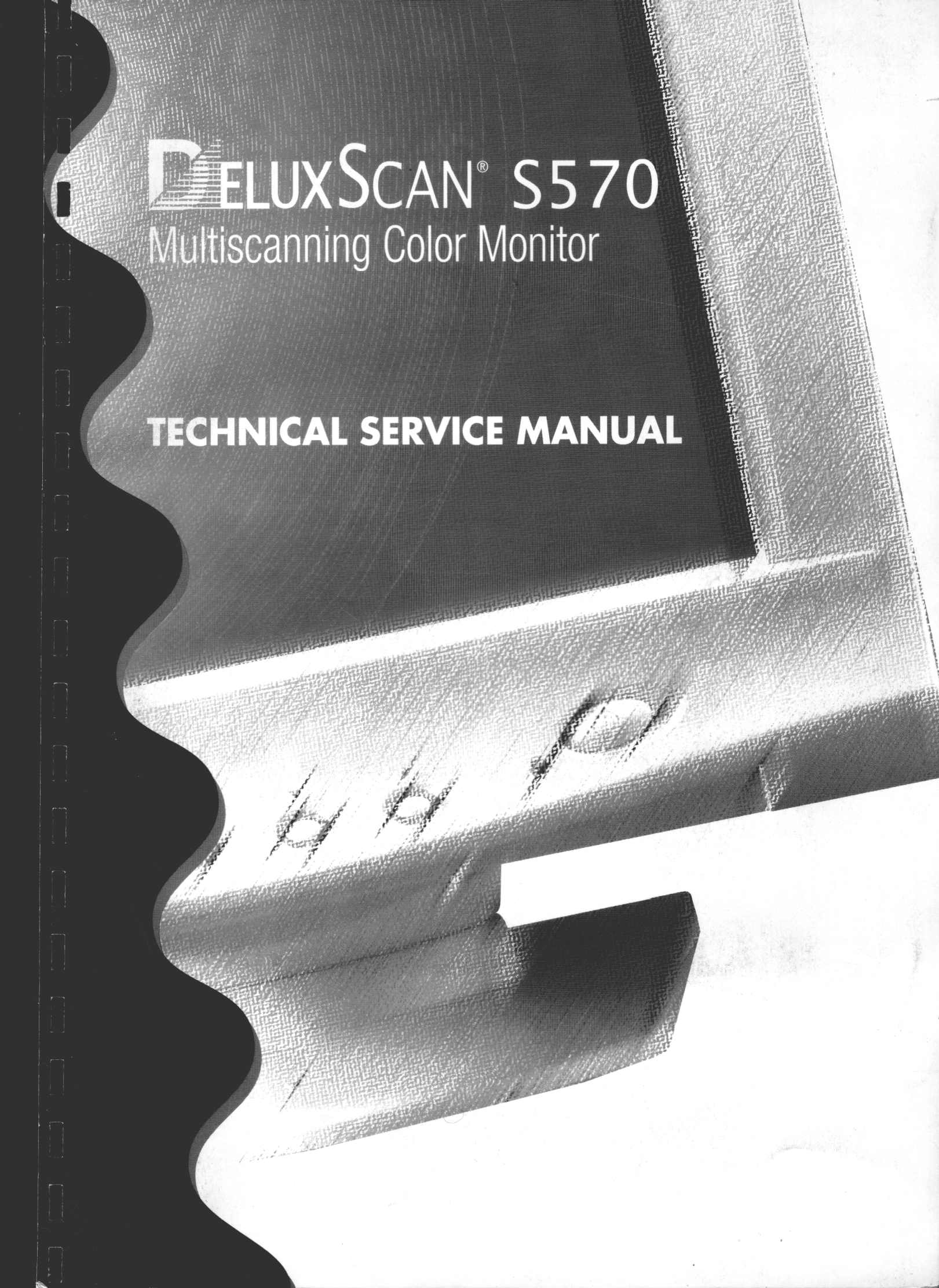
DELUXSCAN® S570
Multiscanning Color Monitor
TECHNICAL SERVICE MANUAL

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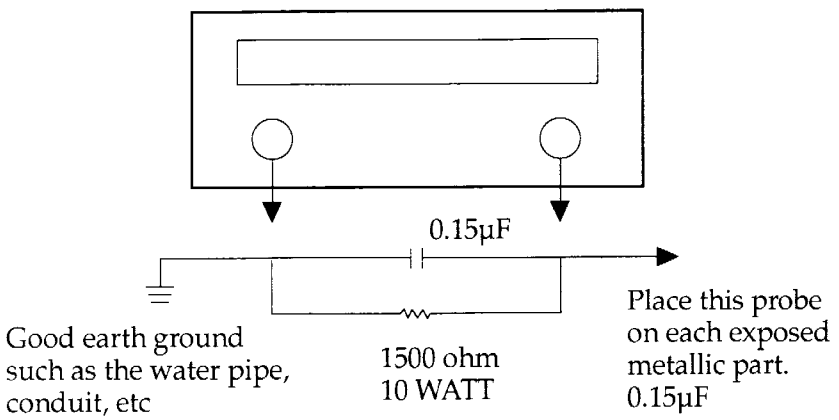
Safety Precaution

WARNING

Service should not be attempted by anyone unfamiliar with the necessary precautions on this monitor. The followings are the necessary precautions to be observed before servicing.

1. Always discharge the high voltage to the CRT conductive coating before handling the CRT. The picture tube is highly evacuated and if broken, glass fragments will be violently exploded. Use shatter proof goggles and keep picture tube away from the bare body while handling.
2. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as nonmetallic control knobs, insulating covers, shields, isolation resistor capacitor network etc.
3. Before returning the monitor to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as signal connectors, terminals, screw heads, metal overlays, control shafts etc, to be sure the monitor is safe to operate without danger of electrical shock. Plug the AC line cord directly into a AC outlet (do not use a line isolation trasformer during this check.). Use an AC voltmeter having 1500 ohm per volt or more sensitivity in the following manner : Connect ground(water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC Voltage across the combination of 1500 ohm resistor and 0.15μF capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. The Voltage must not exceed 0.3 volts RMS. This corresponds to 0.2 milliamp AC. Any value exceeded this limit constitutes a potential shock hazard and must be corrected immediately.

AC VOLTMETER



INSTRUCTIONS TO USER

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instruction, may cause interference to radio and television. It has been tested and found to comply with the limits for the specifications in Subpart J of Part 15 FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- reorient the receiving antenna
- relocate the computer with respect to the receiver
- plug the computer into a different outlet so that computer and receiver are on different branch circuits.

X-Ray Radiation Precaution

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must be under the specified limit. The nominal value of the high voltage of this monitor is 24.5KV±1.0KV at zero beam current(minimun brightness) under a 120V AC power source. The high voltage must not(under any circumstances) exceed30KV. Each time a monitor requires servicing, the high voltage should be checked.
   It is recommended the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. This monitor is equipped with a protection circuit which prevents the monitor from producing excessively high voltage. Each time the monitor is serviced, the protection circuit must be checked to determine that the circuit is properly functioning.
3. The only source of X-RAY RADIATION in this monitor is the picture-tube.
   For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
4. Some parts in this monitor have special safety-related characteristics for X-RAY RADIATION protection.
   For continued safety, parts replacement should be undertaken only after referring to the product safety notice.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this monitor have special safety-related characteristics. These characteristics are often not evident from visual inspection.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features identified by "⚠" in the replacement parts list and schematic diagram.
For continued protection, replacement parts must be identical to those used in the original circuit. The use of substitute replacement parts which dose not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire, X-RAY RADIATION or other hazards.

General Information

1. Description

This 15" (13.7" viewable) color display monitor is operated in R, G, B, drive mode input.

2. Operating instructions

2-1. External instructions

2-2. Front

Menu, Select, Down, up, Power LED, Power key

2-3. Rear

Input connection (AC & SIGNAL CABLE)

2-4. Service Instruction(internal controls)

High-Voltage, +12V, Focus, Screen, H-Center.

2-5. OSD Controls

H-Size, H-Position, V-Size, V-Position, Pincushion, Pin Balance, Trapezoid, Parallelogram
V-Moire, Rotation, Language, OSD H-delay, OSD V-delay, Color Control, Recall, Information
Degaussing, Contrast, Brightness

3. Electrical Characteristics

3-1. Power supply

Input Voltage : 100-240 V AC
Input Current : 1.3A Max.
Input Frequency : 50~60Hz
Power Consumption : 75W Max.

3-2. Video input signal

Input : 0.7 Vp-p analog signal(at 75 ohm terminated to ground)
Polarity : Positive
Rise/Fall time : < 5ns

3-3. Horizontal Synchronization Signal

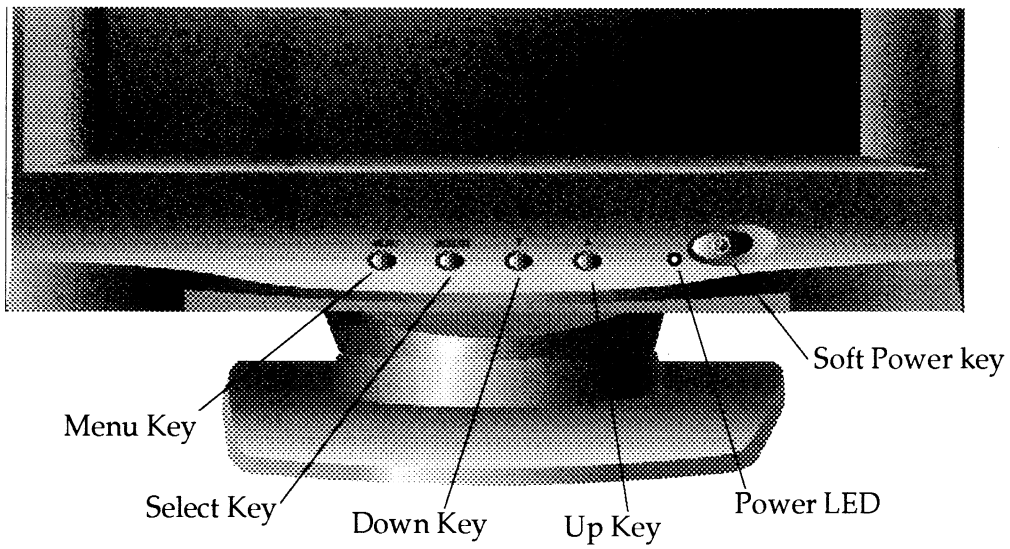
Level •TTL High : 2.4V min
•Low : 0.4V max
Polarity : Negative or Positive
Frequency : 30kHz~70kHz

3-4. Vertical Synchronization Signal

Level •TTL High : 2.0V min
•Low : 0.4V max
Polarity : Negative or Positive
Frequency : 50Hz~150Hz

Control Description

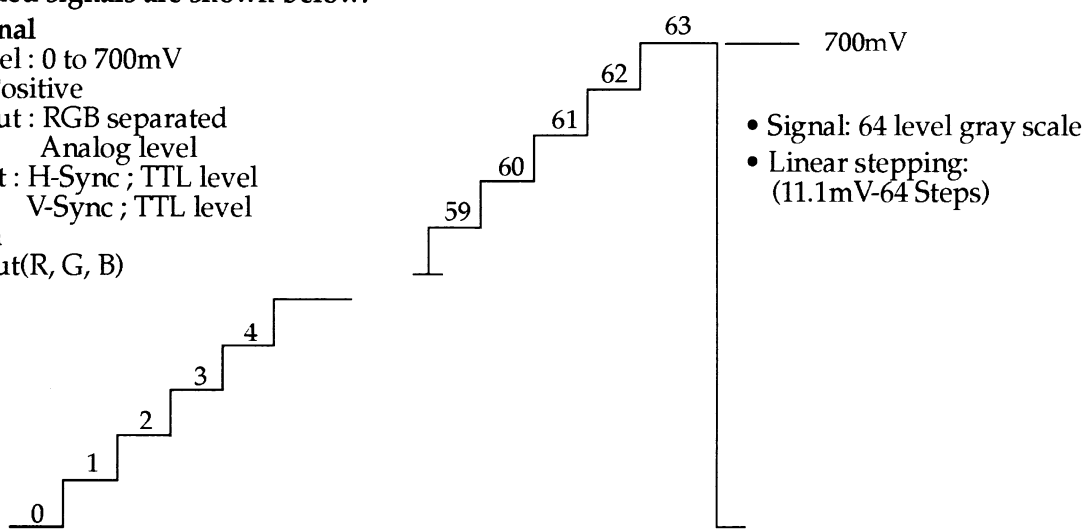
Front View



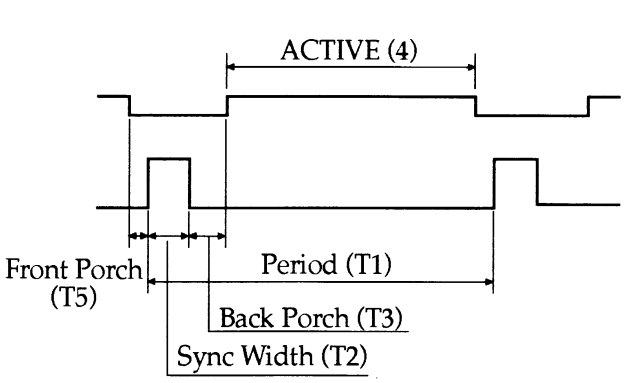
Video Input Signal

Recommended signals are shown below.

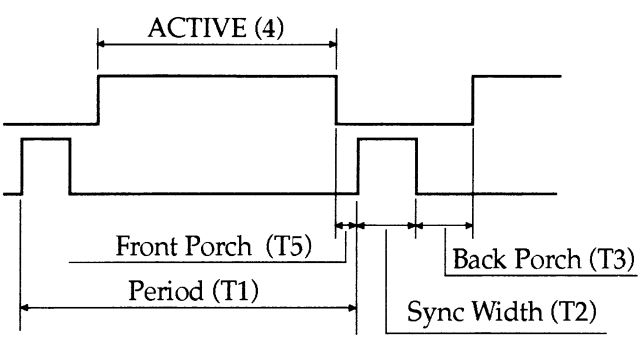
- **Video Signal**
  Video Level : 0 to 700mV
  Polarty : Positive
  Video Input : RGB separated
  Analog level
  Sync input : H-Sync ; TTL level
  V-Sync ; TTL level
- **Waveform**
  Video input(R, G, B)



- **H-Sync**



- **V-Sync**



• **Timing Table**

Horizontal	Dot	720	640	640	640	640	800	800	800	1024	1024	1152	1280
Frequency	kHz	31.469	31.469	43.269	50.600	63.657	46.875	53.674	63.920	60.023	68.677	67.500	63.981
Period(T1)	μs	31.778	31.778	23.111	19.752	15.709	21.333	18.631	15.645	16.660	14.561	14.815	15.630
Sync Width(T2)	μs	3.813	3.813	1.556	1.580	1.745	1.616	1.138	1.185	1.219	1.061	1.185	1.037
Back Porch(T3)	μs	1.907	1.907	2.222	1.975	1.745	3.232	2.702	2.015	2.235	2.201	2.370	2.296
Active(T4)	μs	25.422	25.422	17.778	15.802	11.636	16.162	14.222	11.852	13.003	10.836	10.667	11.852
Front Porch(T5)	μs	0.636	0.636	1.556	0.395	0.582	0.323	0.569	0.593	0.203	0.508	0.593	0.444
Blanking Time	μs	6.356	6.356	5.333	3.950	4.073	5.171	4.409	3.793	3.657	3.725	4.148	3.778

Vertical	Line	400	480	480	480	480	600	600	600	768	768	864	1024
Frequency	Hz	70.087	59.950	85.008	100.1	120.11	75.000	85.061	100.03	75.029	84.997	75.000	60.020
Period(T1)	ms	14.268	16.683	11.764	9.995	8.325	13.333	11.756	9.997	13.328	11.765	13.333	16.661
Sync Width(T2)	ms	0.064	0.064	0.069	0.059	0.094	0.064	0.056	0.063	0.050	0.044	0.044	0.047
Back Porch(T3)	ms	1.080	1.048	0.578	0.435	0.566	0.448	0.503	0.501	0.466	0.524	0.474	0.594
Active(T4)	ms	12.711	15.253	11.093	9.481	7.540	12.800	11.179	9.387	12.795	11.183	12.800	16.005
Front Porch(T5)	ms	0.413	0.318	0.023	0.020	0.126	0.021	0.019	0.047	0.017	0.015	0.015	0.016
Blanking Time	ms	1.557	1.430	0.671	0.514	0.785	0.533	0.577	0.610	0.533	0.582	0.533	0.656
Interlaced	Y/N	N	N	N	N	N	N	N	N	N	N	N	N
Sync Polarity	H	-	-	-	-	-	+	+	+	+	+	+	+
	V	+	-	-	-	-	+	+	+	+	+	+	+
Standard Type		VGA	VGA	VESA	INDUSTRY	INDUSTRY	VESA	VESA	INDUSTRY	VESA	VESA	VESA	VESA

The monitor is compatible with additional modes within the specified frequency ranges provided that they are different at least for one of the following :

Horizontal Freq.: ±1kHz
Vertical Freq.: ±1Hz

Note: Even if the monitor detects the input timing as a factory preset mode, the size and position may not be able to be set as desired. Check the input timings are under the specifications and adjust the image as you want.

For better quality of display image, use the timing and polarity shown in the table above. Please see your video card user's guide to ensure compatibility.

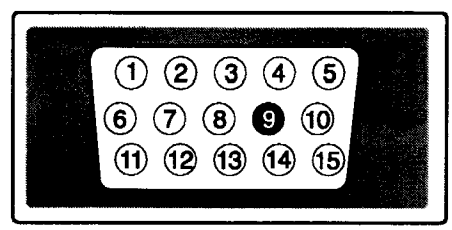
Video Input Terminal

A 15 Pin D-sub connector is used as the input signal connector.
Pin and input signals are shown in the table below.

Pin Description

SIGNAL / PIN NO.	SEPERATE SYNC	COMPOSITE SYNC
1	RED	RED
2	GREEN	GREEN
3	BLUE	BLUE
4	N.C	N.C
5	DDC RETURN	DDC RETURN
6	RED GROUND	RED GROUND
7	GREEN GROUND	GREEN GROUND
8	BLUE GROUND	BLUE GROUND
9	N.C	N.C
10	LOGIC GROUND	LOGIC GROUND
11	N.C	N.C
12	SDA	SDA
13	H-SYNC(TTL)	(H+V) SYNC
14	V-SYNC(VCLK)	VCLK
15	SCL	SCL

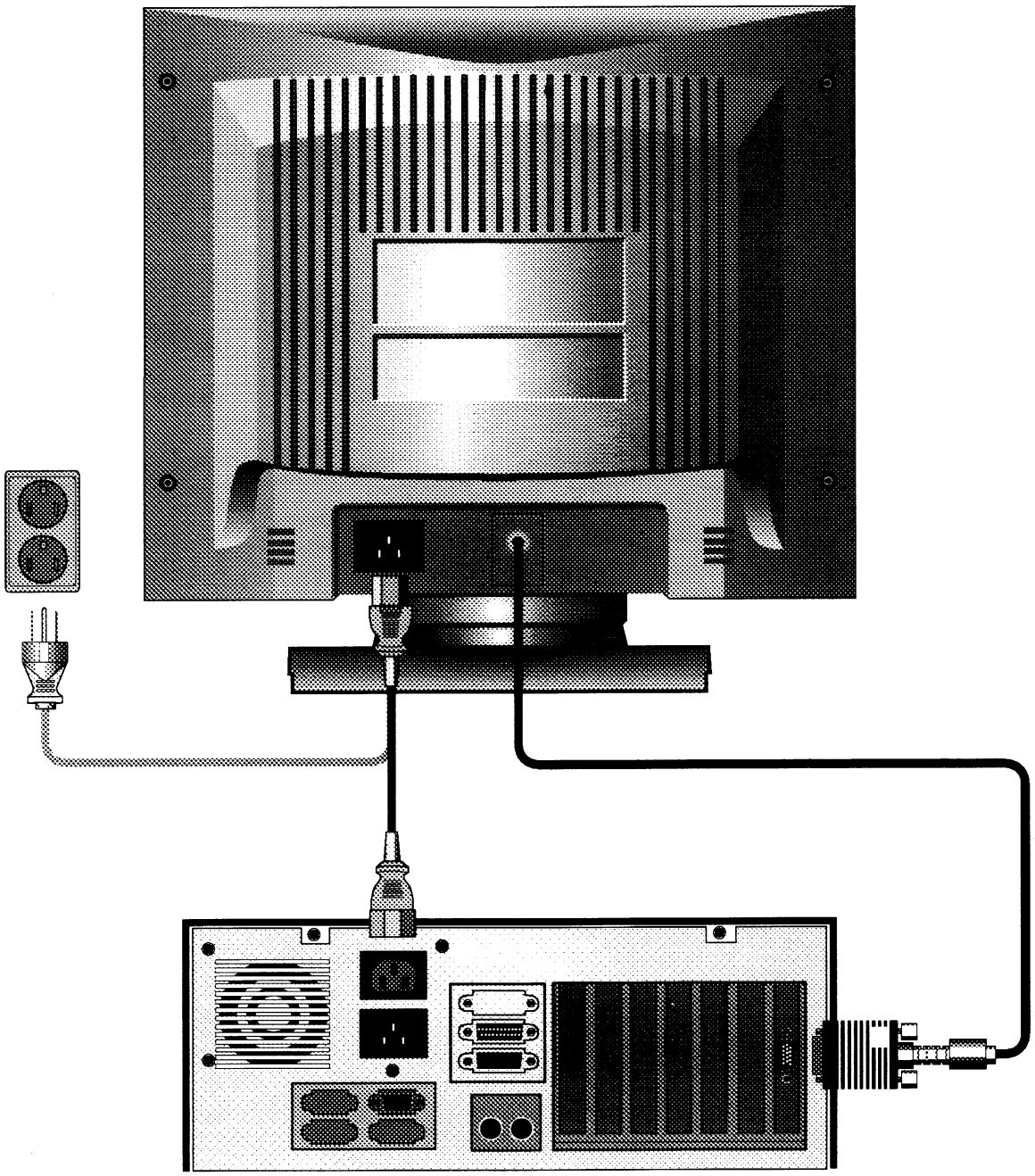
D-Sub miniature connector



Connecting with External Equipment

Cautions

Be sure to turn off the power of your computer before connecting the monitor.



Theory of Operation

1. Power Supply

The AC line voltage range is from 90V to 264V.
The SMPS has +52V, +75V, +6.3V, +12V,+24V.
The conducted noise is filtered by X capacitors(CP20, CP01) and Y capacitors (CP02, CP03) and a common mode line filter (TP01).
The input rectifier (BDP01~BDP04) converts the AC line voltage into a DC voltage to power the SMPS.
The UC3842 (ICP01) drives the power FET(QP03) according to the PWM signals generated by the RT and CT (RP08, CP10) connected pin 4 of ICP01.
The ICP01 is an integrated current mode PWM.
It consists of an oscillator, error amplifier, current sense comparator, under voltage lock-out and an MOSFET drive stage.
The switching frequency is locked to horizontal scan frequency by horizontal flyback pulse.
When the monitor is in OFF mode with no pulsed syncs. QS04 and QS06 is turned off. The total power consumption must be less than 5W in off mode.

2. DPMS and Selftest mode

The power supply supports the DPMS function. Its operation is shown in the table below.

MODE	H-SYNC	V-SYNC	BRI MCU PIN 22	CON MCU PIN 23	MCU PIN 12	MCU PIN 13	QS06	QS01	12V	6.3V	REMARK
NORMAL	O	O	CONTROL		H	H	ON	ON	12V	6.3V	
SELFTEST	X	X	5 V		H	H	ON	ON	12V	6.3V	
STAND-BY	X	O	0 V		H	H	ON	ON	12V	6.3V	VESA
STAND-BY	X	O	0 V		L	H	OFF	ON	0V	6.3V	NEWTEK
SUSPEND	O	X	0 V		L	H	OFF	ON	0V	6.3V	
OFF	X	X	0 V		L	L	OFF	OFF	0V	0V	

3. Signal Processing and MCU Control

The X-TAL resonates at 8MHz.
When the H and V sync or TTL composite sync are input to MCU, MCU can measures the H and V frequency to detect the video mode.
MCU has digital to analog converter(DACS) control function like R/G/B cut off, R/G/B drive, rotation, contrast, brightness, and MCU can control Recall, H-Size, H-Position, V-Size, V-Position Pincushion, Pin Balance, Trapezoide, Parallel, V- Moire, Rotation, Color Control, Information, Language, OSD Adjust, Soft Power by I²C BUS Line.

The operation of MCU is shown in the table below.

H-Freq (kHz)	(CS1) H-LIN1 PIN 17	(CS2) H-LIN2 PIN 18	(CS3) H-LIN3 PIN 19	Remark
H < 33.9	L	L	L	
34 < H ≤ 36.9	L	L	H	
37< H ≤ 39.9	L	H	L	
40 < H ≤ 51.9	H	L	H	
52< H ≤ 61.9	H	H	L	
62 < H ≤ 70.0	H	H	H	
Out of Range(48KHz)	H	L	H	

4. Horizontal Deflection

TDA9109S(ICH01) is an I²C autosync deflection controller for H/V sync and drive processing.
All functions are controlled by I²C bus.
When H-Sync is applied, the internal oscillator is automatically locked.
The duty-cycle of H-output pulse(Pin 26) is variable by frequency.
QH21, QH22, QH04 and TH02 are used to drive the H-output transistor (QH12). QH12 is turned on, it conducts current through the deflection yoke on the right hand side of the screen.
This current comes from the S correction capacitors (CH46, CH56, CH58, CH60), which have a charge equal to the effective supply voltage.
When the QH12 is opened up, the damper diode(DH07, DH08) allows current for left hand side of the screen to flow back through the deflection yoke to the S capacitors.
The flyback capacitor (CH44) determines the size and length of the flyback pulse.
The S capacitors correct outside versus center linearity in horizontal scan.
Three FETs (QH13, QH14, QH15) select the value of S capacitors.
H-centering is controlled by a switch(SWH01). The switch selects DC offset current flow through the yoke.
A diode modulator is used to control the E-W correction and H-size. ICH01 generates the E-W parabora wave using vertical amp.
A power buffer (QH10, QH11) drives the diode modulator.
In order to keep the high voltage constant independent of the horizontal scan frequency, the supply voltage of FBT must increase with increasing scan frequency proportionally. A step-up mode DC-DC converter with PWM is used to realize this demand.
ICH01 compares high-voltage feedback with reference voltage. Its output pulse switches a FET(QH08). To adjust the high voltage, TDA9109S(ICH01) has a control terminal (Pin 16).

5. Vertical Deflection

In vertical section of TDA9190S(ICH01), there is auto-sync processing.
The vertical output stage consists of a power OP-AMP with extra flyback genenator TDA9302H(ICV01) is used as vertical output stage.

6. X-Ray Protection and Beam Current Limiting.

A failure in the horizontal scan control section could cause a dangerous situation; the high voltage might rise to an unacceptable high level. When the flyback voltage rise to unacceptable level, the pin25 of ICH01 detects these states (over 8.0V).
It causes the H-drive stage and oscillator to be turned off. Then high voltage is shut down until the power switch is on.
The average anode current is measured at lower side of the High Voltage winding of the FBT. The anode current flows through resistor RH70, RH71 connected against +12V.
When the anode current increases, the voltage of pin23 of MCU increases so contrast control voltage is limited.

7. Video Amplifier and OSD Interface

KA2500B(ICC01) is a wide band video amplifier with three matched video amplifiers, contrast control, OSD interface, OSD contrast control, drive controls, blanking gate and clamp gate. H-blank signal is applied to Pin 19. During blanking all three outputs are thrown to the pedestal level. An inserted H-sync is used to a clamp signal.
The clamp signal is applied to Pin 18.
Three OSD inputs (Pin 1, 2, 3 of ICC01) are TTL compatible and typical bandwidth is 150MHz.
A fast communicate pin is provided to select either the video or the OSD inputs as a source for amplification.
OSD contrast control (Pin 13, 14 of U401) is also provided for the amount of amplification required when OSD inputs are selected.
MTV018 (ICC02) is a high performance HCMOS device designed to interface with a micro controller unit (ICM01) to allow colored symbols or characters to be displayed on the monitor screen.
The output stage is made of 3-channel power amplifier ICC03(LM2409T). The output is capable of 40 Volts swing in less than 11 Sec.
The three cathodes are AC coupled to the video amplifiers. The DC level on each cathode is set by a cut-off amplifier and clamp diode. The value of the DC voltage is adjusted by DACS.

Visual Characteristics

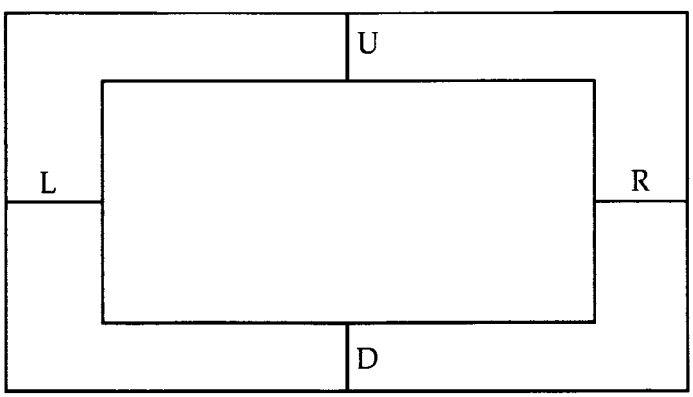
1. Test condition

- Resolution : Any of Preset modes
- Input level : 700mV
- Pattern : Cross Hatch pattern
- Brightness Control : Default position (cut off)
- Contrast Control : Adjust to 100 cd/m2 of luminance (Center of the white field)
- Image duty cycle : 10% to 90%
- Magentic field : Horizontal = 0.3 Gauss
  Vertical = 0.4 Gauss
- Supply Voltage : 100~240 VAC
- Operating Condition
  Temperature (0 to 40)°C
  Humidity (35 to 80)% (W/O condensation)
  Altitude (0 to 3000)m
- Stroage condition
  Temperature (-10 to 60)°C
  Humidity (5 to 85)% (W/O condensation)
  Altitude (0 to 15,000)m

2. Display Centering

The following describes the pattern for this test. Basically it is composed by a single pixel white line around the perimeter of the data area, with marks for the horizontal and vertical axes, the background is black.
The display centering shall be met as following specification at adjustied centering function (user's control)

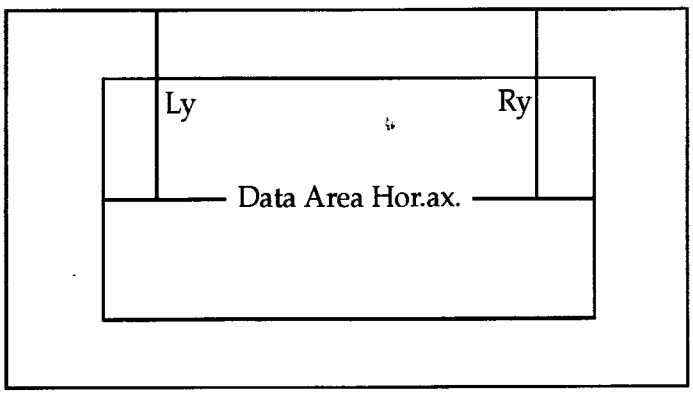
[L-R] ≤ 4mm [U-D] ≤ 4mm



3. Tilt

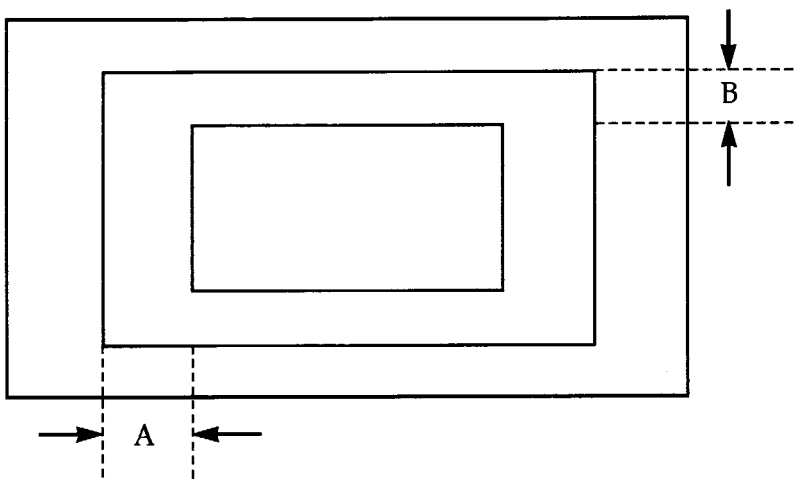
The maximum variation of the display rotation(tilt) shall be with in 2 mm based on the following formula.

$$[Ly-Ry] \leq 2mm$$



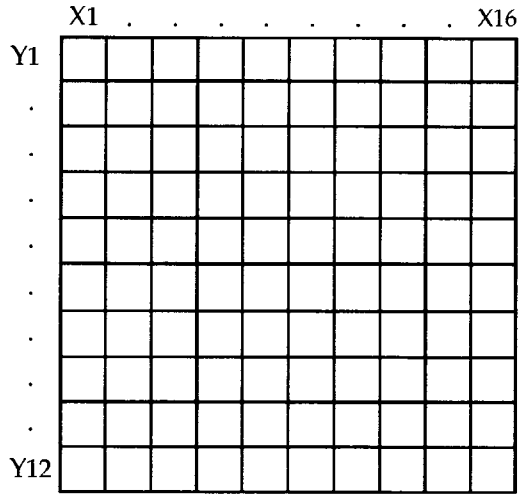
4. Geometric Distortion

All kind of Geometric Distortion
(Pincushion, Barallel, Parallelogram and Trapezoid) shall be with in 2mm boundary (to tolerance frame) Refer to belows tolerance frame.
$A \leq 2mm$ $B \leq 2mm$
The tolerance frame sides are parallel to the window of enclosure axes.



5. Linearity

The linearity of an image displayed on the CRT must meet the following requirements, with reference to figure for both X and Y axis.



- Formula : $\frac{XMax - XMin}{XMax + XMin} \times 100 = \leq 6\%$ overall(VGA mode is 8%)

$\frac{XMax - XMin}{XMax + XMin} \times 100 = \leq 4\%$ adjacent cells

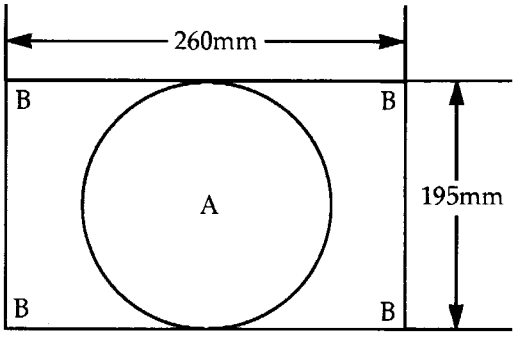
- Where : X1=X2=....X16
  Y1=Y2=....Y12

6. Misconvergence

The display must confirm to all following requirements:
Maximum convergence error.

Area	Horiz. Direction	Vert. Direction
A Central circle field of(195) mm diameter	0.3mm	0.3mm
B All screen Area (260 × 195) except Area A	0.4mm	0.4mm

The maximum convergence error shall be measures for a white spot of line, and represents the maximum distance between the energy centers of any two primary colors.



Power Management System

The automatic power management function saves electricity and reduces heat. Used in conjunction with a PC having Power Management function, or a PC running Screen Blanking software, this monitor automatically reduces its power consumption when the PC is not in use.
This monitor runs in three states: ON(Normal Operating), Stand-by (No Video Signal), and OFF (Non-Operating).
This monitor is in complaince with U.S EPA Energy Star and NUTEK requirements.

Please refer to the following specifications.

State	Signals			Power consumption	Recovery time	LED Description
	H-Sync	V-Sync	Video			
On	pulses	pulses	active	75W	-	Green
Stand by	no pulse	pulses	blanked	15W	within 3 sec	Orange/Green blinking about 1 sec
Suspend	pulses	no pulse	blanked	Less than 15W	within 3 sec	Orange/Green blinking about 0.5 sec
Off	no pulse	no pulse	blanked	Less than 5W	within 15 sec	Orange

Trouble Shooting

1. Introduction

This trouble shooting guide is arranged by fault conditions. Following each fault condition is a check for a signal on condition to be answered YES or NO.
For NO answer proceed to the right and continue until the fault is located.
For a YES answer continue in the left column to the next numbered check.
Again followed this procedure until the fault is located.

2. Trouble shooting procedure

When Troubleshooting this monitor, some precaution should be observed.
Use a high quality isolation tranformer is capable of providing 3 Amps or more.
Never connect primary ground and secondary ground together including use with an isolation transformer.
Measure high voltage with respect to chassing ground only, and with a high impedance prove of 1000 mega-ohm or higher and rated for 30KV DC or higher.
Measure QH12 collector pulse with a high quality 100:1 probe rated for 1500 volts or higher.

3. Troubleshooting procedure

Symptom	Check(YES)	Action(NO)
a) Image is scrolling.	1) Check for Vsync at pin 42 of ICM01	Check 7PIN Water(WC06), cable, DM07.
	2) Check for positive going Vsync at pin 2 of ICH01.	Check ICH01, ICM01
	3) Will V-oscillator is locked with input signal? (pin 20 of ICH01)	Check CH23
	4) Check V-out at pin 23 of ICH01.	Replace ICH01.
	5) Check V-out at pin of ICV01.	Check B+ at pin 2, 4 of ICV01.
b) Image is unstable.	1) Check for Hsync at pin 41 of ICM01	Check 15 pin D-sub connector, cable, DM08.
	2) Check for positive going Hsync at pin 34 of ICM01.	Replace ICM01
	3) Will H-oscillator is locked with input signal? (pin 5 of ICH01)	Check CH01, CH02, RH03, CH03, CH04, RH04, DH01.
	4) Check H-out at pin 26 of ICH01	Replace ICH01.
	5) Check for flyback pulse at pin 12 of ICH01.	Check RH05

Symptom	Check(YES)	Action(NO)
c) Screen is black but high voltage is present.	1) Check for G2, pin8 of CRT. Around 680 volts?	Check RC44, G2 wire, CRT socket, CC42, SGC05.
	2) Check for heater voltage at pin 4 of CRT. (about 6.3V)	Check DS02, QS04, QS01, RS01, RC81, WC01, WC07, CRT socket.
	3) Can screen be lit with brightness control at MAX?	Check DH18, CH50, DH24, QH19, CRT socket.
	4) Check for video at pin 5, 8, 10 of ICC01.	Check 15 pin D-sub connector, cable, DC01, DC02, DC03.
	5) Check for positive pulse for clamp at pin 18 of ICC01.	Check pin 34 of ICM01, RC07.
	6) Check if contrast controls video level at pin 21, 24, 26 of ICC01.	Check ICM01, RH71, RH70, RC15, CC18, CH48, CC19, CH12.
	7) Check for video at pin 8, 9, 11 of ICC03.	Check ICC01.
	8) Check for video at pin 1, 3, 5 of ICC03.	Check ICC03, 75VDC(pin 6), 12VDC(pin 10).
	9) Check if R, G, B cut-off control the video DC level at pin 3, 7, 9 of CRT.	Check QC01~QC06
	10) Check CRT.	
d) Screen is black with no high voltage.	1) Is the LED01 lighting in Green color.	Check H.V Sync at pin 41, 42 of ICM01. Check pin 8, 9 of ICM01. Check ICM03, ICM02, ICC02.
	2) Check for 12V at collector of QS03.	Check QS03, QS06, QS08. Check pin 12 of ICM01.
	3) Check output pulse at pin 26, 28 of ICH01.	Check for Vcc at pin 29 of ICH01. Check oscilation pulse at pin 5 of ICH01. Check X-Ray voltage above 8.0V at pin 2.5 of ICH01. Check RH17, ZDH01, RH92
	4) Check Hor-Drive pulse at Base of QH12.	Check QH21, QH22, QH04, TH02, DH03.
	5) Check B+ at pin 2 of TH03.	Check QH06, QH07, QH08, QH12, LH04, DH12, DP09,DS01
e) No power	1) Check ICP01 pin 4, 7	Check THP03, QP02.
	2) Check switch pulse at Drain of QP03.	Check pin 6, 3 of ICP01.
	3) Check voltage for, 50V at anode of DS01 and for 5V at pin 3 of ICS01.	Recheck above Items.

Adjustment Method

1. Caution

Extremely high voltage are present in the area around the FBT(TH03) and the anode high voltage lead. Do not touch QP03 or its heatsink as high voltage is present on these components.

2. Equipment Required

Digital Voltmeter
Frequency Counter : about 40 Hz to 100 KHz
Color Analyzer
Video Signal Generator
High Voltmeter : up to 30 KV
Alignment Templete : Attachment 1

3. Before Adjustment

Verify that the video output level is 0.7 Vpp at 75 ohm termination and the video timmings are same as standard timming given in specification. Place the AC power switch to the ON position.
Allow the monitor to stabillize thermally for 15 minutes at least before any adjustment about the image parameters. The electron optics of the CRT and electronics of system require time of stabillize.

4. Adjustment Procedure

4-1 Voltage and Free-Run Frequency

1) 12.2V Setting
- Video Signal : Cross Hatch pattern in 31.5kHz, 400 mode
- Set the G2 controls to the minimum position
- Measuring point : DS05 Cathode Lead, main board
- Adjustment : VRP01, main board
- Limits : 12.0V~12.4V DC.

2) High Voltage Setting
- Video Signal : Black pattern in 31.5kHz, 400 mode
- Set the G2 controls to the minimum position
- Measuring Point : HV01
- Adjustment : VRH01, main board
- Limits : -122V~-124V

3) Screen Voltage Setting
- Video Signal : Black pattern in 31.5kHz, 400 mode
- Measuring Point : G2 on the CRT board (use High Voltmeter)
- Adjustment : Screen VR (lower VR of FBT)
- Limits : 670V ~690V

4-2 Horizontal raster center setting

- Video Signal : Back Raster pattern in 60kHz, 768 mode
- Measuring Point : SWH01, main board
- Place the Raster in center of the bezel.

4-3 Factory mode setting

- Turn off the power.
- Keep pressing the menu or select key until the power turns on.
- Press the menu select key one more time.
- You can see the "Factory - Menu" message on the top of the OSD main menu.
- This is the factory mode.
- Turn off the power to save the adjusted state.
- Select the "Mode Information" menu after you exit the factory mode.

4-4 Rotation setting

- Video Signal : Cross Hatch pattern in 31.5kHz, 400 mode
- Adjust the rotation of screen by using the Menu ▲,▼ and SELECT keys.

4-5 Color setting

- Adhere color Analyzer sensor closely to CRT center.
- Set Factory mode.
- Video mode : 68.677kHz, 768 mode

1) Color Temperature 9300°K setting

- Select " 9300 " by using the Menu ▲,▼ and SELECT keys.

① Back Raster Setting

- Video signal : Back Raster Pattern
- Adjust the brightness of back raster by pressing the ▲ and ▼ Keys of Sub-brightness.
- Limits : 2.5 ±0.5 cd/m²

② Cut-off Setting

- Video signal : Back Raster Pattern
- Select "Cut-off" by using the menu ▲,▼ and SELECT keys.
- Press the SELECT key to get the desired R, G or B Cut-off.
- Pressing the ▲ or ▼ Keys to limit the x and y color coordinate.
- Limits : x=0.281 ±0.01, y=0.311 ±0.01

③ Drive Setting

- Video signal : 20% white box
- Select the "9300" by using the ▲,▼ and SELECT keys.
- Adjust the brightness go to minimum by using the ▲,▼ and SELECT keys.
- Adjust the brightness go to 5~10 cd/m² by Press ▲,▼ Key in Contrast.
- Press the select key to get the desired R or B Gain.
- Press the ▲,▼ Key to limit the x and y color coordinate.
- Limits : x=0.281 ±0.01, y=0.311 ±0.01

④ Contrast Setting

- Video Signal : 20% white box
- Adjust the brightness go to 0.08~0.11 cd/m² by using the ▲,▼ Key in Sub-Brightness
- Adjust the brightness of 20% white box by Press the ▲,▼ Key in Contrast
- Limits : 135±2.5 cd/m²

⑤ Back Raster Setting again

- The method of adjustment is same to section ①

2) Color Temperature 6500°K Setting
- Select " 6500 " by using the Menu ▲,▼ and SELECT keys.

① Drive, contrast Setting
- The method of adjustment is same to 9300°K
- The color coordinate is x=0.313±0.01, y=0.329±0.01

4-6 Geometry Setting
- Adhere template closely to the CRT surface
- Video Signal : Cross hatch pattern in 31.5kHz to 69kHz expectively.
- Adjust the all items by using the Menu ▲,▼ and SELECT keys.

1) Horizontal Position Setting
- Place the screen in center of the horizontal direction.

2) Horizontal Size Setting
- Adjust the horizontal size of the screen to 260±2 mm.

3) Vertical Position Setting
- Place the screen in center of the vertical direction.

4) Vertical Size Setting
- Adjust the vertical size of the screen to 195±2 mm.

5) Pincushion Setting
- Make the straight line to the vertical right and left line of screen.

6) Trapezoid Setting
- Make the same size to the horizontal up and bottom size of screen.

7) Parallelogram & Pin Balance
- Adjust parallerogram until vertical lines are parallel to the vertical bezel.

8) Rotation Setting
- Adjust rotate until horizontal lines are parallel to the bezel.

4-7 Focus
- Video Signal : " Full H " character pattern in 64kHz.
- Adjust Focus VR on the top of the FBT so that the image of whole screen looks clear.

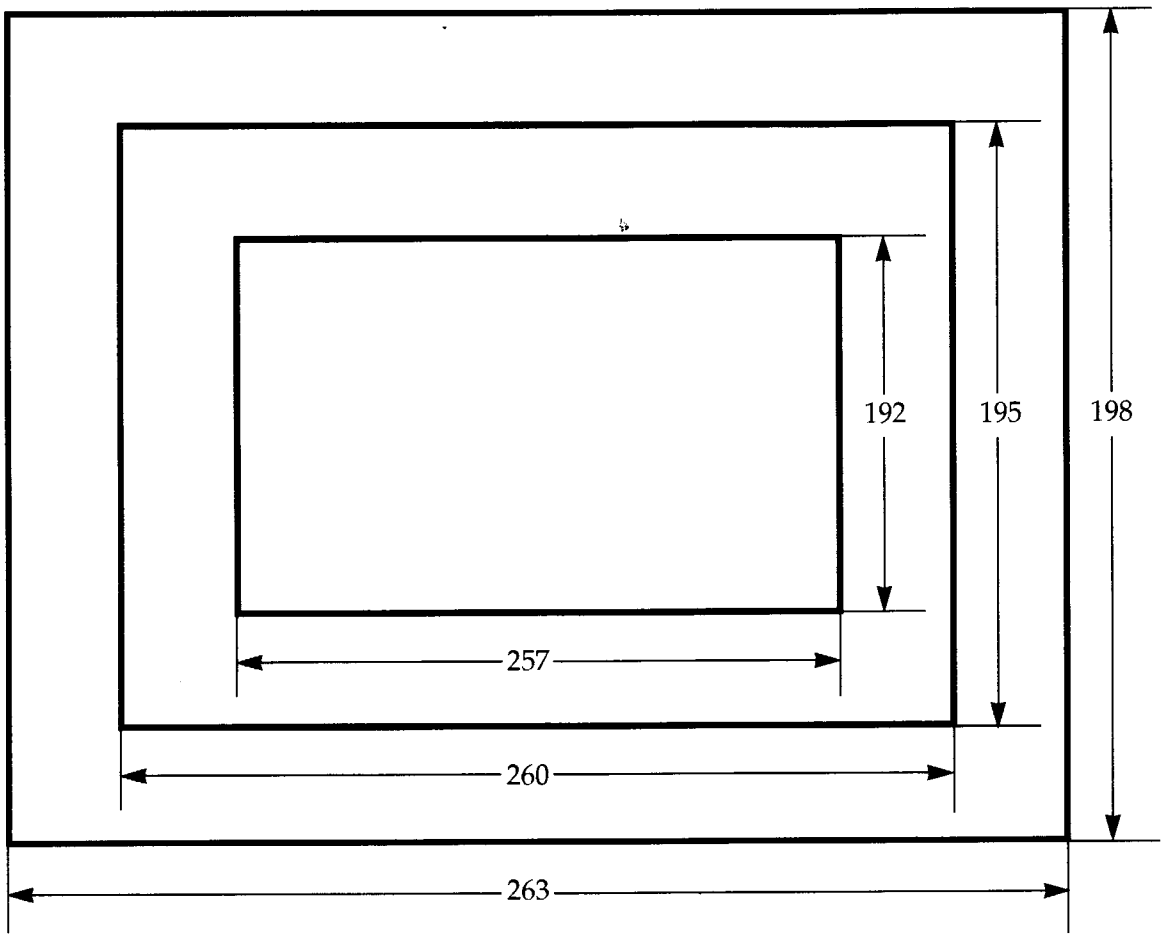
5. X-Ray Protection Test

1) In any signal input condition, short ZDH01 (main board) by using the JIG.
2) At this moment, check out whether raster disappears.
3) Remove the JIG.
4) After the power switch of the set off and on, check out proper working.

6. AGING and Self Test Mode

The monitor has an enhanced level of self-diagonostics.
When the signal cable is removed or signal isn't detected, the monitor is operated to OFF-Mode.
If menu/select key is pushed on OFF-Mode, the system has the ability to generate an NO SIGNAL pattern and the following OSD image is displayed on screen.

Attachment 1. Alignment Template



Specification

CRT	SIZE	· 15"(13.7" viewable) Diagonal, Flat
	Dot Pitch	0.28 mm
	Type	Non-glare, Anti-Static
Input	Signal	R.G.B Analog
	Connector	15 pin D-Type (attachable)
SYNC	Fh	30 kHz ~ 70 kHz(Automatic)
	Fv	50 Hz ~ 150 Hz(Automatic)
Video Bandwidth		95 MHz (-3dB)
Display	Area(H × V)	260 × 195 mm (Max. Over Scan)
	Color	Infinite
Resolution	Max.	1280 × 1024(64kHz/60Hz)
User Controls & OSD Controls		H-size, H-position, V-size, V-position, Pincushion, Pin Balance, Trapezoid, Parallelogram, V-Moire, Rotation, Language, OSD H-delay, OSD V-delay, Color Control, Information, Recall, Degauss, Contrast, Brightness, Power Key
Power Management		As per VESA Standard, Lower than EPA's recommendation
VESA DDC 1/2B		Basic
Compatibility		VESA, 8514/A, XGA, EVGA, MAC II
Power Source		100-240 VAC(Universal Power) 1.3A 75W
Safety & Regulation	TCO	Basic
	EMC	FCC Class B, CE
	Safety	UL, CSA, TÜV-GS, ISO-9241-3, DHHS, NEMKO, DEMKO, FIMKO, SEMKO
Temperature	Operating	0 to 40 degree celsius
	Storage	-10 to 60 degree celsius
Humidity	Operating	35% to 80% (Non-condensing)
	Storage	5% to 85%
Weight		• Unit : 11.9Kg • Carton : 14.2Kg
Dimension(W × H × D mm)		365 × 274 × 397 mm

▶Specification is subject to change without notice for performance improvement.

Critical Parts Specification

TDA9109/S

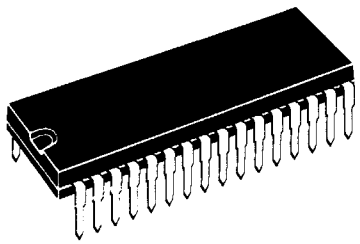
FEATURES

HORIZIONTAL
- SELF-ADAPATIVE
- DUAL PLL CONCEPT
- 150kHZ MAXIMUM FREQUENCY
- X-RAY PROTECTION INPUT
- I² C CONTROLS : HORIZONTAL DUTY-CYCLE, H-POSITION, FREE RUNNING FREQUENCY, FREQUENCY GENERATOR FOR BURN-IN MODE

VERTICAL
- VERTICAL RAMP GENERATOR
- 50 TO 185HZ AGC LOOP
- GEOMETRY TRACKING WITH VPOS & AMP
- I²C CONTROLS : VAMP, VPOS, S-CORR, C-CORR
- DC BREATHING COMPENSATION

I²C GEOMETRY CORRECTIONS
- VERTICAL PARABOLA GENERATOR (Pin Cushion - E/W, keystone, Corner)
- HORIZONTAL DYNAMIC PHASE (Side Pin Balance & Parallelogram)
- VERTICAL DYNAMIC FOCUS (Vertical Focus Amplitude)

GENERAL
- SYNC PROCESSOR
- 12V SUPPLY VOLTAGE
- 8V REFERENCE VOLTAGE
- HOR & VERT LOCK/UNLOCK OUTPUTS
- READ/WRITE I²C INTERFACE
- HORIZONTAL AND VERTICAL MOIRE
- B+ REGULATOR
  - INTERNAL PWM GENERATOR FOR B+ CURRENT MODE STEP-UP CONVERTER
  - SOFT START
  - I²C ADJUSTABLE B+ REFERENCE VOLTAGE
  - OUTPUT PULSES SYNCHRONIZED ON HORIZONTAL FREQUENCY
  - INTERNAL MAXIMUM CURRENT LIMITATION



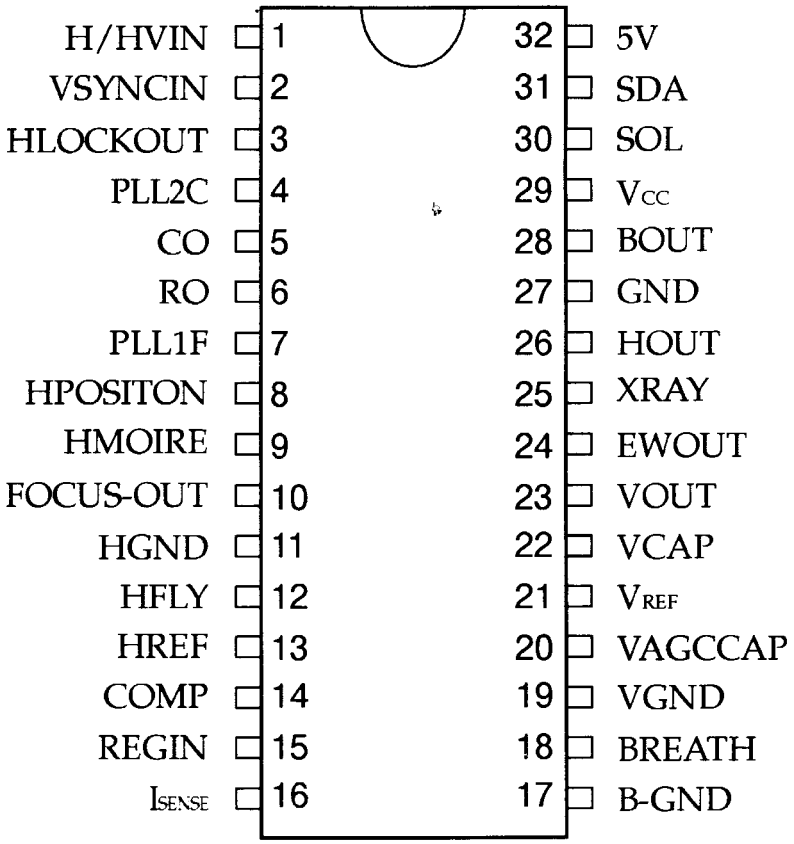
SHRINK32
(Plastic Package)
ORDER CODE : TDA9109/S

DESCRIPTION

The TDA9109/S is a monolithic integrated Circuit assembled in 32-pin shrink dual in line plastic pack-age. This IC control all the functions related to the horizontal and vertical deflection in multimode or multi-frequency computer display monitors.
The internal sync processor, combined with the very powerful geometry correction block make the TDA9109/S suitable for very high performance monitors, using very few external componets.
The horizontal Jitter Level is very low. It is particularly well suited for high-end 15" and 17" monitors.
Combined with the ST7275 microcontroller family, TDA9206 (Video preamplifier) and STV942x(ON-Screen Display controller) the TDA9109/S allows fully I²C bus controlled computer display monitors to be built with a reduced number of external components.
Compared with the TDA9109 The TDA9109/S has:

-corner correction.
-horizontal Moire.
-B+soft start.
-increased Max. vertical frequency.
-no horizontal focus.
-no step down option for DC/DC converter.

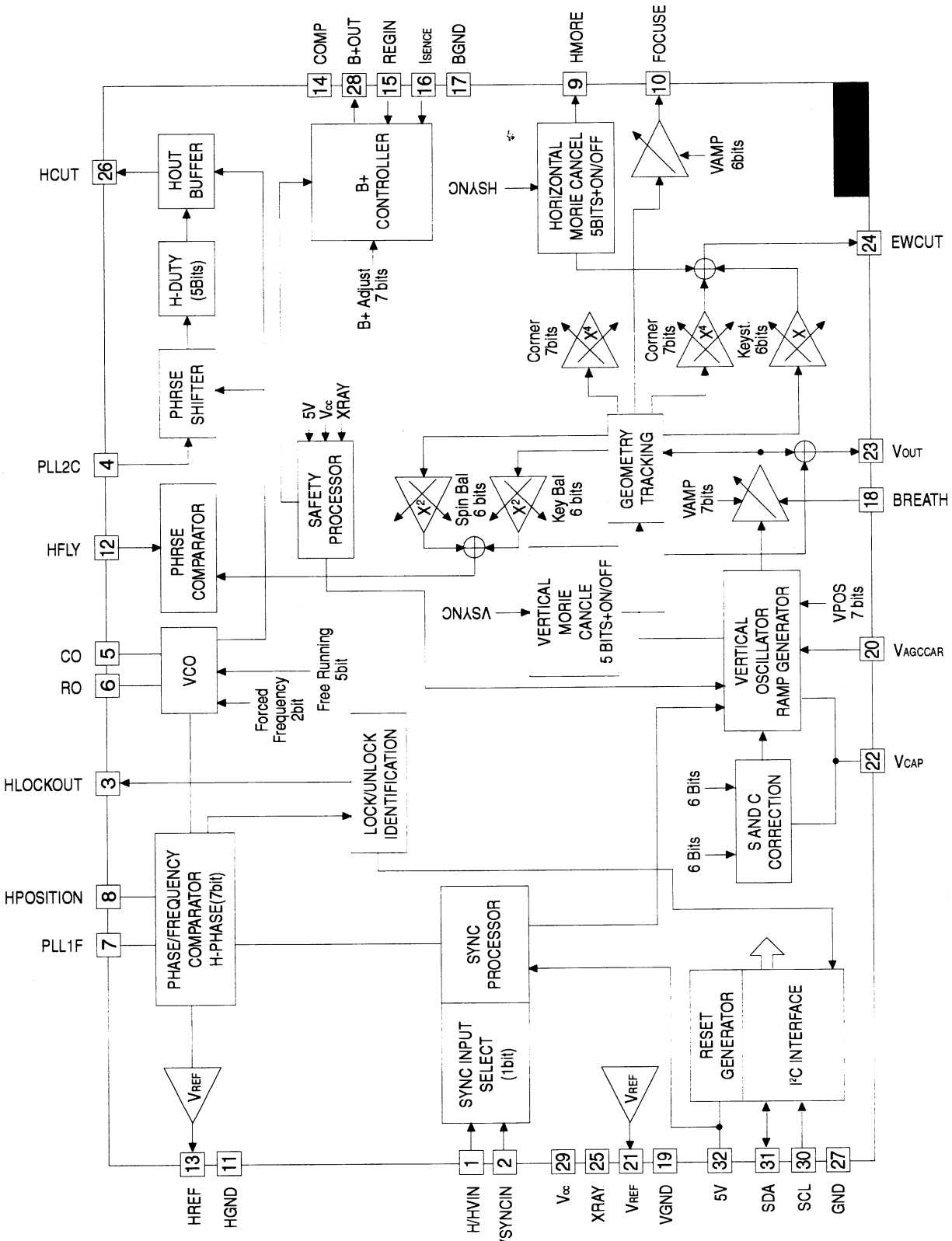
PIN CONNECTIONS



PIN CONNECTIONS

PIN	Name	Function
1	H/HVIN	TTL compatible Horizontal sync Input (separate or composite)
2	VSYNCIN	TTL compatible vertical sync Input (for separated H&V)
3	HLOCKOUT	First PLL Lock/Unlock Output (OV unlocked · 5V Locked)
4	PLL2C	Second PLL Loop Filter
5	CO	Horizontal Oscillator Capacitor
6	RO	Horizontal Oscillator Resistor
7	PLL1F	First PLL Loop Filter
8	HPOSITION	Horizontal position Filter (capacitor to be connected to HGND)
9	HMORE	Horizontal Moire Output (to be connected to PLL2C through a resistor divider)
10	FOCUSOUT	Vertical Dynamic Focus Output
11	HGND	Horizontal Section Ground
12	HFLY	Horizontal Flyback Input (positive polarity)
13	HREF	Horizontal Section Reference Voltage (to be filtered)
14	COMP	B+Error Amplifier Output for frequence compensation and gain setting
15	REGIN	Regulation Input of B+control loop
16	ISENSE	Sensing of external B+switching transistor current
17	B+GND	Ground (related to B+reference adjustment)
18	BREATH	DC Breathing Input Control (compensation of vertical amplitude against EHV variation)
19	VGND	Vertical Section Ground
20	VAGCCAP	Memory Capacitor for Automatic Gain Control Loop in Vertical Ramp Generator
21	VREF	Vertical Section Reference Voltage (to be filtered)
22	VCAP	Vertical Sawtooth Generator Capacitor
23	VOUT	Vertical Ramp Output (with Frequency independant amplitude and S or C Corrections if any). It is mixed with vertical position voltage and vertical moire.
24	EWOUT	Pin Cushion - E/W Correction Parabola Output
25	XRAY	X-RAY protection input (with internal latch function)
26	HOUT	Horizontal Drive Output (internal transistor, open collector)
27	GND	General Ground (referenced to Vcc)
28	BOUT	B+PWM Regulator Output
29	VCC	Supply Voltage (12V typ)
30	SCL	I^2C Clock Input
31	SDA	I^2C Data Input
32	5V	Supply Voltage(5V Typ.)

BLOCK DIAGRAM



24LC08

4K 2.5V CMOS Serial EFPROMs

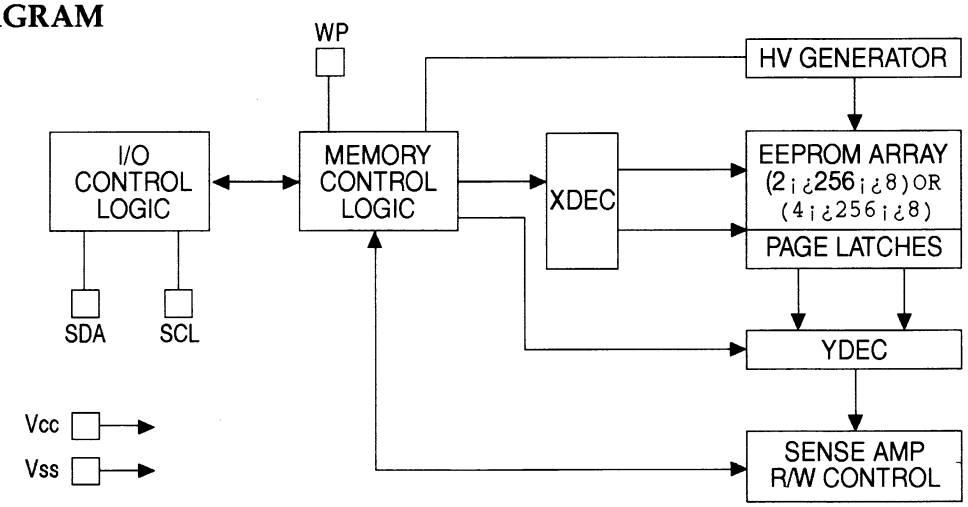
FEATURES

- Single supply with operation down to 2.5V
- Low power CMOS technologe
  - 1 mA active current typical
  - 10μA standby current typical at 5.5V
  - 5μA standby current typical at 3.0V
- Orgnized as two or fore blocks of 256 bytes (2×256×8) and (4×256×8)
- Tow Wire serial interface bus, I²C™
- Schmitt tigger, filtered inputs for noise suppression
- Output slope control to eliminate ground bounce
- 100KHz(2.5V) and 400KHz(5V) compatibility
- Self-timed write cycle (including auto-erase)
- Page-write buffer for up to 16 bytes
- 2ms typical write cycle time for page-write
- Hardware write cycle time for page-write
- Can be operated as a serial ROM
- Factory programming (OPT) available
- ESD protection>4,000V
- 1,000,000 ERASE/WRITE cycles(typical)
- Data retention > 40 years
- 8-pin DIP, 8-lead or 14-lead SOIC packages
- Available for extended temperature ranges
  - Commercial : 0℃ to + 70℃
  - Industrial : -40℃ to + 85℃

DESCRIPTION

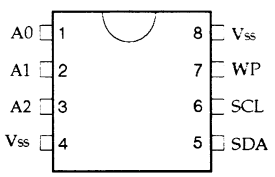
The Microchip Technology Inc. 24LC04B/08B is a 4K-or 8K-bit Electrically Erasable PROM.
The device is organized as two or four blocks of 256×8 memory with a two wire serial interface.
Low voltage design premits operation down to 2.5 volts with standby and active currents of ôbly 5μA and 1mA respectively.
The 24LC04B/08B also has a page-write capability for up to 16 bytes of data. The 24L04B/08B is available in the standard 8-pin DIP and both 8-lead surface mount SOIC packages.

BLOCK DIAGRAM

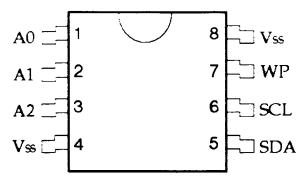


PIN CONFIGURATION

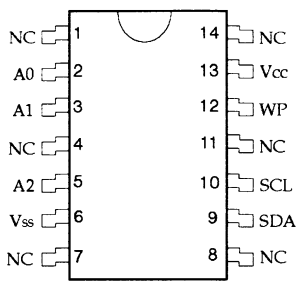
DIP Package



8-SOIC Package



14-SOIC Package



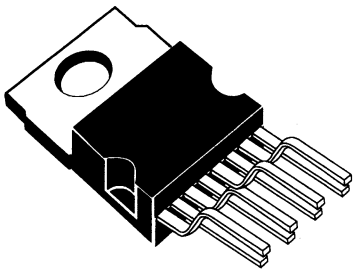
PC is trademake of Philips Corportation

TDA9302H

- POWER AMPLIFIER
- FLYBACK GENERATOR
- THERMAL PROTECTION

DESCRIPTION

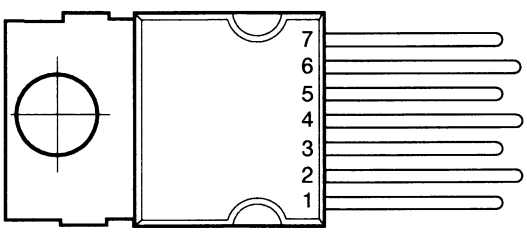
The TDA9302H is a monolithic integrated circuit in HEPTAWTT™ package. It is a high efficiency power booster for direct driving of vertical windings of TV yokes. It is intended for use in Color and B & W television as well as in monitors and displays



HEPTAWATT
(Plastic package)

ORDER CODE : TDA9302H

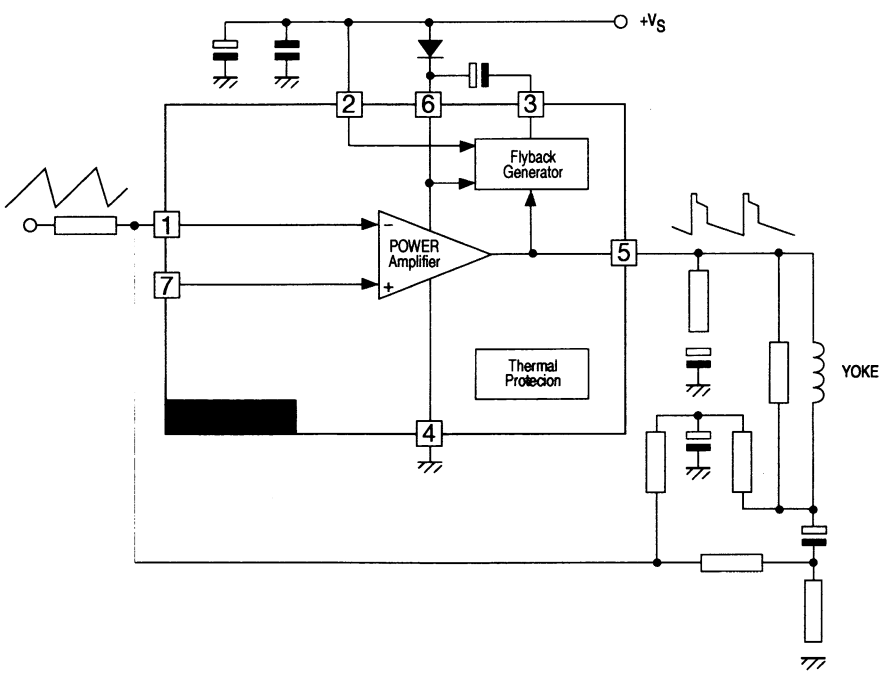
PIN CONNECTIONS (top view)



NON INV. INPUT
OUTPUT STAGE SUPPLY
OUT PUT
GND
FLYBACK GEN
SUPPLY VOLTAGE
INVERTING INPUT

Tab connected to pin 4

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS AT T_A=25°C

symbol	Parameter	Value	Unit
V_S	Supply Voltage (pin 2)	35	V
V_5, V_6	Flyback Peak Voltage	60	V
V_3	Voltage at Pin 3	+Vs	
V_1, V_7	Amplifier Input Voltage	+Vs −0.5	V
I_O	Deflection Output Current	±1.8	A
I_3	Pin 3 DC Current at $V_5 < V_2$	100	mA
P_{tot}	Total Power Dissipation at T_{case}=90°C	15	W
T_{stg}, T_j	Storage and Junction Temperature	−40, +150	°C

THERMAL DATA

symbol	Parameter		Value	Unit
$R_{th(j-c)}$	Thermal Resistance Junction-case	Max.	4	°C/W

RECOMMENDED OPER ATING CHARACTERISTICS AT T_A=25°C

symbol	Parameter	Test Conditions	Min	Typ.	Max.	Unit
V_{2m}	Recommended Supply Voltage			25		V
V_{2R}	Operating Supply Voltage Range		15		30	V
I_{5PP}	Deflection Output Current				2	App

ELECTRICAL CHARACTERISTICS
(refer to the test circuits, VS =35V, T_{amb} = 25°C unless otherwise specified)

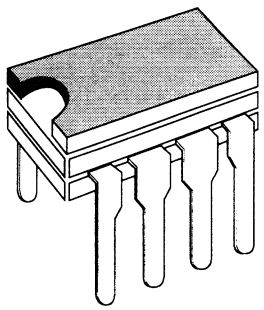
symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit	Fig.
I_2	Pin 2 Quiescent Current	I_3 = 0, I_5 = 0			16	mA	1a
I_6	Pin 6 Quiescent Current	I_3 = 0, I_5 = 0			36	mA	1a
I_1	Amplifier Input Bias Current	V_1 = 1V, V_7 = 2V		-0.1	-1	μA	1a
		V_1 = 2V, V_7 = 1V		-0.1	-1	μA	1a
V_{3L}	Pin 3 Saturation Voltage to GND	I_3 = 20mA		1	1.5	V	1c
V_5	Quiescent Output Voltage	V_3 = 35V, Ra = 39 kΩ		18		V	1d
V_{5L}	Output Saturation Voltage to GND	I_5 = 1A		0.9	1.3	V	1c
		I_5 = 0.7A		0.7	1	V	1c
V_{5H}	Output Saturation Voltage to Supply	-I_5 = 1A		1.5	2	V	1b
		-I_5 = 0.7A		1.3	1.8	V	1b
T_j	Junction Temperature for Thermal Shut Down			140		°C	

KA3842

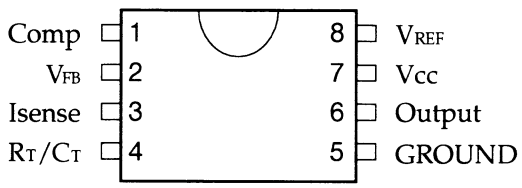
CURRENT MODE PWM CONTROLLER

- OPTIMIZED FOR OFF-LINE AND DC TO DC CONVERTERS
- LOW START-UP CURRENT (<1mA)
- AUTOMATIC FEED FORWARD COMPENSATION
- PULSE-BY-PULSE CURRENT LIMITING
- ENHANCED LOAD RESPONSE CHARACTERISTICS
- UNDER-VOLTAGE LOCKOUT WITH HYSTERESIS
- DOUBLE PULSE SUPPRESSION
- HIGH CURRENT TOTEM POLE OUTPUT
- INTERNALLY TRIMMED BANDGAP REFERENCE
- 500kHz OPERATION
- LOW Ro ERROR AMP

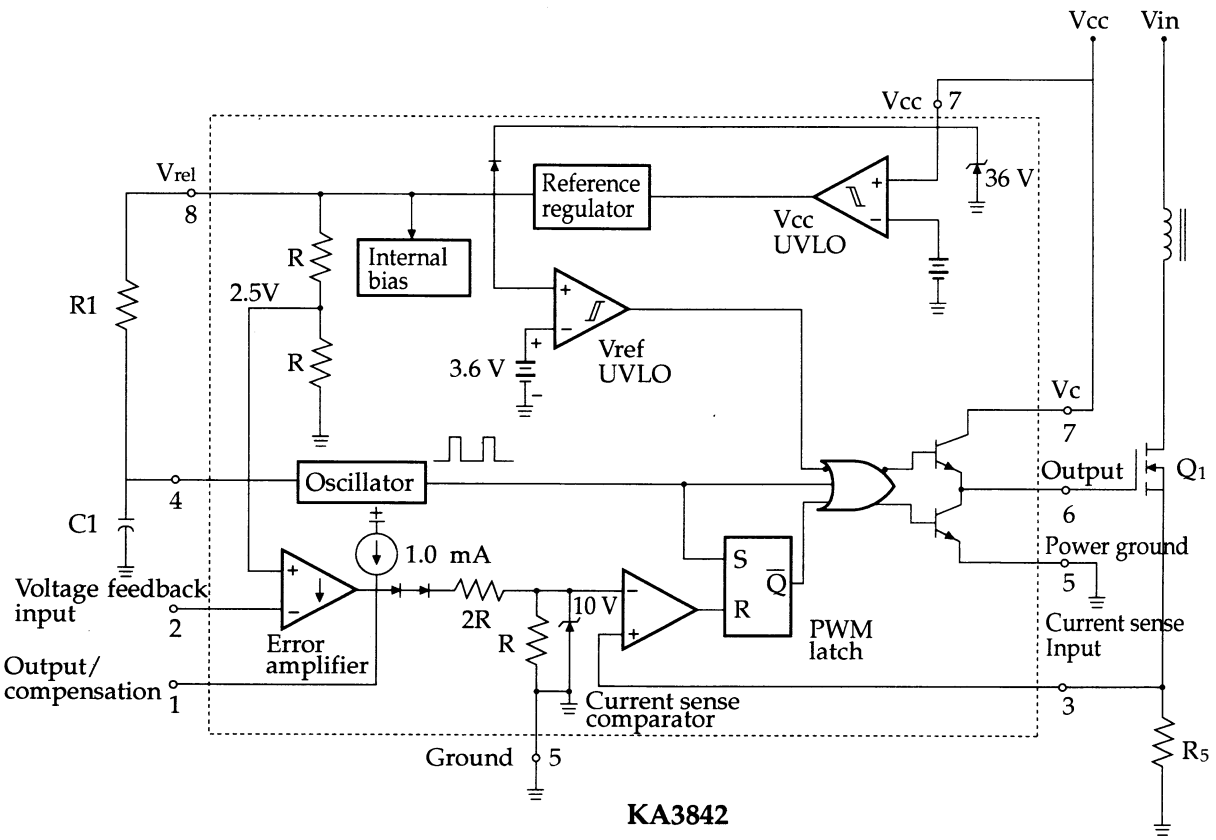
Minidip



PIN CONNECTIONS



BLOCK DIAGRAM



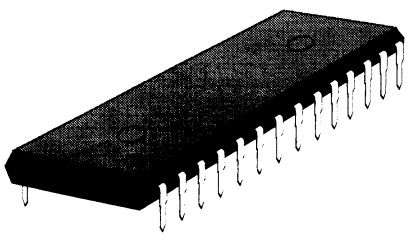
KA3842

KA2500B

IIC BUS CONTROLLED R/G/B VIDEO AMPLIFIER

The KA2500 is a very high frequency video amplifier system with IIC Bus controlled used in Monitor with high resolution up to 1280X1024 It contains 3 matched R/G/B video Amplifiers with OSD interface and provides a flexible interfacing to IIC Bus controlled adjustment system.

28-DIP-600A



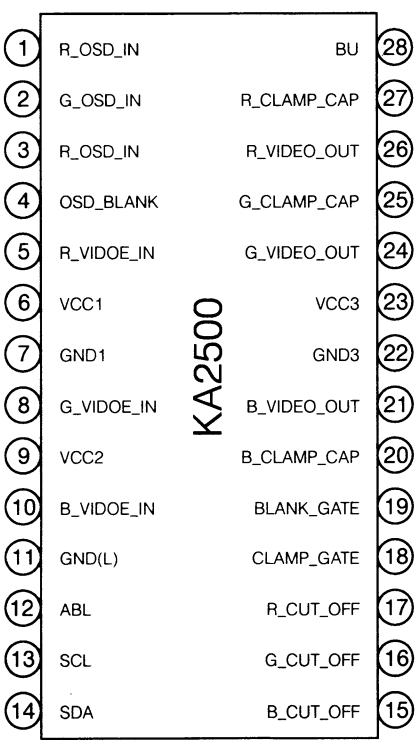
FUNCTIONS

- R/G/B Video Amplifier
- OSD Interface
- IIC BUS Control
- Contrast/OSD Control
- Brightness Control
- Cut-off Brightness Control
- R/G/B SUB Contrast / Cut Off Control
- Blank / Clamp Gate
- Half tone
- Brightness Uniformity

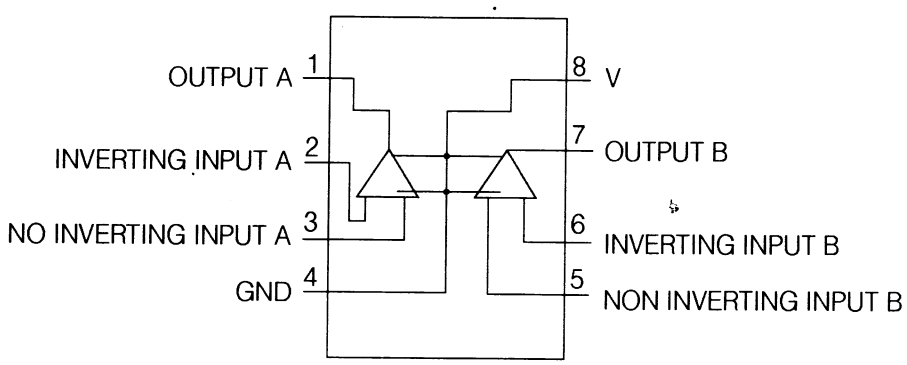
FEATURES

- 3Channel R/G/B Video Amplifier, 150MHz @f-3dB
- IIC Bus Control Items
  - Contrast Control
  - SUB Contrast Control For Each Channel
  - Brightness Control
  - OSD Contrast Control
  - Cut-off Brightness Control
  - Cut-off Control For Each Channel
  - Switch Registers for SBLK and Video Half Tone and cut-off INT/EXT
- SUB Contrast Control Range : 11dB
- Capable of 7.0V_{p-p} Output Swing Range
- Video / OSD High speed Switch
- Clamp Gate With Anti OSD sagging
- B/U(Brightness Uniformity) Interface
- Video Input Clamp, BRT Clamp
- Video Half Tone Function on OSD Picture
- OSD Interface, OSD BLK
- ABL
- TTL R/G/B OSD Inputs, 800MHz bandwidth
- Contrast Control Range : 38dB
- OSD Contrast Control Range : 38dB

PIN CONFIGURATIONS



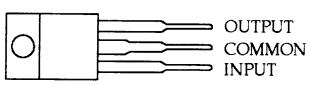
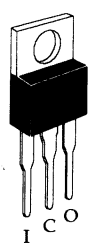
LM358



Voltage Detector ICs

Type No.	Function	Operating Voltage(V)	Package
KIA7019P/F ~7045P/F	CPU Reset, Low Voltage Detector	1.9~4.5	TO-92
KIA7419P/F ~7445P/F	CPU Reset, High Voltage Detecto	1.9~4.5	

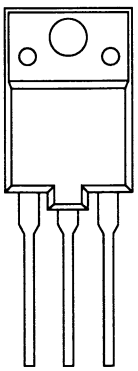
Voltage Regulator

Type No.	Function	Typ Vo(V)	Max.			Package
			Io(A)	Vin(V)	PD(W)	
KIA7805/PI	1.0A 3-Terminal Regulator	5	1.0	35	20.8	 **TO-220AB**
KIA7806/PI		6				
KIA7808/PI		8				
KIA7809/PI		9				
KIA7810/PI		10				
KIA7812/PI		12				
KIA7815/PI		15				
KIA7818/PI		18		40		
KIA7820/PI		20				
KIA7824/PI		24				

2SC5404

Horizontal Deflection Output For High Resolution Display, Color TV
High Speed Switching Applications

- High Voltage : V_{CBO}=1500V
- Low Saturation Voltage : $V_{CE(sat)}$=3V(Max.)
- High Speed : tf=0.15μs(Typ.)
- Collector Metal (Fin) is Fully covered with Mold Resin

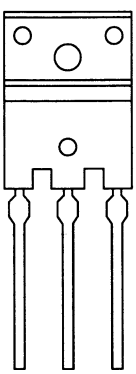


Maximum Ratings (Ta=25°C)

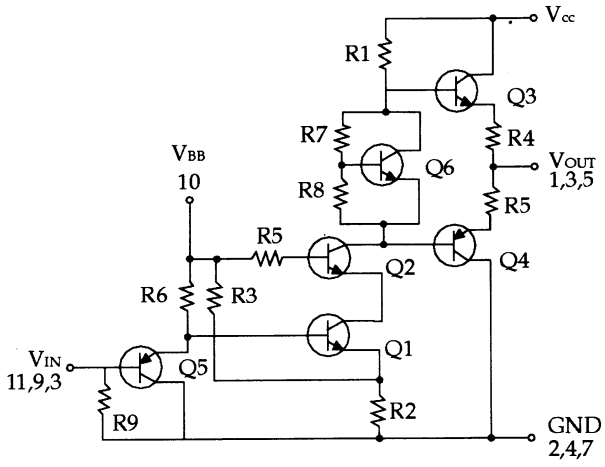
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	1500	V
Collector-Emitter Voltage		V_{CEO}	600	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	8	A
	Pulse	I_{CP}	16	
Base Current		I_B	4	A
Collector Power Dissipation (Tc=25°C)		P_C	50	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

FMP-2FUR

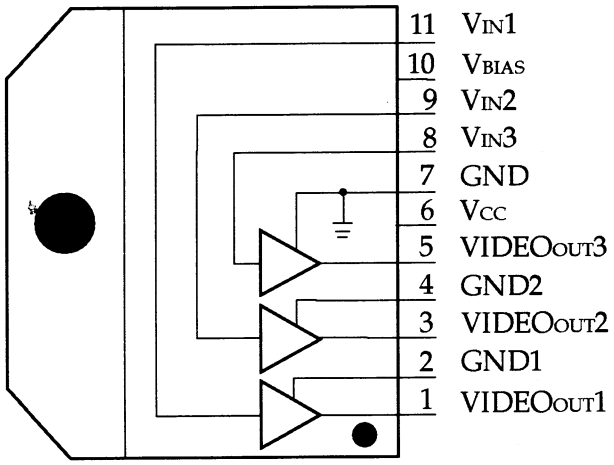
CHARACTERISTIC	SYMBOL	RATING		UNIT
		A	B	
Transient Peak Reverse Voltage	V_{RSM}	600	1500	V
Peak Reverse Voltage	V_{RM}	600	1500	V
Average Forward Current	$I_{F(AV)}$	5.0		V
Peak Surge Forward Current	I_{FSM}	50		A
I^2t Limiting Value	I^2t	12.5		A^2s
Junction Temperature	T_j	-40 ~ +150		°C
Storage Temperature	T_{stg}	-40 ~ +150		°C



LM2409T



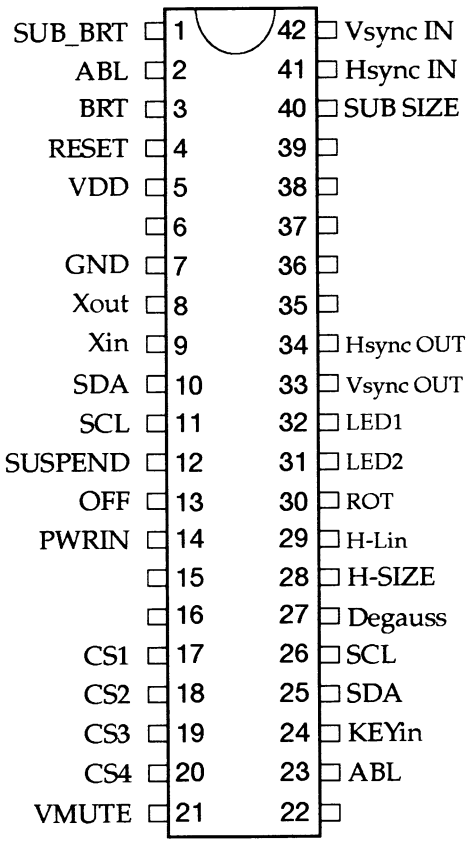
Simplified Schematic Diagram (One Channel)



Top View

WT6061

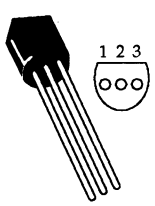
PIN ASSIGNMENT



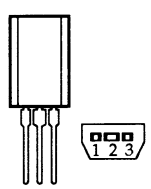
TRANSISTORS

Type No.	MAX. RATINGS			$V_{CE(SET)}/V_{BE(SET)}$		Max				Package
	V_{CEO} (V)	I_C (mA)	P_C (mW)	(V)	I_C (mA)	I_B (mA)	1	2	3	
KSP45	350	300	1.5W	0.5	10	1	E	B	C	TO-92
KTA1273Y	-30	-2.0A	1W	-2.0	-1.5A	-30	E	C	B	TO-92L
KTA1275Y	-160	-1.0A	1W	-1.5	-500	-50	E	C	B	TO-92L
KTC3198Y	50	150	625	0.25	100	10	E	C	B	TO-92
KSC945CY	50	150	250	0.15	100	10	E	C	B	TO-92
KTC3205Y	30	2A	1W	2.0	1.5A	30	E	C	B	TO-92L
2SK2564	600V (V_{DSS})	8A(I_D)	50W (P_T)	1.2 Ω (MAX) $R_{DS(ON)}$		±30V (V_{GSS})	G	D	S	TO-220IS
YTA630	200V (V_{DSS})	10A(I_D)	75W (P_T)	0.8 Ω (MAX) $R_{DS(ON)}$		±20V (V_{GSS})	G	D	S	TO-220AB
2SK3109	200V (V_{DSS})	10A(I_D)	50W	0.4 Ω (MAX) $R_{DS(ON)}$		±30V	G	D	S	TO-200AB
2SK3109	200V (V_{DSS})	10A(I_D)	50W (P_T)	0.4 Ω (MAX) $R_{DS(ON)}$		±30V (V_{GSS})	G	D	S	TO-220AB
KSC1845	120	50	500	0.3	10	10	E	C	B	TO-92
KSC992	-120	-50	500	-0.3	-10	-10	E	C	B	TO-92
KSC1013	-160	-1.0A	900	-1.5	-500	-0.5	E	C	B	TO-92L
KSA928A	-30	-2.0A	1W	-2.0	-1.5A	-30	E	C	B	TO-92L
KSC3296	150	1.5	20	1.5	500	50	B	C	E	TO-220F
KSA733CY	-50	-150	250	-0.3	-100	-10	E	C	B	TO-92
KTA1266Y	-50	-150	625	-0.3	-100	-10	E	C	B	TO-92
KSR1002	50	100	300	0.3	10	0.5	E	C	B	TO-92

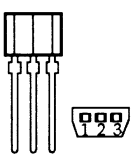
TO-92



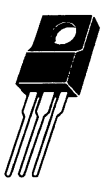
TO-92L



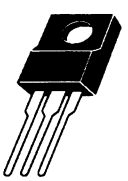
TO-92M



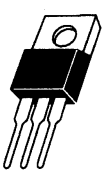
TO-220IS



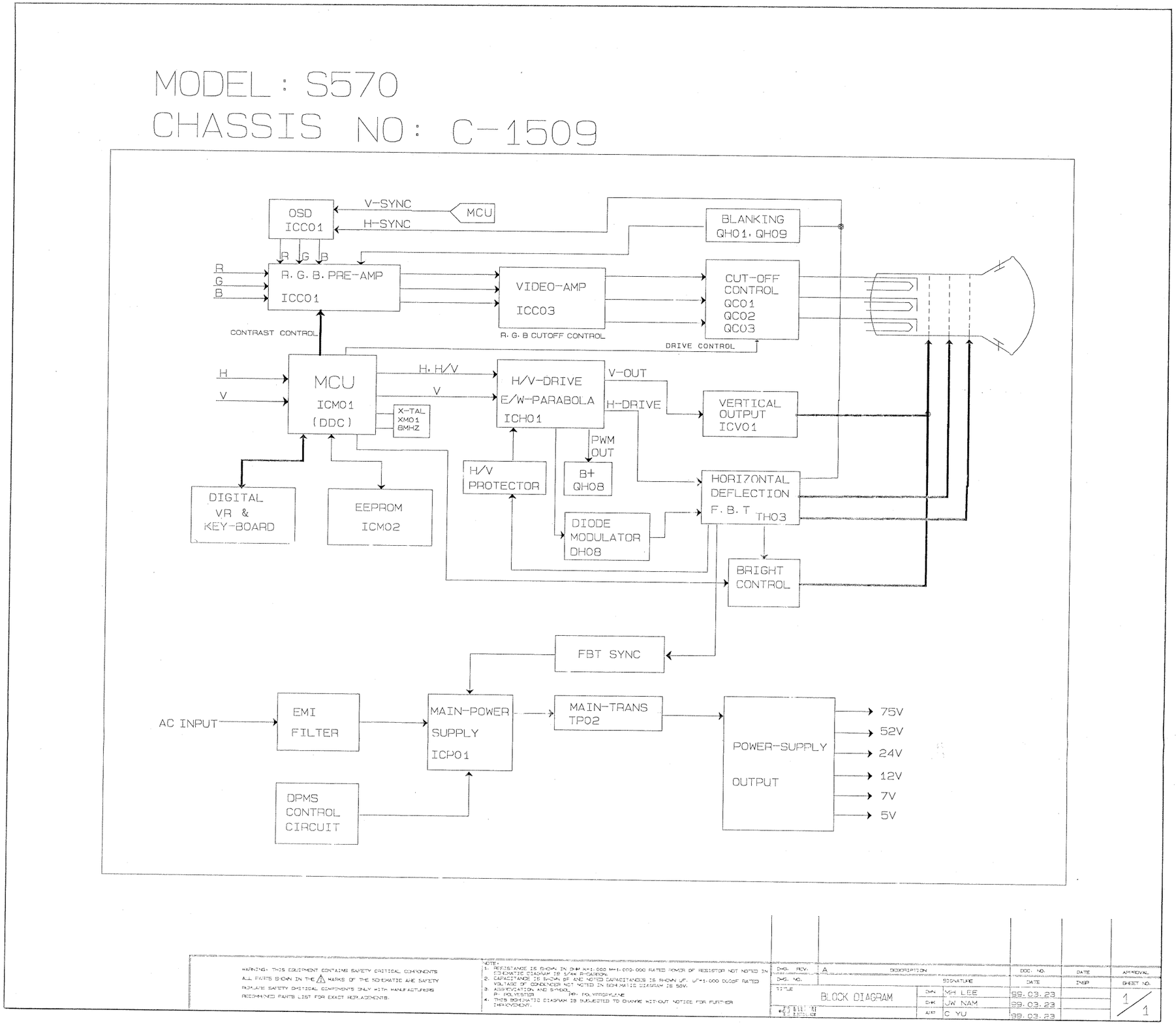
TO-3P



TO-220AB



Block Diagram



Replacement Parts List

PRODUCT SAFETY NOTICE : COMPONENTS MARKED WITH ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY.

ABBREVIATIONS :

RD R-CARBON
RS R-METAL OXIDE
RX R-CEMENT
RN R-METAL(±1%)
CK C-CERAMIC, HK
CE C-ELECTROLYTIC
CC C-CERAMIC, TEMP
CQ C-POLYESTER, C-POLYPROPYLENE
CF C-METAL POLYESTER C-METAL POLYPROPYLENE

NOTE : COMPONENTS OF THIS PARTS LIST CAN BE CHANGED FOR QUALITY IMPROVEMENT WITHOUT INFORMATION.

Main Assy

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1		B4204662800	KIT LAB&MAN,S570/99 HEA	
2		B4204505100C	LABEL,X-RAY WARNING	
3		B4204700009F	W/CARD,HEA	
4		6316226200	STICKER,WARRANTY HEA ALL	
5		6316345100	STICKER BOX,TCO '99	
6		6316345101	STICKER CABINET,TCO '99	
7		631634520001	LABEL BACK,HT-****C(99) E	
8		6320213900	USER-GUIDE,S570 EXP	
9		6327030101	SHEET,TCO 99 ALL MODEL	
10		B4210313601	PACKING ASSY,HL-5870B HEI	
11		B4209501301C	BAG PE,MANUAL T0.03	
12		6243028300	BAG,PE(ST) CLEAR 14"/15"A	
13		6253054600	CUSHION,"L" HL5870B EPS	
14		6253054700	CUSHION,"R" HL5870B EPS	
15		B4210318150	KIT COVER,S570(99) HEI	
16		6201185852	COVER REAR,S570(99) HEI	
17		6201246450	COVER F.ASSY,S570(99) HEI	
18		B4214000301A	SPRING COMPRESSION	
19		M14443008012	SCREW,TT2 BIN(+)3*8 MSZPC	
20		6201185751	COVER FRONT,S570(99)HEI	
21		6210087700	GUIDE POWER SWITCH,S570	
23		6215175304	KNOB TACT MOLD,S570	
25		6215209701	KNOB POWER,S570(WH)	
27		6220056100	LENS LED,HL-5870B ACRYL	
29		B4219514878A	BOX CTN,SW-3 S570 HEI	
31		E4205013801	MAIN ASSY/S,S570 EXP	
33		B4008500100A	CABLE TIE	
34		E4208615701	PCBA M+C(T*)/S,S570 EXP	
35		E4208515701	PCBA M+C(I*)/S,S570 EXP	
36		E4208415761	PCBA M+C(A6*),S570	
37		E4208415751	PCBA M+C(A5*),S570	
38		E4208415741	PCBA M+C(A4*),S570	
39		304010080903	PCB-SINGLE,S570 MAIN+CRT	

Main + CRT

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1		5004000187	SCR-TT2,BIN(+) MC 4*14	
2		6110195400	BKT PCB B,P990	
3		6129027600	SPECIAL,T.T/W(+) 3*8 MSZP	
4		6261022100	RUBBER PCB,CR60-70 L4848F	
5	BC01	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
6	BC02	3540200058	BD-FER,BFS3550	
7	BC03	3540200058	BD-FER,BFS3550	
8	BC04	3540200058	BD-FER,BFS3550	
9	BC05	3540200058	BD-FER,BFS3550	
10	BC06	3540200058	BD-FER,BFS3550	
11	BDP01	DT1N5398	DIODE 1N5398 TAPING	
12	BDP02	DT1N5398	DIODE 1N5398 TAPING	
13	BDP03	DT1N5398	DIODE 1N5398 TAPING	
14	BDP04	DT1N5398	DIODE 1N5398 TAPING	
15	BH01	3540200058	BD-FER,BFS3550	
16	BH02	3540200058	BD-FER,BFS3550	
17	BH03	3540200058	BD-FER,BFS3550	
18	BH04	3540200059	BD-FER,BFS3580	
19	BH05	3540200059	BD-FER,BFS3580	
20	BH06	3540200058	BD-FER,BFS3550	
21	BM01	3540200059	BD-FER,BFS3580	
22	BM02	3540200059	BD-FER,BFS3580	
23	BP01	3540200058	BD-FER,BFS3550	
24	BS01	3540200058	BD-FER,BFS3550	
25	BS02	3540200058	BD-FER,BFS3550	
26	BS03	3540200059	BD-FER,BFS3580	
27	CC01	CE04BT1H100M	CAP-EL,SMS 50V 10UF M	
28	CC02	CE04BT1H100M	CAP-EL,SMS 50V 10UF M	
29	CC03	CE04BT1H100M	CAP-EL,SMS 50V 10UF M	
30	CC04	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
31	CC05	2131040020	CAP-MULT,0.1UF 50V Z AXI	
32	CC06	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
33	CC07	2131040020	CAP-MULT,0.1UF 50V Z AXI	
34	CC08	2131040020	CAP-MULT,0.1UF 50V Z AXI	
35	CC09	2131040020	CAP-MULT,0.1UF 50V Z AXI	
36	CC10	2131040020	CAP-MULT,0.1UF 50V Z AXI	
37	CC11	2131040020	CAP-MULT,0.1UF 50V Z AXI	
38	CC12	2131040020	CAP-MULT,0.1UF 50V Z AXI	
39	CC13	CE04BT1C221M	CAP-EL,SMS 16V 220UF M	
40	CC14	CE04BT2A100M	CAP-EL,SMS 100V 10UF M	
41	CC15	CQ92BT2A104J	CAP-PE,100V 0.1UF J	
42	CC16	CE04BT1C471M	CAP-EL,SMS 16V 470UF M	
43	CC17	2131040020	CAP-MULT,0.1UF 50V Z AXI	
44	CC18	2131040020	CAP-MULT,0.1UF 50V Z AXI	
45	CC19	CE04BT1H4R7M	CAP-EL,SMS 50V 4.7UF M	
46	CC21	2133300004	CAP-MULT,33PF 50V J AXI	
47	CC22	2133300004	CAP-MULT,33PF 50V J AXI	
48	CC24	CE04IT2C4R7M	CAP-EL,KME 160V 4.7UF M	
49	CC25	2001090054	CAP-AL,1UF 100V M 5*11 NP	
50	CC26	2001090054	CAP-AL,1UF 100V M 5*11 NP	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
51	CC27	2001090054	CAP-AL,1UF 100V M 5*11 NP	
52	CC28	CK45BT1H101K	CAP-CD,50V 100PF K	
53	CC30	2131040020	CAP-MULT,0.1UF 50V Z AXI	
54	CC31	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
55	CC32	2131040020	CAP-MULT,0.1UF 50V Z AXI	
56	CC33	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
57	CC34	CQ92BT2A103J	CAP-PE,100V 0.01UF J	
58	CC38	2141040020	CAP-M-P,0.1UF 250V J RAD	
59	CC39	2141040020	CAP-M-P,0.1UF 250V J RAD	
60	CC40	2141040020	CAP-M-P,0.1UF 250V J RAD	
61	CC41	CK45EN3A103K	CAP-CD,1KV 0.01UF K	
62	CC42	210472001801	CAP-CER,1KV 472K FOR	
63	CC43	CE04BT1H100M	CAP-EL,SMS 50V 10UF M	
64	CC44	CE04BT2A100M	CAP-EL,SMS 100V 10UF M	
65	CC55	2131030010	CAP-MULT,0.01UF 50V K AXI	
66	CGND1	372010105301	CONN-M,POST 1P DEGT235 14	
67	CH01	CQ92BT2A223J	CAP-PE,100V 0.022UF J	
68	CH02	E42007019190	CAP-PP/PE,100V 820PF J	
69	CH03	CQ92BT2A103J	CAP-PE,100V 0.01UF J	
70	CH04	CE04BT1H4R7M	CAP-EL,SMS 50V 4.7UF M	
71	CH05	CE04BT1H4R7M	CAP-EL,SMS 50V 4.7UF M	
72	CH06	CK45BT1H331K	CAP-CD,50V 330PF K	
73	CH07	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
74	CH08	2131040020	CAP-MULT,0.1UF 50V Z AXI	
75	CH09	CQ92BT2A273J	CAP-PE,100V 0.027UF J	
76	CH10	CQ92BT2A152J	CAP-PE,100V 1500PF J	
77	CH12	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
78	CH14	2176810010	CAP-P-F,680PF 100V J RAD	
79	CH15	CQ92BT2A102J	CAP-PE,100V 0.001UF J	
80	CH16	CE04BT2E100M	CAP-EL,SMS 250V 10UF M	
81	CH17	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
82	CH18	2131040020	CAP-MULT,0.1UF 50V Z AXI	
83	CH19	2131040020	CAP-MULT,0.1UF 50V Z AXI	
84	CH20	CE04BT1C471M	CAP-EL,SMS 16V 470UF M	
85	CH21	2131040020	CAP-MULT,0.1UF 50V Z AXI	
86	CH22	CE04IT1E470M	CAP-EL,KME 25V 47UF M	
87	CH23	CF93BT1J474J	CAP-MPE,63V 0.47UF J	
88	CH25	CE04BT1C470M	CAP-EL,SMS 16V 47UF M	
89	CH26	CE04BT1H100M	CAP-EL,SMS 50V 10UF M	
90	CH27	2101520006	CAP-CER,1500PF 1000V K Y5	
91	CH28	CE04IT1H470M	CAP-EL,KME 50V 47UF M	
92	CH29	2001010098	CAP-AL,100UF 63V M 10*20	
93	CH30	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
94	CH31	CQ92BT2A102J	CAP-PE,100V 0.001UF J	
95	CH33	2131040020	CAP-MULT,0.1UF 50V Z AXI	
96	CH34	CE04BT1H221M	CAP-EL,SMS 50V 220UF M	
97	CH35	2131010003	CAP-MULT,100PF 50V J AXI	
98	CH36	CQ92BT2A273J	CAP-PE,100V 0.027UF J	
99	CH37	2141030007	CAP-M-P,0.01UF 250V J PE	
100	CH38	CK45BT3A101K	CAP-CD,1KV 100PF 10%	
101	CH39	CE04BT1E471M	CAP-EL,SMS 25V 470UF M	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
102	CH40	2002200068	CAP-AL,22UF 200V M 13*35	
103	CH41	2171040015	CAP-PF,0.1UF 250V J FOR	
104	CH42	2141050009	CAP-M-P,1UF 100V J RAD	
105	CH43	2175620016	CAP-P-F,5600PF 800V J FOR	
106	CH44	2174720015	CAP-P-F,4700PF 1600V J RA	
107	CH45	2172230010	CAP-P-F,0.022UF 250V J RA	
108	CH46	2173040004	CAP-P-F,0.3UF 400V J RAD	
109	CH47	CE04BT2C220M	CAP-EL,SMS 160V 22UF M	
110	CH48	2131040020	CAP-MULT,0.1UF 50V Z AXI	
111	CH49	CQ92BT2A104K	CAP-PE,100V 0.1UF K TAP	
112	CH50	2002280013	CAP-AL,0.22UF 200V M 5*11	
113	CH51	CQ92BT2A104K	CAP-PE,100V 0.1UF K TAP	
114	CH52	CQ92BT2A104K	CAP-PE,100V 0.1UF K TAP	
115	CH53	2103300010	CAP-CER,33PF 1KV J SL	
116	CH54	CQ93PN2G224J	CAP-PP,400V 0.22UF J BULK	
117	CH55	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
118	CH56	2172040001	CAP-P-F,0.2UF 250V J RAD	
119	CH57	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
120	CH58	2173340003	CAP-P-F,0.33UF 250V J FOR	
121	CH59	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
122	CH60	2145840001	CAP-M-P,0.58UF 400V J PP	
123	CM01	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
124	CM02	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
125	CM03	CE04BT1C221M	CAP-EL,SMS 16V 220UF M	
126	CM04	2131040020	CAP-MULT,0.1UF 50V Z AXI	
127	CM05	2132200001	CAP-MULT,22PF 50V K AXI	
128	CM06	2132200001	CAP-MULT,22PF 50V K AXI	
129	CM07	2131040020	CAP-MULT,0.1UF 50V Z AXI	
130	CM08	CE04BT1C470M	CAP-EL,SMS 16V 47UF M	
131	CM09	2131040020	CAP-MULT,0.1UF 50V Z AXI	
132	CM10	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
133	CM11	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
134	CM12	2131030010	CAP-MULT,0.01UF 50V K AXI	
135	CM13	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
136	CM14	CE04BT1H4R7M	CAP-EL,SMS 50V 4.7UF M	
137	CM15	CE04BT1H100M	CAP-EL,SMS 50V 10UF M	
138	CM17	CC45CT1H330J	CAP-CD,50V 33PF J	
139	CM18	E42007019220	CAP-PP/PE,100V 680PF J	
140	CM28	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
141	CP01	E42007009090	CAP-X,250VAC 0.22UF M	
142	CP02	E42007027070	CAP-CD,Y2 4700PF M TAP	
143	CP03	E42007027070	CAP-CD,Y2 4700PF M TAP	
144	CP04	2001810001	CAP-AL,180UF 400V M 25.4*	
145	CP04	6130014100	EYELET,2.7PAI BRASS T=0.4	
146	CP06	2173330009	CAP-P-F,0.033UF 400V K RA	
147	CP07	CE04BT1H2R2M	CAP-EL,SMS 50V 2.2UF M	
148	CP08	CQ92BT2A103J	CAP-PE,100V 0.01UF J	
149	CP09	2131040020	CAP-MULT,0.1UF 50V Z AXI	
150	CP10	CQ92BT2A272J	CAP-PE,100V 0.0027UF J	
151	CP11	CF93BT1J334J	CAP-MPE,63V 0.33UF J	
152	CP12	CQ92BT2A332J	CAP-PE,100V 3300PF J	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
153	CP13	CQ92BT2A103J	CAP-PE,100V 0.01UF J	
154	CP14	2134710007	CAP-MULT,470PF 50V J AXI	
155	CP15	2134710007	CAP-MULT,470PF 50V J AXI	
156	CP16	CE04BT1E101M	CAP-EL,SMS 25V 100UF M	
157	CP18	210472001501	CAP-CER,Y1 4700PF M NO-CU	
158	CP20	E42007009070	CAP-X,250VAC 0.1UF M	
159	CS01	CK45BT3A101K	CAP-CD,1KV 100PF 10%	
160	CS02	2002210068	CAP-AL,220UF 100V M 13*25	
161	CS03	CK45BT3A101K	CAP-CD,1KV 100PF 10%	
162	CS04	2004710044	CAP-AL,470UF 35V M 10*20	
163	CS05	CE04BT1V471M	CAP-EL,SMS 35V 470UF M	
164	CS06	CE04BT2C220M	CAP-EL,SMS 160V 22UF M	
165	CS07	CK45BT3A101K	CAP-CD,1KV 100PF 10%	
166	CS08	CE04BT1C102M	CAP-EL,SMS 16V 1000UF M	
167	CS09	CE04BT1E470M	CAP-EL,SMS 25V 47UF M	
168	CS10	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
169	CS11	2131040020	CAP-MULT,0.1UF 50V Z AXI	
170	CS12	CE04BT1C471M	CAP-EL,SMS 16V 470UF M	
171	CS13	2131040020	CAP-MULT,0.1UF 50V Z AXI	
172	CS14	CK45BT3A101K	CAP-CD,1KV 100PF 10%	
173	CV01	CF93BT1J154J	CAP-MPE,63V 0.15UF J	
174	CV02	2131040020	CAP-MULT,0.1UF 50V Z AXI	
175	CV03	CE04BT1C101M	CAP-EL,SMS 16V 100UF M	
176	CV05	2134710007	CAP-MULT,470PF 50V J AXI	
177	CV06	CE04BT1H010M	CAP-EL,SMS 50V 1UF M	
178	CV07	CE04BT1C102M	CAP-EL,SMS 16V 1000UF M	
179	CV09	CE04BT1C102M	CAP-EL,SMS 16V 1000UF M	
180	CV10	CE04BT1V221M	CAP-EL,SMS 35V 220UF M	
181	CV11	CF93BT1J224J	CAP-MPE,63V 0.22UF J	
182	CV12	CF93MN2A334J	CAP-MPE,100V 0.33UF J	
183	CV13	CQ92BT2A104K	CAP-PE,100V 0.1UF K TAP	
184	CV14	CF93MN2E224J	CAP-MPE,250V 0.22UF J	
185	CV15	CQ92BT2A273J	CAP-PE,100V 0.027UF J	
186	DC01	DT1N4148	DIODE,1N4148 TAPING	
187	DC02	DT1N4148	DIODE,1N4148 TAPING	
188	DC03	DT1N4148	DIODE,1N4148 TAPING	
189	DC04	DTISS81	DIODE,SWITCHING ISS81	
190	DC05	DTISS81	DIODE,SWITCHING ISS81	
191	DC06	DTISS81	DIODE,SWITCHING ISS81	
192	DC07	DTISS81	DIODE,SWITCHING ISS81	
193	DC08	DTISS81	DIODE,SWITCHING ISS81	
194	DC09	DTISS81	DIODE,SWITCHING ISS81	
195	DC10	DTISS81	DIODE,SWITCHING ISS81	
196	DC11	DTISS81	DIODE,SWITCHING ISS81	
197	DC12	DTISS81	DIODE,SWITCHING ISS81	
198	DC13	DT1N4004	DIODE,400V 1.0A TAP	
199	DC14	DT1N4148	DIODE,1N4148 TAPING	
200	DC15	DT1N4148	DIODE,1N4148 TAPING	
201	DC16	DT1N4148	DIODE,1N4148 TAPING	
202	DC18	DT1N4148	DIODE,1N4148 TAPING	
203	DC19	DT1N4148	DIODE,1N4148 TAPING	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
204	DH01	DT1N4148	DIODE,1N4148 TAPING	
205	DH03	DT1N4004	DIODE,400V 1.0A TAP	
206	DH05	DT1N4148	DIODE,1N4148 TAPING	
207	DH07	3100500094	DI-SW,ERD07-15L LEAD	
208	DH08	3102000221	DI-REC,FMP-2FUR(LF664) LE	
209	DH08	M11143010012	SCREW,BIN(+) 3X10 MSZPC	
210	DH08	M31100030012	NUT HEX,6N1-3 MSZPC	
211	DH09	3100500154	DI-SW,S2L40-4000 LEAD	
212	DH10	DT1N4936	DIODE,400V 1.0A 1N4936	
213	DH11	DT1N4936	DIODE,400V 1.0A 1N4936	
214	DH12	3100500142	DI-SW,SUF15JL-5700 LEAD	
215	DH14	DT1NL20U	DIODE,1NL20U TAP	
216	DH15	DT1N4937	DIODE,1N4937 TAPING	
217	DH16	DT1N4148	DIODE,1N4148 TAPING	
218	DH18	DT1N4936	DIODE,400V 1.0A 1N4936	
219	DH19	DT1N4007	DIODE,1000V 1.0A TAP	
220	DH20	DT1N4007	DIODE,1000V 1.0A TAP	
221	DH21	DT1N4007	DIODE,1000V 1.0A TAP	
222	DH22	DT1N4148	DIODE,1N4148 TAPING	
223	DH23	DT1N4148	DIODE,1N4148 TAPING	
224	DH24	DT1N4004	DIODE,400V 1.0A TAP	
225	DH25	DT1N4004	DIODE,400V 1.0A TAP	
226	DM06	DTUZ-6.2BSB	DIODE,ZENER UZ-6.2BSB T	
227	DM07	DTUZ-6.2BSB	DIODE,ZENER UZ-6.2BSB T	
228	DM08	DTUZ-6.2BSB	DIODE,ZENER UZ-6.2BSB T	
229	DM09	DTUZ-6.2BSB	DIODE,ZENER UZ-6.2BSB T	
230	DP01	DT1N4148	DIODE,1N4148 TAPING	
231	DP02	DT1N4148	DIODE,1N4148 TAPING	
232	DP03	DT1N4148	DIODE,1N4148 TAPING	
233	DP04	DT1N4936	DIODE,400V 1.0A 1N4936	
234	DP05	DT1N4937	DIODE,1N4937 TAPING	
235	DS01	3100500169	DI-SW,SUF30JL-5702 LEAD	
236	DS02	3100500130	DI-SW,UG2D LEAD	
237	DS03	DT1N4937	DIODE,1N4937 TAPING	
238	DS04	DTBYV26E	DIODE,BYV26E SORTED	
239	DS05	3100500092	DI-SW,S3L40-4004P15 LEAD	
240	DS06	DT1N4148	DIODE,1N4148 TAPING	
241	DS07	DT1N4148	DIODE,1N4148 TAPING	
242	DS08	DT1N4148	DIODE,1N4148 TAPING	
243	DV01	DT1N4004	DIODE,400V 1.0A TAP	
244	FL01	3520200140	FLT-LC,TX09500NB 50PF 0.3	
245	FL02	3520200140	FLT-LC,TX09500NB 50PF 0.3	
246	FL03	3520200140	FLT-LC,TX09500NB 50PF 0.3	
247	FL04	E42029012020	NOISE FILTER,TH28123MA	
248	FL05	E42029012010	NOISE FILTER,TH43253MA	
249	FL06	E42029012020	NOISE FILTER,TH28123MA	
250	FL07	E42029012020	NOISE FILTER,TH28123MA	
251	FUP01	E42025012060	FUSE,TIME LAG 19181 3.15A	
252	FUP02	E42076013010	FUSE CLIP,TAPING	
253	GT01	3720101316	CONN-M,DPP-150 1	
254	HV01	6130014100	EYELET,2.7PAI BRASS T=0.4	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
255	ICC01	3200001232	IC-LIN,KA2500 DIP	
256	ICC02	3204000550	IC-INT,S570/B790(MTV018)	
257	ICC03	3200001177	IC-LIN,LM2409 SIP	
258	ICC03	6124030600	H-SINK MN,HL-5854C	
259	ICC03	M11143008012	SCREW,BIN(+) M3*8 MSZPC	
260	ICH01	3200001033	IC-LIN,TDA9109 DIP	
261	ICH02	ULM358N	IC,OP-AMP LM358N	
262	ICM01	3205001254	IC-U,WT6016 DIP OTP 42P M	
263	ICM01A	3721100830	CONN-F,WSDIF-42T-1.778MM	
264	ICM02	3203000753	IC-MEMO,24LC08B/P DIP	
265	ICM04	UKIA7045P	IC, KIA7045P	
266	ICP01	UKA3842B	IC,CURRENT PWM CONTROLLER	
267	ICS01	ULM7805CT	IC,VOL REGULATOR,LM7805CT	
268	ICV01	6124030600	H-SINK MN,HL-5854C	
269	ICV01	M11143008012	SCREW,BIN(+) M3*8 MSZPC	
270	ICV01	UTDA9302H	IC,TDA9302H VER AMP	
271	J001	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
272	J002	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
273	J003	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
274	J004	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
275	J005	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
276	J015	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
277	J017	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
278	J020	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
279	J021	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
280	J023	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
281	J024	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
282	J025	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
283	J026	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
284	J027	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
285	J029	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
286	J030	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
287	J031	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
288	J033	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
289	J034	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
290	J035	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
291	J036	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
292	J037	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
293	J039	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
294	J040	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
295	J041	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
296	J042	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
297	J043	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
298	J044	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
299	J045	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
300	J046	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
301	J047	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
302	J048	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
303	J049	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
304	J050	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
305	J051	375300002401	WIRE-NS-S43MM TAP. SDA 1/	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
306	J052	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
307	J053	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
308	J054	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
309	J055	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
310	J056	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
311	J057	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
312	J058	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
313	J059	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
314	J060	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
315	J061	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
316	J062	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
317	J063	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
318	J064	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
319	J065	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
320	J066	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
321	J067	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
322	J068	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
323	J069	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
324	J070	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
325	J071	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
326	J072	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
327	J073	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
328	J074	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
329	J075	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
330	J076	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
331	J077	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
332	J078	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
333	J089	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
334	J090	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
335	J091	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
336	J093	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
337	J100	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
338	J103	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
339	J104	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
340	J105	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
341	J106	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
342	J107	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
343	J108	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
344	J109	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
345	J110	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
346	J111	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
347	J112	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
348	J113	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
349	J201	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
350	J202	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
351	J203	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
352	J204	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
353	J205	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
354	J206	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
355	J207	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
356	J208	375300002401	WIRE-NS-S43MM TAP. SDA 1/	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
357	J210	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
358	J211	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
359	J212	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
360	J213	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
361	J214	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
362	J215	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
363	J216	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
364	J217	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
365	J218	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
366	J219	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
367	J220	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
368	J221	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
369	J222	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
370	J223	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
371	J224	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
372	J226	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
373	J227	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
374	J228	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
375	J229	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
376	J230	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
377	J231	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
378	J232	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
379	J233	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
380	J234	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
381	J235	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
382	J236	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
383	J237	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
384	J240	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
385	J241	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
386	J242	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
387	J243	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
388	J244	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
389	J245	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
390	J246	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
391	J247	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
392	J248	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
393	J249	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
394	J250	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
395	J251	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
396	J252	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
397	J253	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
398	J254	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
399	J257	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
400	J258	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
401	J259	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
402	J260	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
403	J261	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
404	J262	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
405	J263	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
406	J264	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
407	J265	375300002401	WIRE-NS-S43MM TAP. SDA 1/	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
408	J266	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
409	J268	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
410	J271	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
411	J272	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
412	J273	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
413	J274	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
414	J276	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
415	J277	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
416	J278	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
417	J279	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
418	J280	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
419	J281	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
420	J282	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
421	J283	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
422	J284	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
423	J285	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
424	J298	375300002401	WIRE-NS-S43MM TAP. SDA 1/	
425	LC01	3540200058	BD-FER,BFS3550	
426	LC05	3540200058	BD-FER,BFS3550	
427	LC09	3500100808	INDUCT-FIX,AL03TBR82M M A	
428	LC10	3500100808	INDUCT-FIX,AL03TBR82M M A	
429	LC11	3500100808	INDUCT-FIX,AL03TBR82M M A	
430	LED01	3330600363	LED,339-1YGW/F45-9	
431	LH01	E42019097250	COIL,PEAKING 22 UH AXIAL	
432	LH02	3500100523	INDUCT-FIX,DR0808 8.2MH M	
433	LH03	350010051301	INDUCT-FIX,DR1420/165UH K	
434	LH04	3500100687	INDUCT-FIX,WIDTH 110UH 70	
435	LH05	E42019097130	COIL,PEAKING 2.2UH AXIAL	
436	PC01	372010105301	CONN-M,POST 1P DEGT235 14	
437	PH01	372010105301	CONN-M,POST 1P DEGT235 14	
438	QC01	3110100685	TR-GEN,KSA992F LEAD	
439	QC02	3110100685	TR-GEN,KSA992F LEAD	
440	QC03	3110100685	TR-GEN,KSA992F LEAD	
441	QC04	3110100684	TR-GEN,KSC1845F LEAD	
442	QC05	3110100684	TR-GEN,KSC1845F LEAD	
443	QC06	3110100684	TR-GEN,KSC1845F LEAD	
444	QH01	TTKTA1015Y	TR,KTA1266Y	
445	QH02	3110100642	TR-GEN,KSR1002 LEAD	
446	QH03	TTKTC1815Y	TR,KTC3198Y	
447	QH04	3114000107	FET,YTA630/IRF630M LEAD	
448	QH05	TTKTC1815Y	TR,KTC3198Y	
449	QH06	TTKSC945CY	TR,KSC945C-Y	
450	QH07	TTKSA733CY	TR,KSA733C-Y	
451	QH08	3114000145	FET,2SK3109 LEAD	
452	QH08	6130014100	EYELET,2.7PAI BRASS T=0.4	
453	QH08	B4212501005A	HEAT SINK PWR(N)ANODIZE 4	
454	QH08	M11143008012	SCREW,BIN(+) M3*8 MSZPC	
455	QH09	TTKTA1015Y	TR,KTA1266Y	
456	QH10	3110100689	TR-GEN,KSA1013Y LEAD	
457	QH11	3110100682	TR-GEN,KSC3296 LEAD	
458	QH11	M11143010012	SCREW,BIN(+) 3X10 MSZPC	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
459	QH11	M31100030012	NUT HEX,6N1-3 MSZPC	
460	QH12	3110100601	TR-GEN,2SC5404 LEAD	
461	QH12	6130014100	EYELET,2.7PAI BRASS T=0.4	
462	QH12	M11143010012	SCREW,BIN(+) 3X10 MSZPC	
463	QH12	M31100030012	NUT HEX,6N1-3 MSZPC	
464	QH13	3114000107	FET,YTA630/IRF630M LEAD	
465	QH13	6124020504	H-SINK POWER(35MM),L5854C	
466	QH13	M11143008012	SCREW,BIN(+) M3*8 MSZPC	
467	QH14	3114000145	FET,2SK3109 LEAD	
468	QH15	3114000107	FET,YTA630/IRF630M LEAD	
469	QH16	TTKSC945CY	TR,KSC945C-Y	
470	QH17	TTKSC945CY	TR,KSC945C-Y	
471	QH18	TTKSC945CY	TR,KSC945C-Y	
472	QH19	TTKTA1275Y	TR,KTA1275Y	
473	QH20	TTKSP45	TR,KSP45	
474	QH21	TTKSC945CY	TR,KSC945C-Y	
475	QH22	TTKSA733CY	TR,KSA733C-Y	
476	QM01	TTKSC945CY	TR,KSC945C-Y	
477	QM02	TTKTA966AY	TR,KTA1273Y	
478	QM03	TTKTC3205Y	TR,SWITCHING KTC3205Y	
479	QM04	TTKSA733CY	TR,KSA733C-Y	
480	QM05	TTKSA733CY	TR,KSA733C-Y	
481	QM06	TTKSC945CY	TR,KSC945C-Y	
482	QP01	TTKSP45	TR,KSP45	
483	QP02	TTKTC1815Y	TR,KTC3198Y	
484	QP03	3114000105	FET,2SK2564-4112 LEAD	
485	QP03	6124030600	H-SINK MN,HL-5854C	
486	QP03	M11143008012	SCREW,BIN(+) M3*8 MSZPC	
487	QP04	TTKTA1015Y	TR,KTA1266Y	
488	QS01	3110100687	TR-GEN,KSA928AY LEAD	
489	QS02	3110100689	TR-GEN,KSA1013Y LEAD	
490	QS03	3110100687	TR-GEN,KSA928AY LEAD	
491	QS04	TTKTC3200BL	TR,LOW NOISE KTC3200BL	
492	QS05	3110100689	TR-GEN,KSA1013Y LEAD	
493	QS06	3110100642	TR-GEN,KSR1002 LEAD	
494	QS07	3110100705	TR-GEN,KRC105M LEAD	
495	QS08	3110100642	TR-GEN,KSR1002 LEAD	
496	QV01	TTKSC945CY	TR,KSC945C-Y	
497	RC01	RD-8P0T0330J	RES-CF,RD 1/8W 33 OHM J	
498	RC02	RD-8P0T0750J	RES-CF,RD 1/8W 75 OHM J	
499	RC03	RD-8P0T0330J	RES-CF,RD 1/8W 33 OHM J	
500	RC04	RD-8P0T0750J	RES-CF,RD 1/8W 75 OHM J	
501	RC05	RD-8P0T0330J	RES-CF,RD 1/8W 33 OHM J	
502	RC06	RD-8P0T0750J	RES-CF,RD 1/8W 75 OHM J	
503	RC07	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
504	RC08	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
505	RC09	RD-8P0T0331J	RES-CF,RD 1/8W 330 OHM J	
506	RC10	RD-8P0T0331J	RES-CF,RD 1/8W 330 OHM J	
507	RC11	RD-8P0T0471J	RES-CF,RD 1/8W 470 OHM J	
508	RC12	RD-8P0T0471J	RES-CF,RD 1/8W 470 OHM J	
509	RC13	RD-8P0T0471J	RES-CF,RD 1/8W 470 OHM J	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
510	RC14	RD-8P0T0471J	RES-CF,RD 1/8W 470 OHM J	
511	RC15	RD-8P0T0683J	RES-CF,RD 1/8W 68K OHM J	
512	RC19	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
513	RC20	RD-8P0T0391J	RES-CF,RD 1/8W 390 OHM J	
514	RC21	RD-8P0T0391J	RES-CF,RD 1/8W 390 OHM J	
515	RC22	RD-8P0T0391J	RES-CF,RD 1/8W 390 OHM J	
516	RC23	RD-8P0T0100J	RES-CF,RD 1/8W 10 OHM J	
517	RC24	RD-8P0T0100J	RES-CF,RD 1/8W 10 OHM J	
518	RC25	RD-8P0T0100J	RES-CF,RD 1/8W 10 OHM J	
519	RC26	RD-4P0T0100J	RES-CF,RD 1/4W 10 OHM J	
520	RC27	RD-4P0T0100J	RES-CF,RD 1/4W 10 OHM J	
521	RC28	RD-4P0T0100J	RES-CF,RD 1/4W 10 OHM J	
522	RC29	RD-8P0T0562J	RES-CF,RD 1/8W 5.6K OHM J	
523	RC30	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
524	RC31	RD-8P0T0824J	RES-CF,RD 1/8W 820K OHM J	
525	RC32	RD-8P0T0824J	RES-CF,RD 1/8W 820K OHM J	
526	RC33	RD-8P0T0824J	RES-CF,RD 1/8W 820K OHM J	
527	RC34	RD-8P0T0104J	RES-CF,RD 1/8W 100K OHM J	
528	RC35	RD-8P0T0104J	RES-CF,RD 1/8W 100K OHM J	
529	RC36	RD-8P0T0104J	RES-CF,RD 1/8W 100K OHM J	
530	RC37	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
531	RC38	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
532	RC39	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
533	RC40	RD-2P0T0510J	RES-CF,RD 1/2W 51 J	
534	RC41	RD-2P0T0510J	RES-CF,RD 1/2W 51 J	
535	RC42	RD-2P0T0510J	RES-CF,RD 1/2W 51 J	
536	RC43	2401001010	RES-CF,1K 0.5W J M	
537	RC44	RD-2P0T0474J	RES-CF,RD 1/2W 470K OHM J	
538	RC45	2406809007	RES-CF,68 0.5W J M	
539	RC46	2406809007	RES-CF,68 0.5W J M	
540	RC47	2406809007	RES-CF,68 0.5W J M	
541	RC48	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
542	RC49	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
543	RC60	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
544	RC70	RD-8P0T0151J	RES-CF,RD 1/8W 150 OHM J	
545	RC71	RD-8P0T0105J	RES-CF,RD 1/8W 1M OHM J	
546	RC72	RD-8P0T0562J	RES-CF,RD 1/8W 5.6K OHM J	
547	RC81	2462208008	RES-MOF,2.2 2W J M	
548	RH01	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
549	RH02	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
550	RH03	2446981001	RES-MF,6.98K 0.125W F A	
551	RH04	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
552	RH05	RD-8P0T0333J	RES-CF,RD 1/8W 33K OHM J	
553	RH06	RD-8P0T0304J	RES-CF,RD 1/8W 300K OHM J	
554	RH07	RD-8P0T0683J	RES-CF,RD 1/8W 68K OHM J	
555	RH08	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
556	RH09	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
557	RH11	RD-8P0T0333J	RES-CF,RD 1/8W 33K OHM J	
558	RH12	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
559	RH13	RD-8P0T0273J	RES-CF,RD 1/8W 27K OHM J	
560	RH14	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
561	RH15	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
562	RH16	RD-4P0T0102J	RES-CF,RD 1/4W 1K OHM J	
563	RH17	RD-2P0T0393J	RES-CF,RD 1/2W 39K OHM J	
564	RH18	RN-8P0T7501F	RES-MF,RN 1/8W 7.5KOHM F	
565	RH19	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
566	RH20	RD-8P0T0153J	RES-CF,RD 1/8W 15K OHM J	
567	RH21	RD-8P0T0822J	RES-CF,RD 1/8W 8.2K OHM J	
568	RH22	RN-8P0T3013F	RES-MF,RN 1/8W 301KOHM F	
569	RH23	RN-4P0T7503F	RES-MF,RN 1/4W 750KOHM F	
570	RH25	RD-2P0T0470J	RES-CF,RD 1/2W 47 OHM J	
571	RH26	RD-8P0T0122J	RES-CF,RD 1/8W 1.2K OHM J	
572	RH27	RD-2P0T0271J	RES-CF,RD 1/2W 270 OHM J	
573	RH28	RD-8P0T0222J	RES-CF,RD 1/8W 2.2K OHM J	
574	RH29	RS03P0F0680J	RES-MOF,RS 3W 68 OHM J	
575	RH30	RS03P0F0680J	RES-MOF,RS 3W 68 OHM J	
576	RH31	2460628001	RES-MOF,0.62 1W J A	
577	RH32	2401809003	RES-CF,18 0.5W J M	
578	RH33	RD-8P0T0220J	RES-CF,RD 1/8W 22 OHM J	
579	RH34	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
580	RH35	2401200006	RES-CF,120 0.5W J M	
581	RH36 0001	RD-8P0T0155J	RES-CF,RD 1/8W 1.5MOHM J	
582	RH37	RD-8P0T0473J	RES-CF,RD 1/8W 47K OHM J	
583	RH38	RD-8P0T0104J	RES-CF,RD 1/8W 100K OHM J	
584	RH39	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
585	RH40	2462701004	RES-MOF,2.7K 3W J M	
586	RH41	RD-8P0T0104J	RES-CF,RD 1/8W 100K OHM J	
587	RH42	RD-8P0T0203J	RES-CF,RD 1/8W 20K OHM J	
588	RH43	RD-8P0T0274J	RES-CF,RD 1/8W 270K OHM J	
589	RH44	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
590	RH45	RD-8P0T0272J	RES-CF,RD 1/8W 2.7K OHM J	
591	RH46	RD-8P0T0104J	RES-CF,RD 1/8W 100K OHM J	
592	RH47	RD-8P0T0683J	RES-CF,RD 1/8W 68K OHM J	
593	RH48	2401501007	RES-CF,1.5K 0.5W J M	
594	RH49	RD-8P0T0202J	RES-CF,RD 1/8W 2K OHM J	
595	RH50	RD-8P0T0220J	RES-CF,RD 1/8W 22 OHM J	
596	RH51	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
597	RH52	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
598	RH53	RD-8P0T0152J	RES-CF,RD 1/8W 1.5K OHM J	
599	RH54	RS01P0T01R0J	RES-MOF,RS 1W 1.0 OHM J	
600	RH55	RS01P0T01R0J	RES-MOF,RS 1W 1.0 OHM J	
601	RH56	RS01P0T0182J	RES-MOF,RS 1W 1.8KOHM J	
602	RH57	RD-4P0T0104J	RES-CF,RD 1/4W 100K OHM J	
603	RH58	RD-8P0T0392J	RES-CF,RD 1/8W 3.9K OHM J	
604	RH59	RD-8P0T0333J	RES-CF,RD 1/8W 33K OHM J	
605	RH60	RD-2P0T01R0J	RES-CF,RD 1/2W 1.0 OHM J	
606	RH61	2461000008	RES-MOF,100 2W J M	
607	RH62	2461000008	RES-MOF,100 2W J M	
608	RH63	2461000008	RES-MOF,100 2W J M	
609	RH64	RD-8P0T0622J	RES-CF,RD 1/8W 6.2K OHM J	
610	RH65	RD-8P0T0222J	RES-CF,RD 1/8W 2.2K OHM J	
611	RH66	RD-8P0T0242J	RES-CF,RD 1/8W 2.4K OHM J	

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612	RH67	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
613	RH68	RD-8P0T0105J	RES-CF,RD 1/8W 1M OHM J	
614	RH69	RD-8P0T0563J	RES-CF,RD 1/8W 56K OHM J	
615	RH70	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
616	RH71	RD-8P0T0243J	RES-CF,RD 1/8W 24K OHM J	
617	RH72	RD-8P0T01R0J	RES-CF,RD 1/8W 1 OHM J	
618	RH73	2404303003	RES-CF,430K 0.5W J M	
619	RH74	2407503002	RES-CF,750K 0.25W J A	
620	RH75	RD-2P0T01R0J	RES-CF,RD 1/2W 1.0 OHM J	
621	RH76	2466801001	RES-MOF,6.8K 2W J M	
622	RH77	RD-8P0T0335J	RES-CF,RD 1/8W 3.3M OHM J	
623	RH78	RD-2P0T0154J	RES-CF,RD 1/2W 150K OHM J	
624	RH79	2462208008	RES-MOF,2.2 2W J M	
625	RH80	RD-4P0T0223J	RES-CF,RD 1/4W 22K OHM J	
626	RH81	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
627	RH82	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
628	RH83	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
629	RH84	RD-4P0T0223J	RES-CF,RD 1/4W 22K OHM J	
630	RH85	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
631	RH86	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
632	RH88	RD-4P0T0223J	RES-CF,RD 1/4W 22K OHM J	
633	RH89	RD-8P0T0220J	RES-CF,RD 1/8W 22 OHM J	
634	RH90	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
635	RH92	RD-8P0T0513J	RES-CF,RD 1/8W 51K OHM J	
636	RH93	2462208008	RES-MOF,2.2 2W J M	
637	RLP01	3710100067	RELAY,DY323D12S 250V 5A 6	
638	RM01	RD-8P0T0153J	RES-CF,RD 1/8W 15K OHM J	
639	RM02	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
640	RM03	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
641	RM04	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
642	RM05	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
643	RM06	RD-8P0T0105J	RES-CF,RD 1/8W 1M OHM J	
644	RM07	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
645	RM08	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
646	RM09	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
647	RM10	RD-8P0T0332J	RES-CF,RD 1/8W 3.3K OHM J	
648	RM11	RD-8P0T0332J	RES-CF,RD 1/8W 3.3K OHM J	
649	RM12	RD-8P0T0752J	RES-CF,RD 1/8W 7.5K OHM J	
650	RM13	RD-8P0T0183J	RES-CF,RD 1/8W 18K OHM J	
651	RM14	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
652	RM15	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
653	RM16	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
654	RM17	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
655	RM18	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
656	RM19	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
657	RM20	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
658	RM21	RD-8P0T0153J	RES-CF,RD 1/8W 15K OHM J	
659	RM22	RD-8P0T0153J	RES-CF,RD 1/8W 15K OHM J	
660	RM23	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
661	RM24	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
662	RM25	RD-8P0T0153J	RES-CF,RD 1/8W 15K OHM J	

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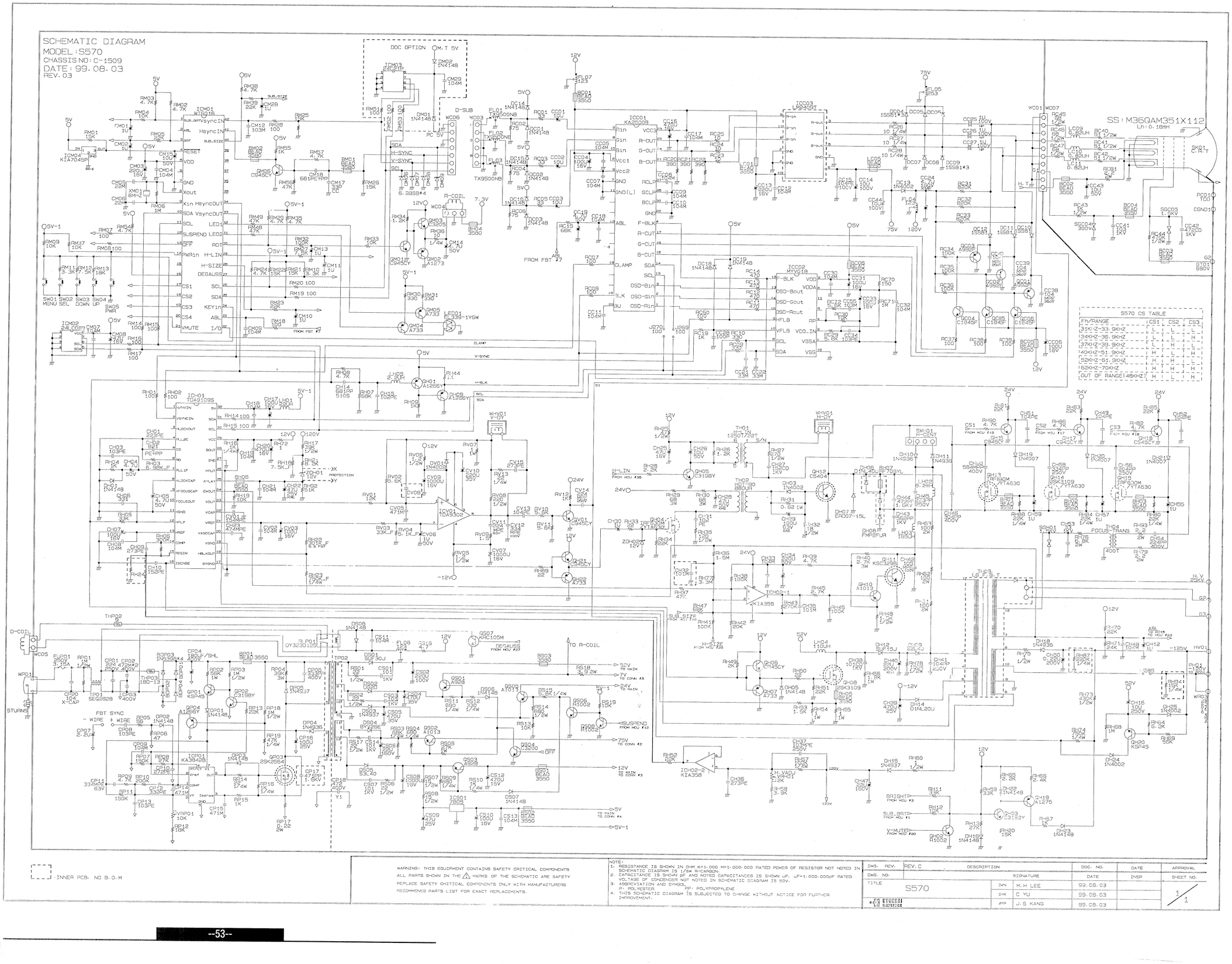
663	RM26	RD-8P0T0153J	RES-CF,RD 1/8W 15K OHM J	
664	RM27	RD-8P0T0752J	RES-CF,RD 1/8W 7.5K OHM J	
665	RM28	RD-8P0T0101J	RES-CF,RD 1/8W 100 OHM J	
666	RM29	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
667	RM30	RD-8P0T0331J	RES-CF,RD 1/8W 330 OHM J	
668	RM31	RD-8P0T0331J	RES-CF,RD 1/8W 330 OHM J	
669	RM32	RD-8P0T0104J	RES-CF,RD 1/8W 100K OHM J	
670	RM33	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
671	RM34	RD-8P0T0122J	RES-CF,RD 1/8W 1.2K OHM J	
672	RM35	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
673	RM36	RD-4P0T0100J	RES-CF,RD 1/4W 10 OHM J	
674	RM37	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
675	RM38	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
676	RM39	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
677	RM48	RD-8P0T0473J	RES-CF,RD 1/8W 47K OHM J	
678	RM49	RD-8P0T0473J	RES-CF,RD 1/8W 47K OHM J	
679	RM54	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
680	RM55	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
681	RM56	RD-8P0T0473J	RES-CF,RD 1/8W 47K OHM J	
682	RM57	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
683	RP01	RD-2P0T0105J	RES-CF,RD 1/2W 1M OHM J	
684	RP02	RS01P0T0563J	RES-MOF,RS 1W 56KOHM J	
685	RP03	2401004008	RES-CF,1M 0.5W J M	
686	RP04	RS03P0F0393J	RES-MOF,3W 39K OHM J	
687	RP05	RD-8P0T0560J	RES-CF,RD 1/8W 56 OHM J	
688	RP06	RD-8P0T0470J	RES-CF,RD 1/8W 47 OHM J	
689	RP07	RD-8P0T0154J	RES-CF,RD 1/8W 150K OHM J	
690	RP08	RD-8P0T0273J	RES-CF,RD 1/8W 27K OHM J	
691	RP09	RD-8P0T0472J	RES-CF,RD 1/8W 4.7K OHM J	
692	RP10	RD-8P0T0204J	RES-CF,RD 1/8W 200K OHM J	
693	RP11	RD-8P0T0154J	RES-CF,RD 1/8W 150K OHM J	
694	RP12	RD-8P0T0183J	RES-CF,RD 1/8W 18K OHM J	
695	RP13	RD-8P0T0223J	RES-CF,RD 1/8W 22K OHM J	
696	RP14	RD-4P0T0220J	RES-CF,RD 1/4W 22 OHM J	
.697	RP15	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
698	RP16	RD-4P0T0102J	RES-CF,RD 1/4W 1K OHM J	
699	RP17	2460228004	RES-MOF,0.22 2W J M	
700	RP18	RD-2P0T0105J	RES-CF,RD 1/2W 1M OHM J	
701	RP19	RD-4P0T0473J	RES-CF,RD 1/4W 47K OHM J	
702	RS01	RD-2P0T0220J	RES-CF,RD 1/2W 22 OHM J	
703	RS02	RD-2P0T0220J	RES-CF,RD 1/2W 22 OHM J	
704	RS03	RD-4P0T0683J	RES-CF,RD 1/4W 68K OHM J	
705	RS04	RD-4P0T0681J	RES-CF,RD 1/4W 680 OHM J	
706	RS05	RS01P0T0273J	RES-MOF,RS 1W 27K J TAPPI	
707	RS06	RD-2P0T0220J	RES-CF,RD 1/2W 22 OHM J	
708	RS07	2401509005	RES-CF,15 0.5W J M	
709	RS08	2401509005	RES-CF,15 0.5W J M	
710	RS09	RD-4P0T0681J	RES-CF,RD 1/4W 680 OHM J	
711	RS10	RD-4P0T0102J	RES-CF,RD 1/4W 1K OHM J	
712	RS11	RD-4P0T0681J	RES-CF,RD 1/4W 680 OHM J	
713	RS12	RD-4P0T0331J	RES-CF,RD 1/4W 330 OHM J	

NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
714	RS13	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
715	RS14	RD-2P0T0681J	RES-CF,RD 1/2W 680 OHM J	
716	RS15	RD-4P0T0562J	RES-CF,RD 1/4W 5.6K OHM J	
717	RS16	RD-8P0T04R7J	RES-CF,RD 1/8W 4.7 OHM J	
718	RS17	RD-2P0T0220J	RES-CF,RD 1/2W 22 OHM J	
719	RS18	2463908002	RES-MOF,3.9 2W J M	
720	RS19	RD-8P0T0103J	RES-CF,RD 1/8W 10KOHM J	
721	RV01	RD-8P0T0123J	RES-CF,RD 1/8W 12KOHM J	
722	RV02	RD-8P0T0562J	RES-CF,RD 1/8W 5.6K OHM J	
723	RV03	RN-8P0T3302F	RES-MF,RN 1/8W 33KOHM F	
724	RV04	RN-8P0T5401F	RES-MF,RN 1/8W 5.4KOHM F	
725	RV05	RD-2P0T01R2J	RES-CF,RD 1/2W 1.2 OHM J	
726	RV06	RD-2P0T01R2J	RES-CF,RD 1/2W 1.2 OHM J	
727	RV07	RS01P0T01R0J	RES-MOF,RS 1W 1.0 OHM J	
728	RV08	2402200009	RES-CF,220 0.5W J M	
729	RV09	RD-8P0T01R5J	RES-CF,RD 1/8W 1.5 OHM J	
730	RV10	RD-8P0T0562J	RES-CF,RD 1/8W 5.6K OHM J	
731	RV11	RD-8P0T0562J	RES-CF,RD 1/8W 5.6K OHM J	
732	RV12	RD-8P0T0102J	RES-CF,RD 1/8W 1K OHM J	
733	RV13	RD-4P0T0220J	RES-CF,RD 1/4W 22 OHM J	
734	SGC04	E42039003020	SURGE,PROTECTOR 300V 30%	
735	SGC05	3411100043	VARISTOR,S23 1500V 1500V	
736	SGH01	3411100043	VARISTOR,S23 1500V 1500V	
737	SK01	3721101069	CONN-F,CRT SKT ISMMR19S(A	
738	SW01	E42027039010	SWITCH TACT,5MM 160GF VER	
739	SW02	E42027039010	SWITCH TACT,5MM 160GF VER	
740	SW03	E42027039010	SWITCH TACT,5MM 160GF VER	
741	SW04	E42027039010	SWITCH TACT,5MM 160GF VER	
742	SW05	E42027039010	SWITCH TACT,5MM 160GF VER	
743	SWH01	E42027014010	LEVER SWITCH,30'C 3P	
744	TH01	3500101380	INDUCT-FIX,LIN. COIL DR14	
745	TH02	351030009001	TRAN-SW,HDT EI1916 880UH	
746	TH03	3510500069	FBT,S570(6174Z-1021)	
747	TH03	6130014100	EYELET,2.7PAI BRASS T=0.4	
748	TH04	3510300147	TRAN-SW,FOCUS EE2017 S570	
749	THP02	341130000901	POSISTOR,9OHM 2P CASE STI	
750	THP03	E4207708409A	THERMISTOR 18OHM 13PAI TA	
751	TP01	352020008601	FLT-LC,SEQ2828 13MH	
752	TP01	6130014100	EYELET,2.7PAI BRASS T=0.4	
753	TP02	3510200106	TRAN-PW,S570 EER3541	
754	VRH01	E42015047060	V-SEMI,VERT 0.2W B2K TAP	
755	VRP01	E42015047090	V-SEMI,VERT 0.2W B10K TAP	
756	WC01	3720101403	CONN-M,SMW250-10 10	
757	WC03	3720101388	CONN-M,SMW200-06P	
758	WC04	3720101227	CONN-M,5045-3A 3	
759	WC05	372010105301	CONN-M,POST 1P DEGT235 14	
760	WC06	3720101389	CONN-M,SMW200-07P	
761	WC07	3720101403	CONN-M,SMW250-10 10	
762	WC07A	372500439701	CONN-A,RGB CABLE S570 100	
763	WHV01	372010105301	CONN-M,POST 1P DEGT235 14	
764	WP01	3725004486	CONN-A,AC INLET ASSY S570	

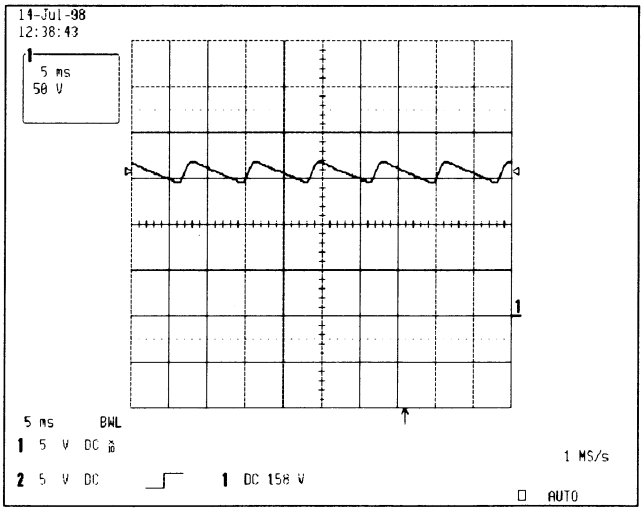
NUM.	LOCATION	PART NUMBER	DESCRIPTION	REMARK
765	WP01	6130014100	EYELET,2.7PAI BRASS T=0.4	
766	XM01	E4402100117A	X-TAL,8MHZ TAPING HC-49U	
767	ZDH01	DTUZ-12BSB	DIODE,ZENER UZ-12BSB TAP	
768	ZDH02	DTUZ-12BSB	DIODE,ZENER UZ-12BSB TAP	
769		3010100119	CRT,M36QAM351X112 MINI 0.	
770		3500101379	INDUCT-FIX,D-COIL+N.P.W S	
771		3540400006	MAG-FER,BFR180611N2NA	
772		375400001701	WIRE-NS-M,1.0T->BRAID->0.	
773		375400001902	WIRE-NS-M,RING-TBC-RING 1	
774		375500076904	WIRE-ASS'Y,1P 400MM S570	
775		375500081801	WIRE-ASS'Y,CRT GND S570	
776		3758000166	CBL-PWR,PGS UL/CSA WALL 1	
777		375850040802	CBL-SGN,6P+7P 1.5M FW ATT	
778		5004000187	SCR-TT2,BIN(+) MC 4*14	
779		5004000187	SCR-TT2,BIN(+) MC 4*14	
780		6101108801	CHASSIS MAIN,S570	
781		6101167700	CHASSIS MAIN ASSY,S570	
782		6110102600	BKT,FBT SECC HL-7870A	
783		6110186900	BKT REAR,S450/S560	
784		6120023300	SHLD-CASE,F/CRT L5870A	
785		6120028500	SHIELD FENCE FBT,L5854C	
786		6120029001	SHLD-CASE FBT ASSY,S570	
787		6129026900	SPECIAL,SCREW ST2(+)5*20	
788		6130020300	PEM,HL-5854C (H=10MM) SUM	
789		6201185904	SWIVEL BASE,15"	
790		6201193407	SWIVEL&TILT ASSY,HL-5854C	
791		6223056000	SUPPORT BOARD	
792		6223066501	SUPPORT,BUTTON P910	
793		6262004001	RUBBER FOOT,A520	
794		B4209500302A	BAG PE,SWIV(350*300) HEE	
795		B4211008901A	SOLDER GRIP	
796		B4211506301A	SWIVEL PAD	
797		B4211513215A	SWIVEL UPPER,HL-5854C	
798		M17744006012	SCREW,BIN(+) M4*6 MSZPC	
799				
800				
801				
802				
803				
804				

Schematic Diagram

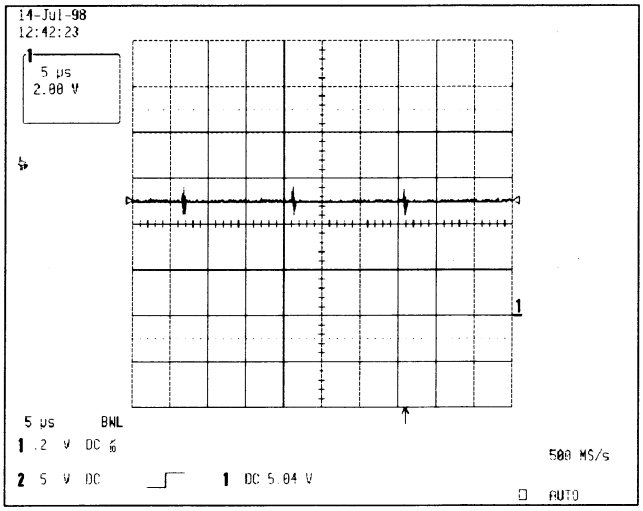


Wave From

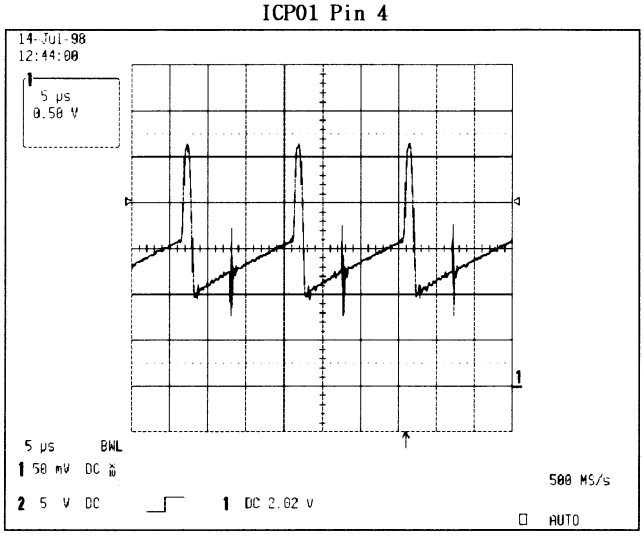
CP04 "+"



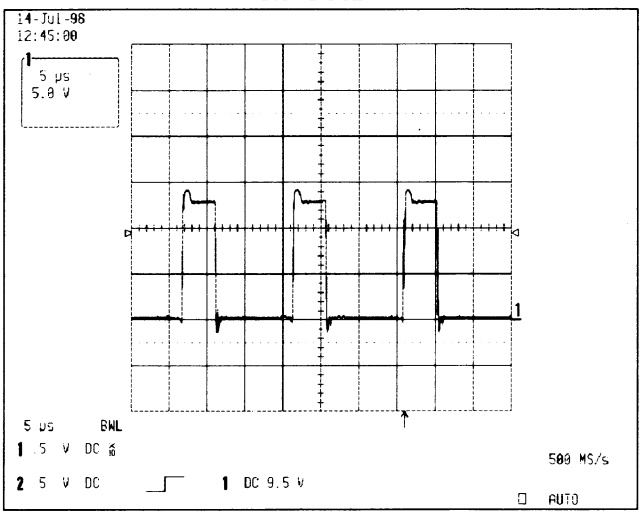
ICP01 Pin 8



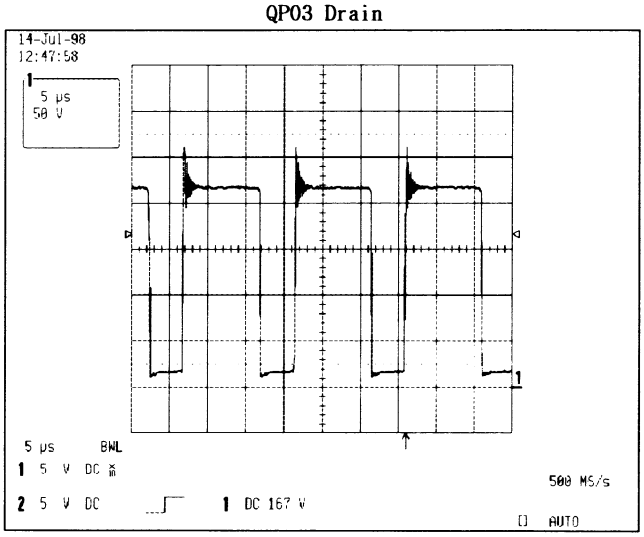
ICP01 Pin 4



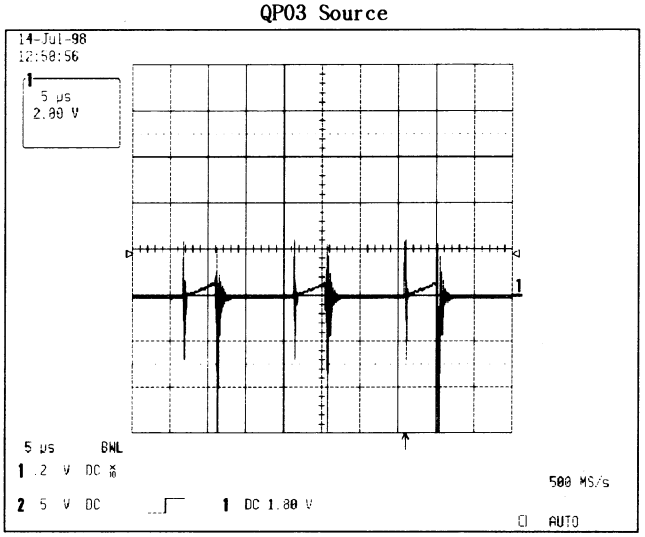
ICP01 Pin 6



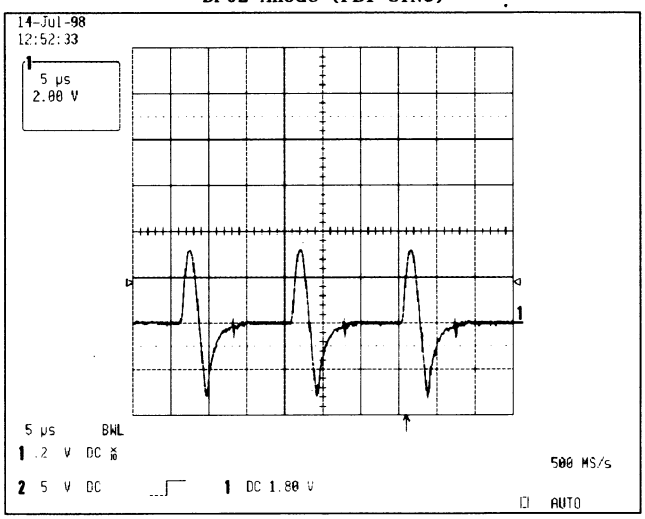
QP03 Drain



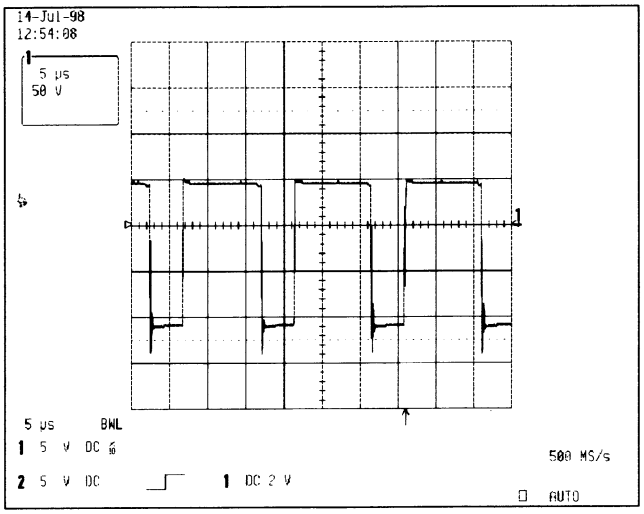
QP03 Source



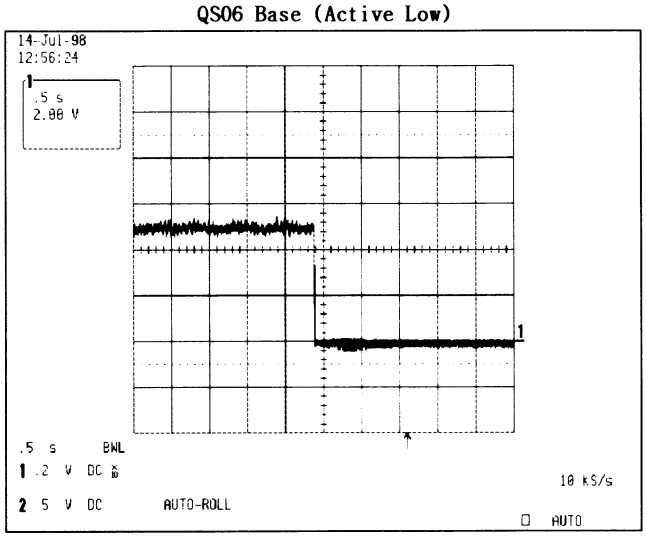
DP02 Anode (FBT SYNC)



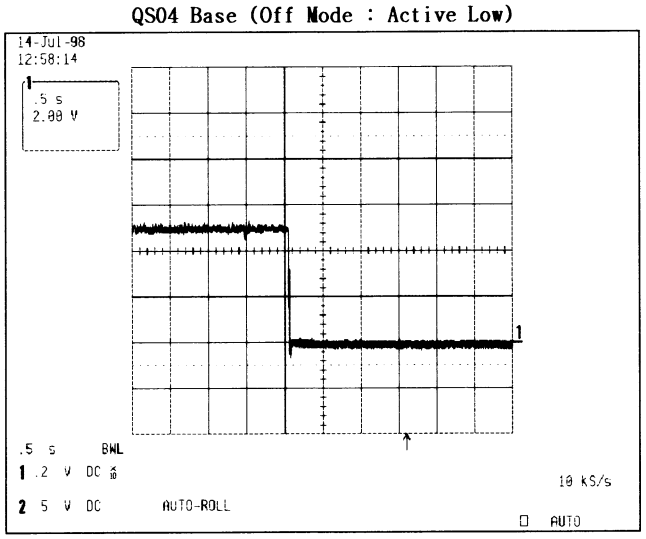
TP02 Pin 8



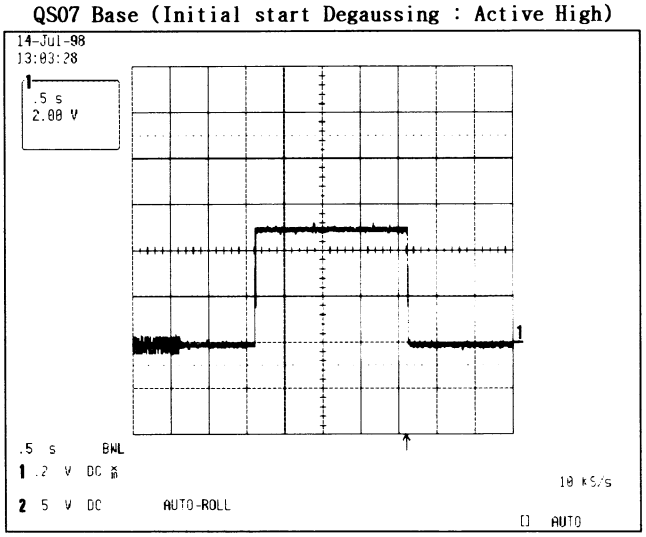
QS06 Base (Active Low)



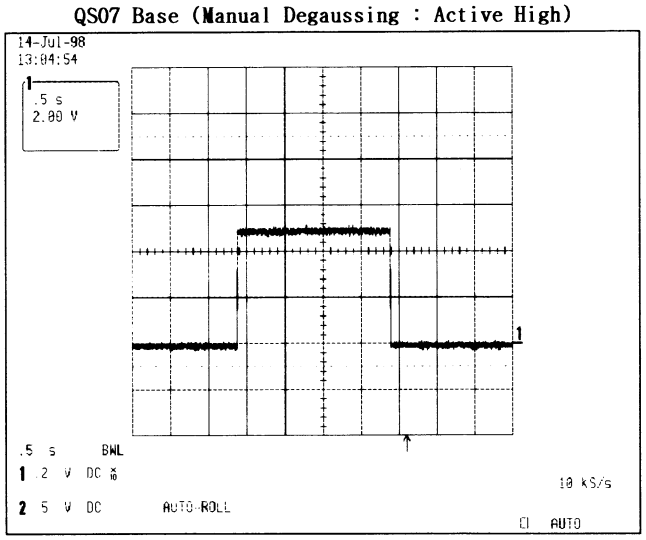
QS04 Base (Off Mode : Active Low)



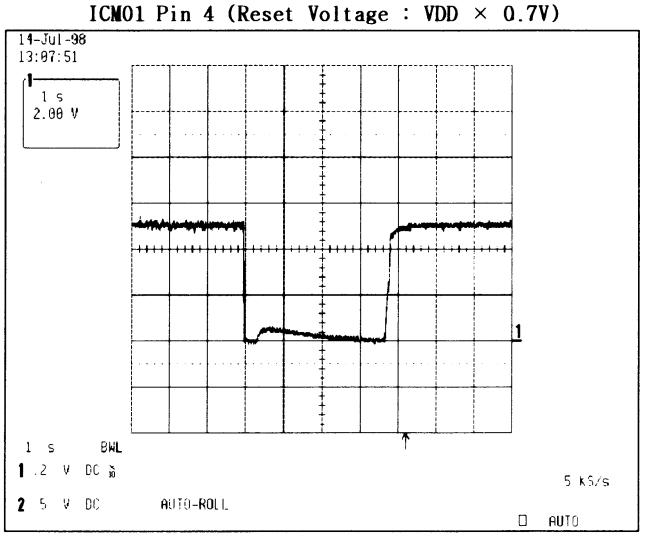
QS07 Base (Initial start Degaussing : Active High)



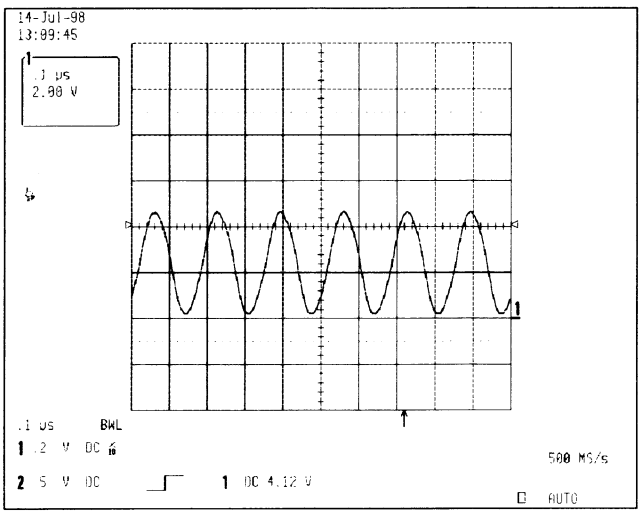
QS07 Base (Manual Degaussing : Active High)



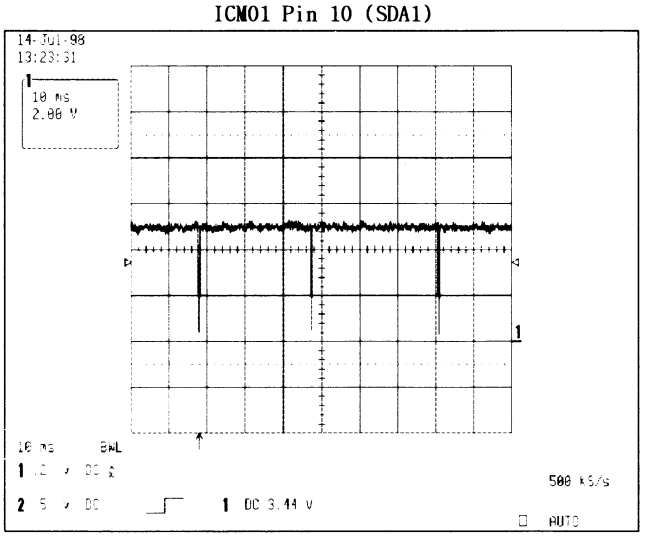
ICM01 Pin 4 (Reset Voltage : VDD × 0.7V)



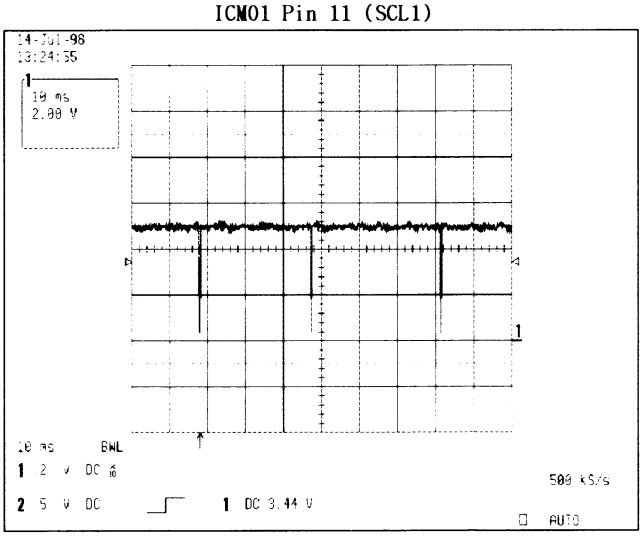
ICM01 Pin 9 (Oscillation)



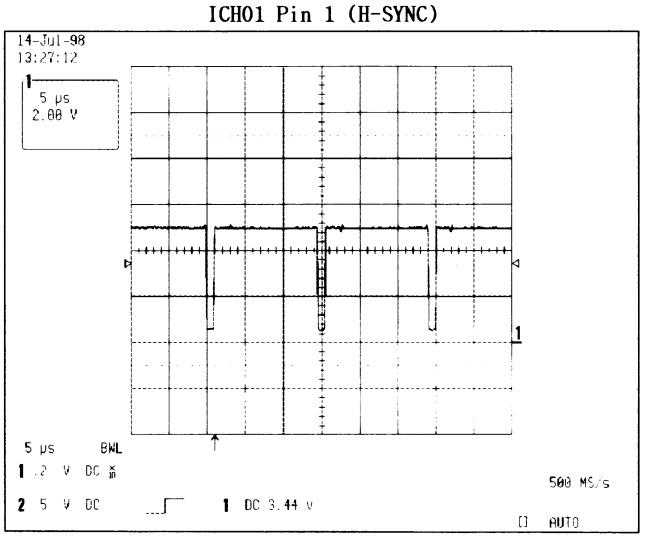
ICM01 Pin 10 (SDA1)



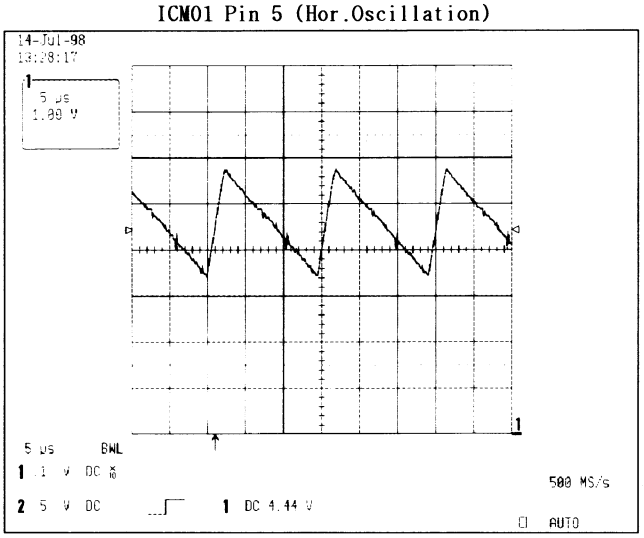
ICM01 Pin 11 (SCL1)



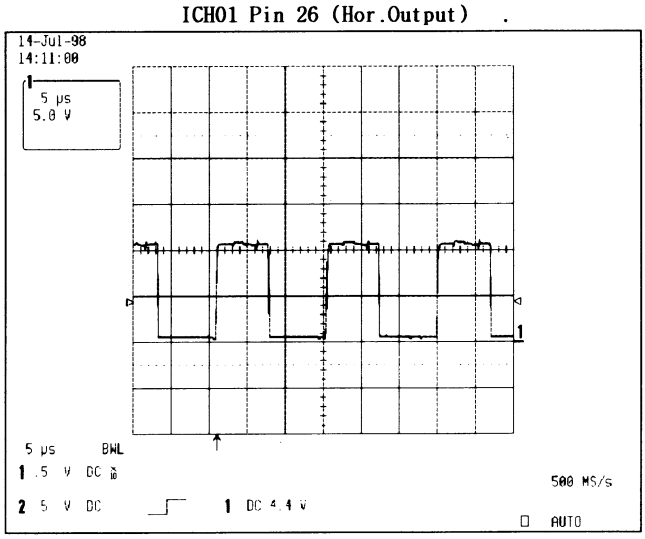
ICH01 Pin 1 (H-SYNC)



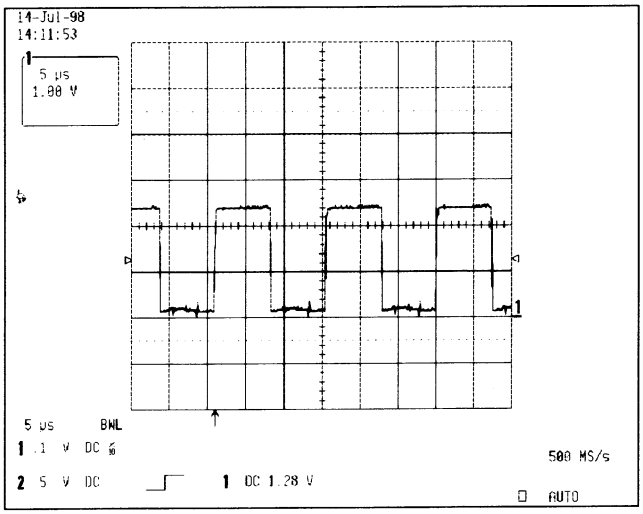
ICM01 Pin 5 (Hor.Oscillation)



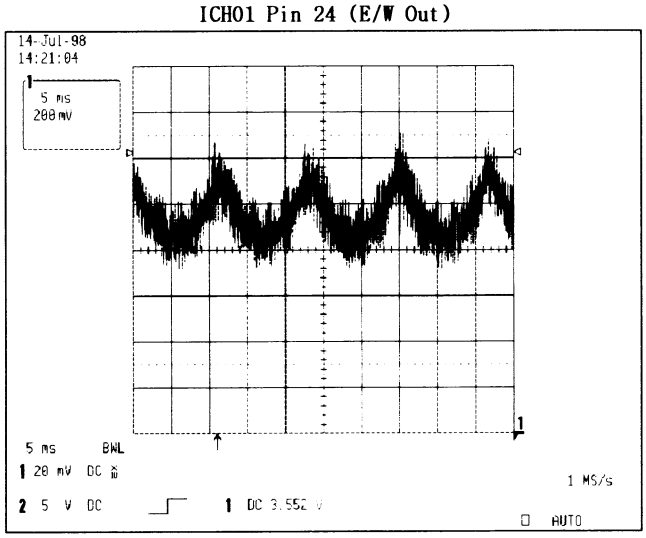
ICH01 Pin 26 (Hor.Output) .



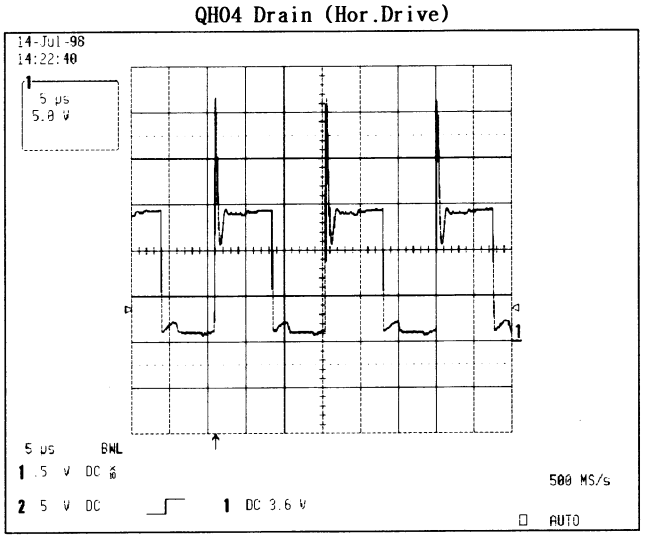
ICH01 Pin 28 (B+ Out)



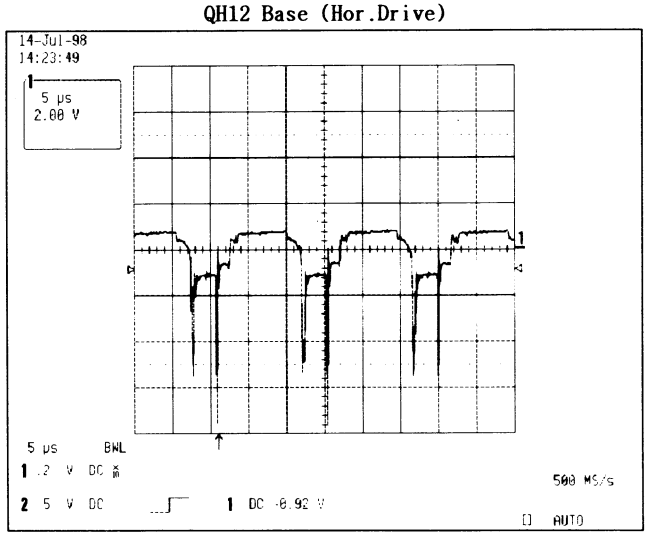
ICH01 Pin 24 (E/W Out)



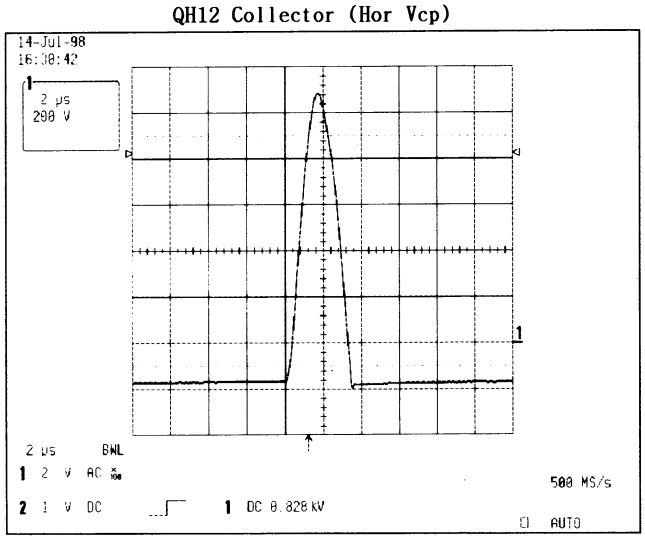
QH04 Drain (Hor.Drive)



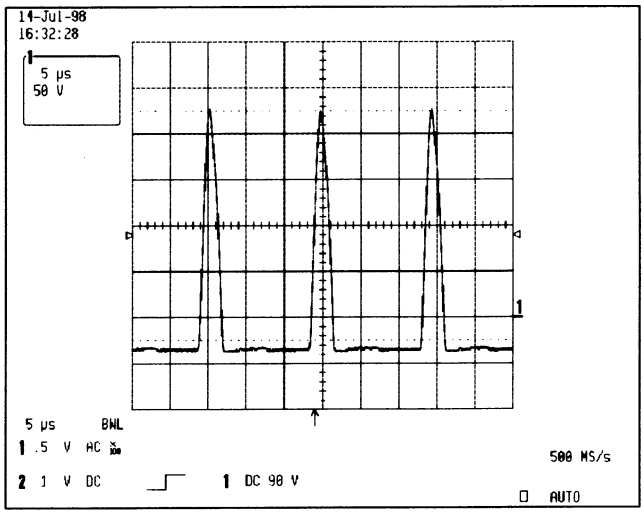
QH12 Base (Hor.Drive)



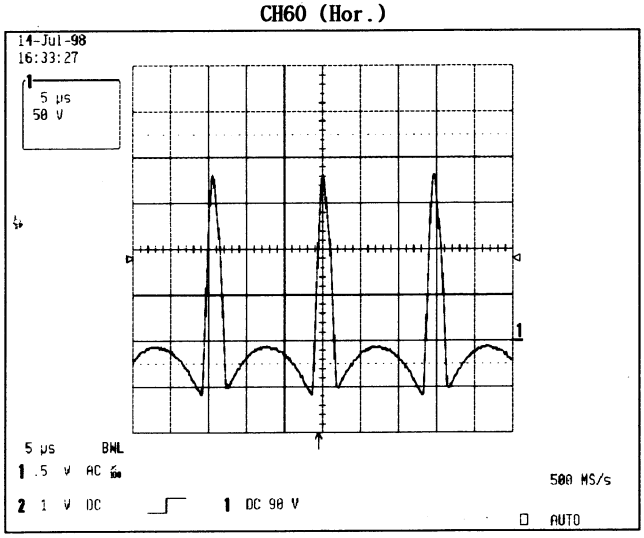
QH12 Collector (Hor Vcp)



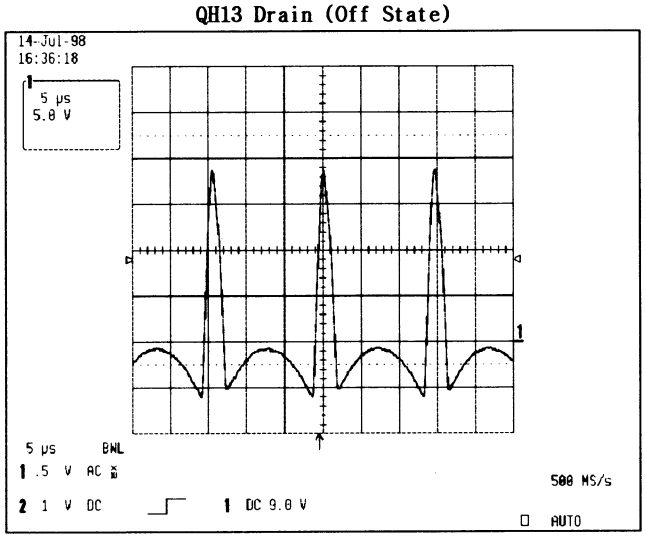
DH08 (Hor.D-Modulation)



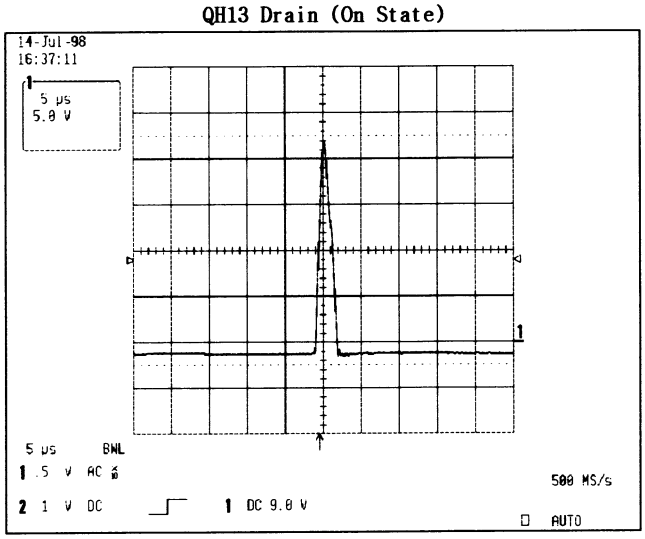
CH60 (Hor.)



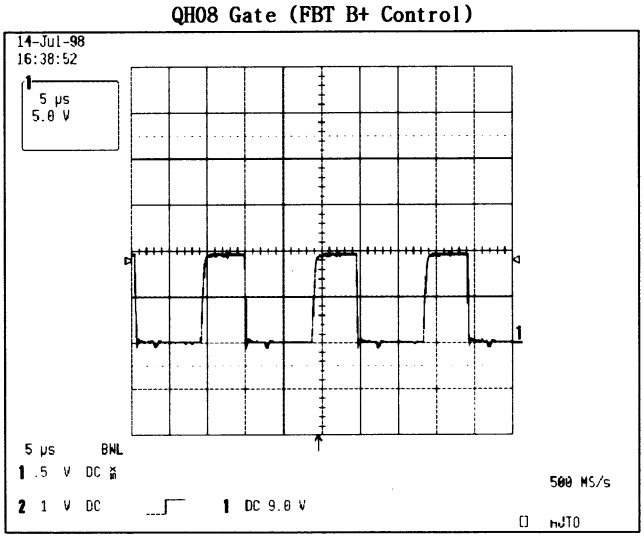
QH13 Drain (Off State)



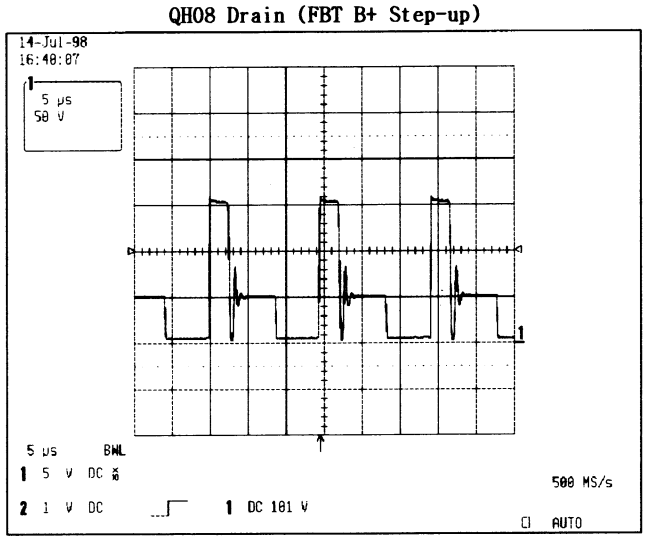
QH13 Drain (On State)



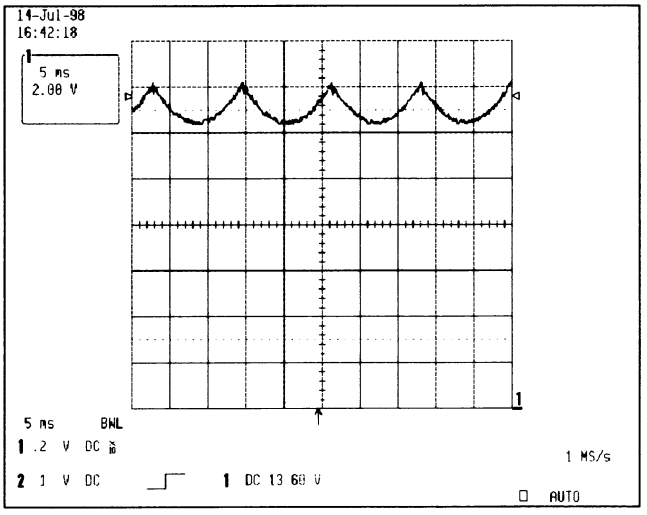
QH08 Gate (FBT B+ Control)



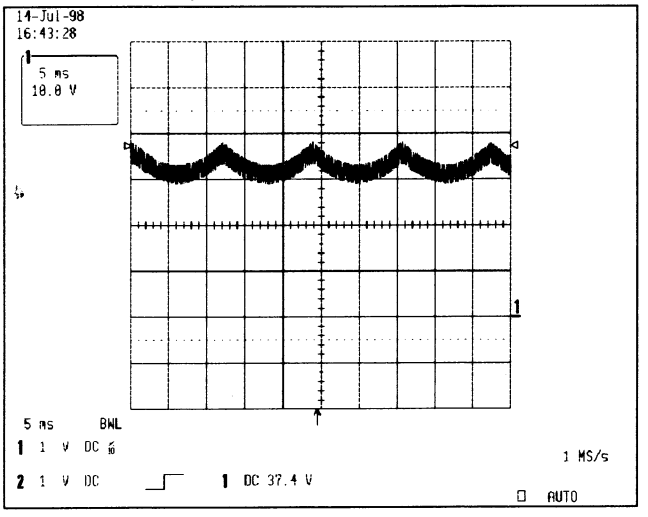
QH08 Drain (FBT B+ Step-up)



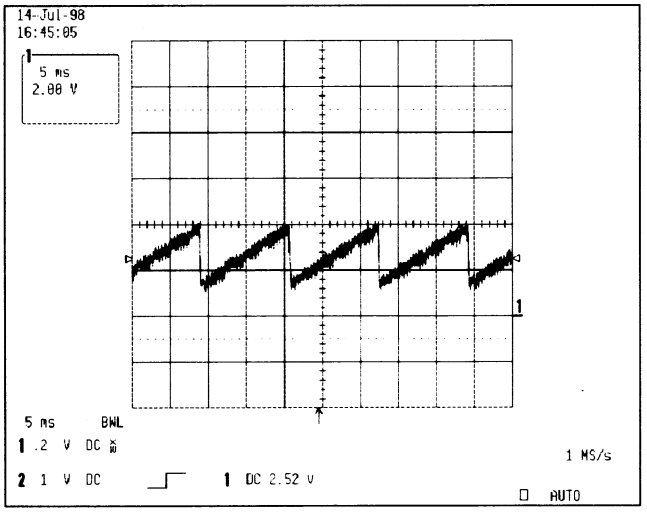
ICH02 Pin 1 (E/W AMP)



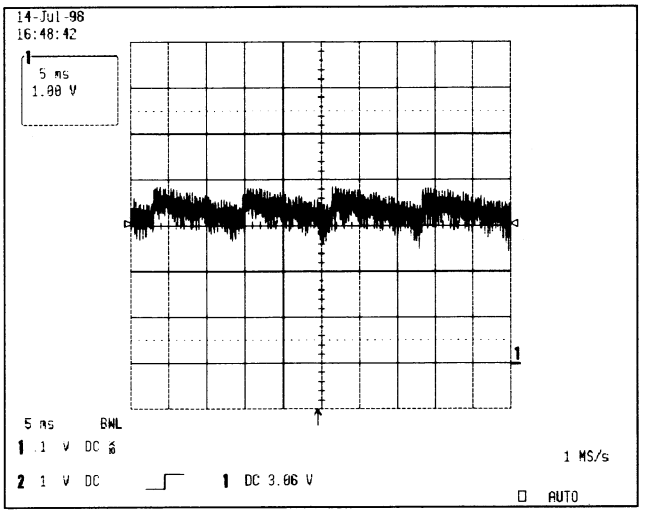
QH11 Collector (E/W AMP)



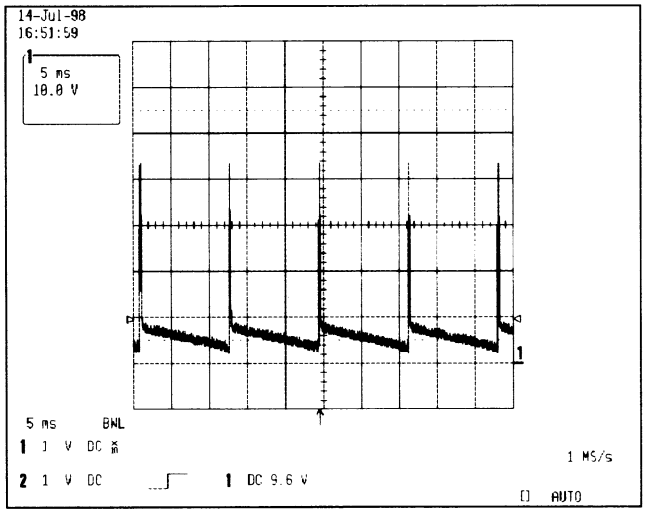
ICH01 Pin 22 (Ver.Oscillation)



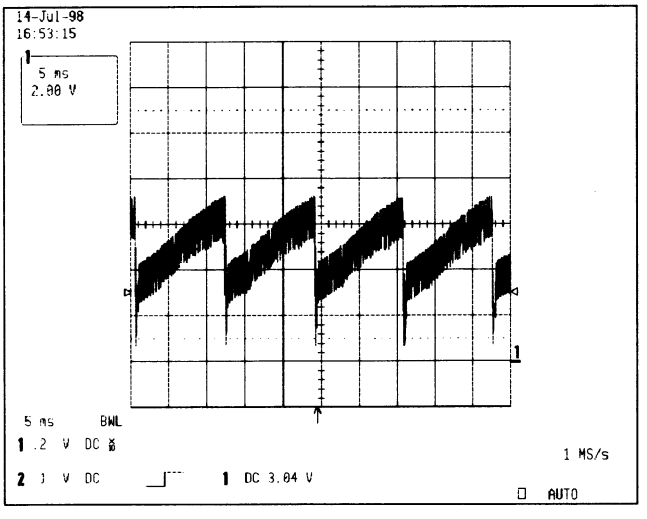
ICH01 Pin 23 (V-Out1)



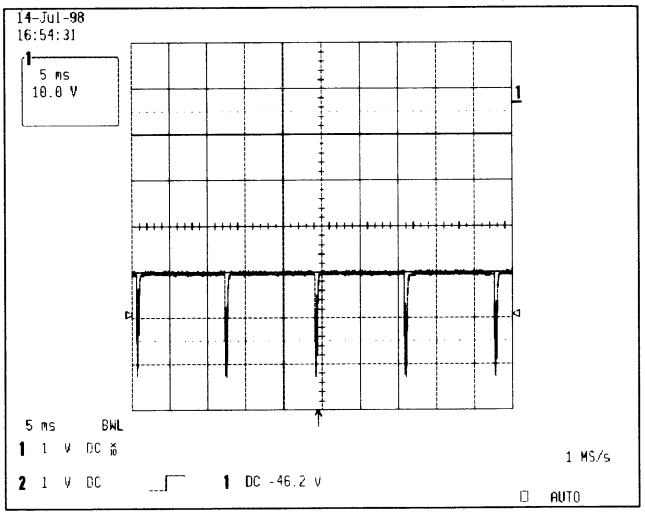
ICV01 Pin 5 (Ver.Amp Out)



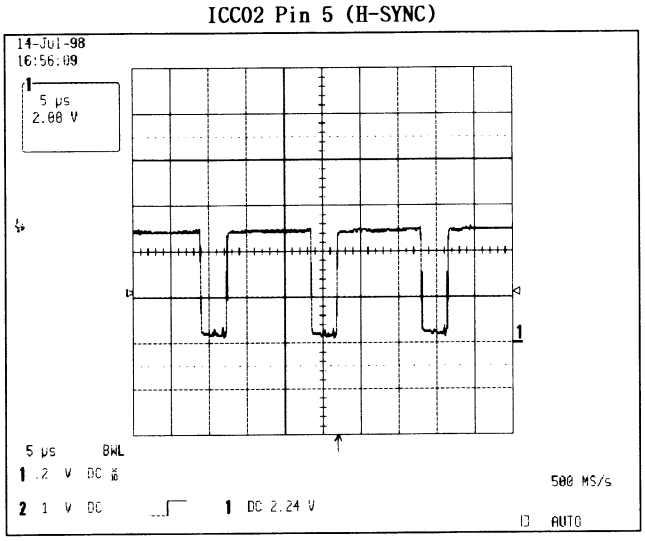
Ver. DY (Feedback)



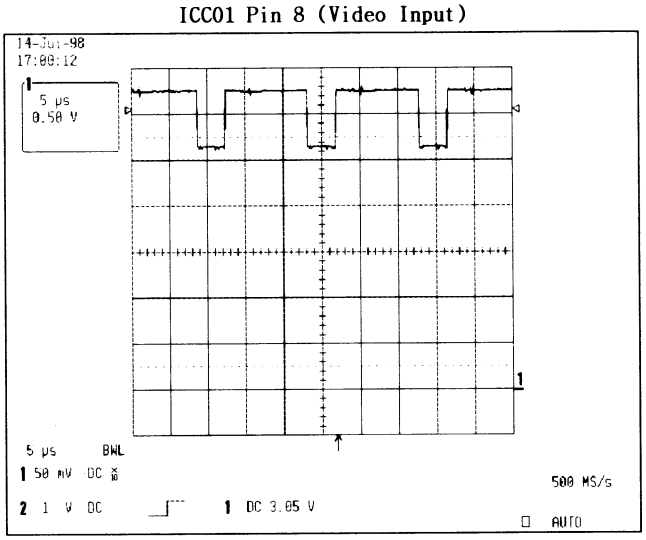
WC01 G1 (V-Blanking)



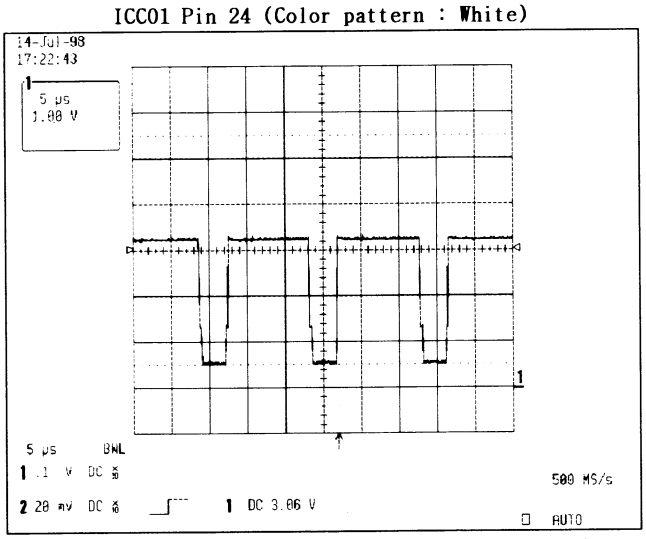
ICC02 Pin 5 (H-SYNC)



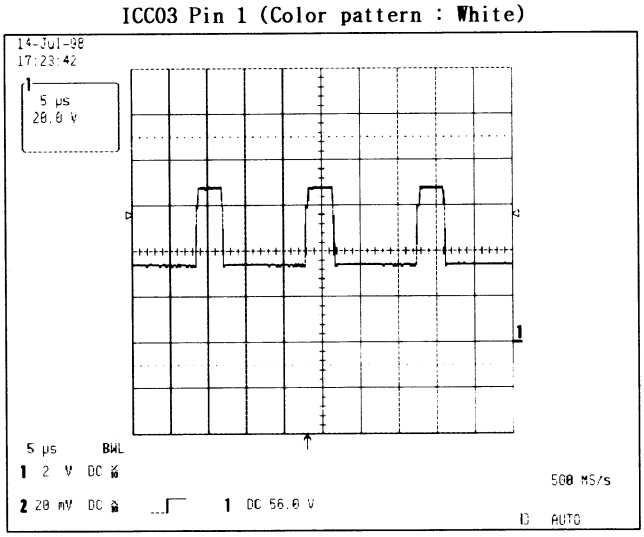
ICC01 Pin 8 (Video Input)



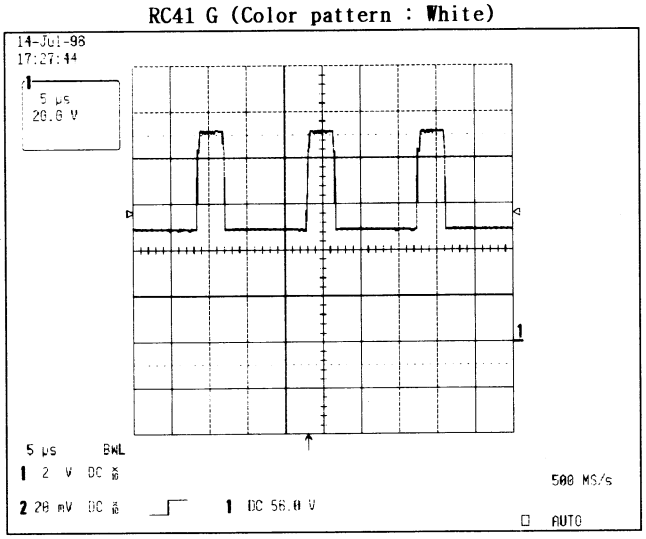
ICC01 Pin 24 (Color pattern : White)



ICC03 Pin 1 (Color pattern : White)

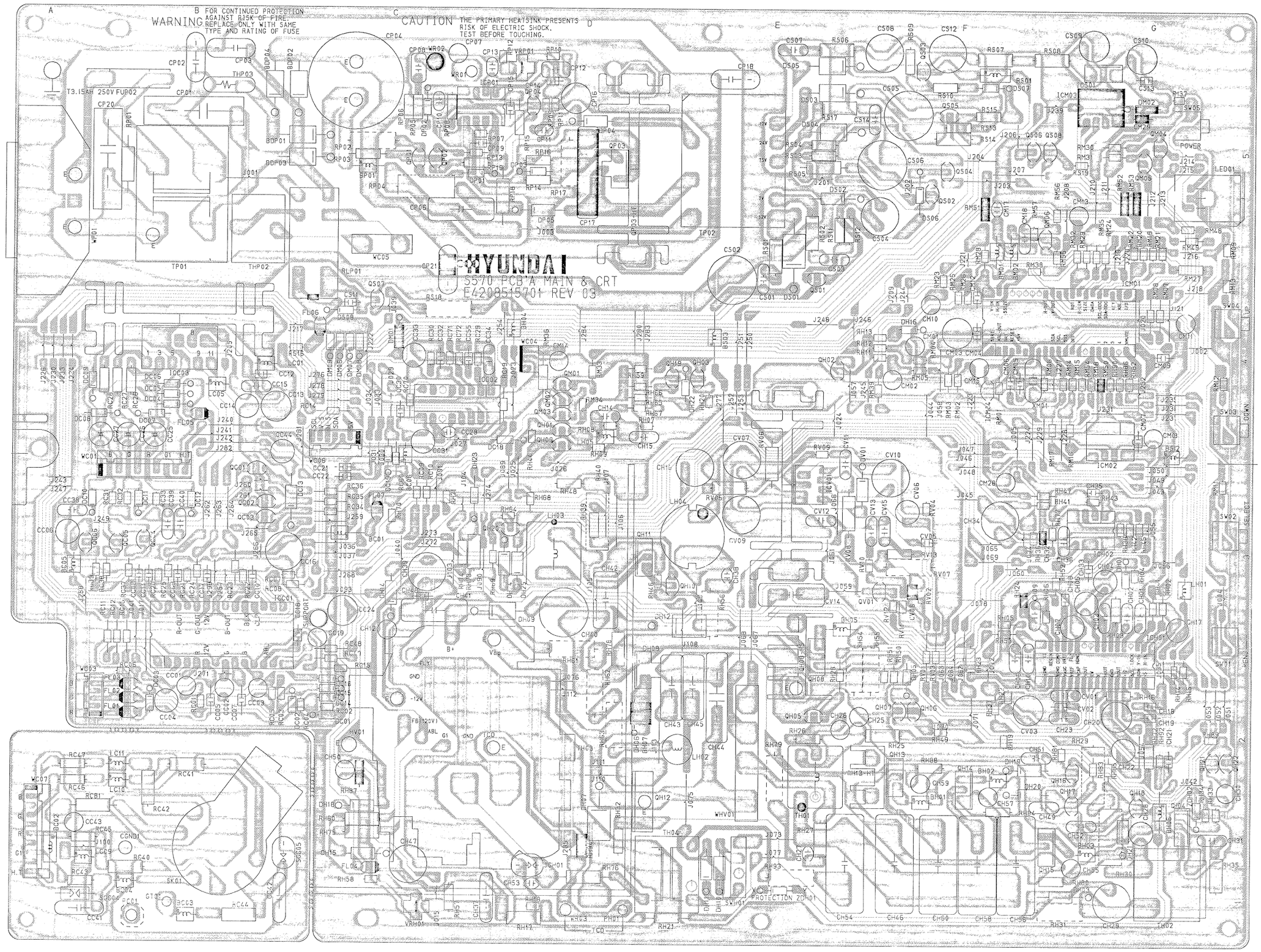


RC41 G (Color pattern : White)

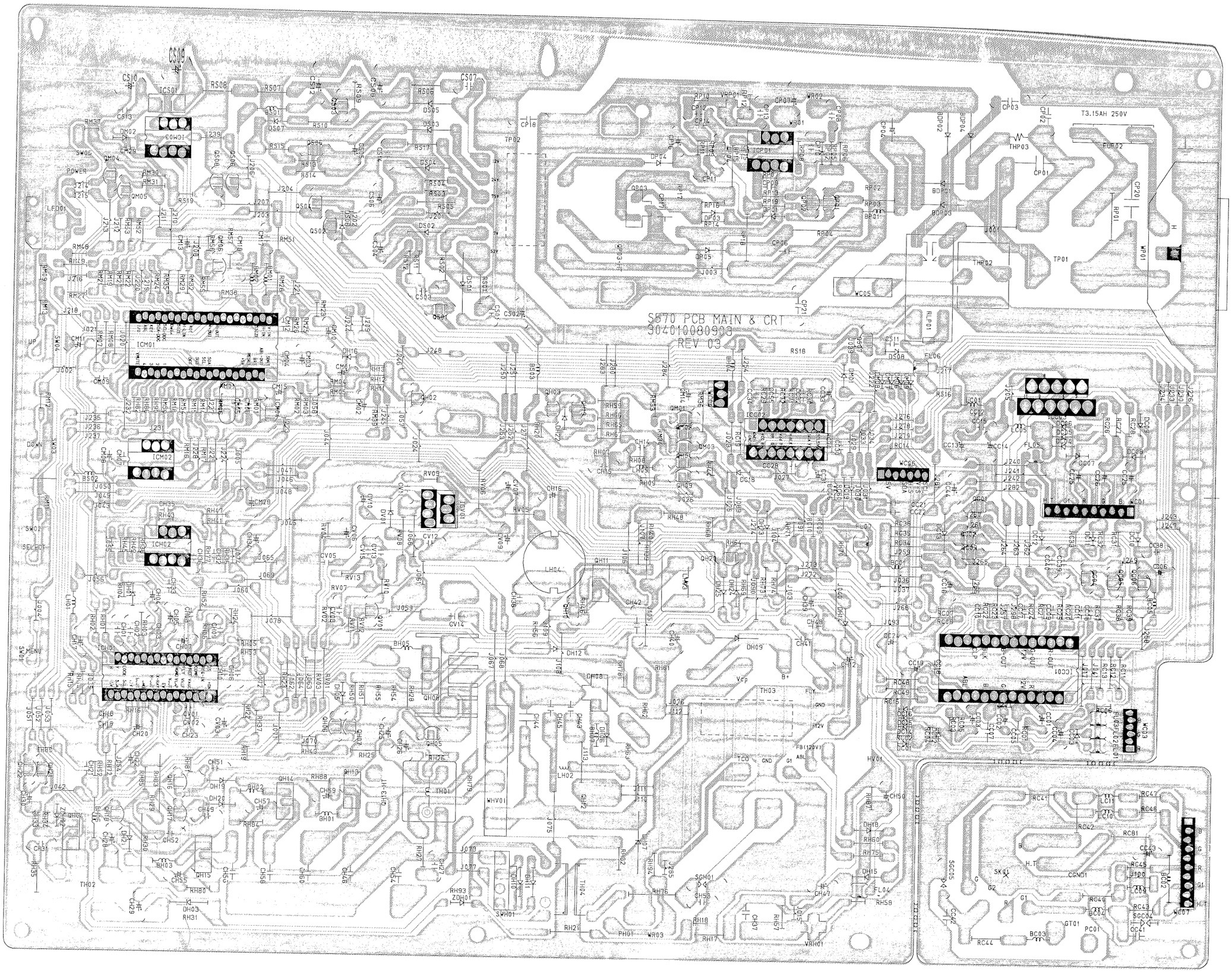


PCB Layout

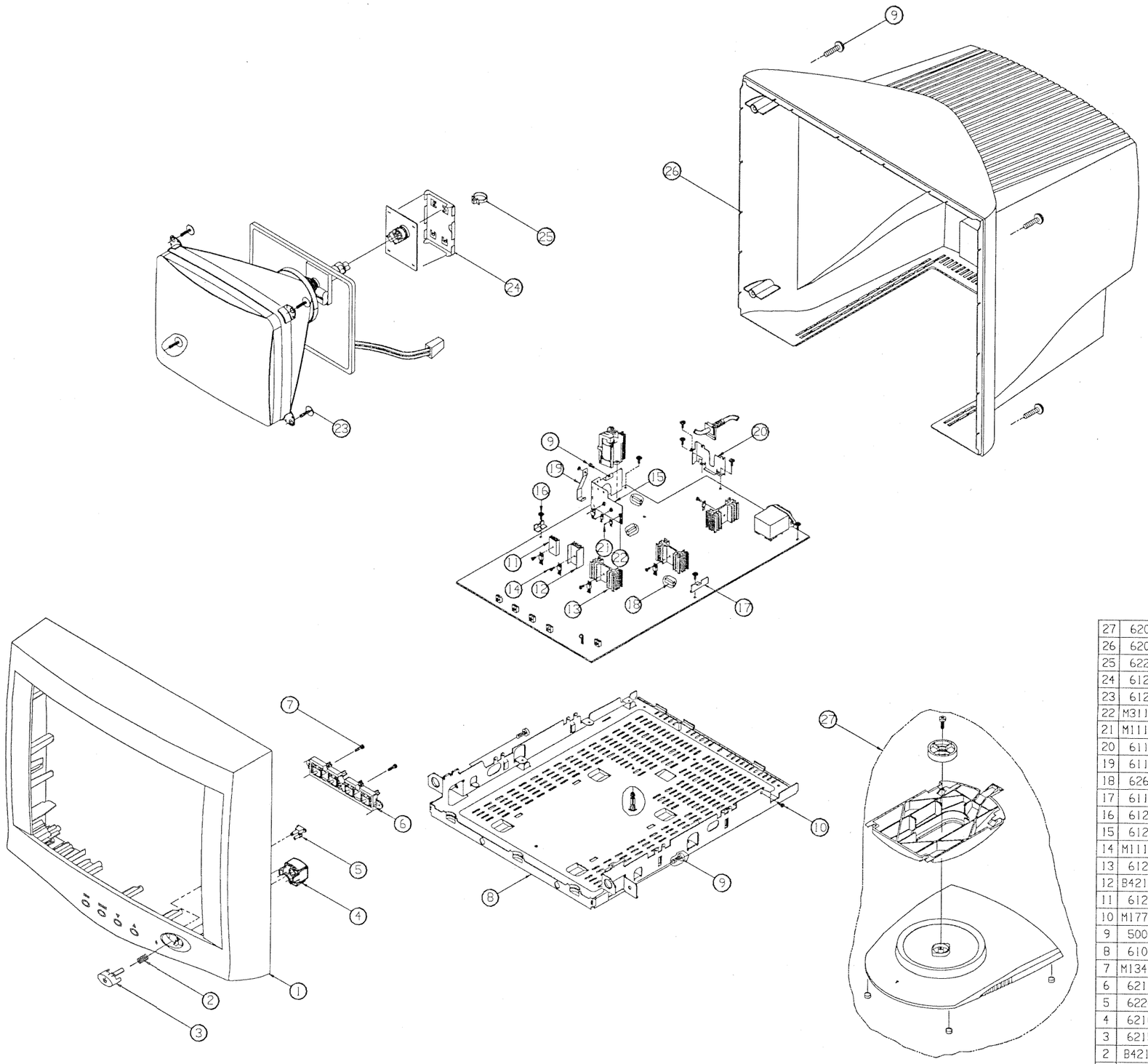
• Main + CRT Component Side



• **Main + CRT Solder Side**



Exploded View



NO.	PART NO.	PART NAME	DESCRIPION	QT'Y	품 명
27	6201201803	SWIVEL ASSY	ABS + PC	1	스위블 에셈블리
26	6201185852	COVER REAR	ABS + PC	1	거버 리어
25	6223056000	SUPPORT BOARD	—	1	서포트 보오드
24	6120022300	FENCE SHIELD CRT	SPTE T·0.3	1	펜스 실드 시알티
23	6129026900	SPECIAL ST2 TRS(+) M5x20	MSZPC	4	스 크 류
22	M31100030012	NUT HEX, 6N1-3	MSZPC	3	너 트
21	M11143010012	SCREW, BIN(+) M3x10	MSZPC	3	스 크 류
20	6110186900	BRKT REAR	SECC T·1.0	1	브라켓 리어
19	6110102600	BRKT FBT	SECC T·1.0	1	브라켓에프비티
18	6261022100	RUBBER PCB	POLYURETHAN(94-HB),BLACK	3	러버 피시비
17	6110195400	BRKT PCB B	SECC T·1.0	2	브라켓 피시비 비
16	6129027600	SPECIAL T.T/W(+) M3x8	MSZPC	7	스 크 류
15	6120029001	FENCE SHIELD FBT ASSY	A1050P T·1.0	1	펜스실드 에프비티어셈블리
14	M11143008012	SCREW, BIN(+) M3*8	MSZPC	5	스 크 류
13	6124030600	HEAT SINK MN	A1050P T·2.0	3	히트 싱크 엠앤
12	B4212501005A	HEAT SINK POWER	A1050P T·2.0	1	히트 싱크 파워
11	6124020504	HEAT SINK POWER	A1050P T·2.0	1	히트 싱크 파워
10	M17744006012	SCREW, BIN(+) M4*6	MSZPC	1	스 크 류
9	5004000187	SCREW,ST2 TRS(+) 4*14	MSZPC	8	스 크 류
8	6101167700	CHASSIS MAIN ASSY	SECC T·1.0	1	사시스메인어셈블리
7	M13443008012	SCREW ST2 BIN(+) 3*8	MSZPC	2	스 크 류
6	6215164700	KNOB TACT MOLD	ABS 94V-0	1	노브 택트
5	6220056100	LED LENS	LUCKY PMMA IF 850	1	엘이디렌즈
4	6210087700	GUIDE POWER SWITCH	ABS 94V-0	1	가이드 파워 스위치
3	6215209700	KNOB POWER	ABS 94V-0	1	노브 파워
2	B4214000301	SPRING COM.	SUS 304 WPB	1	스 프 링
1	6201246800	COVER FRONT	ABS + PC	1	커버 프론트

M.H.RYU	J.S.KIM	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN mm (INCHES) TOLERANCES ARE : LINEAR ANGLES ± RADII UNLESS NOTED ±	TITLE EXPLODED VIEW	REV A	
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