Service Manual

ViewSonic VA915

Model No. VLCDS27944-3

19” Color TFT LCD Display

(VA915_SM Rev. 1a May 2005)

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

Revision History

Revision	SM Editing Date	ECR Number	Description of Changes	Editor
1a	05/26/05		Initial Release	A. Lu

TABLE OF CONTENTS

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 high quality and safety approved AC/DC power cord.
(5) Disconnect the power plug from AC outlet if the product is not 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 susceptible to excessive dust and dirt.
- Near any appliance generating a strong magnetic field.
- Place in direct sunlight.

2. Caution

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

3. Safety Check

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

4. 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 inserting or disconnecting from input connector.
(3) Wipe off water drop immediately. Long contact with water may cause discoloration or spots.
(4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
(5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
(6) Since CMOS LSI is used in this module, take care of static electricity and insure human earth when handling.
(7) Do not open nor modify the Module Assembly.
(8) Do not press the reflector sheet at the back of the module to any directions.
(9) In case if a Module has to be put back into the packing container slot after once it was taken out from the container, do not press the center of the CCFL Reflector edge. Instead, press at the far ends of the CFL Reflector edge softly. Otherwise the TFT Module may be damaged.
(10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate nor tilt the Interface Connector of the TFT Module.

(11) After installation of the TFT Module into an enclosure (LCD monitor housing, for example), do not twist nor bend the TFT Module even momentary. At designing the enclosure, it should be taken into consideration that no bending/twisting forces are applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.

(12) Cold cathode fluorescent lamp in LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.

(13) Small amount of materials having no flammability grade is used in the LCD module. The LCD module should be supplied by power complied with requirements of Limited Power Source (IEC60950 or UL1950), or be applied exemption.

(14) The LCD module is designed so that the CFL in it is supplied by Limited Current Circuit (IEC60950 or UL1950). Do not connect the CFL in Hazardous Voltage Circuit.

2. Specification

2.1 General Description

LCD Fujitsu: FLC48SXC8V-11E CMO: M190E2-L01 M190E3-L02	Active matrix thin-film-transistor (TFT) Type No: FLC48SXC8V-11E/ M190E2-L01 ;M190E3-L02	
	Active screen Size	19.0 inches diagonal
	Effective Display Size	376.32mm (H) × 301.056mm (V)
	Pixel Pitch	0.294mm (H) × 0.294mm(V)
	Pixel Format	1280×1024 (SXGA)
	Brightness	250cd/m^2 (Typ.& CMO panel), 300cd/m^2 (Typ.& Fujitsu panel)
	Contrast Ratio	500:1 typ (CMO E2 panel) , 1000:1 (CMO E3 panel) 700:1 (Typ. & Fujitsu panel)
	Color (8 bits)	16,777,216 colors
	Viewing Angle range (CR≧10, at Ta=25°C)	Up 85° Down 85°(type) Left 85° Right 85°(type)
	Backlight	4 CCFL
Input Signals	Analog RGB 0.7Vp-p / 75Ω Digital RGB DVI Ver1.0 (TMDS Single Link) H/V Separate sync. Sync 2.0~5.0Vp-p, Positive/Negative, 2.2KΩ	
Input connector	Analog D-sub 15 pin *1 Digital DVI-D 24pin *1	
Synchronization	Horizontal Vertical Non-interlaced	30 kHz to 82 kHz (automatically) 50 Hz to 75 Hz (automatically) Maximum Pixel Rated 135MHz
Resolution	Horizontal Vertical	1280 dots 1024 lines
Active Display Area	Horizontal Vertical	376.32 mm (typical, panel depends) 301.056 mm (typical, panel depends)
Power Supply Voltage Rating	AC input DC 12V	AC 100V~240V / 2A, 47.5~63Hz 4.5A.
AC Power Consumption	less than 60W less than 1W less than 1W	On mode. Active OFF mode. DC Power OFF.
Current Rating	AC input	1.5A @AC 100~240V.
Dimensions	Net Gross Depth(head only)	442(W) x 405(H) x69.5 (D) mm 442(W) x 473.1(H) x 181.2(D) mm (With stand base) 181.2mm
Weight	Net Gross	7.5 Kg 10.3 Kg
Environmental Conditions	Operating Temperature Operating Humidity Storage Temperature Storage Humidity	0 to 40°C 20 to 85% -20 to 60°C 5 to 85% (non-condensation)

Accessories	AC cable	1.83m
	User Guide	English
	CD Rom	1
	Warranty Card	1
	HD15 - HD15 cable	1
	DVI(D) - DVI(D) cable	1
Regulatory Standards	UL, cUL, FCC-B, CB, CE, EnergyStar, ENERGY, NOM, TUV/GS, TUV ERGO (covers ISO13406-2 & MPRII), TCO99(VG910b)or TCO03(VG910s), GOST-R + 20 ORIGINAL COPIES HYGIENIC,(SASO), PCBC, VCCI, BSMI,CCC(PSB),(C-TICK), TUV-S,Taiwan green mark,PCT(BZ02)	
Others	Tilt Angle 20° up / 5° down VESA DDC 2B compatible	

2.2 Electrical Characteristics

2.2.1 Power Supply

AC Input Voltage AC 100~240V / 47.5~63Hz

Power Consumption：

Less than 60W	On mode
Less than 1W	Active Off mode
Less than 1W	DC power Off
Current Rating	1.5A @ AC 100~240V

Inrush Current :

Less than 50	Amp(peak) for 120 VAC
Less than 100	Amp(peak) for 220 VAC

Power cord：detachable, 3P, 1.83m

2.2.2 LCD

LCD	Active matrix thin-film-transistor (TFT)
Active screen size	19.0 inches (376.32mm × 301.056mm) diagonal
Pixel Format	1280 x 1024 (SXGA) R.G.B. stripe arrangement
Display method	TFT, normally Black
Pixel pitch	0.294 (H) x 0.294 (V) mm
Dot number	1280 x 1024 x 3 dots
Backlight	Edge-lighting type with 4 CCFL (Cold Cathode Fluorescent Lamp)
Brightness	250 cd/m^2 (Typ. & CMO panel), 300 cd/m^2 (Typ. & Fujitsu panel)
Contrast ratio (Typ)	500:1 (CMO E2 panel), 1000:1 (CMO E3 panel);700:1 (Fujitsu panel)
Display color	16,777,216 colors
viewing angle typical	Up 85° / down 85° / right 85° / left 85° (Contrast ratio≧10 at Ta=25°C / 77°F)
Response time (Typ)	Rise time 15mS, Fall time 10mS. Rise time 13mS, Fall time 7mS for CMO E3 panel

2.2.3 Power Management

VG910 will enter power saving mode under the following conditions:

Power Management condition and status in AC 240V

State	Signals			Power Supply	LED
	Horizontal	Vertical	Video		
On	Pulses	Pulses	Active	<50W	Green
Active off	Pulse	No Pulse	Blank	<1W	Amber
	No Pulse	Pulse			
	No Pulses	No Pulses			
Out off scan range	<30KHz , >82KHz	<50Hz , >75Hz	-	<5 0W	Green
AC power Off	-	-	-	Off	Off
DC power Off	-	-	-	<1W	Off

2.3 Video alignment

2.3.1 COLOR TEMPERATURE ALLIGMENT

a. APPLY VESA 1280x1024 / 60Hz , FULL WHITE PATTERN.(INPUT SIGNAL LEVEL =0.7Vp-p)

b. AUTO WHITE BANLANCE MUST BE FINISH AT 32 GRAY PATTERN BEFORE AUTO ALIGNMENT,

c. SET DEFAULT → CONTRAST TO 70% , BRIGHTNESS TO 100%

9300°K, 6500°K, ：R G B SUB-BRIGHTNESS SET AS BELOW

	9300°K	6500°K	5400°K	5000°K
R SUB-BRIGHTNESS	128	128	128	128
G SUB-BRIGHTNESS	128	128	128	128
B SUB-BRIGHTNESS	128	128	128	128

SET BLACKLEVEL = 255, GAMMA=OFF AT FACTORY DEFAULT.
SET BRIGHTNESS =134 AT FACTORY DEFAULT FOR FUJITSU PANEL
SET BRIGHTNESS =130 AT FACTORY DEFAULT FOR CMO PANEL

2.3.2 DIGITAL ALIGNMENT

2.3.2.1 APPLY VESA 1280x1024 / 60Hz , FULL WHITE PATTERN ,

2.3.2.2 ADJUST R, G, B SUB-CONTRAST TO MEET FOLLOWING CHROMATICITY SPEC.

x = 0.313 ±0.003 , y = 0.329 ±0.003

2.3.3 ANALOG ALIGNMENT

2.3.3.1 9300°K HIGH LUMINANCE ALIGNMENT

2.3.3.1.1 APPLY VESA 1280x1024 / 60Hz , FULL WHITE PATTERN.

2.3.3.1.2 ADJUST R, G, B SUB-CONTRAST TO MEET FOLLOWING CHROMATICITY SPEC.

9300°K → x = 0.283 ±0.003, y = 0.298 ±0.003 , Y > 155 cd/m^2

2.3.3.2 6500°K HIGH LUMINANCE ALIGNMENT

2.3.3.2.1 APPLY VESA 1280x1024 / 60Hz , FULL WHITE PATTERN.

2.3.3.2.2 ADJUST R, G, B SUB-CONTRAST TO MEET FOLLOWING CHROMATICITY SPEC.

6500°K → x = 0.313±0.003, y = 0.329 ±0.003 , Y > 190 cd/m^2

2.3.3.3 5400°K HIGH LUMINANCE ALIGNMENT

2.3.3.3.1 APPLY VESA 1280x1024 / 60Hz , FULL WHITE PATTERN.

2.3.3.3.2 ADJUST R, G, B SUB-CONTRAST TO MEET FOLLOWING CHROMATICITY SPEC.

5400°K → x = 0.335 ±0.003, y = 0.350 ± 0.003 , Y > 180cd/m^2

2.3.3.4 5000°K HIGH LUMINANCE ALIGNMENT

2.3.3.4.1 APPLY VESA 1280x1024 / 60Hz , FULL WHITE PATTERN.

2.3.3.4.2 ADJUST R, G, B SUB-CONTRAST TO MEET FOLLOWING CHROMATICITY SPEC.

5000°K → x = 0.346 ±0.003, y = 0.359 ±0.003 , Y > 180cd/m^2

2.3.4 LUMINANCE TEST

2.3.4.1 SET COLOR Temperature TO 9300°K

APPLY VESA 1280x1024/60Hz , APPLY FULL WHITE PATTERN, ADJUST OSD BRIGHTNESS = 100%, CONTRAST = 70%.

1. THE LUMINANCE MEASURE SHOULD BE OVER 155cd/m^2

2.3.4.2 SET COLOR Temperature TO 6500°K

APPLY VESA 1280x1024 / 60Hz , APPLY FULL WHITE PATTERN, ADJUST OSD BRIGHTNESS = 100%, CONTRAST = 70%

1. THE BRIGHTNESS MEASURE SHOULD BE OVER 190cd/m^2
2. SET BRIGHTNESS =100% , CONTRAST=100% ,THE LUMINANCE MEASURE SHOULD BE OVER 220cd/m^2

2.3.4.3 SET COLOR Temperature TO 5400°K

APPLY VESA 1280x1024 / 60Hz , APPLY FULL WHITE PATTERN, ADJUST OSD BRIGHTNESS = 100%, CONTRAST = 70%

1. THE BRIGHTNESS MEASURE SHOULD BE OVER 180cd/m^2

2.3.4.4 SET COLOR Temperature TO5000°K

APPLY VESA 1280x1024 / 60Hz , APPLY FULL WHITE PATTERN, ADJUST OSD BRIGHTNESS = 100%, CONTRAST = 70%

1. THE BRIGHTNESS MEASURE SHOULD BE OVER 180 cd/m^2

2.3.4.5 APPLY VESA 1280x1024/60Hz , APPLY FULL WHITE PATTERN, ADJUST OSD BRIGHTNESS 100%, CONTRAST 70% ,
MEASUREMENT AT CENTER OF SCREEN

MODE	X	y	Y
9300°K	0.283±0.010	0.298 ±0.010	OVER 155 cd/m^2
6500°K	0.313 ±0.010	0.329 ±0.010	OVER190 cd/m^2
5400°K	0.335 ±0.010	0.350 ±0.010	OVER 180 cd/m^2
5000°K	0.346 ±0.010	0.359 ±0.010	OVER 180 cd/m^2

2.5 EDID SERIAL NO. FORMAT

2.5.1 EDID for VA915 (FLC48SXC8V-11E)

2.5.1.1 Analog EDID

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	18	DA	01	01	01	01	01	0E	01	03
20	0E	26	1E	78	2E	C2	75	A3	5A	4A
30	9F	24	13	50	54	BF	EF	80	81	80
40	81	40	71	4F	01	01	01	01	01	01
50	01	01	01	01	30	2A	00	98	51	00
60	2A	40	30	70	13	00	78	2D	11	00
70	00	1E	00	00	00	FF	00	41	33	31
80	30	34	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	4B	1E	52	0E
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	56	47	39	31	30	73	0A
120	20	20	20	20	20	20	00	CC		

2.5.1.2 Digital EDID

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	18	DA	01	01	01	01	01	0E	01	03
20	80	26	1E	78	2E	C2	75	A3	5A	4A
30	9F	24	13	50	54	BF	EF	80	81	80
40	81	40	71	4F	31	0A	01	01	01	01
50	01	01	01	01	30	2A	00	98	51	00
60	2A	40	30	70	13	00	78	2D	11	00
70	00	1E	00	00	00	FF	00	41	33	31
80	30	34	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	4B	1E	52	0E
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	56	47	39	31	30	73	0A
120	20	20	20	20	20	20	00	21		

APPENDIX A : PRESET TIMING CHART

Analog Mode

		1	2	3	4	5	6	7
Signal name	symbol	TEXT mode	TEXT mode	VGA	MAC-II	VESA-VGA	VESA-VGA	VESA-VGA
H-frequency (kHz)		31.468	31.469	31.468	35.001	37.5	37.862	43.269
V-frequency (Hz)		70.087	70.087	59.941	66.667	75	72.807	85.005
Pixel rate (MHz)		25.175	28.322	25.175	30.240	31.5	31.501	36.000
H-sync	Ths	96	108	96	64	64	40	56
H-back porch	Thb	48	54	48	96	120	128	80
Count num (H-total)	Thd	800	900	800	864	840	832	832
H- front porch	Thf	16	18	16	64	16	24	56
V-sync	Tvs	2	2	2	3	3	3	3
V-back porch	Tvb	60	35	33	39	16	28	25
Count num (V-total)	Tvd	449	449	525	525	500	520	509
V-front porch	Tvf	37	12	10	3	1	9	1
H-sync. Polarity		Positive	Negative	Negative	Negative	Negative	Negative	Negative
V-sync Polarity		Negative	Positive	Negative	Negative	Negative	Negative	Negative
H-resolution (dots)		640	720	640	640	640	640	640
V-resolution (lines)		350	400	480	480	480	480	480

		8	9	10	11	12	13	14
Signal name	Symbol	IBM-8514 A	SVGA	SVGA	SVGA	SVGA	MAC 16"	XGA
H-frequency (kHz)		35.156	37.879	48.077	46.875	53.674	49.725	48.363
V-frequency (Hz)		56.250	60.317	72.188	75.000	85.061	74.5	60.004
Pixel rate (MHz)		36.000	40.000	50.000	49.500	56.250	57.283	65.000
H-sync	Ths	72	128	120	80	64	64	136
H-back porch	Thb	128	88	64	160	152	224	160
Count num (H-total)	Thd	1024	1056	1040	1056	1048	1152	1344
H- front porch	Thf	24	40	56	16	32	32	24
V-sync	Tvs	2	4	6	3	3	3	6
V-back porch	Tvb	22	23	23	21	27	39	29
Count num (V-total)	Tvd	625	628	666	625	631	667	806
V-front porch	Tvf	1	1	37	1	1	1	3
H-sync. Polarity		Negative	Positive	Positive	Positive	Positive	Negative	Negative
V-sync Polarity		Negative	Positive	Positive	Positive	Positive	Negative	Negative
H-resolution (dots)		800	800	800	800	800	832	1024
V-resolution (lines)		600	600	600	600	600	624	768

		15	16	17	18	19	20	21
Signal name	Symbol	XGA	XGA	XGA	XGA	SXGA	720P	SXGA
H-frequency (kHz)		56.476	58.099	60.023	68.677	63.981	45.000	79.976
V-frequency (Hz)		70.069	72.082	75.029	84.997	60.02	60.00	75.025
Pixel rate (MHz)		75.000	78.084	78.750	94.500	108	74.250	135
H-sync	Ths	136	136	96	96	112	40	144
H-back porch	Thb	144	160	176	208	248	270	248
Count num (H-total)	Thd	1328	1344	1312	1376	1688	1658	1688
H- front porch	Thf	24	24	16	48	48	60	16
V-sync	Tvs	6	6	3	3	3	5	3
V-back porch	Tvb	29	29	28	36	38	20	38
Count num (V-total)	Tvd	806	806	800	808	1066	750	1066
V-front porch	Tvf	3	3	1	1	1	5	1
H-sync. Polarity		Negative	Negative	Positive	Positive	Positive	Negative	Positive
V-sync Polarity		Negative	Negative	Positive	Positive	Positive	Negative	Positive
H-resolution (dots)		1024	1024	1024	1024	1280	1280	1280
V-resolution (lines)		768	768	768	768	1024	720	1024

Notes: Because this model no support FRC and in order to meet the panel spec of vertical frequency, some timing can not full screen in vertical size.
Ex:640x400/70Hz;640x350/70Hz ;720x400/70Hz ;640x480/85Hz;800x600/85Hz; 1024x768/85Hz.

Digital Mode

		1	2	3	4	5	6	7
Signal name	symbol	TEXT mode	TEXT mode	VGA	VGA	VESA-VGA	VESA-VGA	VESA-VGA
H-frequency (kHz)		31.468	31.469	31.468	31.468	37.5	37.862	43.269
V-frequency (Hz)		70.087	70.087	70.000	59.941	75	72.807	85.005
Pixel rate (MHz)		25.175	28.322	25.175	25.175	31.5	31.501	36.000
H-sync	Ths	96	108	96	96	64	40	56
H-back porch	Thb	48	54	48	48	120	128	80
Count num (H-total)	Thd	800	900	800	800	840	832	832
H- front porch	Thf	16	18	16	16	16	24	56
V-sync	Tvs	2	2	2	2	3	3	3
V-back porch	Tvb	60	35	35	33	16	28	25
Count num (V-total)	Tvd	449	449	449	525	500	520	509
V-front porch	Tvf	37	12	10	6	1	9	1
H-sync. Polarity		Positive	Negative	Negative	Negative	Negative	Negative	Negative
V-sync Polarity		Negative	Positive	Negative	Negative	Negative	Negative	Negative
H-resolution (dots)		640	720	640	640	640	640	640
V-resolution (lines)		350	400	400	480	480	480	480

		8	9	10	11	12	13	14
Signal name	Symbol	IBM-8514A	SVGA	SVGA	SVGA	SVGA	XGA	XGA
H-frequency (kHz)		35.156	37.879	48.077	46.875	53.674	48.363	56.476
V-frequency (Hz)		56.250	60.317	72.188	75.000	85.061	60.004	70.069
Pixel rate (MHz)		36.000	40.000	50.000	49.500	56.250	65.000	75.000
H-sync	Ths	72	128	120	80	64	136	136
H-back porch	Thb	128	88	64	160	152	160	144
Count num (H-total)	Thd	1024	1056	1040	1056	1048	1344	1328
H- front porch	Thf	24	40	56	16	32	24	24
V-sync	Tvs	2	4	6	3	3	6	6
V-back porch	Tvb	22	23	23	21	27	29	29
Count num (V-total)	Tvd	625	628	666	625	631	806	806
V-front porch	Tvf	1	1	37	1	1	3	3
H-sync. Polarity		Negative	Positive	Positive	Positive	Positive	Negative	Negative
V-sync Polarity		Negative	Positive	Positive	Positive	Positive	Negative	Negative
H-resolution (dots)		800	800	800	800	800	1024	1024
V-resolution (lines)		600	600	600	600	600	768	768

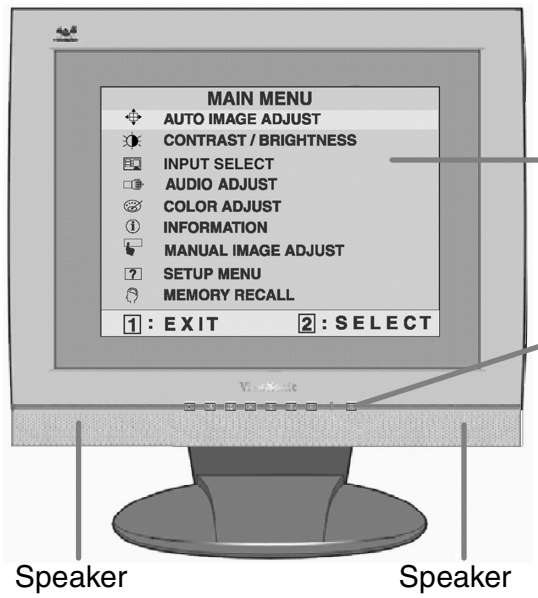
		15	16	17	18	19
Signal name	Symbol	XGA	XGA	XGA	SXGA	HD-720P
H-frequency (kHz)		58.099	60.023	68.677	63.981	45.000
V-frequency (Hz)		72.082	75.029	84.997	60.02	60.00
Pixel rate (MHz)		78.084	78.750	94.500	108	74.250
H-sync	Ths	136	96	96	112	40
H-back porch	Thb	160	176	208	248	270
Count num (H-total)	Thd	1344	1312	1376	1688	1658
H- front porch	Thf	24	16	48	48	60
V-sync	Tvs	6	3	3	3	5
V-back porch	Tvb	29	28	36	38	20
Count num (V-total)	Tvd	806	800	808	1066	750
V-front porch	Tvf	3	1	1	1	5
H-sync. Polarity		Negative	Positive	Positive	Positive	Negative
V-sync Polarity		Negative	Positive	Positive	Positive	Negative
H-resolution (dots)		1024	1024	1024	1280	1280
V-resolution (lines)		768	768	768	1024	720

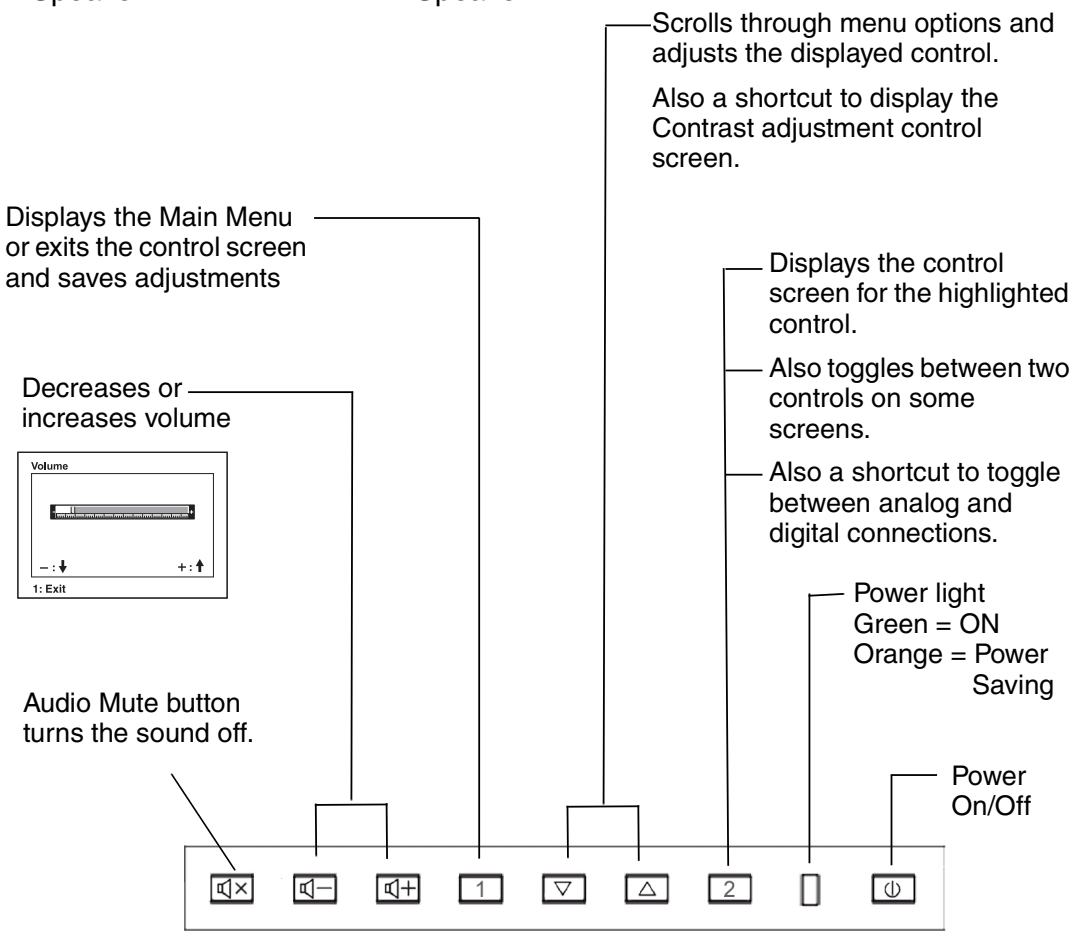
Notes: Because this model no support FRC and in order to meet the panel spec of vertical frequency, some timing can not full screen in vertical size.
Ex:640x400/70Hz;640x350/70Hz ;720x400/70Hz ;640x480/85Hz;800x600/85Hz; 1024x768/85Hz.

3. Front Panel Function Control Description

Adjusting the Screen Image

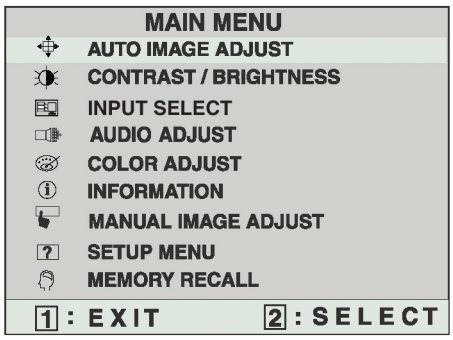
Use the buttons on the front control panel to display and adjust the OnView® controls which display on the screen. The OnView controls are explained at the top of the next page.





Do the following to adjust the screen image:

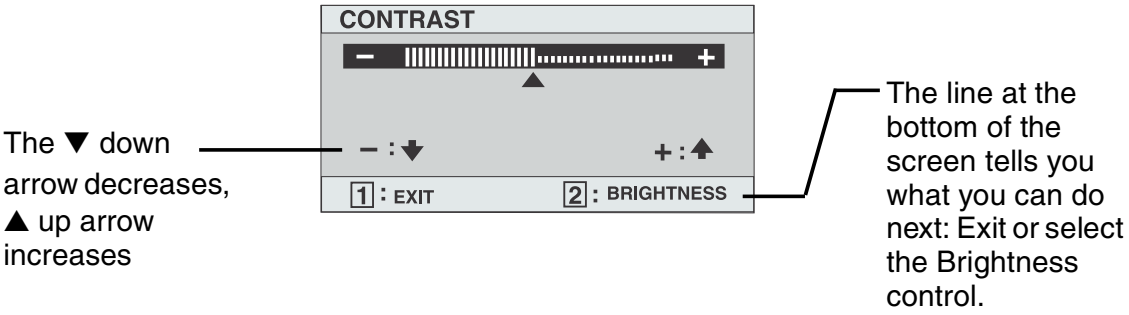
1 To display the Main Menu, press button [1].



NOTE: All OnView menus and adjustment screens disappear automatically after about 30 seconds.

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.



4 To adjust the control, press the up ▲ or down ▼ buttons.

5 To save the adjustments and exit the menu, press button [1] *twice*.

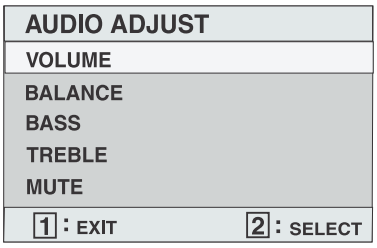
The following tips may help you optimize your display:

- Adjust your computer's graphic card so that it outputs a video signal 1280 x 1024 @ 60 Hz 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
	**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.
	**Contrast** adjusts the difference between the image background (black level) and the foreground (white level).
	Brightness adjusts background black level of the screen image.
	**Input Select** toggles between inputs if you have more than one computer connected to the VG910b/VG910s.
	**Audio Adjust**



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

Balance adjusts the proportion of sound coming from each speaker.

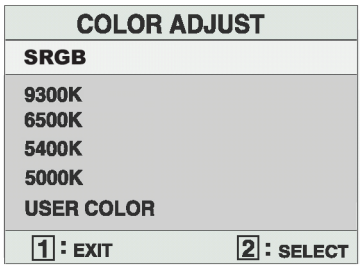
Bass adjusts the low (bass) frequency audio output.

Treble adjusts the high (treble) frequency audio output.

Mute temporarily silences audio output.

Control	Explanation

Color Adjust provides several color adjustment modes: preset color temperatures and **RGB** which allows you to adjust red (**R**), green (**G**), and blue (**B**) separately. The factory setting for this product is 6500K (6500 Kelvin).



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

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

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).

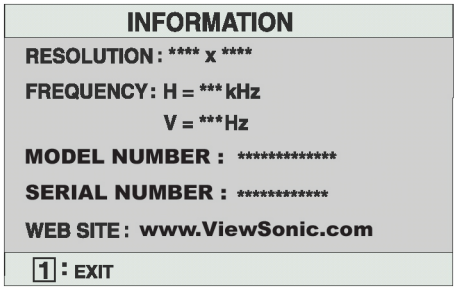
1 To select color (R, G or B) press button [2].
2 To adjust selected color, press ▲ or ▼.

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.

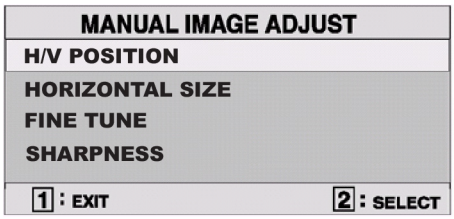
Control	Explanation

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).

NOTE: VESA 1280 x 1024 @ 60 Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.



Manual Image Adjust displays the Manual Image Adjust menu.



The **Manual Image Adjust** controls are explained below:

Horizontal Position moves the screen image left or right.

Vertical Position moves the screen image up or down.

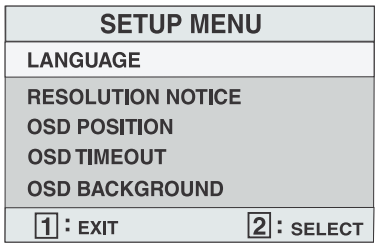
Horizontal Size adjusts the width of the screen image.

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

Sharpness adjusts the clarity and focus of the screen image.

Control	Explanation

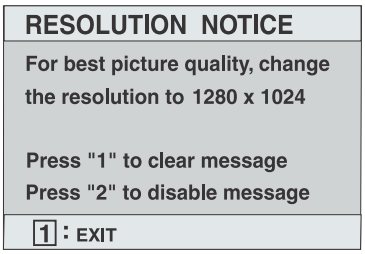
Setup Menu displays the menu shown below.



The **Setup Menu** controls are explained below:

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

Resolution Notice displays the Resolution Notice menu shown below.



Resolution Notice advises the optimal resolution to use.

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

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 screen disappears.

OSD Background allows you to turn the On-Screen-Display background on or off.

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.

Exception: This control does not affect changes made with the User Color control.

Special key (Hot key): Press follows key at turning on momentary.

Key "Vol -"	Key "Vol +"	Key "1"	Key "DOWN"	Key "UP"	Key "2"	power	functions
○		○				○	Factory mode
	○	○				○	Burn in off
			○		○	○	Burn in on
				○	○	○	All mode recall
		○	○				Lock(Unlock) Power Key
		○		○			Lock(Unlock) Osd Key
		○	○			○	Read EDID

4. Circuit Description

4.1 Power supply (DC/DC Converter):

4.1.1 IC251 MP1583 is a switching regulator controller that uses PWM method. That can be used for DC to DC conversion for step-down. It converts a 12V DC into regulated and stable output voltage of 5V respectively.

4.1.2 Regulator:
IC253 function is convert a 5V into regulated and stable O/P 3.3V.
IC252,Q255 are a 3.3V convert into O/P2.5V.

4.2 DDC data select:

4.2.1 IC600(AT24C02) is save D-SUB DDC data.

4.2.2 IC602(AT24C02) is save DVI, DDC data.

4.3 FLASH MEMORY

The IC402(A290011TL-70) is 128K X 8 Bit CMOS 5.0 Volt-only Flash Memory for Program save.
It Embedded Erase Algorithms Will automatically erase the entire chip or any combination of designed sector and verify the erase sectors; Embedded Program algorithm automatically writes and verifies bytes at specified addresses

4.4 MCU/Scalar

The MCU control the keyboard signal and audio signal.
The GM5120 is a high performance, graphics processing IC for LCD monitors with resolutions at SXGA. On-chip function 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 on-chip microcontroller (OCM), 5-Volt tolerance inputs ,low EMI and power management.

The analog input (CN602) signal and DVI-D input(CN601) signal are designed to be connected directly to scalar IC, The MST9131A built-in LVDS transmitter, it is designed to be connected directly to panel.

4.5 Audio processor

IC802(PT2313L) is a four-channel digital control audio processor utilizing CMOS Technology. Volume, Bass, Treble and Balance, Front/Rear Fader Processor are incorporated into a single chip. Loudness function and Selectable input gain are also provided to build a highly effective electronic Audio processor having the highest performance and reliability with the Least external components. All functions are programmable using the I^2C Bus.

Volume signal through IC802 pin34(right) pin25(left) into audio amplifier.

4.6 Audio amplifier

IC803(TDA1517) is an integrated class-B dual output amplifier, It contains two identical amplifier differential input stages. The gain of each amplifier is fixed at 20dB.

Pins 1 and 9 are right and left channel inputs respectively. Pins 4 and 6 are right and left channel outputs which connect to two 4OHM speakers.
Pin 8 is the mute/stand-by.

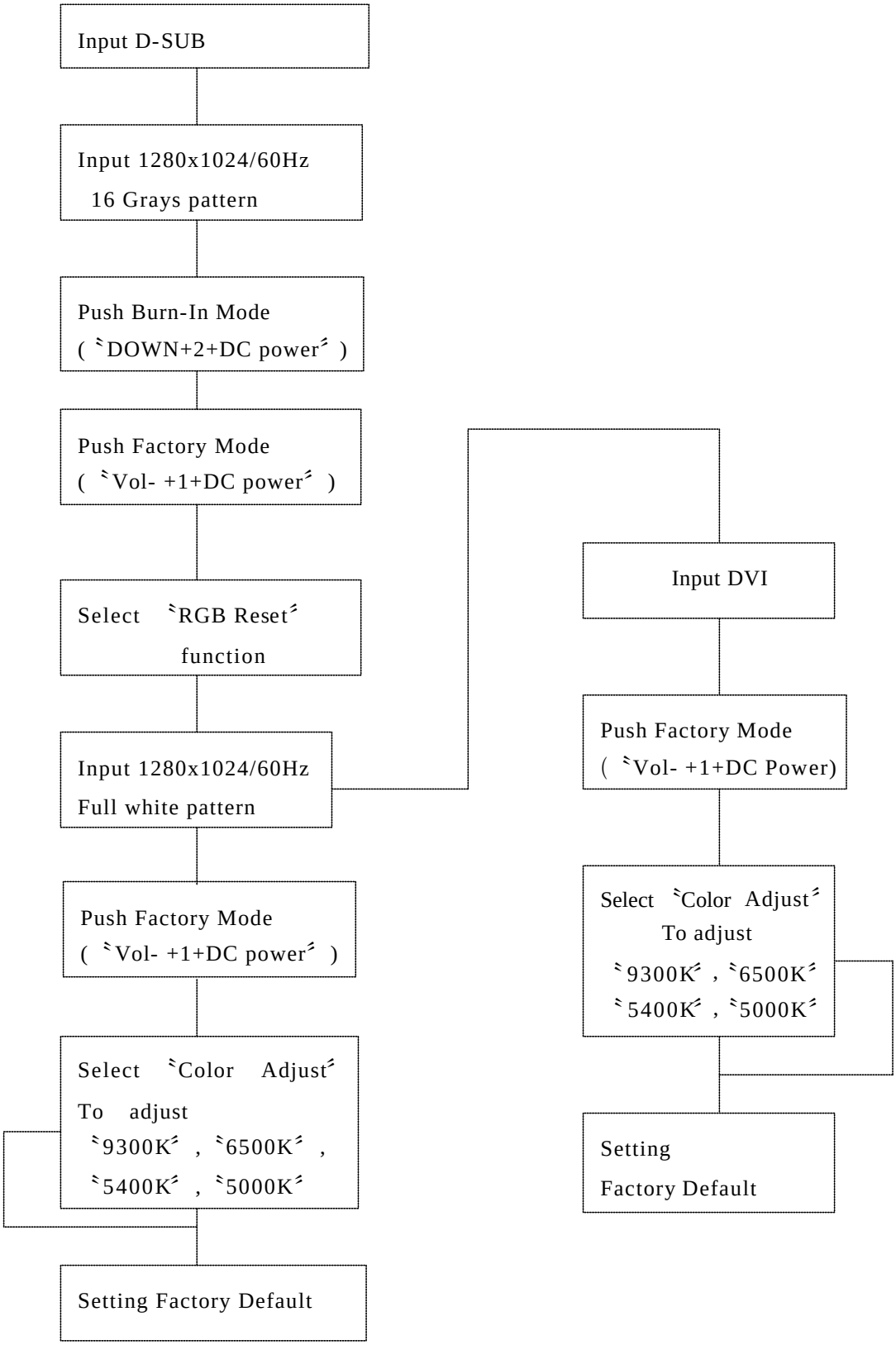
5. Adjustment Procedure

5.1 General.

1. All specification must be met over line voltage range of $90V_{AC}$ to $264V_{AC}$ 50Hz / 60Hz, unless otherwise specified.
2. Operating temperature range is $0^{o}C$ to $40^{o}C$ with a relative humidity of 10% or less to 80%.
3. The monitor must be operational in a usable state within 30 minutes after turn-on.
4. All signal levels are measured assuming termination at the monitor's input jacks or in its characteristic impedance.
5. All controls must have excess range (no control may be left at an end stop when proper alignment is completed).
6. The monitor is not required to meet specs during the following but must tolerate, without damage to the LCD or circuits, any sequence or combination of power on and off, signal on and off, erratic, wrong frequency or noisy inputs while at any possible unplugging of power or signal, settings of user accessible controls likewise, the monitor should survive extended periods of operation with line voltage reduced below the specified minimum.
7. An isolation transformer should be used when performing alignment and tests, Portions of the power supply board are hot ground, The remaining boards are cold ground.
8. Ambient condition:
   8.1 Illumination: In usual inspection of electric performance and mechanical performance, it shell be 150 ~ 260lux.
   8.2 Environmental noise: Less than 60dB.
   8.3 Interference of EMI: The inspection shall be carried out in the place where a set is not disturbed by external unnecessary electric wave and magnetic field.
   8.4 Temperature: $24 \pm 2^{o}C$.
   8.5 Humidity: $65 \pm 20\%$.

5.2 Instrument alignment.

5.2.1 Adjustment procedure.



5.2.2 Video alignment.

5.2.1.1 Preset condition.

5.2.1.1.1 Setting the contrast to 70%, brightness to 100%.

5.2.1.1.2 Input 1280x1024 / 60Hz, 16 gray pattern (input level 100IRE 0.7Vp-p), then press "RGB RESET".9300K / 6500K / 5400K / 5000K, R G B offset preset as below:

	9300K		6500K		5400K		5000K	
	Analog	DVI	Analog	DVI	Analog	DVI	Analog	DVI
R sub-contrast	128	128	128	128	128	128	128	128
G sub-contrast	128	128	128	128	128	128	128	128
B sub-contrast	128	128	128	128	128	128	128	128

5.2.1.2 9300K alignment:

5.2.1.2.1 Input 1280x1024 / 60Hz & full white pattern at 100IRE.

5.2.1.2.2 Adjust R, G, and B sub-contrast to meet following chromaticity spec:
9300K ? x = 0.283 ± 0.005, y = 0.298 ± 0.005, Y > 155cd/m^2 (Both analog & DVI).

5.2.1.3 6500K alignment:

5.2.1.3.1 Input 1280x1024 / 60Hz & full white pattern at 100IRE.

5.2.1.3.2 Adjust R, G and B sub-contrast to meet following chromaticity spec:
6500°K ? x = 0.313 ±0.005, y = 0.329 ± 0.005, Y > 190cd/m^2 (Both analog & DVI).

5.2.1.4 5400K alignment:

5.2.1.4.1 Input 1280x1024 / 60Hz & full white pattern at 100IRE.

5.2.1.4.2 Adjust R, G, and B sub-brightness to meet following chromaticity spec:
5400K ? x = 0.335 ± 0.005, y = 0.350 ± 0.005, Y > 180cd/m^2 (Both analog & DVI).

5.2.1.5 5000K alignment:

5.2.1.5.1 Input 1280x1024 / 60Hz & full white pattern at 100IRE.

5.2.1.5.2 Adjust R, G and B sub-contrast to meet following chromaticity spec:
5000°K ? x = 0.346 ±0.005, y = 0.359 ± 0.005, Y > 180cd/m^2 (Both analog & DVI).

5.2.1.6 64grays & 16grays pattern check:

5.2.1.6.1 Input 1280x1024 / 60Hz & 64 grays pattern at 100IRE, adjust brightness 100%, and contrast 70%.

5.2.1.6.2 9300K / 6500K / 5400K / 5000K, the 64 grays can 2steps saturation.

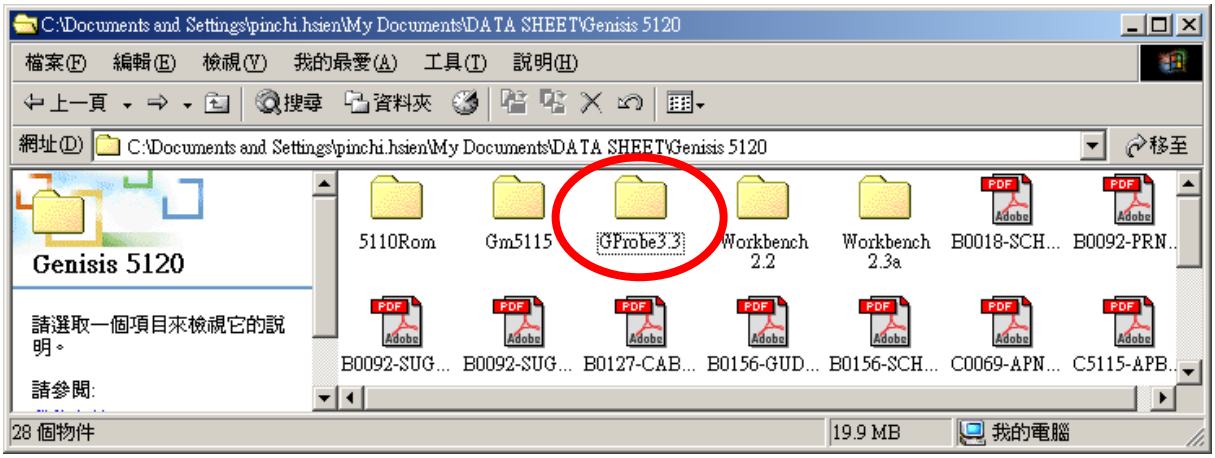
5.2.1.6.3 Input 1280x1024 / 60Hz & 16 grays pattern at 100IRE, adjust brightness 100%, and contrast 100%.

5.2.1.6.4 9300K / 6500K / 5400K / 5000K, the 16 grays only had 4 grays can saturation.

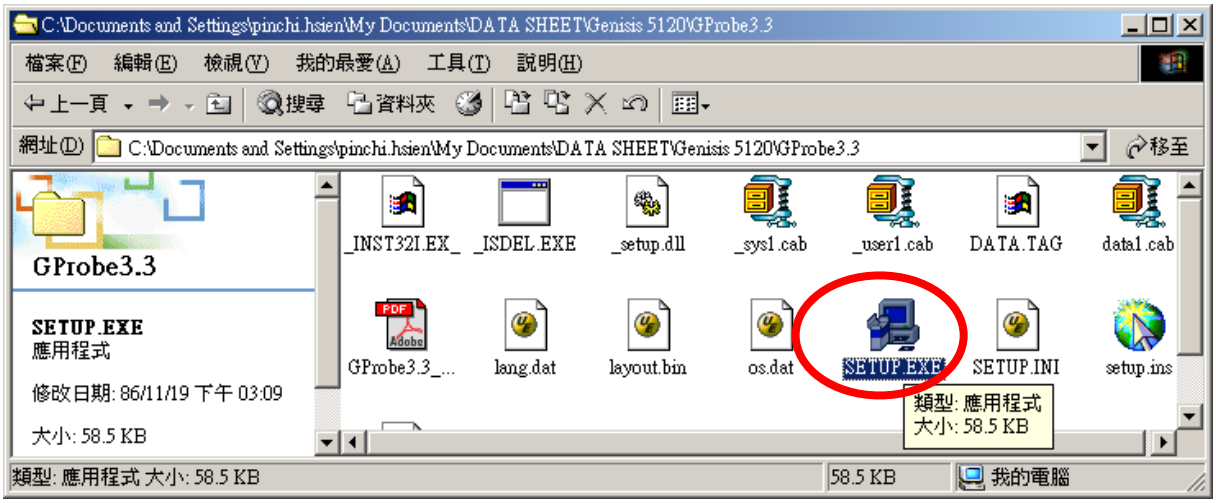
5.3 Firmware update process

5.3.1 Install Gprobe

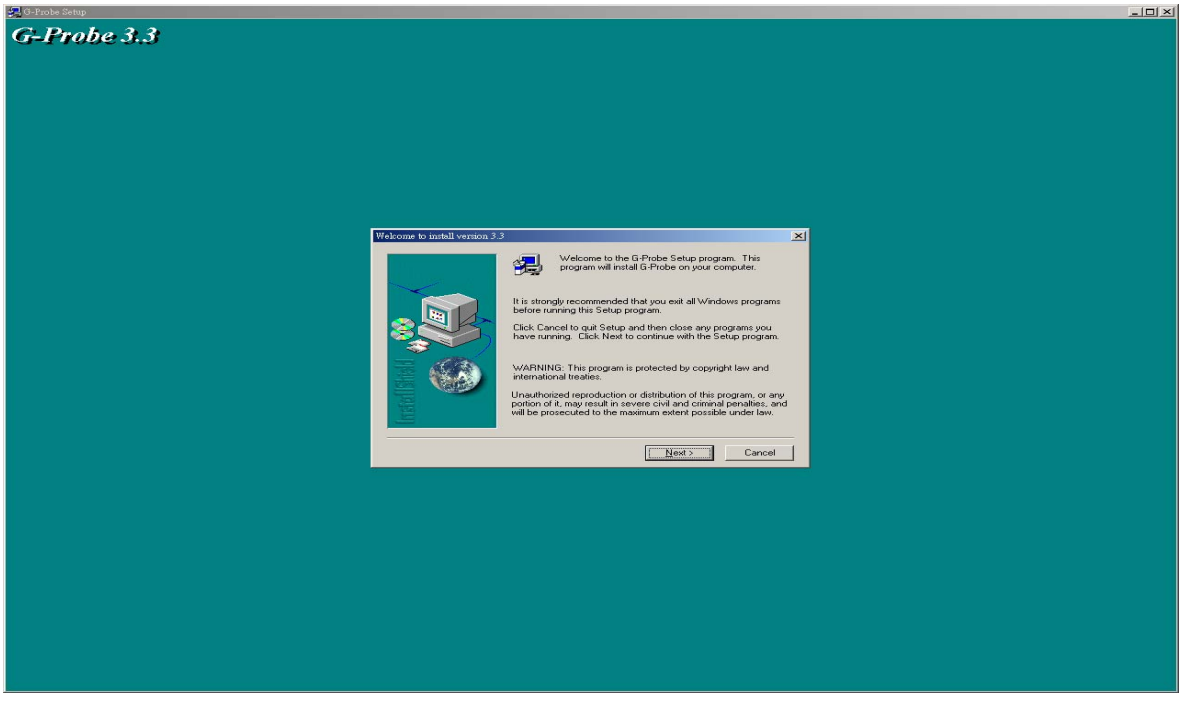
5.3.1.1 Open the folder of Gprobe3.3



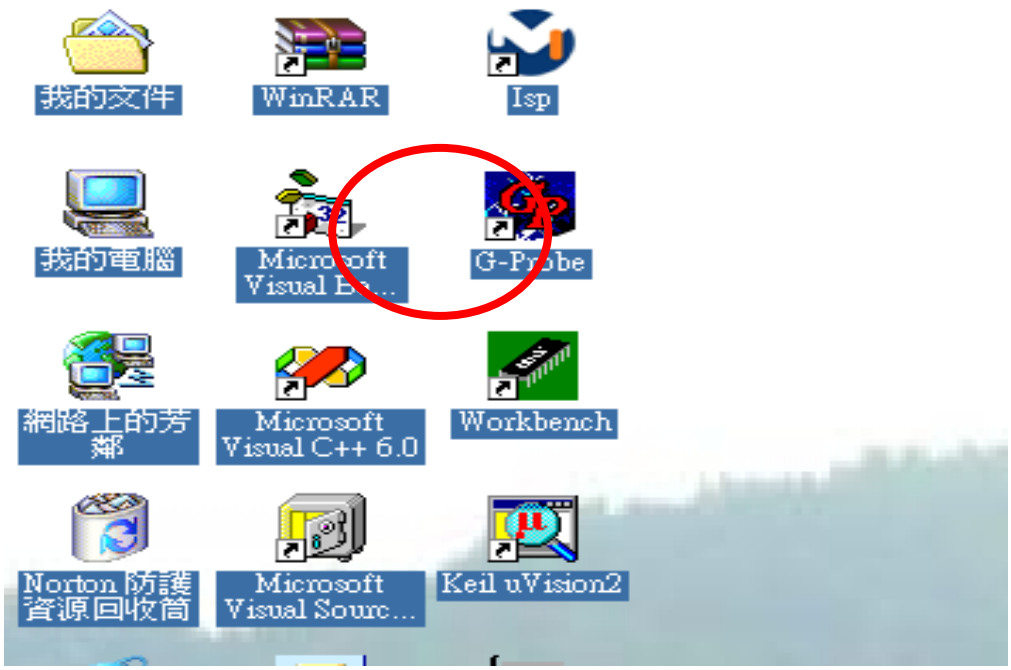
5.3.1.2 Click the setup.exe



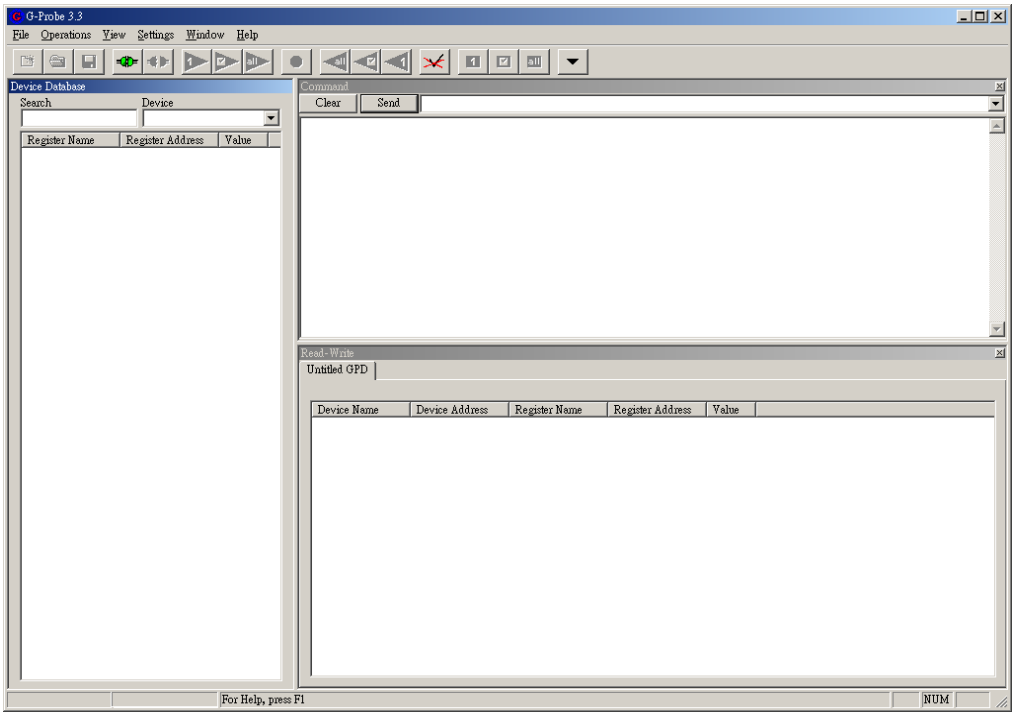
5.3.1.3 Setup menu of Gprobe3.3



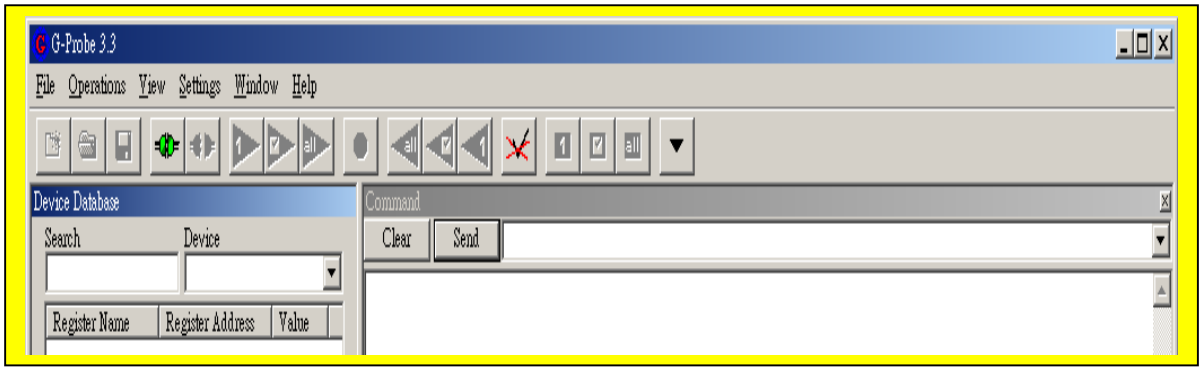
5.3.2 Click Gprobe3.3



5.3.2.1 The menu of Gprobe3.3

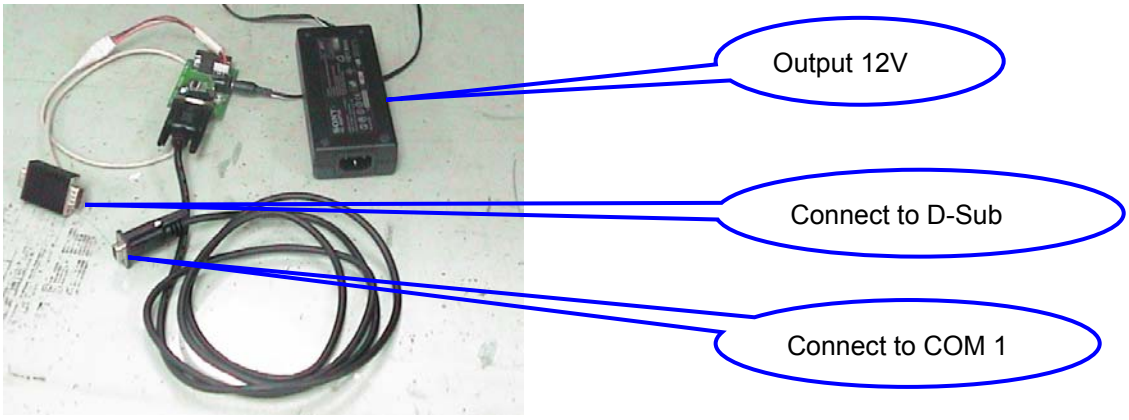


5.3.2.2 The title of Gprobe3.3

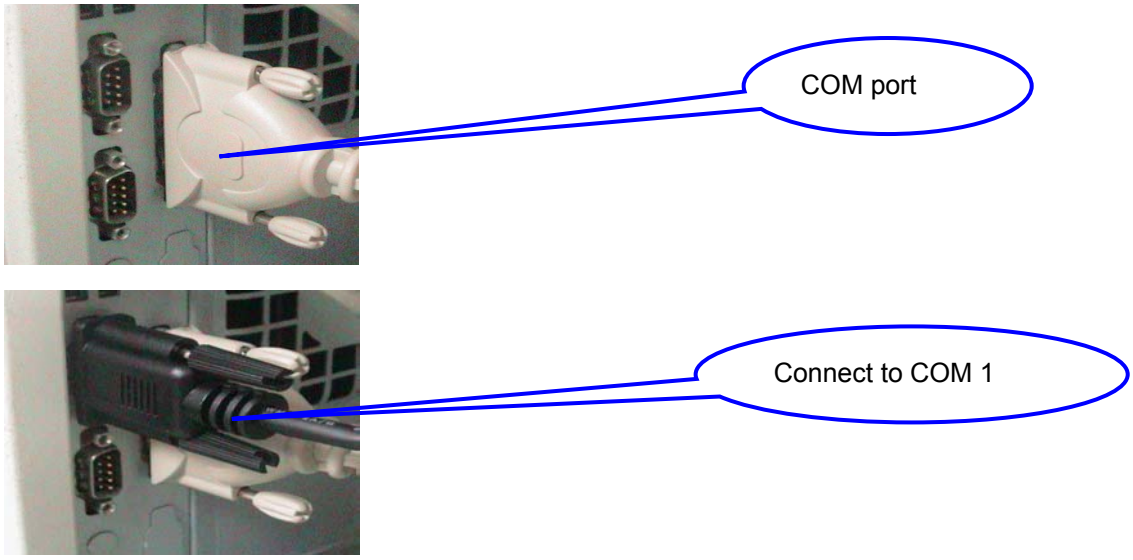


5.3.3 Connect ISP Tool

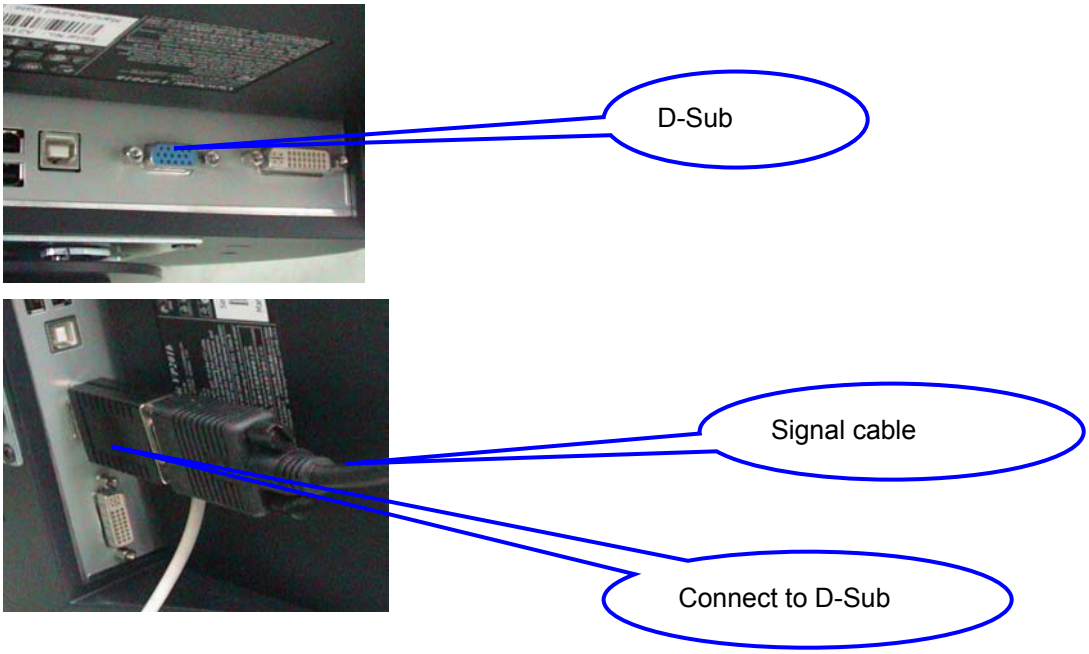
5.3.3.1 ISP Tools



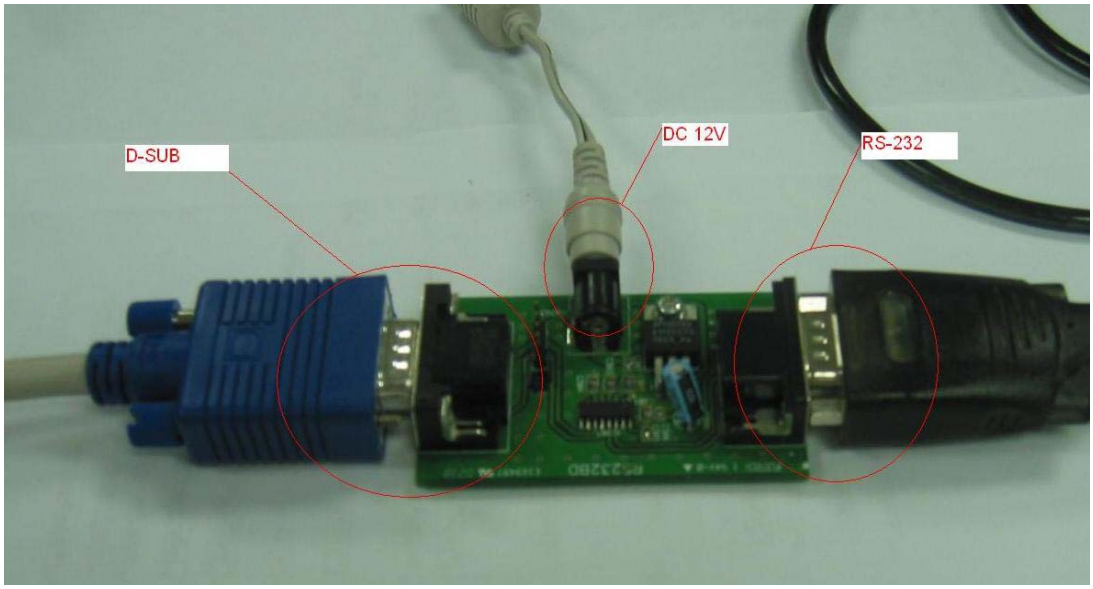
5.3.3.2 Connect ISP Tool to “COM1”



5.3.3.3 Connect ISP Tool to “Display”.

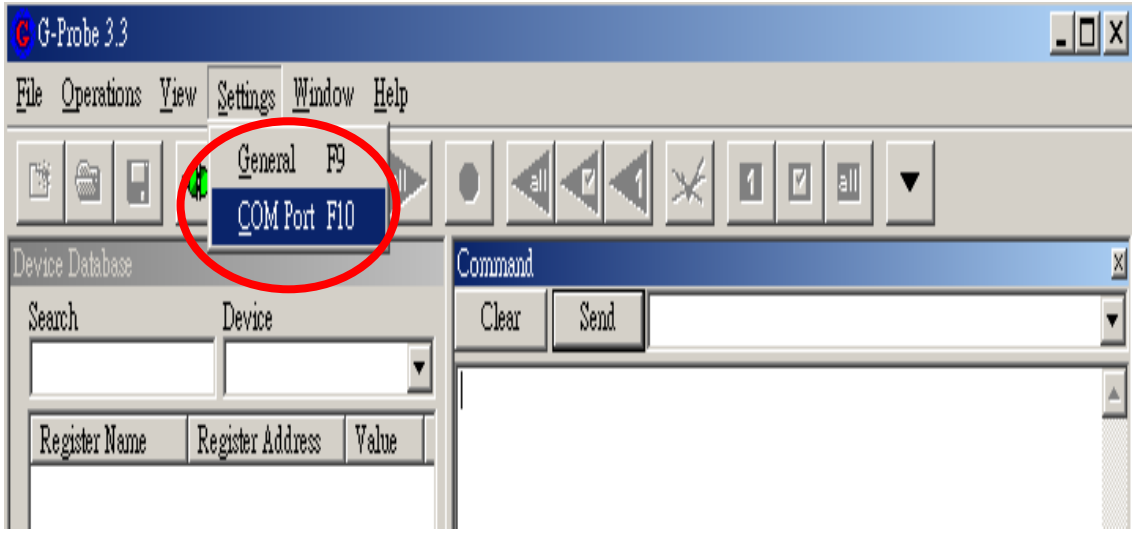


5.3.4 Connect the ISP Tools

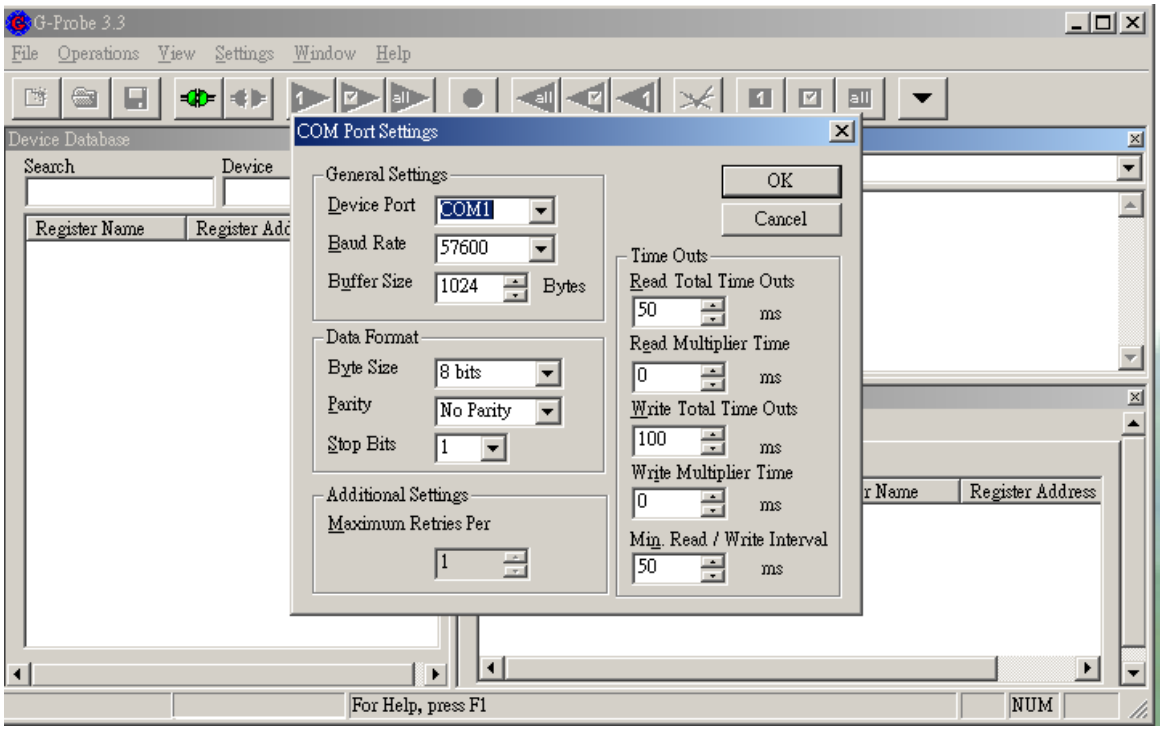


5.3.5 Monitor need setting Burn In by Hot Key（【▼】+【2】+ DC Power）

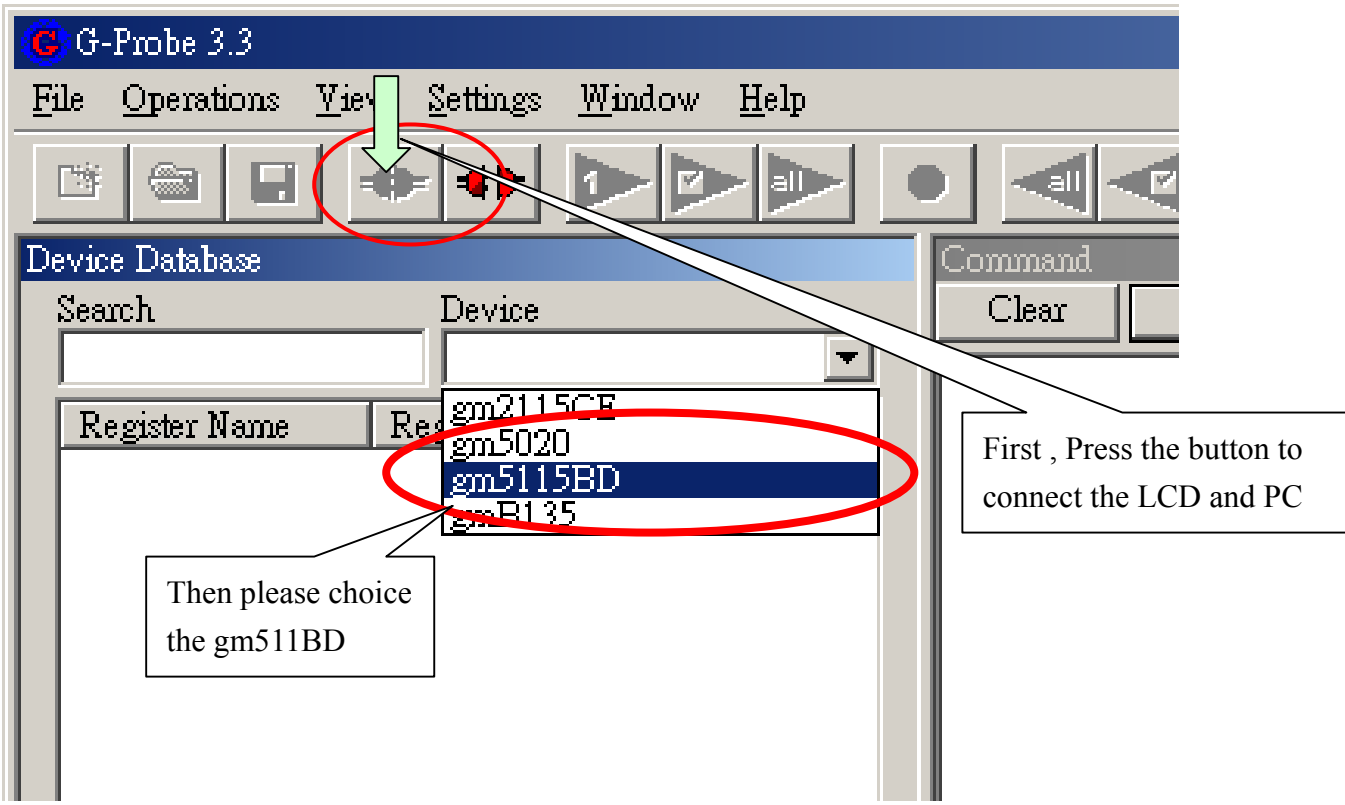
5.3.6 Set the COM Port



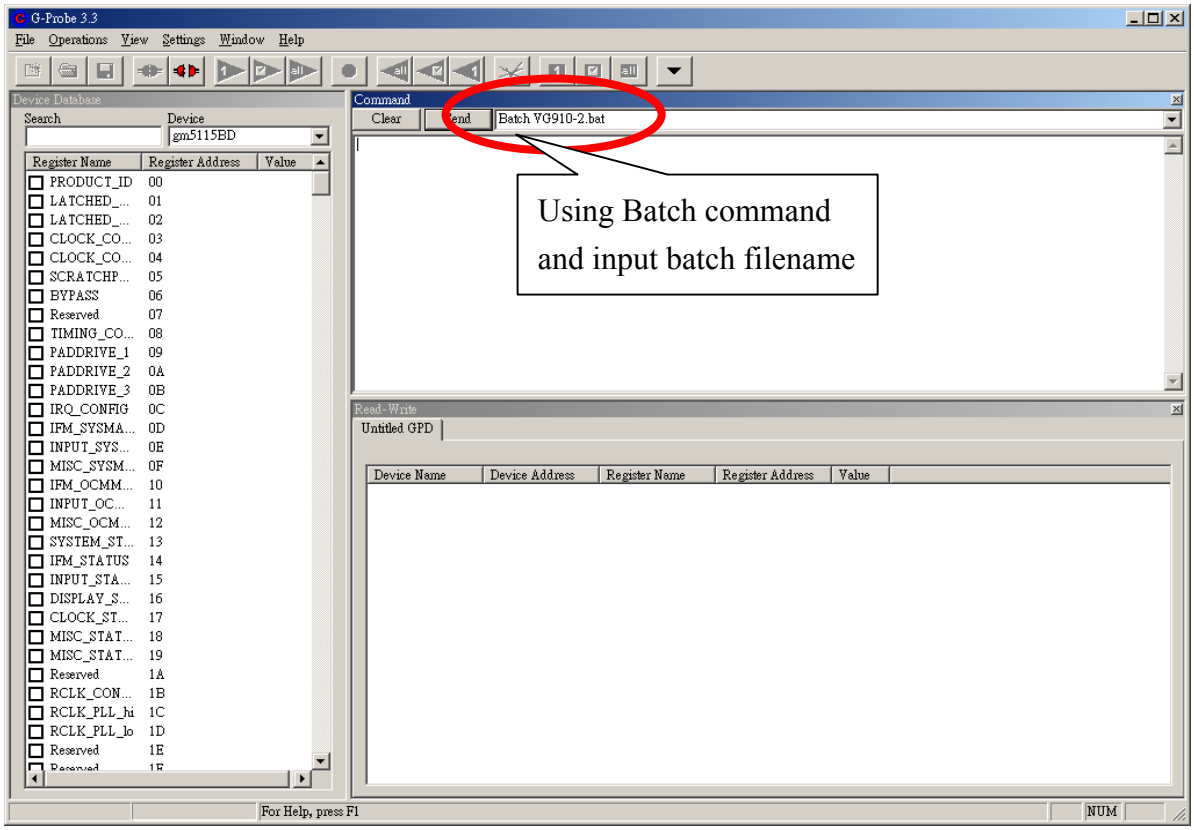
5.3.7 Parameter of COM Port (For Example : COM1)



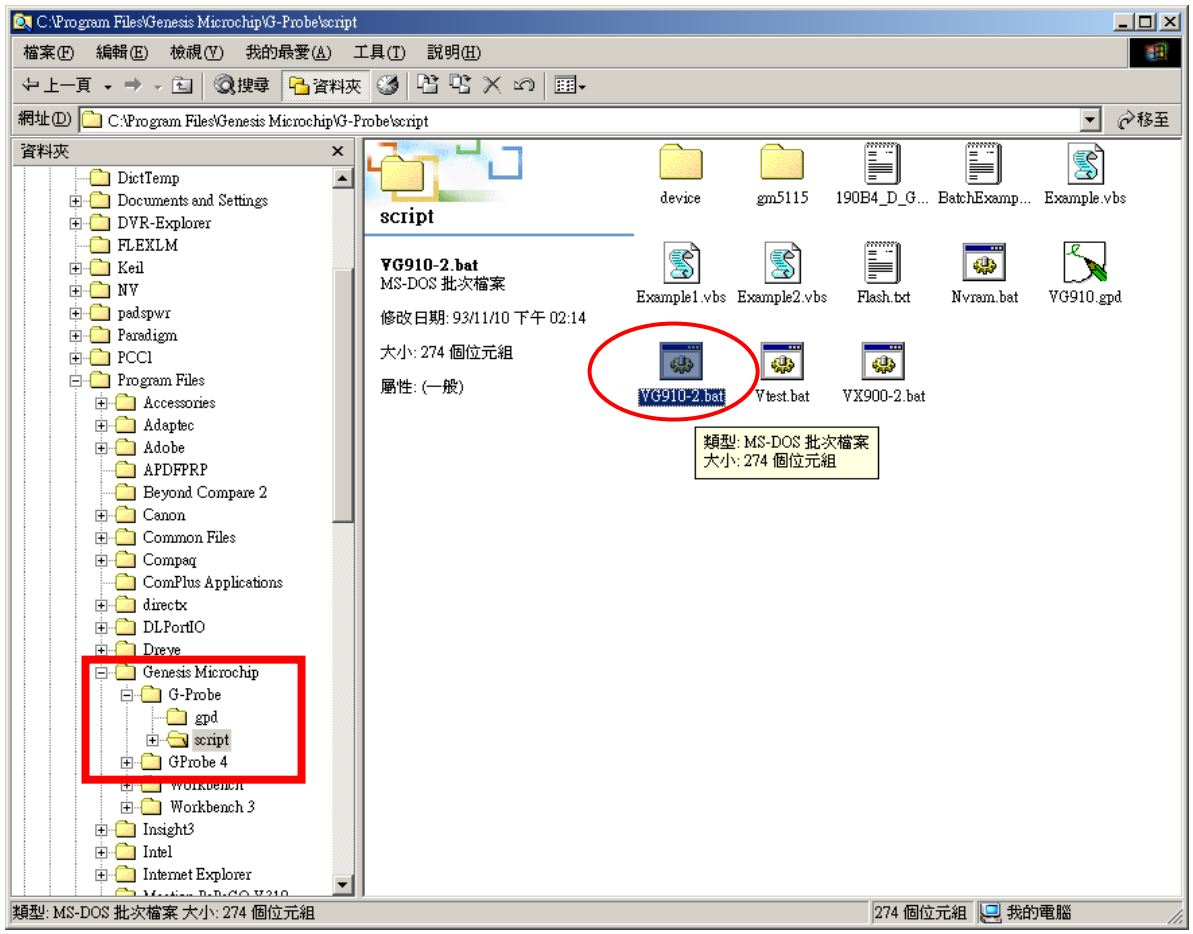
5.3.8 Connect the LCD and PC



5.3.9 The screen appear as below after connect LCD and PC

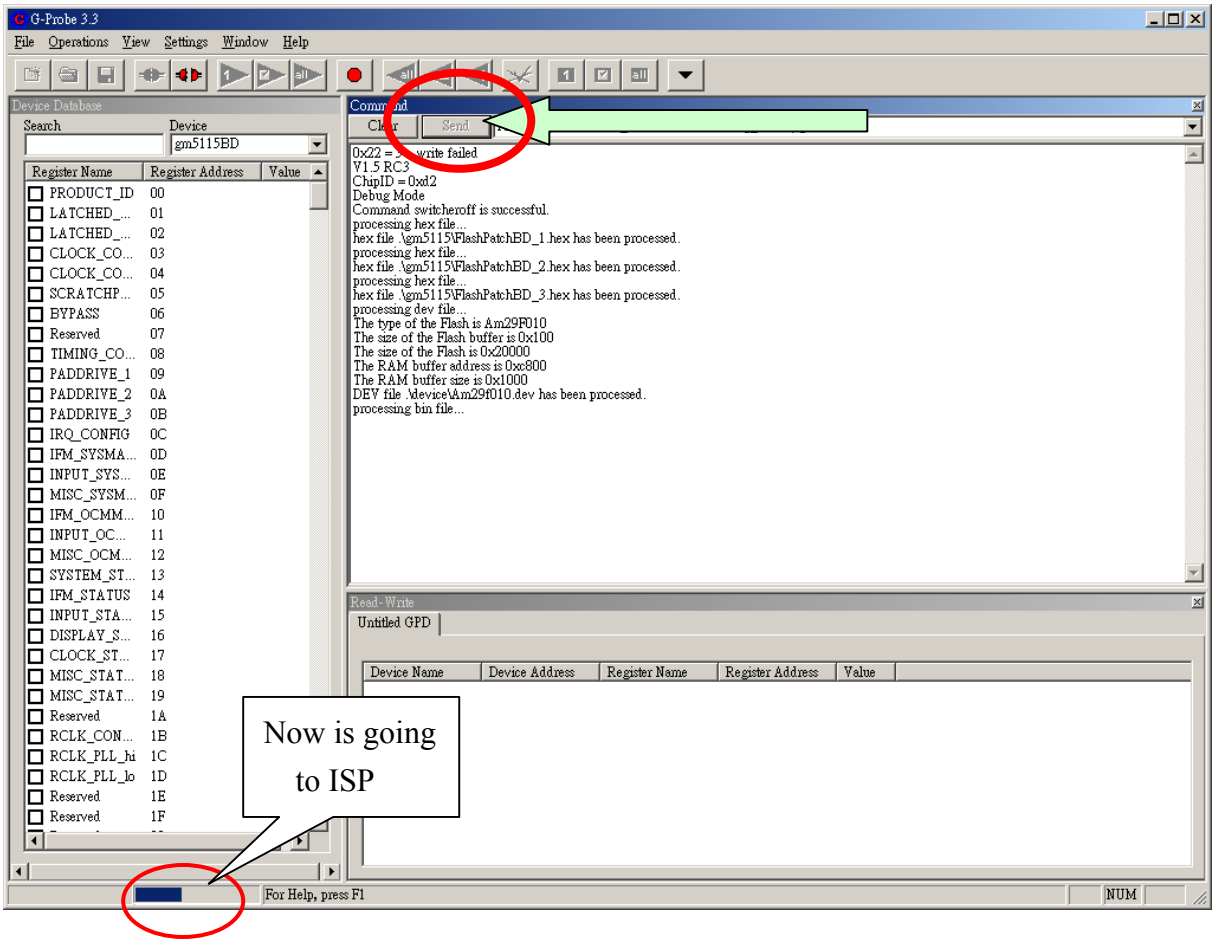


5.3.9.1 The batch file must be located in C:\Program Files\Genesis Microchip\G-Probe\script



5.3.9.2 The content of batch file is listed as below

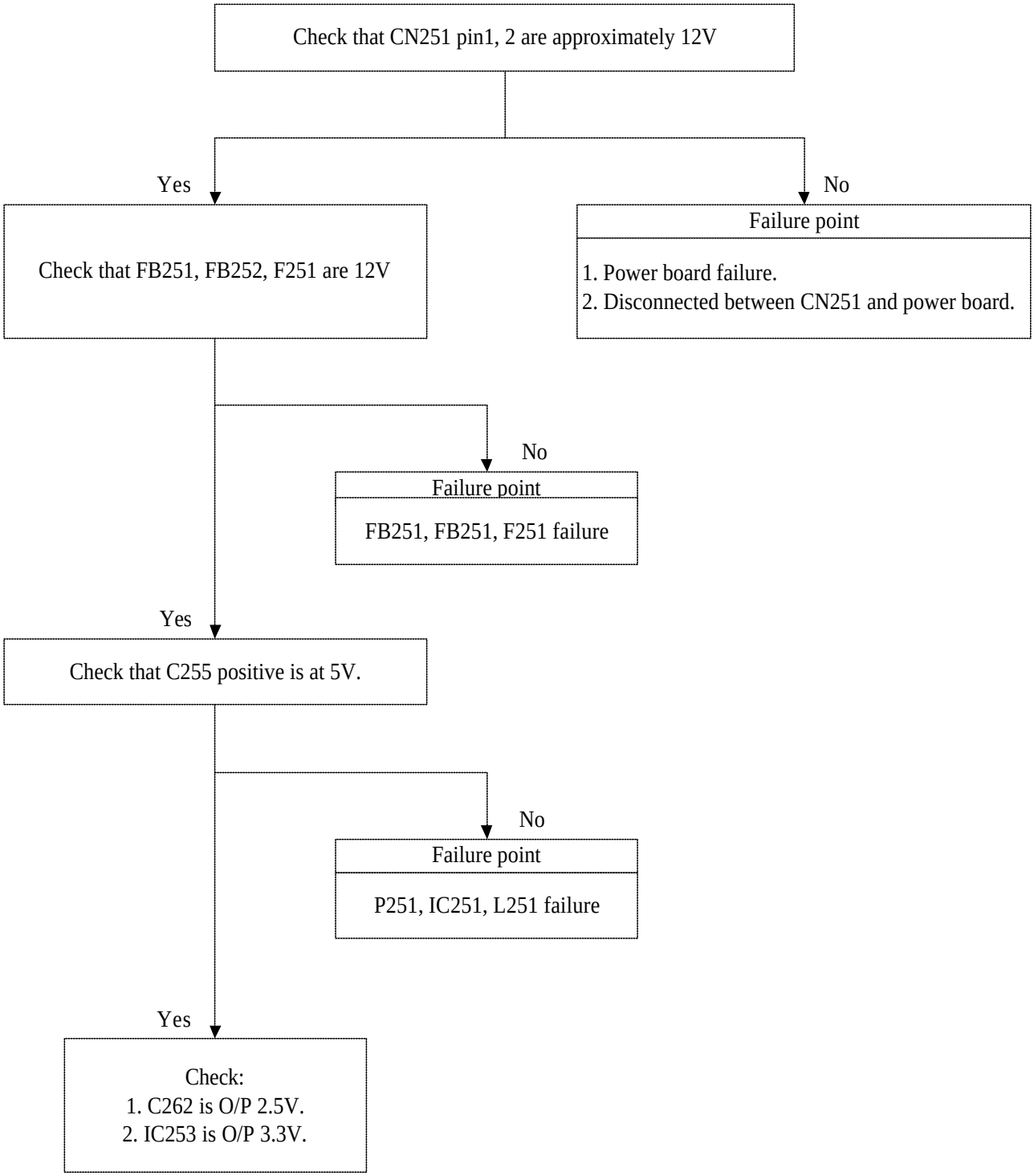
5.3.10 Press the【SEND】button to ISP



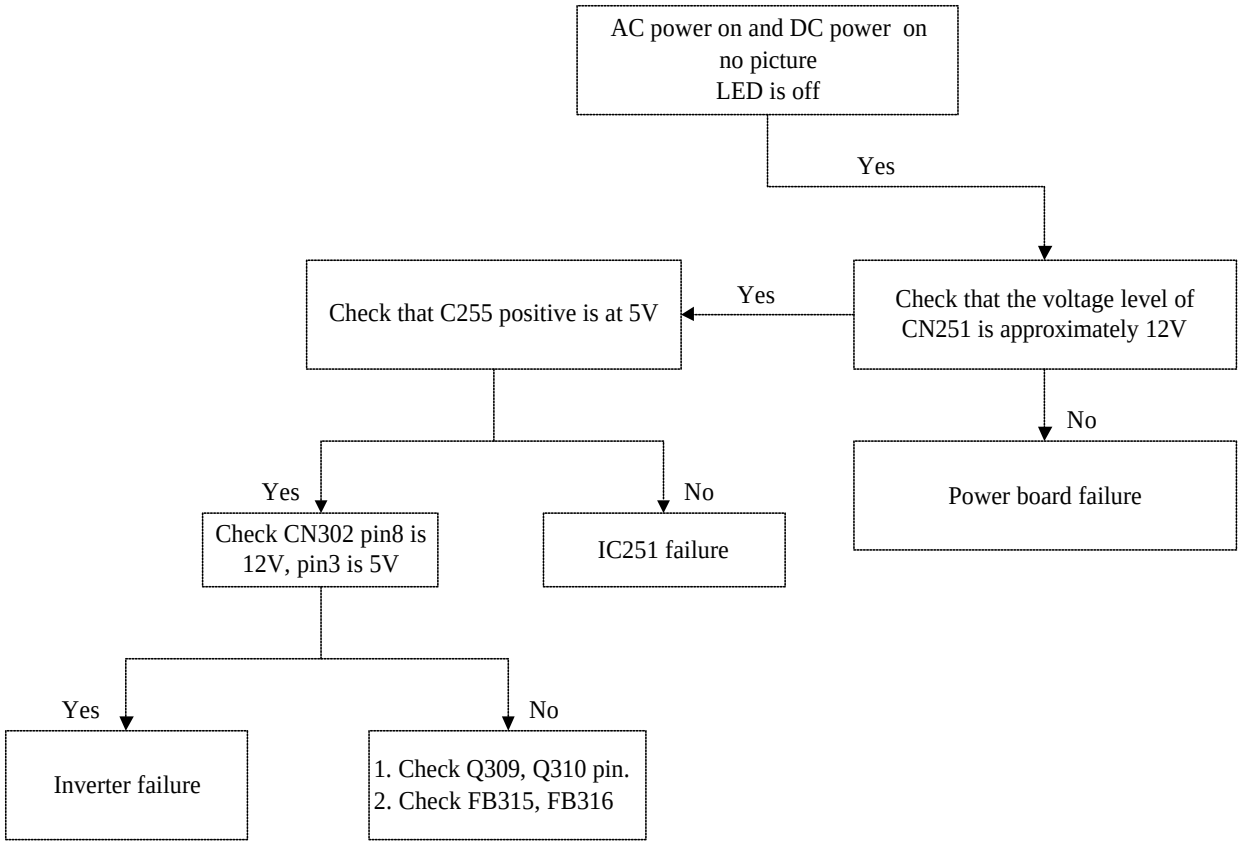
5.3.11 Must turn AC power OFF after ISP finished

6. Trouble Shooting Flow Chart

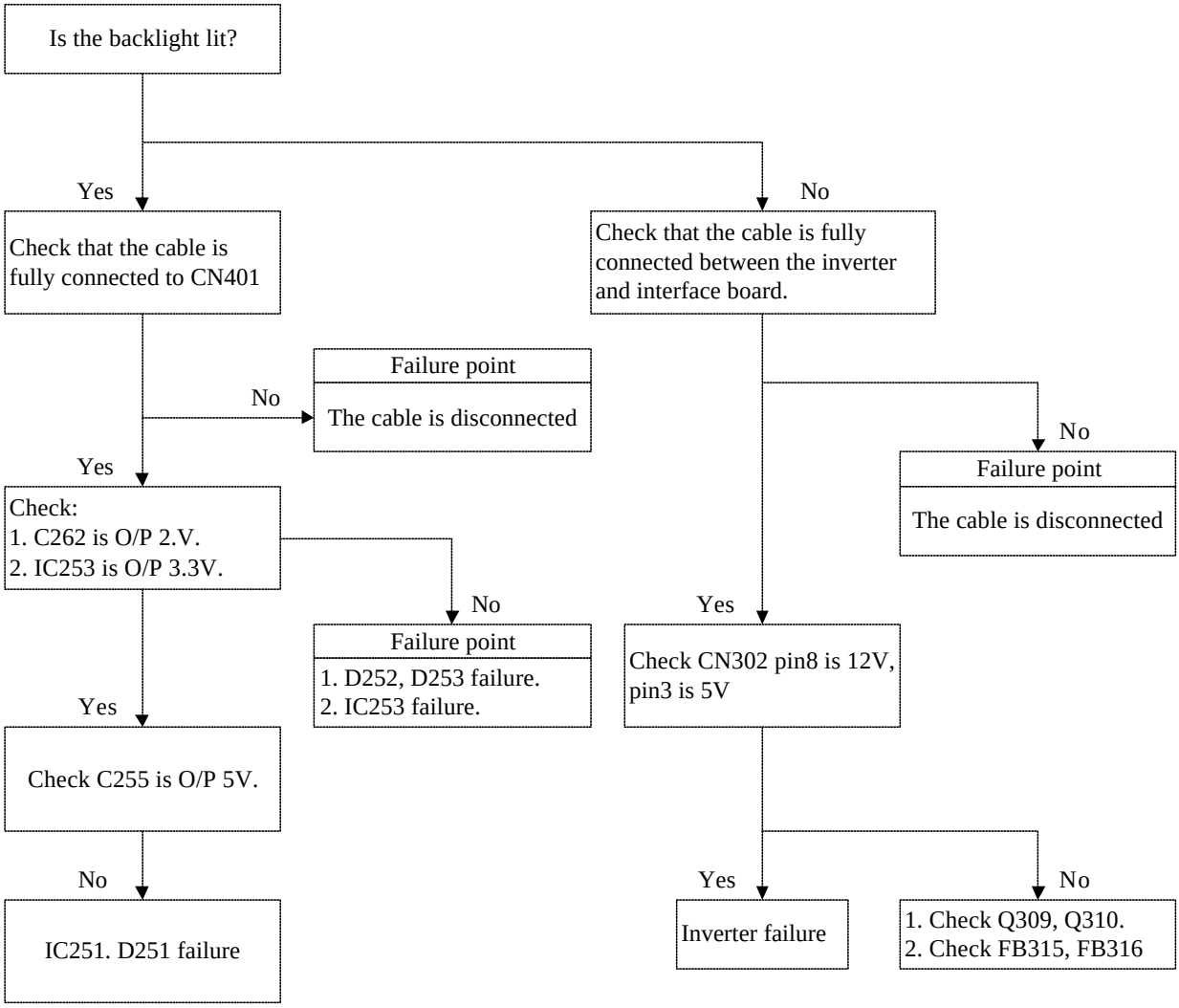
6.1 No power.



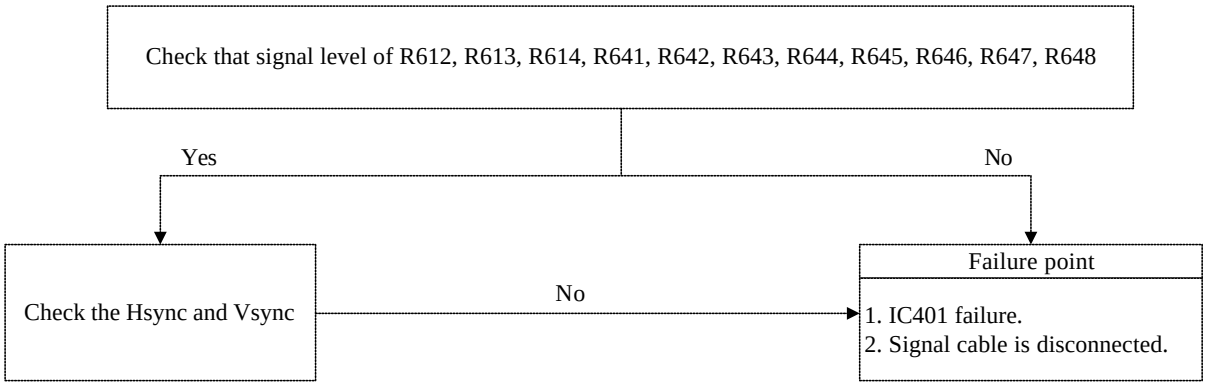
6.2 No display on screen (Screen is black, LED is off).



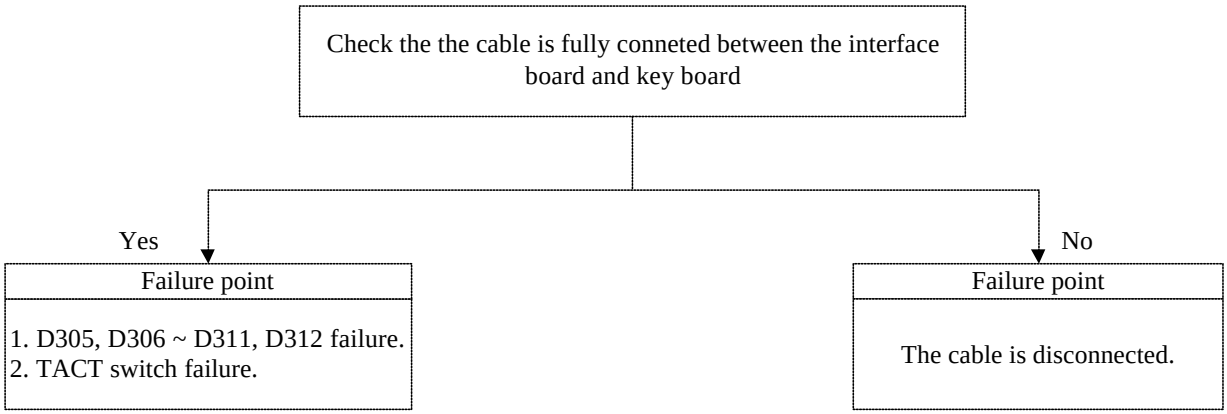
6.3 No display on screen (LED is green).



6.4 Show “No signal” on screen.



6.5 Keypad cannot work.



7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VA915-1)

ViewSonic Model Number: VLCDS27944-3

Rev: 1a

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
14	**Accessories:**	AC POWER CORD 3P 3G*0.75MM^2 L1800 BLK G		A-PC-0106-0193	3070000501			1
5		PWB ASSY FUNCTION KEY BD L19BMR 05AAB		B-KB-0207-0046	5600110180			1
6		PWB ASSY I/F BD L19JMR 05AAC		B-00002777	5600110451			1
7		PWB ASSY INVERTER BD L19BMR 05HAB		B-00001075	5600110319			1
8		PWB ASSY POWER BD L19BMR 05AAB		B-PS-0204-0059	5600110175			1
9	**Cabinets:**	CABINET ASSY L19BMR05DAB S9LRC1LS		C-00001067	3368222900			1
39		F/B ASSY L19JMR05AAC S9LFC1LS		C-00002778	3368323400			1
65		R/C ASSY L19BMR05BAB S9LRC1LS		C-00001076	3368216702			1
66		STAND ASSY L18FMR05AAB S8LBA1AT SERVICE		C-00001077	3368991902			1
10	**Cables:**	CABLE AUDIO L=1800 BLK PC99		A-AU-0120-0033	3080005100			1
11		CABLE D-SUB/D-SUB L1800 BLK CORE		A-VC-0101-0359	3080426401			1
12		CABLE DVI-D/DVI-D SINGLE LINK BLK L=1800		A-VC-0101-0316	3080412401			1
13		CABLE FFC 30P P1.0 L140 T2		CB-00002487	3080521600			1
15		WIRE WITH HOUSING 1007 #28 L130 7P		CB-00001070	3670703500			1
16		WIRE WITH HOUSING 20276 #30 L415 12P		CB-00002488	3679045601			1
17		WIRE WITH HOUSING 2547 #28 L500 4P		CB-00002489	3674032200			1
18	**Documentation:**	CARD NOTICE L19BMR 05BAB V00 VSC		DC-00001458	5012047000			1
19		CD-ROM VSC A-CD-VA915		DC-00002779	3532103200			1
20		LABEL BAR CODE 124*82		M-LB-0813-0978	3200787200			1
21		LABEL HV WARNING 100*25		M-LB-0813-0714	3202310700			1
1		LABEL ID 160*43 VSC VA915 L19JMR05AAC		DC-00002558	3202802900			1
2		LABEL SERIES PANEL 42*11 T0.05		M-LB-0813-0900	3202011000			1
3		LABEL STICKER OD10 WHT HI-POT		M-LB-0813-0785	3200158900			1
22		LABEL WARING		M-LB-0813-0712	3200449700			0
23		LABEL WARNING 81.7*81.7 VSC		DC-00000424	3202334500			1
24		MANUAL PACKING ASSY VSC VA915		DC-00002560	3532103600			1
25	**Electronic**	AC SOCKET ASSY VG810S		M-MS-0808-9135	3610171802			1
4	**Components:**	LCD 19" TFT LVDS		E-00001833	5051901601			
26		SPEAKER ASSY L18FMR05AAB		E-SK-0412-0086	3790182900			2
27	**Hardware:**	BRACKET D-SUB SECC 266*30 T.8		HW-00001072	3460191500			1
28		BRACKET PANEL SECC 406.3*332.3*19.8 T.8		M-BK-0805-0050	3460165401			1
29		BRACKET SHIELD CAN INV SECC 220.6*66.8*2		M-MS-0808-9144	3460165500			1
30		HSK AL T=1.5 21*9		M-MS-0808-7754	3343705302			1
31		SCREW M #4-40*7 HEXH #4-40*3 S18C NI		M-SCW-0824-0690	3105051501			4
32		SCREW M M3*0.5*4 FF C S18C ZN		M-SCW-0824-0777	3105225300			11
33		SCREW M M3*0.5*6 PAN C S+P S20C ZN		M-SCW-0824-0410	3100300600			10
34		SCREW M M4*0.7*6 FF C S18C ZN BLK NYLCOK		M-SCW-0824-6793	3105125300			2
35		SCREW M M4*0.7*8 PAN C S S18C ZN YEL		M-SCW-0824-0734	3102710800			1
36		SCREW M M4*0.7*9 PAN C S+P S10C ZN YEL		HW-00001080	3102310900			6
37		SCREW T M3*0.5*6 BIND C S18C ZN YEL		M-SCW-0824-0413	3109011400			2
38		SCREW T M3*2.7*7.5 FF C S18C ZN YEL		M-SCW-0824-0779	3109017700			5
40		SCREW T M4*1.6*8 FPH C S18C ZN YEL		M-SCW-0824-6795	3109023700			4
41		SCREW T f 3*0.5*8 BIND C S18C ZN		M-SCW-0824-0007	3109010100			1
42		SHIELD CAN IF SECC 277.7*156.42 T.3		HW-00001073	3461252300			1
43		WASHER SPRING SWRT		M-MS-0808-8040	3110250000			4
44	**Miscellaneous:**	CONDUCTIVE SPONGE 24*9*6.5		M-00002780	3472861400			1
45		CONDUCTIVE SPONGE 6*6*2		M-00002781	3472865500			1
46		CONDUCTIVE SPONGE 80*6*3		M-MS-0808-8657	3472852100			1
47		GASKET PU L55 W5.5 H10		M-00001084	3472850800			2
51		GASKET PU L70 W8.5 H10		M-00001083	3472850700			2
52		HANDLE PE 162*40.5 T1.5 BOTTOM NO501		M-MS-0808-2660	3470903500			1
53		HANDLE PE 209*18 T1.8 TOP NO501		M-MS-0808-2662	3470903600			1
54		INSULATOR PC T.4 204*40 VG910		M-MS-0808-9142	3241132900			1
57		NAME PLATE AL VIEWSONIC L38 T1.2		M-MS-0808-9127	3200655500			1
58		NAME PLATE VSC 3-BIRD LOGO AL 14.5*10.0		M-MS-0808-9126	3200655300			1
55		SPONGE EVA 126*46.5 T.5 BLK		M-00001082	3240161900			1
56		SPONGE EVA 85*20 T2		M-00001081	3240161800			2
59	**Packing Material:**	CARTON 556*252*522 VA915 L19JMR05AAC		P-00002557	3515101400			1
60		DRYER 15G 80*60		M-MS-0808-7820	3520130500			2
61		END BLOCK-BOTTOM L19BMR05AAB 704/40'		P-FM-0602-0852	3500117102			1
62		END BLOCK-TOP L19BMR05AAB 704/40'		P-FM-0602-0851	3500117002			1
63		PE BAG 300*200*0.06T		M-MS-0808-8762	3500937501			1
64		PE BAG 640*580*.06T CLEAR		M-MS-0808-9132	3500932402			1
48	**Plastics:**	RUBBER PAD 25*10*3 BLACK STICK		PL-00001085	3240933200			6
49		RUBBER PAD 25*10*4 BLACK STICK		M-MS-0808-8095	3240930400			2
50		RUBBER PAD L50 W10 T2 GRAY		PL-00002490	3240993000			1

BOM LIST (VA915-1)

ViewSonic Model Number: VLCDS27944-3

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	A-PC-0106-0193	3070000501	AC POWER CORD 3P 3G*0.75MM^2 L1800 BLK G			1
2	A-AU-0120-0033	3080005100	CABLE SIGNAL AUDIO AUDIO L1800 BLK			1
3	A-VC-0101-0359	3080426401	CABLE D-SUB/D-SUB L1800 BLK CORE			1
4	CB-00002487	3080521600	CABLE FFC 30P P1.0 L140 T2			1
5	M-SCW-0824-0410	3100300600	SCREW M M3*0.5*6 PAN C S+P S20C ZN			10
6	HW-00001080	3102310900	SCREW M M4*0.7*9 PAN C S+P S10C ZN YEL			6
7	M-SCW-0824-0734	3102710800	SCREW M M4*0.7*8 PAN C S S18C ZN YEL			1
8	M-SCW-0824-0690	3105051501	SCREW M #4-40*7 HEXH #4-40*3 S18C NI			4
9	M-SCW-0824-6793	3105125300	SCREW M M4*0.7*6 FF C S18C ZN BLK NL			2
10	M-SCW-0824-0777	3105225300	SCREW M M3*0.5*4 FF C S18C ZN			11
11	M-SCW-0824-0007	3109010100	SCREW T f 3*0.5*8 BIND C S20C ZN YEL			1
12	M-SCW-0824-0413	3109011400	SCREW T M3*0.5*6 BIND C S18C ZN YEL			2
13	M-SCW-0824-0779	3109017700	SCREW T f 3*2.7*7.5 FF C S18C ZN YEL			5
14	M-SCW-0824-6795	3109023700	SCREW T f 4*1.27*8 FPH C P S18C ZN YEL			4
15	M-MS-0808-8040	3110250000	WASHER SPRING SWRT			4
16	M-LB-0813-0785	3200158900	LABEL STICKER OD10 WHT HI-POT			1
17	M-LB-0813-0712	3200449700	LABEL WARING			0
18	M-MS-0808-9126	3200655300	NAME PLATE VSC 3-BIRD LOGO AL 14.5*10.0			1
19	M-MS-0808-9127	3200655500	NAME PLATE AL VIEWSONIC L38 T1.2			1
20	M-LB-0813-0978	3200787200	LABEL BAR CODE 124*82			1
21	M-LB-0813-0759	3200930800	LABEL VER. CONTROL 20*20 VIEWSONIC			0.167
22	M-LB-0813-0900	3202011000	LABEL SERIES PANEL 42*11 T0.05			1
23	M-LB-0813-0714	3202310700	LABEL HV WARNING 100*25			1
24	DC-00000424	3202334500	LABEL WARNING 81.7*81.7 VSC			1
25	DC-00002558	3202802900	LABEL ID 160*43 VSC VA915 L19JMR05AAC			1
26	M-MS-0808-8303	3211024500	MYLAR 435*350 T.1			0
27	M-MS-0808-7507	3220136000	TAPE W=29 #1350F-1 3M			3.005
28	M-MS-0808-0724	3220161733	TAPE 20MM #3800A BLUE			0.09
29	M-00001899	3220601000	TAPE PAPER 28MM 1L CM34 NAT			0.1
30	M-MS-0808-7810	3220605633	TAPE 45MM 1L #7290 WHITE			0.128
31	M-MS-0808-0918	3221903300	TAPE PE 50MM 1L YELLOW			0.88
32	M-MS-0808-1679	3222201300	TAPE AL 20MM #80023 SILVER			0.57
33	M-00001850	3222201510	TAPE AL 50MM AL-35-FR WHITE			0.11
34	M-00001081	3240161800	SPONGE EVA 85*20 T2			2
35	M-00001082	3240161900	SPONGE EVA 126*46.5 T.5 BLK			1
36	M-MS-0808-8095	3240930400	RUBBER PAD 25*10*4 BLACK STICK			2
37	PL-00001085	3240933200	RUBBER PAD 25*10*3 BLACK STICK			6
38	PL-00002490	3240993000	PAD RUBBER L50 W10 T2 GRAY			1
39	M-MS-0808-9142	3241132900	INSULATOR PC 94V0 L40 W204 T0.4 BLK			1
40	M-MS-0808-7754	3343705302	HSK PLATE AL1100F 21*9 T1.5			1
41	C-00001076	3368216702	R/C ASSY L19BMR 05BAB S9LRC1LS			1
42	M-MS-0808-7739	3200648800	NAME PLATE ABS 94HB VIEWSONIC 82.83*34.9			1
43	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180			11
44	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150			0
45	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707			0
46	C-00001003	3360249102	R/C ABS SILVER S9LRC1LS			1
47	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180			550
48	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150			0
49	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707			0
50	C-00001067	3368222900	CABINET ASSY L19BMR 05DAB S9LRC1LS			1
51	M-SCW-0824-0779	3109017700	SCREW T f 3*2.7*7.5 FF C S18C ZN YEL			4
52	M-MS-0808-8608	3240956400	RUBBER HOLD PLUG OD4.9 H3.2 BLK			4
53	C-00001101	3360254700	CABINET BACK ABS S9LRC1LS			1
54	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180			6050
55	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150			0
56	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707			0
57	M-MS-0808-8561	3460146100	BRACKET VESA SECC 110*20 T1			1
58	M-MS-0808-8563	3460146300	BRACKET KEYLOCK SECC 20.4*16.45*4.9 T.6			1
59	M-BK-0805-0049	3460165301	BRACKET HINGE SECC 228*60*16 T.8			1
60	C-00002778	3368323400	F/B ASSY L19JMR05AAC S9LFC1LS			1
61	PL-00002496	3360508100	LED LENS PC S8LFC3LS			1
62	#N/A	4020375917	PLASTIC PC 94HB LIMPID 121R			0.125
63	PL-00002491	3360732803	FUNCTION KEY ABS CR S8LFC1LS			1
64	#N/A	4020374614	PLASTIC ABS 94HB NAT PA-727			1
65	C-00002559	3361504200	F/B ABS SILVER VA915 S9LFC1LS			1
66	#N/A	4020372907	PLASTIC ABS 94HB 5140 D-180			1400
67	#N/A	4020372908	PLASTIC ABS 94HB 5140 HF-380			0
68	#N/A	4020372909	PLASTIC ABS 94HB 5140 SD-0150			0
69	#N/A	4020372914	PLASTIC ABS 94HB 5140 PA-757			0
70	C-00001077	3368991902	STAND ASSY L18FMR 05AAB S8LBA1AT SERVICE			1
71	M-SCW-0814-0692	3105124000	SCREW M M4*0.7*6 FLAT C S18C NI			6
72	M-SCW-0824-6793	3105125300	SCREW M M4*0.7*6 FF C S18C ZN BLK NL			7
73	M-SCW-0824-0413	3109011400	SCREW T M3*0.5*6 BIND C S18C ZN YEL			1
74	M-SCW-0824-0620	3109020500	SCREW T f 4*3.2*10 FLAT C S20C ZN YEL			4
75	PL-PD-0714-0067	3240956800	RUBBER FOOT 81*13*3T BLK			2

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
76	M-MS-0808-8157	3240957400	SPONGE EVA 100*7 T1 BLACK			1
77	PL-PD-0714-0068	3240957500	RUBBER FOOT 75*10 T3			2
78	M-MS-0808-9137	3240977700	PAD RUBBER OD11.4 ID6.50 H7.36 BLK			1
79	M-CV-0830-2305	3360916301	ARM FRONT ABS S7LBA1AT			1
80	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180			65
81	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150			0
82	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707			0
83	M-CV-0830-2509	3360919201	ARM REAR ABS S8LBA2LS			1
84	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180			85
85	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150			0
86	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707			0
87	M-CV-0830-2394	3361205900	COVER ABS S8LFA1AT			1
88	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180			121
89	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150			0
90	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707			0
91	M-MS-0808-8612	3461750602	HINGE SUB ASSY R L19EMW05BAW			0
92	M-MS-0808-8613	3461750702	HINGE SUB ASSY L L19EMW05BAW			0
93	M-MS-0808-9130	3461752700	HINGE-R SUS304 62*20 T2			0
94	M-MS-0808-9131	3461752800	HINGE-L SUS304 62*20 T2			0
95	M-BK-0805-0043	3461753201	BRACKET ARM SECC 156*126.1*153.6 T2			1
96	M-BK-0805-0044	3461753301	BRACKET BASE SECC 266.6*161.4 T2			1
97	HW-00002495	3461754800	HINGE SUS L65 W45.6 T2			1
98	HW-00002494	3461754900	HINGE SUS L65 W45.6 T2			1
99	M-BK-0805-0050	3460165401	BRACKET SECC L406.3 W353.3 H25.3 T0.8			1
100	M-MS-0808-9144	3460165500	BRACKET SECC L222.6 W66.8 H25 T0.6			1
101	HW-00001072	3460191501	BRACKET D-SUB SECC 266*30 T.8			1
102	HW-00001073	3461252300	SHIELD CAN IF SECC 277.7*156.42 T.3			1
103	M-MS-0808-2660	3470903500	HANDLE PE L162 W36 H17.5 T2			1
104	M-MS-0808-2662	3470903600	HANDLE PE L162 W36 H17.5 T2			1
105	M-00001083	3472850700	GASKET PU L70 W8.5 H10			2
106	M-00001084	3472850800	GASKET PU L55 W5.5 H10			2
107	M-MS-0808-8657	3472852100	CONDUCTIVE SPONGE 80*6*3			1
108	M-00002780	3472861400	CONDUCTIVE SPONGE 24*9*6.5			1
109	M-00002781	3472865500	CONDUCTIVE SPONGE 6*6*2			1
110	P-FM-0602-0851	3500117002	END BLOCK-TOP L19BMR05AAB 704/40'			1
111	P-FM-0602-0852	3500117102	END BLOCK-BOTTOM L19BMR05AAB 704/40'			1
112	M-MS-0808-9132	3500932402	PE BAG 640*580*.06T CLEAR			1
113	M-MS-0808-8762	3500937501	PE BAG 300*200*0.06T			1
114	#N/A	3510441600	TRAY 1166*1076*142H(INSIDE) VX900			0
115	M-LCD-0826-0127	3510552100	TUBE 1156*1066*1050(H) LCD 19"			0
116	M-MS-0808-9133	3510878400	CAP PAPER 1140*1050*120			0.032
117	M-MS-0808-9134	3511208400	ANGLE PAPER 2190*55*55 T5			0.125
118	P-00002557	3515101400	CARTON 556*252*522 VA915 L19JMR05AAC			1
119	#N/A	3520026001	PALLET FUMIGATE 1070*1140*120			0.032
120	M-MS-0808-5135	3520082400	PE FILM t=0.02mm W=500			0.04
121	M-MS-0808-7820	3520130500	DRYER 15G 80*60			2
122	PL-SP-0723-0002	3520142700	PLASTIC STRIP W=12 T.5 BLACK			1
123	DC-00002779	3532103200	CD-ROM VSC A-CD-VA915			1
124	DC-00002560	3532103600	MANUAL PACKING ASSY VSC VA915			1
125	M-MS-0808-8396	3520094201	PE BAG 260*155*0.1T			1
126	#N/A	5010024200	MANUAL QUICK START GUIDE VSC VA915			1
127	M-MS-0808-9135	3610171802	AC SOCKET ASSY VG810S			1
128	CB-00001070	3670703500	WIRE WITH HOUSING 1007 #28 L130 7P			1
129	CB-00002489	3674032200	WIRE WITH HOUSING 2547 #28 L500 4P			1
130	CB-00002488	3679045601	WIRE WITH HOUSING 20276 #30 L415 12P			1
131	E-SK-0412-0086	3790182900	SPEAKER ASSY L18FMR05AAB			2
132	DC-00001458	5012047000	CARD NOTICE L19BMR 05BAB V00 VSC			1
133	E-00001833	5051901601	LCD 19" TFT LVDS			1
134	B-PS-0204-0059	5600110175	PWB ASSY POWER BD L19BMR 05AAB			1
135	E-R-0405-5763	0023100000	RES CF 1/2W 10 J	R112		1
136	#N/A	0133104000	RES MOF 1W 100K J FR	R101		1
137	#N/A	0143399000	RES MOF 2W 390M J FR	R103		1
138	E-R-0405-6645	0190204200	RES MF FUSIBLE 1/2W 100M J	R108		1
139	E-R-0405-7124	0313000000	RES SMD 1/4W 0 J 1206	J2,R109,R219		3
140	#N/A	0313101000	RES SMD 1/4W 100 J 1206	R116,R201,R202		3
141	#N/A	0313125000	RES SMD 1/4W 1.2M J 1206	R111,R113		2
142	#N/A	0313330000	RES SMD 1/4W 33 J 1206	R115		1
143	#N/A	0313471000	RES SMD 1/4W 470 J 1206	R205		1
144	#N/A	0313514000	RES SMD 1/4W 510K J 1206	R104,R105,R106,R107		4
145	#N/A	0341109100	RES SMD 1/8W 1.96K F 0805	R215		1
146	#N/A	0341185100	RES SMD 1/8W 7.5K F 0805	R209		1
147	#N/A	0343303100	RES SMD 1/8W 30K J 0805	R114		1
148	#N/A	0855340721	FUSE T C 4A 250V PIG	F101		1
149	#N/A	0910500311	RES NTC 5 L 4A 2933K +/-7%	NTC101		1
150	#N/A	0923210045	VARISTOR 320VAC 70J 2.5KA	VA102		1
151	#N/A	1101030027	CAP Y2/X1 CD 250VAC 100PF K B V7.5	CY101,CY102		2
152	#N/A	1101346000	CAP Y1/X1 CD 250VAC 2.2NF M E V10	CY103		1
153	#N/A	140121021303	CAP AL LD 16V 1MF M 12.5*15 P5	C209,C210		2

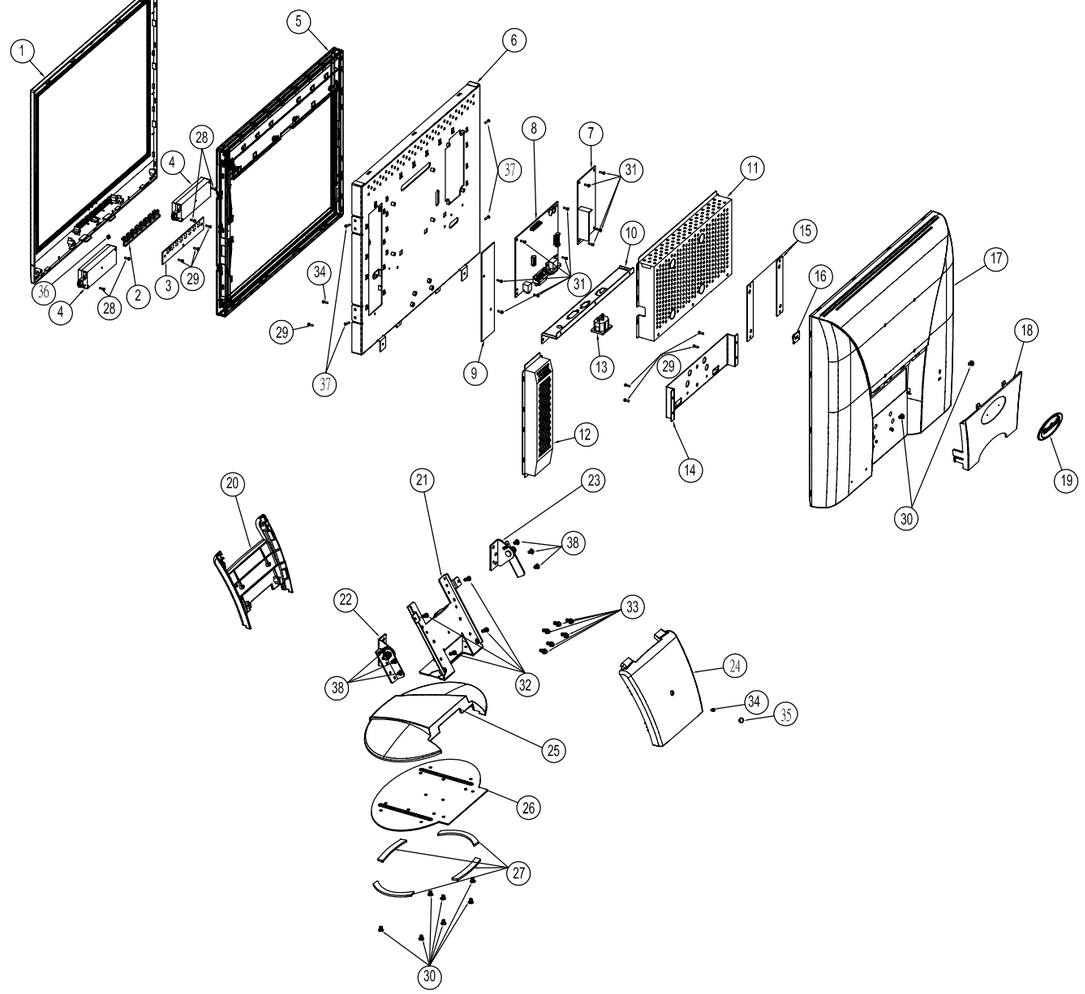
Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
154	E-C-0404-3851	144164781400	CAP AL 50V 4.7UF M 5*11 TP P5	C105		1
155	#N/A	145401010433	CAP AL 400V 100U M 18*25	C101		1
156	E-C-0404-4497	1517658100	CAP MC SMD 50V 100NF Z Y5V 0805	C106,C214,C217		3
157	#N/A	1532445100	CAP MC SMD 200V 1NF K X7R 0805	C212		1
158	E-C-0404-4920	1604314224	CAP X2 MP PC 275VAC 330NF K P15.0	CX101		1
159	#N/A	200101110023	DIO BRD 2A 600V KBPM-4P	CR101		1
160	E-D-0403-2025	201330630007	EOL DIO FRD 1A 1000V SOD57 75NS	D102		1
161	#N/A	202003660005	DIO SBD 20A 100V TO-220-3P C.C.	D201		1
162	#N/A	203349610231	DIO TVS 1.5KW 143-158V DO-201AE	D101		1
163	#N/A	203812760036	DIO ZEN 0.5W 26.26-24.97V LLDS-2P BD SMD	D104		1
164	E-D-0403-1937	204322000207	DIO SW 0.25A 250V SOD-27-2P	D103		1
165	#N/A	2310040207	PHOTO TR 60A 70V PDIP-4P 160-320% 10.16M	IC102		1
166	#N/A	242017800208	FET 700V 7.5A 1.2OHM TO-220FP-3P	Q101		1
167	#N/A	2500004210	IC VOL ADJ 37V 2.5V 1% T92	IC201		1
168	#N/A	251039702B	IC PWM GREEN MODE SO-8PIN	IC101		1
169	#N/A	2811100080	TRANSFORMER SMT 480UH J	T101		1
170	#N/A	2817131480	INDUCTOR CR 600UH MIN 4P	FL101		1
171	#N/A	2834000300	RING CORE COATING			2
172	#N/A	2817219380	LINE FILTER 4MH MIN	FL102		1
173	#N/A	2970040002	PWB S 0 E1 CEM-1 125*60*1.6			1
174	M-MS-0808-9140	3070168334	HEADER NYLON66 94V-0 3P P3.96			1
175	M-SCW-0824-0778	3105229400	SCREW M M3*0.5*10 FF C S18C ZN			2
176	M-MS-0808-9125	3110110900	NUT M3*0.5 AISI1018			2
177	M-MS-0808-8202	3220133600	TAPE POLYESTER 10MM 1L #1350F-1 YEL			0.15
178	#N/A	3227005700	TUBE HS PVC 6*0.15 CLEAR			1
179	M-MS-0808-9128	3240216601	INSULATOR PP 94V0 L129.00 W60.86 H26.86			1
180	#N/A	3341732501	HSK PLATE AL1100F 55*43*21 T2.0 PICKLING			1
181	#N/A	3341732602	HSK PLATE AL1100F 64*41.3*21 T2.0 PICKLI			1
182	CB-00001830	3411000500	JUMP WIRE COPPER 0.6*12.5*4.0	J1		1
183	PL-CL-0710-0034	3421095601	CLIP SUS L14 W8.5 H6 T0.4			1
184	M-WR-0828-6622	3670479500	WIRE WITH HOUSING			1
185	B-KB-0207-0046	5600110180	PWB ASSY FUNCTION KEY BD L19BMR 05AAB			1
186	M-MS-0808-8179	2301462531	LED HI-RED/GRN 3*4*2MM C.C. RECT	D901		1
187	#N/A	2970039902	PWB S 0 E1 FR-1 140*24.3*1.6			1
188	M-MS-0808-9376	3000906616	SWITCH TACT 5P SPST			8
189	#N/A	3071297834	HEADER NYLON66 94V-0 12P P2.0			1
190	M-WR-0828-0224	3411000300	JUMP WIRE COPPER 0.6*7.5*4.0			8
191	#N/A	3642321800	WIRE WITH TERMINAL 1015 #18 BLK L120			2
192	B-00001075	5600110319	PWB ASSY INVERTER BD L19BMR 05HAB			1
193	#N/A	0013123000	RES CF 1/4W 12K J	R06		1
194	#N/A	0023221000	RES CF 1/2W 220 J	R19		1
195	#N/A	0311434000	RES SMD 1/4W 140K F 1206	R08		1
196	E-R-0405-7124	0313000000	RES SMD 1/4W 0 J 1206	J1,J11,J12,J16,J2,J20,J24, J25,J3,J4,R32,R33,R34		13
197	#N/A	0313104000	RES SMD 1/4W 100K J 1206	R24		1
198	#N/A	0313154000	RES SMD 1/4W 150K J 1206	R02		1
199	#N/A	0313331000	RES SMD 1/4W 330 J 1206	R46		1
200	#N/A	0313333000	RES SMD 1/4W 33K J 1206	R09		1
201	#N/A	0341069100	RES SMD 1/8W 27K F 0805	R13		1
202	#N/A	0341512100	RES SMD 1/8W 432 F 0805	R39,R43		2
203	#N/A	0343000100	RES SMD 1/8W 0 J 0805	R35		1
204	#N/A	0343102100	RES SMD 1/8W 1K J 0805	R38,R42		2
205	#N/A	0343103100	RES SMD 1/8W 10K J 0805	R04,R07,R31,R47		4
206	#N/A	0343105100	RES SMD 1/8W 1M J 0805	R12,R25,R26		3
207	#N/A	0343333100	RES SMD 1/8W 33K J 0805	R17,R18,R44		3
208	#N/A	0343362100	RES SMD 1/8W 3.6K J 0805	R37,R41		2
209	#N/A	0343431100	RES SMD 1/8W 430 J 0805	R22,R30		2
210	#N/A	0343432100	RES SMD 1/8W 4.3K J 0805	R03		1
211	#N/A	0343512100	RES SMD 1/8W 5.1K J 0805	R05,R14,R15,R16		4
212	#N/A	0343563100	RES SMD 1/8W 56K J 0805	R10		1
213	#N/A	0343623100	RES SMD 1/8W 62K J 0805	R01		1
214	#N/A	0653305002	RES MGF HI-VOL 1/2W 3M J	R36,R40		2
215	#N/A	0653305022	RES MGF HI-VOL 1/2W 3M J	R36,R40		1
216	#N/A	0841110802	FUSE F/P 5A 125V UL CSA	F01		1
217	#N/A	1160410332	CAP CD 3KV 15P J SL KI7.5	C27,C30		2
218	#N/A	1165104012	CAP CD 3KV 5PF D SL P7.5	C34,C35		2
219	#N/A	144142212200	CAP AL 25V 220UF M 8*11.5 TP KI5	C02,C03		2
220	#N/A	1512452100	CAP MC SMD 50V 6.8NF K X7R 0805	C29		1
221	#N/A	1512453100	CAP MC SMD 50V 8.2NF K X7R 0805	C25,C33		2
222	E-C-0404-4496	1512454100	CAP MC SMD 50V 10NF K X7R 0805	C10		1
223	#N/A	1512458100	CAP MC SMD 50V 100NF K X7R 0805	C09,C13,C15,C16,C17, C18, C19,C20,C36,C37		10
224	#N/A	1512479100	CAP MC SMD 50V 1.5NF K X7R 0805	C11		1
225	#N/A	1518542100	CAP MC CP 50V 470P F C0G 0805	C14		1
226	#N/A	1542473100	CAP MC SMD 16V 330NF K X7R 0805	C07		1
227	#N/A	1542489200	CAP MC SMD 16V 4.7UF K X7R 1206	C21,C23		2

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
228	E-C-0405-4319	1547667100	CAP MC SMD 16V 1UF Z Y5V 0805	C01,C06,C08,C26		4
229	E-C-0404-4884	15A2467100	CAP MC SMD 10V 1UF K X7R 0805	C05		1
230	E-D-0403-2130	203812540831	DIO ZEN 0.5W 5.73-5.45V MINIMELF-2P SMD	D01,D02,D03,D04,D05		5
231	#N/A	203812570531	DIO ZEN 0.5W 8.45-8.03V MINIMELF-2P SMD	D11		1
232	E-D-0403-2049	204520700207	DIO SW 0.215A 85V SOT-23-3P SE. SMD	D06,D09,D10,D13,D15, D16, D17,D18		8
233	#N/A	204810750107	DIO SW 0.2A 75V SOD80C(MINIMELF)	D07,D08,D19		3
234	E-Q-0402-0906	210102500011	TR 50V 0.5A TO-92-3P 100-200	Q01		1
235	#N/A	210522000507	TR 40V 0.6A SOT-23-3P 80- SMD	Q06		1
236	#N/A	211522000407	TR -40V -0.6A SOT-23-3P 100- SMD	Q02		1
237	E-Q-0402-1554	242522500005	FET 60V 0.115A 7.5OHM LL SOT-23	Q03,Q04,Q05,Q07,Q08		5
238	#N/A	242601000263	FET 30V 6.9A 42MOHM LL SOIC-8P N+P SMD	IC02,IC03,IC04,IC05		4
239	#N/A	2510305654	IC PWM CCFL INVERTER CONTROL SOP-20P TP	IC01		1
240	#N/A	2811981680	TRANSFORMER IT 1.2H K	T01,T02		2
241	#N/A	2970040302	PWB S 0 E1 CEM-1 175*53*1.6			1
242	#N/A	3070335534	HEADER NY66 94V0 7P P2.0 BROWN	CN01		1
243	#N/A	3076290066	HEADER BOX NY46 94V0 2P P3.5			4
244	M-WR-0828-0224	3411000300	JUMP WIRE COPPER 0.6*7.5*4.0			6
245	M-WR-0828-0249	3411000400	JUMP WIRE COPPER 0.6*10*4			2
246	M-WR-0828-0388	3411000600	JUMP WIRE COPPER 0.6*15.0*4.0			1
247	M-WR-0828-0389	3411000700	JUMP WIRE COPPER 0.6*17.5*4			6
248	B-00002777	5600110451	PWB ASSY I/F BD L19JMR 05AAC			1
249	E-R-0405-7124	0313000000	RES SMD 1/4W 0 J 1206	D622,D625		2
250	#N/A	0313121000	RES SMD 1/4W 120 J 1206	R801,R828		2
251	#N/A	0341062300	RES CH 1/10W 15K F 0603	R261		1
252	E-R-0405-7034	0341077300	RES CH 1/10W 47K F 0603	R262		1
253	E-R-0405-7041	0343000300	RES CH 1/10W ZERO J 0603	FB501,R402,R616,R630 ,R633, R634,R635,R636,R637, R638, R640,R641,R642,R644, R808,R810		16
254	E-R-0405-7049	0343100300	RES CH 1/10W 10 J 0603	R260		1
255	E-R-0405-6684	0343101300	RES CH 1/10W 100 J 0603	R328,R329,R330,R400, R401, R418,R419,R420,R421, R424, R425,R606,R607,R608, R610, R611,R612,R627,R628, R632		20
256	E-R-0405-7054	0343102300	RES CH 1/10W 1K J 0603	R318,R406		2
257	E-R-0405-6685	0343103300	RES CH 1/10W 10K J 0603	R314,R323,R324,R325, R327, R331,R333,R403,R404, R405, R422,R423,R426,R427, R428, R602,R823,R824,R825, R826		20
258	#N/A	0343122300	RES SMD 1/10W 1.2K J 0603	R264		1
259	#N/A	0343201300	RES SMD 1/10W 200 J 0603	R629,R631		2
260	E-R-0405-7042	0343220300	RES CH 1/10W 22 J 0603	R613,R614,R615,R804, R805		5
261	E-R-0405-6687	0343222300	RES CH 1/10W 2.2K J 0603	R317,R620,R621,R812, R813		5
262	#N/A	0343223300	RES SMD 1/10W 22K J 0603	R603,R604,R622,R623		4
263	E-R-0405-7058	0343330300	RES CH 1/10W 33 J 0603	R408,R409,R410		3
264	E-R-0405-7057	0343332300	RES CH 1/10W 3.3K J 0603	R507		1
265	E-R-0405-7043	0343392300	RES SMD 1/10W 3.9K J 0603	R265		1
266	#N/A	0343434300	RES SMD 1/10W 430K J 0603	R263		1
267	E-R-0405-6690	0343470300	RES CH 1/10W 47 J 0603	R407,R600,R601,R625, R626		5
268	E-R-0405-7033	0343471300	RES SMD 1/10W 470 J 0603	R300,R301,R302,R303, R304, R305,R306,R332,R429, R430		10
269	E-R-0405-7031	0343472300	RES CH 1/10W 4.7K J 0603	R308,R311,R315,R319, R320, R321,R508,R815,R817		9
270	E-R-0405-7035	0343473300	RES SMD 1/10W 47K J 0603	R506,R809,R811,R816, R827		5
271	E-R-0405-6691	0343562300	RES SMD 1/10W 5.6K J 0603	R806,R807		2

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
272	#N/A	0343681300	RES CH 1/10W 680 J 0603	R309,R312		2
273	#N/A	0343685300	RES SMD 1/10W 6.8M J 0603	R643		1
274	#N/A	0343750300	RES SMD 1/10W 75 J 0603	R617,R618,R619		3
275	#N/A	0343823300	RES SMD 1/10W 82K J 0603	R316		1
276	#N/A	0619900605	RES ARRAY 1/16W 22 J 8P4R 1206 SMD	RP401,RP402,RP403,RP404, RP405,RP406,RP407,RP408, RP409,RP410,RP411,RP412		12
277	#N/A	0619900705	RES ARRAY 1/16W 10K J 8P4R 1206 SMD	RP300,RP301		2
278	#N/A	0730060412	CRYSTAL 14.318MHZ 30PPM 30PF 49US	X400		1
279	E-FS-0410-0074	0841110702	FUSE FF PICO 4A 125V PIG	F251		1
280	E-C-0404-4805	142122211200	CAP AL 16V 220UF M 8*11.5 TP KI5	C262,C265,C309,C310		4
281	#N/A	142124701200	CAP AL 16V 47UF M 5*11 TP KI5	C413,C802,C804,C806, C836		5
282	E-C-0404-4806	142124711200	CAP AL 16V 470UF M 10*12.5 TP P5	C252,C253,C828,C830		4
283	#N/A	142141001200	CAP AL 25V 10UF M 5*11 TP KI5	C312,C807,C810,C817, C820, C821,C834		7
284	E-C-0404-3839	142141011200	CAP AL 25V 100UF M 6.3*11 TP KI5	C400,C426,C528,C825		4
285	E-C-0404-3851	142164781200	CAP AL 50V 4.7UF M 5*11 TP KI5	C824,C832,C835,C837		4
286	#N/A	144122212200	CAP AL 16V 220UF M 6.3*11 TP KI5	C254,C255		2
287	#N/A	1511447000	CAP MC SMD 50V 3.3NF J X7R 0603	C259		1
288	#N/A	1511504000	CAP MC CP 50V 5P J C0G 0603	C440,C441		2
289	E-C-0404-4878	1511514000	CAP MC SMD 50V 22PF J C0G 0603	C443,C444,C445,C504, C607, C608		6
290	E-C-0404-4874	1511530000	CAP MC SMD 50V 100PF J C0G 0603	C829,C831		2
291	#N/A	1511536000	CAP MC SMD 50V 180PF J C0G 0603	C257,C263		2
292	E-C-0404-4875	1511545000	CAP MC SMD 50V 1NF J C0G 0603	C818,C819		2
293	E-C-0404-4870	1512454000	CAP MC SMD 50V 10NF K X7R 0603	C256,C300,C301,C302, C303, C304,C305,C306,C307, C308, C314,C505,C509,C518, C522, C601,C602,C603,C604, C605, C606,C609,C838		23
294	#N/A	1541577000	CAP MC SMD 16V 2.7NF J C0G 0603	C808,C809		2
295	E-C-0405-4319	1547667100	CAP MC SMD 16V 1UF Z Y5V 0805	C311,C434,C501,C506, C510, C514,C517,C521,C612		9
296	#N/A	1552458000	CAP MC SMD 25V 100NF K X7R 0603	C251,C258,C260,C261, C264, C266,C313,C401,C402, C403, C404,C405,C406,C407, C408, C409,C410,C411,C412, C414, C415,C416,C417,C418, C419, C420,C421,C422,C423, C424, C425,C427,C428,C429, C430, C431,C432,C433,C435, C436, C437,C438,C439,C442, C448, C502,C503,C515,C516, C525, C526,C527,C600,C610, C801, C803,C805,C811,C812, C813, C814,C815,C816,C827, C833		65
297	E-D-0403-2139	202351080105	DIO SBD 3A 40V DO-201AD-2P	D251		1
298	E-D-0403-2130	203812540831	DIO ZEN 0.5W 5.73-5.45V MINIMELF-2P SMD	D613,D615,D623,D624, D807		5

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
299	#N/A	203812550631	DIO ZEN 0.5W 7.01-6.66V MINIMELF-2P SMD	D802,D803,D804,D805		4
300	#N/A	203812580223	DIO ZEN 0.5W 9.01-8.57V MINIMELF-2P BD S	D801		1
301	E-D-0403-2049	204520700207	DIO SW 0.215A 85V SOT-23-3P SE. SMD	D614,D616,D617,D618, D619, D620,D621		7
302	#N/A	204520700305	DIO SW 0.2A 70V SOT-23-3P C.C. SMD	D600,D601		2
303	E-D-0403-2046	204810750131	DIO SW 0.15A 100V MINIMELF-2P SMD	D254,D806		2
304	E-Q-0402-1087	210522000405	TR 40V 0.2A SOT-23-3P 100-300 SMD	Q302,Q303,Q304,Q305, Q307, Q500,Q801,Q803		8
305	E-Q-0402-0407	210522000717	TR 40V 1A SOT-23 75	Q802		1
306	#N/A	211522000205	TR -40V -0.2A SOT-23 100-300	Q300,Q301		2
307	#N/A	242600650631	FET 20V 6A 40MOHM LL SOIC-8P N*2 SMD	Q255		1
308	#N/A	242601100217	FET 30V 7.9A 0.022OHM LL SO-8	IC804,IC805		2
309	#N/A	243601000317	FET -30V -5.3A 50MOHM LL SOIC-8P SMD	IC502,Q306		2
310	E-IC-0401-1356	2500004001	IC VOL ADJ T92 2% 3PIN	IC252		1
311	E-IC-0401-2940	2500082937	IC LDO REGU 3.3V 5A TO-263	IC253		1
312	#N/A	2500088136	IC VOL DETECTOR 4.4V SOT-23	IC401		1
313	#N/A	2500254080	IC REGU ADJ 3A 1.22V 21V SO-8P	IC251		1
314	E-IC-0401-1927	2530085011	IC 4-CH AUDIO PROCESSOR SO-28P	IC802		1
315	E-IC-0401-1928	2530100016	IC 2*6 STEREO CARD RADIO 9P	IC803		1
316	#N/A	2530192427	IC IMAGE PROCESSOR PQFP-208P	IC400		1
317	E-IC-0401-1931	2540005008	IC TRANSMITTER TSSOP-56P	IC500,IC501		2
318	#N/A	2600088009	IC HEX INVERTER SOIC-14	IC603		1
319	E-IC-0401-2942	2610049742	IC MEM EEPROM 256*8 900NS SOIC-8P SMD	IC600,IC602		2
320	#N/A	2610188212	IC E2PROM 16K 5V 8PIN	IC404		1
321	E-IC-0401-2572	2610380523	IC FLASH MEMORY 128K*8 70NS PLCC-32P	IC402		1
322	E-L-0407-1183	2816300400	INDUCTOR CD 14.5UH K	L252		1
323	#N/A	2816315300	INDUCTOR CD 19UH +/-10%	L251		1
324	E-L-0408-1517	2921093612	BEAD CH 100MHZ 120 OHM 0.2A 0603	FB300,FB301,FB302,FB303, FB304,FB305,FB306,FB307, FB308,FB500,FB502,FB503, FB504,FB505,FB506,FB601		16
325	E-L-0408-1518	2921113212	BEAD CH 100MHZ 120 OHM 4A 1206	FB251,FB252,FB309,FB310, FB311,FB400,FB401,FB402, FB403,FB507,FB508,FB801, FB802,FB803,FB804,FB806		16
326	#N/A	2970045803	PWB M 0 L4 E0.5 I1 FR-4 115*117*1.6			1
327	#N/A	3070335534	HEADER NY66 94V0 7P P2.0 BROWN			1
328	M-00000473	3070337934	HEADER NY66 94V0 11P P2.0 R BROWN			1
329	M-00000472	3071297034	HEADER NYLON66 94V-0 4P P2.0			1
330	M-00000475	3071312334	HEADER NY66 94V0 4P P2.5			1
331	PL-00000471	3072231000	CONN PHONE JACK OD3.5 7P R/A GREEN			1
332	#N/A	3075308757	CONN D-SUB 15P R/A PC99 W/O SCREW			1
333	#N/A	3075316457	CONN DVI-D 94V0 24P R GOLD FLASH			1
334	PL-00000474	3075415766	CONN FFC/FPC BOTTOM 30P P1.0 SMT			1
335	M-LB-0813-0913	3202005900	LABEL SERIAL 42*11 SONY			1
336	M-LB-0813-0914	3202009100	LABEL REISTRATION 40*16			1
337	M-LB-0813-0915	3202215900	LABEL MCU 11*11 POLYESTER 50#			1
338	#N/A	3222201910	TAPE AL 6MM AL-35-FR SILVER			0.063

8. Exploded Diagram and Spare Parts List



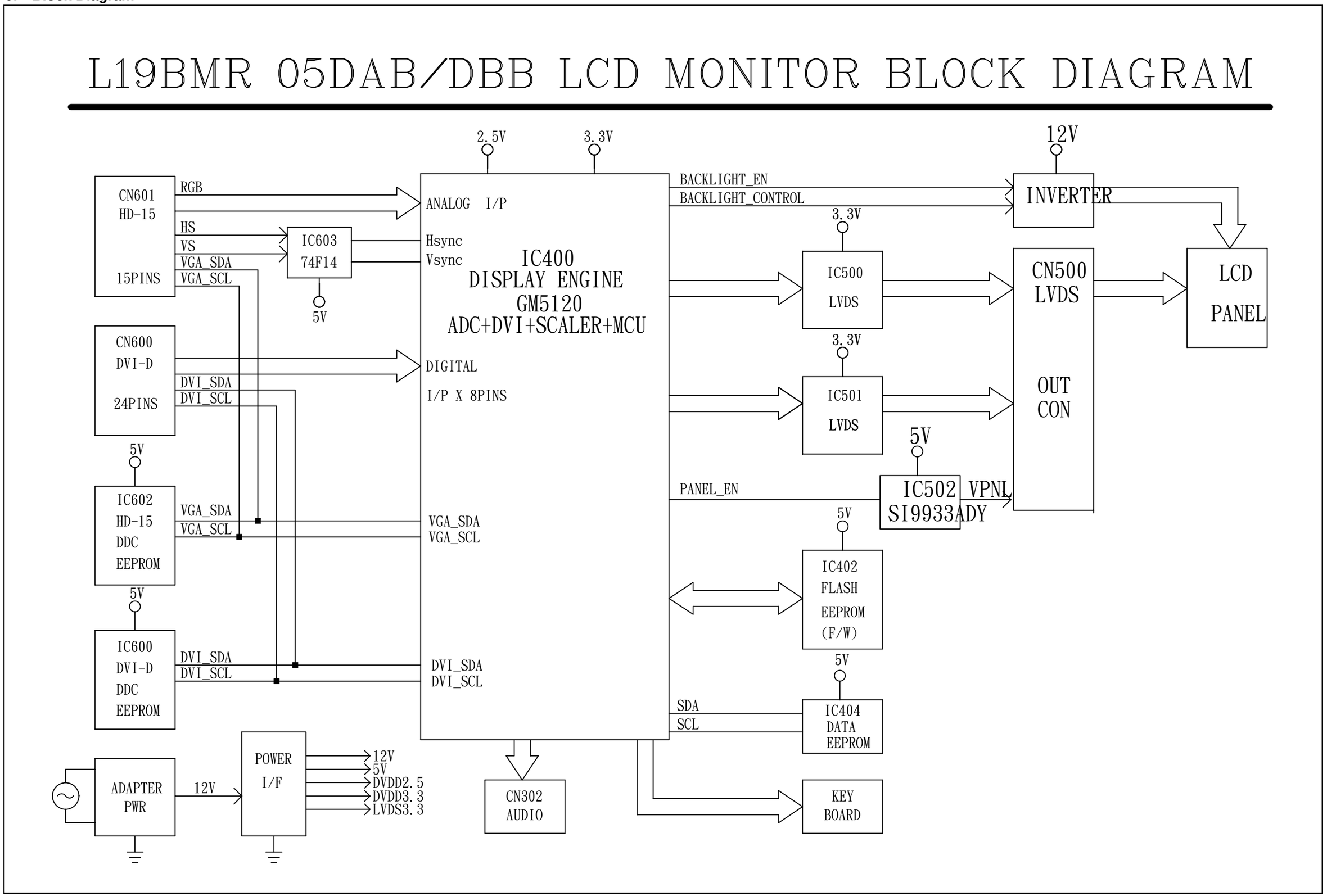
EXPLODED PARTS LIST (VA915)

ViewSonic Model Number: VLCDS 27944-3

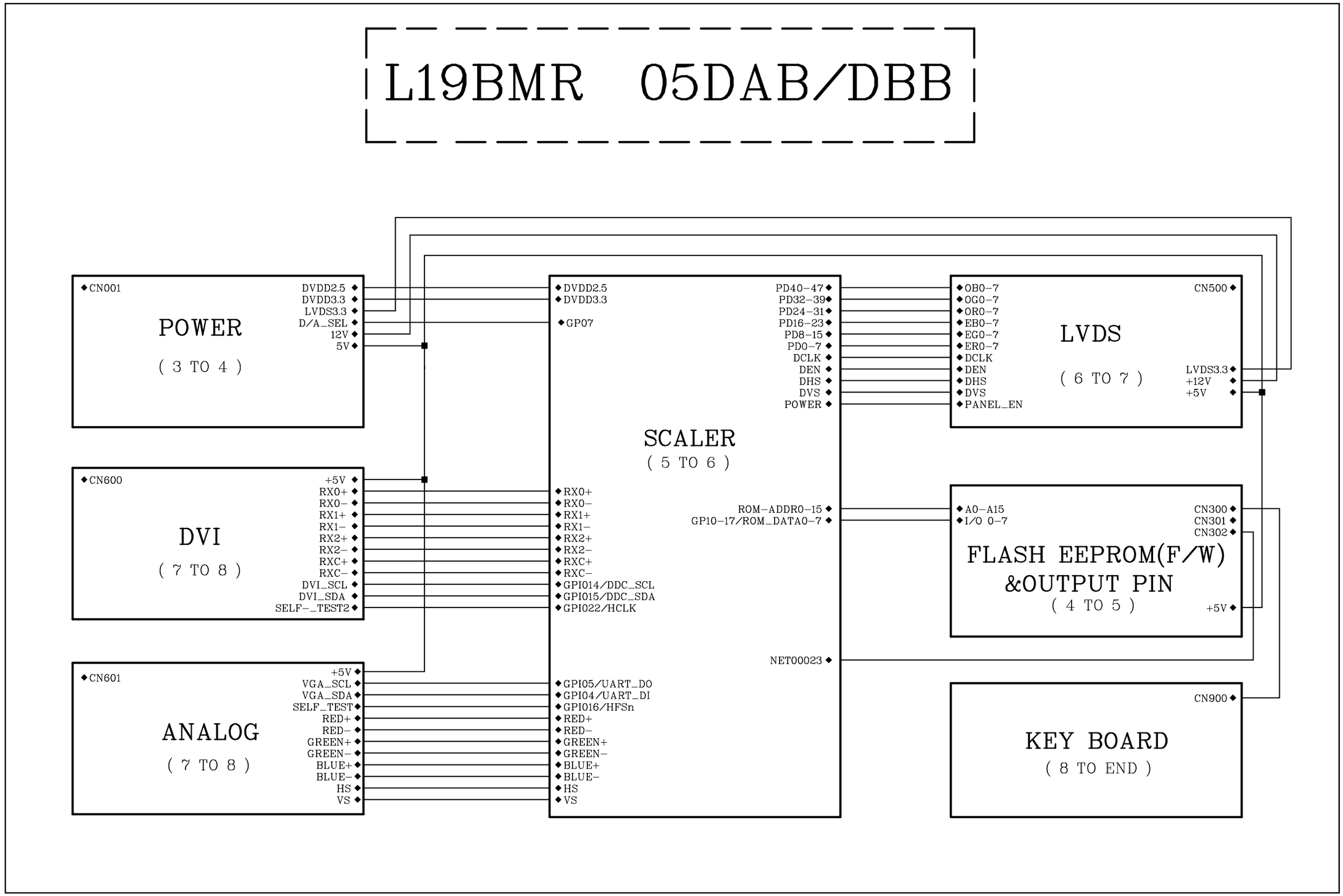
Rev: 1a

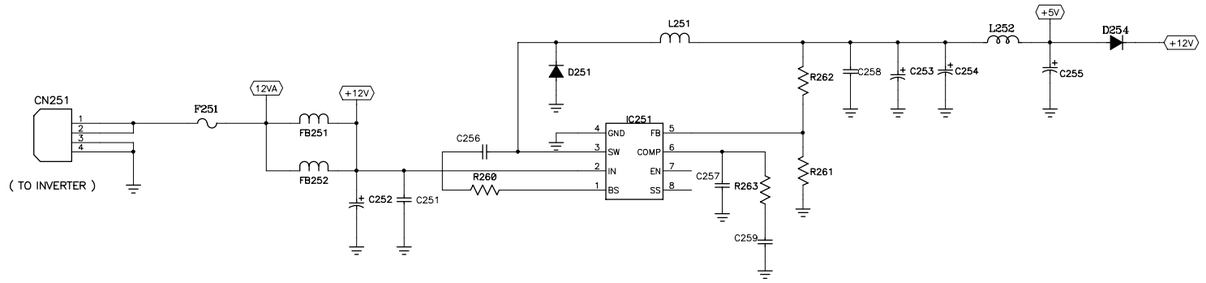
Item	ViewSonic P/N	Ref.P/N	Description	Q'ty
1	C-FP-0301-9920	3361086004	FRONT BEZEL	1
2	PL-00002491	3360732803	FUNCTION KEY	1
3	B-KB-0207-0046	5600110180	FUN KEY BD	1
4	E-SK-0412-0086	3790182900	SPEAKER ASSY	2
5	E-00001833	5051901601	PANEL	1
6	M-BK-0805-0050	3460165401	BRACKET PANEL	1
7	B-PS-0204-0059	5600110175	POWER BD	1
8	B-00002486	5600110406	INTERFACE BD	1
9	B-00001075	5600110319	INVERTER BD	1
10	HW-00001072	3460191501	BRACKET D-SUB	1
11	HW-00001073	3461252300	SHIELD CAN I/F	1
12	M-MS-0808-9144	3460165500	SHIELD CAN I/V	1
13	M-MS-0808-9135	3610171802	AC SOCKET ASSY	1
14	M-BK-0805-0049	3460165301	BRACKET HINGE	1
15	M-MS-0808-8561	3460146100	BRACKET VESA	2
16	M-MS-0808-8563	3460146300	BRACKET KEYLOCK	1
17	C-00001102	3360254600	CABINET BACK	1
18	C-00002492	3360249202	REAR COVER	1
19	M-MS-0808-7747	3200649300	NAME PLATE	1
20	C-00002493	3360916701	ARM FRONT	1
21	M-BK-0805-0043	3461753201	BRACKET ARM	1
22	HW-00002494	3461754900	HINGE-L	1
23	HW-00002495	3461754800	HINGE-R	1
24	M-CV-0830-2508	3360919301	ARM REAR	1
25	M-CV-0830-2400	3361205800	COVER BASE	1
26	M-BK-0805-0044	3461753301	BRACKET BASE	1
27	PL-PD-0714-0068	3240957500	RUBBER FOOT	2
28	M-SCW-0824-6795	3109023700	SCREW T M4*8	4
29	M-SCW-0824-0779	3109017700	SCREW T M3*7.5	4
30	M-SCW-0824-6793	3105125300	SCREW M M4*6	2
31	M-SCW-0824-0410	3100300600	SCREW M M3*6	10
32	M-SCW-0824-0620	3109020500	SCREW T4*10	4
33	HW-00001080	3102310900	SCREW M M4*9 S+P	6
34	M-SCW-0824-0413	3109011400	SCREW M3*6	1
35	M-MS-0808-9137	3240977700	RUBBER HOLE	1
36	PL-00002496	3360508100	LED LENS	1
37	M-SCW-0824-0777	3105225300	SCREW M M3*4	11
38	M-SCW-0814-0692	3105124000	SCREW M M4*6	6

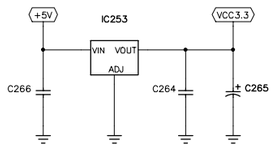
9. Block Diagram

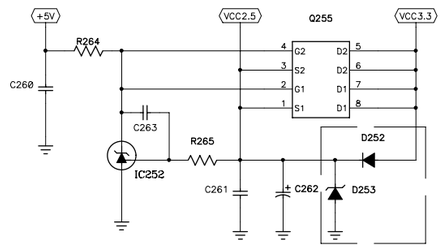


10. Schematic Diagrams

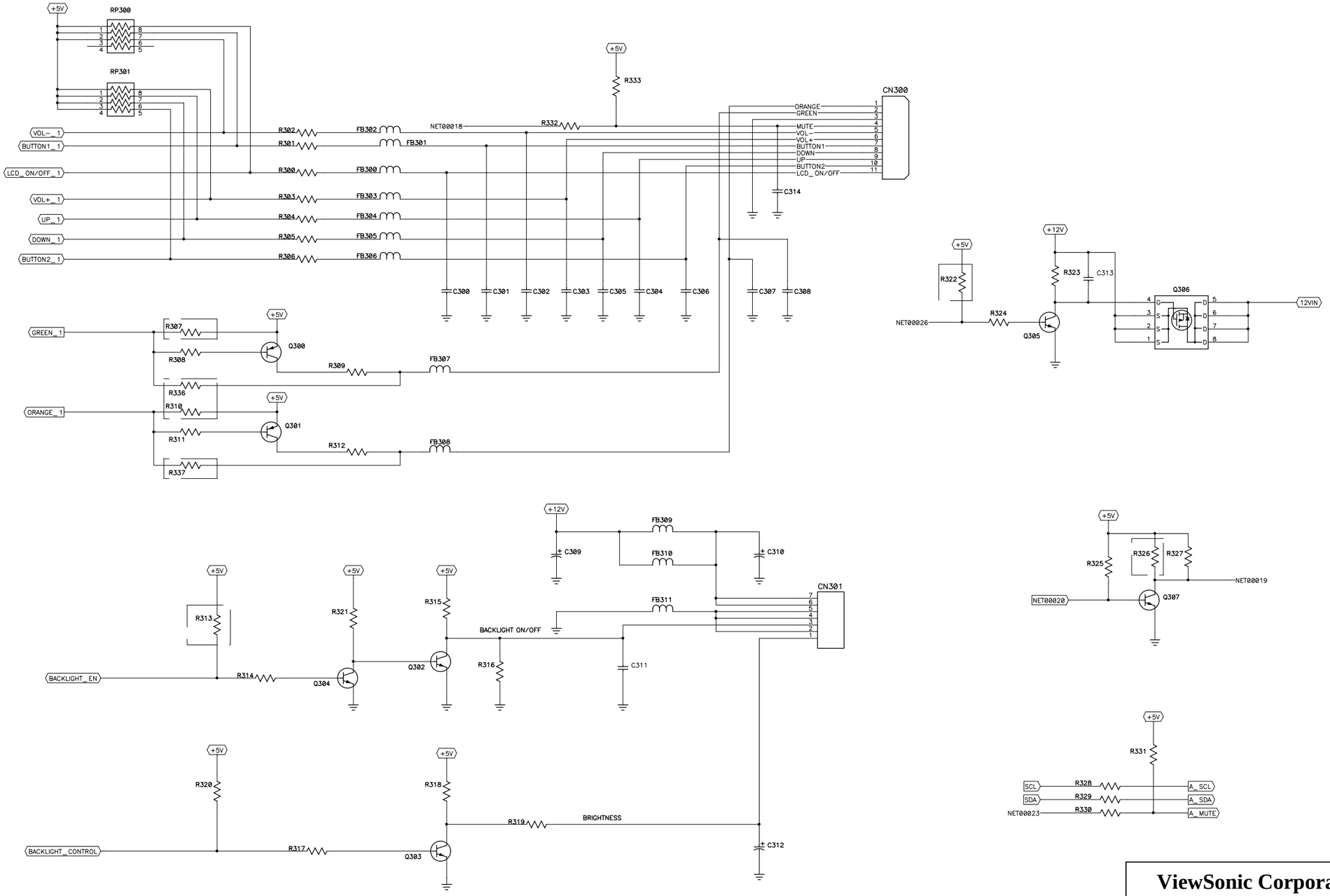




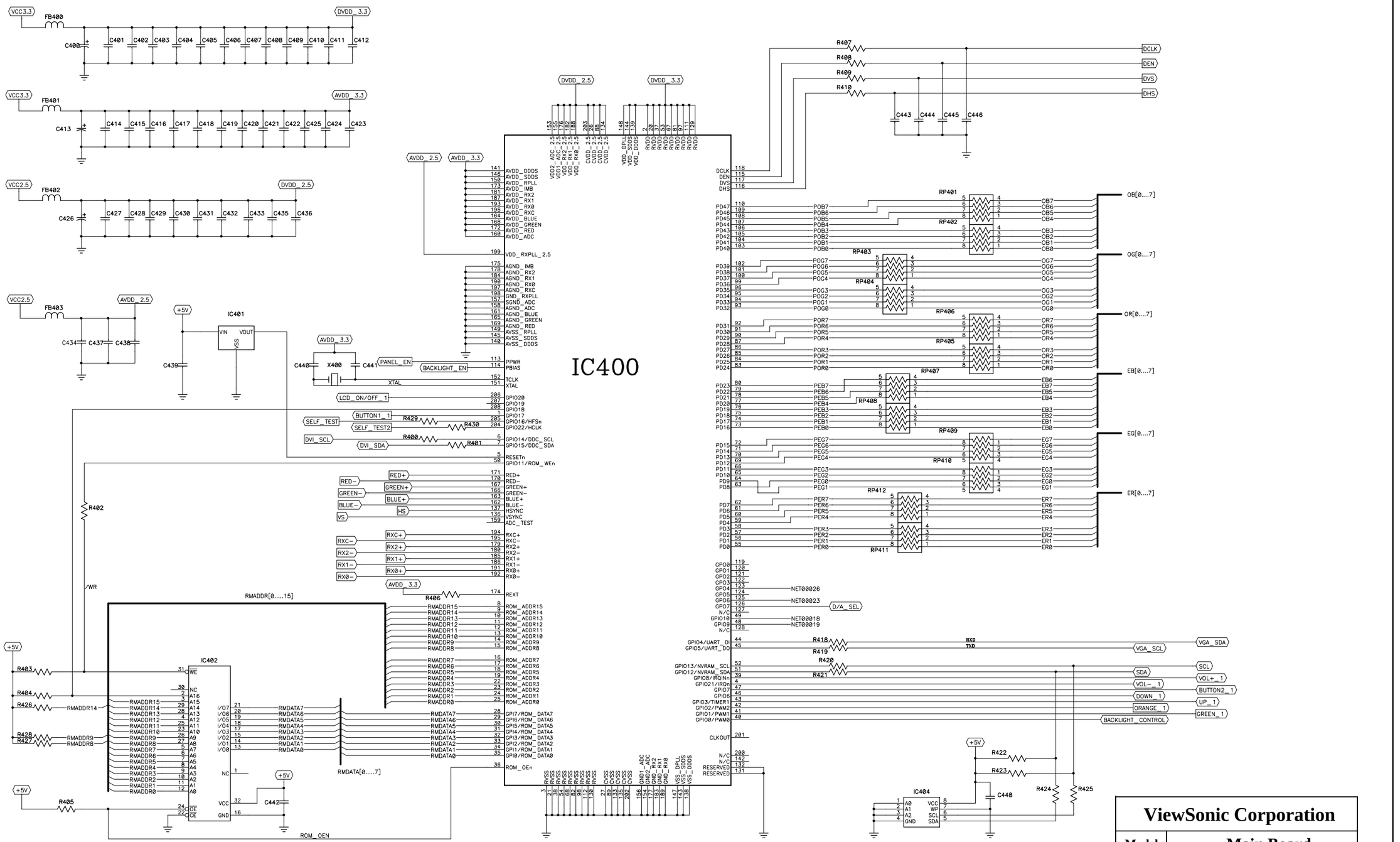




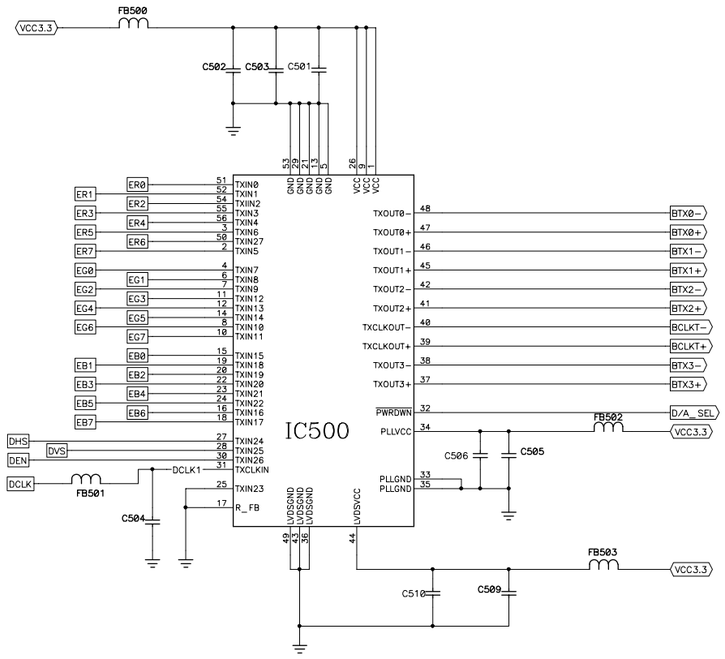
ViewSonic Corporation		
Model	Power-2	
Title		
Date		Rev:

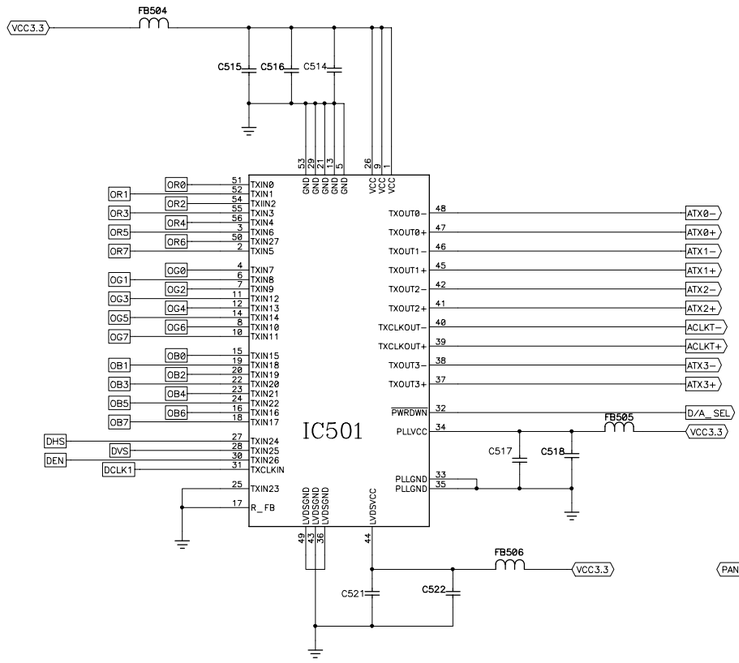


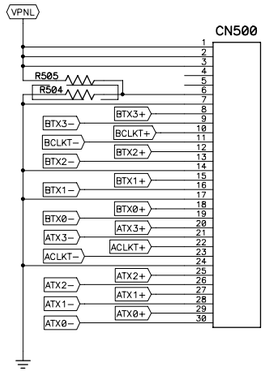
ViewSonic Corporation		
Model	Main Board	
Title		
Date		Rev:

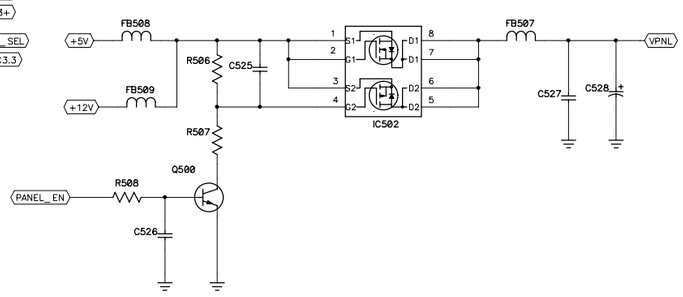


ViewSonic Corporation		
Model	Main Board	
Title		
Date		Rev:



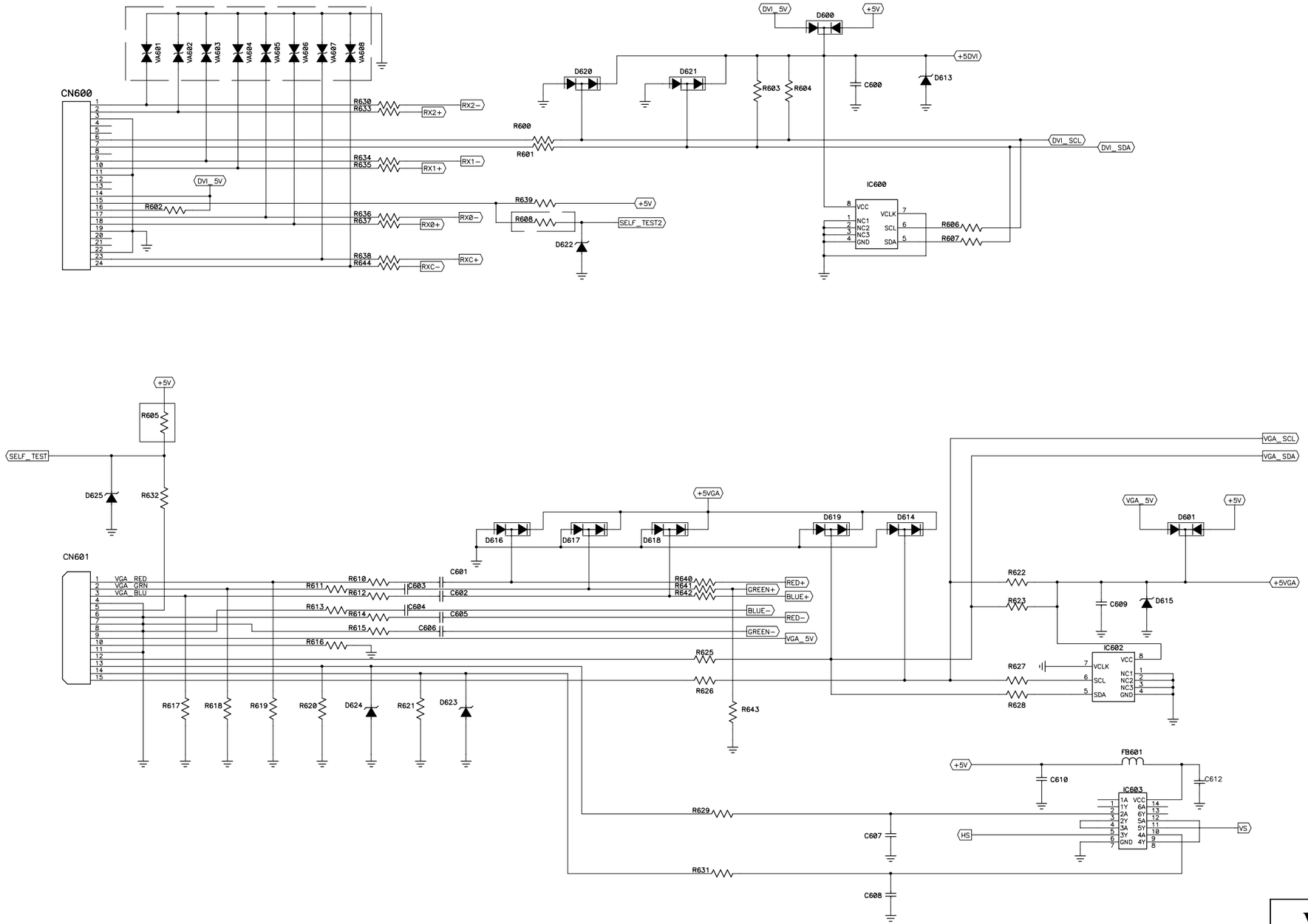






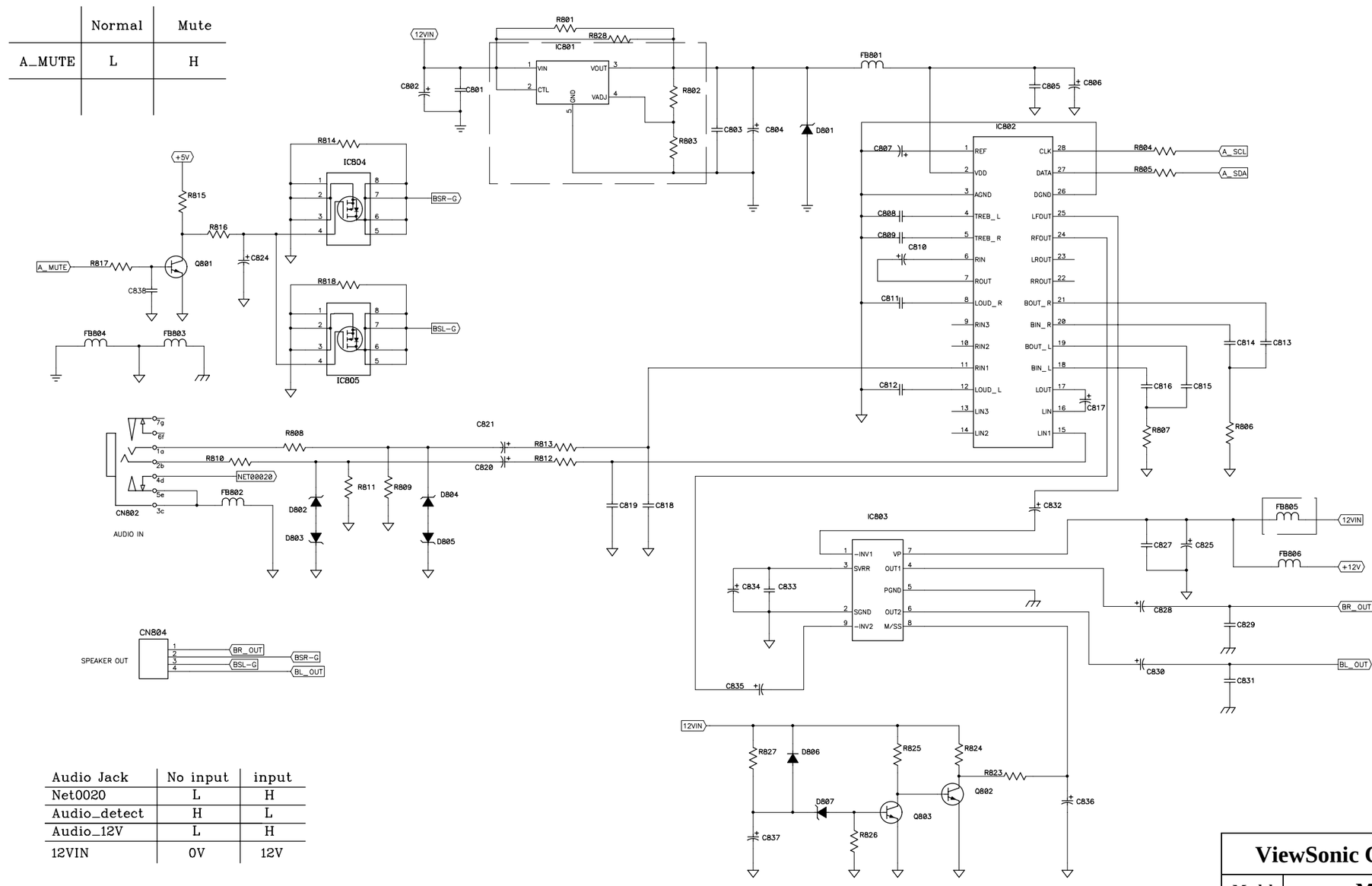
	FB508	FB509	R505
19″ FUJITSU	V	X	V
19″ CMO	V	X	X
19″ LG	X	V	X

ViewSonic Corporation		
Model	Main Board	
Title		
Date		Rev:



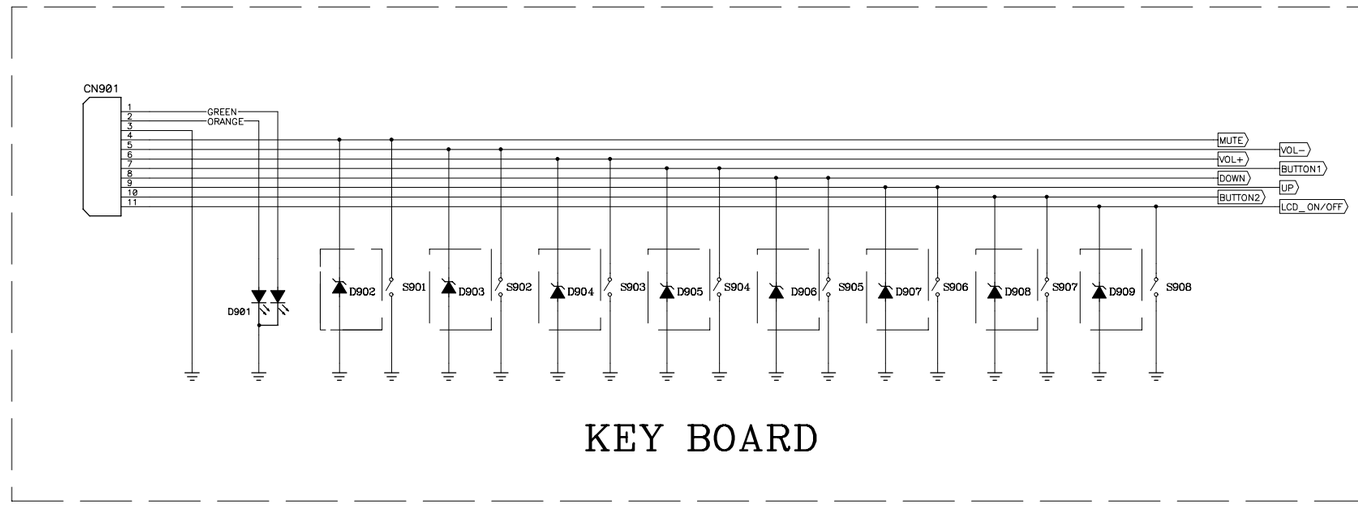
ViewSonic Corporation		
Model	Main Board	
Title		
Date		Rev:

	Normal	Mute
A_MUTE	L	H

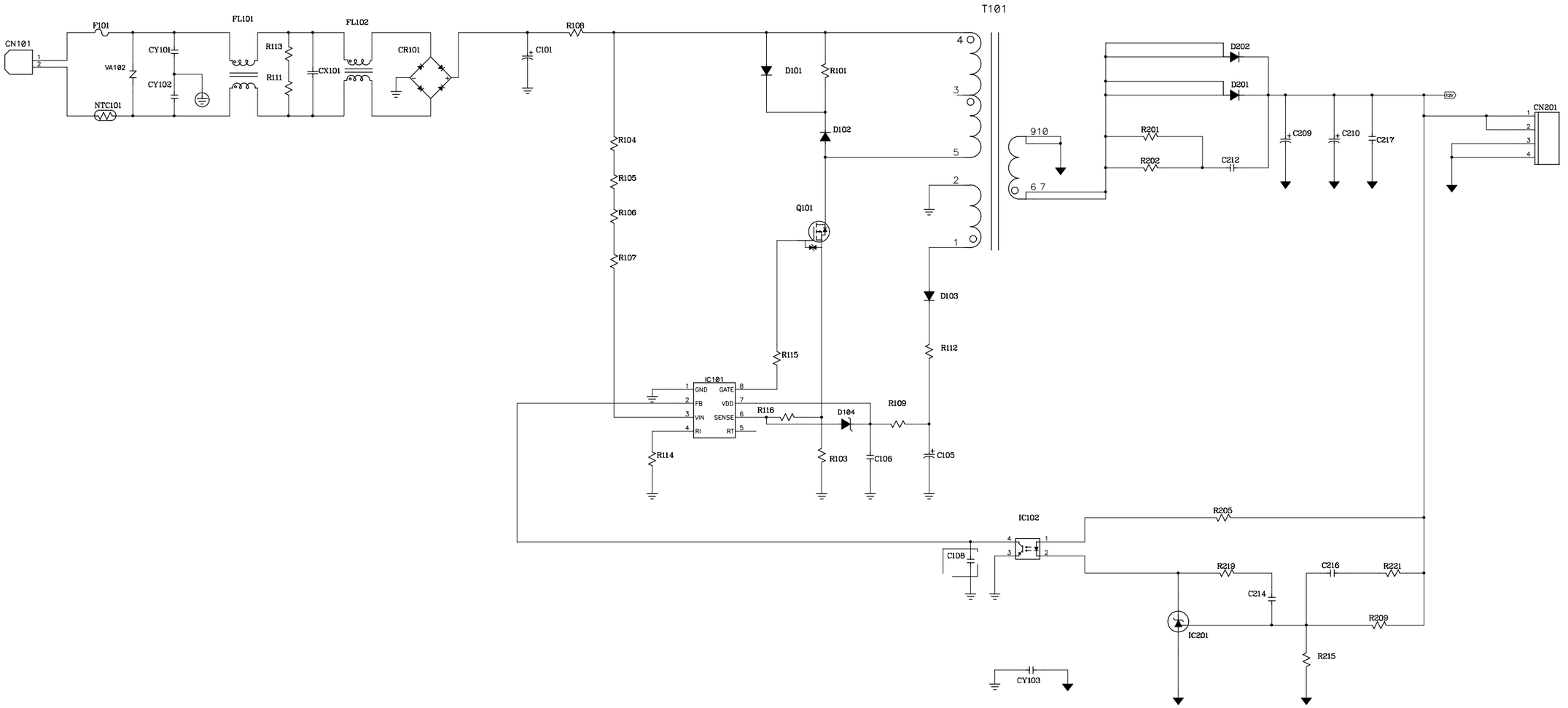


Audio Jack	No input	input
Net0020	L	H
Audio_detect	H	L
Audio_12V	L	H
12VIN	0V	12V

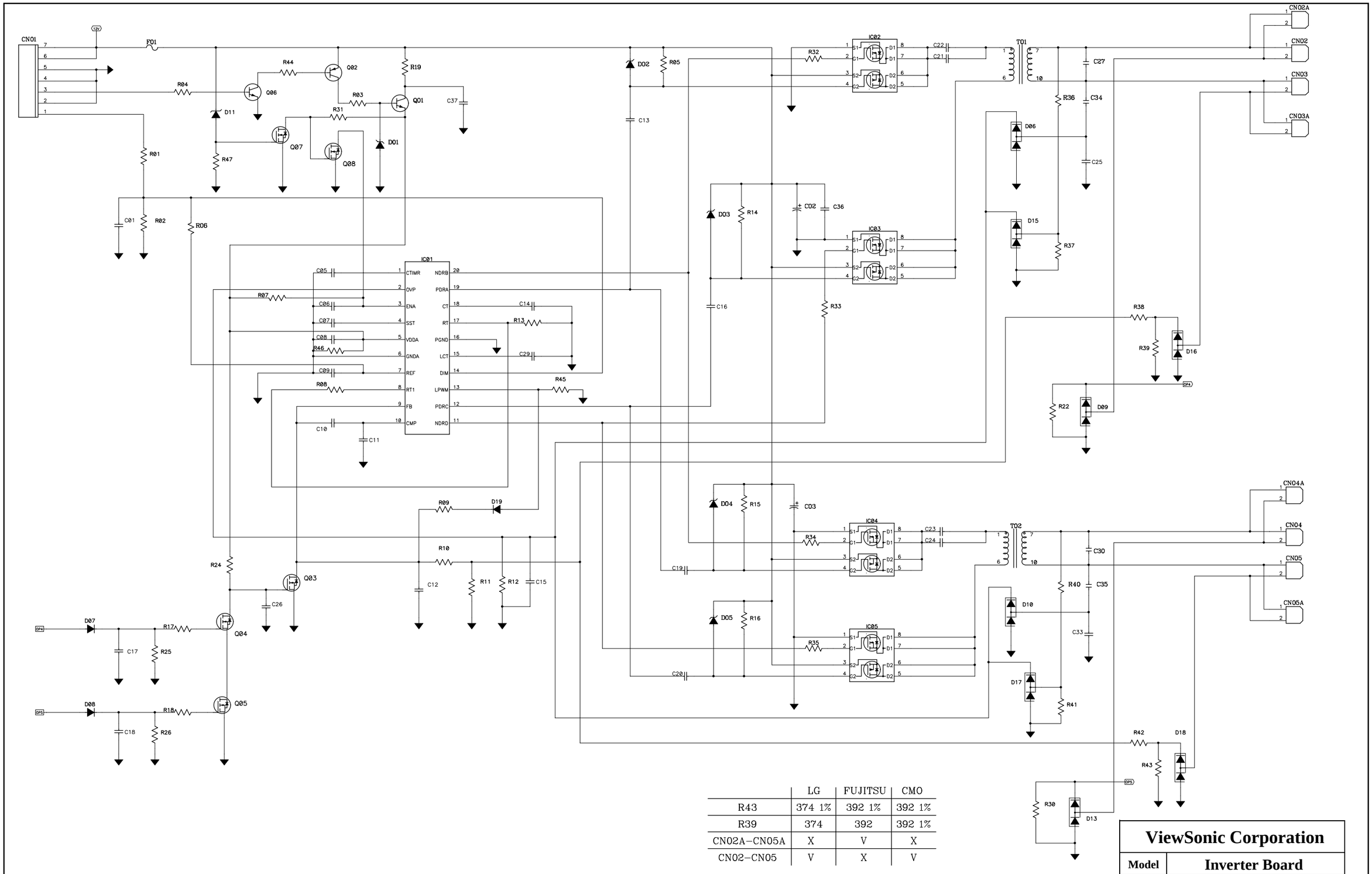
ViewSonic Corporation		
Model	Main Board	
Title		
Date		Rev:



ViewSonic Corporation		
Model	Key Board	
Title		
Date		Rev:



ViewSonic Corporation		
Model	Power-1	
Title		
Date		Rev:

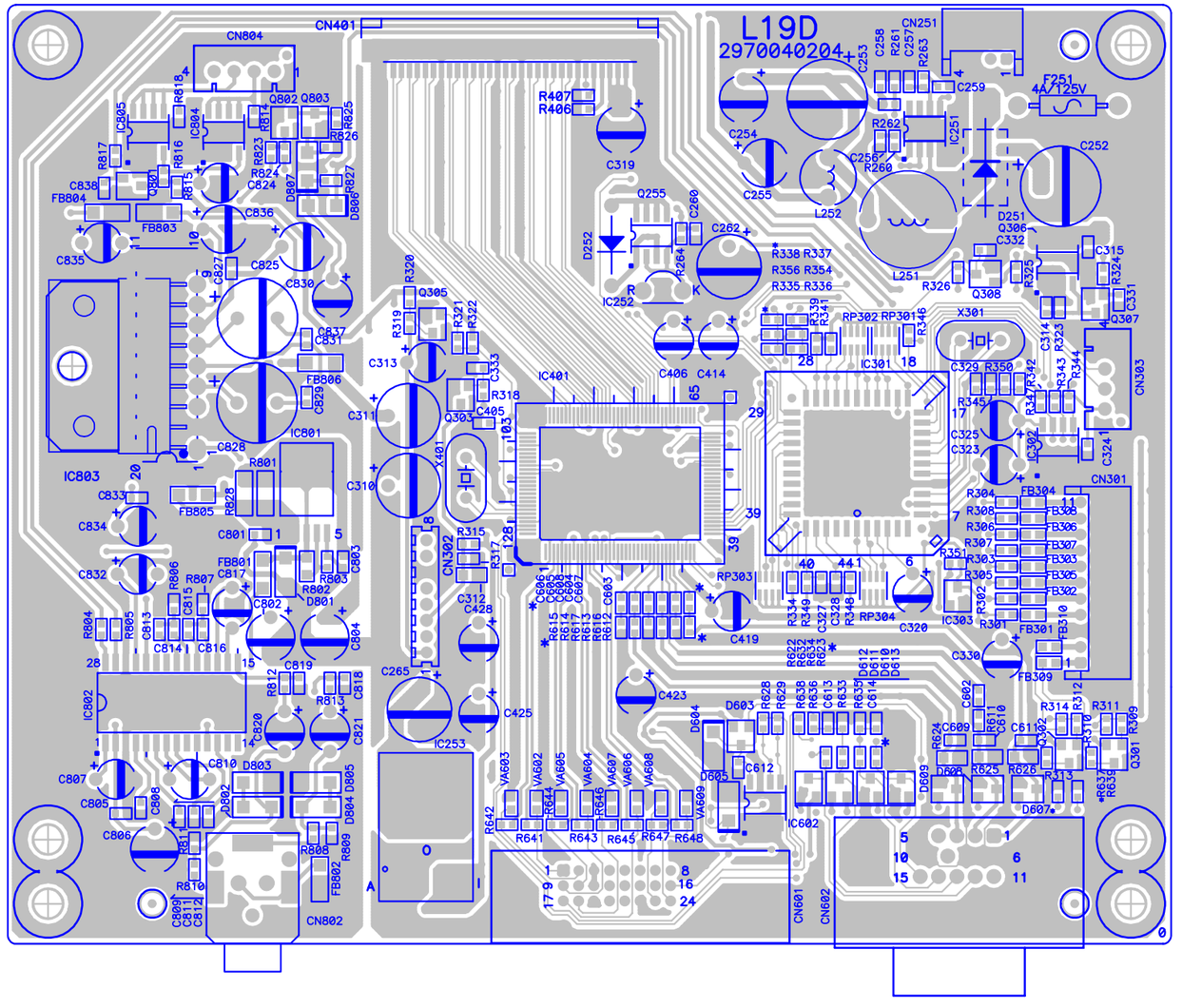


	LG	FUJITSU	CMO
R43	374 1%	392 1%	392 1%
R39	374	392	392 1%
CN02A–CN05A	X	V	X
CN02–CN05	V	X	V

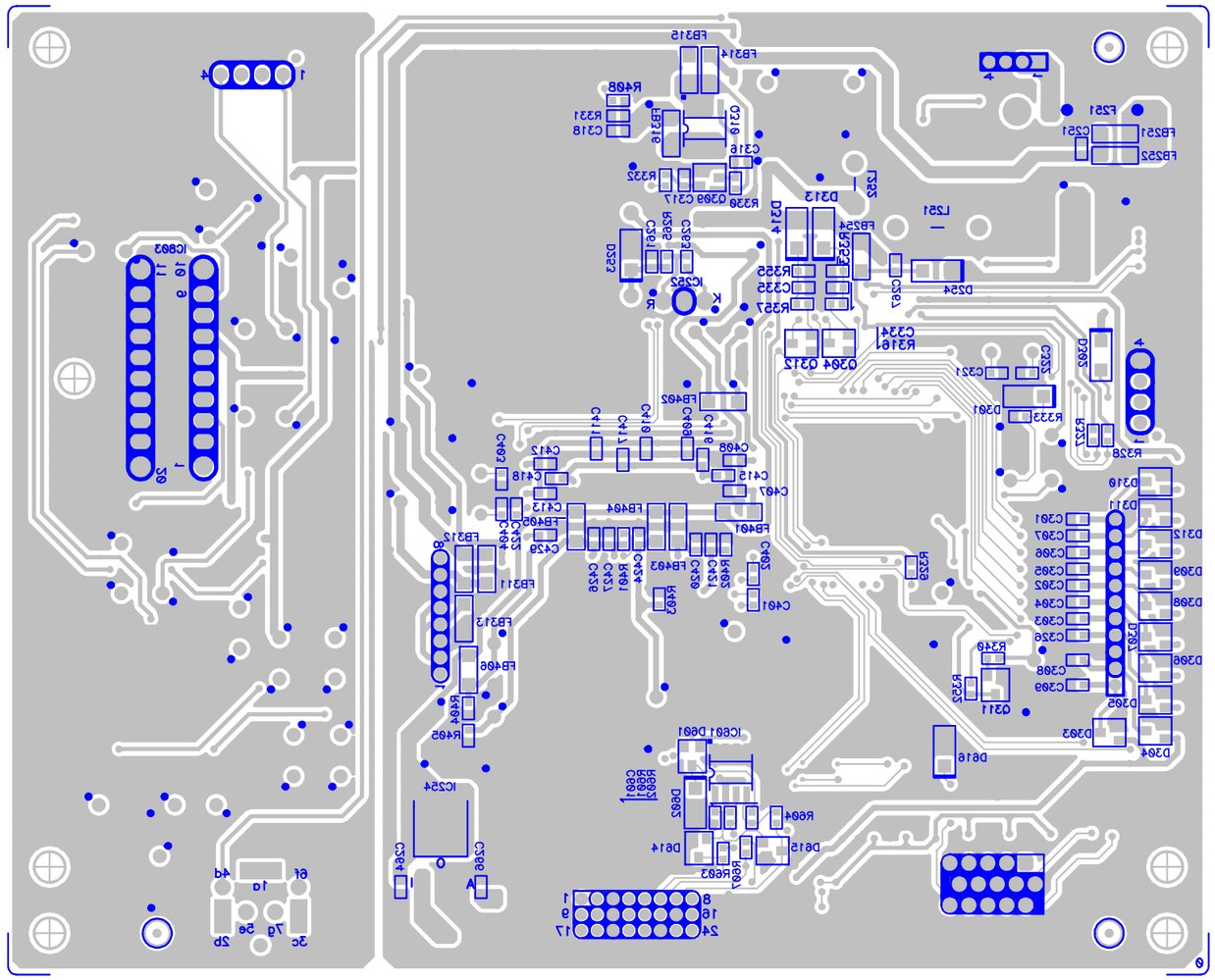
ViewSonic Corporation		
Model	**Inverter Board**	
Title		
Date		**Rev:**

11. PCB Layout Diagrams

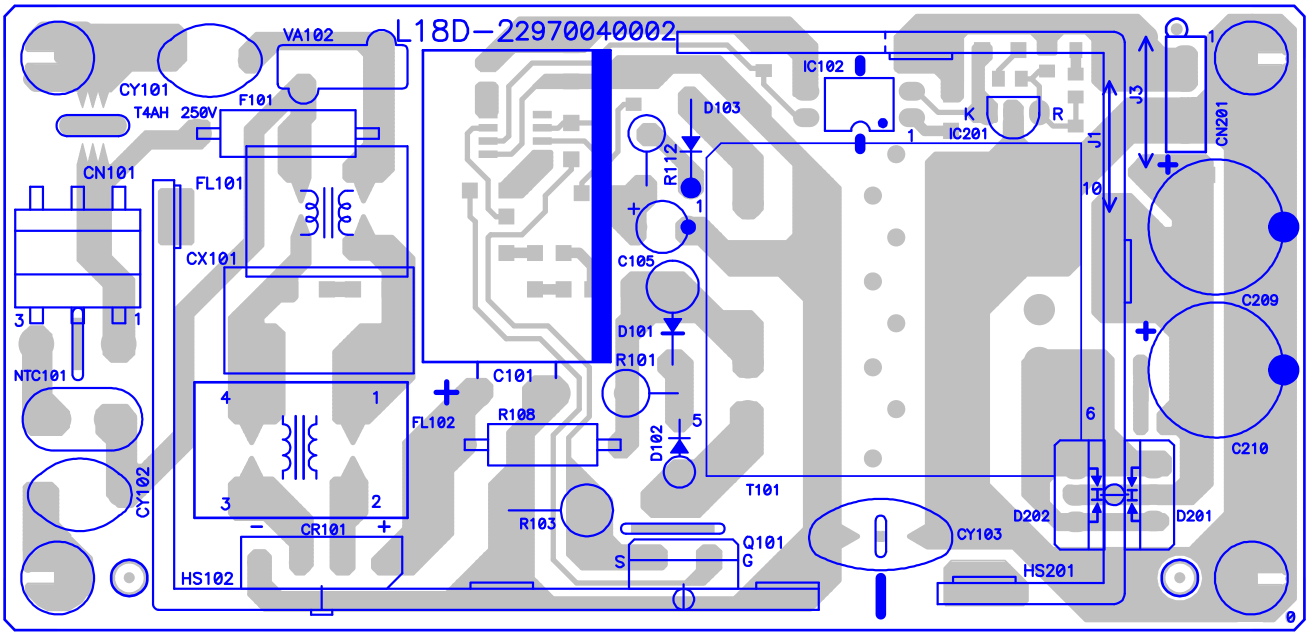
Main Board

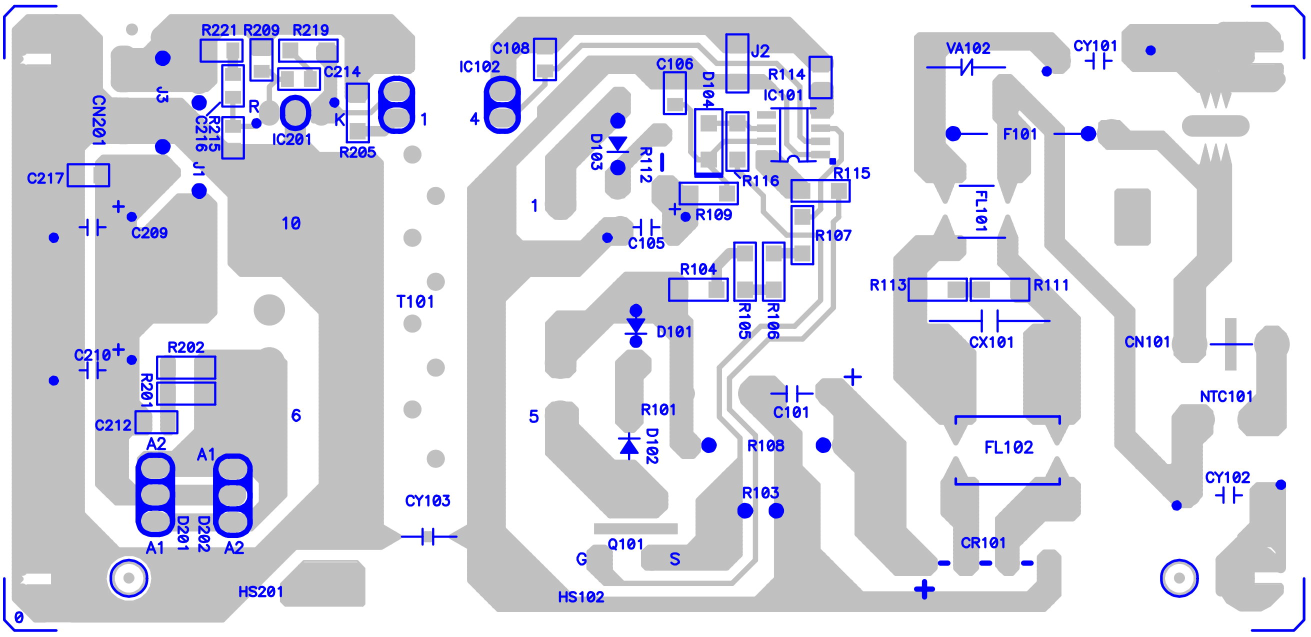


Main Board

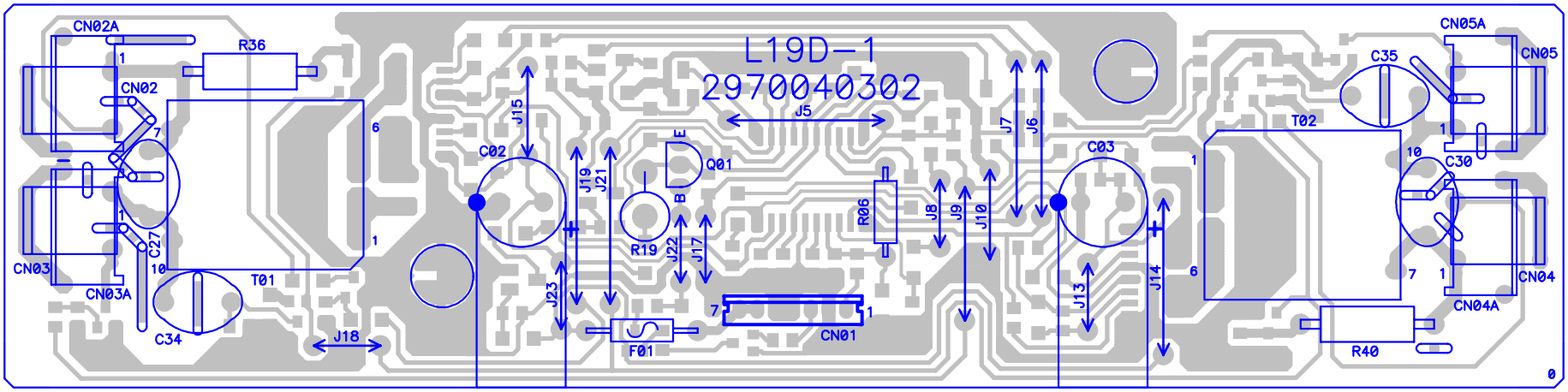


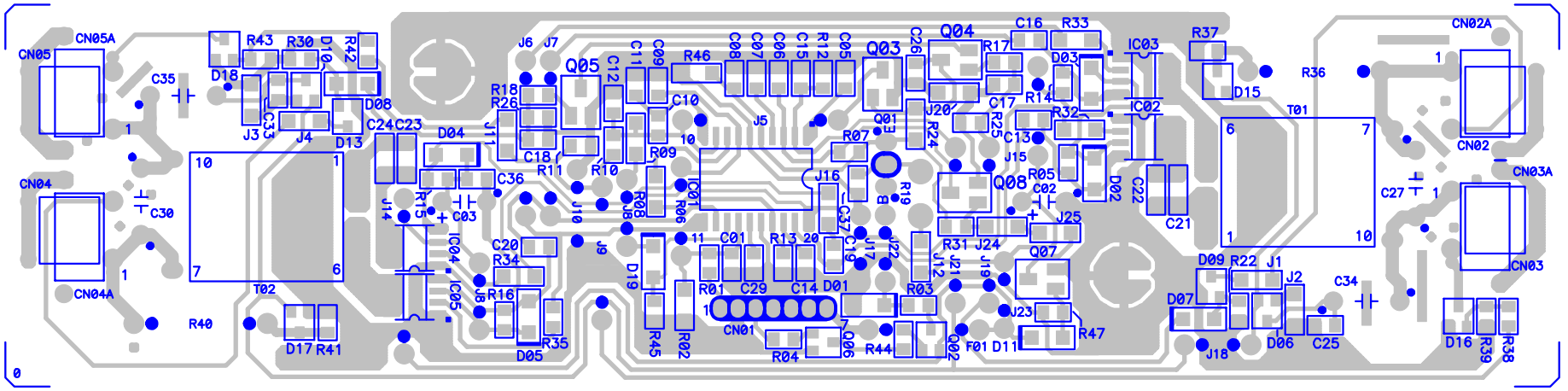
Power Board


L18D-22970040002
VA102
CY101
F101
T4AH 250V
CN101
FL101
CX101
NTC101
CY102
HS102
CR101
FL102
C101
R108
R103
IC102
D103
R112
C105
D101
R101
D102
Q101
T101
IC201
J1
J3
CN201
C209
C210
D202
D201
CY103
HS201

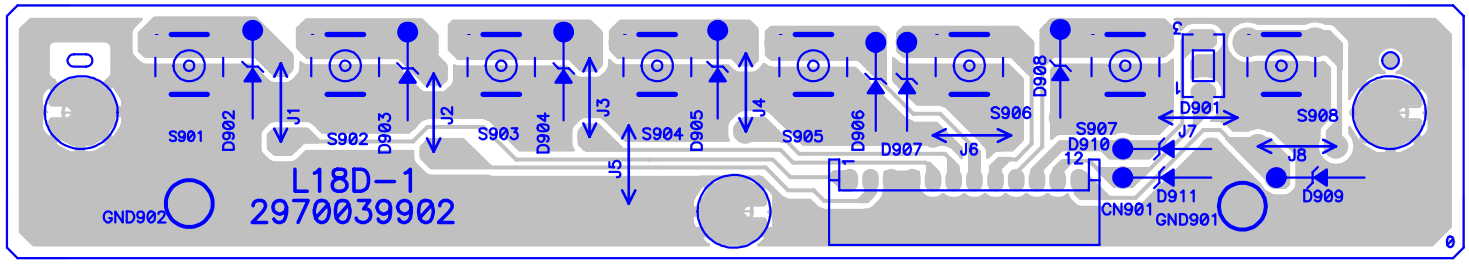

R221 R209 R219
C214
IC201
R205
CN201
C217
C209
C210
R202
R201
C212
D201
D202
HS201
T101
CY103
IC102
C108
C106
D104
J2
R114
IC101
D103
R112
R116
R115
R109
C105
R107
R104
R105
R106
D101
R101
D102
C101
R108
R103
Q101
HS102
VA102
CY101
F101
FL101
R113
R111
CX101
CN101
NTC101
FL102
CY102
CR101

Inverter Board





Key Board


S901
D902
J1
S902
D903
J2
S903
D904
J3
S904
D905
J4
S905
D906
D907
J6
S906
D908
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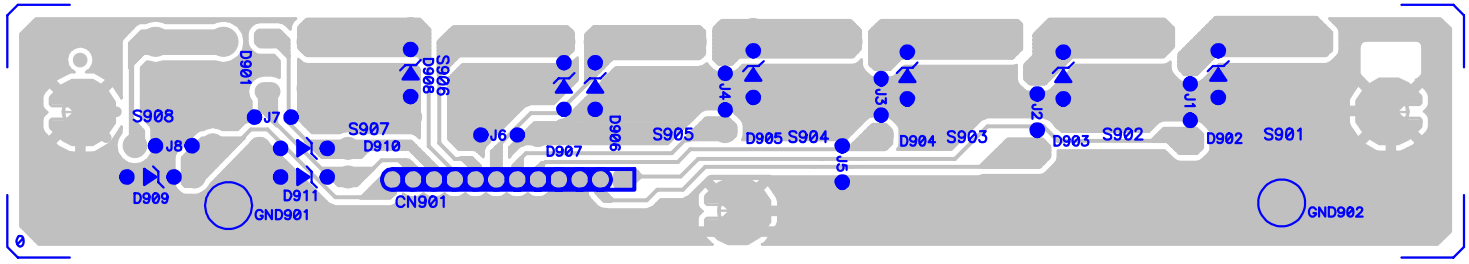
S908
J8
D909
GND902
L18D-1
2970039902


D901
S908
J7
J8
D909
S907
D910
D911
GND901
S906
D908
J6
D907
CN901
S905
D906
D905
S904
J4
J5
D904
S903
J3
D903
S902
J2
D902
S901
J1
GND902

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?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
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 Diagram				
10. Schematic Diagrams				
11. PCB Layout Diagrams				

B. Are you satisfied with this Service Manual?

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

C. Do you have any other 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)