

# **Service Manual**

## **ViewSonic VG2021wm-2**

**Model No. VS11425**

**20" Color TFT LCD Display**

(VG2021wm-2\_SM Rev. 1a Dec. 2006)

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# **Revision History**

<b>Revision</b>	<b>SM Editing Date</b>	<b>ECR Number</b>	<b>Description of Changes</b>	<b>Editor</b>
1a	12/1/2006		Initial Release	Jamie Chang

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# 1. Precautions and Safety Notices

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## 1. Appropriate Operation

- (1) Turn off the product before cleaning.
- (2) Use only a dry soft cloth when cleaning the LCD panel surface.
- (3) Use a soft cloth soaked with mild detergent to clean the display housing.
- (4) Disconnect the power plug from AC outlet if the product is not used for a long period of time.
- (5) If smoke, abnormal noise, or strange odor is present, immediately switch the LCD display off.
- (6) Do not touch the LCD panel surface with sharp or hard objects.
- (7) Do not place heavy objects on the LCD display, video cable, or power cord.
- (8) Do not use abrasive cleaners, waxes or solvents for your cleaning.
- (9) Do not operate the product under the following conditions:
  - Extremely hot, cold or humid environment.
  - Areas susceptible to excessive dust and dirt.
  - Near any appliance generating a strong magnetic field.
  - Place in direct sunlight.

## 2. 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 guidelines.

## 3. Safety Check

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

## 4. Power Supply Requirements







The external AC power operating range shall be from 90 to 264Vac

## 5. LCD Module Handling Precautions

### 5.1. Handling Precautions

- (1) Since front polarizer is easily damaged, pay attention not to scratch it.
- (2) Be sure to turn off power supply when inserting or disconnecting from input connector.
- (3) Wipe off water drop immediately. Long contact with water may cause discoloration or spots.
- (4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
- (5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
- (6) Since CMOS LSI is used in this module, take care of static electricity and insure human earth when handling.
- (7) Do not open nor modify the Module Assembly.
- (8) Do not press the reflector sheet at the back of the module to any directions.
- (9) In case if a Module has to be put back into the packing container slot after once it was taken out from the container, do not press the center of the CCFL Reflector edge. Instead, press at the far ends of the CFL Reflector edge softly. Otherwise the TFT Module may be damaged.
- (10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate nor tilt the Interface Connector of the TFT Module.
- (11) After installation of the TFT Module into an enclosure (LCD monitor housing, for example), do not twist nor bend the TFT Module even momentary. At designing the enclosure, it should be taken into consideration that no bending/twisting forces are applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.
- (12) Cold cathode fluorescent lamp in LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.
- (13) Small amount of materials having no flammability grade is used in the LCD module. The LCD module should be supplied by power complied with requirements of Limited Power Source (IEC60950 or UL1950), or be applied exemption.
- (14) The LCD module is designed so that the CFL in it is supplied by Limited Current Circuit (IEC60950 or UL1950). Do not connect the CFL in Hazardous Voltage Circuit.

5.2. Handling and Placing Methods

Correct Methods:	Incorrect Methods:
Only touch the metal frame of the LCD panel or the front cover of the monitor. Do not touch the surface of the polarizer.	Surface of the LCD panel is pressed by fingers and that may cause “Mura”
	
	
	

## 2. Specification

### 1 GENERAL specification

Test Resolution & Frequency	1680x1050 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

### 2 VIDEO INTERFACE

Input Connector (refer the Appendix A)	DB-15
Default Input Connector	Defaults to the first detected input
Video Cable Strain Relief	Equal to twice the weight of the monitor for five minutes
Video Cable Connector Pin out	Refer to Appendix A; Compliant DDC/2B
Video Signals	Video RGB (Analog) Separate Sync / Composite Sync / SOG
Video Impedance	75 Ohms (Analog), 100 Ohms (Digital)
Maximum PC Video Signal	950 mV with no damage to monitor
Maximum Mac Video Signal	1250 mV with no damage to monitor
Sync Signals	TTL
DDC/2B	Compliant with version 3
Sync Compatibility	Separate Sync / Composite Sync / SOG
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	Refer to Segment 5
Exclusions	Not compatible with interlaced video

### 3 USB INTERFACE

No USB interface

## 4 POWER SUPPLY

Internal Power Supply	HJC H0AU032001			
Input Voltage Range	90 to 264 VAC			
Input Frequency Range	47 to 63 Hertz			
Short Circuit Protection	Output can be shorted without damage			
Over Current Protection	5.0 A typical at 12.0 VDC			
Leakage Current	3.5mA (Max) at 254VAC / 60Hz			
Efficiency (at 115VAC Full Load)	Typical: 80% Minimum: 75%			
Fuse	Internal and not user replaceable			
Power Output	38 Watts (typ)			
Ripple and Noise	Ripple: <3% Noise: <1%			
Max Input AC Current	1.5 Arms @ 90VAC, 0.75 Arms @180VAC			
Inrush Current (Cold Start)	50 A (max) @ 115VAC 90 A (max) @ 230VAC			
Power Supply Cold Start	Shall start and function properly when under full load, with all combinations of input voltage, input frequency, and operating temperature.			
Power Supply Transient Immunity	Shall be able to withstand an ANSI/IEEE C62.41-1980 6000V 200 ampere ring wave transient test with no damage.			
Power Supply Line Surge Immunity	Shall be able to withstand 1.5 times nominal line voltage for one cycle with no damage.			
Power Supply Missing Cycle Immunity	Shall be able to function properly, without reset or visible screen artifacts, when ½ cycle of AC power is randomly missing at nominal input.			
Power Supply Acoustics	The power supply shall not produce audible noise that would be detectable by the user. Audible shall defined to be in compliance with ISO 7779 (DIN EN27779:1991) Noise measurements of machines acoustics. Power Switch noise shall not be considered.			
Power Saving Operation(Method)	VESA DPMS Signaling			
Power Consumption		Mode	LED	Power Consumption
		On	Blue	<b>With Audio</b> 50W (typ) 55W (max) <b>Without Audio</b> 43W (typ) 48W (max)
		Active off	Amber	<1W
		Off	Off	<1W
Recovery Time	On Mode = N/A, Active Off < 3 sec			

## 5 ELECTRICAL REQUIREMENT

### Horizontal / Vertical Frequency

Horizontal Frequency	24 – 82 kHz
Vertical Refresh Rate	50 – 85 Hz
Maximum Pixel Clock	165 MHz
Sync Polarity	Independent of sync polarity

**Timing Table**

Item	Timing				Analog			Digital - TMDS	Remark
					Separated	Composite	SOG		
1	640 x 350	@	70 Hz,	31.5 KHz					For SOG sync, OSD will be 720x400@70Hz.
2	640 x 400	@	60 Hz,	31.5 KHz					For SOG sync, switch 640x400@60Hz and 640x480@60Hz by [1]+[2] short cut key (primary=640x480@60Hz)
3	640 x 400	@	70 Hz,	31.5 KHz					For Analog sync, OSD will be 640x400@70Hz/720x400@70Hz. (Promary=720x400@70Hz)
4	640 x 480	@	50 Hz,	24.7 KHz					
5	640 x 480	@	60 Hz,	31.5 KHz					For SOG sync, switch 640x400@60Hz and 640x480@60Hz by [1]+[2] short cut key (primary=640x480@60Hz)
6	640 x 480	@	67 Hz,	35 KHz					
7	640 x 480	@	72 Hz,	37.9 KHz					
8	640 x 480	@	75 Hz,	37.5 KHz					
9	640 x 480	@	85 Hz,	43.3 KHz					
10	720 x 400	@	70 Hz,	31.5 KHz					For Analog sync, OSD will be 640x400@70Hz/720x400@70Hz. (Promary=720x400@70Hz)
11	720 x 480	@	60 Hz,	31.5 KHz					
12	720 x 576	@	50 Hz,	31.3 KHz					
13	800 x 600	@	50 Hz,	24.7 KHz					
14	800 x 600	@	56 Hz,	35.1 KHz					
15	800 x 600	@	60 Hz,	37.9 KHz					
16	800 x 600	@	70 Hz,	43 KHz					
17	800 x 600	@	72 Hz,	48.1 KHz					
18	800 x 600	@	75 Hz,	46.9 KHz					
19	800 x 600	@	85 Hz,	53.7 KHz					
20	832 x 624	@	75 Hz,	49.7 KHz					
21	1024 x 768	@	50 Hz,	39.6 KHz					For SOG sync, the Information OSD will be 1024x768@50Hz, the OSD content also can be changed to 1280x768@50Hz by [1]+[2] short cut key.
22	1024 x 768	@	60 Hz,	48.4 KHz					For SOG sync, the Information OSD will be 1024x768@60Hz, the OSD content also can be changed to 1280x768@60Hz by [1]+[2] short cut key.
23	1024 x 768	@	70 Hz,	56.5 KHz					
24	1024 x 768	@	72 Hz,	58.1 KHz					
25	1024 x 768	@	75 Hz,	60 KHz					For SOG sync, the Information OSD will be 1024x768@75Hz, the OSD content also can be changed to 1280x768@75Hz by [1]+[2] short cut key.
26	1024 x 768	@	85 Hz,	68.7 KHz					
27	1152 x 864	@	75 Hz,	67.5 KHz					
28	1152 x 870	@	75 Hz,	68.7 KHz					
29	1280 x 720	@	50 Hz,	37.5 KHz					
30	1280 x 720	@	60 Hz,	45 KHz					
31	1280 x 768	@	50 Hz,	39.6 KHz					For SOG sync, the Information OSD will be 1024x768@50Hz, the OSD content also can be changed to 1280x768@50Hz by [1]+[2] short cut key.
32	1280 x 768	@	60 Hz,	47.8 KHz					For SOG sync, the Information OSD will be 1024x768@60Hz, the OSD content also can be changed to 1280x768@60Hz by [1]+[2] short cut key.
33	1280 x 768	@	75 Hz,	60.3 KHz					For SOG sync, the Information OSD will be 1024x768@75Hz, the OSD content also can be changed to 1280x768@75Hz by [1]+[2] short cut key.
34	1280 x 960	@	50 Hz,	49.4 KHz					



35	1280 x 960	@	60 Hz,	59.7 KHz					
36	1280 x 960	@	75 Hz,	75.2 KHz					
37	1280 x 1024	@	60 Hz,	64 KHz					
38	1280 x 1024	@	75 Hz,	80 KHz					
39	1400 x 1050	@	60 Hz,	65.3 KHz					For Analog sync, switch 1680x1050@60Hz and 1400x1050@60Hz by [1]+[2] short cut key (primary=1680x1050@60Hz)
40	1440 x 900	@	60 Hz,	55.5 KHz					
41	1440 x 900	@	75 Hz,	75 KHz					
42	1600 x 1200	@	60 Hz,	75 KHz					
43	1680 x 1050	@	60 Hz,	64.7 KHz					For Analog sync, switch 1680x1050@60Hz and 1400x1050@60Hz by [1]+[2] short cut key (primary=1680x1050@60Hz)

\*1. Tolerance  $\geq \pm 2\text{KHz}$ .

\*2. Any timing not in the list, it should display as normal or show on “OUT OF RANGE” OSD message without blanking.

\*3. The image quality of 85Hz mode might be worse than 75Hz.

## 7 AUDIO INTERFACE (SPEAKER SPECIFICATION)

### Speaker specification

Line input connection	3.5 mm stereo jack
Line input signal	1.0 Vrms
Line input impedance	10 kOhm
Maximum power output (Electric)	2 W / ch
Signal to Noise Ratio	50 dB
Frequency response	100 Hz – 20 KHz
Distortion	< 10 % THD (@1kHz)
Vibration	There should be no audible vibration with volume at 100% and treble / bass at default.
Screen image	There should be no affect on the screen image stability under any conditions.
Connector PC99 requirement Audio in	Lime Green pantone # 577C
Cable type / length	3.5mm stereo cable / 1.8m length
Audio DPMS	Speakers should be off when the rest of the monitor is in power saving.

\* No any sympathetic or abnormal noise allowed.

## 8 TFT LCD PANEL

### 1<sup>st</sup> Source Panel

Model number	AUO M201EW02 V0
Type	Active Matrix TFT, TN technology
Active Size	20.1" Wide
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.258 mm
Glass Treatment	Anti-Glare, Hard coating (3H)
# of Backlights	6 CCFL
Backlight Life	60000 Hrs (Typ) 50000 Hrs (Min)
Luminance (Center) – CT = 6500K, Contrast/ Brightness = Max	300 cd/m2 (Typ after 30 minute warm up) 240 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	80 % (Typ) / 75 % (Min)
Contrast Ratio	800 :1 (Typ) 600 : 1 (Min)
Color Depth	16.7 million colors (6 bits + Hi FRC)
Horizontal Viewing Angle	160 degrees (Typ)
Vertical Viewing Angle	160 degrees (Typ)
Response Time 10%-90% @ Ta=25°C	On-Off 5ms (Typ) / 8ms (Max)
Mercury	3.0 mg per lamp
Panel Defects	Please see Panel Quality Specifications.

\*The average of measured value from monthly shipment shall be equal or better than the Typical value above.

## 9 IMAGE PERFORMANCE

### Display Size

Horizontal Display Size, Primary Preset	Full Screen
Vertical Display Size, Primary Preset	Full Screen

### Contrast Ratio

CR(Max) –Condition: Contrast / Brightness = 100% CCT = USER COLOR (R/G/B=100%)	Same as the Contrast Ratio in section 6 “TFT LCD PANEL”
CR(6500K) –Condition: Contrast / Brightness = Default CCT = 6500K	CR(6500K) / CR(Max) $\geq$ 85%

### Saturation

Contrast = Default Brightness = Default Test pattern = 6gray	NO VISIBLE SATURATION  * $\geq$ 50% UNITS OF SHIPMENT SHALL BE EQUAL OR BETTER THAN TYPICAL CR SPEC.
Contrast = 100% Brightness = 100% Test pattern = 6gray	4~6 - LEVEL SATURATION

### Preset Color Temperatures

sRGB	It should meet IEC 61966-2-1 (1999-10) standard.
Preset 1	CCT (typ) = <b>9300K</b> (u'CCT=0.1888; v' CCT=0.4457) CCT (max) = 10250K, CCT (min) = 8500K $\Delta u'v' < 0.01$ (@ Full White pattern)
Preset 2	CCT (typ) = <b>7500K</b> (u'CCT=0.1935; v' CCT=0.4586) CCT (max) = 8100K, CCT (min) = 6980K $\Delta u'v' < 0.01$ (@ Full White pattern)
Preset 3 (Primary)	CCT (typ) = <b>6500K</b> (u'CCT=0.1978; v' CCT=0.4684) CCT (max) = 6950K, CCT (min) = 6100K $\Delta u'v' < 0.01$ (@ Full White pattern)
Preset 4	CCT (typ) = <b>5400K</b> (u'CCT=0.2044; v' CCT=0.4808) CCT (max) = 6185K, CCT (min) = 4935K $\Delta u'v' < 0.01$ (@ Full White pattern)
Preset Color Temperature Adjustability	Each color preset shall be adjustable. Red, Green, and Blue shall be individually controlled.

\* Any gray level and Contrast/Brightness should not get reddish, greenish or bluish.

## 10 MECHANICAL

### Dimension (Desktop)

Width	493 mm (19.4 inch)
Height (Height adjust to the bottom)	455mm (17.9 inch)
Depth	205mm (8.1 inch)
Monitor Weight	6.8 Kg (15.0 lbs)

\*Refer to Figure 1

### Dimension (Head Only / Wall Mount)

Width	493 mm (19.4 inch)
Height	388mm (15.3 inch)
Depth	70mm (2.8 inch)
Monitor Weight	6 Kg (13.2 lbs)

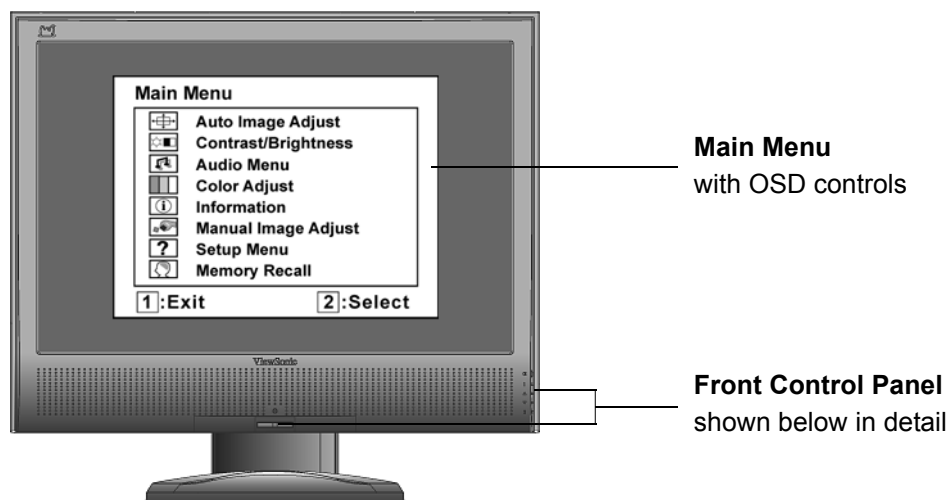
\*Refer to Figure 1





### Ergonomics

Tilt Up	From 0° up to 20±1°
Tilt Down	From 0° down to -5±1°
Swivel Right	No
Swivel Left	No
Height Adjust	No
Pivot	No

### 3. Front Panel Function Control Description

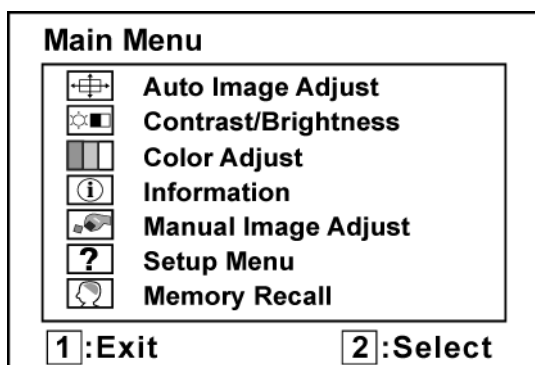
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-  Standby Power On/Off  
Power light  
Blue = ON  
Orange = Power Saving
-  Audio Mute button turns the sound off
- 1 Displays the Main Menu or exits the control screen and saves adjustments.
-  Scrolls through menu options and adjusts the displayed control.  
 Also a shortcut to display the Contrast adjustment control screen.
- 2 Displays the control screen for the highlighted control.  
Also a shortcut to Auto Image Adjust.

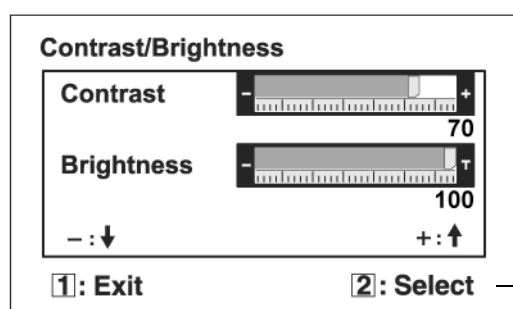
## Do the following to adjust the display setting:

1. To display the Main Menu, press button [1].



**NOTE:** All OSD menus and adjustment screens disappear automatically after about 15 seconds. This is adjustable through the OSD timeout setting in the setup menu.

2. To select a control to adjust, press▲or▼to scroll up or down in the Main Menu.
3. After the desired control is selected, press button [2]. A control screen like the one shown below appears.



The command line at the bottom of the control screen tells what to do next from this screen. You can toggle between control screens, adjust the selected option, or exit the screen.






4. To adjust the setting, press the up ▲ or down ▼ buttons.
5. To save the adjustments and exit the menu, press button [1] *twice*.

## The following tips may help you optimize your display:

- Adjust the computer's graphics card so that it outputs a 1680 x 1050 @ 60Hz video signal to the LCD display. (Look for instructions on “changing the refresh rate” in the graphics card's user guide.)
- If necessary, make small adjustments using H. POSITION and V. POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated “active area” of the LCD display.)

# Main Menu Controls

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

Control	Explanation
	<b>Auto Image Adjust</b> sizes and centers the screen image automatically.
	<b>Contrast</b> adjusts the difference between the image background (black level) and the foreground (white level).
	<b>Brightness</b> adjusts background black level of the screen image.
	<b>Audio Adjust</b> <b>Volume</b> increases the volume, decreases the volume, and mutes the audio. <b>Mute</b> temporarily silences audio output.
	<b>Color Adjust</b> provides several color adjustment modes, including preset color temperatures and a User Color mode which allows independent adjustment of red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500 Kelvin).

Color Adjust	
sRGB	
9300K	
7500K	
6500K	
5400K	
User Color	
1: Exit	2: Select

**sRGB**-This is quickly becoming the industry standard for color management, with support being included in many of the latest applications. Enabling this setting allows the LCD display to more accurately display colors the way they were originally intended. Enabling the sRGB setting will cause the Contrast and Brightness adjustments to be disabled.

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

**7500K** - Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

**6500K**-Adds red to the screen image for warmer white and richer red.

**5400K**-Adds green to the screen image for a darker color.

**User Color** Individual adjustments for red (R), green (G), and blue (B).

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

2. To adjust selected color, press▲and▼.

**Important:** If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.







**Information** displays the timing mode (video signal input) coming from the graphics card in the computer, the LCD model number, the serial number, and the ViewSonic® website URL. See your graphics card's user guide for instructions on changing the resolution and refresh rate (vertical frequency).

**NOTE:** VESA 1680 x 1050 @ 60Hz (recommended) means that the resolution is 1680 x 1050 and the refresh rate is 60 Hertz.

Information		
H. Frequency:	XX	kHz
V. Frequency:	XX	Hz
Resolution:	XXX	
Pixel Clock:	XXXXXXXXX	MHz
Serial Number: XXXXXXXXXXXX		
Model Number: XXXXXXXXXXXX		
www.ViewSonic.com		1: Exit



## Manual Image Adjust

Manual Image Adjust	
	Horizontal Size
	H./V. Position
	Fine Tune
	Sharpness
1: Exit                      2: Select	



**Horizontal Size** adjusts the width of the screen image.



**H./V. Position (Horizontal/Vertical Position)** moves the screen image left or right and up or down.



**Fine Tune** sharpens the focus by aligning text and/or graphics with pixel boundaries.

**NOTE:** Try Auto Image Adjust first.

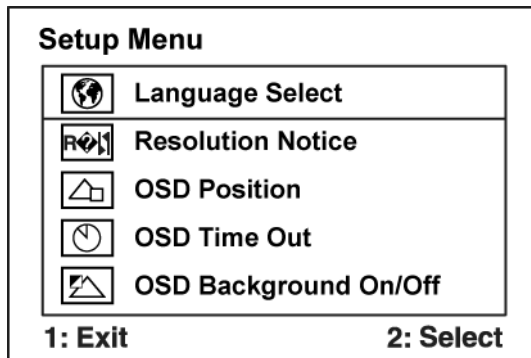


**Sharpness** adjusts the clarity and focus of the screen image.





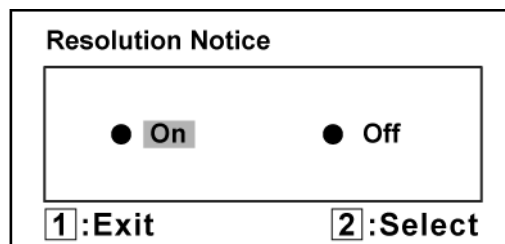
**Setup Menu** displays the menu shown below:



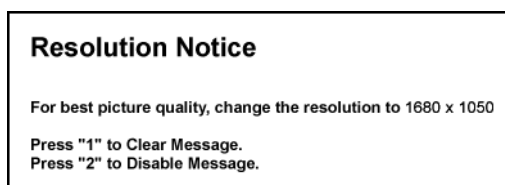
**Language Select** allows the user to choose the language used in the menus and control screens.



**Resolution Notice** allows the user to enable or disable this notice.



If you enable the Resolution Notice shown above and your computer is set at a resolution other than 1680 x 1050, the following screen appears.



**OSD Position** allows the user to move the OSD menus and control screens.



**OSD Timeout** sets the length of time the OSD screen is displayed. For example, with a "30 second" setting, if a control is not pushed within 30 seconds, the display screen disappears.



**OSD Background** allows the user to turn the OSD background On or Off.



**Memory Recall** returns the adjustments back to factory settings if the display is operating in a factory Preset Timing Mode listed in the Specifications of this manual.

## Short Cut Key

---

Function Key : 5 Keys → 1 2  ▼ ▲

[1]	Main Menu
[2]	Auto Image Adjust
[M]	Mute
[▼] or [▲]	to immediately activate Contrast menu. It should be change to Brightness OSD by push button [2]
[▼]+[▲]	recall both of Contrast and Brightness to default
[1] + [2]	toggle 720x400 and 640x400 mode when input 720x400 or 640x400 mode
[1] + [▼] + [▲]	White Balance. (Not shown on user's guide)
[1] + [▼]	Power Lock
[1] + [▲]	OSD Lock
[1] + [▼] + [2]	Disable Theft Defence function
[▲]+[power]+ Main Power On	All reset
No signal + [power] + [2] + Main Power on	Burning mode
Signal + [2] + [power] + Main Power On	Factory Mode
Remark : All the short cuts function are only available while OSD off	

## 4. Circuit Description

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### **RTD2553V**

#### **LCD Monitor/MFM Controller**

##### **General**

- . Embedded dual DDC with DDC1/2B/CI
- . Zoom scaling up and down
- . No external memory required.
- . Require only one crystal to generate all timing.
- . Programmable 3.3V/5V detection reset output.
- . Embedded crystal output to micro-controller.
- . 3 channels 8 bits PWM output, and wide range selectable PWM frequency.

##### **Analog RGB Input Interface**

- . Integrated 8-bit triple-channel 210/165 (optional) MHz ADC/PLL
- . Embedded programmable Schmitt trigger of HSYNC
- . Support Sync On Green (SOG) and various kinds of composite sync modes
- . On-chip high-performance hybrid PLLs
- . High resolution true 64 phase ADC PLL
- . Y/Pb/Pr support up to HDTV 1080i resolution
- . Support 2/1 Analog input (optional)

##### **Digital Video Input Interface**

- . Support 8-bit video (ITU 656) format input
- . Support 16-bit video (ITU 601) format input (optional)
- . Built-in YUV to RGB color space converter & de-interlace

##### **DVI Compliant Digital Input Interface (optional)**

- . Single link on-chip TMDS receiver
- . Support to 165Mhz with long cable
- . Adaptive algorithm for TMDS capability
- . Data enable only mode support
- . High-Bandwidth Digital Content Protection (HDCP 1.1) (optional only in H version)
- . Enhanced protection of HDCP secret key (optional only in H version)

##### **Auto Detection /Auto Calibration**

- . Input format detection
- . Compatibility with standard VESA mode and support user-defined mode
- . Smart engine for Phase/Image position/Color calibration

##### **Scaling**

- . Fully programmable zoom ratios
- . Independent horizontal/vertical scaling
- . Advanced zoom algorithm provides high image quality
- . Sharpness/Smooth filter enhancement
- . Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3

##### **Vivid Color.**

- . Dynamic Contrast Control (DCC)
- . Independent Color Management (ICM)
- . True 10 bits color processing engine
- . sRGB compliance
- . Advanced Dithering logic for 18-bit panel color depth enhancement
- . Dynamic overshoot-smear canceling engine
- . Brightness and contrast control
- . Programmable 10-bit gamma support

##### **Output Interface**

- . Fully programmable display timing generator
- . Flexible data pair swapping for easier system design.
- . Programmable TCON function support
- . Multi-output interface (RSDS/LVDS/TTL) on single PCB
- . Spread-Spectrum DPLL to reduce EMI
- . Fixed Last Line output for perfect panel capability

##### **Host Interface**

- . Support MCU serial/parallel bus interface.
- . Support MCU dual edge data latch.

### **Embedded OSD**

- . Embedded 12K SRAM dynamically stores OSD command and fonts
- . Support multi-color RAM font, 1, 2 and 4-bit per pixel
- . 16 color palette with 24bit true color selection
- . Maximum 8 window with alpha-blending/gradient/dynamic fade-in/fade-out, bordering/shadow/3D window type
- . Rotary 90,180,270 degree
- . Independent row shadowing/bordering
- . Programmable blinking effects for each character
- . OSD-made internal pattern generator for factory mode
- . Support 12x18~4x18 proportional font
- . Decompress OSD font

### **Power & Technology**

- . 3.3V power supplier
- . 0.18um CMOS process, 128-pin QFP package
- . Embedded 3.3V to 1.8V voltage regulator

### **Analog Input**

RTD integrates three ADC's (analog-to-digital converters), one for each color (red, green, and blue). The sync-processor can deal with Separate-Sync, Composite-Sync, and Sync-On-Green. And the PLL can generate very low jitter clock from HS to sample the analog signal to digital data. Input data is latched within a capture window defined in registers refer to VS and HS leading edge. RTD also has 2 ADC input, we can switch these 2 input to choose which input we want to present on RTD embedded LCD monitor.

RTD has a YPbPr input, we can connect DVD or some devices that has YPbPr input, YPbPr input can be 1st or 2nd ADC pins.

### **TMDS Input**

RTD integrates high-speed single link receiver function. It can operate up to 165 M at long cable. RTD integrates an equalizer to enhance the cable loss weakness in long cable application and the advanced tracking algorithm to have better performance in DVI RX.

### **Display Output Timing**

The display output port sends single/double pixel data transfer and synchronized display timing to an external device. The display port also support display panel with 6-bit per color, turn on the dithering function to enhance color depth. In single pixel output mode, single pixel data (24-bit RGB) is transferred to display port A on each active edge of DCLK, the rate of DCLK is also equal to display pixel clock. The sync & enable signals are also sent to display port on each active edge of DCLK. In double pixel output mode, double pixel data (48-bit RGB) is transferred to display port A & B on each active edge of DCLK and the rate of DCLK is equal to half display pixel clock at this moment. The sync & enable signals are also sent to display port on each active edge of DCLK.

### **Color Processing**

Digital color R & G & B independent channel sRGB, contrast, brightness, gamma, dithering controls are built in RTD. sRGB compliance function is provided with 9 multipliers. The contrast control is performed a multiply value from 0 to 2 for each R/G/B channel. The brightness control is used to set an offset value from -512 to +511 also for each R/G/B channel. Also RTD provided 10 bit gamma and a high performance dithering function.

### **Build-In OSD**

The detailed function-description of build-in OSD, please refer to the application note for RTD embedded OSD.

### **Color LUT & Overlay Port**

The following diagram presents the data flow among the gamma correction, dithering, overlay MUX, OSD LUT and output format conversion blocks.

### **Auto-Adjustment**

There are two main independent auto-adjustment functions supported by RTD, including auto-position & auto-tracking. The operation procedure is as following;

### **Auto-Position**

1. Define the RGB color noise margin: When the value of color channel R or G or B is greater than these noise margins, a valid pixel is found.
2. Define the threshold-pixel for vertical boundary search
3. Define the boundary window of searching for horizontal boundary search.
4. Start auto-function.
5. The result can be read from register.

### **Auto-Tracking**

1. Setting the control-registers for the function (auto-phase, auto-balance) according to the Control-Table.
2. Define the Threshold
3. Define the boundary window of searching for tracking window.
4. Start auto-function.
5. The result can be read from register

### **PLL System**

Inside the RTD, there are four PLL systems for display clock and ADC sample clock (PLL1, PLL2, M2PLL, DPLL ).

#### **DCLK PLL**

DPLL frequency =  $F_{IN} * DPM / DPN * Divider$ .

$F_{IN}$  is input crystal frequency. DPM and DPN is in **DPLL\_M** and **DPLL\_N**.

**DPLL\_N**, and it divide PLL frequency by 1, 2, 4 or 8.

According to parameter DPN, you must set LPF Mode in **DPLL\_WD**. If LPF Mode is 1, the charge pump current, Ich, must be DPM/17.6, while Ich must be DPM/1.67 if LPF Mode is 0. The charge pump current Ich is in **DPLL\_CRNT**.

Spread-Spectrum function is also build in DCLK to reduce EMI. You can control the SSP\_I, SSP\_W, and FMDIV to fine-tune the EMI.

M2PLL is a PLL used to power-on reset, FIFO clock and Internal crystal clock. After power-on reset, M2PLL output 10 times frequency of crystal clock. According to crystal frequency, set M2PLL to keep FIFO clock frequency between 240MHz and 250MHz.

#### **ADC Pixel Sampling PLL**

The input pixel sampling PLL of RTD compose of PLL1 and PLL2 and DDS, the hybrid PLL system inherently has a process-independent advantages comparing with pure analog PLL, DDS synthesizer is in charge of the phase-frequency control, PLL1 provided a high frequency to get a larger bandwidth letting the system fast locking, PLL2 finally synthesize the desired pixel sampling clock. The block diagram shown below describes our high-performance tracking system.

### **Host Interface**

#### **Parallel/Serial Port Determination:**

After RESET end, the status of pin 5 (TMDS\_TST) can be sensed to determine the interface mode: high for parallel port, low, low for serial port.

#### **Host Interface Location Determination:**

After the falling edge of RESET signal, the status of pin 3 can be sensed to determine the host interface location: high for 112-115, 118, 119, and low for 52-57

#### **Reset Output**

We have the RESET\_OUT function, and also reserve the RESET\_IN function. By the bounding of internal pins we can select two kinds of reset function. First of all is only reset-out, we can output the reset signal to MCU, and the MCU can reset the RTD by firmware. The second is RTD output reset and also reset itself. Notice that the reset output is positive polarity, besides, the reset output is open-drain pin, please don't forget to attach a pull-up resistor (10K). The reset function for 3.3V operating voltage detection is determined by 33VRST\_REF voltage, No matter 5V or 3.3V MCU is been used, divider the input voltage on 33VRST\_REF to 2.2V for internal power sensing circuit detecting, the divider resistor should be 10K level avoiding current leakage.

#### **The Programmable Schmitt Trigger of HSYNC**

To get better waveform of the input HSYNC, we have a programmable Schmitt Trigger circuit. For different HSYNC amplitude and polarity, we can select different setting of the threshold voltage. The  $V_t+$  and the  $V_t-$  can be selected by register CR97 We can select the old mode or the new mode. When using the new mode we can directly determine the positive threshold voltage (1.4V, 1.6V... 2.6V), and we can choose the hysteresis from

the  $V_t+$  to determine the  $V_t-$  (0.6V, 0.8V, 1.0V, 1.2V). We also can finely tune the voltage by minus 0.1V. For application, we can select different threshold voltage by the polarity of the HSYNC. The control register is CR97

### **Crystal Frequency Output**

RTD can output crystal frequency or 1/2 crystal frequency to external MCU to save a crystal device. Once power state is on and reset is finished, we can set crystal frequency by firmware and output to pin 48 and pin 110 simultaneously, and then can turn off them in Pin Share Part. Pin 48 and PIN 110 is configurable, detail setting is listed in Pin-Share part

### **RTD2120 8051 Embedded Micro-Controller for Monitor**

#### *Overview*

This chip is the micro-processor of LCD monitor. It uses the design ware DW8051 of Synopsys as the 8051 core of this chip and is compatible with other industry 8051 series. Also, 96Kbyte FLASH with 8 bit bus is embedded in this chip which is licensed from TSMC 0.18um e-FLASH process. Here we use the package of PLCC44/LQFP48 if we would like to have a discrete MCU controller or we make a multi-chip package with our LCD monitor controller to form one chip package to save the cost of package and PCB material.

#### *Features*

- Operating voltage range : 3.0V to 3.6V
  - 8051 core, CPU operating frequency up to 50MHz
  - 4 clocks per machine cycle
  - 256-byte internal RAM
  - 512-byte external data RAM, including 256-byte DDC RAM(128-byte x 2) and 256-byte general purpose RAM
  - 96K-byte flash memory, 64k for program and 32k for saving parameter
  - Two DDC ports compliant with VESA DDC1/2B/2Bi/CI
  - Three channels of PWM DAC with programmable frequency from 100K to 100Hz
  - Watchdog timer with programmable interval
  - Three 16-bit counters/timers (T0, T1, and T2)
  - One PLL to provide programmable operating frequency and clock output, 2 clock output ports
  - One full-duplex serial port
  - Six interrupt sources with 2 external interrupts
- Four channels of 6-bit ADC
  - Hardware In System Programming(ISP) capability, no boot code required
  - Built-in Low voltage reset circuit
  - Embedded 1.8V regulator
  - Code protection
  - Available in 44-pin PLCC or 48-pin LQFP package

### **AUDIO STEREO CLASS-D AUDIO POWER AMPLIFIER DESCRIPTION**

The TPA2008D2 is a third generation 5-V class-D amplifier from Texas Instruments. Improvements to previous generation devices include: dc volume control, lower supply current, lower noise floor, higher efficiency, smaller packaging, and fewer external components. Most notably, a new filter-free class-D modulation technique allows the TPA2008D2 to directly drive the speakers, without needing a low-pass output filter consisting of two inductors and three capacitors per channel. Eliminating this output filter saves approximately 30% in system cost and 75% in PCB area.

The improvements and functionality make this device ideal for LCD projectors, LCD monitors, powered speakers, and other applications that demand more battery life, reduced board space, and functionality that surpasses currently available class-D devices.

A chip-level shutdown control limits total supply current to 1  $\mu$ A, making the device ideal for battery-powered applications. Protection circuitry increases device reliability: thermal and short circuit. Undervoltage shutdown saves battery power for more essential devices when battery voltage drops to low level.

## 5. Adjustment Procedure

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### 1. Function Test

#### 1.1 Product

- 20" LCD Monitor

#### 1.2 Test Equipment

- Color Video Signal & Pattern (or PC with WSXGA+ resolution and a sound card)

#### 1.3 Test Condition

Before function test and alignment, each LCD Monitor should be run-in and warmed up for at least 30 minutes with the following conditions:

- (a) In room temperature,
- (b) With full-white screen, RGB, and Black
- (c) With cycled display modes,  
640\*480 (H=43.27kHz, V=85Hz)  
800\*600 (H=53.7kHz, V=85Hz)  
1024\*768 (H=68.67kHz, V=85Hz)  
1680\*1050 (H=64.7kHz, V=60Hz)

#### 1.4 Test Display Modes & Pattern

##### 1.4.1 Compatible Modes

Analog
1. 640 x 350 @ 70Hz, 31.5kHz
2. 640 x 400 @ 60Hz, 31.5kHz
3. 640 x 400 @ 70Hz, 31.5kHz
4. 640 x 480 @ 50Hz, 24.7kHz
5. 640 x 480 @ 60Hz, 31.5kHz
6. 640 x 480 @ 67Hz, 35.0kHz
7. 640 x 480 @ 72Hz, 37.9kHz
8. 640 x 480 @ 75Hz, 37.5kHz
9. 640 x 480 @ 85Hz, 43.27kHz
10. 720 x 400 @ 70Hz, 31.5kHz
11. 720 x 480 @ 60Hz, 31.5kHz
12. 720 x 576 @ 50Hz, 31.3kHz
13. 800 x 600 @ 50Hz, 24.7kHz
14. 800 x 600 @ 56Hz, 35.1kHz
15. 800 x 600 @ 60Hz, 37.9kHz
16. 800 x 600 @ 70Hz, 43 kHz
17. 800 x 600 @ 72Hz, 48.1kHz
18. 800 x 600 @ 75Hz, 46.9kHz
19. 800 x 600 @ 85Hz, 53.7kHz
20. 832 x 624 @ 75Hz, 49.7kHz
21. 1024 x 768 @ 50Hz, 39.6kHz
22. 1024 x 768 @ 60Hz, 48.4kHz
23. 1024 x 768 @ 70Hz, 56.5kHz
24. 1024 x 768 @ 72Hz, 58.1kHz
25. 1024 x 768 @ 75Hz, 60 kHz
26. 1024 x 768 @ 85Hz, 68.7 kHz
27. 1152 x 864 @ 75Hz, 67.5 kHz
28. 1152 x 870 @ 75Hz, 68.7 kHz

Analog	
29.	1280 x 720 @ 50Hz, 37.5 kHz
30.	1280 x 720 @ 60Hz, 45 kHz
31.	1280 x 768 @ 50Hz, 39.6 kHz
32.	1280 x 768 @ 60Hz, 47.8 kHz
33.	1280 x 768 @ 75Hz, 60.3 kHz
34.	1280 x 960 @ 50Hz, 49.4 kHz
35.	1280 x 960 @ 60Hz, 59.7 kHz
36.	1280 x 960 @ 75Hz, 75.2 kHz
37.	1280 x 1024 @ 60Hz, 64 kHz
38.	1280 x 1024 @ 75Hz, 80 kHz
39.	1400 x 1050 @ 60Hz, 65.3 kHz
40.	1400 x 900 @ 60Hz, 55.5 kHz
41.	1400 x 900 @ 75Hz, 75 kHz
42.	1600 x 1200 @ 60Hz, 75 kHz
43.	1680 x 1050 @ 60Hz, 64.7 kHz

#### 1.4.2 Function Test Display Pattern

Item	Test Content	Pattern	Specification	Remark
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise.	Figure 1
2	Contrast/Brightness	16 Gray Scale	16 gray levels should be distinguishable.	Figure 2
3	Boundary	Horizontal & Vertical Thickness	Horizontal and Vertical position of video should be adjustable to be within the screen frame.	Figure 3
4	RGB Color Performance	RGB Color Intensities	Contrast of each R, G, B, color should be normal.	Figure 4, 5, 6
5	Screen Uniformity & Flicker	Full White	Should be compliant with the spec.	Figure 7
6	Dead Pixel/Line	White Screen & Dark Screen	The numbers of dead pixels should be compliant with the spec.	Figure 7, 8
7	White Balance	White & Black Pattern	The screen must have the pure white and black pattern, no other color.	Figure 9

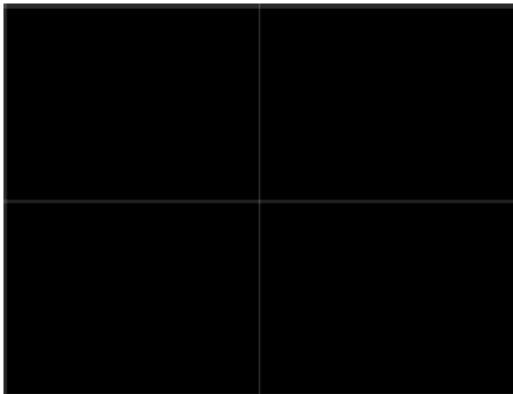




Fine Line Morie Pattern (Figure1)



Gray Scale Pattern (Figure2)



Horizontal & Vertical Thickness Pattern (Figure 3)



R. Color Pattern (Figure 4)



G. Color Pattern (Figure5)



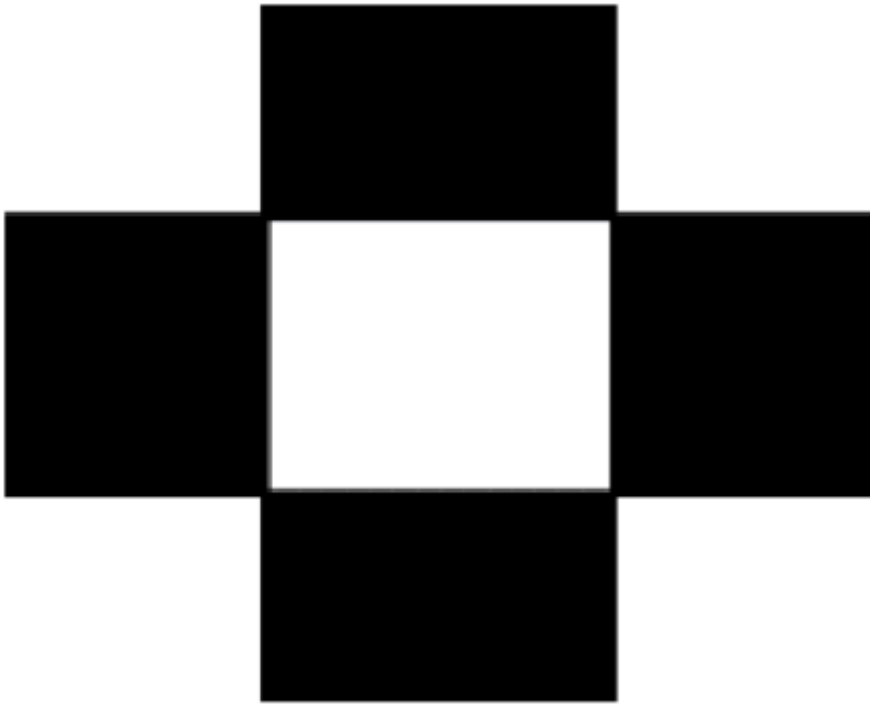
B. Color Pattern (Figure 6)



Full White Patter (Figure 7)



Dark Screen Pattern (Figure 8)



Black-White Pattern (Figure 9)

## 1.5 Function Test and Alignment Procedure

### 1.5.1 All Modes Reset

You should do “All Mode Reset” (Refer to Chapter III-3. Hot Keys for Function Controls) first. This action will allow you to erase all end-user’s settings and restore the factory defaults.

### 1.5.2 Auto Image Adjust

Please select and enter “*Auto Image Adjust*” function on Main Menu to see if it is workable. The “*Auto Image Adjust*” function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

### 1.5.3 Firmware

Test Pattern: Burn In Mode (Refer to Chapter III-3. Hot Keys for Function Controls)

- Make sure the F/W is the latest version.

### 1.5.4 DDC

Test Pattern: EDID program

- Make sure it can pass test program.

### 1.5.5 Fine Tune and Sharpness

Test Signal: 1680\*1050@60Hz

Test Pattern: Line Moire Pattern

- Check and see if the image has noise and focus performs well. Eliminate visual line bar.

- If not, readjust by the following steps:

- (a) Select and enter “**Fine Tune**” function on “**Manual Image Adjust**” to adjust the image to eliminate visual wavy noise.

- (b) Then, select and enter “**Sharpness**” function to adjust the clarity and focus of the screen image.

### 1.5.6 Boundary

Test Signal: 1680\*1050@60Hz

Test Pattern: Horizontal & Vertical Line Thickness Pattern

- Check and see if the image boundary is within the screen frame.

- If not, readjust by the following steps:

- (a) Select and enter “**Manual Image Adjust**” function on OSD Main Menu.

- (b) Then, select and enter “**Horizontal Size**” or “**Horizontal/Vertical Position**” function to adjust the video boundary to be full scanned and within screen frame.

#### 1.5.7 White Balance

Test Signal: 1680\*1050@60Hz

Test Pattern: White and Black Pattern

#### 1.5.8 R, G, B, Colors Contrast

Test Signal: 1680\*1050@60Hz

Test Pattern: R, G, B, Color Intensities Pattern and 16 Gray Scale Pattern

- Check and see if each color is normal and distinguishable.

- If not, please return the unit to repair area.

#### 1.5.9 Screen Uniformity and Flicker

Test Signal: 1680\*1050@60Hz

Test Pattern: Full White Pattern

- Check and see if it is in normal condition.

#### 1.5.10 Dead Pixel and Line

Test Signal: 1680\*1050@60Hz

Test Pattern: Dark and White Screen Pattern

- Check and see if there are dead pixels on LCD panel with shadow gauge and filter film.

- The total numbers and distance of dead pixels should be compliant with the spec.

#### 1.5.11 Mura

Test Pattern: White, RGB, Black, & Grey

Test Tool: 8% ND Filter

- Check if the Mura can pass 8% ND Filter.

#### 1.5.12 Audio

Test Signal: Voice signal (optional, depend on model)

Test Pattern: liberty

- Make sure there is audio output.

- Make sure that audio function (volume 80%) is working without noise and resonance.

- Make sure that the sound of right and left speakers are in balance.

#### 1.5.13 Check for Secondary Display Modes

Test Signal:

Analog: 640\*350@70Hz; 640\*480@60HZ

720\*400@70Hz; 800\*600@60HZ/70HZ/75HZ

832\*624@75Hz, 1024\*768@60HZ/70HZ/75HZ

1280\*1024@60/75Hz

Digital: 640\*350@70Hz; 640\*480@60HZ

720\*400@70Hz; 800\*600@60HZ/70HZ/75HZ

1024\*768@60/70/72/75; 1152\*870@75Hz,

1280\*1024@60Hz/75HZ

- Normally when the primary mode 1280\*1024@60Hz is well adjusted and compliant with the specification, the secondary display modes will be great possible to be compliant with the spec. But we still have to check with the general test pattern to make sure every secondary is compliant with the specification.

#### 1.5.14 All Modes Reset

After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do "All Mode Reset" again.

#### 1.5.15 Power Off Monitor

Turn off the monitor by pressing "Power" button.

## 2. Firmware Upgrade Procedure

When you receive the returned monitor, please check whether the firmware version is the latest. If not, please do the following procedures to upgrade it to the latest version.

### 2.1 Equipment Needed

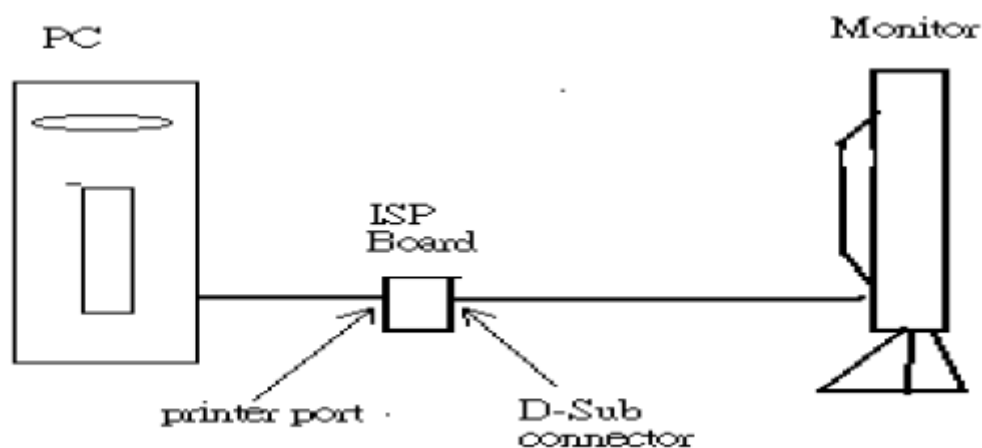
- VG2021WM2 Monitor
- Fixture for Firmware Upgrade
- VGA Cable
- PC (Personal Computer)
- LPT Cable
- Firmware Upgrade Program
- One additional monitor for checking the program execution

### 2.2 Setup Procedure

- 2.2.1 Connect P2 of Fixture with printer port of PC by LPT Cable.
- 2.2.2 Connect P1 of Fixture with Monitor by VGA Cable.
- 2.2.3 Connect Power Cord to Monitor.
- 2.2.4 Connect PC to the additional monitor.

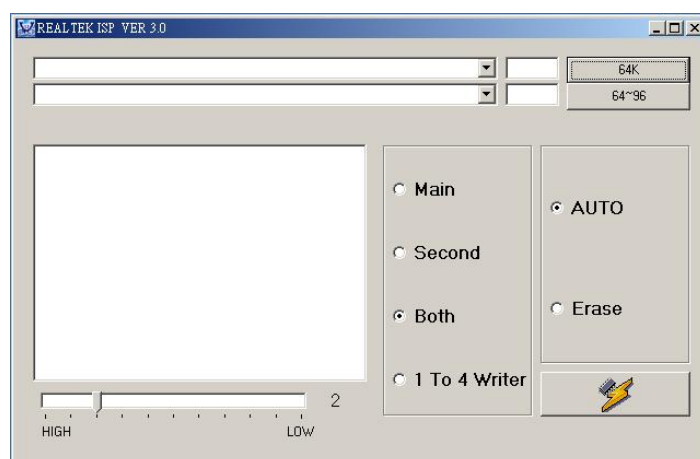
## I. ISP Download program procedure

### 1 Hardware Connect status:



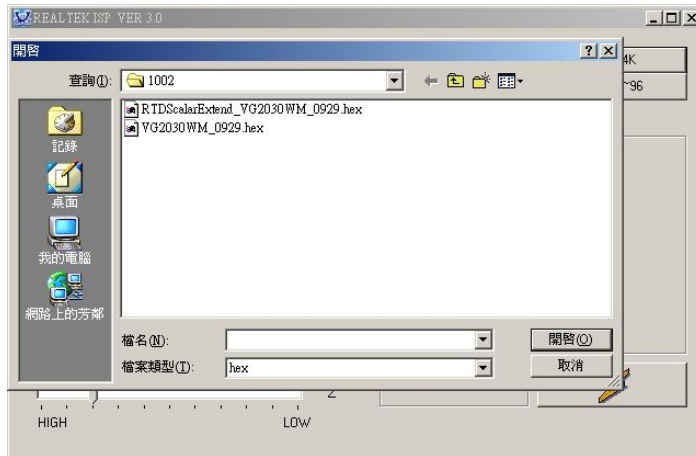
### 2 Down load isp program

#### Step 1: Execute ISP.exe



### Step 2: Load file

Press the Load MCU File button to select the file will be download. (\*.hex)

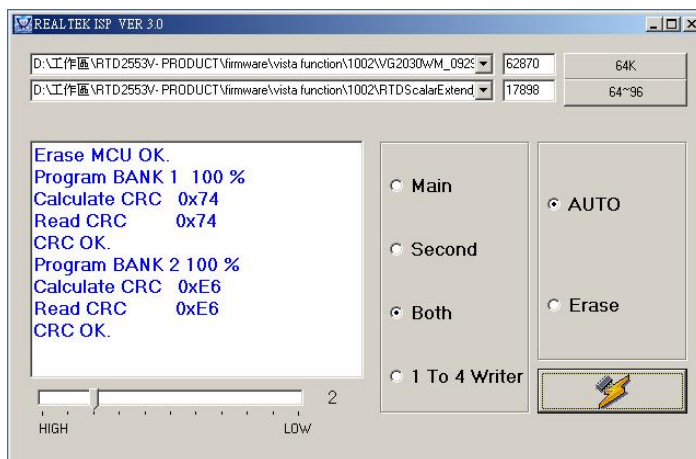


### Step 3: Run

Pressing the Run Button to start download program. Press OK button to Enter ISP mode.

### Step 4: Download program finish

Pressing the OK Button to finish the download program procedure.



### Trouble shooting:

If you find the status like the follow picture. Please check the following item.

- The connecting status between PC and ISP board.
- The connecting status between ISP status and Monitor.

Turn off the power of monitor (AC plug off ) and disconnect the D-Sub connector . To connect the D-Sub connector and then turn on the power of monitor.(AC plug on)

### 3. DDC Key In Procedure

**Note:**

1. Every time after replacing the main board, you have to do the DDC key in.
2. If you find the DDC does not conform to the monitor, you have to do the DDC key in.

#### 3.1 Equipment Needed

- VG2021WM2 Series Monitor
- DDC Card
- PC
- RS232 cable
- DVI-DVI Cable
- Barcode Reader
- VGA Cable



VG2021WM2



DDC Card



PC



RS232 cable



VGA cable



BAR code reader

#### 3.2 Setup Procedure

1. Connect VGA Card and DDC Card with RS-232 cable.
2. Barcode Reader connect with keyboard and PC keyboard port.



3. Connect RS-232 Cable and VG2021WM2 with VGA Cable.
4. (when key in DVI DDC information, use VGA transform to DVI port )

5.Connect Power Cord to VG2021WM2 Monitor.



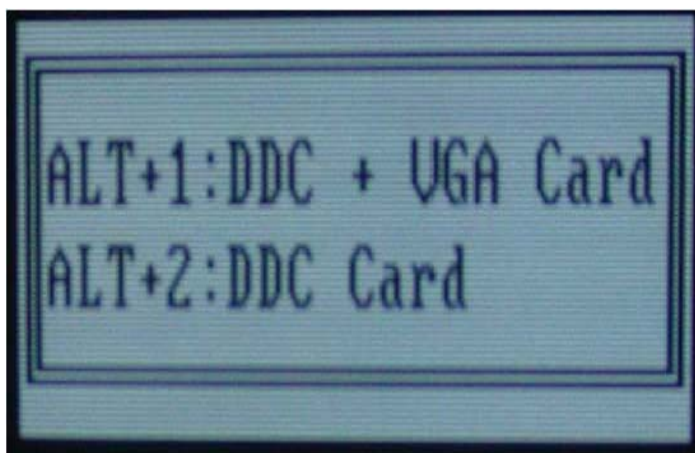
### 3.3 DDC Key In Procedure

1.Run DDC.exe

2.Choose model number and conform the Time then Press “ENTER” key.



3.When appear the PIC “ choose DDC Card”, Press ALT+2 .Enter DDC 2B test interface.



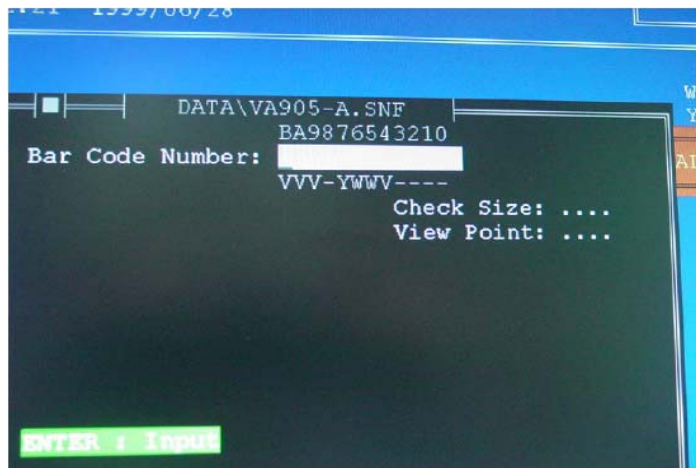
Choose DDC Card

4.Press F8 to choose corresponding model.DAT(VG2021WM2A.DAT press“ENTER” key)

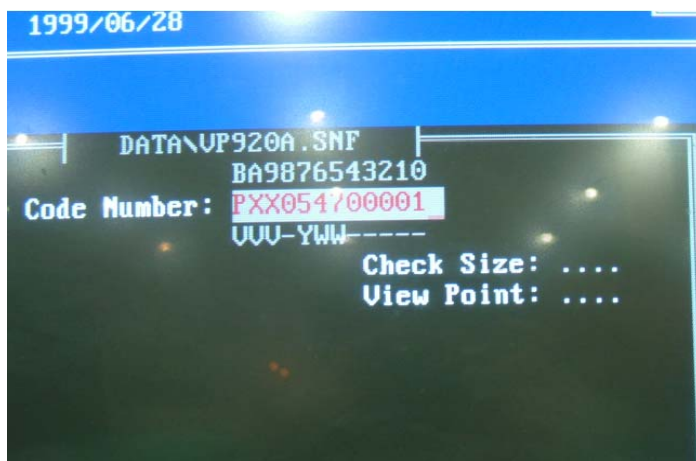
VG2021\_A means the DDC under analog mode. VG2021WM2D means the DDC under digital mode.



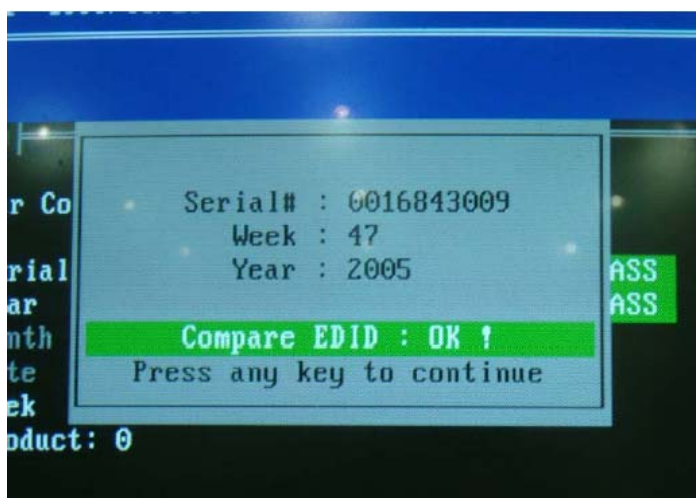
5. Press F9 enter the download interface



6. Key in the serial number or use the barcode reader to scan the barcode of the monitor, and press "ENTER" key.



7. The successful picture is as follows. "Compare EDID : OK! Press any key to continue".





## Packing For Shipping And Disassembly Procedure

### Packing For Shipping

#### 1. Packing Procedure

1.1 Paste protection film to protect the LCD TV. (Figure 1)

1.2 Put the cushions on the LCD TV. (Figure 2)



Figure 1



Figure 2

1.3 Place the LCD TV into the carton and then Put the other cushions on the LCD TV, put all the accessories into the carton. At last, close the carton and seal it with tape. (Figure 3)

1.Power Cord	2.VGA Cable	3.EAR Cable
4.User's Guide	5.Guarant Card	

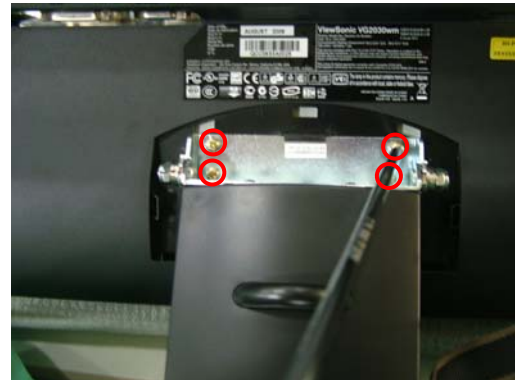


Figure 3

## Disassembly Procedure

### 1. Disassembly of Stand and Dust Cover from LCD TV.

1.1 Detach Dust Cover from the LCD TV and Unscrew 4 screws that secure Stand Unit.



Dust Cover



Stand



### 2. Disassembly of Rear Cover.

2.1 Unscrew 4 screws to remove Rear Cover.

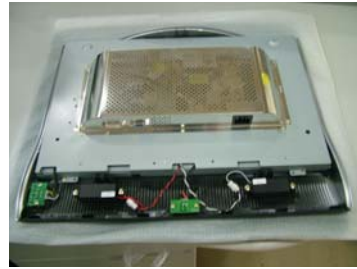
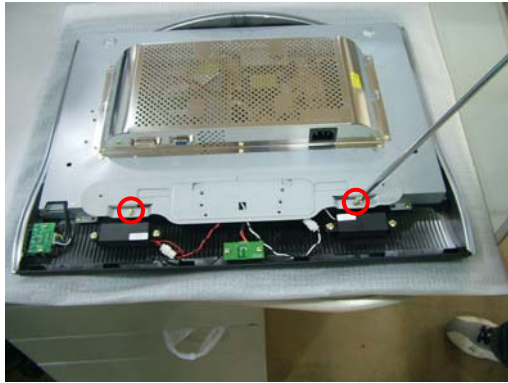


Rear Cover

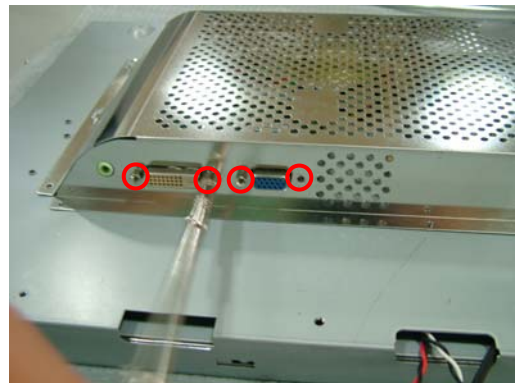
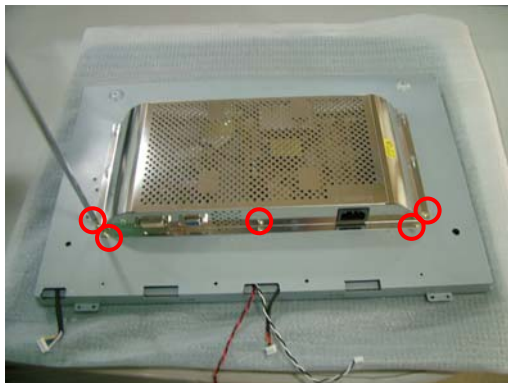
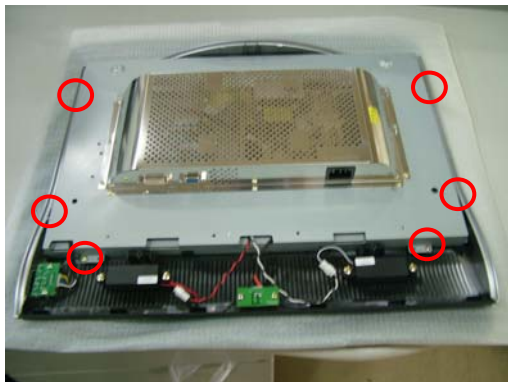


### 3. Disassembly of Main Board,Power Board,IR Board,Speaker,Front Cover and Panel Unit.

3.1 Unscrew 2 screws to remove Bracket,fix.

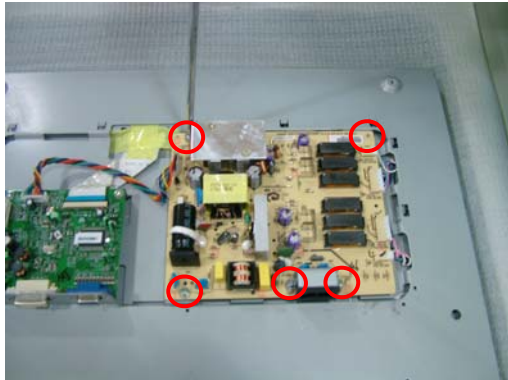


3.2 Unscrew 15 screws to remove Front Bezel and Shield Plate.

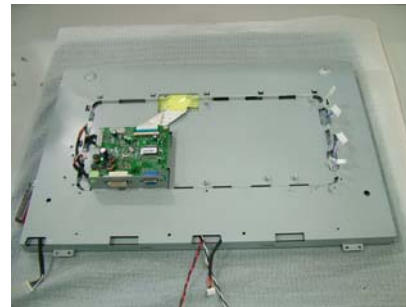


Shield Plate

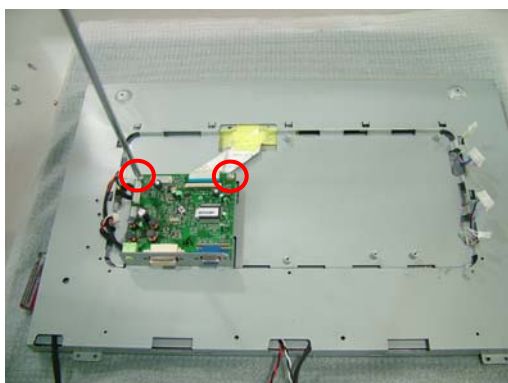
3.2. Unscrew 5 screws and disconnect the wires to remove Power Board.



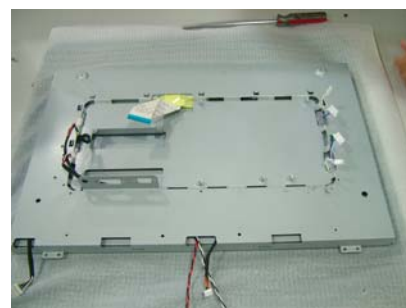
Power Board



3.3. Unscrew 2 screws and disconnect the wires to remove Main Board.

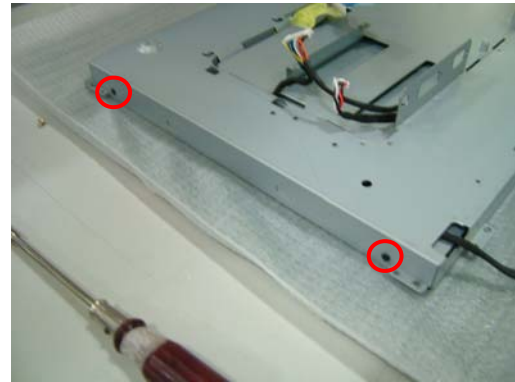
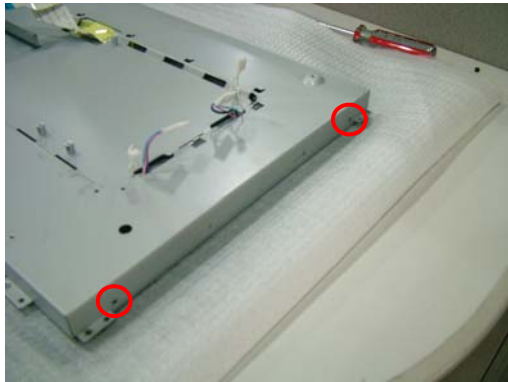


Main Board





3.4. Lay Panel Unit facedown and unscrew 4 screws on its right, left sides, to remove Panel Unit and Panel Bracket.



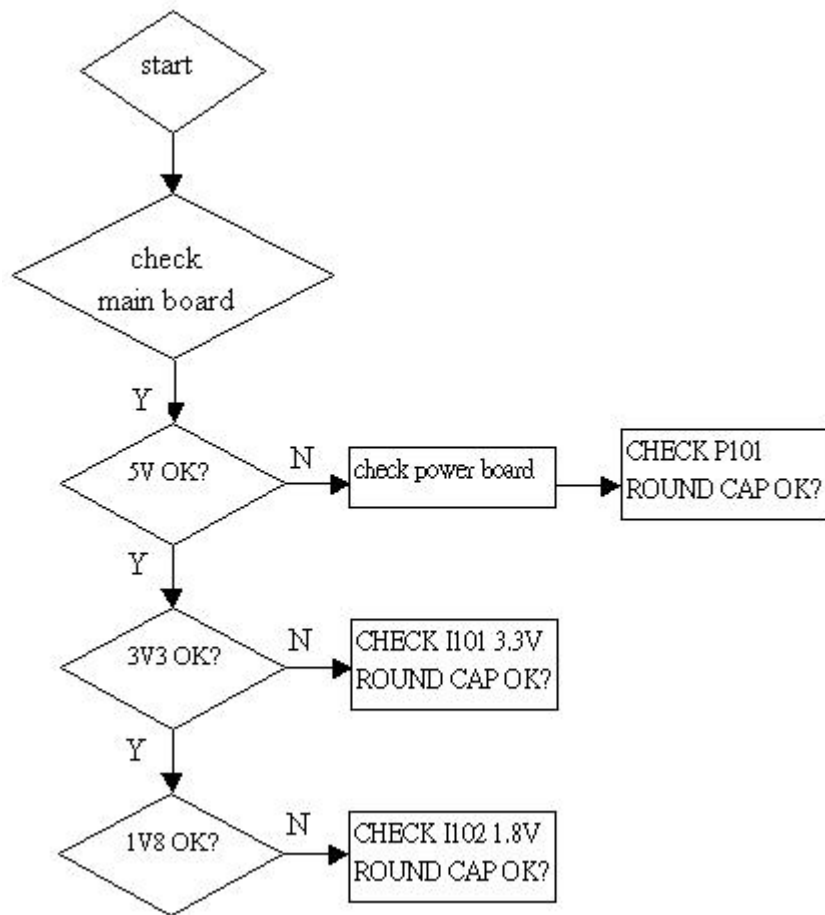
Panel Bracket



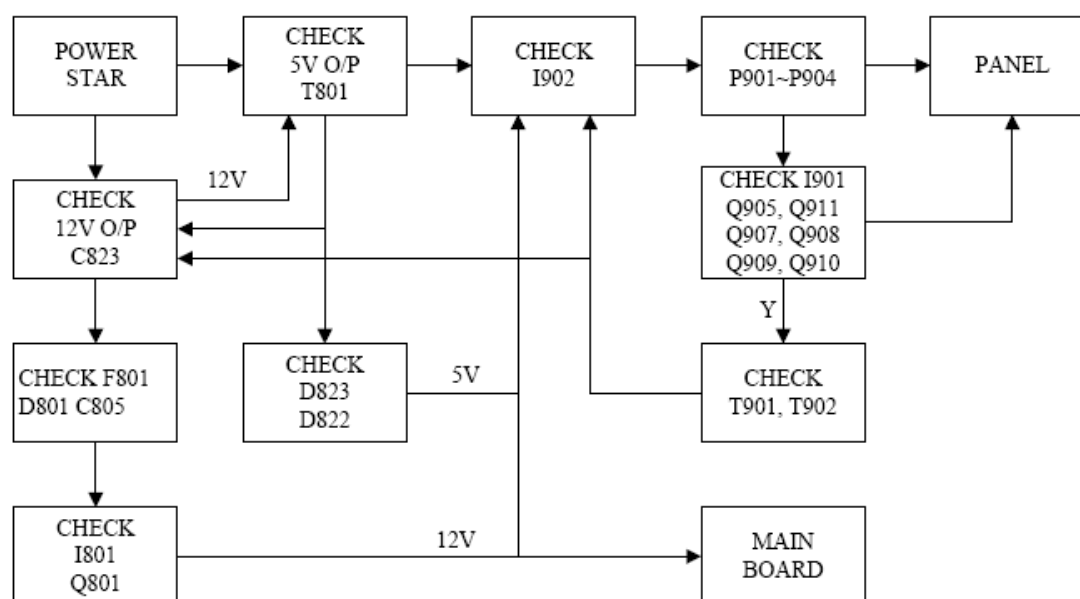
Panel

## 6. Troubleshooting Flow Chart

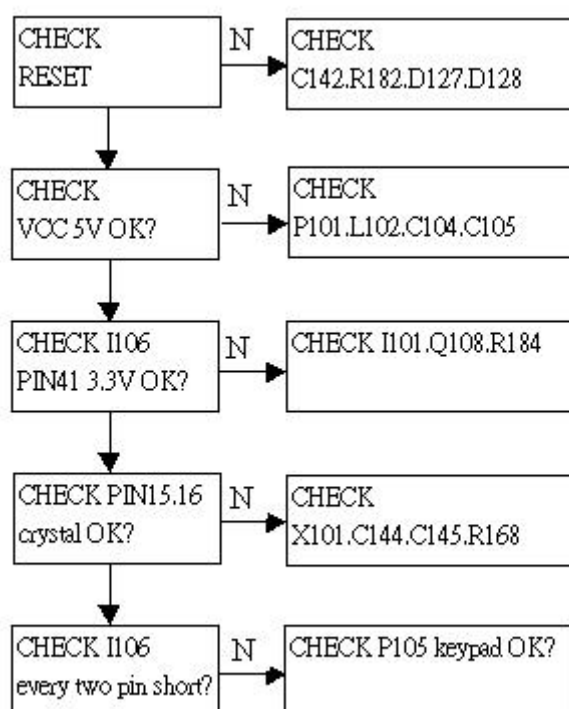
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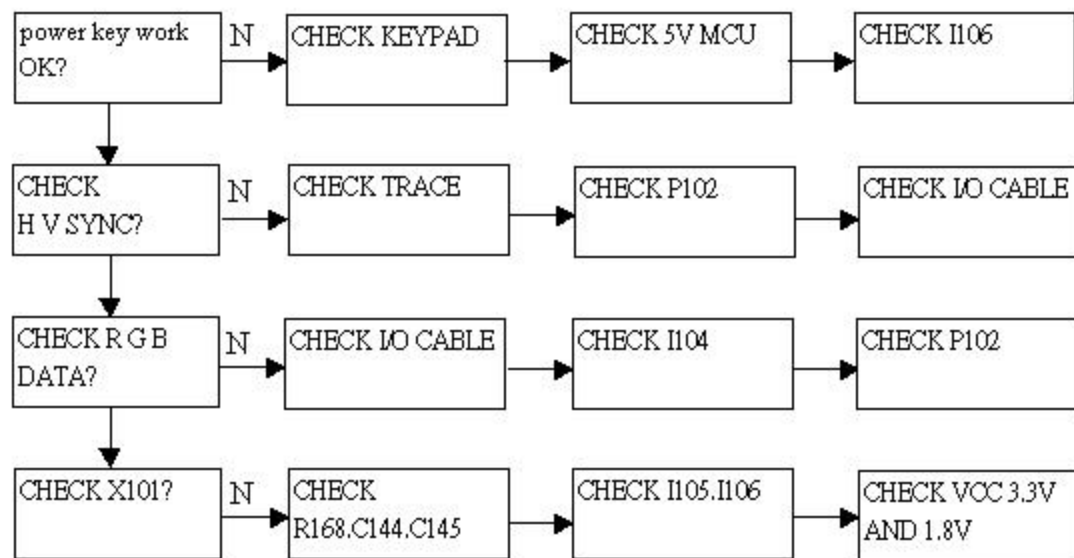
## 6.1. NO POWER



## 6.2. MCU NO FUNCTION

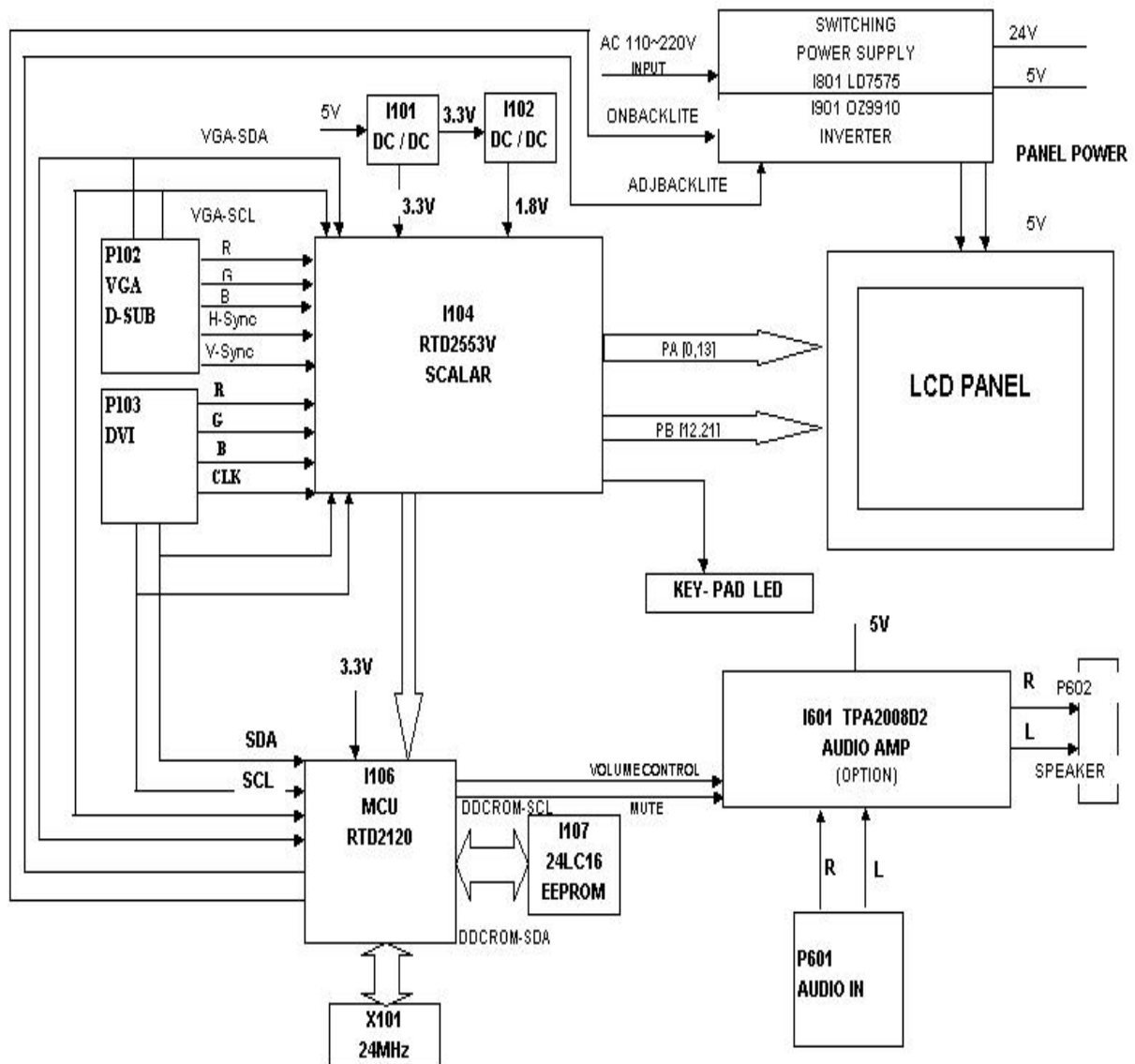


### 6.3. NO DISPLAY

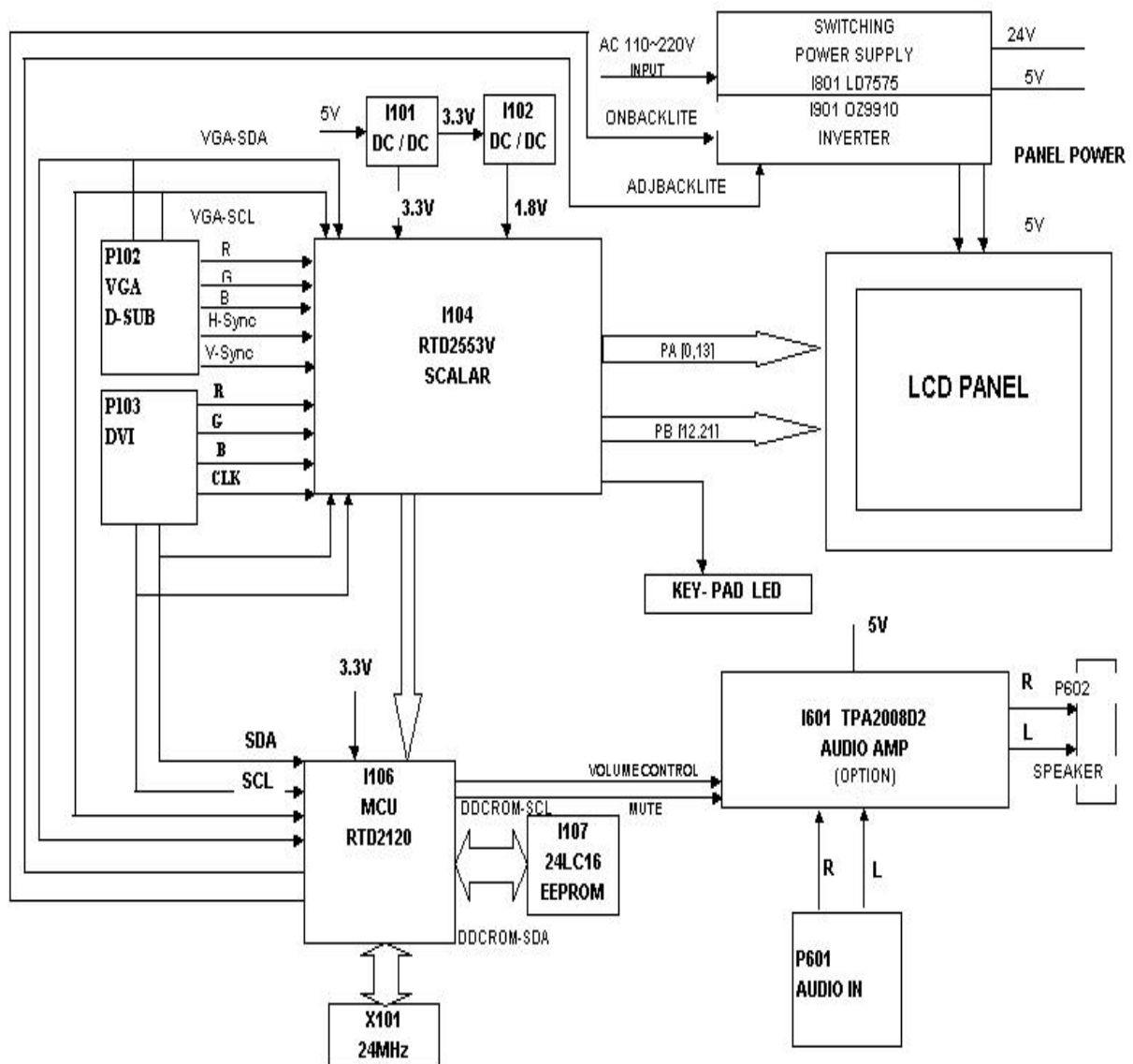




## 7. Block diagram

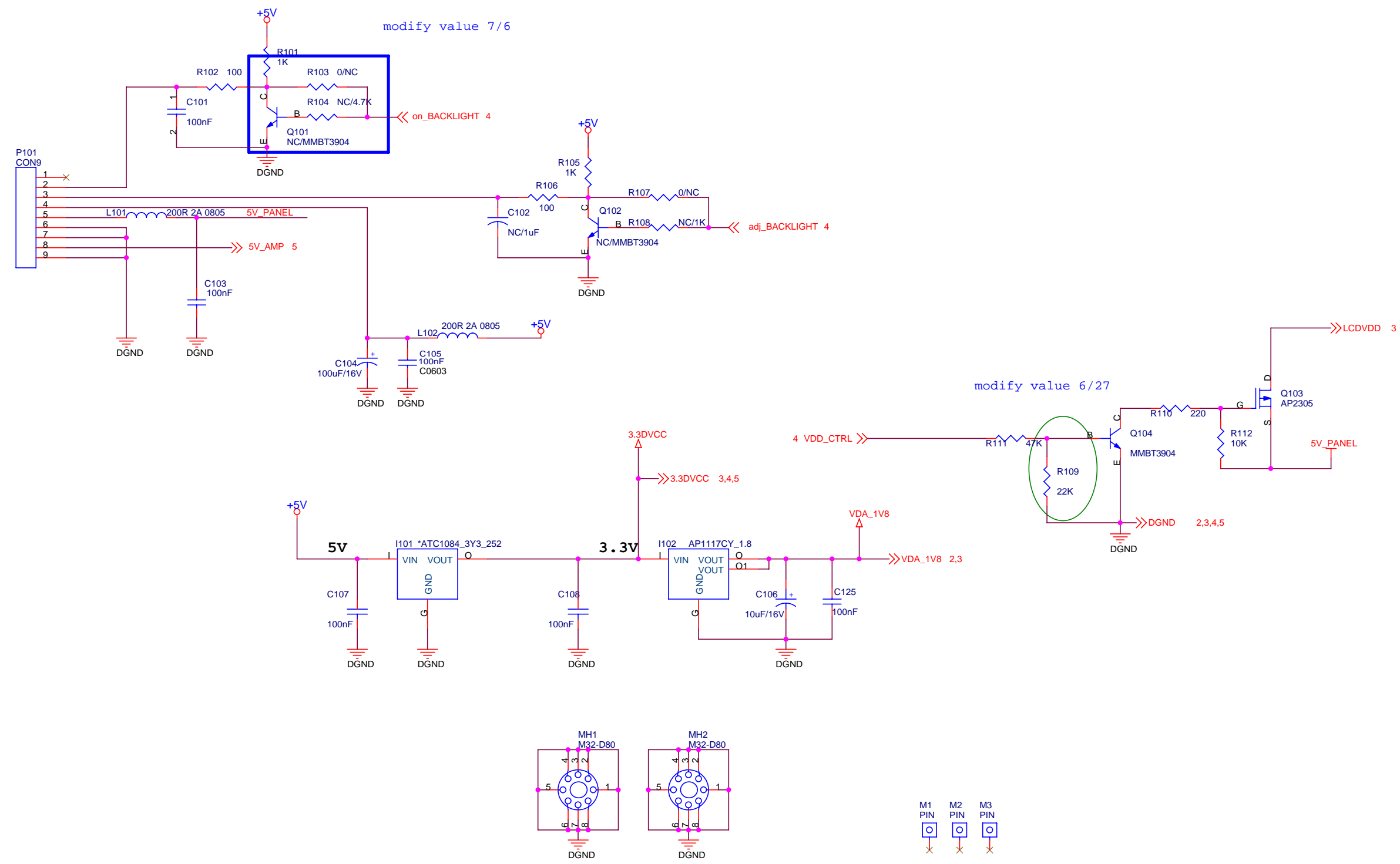


## 7. Block Diagram



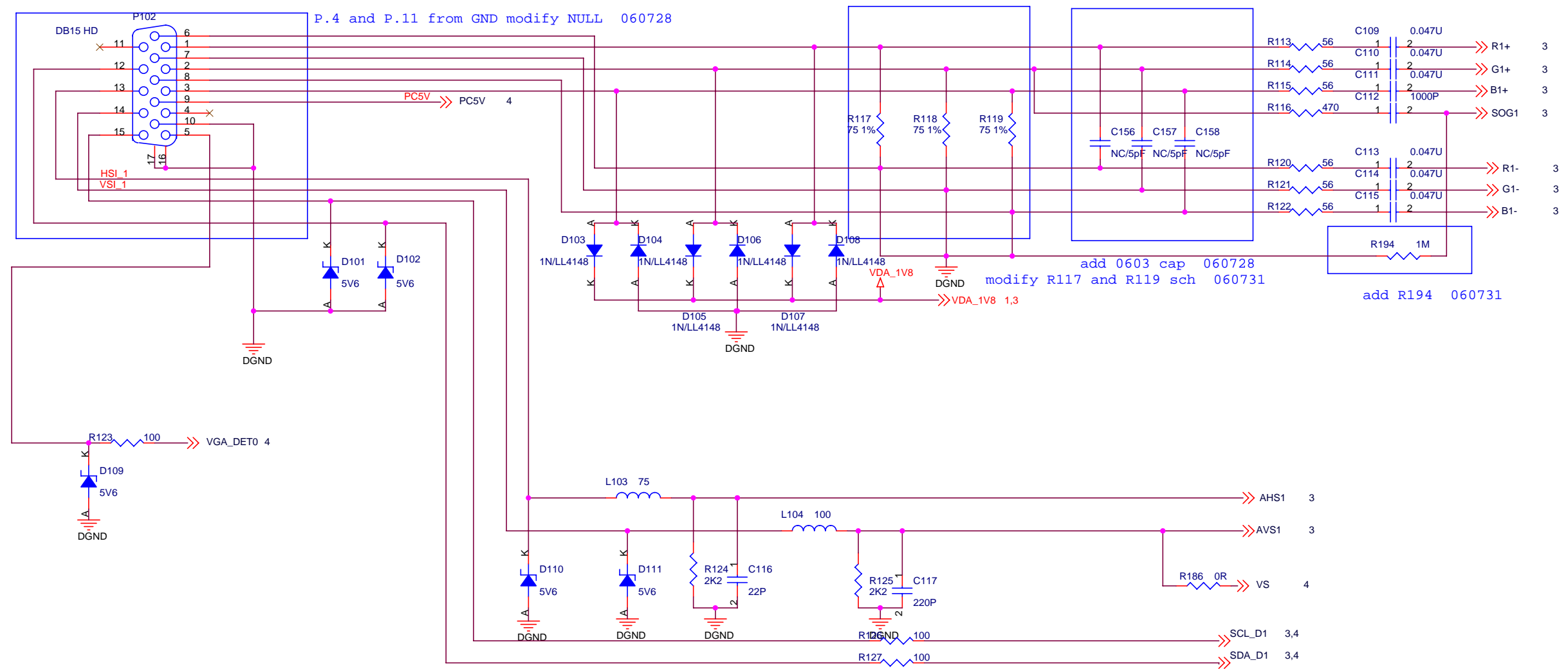
8. Schematic Diagrams

8.1. DC TO DC



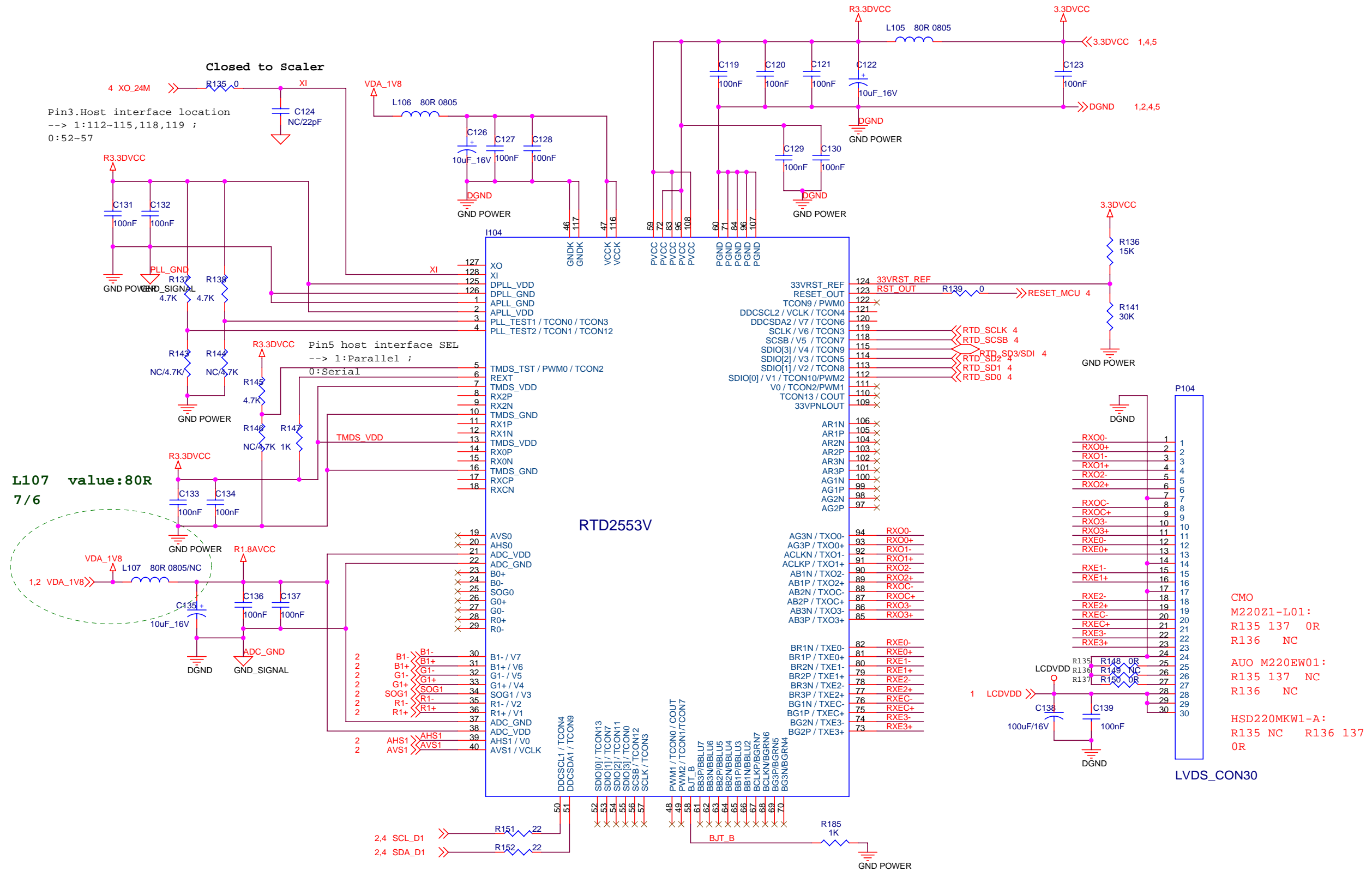
ViewSonic Corporation		
Model		
Title	DC TO DC	
Date		Rev:

8.2. INPUT



ViewSonic Corporation		
Model		
Title	INPUT	
Date		Rev:

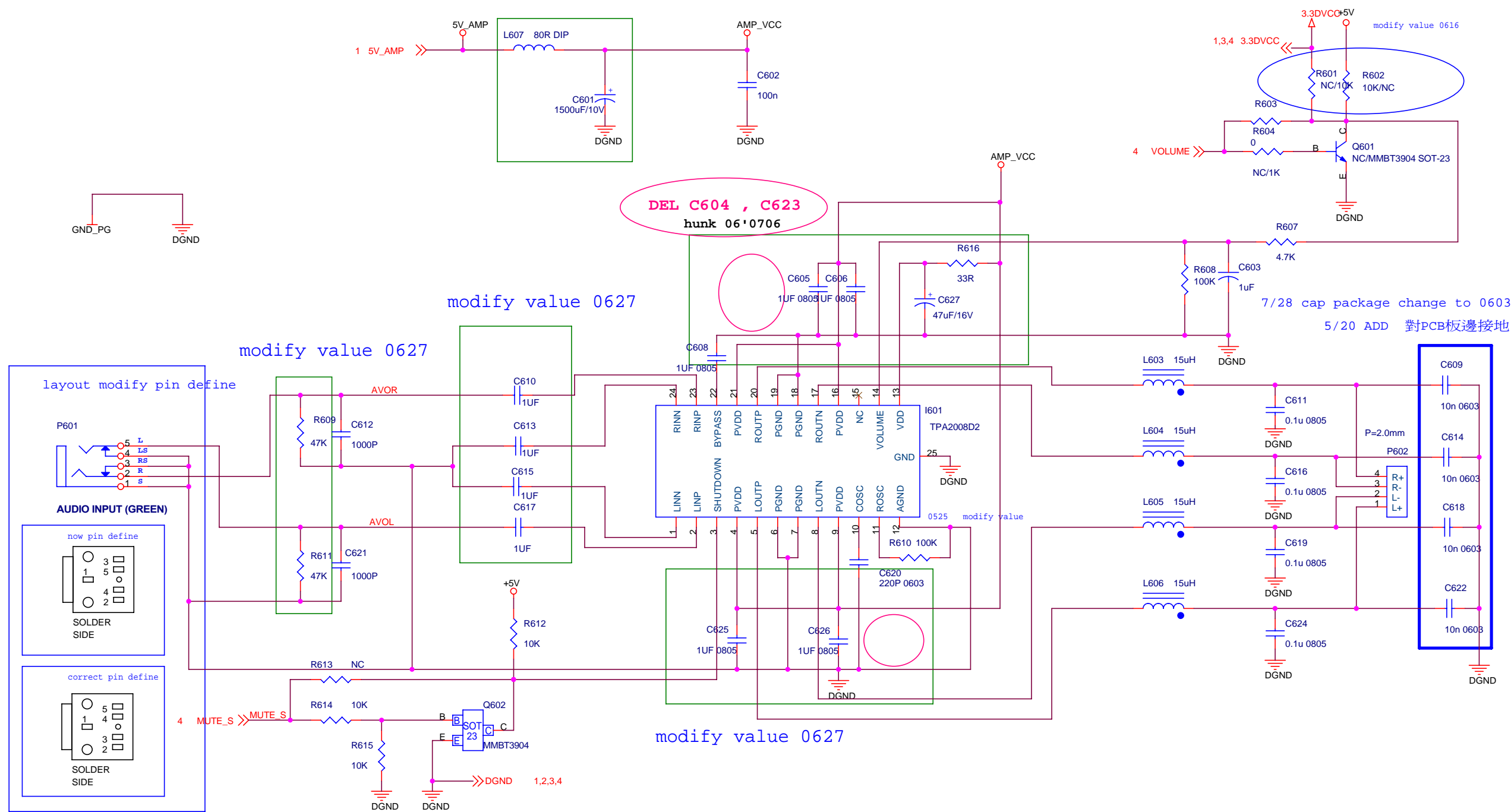
### 8.3. SCALER





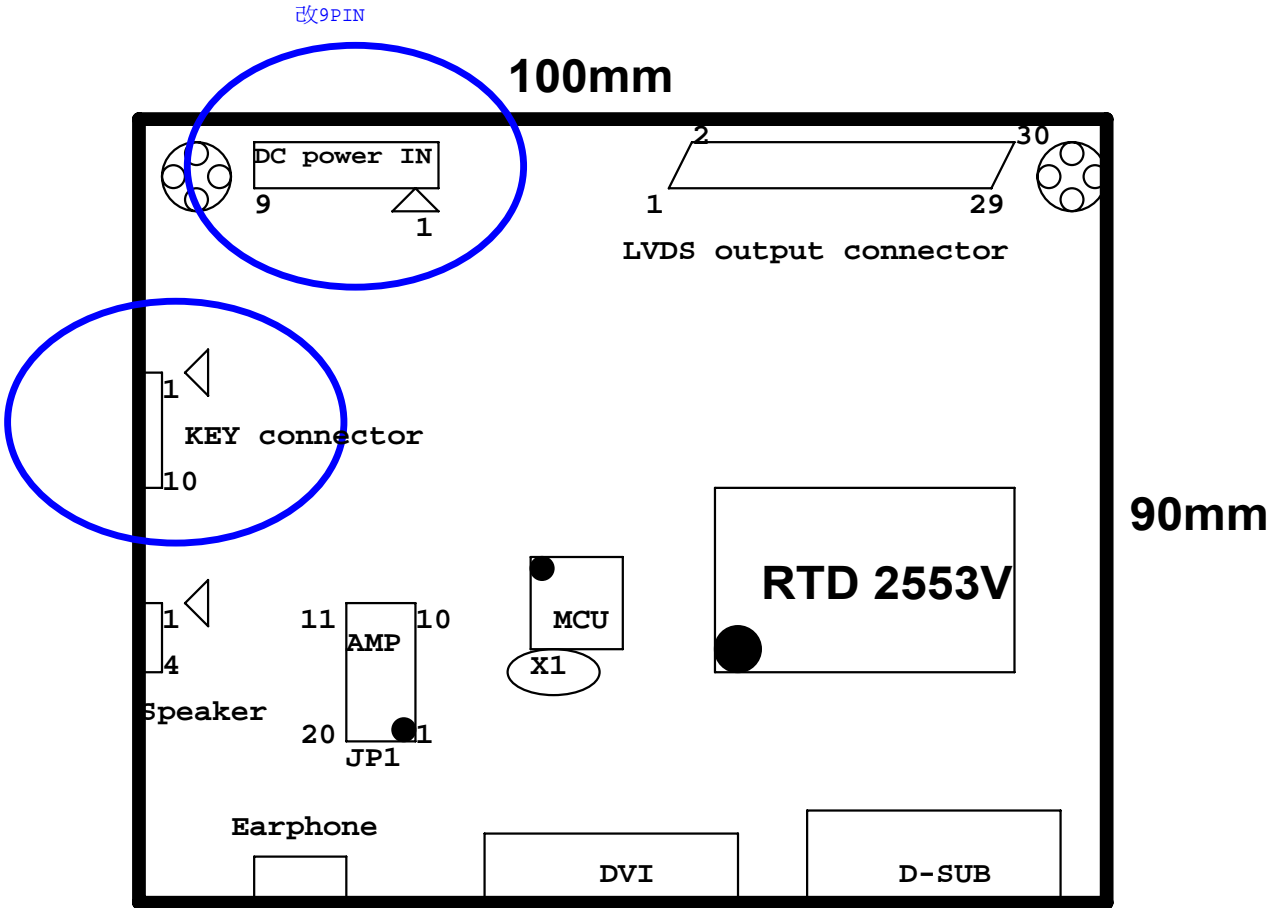
8.5. Audio Amplifier

from two smt 0805 bead modify dip type and make a drill include of the cap 1500UF 060728



ViewSonic Corporation		
Model		
Title	Audio Amplifier	
Date		Rev:

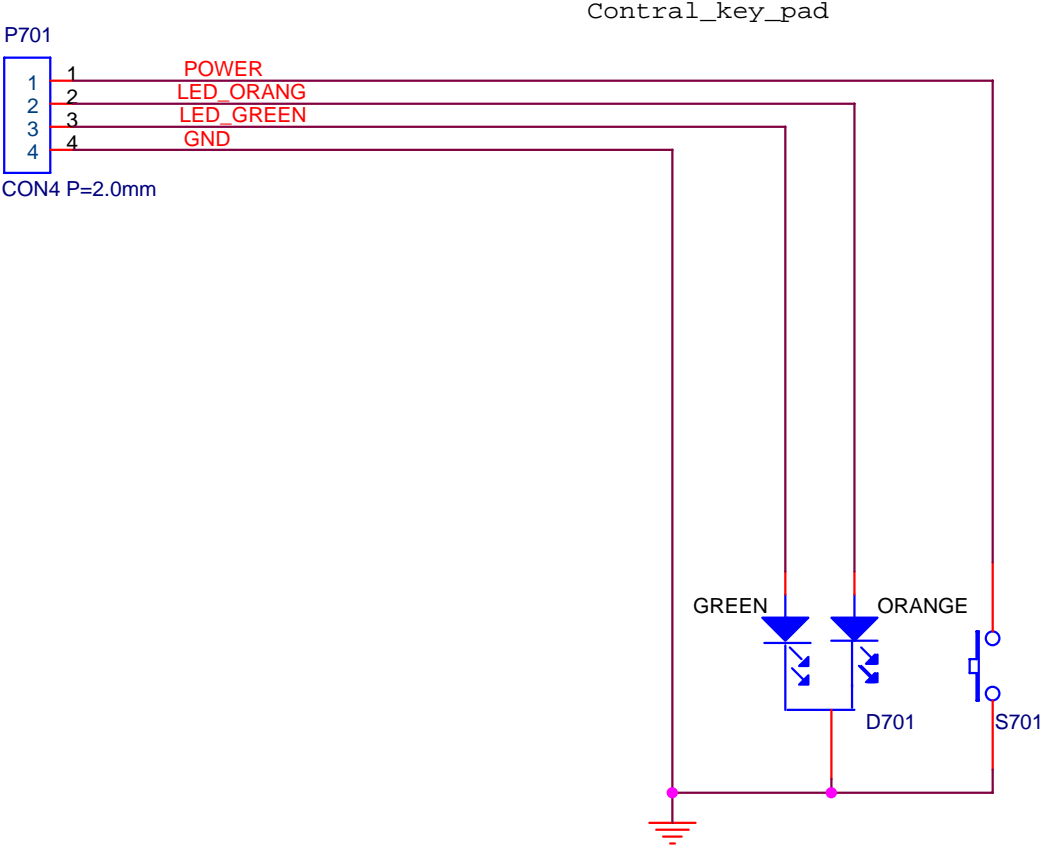
8.6. PLACEMENT



ViewSonic Corporation		
Model		
Title	PLACEMENT	
Date		Rev:

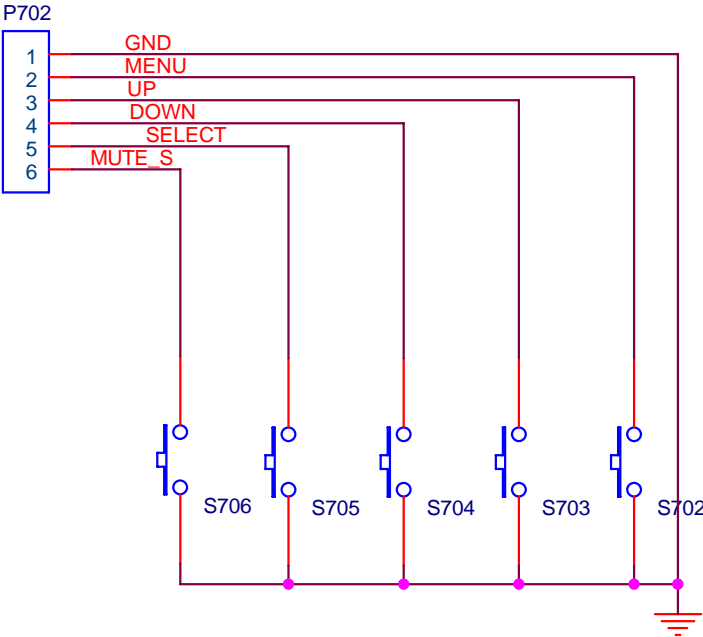


8.7. Power Key Board

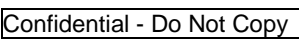


ViewSonic Corporation		
Model		
Title	Power Key Board	
Date		Rev:

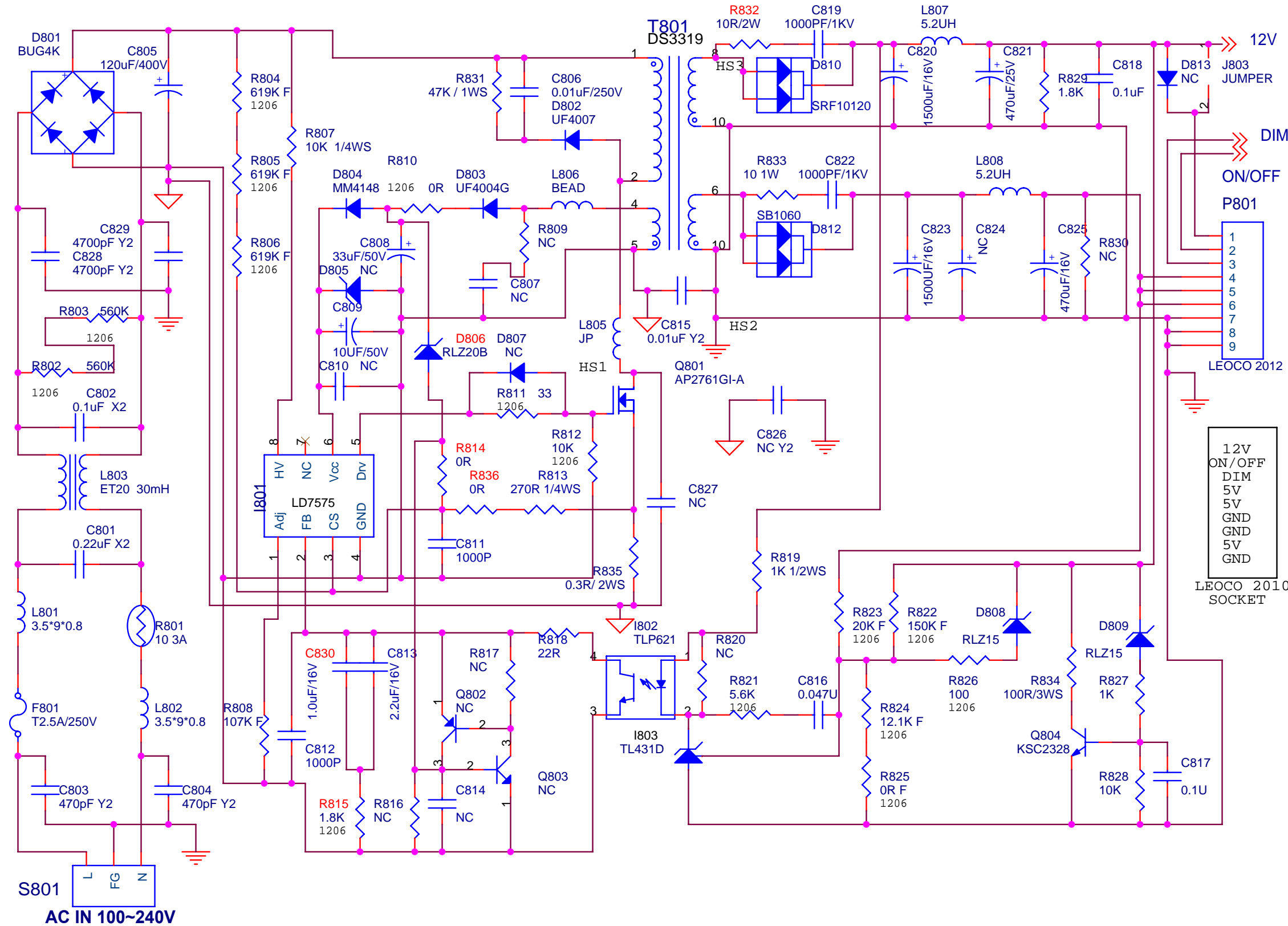
8.8. Founction Key Board



ViewSonic Corporation		
Model		
Title	Founction Key Board	
Date		Rev:

**ViewSonic Corporation**

8.10. POWER

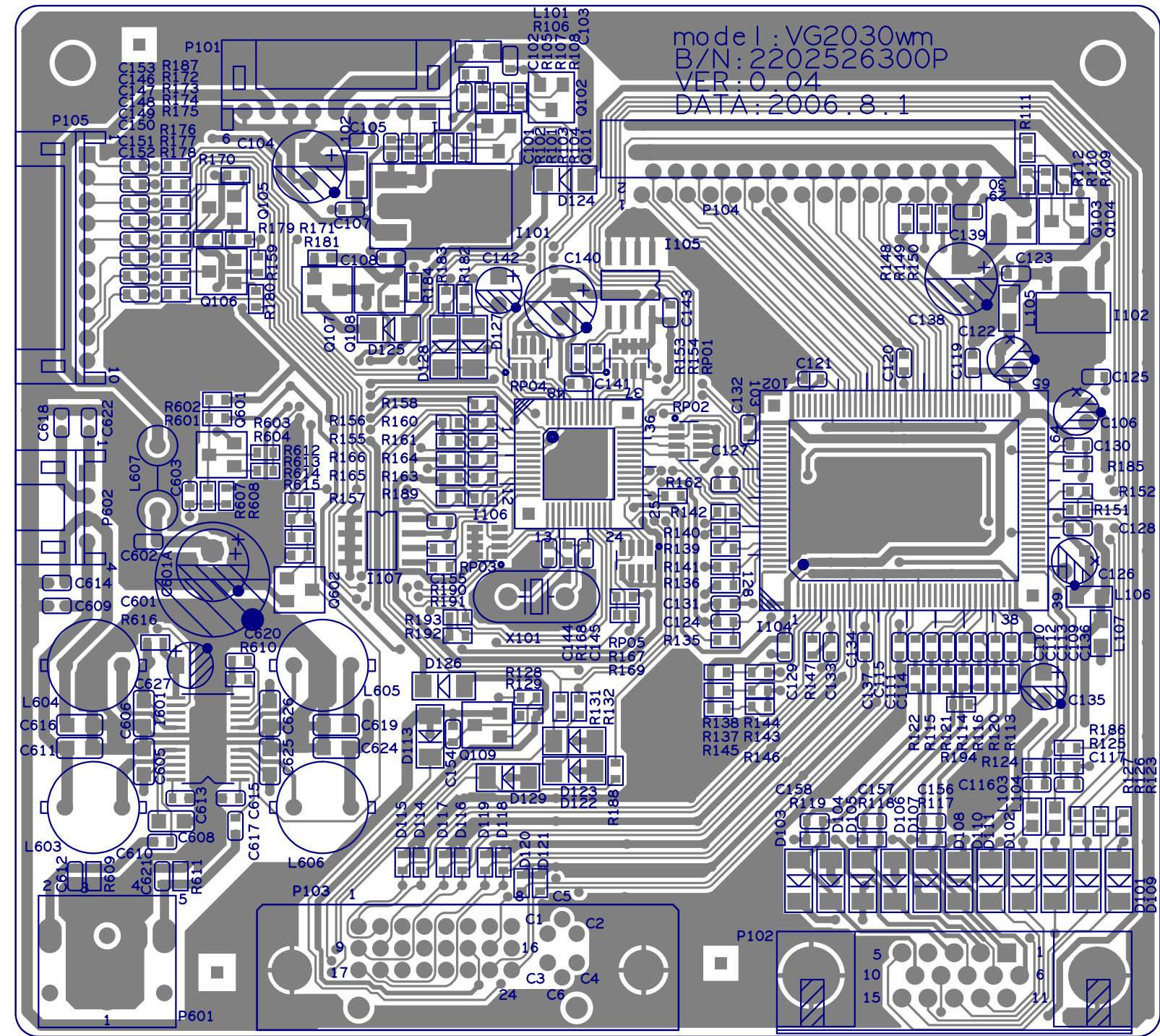


ViewSonic Corporation

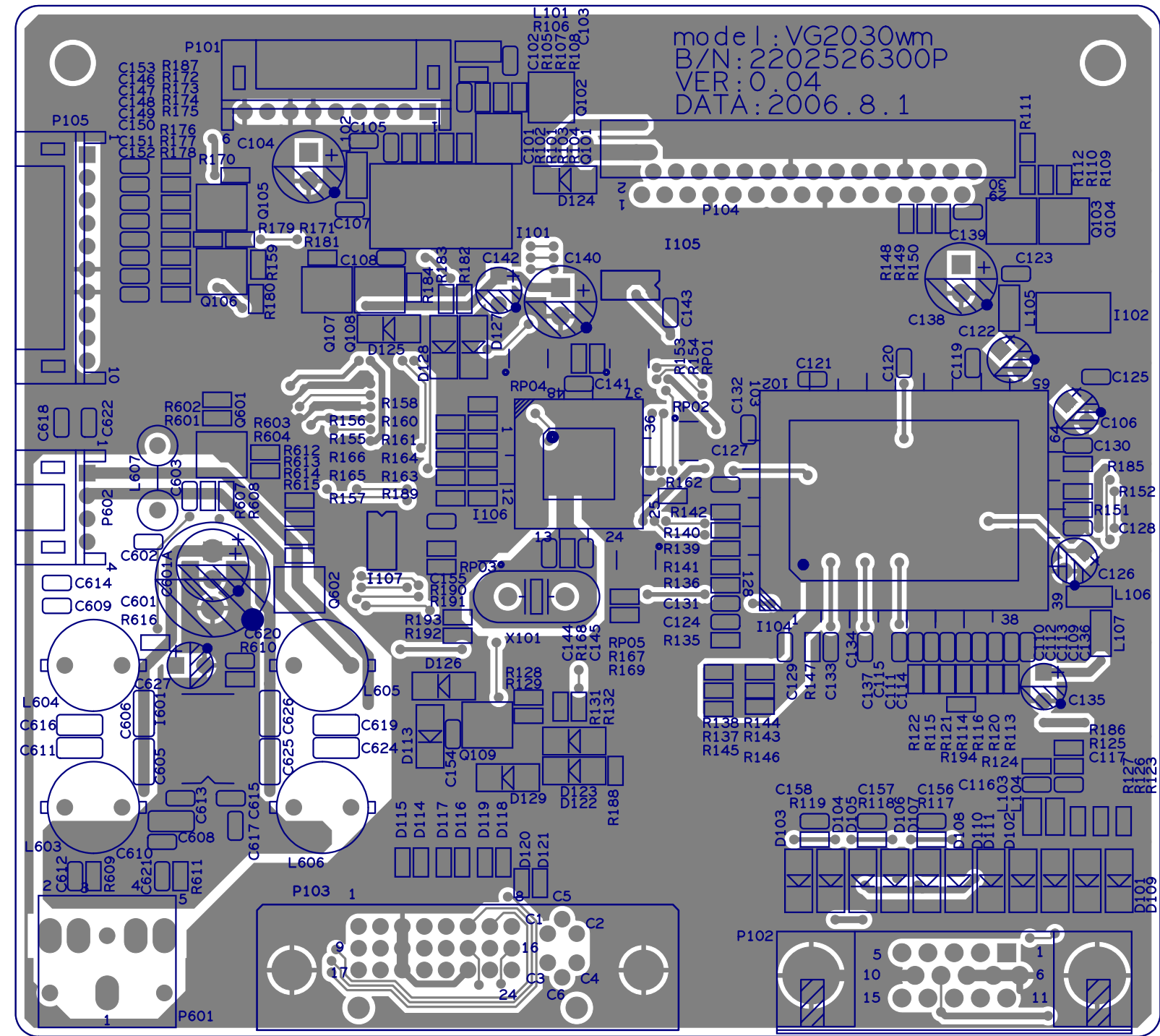
Model	
Title	POWER
Date	
Rev:	

9. PCB Layout Diagrams

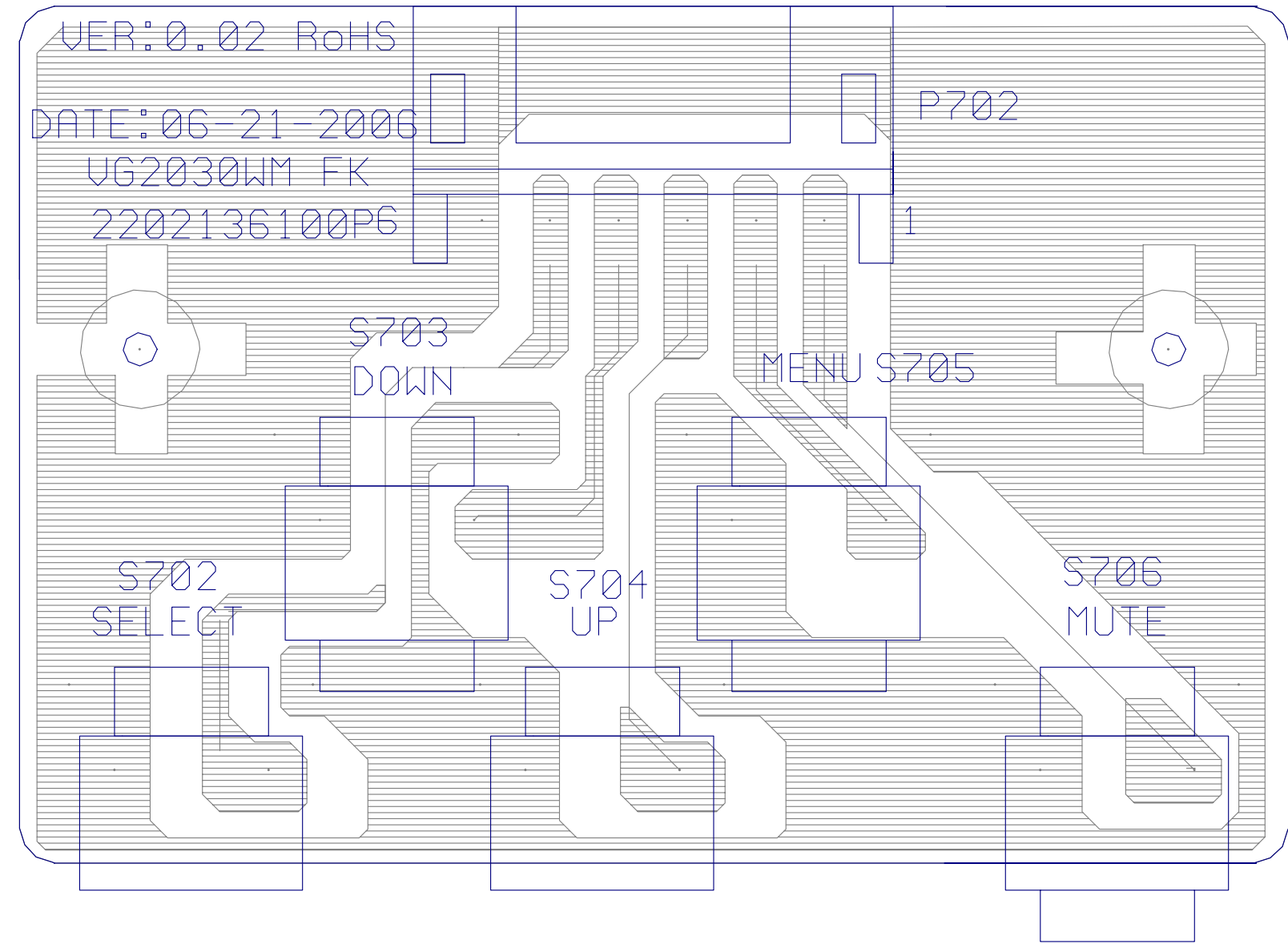
9.1. MAIN PCB TOP VIEW



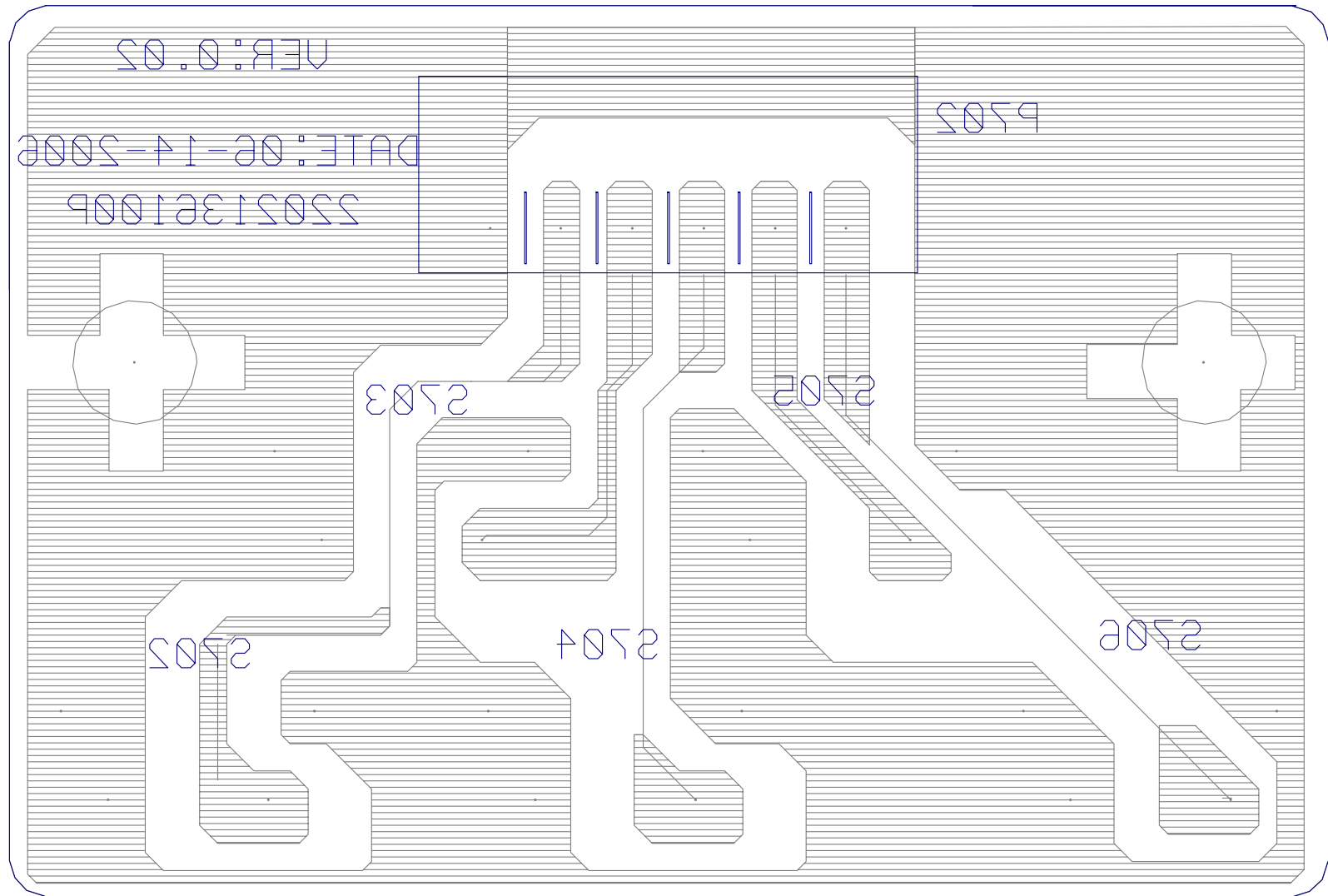
9.2. MAIN PCB BOTTOM VIEW



9.3. CON PCB TOP VIEW

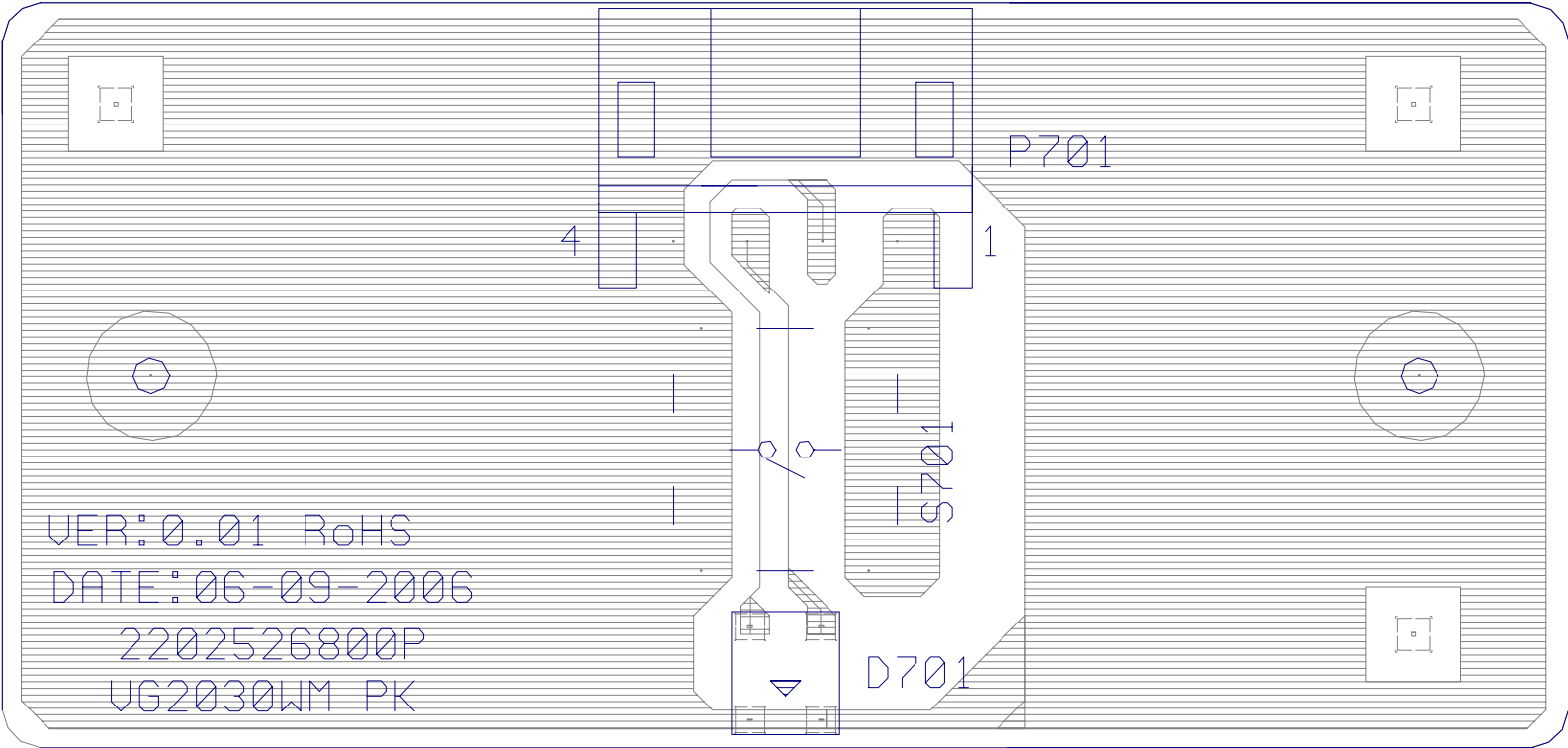


9.4. CON PCB BOTTOM VIEW

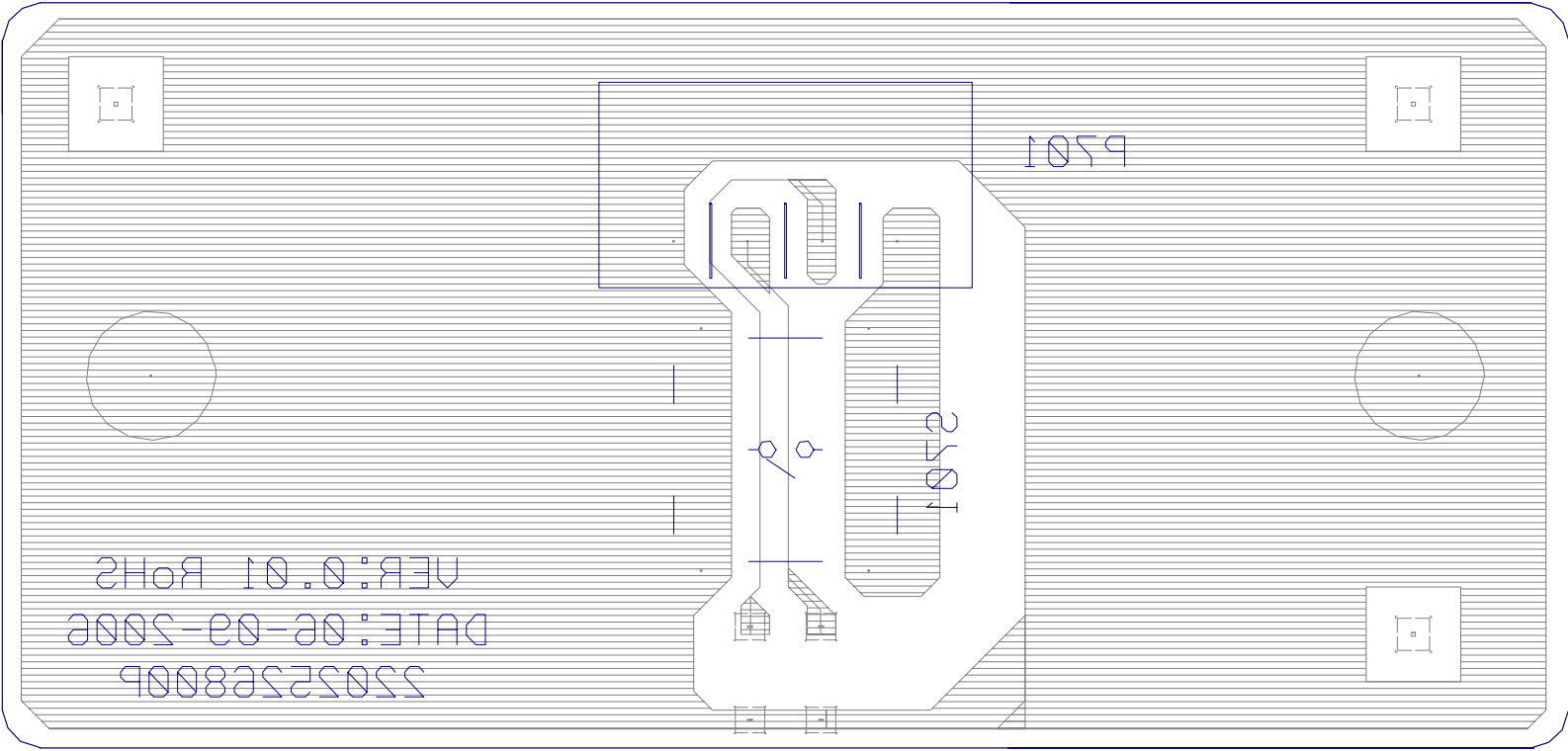




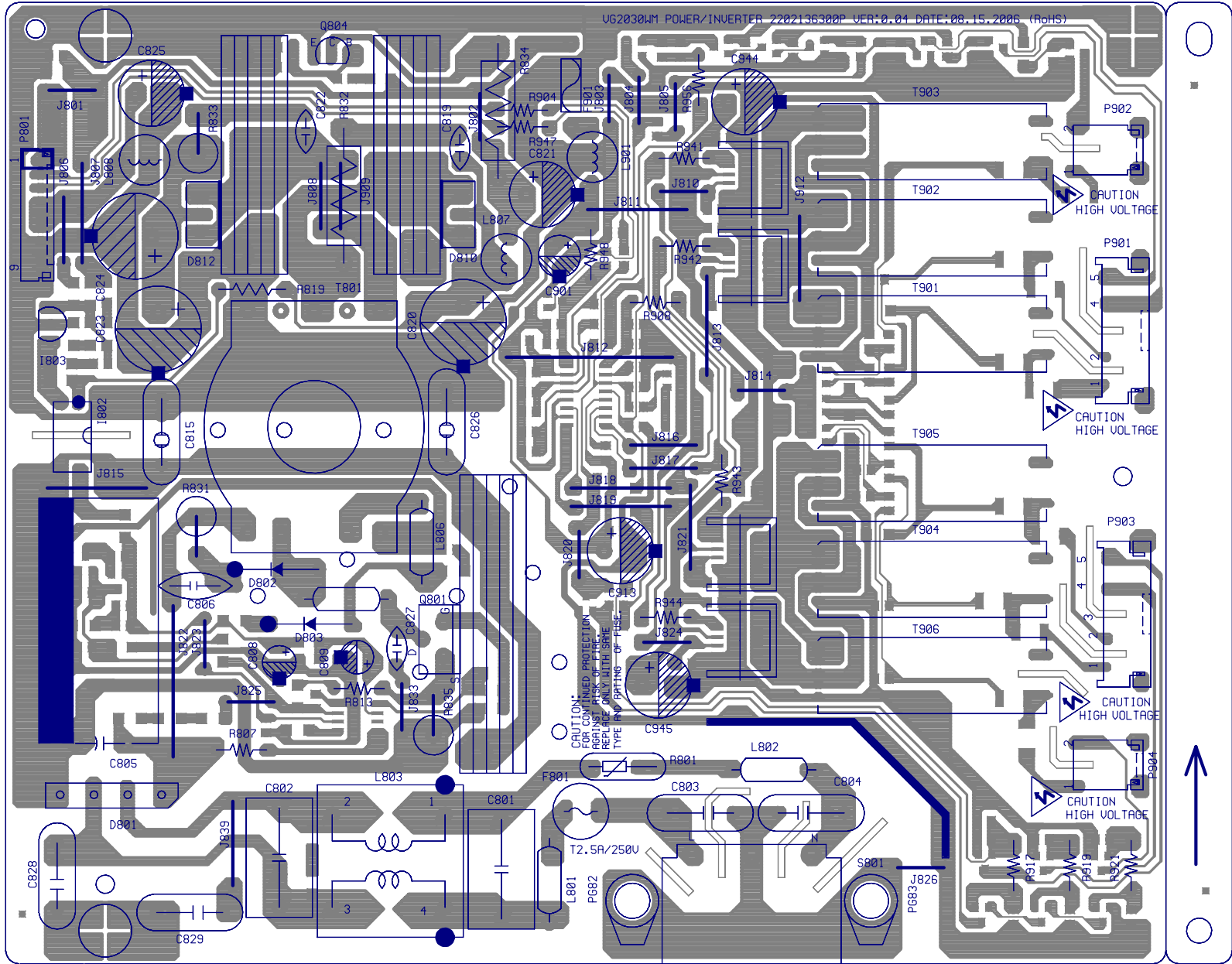
9.5. IR PCB TOP VIEW



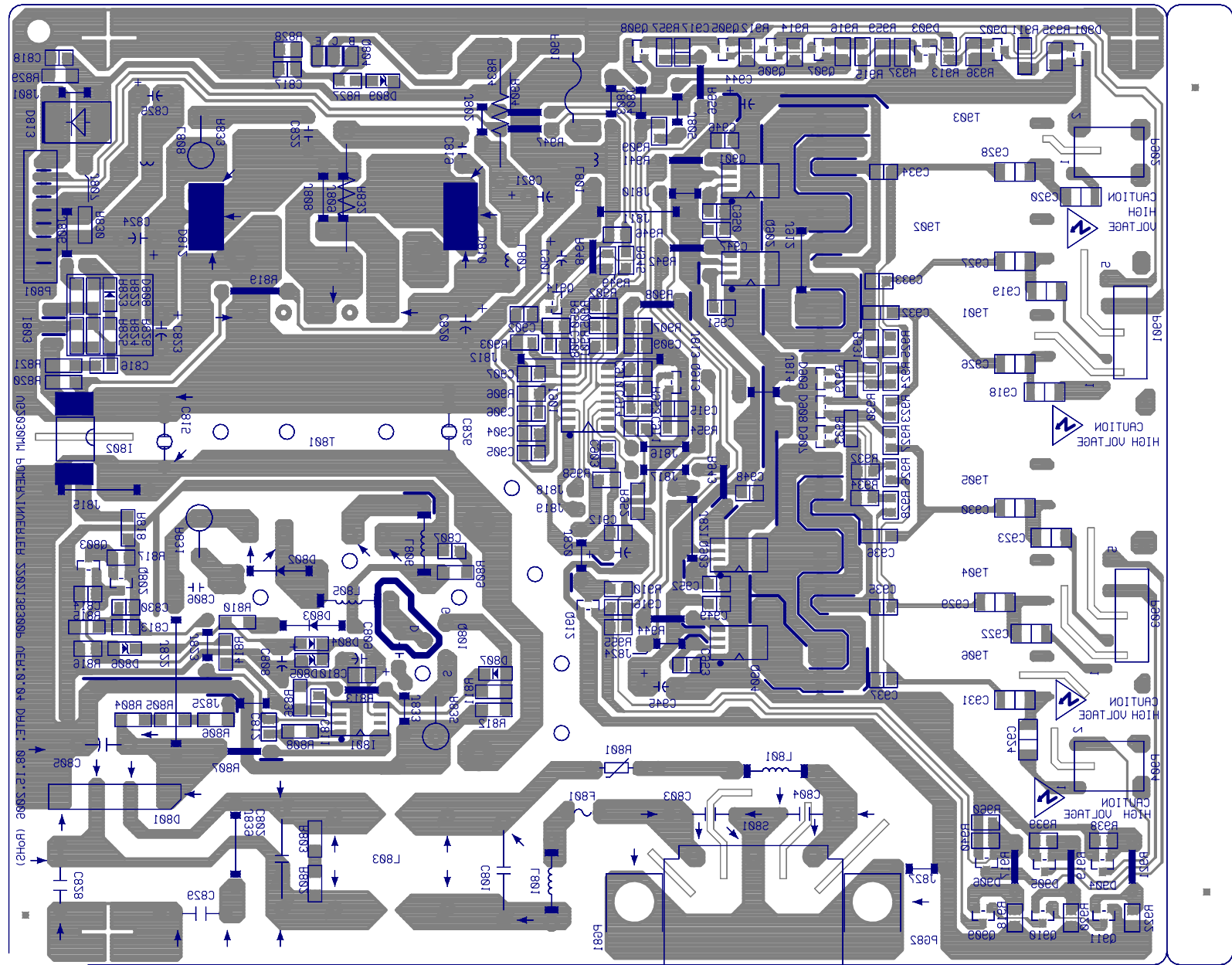
9.6. IR PCB BOTTOM VIEW



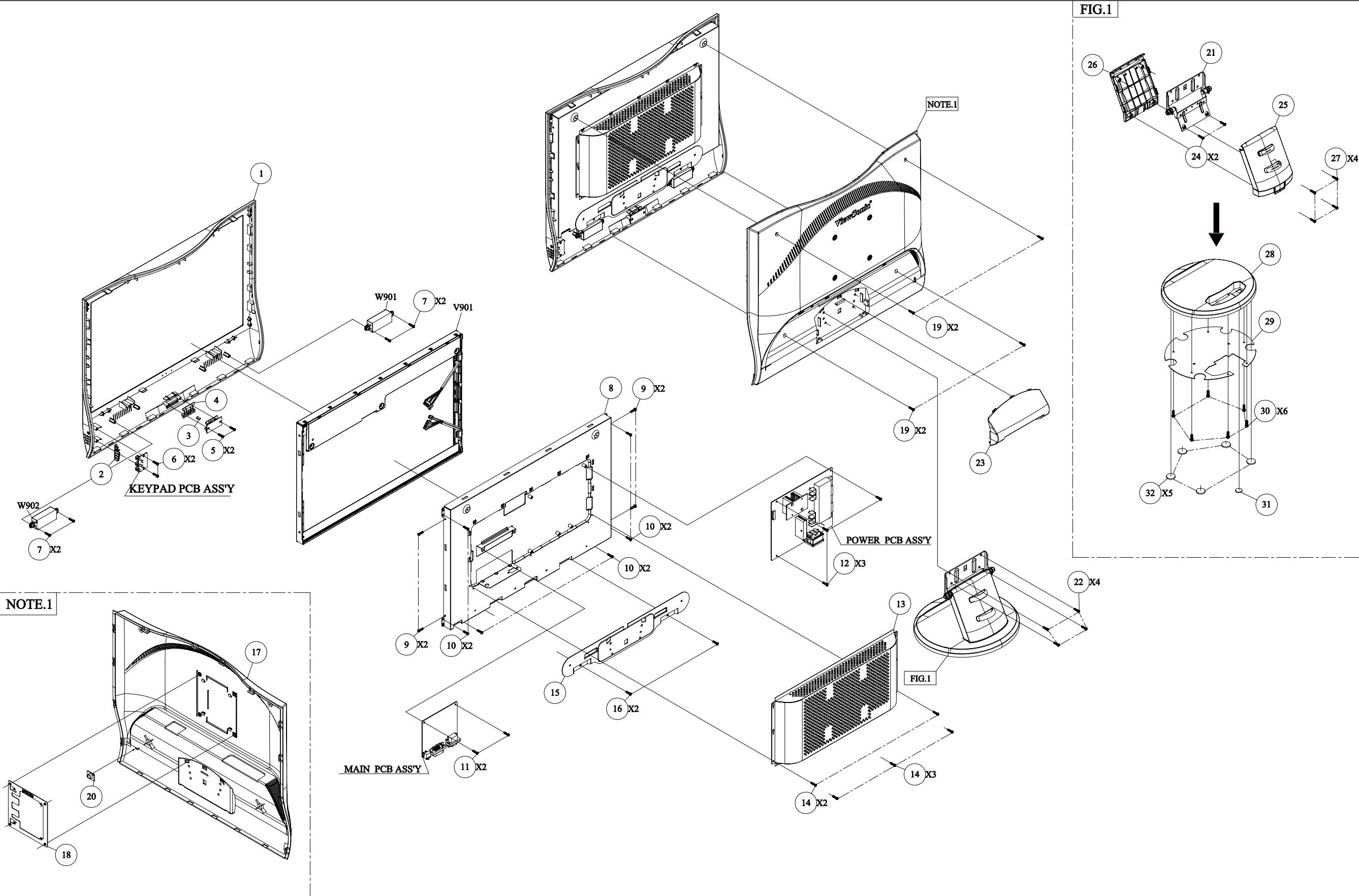
### 9.7. POWER PCB TOP VIEW

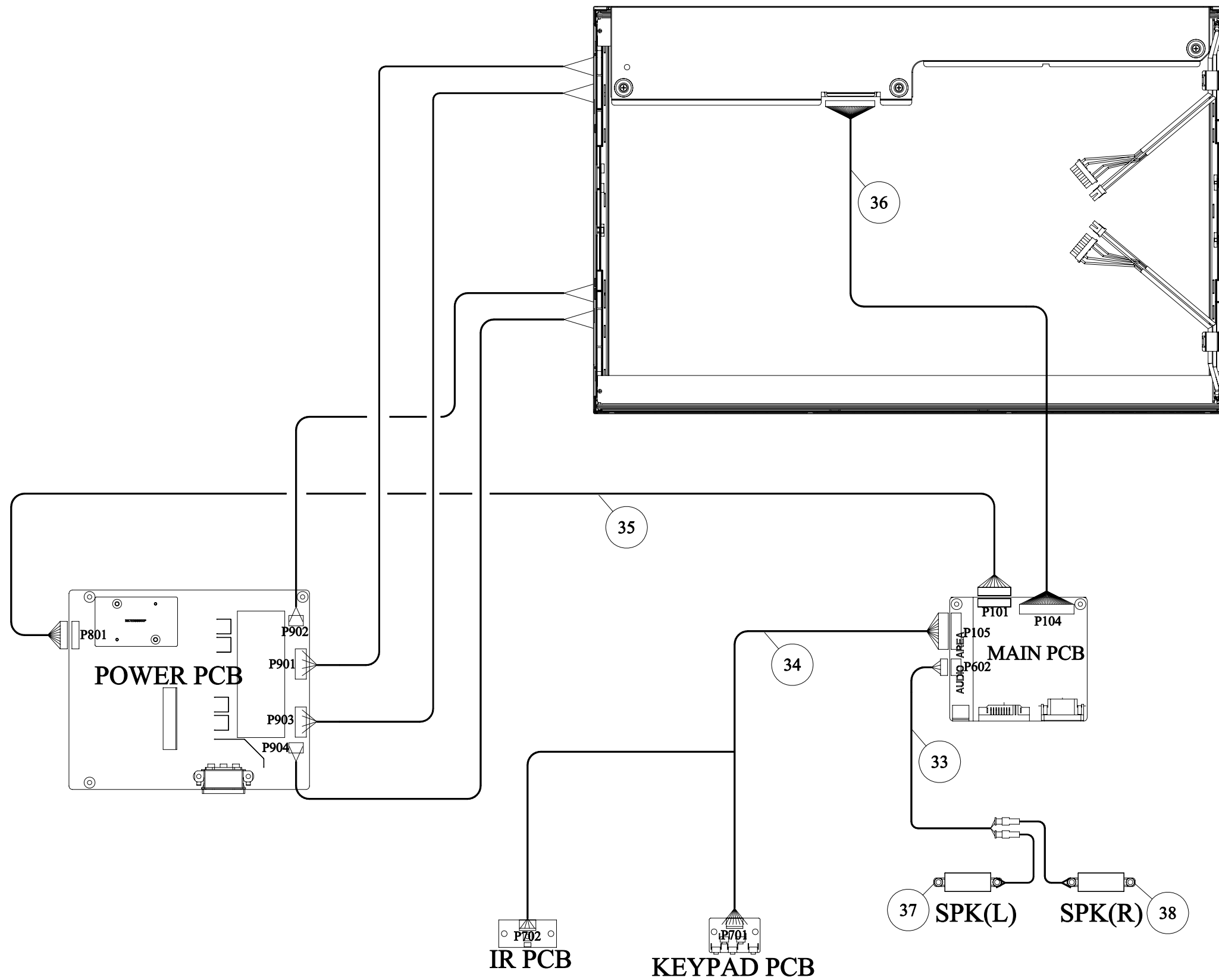


9.8. POWER PCB BOTTOM VIEW



10. Exploded Diagram and Exploded Parts List





## EXPLODED PARTS LIST (VG2021wm-2)

ViewSonic Model Number: VS11425

Rev: 1a

Serial No. Prefix: QDW

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	2024274402P	FRONT BEZEL(VG2021WM) ABS HB PS-7604B/BLACK C	1
2	N/A	2044269001P	FUNCTION KEY (VG2030WM) POWER KEY ABS HB AL-PLATE	1
3	N/A	2053756301P	LED INDIC.-PWR VG2030WM/PMMA	1
4	N/A	2044270701P	FUNCTION KEY (VG2030WM) ABS HB AL-PLATE	1
5	M-SCW-0824-0812	2084730062P	SCREW,BND T+ M3X6(BND T+)	2
6	M-SCW-0824-0812	2084730062P	SCREW,BND T+ M3X6(BND T+)	2
7	N/A	2084740082P	SCREW,BND T+ M4X8(BND T+)	4
8	N/A	2071983100P	METAL FITTG (FOR AUO PANEL) VG2021WM-ANGLOG/SECC T=0.8mm	1
9	N/A	2080005100P	SCREW,SPE M3*6 CANERA SCREW BLACK NY10K	4
10	M-SCW-0824-0812	2084730062P	SCREW,BND T+ M3X6(BND T+)	6
11	M-SCW-0824-0811	2080003700P	SCREW,SPE ISZZTER001A M3*6L MSWR17/FZMYI	2
12	M-SCW-0824-0811	2080003700P	SCREW,SPE ISZZTER001A M3*6L MSWR17/FZMYI	3
13	N/A	2071678700P	SHIELD PLATE VG2021WM-ANALOG/SPT T=0.3MM	1
14	N/A	2082630042P	SCREW M3*4 P=0.5	5
15	N/A	2071884600P	BRACKET, FIX VG2030WM HINGE FIX SECC T=1MM	1
16	N/A	2084740082P	SCREW,BND T+ M4X8(BND T+)	2
17	N/A	2022269901P	CABI BACK (VG2021WM-ANALOG) ABS HB BLACK C	1
18	HW-00003031	2071872900P	BRACKET, FIX JT198QP SECC 0.8T WALL MOUNT	1
19	N/A	2082630064P	SCREW M3*6 P=0.5 BLACK	4
20	M-BK-0805-0070	2071869400P	BRACKET, FIX METAL PLATE 1.0MM KENSINGTON	1
21	N/A	2106659500P	HINGE(RA) VG2021 HINGE -2'~+20'(TL)	1
21	N/A	2106659501P	HINGE(RB) VG2021 HINGE -2'~+20'(HY)	1
21	N/A	2106659502P	HINGE(RC) VG2021 HINGE -2'~+20'(ZJ)	1
22	M-SCW-0824-6746	2087340126P	SCREW,B SPW+ 4X12(+ )SWRM-3 ZMC2-C	4
23	N/A	2027266901P	DUST COVER VG2021WM ABS HB BLACK C	1
24	M-SCW-0824-0285	2084730082P	SCREW,BND T+ M3X8(BND T+)	2
25	N/A	2028556501P	NECK (ARM BACK COVER) VG2021WM ABS HB BLACK C	1
26	N/A	2028556401P	NECK (ARM FRONT COVER) VG2021WM ABS HB BLACK C	1
27	M-SCW-0824-0285	2084730082P	SCREW,BND T+ M3X8(BND T+)	4
28	PL-00008049	2028263201P	STAND VG2021WM ABS HB BLACK C	1
29	N/A	2071983500P	METAL FITTG SECC T=1.0MM	1
30	N/A	2083730082P	SCREW,BND T+ BND T+ M3*8 ZN	6
31	N/A	2039821000P	FOOT PAD SLICON RUBBERφ15MM T=1.5MM	1
32	N/A	2039820601P	FOOT PAD φ20*2.5T SQUARE GRAIN BLK	5
33	N/A	2427404027P	WIRE HARNESS 2+2/4P H/H 1061#24 L=370mm	1
34	N/A	2427410009P	WIRE HARNESS 4+6/10P H/H 1007#26 L=385/330	1
35	N/A	2427409007P	WIRE HARNESS 9/90P H/B 1007#26 L=150mm	1
36	N/A	2420330161P	FFC CABLE 30P*P0.5mm*L126mm	1
37	E-00008186	2391302008P	SPEAKER ASS'Y 2W/4ohm (L) D.L	1
38	E-00008185	2391302007P	SPEAKER ASS'Y 2W/4ohm (R) D.L	1

## EXPLODED PARTS LIST (VG2021wm-2)

ViewSonic Model Number: VS11425

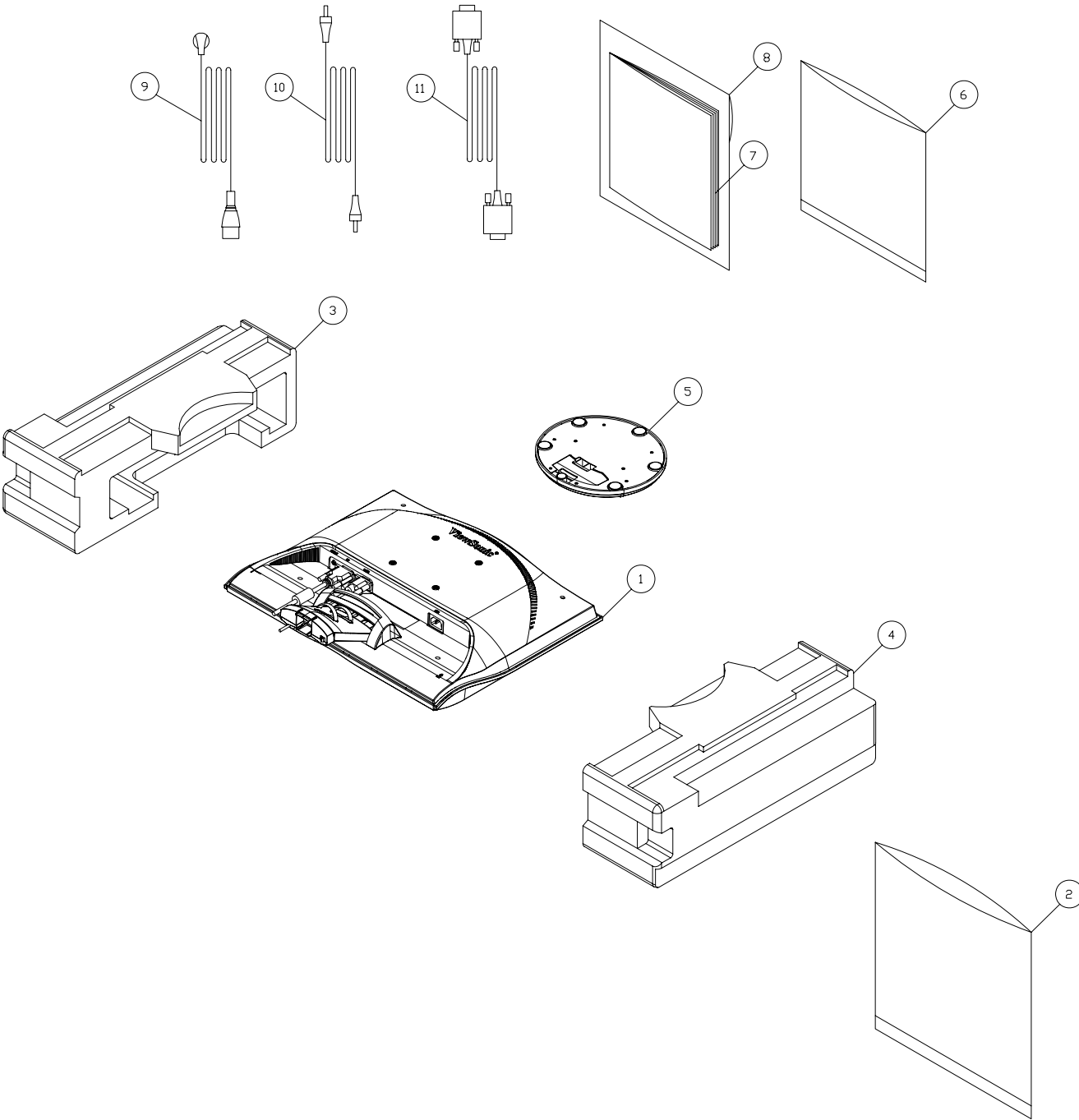
Rev: 1a

Serial No. Prefix: QDW

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	2024274402P	FRONT BEZEL(VG2021WM) ABS HB PS-7604B/BLACK C	1
2	N/A	2044269001P	FUNCTION KEY (VG2030WM) POWER KEY ABS HB AL-PLATE	1
3	N/A	2053756301P	LED INDIC.-PWR VG2030WM/PMMA	1
4	N/A	2044270701P	FUNCTION KEY (VG2030WM) ABS HB AL-PLATE	1
5	M-SCW-0824-0812	2084730062P	SCREW,BND T+ M3X6(BND T+)	2
6	M-SCW-0824-0812	2084730062P	SCREW,BND T+ M3X6(BND T+)	2
7	N/A	2084740082P	SCREW,BND T+ M4X8(BND T+)	4
8	N/A	2071983100P	METAL FITTG (FOR AUO PANEL) VG2021WM-ANGLOG/SECC T=0.8mm	1
9	N/A	2080005100P	SCREW,SPE M3*6 CANERA SCREW BLACK NY10K	4
10	M-SCW-0824-0812	2084730062P	SCREW,BND T+ M3X6(BND T+)	6
11	M-SCW-0824-0811	2080003700P	SCREW,SPE ISZZTER001A M3*6L MSWR17/FZMYI	2
12	M-SCW-0824-0811	2080003700P	SCREW,SPE ISZZTER001A M3*6L MSWR17/FZMYI	3
13	N/A	2071678700P	SHIELD PLATE VG2021WM-ANALOG/SPTE T=0.3MM	1
14	N/A	2082630042P	SCREW M3*4 P=0.5	5
15	N/A	2071884600P	BRACKET, FIX VG2030WM HINGE FIX SECC T=1MM	1
16	N/A	2084740082P	SCREW,BND T+ M4X8(BND T+)	2
17	N/A	2022269901P	CABI BACK (VG2021WM-ANALOG) ABS HB BLACK C	1
18	HW-00003031	2071872900P	BRACKET, FIX JT198QP SECC 0.8T WALL MOUNT	1
19	N/A	2082630064P	SCREW M3*6 P=0.5 BLACK	4
20	M-BK-0805-0070	2071869400P	BRACKET, FIX METAL PLATE 1.0MM KENSINGTON	1
21	N/A	2106659500P	HINGE(RA) VG2021 HINGE -2'~+20'(TL)	1
21	N/A	2106659501P	HINGE(RB) VG2021 HINGE -2'~+20'(HY)	1
21	N/A	2106659502P	HINGE(RC) VG2021 HINGE -2'~+20' (ZJ)	1
22	M-SCW-0824-6746	2087340126P	SCREW,B SPW+ 4X12(+ )SWRM-3 ZMC2-C	4
23	N/A	2027266901P	DUST COVER VG2021WM ABS HB BLACK C	1
24	M-SCW-0824-0285	2084730082P	SCREW,BND T+ M3X8(BND T+)	2
25	N/A	2028556501P	NECK (ARM BACK COVER) VG2021WM ABS HB BLACK C	1
26	N/A	2028556401P	NECK (ARM FRONT COVER) VG2021WM ABS HB BLACK C	1
27	M-SCW-0824-0285	2084730082P	SCREW,BND T+ M3X8(BND T+)	4
28	PL-00008049	2028263201P	STAND VG2021WM ABS HB BLACK C	1
29	N/A	2071983500P	METAL FITTG SECC T=1.0MM	1
30	N/A	2083730082P	SCREW,BND T+ BND T+ M3*8 ZN	6
31	N/A	2039821000P	FOOT PAD SLICON RUBBERφ15MM T=1.5MM	1
32	N/A	2039820601P	FOOT PAD φ20*2.5T SQUARE GRAIN BLK	5
33	N/A	2427404027P	WIRE HARNESS 2+2/4P H/H 1061#24 L=370mm	1
34	N/A	2427410009P	WIRE HARNESS 4+6/10P H/H 1007#26 L=385/330	1
35	N/A	2427409007P	WIRE HARNESS 9/90P H/B 1007#26 L=150mm	1
36	N/A	2420330161P	FFC CABLE 30P*P0.5mm*L126mm	1
37	E-00008186	2391302008P	SPEAKER ASS'Y 2W/4ohm (L) D.L	1
38	E-00008185	2391302007P	SPEAKER ASS'Y 2W/4ohm (R) D.L	1



Packing for Shipping



PACKING PART LIST ( VG2021wm-2 )

ViewSonic Model Number: VS11425

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Location	Q'ty
1			VG2021WM2 monitor	1
2	M-MS-0808-1317	2013053000P	POLYETHY BAG	1
3	P-00008198	2012195100P	VG2021WM EPS (R)	1
4	P-00008199	2012195200P	VG2021WM EPS (L)	1
5			BASE ASS'Y	1
6	N/A	2013228806P	POLYETHY BAG	1
7	DC-00008157	2438501255P	OWNER GUIDE	1
8	DC-00008156	2002310607P	GUARANT CARD(QSG)	1
9	A-00005362	2427130046P	AC POWER CORD	1
10	CB-00005735	2427721841P	EAR CABLE	1
11	CB-00005507	2427501195P	VGA CABLE	1
12	P-00008197	2011121503P	CARTON BOX	1
13	N/A	2055632228P	LABEL	1

## 11. Recommended Spare Parts List

### RECOMMENDED SPARE PARTS LIST ( VG2021wm-2 )

ViewSonic Model Number: VS11425

Serial No. Prefix: QDW

Rev: 1a

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#
1	<b>Accessories:</b>					
2						
3						
4	<b>PC Board Assembly:</b>					
5						
6						
7						
8	<b>Cabinets:</b>					
9						
10	<b>Cables:</b>					
11	<b>Documentation:</b>					
12						
13	<b>Electronic Components:</b>					
14						
15	<b>Packing Material:</b>					
16						
17						
18						
19						
20						
21	<b>Plastics:</b>					
22						

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.

Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior versions.

# BOM LIST (VG2021wm-2)

ViewSonic Model Number: VS11425

Rev: 1a

Serial No. Prefix: QDW

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	N/A	2251461936P	RES CHIP 1/4W RC1206 1/4 W 619KohmJT	R806		1
2	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R103		1
3	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R107		1
4	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R135		1
5	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R139		1
6	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R148		1
7	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R150		1
8	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R162		1
9	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R186		1
10	E-R-0405-6600	2253200096P	RES CHIP 1/10W RC0603 1/10W 0 ohmJT	R603		1
11	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	L104		1
12	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R102		1
13	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R106		1
14	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R123		1
15	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R126		1
16	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R127		1
17	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R153		1
18	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R154		1
19	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R172		1
20	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R173		1
21	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R174		1
22	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R175		1
23	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R176		1
24	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R177		1
25	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R178		1
26	N/A	2253210196P	RES CHIP 1/10W RC0603 1/10W 100 ohmJT	R187		1
27	E-R-0405-6410	2253210296P	RES CHIP 1/10W RC0603 1/10W 1.0KohmJT	R101		1
28	E-R-0405-6410	2253210296P	RES CHIP 1/10W RC0603 1/10W 1.0KohmJT	R147		1
29	E-R-0405-6410	2253210296P	RES CHIP 1/10W RC0603 1/10W 1.0KohmJT	R167		1
30	E-R-0405-6410	2253210296P	RES CHIP 1/10W RC0603 1/10W 1.0KohmJT	R185		1
31	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R112		1
32	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R157		1
33	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R158		1
34	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R159		1
35	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R169		1
36	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R171		1
37	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R180		1
38	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R189		1
39	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R192		1
40	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R193		1
41	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R602		1
42	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R612		1
43	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R614		1
44	N/A	2253210396P	RES CHIP 1/10W RC0603 1/10W10KohmJT	R615		1
45	N/A	2253210496P	RES CHIP 1/10W RC0603 1/10W 100KohmJT	R608		1
46	N/A	2253210496P	RES CHIP 1/10W RC0603 1/10W 100KohmJT	R610		1
47	N/A	2253215396P	RES CHIP 1/10W RC0603 1/10W15KohmJT	R136		1
48	N/A	2253222096P	RES CHIP 1/10W RC0603 1/10W22 ohmJT	R151		1
49	N/A	2253222096P	RES CHIP 1/10W RC0603 1/10W22 ohmJT	R152		1
50	N/A	2253222096P	RES CHIP 1/10W RC0603 1/10W22 ohmJT	R163		1
51	N/A	2253222096P	RES CHIP 1/10W RC0603 1/10W22 ohmJT	R164		1
52	N/A	2253222196P	RES CHIP 1/10W RC0603 1/10W 220 ohmJT	R110		1
53	N/A	2253222296P	RES CHIP 1/10W RC0603 1/10W 2.2KohmJT	R124		1
54	N/A	2253222296P	RES CHIP 1/10W RC0603 1/10W 2.2KohmJT	R125		1
55	N/A	2253222296P	RES CHIP 1/10W RC0603 1/10W 2.2KohmJT	R165		1
56	N/A	2253222296P	RES CHIP 1/10W RC0603 1/10W 2.2KohmJT	R166		1
57	N/A	2253222396P	RES CHIP 1/10W RC0603 1/10W22KohmJT	R109		1
58	N/A	2253230396P	RES CHIP 1/10W RC0603 1/10W30KohmJT	R141		1
59	N/A	2253233096P	RES CHIP 1/10W RC0603 1/10W33 ohmJT	R616		1
60	N/A	2253233196P	RES CHIP 1/10W RC0603 1/10W 330 ohmJT	R170		1
61	N/A	2253233196P	RES CHIP 1/10W RC0603 1/10W 330 ohmJT	R179		1
62	N/A	2253247196P	RES CHIP 1/10W RC0603 1/10W 470 ohmJT	R116		1
63	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R137		1
64	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R138		1
65	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R145		1
66	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R181		1
67	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R182		1
68	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R183		1
69	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R184		1
70	E-R-0405-6419	2253247296P	RES CHIP 1/10W RC0603 1/10W 4.7KohmJT	R607		1
71	E-00003527	2253247396P	RES CHIP 1/10W RC0603 1/10W47KohmJT	R111		1
72	E-00003527	2253247396P	RES CHIP 1/10W RC0603 1/10W47KohmJT	R609		1
73	E-00003527	2253247396P	RES CHIP 1/10W RC0603 1/10W47KohmJT	R611		1
74	N/A	2253256096P	RES CHIP 1/10W RC0603 1/10W56 ohmJT	R113		1
75	N/A	2253256096P	RES CHIP 1/10W RC0603 1/10W56 ohmJT	R114		1
76	N/A	2253256096P	RES CHIP 1/10W RC0603 1/10W56 ohmJT	R115		1
77	N/A	2253256096P	RES CHIP 1/10W RC0603 1/10W56 ohmJT	R120		1
78	N/A	2253256096P	RES CHIP 1/10W RC0603 1/10W56 ohmJT	R121		1
79	N/A	2253256096P	RES CHIP 1/10W RC0603 1/10W56 ohmJT	R122		1
80	N/A	2253268296P	RES CHIP 1/10W RC0603 1/10W 6.8KohmJT	R168		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
81	N/A	2253275096P	RES CHIP 1/10W RC0603 1/10W75 ohmJT	L103		1
82	N/A	2253275096P	RES CHIP 1/10W RC0603 1/10W75 ohmJT	R117		1
83	N/A	2253275096P	RES CHIP 1/10W RC0603 1/10W75 ohmJT	R118		1
84	N/A	2253275096P	RES CHIP 1/10W RC0603 1/10W75 ohmJT	R119		1
85	N/A	2253310296P	RES CHIP 1/8W RC0805 1/8 W 1.0KohmJT	R827		1
86	N/A	2253310396P	RES CHIP 1/8W RC0805 1/8 W10KohmJT	R828		1
87	N/A	2253310396P	RES CHIP 1/8W RC0805 1/8 W10KohmJT	R930		1
88	N/A	2253310396P	RES CHIP 1/8W RC0805 1/8 W10KohmJT	R931		1
89	N/A	2253310396P	RES CHIP 1/8W RC0805 1/8 W10KohmJT	R932		1
90	N/A	2253310396P	RES CHIP 1/8W RC0805 1/8 W10KohmJT	R934		1
91	N/A	2253310596P	RES CHIP 1/8W RC0805 1/8 W 1MohmJT	R907		1
92	N/A	2253322496P	RES CHIP 1/8W RC0805 1/8 W 220KohmJT	R955		1
93	N/A	2253322496P	RES CHIP 1/8W RC0805 1/8 W 220KohmJT	R957		1
94	N/A	2253327496P	RES CHIP 1/8W RC0805 1/8 W 270KohmJT	R906		1
95	N/A	2253333596P	RES CHIP 1/8W RC0805 1/8 W 3.3MohmJT	R905		1
96	N/A	2253339396P	RES CHIP 1/8W RC0805 1/8 W 39Kohm JT	R923		1
97	N/A	2253339396P	RES CHIP 1/8W RC0805 1/8 W 39Kohm JT	R924		1
98	N/A	2253339396P	RES CHIP 1/8W RC0805 1/8 W 39Kohm JT	R925		1
99	N/A	2253339396P	RES CHIP 1/8W RC0805 1/8 W 39Kohm JT	R926		1
100	N/A	2253339396P	RES CHIP 1/8W RC0805 1/8 W 39Kohm JT	R927		1
101	N/A	2253339396P	RES CHIP 1/8W RC0805 1/8 W 39Kohm JT	R928		1
102	N/A	2253347396P	RES CHIP 1/8W RC0805 1/8 W47KohmJT	R950		1
103	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R909		1
104	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R910		1
105	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R912		1
106	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R913		1
107	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R914		1
108	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R915		1
109	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R916		1
110	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R918		1
111	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R920		1
112	N/A	2253351296P	RES CHIP 1/8W RC0805 1/8 W 5.1KohmJT	R922		1
113	E-R-0405-7116	2253400096P	RES CHIP 1/4W RC1206 1/4 W 0 ohmJT	R810		1
114	E-R-0405-7116	2253400096P	RES CHIP 1/4W RC1206 1/4 W 0 ohmJT	R814		1
115	E-R-0405-7116	2253400096P	RES CHIP 1/4W RC1206 1/4 W 0 ohmJT	R825		1
116	E-R-0405-7116	2253400096P	RES CHIP 1/4W RC1206 1/4 W 0 ohmJT	R836		1
117	N/A	2253410196P	RES CHIP 1/4W RC1206 1/4 W 100 ohmJT	R826		1
118	N/A	2253410296P	RES CHIP 1/4W RC1206 1/4 W 1.0KohmJT	R952		1
119	E-00001013	2253410396P	RES CHIP 1/4W RC1206 1/4 W10KohmJT	R812		1
120	E-00001013	2253410396P	RES CHIP 1/4W RC1206 1/4 W10KohmJT	R929		1
121	E-00001013	2253410396P	RES CHIP 1/4W RC1206 1/4 W10KohmJT	R933		1
122	N/A	2253418296P	RES CHIP 1/4W RC1206 1/4 W 1.8KohmJT	R815		1
123	N/A	2253422096P	RES CHIP 1/4W RC1206 1/4 W22 ohmJT	R818		1
124	N/A	2253422296P	RES CHIP 1/4W RC1206 1/4 W 2.2KohmJT	R829		1
125	N/A	2253433096P	RES CHIP 1/4W RC1206 1/4 W33 ohmJT	R811		1
126	N/A	2253451296P	RES CHIP 1/4W RC1206 1/4 W 5.1KohmJT	R911		1
127	N/A	2253456296P	RES CHIP 1/4W RC1206 1/4 W 5.6KohmJT	R821		1
128	N/A	2253456496P	RES CHIP 1/4W RC1206 1/4 W 560KohmJT	R802		1
129	N/A	2253456496P	RES CHIP 1/4W RC1206 1/4 W 560KohmJT	R803		1
130	N/A	2259210308P	RES,CHIP NETWORKS 8P4R 1/16W10KohmJP=0.8	RP01		1
131	N/A	2259210308P	RES,CHIP NETWORKS 8P4R 1/16W10KohmJP=0.8	RP02		1
132	N/A	2259210308P	RES,CHIP NETWORKS 8P4R 1/16W10KohmJP=0.8	RP03		1
133	N/A	2259210308P	RES,CHIP NETWORKS 8P4R 1/16W10KohmJP=0.8	RP04		1
134	N/A	2259210308P	RES,CHIP NETWORKS 8P4R 1/16W10KohmJP=0.8	RP05		1
135	N/A	2284110291P	CAP CER CC1000P/1KV X7RP=5.0KT	C819		1
136	N/A	2284110291P	CAP CER CC1000P/1KV X7RP=5.0KT	C822		1
137	E-C-0404-1856	2287210312P	CAP CER Y20.01uF/250V P=10.0MC	C815		1
138	N/A	2287247112P	CAP CER Y2 470p/250V Y5VP=7.5M K	C803		1
139	N/A	2287247112P	CAP CER Y2 470p/250V Y5VP=7.5M K	C804		1
140	E-C-0404-1855	2287247212P	CAP CER Y24700p/250V Y5VP=10.0 M K	C828		1
141	E-C-0404-1855	2287247212P	CAP CER Y24700p/250V Y5VP=10.0 M K	C829		1
142	N/A	2300910401P	CAP MTL MINI X20.1u/275V P=10.0KC	C802 RA		1
143	N/A	2300910481P	X CAP MINI X20.1u/275V P=10.0KC	C802 RB		1
144	E-C-0404-4834	2300922401P	X CAP MINI X2 0.22u/275V P=15.0KC	C801 RA		1
145	N/A	2300922481P	X CAP MINI X2 0.22u/275V P=15.0KC	C801 RB		1
146	N/A	2304210312P	CAP,MTL CF93M0.010UF 400VK KC	C806		1
147	N/A	2333447691P	CAP,ELE 105°C EC 47u/ 25V 5*11 P=5.0 T	C901		1
148	E-C-0404-1838	2333610691P	CAP ELE 105°C EC 10u/ 50V 5*11 P=5.0 T	C809		1
149	N/A	2333633691P	CAP ELE 105°C EC 33u/ 50V 6.3*11 P=5.0 T	C808		1
150	N/A	2335215811P	CAP,ELE LOW ESR 105°C EC 1500u/ 10V10*16 P=5.0 C	C601		1
151	N/A	2335315811P	CAP,ELE LOW ESR 105°C EC 1500u/ 16V 13*16P=5.0 C	C820 RA		1
152	N/A	2335315811P	CAP,ELE LOW ESR 105°C EC 1500u/ 16V 13*16P=5.0 C	C823 RA		1
153	N/A	2335315871P	CAP,ELE LOW ESR 105°C (5000HR) EC 1500u/ 16V 13*20P=5.0 C	C820 RB		1
154	N/A	2335315871P	CAP,ELE LOW ESR 105°C (5000HR) EC 1500u/ 16V 13*20P=5.0 C	C823 RB		1
155	N/A	2335447771P	CAP,ELE LOW ESR 3000HR EC470u/ 25V10*16 P=5.0 C	C821 RB		1
156	N/A	2335447791P	CAP,ELE LOW ESR 105°C EC470u/ 25V10*13 P=5.0 T	C821 RA		1
157	N/A	2335447791P	CAP,ELE LOW ESR 105°C EC470u/ 25V10*13 P=5.0 T	C913		1
158	N/A	2335447791P	CAP,ELE LOW ESR 105°C EC470u/ 25V10*13 P=5.0 T	C944		1
159	N/A	2335447791P	CAP,ELE LOW ESR 105°C EC470u/ 25V10*13 P=5.0 T	C945		1
160	N/A	2336010811P	HI-LIFE LOW ESR E.CAP (6000HR) EC 1000u/ 16V 10*16P=5.0 C	C825		1
161	N/A	2336310613P	CAP,MINI ELE 105°C EC 10u/ 16V 4*7P=2.5 T	C135		1
162	N/A	2336310613P	CAP,MINI ELE 105°C EC 10u/ 16V 4*7P=2.5 T	C142		1
163	N/A	2336310613P	CAP,MINI ELE 105°C EC 10u/ 16V 4*7P=2.5 T	C106		1
164	N/A	2336310613P	CAP,MINI ELE 105°C EC 10u/ 16V 4*7P=2.5 T	C122		1
165	N/A	2336310613P	CAP,MINI ELE 105°C EC 10u/ 16V 4*7P=2.5 T	C126		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
166	N/A	2336310713P	CAP,MINI ELE 105°C EC100u/ 16V 6.3*7P=2.5 T	C104		1
167	N/A	2336310713P	CAP,MINI ELE 105°C EC100u/ 16V 6.3*7P=2.5 T	C138		1
168	N/A	2336310713P	CAP,MINI ELE 105°C EC100u/ 16V 6.3*7P=2.5 T	C140		1
169	E-00000999	2336347613P	CAP,MINI ELE 105°C EC 47u/ 16V 5*7P=2.5 T	C627		1
170	E-C-0404-3898	2341110096P	CAP,CHIP 125°C CS0603/COG/50V10 pJT	C144		1
171	E-C-0404-3898	2341110096P	CAP,CHIP 125°C CS0603/COG/50V10 pJT	C145		1
172	E-C-0404-4423	2341122096P	CAP,CHIP 125°C CS0603/COG/50V 22pJT	C116		1
173	N/A	2341122196P	CAP,CHIP 125°C CS0603/COG/50V220pJT	C117		1
174	N/A	2341122196P	CAP,CHIP 125°C CS0603/COG/50V220pJT	C620		1
175	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C811		1
176	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C812		1
177	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C933		1
178	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C934		1
179	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C935		1
180	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C937		1
181	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C950		1
182	N/A	2342110296P	CAP,CHIP 125°C CS0805/COG/50V 1000pJT	C953		1
183	N/A	2342118196P	CAP,CHIP TEMPERATURE 125°C CS0805/COG/50V180pJT	C904		1
184	N/A	2344110296P	CAP,CHIP 125°C CS1206/COG/50V 1000PJT	C932		1
185	N/A	2344110296P	CAP,CHIP 125°C CS1206/COG/50V 1000PJT	C936		1
186	N/A	2346110296P	CAP,CHIP 125°C CS0603/X7R/50V 1000pKT	C112		1
187	N/A	2346110296P	CAP,CHIP 125°C CS0603/X7R/50V 1000pKT	C612		1
188	N/A	2346110296P	CAP,CHIP 125°C CS0603/X7R/50V 1000pKT	C621		1
189	N/A	2346110396P	CAP,CHIP 125°C CS0603/X7R/50V 0.01uKT	C609		1
190	N/A	2346110396P	CAP,CHIP 125°C CS0603/X7R/50V 0.01uKT	C614		1
191	N/A	2346110396P	CAP,CHIP 125°C CS0603/X7R/50V 0.01uKT	C618		1
192	N/A	2346110396P	CAP,CHIP 125°C CS0603/X7R/50V 0.01uKT	C622		1
193	N/A	2346147396P	CAP,CHIP 125°C CS0603/X7R/50V0.047uKT	C109		1
194	N/A	2346147396P	CAP,CHIP 125°C CS0603/X7R/50V0.047uKT	C110		1
195	N/A	2346147396P	CAP,CHIP 125°C CS0603/X7R/50V0.047uKT	C111		1
196	N/A	2346147396P	CAP,CHIP 125°C CS0603/X7R/50V0.047uKT	C113		1
197	N/A	2346147396P	CAP,CHIP 125°C CS0603/X7R/50V0.047uKT	C114		1
198	N/A	2346147396P	CAP,CHIP 125°C CS0603/X7R/50V0.047uKT	C115		1
199	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C101		1
200	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C103		1
201	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C105		1
202	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C107		1
203	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C108		1
204	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C119		1
205	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C120		1
206	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C121		1
207	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C123		1
208	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C125		1
209	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C127		1
210	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C128		1
211	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C129		1
212	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C130		1
213	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C131		1
214	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C132		1
215	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C133		1
216	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C134		1
217	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C136		1
218	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C137		1
219	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C139		1
220	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C141		1
221	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C143		1
222	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C146		1
223	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C147		1
224	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C148		1
225	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C149		1
226	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C150		1
227	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C151		1
228	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C152		1
229	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C153		1
230	E-C-0404-3815	2346410496P	CAP,CHIP 85°C CS0603/Y5V/50V0.1uZT	C602		1
231	N/A	2346710596P	CAP,CHIP 85°C CS0603/Y5V/16V1.0uZT	C603		1
232	N/A	2346710596P	CAP,CHIP 85°C CS0603/Y5V/16V1.0uZT	C610		1
233	N/A	2346710596P	CAP,CHIP 85°C CS0603/Y5V/16V1.0uZT	C613		1
234	N/A	2346710596P	CAP,CHIP 85°C CS0603/Y5V/16V1.0uZT	C615		1
235	N/A	2346710596P	CAP,CHIP 85°C CS0603/Y5V/16V1.0uZT	C617		1
236	N/A	2347110396P	CAP,CHIP 125°C CS0805/X7R/50V 0.01uKT	C902		1
237	N/A	2347110396P	CAP,CHIP 125°C CS0805/X7R/50V 0.01uKT	C909		1
238	N/A	2347110396P	CAP,CHIP 125°C CS0805/X7R/50V 0.01uKT	C912		1
239	N/A	2347110396P	CAP,CHIP 125°C CS0805/X7R/50V 0.01uKT	R959		1
240	N/A	2347110396P	CAP,CHIP 125°C CS0805/X7R/50V 0.01uKT	R960		1
241	N/A	2347110496P	CAP,CHIP 125°C CS0805/X7R/50V0.1uKT	C611		1
242	N/A	2347110496P	CAP,CHIP 125°C CS0805/X7R/50V0.1uKT	C616		1
243	N/A	2347110496P	CAP,CHIP 125°C CS0805/X7R/50V0.1uKT	C619		1
244	N/A	2347110496P	CAP,CHIP 125°C CS0805/X7R/50V0.1uKT	C624		1
245	N/A	2347110596P	CAP,CHIP 125°C CS0805/X7R/50V1.0uKT	C605 RA		1
246	N/A	2347110596P	CAP,CHIP 125°C CS0805/X7R/50V1.0uKT	C606 RA		1
247	N/A	2347110596P	CAP,CHIP 125°C CS0805/X7R/50V1.0uKT	C608 RA		1
248	N/A	2347110596P	CAP,CHIP 125°C CS0805/X7R/50V1.0uKT	C625 RA		1
249	N/A	2347110596P	CAP,CHIP 125°C CS0805/X7R/50V1.0uKT	C626 RA		1
250	N/A	2347147296P	CAP,CHIP 125°C CS0805/X7R/50V 4700pKT	C906		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
251	N/A	2347147396P	CAP,CHIP 125°C CS0805/X7R/50V0.047uKT	C816		1
252	N/A	2347168396P	CAP,CHIP CS0805/X7R/50V0.068uKT	C910		1
253	N/A	2347210596P	CAP,CHIP 125°C CS0805/X7R/25V1.0uKT	C605 RB		1
254	N/A	2347210596P	CAP,CHIP 125°C CS0805/X7R/25V1.0uKT	C606 RB		1
255	N/A	2347210596P	CAP,CHIP 125°C CS0805/X7R/25V1.0uKT	C608 RB		1
256	N/A	2347210596P	CAP,CHIP 125°C CS0805/X7R/25V1.0uKT	C625 RB		1
257	N/A	2347210596P	CAP,CHIP 125°C CS0805/X7R/25V1.0uKT	C626 RB		1
258	N/A	2347210596P	CAP,CHIP 125°C CS0805/X7R/25V1.0uKT	C830		1
259	N/A	2347210596P	CAP,CHIP 125°C CS0805/X7R/25V1.0uKT	C903		1
260	N/A	2347410396P	CAP,CHIP 85°C CS0805/Y5V/50V 0.01uZT	C907		1
261	N/A	2347410396P	CAP,CHIP 85°C CS0805/Y5V/50V 0.01uZT	C946		1
262	N/A	2347410396P	CAP,CHIP 85°C CS0805/Y5V/50V 0.01uZT	C947		1
263	N/A	2347410396P	CAP,CHIP 85°C CS0805/Y5V/50V 0.01uZT	C948		1
264	N/A	2347410396P	CAP,CHIP 85°C CS0805/Y5V/50V 0.01uZT	C949		1
265	N/A	2347410496P	CAP,CHIP 85°C CS0805/Y5V/50V0.1uZT	C810		1
266	N/A	2347410496P	CAP,CHIP 85°C CS0805/Y5V/50V0.1uZT	C817		1
267	N/A	2347410496P	CAP,CHIP 85°C CS0805/Y5V/50V0.1uZT	C818		1
268	N/A	2347410496P	CAP,CHIP 85°C CS0805/Y5V/50V0.1uZT	C908		1
269	N/A	2347410496P	CAP,CHIP 85°C CS0805/Y5V/50V0.1uZT	C916		1
270	N/A	2347410496P	CAP,CHIP 85°C CS0805/Y5V/50V0.1uZT	C917		1
271	N/A	2347622596P	CAP,CHIP 85°C CS0805/Y5V/16V2.2uZT	C813		1
272	N/A	2347622596P	CAP,CHIP 85°C CS0805/Y5V/16V2.2uZT	C911		1
273	N/A	2349901496P	CAP,CHIP SPEC 5.6p/3KVNPO/1808±D	C926		1
274	N/A	2349901496P	CAP,CHIP SPEC 5.6p/3KVNPO/1808±D	C927		1
275	N/A	2349901496P	CAP,CHIP SPEC 5.6p/3KVNPO/1808±D	C928		1
276	N/A	2349901496P	CAP,CHIP SPEC 5.6p/3KVNPO/1808±D	C929		1
277	N/A	2349901496P	CAP,CHIP SPEC 5.6p/3KVNPO/1808±D	C930		1
278	N/A	2349901496P	CAP,CHIP SPEC 5.6p/3KVNPO/1808±D	C931		1
279	N/A	2349901596P	CAP,CHIP SPEC 100p/3KVNPO/1808±J	C918		1
280	N/A	2349901596P	CAP,CHIP SPEC 100p/3KVNPO/1808±J	C919		1
281	N/A	2349901596P	CAP,CHIP SPEC 100p/3KVNPO/1808±J	C920		1
282	N/A	2349901596P	CAP,CHIP SPEC 100p/3KVNPO/1808±J	C922		1
283	N/A	2349901596P	CAP,CHIP SPEC 100p/3KVNPO/1808±J	C923		1
284	N/A	2349901596P	CAP,CHIP SPEC 100p/3KVNPO/1808±J	C924		1
285	N/A	2357512718P	EC HI-RIPPLE 105C 400V EC120u/400V18*36 P=7.5 S	C805		1
286	E-Q-0402-1607	2360100596P	XISTOR,PNP R SMD MMBT3906-NLSOT23 FAIRCHILD	Q105 RD		1
287	E-Q-0402-1607	2360100596P	XISTOR,PNP R SMD MMBT3906-NLSOT23 FAIRCHILD	Q106 RD		1
288	E-Q-0402-1607	2360100596P	XISTOR,PNP R SMD MMBT3906-NLSOT23 FAIRCHILD	Q107 RD		1
289	E-Q-0402-1607	2360100596P	XISTOR,PNP R SMD MMBT3906-NLSOT23 FAIRCHILD	Q108 RD		1
290	N/A	2360100696P	XISTOR,PNP R SMD PMBS3906SOT-23 PHILIPS	Q105 RB		1
291	N/A	2360100696P	XISTOR,PNP R SMD PMBS3906SOT-23 PHILIPS	Q106 RB		1
292	N/A	2360100696P	XISTOR,PNP R SMD PMBS3906SOT-23 PHILIPS	Q107 RB		1
293	N/A	2360100696P	XISTOR,PNP R SMD PMBS3906SOT-23 PHILIPS	Q108 RB		1
294	E-Q-0402-1607	2360100796P	XISTOR,PNP R SMD MMBT3906-FSOT-23DIODES	Q105 RC		1
295	E-Q-0402-1607	2360100796P	XISTOR,PNP R SMD MMBT3906-FSOT-23DIODES	Q106 RC		1
296	E-Q-0402-1607	2360100796P	XISTOR,PNP R SMD MMBT3906-FSOT-23DIODES	Q107 RC		1
297	E-Q-0402-1607	2360100796P	XISTOR,PNP R SMD MMBT3906-FSOT-23DIODES	Q108 RC		1
298	N/A	2360100896P	XISTOR,PNP R SMD MMBT3906LT1GSOT-23ON	Q105 RA		1
299	N/A	2360100896P	XISTOR,PNP R SMD MMBT3906LT1GSOT-23ON	Q106 RA		1
300	N/A	2360100896P	XISTOR,PNP R SMD MMBT3906LT1GSOT-23ON	Q107 RA		1
301	N/A	2360100896P	XISTOR,PNP R SMD MMBT3906LT1GSOT-23ON	Q108 RA		1
302	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q104 RB		1
303	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q602 RB		1
304	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q905 RC		1
305	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q906 RC		1
306	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q907 RC		1
307	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q909 RC		1
308	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q910 RC		1
309	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q911 RC		1
310	E-Q-0402-1608	2360300896P	XISTOR,NPN R SMD MMBT3904KSOT-23FAIRCHILD	Q914 RC		1
311	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q104 RA		1
312	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q602 RA		1
313	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q905 RA		1
314	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q906 RA		1
315	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q907 RA		1
316	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q909 RA		1
317	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q910 RA		1
318	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q911 RA		1
319	E-Q-0402-1180	2360301296P	XISTOR,NPN R SMD MMBT3904-FSOT23 DIODES	Q914 RA		1
320	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q104 RC		1
321	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q602 RC		1
322	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q905 RB		1
323	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q906 RB		1
324	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q907 RB		1
325	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q909 RB		1
326	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q910 RB		1
327	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q911 RB		1
328	E-Q-0402-1624	2360301696P	XISTOR,NPN R SMD PMBS3904SOT-23 PHILIPS	Q914 RB		1
329	N/A	2360501396P	FET,P-CH SMD AP2305GNSOT23 APEC	Q103 RA		1
330	N/A	2360502196P	FET,P-CH SMD STS2301SOT-23 SamHop	Q103 RB		1
331	N/A	2360608496P	FET,N-CH(SMD) 2N7002K-T1-E3SOT-23 VISHAY	Q908 RB		1
332	N/A	2360608496P	FET,N-CH(SMD) 2N7002K-T1-E3SOT-23 VISHAY	Q912 RB		1
333	N/A	2360609096P	FET,N-CH(SMD) 2N7002KSOT-23PHILIPS	Q908 RC		1
334	N/A	2360609096P	FET,N-CH(SMD) 2N7002KSOT-23PHILIPS	Q912 RC		1
335	N/A	2360609196P	FET,N-CH(SMD) 2N7002LT1GSOT-23ON	Q908 RD		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
336	N/A	2360609196P	FET,N-CH(SMD) 2N7002LT1GSOT-23ON	Q912 RD		1
337	N/A	2360609496P	FET,N-CH(SMD) 2N7002GSOT-23Pyramis	Q908 RA		1
338	N/A	2360609496P	FET,N-CH(SMD) 2N7002GSOT-23Pyramis	Q912 RA		1
339	N/A	2360700996P	FET P&N-CH AM4502CSO-8 Analog Power	Q901 RA		1
340	N/A	2360700996P	FET P&N-CH AM4502CSO-8 Analog Power	Q902 RA		1
341	N/A	2360700996P	FET P&N-CH AM4502CSO-8 Analog Power	Q903 RA		1
342	N/A	2360700996P	FET P&N-CH AM4502CSO-8 Analog Power	Q904 RA		1
343	N/A	2360701096P	FET P&N-CH AP4509GMSO-8APEC	Q901 RB		1
344	N/A	2360701096P	FET P&N-CH AP4509GMSO-8APEC	Q902 RB		1
345	N/A	2360701096P	FET P&N-CH AP4509GMSO-8APEC	Q903 RB		1
346	N/A	2360701096P	FET P&N-CH AP4509GMSO-8APEC	Q904 RB		1
347	N/A	2360701196P	FET P&N-CH AP4511GMSO-8APEC	Q901 RC		1
348	N/A	2360701196P	FET P&N-CH AP4511GMSO-8APEC	Q902 RC		1
349	N/A	2360701196P	FET P&N-CH AP4511GMSO-8APEC	Q903 RC		1
350	N/A	2360701196P	FET P&N-CH AP4511GMSO-8APEC	Q904 RC		1
351	N/A	2360701296P	FET P&N-CH STM8306SO-8 SamHop	Q901 RD		1
352	N/A	2360701296P	FET P&N-CH STM8306SO-8 SamHop	Q902 RD		1
353	N/A	2360701296P	FET P&N-CH STM8306SO-8 SamHop	Q903 RD		1
354	N/A	2360701296P	FET P&N-CH STM8306SO-8 SamHop	Q904 RD		1
355	N/A	2361320291P	XISTOR,NPN R KSC2328A-YTO-92FAIRCHILD	Q804		1
356	N/A	2361610000P	FET,N-CH AP09N70GI-ATO-220CMFAPEC	Q801 RB		1
357	N/A	2361612200P	FET,N-CH AP2761GI-ATO-220CFM APEC	Q801 RA		1
358	N/A	2361612300P	FET,N-CH FQPF7N65CTO-220F FAIRCHILD	Q801 RC		1
359	E-PC-0411-0083	2362401800P	PHOTO COUPLR TLP621 TOSHIBA	I802 RA		1
360	E-00005306	2362402300P	PHOTO COUPLR TLP421DIP4 TOSHIBA	I802 RB		1
361	E-D-0403-1465	2363220395P	DIODE,RECT UF4004GDO-41 PEC	D803 RC		1
362	N/A	2363223195P	DIODE,RECT UF4007DO-204ALGS	D802 RB		1
363	N/A	2363230795P	DIODE,RECT 1H5G-TG-WSR-1 WILLAS	D803 RA		1
364	N/A	2363231995P	DIODE,RECT UF4007DO-411000V/1APEC	D802 RA		1
365	N/A	2363234695P	DIODE,RECT BYV26EGPDO-15 VISHAY	D802 RC		1
366	N/A	2363235695P	DIODE,RECT UF1004DO-41 DIODES	D803 RD		1
367	N/A	2363235795P	DIODE,RECT UF1007DO-41 DIODES	D802 RD		1
368	N/A	2363303900P	DIODE,SCHOTTKY GMR10H125CTO-220AB GAMMA	D810 RA		1
369	N/A	2363304000P	DIODE,SCHOTTKY FCH10U15TO-220ABNI	D810 RB		1
370	N/A	2363304100P	DIODE,SCHOTTKY SB1060FCTTO-220ABPEC	D812 RA		1
371	N/A	2363304200P	DIODE,SCHOTTKY GMR10H60CTO-220FPABGAMMA	D812 RB		1
372	N/A	2363304600P	DIODE,SCHOTTKY FCQ10U06TO-220ABNI	D812 RC		1
373	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D103 RB		1
374	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D104 RB		1
375	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D105 RB		1
376	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D106 RB		1
377	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D107 RB		1
378	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D108 RB		1
379	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D124 RB		1
380	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D125 RB		1
381	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D127 RB		1
382	E-00003534	2363600696P	DIODE,SWITCH RLS4148-T11SOD80C ROHM	D128 RB		1
383	N/A	2363601395P	DIODE,SWITCH 1U4G400V/1AR-1 PEC	D803 RB		1
384	N/A	2363705896P	LED SIA3227Y2B1CB YEL/BLU BRIGHTTEK	D701		1
385	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D103 RC		1
386	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D104 RC		1
387	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D105 RC		1
388	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D106 RC		1
389	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D107 RC		1
390	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D108 RC		1
391	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D124 RC		1
392	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D125 RC		1
393	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D127 RC		1
394	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D128 RC		1
395	E-D-0403-1892	2364200896P	DIODE,RECT(SMD) BAS32LSOD80C PHILIPS	D804 RC		1
396	N/A	2364500396P	DIODE,ZENER SMD RLZ5.6B5.45-5.73V LL-34 ROHM	D101 RC		1
397	N/A	2364500396P	DIODE,ZENER SMD RLZ5.6B5.45-5.73V LL-34 ROHM	D102 RC		1
398	N/A	2364500396P	DIODE,ZENER SMD RLZ5.6B5.45-5.73V LL-34 ROHM	D109 RC		1
399	N/A	2364500396P	DIODE,ZENER SMD RLZ5.6B5.45-5.73V LL-34 ROHM	D110 RC		1
400	N/A	2364500396P	DIODE,ZENER SMD RLZ5.6B5.45-5.73V LL-34 ROHM	D111 RC		1
401	E-D-0403-1779	2364503996P	DIODE,ZENER SMD BZV55-C5V6 5%SOD-80C PHILIPS	D101 RA		1
402	E-D-0403-1779	2364503996P	DIODE,ZENER SMD BZV55-C5V6 5%SOD-80C PHILIPS	D102 RA		1
403	E-D-0403-1779	2364503996P	DIODE,ZENER SMD BZV55-C5V6 5%SOD-80C PHILIPS	D109 RA		1
404	E-D-0403-1779	2364503996P	DIODE,ZENER SMD BZV55-C5V6 5%SOD-80C PHILIPS	D110 RA		1
405	E-D-0403-1779	2364503996P	DIODE,ZENER SMD BZV55-C5V6 5%SOD-80C PHILIPS	D111 RA		1
406	E-D-0403-2808	2364505616P	DIODE,ZENER SMD TZMC5V6 SOD-80 5.2-6.0V VISHAY	D101 RB		1
407	E-D-0403-2808	2364505616P	DIODE,ZENER SMD TZMC5V6 SOD-80 5.2-6.0V VISHAY	D102 RB		1
408	E-D-0403-2808	2364505616P	DIODE,ZENER SMD TZMC5V6 SOD-80 5.2-6.0V VISHAY	D109 RB		1
409	E-D-0403-2808	2364505616P	DIODE,ZENER SMD TZMC5V6 SOD-80 5.2-6.0V VISHAY	D110 RB		1
410	E-D-0403-2808	2364505616P	DIODE,ZENER SMD TZMC5V6 SOD-80 5.2-6.0V VISHAY	D111 RB		1
411	N/A	2364510496P	DIODE,ZENER SMD HZK15TRLLD HITACHI	D808 RA		1
412	N/A	2364510496P	DIODE,ZENER SMD HZK15TRLLD HITACHI	D809 RA		1
413	N/A	2364515036P	DIODE,ZENER SMD RLZ15CSOD-80ROHM	D808 RB		1
414	N/A	2364515036P	DIODE,ZENER SMD RLZ15CSOD-80ROHM	D809 RB		1
415	N/A	2364600396P	DIODE,SWITCH SMD (EOL) LL4148SOD-80DIODES	D804 RB		1
416	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D103 RA		1
417	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D104 RA		1
418	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D105 RA		1
419	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D106 RA		1
420	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D107 RA		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
421	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D108 RA		1
422	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D124 RA		1
423	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D125 RA		1
424	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D127 RA		1
425	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D128 RA		1
426	N/A	2364600496P	DIODE,SWITCH SMD MM4148SOD80CGRANDE	D804 RD		1
427	N/A	2364600996P	DIODE,SWITCH SMD BAV99SOT23DIODES	D901 RC		1
428	N/A	2364600996P	DIODE,SWITCH SMD BAV99SOT23DIODES	D902 RC		1
429	N/A	2364600996P	DIODE,SWITCH SMD BAV99SOT23DIODES	D903 RC		1
430	N/A	2364600996P	DIODE,SWITCH SMD BAV99SOT23DIODES	D904 RC		1
431	N/A	2364600996P	DIODE,SWITCH SMD BAV99SOT23DIODES	D905 RC		1
432	N/A	2364600996P	DIODE,SWITCH SMD BAV99SOT23DIODES	D906 RC		1
433	N/A	2364601096P	DIODE,SWITCH SMD BAV99SOT-23PHILIPS	D901 RB		1
434	N/A	2364601096P	DIODE,SWITCH SMD BAV99SOT-23PHILIPS	D902 RB		1
435	N/A	2364601096P	DIODE,SWITCH SMD BAV99SOT-23PHILIPS	D903 RB		1
436	N/A	2364601096P	DIODE,SWITCH SMD BAV99SOT-23PHILIPS	D904 RB		1
437	N/A	2364601096P	DIODE,SWITCH SMD BAV99SOT-23PHILIPS	D905 RB		1
438	N/A	2364601096P	DIODE,SWITCH SMD BAV99SOT-23PHILIPS	D906 RB		1
439	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D103 RD		1
440	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D104 RD		1
441	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D105 RD		1
442	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D106 RD		1
443	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D107 RD		1
444	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D108 RD		1
445	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D124 RD		1
446	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D125 RD		1
447	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D127 RD		1
448	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D128 RD		1
449	E-00003830	2364601396P	DIODE,SWITCH SMD 1N4148W-7-FSOD-123DIODES	D804 RA		1
450	N/A	2364601496P	DIODE,SWITCH SMD BAV99PTSOT-23CHENMKO	D901 RA		1
451	N/A	2364601496P	DIODE,SWITCH SMD BAV99PTSOT-23CHENMKO	D902 RA		1
452	N/A	2364601496P	DIODE,SWITCH SMD BAV99PTSOT-23CHENMKO	D903 RA		1
453	N/A	2364601496P	DIODE,SWITCH SMD BAV99PTSOT-23CHENMKO	D904 RA		1
454	N/A	2364601496P	DIODE,SWITCH SMD BAV99PTSOT-23CHENMKO	D905 RA		1
455	N/A	2364601496P	DIODE,SWITCH SMD BAV99PTSOT-23CHENMKO	D906 RA		1
456	N/A	2364601696P	DIODE,SWITCH SMD BAV70SOT-23PEC	D907 RB		1
457	N/A	2364601696P	DIODE,SWITCH SMD BAV70SOT-23PEC	D908 RB		1
458	N/A	2364601696P	DIODE,SWITCH SMD BAV70SOT-23PEC	D909 RB		1
459	N/A	2364601896P	DIODE,SWITCH SMD BAV70SOT-23PHILIPS	D907 RA		1
460	N/A	2364601896P	DIODE,SWITCH SMD BAV70SOT-23PHILIPS	D908 RA		1
461	N/A	2364601896P	DIODE,SWITCH SMD BAV70SOT-23PHILIPS	D909 RA		1
462	N/A	2365100996P	MEMORY IC AT24C16AN-10SU-2.7SO-8 AMTEL	I105 RB		1
463	N/A	2365106396P	MEMORY IC (EEPROM) M24C16-WMN6TPSO-8 ST	I105 RC		1
464	E-IC-0401-2152	2365321991P	LINEAR IC KA431AZTATO-92 FAIRCHILD	I803 RC		1
465	N/A	2365327691P	LINEAR IC CM431GDCNTO-92CHAMPION	I803 RB		1
466	N/A	2365328191P	LINEAR IC AP431VLATO-92ATC	I803 RA		1
467	N/A	2365335076P	LINEAR IC CM1117GDCM223 SOT223CHAMPION	I102 RC		1
468	N/A	2365335086P	LINEAR IC AIC1117A-18PYSOT223AIC	I102 RB		1
469	N/A	2365335266P	LINEAR IC LD7575PSSOP-8Leadtrend	I801		1
470	N/A	2365335316P	LINEAR IC OZ9910GNSOP-16O2-Micro	I901		1
471	N/A	2365335436P	LINEAR IC TPA2008D2PWPHTSSOP-24 TI	I601		1
472	N/A	2365425716P	DIGITAL IC RTD2553V-LFPQFP-128REALTEK	I104		1
473	N/A	2365425726P	DIGITAL IC RTD2120L-LFLQFP-48 REALTEK	I106		1
474	N/A	2365807196P	IC,LINEAR(SMD) AMC1117-3.3SOT-223 ADD	I101 RA		1
475	E-IC-0401-2924	2365808196P	IC,LINEAR(SMD) AP1117E33LASOT-223 AnaChip	I101 RC		1
476	N/A	2365808396P	IC,LINEAR(SMD) AIC1117-33PYSOT-223AIC	I101 RD		1
477	N/A	2365809496P	IC,LINEAR(SMD) CM1117SCM-3.3V SOT223 CHAMPION	I101 RB		1
478	N/A	2365813696P	IC,LINEAR(SMD) AP1117E18LASOT-223 AnaChip	I102 RA		1
479	N/A	2365915896P	IC,DIGITAL SMD 24LC16BT/SNSO-8MICROCHIP	I105 RA		1
480	N/A	2368502400P	RECT_BRIDGE GBU4K4A/800V PEC	D801 RA		1
481	N/A	2368502900P	RECT_BRIDGE GBU4K4A/800VMOSPEC	D801 RB		1
482	N/A	2369105701P	XTAL,OSC 24.0000MHZ/49US 0.1mw/16PF	X101		1
483	N/A	2371110901P	COIL,CHOKE R4*121.0uH1.0mm/8.5Ts	L901		1
484	N/A	2371115001P	COIL,CHOKE 15uH/8*10 UEW0.5mm/21.5Ts	L603		1
485	N/A	2371115001P	COIL,CHOKE 15uH/8*10 UEW0.5mm/21.5Ts	L604		1
486	N/A	2371115001P	COIL,CHOKE 15uH/8*10 UEW0.5mm/21.5Ts	L605		1
487	N/A	2371115001P	COIL,CHOKE 15uH/8*10 UEW0.5mm/21.5Ts	L606		1
488	N/A	2371154600P	COIL,CHOKE R6*205.2uH0.9mm/145.5Ts	L807		1
489	N/A	2371154600P	COIL,CHOKE R6*205.2uH0.9mm/145.5Ts	L808		1
490	N/A	2371230311P	LINE FILTER CHOKE ET-20 0.32mm/43+43Ts LSE	L803 RB		1
491	N/A	2371230312P	LINE FILTER CHOKE ET-20 0.32mm/43+43TsLI TAI	L803 RA		1
492	N/A	2372268995P	COIL,PEAKING 6.8uH K T	L806		1
493	N/A	2374233011P	XFORMER,POWR DS33190.65mm/10+15Ts LSE	T801 RB		1
494	N/A	2374233012P	XFORMER,POWR DS33190.65mm/10+15TsLI TAI	T801 RA		1
495	N/A	2374233016P	XFORMER,POWR	T801 RC		1
496	N/A	2374301704P	XFORMER INVERTER TLT-1538TAILON	T901 RB		1
497	N/A	2374301704P	XFORMER INVERTER TLT-1538TAILON	T902 RB		1
498	N/A	2374301704P	XFORMER INVERTER TLT-1538TAILON	T903 RB		1
499	N/A	2374301704P	XFORMER INVERTER TLT-1538TAILON	T904 RB		1
500	N/A	2374301704P	XFORMER INVERTER TLT-1538TAILON	T905 RB		1
501	N/A	2374301704P	XFORMER INVERTER TLT-1538TAILON	T906 RB		1
502	N/A	2374301705P	XFORMER INVERTER TK.4603B.101DARFON	T901 RA		1
503	N/A	2374301705P	XFORMER INVERTER TK.4603B.101DARFON	T902 RA		1
504	N/A	2374301705P	XFORMER INVERTER TK.4603B.101DARFON	T903 RA		1
505	N/A	2374301705P	XFORMER INVERTER TK.4603B.101DARFON	T904 RA		1



Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
506	N/A	2374301705P	XFORMER INVERTER TK.4603B.101DARFON	T905 RA		1
507	N/A	2374301705P	XFORMER INVERTER TK.4603B.101DARFON	T906 RA		1
508	E-L-0407-0013	2379101495P	FERRITE CORE 3.5*9*0.8	L801		1
509	E-L-0407-0013	2379101495P	FERRITE CORE 3.5*9*0.8	L802		1
510	N/A	2379103391P	FERRITE CORE 3.5*6*0.8x2100MHZ=100ohm Min	L607		1
511	E-00003533	2379520196P	BEAD,HI-CURRENT Z= 200 ohm0805I=2.0A	L101		1
512	E-00003533	2379520196P	BEAD,HI-CURRENT Z= 200 ohm0805I=2.0A	L102		1
513	N/A	2379820196P	BEAD,HI-IMPEDANCE Z= 200 ohm(200MHZ~) 0805 200mA	L105		1
514	N/A	2379820196P	BEAD,HI-IMPEDANCE Z= 200 ohm(200MHZ~) 0805 200mA	L106		1
515	N/A	2379820196P	BEAD,HI-IMPEDANCE Z= 200 ohm(200MHZ~) 0805 200mA	L107		1
516	E-00008185	2391302007P	SPEAKER ASS'Y 2W/4ohm (R)D.L	W902		1
517	E-00008186	2391302008P	SPEAKER ASS'Y 2W/4ohm (L)D.L	W901		1
518	N/A	2403700600P	TACT SWITCH TSVB-2-D-NP	S702		1
519	N/A	2403700600P	TACT SWITCH TSVB-2-D-NP	S703		1
520	N/A	2403700600P	TACT SWITCH TSVB-2-D-NP	S704		1
521	N/A	2403700600P	TACT SWITCH TSVB-2-D-NP	S705		1
522	N/A	2403700600P	TACT SWITCH TSVB-2-D-NP	S706		1
523	M-SW-0815-0182	2403702200P	TACT SWITCH TSAA-2HUAJIE	S701		1
524	N/A	2404301103P	CONNECTOR JST PH4P SIDE P=2.0 OR EQUAL	P701		1
525	M-MS-0808-6354	2404301105P	CONNECTOR JST PH6P SIDE P=2.0 OR EQUAL	P702		1
526	N/A	2404321230P	CONNECTOR CF10301D0T0 CIVILUX	P104		1
527	N/A	2404371003P	CONNECTOR JST PH4PTOP P=2.0 OR EQUAL	P602		1
528	N/A	2404371008P	CONNECTOR JST PH9PTOP P=2.0 OR EQUAL	P101		1
529	N/A	2404371009P	CONNECTOR JST PH 10PTOP P=2.0 OR EQUAL	P105		1
530	N/A	2404380302P	CONNECTOR 87210-0236 P=3.5 ACEOR EQUAL	P902		1
531	N/A	2404380302P	CONNECTOR 87210-0236 P=3.5 ACEOR EQUAL	P904		1
532	N/A	2404380604P	CONNECTOR FRHS01-D4002P05-N3 FRANCON	P901		1
533	N/A	2404380604P	CONNECTOR FRHS01-D4002P05-N3 FRANCON	P903		1
534	N/A	2405106000P	EARPHONE JACK 2SJ-P520-A04 (577C)SINGATRON	P601		1
535	N/A	2407413100P	SOCKET 0711-02-P10-9 INALWAYS	S801 RA		1
536	N/A	2407413300P	SOCKET SC-8R-F15A9 SUPERCOM	S801 RB		1
537	N/A	2407430900P	SOCKET DHSB-15FTF7 BLUE(661C) LEOCO	P102		1
538	N/A	2420330161P	FFC CABLE 30P*P0.5mm*L126mm	P980		1
539	A-00006132	2427130097P	AC POWER CORDCHINAWALL 1.83MBLACK	P951		1
540	A-00006133	2427130047P	AC POWER CORDGERMANWALL1.83MBLACK	P951		1
541	A-00005362	2427130046P	AC POWER CORD USAWALL 1.83MBLACK	P951		1
542	N/A	2427404027P	WIRE HARNESS 2+2/4P H/H 1061#24 L=370mm	P603		1
543	N/A	2427409007P	WIRE HARNESS 9/9P H/B 1007#26 L=150mm	P801		1
544	N/A	2427410009P	WIRE HARNESS 4+6/10P H/H 1007#26 L=350/330	P703		1
545	CB-00005507	2427501195P	I/O CABLE D15/D15 20276(4.5) 1.83M BLACK	P961		1
546	CB-00005735	2427721841P	CABLE EAR 3.5(577C) 2547#28 1.8M BLK	P962		1
547	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J801		1
548	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J802		1
549	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J803		1
550	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J804		1
551	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J805		1
552	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J814		1
553	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J820		1
554	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J823		1
555	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	J825		1
556	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	R908		1
557	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	R941		1
558	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	R942		1
559	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	R943		1
560	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	R944		1
561	N/A	2428106075P	JUMPER 0.6 $\phi$ *7.5mm	R947		1
562	N/A	2428106100P	JUMPER 0.6 $\phi$ *10.0mm	J806		1
563	N/A	2428106100P	JUMPER 0.6 $\phi$ *10.0mm	J808		1
564	N/A	2428106100P	JUMPER 0.6 $\phi$ *10.0mm	J816		1
565	N/A	2428106100P	JUMPER 0.6 $\phi$ *10.0mm	J817		1
566	N/A	2428106100P	JUMPER 0.6 $\phi$ *10.0mm	J909		1
567	N/A	2428106125P	JUMPER $\phi$ 0.6*12.5mm	F901		1
568	N/A	2428106125P	JUMPER $\phi$ 0.6*12.5mm	J821		1
569	N/A	2428106125P	JUMPER $\phi$ 0.6*12.5mm	J839		1
570	N/A	2428106125P	JUMPER $\phi$ 0.6*12.5mm	J912		1
571	N/A	2428106125P	JUMPER $\phi$ 0.6*12.5mm	L805		1
572	N/A	2428106150P	JUMPER 0.6 $\phi$ *15.0mm	J807		1
573	N/A	2428106150P	JUMPER 0.6 $\phi$ *15.0mm	J811		1
574	N/A	2428106150P	JUMPER 0.6 $\phi$ *15.0mm	J813		1
575	N/A	2428106150P	JUMPER 0.6 $\phi$ *15.0mm	J815		1
576	N/A	2428106150P	JUMPER 0.6 $\phi$ *15.0mm	J818		1
577	N/A	2428106150P	JUMPER 0.6 $\phi$ *15.0mm	J819		1
578	N/A	2428106225P	JUMPER 0.6 $\phi$ *22.5mm	J822		1
579	N/A	2428106250P	JUMPER 0.6 $\phi$ *25.00MM	J812		1
580	N/A	2434325603P	SHIELDING TAPE W25*L60mm(AL)	K901		1
581	DC-00008157	2438501255P	CD-OWNER GUIDE VG2021WM-2 WIZARD VS11425 AUO	6P80		1
582	DC-00008109	2002310402P	GUARANT CARD VIEWSONIC WARRANTY CARD-C 2004	6P07		1
583	N/A	2056606025P	SERIAL LABEL VS CN WARRANTY CARD SN STICKER	6P08		2
584	N/A	2055613458P	LABELVIEWSONIC 2005 3C LABEL ROHS	6P10		1
585	M-LB-0813-0863	2056606010P	SERIAL LABELVIEWSONIC BOX STICKER-G	6P12		1
586	N/A	2056606009P	SERIAL LABEL VIEWSONIC SERVICE STICKER-G	6P15		1

## **\* 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 of this Service Manual?

<i>Unit</i>	<i>Excellent</i>	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
<b>1. Precautions and Safety Notices</b>				
<b>2. Specification</b>				
<b>3. Front Panel Function Control Description</b>				
<b>4. Circuit Description</b>				
<b>5. Adjustment Procedure</b>				
<b>6. Troubleshooting Flow Chart</b>				
<b>7. Block Diagrams</b>				
<b>8. Schematic Diagrams</b>				
<b>9. PCB Layout Diagrams</b>				
<b>10. Exploded Diagram and Exploded Parts List</b>				
<b>11. Recommended Spare Parts List</b>				

**B.** Are you satisfied with this Service Manual?

<i>Item</i>	<i>Excellent</i>	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
<b>1. Service Manual Content</b>				
<b>2. Service Manual Layout</b>				
<b>3. The form and listing</b>				

**C.** Do you have any other opinions or suggestions regarding this service manual?

### **Reader's basic data:**

<b>Name:</b>		<b>Title:</b>	
<b>Company:</b>			
<b>Add:</b>			
<b>Tel:</b>		<b>Fax:</b>	
<b>E-mail:</b>			

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)