Service Manual

ViewSonic VG700b-2

Model No. VLCDS24606-1W

17” Color TFT LCD Display

(VG700b-2_SM_605 - Rev. 1b Feb. 2004)

ViewSonic® 381 Brea Canyon Road, Walnut, California 91789 USA - (800) 888-8583

Revision History

Revision	Date	Description Of Changes	Approval
1a	14/04/03	Initial Release DCN- 2661	WANGJE
1b	02/10/04	Change Panel from QDI to LG by region DCN-4209	Angela Luh

TABLE OF CONTENTS

1. Precautions and Safety Notices

1. Caution :

   No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guide line.

2. Safety Check :

   Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit. These voltages are exposed in such areas as the associated transformer circuits.

3. POWER SUPPLY REQUIREMENTS

   The external power converter for this display utilizes AC and DC cords, AC cord is detachable, but DC cord is permanently attached. Any attempt to replace another adapter could result in serious problem on the display.

4. LEAKAGE CURRENT HOT CHECK

   4-1 Plug the AC cord directly into the AC outlet. Do not use an isolation transformer during this check.

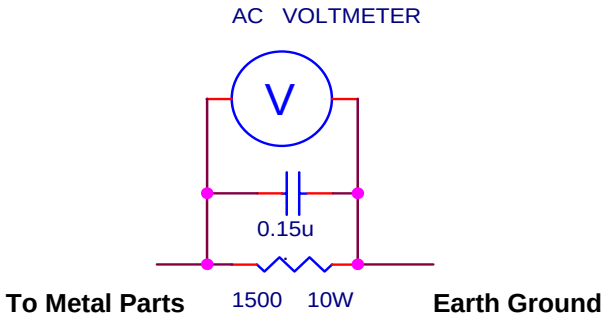
   4-2 Connect a 1500 ohm, 10 watt resistor, paralleled by a 0.15uF capacitor between each metallic part and a good earth ground.

   4-3 Use an AC voltmeter with 1000 ohm / volt or more sensitivity and measure the AC voltage across the combination 1500 ohm resistor and 0.15uF capacitor.

   4-4 Move the resistor connection to each exposed metallic part and measure the voltage.

   4-5 Reverse the polarity of the AC plug in the AC outlet and repeat the above measurement.

   4-6 Voltage measured must not exceed 1.5 volt RMS, from any exposed metallic part to the ground. A leakage current tester may be used in the above hot check, in which case any circuit measured must not exceed 1.0 milliamp. In the case of a measurement exceeding the 1.0 milliamp value, a rework is required to eliminate the chance of a shock hazard.



2. Specification

Mechanical:	
Dimension (W x H x D) mm	
Set: a. with stand	410.0 x 433 x 180 mm
b. Without stand	410.0 x 433 x 58.4 mm
Base (L X W)	290 x 180 mm
Packing : (W x H x D) mm	472 x 515 x 216 mm
Weight: Net / Gross (Kg)	4.5 / 6.9
Wall Mount (VESA)	100 x 100 mm
LCD Panel type	QDI / QD17EL07
Max. Resolution (HxV)	1280 x 1024
Nominal picture size (HxV	338 mm x 270 mm
Display colors	16.2 M (6 bit + dithering)
Dot pitch	0.264 mm
Response time	4 +16 / 20ms (Tr + Tf / typical)
Brightness (100% white)	Typical: 300 cd/m² , Min. 240cd/m²
Contrast	Typical: 450:1, Min. 300:1
Viewing angle	75 / 75 /65 / 60 (L/R/T/B CR>=10)
Synchronization	Fh = 31~82 KHz / Fv=50~75Hz
Presets	18 timing modes
OSD Language	8 language
Color Temperature	sRGB , 6500°K (default) / 9300°K /5400°K / User R,G,B
Plug & Play	DDC1/2B interface
Scalar chip	Genesis gm2121 AD
Audio Input Connector	3.5 mm Stereo, PC2001
Audio Amplifier	3W x 2 (chip :TPA3002D2)
AC Power range	90 V ~ 264 V, 50 Hz / 60 Hz
Power consumption	< 48W green / < 3W amber (On / Off mode)

3. Front Panel Function Control Description

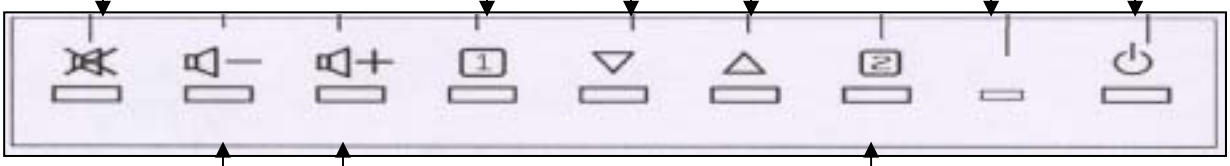
Displays the Main Menu or exits the control screen and saves adjustments.

Scrolls through menu options and adjusts the displayed control. Also a shortcut to display the Contrast adjustment control screen.

Temporarily silence audio output

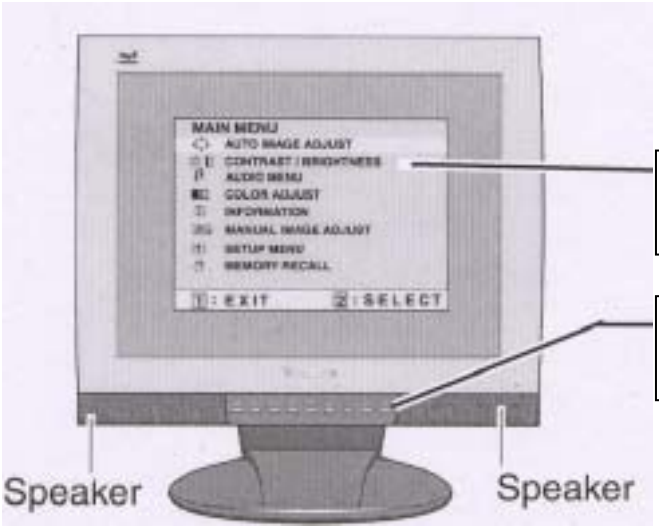
Power light
Green = ON
Orange=power

Power On / Off



Decreases or increases volume

Displays the control screen for the highlighted control. Also toggles between two controls on some screens. Also a shortcut to auto image adjust



Main Menu
With On View controls

Front Control Panel
shown below in detail

Main Menu Controls

Adjust the menu items shown below by using the up and down buttons.

A. **Auto Image Adjust** automatically sizes, centers, and fine tunes the video signal to eliminate waviness and distortion. Press the [2] button to obtain a sharper image.

NOTE: Auto Image Adjust works with most common video cards. If this function does not work on your LCD display, then lower the video refresh rate to 60 Hz and set the resolution to its pre-set value.

B. **Contrast adjusts** the difference between the image background (black level) and the foreground (white level).

C. **Brightness adjusts** the lamps current to control the screen brightness.

D. **Audio Menu** controls are explained below:

Volume increases the volume, decreases the volume, and mutes the audio.

Mute temporarily silences audio output.

E. **Color Adjust** provides several color options: preset color temperatures and Custom User Color which allows you to adjust red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500° Kelvin).

9300K — Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

5400K — Adds red to the screen image for warmer white and richer red.

Custom User Color — Individual adjustments for red, green, and blue.

1 To select color (R, G or B) press button [2].

2 To adjust selected color, press ▲ or ▼.

3 When you are finished making all color adjustments, press button [1] twice.

F. **Information** displays the timing mode (video signal input) coming from the graphics card in your computer. See your graphic card's user guide for instructions on changing the resolution and refresh rate (vertical frequency). VESA 1280 x 1024 @ 60 Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.

G. **Manual Image Adjust** controls are explained below:

H. Size (Horizontal Size) adjusts the width of the screen image.

NOTE: Vertical size is automatic with your LCD display.

H./V. Position adjusts horizontal and vertical position of the screen image. You can toggle between Horizontal and Vertical by pressing button [2]. Horizontal moves the screen image to the left or to the right. Vertical moves the screen image up and down.

Fine Tune sharpens focus by aligning the illuminated text and/or graphic characters.

Sharpness adjusts the clarity and focus of the screen image.

Setup Menu controls are explained below:

Language allows you to choose the language used in the menus and control screens.

Resolution Notice displays the recommended resolution for this LCD display.

Enable allows the Resolution Notice to appear on-screen.

Disable will not allow the Resolution Notice to appear on-screen.

OSD Timeout sets the length of time an on-screen display screen is displayed. For example, with a"15 second" setting, if a control is not pushed within 15 seconds, the display OSD disappears.

H. **OSD Position** allows you to move the on-screen display menus and control screens.

I. **Memory Recall** returns adjustments to the original factory settings if the display is operating in a factory Preset Timing Mode listed in this user guide.

4. Circuit Description

4-1. Outline

1.1 POWER On/Off , LED, Button"2" , Up arrow- button , Down arrow button , Button"1" , button , Down arrow button , Button"1" , on the front panel.

1.2 Video signal connector, audio line-in receptacle and DC-IN are located on the back side of the cabinet.

1.3 OSD menu includes the following function;

AUTO IMAGE ADJUST
CONTRAST / BRIGHTNESS
AUDIO MENU
COLOR ADJUST
INFORMATION
MANUAL IMAGE ADJUST
SETUP MENU
MEMORY RECALL

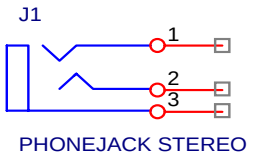
1.4 CONTRAST and BRIGHTNESS can be directly controlled with UP / DN key.

1.5 Speaker out can be controlled with + / - volume key and MUTE key.

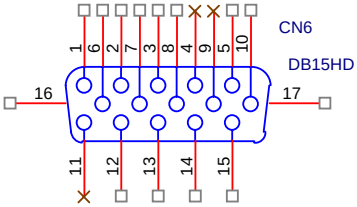
4-2. CONNECTORS

2.1 AC inlet : CEE22 typed connector

2.2 Audio : Line-in receptacle



2.3 Video signal connector 15P Mini D-Sub



PIN	MNEMONI	SIGNAL
1	RV	Red Video
2	GV	Green Video
3	BV	Blue Video
4	NC	None
5	GND	Ground(DDC return)
6	RG	Red GND
7	GG	Green GND
8	BG	Blue GND
9	+5V	+ 5V (for DDC)
10	SG	Sync GND
11	NC	None
12	SDA	DDC Data
13	HS	Horizontal Sync
14	VS	Vertical Sync
15	SCL	DDC Clock

4-3. ELECTRICAL SPECIFICATIONS

3.1 Standard conditions

Display area	338 x 270
Video signal	0.7 Vpp
Contrast	Max.
Brightness	Max.
Ambient	20 +/- 5 C
Input	AC
Warming up	> 30
Display	1280 x1024

3.2 POWER

3.2.1 Power supply

Input voltage	90~240 Volts
Power frequency	50 / 60 Hz, +/-3 Hz
Input current	< 1.5 Arms @90Vac < 0.75Arms @265Vac
Inrush current	90A(Max) at 230Vac
Power consumption	48W(Max)
Output Voltage	@0-4.8A Load 12Vdc+/- 5%

3.2.2 Power Management

State	Power	Indicator
On	48Watts	Green
Standby	<3Watts	Amber
Off	<3Watts	None

3.3 Acceptable timing

If your timing is within following specification, this LCD display can automatically function with a certain position. Horizontal: Sync frequency: 30~81 kHz
Vertical: Sync frequency: 56~75Hz

3.4 Signal level and input impedance

3.4.1 Video Signal level This LCD display is adjusted at the factory using 0, 7 Vp-p Video signal.

3.4.2 Sync Signal level

H/V Separate: TTL level

3.4.3 Input impedance

Video input: 75 ohms

Sync input: > 1 k ohms

State	Power	Indicator
On	48Watts	Green
Standby	<3Watts	Amber
Off	<3Watts	None

4-4. SIGNAL CABLE: Signal cable with Mini D-Sub 15P connectors at both ends Length: 1.8 meter.

4-5. EDID data

Analog EDID

Time: 09:08:54

Date: Wed Sep 04, 2002

VIEWSONIC CORPORATION

EDID Version # 1, Revision # 3

DDCTest For: VSC VG700b-2

60	2A	40	30	70	13	00	52	0E	11	00
70	00	1E	00	00	00	FF	00	41	31	4B
80	30	33	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	4B	1E	52	0E
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	56	47	37	30	30	62	2D
120	32	0A	20	20	20	20	00	86		

(08-09) ID Manufacturer Name = VSC

(10-11) Product ID Code (Non-Alphanumerical) = B50B - (46347)

(12-15) Last 5 Digits of Serial Number = NOT SPECIFIED

(16) Week of Manufacture = 01

(17) Year of Manufacture = 2003

(10-17) Complete Serial Number = NOT SPECIFIED

(18) EDID Structure Version Number = 1

(19) EDID Structure Revision Number = 3

(20) VIDEO INPUT DEFINITION : =
Separate Sync, Analog signal, 0.700V/0.300V (1.000 Vp-p)

(21) Maximum Horizontal Image Size = 340mm

(22) Maximum Vertical Image Size = 270mm

(23) Display Gamma = 2.20

(24) DPMS Supported Feature: = Active Off.
Display type = RGB color display

(25-34) CHROMA INFO:
Red x = 0.633 Green x = 0.300 Blue x = 0.146 White x = 0.313
Red y = 0.336 Green y = 0.586 Blue y = 0.103 White y = 0.329

(35) ESTABLISHED TIMING I:

720 x 400 @ 70Hz (VGA, IBM)
640 x 480 @ 60Hz (MAC II, Apple)
640 x 480 @ 67Hz (VESA)
640 x 480 @ 72Hz (VESA)
640 x 480 @ 75Hz (VESA)
800 x 600 @ 56Hz (VESA)
800 x 600 @ 60Hz (VESA)

(36) ESTABLISHED TIMING II:

800 x 600 @ 72Hz (VESA)
800 x 600 @ 75Hz (VESA)
832 x 624 @ 75Hz (MAC II, Apple)
1024 x 768 @ 60Hz (VESA)
1024 x 768 @ 70Hz (VESA)
1024 x 768 @ 75Hz (VESA)
1280 x 1024 @ 75Hz (VESA)

(37) Manufacturer's Reserved Timing:

1152 x 870 @ 75Hz (MAC II, Apple)

(38-53) Standard Timing Identification:

#1: 1280 x 1024 @ 60Hz
#2: (40) not specified
#3: (42) not specified
#4: (44) not specified
#5: (46) not specified
#6: (48) not specified
#7: (50) not specified
#8: (52) not specified

(54-71) Detail Timing Description #1: 1280x1024 Pixel Clock=108.0MHz

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Horizontal Image Size=338mm Vertical Image Size=270mm
Refresh Mode: Non-Interlaced Normal display, no stereo

HORIZONTAL:

Active Time = 1280 pixels Blanking Time = 408 pixels
Sync Offset = 48 pixels Sync Pulse Width = 112 pixels
Border = 1 pixels Frequency = 64.0 kHz

VERTICAL:

Active Time = 1024 lines	Blanking Time = 42 lines
Sync Offset = 1 lines	Sync Pulse Width = 3 lines
Border = 0 lines	Frequency = 60.0 Hz

Sync configuration: Digital separate, V(+), H(+)

(72-89) Monitor Description:

Monitor S/N: A1K030100001

(90-107) Monitor Description:

Monitor Range Limits:
Vertical Frequency (min) = 50Hz
Vertical Frequency (max) = 75Hz
Horizontal Frequency (min) = 30Hz
Horizontal Frequency (max) = 82Hz
Maximum Supported Pixel Clock = 140MHz

(108-125) Monitor Description:

Monitor Name: VG700b-2

(127) Checksum OK

4-6. THEORY OF OPERATION

This section describes the function of the LCD monitor per functional block.
This monitor includes MB board, inverter board, adapter and button board.

1.1 MB BOARD

The MB board is a four-layer, single-landed design with ground and internal planes provided. DC power from the power adapter enters the board through the DC jack. Other connectors on the board are for inverter, audio and button board .The VGA cable is a signal cable that contains video signal, sync signal and DDC signal from PC VGA adapter. This system board consists of 4 functional areas: flat panel controller, flash ROM, power regulator and Audio amplifier

1.2 Flat panel controller… gm2121 (U2)

The heart of the system board is Genesis gm2121. The gm2121 is a graphics processing IC for LCD monitor. It provides all key IC functions required for LCD panel. On-chip functions include a high-speed triple-ADC, PLL, high scaling engine, OSD controller and on-chip micro controller.

a) Clock Generation :

Crystal Input Clock (TCLK and XTAL). This is the input pair to an internal crystal oscillator and corresponding logic. A 14.318 MHz crystal is recommended.

b) Hardware Reset (Pin 17):

Hardware Reset signal is generated by MAX6326 (U5).It asserts a reset signal for at least 100 ms.

c) Analog to Digital Converter:

The gm2121 chip has three ADC's (analog-to-digital converters), one for each color (red, green and blue) .The analog RGB signals are connected to gm2121 as described below

Pin Name	Pin Number
Red +	135
Red -	134
Green +	131
Green -	130
Blue +	127
Blue -	126

d) OSD: The gm2121 has a fully programmable, high-quality OSD controller. The on-chip static RAM (4096 words by 24 bits) stores the cell map and the cell definitions.

e) On-Chip Micro controller (OCM): The gm2121 on-chip micro controller (OCM) serves as the system micro controller. That is, it programs the gm2121 and manages other devices in the system such as the keypad, the backlight, LED, audio and non-volatile RAM. Using general purpose input/output (GPIO) pins.

Pin Number	Pin Name	Pin Number Usage
10	GPIO20	Mute, audio disable
11	GPIO19	Key_power on/off
12	GPIO18	Flash Rom(U4) bank select
9	GPIO16	NV_RAM(U9) SDA
8	GPIO22	NV_RAM(U9) SCL
35	GPIO11	Flash Rom(U4) write enable
27	GPIO4	For debug
28	GPIO5	For debug
32	GPIO7	Key_down
29	GPIO6	Key_right
26	GPIO3	Key_up
25	GPIO2	Key_left
24	GPIO1/PWM1	Volume control
23	GPIO0/PWM0	Backlight brightness control
22	GPIO8	Key_mute
37	GPIO13	NVRAM(U5) SCL
36	GPIO12	NVRAM(U5) SDA
16	GPIO21/IRQn	VGA enable
33	GPIO9	Key_select
34	GPIO10	Key_menu
92	GPO2	LED_red
89	GPO1	LED_green
40	PPWR	LCD panel power on/off
41	PBIAS	Backlight on/off control

f) Panel Power Sequencing (PPWR, PBIAS) (Pin 40~41) : The gm2121 has two dedicated outputs PPWR and PBIAS (Pin113 and Pin114) to control LCD power sequencing once data and control signals are stable.

g) Parallel ROM Interface Port (Pin 1~6, Pin 139~160: The gm2121 has parallel ROM interface port, Pin139~156 for address bus, pPin1~6, Pin159 and Pin160 for data bus.

h) Panel interface (Pin 48~57, Pin64~73): The gm2121 driver interface is highly programmable. It supports dual bus / dual port for SXGA drivers.

1.3 Power Regulator AIC1563 (U6), LT1117 (U7, U8): The AIC1563 is a monolithic control IC containing the primary functions required for DC to DC converters. The device consists of an internal temperature compensated reference, comparator, controlled duty cycle.
Oscillator with an active current sense circuit. Desired output voltage is determined by the equation,
Volt = 1.25 (1 + R104 / R103), In this case, the output voltage is 5 Volts
The AIC1117 is a low dropout positive adjustable regulator with minimum of 1A output current capability,
so it is well suited for 3.3 V and 2.5 V Regulator.
U6 is a 2.5 V regulator, desired output voltage is determined by the equation.
Volt=1.25 x (1 + R93/R92) = 2.5,
U5 is a 3.3 V regulator, desired output voltage is determined by the equation
Volt=1.255 x (1+ R95/R94) = 3.3

1.4 Audio Amplifier TPA3003D2 (U1)

The TPA3003D2 is a class D, 2 channel audio power amplifier capable of delivering 3W of continuous average power to 8 ohms with less than 1% (THD) from a 12 V power supply. TPA3003D2 can directly drive 8 ohms speaker, and does not require output coupling capacitor, bootstrap capacitor, or LC filter. Audio line-in is fed into pin 2, 6 of the TPA3003D2. The output gain is controlled by pin 11.

1.5 Inverter Board

This is a specific inverter for L7VB monitor backlight which converters 12 Vdc to drive four cold cathode fluorescence tubes. Electrical specification described as below.

INPUT	Rated Input Voltage	12Vdc
	Input Voltage Range	11.4~12.6 Vdc
	Input Current	<2A
	Off state Input Power	<0.1W
	On/off control Voltage	2~3.3 for on, 0~1 for off
OUTPUT	Rated Output Strike-on Voltage	1500 Vrms
	Rated Output Voltage	710 Vrms at 6mA
	Rated Output Frequency	40~50 KHz
	Rated Output Current	6~7 mA

1.6 Adapter

This is a general purpose AC / DC adapter which converts 90~240 Vac to a stabilized DC, 12V with rated output current of 4.16A. Electrical specification described as below.

INPUT	Rated Input Voltage	90~240 Vac, 50/60 Hz
	Operation Input Voltage	90~260 Vac, 47~63 Hz
	Input Current	<1.5A
	Inrush Current	<100A@ 120Vac
	Standby Input Voltage	12Vdc
OUTPUT	Output Voltage Regulation	+/-5%
	Output Ripple and Noise	120 mVp-p
	Rated Output Current	<4.16A
	Turn-on Delay	<3 seconds

5. Adjusting Procedure

OSD Function Menu

5-1. Main Menu

Press “1” Button (Menu Button) to enter Main Menu:
Press Up Button to the previous page or Down Button to the next page.
Press “1” Button to exit Main Menu.

(1) Auto Image Adjust Page:

Press “2” Button to do auto image adjust function.
Press “1” Button to exit the page.

(2) Contrast/Brightness Page:

Press “2” Button to enter Contrast Item.
Press “1” Button to exit the page.

1) Contrast Item

Press up Button to make contrast high.
Press down Button to make contrast low.
Press “2” Button to enter Brightness Item.
Press “1” Button to exit the item.

2) Brightness Item

Press Up Button to make brightness high.
Press Down Button to make brightness low.
Press “2” Button to enter Contrast Item.
Press “1” Button to exit the item.

(3) Color Adjust Page:

Press “2” Button to enter Color Adjust page.
Press “1” Button to exit the page.
Press Up Button to the previous item or Down Button to the next item.

1) sRGB Item
2) 9300K Item
3) 6500K Item
4) 5400K Item

Press “2” Button to select current Item.
Press “1” Button to exit current item.

5) **User Color Item**

Press “2” Button to enter User Color item.
Press “1” Button to exit User Color item.
Red, Green, Blue Options:
Press “2” Button to switch among the options.
Press “1” Button to exit the options.
Press Up Button to make current option high.
Press Down Button to make current option low.

(4) Information Page:

Press “2” Button to show the information.
Press “1” Button to exit Information page.

(5) Manual Image Adjust Page:

Press “2” Button to enter Manual Image Adjust page.
Press “1” Button to exit Manual Image Adjust page.

Press Up Button to the previous item or Down Button to the next item.

1) H./V. Position Item

Press “2” Button to enter H./V. Position item.
Press “1” Button to exit H./V. Position item.

a) Horizontal Position Option:

Press “2” Button to enter the Vertical Position option.
Press “1” Button to exit Horizontal Position option.
Press Up Button to make current option high.
Press Down Button to make current option low

b) Vertical Position Option:

Press “2” Button to enter the Horizontal Position option.
Press “1” Button to exit Vertical Position option.
Press Up Button to make current option high.
Press Down Button to make current option low

2) **Horizontal Size Item**

Press “2” Button to enter Horizontal Size item.
Press “1” Button to exit Horizontal Size item.
Press Up Button to make current item high.
Press Down Button to make current item low.

3) Fine tune Item

Press “2” Button to enter Fine tune item.
Press “1” Button to exit Fine tune item.
Press Up Button to make current item high.
Press Down Button to make current item low.

4) Sharpness Item

Press “2” Button to enter Sharpness item.
Press “1” Button to exit Sharpness item.
Press Up Button to make current item high.
Press Down Button to make current item low.

(6) Setup Menu Page:

Press “2” Button to enter Setup Menu page.
Press “1” Button to exit Setup Menu page.
Press Up Button to the previous item or Down Button to the next item.

1) Language Select Item

Press “2” Button to enter Language Select item.
Press “1” Button to exit Language Select item.
Press Up Button to the previous option or Down Button to the next option.
English, French……..Option
Press “2” Button to select the language.
Press “1” Button to exit the option.

2) Resolution Notice Item

Press “2” Button to enter Resolution Notice item.
Press “1” Button to exit Resolution Notice item.

Enable, Disable Option
Press “2” Button to select the option.
Press “1” Button to exit the option
Press Up Button to the previous option or Down Button to the next option.

3) OSD Position Item
Press “2” Button to enter OSD Position item.
Press “1” Button to exit OSD Position item.

a) Horizontal Position Option
Press “2” Button to enter the Vertical Position option.
Press “1” Button to exit Horizontal Position option.
Press Up Button to make current option high.
Press Down Button to make current option low

b) Vertical Position Option:
Press “2” Button to enter the Horizontal Position option.
Press “1” Button to exit Vertical Position option.
Press Up Button to make current option high.
Press Down Button to make current option low

4) OSD Time Out Item
Press “2” Button to enter OSD Time Out item.
Press “1” Button to exit OSD Time Out item.
Press Up Button to make OSD time out long.
Press Down Button to make OSD time out short.

5) OSD Background Item
Press “2” Button to enter OSD Background item.
Press “1” Button to exit OSD Background item.
Enable, Disable Option
Press “2” Button to select the option.
Press “1” Button to exit the option.
Press Up Button to the previous option or Down Button to the next option.

(7) Memory Recall Page
Press “2” Button to do the memory recalls function.
Press “1” Button to exit the page.

5-2. Other Menu:

(1) Contrast Dialog
Press Down Button to enter the Contrast Dialog.
Press “1” Button to exit the Contrast Dialog.
Press “2” Button to enter the Brightness Dialog.
Press Up Button to make contrast high.
Press Down Button to make contrast low.

(2) Brightness Dialog

Press Down Button to enter the Brightness Dialog.
Press “1” Button to exit the Brightness Dialog.
Press “2” Button to enter the Contrast Dialog.
Press Up Button to make brightness high.
Press Down Button to make brightness low.

(3) Volume Dialog

Press Left Button or Right Button to enter the Volume Dialog .
Press “1” Button to exit the Volume Dialog.
Press Left Button to make volume low.
Press Right Button to make volume high.

(4) Mute Dialog

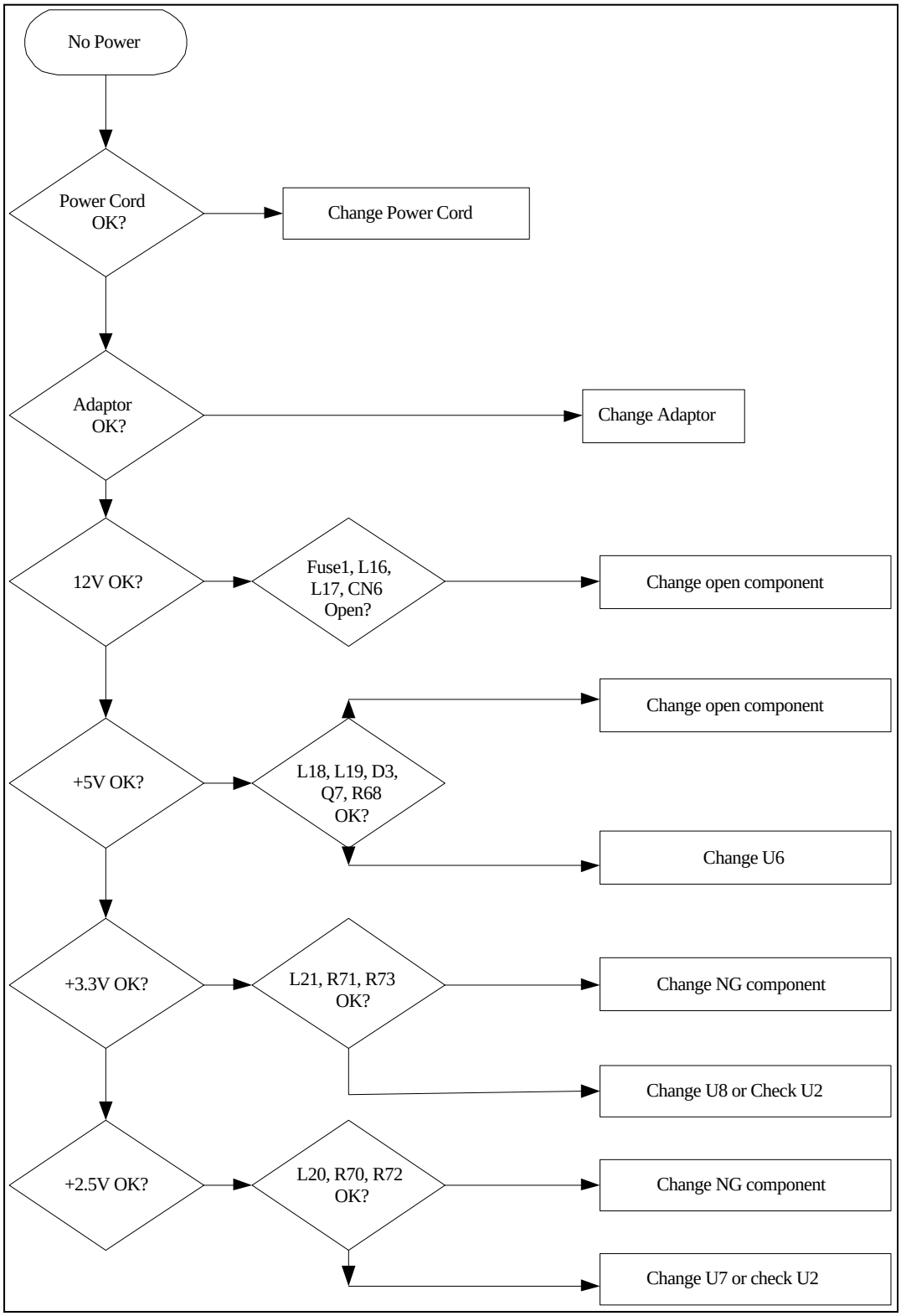
Press Mute Button to switch mute to volume or volume to mute.

(5) Auto Image Adjust Dialog

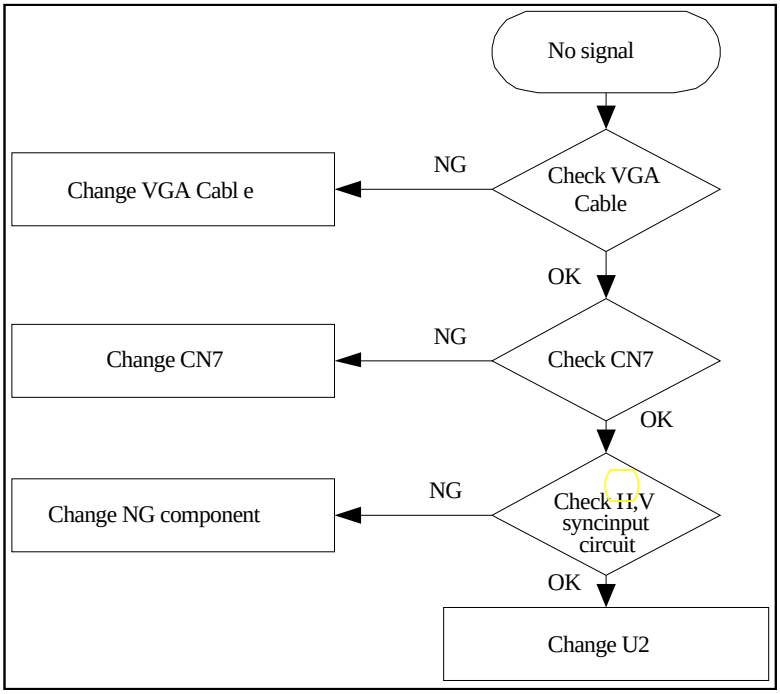
Press “2” Button to do the auto image adjusts function.

6. Trouble Shooting Flow Chart

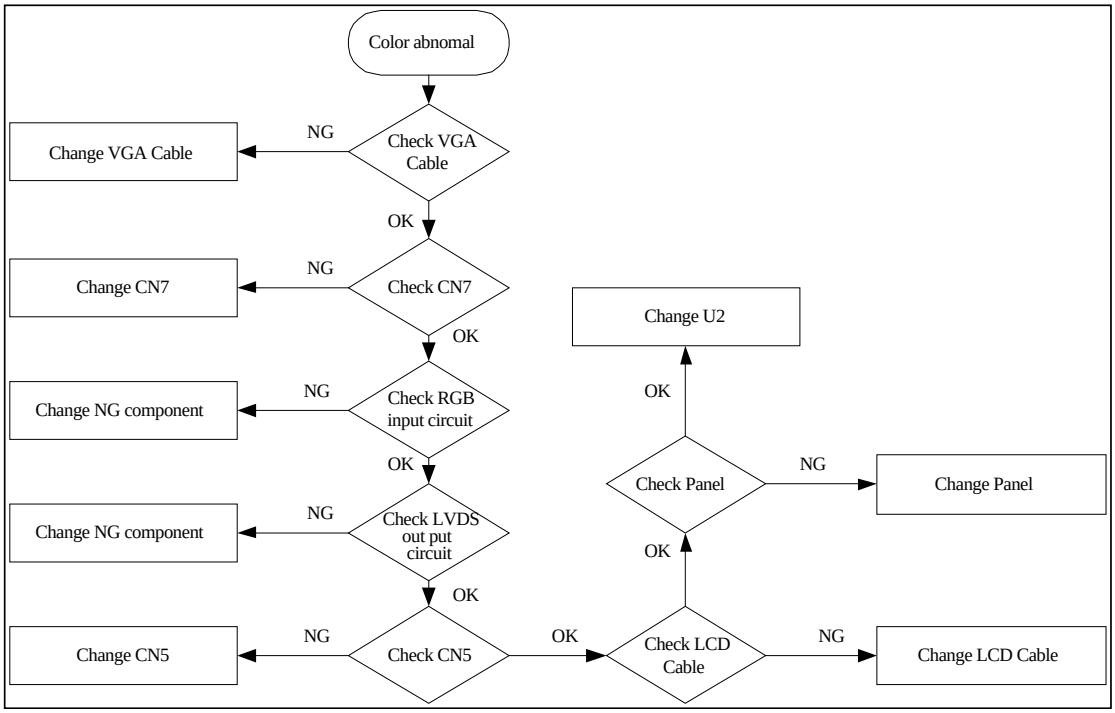
6.1 No power



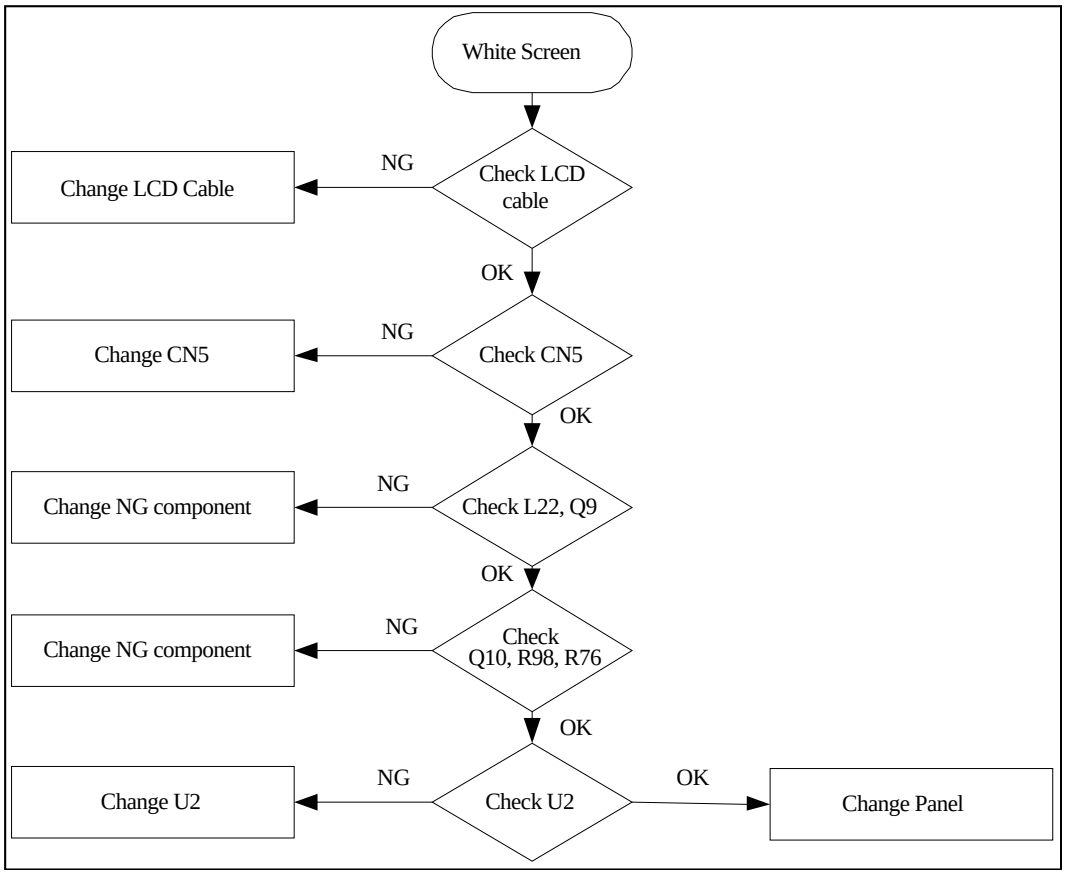
6.2 Always show NO SIGNAL



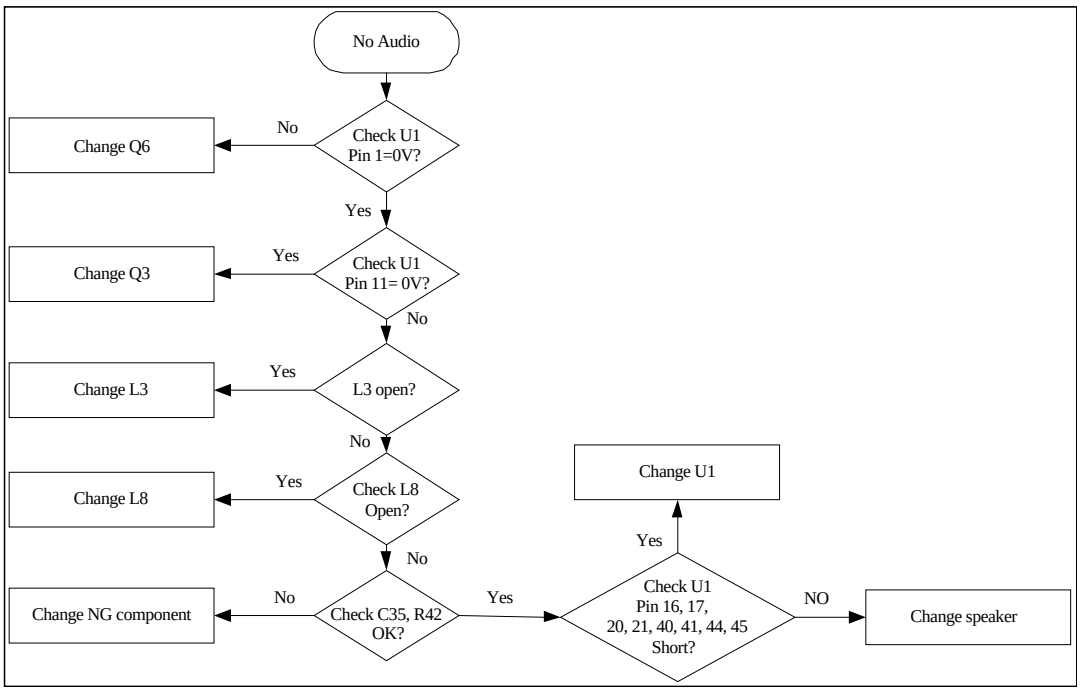
6.3 Missing color



6.4 White screen



6.5 No Audio



7. Recommended Spare Parts List

VG700b-2 Recommended Spare Parts List

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	B-IF-0222-0050	21L7VSB0021	scaler Board			1
2	B-SB-0221-0568	AS022172502	Inverter			1
3	P-BX-0601-0898	HFL7V004016	Carton			1
4	P-FM-0602-0542	HBL7V001013	Polyform (right)			1
5	P-FM-0602-0543	HBL7V002010	Polyform (left)			1
6	M-MS-0808-8981	HAL7V001012	EPE bag			1
7	M-MS-0808-9232	FCL7V010013	ID label			1
8	A-CD-VG700B-2-B	HGL7V006010	CD wizard			1
9	C-BC-0302-0543	37L7VBCVS11	Rear enclosure			1
10 a	M-CV-0830-2371	36L7VRCVS05	Front enclosure			1
10 b	C-FP-0301-0969	36L7VRCVS05	Front enclosure			1
11	M-CV-0830-2377	EBL7V006015	Base			1
12	M-SCW-0824-0795	MM40080BCI5	Screw (To assembly the cabinet)			12
13	M-LCD-0826-0213	AA17EL01001	LCD panel		LG LM170E01-A5	1
14	A-AD-0114-0205	AG12042CK00	Adapter		ADP-50GH BB	1
15	E-FS-0410-0108	DK400WFU001	Fuse			1
16	A-PC-0106-0224	DM333181G97	POWER CORD 3P 1.8M(USA)V04VS35001218000			1
17	M-LCD-0824-0181	AA170E01001	LCD(TFT) LM170E01 A5 17"SVGA		AA170E01001	
18	C-BC-0302-0475	EAL7V003015	BACK COVER(EAL7V003,REV3A)			
19	C-BS-0303-0393	35L7VSAVS16	L7VB STAND ASSY			
20	B-IF-0222-0051	31L7VSS0016	L7VB SCALAR/B S/S ASSY			

VG700b-2 BOM Parts List

Item	ViewSonic P/N	Ref. P/N	Part Description	Location	Universal number#	Qty
1	#N/A	1L7VZZZVS78	L7VB LCD MONITOR (LG) EUROPE			
2	B-IF-0222-0050	21L7VSB0021	L7VB SCALAR/B ASSY (LG)			1
3	B-IF-0222-0051	31L7VSS0016	L7VB SCALAR/B S/S ASSY			1
4	#N/A	AJ02121^C15	IC(160P) GM2121_AD (162MHZ,PQFP)	U2		1
5	#N/A	AKE1B8APN03	IC(32P) FLASH ROM W39F010P-70B(PLCC)	U4		1
6	E-IC-0401-2651	AKE3A8S0Y01	IC,EEPROM(8P) 24LC16B/SN(2K*8,100KHZ)	U5		1
7	E-IC-0401-2652	AKE3D8Q0A00	IC EEPROM(8P)AT24C21-10SI-2.5(128*8,10NS	U9		1
8	#N/A	AKE3D8S0Y11	IC,EEPROM(8P) 24LC21A/SN(128*8,100KHZ)	U9		1
9	E-IC-0401-2653	AL001117078	IC(3P) AIC1117CY(SOT-223)	U7,U8		2
10	E-IC-0401-2654	AL001563001	IC(8P) AIC1563CS(SOP8)	U6		1
11	#N/A	AJ030030H03	IC(48P)TPA3003D2PFB(TQFP)	U1		1
12	E-IC-0401-2655	AL006326007	IC(3P) MAX6326UR29(SOT23)	U3		1
13	#N/A	BA039040Z01	TRANSISTOR,SMD MMBT3904(40V,200MA)	Q6,Q10		2
14	#N/A	BA039060Z01	TRANSISTOR,SMD MMBT3906(40V,200MA)	Q4,Q5,Q8		3
15	#N/A	BAM23010Z05	TRANSISTOR MOSFET SI2301DS(-12V,-2.3A)	Q9		1
16	E-Q-0402-1580	BAM9410YZ02	TRANSISTOR MOSFET SI9410DY(30V,7A)	Q7		1
17	E-Q-0402-1582	BAN70020T04	TRANSISTOR MOSFET 2N7002(60V,0.115A)	Q2,Q3		2
18	E-D-0403-2082	BC1SS355Z05	DIODE SMD 1SS355(80V,100MA)	D1,D2		2
19	E-D-0403-2083	BCAN202UZ01	DIODE,SMD DAN202U(80V,100MA,SMD)	D4		1
20	E-D-0403-2084	BCRB081LZ02	DIODE SMD RB081L-20(20V,5.0A,VF:0.45V)	D3		1
21	E-D-0403-2085	BD05232BZ09	DIODE,ZENER,SMD MMBZ5232B(5.6V,SOT23)	D5,D6,D7,D8		4
22	#N/A	CH00506J904	CAPACITOR CHIP 5P,50V(+-5%,NPO,0603)	C70,C71		2
23	#N/A	CH04706J902	CAPACITOR CHIP 47P 50V(+-5%,NPO,0603)	C113,C114		2
24	#N/A	CH11206J908	CAPACITOR CHIP 120P 50V(+-5%,NPO,0603)	C92		1
25	#N/A	CH12206J901	CAPACITOR CHIP 220P 50V(+-5%,NPO,0603)	C20,C21,C22,C23,C35 , C54 , C81		7
26	#N/A	CH21006K917	CAP CHIP 1000P 50V(+-10%,X7R,0603)	C16,C17,C43,C44,C95		5
27	#N/A	CH22206K917	CAP CHIP 2200P 50V(+-10%,X7R,0603)	C94		1
28	#N/A	CH31006K919	CAP CHIP 0.01U 50V(+-10%,X7R,0603)	C24,C25,C38,C39 ,C107, C108 ,C112,C109,C110,C111		10
29	#N/A	CH41004Z931	CAP CHIP 0.1U,25V(+80-20%,Y5V,0603)	C1,C5,C6,C7,C8,C9,C10,C11,C12 C13,C14,C18,C19,C31,C34,C37 , C79 C41,C42,C46,C47,C48,C49,C50 , C75 , C76 , C77 C51,C52,C53,C56,C57,C58,C59 , C72 , C73 , C74 C60,C61,C62,C64,C65,C66,C67 , C68, C69,C70 , C71 C80,C85,C86,C88,C89,C91,C96 C103,C105,C106,C115		56
30	#N/A	CH51004MA32	CAPACITOR CHIP 1UF 25V(+-20%,Y5V,0805)	C3,C4,C26,C27,C28,C29,C30,C33,C36,C87,C102		11
31	#N/A	CS00003J900	RESISTOR CHIP 0 1/10W+-5%(0603)	R6,R94,R97		3
32	#N/A	CS00006J205	RESISTOR CHIP 0 1/4W+-5%(3216)	R63		1
33	#N/A	CS04703J906	RES CHIP 47 1/10W +-5%(0603)	R64		1
34	#N/A	CS05603F903	RES CHIP 56 1/10W +-1%(0603)	R81,R84,R86		3
35	#N/A	CS07503J907	RES CHIP 75 1/10W +-5%(0603)	R88,R89,R90		3
36	#N/A	CS02203J902	RES CHIP 22 1/10W +-5%(0603)	R22,R23,R24,R25,R26,R27,R28,R30,R32,R33,R49,R50 R80,R82,R85,R93,R95		17
37	#N/A	CS12003F905	RESISTOR CHIP 200 1/10W+-1%(0603)	R70,R71,R72		3
38	#N/A	CS13303F909	RESISTOR CHIP 330 1/10W +-1%(0603)	R73		1
39	#N/A	CS15103J909	RESISTOR CHIP 510 1/10W +-5%(0603)	R96		1
40	#N/A	CS21003F904	RESISTOR CHIP 1K,1/10W,+-1%(0603)	R67,R69		2
41	#N/A	CS23003F900	RES CHIP 3K 1/10W +-1%(0603)	R68		1
42	#N/A	CS24703J900	RES CHIP 4.7K 1/10W +-5%(0603)	R35,R37,R44,R76,R98		5
43	#N/A	CS31003J908	RES CHIP 10K 1/10W +-5%(0603)	R1,R2,R3,R5,R7,R8,R9,R10,R11,R12,R13,R14,R16 R18 , R18 , R20 , R40 , R41 , R43 , R46 , R54 , R55 R56 , R57 , R58 , R59 , R60 , R61 , R62 , R78 , R79		31
44	#N/A	CS34703J901	RES CHIP 47K 1/10W +-5%(0603)	R21,R74,R77		3
45	#N/A	CS41203F905	RES CHIP 120K 1/10W +-1%,0603	R42		1
46	#N/A	CS42403F905	RESISTOR CHIP 240K 1/10W,+-1%(0603)	R66		1
47	#N/A	CS43303J906	RES CHIP 330K 1/10W +-5%(0603)	R65		1
48	#N/A	CS11003J904	RESISTOR CHIP 100 1/10W +-5%(0603)	R83,R87,R91,R99,R100		5
49	#N/A	CX0P121R000	EMI FILTER CHIP HI1206P121R-00(120 6A)	L1,L2,L3,L4,L5,L6,L7,L8,L9,L10,L11,L12,L13,L14, L15,L17,L19,L21,L22		19
50	#N/A	DAL7VBMB4E6	PCB(M/B) L7VB MB (4L,155*115, REVE)			1
51	M-MS-0808-7699	DGP320001Z0	IC SOCKET,SMD PLCC 32P(LOW PROFILE,SMD)	U4		1
52	E-FS-0410-0108	DK400WFU001	FUSE SMD 4A/32V,FAST(UL/CSA,3216)	FUSE1		1
53	#N/A	CS14703J908	RESISTOR CHIP 470 1/10W+-5%(0603)	R29,R31		2
54	#N/A	CS41003F908	RESISTOR CHIP 100K 1/10W+-1%(0603)	R38,R39		2
55	#N/A	CS25603J909	RES CHIP 5.6K 1/10W +-5%(0603)	R34,R36		2
56	E-D-0403-2142	BC000S1AZ08	DIODE SMD S1A(35V,1A,SMA)	D9		1
57	#N/A	BC011FS2A01	DIODE EC11FS2(200V,1A,FAST)	D9		1
58	E-X-0415-0128	BG614318D55	XTAL DIP 14.318MHZ(+-30PPM,07010-X-136-2	X1		1
59	#N/A	CC62204MD23	CAP ELEC 22U 25V(+-20%,105C,5*11,2000HR)	C15,C32,C40,C45,C55,C63,C72,C78		8
60	#N/A	CC71004MD68	CAP ELEC 100U 25V +-20%,105C,6*11,LESR	C98,C99,C100,C101		4
61	#N/A	CC73303MD51	CAP ELEC 330U 16V(+-20%,105C,8*11,2000HR	C2,C90,C104		3
62	E-C-0404-4904	CC81001MD71	CAP ELEC DIP 1000U6.3V +-20% 105C 8*11.5	C97		1
63	#N/A	DFDS15FR050	CONN D-SUB 15P 3R FR,P1.15,H12.55,NO SRW	CN7		1
64	M-MS-0808-7693	DFHD04MR124	CONN DIP HEADER 4P 1R MR(P2.0,H4.1)	CN4		1

Item	ViewSonic P/N	Ref. P/N	Part Description	Location	Universal number#	Qty
65	M-MS-0808-7694	DFHD06MR093	CONN DIP HEADER 6P 1R MR(P2.5,H4.1)	CN1		1
66	M-MS-0808-7695	DFHD11MR043	CONN DIP HEADER 11P 1R MR(P1.5,H4.1)	CN2		1
67	#N/A	DFHD30MS531	CONN DIP HEADER 30P 2R MS(P2.0,H4.0)	CN5		1
68	M-MS-0808-7697	DFPJ03MR140	CONN POWER JACK 3P MR	CN6		1
69	M-MS-0808-7698	DFPJ05FR137	CONN DIP PHONE JACK 5P FR(H10)	CN3		1
70	E-L-0407-1562	CWK5BR6H019	FERRITE CORE K5B R6H 6*10*0.85-2TS-B	L16		1
71	E-L-0407-1563	DC04725K002	CHOKE COIL 47UH(2.5A,+-10%,T07473)	L18		1
72	#N/A	AZL7VBI0000	L7VB SW BIOS IMAGE(LG PANEL)			1
73	#N/A	22L7VLAVS24	L7VB LCD MODULE ASSY(2ND PANEL)			1
74	C-FP-0301-0969	36L7VRCVS05	L7VB LOGO REAR COVER ASSY			1
75	M-MS-0808-8718	EBL7V003016	LOGO PLATE(EBL7V003,REV3A)			1
76	M-MS-0808-8719	EBL7V007011	LOGO REAR COVER(EBL7V007,REV3A)			1
77	M-MS-0808-8985	GBL7V001013	SPONGE PAD L7V(GBL7V001,REV3A)			1
78	C-BC-0302-0543	37L7VBCVS11	L7VB BACK COVER ASSY			1
79	C-BC-0302-0475	EAL7V003015	BACK COVER(EAL7V003,REV3A)			1
80	M-CV-0830-2484	FBL7V007011	KENSINGTON CAP(FBL7V007,REV3A)			1
81	M-SCW-0824-0725	MF30050IBJ6	SCREW F3*5-I(NI)			5
82	M-BK-0805-0024	FBL7V021014	VESA METAL L7VB(FBL7V021,REV3A)			1
83	M-MS-0808-7709	GAL7V004011	RUBBER PAD REAR(GAL7V004,REV3A)			4
84	M-LCD-0826-0213	AA17EL01001	LCD(TFT) LM170E01 A5 17"SVGA			1
85	M-SCW-0824-6761	MM30030IBJ4	SCREW M3*3-I-NI			2
86	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI)			13
87	M-SCW-0824-0795	MM40080BCI5	SCREW M4.0*8-B(NI,NYLOK)			8
88	M-SCW-0824-6760	MS30060IM18	SCREW F3*6-I(NI)			12
89	C-FP-0301-0282	33L7VFBVS02	L7V FRONT BEZEL ASSY			1
90	C-FP-0301-0759	EAL7V001012	FRONT BEZEL(EAL7V001 ,REV3A)			1
91	M-MS-0808-7707	FEL7V001016	LOGO FRONT(FEL7V001,REV3A)			1
92	M-LB-0813-0744	HCL7V001014	LOGO LABEL(HCL7V001,REV3A)			1
93	E-SK-0412-0066	34L7VSAVS07	L7V SPEAKER ASSY			1
94	M-MS-0808-7700	EAL7V002019	SPACKER BEZEL L7V(EAL7V002,REV3A)			1
95	#N/A	EAL7V002001	SPEAKER BEZEL (EAL7V002,REV.3A)			1
96	#N/A	RC00R950007	PAINT P-COAT BLACK OR950			1
97	#N/A	RJ0000R2001	L7V THINNER PLASTIC COAT OR2			1
98	M-MS-0808-8987	FBL7V020018	PANEL HOLD UPPER R L7VB(FBL7V020,REV3A)			1
99	M-BK-0805-0025	FBL7V016011	LCD BKT MIDDLE L7VB(FBL7V016,REV3A)			1
100	M-MS-0808-7701	EBL7V001013	BUTTON KEY L7V (EBL7V001,REV3A)			1
101	M-MS-0808-7702	EBL7V002010	LED LENS(EBL7V002,REV3A)			1
102	#N/A	3AL7VLBVS02	L7VB LCD BKT LOWER ASSY			1
103	M-LB-0813-0893	FCL7V007012	MYLAR COSMETIC L7VB(FCL7V007,REV3B)			1
104	M-BK-0805-0026	FBL7V017017	LCD BKT LOWER L7VB(FBL7V017,REV3B)			2
105	M-MS-0808-8988	FBL7V018013	PANEL HOLD UPPER L L7VB(FBL7V018,REV3A)			1
106	M-MS-0808-8989	FBL7V019010	PANEL HOLD L7VB(FBL7V019,REV3A)			1
107	M-MS-0808-8991	FBL7V022011	I/V SHIELDING L7VB(FBL7V022,REV3A)			3
108	E-SK-0412-0067	DN0QT110003	SPEAKER ASSY L7V FG-QT110 3W*2			1
109	M-SCW-0824-0727	MF30080IBJ0	SCREW F3.0*8-I(NI)			5
110	M-CV-0830-2372	EBL7V005019	NECK BACK COVER L7V(EBL7V005,REV3A)			3
111	M-SCW-0824-0725	MF30050IBJ6	SCREW F3*5-I(NI)			2
112	M-MS-0808-8986	MBLI1004018	IO NUT LI1(MBLI1004,REV3A)			2
113	M-MS-0808-8990	FBL7V026016	ALUMINUM FOIL L7VB(FBL7V026,REV3A)			1
114	M-MS-0808-8984	FCL70004010	LCD MYLAR L70L-E(FCL70004,REV3A)			1
115	M-MS-0808-8983	MBL7V006015	STAND OFF L7VB (MBL7V006,REV3A)			1
116	M-MS-0808-9232	FCL7V010013	TAPE FOR CABLE L7VB LG(FCL7V010,REV3A)			1
117	M-LB-0813-0894	HCL7V005010	WARNING LABEL, INVERTOR(HCL7V005,3A)			1
118	M-MS-0808-8994	GBL7V004012	GASKET L7VB (GBL7V004,REV3B)			1
119	#N/A	23L7VCSVS52	L7VB CHISSIS ASSY (EU POWER CODE)			1
120	C-BS-0303-0393	35L7VSAVS16	L7VB STAND ASSY			1
121	M-CV-0830-2376	EBL7V004012	NECKFRONT COVER L7V(EBL7V004,REV3A)			1
122	M-CV-0830-2377	EBL7V006015	STAND BOTTOM COVER L7V(EBL7V006,RVE3A)			1
123	M-MS-0808-8992	FBL7V027012	HINGE ASSY L7VB(FBL7V027,REV3A)			1
124	M-MS-0808-8993	FBL7V024013	STAND PLATE L7VB(FBL7V024,REV3A)			1
125	PL-PD-0714-0080	GAL7V001012	RUBBER FOOD F(GAL7V001,REV3A)			1
126	PL-PD-0714-0081	GAL7V002019	RUBBER FOOD L(GAL7V002,REV3A)			2
127	PL-PD-0714-0082	GAL7V003015	RUBBER FOOD R(GAL7V003,REV3A)			2
128	M-SCW-0824-0727	MF30080IBJ0	SCREW F3.0*8-I(NI)			3
129	#N/A	MM40080ICI0	SCREW M4.0*8.0-I(NI)-NYLOK			4
130	M-SCW-0824-0725	MF30050IBJ6	SCREW F3*5-I(NI)			4
131	A-AD-0114-0205	AG12042CK00	ADP 12V 4.2A ADP-50GH BB 100~240V 1A1A			1
132	B-SB-0221-0568	AS022172502	INV MODULE(TDK)L7VB(12V,V=720V,I=7MA,A1A			1
133	A-VC-0101-0294	DD0L7VPC103	CABLE ASSY L7V MB-VGA(15/15P,REV1A)			1
134	#N/A	DD0L7VPC201	CABLE ASSY L7V1.8M PC-MONITOR (REV3A)			1
135	M-FC-0809-0778	DDL7VBSP005	CABLE ASSY L7VB SPEAKER (4P,REV2A)			1
136	M-FC-0809-0779	DDL7VBTH000	CABLE ASSY L7VB MB-BUTTON (11P,REV2A)			1
137	A-PC-0106-0227	DM333181801	POWER CORD SP-023+IS-14H05VV-F3P 1.8M EU			1
138	M-MS-0808-9208	24L7VPKVS20	L7VB PACKING ASSY (2ND PANEL)			1

Item	ViewSonic P/N	Ref. P/N	Part Description	Location	Universal number#	Qty
139	M-FC-0809-0777	DDL7VBIV005	CABLE ASSY L7VB INVERTER(6P,REV2A)			1
140	M-FC-0809-0795	DDL70LLC201	CABLE ASSY L70L MB-LCD(30P,REV2A)FOR LG			1
141	#N/A	FCL7V002011	FILM BEZEL (FCL7V002,REV3A)			1
142	M-MS-0808-8981	HAL7V001012	EPE BAG L7V(HAL7V001,REV3A)			1
143	P-FM-0602-0542	HBL7V001013	END CAP R L7V(HBL7V001,REV3A)			1
144	P-FM-0602-0543	HBL7V002010	END CAP L L7V(HBL7V002,REV3A)			1
145	M-LB-0813-0747	HCL7V004013	CORE LABEL(HCL7V004,REV3A)			1
146	A-CD-VG700B-2-B	HGL7V006010	USER MANUAL&CD L7VB-LG(HGL7V006,REV3A)			1
147	P-BX-0601-0898	HFL7V004016	CARTON L7VB(HFL7V004,REV3A)			1
148	#N/A	HFL7V002013	COVER CARTON(HFL7V002,REV3A)			0.05
149	M-LB-0813-0745	HCL7V002011	SERIAL LEBAL(HCL7V002,REV3A)			1
150	M-LB-0813-0746	HCL7V003017	CARTON LEBAL(HCL7V003,REV3A)			1
151	B-SB-0221-0503	32L7VBB0009	L7V BUTTON/B ASSY			1
152	#N/A	BEYG0013DA3	LED(DIP) YELLOW/GREEN(L-3WYGW)	LED1		1
153	PL-BT-0706-0126	DA0L7VTB2A1	PCB(BUTTON)L7V TB(2L,190*17,REVA)			1
154	M-MS-0808-7695	DFHD11MR043	CONN DIP HEADER 11P 1R MR(P1.5,H4.1)	CN1		1
155	PL-BT-0706-0127	DHP0002B108	SWITCH PUSH BUTTON(PT-002-B1,50MA,12V	SW1,SW2,SW3,SW4,SW5,SW6,SW7,SW8		8

8. Exploded Diagram And Spare Parts List

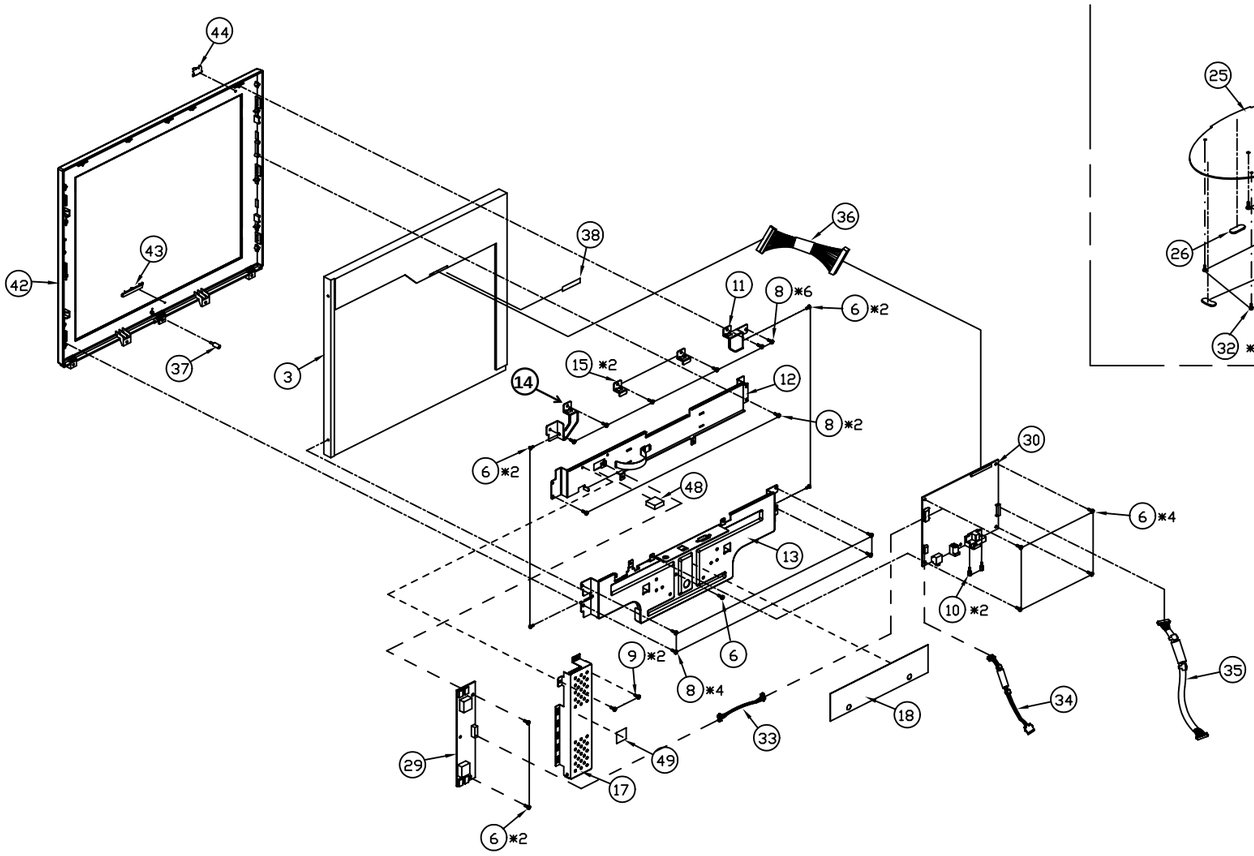


FIG1

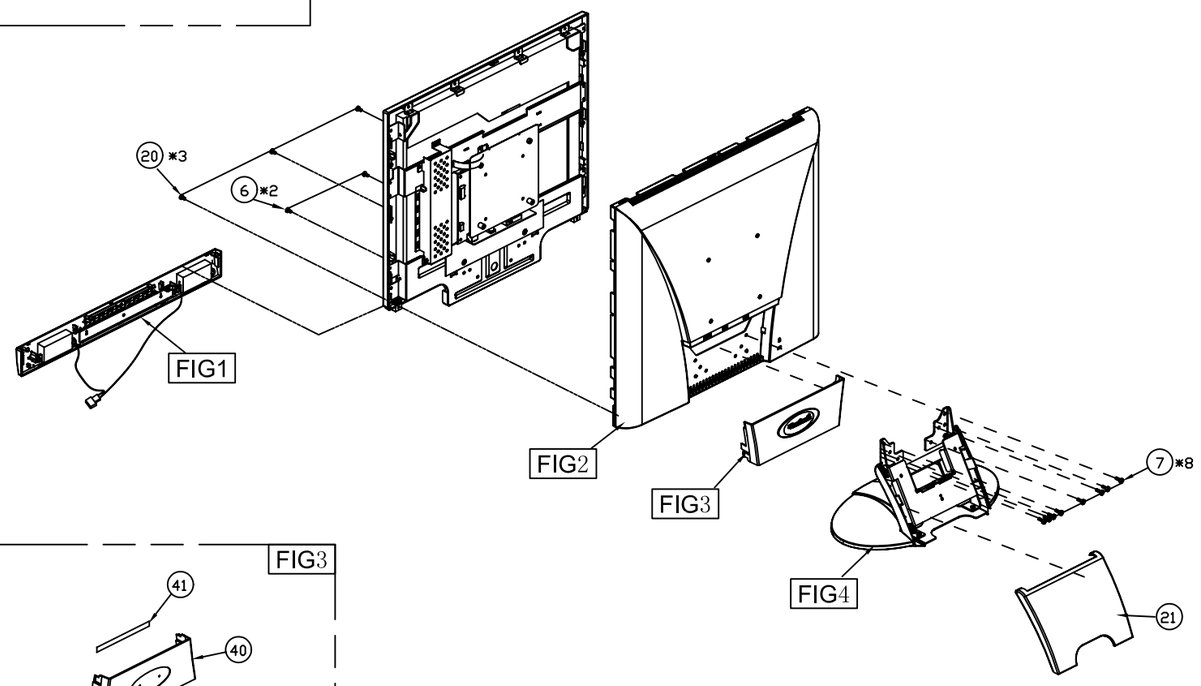


FIG2

FIG3

FIG4

FIG4

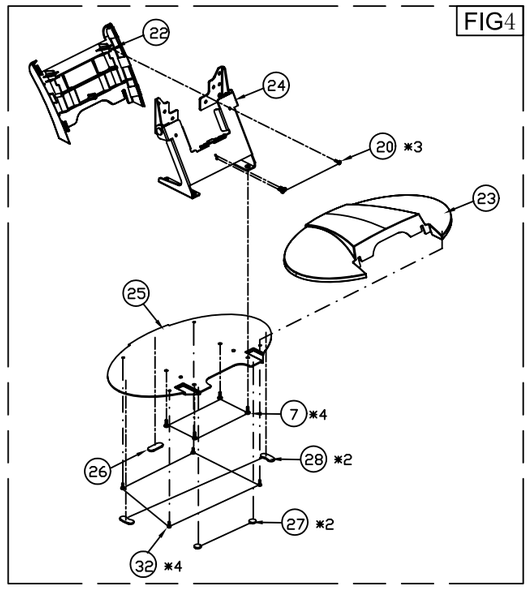


FIG2

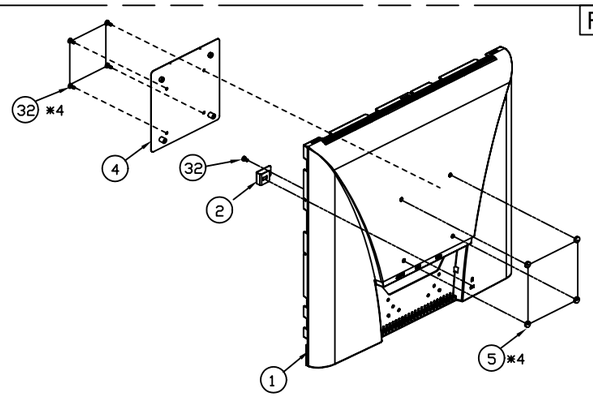


FIG1

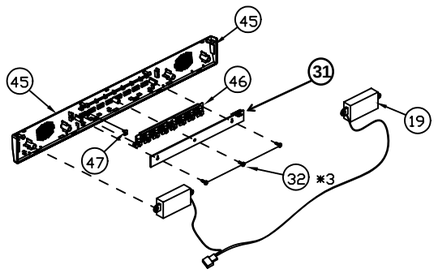
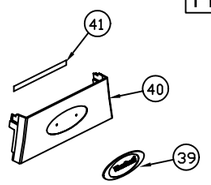


FIG3

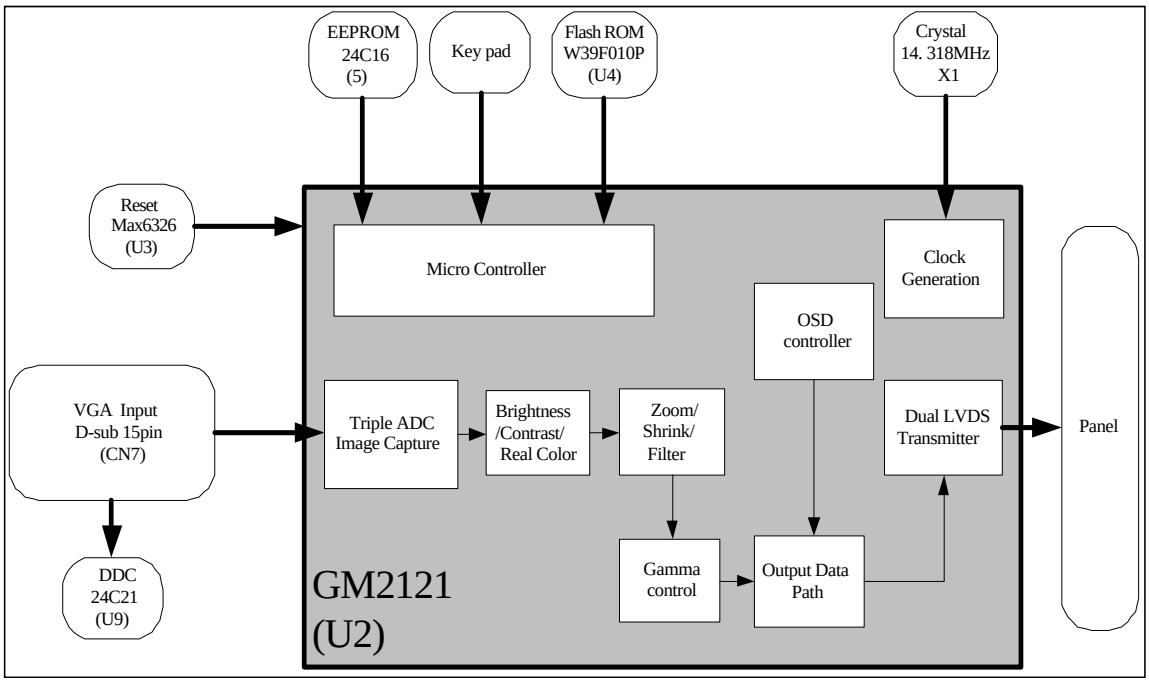


VG700b-2 Exploded Parts List

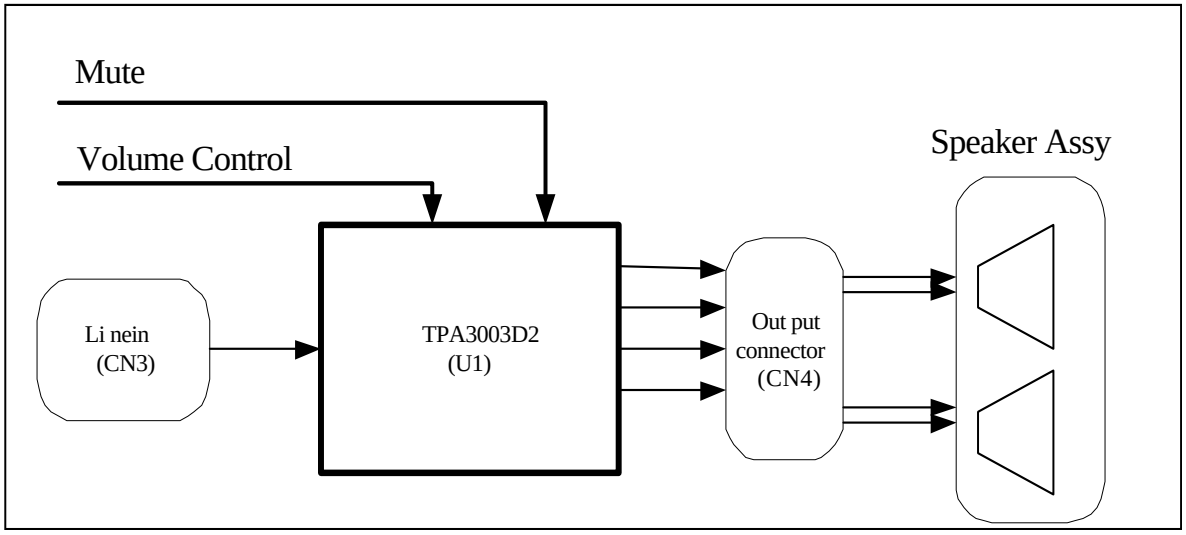
Item	ViewSonic P/N	Ref. P/N	Description	Q'TY
1	C-BC-0302-0475	EAL7V003015	BACK COVER(EAL7V003,REV3A)	1
2	M-CV-0830-2484	FBL7V007011	KENSINGTON CAP(FBL7V007,REV3A)	1
3	M-LCD-0826-0213	AA17EL01001	LCD(TFT) 17"LG LM170E01-A5(SXGA)	1
4	M-BK-0805-0024	FBL7V021014	VESA META L L7VB(FBL7V021,REV3A)	1
5	M-MS-0808-7709	GAL7V004011	RUBBER PAD REAR(GAL7V004,REV3A)	4
6	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI)	13
7	M-SCW-0824-6759	MM40080BBJ4	SCREW M4.0*8-B(NI)	12
8	M-SCW-0824-6760	MS30060IM18	SCREW F3*6-I(NI)	12
9	M-SCW-0824-6761	MM30030IBJ4	SCREW M3*3-I-NI	2
10	M-MS-0808-8986	MBLI1004018	IO NUT LI1(MBLI1004,REV3A)	2
11	M-MS-0808-8987	FBL7V020018	PANEL HOLD UPPER R L7VB(FBL7V016,REV3A)	1
12	M-BK-0805-0025	FBL7V016011	LCD BKT MIDDLE L7VB(FBL7V016,REV3A)	1
13	M-BK-0805-0026	FBL7V017017	LCD BKT LOWER L7VB(FBL7V017,REV3B)	1
14	M-MS-0808-8988	FBL7V018013	PANEL HOLD UPPER L L7VB(FBL7V018,REV3A)	1
15	M-MS-0808-8989	FBL7V019010	PANEL HOLD L7VB(FBL7V019,REV3A)	2
16	M-MS-0808-8990	FBL7V026016	ALUMINUM FOIL L7VB(FBL7V026,REV3A)	2
17	M-MS-0808-8991	FBL7V022011	I/V SHIELDING L7VB(FBL7V022,REV3A)	1
18	M-MS-0808-7706	FCL7V001014	MYLAR COSMETIC(FCL7V001,REV3A)	1
19	E-SK-0412-0081	DN0TQ110003	SPEAKER ASSY L7V FG-QT110 3W*2	1
20	M-SCW-0824-6758	MF3008OIBJ0	SCREW F3.0*8-I(NI)	6
21	M-CV-0830-2372	EBL7V005019	NECK BACK COVER L7V(EBL7V005,REV3A)	1
22	M-CV-0830-2376	EBL7V004012	NECKFRONT COVER L7V(EBL7V004,REV3A)	1
23	M-CV-0830-2377	EBL7V006015	STAND BOTTOM COVER L7V(EBL7V006,REV3A)	1
24	M-MS-0808-8992	FBL7V027012	HINGE ASSY L7VB(FBL7V027,REV3A)	1
25	M-MS-0808-8993	FBL7V024013	STAND PLATE L7VB(FBL7V024,REV3A)	1
26	PL-PD-0714-0080	GAL7V001012	RUBBER FOOD F (GAL7V001,REV3A)	1
27	PL-PD-0714-0081	GAL7V002019	RUBBER FOOD L(GAL7V002,REV3A)	2
28	PL-PD-0714-0082	GAL7V003015	RUBBER FOOD R(GAL7V003,REV3A)	2
29	B-SB-0221-0568	AS022172502	INV MODULE(TDK)L7VB(12V,V=720V,I=7MA,A1A	1
30	B-IF-0222-0050	21L7VSB0021	L7VB SCALAR/B ASSY	1
31	B-SB-0221-0503	32L7VBB0009	L7V BUTTON/B ASSY	1
32	M-SCW-0824-0725	MF30050IBJ6	SCREW F3*5-I(NI)	12
33	M-FC-0809-0777	DDL7VBIV005	CABLE ASSY L7VB INVERTER(6P,REV2A)	1
34	M-FC-0809-0778	DDL7VBSP005	CABLE ASSY L7VB SPEAKER (4P,REV2A)	1
35	M-FC-0809-0779	DDL7VBTH000	CABLE ASSY L7VB MB-BUTTON (11P,REV2A)	1
36	M-FC-0809-0795	DDL70LLC201	CABLE ASSY L70L MB-LCD(30P,REV2A)FOR LG	1
37	M-MS-0808-8983	MBL7V006015	STAND OFF L7VB (MBL7V006,REV3A)	1
38	M-MS-0808-8984	FCL70004010	LCD MYLAR L70L-E(FCL70004,REV3A)	1
39	M-MS-0808-8718	EBL7V003016	LOGO PLATE(EBL7V003,REV3A)	1
40	M-MS-0808-8719	EBL7V007011	LOGO REAR COVER(EBL7V007,REV3A)	1
41	M-MS-0808-8985	GBL7V001013	SPONGE PAD L7V(GBL7V001,REV3A)	1
42	C-FP-0301-0759	EAL7V001012	FRONT BEZEL(EAL7V001 ,REV3A)	1
43	M-MS-0808-7707	FEL7V001016	LOGO FRONT(FEL7V001,REV3A)	1
44	M-LB-0813-0744	HCL7V001014	LOGO LABEL(HCL7V001,REV3A)	1
45	M-MS-0808-7700	EAL7V002019	SPEACKER BEZEL L7V(EAL7V002,REV3A)	1
46	M-MS-0808-7701	EBL7V001013	BUTTON KEY L7V (EBL7V001,REV3A)	1
47	M-MS-0808-7702	EBL7V002010	LED LENS(EBL7V002,REV3A)	1
48	M-MS-0808-8994	GBL7V004012	GASKET L7VB(GBL7V004,REV3B)	1
49	M-LB-0813-0894	HCL7V005010	WARNING LABEL,INVERTOR(HCL7V005,REV3A)	1

9. Block Diagram

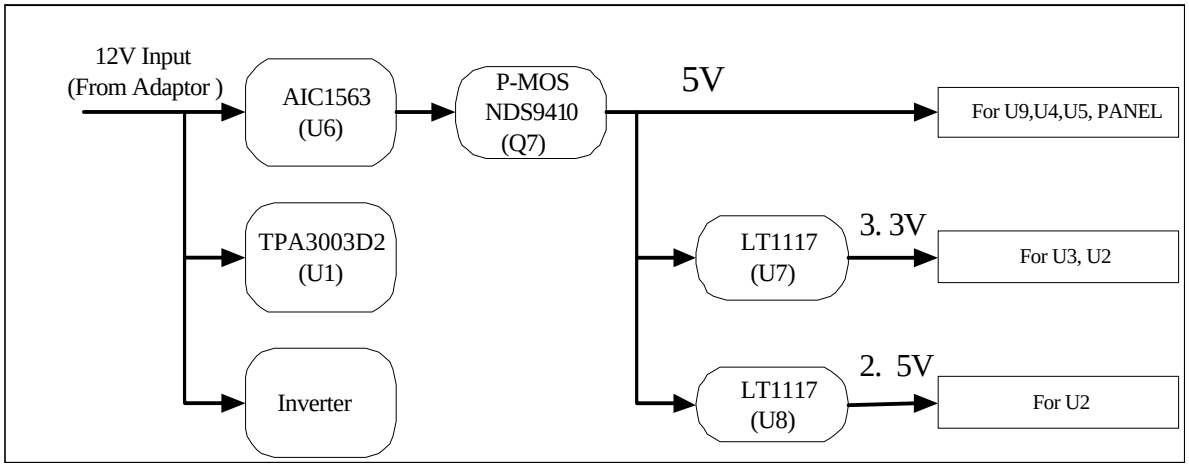
9.1 Video



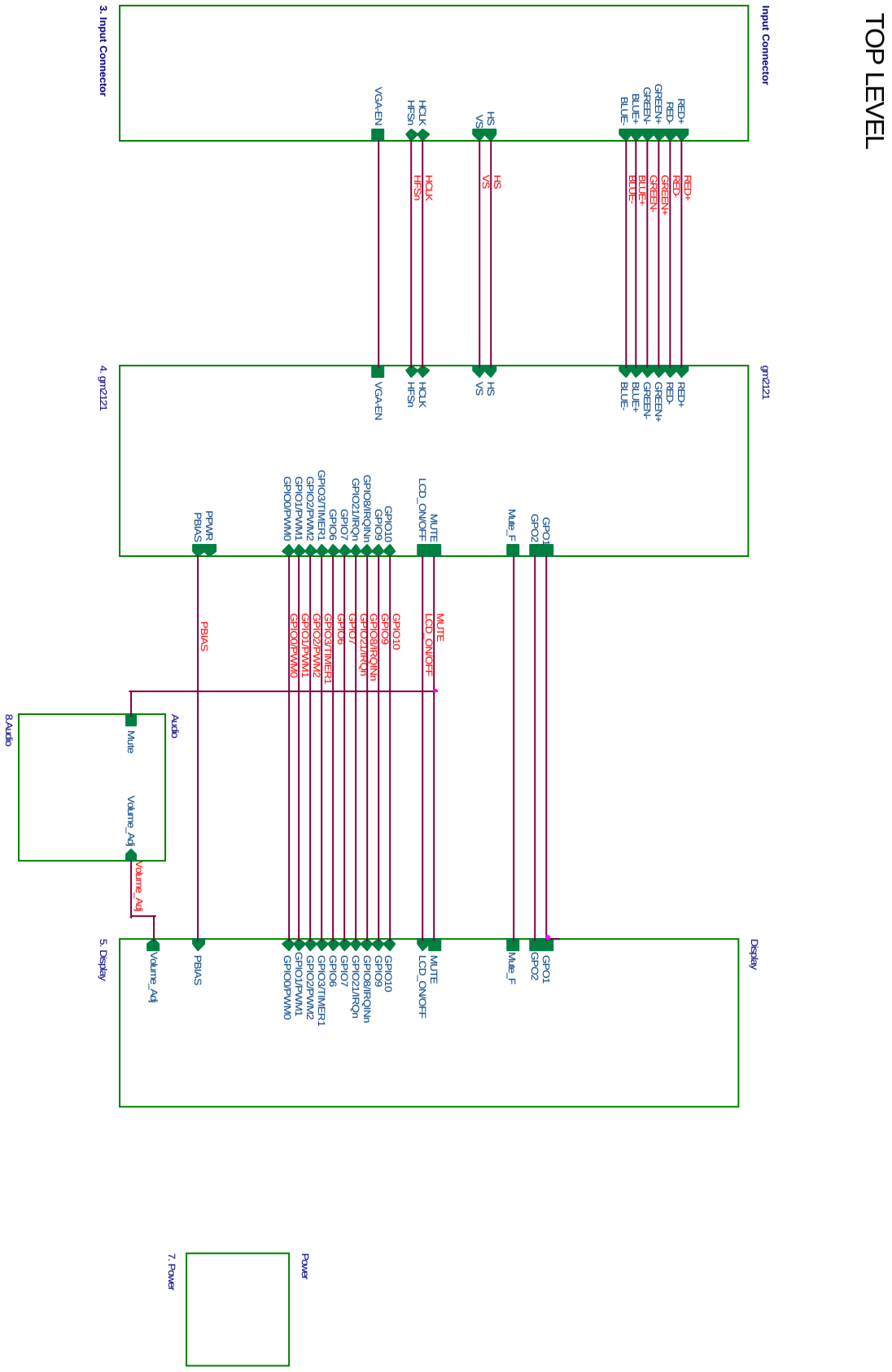
9.2 Audio



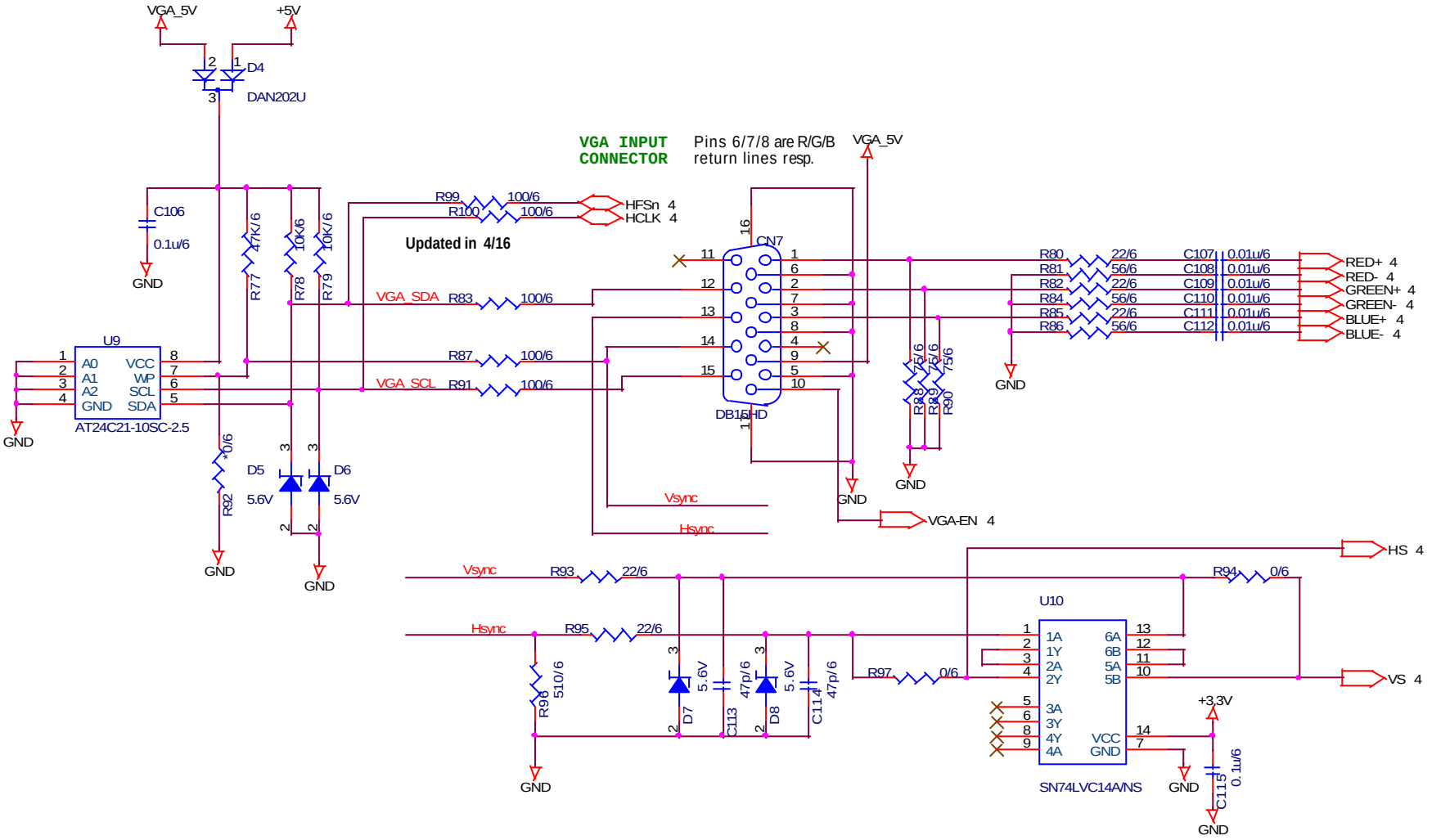
9.3 Power



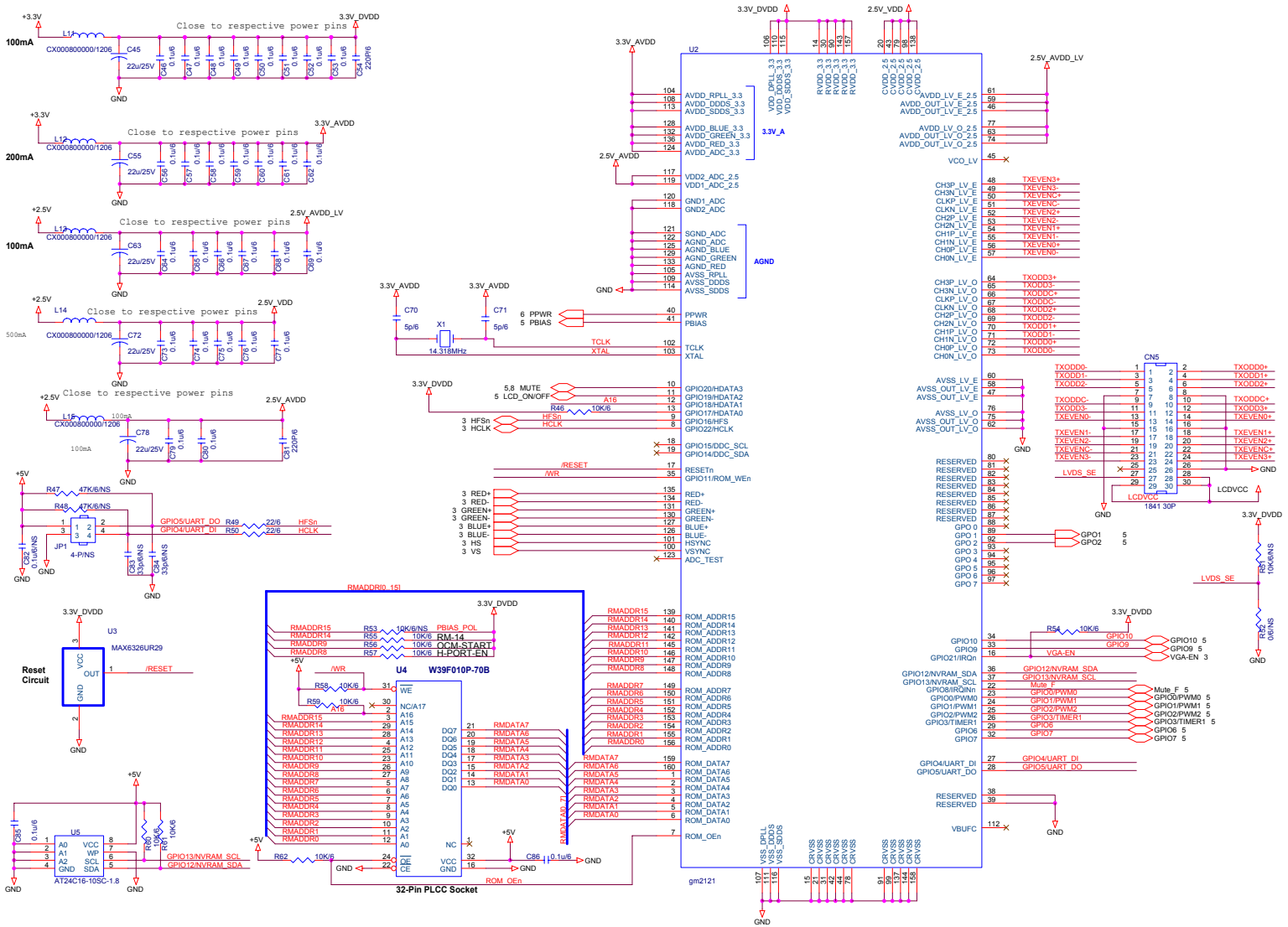
10. Schematic Diagrams



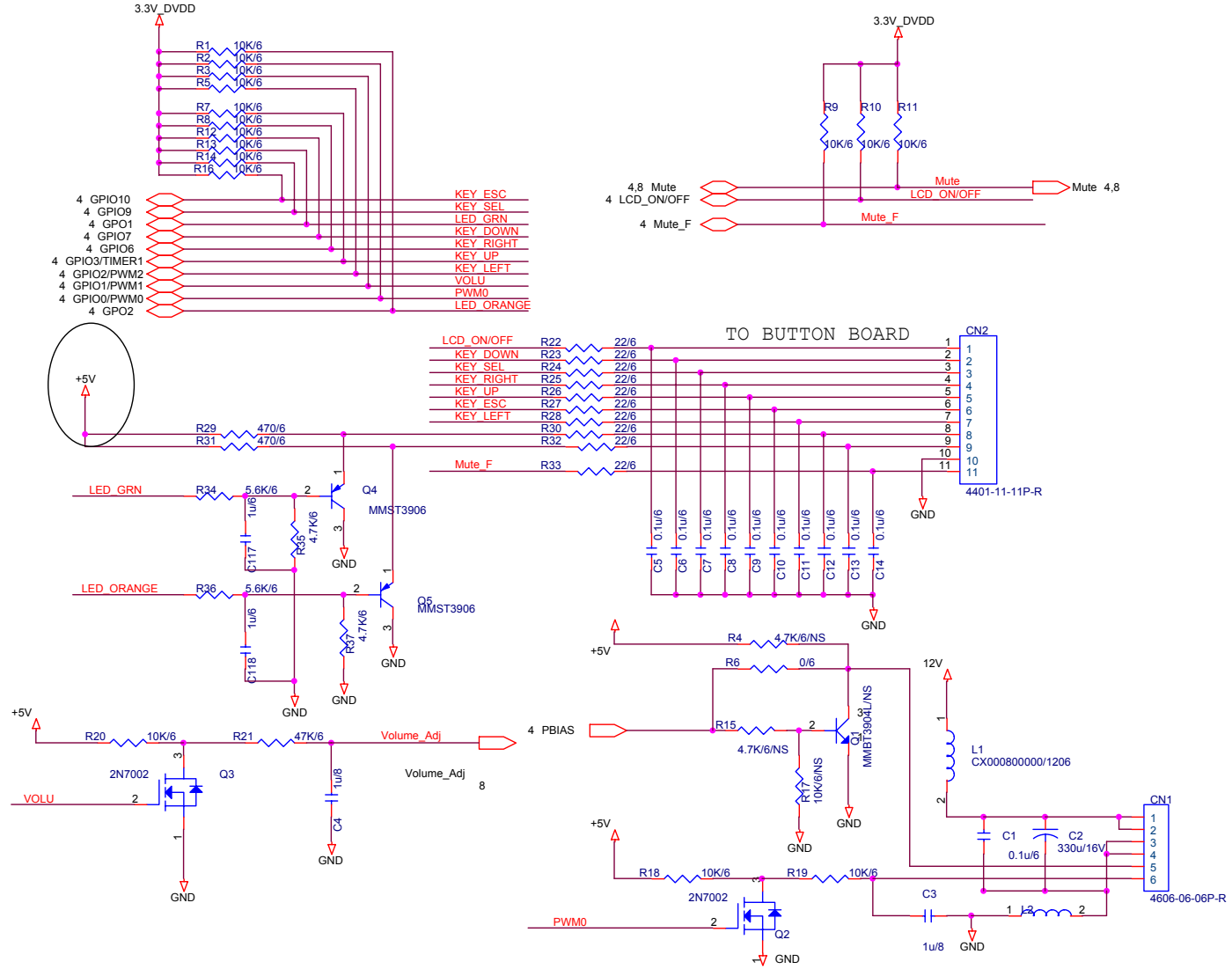
INPUT CONNECTOR



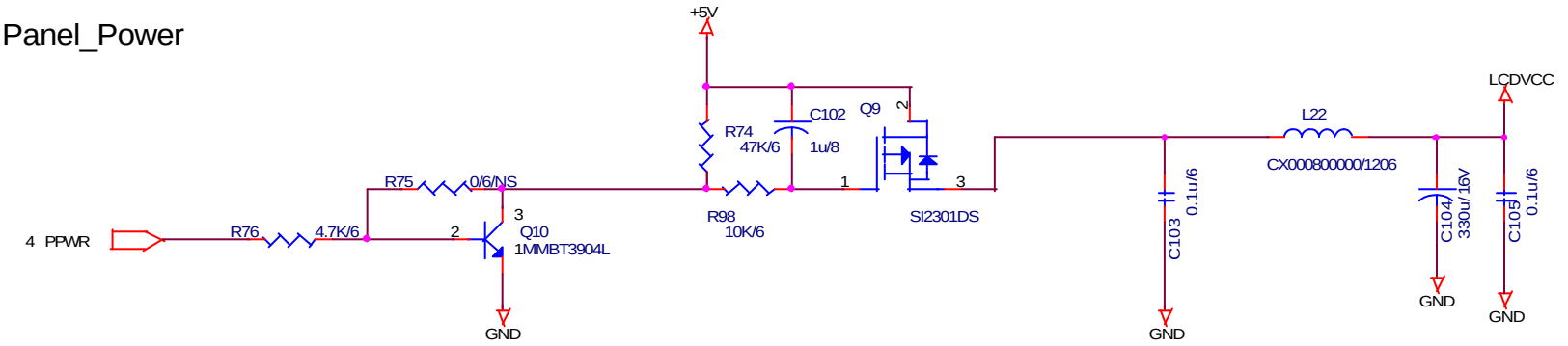
MAIN BOARD


Close to respective power pins
100mA
200mA
500mA
3.3V_DVDD
3.3V_AVDD
2.5V_AVDD_LV
2.5V_VDD
2.5V_AVDD
U2
gm2121
AGND
3.3V_A
U3
MAX6326UR29
Reset Circuit
/RESET
U4
W39F010P-70B
32-Pin PLCC Socket
U5
AT24C16-10SC-1.8
JP1
4-P/NS
X1
14.318MHz
CN5
LVDS_SE
LCDVCC
1841 30P
RM-14
OCM-START
H-PORT-EN
VGA-EN
Mute_F
GND

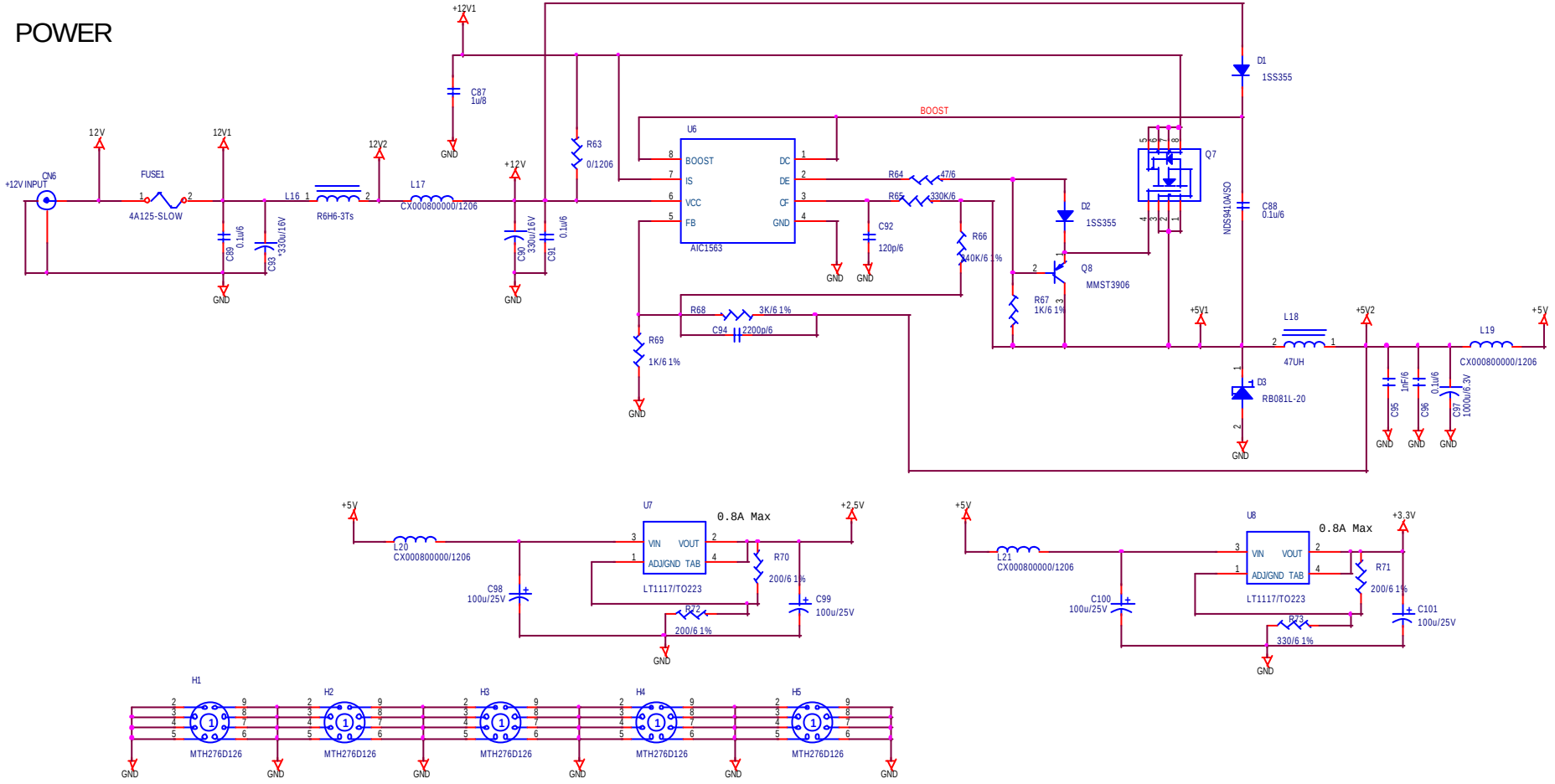
DISPLAY


3.3V_DVDD
R1 10K/6
R2 10K/6
R3 10K/6
R5 10K/6
R7 10K/6
R8 10K/6
R12 10K/6
R13 10K/6
R14 10K/6
R16 10K/6
4 GPIO10
4 GPIO9
4 GPO1
4 GPIO7
4 GPIO6
4 GPIO3/TIMER1
4 GPIO2/PWM2
4 GPIO1/PWM1
4 GPIO0/PWM0
4 GPO2
KEY_ESC
KEY_SEL
LED_GRN
KEY_DOWN
KEY_RIGHT
KEY_UP
KEY_LEFT
VOLU
PWM0
LED_ORANGE
3.3V_DVDD
R9 10K/6
R10 10K/6
R11 10K/6
4,8 Mute
4 LCD_ON/OFF
4 Mute_F
Mute
LCD_ON/OFF
Mute_F
Mute 4,8
TO BUTTON BOARD
CN2
4401-11-11P-R
LCD_ON/OFF
KEY_DOWN
KEY_SEL
KEY_RIGHT
KEY_UP
KEY_ESC
KEY_LEFT
Mute_F
R22 22/6
R23 22/6
R24 22/6
R25 22/6
R26 22/6
R27 22/6
R28 22/6
R30 22/6
R32 22/6
R33 22/6
+5V
R29 470/6
R31 470/6
LED_GRN
R34 5.6K/6
Q4
MMST3906
R35 4.7K/6
C117 1u/6
LED_ORANGE
R36 5.6K/6
Q5
MMST3906
R37 4.7K/6
C118 1u/6
C5 0.1u/6
C6 0.1u/6
C7 0.1u/6
C8 0.1u/6
C9 0.1u/6
C10 0.1u/6
C11 0.1u/6
C12 0.1u/6
C13 0.1u/6
C14 0.1u/6
GND
+5V
R20 10K/6
R21 47K/6
Volume_Adj
2N7002
Q3
VOLU
C4 1u/8
Volume_Adj
8
4 PBIAS
R4 4.7K/6/NS
R6 0/6
R15 4.7K/6/NS
MMBT3904L/NS
R17 10K/6/NS
12V
L1
CX000800000/1206
CN1
4606-06-06P-R
C1 0.1u/6
C2 330u/16V
+5V
R18 10K/6
R19 10K/6
2N7002
Q2
PWM0
C3 1u/8
L2

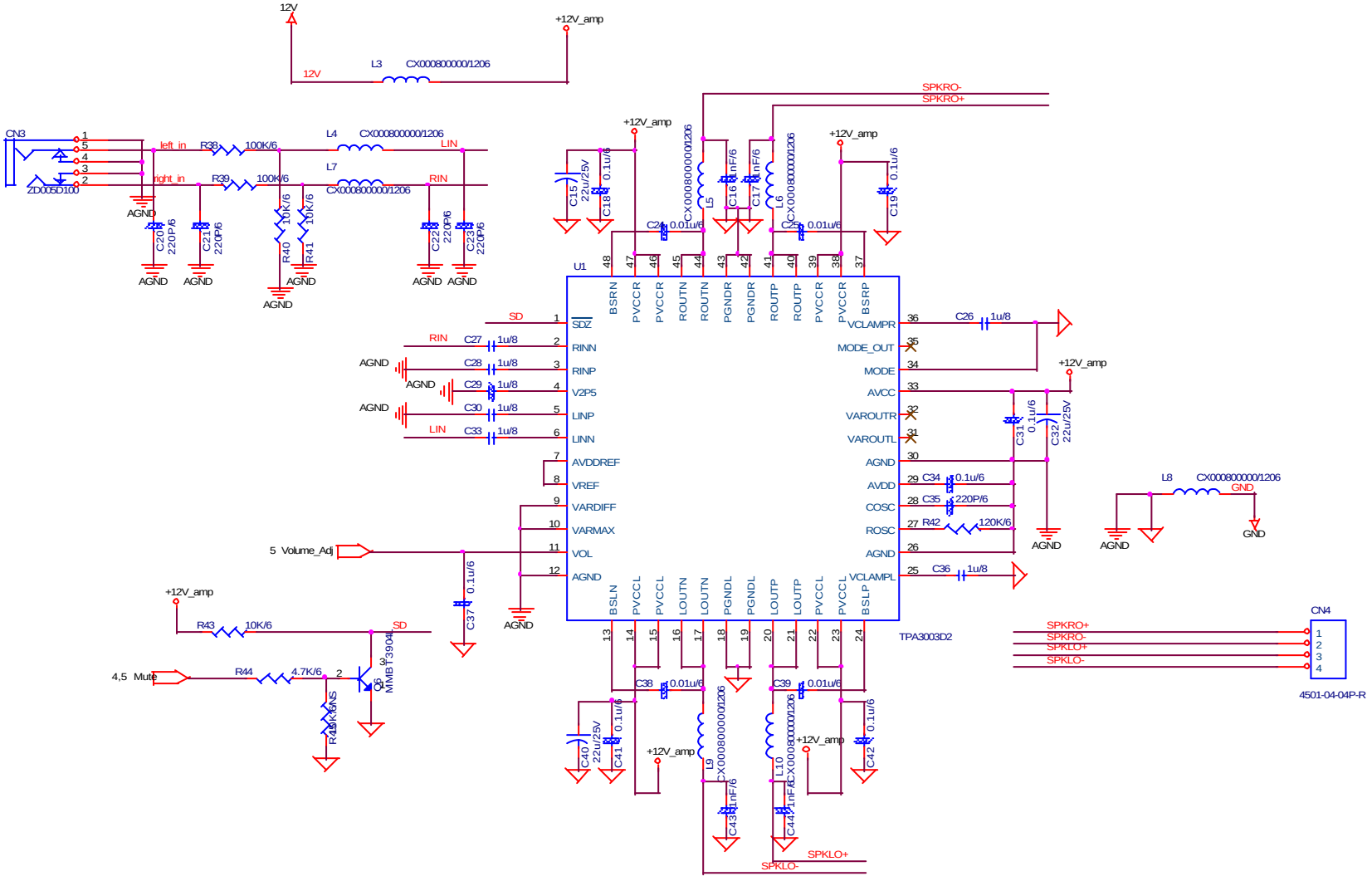
Panel_Power



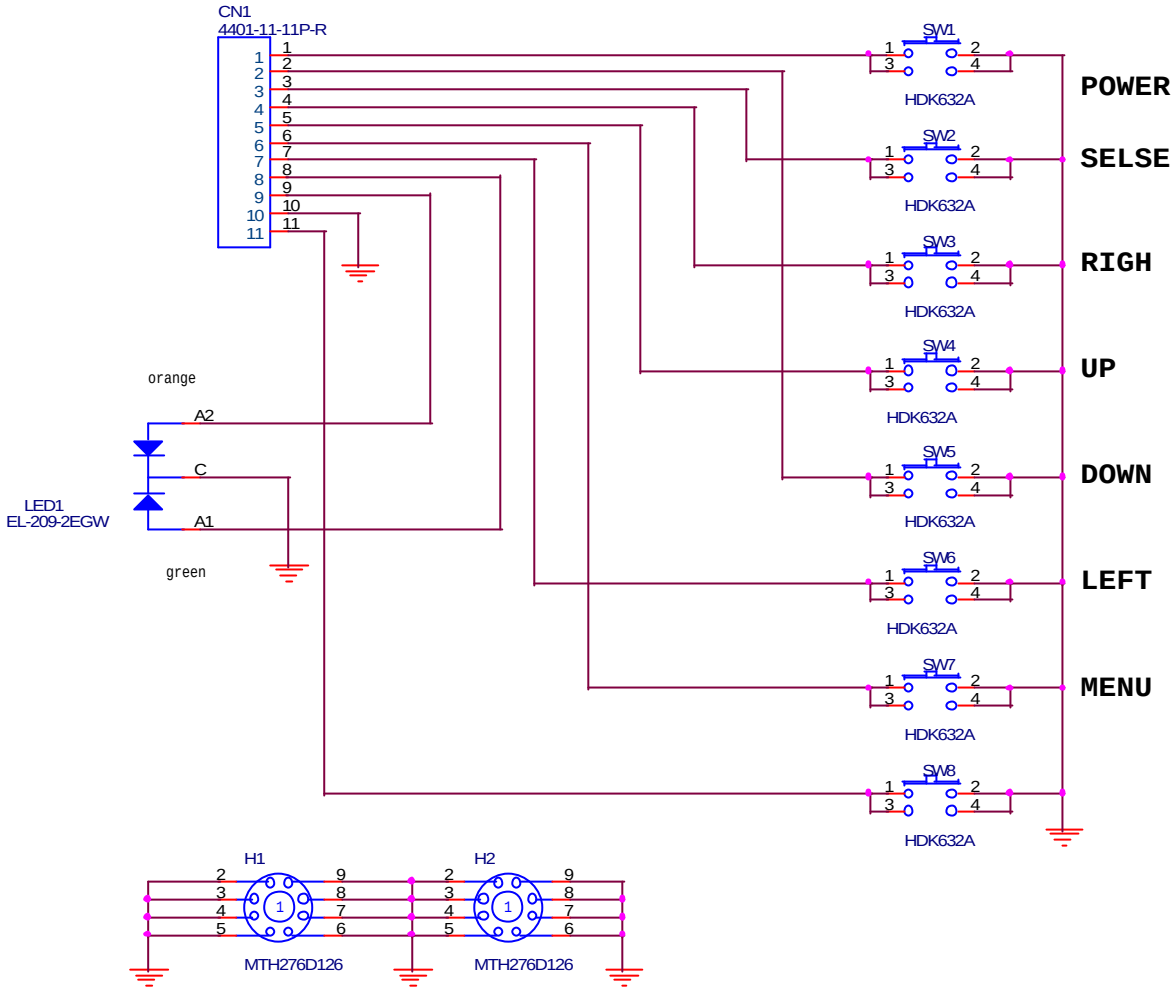
POWER



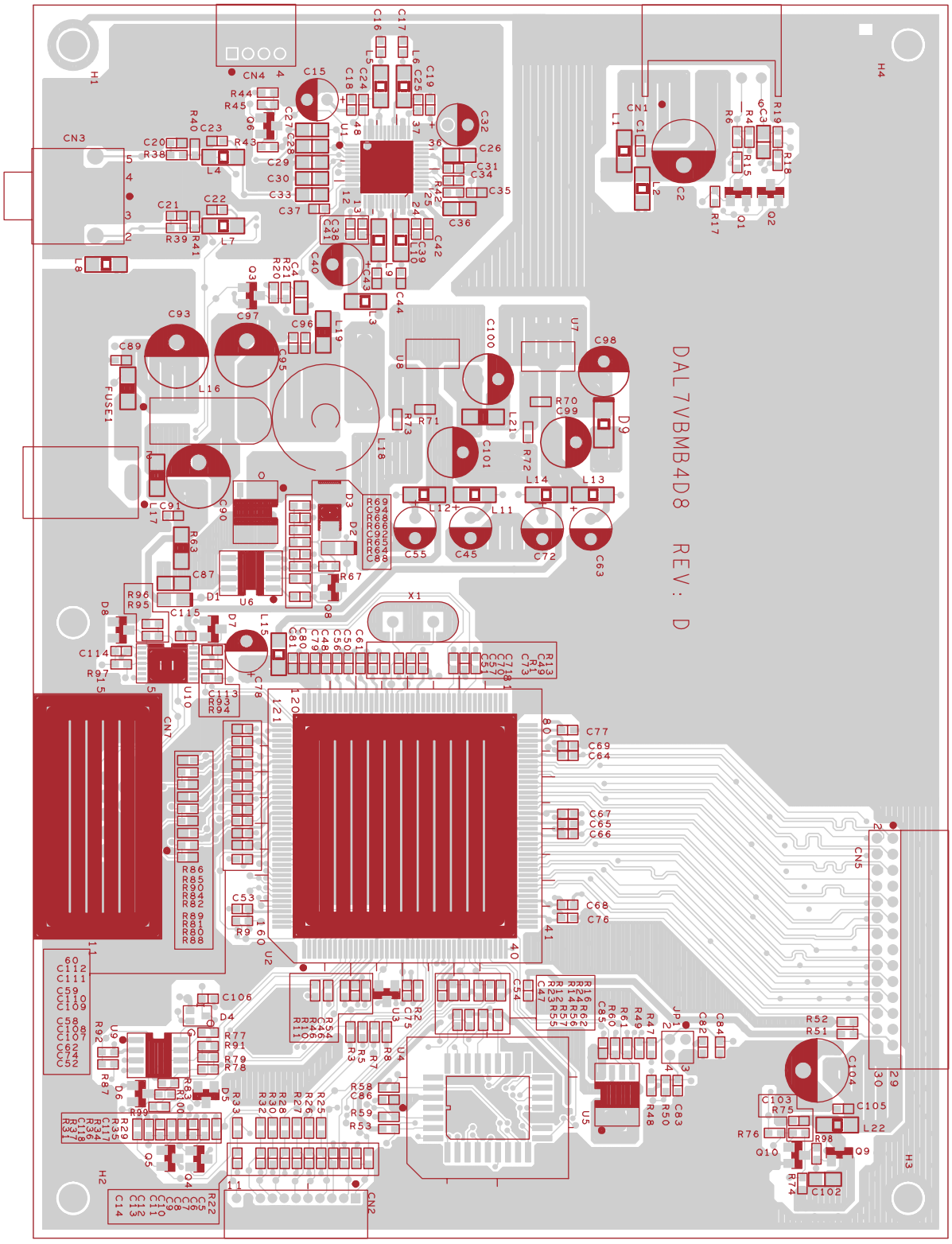
Audio


12V
+12V_amp
L3 CX0008000000/1206
CN3
ZD005D100
left_in
right_in
R38 100K/6
R39 100K/6
L4 CX0008000000/1206
L7 CX0008000000/1206
LIN
RIN
AGND
C20 220P/6
C21 220P/6
R40 10K/6
R41 10K/6
C22 220P/6
C23 220P/6
SPKRO-
SPKRO+
C15 22u/25V
C18 0.1u/6
L5 CX0008000000/1206
C16 1nF/6
C17 1nF/6
L6 CX0008000000/1206
C19 0.1u/6
C24 0.01u/6
C25 0.01u/6
U1
SD
RIN
LIN
C27 1u/8
C28 1u/8
C29 1u/8
C30 1u/8
C33 1u/8
SDZ
RINN
RINP
V2P5
LINP
LINN
AVDDREF
VREF
VARDIFF
VARMAX
VOL
AGND
BSRN PVCCR PVCCR ROUTN ROUTN PGNDR PGNDR ROUTP ROUTP PVCCR PVCCR BSRP
VCLAMPR
MODE_OUT
MODE
AVCC
VAROUTR
VAROUTL
AGND
AVDD
COSC
ROSC
AGND
VCLAMPL
C26 1u/8
C31 0.1u/6
C32 22u/25V
C34 0.1u/6
C35 220P/6
R42 120K/6
C36 1u/8
L8 CX0008000000/1206
GND
5 Volume_Adj
C37 0.1u/6
+12V_amp
R43 10K/6
SD
4,5 Mute
R44 4.7K/6
Q6 MMBT3904
R45 10K/6NS
BSLN PVCCL PVCCL LOUTN LOUTN PGNDL PGNDL LOUTP LOUTP PVCCL PVCCL BSLP
C38 0.01u/6
C39 0.01u/6
C40 22u/25V
C41 0.1u/6
L9 CX0008000000/1206
C43 1nF/6
L10 CX0008000000/1206
C44 1nF/6
C42 0.1u/6
SPKLO+
SPKLO-
TPA3003D2
CN4
4501-04-04P-R

I/O INTERFACE



11. PCB Layout Diagrams



Reader's Response

Dear Readers:

Thank you in advance for your feedback on our Service Manual,which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

Assessment

A.What do you think about the content after reading **VG700b-2** Service Manual?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
1. Precautions And Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjusting Procedure				
6. Trouble Shooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Spare Parts List				
9. Block Diagram				
10. Schematic Diagrams				
11. PCB Layout Diagrams				

B.Are you satisfied with the **VG700b-2** service manual?

Item	*Excellent*	*Good*	*Fair*	*Bad*
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any other opinion or suggestion about this service manual?

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Company:			
Add:			
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E-mail:			

After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)