

# **Service Manual**

## **ViewSonic VA912/b**

**Model No. VS10696**

**19" Color TFT LCD Display**

(VA912/b\_SM Rev. 1a Apr. 2005)

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## Revision History

Revision	SM Editing Date	Documents Number		Description of Changes	Editor
		DCN Number	ECR Number		
1a	04/14/05	5246S		Initial Release	A. Lu

## TABLE OF CONTENTS

<b>1. Precautions and Safety Notices</b>	<b>1</b>
<b>2. Specification</b>	<b>5</b>
<b>3. Front Panel Function Control Description</b>	<b>18</b>
<b>4. Circuit Description</b>	<b>24</b>
<b>5. Adjustment Procedure</b>	<b>27</b>
<b>6. Troubleshooting Flow Chart</b>	<b>42</b>
<b>7. Recommended Spare Parts List</b>	<b>47</b>
<b>8. Exploded Diagram and Spare Parts List</b>	<b>62</b>
<b>9. Block Diagram</b>	<b>76</b>
<b>10. Schematic Diagrams</b>	<b>78</b>
<b>11. PCB Layout Diagrams</b>	<b>88</b>

# 1. Precautions and Safety Notices

## 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) Use only a high quality, safety approved AC/DC power cord.
- (5) Disconnect the power plug from the AC outlet if the product will not be used for a long period of time.
- (6) If smoke, abnormal noise, or strange odor is present, immediately switch the LCD display off.
- (7) Do not touch the LCD panel surface with sharp or hard objects.
- (8) Do not place heavy objects on the LCD display, video cable, or power cord.
- (9) Do not use abrasive cleaners, waxes or solvents for your cleaning.
- (10) Do not operate the product under the following conditions:
  - Extremely hot, cold or humid environment.
  - Areas containing excessive dust and dirt.
  - Near any appliance generating a strong magnetic field.
  - 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


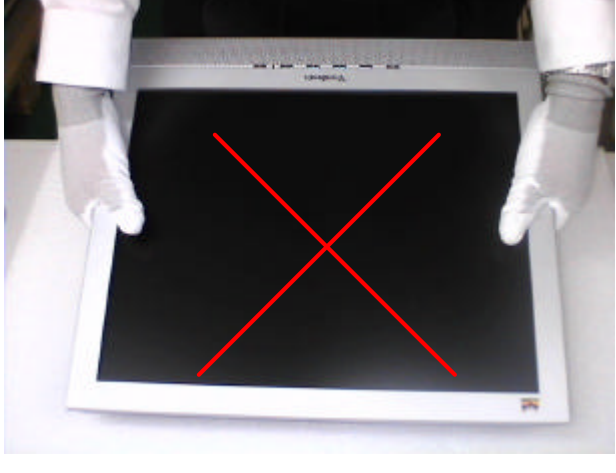


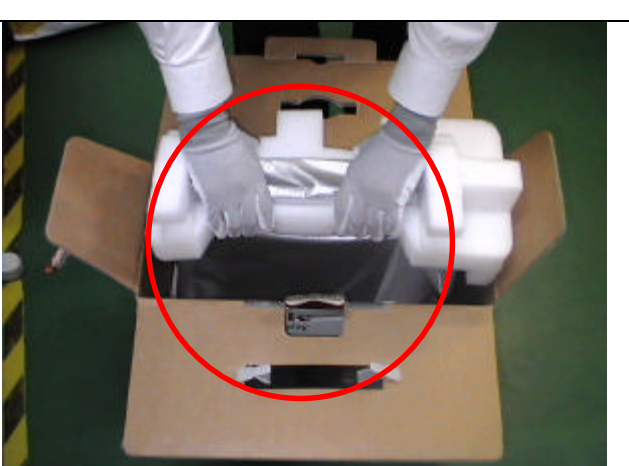

Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit, the voltage is exposed in such areas as the associated transformer circuits.



## 4. LCD Module Handling Precautions

### 4.1 Handling Precautions

- (1) Since front polarizer is easily damaged, pay attention not to scratch it.
- (2) Be sure to turn off power supply when connecting or disconnecting input connector.
- (3) Wipe off water drops 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 ensure human earth when handling.
- (7) Do not open or modify the Module Assembly.
- (8) Do not press the reflector sheet at the back of the module in any direction.
- (9) In the event that a Module must be put back into the packing container slot after it was taken out of 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 or 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 or bend the TFT Module even momentarily. When designing the enclosure, it should be taken into consideration that no bending/twisting forces may be applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.
- (12) The cold cathode fluorescent lamp in the LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.
- (13) The LCD module contains a small amount of materials having no flammability grade. The LCD module should be supplied with power that complies with the requirements of Limited Power Source (IEC60950 or UL1950), or an exemption should be applied for.
- (14) The LCD module is designed so that the CCFL in it is supplied by a Limited Current Circuit (IEC60950 or UL1950). Do not connect the CCFL to a Hazardous Voltage Circuit.

Correct methods :	Incorrect Methods :
<p>Only touch the metal-frame of the panel or the front cover of the monitor. Do not touch the surface of the polarizer .</p>	<p>Surface of the panel is pressed by fingers &amp; this may cause “ MURA “</p>
	
	
<p>Take out the monitor with cushion</p>	<p>Take out the monitor by grasping the LCD panel. That may cause “ MURA “.</p>
	

Correct Methods :	Incorrect Methods :
Place the monitor on a clean & soft foam pad .	Place the monitor on foreign objects . That could scratch the surface of panel
	

## 2. Specification

### VA912 Specifications (for Analog)

#### Chapter 1 General Descriptions

	FEATURES	VA912-2
TFTLCD PANEL	Size	19"
	Luminance (Typ, cd/m <sup>2</sup> )	300 cd/m <sup>2</sup>
	Contrast Ratio (Typ)	800:1
	Colors ( 6 bit + 2 bit FRC)	16.2 M colors
	Response Time (Typ)	20 ms
	Viewing Angle (H/V)	170 ° / 170 °
	Recommend resolution	1280x1024@60Hz
Input Signal	Analog (75ohms, 0.7/1.0 Vp-p)	Yes
	Digital	No
Sync Compatibility	Separate Sync	Yes
	Composite Sync	No
	Sync on Green	No
Compatibility	PC	Yes
	Power Mac	Yes
	TV Box (NextVision 6)	Yes
Power Voltage	AC 100-240V, 50/60Hz	Yes
Power Consumption	On Mode(Max / Typ)	65W / 60W
	Active Off Mode (Max)	≤ 3 W
Audio	1.5 W	Yes
Ergonomics	Tilt ( 20 ° + -2° - -5 ° + -1.5°)	Yes
	Swivel	No
	Pivot	No
	Height Adjust	No
OSD Control	[X] [1] [▼] [▲] [2] [U]	Yes
Dimension	Physical (W x H x D mm)	424 x 442 x 186
	Package (W x H x D mm)	480 x 524 x 228
Weight	Physical (Net kg/lb)	5.5kg/12.1lb
	Package (Gross Kg/lb)	8.1kg/17.9lb
Operating Condition	Temperature (°F/°C)	41°F-95°F/+5°C-+35°C
	Humidity (%)	20 % - 80 %
Storage Condition	Temperature (°F/°C)	-4°F-131°F/-20°C-55°C
	Humidity (%)	20 % - 85 %
Regulation	UL, cUL, FCC-B, CB, CE, NOM, TUV/GS, TUV ERGO (covers ISO13406-2 & MPRII), TCO99, GOST-R + 20 ORIGINAL COPIES HYGIENIC, SASO, PCBC, VCCI, BSMI, CCC, (PSB), (C-TICK), TUV-S, Green Mark,	

#### Chapter 2 Product definition and specification

Region	VSA / VSAP(M)	VSE(E)	VSCN(G)	VSJ(J)
Product Name	VA912			
Model Number	VS10696			
OSD Languages	English, French, German, Italian, Spanish, Finnish, Japanese, Traditional Chinese, Simplified Chinese			



TFT LCD Panel and Model #	Vendor : CMO, Model # : A190E2-xx6			
Scalar	Model # : Genesis 5126			
Input Signal	Analog			
Sync Compatibility	Separate			
Audio	1.5W @ < 8 % distortion			
Adapter	65 W (max) / 60W (typ)			
Power Cable (1.8m, color: black, US type)	<b>YES</b>	NO	NO	NO
Power Cable (1.8m, color: black, Schuko type)	NO	<b>YES</b>	NO	NO
Power Cable (1.8m, color: black, CCC type)	NO	NO	<b>YES</b>	NO
Power Cable (1.8m, color: black, PSE type)	NO	NO	NO	<b>YES</b>
Analog Cable (1.8 m, color : black), with PC 2001 and Hot Plug Detect &DDC	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
Audio Cable (1.8m, Color: black) with PC 2001	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
DVI Cable(1.8m, color: black) with PC 2001	NO	NO	NO	NO
ViewSonic CD Wizard	Arabic, English, Finnish, Spanish, German, Italian, Japanese, Swedish, Polish, Korean Portuguese, Russian, French, Simplified Chinese, Traditional Chinese, Hungary, Czech			
ViewSonic Quick Start Guide				
Screen Protector Mylar	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
Warranty Sticker	NO	NO	<b>YES</b> (Chinese)	<b>YES</b> (Japanese)
Warranty Card	NO	NO	<b>YES</b> (Chinese)	<b>YES</b> (Japanese)
Carton Sticker	NO	NO	<b>YES</b> (Chinese)	NO
PE bag of Carton	NO	NO	<b>YES</b>	NO

### Chapter 3 GENERAL specification

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

### Chapter 4 VIDEO INTERFACE

Analog Input Connector	DB-15 (Analog), refer the appendix A
Digital Input Connector	N/A
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 DB-15 Pin out	Compliant DDC 2B
Video Signals	1. Video RGB (Analog) Separate
Video Impedance	75 Ohms (Analog)
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 Revision 1.3
Sync Compatibility	Separate Sync
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350*, 640 x 480, 720 x 400* (640 x 400*), 800 x 600, 832 x 624, 1024 x 768, 1152 x 870, 1280 x 720, 1280 x 960, 1280 x 1024  * The image vertical size might not be full screen. But the image vertical position should be at the center.
Exclusions	Not compatible with interlaced video

## Chapter 5 POWER SUPPLY

Power Supply (Adapter)	Part Number: UP065B1190 or ADP-65MB
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	5.13 A typical at 18.1 VDC
Leakage Current	0.25mA (Max) at 264VAC / 50Hz
EFFICIENCY	80 % typical at 115VAC Full Load
Fuse	Internal and not user replaceable
Power Dissipation	65 Watts
Max Input AC Current	1.8Arms @ 90VAC,
INRUSH CURRENT (COLD START)	100 A @ 240VAC , 50Hz
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 EN61000-4-4 ±2KV transient test with no damage
Power Supply Line Surge Immunity	Shall be able to withstand ±2KV (L-L) and ±2.3KV (L-PE) 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
US Type Power Cable	Separate 3-prong NEMA 5-15P type plug. Length = 1.8m. Connects to display. Color = Black
European Type Power Cable	Schuko CEE7-7 type plug. Length = 1.8m, Connects to display. Color = Black
CCC Type Power Cable	Separate 3-prong type plug. Length = 1.8m. Connects to display. Color = Black
PSE Type Power Cable	Separate 2-prong NEMA 1-15P type plug. Length = 1.8m. Connects to display. Color = Black
Power Saving Operation(Method)	VESA DPMS Signaling
Power Consumption	ON Mode < 65 W (max) / 60W (typ) ACTIVE OFF < 3W
Recovery Time	ON MODE = N/A, ACTIVE OFF < 5 SEC

## Chapter 6 ELECTRICAL REQUIREMENT

### Horizontal / Vertical Frequency

Horizontal Frequency	30 – 82 KHZ
Vertical Refresh Rate	50 – 85* HZ.
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity.

**Timing Table**

Item	Timing	Analog	
1	640 x 350 @ 70Hz, 31.5kHz	Yes	
2	640 x 400 @ 60Hz, 31.5kHz	Yes	
3	640 x 400 @ 70Hz, 31.5kHz	Yes	
4	640 x 480 @ 60Hz, 31.5kHz	Yes	
5	640 x 480 @ 67Hz, 35.0kHz	Yes	
6	640 x 480 @ 72Hz, 37.9kHz	Yes	
7	640 x 480 @ 75Hz, 37.5kHz	Yes	
8	640 x 480 @ 85Hz, 43.27kHz	Yes	
9	720 x 400 @ 70Hz, 31.5kHz	Yes	
10	800 x 600 @ 56Hz, 35.1kHz	Yes	
11	800 x 600 @ 60Hz, 37.9kHz	Yes	
12	800 x 600 @ 75Hz, 46.9kHz	Yes	
13	800 x 600 @ 72Hz, 48.1kHz	Yes	
14	800 x 600 @ 85Hz, 53.7kHz	Yes	
15	832 x 624 @ 75Hz, 49.7kHz	Yes	
16	1024 x 768 @ 60Hz, 48.4kHz	Yes	
17	1024 x 768 @ 70Hz, 56.5kHz	Yes	
18	1024 x 768 @ 72Hz, 58.1kHz	Yes	
19	1024 x 768 @ 75Hz, 60.0kHz	Yes	
20	1024 x 768 @ 85Hz, 68.67kHz	Yes	
21	1152 x 870 @ 75Hz, 68.7kHz	Yes	
22	1280 x 1024 @ 60Hz, 63.4kHz	Yes	
23	1280 x 1024 @ 75Hz, 79.97kHz	Yes	
24	1280x 720 @ 60Hz, 45kHz (HDTV)	Yes	

Note 1:When Vertical frequency at 85Hz or resolution, the vertical image size might not be full screen. But the vertical image position should be at the center.

## VA912 Specifications (for Digital)

### Chapter 1 General Descriptions

FEATURES		VA912/b
TFTLCD PANEL	Size	19"
	Luminance (Typ, cd/m <sup>2</sup> )	300 cd/m <sup>2</sup>
	Contrast Ratio (Typ)	800:1
	Colors ( 6 bit + 2 bit FRC)	16.2 M colors
	Response Time (Typ)	20 ms
	Viewing Angle (H/V)	170 ° / 170 °
	Recommend resolution	1280x1024@60Hz
Input Signal	Analog (75ohms, 0.7/1.0 Vp-p)	Yes
	Digital	Yes
Sync Compatibility	Separate Sync	Yes
	Composite Sync	No
	Sync on Green	No
Compatibility	PC	Yes
	Power Mac	Yes
	TV Box (NextVision 6)	Yes
Power Voltage	AC 100-240V, 50/60Hz	Yes
Power Consumption	On Mode(Max / Typ)	65W / 60W
	Active Off Mode (Max)	≤3 W
Audio	1.5 W	Yes
Ergonomics	Tilt ( 20 ° + -2° - -5 ° + -1.5°)	Yes
	Swivel	No
	Pivot	No
	Height Adjust	No
OSD Control	[◀ X] [ 1 ] [▼] [▲] [ 2 ] [⏏]	Yes
Dimension	Physical ( W x H x D mm)	424 x 442 x 186
	Package ( W x H x D mm)	480 x 524 x 228
Weight	Physical (Net kg/lb)	5.5kg/12.1lb
	Package (Gross Kg/lb)	8.1kg/17.9lb
Operating Condition	Temperature (°F/°C)	41°F -95°F/+5°C -+35°C
	Humidity (%)	20 % - 80 %
Storage Condition	Temperature (°F/°C)	-4°F -131°F/-20°C -55°C
	Humidity (%)	20 % - 85 %
Regulation	UL, cUL, FCC-B, CB, CE, NOM, TUV/GS, TUV ERGO (covers ISO13406-2 & MPRII), TCO99, GOST-R + 20 ORIGINAL COPIES HYGIENIC, SASO, PCBC, VCCI, BSMI, CCC, (PSB), (C-TICK), TUV-S, Green Mark,	

### Chapter 2 Product definition and specification

Region	VSA / VSAP(M)	VSE(E)	VSCN(G)	VSJ(J)
Product Name	VA912/b			
Model Number	VS10696			
OSD Languages	English, French, German, Italian, Spanish, Finnish, Japanese, Traditional Chinese, Simplified Chinese			
TFT LCD Panel and Model #	Vendor : CMO, Model # : A190E2-xx6			
Scalar	Model # : Genesis 5126			

Input Signal	Analog + Digital			
Sync Compatibility	Separate			
Audio	1.5W @ < 8 % distortion			
Adapter	65 W (max) / 60W (typ)			
Power Cable (1.8m, color: black, US type)	<b>YES</b>	NO	NO	NO
Power Cable (1.8m, color: black, Schuko type)	NO	<b>YES</b>	NO	NO
Power Cable (1.8m, color: black, CCC type)	NO	NO	<b>YES</b>	NO
Power Cable (1.8m, color: black, PSE type)	NO	NO	NO	<b>YES</b>
Analog Cable (1.8 m, color : black), with PC 2001 and Hot Plug Detect &DDC	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
Audio Cable (1.8m, Color: black) with PC 2001	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
DVI Cable(1.8m, color: black) with PC 2001	NO	NO	NO	NO
ViewSonic CD Wizard	Arabic, English, Finnish, Spanish, German, Italian, Japanese, Swedish, Polish, Korean Portuguese, Russian, French, Simplified Chinese, Traditional Chinese, Hungary, Czech			
ViewSonic Quick Start Guide				
Screen Protector Mylar	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
Warranty Sticker	NO	NO	<b>YES</b> (Chinese)	<b>YES</b> (Japanese)
Warranty Card	NO	NO	<b>YES</b> (Chinese)	<b>YES</b> (Japanese)
Carton Sticker	NO	NO	<b>YES</b> (Chinese)	NO
PE bag of Carton	NO	NO	<b>YES</b>	NO

### Chapter 3 GENERAL specification

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

### Chapter 4 VIDEO INTERFACE

Analog Input Connector	DB-15 (Analog), refer the appendix A
Digital Input Connector	DVI-D (Digital), refer the appendix B
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 DB-15 Pin out	Compliant DDC 2B
Video Signals	1. Video RGB (Analog) Separate 2. TMDS (Digital)
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 Revision 1.3
Sync Compatibility	Separate Sync
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350*, 640 x 480, 720 x 400* (640 x 400*), 800 x 600, 832 x 624, 1024 x 768, 1152 x 870, 1280 x 720, 1280 x 960, 1280 x 1024  * The image vertical size might not be full screen. But the image vertical position should be at the center.
Exclusions	Not compatible with interlaced video

## Chapter 5 POWER SUPPLY

Power Supply (Adapter)	Part Number: UP065B1190 or ADP-65MB
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	5.13 A typical at 18.1 VDC
Leakage Current	0.25mA (Max) at 264VAC / 50Hz
EFFICIENCY	80 % typical at 115VAC Full Load
Fuse	Internal and not user replaceable
Power Dissipation	65 Watts
Max Input AC Current	1.8Arms @ 90VAC,
INRUSH CURRENT (COLD START)	100 A @ 240VAC , 50Hz
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 EN61000-4-4 ±2KV transient test with no damage
Power Supply Line Surge Immunity	Shall be able to withstand ±2KV (L-L) and ±2.3KV (L-PE) 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
US Type Power Cable	Separate 3-prong NEMA 5-15P type plug. Length = 1.8m. Connects to display. Color = Black
European Type Power Cable	Schuko CEE7-7 type plug. Length = 1.8m, Connects to display. Color = Black
CCC Type Power Cable	Separate 3-prong type plug. Length = 1.8m. Connects to display. Color = Black
PSE Type Power Cable	Separate 2-prong NEMA 1-15P type plug. Length = 1.8m. Connects to display. Color = Black
Power Saving Operation(Method)	VESA DPMS Signaling
Power Consumption	ON Mode < 65 W (max) / 60W (typ) ACTIVE OFF < 3W
Recovery Time	ON MODE = N/A, ACTIVE OFF < 5 SEC

## Chapter 6 ELECTRICAL REQUIREMENT

### Horizontal / Vertical Frequency

Horizontal Frequency	30 – 82 KHZ
Vertical Refresh Rate	50 – 85* HZ.
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity.



## Chapter 7 Timing Table

Item	Timing	Analog	Digital
1	640 x 350 @ 70Hz, 31.5kHz	Yes	Yes
2	640 x 400 @ 60Hz, 31.5kHz	Yes	Yes
3	640 x 400 @ 70Hz, 31.5kHz	Yes	Yes
4	640 x 480 @ 60Hz, 31.5kHz	Yes	Yes
5	640 x 480 @ 67Hz, 35.0kHz	Yes	Yes
6	640 x 480 @ 72Hz, 37.9kHz	Yes	Yes
7	640 x 480 @ 75Hz, 37.5kHz	Yes	Yes
8	640 x 480 @ 85Hz, 43.27kHz	Yes	Yes
9	720 x 400 @ 70Hz, 31.5kHz	Yes	Yes
10	800 x 600 @ 56Hz, 35.1kHz	Yes	Yes
11	800 x 600 @ 60Hz, 37.9kHz	Yes	Yes
12	800 x 600 @ 75Hz, 46.9kHz	Yes	Yes
13	800 x 600 @ 72Hz, 48.1kHz	Yes	Yes
14	800 x 600 @ 85Hz, 53.7kHz	Yes	Yes
15	832 x 624 @ 75Hz, 49.7kHz	Yes	Yes
16	1024 x 768 @ 60Hz, 48.4kHz	Yes	Yes
17	1024 x 768 @ 70Hz, 56.5kHz	Yes	Yes
18	1024 x 768 @ 72Hz, 58.1kHz	Yes	Yes
19	1024 x 768 @ 75Hz, 60.0kHz	Yes	Yes
20	1024 x 768 @ 85Hz, 68.67kHz	Yes	Yes
21	1152 x 870 @ 75Hz, 68.7kHz	Yes	Yes
22	1280 x 1024 @ 60Hz, 63.4kHz	Yes	Yes
23	1280 x 1024 @ 75Hz, 79.97kHz	Yes	No
24	1280x 720 @ 60Hz, 45kHz (HDTV)	Yes	Yes

Note 1: When Vertical frequency at 85Hz or resolution, the vertical image size might not be full screen. But the vertical image position should be at the center.

Note 2: Out of scalar chip (gm5126) limit.

### Chapter 3 GENERAL specification

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

### Chapter 4 VIDEO INTERFACE

Analog Input Connector	DB-15 (Analog), refer the appendix A
Digital Input Connector	N/A
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 DB-15 Pin out	Compliant DDC 2B
Video Signals	Video RGB (Analog) Separate
Video Impedance	75 Ohms (Analog)
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 Revision 1.3
Sync Compatibility	Separate Sync
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350*, 640 x 480, 720 x 400* (640 x 400*), 800 x 600, 832 x 624, 1024 x 768, 1152 x 870, 1280 x 720, 1280 x 960, 1280 x 1024  * The image vertical size might not be full screen. But the image vertical position should be at the center.
Exclusions	Not compatible with interlaced video

## Chapter 5 POWER SUPPLY

Power Supply (Adapter)	Part Number: UP060B1190 or DA-60F19
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	3.476~4.74 A typical at 18.05 VDC
Leakage Current	0.25mA (Max) at 264VAC / 60Hz
EFFICIENCY	80 % typical at 115VAC Full Load
Fuse	Internal and not user replaceable
Power Dissipation	60 Watts (max) / 51 Watts (typ)
Max Input AC Current	1.6 Arms @ 90VAC,
INRUSH CURRENT (COLD START)	80 A @ 120VAC, 80 A(max) @220VAC
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 EN61000-4-4 ±2KV transient test with no damage
Power Supply Line Surge Immunity	Shall be able to withstand ±2KV (L-L) and ±2.3KV (L-PE) 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
US Type Power Cable	Separate 3-prong NEMA 5-15P type plug. Length = 1.8m. Connects to display. Color = Black
European Type Power Cable	Schuko CEE7-7 type plug. Length = 1.8m, Connects to display. Color = Black
CCC Type Power Cable	Separate 3-prong type plug. Length = 1.8m. Connects to display. Color = Black
PSE Type Power Cable	Separate 2-prong NEMA 1-15P type plug. Length = 1.8m. Connects to display. Color = Black
Power Saving Operation(Method)	VESA DPMS Signaling
Power Consumption	ON Mode < 60 W (max) / 51 W (typ) ACTIVE OFF < 3W
Recovery Time	ON MODE = N/A, ACTIVE OFF < 5 SEC

## Chapter 6 ELECTRICAL REQUIREMENT

### Horizontal / Vertical Frequency

Horizontal Frequency	30 – 82 KHZ
Vertical Refresh Rate	50 – 85* HZ.
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity.

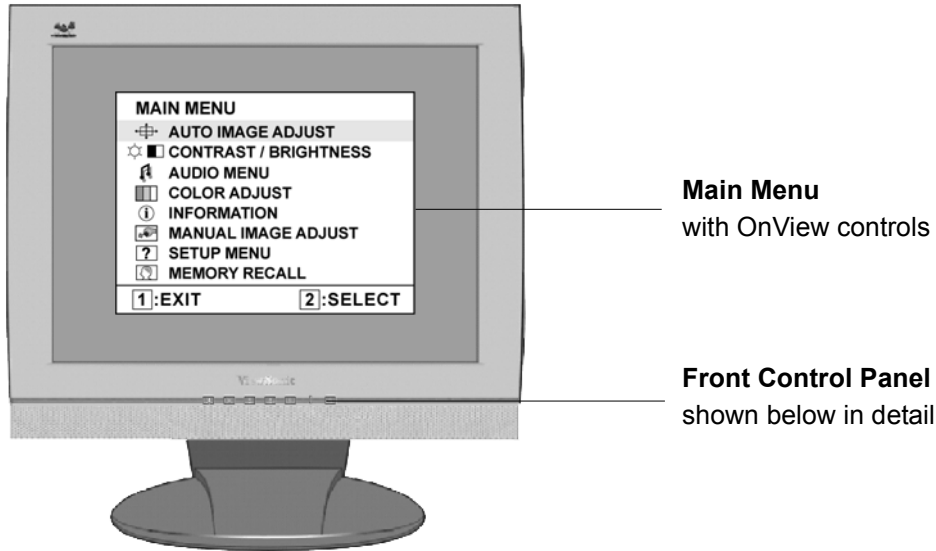
**Chapter 7 Timing Table**

Item	Timing	Analog
1	640 x 350 @ 70Hz, 31.5kHz	Yes
2	640 x 400 @ 60Hz, 31.5kHz	Yes
3	640 x 400 @ 70Hz, 31.5kHz	Yes
5	640 x 480 @ 60Hz, 31.5kHz	Yes
6	640 x 480 @ 67Hz, 35.0kHz	Yes
7	640 x 480 @ 72Hz, 37.9kHz	Yes
8	640 x 480 @ 75Hz, 37.5kHz	Yes
9	640 x 480 @ 85Hz, 43.27kHz	Yes
10	720 x 400 @ 70Hz, 31.5kHz	Yes
11	800 x 600 @ 56Hz, 35.1kHz	Yes
12	800 x 600 @ 60Hz, 37.9kHz	Yes
13	800 x 600 @ 75Hz, 46.9kHz	Yes
14	800 x 600 @ 72Hz, 48.1kHz	Yes
15	800 x 600 @ 85Hz, 53.7kHz	Yes
16	832 x 624 @ 75Hz, 49.7kHz	Yes
17	1024 x 768 @ 60Hz, 48.4kHz	Yes
18	1024 x 768 @ 70Hz, 56.5kHz	Yes
19	1024 x 768 @ 72Hz, 58.1kHz	Yes
20	1024 x 768 @ 75Hz, 60.0kHz	Yes
21	1024 x 768 @ 85Hz, 68.67kHz	Yes
22	1152 x 870 @ 75Hz, 68.7kHz	Yes
23	1280 x 1024 @ 60Hz, 63.4kHz	Yes
24	1280 x 1024 @ 75Hz, 79.97kHz	Yes
25	1280x 720 @ 60Hz, 45kHz (HDTV)	Yes
<p><b>Note 1: When Vertical frequency at 85Hz or resolution, the vertical image size might not be full screen. But the vertical image position should be at the center.</b></p> <p><b>Note 2: Out of scalar chip (gm5126) limit.</b></p>		

### 3. Front Panel Function Control Description

#### Adjusting the Screen Image

Use the buttons on the front control panel to display and adjust the OnView® controls which display on the screen. The OnView controls are explained at the top of the next page and are defined in “Main Menu Controls” on page 20.



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.

Displays the control screen for the highlighted control. Also toggles between two controls on some screens.

Audio Mute button turns the sound off

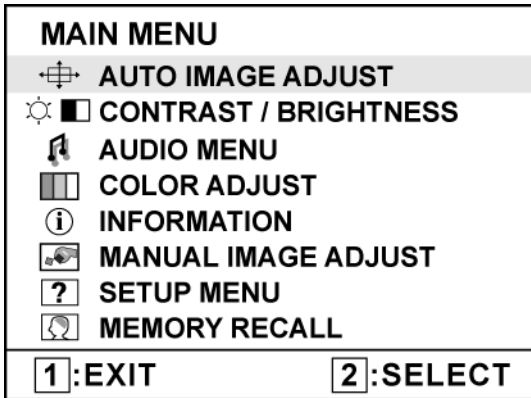
Power light  
Green = ON  
Orange = Power Saving

Standby Power On/Off



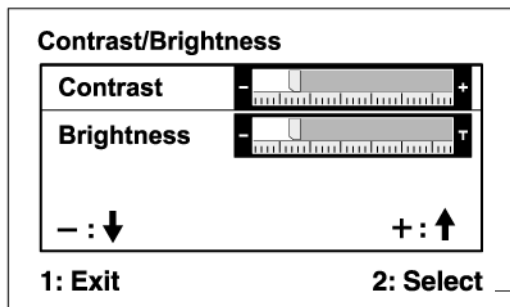
**Do the following to adjust the screen image:**

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



**NOTE:** All OnView 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 you want to adjust, press ▲ or ▼ to scroll up or down the Main Menu.
3. After the 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 control, press the up ▲ or down ▼ buttons.
5. To save the adjustments and exit the menu, press button [1] *twice*.

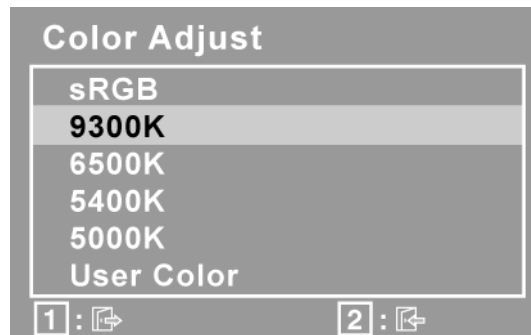
**The following tips may help you optimize your display:**

- Adjust your computer's graphic card so that it outputs a video signal 1280 x 1024 @ 60Hz to the LCD display. (Look for instructions on “changing the refresh rate” in your graphic 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: preset color temperatures and <b>RGB</b> which allows you to adjust red ( <b>R</b> ), green ( <b>G</b> ), and blue ( <b>B</b> ) separately. The factory setting for this product is 6500K (6500 Kelvin).



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

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

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

**5000K**-Adds blue and 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▼.

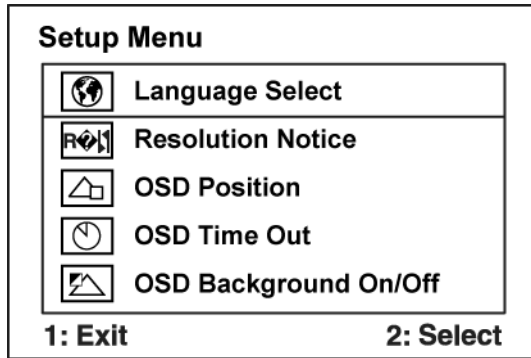
**Important:** If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.







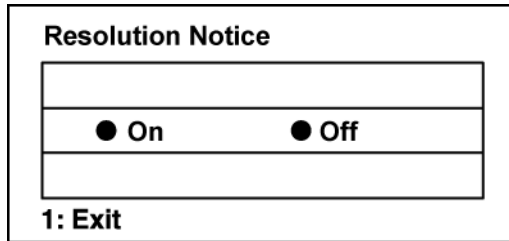
**Setup menu** displays the menu shown below:



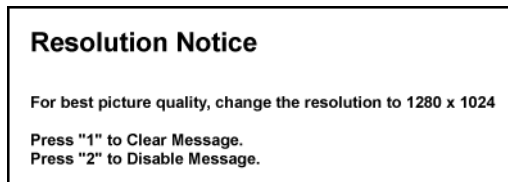
**Language** allows you to choose the language used in the menus and control screens.



**Resolution Notice** allows you to enable or disable this notice.



If you enable the Resolution Notice shown above and your computer is set at a resolution other than 1280 x 1024, the following screen appears.



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



**OSD Timeout** sets the length of time the on-screen display 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 On/Off** allows you to turn the On-Screen Display 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.

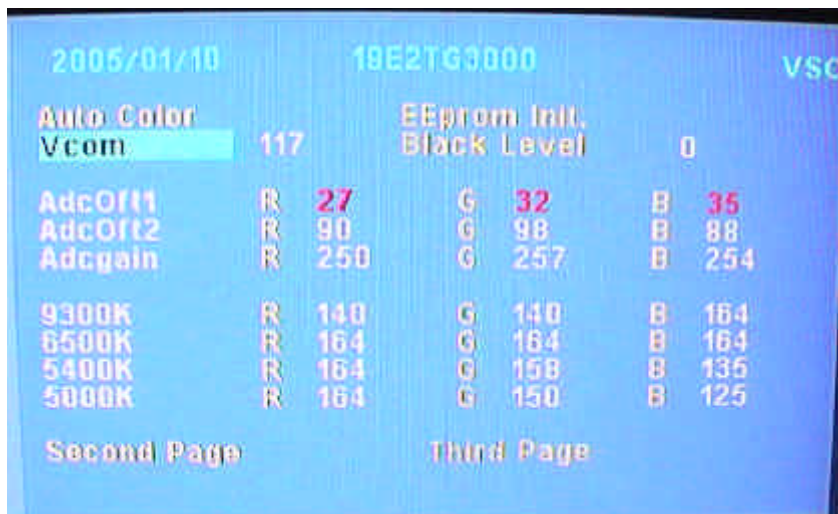
### Hot Keys for Function Controls

[1]	Main Menu
[2]	Input toggle (Analog or Digital) or Auto Image Adjust.
[▼] 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
<ol style="list-style-type: none"> <li>1. Turn off [Power on/off] button.</li> <li>2. Press [▲] + [▼] + [Power on/off] at same time</li> <li>3. Press [1]</li> </ol>	All Mode Reset. It will erase all end users' setting and restore the factory defaults.
Remark : All the short cuts function are only available while OSD off	

### Hot Keys for Factory Control

3. Turn off [Power on/off] button.
4. Press [▲] + [▼] + [Power on/off] at same time
5. Press [1]

Then you will see the BIOS update picture show in the screen as below.



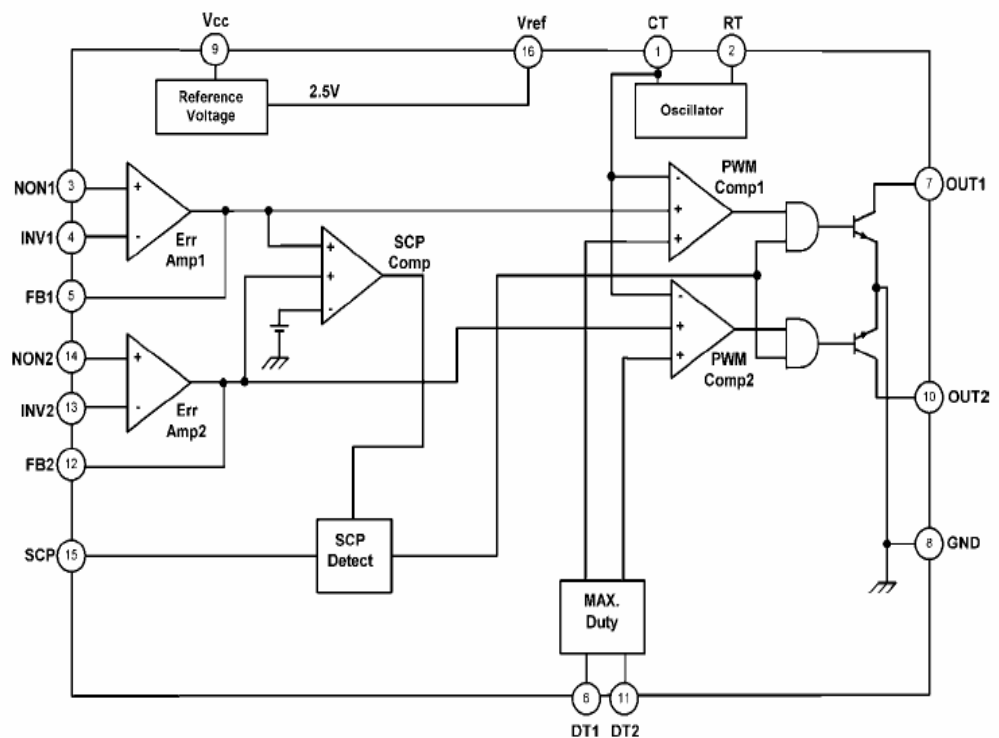
## 4. Circuit Description

### Circuit Description

#### 1. Power supply (DC/DC Converter)

The AT1741 is 2-channel PWM switching regulator controllers that contains an on-chip 2.5V reference, two error amplifier, an adjustable oscillator, two dead-time comparators, under voltage lockout circuitry and 2 common-emitter output. It is idea for step-up, step-down, and inverting converter.

### Block Diagram



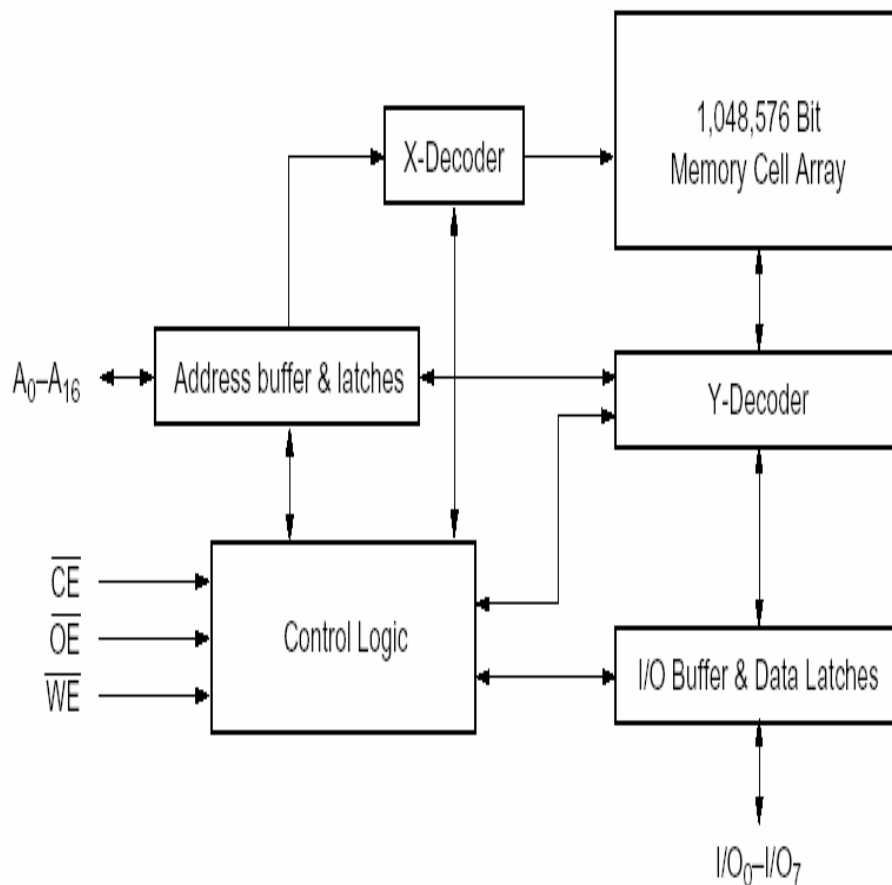
## 2. Flash Memory

The F29C51001T/F29C51001B is a 1 Megabit, 5.0 Volt-only Flash Memory organized as 131,072 bytes of 8 bits each. This device is designed to use a 4.7 Volt to 5.3 Volt power supply to perform in-system programming.

The 1 Megabit memory array is divided into thirty-two uniform blocks of 4 Kbytes each for data and/or code storage.

The block architecture allows users to flexibly make chip erase or block erase operation. The block erase feature allows a particular block to be erased and reprogrammed without affecting the data in other blocks. After the device performs chip erase or block erase operation, it can be reprogrammed on a byte-by-byte basis.

### Functional Block Diagram



### 3. GM5120

The gm5116/26 is a graphic processing IC for Liquid Crystal Display (LCD) monitors at XGA/SXGA resolution. It provides all key IC functions required for the highest quality LCD monitors. On-chip functions include a high-speed triple-ADC and PLL, Ultra-Reliable DVI™ receiver, a high quality zoom and shrink scaling engine, an on-screen display (OSD) controller, digital color controls and an on-chip microcontroller (OCM). With this level of integration, the gm5116/26 devices simplify and reduce the cost of LCD monitors while maintaining a high-degree of flexibility and quality.

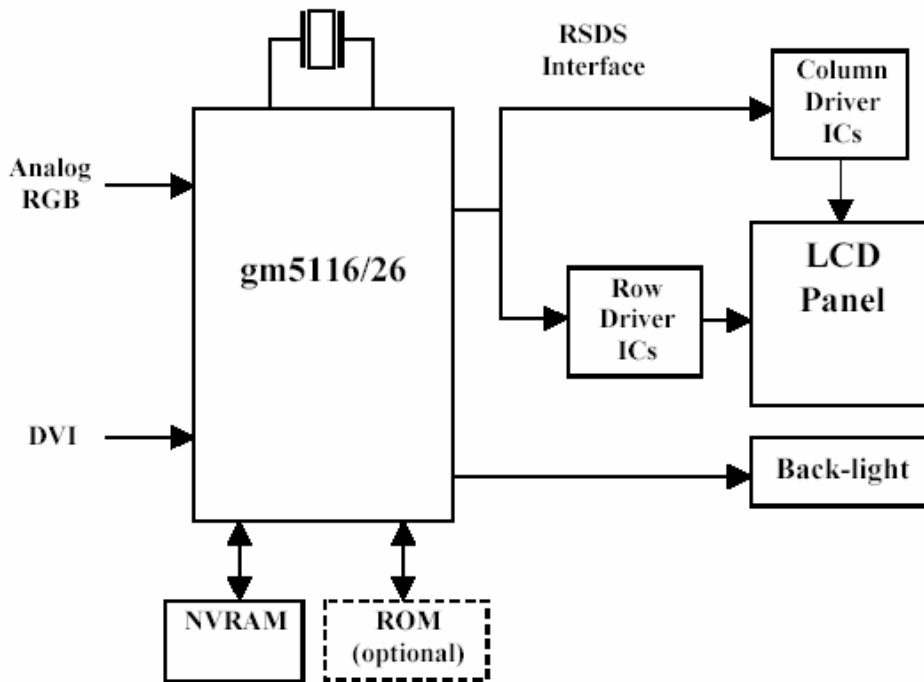


Figure 1. gm5116/26 System Design Example

### 4. LVDS (THC63LVDM83A)

The THC63LVDM83A transmitter converts 28 bits of CMOS/TTL data into LVDS (Low Voltage Differential Signaling) data stream. A phase-locked transmit clock is transmitted in parallel with the data streams over a fifth LVDS link. The HC63LVDM83A can be programmed for rising edge or falling edge clocks through a dedicated pin. The THC63LVDF84A receiver converts the LVDS data streams back into 28 bits of CMOS/TTL data with falling edge clock. At a transmit clock frequency of 85MHz, 24 bits of RGB data and 4 bits of LCD timing and control data (HSYNC, VSYNC, CNTL1, CNTL2) are transmitted at a rate of 595 Mbps per LVDS data channel.

## 5. Adjustment Procedure

### 5-1 Function Test and Alignment Procedure

#### 1. All Modes Reset

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

#### 2. Auto Image Adjust

The Auto Adjust is aimed to offer a best screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

- A. Turn the computer and LCD monitor on.
- B. Press the ‘Auto’ button on monitor keypad to Auto Adjust.
- C. The LCD monitor will start the Auto Adjust process automatically and run for 10 consecutive seconds, during which time you will notice the image change.

#### 3. Firmware

Test Pattern : Burn in Model (Refer to Chap3. Hot Keys for Function Control)

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

#### 4. DCC

Test Pattern: EDID program

-Make sure it can pass test program.

#### 5. Window Shut Down

Test Signal: 1280\*1024@60Hz

Test Pattern:



Checkered Pattern Every One Pixel (50%Green & 50%Blue)

Inspection Item: Flicker, Mura

#### 6. Window BG

Test Signal: 1280\*1024@60Hz

Test Pattern:



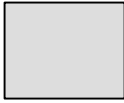
Window standard pattern

Inspection Item: Line Defect, Function Defect & Mura

**7. 25 Gray**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Full Screen 25% White (Gray)**

**Inspection Item: Particle, Line Defect & Mura**

**8. 50 Gray**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Full Screen 50% White (Gray)**

**Inspection Item: Bright Dot, Particle, Line Defect & Mura**

**9. White Box**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Window standard pattern**

**Inspection Item: Particle, Line Defect, Power, Image Remain & Mura**

**10. Black Box**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Window standard pattern**

**Inspection Item: Bright Dot, Line Defect & Power**

**11. RED**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Full Screen Red**

**Inspection Item: Bright Dot, Partial & Line Defect**

**12. Green**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Full Screen Green**

**Inspection Item: Bright Dot, Partial & Line Defect**

**13. Blue**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Full Screen Green**

**Inspection Item: Bright Dot, Partial & Line Defect**

**14. Gray\_Scale\_0-100\_V256**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Vertical 64 (256) Gray Scale (Right Left , From 0 to 100% White)**

**Inspection Item: Line Defect & Function Defect**



**16. Gray\_Scale\_0-100\_H256**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**



**Horizontal 64(256) Gray Scale (Up Down , From 0 to 100% White)**

**Inspection Item: Line Defect & Function Defect**

**16. Block Window**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**

**Black block at the center**



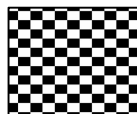
**Inspection Item: Cross Talk & Optical Character**

**17. Black\_Tile**

**Test Signal: 1280\*1024@60Hz**

**Test Pattern:**

**Black tile under white background**



**Inspection Item: Function Defect & Image Remain**

**5-2 Function Test Display pattern**

<b>Item</b>	<b>Pattern</b>	<b>Description</b>	<b>Remark</b>
<b>1</b>	Gray_Scale_0-100_V	Vertical 64 (256) Gray Scale (right left , ffrom 0 to 100% White)	Figure 1
<b>2</b>	Gray_Scale_0-100_H	Horizontal 64 (256) Gray Scale (up down , From 0 to 100% White)	Figure 2
<b>3</b>	Black	Full Screen Black	Figure 3
<b>4</b>	Red	Full Screen 50% Red	Figure 4
<b>5</b>	Green	Full Screen 50% Green	Figure 5
<b>6</b>	Blue	Full Screen 50% Blue	Figure6
<b>7</b>	White	Full Screen White	Figure7
<b>8</b>	Black_Tile	Black Tile Under White Background	Figure 8

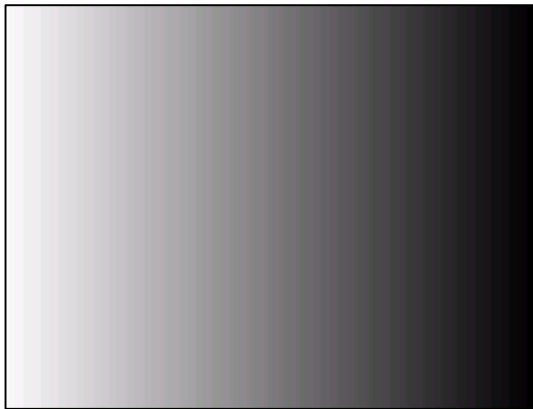


Figure 1

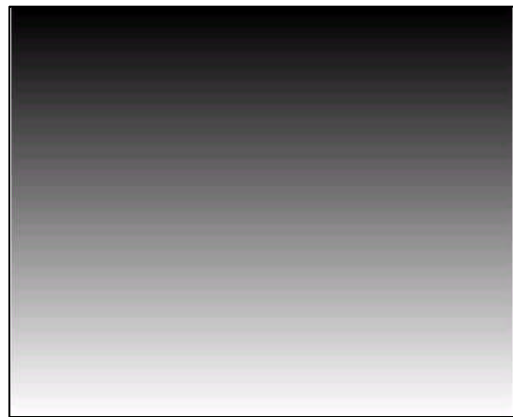


Figure 2

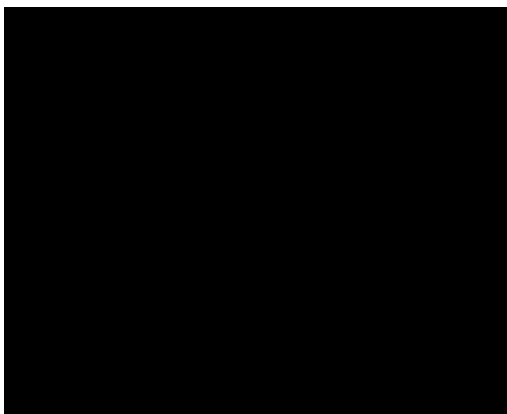


Figure 3



Figure 4

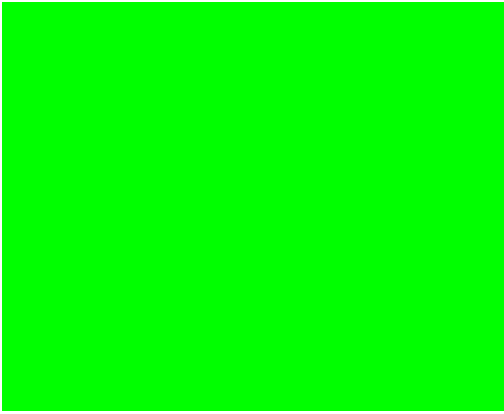


Figure 5



Figure 6



Figure 7

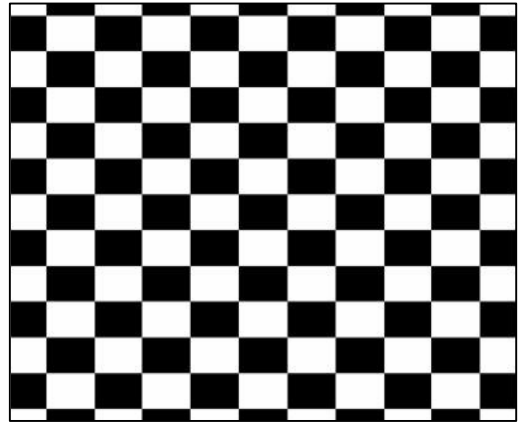


Figure 8

### 5-3 Function Test and Alignment Procedure

#### 1. All Modes Reset

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

#### 2. Auto Image Adjust

The Auto Adjust is aimed to offer a best screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

- A. Turn the computer and LCD monitor on.
- B. Press the ‘Auto’ button on monitor keypad to Auto Adjust.
- C. The LCD monitor will start the Auto Adjust process automatically and run for 10 consecutive seconds, during which time you will notice the image change.

#### 3. Firmware

Test Patten : Burn in Model (Refer to Chap3. Hot Keys for Function Control)

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

#### 4. DCC

Test Patten: EDID program

-Make sure it can pass test program.

#### 5. Window Shut Down

Test Signal: 1280\*1024@60Hz

Test Pattern:

#### 6. BIOS update procedure

**BIOS Update User Guide**

**For ViewSonic**

## BIOS Update Flow for Genesis

### 1.1 Program :

#### 1.1.1. Software

- a. Please download the file “ Genesis” from CMO E-Sir system. There are ISP & BIOS two files, kindly see as below.

- a) ISPACK.EXE: Main program



GProbe4.2.0.3.exe

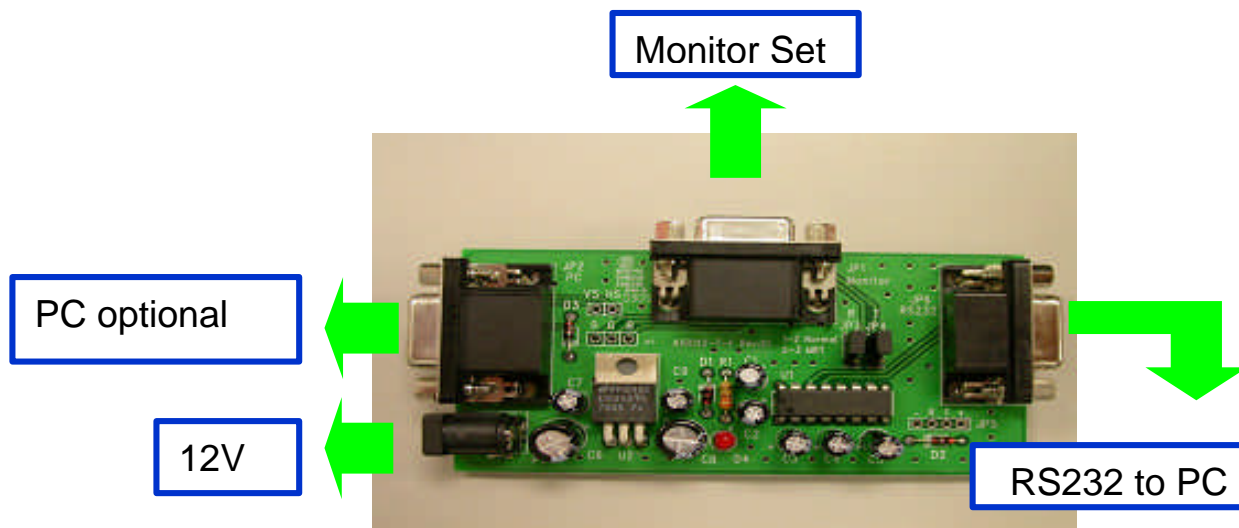
- b) Ancillary .ISPACK.EXE : Description program



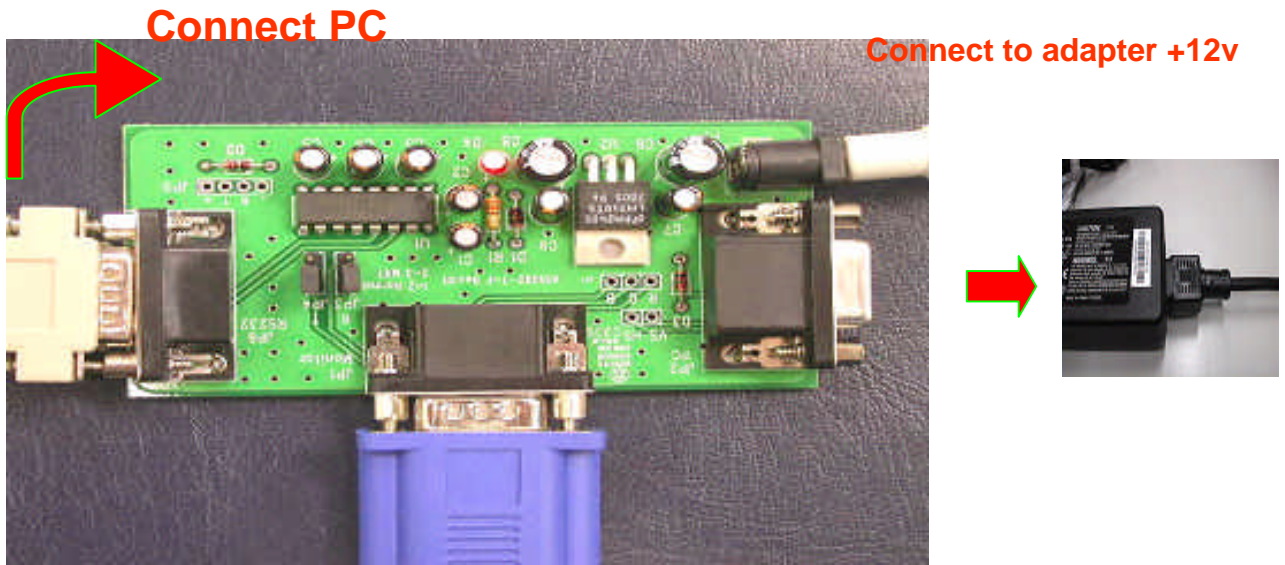
GProbe4.2.0.3\_gm5126.exe

#### 1.1.2. Hardware

- RS232 cable ( 9 Pin )
- D\_Sub cable ( 15Pin )
- 12V Power supply
- RS232 to D\_Sub transfer BD



1.1.3 Join R232, monitor cable, and adapter. Detail, see the example picture as below.



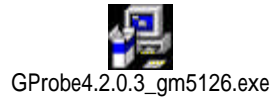
VGA  
Cable



**Connect monitor**

## 1.2 Installation :

A. Please install the programs respectively as below.



Before Setup produce **GProbe 4** file . Please set at ISP & BIOS software file.

B. I S & BIOS software file to be about to produce the next. (If the file existence already, repeat.) This system is applied to Win 95/98/NT/2000.

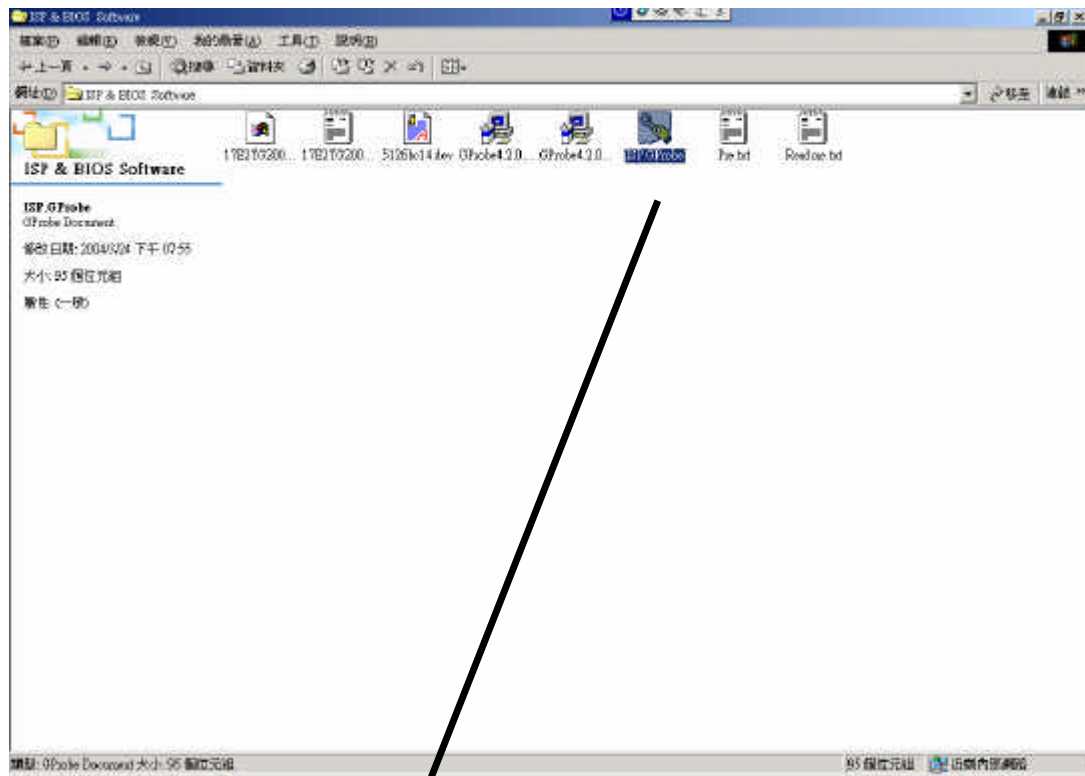


## 1.3 ISP Execution

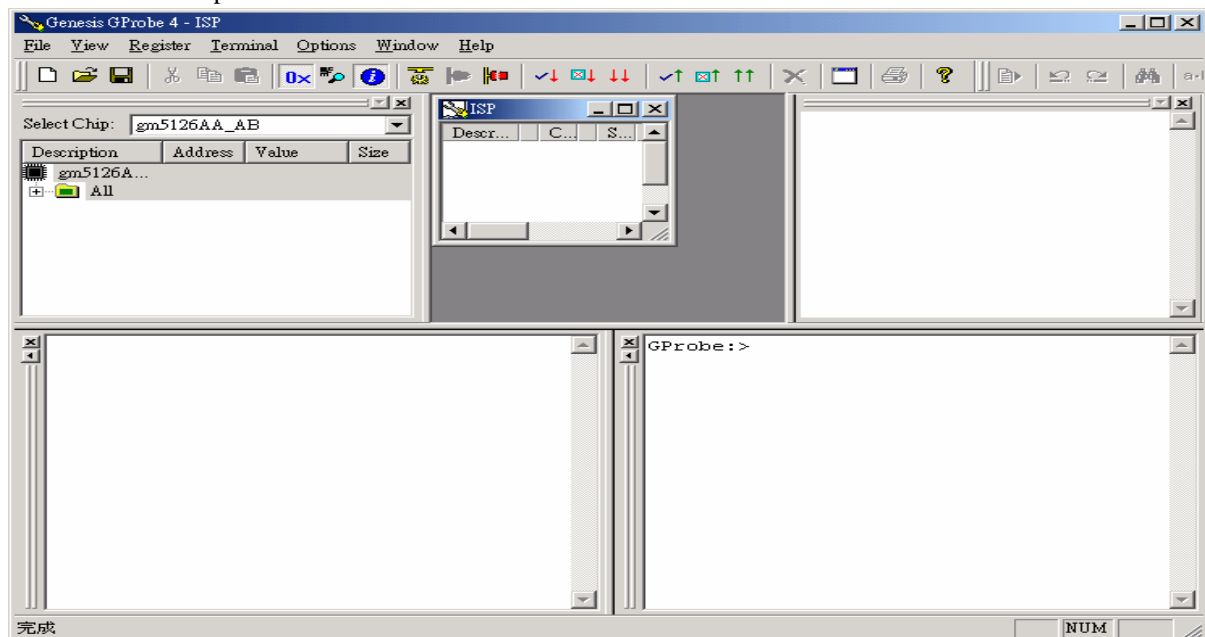


**Please copy all the files above to the same directory**

1. Open ISP.Gprobe while parameters set up have been completed.

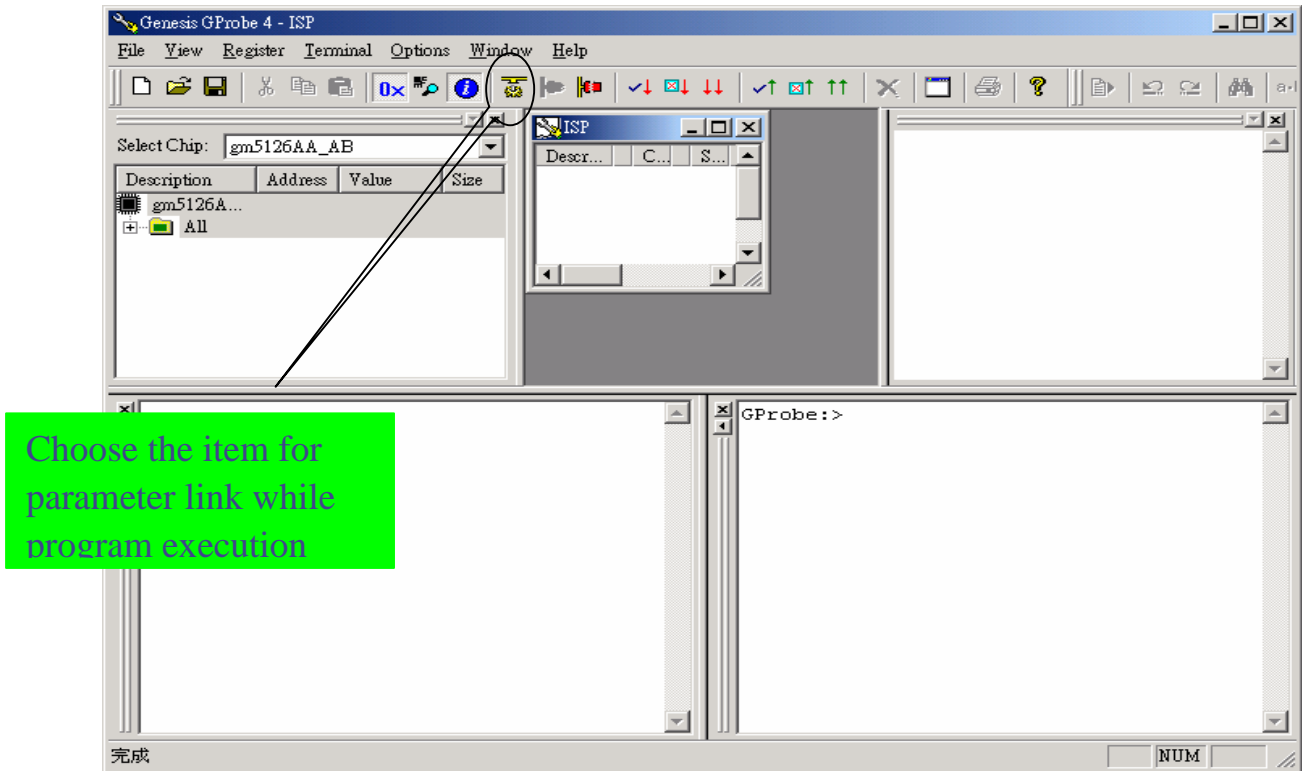


2. You will see the picture as below.

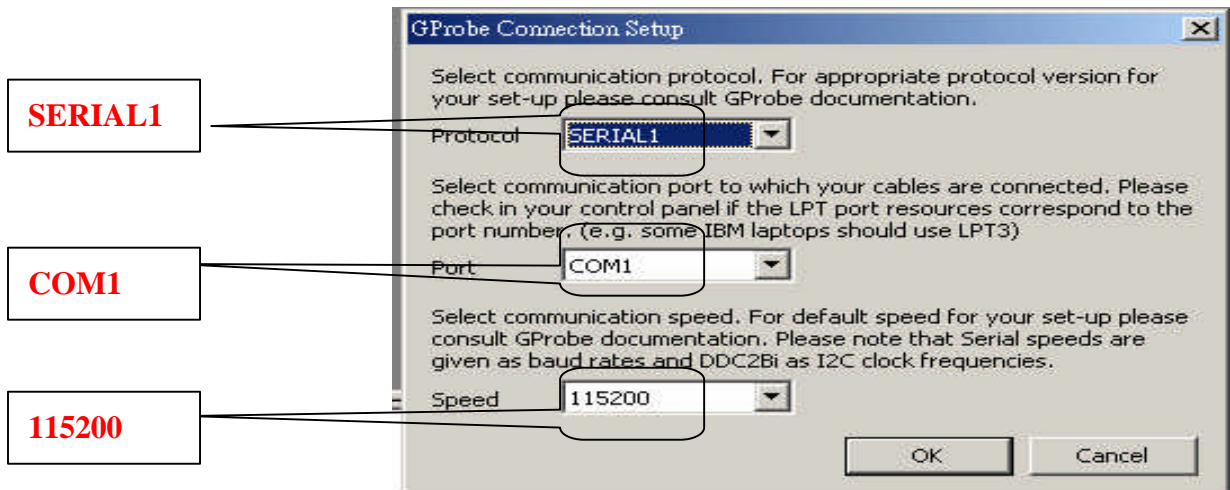




3. Execute the main program (Grove).

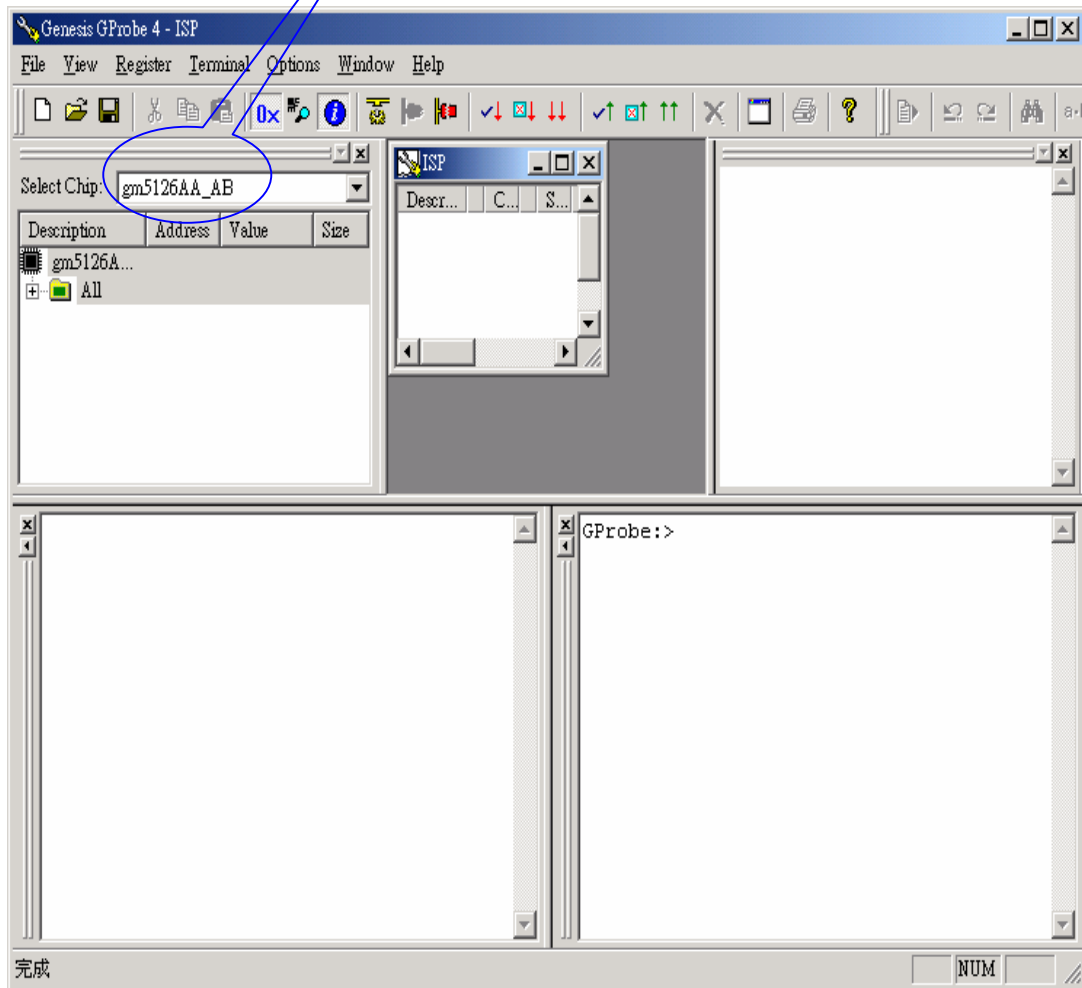


4. Please follow up the parameter set up shown as below :



5. Select “gm5126AA\_AB”

Select  
“gm5126AA\_AB”



6. Execute Pre.txt : Input **BATCH PRE.TXT**

The system can execute ISP while the words show up

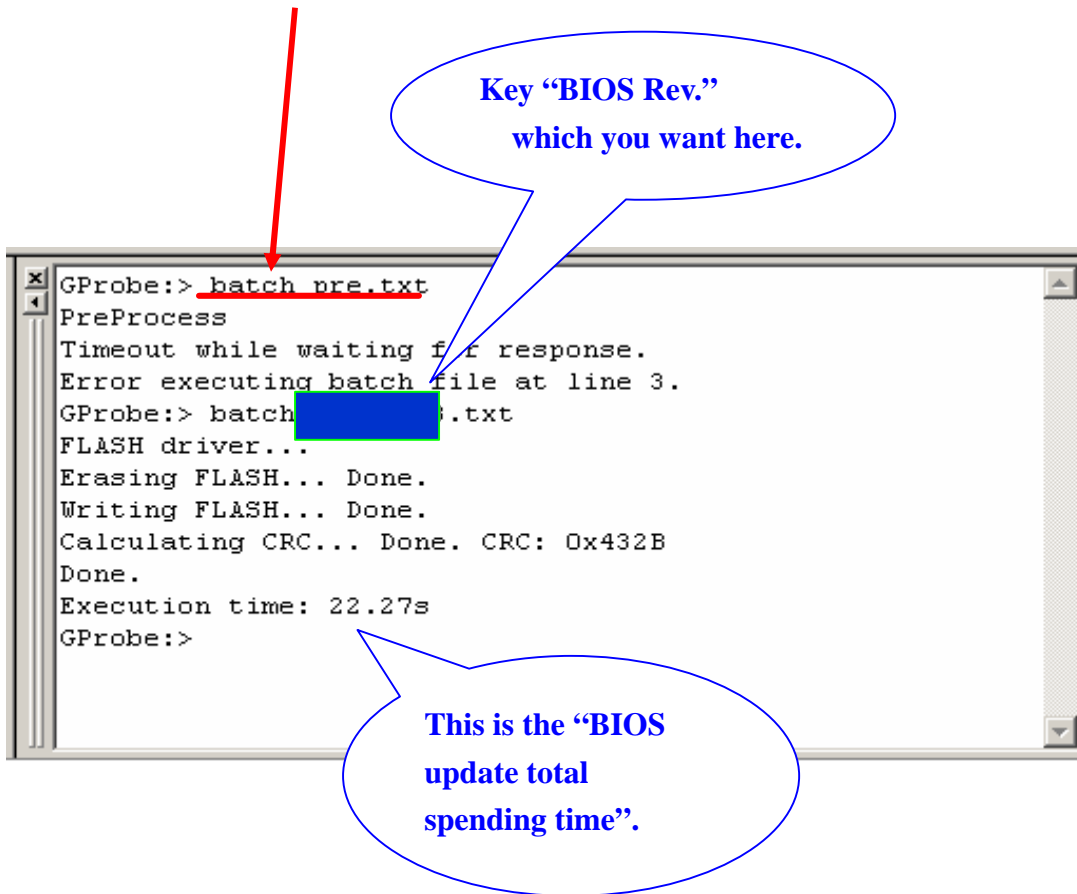
Input " BATCH PRE.TXT"

```
V1.11 RC23  
ChipID = 0xf1  
Debug Mode
```

```
GProbe:> batch pre.txt  
PreProcess  
Timeout while waiting for response.  
Error executing batch file at line 3.  
GProbe:> |
```

If appear line 3 is OK,  
Appear line 2 is Error.  
Please check wiring.

7. Please check the entity connection and execute Gprobe 4 again once Debug Mode did not show up  
 ISP Program execution : Input **BATCH ( update of BIOS Rev) .TXT**

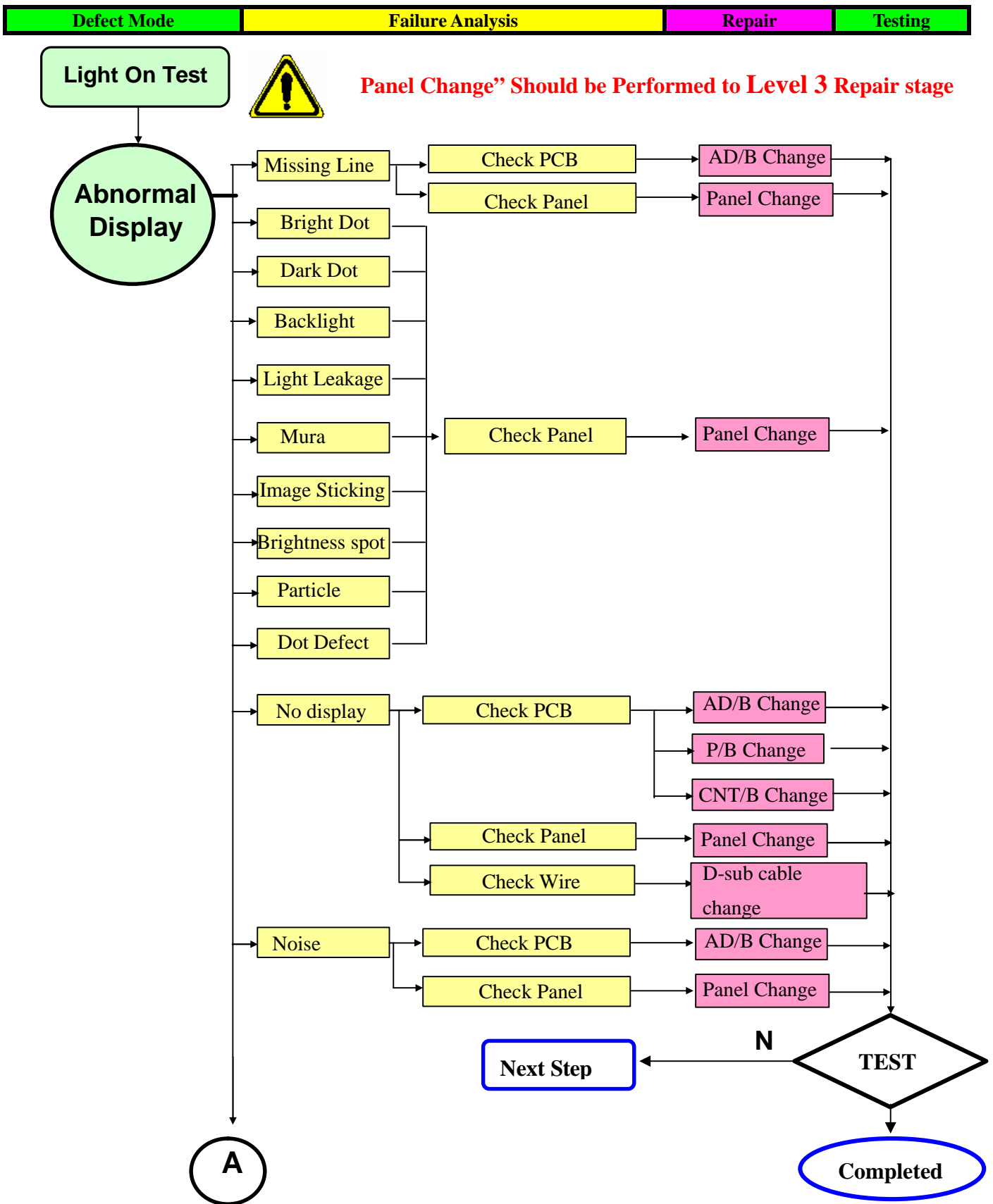


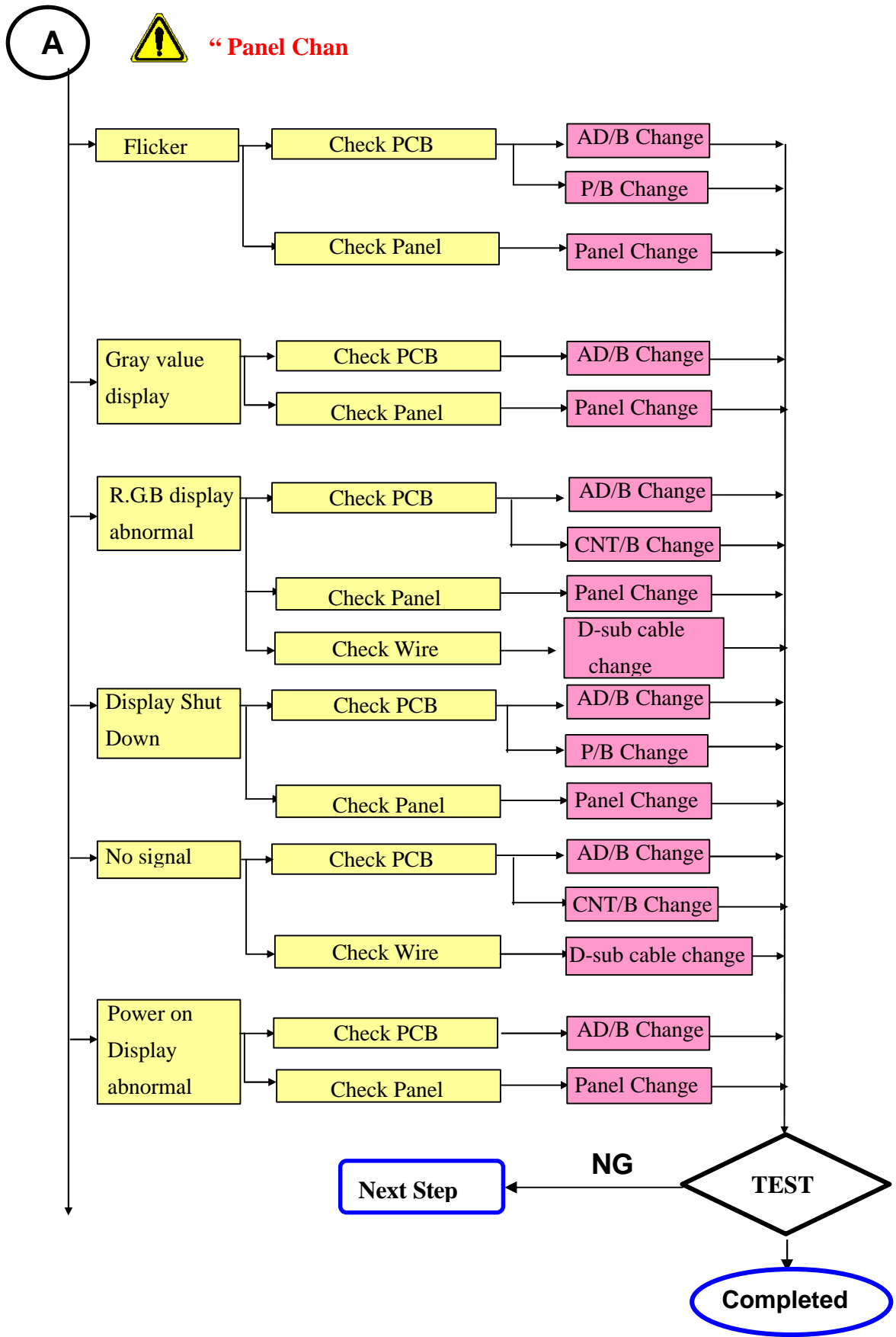
**If failed, Please don't turn off power. Repeat do it again, from step 6 to step 7.**

8. When everything is done. Please turn off the power and restart it again.  
 Check *Factory Mode* and make sure it already be updated.



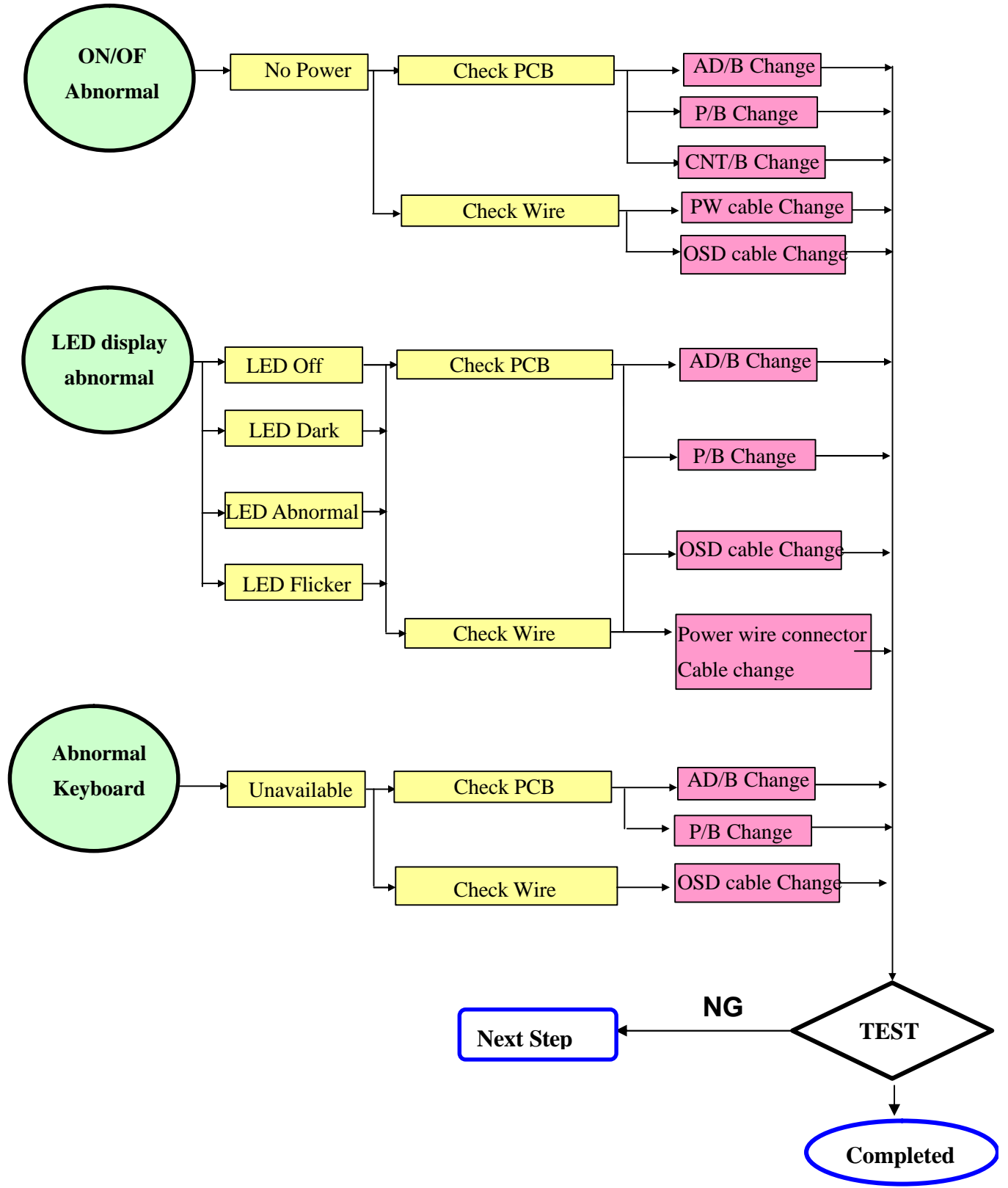
## 6. Troubleshooting Flow Chart





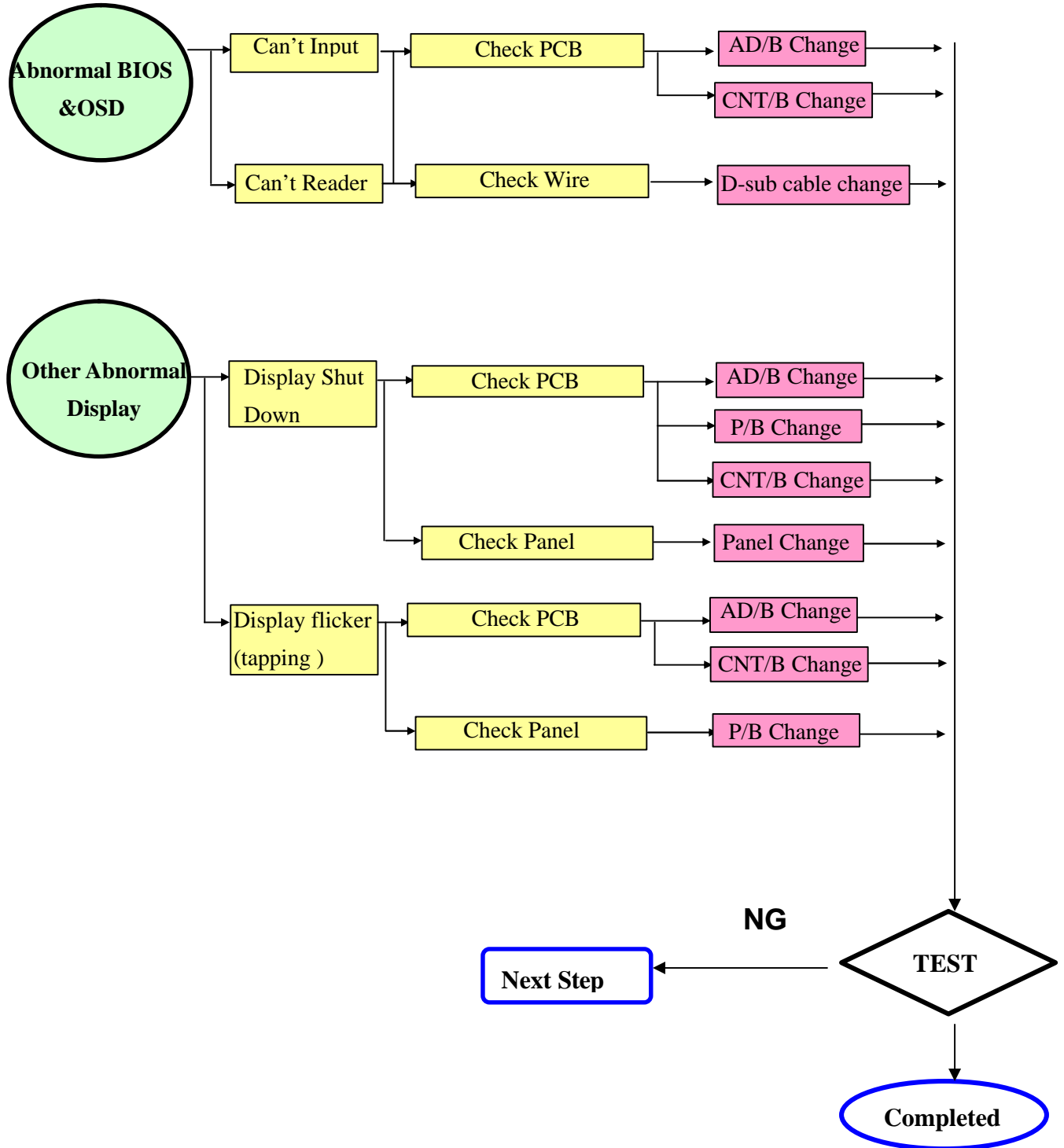


**“Panel Change” Should be Performed to Level 3 Repair stage**





**“Panel Change” Should be Performed to Level 3 Repair stage**





## ◆ Troubleshooting Analysis

Check the information in this section to see if the problems can be solved before requesting repair.

**Note : The consumers are only allowed to solve the problems described as below. Any unauthorized product modification, or failure to follow instructions supplied with the product will end the warranty immediately.**

- **No image**
  - Make sure power button is ON.
  - Check whether the LCD monitor and computer power cords are plugged and whether there is a supply of power.
- **No Signal Input**
  - Check the signal connection between the computer and LCD monitor.
- **“Out of Range”**
  - Check the computer image output resolution and frequency and compare the value with the preset values (Please refer to [Appendix-Display Mode]).
- **Fuzzy Image**
  - Adjust Phase.
- **Image too bright**
  - Adjust brightness and contrast by OSD.
- **Image too dark**
  - Adjust brightness and contrast by OSD.
- **Irregular image**
  - Check the signal connection between the computer and LCD monitor.
  - Perform Auto Adjust.
- **Distorted image**
  - Reset the LCD monitor
  - Take off extra accessories (such as signal extension cord).
- **Image is not centered**
  - Use OSD Image Menu to adjust H\_Position and V\_Position.
  - Check image size setting.
  - Perform Auto Adjust.
- **Size is not appropriate**
  - Use OSD Image Menu to adjust H\_Position and V\_Position.
  - Check image size setting.
  - Perform Auto Adjust.
- **Uneven color**
  - Use OSD Color Menu to adjust color setting.
- **Color too dark**
  - Use OSD Color Menu to adjust color setting.
- **Dark area distorted**
  - Use OSD Color Menu to adjust color setting.
- **White color is not white**
  - Use OSD Color Menu to adjust color setting.

## 7. Recommended Spare Parts List

### RECOMMENDED SPARE PARTS LIST (VA912-1)

ViewSonic Model Number: VS10696

Rev: 1a

Item	Description	ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	<b>Accessories:</b> Adapter, UP06511190-08B, 19 V, 3.42 A, 65 W, Black, Poitrans, Two BC		A-00000570	271906519H	ADAPTOR		1
2	Power Cord, BSI, H05VV-F, 0.75mm2, 3C, LP-60L+LS-60, L=1830+/-50mm, Black, 18AWG, PSB Mark, Linetek, No Bag		A-00002057	32E1818060 (AJ0E2H1K26)	POWER		1
3	Power Cord, CCC, 300/500V, 0.75mm2, 3C, PC-323+COC-01, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00002058	32E1818013 (AJ0E2H1C26)	POWER		1
4	Power Cord, CEE, SP-023+IS-14, H05VV-F, 3G, 0.75mm2, CT-12, L=1800+/-50mm, I-SHENG, 18AWG, Black, No Bag		A-00002059	32E1818018 (AJ0E2H1E26)	POWER		1
5	Power Cord, JIS, VCTF, 0.75mm2, 3C, LP54+LS-13J, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00002060	32E1818014 (AJ0E2H1J26)	POWER		1
6	Power Cord, UL, SVT#18/3C, 75 Celsius degree, LP-30B+LS-13, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00000458	32E1818015 (AJ0E2H1A26)	POWER		1
7	<b>Board Assembly:</b> DC/AC Inverter, TWS-444-983, 4.8, mA, 2900 V, Sumida		B-00000573	2714000022	PCBA-P		1
8	PCBA For A190E2-T, A190E2-H-K, Rev.02, Rigid, 203-01(ODM)		B-00000575	35A19K0202			1
9	PCBA For, A190E2-H, A190E2-H-S, 201-05, Rev 02, OSE/USI, ODM		B-00002364	35-D000320	PCBA-S		1
10	<b>Cabinets:</b> Bezel Assy, A190E2-H06, ASSY, Pantone 877C silver, Fuking		C-00002365	40-D000246			1
11	Cover AD, A190E2, SECC, t=0.6mm		C-00002366	41A1999106			1
12	Cover Hinge Assy, A190E2-H06, J91A11B5 Black, Fuking		C-00002367	40-D000244			1
13	Rear Assy, A190E2-H06, J91A11B5 Black, Fuking		C-00002368	40-D000249			1
14	Stand Seat Assy, A190E2-H06, ASSY, J91A11H8 Black, Fuking		C-00002369	40-D000242			1
15	<b>Cables:</b> Audio Cable, A150X2, 18AWG, 180cm, Black, JCE		CB-00000544	32F2818004	AUDIO		1
16	DVI CABLE, DVI-D(M) TO DVI-D(M), S/L, 1.8M, W/2F, JCE, BLACK		CB-00002083	32F0000004	DVI		1
17	FFC_X, A190E2, 45PIN, 60x23mm, PITCH=0.5mm		CB-00000582	3241902003			1
18	FFC-OSD, A190E2-H01, 15Pin, 90mm*14mm, Pitch=1.0mm		CB-00000583	3241900003			1
19	Monitor Cable, A150X2, 30AWG, 180cm, Black, JCE		CB-00000547	32F3018003	DSUB		1
20	<b>Documentation:</b> Carton Label, A190E2-H06, 76.2 mm, 76.2 mm		DC-00002370	77-D000121			1
21	Label, Bar-Code Labe, 55*13mm		DC-00002073	7741519181			1
22	Menu for VSC_VA912+Caution Card_for USA, Complex, 4C, Yi-Ching Special Printing, A190E2-H06		DC-00002371	76-D000535 (AJ0E2H1A26)	MENU		1
23	Menu for VSC(VA912), Complex, 4C		DC-00002372	76-D000120 (AJ0E2H1C26) (AJ0E2H1E26) (AJ0E2H1J26) (AJ0E2H1K26) (AJ0E2H2A26)	MENU		1
24	Safety Label, A190E2-H06, 118 mm, 49 mm		DC-00002373	77-D000117			1
25	<b>Packing Material:</b> Bag, 700 mmx500 mmx0.13 mm, LDPE, 500, Huang Jyii		P-00002374	7841919941			1
26	Carton, A190E2-H06, 472 mmx182 mmx468 mm		P-00002375	78-D000116			1
27	Cushion, A190E2-H06, PE_LD, White, 500 mmx213 mmx50 mm, Hwa Chang, PE_Foam(Left)		P-00002376	78-D000385			1
28	Cushion, A190E2-H06, PE_LD, White, 500 mmx213 mmx50 mm, Hwa Chang, PE_Foam(Right)		P-00002377	78-D000383			1
29	Inner Box, A170E1-H0G, Paper board, 454 mmx160 mmx43 mm, Yuen Foong Yu, Inner Box		P-00002070	78-D000337			1
30	Panel Protector Film, A190E2-H06, mylar, Just Enter, 400X325X0.1 mm		P-00002378	73-D001222			1

**RECOMMENDED SPARE PARTS LIST (VA912-2)**

ViewSonic Model Number: VS10696

Rev: 1a

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	<b>Accessories:</b> Adapter, UP06511190-08B, 19 V, 3.42 A, 65 W, Black, Potrans, Two BC		A-00000570	271906519H	ADAPTER		1
2	Power Cord, BSI, H05VV-F, 0.75mm2, 3C, LP-60L+LS-60, L=1830+/-50mm, Black, 18AWG, PSB Mark, Linetek, No Bag		A-00002057	32E1818060 (AJ0E2T1K26)	POWER		1
3	Power Cord, CCC, 300/500V, 0.75mm2, 3C, PC-323+COC-01, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00002058	32E1818013 (AJ0E2T1C26)	POWER		1
4	Power Cord, CEE, SP-023+IS-14, H05VV-F, 3G, 0.75mm2, CT-12, L=1800+/-50mm, I-SHENG, 18AWG, Black, No Bag		A-00002059	32E1818018 (AJ0E2T1E26)	POWER		1
5	Power Cord, JIS, VCTF, 0.75mm2, 3C, LP54+LS-13J, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00002060	32E1818014 (AJ0E2T1J26)	POWER		1
6	Power Cord, UL, SVT#18/3C, 75 degree Celcius, LP-30B+LS-13, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00000458	32E1818015 (AJ0E2T1A26) (AJ0E2T2A26)	POWER		1
7	<b>Board Assembly:</b> DC/AC Inverter, TWS-444-983, 4.8, mA, 2900 V, Sumida		B-00000573	2714000022	PCBA-P		1
8	PCBA for , A190E2-T, A190E2-H-S, 203-04, Rev.02, OSE/USI, ODM		B-00002428	35A19S0208	PCBA-S		1
9	PCBA For A190E2-T, A190E2-H-K, Rev.02, Rigid, 203-01(ODM)		B-00000575	35A19K0202			1
10	<b>Cabinets:</b> Bezel Assy, A190E2-H06, ASSY, Pantone 877C silver, Fuking		C-00002365	40-D000246			1
11	Cover AD(W/O DVI-D Hole), A190E2, SECC, t=0.6mm		C-00000578	41A1999107			1
12	Cover Hinge Assy, A190E2-H06, ASSY, J91A11B5 Black, Fuking		C-00002367	40-D000244			1
13	Rear Assy, A190E2-H06, ASSY, J91A11B5 Black, Fuking		C-00002368	40-D000249			1
14	Stand Seat Assy, A190E2-H06, ASSY, J91A11H8 Black, Fuking		C-00002369	40-D000242			1
15	<b>Cables:</b> Audio Cable, A150X2, 18AWG, 180cm, Black, JCE		CB-00000544	32F2818004	AUDIO		1
16	FFC_X, A190E2, 45PIN, 60x23mm, PITCH=0.5mm		CB-00000582	3241902003			1
17	FFC-OSD, A190E2-H01, 15Pin, 90mm*14mm, Pitch=1.0mm		CB-00000583	3241900003			1
18	Monitor Cable, A150X2, 30AWG, 180cm, Black, JCE		CB-00000547	32F3018003	DSUB		1
19	<b>Documentation:</b> Carton Label Label, A190E2-H06, 76.2 mm, 76.2 mm		DC-00002370	77-D000121			1
20	Label, Bar-Code Labe, 55*13mm		DC-00002073	7741519181			1
21	MENU for VSC_VA912_Analog, Complex, 4C, Yi-Ching Special Printing, A190E2-H06		DC-00002429	76-D001516 (AJ0E2T1C26) (AJ0E2T1E26) (AJ0E2T1J26) (AJ0E2T1K26) (AJ0E2T2A26)	QUICK-G		1
22	MENU for VSC_VA912b_Analog+Caution Card_for USA, Complex, 4C, Yi-Ching Special Printing, A190E2-H06		DC-00002430	76-D001517 (AJ0E2T1A26)	QUICK-G		1
23	Safety Label, A190E2-H06, 118 mm, 49 mm		DC-00002373	77-D000117			1
24	<b>Packing Material:</b> Bag, 700 mmx500 mmx0.13 mm, LDPE, 500, Huang Jyii		P-00002374	7841919941			1
25	Carton, A190E2-H06, 472 mmx182 mmx468 mm		P-00002375	78-D000116			1
26	Cushion, A190E2-H06, PE_LD, White, 500 mmx213 mmx50 mm, Hwa Chang, PE_Foam(Left)		P-00002376	78-D000385			1
27	Cushion, A190E2-H06, PE_LD, White, 500 mmx213 mmx50 mm, Hwa Chang, PE_Foam(Right)		P-00002377	78-D000383			1
28	Inner Box, A170E1-H0G, 454 mmx160 mmx43 mm, Yuen Foong Yu, Inner Box		P-00002070	78-D000337			1
29	Panel Protector Film, A190E2-H06, mylar, Just Enter, 400X325X0.1 MM		P-00002378	73-D001222			1

**RECOMMENDED SPARE PARTS LIST (VA912b-1)**

ViewSonic Model Number: VS10696

Rev: 1a

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	<b>Accessories:</b> Adapter, UP06511190-08B, 19 V, 3.42 A, 65 W, Black, Potrans, Two BC		A-00000570	271906519H	ADAPTER		1
2	Power Cord, BSI, H05VV-F, 0.75mm2, 3C, LP-60L+LS-60, L=1830+/-50mm, Black, 18AWG, PSB Mark, Linetek, No Bag		A-00002057	32E1818060 (AJ0E2H1K16)	POWER		1
3	Power Cord, CCC, 300/500V, 0.75mm2, 3C, PC-323+COC-01, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00002058	32E1818013 (A0E2H1C16)	POWER		1
4	Power Cord, CEE, SP-023+IS-14, H05VV-F, 3G, 0.75mm2, CT-12, L=1800+/-50mm, I-SHENG, 18AWG, Black, No Bag		A-00002059	32E1818018 (AJ0E2H1E16)	POWER		1
5	Power Cord, JIS, VCTF, 0.75mm2, 3C, LP54+LS-13J, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00002060	32E1818014 (AJ0E2H1J16)	POWER		1
6	Power Cord, UL, SVT#18/3C, 75 degree Celsius, LP-30B+LS-13, L=1830+/-50mm, Black, Linetek, 18AWG, No Bag		A-00000458	32E1818015 (AJ0E2H1A16) (AJ0E2H2A16)	POWER		1
7	<b>Board Assembly:</b> DC/AC Inverter, TWS-444-983, 4.8, mA, 2900 V, Sumida		B-00000573	2714000022	PCBA-P		1
8	PCBA For A190E2-T, A190E2-H-K, Rev.02, Rigid, 203-01(ODM)		B-00000575	35A19K0202			1
9	PCBA For, A190E2-H, A190E2-H-S, 201-05, Rev 02, OSE/USI, ODM		B-00002364	35-D000320	PCBA-S		1
10	<b>Cabinets:</b> Bezel Assy, A190E2-H06, ASSY, H93828B5 Midnight Gray, Fuking		C-00002419	40-D000251			1
11	Cover AD, A190E2, SECC, t=0.6mm		C-00002366	41A1999106			1
12	Cover Hinge Assy, A190E2-H06, ASSY, H93828B5 Midnight Gray, Fuking		C-00002420	40-D000245			1
13	Rear Assy, A190E2-H06, ASSY, H93828B5 Midnight Gray, Fuking		C-00002421	40-D000237			1
14	Stand Seat Assy, A190E2-H06, ASSY, H93828H8 Midnight Gray, Fuking		C-00002422	40-D000248			1
15	<b>Cables:</b> Audio Cable, A150X2, 18AWG, 180cm, Black, JCE		CB-00000544	32F2818004	AUDIO		1
16	DVI CABLE, DVI-D(M) TO DVI-D(M), S/L, 1.8M, W/2F, JCE, BLACK		CB-00002083	32F0000004	DVI		1
17	FFC_X, A190E2, 45PIN, 60x23mm, PITCH=0.5mm		CB-00000582	3241902003			1
18	FFC-OSD, A190E2-H01, 15Pin, 90mm*14mm, Pitch=1.0mm		CB-00000583	3241900003			1
19	Monitor Cable, A150X2, 30AWG, 180cm, Black, JCE		CB-00000547	32F3018003	DSUB		1
20	<b>Documentation:</b> Carton Label for , A190E2-06, Composite paper, 76.2 mmx76.2 mm, VSC(VA912b)		DC-00002423	77-D000263			1
21	Label, Bar-Code Labe, 55*13mm		DC-00002073	7741519181			1
22	MENU for VSC_VA912b, Complex, 4C, CMO_Maker, A190E2-H06		DC-00002424	76-D000311	MENU		1
23	MENU for VSC_VA912b+Caution Card_for USA, Complex, 4C, Yi-Ching Special Printing, A190E2-H06		DC-00002425	76-D000532	MENU		1
24	Safety Label for , A190E2-H06, 118 mmx49 mm, VSC(VA912b)		DC-00002426	77-D000265			1
25	<b>Packing Material:</b> Bag, 700 mmx500 mmx0.13 mm, LDPE, 500, Huang Jyii		P-00002374	7841919941			1
26	Carton, A190E2-H06, 472 mmx182 mmx468 mm, VSC_VA912b		P-00002427	78-D000358			1
27	Cushion, A190E2-H06, PE_LD, White, 500 mmx213 mmx50 mm, Hwa Chang, PE_Foam(Left)		P-00002376	78-D000385			1
28	Cushion, A190E2-H06, PE_LD, White, 500 mmx213 mmx50 mm, Hwa Chang, PE_Foam(Right)		P-00002377	78-D000383			1
29	Inner Box, A170E1-H0G, 454 mmx160 mmx43 mm, Yuen Foong Yu, Inner Box		P-00002070	78-D000337			1
30	Panel Protector Film, A190E2-H06, mylar, Just Enter, 400X325X0.1 MM		P-00002378	73-D001222			1

**BOM LIST (VA912-1)**

ViewSonicModelNumber:VS10696

Rev:1a

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
1	#N/A	MJ0E301K01	ALL	19" common BOM,19E3 cell,COF,normal A/C grade			1
2	#N/A	L3J003XXXX	ALL	LCD Panel , For 19.0" LCM, SXGA			1
3	#N/A	36X8607401	ALL	Driver IC,COG,Scan,HX8607APD400,263Channel,HIMAX	SIC		4
4	#N/A	7344191016	ALL	COG_CF,AC-8405Z-23,1.5mm,50M/RL			1
5	#N/A	7344191017	ALL	ACF,AC-4251FY-16,100M/RL			1
6	#N/A	36X8002661	ALL	Driver IC,COF,Data,HX8002KCB66,COF,A190E2,0Channel,HIMAX	Data		10
7	#N/A	7344191011	ALL	ACF,AC-9051AR-35,100M/RL			1
8	#N/A	35A19X0202	ALL	PCBA For A190E2-H,A190E2-H-X,X2,Rigid,201-02,(ODM)	PCBA-X		1
9	#N/A	34A19X2X04	ALL	PCBA,A190E2-H-X,X2,Taiwan PCB Techvest,(A19026013)			1
10	#N/A	01014F1011	ALL	Chip Resistor,SMD,+/-1%,0402,1/16W,100 OHM	R12,R13,R14,R15,R16,R17,R18,R19,R20,R23,R26,R27,R28,R29,R30,R31,R32,R33,R34,R35		20
11	#N/A	01054FR002	ALL	Chip Resistor,SMD,+/-5%,0402,1/16W,0 OHM	R37		1
12	#N/A	050K1062C1	ALL	Chip Capacitor,MLCC,X5R,1206,10uF,6.3V,+/-10%,RoHS	C26,C27,C28,C29,C30,C31,C32,C33,C49,C50		10
13	#N/A	050Z015442	ALL	Chip Capacitor,MLCC,Y5V,0402,100nF,16V,-20~+80%	C2,C3,C4,C7,C8,C9,C13,C14,C15,C18,C19,C20,C45,C46,C47,C48		16
14	#N/A	050Z1064C1	ALL	Chip Capacitor,MLCC,Y5V,1206,10uF,16V,-20~+80%	C10,C1		2
15	#N/A	050Z1064D3	ALL	Chip Capacitor,MLCC,Y5V,1210,10uF,16V,-20~+80%	C12,C37,C38,C41,C42,C43		6
16	#N/A	250345S452	ALL	Connector,B-F,45pin,Hirose,FH12-45S-0.5SH	CN2,CN1		2
17	#N/A	7349951002	ALL	Silicone,TORAY/-9187L,330g			0.4
18	#N/A	PJ0EFH3G03	ALL	Olympic,19",Function BOM,D-sub+DVI+Audio,Genesis,For VSC	Yes		1
19	M-00000591	41A1969107	ALL	Metal Frame_Front Assy,A190E2	Front		1
20	#N/A	7341991010	ALL	Protector Film_Metal-Rear,PC,t=0.254mm,A190E2			1
21	#N/A	3241902003	ALL	FFC_X,A190E2,45PIN,60x23mm,PITCH=0.5mm			2
22	M-00000559	42A9940007	ALL	Stand-Off 4 #-40*11.8			2
23	HW-00000553	42A9930008	ALL	Screw,M3*P0.5*4,5.5*2,Steel			12
24	#N/A	2714000022	ALL	DC/AC Inverter,TWS-444-983,4.8mA,2900 V,Sumida			1
25	M-00000599	44A1913004	ALL	Backlight Unit,Direct Type,W/ West Lamp,A190E2	B/L		1
26	B-00002364	35-D000320	ALL	PCBA For,A190E2-H,A190E2-H-S,201-05,Rev 02,OSE/USI,ODM	PCBA-S		1
27	C-00002366	41A1999106	ALL	Cover AD,A190E2,SECC,t=0.6mm			1
28	#N/A	PJ0EI26205	AJ0E2H1A26	Olympic,19",ID BOM,D-sub+DVI+Audio,USA+Taiwan,Silver Black,VSC,	Yes		1
	#N/A	PJ0EI26208	AJ0E2H1C26	Olympic,19",ID BOM,D-sub+DVI+Audio,China,Silver Black,VSC,			1
	#N/A	PJ0EI26206	AJ0E2H1E26	Olympic,19",ID BOM,D-sub+DVI+Audio,European,Silver Black,VSC,			1
	#N/A	PJ0EI26207	AJ0E2H1J26	Olympic,19",ID BOM,D-sub+DVI+Audio,Japan,Silver Black,VSC,			1
	#N/A	PJ0EI26209	AJ0E2H1K26	Olympic,19",ID BOM,D-sub+DVI+Audio,UK,Silver Black,VSC,			1
	#N/A	PJ0EI2620A	AJ0E2H2A26	Olympic,19",ID BOM,D-sub+DVI+Audio,USA+Taiwan,Silver Black,VSC,(For TWN use)			1
29	C-00002368	40-D000249	ALL	Rear Assy,A190E2-H06,ASSY,J91A11B5 Black,Fuking			1
30	HW-00000556	42A9990005	ALL	Screw,M3*P1.27*12,5.5*2,Steel			1
31	HW-00000555	42A9930014	ALL	Screw,M3*P0.5*6,Steel			4
32	C-00002369	40-D000242	ALL	Stand Seat Assy,A190E2-H06,ASSY,J91A11H8 Black,Fuking			1
33	HW-00000557	42A9930017	ALL	Screw,?3*P1.27*8,5.5*2,Steel			2
34	C-00002367	40-D000244	ALL	Cover Hinge Assy,A190E2-H06,ASSY,J91A11B5 Black,Fuking			1
35	#N/A	42-D000314	ALL	SCREW,M4,P=0.7 mm,L=15 mm,Special Thin Head,Phillips Cross Recess,Screw_with_Washer,SHYE CHING SCREW			4
36	B-00000575	35A19K0202	ALL	PCBA For A190E2-T,A190E2-H-K,Rev.02,Rigid,203-01(ODM)			1
37	#N/A	34A19K2301	ALL	PCB,A190E2-H-K,Rev.02,YANG AN,(A19112607A)			1
38	#N/A	2304112001	ALL	LED Lamp(SMD;Orange),19-21UYOC/S530-A2/TR8,605nm,H=0.8mm,Everlight,RoHS	D2		1
39	#N/A	2304114001	ALL	LED Lamp(SMD;Green),19-21VGC/TR8,571nm,H=0.8mm,Everlight,RoHS	D1		1
40	#N/A	2503715151	ALL	Connector,B-F,15Pin,E&T,7151-15	CN1		1

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
41	#N/A	2502532021	ALL	CONNECTOR,W-B,A150X2,MOLEX,53261-0290,2Pin	CN3,CN2		2
42	#N/A	2704020004	ALL	Switch,Forward,SFKHHMW,4Pin,12V,DC 5mA	SW1,SW2,SW3,SW4,SW5,SW6		6
43	#N/A	10E1900017	ALL	Software (EDID_D-SUB),A190E2,Ver.VSCCF1BA00,ViewSonic,Checksum(EA),Analog Port	EDD		1
44	#N/A	10E1900018	ALL	Software (EDID_DVI),A190E2,Ver.VSCCF1BD00,ViewSonic,Checksum(9A),DVI Port	DIGITAL		1
45	#N/A	10B1900030	ALL	Software(BIOS),A190E2,Ver.NR19E2TGxx08,CMC,Analog+Audio,Taiwan,CheckSum(0008)	BIS		1
46	#N/A	3241900003	ALL	FFC-OSD,A190E2-H01,15Pin,90mm*14mm,Pitch=1.0mm			1
47	C-00002365	40-D000246	ALL	Bezel Assy,A190E2-H06,ASSY,Pantone 877C silver,Fuking			1
48	#N/A	7341311044	ALL	Protector Film-Panel,PET,M190E2			1
49	#N/A	7741519181	ALL	Label,Bar-Code Labe,55*13mm			1
50	DC-00002373	77-D000117	ALL	Safety Label,A190E2-H06,118 mm,49 mm			1
51	#N/A	77-D000268	AJ0E2H1A26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			1
	#N/A	77-D000268	AJ0E2H2A26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			1
	#N/A	77-D000268	AJ0E2H1J26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			1
	#N/A	77-D000268	AJ0E2H1K26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			1
	#N/A	77-D000268	AJ0E2H2A26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			1
	#N/A	77-D000359	AJ0E2H1C26	SN Label for ,A190E2-H06,50 mmx20 mm,VSC_VA912_for China			1
52	DC-00002371	76-D000535	AJ0E2H1A26	MENU for VSC_VA912+Caution Card_for USA,Complex,4C,Yi-Ching Special Printing,A190E2-H06	MENU		1
	DC-00002372	76-D000120	AJ0E2H1C26	MENU forVSC,(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2H1E26	MENU forVSC(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2H1J26	MENU forVSC(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2H1K26	MENU forVSC(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2H2A26	MENU forVSC(VA912),Complex,4C	MENU		1
53	#N/A	7841919921	ALL	PE Foam Bag,Protector,570*600*0.13,A190E1-H01,white			1
54	#N/A	7841599191	ALL	Pallet,A150X1-T01,Wooden,1150 mmx970 mmx135 mm			0.029
55	#N/A	7841595111	ALL	Corner Protector,50*50*1850(mm)			0.118
56	#N/A	7741999141	ALL	Label,Pallet Barcode Label,75x40,A190E2-H03,VSC			0.029
57	DC-00002370	77-D000121	ALL	Carton Label Label,A190E2-H06,76.2 mm,76.2 mm			1
58	#N/A	7841995111	ALL	Separator,(AA), 1130x955x11,A190E1-H01			0.029
59	P-00002375	78-D000116	ALL	Carton,A190E2-H06,472 mmx182 mmx468 mm			1
60	#N/A	7345511002	ALL	Tape,Security Tape,OPP,L900xW50x0.045mm,VSC			0.07
61	P-00002377	78-D000383	ALL	Cushion,A190E2-H06,PE_LD,White,500 mmx213 mmx50 mm,Hwa Chang,PE_Foam(Right)			1
62	P-00002376	78-D000385	ALL	Cushion,A190E2-H06,PE_LD,White,500 mmx213 mmx50 mm,Hwa Chang,PE_Foam(Left)			1
63	P-00002070	78-D000337	ALL	Inner Box,A170E1-H0G,454 mmx160 mmx43 mm,Yuen Foong Yu,Inner Box			1
64	#N/A	78-D000275	AJ0E2H1C26	Warranty Card,A170E1-H0G,143 mmx210 mm,VSC_VA712			1
65	#N/A	77-D000114	AJ0E2H1C26	Customer Label,A170E1-H0G,180 mm,100 mm			1
66	#N/A	77-D000118	AJ0E2H1C26	Customer Label,A170E1-H0G,130 mm,80 mm			1
67	#N/A	PJ0EAAE000	AJ0E2H1A26	Olympic,19",Accessory BOM,D-sub+DVI+Audio,USA/Taiwan 3 pin,Black,For VSC	Yes		1
	#N/A	PJ0EAAE000	AJ0E2H2A26	Olympic,19",Accessory BOM,D-sub+DVI+Audio,USA/Taiwan 3 pin,Black,For VSC	Yes		1
	#N/A	PJ0EACG000	AJ0E2H1C26	Olympic,19",Accessory BOM,D-sub+DVI+Audio,China 3 pin,Black,For VSC			1
	#N/A	PJ0EAEH000	AJ0E2H1E26	Olympic,19",Accessory BOM,D-sub+DVI+Audio,European / Korea 2 pin,Black,For VSC			1
	#N/A	PJ0EAJG000	AJ0E2H1J26	Olympic,19",Accessory BOM,D-sub+DVI+Audio,Japan 2 pin,Black,For VSC			1
	#N/A	PJ0EAKG000	AJ0E2H1K26	Olympic,19",Accessory BOM,D-sub+DVI+Audio,UK / HK 3 pin,Black,For VSC			1
68	CB-00000544	32F2818004	ALL	Audio Cable,A150X2,18AWG,180cm,Black,JCE	AUDIO		1
	A-00000458	32E1818015	AJ0E2H1A26	Power Code,UL,SVT#18/3C,75,LP-30B+LS-13,L=1830+/-50mm,Black,Linetek,18AWG,No Bag	POWER		1
	A-00000458	32E1818015	AJ0E2H2A26	Power Code,UL,SVT#18/3C,75,LP-30B+LS-13,L=1830+/-50mm,Black,Linetek,18AWG,No Bag	POWER		1

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
69	A-00002058	32E1818013	AJ0E2H1C26	Power Cord,CCC,300/500V,0.75mm2,3C,PC-323+COC-01,L=1830+/-50mm,Black,Linetek,18AWG,,No Bag			1
	A-00002059	32E1818018	AJ0E2H1E26	Power Code,CEE,SP-023+IS-14,H05VV-F,3G,0.75mm2,CT-12,L=1800+/-50mm,I-SHENG,18AWG,Black,No Bag			1
	A-00002060	32E1818014	AJ0E2H1J26	Power Code,JIS,VCTF,0.75mm2,3C,LP54+LS-13J,L=1830+/-50mm,Black,Linetek,18AWG,No Bag			1
	A-00002057	32E1818060	AJ0E2H1K26	Power Cord,BSI,H05VV-F,0.75mm2,3C,LP-60L+LS-60,L=1830+/-50mm,Black,18AWG,PSB Mark,Linetek,No Bag			1
70	A-00000570	271906519H	ALL	Adaptor(AC/DC),65W/19V/3.42A,UP06511190-08B,POTRANS(Black),Two BC	ADAPTOR		1
71	CB-00000547	32F3018003	ALL	Monitor Cable,A150X2,30AWG,180cm,Black,JCE	DSUB		1
72	CB-00002083	32F0000004	ALL	DVI CABLE,DVI-D(M) TO DVI-D(M),S/L,1.8M,W/2F,JCE,BLACK	DVI		1

**BOM LIST (VA912-2)**

ViewSonicModelNumber:VS10696

Rev:1a

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
1	#N/A	MJ0E301K01	ALL	19" common BOM,19E3 cell,COF,normal A/C grade			1
2	#N/A	L3J003XXXX	ALL	LCD Panel , For 19.0" LCM, SXGA			1
3	#N/A	36X8607401	ALL	Driver IC,COG,Scan,HX8607APD400,263Channel, HIMAX	SIC		4
4	#N/A	7344191016	ALL	COG_CF,AC-8405Z-23,1.5mm,50M/RL			1
5	#N/A	7344191017	ALL	ACF,AC-4251FY-16,100M/RL			1
6	#N/A	36X8002661	ALL	Driver IC,COF,Data,HX8002KCB66,COF,A190E2, 0Channel,HIMAX	Data		10
7	#N/A	7344191011	ALL	ACF,AC-9051AR-35,100M/RL			1
8	#N/A	35A19X0202	ALL	PCBA For A190E2-H,A190E2-H-X,X2,Rigid,201-02,(ODM)	PCBA-X		1
9	#N/A	34A19X2X04	ALL	PCBA,A190E2-H-X,X2,Taiwan PCB Techvest,(A19026013)			1
10	#N/A	01014F1011	ALL	Chip Resistor,SMD,+/-1%,0402,1/16W,100 OHM	R12,R13,R14,R15,R16,R17,R18,R19,R20,R23,R26,R27,R28,R29,R30,R31,R32,R33,R34,R35		20
11	#N/A	01054FR002	ALL	Chip Resistor,SMD,+/-5%,0402,1/16W,0 OHM	R37		1
12	#N/A	050K1062C1	ALL	Chip Capacitor,MLCC,X5R,1206,10uF,6.3V,+/-10%,RoHS	C26,C27,C28,C29,C30,C31,C32,C33,C49,C50		10
13	#N/A	050Z015442	ALL	Chip Capacitor,MLCC,Y5V,0402,100nF,16V,-20~+80%	C2,C3,C4,C7,C8,C9,C13,C14,C15,C18,C19,C20,C45,C46,C47,C48		16
14	#N/A	050Z1064C1	ALL	Chip Capacitor,MLCC,Y5V,1206,10uF,16V,-20~+80%	C10,C1		2
15	#N/A	050Z1064D3	ALL	Chip Capacitor,MLCC,Y5V,1210,10uF,16V,-20~+80%	C12,C37,C38,C41,C42,C43		6
16	#N/A	250345S452	ALL	Connector,B-F,45pin,Hirose,FH12-45S-0.50L	CN2,CN1		2
17	#N/A	7349951002	ALL	Silicone,TORAY/-9187L,330g			0.4
18	#N/A	PJ0EFT3G03	ALL	Olympic,19",Function BOM,D-sub+Audio,Genesis,For VSC	No		1
19	M-00000591	41A1969107	ALL	Metal Frame_Front Assy,A190E2	Front		1
20	#N/A	7341991010	ALL	Protector Film_Metal-Rear,PC,t=0.254mm,A190E2			1
21	#N/A	3241902003	ALL	FFC_X,A190E2,45PIN,60x23mm,PITCH=0.5mm			2
22	M-00000559	42A9940007	ALL	Stand-Off 4 #-40*11.8			2
23	HW-00000553	42A9930008	ALL	Screw,M3*P0.5*4.5*2,Steel			12
24	#N/A	2714000022	ALL	DC/AC Inverter,TWS-444-983,4.8,mA,2900 V,Sumida			1
25	M-00000599	44A1913004	ALL	Backlight Unit,Direct Type,W/ West Lamp,A190E2	B/L		1
26	B-00002428	35A19S0208	ALL	PCBA For A190E2-T,A190E2-H-S,Rev 02,Rigid,203-02(ODM)	PCBA-S		1
27	#N/A	34A19S2201	ALL	PCB,A190E2-H-S,Rev 02,Taiwan PCB Techvest,(A191126035),RoHS			1
28	#N/A	01016F0131	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,1K OHM	R118		1
29	#N/A	01016F1011	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,100 OHM	R40,R42,R44		3
30	#N/A	01016F1031	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,10K OHM	RP25,RP26,RP28,RP42,RP44		5
31	#N/A	01016F1331	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,13K OHM	RP36		1
32	#N/A	01016F1702	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,16.5 OHM	R95		1
33	#N/A	01016F1731	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W 16.9K OHM	RP16,RP15		2
34	#N/A	01016F1822	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,1.78K OHM	RP21		1
35	#N/A	01016F1831	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,18K OHM	RP38		1
36	#N/A	01016F2512	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,249 OHM	R58,R57		2
37	#N/A	01016F2531	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,24.3K OHM	RP6		1
38	#N/A	01016F3321	ALL	Chip Resistor,SMD,+/-1%,0603,1/16W,3.3K OHM	R69		1



Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
39	#N/A	01016F3611	ALL	Chip Resistor,SMD,+1%,0603,1/16W,357 OHM	R75		1
40	#N/A	01016F3931	ALL	Chip Resistor,SMD,+1%,0603,1/16W,39K OHM	RP35,RP34		2
41	#N/A	01016F4211	ALL	Chip Resistor,SMD,+1%,0603,1/16W,412 OHM	R66		1
42	#N/A	01016F4312	ALL	Chip Resistor,SMD,+1%,0603,1/16W,422 OHM	R92		1
43	#N/A	01016F1123	ALL	Chip Resistor,SMD,+1%,0603,1/16W,1.05K OHM	R60		1
44	#N/A	01016F4721	ALL	Chip Resistor,SMD,+1%,0603,1/16W,4.7K OHM	RP24		1
45	#N/A	01016F5R61	ALL	Chip Resistor,SMD,+1%,0603,1/16W,5.6 OHM	R65		1
46	#N/A	01016F5621	ALL	Chip Resistor,SMD,+1%,0603,1/16W,5.6K OHM	RP37,RP31		2
47	#N/A	01016F5801	ALL	Chip Resistor,SMD,+1%,0603,1/16W,57.6 OHM	R41,R43,R45		3
48	#N/A	01016F6221	ALL	Chip Resistor,SMD,+1%,0603,1/16W,6.2K OHM	RP39		1
49	#N/A	01016F6501	ALL	Chip Resistor,SMD,+1%,0603,1/16W,64.9 OHM	R81		1
50	#N/A	01016F7501	ALL	Chip Resistor,SMD,+1%,0603,1/16W,75 OHM	R49,R50,R51		3
51	#N/A	01056FR001	ALL	Chip Resistor,SMD,+5%,0603,1/16W,0 OHM	R1,R2,RP8,R78,R105,R111		6
52	#N/A	01056F1821	ALL	Chip Resistor,SMD,+5%,0603,1/16W,1.8K OHM	RP41		1
53	#N/A	01056F1041	ALL	Chip Resistor,SMD,+5%,0603,1/16W,100K OHM	RP2,RP10,RP12,RP20		4
54	#N/A	01056F1011	ALL	Chip Resistor,SMD,+5%,0603,1/16W,100 OHM	RP22,RP29,R46,R47,R115,R135,R137,R55,R56		9
55	#N/A	01056F1031	ALL	Chip Resistor,SMD,+5%,0603,1/16W,10K OHM	R5,RP13,R17,R20,R21,R24,RP30,RP40,R52,R53,R61,R63,R123,R138,R139,R141,R145,R147,R149,R151		20
56	#N/A	01056F1001	ALL	Chip Resistor,SMD,+5%,0603,1/16W,10 OHM	R32		1
57	#N/A	01056F1231	ALL	Chip Resistor,SMD,+5%,0603,1/16W,12K OHM	RP32		1
58	#N/A	01056F1631	ALL	Chip Resistor,SMD,+5%,0603,1/16W,16K OHM	R62		1
59	#N/A	01056F0131	ALL	Chip Resistor,SMD,+5%,0603,1/16W,1K OHM	R13,RP19,RP27,R103,R104		5
60	#N/A	01056F1051	ALL	Chip Resistor,SMD,+5%,0603,1/16W,1M OHM	RP45,RP43		2
61	#N/A	01056F2221	ALL	Chip Resistor,SMD,+5%,0603,1/16W,2.2K OHM	R101,R102		2
62	#N/A	01056F2721	ALL	Chip Resistor,SMD,+5%,0603,1/16W,2.7K OHM	R114,R113		2
63	#N/A	01056F2031	ALL	Chip Resistor,SMD,+5%,0603,1/16W,20K OHM	R6,R7,R9,R10,R11,R12,R15,R16		8
64	#N/A	01056F3921	ALL	Chip Resistor,SMD,+5%,0603,1/16W,3.9K OHM	RP33,R48		2
65	#N/A	01056F3331	ALL	Chip Resistor,SMD,+5%,0603,1/16W,33K OHM	RP5,RP17,RP18		3
66	#N/A	01056F4721	ALL	Chip Resistor,SMD,+5%,0603,1/16W,4.7K OHM	RP3,R94,R98,R106,R107,R108,R109,R110,R125,R126		10
67	#N/A	01056F4731	ALL	Chip Resistor,SMD,+5%,0603,1/16W,47K OHM	RP4,RP9,R54		3
68	#N/A	01056F4701	ALL	Chip Resistor,SMD,+5%,0603,1/16W,47 OHM	R112,R116,R117,R119,R120,R121,R122,R124,R127		9
69	#N/A	01056F5621	ALL	Chip Resistor,SMD,+5%,0603,1/16W,5.6K OHM	R59		1
70	#N/A	01056F6821	ALL	Chip Resistor,SMD,+5%,0603,1/16W,6.8K OHM	R14,R8		2
71	#N/A	01056F6831	ALL	Chip Resistor,SMD,+5%,0603,1/16W,68K OHM	RP11		1
72	#N/A	01056F8211	ALL	Chip Resistor,SMD,+5%,0603,1/16W,820 OHM	R99,R100		2
73	#N/A	01058FR001	ALL	Chip Resistor,SMD,+5%,0805,1/10W,0 OHM	ZDP1		1
74	#N/A	205410361	ALL	Chip Resistor Array,SMD,+5%,0603*4,1/16W,10K OHM	RP47,RP46		2
75	#N/A	505221761	ALL	Chip Capacitor ,NPO,0603,+5%,220pF,50V,RoHS	CP22		1
76	#N/A	505050761	ALL	Chip Capacitor,MLCC,NPO,0603,5pF,50V,+5%	C119,C120		2

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
77	#N/A	050K4755D2	ALL	Chip Capacitor,MLCC,X5R,1210,4.7uF,25V,+10%,RoHS	CP13,CP19,CP20		3
78	#N/A	050K015561	ALL	Chip Capacitor,MLCC,X7R,0603,100nF,25V,+10%,RoHS	C2,C7-C9,CP8,CP9,CP11,CP14,CP16,C18,CP23,CP26,CP28,C41-C44,C48,C53,C56,C58,C60,C62,C65,C67,C69,C71,C76,C79,C80,C84-C90,C92-C103,C105-C118,C122,C123,C125,C126		67
79	#N/A	050K102762	ALL	Chip Capacitor,MLCC,X7R,0603,1nF,50V,+10%,RoHS	C74		1
80	#N/A	050K103561	ALL	Chip Capacitor,MLCC,X7R,0603,10nF,25V,+10%,RoHS	CP15,CP21,C25,C26,CP27,C27,C28,C29,C30,C124		10
81	#N/A	050K333561	ALL	Chip Capacitor MLCC,X7R,0603,+10%,33nF,25V,RoHS	C10,C13		2
82	#N/A	050K472761	ALL	Chip Capacitor,MLCC,X7R,0603,4.7nF,50V,+10%,RoHS	CP29		1
83	#N/A	050K683461	ALL	Chip Capacitor MLCC,X7R,0603,+10%,68nF,16V,RoHS	C12,C16		2
84	#N/A	050K0165C1	ALL	Chip Capacitor,MLCC,X7R,1206,1uF,25V,+10%	CP10		1
85	#N/A	050K0167D2	ALL	Chip Capacitor,MLCC,X7R,1210,1uF,50V,+10%,RoHS	CP4,CP6		2
86	#N/A	050Z474561	ALL	Chip Capacitor,MLCC,Y5V,0603,470nF,25V,-20~+80%	CP31		1
87	#N/A	050Z015762	ALL	Chip Capacitor ,Y5V,0603,-20~+80%,100nF,50V,RoHS	CP1,CP2,C46		3
88	#N/A	050Z016361	ALL	Chip Capacitor,MLCC,Y5V,0603,1uF,10V,-20~+80%,RoHS	CP7,CP17,CP32		3
89	#N/A	050Z1064C1	ALL	Chip Capacitor,MLCC,Y5V,1206,10uF,16V,-20~+80%	C17,C19,CP25,C47,C52,C55,C61,C63,C77,C81,C82		11
90	#N/A	050Z2257C1	ALL	Chip Capacitor,MLCC,Y5V,1206,2.2uF,50V,-20~+80%,T=1.25mm(MAX.)	CP3,CP5,CP30		3
91	#N/A	050Z2263C1	ALL	Chip Capacitor ,Y5V,1206,-20~+80%,22uF,10V,RoHS	C57,C59,C64,C66,C68,C70,C83,C91,C104,C121		10
92	#N/A	050Z1066D1	ALL	Chip Capacitor,MLCC,Y5V,1210,10uF,35V,-20~+80%	C45		1
93	#N/A	060M410441	ALL	Chip Capacitor Array ,X7R,0603*4,+20%,100nF,16V,RoHS	CP33,CP34		2
94	#N/A	070M547602	ALL	Aluminum Electrolytic Capacitor,SMD,47uF,25V,+20%,LV470M025E055R(6.3*5.5),CAPXON,RoHS	CP18		1
95	#N/A	070M510701	ALL	Aluminum Electrolytic Capacitor,SMD,100uF,25V,+20%,25CV100AX(6.3*7.7)	CP12		1
96	E-00002311	070M422702	ALL	Aluminum Electrolytic Capacitor,SMD,220uF,16V,+20%,16CV220AX(6.3*7.7)	CP24		1
97	#N/A	07-D000086	ALL	Aluminum Electrolytic Capacitor,SMD,220uF,6.3V,+20%,6SVP220MV,6.3x5.9 mm,SANYO Electric	C1		1
98	#N/A	1101M33002	ALL	Inductor,SMD,33uH,+20%,2.1A,SLF10155T330M2R1-TPF,H=5.8mm(MAX),TDK	LP4,LP6		2
99	#N/A	1104600003	ALL	Ferrite Bead,SMD,0603,120 OHM,+25%,0.2A,BK1608LL121,Taiyo Yuden,RoHS	LP1,LP2,L2,LP3,L3,L4,L10,L11		8
100	#N/A	1104600031	ALL	Ferrite Bead,SMD,0603,120 OHM,+25%,0.3A, BK1608HS121,Taiyo Yuden	L5,L6,L7		3
101	#N/A	1104800002	ALL	Bead,FBMJ2125HS420-T,0805,+25%,42ohm,4 A,Taiyo Yuden,RoHS	LP5,L8,L9,L12,L13,L14,L15,L16,L17,L18,L19,L20,L21		13
102	#N/A	1104C00001	ALL	Ferrite Bead,SMD,1206,80 OHM,+25%,4A,FBMJ3216HS800-T,Taiyo Yuden,RoHS	L1		1
103	#N/A	1104C00002	ALL	Ferrite Bead Array,SMD,0603*4,120 OHM,+25%,0.2A,BK32164L121	LP7,LP8,LP9		3
104	#N/A	1400603003	ALL	Varistor,SMD,0603,5V,10pF,+10%,VPORT0603100KV05T(Vc=34V),INP AQ	C31,C32,C33		3
105	#N/A	14012B0511	ALL	Zener Diode,UDZS-12B,SOD-323,ROHM	ZD13		1
106	#N/A	14031QS711	ALL	Diode(schottky),EC31QS03L,TE12L,3A/30V,SMA	D13,D14,DP1,DP2		4

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
107	#N/A	14099W0171	ALL	Switching Diode(Dual),BAV99W,SOT-323(SC-70),Philip,RoHS	D1,D2		2
108	#N/A	1403V6B511	ALL	Diode(Zener),BZT52C3V6S,SOD-323,DIODES	ZDP2		1
109	#N/A	1405V1B512	ALL	Diode(Zener),BZT52C5V1S,SOD-323,DIODES	ZDP3,ZDP4,ZDP5,ZDP6,ZD12		5
110	#N/A	14052C5512	ALL	Diode(Zener),BZT52-C5V6S,SOD-323,Panjit	ZD3,ZD4,ZD8,ZD9,ZD10,ZD11		6
111	#N/A	140BAV7171	ALL	Diode(Dual),BAV70W,SOT-323,Panjit	D12		1
112	#N/A	1500084111	ALL	Transistor,P-MOS,SOT-23,BSS84,Diodes	Q3,Q5,Q7		3
113	#N/A	1500200161	ALL	Transistor(NPN/PNP,Built-in resistors),PUMD2,SOT-363,Philips,RoHS	QP15		1
114	#N/A	1503403111	ALL	Transistor,P-MOS,SOT-23,AO3403,AOS	QP6,Q9		2
115	#N/A	1503906115	ALL	Transistor(PNP),PMBT3906,SOT-23,Philips,RoHS	QP1,QP2,QP3		3
116	#N/A	1507002161	ALL	Transistor(Dual N-MOS),2N7002DW,SOT-363,DIODES	Q8		1
117	#N/A	1507002113	ALL	Transistor,N-MOS,SOT-23,2N7002,Philip,RoHS	Q1,Q2,QP4,Q4,QP5,Q6,QP8,QP10,Q10,Q12,QP16,QP17,QP18,QP19		14
118	#N/A	1509435232	ALL	Transistor(P-MOS),CEM9435A,.30V/5.3A,SOP-8,CET	QP13,QP7		2
119	#N/A	1502222112	ALL	Transistor(NPN),MMBT2222ALT1,SOT-23,ON	QP9,QP12		2
120	#N/A	1502907113	ALL	Transistor,PNP,SOT-23,MMBT2907ALT1,ON	QP11,QP14		2
121	#N/A	19024WC02E	ALL	Memory IC,EEPROM,2K-bits,TSSOP-8,CAT24WC02U-TE13,Catalyst Semiconductor	U3		1
122	#N/A	19024C161E	ALL	EEPROM,AT24C16AN-10SI-2.7,16K-bits,8S1(SOP-8),ATMEL	U14		1
123	#N/A	2007414000	ALL	Logic IC(Hex Schmitt-Trigger Inverters),SN74LV14APWR,TSSOP-14	U4		1
124	#N/A	210172233S	ALL	IC(Regulator),AIC1722-33CX,3.3V/0.3A,SOT-89,AIC	U6		1
125	#N/A	210358DR21	ALL	IC(OP AMP),LM358DR2,SOP-8,2CH,ON	U10		1
126	#N/A	2101741001	ALL	IC(PWM),AT1741,SOP-16,2CH,AIMTRON	UP1		1
127	#N/A	210512600P	ALL	IC(Scaler),gm5126,PQFP-208,GENESIS	U12		1
128	#N/A	2105VD26AS	ALL	IC(Voltage Detector),RN5VD26AA-TR,SOT-23-5,RICOH	U13		1
129	#N/A	19029C511E	ALL	Flash Memory,S29C51001T-90J,1 Mbit,PLCC-32,SyncMOS	U15		1
130	#N/A	210108425O	ALL	IC(Regulator),AIC1084-25CM,2.5V/5.0A,TO-263,AIC	U9		1
131	#N/A	2101117HAS	ALL	IC(Regulator),AZ1117H-ADJ,ADJ1A,SOT-223,AAC	U11,U7		2
132	#N/A	2101117H3S	ALL	IC,Regulator,AZ1117H-3.3,3.3V/1A,SOT-223,BCD Semiconductor	U8		1
133	#N/A	2104838MTF	ALL	IC(Audio power Amp),LM4838MTE,MXA28A(TSSOP-P-28),NS	U1		1
134	#N/A	24016330C1	ALL	Fuse,SMD,1206,3A,63V,3216FF-3A-TR1,T=1.1mm (MAX.)	FP1		1
135	#N/A	2503066151	ALL	Connector,B-C,15Pin,Molex,89263-6772,D-Sub	JP1		1
136	#N/A	250345S452	ALL	Connector,B-F,45pin,Hirose,FH12-45S-0.50L	CN3,CN4		2
137	E-00002312	25052SJ033	ALL	Connector,Phone Jack,Singatron,2SJ-0523-003,3pin	J1		1
138	#N/A	2503710151	ALL	Connector,B-F,15Pin,E&T,7101-15	CN2		1
139	#N/A	2501327081	ALL	Connector,B-B,8Pin,E&T,3273-008-10	CN1		1
140	#N/A	2600014601	ALL	Quartz Crystal,SMD-49,14.31818 MHz,30pF,H=4.5mm (MAX.),H.ELE.	X1		1
141	#N/A	2500100321	ALL	Socket,SMD,1002E32CT1R2,PLCC 32 Pin,1A,H=3.85mm (Typ.),AP	U15		1
142	#N/A	41A1793901	ALL	Heat Sink,28*28*7.9mmEKISUI#5760	U12		1
143	C-00000578	41A1999107	ALL	Cover AD(W/O DVI-D Hole),A190E2,SECC,t=0.6mm			1
144	#N/A	PJ0E12620B	AJ0E2T1A26	Olympic,19",ID BOM,D-sub+Audio,USA,Silver Black,VSC,(For USA use)	Yes		1
	#N/A	PJ0E126201	AJ0E2T1E26	Olympic,19",ID BOM,D-sub+Audio,European,Silver Black,For VSC,			1
	#N/A	PJ0E126204	AJ0E2T1J26	Olympic,19",ID BOM,D-sub+Audio,Japan,Silver Black,For VSC,			1
	#N/A	PJ0E126202	AJ0E2T1C26	Olympic,19",ID BOM,D-sub+Audio,China,Silver Black,For VSC,			1
	#N/A	PJ0E126203	AJ0E2T1K26	Olympic,19",ID BOM,D-sub+Audio,UK,Silver Black,For VSC			1

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
	#N/A	PJ0E126200	AJ0E2T2A26	Olympic,19",ID BOM,D-sub+Audio,USA+Taiwan,Silver Black,For VSC			1
146	HW-00000557	42A9930017	ALL	Screw,3*P1.27*8,5.5*2,Steel			2
147	C-00002368	40-D000249	ALL	Rear Assy,A190E2-H06,ASSY,J91A11B5 Black,Fuking			1
148	HW-00000556	42A9990005	ALL	Screw,M3*P1.27*12,5.5*2,Steel			1
149	HW-00000555	42A9930014	ALL	Screw,M3*P0.5*6,Steel			4
150	#N/A	3241900003	ALL	FFC-OSD,A190E2-H01,15Pin,90mm*14mm,Pitch=1.0mm			1
151	C-00002369	40-D000242	ALL	Stand Seat Assy,A190E2-H06,ASSY,J91A11H8 Black,Fuking			1
152	C-00002367	40-D000244	ALL	Cover Hinge Assy,A190E2-H06,ASSY,J91A11B5 Black,Fuking			1
153	#N/A	42-D000314	ALL	SCREW,M4,P=0.7 mm,L=15 mm,Special Thin Head,Phillips Cross Recess,Screw_with_Washer,SHYE CHING SCREW			4
154	B-00000575	35A19K0202	ALL	PCBA For A190E2-T,A190E2-H-K,Rev.02,Rigid,203-01,(ODM)			1
155	#N/A	34A19K2301	ALL	PCB,A190E2-H-K,Rev.02,YANG AN,(A19112607A)			1
156	#N/A	2304112001	ALL	LED Lamp(SMD;Orange),19-21UYOC/S530-40278-025mm,LL-03mm, Everlight, RoHS	D2		1
157	#N/A	2304114001	ALL	LED Lamp(SMD;Green),19-21VGC/TR8,571nm,H=0.8mm, Everlight, RoHS	D1		1
158	#N/A	2503715151	ALL	Connector,B-F,15Pin,E&T,7151-15	CN1		1
159	#N/A	2502532021	ALL	CONNECTOR,W-B,A150X2,MOLEX,53261-0290,2Pin	CN3,CN2		2
160	#N/A	2704020004	ALL	Switch,Forward,SFKHHMW,4Pin,12V,DC 5mA	SW1,SW2,SW3,SW4,SW5,SW6		6
161	#N/A	10E1900019	ALL	Software (EDID_D-SUB),A190E2,Ver.VSCC71BA00,ViewSonic,Checksum(3E),Analog Port	EDD		1
162	#N/A	10B1900029	ALL	Software(BIOS),A190E2,Ver.NR19E2TGxx07,CMC,Analog+Audio,Taiwan,CheckSum(0007)	BIS		1
163	C-00002365	40-D000246	ALL	Bezel Assy,A190E2-H06,ASSY,Pantone 877C silver,Fuking			1
164	#N/A	7341311044	ALL	Protector Film-Panel,PET,M190E2			1
165	#N/A	7741519181	ALL	Label,Bar-Code Labe,55*13mm			1
166	DC-00002373	77-D000117	ALL	Safety Label,A190E2-H06,118 mm,49 mm			1
167	#N/A	77-D000268	AJ0E2T1A26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			1
	#N/A	77-D000268	AJ0E2T1E26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			
	#N/A	77-D000268	AJ0E2T1J26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			
	#N/A	77-D000268	AJ0E2T1K26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			
	#N/A	77-D000268	AJ0E2T2A26	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912			
	#N/A	77-D000359	AJ0E2T1C26	SN Label for ,A190E2-H06,50 mmx20 mm,VSC_VA912_for China			1
168	DC-00002371	76-D000535	AJ0E2T1A26	MENU for VSC_VA912+Caution Card_for USA,Complex,4C,Yi-Ching Special Printing,A190E2-H06	MENU		1
	DC-00002372	76-D000120	AJ0E2T1E26	MENU forVSC(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2T1J26	MENU forVSC(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2T1C26	MENU forVSC(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2T1K26	MENU forVSC(VA912),Complex,4C	MENU		1
	DC-00002372	76-D000120	AJ0E2T2A26	MENU forVSC(VA912),Complex,4C	MENU		1
169	#N/A	78-D000275	AJ0E2T1C26	Warranty Card,A170E1-H0G,143 mmx210 mm,VSC_VA712			1
170	#N/A	77-D000114	AJ0E2T1C26	Customer Label,A170E1-H0G,180 mm,100 mm			1
171	#N/A	77-D000118	AJ0E2T1C26	Customer Label,A170E1-H0G,130 mm,80 mm			1
173	#N/A	7841919921	ALL	PE Foam Bag,Protector,570*600*0.13,A190E1-H01,white			1
174	P-00002070	78-D000337	ALL	Inner Box,A170E1-H0G,454 mmx160 mmx43 mm,Yuen Foong Yu,Inner Box			1

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
175	#N/A	7841599191	ALL	Pallet,A150X1-T01,Wooden,1150 mmx970 mmx135 mm			0.029
176	#N/A	7841595111	ALL	Corner Protector,50*50*1850(mm)			0.118
177	#N/A	7741999141	ALL	Label,Pallet Barcode Label,75x40,A190E2-H03,VSC			0.029
178	DC-00002370	77-D000121	ALL	Carton Label Label,A190E2-H06,76.2 mm,76.2 mm			1
179	#N/A	7841995111	ALL	Separator,(AA), 1130x955x11,A190E1-H01			0.029
180	P-00002375	78-D000116	ALL	Carton,A190E2-H06,472 mmx182 mmx468 mm			1
181	#N/A	7345511002	ALL	Tape,Security Tape,OPP,L900xW50x0.045mm,VSC			0.07
182	P-00002377	78-D000383	ALL	Cushion,A190E2-H06,PE_LD,White,500 mmx213 mmx50 mm,Hwa Chang,PE_Foam(Right)			1
183	P-00002376	78-D000385	ALL	Cushion,A190E2-H06,PE_LD,White,500 mmx213 mmx50 mm,Hwa Chang,PE_Foam(Left)			1
184	#N/A	77-D000576	AJ0E2T1E26	Carton Label for ,A190E2-H06,20 mmx20 mm,Chang Huang,VSC_VA912_for Europe			1
185	#N/A	PJ0EAAD000	AJ0E2T1A26	Olympic,19",Accessory BOM,D-sub+Audio,USA/Taiwan 3 pin,Black,For VSC	Yes		1
	#N/A	PJ0EAAD000	AJ0E2T2A26	Olympic,19",Accessory BOM,D-sub+Audio,USA/Taiwan 3 pin,Black,For VSC			
	#N/A	PJ0EAEG000	AJ0E2T1E26	Olympic,19",Accessory BOM,D-sub+Audio,European / Korea 2 pin,Black,For VSC			1
	#N/A	PJ0EAJF000	AJ0E2T1J26	Olympic,19",Accessory BOM,D-sub+Audio,Japan 2 pin,Black,For VSC			1
	#N/A	PJ0EACF000	AJ0E2T1C26	Olympic,19",Accessory BOM,D-sub+Audio,China 3 pin,Black,For VSC			1
	#N/A	PJ0EAKF000	AJ0E2T1K26	Olympic,19",Accessory BOM,D-sub+Audio,UK / HK 3 pin,Black,For VSC			1
186	CB-00000544	32F2818004	ALL	Audio Cable,A150X2,18AWG,180cm,Black,JCE	AUDIO		1
187	A-00000458	32E1818015	AJ0E2T1A26	Power Code,UL,SVT#18/3C,75,LP-30B+LS-13,L=1830+/-50mm,Black,Linetek,18AWG,No Bag	POWER		1
	A-00000458	32E1818015	AJ0E2T2A26	Power Code,UL,SVT#18/3C,75,LP-30B+LS-13,L=1830+/-50mm,Black,Linetek,18AWG,No Bag	POWER		
	A-00002059	32E1818018	AJ0E2T1E26	Power Code,CEE,SP-023+IS-14,H05VV-F,3G,0.75mm2,CT-12,L=1800+/-50mm,I-SHENG,18AWG,Black,No Bag			1
	A-00002060	32E1818014	AJ0E2T1J26	Power Code,JIS,VCTF,0.75mm2,3C,LP54+LS-13J,L=1830+/-50mm,Black,Linetek,18AWG,No Bag			1
	A-00002058	32E1818013	AJ0E2T1C26	Power Cord,CCC,300/500V,0.75mm2,3C,PC-323+COC-01,L=1830+/-50mm,Black,Linetek,18AWG,No Bag			1
	A-00002057	32E1818060	AJ0E2T1K26	Power Cord,BSI,H05VV-F,0.75mm2,3C,LP-60L+LS-60,L=1830+/-50mm,Black,18AWG,PSB Mark,Linetek,No Bag			1
188	A-00000570	271906519H	ALL	Adaptor(AC/DC),65W/19V/3.42A,UP06511190-08B,POTRANS(Black),Two BC	ADAPTOR		1
189	CB-00000547	32F3018003	ALL	Monitor Cable,A150X2,30AWG,180cm,Black,JCE	DSUB		1

**BOM LIST (VA912b-1)**

ViewSonicModelNumber:VS10696

Rev:1a

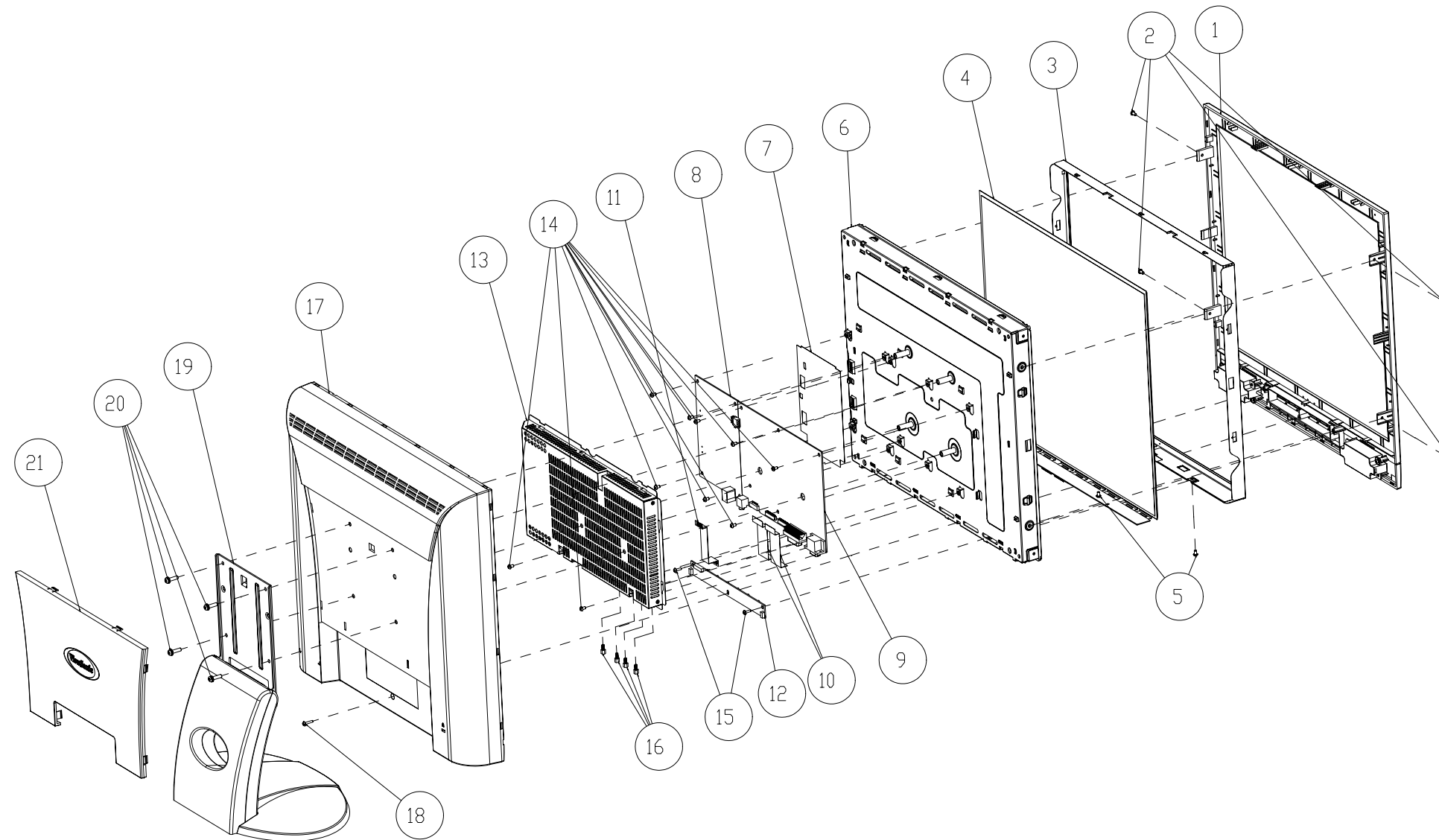
Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
1	#N/A	MJ0E301K01	ALL	19" common BOM,19E3 cell,COF,normal A/C grade			1
2	#N/A	L3J003XXXX	ALL	LCD Panel , For 19.0" LCM, SXGA			1
3	#N/A	36X8607401	ALL	Driver IC,COG,Scan,HX8607APD400,263Channel,HIMAX	SIC		4
4	#N/A	7344191016	ALL	COG_CF,AC-8405Z-23,1.5mm,50M/RL			1
5	#N/A	7344191017	ALL	ACF,AC-4251FY-16,100M/RL			1
6	#N/A	36X8002661	ALL	Driver IC,COF,Data,HX8002KCB66,COF,A190E2,0Channel,HIMAX	Data		10
7	#N/A	7344191011	ALL	ACF,AC-9051AR-35,100M/RL			1
8	#N/A	35A19X0202	ALL	PCBA For A190E2-H,A190E2-H-X,X2,Rigid,201-02(ODM)	PCBA-X		1
9	#N/A	34A19X2X04	ALL	PCBA,A190E2-H-X,X2,Taiwan PCB Techvest,(A19026013)			1
10	#N/A	01014F1011	ALL	Chip Resistor,SMD,+/-1%,0402,1/16W,100 OHM	R12,R13,R14,R15,R16,R17,R18,R19,R20,R23,R26,R27,R28,R29,R30,R31,R32,R33,R34,R35		20
11	#N/A	01054FR002	ALL	Chip Resistor,SMD,+/-5%,0402,1/16W,0 OHM	R37		1
12	#N/A	050K1062C1	ALL	Chip Capacitor,MLCC,X5R,1206,10uF,6.3V,+/-10%,RoHS	C26,C27,C28,C29,C30,C31,C32,C33,C49,C50		10
13	#N/A	050Z015442	ALL	Chip Capacitor,MLCC,Y5V,0402,100nF,16V,-20~+80%	C2,C3,C4,C7,C8,C9,C13,C14,C15,C18,C19,C20,C45,C46,C47,C48		16
14	#N/A	050Z1064C1	ALL	Chip Capacitor,MLCC,Y5V,1206,10uF,16V,-20~+80%	C10,C1		2
15	#N/A	050Z1064D3	ALL	Chip Capacitor,MLCC,Y5V,1210,10uF,16V,-20~+80%	C12,C37,C38,C41,C42,C43		6
16	#N/A	250345S452	ALL	Connector,B-F,45pin,Hirose,FH12-45S-0.5SH	CN2,CN1		2
17	#N/A	7349951002	ALL	Silicone,TORAY/9187L,330g			0.4
18	#N/A	PJ0EFH3G03	ALL	Olympic,19",Function BOM,D-sub+DVI+Audio,Genesis,For VSC	Yes		1
19	M-00000591	41A1969107	ALL	Metal Frame_Front Assy,A190E2	Front		1
20	#N/A	7341991010	ALL	Protector Film _Metal-Rear,PC,t=0.254mm,A190E2			1
21	#N/A	3241902003	ALL	FFC_X, A190E2,45PIN,60x23mm,PITCH=0.5mm			2
22	M-00000559	42A9940007	ALL	Stand-Off 4 #-40*11.8			2
23	HW-00000553	42A9930008	ALL	Screw,M3*P0.5*4.55*2,Steel			12
24	#N/A	2714000022	ALL	DC/AC Inverter,TWS-444-983,4.8,ma,2900V,Sumida			1
25	M-00000599	44A1913004	ALL	Backlight Unit,Direct Type,W/ West Lamp,A190E2	B/L		1
26	B-00002364	35-D000320	ALL	PCBA For,A190E2-H,A190E2-H-S,201-05,Rev 02,OSE/USI,ODM	PCBA-S		1
27	C-00002366	41A1999106	ALL	Cover AD,A190E2,SECC,t=0.6mm			1
28	#N/A	PJ0E11620A	AJ0E2H1A16	Olympic,19",ID BOM,D-sub+DVI+Audio,USA,Black,VSC,(For USA use)	Yes		1
	#N/A	PJ0E116203	AJ0E2H1C16	Olympic,19",ID BOM,D-sub+DVI+Audio,China,Black,For VSC,			1
	#N/A	PJ0E116201	AJ0E2H1E16	Olympic,19",ID BOM,D-sub+DVI+Audio,European,Black,For VSC			1
	#N/A	PJ0E116202	AJ0E2H1J16	Olympic,19",ID BOM,D-sub+DVI+Audio,Japan,Black,For VSC,			1
	#N/A	PJ0E116204	AJ0E2H1K16	Olympic,19",ID BOM,D-sub+DVI+Audio,UK,Black,For VSC,			1
	#N/A	PJ0E116200	AJ0E2H2A16	Olympic,19",ID BOM,D-sub+DVI+Audio,USA+Taiwan,Black,For VSC,			1
29	C-00002421	40-D000237	ALL	Rear Assy,A190E2-H06,ASSY,H93828B5 Midnight Gray,Fuking			1
30	HW-00000556	42A9990005	ALL	Screw,M3*P1.27*12.55*2,Steel			1
31	HW-00000555	42A9930014	ALL	Screw,M3*P0.5*6,Steel			4
32	C-00002422	40-D000248	ALL	Stand Seat Assy,A190E2-H06,ASSY,H93828H8 Midnight Gray,Fuking			1
33	HW-00000557	42A9930017	ALL	Screw,3*P1.27*8.55*2,Steel			2
34	C-00002420	40-D000245	ALL	Cover Hinge Assy,A190E2-H06,ASSY,H93828B5 Midnight Gray,Fuking			1

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
35	#N/A	42-D000314	ALL	SCREW,M4,P=0.7 mm,L=15 mm,Special Thin Head,Phillips Cross Recess,Screw_with_Washer,SHYE CHING SCREW			4
36	B-00000575	35A19K0202	ALL	PCBA For A190E2-T,A190E2-H-K,Rev.02,Rigid,203-01(ODM)			1
37	#N/A	34A19K2301	ALL	PCB,A190E2-H-K,Rev.02,YANG AN,(A19112607A)			1
38	#N/A	2304112001	ALL	LED Lamp(SMD;Orange),19-21UYOC/S530-A2/TR8,605nm,H=0.8mm,Everlight,RoHS	D2		1
39	#N/A	2304114001	ALL	LED Lamp(SMD;Green),19-21VGC/TR8,571nm,H=0.8mm,Everlight,RoHS	D1		1
40	#N/A	2503715151	ALL	Connector,B-F,15Pin,E&T,7151-15	CN1		1
41	#N/A	2502532021	ALL	CONNECTOR,W-B,A150X2,MOLEX,53261-0290,2Pin	CN3,CN2		2
42	#N/A	2704020004	ALL	Switch,Forward,SFKHHMW,4Pin,12V,DC 5mA	SW1,SW2,SW3,SW4,SW5,SW6		6
43	#N/A	10E1900017	ALL	Software (EDID_D-SUB),A190E2,Ver.VSCCF1BA00,ViewSonic,Checksum(EA),Analog Port	EDD		1
44	#N/A	10E1900018	ALL	Software (EDID_DVI),A190E2,Ver.VSCCF1BD00,ViewSonic,Checksum(9A),DVI Port	DIGITAL		1
45	#N/A	10B1900030	ALL	Software(BIOS),A190E2,Ver.NR19E2TGx08,CMC,Analog+Audio,Taiwan,Checksum(0008)	BIS		1
46	#N/A	3241900003	ALL	FFC-OSD,A190E2-H01,15Pin,90mm*14mm,Pitch=1.0mm			1
47	C-00002419	40-D000251	ALL	Bezel Assy,A190E2-H06,ASSY,H93828B5 Midnight Gray,Fuking			1
48	#N/A	7341311044	ALL	Protector Film-Panel,PET,M190E2			1
49	#N/A	7741519181	ALL	Label,Bar-Code Label,55*13mm			1
50	DC-00002426	77-D000265	ALL	Safety Label for ,A190E2-H06,118 mmx49 mm,VSC(VA912b)			1
51	#N/A	77-D000258	AJ0E2H1A16	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912b			1
	#N/A	77-D000258	AJ0E2H1E16	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912b			
	#N/A	77-D000258	AJ0E2H1J16	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912b			
	#N/A	77-D000258	AJ0E2H1K16	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912b			
	#N/A	77-D000258	AJ0E2H2A16	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912b			
	#N/A	77-D000357	AJ0E2H1C16	SN Label for ,A190E2-H06,50 mmx25 mm,VSC_VA912b_for China			1
52	DC-00002425	76-D000532	AJ0E2H1A16	MENU for VSC_VA912b+Caution Card_for USA,Complex,4C,Yi-Ching Special Printing,A190E2-H06	MENU		1
	DC-00002424	76-D000311	AJ0E2H1C16	MENU for VSC_VA912b,Complex,4C,CMO_Maker,A190E2-H06			1
	DC-00002424	76-D000311	AJ0E2H1E16	MENU for VSC_VA912b,Complex,4C,CMO_Maker,A190E2-H06			1
	DC-00002424	76-D000311	AJ0E2H1J16	MENU for VSC_VA912b,Complex,4C,CMO_Maker,A190E2-H06			1
	DC-00002424	76-D000311	AJ0E2H1K16	MENU for VSC_VA912b,Complex,4C,CMO_Maker,A190E2-H06			1
	DC-00002424	76-D000311	AJ0E2H2A16	MENU for VSC_VA912b,Complex,4C,CMO_Maker,A190E2-H06			1
53	#N/A	7841919921	ALL	PE Foam Bag,Protector,570*600*0.13,A190E1-H01,white			1
54	#N/A	7841599191	ALL	Pallet,A150X1-T01,Wooden,1150 mmx970 mmx135 mm			0.029
55	#N/A	7841595111	ALL	Corner Protector,50*50*1850(mm)			0.118
56	#N/A	7741999141	ALL	Label,Pallet Barcode Label,75x40,A190E2-H03,VSC			0.029
57	DC-00002423	77-D000263	ALL	Carton Label for ,A190E2-06,76.2 mmx76.2 mm,VSC(VA912b)			1
58	#N/A	7841995111	ALL	Separator,(AA), 1130x955x11,A190E1-H01			0.029
59	P-00002427	78-D000358	ALL	Carton,A190E2-H06,472 mmx182 mmx468 mm,VSC_VA912b			1

Item	ViewSonic P/N	Ref.P/N	Model	Description	Location	Universal number#	Q'ty
60	#N/A	7345511002	ALL	Tape,Security Tape,OPP,L900xW50x0.045mm,VSC			0.07
61	P-00002377	78-D000383	ALL	Cushion,A190E2-H06,PE_LD,White,500 mmx213 mmx50 mm,Hwa Chang,PE_Foam(Right)			1
62	P-00002376	78-D000385	ALL	Cushion,A190E2-H06,PE_LD,White,500 mmx213 mmx50 mm,Hwa Chang,PE_Foam(Left)			1
63	P-00002070	78-D000337	ALL	Inner Box,A170E1-H0G,454 mmx160 mmx43 mm,Yuen Foong Yu,Inner Box			1
64	#N/A	78-D000275	AJ0E2H1C16	Warranty Card,A170E1-H0G,143 mmx210 mm,VSC_VA712			1
65	#N/A	77-D000114	AJ0E2H1C16	Customer Label,A170E1-H0G,180 mm,100 mm			1
66	#N/A	77-D000118	AJ0E2H1C16	Customer Label,A170E1-H0G,130 mm,80 mm			1
67	#N/A	PJ0EAAE000	AJ0E2H1A16	Olympic,19",Accessory BOM,D- sub+DVI+Audio,USA/Taiwan 3 pin,Black,For VSC	Yes		1
	#N/A	PJ0EAAE000	AJ0E2H2A16	Olympic,19",Accessory BOM,D- sub+DVI+Audio,USA/Taiwan 3 pin,Black,For VSC			1
	#N/A	PJ0EACG000	AJ0E2H1C16	Olympic,19",Accessory BOM,D- sub+DVI+Audio,China 3 pin,Black,For VSC			1
	#N/A	PJ0EAEH000	AJ0E2H1E16	Olympic,19",Accessory BOM,D- sub+DVI+Audio,European / Korea 2 pin,Black,For VSC			1
	#N/A	PJ0EAJG000	AJ0E2H1J16	Olympic,19",Accessory BOM,D- sub+DVI+Audio,Japan 2 pin,Black,For VSC			1
	#N/A	PJ0EAKG000	AJ0E2H1K16	Olympic,19",Accessory BOM,D- sub+DVI+Audio,UK / HK 3 pin,Black,For VSC			1
68	CB-00000544	32F2818004	ALL	Audio Cable,A150X2,18AWG,180cm,Black,JCE	AUDIO		1
69	A-00000458	32E1818015	AJ0E2H1A16	Power Code,UL,SVT#18/3C,75,LP-30B+LS- 13,L=1830+/-50mm,Black,Linetek,18AWG,No Bag	POWER		1
	A-00002058	32E1818013	AJ0E2H1C16	Power Cord,CCC,300/500V,0.75mm2,3C,PC- 323+COC-01,L=1830+/- 50mm,Black,Linetek,18AWG,No Bag			1
	A-00002059	32E1818018	AJ0E2H1E16	Power Code,CEE,SP-023+IS-14,H05VV- F,3G,0.75mm2,CT-12,L=1800+/-50mm,I- SHENG,18AWG,Black,No Bag			1
	A-00002060	32E1818014	AJ0E2H1J16	Power Code,JIS,VCCTF,0.75mm2,3C,LP54+LS- 13J,L=1830+/-50mm,Black,Linetek,18AWG,No Bag			1
	A-00002057	32E1818060	AJ0E2H1K16	Power Cord,BSI,H05VV-F,0.75mm2,3C,LP- 60L+LS-60,L=1830+/-50mm,Black,18AWG,PSB Mark,Linetek,No Bag			1
	A-00000458	32E1818015	AJ0E2H2A16	Power Code,UL,SVT#18/3C,75,LP-30B+LS- 13,L=1830+/-50mm,Black,Linetek,18AWG,No Bag	POWER		1
70	A-00000570	271906519H	ALL	Adaptor(AC/DC),65W/19V/3.42A,UP06511190- 08B,POTRANS(Black),Two BC	ADAPTOR		1
71	CB-00000547	32F3018003	ALL	Monitor Cable,A150X2,30AWG,180cm,Black,JCE	DSUB		1
72	CB-00002083	32F0000004	ALL	DVI CABLE,DVI-D(M) TO DVI- D(M),S/L,1.8M,W/2F,JCE,BLACK	DVI		1



## 8. Exploded Diagram and Spare Parts List



### EXPLODED PARTS LIST (VA912/b-1 & VA912-2)

ViewSonic Model Number: VS10696

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description
1	C-00002365	40-D000246	BEZEL ASSY (Silver)
	C-00002419	40-D000251	BEZEL ASSY (Gray)
2	HW-00000555	42A9930014	SCREW M3 * 6L
3	M-00000591	41A1969107	METAL FRAME FRONT
4	N/A	MJ0E301K01	TFT PANEL ASSY
5	HW-00000553	42A9930008	SCREW M3*4L
6	M-00000599	44A1913004	BACKLIGHT UNIT
7	P-00002378	73-D001222	MYLAR_INVERTER
8	B-00000573	2714000022	POWER PCB ASSY
9	B-00002364	35-D000320	AD PCB ASSY (Digital)
	B-00002428	35-D000873	AD PCB ASSY (Analog)
10	CB-00000582	3241902003	FFC
11	CB-00000583	3241900003	OSD FFC
12	B-00000575	34A19K2301	OSD PCB ASSY
13	C-00002366	41A1999106	COVER AD
14	HW-00000553	42A9930008	SCREW M3 * 4L
15	HW-00000557	42A9930017	SCREW D3 * 8L
16	M-00000559	42A9940007	STAND OFF
17	C-00002421	40-D000237	REAR ASSY (Gray)
	C-00002368	40-D000249	REAR ASSY (Black)
18	HW-00000556	42A9990005	SCREW D3 * 12L
19	C-00002422	40-D000248	STAND SEAT ASSY (Gray)
	C-00002369	40-D000242	STAND SEAT ASSY (Black)
20	HW-00002442	42-D000314	SCREW M4*15L
21	C-00002420	40-D000245	COVER HINGE ASSY (Gray)
	C-00002367	40-D000244	COVER HINGE ASSY (Black)

## Monitor Assembly and Disassembly

### 1. Separate Stand Assy

#### Remove Stand Cover

##### Step 1 :

Remove Cover Hinge



##### Step 2 :

Loose and Remove 4 screws



##### Step 3:

Remove Stand Assy



##### Step 4:

Completed

## 2. Separate Rear Cover (Rear Case Assy)

Loosen and remove screw.

Separate Bezel hooks to take Bezel and Rear Cover apart.

### Step 1 :

Loose and remove screw.



### Step 2 :

Separate Bezel hooks to take Bezel and Rear Cover apart.



### Step 3 :

Remove Rear Cover



### Step 4 :

Completed

### 3. Remove Power Board

#### 3.1 Remove FFC



#### 3.2 Remove Metal Cover

**Step 1 :**

Loose and remove 4 screws



**Step 2 :**

Loose and remove 3 screws



**Step 3 :**

Remove the cover hooks of X-PCB



**Step 4 :**

Completed

**3.3 Remove Power PCBA**

**Step 1 :**

Loose and remove 3 screws



**Step 2 :**

Remove Power PCBA



**Step 3 :**  
Completed



### 3.4 Change New Power Board

**Step 1 :**  
Insert New Power PCBA



**Step 2 :**  
Fasten 3 fixed screws  
of Power PCBA



## 4. Remove AD PCBA

### 4.1 Remove FFC

#### Step 1 :

Remove 2 FFC from AD PCBA



#### Step 2 :

Complete

### 4.2 Remove AD PCBA

#### Step 1 :

Loose and remove 4 screws



#### Step 2 :

Remove AD PCBA



#### Step 3 :

Completed



## 5. Change New AD PCBA

### Step 1 :

Place New AD PCBA



### Step 2 :

Fasten and fixed 4 screws of AD PCBA



### Step 3 :

Insert 2 FFC



### Step 4 :

Completed



## 6. Metal Cover Assembly

### Step 1 :

Join the cover hooks of X-PCB



### Step 2 :

Fasten 3 screws



### Step 3 :

Loose and remove 4 screws



### Step 4 :

Insert FFC



### Step 5:

Completed

## 7. Separate Bezel Assy

### Step 1 :

Loose and remove screws



### Step 2 :

Lift up LCD module and remove Bezel



### Step 3 :

Completed

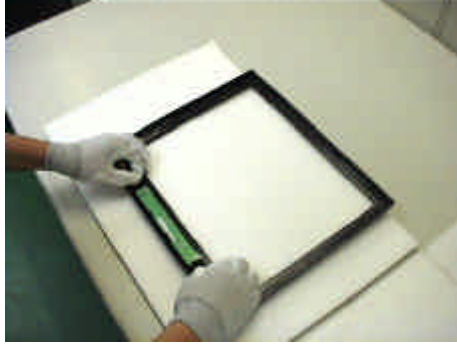
## 8. Remove OSD PCBA

### Step 1 :

Remove FFC



**Step 2 :**  
Separate both Audio Cable



**Step 3 :**  
Loose and remove 2 screws



**Step 4 :**  
Take OSD PCBA apart



**Step 5 :**  
Completed



## 9. Change New OSD PCBA

### Step 1 :

Place New OSD PCBA



### Step 2 :

Fasten 2 screws



### Step 3 :

Insert Audit Cable to connectors  
of OSD PCBA



### Step 4 :

Completed



## 10. Rear Cover Assy Assembly

### Step 1 :

Place Rear Cover



### Step 2 :

Join Rear Cover with Bezel



### Step 3 :

Fasten screw



### Step 4 :

Place Stand Assy



**Step 5 :**

Fasten 4 screws to fixed Stand Assy



**Step 6 :**

Insert Cover Hinge

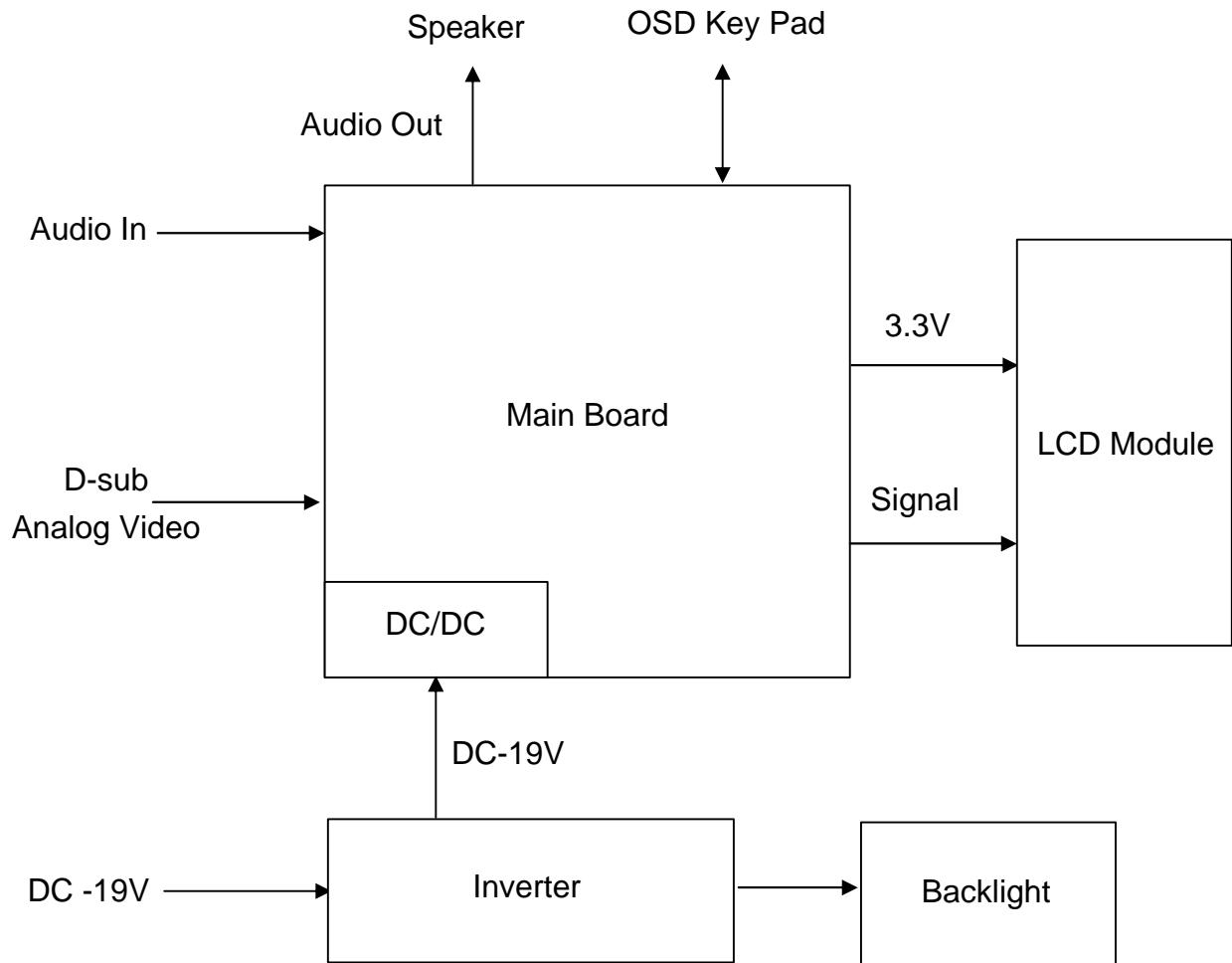


**Step 7 :**

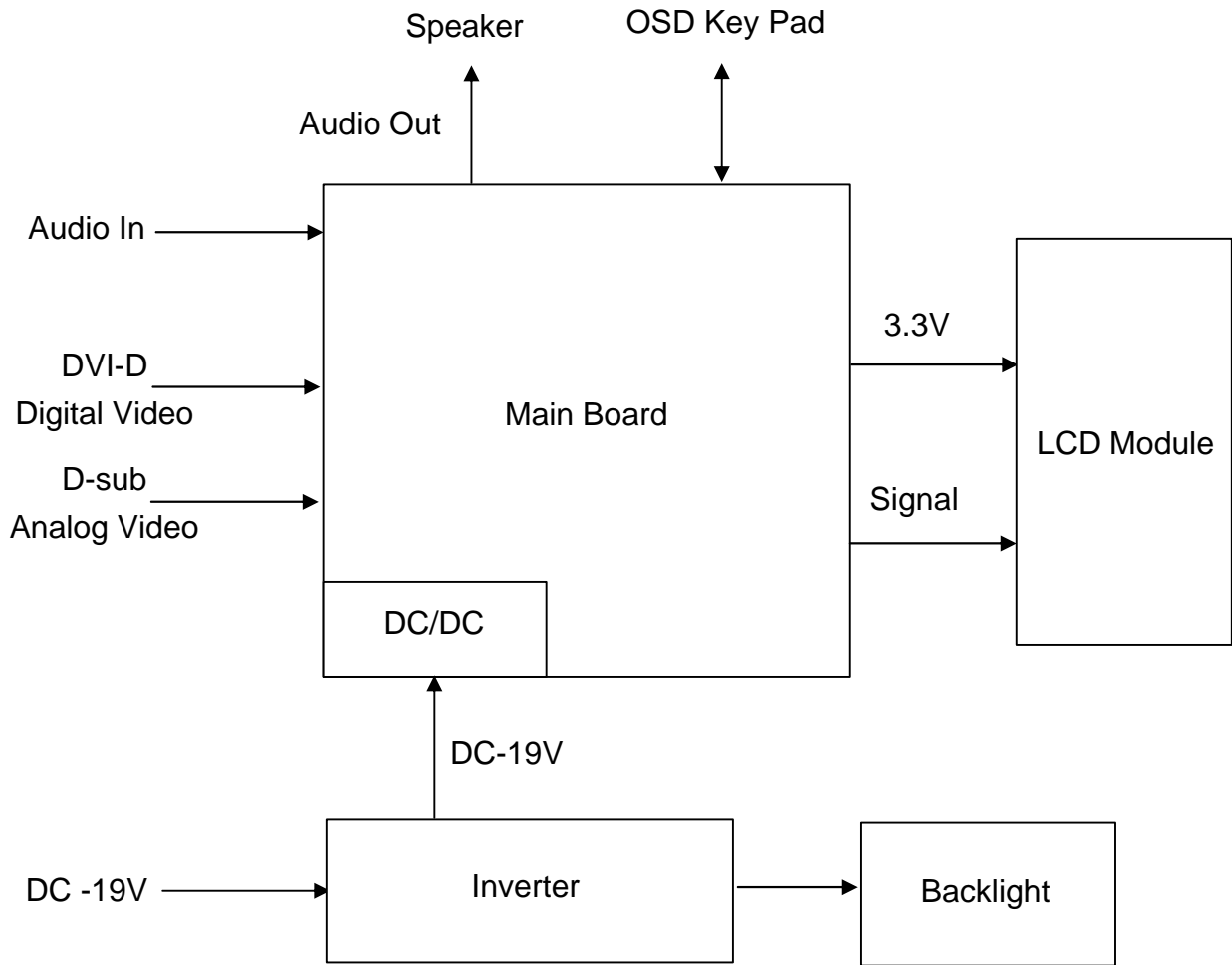
Completed

## 9. Block Diagram

### Block Diagram (Analog only)

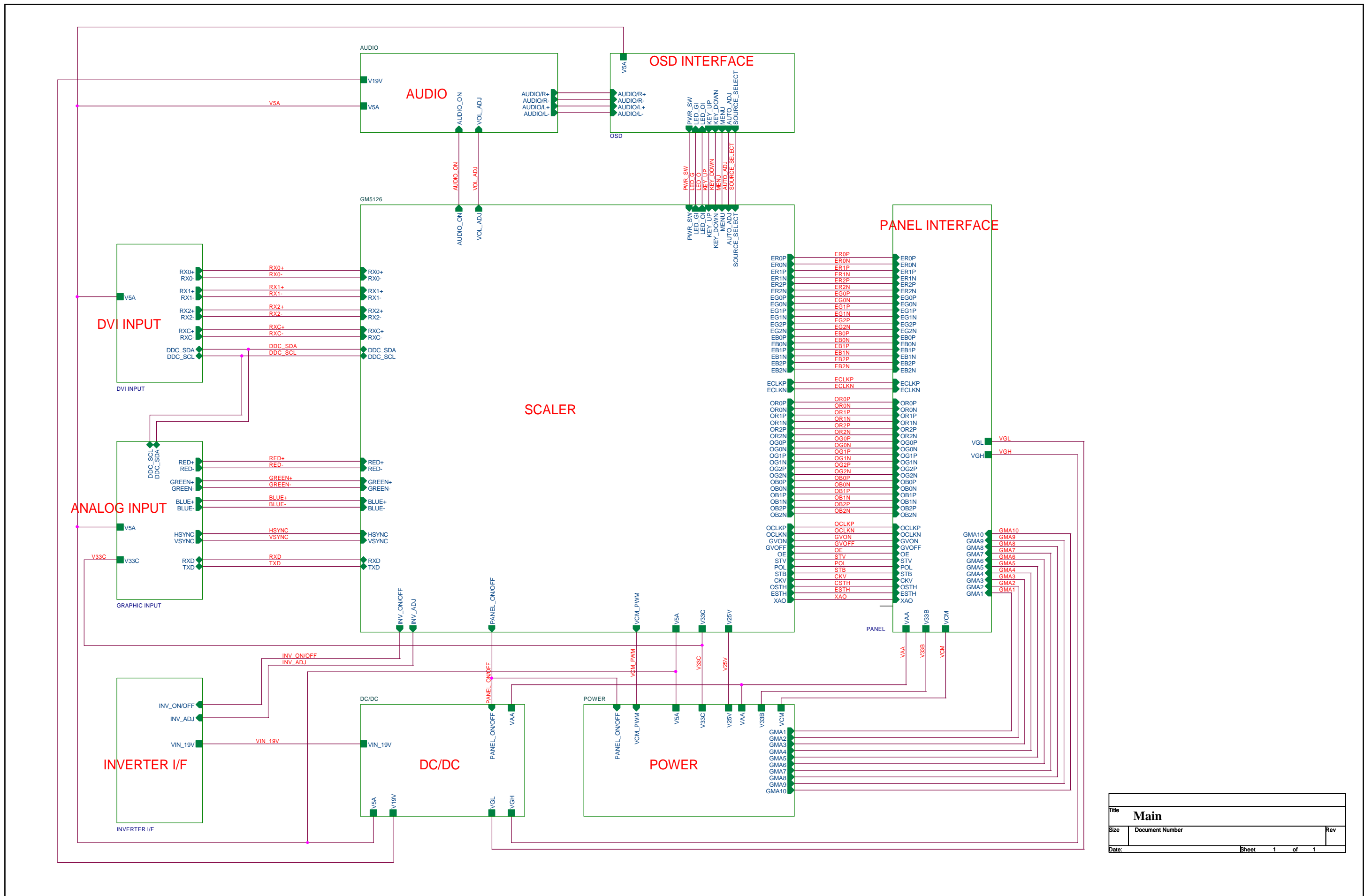


**Block Diagram (Analog + Digital)**

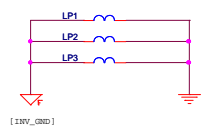




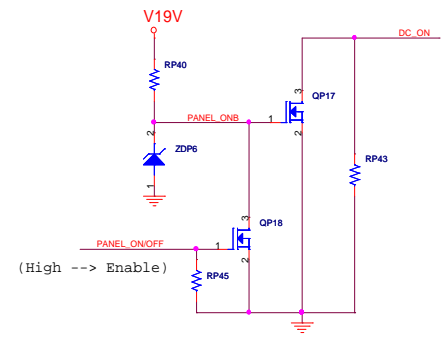
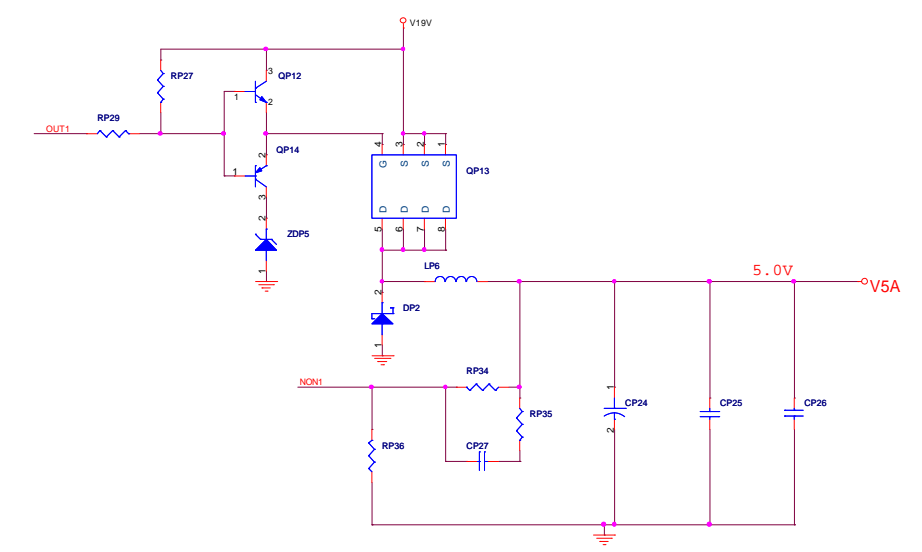
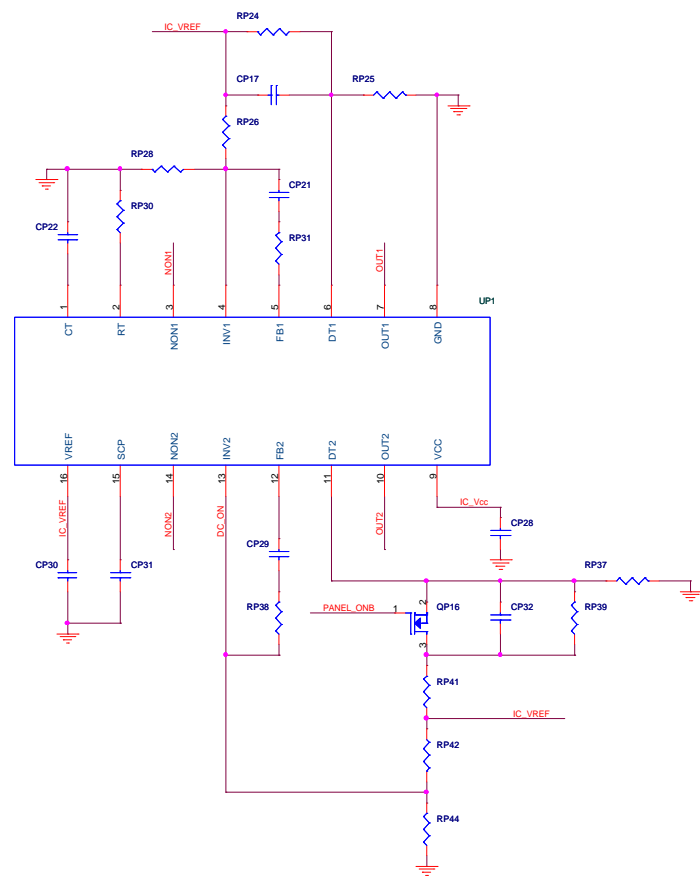
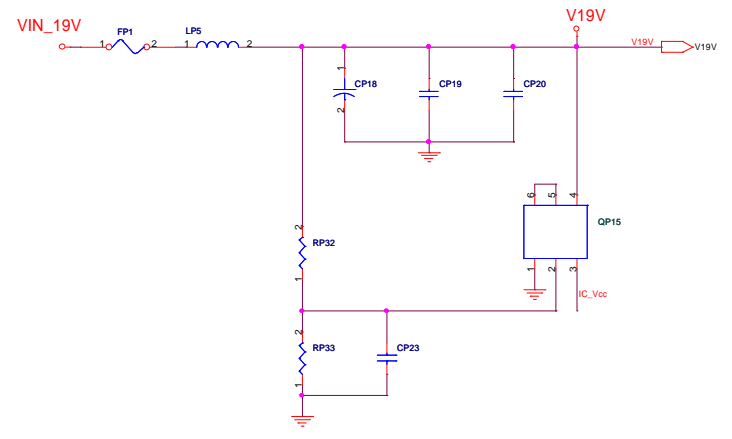
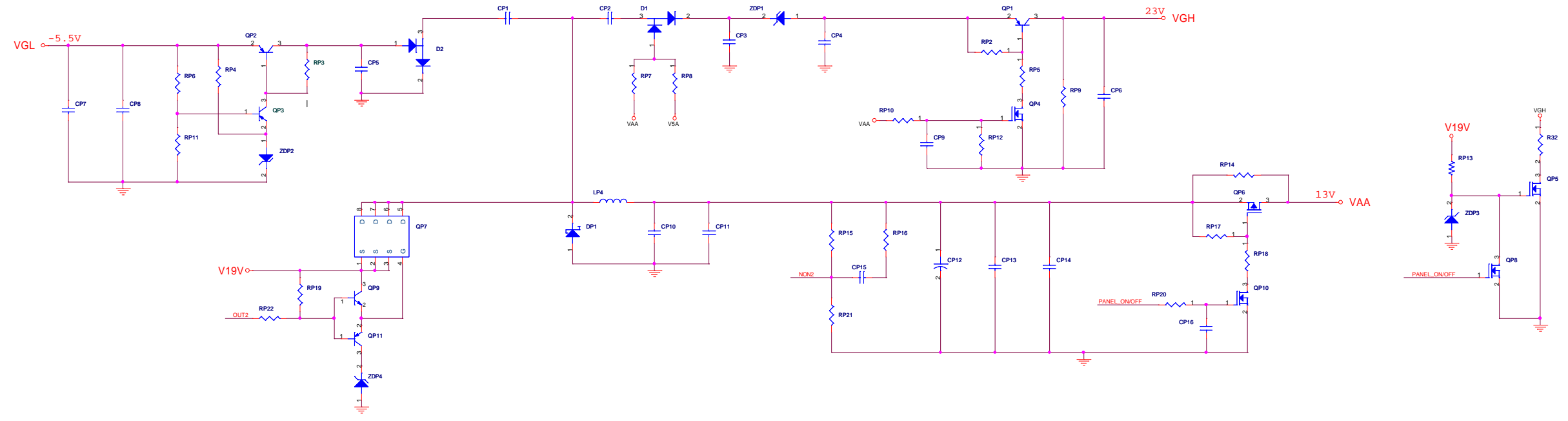
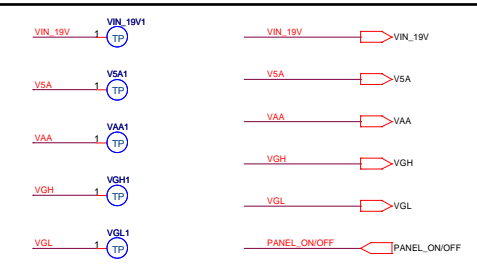
# 10. Schematic Diagrams



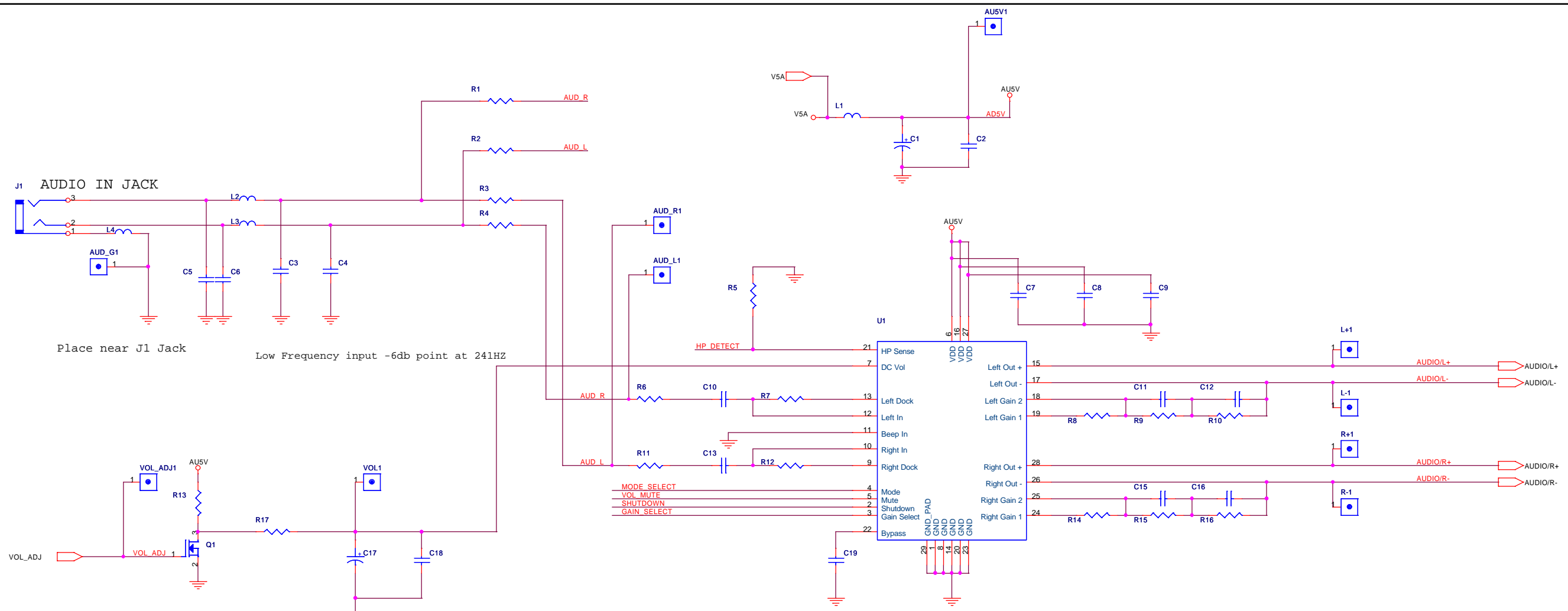
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Power Sequence : 5V -> VL -> VH & AVDD

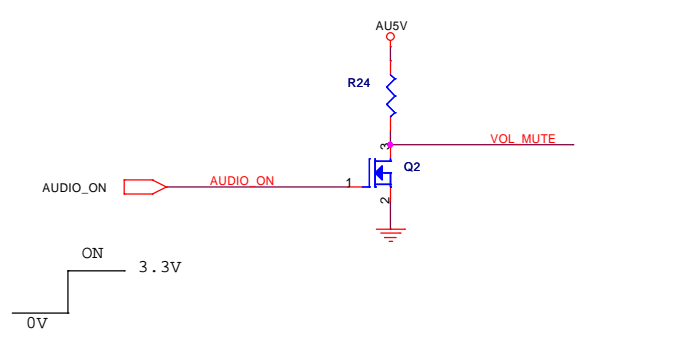
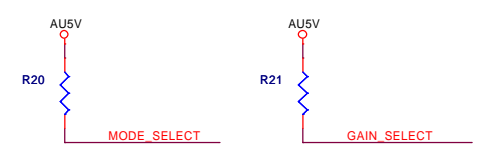
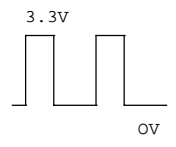


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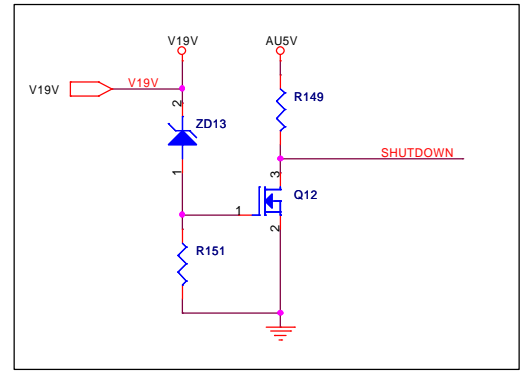


Place near J1 Jack  
Low Frequency input -6db point at 241HZ

MODE\_SELECT : H  
GAIN\_SELECT : H

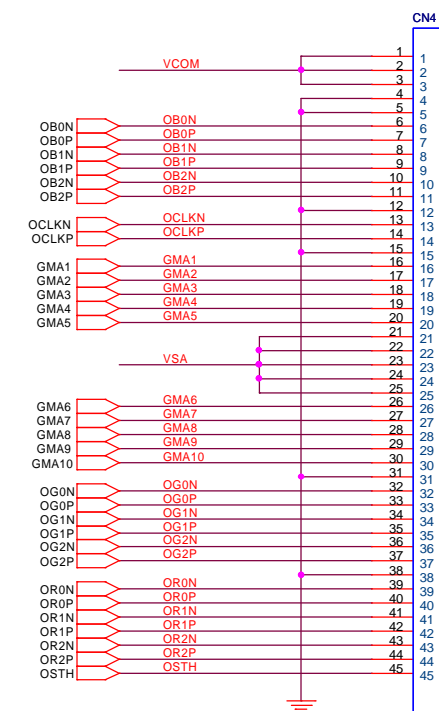
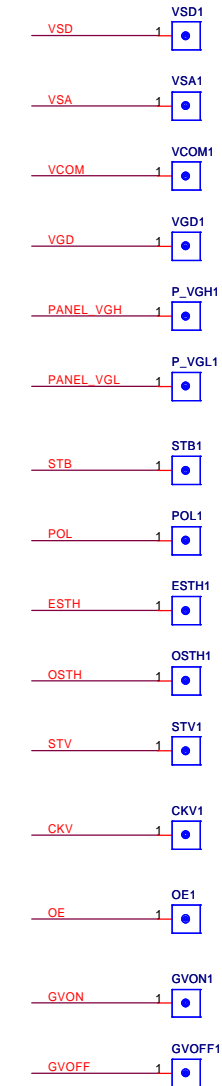
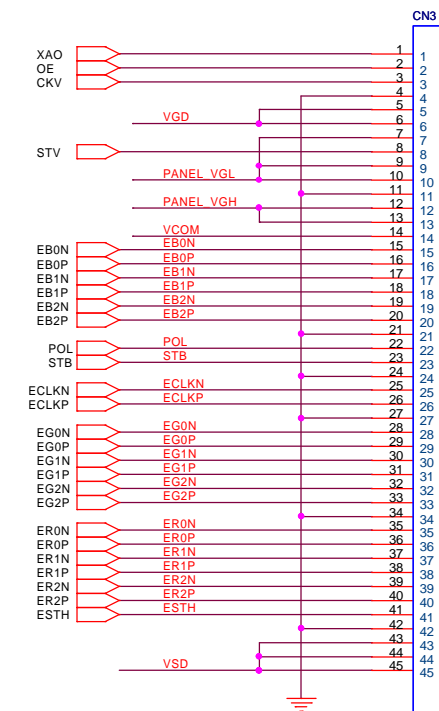
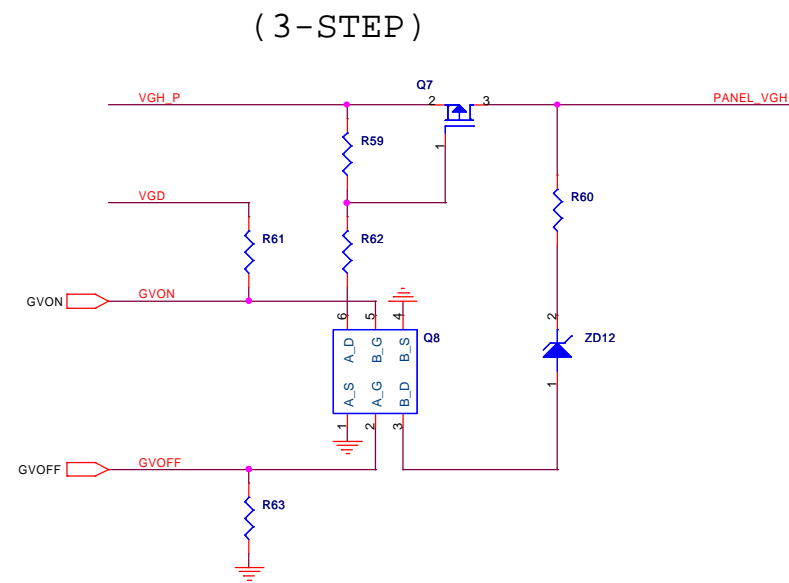
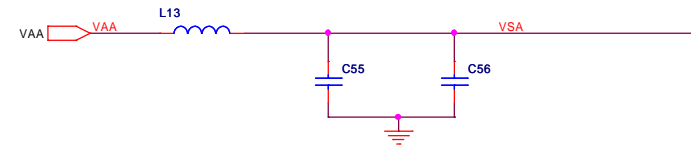
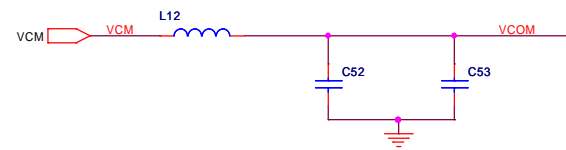
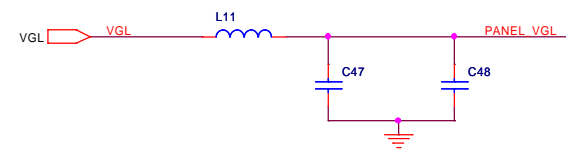
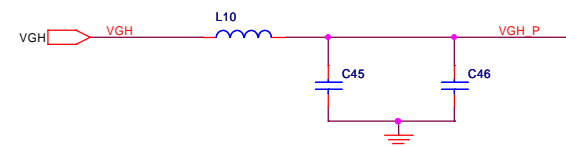
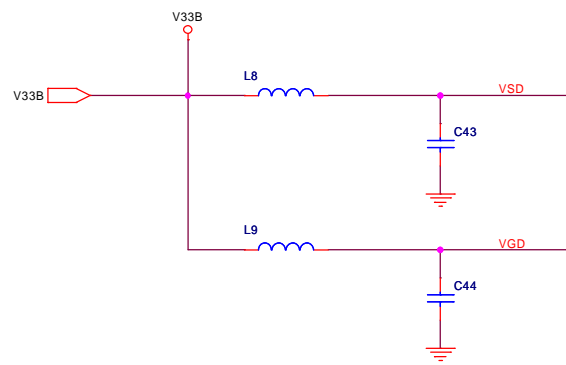


SHUTDOWN : Nomally Low  
VOL\_MUTE: MCU CONTROL

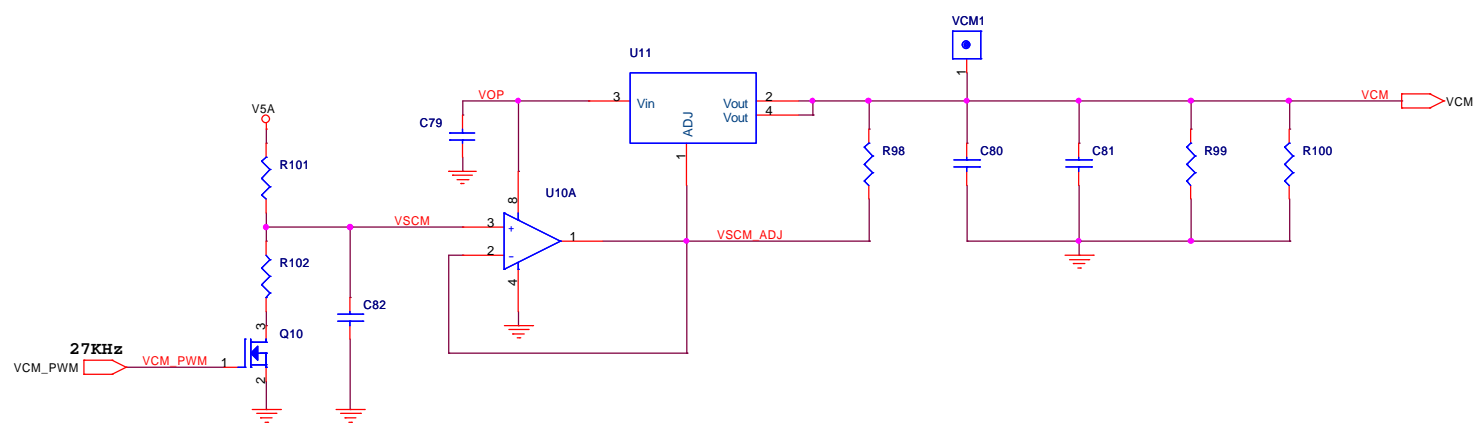
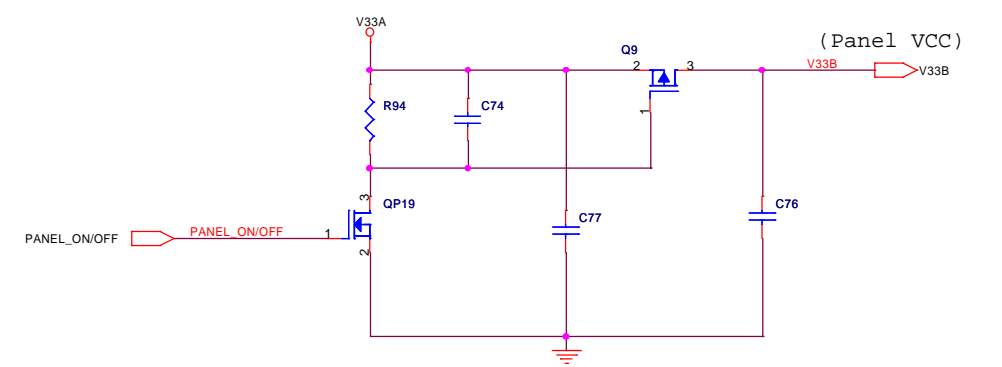
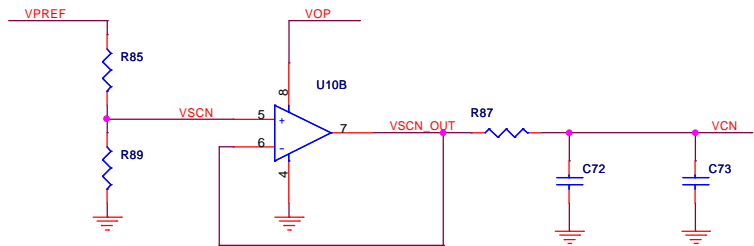
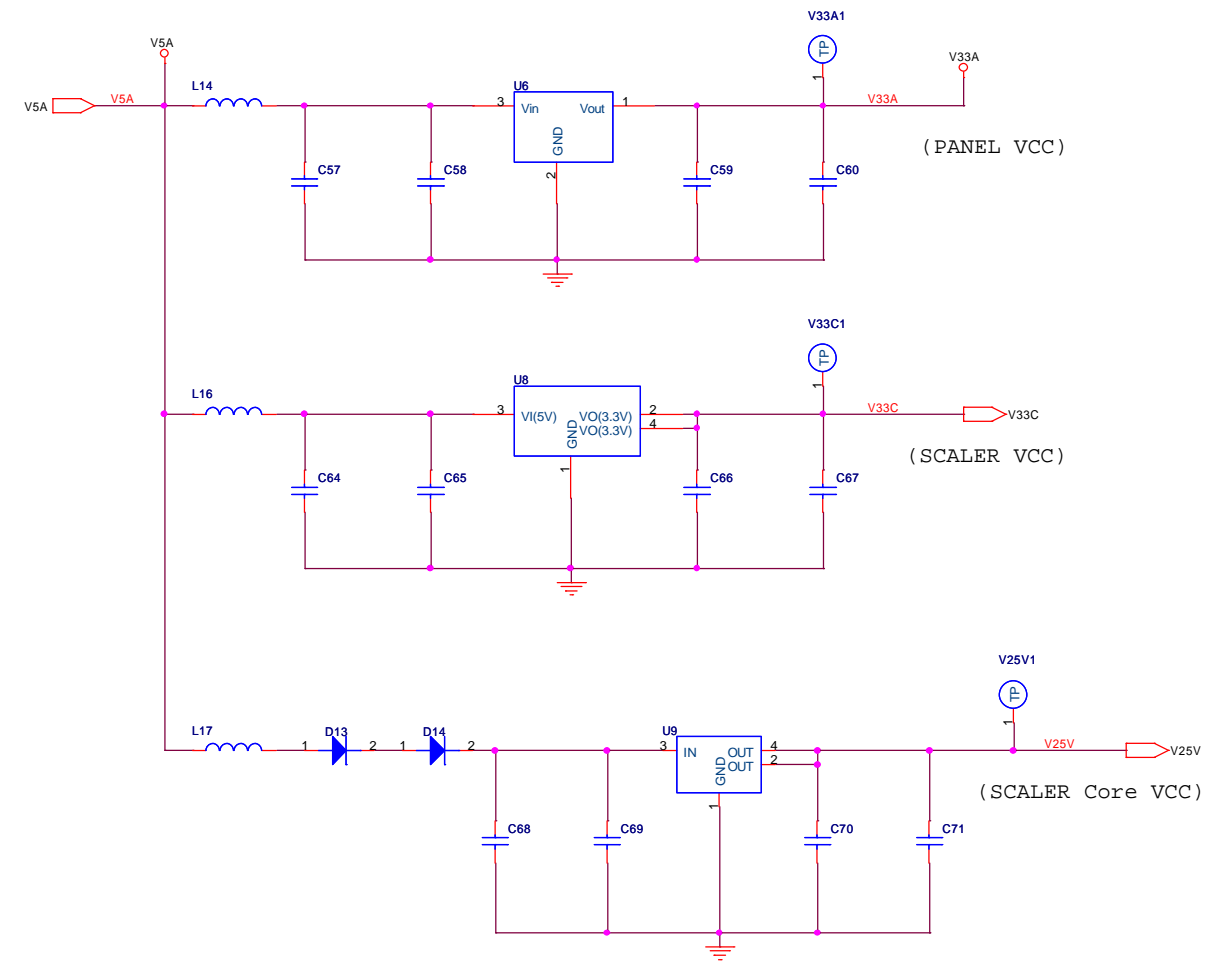
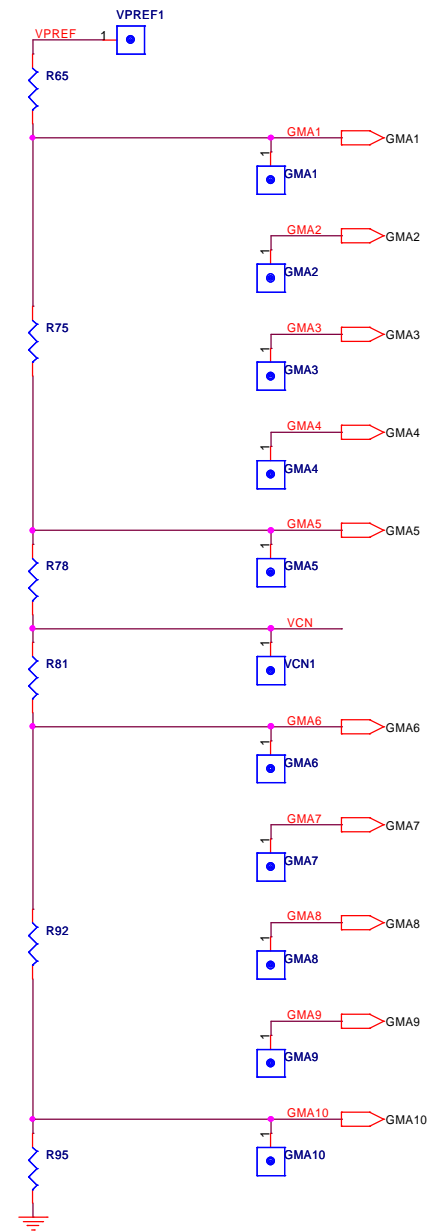
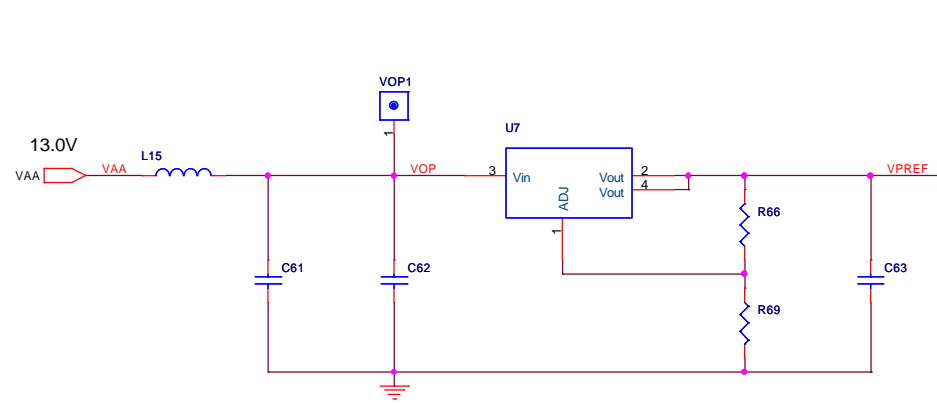


Add new circuit to reduce DC plug out pop noise

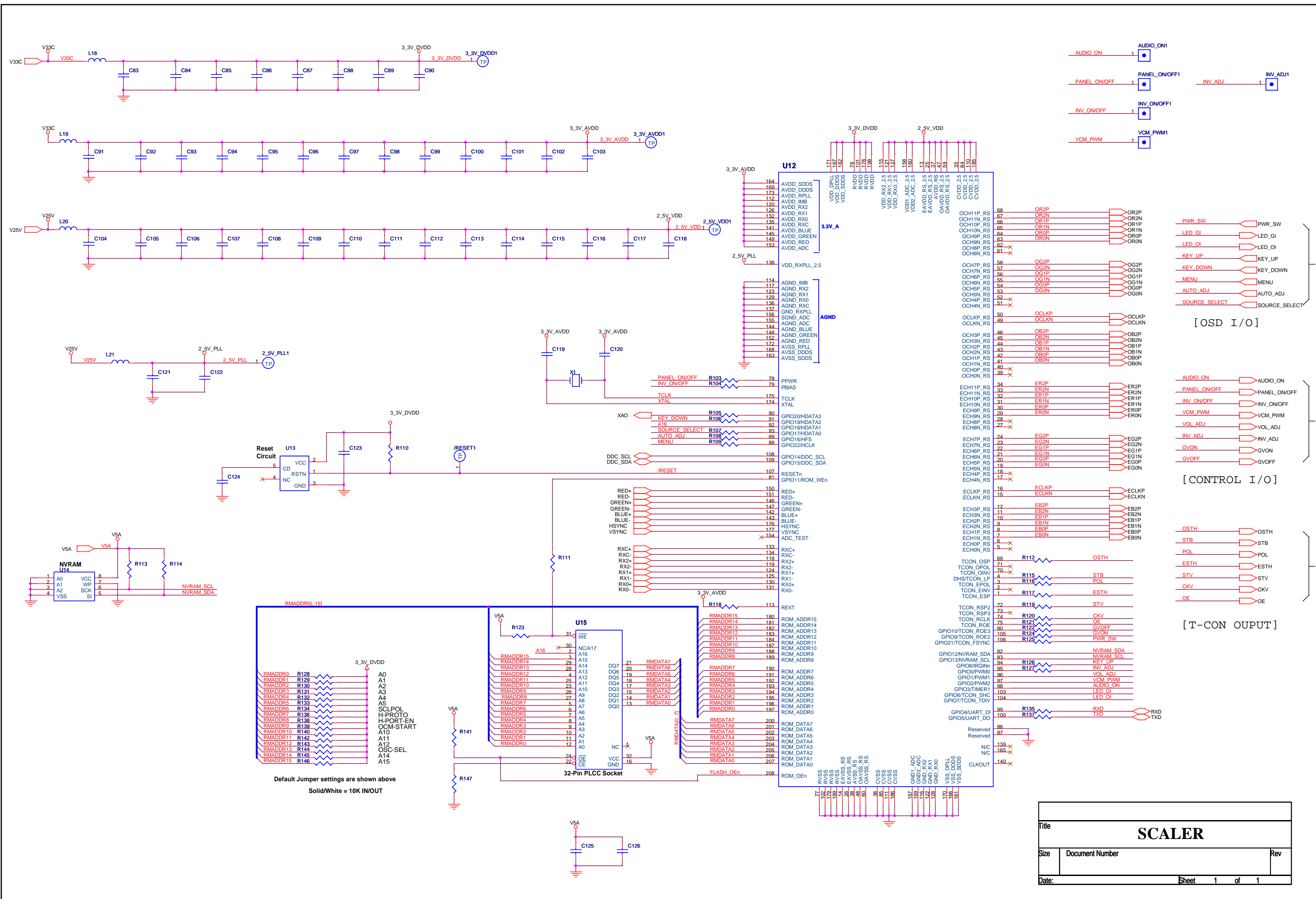
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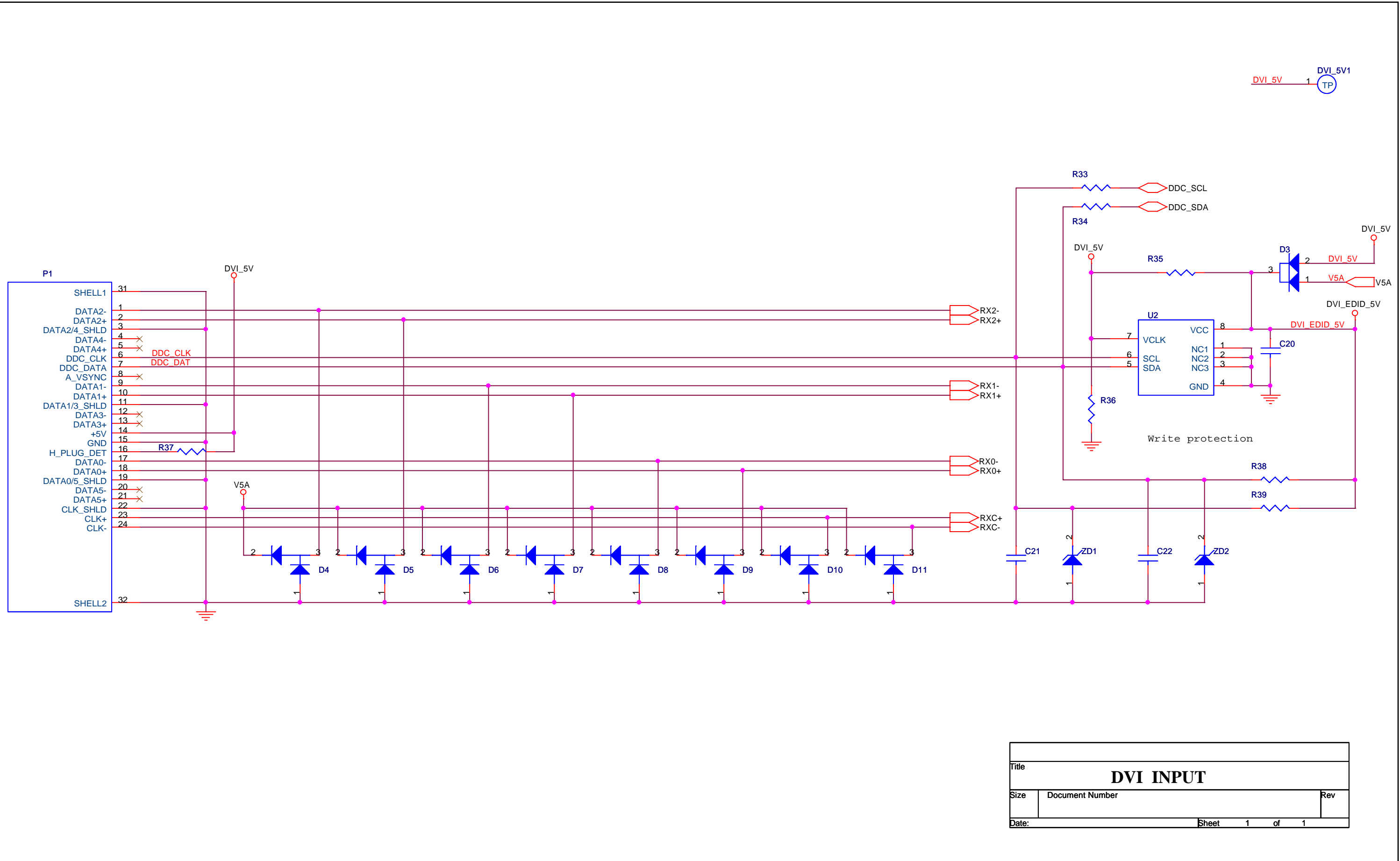


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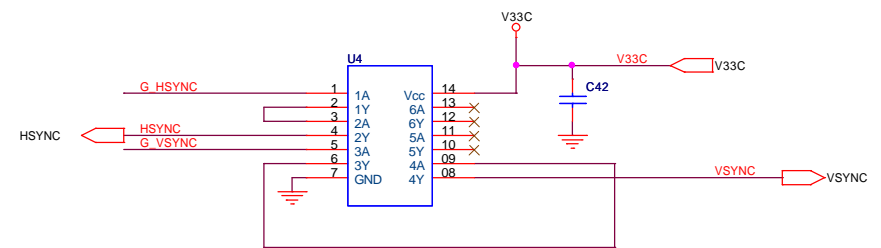
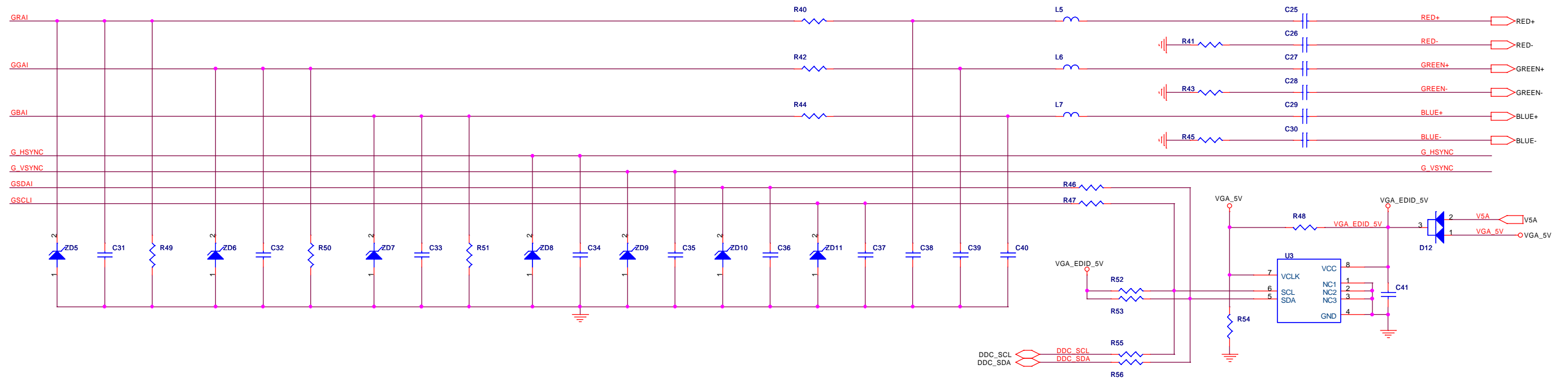
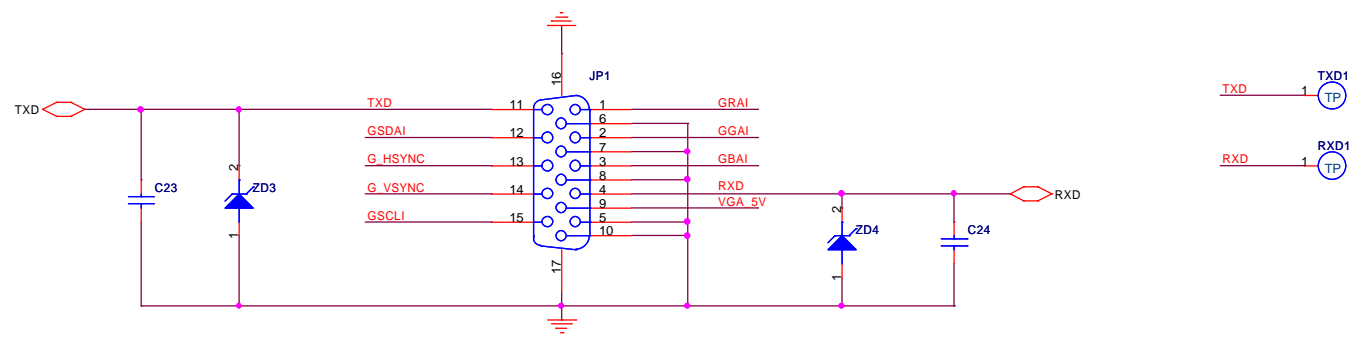


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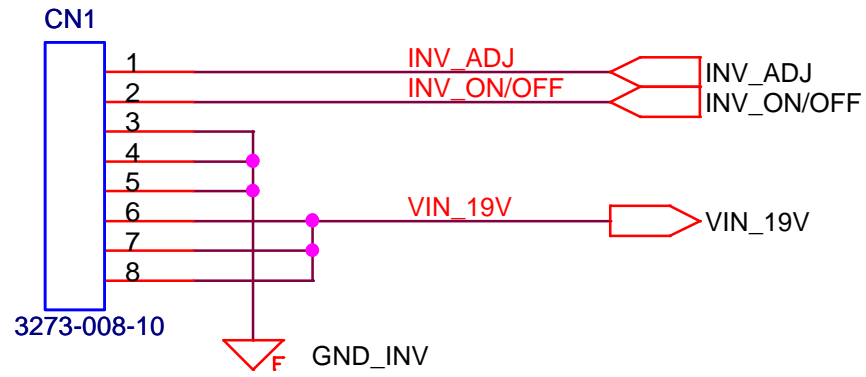
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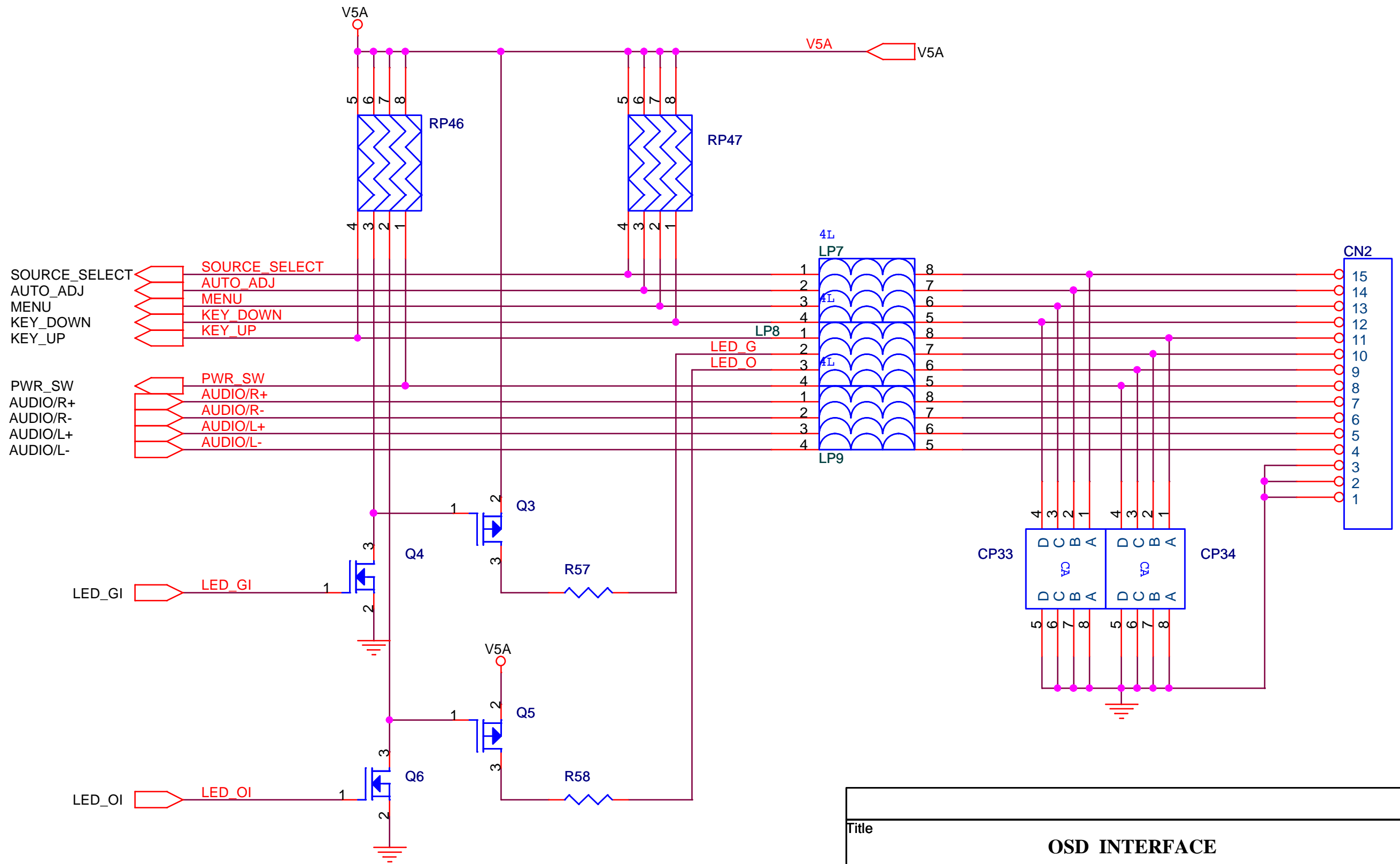
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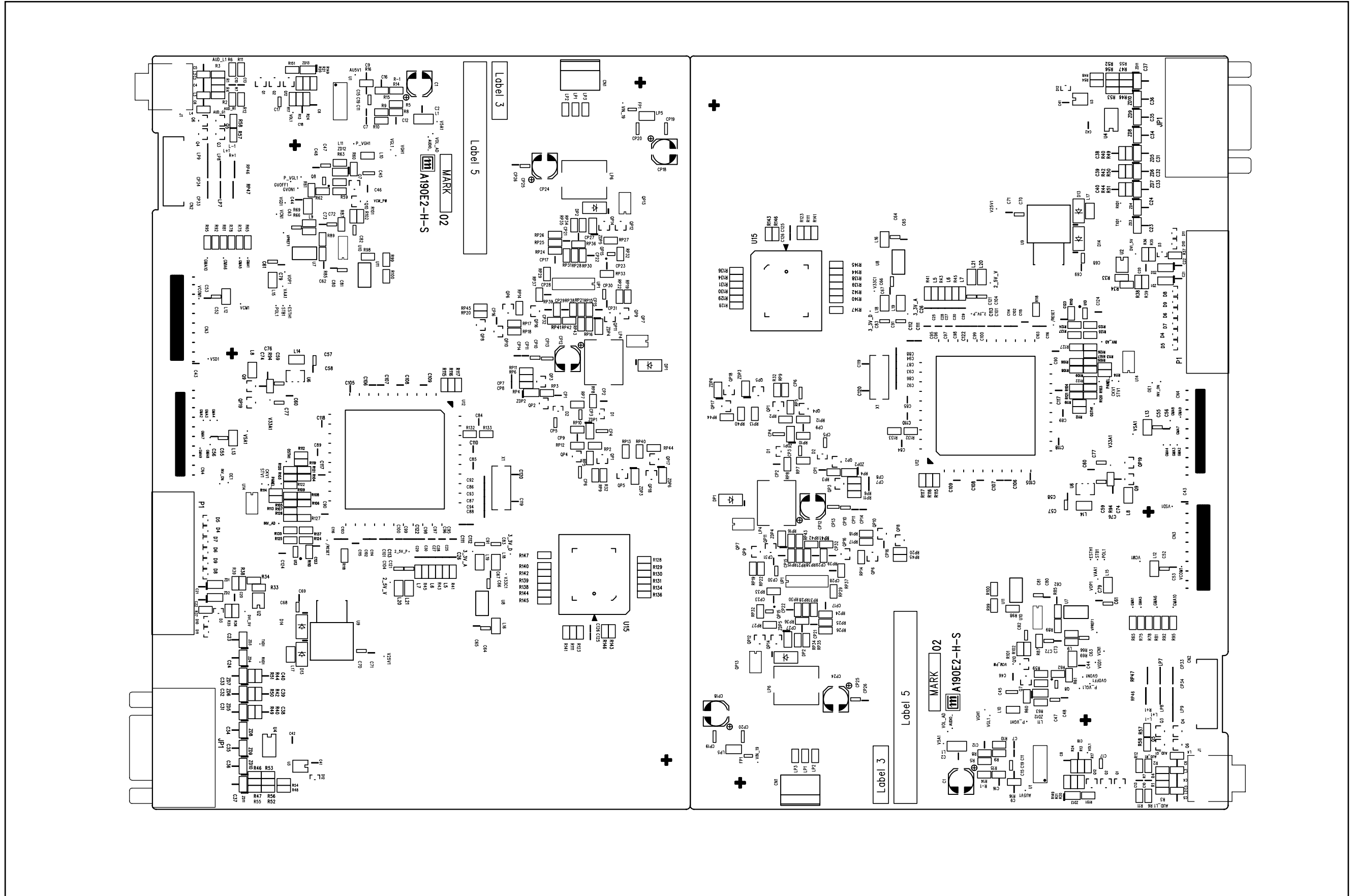
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<b>OSD INTERFACE</b>		
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Date:	Sheet 1 of 1	

11. PCB Layout Diagrams



## *\*Reader's Response\**

Dear Readers:

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

### Assessment

A. What do you think about the content of the **VA912/b** 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. Recommended Spare Parts List</b>				
<b>8. Exploded Diagram and Spare Parts List</b>				
<b>9. Block Diagram</b>				
<b>10. Schematic Diagrams</b>				
<b>11. PCB Layout Diagrams</b>				

B. Are you satisfied with the **VA912/b** Service Manual?

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

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

### Reader's basic data:

Name:		Title:	
Company:			
Add.:			
Tel:		Fax:	
E-mail:			

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