

Service Manual

ViewSonic VA702-3 VA702b-3

Model No. VLCDS27998-3W

VLCDS27998-4W

17" Color TFT LCD Display

(VA702-3_VA702b-3_SM Rev. 1a May 2006)

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Revision History

Revision	SM Editing Date	ECR Number	Description of Changes	Editor
1a	05/02/2006		Initial Release	J. Chang

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1. Precautions and Safety Notices

1. Caution :

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

2. Safety Check :

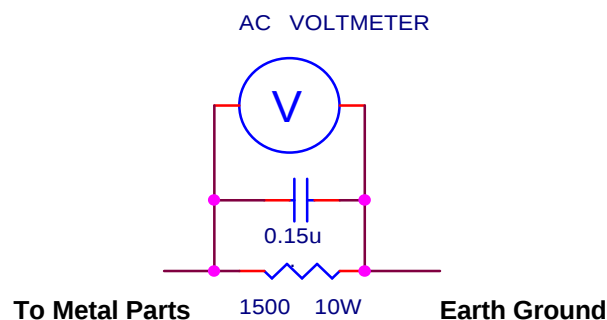
Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit. These voltage are exposed in such areas as the associated transformer circuits .

3. POWER SUPPLY REQUIREMENTS

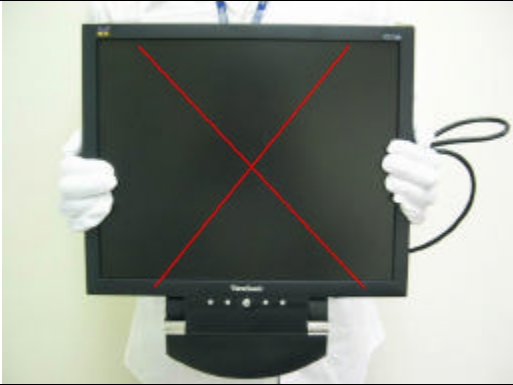
The external power converter for this display utilizes AC and DC cords , AC cord is detachable , but DC cord is permanently attached . Any attempt to replace another adapter could result in serious problem on the display .

4. LEAKAGE CURRENT HOT CHECK

- 4-1 Plug the AC cord directly into the AC outlet. Do not use an isolation transformer during this check.
- 4-2 Connect a 1500 ohm , 10 watt resistor , paralleled by a 0.15uF capacitor between each metallic part and a good earth ground
- 4-3 Use an AC voltmeter with 1000 ohm / volt or more sensitivity and measure the AC voltage across the combination 1500 ohm resistor and 0.15uF capacitor.
- 4-4 Move the resistor connection to each exposed metallic part and measure the voltage.
- 4-5 Reverse the polarity of the AC plug in the AC outlet and repeat the above measurement.
- 4-6 Voltage measured must not exceed 1.5 volt RMS, from any exposed metallic part to the ground. A leakage current tester may be used in the above hot check, in which case any circuit measured must not exceed 1.0 milliamp. In the case of a measurement exceeding the 1.0 milliamp value, a rework is required to eliminate the chance of a shock hazard .



Handling & Placing method

Correct methods :	Incorrect Methods :
Only touch the metal-frame of the panel or the front cover of the monitor .Do not touch the surface of the polarizer .	Surface of the panel is pressed by fingers & this may cause “ MURA “
	
	
Take out the monitor with cushion	Take out the monitor by grasping the LCD panel. That may cause “ MURA “.
	
Place the monitor on a clean & soft foam pad .	Place the monitor on foreign objects . That could scratch the surface of panel
	

2. Specification

GENERAL REQUIREMENTS

General Specifications

Test Resolution & Frequency	1280 x 1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

SIGNAL INTERFACE

Video Interface

Analog Input Connector	DB-15 (Analog)
Video Cable Strain Relief	Equal to twice the weight of the monitor for five minutes.
Video Cable Connector DB-15 Pinout	Compliant DDC 2B.
Video Signals	Video RGB (Analog)
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 1/2B	Compliant with Revision 1.3
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, 1280 x 720, 1280 x 1024
Exclusions	Not compatible with interlaced video.

Power

Power Supply

Internal Power Supply	Part Number: ADP-40AFB
Input Voltage Range	90 to 264 VAC
Input Frequency Range	47.5 to 63 Hertz
Short Circuit Protection	OUTPUT CAN BE SHORTED WITHOUT DAMAGE.
Over Current Protection	4.5 A TYPICAL AT 12 VDC
Leakage Current	3.5MA (MAX) AT 254VAC / 60HZ
Efficiency	70 % TYPICAL AT 115VAC FULL LOAD
Fuse	INTERNAL AND NOT USER REPLACEABLE
Power Dissipation	36 WATTS (MAX)
Max Input AC Current	1.2 ARMS @ 90VAC, 0.8 ARMS @180VAC

ELECTRICAL REQUIREMENTS

Horizontal / Vertical Frequency

Horizontal Frequency	30 – 80 kHz
Vertical Refresh Rate	50 –85 Hz.
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity.

Primary Presets

Primary Preset	1280 x 1024 @ 60Hz
----------------	--------------------

Look up table timing

<<Analog>> 640 x 350 @ 70Hz, 31.5kHz 640 x 480 @ 60Hz, 31.5kHz 640 x 480 @ 67Hz, 35.0kHz 640 x 480 @ 75Hz, 37.5kHz 640 x 480 @ 72Hz, 37.9kHz 640 x 480 @ 85Hz, 43.27kHz 720 x 400 @ 70Hz, 31.5kHz 800 x 600 @ 56Hz, 35.1kHz 800 x 600 @ 60Hz, 37.9kHz 800 x 600 @ 75Hz, 46.9kHz 800 x 600 @ 72Hz, 48.1kHz 800 x 600 @ 85Hz, 53.7kHz 832 x 624 @ 75Hz, 49.7kHz 1024 x 768 @ 60Hz, 48.4kHz 1024 x 768 @ 70Hz, 56.5kHz 1024 x 768 @ 72Hz, 58.1kHz 1024 x 768 @ 75Hz, 60.0kHz 1024 x 768 @ 85Hz, 68.67kHz 1280 x 1024 @ 60Hz, 63.4kHz 1280 x 1024 @ 75Hz, 79.97kHz 21. 1280x720 @ 60Hz, 45kHz (HDTV)	
Changing Modes	
Maximum Mode Change Blank Time, for image stability. Note: 1) Excluding “Auto Adjust” time 2) Under DOS mode (640 x 350, 720 x 400 & 640 x 400), there is no “Auto Adjust” feature. 3) The monitor needs to do “Auto Adjust” the first time a new mode is detected.	3 seconds (Max) 1 seconds (Typ) for recognized timings 1-2 seconds (Typ) for unrecognized timing .
Mode Change Image	The image shall blank while the monitor changes modes.

LCD Panel

1 st Source Panel	QD17EL0711
Type	NORMALLY WHITE, TN, OPTICAL COMPENSATION FILM
Active Size	337.920 (H) x 270.336 (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.264 mm
Glass Treatment	ANTI GLARE
# of Backlights	4 CCFL EDGE-LIGHT (2 TOP / 2 BOTTOM)
Backlight Life	50,000 HOURS (TYP) / 40,000 HOURS (MIN)
Luminance – Condition: CT = 6500K, Contrast = Max, Brightness = Max	260 CD/M2 (TYP AFTER 30 MINUTE WARM UP) 220 CD/M2 (MIN AFTER 30 MINUTE WARM UP)
Brightness Uniformity	75 % Entire Area (minimum)
Contrast Ratio	500:1 (Typ), 300:1 (Min)
Color Depth	16 million colors (6 bit panel)
Viewing Angle (Horizontal)	140 deg @ CR>10, 160 deg @ CR>5
Viewing Angle (Vertical)	125 deg @ CR>10, 145 deg @ CR>5
Response Time 10%-90% @ Ta=25°C	8 ms (Tr= 6 ms, Tf = 2 ms) (Typ) TBD ms (Tr= TBD ms, Tf = TBD ms) (Max)
Panel Defects	Please see Panel Quality Specifications.

MECHANICAL

Dimensions (Base attached unless otherwise specified)

Width	377.6 mm
Height	374.0 mm
Depth	195.6 mm
Depth (Head Only)	55.0 mm
Monitor Weight	4.1 kg / 9.0 lbs

Packaging Specification

Width	450 mm
Height	522 mm
Depth	135 mm
Gross Weight	5.2 kg (11.45 lb)
# units per Pallet	36/72 (air/sea)
20'/40' Container Loading, Palletized	720/1728 pieces

Ergonomics

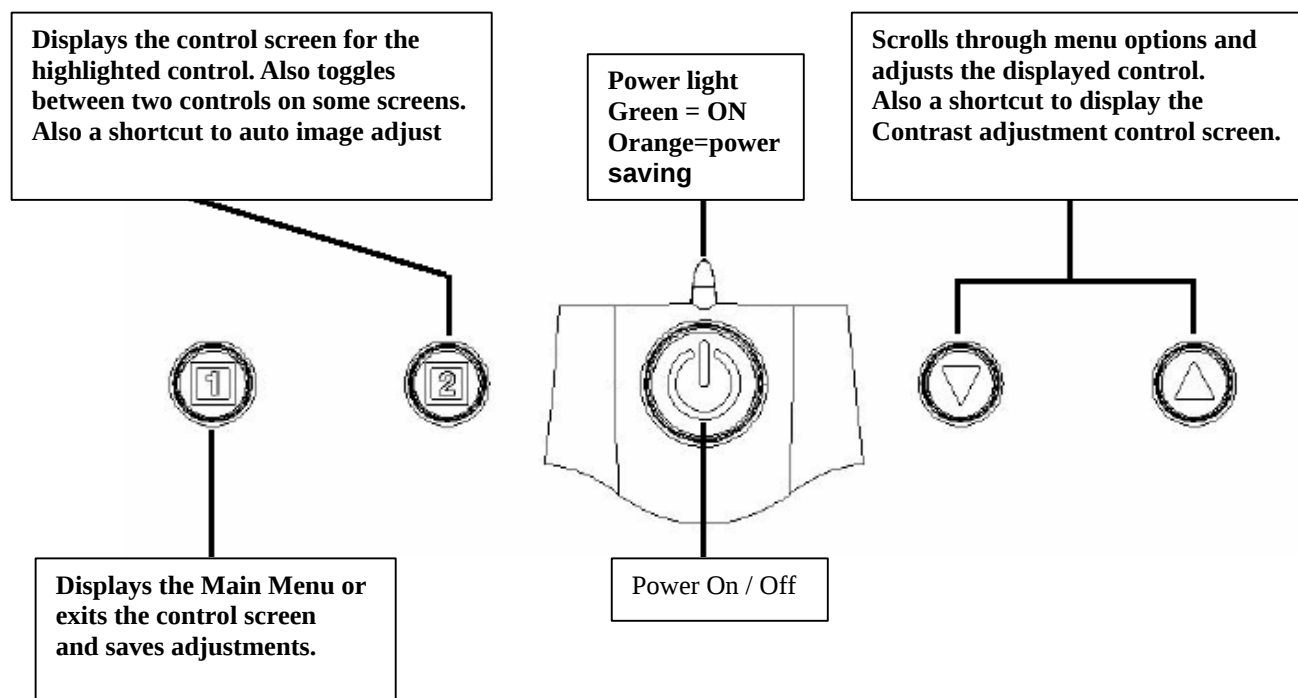
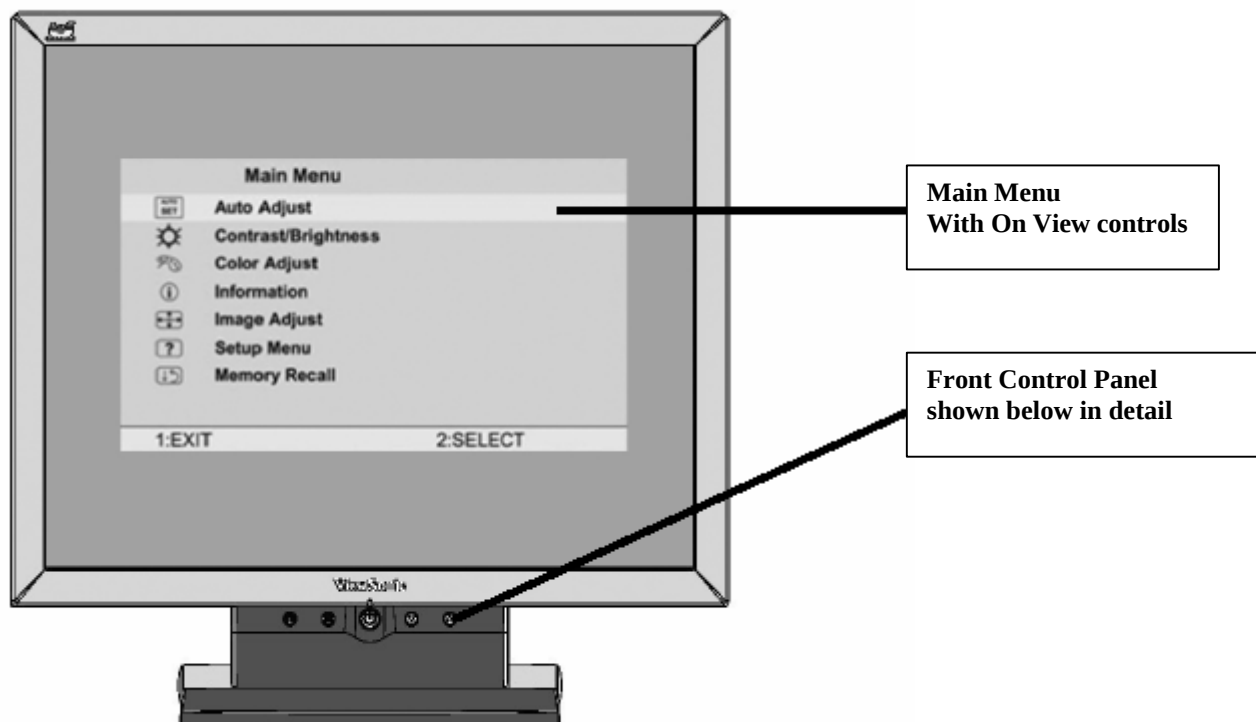
Tilt Up	20 DEGREES MINIMUM
Tilt Down	-5 degrees
Swivel Right	0 degrees
Swivel Left	0 degrees
Height Adjust	0 mm
Pivot	0 DEGREES (CLOCKWISE)

ENVIRONMENTAL

Environmental Conditions

Operating Temperature	0°C to +40°C
Storage Temperature	-20°C to +60°C
Operating Relative Humidity	20% to 90% RH Non-Condensing
Storage Relative Humidity	5% to 90% RH Non-Condensing
Operating Altitude	0 to +3,000 meters
Storage Altitude	0 to +12,000 meters

3. Front Panel Function Control Description



ViewSonic VE702/b -3

Main Menu Controls

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

- A. **Auto Image Adjust** automatically sizes, centers, and fine tunes the video signal to eliminate waviness and distortion.

Press the [2] button to obtain a sharper image.

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

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

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

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

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

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

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

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

2 To adjust selected color, press ▲ or ▼ .

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

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

- F. **Manual Image Adjust** controls are explained below:

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

NOTE: Vertical size is automatic with your LCD display.

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

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

Sharpness adjusts the clarity and focus of the screen image.

Setup Menu controls are explained below:

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

Resolution Notice displays the recommended resolution for this LCD display.

Enable allows the Resolution Notice to appear on-screen.

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

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

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

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

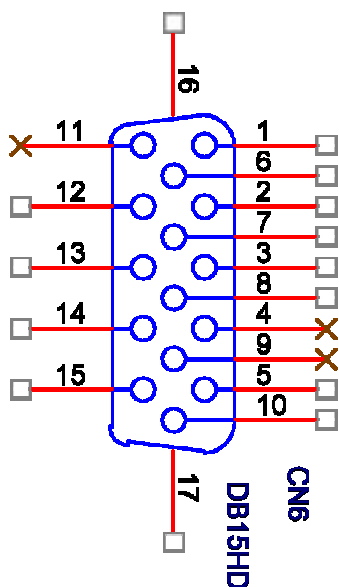
4. Circuit Description

1. Outline

- 1.1 POWER On/Off , LED, Button"2" , Up arrow- button , Down arrow button , Button"1" , button , Down arrow button , Button"1" , on the front panel.
- 1.2 Video signal connector, and AC-IN are located on the back side of the cabinet.
- 1.3 OSD menu includes the following function;
AUTO IMAGE ADJUST
CONTRAST / BRIGHTNESS
COLOR ADJUST
INFORMATION
MANUAL IMAGE ADJUST
SETUP MENU
MEMORY RECALL
- 1.4 CONTRAST and BRIGHTNESS can be directly controlled with UP / DN key.

2. CONNECTORS

- 2.1 AC inlet : CEE22 typed connector
- 2.2 Video signal connector 14P + Mini D-Sub



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

3. ELECTRICAL SPECIFICATIONS

3.1 Standard conditions

Display Area	338 x 270 mm
Video Signal	0.7 Vpp
Contrast	70%
Brightness	Max.
Ambient	20 +/- 5 °C
Input	AC
Warming up	> 30 min
Display	1280 x 1024

3.2 POWER

3.2.1 Power supply

Input Voltage	90 -240 ~Volts
Power Frequency	50/ 60 Hz +/-3Hz
Input current	<1.5Arms @ 90Vac <0.75Arms@240Vac
Inrush current	90A(max.) at 230Vac
Power consumption	50Watt
Output Voltage	@0-3.0A load 12Vdc +/-5%

3.2.2 Power Management

State	Power	Indicator
On	36Watt	Green
Standby	<1Watt	Amber
Off	<1Watt	

3.3 Acceptable timing

If your timing is within following specification, this LCD display can automatically function with a certain position.

Horizontal: Sync frequency : 30~81 kHz

Vertical: Sync frequency : 56~85Hz(1280x1024,75Hz)

3.4 Signal level and input impedance

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

3.4.2 Sync Signal level

H/V Separate : TTL level

3.4.3 Input impedance

Video input : 75 ohms

Sync input : > 1 k ohms

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

5. EDID data

QDI QD17EL07 v11

VA702-3

Time: 15:03:33
Date: Wed Oct 19, 2005

VIEWSONIC CORPORATION
EDID Version # 1, Revision # 3
DDCTest For: ViewSonic VA702-3SERIES

EDID Block 0, Bytes 0-127

128 BYTES OF EDID CODE:

	0	1	2	3	4	5	6	7	8	9
0	00	FF	FF	FF	FF	FF	FF	00	5A	63
10	1D	B5	01	01	01	01	01	0F	01	03
20	08	22	1B	78	2E	59	95	A4	57	47
30	9C	24	15	50	54	BF	EF	80	81	80
40	81	40	71	4F	61	59	45	59	31	59
50	01	01	01	01	30	2A	00	98	51	00
60	2A	40	30	70	13	00	52	0E	11	00
70	00	1E	00	00	00	FF	00	51	35	4B
80	30	35	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	55	1E	52	0E
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	56	41	37	30	32	2D	33
120	53	45	52	49	45	53	00	92		

(08-09) ID Manufacturer Name _____ = VSC
(11-10) Product ID Code _____ = B51D
(12-15) Last 5 Digits of Serial Number _____ = Not Used
(16) Week of Manufacture _____ = 01
(17) Year of Manufacture _____ = 2005
(10-17) Complete Serial Number _____ = See Descriptor Block
(18) EDID Version Number _____ = 1
(19) EDID Revision Number _____ = 3
(20) VIDEO INPUT DEFINITION:
Analog Signal
0.700, 0.300 (1.000 Vp-p)
Separate Syncs
(21) Maximum Horizontal Image Size _____ = 340 mm
(22) Maximum Vertical Image Size _____ = 270 mm
(23) Display Gamma _____ = 2.20
(24) Power Management and Supported Feature(s):
Active Off/Very Low Power, Standard Default Color Space,
Preferred Timing Mode
Display Type = R/G/B Color
(25-34) CHROMA INFO:
Red X - 0.642 Green X - 0.279 Blue X - 0.143 White X - 0.313
Red Y - 0.341 Green Y - 0.610 Blue Y - 0.083 White Y - 0.329
(35) ESTABLISHED TIMING I:
720 X 400 @ 70Hz (IBM,VGA)
640 X 480 @ 60Hz (IBM,VGA)
640 X 480 @ 67Hz (Apple,Mac II)
640 X 480 @ 72Hz (VESA)
640 X 480 @ 75Hz (VESA)
800 X 600 @ 56Hz (VESA)
800 X 600 @ 60Hz (VESA)
(36) ESTABLISHED TIMING II:
800 X 600 @ 72Hz (VESA)
800 X 600 @ 75Hz (VESA)
832 X 624 @ 75Hz (Apple,Mac II)
1024 X 768 @ 60Hz (VESA)
1024 X 768 @ 70Hz (VESA)
1024 X 768 @ 75Hz (VESA)
1280 X 1024 @ 75Hz (VESA)
(37) Manufacturer's Reserved Timing:
1152 X 870 @ 75Hz (Apple,Mac II)

(38-53) Standard Timing Identification:
1280 X 1024 @60Hz
1280 X 960 @60Hz
1152 X 864 @75Hz
1024 X 768 @85Hz
800 X 600 @85Hz
640 X 480 @85Hz
Not Used
Not Used

(54-71) Detailed Timing / Descriptor Block 1:
1280x1024 Pixel Clock: 108.00 MHz

Horizontal Image Size: 338 mm	Vertical Image Size: 270 mm
Refreshed Mode: Non-Interlaced	Normal Display - No Stereo

Horizontal:

Active Time: 1280 pixels	Blanking Time: 408 pixels
Sync Offset: 48 pixels	Sync Pulse Width: 112 pixels
Border: 0 pixels	Frequency: 63.98 KHz

Vertical:

Active Time: 1024 lines	Blanking Time: 42 lines
Sync Offset: 1 lines	Sync Pulse Width: 3 lines
Border: 0 lines	Frequency: 60.02 Hz

Digital Separate, Horizontal Polarity (+) Vertical Polarity (+)

(72-89) Detailed Timing / Descriptor Block 2:

Monitor Serial Number:
Q5K050100001

(90-107) Detailed Timing / Descriptor Block 3:

Monitor Range Limits:
Min Vertical Freq - 50 Hz
Max Vertical Freq - 85 Hz
Min Horiz. Freq - 30 KHz
Max Horiz. Freq - 82 KHz
Pixel Clock - 140 MHz
Secondary GTF - Not Supported

(108-125) Detailed Timing / Descriptor Block 4:

Monitor Name:
VA702-3SERIES

(126) No Extension EDID Block(s)
(127) CheckSum OK

Time: 15:33:23
Date: Wed Oct 19, 2005

VIEWSONIC CORPORATION
EDID Version # 1, Revision # 3
DDCTest For: ViewSonic VA702-3SERIES

EDID Block 0, Bytes 0-127

128 BYTES OF EDID CODE:

	0	1	2	3	4	5	6	7	8	9
0	00	FF	FF	FF	FF	FF	FF	00	5A	63
10	1D	B5	01	01	01	01	01	0F	01	03
20	08	22	1B	78	2E	59	95	A4	57	47
30	9C	24	15	50	54	BF	EF	80	81	80
40	81	40	71	4F	61	59	45	59	31	59
50	01	01	01	01	30	2A	00	98	51	00
60	2A	40	30	70	13	00	52	0E	11	00
70	00	1E	00	00	00	FF	00	51	35	4C
80	30	35	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	55	1E	52	0E
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	56	41	37	30	32	2D	33
120	53	45	52	49	45	53	00	91		

(08-09) ID Manufacturer Name _____ = VSC
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 (10-17) Complete Serial Number _____ = See Descriptor Block
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 (19) EDID Revision Number _____ = 3
 (20) VIDEO INPUT DEFINITION:
 Analog Signal
 0.700, 0.300 (1.000 Vp-p)
 Separate Syncs
 (21) Maximum Horizontal Image Size _____ = 340 mm
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 640 X 480 @ 60Hz (IBM,VGA)
 640 X 480 @ 67Hz (Apple,Mac II)
 640 X 480 @ 72Hz (VESA)
 640 X 480 @ 75Hz (VESA)
 800 X 600 @ 56Hz (VESA)
 800 X 600 @ 60Hz (VESA)
 (36) ESTABLISHED TIMING II:
 800 X 600 @ 72Hz (VESA)
 800 X 600 @ 75Hz (VESA)
 832 X 624 @ 75Hz (Apple,Mac II)
 1024 X 768 @ 60Hz (VESA)
 1024 X 768 @ 70Hz (VESA)
 1024 X 768 @ 75Hz (VESA)
 1280 X 1024 @ 75Hz (VESA)
 (37) Manufacturer's Reserved Timing:
 1152 X 870 @ 75Hz (Apple,Mac II)
 (38-53) Standard Timing Identification:
 1280 X 1024 @60Hz
 1280 X 960 @60Hz

1152 X 864 @75Hz
1024 X 768 @85Hz
800 X 600 @85Hz
640 X 480 @85Hz
Not Used
Not Used

(54-71) Detailed Timing / Descriptor Block 1:

1280x1024 Pixel Clock: 108.00 MHz

Horizontal Image Size: 338 mm
Refreshed Mode: Non-Interlaced

Vertical Image Size: 270 mm
Normal Display - No Stereo

Horizontal:

Active Time: 1280 pixels
Sync Offset: 48 pixels
Border: 0 pixels

Blanking Time: 408 pixels
Sync Pulse Width: 112 pixels
Frequency: 63.98 KHz

Vertical:

Active Time: 1024 lines
Sync Offset: 1 lines
Border: 0 lines

Blanking Time: 42 lines
Sync Pulse Width: 3 lines
Frequency: 60.02 Hz

Digital Separate, Horizontal Polarity (+) Vertical Polarity (+)

(72-89) Detailed Timing / Descriptor Block 2:

Monitor Serial Number:
Q5L050100001

(90-107) Detailed Timing / Descriptor Block 3:

Monitor Range Limits:
Min Vertical Freq - 50 Hz
Max Vertical Freq - 85 Hz
Min Horiz. Freq - 30 KHz
Max Horiz. Freq - 82 KHz
Pixel Clock - 140 MHz
Secondary GTF - Not Supported

(108-125) Detailed Timing / Descriptor Block 4:

Monitor Name:
VA702-3SERIES

(126) No Extension EDID Block(s)

(127) CheckSum OK

6. THEORY OF OPERATION

This section describes the function of the LCD monitor per functional block.

This monitor includes MB board, power board and button board.

6.1 MB BOARD

The MB board is a two-layer, single-landed design with ground and internal planes provided. DC power from the power board enter the board through a 6P connector. Other connector on the board is for button board .The VGA cable is a signal cable that contains video signal, sync signal and DDC signal from PC VGA adapter. This system board consists of 4 functional areas : flat panel controller, MCU with flash ROM , power regulator .

6.1.1 Flat panel controller... MST8111A (U3)

The heart of the system board is MStart MST8111A. The MST8111A is a graphics processing IC for LCD monitor. It provides all key IC functions required for LCD panel. On-chip functions include a high-speed triple-ADC , PLL, high scaling engine, OSD controller.

a) Clock Generation :

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

14.318 MHz crystal is recommended.

b) Analog to Digital Converter:

The MST8111A chip has three ADC's (analog-to-digital converters), one for each color (red, green and blue) .The analog RGB signals are connected to MST8111A as described below

Pin Name	Pin Number
Red +	63
Red -	62
Green +	60
Green -	59
Blue +	58
Blue -	57

c) OSD : The MST8111A has a fully programmable ,high-quality OSD controller. The on-chip static RAM(4096 words by 24 bits) stores the cell map and the cell definitions.

d) MTV312 Micro controller: The MTV312 micro controller(MCU) serves as the system micro controller. It's programs the MST8111A and manages other devices in the system such as the keypad, the backlight, LED, audio and non-volatile RAM. using general purpose input/output (GPIO) pins.

Pin number	Pin Name	Pin Number Usage
21	P1.3	Key / Power on ,off
13	P3.4	NV_RAM (U4) SDA
14	P3.5	NV_RAM (U4) SCL
25	P1.7	Key_down
9	P6.3	Key_right
24	P1.6	Key_up
16	P6.2	Key_left
37	P4.1	Key_mute
34	P5.6	VGA connector
23	P1.5	Key_select
42	P5.3	LED_red
41	P5.4	LED_green
32	P6.6	LCD panel power1 on / off control
3	P5.0	LCD panel power2 on / off control
36	P4.0	Backlight on / off control

e) Panel Power Sequencing (VDDCTRL1, 2) (Pin 32, 3) : The MTV312 has two dedicated outputs VDDCTRL1 and 2 (Pin32 and Pin3) to control LCD power sequencing once data and control signals are stable.

f) Panel interface (Pin 1~25, Pin75~128) : The MTV312 driver interface is highly programmable. It supports dual bus / dual port for SXGA drivers.

6.1.2 Power Regulator MC34063A (U6),AIC1739 (Q4) : The MC34063A is a monolithic control IC containing the primary functions required for DC to DC converters. The device consists of an internal temperature compensated reference, comparator, controlled duty cycle.

Oscillator with an active current sense circuit. Desired output voltage are determined by the equation,

$V_{out} = 1.25 \left(1 + \frac{R_{67}}{R_{66}} \right)$, In this case, the output voltage are 3.3 Volts

The AIC1739 is a low dropout positive adjustable regulator with minimum of 300mA output current capability.

So it is well suited for 3.3 V and 2.5 V Regulator.

6.1.3 Power Regulator MC34063A (U7) : The MC34063A is a monolithic control IC containing the primary functions required for DC to DC converters. The device consists of an internal temperature compensated reference, comparator, controlled duty cycle.

Oscillator with an active current sense circuit. Desired output voltage are determined by the equation,

$V_{out} = 1.25 \left(1 + \frac{R_{85}}{R_{86}} \right)$, In this case, the output voltage are 5.0 Volts for panel power.

6.2 Power(Inverter) Board

This is a specific power(inverter) power board for VA702-3 monitor 40W 12V 3.5A output power and backlight which converts 12 Vdc to drive four cold cathode fluorescence tubes.

6.2.1 Inverter Electrical specification described as below.

Input	Rated Input Voltage	12Vdc
	Input Voltage Range	11.4 ~ 12.6 Vdc
	Input Current	<2A
	On / Off control Voltage	2~3.3 for on , 0~1 for off
Output	Rated Output Strike-on Voltage	1500Vrms
	Rated Output Voltage	710Vrms at 7mA
	Rate Output Frequency	40~50KHz
	Rated Ourput Current	7~8 mA

6.2.2 power

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

	Rated Input Voltage	90~240 Vac , 50 / 60Hz
	Operation Input Voltage	90~260 Vac , 47 ~ 63Hz
	Input Current	<1.5A
	Inrush Current	<100A@120Vac
	Standby Input Voltage	12Vdc
	Output Voltage Regulation	+/-5%
	Output Ripple & Noise	120mVp-p
	Rate Output Current	<3.5A
	Turn-on delay	<3secs

5. Adjustment Procedure

OSD Function Menu

1. Main Menu

Press “1” Button (Menu Button) to enter Main Menu:

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

Press “1” Button to exit Main Menu.

(1) Auto Image Adjust Page:

Press “2” Button to do auto image adjust function.

Press “1” Button to exit the page.

(2) Contrast/Brightness Page:

Press “2” Button to enter Contrast Item.

Press “1” Button to exit the page.

1) Contrast Item

Press Up Button to make contrast high.

Press Down Button to make contrast low.

Press “2” Button to enter Brightness Item.

Press “1” Button to exit the item.

2) Brightness Item

Press Up Button to make brightness high.

Press Down Button to make brightness low.

Press “2” Button to enter Contrast Item.

Press “1” Button to exit the item.

(3) Color Adjust Page:

Press “2” Button to enter Color Adjust page.

Press “1” Button to exit the page.

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

1) sRGB Item

2) 9300K Item

3) 6500K Item

4) 5400K Item

Press “2” Button to select current Item.

Press “1” Button to exit current item.

5) User Color Item

Press “2” Button to enter User Color item.

Press “1” Button to exit User Color item.

Red,Green,Blue Options:

Press “2” Button to switch among the options.

Press “1” Button to exit the options.

Press Up Button to make current option high.

Press Down Button to make current option low.

(4) Information Page:

Press “2” Button to show the information.

Press “1” Button to exit Information page.

(5) Manual Image Adjust Page:

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

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

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

1) H./V. Position Item

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

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

a) Horizontal Position Option:

Press “2” Button to enter the Vertical Position option.

Press “1” Button to exit Horizontal Position option.

Press Up Button to make current option high.

Press Down Button to make current option low

b) Vertical Position Option:

Press “2” Button to enter the Horizontal Position option.

Press “1” Button to exit Vertical Position option.

Press Up Button to make current option high.

Press Down Button to make current option low

2) Horizontal Size Item

Press “2” Button to enter Horizontal Size item.

Press “1” Button to exit Horizontal Size item.

Press Up Button to make current item high.

Press Down Button to make current item low.

3) Fine tune Item

Press “2” Button to enter Fine tune item.

Press “1” Button to exit Fine tune item.

Press Up Button to make current item high.

Press Down Button to make current item low.

4) Sharpness Item

Press “2” Button to enter Sharpness item.

Press “1” Button to exit Sharpness item.

Press Up Button to make current item high.

Press Down Button to make current item low.

(6) Setup Menu Page:

Press “2” Button to enter Setup Menu page.

Press “1” Button to exit Setup Menu page.

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

1) Language Select Item

Press “2” Button to enter Language Select item.

Press “1” Button to exit Language Select item.

Press Up Button to the previous option or Down Botton to the next option.

English,French.....Option

Press “2” Button to select the language.

Press “1” Button to exit the option.

2) Resolution Notice Item

Press “2” Button to enter Resolution Notice item.

Press “1” Button to exit Resolution Notice item.

Enable,Disable Option

Press “2” Button to select the option.

Press “1” Button to exit the option

Press Up Button to the previous option or Down Botton to the next option.

3) OSD Position Item

Press “2” Button to enter OSD Position item.

Press “1” Button to exit OSD Position item.

a) Horizontal Position Option

Press “2” Button to enter the Vertical Position option.

Press “1” Button to exit Horizontal Position option.

Press Up Button to make current option high.

Press Down Button to make current option low

b) Vertical Position Option:

Press “2” Button to enter the Horizontal Position option.

Press “1” Button to exit Vertical Position option.

Press Up Button to make current option high.

Press Down Button to make current option low

4) OSD Time Out Item

Press “2” Button to enter OSD Time Out item.

Press “1” Button to exit OSD Time Out item.
Press Up Button to make OSD time out long.
Press Down Button to make OSD time out short.

5) OSD Background Item

Press “2” Button to enter OSD Background item.
Press “1” Button to exit OSD Background item.

Enable,Disable Option

Press “2” Button to select the option.
Press “1” Button to exit the option.
Press Up Button to the previous option or Down Botton to the next option.

(7) Memory Recall Page

Press “2” Button to do the memory recall function.
Press “1” Button to exit the page.

2. Other Menu:

(1) Contrast Dialog

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

(2) Auto Image Adjust Dialog

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

Function test

(1) Test equipment

Color video Signal & pattern generator (or PC with SXGV resolution)

(2) Test condition

Warm-up at least 30mins is necessary under following condition before function test & alignment :

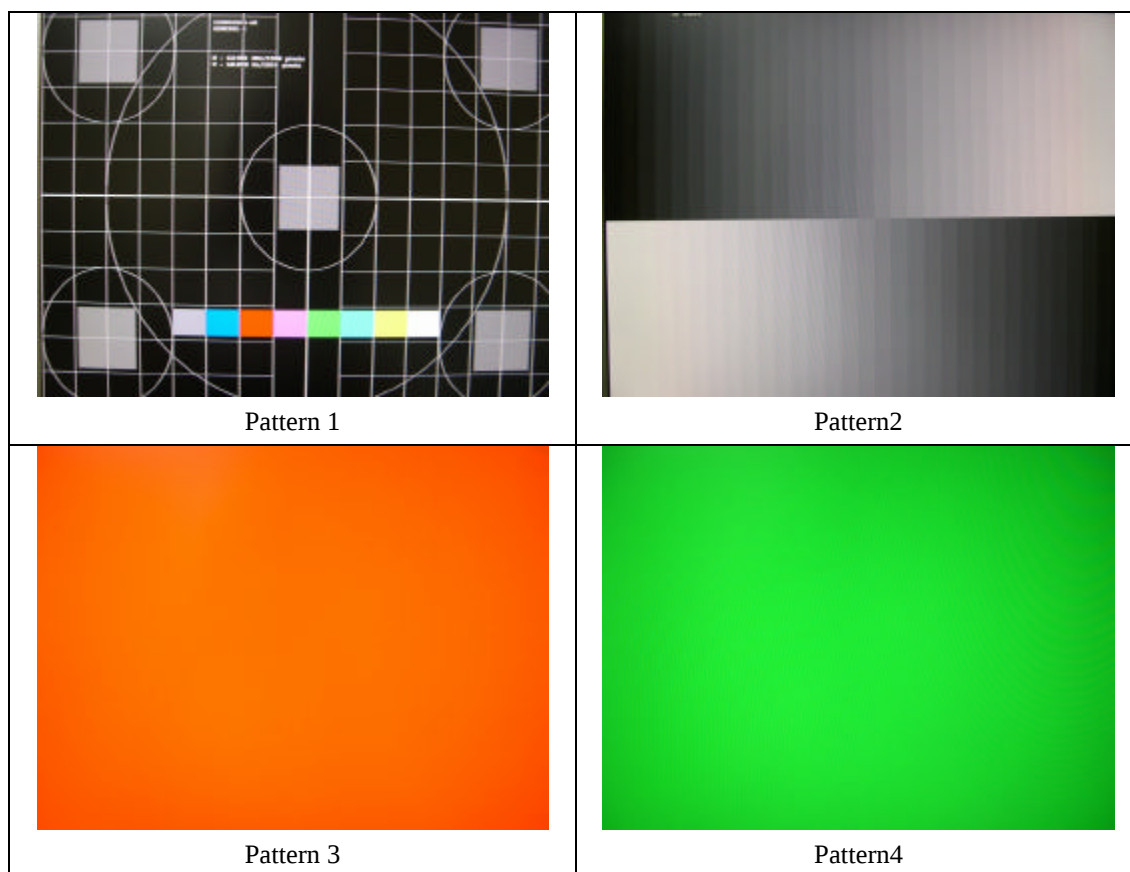
1. room temperature
2. With full-white screen , RGB , black pattern
3. with cycled display modes.

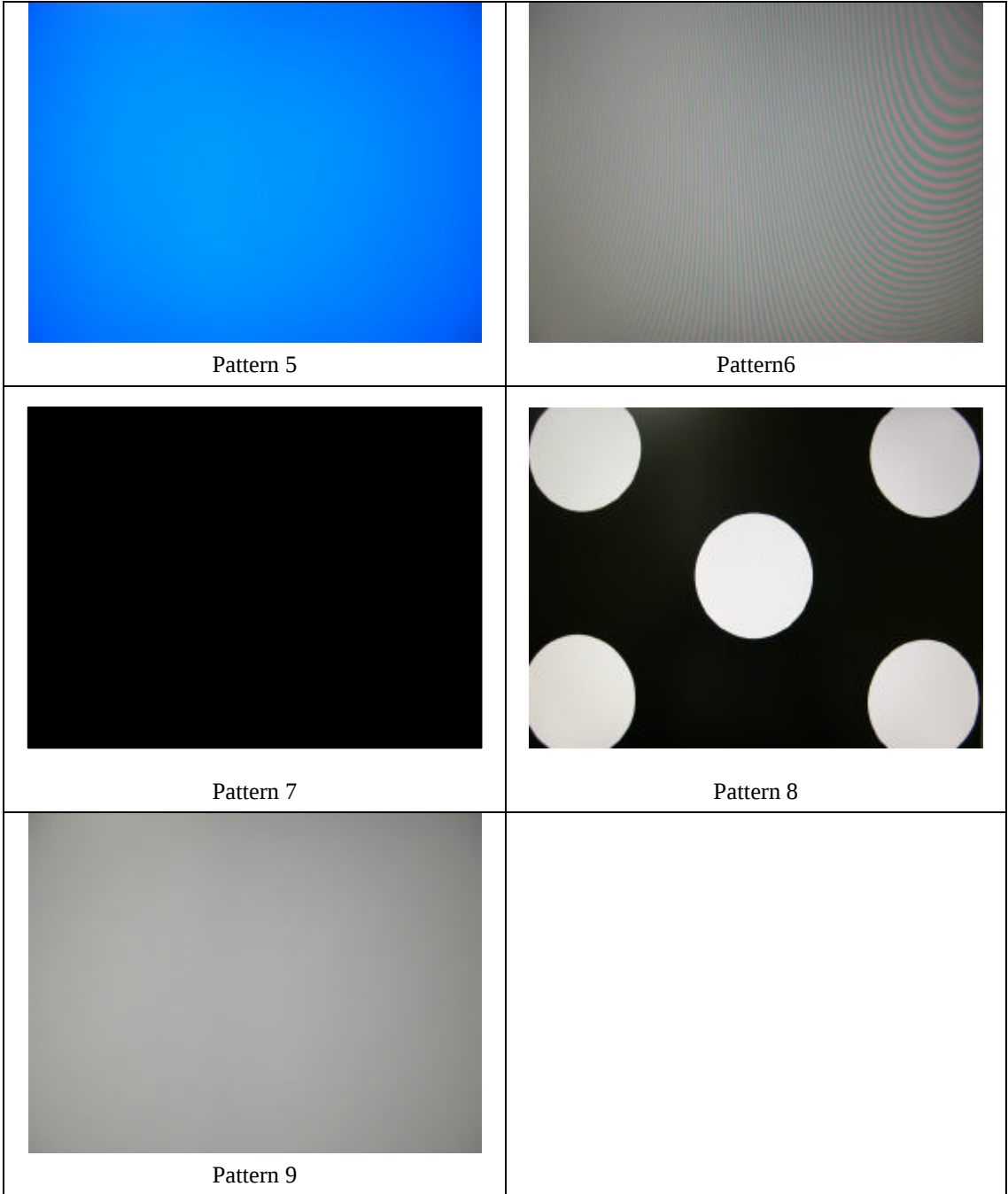
2. Test display modes

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 @ 50Hz, 24.7kHz	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 864 @ 75Hz, 67.5kHz	Yes
23	1152 x 870 @ 75Hz, 68.7kHz	Yes
24	1280 x 1024 @ 60Hz, 63.4kHz	Yes
25	1280 x 1024 @ 75Hz, 79.97kHz	Yes
26	1280x 720 @ 60Hz, 45kHz (HDTV)	Yes

3. Test pattern

Item	Test condition	Pattern	Specification	Remark
1	Frequency & performance	Cross-hatch pattern	No noise is allow & all color is clear	Pattern 1
2	Monitor saturation	16-gray scale pattern	3~4 level need to saturated when brightness & contrast is 100%	Pattern 2
3	RGB color performance	RGB color	Check the color temperature of RGB signal color	Pattern 3, 4, 5
4	Sub-pixel defect	RGB color	Check the sub-pixel defect	Pattern 3, 4, 5
5	Full white	Full white	Check the brightness ,CR & bright pixel defect	Pattern 6
6	Full black	Full black		Pattern 7
7.	5-cycle pattern	5-cycle pattern	Check the BU	Pattern 8
8.	1-dot pattern	1-dot pattern	Check the flicker	Pattern 9





Firmware update procedure:

When you received a received monitor , please check whether the firmware version.

If not , please following procedure to upgrade to the latest version .

1. Equipment needed :

- VA702/b-3
- PC (Personal computer)
- LPT cable
- Fixture (LM5ISP)
- Firmware upgrade program

	
Print port	Fixture
	
VA702/b-	LPT cable

2. Connection :



Appendix A : How to install the software for ISP :

0. To setup ISP environment

Hardware:

PC or Notebook , Parallel(Printer) cable , ISP tool(Fig 0.0)

Software:

ISP driver .

If the O.S. was Win2000 or Win XP please have to install

PORT95NT.exe

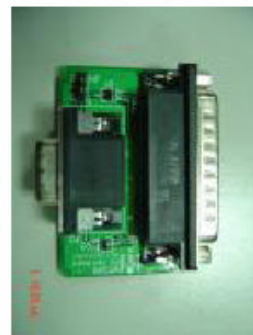


Fig0.0

In order to ensure can execute ISP program, please set BIOS in PC or Notebook as Fig 0.1

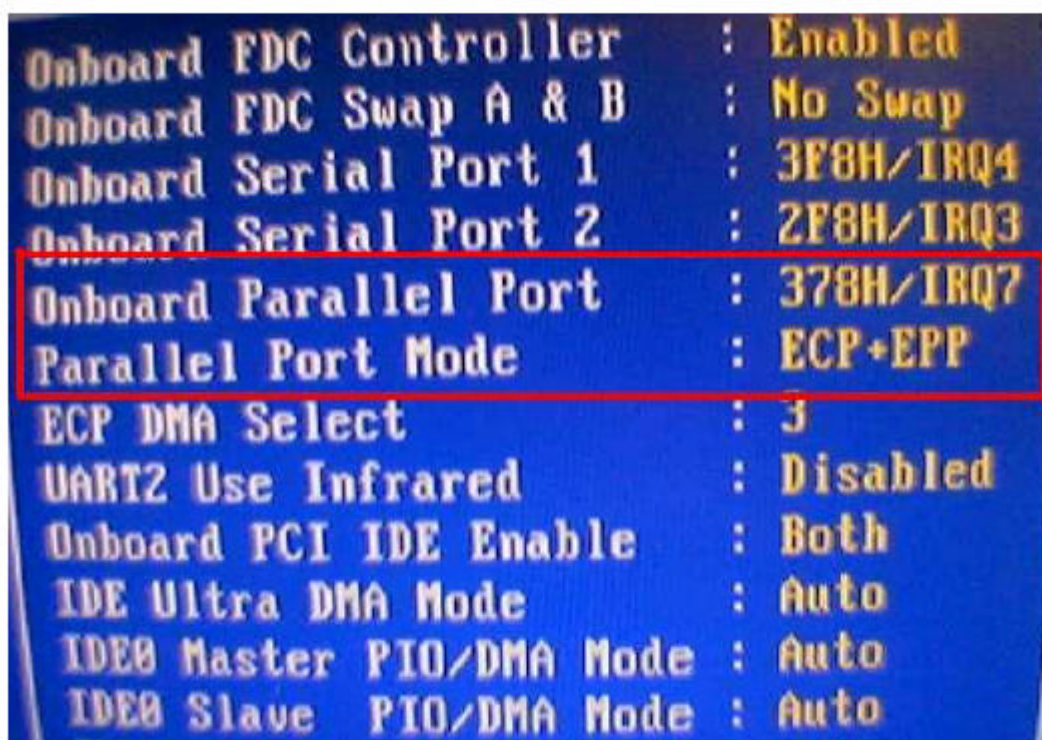


Fig 0.1

1. Install ISP

1.1 User could download ISP river and PORT95NT install from Myson Century website

(www.myson.com.tw)

1.2 After extracting the ZIP file , the total files list as Fig 1.2 , and double click the file of setup.exe to install.

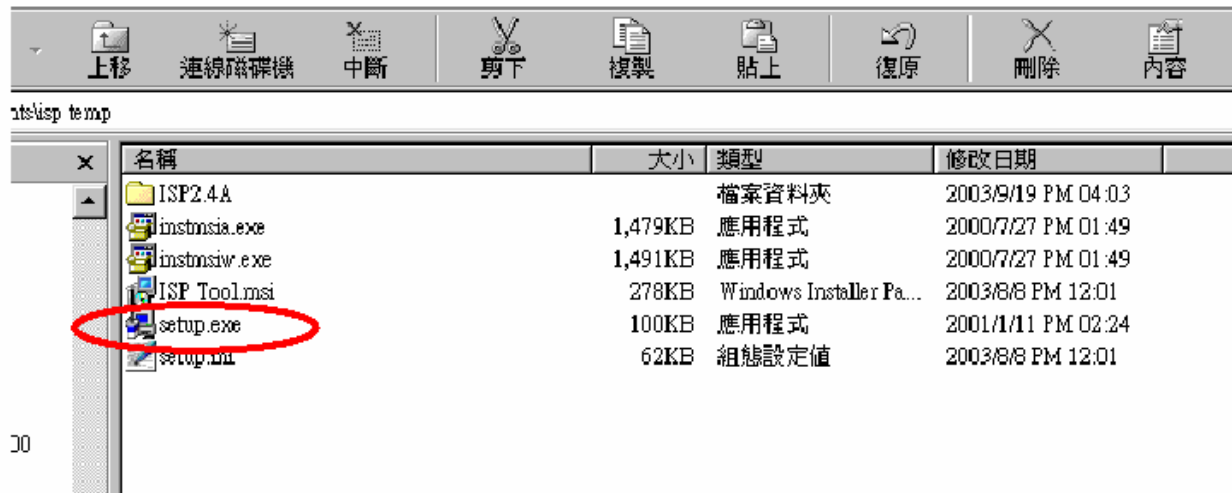


Fig 1.2

1.3 Press “ Next “ button to continue., see Fig 1.3



Fig 1.3

1.4 Keep default setting or press “ Change “ button for selecting the path that you want , and then press “ Next “ button to continue , see Fig 1.4 .

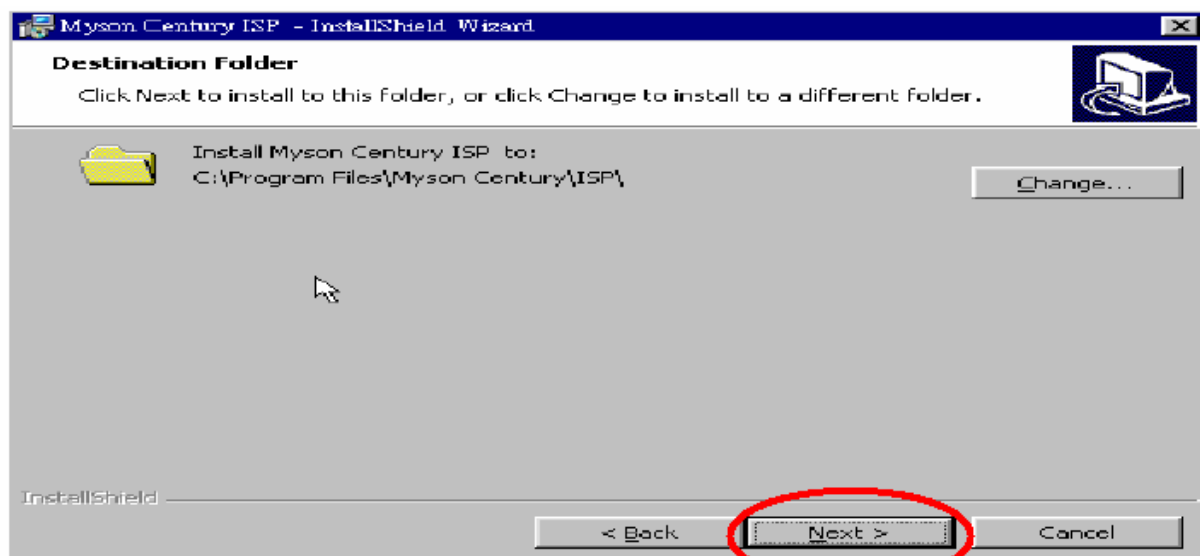


Fig 1.4

1.5 Press “ Install “ button to continue , see Fig 1.5

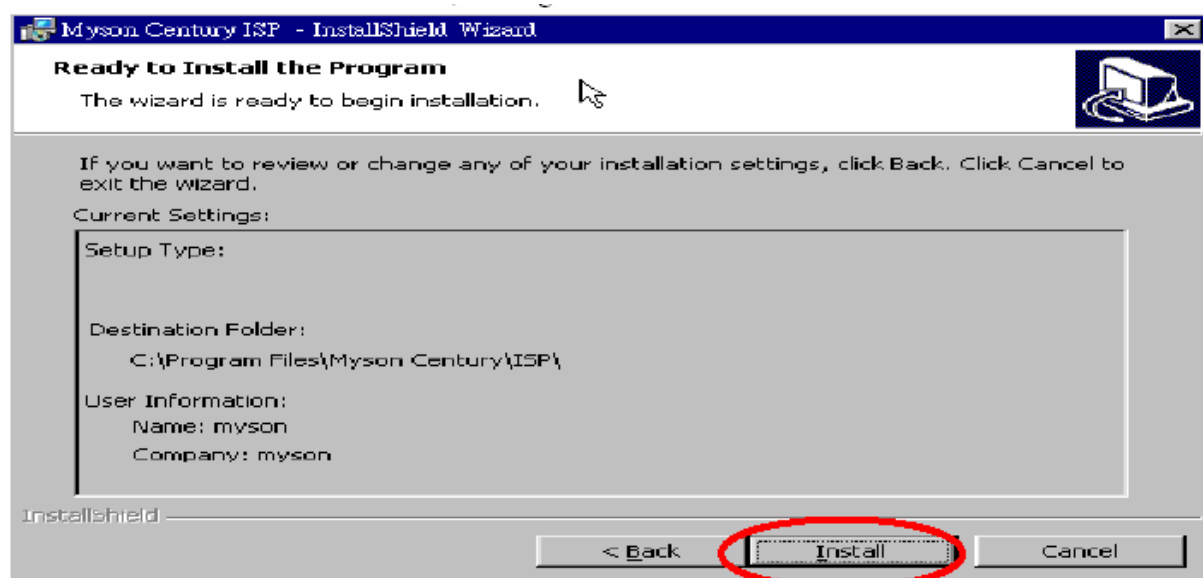


Fig 1.5

1.6 The installer Information shows package warning , Press “ Ignore “ button to continue .see Fig 1.6 .

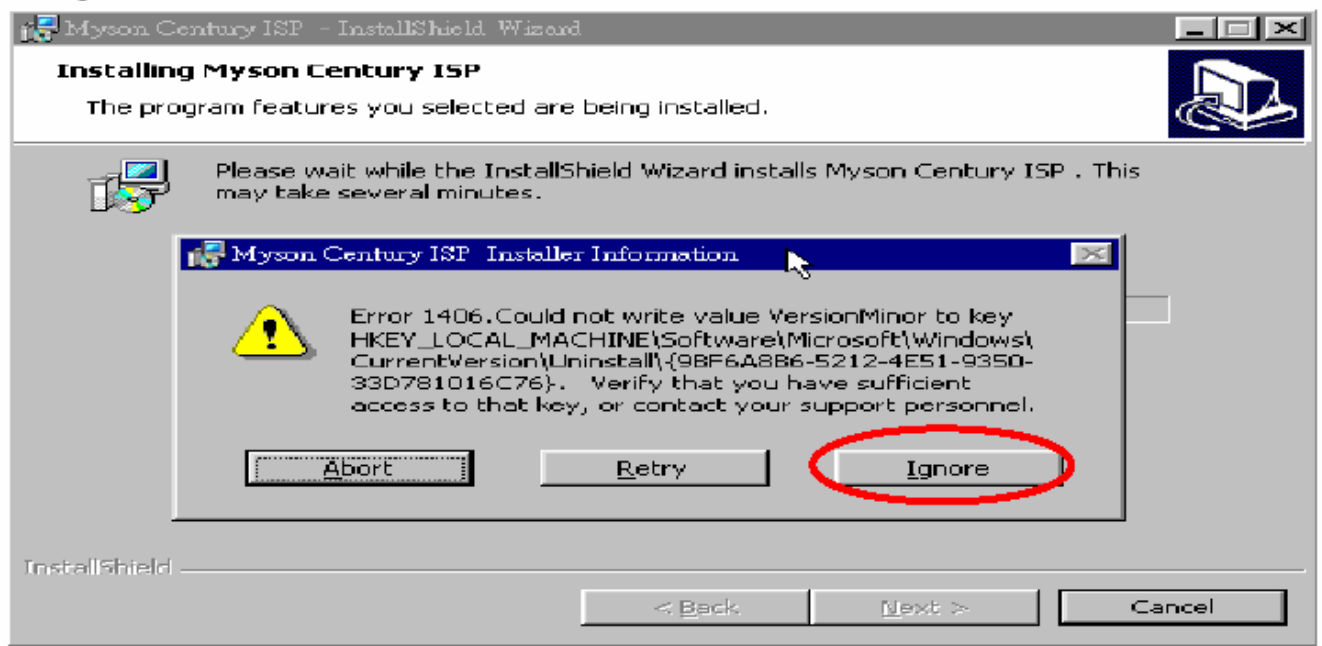


Fig 1.6

1.7 Installation has finished , press “ Finish “ button , see Fig 1.7 .

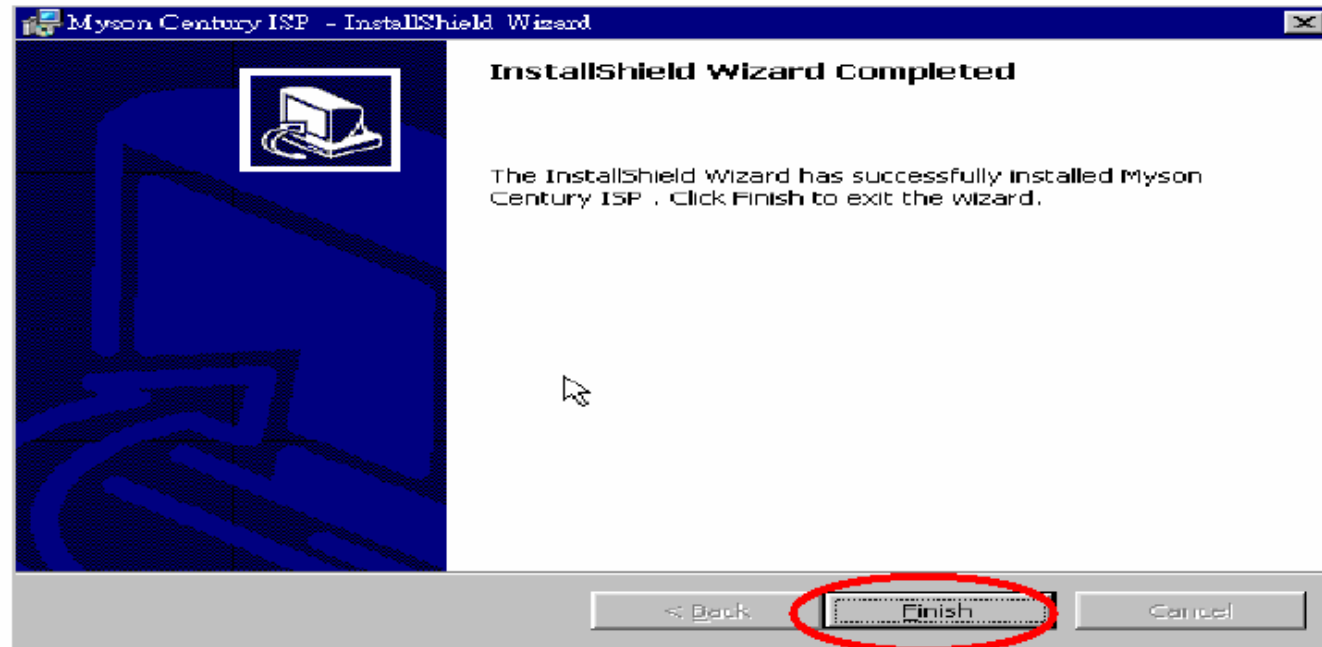


Fig. 1.7

Appendix B : How to use software to upgrade the BIOS :

2.1 After installation , we could find the shortcut in the setting path or the program bar (default setting) , see Fig 2.1 .

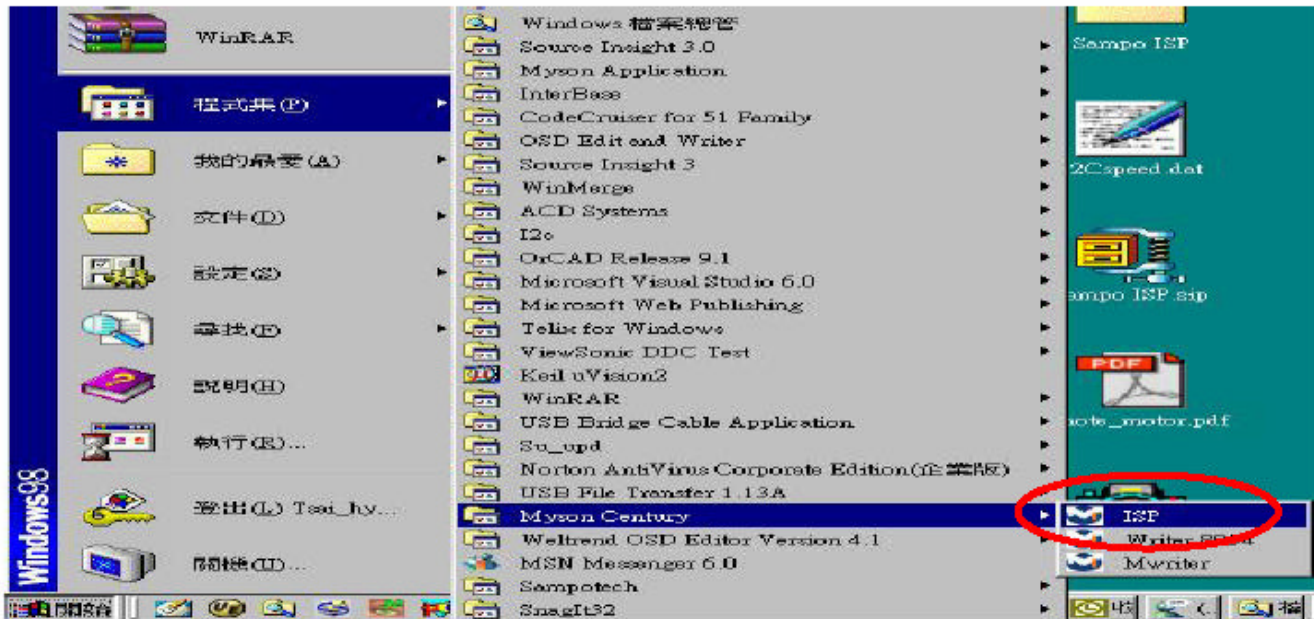


Fig 2.1

2.2 Security file is a key to use ISP function , press “ 確定 ” button , see Fig 2.2 .

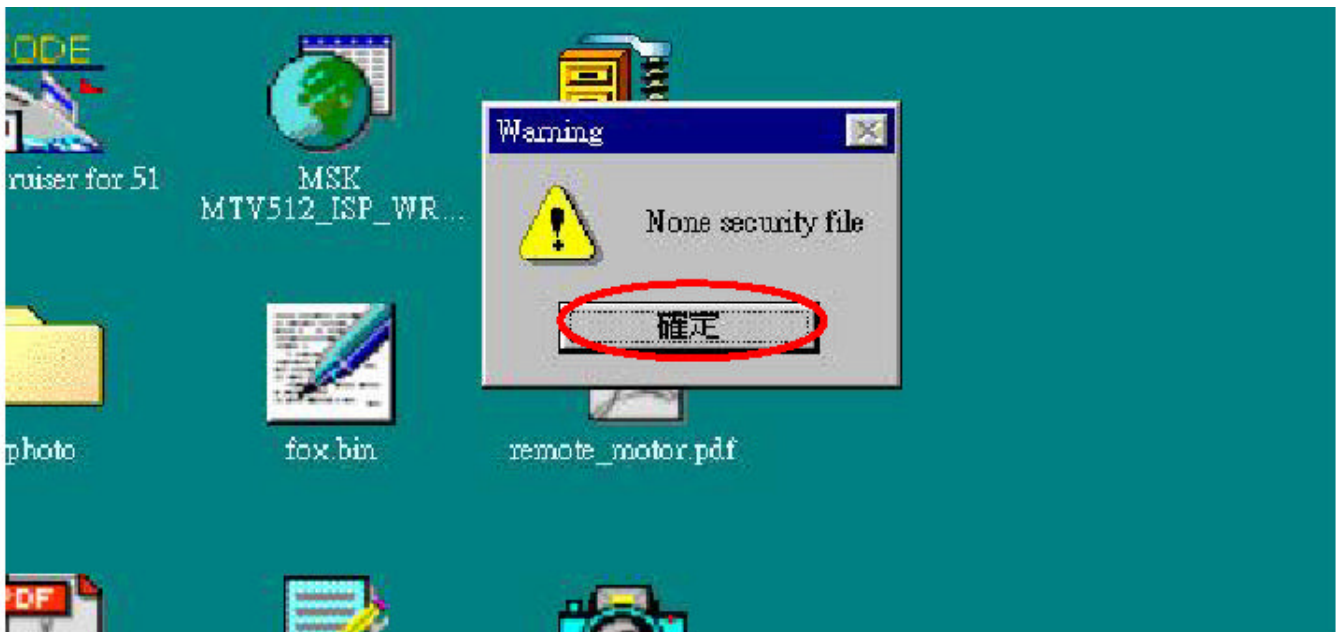


Fig 2.2

2.3 The warning is used to remind user of that different CPU rate may cause ISP function fail .
 (it's limited by IIC protocol) , press “ 確定 ” button , see Fig 2.3 .

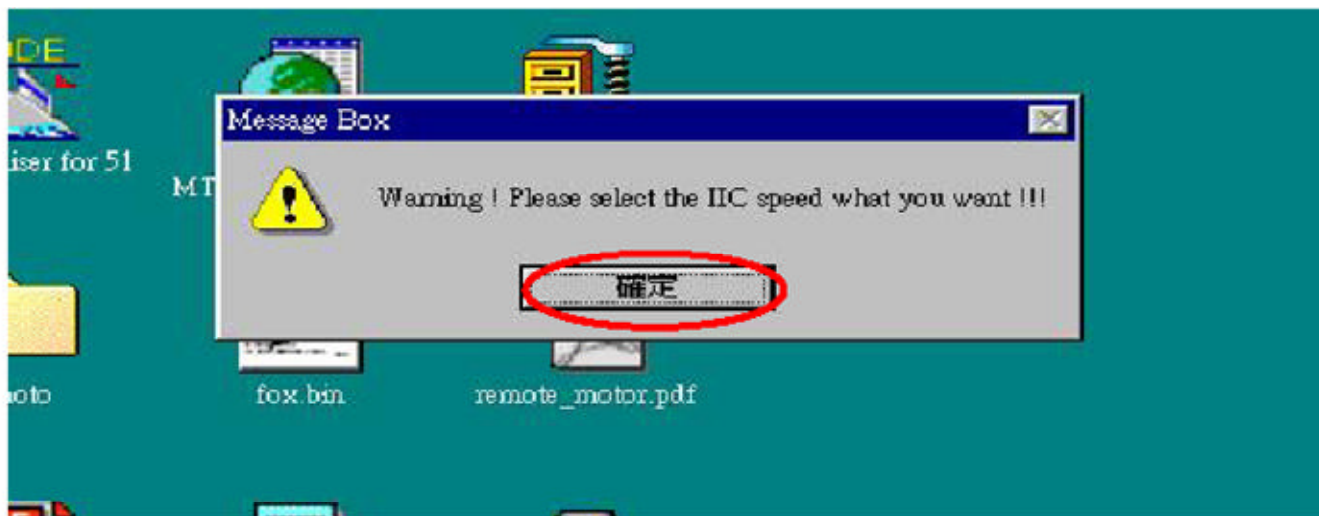


Fig 2.3

2.4 Press “ Create Security File “ button to key in **Security code**. Adjusting bar to decrease speed of **IIC bus** , See Fig.

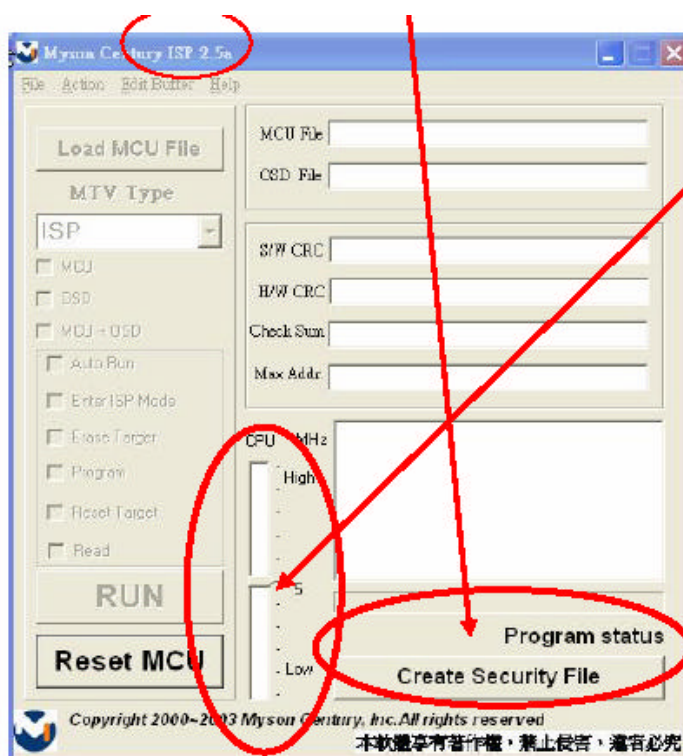


Fig 2.4

2.7 Fig 2.7 shows the setting for security code of software ISP . it needs 2 command No. and key in command sequentially for 7C , 4C , 77. The command No. and command must be set by user while coding. About the detailed of setting , please refer to section 6 boot code of ISP .

The screenshot shows a 'Security' dialog box with the following fields and values:

Field	Value	Range
ISP Slave Add.	7C	0x00 - 0xFF
SlaveB Add.	4C	0x00 - 0xFF
Command 1	77	0x00 - 0xFF
Command 2		0x00 - 0xFF
Command 3		0x00 - 0xFF
Command 4		0x00 - 0xFF
Command 5		0x00 - 0xFF
Command 6		0x00 - 0xFF
Command 7		0x00 - 0xFF
Command 8		0x00 - 0xFF
Command 9		0x00 - 0xFF
Command 10		0x00 - 0xFF
Command 11		0x00 - 0xFF
Command 12		0x00 - 0xFF
Command 13		0x00 - 0xFF
Command 14		0x00 - 0xFF
Command 15		0x00 - 0xFF

Below the command fields, there is a 'Command No' field with a value of 2, and two buttons labeled 'OK' and 'CLEAR'.

Fig 2.7

3. Use ISP to program MCU

- 3.1 Select MTV type first , load the binary or intel hex file that you want to program into the MCU , and select “ AUTO” item , then press “ RUN “ button , see fig3.1
- 3.2 If user change the MTV type , it must load file again , or the buffer of load file will be cleared .
- 3.3 CRC (cyclic redundancy check) : the host can check CRC register’s result instead of reading every byte in flash . The message of **Check MCU CRC OK** means that the host verify OK for the progress of program .

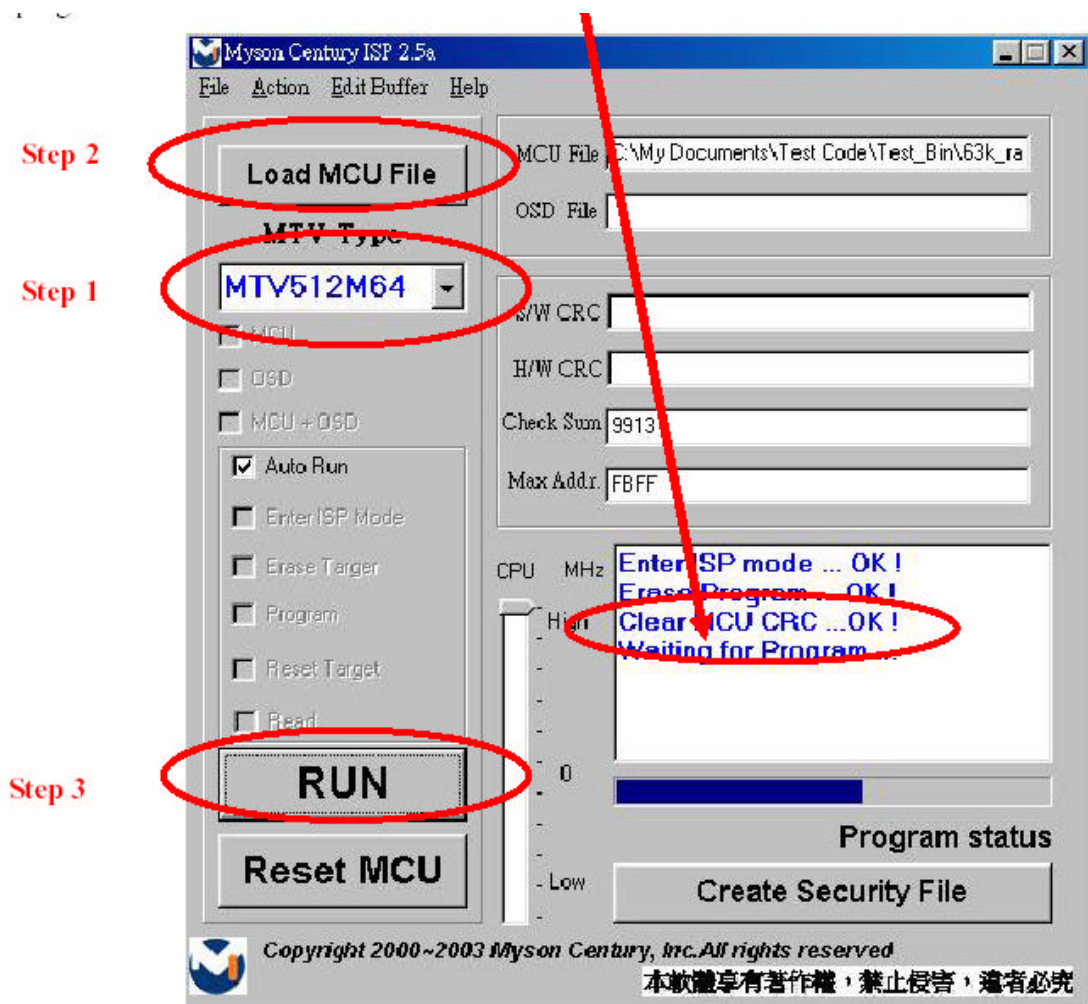


Fig 3.1

4. Use ISP to read MCU content

4.1 Only software ISP could read the MCU content , it is according to program the boot code while coding .

The limitation is used for the security of customer's code. Select “ Read Target “ item , and press “RUN” button , the MCU content will show as Fig4.1

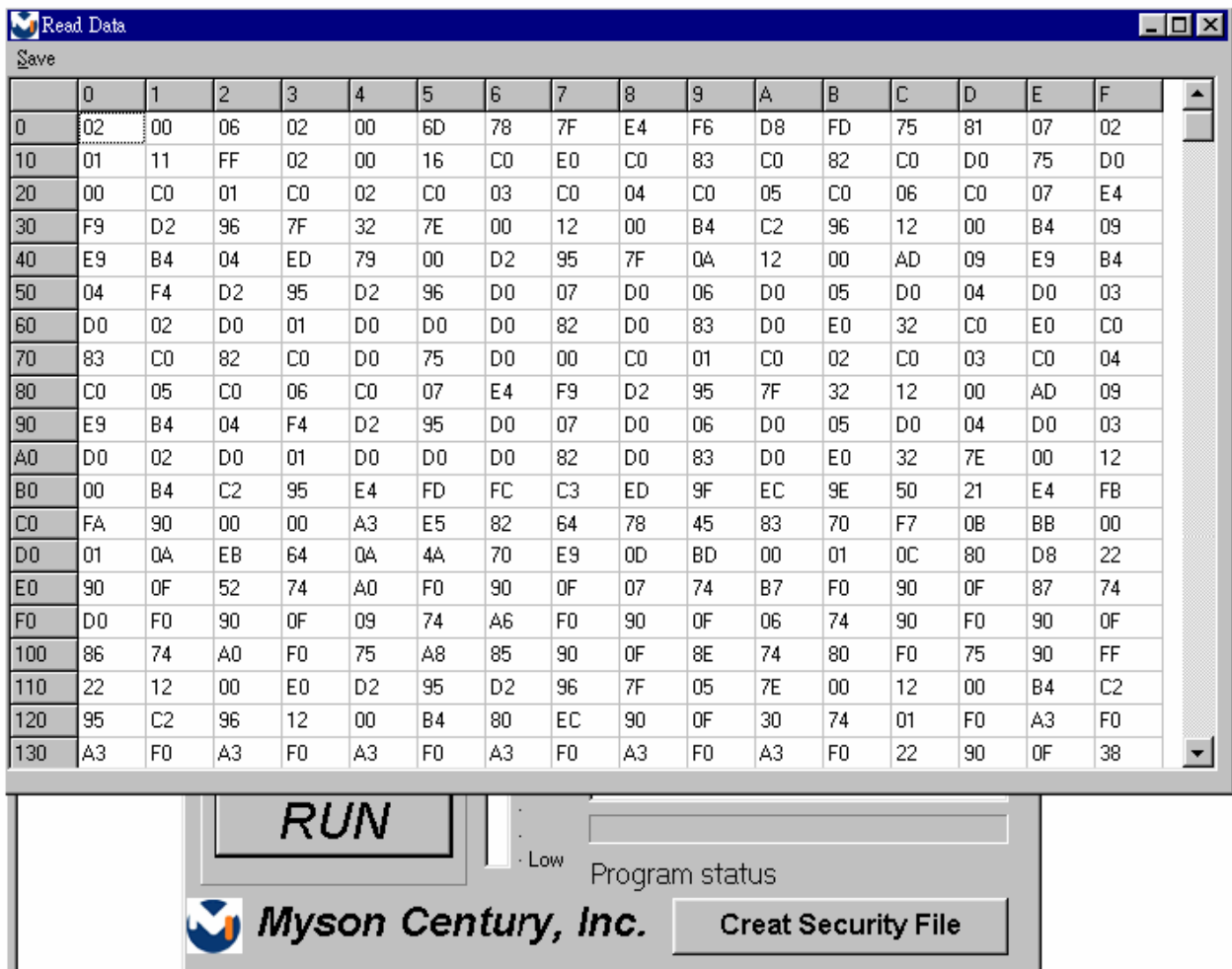
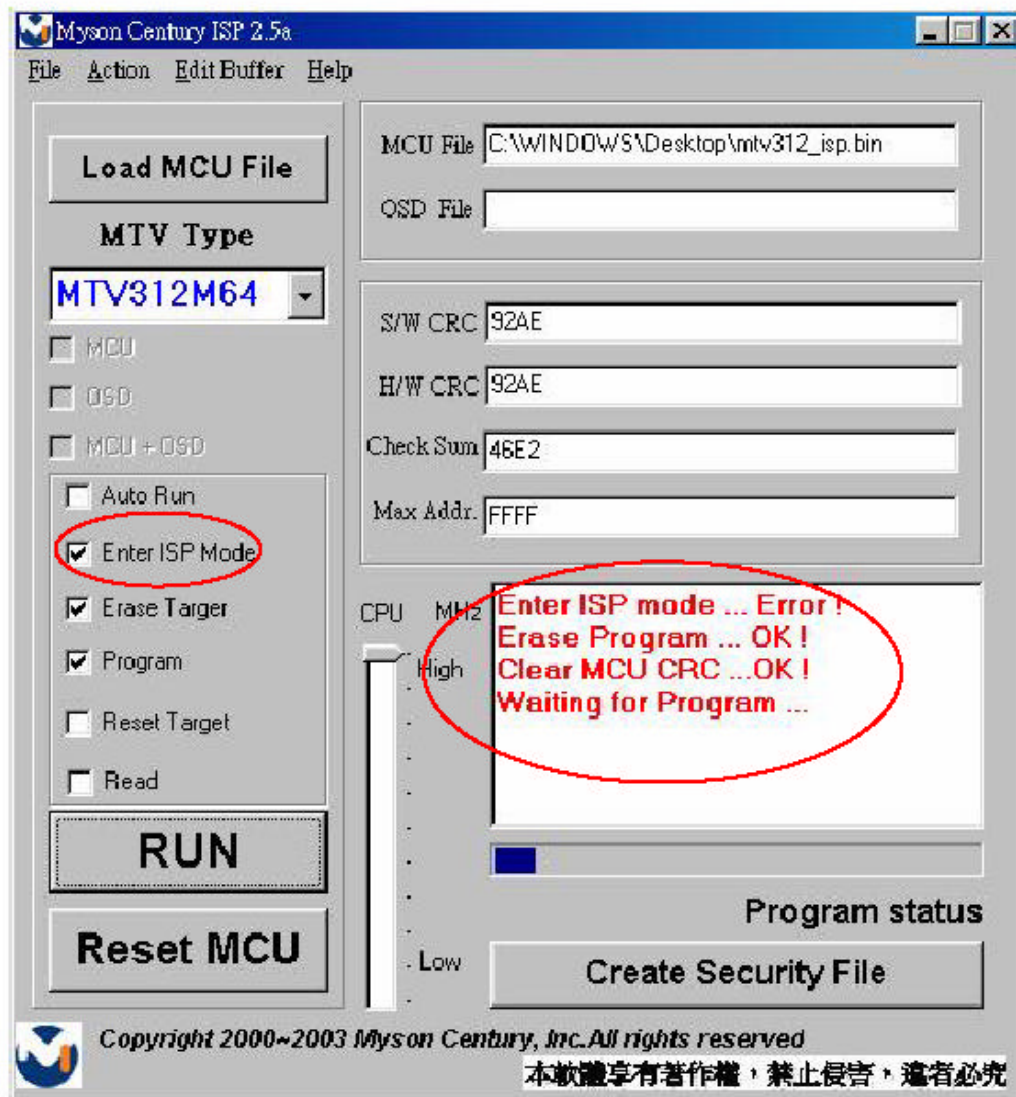
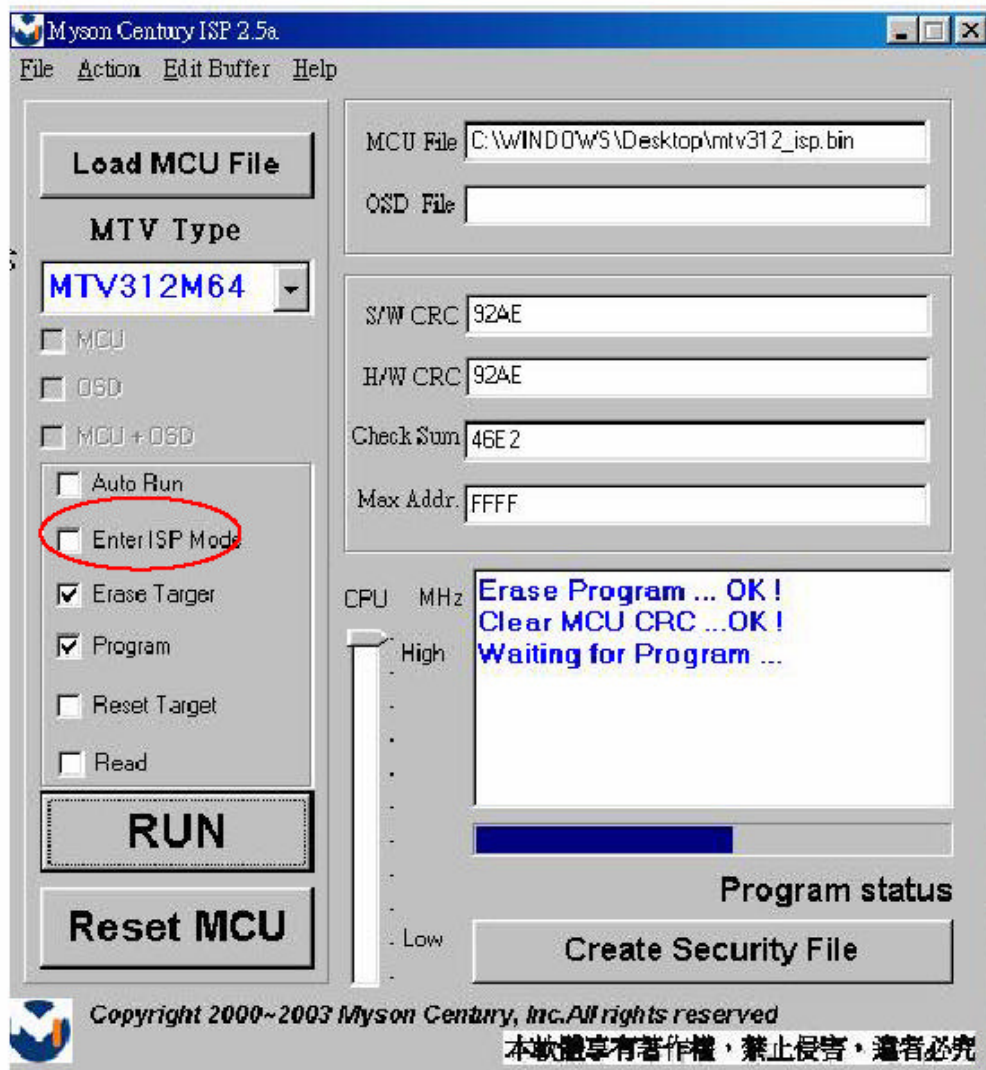


Fig 4.1

5 Re-entry the ISP Mode

When you couldn't select or click "Reset MCU" button and enter ISP mode again, you'll see the message as below:





Note :

- (1) Disable the “ Enter ISP Mode ” option to avoid the error message display
- (2) If you using the MTV312M64 or before MCU serials , the MCU will always in “ ISP Mode “ even Programming fail or erase MCU that instead of select or press “ Reset MCU “

Packing procedure

- 1.1 Paste protection film to protect the monitor (Figure.1)
- 1.2 Put the monitor in PE bag & seal the with tape . (Figure.2)



Figure.1

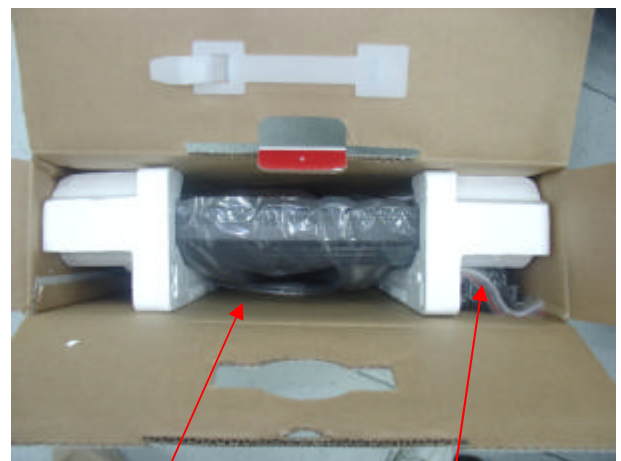


Figure.2

- 1.3 Put the cushion on the monitor (Figure.3)
- 1.4 Put the monitor into carton & put all the accessories into the carton .Then close the carton . (Figure.4)



(Figure 3)



QSG

(Figure 4)

Power cord

Disassemble monitor

2.1 Take off the hinge caps (Figure 5)

2.2 Lay VA702/b-3 down & take off the screws to remove the base (Figure 6)



(Figure 5)



(Figure 6)

2.3 Remove the screw cover (Figure 7)

2.4 Take of the screws (Figure 8)



Figure 7



Figure 8

2.5 Remove the back cover (Figure 9)

2.6 Take off the screw on the VGA cable (Figure 10)



Figure 9



Figure 10

2.7 Take off the screws on the B/B (Figure 11)

2.8 Remove the B/B from the front-bezel (Figure 12)



Figure 11



Figure 12

2.9 Tear off the AL-foil , all cables on M/B & lamp wires . (Figure 13)

2.10 Take off the screws on the PCB holder & remove the PCB holder with the boards . (Figure 14)



Figure 13



Figure 14

2.11 Take out the screws on M/B & remove the cable between M/B & power board (Figure 15)

2.12 Remove the M/B out (Figure 16)



Figure 15



Figure 16

2.13 Put the PCB holder up-side-down & remove the screws on the power board (Figure 17)

2.14 Remove the power board (Figure 18)

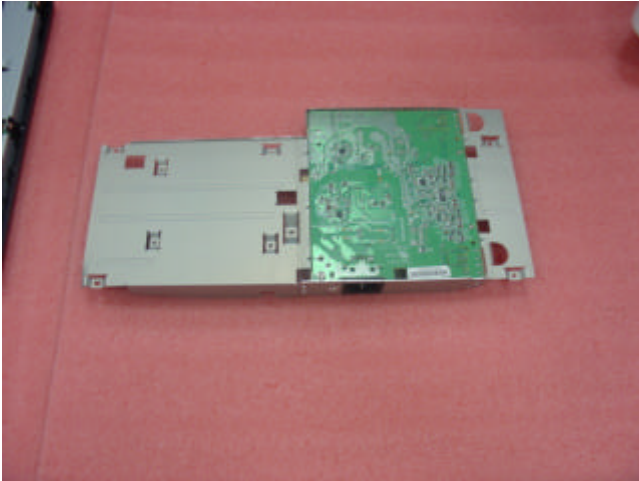


Figure 17



Figure 18

2.15 Separate the bezel & panel (with BKT) & remove the cable on panel (Figure 19)

2.16 Take off the L/R BKT & remove the L/R BKT . (Figure 20)

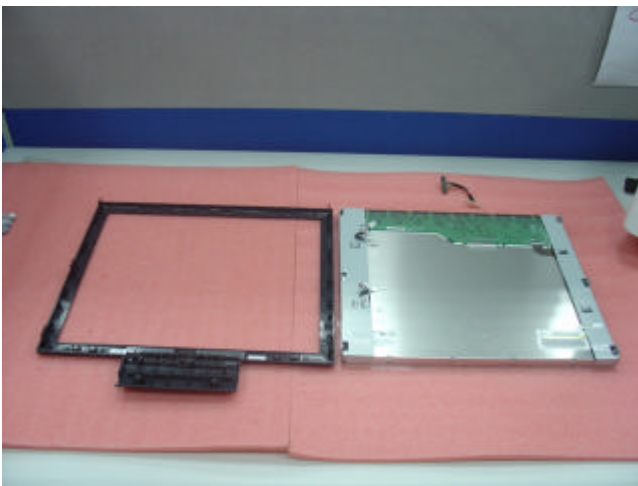


Figure 19

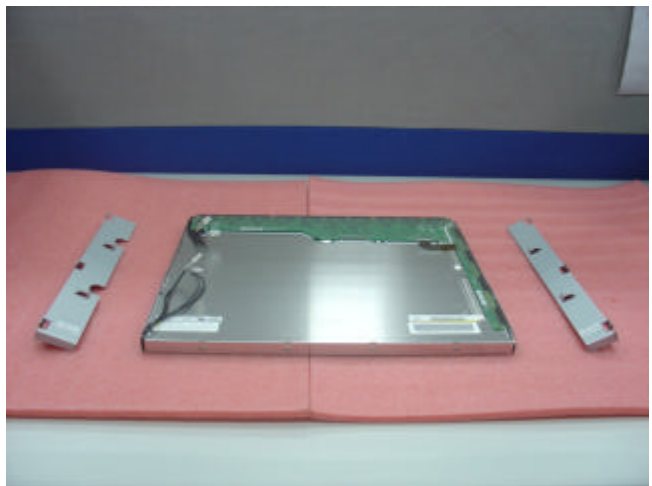
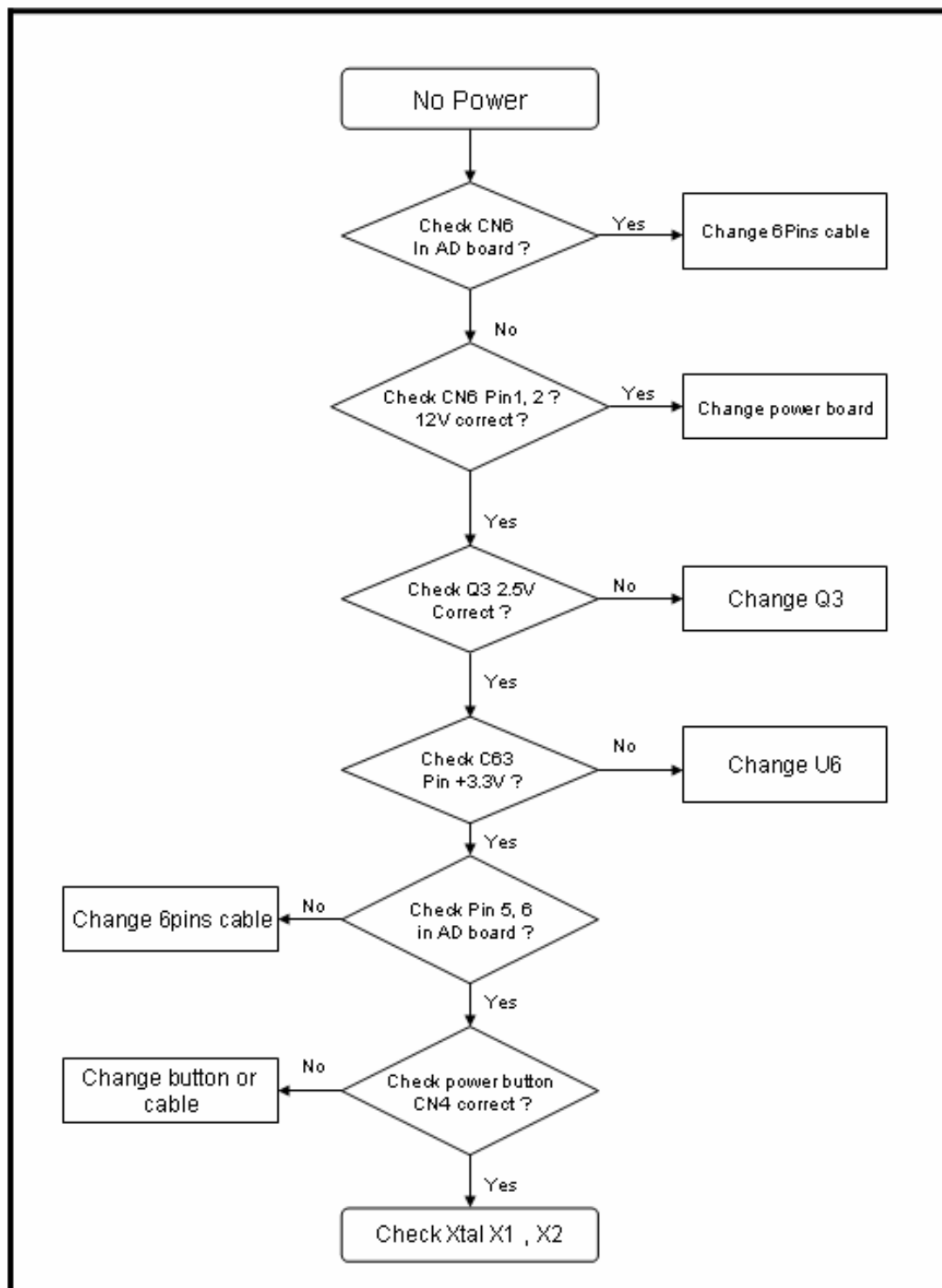


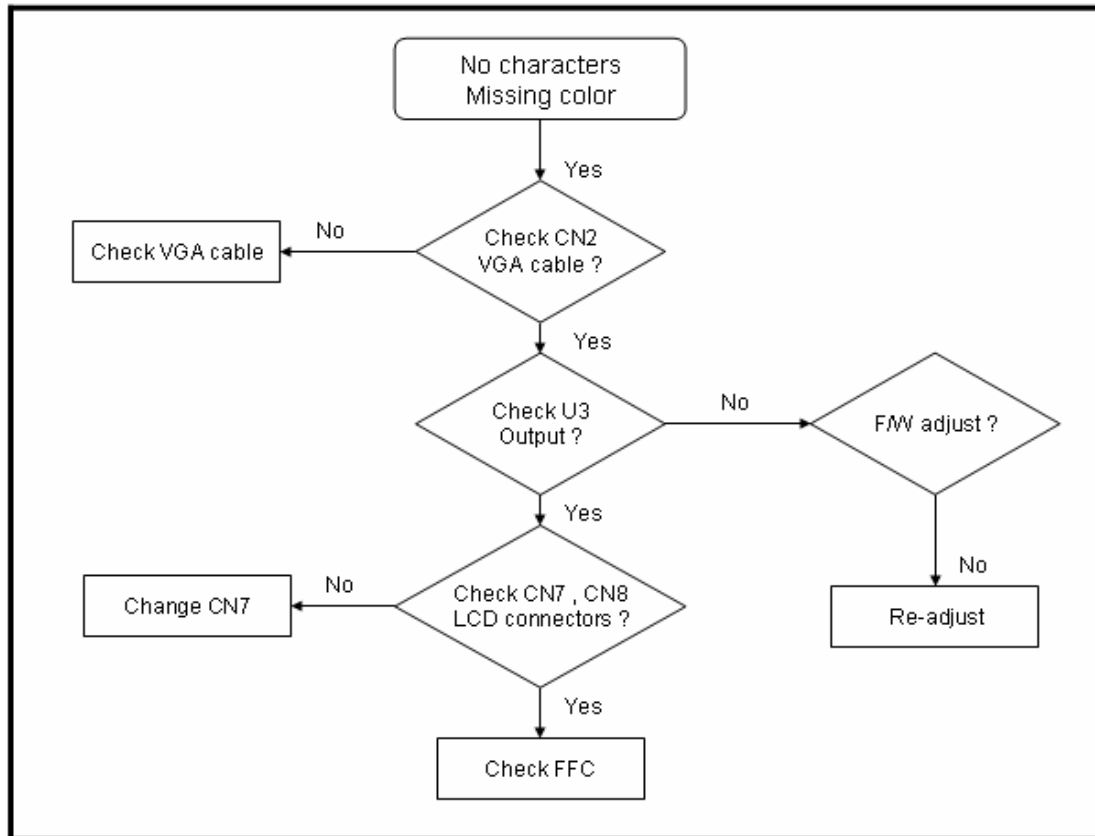
Figure 20

6. Troubleshooting Flow Chart

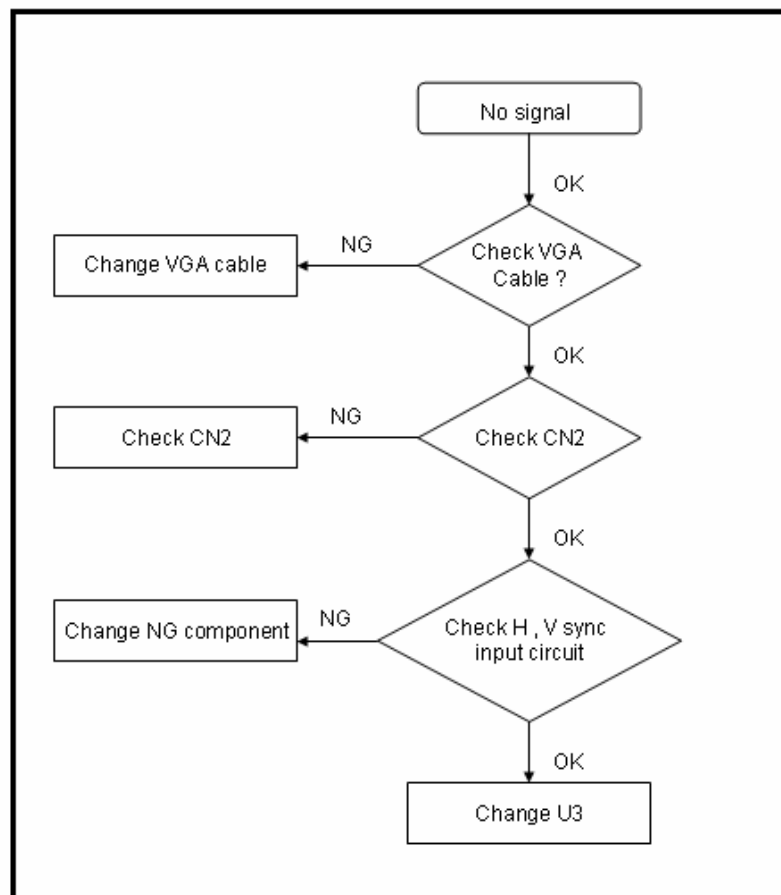
1. No Power



2. No Characters , Missing Color



3 Always show NO SIGNAL



7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VA702-3)

ViewSonic Model Number: VLCDST7998-3W

Serial No. Prefix: Q5K

Rev: 1a

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	Accessories:						
2	POWER CORD SP-305+IS-14 3P 1.8M(TWN)B GP		A-00003642	DM33T181004	power cord		1
3	PC Board Assembly:						
4	ADP/INV,SLV0315A0450-1057,90~264V REV1A		B-00000936	AS05B310202	power board		1
5	MAIN BOARD (MST8111A) GP		B-00005786	1SL7VCMB066	main board		1
6	L7VC (BUTTON/B ASSY) CONTROL BOARD		B-00005787	1SL7VCBB001	button board		1
7	ADP/INV ADP-40AFA, 90~264V REV1A		B-SB-0221-0686	AS020126104	power board		1
8	Cabinets:						
9	L7VC-A2(702) FRONT PANEL		C-00005788	34L7VCLB008	front bezel assembly		1
10	L7VC BACK COVER ASSY(BLACK)		C-BC-0302-0576	37L7VBCVS46	back cover assembly		1
11	L7VC STAND ASSY(BLACK)		C-BS-0303-0509	26L7VSAVS25	stand		1
12	Cables:						
13	CABLE ASSY L7VC MB-VGA(14/15P,REV1A) GP		CB-00000182	DDL7VCP001	VGA cable		1
14	CABLE L7VC BUTTON-MB(8P/10P,REV1A) GP		CB-00002262	DDL7VCTH004	Button-MB cable		1
15	CABLE ASSY L7VC POWER-MB(8P/8P,REV1A) GP		CB-00002263	DDL7VCPB101	Power-MB		1
16	CABLE MB-LCD(30P,100MM,LINKTEC)L9ZA GP		CB-00005785	DDL9ZALC005	MB-LCD cable		1
17	Documentation:						
18	USER GUIDE (VA702B-3) L7VC-A2(HGL7VC07.3A)GP		DC-00005789	HGL7VC07010	user guide		1
19	Electronic Components:						
20	LCD PANEL QD17EL07 REV:11(04,05,P4)8MS SXGA GP		E-00005784	AA17EL070A2	LCD panel		1
21	Hardware:						
22	HINGE CAP L7VC(EBL7V023,REV3A)GP		M-MS-0808-7306	EBL7V023017	hinge cap		1
23	SCREW M3.5*8-B (NLWASHER)GP		M-SCW-0824-6799	MM35080BBW2	Power/B grounding		1
24	SCREW M3.0*6.0-I(NI) GP		M-SCW-0824-6800	MM30060IBJ8	PCBAs to metal shielding		7
25	SCREW M3.0*4.0-I(NI) GP		M-SCW-0824-6802	MM30040IBJ9	panel to L/R bracket		10
26	Packing Material:						
27	EPE BAG L7V(HAL7V001,REV3A)GP		M-MS-0808-8981	HAL7V001012	EPE bag		1
28	CARTON (VA702-3) L7VC-A2(HFL7VC04.R3A)GP		P-00005790	HFL7VC04010	carton		1
29	END CAP(L) L7VC(HBL7V005,REV3B)GP		P-FM-0602-0840	HBL7V005019	cushion		1
30	END CAP(R) L7VC(HBL7V006,REV3B)GP		P-FM-0602-0841	HBL7V006015	cushion		1
31	Miscellaneous:						
32	LCD FILM L7VC(JXL7V003,REV3B)GP		M-MS-0808-7399	JXL7V003017	LCD F film		1
33	Plastics:						
34	RUBBER FOOT L5VC(GAL5V002,REV3A) GP		M-MS-0808-9251	GAL5V002013	Rubber foot		1

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

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

RECOMMENDED SPARE PARTS LIST (VA702b-3)

ViewSonic Model Number: VLCDST7998-4W

Serial No. Prefix: Q5L

Rev: 1a

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	Accessories:						
2	POWER CORD SP-305+IS-14 3P 1.8M(TWN)B GP		A-00003642	DM33T181004	power cord		1
3	PC Board Assembly:						
4	ADP/INV,SLV0315A0450-1057,90~264V REV1A		B-00000936	AS05B310202	power board		1
5	L7VC M/B ASSY(MST8111A) GP		B-00005786	1SL7VCMB066	main board		1
6	L7VC BUTTON/B ASSY GP		B-00005787	1SL7VCBB001	button board		1
7	ADP/INV ADP-40AFA, 90~264V REV1A		B-SB-0221-0686	AS020126104	power board		1
8	Cabinets:						
9	L7VC-A2(702) LCD BEZEL SUB ASSY(B)		C-00005793	34L7VCLB016	front bezel assembly		1
10	L7VC BACK COVER ASSY		C-BC-0302-0575	37L7VBCVS38	back cover assembly		1
11	Cables:						
12	CABLE ASSY L7VC MB-VGA(14/15P,REV1A) GP		CB-00000182	DDL7VCP001	VGA cable		1
13	CABLE L7VC BUTTON-MB(8P/10P,REV1A) GP		CB-00002262	DDL7VCTH004	Button-MB cable		1
14	CABLE ASSY L7VC POWER-MB(8P/8P,REV1A) GP		CB-00002263	DDL7VCPB101	Power-MB		1
15	CABLE MB-LCD(30P,100MM,LINKTEC)L9ZA GP		CB-00005785	DDL9ZALC005	MB-LCD cable		1
16	Documentation:						
17	QSG+CD (VA702B-3) L7VC-A2(HGL7VC07.3A)GP		DC-00005789	HGL7VC07010	user guide		1
18	Electronic						
19	LCD QD17EL07 REV:11(04,05,P4)8MS SXGA GP		E-00005784	AA17EL070A2	LCD panel		1
20	Hardware:						
21	HINGE CAP L7VC(EBL7V023,REV3A)GP		M-MS-0808-7306	EBL7V023017	hinge cap		1
22	SCREW M3.5*8-B (NLWASHER)GP		M-SCW-0824-6799	MM35080BBW2	Power/B grounding		1
23	SCREW M3.0*6.0-I(NI) GP		M-SCW-0824-6800	MM30060IBJ8	PCBAs to metal shielding		7
24	SCREW M3.0*4.0-I(NI) GP		M-SCW-0824-6802	MM30040IBJ9	panel to L/R bracket		10
25	Miscellaneous:						
26	LCD FILM L7VC(JXL7V003,REV3B)GP		M-MS-0808-7399	JXL7V003017	LCD F film		1
27	Packing Material:						
28	EPE BAG L7V(HAL7V001,REV3A)GP		M-MS-0808-8981	HAL7V001012	EPE bag		1
29	CARTON (VA702B-3) L7VC-A2(HFL7VC05.3A)GP		P-00005794	HFL7VC05016	carton		1
30	END CAP(L) L7VC(HBL7V005,REV3B)GP		P-FM-0602-0840	HBL7V005019	cushion		1
31	END CAP(R) L7VC(HBL7V006,REV3B)GP		P-FM-0602-0841	HBL7V006015	cushion		1
32	Plastics:						
33	RUBBER FOOT L5VC(GAL5V002,REV3A) GP		M-MS-0808-9251	GAL5V002013	Rubber foot		1
34	L7VC STAND ASSY		C-BS-0303-0506	26L7VSAVS17	stand		1

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BOM LIST (VA702-3)

ViewSonic Model Number: VLCD527998-3W

Rev: 1a

Serial No. Prefix: Q5K

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	N/A	1L7VCAVVS04	L7VC-A2 LCD MONITOR(VA702-3,TWN)S/B			
2	B-MB-0201-2765	29L7VMB00A8	L7VC M/B ASSY(QDI)LVDS			1
3	N/A	3BL7VSS0068	L7VC M/B S/S ASSY(QDI)LVDS			1
4	N/A	CC62204MD23	CAP EC 22U 25V(+/-20%,105C,5*11,2KHR)GP	C17,C25,C28,C30,C33,C36,C49,C70		8
5	N/A	CC73303MD51	CAP EC 330U 16V(+/-20%,105C,8*11,LESR)GP	C58,C62,C79,C90		4
6	E-L-0407-1563	DC04725K002	CHOKE COIL 47UH(2.5A,+/-10%,T07473)	L21,L32		2
7	M-MS-0808-9809	DFHD30MR259	CONN DIP HEADER 30P 2R MR(P2.0,H4.0)	CN9		1
8	N/A	DFHD14MS264	CONN DIP HEADER 14P 2R MS(P2.0,H6.0)	CN2		1
9	M-MS-0808-9810	DFHD10MR316	CONN DIP HEADER 10P 1R MR(P2.0,H4.1)	CN4		1
10	N/A	DFHD08MS439	CONN DIP HEADER 8P 2R MS(P2.54,H6.0)	CN6		1
11	N/A	BG611059319	CRYSTAL DIP 11.0592MHZ(+/-30PPM,49/US)	X2		1
12	E-X-0415-0128	BG614318D55	XTAL DIP 14.318MHZ(+/-30PPM,07010-X-136-2	X1		1
13	B-CB-0206-0170	23L7VBB0026	L7VC BUTTON/B ASSY			1
14	N/A	DFHD08MR301	CONN DIP HEADER 8P 1R MR(P2.0,H4.1)	CN1		1
15	N/A	BEYGO013DA3	LED(DIP) YELLOW/GREEN(L-3WYGW)	LED1		1
16	N/A	DAL7VCTB1C5	PCB(BUTTON) L7VC TL(1L,125*23,REV.C)			1
17	N/A	DHP0002B205	SWITCH PUCH BUTTON(PT-002-B2,50MA,12V)GP	SW1,SW2,SW3,SW4,SW5		5
18	B-SB-0221-0686	AS020126104	ADP/INV ADP-40AFA, 90~264V REV1A			1
19	B-00000936	AS05B310202	ADP/INV,SLV0315A0450-1057,90~264V REV1A			1
20	N/A	24L7VCLB016	L7VC-A2(702) LCD BEZEL ASSY(S/B)			1
21	C-00005788	34L7VCLB008	L7VC-A2(702) LCD BEZEL SUB ASSY(S/B)			1
22	C-BC-0302-0576	37L7VBCVS46	L7VC BACK COVER ASSY(BLACK)			1
23	M-BK-0805-0059	34L7VBAVS00	L7VC PCB BKT ASSY			1
24	M-BK-0805-0127	FAL7V016010	LCD BKT-L-QDI L7VC(FAL7V016,REV3B)GP			1
25	M-BK-0805-0128	FAL7V017016	LCD BKT-R-QDI L7VC(FAL7V017,REV3B)GP			1
26	M-MS-0808-8984	FCL70004010	LCD MYLAR L70L-E(FCL70004,REV3A)GP			1
27	M-MS-0808-9248	FCL7A001014	AL FOIL L7A(FCL7A001,REV3A) GP			2
28	M-MS-0808-7302	FCL7V012016	P/B MYLAR-DOWN L7VC(FCL7V012,REV3A)GP			1
29	M-MS-0808-9249	JXLM7002011	FOIL LM7S(JXLM7002,REV3B)GP			1
30	M-SCW-0824-6797	MF40080BJ29	SCREW F4.0*8-B(BNI) GP			3
31	M-SCW-0824-6798	MM30080BBJ2	SCREW M3.0*8,B(NI)GP			1
32	M-SCW-0824-6799	MM35080BBW2	SCREW M3.5*8-B (NI,WASHER)GP			1
33	M-SCW-0824-6800	MM30060IBJ8	SCREW M3.0*6.0-I(NI) GP			7
34	M-SCW-0824-6801	MF40080PB16	SCREW F4.0*8-P(NI)GP			2
35	M-SCW-0824-6802	MM30040IBJ9	SCREW M3.0*4.0-I(NI) GP			10
36	M-CV-0830-0283	GAL7V010011	RUBBER PLUG COVER /BK L7VC(R3A)GP			2
37	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI) GP			2
38	M-SCW-0824-6948	MM30050FCI5	SCREW M3.0*5-F(NI,NYLOK)GP			2
39	M-MS-0808-9236	GAL7V008017	RUBBER PLUG VESA/BK L7VC(GAL7V008,R3B)GP			4
40	N/A	FCL7C003014	PANEL MYLAR UP L7C(FCL7C003,REV3A)GP			1
41	PL-00001804	GAL70002015	RUBBER-HOLDER L70L(GAL70002,REV3B)GP			1
42	N/A	GAL7VC01016	RUBBER/PANEL L7VC(GAL7VC01,REV3A) GP			1
43	C-BS-0303-0509	26L7VSAVS25	L7VC STAND ASSY(BLACK)			1
44	C-BS-0303-0563	EAL7V014025	BASE(BLACK) L7VC(EAL7V014,REV3A) GP			1
45	M-MS-0808-7304	FBL7V035015	BASE PLATE L7VC(FBL7V035,REV3A)GP			1
46	M-MS-0808-9251	GAL5V002013	RUBBER FOOT L5VC(GAL5V002,REV3A) GP			4
47	M-MS-0808-7305	GAL7V007011	RUBBER FOOT-FRONT L7VC(GAL7V007,R3A) GP			1
48	M-SCW-0824-6797	MF40080BJ29	SCREW F4.0*8-B(BNI) GP			5
49	M-LB-0813-1055	HCL7V020019	STAND LABEL L7VC(HCL7V020,REV3A)GP			1
50	N/A	23L7VCSVS87	L7VC-Q CHASSIS ASSY(QDI)			1
51	CB-00002263	DDL7VCPB101	CABLE ASSY L7VC POWER-MB(8P/8P,REV1A) GP			1
52	CB-00000182	DDL7VPCPC001	CABLE ASSY L7VC MB-VGA(14/15P,REV1A) GP			1
53	CB-00002262	DDL7VCTH004	CABLE L7VC BUTTON-MB(8P/10P,REV1A) GP			1
54	CB-00005785	DDL9ZALC005	CABLE MB-LCD(30P,100MM,LINKTEC)L9ZA GP			1
55	M-MS-0808-7306	EBL7V023017	HINGE CAP L7VC(EBL7V023,REV3A)GP			2
56	HW-00001510	MM40100BCI2	SCREW M4*10.0-B(NI,NYLOK)GP			4
57	N/A	2AL7VCPQT18	L7VC-A2 PANEL DEPENDENT KIT(QDI)8MS			1
58	E-00005784	AA17EL070A2	LCD QD17EL07 REV:11(04,05,P4)8MS SXGA GP			1
59	N/A	AZL7VCBQ021	L7VC-A2 SW BIOS IMAGE(MST8111A)QDI			1
60	N/A	28L7VCPK001	L7VC-A2(VA702B-3) PACKING ASSY			1
61	M-MS-0808-7399	JXL7V003017	LCD FILM L7VC(JXL7V003,REV3B)GP			1
62	M-MS-0808-8981	HAL7V001012	EPE BAG L7V(HAL7V001,REV3A)GP			1
63	P-FM-0602-0840	HBL7V005019	END CAP(L) L7VC(HBL7V005,REV3B)GP			1
64	P-FM-0602-0841	HBL7V006015	END CAP(R) L7VC(HBL7V006,REV3B)GP			1
65	M-LB-0813-0747	HCL7V004013	CORE LABEL(HCL7V004,REV3A)GP			1
66	M-LB-0813-0745	HCL7V002011	SERIAL LABEL L7V(HCL7V002,REV3A) GP			1
67	N/A	HCL9V008014	CARTON LABEL(3) L9VD(HCL9V008,REV3A)GP			1
68	DC-00005789	HGL7VC07010	QSG+CD (VA702B-3) L7VC-A2(HGL7VC07,3A)GP			1
69	PL-00005198	JXLM5003011	HANDLE LM5S(JXLM5003,REV 3B) GP			1
70	N/A	HFL7V009018	SPACE PLATE L7VC(HFL7V009,REV3B)GP			0.028
71	M-LB-0813-1043	HCL70021011	HI-POT LABEL L70L(HCL70021,REV3A)GP			1
72	N/A	HCL7VC08012	ID LABEL(VA702-3)L7VC-A2(HCL7VC08,R3A)GP			1
73	P-00005790	HFL7VC04010	CARTON (VA702-3) L7VC-A2(HFL7VC04,R3A)GP			1
74	M-MS-0808-8981	HAL7V001012	EPE BAG L7V(HAL7V001,REV3A)GP			1
75	A-00003642	DM33T181004	POWER CORD SP-305+IS-14 3P 1.8M(TWN)B GP			1

BOM LIST (VA702b-3)

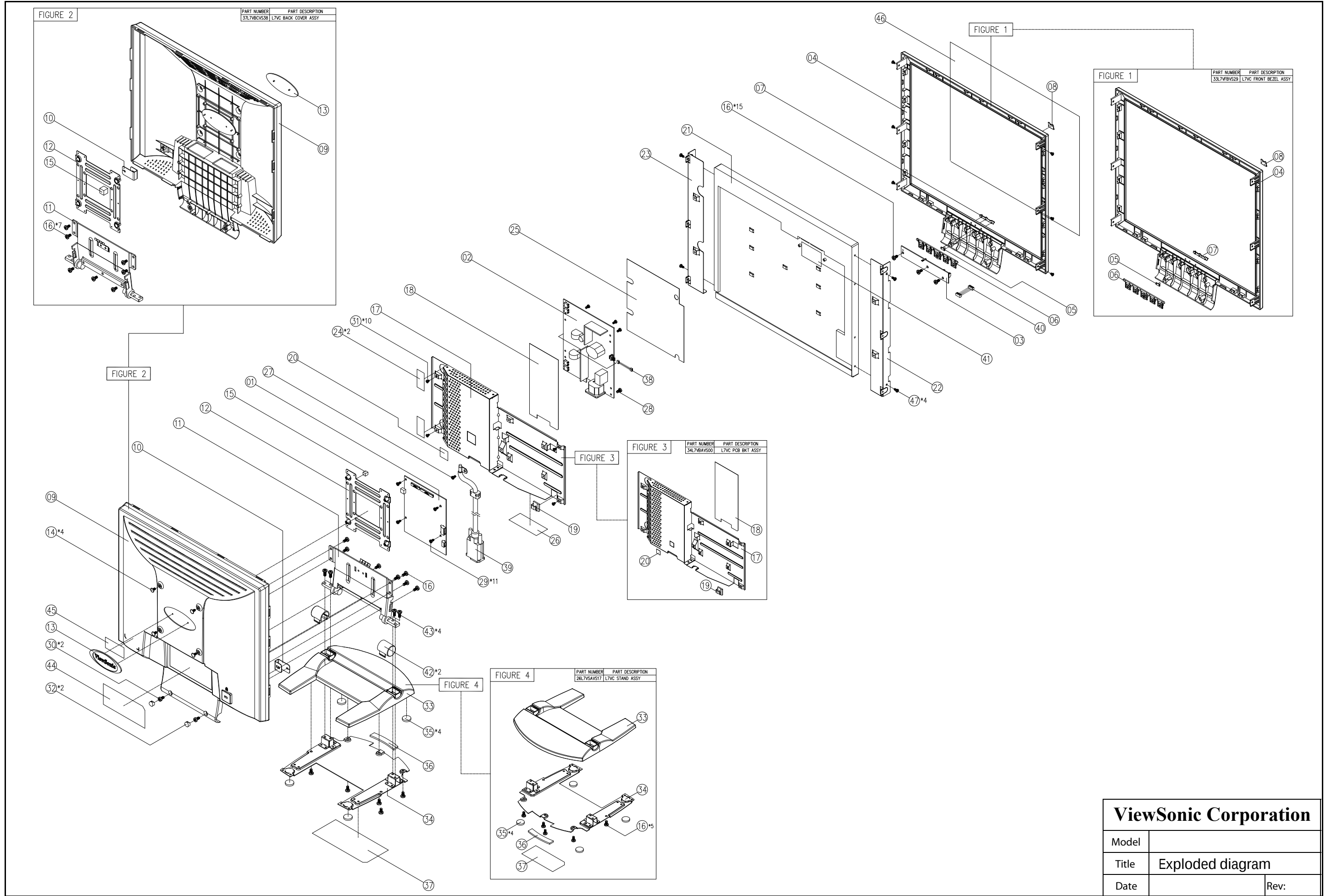
ViewSonic Model Number: VLCD527998-4W

Rev: 1a

Serial No. Prefix: Q5L

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	N/A	1L7VCAVXS12	L7VC-A2 LCD MONITOR(VA702B-3,TWN)B			
2	B-MB-0201-2765	29L7VMB00A8	L7VC M/B ASSY(QDI)LVDS			1
3	N/A	3BL7VSS0068	L7VC M/B S/S ASSY(QDI)LVDS			1
4	N/A	CC62204MD23	CAP EC 22U 25V(+/-20%,105C,5*11,2KHR)GP	C17,C25,C28,C30,C33,C36,C49,C70		8
5	N/A	CC73303MD51	CAP EC 330U 16V(+/-20%,105C,8*11,LESR)GP	C58,C62,C79,C90		4
6	E-L-0407-1563	DC04725K002	CHOKE COIL 47UH(2.5A,+/-10%,T07473)	L21,L32		2
7	M-MS-0808-9809	DFHD30MR259	CONN DIP HEADER 30P 2R MR(P2.0,H4.0)	CN9		1
8	N/A	DFHD14MS264	CONN DIP HEADER 14P 2R MS(P2.0,H6.0)	CN2		1
9	M-MS-0808-9810	DFHD10MR316	CONN DIP HEADER 10P 1R MR(P2.0,H4.1)	CN4		1
10	N/A	DFHD08MS439	CONN DIP HEADER 8P 2R MS(P2.54,H6.0)	CN6		1
11	N/A	BG611059319	CRYSTAL DIP 11.0592MHZ(+/-30PPM,49/US)	X2		1
12	E-X-0415-0128	BG614318D55	XTAL DIP 14.318MHZ(+/-30PPM,07010-X-136-2)	X1		1
13	B-CB-0206-0170	23L7VBB0026	L7VC BUTTON/B ASSY			1
14	N/A	DFHD08MR301	CONN DIP HEADER 8P 1R MR(P2.0,H4.1)	CN1		1
15	N/A	BEYG0013DA3	LED(DIP) YELLOW/GREEN(L-3WYGW)	LED1		1
16	N/A	DAL7VCTB1C5	PCB(BUTTON) L7VC TL(IL,125*23,REVC)			1
17	N/A	DHP0002B205	SWITCH PUCH BUTTON(PT-002-B2,50MA,12V)GP	SW1,SW2,SW3,SW4,SW5		5
18	B-SB-0221-0686	AS020126104	ADP/INV ADP-40AFA, 90~264V REV1A			1
19	B-00000936	AS05B310202	ADP/INV,SLV0315A0450-1057,90~264V REV1A			1
20	N/A	24L7VCLB024	L7VC-A2(702) LCD BEZEL ASSY(B)			1
21	C-00005793	34L7VCLB016	L7VC-A2(702) LCD BEZEL SUB ASSY(B)			1
22	C-BC-0302-0575	37L7VBCVS38	L7VC BACK COVER ASSY			1
23	M-BK-0805-0059	34L7VBAVS00	L7VC PCB BKT ASSY			1
24	M-MS-0808-9249	JXLM7002011	FOIL LM7S(JXLM7002,REV3B)GP			1
25	M-BK-0805-0127	FAL7V016010	LCD BKT-L-QDI L7VC(FAL7V016,REV3B)GP			1
26	M-BK-0805-0128	FAL7V017016	LCD BKT-R-QDI L7VC(FAL7V017,REV3B)GP			1
27	M-MS-0808-8984	FCL70004010	LCD MYLAR L70L-E(FCL70004,REV3A)GP			1
28	M-MS-0808-9248	FCL7A001014	AL FOIL L7A(FCL7A001,REV3A) GP			2
29	M-MS-0808-7302	FCL7V012016	P/B MYLAR-DOWN L7VC(FCL7V012,REV3A)GP			1
30	M-SCW-0824-6797	MF40080BJ29	SCREW F4.0*8-B(BNI) GP			3
31	M-SCW-0824-6798	MM30080BBJ2	SCREW M3.0*8,B(NI)GP			1
32	M-SCW-0824-6799	MM35080BBW2	SCREW M3.5*8-B (NI,WASHER)GP			1
33	M-SCW-0824-6800	MM30060IBJ8	SCREW M3.0*6.0-I(NI) GP			7
34	M-SCW-0824-6801	MF40080PBJ6	SCREW F4.0*8-P(NI)GP			2
35	M-SCW-0824-6802	MM30040IBJ9	SCREW M3.0*4.0-I(NI) GP			10
36	M-CV-0830-0284	GAL7V009013	RUBBER PLUG COVER L7VC(GAL7V009,REV3A)GP			2
37	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI) GP			2
38	M-SCW-0824-6948	MM30050FCI5	SCREW M3.0*5-F(NI,NYLOK)GP			2
39	M-MS-0808-9237	GAL7V006014	RUBBER PLUG VESA L7VC(GAL7V006,REV3D)GP			4
40	N/A	FCL7C003014	PANEL MYLAR UP L7C(FCL7C003,REV3A)GP			1
41	PL-00001804	GAL70002015	RUBBER-HOLDER L70L(GAL70002,REV3B)GP			1
42	N/A	GAL7VC01016	RUBBER/PANEL L7VC(GAL7VC01,REV3A) GP			1
43	C-BS-0303-0506	26L7VSAVS17	L7VC STAND ASSY			1
44	C-BS-0303-0562	EAL7V014017	BASE L7VC(EAL7V014,REV3A) GP			1
45	M-MS-0808-7304	FBL7V035015	BASE PLATE L7VC(FBL7V035,REV3A)GP			1
46	M-MS-0808-9251	GAL5V002013	RUBBER FOOT L5VC(GAL5V002,REV3A) GP			4
47	M-MS-0808-7305	GAL7V007011	RUBBER FOOT-FRONT L7VC(GAL7V007,R3A) GP			1
48	M-SCW-0824-6797	MF40080BJ29	SCREW F4.0*8-B(BNI) GP			5
49	M-LB-0813-1055	HCL7V020019	STAND LABEL L7VC(HCL7V020,REV3A)GP			1
50	N/A	23L7VCSVS87	L7VC-Q CHASSIS ASSY(QDI)			1
51	CB-00002263	DDL7VCPB101	CABLE ASSY L7VC POWER-MB(8P/8P,REV1A) GP			1
52	CB-00000182	DDL7VCPB001	CABLE ASSY L7VC MB-VGA(14/15P,REV1A) GP			1
53	CB-00002262	DDL7VCTH004	CABLE L7VC BUTTON-MB(8P/10P,REV1A) GP			1
54	CB-00005785	DDL9ZALC005	CABLE MB-LCD(30P,100MM,LINKTEC)L9ZA GP			1
55	M-MS-0808-7306	EBL7V023017	HINGE CAP L7VC(EBL7V023,REV3A)GP			2
56	HW-00001510	MM40100BCI2	SCREW M4*10.0-B(NI,NYLOK)GP			4
57	N/A	2AL7VCPQT18	L7VC-A2 PANEL DEPENDENT KIT(QDI)8MS			1
58	E-00005784	AA17EL070A2	LCD QD17EL07 REV:11(04,05,P4)8MS SXGA GP			1
59	N/A	AZL7VCBQ021	L7VC-A2 SW BIOS IMAGE(MST8111A)QDI			1
60	N/A	28L7VCPK001	L7VC-A2(VA702B-3) PACKING ASSY			1
61	M-MS-0808-7399	JXL7V003017	LCD FILM L7VC(JXL7V003,REV3B)GP			1
62	M-MS-0808-8981	HAL7V001012	EPE BAG L7V(HAL7V001,REV3A)GP			1
63	P-FM-0602-0840	HBL7V005019	END CAP(L) L7VC(HBL7V005,REV3B)GP			1
64	P-FM-0602-0841	HBL7V006015	END CAP(R) L7VC(HBL7V006,REV3B)GP			1
65	M-LB-0813-0747	HCL7V004013	CORE LABEL(HCL7V004,REV3A)GP			1
66	M-LB-0813-0745	HCL7V002011	SERIAL LABEL L7V(HCL7V002,REV3A) GP			1
67	N/A	HCL9V008014	CARTON LABEL(3) L9VD(HCL9V008,REV3A)GP			1
68	DC-00005789	HGL7VC07010	QSG+CD (VA702B-3) L7VC-A2(HGL7VC07,3A)GP			1
69	PL-00005198	JXLM5003011	HANDLE LM5S(JXLM5003,REV 3B) GP			1
70	N/A	HFL7V009018	SPACE PLATE L7VC(HFL7V009,REV3B)GP			0.028
71	M-LB-0813-1043	HCL70021011	HI-POT LABEL L70L(HCL70021,REV3A)GP			1
72	N/A	HCL7VC09019	ID LABEL(VA702B-3)L7VC-A2(HCL7VC09,3A)GP			1
73	P-00005794	HFL7VC05016	CARTON (VA702B-3) L7VC-A2(HFL7VC05,3A)GP			1
74	M-MS-0808-7710	HAL7E002013	PE BAG L7E(HAL7E002,REV3C)GP			1
75	A-00003642	DM33T181004	POWER CORD SP-305+IS-14 3P 1.8M(TWN)B GP			1

8. Exploded Diagram and Exploded Parts List



ViewSonic Corporation		
Model		
Title	Exploded diagram	
Date		Rev:

EXPLODED PARTS LIST (VA702-3)

ViewSonic Model Number: VLCDS27998-3W

Rev: 1a

Serial No. Prefix: Q5K

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	B-MB-0201-2765	29L7VMB00A8	L7VC M/B ASSY	1
2	B-SB-0221-0686	AS020126104	ADP/INV ADP-40AFB, 90-264VAC	1
3	B-CB-0206-0170	23L7VBB0026	L7VC BUTTON/B ASSY	1
4	N/A	EAL7V012049	LCD BEZEL L7VC	1
5	M-MS-0808-9242	EBL7V021014	LENS L7VC	1
6	PL-BT-0706-0179	EBL7V022011	CONTROL BUTTON L7VC	1
7	M-MS-0808-9243	FEL7V003019	LOGO FRONT-VSC-38MM L7VC	1
8	M-MS-0808-9244	FEL7V004015	BIRD LOGO-10MM L7VC	1
9	M-CV-0830-2616	EAL7V013011	LCD COVER(BLACK) L7VC	1
10	M-CV-0830-2484	FBL7V007011	KENSINGTON CAP	1
11	M-CV-0830-2617	FBL7V034019	HINGE ASSY L7VC	1
12	M-BK-0805-0125	FBL7V036011	VESA BKT-LONG L7VC	1
13	PL-00001507	EBL7V005011	LOGO PLATE ELLIPSE L7VC	1
14	M-MS-0808-9236	GAL7V008017	RUBBER PLUG VESA/BK L7VC	4
15	M-MS-0808-9246	GBLM7003017	GASKET-3 LM7S	1
16	M-SCW-0824-6797	MF40080BJ29	SCREW F4.0*8-B (BNI)	15
17	M-BK-0805-0126	FAL7V011018	PCB BRACKET L7VC	1
18	M-MS-0808-7301	FCL7V011010	P/B MYLAR-UP L7VC	1
19	M-MS-0808-9247	EBL70023013	WIRE MOUNT L70L-E	1
20	M-LB-0813-0894	HCL7V005010	WARNING LABEL INVETER	1
21	E-00005784	AA17EL070A2	LCD(TFT) QDI QD17EL07 V11	1
22	M-BK-0805-0080	FAL7V012014	LCD BKT-L L7VC	1
23	M-BK-0805-0129	FAL7V013011	LCD BKT-R L7VC	1
24	M-MS-0808-9248	FCL7A001014	AL FOIL L7A	2
25	M-MS-0808-7302	FCL7V012016	P/B MYLAR-DOWN L7VC	1
26	M-MS-0808-9249	JXLM7002011	FOIL LM7S	1
27	M-SCW-0824-6798	MM30080BBJ2	SCREW M3.0*8-B (NI)	1
28	M-SCW-0824-6799	MM35080BBW2	SCREW M3.5*8-B (NI , WASHER)	1
29	M-SCW-0824-6800	MM30060IBJ8	SCREW M3.0*6.0-I(NI)	11
30	HW-00002361	MM40080PBJ6	SCREW F4.0*8-P(NI)	2
31	M-SCW-0824-6802	MM30040IBJ9	SCREW M3.0*4.0-I(NI)	10
32	M-CV-0830-0283	GAL7V010011	RUBBER PLUG COVER/BK L7VC	2
33	C-BS-0303-0562	EAL7V014017	BASE(BLACK) L7VC	1
34	M-MS-0808-7304	FBL7V035015	BASE PLATE L7VC	1
35	M-MS-0808-9251	GAL5V002013	RUBBER FOOT L5VC	4
36	M-MS-0808-7305	GAL7V007011	RUBBER FOOT FRONT L7VC	1
37	M-LB-0813-1055	HCL7V020019	STAND LABEL L7VC	1
38	CB-00002263	DDL7VCPB101	CABLE ASSY L7VC POWER-MB	1
39	CB-00000182	DDL7VCPC001	CABLE ASSY L7VC MB-VGA	1
40	CB-00002262	DDL7VCTH004	CABLE ASSY L7VC BUTTON-MB	1
41	CB-00002261	DDL7VXLC004	CABLE ASSY L7VX MB-LCD, 30P	1
42	M-MS-0808-7306	EBL7V023017	HINGE CAP L7VC	2
43	HW-00001510	MM40100BCI2	SCREW M4*10.0-B(NI,NYLOCK)	4
44	N/A	HCL7VC09019	ID LABEL	1
45	M-LB-0813-0745	HCL7V002011	SERIAL LABEL	1
46	M-MS-0808-7399	JXL7V003017	LCD FILM L7VC	1
47	M-SCW-0824-6800	MM30060IBJ8	SCREW M3.0*6.0-I(NI)	4

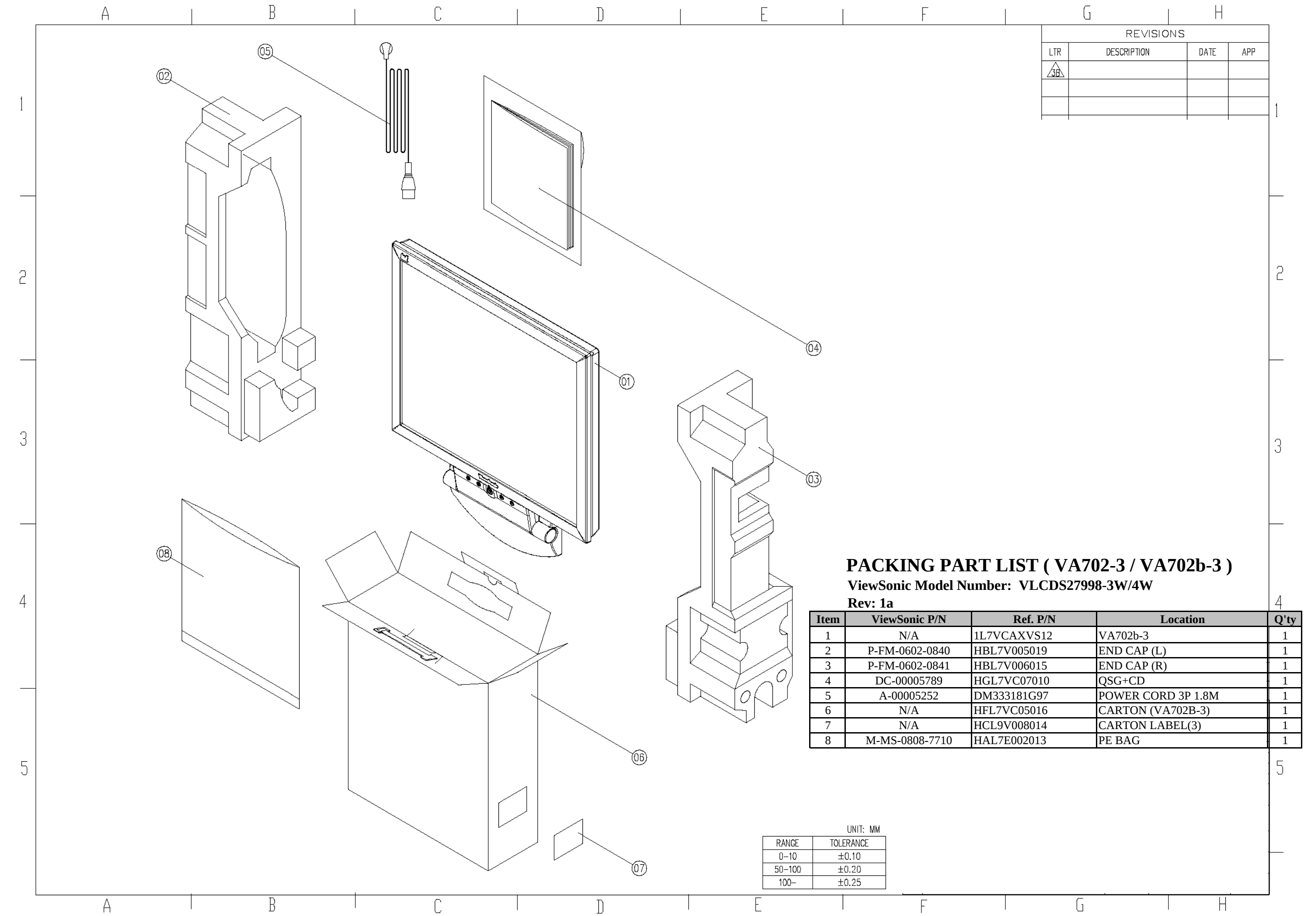
EXPLODED PARTS LIST (VA702b-3)

ViewSonic Model Number: VLCDS27998-4W

Rev: 1a

Serial No. Prefix: Q5L

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	29L7VMB02X9	L7VC M/B ASSY	1
2	B-SB-0221-0686	AS020126104	ADP/INV ADP-40AFB, 90-264VAC	1
3	B-CB-0206-0170	23L7VBB0026	L&VC BUTTON/B ASSY	1
4	C-FP-0301-1066	EAL7V012014	LCD BEZEL SILVER L7VC	1
5	M-MS-0808-9242	EBL7V021014	LENS L7VC	1
6	PL-BT-0706-0179	EBL7V022011	CONTROL BUTTON L7VC	1
7	M-MS-0808-9243	FEL7V003019	LOGO FRONT-VSC-38MM L7VC	1
8	M-MS-0808-9244	FEL7V004015	BIRD LOGO-10MM L7VC	1
9	M-CV-0830-2616	EAL7V013011	LCD COVER(BLACK) L7VC	1
10	M-CV-0830-2484	FBL7V007011	KENSINGTON CAP	1
11	M-CV-0830-2617	FBL7V034019	HINGE ASSY L7VC	1
12	M-BK-0805-0125	FBL7V036011	VESA BKT-LONG L7VC	1
13	M-MS-0808-8718	EBL7V003016	LOGO PLATE ELLIPSE L7VC	1
14	M-MS-0808-9237	GAL7V006014	RUBBER PLUG VESA/BK L7VC	4
15	M-MS-0808-9246	GBLM7003017	GASKET-3 LM7S	1
16	M-SCW-0824-6797	MF40080BJ29	SCREW F4.0*8-B (BNI)	15
17	M-BK-0805-0126	FAL7V011018	PCB BRACKET L7VC	1
18	M-MS-0808-7301	FCL7V011010	P/B MYLAR-UP L7VC	1
19	M-MS-0808-9247	EBL70023013	WIRE MOUNT L70L-E	1
20	M-LB-0813-0894	HCL7V005010	WARNING LABEL INVETER	1
21	E-00002216	AA17EL07055	LCD(TFT) QDI QD17EL07 V9	1
22	M-BK-0805-0080	FAL7V012014	LCD BKT-L L7VC	1
23	M-BK-0805-0129	FAL7V013011	LCD BKT-R L7VC	1
24	M-MS-0808-9248	FCL7A001014	AL FOIL L7A	2
25	M-MS-0808-7302	FCL7V012016	P/B MYLAR-DOWN L7VC	1
26	M-MS-0808-9249	JXLM7002011	FOIL LM7S	1
27	M-SCW-0824-6798	MM30080BBJ2	SCREW M3.0*8-B (NI)	1
28	M-SCW-0824-6799	MM35080BBW2	SCREW M3.5*8-B (NI , WASHER)	1
29	M-SCW-0824-6800	MM30060IBJ8	SCREW M3.0*6.0-I(NI)	11
30	HW-00002361	MM40080PBJ6	SCREW F4.0*8-P(NI)	2
31	M-SCW-0824-6802	MM30040IBJ9	SCREW M3.0*4.0-I(NI)	10
32	M-CV-0830-0284	GAL7V009013	RUBBER PLUG COVER/BK L7VC	2
33	C-BS-0303-0563	EAL7V014025	BASE(BLACK) L7VC	1
34	M-MS-0808-7304	FBL7V035015	BASE PLATE L7VC	1
35	M-MS-0808-9251	GAL5V002013	RUBBER FOOT L5VC	4
36	M-MS-0808-7305	GAL7V007011	RUBBER FOOT FRONT L7VC	1
37	M-LB-0813-1055	HCL7V020019	STAND LABEL L7VC	1
38	CB-00002263	DDL7VCPB101	CABLE ASSY L7VC POWER-MB	1
39	CB-00000182	DDL7VCPC001	CABLE ASSY L7VC MB-VGA	1
40	CB-00002362	DDL7VBCTH004	CABLE ASSY L7VC BUTTON-MB	1
41	CB-00002261	DDL7VXLC004	CABLE ASSY L7VX MB-LCD, 30P	1
42	M-MS-0808-7306	EBL7V023017	HINGE CAP L7VC	2
43	HW-00001510	MM40100BCI2	SCREW M4*10.0-B(NI,NYLOCK)	4
44	N/A	HCL7VC08012	ID LABEL	1
45	M-LB-0813-0745	HCL7V002011	SERIAL LABEL	1
46	M-MS-0808-7399	JXL7V003017	LCD FILM L7VC	1
47	M-SCW-0824-6800	MM30060IBJ8	SCREW M3.0*6.0-I(NI)	4



REVISIONS			
LTR	DESCRIPTION	DATE	APP
3B			

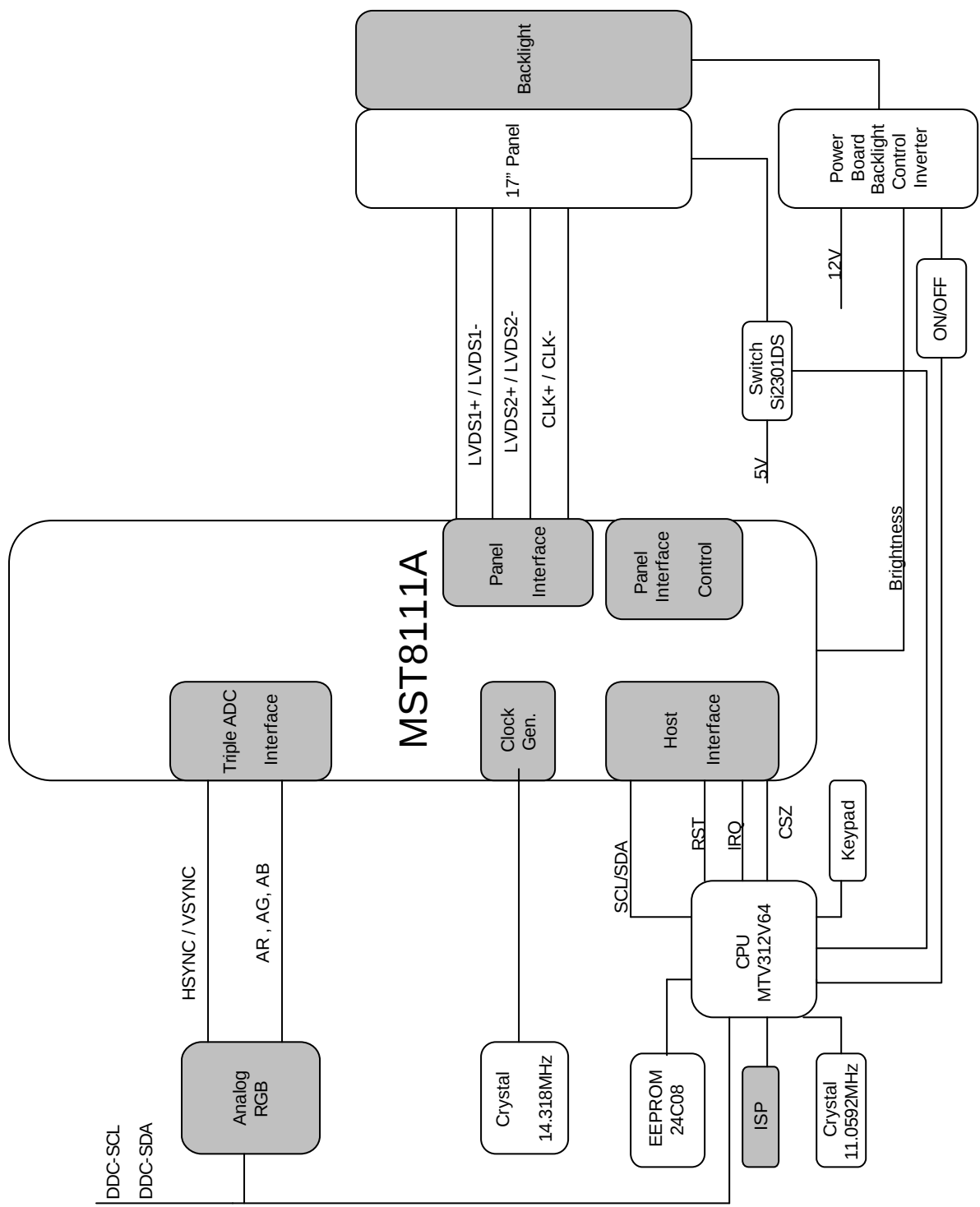
PACKING PART LIST (VA702-3 / VA702b-3)
ViewSonic Model Number: VLCDS27998-3W/4W
Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	N/A	1L7VCAXVS12	VA702b-3	1
2	P-FM-0602-0840	HBL7V005019	END CAP (L)	1
3	P-FM-0602-0841	HBL7V006015	END CAP (R)	1
4	DC-00005789	HGL7VC07010	QSG+CD	1
5	A-00005252	DM333181G97	POWER CORD 3P 1.8M	1
6	N/A	HFL7VC05016	CARTON (VA702B-3)	1
7	N/A	HCL9V008014	CARTON LABEL(3)	1
8	M-MS-0808-7710	HAL7E002013	PE BAG	1

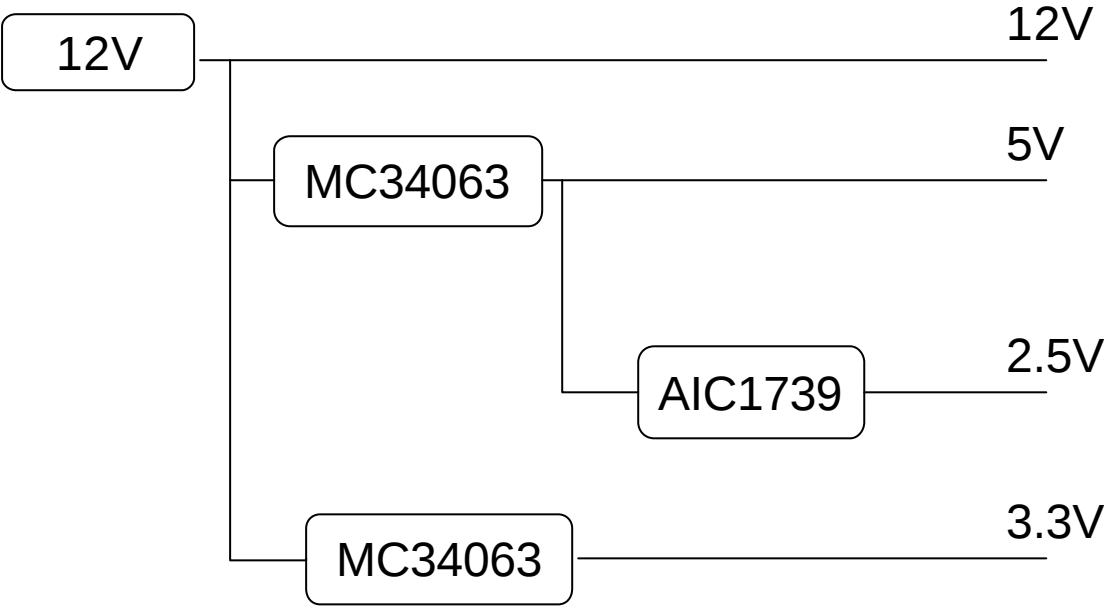
UNIT: MM	
RANGE	TOLERANCE
0-10	±0.10
50-100	±0.20
100-	±0.25

9. Block Diagram

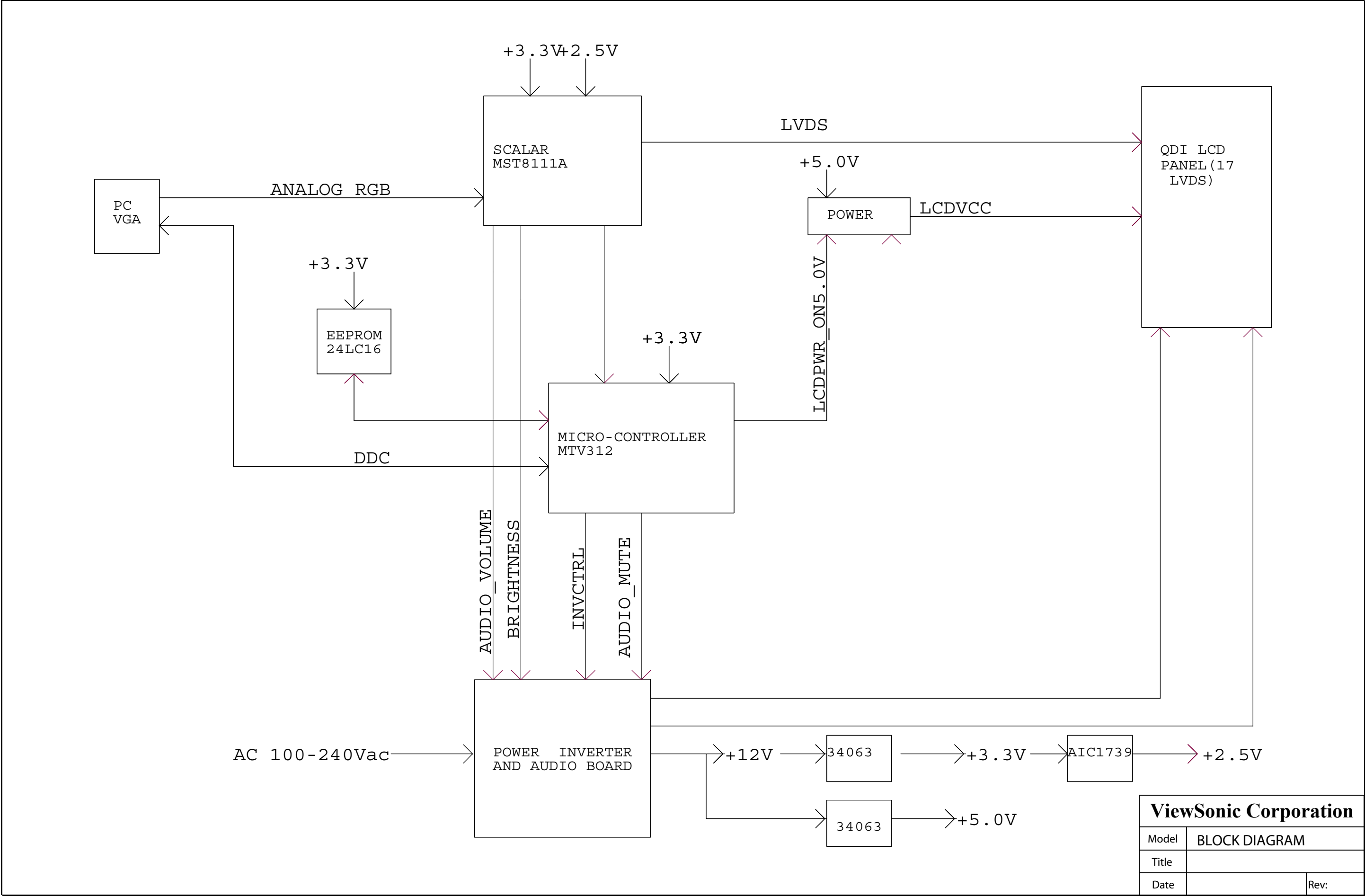
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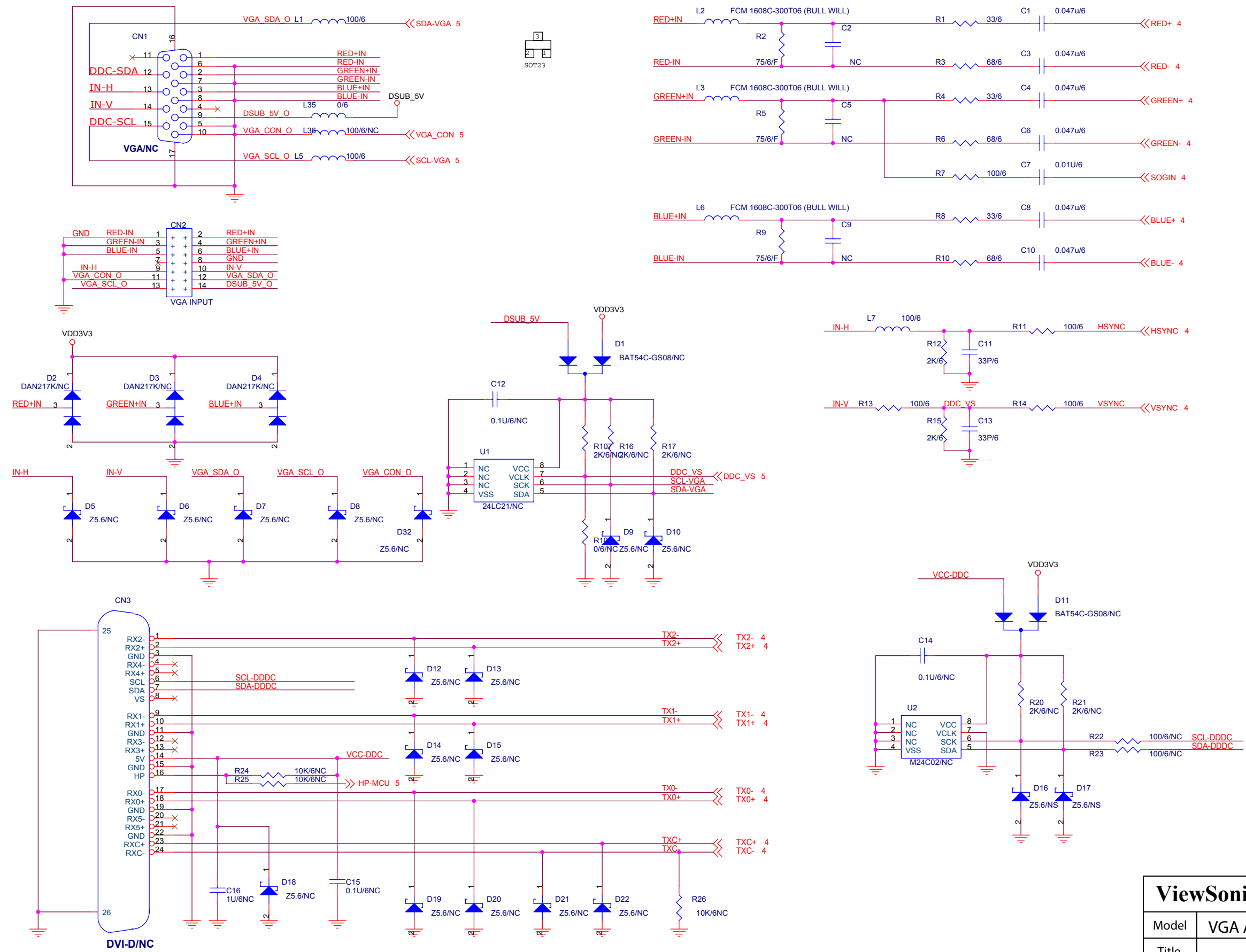


2. Power

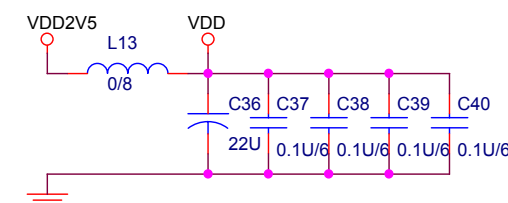
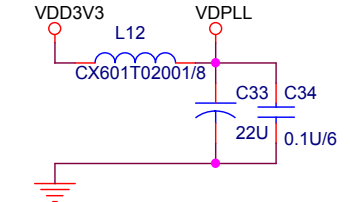
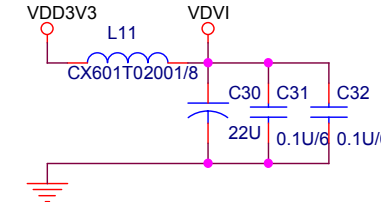
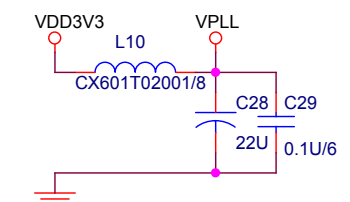
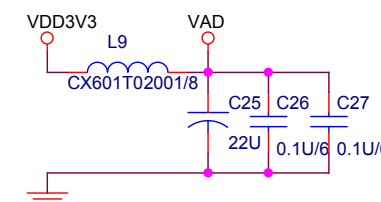
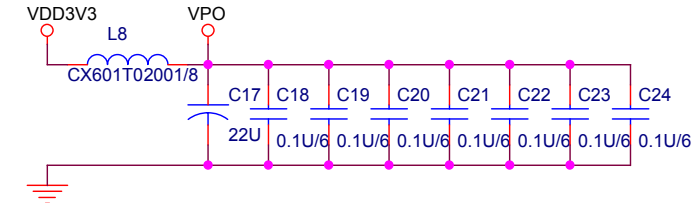
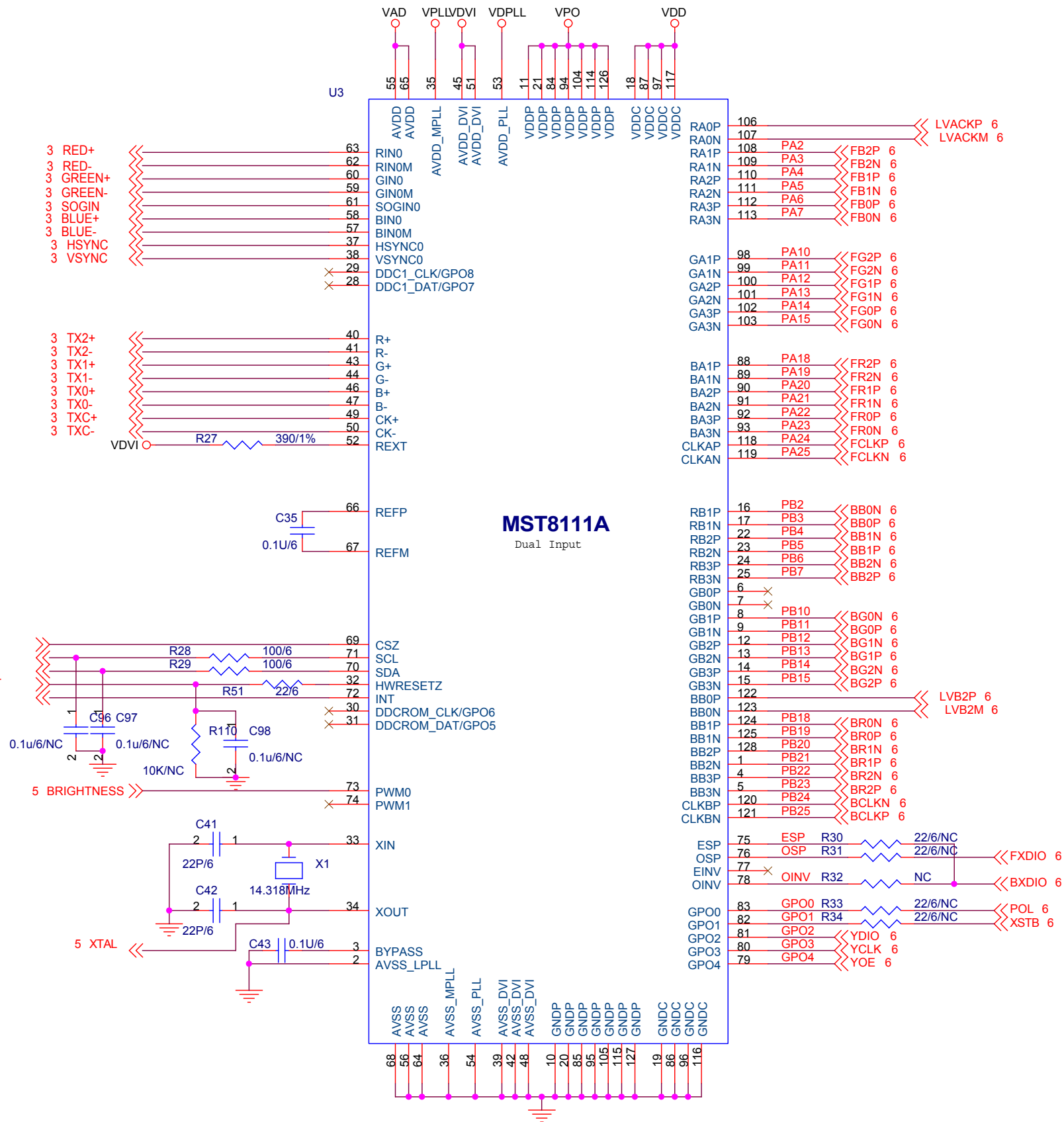


10. Schematic Diagrams

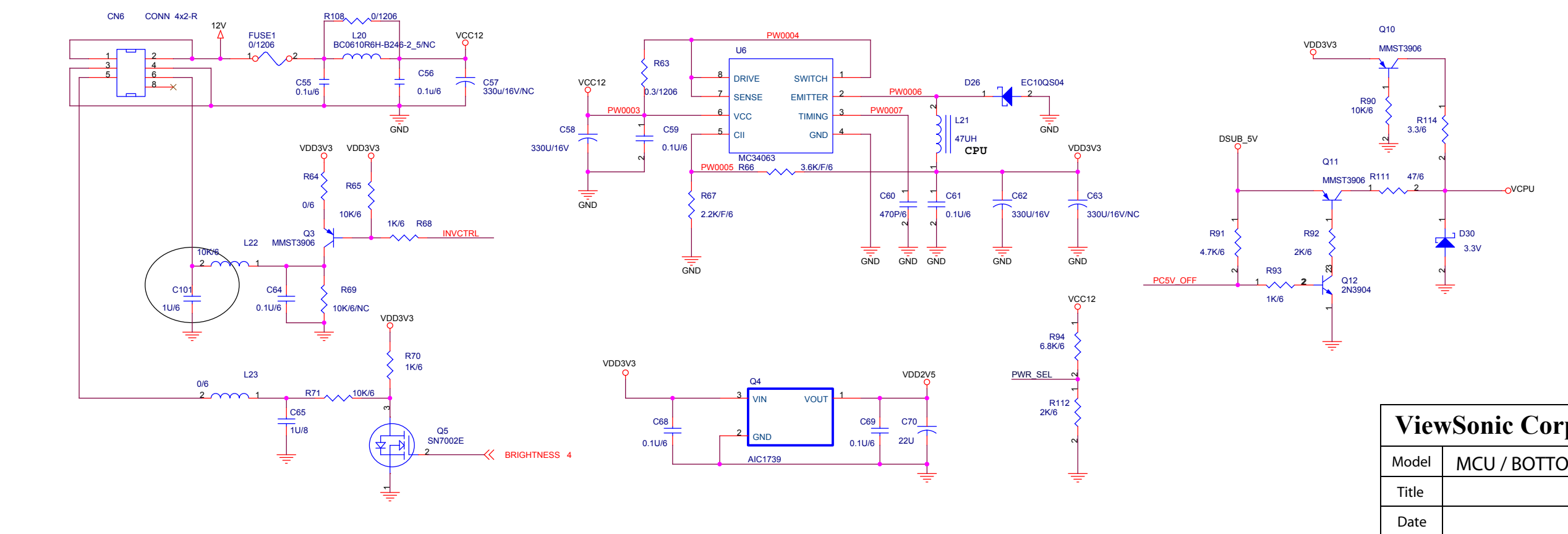
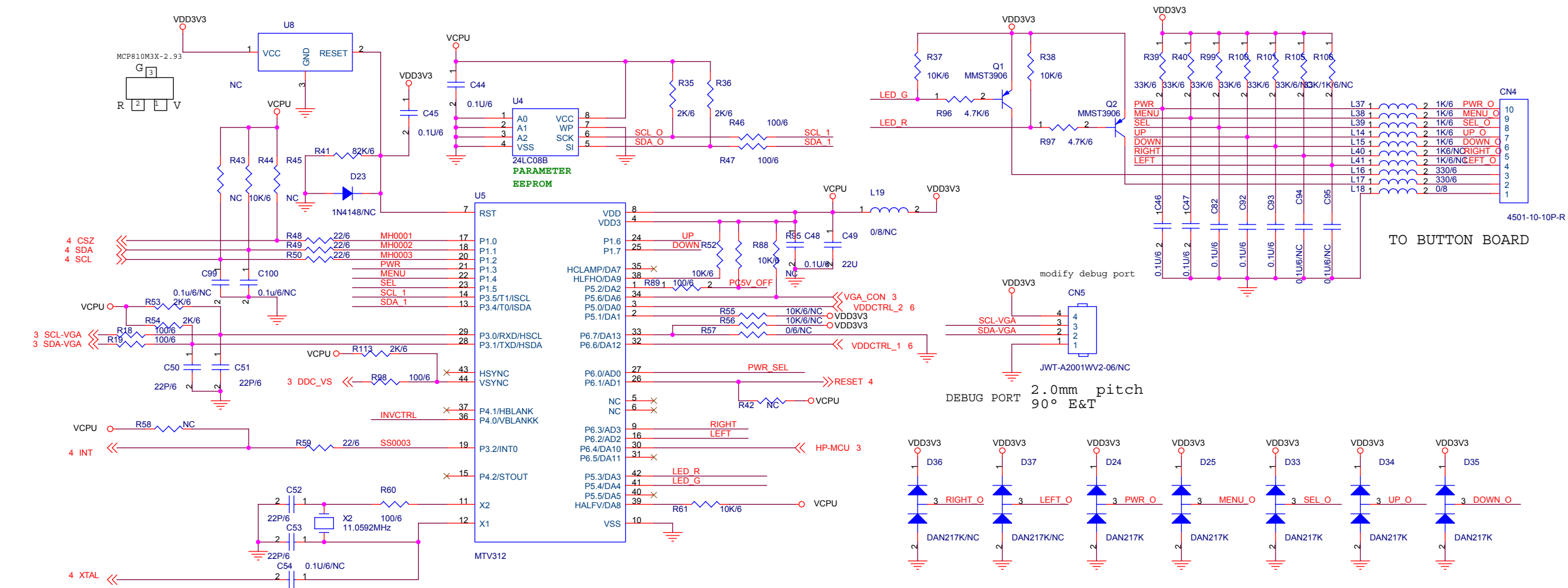




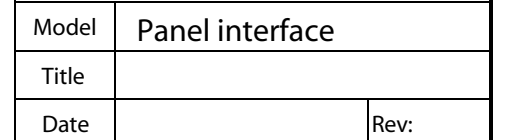
ViewSonic Corporation		
Model	VGA AND TMDS INPUT	
Title		
Date		Rev:

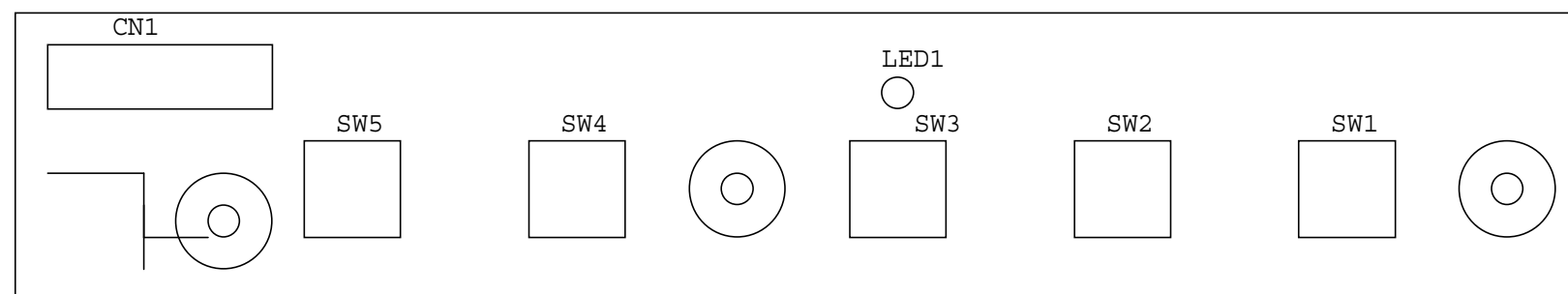
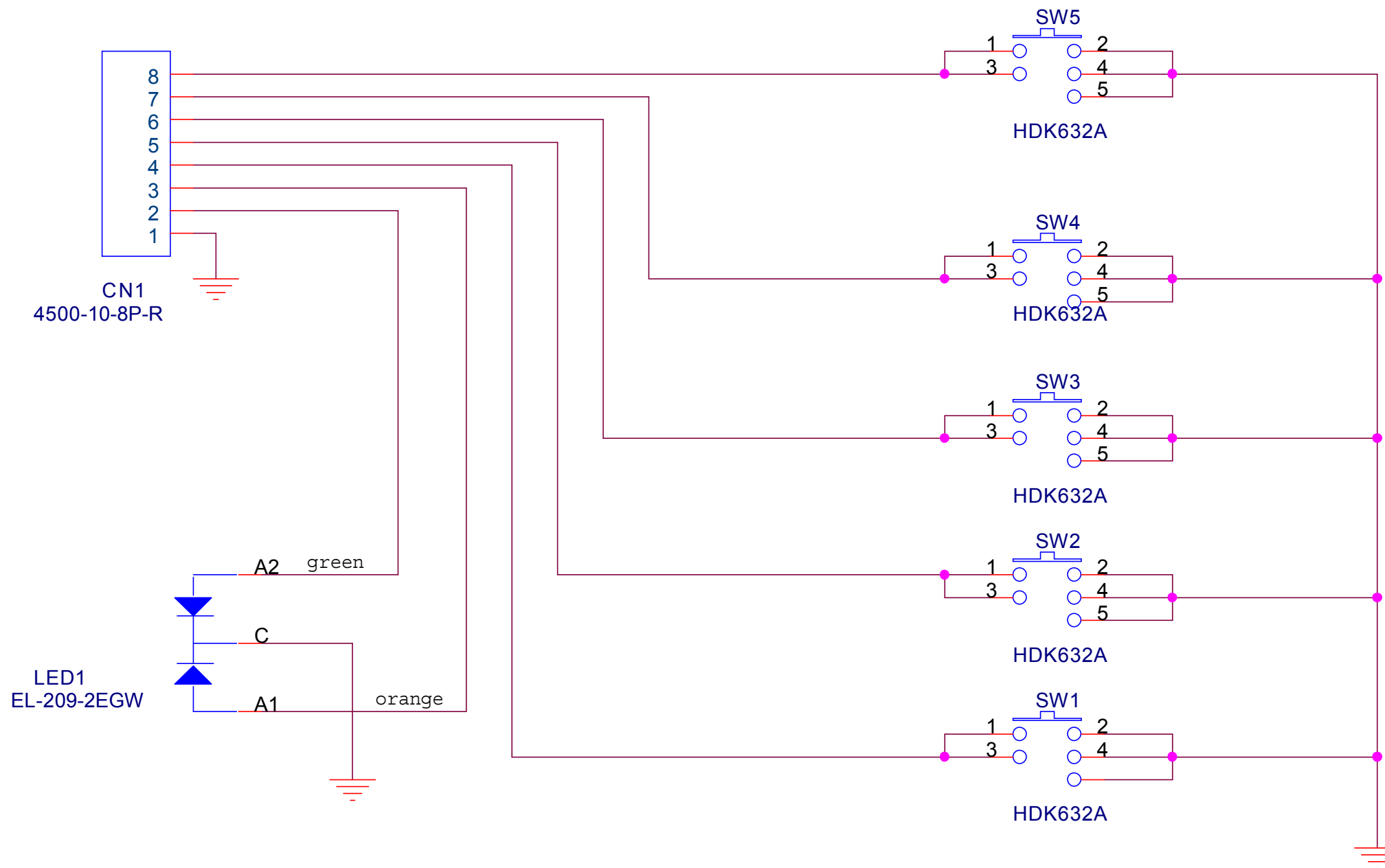


ViewSonic Corporation		
Model	SCALAR	
Title		
Date		Rev:



ViewSonic Corporation		
Model	MCU / BOTTON CONTROL	
Title		
Date		Rev:

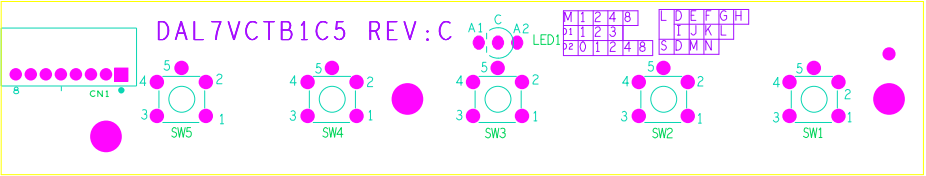




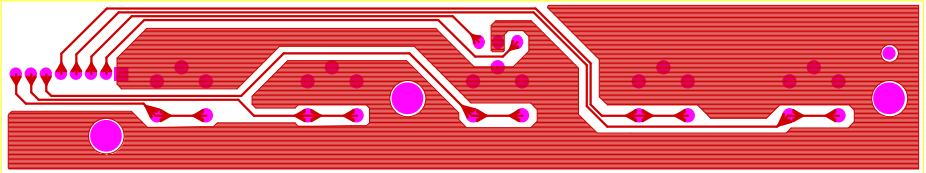
ViewSonic Corporation		
Model	BUTTON-BOARD	
Title		
Date		Rev:

11. PCB Layout Diagrams

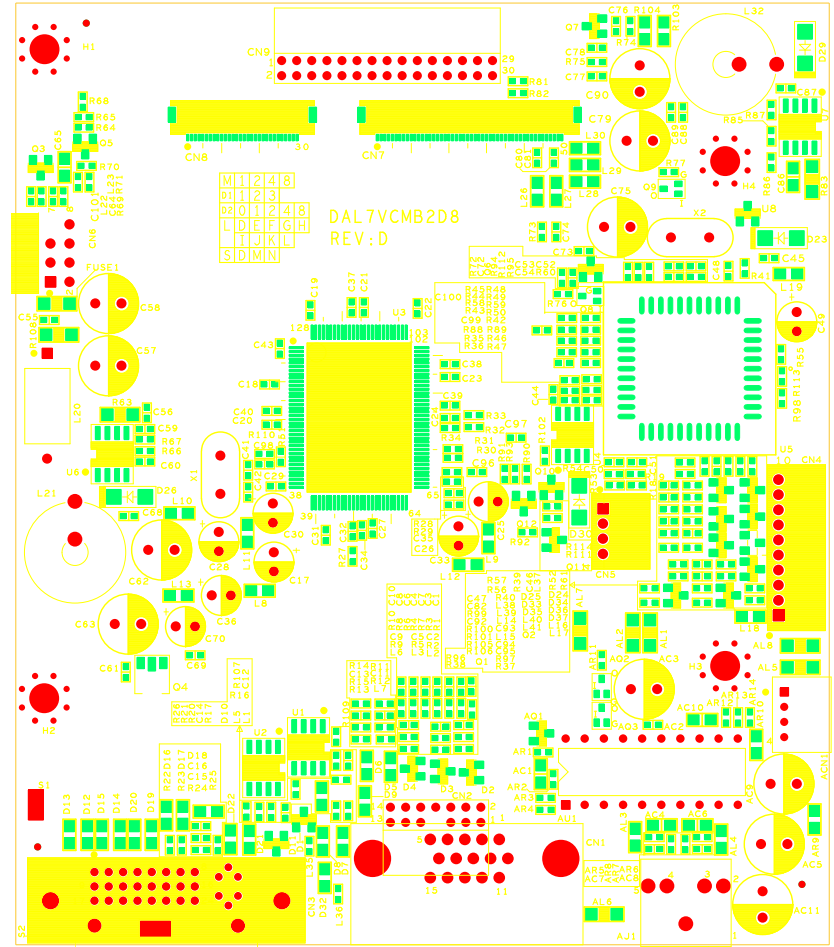
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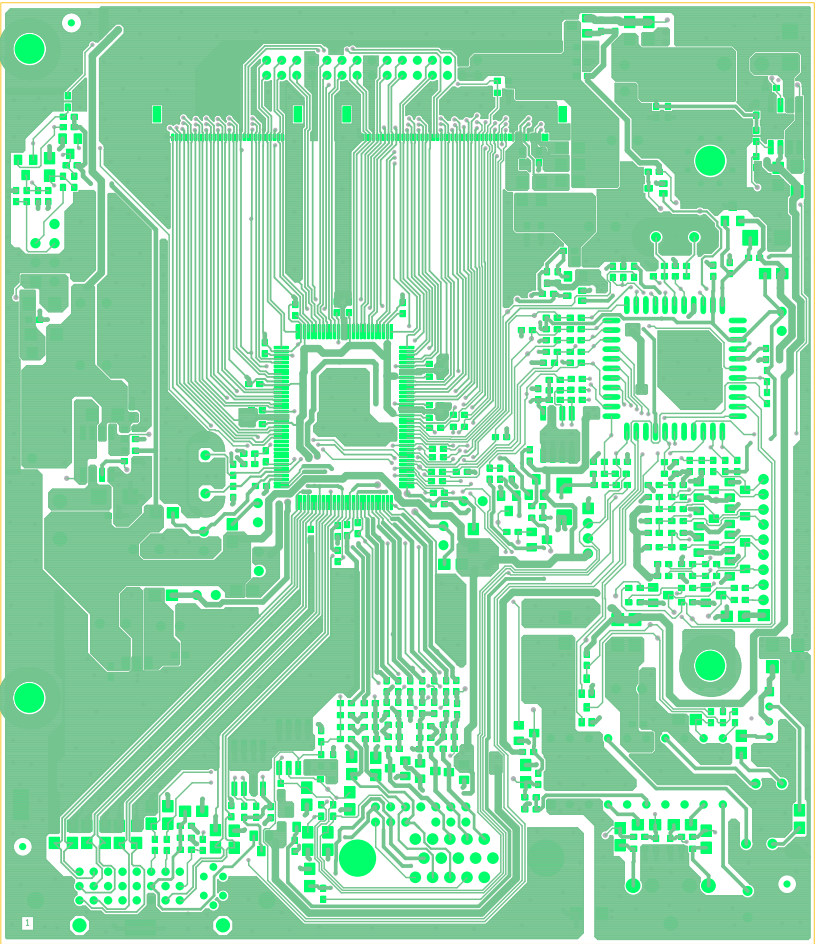
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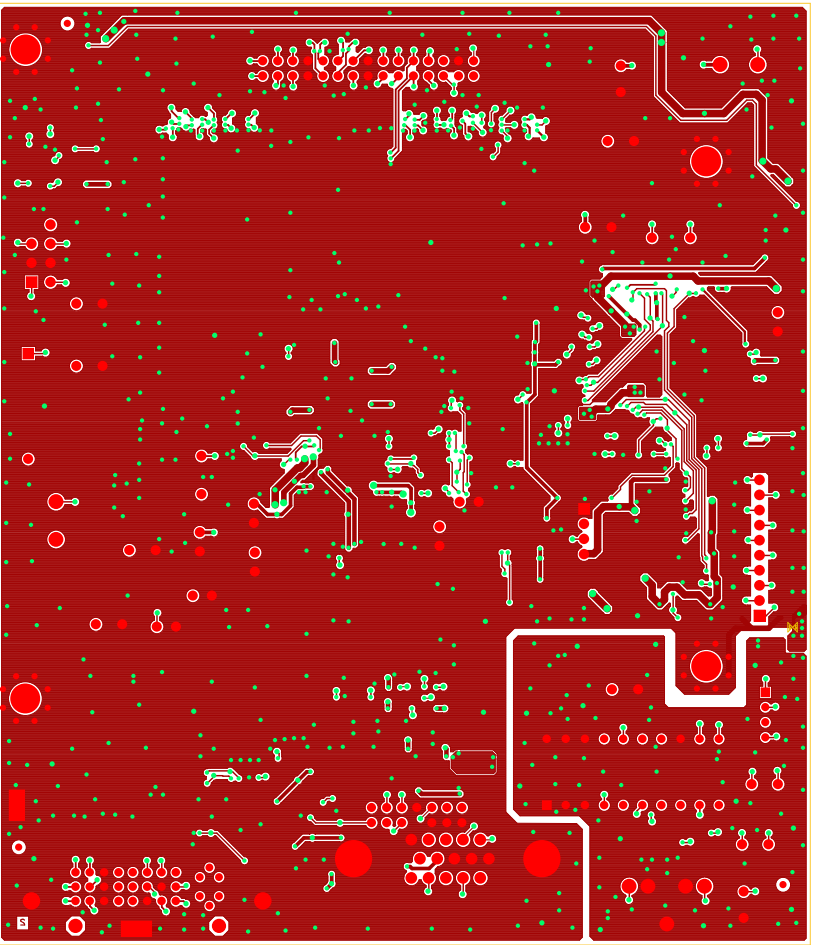
L 0



L 1



L 2



*** Reader's Response***

Dear Readers:

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

Assessment

A. What do you think about the content of this Service Manual?

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

B. Are you satisfied with this 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)