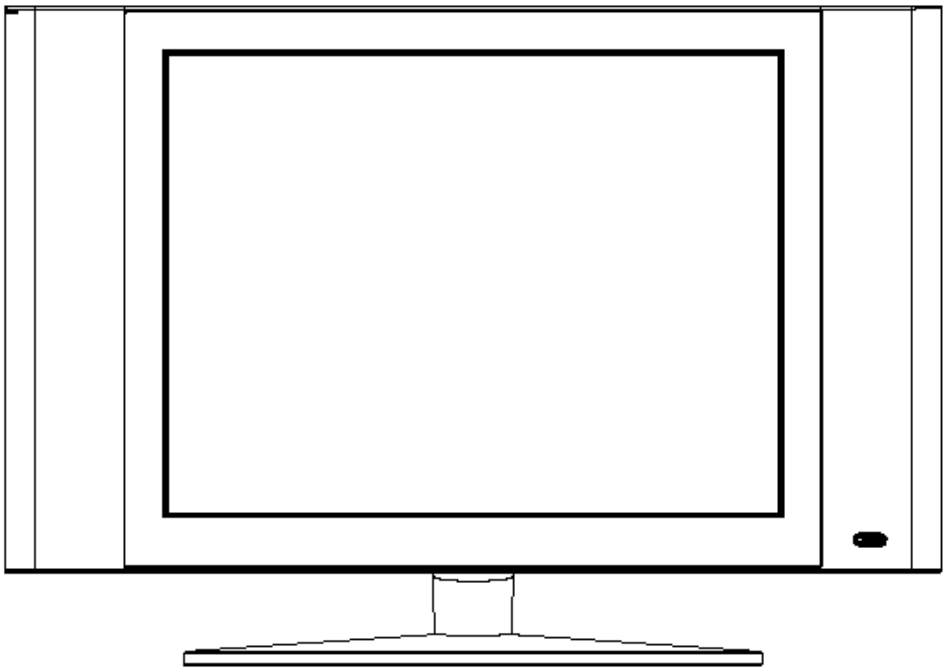
Service Manual



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Top Confidential

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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

TM-15B is a world class TFT LCD analog display monitor/TV that includes the following features.

1. Digital On Screen Display Controls
   User friendly buttons [SOURCE,AUDIO SOURCE,MENU, ▲,▼—, ＋, POWER] allowing for picture perfect quality.

2. Power Supply Support
   Ability to accept voltages from 100~240Vac, thus allowing a full range of input AC power supply.

3. Power Saving System
   This environmental friendly product is able to reduce power consumption by more than 90% in Active Off Mode.

4. Frequency Range
   Monitor can support video standards from VGA to XGA, where Horizontal Frequency is from 30 to 62kHz and Vertical Refresh Rate is from 50 to 75Hz.

Chapter 2 Specification

Characteristic	Description
LCD Panel	ADI Mitsubishi 15.0” AA150XC01, 0.297mm (H/V), Anti-glare and Hard-coating 3H
Viewing Angles	-60~50(V), -75~75(H) (Typical)
Luminance	300cd/m^2 (Typical)
Contrast Ratio	450 (Typical)
Signal Input	Video：RGB analog Sync：H.V. Separate Sync, H.V. Composite Sync (TTL Compatible), Sync. On Green Horizontal：30K~62KHz Vertical ：50~75Hz
Connector	Analog: 15 Pin Mini D-Sub F-terminal, S-video, AV input (RCA type.) , Mini Jack x 2 (For Audio input) PC/AV, Mini Jack x 1 (For Audio ouput)
Maximum Resolution	1024x768
Display Area	304.1 (H) ． 228.1 (V) (15.0-inch diagonal)
Power Voltage	90 Vac ~ 240 Vac (50 / 60 Hz)
Power Consumption	60W (Max.) (adaptor plus monitor)
Operating Conditions	Temperature : 41°F to +95°F(5°C~35°C), Humidity : 20~80% RH, Pressure: 800~1114hpa
Storage Conditions	Temperature : 23°F to +104°F (-5℃ to +40℃) Humidity : 20% to 90% (no condensation) Pressure: 400~1114hpa
Mechanical Dimensions	Width: 469.9mm Height: 331.5mm Depth: 176.0mm Monitor Weight: 4.6kg
Package Dimensions	Width: 525.0mm Height: 425.0mm Depth: 205.0mm Gross:7.0kg

Chapter 3 On Screen Display

Main unit button

Power
Source
Audio Source
Menu
PROG ▲
PROG ▼
Sound +
Sound -

OSD Adjustment

1. PC Analog
    - A. Picture:
        - a. Auto Contrast
        - b. Contrast
        - c. Brightness
        - d. Backlight
    - B. Image Adjust
        - a. Auto Adjust
        - b. Horizontal
        - c. Vertical
        - d. Clock
        - e. Phase
        - f. Sharpness
    - C. Sound
        - a. Treble
        - b. Bass
        - c. Balance
    - D. Color
        - a. Color Temp
            1. User
            2. 9300k
            3. 6500k
            4. 5500k
        - b. Red
        - c. Green
        - d. Blue
    - E. Feature
        - a. Information
        - b. OSD Setting
            1. Position
            2. OSD Timer (10,20,30,45,60,90,120/sec)
            3. Background
        - c. Language (English, Spanish)
        - d. Resolution Notice (on/off)
        - e. Mode Message (on/off)
        - f. Factory Settings

2. Video Mode
    A. Picture
        a. Contrast
        b. Brightness
        c. Backlight
        d. Color
        e. Tint
        f. Sharpness
        g. Gamma
    B. Sound
        a. Treble
        b. Bass
        c. Balance
    C. Features
        a. Sleep Timer (00,30,60,90,120/Mins)
        b. Freeze (on/off)
        c. Language (English, Spanish)
        d. Factory settings

3. TV Mode
    A. TV Install
        a. Smart surf
        b. Tuner mode
        c. Auto Program
        d. Store
    B. Picture
        a. Contrast
        b. Brightness
        c. Backlight
        d. Color
        e. Tint
        f. Sharpness
        h. Gamma
    C. Sound
        a. Treble
        b. Bass
        c. Balance
        d. Sound mode
    D. Features
        a. Sleep Timer (00,30,60,90,120/Mins)
        b. Freeze (on/off)
        c. Language (English, Spanish)

Factory settings

Chapter 4 Factory preset timings

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

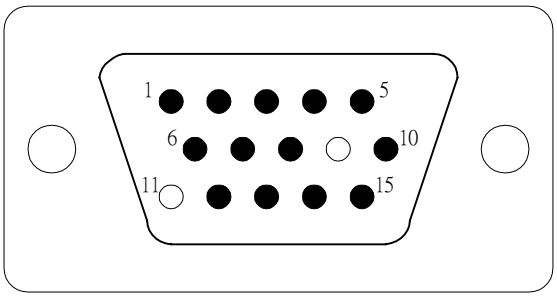
Resolution	Refresh rate	Horizontal Frequency	Vertical Frequency	Horizontal Polarity	Vertical Polarity	Pixel Rate
640x480	60Hz	31.5kHz	59.94Hz	N	N	25.175
640x480	72Hz	37.9kHz	72.81Hz	N	N	31.500
640x480	75Hz	37.5kHz	75.00Hz	N	N	31.500
800x600	56Hz	35.1kHz	56.25Hz	P	P	36.000
800X600	60Hz	37.9kHz	60.317Hz	P	P	40.000
800x600	72Hz	48.1kHz	72.19Hz	P	P	50.000
800x600	75Hz	46.9kHz	75.00Hz	P	P	49.500
1024x768	60Hz	48.4kHz	60.01Hz	N	N	65.000
1024x768	70Hz	56.5kHz	70.07Hz	N	N	75.000
1024X768	75Hz	60.0kHz	75.03Hz	P	P	78.750
640x350	70Hz	31.50Hz	70Hz	P	N	25.175
720x400	70Hz	31.46kHz	70.08Hz	N	P	28.320

Remark : P: positive N: negative

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)



F-type TV RF connector:

a. Signal Level 65dBμV±20

S-Video or Composite Signal:

a. Type Analog

b. Polarity Positive

c. Level

Composite: 1Vp-p

S-Video: Y=0.714Vp-p

C=0.286Vp-p

d. Frequency H: 15.734KHz V: 60Hz(NTSC)

H: 15.625KHz V: 50Hz(PAL)

e. Input impedance 75 ohms

RGB Signal:

a. Sync Type TTL (Separate / Composite) or Sync. On Green

b. Sync polarity Positive or Negative

c. Video Amplitude RGB: 0.7Vp-p

d. Frequency H: support to 30K~62KHz

V: support to 50~75Hz

Audio Signal:

Analog 500mVrms /more than 22Kohm

Chapter 6 Main Board I/o Connections

W4 CONNECTION (TOP→BOTTOM) "OSD CONTROL

Pin	Description
1	“OUT L-”
2	“SPK L+”
3	“SPK R+”
4	“SPK R-”

W6 CONNECTION (TOP→BOTTOM)

Pin	Description
1	“Nc”
2	“Con”
3	“VEE”
4	“Gnd”
5	VDD

W12 CONNECTION (TOP→BOTTOM)

Pin	Description
1	“Gnd”
2	“Pow1”
3	“3.3Vx”
4	“SN1”
5	“SN2”
6	“Gnd”
7	“IR”
8	“+5Vx”
9	LED2
10	LED1

Chapter 7 Theory of Circuit Operation

The operation of D-SUB 15pin route

The D-SUB 15pin connector receives video signal from host device. Then, the signal is process by the A/D converter (ADC9883) and output to the Zipro_t0947; the Zipro_t0947 generates the vertical and horizontal timing signals for display device.

The operation of S-Video route

The S-Video signal is connected to Tuner board SAA7114 (video decoder) and output to Zipro_t0947 via ITU656 interface. Then Zipro_t0947 generates the vertical and horizontal timing signals for display device

The operation of Video route

The Video signal is connected to Tuner board SAA7114 (video decoder) and output to Zipro_t0947 via ITU656 interface. Then Zipro_t0947 generates the vertical and horizontal timing signals for display device

The operation of TV route

TV video signal output from the tuner module FI1236MK2 is processed by Zilog Z86129 (CC decoder) to generate the OSD signals do display closed caption. HC4066 (switch) mixes the TV and the CC signals then feed to SAA7114 (video decoder). Then SAA7114 outputs decoded video signal to Zipro_t0947 via ITU656 interface and Zipro_t0947 generates the vertical and horizontal timing signals for display device.

The audio route is: The modulated audio signal from FI1236MK2 is decoded by TDA9850 to generate proper sound signals (Mono, Stereo, or SAP). Then the sound signals are selected and processed by 2313L and amplified by AN7522 and feed to the speakers.

The operation of keypad

There are 8 keys to control and select the function of TM-15B and also has one LED to indicate the status of operation. They are “POWER, SOURCE,AUDIO SOURCE,MENU, ▲▼, + - ” keys and LED.

1. The power key through POW1 and GND to intimate MTV230MS, MTV230MS will receive a low signal to turn on or off system while press the power key.
2. The other seven keys are connected to the ADC inputs of MTV230MS. It’s depend on which key is pressed, and the corresponding ADC level (SN1/AD1 or SN2/AD0) will be changed and monitored by MTV230MS. Then MTV230MS will activate corresponding function.
3. The LED is constructed with two separate LED which color is green and orange. The MTV230MS direct control the LED’s on or off. When normal operation the MTV230MS (P4.5) is on high state and MTV230MS (P4.4) is low state and the LED will be green. The LED will be orange while entering power saving states or the system is standby.

The operation of Analog port

The analog port is consist of 15 pin 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 Zipro_t0947 detecting, video signal matching circuit and AD9883A which captures RGB graphic signal and digitizes for each pixel.

The pin assignment of 15 pins connector are as follows：

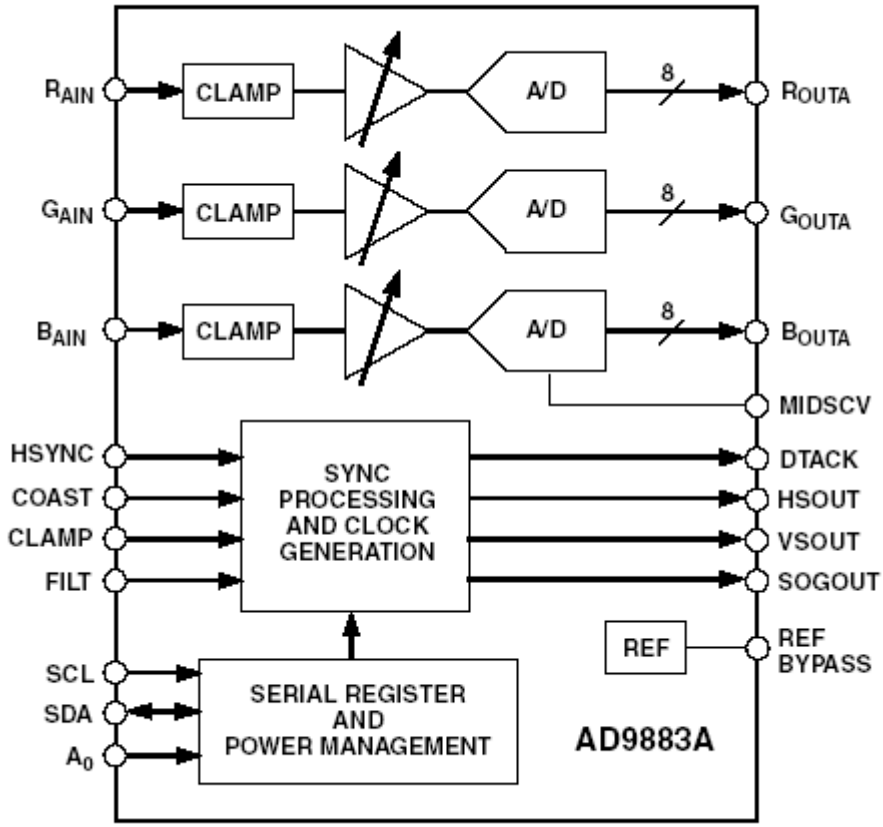
Pin No.	Pin Name	Description
1	GRAI	Red signal
2	GGAI	Green signal
3	GBAI	Blue signal
4	GND	Ground
5	GND	Ground
6	GND	R-Ground
7	GND	G-Ground
8	GND	B-Ground
9	+5V	For DDC
10	GND	Ground
11	X	No connection
12	RGSA	SDA
13	GHSI	H-Sync
14	RVSI	V-Sync
15	RGSL	SCL

The RGB graphics signal of host device transmits to the analog port through pin 1 to 3. The transmission lines should be 75ohm resistance matching which are fulfilled by each impedance matching circuit and support voltage limitation through D11, D12 and D13. The video signal should be coupled to RIN, GIN, BIN and SOGIN of AD9883A through C104, C105, C106 and C107. The EDID data is stored in EEPROM (24LC21) which compliance with DDC1/DDC2B protocols that perform 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 MTV230MS let PIN36 (SWL_AD) to control the 74HC157D switch that will let 74HC157D (U13) to output SHSYNC and SVSYNC signal that are derived from AD9883A pin65 CSIN and pin64 IAVS. When MTV230MS detects exact SHSYNC and SVSYNC timing it will configure the registers of AD9883A to satisfy the operation through SCL and SDA of IIC bus.

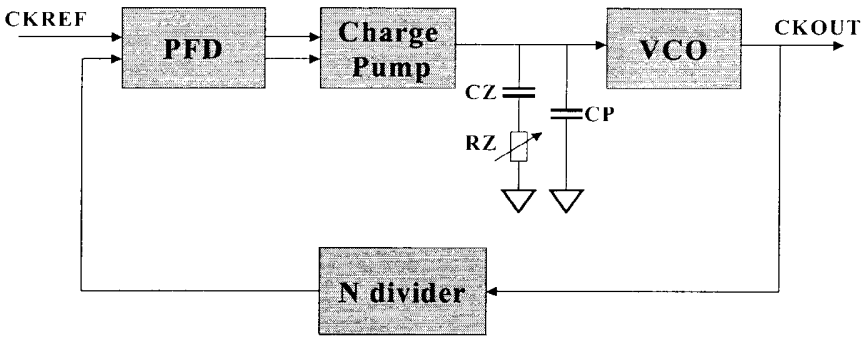
The AD9883A is an 8-bit 110 MSPS monolithic analog interface for capturing RGB graphics signals from personal computers and workstations. It includes +1.25V reference, PLL to generate a pixel clock from HSync, and programmable gain, offset, and clamp circuits.

The function block of AD9883A is as follows:



If user changes to pc mode the MTV230MS will let PIN36 (SEL_AD) to control the 74HC157D switch, it will let MTV230MS (SEL_AD) to control that enables H-Sync, V-Sync, from AD9883A. The MTV230MS will change the power mode PLL divide ratio, the clock phase VCO range and the charge pump current based on the timing of SHSYNC and SVSYNC. 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 that controlled by PLL charge pump current (CURRENT) and VCO range setting (VCORNGE).

Clock Re-Generator Functional Block Diagram



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

Vcornge	Range (MHz)
00	12-36
01	36-72
10	72-110
11	110-140

Current	Current (uA)
000	50
001	100
010	150
011	250
100	350
101	500
110	750
111	1500

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 inside. 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 DATACK 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.

The operation of LCX157D

The LCX157 is a quad 2-input multiplexer. It selects four bits of data from two sources under the control of a common Select input (S). The Enable input ($\overline{E}$) is active-LOW regardless of all other input. The LCX157 is the logic implementation of a 4-pole, 2 position switch where the position of the switch is determined by the logic levels supplied to the Select input. The logic equations for the outputs are shown below:

$Za = \overline{E} \bullet (I_{1a} \bullet S + I_{oa} \bullet \overline{S})$

$Zb = \overline{E} \bullet (I_{1b} \bullet S + I_{ob} \bullet \overline{S})$

$Zc = \overline{E} \bullet (I_{1c} \bullet S + I_{oc} \bullet \overline{S})$

$Zd = \overline{E} \bullet (I_{1d} \bullet S + I_{od} \bullet \overline{S})$

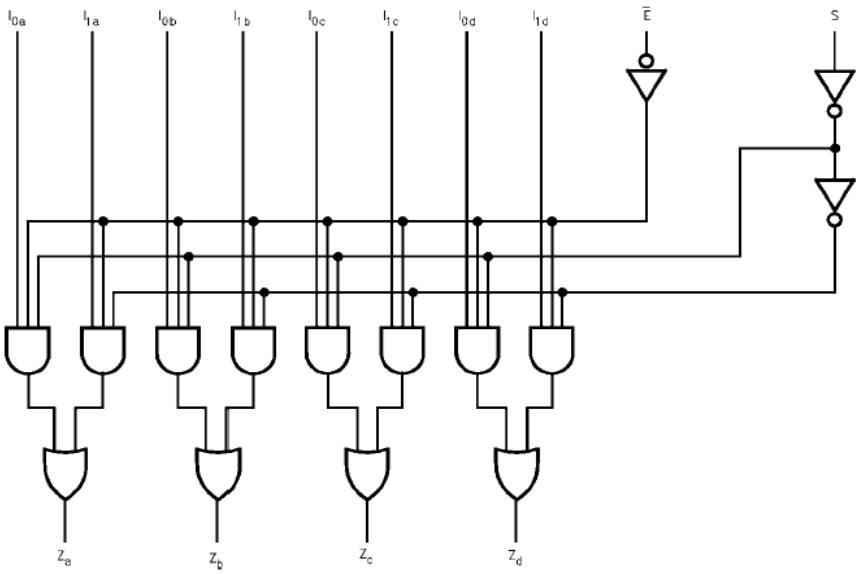
Truth Table

Inputs				Outputs
$\overline{E}$	S	I_0	I_1	Z
H	X	X	X	L
L	H	X	L	L
L	H	X	H	H
L	L	L	X	L
L	L	H	X	H

H = HIGH Voltage Level
L = LOW Voltage Level
X = Immaterial

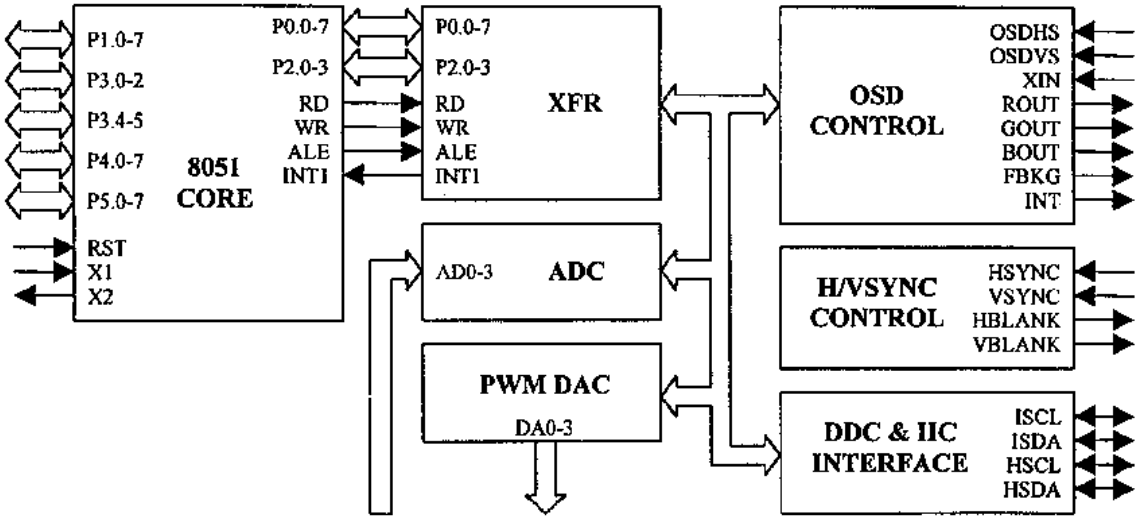
A common use of LCX 157 is the moving of data from two groups of registers to four common output busses. The particular register from which the data comes is determined by the state of the Select input. A less obvious use is as a function generator. The LCX157 can generate any four of the sixteen different functions of two variables with one variable common. This is useful for implementing gating functions.

Logic Diagram



The operation of MTV230M

The MTV230M micro-controller is an 8051 CPU core embedded device specially tailored to LCD Monitor applications. It includes an 8051 CPU core, 1024-byte SRAM, OSD controller, 4built-in PWM DACs, VESA DDC interface, 4channel A/D converter, a 64K-byte internal program Flash-ROM and a 9K-word internal OSD character Flash-ROM.



8051 CPU core

The CPU core of MTV230M is compatible with the industry standard 8051, which includes 256 bytes RAM. Special Function Registers (SFR), two timers, five interrupt sources and serial interface. The CPU core fetches its program code form the 64Kbytes Flash in MTV230M. It uses Port0 and Port2 to access the ”external special function register” (XFR) and external auxiliary RAM (AUXRAM).

The CPU core can run at double rate when FclkE is set. Once the bit is set, the CPU runs as if a 24MHZ X’tal is applied on MTV230M, but the peripherals (IIC, DDC, H/V processor) still run original frequency.

PWM DAC

An 8-bit register in XFR controls each PWM DAC output pulse width of the converter. The frequency of PWM clock is 47KHz or 94KHz, selected by PWMF. And the total duty cycle step of these DAC output is 253 or 256, selected by DIV253 . If DIV253=1 , writing FDH/FEH/FFH to DAC register generates stable high output . If DIV253=0, the output will pulse low pulse at least once event if content of the DAC register is FFH. Writing 00H to DAC register generates stable low output.

A/D converter

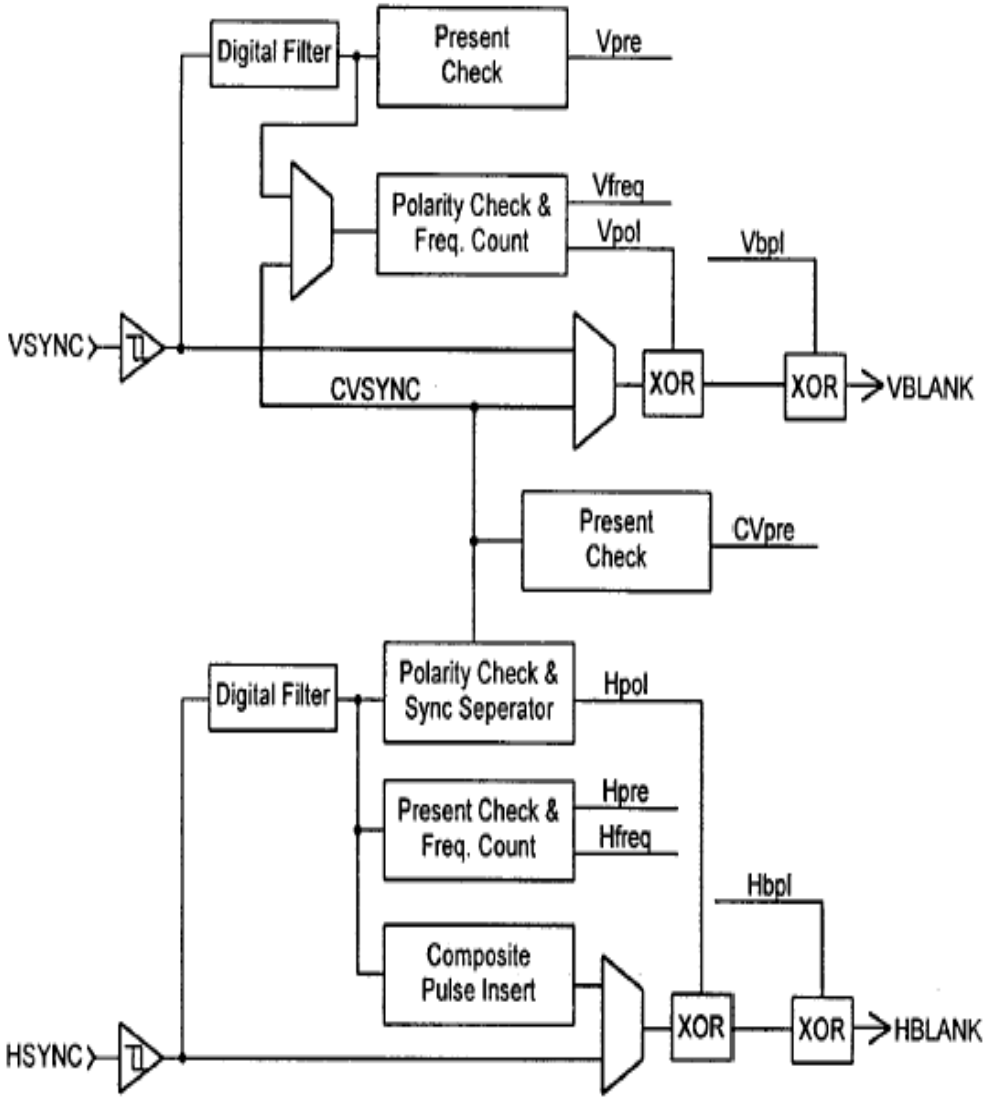
The MTV230M is equipped with four 6-bit A/D converters. S/W can select the convert channel by setting the SADC1/SADC0 bit. The refresh rate for the ADC is OSC freq/12288. The ADC compares the input pin voltage with internal VDD*N/64 Voltage (where N=0-63). The ADC output value is N where pin voltage is greater than VDD*N/64 and smaller than VDD*(N+1)/64

On-Screen Display (OSD)

The horizontal Display control can generate different vertical display size for most display standards in current monitors. The vertical display size is calculated with the information of double character height bit (CHS), character vertical height control register. The programmable vertical size ranges are 270 lines to maximum 2130 lines. The vertical display center for full screen display could be figured out according to the information of vertical starting position register (VERTD) and OSDVS input. The vertical display starting position from the leading edge of OSDVS is calculated using the following equating:
Vertical delay time = (VERTD * 4+1)*H, Where H = one horizontal line display time

H/V SYNC Processing

The H/V SYNC processing block performs the functions of composite signal separation/insertion. SYNC inputs presence check, frequency counting, polarity detection and H/V output polarity control. The present and frequency function block treat any pulse shorter than one OSC period as noise



H/V SYNC Processor Block Diagram

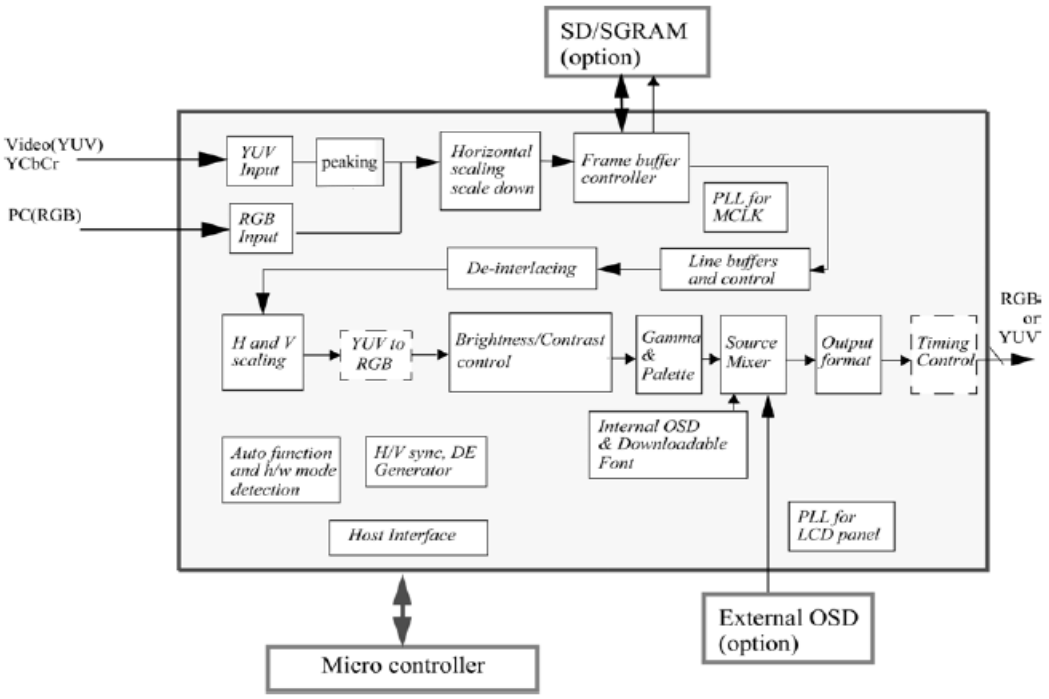
The ports are configured as follows：

Pin Name	Function	Type	Description
ROUT Pin1	OVR	Output	OSD red color video signal output
XIN Pin2	OVCLK	Input	OSD pixel clock input
OSDHS Pin3	OVHS	Input	OSD vertical SYNC input
OSDVS Pin4	OVVS	Input	OSD horizontal SYNC input
P4.7/VBLANK Pin5	TTfc-INTn	Input	Interrupt to host
P4.6/HBLANK Pin6	IGA3	Input	IGA3 Data Input
P4.5 Pin9	LED1	Output	LED Control
P4.4 Pin10	LED2	Output	LED Control
P4.3 Pin11	VOL_STB	Output	Standby AN7522
P4.2 Pin12	BACKLITn	Output	Backlight to inverter
P4.1/VSYNC Pin13	SVSYNC	Input	Vsync Input
P4.0/HSYNC Pin14	ZHSYNC	Input	Hsync Input
P3.0/Rxd/HSCL Pin15	DDCSCL	I/O	IIC SCL
P3.0/Txd/HSDA Pin16	DDCSDA	I/O	IIC SDA
P3.2/INT0 PIN17	IR	Input	IR board receive port
P6.0/ISCL Pin23	SCL_V	I/O	IIC SCL
P6.1/ISDA Pin24	SCL_V	I/O	IIC SDA
P1.0 Pin25	TUN PWR	Output	Tuner Enable Chip SAA7114 (Power)
P1.1 Pin26	TTfc-RSTn	Output	Device reset (Zipro_t0947)
P1.2 Pin27	ZPPDP	Output	Power Enable Chip Zipro_t0947
P1.5 Pin30	7114_CE	Output	Enable SAA7114 chip
AD0 Pin33	SN1	Input	Keyboard signal Input
P1.7 P32	PNL_PWR	Output	Panel power enable
AD1 Pin34	SN2	Input	Keyboard signal Input
DA0 Pin35	VOL_CTL	Output	Volume signal value
DA1 Pin36	SEL_AD	Output	Control 74HC157 Switch
DA2 Pin37	Pow1	Input	Power Key Signal input
DA3 Pin38	V_CTL	Output	Tuner Power supply Enable
INT Pin39	OVI	Output	Overlay intensity select
FBKG Pin40	OVFB	Output	OSD fast blanking output
BOUT Pin41	OVB	Output	OSD blue color video signal output
GOUT Pin42	OVG	Output	OSD green color video signal output

The operation of Zipro_t0947

The Zipro_t0947 chips convert PC/Mac/SUN and TV/HDTV video signal for flat panel display. It performs image scaling on true color RGB or YUV data stream and feeds the scaled pixels to LCD panel. It includes a SDRAM controller for frame rate conversion and interlace to progressive video processing. Besides, the chip contains an OSD (On Screen Display) logic with an overlay port for external OSD signals interface . An auto adjustment function provides automatic frequency, phase H&V position , and white balance tuning at any screen condition . With no user intervention , the auto adjustment feature offers the jitter-free and best display quality while users display modes changes . Ziprot0947 chip also contain display mode auto detection circuitry which provides accurate H and V timing detection for VESA, Sync-on-Green , and TV/HDTV signals.

The internal block diagram of Zipro_t0947 is as follows

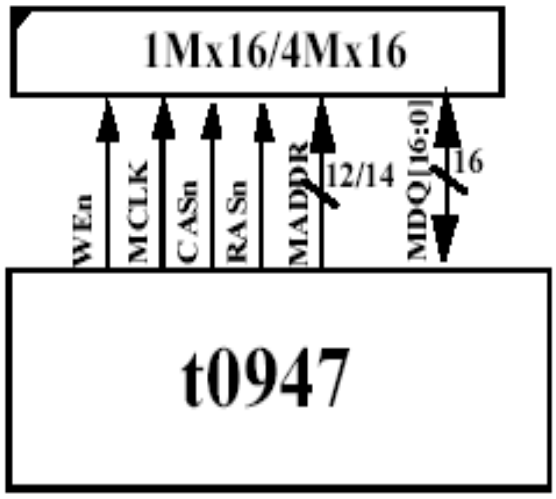


Memory interface

The Zipro_t0947 chip perform frame rate conversion (FRC) by replicating or dropping the input frames using the external SDRAM as the frame buffers. The major features are:

- Double-buffer mechanism is used to prevent the frame tearing.
- The data path width to the external SDRAM is 16 bits.
- Programmable sub-image store/display for cropping panning.
- Programmable top/bottom and left/right reversal for scan sequence flipping.
- Full screen freeze.

De-interlacing scheme is used for preventing the motion artifacts as in the video.



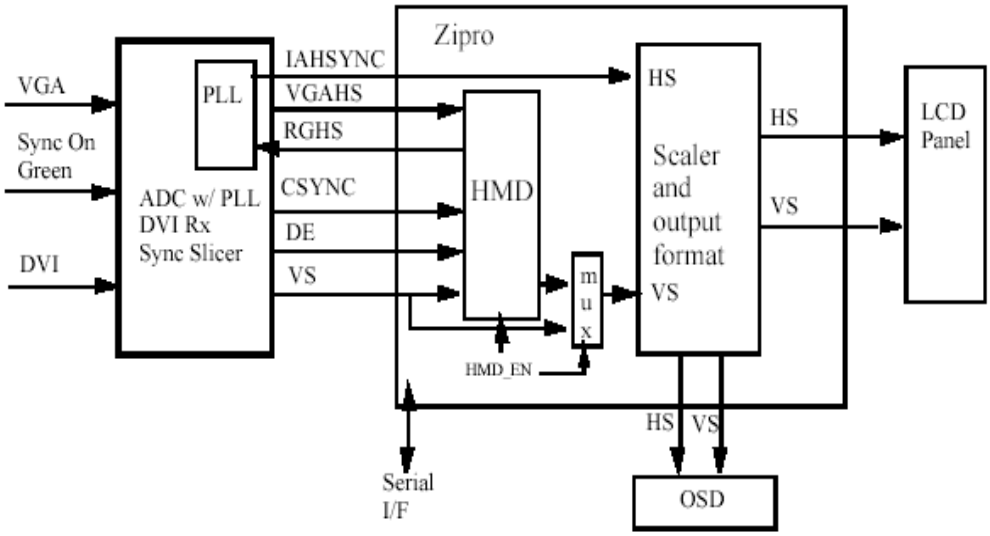
The block of the Memory I/F

ZiproSX chip, t0947, supports one 1Mbx16 or one 4Mx16SDRAM access. The buffer data path is 16-bit width. Speed grades of 83-125MHz are recommended. The data compression of 24-it to 16-bit is also supported for reducing the access bandwidth.

The FBC (frame buffer control) Function can BE bypassed by setting the bit 1 in the MISCTR0 (Misc.Control Register 0,0AH) register. To this, the frame rate conversion (includes de-interlacing) circuit will be disabled and the scaling function is performed upon the same frame rate as the input video.

Mode detector

Hardware mode detection detects the presences and frequencies of HS,VS,and DE.



The hardware mode detection circuit has the functions as mode detection blocks of all LCD monitor micro-controllers. For example, it can detect the presences, polarities and other characteristics of the input syncs. There is a Vsync separation that handles six types of Csync input (depicted as in the following figure) and generates the corresponding Vsync pulse that can be used as the COAST signal into ADC chips. Generally, these Csync signals come from <Hsync+Vsync> or <Hsync XOR Vsync> or <added serration pulses>.

The internal OSD

To program internal OSD, basically, two kinds of data, the data in Display RAM and data in the control registers, must be filled via the serial transfer. The relationship between screen management and Display RAM is illustrated by a following figure; in the figure two OSD menu segments are store in the Display RAM. However, the menu stored from Row 4 to Row 8 are Displayed. The content and characteristics of the displayed menu are defined by the data in the Display RAM. Control registers program all the starting row, which determine the selected menu segment, and the horizontal and vertical display positions.

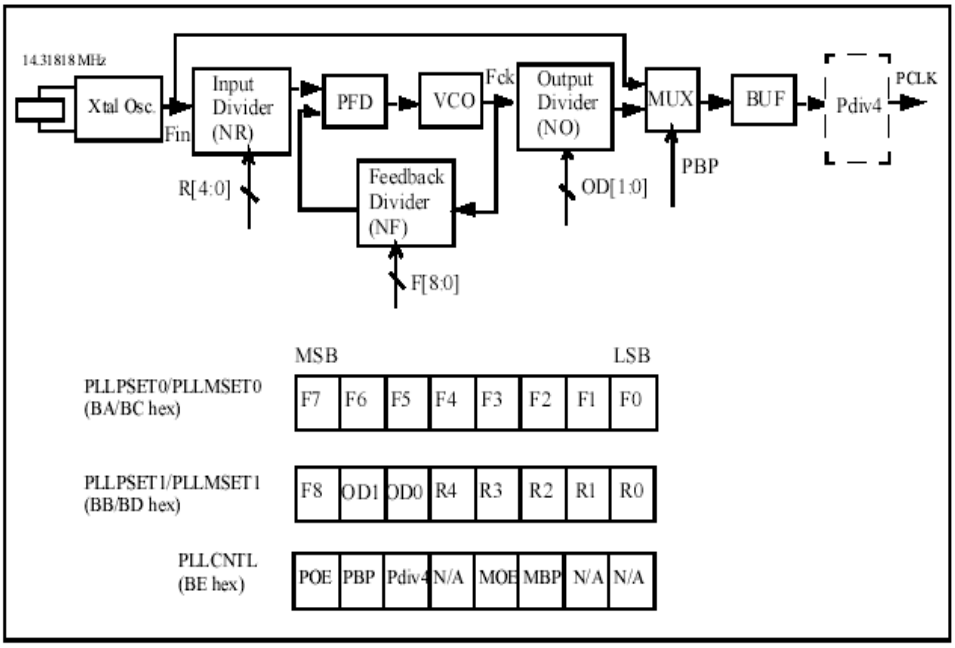
YUV Input port

The YUV input port supports interlaced video streams and provides connection to common decoder ICs. This chip supports 8-bit YUV 4:2:2 (CCIR 656), 16-bit YUV 4:2:2 video input. Each input format can be binary offset or 2's complement. The YUV input formats are tabulated below. The selection of YUV or RGB inputs is activated by the setting of YUVF bit.

Signal	16-bit 4:2:2		8-bit 4:2:2 (CCIR-656)			
YIN7	Y07	Y17	U07	Y07	V07	Y17
YIN6	Y06	Y16	U06	Y06	V06	Y16
YIN5	Y05	Y15	U05	Y05	V05	Y15
YIN4	Y04	Y14	U04	Y04	V04	Y14
YIN3	Y03	Y13	U03	Y03	V03	Y13
YIN2	Y02	Y12	U02	Y02	V02	Y12
YIN1	Y01	Y11	U01	Y01	V01	Y11
YIN0	Y00	Y10	U00	Y00	V00	Y10
UVIN7	U07	V07				
UVIN6	U06	V06				
UVIN5	U05	V05				
UVIN4	U04	V04				
UVIN3	U03	V03				
UVIN2	U02	V02				
UVIN1	U01	V01				
UVIN0	U00	V00				

Clock system

T0947 chips have two PLL for PCLK and MLCK generation . PCLK is used for display panel clocking and MCLK for SD/SGRAM memory interface . These PLLs synthesize clocks via the 2-wire serial bus programming . The registers and block diagram are depicted as follows



De-interlacing

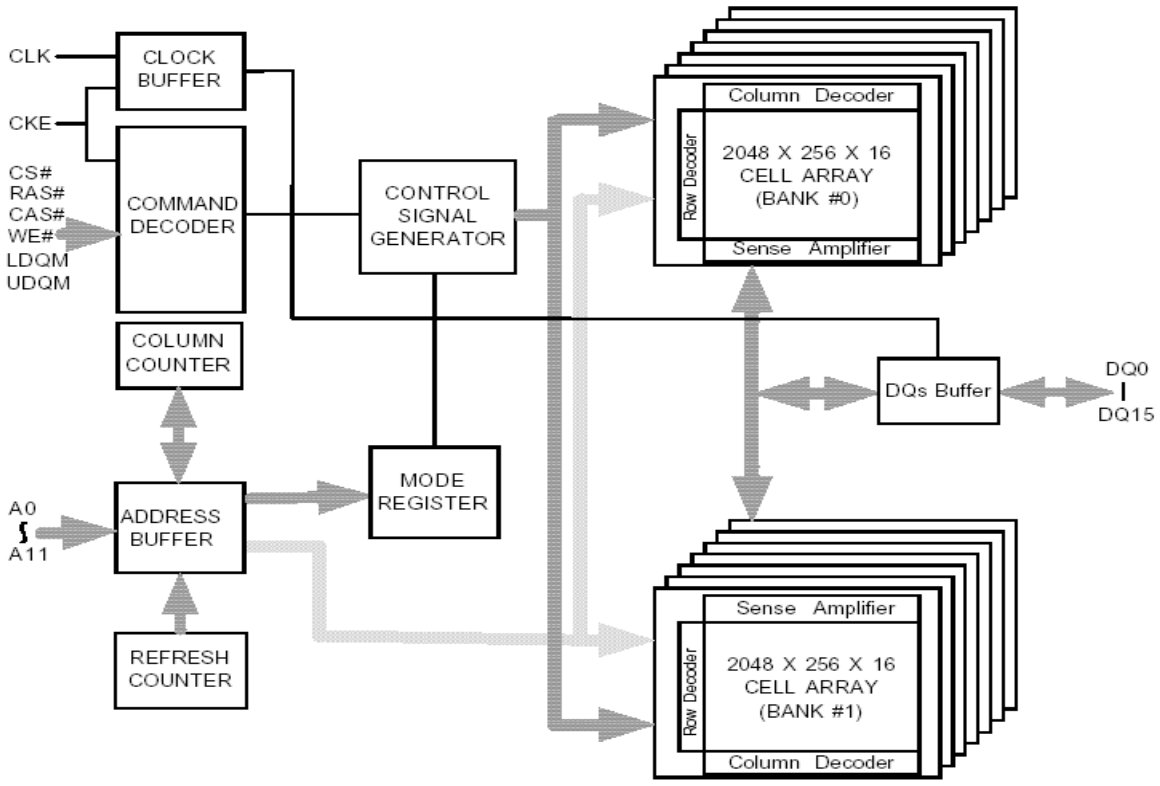
T0947 chip converts the interlaced video signal into a progressive display. A motion adaptive filtering refers to a mechanism using a decision on the presence and absence of motion. In the absence of motion, the best image can be obtained by simply merging even and odd fields which doubles the vertical resolution. However, in the presence of motion, this technique would suffer from motion artifacts. A de-interlacing circuit is used to interpolate the missing pixel using the intra-frame pixel data.

The operation of EM636165TS

The EM636165 SDRAM is a high-speed CMOS synchronous DRAM containing 16Mbits. It is internally configured as a dual 512K x 16bit DRAM with a synchronous interface (all signals are registered on the positive edge of the clock signal, CLK) . Each of the 512K x 16bit bank is organized as 2048 row by 256 columns by 16bits. Read and wire accesses to the SDRAM are burst oriented; accesses start at a selected location and continue for a programmed number of locations in a programmed sequence.

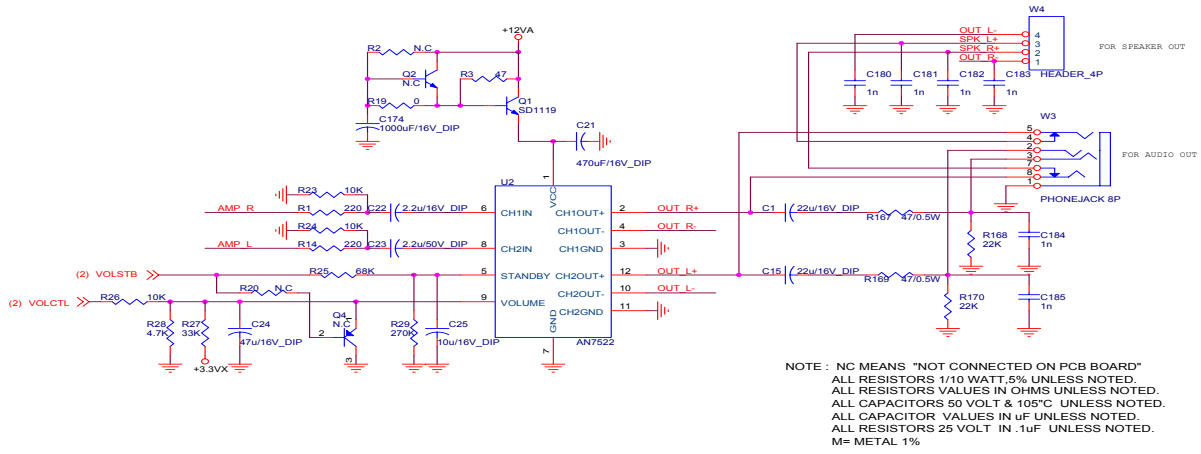
The EM 636165 provides for programmable Read or Wire burst lengths of 1 , 2 , 4 , 8 , or full page , with a burst termination option . An auto precharge function may be enabled to provide a self-time row precharge that is initiated at the end of the burst sequence. The refresh functions, either Auto or Self Refresh are easy to use . By having a programmable mode register, the system can choose the most suitable modes to maximize its performance. These devices are well suited for applications requiring high memory bandwidth and particularly well suited to high performance PC applications.

Block Diagram



The operation of AN7522

The TM-15B use AN7522 for stereo system, AN7522 is a 2.4w(min)~3w(typical) BTL (balanced transformer less) audio power amplifier IC. When system is into power saving mode the MPU will send Volume control signal to 00H and audio amplifier output will rest. It is means that the speakers and headphone (W3) stay on the rest of the monitor is in power saving see figure



The operation of SAA7114 (Video Decoder)

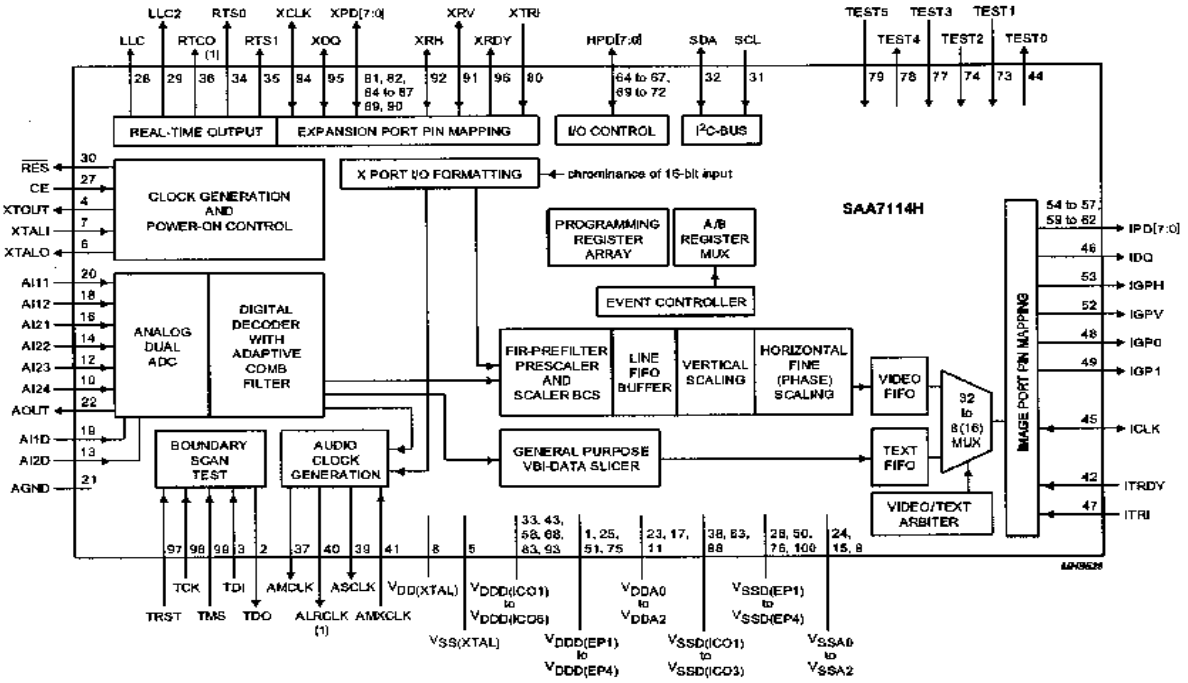
The SAA7114 is a combination of a two-channel analog preprocessing circuit including source selection, anti-aliasing filter and ADC, an automatic clamp and gain control, a Clock Generation Circuit, a digital multi-standard decoder containing two-dimensional chrominance/luminance separation by an adaptive comb filter and a high performance scalar, including variable horizontal and vertical up and down scaling and a brightness, contrast and saturation control circuit.

IT is a highly integrated circuit for desktop video applications. The decoder is based on the principle of line-locked decoding and is able to decode the color of PAL, SECAN and NTSC signals into ITU601 compatible color component values. The SAA7114 accepts as analog input CVBS or S-video (Y/C) from TV or VCR sources, including weak and distorted signals. An expansion port (X-port) for digital video (bi-directional half duplex. D1 compatible) is also supported to connect to MPEG or videophone code. At the so call image port the SAA7114 supports 8 or 16-bit wide output data with auxiliary reference data for interfacing to the scalar. The target application for SAA7114H is to capture and scale video image, to be provided as digital video stream through the images port of a scalar, for display via scalar's frame buffer, or for capture to system memory. In parallel SAA7114H incorporates also provisions 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 scalar
2. A versatile data slicer (data recovery) unit.

SAA7114H incorporates also a field locked audio clock generation. This 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 circuit is I^2C-bus controlled (full write/read capability for all programming registers, bit rate up to 400 kbits/s)

Block Diagram



Decoder

Analog input processing

The SAA7114 offers six analog signal inputs, two analog main channels with source switch, clamp circuit, analog amplifier, anti-alias filter and video 9-bit CMOS ADC

Analog control circuits

The anti-alias filters are adapted to the line locked clock frequency via filter control circuit. During the vertical blanking period, gain and clamping control are frozen.

Clamping

The clamp control circuit controls the correct clamping of the analog input signals. The coupling capacitor is also used to store and filter the clamping voltage. An internal digital clamp comparator generates the information with respect to clamp-up or clamp-down. The clamping levels for the two ADC channels are fixed for luminance (60) and chrominance (128). Clamping time in normal use is set with the HCL pulse at the back porch of the video signal.

Gain control

The gain control circuit receives the static gain levels for the two analog amplifiers or controls one of these amplifiers automatically via a built-in Automatic Gain control (AGC) as part of the Analog input Control (AICO) .The AGC (automatic gain control for luminance) is used to amplify a CVBS or Y signal to the required signal amplitude, matched to the ADCs input voltage range. The AGC active time is the sync bottom of the video signal. Signal (white) peak control limits the gain at signal overshoots. The flow charts show more details of the AGC. The influence of supply voltage variation within the specified range is automatically eliminated by clamp and automatic gain control.

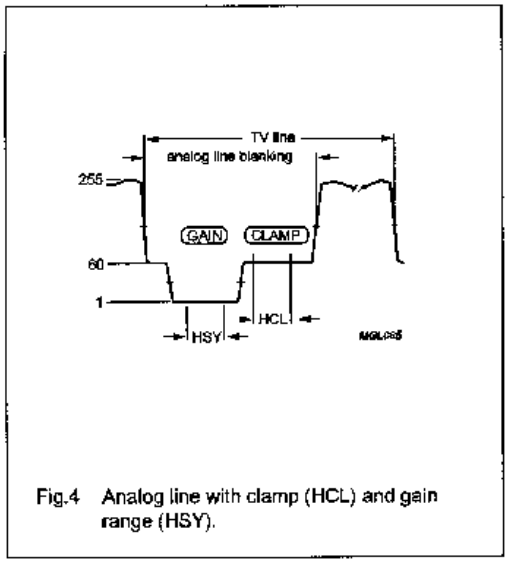


Fig.4 Analog line with clamp (HCL) and gain range (HSY).

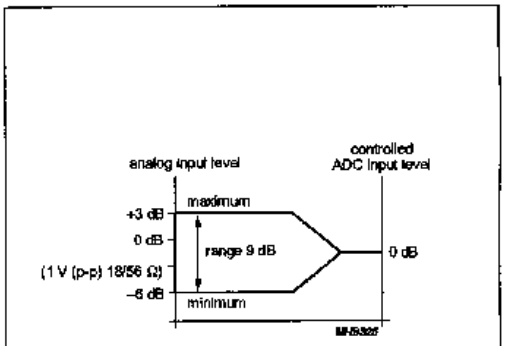
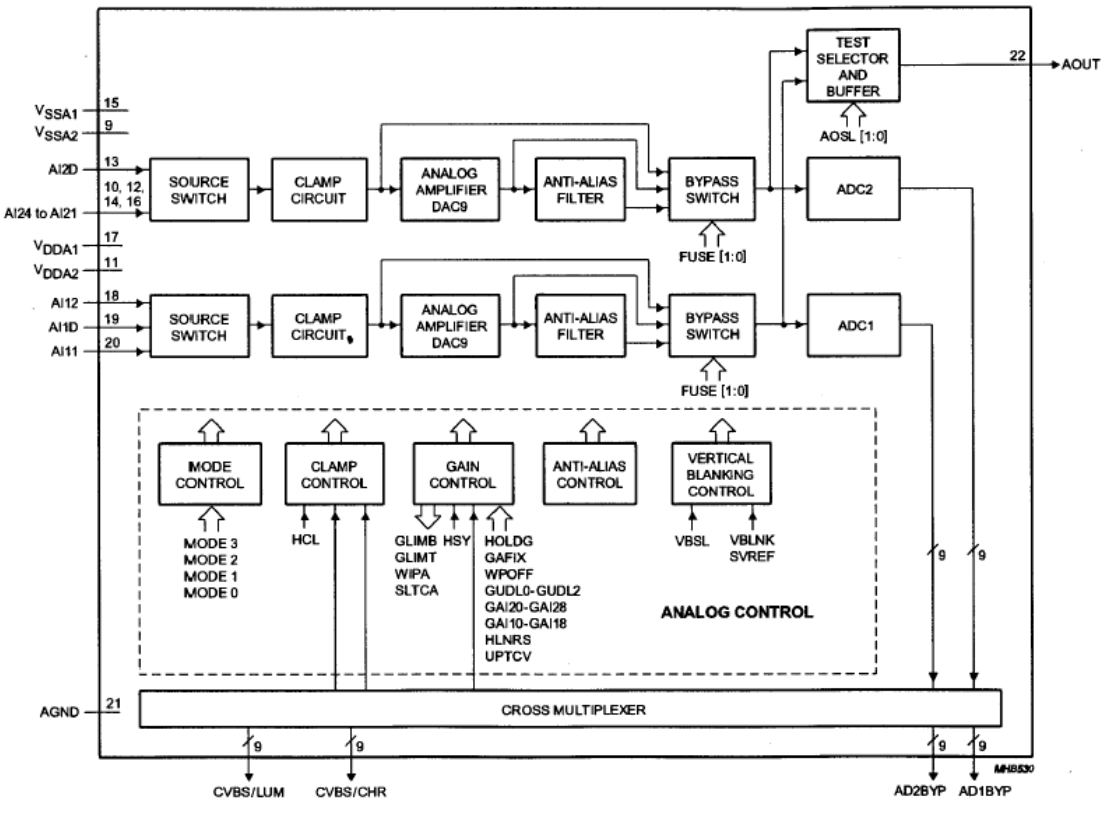


Fig.5 Automatic gain range.

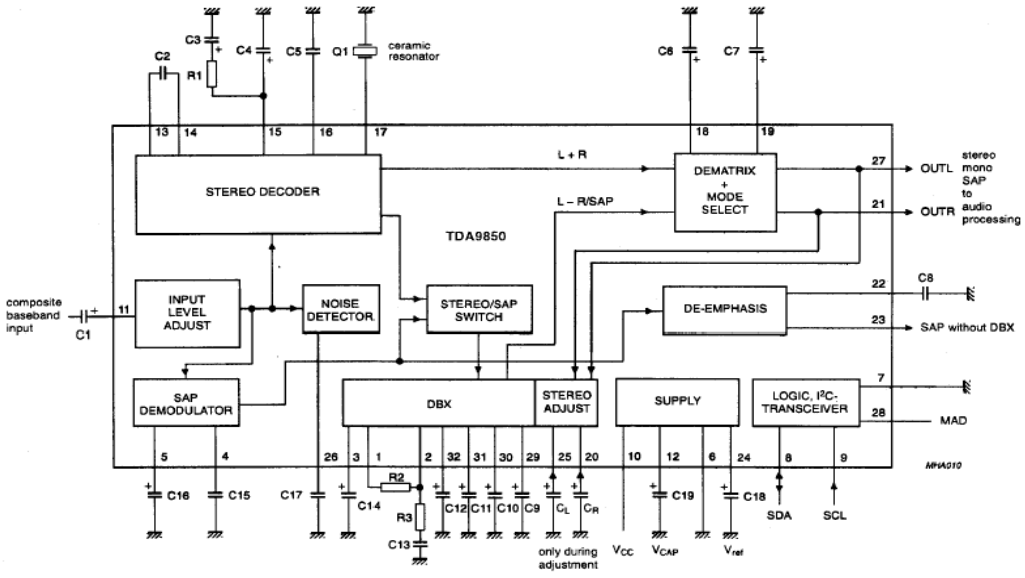


Analog input processing using the SAA7114H as differential front-end with 9-bit ADC

The operation of TDA9850 (MTS decoder)

The TDA9850 is a bipolar-integrated BTSC stereo/SAP decoder (I^2C-bus controlled) for application in TV sets, VCRs and multimedia.

Black Diagram



Input level adjustment

The composite input signal is fed to the input level adjustment stage. The control range is from –3.5 to +4.0dB in steps of 0.5dB. The sub address control 4 and 6 the level adjusts setting allows an optimum signal adjustment during the set alignment. The maximum input signal voltage is 2V(RMS)

Stereo decoder

The output signal of the level adjustment stage is coupled to a low-pass filter which suppresses the base band noise above 125kHz. The composite signal is then fed into a pilot detector/pilot cancellation circuit and into the MPX demodulator. The main L+R signal passes a 75μs fixed de-emphasis filter and is fed into the dematrix circuit.

The decoded sub-signal L-R is sent to the stereo/SAP switch. To generate the pilot signal the stereo demodulator uses a PLL circuit including a ceramic resonator. The stereo channel separation is adjusted by an automatic procedure to be performed during set production. The stereo identification can be ready by the I^2C-bus.

SAP demodulator

The composite signal is fed from the output of the input level adjustment stage to the SAP demodulator circuit through a $5f_H$ band-pass filter. The demodulator level is automatically controlled. The SAP demodulator includes an internal filed strength detector that mutes the SAP output in the event of insufficient signal conditions. The SAP identification signal can be ready by the I^2C-bus.

Noise detector

The composite input noise increases with decreasing antenna signal. This makes it necessary to switch stereo or SAP off at certain thresholds. These thresholds can be set via the I^2C-bus. With ST0 to ST3 the stereo threshold can be selected and with SP0 to SP3 the SAP threshold. A hysteresis can be achieved via software by making the threshold dependent of the identification bits STP and SAPP

Mode selection

The stereo/SAP switch feed either the L-R signal or the SAP demodulator output signal via the internal dbx noise reduction circuit it the dematrix/switching circuit.

dbx decoder

The dbx circuit includes all blocks required for the noise reduction system in accordance with the BTSC system specification. The output signal is fed through a 73**μ**s fixed de-emphasis circuit to the dematrix black.

SAP output

Independent of the stereo/SAP switch, the SAP signal is also available at pin SAP. At SAP, the SAP signal is not dbx decoded. The capacitor at SDE provides a recommended de-emphasis (150**μ**s) at SAP

Integrated filters

The filter functions necessary for stereo and SAP demodulation and part of the dbx filter circuit are provided on-chip suing transconductor circuit. The required filter accuracy is attained by an automatic filter alignment circuit.

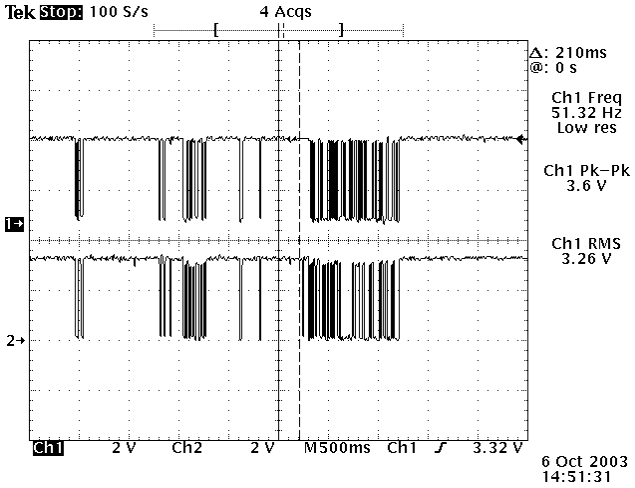
POWER SYSTEM

This product uses an external power adapter to provide DC+12V. It is the source of other voltages +5VX, 3.3VX, 8VX,and VLCD.

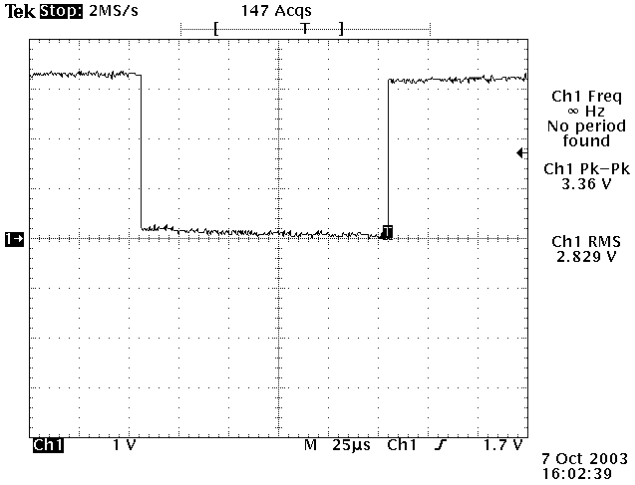
The voltage of +5VX & 8VX is produced by regulator LM2596-5V (U4)& LM7808 (U3) and external components that can realize DC to DC conversion from +12V to +5V&+8V, For some chips (MPU, ADC) that are sensitive to any voltage variance, we need AMC117-3.3V (U8) to produce a stable voltage 3.3VX, see figure

Chapter 8 Waveforms

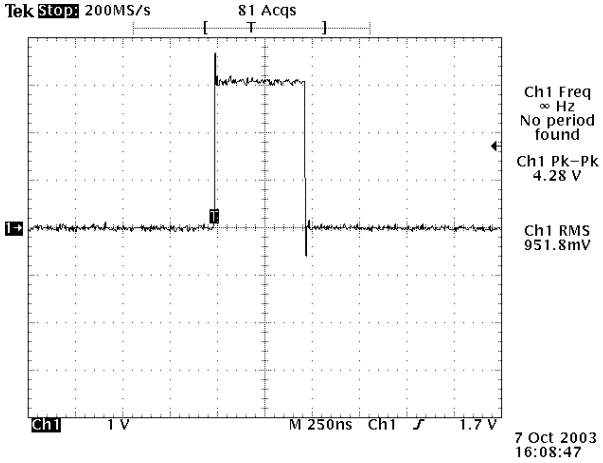
CH1 : SDA (U23 pin69) CH2 : SCL (U23 pin68)



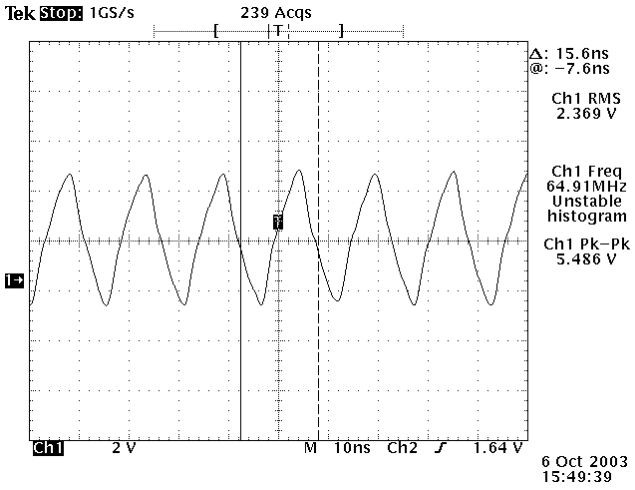
SVSYNC (U23 pin129)



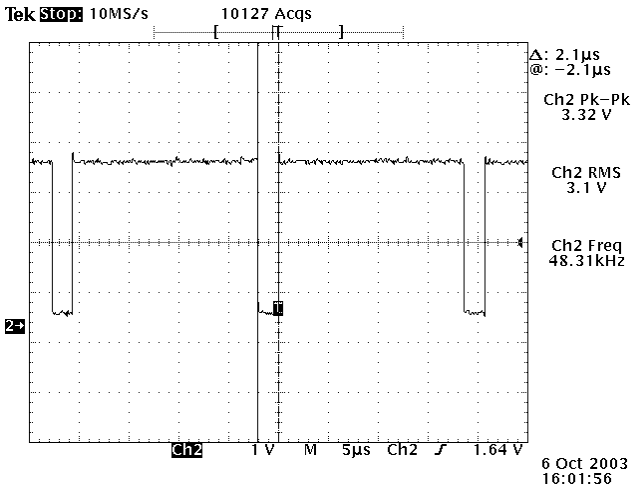
ZHSYNC (U23 pin130)



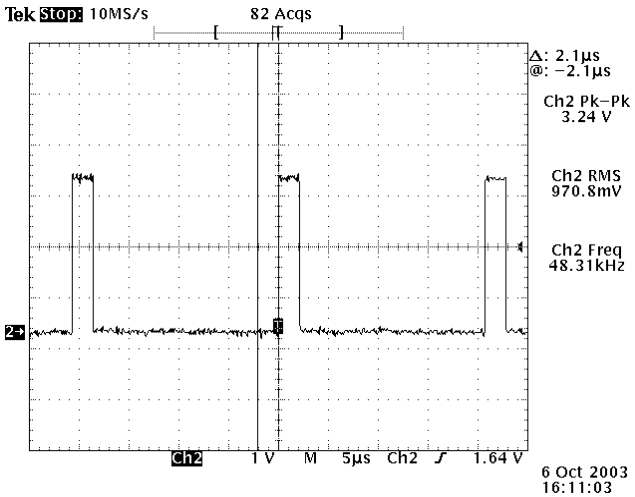
CKADCA (U23 PIN128)



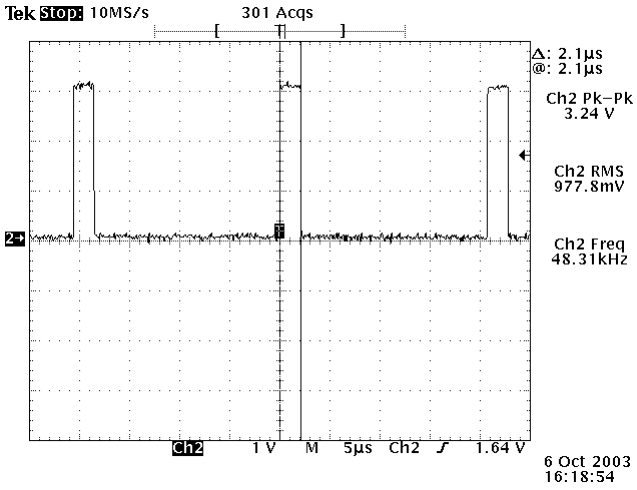
SHSYNC (U23 PIN13)



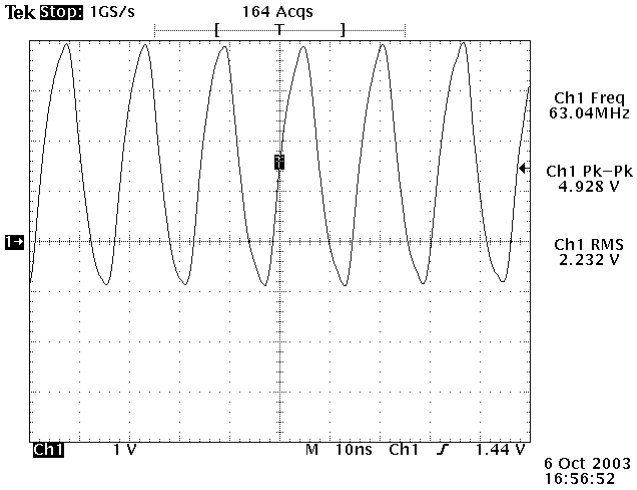
CSIN (U23 PIN124)



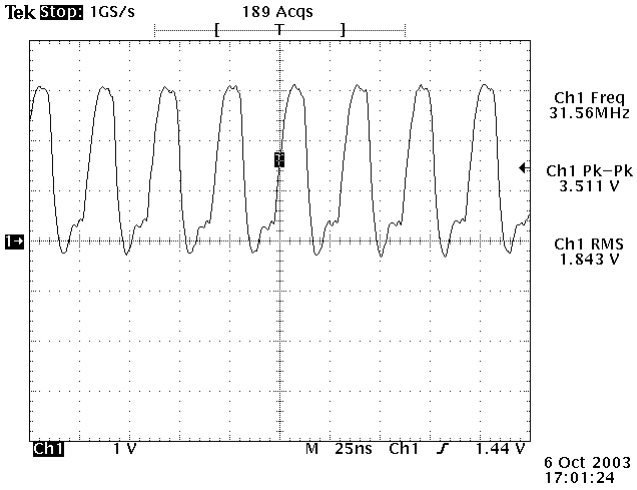
RGHS (U23 PIN122)



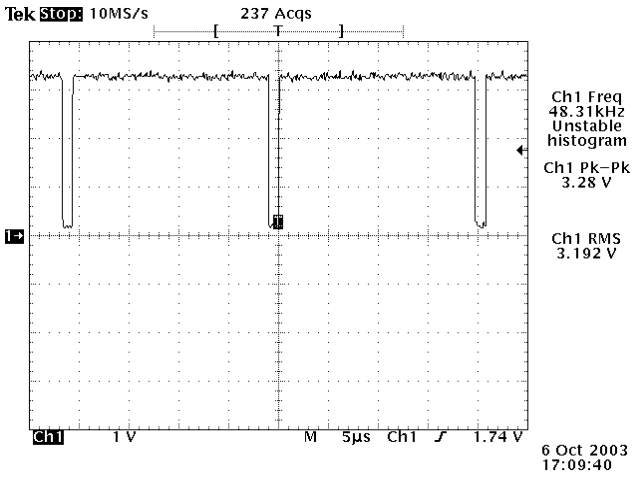
OVCLK (U23 PIN15)



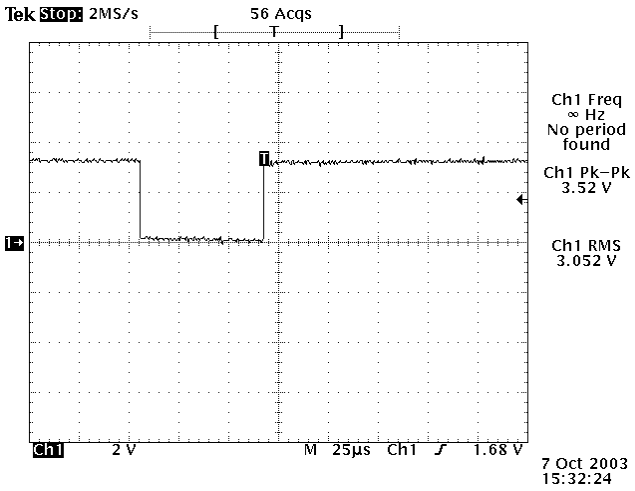
PCLK (U23 PIN63)



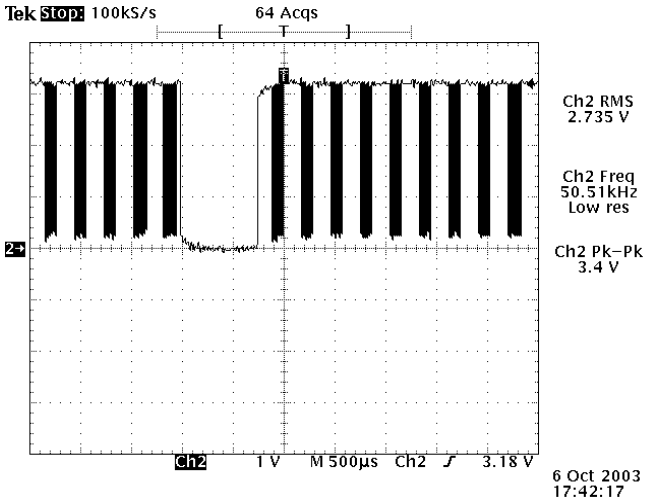
PHSYNC (U23 PIN66)



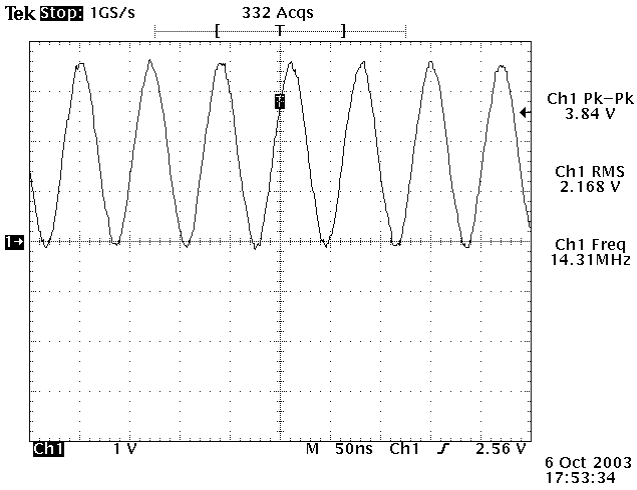
PVSYNC (U23 PIN64)



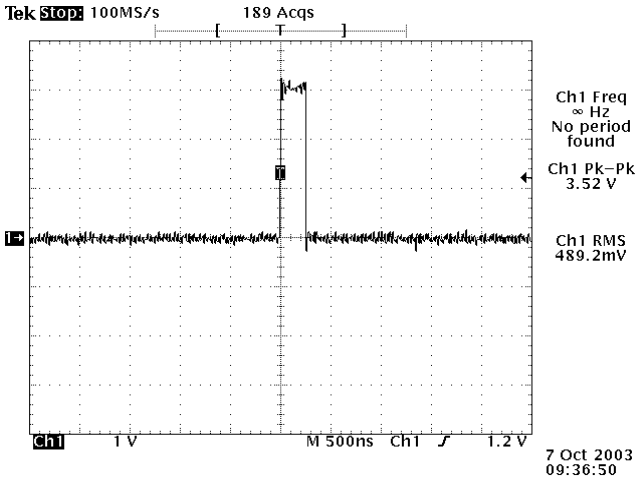
PDE (U23 PIN65)



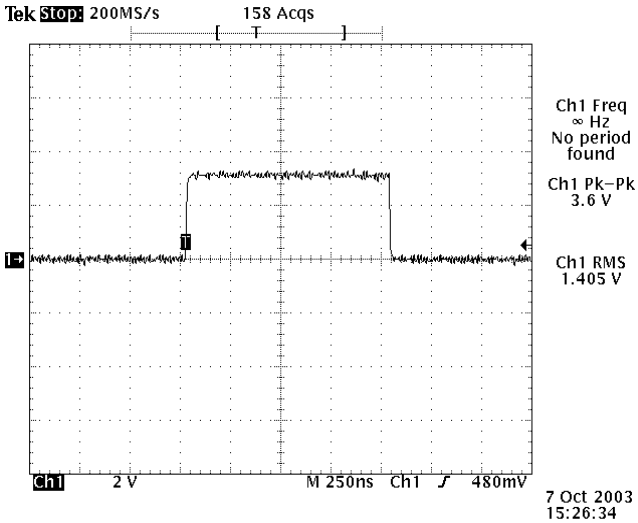
XI (U23 PIN9)



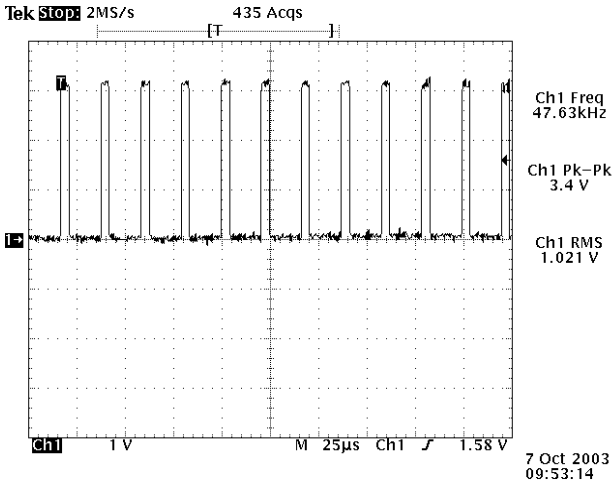
OSDVS (U14 PIN4)



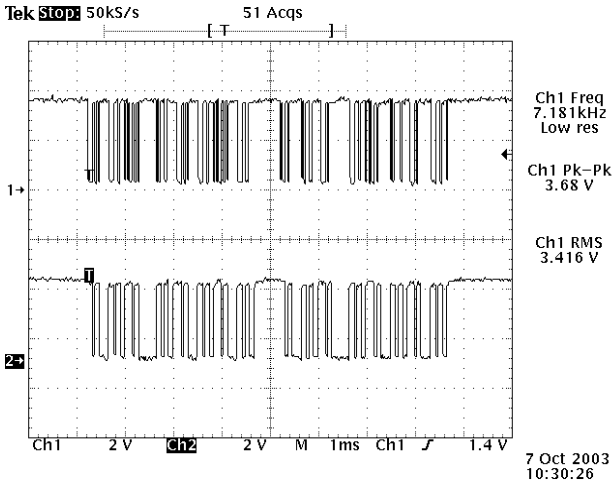
OVHS (U14 PIN3)



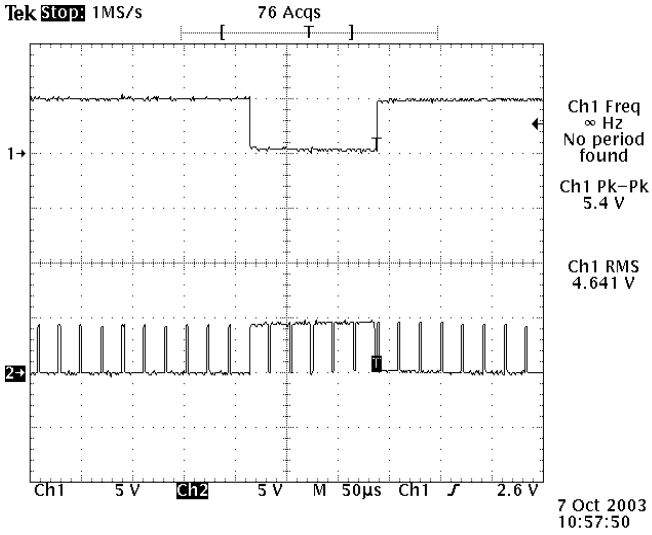
FBKG (U14 PIN40)



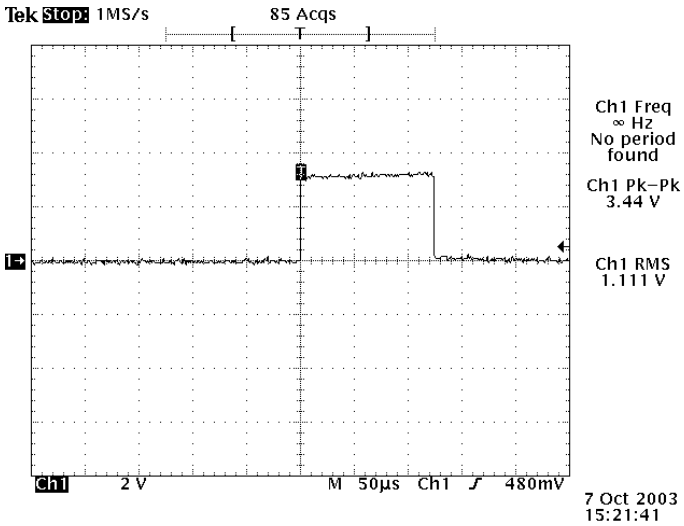
CH1 : SDA_V (U14 PIN24) CH2 : SCL_V (U14 PIN23)



CH1 : VSYNC (U13 PIN5) CH2 : HSYNC (U13 PIN2)

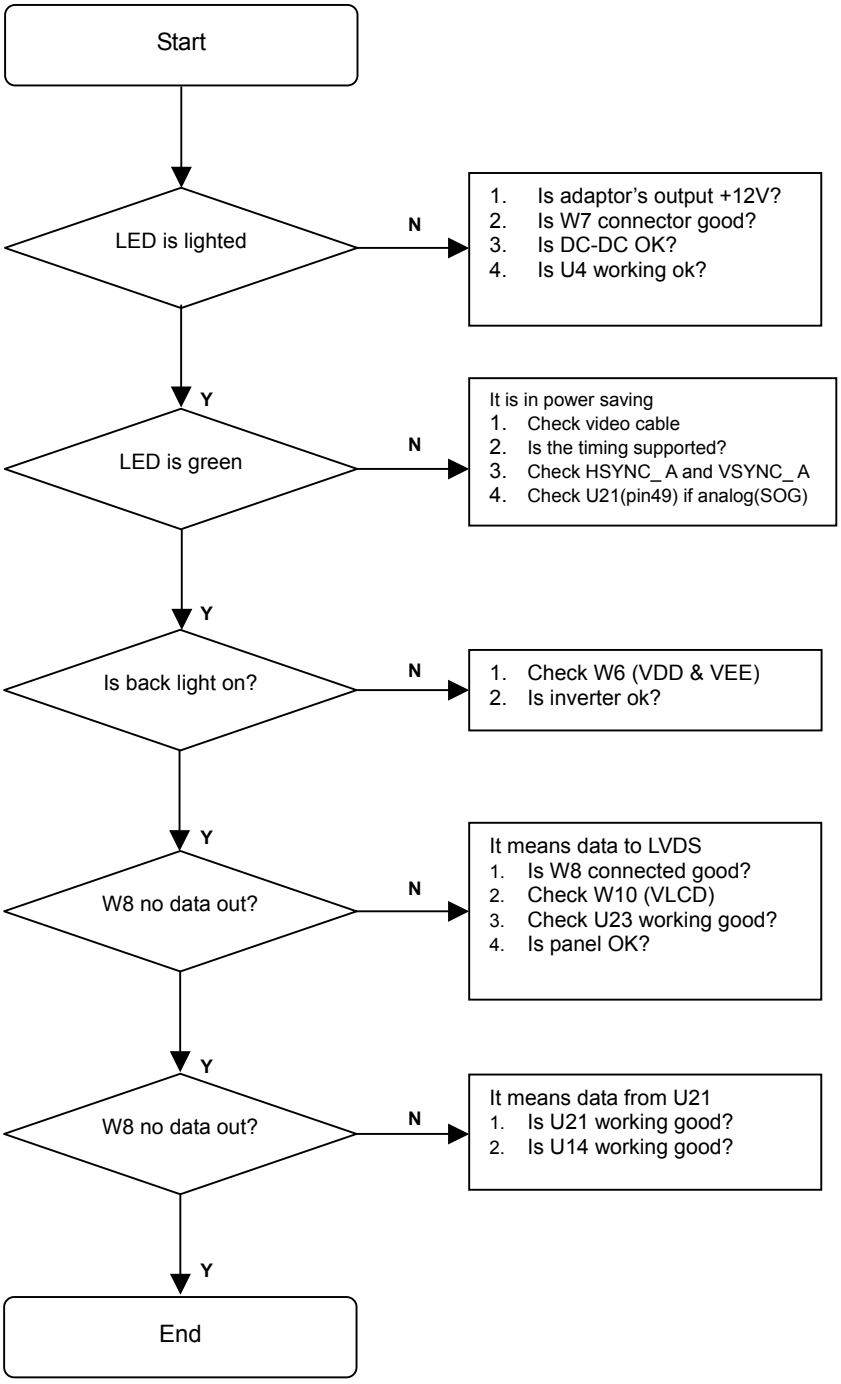


COAST (U21 PIN29)

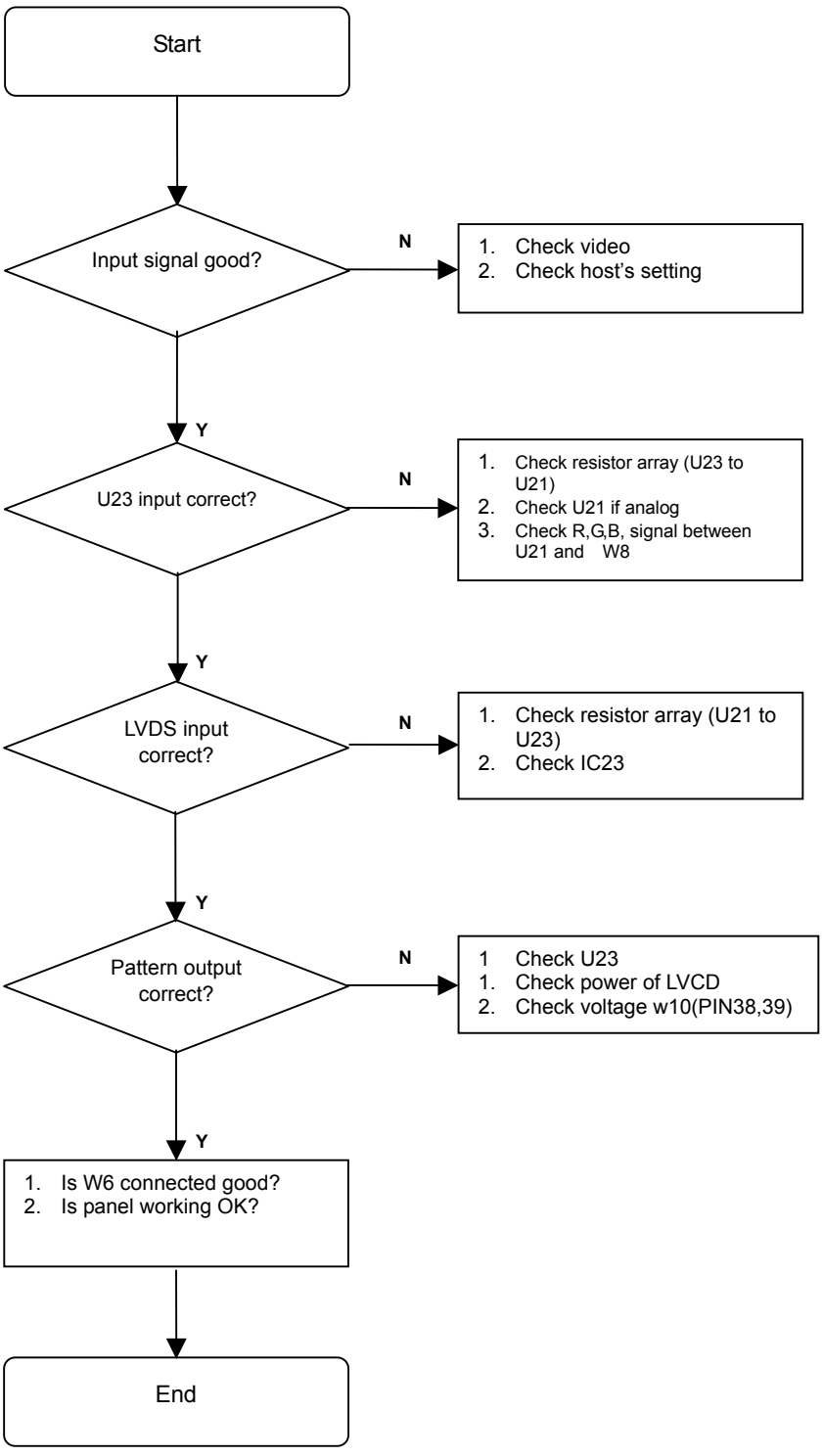


Chapter 9 Trouble Shooting

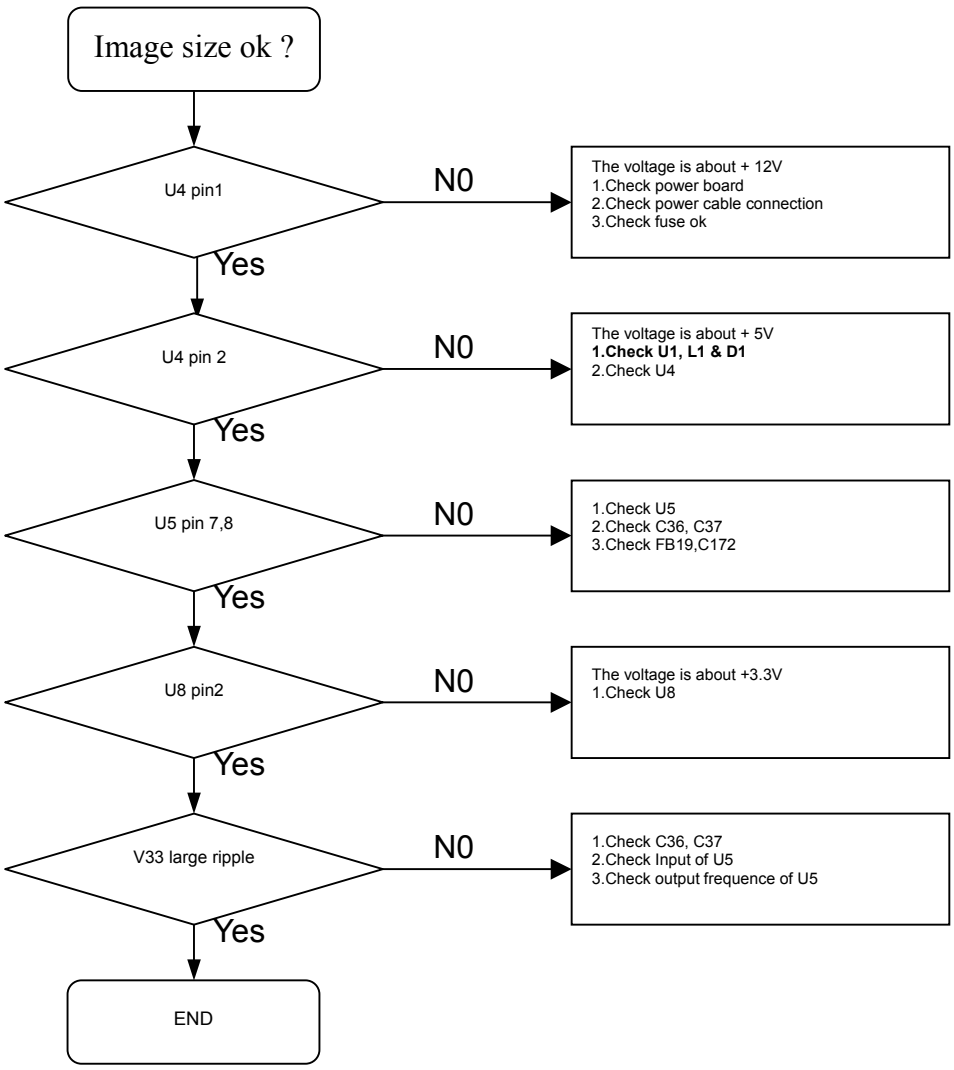
Monitor Display Nothing



R, G, B Is Not Display Correctly



TROUBLE OF DC-DC CONVERTER (+3.3V)



Trouble of DC-DC Converter (+2.5V)

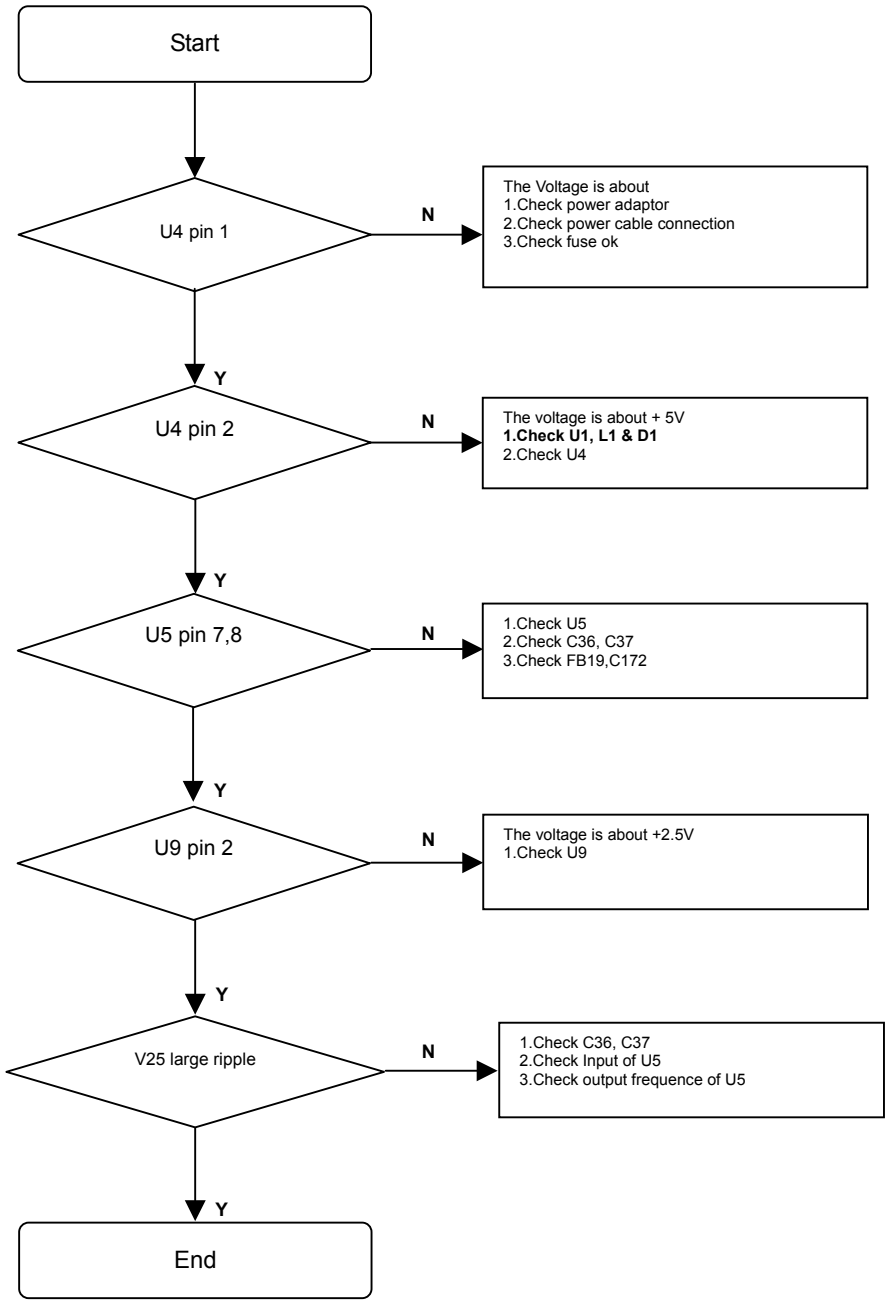
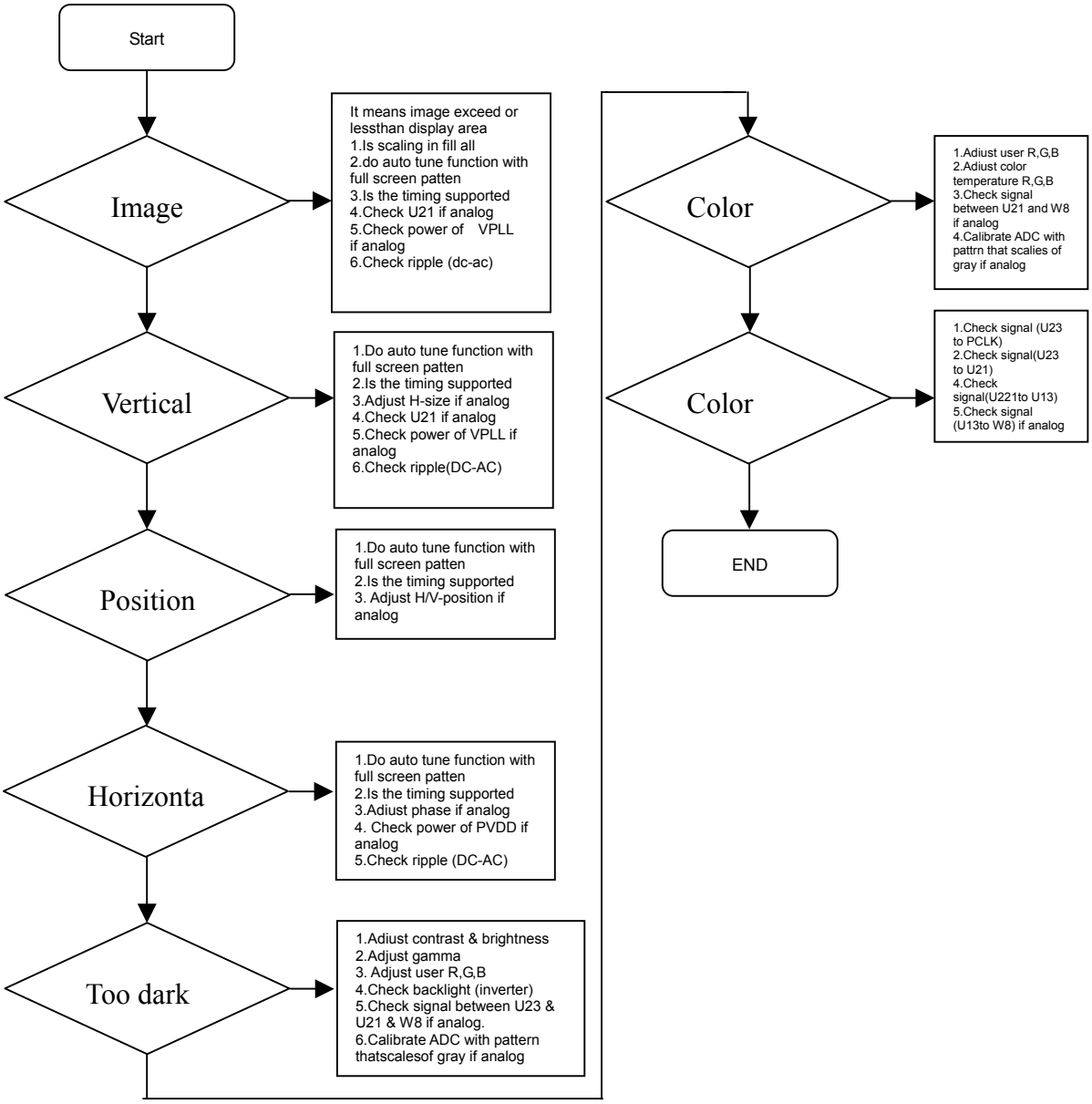
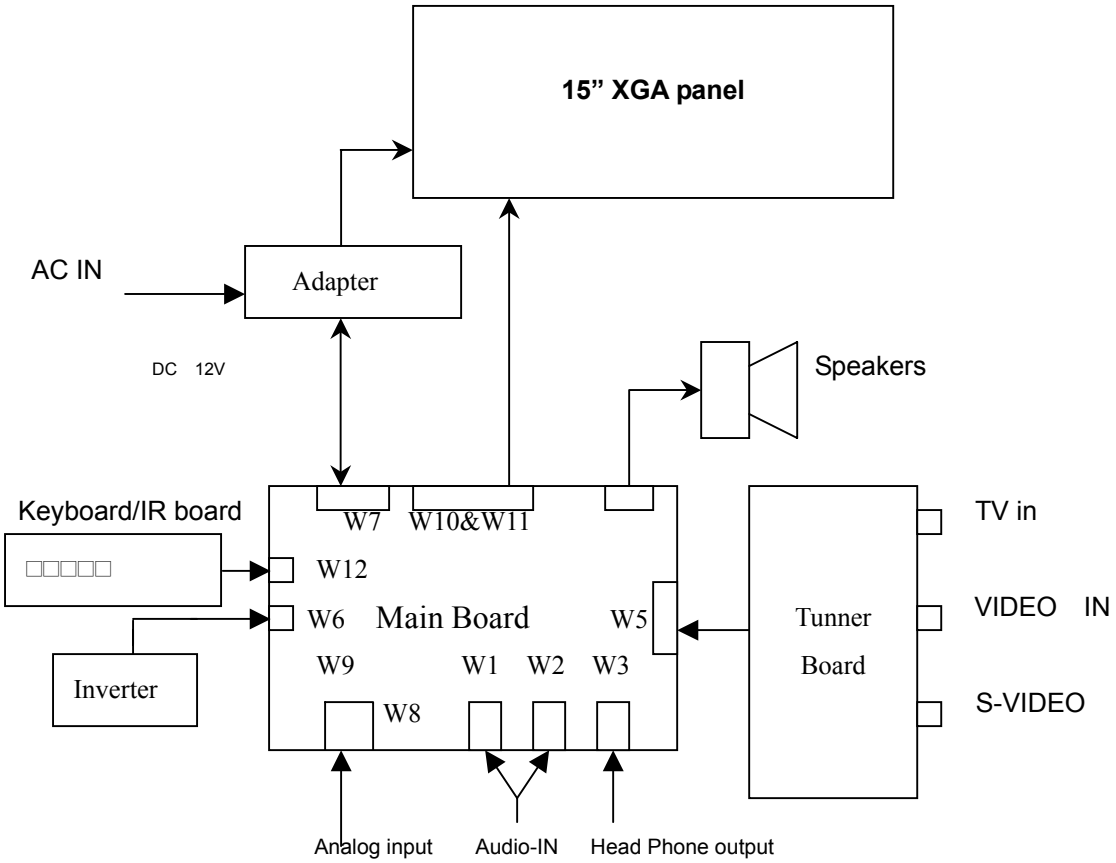


IMAGE QUALITY IS NOT GOOD(PC MODE)



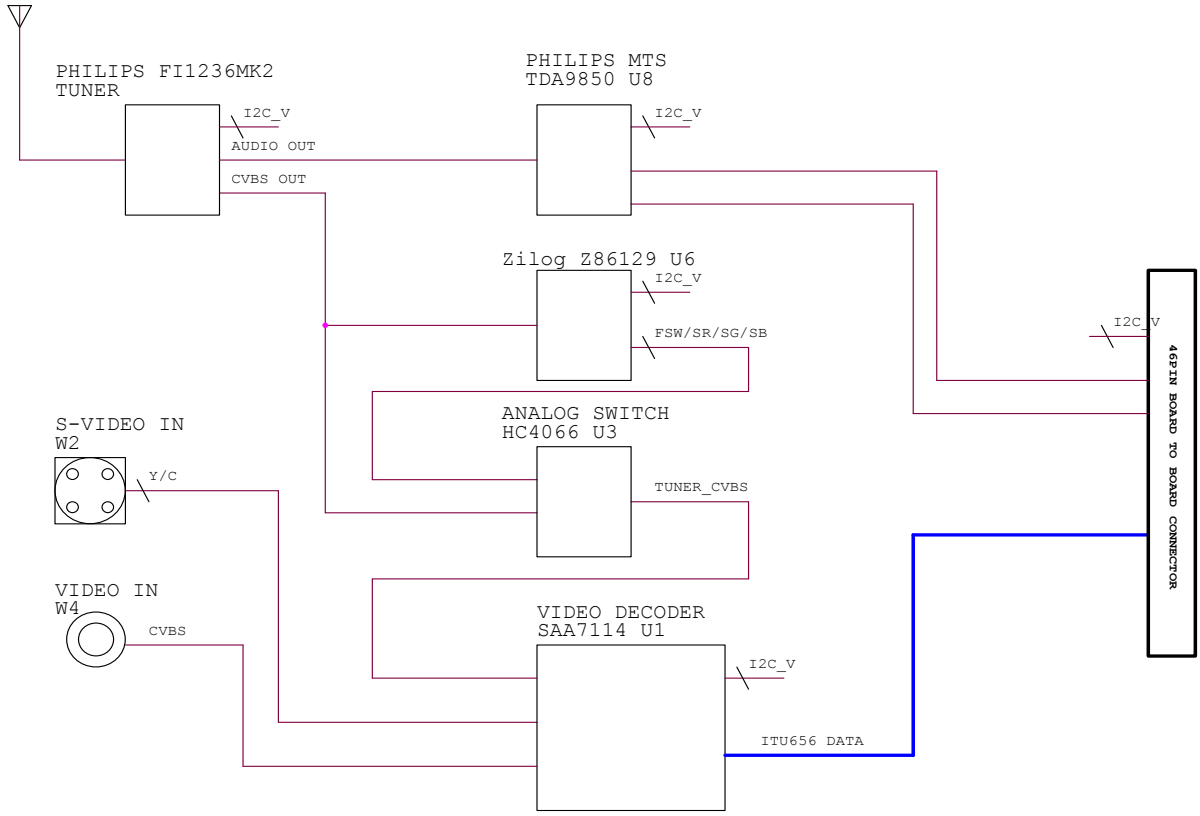
Chapter 10 Block Diagram

System Block Diagram



The monitor’s system block diagram is powered by an adapter that transforms AC source of 100V AC +/- 10% @ 50/60 HZ into DC 12V source. The DC source supplies three important parts of the system block diagram. They are the main board, turner board and 15” XGA panel unit. The tuner board converts different types of video signal into digital video signal. Afterward, the main board process the digital signals control the various functions of the monitor and outputs control signal, video signal and power to the 15” XGA panel to be displayed. The power sent to the panel is first processed by the inverter. 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 two 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.

Turner board block diagram



The function of the turner board is to transmit different types of video and audio signal in to compatible digital video and audio format fit for the main board. The FI1236-MK2 tuner board processes the T.V antenna and the cable into analog signal. The audio signal exiting from FI1236-MK2 is further processed by TDA9850 MTS. 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 processed analog video and audio signals are fed to the audio and video decoder. The analog audio and video signals of S video and A/V signals travel directly to video and audio decoder. At the decoder, all signals are translated from analog signals into compatible digital signal which will be ultimately be processed by the main board. After the video signal has been converted into digital signals, the digital video signal is de-interlaced by Zipro_T0947. 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 Zipro_T0947. More over, the internal memory controller in Zipro_T0947 controls the external SDRAM.

Chapter 11 Spare Parts List

PART NO	DESCRIPTION	LOC	QTY	REMARK
0185-1252-0028	FUSE FAST 24V/2.5A 0805 (KMC25)	FB19	1	
0320-4000-0010	POWER CORD 6FT 110V UL/CSA AL		1	
0322-2000-0040	A.CABLE Audio/RCA*2(F) 200mm (BLK)		1	
0322-2000-0050	A.CABLE AUDIO/RCA*2(F) 1800mm (BLK)		1	
0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	Q3	1	
0430-4007-0059	IC PT2313L SMD 28PIN SOIC	U1	1	
0430-6000-7104	IC LM2576-5 TO-220 5PIN	U4	1	
0430-6001-3207	IC L7808CV TO-220 3PIN	U3	1	
0430-6002-1051	IC AMC1117SK-3.3 SMD 3PIN (STO-23)	U2	1	
0430-6002-1051	IC AMC1117SK-3.3 SMD 3PIN (STO-23)	U8	1	
0430-6002-7051	IC AMC1117SK-2.5V SMD 3PIN (SOT-23)	U9	1	
0430-7006-8356	IC KIA7027AP TO-92 3PIN (V=2.7V)	U18	1	
0980-0102-3010	MODULE TUNER (FQ1236/PH-5)	U10	1	
1801-0119-4020	FRONT PANEL(VIZIO L15)(SD-0150, 877C) ASS'Y		1	
1801-0205-5050	REAR COVER VIZIO L15 (ABS 94HB, 877C) ASS'Y		1	
1925-1000-1760	EPS-A (TM-15B)		1	
1925-1000-1770	EPS-B (TM-15B)		1	
1925-1100-0230	PE BAG 320*230*0.04T		1	
1925-1100-0260	PE BAG 50*80*0.06T		1	
1925-1100-0280	PE BAG (180W*290L*0.04t)(PE-LD)(ACC.-1)		1	
1925-1100-0440	PE BAG (700(W)*600(L)*0.04t)		1	
1925-1200-4750	ACCESSARY BOX (420WX230DX44H)		1	
1925-1200-7610	CARTON Vinc VIZIO L15		1	
1925-1300-6630	MANUAL Vinc VIZIO L15		1	
1925-1300-7080	Brochure VIZIO Series		1	
1925-1300-7210	Quick Setup Guide VIZIO L15_Silver		1	
1925-1400-2710	Register CARD/VIZIO L15		1	
1925-1400-2810	WARRANTY CARD Vinc VIZIO L32		1	
1925-1700-0030	HANDLE-A FOR CARTON (L1-150T)		1	
1925-1700-0040	HANDLE-B FOR CARTON (L1-150T)		1	
1936-1100-7640	B/C LBL Vinc VIZIO L15		1	
1936-1300-1420	Sticker /VIZIO L15(screws for VESA mount PLATE)		1	
1947-1200-0310	ACETATE CLOTH TAPE (醋酸布膠帶) 27*75mm		1	
1947-1200-0400	ACETATE CLOTH TAPE (醋酸布膠帶) 20*45mm		3	
1947-1200-0440	INSULATOR-INVERTER (VE510+)		1	
1947-1200-0550	INSULATOR (W25.0*D32.0 t=1.3) TM-15A		2	
1947-1200-1340	RUBBER FOAM-A (20*30*0.5t)		4	
1947-1200-1350	DOUBLE TAPE-KNOB (163*18*0.08t)		1	
1947-1200-1390	RUBBER FOAM-EMI CORE		1	
1947-1200-1400	RUBBER FOAM-FPC CABLE-A		2	
1947-1200-1410	RUBBER FOAM-FPC CABLE-B		1	
1947-1200-1590	SWIVEL SHEET (UPE=0.5, OD 25.0)		1	
1947-1200-1880	SWIVEL SHEET (UPE 0.3)(TM-15B)		1	
1947-1500-0520	SPONGE FOR SPEAKER (TM-15A)		2	
1947-1500-2550	CUSHION TOP & BOTTOM 300mm*3.5mm,t=0.5mm		2	
1947-1500-2560	CUSHION LEFT & RIGHT 220mm*3.5mm,t=0.5mm		2	
1947-1700-0090	SHIELDING AL. TAPE (40.0*70.0)		1	
1947-1700-0130	SHIELDING AL.TAPE (70.0*50.0)		2	
1947-1700-0190	GASKET BLOCK (20.0*10.0*10.0)		4	
1947-1700-0240	GASKET BLOCK (40*4.0*1.0)		3	
1947-1800-0050	GASKET BLOCK (20*3*12mm) (850GT)		3	
1947-1800-0070	GASKET BLOCK (5*3.5*50mm)		4	

PART NO	DESCRIPTION	LOC	QTY	REMARK
1947-1800-0240	GASKET EMI (5*1*100mm)		1	
1947-1800-0290	GASKET BLOCK (12L*10W*1.5Hmm) HOLE 6 φ		2	
1947-2000-0380	RUBBER FOR ESD (TM-15)		1	
3150-0012-0189	15" IR BD ASS'Y			
3150-0142-0190	LCD TUNER BD ASS'Y			
3150-0212-0156	15" LCD DISPLAY BD ASS'Y			
3150-2032-0150	LCD MAIN BD ASS'Y			

Chapter 12 Complete Parts List

2615-8500-1023 LCD TV Monitor 15" VIZIO L15(SD-0150, 877C) (ADI)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			3150-1032-0334	LCD BASE ASS'Y VIZIO L15 (SD-0150, 877C)	1
2			3150-3652-0312	LCD PACKING ASS'Y VIZIO L15_Silver	1
3			3150-4332-0331	LCD PANEL ASS'Y VIZIO L15 (SD-0150, 877C)(ADI)	1

3150-1032-0334 LCD BASE ASS'Y VIZIO L15 (SD-0150, 877C)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			1701-0508-8060	BASE CAB (VIZIO L15)(SD-0150, 877C)	1
2			1701-0508-9050	NECK CAB. (VIZIO L15)(SD-0150, 877C)	1
3			1701-1000-0190	BASE FOOT (φ 18.0*1.5t, PORON)	10
4			1712-0100-3860	BASE BKT. TM-15A	1
5			1712-0900-0550	HINGE ASS'Y TM-15A	1
6			1721-1504-2620	TAP SCREW-TP-SFW M4.0*26.0L Ni	2
7			1721-5003-0520	TAP. SCREW-TI M3.0*5.0L,Ni	6
8			1726-1006-2000	MAC SCREW-MP M6.0*19.8L _Zn	1
9			1730-7425-1020	WASHER-FW ID7.4*OD25.0*1.0 NI	3
10			1947-1200-1590	SWIVEL SHEET (UPE=0.5, OD 25.0)	1
11			1947-1200-1880	SWIVEL SHEET (UPE 0.3)(TM-15B)	1
12			0300-7012-4804	AC TO DC ADAPTOR 12V/5A(SLS9901G12027 BLK 中性)	1
13			1701-0800-1520	REAR PLATE VIZIO L15	1
14			1701-1903-2050	HINGE COVER (VIZIO L15)(SD-0150, 877C)	1
15			1701-1923-3020	TUNNER COVER (VIZIO L15)(SD-0150, 877C)	1
16			1925-1000-1760	EPS-A (TM-15B)	1
17			1925-1000-1770	EPS-B (TM-15B)	1
18			1925-1100-0440	PE BAG (700(W)*600(L)*0.04t)	1
19			1925-1200-7611	CARTON Vinc VIZIO L15	1
20			1925-1700-0030	HANDLE-A FOR CARTON (L1-150T)	1
21			1925-1700-0040	HANDLE-B FOR CARTON (L1-150T)	1
22			1936-1100-7640	B/C LBL Vinc VIZIO L15	1
23			1936-1400-2610	CTN LBL VIZIO L15 (55*35m/m)	1
24			1947-2000-0380	RUBBER FOR ESD (TM-15)	1
25			3150-1022-0393	LCD ACCESSARY ASS'Y VIZIO L15_Silver	1

3150-4332-0331 LCD PANEL ASS'Y VIZIO L15 (SD-0150, 877C) (ADI))

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0211-0150-2855	LCD MODULE 15.0" TFT AA150XC01(ADI)	1
2	SS		0211-0150-4755	LCD MODULE 15.0" TFT AA150XC01(ADI)(by CPT)	
3			0335-1080-0651	SPEAKER 8ohm 3.5W 34*34mm (HB) +wire	1
4			0460-1005-0120	WH PH5P-PH5P 1007#24 40mm	1
5			0460-1010-0031	WH PH10P-PH5P/51021-5PIN 260/140mm CORE*3	1
6			0460-2840-0120	WH FFC 40P 20624 220mm CORE*2	1
7			0500-0101-0570	INVERTER DC-AC (TAD697) REV:E	1
8			1701-0410-7040	BUTTON (VIZIO L15)(SD-0150,T-49017+EODEX/5108M)	1
9			1701-1500-0030	WIRE SADDLE (CH-01C)	5
10			1701-1500-0350	WIRE MOUNT (FW-2S-3M)	1
11			1701-1903-4040	HANDLE COVER (VIZIO L15)(SD-0150,EODEX/5108M)	1
12			1701-1903-5040	HANDLE BAR (VIZIO L15)(SD-0150,EODEX/5108M)	1
13			1712-0100-3812	FRAME BKT TM-15B REV:02	1
14			1712-0100-3820	INVERTER SHIELDING TM-15A	1
15			1712-0100-3831	M/B SHIELDING TM-15A REV:01	1
16			1712-0100-3850	TUNER FIX BKT. TM-15A	1
17			1712-0100-3870	TUNER BOX TOP TM-15A	1
18			1712-0100-3880	TUNER BOX BOTTOM TM-15A	1
19			1712-0100-4170	HEAT SINK FIX METAL (TM-15A)	1
20			1712-0100-5420	SUPPORT BKT (TM-15B)	1
21			1712-0400-0420	HEAT SINK FOR TM-15A	1
22			1720-0003-0420	MAC.SCREW-MB M3.0*4.0L,Ni	23
23			1720-1002-0320	MAC. SCREW-MR M2.0*3.0L, Ni	4
24			1720-1504-1020	MAC. SCREW-MPSWF M4.0*10.0L,NI	4
25			1720-5003-0420	MAC. SCREW-MI M3.0*4.0L,Ni	11
26			1720-5003-0520	MAC.SCREW-MI M3.0*5.0L,Ni	4
27			1720-5003-0720	MAC. SCREW-MI M3.0*7.0L,NI	4
28			1720-7344-0820	MAC. SCREW-MHSW #4-40*8.0L,Ni	2
29			1721-0003-0820	TAP. SCREW-TB #3.0*8.0L,NI	28
30			1721-1002-0820	TAP. SCREW-TP #2.0*8.0L,Ni	8
31			1801-0119-4020	FRONT PANEL(VIZIO L15)(SD-0150, 877C) ASS'Y	1
32			1801-0205-5050	REAR COVER VIZIO L15 (ABS 94HB, 877C) ASS'Y	1
33			1812-0300-0640	AL. DECORATION (VIZIO L15) ASS'Y	1
34			1947-1200-0310	ACETATE CLOTH TAPE (醋酸布膠帶) 27*75mm	1
35			1947-1200-0400	ACETATE CLOTH TAPE (醋酸布膠帶) 20*45mm	3
36			1947-1200-0440	INSULATOR-INVERTER (VE510+)	1
37			1947-1200-0550	INSULATOR (W25.0*D32.0 t=1.3) TM-15A	2
38			1947-1200-1340	RUBBER FOAM-A (20*30*0.5t)	4
39			1947-1200-1350	DOUBLE TAPE-KNOB (163*18*0.08t)	1
40			1947-1200-1390	RUBBER FOAM-EMI CORE	1
41			1947-1200-1400	RUBBER FOAM-FPC CABLE-A	2
42			1947-1200-1410	RUBBER FOAM-FPC CABLE-B	1
43			1947-1500-0520	SPONGE FOR SPEAKER (TM-15A)	2
44			1947-1500-2550	CUSHION TOP & BOTTOM 305mm*3.5mm,t=0.5mm	2
45			1947-1500-2560	CUSHION LEFT & RIGHT 230mm*3.5mm,t=0.5mm	2
46			1947-1700-0090	SHIELDING AL. TAPE (40.0*70.0)	1
47			1947-1700-0130	SHIELDING AL.TAPE (70.0*50.0)	2
48			1947-1700-0190	GASKET BLOCK (20.0*10.0*10.0)	4
49			1947-1700-0240	GASKET BLOCK (40*4.0*1.0)	3
50			1947-1800-0050	GASKET BLOCK (20*3*12mm) (850GT)	3
51			1947-1800-0070	GASKET BLOCK (5*3.5*50mm)	4
52			1947-1800-0240	GASKET EMI (5*1*100mm)	1
53			1947-1800-0290	GASKET BLOCK (12L*10W*1.5Hmm) HOLE 6 φ	2

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
54			3150-0012-0189	15" IR BD ASS'Y (TM-15A)	1
55			3150-0142-0190	LCD TUNER BD ASS'Y VIZIO L15	1
56			3150-0212-0156	15" LCD DISPLAY BD ASS'Y (TM-15A)	1
57			3150-2032-0150	LCD MAIN BD ASS'Y VIZIO L15	1

3150-0012-0189 15" IR BD ASS'Y (TM-15A)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			315000120189A	15" IR BD ASS'Y (TM-15A) AI	1
2			315000120189M	15" IR BD ASS'Y (TM-15A) MI	1
3			315000120189S	15" IR BD ASS'Y (TM-15A) SMD	1

3150-0142-0190 LCD TUNER BD ASS'Y VIZIO L15

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			315001420190A	LCD TUNER BD ASS'Y VIZIO L15 AI	1
2			315001420190M	LCD TUNER BD ASS'Y VIZIO L15 MI	1
3			315001420190S	LCD TUNER BD ASS'Y VIZIO L15 SMD	1

3150-0212-0156 15" LCD DISPLAY BD ASS'Y (TM-15A)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			315002120156A	15" LCD DISPLAY BD ASS'Y (TM-15A) AI	1
2			315002120156M	15" LCD DISPLAY BD ASS'Y (TM-15A) MI	1
3			315002120156S	15" LCD DISPLAY BD ASS'Y (TM-15A) SMD	1

3150-1022-0393 LCD ACCESSARY ASS'Y VIZIO L15_Silver

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0320-4000-0010	POWER CORD 6FT 110V UL/CSA AL	1
2			0322-2000-0040	A.CABLE Audio/RCA*2(F) 200mm (BLK)	1
3			0322-2000-0050	A.CABLE AUDIO/RCA*2(F) 1800mm (BLK)	1
4			0329-0000-0020	S.CABLE RCA(Y)/RCA(Y) 1800mm (BLK)	1
5			0602-2000-0010	Battery Zn-Carbon 1.5V AAA	2
6	CS		0602-1000-0010	Battery Zn-Carbon 1.5V AAA(R03NW/2SK)	
7	CS		0602-3000-0010	Battery Zn-Carbon 1.5V AAA(R03UG)	
8	SS		0602-1000-0010	Battery Zn-Carbon 1.5V AAA(R03NW/2SK)	
9	SS		0602-3000-0010	Battery Zn-Carbon 1.5V AAA(R03UG)	
10			0980-0301-0120	REMOTE CONTROL Vinc VIZIO L15	1
11			1701-1500-1030	VESA MOUNT PLATE (VIZIO L15)	1
12			1720-1504-1820	MAC SCREW-MPSFW M4.0*18.0L Ni	4
13			1925-1100-0230	PE BAG 320*230*0.04T	1
14			1925-1100-0260	PE BAG 50*80*0.06T	1
15			1925-1100-0280	PE BAG (180W*290L*0.04t)(PE-LD)(ACC.-1)	1
16			1925-1200-4750	ACCESSARY BOX (420WX230DX44H)	1
17			1925-1300-6630	MANUAL Vinc VIZIO L15	1
18			1925-1300-7080	Brochure VIZIO Series	1
19			1925-1300-7210	Quick Setup Guide VIZIO L15_Silver	1
20			1925-1400-2710	Register CARD/VIZIO L15	1
21			1925-1400-2810	WARRANTY CARD Vinc VIZIO L32	1
22			1936-1300-1420	Sticker /VIZIO L15(screws for VESA mount PLATE)	1

3150-2032-0150 LCD MAIN BD ASS'Y VIZIO L15

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			3150-2032-0150A	LCD MAIN BD ASS'Y VIZIO L15 AI	1
2			3150-2032-0150M	LCD MAIN BD ASS'Y VIZIO L15 MI	1
3			3150-2032-0150S	LCD MAIN BD ASS'Y VIZIO L15 SMD	1

3150-0012-0189A 15" IR BD ASS'Y (TM-15A) AI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0170-1640-0161	PCB OPTION BD(IR) V0 (40.0*20.0)mm*1.6t S (TM-15)	1
2		C1	0111-3104-5111	C/M MULTI 0.1uF 50V X7R F	1
3		R1	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1

3150-0012-0189M 15" IR BD ASS'Y (TM-15A) MI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		LED1	0440-5000-0040	LED L-469GYW 5 φ	1
2		LED1H	1701-1500-0370	LED HOLDER (LED-4T*3) TM-15A	1
3		U1	0980-0200-2030	MODULE. IR RECEIVER (FM-6038LM-5A)	1
4		U1H	1701-1500-0360	IR HOLDER (TM-15A)	1
5		W1	0451-2000-0566	WAFER 2.0mm 5P 90' DIP KINK (M24265R) L-F	1

3150-0142-0190A LCD TUNER BD ASS'Y VIZIO L15 AI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		C29	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
2		C31	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
3		C33	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
4		C43	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
5		C46	0103-1102-1216	E/C VZ 1000uF 16V 105'C F (10*12.5)	1
6		C48	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
7		C57	0103-1109-1511	E/C VT 1uF 50V 105'C F-T (5*11mm)	1
8		C58	0103-1109-1511	E/C VT 1uF 50V 105'C F-T (5*11mm)	1
9		C59	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
10		C61	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
11		C62	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
12		C63	0103-1479-1511	E/C VT 4.7uF 50V 105'C F-T (5*11mm)	1
13		C66	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
14		C67	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
15		C68	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
16		C70	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
17		C72	0103-1479-1511	E/C VT 4.7uF 50V 105'C F-T (5*11mm)	1
18		C73	0103-1479-1511	E/C VT 4.7uF 50V 105'C F-T (5*11mm)	1
19		C75	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
20		C76	0103-1479-1511	E/C VT 4.7uF 50V 105'C F-T (5*11mm)	1
21		C77	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1

3150-0142-0190M LCD TUNER BD ASS'Y VIZIO L15 MI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0303-3000-0030	TV JACK 3/8-32UNEF 26.2mm (RF JACK)	1
2			1712-0600-0160	CONTACT SPRING (W9.53*H6.8*L21.01mm)	1
3		U10	0980-0102-3010	MODULE TUNER (FQ1236/PH-5)	1
4		W2	0300-3040-0040	S-VIDEO 4P (621R04-***)	1
5		W4	0302-9010-0036	RCA JACK 1ROW 1I/O (YELLOW)	1
6		X2	0282-5000-0017	Resonator 503KHz 500pF (CSB503F58)	1

3150-0142-0190S LCD TUNER BD ASS'Y VIZIO L15 SMD

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-4342-0151	PCB TUNER BD FR4 4M 121*60mm*1.6t (TM-15B) REV:01	1
2		C1	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
3		C10	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
4		C11	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
5		C12	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
6		C13	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
7		C14	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
8		C15	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
9		C16	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
10		C17	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
11		C18	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
12		C19	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
13		C2	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
14		C20	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
15		C21	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
16		C22	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
17		C23	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
18		C24	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
19		C25	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
20		C26	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
21		C27	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
22		C28	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
23		C3	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
24		C30	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
25		C32	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
26		C34	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
27		C4	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
28		C40	0111-3221-5106	C/M MULTI 220PF 50V NPO 0603	1
29		C42	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
30		C44	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
31		C47	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
32		C49	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
33		C5	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
34		C51	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
35		C52	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
36		C53	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
37		C54	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
38		C55	0111-3682-5116	C/M MULTI 6800PF 50V X7R 0603	1
39		C56	0111-3683-5136	C/M Multi. 0.068uF 50V Y5V 0603	1
40		C6	0111-3180-5106	C/M MULTI. 18PF 50V NPO 0603	1
41		C60	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
42		C64	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
43		C65	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
44		C69	0111-3153-5116	C/M Multi. 0.015uF 50V X7R 0603	1
45		C7	0111-3180-5106	C/M MULTI. 18PF 50V NPO 0603	1
46		C71	0111-3474-1636	C/M Multi. 0.47uF 16V Y5V 0603	1
47		C74	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
48		C78	0111-3224-1636	C/M Multi. 0.22uF 16V Y5V 0603	1
49		C79	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
50		C80	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
51		C86	0111-3560-5106	C/M Multi. 56PF 50V NPO 0603	1
52		C91	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
53		C92	0111-3102-5106	C/M MULTI 1000PF 50V NPO 0603	1
54		C93	0111-3102-5106	C/M MULTI 1000PF 50V NPO 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
55		D1	0390-6001-3223	SCHOTTKY DIODE RB495D SMD	1
56		D2	0390-6001-3223	SCHOTTKY DIODE RB495D SMD	1
57		L1	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
58		L10	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
59		L12	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
60		L15	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
61		L16	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
62		L2	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
63		L3	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
64		L5	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
65		L6	0130-1508-1858	RES. CF 1.5ohm 1/8W J 0805	1
66		L7	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
67		L8	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
68		L9	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
69		Q3	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
70	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
71		Q4	0410-5000-1610	TRANSISTOR MMBT3904LT1 SMD T	1
72	CS		0410-5000-1604	TRANSISTOR 2N3904 SMD T	
73		Q5	0420-1002-4621	MOSFET N-CH 2N7002E-T1 SMD (SOT-23)	1
74	SS		0420-1004-9621	MOSFET N-CH 2N7002E-T1-E3 SMD (SOT-23) L-F	
75		Q6	0410-5000-2610	TRANSISTOR MMBT3906LT1 SMD	1
76	CS		0410-5000-2604	TRANSISTOR MMBT3906 SMD (SOT-23)	
77		RP1	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
78		RP2	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
79		RP3	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
80		RP4	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
81		R10	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
82		R11	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
83		R12	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
84		R13	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
85		R14	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
86		R15	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
87		R16	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
88		R17	0130-5609-0055	RES. CF 56ohm1/10W J 0603	1
89		R18	0130-5609-0055	RES. CF 56ohm1/10W J 0603	1
90		R19	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
91		R2	0130-1809-0055	RES. CF 18ohm 1/10W J 0603	1
92		R20	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
93		R21	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
94		R22	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
95		R23	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
96		R27	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
97		R3	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
98		R30	0130-3301-0055	RES. CF 3.3Kohm 1/10W J 0603	1
99		R38	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
100		R39	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
101		R4	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
102		R40	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
103		R41	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
104		R42	0130-2001-0055	RES. CF 2Kohm 1/10W J 0603	1
105		R43	0130-2001-0055	RES. CF 2Kohm 1/10W J 0603	1
106		R44	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
107		R45	0130-1501-0055	RES. CF 1.5Kohm 1/10W J 0603	1
108		R46	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
109		R47	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
110		R48	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
111		R5	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
112		R50	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
113		R56	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
114		R6	0130-1809-0055	RES. CF 18ohm 1/10W J 0603	1
115		R60	0130-6801-0055	RES. CF 6.8Kohm 1/10W J 0603	1
116		R61	0131-1002-0015	RES. MF 10.0Kohm 1/10W F 0603	1
117		R62	0130-1600-0055	RES. CF 160ohm 1/10W J 0603	1
118		R63	0130-8201-0055	RES. CF 8.2Kohm 1/10W J 0603	1
119		R64	0130-7509-0055	RES. CF 75ohm1/10W J 0603	1
120		R65	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
121		R66	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
122		R67	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
123		R68	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
124		R69	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
125		R7	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
126		R71	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
127		R72	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
128		R73	0130-1801-0055	RES. CF 1.8Kohm 1/10W J 0603	1
129		R74	0130-2701-0055	RES. CF 2.7Kohm 1/10W J 0603	1
130		R76	0130-1809-0055	RES. CF 18ohm 1/10W J 0603	1
131		R77	0130-5609-0055	RES. CF 56ohm1/10W J 0603	1
132		R8	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
133		R81	0130-1501-0055	RES. CF 1.5Kohm 1/10W J 0603	1
134		R82	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
135		R83	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
136		R84	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
137		R86	0130-1201-0055	RES. CF 1.2Kohm 1/10W J 0603	1
138		R87	0130-1501-0055	RES. CF 1.5Kohm 1/10W J 0603	1
139		R9	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
140		U1	0430-7004-9709	IC SAA7114 SMD 100PIN (LQFP)	1
141		U2	0430-6002-1051	IC AMC1117SK-3.3 SMD 3PIN (STO-23)	1
142		U3	0430-1005-0015	IC SN74HC4066DR 14PIN (SOIC)	1
143	SS		0430-1006-9015	IC SN74HC4066DR 14PIN (SOIC) L-F	
144		U6	0430-7009-7073	IC Z86129 SMD 18PIN (SOIC)	1
145		U8	0430-9000-1009	IC TDA9850 SMD 32P	1
146		X1	0285-2401-0015	X'TAL 24.576MHZ 49US/SMD 30PPM 20PF	1
147	CS		0285-2401-0018	X'TAL 24.576MHZ 49US/SMD 30ppm 20PF	

3150-0212-0156S 15" LCD DISPLAY BD ASS'Y (TM-15A) SMD

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0170-1740-0632	PCB DISPLAY BD V0 170*17*1.6t (TM-15)	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		R1	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
5		R10	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
6		R11	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
7		R12	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
8		R13	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
9		R14	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
10		R15	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
11		R16	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
12		R17	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
13		R18	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
14		R19	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
15		R2	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
16		R20	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
17		R21	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
18		R3	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
19		R4	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
20		R5	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
21		R6	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
22		R7	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
23		R8	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
24		R9	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
25		SW1	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
26		SW2	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
27		SW3	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
28		SW4	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
29		SW5	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
30		SW6	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
31		SW7	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
32		SW8	0220-2020-0573	SW PUSH EVQPLMA15 SMD	1
33		W1	0451-1250-0590	WAFER 1.25mm 5P 90' SMD	1

3150-2032-0150A LCD MAIN BD ASS'Y VIZIO L15 AI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		C1	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
2		C10	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
3		C119	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
4		C121	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
5		C127	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
6		C136	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
7		C14	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
8		C149	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
9		C15	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
10		C161	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
11		C164	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
12		C167	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
13		C170	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
14		C172	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
15		C18	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
16		C20	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
17		C21	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
18		C22	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
19		C23	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
20		C24	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
21		C25	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
22		C27	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
23		C29	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
24		C3	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
25		C30	0103-1331-1311	E/C VZ 330uF 25V 105'C F-T (8*11.5mm)	1
26		C32	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
27		C34	0103-1331-1311	E/C VZ 330uF 25V 105'C F-T (8*11.5mm)	1
28		C37	0103-1331-1311	E/C VZ 330uF 25V 105'C F-T (8*11.5mm)	1
29		C38	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
30		C4	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
31		C42	0103-1331-1311	E/C VZ 330uF 25V 105'C F-T (8*11.5mm)	1
32		C43	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
33		C44	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
34		C45	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
35		C46	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
36		C47	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
37		C5	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
38		C50	0103-1331-1311	E/C VZ 330uF 25V 105'C F-T (8*11.5mm)	1
39		C6	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
40		C69	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
41		C78	0103-1479-1511	E/C VT 4.7uF 50V 105'C F-T (5*11mm)	1
42		C8	0103-1229-1511	E/C VT 2.2uF 50V 105'C F-T (5*11mm)	1
43		D1	0390-6000-9172	SCHOTTKY DIODE SB340 T	1
44	SS		0390-6004-7272	SCHOTTKY DIODE 3A 40V SB340 T L-F	
45		F1	0182-1352-3703	PICO FUSE 125V 3.5A 3*7MM (R25103.5)	1
46		J2	0230-2508-0000	JUMPER WIRE 2.5*0.6MM	1
47		L2	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
48		L4	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
49		Q3	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
50	CS		0410-2000-3119	TRANSISTOR KTC200-O/Y TO-92 T	
51		R167	0130-4709-1250	RES. CF 47ohm 1/2W J A	1
52		R169	0130-4709-1250	RES. CF 47ohm 1/2W J A	1
53		U18	0430-7006-8356	IC KIA7027AP TO-92 3PIN (V=2.7V)	1

3150-2032-0150M LCD MAIN BD ASS'Y VIZIO L15 MI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		L1	0361-1000-0120	DRUM CORE L:70UH 2A(10*16)	1
2		L3	0370-0000-1110	FERRITE CORE W8 R6H 6X10 2 1/2 T	1
3	SS		0370-0000-1111	FERRITE CORE W8 R6H 6X10 2 1/2 T LF	
4		U14	0201-1774-2000	IC SOCKET 1.778MM 42PIN	1
5		U14	0430-5006-4440	IC MTV230M SDIP 42PIN	1
6		U16	0201-2540-8000	IC SOCKET 2.54MM 8PIN	1
7	SS		0201-2540-8001	IC SOCKET 2.54MM 8PIN L-F	
8		U16	0430-3001-5111	IC AT24C16A-10PI-2.7 DIP 8PIN	1
9	SS		0430-3009-4117	IC 24LC16B/P e3 8PIN DIP LF	
10		U2	0430-4007-5168	IC AN7522 DIP 12PIN	1
11		U3	0430-6001-3207	IC L7808CV TO-220 3PIN	1
12	SS		0430-6013-9207	IC REGULATOR L7808CV 3PIN TO-220 LF	
13		W1	0302-0350-0011	PHONE JACK 3.5 φ 5PIN 90 ° +SHIELDING	1
14		W12	0451-2000-1066	WAFER 2.0mm 10P 90' DIP KINK (M242610R) L-F	1
15		W2	0302-0350-0011	PHONE JACK 3.5 φ 5PIN 90 ° +SHIELDING	1
16		W3	0302-0350-0051	PHONE JACK 3.5 φ 7P 90 °	1
17		W4	0451-2000-0466	WAFER 2.0mm 4P 90' DIP KINK (M24264R) L-F	1
18		W5	0459-1270-4690	CARD CONN. 1.27mm 180' 46PIN (PLYWOOD)	1
19		W6	0451-2000-0566	WAFER 2.0mm 5P 90' DIP KINK (M24265R) L-F	1
20		W7	0302-1130-0043	DC POWER JACK 4P 13 φ 7.5A	1
21		W8	0300-1202-3150	D-SUB FEMALE 90' 15P 3ROW (PC99)	1
22		X2	0280-1200-0015	X'TAL 12MHZ 49/US CL:30PF	1
23		X3	0280-1400-0115	X'TAL 14.318MHz 49/US 30PPM 0.5mW + pad	1
24	SS		0280-1400-0118	X'TAL 14.318MHz 49/US 30ppm 0.5MW + pad	

3150-2032-0150S LCD MAIN BD ASS'Y VIZIO L15 SMD

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-2242-1681	PCB MAIN BD 155*180*1.6t FR4 4M TM-15B REV:01	1
2		C104	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
3		C105	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
4		C106	0111-3473-5136	C/M Multi. 0.047uF 50V Y5V 0603	1
5		C107	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
6		C109	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
7		C11	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
8		C110	0111-3823-5115	C/M MULTI 0.082UF 50V X7R 0805	1
9		C111	0111-3822-5116	C/M MULTI 8200PF 50V X7R 0603	1
10		C113	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
11		C114	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
12		C116	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
13		C117	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
14		C118	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
15		C12	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
16		C120	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
17		C122	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
18		C123	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
19		C124	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
20		C125	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
21		C126	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
22		C128	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
23		C129	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
24		C13	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
25		C130	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
26		C131	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
27		C132	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
28		C133	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
29		C134	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
30		C135	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
31		C137	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
32		C138	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
33		C139	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
34		C140	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
35		C141	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
36		C142	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
37		C143	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
38		C144	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
39		C145	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
40		C146	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
41		C147	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
42		C148	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
43		C150	0111-3330-5106	C/M Multi. 33PF 50V NPO 0603	1
44		C152	0111-3330-5106	C/M Multi. 33PF 50V NPO 0603	1
45		C153	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
46		C154	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
47		C155	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
48		C156	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
49		C157	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
50		C158	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
51		C16	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
52		C160	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
53		C162	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
54		C163	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1

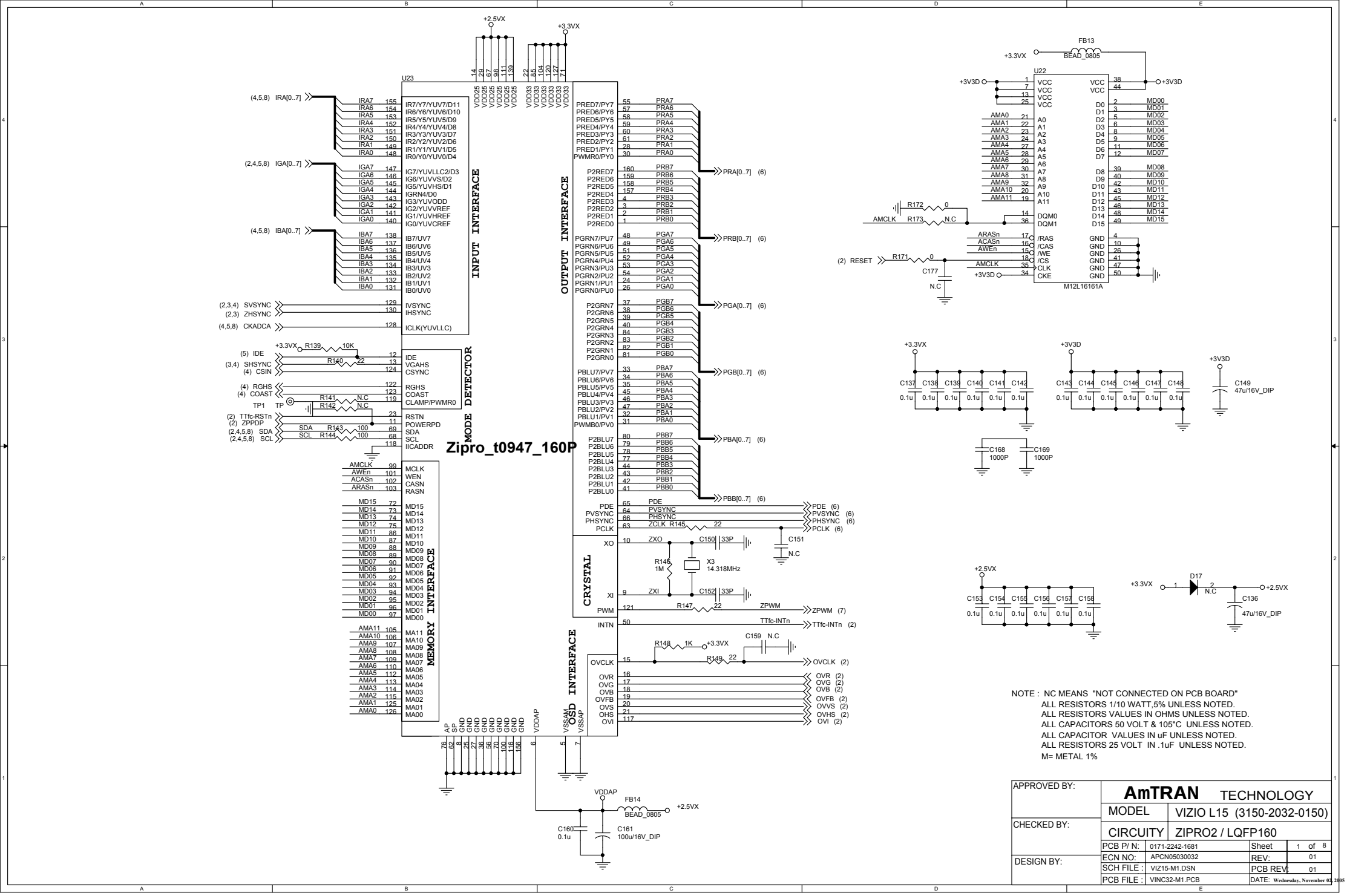
ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
55		C165	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
56		C166	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
57		C168	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
58		C169	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
59		C17	0111-3272-5116	C/M MULTI 2700PF 50V X7R 0603	1
60		C171	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
61		C173	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
62		C175	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
63		C176	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
64		C179	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
65		C180	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
66		C181	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
67		C182	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
68		C183	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
69		C184	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
70		C185	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
71		C19	0111-3272-5116	C/M MULTI 2700PF 50V X7R 0603	1
72		C2	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
73		C26	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
74		C28	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
75		C31	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
76		C33	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
77		C35	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
78		C36	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
79		C39	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
80		C41	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
81		C48	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
82		C51	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
83		C52	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
84		C53	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603	1
85		C54	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
86		C55	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603	1
87		C56	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603	1
88		C57	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603	1
89		C58	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
90		C59	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
91		C60	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
92		C61	0111-3102-5116	C/M MULTI 1000PF 50V X7R 0603	1
93		C62	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
94		C63	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
95		C64	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
96		C65	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
97		C66	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
98		C67	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
99		C68	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
100		C7	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
101		C70	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
102		C71	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
103		C72	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
104		C73	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
105		C74	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
106		C75	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
107		C76	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
108		C77	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
109		C79	0111-3470-5106	C/M MULTI. 47PF 50V NPO 0603	1
110		C80	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1
111		C81	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
112		C82	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
113		C9	0111-3104-2536	C/M MULTI. 0.1UF 25V Y5V 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
114		D10	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
115	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
116	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
117		D11	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
118		D12	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
119		D13	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
120		D2	0400-0491-2012	ZENER RLZ5.1B 4.94-5.2V 1/2W SMD	1
121		D3	0390-5001-8293	DUAL SURFACE DIODES BAV70 SMD (SOT-23)	1
122		D4	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
123		D6	0390-5001-9293	DUAL SURFACE DIODES BAV99 SMD (SOT-23)	1
124		D8	0390-5000-1053	GEN. DIODE 1N4148 SMD	1
125	CS		0390-5000-1093	GEN. DIODE FDLL4148 SMD	
126	CS		0390-5000-1223	GEN. DIODE RLS4148 SMD	
127		FB1	0370-0000-2143	CHIP BEAD CORE 600ohm 1608M T	1
128		FB10	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
129		FB11	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
130		FB12	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
131		FB13	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
132		FB14	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
133		FB15	0344-6880-0603	PEAKING COIL 0.68UH 1/4W K 2012	1
134		FB17	0370-0000-4651	CHIP BEAD CORE 80ohm (MLB-321611-0080P-N1)	1
135		FB18	0370-0000-6752	CHIP BEAD CORE 80ohm (MLB-201209-0080P-N2)	1
136		FB19	0185-1252-0028	FUSE FAST 24V/2.5A 0805 (KMC25)	1
137		FB2	0370-0000-2143	CHIP BEAD CORE 600ohm 1608M T	1
138		FB3	0370-0000-3552	CHIP BEAD CORE 30ohm MLB-201209-0030A-N1	1
139		FB4	0370-0000-3552	CHIP BEAD CORE 30ohm MLB-201209-0030A-N1	1
140		FB5	0370-0000-3552	CHIP BEAD CORE 30ohm MLB-201209-0030A-N1	1
141		Q1	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
142		RP1	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
143		RP10	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
144		RP11	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
145		RP12	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
146		RP13	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
147		RP14	0141-1002-3851	ARRAY RES. A(X) 10Kohm 4R J 8P	1
148		RP15	0141-1002-3851	ARRAY RES. A(X) 10Kohm 4R J 8P	1
149		RP16	0141-1002-3851	ARRAY RES. A(X) 10Kohm 4R J 8P	1
150		RP17	0141-1002-3851	ARRAY RES. A(X) 10Kohm 4R J 8P	1
151		RP2	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
152		RP24	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
153		RP25	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
154		RP26	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
155		RP27	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
156		RP28	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
157		RP29	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
158		RP3	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
159		RP4	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
160		RP5	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
161		RP6	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
162		RP7	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
163		RP8	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
164		RP9	0370-0010-0161	ARRAY BEAD 120ohm (FCA3216M4-121TO2)	1
165		R1	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
166		R10	0130-5601-0055	RES. CF 5.6Kohm 1/10W J 0603	1
167		R100	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
168		R101	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
169		R102	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
170		R11	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
171		R12	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
172		R125	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
173		R127	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
174		R128	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
175		R13	0130-5601-0055	RES. CF 5.6Kohm 1/10W J 0603	1
176		R130	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
177		R132	0130-2701-0055	RES. CF 2.7Kohm 1/10W J 0603	1
178		R133	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
179		R134	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
180		R135	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
181		R136	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
182		R138	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
183		R139	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
184		R14	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
185		R140	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
186		R143	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
187		R144	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
188		R145	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
189		R146	0130-1004-0055	RES. CF 1.0Mohm 1/10W J 0603	1
190		R147	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
191		R148	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
192		R149	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
193		R15	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
194		R150	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
195		R151	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
196		R152	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
197		R153	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
198		R156	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
199		R157	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
200		R158	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
201		R16	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
202		R160	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
203		R161	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
204		R162	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
205		R163	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
206		R164	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
207		R165	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
208		R166	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
209		R168	0130-2202-0055	RES. CF 22Kohm 1/10W J 0603	1
210		R17	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
211		R170	0130-2202-0055	RES. CF 22Kohm 1/10W J 0603	1
212		R171	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
213		R172	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
214		R18	0130-1001-0055	RES. CF 1.0Kohm 1/10W J 0603	1
215		R21	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
216		R22	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
217		R23	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
218		R24	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
219		R25	0130-6802-0055	RES. CF 68Kohm 1/10W J 0603	1
220		R26	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
221		R27	0130-3302-0055	RES. CF 33Kohm 1/10W J 0603	1
222		R28	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
223		R29	0130-2703-0055	RES. CF 270Kohm 1/10W J 0603	1
224		R30	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
225		R31	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
226		R33	0130-5601-0055	RES. CF 5.6Kohm 1/10W J 0603	1
227		R34	0130-3309-1859	RES. CF 33ohm 1/8W J 1206	1
228		R35	0130-2202-0055	RES. CF 22Kohm 1/10W J 0603	1
229		R36	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
230		R37	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
231		R38	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1

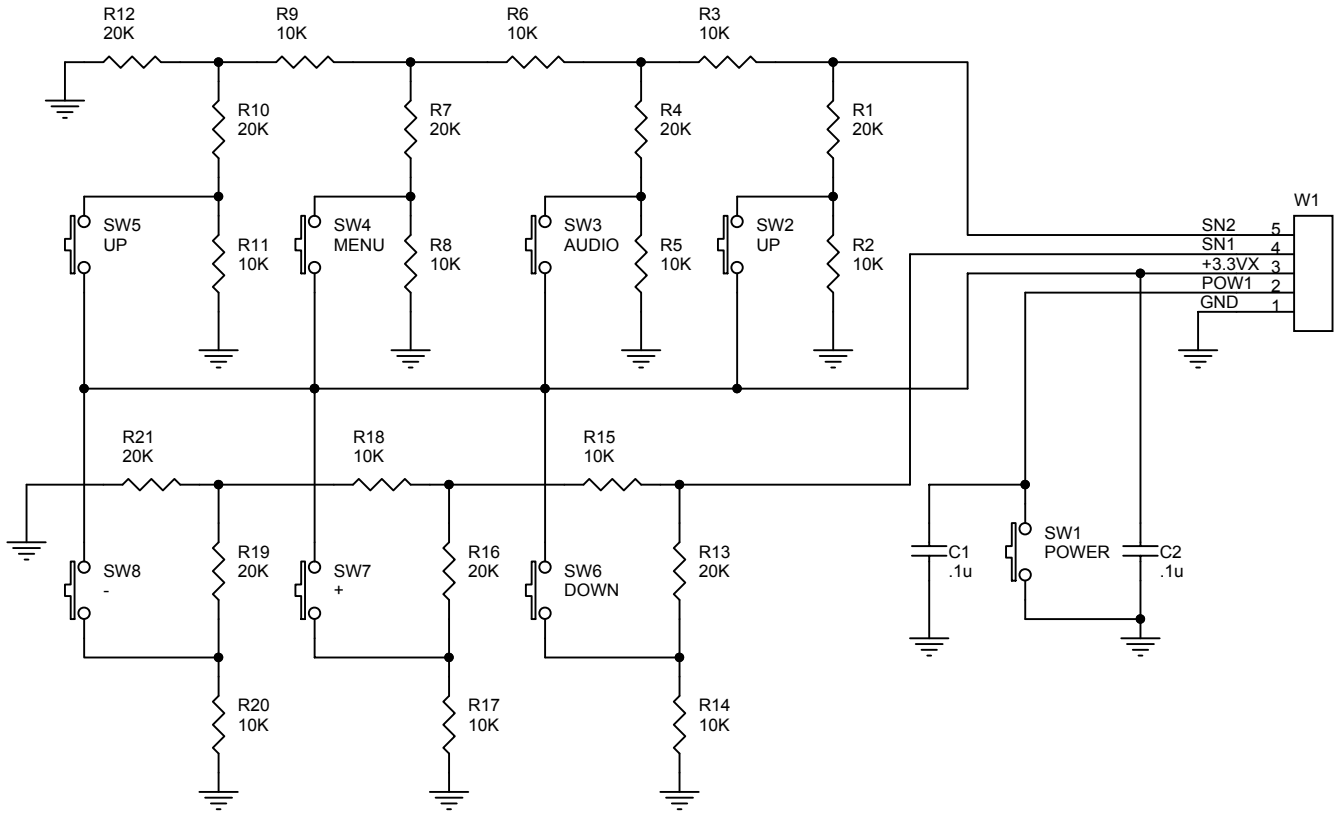
ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
232		R4	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
233		R40	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
234		R44	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
235		R46	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
236		R48	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
237		R49	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
238		R5	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
239		R52	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
240		R53	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
241		R54	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
242		R55	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
243		R59	0130-1009-0055	RES. CF 10ohm 1/10W J 0603	1
244		R6	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
245		R60	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
246		R61	0130-1009-0055	RES. CF 10ohm 1/10W J 0603	1
247		R62	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
248		R64	0130-7509-1858	RES. CF 75ohm 1/8W J 0805	1
249		R66	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
250		R67	0130-7509-1858	RES. CF 75ohm 1/8W J 0805	1
251		R68	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
252		R69	0130-7509-1858	RES. CF 75ohm 1/8W J 0805	1
253		R7	0130-2200-0055	RES. CF 220ohm 1/10W J 0603	1
254		R70	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
255		R71	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
256		R72	0370-0000-3552	CHIP BEAD CORE 30ohm MLB-201209-0030A-N1	1
257		R73	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
258		R74	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
259		R75	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
260		R78	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
261		R79	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
262		R8	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
263		R80	0130-2200-1858	RES. CF 220ohm 1/8W J 0805	1
264		R82	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
265		R83	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
266		R84	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
267		R85	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
268		R86	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
269		R88	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
270		R89	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
271		R9	0130-2201-0055	RES. CF 2.2Kohm 1/10W J 0603	1
272		R90	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
273		R91	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
274		R92	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
275		R93	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
276		R94	0130-1000-0055	RES. CF 100ohm 1/10W J 0603	1
277		R95	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
278		R96	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
279		R97	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
280		R98	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
281		R99	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
282		U1	0430-4007-0059	IC PT2313L SMD 28PIN SOIC	1
283		U11	0430-3000-2017	IC MP24LC21AT/SN SMD 8PIN	1
284	CS		0430-3000-2011	IC AT24C21-10SI SMD-8	
285	SS		0430-3004-8017	IC MP24LC21AT/SN SMD 8PIN L-F	
286		U12	0430-1003-4635	IC 74LCX14MTCX SMD 14PIN (TSSOP)	1
287	SS		0430-1008-3635	IC 74LCX14MTCX SMD 14PIN (TSSOP) LF	
288		U13	0430-1005-4035	IC 74LCX157MX SMD 16PIN (SOIC)	1
289		U15	0430-1005-3035	IC 74VHC08MTCX SMD 14PIN (TSSOP)	1
290		U17	0430-1003-4635	IC 74LCX14MTCX SMD 14PIN (TSSOP)	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
291	SS		0430-1008-3635	IC 74LCX14MTCX SMD 14PIN (TSSOP) LF	
292		U21	0430-8001-2946	IC AD9883AKST-110 SMD 80PIN (LQFP)	1
293		U22	0430-7007-1066	IC EM636165TS-7 SMD 50PIN TSOP	1
294		U23	0430-5012-2974	IC ma103aa LQFP160	1
295		U24	0420-1001-6601	POWER MOS IRF7316TR SMD 8PIN	1
296		U4	0430-6000-7104	IC LM2576-5 TO-220 5PIN	1
297	SS		0430-6007-7072	IC N2576SG-5 SMD 5PIN (TO-263) L-F	
298		U5	0420-1001-6601	POWER MOS IRF7316TR SMD 8PIN	1
299		U6	0430-4001-3007	IC LM393DT SMD 8PIN	1
300	SS		0430-4016-8007	IC LM393DT SMD 8PIN LF	
301		U7	0430-1000-7035	IC 74HC14 SMD 14PIN	1
302	SS		0430-1008-8035	IC MM74HC14MX SOIC 14PIN LF	
303		U8	0430-6002-1051	IC AMC1117SK-3.3 SMD 3PIN (STO-23)	1
304		U9	0430-6002-7051	IC AMC1117SK-2.5V SMD 3PIN (SOT-23)	1
305		W10	0303-1000-0403	CONN. B TO FPC IL-FHR 40P (IL-FHR-F40S-HF)	1
306	CS		0303-1000-0404	CONN. B TO FPC FH12-40S-0.5SH 40PIN	
307	SS		0303-1000-0407	CONN. B TO FPC 40PIN AF7401-N2G1T	
308		W11	0303-1000-0363	CONN. B TO FPC IL-FHR 36P (IL-FHR-F36S-HF)	1
309	CS		0303-1000-0364	CONN. B TO FPC FH12-36S-0.5SH 36PIN	
310	SS		0303-1007-0367	CONN. B TO FPC 0.5mm 36P 90' SMD (AF7361-N2G1Z) L-F	



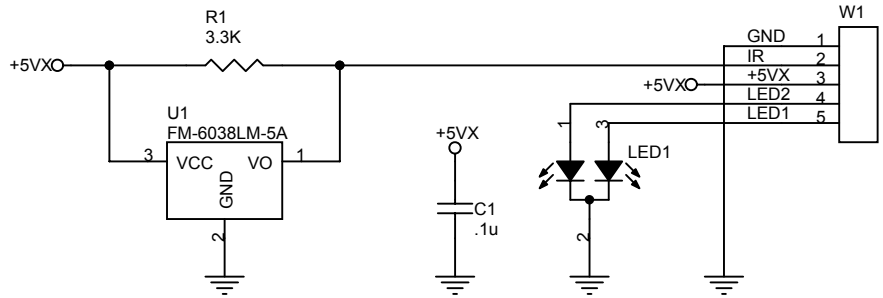
NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/10 WATT,5% UNLESS NOTED.
ALL RESISTORS VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-2032-0150)	
CHECKED BY:	CIRCUITY	ZIPRO2 / LQFP160	
	PCB P/ N:	0171-2242-1681	Sheet 1 of 8
DESIGN BY:	ECN NO:	APCN05030032	REV: 01
	SCH FILE :	VIZ15-M1.DSN	PCB REV: 01
	PCB FILE :	VINC32-M1.PCB	DATE: Wednesday, November 02, 2005



ASSY P/N:3150-0012-0189

PCB P/N : 0171-1640-0161



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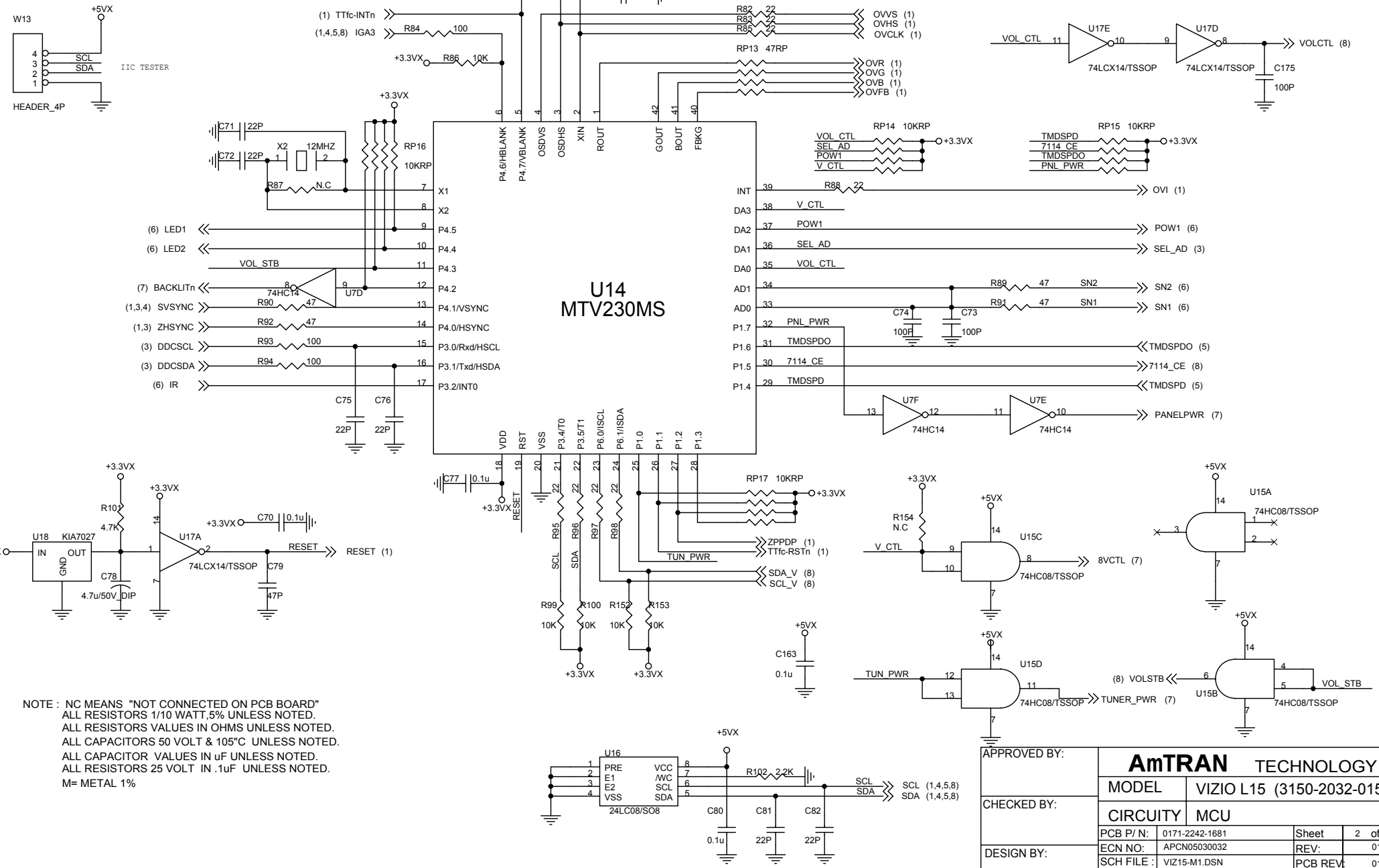
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15(3150-0212-0156)	
CHECKED BY:	CIRCUITY	DISPLAY & IR BOARD	
	PCB P/ N:	0170-1740-0632	Sheet 1 of 1
DESIGN BY:	ECN NO:	APCN05030032	REV: 01
	SCH FILE :	VIZ15-M1.DSN	PCB REV: 02
	PCB FILE :	VINC32-D2.PCB	DATE: Wednesday, November 02



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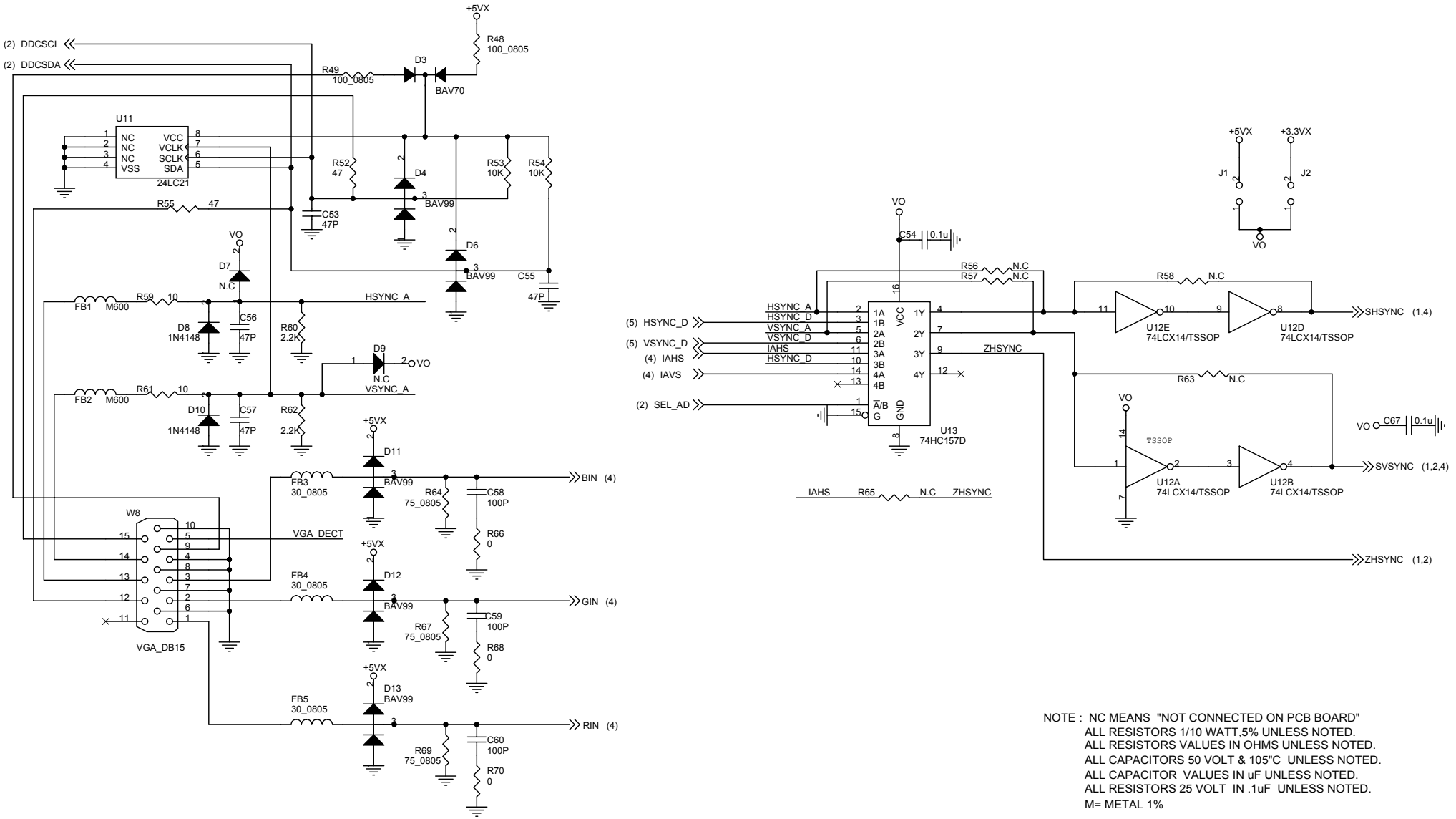
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

APPROVED BY:	**AmTRAN** TECHNOLOGY		
CHECKED BY:	MODEL	VIZIO L15 (3150-2032-0150)	
	CIRCUITY	MCU	
DESIGN BY:	PCB P/ N: 0171-2242-1681	Sheet 2 of 8	
	ECN NO: APCN05030032	REV: 01	
	SCH FILE : VIZ15-M1.DSN	PCB REV: 01	
	PCB FILE : VINC32-M1.PCB	DATE: Wednesday, November 02, 2005	



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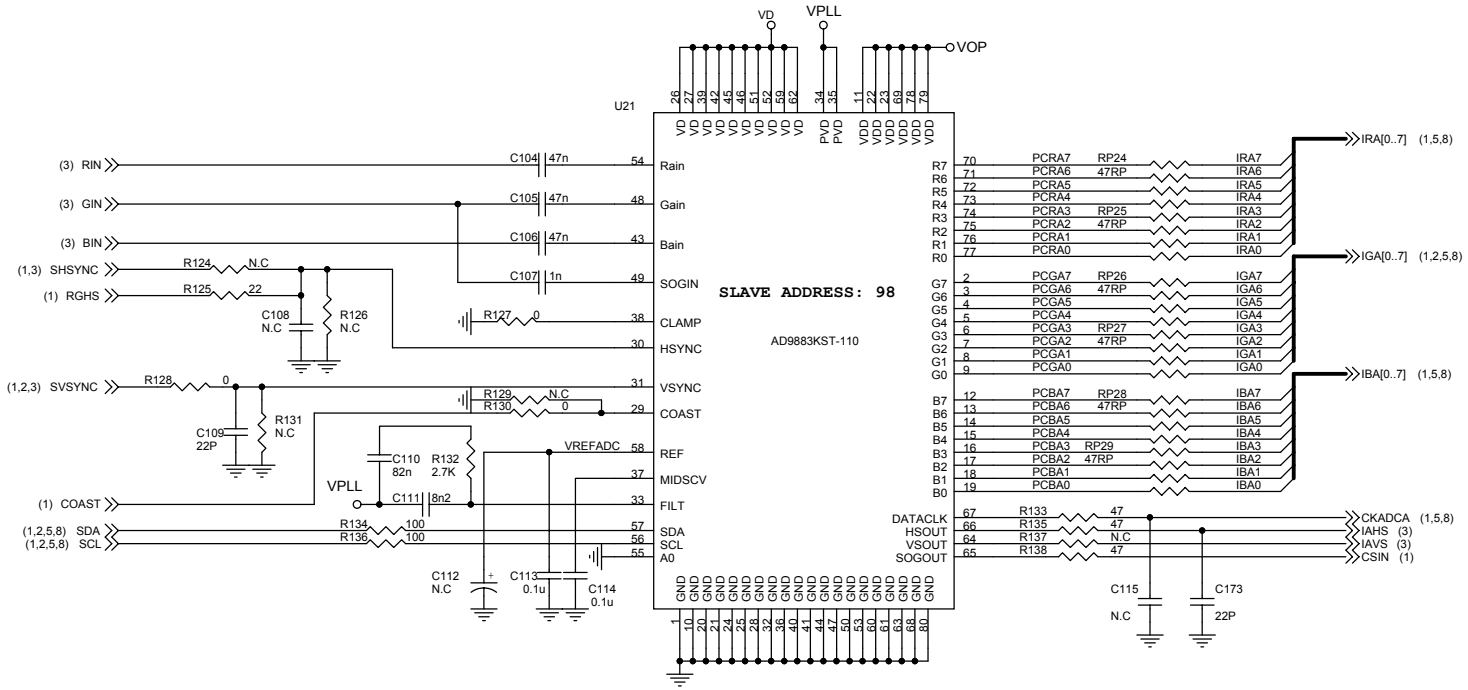
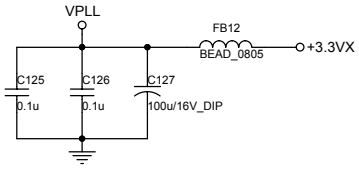
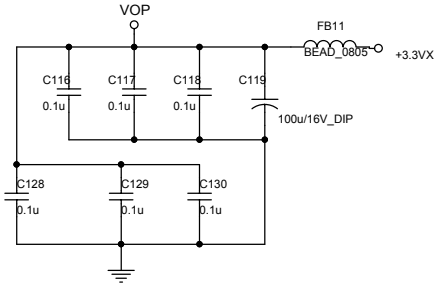
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

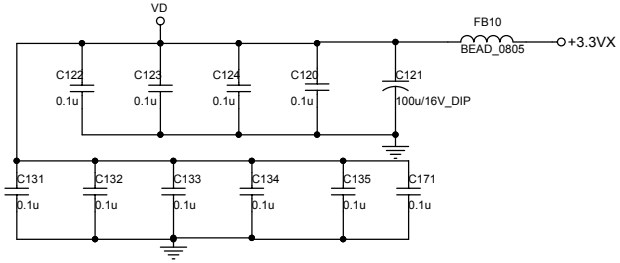
APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-2032-0150)	
CHECKED BY:	CIRCUITY	VGA CONNECTOR	
	PCB P/ N:	0171-2242-1681	Sheet 3 of 8
	ECN NO:	APCN05030032	REV: 01
DESIGN BY:	SCH FILE :	VIZ15-M1.DSN	PCB REV: 01
	PCB FILE :	VINC32-M1.PCB	DATE: Wednesday, November 02, 2005

AD9883A ADC









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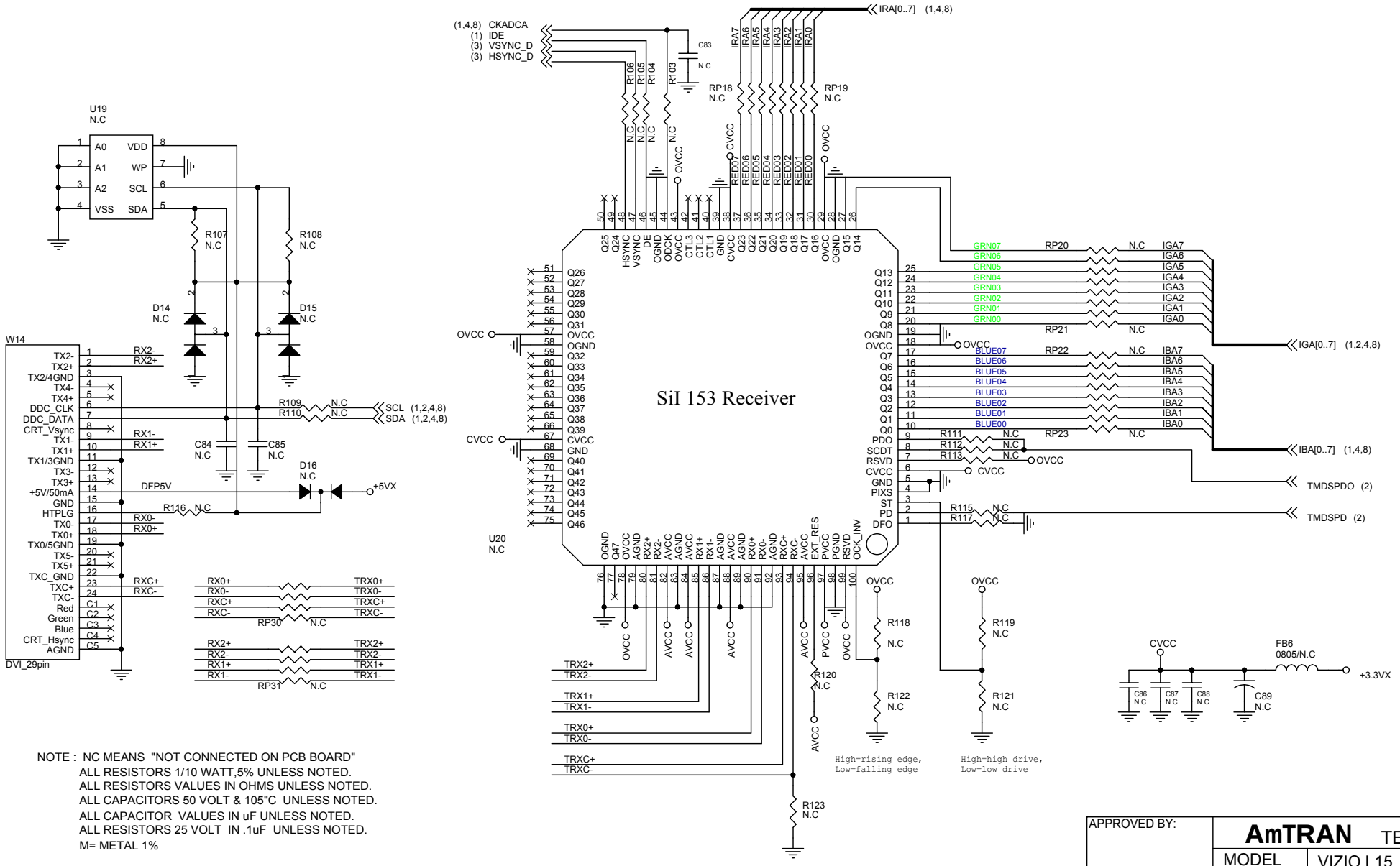
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

APPROVED BY:	AmTRAN TECHNOLOGY		
	MODEL	VIZIO L15 (3150-2032-0150)	
CHECKED BY:	CIRCUITY	ADC9883A	
	PCB P/ N:	0171-2242-1681	Sheet 4 of 8
DESIGN BY:	ECN NO:	APCN05030032	REV: 01
	SCH FILE :	VIZ15-M1.DSN	PCB REV: 01
	PCB FILE :	VINC32-M1.PCB	DATE: Wednesday, November 02, 2005



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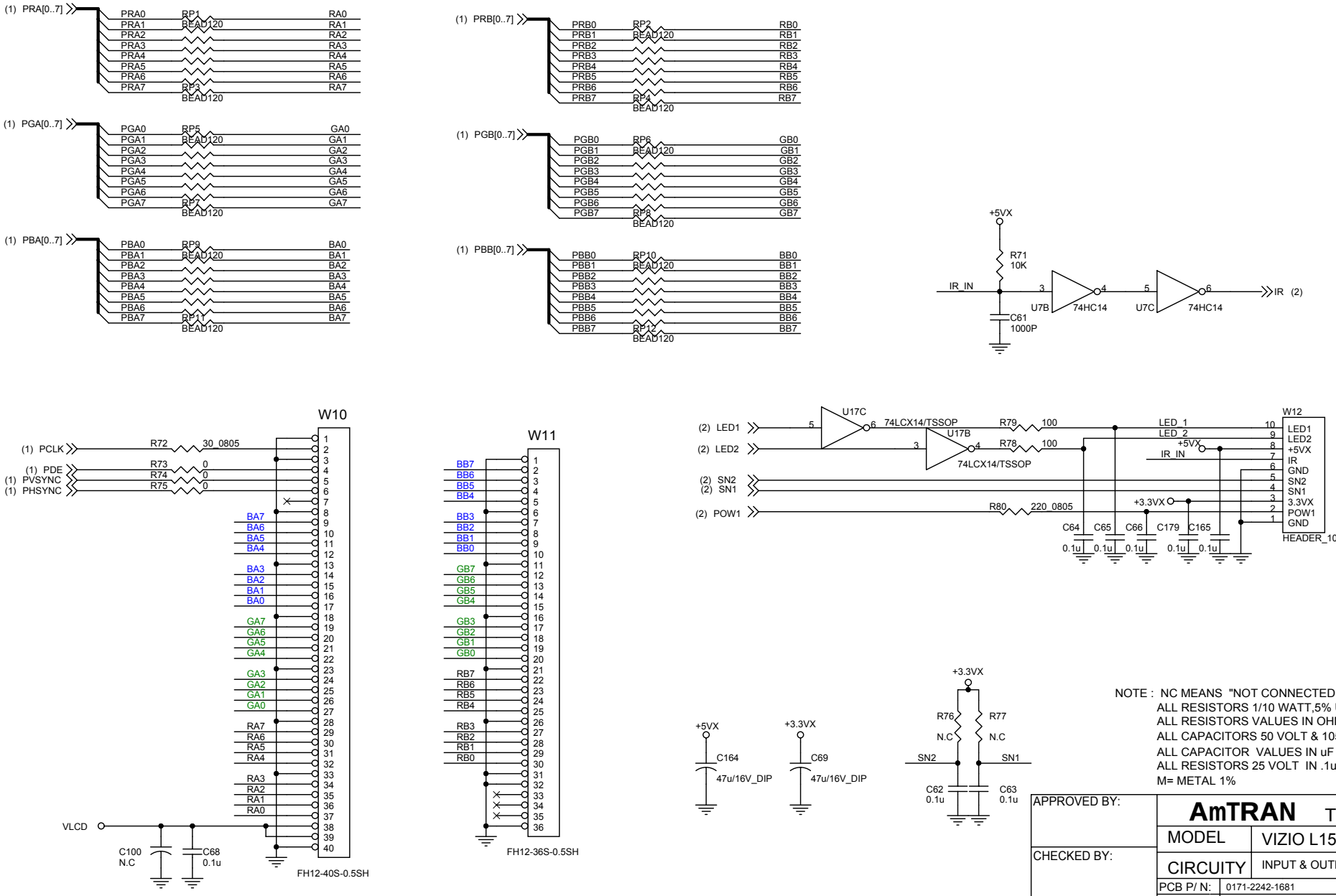
M= METAL 1%

APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-2032-0150)	
CHECKED BY:	CIRCUITY	DVI CONNECTOR & SIL153	
	PCB P/ N:	0171-2242-1681	Sheet 5 of 8
DESIGN BY:	ECN NO:	APCN05030032	REV: 01
	SCH FILE :	VIZ15-M1.DSN	PCB REV: 01
	PCB FILE :	VINC32-M1.PCB	DATE: Wednesday, November 02, 2005



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ALL RESISTORS VALUES IN OHMS UNLESS NOTED.
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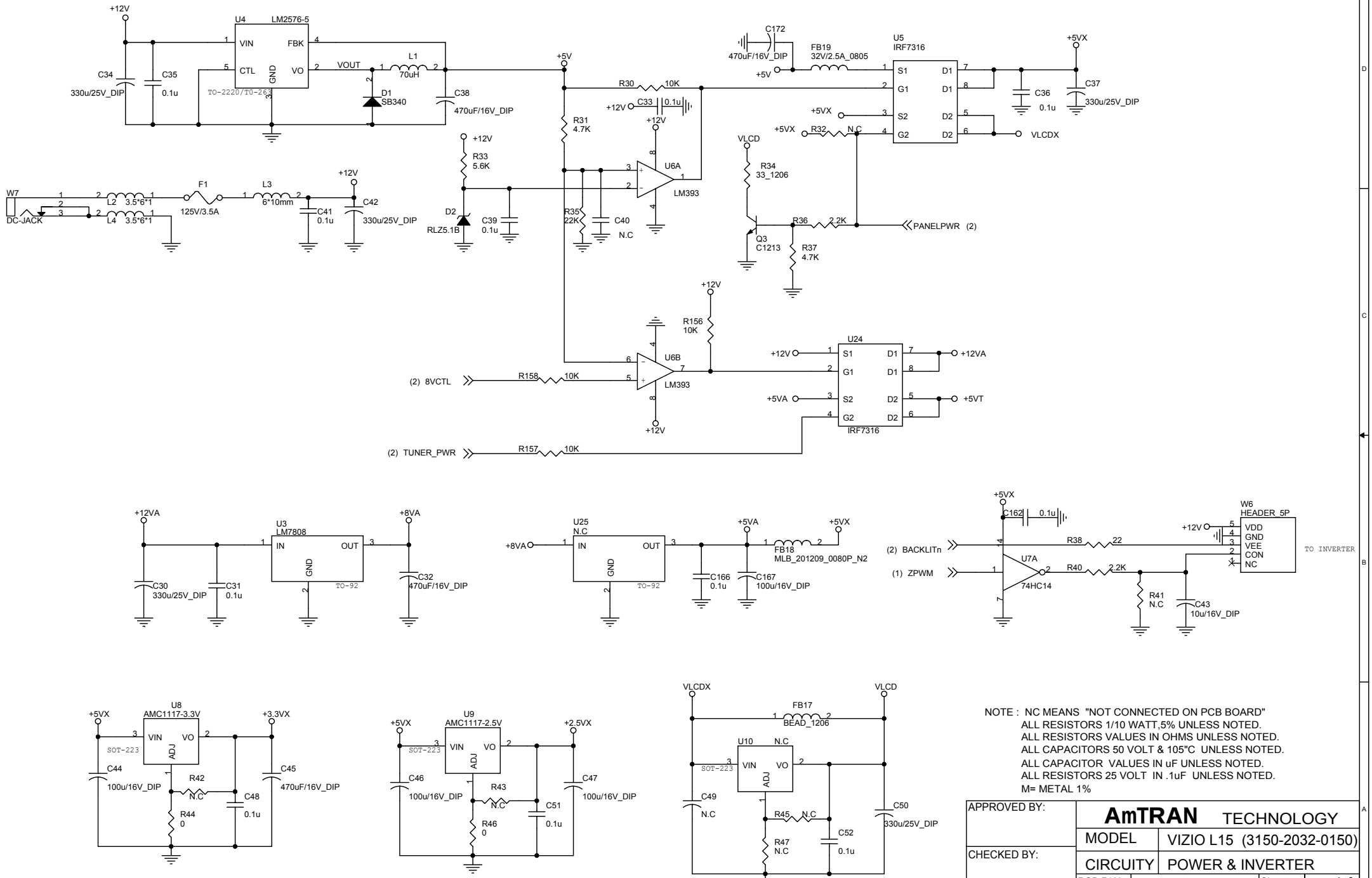
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-2032-0150)	
CHECKED BY:	CIRCUITY	INPUT & OUTPUT CONNECTOR	
	PCB P/ N:	0171-2242-1681	Sheet 6 of 8
	ECN NO:	APCN05030032	REV: 01
DESIGN BY:	SCH FILE :	VIZ15-M1.DSN	PCB REV: 01
	PCB FILE :	VINC32-M1.PCB	DATE: Wednesday, November 02, 2005



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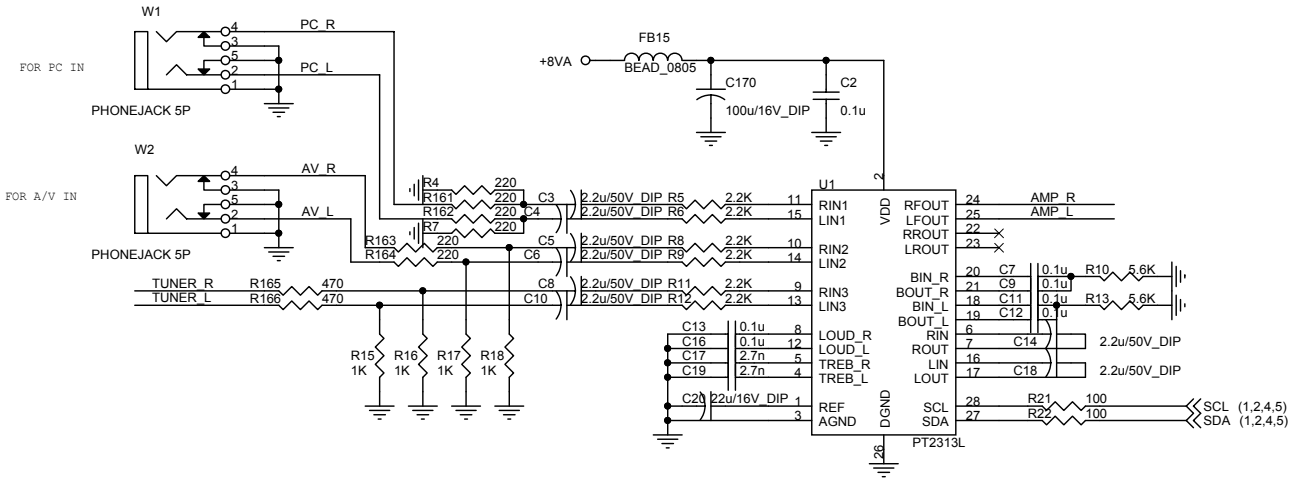
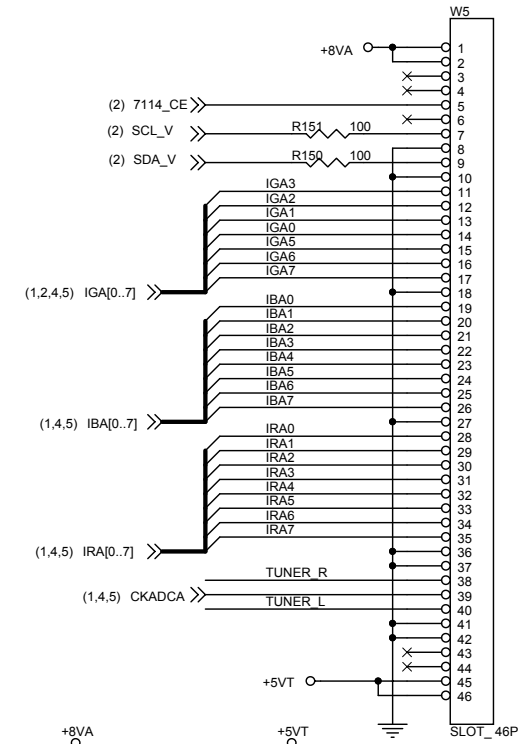
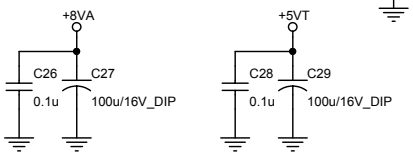
M= METAL 1%

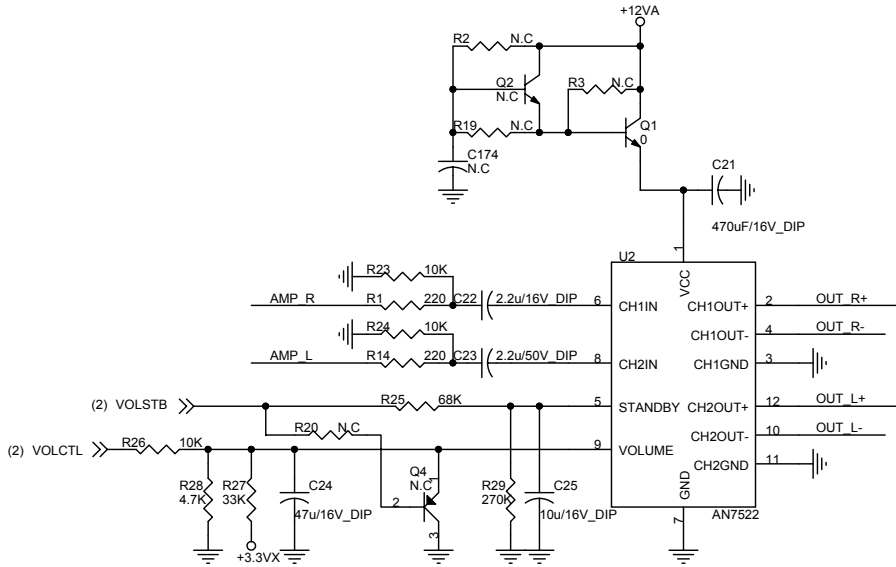
APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-2032-0150)	
CHECKED BY:	CIRCUITY	POWER & INVERTER	
	PCB P/ N:	0171-2242-1681	Sheet 7 of 8
	ECN NO:	APCN05030032	REV: 01
DESIGN BY:	SCH FILE :	VIZ15-M1.DSN	PCB REV: 01
	PCB FILE :	VINC32-M1.PCB	DATE: Wednesday, November 02, 2005

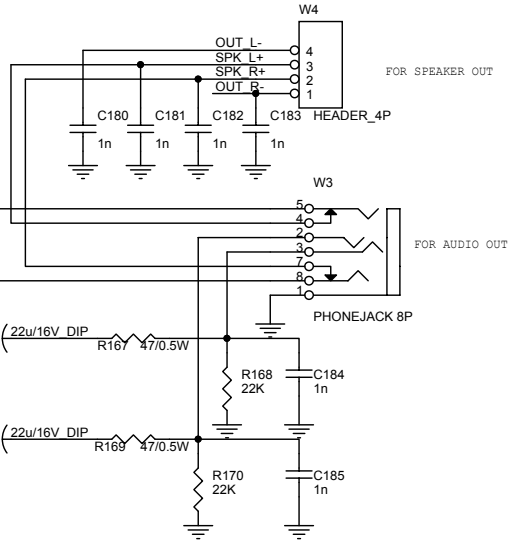


FOR TUNER BOARD INPUT









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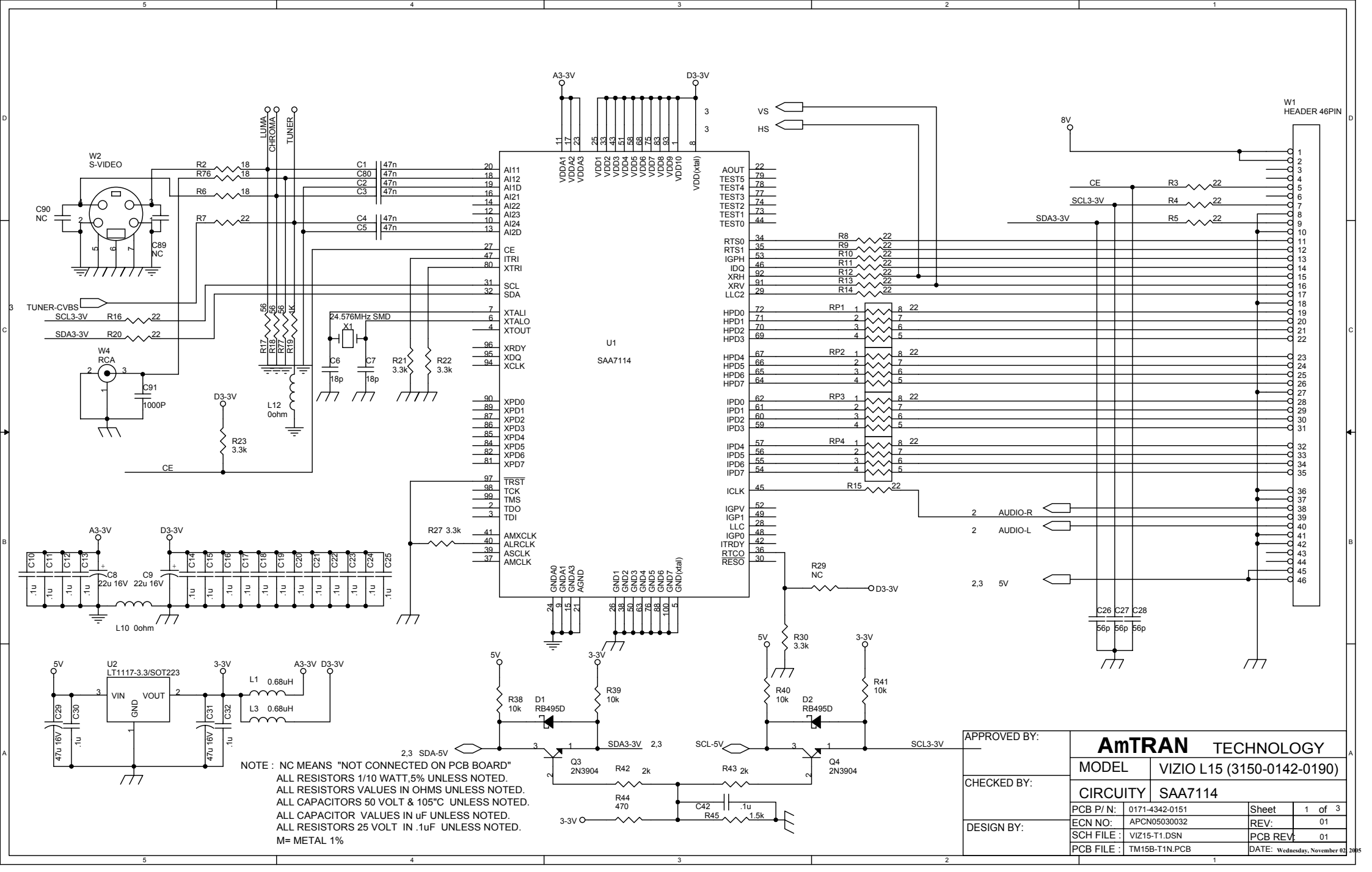
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-2032-0150)	
CHECKED BY:	CIRCUITY	VIDEO / AUDIO	
	PCB P/ N:	0171-2242-1681	Sheet 8 of 8
	ECN NO:	APCN05030032	REV: 01
DESIGN BY:	SCH FILE :	VIZ15-M1.DSN	PCB REV: 01
	PCB FILE :	VINC32-M1.PCB	DATE: Wednesday, November 02, 2005



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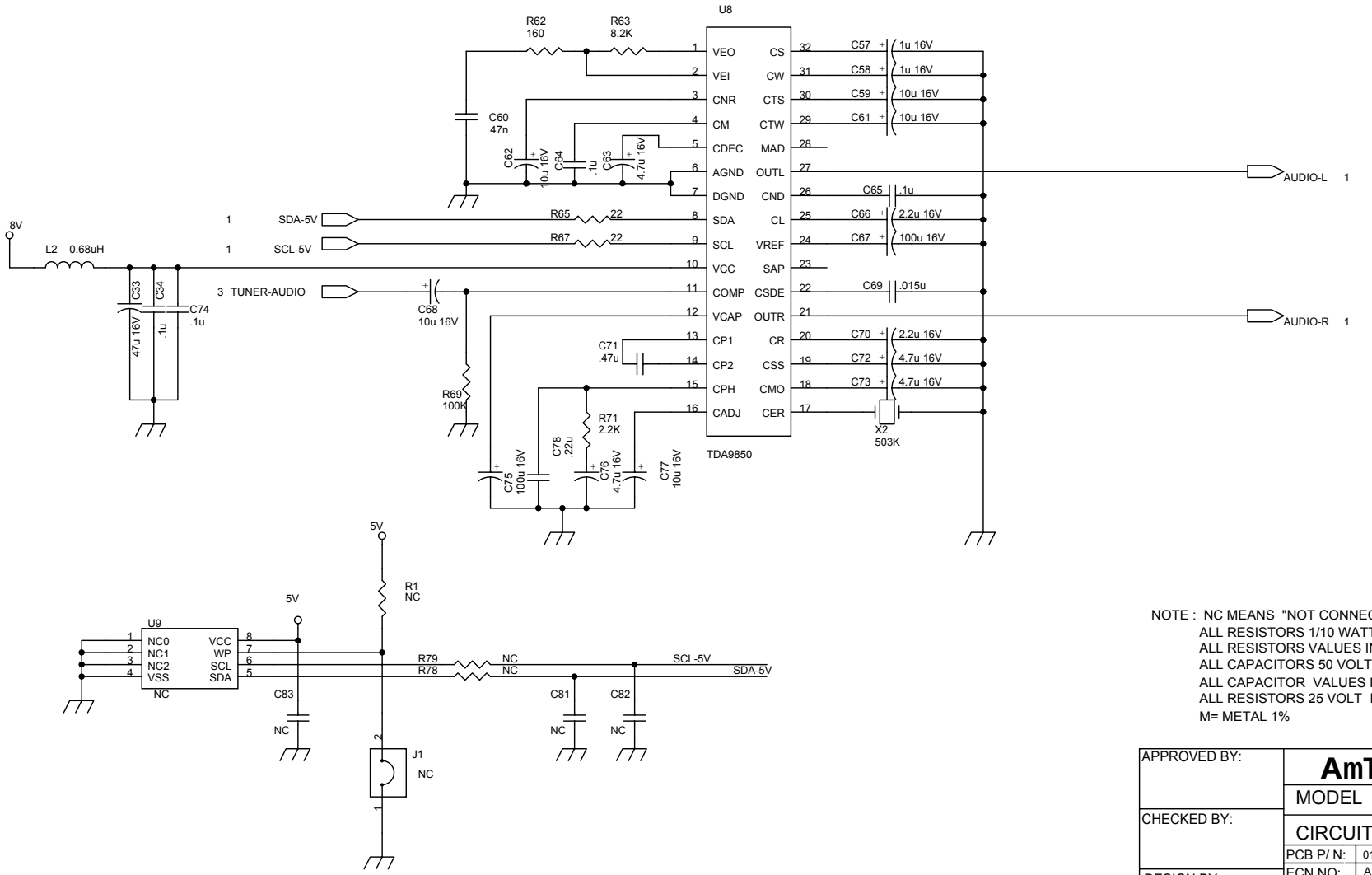
ALL RESISTORS VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

APPROVED BY:	
CHECKED BY:	
DESIGN BY:	

AmTRAN TECHNOLOGY

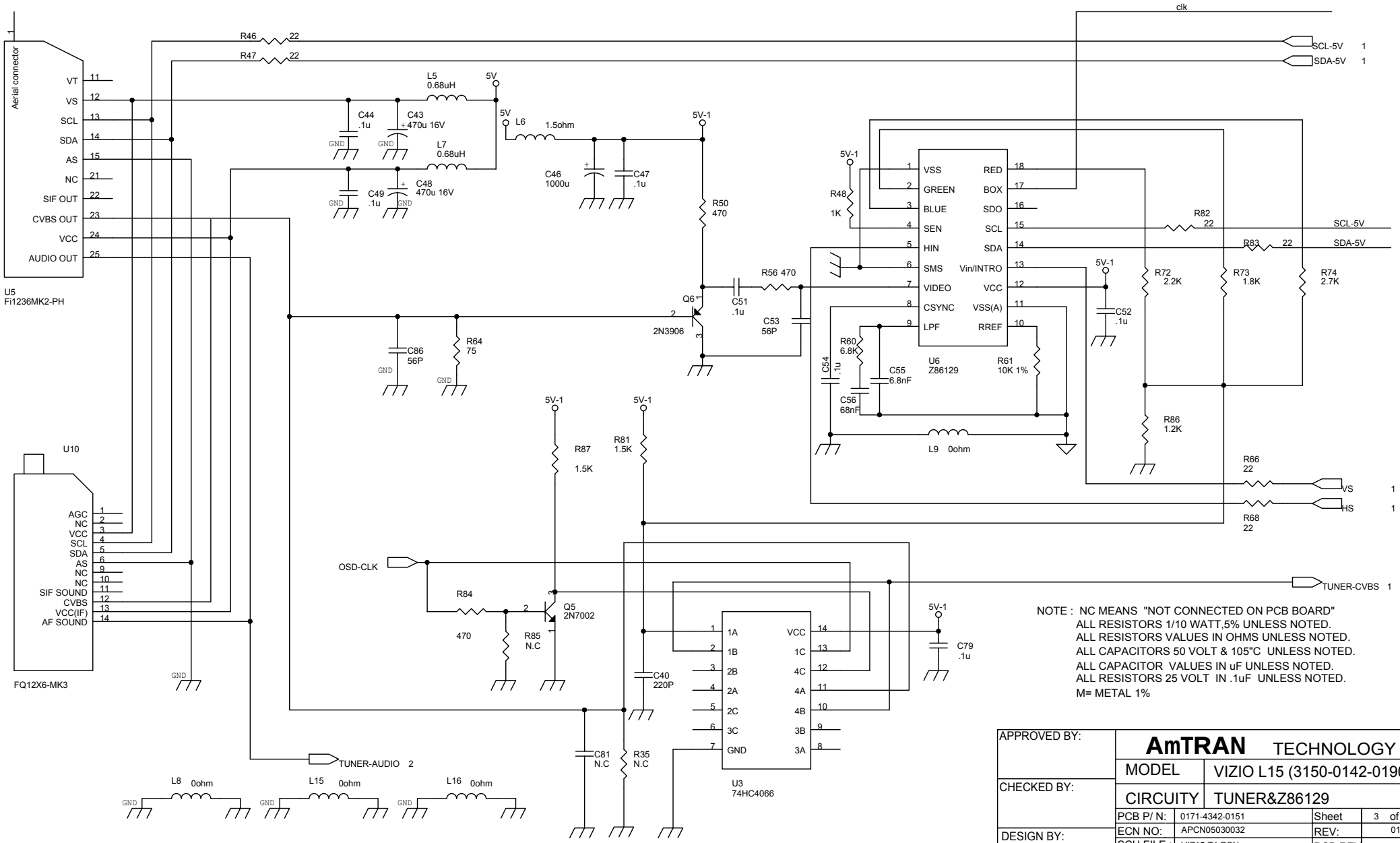
MODEL	VIZIO L15 (3150-0142-0190)
CIRCUITY	SAA7114

PCB P/ N:	0171-4342-0151	Sheet	1 of 3
ECN NO:	APCN05030032	REV:	01
SCH FILE :	VIZ15-T1.DSN	PCB REV:	01
PCB FILE :	TM15B-T1N.PCB	DATE:	Wednesday, November 02, 2005



NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/10 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.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

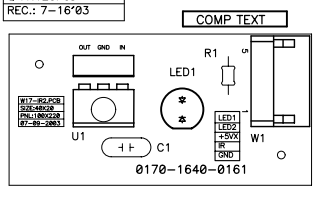
APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-0142-0190)	
CHECKED BY:	CIRCUITY	TDA9850	
	PCB P/ N: 0171-4342-0151	Sheet	2 of 3
	ECN NO: APCN05030032	REV:	01
DESIGN BY:	SCH FILE : VIZ15-T1.DSN	PCB REV:	01
	PCB FILE : TM15B-T1N.PCB	DATE:	Wednesday, November 02, 2005



NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/10 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.
ALL RESISTORS 25 VOLT IN .1uF UNLESS NOTED.
M= METAL 1%

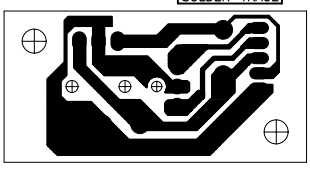
APPROVED BY:	**AmTRAN** TECHNOLOGY		
	MODEL	VIZIO L15 (3150-0142-0190)	
CHECKED BY:	CIRCUITY	TUNER&Z86129	
	PCB P/ N:	0171-4342-0151	Sheet 3 of 3
	ECN NO:	APCN05030032	REV: 01
DESIGN BY:	SCH FILE :	VIZ15-T1.DSN	PCB REV: 01
	PCB FILE :	TM15B-T1N.PCB	DATE: Wednesday, November 02, 2005

AmTRAN CO.,Ltd.
W17-IR2.PCB
V0 1.6t
SIZE: 40.0X20.0mm
PNL:100.0X220.0mm
Q'TY:120Pcs
REC.: 7-16'03



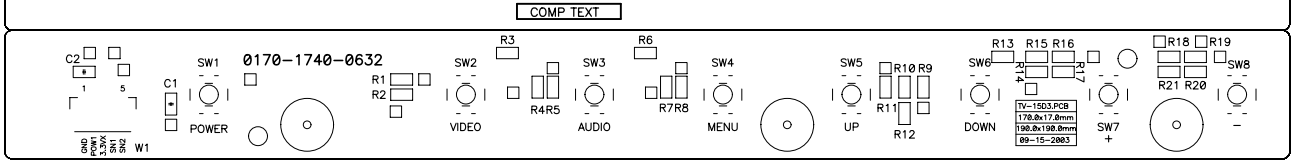
AmTRAN CO.,Ltd.
W17-IR2.PCB
V0 1.6t
SIZE: 40.0X20.0mm
PNL:100.0X220.0mm
Q'TY:120Pcs
REC.: 7-16'03

SOLDER TRACE

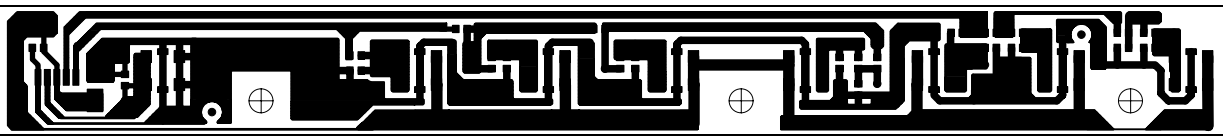


AmTRAN CO.,Ltd.
W17-IR2.PCB
V0 1.6t
SIZE: 40.0X20.0mm
PNL:100.0X220.0mm
Q'TY:120Pcs
REC.: 7-16'03

SOLDER TEXT


COMP TEXT
C2
1
5
GND
PDWN
SCL
SDA
SN1
SN2
W1
C1
SW1
POWER
0170-1740-0632
R1
R2
SW2
VIDEO
R3
R4
R5
SW3
AUDIO
R6
R7
R8
SW4
MENU
SW5
UP
R10
R9
R11
R12
SW6
DOWN
R13
R15
R16
R14
R17
TV-15D3.PCB
170.0x17.0mm
190.0x190.0mm
09-15-2003
SW7
+
R18
R19
R21
R20
SW8
-

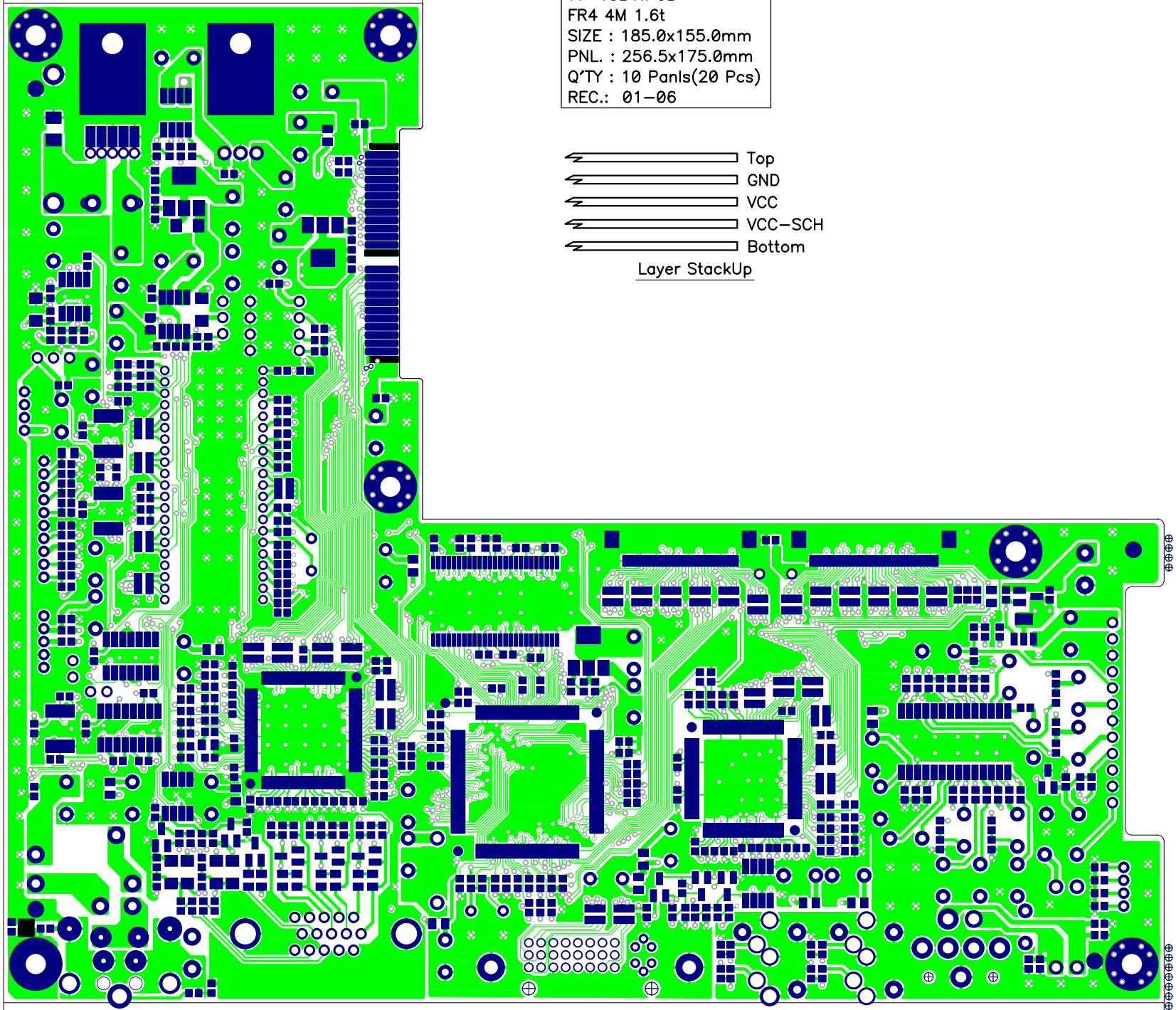
CO-TRACE



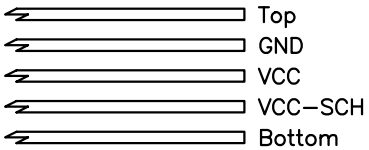
AmTRAN CO., Ltd
0171-2242-1681
TV-15B1.PCB
FR4 4M 1.6t
SIZE : 185.0x155.0mm
PNL. : 256.5x175.0mm
Q'TY : 10 Panls(20 Pcs)
REC.: 01-06

Top
GND
VCC
VCC-SCH
Bottom

Layer StackUp



AmTRAN CO., Ltd
0171-2242-1681
TV-15B1.PCB
FR4 4M 1.6t
SIZE : 185.0x155.0mm
PNL. : 256.5x175.0mm
Q'TY : 10 Panls(20 Pcs)
REC.: 01-06

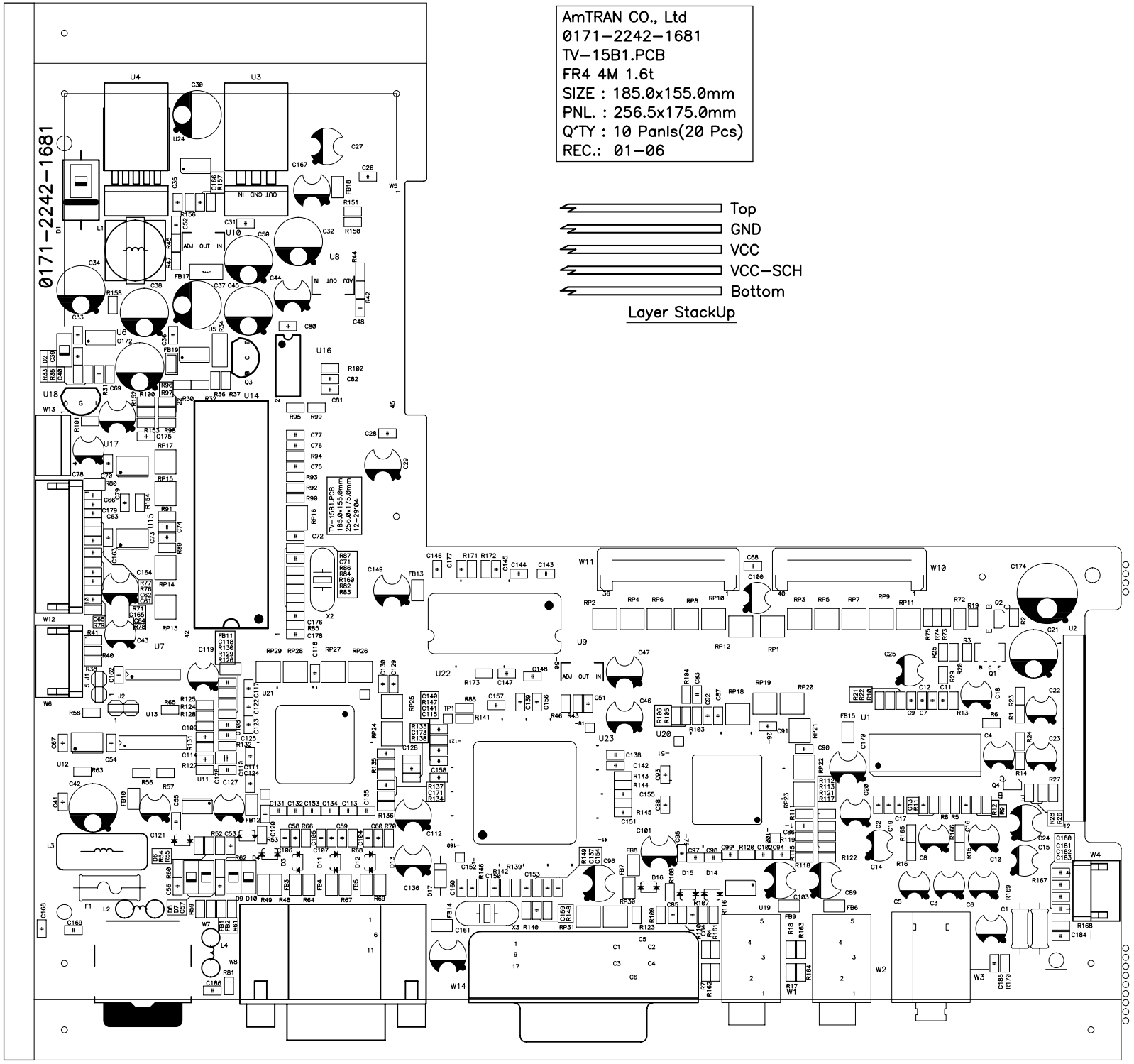


Layer StackUp

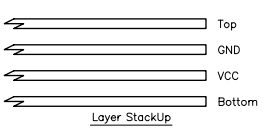
AmTRAN CO., Ltd
0171-2242-1681
TV-15B1.PCB
FR4 4M 1.6t
SIZE : 185.0x155.0mm
PNL. : 256.5x175.0mm
Q'TY : 10 Panls(20 Pcs)
REC.: 01-06

Top
GND
VCC
VCC-SCH
Bottom

Layer StackUp



0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

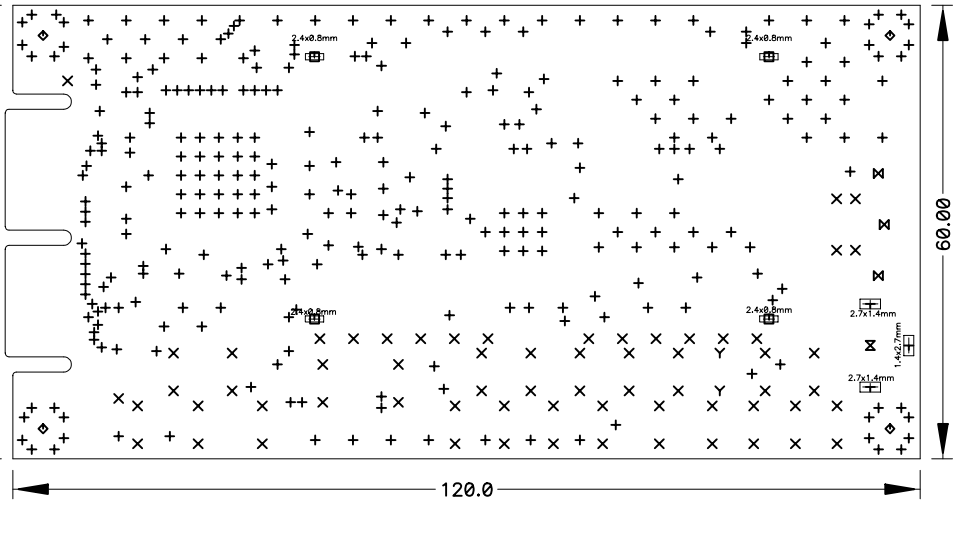


Layer StackUp

DRILL

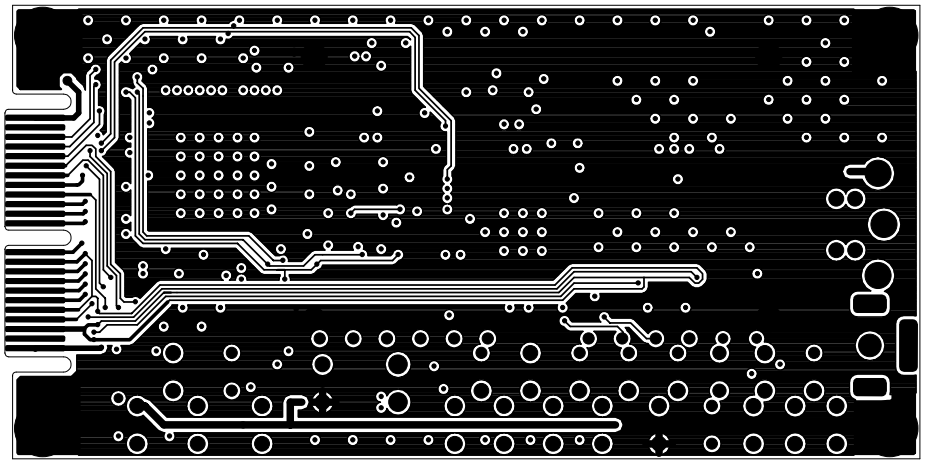
Drill (pth:+-0.08 npth:+-0.05 mm)

Hole Dia (mm)	Symbol	Quantity	Plated
0.400	+	315	Yes
1.000	×	64	Yes
1.200	Y	2	Yes
1.427	⊤	3	Yes
1.500	⧖	1	Yes
2.200	⋈	3	Yes
2.408	◫	4	Yes
3.200	◇	4	No



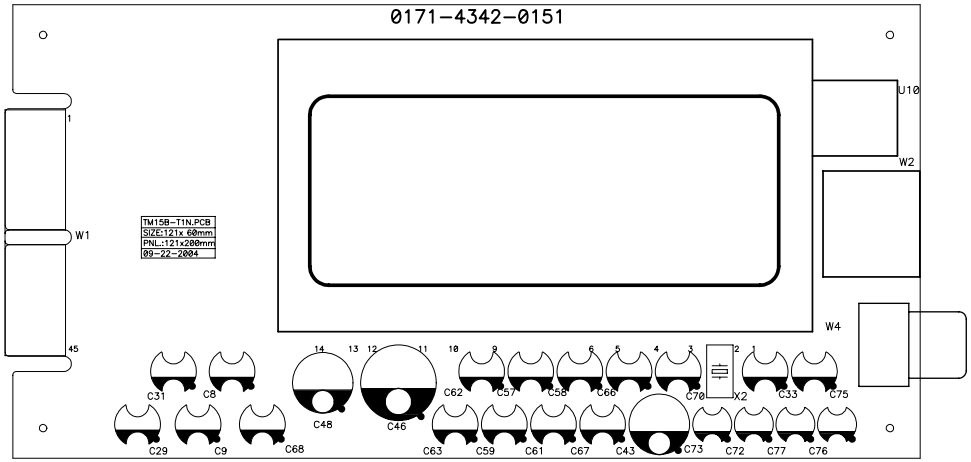
0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

COMP TRACE



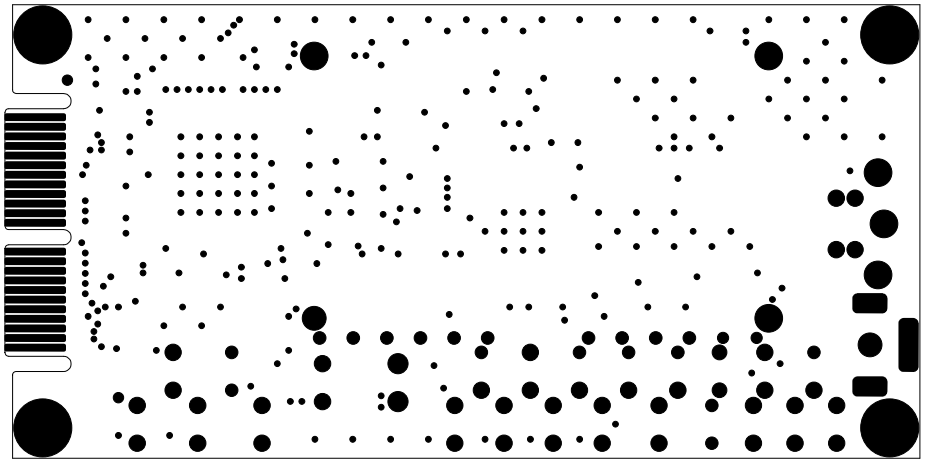
0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

COMP TEXT



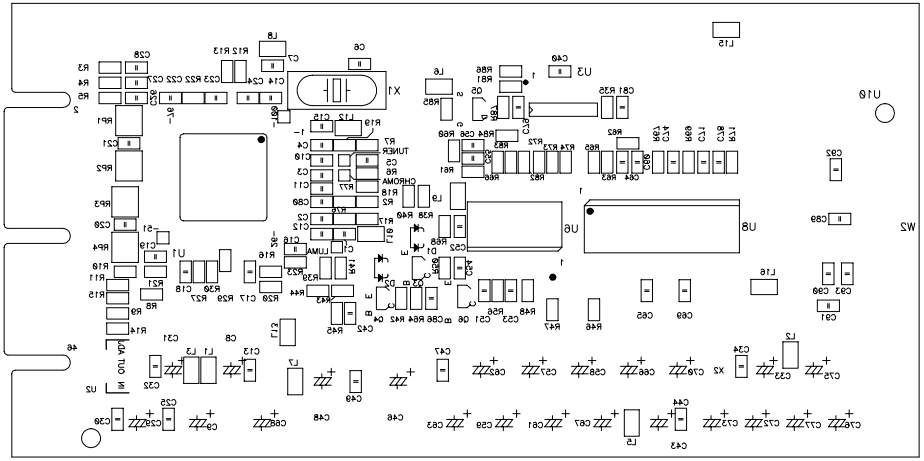
0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

COMP MASK



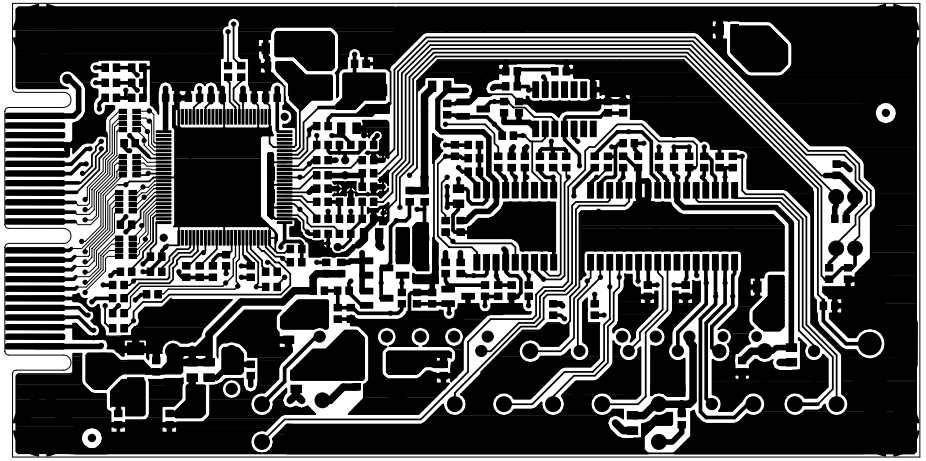
0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

SOLDER TEXT



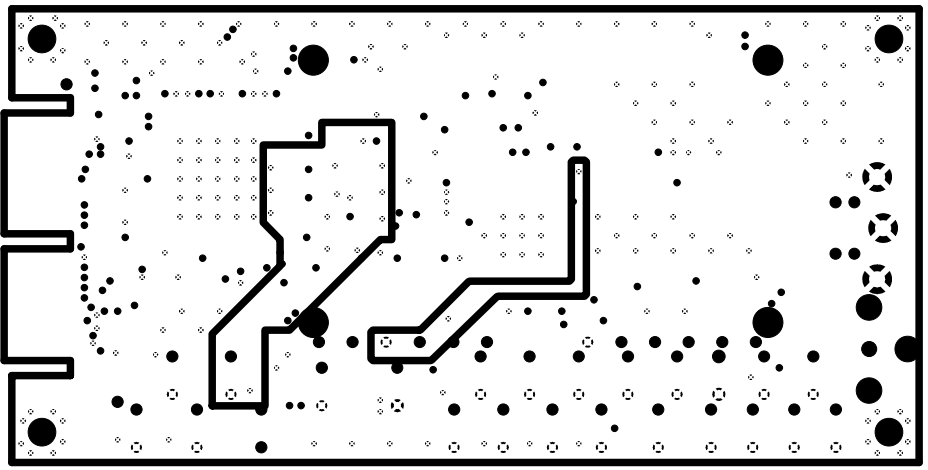
0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

SOLDER TRACE



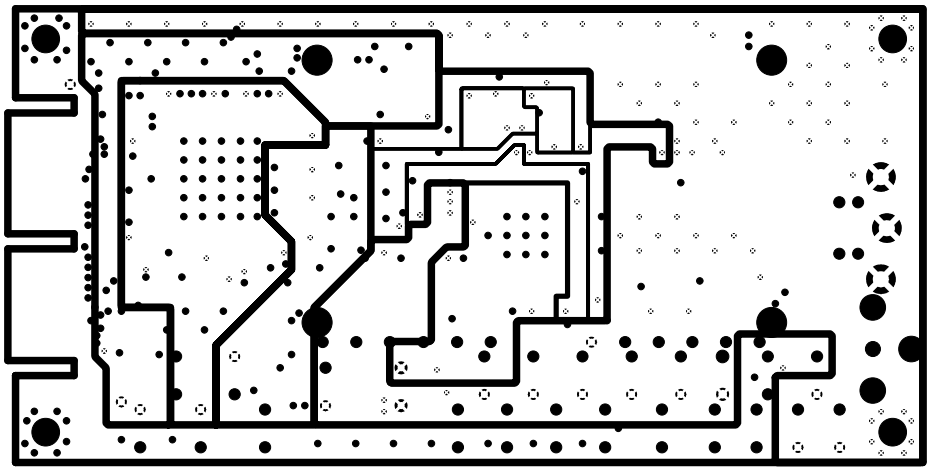
0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

GND



0171-4342-0151
TM15B-T1N.PCB
FR4 4M 1.6t 1oz
SIZE: 121x60 mm
PNL.:121x200 mm
Q'TY: 05 PNL.
REC.: 09-29-'04

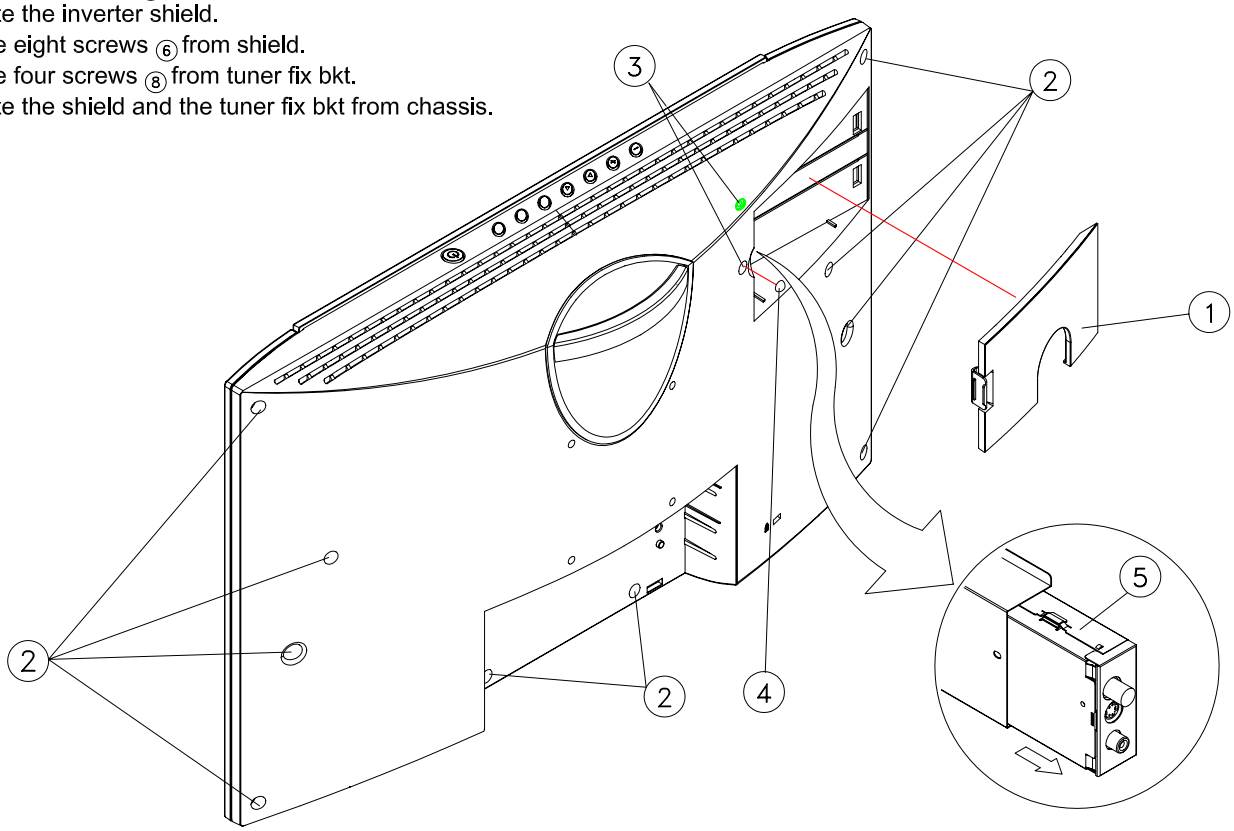
VCC

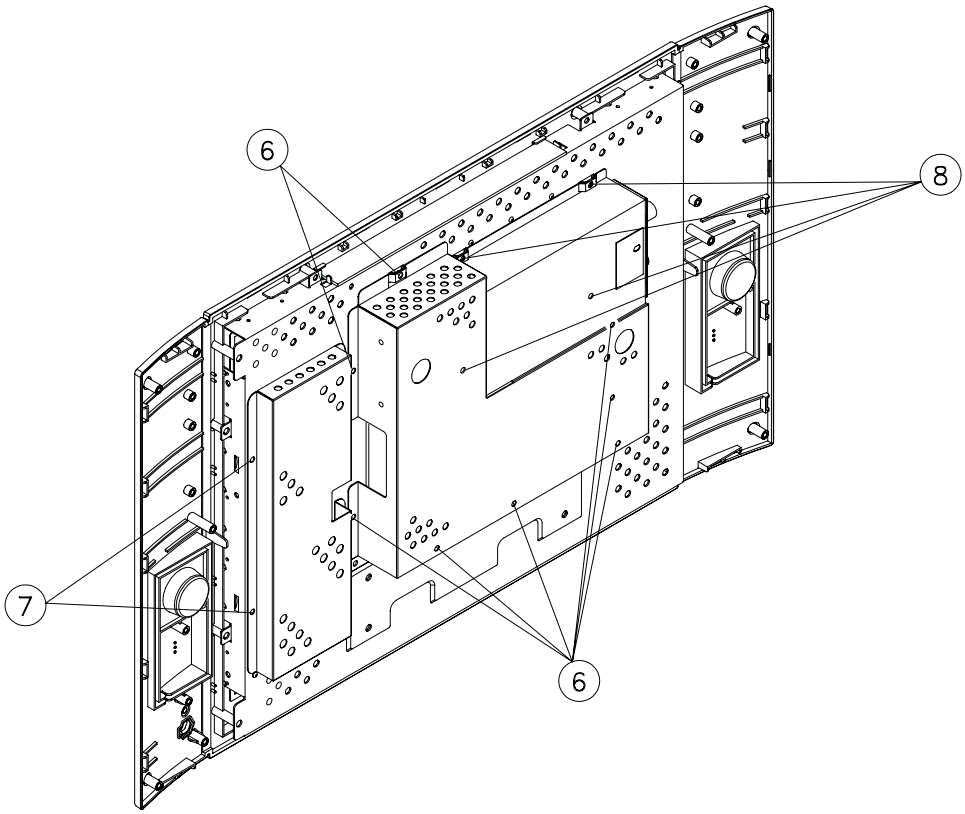


1.REAR COVER ASS'Y REMOVAL

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

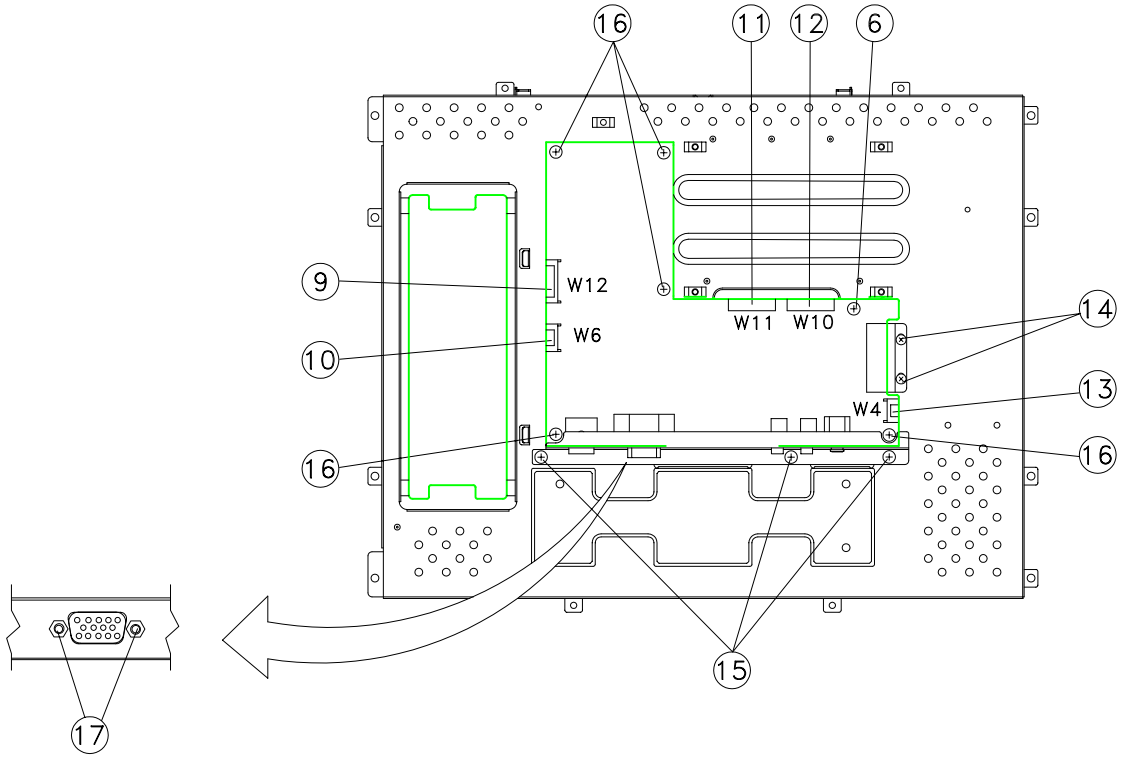
1) Separate the rubber ④ and the tuner cover ①.
2) Remove two small screws ③ and ten large screws ② from rear cover.
3) Remove the TUNER BOX ASS'Y ⑤ from rear cover.
4) Separate the rear cover.
5) Remove two screws ⑦ from inverter shield.
6) Separate the inverter shield.
7) Remove eight screws ⑥ from shield.
8) Reomve four screws ⑧ from tuner fix bkt.
9) Separate the shield and the tuner fix bkt from chassis.





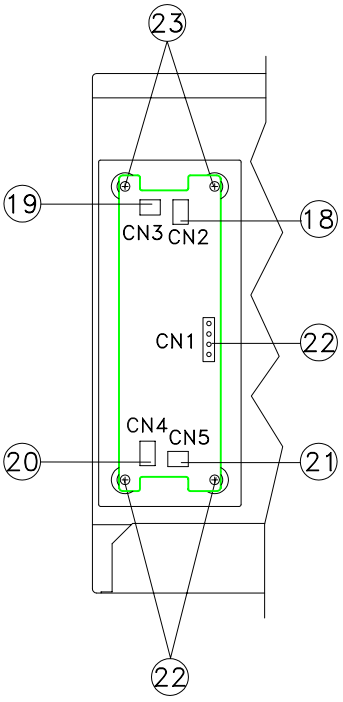
2. MAIN BD ASS'Y REMOVAL

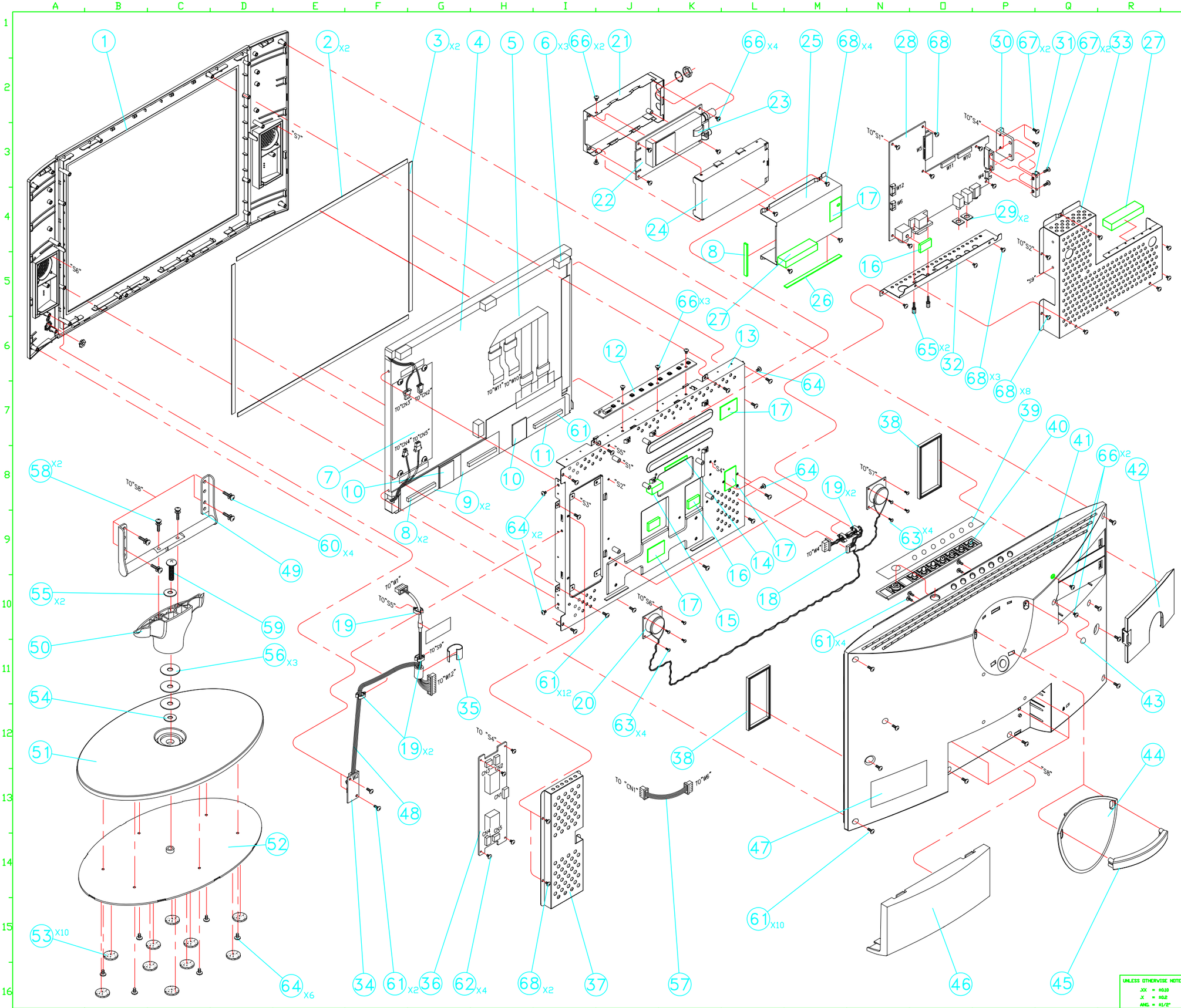
1) Remove the connector (10) (W6) of the inverter cable.
2) Remove the connector (9) (W12) of the keypad cable.
3) Remove the connector (11) (12) (W11)(W10) of the FPCB cable.
4) Remove the connector (13) (W4) of the speaker cable.
5) Remove six screws (16) and two small screws (14) from MAIN BD.
6) Remove three small screws (15) and two large screws (17) from support bkt.
7) Separate the MAIN BD and the support bkt.



3. INVERTER DC-AC ASS'Y

1) Remove the connector (18) (19) (CN2)(CN3) of the lamp cable.
2) Remove the connector (22) (CN1) of the inverter cable.
3) Remove the connector (20) (21) (CN4)(CN5) of the lamp cable.
4) Remove four screws (23) from inverter DC-AC .
5) Separate the inverter DC-AC .





ITEM	PART NO.	DESCRIPTION	QTY
1	1801-0119-4020	FRONT PANEL(VIZO L15) ASS'Y	1
2	1947-1500-2550	CUSHION TOP&BOTTOM 300mm*3.5mmt=0.5mm	2
3	1947-1500-2560	CUSHION LEFT&RIGHT 220mm*3.5mmt=0.5mm	2
4	0211-0150-2855	LCD MODULE 15.0"TFT AA150XC01(ADI)	1
5	0460-2840-0120	WH FCC 40P 20624 220mm CORE*2	1
6	1947-1700-0190	GASKET BLOCK (20.0*10.0*10.0)	4
7	1947-1200-0440	INSULATOR-INVERTER(VE510+)	1
8	1947-1800-0070	GASKET BLOCK(5*3.5*50mm)	4
9	1947-1700-0130	SHIELDING AL. TAPE(70.0*50.0)	2
10	1947-1200-0550	INSULATOR(W25.0*D32.0 t=1.3)TM-15A	2
11	1947-1700-0090	SHIELDING AL. TAPE(40.0*70.0)	1
12	3150-0212-0156	15" LCD DISPLAY BD ASS'Y(TM-15A)	1
13	1712-0100-3812	FRAME BKT TM-15B REV.02	1
14	1947-1700-0240	GASKET BLOCK(40*4.0*1.0)	3
15	1947-1200-1410	RUBBER FOAM-FPC CABLE-B	1
16	1947-1800-0050	GASKET BLOCK(20*3*12mm)	3
17	1947-1200-1340	RUBBER FOAM-A(20*30*0.5t)	4
18	1701-1500-0350	WIRE MOUNT(FW-2S-3M)	1
19	1701-1500-0030	WIRE SADDLE (CH-01C)	5
20	0335-1080-0651	SPEAKER 8ohm 3.5W 34*34mm(HB)+WIRE	1
21	1712-0100-3880	TUNER BOX BOTTOM TM-15A	1
22	3150-0142-0190	LCD TUNER BD ASS'Y VIZIO L15	1
23	1712-0600-0160	CONTACT SPRING W9*H6.8*L21	1
24	1712-0100-3870	TUNER BOX TOP TM-15A	1
25	1712-0100-3850	TUNER FIX BKT. TM-15A	1
26	1947-1800-0240	GASKET EMI(5*1*100mm)	1
27	1947-1200-1400	RUBBER FOAM-FPC CABLE-A	2
28	3150-2032-0150	LCD MAIN BD ASS'Y VIZIO L15	1
29	1947-1800-0290	GASKET BLOCK(12L*10W*1.5Hmm)HOLE6ø	1
30	1712-0400-0420	HEAT SINK FOR TM-15A	1
31	1712-0100-4170	HEAT SINK FIX METAL (TM-15A)	1
32	1712-0100-5420	SUPPORT BKT (TM-15B)	1
33	1712-0100-3831	M/B SHIELDING TM-15A REV:01	1
34	3150-0012-0189	15" IR BD ASS'Y (TM-15A)	1
35	1947-1200-1390	RUBBER FOAM-EMI CORE	1
36	0500-0101-0570	INVERTER DC-AC(TAD697)REV:E	1
37	1712-0100-3820	INVERTER SHIELDING TM-15A	1
38	1947-1500-0520	SPONGE FOR SPEAKER(TM-15A)	2
39	1947-1200-1350	DOUBLE TAPE-KNOB(163*18.0*0.08t)	1
40	1701-0410-7040	BUTTON VIZIO L15	1
41	1801-0205-5050	REAR COVER VIZIO L15 ASS'Y	1
42	1701-1903-3020	TUNER COVER TM-15B	1
43	1947-2000-0380	RUBBER FOR ESD	1
44	1701-1903-4040	HANDLE COVER VIZIO L15	1
45	1701-1903-5040	HANDLE BAR VIZIO L15	1
46	1701-1903-2020	HINGE COVER TM-15B	1
47	1936-1100-7040	B/C LBL Vinc VIZIO L15	1
48	0460-1010-0031	WH PH10P-PH5P/51021-5PIN 260/140mm CORE*3	1
49	1712-0900-0550	HINGE ASS'Y TM-15A	1
50	1701-0508-9050	NECK CAB. VIZIO L15	1
51	1701-0508-8060	BASE CAB. VIZIO L15	1
52	1712-0100-3860	BASE BKT. TM-15A	1
53	1701-1000-0190	BASE FOOT(ø18.0*1.5T) PORON	6
54	1947-1200-1590	SWIVEL SHEET(UPE=0.5,OD 25.0)	1
55	1947-1200-1880	SWIVEL SHEET (UPE 0.3)(TM-15B)	1
56	1730-7425-1020	WASHER-FW ID7.4*OD25.0*1.0NI	3
57	0460-1005-0120	WH-PH5P-PH5P 1007ø24 40mm	1
58	1721-1504-2620	TAP.SCREW-TP-SFW M4.0*26.0L,NI	2
59	1726-1006-2000	MAC.SCREW-MP M6.0*19.8L-Zn	1
60	1720-1504-1020	MAC.SCREW-MPSWF M4.0*10.0L,Ni	4
61	1721-0003-0820	TAP.SCREW-TBø3.0*8.0L,NI	–
62	1720-1002-0320	MAC.SCREW-MR M2.0*3.0L,Ni	4
63	1721-1002-0820	TAP.SCREW-TPøM2.0*8.0L,NI	8
64	1721-5003-0520	MAC.SCREW-TI M3.0*5.0L,NI	10
65	1720-7344-0820	MAC.SCREW-MHSWø4-40*8.0LNi	2
66	1720-5003-0420	MAC.SCREW-MI M3.0*4.0L,Ni	11
67	1720-5003-0720	MAC.SCREW-MI M3.0*7.0L,NI	4
68	1720-0003-0420	MAC.SCREW-MB M3.0*4.0L,Ni	–

VIZIO L15			2615-8500-1023
DESCRIPTION			PART NO.
AmTRAN TECHNOLOGY Co., LTD.	THIRD ANGLE PROJECTION		MODEL No: VIZIO L15
UNLESS OTHERWISE NOTED: .XX = ±0.10, .X = ±0.2, ANG. = ±1/2°	DSN: JESSIE Yu 12/21/05	MATERIAL: ●●●●●●	DWG. NAME: 15.0" CASE ASS'Y
	CHK:	QTY: 1 SIZE: A1	
		SCALE: Full UNIT: MM	DWG. No: VIZIO-L15-CA.DWG REV. 0 SHEET: 1 of 1