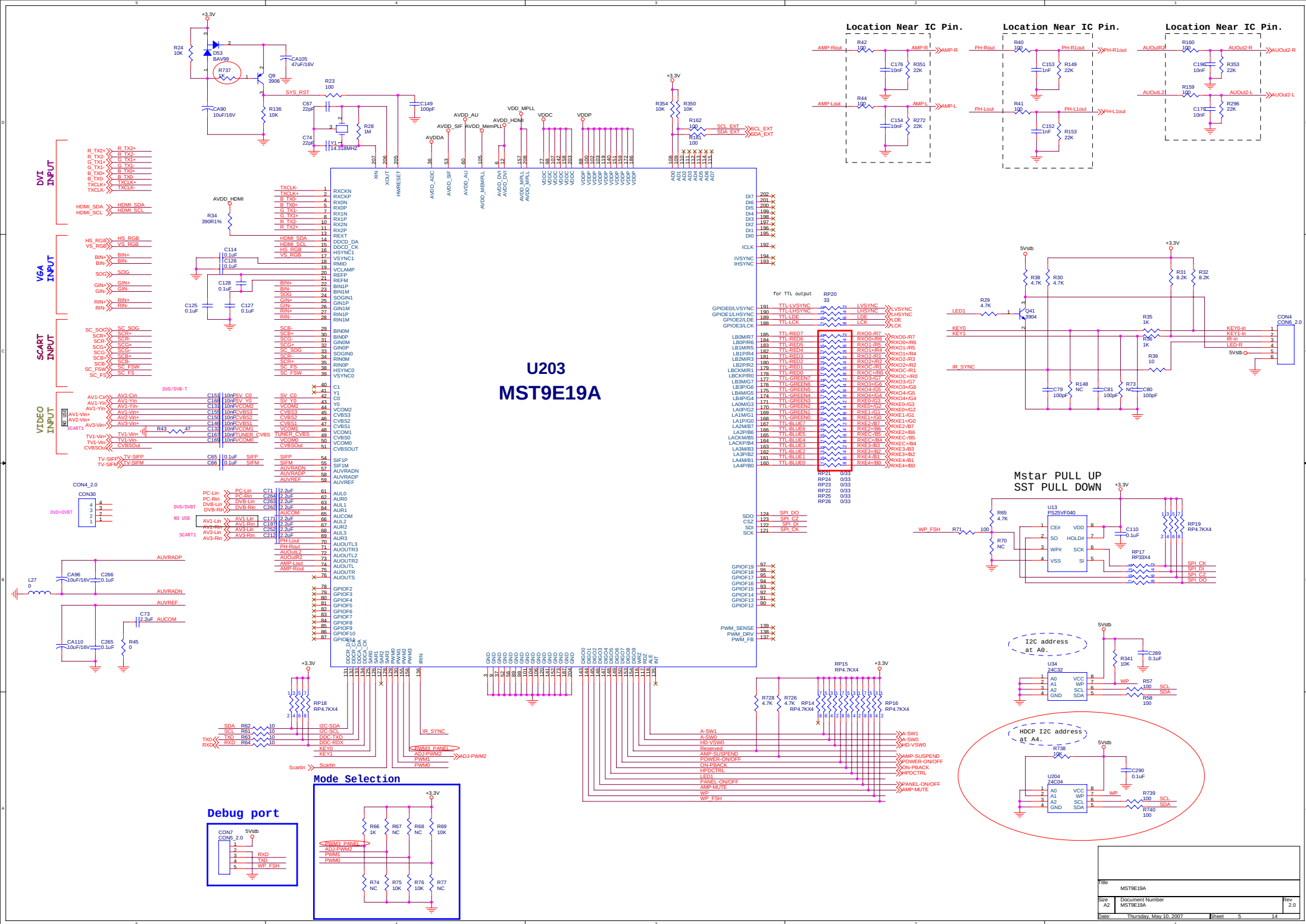
+3.3V for VDD_MPLL

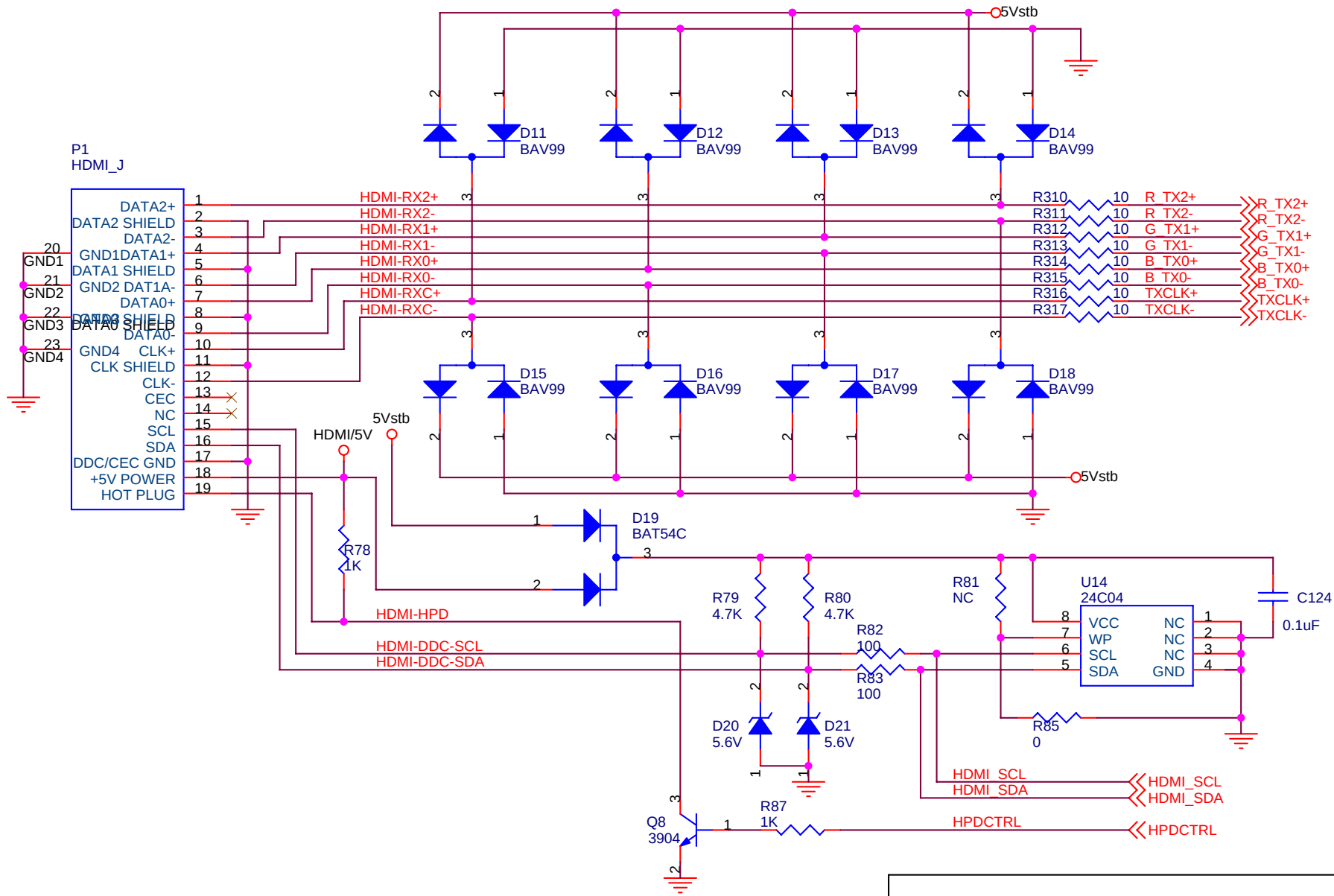
Vcc3.3for MST9E19A DIGITAL

Vcc3.3for MST9E19A Digital

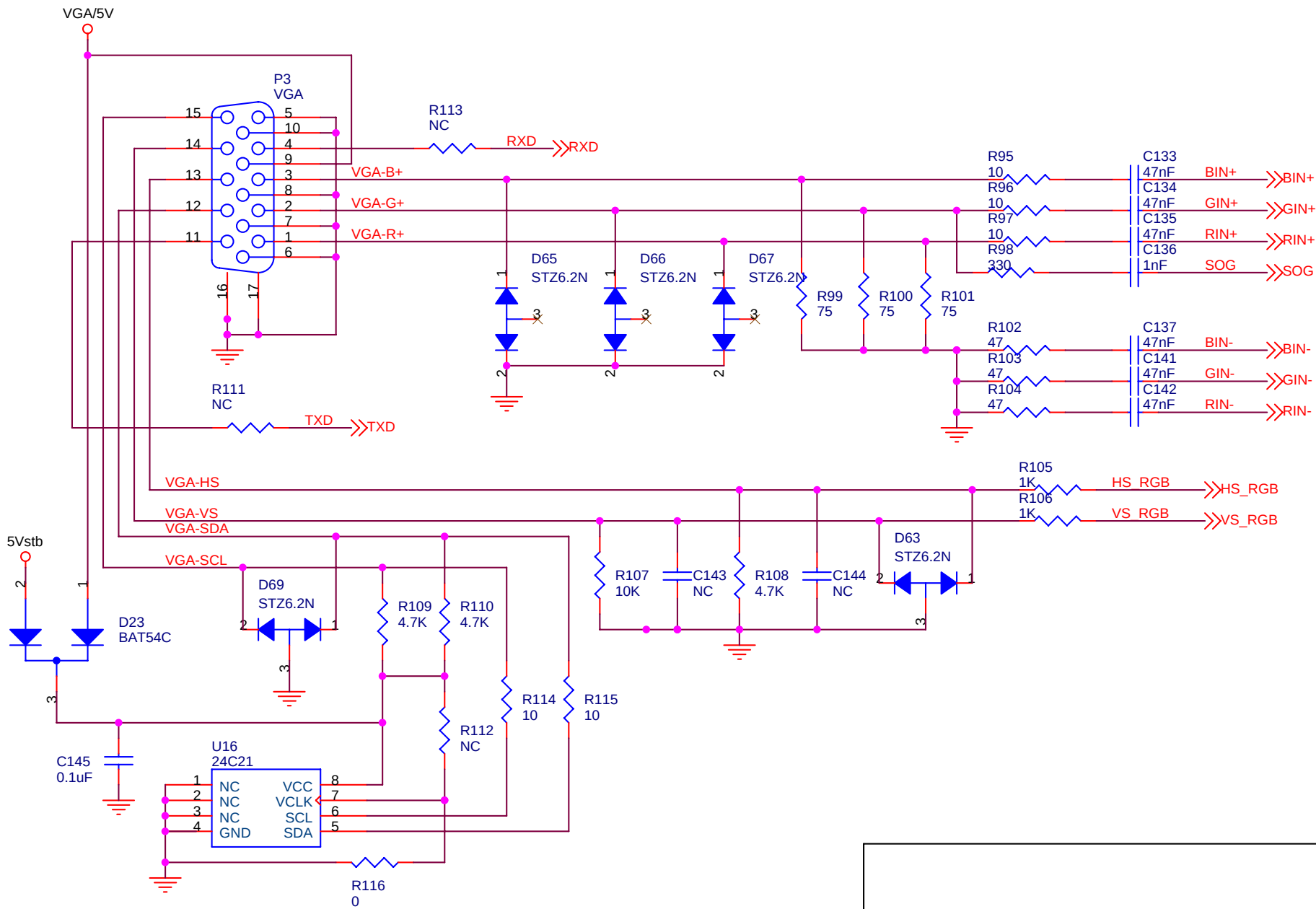
VDDC for MST9E19A Core

Title			
p071e			
Size A4	Document Number		Rev
	<Doc> MST9E19A		2.0
Date:	Thursday, May 10, 2007		Sheet 4 of 14





Title		
HDMI		
Size	Document Number	Rev
A	MST9E19A	2.0
Date:	Thursday, May 10, 2007	Sheet 6 14

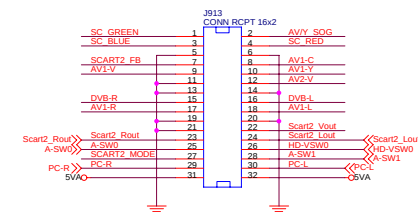


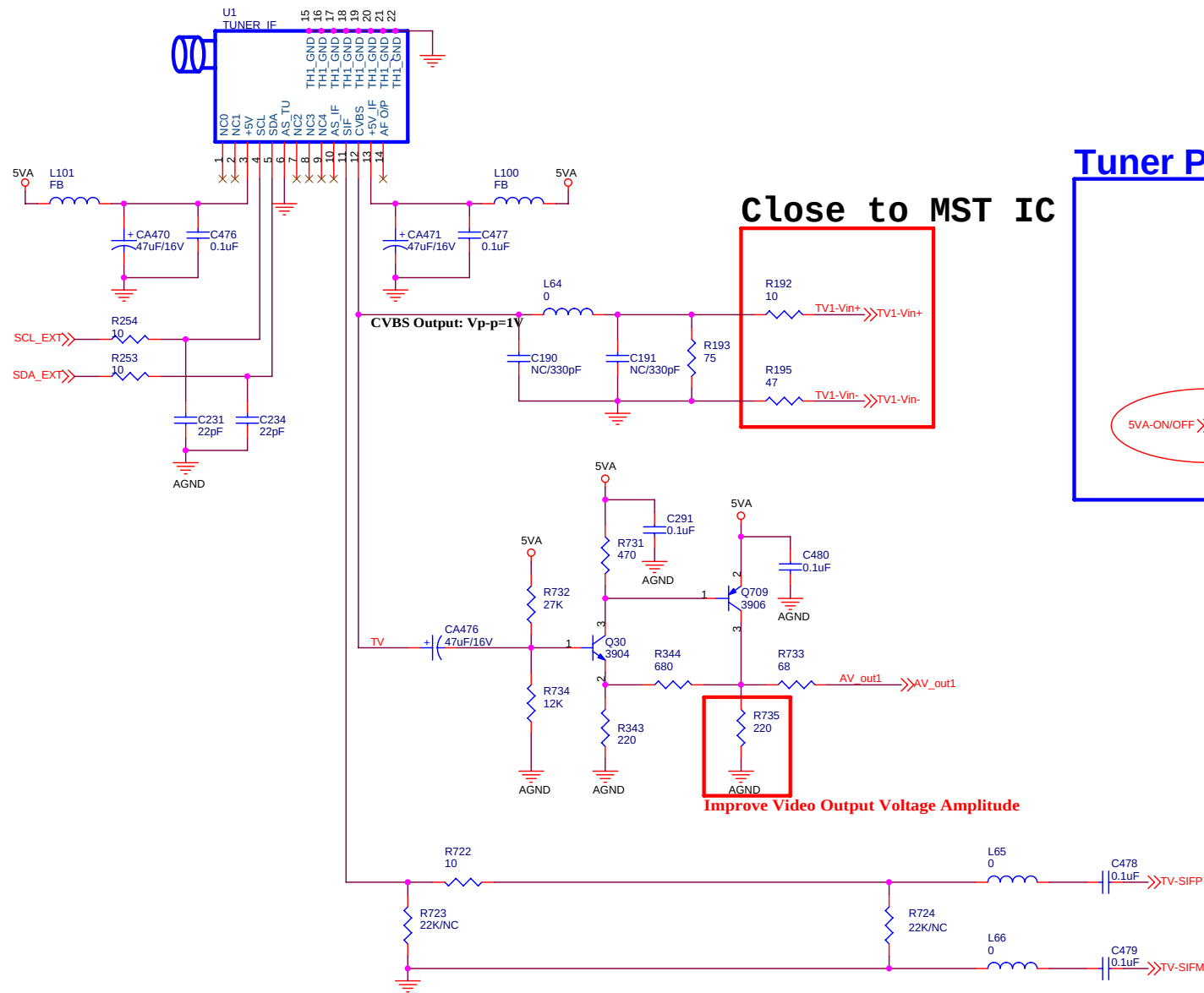
Title		
VGA		
Size A	Document Number MST9E19A	Rev 2.0
Date:	Thursday, May 10, 2007	Sheet 7 14

[illegible]

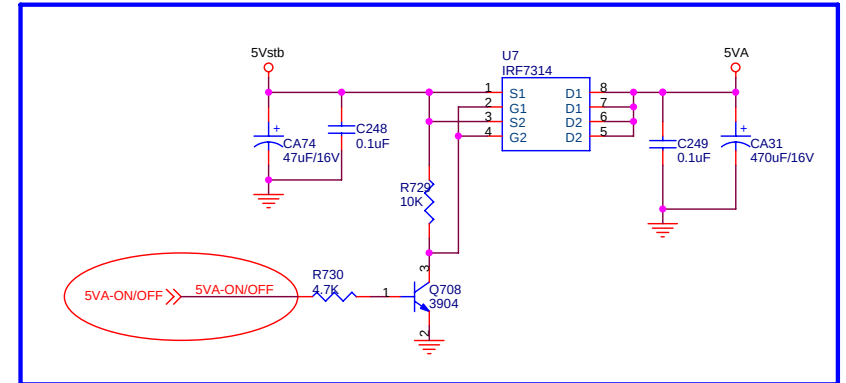
The schematic diagram illustrates the AV3 input stage, which consists of three parallel input channels (AV3-V, AV3-L, AV3-R) connected to a common output stage. Each channel includes a diode (D43, D74, D76), a resistor (R168, R374, R373), a capacitor (C185, C184, C187), and a feedback resistor (R166, R358). The output stage is connected to AV3-Vin+, AV3-Vin-, AV3-Lin, AV3-Lin-, AV3-Rin, and AV3-Rin.

The schematic diagram illustrates the electrical connections for the ADXL345 module. The module is shown as a blue box with pins labeled CON3, CON4_2.0, CON5, CON4_2.0, and CON6. The power section includes a 5V regulator with a 10K resistor (R371), a 100nF capacitor (C198), and a 12K resistor (R212). The signal section includes a 10K resistor (R372), a 560pF capacitor (C200), and a 12K resistor (R215). The module is connected to a USB cable (DVB-L, DVB-R, DVB-Lin, DVB-Rin) and a power source (PWR-IN).



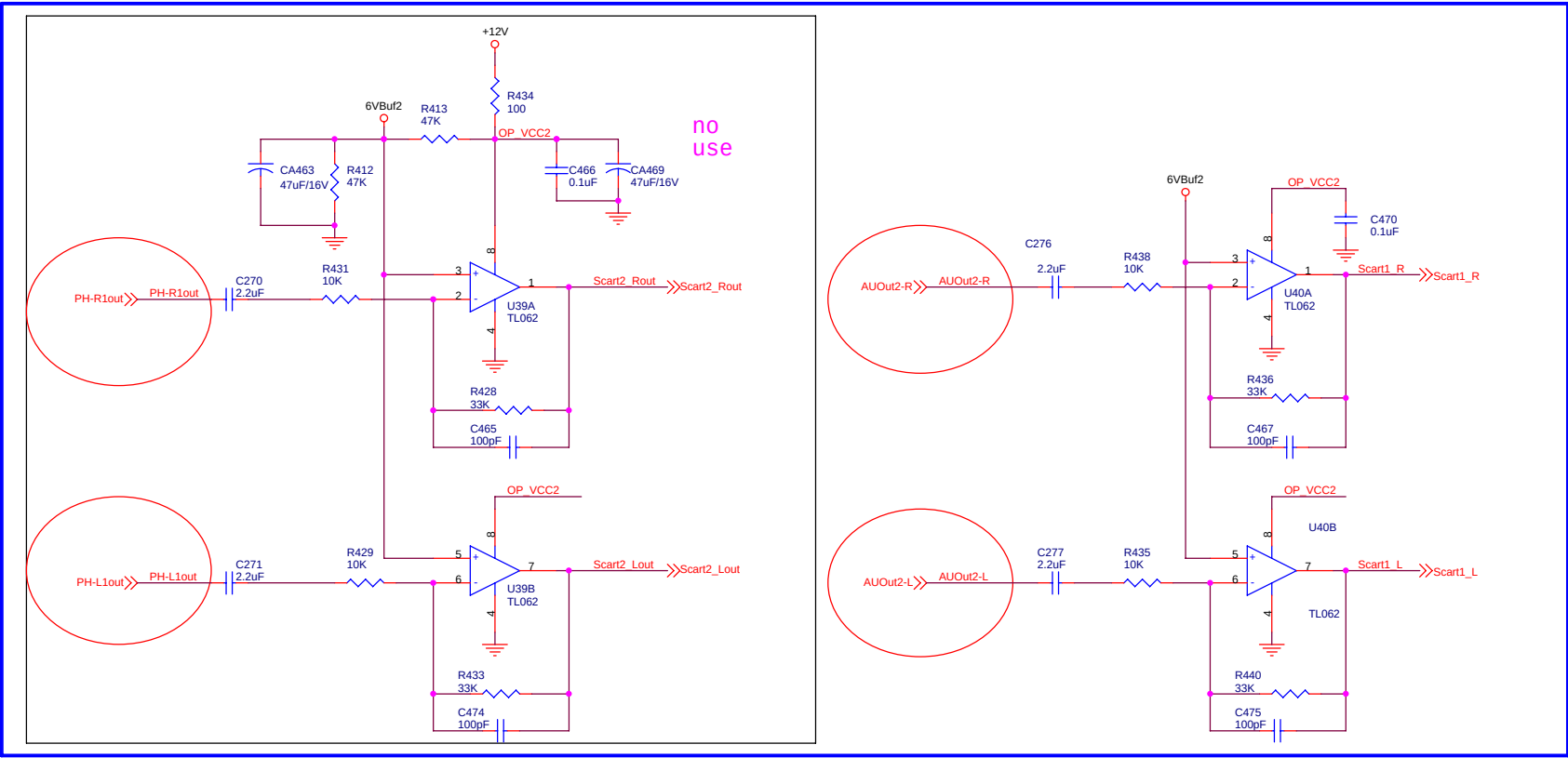


Tuner Power

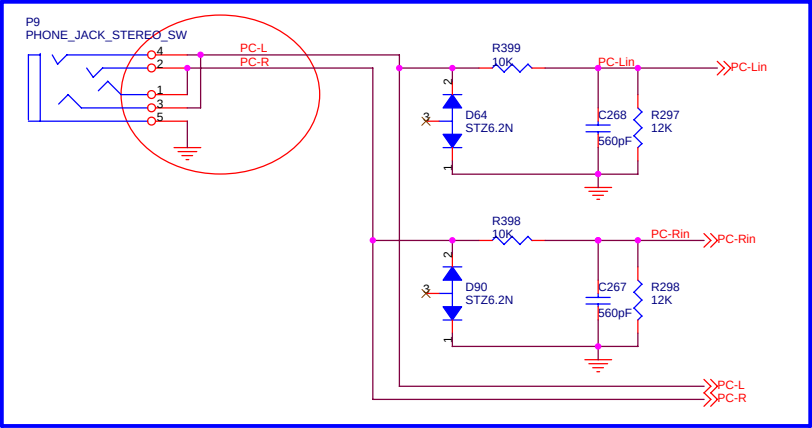


Title			TUNER
Size	Document Number	Rev	
B	MST9E19A	2.0	
Date:	Thursday, May 10, 2007	Sheet	9 14

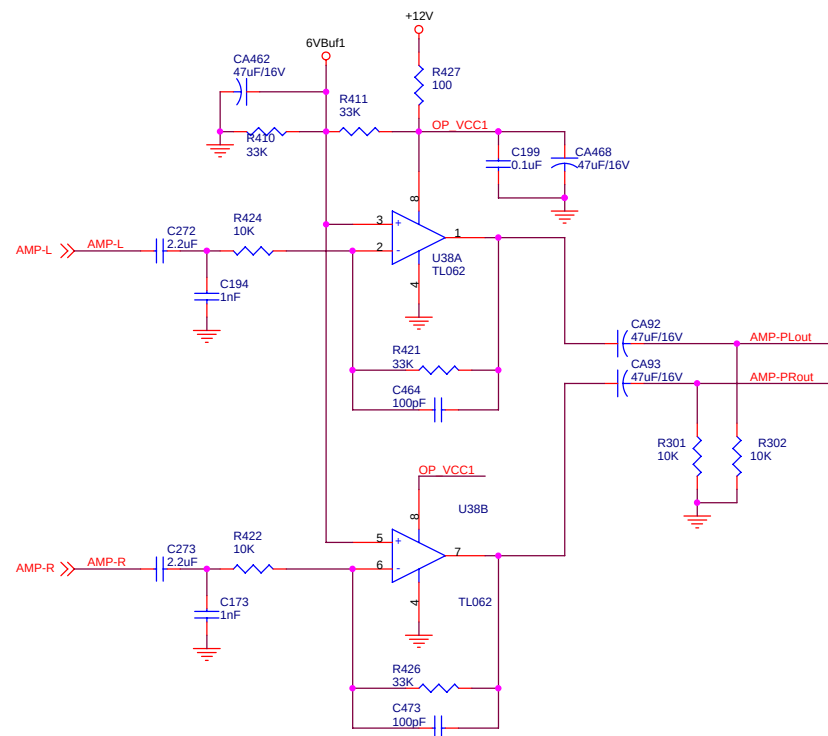
Audio OP(AUOUTL3/AUOUTR3; AUOUTL2/AUOUTR2)



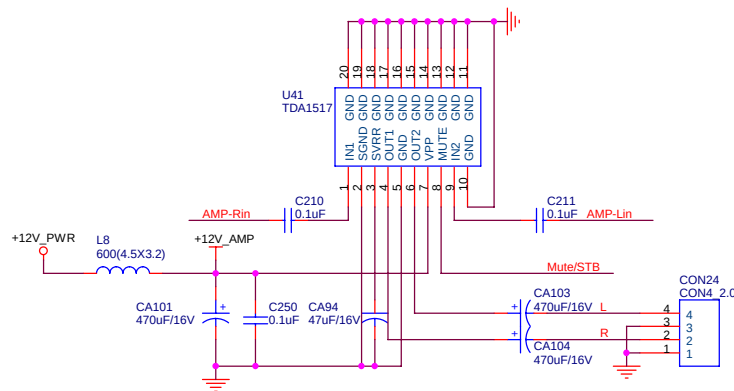
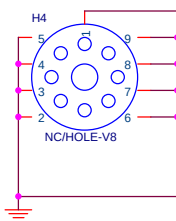
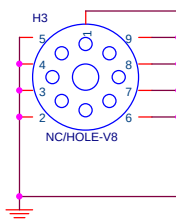
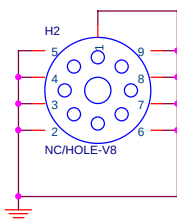
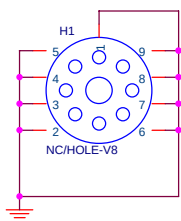
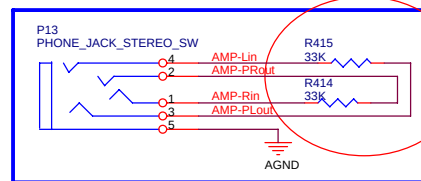
PC Audio Input (AUL0/AUR0)



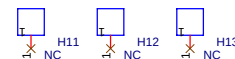
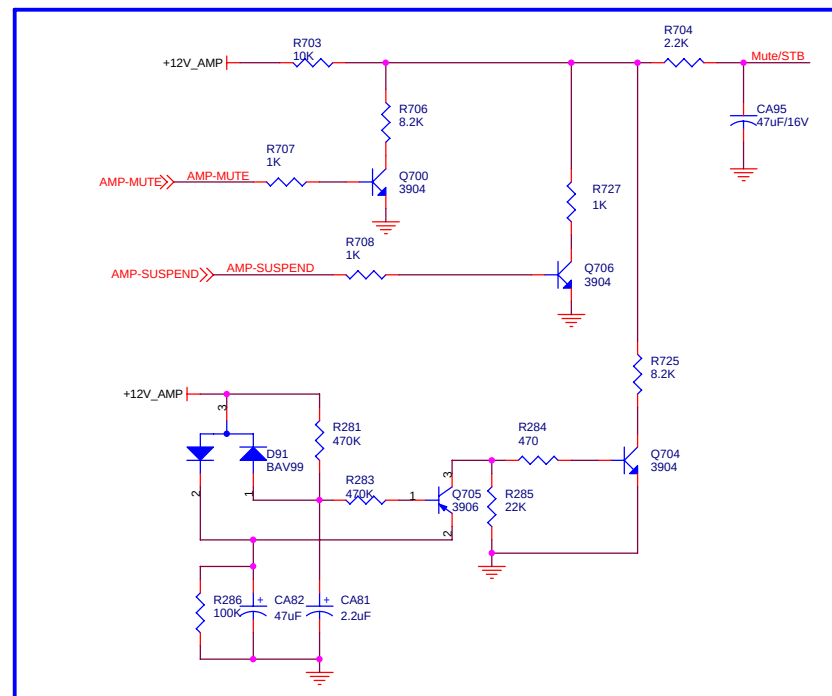
Title			MSTAR
Size	Document Number	Rev	
A3	MST9E19A	0.01	
Date:	Thursday, May 10, 2007	Sheet	10 of 14



Earphones(AUOUTL2/AUOUTR2)

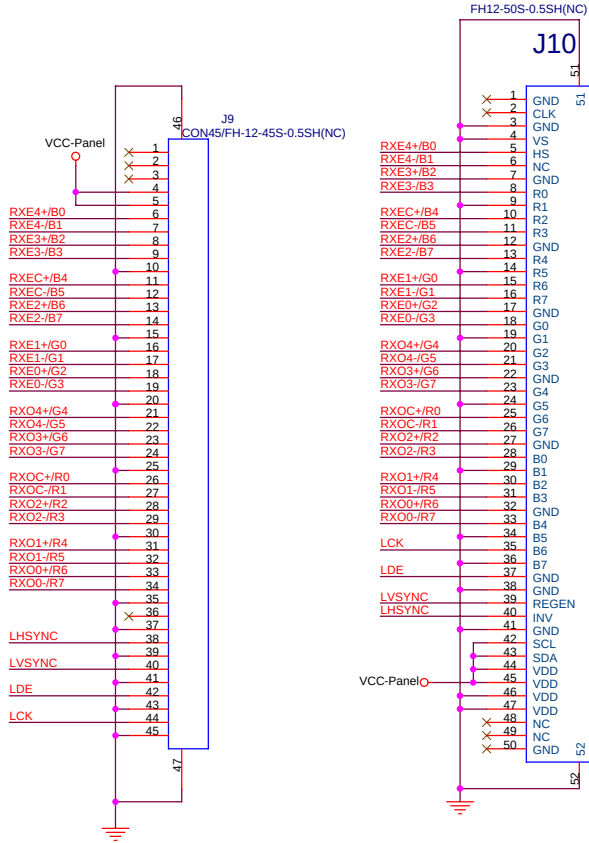
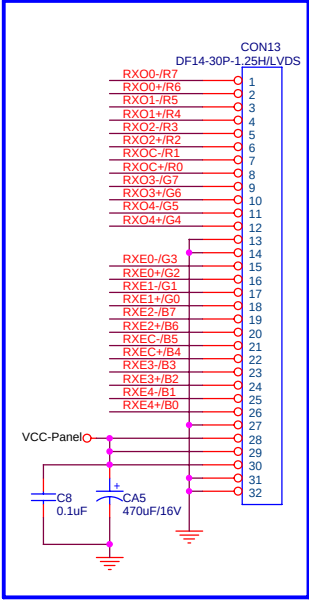
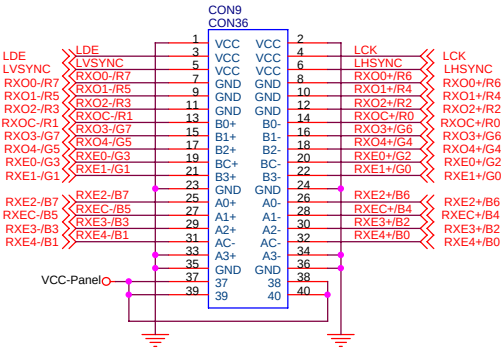


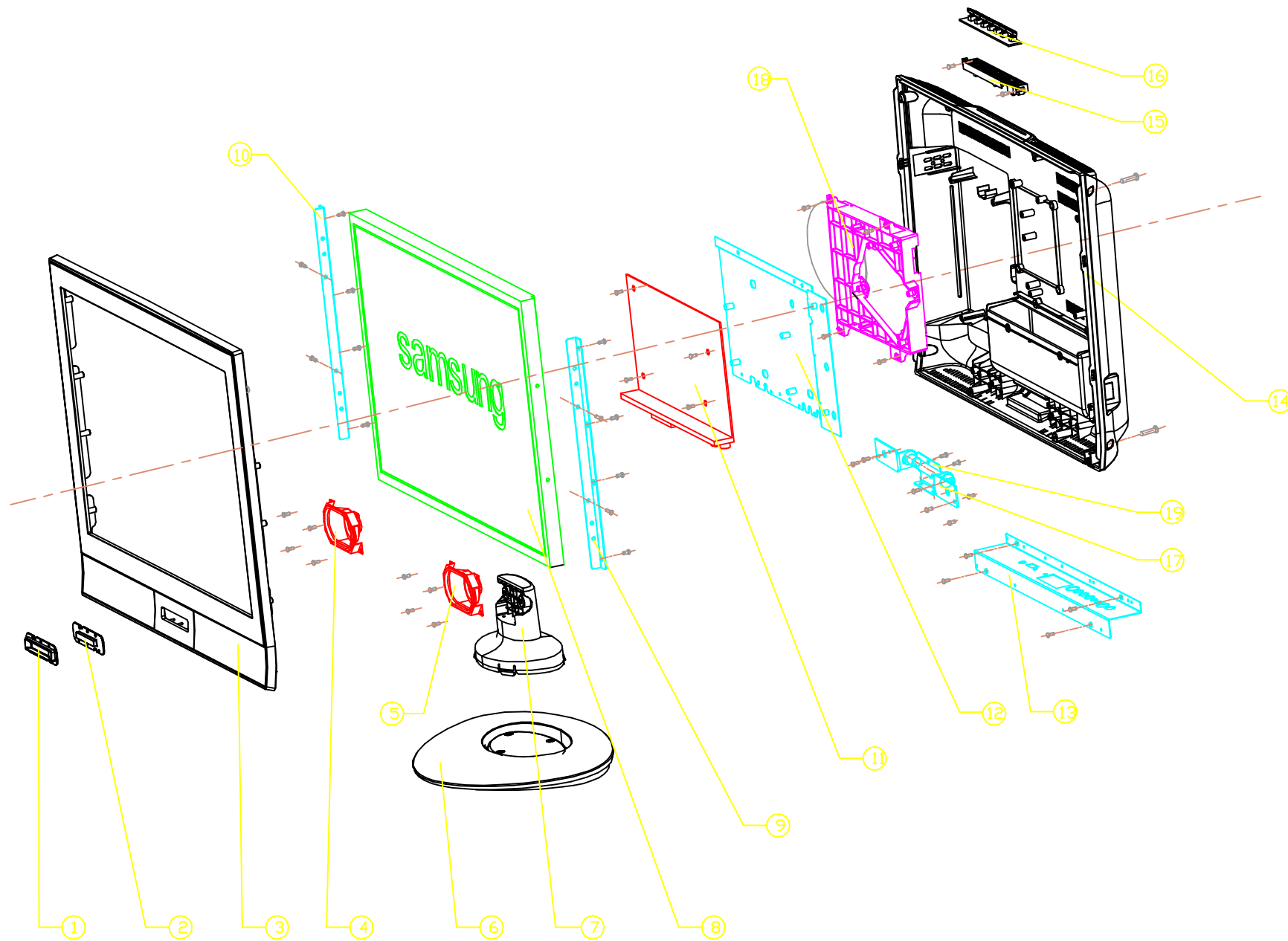
AMP MUTE



Title		
TDA1517		
Size	Document Number	Rev
A3	MST9E19A	2.0
Date:	Thursday, May 10, 2007	Sheet 11 14

LVDS Interface





PART NAME

S/no.	Part Name
-------	-----------

1	Decorative
2	Cover Plate
3	Front Cabinet
4	Speaker “ R”
5	Speaker “L”
6	Base Board
7	Base Bracket
8	LCD Display Panel
9	Panel Holder L
10	Panel Holder R
11	Main Chassis / PCB
12	Holder
13	AV Terminal
14	Back Cabinet
15	Function Key Holder
16	Function Key
17	Shaft Assembly
18	DVD Assembly
19	Base Board

LAYER	MATERIAL CODE	SPECIFICATION	UNIT	QTY	REMARKS
..1	02.0600-LTV19020-003R	BOM MAIN BOARD QART ASSEMBLY FOR LTV1902 MST (9E19) WITH NICAMPAL/BG/DK/I/SECA	PCS	1	
..2	01.6003-W3890R02-000R	B/G D/K I L/L' WORLD STANDARD F.S TUNER 5V 38.9MHz (ROHS)	PCS	1	U1
..2	01.6100-C0000BB0-000R	SMD RESISTOR 0 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	17	R11,R21,L27,R45,L64,L65,R213 R227,L66,R85,R116,R243,R349,Q7,Q10,Q11,Q12
..2	01.6100-C1000BB0-000R	SMD RESISTOR 10 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	29	R186,R39,R61,R62,R63,R64,R95,R96,R97, R114,R115,R164,R166,R167,R192,R216,R217,R21
..2	01.6100-C1010BB0-000R	SMD RESISTOR 100 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	18	R23,R42,R44,R57,R58,R71,R82,R83,R159, R160,R161,R162,R427,R434,R739,R740,R1 ,R4
..2	01.6100-C1020BB0-000R	SMD RESISTOR 1K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	13	R9,R14,R35,R36,R66,R78,R87,R105,R106, R707,R708,R727,R737,
..2	01.6100-C1030BB0-000R	SMD RESISTOR 10K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	46	R369,R370,R2,R3,R10,R24,R49,R69,R75,R 76,R88,R89,R107,R136,R301,R302,R341,R 350,R3
..2	01.6100-C1040BB0-000R	SMD RESISTOR 100K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R286
..2	01.6100-C1050BB0-000R	SMD RESISTOR 1M OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R28
..2	01.6100-C1220BB0-000R	SMD RESISTOR 1.2K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R47
..2	01.6100-C1230BB0-000R	SMD RESISTOR 12K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	10	R50,R174,R188,R212,R215,R297,R298,R73 4,R189,R197
..2	01.6100-C1520AB0-000R	SMD RESISTOR 1.5K OHM 1/10W +/-1% (0603) TAPE TYPE(ROHS)	PCS	1	R231
..2	01.6100-C2210BB0-000R	SMD RESISTOR 220 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	2	R735,R343
..2	01.6100-C2220BB0-000R	SMD RESISTOR 2.2K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R704
..2	01.6100-C2230BB0-000R	SMD RESISTOR 22K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	5	R272,R285,R296,R351,R353
..2	01.6100-C2710BB0-000R	SMD RESISTOR 270 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R344
..2	01.6100-C2730BB0-000R	SMD RESISTOR 27K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R732
..2	01.6100-C3310BB0-000R	SMD RESISTOR 330 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	2	R359,R98
..2	01.6100-C3330BB0-000R	SMD RESISTOR 33K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	6	R410,R411,R421,R426,R436,R440
..2	01.6100-C3910AB0-000R	SMD RESISTOR 390 OHM 1/10W +/-1% (0603) TAPE TYPE(ROHS)	PCS	1	R34
..2	01.6100-C3920BB0-000R	SMD RESISTOR 3.9K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R33
..2	01.6100-C4700BB0-000R	SMD RESISTOR 47 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	9	R43,R102,R103,R104,R172,R195,R223,R22 4,R226
..2	01.6100-C4710BB0-000R	SMD RESISTOR 470 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	2	R284,R731

..2	01.6100-C4720BB0-000R	BOM SMD RESISTOR 4.7K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	20	R5,R6,R7,R13,R15,R16,R19,R29,R30,R38, R65,R79,R80,R108,R109,R110,R726,R728, R730,R
..2	01.6100-C4730BB0-000R	SMD RESISTOR 47K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	2	R413,R412
..2	01.6100-C4740BB0-000R	SMD RESISTOR 470K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	2	R281,R283
..2	01.6100-C7500BB0-000R	SMD RESISTOR 75 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	16	R99,R100,R101,R165,R168,R219,R220,R22 1,R171,R193,R232,R733,R48,R25,R22,R26,
..2	01.6100-C7520BB0-000R	SMD RESISTOR 7.5K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	1	R54
..2	01.6100-C8220BB0-000R	SMD RESISTOR 8.2K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	7	R31,R32,R51,R52,R229,R706,R725
..2	01.6100-P1030BB0-000R	SMD RESISTOR NETWORK (10K OHM X 4)1/10W +/-5% (8P4R, 3.2 X 1.6mm)TAPE TYPE(RO	PCS	5	RP14,RP15,RP16,RP18,RP19
..2	01.6100-P3300BB0-000R	SMD RESISTOR NETWORK (33 OHM X 4)1/10W +/-5% (8P4R, 3.2 X 1.6mm)TAPE TYPE(ROH	PCS	8	RP21,RP22,RP23,RP24,RP25,RP17 RP20,RP26
..2	01.6200-C1010C00-000R	100pF/50V,±10%,X7R,0603,ELECTROLYTIC CAPACITOR	PCS	8	C79,C80,C81,C149,C464,C467,C473,C475
..2	01.6200-C1020C01-000R	1000pF/25V,±10%,0603,(ROHS)SMD TANTALUM ELECTROLYTIC CAPACITOR	PCS	4	C136,C173,C194,C288
..2	01.6200-C1030C01-000R	0.01UF/25V,±10%,0603, ROHS,SMD ELECTROLYTIC CAPACITOR	PCS	16	C12,C13,C16,C131,C132,C146,C150,C151, C154,C155,C167,C168,C169,C176,C179,C1 96
..2	01.6200-C1040D01-000R	MLCC 0.1uF 25V +/-20% COG (0603) TAPE TYPE (ROHS), CAPCITANCE	PCS	66	23,C25
..2	01.6200-C2200B01-000R	22pF/25V,±5%,0603, ROHS, SMD TANTALUM ELECTROLYTIC CAPACITOR	PCS	4	C67,C74,C231,C234
..2	01.6200-C2250D06-000R	2.2uF/25V,±20%,0603, (ROHS),ELECTROLYTIC CAPACITORROHS	PCS	23	71,C73,CA81,C171,C197,C212,C252,C262,
..2	01.6200-C3310B01-000R	330pF/25V,±5%,0603, (ROHS),ELECTROLYTIC CAPACITOR	PCS	3	C204 C205 C209
..2	01.6200-C4730C01-000R	MLCC,0.047uF/25V,±10%,X7R,0603,ELECTROLYTIC CAPACITOR	PCS	12	02,C203,C206,C213,C214
..2	01.6200-C5610B01-000R	560pF/50V,±5%,0603, (ROHS),ELECTROLYTIC CAPACITOR	PCS	8	93
..2	01.6200-C6810B01-000R	680pF/25V,±5%,0603, (ROHS),ELECTROLYTIC CAPACITOR	PCS	4	C185,C208,C215,C207
..2	01.6201-B1060160-B00R	10uF 16V 85°C±20% 5*11mm(ROHS)	PCS	6	CA19,CA90,CA96,CA110,CA1,CA10
..2	01.6201-B4760160-B00R	47uF 16V 85°C±20% 5*11mm(ROHS)	PCS	30	CA15,CA16,CA17,CA23,CA74,CA82,CA2- CA4,CA6- CA9,CA88,CA92,CA93,CA94,CA95,CA105, CA4
..2	01.6201-B4770160-B00R	470uF 16V 85°C±20% 8*12mm(ROHS)	PCS	9	CA5,CA31,CA86,CA99,CA101,CA102,CA10 3,CA104,CA108
..2	01.6300-3BAT54A0-S03R	SCHOTTKY BARRIER DIODES BAT54A SOT23 SMD PACKAGE (ROHS)	PCS	22	D43,D52,D61,D63,D64,D65,D55,D56,D58,D 66,D67,D69,D74,D76,D79,D90,D1,D2,D3,D 4,D5,D
..2	01.6300-SA1N4148-000R	NORMAL RECTIFIER DIODE 1N4148 150mA/100V SMD PACKAGE(ROHS)	PCS	1	D68
..2	01.6300-SA1N5819-000R	SCHOTTKY BARRIER RECTIFIER 40V/1A(SS14) SMD PACKAGE(ROHS)	PCS	4	D49,D80,D81,D82

..2	01.6300-SB0BAV99-001R	SMD SWITCHING DIODE,BAV99 , SOT23,INFINEON (ROHS)	PCS	10	D11,D12,D13,D14,D15,D16,D17,D18,D53,D 91
..2	01.6300-SCBAT54C-000R	BAT54C,SOT-23, SMD SWITCHING DIODE (ROHS) BOM	PCS	2	D23,D19
..2	01.6300-SFFA0000-000R	5.6V,1/2W,SMD ZENER DIODE BZV55C5V6 SOD806, (ROHS)	PCS	2	D20,D21
..2	01.6400-N3904N00-000R	TRANSISTOR PMBT3904 ,NPN, SOT23(ROHS)	PCS	13	Q1,Q2,Q3,Q4,Q6,Q8,Q30,Q41,Q700,Q704, Q706,Q708,Q710
..2	01.6400-N3906N00-000R	TRANSISTOR 2N3906 ,PNP, SOT23(ROHS)	PCS	3	Q9,Q705,Q709
..2	01.6500-S0004558-000R	I.C. CO4558 DUAL BIPOLAR OPERATIONAL AMPLIFIER SOP8 (ROHS)	PCS	2	U38,U40
..2	01.6500-SA111733-000R	I.C. CX1117-3.3V, LOW DROPOUT LINEARREGULATOR, SOT223 (ROHS)	PCS	2	U5,U6
..2	01.6500-SAO48010-000R	I.C. AO4801 DUALP-CHANNEL MOSFET, SOIC-8 (ROHS)	PCS	2	U7,U4
..2	01.6504-A24C040S-008R	I.C. AT24C04 ATMEL (4K BITS SERIAL EEPROM) SOIC-8 (ROHS)	PCS	2	U14,U204
..2	01.6504-A24C640S-008R	IC AT24C64A ATMEL(2-WIRE SERIALEEPROM 64K)SOIC-8(ROHS)	PCS	1	U34
..2	01.6506-D1517P0D-018R	I.C. TDA1517P PHILIPS (2*6W STEREO POWER AMPLIFIER) HDIP18 (ROHS)	PCS	1	U41
..2	01.6513-M9E19A0Q-208R	I.C MST9E19A MSTAR (LCD TV WITH VIDEO DECODER) PQFP-208 (ROHS)	PCS	1	U203
..2	01.6520-M143000S-008R	I.C. MP1430 MPS (3A,28V,385KHz STEP-DOWN CONVERTER) SOIC-8 (ROHS)	PCS	1	U31
..2	01.6524-W250400S-008R	I.C W25X40VSNIG WINBOND (4MBIT FLASH 2.7V-3.6V)SOIC-8 (ROHS)	PCS	1	U13
..2	01.6540-P503300S-016R	I.C. PI5V330SWE PERICOM (6540)(VIDE QUAD 2-CHANNEL DEMUX) SOIC-16 (ROHS)	PCS	1	U2
..2	01.65AT-SAT24C02-000R	Fully P/N:AT24C02BN-10SU-1.8 , (ROHS)	PCS	1	U16
..2	01.65MP-SMP2259D-000R	I.C. MP2259DT-LF-Z 1A,16V,1.4MHz STEP-DOWN CONVERTER SOT23-6 PACKAGE(ROHS)	PCS	1	U32
..2	01.6600-DC220000-000R	CHOKE COIC 22uH ,1.5A , 6 X 8 mm (ROHS)	PCS	1	L1
..2	01.6600-SA120000-001R	SMD FERRITE BEAD Z=120 OHM/100MHz 1A 0603 (ROHS)	PCS	11	L5,L12,L13,L18,L19,L20,L22,L23,L24,L100, L101
..2	01.6600-SA601000-003R	SMD FERRITE BEAD Z=600OHM/100MHz 1206 (ROHS)	PCS	4	L4,L6,L7,L8
..2	01.6600-SB0470E0-000R	SMD COIL 4.7uH +/-20% 2.6A T=8.5Ts*2 (8.5 X 8.5 X 2.8mm) (ROHS)	PCS	1	L94
..2	01.6600-SB1000E0-000R	SMD COIL 10uH +/-20% 2.0A T=12.5Ts*2 (8.5 X 8.5 X 2.8mm) (ROHS)	PCS	1	L96
..2	01.6800-82018102-009R	CONNECTOR PITCH=2.0mm 2 * 9PINS (ROHS)	PCS	2	CON5,J1
..2	01.6800-82040102-020R	CONNECTOR PITCH=2.0mm 2 X 20PINS (ROHS)	PCS	1	CON9
..2	01.6800-9A000003-000R	WAFER 2.0mm PITCH X 3PIN, WHITE(ROHS)	PCS	1	CON1
..2	01.6800-9A000004-000R	WAFER 2.0mm PITCH X 4PIN, WHITE(ROHS)	PCS	2	CON6,CON24,
..2	01.6800-9A000005-000R	WAFER 2.0mm PITCH X 5PIN, WHITE(ROHS)	PCS	1	CON7
..2	01.6800-9A000006-000R	WAFER 2.0mm PITCH X 6PIN, WHITE(ROHS)	PCS	1	CON2
..2	01.6800-9A000007-000R	WAFER 2.0mm PITCH X 7PIN, WHITE(ROHS)	PCS	2	CON4,CON3
..2	01.6803-9B000003-003R	3 Pins 2.5mm,针径0.64mm	PCS	1	CON8
..2	01.6900-02100000-000R	DC-101,3pin, DIP	PCS	1	J900
..2	01.6900-03351000-000R	EARPHONE SOCKET 3.6mm BLACK (ROHS) Page 3	PCS	2	P13,P9
..2	01.6900-11061415-294R	RCA JACK*06 H-TYPE (PCB-P=14mm) RED*2,WHITE,YELLOW,BLUE,GREEN (ROHS)	PCS	1	CP1
..2	01.6900-12191T00-001R	HDMI JACK 19 PINS BLACK SMT JOINT (ROHS)	PCS	1	P1

..2	01.6900-13000101-000R	BOM SCART SOCKET 21 PINS RC-2105 (ROHS)	PCS	1	P11
..2	01.6900-15151060-000R	VGA JACK 15 PINS BLUE CORE HAVE NUT (ROHS)	PCS	1	P3
..2	01.7500-ABLTV190-004R	230MM*100MM, FOR MSTAR9E19, 1.6MM, ROHS	PCS	1	PCB
..2	01.7600-11435218-000R	CRYSTAL 14.318180MHz HC-49/S CL: 18PF +/-20PPM(ROHS)	PCS	1	Y1
.1	02.0604-LTV19020-002R	Key Board Assembly for LTV1902 MST-9E19 (ROHS)	PCS	1	
..2	01.6100-A1220BEH-000R	(CF) 1.2K±5% 1/4W	PCS	2	R6,R3
..2	01.6100-A2720BEH-000R	2.7K ±5% 1/4W (ROHS)	PCS	2	R2,R7
..2	01.6100-A4720BEH-000R	4.7KΩ±5% 1/4W, CARBON FILM RESISTOR, ROHS	PCS	1	R1
..2	01.6100-T0000000-011R	J10 copper jumper Φ0.6mm DIA, L=10mm(ROHS)	PCS	2	R4,R5
..2	01.7001-D0100001-000R	TACT SWITCH ,KFC-A06-C-1-5(ROHS)	PCS	7	SW1-SW7
..2	01.7500-EA19CB02-004R	123MM*14MM, , H=1.6MM, TWO LAYER, FOR 9E19, ROHS	PCS	1	PCB
.1	02.0605-LTV19010-003R	19" SAMSUNG Part Assembly for LTV1901 MST (ROHS)	PCS	1	
..2	01.1707-DC12V45A-008R	Adapter AD055S110/220-12 DC.12V/4.5A/108*65*31mm	PCS	1	ADAPTER
..2	01.1707-DCAC0000-000R	JEWEL INVERTER 4CCFL FOR 19"LCD PANEL(ROHS)	PCS	1	INVERTER
..2	01.6800-02625210-040R	PIN 30 (1.0mm) + HOUSING 40 (2.0mm) + 250mm WIRE UL1571 #28 (ROHS)	PCS	1	
..2	01.6800-32318202-018R	HOUSING 18 + HOUSING 18 (DUPONT 2.0mm)+180mm WIRE UL1571 #28 (ROHS)	PCS	1	J1+CON5
..2	01.6800-32730203-007R	HOUSING 07 + HOUSING 04 + PIN03(2.0mm) +300mm*4+200mm*3 UL20080 #28 (ROHS)	PCS	1	CON4(MAIN)+CN1(KEY)+CN2(REC)
..2	01.7100-10806401-000R	SPEAKER 8 OHM 5W MAX 6W 42*72mm FOR 19"OR 22" LCD (ROHS)	PCS	2	SPEAK
..2	01.7200-Y2012602-000R	HOUSING(PH-2Ypitch=2.0mm)L=200mmUL1007#26(ROHS)	PCS	2	&CN3 &CN5
..2	01.7200-Y2512806-000R	HOUSING(PH-5Y)(PH-6Y)pitch=2.0mmL=250mm UL20080#28(ROHS)	PCS	1	&CON2
..2	01.7200-Y4012804-000R	housing (PH-4Y/PH-4Y) pitch=2.0mm L=400mm UL20080 # 28 (ROHS)	PCS	1	CON24&CN4
..2	01.7206-A1820000-001R	RD010574)black L=1800mm (ROHS)	PCS	1	
..2	01.7706-01070000-000R	LCDPANEL M190PW01V0 19" AUO, ROHS	PCS	1	LCD PANEL
.1	02.0624-LTV19020-002R	REMOTE CONTROL RECEIVE BOARD ASSEMBLY PART FOR LCD 1902(ROHS)	PCS	1	
..2	01.6100-A1010BEH-000R	100Ω±5% 1/4W	PCS	1	R1
..2	01.6100-C4710BB0-000R	SMD RESISTOR 470 OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	2	R5,R4
..2	01.6100-C4720BB0-000R	SMD RESISTOR 4.7K OHM 1/10W +/-5% (0603) TAPE TYPE(ROHS)	PCS	2	R2,R3
..2	01.6200-A1030500-AT0R	Y5P 10nF±10% 50V,5mm,,ROHS	PCS	1	C1
..2	01.6200-B2250D00-000R	2.2uF/16V,±20%,4*5, ELECTROLYTIC CAPACITOR (ROHS)	PCS	1	C2
..2	01.6400-N3904N00-000R	TRANSISTOR PMBT3904 ,NPN, SOT23(ROHS),	PCS	1	Q2
..2	01.6400-N3906N00-000R	TRANSISTOR 2N3906 ,PNP, SOT23(ROHS)	PCS	1	Q1
..2	01.6800-9A000002-000R	DIP,2x1,W/HOUSING,2pins,2.0mm,white (ROHS)	PCS	3	CN5,CN3,CN1
..2	01.6800-9A000004-001R	90 DEGREE PIN WAFER 2.0mm PITCH X 4PIN, WHITE(ROHS)	PCS	2	CN2,CN4
..2	01.7401-63512300-000R	HFR303CP, RED ,(ROHS)	PCS	1	LED2
..2	01.7401-63516300-000R	HFBA032MP(ROHS)	PCS	1	LED1
..2	01.7500-RA19CB02-004R	RECEIVE BOARD PCB FOR LTV19CB02,1 LAYER(ROHS)	PCS	1	PCB
..2	01.7900-D02C0100-000R	BOM INFRARED RECEIVER MODULE, 3.3V,2.3X5X5mm(ROHS)	PCS	1	REM

.1	04.0501-19020000-001R	19 LCD DVD FOR LTV 1902(ROHS)	ST	1
..2	01.1100-19CB0200-001R	6*6*5 (ROHS)	PCS	1
..2	01.2701-19020000-001R	MONITOR FRONT BASE - BRIGHT SILVER / DULL BLACK W/S PANTONE 424C AKIRA(ABS	PCS	1
..2	01.2702-19CB0200-004R	MONITOR FRONT BASE-DARK 11C, 84X45mm, DVD, (ABS) , ROHS	PCS	1
..2	01.2708-19020000-001R	FUNCTION BUTTON (ABS)(ROHS)	PCS	1
..2	01.2708-19020000-002R	FUNCTION BUTTON (ABS)(ROHS)	PCS	5
..2	01.2708-19020000-003R	FUNCTION BUTTON (ABS)(ROHS)	PCS	1
..2	01.2708-19020000-005R	HOLDER - ELECTROPLATED SILVER (ABS)	PCS	1
..2	01.2708-19CB0200-004R	FUNCTION BUTTON (ABS)(ROHS)	PCS	1
..2	01.2711-19020000-001R	BOTTOM BASE BRACKET (ABS)(ROHS)	PCS	1
..2	01.2712-05005000-000R	LED LAMP HOLDER DIA.5.0 X 5.0MM-BEIGE(ABS) LED (ROHS)	PCS	2
..2	01.2712-19CB0200-001R	BOTTOM BASE BOARD - BRIGHT SILVER (ABS) (ROHS)	PCS	1
..2	01.2726-19CB0200-003R	LIMPIDITY COSMETIC -ELECTROPLATED SILVER (ABS) ROHS	PCS	1
..2	01.2905-32000016-000R	TAPE 320 X 16 X 0.3mm PAPER (ROHS)	PCS	4
..2	01.3020-19CB0200-002R	12.5mm x 3.2mm x 45 (ROHS)	PCS	4
..2	01.3211-19CB0200-001R	COVER PLATE - 0.6 MM THK' ELECTROLYSIS PATE (ROHS)	PCS	1
..2	01.3212-19CB0200-001R	1.0mm (ROHS)	PCS	2
..2	01.3212-19CB0200-002R	PORT BOARD(ROHS)	PCS	1
..2	01.3212-19CB0200-010R	PORT BOARD(ROHS)	PCS	1
..2	01.3226-19CB0200-001R	SHAFT COVER (LEFT) - ELECTROPLATED SILVER (ABS)(ROHS)	PCS	1
..2	01.3226-19CB0200-002R	SHAFT COVER (RIGHT) - ELECTROPLATED SILVER (ABS)(ROHS)	PCS	1
..2	01.3229-19CB0200-001R	ASSEMBLY PART	PCS	1
..2	01.3229-19CB0200-002R	ASSEMBLY PART	PCS	1
..2	01.3401-00900001-001R	DOUBLE SIDE TAPE WIDTH=9.0MM (3M) (50M/RL) (ROHS)	mm	2500
..2	01.3401-01200001-001R	DOUBLE SIDE TAPE WIDTH = 12mm(3M)(50M/RL)(ROHS)	mm	1334
..2	01.3403-01050000-001R	FIBRE ADHESIVE TAPE WIDTH=3.0MM - 0.16MM X 50M/RL,ROHS	mm	200
..2	01.3701-00450000-000R	CABLE TIE - L =4.5"(ROHS)	PCS	2
..2	01.39BB-03010058-NH0R	BB 3 X 10 "HARDEN", (ROHS)	PCS	4
..2	01.39PA-03008050-NHBR	PA 3 X8 "HARDEN" , BLACK, ROHS	PCS	43
..2	01.39PM-03004538-NHOR	PWAHNI M 3 X4.5(ROHS)	PCS	6
..2	01.39PM-04080038-NH0R	PWAHNI M 4 X 8 , ROHS	PCS	2
..2	01.39PW-03005508-NHBR	PWAHNI M 3 X5.5(ROHS)	PCS	3
..2	01.39PW-03006538-NHOR	PWAHNI M 3 X6.5(ROHS)	PCS	4
..2	01.39PW-03008038-NHBR	PWAHNI M 3 X8(ROHS)	PCS	3
..2	01.4100-190209E9-000R	LABEL .222*12*0.3MM,ROHS (ROHS)	PCS	1
..2	01.4100-19CB0200-004R	BOM LABEL .230*50*0.3MM,ROHS (ROHS)	PCS	1
..2	01.4100-19CB0200-005R	LABEL .170*40*0.3MM,ROHS (ROHS)	PCS	1

.1	04.0503-19020000-001R	PRINTING PARTS(ROHS)	ST	1
..2	01.1014-19020000-004R	MASTER CARTON (550*280*557) (ROHS)	PCS	1
..2	01.1014-LTV19010-017R	MASTER CARTON (230*200*45) (ROHS)	PCS	1
..2	01.1401-P1030000-001R	WARAANTY CARD "AKIRA " 128G COPPERPLATE PAPER 11.5 X 20CM	PCS	1
..2	01.1401-P1030000-002R	WARAANTY CARD "AKIRA " 128G COPPERPLATE PAPER 28.6 X 20CM	PCS	1
..2	01.1502-08045000-009R	SERIAL NO.LABEL (ROHS)	PCS	5
..2	01.1513-LTV19020-001R	LCD PLUG WARING LABEL ,ROHS	PCS	1
..2	01.1519-02000005-000R	SAFETY LABEL "AKIRA" - DIA20.0MM	PCS	1
..2	01.1520-01500002-000R	QC PASSED LABEL DIA.15.0 (GOLD) (ROHS)	PCS	1
..2	01.1520-07031480-001R	ADDRES LABEL (ROHS)	PCS	2
..2	01.1520-07031480-008R	ADDRES LABEL (ROHS)	PCS	1
..2	01.1520-07031480-009R	ADDRES LABEL (ROHS)	PCS	1
..2	01.1521-07031480-001R	DC ADAPTER LABEL, (ROHS)	PCS	1
..2	01.1600-19020000-001R	INSTRUCTION BOOKLET, ENGLISH, (ROHS)	PCS	1
..2	01.1600-19020000-002R	INSTRUCTION BOOKLET, RUSSIAN, (ROHS)	PCS	1
..2	01.3402-04500000-002R	ADHESIVED TAPE (TRANSPARENT) (50M/RL) - WIDTH=45.0 (ROHS)	mm	300
.1	04.0504-19020001-002R	PACKING PARTS(ROHS)	ST	1
..2	01.1102-19CB0200-001R	PEARL SPONGE CAP(LR) 140*260*170(ROHS)	ST	1
..2	01.1102-19CB0200-002R	PEARL SPONGE CAP(LR) 140*260*170(ROHS)	ST	1
..2	01.1102-19CB0200-003R	PEARL SPONGE CAP(LR) 140*260*180(ROHS)	ST	1
..2	01.1102-19CB0200-004R	PEARL SPONGE CAP(LR) 140*260*180(ROHS)	ST	1
..2	01.1105-24802203-004R	PEARL SPONGE BAG 24.8" X 22" X 1.0MM W/ EPE	PCS	1
.1	04.0505-RC094000-000R	RC06 REMOTE CONTROL (PUBLIC MOLD)-40- KEYS FOR DTV EUROPE ENG SILVER FOR	ST	1
..2	01.0801-UM4AAA00-001R	BATTERY UM4-AAA (MADE IN CHINA)(ROHS)	PCS	2
..2	01.1706-RC094000-000R	RC06REMOTE CONTROL(PUBLIC MOLD) - 40 KEYS FOR OVERSEAS ENG BLACK,ARIRA,R	ST	1