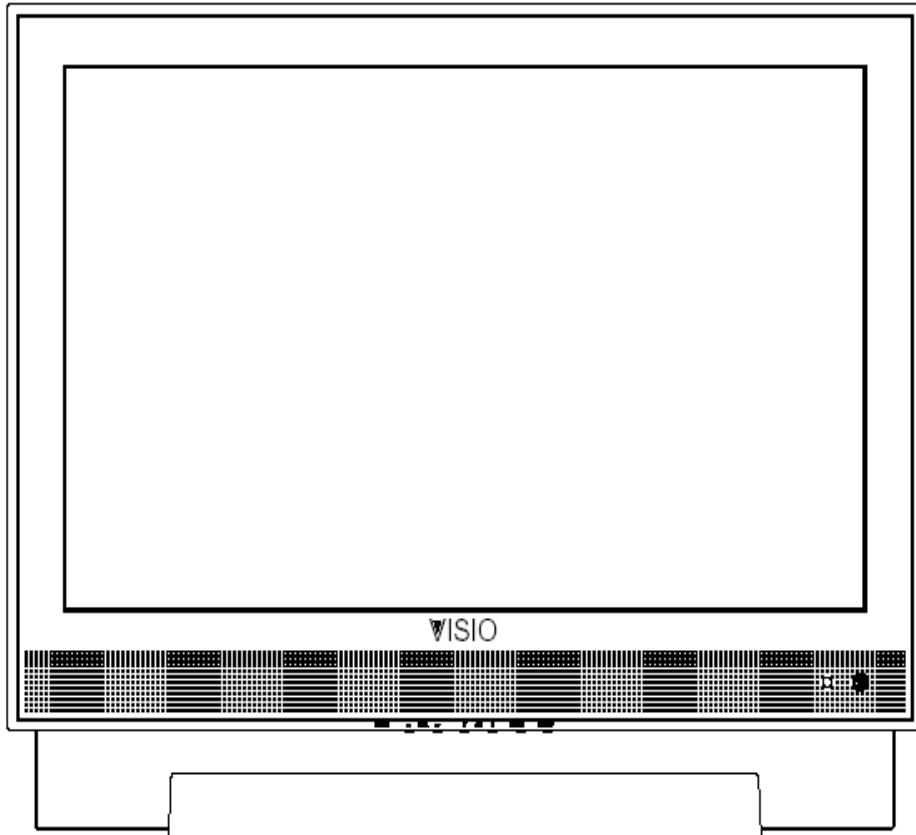


# Service Manual



**Model #: VIZIO L30WGU**

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## Appendix

1. Main Board Circuit Diagram
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Block Diagram

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#### FCC INFORMATION

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause unacceptable 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 or relocate the receiving antenna; increase the separation between equipment and receiver; or connect the into an outlet on a circuit different from that to which the receiver is connected.

#### FCC WARNING

To assure continued FCC compliance, the user must use a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, any unauthorized changes or modifications to Amtrak products will void the user's authority to operate this device. Thus **VINC** Will not be held responsible for the product and its safety.

#### CE CERTIFICATION

This device complies with the requirements of the EEC directive 89/336/EEC with regard to "Electromagnetic compatibility."

#### SAFETY CAUTION

Use a power cable that is properly grounded. Always use the AC cords as follows – USA (UL); Canada (CSA); Germany (VDE); Switzerland (SEV); Britain (BASEC/BS); Japan (Electric Appliance Control Act); or an AC cord that meets the local safety standards.

# **Chapter 1 Features**

---

1. Built in TV channel selector for TV viewing
2. Simulatnueous display of PC and TV images
3. Connectable to PC's analog RGB port and digital port
4. Connectable to digital port HDCP
4. Built in s-video, HDTV, composite video and TV out
5. Built in auto adjust function for automatic adjument of screen display
6. Smoothing function enables display of smooth texts and graphics even if image withresolution lower than 1280x768 is magnified
7. Picture In Picture (PIP) funtion to show TV or VCR images
8. Power saving to reduce consumption power too less than 3W
9. On Screen Display: user can define display mode (ie color, brightness, contrast, sharpness), sound setting, PIP, TV channel program, aspect and gamma or reset to factory setting.

# **Chapter 2 Specification**

---

## **1. LCD CHARACTERISTICS**

Type: WXGA TFT LCD

Size: 30 inch

Active Screen Size: 29.53 inches

Outline Dimension: 683.6(H) x 431.8(V) x 41.6(D)

Display Area: 643.20 (H) x 385.92(V)

Pixel Format: 1280 horiz. By 768 vert. Pixels RGB strip arrangement

Display Color: 16.7M colors

Luminance, White: 600 cd/m<sup>2</sup> (Typ)

Power Consumption: 6.6Watt (Typ.)

Weight 5000 g (Typ.)

Display Operating Mode: Transmissive mode, normally Black

Surface Treatment: Hard coating (2H), Anti-glare treatment of the front polarizer,

## **2. OPTICAL CHARACTERISTICS**

2-1. Viewing Angle by Contrast Ratio °Y 10

Left: 85°typ.

Right: 85°typ.

Top: 85°typ.

Bottom: 85°typ.

## **3. SIGNAL (Refer to the Timing Chart)**

3-1. Sync Signal

(1) Type: TMDS

(2) Input Voltage Level: 90~240 Vac, 50/ 60 Hz

(3) Input Impedance: 50Ω[ / Signal line

3-2. Operating Frequency

RGB Signal: H: support to 30K~70KHz

V: support to 50~85Hz

Pixel Clock: support to 110MHz

DVI Signal: H: support to 30K~80KHz

V: support to 50~85Hz

Pixel Clock: support to 110MHz

S-Video                  Video (Y): Analog 0.1Vp-p/75Ω  
                        Video (C): Analog 0.286p-p/75Ω

Component signal: YCbCr  
                        H: 15.734KHz V: 60Hz (NTSC-interlace)  
                        H: 31KHz        V: 60Hz (NTSC-progressive)

YPbPr  
                        H: 15.734KHz V: 60Hz (NTSC-480i)  
                        H: 31KHz        V: 60Hz(NTSC-480p)  
                        H: 45KHz        V: 60Hz(NTSC-720p)  
                        H: 33KHz        V: 60Hz(NTSC-1080i)

Composite Video signal: H: 15.734KHz V: 60Hz (NTSC)

F-Type TV RF signal: H: 15.734KHz V: 60Hz (NTSC)

Audio Signal: Frequency Response: 250 Hz-20KHz

#### **4. Input Connectors**

- a. RJ11 (For RS232 Controls)
- b. 24-pin DVI (For DVI/HDCP input)
- c. RCA x2 ((For DVI/HDCP input)
- d. D-sub 15pin x 1 (For Analog RGB)
- e. Mini Jack (L,R) x 1 (For PC analog Audio input)
- f. YPbPr RCA x 3 (For HDTV input)
- g. YCbCr RCA x 3 (For DVD input)
- h. S-Video 4pin DIN x 1
- i. RCA x3 (For CVBS A/V input#1)
- j. RCA x 3(For CVBS A/V input#2)
- k. F-terminal RF
- l. CVBS RCA x 3 (For CVBS A/V output)

#### **5. POWER SUPPLY**

Consumption: 170W MAX

DPM Mode Not Active OFF: less than 3 W Low (20%)

Power OFF: to less than 3W

## **6.Speaker**

Output 8Ω/5W (max) X2

## **7. ENVIRONMENT**

Operating

- a. Temperature: 5~35°C
- b. Relative humidity: 10~90%
- c. Altitude: 0~10,000ft

Non-operating

- a. Temperature: -20~50°C
- b. Relative humidity: 10~90%
- c. Altitude: 0~40,000ft

## **8. DIMENSIONS (with TILT/SWIVEL)**

GATEWAY VERSION

- a. Height: 601.1mm
- b. Width: 740.0mm
- c. Depth: 198.0mm

Wynn version

- a. Height: 522.0mm
- b. Width: 740.0mm
- c. Depth: 100.5mm

## **9. WEIGHT (with TILT/SWIVEL)**

GATEWAY version

- a. Net: 19.1kgs
- b. Gross: 25.8kgs

Wynn version

- a. Net: 14.1kgs
- b. Gross: 20.8kgs

# Chapter 3 On Screen Display

---

## ***Main unit button***

Power

Source

MENU

PROG ▲

PROG ▼

Sound +

Sound -

Auto

## ***OSD Adjustment***

### 1. PC Analog

#### A. Picture:

- a. Brightness
- b. Contrast
- c. Auto picture
- d. Manual picture:

- 1. V position
- 2. H size
- 3. H position
- 4. Fine tune

- e. Sharpness: 1~5
- f. Color Temp (User, 9300k, 6500k, 5000k)
  - 1. R (Red setting) (0~100)
  - 2. G (Green setting) (0~100)
  - 3. B (Blue setting) (0~100)

#### B. Audio:

- a. Volume
- b. Treble
- c. Bass
- d. Balance
- e. Spatial

C. Setup:

- a. Language (English, France, Spain)
- b. Gamma (Linear, Vivid1, Vivid2, Vivid3)
- c. Wide (Panoramic, Widescreen, Zoom, Standard)
- d. PiP:
  - 1. Switch (On/Off)
  - 2. Style (Off, Small, Large)
  - 3. Pos (Upper left, Upper center, Upper right  
Middle left, Middle right, lower left, lower center, lower right)
  - 4. Source (TV, DVD, AV2/S, AV1)
  - 5. PiP TV Channel
- e. OSD style (Translucent, Opaque)
- f. IR Command Set (A, B, C)

2. PC digital

A. Picture:

- a. Brightness
- b. Contrast
- c. Sharpness
- d. Color Temp
  - User, 5000k, 6500k, 9300k
  - R (Red setting)
  - G (Green setting)
  - B (Blue setting)

B. Audio:

- a. Volume
- b. Treble
- c. Bass
- d. Balance
- e. Spatial

C. Setup:

- a. Language (English, France, Spain)
- b. Gamma (Linear, Vivid1, Vivid2, Vivid3)
- c. Wide (Panoramic, Widescreen, Zoom, Standard)
- d. PiP:

1. Switch (On/Off)
2. Style (Off, Small, Large)
3. Pos (Upper left, Upper center, Upper right)
  - Middle left, Middle right, lower left, lower center, lower left)
4. Source (TV, DVD, AV2/S, AV1,)
5. PiP TV Channel
- e. OSD style (Translucent, Opaque)
- f . IR Command Set (A, B, C)

### 3.AV2/S, AV1, DVD, HDTV Mode

#### A. Video:

- a. Brightness
- b. Contrast
- c. Color
- d. Tint
- e. Sharpness (1~5)
- f. Color Temp (normal, Warm, Cool)
- g. Noise Reduct

#### B. Audio:

- a. Volume
- b. Treble
- c. Bass
- d. Balance
- e. Spatial

#### C. Setup:

- a. Language (English, France, Spain)
- b. Gamma (Linear, Vivid1, Vivid2, Vivid3)
- c. Wide (Panoramic, Widescreen, Zoom, Standard)
- d. PiP:
  1. Switch (On/Off)
  2. Style (Off, Small, Large)
  3. Pos (Upper left, Upper center, Upper right)
    - Middle left, Middle right, lower left, lower center, lower left)
  4. Source (TV, DVD, AV2/S, AV1)
  5. PiP TV Channel
  - e. OSD style (Translucent, Opaque)
  - f . IR Command Set (A, B, C)

#### 4. TV

##### A. Video:

- a. Brightness
- b. Contrast
- c. Color
- d. Tint
- e. Sharpness
- f. Color Temp (normal, Warm, Cool)
- g. Noise Reduct

##### B. Audio:

- a. Volume
- b. Treble
- c. Bass
- d. Balance
- e. Spatial
- f. MTS (Mono, Stereo, SAP)

##### C. TV:

- a. Source (Antenna, Cable)
- b. Cable mode (auto, std, Hrc, irc)
- c. Channel scan
- d. CC Mode (CC1, CC2 Text1, Text2)
- e. Parental Control
  - 1. Change password (New password, Confirm password)
  - 2. Setup TV Blocking
  - 3. Setup Movie Blocking
  - 4. Blocking Enable (On/Off)
  - 5. Key Lockout (On, Off, All, All but power)
  - 6. IR Lockout (On/Off)
  - 7. Factory reset (Yes/No)

##### D. Setup:

- a. Language (English, France, Spain)
- b. Gamma (Vivid1, Vivid2, Vivid3 and liner)
- c. Wide (Panoramic, Widescreen, Zoom and Standard)
- d. PiP
  - 1. Switch (On/Off)
  - 2. Style (Off, Small, Large)
  - 3. Pos (Upper left, Upper center, Upper right)

Middle left, Middle right, lower left, lower center, lower left)

4. Source (TV, DVD, AV2/S, AV1)

5. PiP TV Channel

e. OSD style (Translucent, Opaque)

f . IR Command Set (A, B, C)

# Chapter 4 Factory preset timings

---

This timing chart is already preset for the TFT LCD analog & digital display monitors.

Resolution	Refresh rate	Horizontal Frequency	Vertical Frequency	Horizontal Polarity	Vertical Polarity	Pixel Rate
640x480	60Hz	31.5kHz	59.94Hz	N	N	25.175
640x480	75Hz	37.5kHz	75.00Hz	N	N	31.500
800X600	60Hz	37.9kHz	60.317Hz	P	P	40.000
800x600	75Hz	46.9kHz	75.00Hz	P	P	49.500
800X600	85Hz	53.7kHz	85.06Hz	P	P	56.250
1024x768	60Hz	48.4kHz	60.01Hz	N	N	65.000
1024X768	75Hz	60.0kHz	75.03Hz	P	P	78.750
720x400	70Hz	31.46kHz	70.08Hz	N	P	28.320
1280x768	60Hz	47.98kHz	59.83Hz	P	N	81.000
1280x768	75Hz	60.15kHz	75.00Hz	P	N	102.977

Remark: P: positive N: negative

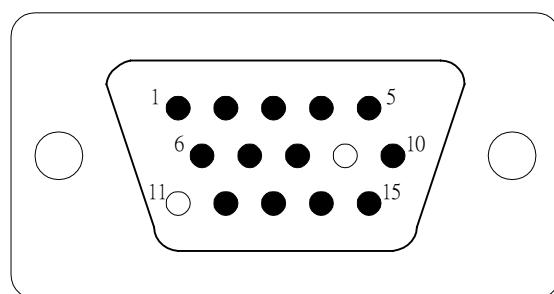
## Native Resolution

Mode No	Resolution	Refresh Rate	Horizontal Frequency	Vertical Frequency	Vertical Sync Polarity	Horizontal Sync Polarity	Dot rate
		(Hz)	(K Hz)	(Hz)	(TTL)	(TTL)	(MHz)
9	1280x768	60	47.98	59.83	-	+	81MHz
10	1280x768	75	60.15	75.00	-	+	102.977MHz

# Chapter 5 Pin Assignment

The TFT LCD analog display monitors use a 15 Pin Mini D-Sub connector as video input source.

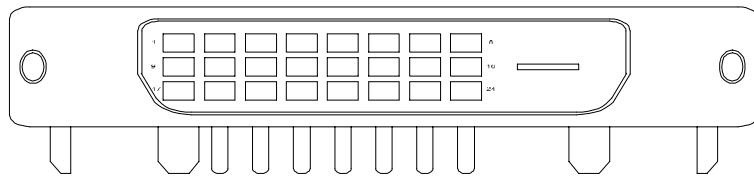
Pin	Description
1	Red
2	Green
3	Blue
4	Ground
5	Ground
6	R-Ground
7	G-Ground
8	B-Ground
9	+5V for DDC
10	Ground
11	No Connection
12	(SDA)
13	H-Sync (Composite Sync)
14	V-Sync
15	(SCL)



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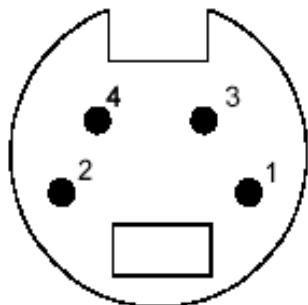
The TFT LCD digital display monitors use a 24 Pin DVI\_D connector as video input source.

Pin	Description
1	TMDS negative differential input, channel 2
2	TMDS positive differential input, channel 2
3	Logic Ground
4	Reserved. No connection
5	Reserved. No connection
6	DDC2B Clock
7	DDC2B Data
8	Reserved. No connection
9	TMDS negative differential input, channel 1
10	TMDS positive differential input, channel 1
11	Logic Ground
12	Reserved. No connection
13	Reserved. No connection
14	Power
15	Logic Ground
16	SENSE Pin, Pull High
17	TMDS negative differential input, channel 0
18	TMDS positive differential input, channel 0
19	Logic Ground
20	Reserved. No connection
21	Reserved. No connection
22	Logic Ground
23	TMDS positive differential input, reference clock
24	TMDS negative differential input, reference clock



Four-Pin mini DIN S-Video Connector

### Pin Assignment



1, 2 = GND  
3 = Luminance (Y)  
4 = Chrominance(C)

Signal Level	Video (Y) :	Analog 0.1Vp-p/75Ω
	Video (C) :	Analog 0.286p-p/75
	Sync (H+V) :	0.3V below Video (Y)
Frequency	H: 15.734Khz	V: 60HZ (NTSC)

### Video Output Connector

Signal Level	Video (Y+C) :	Analog 0.7Vp-p/75Ω
	Sync (H+V):	0.3V below Video (Y+C)

### RGB Signal

- a. Sync Type TTL (Separate / Composite) or Sync. On Green
- b. Sync polarity Positive or Negative
- c. Video Amplitude RGB: 0.7 Vp-p
- d. Frequency H: support to 30k~70kHZ  
V: support to 50~85MHZ

### Audio Signal:

- a. Signal Level 1Vrms
- b. Frequency Response 250HZ – 20kHz

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## Component Signal

Ycbcr

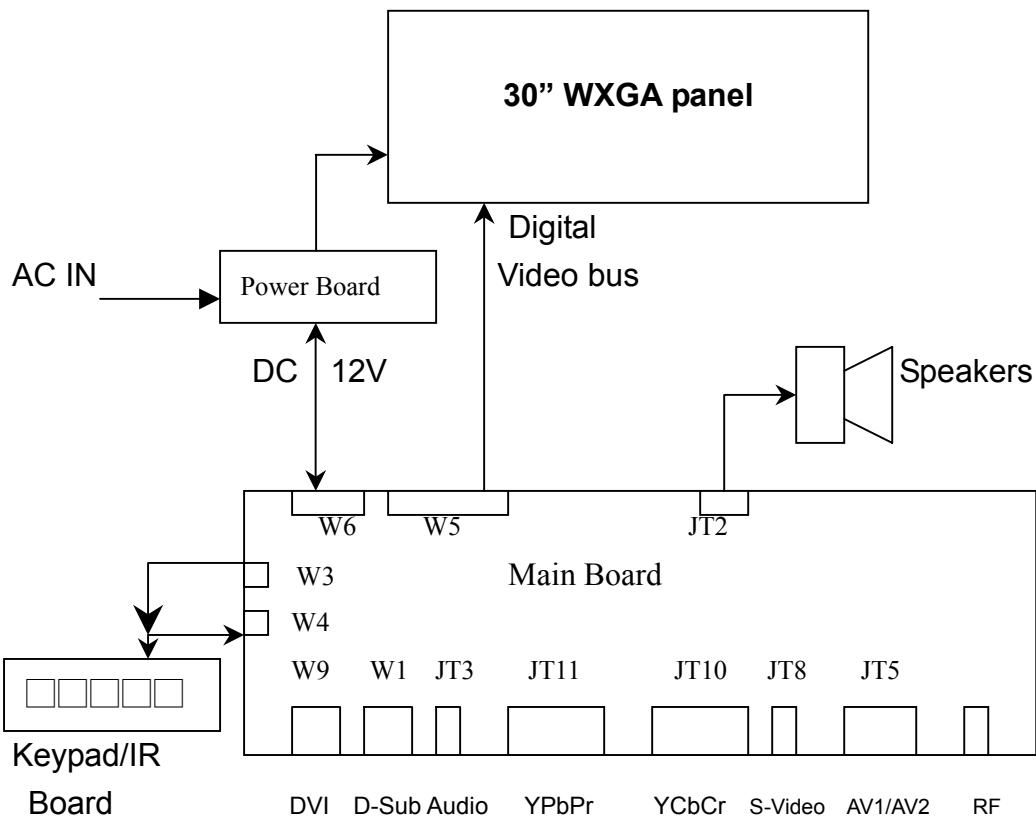
- a. Frequency      H: 15.734kHZ      V: 60HZ (NTSC-interlace)  
                        H: 31kHZ                V: 60HZ (NTSC-progressive)
- b. Signal level    Y: 1Vp-p      Cb:  $\pm 0.350$ Vp-p      Cr:  $\pm 0.350$ Vp-p
- c. Impedance       75Ω

Ypbpr

- a. Frequency      H: 15.764kHZ      V: 60HZ (NTSC-480i)  
                        H: 31kHZ                V: 60HZ (NTSC-480p)  
                        H: 45kHz                 V: 60HZ(NTSC-720p)  
                        H: 33kHz                V: 60HZ(NTSC-1080i)
- b. Signal level    Y: 1Vp-p      pb $\pm 0.350$ Vp-p pr:  $\pm 0.350$ Vp-p
- c. Impedance       75Ω

# Chapter 6 Block Diagram

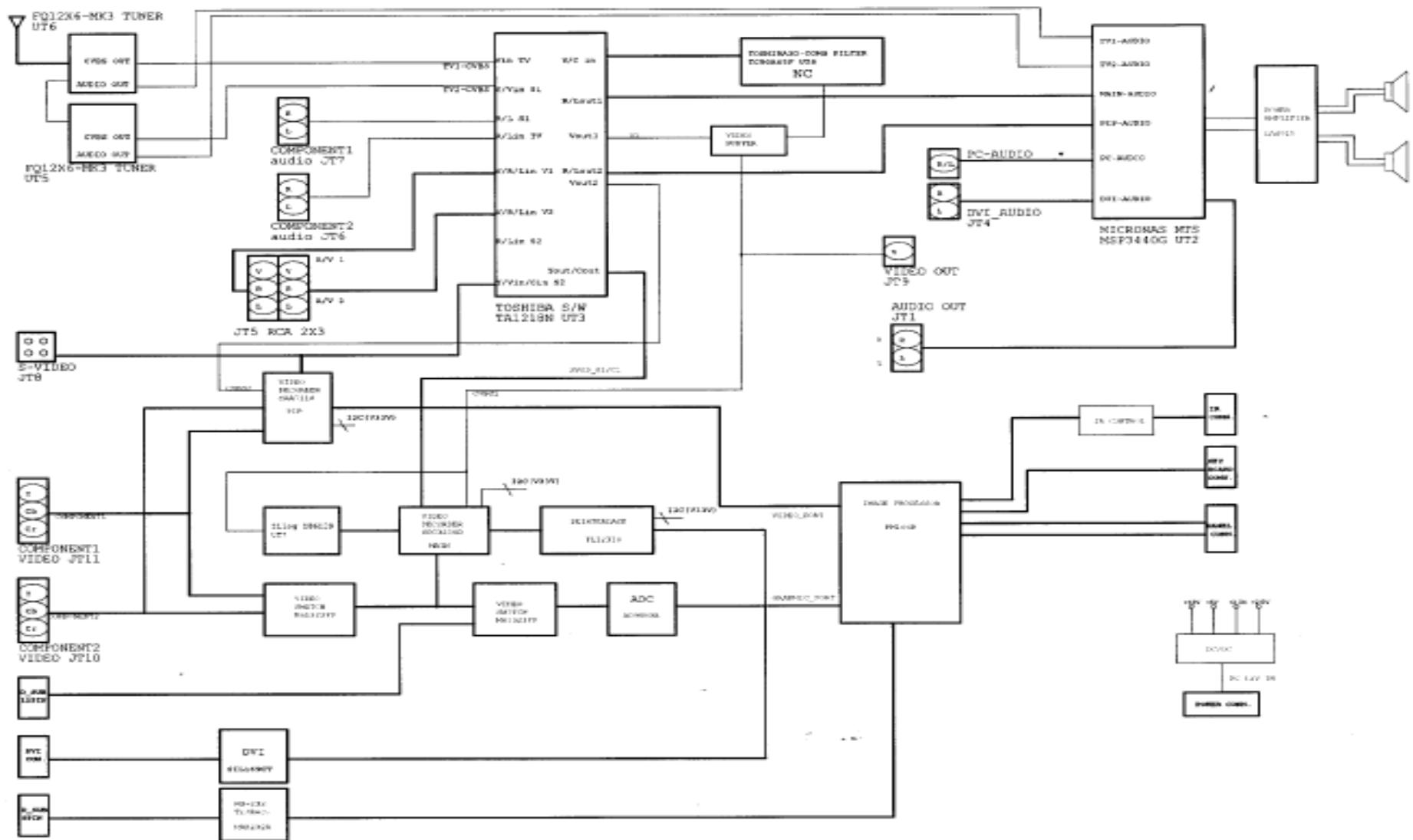
## System Block Diagram



The monitor's system block diagram is powered by power board that transforms AC source of 100V~240V AC +/- 10% @ 50/60 HZ into DC 12V & 24V source. The DC source supplies three important parts of the system block diagram. They are the main board, and 30" WXGA panel unit.

The main board receives different types of video signal. Afterward, the main board process the signals control the various functions of the monitor and outputs control signal, video signal and power to the 30" WXGA panel to be displayed.

The inverter first processes the power send to the panel. The function of the inverter is to step up the voltage supplied by the main board to the power that is needed to light up the lamps in the panel. Simultaneously, the digital video signals are processed in the panel and the outcome determines the brightness, pixel on/off and the color displayed on the panel.



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The function of the Main board is to receive different types of video and audio signal in to compatible digital video and audio format.

The FQ1236-MK3 tuner processes the TV antenna and the cable into analog signal. The audio signal exiting from FQ1236-MK3 is further processed by MSP3440G. The purpose is to process the input IF signal into AF signal and control TV sound signal features like volume, bass, treble and balance. The processing procedure conforms to standard recommend for Broadcast Television System Committee (BTSC).

The analog video signals of S-video, YPbPr, TV and A/V signals travel directly to video decoder. At the decoder, all signals are translated from analog signals into compatible digital signal which will be ultimately be processed by the VP3230 & SAA7118.

After the video signal has been converted into digital signals, the digital video signal is de-interlaced by FLI3210. The de-interlace processor automatically determines and de-interlace the incoming video content – static or motion and applies different algorithm to each of the content type. An external SDRAM is used to help store the video fields and motion video data processed in FLI3210. More over, the internal memory controller in FLI3210 controls the external SDRAM. What's more, FLI3210 offer programmable functions like video enhancement and PIP (picture in picture). PIP functions by activating the primary and secondary port simultaneously. In short, FLI3210 output (display port) digital signals up to 74 Mpixel/sec to the PW166B generate the vertical and horizontal timing signals for display device.

All functions are controllable by the main board. Plus, all functions in the IC boards are programmable using I2C Bus.

# Chapter 7 Main Board I/o Connections

---

## W3 CONNECTION (TOP→BOTTOM) "OSD CONTROL"

Pin	Description
1	"Auto"
2	"Left"
3	"Right"
4	"Down"
5	"Gnd"
6	"Up"
7	"Menu"
8	"Source"

## W4 CONNECTION (TOP→BOTTOM)

Pin	Description
1	"Power"
2	"U17"
3	"V50"
4	"Gnd"
5	"Vpcon"

## W6 CONNECTION (TOP→BOTTOM)

Pin	Description
1	"V120dc"
2	"V120dc"
3	"V120dc"
4	"Gnd"
5	"Gnd"
6	"Gnd"
7	"Bk_Light"
8	"Pwm_p"

# **Chapter 8 Theory of Circuit Operation**

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## **The operation of D-SUB 15pin route**

The D-SUB 15pin is input analog signal into the video switch M61323fp. Then, the signal is process to the A/D converter (ADC9883) and output to the pw166B; the pw166B generates the vertical and horizontal timing signals for display device.

## **The operation of DVI & HDCP CON route**

The DVI & HDCP CON is input digital signal the signal is process to the sil169. Then transfer to the pw166B, the pw166B generates the vertical and horizontal timing signals for display device.

## **The operation of HDTV & DVD route**

HDTV & DVD signal is transfer to video switch M61323fp, the M61323fp can to determine signal which one signal is to the VP3230 (decoder) and which one is to ADC9883. When signal transfer for the VP3230 (decoder) and output to FLI2310 (de-interlace) then transfer the pw166B generates the vertical and horizontal timing signals for display device. When signal to the ADC9883 then output to pw166B generates the vertical and horizontal timing signals for display device. The pip mode is signal to saa7118 (decoder) then transfer to the pw166B generates the vertical and horizontal timing signals for display device.

## **The operation of S-Video route**

The S-Video signal is input to TA1218N (switch) then transfer signal to VP3230 (decoder) and output to FLI2310 (de-interlace) then use graphic port transfer signal to pw166B generates the vertical and horizontal timing signals for display device. The pip mode is signal to saa7118 (decoder) then transfer to the pw166B generates the vertical and horizontal timing signals for display device.

## **The operation of Video 1,2 route**

Video 1,2 signal input to TA1218N (switch) and transfer signal to VP3230 (decoder) and output to FLI2310 (de-interlace), then transfer to the pw166B generates the vertical and horizontal timing signals for display device. The pip mode is transfer to saa7118 (decoder) then transfer to the pw166B generates the vertical and horizontal timing signals for display device.

## **The operation of TV route**

TV signal is processes to the tuner and output to TA1218N (switch) then transfer to VP3230 (decoder) and output to FLI2310 (de-interlace) then transfer to pw166B generates the vertical and horizontal timing signals for display device. The pip mode is signal to saa7118 (decoder) then transfer to the pw166B generates the vertical and horizontal timing signals for display device.

## **The operation of keypad**

There are 8 keys to control and select the function of SHD-3010 and also have two LED to indicate the status of operation. They are “power, Source, MENU, ▼▲, + -, Auto” keys and LED.

1. The power key through POW and GND to control PW166B, PW166B will receive a low signal to turn on or off system while press the power key.
2. The other seven keys are on high state because the pull up resistor but will transit to low state dependent on which key pressed, and the state will be reader by PW166B through D0 to D6 to act corresponding function.
3. The LED is constructed with two separate LED which color is blue and Green. The PW166B direct control the LED's when PW166B (VPCON) is low the LED is Green (Close power) when PW166B (VPCON) is high the LED is Orange (Open power).

## **The operation of Analog port**

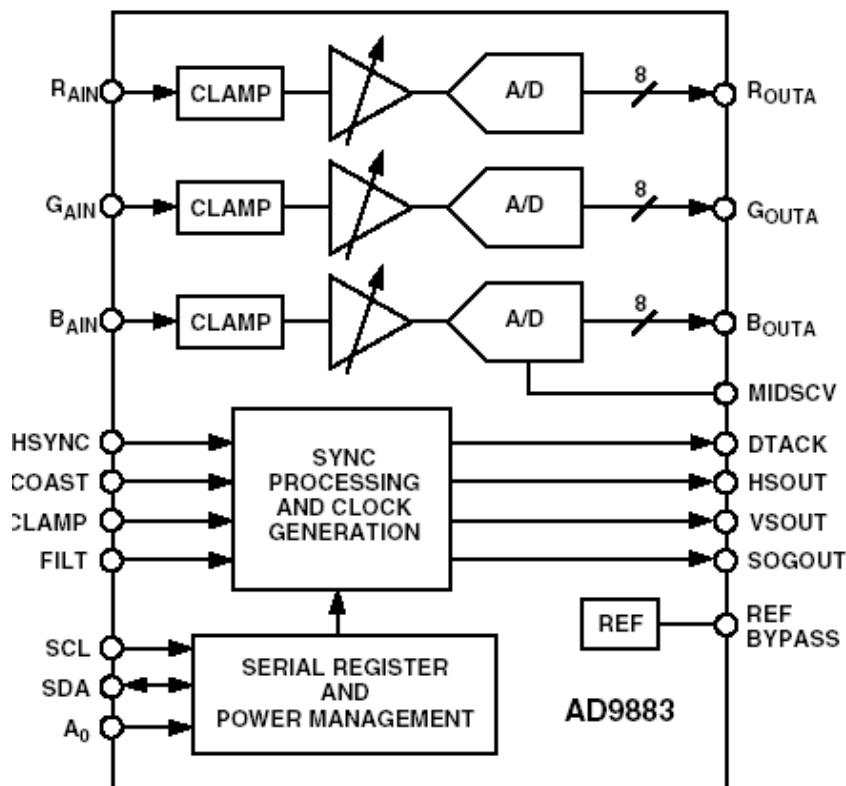
The analog port are consisted with 15 pins mini D-Sub connector which receiving video signal from host device, EEPROM which compliance with DDC1/DDC2B protocol, H-sync and V-sync detecting circuit which regenerate synchronous signal for PW166B detecting, video signal matching circuit and AD9883A which capturing RGB graphics signal and digitize each pixel.

The pin assignment of 15 pins connector are as follows :

Pin No.	Pin Name	Description
1	GRAI	Red signal
2	GGAI	Green signal
3	GBAI	Blue signal
4	GND	Ground
5	GND	Ground
6	GND	R-Ground
7	GND	G-Ground
8	GND	B-Ground
9	+5V	For DDC
10	GND	Ground
11	X	No connection
12	RGSA	SDA
13	GHSI	H-Sync
14	RVSI	V-Sync
15	RGSL	SCL

RGB graphics signal of host device transmits to the analog port through pin 1 to 3. The video signal should be coupled to RIN, GIN, BIN and SOGIN of AD9883A through C78, C75, C74 and C76. The EDID data is stored in EEPROM (24LC21) which compliance with DDC1/DDC2B protocol that performs a plug and play function. When in DDC1 protocol the host device access the EDID data through RVSI (pin14) and RGSA (pin12) while RGSL (pin15) is held high. But in DDC2B protocol the host device access EDID data through RGSA (pin12) and RGSL (pin15). The SCL, SDA should be pull up through R28 R27 and are voltage limitation through D9, D8, and D5, which will limit to 5 volts. The PW166B let PORTA3 (ADCEN) to low state that will let FST3125 (U8C) to output GHS signal which are derived from AD9883A pin65 SOGOUT. When PW166B detects exact GHS and GVS timing it will configure the registers of AD9883A to satisfy the operation through SCL and SDA of IIC bus. Oppositely while PW166B let PORTB3 (DVI\_ON) to high state it means that the analog port is disable, and should be in digital interface mode. While PW166B let PORTA6 (INSEL) PORTB4 (COMP\_SEL) to High state it means that the YPbPr is disable, and DVD is enable. AD9883A is 8-bit 140 Msps monolithic analog interface for capturing RGB graphics signals from personal computers and workstations. It includes +1.25V reference, PLL to generate a pixel clock from Hsync, and programmable gain, offset, and clamp circuits.

The function block of AD9883A is as follows:



If user changes to analog mode or analog port is signaled from host device then PW166B will let PORTA6 (INSEL) to Low state that enables H-Sync, V-Sync, from AD9883A. The PW166B will change the power mode PLL divide ratio, clock phase VCO range and charge pump current etc. that depends on the timing of GHS and GVS. The action should be fulfilled through SDA and SCL of IIC bus to change the data of control registers of AD9883A. The PLL derives a master clock from an incoming H-Sync signal. The master clock frequency is then divided by an integer value, and the divider's output is phase-locked to H-Sync. The PLL characteristics are determined by the loop filter design, which controlled by PLL charge pump current (CURRENT) and VCO range setting (VCORNGE).

The value of VCO range and charge pump current is as follows:

PV1	PV0	Pixel Clock Range (MHz)	KVCO Gain (MHz/V)
0	0	12–36	150
0	1	36–72	150
0	0	72–110	150

Ip2	Ip1	Ip0	Current ( $\mu$ A)
0	0	0	50
0	0	1	100
0	1	0	150
0	1	1	250
1	0	0	350
1	0	1	500
1	1	0	750
1	1	1	1500

Mode	Inputs Power-Down1	Sync Detect2	Powered On or Comments
Full-Power	1	1	Everything
Seek Mode	1	0	Serial Bus, Sync Activity Detect, SOG, Band gap Reference
Power-Down	0	X	Serial Bus, Sync Activity Detect, SOG, Band gap Reference

If we adjust contrast or brightness of analog port then the input gain or input offset should be modified through IIC bus.

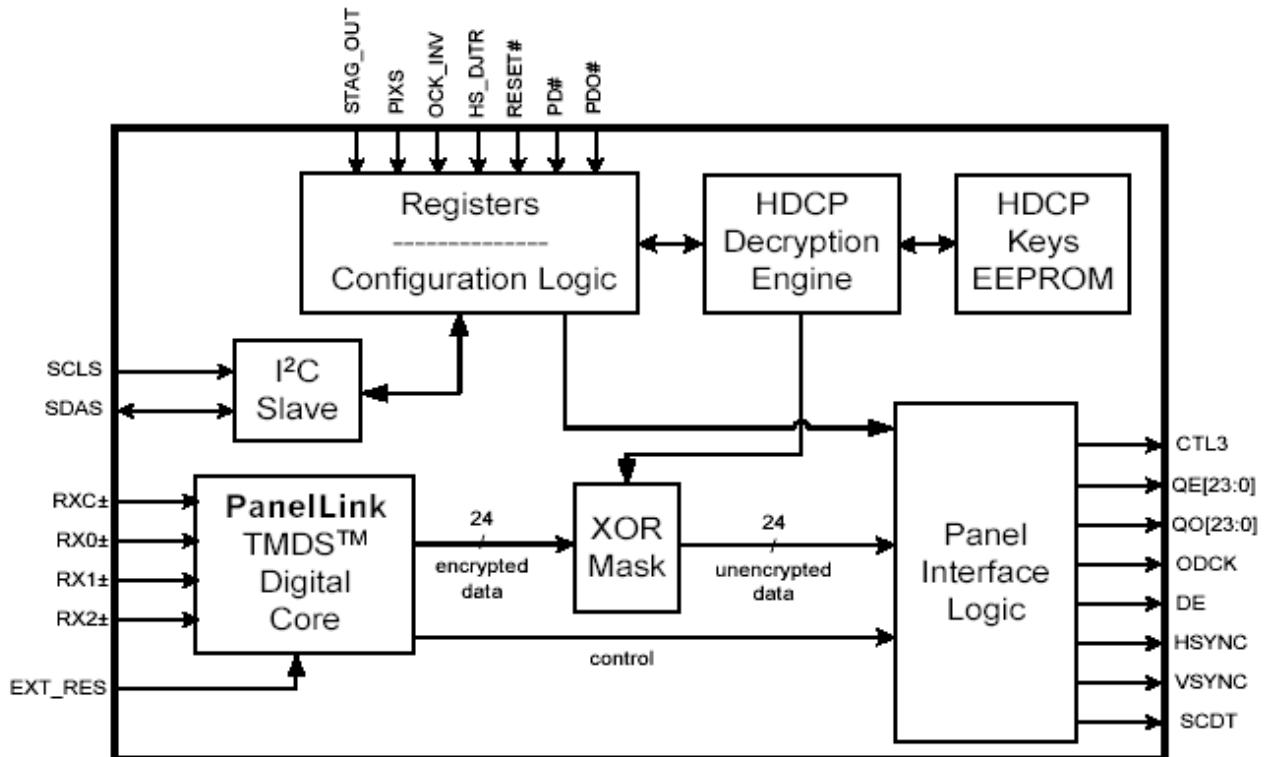
The power of AD9883A is supplied 3-3V. We can management the power of AD9883A through the register of itself. The H-Sync input is used as a reference to generate the pixel-sampling clock. A 5-bit value (PHASE) adjust the sampling phase in 32 steps across one pixel time, so it generate a stable timing relationship between HSOUT and DATAACK to digitize the captured analog RGB data. The output data is aligned to the leading edge of HSOUT. If the signal of sync on green is detected by SOGIN then the SOGOUT will produce a digital composite sync.

## DVI\_D Interface

The Si169 Receiver uses Panel Link Digital technology to support HDTV and high-resolution digital displays for DTV and PC applications. It features High-bandwidth Digital Content Protection (HDCP) for secure delivery of high-definition video in consumer electronics products.

The Si169 is a DVI 1.0 compliant digital-output receiver with built-in High-bandwidth Digital Content Protection (HDCP). It provides a simple, cost effective solution for DTVs implementing DVI-HDCP. Pre-programmed HDCP keys simplify manufacturing while providing the highest level of security. There is no need to use encrypted keys, program EPROM's, or cure epoxy coating.

the functional blocks of the chip .



## Panel Link TMDS Core

The Panel Link TMDS core accepts as inputs the three TMDS differential data lines and the differential clock. The core senses the signals on the link and properly decodes them providing accurate pixel data. The core outputs the necessary sync signals (HSYNC, VSYNC), clock (ODCK), and a display enable (DE) signal that drives high when video pixel data is present. The SCDT signal is output when there is active video on the DVI link and the PLL has locked on to the video. SCDT can be used to trigger external circuitry, indicating that an active video signal is present; or used to place the device outputs in power down when no signal is present (by tying SCDT to PDO#). A resistor tied to the EXT\_RES pin is used for impedance matching.

## **HDCP Keys EEPROM**

The Sil 169 comes pre-programmed with a production set of HDCP keys in its internal EEPROM. In this way the keys are provided the highest level of protection as required by the HDCP specification. Silicon Image manages all aspects of the key purchasing and programming. There is no need for the customer to purchase HDCP keys from the licensing authority. For security reasons, the keys cannot be read out of the device.

Samples of the Sil 169 are available with the B1 public keys as listed in the back of the HDCP specification. These are marked with a -PUB part number as noted in the Ordering Information section. Make sure to request either “Public” or “Production” keys when requesting samples. Before receiving samples of the Sil 169 with production keys a customer must have signed the HDCP license agreement.

## **HDCP Operation**

The Sil 169 supports High-bandwidth Digital Content Protection (HDCP) by decrypting the pixel data stream received from an HDCP transmitter in the video host system. HDCP provides a secure method of delivering high definition content between a host (such as a set-top box, DVD player, or D-VHS player) and display (such as an HDTV, projector, or A/V receiver).

The authentication process involves exchanging calculated values based on the keys and KSV. A software driver running on the host controls the exchange of these values between the host transmitter (Sil 170B) and the receiver (Sil 169) in the display device. The KSV and two other values, An and Ri, are exchanged over the DDC channel (I2C bus) of DVI. The receiver is a slave on this I2C bus. Figure 14 shows a typical HDCP system configuration.

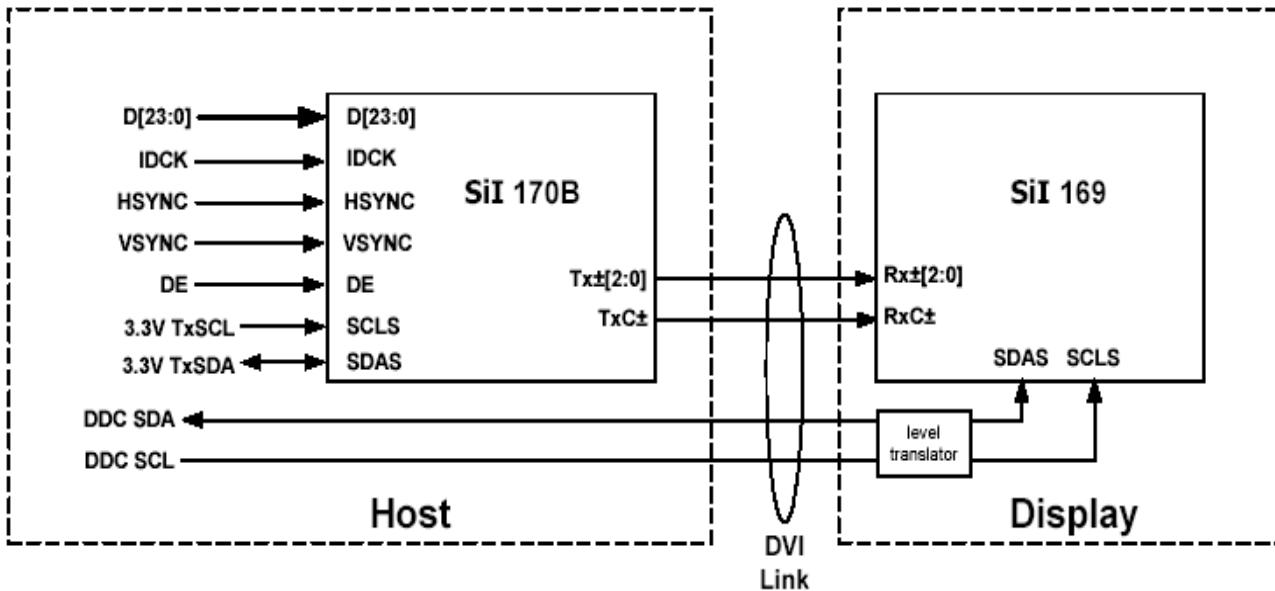
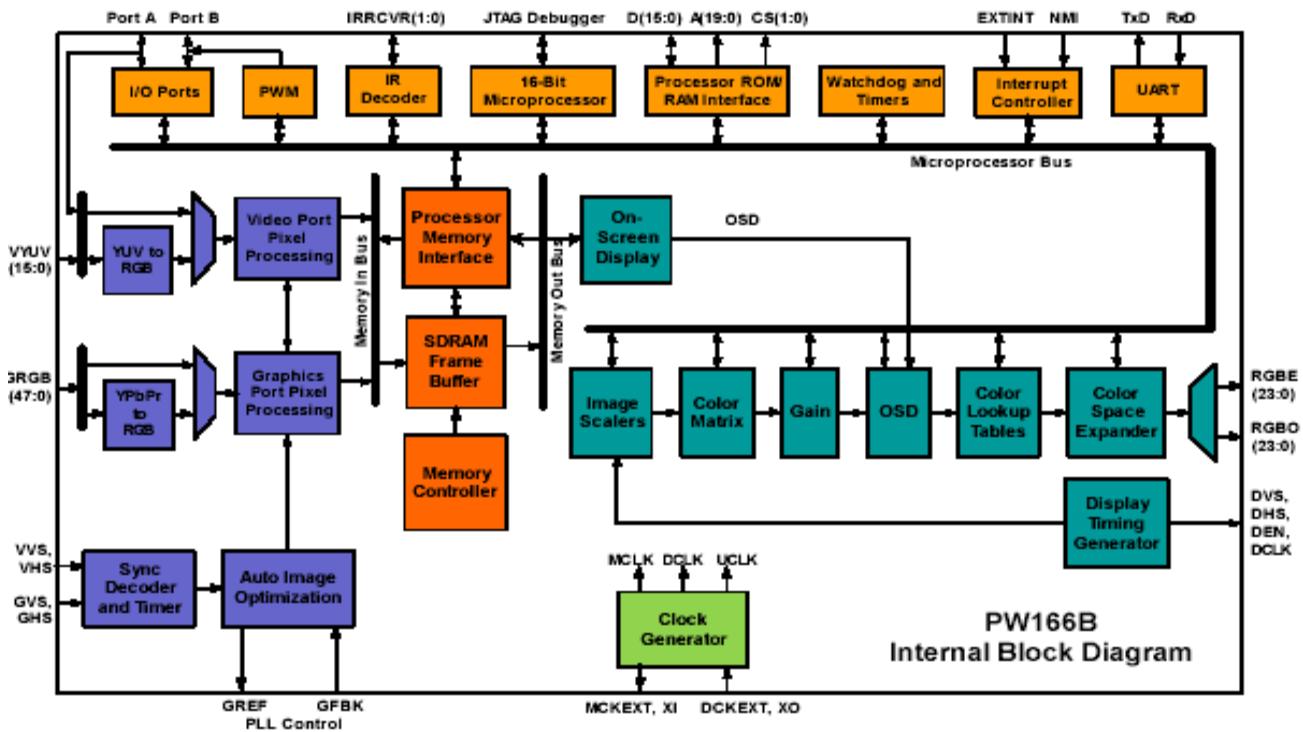


Figure 14. HDCP System Architecture

### The operation of PW66B

The PW166B is highly integrated “System on a chip” that interfaces computer graphics and video inputs in virtually any format to a fixed frequency flat panel display. An embedded DRAM frame buffer and memory controller perform from rate conversion. Computer images from VGA to UXGA resolution input to the chip can be resized to fit on the target display device. The on chip microprocessor incorporates with frame buffer, resizing circuitry and peripheral circuit should supports the features that is frame rate conversion, image scaling, automatic image optimization, picture in picture, on screen display and user adjustment.

The internal block diagram of PW166B is as follows :



The interface of Pw166B is composed by three parts that is microprocessor interface, graphics port and display port.

### Microprocessor interface

When power is supplied and power key is pressed then the reset circuit lets RESET to high state that will reset the PW166B to initial state. After that the RESET will transits to low state and the PW166B start to work that microprocessor executes the programs and configures the internal registers. The PW166B uses two internal PLLs to generate the memory and display clocks, both MCLK and DCLK are generated from a reference clock input to pin XTALIN according to the following formulas.

$$F_{VCOM} = XTALIN * (MPLL_M + 1) / (MPLL_N + 1)$$

$$F_{VCOD} = XTALIN * (DPPLL_M + 1) / (DPPLL_N + 1)$$

Where:

$$MCLK = F_{VCOM} / 2^MPLL_P$$

$$250MHz < F_{VCOM} < 550 MHz$$

$$DCLK = F_{VCOD} / 2^DPPLL_P$$

$$250MHz < F_{VCOD} < 550 MHz$$

Valid values for registers MPLLM [7:0] and DPLLM [7:0] are between 0x27 and 0xFF. MPLLN [5:0] and DPLLN [5:0] are valid from 0x00 to 0x3F. MPLLP [2:0] and DPLLP [2:0] are valid from 0x00 to 0x07. For lower power modes, do not slow the internal PLLs. Instead, use the power control bits described in Power Saving Modes configured as follows :

Mode	Description	DCLK OFF	GCLK OFF	VCLK OFF	MCLK OFF	MCLK DIS	MEM PWDN	LOW PWR
Normal	Used when the chip is in typical operation.	0	0	0	0	0	0	0
Reduced	Used in DPMS, with the display turned off, but with data inputs continually scanned for input.	1	0	0	0	0	0	1
Super Low	Used when the PW166B can wait for an external reset signal to bring it out of this lowest power state.	1	1	1	1	1	1	1

The GPIO block incorporates two 8-bit general-purpose I/O ports. Each bit in each port is individually controllable as either input or output.

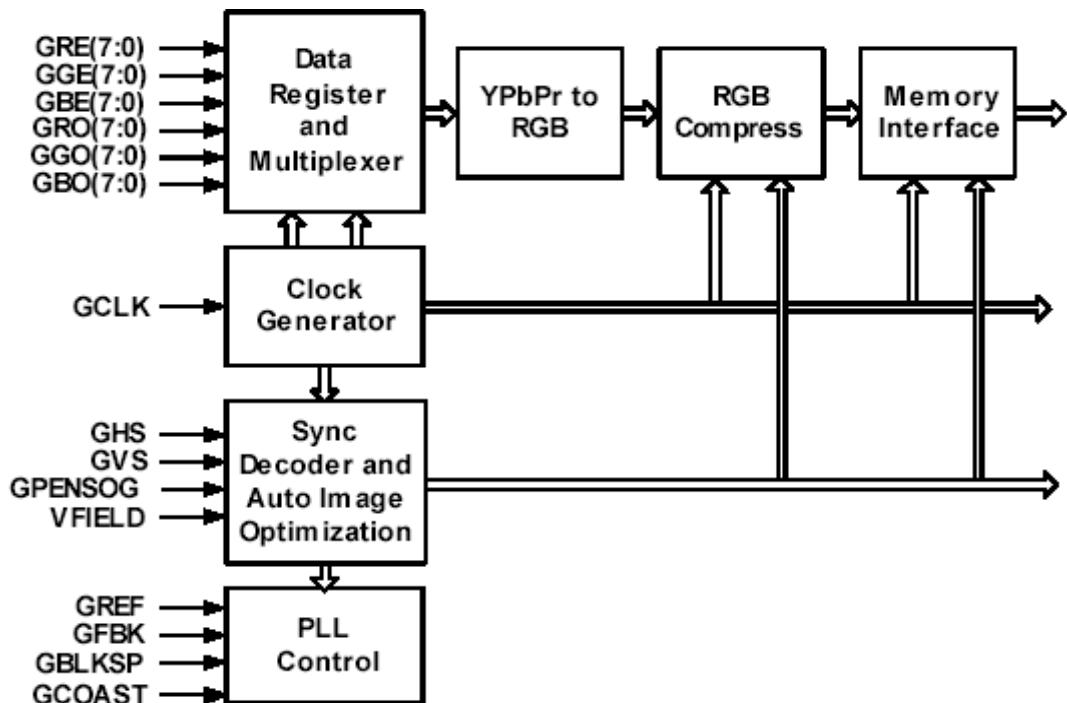
The three ports are configured as follows :

Pin name	Function	Type	Description
PORTA0	SDA	Input / Output	I2C SDA
PORTA1	SCL	Input / Output	I2C SCL
PORTA2	VPCON	Output	Control LED (Green/Blue) and Main board Power on/off
PORTA3	ADCEN	Output	AD9883 SOGOUT Enable
PORTA4	PDPON	Output	Panel power on/off
PORTA5	1231_SCL	Input / Output	I2C SCL
PORTA6	INSEL	Output	Select Input signal
PORTA7	PWM	Output	Panel Bright control
PORTB0	15K_DET	Input	Detect 480i / 480P
PORTB1	DE_MARVSN	Output	Enable or disable Marco vision
PORTB2	MUTE	Output	Audio mute on/off
PORTB3	DVI_ON	Output	DVI to Sil169 Enable
PORTB4	COMP_SEL	Output	YPbPr and DVD switch
PORTB5	1231_En	Output	GFBK out on/off
PORTB6	So	X	Not use
PORTB7	1231_SDA	Input / Output	I2C SCL

## Graphics port

The graphics port (Gport) is an input interface for high speed RGB data (up to UXGA). It accepts incoming data at one or two pixels per clock. The GPort can input data at rates up to 236 MPixels/second. It also has sync separator circuitry; timing signals for PLL control, and clock buffering and conditioning circuitry. The graphics port has three input sources that is from analog port digital and de-interlace. The data cannot exist simultaneously to avoid interference with each other and that is controlled through INSEL COMP\_SEL, INSEL and DVI\_ON.

The block diagram of graphics port is as follows :



The sync decoder detects and processes the horizontal sync (GHS), vertical sync (GVS), sync on green (GPENSOUT), and field (GFIELD) inputs used for timing. There are several bits to indicate the status of the inputs. For horizontal sync, HSOK=1 indicates that the horizontal line rate is faster than 10KHz. For vertical sync, VSOK=1 indicates that the vertical field or frame rate is faster than 10Hz .For sync on green, SOGACT=1 indicates that transitions on GPENSOUT are occurring faster than 10Hz. The PLL control block generates the timing signals required for an external PLL. GCOAST is an output used to tell the PLL to coast during vertical blanking. This is used to keep the PLL from making spurious change due to extra or missing HSYNC pulses. Output GREF is a polarity corrected delayed version of the active horizontal sync signal. GREF is delayed from the input HSYNC by an amount specified by register PHASE (7:0). Changing PHASE will change the set up /hold time relationship between the sample clock and the data coming into the external ADC.

Output GHSFOUT is the field output signal used to tell an external ADC whether even or odd pixels are being captured during half sample mode.

When EXTFCE=1 the external flow control is enabled, each new line is marked by an edge on the GLAVIN input (pin GFBK), but while EXTFCE=0 the GFBKIN input (pin GFBK) is used as the input HSYNC signal for pixel counters.

### Display port

The display port processes and prepares the data for display. The output data is sent out on pins DRE (7:0), DGE (7:0), DBE (7:0), RRO (7:0), RGO (7:0) and RBO (7:0) that is controlled by display timing generator.

The block diagram of display port is as follows :

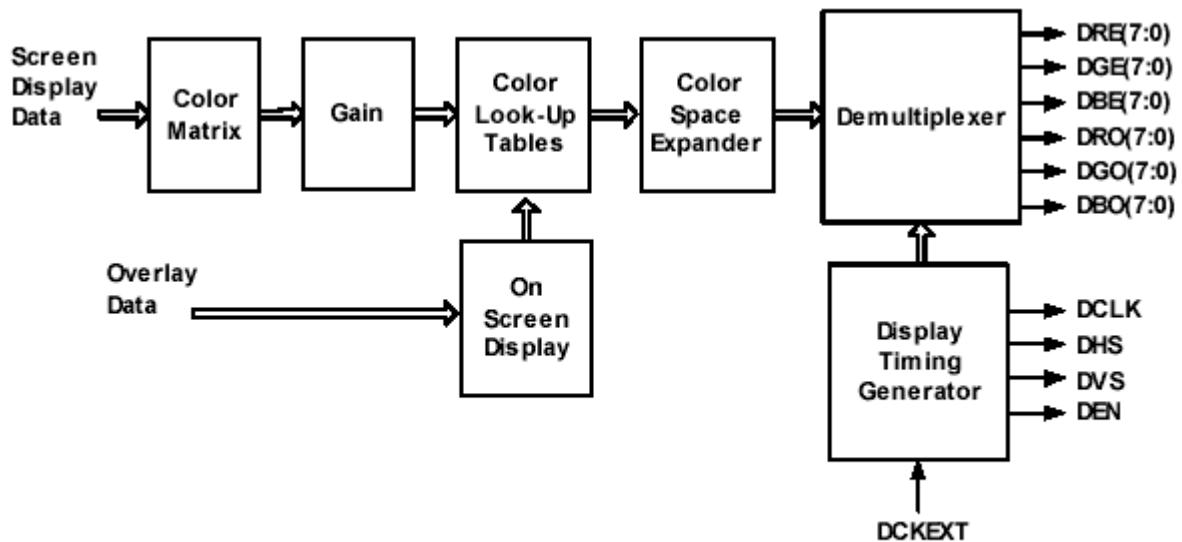


Figure 4-34 Display Port Block Diagram

The on screen display data can be merged into the data, as the data is output to the display here. The on screen display data can also be added as the data is input to the video port, or as data is input to the graphics port.

The gain function is applied to every pixel .It has the same form as the overlay functions. Specially, the pixels are processed as follows:

$$\text{Output red pixel} = ((\text{input red pixel}) * \text{RCONT (7:0)} / 128) + \text{RBRITE (7:0)}$$

$$\text{Output green pixel} = ((\text{input green pixel}) * \text{GCONT (7:0)} / 128) + \text{GBRITE (7:0)}$$

$$\text{Output blue pixel} = ((\text{input blue pixel}) * \text{BCONT (7:0)} / 128) + \text{GBRITE (7:0)}$$

Where:

CONT should be set to 0x80 for normal operation.

The registers xCONT (7:0) are unsigned values between 0 and 255.

The registers xBRITE (7:0) are signed values between -128 and +127, where 0x00 = 0.

The color look up table replaces each input pixel with a new value based on register tables stored in the PW166B. This function is used to compensate the inherent gammas of the display device and the data source. It uses piece-wise linear function to get the output value.

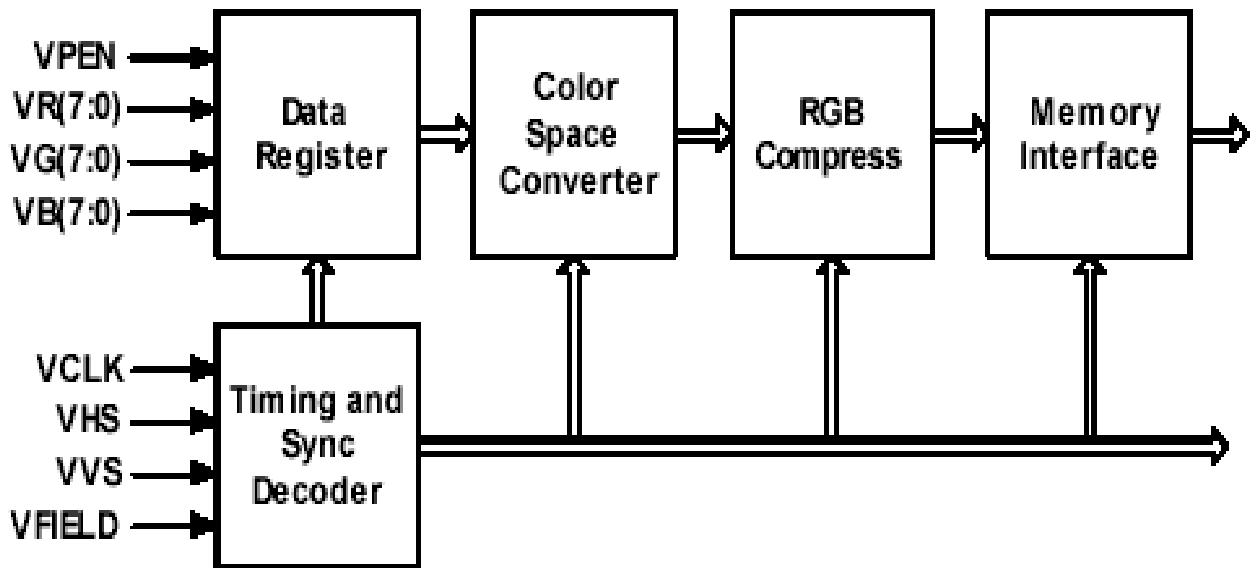
The color space expander allows up to all of the 10 bits per pixel coming from the color look up table to be used to create as many gray shades as possible on the display device. The color space expansion is performed using Frame Rate Modulation (FRM) and Dithering. Dithering is performed before FRM.

The de-multiplexer registers the display pixels before they output to the display. The pixels can also be set to zero here, or set to default value. The de-multiplexer can support one pixel per clock or two pixels per clock mode. On one pixel mode the data is sent out on pins DRE97:0), DGE (7:0) and DBE (7:0) every DCLK. But two pixels mode the data is sent out that even pixels on pins DRE (7:0), DGE (7:0), and DBE (7:0) and odd pixels on pins RRO (7:0), RGO (7:0), and RBO (7:0).

The PW166B generates the vertical and horizontal timing signals for the display device, and internal timing signals for the display port portion of the PW166B. The DHS and VHS output signals can be active high or low, depending on the HSPOL and VSPOL bits. Similarly, DENPOL controls the polarity of the DENR, DENG and DENB outputs. The DDEN bit enables the DHS, DVS, DENR, DENG and DENB outputs. The horizontal counter starts with the leading edge of horizontal sync. All horizontal timing is referred to this edge.

## **Video Port**

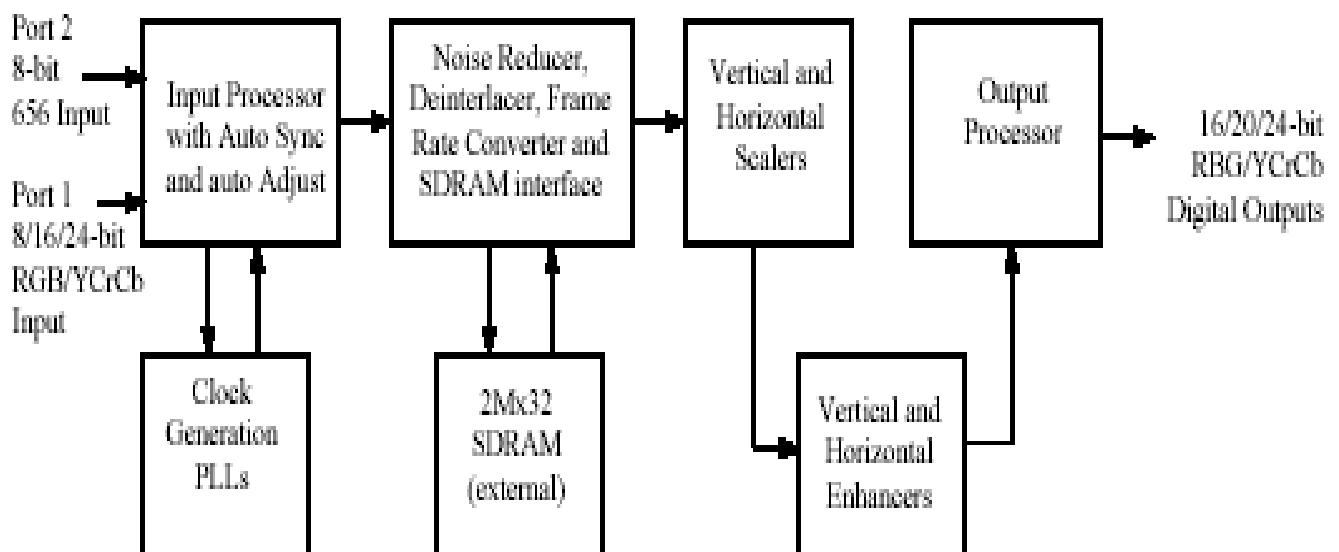
The Video Port (VPort) is an input interface for video data. It accepts incoming data in YUV and RGB formats, and supports picture-in-picture when both the VPort and the GPort are enabled simultaneously. The VPort can input data at rates up to 75 MPixels/second. Setting bit CAPEN to 0 can disable the Video Port. The block diagram is as follows :



### The operation of FLI2310

The FLI2310 is a highly integrated digital video format converter for LCD-TV applications using patented de-interlacing and post processing algorithms from Faroudja Laboratories, coupled with highly flexible scaling, a wide variety of aspect ratio conversions, and other special video enhancing features to produce the highest quality image.

The internal block diagram of FLI2310 is as follows :



## **Input Processor**

Two input digital data ports are available, each with separate sync and clock signal inputs. Port 1 is a 24-bit data port that accepts the following input formats

- 24-bit RGB data
- 24-bit 4:4:4 Y Cr Cb data
- 24-bit 4:4:4Y Pr Pb data
- 16-bit 4:2:2 Y Cr/Cb data
- 16-bit 4:2:2 Y Pr/Pb data
- 8-bit Y/Cr/Cb data
- 8-bit Y/Pr/Pb data
- 8-bit Y/Cr/Cb data with embedded sync, ITU-R BT656 (D1) format

Port 1 has two sets of control inputs – H Sync or Ref, V Sync or Ref, Odd/Even Field identification and Data clock inputs. Either of the two sets of control input signals can be selected for Port 1 data. Port 2 in the SHD-3010 we not use.

The data is sampled at the rising edge of the input data clock. The H and V timing control inputs can be either Sync type signal or Reference (Ref) type signal. Ref signals change logic state between active video region and inactive blanking region. The polarity of the input H and V control signals is also programmable. An Odd/Even Field identifier signal input is provided, but this is not required when the control inputs are syncs as it is generated within the chip in this case. The polarity of the external Odd/Even Field identifier is also programmable.

For SHD-3010 we use ITU-R BT656 the ITU-R BT656 signals with embedded timing, the Ref signals are constructed from EAV (End of Active Video) and SAV (Start of Active Video) blocks.

**Table 4.1: SAV and EAV Coding**

BYTE SEQUENCE	BIT 7	BIT 6	BIT 5	BIT 4	BIT 3	BIT 2	BIT 1	BIT 0
FIRST	1	1	1	1	1	1	1	1
SECOND	0	0	0	0	0	0	0	0
THIRD	0	0	0	0	0	0	0	0
FOURTH	1	F	V	S/E	P3	P2	P1	P0

## **SDRAM**

The SDRAM types used with the FLI2310 should be organized as 32-bit wide SDRAM (i.e. one 2M x 32-bit) controller, up to 166 MHz operations, for external SDRAM

The built-in SDRAM interface (SDI) controls the access to the SDRAM for the de-interlace and the frame rate converter. Multiple read channels are used for the de-interlace. An arbitrator controls the write and read operations based on the status of the FIFOs present at each read and write channel, ensuring that underflow of FIFOs do not occur. Adequate depth of the FIFOs ensures that no overflow occurs. 4MB of SDRAM memory is required for full functionality of the chip. The SDI supports use of one 2M x 32 SDRAM. The SDI supports SDRAM operation speeds up to 166MHz. The SDRAM speed grade required is application-dependent. To enable all the possible format conversions, usage of a 166 MHz SDRAM is advised.

### **SDRAM Interface Block Diagram**

Pin name	Function	Type	Description
CLK	23SDCLK	Input	SDRAM clock.
MCLKFB	VIDMFB	Input	SDRAM clock feedback
/RAS	23SDRAS	Output	SDRAM row address strobe
/CAS	23SDCAS	Output	SDRAM column address strobe
/WE	23SDWEN	Output	SDRAM write enable

### **SDRAM Compatible Devices**

#### **Tested (fully functional) SDRAM Devices:**

Vendor	64 Mbit
Fujitsu	MB81F643242B
GLink	GLT5640L32
Hyundai/Hynix	HY57V643220
Micron	MT48LC2M32B2
Samsung	K4S643232C
Toshiba	TC5986432CFT

## Noise Reducer

A motion adaptive frame based recursive noise reduction is performed on both chroma and luma data. The external SDRAM frame memory is used for this purpose. An innovative noise meter measures the amount of noise in the picture. The noise measurement is done within the active video region, and not in the blanking region. This eliminates the possibility of wrong noise measurement due to the clamping normally done during blanking period by analog to digital converters.

The degree of sensitivity to motion is programmable. Depending on the degree of noise present and motion sensitivity defined, the recursive filter values are selected. Facial features may be adversely affected if the noise reduction done on such areas uses the recursive filter levels optimized for the overall picture. To prevent this and to provide a more natural picture, flesh tones are identified and during the presence of flesh tones, the noise reduction algorithm is modified. Noise reduction is done only on standard definition PAL and NTSC inputs.

## Microprocessor Interface

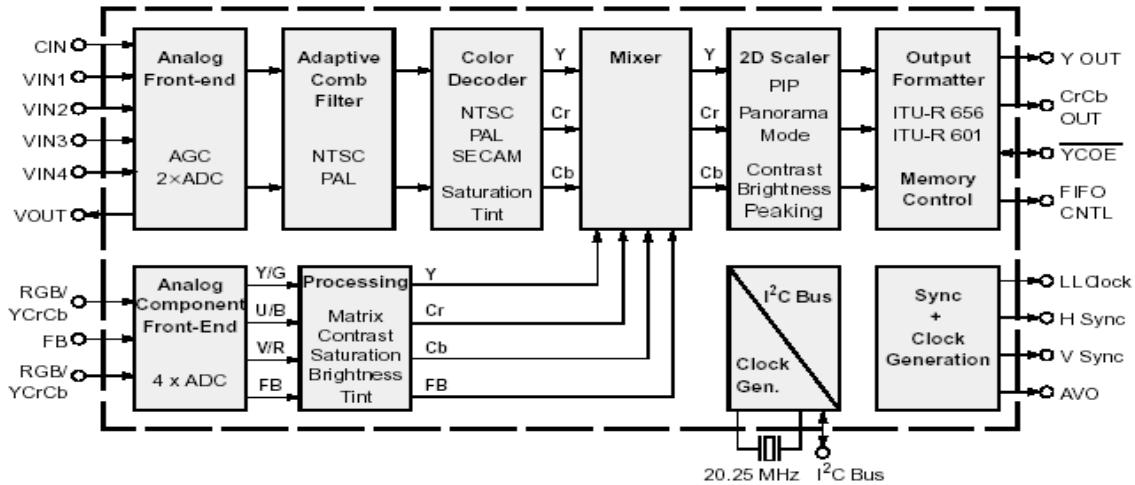
A standard 2-wire, serial interface enables convenient register control. All the blocks are fully programmable. The device address of the chip is programmed with the hardware settings of the DEV\_ADDR 1 and DEV\_ADDR 0 pins, preventing conflict with the other devices connected to the bus. The slave address can be set to any of the following values:

Table 4.2: Device address setting

DEV_ADDR <sub>1-0</sub>	Write Addr.	Read Addr.
0 0	C0 <sub>H</sub>	C1 <sub>H</sub>
0 1	C2 <sub>H</sub>	C3 <sub>H</sub>
1 0	D0 <sub>H</sub>	D1 <sub>H</sub>
1 1	D2 <sub>H</sub>	D3 <sub>H</sub>

## The operation of VPC3230D

The VPC3230D is a high-quality, single-chip video front-end, which is targeted for 4:3 and 16:9, 50/60 and 100/120 HZ TV sets. It can be combined with other members of the Digit3000 IC family And/or it can be used with 3<sup>rd</sup>-part products.



## Input port

This chip has five analog input port and mainly carries out analog- to-digital conversion for the following digital video processing. These input port are clamped to the sync back porch and are amplified by a variable gain amplifier. One input is for connection of S-VHS carrier-chrominance signal. Four inputs are for composite video or S-VHS luma signal.

VPC 32xxD provides two analog RGB/YCrCb input ports, one with Fast Blank capability and one without. It is strongly recommended to use analogue 5 MHz anti-alias low-pass filters on each input, including FB. While all signals need to be capacitively coupled by 220 nF clamping capacitors, the Fast Blank input requires DC coupling.

input ports are configured as follows :

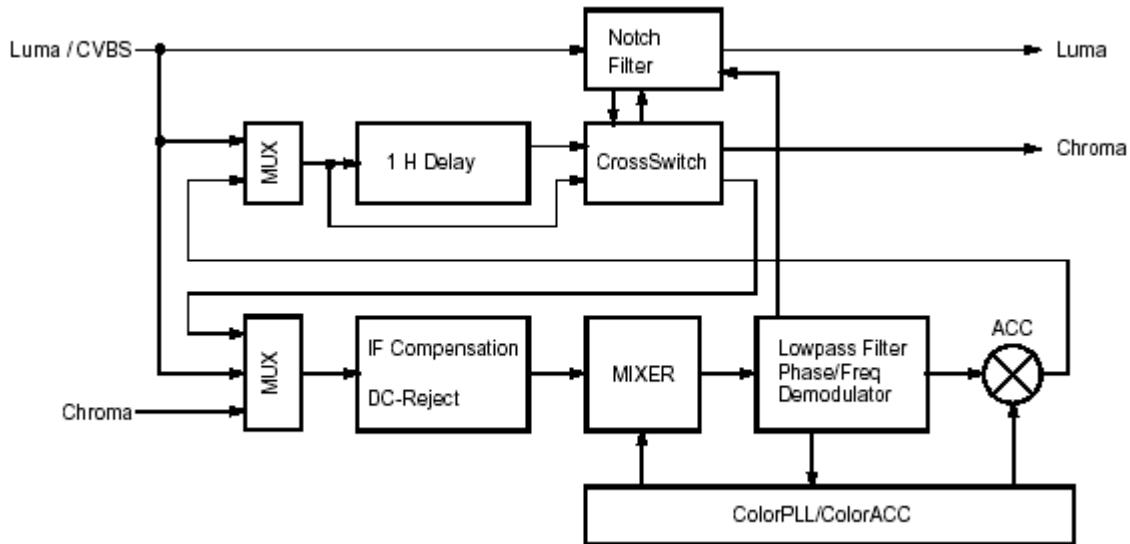
Pin name	Symbol	Type	Description
Cin	71	Input	Svid-C2
Vin1	72	Input	Svid-Y2
Vin2	73	input	All
Vin3	74	Input	All
Vin4	75	input	Y-COMP
FB1IN	79	Input	CC-FSW
B1/CB1IN	1	Input	CC-B
G1/Y1IN	2	Input	CC-G
R1/CR1IN	3	Input	CC-R
B2/CB2IN	4	Input	B-COMP
G2/Y2IN	5	Input	Y-COMP
B2/CB2IN	6	Input	R-COMP

## Color decoder

The standard luma/chroma separation and multi-standard color demodulation is carried out.

The color demodulation uses an asynchronous clock, thus allowing a unified architecture for all color standards. The color decoder also provides several special modes, wide band chroma format, which is intended for S- VHS wide bandwidth chroma. Also, filter settings are available for processing a PAL+ helper signal.

A block diagram of the color decoder as follows



## Output port & ITU-R 656 Output Format

This interface uses an YcrCb 4:2:2 data stream at a line-locked clock of 13.5 MHz. Luminance and chrominance information is multiplexed to 27 MHz in the following order:

Cb1, Y1, Cr1, Y2,

Timing reference codes are inserted into the data stream at the beginning and the end of each video line:

- A ‘Start of active video’-Header (SAV) is inserted before the first active video sample
- A ‘End of active video’-code (EAV) is inserted after the last active video sample.

For activation of this output format, the following selections must be assured:

- 13.5 MHz line locked clock
- Double-clock mode enabled
- ITU-R656-mode enabled
- Binary offset for Cr/Cb data

All data and sync pins operate at TTL compliant levels and can be tristated via I2C registers. Additionally, the data outputs can be tristated via the YCOE output enable pin immediately. This function allows the digital insertion of a 2nd digital video source To minimize crosstalk data and clock pins automatically adopt the output driver strength depending on their specific external load (max. 50pF). Sync and FIFO control pins have to be adjusted manually via an I2C register.

output ports are configured as follows :

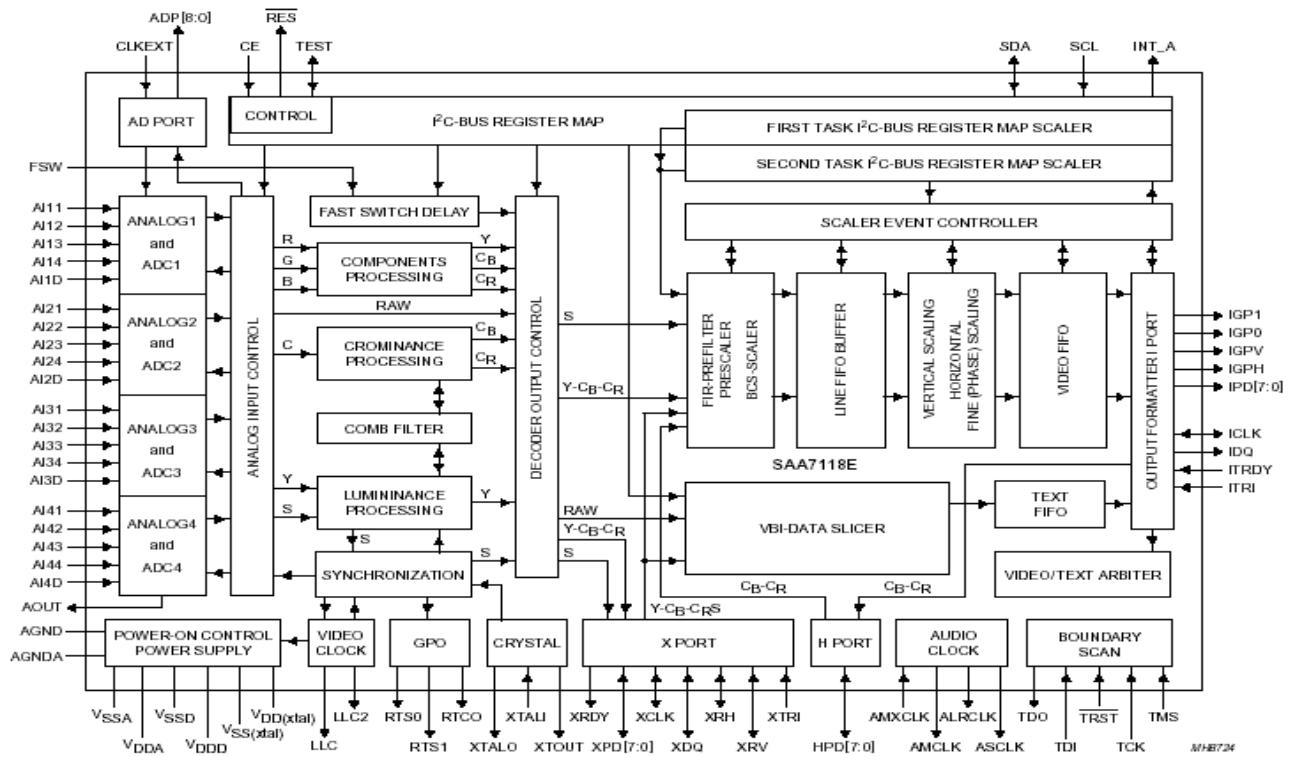
Pin name	Symbol	Type	Description
Y0	40	Output	VID_Y0
Y1	39	Output	VID_Y1
Y2	38	Output	VID_Y2
Y3	37	Output	VID_Y3
Y4	34	Output	VID_Y4
Y5	33	Output	VID_Y5
Y6	32	Output	VID_Y6
Y7	31	Output	VID_Y7
C0	50	Output	VID_UV0
C1	49	Output	VID_UV1
C2	48	Output	VID_UV2
C3	47	Output	VID_UV3
C4	44	Output	VID_UV4
C5	43	Output	VID_UV5
C6	42	Output	VID_UV6
C7	41	Output	VID_UV7

### The operation of SAA7118

The SAA7118 is a video capture device for applications at the image port of VGA controllers. SAA7118 also provides a means for capturing the serially coded data in the vertical blanking interval (VBI-data). Two principal functions are available:

1. To capture raw video samples, after interpolation to the required output data rate, via the scaler.
2. A versatile data slicer (data recovery) unit.

The SAA7118 also incorporates field-locked audio clock generation. The function ensures that there is always the same number of audio samples associated with a field, or a set of fields. This prevents the loss of synchronization between video and audio during capture or playback. The function block diagram as follows :



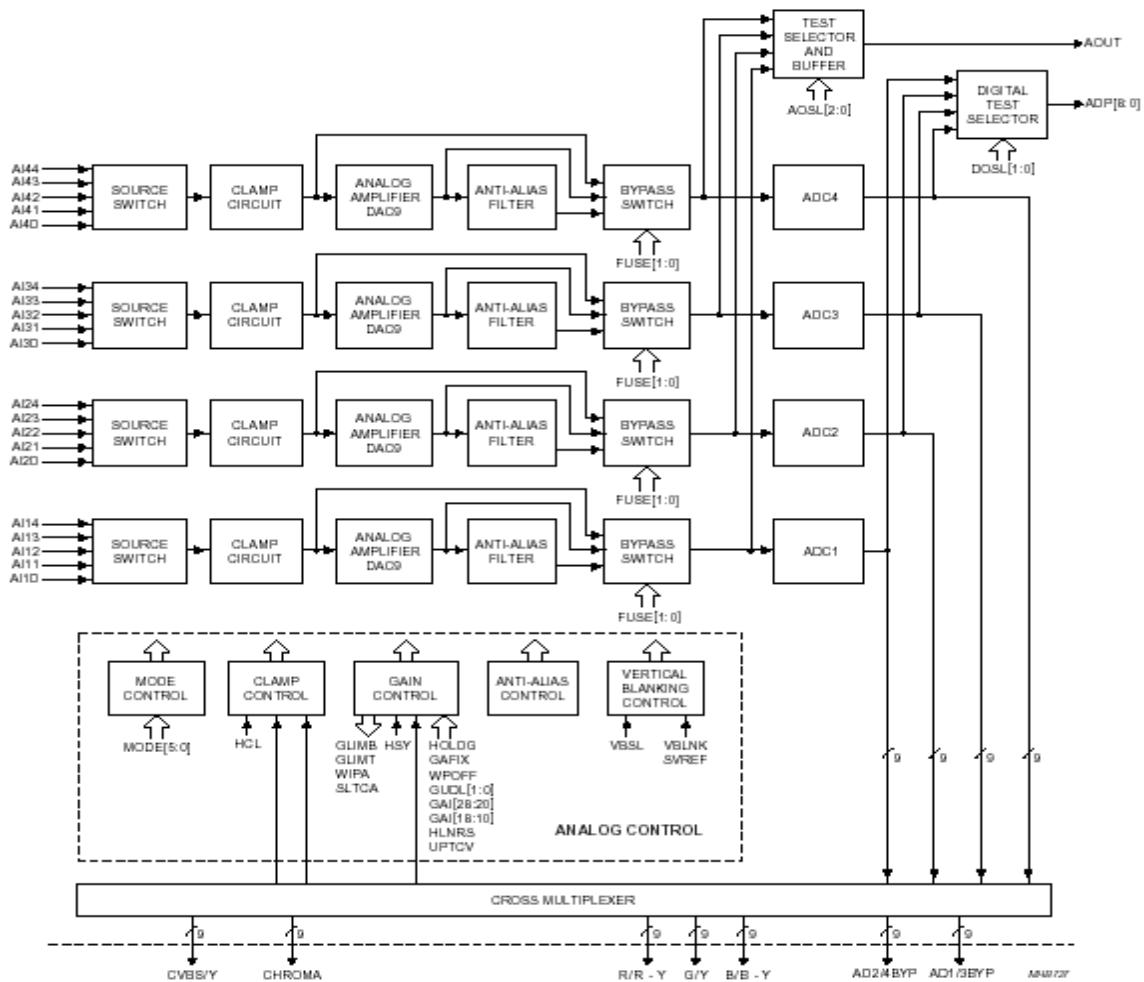
## Analog input processing

The SAA7118 offers sixteen analog signal inputs, four analog main channels with source switch, clamp circuit, analog amplifier, anti alias filter and video 9-bit CMOS ADC.

The analog input ports are configured as follows :

Pin name	Symbol	Type	Description
K2	AI13	Input	Pip mode Input
L3	AI14	Input	S-Video Y2
G4	AI21	Input	Y_CMP1 Input
G3	AI22	Input	Y_CMP2 Input
J3	AI24	Input	S-Video C2
E3	AI31	Input	B_CMP1 Input
F2	AI32	Input	B_CMP2 Input
F3	AI33	Input	Tv2_CVBS Input
B1	AI41	Input	R_CMP1 Input
D2	AI42	Input	R_CMP2 Input
E1	AI44	Input	CVBS_PIP Input
N4	CE	Input	RST_Video

The function Analog input process diagram as follows :



## Chrominance and luminance path

### Chrominance path

The 9-bit CVBS or chrominance input signal is fed to the input of a quadrate demodulator, where it is multiplied by two time multiplexed sub carrier signals from the sub carrier generation block ( $0^\circ$  and  $90^\circ$  phase relationship to the demodulator axis). The frequency is dependent on the chosen color standard.

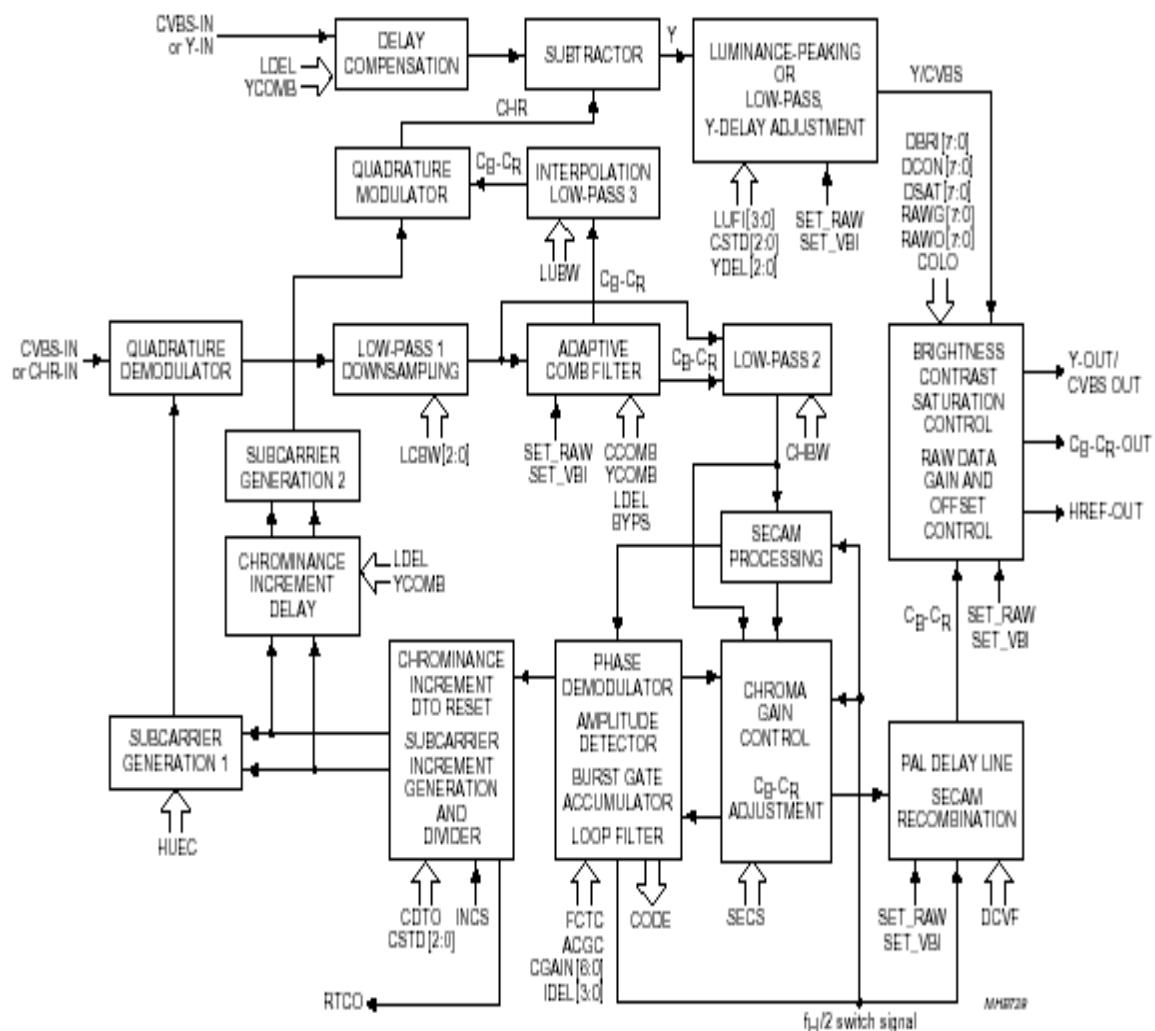
The chrominance low-pass 1 characteristic also influences the grade of cross-luminance reduction during horizontal color transient (large chrominance bandwidth means strong suppressing of cross-luminance). If the Y-comb filter is disable by YCOMB=0 the filter influences directly the width of the chrominance notch within the luminance path (a large chrominance bandwidth means wide chrominance notch resulting in a lower luminance bandwidth).

## Luminance path

The rejection of the chrominance components with the 9-bit CVBS or Y input signal is achieved by subtracting the demodulated chrominance signal from the CVBS input.

The comb filtered C<sub>B</sub>-C<sub>R</sub> components are interpolated (up sampled) by the low pass 3 block. Its characteristic is controlled by LUBW (sub address 09H, bit4) to modify the width of the chrominance 'notch' without influencing the width of the chrominance 'notch' without influencing the chrominance path.

The function Chrominance and Luminance diagram as follows :



## **Decoder output formatter**

The output interface block of the decoder part contains the ITU656 formatter for the expansion port data output XPD7 to XPD0 and the control circuit for the signals needed for the internal paths to the scaler and data slicer part. It also controls the selection pf scaler and data slicer part. It also controls the selection of the reference signals for the RT port and the expansion port.

The generation of decoder data type control signals SET\_RAW and SET\_VBI is also done within this block. These signals are decoded from the requested data type for the scaler input and/or the data slicer, selectable by the control registers LCR2 to LCR24

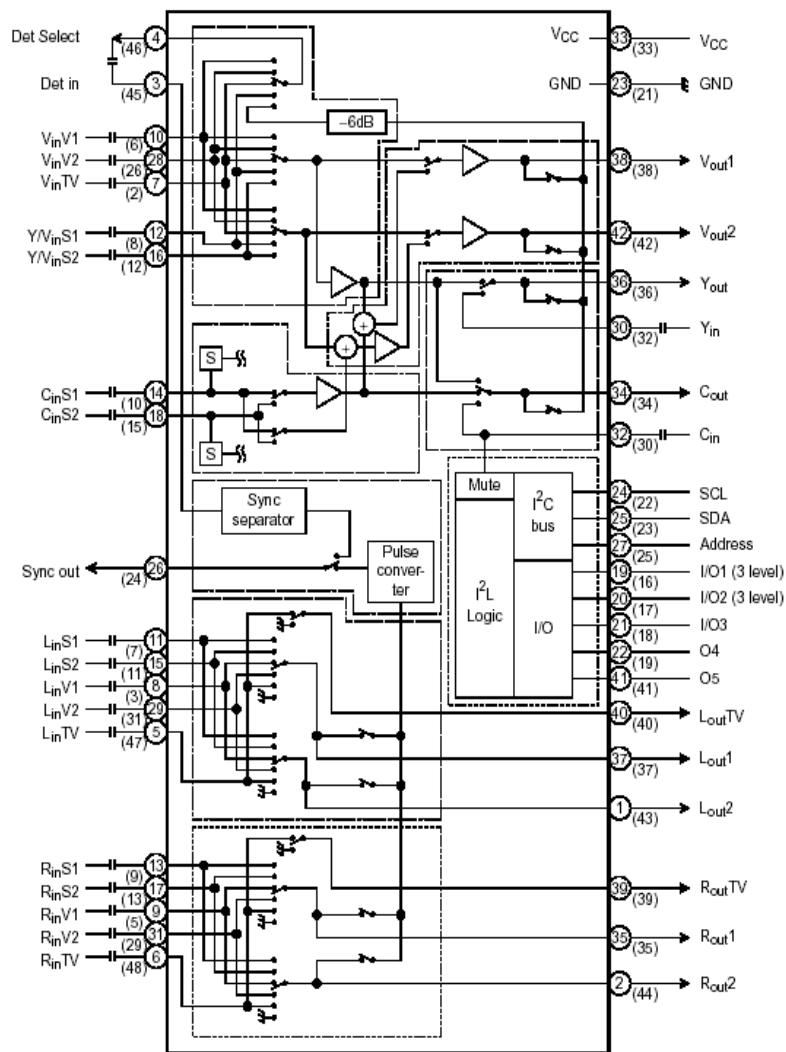
### Data formats at decoder output

Data type number	Data type	Decoder output data format
0	Teletext EuroWST, CCST	Raw
1	European closed caption	Raw
2	Video Programming service	Raw
3	Wide screen signal bits	Raw
4	US teletext (WST)	Raw
5	US closed caption	Raw
6	Video component signal, VBI region	Y-C <sub>B</sub> -C <sub>R</sub> 4:2:2
7	CVBS data	Raw
8	Teletext	Raw
9	VITC/EBU time codes (Europe)	Raw
10	VITC/SMPTE time code (USA)	Raw
11	Reserved	Raw
12	US NABTS	Raw
13	MOJI(Japanese)	Raw
14	Japanese format switch(L20/22)	Raw`
15	Video component signal, active video region	Y-C <sub>B</sub> -C <sub>R</sub> 4:2:2

## **The operation of TA1218F**

The TA1218N/F is an audio/video switching IC for TV sets. Conforming to I2C bus standards, it allows you to perform various switching operations through the bus lines by using a microcomputer. Thanks to its 2-channel outputs, the TA1218N/F can also be used for the PIP systems. Furthermore, since the presence of a signal on its sync signal output pin can be determined by a microcomputer, it is possible to check each input/output channel (self-diagnosis). This IC has the same pin assignments as the TA1219AN (SDIP36), a 1-channel output version of the TA1218N/F.

## TA1218F block diagram



## Operation of power board description

Figure 1 shows a schematic of the double forward converter construction and boost converter construction..

Figure 2 shows a schematic of the fly back converter structure.

Fly back converter topology is shown in Fig 2. Referring it Fig 2 , the topology works as follows.

During their power MosFet on times , they store energy in their power transformer while load current is supplied from an output filter capacitor . When the power MosFet turns off, the energy stored in the power transformer is transferred to the output as load current and to the filter capacitor to replenish the charge it lost when it alone was delivering load current.

When AC voltage through D1 diode into the B point. The B point voltage is AC voltage \*  $\sqrt{2}$  (Vb) . The Vb around resistors R56 and R59 of figure 2 into the pin3 of U5 (SG6841) via pin7 to charge C50. When across the voltage of C50 reaches 16Vdc, the U5 start operating.

Once U5 operation, the Pin8 of the U5 will yield a square waveform of 50KHz frequency to switching Q10 (Power MosFET) result in power transformer T3 (PQ2625) stored energy during Q10 on time and delivered energy during Q10 off time. When Q10 turned off will yield biased voltage due to biased winding. The biased voltage provides a steady voltage to charge C50 capacitor after via rectifier diode D14, in order to make U5 (SG6841) continue operation. Once power transformer T3 start delivering energy to secondary, the secondary will yield a DC voltage to output after via rectifier diode D11 and  $\pi$ -type filter of capacitor C46 and inductor L4 and capacitor C47. The V (K-A) of the U7 from high voltage slowly decreases to closely steady voltage when output slowly increases. Simultaneously, the slightly current follows Pin(1-2) of the photocopier U6 and Pin(3-4) of the linear regulator U7 after output voltage is sensed by sampling resistors R66 and R70 and compared to a reference voltage Vref ( $\sim 2.5$ Vdc) in the reference point (Pin1) of the U7. Due to Pin2 of the U5 vary versus current amplitude that follow Pin (1-2) of the U6. The Pin2 of the U5 is fed to a pulse-width-modulator (PWM) to control duty-cycle with comparator to Pin6 of the U5 so that make output voltage steady.

PFC converter topology is shown in Fig 1. Referring it Fig 1, the topology works as follows. When Q1 turns on off the polarity across L1 reverse, and the dot end (A point of L1) rises to a voltage (B point) higher than the input voltage (Vin). Energy stored in L1 during Ton is transferred via D2 to the load and C4 during the Q1 off time.

Another, the steady biased voltage also to charge capacitors C22 and C19 as across them voltage reaches 13Vdc, the IC1 (CM6800-1) continue operation when Pin C of the CN1 and CN3 is a high signal (+5V). Once IC1 operation, the Pin12 of the IC1 will yield a square waveform of about 69KHz frequency to switching Q1 (Power MosFet) and cause L1 start storage energy during Q1 on time and deliver energy during Q1 off time. It can be shown that the output-input voltage relation of such a boost converter is given by

$$V_o(\text{B point}) = \frac{V_{in}}{1 - T_{on} / T} \quad (\text{Eq 1.1})$$

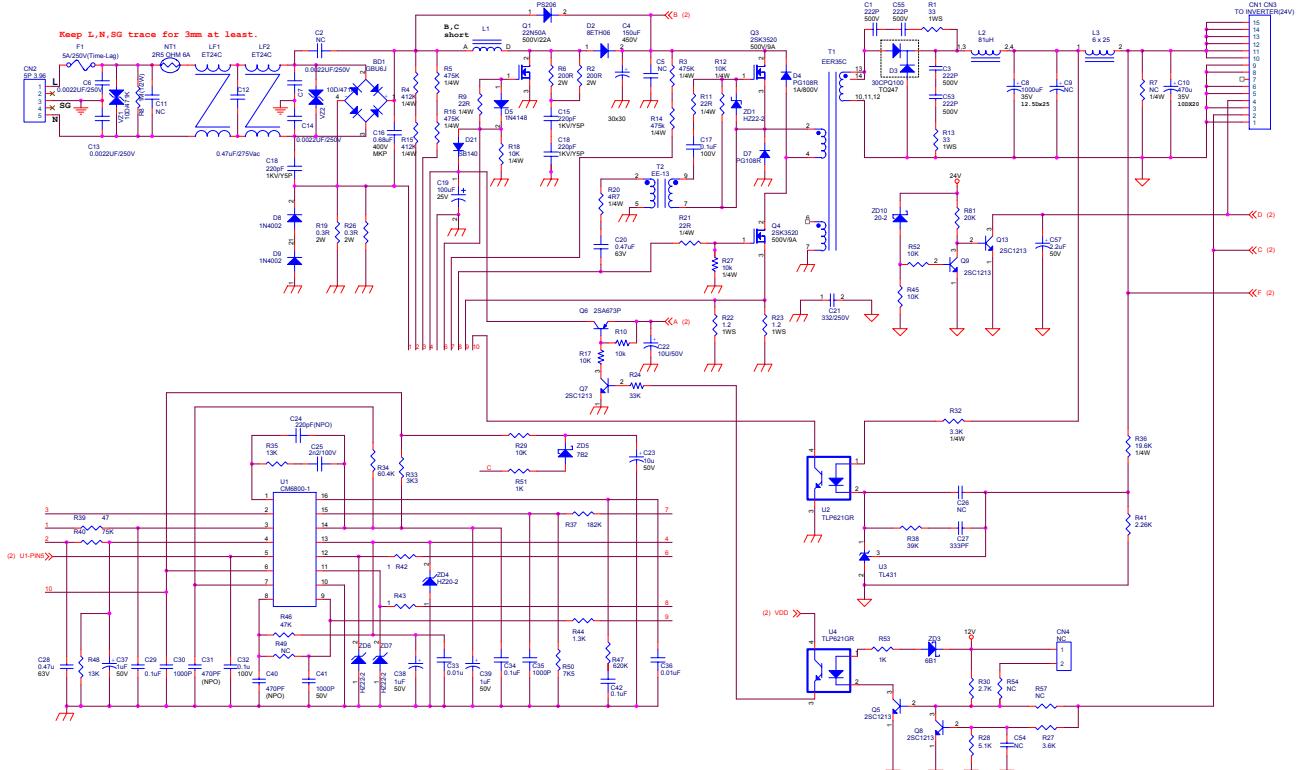
Now throughout the half sinusoids of  $V_{in}$ , the Q1 on time, denoted by  $T_{on}$ , is width-modulated in accordance with Eq. 1.1 to yield a constant DC voltage  $V_o$  (B point) is about 380Vdc somewhat higher than the peak of input voltage sine wave. The on time throughout the sinusoidal half periods is controlled by a PFC control chip(IC1) which senses  $V_o$  (B point) via R3 and R14 resistor , compares it to an internal reference in a DC voltage error amplifier ( Pin15 of IC1) , and in a negative feedback loop (Pin 3 of the IC1) sets  $T_{on}$  to keep  $V_o$  constant at the selected value.

When  $V_o$  reaches 380Vdc, the FB point (Pin 15 of IC1) is closely 2.5Vdc. It will drive PWM section of the IC1.

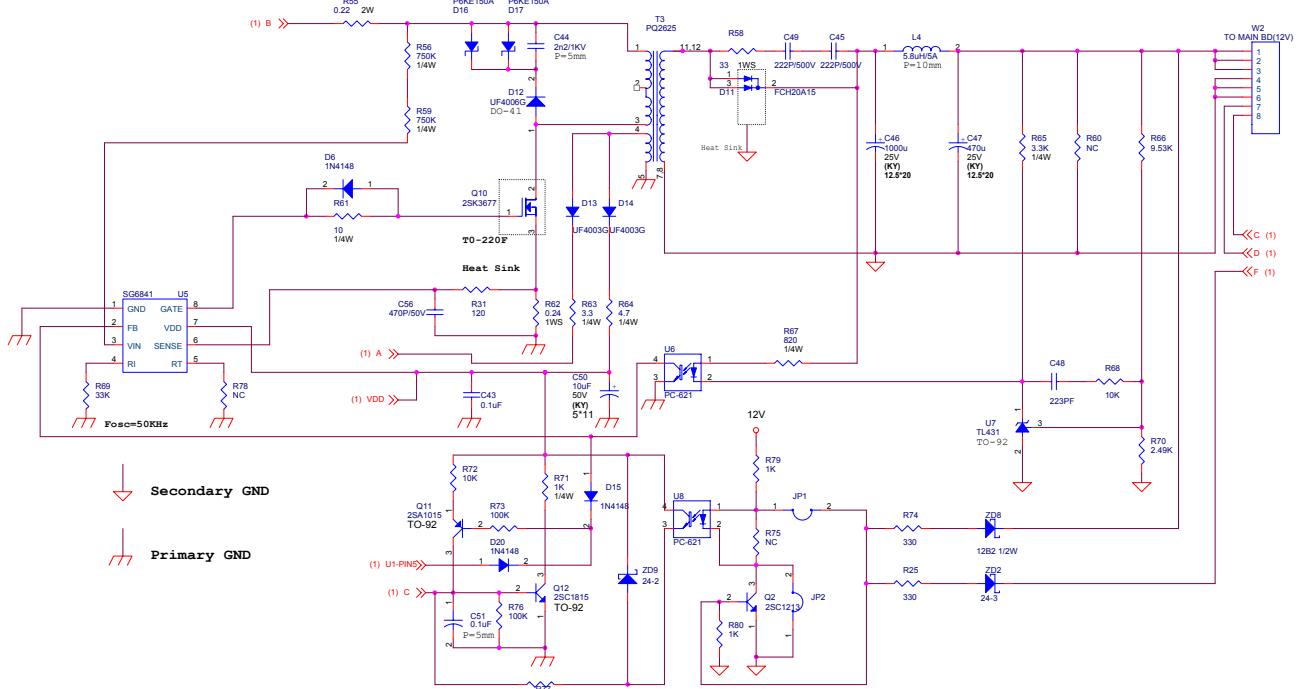
The double-ended forward converter works as follows. In Fig 1, Q3 and Q4 are in series with the top and bottom of the transformer primary. Both of this power Mosfet close are turned on simultaneously and turned off simultaneously. When they are on, all primary and secondary dot ends (Pin2 of the T1) are positive and power is delivered to the loads. When they turn off, current stored in the T1 magnetizing inductance reverses polarity of all windings. The dot end of Np tries to go far negative but is caught at ground by diode D7. The no-dot end of Np tries to go far positive but is caught at Vdc by diode D4. Thus the emitter of Q3 can never be more than Vdc below its collector, and the collector of Q4 can never be more than Vdc above its emitter. Now the pin11 point of the IC1 will yield a square waveform of 69KHz frequency to switching Q3 and Q4 and cause T1 start storage energy during Q3 and Q4 on time and deliver energy during Q3 and Q4 off time. When Q3 and Q4 is turned on , the dot end of the primary power winding Np and secondary go positive with respect to no dot end. Current and power flows into the dot end of Np. Rectifier diode D3 are forward-biased and current power flows output of the dot end of secondary to the LC filters (L2, C8, C9, L3.C10) and the load. Diode D3 act like the freewheeling diode at Q3 and Q4 turn off. Duty-cycle is controlled by Pin6 with compared to pin8. Pin6 voltage is selected by U3 and U2.

OVP function is controlled by ZD2 and ZD8 to sense output (+12V and +24V). When output voltage is over the clamp voltage of ZD2 and ZD8, ZD2 and ZD8 is turned on to driving Q2 result in Q2 turn on cause U8 have large current flows in to the base of the Q12 result in Pin5 of the U1 and Pin 2 and Pin7of the U5 immediately down to zero to default power supply.

Power saving function is controlled by Pin C of CN1 and CN3 . When Pin C is low signal , Q5 is turned off result in U4 keep off stage cause Q7 not turn on result in across on C22 voltage not delivered to the Pin 13 of the IC1 to closed IC1 .

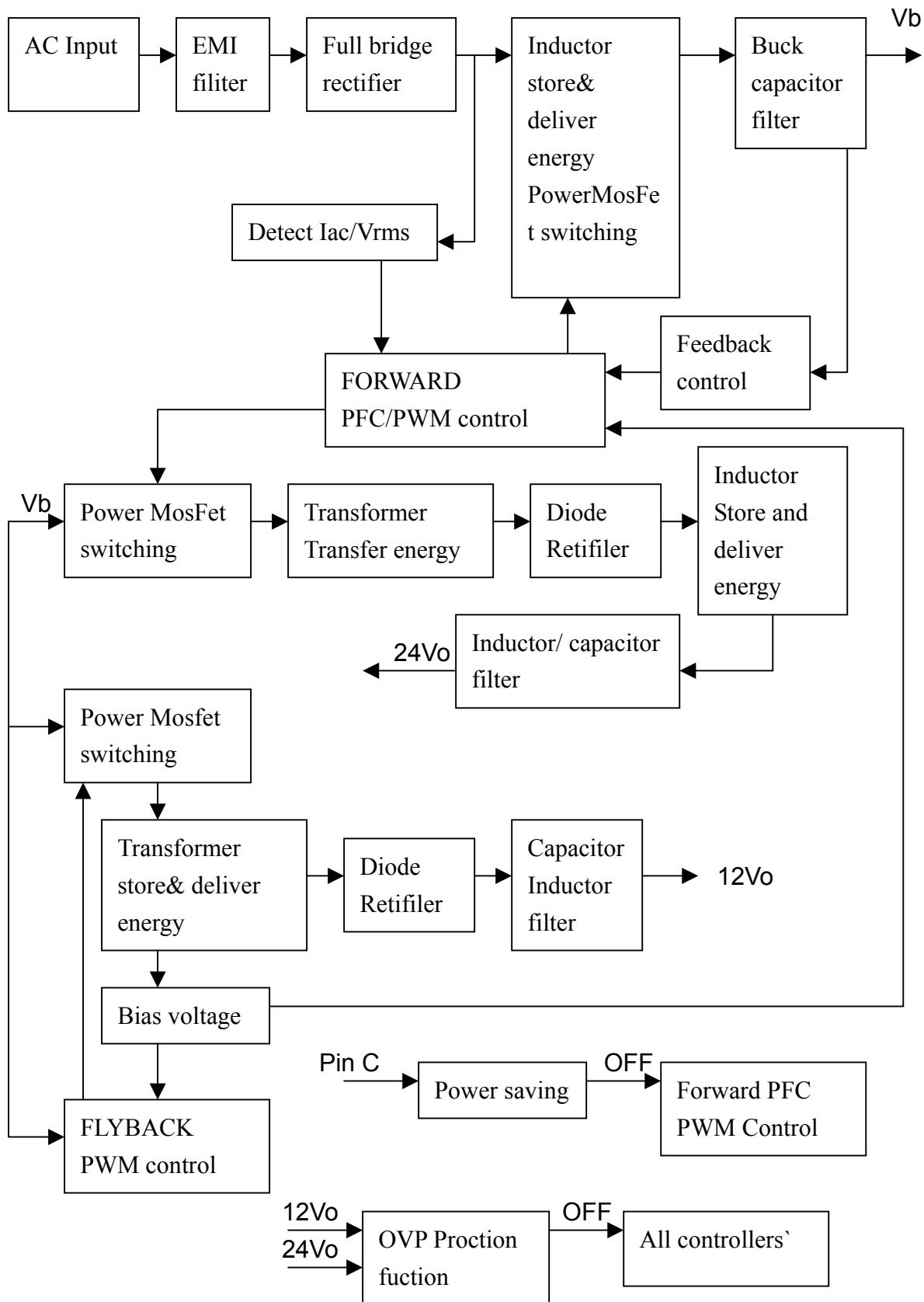


**Figure 1**



**Figure 2**

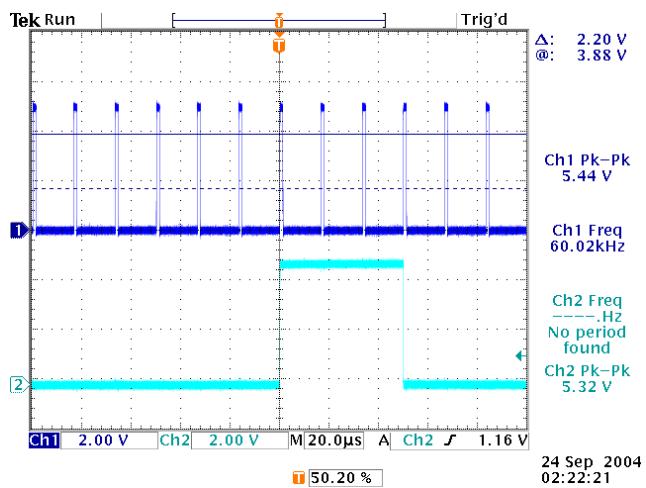
## System Block Diagram



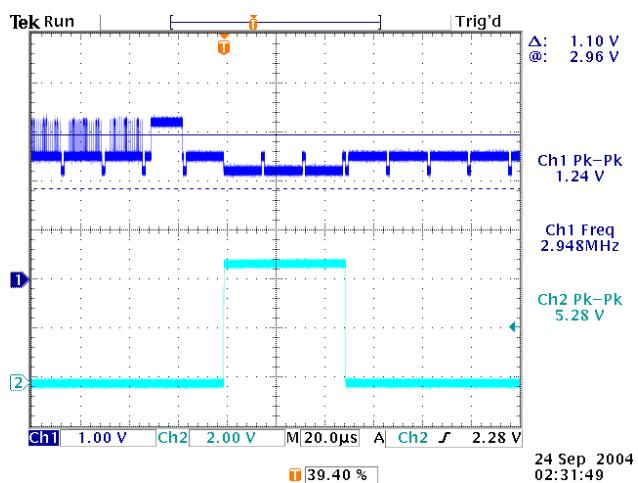
# Chapter 9 Waveforms

PC Analog Mode 1024×768 75 HZ

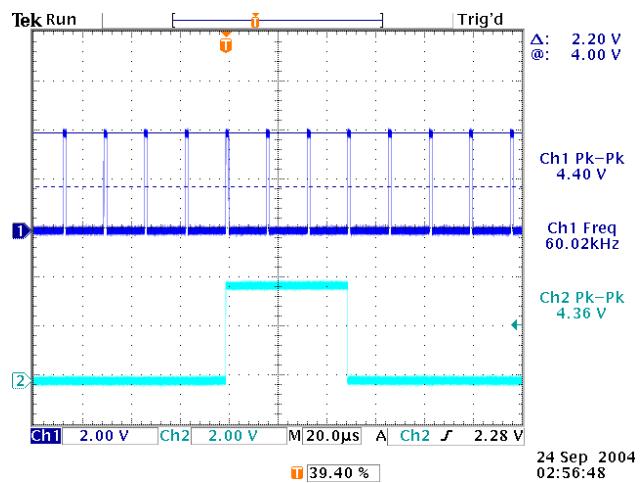
CH1 H-sync (U1 pin7); CH2 V-sync (U1 pin8)



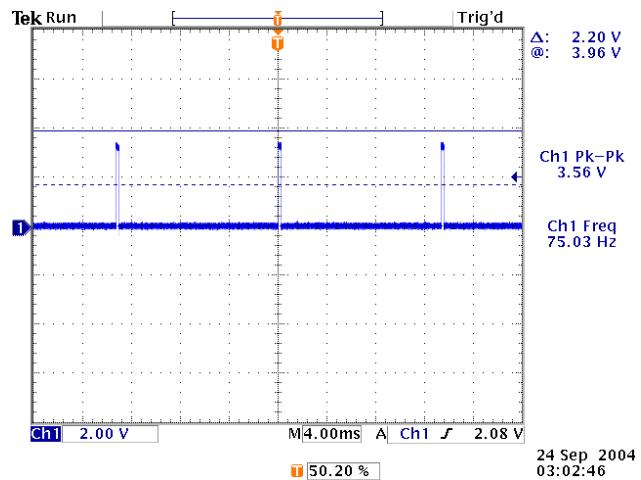
G-BUF (U1 pin4); CH2 V-sync (U1 pin8)



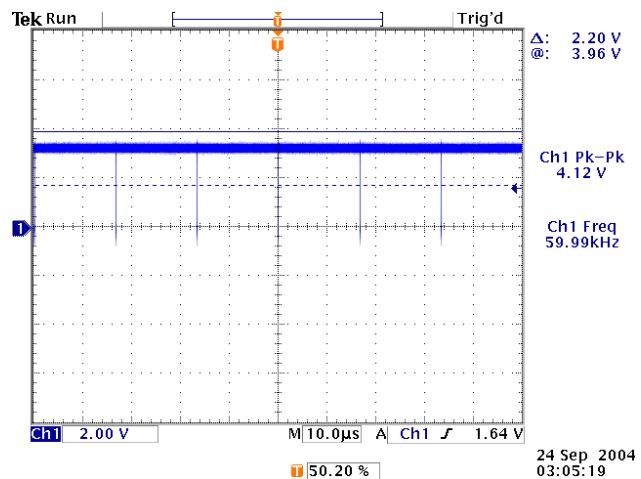
CH1 HSYNC-SW (U6 pin30) ; CH2 VSYNC-SW (U6 pin31)



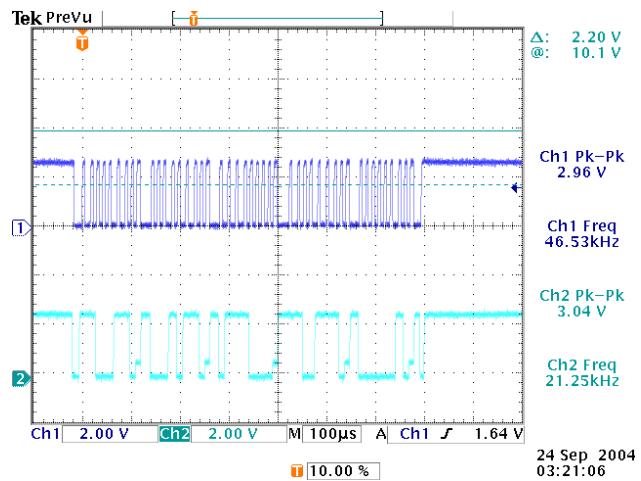
CH1 GCOST (U6 pin 29)



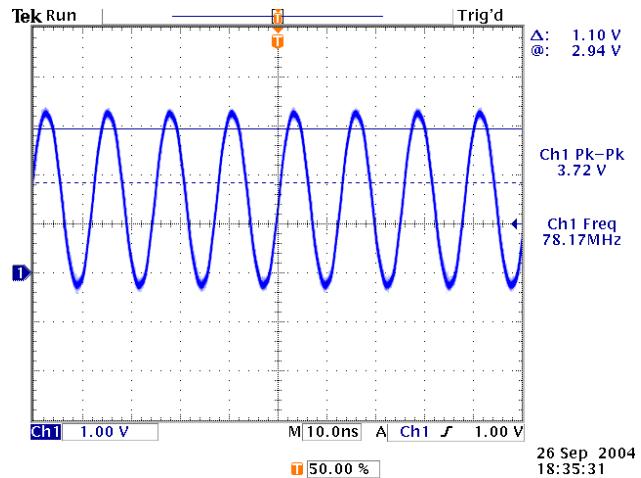
CH1 GBLKSPL (U6 pin 38)



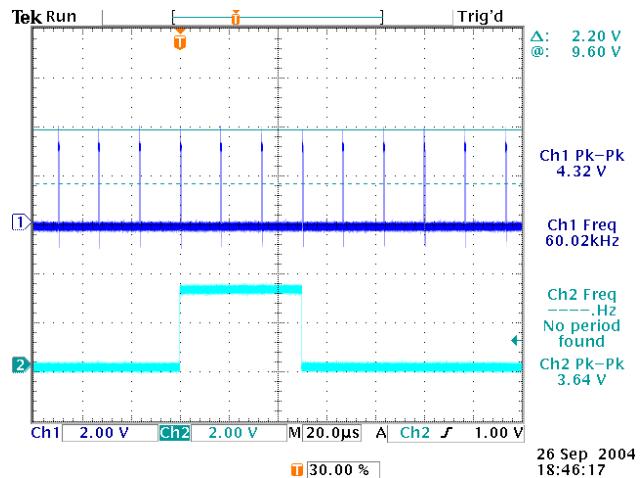
CH1 SCL (U6 pin56); CH2 SDA (U6 pin57)



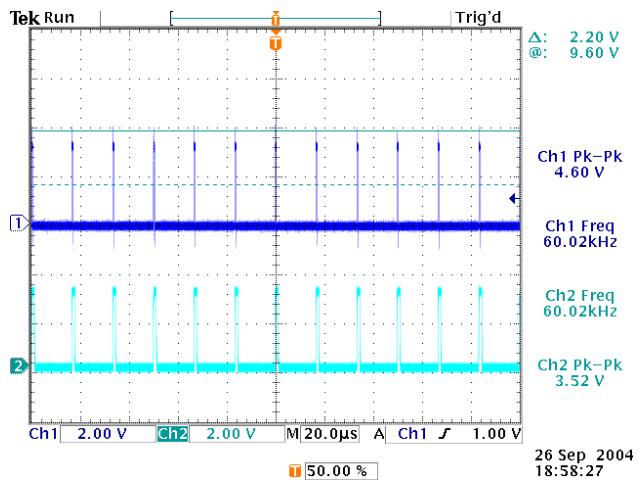
CH1 GCLK (U6 pin67)



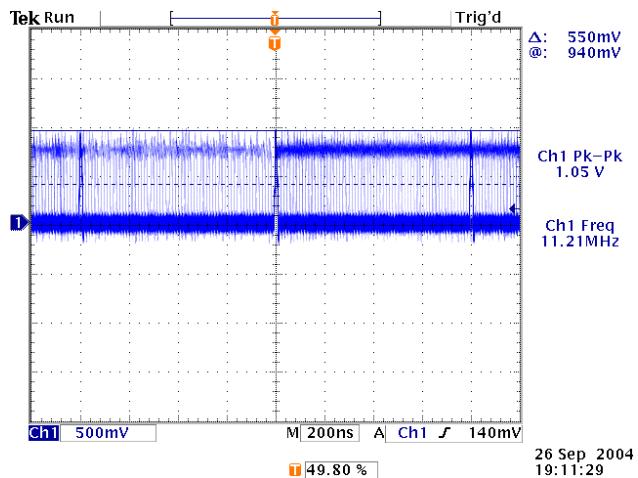
CH1 GFBK (U6 pin66); CH2 GVS (U6 pin64)



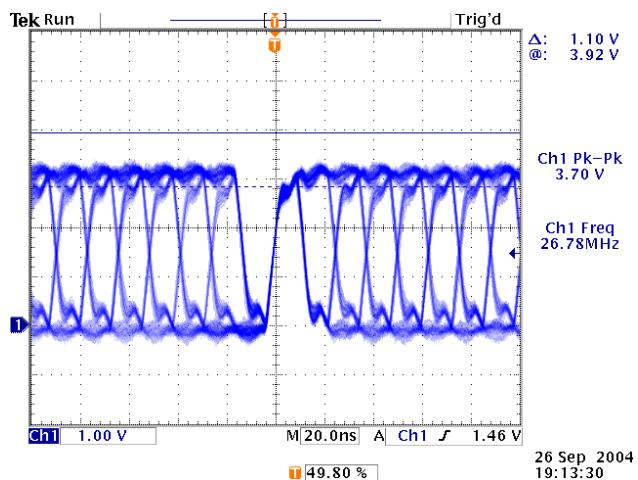
CH1 GFBK (U6 pin66); CH2 GHS (U8 pin8)



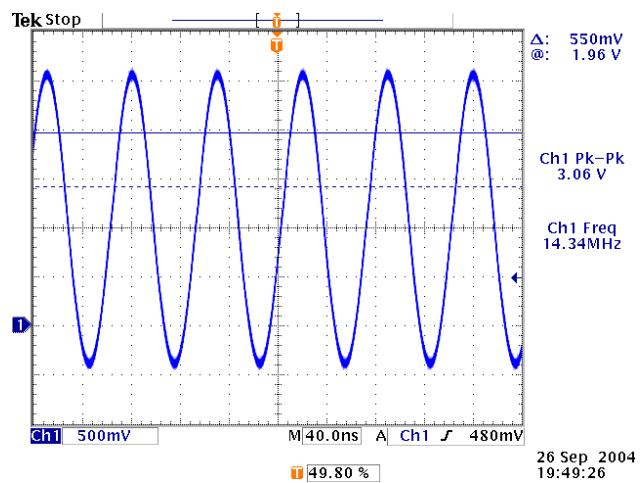
CH1 B-SW (U6 pin43)



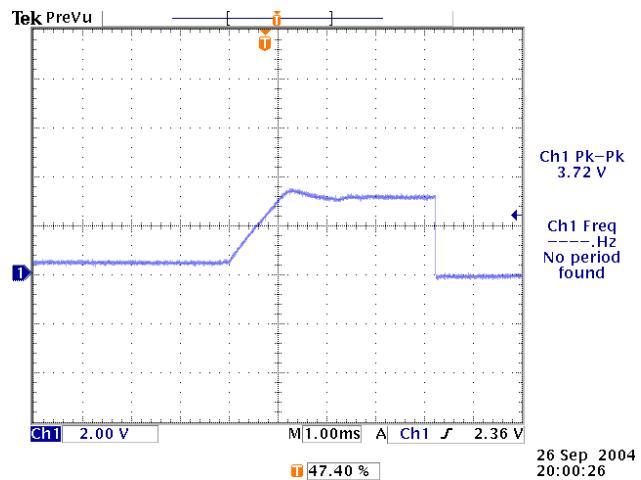
CH1 GBE (U6 pin19)



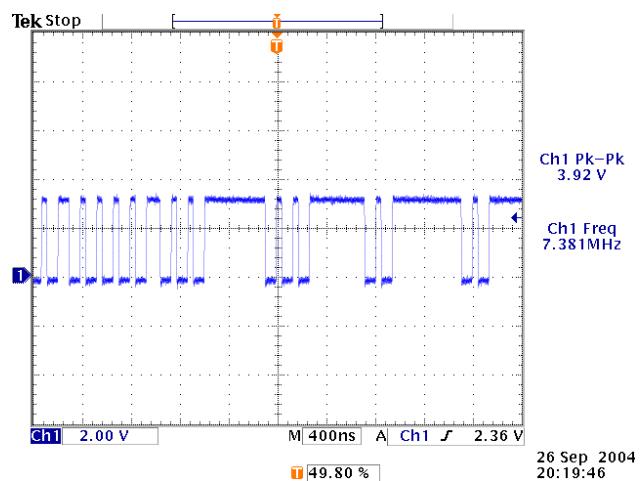
### CH1 (U11 pin P3)



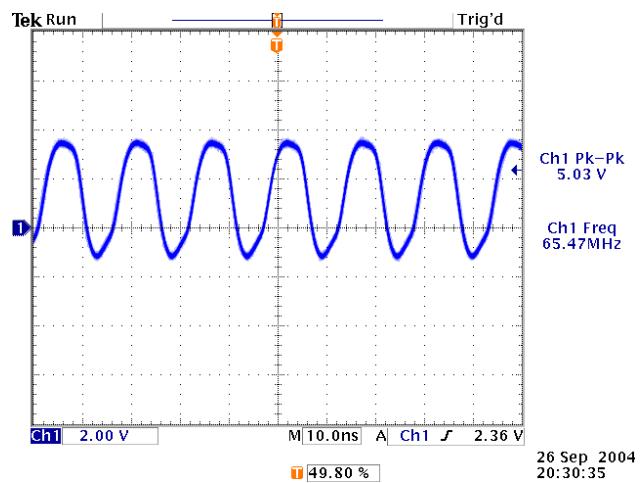
### CH1 RST\_166(U11 pin E3)



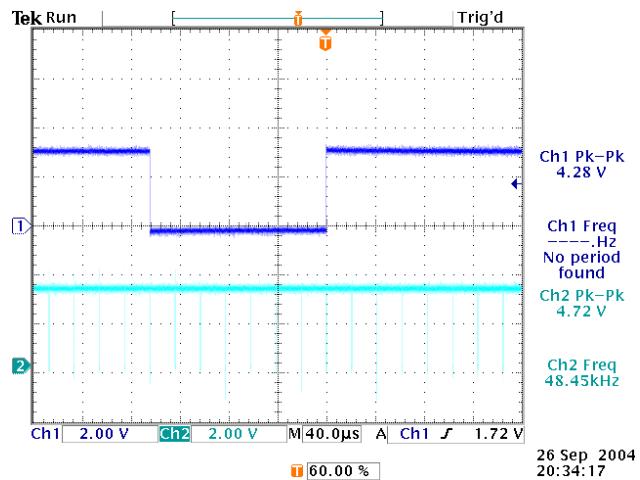
### CH1 ROMOEN (U11 pin M1)



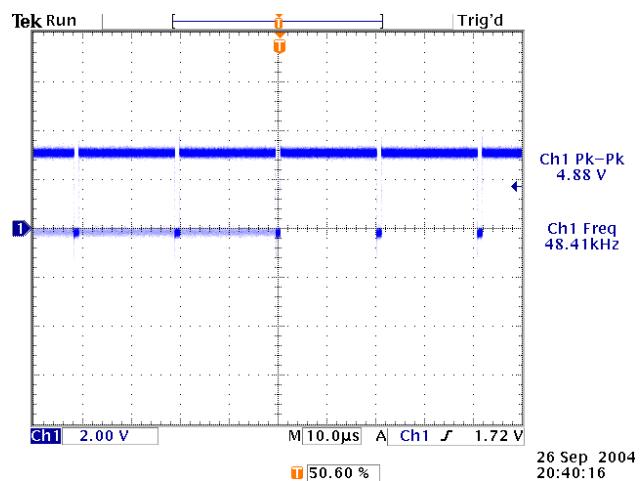
### CH1 DCLK (U11 pin W12)



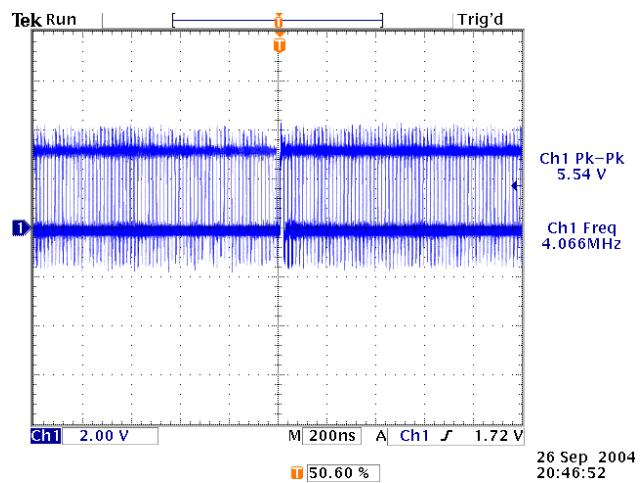
### CH1 DVS (U11 pinV13); CH2 DHS (U11 pinU13)



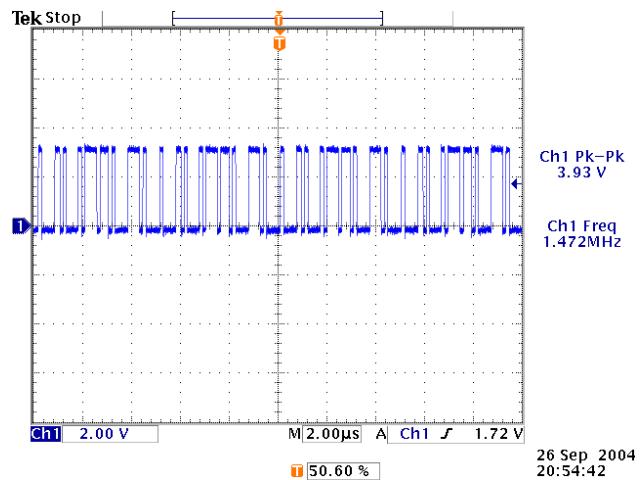
### CH1 BLANK (U11 pin Y15)



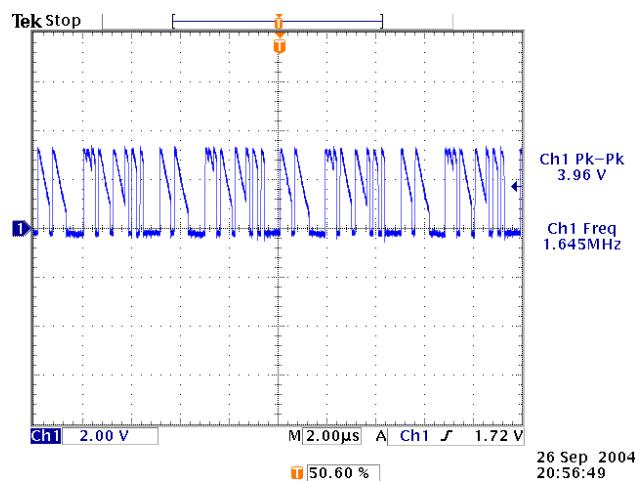
### CH1 DBE (U11 pin Y19)



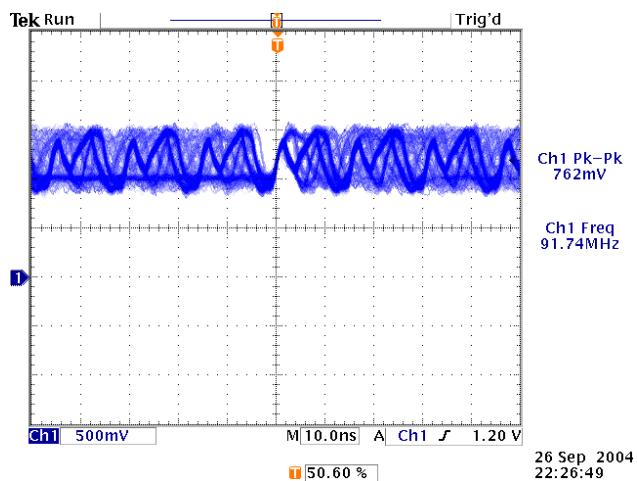
### CH1 A0 (U11 pin P1)



### CH1 D0 (U11 pin F4)

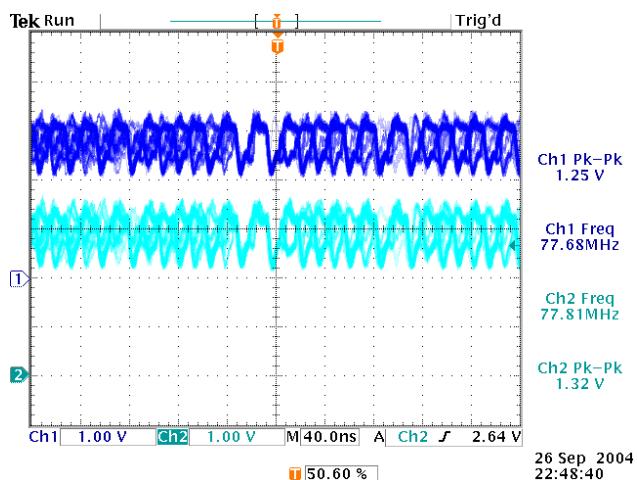


### CH1 TXOUT0 (U21 pin 48)

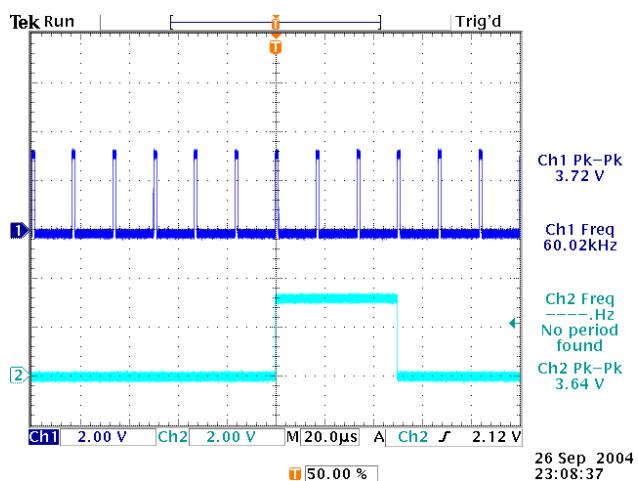


**PC DVI Mode 1024×768 75 HZ**

CH1 RXB+(U33 pin81); CH2 RXR+(U33 pin90)



CH1 GHS (U33 pin48); CH2 GVS (U33 pin47)

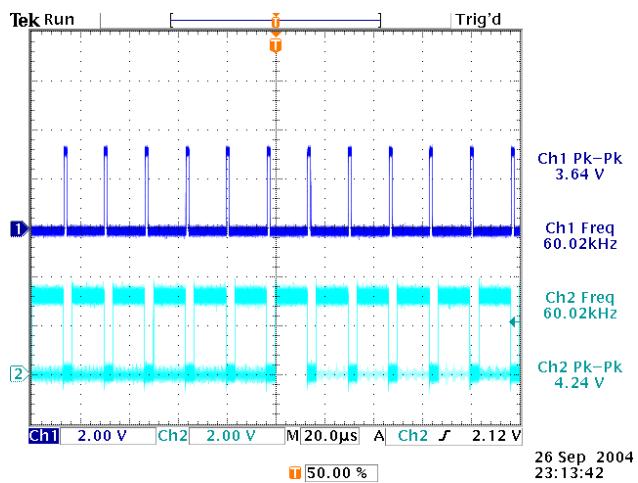


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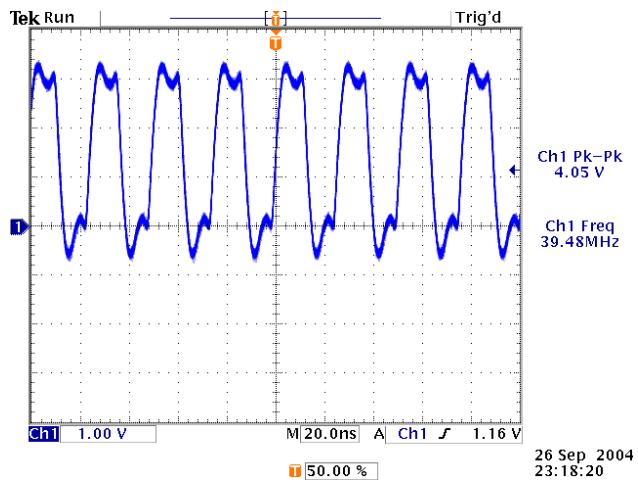
Page 9-8

File No. SG-0156

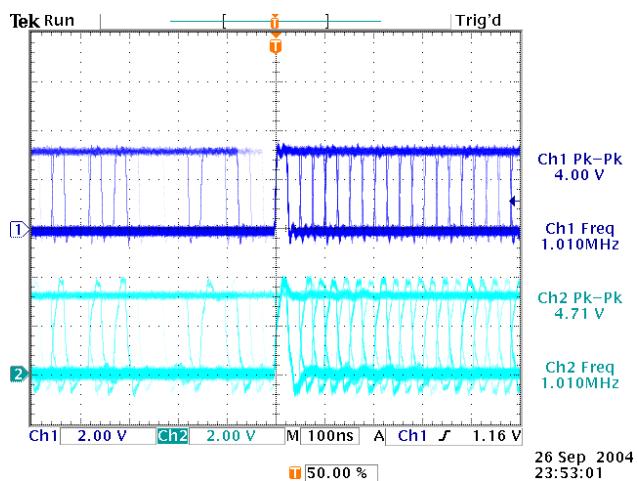
CH1 GFBK (U8 pin3); CH2 GPEN (U33 46)



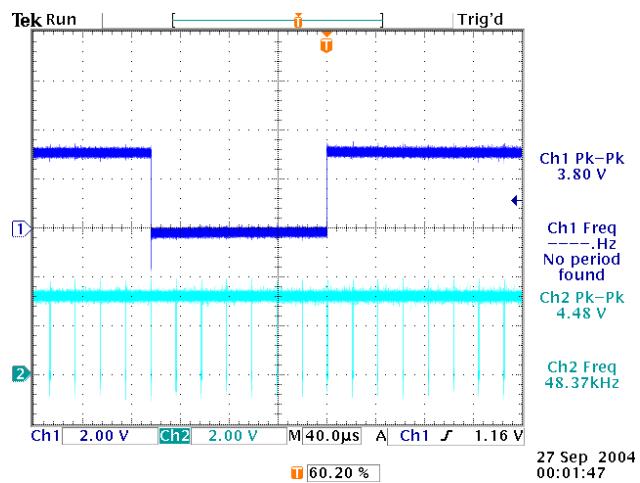
CH1 GCLK (U33 pin46)



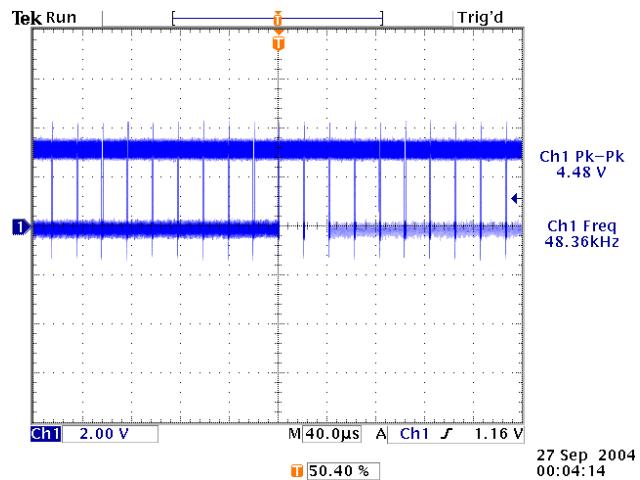
CH1 RP54(U33 pin37); CH2 RP59 (U33 17)



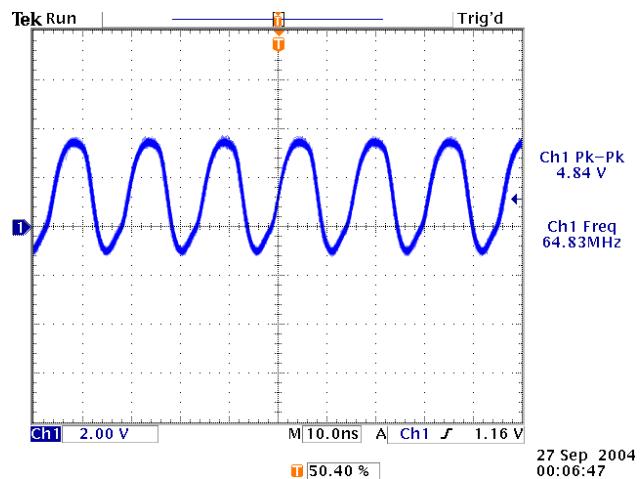
CH1 DVS (U11 pinV13); CH2 DHS (U11 pinU13)



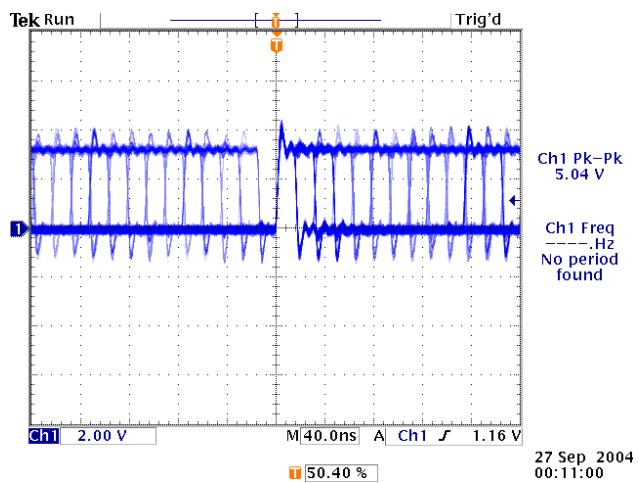
CH1 BLANK (U11 pinY15)



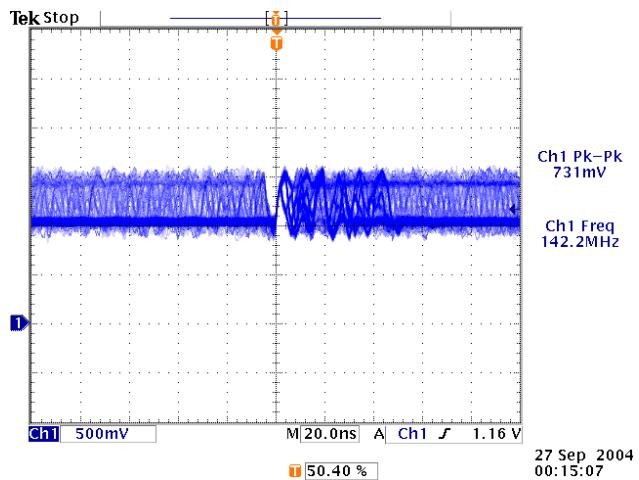
CH1 DCLK (U11 pin W12)



### CH1 DRE (U11 pin R19)

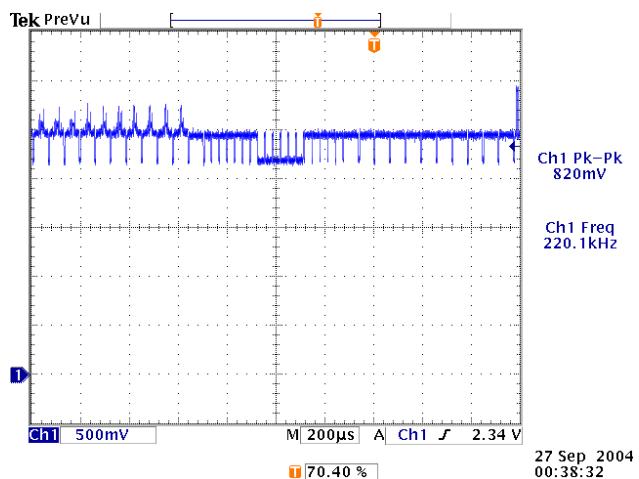


### CH1 TXOUT1 (U21 pin 46)



### HDTV YPbPr; DVD Mode 480i/480P 480i

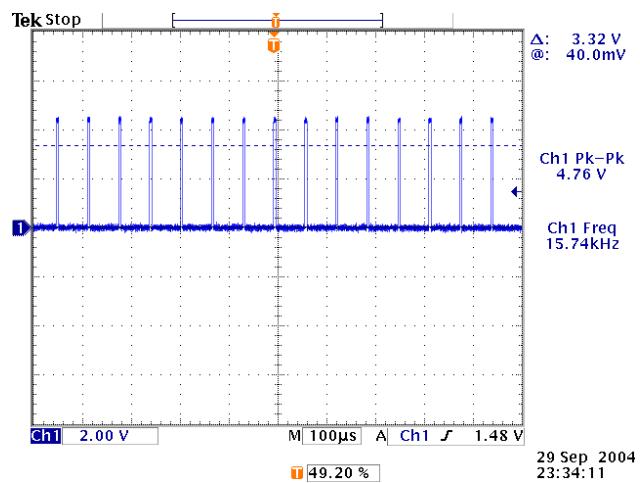
#### CH1 Y\_COMP1 (U3 pin 4)



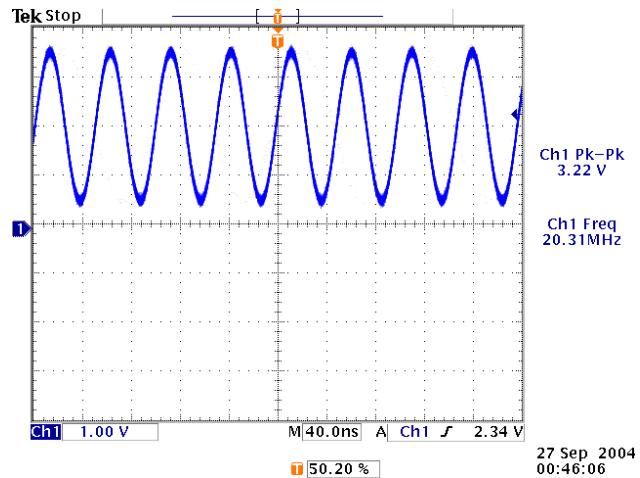
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Page 9-11  
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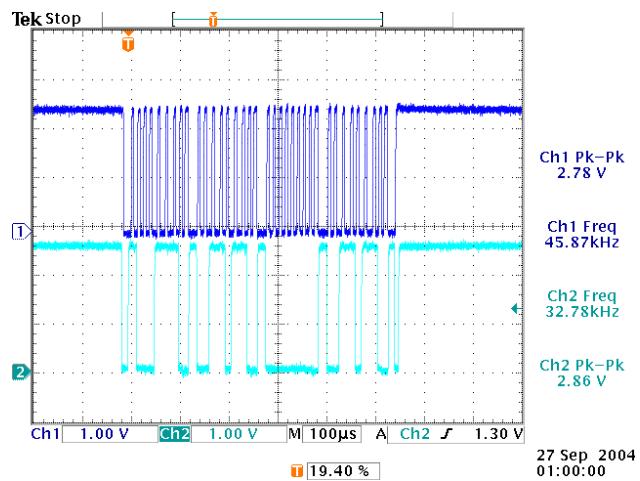
### CH1 SYNC DET (U3 pin24)



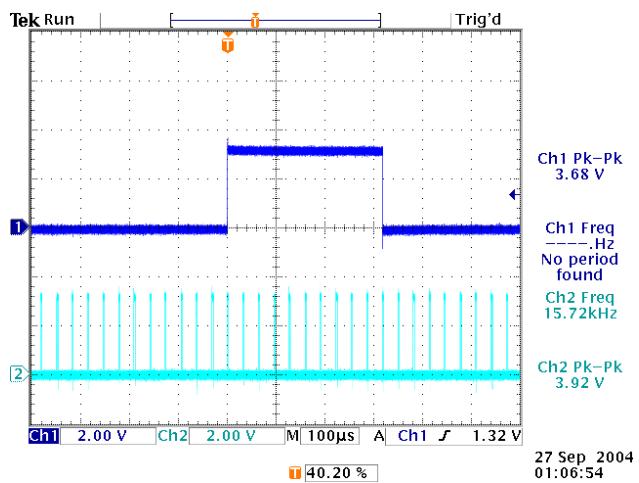
### CH1 XTAL1 (U10 pin 62)



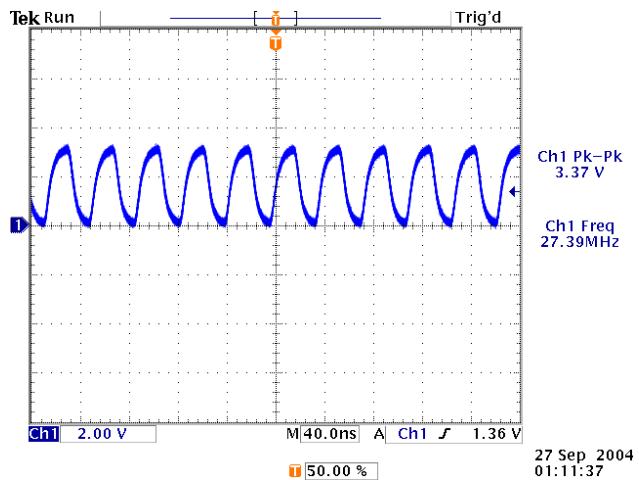
### CH1 SCL\_V (U10 pin 13); CH2 SDA\_V (U13 pin 14)



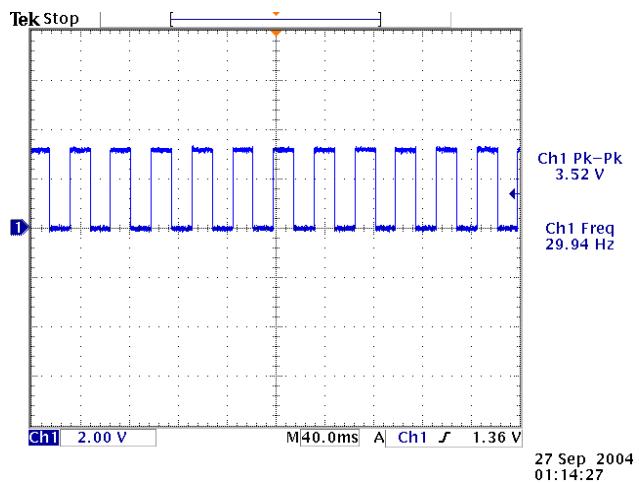
CH1 VID\_VS (U10 pin 57); CH2 VID\_HS (U10 pin 56)



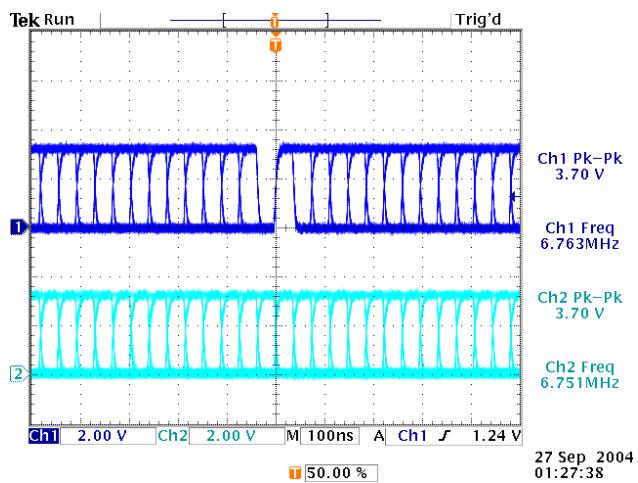
CH1 VID\_DATA (U10 pin 53)



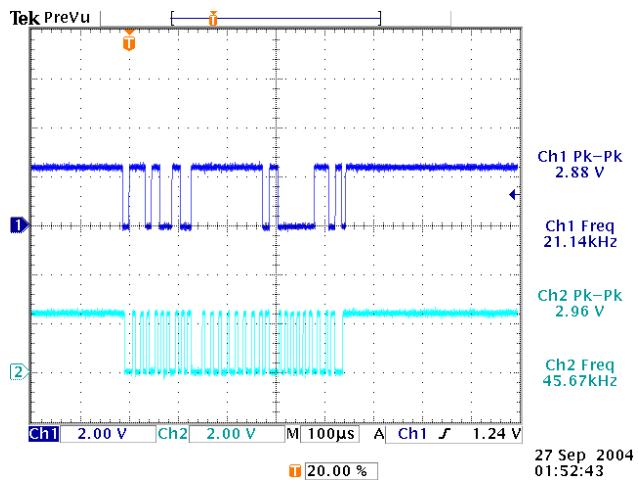
CH1 VID\_CLK2 (U10 pin 28)



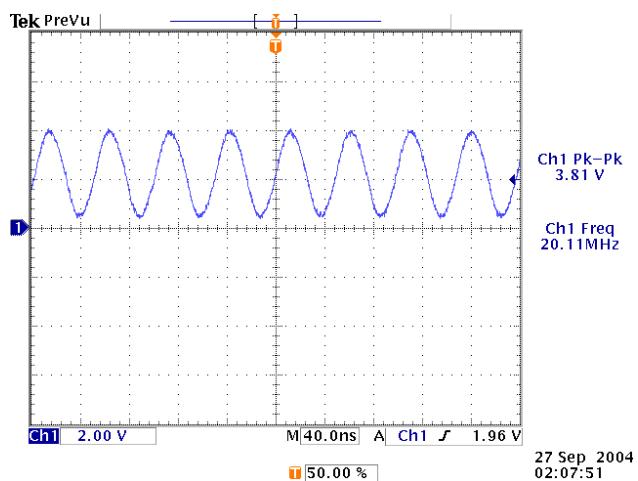
CH1 VID Y7 (U10 pin 31); CH2 VID Y0 (U10 pin 40)



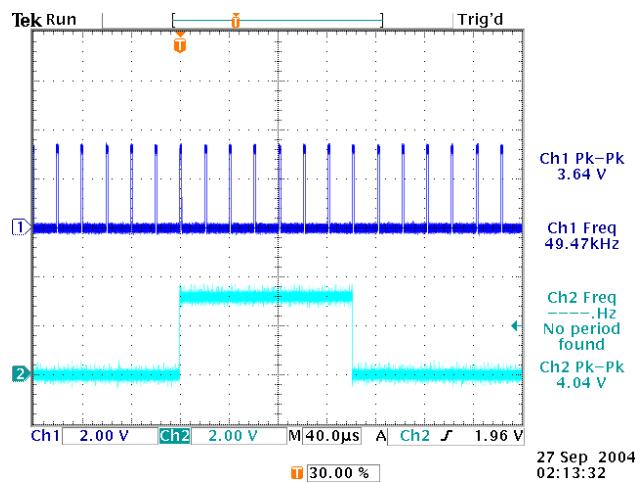
CH1 1231\_SDA (U19 pin 46); CH2 1231\_SCL (U19 pin 45)



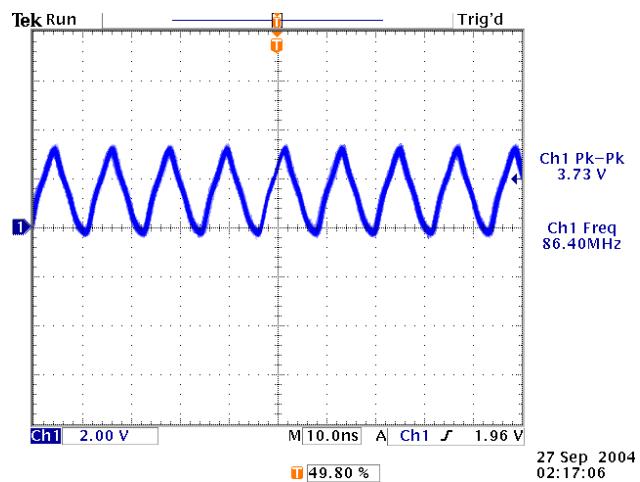
CH1 Y4 (U19 pin 191)



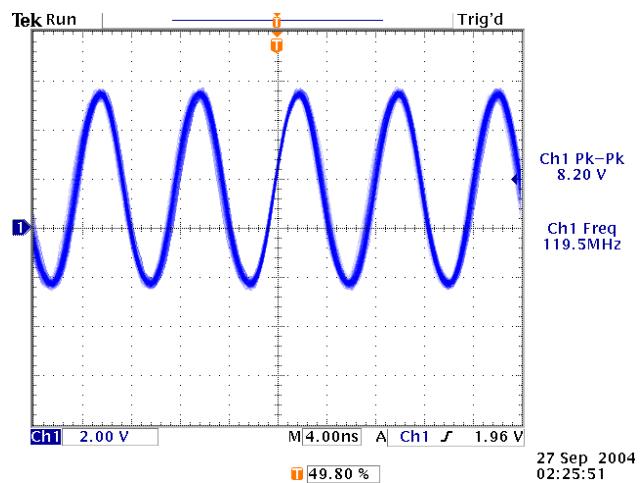
CH1 GVS (U19 pin 119); CH2 GHS (U19 pin 118)



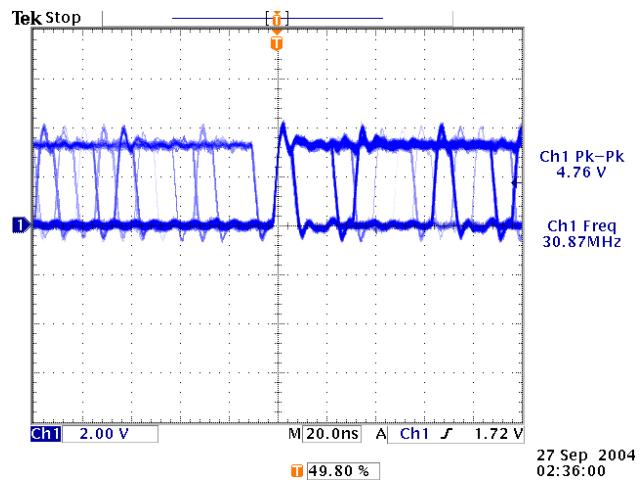
CH1 GCLK (U19 pin 125)



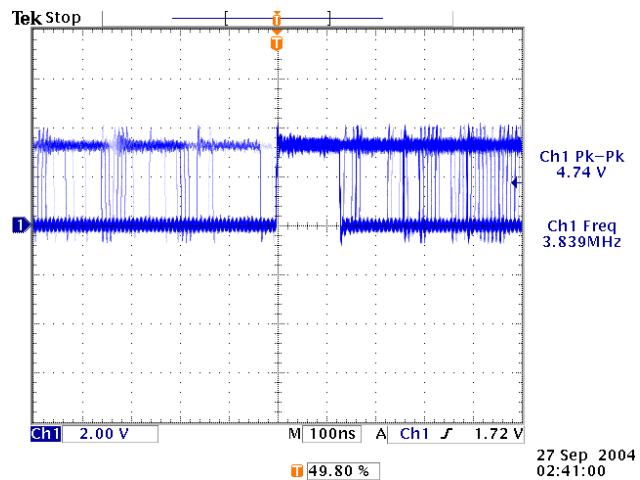
CH1 23SDCLKI (U19 pin 114)



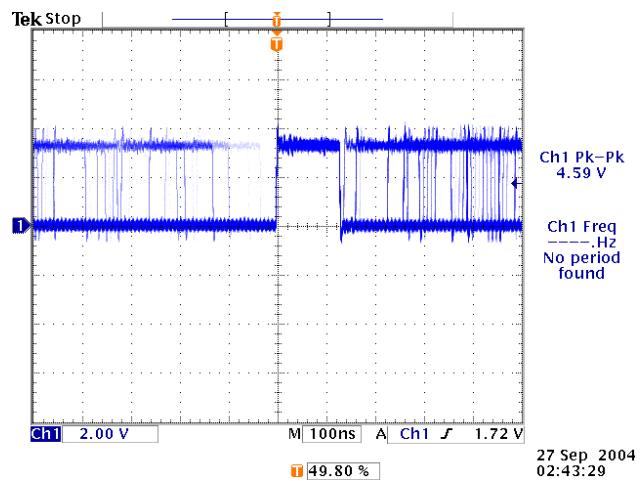
### CH1 23SDCS# (U19 pin 109)



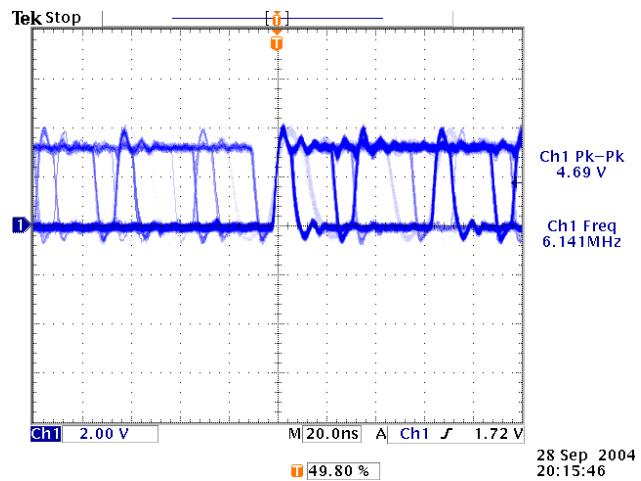
### CH1 23SDBA0 (U19 pin 108)



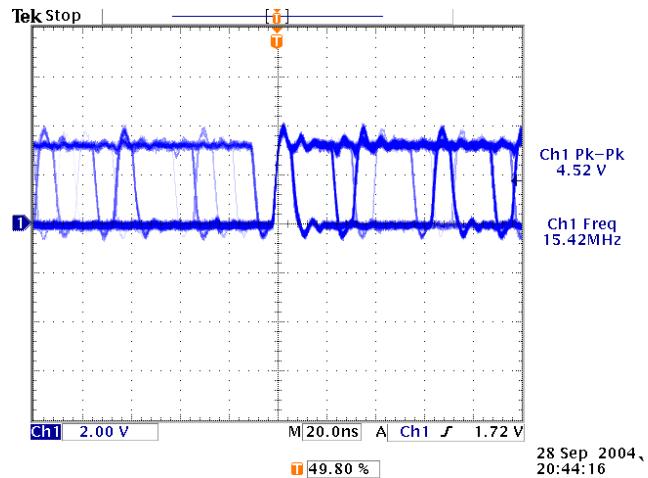
### CH1 23SDBA1 (U19 pin 107)



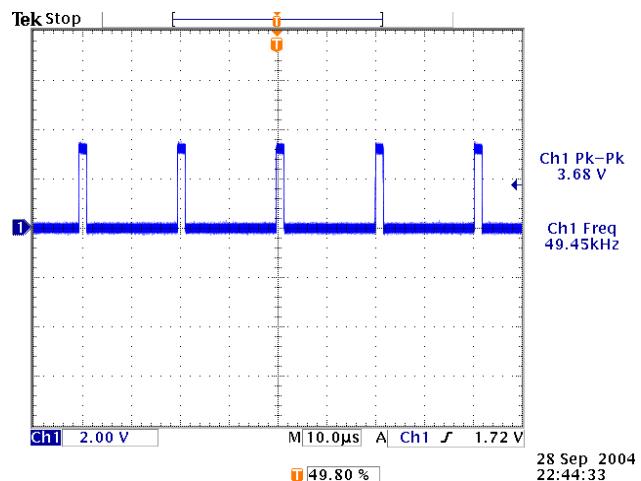
### CH1 23SDCAS# (U19 pin 106)



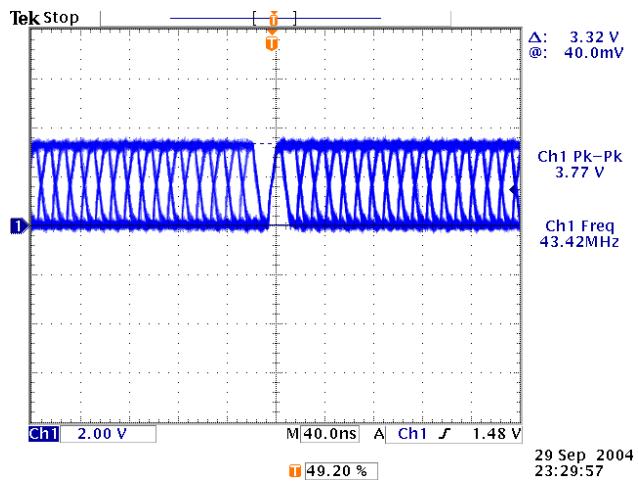
### CH1 23SDRAS# (U19 pin 105)



### CH1 GFBK (U8 pin 6)

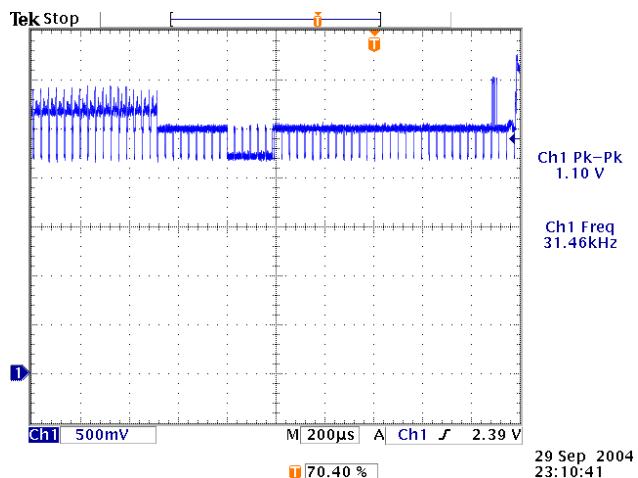


### CH1 GBE (U19 pin 155)

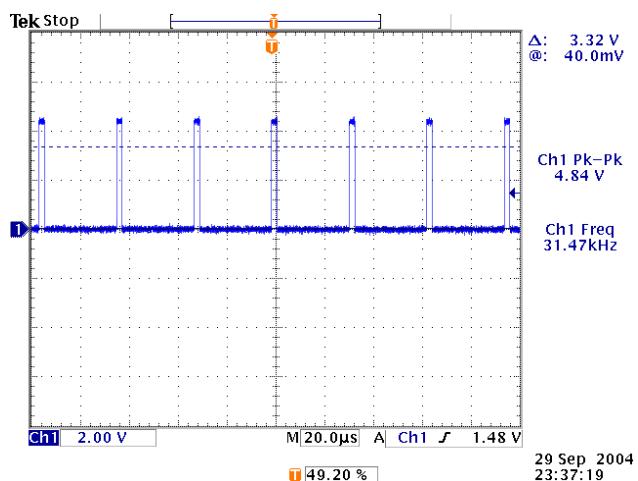


480P

### CH1 Y\_COMP1 (U3 pin 4)



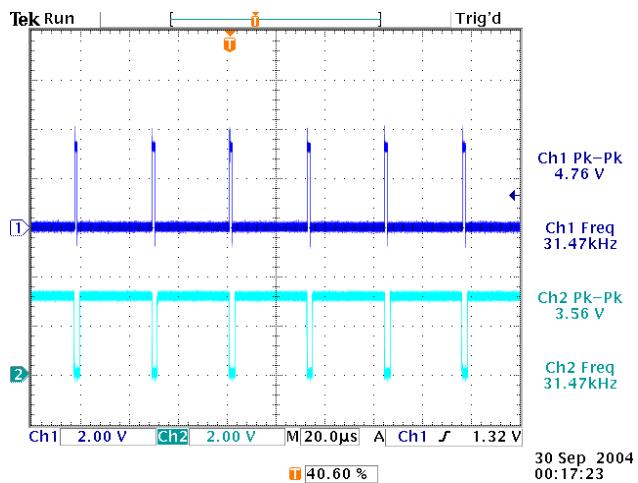
### CH1 SYNC DET (U3 pin 24)



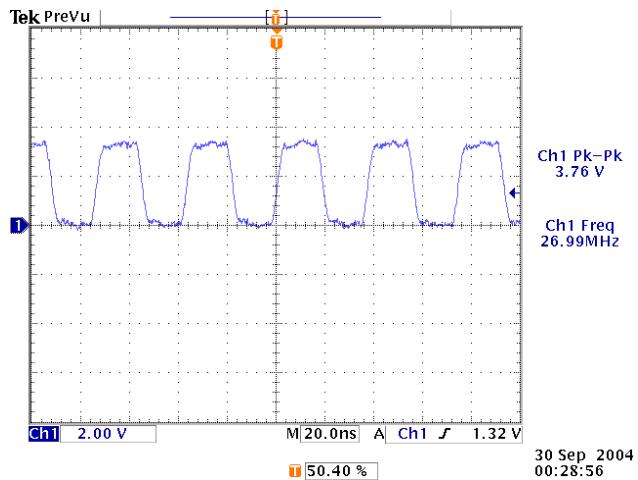
CONFIDENTIAL – DO NOT COPY

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File No. SG-0156

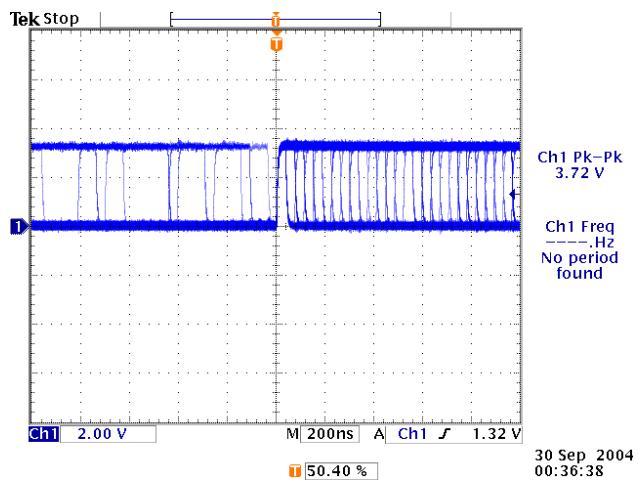
CH1 GFBK (U6 pin 66); CH2 GHS (U8 pin 8)



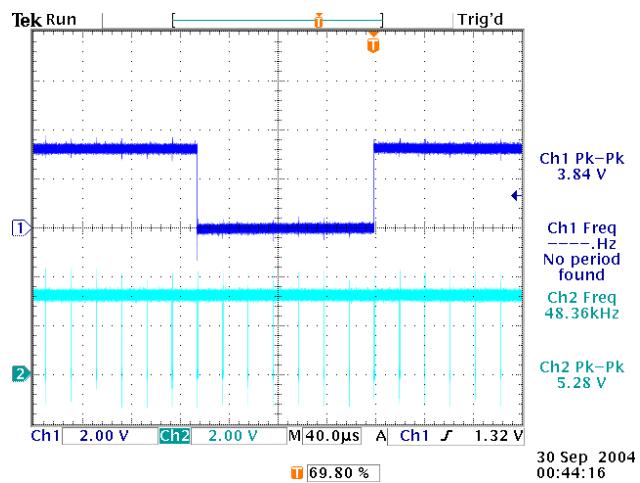
CH1 GCLK (U6 pin 67)



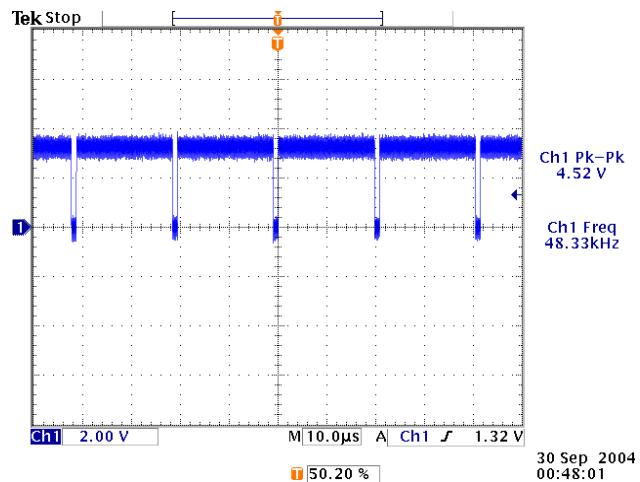
CH1 GRE (U6 pin 70)



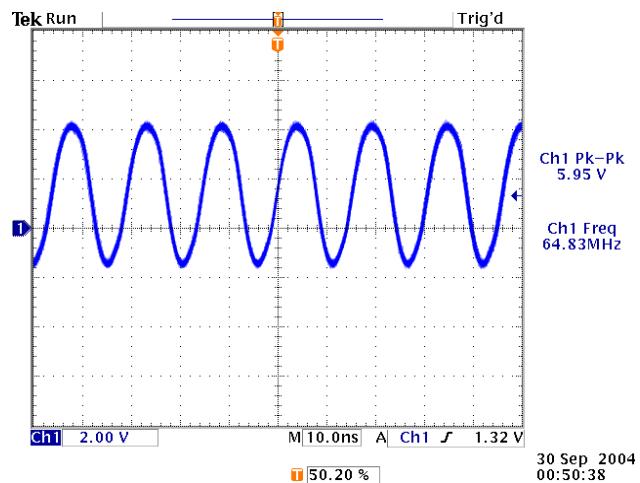
CH1 DVS (U11 pin V13); CH2 DHS (U11 pin U13)



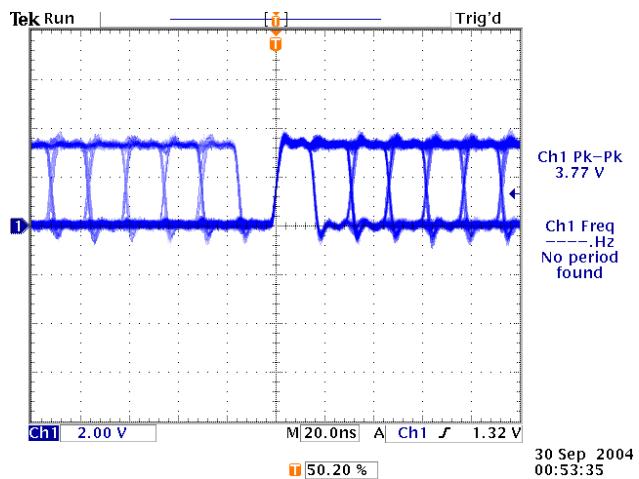
CH1 BLANK (U11 pin Y15)



CH1 DCLK (U11 pin W12)

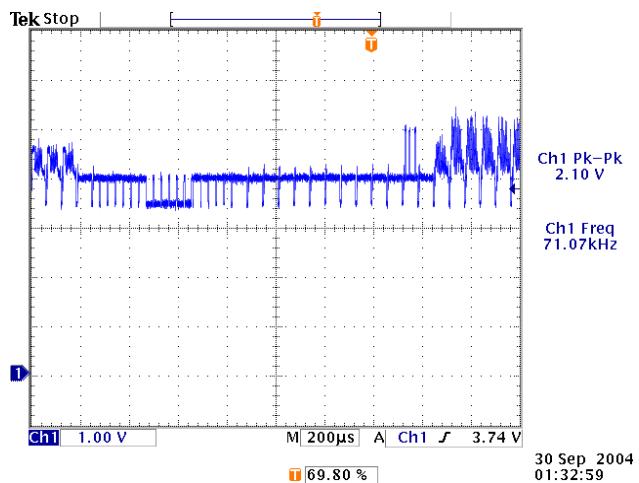


### CH1 DRE (U11 pin R19)

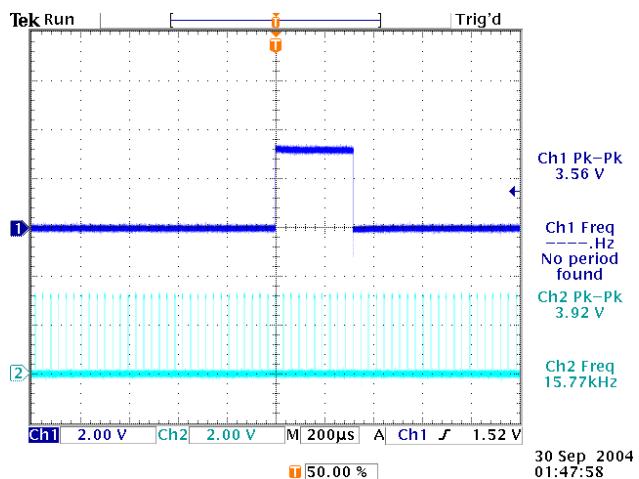


### TV; AV1; AV2/S MODE

#### CH1 V1 (UT3 pin 38)



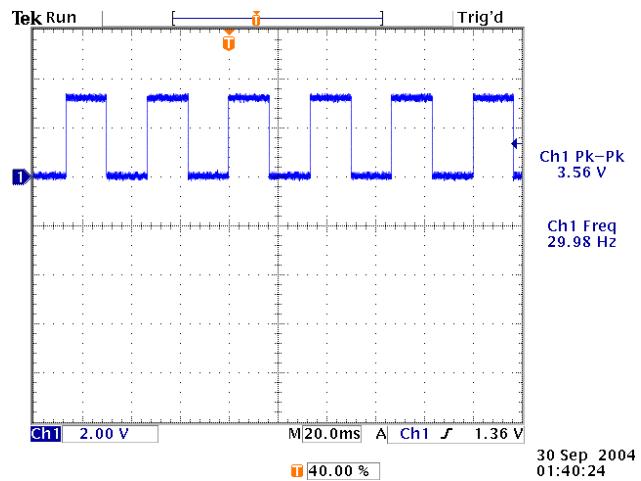
#### CH1 VID\_VS (U10 pin 57); CH2 VID\_HS (U10 pin 56)



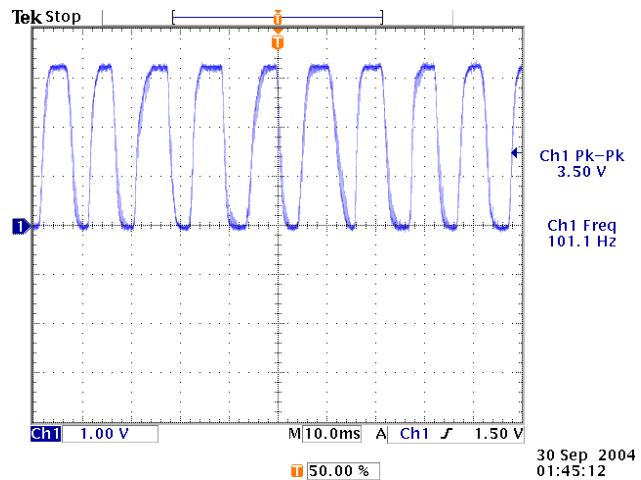
CONFIDENTIAL – DO NOT COPY

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File No. SG-0156

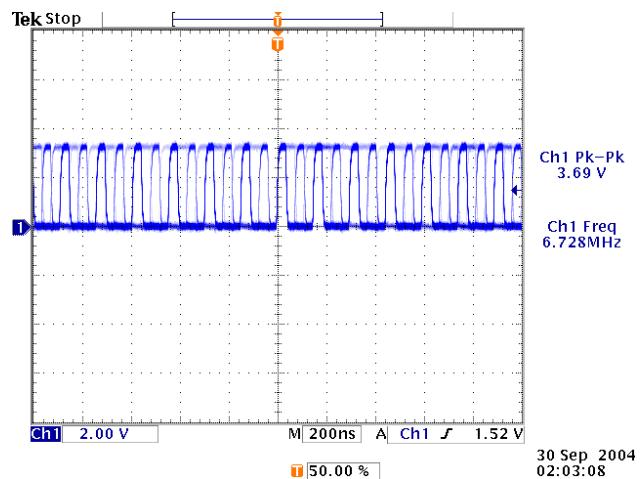
### CH1 VID\_DATA (U10 pin 53)



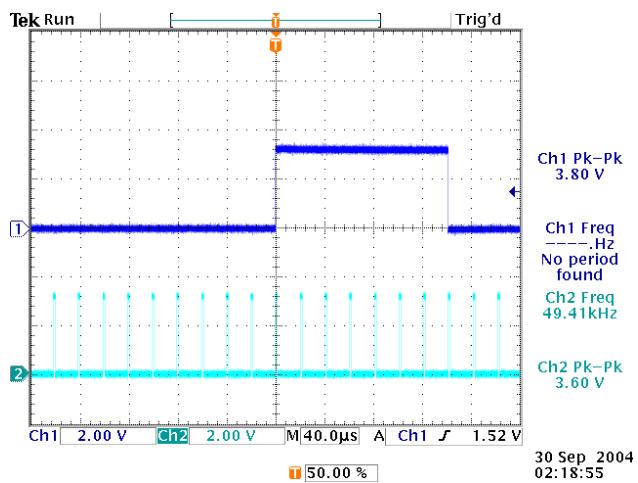
### CH1 VID\_CLK2 (U10 pin 27)



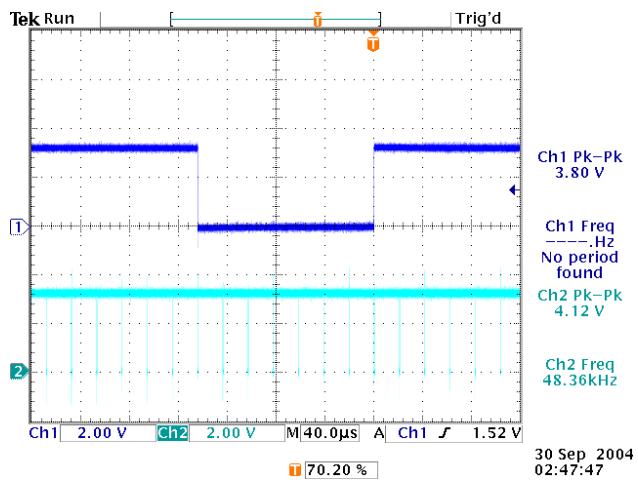
### CH1 VID\_Y7 (U10 pin 31)



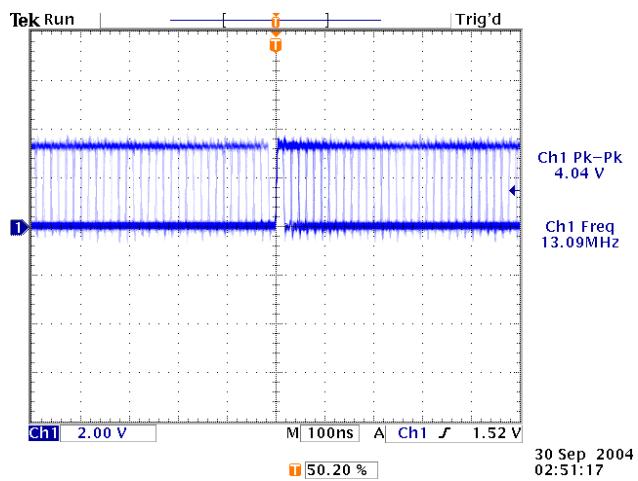
CH1 GVS (U19 pin 119); CH2 GHS (U19 pin 118)



CH1 DVS (U11 pin V13); CH2 DHS (U11 pin U13)

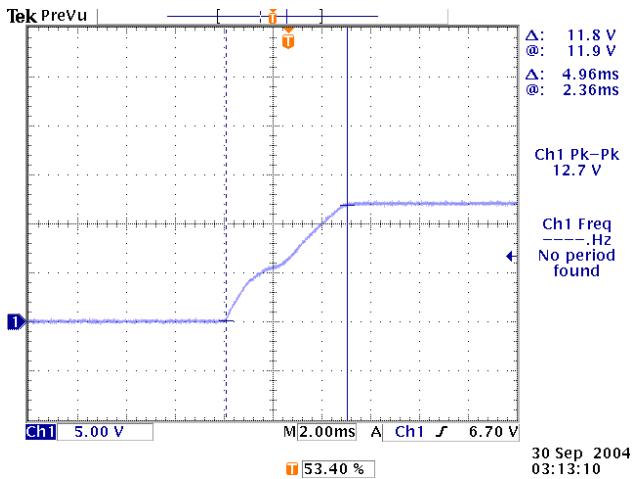


CH1 DRE (U11 pin R19)

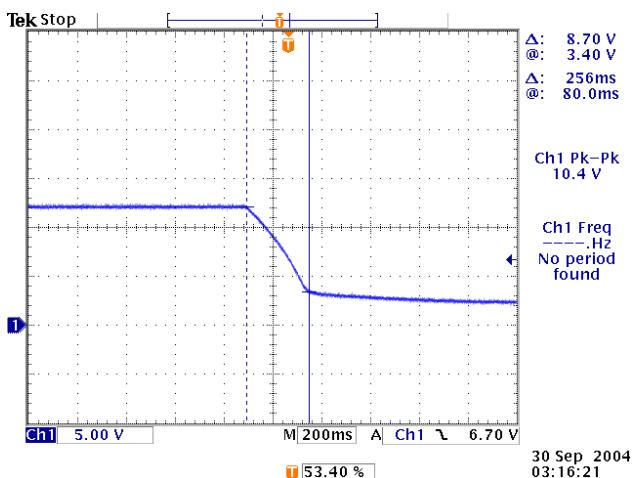


## POWER ON/OFF

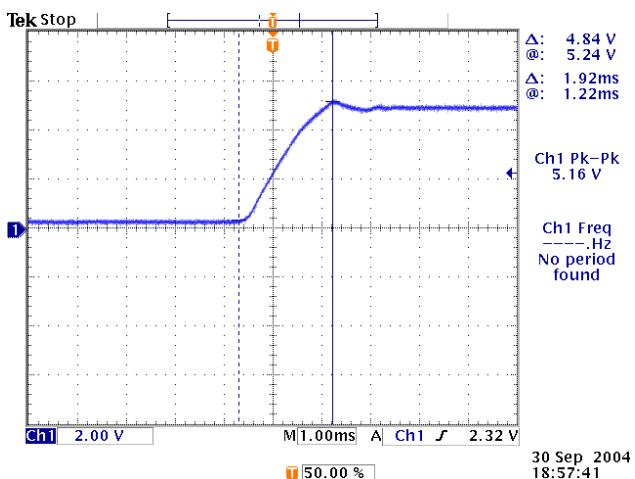
CH1 F1 12DCV/ON



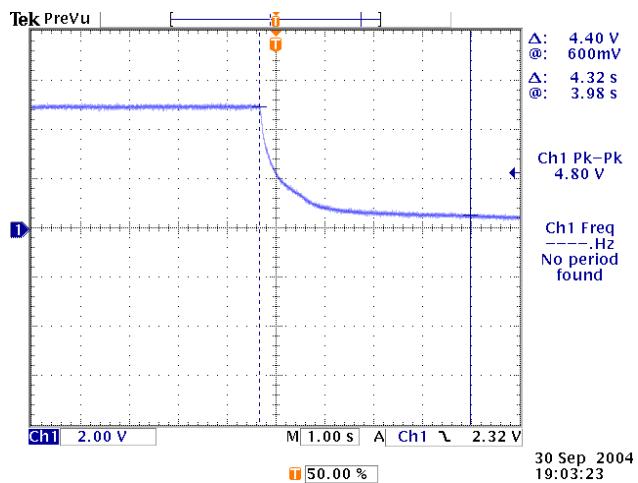
CH1 F1 12DCV/OFF



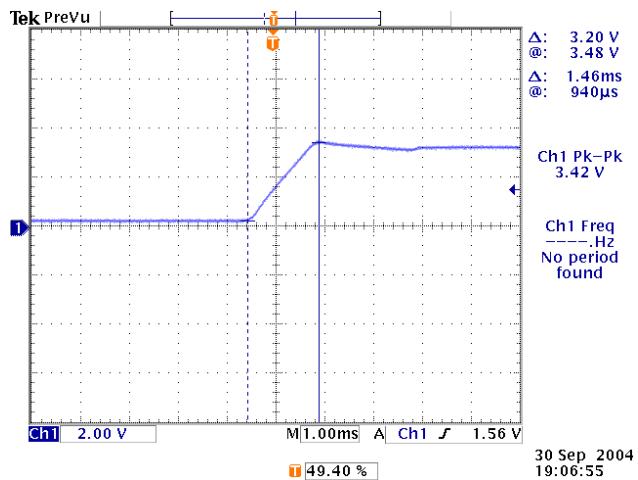
CH1 F3 V50DC/ON



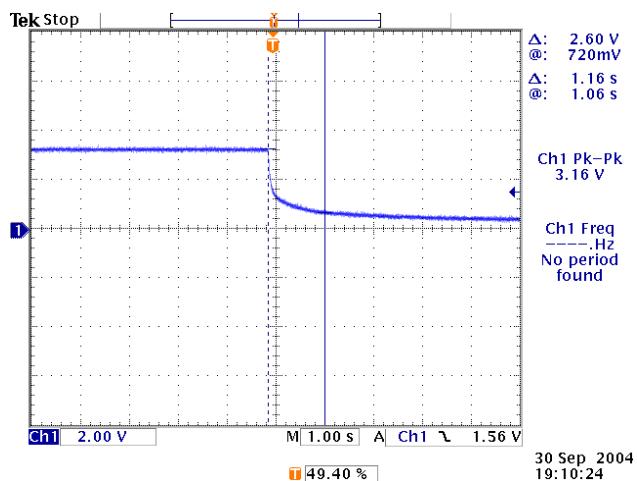
### CH1 F3 V50DC/OFF



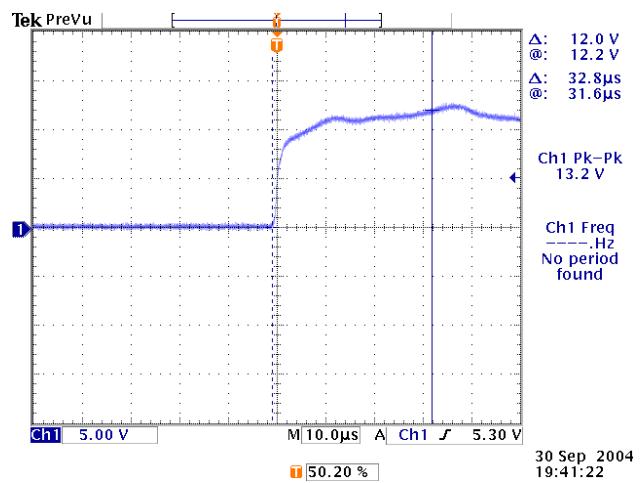
### CH1 F2 V33DC/ON



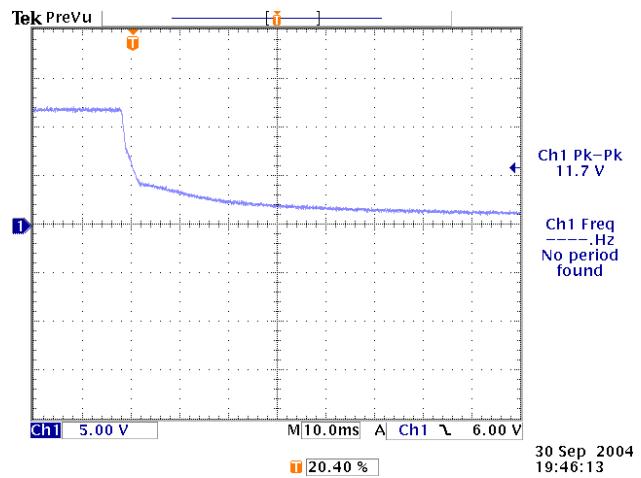
### CH1 F2 V33DC/OFF



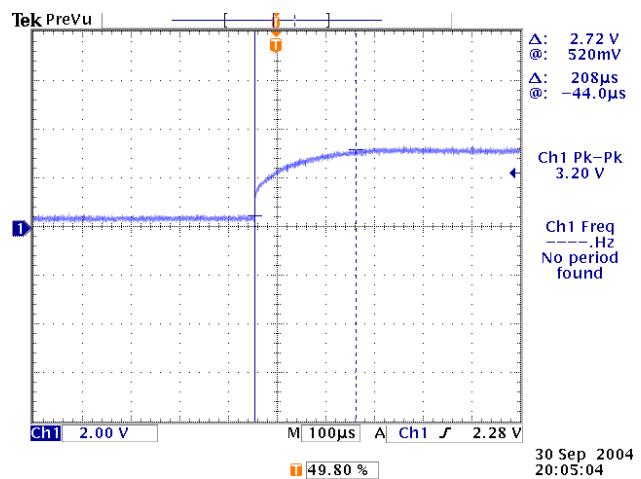
### CH1 LCD\_VOL/ON



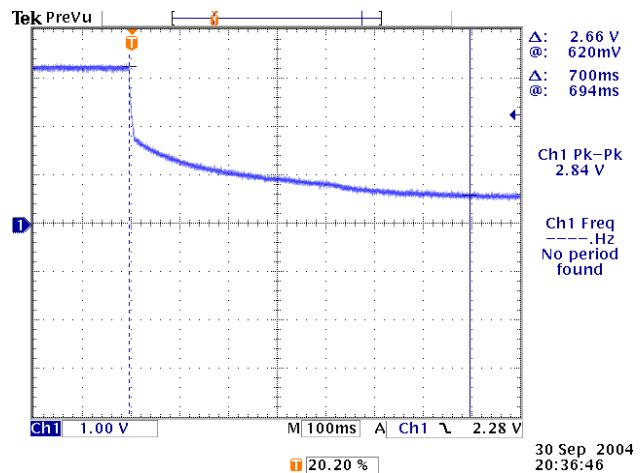
### CH1 LCD\_VOL/OFF



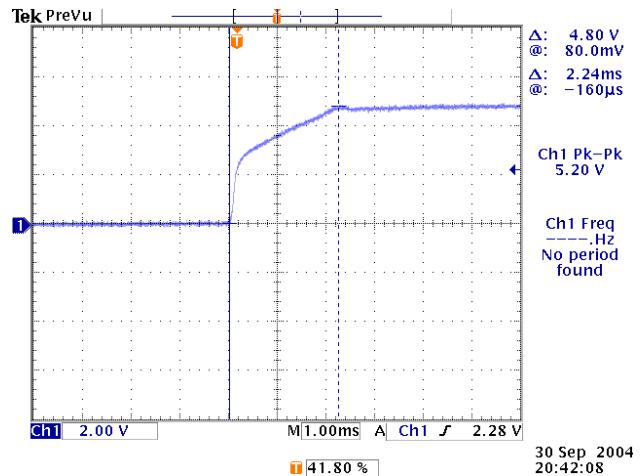
### CH1 V33\_V/ON



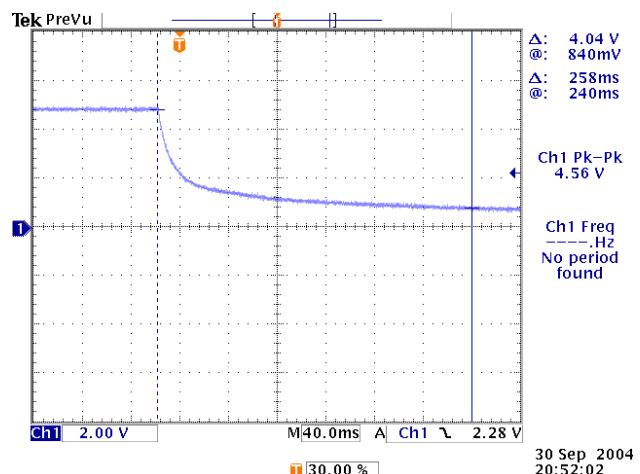
### CH1 V33\_V/OFF



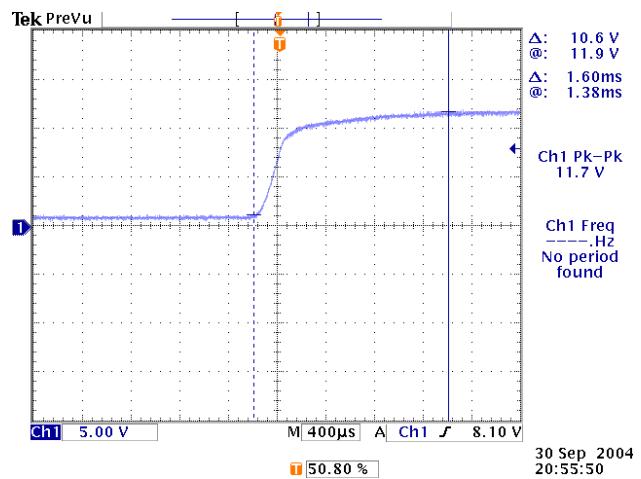
### CH1 V50\_V/ON



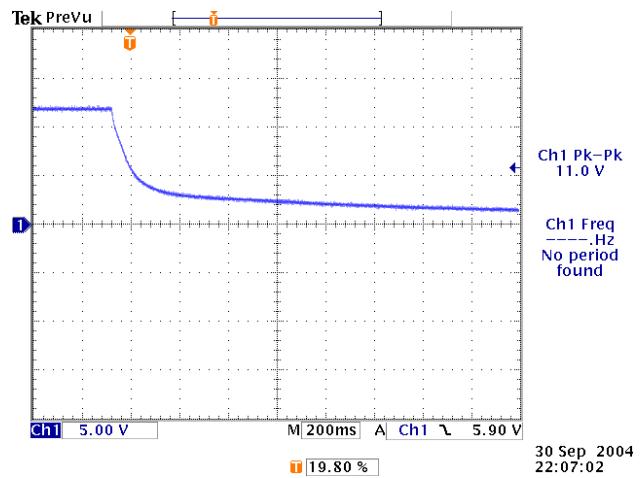
### CH1 V50\_V/OFF



## CH1 V120V/ON

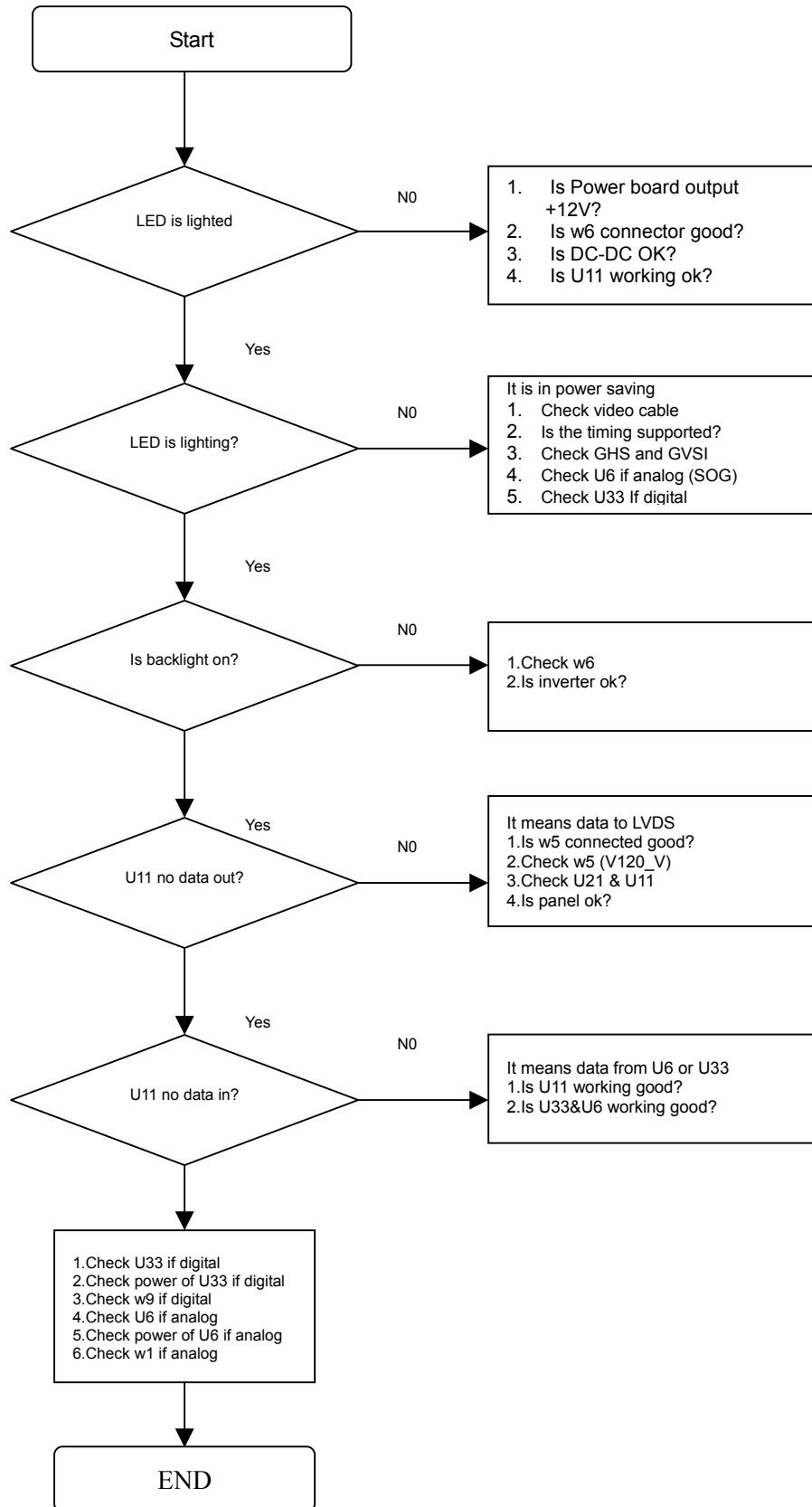


## CH1 V20V/OFF



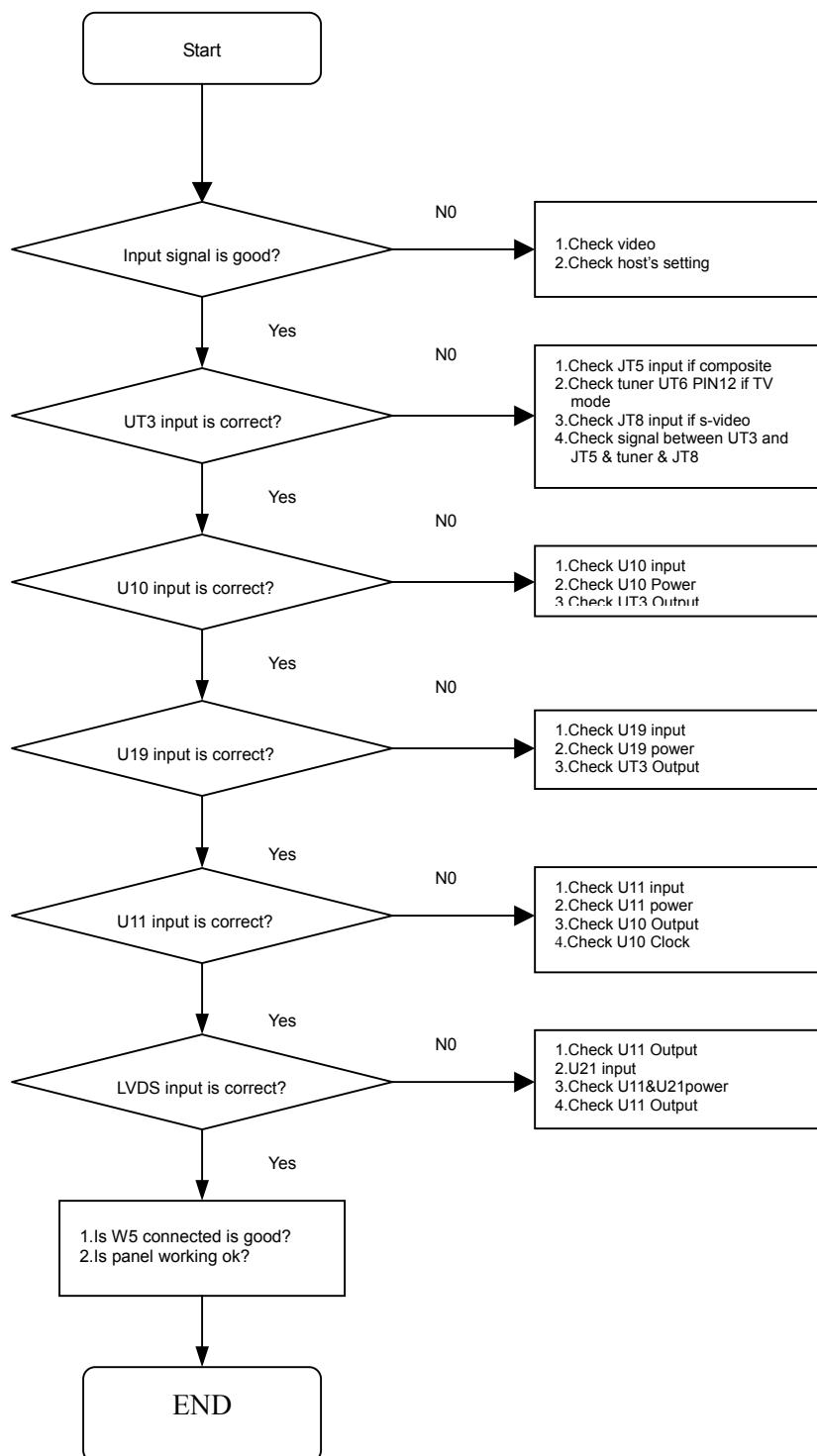
# Chapter 10 Trouble shooting

## MONITOR DISPLAY NOTHING (PC MODE DVI&ANALOG)



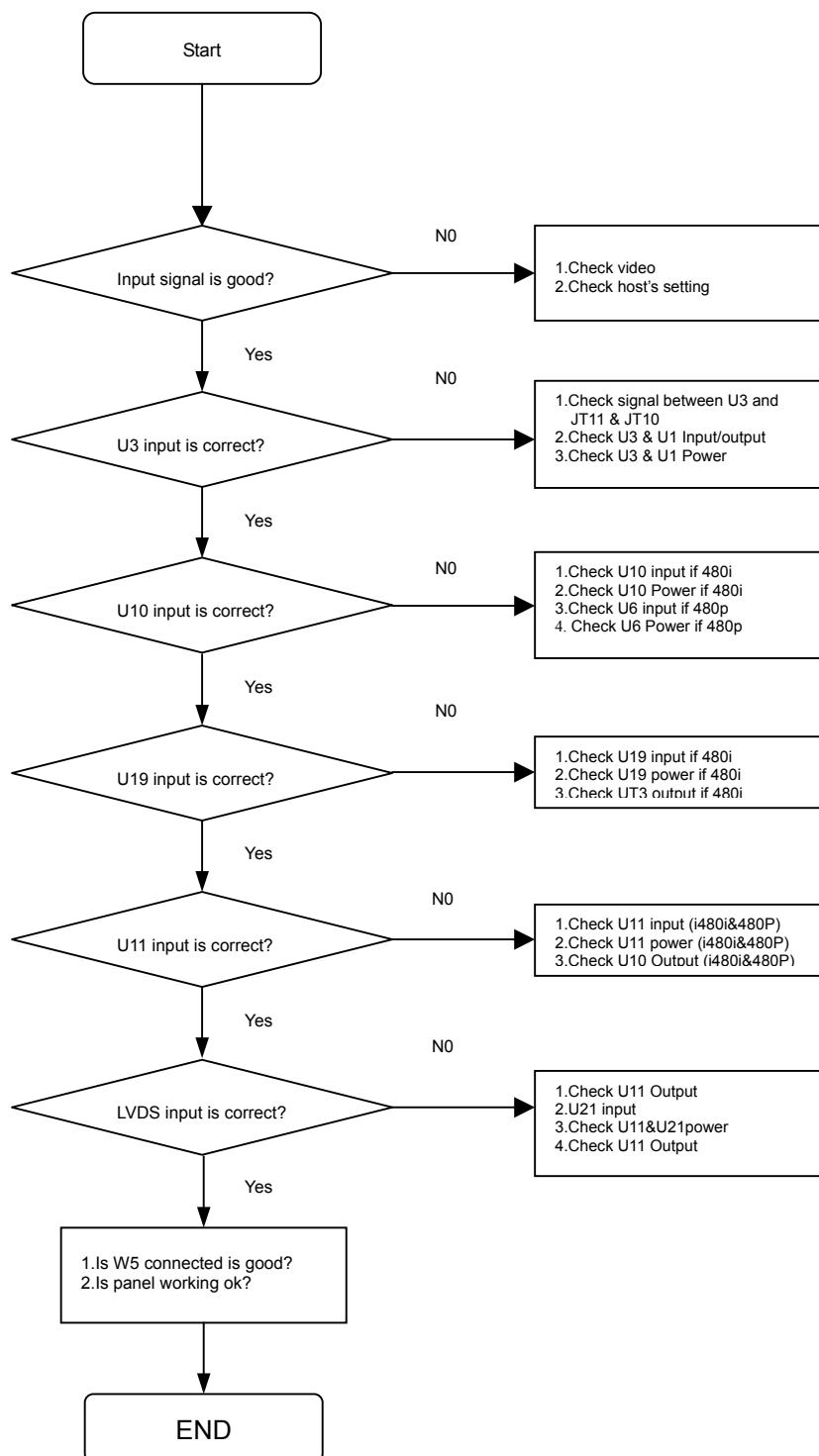
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## (TV, VIDEO1, 2, S-VIDEO) IS NOT DISPLAY CORRECTLY

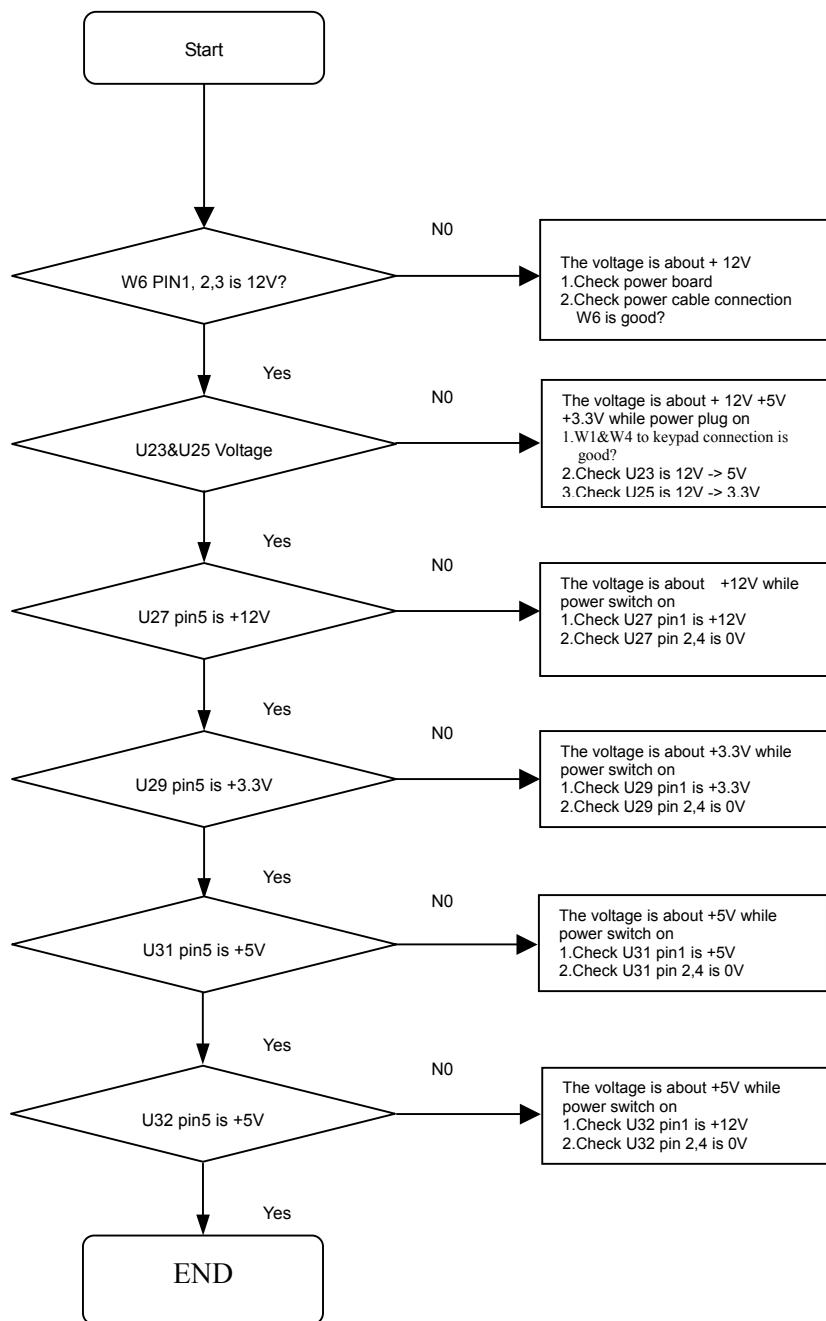


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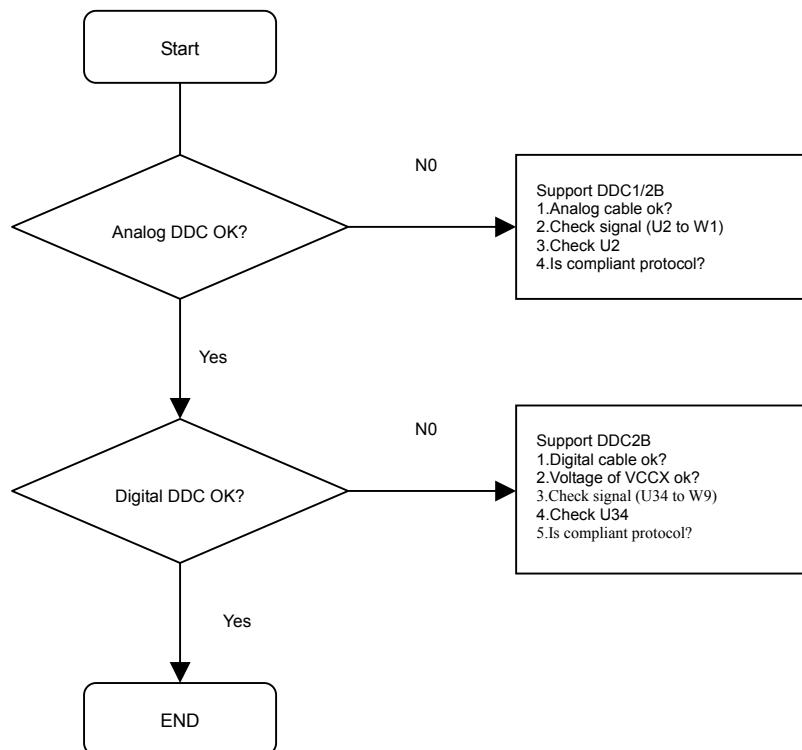
## (DVD, HDTV) IS NOT DISPLAY CORRECTLY



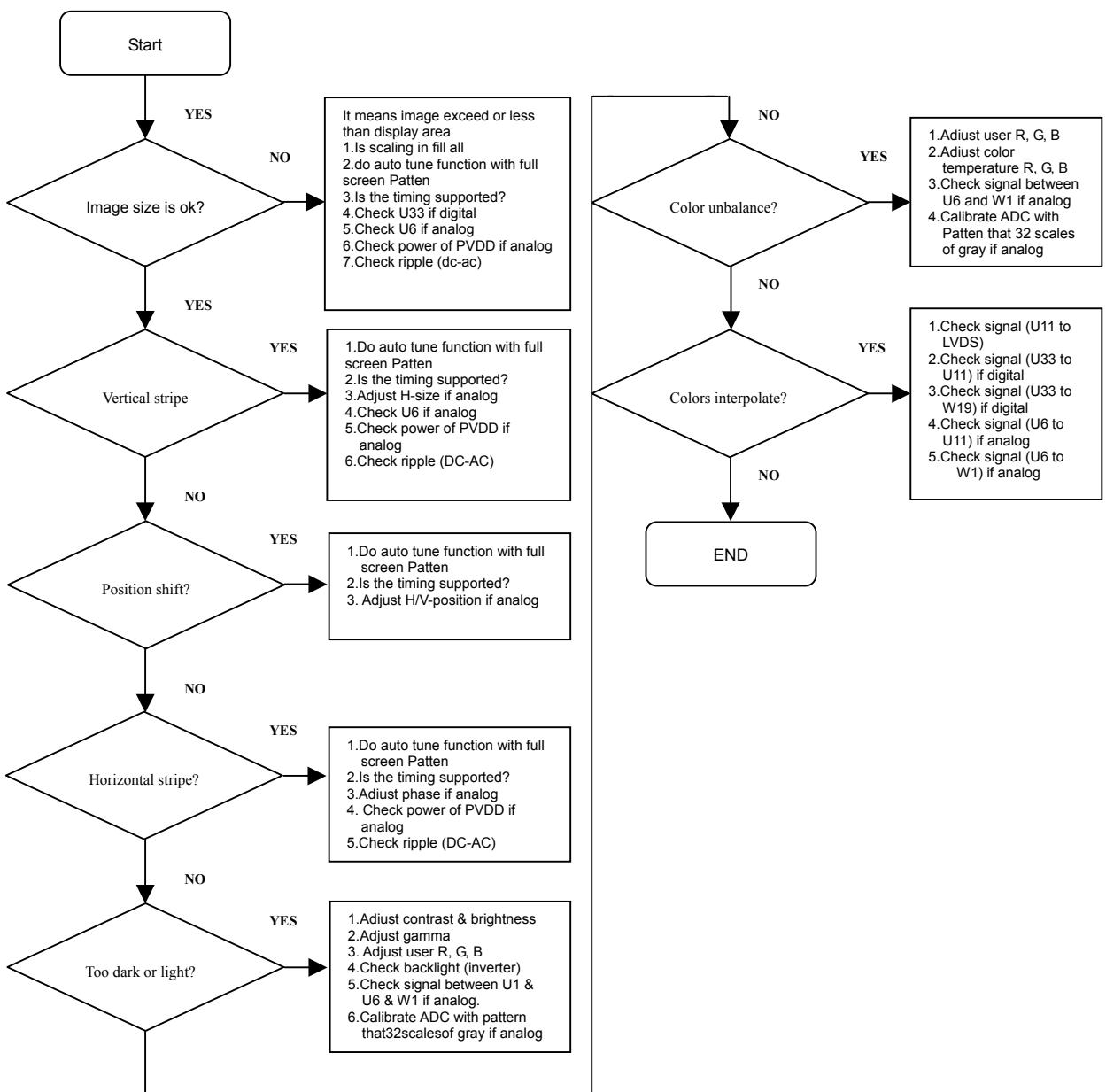
## TROUBLE OF DC-DC CONVERTER



## TROUBLE OF DDC READING

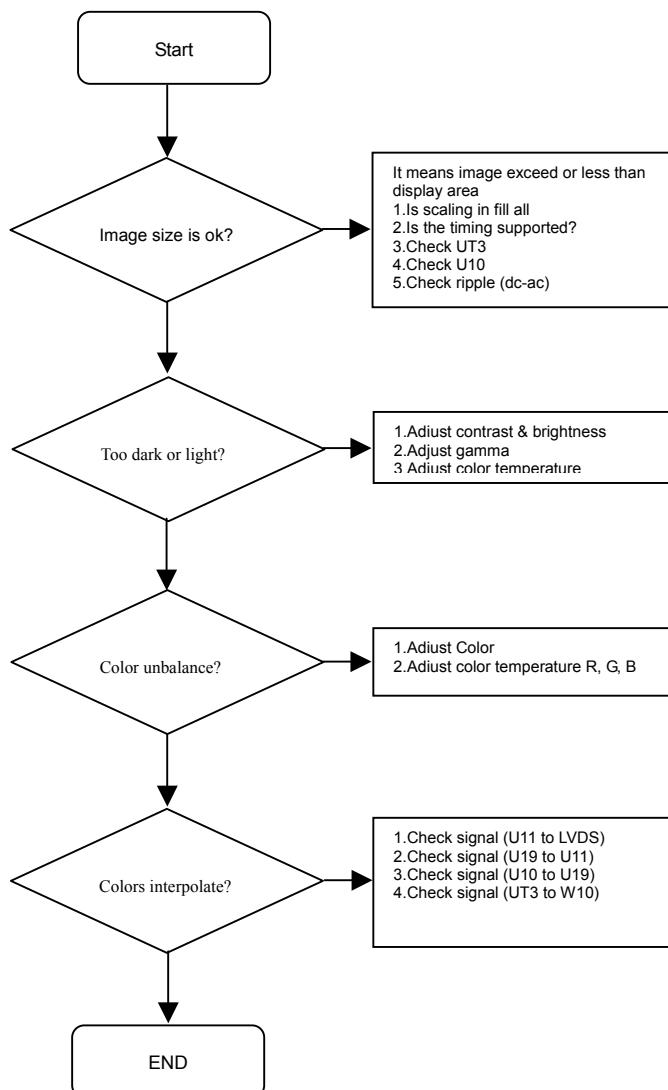


## IMAGE QUALITY IS NOT GOOD (PC MODE)



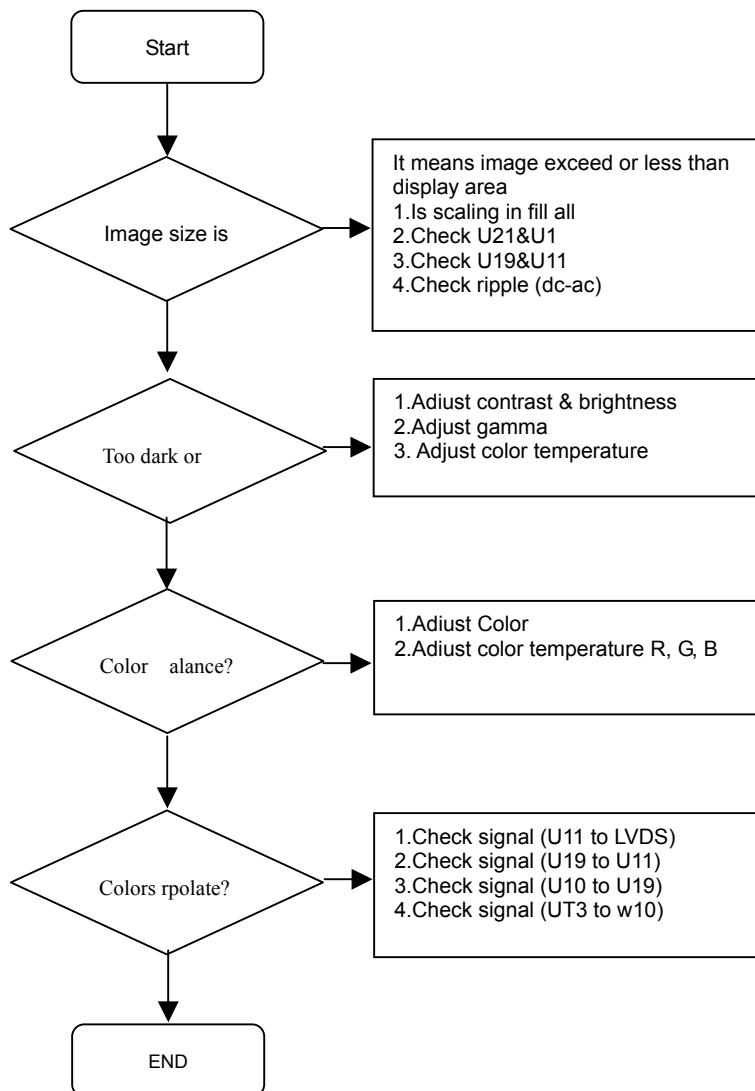
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## IMAGE QUALITY IS NOT GOOD (S-VIDEO, TV, COMPOSITE VIDEO1, 2)



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## IMAGE QUALITY IS NOT GOOD (DVD, HDTV)



# Chapter 11 Spare Parts List

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PART NO.	DESCRIPTION	LOCATION	QTY	REMARK
0980-0302-7000	REMOTE CONTROL Gateway		1	
0980-0200-2030	MODULE. IR RECEIVER (FM-6038LM-5A)	U1	1	
0980-0101-5210	MODULE TUNER (FQ1216L/PH-3)	UT6	1	
0980-0101-5010	MODULE TUNER (FQ1216/PH-3)	UT5	1	
0440-5000-0030	LED L-3WYGW 3 ψ	D1, D2	2	
0430-9000-7980	IC MSP3440G-QI PMQFP64	UT2	1	
0430-8001-9113	IC SG6841 DIP 8PIN	U5	1	
0430-7017-8962	IC FLI2310-BD 208PIN (FQFP)	U19	1	
0430-7012-3960	IC VPC3230 PQFP80 80PIN	U10	1	
0430-7011-3174	IC CM6800IP PDIP 16PIN	U1	1	
0430-7010-2015	IC TLC7733MV SMD 8PIN	U26, U28	2	
0430-6005-5004	IC LM1117MPX-1.8 SMD 3PIN (SOT-223)	U20	1	
0430-6004-5004	IC LM2596S-3.3 5PIN TO-263	U25	1	
0430-6001-7204	IC LM2596S-5.0 TO-263 5PIN	U23	1	
0430-5007-8353	IC PW166B-10 256PIN (PBGA)	U11	1	
0430-4008-3114	IC LA4915 DIP 28PIN	UT1	1	
0430-4007-6905	IC TA1218F 48PIN QFP	UT3	1	
0430-1004-7035	IC NC7SZ14M5 5PIN SOT-23	U2	1	
0420-1002-4621	MOSFET N-CH 2N7002E-T1 SMD (SOT-23)	Q1, Q2	2	
0420-1001-6601	POWER MOS IRF7316TR SMD 8PIN	U27, U29, U31, U32	4	
0410-2001-9005	TRANSISTOR 2SC5886 SMD	QT1	1	
0390-6003-1223	SCHOTTKY DIODE 1A 40V RB161L-40 PMDS	DT1	1	
0390-6001-3223	SCHOTTKY DIODE RB495D SMD	D10, D11	2	
0321-0000-0300	S.CABLE S-VIDEO/S-VIDEO 1800mm (BLK)CORE*2		1	
0321-0000-0290	S.CABLE RCA-RCA 1800mm (Y/W/R) (BLK)		1	
0320-4000-0150	POWER CORD 6FT 110V UL/CSA N.M.		1	
0185-1502-0003	FUSE 125V/5A SMD (R451005)	F1	1	
0185-1302-0003	FUSE 125V/3A SMD (R451003)	F3	1	
0185-1202-0013	FUSE 125V/2A SMD (R451002)	F2	1	
0181-4502-5203	FUSE HB T-L 250V 5A 5*20	F1	1	
3830-0132-0150	MAIN BD ASS'Y (VIZIO L30WGU)		1	
3830-0062-0157	POWER BD ASS'Y V30-1(V296W1-L14)		1	
3830-0042-0189	IR BD ASS'Y (Gateway SHD-3010)		1	

PART NO.	DESCRIPTION	LOCATION	QTY	REMARK
3830-0032-0156	DISPLAY BD ASS'Y (Gateway SHD-3010)		1	
1947-2000-0770	AU PANEL RUBBER(BLACK)(Gateway SHD-3010)		3	
1947-2000-0750	RUBBER PAD (16.0*12.0*18.0t)		2	
1947-2000-0690	AU PANEL RUBBER (BLACK) (GW30)		4	
1947-2000-0240	GLASS SUPPORT (TM-30A)		4	
1947-2000-0150	BASE RUBBER PAD (TM-30A)		4	
1947-2000-0100	GLASS RUBBER PAD (TM-30A)		6	
1947-1800-0290	GASKET BLOCK (12L*10W*1.5Hmm) HOLE 6 φ		1	
1947-1800-0090	GASKET BLOCK (17*25*25mm) (773GT)		10	
1947-1700-0130	SHIELDING AL.TAPE (70.0*50.0)		3	
1947-1700-0050	SHIELDING AL. TAPE (50.0*40.0)		2	
1947-1500-1920	SPEAKER CR t=0.5 (Gateway SHD-3010)		4	
1947-1500-1911	FUNCTION KEY CR t=1.0 (Gateway SHD-3010)		1	
1947-1500-1190	CMO PANEL SUPPORT (30.0*20.0*15.0)(LM-30C)		5	
1947-1500-1010	CR (390*5*1)mm		2	
1947-1500-0990	CR (328*5*1)mm		4	
1947-1200-1280	STAND SUPPORT-D (470*36*1)mm		1	
1947-1200-1160	STAND SUPPORT-C		1	
1947-1200-0970	STAND SUPPORT-B (TM-30A)		1	
1947-1200-0960	STAND SUPPORT-A (TM-30A)		1	
1947-1200-0950	STAND SUPPORT (TM-30A)		1	
1947-1200-0820	ACETATE CLOTH TAPE ( 醋酸布膠帶 ) 60*45mm		4	
1947-1200-0400	ACETATE CLOTH TAPE ( 醋酸布膠帶 ) 20*45mm		3	
1947-1200-0310	ACETATE CLOTH TAPE ( 醋酸布膠帶 ) 27*75mm		1	
1936-1100-7401	B/C LBL VIZIO L30WGU		1	
1925-1900-0460	Desiccant (100g) (Gateway SHD-3010)		1	
1925-1300-6460	MANUAL VIZIO L30WGU		1	
1925-1200-7260	CARTON TM-30/VIZIO L30WGU		1	
1925-1200-1220	ACCESSARY BOX (320L*200D*55H)		1	
1925-1100-0570	PE BAG (850.0L*850.0W*0.3t)		1	
1925-1000-2340	EPS FORM REAR-L (INFOUCS TD30)		1	
1925-1000-2330	EPS FORM REAR-R (INFOUCS TD30)		1	
1925-1000-2320	EPS FORM FRONT-L (INFOUCS TD30)		1	
1925-1000-2310	EPS FORM FRONT-R (INFOUCS TD30)		1	
1801-0117-2020	BEZEL (V inc 30") (FR2000,CL224) ASS'Y		1	
1725-5004-2420	MAC SCREW-MI M4.0*24.0L NYLOK		4	

## Chapter 12 Complete Parts List

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2830-3223-6103 LCD MONITOR 30" (V inc VIZIO L30WGU)(PC+ABS)(AU)

ITEM	M/S	LOCATION	PART NO.	DESCRPTION	QTY
1			3830-0072-0301	BASE ASS'Y (V inc VIZIO L30WGU)	1
2			3830-0102-0312	PACKING ASS'Y (V inc VIZIO L30WGU)	1
3			3830-0122-0303	CHASSIS ASS'Y (V inc VIZIO L30WGU)(AU)	1

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**3830-0072-0301 BASE ASS'Y (V inc VIZIO L30WGU)**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			1701-0511-0070	BASE (V inc 30")(ABS VH-0815, 877C)	1
2			1701-0900-0540	STAND GLASS 8.0mm (TM-30A)	1
3			1701-1000-0010	BASE FOOT ( φ 18.0*1.5T)	6
4			1712-0100-4870	BASE BRACKET (TM-30A)	1
5			1721-3003-0610	TAP. SCREW-TF #3.0*6.0L, Zn-Cc	14
6			1725-5004-2420	MAC SCREW-MI M4.0*24.0L NYLOK	4
7			1947-1200-0950	STAND SUPPORT (TM-30A)	1
8			1947-1200-0960	STAND SUPPORT-A (TM-30A)	1
9			1947-1200-0970	STAND SUPPORT-B (TM-30A)	1
10			1947-1200-1160	STAND SUPPORT-C	1
11			1947-1200-1280	STAND SUPPORT-D (470*36*1)mm	1
12			1947-2000-0100	GLASS RUBBER PAD (TM-30A)	6
13			1947-2000-0150	BASE RUBBER PAD (TM-30A)	4
14			1947-2000-0240	GLASS SUPPORT (TM-30A)	4

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**3830-0102-0312 PACKING ASS'Y (V inc VIZIO L30WGU)**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			1925-1000-2310	EPS FORM FRONT-R (INFOUCS TD30)	1
2			1925-1000-2320	EPS FORM FRONT-L (INFOUCS TD30)	1
3			1925-1000-2330	EPS FORM REAR-R (INFOUCS TD30)	1
4			1925-1000-2340	EPS FORM REAR-L (INFOUCS TD30)	1
5			1925-1100-0570	PE BAG (850.0L*850.0W*0.3t)	1
6			1925-1200-7260	CARTON TM-30/VIZIO L30WGU	1
7			1925-1900-0460	Desiccant (100g) (Gateway SHD-3010)	1
8			1936-1100-7401	B/C LBL VIZIO L30WGU	1
9			3830-0082-0393	ACCESSORY ASS'Y (V inc VIZIO L30WGU)	1

**3830-0122-0303 CHASSIS ASS'Y (V inc VIZIO L30WGU)(AU)**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			0211-0300-0977	LCD MODULE 30" TFT T296XW01(V.3)(AU)	1
2			0242-0525-2004	HEAT S-T 5.0*0.25 20MM 125'	3
3			0260-0000-0114	LINE FILTER 06GEEG3E	1
4			0335-5080-0170	SPEAKER 8 ohm 5W +BOX	1
5			0460-1005-0390	WH PH5-PH5 1061#26 440mm CORE*1	1
6			0460-1008-0330	WH PH8-PH8 1061#26 380mm CORE*1	1
7			0460-1015-0070	WH PH15-PH10 1007#24 200mm	1
8			0460-1015-0080	WH PH15-PH12 1007#24 200mm pin 11 NC	1
9			0460-1108-0111	WH XH8P-XH8P 1007#24 150mm AL+CLAMP	1
10			0460-1205-0020	WH VHR5P 1617#18 650mm	1
11			0460-1701-0610	WH SRA4.3 UL1015#18 80mm G/Y	1
12			0460-3430-0510	WH DF14-30S/DF19G-20S 1571#30 80mm	1
13			1701-0206-1031	REAR COVER (V inc 30") (FR2000, CL224)	1
14			1701-0414-7020	FUNCTION KEY (V inc 30") (ABS SD-0150, 877C)	1
15			1701-0800-0870	REAR PLATE (Gateway 30")	1
16			1701-0900-1440	AU INVERTER MYLAR (Gateway SHD-3010)	1
17			1701-1500-0450	WIRE SADDLE (CH-01B)	16
18			1701-1500-0690	WIRE SADDLE (CH-14)	1
19			1701-1500-0790	CABLE PROTECTOR (BLACK) (UST-02)	2
20			1712-0100-4570	MB-SHIELDING (TM-30A)	1
21			1712-0100-4880	POWER SHIELDING (TM-30A)	1
22			1712-0100-5370	EMI SHIELDING (TM-30A)	1
23			1712-0100-6650	CHASSIS FOR AUO (Gateway 30")	1
24			1712-0100-6660	IO-BRKT1 (Gateway 30")	1
25			1712-0100-6670	IO-BRKT2 (Gateway 30")	1
26			1720-0003-0420	MAC SCREW-MB M3.0*4.0L,Ni	8
27			1720-0003-0450	MAC SCREW-MB M3*4.0L, BLK-Ni	35
28			1720-0004-0510	MAC SCREW-MB M4.0*5.0L, Zn-Cc	2
29			1720-0503-0810	MAC SCREW-MBSFW M3.0*8.0L, Zn-Cc	8
30			1720-3006-2050	MAC SCREW-MF M6.0*20.0L, BLK-Ni	6
31			1720-4103-0610	MAC SCREW-FWRF M3.0*6.0L Zn-Cc	1
32			1720-5003-0720	MAC SCREW-MI M3.0*7.0L, NI	2
33			1720-7344-0820	MAC SCREW-MHSW #4-40*8.0L, Ni	4
34			1721-0003-0820	TAP SCREW-TB #3.0*8.0L, NI	2
35			1721-0003-1020	TAP SCREW-TB #3.0*10.0L, BLK-Ni	12
36			1721-0003-1050	TAP SCREW-TB #3*10.0L, BLK-Ni	9
37			1721-3003-0650	TAP SCREW-TF #3.0*6.0L, BLK-Ni	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
38			1721-4103-0810	TAP. SCREW-TRF #3.0*8.0L,Zn-Cc	8
39			1724-2304-1830	SCREW,BBC,M4.0X18L,ZN-CC (BLK)	11
40			1724-3804-0802	SCREW,PBATW,M4.0X8L,Zn-Cc	2
41			1801-0117-2020	BEZEL (V inc 30")(FR2000,CL224) ASS'Y	1
42			1947-1200-0310	ACETATE CLOTH TAPE ( 醋酸布膠帶 ) 27*75mm	1
43			1947-1200-0400	ACETATE CLOTH TAPE ( 醋酸布膠帶 ) 20*45mm	3
44			1947-1200-0820	ACETATE CLOTH TAPE ( 醋酸布膠帶 ) 60*45mm	4
45			1947-1500-0990	CR (328*5*1)mm	4
46			1947-1500-1010	CR (390*5*1)mm	2
47			1947-1500-1190	CMO PANEL SUPPORT (30.0*20.0*15.0)(LM-30C)	5
48			1947-1500-1911	FUNCTION KEY CR t=1.0 (Gateway SHD-3010)	1
49			1947-1500-1920	SPEAKER CR t=0.5 (Gateway SHD-3010)	4
50			1947-1700-0050	SHIELDING AL. TAPE (50.0*40.0)	2
51			1947-1700-0130	SHIELDING AL.TAPE (70.0*50.0)	3
52			1947-1800-0090	GASKET BLOCK (17*25*25mm) (773GT)	10
53			1947-1800-0290	GASKET BLOCK (12L*10W*1.5Hmm) HOLE 6 φ	1
54			1947-2000-0690	AU PANEL RUBBER (BLACK) (GW30)	4
55			1947-2000-0750	RUBBER PAD (16.0*12.0*18.0t)	2
56			1947-2000-0770	AU PANEL RUBBER(BLACK)(Gateway SHD-3010)	3
57			3830-0032-0156	DISPLAY BD ASS'Y (Gateway SHD-3010)	1
58			3830-0042-0189	IR BD ASS'Y (Gateway SHD-3010)	1
59			3830-0062-0157	POWER BD ASS'Y V30-1(V296W1-L14)	1
60			3830-0132-0150	MAIN BD ASS'Y (VIZIO L30WGU)	1

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## 3830-0032-0156 DISPLAY BD ASS'Y (Gateway SHD-3010)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			0170-1740-1191	PCB DISPLAY BD V0 182*21*1.6t S (Gateway SHD-3010)	1
2		SW2	0220-7020-0167	SW TACTILE 6*6MM 4P	1
3	CS		0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	
4		SW3	0220-7020-0167	SW TACTILE 6*6MM 4P	1
5	CS		0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	
6		SW4	0220-7020-0167	SW TACTILE 6*6MM 4P	1
7	CS		0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	
8		SW5	0220-7020-0167	SW TACTILE 6*6MM 4P	1
9	CS		0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	
10		SW6	0220-7020-0167	SW TACTILE 6*6MM 4P	1
11	CS		0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	
12		SW7	0220-7020-0167	SW TACTILE 6*6MM 4P	1
13	CS		0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	
14		SW8	0220-7020-0167	SW TACTILE 6*6MM 4P	1
15	CS		0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	
16		W1	0451-2000-0866	WAFER 2.00mm 8P 90' KINK (STM)	1

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**3830-0042-0189 IR BD ASS'Y (Gateway SHD-3010)**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			383000420189M	IR BD ASS'Y (Gateway SHD-3010) MI	1
2			383000420189S	IR BD ASS'Y (Gateway SHD-3010) SMD	1

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**3830-0062-0157 POWER BD ASS'Y V30-1(V296W1-L14)**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			383000620157A	POWER BD ASS'Y V30-1(V296W1-L14) AI	1
2			383000620157M	POWER BD ASS'Y V30-1(V296W1-L14) MI	1

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**3830-0082-0393 ACCESSORY ASS'Y (V inc VIZIO L30WGU)**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			0320-4000-0140	POWER CORD 1800mm 110V UL/CSA (BLK)(N.M.)	1
2			0321-0000-0130	S.CABLE RCA-RCA 1500mm (Y/Cb/Cr) (BLK)	1
3			0321-0000-0261	DVI CABLE 1800mm BLK N.M.	1
4			0321-0000-0330	S.CABLE RCA*2-RCA*2 1800mm (W/R) (BLK)	1
5			0602-1000-0020	Battery Zn-Carbon 1.5V AA	2
6			0980-0303-8000	REMOTE CONTROL 3440B01 Vinc 30	1
7			1925-1200-1220	ACCESSORY BOX (320L*200D*55H)	1
8			1925-1300-6460	MANUAL VIZIO L30WGU	1

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**3830-0132-0150 MAIN BD ASS'Y (VIZIO L30WGU)**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			383001320150A	MAIN BD ASS'Y (VIZIO L30WGU) AI	1
2			383001320150M	MAIN BD ASS'Y (VIZIO L30WGU) MI	1
3			383001320150S	MAIN BD ASS'Y (VIZIO L30WGU) SMD	1

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**3830-0042-0189M IR BD ASS'Y (Gateway SHD-3010) MI**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1		D1	0440-5000-0030	LED L-3WYGW 3 ψ	1
2		D1S	1701-1500-0770	POWER LED HOLDER (GW30) (EEB-10)	1
3		D2	0440-5000-0030	LED L-3WYGW 3 ψ	1
4		D2S	1701-1500-0770	POWER LED HOLDER (GW30) (EEB-10)	1
5		SW1	0220-7020-0167	SW TACTILE 6*6MM 4P	1
6	CS		0220-7020-0965	SW TACT 6*6mm 180° 160g SFKHHAM2520	
7		U1	0980-0200-2030	MODULE. IR RECEIVER (FM-6038LM-5A)	1
8		U1S	1701-1500-0360	IR HOLDER (TM-15A)	1
9		W1	0451-2000-0566	WAFER 2.00MM 5P 90° KINK (STM)	1

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**3830-0042-0189S IR BD ASS'Y (Gateway SHD-3010) SMD**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			0171-1641-0231	PCB IR BD FR4 56.0*40.0*1.6t D (Gateway SHD-3010)	1
2		C1	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
3		C2	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
4		C3	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
5		C4	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
6		L2	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
7		Q1	0410-5000-2610	TRANSISTOR MMBT3906LT1 SMD	1
8	CS		0410-5000-2604	TRANSISTOR MMBT3906 SMD (SOT-23)	
9		Q2	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
10	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
11		R1	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
12		R10	0130-2000-0055	RES. CF 200ohm 1/10W J 0603	1
13		R2	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
14		R3	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
15		R4	0130-2000-0055	RES. CF 200ohm 1/10W J 0603	1
16		R6	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
17		R7	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
18		R8	0130-2000-0055	RES. CF 200ohm 1/10W J 0603	1
19		R9	0130-2000-0055	RES. CF 200ohm 1/10W J 0603	1
20		U2	0430-1004-7035	IC NC7SZ14M5 5PIN SOT-23	1

**3830-0062-0157A POWER BD ASS'Y V30-1(V296W1-L14) AI**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			0171-2041-0281	PCB POWER BD FR4 230*118*1.6t (Gateway SHD-3010)	1
2		C1	0111-1222-5212	C/C DISK 2200PF 500V Y5P F-K	1
3		C17	0121-2104-1032	P/C R82 0.1UF 100V J B	1
4		C19	0102-1101-1311	E/C 100uF 25V 105'C (6.3*11)	1
5		C20	0121-2474-0632	P/C R82 0.47UF 63V J BOX	1
6		C22	0102-2100-1511	E/C L-L 10uF 50V 105' T 5*11 (KY TYPE)	1
7	SS		0103-6100-1511	E/C HF 10uF 50V 105'C F (5*11mm)	
8		C23	0102-2100-1511	E/C L-L 10uF 50V 105' T 5*11 (KY TYPE)	1
9	SS		0103-6100-1511	E/C HF 10uF 50V 105'C F (5*11mm)	
10		C24	0111-2221-5102	C/C DISK 220PF 50V NPO F-K	1
11		C25	0121-2222-1032	P/C R82 2200PF 100V J B	1
12		C27	0121-2333-1032	P/C R82 0.033UF 100V J B	1
13		C28	0121-2474-0632	P/C R82 0.47UF 63V J BOX	1
14		C29	0121-2104-1032	P/C R82 0.1UF 100V J B	1
15		C3	0111-1222-5212	C/C DISK 2200PF 500V Y5P F-K	1
16		C30	0121-2102-1032	P/C R82 1000PF 100V J B	1
17		C31	0111-2471-5112	C/C DISK 470PF 50V SL F-K	1
18		C32	0121-2104-1032	P/C R82 0.1UF 100V J B	1
19		C33	0121-2103-1032	P/C R82 0.01UF 100V J B	1
20		C34	0121-2104-1032	P/C R82 0.1UF 100V J B	1
21		C35	0121-2102-1032	P/C R82 1000PF 100V J B	1
22		C36	0121-2103-1032	P/C R82 0.01UF 100V J B	1
23		C37	0102-2109-1511	E/C L-L 1uF 50V 105'C (5*11mm) (KY Type)	1
24		C38	0102-2109-1511	E/C L-L 1uF 50V 105'C (5*11mm) (KY Type)	1
25		C39	0102-2109-1511	E/C L-L 1uF 50V 105'C (5*11mm) (KY Type)	1
26		C40	0111-2471-5112	C/C DISK 470PF 50V SL F-K	1
27		C41	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
28		C42	0121-2104-1032	P/C R82 0.1UF 100V J B	1
29		C43	0121-2104-1032	P/C R82 0.1UF 100V J B	1
30		C44	0111-1222-1322	C/C DISK 2200PF 1KV Z5U F-K	1
31		C45	0111-1222-5212	C/C DISK 2200PF 500V Y5P F-K	1
32		C48	0121-2223-1032	P/C R82 0.022UF 100V J B	1
33		C49	0111-1222-5212	C/C DISK 2200PF 500V Y5P F-K	1
34		C50	0102-2100-1511	E/C L-L 10uF 50V 105' T 5*11 (KY TYPE)	1
35	SS		0103-6100-1511	E/C HF 10uF 50V 105'C F (5*11mm)	
36		C51	0121-2104-1032	P/C R82 0.1UF 100V J B	1
37		C53	0111-1222-5212	C/C DISK 2200PF 500V Y5P F-K	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
38		C55	0111-1222-5212	C/C DISK 2200PF 500V Y5P F-K	1
39		C56	0111-2471-5112	C/C DISK 470PF 50V SL F-K	1
40		C57	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
41		D11	0390-6002-7010	SCHOTTKY DIODE FCH20A15 TO-220	1
42	SS		0390-5003-3030	DIODE DUAL 20A 150V YG865C15R TO-220	
43	SS		0390-6005-1010	SCHOTTKY DIODE FCH20U15 TO-220 LF	
44		D13	0390-4000-7272	FAST DIODE UF4003G 1A 200V 50ns	1
45		D14	0390-4000-7272	FAST DIODE UF4003G 1A 200V 50ns	1
46		D15	0390-5000-1052	GEN. DIODE 1N4148 T	1
47	CS		0390-5000-1092	GEN. DIODE 1N4148 T	
48	CS		0390-5000-1222	GEN. DIODE 1N4148 T	
49		D16	0390-8000-3312	DIODE T.V.S P6KE150A DO-15	1
50		D17	0390-8000-3312	DIODE T.V.S P6KE150A DO-15	1
51		D20	0390-5000-1052	GEN. DIODE 1N4148 T	1
52	CS		0390-5000-1092	GEN. DIODE 1N4148 T	
53	CS		0390-5000-1222	GEN. DIODE 1N4148 T	
54		D21	0390-6002-8272	SCHOTTKY DIODE 1A 40V SB140	1
55		D5	0390-5000-1052	GEN. DIODE 1N4148 T	1
56	CS		0390-5000-1092	GEN. DIODE 1N4148 T	
57	CS		0390-5000-1222	GEN. DIODE 1N4148 T	
58		D6	0390-5000-1052	GEN. DIODE 1N4148 T	1
59	CS		0390-5000-1092	GEN. DIODE 1N4148 T	
60	CS		0390-5000-1222	GEN. DIODE 1N4148 T	
61		D8	0390-5000-3022	GEN. DIODE 1N4002F T	1
62	CS		0390-5000-3202	GEN. DIODE 1N4002F T	
63		D9	0390-5000-3022	GEN. DIODE 1N4002F T	1
64	CS		0390-5000-3202	GEN. DIODE 1N4002F T	
65		Q11	0410-0000-1105	TRANSISTOR 2SA1015GR TO-92 T	1
66	CS		0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	
67	CS		0410-0000-1110	TRANSISTOR 2SA733P TO-92 T	
68	CS		0410-0000-1111	TRANSISTOR 2PA1015GR TO-92 T	
69	CS		0410-0000-1119	TRANSISTOR KTA733P TO-92 T	
70		Q12	0410-2000-1105	TRANSISTOR 2SC1815GR TO-92 T	1
71	CS		0410-2000-1106	TRANSISTOR 2SC945P TO-92 T	
72	CS		0410-2000-1109	TRANSISTOR 2SC945PTZ TO-92	
73	CS		0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	
74	CS		0410-2000-1111	TRANSISTOR 2PC1815GR TO-92 T	
75	CS		0410-2000-1119	TRANSISTOR KTC945P TO-92 T	
76		Q13	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
77	CS		0410-2000-3119	TRANSISTOR KTC200-O/Y TO-92 T	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
78		Q2	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
79	CS		0410-2000-3119	TRANSISTOR KTC200-O/Y TO-92 T	
80		Q5	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
81	CS		0410-2000-3119	TRANSISTOR KTC200-O/Y TO-92 T	
82		Q6	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
83	CS		0410-0000-2119	TRANSISTOR KTA200-O/Y TO-92 T	
84		Q7	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
85	CS		0410-2000-3119	TRANSISTOR KTC200-O/Y TO-92 T	
86		Q8	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
87	CS		0410-2000-3119	TRANSISTOR KTC200-O/Y TO-92 T	
88		Q9	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
89	CS		0410-2000-3119	TRANSISTOR KTC200-O/Y TO-92 T	
90		R10	0130-1002-1850	RES. CF 10Kohm 1/8W JA	1
91		R11	0130-2209-1450	RES. CF 22ohm 1/4W JA	1
92		R12	0130-1002-1450	RES. CF 10Kohm 1/4W JA	1
93		R14	0131-4753-1410	RES. MF 475Kohm 1/4W FA	1
94		R15	0131-4123-1410	RES. MF 412Kohm 1/4W FA	1
95		R16	0131-4753-1410	RES. MF 475Kohm 1/4W FA	1
96		R17	0130-1002-1850	RES. CF 10Kohm 1/8W JA	1
97		R18	0130-1002-1450	RES. CF 10Kohm 1/4W JA	1
98		R20	0130-4708-1450	RES. CF 4.7ohm 1/4W JA	1
99		R21	0130-2209-1450	RES. CF 22ohm 1/4W JA	1
100		R22	0133-1208-0150	RES. MOF(M) 1.2ohm 1W J AXL	1
101		R23	0133-1208-0150	RES. MOF(M) 1.2ohm 1W J AXL	1
102		R24	0130-3302-1850	RES. CF 33Kohm 1/8W JA	1
103		R25	0130-3300-1850	RES. CF 330ohm 1/8W JA	1
104		R27	0130-3601-1850	RES. CF 3.6Kohm 1/8W JA	1
105		R28	0130-5101-1850	RES. CF 5.1Kohm 1/8W JA	1
106		R29	0130-1002-1850	RES. CF 10Kohm 1/8W JA	1
107		R3	0131-4753-1410	RES. MF 475Kohm 1/4W FA	1
108		R30	0130-2701-1850	RES. CF 2.7Kohm 1/8W JA	1
109		R31	0130-1200-1850	RES. CF 120ohm 1/8W JA	1
110		R32	0130-3301-1450	RES. CF 3.3Kohm 1/4W JA	1
111		R33	0130-3301-1850	RES. CF 3.3Kohm 1/8W JA	1
112		R34	0131-6042-1810	RES. MF 60.4Kohm 1/8W FA	1
113		R35	0130-1302-1850	RES. CF 13Kohm 1/8W JA	1
114		R36	0131-1962-1410	RES. MF 19.6Kohm 1/4W FA	1
115		R37	0131-1823-1810	RES. MF 182Kohm 1/8W FA	1
116		R38	0130-3902-1850	RES. CF 39Kohm 1/8W JA	1
117		R39	0130-4709-1850	RES. CF 47ohm 1/8W JA	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
118		R4	0131-4123-1410	RES. MF 412Kohm 1/4W FA	1
119		R40	0130-7502-1850	RES. CF 75Kohm 1/8W JA	1
120		R41	0131-2261-1810	RES. MF 2.26Kohm 1/8W FA	1
121		R42	0130-1008-1850	RES. CF 1.0ohm 1/8W JA	1
122		R43	0130-1008-1850	RES. CF 1.0ohm 1/8W JA	1
123		R44	0130-1301-1850	RES. CF 1.3Kohm 1/8W JA	1
124		R45	0130-1002-1850	RES. CF 10Kohm 1/8W JA	1
125		R46	0130-4702-1850	RES. CF 47Kohm 1/8W JA	1
126		R47	0130-6203-1850	RES. CF 620Kohm 1/8W JA	1
127		R48	0130-1302-1850	RES. CF 13Kohm 1/8W JA	1
128		R5	0131-4753-1410	RES. MF 475Kohm 1/4W FA	1
129		R50	0131-7501-1810	RES. MF 7.50Kohm 1/8W FA	1
130		R51	0130-1001-1850	RES. CF 1.0Kohm 1/8W JA	1
131		R52	0130-1002-1850	RES. CF 10Kohm 1/8W JA	1
132		R53	0130-1001-1850	RES. CF 1.0Kohm 1/8W JA	1
133		R56	0130-7503-1450	RES. CF 750Kohm 1/4W JA	1
134		R59	0130-7503-1450	RES. CF 750Kohm 1/4W JA	1
135		R61	0130-1009-1450	RES. CF 10ohm 1/4W JA	1
136		R62	0133-0248-0150	RES. MOF(M) 0.24ohm 1W JA	1
137		R63	0130-3308-1450	RES. CF 3.3ohm 1/4W JA	1
138		R64	0130-4708-1450	RES. CF 4.7ohm 1/4W JA	1
139		R65	0130-3301-1450	RES. CF 3.3Kohm 1/4W JA	1
140		R66	0131-9531-1810	RES. MF 9.53Kohm 1/8W FA	1
141		R67	0130-8200-1450	RES. CF 820ohm 1/4W JA	1
142		R68	0130-1002-1850	RES. CF 10Kohm 1/8W JA	1
143		R69	0130-3302-1850	RES. CF 33Kohm 1/8W JA	1
144		R70	0131-2491-1810	RES. MF 2.49Kohm 1/8W FA	1
145		R71	0130-1001-1450	RES. CF 1.0Kohm 1/4W JA	1
146		R72	0130-1002-1850	RES. CF 10Kohm 1/8W JA	1
147		R73	0130-1003-1850	RES. CF 100Kohm 1/8W JA	1
148		R74	0130-3300-1850	RES. CF 330ohm 1/8W JA	1
149		R76	0130-1003-1850	RES. CF 100Kohm 1/8W JA	1
150		R77	0130-1001-1850	RES. CF 1.0Kohm 1/8W JA	1
151		R79	0130-1001-1850	RES. CF 1.0Kohm 1/8W JA	1
152		R8	0130-1004-1250	RES. CF 1.0Mohm 1/2W JA	1
153		R80	0130-1001-1850	RES. CF 1.0Kohm 1/8W JA	1
154		R81	0130-2002-1850	RES. CF 20Kohm 1/8W JA	1
155		R9	0130-2209-1450	RES. CF 22ohm 1/4W JA	1
156		U3	0430-6002-6307	IC TL431ACZ-AP TO-92 3PIN T	1
157	SS		0430-6000-4356	IC KIA431A TO-92 3PIN T	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
158	SS		0430-6002-6315	IC TL431ACLP TO-92 3PIN T	
159	SS		0430-6003-9384	IC H431BA TO-92	
160		U7	0430-6002-6307	IC TL431ACZ-AP TO-92 3PIN T	1
161	SS		0430-6000-4356	IC KIA431A TO-92 3PIN T	
162	SS		0430-6002-6315	IC TL431ACLP TO-92 3PIN T	
163	SS		0430-6003-9384	IC H431BA TO-92	
164		ZD1	0400-2161-2000	ZENER 22-2 21.6-22.6V 1/2W	1
165		ZD10	0400-1951-2000	ZENER 20-2 19.5-20.4V 1/2W	1
166		ZD2	0400-2431-2000	ZENER 24-3 24.3-25.5V 1/2W	1
167		ZD3	0400-0551-2000	ZENER 6B1 5.5-5.8V 1/2W	1
168		ZD4	0400-1951-2000	ZENER 20-2 19.5-20.4V 1/2W	1
169		ZD5	0400-0691-2000	ZENER 7B2 6.9-7.2V 1/2W	1
170		ZD6	0400-2161-2000	ZENER 22-2 21.6-22.6V 1/2W	1
171		ZD7	0400-2161-2000	ZENER 22-2 21.6-22.6V 1/2W	1
172		ZD8	0400-1261-2000	ZENER 12B2 12.6-13.1V 1/2W	1
173		ZD9	0400-2361-2000	ZENER 24-2 23.6-24.3V 1/2W	1

**3830-0062-0157M POWER BD ASS'Y V30-1(V296W1-L14) MI**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			1712-0400-0320	HEAT SINK FOR P/B (RX174T MEDICAL)	1
2			1712-0400-0470	POWER BKT (TM-30A)	1
3			1712-0400-0480	HEAT SINK-A (TM-30A)	1
4			1712-0400-0490	HEAT SINK-B (TM-30A)	1
5			1712-0400-0550	HEAT SINK-C (TM-30A)	1
6			1720-0003-0420	MAC.SCREW-MB M3.0*4.0L,Ni	4
7			1724-1703-0802	SCREW,PB,M3.0X8L,ZN-CC	11
8			1947-1200-0650	INSULATOR POWER BKT	1
9		BD1	0390-1000-3270	BRIDGE DIODE GBU6J	1
10		BD1H	1712-0100-4970	POWER FIX BRIDGE BKT (TM-30A)	1
11		BD1N	1947-2000-0140	SILICON RUBBER TUBE (TO-4PST)	1
12		BD1S	1724-1703-1002	SCREW,PB,M3.0X10L,ZN-CC	1
13		CN1	0451-2000-1506	WAFER 2.00mm 15P 180' KINK (STM)	1
14		CN2	0459-3960-0590	WAFER 3.96mm 3PIN/5PIN 180'	1
15		CN3	0451-2000-1506	WAFER 2.00mm 15P 180' KINK (STM)	1
16		C10	0103-6471-1412	E/C HF 470uF 35V 105'C (10*20mm)	1
17		C12	0122-0474-2725	P/C X2 0.47uF 275V M B (15mm) MKP	1
18		C13	0122-1222-2522	D/C Y 2200PF 250V M B	1
19	CS		0122-1222-4000	D/C Y 2200PF 400V M N-F	
20		C14	0122-1222-2522	D/C Y 2200PF 250V M B	1
21	CS		0122-1222-4000	D/C Y 2200PF 400V M N-F	
22		C15	0111-1221-1312	C/C DISK 220PF 1KV Y5P F-K	1
23		C15H	0242-0425-1504	HEAT S-T 4.0*0.25 15MM 125'	1
24		C16	0121-9684-4032	P/C R71 0.68uF 400V J B	1
25	SS		0121-9684-4002	P/C R71 0.68uF 400V K B	
26		C18	0111-1221-1312	C/C DISK 220PF 1KV Y5P F-K	1
27		C18H	0242-0425-1504	HEAT S-T 4.0*0.25 15MM 125'	1
28		C21	0122-2332-2520	D/C Y1 3300PF 250V M N-F	1
29		C4	0102-1151-4513	E/C GEN 150uF 450V 105'C 30*30	1
30		C46	0103-6102-1312	E/C HF 1000uF 25V 105'C F (12.5*20mm)	1
31		C47	0103-6471-1312	E/C HF 470uF 25V 105'C (10*16mm)	1
32		C6	0122-1222-2522	D/C Y 2200PF 250V M B	1
33	CS		0122-1222-4000	D/C Y 2200PF 400V M N-F	
34		C7	0122-1222-2522	D/C Y 2200PF 250V M B	1
35	CS		0122-1222-4000	D/C Y 2200PF 400V M N-F	
36		C8	0103-6102-1412	E/C HF 1000uF 35V 105'C (12.5*25mm)	1
37		D1	0390-5002-3270	DIODE 2A 600V PS206	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
38		D12	0390-4000-6272	FAST DIODE UF4006G 1A 800V 75ns	1
39		D2	0390-4000-9300	FAST DIODE 8ETH06 600V 8A 25ns	1
40	SS		0390-4002-3030	DIODE FAST 8A 600V 50NS YG971S6R TO-220F	
41		D2H	1712-0100-3531	FIX BRACKET TX201CA REV:01	1
42		D2N	1947-2000-0060	SILICON RUBBER TUBE TO-220ST	1
43		D2S	1724-1703-1202	SCREW,PB,M3.0X12L,ZN-CC	1
44		D3	0390-6002-5300	SCHOTTKY DIODE 30A 100V 30CPQ100 TO-247	1
45		D3N	1701-1100-0100	SILICON RUBBER/TO-3P3	1
46		D4	0390-3005-9272	FAST DIODE PG108R 1A 800V 500ns	1
47		D7	0390-3005-9272	FAST DIODE PG108R 1A 800V 500ns	1
48		F1	0181-4502-5203	FUSE HB T-L 250V 5A 5*20	1
49		F1A	0190-0000-0010	FUSE CLIP 5*20MM	1
50		F1B	0190-0000-0010	FUSE CLIP 5*20MM	1
51		LF1	0352-0800-0210	LINE FILTER ET-24 10mH-10mH (LI-SHEN)	1
52		LF2	0352-0800-0210	LINE FILTER ET-24 10mH-10mH (LI-SHEN)	1
53		L1	0361-1000-0270	CHOKE COIL 1.5mH 0.8@*30mm	1
54		L2	0361-1000-0280	CHOKE COIL 94.5uH 1@*30mm	1
55		L3	0361-1000-0290	CHOKE CORE 0.9uH (6*25mm)	1
56		L4	0361-1000-0260	CHOKE CORE 5.8uH 5A 13*21mm	1
57		NT1	0160-2596-0920	THERMISTOR SCK-2R56A 2.5ohm 6A NT1	1
58		Q1	0420-1003-7501	MOFSET N-CH 22A/500V IRFP22N50A TO-247AC	1
59		Q1H	1712-0100-3240	POWER FIX BRACKET (TM-30A)	1
60		Q1N	1701-1100-0170	SILICON RUBBER TO-3PST	1
61		Q1S	1724-1703-1202	SCREW,PB,M3.0X12L,ZN-CC	1
62		Q10	0420-1003-9408	MOSFET N-CH 9A/650V 2SK2645-54MR TO-220F	1
63		Q3	0420-1003-6408	MOSFET N-CH 12A/500V 2SK3468-01 TO-220	1
64	SS		0420-1004-4408	MOSFET N-CH 9A 500V 2SK3520-01MR TO-220F	
65		Q3H	1712-0100-3531	FIX BRACKET TX201CA REV:01	1
66		Q3N	1947-2000-0060	SILICON RUBBER TUBE TO-220ST	1
67		Q3S	1724-1703-1202	SCREW,PB,M3.0X12L,ZN-CC	1
68		Q4	0420-1003-6408	MOSFET N-CH 12A/500V 2SK3468-01 TO-220	1
69	SS		0420-1004-4408	MOSFET N-CH 9A 500V 2SK3520-01MR TO-220F	
70		Q4H	1712-0100-3531	FIX BRACKET TX201CA REV:01	1
71		Q4N	1947-2000-0060	SILICON RUBBER TUBE TO-220ST	1
72		Q4S	1724-1703-1202	SCREW,PB,M3.0X12L,ZN-CC	1
73		R1	0133-3309-0154	RES. MOF(M) 33ohm 1W J R-K	1
74		R13	0133-3309-0154	RES. MOF(M) 33ohm 1W J R-K	1
75		R19	0138-3007-0250	RES. W.W.(NON-IND) 0.3ohm 2W J AXL	1
76		R2	0132-2000-0250	RES. MOF 200ohm 2W J A	1
77		R26	0138-3007-0250	RES. W.W.(NON-IND) 0.3ohm 2W J AXL	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
78	R55	0134-0228-0250	RES. FUS. 0.22ohm 2W J A		1
79	R58	0133-3309-0154	RES. MOF(M) 33ohm 1W J R-K		1
80	R6	0132-2000-0250	RES. MOF 200ohm 2W J A		1
81	T1	0350-0800-0010	X'FMR EER35C 13.5mH~22.5mH		1
82	T2	0351-0213-0020	X'FMR EE13 575-860uH		1
83	T3	0350-0900-0040	X'FMR PQ2625 410uH		1
84	U1	0430-7011-3174	IC CM6800IP PDIP 16PIN		1
85	U2	0430-7009-0405	IC TLP621GR SDIP 4PIN		1
86	U4	0430-7009-0405	IC TLP621GR SDIP 4PIN		1
87	U5	0430-8001-9113	IC SG6841 DIP 8PIN		1
88	U6	0430-7009-0405	IC TLP621GR SDIP 4PIN		1
89	U8	0430-7009-0405	IC TLP621GR SDIP 4PIN		1
90	VZ1	0271-0004-7170	SURGE PROTECTOR TVR10471 N-F		1
91	VZ2	0271-0004-7170	SURGE PROTECTOR TVR10471 N-F		1
92	W2	0451-2500-0816	WAFER 2.50MM 8P 180' KINK (STM)		1

**3830-0132-0150A MAIN BD ASS'Y (VIZIO L30WGU) AI**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1		CT1	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
2		CT100	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
3		CT102	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
4	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
5		CT106	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
6	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
7		CT11	0102-2229-1511	E/C L-L 2.2uF 50V 105' F-T 5*11 (KY)	1
8		CT112	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
9	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
10		CT123	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
11		CT16	0103-1109-1511	E/C VT 1uF 50V 105'C F-T (5*11mm)	1
12		CT17	0103-1109-1511	E/C VT 1uF 50V 105'C F-T (5*11mm)	1
13		CT174	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
14	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
15		CT18	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
16	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
17		CT19	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
18	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
19		CT2	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
20	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
21		CT21	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
22	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
23		CT26	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
24	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
25		CT28	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
26		CT39	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
27	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
28		CT5	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
29	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
30		CT52	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
31	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
32		CT58	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
33		CT6	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
34	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
35		CT63	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
36		CT64	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
37		CT65	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
38	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
39		CT68	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
40		CT69	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
41		CT7	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
42	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
43		CT70	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
44	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
45		CT71	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
46		CT72	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
47		CT73	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
48	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
49		CT77	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
50		CT79	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
51		CT8	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
52	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
53		CT80	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
54	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
55		CT81	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
56		CT82	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
57		CT83	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
58	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
59		CT92	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
60	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
61		CT94	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
62	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
63		CT96	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
64	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
65		CT98	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
66		C10	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
67	SS		0101-1221-1211	E/C GEN. 220UF 16V 105' F	
68		C119	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
69	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
70		C12	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
71	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
72		C121	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
73	SS		0101-1100-1511	E/C GEN. 10UF 50V 105' F	
74		C122	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
75		C127	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
76	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
77		C128	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
78		C129	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
79		C130	0101-3478-1511	E/C N-P 0.47uF 50V 105' 5*11	1
80		C131	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
81		C135	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
82	SS		0101-1220-1211	E/C GEN. 22uF 16V 105' F	
83		C14	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
84	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
85		C143	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
86	SS		0101-1220-1211	E/C GEN. 22uF 16V 105' F	
87		C150	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
88	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
89		C16	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
90	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
91		C167	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
92	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
93		C177	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
94	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
95		C178	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
96	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
97		C19	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
98	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
99		C2	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
100	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
101		C20	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
102	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
103		C228	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
104	SS		0101-1100-1511	E/C GEN. 10uF 50V 105' F	
105		C25	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
106	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
107		C26	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
108		C268	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
109	SS		0101-1100-1511	E/C GEN. 10uF 50V 105' F	
110		C278	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
111	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
112		C280	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
113	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
114		C290	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
115	SS		0101-1470-1211	E/C GEN. 47uF 16V 105' F	
116		C294	0103-1470-1311	E/C VT 47uF 25V 105'C F-T (5*11mm)	1
117	SS		0101-1470-1311	E/C GEN. 47uF 25V 105' F	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
118		C296	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
119	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
120		C3	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
121		C301	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
122	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
123		C307	0103-1470-1311	E/C VT 47uF 25V 105'C F-T (5*11mm)	1
124	SS		0101-1470-1311	E/C GEN. 47UF 25V 105' F	
125		C308	0103-1470-1311	E/C VT 47uF 25V 105'C F-T (5*11mm)	1
126	SS		0101-1470-1311	E/C GEN. 47UF 25V 105' F	
127		C312	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
128	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
129		C313	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
130	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
131		C314	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
132	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
133		C315	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
134	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
135		C316	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
136	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
137		C33	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
138	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
139		C43	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
140	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
141		C47	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
142	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
143		C48	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
144	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
145		C50	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
146	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
147		C501	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
148	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
149		C502	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
150	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
151		C504	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
152	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
153		C51	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
154	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
155		C514	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
156	SS		0101-1220-1211	E/C GEN. 22UF 16V 105' F	
157		C52	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
158	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
159		C524	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
160	SS		0101-1220-1211	E/C GEN. 22UF 16V 105' F	
161		C526	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
162	SS		0101-1220-1211	E/C GEN. 22UF 16V 105' F	
163		C527	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
164	SS		0101-1220-1211	E/C GEN. 22UF 16V 105' F	
165		C529	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
166	SS		0101-1220-1211	E/C GEN. 22UF 16V 105' F	
167		C53	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
168	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
169		C65	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
170	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
171		C66	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
172	SS		0101-1221-1211	E/C GEN. 220UF 16V 105' F	
173		C67	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
174	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
175		C87	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
176	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
177		C92	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
178	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
179		C93	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
180	SS		0101-1470-1211	E/C GEN. 47UF 16V 105' F	
181		D24	0390-6001-4060	SCHOTTKY DIODE SB560 T	1
182		D25	0390-6001-4060	SCHOTTKY DIODE SB560 T	1
183		D32	0390-5000-5202	GEN. DIODE 1N4001F T	1
184		LT1	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
185		L31	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
186		L34	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
187		L36	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
188		L38	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1

**3830-0132-0150M MAIN BD ASS'Y (VIZIO L30WGU) MI**

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1		C276	0103-6102-1212	E/C HF 1000uF 16V 105'C F (10*20)	1
2	SS		0101-4102-1216	E/C H-R 1000uF 16V 105' (10*20mm)	
3		C277	0103-6102-1212	E/C HF 1000uF 16V 105'C F (10*20)	1
4	SS		0101-4102-1216	E/C H-R 1000uF 16V 105' (10*20mm)	
5		C286	0103-6102-1212	E/C HF 1000uF 16V 105'C F (10*20)	1
6	SS		0101-4102-1216	E/C H-R 1000uF 16V 105' (10*20mm)	
7		C287	0103-6102-1212	E/C HF 1000uF 16V 105'C F (10*20)	1
8	SS		0101-4102-1216	E/C H-R 1000uF 16V 105' (10*20mm)	
9		JP1	0455-2540-0479	PIN HEADER 2*2P 2.54mm 180'	1
10		JT1	0302-9020-0014	RCA JACK 2ROW 2I/O (R-W)	1
11		JT10	0302-9030-0024	RCA JACK 1ROW 3I/O (G-B-R)	1
12		JT11	0302-9030-0024	RCA JACK 1ROW 3I/O (G-B-R)	1
13		JT2	0451-2500-0446	WAFER 2.50mm 4P 90' KINK (STM)	1
14		JT3	0302-0350-0011	PHONE JACK 3.5 φ 5PIN 90 ° +SHIELDING	1
15		JT4	0302-9020-0014	RCA JACK 2ROW 2I/O (R-W)	1
16		JT5	0302-9030-0037	RCA JACK 2ROW 3I/O (Y-W-R)	1
17		JT6	0302-9020-0014	RCA JACK 2ROW 2I/O (R-W)	1
18		JT7	0302-9020-0014	RCA JACK 2ROW 2I/O (R-W)	1
19		JT8	0300-3040-0040	S-VIDEO 4P (621R04-***)	1
20		JT9	0302-9010-0036	RCA JACK 1ROW 1I/O (YELLOW)	1
21		LT2	0361-2022-1040	CHOKE COIL 220uH 1.6A 12.5*15	1
22		LT6	0370-0020-0176	BAND PASS FILTER 4.5MHZ (SFSRA4M50CF00-B0)	1
23		LT7	0370-0020-0176	BAND PASS FILTER 4.5MHZ (SFSRA4M50CF00-B0)	1
24		L35	0360-1000-0150	COIL CHOKE 70uH 3A	1
25		L37	0360-1000-0150	COIL CHOKE 70uH 3A	1
26		SW1	0290-2510-2019	PIN HEADER 1*2 PIN 2.54mm 180'	1
27		SW2	0220-7020-0965	SW TACT 6*6mm 180' 160g SFKHHAM2520	1
28		UT1	0430-4008-3114	IC LA4915 DIP 28PIN	1
29		UT1H	1712-0300-0610	HEAT SINK FOR M/B (Gateway SHD-3010)	1
30		UT1S-1	1720-0003-0810	MAC. SCREW-MB M3.0*8.0L,Zn-Cc	1
31		UT1S-2	1720-0003-0810	MAC. SCREW-MB M3.0*8.0L,Zn-Cc	1
32		UT4	0430-6004-2235	IC KA7809 3PIN TO-220	1
33		UT5	0980-0101-5010	MODULE TUNER (FQ1236/PH-3)	1
34		UT6	0980-0101-5210	MODULE TUNER (FQ1236L/PH-3)	1
35		UT6-1	0303-3000-0010	TV JACK 3/8-32UNEF (RF JACK)	1
36		UT6-2	0460-3701-0020	WH RCA(M)-RCA(M90') 1792#27 100mm	1
37		W1	0300-1202-3150	D-SUB FEMALE 90' 15P 3ROW (PC99)	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
38	W3	0451-2000-0866	WAFER 2.00mm 8P 90' KINK (STM)		1
39	W4	0451-2000-0566	WAFER 2.00MM 5P 90' KINK (STM)		1
40	W6	0451-2500-0846	WAFER 2.50MM 8P 90' KINK (STM)		1
41	W8	0202-0000-6002	RJ11 6P6C UNDER CONTACT		1
42	W9	0302-3010-0240	DVI CONN R/A D 24PIN (DV2R024N11)		1
43	XT1	0280-1800-0015	X'TAL 18.432MHz 49/US 30PPM 0.5mW + pad		1
44	Y1	0280-2000-0525	X'TAL 20.25MHz 49/US 20ppm 20pf + pad(H.T)0~70'C		1
45	Y2	0280-1400-0125	X'TAL 14.31818MHz 49/US 30ppm 30pf + pad(H.T)0~70		1
46	Y3	0280-2401-0116	X'TAL 24.576MHZ 49/US 20PPM 30PF 0.5MW +pad		1
47	Y4	0280-1300-0015	X'TAL 13.5MHZ 49/US 30ppm 30PF (70'C)+ PAD		1

## 3830-0132-0150S MAIN BD ASS'Y (VIZIO L30WGU) SMD

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
1			0171-2242-1423	PCB MAIN BD FR4 395*170*1.6t 4M (Gateway SHD-3010)	1
2		CP1	0111-5104-2531	ARRAY CAP 0.1UF 25V Y5V 8PIN	1
3		CP2	0111-5104-2531	ARRAY CAP 0.1UF 25V Y5V 8PIN	1
4		CT10	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
5		CT101	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
6		CT103	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
7		CT104	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
8		CT105	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
9		CT107	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
10		CT108	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
11		CT109	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
12		CT110	0111-3821-5106	C/M Multi 820PF 50V NPO 0603	1
13		CT111	0111-3821-5106	C/M Multi 820PF 50V NPO 0603	1
14		CT113	0111-3821-5106	C/M Multi 820PF 50V NPO 0603	1
15		CT114	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
16		CT118	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
17		CT12	0111-3104-2516	C/M Multi. 0.1uF 25V X7R 0603	1
18		CT120	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
19		CT121	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
20		CT122	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
21		CT124	0111-3682-5116	C/M MULTI 6800PF 50V X7R 0603	1
22		CT125	0111-3683-5136	C/M Multi. 0.068uF 50V Y5V 0603	1
23		CT13	0111-3104-2516	C/M Multi. 0.1uF 25V X7R 0603	1
24		CT14	0111-3104-2516	C/M Multi. 0.1uF 25V X7R 0603	1
25		CT15	0111-3104-2516	C/M Multi. 0.1uF 25V X7R 0603	1
26		CT164	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
27		CT20	0111-3104-2516	C/M Multi. 0.1uF 25V X7R 0603	1
28		CT22	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
29		CT23	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
30		CT25	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
31		CT27	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
32		CT29	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1
33		CT30	0111-3104-2516	C/M Multi. 0.1uF 25V X7R 0603	1
34		CT31	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1
35		CT32	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1
36		CT33	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
37		CT34	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
38		CT35	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1
39		CT36	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1
40		CT37	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1
41		CT38	0111-3334-1115	C/M MULTI 0.33UF 10V X7R 0805	1
42		CT4	0111-3104-2516	C/M Multi. 0.1uF 25V X7R 0603	1
43		CT40	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
44		CT41	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
45		CT42	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
46		CT43	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
47		CT44	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
48		CT45	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
49		CT46	0111-3180-5106	C/M MULTI. 18PF 50V NPO 0603	1
50		CT47	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
51		CT48	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
52		CT49	0111-3180-5106	C/M MULTI. 18PF 50V NPO 0603	1
53		CT50	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
54		CT51	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
55		CT53	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
56		CT54	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
57		CT55	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
58		CT56	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
59		CT57	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
60		CT59	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
61		CT60	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
62		CT61	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
63		CT62	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
64		CT66	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
65		CT67	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
66		CT75	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
67		CT76	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
68		CT84	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
69		CT85	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
70		CT86	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
71		CT87	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
72		CT88	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
73		CT89	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
74		CT9	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
75		CT90	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
76		CT91	0111-3331-5106	C/M Multi 330PF 50V NPO 0603	1
77		CT95	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
78		CT97	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
79		CT99	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
80		C1	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
81		C100	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603	1
82		C101	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603	1
83		C102	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603	1
84		C103	0111-3684-1615	C/M MULTI 0.68uF 16V X7R 0805	1
85		C104	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
86		C105	0111-3684-1615	C/M MULTI 0.68uF 16V X7R 0805	1
87		C106	0111-3684-1615	C/M MULTI 0.68uF 16V X7R 0805	1
88		C107	0111-3684-1615	C/M MULTI 0.68uF 16V X7R 0805	1
89		C108	0111-3180-5106	C/M MULTI. 18PF 50V NPO 0603	1
90		C109	0111-3180-5106	C/M MULTI. 18PF 50V NPO 0603	1
91		C11	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
92		C110	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
93		C111	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
94		C112	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
95		C113	0111-3390-5106	C/M MULTI. 39PF 50V NPO 0603	1
96		C114	0111-3152-5116	C/M MULTI 1500PF 50V X7R 0603	1
97		C115	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603	1
98		C116	0111-3473-5116	C/M MULTI 0.047uF 50V X7R 0603	1
99		C117	0111-3152-5116	C/M MULTI 1500PF 50V X7R 0603	1
100		C118	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
101		C120	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
102		C123	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
103		C13	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
104		C132	0111-3103-5116	C/M MULTI 0.01UF 50V X7R 0603	1
105		C133	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
106		C134	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
107		C136	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
108		C137	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
109		C138	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
110		C139	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
111		C140	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
112		C141	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
113		C142	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
114		C144	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
115		C145	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
116		C146	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
117		C147	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
118		C148	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
119		C149	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
120		C15	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
121		C151	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
122		C152	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
123		C153	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
124		C154	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
125		C155	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
126		C156	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
127		C157	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
128		C158	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
129		C159	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
130		C160	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
131		C161	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
132		C162	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
133		C163	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
134		C164	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
135		C165	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
136		C166	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
137		C168	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
138		C169	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
139		C170	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
140		C171	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
141		C172	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
142		C173	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
143		C174	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
144		C175	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
145		C176	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
146		C179	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
147		C18	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603	1
148		C180	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
149		C181	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
150		C182	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
151		C183	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
152		C184	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
153		C185	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
154		C186	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
155		C187	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
156		C188	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
157		C189	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
158	C190	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
159	C191	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
160	C192	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
161	C193	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
162	C194	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
163	C195	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
164	C196	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
165	C197	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
166	C198	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
167	C199	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
168	C201	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
169	C202	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
170	C203	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
171	C204	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
172	C205	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603		1
173	C206	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603		1
174	C207	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603		1
175	C208	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
176	C209	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
177	C21	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603		1
178	C210	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603		1
179	C211	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
180	C212	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
181	C213	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
182	C214	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
183	C215	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
184	C216	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
185	C217	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
186	C218	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
187	C219	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
188	C22	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603		1
189	C220	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
190	C221	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
191	C222	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
192	C223	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
193	C225	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
194	C226	0111-3222-5116	C/M MULTI. 2200PF 50V X7R 0603		1
195	C227	0111-3222-5116	C/M MULTI. 2200PF 50V X7R 0603		1
196	C23	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603		1
197	C24	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
198	C261	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
199	C262	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
200	C263	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
201	C264	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
202	C265	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
203	C27	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
204	C279	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
205	C28	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
206	C281	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
207	C282	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
208	C283	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
209	C285	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
210	C288	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
211	C289	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
212	C29	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
213	C291	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
214	C292	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
215	C293	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
216	C295	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603		1
217	C298	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
218	C299	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
219	C30	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
220	C300	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
221	C302	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
222	C303	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
223	C304	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603		1
224	C305	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
225	C306	0111-3474-1636	C/M Multi. 0.47uF 16V Y5V 0603		1
226	C309	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
227	C31	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
228	C310	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603		1
229	C311	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603		1
230	C317	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
231	C318	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
232	C319	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
233	C32	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
234	C320	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
235	C321	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
236	C322	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
237	C323	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
238	C324	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
239	C325	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
240	C326	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
241	C327	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
242	C328	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
243	C329	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
244	C330	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
245	C4	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
246	C40	0111-3474-1636	C/M Multi. 0.47uF 16V Y5V 0603		1
247	C410	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
248	C42	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
249	C44	0111-3121-5106	C/M MULTI 120PF 50V NPO 0603		1
250	C45	0111-3121-5106	C/M MULTI 120PF 50V NPO 0603		1
251	C46	0111-3121-5106	C/M MULTI 120PF 50V NPO 0603		1
252	C493	0111-3330-5106	C/M Multi. 33PF 50V NPO 0603		1
253	C494	0111-3330-5106	C/M Multi. 33PF 50V NPO 0603		1
254	C5	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
255	C500	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
256	C503	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
257	C505	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
258	C506	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
259	C507	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
260	C508	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
261	C509	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
262	C510	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
263	C511	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
264	C512	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
265	C513	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
266	C515	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
267	C516	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
268	C517	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
269	C518	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
270	C519	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
271	C520	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
272	C521	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
273	C522	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
274	C523	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
275	C525	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
276	C528	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
277	C530	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
278	C54	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
279	C55	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
280	C56	0111-3823-1616	C/M MULTI 0.082UF 16V X7R 0603		1
281	C57	0111-3822-5116	C/M MULTI 8200PF 50V X7R 0603		1
282	C58	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
283	C59	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
284	C6	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
285	C60	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
286	C61	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
287	C62	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
288	C63	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
289	C64	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
290	C68	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
291	C69	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
292	C7	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
293	C70	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
294	C71	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
295	C72	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
296	C73	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
297	C74	0111-3105-1636	C/M MULTI 1uF 16V Y5V 0603		1
298	C75	0111-3105-1636	C/M MULTI 1uF 16V Y5V 0603		1
299	C76	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603		1
300	C77	0111-3121-5106	C/M MULTI 120PF 50V NPO 0603		1
301	C78	0111-3105-1636	C/M MULTI 1uF 16V Y5V 0603		1
302	C79	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
303	C8	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
304	C80	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
305	C81	0111-3221-5106	C/M MULTI 220PF 50V NPO 0603		1
306	C83	0111-3221-5106	C/M MULTI 220PF 50V NPO 0603		1
307	C85	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
308	C86	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
309	C88	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
310	C89	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
311	C9	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
312	C90	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
313	C91	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
314	C94	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
315	C95	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
316	C96	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603		1
317	C97	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603		1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
318		C98	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603	1
319		C99	0111-3224-5136	C/M MULTI 0.22uF 50V Y5V 0603	1
320		DT1	0390-6003-1223	SCHOTTKY DIODE 1A 40V RB161L-40 PMDS	1
321		DT2	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
322	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
323	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
324		DT3	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
325	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
326	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
327		DT4	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
328	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
329	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
330		DT5	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
331	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
332	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
333		D1	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
334	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
335	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
336		D10	0390-6001-3223	SCHOTTKY DIODE RB495D SMD	1
337		D11	0390-6001-3223	SCHOTTKY DIODE RB495D SMD	1
338		D12	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
339	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
340	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
341		D13	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
342	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
343	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
344		D14	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
345	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
346	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
347		D15	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
348		D16	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
349		D17	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
350		D18	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
351		D19	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
352		D2	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
353		D20	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
354		D21	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
355		D22	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
356		D27	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
357	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
358	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
359		D28	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
360		D29	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
361		D3	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
362		D30	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
363	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
364	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
365		D4	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
366		D5	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
367		D6	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
368		D7	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
369	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
370	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
371		D8	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
372		D9	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
373		F1	0185-1502-0003	FUSE 125V/5A SMD (R451005)	1
374		F2	0185-1202-0013	FUSE 125V/2A SMD (R451002)	1
375		F3	0185-1302-0003	FUSE 125V/3A SMD (R451003)	1
376		LT10	0370-2022-9620	CHIP COIL 2.2uH 15mA 0603 (MLF1608A2R2KT)	1
377		LT11	0370-2022-9620	CHIP COIL 2.2uH 15mA 0603 (MLF1608A2R2KT)	1
378		LT12	0370-2022-9620	CHIP COIL 2.2uH 15mA 0603 (MLF1608A2R2KT)	1
379		LT13	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
380		LT14	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
381		LT15	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
382		LT16	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
383		LT17	0371-1890-0353	CHIP BEAD CORE 1.8uH (MLI-160808-1R8K)	1
384		LT18	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
385		LT19	0371-1890-0353	CHIP BEAD CORE 1.8uH (MLI-160808-1R8K)	1
386		LT20	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
387		LT21	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
388		LT22	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
389		LT23	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
390		LT24	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
391		LT25	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
392		LT26	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
393		LT27	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
394		LT28	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
395		LT3	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
396		LT35	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
397		LT4	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
398		LT5	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
399		LT8	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
400		LT9	0370-2022-9620	CHIP COIL 2.2uH 15mA 0603 (MLF1608A2R2KT)	1
401		L1	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
402		L10	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
403		L11	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
404		L12	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
405		L13	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
406		L17	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
407		L18	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
408		L19	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
409		L2	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
410		L20	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
411		L21	0130-0478-1859	RES. CF 0.47ohm 1/4W J 1206	1
412		L22	0130-0478-1859	RES. CF 0.47ohm 1/4W J 1206	1
413		L23	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
414		L3	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
415		L32	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
416		L41	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
417		L42	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
418		L43	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
419		L44	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
420		L52	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
421		L53	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
422		L54	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
423		L55	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
424		L56	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
425		L57	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
426		L58	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
427		L7	0130-1008-1858	RES. CF 1.0ohm 1/8W J 0805	1
428		L8	0130-1008-1858	RES. CF 1.0ohm 1/8W J 0805	1
429		L9	0130-0478-1859	RES. CF 0.47ohm 1/4W J 1206	1
430		QT1	0410-2001-9005	TRANSISTOR 2SC5886 SMD	1
431		QT14	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
432	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
433		QT2	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
434	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
435		QT3	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
436	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
437		QT4	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
438	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
439		QT5	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
440	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
441		QT6	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
442	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
443		QT7	0410-5000-2610	TRANSISTOR MMBT3906LT1 SMD	1
444	CS		0410-5000-2604	TRANSISTOR MMBT3906 SMD (SOT-23)	
445		Q1	0420-1002-4621	MOSFET N-CH 2N7002E-T1 SMD (SOT-23)	1
446		Q10	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
447	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
448		Q11	0420-1002-4621	MOSFET N-CH 2N7002E-T1 SMD (SOT-23)	1
449		Q12	0420-1002-4621	MOSFET N-CH 2N7002E-T1 SMD (SOT-23)	1
450		Q13	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
451	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
452		Q16	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
453	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
454		Q17	0410-5000-2610	TRANSISTOR MMBT3906LT1 SMD	1
455	CS		0410-5000-2604	TRANSISTOR MMBT3906 SMD (SOT-23)	
456		Q18	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
457	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
458		Q2	0420-1002-4621	MOSFET N-CH 2N7002E-T1 SMD (SOT-23)	1
459		Q3	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
460	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
461		Q4	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
462	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
463		Q5	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
464	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
465		Q7	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
466	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
467		Q8	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
468	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
469		Q9	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
470	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
471		RP1	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
472		RP10	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
473		RP11	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
474		RP12	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
475		RP13	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
476		RP14	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
477		RP16	0141-1002-3851	ARRAY RES. A(X) 10Kohm 4R J 8P	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
478		RP18	0141-1000-3851	ARRAY RES. A(X) 100ohm 4R J 8P	1
479		RP19	0141-1002-3851	ARRAY RES. A(X) 10Kohm 4R J 8P	1
480		RP2	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
481		RP20	0141-1000-3851	ARRAY RES. A(X) 100ohm 4R J 8P	1
482		RP21	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
483		RP22	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
484		RP23	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
485		RP24	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
486		RP25	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
487		RP26	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
488		RP3	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
489		RP34	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
490		RP35	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
491		RP36	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
492		RP37	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
493		RP38	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
494		RP39	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
495		RP4	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
496		RP46	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
497		RP47	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
498		RP48	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
499		RP49	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
500		RP5	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
501		RP50	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
502		RP51	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
503		RP52	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
504		RP53	0141-0000-3851	ARRAY RES. A(X) 0.0ohm 4R J 8P	1
505		RP54	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
506		RP55	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
507		RP56	0141-0000-3851	ARRAY RES. A(X) 0.0ohm 4R J 8P	1
508		RP57	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
509		RP58	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
510		RP59	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
511		RP6	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
512		RP60	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
513		RP7	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
514		RP8	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
515		RP9	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
516		RT1	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
517		RT10	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
518		RT100	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
519		RT101	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
520		RT102	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
521		RT103	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
522		RT104	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
523		RT105	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
524		RT106	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
525		RT107	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
526		RT108	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
527		RT109	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
528		RT11	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
529		RT110	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
530		RT111	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
531		RT112	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
532		RT113	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
533		RT114	0130-6801-0055	RES. CF 6.8Kohm 1/10W J 0603	1
534		RT115	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
535		RT116	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
536		RT117	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
537		RT118	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
538		RT119	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
539		RT12	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
540		RT120	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
541		RT121	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
542		RT13	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
543		RT14	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
544		RT15	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
545		RT152	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
546		RT153	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
547		RT154	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
548		RT155	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
549		RT156	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
550		RT16	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
551		RT17	0130-2208-1858	RES. CF 2.2ohm 1/8W J 0805	1
552		RT18	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
553		RT19	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
554		RT2	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
555		RT20	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
556		RT21	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
557		RT22	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
558		RT23	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
559		RT24	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
560		RT25	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
561		RT26	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
562		RT27	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
563		RT28	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
564		RT29	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
565		RT3	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
566		RT30	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
567		RT31	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
568		RT33	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
569		RT34	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
570		RT35	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
571		RT36	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
572		RT37	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
573		RT38	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
574		RT4	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
575		RT42	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
576		RT45	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
577		RT46	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
578		RT47	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
579		RT48	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
580		RT49	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
581		RT5	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
582		RT50	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
583		RT51	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
584		RT52	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
585		RT53	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
586		RT54	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
587		RT55	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
588		RT56	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
589		RT59	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
590		RT6	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
591		RT60	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
592		RT61	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
593		RT62	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
594		RT63	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
595		RT64	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
596		RT65	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
597		RT67	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
598		RT69	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
599		RT7	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
600		RT71	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
601		RT72	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
602		RT73	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
603		RT75	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
604		RT76	0130-1500-0055	RES. CF 150ohm 1/10W J 0603	1
605		RT77	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
606		RT78	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
607		RT79	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
608		RT8	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
609		RT80	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
610		RT81	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
611		RT82	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
612		RT83	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
613		RT84	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
614		RT85	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
615		RT88	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
616		RT89	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
617		RT9	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
618		RT90	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
619		RT91	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
620		RT92	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
621		RT93	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
622		RT96	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
623		RT97	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
624		RT98	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
625		RT99	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
626		R1	0130-4708-1858	RES. CF 4.7ohm 1/8W J 0805	1
627		R10	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
628		R100	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
629		R101	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
630		R102	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
631		R103	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
632		R104	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
633		R105	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
634		R108	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
635		R11	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
636		R110	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
637		R113	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
638		R114	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
639		R115	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
640		R116	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
641		R117	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
642		R118	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
643		R119	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
644		R120	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
645		R121	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
646		R122	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
647		R123	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
648		R124	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
649		R125	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
650		R126	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
651		R127	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
652		R128	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
653		R129	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
654		R13	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
655		R130	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
656		R131	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
657		R132	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
658		R133	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
659		R134	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
660		R135	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
661		R136	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
662		R137	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
663		R138	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
664		R139	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
665		R14	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
666		R140	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
667		R141	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
668		R142	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
669		R144	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
670		R145	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
671		R147	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
672		R149	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
673		R15	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
674		R150	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
675		R151	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
676		R152	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
677		R153	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
678		R154	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
679		R155	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
680		R156	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
681		R157	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
682		R158	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
683		R16	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
684		R160	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
685		R161	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
686		R164	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
687		R165	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
688		R166	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
689		R167	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
690		R168	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
691		R169	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
692		R17	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
693		R170	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
694		R171	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
695		R172	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
696		R173	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
697		R174	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
698		R175	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
699		R178	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
700		R179	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
701		R18	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
702		R180	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
703		R181	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
704		R182	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
705		R183	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
706		R19	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
707		R2	0130-1008-1858	RES. CF 1.0ohm 1/8W J 0805	1
708		R20	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
709		R204	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
710		R205	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
711		R207	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
712		R209	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
713		R21	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
714		R211	0130-3902-0055	RES. CF 39Kohm 1/10W J 0603	1
715		R213	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
716		R214	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
717		R215	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1

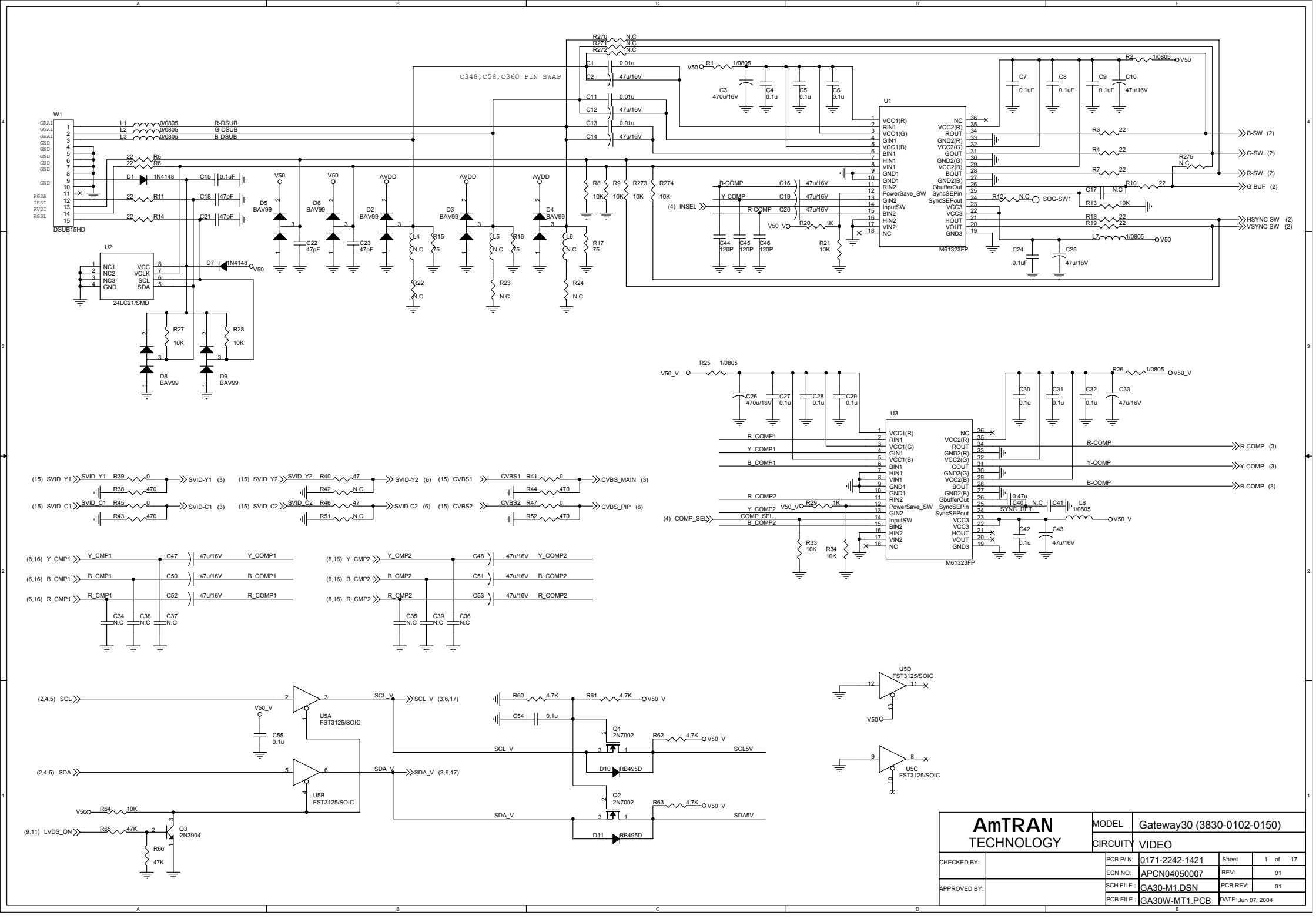
ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
718	R216	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
719	R217	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
720	R218	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
721	R219	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
722	R222	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
723	R223	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
724	R224	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
725	R225	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
726	R226	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
727	R227	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
728	R228	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
729	R229	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
730	R230	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
731	R231	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
732	R232	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
733	R233	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
734	R234	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
735	R235	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603		1
736	R236	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603		1
737	R237	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
738	R238	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603		1
739	R239	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603		1
740	R240	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
741	R241	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
742	R242	0130-4709-0055	RES. CF 47ohm 1/10W J 0603		1
743	R243	0130-4709-0055	RES. CF 47ohm 1/10W J 0603		1
744	R245	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
745	R246	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
746	R247	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
747	R248	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
748	R249	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
749	R25	0130-4708-1858	RES. CF 4.7ohm 1/8W J 0805		1
750	R250	0130-5100-0055	RES. CF 510ohm 1/10W J 0603		1
751	R251	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
752	R253	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603		1
753	R254	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603		1
754	R255	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603		1
755	R259	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
756	R26	0130-1008-1858	RES. CF 1.0ohm 1/8W J 0805		1
757	R261	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1

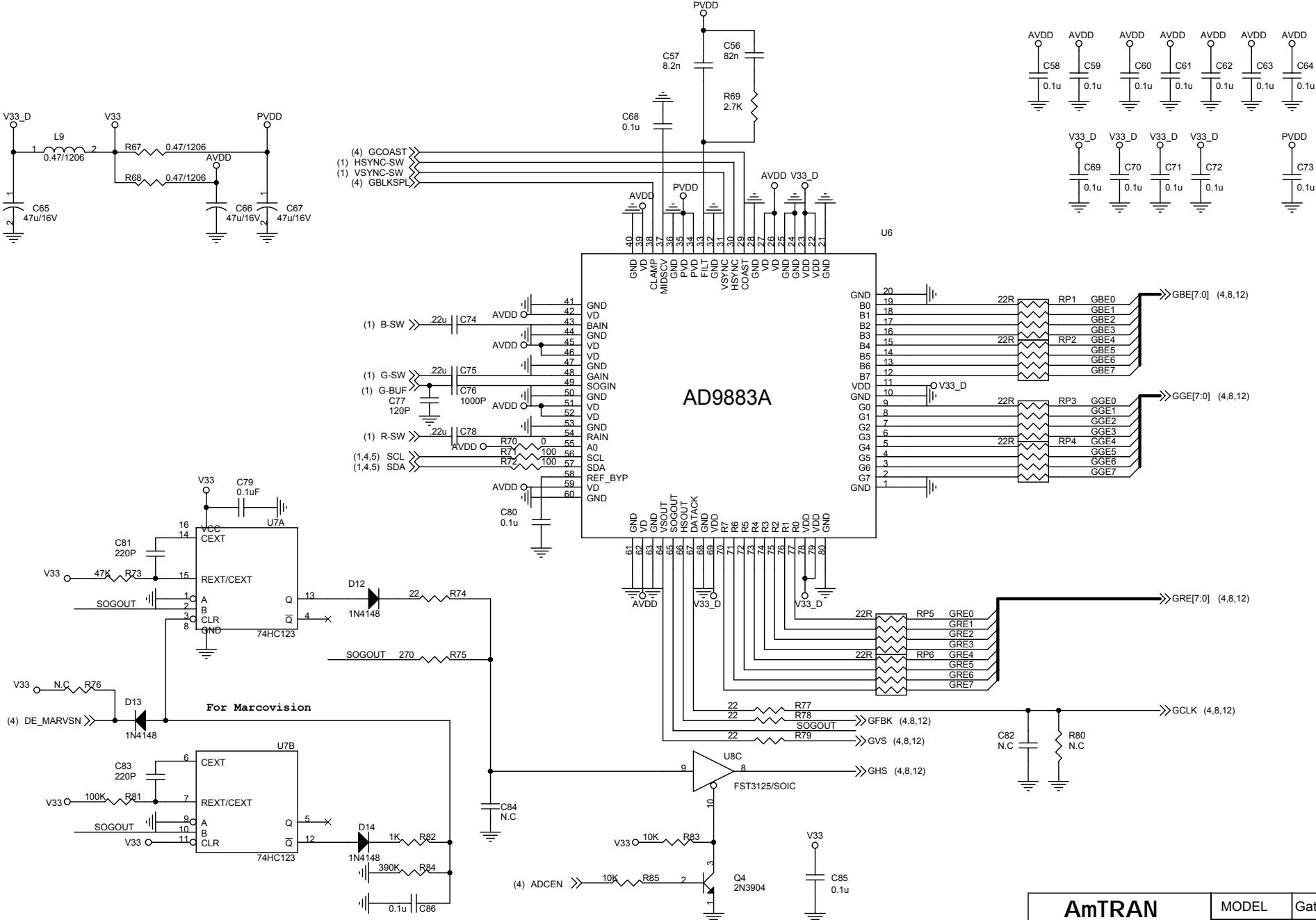
ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
758	R262	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
759	R263	0130-1000-0055	RES. CF 100ohm 1/10W J 0603		1
760	R264	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603		1
761	R265	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603		1
762	R266	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
763	R27	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
764	R279	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
765	R28	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
766	R280	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
767	R29	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603		1
768	R3	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
769	R33	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
770	R34	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
771	R38	0130-4700-0055	RES. CF 470ohm 1/10W J 0603		1
772	R39	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
773	R4	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
774	R40	0130-4709-0055	RES. CF 47ohm 1/10W J 0603		1
775	R407	0130-4703-0055	RES. CF 470Kohm 1/10Wohm J 0603		1
776	R409	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
777	R41	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
778	R410	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
779	R411	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
780	R412	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
781	R417	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
782	R418	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1
783	R419	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
784	R420	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
785	R421	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
786	R422	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
787	R423	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
788	R424	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
789	R425	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
790	R426	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
791	R427	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
792	R428	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603		1
793	R429	0130-2209-0055	RES. CF 22ohm 1/10W J 0603		1
794	R43	0130-4700-0055	RES. CF 470ohm 1/10W J 0603		1
795	R430	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603		1
796	R431	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603		1
797	R432	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603		1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
798		R433	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
799		R434	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
800		R435	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
801		R439	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
802		R44	0130-1500-0055	RES. CF 150ohm 1/10W J 0603	1
803		R440	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
804		R45	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
805		R46	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
806		R47	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
807		R48	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
808		R49	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
809		R5	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
810		R50	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
811		R52	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
812		R55	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
813		R6	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
814		R60	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
815		R61	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
816		R62	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
817		R63	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
818		R64	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
819		R65	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
820		R66	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
821		R67	0130-0478-1859	RES. CF 0.47ohm 1/4W J 1206	1
822		R68	0130-0478-1859	RES. CF 0.47ohm 1/4W J 1206	1
823		R69	0130-2701-0055	RES. CF 2.7Kohm 1/10W J 0603	1
824		R7	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
825		R70	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
826		R71	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
827		R72	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
828		R73	0130-2702-0055	RES. CF 27Kohm 1/10W J (0603)	1
829		R74	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
830		R75	0130-2700-0055	RES. CF 270ohm 1/10W J 0603	1
831		R77	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
832		R78	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
833		R79	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
834		R8	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
835		R81	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
836		R82	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
837		R83	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1

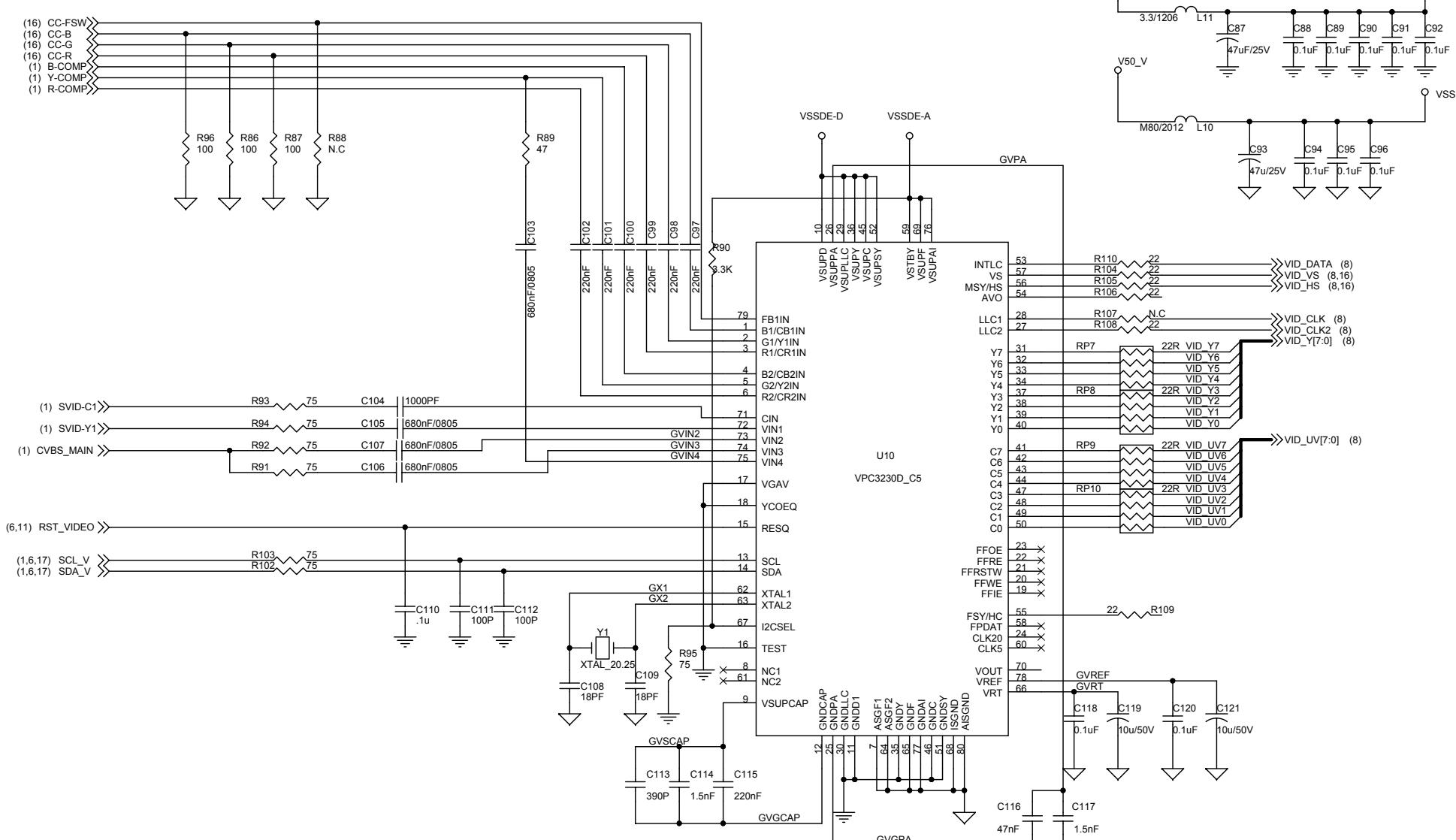
ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
838		R84	0130-3903-0055	RES. CF 390Kohm 1/10W J 0603	1
839		R85	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
840		R86	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
841		R87	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
842		R89	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
843		R9	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
844		R90	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
845		R91	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
846		R92	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
847		R93	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
848		R94	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
849		R96	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
850		R98	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
851		R99	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
852		UT2	0430-9000-7980	IC MSP3440G-QI PMQFP64	1
853		UT3	0430-4007-6905	IC TA1218F 48PIN QFP	1
854		UT7	0430-7009-7073	IC Z86129 SMD 18PIN (SOIC)	1
855		U1	0430-7009-1002	IC M61323FP 36PIN TSSOP	1
856		U10	0430-7012-3960	IC VPC3230 PQFP80 80PIN	1
857		U11	0430-5007-8353	IC PW166B-10 256PIN (PBGA)	1
858		U12	0430-3002-0654	IC MBM29LV800BA-90 SMD 48PIN (TSSOP)	1
859	SS		0430-3002-0645	IC 29LV800BTC-90 SMD 48PIN (TSSOP)	
860	SS		0430-3002-7645	IC MX29LV800BTC-70 SMD 48PIN (TSSOP)	
861	SS		0430-3003-8645	IC MX29LV800BTTC-70G 48PIN TSOP	
862		U13	0430-3002-0011	IC AT24C32AN-10SI-2.7 SMD 8PIN	1
863		U14	0430-7009-5309	IC SAA7118 SMD 156PIN (PBGA)	1
864		U15	0430-1004-2635	IC 74LCX541 SMD 20PIN (TSSOP)	1
865		U17	0430-1004-7035	IC NC7SZ14M5 5PIN SOT-23	1
866		U18	0430-7026-4094	IC HY57V643220DT-6 TSOP86	1
867		U19	0430-7017-8962	IC FLI2310-BD 208PIN FQFP	1
868		U2	0430-3000-2017	IC MP24LC21AT/SN SMD 8PIN	1
869	CS		0430-3000-2011	IC AT24C21-10SI SMD-8	
870		U20	0430-6005-5004	IC LM1117MPX-1.8 SMD 3PIN (SOT-223)	1
871		U21	0430-7003-7650	IC THC63LVDM83A SMD 56PIN (TSSOP)	1
872		U23	0430-6001-7204	IC LM2596S-5.0 TO-263 5PIN	1
873		U23X	0990-3001-9900	SOFTWARE Vinc L30WGU CPU:VInc30_041019_V1.05V.zip	1
874		U25	0430-6004-5004	IC LM2596S-3.3 5PIN TO-263	1
875		U26	0430-7010-2015	IC TLC7733MV SMD 8PIN	1
876		U27	0420-1001-6601	POWER MOS IRF7316TR SMD 8PIN	1
877		U28	0430-7010-2015	IC TLC7733MV SMD 8PIN	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	QTY
878	U29	0420-1001-6601	POWER MOS IRF7316TR SMD 8PIN		1
879	U3	0430-7009-1002	IC M61323FP 36PIN TSSOP		1
880	U30	0430-7016-1058	IC MAX232A SMD 16PIN		1
881	U31	0420-1001-6601	POWER MOS IRF7316TR SMD 8PIN		1
882	U32	0420-1001-6601	POWER MOS IRF7316TR SMD 8PIN		1
883	U33	0430-7017-8738	IC SII169BCT100 SMD 100PIN (TQFP)		1
884	U34	0430-3001-1011	IC AT24C02N-10SI-2.7 SMD 8PIN		1
885	U4	0430-1000-6009	IC 74HC123DT SMD-16 T		1
886	U5	0430-1004-8035	IC FST3125M SMD 14PIN (SOIC)		1
887	U6	0430-8001-2946	IC AD9883AKST-110 SMD 80PIN (LQFP)		1
888	U7	0430-1000-6009	IC 74HC123DT SMD-16 T		1
889	U8	0430-1004-8035	IC FST3125M SMD 14PIN (SOIC)		1
890	W5	0302-2000-0301	CONN MALE R/A 30P SMD (DF14-30P-1.25H)(21)		1

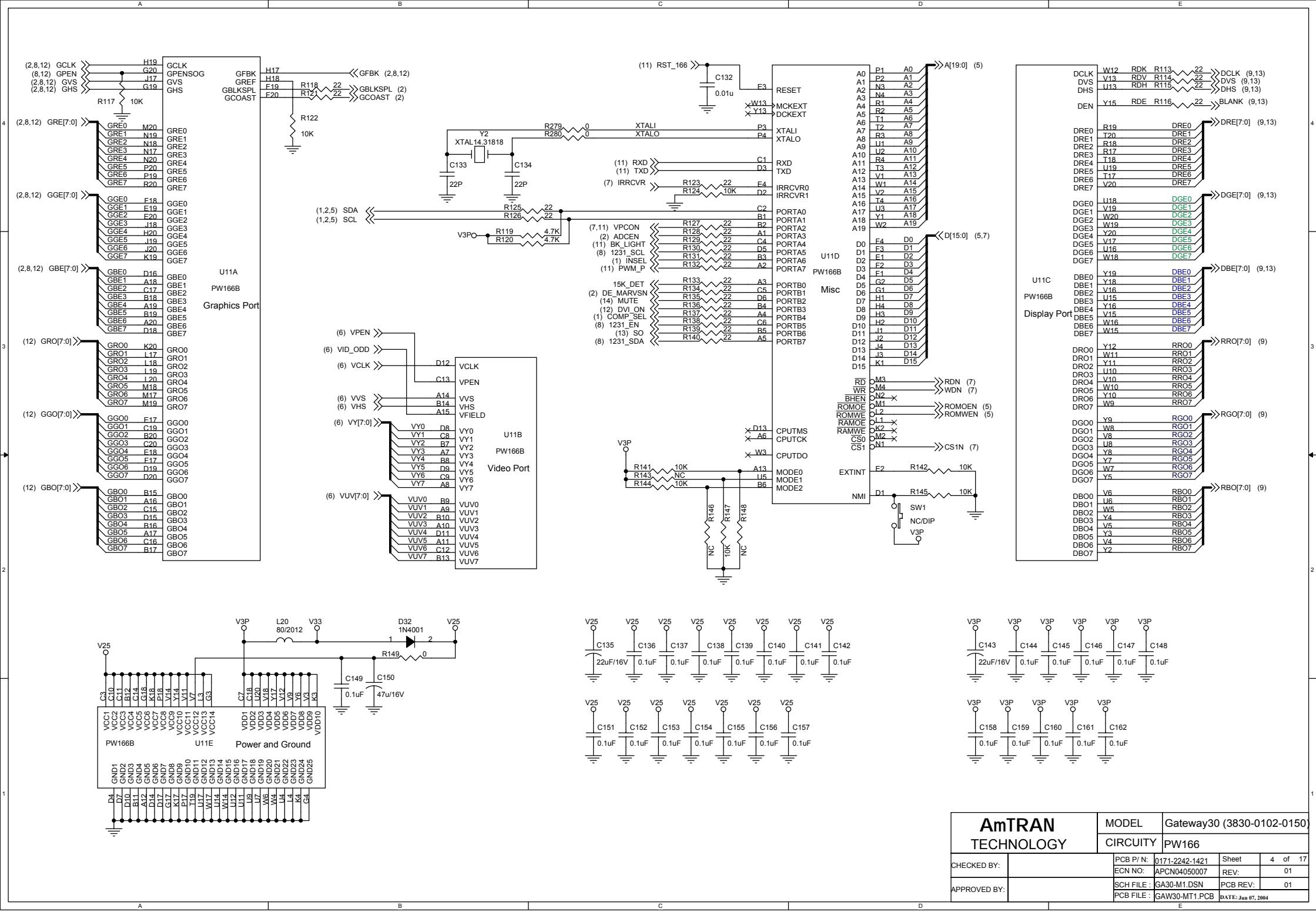


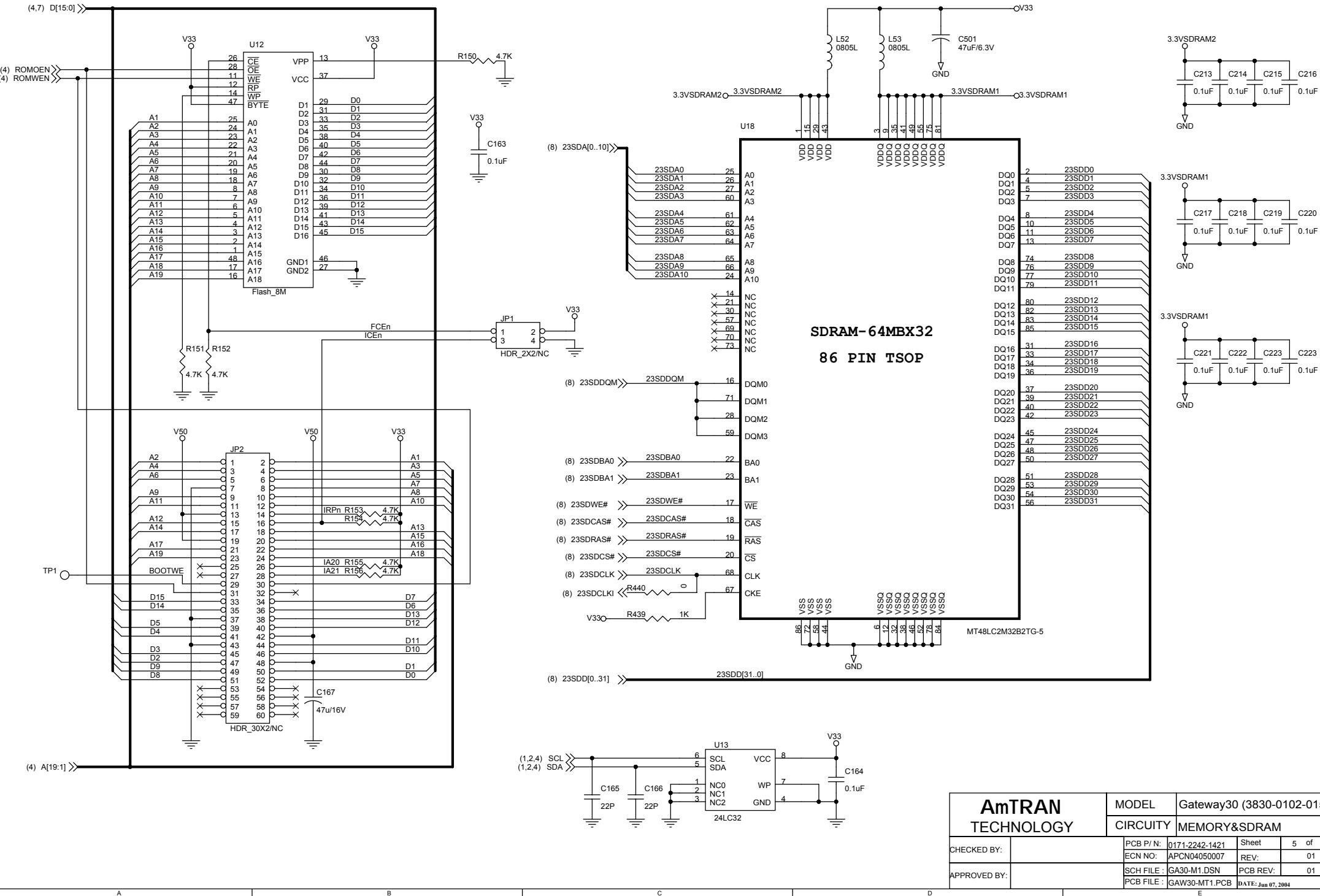


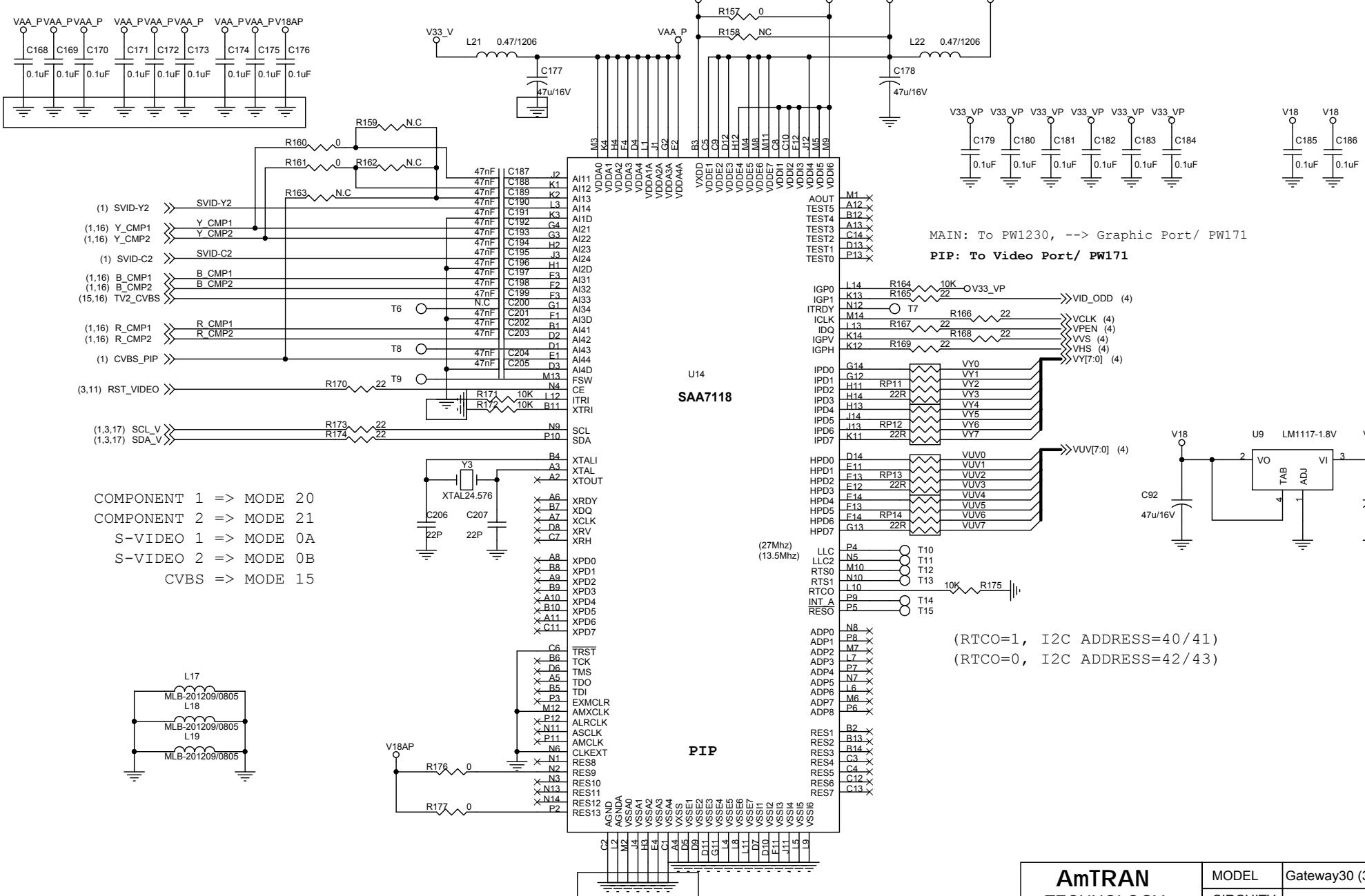
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		CIRCUITY	AD9883		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	2 of 17
		ECN NO.:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE :	GA30-M1.DSN	PCB REV:	01
		PCB FILE :	GA30W-MT1.PCB	DATE:	Jun 07, 2004



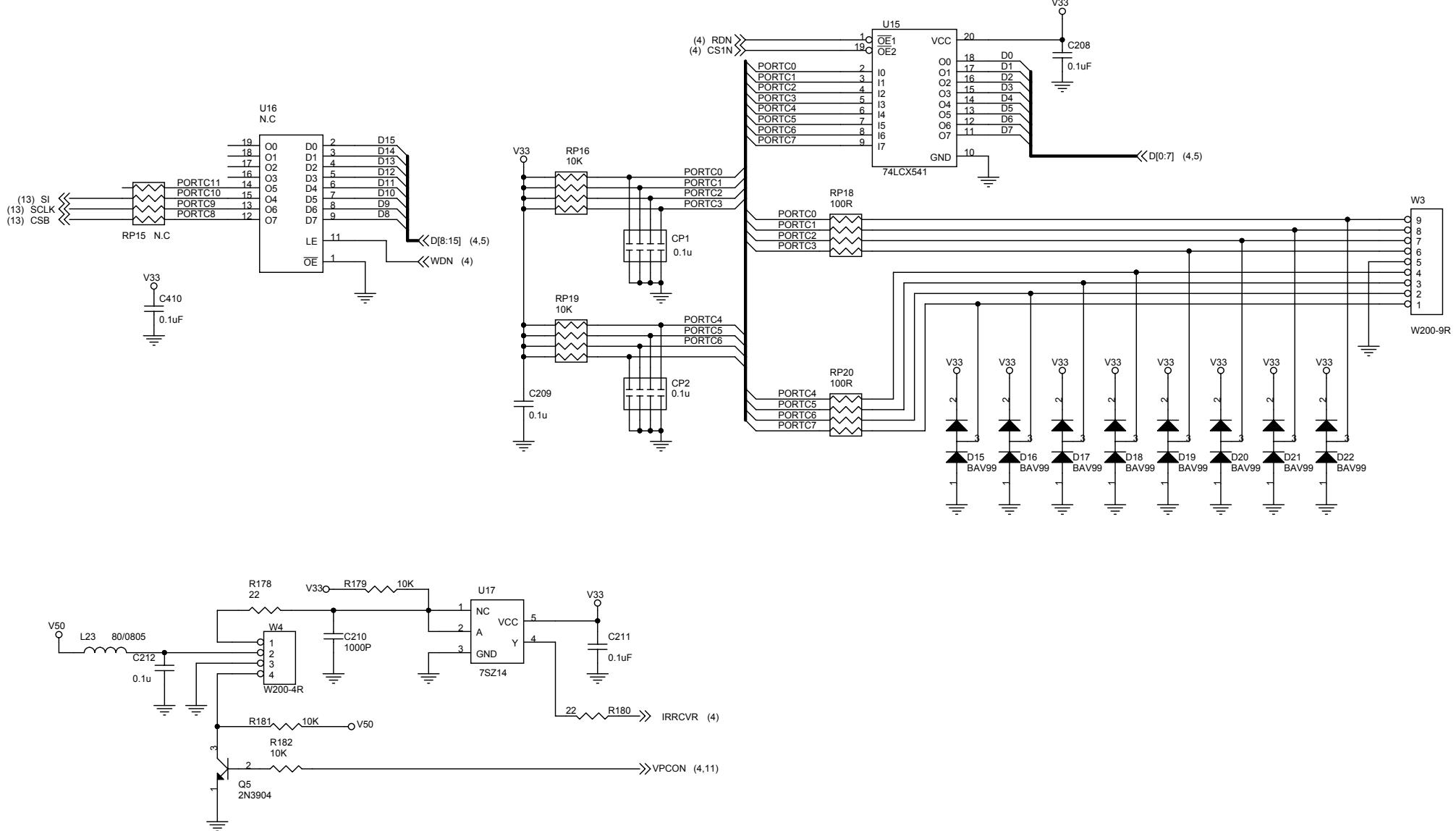
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITY	VPC3230		
CHECKED BY:		PCB P/N : 0171-2242-1421	Sheet	3	of 17
		ECN NO. : ACPN04050007	REV:	01	
APPROVED BY:		SCH FILE : GA30-M1.DSN	PCB REV:	01	
		PCB FILE : GA30-MT0.PCB	DATE:	Jun 07, 2004	



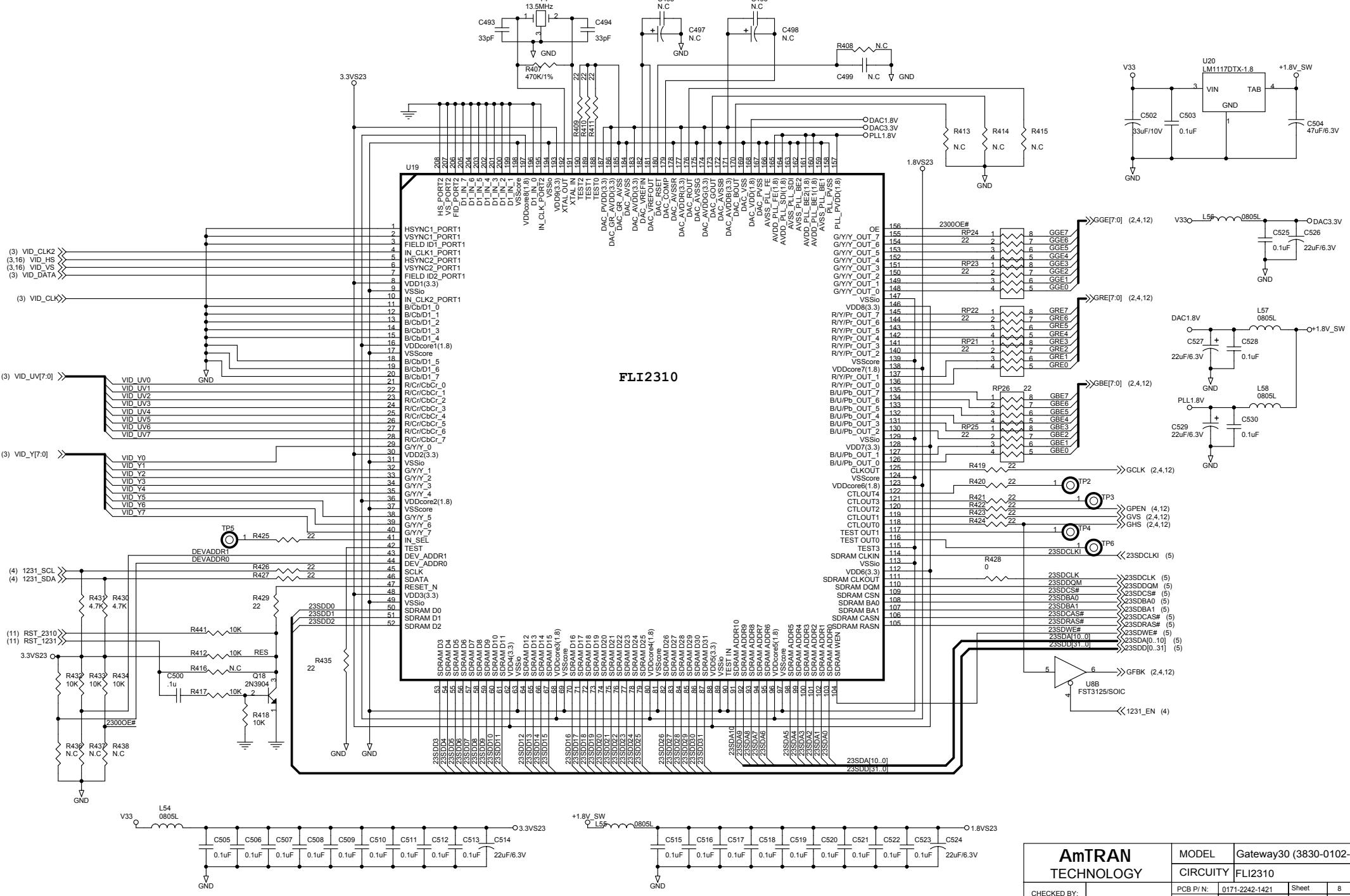




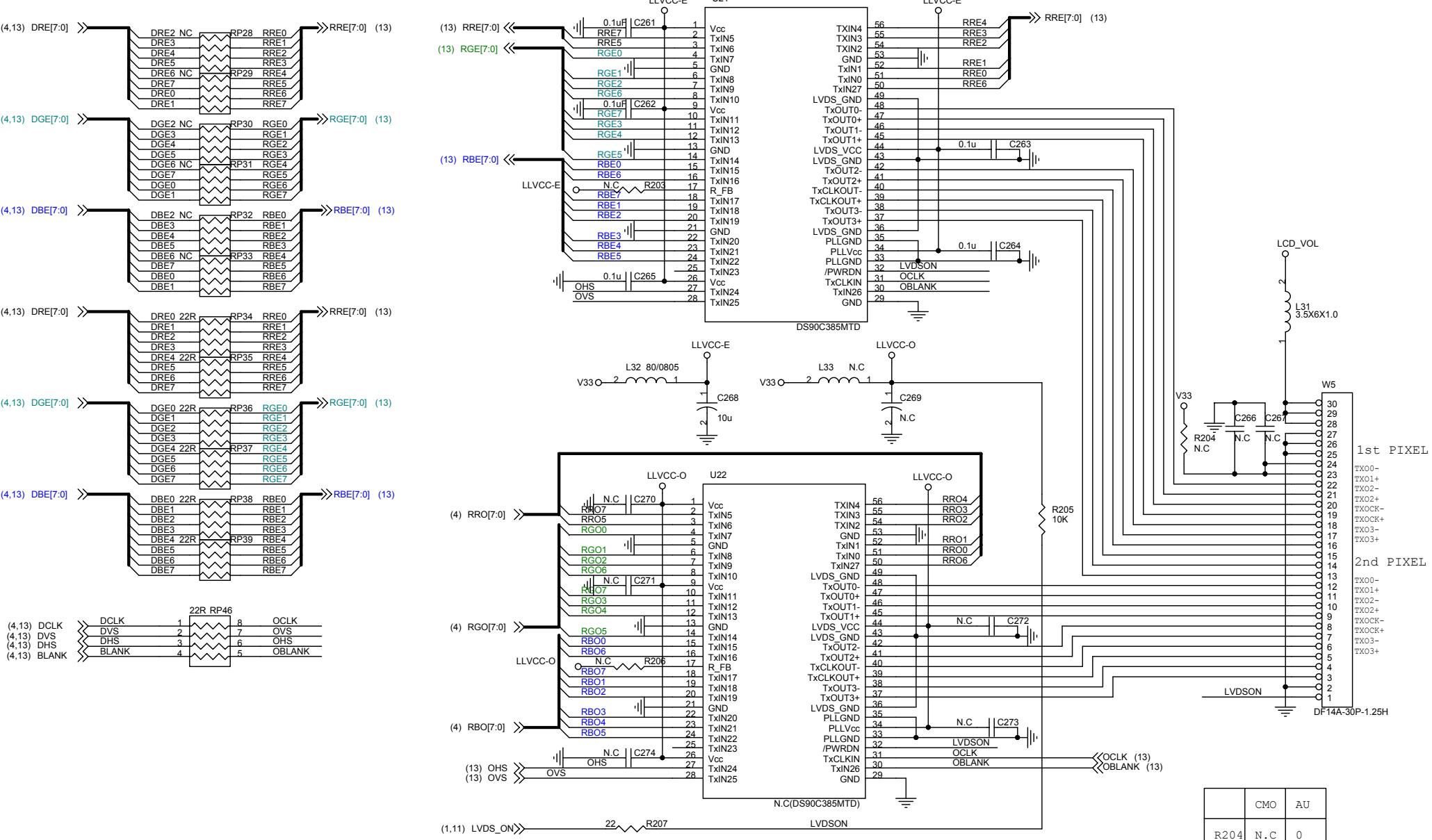
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)	
CIRCUITY		SAA7118		
CHECKED BY:		PCB P/N: 0171-2242-1421	Sheet	6 of 17
APPROVED BY:		ECN NO: APCN04050007	REV:	01
		SCH FILE: GA30-M1.DSN	PCB REV:	01
		PCB FILE: GAW30-MT1.PCB	DATE:	Jun 07, 2004



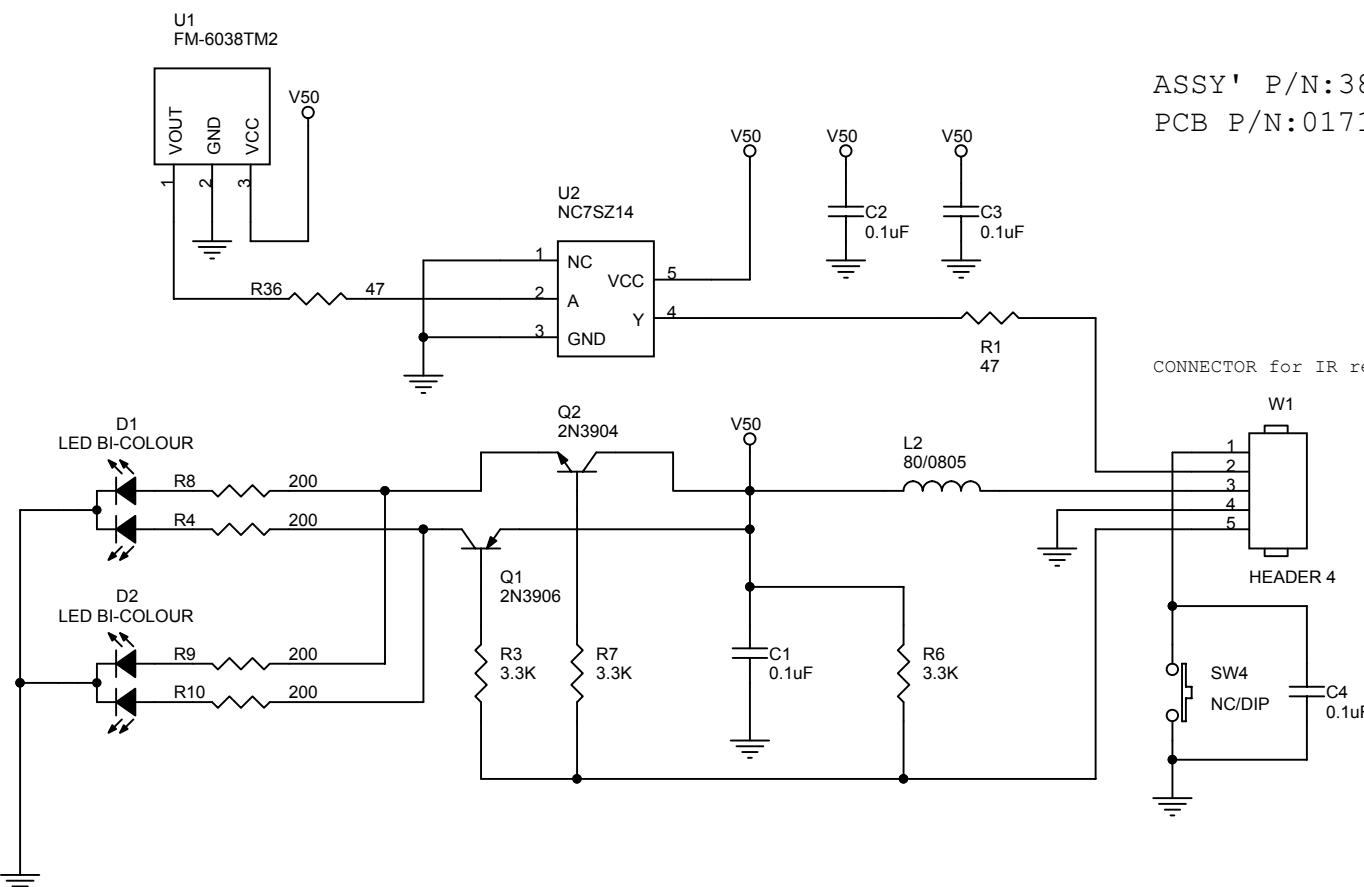
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY		KEY			
CHECKED BY:		PCB P/N: 0171-2242-1421	Sheet	7	of 17
		ECN NO: ACPN04050007	REV:	01	
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		PCB FILE: GAW30-MT1.PCB	DATE:	Jun 08, 2004	



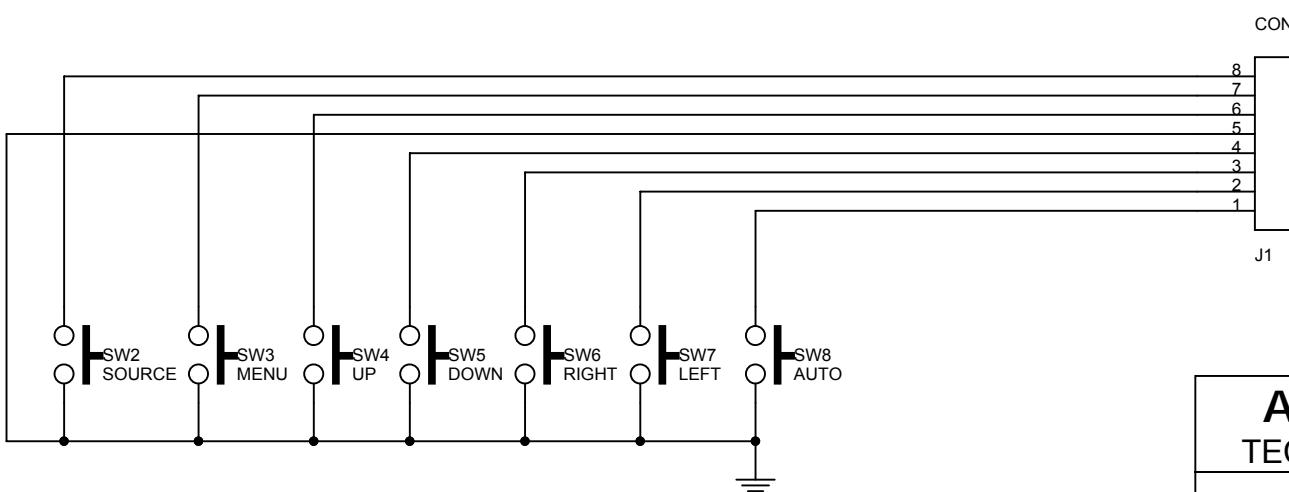
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		<b>CIRCUITY</b>	FLI2310		
<b>CHECKED BY:</b>	PCB P/N:	0171-2242-1421	Sheet	8	of 17
	ECN NO.:	APCN04050007	REV.:	01	
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	PCB FILE :	GAW30-M1.PCB	DATE:	Jun 07, 2004	



AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITY	LVDS		
CHECKED BY:		PCB P/N: 0171-2242-1421	Sheet	9	of 17
		ECN NO: APCN04050007	REV:	01	
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		PCB FILE: GAW30-MT1.PCB	DATE:	Jun 07, 2004	

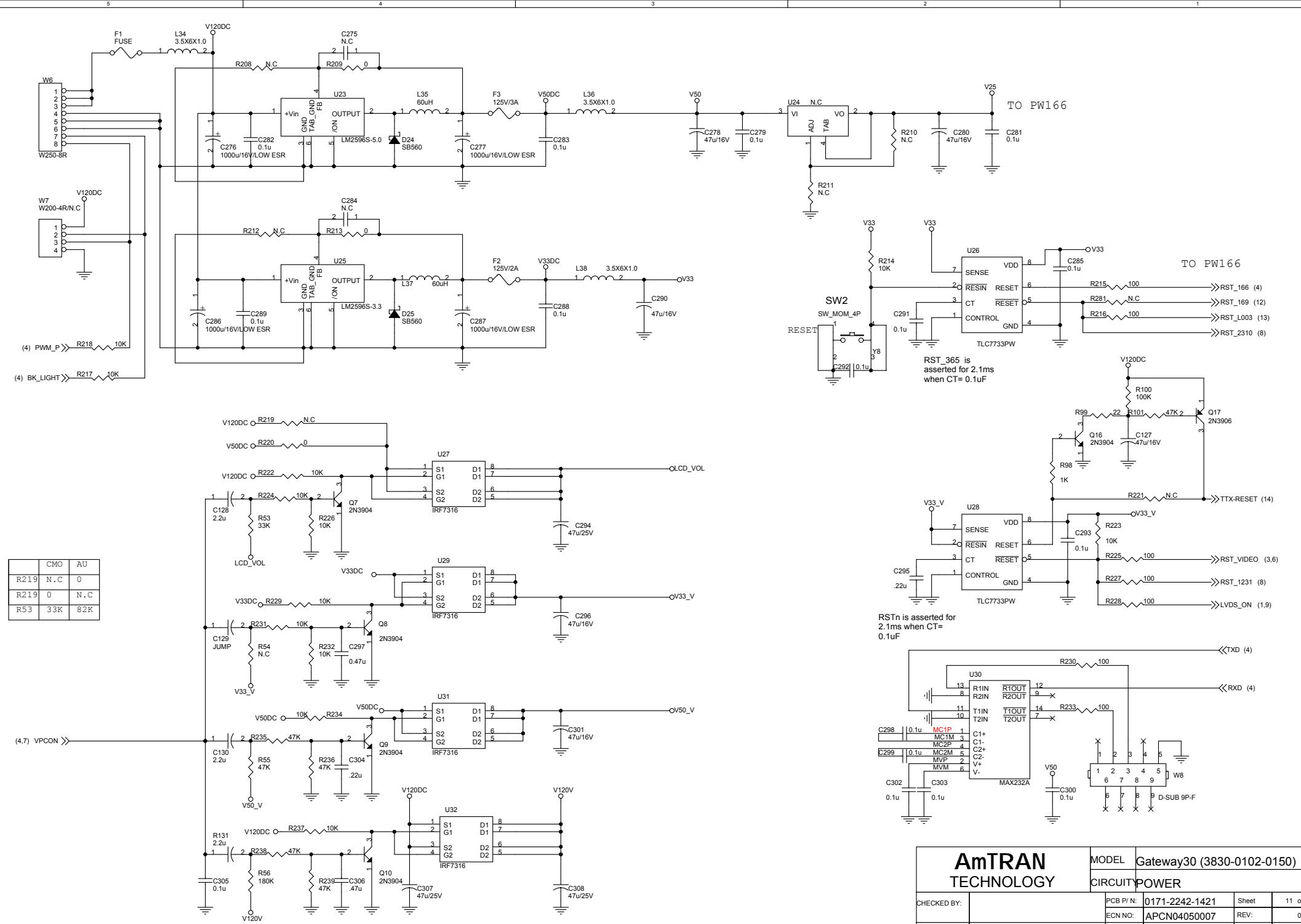


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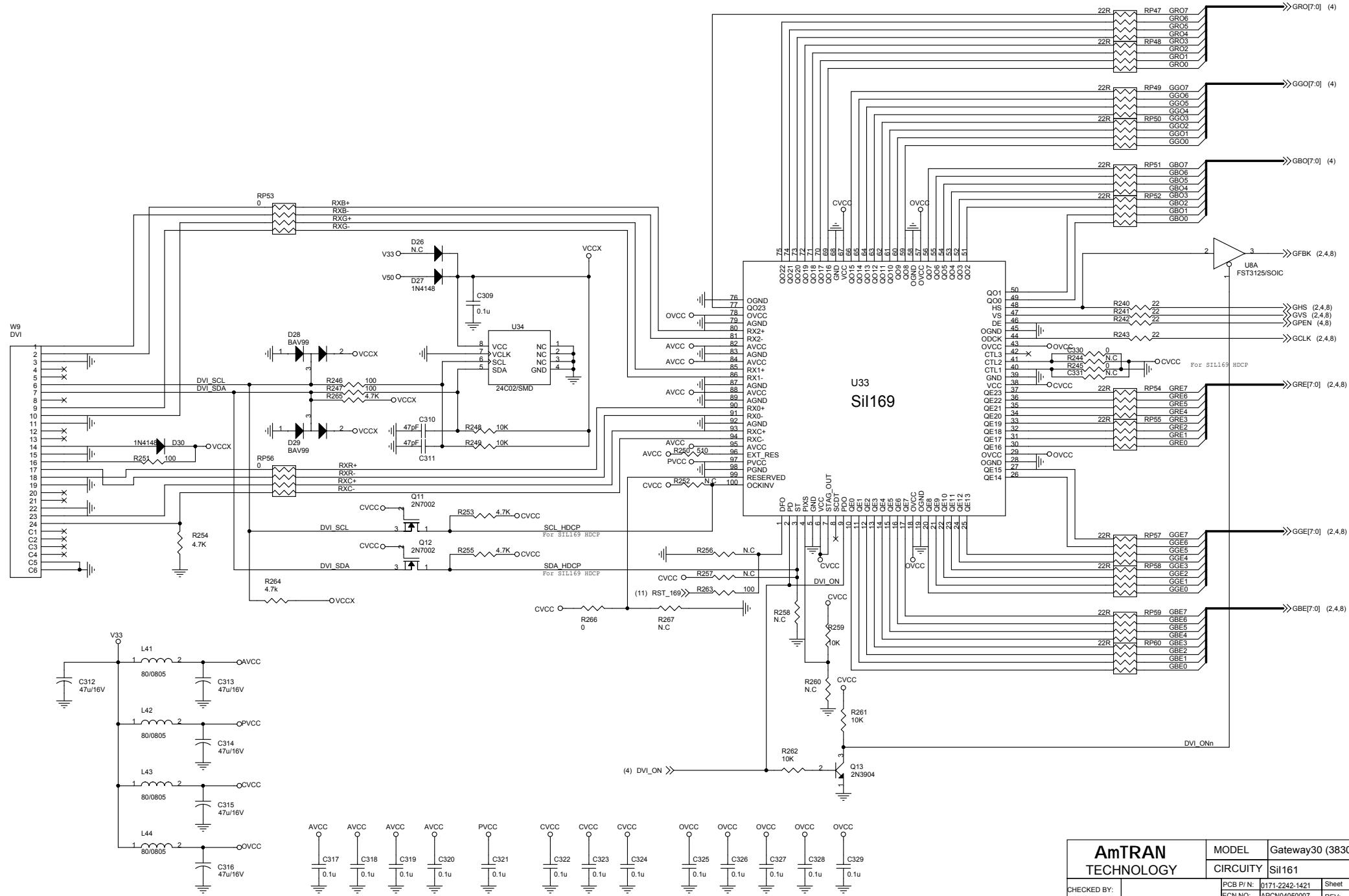


ASSY' P/N: 3830-0032-0156  
PCB P/N: 0170-1740-1191

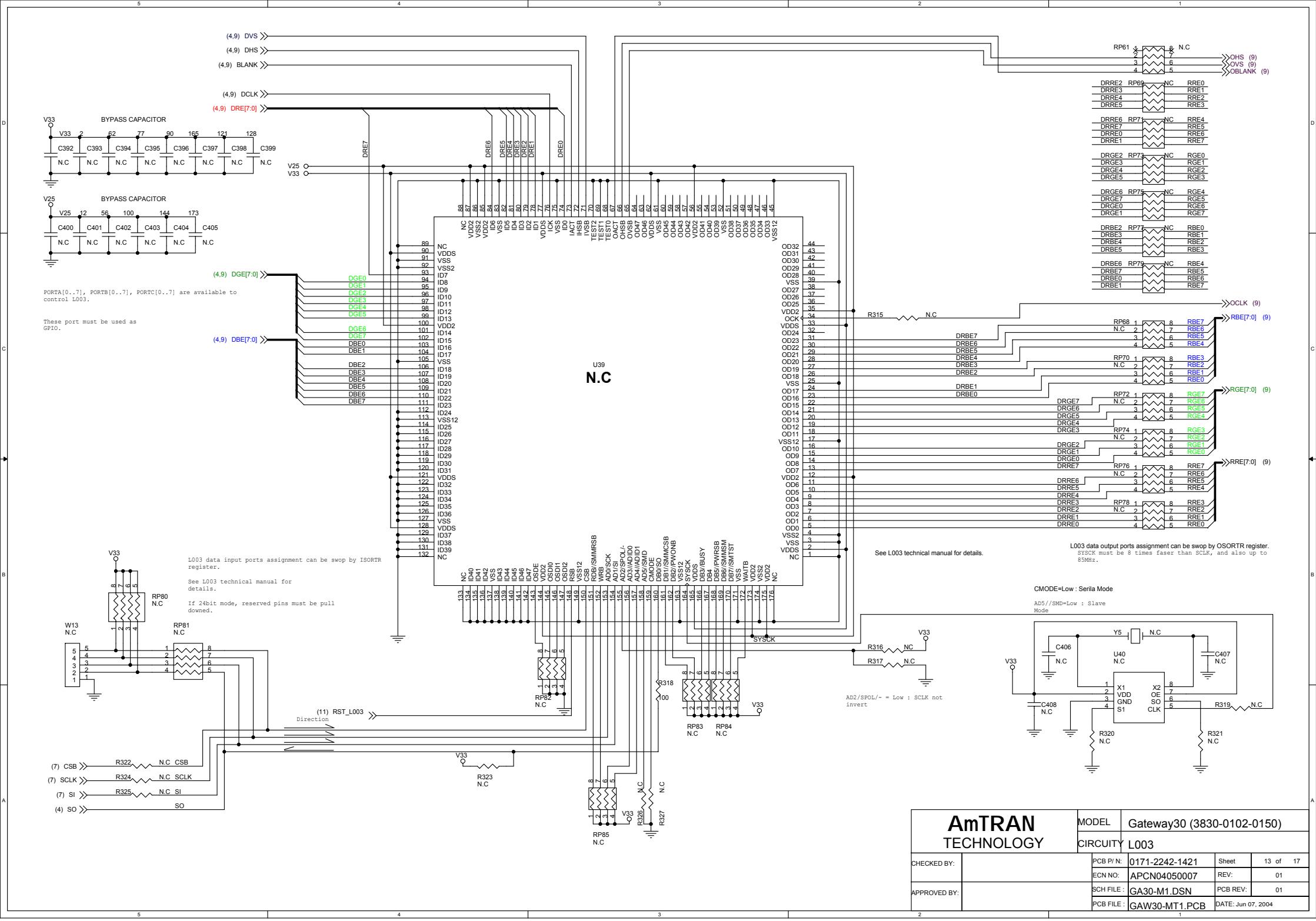
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CIRCUITY		IR&DISPLAY			
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	10 of 17
		ECN NO:	APCN04050007	REV:	01
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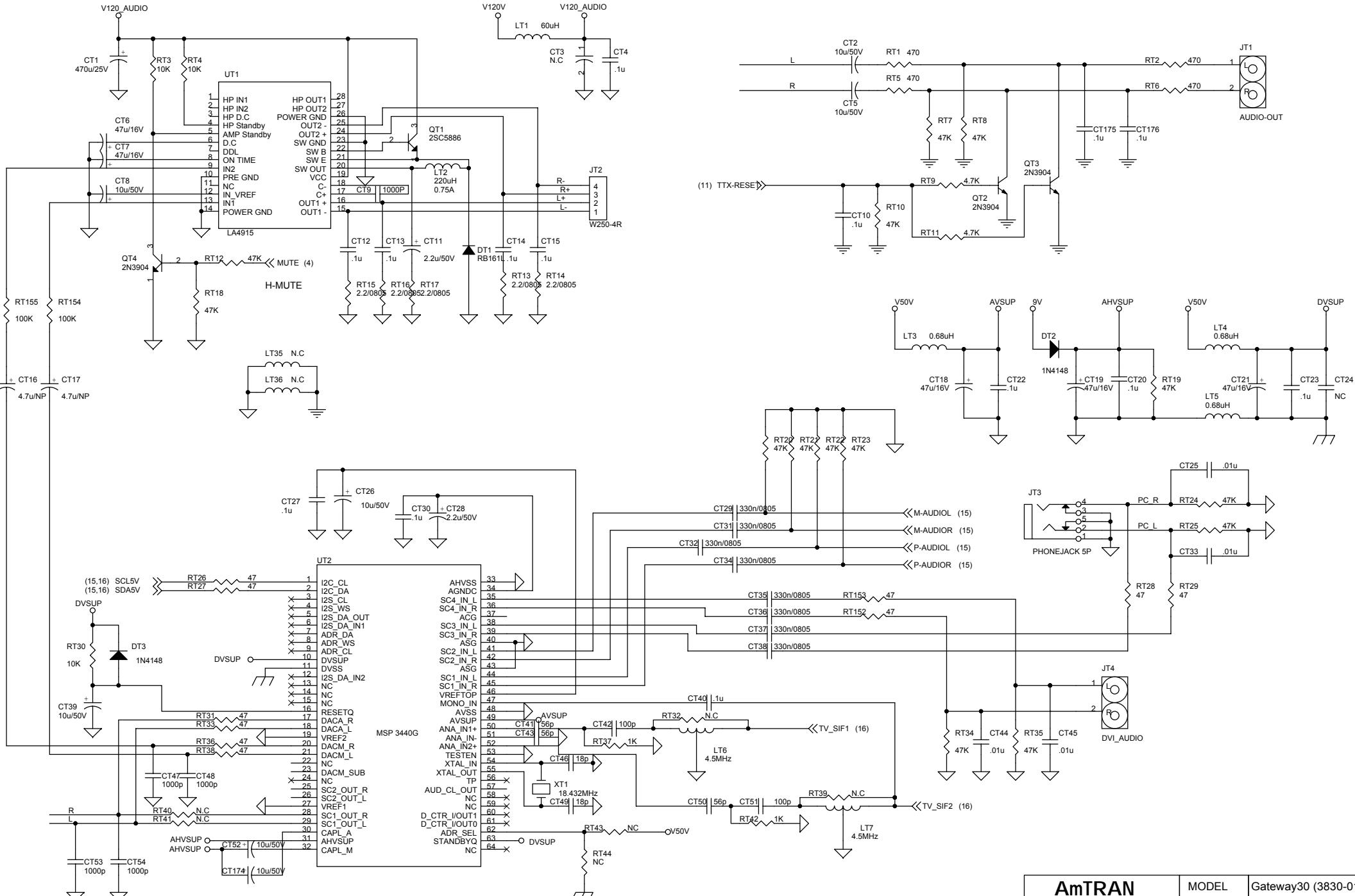


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)	
CIRCUIT		POWER		
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		ECN NO:	APCN04050007	REV: 01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV: 01
		PCB FILE:	GA3W-MT1.PCB	DATE: Jun 07, 2004

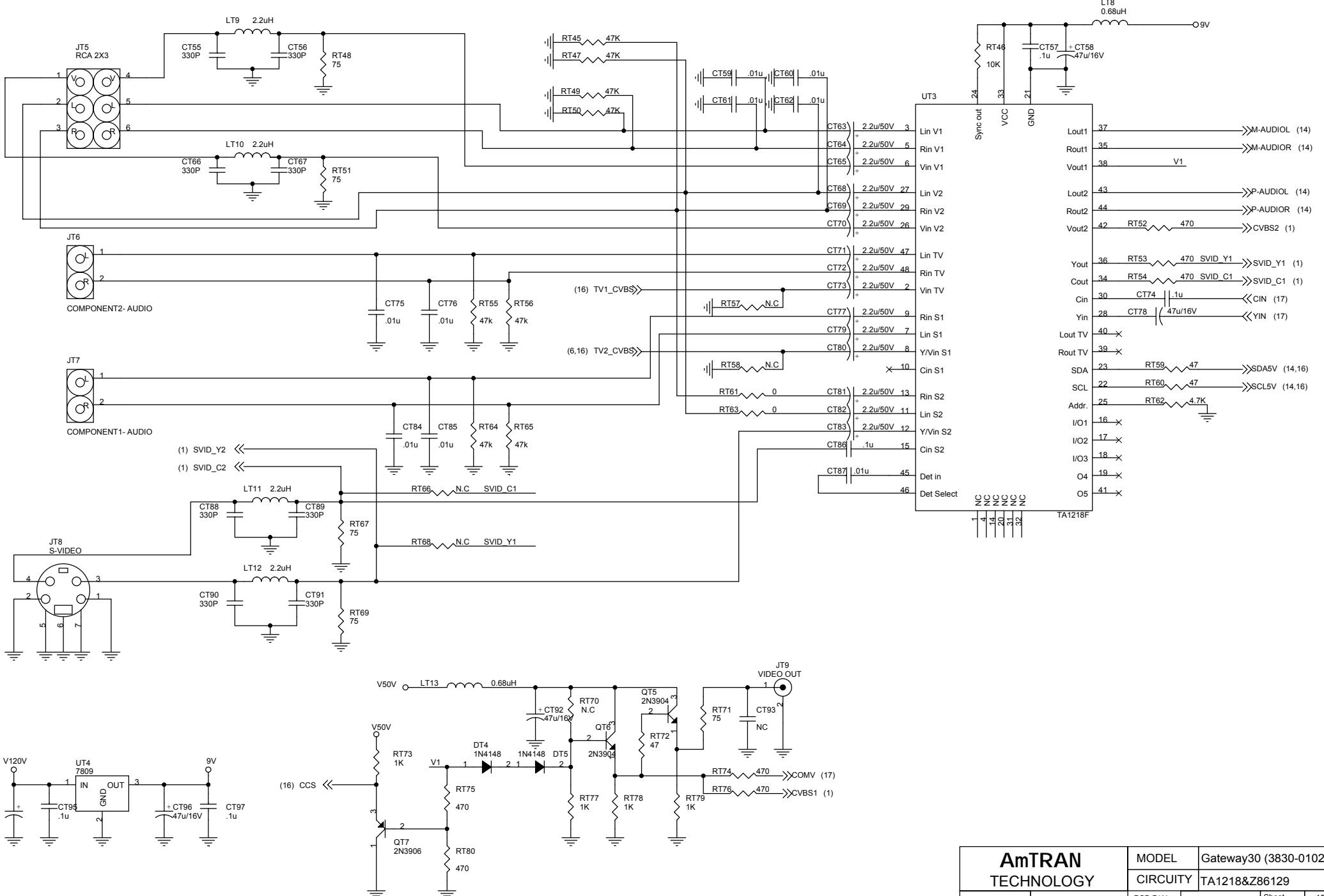


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITRY	SiL161		
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		ECN NO.:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV.:	01
		PCB FILE:	GA30-MT0.PCB	DATE:	Jun 2004

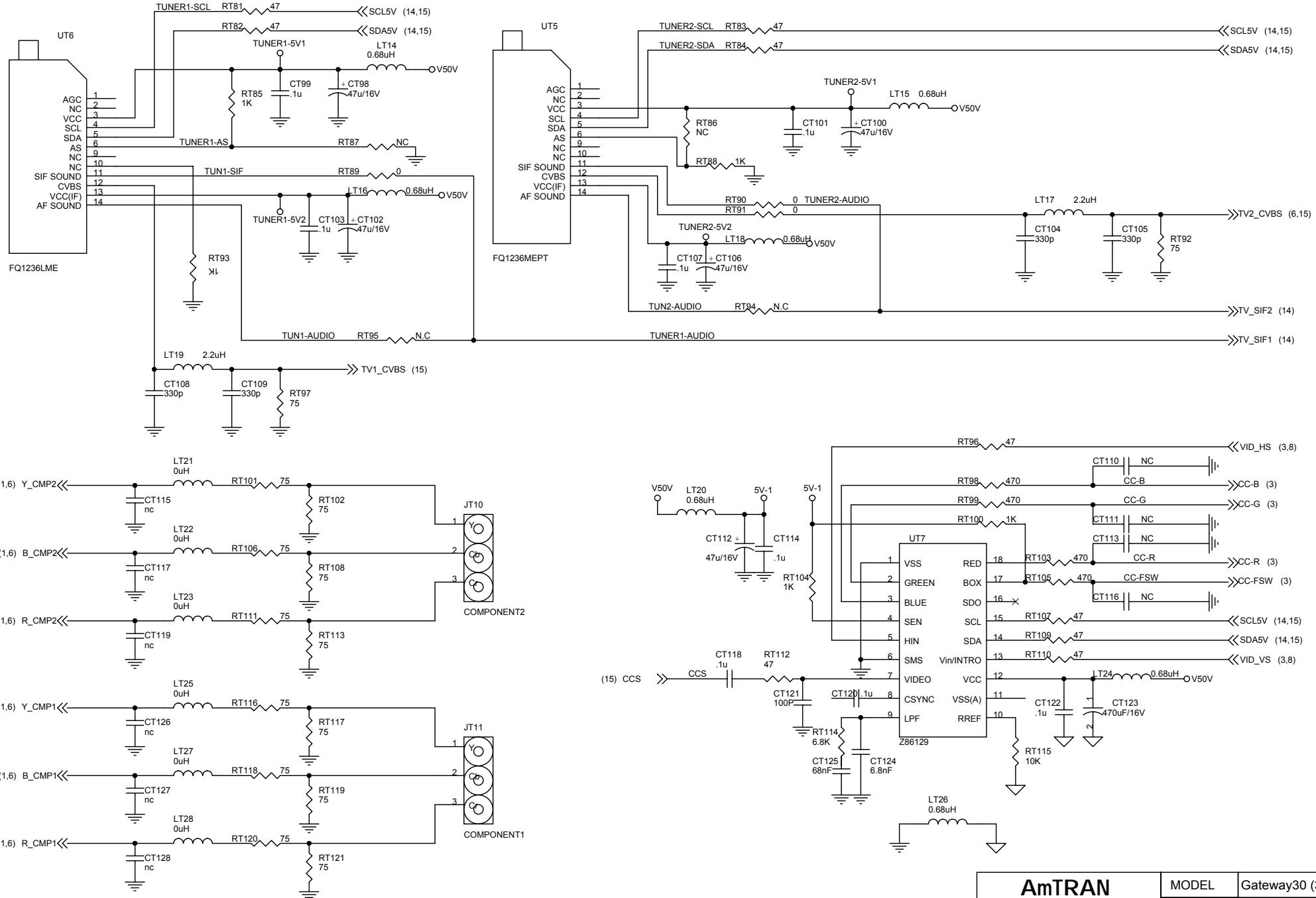




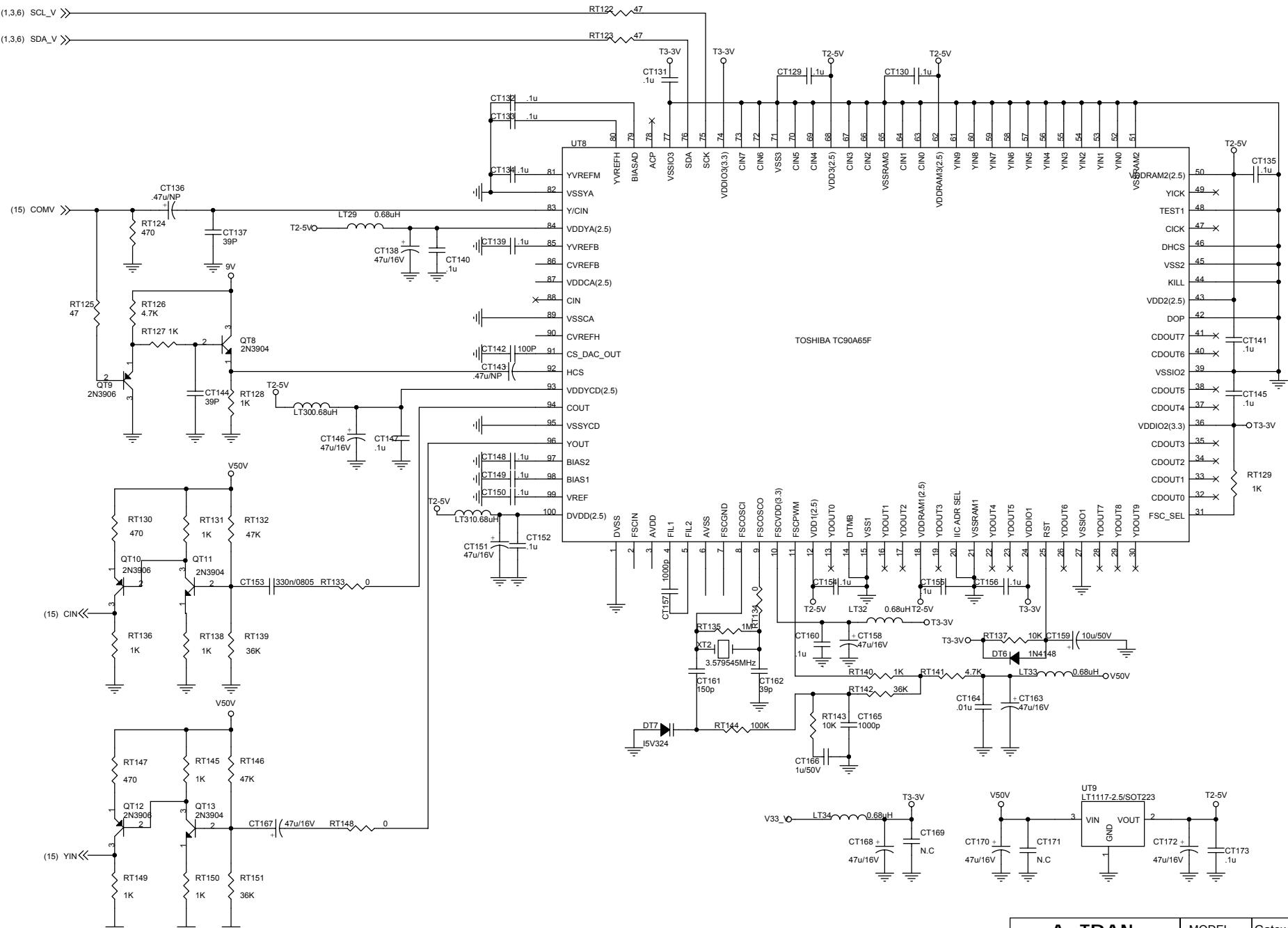
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY		LA4915&MSP340G			
CHECKED BY:			PCB P/N:	0171-2242-1421	Sheet
			ECN NO.:	APCN04050007	14 of 17
APPROVED BY:			SCH FILE:	GA30-M1.DSN	REV: 01
			PCB FILE:	GA30W-MT1.PCB	PCB REV: 01
			DATE:	Jun 07, 2004	



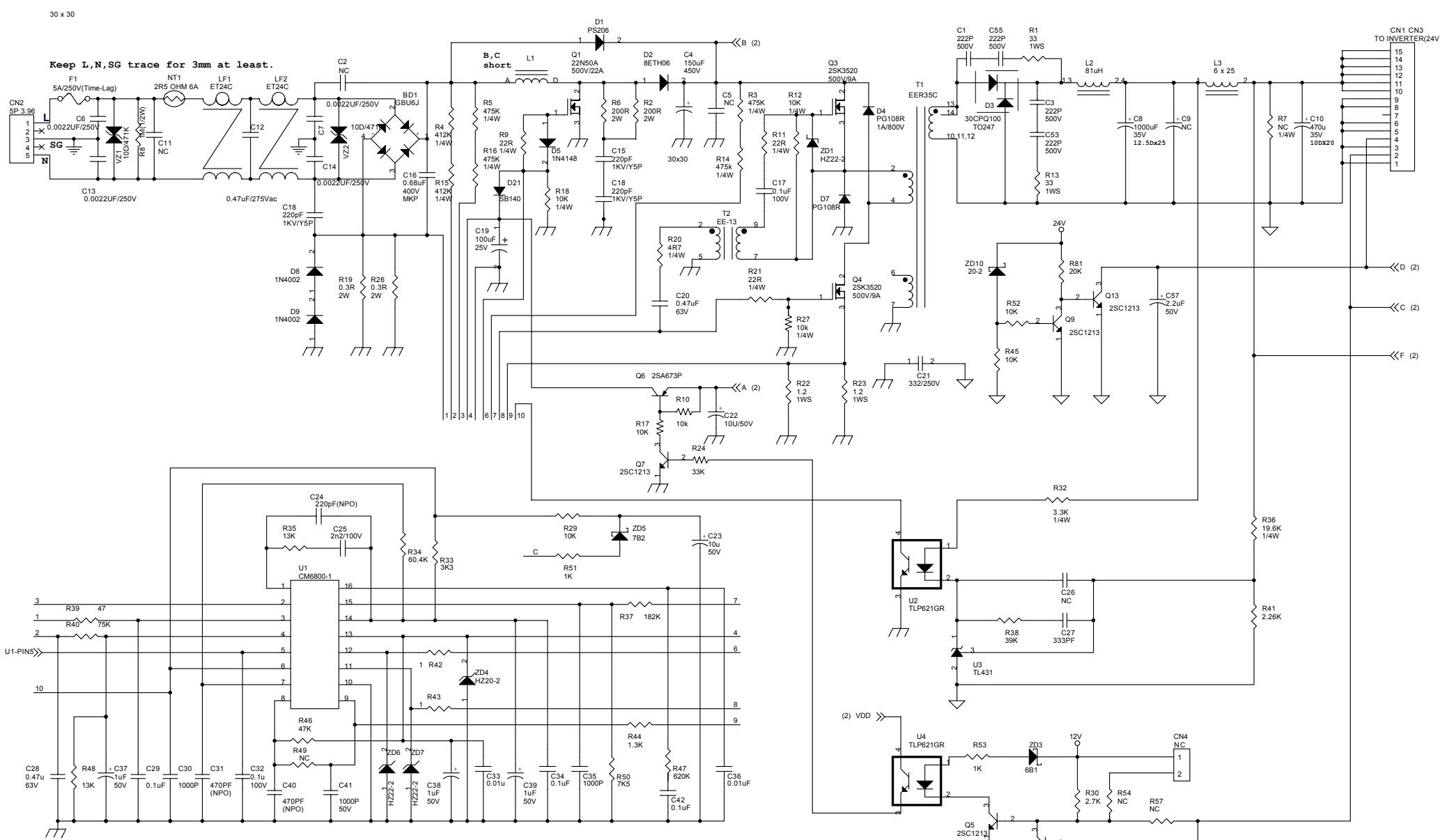
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY		TA1218&Z86129			
PCB P/N:	0171-2242-1421	Sheet	15	of	17
ECN NO:	APCN04050007	REV:	01		
SCH FILE:	GA30-M1.DSN	PCB REV:	01		
PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 07, 2004		



AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITY	TUNER&MSP3455G		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	16 of 17
		ECN NO:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV:	01
		PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 07, 2004



AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY	TC90A65F				
PCB P/N:	0171-2242-1421	Sheet	17	of	17
ECN NO:	APCN04050007	REV:	01		
SCH FILE:	GA30-M1.DSN	PCB REV:	01		
PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 07, 2004		



NOTE: NC MEANS "NOT CONNECTED ON PCB BOARD"

ALL RESISTORS 1/8 WATT, 5% UNLESS NOTED.

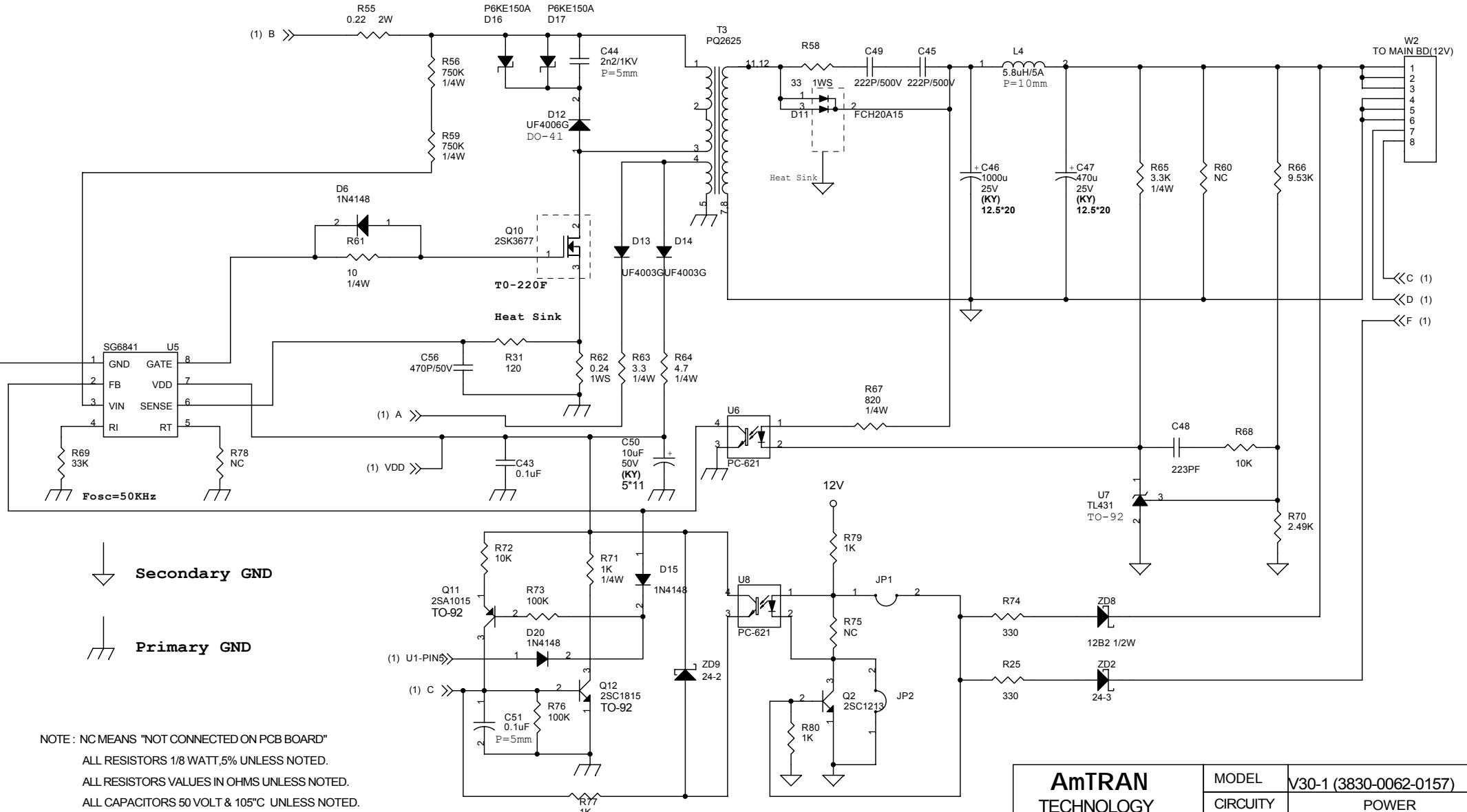
ALL RESISTORS VALUES IN OHMS UNLESS NOTED.

ALL CAPACITORS 50 VOLT & 105°C UNLESS NOTED.

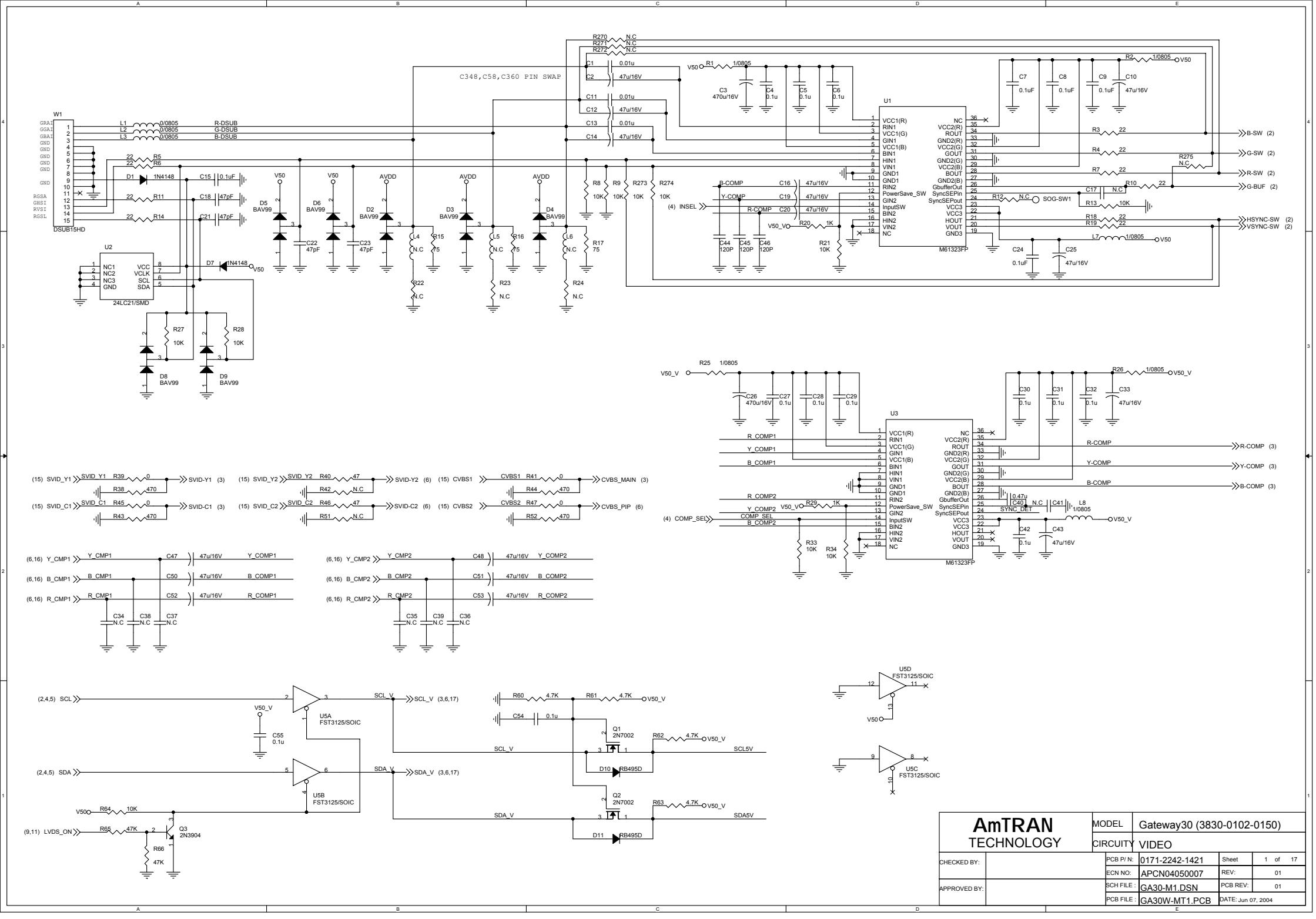
ALL CAPACITOR VALUES IN uF UNLESS NOTED.

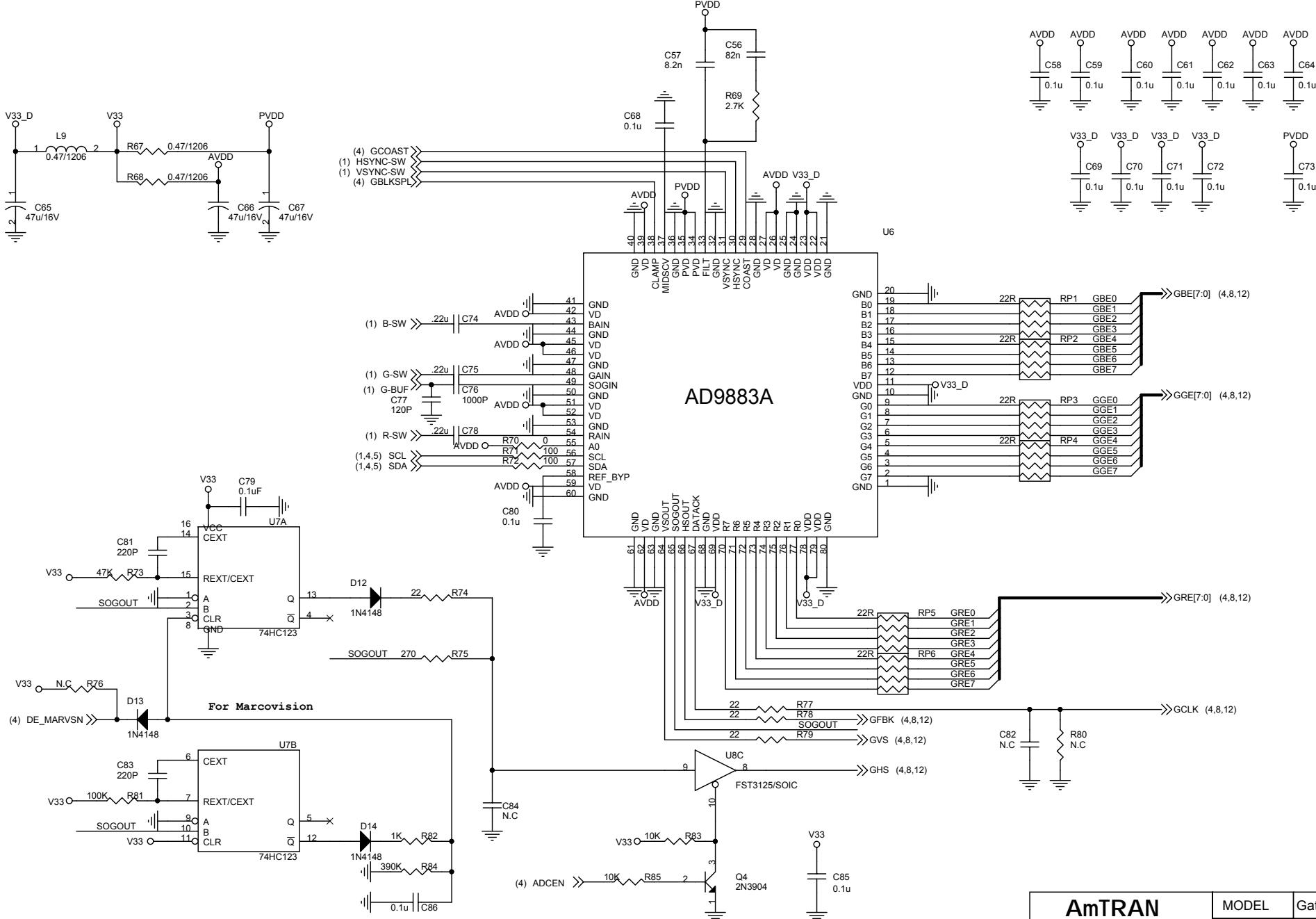
M= METAL 1%

AmTRAN TECHNOLOGY	MODEL	V30-1 (3830-0062-0157)
	CIRCUITY	POWER
CHECKED BY:	PCB P/N: 0171-2041-0281 ECN NO: APCN04060017	Sheet 1 of 2 REV: 01
APPROVED BY:	SCH FILE INFOCU30-P1.DS PCB FILE GW30-P1.PCB	PCB REV: 01 DATE: Wednesday, September 08, 2004

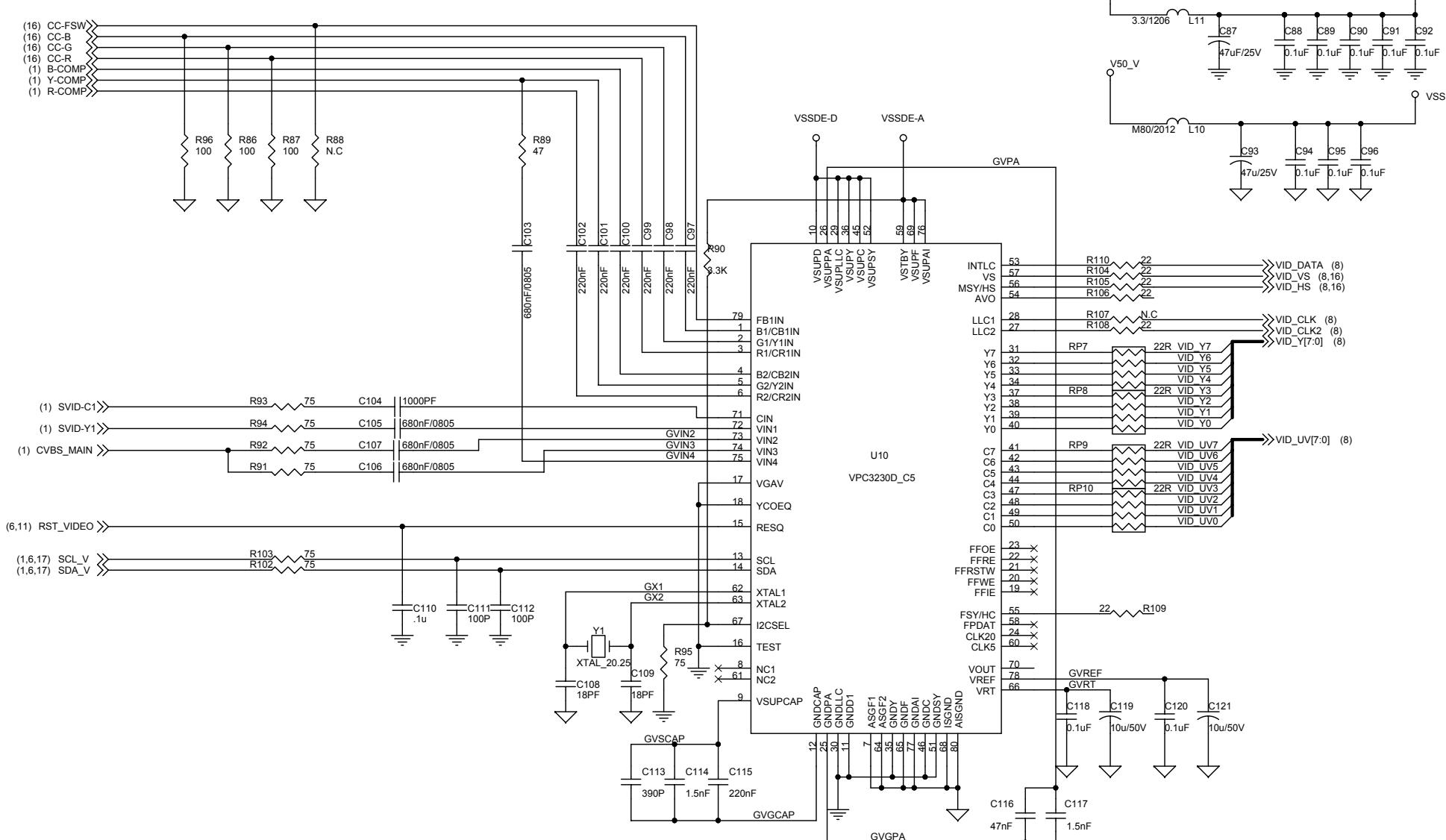


AmTRAN TECHNOLOGY		MODEL	V30-1 (3830-0062-0157)		
		CIRCUITY	POWER		
CHECKED BY:		PCB P/N:	0171-2041-0281	Sheet	2 of 2
		ECN NO:	APCN04060017	REV:	01
APPROVED BY:		SCH FILE:	INFOCU30-P1.DS	PCB REV:	01
		PCB FILE:	GW30-P1.PCB	DATE:	Wednesday, September 08, 2004

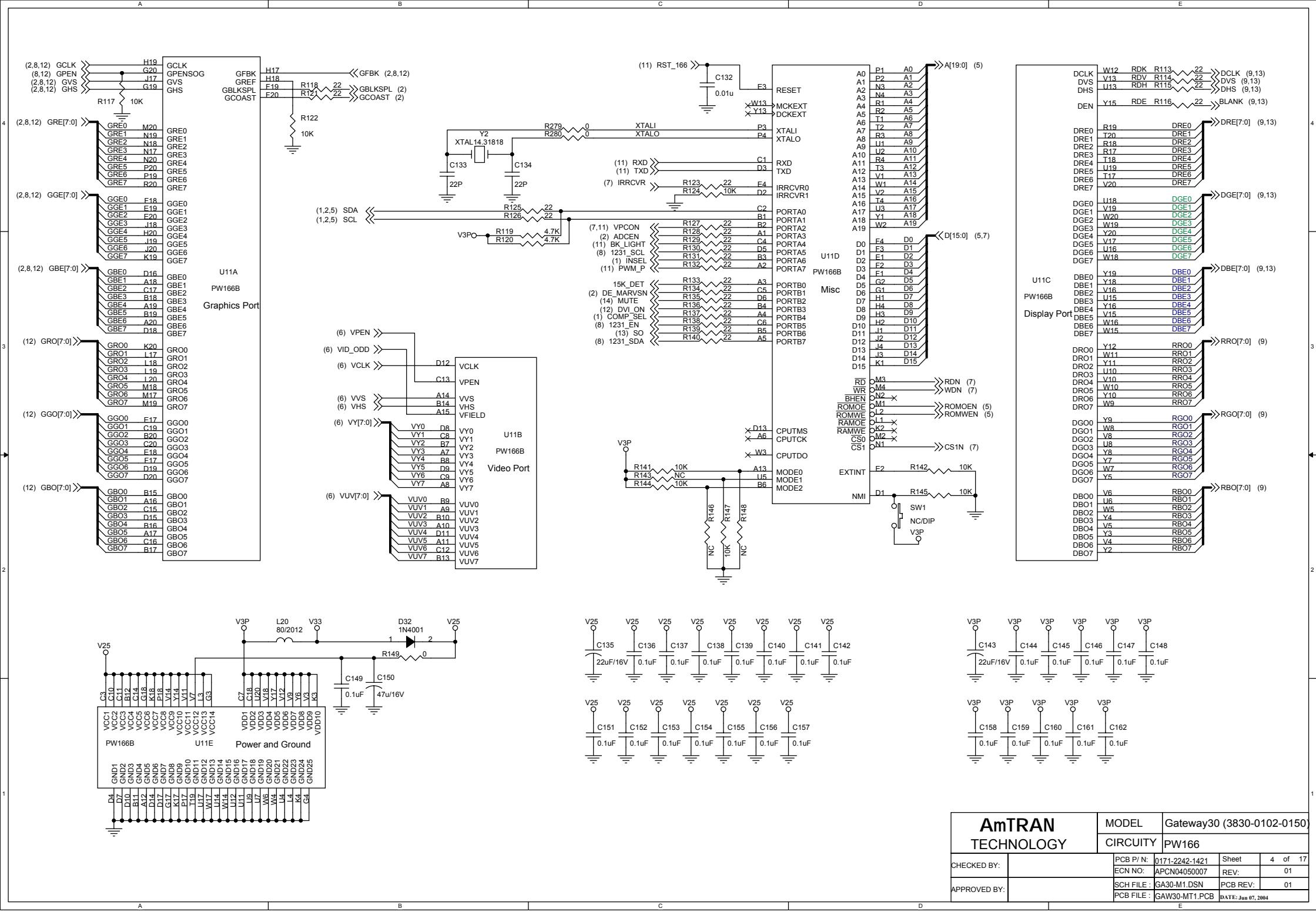


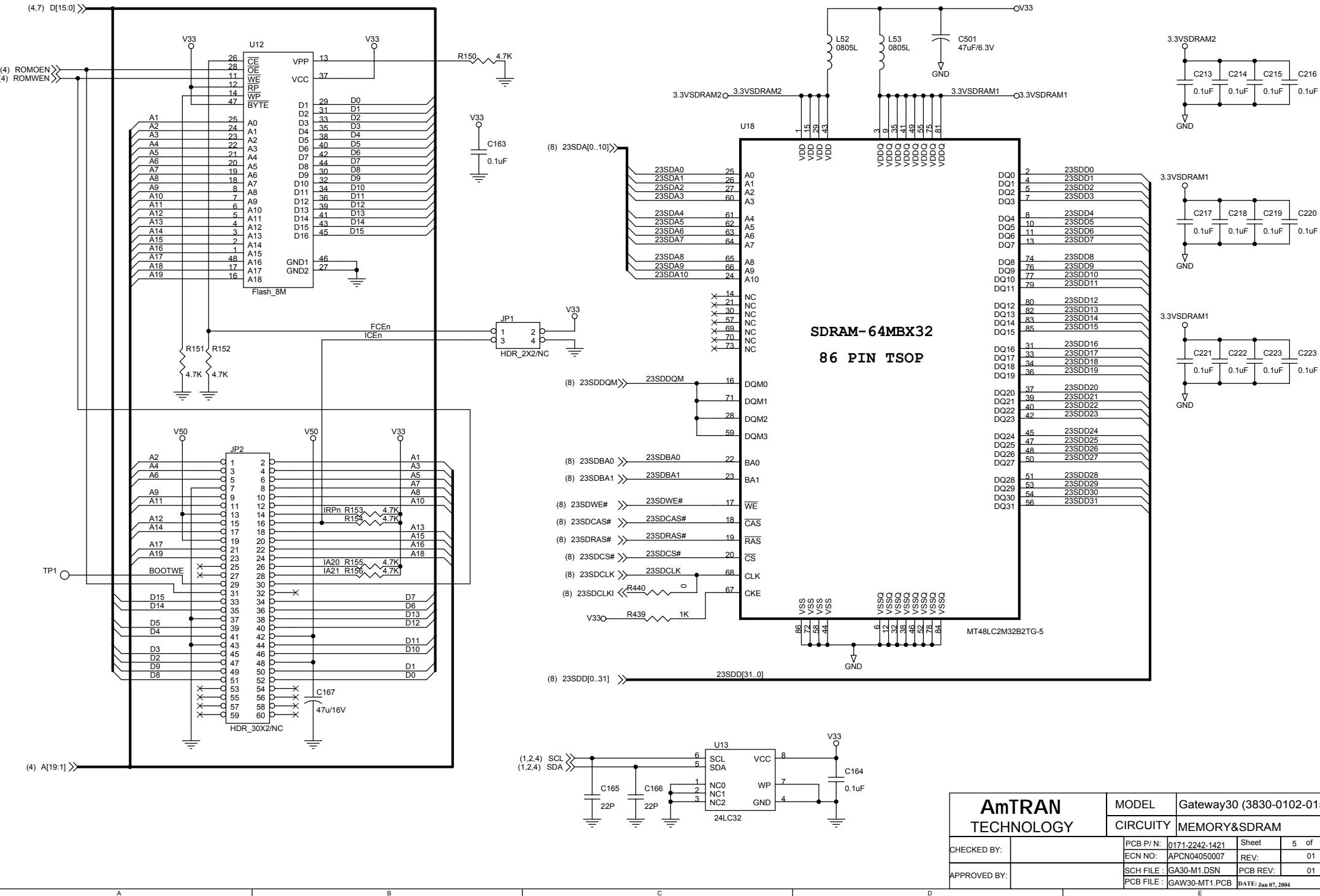


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITY	AD9883		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	2 of 17
		ECN NO.:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE :	GA30-M1.DSN	PCB REV:	01
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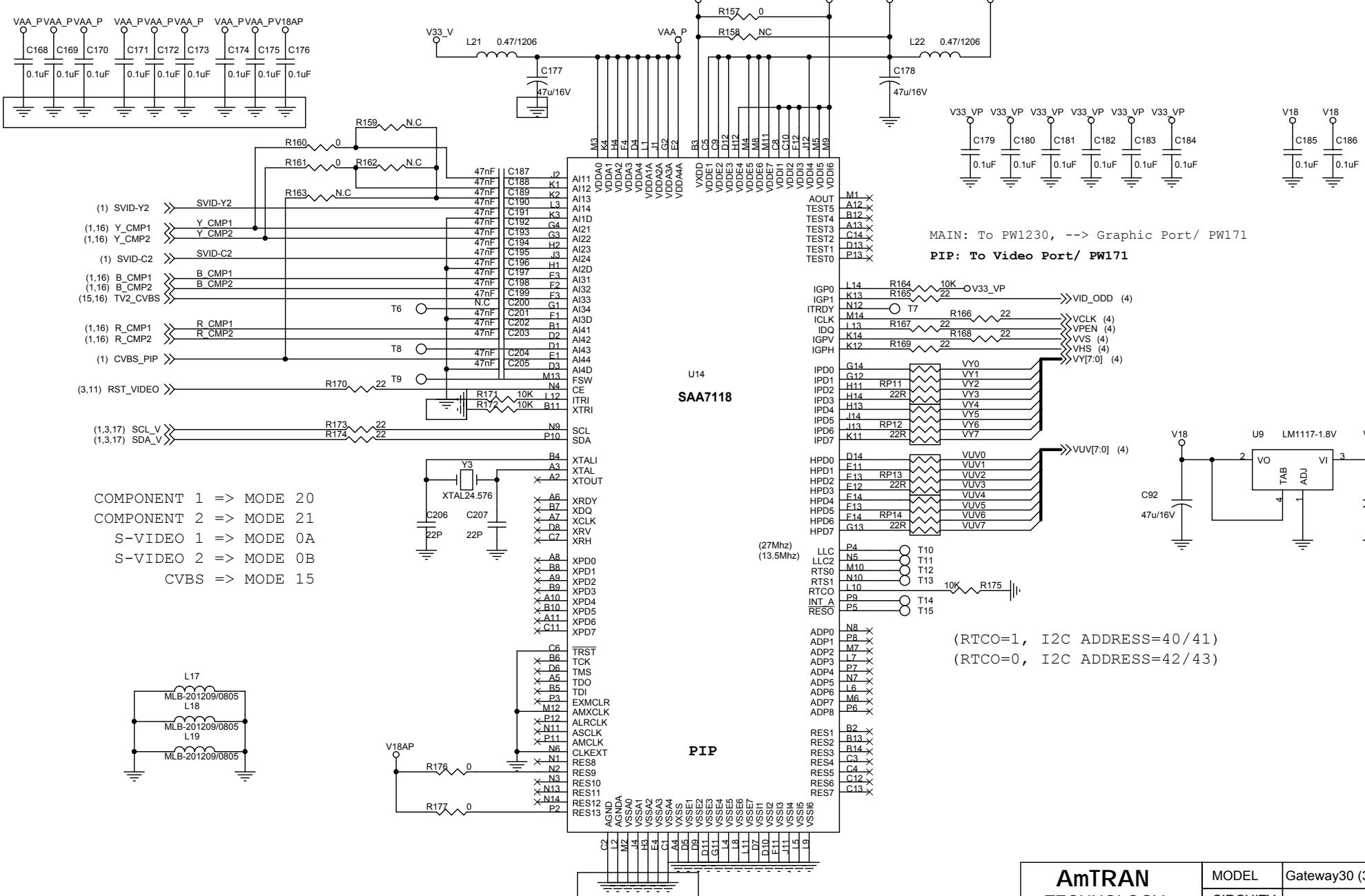


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITY	VPC3230		
CHECKED BY:		PCB P/N : 0171-2242-1421	Sheet	3	of 17
		ECN NO. : ACPN04050007	REV:	01	
APPROVED BY:		SCH FILE : GA30-M1.DSN	PCB REV:	01	
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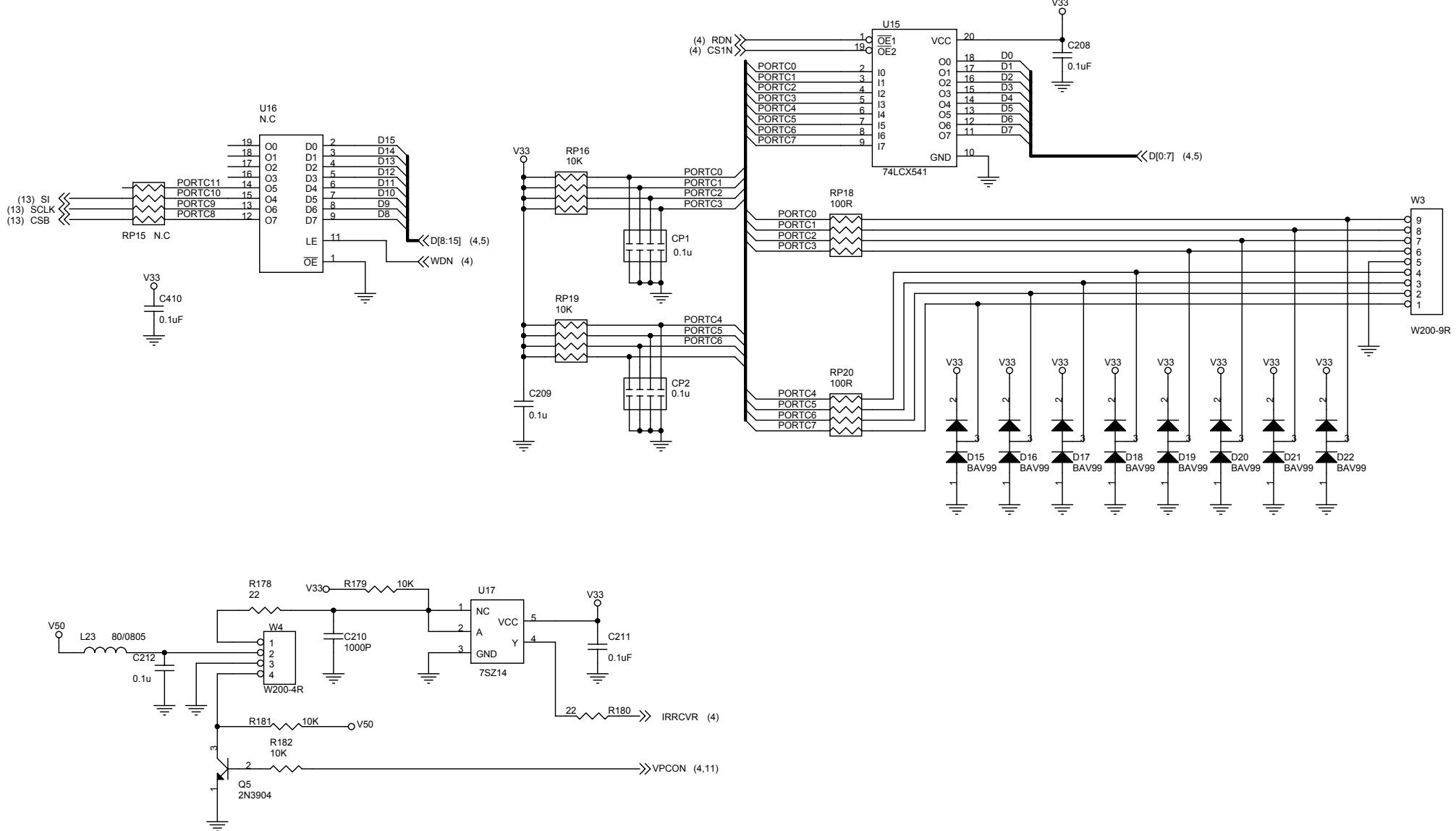




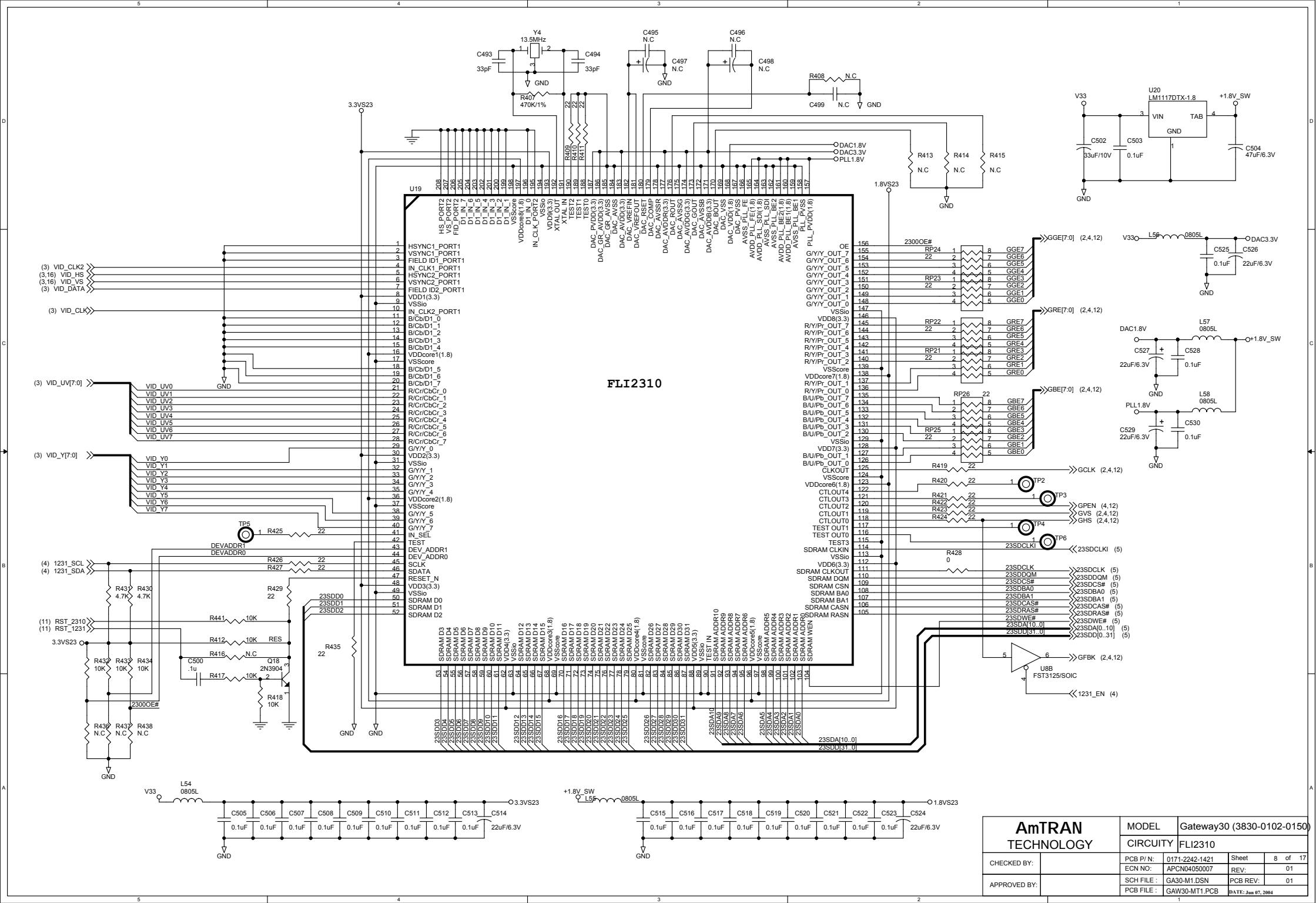
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		CIRCUITY	MEMORY&SDRAM		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	5 of 17
ECN NO.:	APCN04050007	REV.:	01		
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV.:	01
		PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 07, 2004

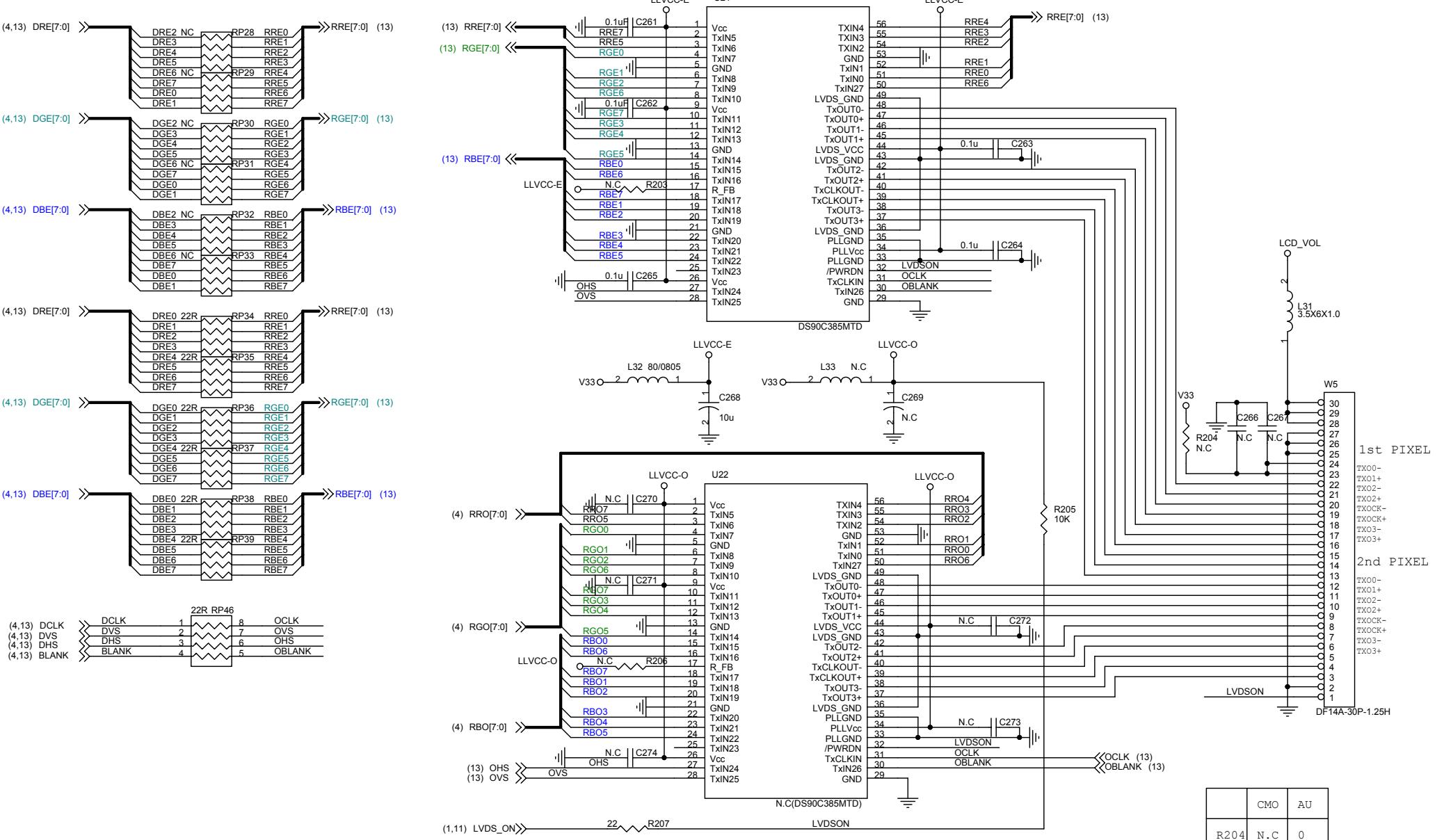


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY		SAA7118			
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	6 of 17
		ECN NO.:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV:	01
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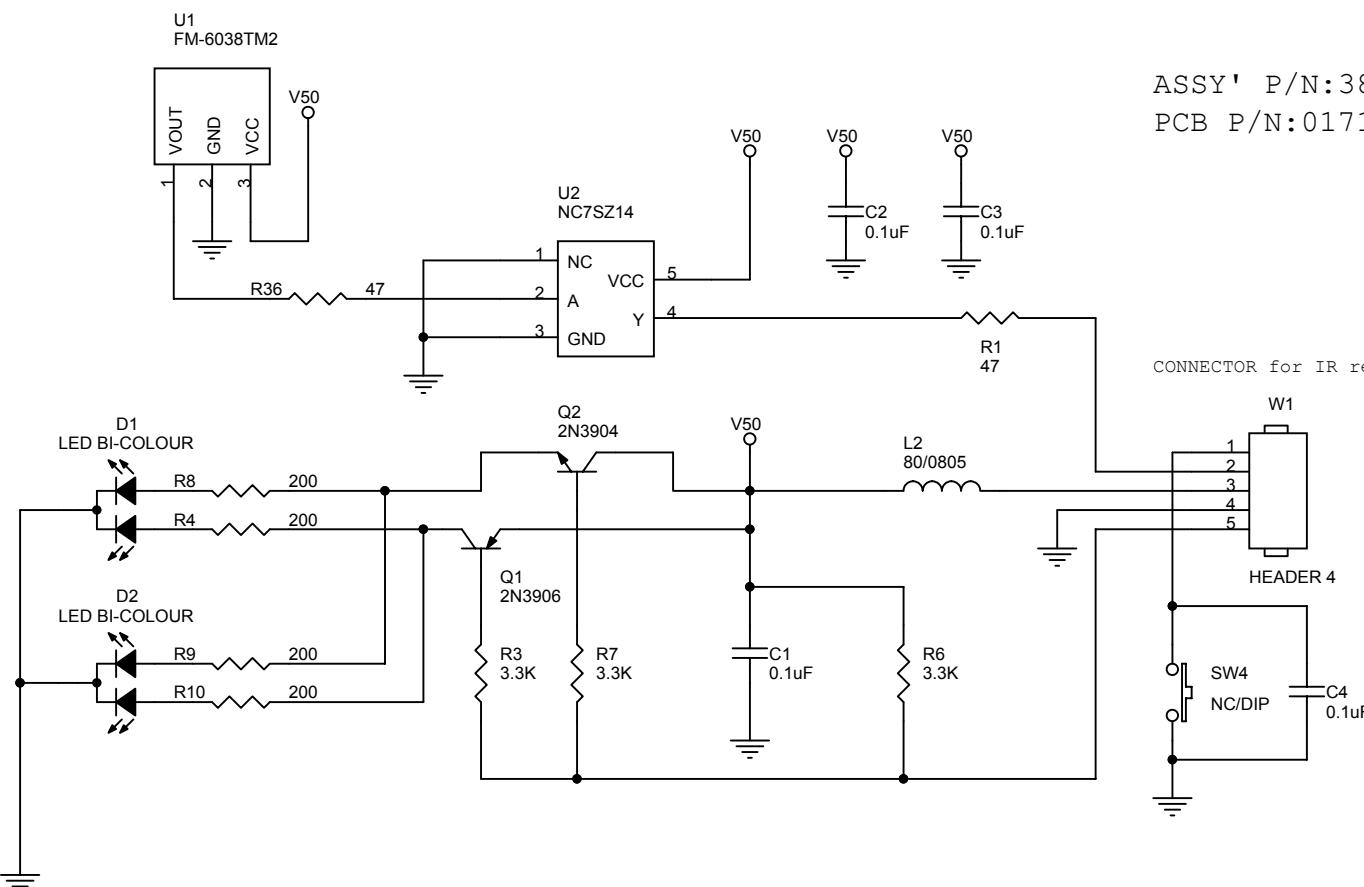


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY		KEY			
CHECKED BY:		PCB P/N: 0171-2242-1421	Sheet	7	of 17
		ECN NO: ACPN04050007	REV:	01	
APPROVED BY:		SCH FILE: GA30-M1.DSN	PCB REV:	01	
		PCB FILE: GAW30-MT1.PCB	DATE:	Jun 08, 2004	

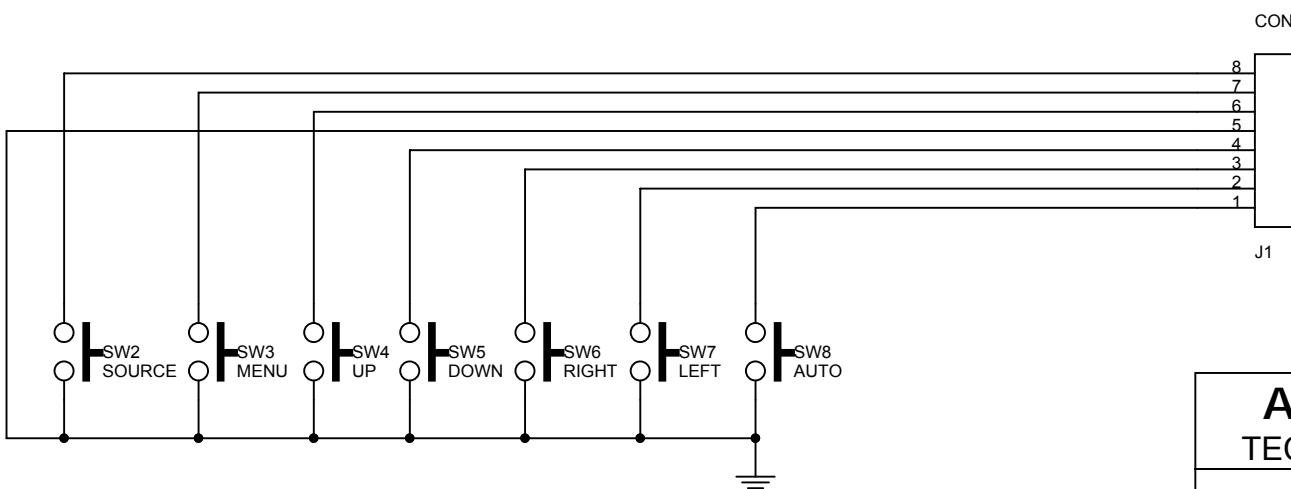




AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITY	LVDS		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	9 of 17
		ECN NO.:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV:	01
		PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 07, 2004

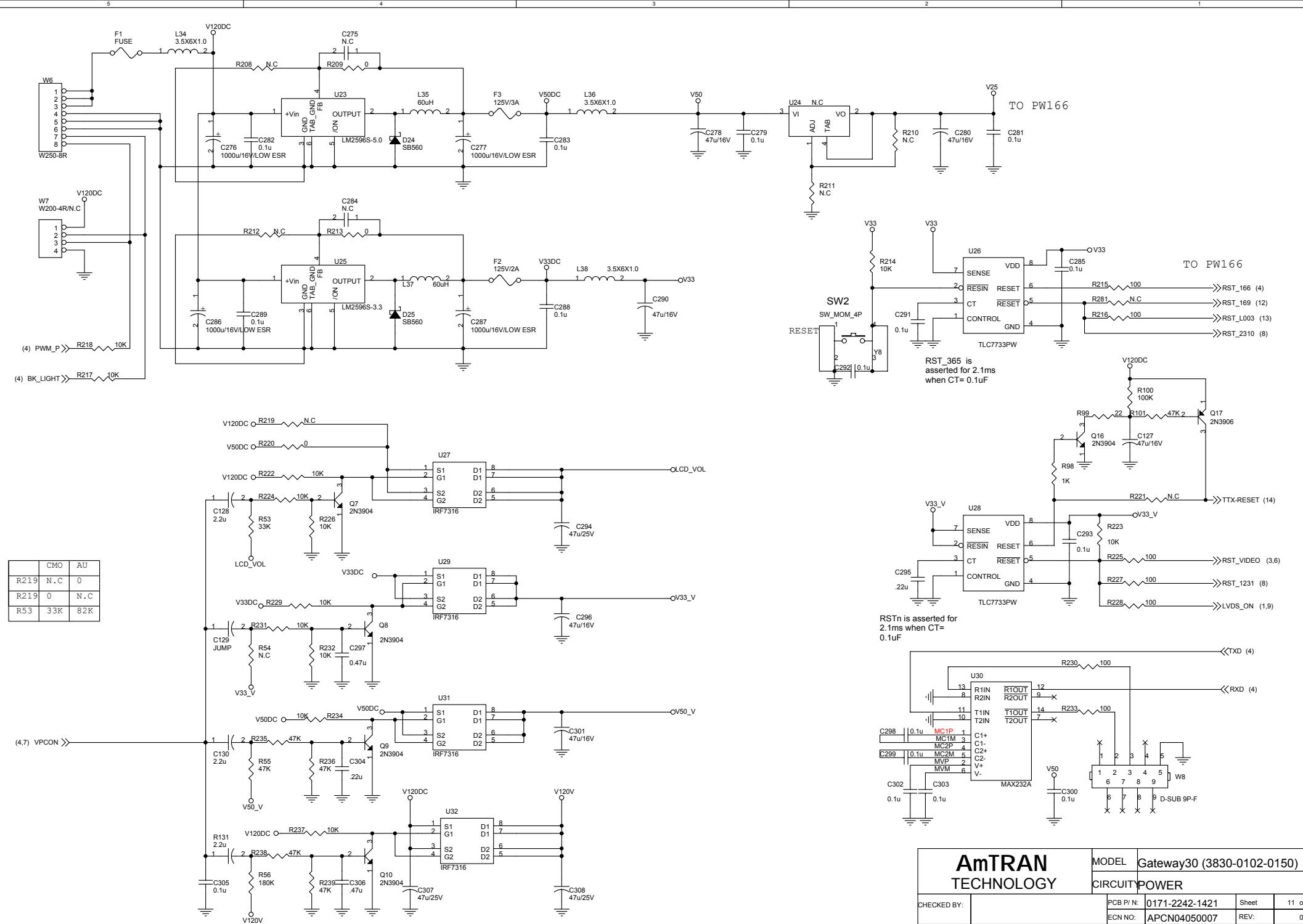


ASSY' P/N: 3830-0042-0189  
PCB P/N: 0171-1641-0231

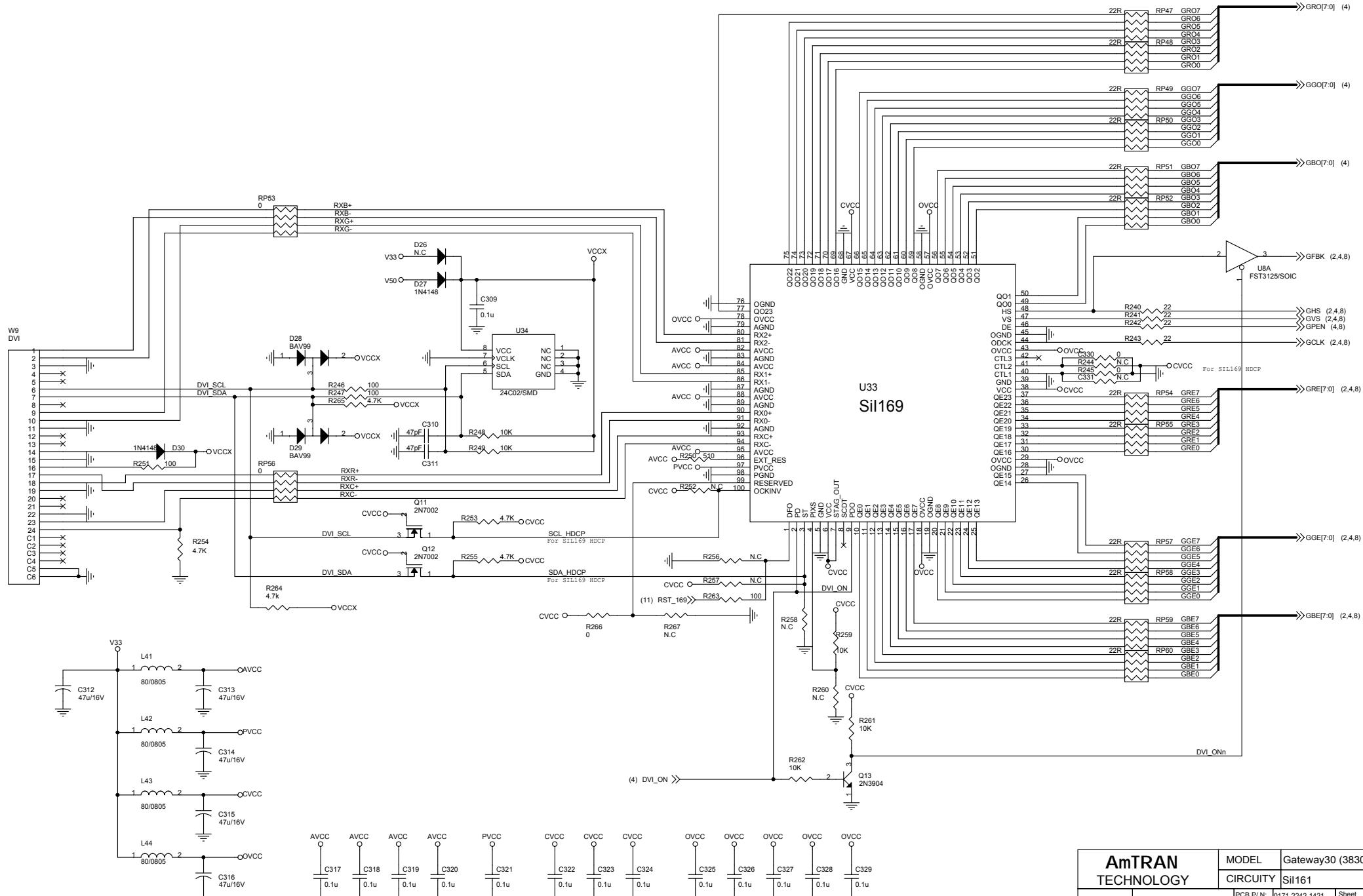


ASSY' P/N: 3830-0032-0156  
PCB P/N: 0170-1740-1191

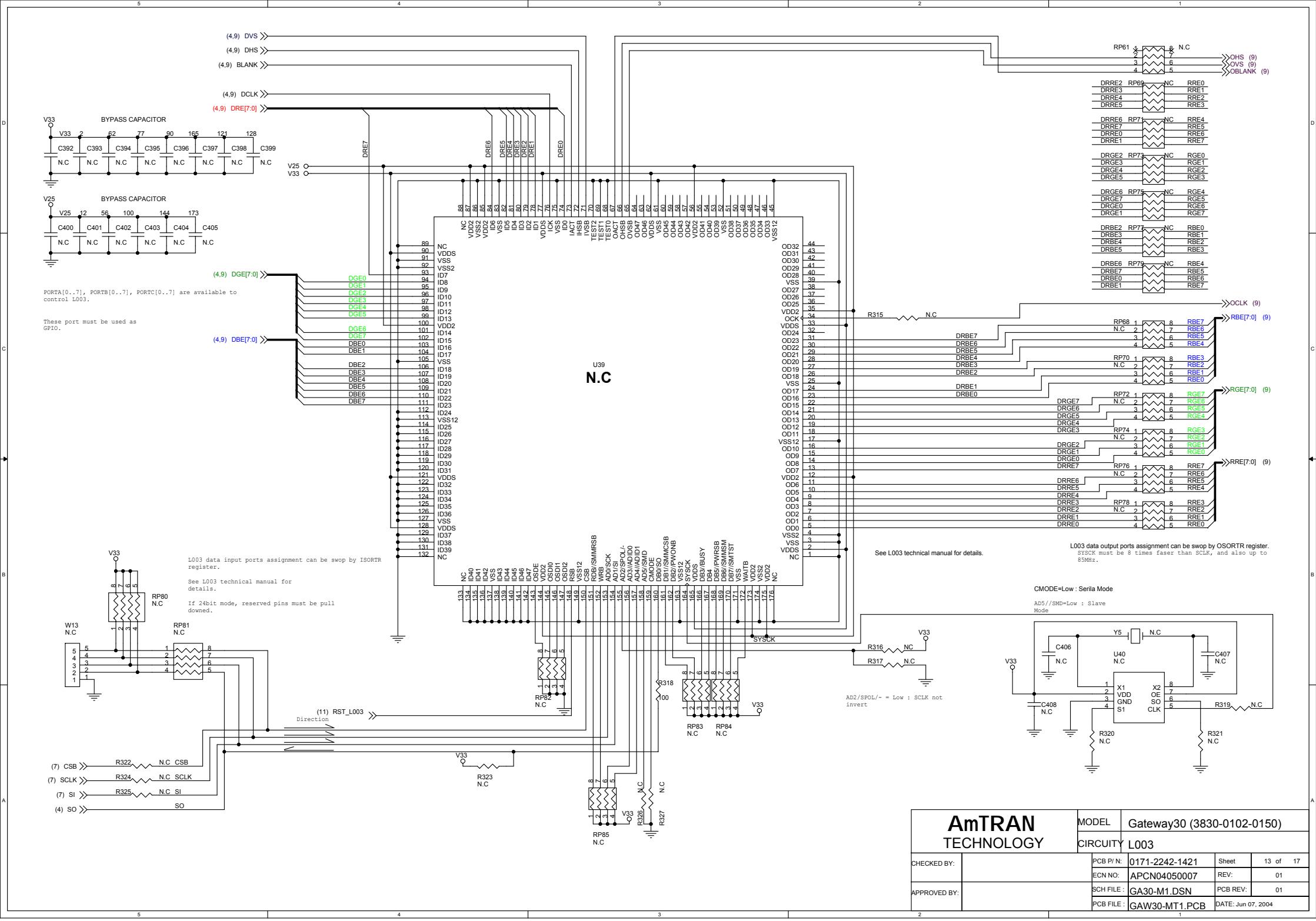
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY		IR&DISPLAY			
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	10 of 17
		ECN NO:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV:	01
		PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 08, 2004

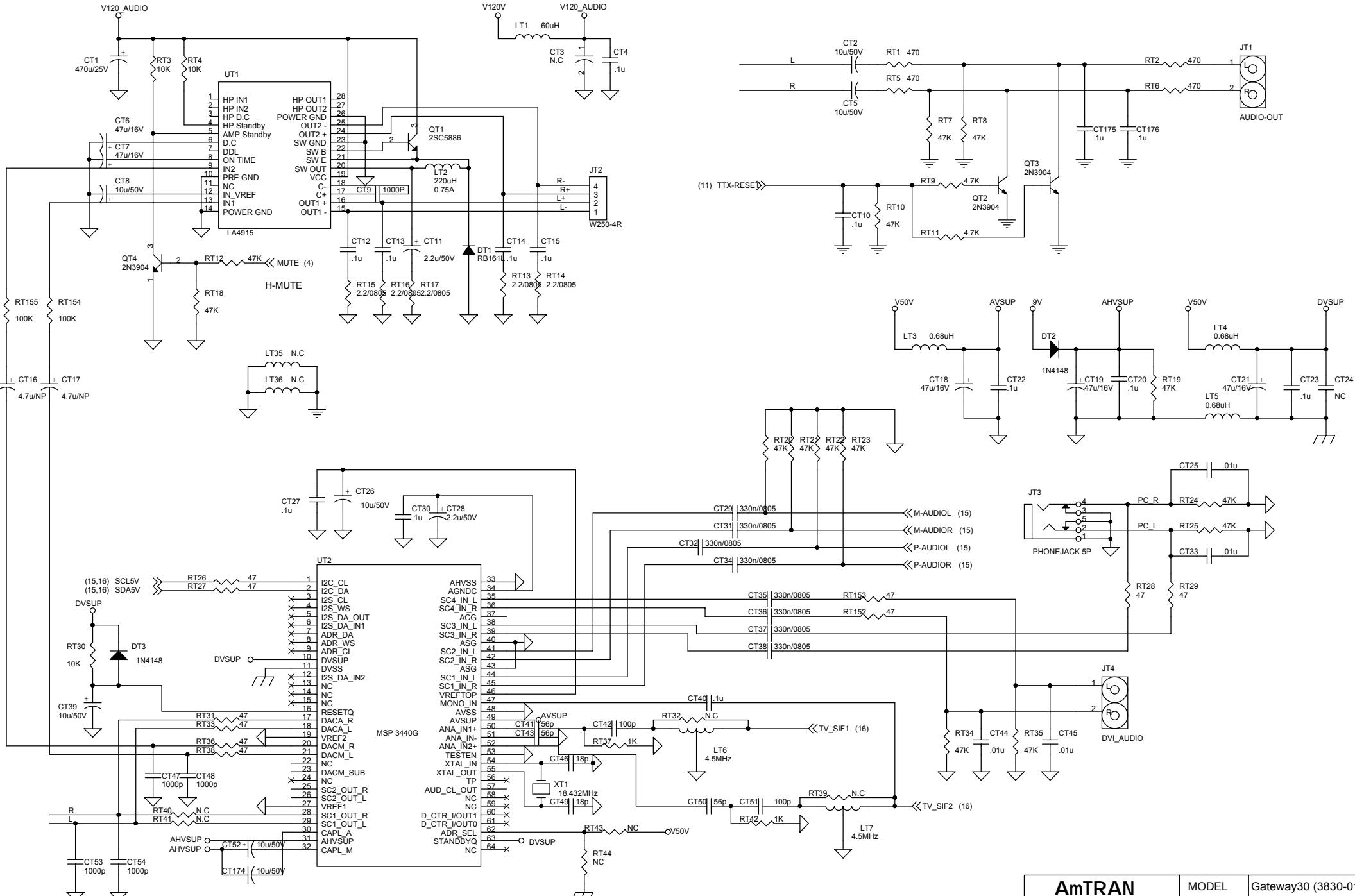


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)	
CIRCUIT		POWER		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet 11 of 17
		ECN NO:	APCN04050007	REV: 01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV: 01
		PCB FILE:	GA3W-MT1.PCB	DATE: Jun 07, 2004

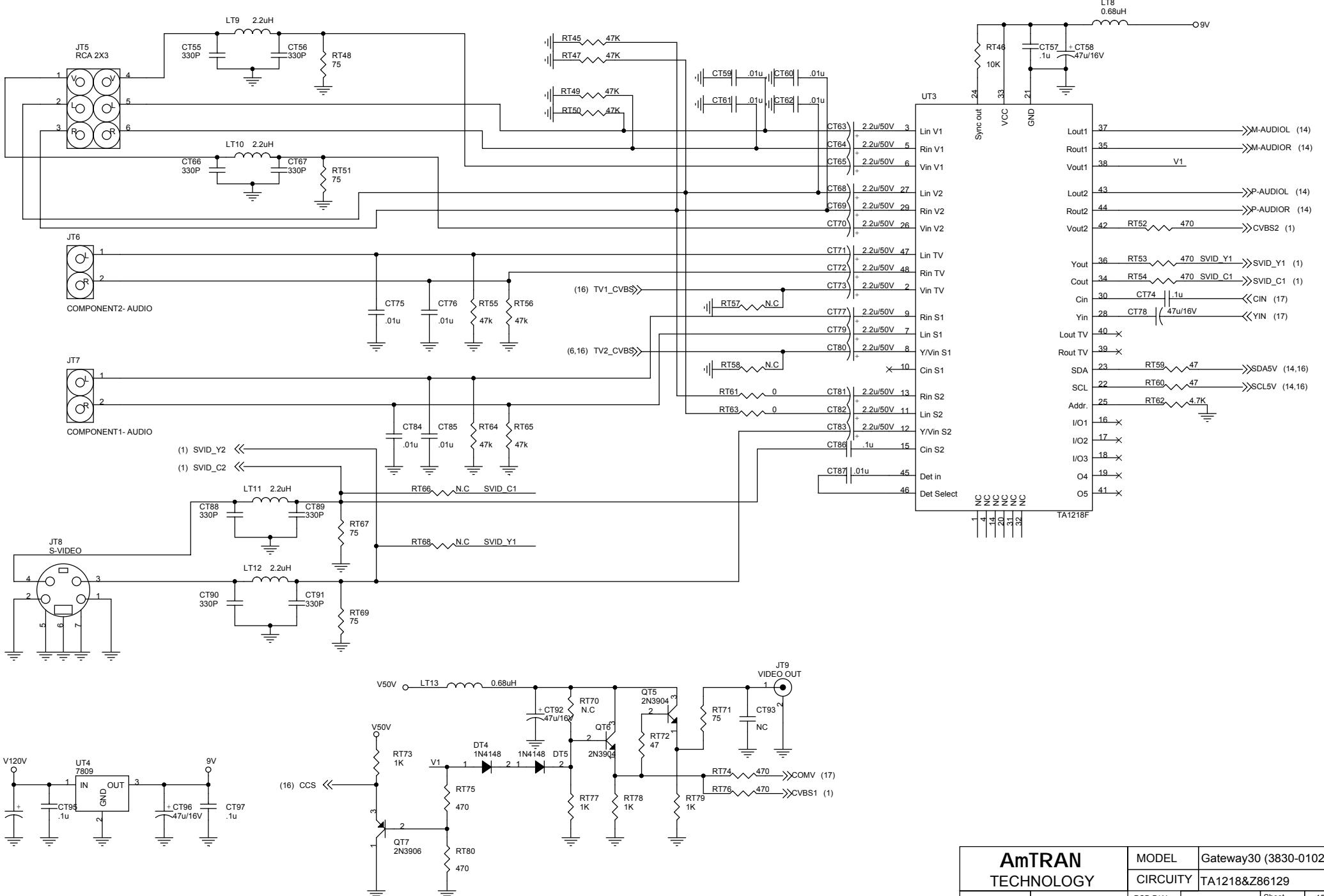


AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITRY	Si161		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	12 of 17
		ECN NO.:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV.:	01
		PCB FILE:	GA30-MT0.PCB	DATE:	Jun 2004

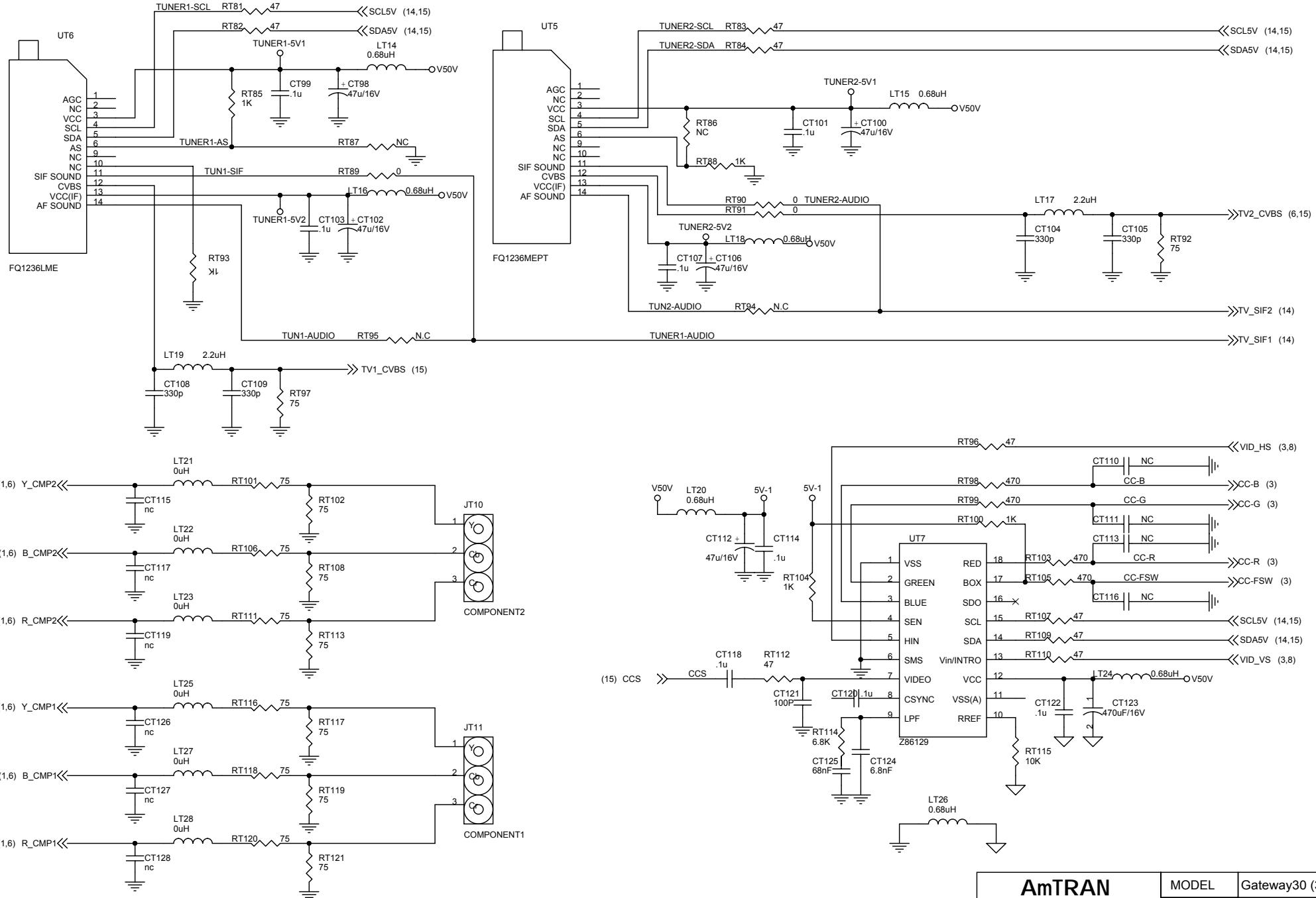




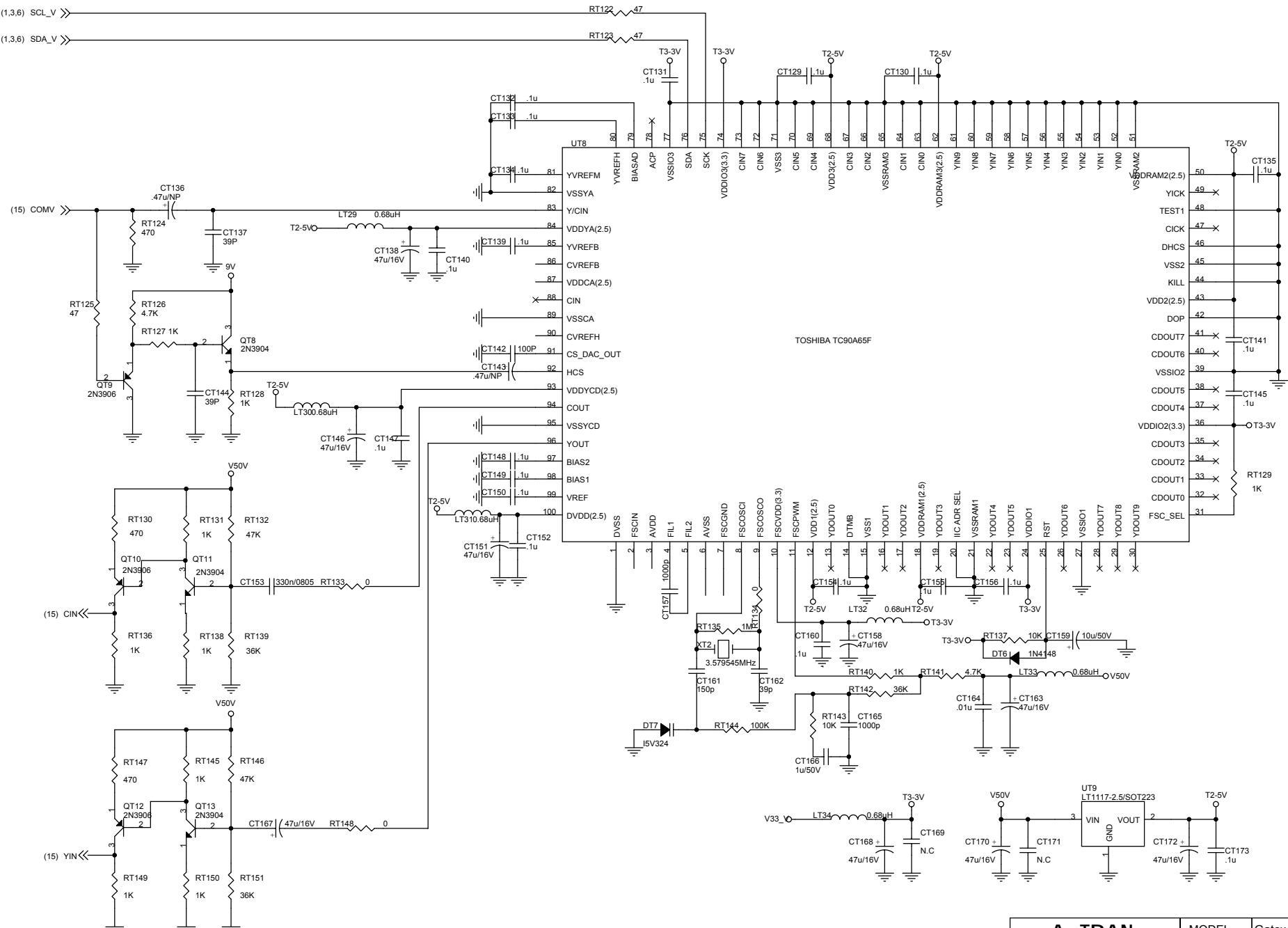
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)	
CIRCUITY		LA4915&MSP3450G		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet 14 of 17
ECN NO.:	APCN04050007	REV.:	01	
SCH FILE:	GA30-M1.DSN	PCB REV.:	01	
APPROVED BY:		PCB FILE:	GA30W-MT1.PCB	DATE: Jun 07, 2004



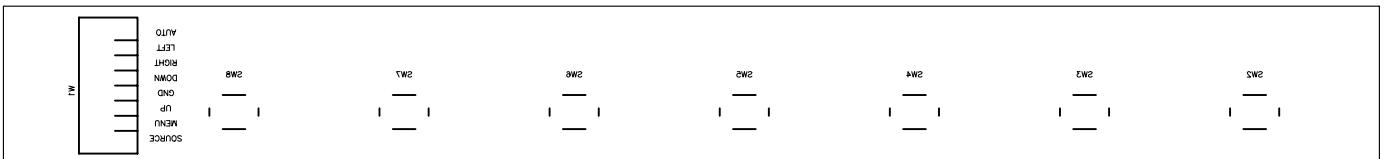
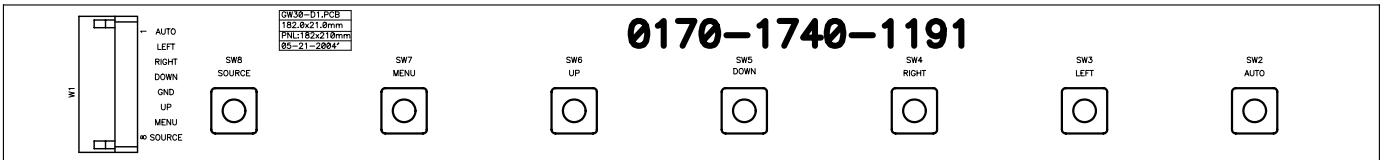
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
CIRCUITY		TA1218&Z86129			
PCB P/N:	0171-2242-1421	Sheet	15	of	17
ECN NO:	APCN04050007	REV:	01		
SCH FILE:	GA30-M1.DSN	PCB REV:	01		
PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 07, 2004		

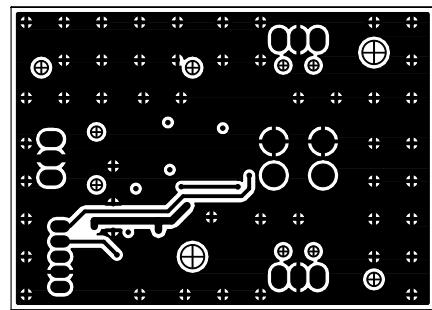
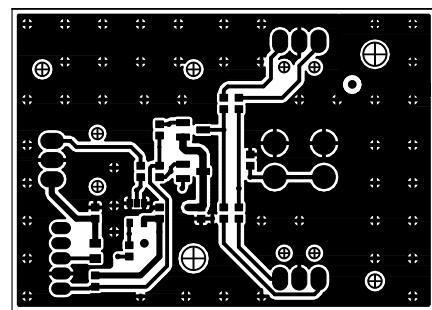
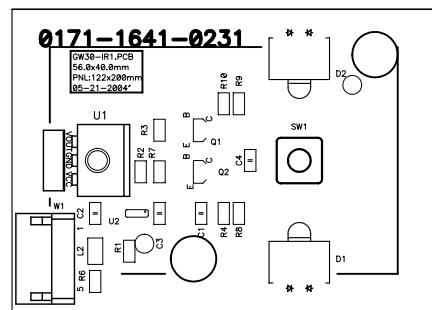


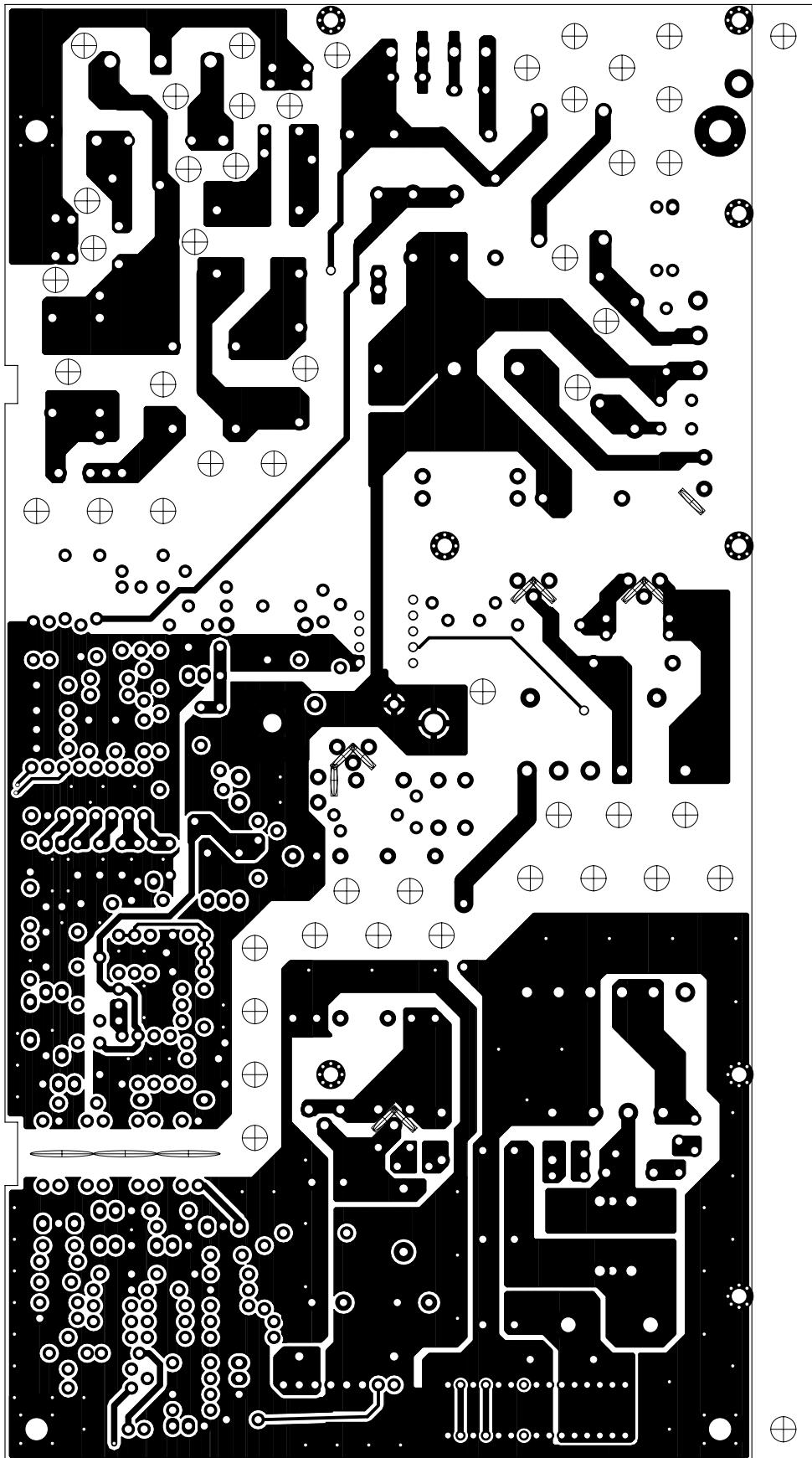
AmTRAN TECHNOLOGY		MODEL	Gateway30 (3830-0102-0150)		
		CIRCUITY	TUNER&MSP3455G		
CHECKED BY:		PCB P/N:	0171-2242-1421	Sheet	16 of 17
		ECN NO:	APCN04050007	REV:	01
APPROVED BY:		SCH FILE:	GA30-M1.DSN	PCB REV:	01
		PCB FILE:	GAW30-MT1.PCB	DATE:	Jun 07, 2004



AmTRAN TECHNOLOGY	MODEL	Gateway30 (3830-0102-0150)
CIRCUITY	TC90A65F	
CHECKED BY:		PCB P/N: 0171-2242-1421 Sheet 17 of 17 ECN NO: ACPN04050007 REV: 01
APPROVED BY:		SCH FILE: GA30-M1.DSN PCB REV: 01 PCB FILE: GAW30-MT1.PCB DATE: Jun 07, 2004



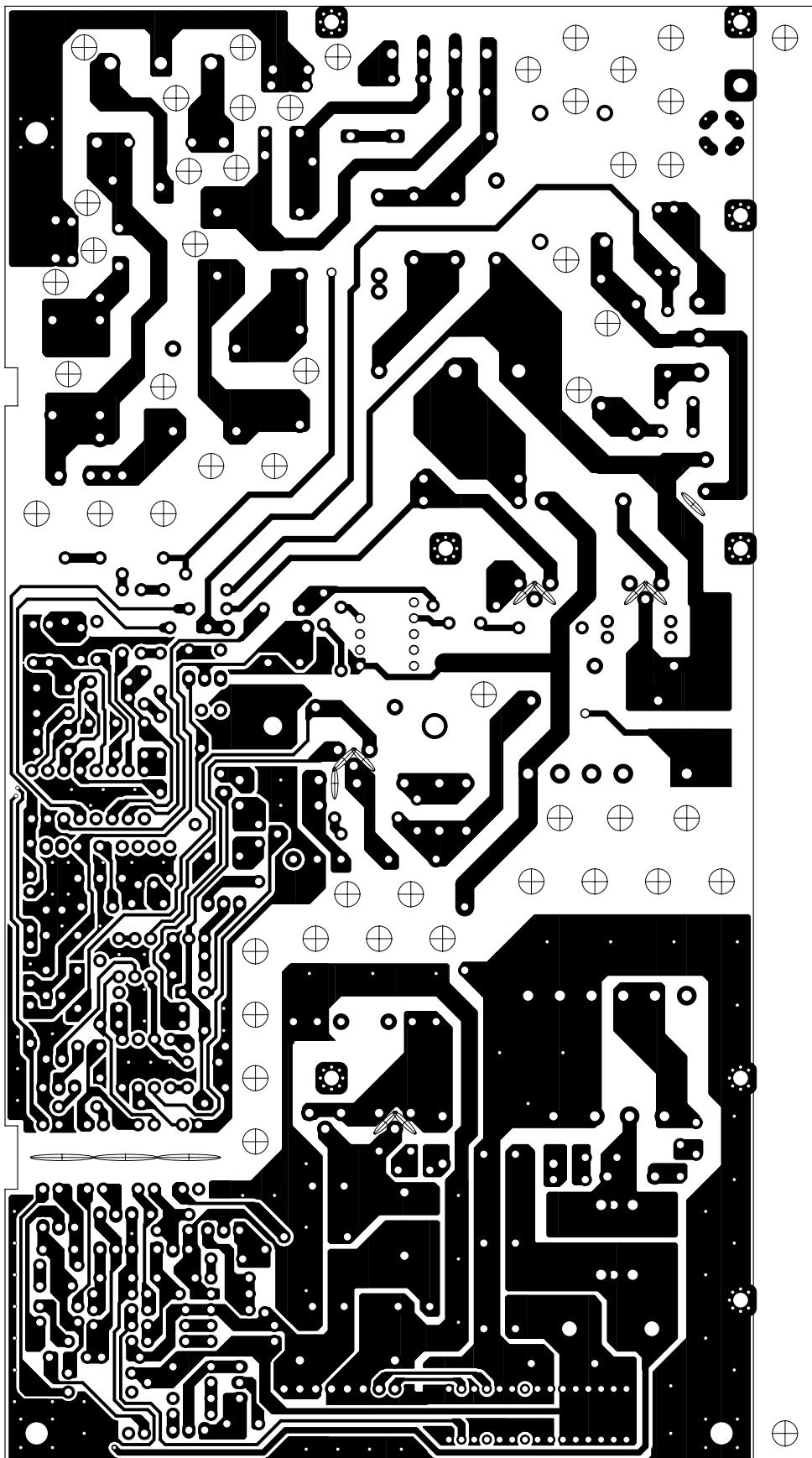




TOP TRACE

AmTRAN Co.,Ltd  
0171-2041-0281  
GW30-T1,PCB  
FR4 1/2 1.6T  
SIZE:230x118mm  
P/N.:230x256mm  
Q'TY:150 psl.  
DATE:06-29-'04  
Rec date:07-05

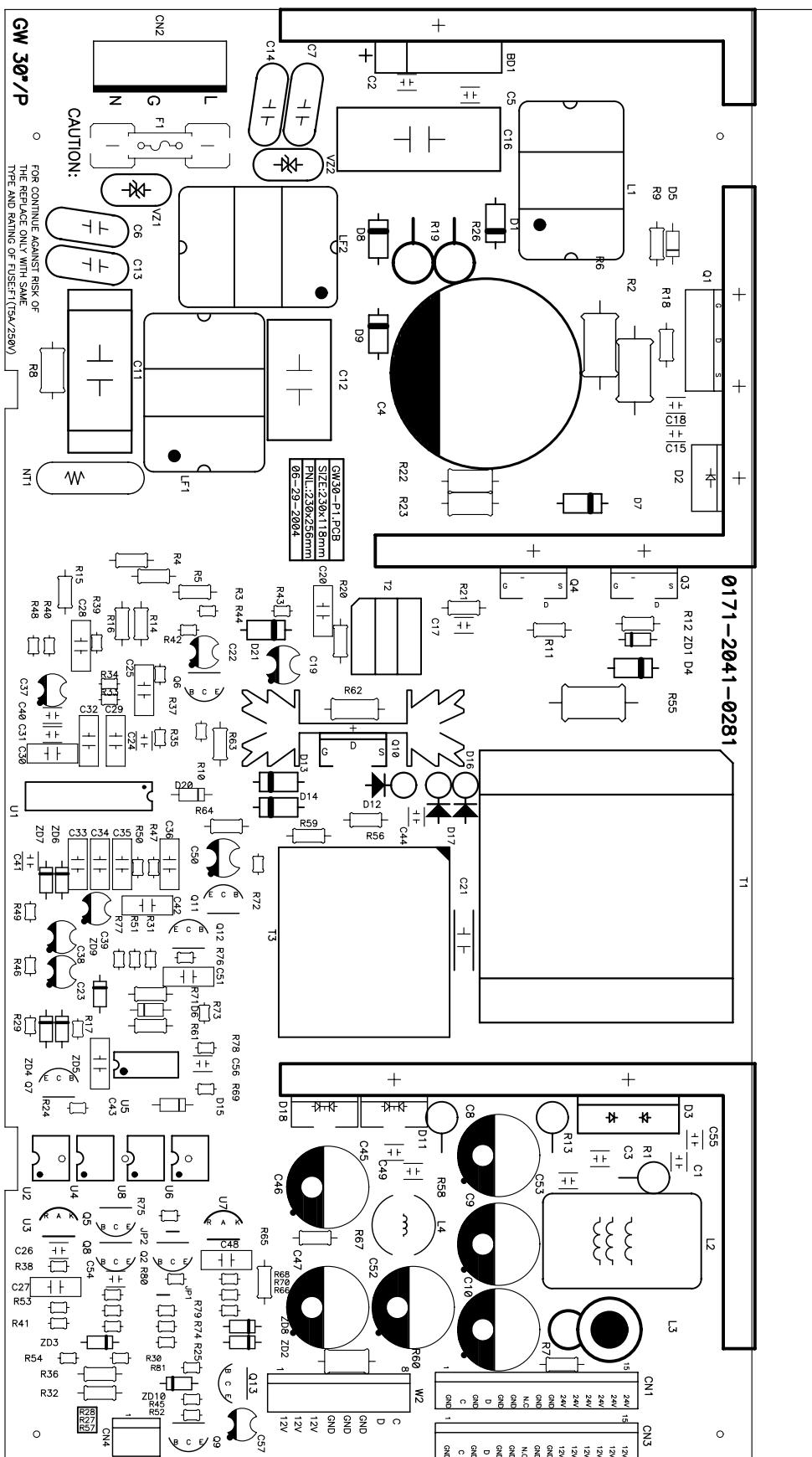


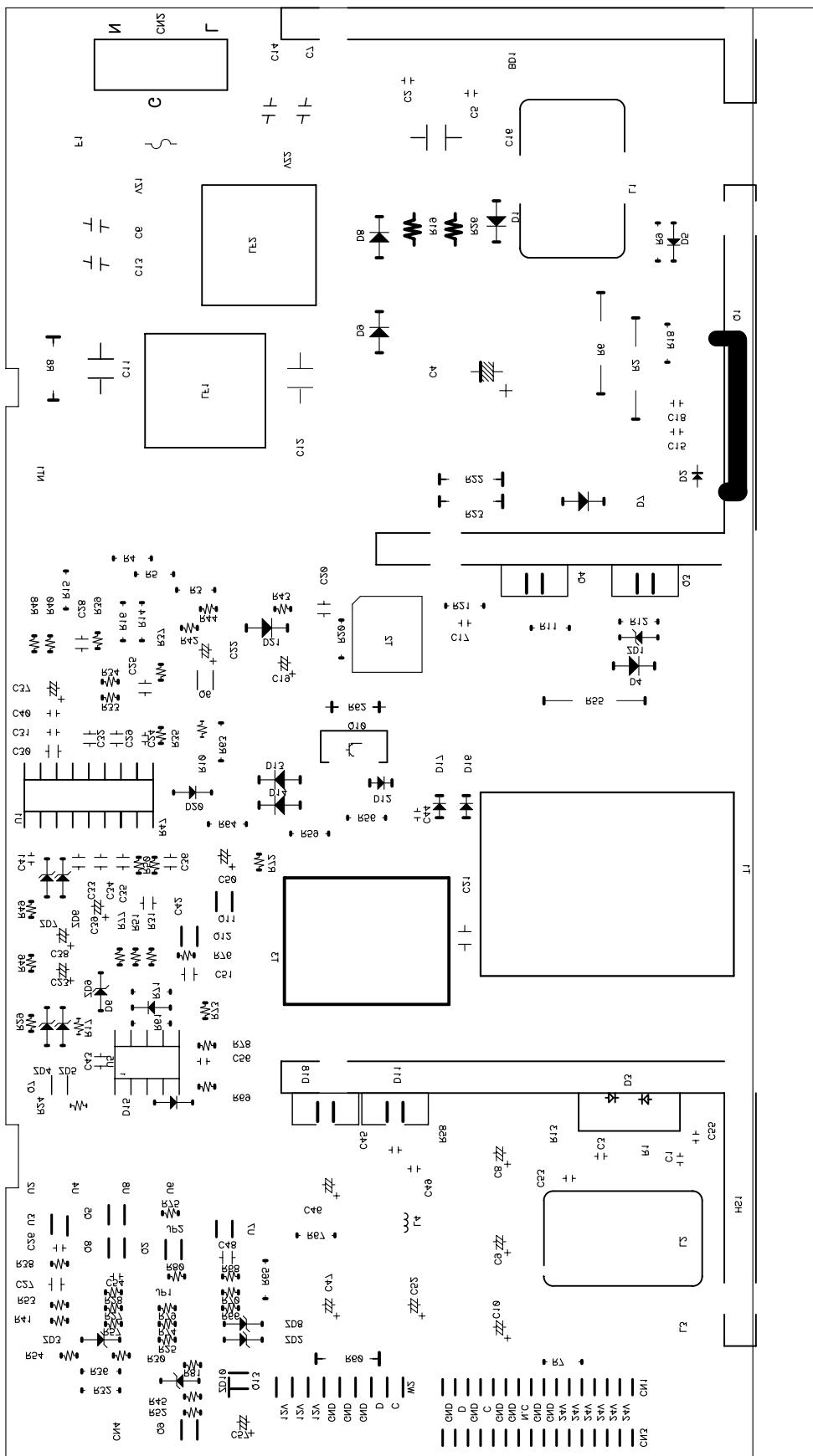


BOT TRACE

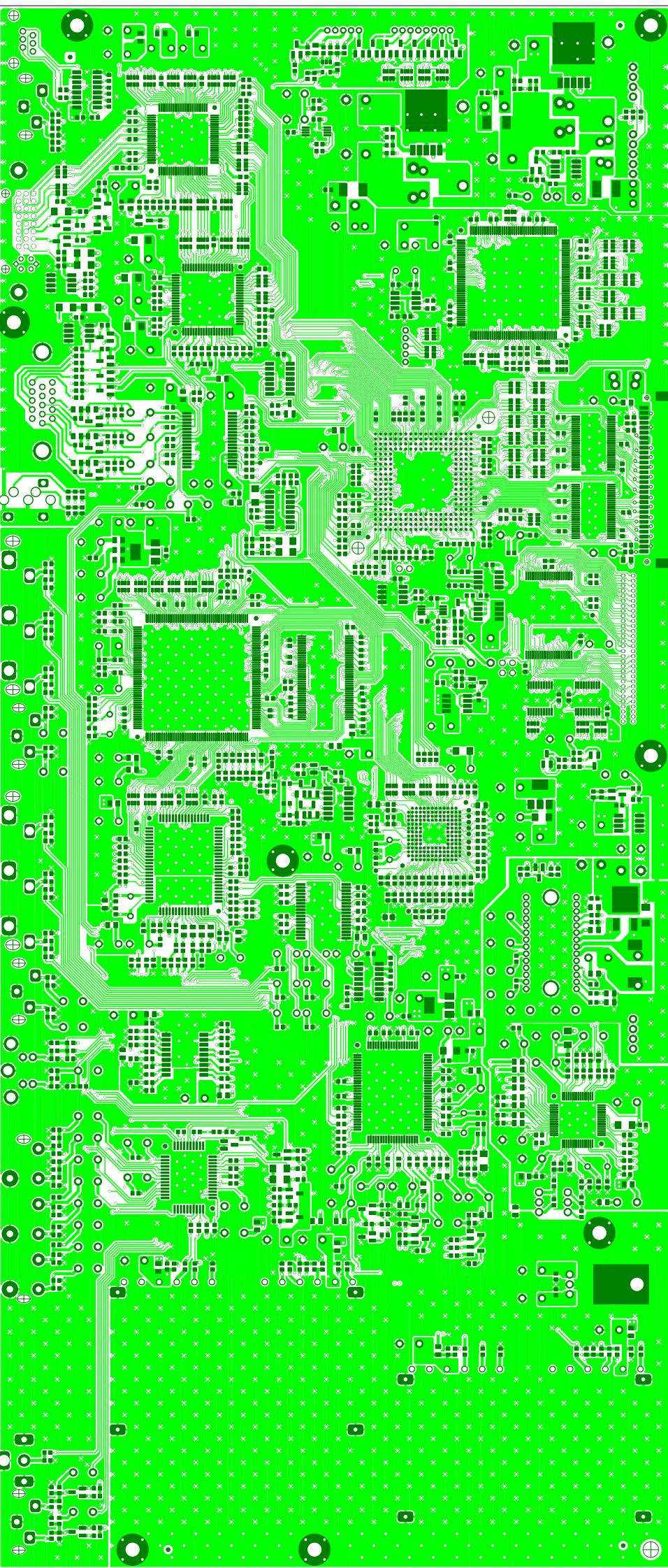
AmTRAN Co.,Ltd  
0171-2041-0281  
GW30-T1,PCB  
FR4 1/2 1.6T  
SIZE:230x118mm  
P/N.:230x256mm  
Q'TY:150 psl.  
DATE:06-29-'04  
Rec date:07-05







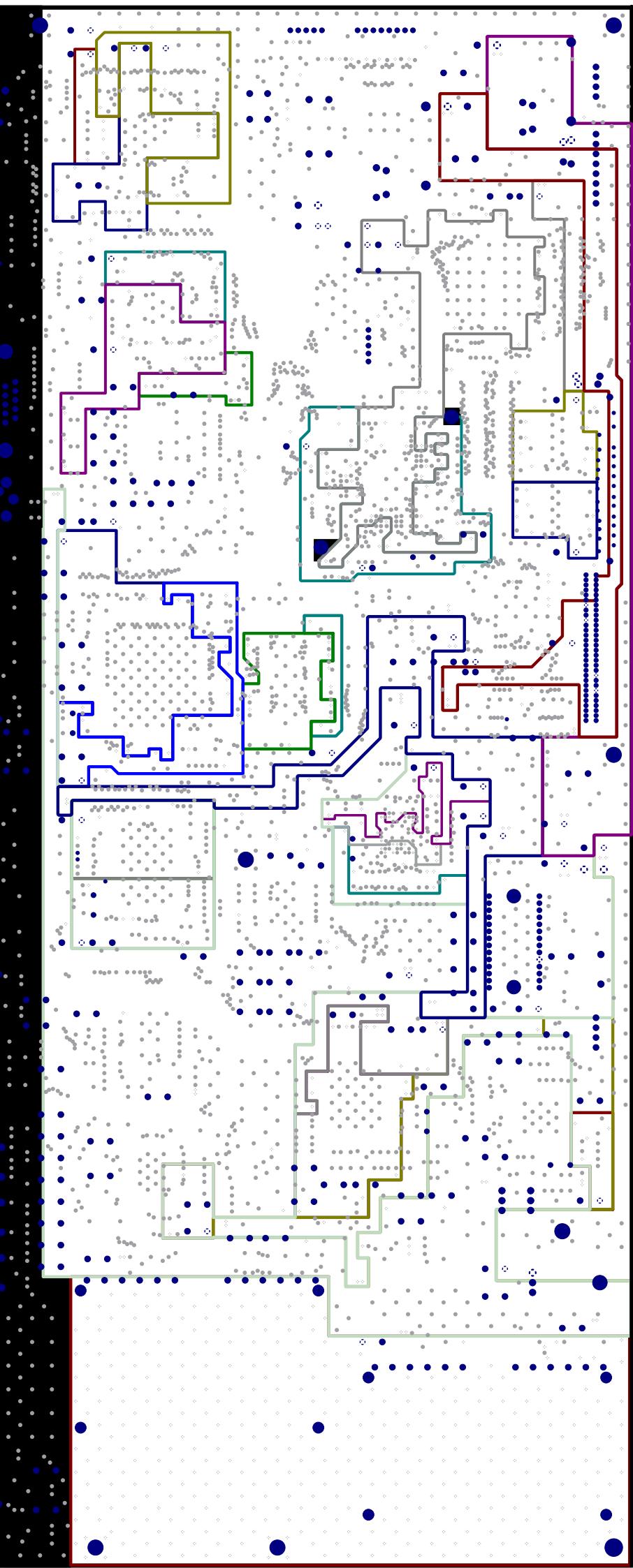
AmTRAN Co.,Ltd  
 0171-2041-0281  
 GW30-T1.PCB  
 FR4 1/12 1.6T  
 SIZE:230x118mm  
 PNL.:230x256mm  
 Q.TY:150 p/n.  
 DATE:06-29-'04  
 Rec date:07-05



AmTRAN Co.,Ltd  
0171-2242-1423  
GAW30-MT3-PCB  
FR4 4M 1.6T  
SIZE:95x170mm  
P/NL:355x90mm  
QTY: \* PCS  
REC.: \*

Layer Stackup

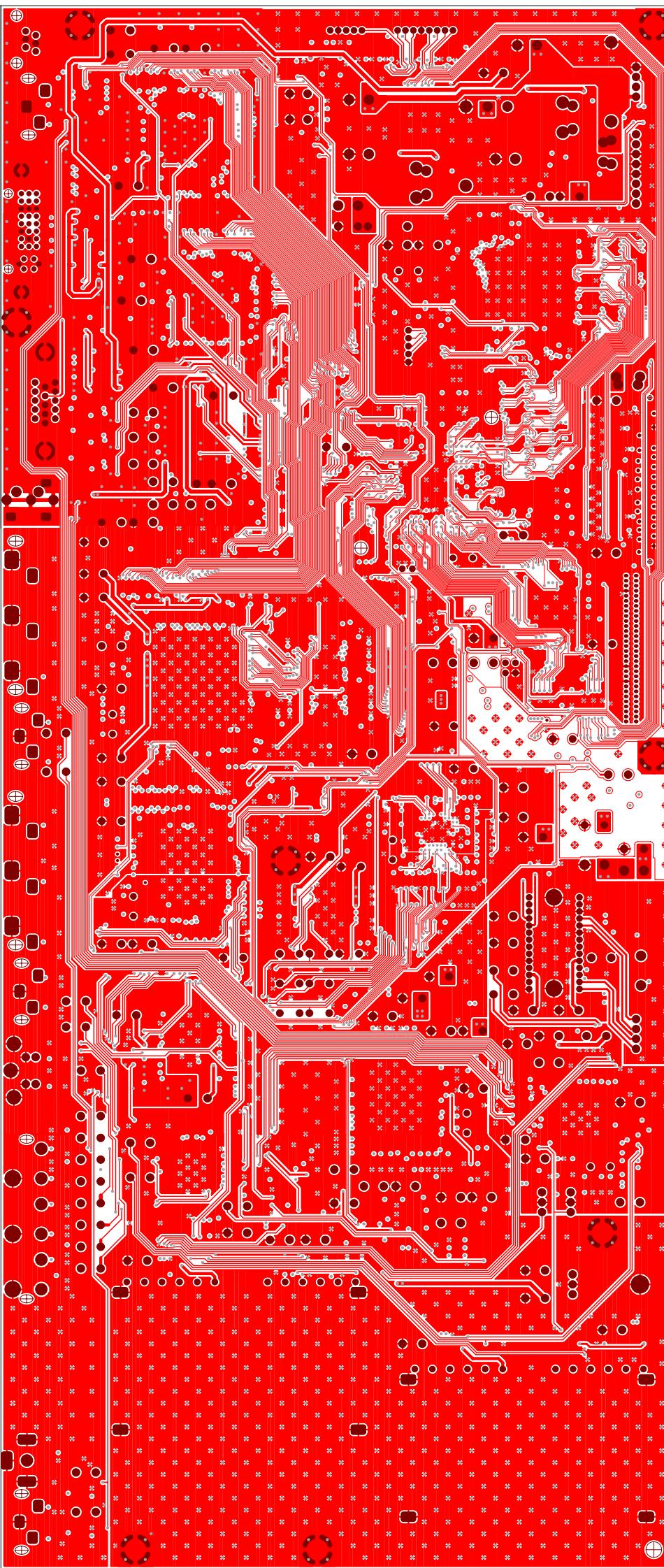
The diagram illustrates the four-layer stackup of the PCB. From top to bottom, the layers are: Top, GND-SCH, VCC, and Bottom. The Top layer contains the majority of the circuitry, while the GND-SCH and VCC layers provide power and ground distribution. The Bottom layer is the structural base of the board.



AmTRAN Co.,Ltd  
0171-2242-1-23  
GAW30-MT3-PCB  
FR4 4M 1.6T  
SIZE:95x170mm  
P/N.:351x90mm  
QTY: \* PCS  
REC.: \*

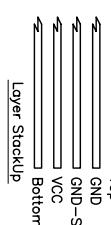
Layer Stackup

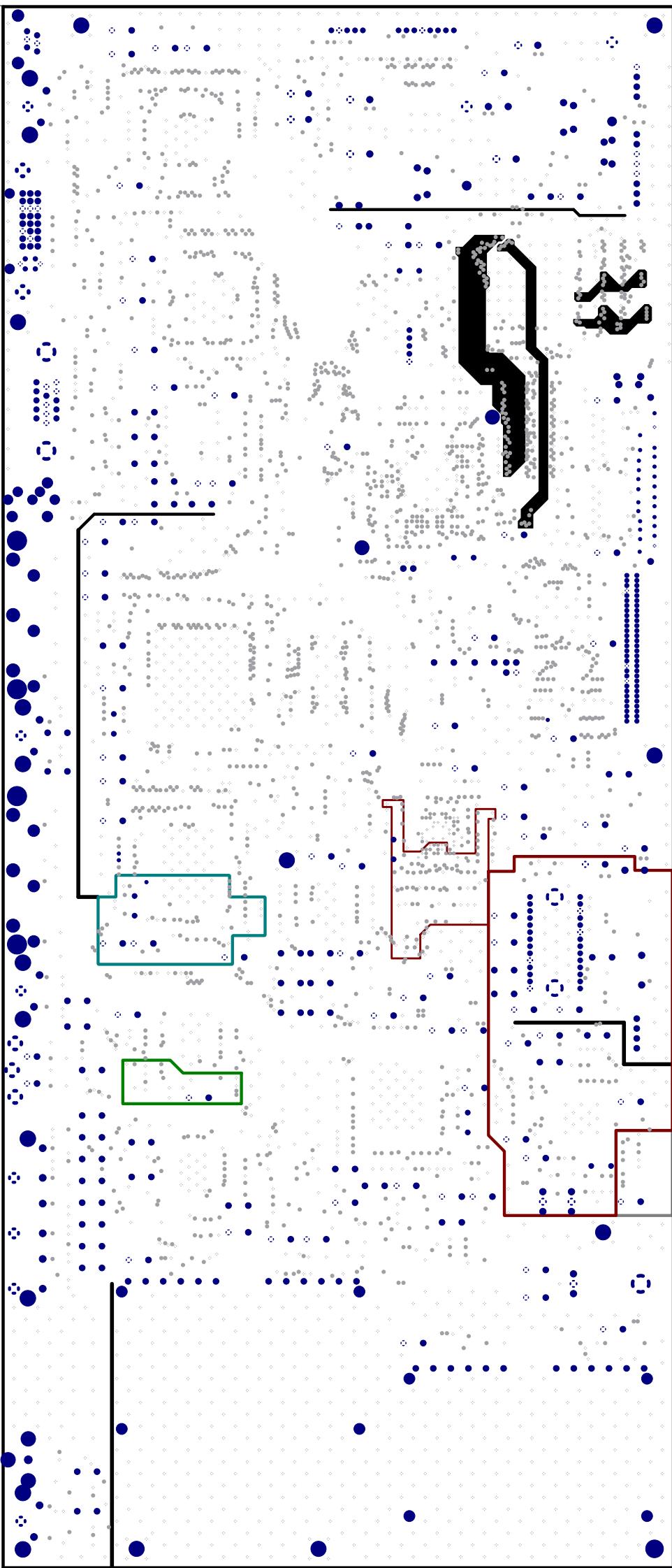
Top  
GND  
GND-SCH  
VCC  
VCC-Bottom



AmTRAN Co.,Ltd  
0171-2242-1423  
GAW30-MT3 PCB  
FR4 4M 1.6T  
SIZE:95x170mm  
PNL.:35x190mm  
QTY: \* PCS  
REC.: \*

Layer Stackup





AmTRAN Co.,Ltd  
0171-2242-1423  
GAW30-MT3-PCB  
FR4 4M 1.6T  
SIZE:395x170mm  
PNL:395x190mm  
QTY: \* PCS  
REC: \*

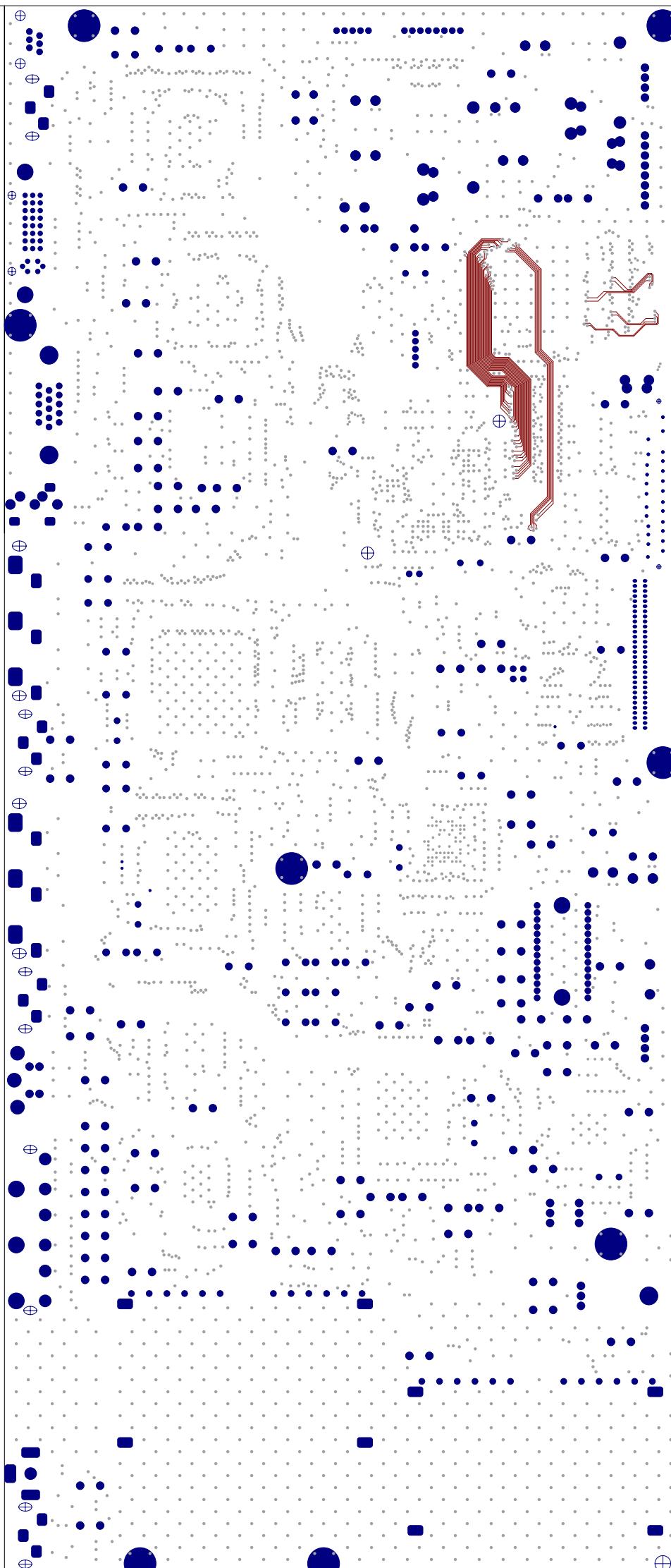
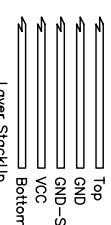
Layer Stackup

The diagram illustrates the stackup of the PCB layers:

- Top:** The topmost layer of the PCB.
- GND:** A ground plane layer.
- GND-SCH:** A ground-signal-ground (GSG) stackup layer.
- VCC:** A power supply layer.
- Bottom:** The bottommost layer of the PCB.

AmTRAN Co.,Ltd  
0171-2242-1-23  
GAW30-MT3-PCB  
FR4 4M 1.6T  
SIZE:95x170mm  
PNL.:35x190mm  
QTY: \* PCS  
REC.: \*

Layer Stackup



0171-2242-1423

AmTRAN Co.,Ltd

0171-2242-1423

GAW30-MT3-PCB

FR4 4M 1.6T

SIZE:95x170mm

PNL.:35x90mm

QTY: \* PCS

REC.: \*

Top

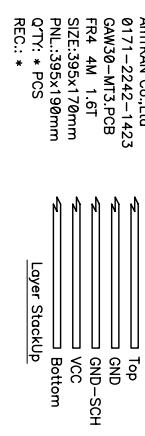
GND

GND-SCH

VCC

Bottom

Layer Stackup

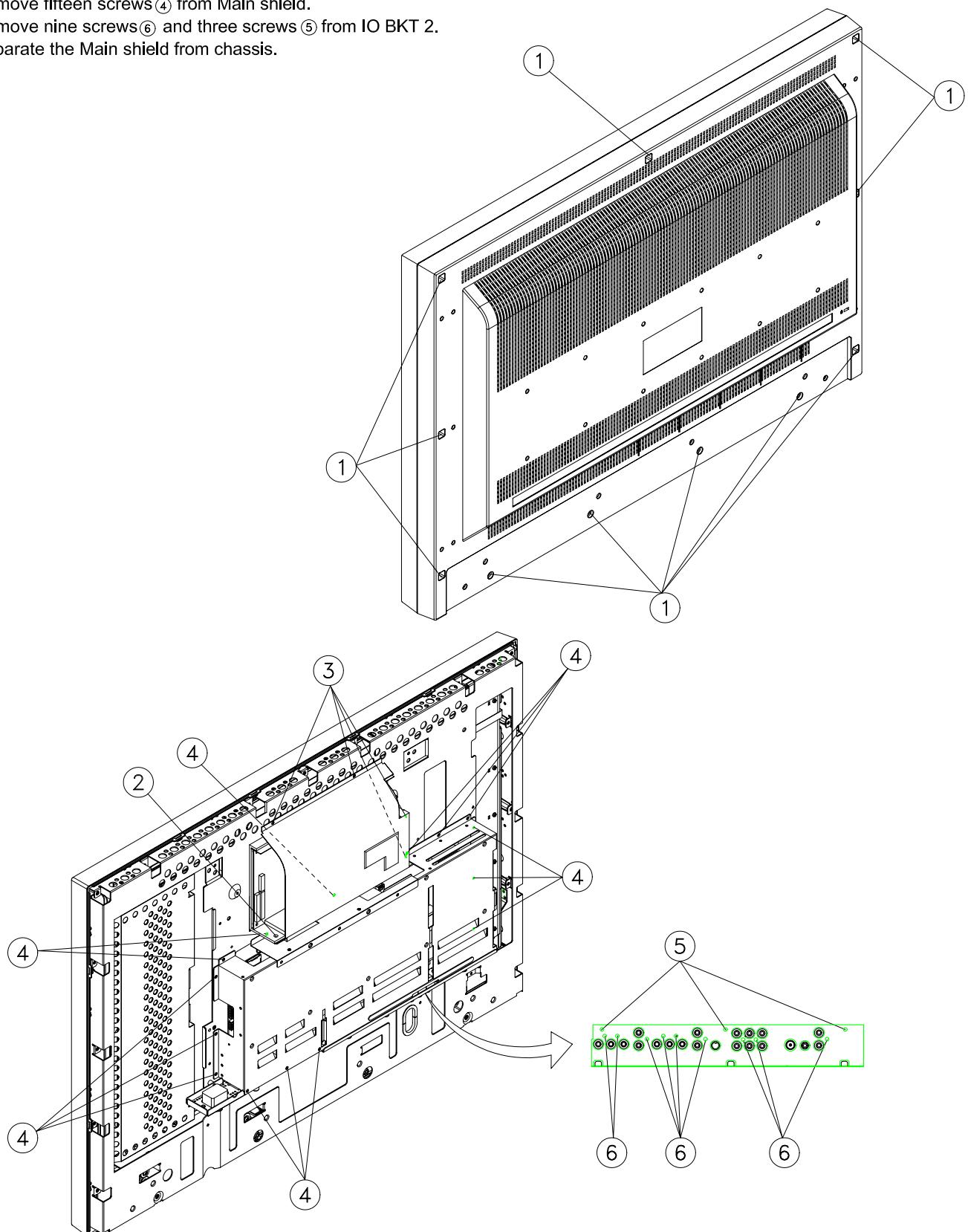


## DISASSEMBLY INSTRUCTIONS

### 1. REAR COVER ASS'Y REMOVAL

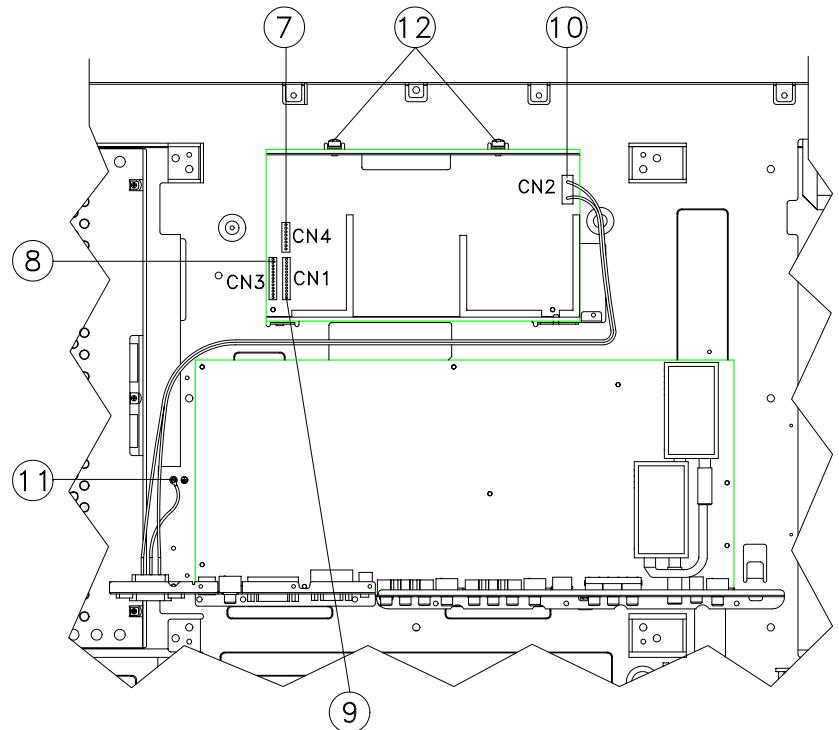
*Note: Spread a mat underneath to avoid damaging the LCD TV surface.*

- 1) Remove eleven screws ① from rear cover.
- 2) Separate the rear cover.
- 3) Remove four small screws ③ and one large screw ② Power shield.
- 4) Separate the Power shield.
- 5) Remove fifteen screws ④ from Main shield.
- 6) Remove nine screws ⑥ and three screws ⑤ from IO BKT 2.
- 8) Separate the Main shield from chassis.



## 2. POWER BD ASS'Y REMOVAL

- 1) Remove the connector ⑩ (CN2) of the AC Power cable.
- 2) Remove the connector ⑦ (CN4) of the main bd cable.
- 3) Remove the connector ⑧ ⑨ (CN3)(CN1) of the inverter cable.
- 4) Remove one screw ⑪ from chassis.
- 5) Remove two screws ⑫ from Power BD Ass'y.
- 6) Separate the Power BD Ass'y.



## 3. MAIN BD ASS'Y REMOVAL

- 1) Remove the connector ⑬ (W7) of the LVDS signal cable.
- 2) Remove the connector ⑭ (W2) of the speaker cable.
- 3) Remove the connector ⑮ (W3) of the Main BD cable.
- 4) Remove the connector ⑯ (W10) of the keypad cable.
- 5) Remove the connector ⑰ (W9) of the IR cable.
- 6) Remove four small screws ⑯, Four hexagon screws ⑰,  
Two screws ⑱ and one screw ⑲ from IO-BKT 1.
- 7) Separate the IO-BKT 1.
- 8) Remove eight screws ⑰ and three screws ⑲ from  
MAIN BD.
- 9) Separate the MAIN BD and the IO BKT 2.

