Service Manual

Model #: VIZIO GV47L FHDTV10A

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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

1. High resolution 1920 x 1080 with wide screen.

2. Built-in digital HDTV and standard TV combination TV tuner.

3. All TV formats supported (1080i, 720p, 480 p and 480i).

4. Computer Monitor (RGB): up to1360 x 768 (H x V).

5. Wall mounting capable with and without speakers.

6. 2.1 virtual surround sound with 20W subwoofer.

7. Dual HDMI (High Definition Multimedia Interface).

8. Independent Red, Green and Blue adjustment in TV, Video, HDMI and VGA for user fine tuning of color temperature with reset.

9. Power saving to reduce consumption power to less than 3W.

10. Zero Bright Pixel.

11. PIP, POP, CC, V-Chip, 3D Comb Filter, Zoom, Freeze, 3:2 Reverse Pull-down, ATSC, with 8VSB & QAM demodulation, with MPEG-2 decoding, NTSC Video decoding via RF (Antenna, Cable or Satellite) or Video (CVBS, S-Video or Component), Progressive Scan Video via Component YPbPr, VGA or HDMI, HDTV via HDMI or Component YPbPr,

Chapter 2 Specification

1. TFT-LCD CHARACTERISTICS

Type: 47.0” WUXGA TFT LCD

Size: 47 inch

Display Size: 46.96” diagonal

Outline Dimension: 1096 mm (H) x 640 mm (V) x 51 mm (D) (Typ.)

Pixel Pitch: 0.5415mm (H) x 0.5415mm (V)

Pixel Format: 1920 horiz. By 1080 vert. Pixels RGB strip arrangement

Contrast ratio: 800:1(Typ.), 1,600:1 with DCR

Luminance, White: 500 cd/m2 (Typ.)

Display Operating Mode: normally Black

Surface Treatment: Hard Coating (3H), Anti-glare treatment of the front polarizer.

2. OPTICAL CHARACTERISTICS

Viewing Angle (CR>10)

Left: 89°typ.

Right: 89°typ.

Top: 89°typ.

Bottom: 89°typ.

3. SIGNAL (Refer to the Timing Chart)

Sync Signal

1) Type: LVDS

2) Input Voltage Level: 100~240 Vac, 50/ 60 Hz

4. Input Connectors

RJ11, D-SUB15PIN (MINI, 3rows), Headphone, HDMIX2, RCAX2 (component), RCAX2 (AUDIO in), RCAX2 (composite), RCAX2 (AUDIO in), S-Video, Tuner

5. POWER SUPPLY

Power Consumption: 400W MAX

Power OFF: 3W MAX

6.Speaker

Output 10W (max) X2, Sub woofer 20W X1

7. ENVIRONMENT

7-1. Operating Temperature: 0c~35c (Ambient)

7-2. Operating Humidity: Ta= 35 °C, 90%RH (Non-condensing)

7-3. Operating Altitude: 0 - 14,000 feet (4267.2m)(Non-Operating)

8. DIMENSIONS (Physical dimension)

Width: 1131 mm.

Depth: 270 mm

Height: 798 mm

9. WEIGHT (Physical weight)

a. Net: 40.3 +/-0.5kgs

b. Gross: 47.3+/-0.5kgs

9-1. MOUNTING PRECAUTIONS

(1) You must mount a module using holes arranged in four corners or four sides.

(2) You should consider the mounting structure so that uneven force (ex. Twisted stress) is not applied to the module. And the case on which a module is mounted should have sufficient strength so that external force is not transmitted directly to the module.

(3) Please attach the surface transparent protective plate to the surface in order to protect the polarizer. Transparent protective plate should have sufficient strength in order to the resist external force.

(4) You should adopt radiation structure to satisfy the temperature specification.

(5) Acetic acid type and chlorine type materials for the cover case are not desirable because the former generates corrosive gas of attacking the polarizer at high temperature and the latter causes circuit break by electro-chemical reaction.

(6) Do not touch, push or rub the exposed polarizes with glass, tweezers or anything harder than HB pencil lead. And please do not rub with dust clothes with chemical treatment.
Do not touch the surface of polarizer for bare hand or greasy cloth.(Some cosmetics are detrimental to the polarizer.)

(7) When the surface becomes dusty, please wipe gently with absorbent cotton or other soft materials like chamois soaks with petroleum benzene. Normal-hexane is recommended for cleaning the adhesives used to attach front / rear polarizers. Do not use acetone, toluene and alcohol because they cause chemical damage to the polarizer.

(8) Wipe off saliva or water drops as soon as possible. Their long time contact with polarizer causes deformations and color fading.

(9) Do not open the case because inside circuits do not have sufficient strength.

9-2. OPERATING PRECAUTIONS

(1) The spike noise causes the mis-operation of circuits. It should be lower than following voltage : V=±200mV(Over and under shoot voltage)

(2) Response time depends on the temperature. (In lower temperature, it becomes longer.)

(3) Brightness depends on the temperature. (In lower temperature, it becomes lower.)And in lower temperature, response time (required time that brightness is stable after turned on) becomes longer.

(4) Be careful for condensation at sudden temperature change. Condensation makes damage to polarizer or electrical contacted parts. And after fading condensation, smear or spot will occur.

(5) When fixed patterns are displayed for a long time, remnant image is likely to occur.

(6) Module has high frequency circuits. System manufacturers shall do sufficient suppression to the electromagnetic interference. Grounding and shielding methods may be important to minimize the interference.

9-3. HANDLING PRECAUTIONS FOR PROTECTION

(1) The protection film is attached to the bezel with a small masking tape. When the protection film is peeled off, static electricity is generated between the film and polarizer. This should be peeled off slowly and carefully by people who are electrically grounded and with well ion-blown equipment or in such a condition, etc.

(2) When the module with protection film attached is stored for a long time, sometimes there remains a very small amount of glue still on the bezel after the protection film is peeled off.

(3) You can remove the glue easily. When the glue remains on the bezel surface or its vestige is recognized, please wipe them off with absorbent cotton waste or other soft material like chamois soaked with normal-hexane.

Chapter 3 On Screen Display

Main unit button

POWER

SOURCE

CH +

CH -

VOL +

VOL -

MENU

TV Source

A. Picture Adjust：

a. Picture Mode (Standard/Movie /Game /Custom)

b. Backlight (0~100)

c. Contrast (0~100)

d. Brightness (0~100)

e. Color (saturation)(0~100)

f. Tint (hue) (0~100)

g. Sharpness (0~7)

h. Color Temperature (Cool/Normal/Warm/Custom)

i. Advanced Picture Adjust

B. Audio Adjust：

a. Volume (0~100)

b. Bass (0~100)

c. Treble (0~100)

d. Balance (-50~+50)

e. Surround (ON/OFF)

f. Speakers (ON/OFF)

C. Special Features：

a. Language (English/Français/Español)

b. Sleep Timer (OFF/30Min/60Min/90Min/120Min)

c. Analog CC (OFF/CC1~4/TT1~4)

d. Digital CC (OFF/CC1~4/Service1~6)

e. Digital CC Style

f. PIP Position (TL/TC/TR/ML/MR/BL/BC/BR)

g. Rest All Settings

D. TV Tuner Setup：

a. Tuner Mode (Cable/Air)

b. Auto Search

c. Skip Channel

d. Digital Audio Out (PCM/Dolby Digital)

e. Time Zone
(Eastern/Indiana/Central/Mountain/Arizona/Pacific/Alaska/Hawaii)

f. Daylight Saving (ON/OFF)

E. Parental Control：

a. Parental Lock Enable (ON/OFF)

b. TV Rating

c. Movie Rating

d. Block Unrated TV (NO/YES)

e. Access Code Edit

RGB Mode

A. Picture Adjust：

a. Auto Adjust

b. Backlight (0~100)

c. Contrast (0~100)

d. Brightness (0~100)

e. Color Temperature (9300/6500/Custom)

f. H-Size (0~255)

g. Horizontal Shift (0~255)

h. Vertical Shift (0~63)

i. Fine Tune (0~31)

B. Audio Adjust：

a. Volume (0~100)

b. Bass (0~100)

c. Treble (0~100)

d. Balance (-50~+50)

e. Surround (ON/OFF)

f. Speakers (ON/OFF)

C. Special Features：

a. Language (English/Français/Espaňol)

b. Sleep Timer (OFF/30Min/60Min/90Min/120Min)

c. PIP Position (TL/TC/TR/ML/MR/BL/BC/BR)

d. Rest All Settings

AV / SV / COMPONENT MODE

A. Picture Adjust：

a. Picture Mode (Standard/Movie /Game /Custom)

b. Backlight (0~100)

c. Contrast (0~100)

d. Brightness (0~100)

e. Color (saturation) (0~100)

f. Tint (hue) (-50~+50)

g. Sharpness (0~7)

h. Color Temperature (Cool/Normal/Warm/Custom)

i. Advanced Picture Adjust

B. Audio Adjust：

a. Volume (0~100)

b. Bass (0~100)

c. Treble (0~100)

d. Balance (-50~+50)

e. Surround (ON/OFF)

f. Speakers (ON/OFF)

C. Special Features：

a. Language (English/Français/Espaňol)

b. Sleep Timer (OFF/30Min/60Min/90Min/120Min)

c. Analog CC (OFF/CC1~4/TT1~4)

d. PIP Position (TL/TC/TR/ML/MR/BL/BC/BR)

e. Rest All Settings

D. Parental Control：

a. Parental Lock Enable (ON/OFF)

b. TV Rating

c. Move Rating

d. Block Unrated TV (NO/YES)

e. Access Code Edit

HDMI MODE：

A. Picture Adjust：

a. Picture Mode (Standard/Movie /Game /Custom)

b. Backlight (0~100)

c. Contrast (0~100)

d. Brightness (0~100)

e. Color (saturation) (0~100)

f. Tint (hue) (-50~+50)

g. Sharpness (0~7)

h. Color Temperature (Cool/Normal/Warm/Custom)

i. Advanced Picture Adjust

B. Audio Adjust：

a. Volume (0~100)

b. Bass (0~100)

c. Treble (0~100)

d. Balance (0~100)

e. Surround (ON/OFF)

f. Speakers (ON/OFF)

C. Special Features：

a. Language (English/Français/Español)

b. Sleep Timer (OFF/30Min/60Min/90Min/120Min)

c. PIP Position (TL/TC/TR/ML/MR/BL/BC/BR)

d. Rest All Settings

Chapter4 Factory preset timings

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

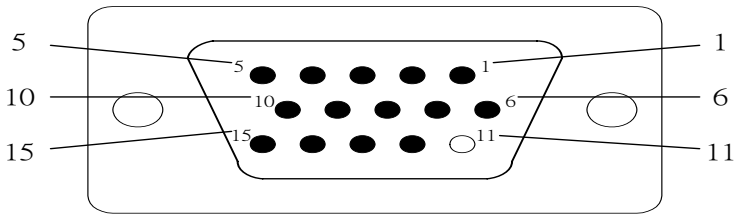
Mode No.	Resolution	Refresh Rate (Hz)	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Horizontal Sync Polarity (TTL)	Vertical Sync Polarity (TTL)	Pixel Rate (MHz)	Remark
1	640x480	60	31.5	59.94	N	N	25.175	Windows
2	640x480	75	37.5	75.00	N	N	31.500	Windows
3	800x600	60	37.9	60.317	P	P	40.000	Windows
4	800x600	75	46.9	75	P	P	49.500	Windows
5	800x600	85	53.7	85.06	P	P	56.250	Windows
6	1024x768	60	48.4	60.01	N	N	65.000	Windows
7	1024x768	70	56.5	70.07	N	N	75.000	Windows
8	1024x768	75	60.0	75.03	P	P	78.750	Windows
9	1360x768	60	47.7	60.00	P	N	85.5	Windows

Remark: P: positive, N: negative ◎ Primary mode

Chapter 5 Pin Assignment

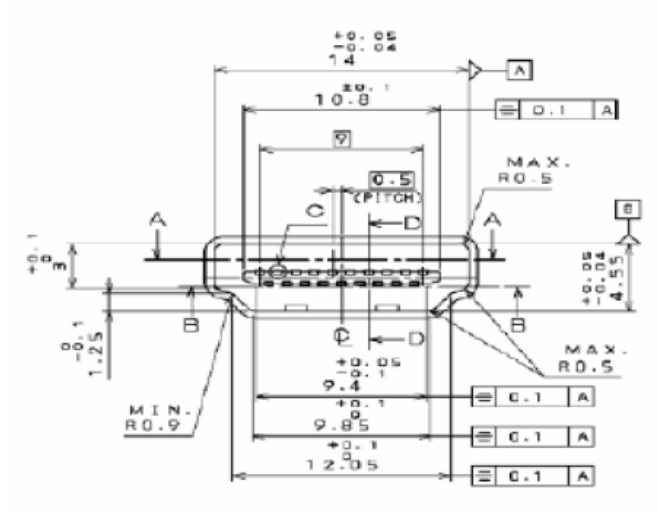
The LCD analog display monitors use a 15 Pin Mini D-Sub connector as video input source.

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)



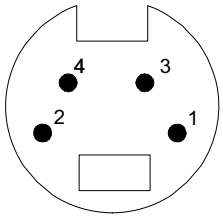
HDMI CONNECT PIN ASSIGNMENT

PIN	SIGNAL ASSIGNMENT
1	TMDS Data2+
2	TMDS Data2 Shield
3	TMDS Data2-
4	TMDS Data1+
5	TMDS Data1 Shield
6	TMDS Data1-
7	TMDS Data0+
8	TMDS Data0 Shield
9	TMDS Data0-
10	TMDS Clock+
11	TMDS Clock Shield
12	TMDS Clock-
13	CEC
14	Reserved (N.C on device)
15	SCL
16	SDA
17	DDC/CEC Ground
18	+5V Power
19	Hot Plug Detect



Four-Pin mini DIN S-Video Connector

a. Pin Assignment



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

b. Frequency:	H: 15.734KHz	V: 60Hz (NTSC)
c. Signal level:	Y: 1Vp-p	C: 0.286Vp-p
d. Impedance:	75Ω	
e. Connector type:	4-pin mini DIN	

F-Type TV RF connector

NTSC system

a. Signal level	Analog 1Vp-p typical (45tdB~90dB)
b. Frequency	55~801 MHz

ATSC system

a. IF-output level	1Vp-p minimum
b. Frequency	57~803 MHz

QAM system (supporting clear QAM)

a. IF-output level	1Vp-p minimum
b. Frequency	57~849 MHz

AV/Composit Video (CVBS) Connector

a. Frequency:	H: 15.734KHz	V: 60Hz (NTSC)
b. Signal level:	1Vp-p	Sync (H+V):0.3V below Video (Y+C)
c. Impedance:	75Ω	
d. Connector type:	RCA jack	

PC connector 15 pin male D-sub connector

a. Type:	Analog
b. Frequency:	H: 30-80KHz V: 60-85Hz
c. Signal level:	0.7Vp-p
d. Impedance:	75Ω

e. Synchronization	H/V separate sync: H/V composite sync: Sync on Green TTL TTL
f. Video bandwidth:	135MHz
g. Connector type:	15-pin D-Sub, female

HDMI Signal (HDMI):

a. Pin Assignment Refer to HDMI Pin Assignment

b. Frequency:

H: 15.734KHz	V: 60Hz
H: 31KHz	V: 60Hz
H: 45KHz	V: 60Hz
H: 33KHz	V: 60Hz

c. Polarity: Positive or Negative

d. Type: Type A

Component signal (Component 1 and Component 2)

a. Frequency:

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

b. Signal level: Y: 1Vp-p

Pb: ±0.350Vp-p Pr: ±0.350Vp-p

c. Impedance:	75Ω
d. Connector type:	RCA jack

PC Stereo audio

a. Signal level:	1Vrms
b. Impedance:	47KΩ
c. Connector type:	3.5 ϕ mini jack

Video Stereo audio

a. Signal level:	0.7Vrms
b. Impedance:	47KΩ
c. Frequency response:	250Hz-20KHz
d. Connector type:	RCA L/R

Chapter 6 Main Board I/O Connections

J6 CONNECTION (TOP→BOTTOM)

Pin	Description
1	“+5V”
2	“+3.3V”
3	“ADCKEY”
4	“LED”
5	“PWR KEY”
6	“GND”
7	“GND”
8	“IR”

J7 CONNECTION (TOP→BOTTOM)

Pin	Description
1	“POWRSW”
2	“+12V”
3	“+12V”
4	“+12V”
5	“GND”
6	“GND”
7	“GND”
8	“GND”
9	“GND”
10	“+5V”
11	“+5V”
12	+5V
13	“PWM”
14	“BL ON/OFF”

Chapter 7 Theory of Circuit Operation

7.1 The operation of D-SUB 15pin route

The D-SUB 15pin is input analog signal to the MTK8206 transfer A/D converter then generates the vertical and horizontal timing signals for display device.

7.2 The operation of HDMII CON route

The HDMI 1&2 CON is input digital signal to the PI3HDMI412FT switch output signal is process to the MT8293. Then transfer to the MTK8206, the MTK8206 generates the vertical and horizontal timing signals for display device.

7.3 The operation of HDTV & Component route

HDTV & Component signal is input to the MTK8206 then MTK8206 generates the vertical and horizontal timing signals for display device.

7.4 The operation of Video 1,2 & S-Video route

The Video 1,2 and S-Video signal is transmission signal to the MTK8206 then MTK8206 generates the vertical and horizontal timing signals for display device.

7.5 The operation of TV route

TV signal is processes to the tuner and output to MTK8206 then MTK8206 generates the vertical and horizontal timing signals for display device. Audio is processes to the tuner output to SIF circuit and output to MTK8206.Then MTK8206 process to wm8776 and output to MP7722 & MP7782 transfer to speaker

7.6 The operation of DTV route

DTV signal is processes to the tuner and transmission to MT5112 and output signal to MT5351 then MT5351 output to MT8206 generates the vertical and horizontal timing signals for display device.

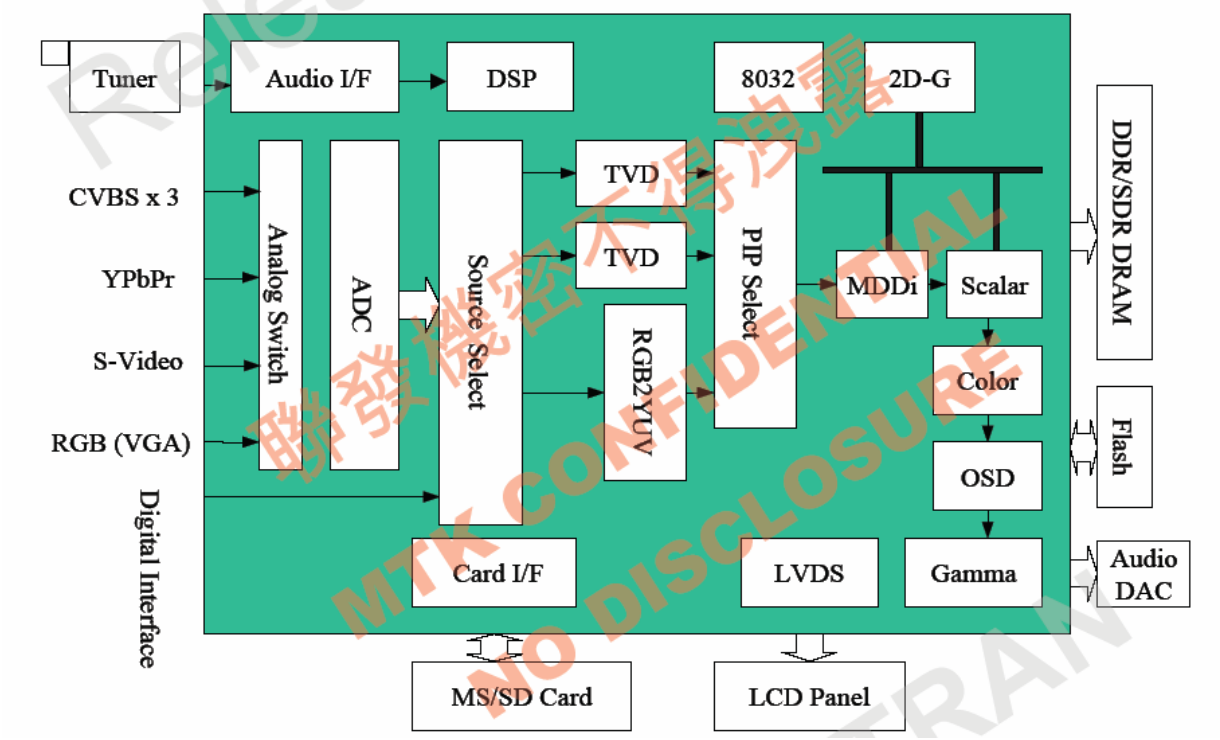
7.7 The operation of touch keypad

There are 7 touch keys to control and select the function of GV47L and also has one LED to indicate the status of operation. They are “POWER, SOURCE, CH+/-, VOL+/-, MENU”.

7.8 MT8206 Application

MT8206 is a highly integrated video and audio single chip processor for emerging HDTV-Ready LCD TV. It includes one 3D/2D TV Decoder recovering the best image from CVBS, and in addition, its analog input also support popular S-Video, Component, VGA video source. On-chip advanced motion adaptive de-interlacer (MDDitm) converts accordingly the interlace video into smooth non-flicking progressive motion pictures. With on-chip advanced 2D Graphic processor,MT8206 provides customers with high quality UI adding significant end product value. Flexible scalar provides wide adoption to various LCD panel for different video sources. Its on-chip audio processor decodes whole world standard audio signals from tuner with lip sync control, delivering high quality post-processed sound effect to customers. On-chip microprocessor and reference FW reduces the system BOM and shortens the schedule of UI design by high-level C program. With truly SOC design, MT8206 offers our customers the real cost-effective high performance HDTV-ready solution.

7.8.1 BLOCK DIAGRAM



7.8.2 Video input

a. Input Multiplexing

1.Component X2

2.Composite X2

3.S-videoX1

4.HDMI X2

5.VGA X1

6.RF&DTV X1

b. Input formats:

1.support HDTV 480i/480p/720p/1080i

2.support CVBS signal 1VP-P/75Ω

3.support Y/C signal 1VP-P/75Ω

4.support 480i/480p/720p/1080i/1080p

5.support VGA input up to 1360x768@60HZ

6.support RF NTSC system Frequency 55~801MHZ;DTV 480i/480p/720p/1080i

7.8.3 Decoder

TVD

1.Single 2nd generation TV decoder

2.Automatic TV standard detection supporting NTSC, NTSC-4.43, PAL (B, G, D, H, M, N, I, Nc), PAL (Nc), PAL, SECAM

3.Enhanced 2nd generation NTSC/PAL Motion Adaptive 3D comb filter

4.Motion Adaptive 3D Noise Reduction

5.Embedded VBI decoder for Closed-Caption/XDS/ Teletext/WSS/VPS

6.Supporting Macro vision detection

YPbPr/Scart/D-connector

1.Supporting HDTV 480i/480p/576i/576p/720p/1080i input

2.Smart detection on Scart function for European region

3.Smart detection on D-connector for Japan region

4.Supporting SCART RGB inputs mixed with composite signal by adjustable horizontal delay

VGA

1.Supporting various VGA input timings up to SXGA (1360x768@60Hz).

2.Supporting Separate/Composite/SOG sync types

Digital port

1.digital port supporting DVI 24-bit RGB or CCIR-656/601 digital video input format

2.additional 8 bit digital port for ITU656 video format

VBI

1.Dual VBI decoders for the application of V-Chip/Closed-Caption/XDS/ Teletext/WSS/VPS

2.Supporting external VBI decoder by YPrPb input

3.VBI decoder up to 1000 pages Teletext.

Support Formats:

Support NTSC, NTSC-4.43

Automatic Luma / Chroma gain control

Automatic TV standard detection

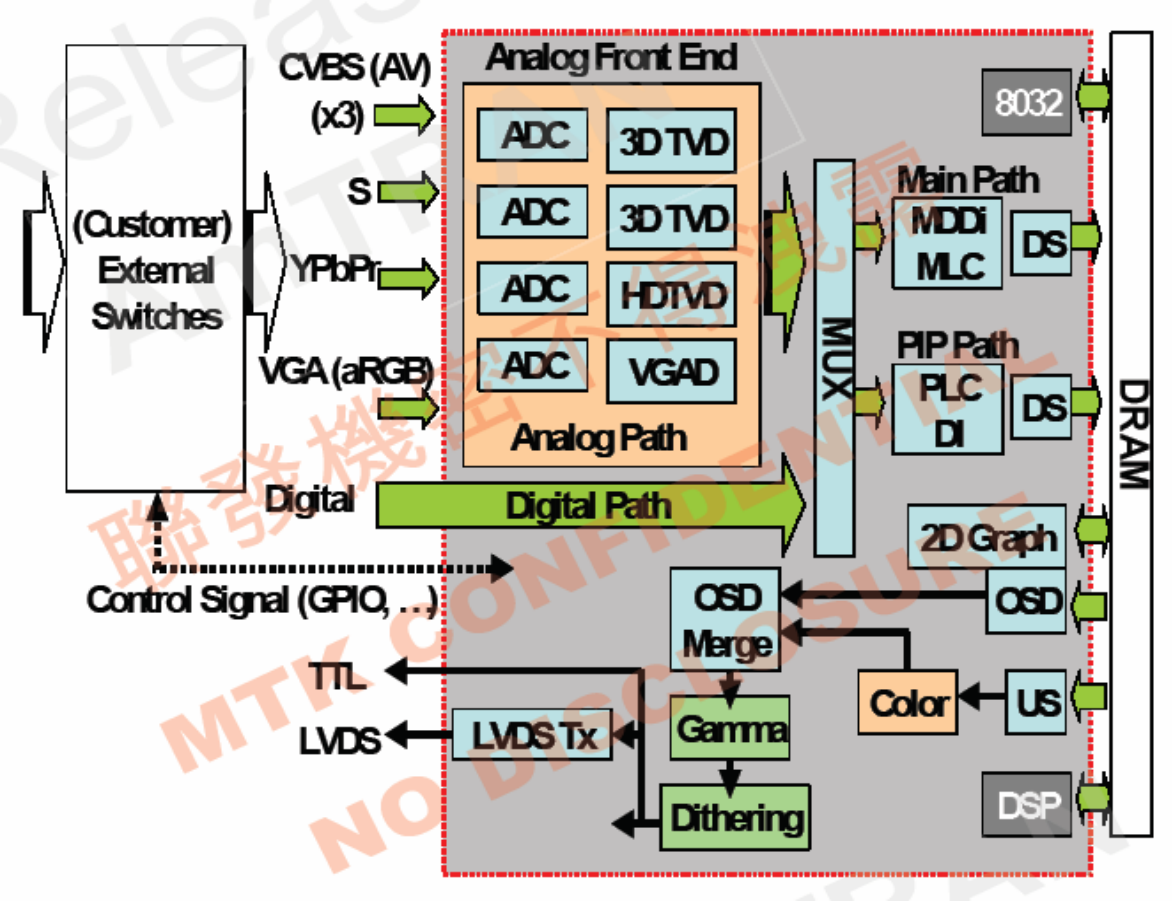
NTSC Motion Adaptive 3D comb filter

Motion adaptive 3D Noise Reduction

VBI decoder for closed-caption/XDS/Teletext/WSS/VPS

Macro vision detection

7.8.4 BLOCK DIAGRAM



7.8.5 2D-Graphic/OSD processor

Embedded two backend RGB domain OSD planes and one YUV domain OSD plane. to support Main/PIP Teletext/Close-caption functions together with setup menu

1.Supporting alpha blending among these two planes and video

2.Supporting Text/Bitmap decoder

3.Supporting line/rectangle/gradient fill

4.Supporting bitblt

5.Supporting color Key function

6.Supporting Clip Mask

7.65535/256/16/4/2-color bitmap format OSD,

8.Automatic vertical scrolling of OSD image

9.Supporting OSD mirror and upside down

7.8.6 Microprocessor interface

When power is supplied and power key is pressed then the rest circuit lets Reset to low state that will reset the MTK8206 to initial state. After that the Reset will transits to high state and the MTK8206 start to work that microprocessor executes the programs and configures the internal registers. The execution speed of CPU is 162 MHz.

1.The I/O ports are configured as follows：

Pin name	Function	Type	Description
AD17	PWM	Output	Backlight Adjust
R3	GPIO2	Output	Panel on/off
V1	GPIO7	Output	System power
Y2	GPIO16	Output	LVDS on/off
R4	GPIO3	Output	ATSC POW on/off
AD22	IOSCL	Input / Output	SDA
AV22	IOSDA	Input / Output	SCL
W3	GPIO13	Output	HDMI Switch Select
Y4	GPIO_18	Output	MT8293 Reset
W4	GPIO_14	Output	MT8293 acknowledge to player
B19	ADC_IN0	Input	Key ADC detection
L4	IR	Input	IR Receiver
Y1	GPIO_15	Output	SYSTEM EEPROM Read / Write
T2	GPIO_23	Output	LED Backlight
L2	RESETn	Input	MT8206 RESET
R2	GPIO_1	Output	DTV & HDMI Select PIN
T4	GPIO_4	Output	DTV & ATV Select PIN

2. PIP/POP HARDWARE LIMITION:

MAIM/PIP TABLE (8202)							
PIP / MAIN	TV	ATSC (DTV)	AV1	AV2/S-VIDEO	COMPONENT 1&2	HDMI 1&2	PC
TV		X	X	X	O	O	O
ATSC (DTV)	X		X	X	O	X	O
AV1	X	X		X	O	O	O
AV2/ S-VIDEO	X	X	X		O	O	O
COMPONENT 1&2	O	O	O	O		O	X
HDMI 1&2	O	X	O	O	O		O
PC	O	O	O	O	X	O	

7.8.7 Video processor

1.Color Management

Fully 10-bit processing to enhance the video quality

Advanced flesh tone and multiple-color enhancement. (For skin, sky, and grass…)

Gamma/anti-Gamma correction

Advanced Color Transient Improvement (CTI)

Saturation/hue adjustment

2.Contrast/Brightness/Sharpness Management

Sharpness and DLTI/DCTI

Brightness and contrast adjustment

Black level extender

White peak level limiter

Adaptive Luma/Chroma management

3.De-interlacing

2nd generation advanced Motion adaptive de-interlacing

Automatic detect film or video source

3:2/2:2 pull down source detection

Main/PIP 2 independent de-interlacing processor

4.Scaling

2nd generation high resolution arbitrary ratio vertical/horizontal scaling of video, from 1/32X to 32X

Advanced linear and non-linear Panorama scaling

Programmable Zoom viewer

Picture-in-Picture (PIP)

Picture-Out-Picture (POP)

5.Display

Advanced dithering processing for LCD display with 6/8/10 bit output

10bit gamma correction

Supporting alpha blending for Video and two OSD planes

Frame rate conversion

6.Seamless performance comparing demonstration function

Support Left/Right video processing comparing function without additional resources (DRAM…) for customers' demonstration

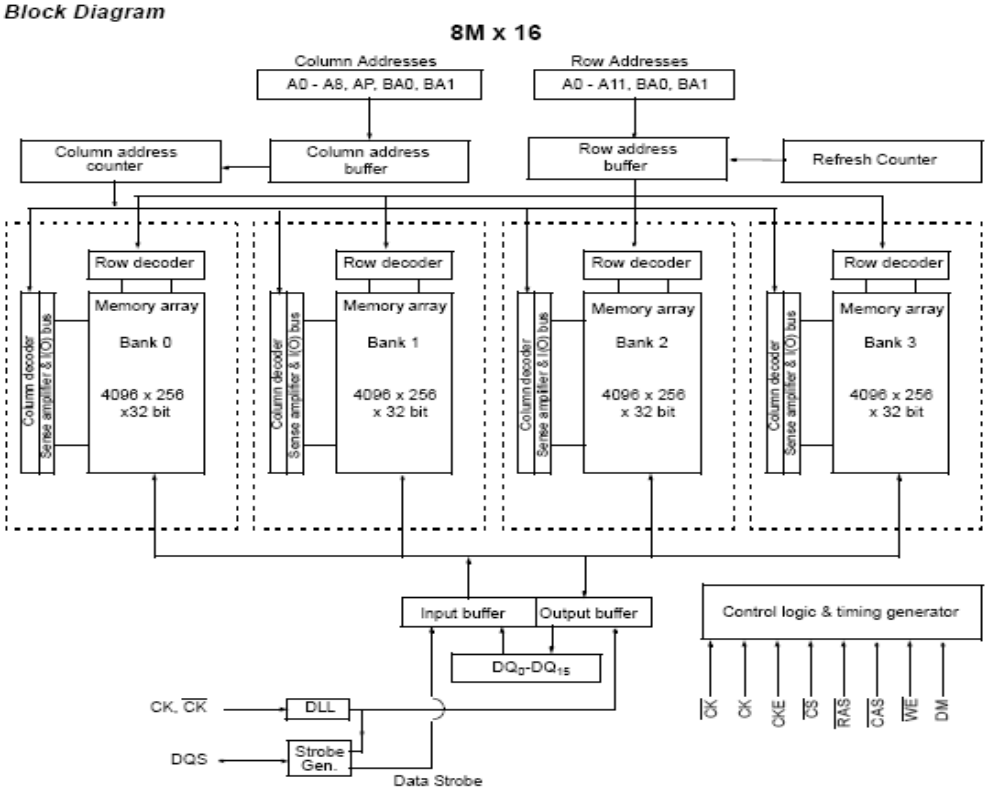
All the video functions (De-interlace/3D comb/NR/Flesh tone/CTI) can be included

7.8.8 DRAM Usage

For features of 8206, Dual for enhance features support, and single 16x32 DDR for simple function support Lists are the comparison chart between function support lists of (2xDDR)

7.9 DDR SDRAM (V58C2128164SBI5) Application

Block Diagram



7.9.1 Pin description

Signal Pin Description

Pin	Type	Signal	Polarity	Function
CK $\overline{CK}$	Input	Pulse	Positive Edge	The system clock input. All inputs except DQs and DMs are sampled on the rising edge of CK.
CKE	Input	Level	Active High	Activates the CK signal when high and deactivates the CK signal when low, thereby initiates either the Power Down mode, or the Self Refresh mode.
$\overline{CS}$	Input	Pulse	Active Low	$\overline{CS}$ enables the command decoder when low and disables the command decoder when high. When the command decoder is disabled, new commands are ignored but previous operations continue.
$\overline{RAS}$, $\overline{CAS}$ $\overline{WE}$	Input	Pulse	Active Low	When sampled at the positive rising edge of the clock, $\overline{CAS}$, $\overline{RAS}$, and $\overline{WE}$ define the command to be executed by the SDRAM.
DQS	Input/ Output	Pulse	Active High	Active on both edges for data input and output. Center aligned to input data Edge aligned to output data
A0 - A11	Input	Level	—	During a Bank Activate command cycle, A0-A11 defines the row address (RA0-RA11) when sampled at the rising clock edge. During a Read or Write command cycle, A0-An defines the column address (CA0-CAn) when sampled at the rising clock edge.CAn depends on the SDRAM organization: 32M x 4 DDR CAn = CA9, A11 16M x 8 DDR CAn = CA9 8M x 16 DDR CAn = CA8 In addition to the column address, A10(=AP) is used to invoke autoprecharge operation at the end of the burst read or write cycle. If A10 is high, autoprecharge is selected and BA0, BA1 defines the bank to be precharged. If A10 is low, autoprecharge is disabled. During a Precharge command cycle, A10(=AP) is used in conjunction with BA0 and BA1 to control which bank(s) to precharge. If A10 is high, all four banks will be precharged simultaneously regardless of state of BA0 and BA1.
BA0, BA1	Input	Level	—	Selects which bank is to be active.
DQx	Input/ Output	Level	—	Data Input/Output pins operate in the same manner as on conventional DRAMs.
DM, LDM, UDM	Input	Pulse	Active High	In Write mode, DM has a latency of zero and operates as a word mask by allowing input data to be written if it is low but blocks the write operation if is high for x 16 LDM corresponds to data on DQ0-DQ7, UDM corresponds to data on DQ8-DQ15.
VDD, VSS	Supply			Power and ground for the input buffers and the core logic.
VDDQ VSSQ	Supply	—	—	Isolated power supply and ground for the output buffers to provide improved noise immunity.
VREF	Input	Level	—	SSTL Reference Voltage for Inputs

7.9.2 Command Truth Table

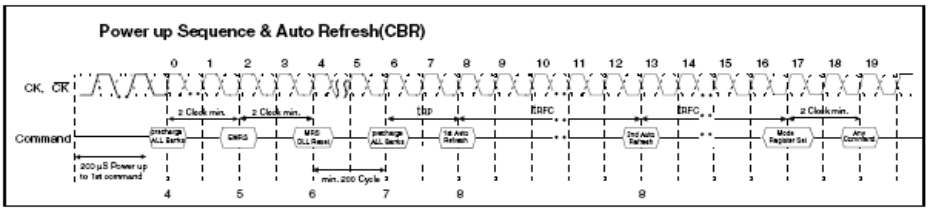
Command		CKEn-1	CKEn	CS	RAS	CAS	WE	ADDR	A10/AP	BA	Note
Mode Register Set		H	X	L	L	L	L	OP code			1,2
Extended Mode Register Set		H	X	L	L	L	L	OP code			1,2
Device Deselect		H	X	H	X	X	X	X			1
No Operation				L	H	H	H				
Bank Active		H	X	L	L	H	H	RA		V	1
Read		H	X	L	H	L	H	CA	L	V	1
Read with Autoprecharge									H		1,3
Write		H	X	L	H	L	L	CA	L	V	1
Write with Autoprecharge									H		1,4
Precharge All Banks		H	X	L	L	H	L	X	H	X	1,5
Precharge selected Bank									L	V	1
Read Burst Stop		H	X	L	H	H	L	X			1
Auto Refresh		H	H	L	L	L	H	X			1
Self Refresh	Entry	H	L	L	L	L	H	X			1
	Exit	L	H	H	X	X	X				1
				L	H	H	H				
Precharge Power Down Mode	Entry	H	L	H	X	X	X	X			1
				L	H	H	H				1
	Exit	L	H	H	X	X	X				1
				L	H	H	H				1
Active Power Down Mode	Entry	H	L	H	X	X	X	X			1
				L	V	V	V				1
	Exit	L	H	X				X			1

(H=Logic High Level, L=Logic Low Level, X=Don't Care, V=Valid Data Input, OP Code=Operand Code, NOP=No Operation)

7.9.2.1 Power-Up *Functional Description*

The following sequence is required for POWER UP.

1. Apply power and attempt to maintain CKE at a low state (all other inputs may be undefined.)
   - Apply VDD before or at the same time as VDDQ.
   - Apply VDDQ before or at the same time as VTT & Vref.
2. Start clock and maintain stable condition for a minimum of 200us.
3. The minimum of 200us after stable power and clock (CLK, CLK), apply NOP & take CKE high.
4. Precharge all banks.
5. Issue EMRS to enable DLL.(To issue "DLL Enable" command, provide "Low" to A0, "High" to BA0 and "Low" to all of the rest address pins, A1~A11 and BA1)
6. Issue a mode register set command for "DLL reset". The additional 200 cycles of clock input is required to lock the DLL. (To issue DLL reset command, provide "High" to A8 and "Low" to BA0)
7. Issue precharge commands for all banks of the device.
8. Issue 2 or more auto-refresh commands.
9. Issue a mode register set command to initialize device operation



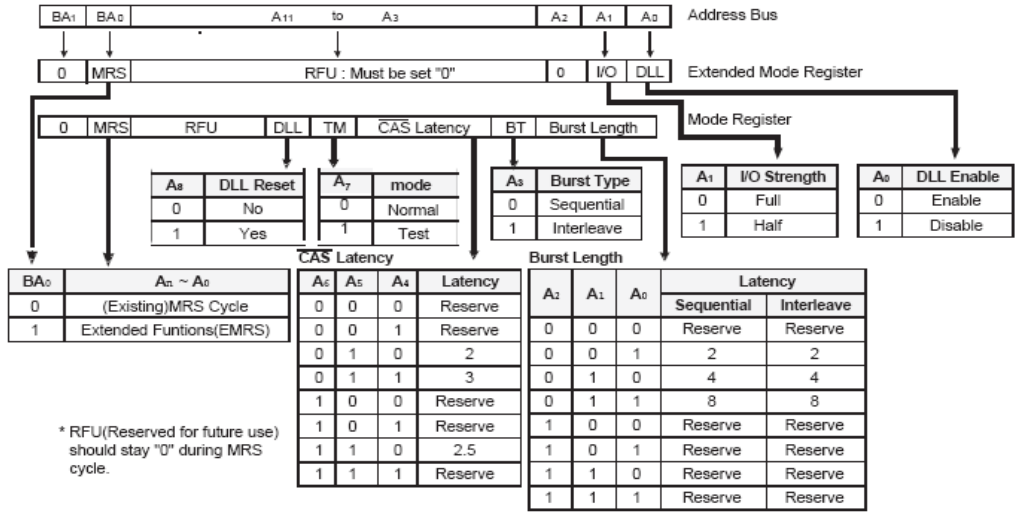
7.9.2.2 Mode Register Set (MRS)

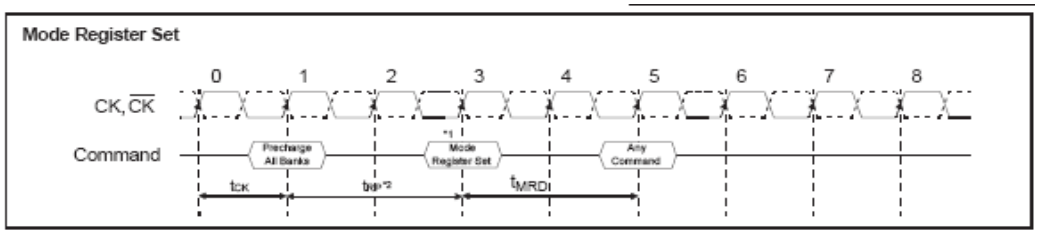
The mode register stores the data for controlling the various operating modes of DDR SDRAM. It programs CAS latency, addressing mode, burst length, test mode, DLL reset and various vendor specific options to make DDR SDRAM useful for a variety of different applications. The default value of the mode register is not defined, therefore the mode register must be written after EMRS setting for proper DDR SDRAM operation.

The mode register is written by asserting low on CS, RAS, CAS, WE and BA0 (The DDR SDRAM should be in all bank precharge with CKE already high prior to writing into the mode register). The state of address pins A0 ~ A11 in the same cycle as CS, RAS, CAS, WE and BA0 low is written in the mode register. Two clock cycles are required to meet tMRD spec.

The mode register contents can be changed using the same command and clock cycle requirements during operation as long as all banks are in the idle state. The mode register is divided into various fields depending on functionality. The burst length uses A0 ~ A2, addressing mode uses A3, CAS latency (read latency from column address) uses A4 ~ A6. A7 is a ProMOS specific test mode during production test. A8 is used for DLL reset. A7 must be set to low for normal MRS operation. Refer to the table for specific codes for various burst length, addressing modes and CAS latencies.

1. MRS can be issued only at all banks precharge state.
2. Minimum tRP is required to issue MRS command.



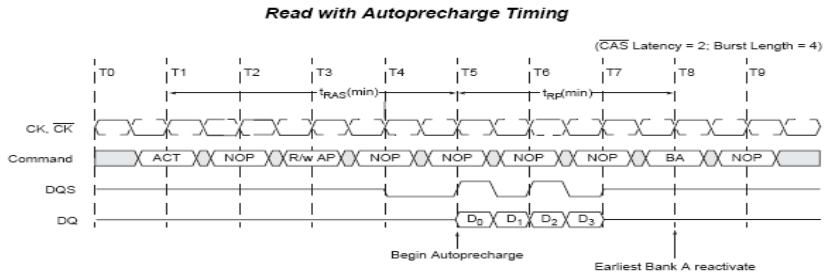


7.9.2.3 Precharge

The Auto Precharge operation can be issued by having column address A10 high when a Read or Write command is issued. If A10 is low when a Read or Write command is issued, then normal Read or Write burst operation is executed and the bank remains active at the completion of the burst sequence. When the Auto Precharge command is activated, the active bank automatically begins to precharge at the earliest possible moment during the Read or Write cycle once tRAS(min) is satisfied.

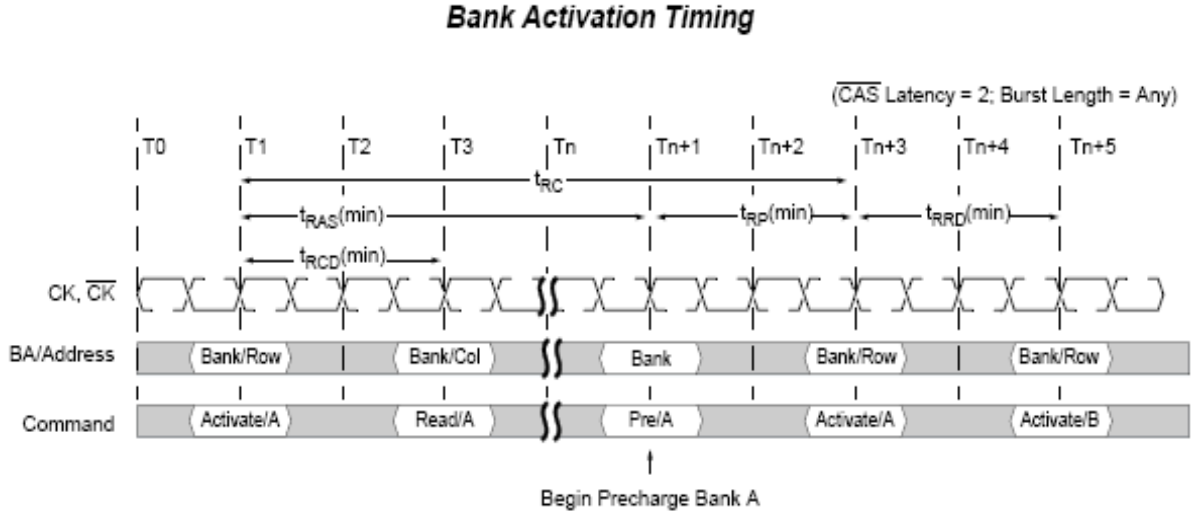
Read with Auto Precharge

If a Read with Auto Precharge command is initiated, the DDR SDRAM will enter the precharge operation N-clock cycles measured from the last data of the burst read cycle where N is equal to the CAS latency programmed into the device. Once the autoprecharge operation has begun, the bank cannot be reactivated until the minimum precharge time (tRP) has been satisfied.



7.9.2.4 Bank Activate Command

The Bank Activate command is issued by holding CAS and WE high with CS and RAS low at the rising edge of the clock. The DDR SDRAM has four independent banks, so two Bank Select addresses (BA0 and BA1) are supported. The Bank Activate command must be applied before any Read or Write operation can be executed. The delay from the Bank Activate command to the first Read or Write command must meet or exceed the minimum RAS to CAS delay time (tRCD min). Once a bank has been activated, it must be precharged before another Bank Activate command can be applied to the same bank. The minimum time interval between interleaved Bank Activate commands (Bank A to Bank B and vice versa) is the Bank to Bank delay time (tRRD min).



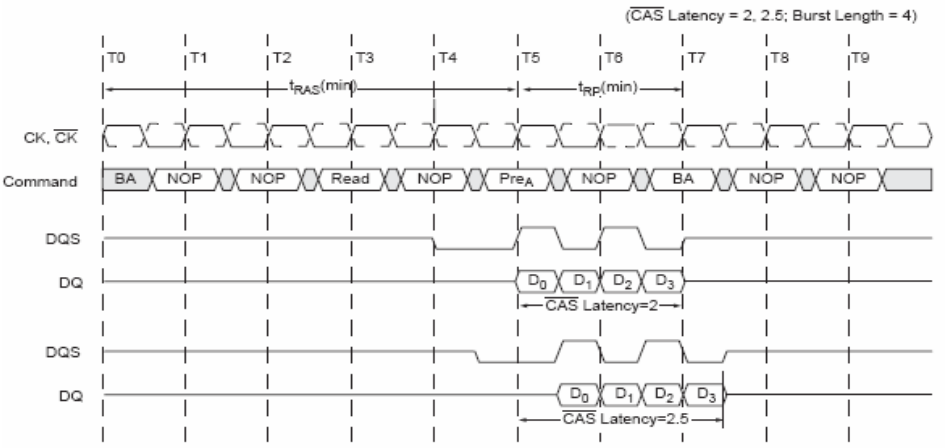
7.9.2.5 Read Operation

With the DLL enabled, all devices operating at the same frequency within a system are ensured to have the same timing relationship between DQ and DQS relative to the CK input regardless of device density, process variation, or technology generation. The data strobe signal (DQS) is driven off chip simultaneously with the output data (DQ) during each read cycle. The same internal clock phase is used to drive both the output data and data strobe signal off chip to minimize skew between data strobe and output data. This internal clock phase is nominally aligned to the input differential clock (CK, CK) by the on-chip DLL. Therefore, when the DLL is enabled and the clock frequency is within the specified range for proper DLL operation, the data strobe (DQS), output data (DQ), and the system clock (CK) are all nominally aligned. Since the data strobe and output data are tightly coupled in the system, the data strobe signal may be delayed and used to latch the output data into the receiving device. The tolerance for skew between DQS and DQ (tDQSQ) is tighter than that possible for CK to DQ (tAC) or DQS to CK (tDQSCK).

7.9.2.6 Precharge Timing During Read Operation

For the earliest possible Precharge command without interrupting a Read burst, the Precharge command may be issued on the rising clock edge, which is CAS latency (CL) clock cycles before the end of the Read burst. A new Bank Activate (BA) command may be issued to the same bank after the RAS precharge time (tRP). A Precharge command can not be issued until tRAS(min) is satisfied.

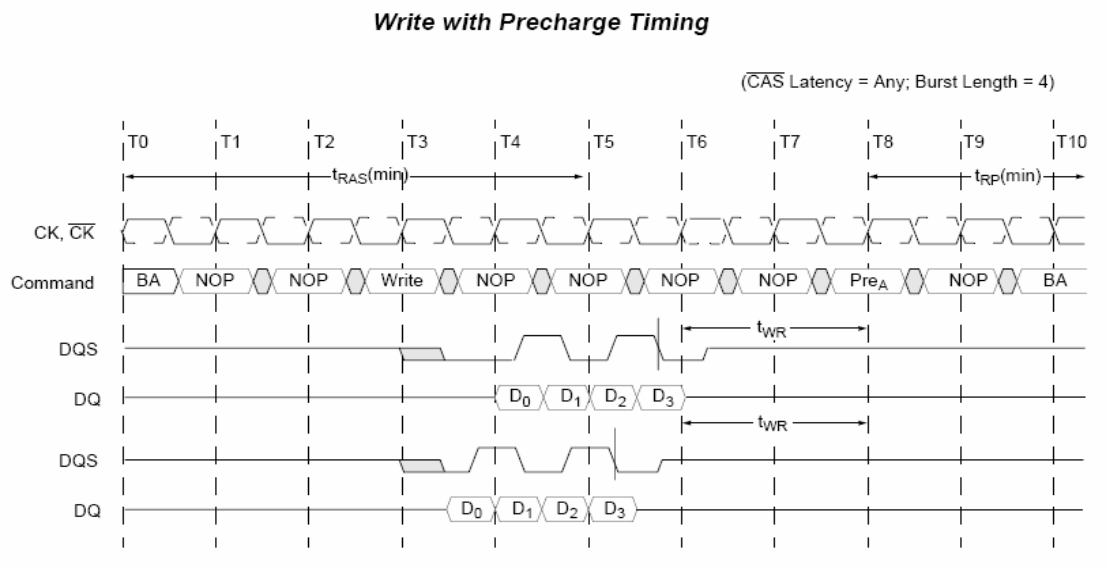
Read with Precharge Timing as a Function of $\overline{CAS}$ Latency



7.9.2.7 Precharge Timing During Write Operation

Precharge timing for Write operations in DRAMs requires enough time to satisfy the write recovery requirement. This is the time required by a DRAM sense amp to fully store the voltage level. For DDR SDRAMs, a timing parameter (tWR) is used to indicate the required amount of time between the last valid write operation and a Precharge command to the same bank. The “write recovery” operation begins on the rising clock edge after the last DQS edge that is used to strobe in the last valid write data. “Write recovery” is complete on the next 2nd rising clock edge that is used to strobe in the Precharge command.

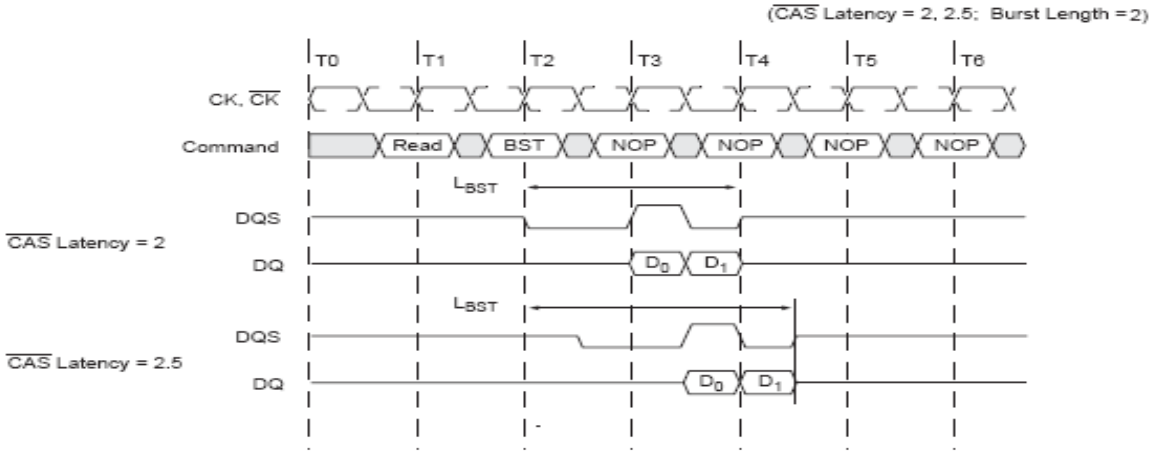
Write with Precharge Timing



7.9.2.8 *Burst Stop Command*

The Burst Stop command is valid only during burst read cycles and is initiated by having RAS and CAS high with CS and WE low at the rising edge of the clock. When the Burst Stop command is issued during a burst Read cycle, both the output data (DQ) and data strobe (DQS) go to a high impedance state after a delay (LBST) equal to the CAS latency programmed into the device. If the Burst Stop command is issued during a burst Write cycle, the command will be treated as a NOP command.

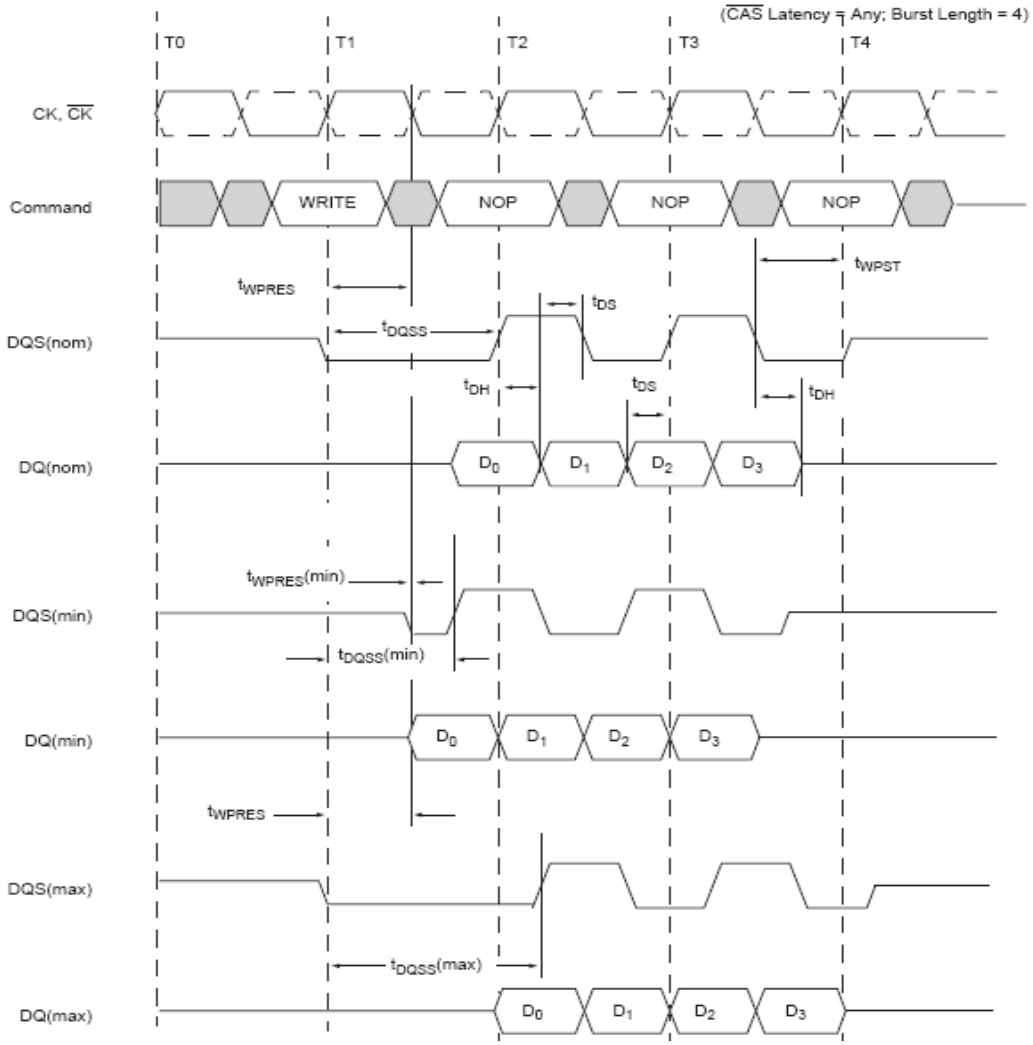
Read Terminated by Burst Stop Command Timing



7.9.2.9 Burst Write Operation

The Burst Write command is issued by having CS, CAS, and WE low while holding RAS high at the rising edge of the clock. The address inputs determine the starting column address. The memory controller is required to provide an input data strobe (DQS) to the DDR SDRAM to strobe or latch the input data (DQ) and data mask (DM) into the device. During Write cycles, the data strobe applied to the DDR SDRAM is required to be nominally centered within the data (DQ) and data mask (DM) valid windows. The data strobe must be driven high nominally one clock after the write command has been registered. Timing parameters tDQSS(min) and tDQSS(max) define the allowable window when the data strobe must be driven high. Input data for the first Burst Write cycle must be applied one clock cycle after the Write command is registered into the device (WL=1). The input data valid window is nominally centered around the midpoint of the data strobe signal. The data window is defined by DQ to DQS setup time (tQDQSS) and DQ to DQS hold time (tQDQSH). All data inputs must be supplied on each rising and falling edge of the data strobe until the burst length is completed. When the burst has finished, any additional data supplied to the DQ pins will be ignored.

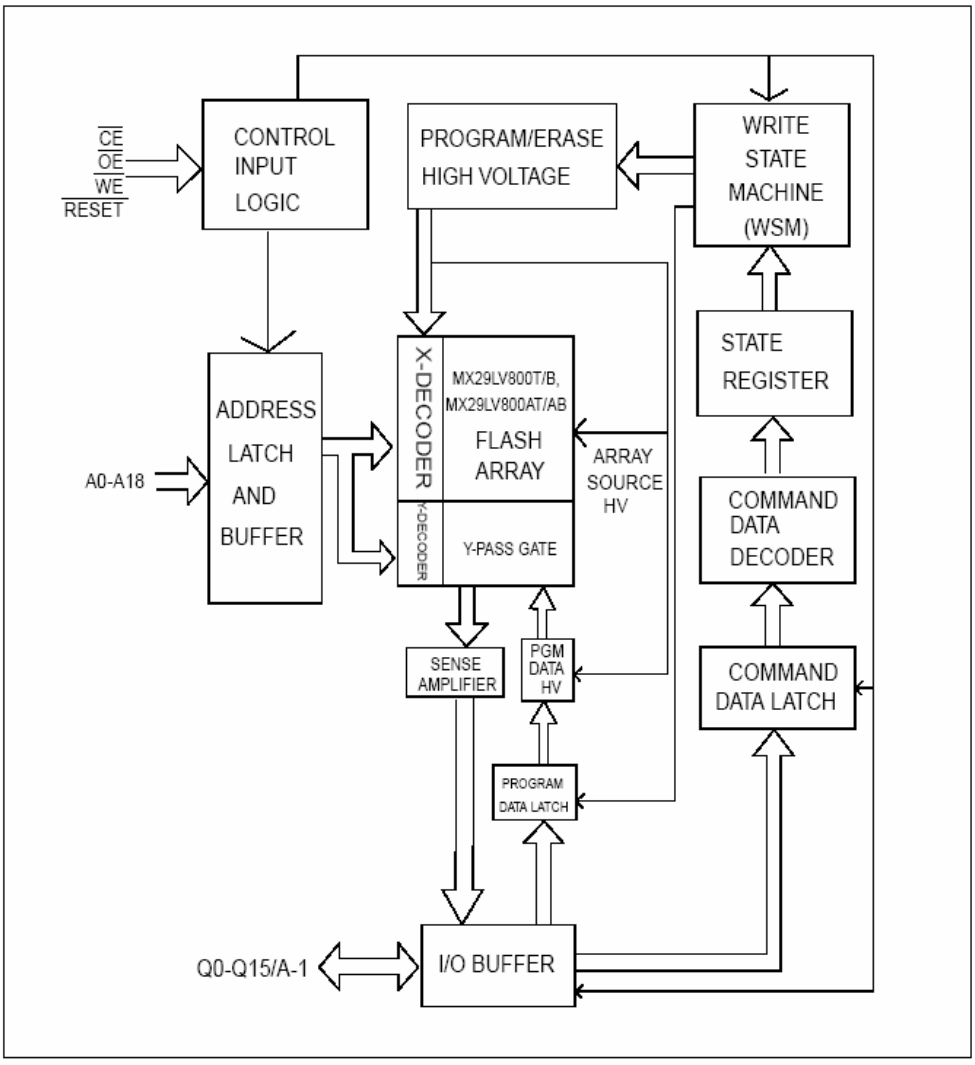
Burst Write Timing



7.10 MX29LV160BTTC (Flash) Application

The MX29LV800T/B & MX29LV800AT/AB is a 8-mega bit Flash memory organized as 1M bytes of 8 bits or 512K words of 16 bits. MXIC's Flash memories offer the most cost-effective and reliable read/write non-volatile random access memory. The MX29LV800T/B & MX29LV800AT/AB is packaged in 44-pin SOP, 48-pin TSOP, and 48-ball CSP. It is designed to be reprogrammed and erased in system or in standard EPROM programmers.

7.10.1 BLOCK DIAGRAM



7.10.2 COMMAND DEFINITIONS

Device operations are selected by writing specific address and data sequences into the command register. Writing incorrect address and data values or writing them in the improper sequence will reset the device to the read mode. Table 5 defines the valid register command sequences. Note that the Erase Suspend (B0H) and Erase Resume (30H) commands are valid only while the Sector Erase operation is in progress.

TABLE 6. MX29LV800T/B & MX29LV800AT/AB BUS OPERATION

DESCRIPTION	$\overline{CE}$	$\overline{OE}$	$\overline{WE}$	ADDRESS								Q0~Q7	Q8~Q15	
				A18 | A12	A10 | A11	A9	A8 | A7	A6	A5 | A2	A1	A0		BYTE =VIH	BYTE =VIL
Read	L	L	H	AIN								Dout	Dout	=High Z DQ15=A-1
Write	L	H	L	AIN								DIN(3)	DIN	
Reset	X	X	X	X								High Z	High Z	High Z
Temporary sector unlock	X	X	X	AIN								DIN	DIN	High Z
Output Disable	L	H	H	X								High Z	High Z	High Z
Standby	Vcc ± 0.3V	X	X	X								High Z	High Z	High Z
Sector Protect	L	H	L	SA	X	X	X	L	X	H	L	DIN	X	X
Sector Unprotected	L	H	L	X	X	X	X	H	X	H	L	DIN	X	X
Sector Protection Verify	L	L	H	SA	X	VID	X	L	X	H	L	CODE(5)	X	X

NOTES:
1. Manufacturer and device codes may also be accessed via a command register write sequence. Refer to Table 5.
2. VID is the Silicon-ID-Read high voltage, 11.5V to 12.5V.
3. Refer to Table 5 for valid Data-In during a write operation.
4. X can be VIL or VIH.
5. Code=00H/XX00H means unprotected.
   Code=01H/XX01H means protected.
6. A18~A12=Sector address for sector protect.
7. The sector protect and chip unprotected functions may also be implemented via programming equipment.

7.10.3 WRITE COMMANDS/COMMAND SEQUENCES

To program data to the device or erase sectors of memory, the system must drive WE and CE to VIL, and OE to VIH. The device features an Unlock Bypass mode to facilitate faster programming. Once the device enters the Unlock Bypass mode, only two write cycles are required to program a byte, instead of four. The "byte Program Command Sequence" section has details on programming data to the device using both standard and Unlock Bypass command sequences. An erase operation can erase one sector, multiple sectors, or the entire device. Table indicates the address space that each sector occupies. A "sector address" consists of the address bits required to uniquely select a sector. The "Writing specific address and data commands or sequences into the command register initiates device operations. Figure 1 defines the valid register command sequences. Writing incorrect address and data values or writing them in the improper sequence resets the device to reading array data. Section has details on erasing a sector or the entire chip, or suspending/resuming the erase operation.

After the system writes the auto select command sequence, the device enters the auto select mode. The system can then read auto select codes from the internal register (which is separate from the memory array) on Q7-Q0. Standard read cycle timings apply in this mode. Refer to the Auto select Mode and Auto select Command Sequence section for more information. ICC2 in the DC Characteristics table represents the active current specification for the write mode. The "AC Characteristics" section contains timing specification table and timing diagrams for write operations.

Figure 1

Sector	Sector Size		Address range		Sector Address						
	Byte Mode	Word Mode	Byte Mode (x8)	Word Mode (x16)	A18	A17	A16	A15	A14	A13	A12
SA0	64Kbytes	32Kwords	00000h-0FFFFh	00000h-07FFFh	0	0	0	0	X	X	X
SA1	64Kbytes	32Kwords	10000h-1FFFFh	08000h-0FFFFh	0	0	0	1	X	X	X
SA2	64Kbytes	32Kwords	20000h-2FFFFh	10000h-17FFFh	0	0	1	0	X	X	X
SA3	64Kbytes	32Kwords	30000h-3FFFFh	18000h-1FFFFh	0	0	1	1	X	X	X
SA4	64Kbytes	32Kwords	40000h-4FFFFh	20000h-27FFFh	0	1	0	0	X	X	X
SA5	64Kbytes	32Kwords	50000h-5FFFFh	28000h-2FFFFh	0	1	0	1	X	X	X
SA6	64Kbytes	32Kwords	60000h-6FFFFh	30000h-37FFFh	0	1	1	0	X	X	X
SA7	64Kbytes	32Kwords	70000h-7FFFFh	38000h-3FFFFh	0	1	1	1	X	X	X
SA8	64Kbytes	32Kwords	80000h-8FFFFh	40000h-47FFFh	1	0	0	0	X	X	X
SA9	64Kbytes	32Kwords	90000h-9FFFFh	48000h-4FFFFh	1	0	0	1	X	X	X
SA10	64Kbytes	32Kwords	A0000h-AFFFFh	50000h-57FFFh	1	0	1	0	X	X	X
SA11	64Kbytes	32Kwords	B0000h-BFFFFh	58000h-5FFFFh	1	0	1	1	X	X	X
SA12	64Kbytes	32Kwords	C0000h-CFFFFh	60000h-67FFFh	1	1	0	0	X	X	X
SA13	64Kbytes	32Kwords	D0000h-DFFFFh	68000h-6FFFFh	1	1	0	1	X	X	X
SA14	64Kbytes	32Kwords	E0000h-EFFFFh	70000h-77FFFh	1	1	1	0	X	X	X
SA15	32Kbytes	16Kwords	F0000h-F7FFFh	78000h-7BFFFh	1	1	1	1	0	X	X
SA16	8Kbytes	4Kwords	F8000h-F9FFFh	7C000h-7CFFFh	1	1	1	1	1	0	0
SA17	8Kbytes	4Kwords	FA000h-FBFFFh	7D000h-7DFFFh	1	1	1	1	1	0	1
SA18	16Kbytes	8Kwords	FC000h-FFFFFh	7E000h-7FFFFh	1	1	1	1	1	1	X

7.10.4 READ/RESET COMMAND

The read or reset operation is initiated by writing the read/reset command sequence into the command register. Microprocessor read cycles retrieve array data. The device remains enabled for reads until the command register contents are altered. If program-fail or erase-fail happen, the write of F0H will reset the device to abort the operation. A valid command must then be written to place the device in the desired state.

7.10.5 READING ARRAY DATA

The device is automatically set to reading array data after device power-up. No commands are required to retrieve data. The device is also ready to read array data after completing an Automatic Program or Automatic Erase algorithm. After the device accepts an Erase Suspend command, the device enters the Erase Suspend mode. The system can read array data using the standard read timings, except that if it reads at an address within erase suspended sectors, the device outputs status data. After completing a programming operation in the Erase Suspend mode, the system may once again read array data with the same exception. See Erase Suspend/Erase Resume Commands” for more information on this mode. The system must issue the reset command to re-enable the device for reading array data if Q5 goes high, or while in the auto select mode. See the "Reset Command" section, next.

7.10.6 RESET COMMAND

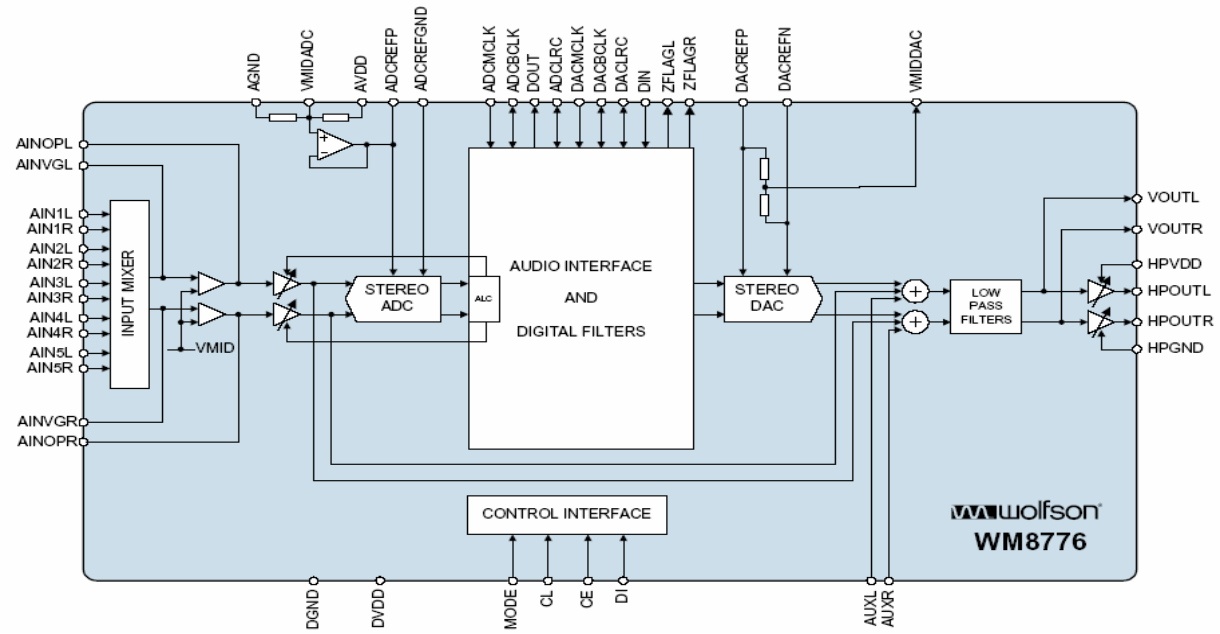
Writing the reset command to the device resets the device to reading array data. Addresses bits are don't care for this command. The reset command may be written between the sequence cycles in an erase command sequence before erasing begins. This resets the device to reading array data. Once erasure begins, however, the device ignores reset commands until the operation is complete. The reset command may be written between the sequence cycles in a program command sequence before programming begins. This resets the device to reading array data (also applies to programming in Erase Suspend mode). Once programming begins, however, the device ignores reset commands until the operation is complete. The reset command may be written between the sequence cycles in an SILICON ID READ command sequence. Once in the SILICON ID READ mode, the reset command must be written to return to reading array data (also applies to SILICON ID READ during Erase Suspend). If Q5 goes high during a program or erase operation, writing the reset command returns the device to reading array data (also applies during Erase Suspend).

7.11 WM8776 Application

The WM8776 is a high performance, stereo audio codec with five channel input selector. The WM8776 is ideal for surround sound processing applications for home hi-fi, DVD-RW and other audiovisual equipment. Etch ADC channel has programmable gain control with automatic level control. Digital audio output word lengths from 16-32 bits and sampling rates from 32kHZ to 96KHZ are supported.

The DAC has an input mixer allowing an external analogue signal to be mixed with the DAC signal. There are also Headphone and line outputs, with control for the headphone.The WM8776 supports fully independent sample rates for the ADC and DAC. The audio data interface supports I2S, left justified, right justified and DSP formats.

7.11.1 BLOCK DIAGRAM



1. Audio sample rate

The master clock forWM8776 supports DAC and ADC audio sampling rates 256fs to 768fs, where fs is the audio sample frequency (DACLRC or ADCLRC) typically 32KHZ, 44.1KHZ, 48KHZ or 96KHZ (the DAC also supports operation at 128fs and 192fs and 192KHZ sample rate). The master clock is used to operate the digital filters and the noise shaping circuits.

In slave mode the WM8776 has a master detection circuit that automatically determines the relationship between the master clock frequency and the sampling rate (to within +/- 32 system clocks) If there is a greater than 32 clocks error the interface is disabled and ADCLRC/DACLRC for optical performance, although the WM8776 is tolerant of phase variations or jitter on this clock.

Table shows the typical master clock frequency inputs for the WM8776

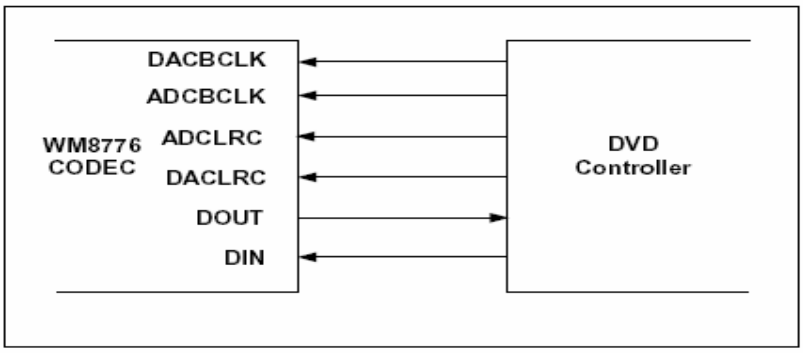
SAMPLING RATE (DACLRC/ ADCLRC)	System Clock Frequency (MHz)					
	128fs	192fs	256fs	384fs	512fs	768fs
	DAC ONLY					
32kHz	4.096	6.144	8.192	12.288	16.384	24.576
44.1kHz	5.6448	8.467	11.2896	16.9340	22.5792	33.8688
48kHz	6.144	9.216	12.288	18.432	24.576	36.864
96kHz	12.288	18.432	24.576	36.864	Unavailable	Unavailable
192kHz	24.576	36.864	Unavailable	Unavailable	Unavailable	Unavailable

7.11.2 DIGITAL AUDIO INTERFACE

1. Slave mode

The audio interfaces operations in either slave mode selectable using the MS control bit. In slave mode DIN is always an input to the WM8776 and DOUT is always an output. The default is Slave mode. In slave mode (ms=0) ADCLRC, DACLRC, ADCBCLK, DACBCLK are input to the WM8776 DIN and DACLRC are sampled by the WM8776 on the rising edge of DACBCLK; ADCLRC is sampled on the rising edge of ADCBCLK. ADC data is output on DOUT and changes on the falling edge of ADCBCLK. By setting control bit BCLKINV the polarity of ADCBCLK and DACBCLK may be reversed so that DIN and DACLRC are sample on the falling edge of DACBCLK, ADCLRC is sampled on the falling edge of ADCBCLK and DOUT changes on the rising of ADCBCLK

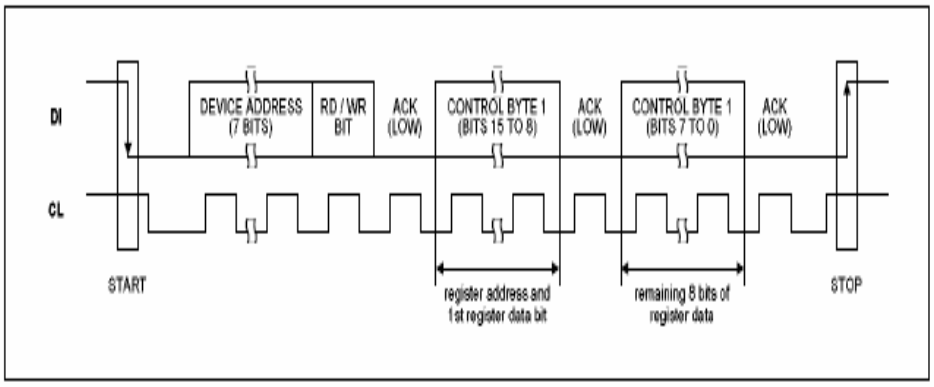
Slave mode as shown in the following figure.



2. 2 Wire serial control mode

The wm8776 supports software control via a 2-wire serial bus. Many devices can be controlled by the same bus, and each device has a unique 7-bit address (this is not the same as the 7-bit address of each register in the wm8776). The wm8776 operates as a slave device only.

2-wire serial interface as shown in the following figure.



The wm8776 has two possible device addresses, which can be selected using the CE pin

In the GV47L LCD TV CE pin is LOW (device address is 34h)

CE STATE	DEVICE ADDRESS
Low	0011010 (0 x 34h)
High	0011011 (0 x 36h)

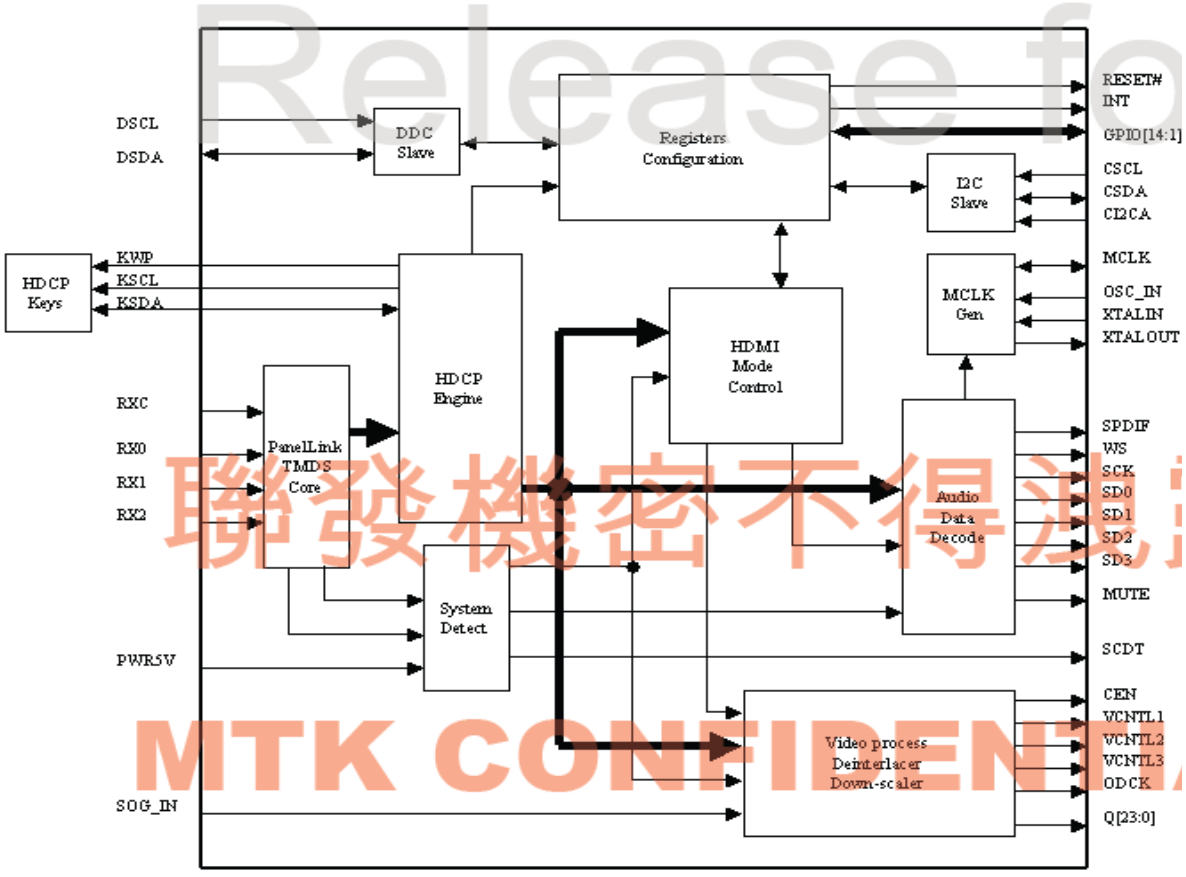
In the GV47L wm8776 has 2-wire interface

MODE	Control Mode
0	2 wire interface
1	3 wire interface

7.12 MT8293 Application

The MT8293 provides a complete solution for receiving HDMI compliant digital audio and video. Specialized audio and video processing is available within the MT8293 to easily and cost effectively adds HDMI capability to consumer electronics devices such as digital TVs, plasma displays, LCD TVs and projectors.

7.12.1 BLOCK DIAGRAM



7.12.2 TMDS Digital Core

The core performs 10-to-8-bit TMDS decoding on the audio and video received from the three TMDS differential data lines along with a TMDS differential clock. The TMDS core supports link clock rates to 165MHZ, including CE modes to 720P/1080I/1080P.

7.12.3 Active port detection

The Pane Link core detects an active TMDS clock and actively toggling DE signal. These states are accessible in register bits, useful for monitoring the status of the HDMI input or for automatically powering down the receiver. The 5V supply from the HDMI connector is used as a cable detect indicator. The MT8293 can monitor the presence of this+5V supply and, if and when necessary, provide a fast audio mute without pops when it senses the HDMI cable pulled. The microcontroller can also poll registers in the MT8293 to check whether an HDMI cable is connected.

7.12.4 HDCP Decryption

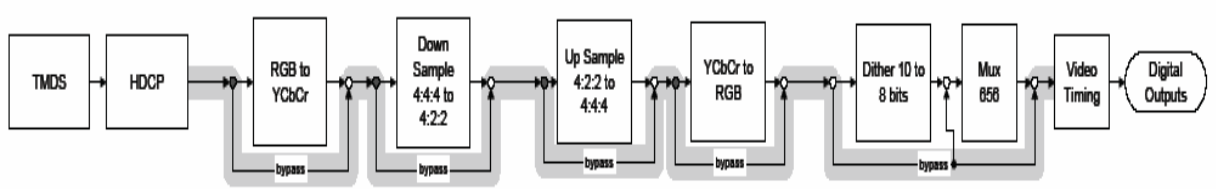
The MT8293 external EEPROM for encrypt HDCP keys. HDCP decryption contains all necessary logic to decrypt the incoming audio and video data. The decryption process is entirely controlled by the host microprocessor through a set sequence of register reads and wires through the DDC channel. Pre-programmed HDCP keys and key Selection Vector are used in the decryption process. A resulting calculated to an XOR mask during each clock cycle to decrypt the audio/video data in sync with the host.

7.12.5 Video Data Conversion and Video Output

The MT8293 can output video in many different formats as shown in the following figure.

Color Space	Video Format	Bus Width	HSYNC / VSYNC	Output Clock (MHz)[3]							Notes
				480i	480p	XGA	720p	1080i	1080p	UXGA	
RGB	4:4:4	24	Separate	13.25 / 27	27	65	74.25	74.25	148.5	162	
YCbCr	4:4:4	24	Separate	13.25 / 27	27	65	74.25	74.25	148.5	162	
YCbCr	4:2:2	16/20/24	Sep, Emb.	13.25 / 27	27	—	74.25	74.25	148.5	162	1,2
YCbCr	4:2:2	8/10/12	Sep, Emb.	27	54	135	148.5	148.5	—	—	1,4
RGB	4:4:4	48	Separate	6.73/13.5	13.5	32.25	37.13	37.13	74.25	81	5
YCbCr	4:4:4	48	Separate	6.73/13.5	13.5	32.25	37.13	37.13	74.25	81	5
RGB	4:4:4	12	Separate	13.25 / 27	27	65	74.25	74.25	—	—	6
YCbCr	4:4:4	12	Separate	13.25 / 27	27	65	74.25	74.25	—	—	6
YCbCr	4:2:2	8/10/12	Sep, Emb.	13.25/27	27	65	74.25	74.25	—	81	1,4

The receiver can also process the video data before it is output as show below figure



7.12.6 I²c Interface to Display Controller

The Controller I²c interface (CSDA, CSCL) on the MT8293 is a slave interface capable of running up to 400KHZ. This bus is used to configure the MT8293 by reading/writing to the appropriate registers. The MT8293 is accessible on the local I²c bits at two-device address. The logic state of the CI2CA pin is latched on the rising edge of REST# providing a choice of two pairs of device address.
Control of local I²c address with CI2CA pin

	CI2CA = Pull Down	CI2CA = Pull Up
First Device Addr	0x60	0x62
Second Device Addr	0x68	0x6A

7.13 MP7722 & MP7782 Application

In GV47L TV the MP7722 is a dual-channel audio class-D power amplifier with an output power of 2 ．10 W at an 8 ．load and a 24 V supply.
The other MP7782 is BTL mono output power 20W class-D amplifier at an 8 ．load and a 24 V supply.

7.13.1 Output power

The output power as a function of the supply voltage is measured on the output pins at THD = 10%,in the GV47L LCD TV DC=24V so we can see as shown in the following figure output about 10W X 2,20W X 1

7.13.2 Mode selection

In the GV47L LCD TV MP7722 has two functional modes, which can be selected by applying the proper DC voltage to pin EN1 and EN2.

1. Mute — In this mode the amplifier is DC-biased but not operational (no audio output).

This allows the input coupling capacitors to be charged to avoid pop-noise. The device is in mute mode when VEN1/EN2 < 2V.

2. Operating — In this mode the amplifier is operating normally. The operating mode is activated at VEN1/EN2 > 2V~6V

7.14 MT5351 Application:

MediaTek MT5351 is a DTV Backend Decoder SOC which support flexible transport demux , HD MPEG-2 video decoder , JPEG decoder , MPEG1,2,MP3,AC3 audio decoder , HDTV encoder . The MT5351 enables consumer electronics manufactures to build high quality , feature-rich DTV , STB or other home entertainment audio/video device.World-Leading Technology : HW support worldwide major broadcast network and CA standards , include ATSC , DVB , OpenCable , DirectTV , MHP.Rich Feature for high value product : To enrich the feature of DTV , the MT5351 support 1394-5C component to external DVHS . Dual display , PIP/POP and quad pictures provide user a whole new viewing experience.Credible Audio/Video Quality : The MT5351 use advanced motion-adaptive de-interlace algorithm to achieve the best movie/video playback , The embedded 4X over-sample video DAC could generate very fine display quality . Also , the audio 3D surround and equalizer provide professional entertainment.

7.14.1 General Feature List :

1 . Host CPU:

1. ARM 926EJ
2. 16K I-Cache and 16K D-Cache
3. 8K Data TCM and 8K instruction
4. JTAG ICE interface
5. Watch Dog timers

2 . Transport Demuxer :

1. Support 3 independent transport stream inputs
2. Support serial/parallel interface for each transport stream input
3. Support ATSC , DVB , and MPEG2 transport stream inputs.
4. Programmable sync detection.
5. Support DES/3-DES De-scramble.
6. 96 PID filter and 128 section filters.
7. Support TS recording via IEEE1394 interface.

3 . MPEG2 Decoder :

1. Support dual MPEG-2 HD decoder or up to 8 SD decoder.
2. Complaint to MP@ML , MP@HL and MPEG-1 video standards.

4 . JPEG Decoder :

1. Decode Base-line or progressive JPEG file.

5 . 2D Graphics :

1. Support multiple color modes.
2. Point , horizontal/vertical line primitive drawing.
3. Rectangle fill and gradient fill functions.
4. Bitblt with transparent , alpha blending , alpha composition and stretch.
5. Font rendering by color expansion.
6. Support clip masks.
7. YCrCb to RGB color space transfer.

6 . OSD Display :

1. 3 linking list OSDs with multiple color mode.
2. OSD scaling with arbitary ratio from 1/2x to 2x.
3. Square size , 32x32 or 64x64 pixel , hardware cursor.

7 . Video Processing :

1. Advanced Motion adaptive de-interlace on SDTV resolution.
2. Support clip
3. 3:2/2:2 pull down source detection.
4. Arbitrary ratio vertical/horizontal scaling of video , from 1/15X to 16X.
5. Support Edge preserve.
6. Support horizontal edge enhancement.
7. Support Quad-Picture.

8 . Main Display :

1. Mixing two video and three OSD and hardware cursor.
2. Contrast/Brightness adjustment.
3. Gamma correction.
4. Picture-in-Picture(PIP).
5. Picture-Out-Picture(POP).
6. 480i/576i/480p/576p/720p/1080i output

9 . Auxiliary Display :

1. Mixing one video and one OSD.
2. 480i/576i output.

10 . TV Encoder :

1. Support NTSC M/N , PAL M/N/B/D/G/H/I
2. Macrovision Rev 7.1.L1
3. CGMS/WSS.
4. Closed Captioning.
5. Six 12-bit video DACs for CVBS , S-video or RGB/YPbPr output.

11 . Digital Video Interface :

1. Support SAV/EAV.
2. Support 8/16 for SD/HD digital video input.
3. Support 8/16/24 bits digital output for main display.
4. Support 8 bits digital output for aux display.

12 . DRAM Controller :

1. Support 64Mb to 1Gb DDR DRAM devices.
2. Configurable 32/64 bit data bus interface.
3. Support DDR266 , DDR333 , DDR400 , JEDEC specification compliant SDRAM.

13 . Peripheral Bus Interface :

1. Support NOR/NAND flash.
2. Support CableCard host control bus.

14 . Audio :

1. Support Dolby Digital AC-3 decoding.
2. MPEG-1 layer I/II , MP3 decoding.
3. Dolby prologic II.
4. Main audio output : 5.1ch + 2ch (down mix)
5. Auxiliary audio output : 2ch.
6. Pink noise and white noise generator.
7. Equalizer.
8. Bass management.
9. 3D surround processing include virtual surround.
10. Audio and video lip synchronization.
11. Support reverberation.
12. SPDIF out.
13. I2S I/F.

15 . Peripherals :

1. Three UARTs with Tx and Rx FIFO , two of them have hardware flow control.
2. Two serial interfaces , one is master only the other can be set to master mode or slave mode.
3. Two PWMs.
4. IR blaster and receiver.
5. IEEE1394 link controller.
6. IDE bus : ATA/ATAPI7 UDMA mode 5 , 100MB/s.
7. Real-time clock and watchdog controller.
8. Memory card I/F : MS/MS-pro ,SD ,CF ,and MMC
9. PCMCIA/POD/CI interface

16 . IC Outline :

1. 471 Pin BGA Package.
2. 3.3V/1.2V dual Voltage.

7.15 MX29LV320BTTC (Flash) Application :

The MX29LV320AT/B is a 32-mega bit Flash memory organized as 4M bytes of 8 bits and 2M words of 16 bits. MXIC's Flash memories offer the most cost-effective and reliable read/write non-volatile random access memory.

The MX29LV320AT/B is packaged in 48-pin TSOP and 48-ball CSP. It is designed to be reprogrammed and erased in system or in standard EPROM programmers. The standard MX29LV320AT/B offers access time as fast as 70ns, allowing operation of high-speed microprocessors without wait states. To eliminate bus contention, the MX29LV320AT/B has separate chip enable (CE) and output enable (OE) controls.

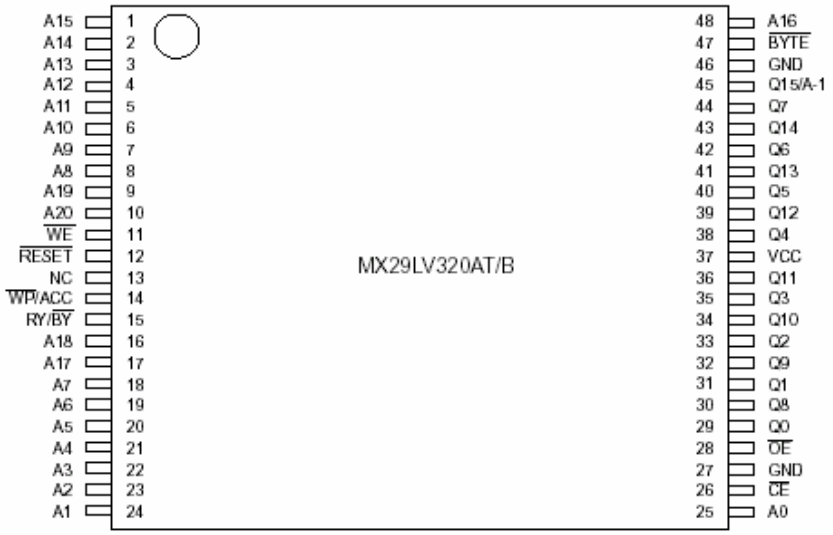
MXIC's Flash memories augment EPROM functionality with in-circuit electrical erasure and programming. The MX29LV320AT/B uses a command register to manage this functionality. MXIC Flash technology reliably stores memory contents even after 100,000 erase and program cycles. The MXIC cell is designed to optimize the erase and program mechanisms. In addition, the combination of advanced tunnel oxide processing and low internal electric fields for erase and programming operations produces reliable cycling.

The MX29LV320AT/B uses a 2.7V to 3.6V VCC supply to perform the High Reliability Erase and auto Program/Erase algorithms.

The highest degree of latch-up protection is achieved with MXIC's proprietary non-epi process. Latch-up protection is proved for stresses up to 100 milliamperes on address and data pin from -1V to VCC + 1V.

PIN CONFIGURATION

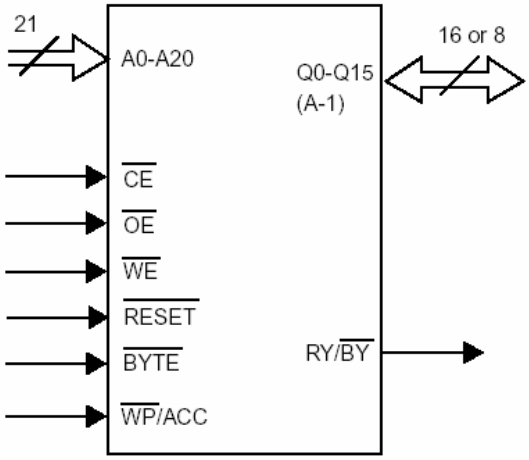
48 TSOP



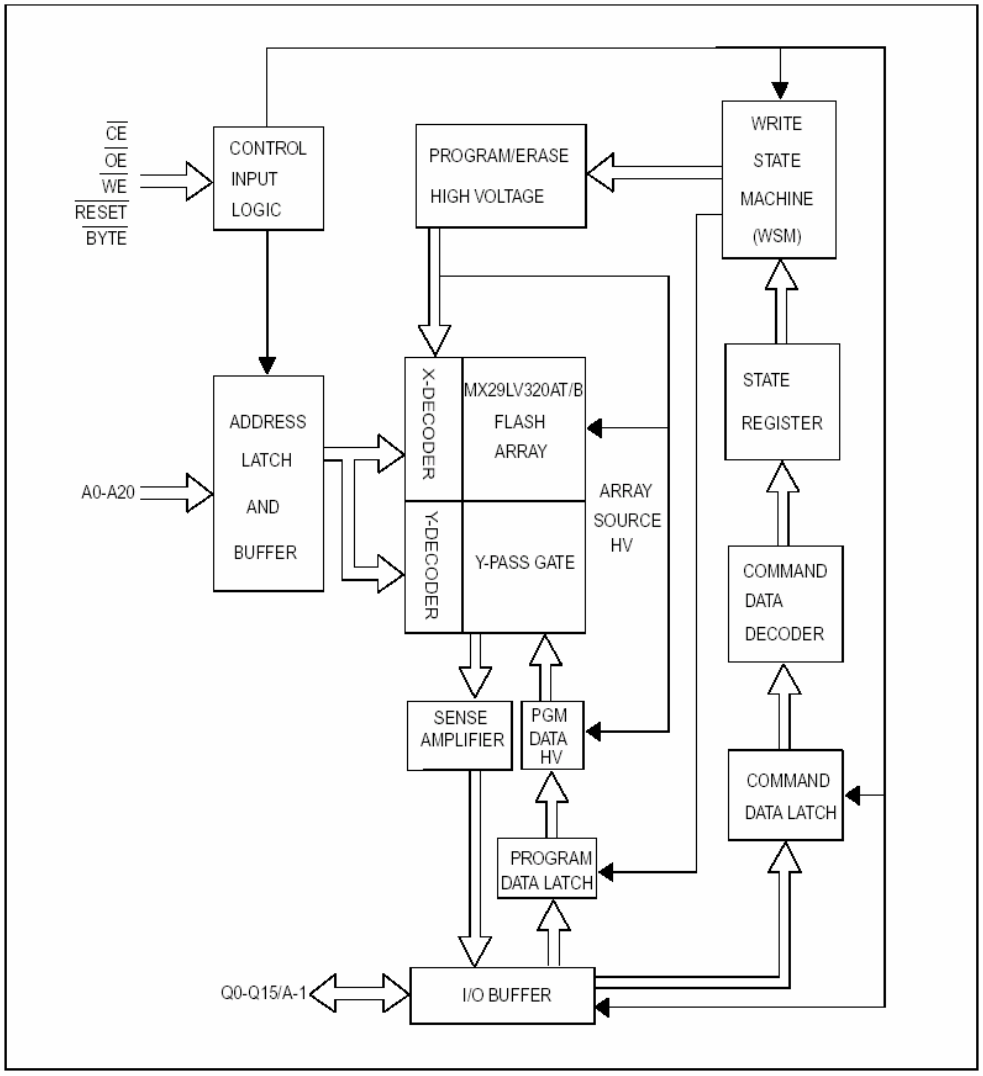
PIN DESCRIPTION

SYMBOL	PIN NAME
A0~A20	Address Input
Q0~Q14	15 Data Inputs/Outputs
Q15/A-1	Q15(Data Input/Output, word mode) A-1(LSB Address Input, byte mode)
$\overline{CE}$	Chip Enable Input
$\overline{WE}$	Write Enable Input
$\overline{OE}$	Output Enable Input
$\overline{BYTE}$	Word/Byte Selection Input
$\overline{RESET}$	Hardware Reset Pin, Active Low
RY/$\overline{BY}$	Read/Busy Output
VCC	3.0 volt-only single power supply
$\overline{WP}$/ACC	Hardware Write Protect/Acceleration Pin
GND	Device Ground
NC	Pin Not Connected Internally

LOGIC SYMBOL



7.15.1 BLOCK DIAGRAM



7.15.2 BUS OPERATION--1

Operation	$\overline{CE}$	$\overline{OE}$	$\overline{WE}$	$\overline{RESET}$	$\overline{WP}$/ACC	Addresses (Note 2)	Q0~Q7	Q8 ~ Q15	
								$\overline{Byte}$=VIH	$\overline{Byte}$=VIL
Read	L	L	H	H	L/H	A_{IN}	D_{OUT}	D_{OUT}	Q8-A14 =High-Z Q15=A-1
Write (Note 1)	L	H	L	H	Note 3	A_{IN}	D_{IN}	D_{IN}	
Accelerate Program	L	H	L	H	V_{HH}	A_{IN}	D_{IN}	D_{IN}	
Standby	VCC ± 0.3V	X	X	VCC ± 0.3V	H	X	High-Z	High-Z	High-Z
Output Disable	L	H	H	H	L/H	X	High-Z	High-Z	High-Z
Reset	X	X	X	L	L/H	X	High-Z	High-Z	High-Z
Sector Group Protect (Note 2)	L	H	L	V_{ID}	L/H	Sector Addresses, A6=L, A1=H, A0=L	D_{IN}, D_{OUT}	X	X
Chip Unprotect (Note 2)	L	H	L	V_{ID}	Note 3	Sector Addresses, A6=H, A1=H, A0=L	D_{IN}, D_{OUT}	X	X
Temporary Sector Group Unprotect	X	X	X	V_{ID}	Note 3	A_{IN}	D_{IN}	D_{IN}	High-Z

Legend:

L=Logic LOW=VIL, H=Logic High=VIH, VID=12.0 0.5V, VHH=11.5-12.5V, X=Don't Care, AIN=Address IN, DIN=Data IN,DOUT=Data OUT

Notes:

1. When the WP/ACC pin is at VHH, the device enters the accelerated program mode. See "Accelerated Program Operations" for more information.

2. The sector group protect and chip unprotect functions may also be implemented via programming equipment. See the "Sector Group Protection and Chip Unprotection" section.

3. If WP/ACC=VIL, the two outermost boot sectors remain protected. If WP/ACC=VIH, the two outermost boot sector protection depends on whether they were last protected or unprotected using the method described in "Sector/Sector Block Protection and Unprotection". If WP/ACC=VHH, all sectors will be unprotected.

4. DIN or Dout as required by command sequence, data polling, or sector protection algorithm.

5. Address are A20:A0 in word mode (BYTE=VIH), A20:A-1 in byte mode (BYTE=VIL).

7.15.3 BUS OPERATION--2

Operation	$\overline{CE}$	$\overline{OE}$	$\overline{WE}$	A20 to A12	A11 to A10	A9	A8 to A7	A6	A5 to A2	A1	A0	Q0-Q7	Q8-Q15
Read Silicon ID Manufacturer Code	L	L	H	X	X	V_{ID}	X	L	X	L	L	C2H	X
Read Silicon ID MX29LV320AT	L	L	H	X	X	V_{ID}	X	L	X	L	H	A7H	22h(word)
													X (byte)
Read Silicon ID MX29LV320AB	L	L	H	X	X	V_{ID}	X	L	X	L	H	A8H	22h(word)
													X (byte)
Sector Protect Verification	L	L	H	SA	X	V_{ID}	X	L	X	H	L	01h(1), or 00h	X
Security Sector Indicater Bit (Q7)	L	L	H	X	X	V_{ID}	X	L	X	H	H	99h(2), or 19h	X

Notes:

1.Code=00h means unprotected, or code=01h protected.

2.Code=99 means factory locked, or code=19h not factory locked.

7.15.4 WRITE COMMANDS/COMMAND SEQUENCES

To program data to the device or erase sectors of memory , the system must drive WE and CE to VIL, and OE to VIH.An erase operation can erase one sector, multiple sectors , or the entire device. A "sector address" consists of the address bits required to uniquely select a sector. Writing specific address and data commands or sequences into the command register initiates device operations. Table A defines the valid register command sequences. Writing incorrect address and data values or writing them in the improper sequence resets the device to reading array data. Section has details on erasing a sector or the entire chip, or suspending/resuming the erase operation.

After the system writes the Automatic Select command sequence, the device enters the Automatic Select mode. The system can then read Automatic Select codes from the internal register (which is separate from the memory array) on Q7-Q0. Standard read cycle timings apply in this mode. Refer to the Automatic Select Mode and Automatic Select Command Sequence section for more information.ICC2 in the DC Characteristics table represents the active current specification for the write mode. The "AC Characteristics" section contains timing specification table and timing diagrams for write operations.

7.15.5 TABLE A. MX29LV320AT/B COMMAND DEFINITIONS

Command		Bus	First Bus Cycle		Second Bus Cycle		Third Bus Cycle		Fourth Bus Cycle		Fifth Bus Cycle		Sixth Bus Cycle	
		Cycles	Addr	Data	Addr	Data	Addr	Data	Addr	Data	Addr	Data	Addr	Data
Read(Note 5)		1	RA	RD										
Reset(Note 4)		1	XXX	F0										
Automatic Select(Note 5)														
Manufacturer ID	Word	4	555	AA	2AA	55	555	90	X00	C2H				
	Byte	4	AAA	AA	555	55	AAA	90	X00	C2H				
Device ID	Word	4	555	AA	2AA	55	555	90	X01	ID				
	Byte	4	AAA	AA	555	55	AAA	90	X02					
Security Sector Factory	Word	4	555	AA	2AA	55	555	90	X03	99/19				
Protect Verify (Note 6)	Byte	4	AAA	AA	555	55	AAA	90	X06					
Sector Protect Verify	Word	4	555	AA	2AA	55	555	90	(SA)X02	00/01				
(Note 7)	Byte	4	AAA	AA	555	55	AAA	90	(SA)X04					
Enter Security Sector	Word	3	555	AA	2AA	55	555	88						
Region	Byte	3	AAA	AA	555	55	AAA	88						
Exit Security Sector	Word	4	555	AA	2AA	55	555	90	XXX	00				
	Byte	4	AAA	AA	555	55	AAA	90	XXX	00				
Program	Word	4	555	AA	2AA	55	555	A0	PA	PD				
	Byte	4	AAA	AA	555	55	AAA	A0	PA	PD				
Chip Erase	Word	6	555	AA	2AA	55	555	80	555	AA	2AA	55	555	10
	Byte	6	AAA	AA	555	55	AAA	80	AAA	AA	555	55	AAA	10
Sector Erase	Word	6	555	AA	2AA	55	555	80	555	AA	2AA	55	SA	30
	Byte	6	AAA	AA	555	55	AAA	80	AAA	AA	555	55	SA	30
CFI Query (Note 8)	Word	1	55	98										
	Byte	1	AA	98										
Erase Suspend(Note 9)		1	SA	B0										
Erase Resume(Note 10)		1	SA	30										

Legend:

X=Don't care
RA=Address of the memory location to be read.
RD=Data read from location RA during read operation.
PA=Address of the memory location to be programmed.
Addresses are latched on the falling edge of the WE or CE pulse.
PD=Data to be programmed at location PA. Data is latched on the rising edge of WE or CE pulse.
SA=Address of the sector to be erased or verified. Address bits A20-A12 uniquely select any sector.
ID=22A7h(Top), 22A8h(Bottom)

Notes:

1.All values are in hexadecimal.
2.Except when reading array or Automatic Select data, all bus cycles are write operation.
3.The Reset command is required to return to the read mode when the device is in the Automatic Select mode or if Q5 goes high.
4.The fourth cycle of the Automatic Select command sequence is a read cycle.
5.The data is 99h for factory locked and 19h for not factory locked.
6.The data is 00h for an unprotected sector/sector block and 01h for a protected sector/sector block. In the third cycle of the command sequence, address bit A20=0 to verify sectors 0~31, A20=1 to verify sectors 32~70 for Top Boot device.
7.Command is valid when device is ready to read array data or when device is in Automatic Select mode.
8.The system may read and program functions in non-erasing sectors, or enter the Automatic Select mode, when in the erase Suspend mode. The Erase Suspend command is valid only during a sector erase operation.
9.The Erase Resume command is valid only during the Erase Suspend mode.

7.15.6 STANDBY MODE

MX29LV320AT/B can be set into Standby mode with two different approaches. One is using both CE and RESET pins and the other one is using RESET pin only.

When using both pins of CE and RESET, a CMOS Standby mode is achieved with both pins held at Vcc ±0.3V. Under this condition, the current consumed is less than 0.2uA (typ.). If both of the CE and RESET are held at VIH, but not within the range of VCC ± 0.3V, the device will still be in the standby mode, but the standby current will be larger. During Auto Algorithm operation, Vcc active current (ICC2) is required even CE = "H" until the operation is completed. The device can be read with standard access time (tCE) from either of these standby modes.

When using only RESET, a CMOS standby mode is achieved with RESET input held at Vss ± 0.3V, Under this condition the current is consumed less than 1uA (typ.). Once the RESET pin is taken high, the device is back to active without recovery delay. In the standby mode the outputs are in the high impedance state, independent of the OE input.MX29LV320AT/B is capable to provide the Automatic Standby Mode to restrain power consumption during readout of data. This mode can be used effectively with an application requested low power consumption such as handy terminals.

To active this mode, MX29LV320AT/B automatically switch themselves to low power mode when MX29LV320AT/B addresses remain stable during access time of tACC+30ns. It is not necessary to control CE, WE, and OE on the mode. Under the mode, the current consumed is typically 0.2uA (CMOS level).

7.15.7 RESET OPERATION

The RESET pin provides a hardware method of resetting the device to reading array data. When the RESET pin is driven low for at least a period of tRP, the device immediately terminates any operation in progress, tristates all output pins, and ignores all read/write commands for the duration of the RESET pulse. The device also resets the internal state machine to reading array data. The operation that was interrupted should be reinitiated once the device is ready to accept another command sequence, to ensure data integrity.

Current is reduced for the duration of the RESET pulse. When RESET is held at VSS 0.3V, the device draws CMOS standby current (ICC4). If RESET is held at VIL but not within VSS 0.3V, the standby current will be greater.The RESET pin may be tied to system reset circuitry. A system reset would that also reset the Flash memory, enabling the system to read the boot-up firm-ware from the Flash memory.

If RESET is asserted during a program or erase operation, the RY/BY pin remains a "0" (busy) until the internal reset operation is complete, which requires a time of tREADY (during Embedded Algorithms). The system can thus monitor RY/BY to determine whether the reset operation is complete. If RESET is asserted when a program or erase operation is not executing (RY/BY pin is "1"), the reset operation is completed within a time of tREADY (not during Embedded Algorithms). The system can read data tRH after the RESET pin returns to VIH. Refer to the AC Characteristics tables for RESET parameters and to Figure 14 for the timing diagram.

7.15.8 WRITE PROTECT (WP)

The write protect function provides a hardware method to protect boot sectors without using VID.

If the system asserts VIL on the WP/ACC pin, the device disables program and erase functions in the two "outermost" 8 Kbyte boot sectors independently of whether those sectors were protected or unprotected using the method described in Sector/Sector Group Protection and Chip Unprotection". The two outermost 8 Kbyte boot sectors are the two sectors containing the lowest addresses in a bottom-boot-configured device, or the two sectors containing the highest addresses in a top-boot-configured device.

If the system asserts VIH on the WP/ACC pin, the device reverts to whether the two outermost 8K Byte boot sectors were last set to be protected or unprotected. That is, sector protection or unprotection for these two sectors depends on whether they were last protected or unprotected using the method described in "Sector/Sector Group Protection and Chip Unprotection".

Note that the WP/ACC pin must not be left floating or unconnected; inconsistent behavior of the device may result.

7.15.9 SOFTWARE COMMAND DEFINITIONS :

Device operations are selected by writing specific address and data sequences into the command register. Writing incorrect address and data values or writing them in the improper sequence will reset the device to the read mode. Table 3 defines the valid register command sequences. Note that the Erase Suspend (B0H) and Erase Resume (30H) commands are valid only while the Sector Erase operation is in progress. Either of the two reset command sequences will reset the device (whenapplicable).

All addresses are latched on the falling edge of WE or CE, whichever happens later. All data are latched on rising edge of WE or CE, whichever happens first.

7.15.10 WRITE OPERATION STATUS

The device provides several bits to determine the status of a write operation: Q2, Q3, Q5, Q6, Q7, and RY/BY.Table B and the following subsections describe the functions of these bits. Q7, RY/BY, and Q6 each offer a method for determining whether a program or erase operation is complete or in progress. These three bits are discussed first.

Table B. Write Operation Status

	Status		Q7 Note1	Q6	Q5 Note2	Q3	Q2	RY/$\overline{BY}$
In Progress	Byte/Word Program in Auto Program Algorithm		$\overline{Q7}$	Toggle	0	N/A	No Toggle	0
	Auto Erase Algorithm		0	Toggle	0	1	Toggle	0
	Erase Suspended Mode	Erase Suspend Read (Erase Suspended Sector)	1	No Toggle	0	N/A	Toggle	1
		Erase Suspend Read (Non-Erase Suspended Sector)	Data	Data	Data	Data	Data	1
		Erase Suspend Program	$\overline{Q7}$	Toggle	0	N/A	N/A	0
Exceeded Time Limits	Byte/Word Program in Auto Program Algorithm		$\overline{Q7}$	Toggle	1	N/A	No Toggle	0
	Auto Erase Algorithm		0	Toggle	1	1	Toggle	0
	Erase Suspend Program		$\overline{Q7}$	Toggle	1	N/A	N/A	0

Notes:

1.Performing successive read operations from the erase-suspended sector will cause Q2 to toggle.
2.Performing successive read operations from any address will cause Q6 to toggle.
3.Reading the byte/word address being programmed while in the erase-suspend program mode will indicate logic "1" at the Q2 bit.
However, successive reads from the erase-suspended sector will cause Q2 to toggle.

Fig C. COMMAND WRITE OPERATION

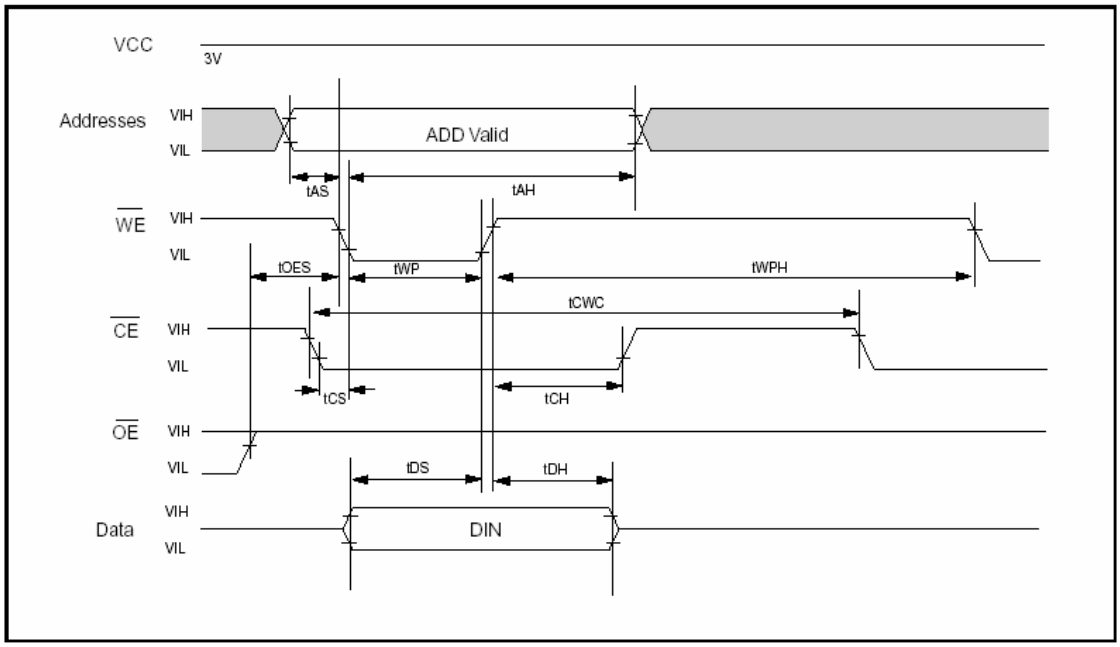
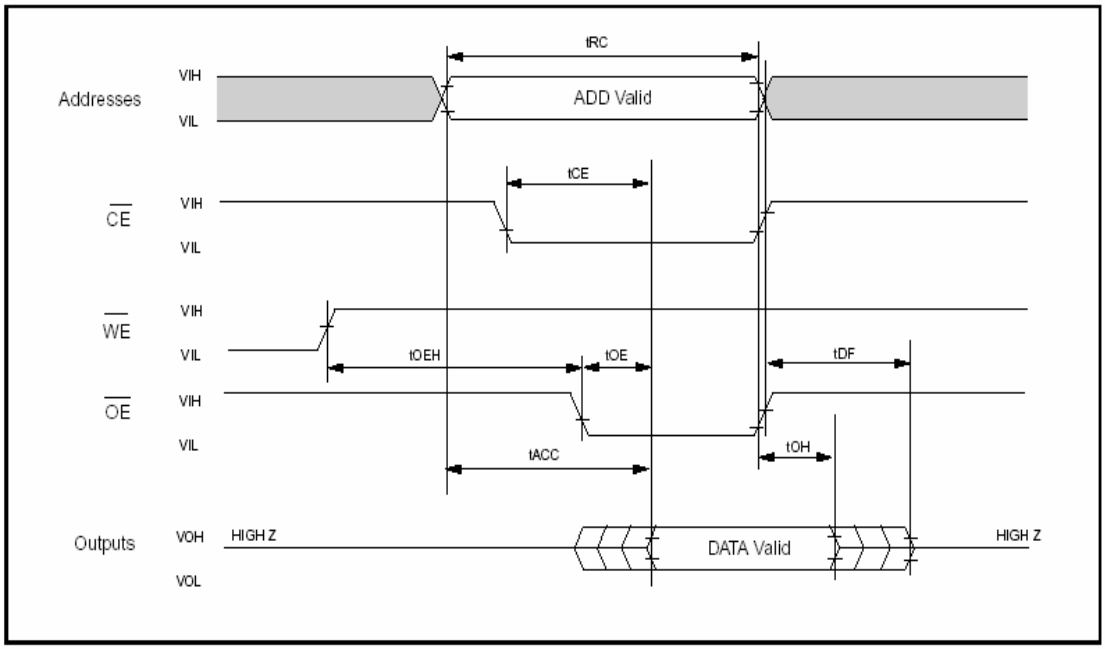


Fig D. READ TIMING WAVEFORMS

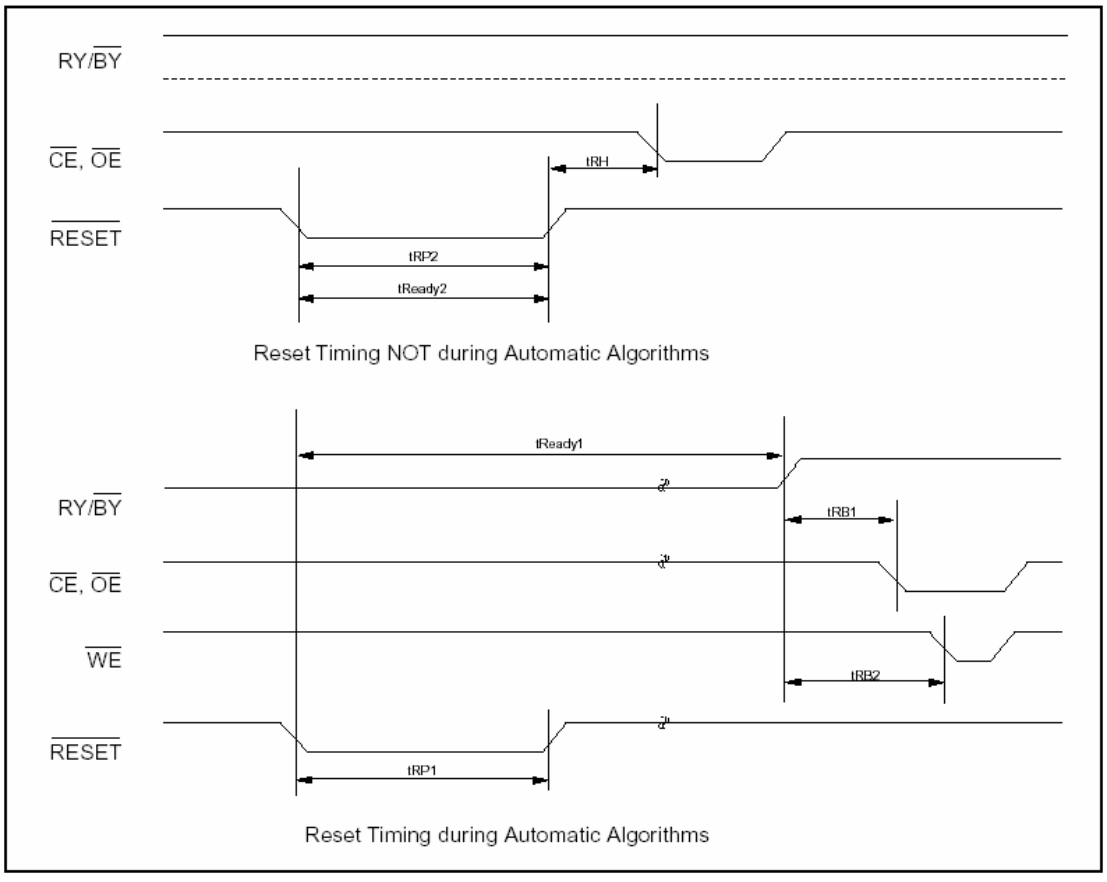


AC CHARACTERISTICS

Parameter	Description	Test Setup	All Speed Options	Unit
tREADY1	$\overline{\text{RESET}}$ PIN Low (During Automatic Algorithms) to Read or Write (See Note)	MAX	20	us
tREADY2	$\overline{\text{RESET}}$ PIN Low (NOT During Automatic Algorithms) to Read or Write (See Note)	MAX	500	ns
tRP1	$\overline{\text{RESET}}$ Pulse Width (During Automatic Algorithms)	MIN	10	us
tRP2	$\overline{\text{RESET}}$ Pulse Width (NOT During Automatic Algorithms)	MIN	500	ns
tRH	$\overline{\text{RESET}}$ High Time Before Read(See Note)	MIN	70	ns
tRB1	RY/$\overline{\text{BY}}$ Recovery Time(to $\overline{\text{CE}}$, $\overline{\text{OE}}$ go low)	MIN	0	ns
tRB2	RY/$\overline{\text{BY}}$ Recovery Time(to $\overline{\text{WE}}$ go low)	MIN	50	ns

Note:Not 100% tested

Fig E. RESET TIMING WAVEFORM

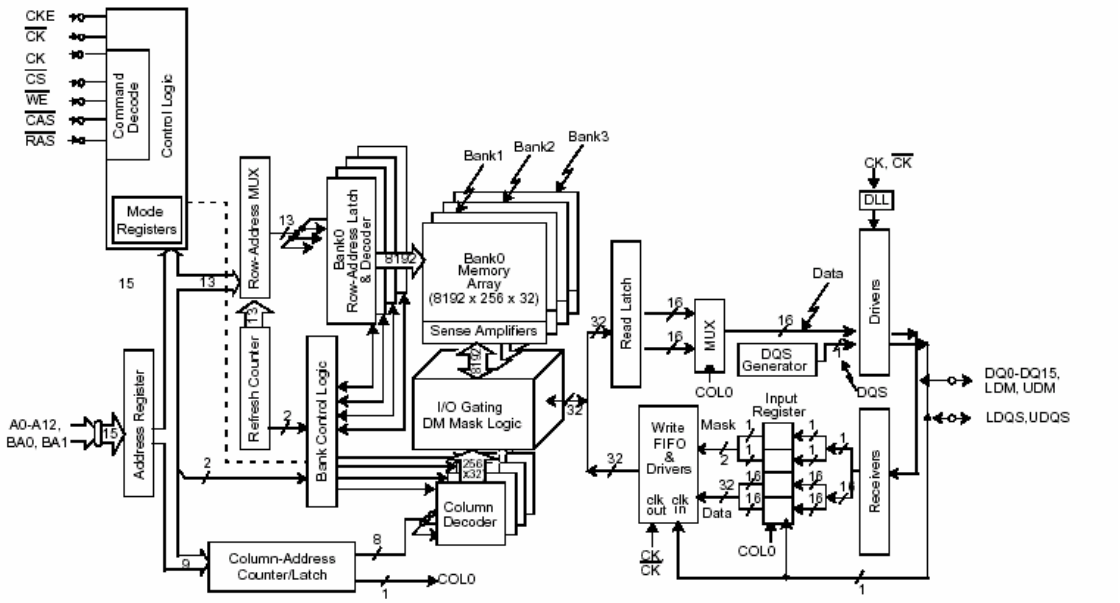


7.16 DDR SDRAM (NT5DS16M16CS-5T) Application:

Functional Description

The 256Mb DDR SDRAM is a high-speed CMOS, dynamic random-access memory containing 268, 435, 456 bits. The 256Mb DDR SDRAM is internally configured as a quad-bank DRAM. The 256Mb DDR SDRAM uses a double-data-rate architecture to achieve high-speed operation. The double-data-rate architecture is essentially a *2n* prefetch architecture, with an interface designed to transfer two data words per clock cycle at the I/O pins. A single read or write access for the 256Mb DDR SDRAM consists of a single *2n*-bit wide, one clock cycle data transfer at the internal DRAM core and two corresponding n-bit wide, one-half clock cycle data transfers at the I/O pins. Read and write accesses to the DDR SDRAM are burst oriented; accesses start at a selected location and continue for a programmed number of locations in a programmed sequence. Accesses begin with the registration of an Active command, which is then followed by a Read or Write command. The address bits registered coincident with the Active command are used to select the bank and row to be accessed (BA0, BA1 select the bank; A0-A12 select the row). The address bits registered coincident with the Read or Write command are used to select the starting column location for the burst access.Prior to normal operation, the DDR SDRAM must be initialized. The following sections provide detailed information covering device initialization, register definition, command descriptions and device operation.

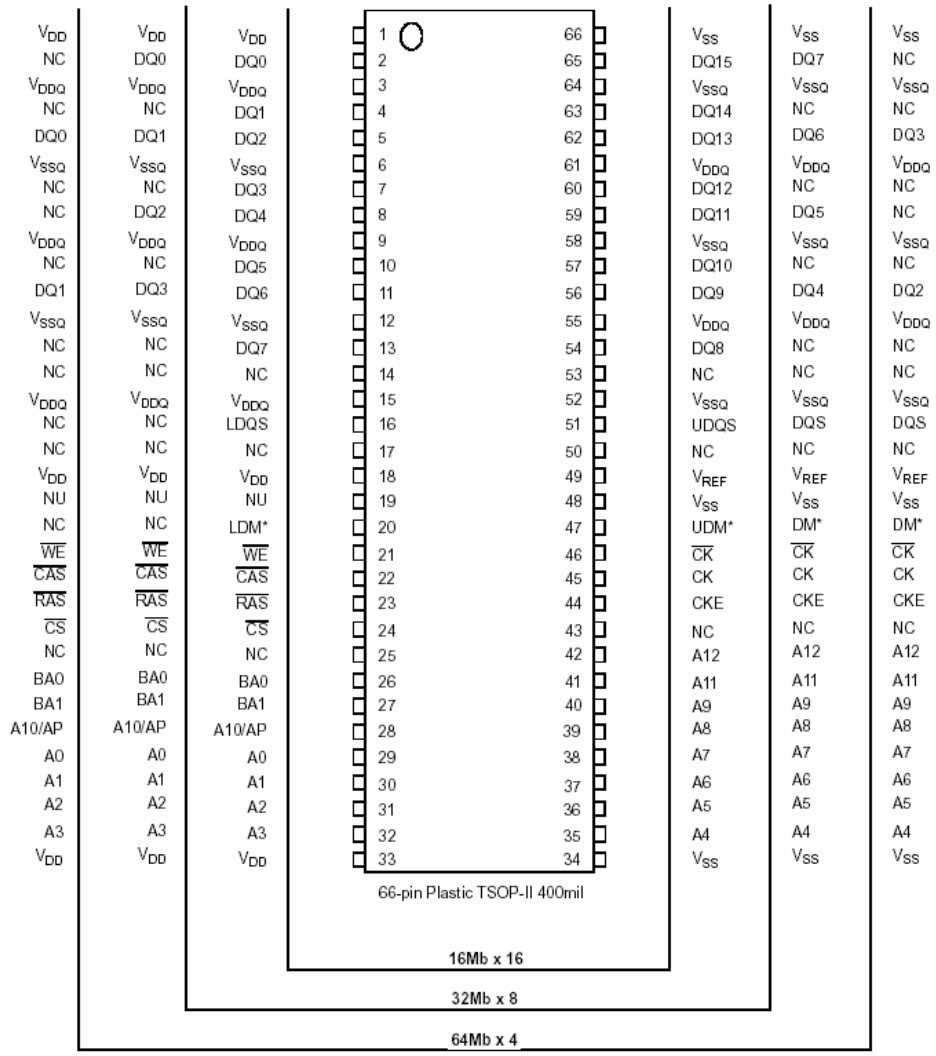
7.16.1 Block Diagram (16Mb x 16)



Note: This Functional Block Diagram is intended to facilitate user understanding of the operation of the device; it does not represent an actual circuit implementation.

Note: DM is a unidirectional signal (input only), but is internally loaded to match the load of the bidirectional DQ and DQS signals.

7.16.2 Pin Configuration - 400mil TSOP II (x4 / x8 / x16)

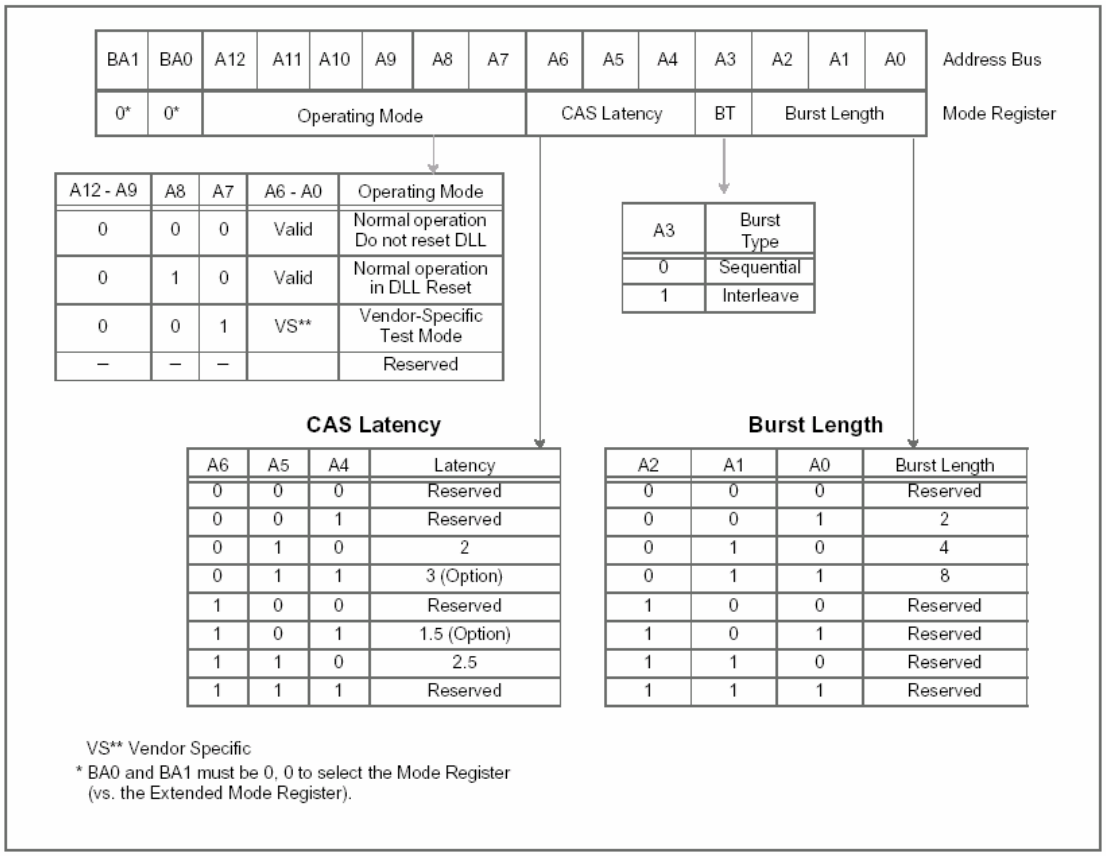


Column Address Table

Organization	Column Address
64Mb x 4	A0-A9, A11
32Mb x 8	A0-A9
16Mb x 16	A0-A8

*DM is internally loaded to match DQ and DQS identically.

7.16.3 Mode Register Operation



BA1	BA0	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0	
0*	0*	Operating Mode						CAS Latency			BT	Burst Length			Mode Register

A12 - A9	A8	A7	A6 - A0	Operating Mode
0	0	0	Valid	Normal operation Do not reset DLL
0	1	0	Valid	Normal operation in DLL Reset
0	0	1	VS**	Vendor-Specific Test Mode
–	–	–		Reserved

A3	Burst Type
0	Sequential
1	Interleave

CAS Latency

A6	A5	A4	Latency
0	0	0	Reserved
0	0	1	Reserved
0	1	0	2
0	1	1	3 (Option)
1	0	0	Reserved
1	0	1	1.5 (Option)
1	1	0	2.5
1	1	1	Reserved

Burst Length

A2	A1	A0	Burst Length
0	0	0	Reserved
0	0	1	2
0	1	0	4
0	1	1	8
1	0	0	Reserved
1	0	1	Reserved
1	1	0	Reserved
1	1	1	Reserved

VS** Vendor Specific

* BA0 and BA1 must be 0, 0 to select the Mode Register (vs. the Extended Mode Register).

7.16.3.1 Operating Mode

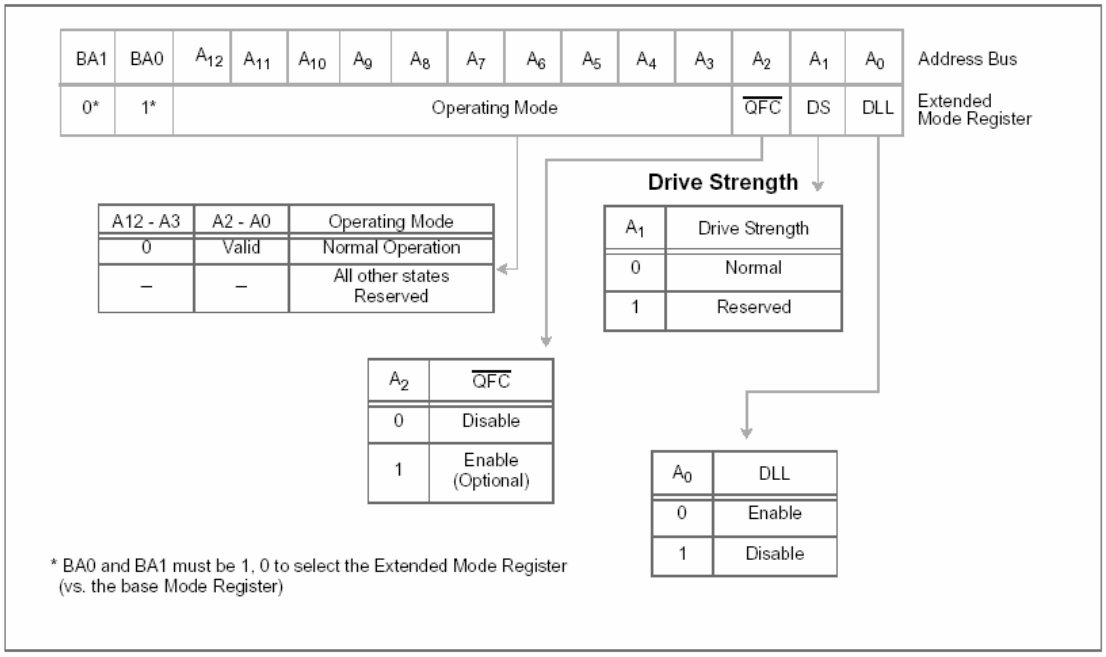
The normal operating mode is selected by issuing a Mode Register Set Command with bits A7-A12 to zero, and bits A0-A6 set to the desired values. A DLL reset is initiated by issuing a Mode Register Set command with bits A7 and A9-A12 each set to zero, bit A8 set to one, and bits A0-A6 set to the desired values. A Mode Register Set command issued to reset the DLL should always be followed by a Mode Register Set command to select normal operating mode.

All other combinations of values for A7-A12 are reserved for future use and/or test modes. Test modes and reserved states should not be used as unknown operation or incompatibility with future versions may result.

7.16.4 Extended Mode Register

The Extended Mode Register controls functions beyond those controlled by the Mode Register; these additional functions include DLL enable/disable, bit A0; output drive strength selection, bit A1; and QFC output enable/disable, bit A2 (NTC optional). These functions are controlled via the bit settings shown in the Extended Mode Register Definition. The Extended Mode Register is programmed via the Mode Register Set command (with BA0 = 1 and BA1 = 0) and retains the stored information until it is programmed again or the device loses power. The Extended Mode Register must be loaded when all banks are idle, and the controller must wait the specified time before initiating any subsequent operation. Violating either of these requirements result in unspecified operation.

7.16.4.1 Extended Mode Register Definition



7.16.4.2 Truth Table a: Commands

Name (Function)	$\overline{CS}$	$\overline{RAS}$	$\overline{CAS}$	$\overline{WE}$	Address	MNE	Notes
Deselect (Nop)	H	X	X	X	X	NOP	1, 9
No Operation (Nop)	L	H	H	H	X	NOP	1, 9
Active (Select Bank And Activate Row)	L	L	H	H	Bank/Row	ACT	1, 3
Read (Select Bank And Column, And Start Read Burst)	L	H	L	H	Bank/Col	Read	1, 4
Write (Select Bank And Column, And Start Write Burst)	L	H	L	L	Bank/Col	Write	1, 4
Burst Terminate	L	H	H	L	X	BST	1, 8
Precharge (Deactivate Row In Bank Or Banks)	L	L	H	L	Code	PRE	1, 5
Auto Refresh Or Self Refresh (Enter Self Refresh Mode)	L	L	L	H	X	AR / SR	1, 6, 7
Mode Register Set	L	L	L	L	Op-Code	MRS	1, 2

1. CKE is high for all commands shown except Self Refresh.
2. BA0, BA1 select either the Base or the Extended Mode Register (BA0 = 0, BA1 = 0 selects Mode Register; BA0 = 1, BA1 = 0 selects ,Extended Mode Register; other combinations of BA0-BA1 are reserved; A0-A12 provide the op-code to be written to the selected Mode Register.)
3. BA0-BA1 provide bank address and A0-A12 provide row address.
4. BA0, BA1 provide bank address; A0-A*i* provide column address (where *i* = 9 for x8 and 9, 11 for x4); A10 high enables the Auto Precharge feature (non-persistent), A10 low disables the Auto Precharge feature.
5. A10 LOW: BA0, BA1 determine which bank is precharged.A10 HIGH: all banks are precharged and BA0, BA1 are “Don’t Care.”
6. This command is auto refresh if CKE is high; Self Refresh if CKE is low.
7. Internal refresh counter controls row and bank addressing; all inputs and I/Os are “Don’t Care” except for CKE.
8. Applies only to read bursts with Auto Precharge disabled; this command is undefined (and should not be used) for read bursts with Auto Precharge enabled or for write bursts
9. Deselect and NOP are functionally interchangeable.

7.16.4.2.1 Active

The Active command is used to open (or activate) a row in a particular bank for a subsequent access. The value on the BA0,BA1 inputs selects the bank, and the address provided on inputs A0-A12 selects the row. This row remains active (or open) for accesses until a Precharge (or Read or Write with Auto Precharge) is issued to that bank. A Precharge (or Read or Write with Auto Precharge) command must be issued and completed before opening a different row in the same bank.

7.16.4.2.2 Read

The Read command is used to initiate a burst read access to an active (open) row. The value on the BA0, BA1 inputs selects the bank, and the address provided on inputs A0-Ai, Aj (where [i = 9, j = don't care] for x8; where [i = 9, j = 11] for x4) selects the starting column location. The value on input A10 determines whether or not Auto Precharge is used. If Auto Precharge is selected, the row being accessed is precharged at the end of the Read burst; if Auto Precharge is not selected, the row remains open for subsequent accesses.

7.16.4.2.3 Write

The Write command is used to initiate a burst write access to an active (open) row. The value on the BA0, BA1 inputs selects the bank, and the address provided on inputs A0-Ai, Aj (where [i = 9, j = don't care] for x8; where [i = 9, j = 11] for x4) selects the starting column location. The value on input A10 determines whether or not Auto Precharge is used. If Auto Precharge is selected, the row being accessed is precharged at the end of the Write burst; if Auto Precharge is not selected, the row remains open for subsequent accesses. Input data appearing on the DQs is written to the memory array subject to the DM input logic level appearing coincident with the data. If a given DM signal is registered low, the corresponding data is written to memory; if the DM signal is registered high, the corresponding data inputs are ignored, and a Write is not executed to that byte/column location.

7.16.4.2.4 Auto Refresh

Auto Refresh is used during normal operation of the DDR SDRAM and is analogous to CAS Before RAS (CBR) Refresh in previous DRAM types. This command is nonpersistent, so it must be issued each time a refresh is required.The refresh addressing is generated by the internal refresh controller. This makes the address bits "Don't Care" during an Auto Refresh command. The 256Mb DDR SDRAM requires Auto Refresh cycles at an average periodic interval of 7.8µs (maximum).

7.16.4.2.5 Self Refresh

The Self Refresh command can be used to retain data in the DDR SDRAM, even if the rest of the system is powered down.When in the self refresh mode, the DDR SDRAM retains data without external clocking. The Self Refresh command is initiated as an Auto Refresh command coincident with CKE transitioning low. The DLL is automatically disabled upon entering Self Refresh, and is automatically enabled upon exiting Self Refresh (200 clock cycles must then occur before a Read command can be issued). Input signals except CKE (low) are "Don't Care" during Self Refresh operation.

The procedure for exiting self refresh requires a sequence of commands. CK (and CK) must be stable prior to CKE returning high. Once CKE is high, the SDRAM must have NOP commands issued for tXSNR because time is required for the completion of any internal refresh in progress. A simple algorithm for meeting both refresh and DLL requirements is to apply NOPs for 200 clock cycles before applying any other command.

7.16.4.2.6 Operations:

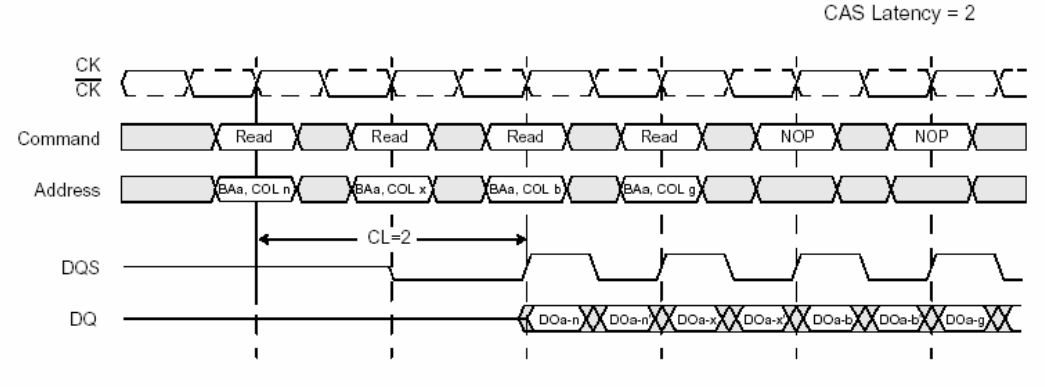
Reads

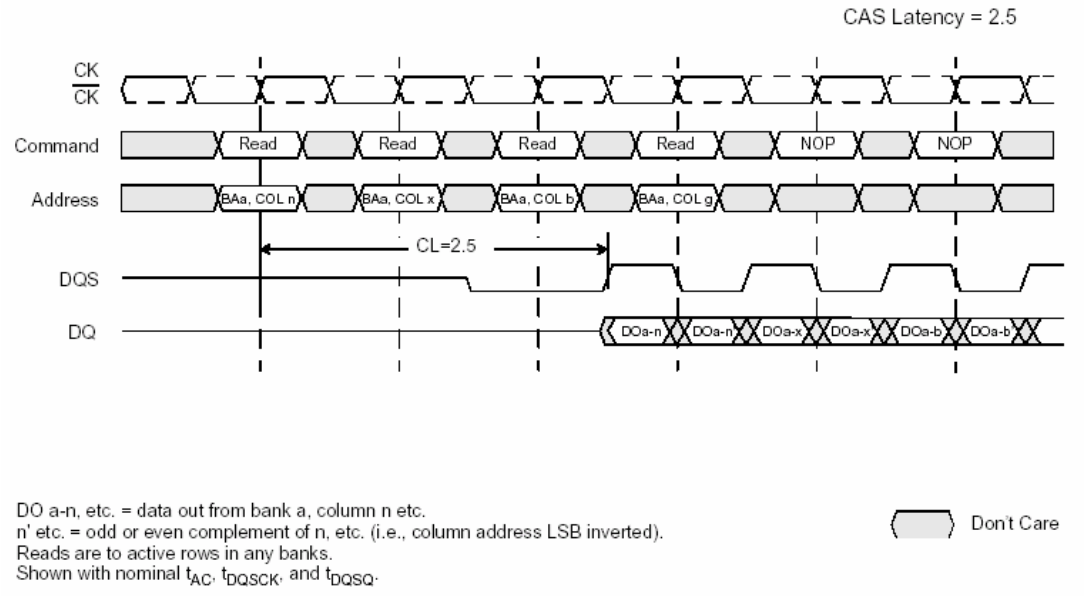
Subsequent to programming the mode register with CAS latency, burst type, and burst length, Read bursts are initiated with a Read command.

The starting column and bank addresses are provided with the Read command and Auto Precharge is either enabled or disabled for that burst access. If Auto Precharge is enabled, the row that is accessed starts precharge at the completion of the burst, provided tRAS has been satisfied. For the generic Read commands used in the following illustrations, Auto Precharge is disabled.

During Read bursts, the valid data-out element from the starting column address is available following the CAS latency after the Read command. Each subsequent data-out element is valid nominally at the next positive or negative clock edge (i.e. at the next crossing of CK and CK). The following timing figure entitled “Read Burst: CAS Latencies (Burst Length=4)” illustrates the general timing for each supported CAS latency setting. DQS is driven by the DDR SDRAM along with output data. The initial low state on DQS is known as the read preamble; the low state coincident with the last data-out element is known as the read postamble . Upon completion of a burst, assuming no other commands have been initiated, the DQs and DQS goes High-Z. Data from any Read burst may be concatenated with or truncated with data from a subsequent Read command. In either case, a continuous flow of data can be maintained. The first data element from the new burst follows either the last element of a completed burst or the last desired data element of a longer burst which is being truncated. The new Read command should be issued x cycles after the first Read command, where x equals the number of desired data element pairs (pairs are required by the 2n prefetch architecture). This is shown in timing figure entitled “Consecutive Read Bursts: CAS Latencies (Burst Length =4 or 8)”.A Read command can be initiated on any positive clock cycle following a previous Read command. Nonconsecutive Read data is shown in timing figure entitled “Non-Consecutive Read Bursts: CAS Latencies (Burst Length = 4)”. Full-speed Random Read Accesses: CAS Latencies (Burst Length = 2, 4 or 8) within a page (or pages) can be performed as shown on following:

Random Read Accesses: CAS Latencies (Burst Length = 2, 4 or 8)

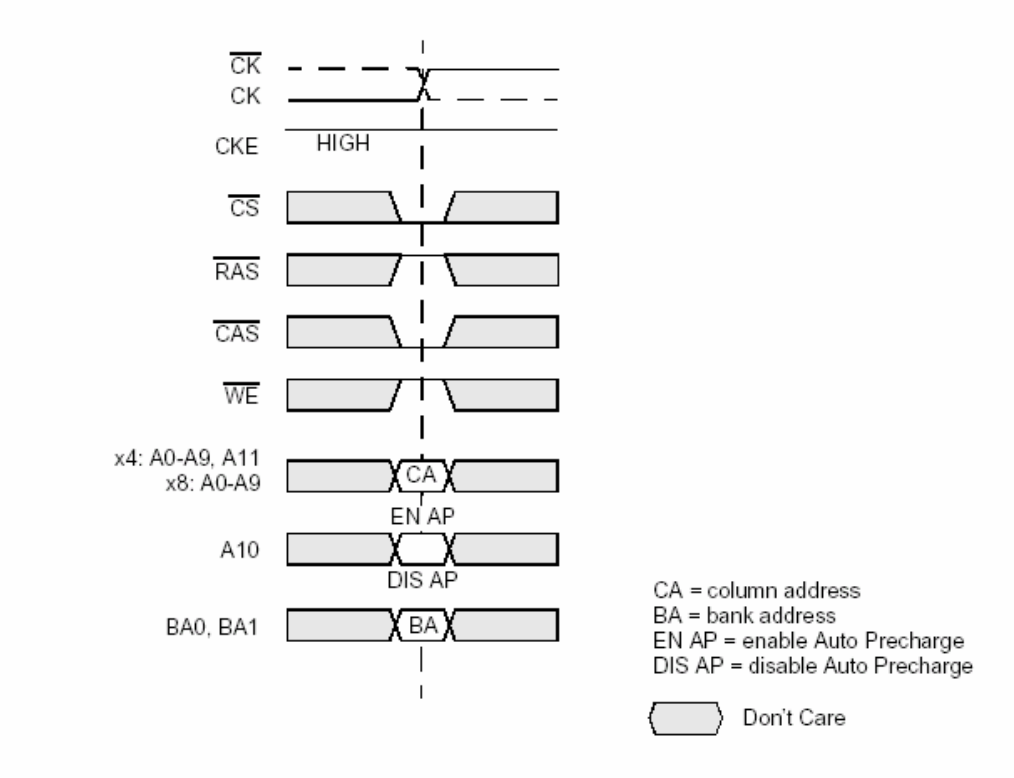




DO a-n, etc. = data out from bank a, column n etc.
n' etc. = odd or even complement of n, etc. (i.e., column address LSB inverted).
Reads are to active rows in any banks.
Shown with nominal t_{AC}, t_{DQSCK}, and t_{DQSQ}.

Don't Care

Read Command



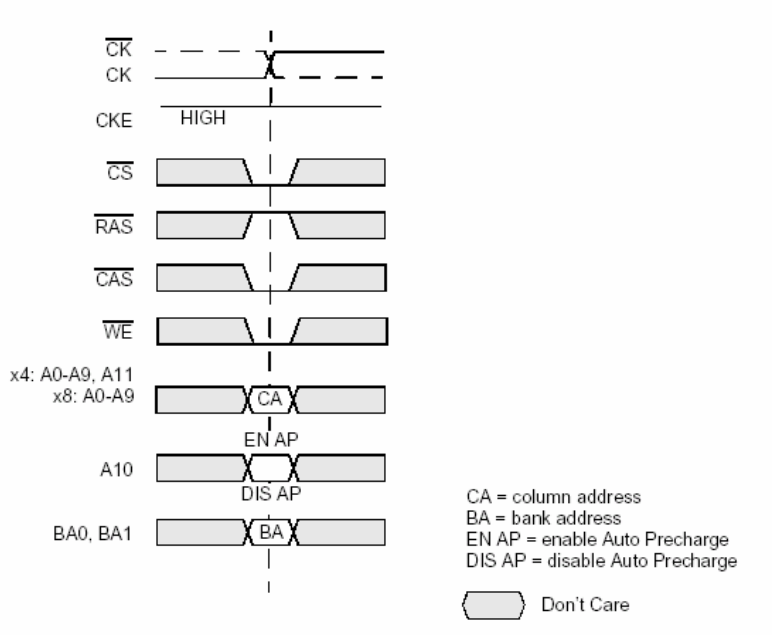
Writes

Write bursts are initiated with a Write command, as shown in timing figure *Write Command* on following: The starting column and bank addresses are provided with the Write command, and Auto Precharge is either enabled or disabled for that access. If Auto Precharge is enabled, the row being accessed is precharged at the completion of the burst. For the generic Write commands used in the following illustrations, Auto Precharge is disabled.

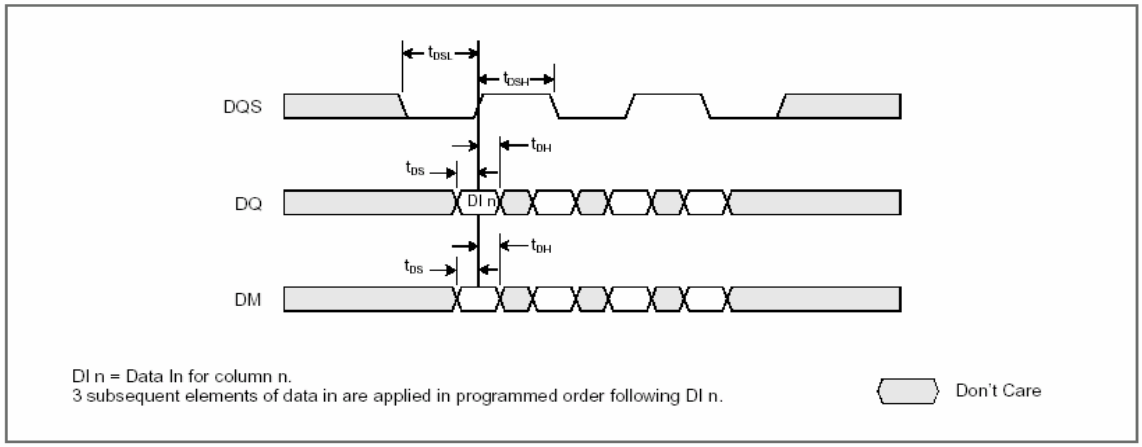
During Write bursts, the first valid data-in element is registered on the first rising edge of DQS following the write command, and subsequent data elements are registered on successive edges of DQS. The Low state on DQS between the Write command and the first rising edge is known as the write preamble; the Low state on DQS following the last data-in element is known as the write postamble.

The time between the Write command and the first corresponding rising edge of DQS (tDQSS) is specified with a relatively wide range (from 75% to 125% of one clock cycle), so most of the Write diagrams that follow are drawn for the two extreme cases (i.e. tDQSS(min) and tDQSS(max)). Timing figure *Write Burst (Burst Length = 4)* on page 33 shows the two extremes of tDQSS for a burst of four. Upon completion of a burst, assuming no other commands have been initiated, the DQs and DQS enters High-Z and any additional input data is ignored.Data for any Write burst may be concatenated with or truncated with a subsequent Write command. In either case, a continuous flow of input data can be maintained. The new Write command can be issued on any positive edge of clock following the previous Write command. The first data element from the new burst is applied after either the last element of a completed burst or the last desired data element of a longer burst which is being truncated. The new Write command should be issued x cycles after the first Write command, where x equals the number of desired data element pairs (pairs are required by the 2n prefetch architecture).

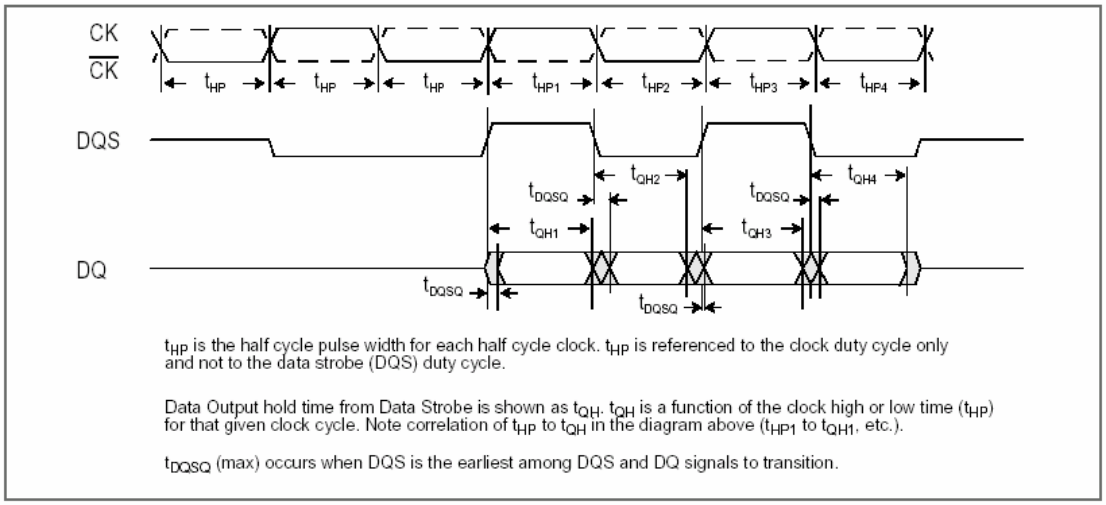
Write Command



Data Input (Write)



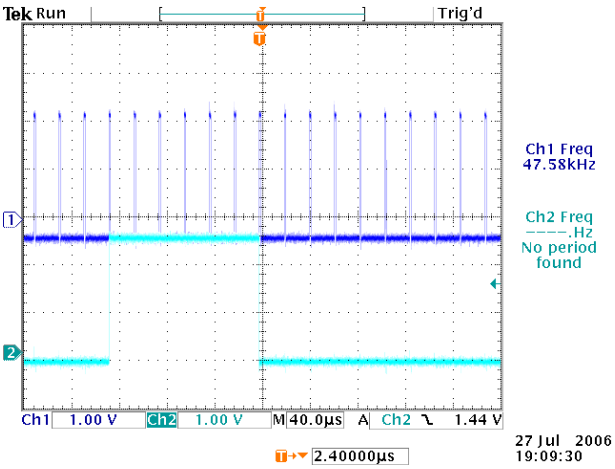
Data Output (Read)



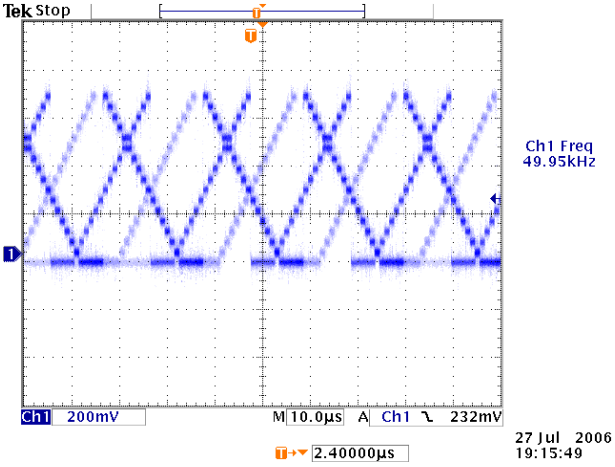
Chapter8 Waveforms

PC MODE(1360X768 60HZ)

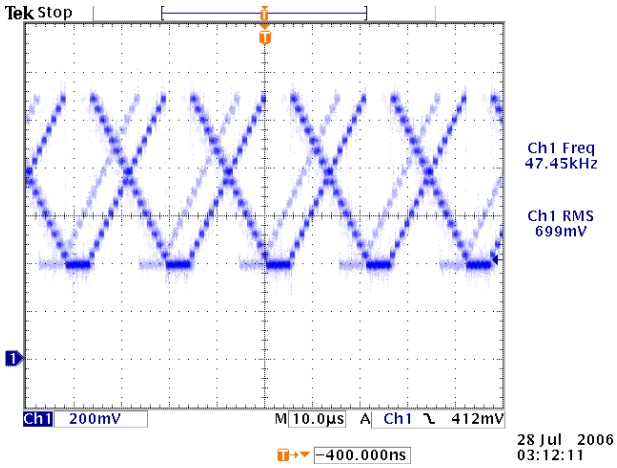
CH1 H-sync (L21); CH2 V-sync (L22)



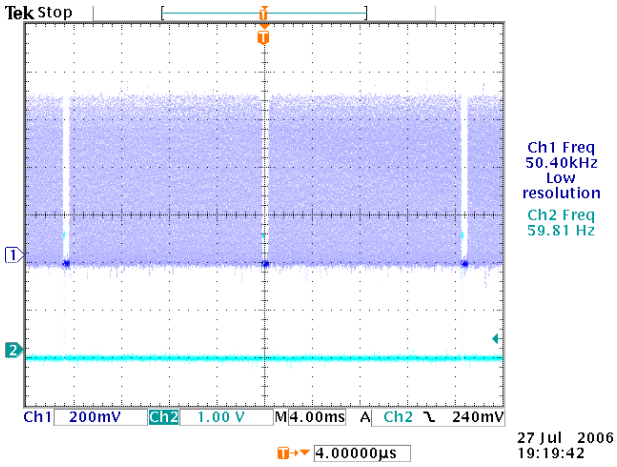
CH1 GREEN (FB27)



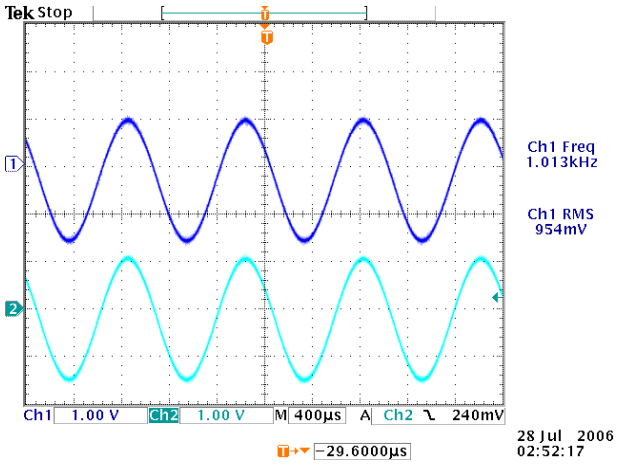
CH1 GREEN+(C294)



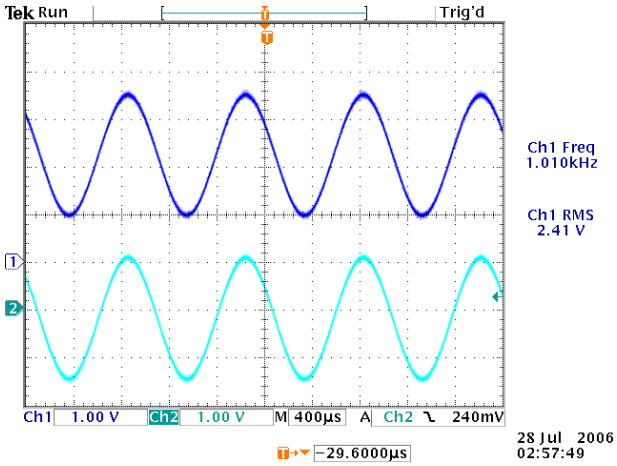
CH1 GREEN # (FB27); CH2 VGAVSYNC (L22)



CH1 VGAL (R193); CH2 AVOL (R194)

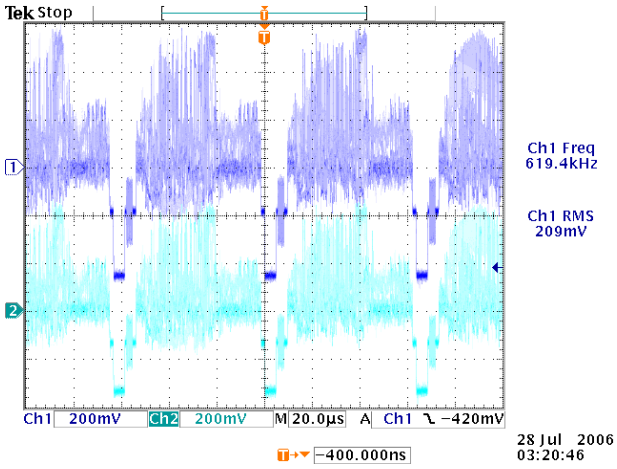


CH1 PC_L (CE70+) ; PC_L (CE70-)

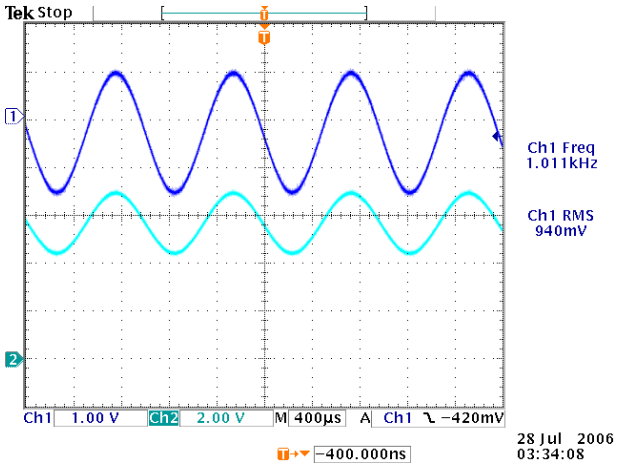


AV&TV MODE (AV1/AV2/TV) VIDEO

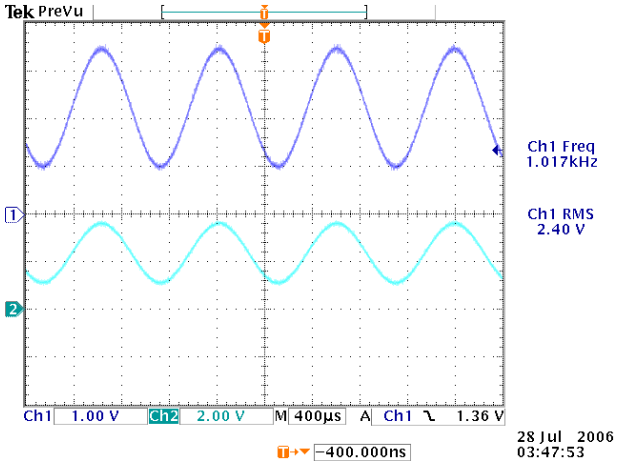
CH1 CVBS2 (R169); CH2 AV2CVBS (C255)



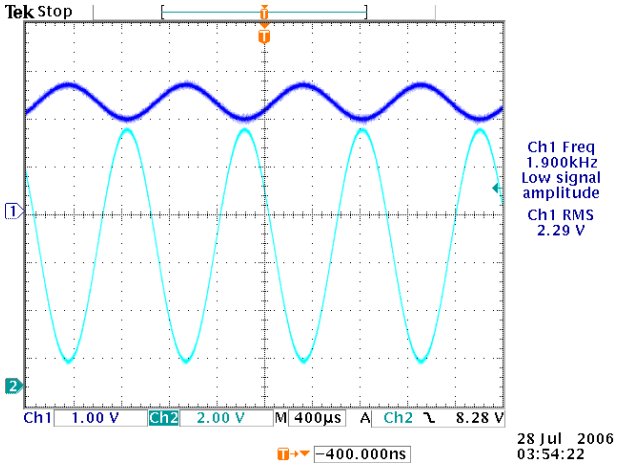
CH1 AV2L (R237); CH2 AV2L (U22 PIN14)



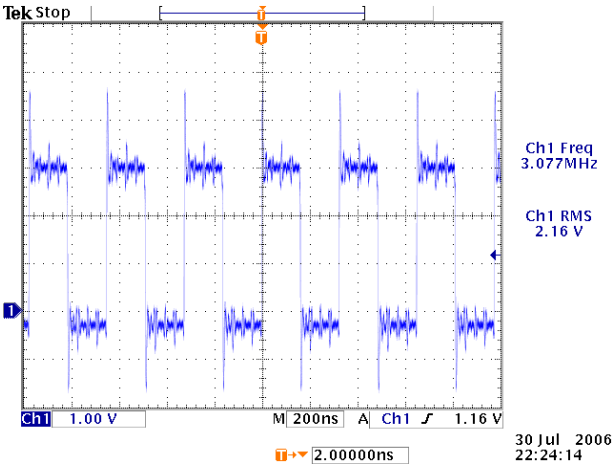
CH1 AV_L (U22 PIN13) ; CH2 AV_L (CE71-)



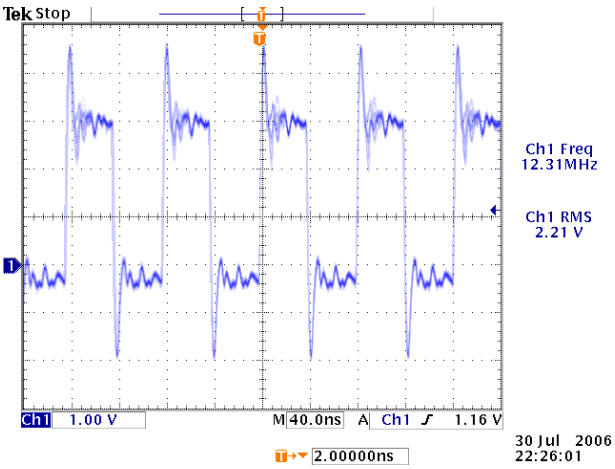
CH1 AUSPL (R302);CH2 OUT2+5(J4 PIN4)



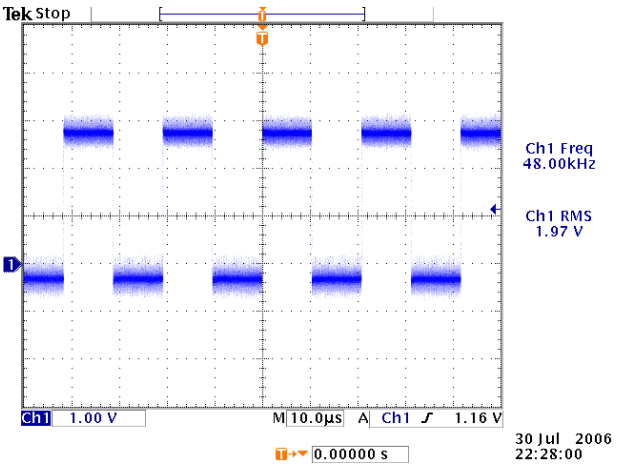
CH1 DACBCLK (U23 PIN4);



CH1 DACMCLK (U23 PIN5);

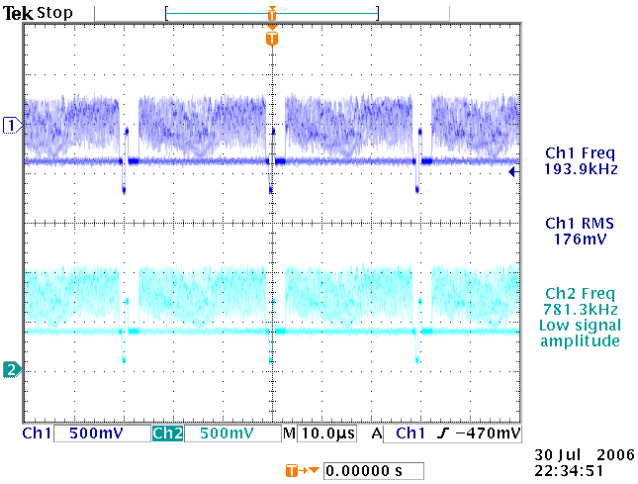


CH1 DACLRCK (U23 PIN7)

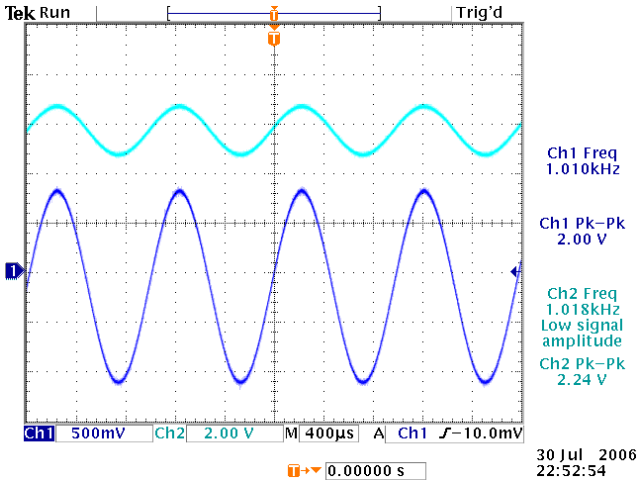


COMPONENT MODE (COMPONENT 1/2)

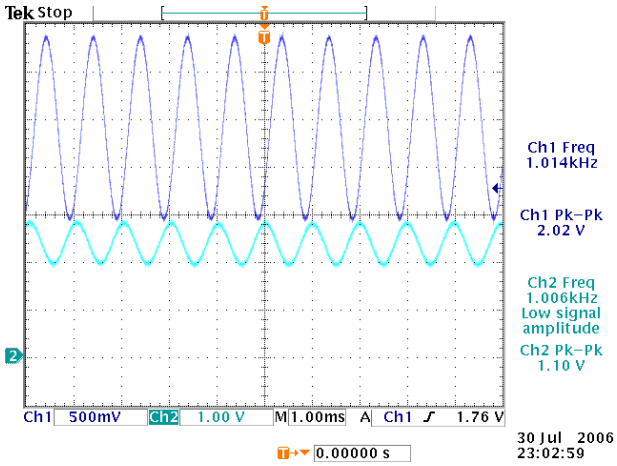
CH1 COM_Y2 (L16); CH2 AVY1P (C269)



CH1YCBCR_L2(L19) CH2 2A33 (U22 PIN11)

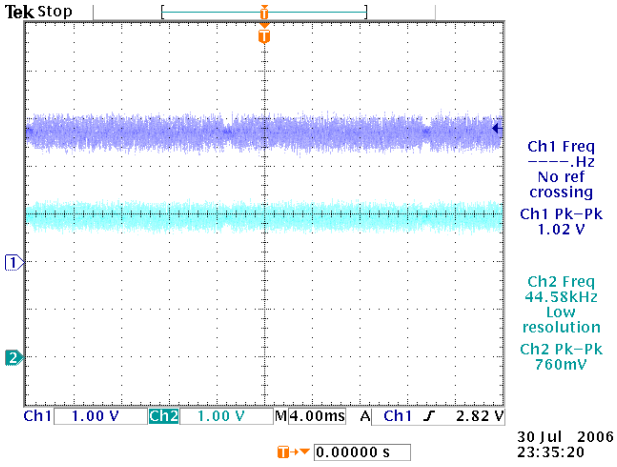


CH1 AV_L (CE71+);CH2 AUSPL (R304)

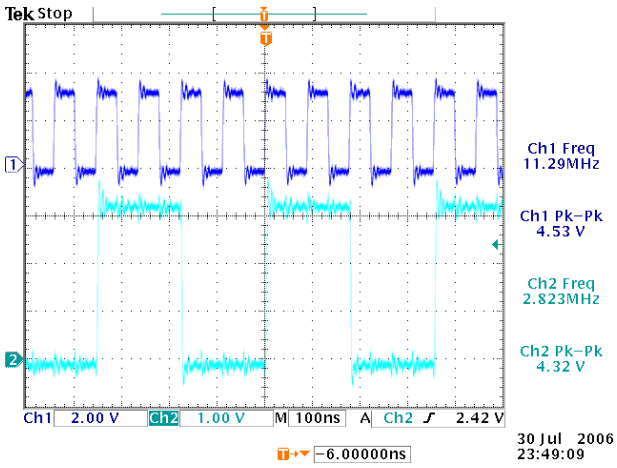


HDMI 1&2

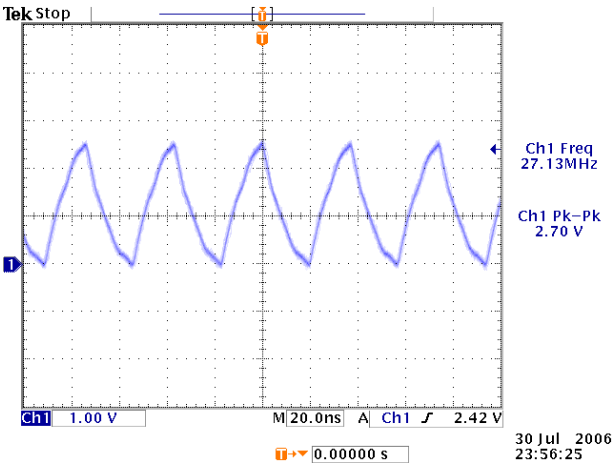
CH1 RX1_2 (P11 PIN 1); CH2 DATA2+ (U31 PIN3)



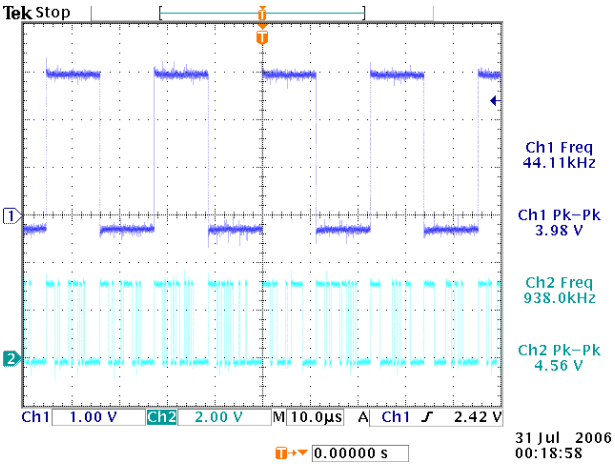
CH1 HDMIMCLK (U19 PIN 79) ;CH2 HDMIBCLK (U19 PIN 76)



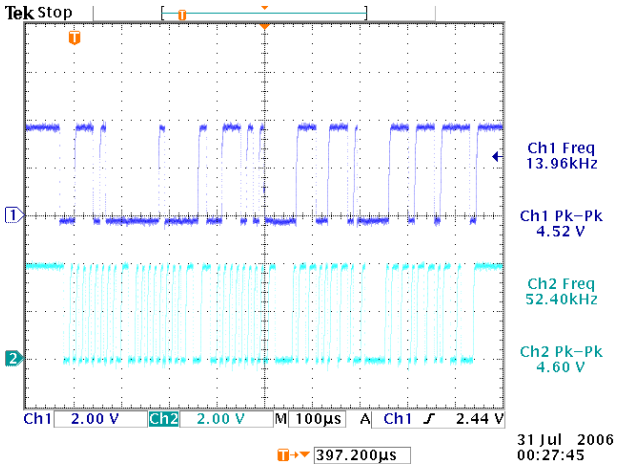
CH1 SOG_IN (U19 PIN4)



CH1 HDMILRCK (U19 PIN75) CH2 HDMISDO (U19 PIN74)

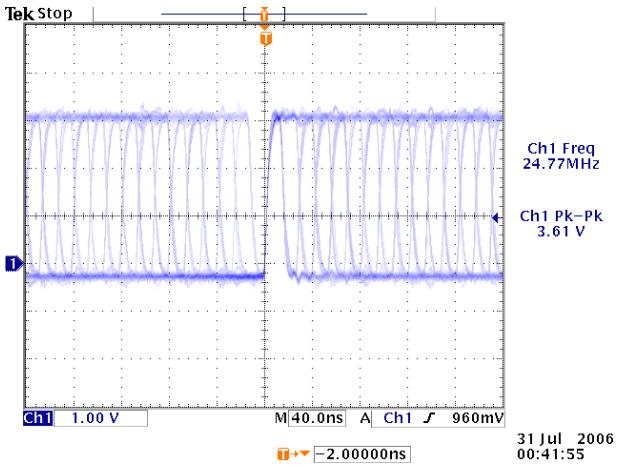


CH1 DDC_SDA (Q14 PIN3);CH2 DDC_SCL (Q13 PIN3)

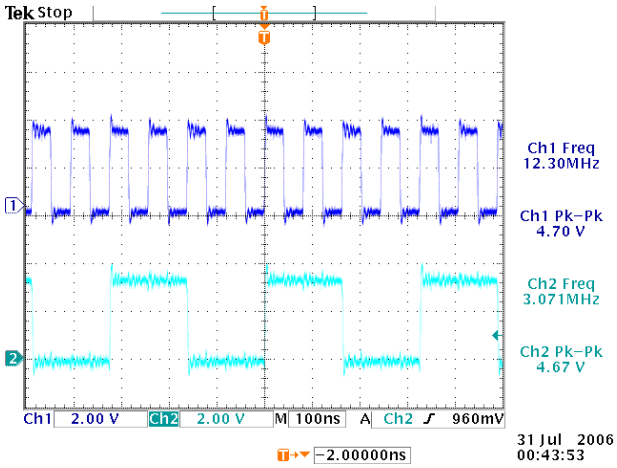


DTV HD

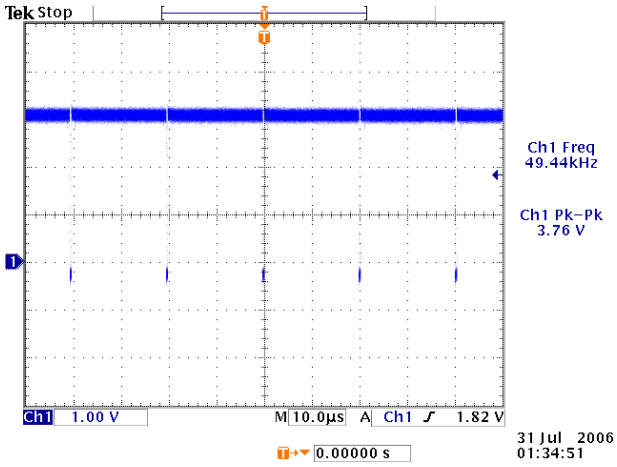
CH1 VOB0 (RP35)



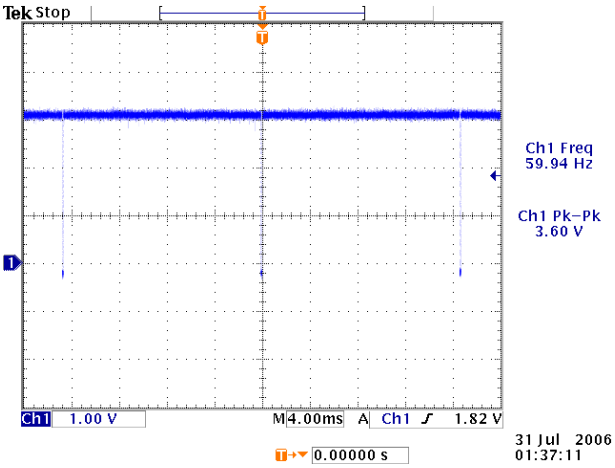
CH1 AO1MCLK (DU9 PIN J1) CH2 AO1BCK (DU9 PIN J2)



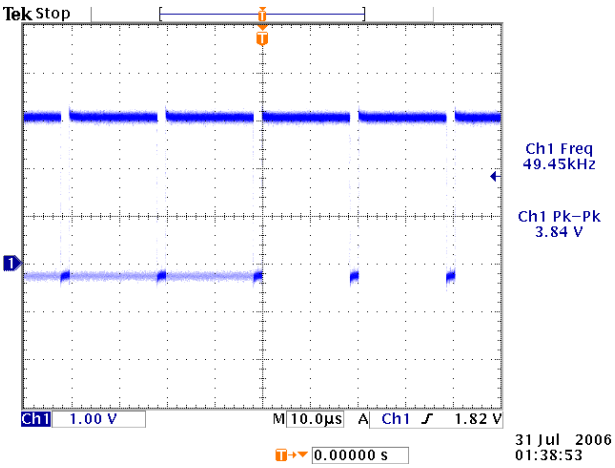
CH1 VOHSYNC (DU9 PIN V4)



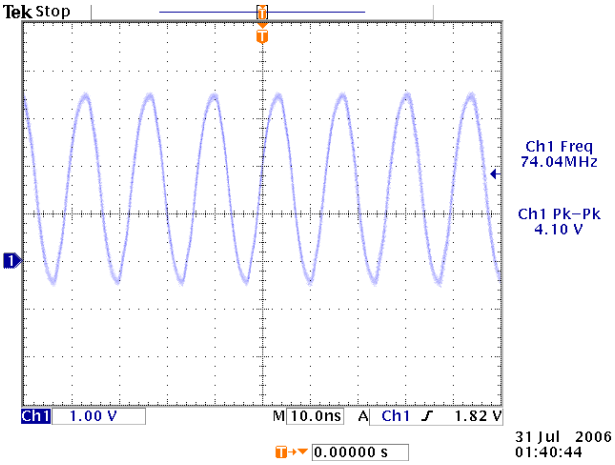
CH1 VOVSYNC (DU9 PIN W1)



CH1 VODE (DU9 PIN W2)

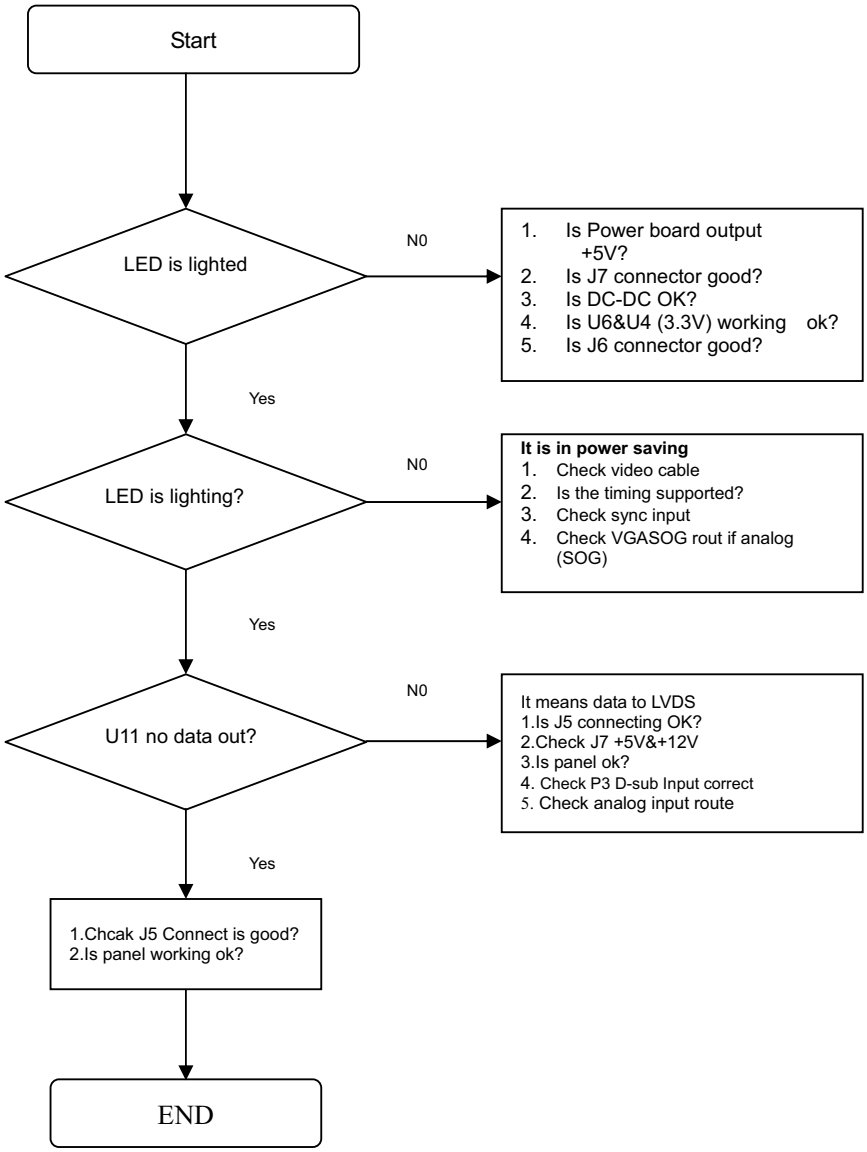


CH1 VOPCLK (DU9 PIN V3)

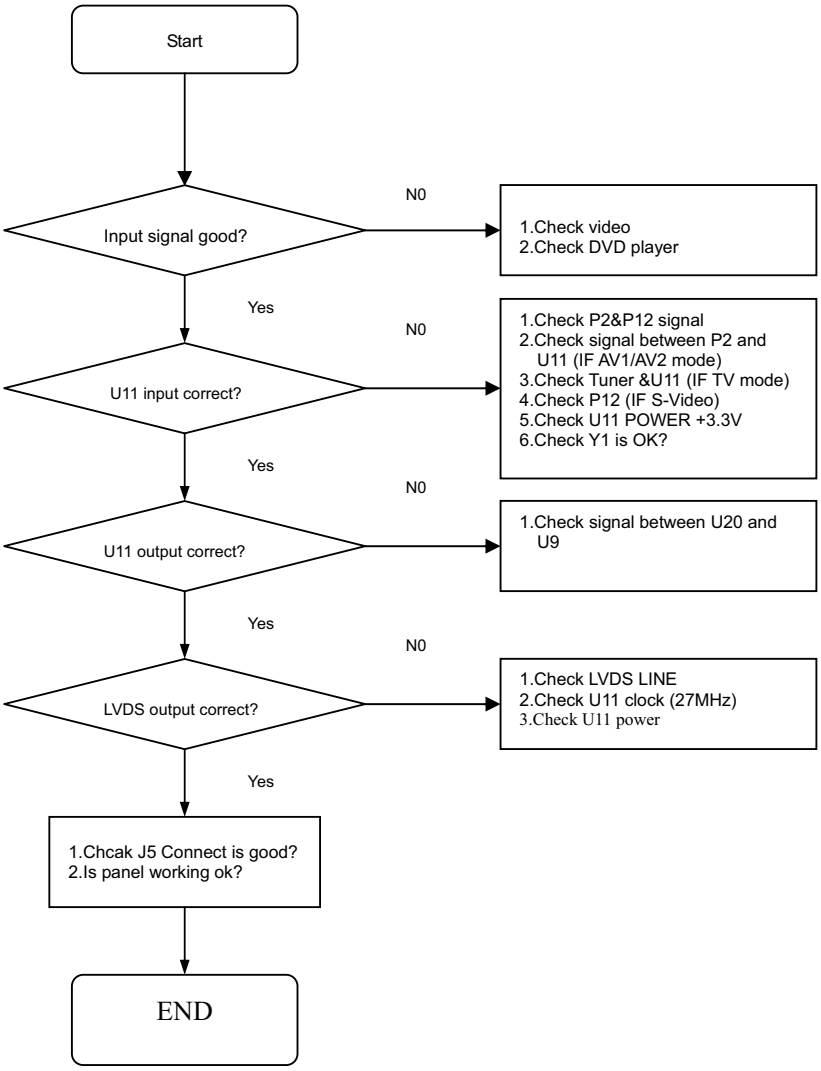


Chapter 9 Trouble shooting

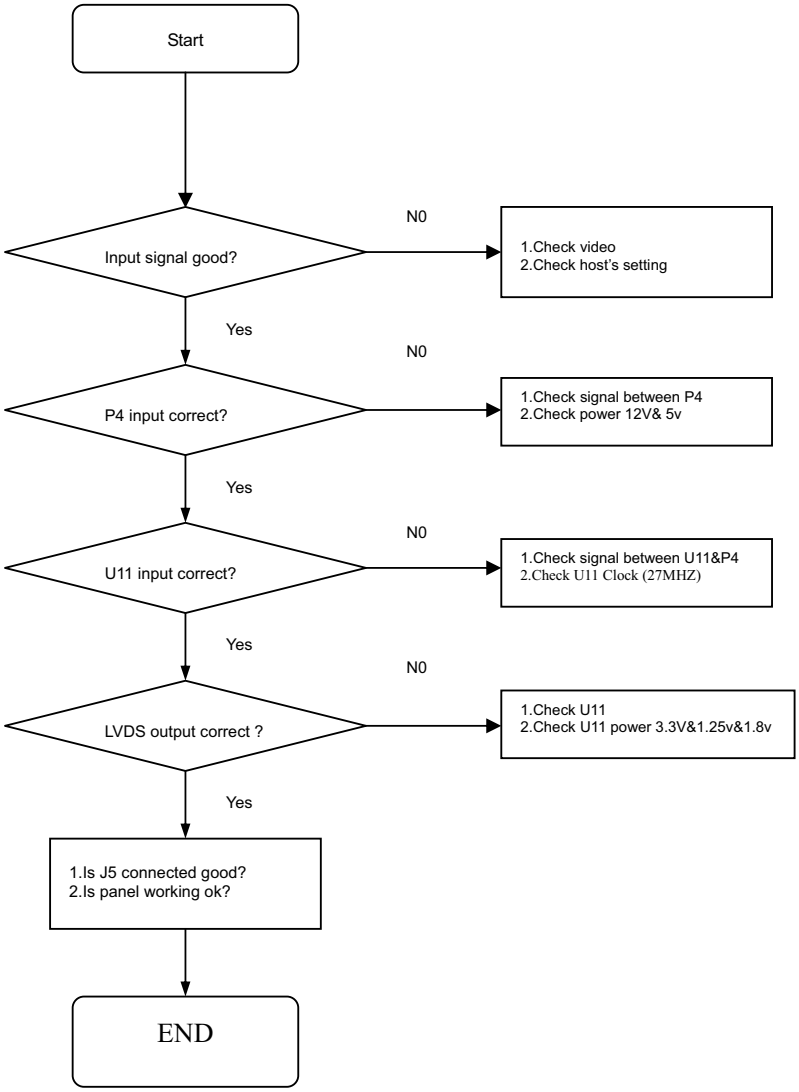
MONITOR DISPLAY NOTHING (PC MODE)



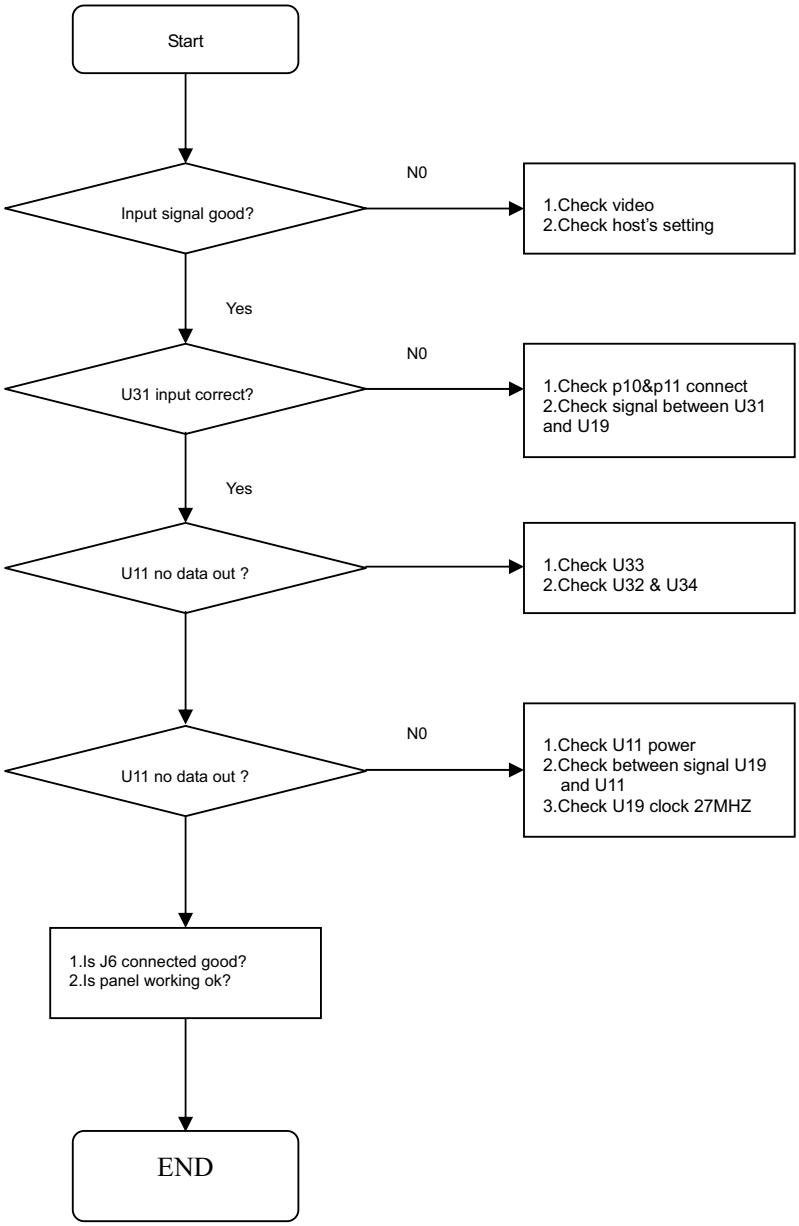
(TV, COMPOSITE VIDEO1, 2, S-VIDEO) IS NOT DISPLAY CORRECTLY



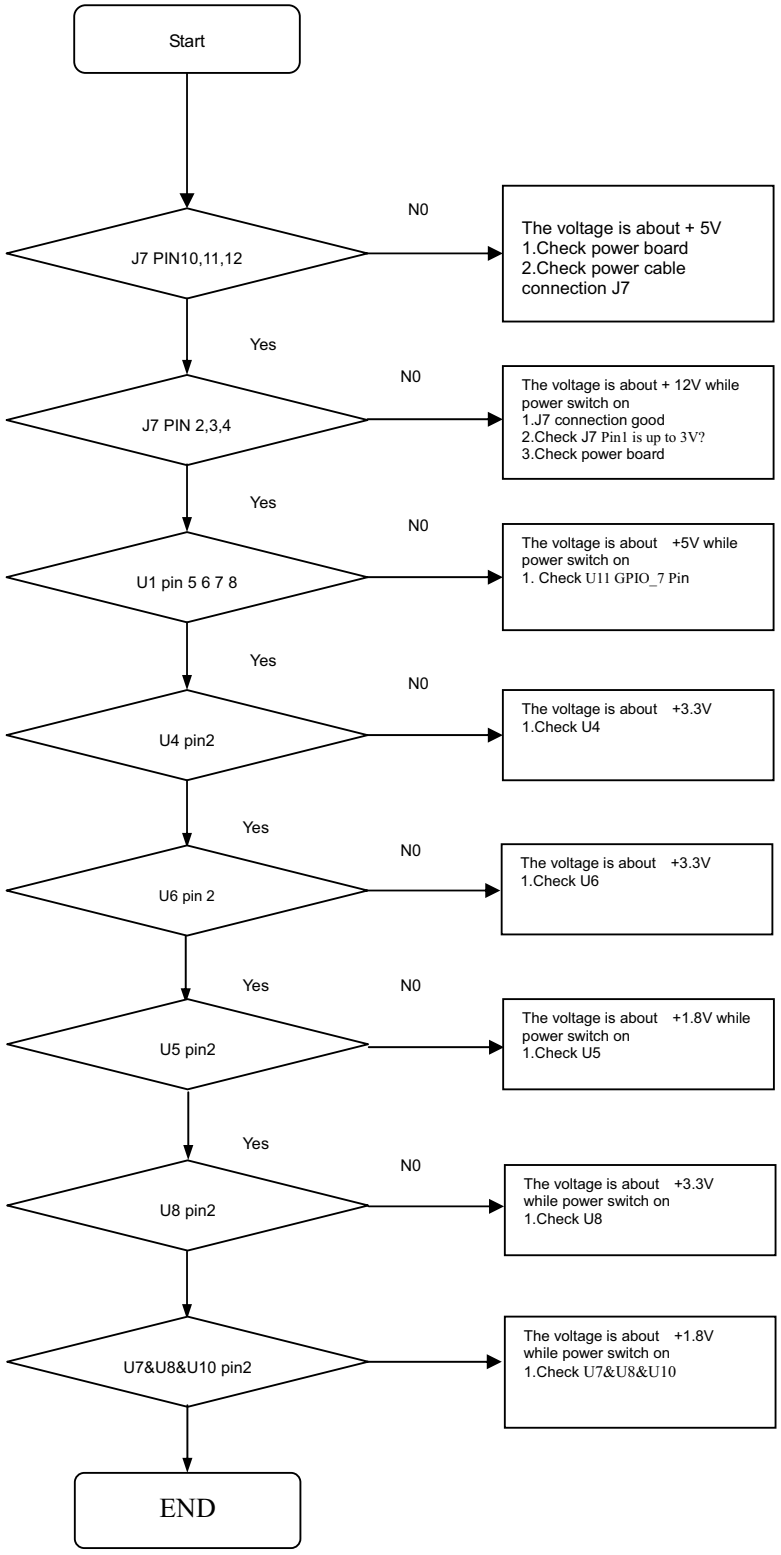
(COMPONENT1, 2) IS NOT DISPLAY CORRECTLY



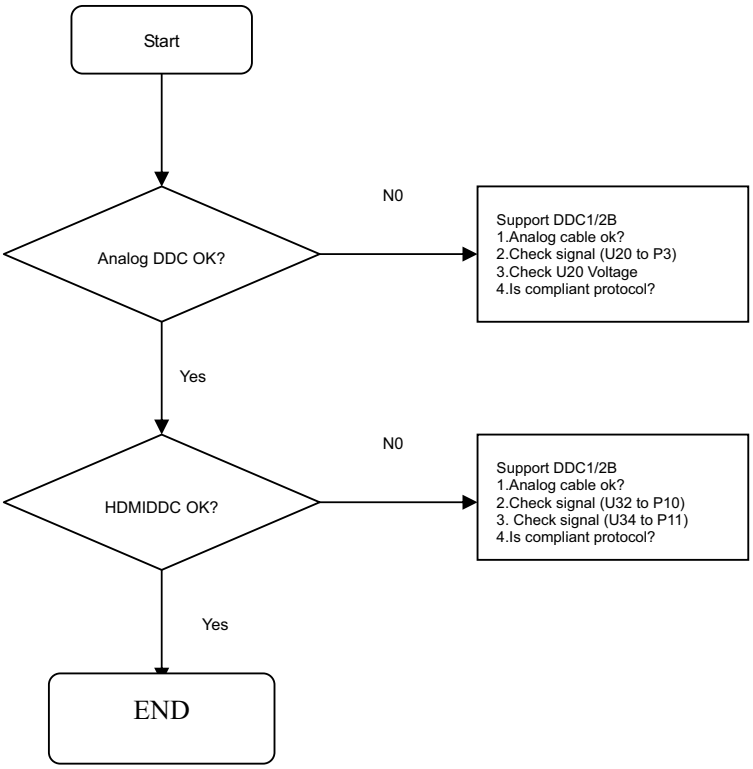
(HDMI) IS NOT DISPLAY CORRECTLY



TROUBLE OF DC-DC CONVERTER

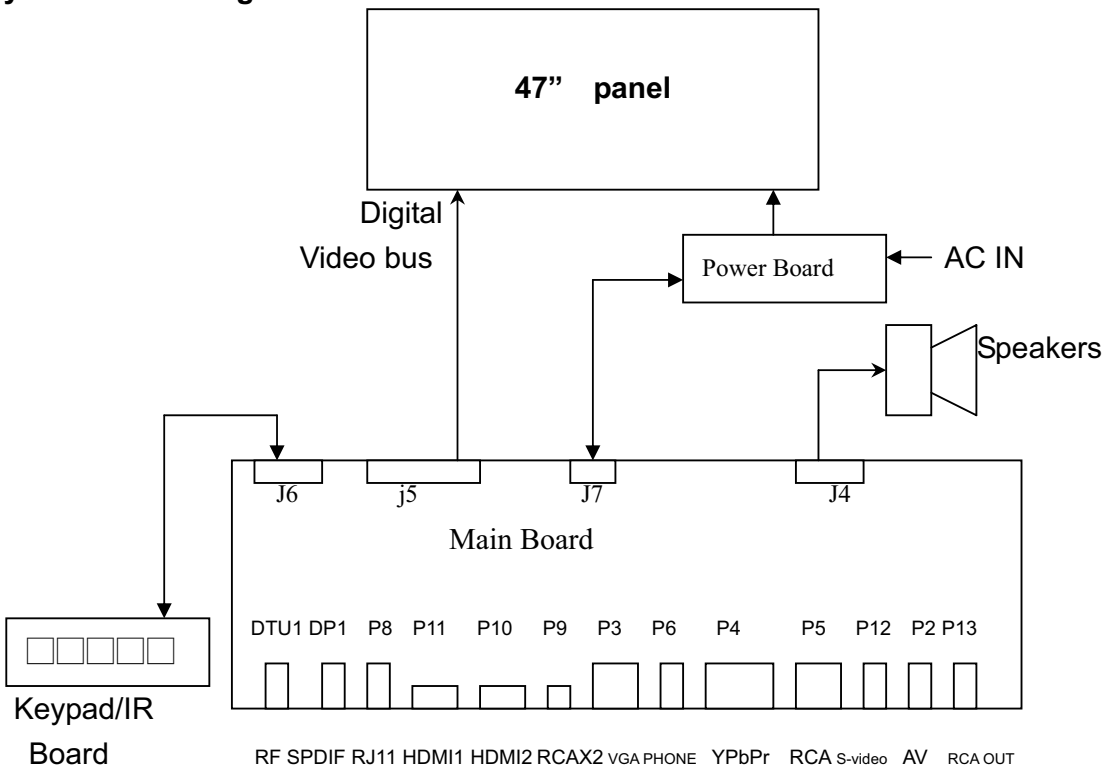


TROUBLE OF DDC READING



Chapter 10 Block Diagram

System Block Diagram

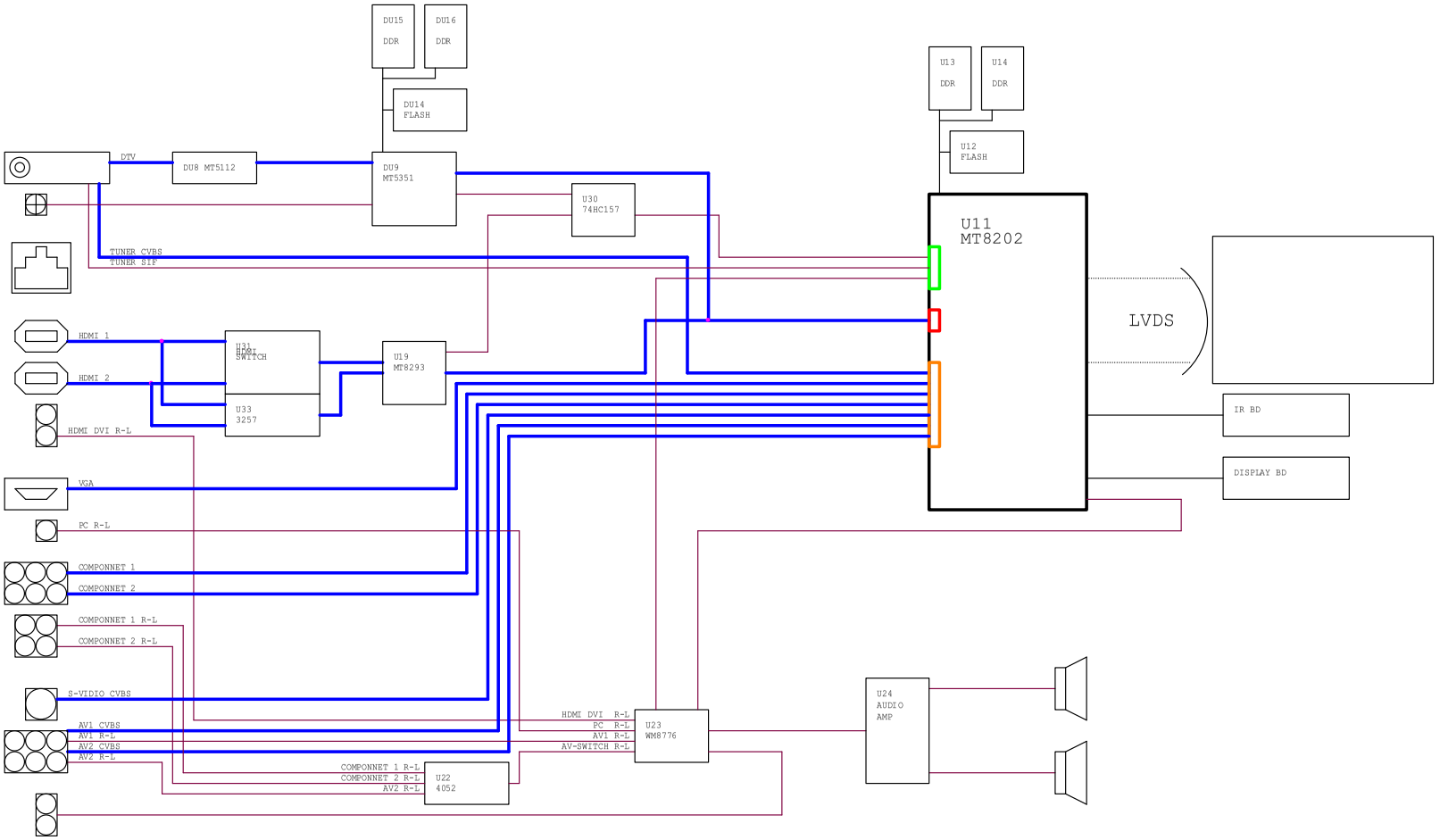


The TV system block diagram is powered by power board that transforms AC source of 100V~240V AC +/- 10% @ 50/60 HZ into DC 5V & 12V& 24Vsource. The main board receives different types of video signal into the MTK8206 Ic. Afterward, the MTK8206 Ic process the signals control the various functions of the monitor and outputs control signal, video signal and power to the 47” WUXGA panel to be displayed.

The power send 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 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. The analog video signals of S-video, YPbPr, TV, PC and A/V all video signals are translated from analog signals into MTK8206 generates the vertical and horizontal timing signals for display device. The analog audio of s-video, YpbPr, TV, PC and A/V is transmitting to the WM877 processed.

The purpose is process the input audio signal to control volume, bass, treble, surround, and balance. The HDMI video and audio is must transmitting to MT8293 processed then TMDS signal to the MTK8206 generates the vertical and horizontal timing signals for display device. All functions are controllable by the main board. Plus, all functions in the IC boards are programmable using I2C Bus.

Main Board Block Diagram



Chapter 11 Spare Parts List

PART NO	DESCRIPTION	LOC	QTY	REMARK
018511520073	FUSE 125V/1.5A SMD (R45101.5) L-F	F1 F4 F6	3	
043060077072	IC N2576SG-5 SMD 5PIN (TO-263) L-F	U4	1	
043060111072	IC N2576SG-ADJ TO-263 5PIN LF	U1	1	
028025000012	X'TAL 25MHZ 49/US 30PPM 20PF LF	DY1	1	
028027000012	X'TAL 27MHZ 49/US 30PPM 20PF 40ohm	Y1	1	
043040133109	IC TDA8946AJ 17PIN DIP LF	U24	1	
043060113210	IC MC7805CTG 3PIN TO-220 LF	DU1	1	
098001033060	MODULE TUNER DTVS205CH201A L-F	DTU1	1	
041050005610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	Q2 Q38	2	
018511520073	FUSE 125V/1.5A SMD (R45101.5) L-F	F1 F2 F3	3	
018513020073	FUSE 125V/3A SMD (R451003) LF	F4	1	
028627000024	OSC 27MHz 25ppm 3.3V SMD VCXO	DX1	1	
041050005610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	Q1 Q10 Q11 Q12 Q15 Q18 Q19 Q20 Q21 Q23 Q24 Q25 Q27 Q28 Q29 Q3 Q31 Q32 Q33 Q39 Q4 Q5 Q9	23	
041050005710	TRANSISTOR MMBT3906LT1G SOT-23 L-F	Q22	1	
042010049621	MOSFET N-CH 2N7002E-T1-E3 SMD (SOT-23) L-F	Q13 Q14 Q34	3	
042010054601	POWER MOS IRF7316TRPBF SMD 8PIN LF	U1	1	
042010062622	MOSFET N-CH 11A 30V FDS6690A SOP-8 LF	U25	1	
043000018015	IC CD4052BNSR 16PIN SOP16 L-F	U22 U29	2	
043010108615	IC TTL LOGIC CD74HC157M96 SOIC 16PIN LF	U30	1	
043010109088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	U21	1	
043030043011	IC AT24C16AN-10SU-2.7 SO-8 L-F	U28	1	
043030069011	IC AT24C04N-10SU-2.7 SO-8 L-F	U17	1	
043030393645	IC MX29LV160CTTC-70G 48PIN TSOP LF	U12	1	
043030394645	IC MX29LV320CTTC-70G 48PIN TSOP LF	DU14	1	
043030396011	IC AT24C02BN-10SU-1.8 8Pin SOIC L-F	U20 U32 U34	3	
043060028079	IC AP1117E25LA SOT-223 L-F	DU3 U16	2	
043060055079	IC AP1117E18LA LF SOT-223	U10 U5 U7 U9	4	
043060075079	IC AP1117E33LA LF SOT-223	DU2 U4 U6 U8	4	
043060091051	IC AMC1117SKF-ADJ SMD 3PIN SOT-223 LF	DU4 U18	2	
043060109028	IC G2996F1Uf 8PIN SOP-8(FD) LF	DU17 U15	2	
043060155079	IC STEP DOWN CONVERTER AP1513SA SOP 8PIN LF	DU5 DU6	2	
043060158079	IC DC/DC CONVERTER AP1522WA SOT23-5 5PIN LF	DU18	1	
043060167099	IC RESET STL8110GCL300 3V SOT-23 3PIN LF	U27	1	
043070273699	IC WM8776SEFT 48PIN TQFP L-F	U23	1	
043070319603	IC DDR 16Mx16 NT5DS16M16CS-5T 66PIN TSOPII LF	DU15 DU16	2	
043070351999	IC MT5351AG 471PIN BGA LF	DU9	1	
043070374629	IC DDR 8Mx16 V58C2128164SBI5 66PIN TSOP-II LF	U13 U14	2	
043070416999	IC HDMI CINEMA RECEIVER MT8293AE-L 128Pin QFP LF	U19	1	
043070428999	IC SCALER MT8202AG/BD-L BGA 388PIN LF	U11	1	
043070431999	IC DEMODULATOR MT5112BD LQFP 100PIN LF	DU8	1	
043070435092	IC SWITCH PI5C3257QE QSOP 16PIN LF	DU7 U33	2	
043070441092	IC SWITCH PI3HDMI412FTZHE TQFN 42PIN LF	U31	1	
364200120146	LCD CONNECTOR BD ASS'Y (GV42L HDTV)		1	

PART NO	DESCRIPTION	LOC	QTY	REMARK
364200220189	IR BD ASS'Y GV42L HDTV		1	
364600120146	LCD CONNECTOR BD ASS'Y (GV46L HDTV)		1	
364700120137	AUDIO BD ASS'Y GV47L FHDTV10		1	
364700120150	MAIN BD ASS'Y GV47L FHDTV10A		1	
364700120156	DISPLAY BD ASS'Y GV47L FHDTV		1	
364700120319	Acoustic Right BOXES ASS'Y (GV47L FHDTV10A)		1	
364700120395	AL TAPE ASS'Y (GV47L FHDTV10A)		1	
364700220319	Acoustic Left BOXES ASS'Y (GV47L FHDTV10A)		1	

Chapter 12 Complete Parts List

2647-8500-1053 LCD TV Monitor 47" GV47L FHDTV10A (LG)(PC,BLACK)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			3647-0012-0312	PACKING ASS'Y GV47L FHDTV10A	1
2			3647-0012-0331	PANEL ASS'Y GV47L FHDTV10A (PMMA, BLACK)(LG)	1
3			3647-0012-0334	BASE ASS'Y GV47L FHDTV10A (ABS, SILVER)	1

3647-0012-0312 PACKING ASS'Y GV47L FHDTV10A

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			1701-0524-5010	BASE COVER (GV47L)(ABS, SILVER)	1
2			1701-0800-2170	REAR PLATE_L VIZIO GV47L FHDTV10A	1
3			1701-0800-2240	REAR PLATE_R VIZIO GV47L FHDTV10A	1
4			1701-1500-1430	CABLE CLIP (GV42L HDTV)	1
5			1925-1000-3540	EPE FOAM-Bottom Middle(GV46L)	1
6			1925-1000-3610	EPE FORM TOP_L (GV47L)	1
7			1925-1000-3620	EPE FORM TOP_R (GV47L)	1
8			1925-1000-3630	EPE FOAM BOTTOM_L (GV47L)	1
9			1925-1000-3640	EPE FOAM BOTTOM_R (GV47L)	1
10			1925-1100-2420	EPE BAG 1330*1200*1.0t (GV47L)	1
11			1925-1200-9220	CARTON VIZIO GV47L FHDTV10A	1
12			1925-1200-9420	CARTON TRAY(GV47L)	1
13			1925-1900-0630	CARTON JOINT(GV46L)	4
14			1936-1100-8840	B/C LBL VIZIO GV47L FHDTV10A	1
15			1936-1300-1550	SERIAL NO.LBL byd:sign	1
16			1936-1600-1180	TECHNOLOGY LOGO LBL VIZIO VX20L/32/37 HDTV	1
17			1936-1600-1240	STC LBL VIZIO GV47L FHDTV10A	1
18			1947-1200-1560	FILAMENT TAPE (TIBON 25wide)	0.72
19			1947-1200-2580	BLUE TAPE (18*50mm)(KLV-20SP2)	0.1
20			1947-2500-0100	Film T(1075L*83W*0.05t)(GV47L)	1
21			1947-2500-0110	Film D(1075L*67W*0.05t)(GV47L)	1
22			1947-2500-0120	Film L(740L*77W*0.05t)(GV47L)	2
23			3647-0012-0393	ACCESSARY ASS'Y GV47L FHDTV10A	1

3647-0012-0331 PANEL ASS'Y GV47L FHDTV10A (PMMA, BLACK)(LG)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0211-0470-0461	LCD MODULE 47.0" TFT LC470WU01-SLC1 (LG.PHILIPS)	1
2			0260-0000-0340	AC INLET +VHR5P 1617#22 250mm 1015#18 80mm	1
3			0460-1007-0310	WH P24267-P24266 1007#26 150mm	1
4			0460-1008-0492	WH A2001-8P-A2001-4P+A1251-8P 2464#28 880/780mm	1
5			0460-1014-0130	WH A2001H02-14P/A2543H00-13P 1007#24 900mm	1
6			0460-1102-0120	WH A2501-2P-A2501-2P 1007#22 450mm	1
7			0460-1104-0100	WH A2501-4P-A2543-4P 1007#22 300mm +CORE	1
8			0460-1106-0232	WH A2501-6P-A2501-6P 1007#22 920mm+CORE+TUBE	1
9			0460-3430-0950	WH FI-RE51HL-P240430 20276#30 330mm + CORE	1
10			0460-4013-0150	WH A2543H00-13P/A2001H02-12P 1007#24 900mm	1
11			0460-4015-0050	WH A2543H00-15P/A2001H02-15P 1007#26 280mm+CORE	1
12			0500-0507-0260	POWER BD ASS'Y DPS-475AP L-F	1
13			0950-0000-0010	License: Dolbly-AC3 Two-Channel Dolby Digital Deco	1
14			0950-0000-0020	License: MPEG-LA Consumer Products	1
15			0950-0000-0030	License: HDMI	1
16			0960-0000-0090	SOFTWARE MTK HDCP KEY w/mask CODE (Taiwan)	1
17			0980-0700-0030	LED BACKLIGHT 18*50 LYSB-4916W/SY 580mm	1
18			1701-0900-2230	MYLAR 341*22*0.4mm (GV47L)	1
19			1701-1500-0220	WIRE SADDLE (CH-02)	8
20			1701-1500-0450	WIRE SADDLE (CH-01P)	9
21			1701-1500-0690	WIRE SADDLE (CH-14)	1
22			1701-1500-1080	EDGE SADDLE DS-12 (NYLON)	1
23			1701-1500-1670	SPACER SUPPORT (TCL-07)	2
24			1701-1500-2530	EDGE SADDLE DS-10	1
25			1701-1500-2540	CANOE CLIP (MB-05A)(GV47L)	1
26			1712-0101-0810	PANEL BKT B_SUPPORT (GV47L)(SECC T=1.0mm)	1
27			1712-0101-0820	PCB SUPPORT (GV47L)(SECC T=0.8mm)	1
28			1712-0200-0500	PANEL BKT L (GV47L)(SGCC T=1.6mm)	1
29			1712-0200-0510	PANEL BKT R (GV47L)(SGCC T=1.6mm)	1
30			1712-0200-0520	BASE SUPPORT (GV47L)(SGCC T=1.6mm)	2
31			1712-0200-0530	REAR COVER (GV47L)(SGCC T=0.8mm)	1
32			1712-0200-0540	IO BKT (GV47L)(SGCC T=0.8mm)	1
33			1720-0004-0851	MAC. SCREW-MB(point) M4.0*8.0L_,BLK-Ni	14
34			1720-1204-0820	MAC. SCREW-MPGW M4.0*8.0L,Ni	1
35			1720-1504-0820	MAC. SCREW-MPSWF M4.0*8.0L,NI	8
36			1720-1504-1221	MAC. SCREW-MPSWF(Point) M4.0*12.0L,Ni	4
37			1720-3003-0850	MAC. SCREW-MF M3.0*8.0L,BLK-Ni	2
38			1720-4003-0600	MAC. SCREW-MRF M3.0*6.0L,Zn(L27-CBJ)	23
39			1720-4003-0650	MAC. SCREW-MRF M3.0*6.0L, BLK-Ni	33
40			1720-7344-0820	MAC. SCREW-MHSW #4-40*8.0L,Ni	2
41			1721-0003-0850	TAP. SCREW-TB #3.0*8.0L,BLK-Ni	23
42			1723-1504-2850	TAP.SCREW-MPSFW M4.0*28.0L,BLK-Ni	8
43			1947-1200-0330	ACETATE CLOTH TAPE (醋酸布膠帶) 19*70mm	3
44			1947-1200-0460	ACETATE CLOTH TAPE (醋酸布膠帶) 27*90mm	1
45			1947-1500-3130	Function PCB Stuffing(GV47L)	2
46			1947-1500-3180	EVA 330*7*1.0t (Black)(GV47L)	2
47			1947-1700-0290	SHIELDING AL. TAPE (50.0W*100.0L)	1
48			1947-1800-1220	GASKET BLOCK (30.0L*25.0W*25.0H)	9

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
49			3642-0012-0146	LCD CONNECTOR BD ASS'Y (GV42L)	1
50			3642-0022-0189	IR BD ASS'Y GV42L HDTV	1
51			3646-0012-0146	LCD CONNECTOR BD ASS'Y (GV46L)	1
52			3647-0012-0137	AUDIO BD ASS'Y GV47L FHDTV10A	1
53			3647-0012-0150	MAIN BD ASS'Y GV47L FHDTV10A (HDCP)	1
54			3647-0012-0306	FRONT BEZEL ASS'Y GV47L FHDTV10A	1
55			3647-0012-0395	AL TAPE ASS'Y (GV47L FHDTV10A)	1
56			3647-0022-0319	Acoustic Left BOXES ASS'Y GV47L FHDTV10A	1

3647-0012-0334 BASE ASS'Y GV47L FHDTV10A (ABS, SILVER)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			1701-0523-3030	BASE (GV46L HDTV10A)(HIPS)	1
2			1701-1000-0180	BASE FOOT (φ 18.0*2.0t, PORON)	10
3			1712-0101-0761	BASE PLATE (GV47L)(SPHC T=4.0mm)	1
4			1712-0101-0970	BASE FRAME R (GV47L)(SGHC T=1.6mm)	1
5			1720-1005-0650	MAC. SCREW-MP M5.0*6.0L,BLK-Ni	7
6			1721-3004-1520	TAP.SCREW-TR #4.0*15.0L,Ni	6

3642-0012-0146 LCD CONNECTOR BD ASS'Y (GV42L)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-3870-0132	PCB CONN. BD FR4 27*30*1.6t S (GV42L HDTV)(1:20)	1
2			1712-0500-1630	DIN JACK HOLDER (GV42L HDTV)(SPTE T=0.5mm)	1
3		JS1	0300-3050-0010	DIN 5PIN SOCKET+SHIELD (2DJ-0065PSA2) L-F	1
4		JS2	0451-2500-0243	WAFER 2.50mm 2P 90' KINK (A2501WR2-2P) L-F	1

3642-0022-0189 IR BD ASS'Y GV42L HDTV

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			364200220189M	IR BD ASS'Y GV42L HDTV MI	1
2			364200220189S	IR BD ASS'Y GV42L HDTV SMD	1

3646-0012-0146 LCD CONNECTOR BD ASS'Y (GV46L)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-3870-0142	PCB CONN. BD FR4 27*30*1.6t S (GV46L HDTV)(1:20)	1
2			1712-0500-1630	DIN JACK HOLDER (GV42L HDTV)(SPTE T=0.5mm)	1
3		JS3	0300-3050-0010	DIN 5PIN SOCKET+SHIELD (2DJ-0065PSA2) L-F	1
4		JS4	0451-2500-0646	WAFER 2.5mm 6P 90' DIP KINK (M241856R) L-F	1

3647-0012-0137 AUDIO BD ASS'Y GV47L FHDTV10A

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			364700120137A	AUDIO BD ASS'Y GV47L FHDTV10A AI	1
2			364700120137M	AUDIO BD ASS'Y GV47L FHDTV10A MI	1
3			364700120137S	AUDIO BD ASS'Y GV47L FHDTV10A SMD	1

3647-0012-0150 MAIN BD ASS'Y GV47L FHDTV10A (HDCP)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			364700120150A	MAIN BD ASS'Y GV47L FHDTV10A AI	1
2			364700120150M	MAIN BD ASS'Y GV47L FHDTV10A MI	1
3			364700120150S	MAIN BD ASS'Y GV47L FHDTV10A SMD	1

3647-0012-0306 FRONT BEZEL ASS'Y GV47L FHDTV10A

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			1701-0900-2220	IR Filter (GV47L)	1
2			1701-0900-2241	MYLAR 28*28*1.0mm (GV47L)	4
3			1712-0101-0770	PANEL BKT T (GV47L)(SECC T=1.0mm)	1
4			1712-0101-0780	PANEL BKT B (GV47L)(SECC T=1.0mm)	1
5			1712-0101-0790	PANEL BKT VR (GV47L)(SECC T=1.0mm)	1
6			1712-0101-0800	PANEL BKT VL (GV47L)(SECC T=1.0mm)	1
7			1801-0124-6010	FRONT BEZEL (GV47L)(PC,TRANSPARENCY+BLACK) ASS'Y	1
8			1801-1932-4010	PANEL BKT SUPPORT TR (GV47L)(ABS, GRAY) ASS'Y	1
9			1801-1932-4020	PANEL BKT SUPPORT TL (GV47L)(ABS, GRAY) ASS'Y	1
10			1801-1932-4030	PANEL BKT SUPPORT BR (GV47L)(ABS, GRAY) ASS'Y	1
11			1801-1932-4040	PANEL BKT SUPPORT BL (GV47L)(ABS, GRAY) ASS'Y	1
12			1947-1200-3620	DOUBLE TAPE (GV47L)(590*10*0.6t Black)	2
13			1947-1200-3630	DOUBLE TAPE (GV47L)(510*10*0.6t Black)	4
14			1947-1400-0210	NON WOVEN FABRICS 480*8*0.3t(Black)(GV47L)	4
15			3647-0012-0156	DISPLAY BD ASS'Y GV47L FHDTV10A	1

3647-0012-0319 Acoustic Right BOXES ASS'Y GV47L FHDTV10A

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0321-0200-0050	DIN5P-P2I25402 2464#22 295/510 4C+S BLACK	1
2			0335-1008-0090	SPEAKER ASS'Y 8OHM 10W	1
3			0335-2008-0000	SPEAKER 8OHM 20W K(102-10)FL-1-C-PF L-F	1
4			1701-0123-5031	SPEAKER FRONT COVER_R (GV42/46)(ABS HB)	1
5			1701-0215-0010	SPEAKER REAR COVER_R (GV47L)(HiPS)	1
6			1701-1100-1360	SPAKER CABLE SEAL(Φ 5.0mm/Pantone 660C)	1
7			1701-1930-6040	DUCT BOTTOM COVER (GV46L HDTV10A)(ABS HB)	1
8			1701-1930-7040	DUCT TOP COVER (GV46L HDTV10A)(ABS HB)	1
9			1701-1930-8040	WOOFER COVER (GV46L HDTV10A)(ABS HB)	1
10			1701-1930-9030	WOOFER ISOLATED SHEET (GV42/46)(ABS HB)	1
11			1721-0003-0850	TAP. SCREW-TB #3.0*8.0L,BLK-Ni	1
12			1721-0003-1450	TAP. SCREW-TB #3.0*14.0L,BLK-Ni	12
13			1721-0004-0850	TAP. SCREW-TB #4.0*8.0L, BLK-NI	4
14			1721-0004-1050	TAP. SCREW-TP #4.0*10.0L, BLK-Ni	7
15			1947-1500-2810	2X5 SPEAKER STUFFING (GV42L/GV46L HDTV)	1
16			1947-1500-2820	WOOFER ENCLOSURE STUFFING (GV46L HDTV)	1
17			1947-1500-2830	DUCT STUFFING (GV46L HDTV)	1
18			1947-1500-2840	REAR STUFFING (GV46L HDTV)	1
19			1947-1500-2850	FRONT COVER STUFFING (GV46L HDTV)	1
20			1947-1500-2860	WOOFER ISOLATED SHEET SEAL (GV42L/GV46L HDTV)	1
21			1947-1500-2870	WOOFER BLOCK SEAL (GV42L/GV46L HDTV)	2
22			1947-1500-2940	RIB SEAL(CR 25.0*5.0*1.0t)(GV46L HDTV)	2
23			1947-2000-1260	RUBBER SEAL(GV42L/GV46L HDTV)	1

3647-0012-0393 ACCESSARY ASS'Y GV47L FHDTV10A

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0320-4000-0142	POWER CORD 110V UL/CSA 1800mm BLK N.M. (VINC)	1
2			0321-0000-0411	AV CABLE RCA(Y/W/R) 1800mm BLK (VINC)	1
3			0602-3000-0020	Battery Zn-Carbon 1.5V AA	2
4			0980-0304-9011	REMOTE CONTROL 66700BA0-B10-R(Orange backlight) LF	1
5			1925-1100-0230	PE BAG 320*230*0.04T	2
6			1925-1100-0280	PE BAG (180W*290L*0.04t)(PE-LD)(ACC.-1)	1
7			1925-1200-7080	ACCESSARY BOX (330W*230D*50H)	1
8			1925-1300-7080	Brochure VIZIO Series	1
9			1925-1300-8042	MANUAL VIZIO GV47L FHDTV10A	1
10			1925-1300-8050	Quick Start Guide VIZIO GV47L FHDTV10A	1
11			1925-1400-2710	Register CARD/VIZIO L15	1
12			1925-2000-0030	Polishing Cloth VIZIO P42 HDTV10A	1

3647-0012-0395 AL TAPE ASS'Y (GV47L FHDTV10A)

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			1701-1931-1030	AL PLATE SUPPORT (GV46L)(ABS HB)	1
2			1712-0300-1580	AL PLATE (AL5020 T=0.6mm)(GV47L)	1
3			1947-1500-2920	AL PLATE STUFFING (GV46L HDTV)	2

3647-0022-0319 Acoustic Left BOXES ASS'Y GV47L FHDTV10A

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0321-0200-0040	DIN5P-P2I25402 2464#22 555mm 2C+S BLACK	1
2			0335-1008-0090	SPEAKER ASS'Y 8OHM 10W	1
3			1701-0123-6031	SPEAKER FRONT COVER_L (GV42/46)(ABS HB)	1
4			1701-0215-1010	SPEAKER REAR COVER_L (GV47L)(HiPS)	1
5			1701-1100-1350	SPAKER CABLE SEAL(Φ 4.5mm/Pantone 430C)	1
6			1701-1930-9030	WOOFER ISOLATED SHEET (GV42/46)(ABS HB)	1
7			1721-0003-0850	TAP. SCREW-TB #3.0*8.0L,BLK-Ni	1
8			1721-0003-1450	TAP. SCREW-TB #3.0*14.0L,BLK-Ni	12
9			1721-0004-0850	TAP. SCREW-TB #4.0*8.0L, BLK-NI	4
10			1947-1500-2810	2X5 SPEAKER STUFFING (GV42L/GV46L HDTV)	1
11			1947-1500-2860	WOOFER ISOLATED SHEET SEAL (GV42L/GV46L HDTV)	1
12			1947-1500-2870	WOOFER BLOCK SEAL (GV42L/GV46L HDTV)	2
13			1947-2000-1260	RUBBER SEAL(GV42L/GV46L HDTV)	1

364200220189M IR BD ASS'Y GV42L HDTV MI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		JR1	0451-2000-0466	WAFER 2.0mm 4P 90' DIP KINK (M24264R) L-F	1
2	SS		0451-2003-0463	WAFER 2.00mm 4P 90' KINK (A2001WR2-4P) L-F	
3		UR1	0980-0200-2130	MODULE. IR RECEIVER (FM-6038LM-5AN)	1
4		UR1S	1701-1500-0360	IR HOLDER (TM-15A)	1

364200220189S IR BD ASS'Y GV42L HDTV SMD

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-1671-0501	PCB IR BD FR4 66.5*12*1.6t D (GV42L HDTV)(1:20)	1
2		CR2	0111-3106-1614	C/M Multi. 10uF 16V X7R K 1206	1
3	SS		0111-3106-1114	C/M MULTI 10uF 10V X7R K 1206	
4	SS		0112-3106-1614	C/M MULTI 10uF 16V X7R 1206	
5	SS		0115-7106-1614	C/M MULTI 10uF 16V X7R 1206	
6		CR3	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
7	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
8		LR1	0370-0000-6452	CHIP BEAD CORE 80ohm (MLB-201209-0080A-N2)	1
9		RR1	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
10		RR2	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
11		ZDR1	0400-0881-5012	ZENER 8.85~9.23V UDZSTE-179.1B 1/5W SOD-323	1

364700120137A AUDIO BD ASS'Y GV47L FHDTV10A AI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		C108	0103-1479-1511	E/C VT 4.7uF 50V 105'C F-T (5*11mm)	1
2		C109	0103-1479-1511	E/C VT 4.7uF 50V 105'C F-T (5*11mm)	1
3		C142	0103-1101-1511	E/C VT 100uF 50V 105'C F-T (8*11.5mm)	1
4		C170	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
5		C171	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
6		C192	0103-1220-1511	E/C VT 22uF 50V 105'C F-T (5*11mm)	1
7		C196	0103-6330-1411	E/C HF 33uF 35V 105'C F-T (5*11mm) L-F	1
8		C200	0103-0229-1511	E/C L-L 2.2uF 50V 105'C F-T 5*11 HW L-F	1
9		C201	0103-0229-1511	E/C L-L 2.2uF 50V 105'C F-T 5*11 HW L-F	1
10		C202	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
11		C203	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
12		C208	0103-0101-1411	E/C L-L 100uF 35V 105'C F-T 8*11.5 HW L-F	1
13		C209	0103-0101-1411	E/C L-L 100uF 35V 105'C F-T 8*11.5 HW L-F	1
14		C227	0103-1101-1511	E/C VT 100uF 50V 105'C F-T (8*11.5mm)	1
15		C229	0103-1101-1511	E/C VT 100uF 50V 105'C F-T (8*11.5mm)	1
16		C231	0103-1101-1511	E/C VT 100uF 50V 105'C F-T (8*11.5mm)	1
17		C233	0103-1101-1511	E/C VT 100uF 50V 105'C F-T (8*11.5mm)	1
18		C235	0103-1101-1511	E/C VT 100uF 50V 105'C F-T (8*11.5mm)	1
19		C237	0103-1101-1511	E/C VT 100uF 50V 105'C F-T (8*11.5mm)	1

364700120137M AUDIO BD ASS'Y GV47L FHDTV10A MI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		C176	0103-1471-1410	E/C VZ 470uF 35V 105'C NF-T (10*16mm) L-F	1
2		C177	0103-1471-1410	E/C VZ 470uF 35V 105'C NF-T (10*16mm) L-F	1
3		C186	0123-0224-0632	P/C R82 0.22uF 63V J B L-F	1
4		C187	0123-0224-0632	P/C R82 0.22uF 63V J B L-F	1
5		C190	0123-0474-0632	P/C R82 0.47uF 63V J B L-F	1
6		C216	0103-6102-1412	E/C HF 1000uF 35V 105'C (12.5*25mm)	1
7		C220	0123-0474-0632	P/C R82 0.47uF 63V J B L-F	1
8		C221	0123-0474-0632	P/C R82 0.47uF 63V J B L-F	1
9		C222	0103-0471-1312	E/C L-L 470uF 25V 105'C K 10*16 HW L-F	1
10		C223	0103-0471-1312	E/C L-L 470uF 25V 105'C K 10*16 HW L-F	1
11		C238	0103-6102-1412	E/C HF 1000uF 35V 105'C (12.5*25mm)	1
12		C239	0103-6102-1412	E/C HF 1000uF 35V 105'C (12.5*25mm)	1
13		C241	0103-6102-1412	E/C HF 1000uF 35V 105'C (12.5*25mm)	1
14		C242	0103-6102-1412	E/C HF 1000uF 35V 105'C (12.5*25mm)	1
15		J1	0451-2000-0766	WAFER 2.0mm 7P 90' DIP KINK (M24267R) L-F	1
16	SS		0451-2003-0763	WAFER 2.00mm 7P 90' KINK (A2001WR2-7P) L-F	
17		J2	0451-2500-0446	WAFER 2.5mm 4P 90' DIP KINK (M241854R) L-F	1
18	SS		0451-2500-0443	WAFER 2.50mm 4P 90' KINK (A2501WR2-4P) L-F	
19		J3	0451-2500-0246	WAFER 2.5mm 2P 90' DIP KINK (M241852R) L-F	1
20	SS		0451-2500-0243	WAFER 2.50mm 2P 90' KINK (A2501WR2-2P) L-F	
21		J4	0451-2500-0646	WAFER 2.5mm 6P 90' DIP KINK (M241856R) L-F	1
22	SS		0451-2500-0643	WAFER 2.50mm 6P 90' KINK (A2501WR2-6P) L-F	
23		TP1	0460-1701-0840	WH SRA4.3-NC 1007#18 110mm BLACK	1
24		U9	0430-6016-3189	IC REGULATOR PQ30RV31J00H 3A DIP 4PIN LF	1
25		U9H	1712-0400-1910	Heatsink(AUDIO) (GV46L)	1
26		U9S	1720-0003-0620	MAC. SCREW-MB M3.0*6.0L,Ni	1

364700120137S AUDIO BD ASS'Y GV47L FHDTV10A SMD

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-2871-0124	PCB AUDIO BD FR4 120*100*1.6t 2L (GV46L HDTV)(1:4)	1
2		C110	0111-3471-5116	C/M MULTI. 470PF 50V X7R 0603	1
3	SS		0112-3471-5116	C/M Multi. 470PF 50V X7R 0603 L-F	
4		C111	0111-3471-5116	C/M MULTI. 470PF 50V X7R 0603	1
5	SS		0112-3471-5116	C/M Multi. 470PF 50V X7R 0603 L-F	
6		C112	0111-3471-5116	C/M MULTI. 470PF 50V X7R 0603	1
7	SS		0112-3471-5116	C/M Multi. 470PF 50V X7R 0603 L-F	
8		C113	0111-3471-5116	C/M MULTI. 470PF 50V X7R 0603	1
9	SS		0112-3471-5116	C/M Multi. 470PF 50V X7R 0603 L-F	
10		C114	0111-3223-5116	C/M MULTI. 0.022uF 50V X7R 0603	1
11	SS		0112-3223-5116	C/M MULTI 0.022uF 50V X7R 0603	
12		C115	0111-3223-5116	C/M MULTI. 0.022uF 50V X7R 0603	1
13	SS		0112-3223-5116	C/M MULTI 0.022uF 50V X7R 0603	
14		C116	0111-3223-5116	C/M MULTI. 0.022uF 50V X7R 0603	1
15	SS		0112-3223-5116	C/M MULTI 0.022uF 50V X7R 0603	
16		C117	0111-3223-5116	C/M MULTI. 0.022uF 50V X7R 0603	1
17	SS		0112-3223-5116	C/M MULTI 0.022uF 50V X7R 0603	
18		C122	0112-3120-5106	C/M Multi. 12PF 50V NPO 0603	1
19	SS		0111-3120-5106	C/M Multi. 12PF 50V NPO 0603	
20		C123	0112-3120-5106	C/M Multi. 12PF 50V NPO 0603	1
21	SS		0111-3120-5106	C/M Multi. 12PF 50V NPO 0603	
22		C126	0111-3471-5116	C/M MULTI. 470PF 50V X7R 0603	1
23	SS		0112-3471-5116	C/M Multi. 470PF 50V X7R 0603 L-F	
24		C127	0111-3471-5116	C/M MULTI. 470PF 50V X7R 0603	1
25	SS		0112-3471-5116	C/M Multi. 470PF 50V X7R 0603 L-F	
26		C140	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
27	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
28		C141	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
29	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
30		C152	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
31	SS		0112-3101-5106	C/M Multi. 100PF 50V NPO 0603	
32		C154	0111-3101-5106	C/M MULTI. 100PF 50V NPO 0603	1
33	SS		0112-3101-5106	C/M Multi. 100PF 50V NPO 0603	
34		C155	0111-3223-5116	C/M MULTI. 0.022uF 50V X7R 0603	1
35	SS		0112-3223-5116	C/M MULTI 0.022uF 50V X7R 0603	
36		C156	0111-3223-5116	C/M MULTI. 0.022uF 50V X7R 0603	1
37	SS		0112-3223-5116	C/M MULTI 0.022uF 50V X7R 0603	
38		C158	0111-3223-5116	C/M MULTI. 0.022uF 50V X7R 0603	1
39	SS		0112-3223-5116	C/M MULTI 0.022uF 50V X7R 0603	
40		C159	0112-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	1
41	SS		0111-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	
42		C160	0112-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	1
43	SS		0111-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	
44		C163	0112-3120-5106	C/M Multi. 12PF 50V NPO 0603	1
45	SS		0111-3120-5106	C/M Multi. 12PF 50V NPO 0603	
46		C172	0111-3309-5106	C/M MULTI. 3PF 50V NPO 0603	1
47	SS		0112-3309-5106	C/M Multi. 3PF 50V NPO 0603	
48		C173	0111-3309-5106	C/M MULTI. 3PF 50V NPO 0603	1
49	SS		0112-3309-5106	C/M Multi. 3PF 50V NPO 0603	
50		C174	0111-3222-5116	C/M MULTI. 2200PF 50V X7R 0603	1
51	SS		0112-3222-5116	C/M MULTI 2200PF 50V X7R 0603 L-F	
52		C175	0112-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805	1
53	SS		0111-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805 L-F	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
54		C178	0112-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805	1
55	SS		0111-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805 L-F	
56		C179	0112-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805	1
57	SS		0111-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805 L-F	
58		C180	0111-3474-2536	C/M Multi 0.47uF 25V Y5V 0603	1
59	SS		0112-3474-2536	C/M Multi 0.47uF 25V Y5V 0603 L-F	
60		C181	0111-3474-2536	C/M Multi 0.47uF 25V Y5V 0603	1
61	SS		0112-3474-2536	C/M Multi 0.47uF 25V Y5V 0603 L-F	
62		C182	0111-3391-5106	C/M MULTI 390PF 50V NPO 0603	1
63	SS		0112-3391-5106	C/M Multi. 390PF 50V NPO 0603	
64		C183	0111-3391-5106	C/M MULTI 390PF 50V NPO 0603	1
65	SS		0112-3391-5106	C/M Multi. 390PF 50V NPO 0603	
66		C184	0111-3270-5106	C/M Multi. 27PF 50V NPO 0603	1
67	SS		0112-3270-5106	C/M Multi. 27PF 50V NPO 0603	
68		C185	0111-3270-5106	C/M Multi. 27PF 50V NPO 0603	1
69	SS		0112-3270-5106	C/M Multi. 27PF 50V NPO 0603	
70		C188	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
71	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
72		C189	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
73	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
74		C204	0111-3332-5116	C/M MULTI. 3300PF 50V X7R 0603	1
75	SS		0112-3332-5116	C/M Multi. 3300PF 50V X7R 0603	
76		C205	0111-3272-5116	C/M MULTI 2700PF 50V X7R 0603	1
77	SS		0112-3272-5116	C/M MULTI 2700PF 50V X7R 0603	
78		C210	0112-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805	1
79	SS		0111-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805 L-F	
80		C211	0112-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805	1
81	SS		0111-3105-5135	C/M MULTI 1.0uF 50V Y5V 0805 L-F	
82		C212	0111-3474-2536	C/M Multi 0.47uF 25V Y5V 0603	1
83	SS		0112-3474-2536	C/M Multi 0.47uF 25V Y5V 0603 L-F	
84		C213	0111-3474-2536	C/M Multi 0.47uF 25V Y5V 0603	1
85	SS		0112-3474-2536	C/M Multi 0.47uF 25V Y5V 0603 L-F	
86		C214	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
87	SS		0112-3220-5106	C/M Multi. 22PF 50V NPO 0603	
88		C215	0111-3220-5106	C/M MULTI. 22PF 50V NPO 0603	1
89	SS		0112-3220-5106	C/M Multi. 22PF 50V NPO 0603	
90		C217	0112-3334-5115	C/M MULTI 0.33UF 50V X7R 0805	1
91		C218	0111-3391-5106	C/M MULTI 390PF 50V NPO 0603	1
92	SS		0112-3391-5106	C/M Multi. 390PF 50V NPO 0603	
93		C219	0111-3391-5106	C/M MULTI 390PF 50V NPO 0603	1
94	SS		0112-3391-5106	C/M Multi. 390PF 50V NPO 0603	
95		C224	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
96	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
97		C225	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
98	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
99		C226	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
100	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
101		C228	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
102	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
103		C230	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
104	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
105		C232	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
106	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
107		C234	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
108	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
109		C236	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
110	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
111		C240	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
112	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
113		C243	0111-3104-5115	C/M MULTI 0.1UF 50V X7R 0805	1
114	SS		0112-3104-5115	C/M MULTI 0.1uF 50V X7R 0805 L-F	
115		D10	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
116		D11	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
117		D12	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
118		D2	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
119		D3	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
120		D4	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
121		D5	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
122		FB2	0370-0001-0752	CHIP BEAD CORE 120ohm (MLB-201209-0120P-N2A)	1
123		FB3	0370-0001-0752	CHIP BEAD CORE 120ohm (MLB-201209-0120P-N2A)	1
124		FB5	0370-0001-0752	CHIP BEAD CORE 120ohm (MLB-201209-0120P-N2A)	1
125		FB6	0370-0001-0752	CHIP BEAD CORE 120ohm (MLB-201209-0120P-N2A)	1
126		L10	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
127		L11	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
128		L2	0360-1000-0400	POWER INDUCTOR L:10uH 4.0A 12x12mm SMD LF	1
129	SS		0360-1000-0450	POWER INDUCTOR L:10uH 4.8A 12.5x12.5mm SMD LF	
130		L3	0360-1000-0400	POWER INDUCTOR L:10uH 4.0A 12x12mm SMD LF	1
131	SS		0360-1000-0450	POWER INDUCTOR L:10uH 4.8A 12.5x12.5mm SMD LF	
132		L4	0360-1000-0410	POWER INDUCTOR L:15uH 4.7A 12x12mm SMD LF	1
133	SS		0360-1000-0440	POWER INDUCTOR L:15uH 4.7A 12.5x12.5mm SMD LF	
134		L5	0360-1000-0410	POWER INDUCTOR L:15uH 4.7A 12x12mm SMD LF	1
135	SS		0360-1000-0440	POWER INDUCTOR L:15uH 4.7A 12.5x12.5mm SMD LF	
136		Q1	0411-0000-7612	TR NPN 30mA 50V DTC144EKA-T146 SMT3 LF	1
137		Q2	0411-0000-7612	TR NPN 30mA 50V DTC144EKA-T146 SMT3 LF	1
138		Q3	0410-5000-5719	TRANSISTOR KN3906S SOT-23 LF	1
139		Q4	0420-1004-9621	MOSFET N-CH 2N7002E-T1-E3 SMD (SOT-23) L-F	1
140		R108	0130-1101-0055	RES. CF 1.1Kohm 1/10W J 0603	1
141		R109	0130-1101-0055	RES. CF 1.1Kohm 1/10W J 0603	1
142		R110	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
143		R111	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
144		R112	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
145		R113	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
146		R114	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
147		R115	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
148		R116	0130-1500-0055	RES. CF 150ohm 1/10W J 0603	1
149		R117	0130-1500-0055	RES. CF 150ohm 1/10W J 0603	1
150		R118	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
151		R119	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
152		R120	0130-2202-0055	RES. CF 22Kohm 1/10W J 0603	1
153		R121	0130-2202-0055	RES. CF 22Kohm 1/10W J 0603	1
154		R122	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
155		R123	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
156		R124	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
157		R125	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
158		R126	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
159		R127	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
160		R128	0130-2402-0055	RES. CF 24Kohm 1/10W J 0603	1
161		R129	0130-2402-0055	RES. CF 24Kohm 1/10W J 0603	1
162		R130	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
163		R131	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
164		R132	0130-1500-0055	RES. CF 150ohm 1/10W J 0603	1
165		R133	0130-1500-0055	RES. CF 150ohm 1/10W J 0603	1
166		R140	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
167		R141	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
168		R142	0130-4709-0055	RES. CF 47ohm 1/10W J 0603	1
169		R152	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
170		R153	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
171		R154	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
172		R155	0130-4702-0055	RES. CF 47Kohm 1/10W J 0603	1
173		R156	0130-7502-0055	RES. CF 75Kohm 1/10W J 0603	1
174		R157	0130-7502-0055	RES. CF 75Kohm 1/10W J 0603	1
175		R158	0130-7502-0055	RES. CF 75Kohm 1/10W J 0603	1
176		R159	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
177		R160	0130-1502-0055	RES. CF 15Kohm 1/10W J 0603	1
178		R161	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
179		R162	0130-1500-0055	RES. CF 150ohm 1/10W J 0603	1
180		R170	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
181		R171	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
182		R172	0130-5101-0055	RES. CF 5.1Kohm 1/10W J 0603	1
183		R173	0130-5101-0055	RES. CF 5.1Kohm 1/10W J 0603	1
184		R174	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
185		R175	0130-1202-0055	RES. CF 12Kohm 1/10W J 0603	1
186		R176	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
187		R177	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
188		R178	0130-1009-0055	RES. CF 10ohm 1/10W J 0603	1
189		R179	0130-1009-0055	RES. CF 10ohm 1/10W J 0603	1
190		R180	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
191		R181	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
192		R182	0131-4992-0015	RES. MF 49.9Kohm 1/10W F 0603	1
193		R183	0131-4992-0015	RES. MF 49.9Kohm 1/10W F 0603	1
194		R184	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
195		R185	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
196		R200	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
197		R201	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
198		R202	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
199		R203	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
200		R204	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
201		R205	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
202		R206	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
203		R207	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
204		R208	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
205		R209	0130-2002-0055	RES. CF 20Kohm 1/10W J 0603	1
206		R210	0130-1203-0055	RES. CF 120Kohm 1/10W J 0603	1
207		R211	0130-1203-0055	RES. CF 120Kohm 1/10W J 0603	1
208		R212	0130-1009-0055	RES. CF 10ohm 1/10W J 0603	1
209		R213	0130-1009-0055	RES. CF 10ohm 1/10W J 0603	1
210		R214	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
211		R215	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
212		R216	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
213		R217	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
214		R220	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
215		R221	0130-1202-0055	RES. CF 12Kohm 1/10W J 0603	1
216		R222	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
217		R223	0130-1002-0055	RES. CF 10Kohm 1/10W J 0603	1
218		R224	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
219		R225	0130-2209-0055	RES. CF 22ohm 1/10W J 0603	1
220		R226	0130-1003-0055	RES. CF 100Kohm 1/10W J 0603	1
221		R227	0131-4640-0015	RES. MF 464 ohm 1/10W F 0603	1
222		R228	0131-8251-0015	RES. MF 8.25Kohm 1/10W F 0603	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
223		R300	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
224		R301	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
225		SD10	0390-6004-9293	Schottky Diode 1A 40V B140B-13-F SMB L-F	1
226		SD11	0390-6004-9293	Schottky Diode 1A 40V B140B-13-F SMB L-F	1
227		SD12	0390-6006-5293	SCHOTTKY DIODE 3A 40V B340-13-F SMC L-F	1
228		SD14	0390-6006-5293	SCHOTTKY DIODE 3A 40V B340-13-F SMC L-F	1
229		SD2	0390-6006-8293	SCHOTTKY DIODE 2A 40V B240-13-F SMB L-F	1
230		SD3	0390-6006-8293	SCHOTTKY DIODE 2A 40V B240-13-F SMB L-F	1
231		SD4	0390-6006-8293	SCHOTTKY DIODE 2A 40V B240-13-F SMB L-F	1
232		SD5	0390-6006-8293	SCHOTTKY DIODE 2A 40V B240-13-F SMB L-F	1
233		SD6	0390-6004-9293	Schottky Diode 1A 40V B140B-13-F SMB L-F	1
234		SD7	0390-6004-9293	Schottky Diode 1A 40V B140B-13-F SMB L-F	1
235		SD8	0390-6006-8293	SCHOTTKY DIODE 2A 40V B240-13-F SMB L-F	1
236		SD9	0390-6006-8293	SCHOTTKY DIODE 2A 40V B240-13-F SMB L-F	1
237		U1	0430-1008-6088	IC NJM4558M-TE2_PB SO8(DMP8) L-F	1
238	SS		0430-1010-9088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	
239		U2	0430-1008-6088	IC NJM4558M-TE2_PB SO8(DMP8) L-F	1
240	SS		0430-1010-9088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	
241		U3	0430-1008-6088	IC NJM4558M-TE2_PB SO8(DMP8) L-F	1
242	SS		0430-1010-9088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	
243		U4	0430-1008-6088	IC NJM4558M-TE2_PB SO8(DMP8) L-F	1
244	SS		0430-1010-9088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	
245		U5	0430-1008-6088	IC NJM4558M-TE2_PB SO8(DMP8) L-F	1
246	SS		0430-1010-9088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	
247		U6	0430-1008-6088	IC NJM4558M-TE2_PB SO8(DMP8) L-F	1
248	SS		0430-1010-9088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	
249		U7	0430-7043-4620	IC 2*20W AUDIO AMP MP7722DF-LF-Z 20PIN TSSOP LF	1
250		U8	0430-7043-3620	IC 50W AUDIO AMP MP7782DF-LF-Z 20PIN TSSOP LF	1
251		ZD2	0400-0681-2713	ZENER 6.46V-7.14V MMSZ5235B 1/2W SOD-123 L-F	1
252		ZD3	0400-0681-2713	ZENER 6.46V-7.14V MMSZ5235B 1/2W SOD-123 L-F	1
253		ZD4	0400-0681-2713	ZENER 6.46V-7.14V MMSZ5235B 1/2W SOD-123 L-F	1
254		ZD7	0400-0681-2713	ZENER 6.46V-7.14V MMSZ5235B 1/2W SOD-123 L-F	1

364700120150A MAIN BD ASS'Y GV47L FHDTV10A AI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		CE1	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
2		CE11	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
3		CE12	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
4		CE13	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
5		CE14	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
6		CE15	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
7		CE16	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
8		CE17	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
9		CE18	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
10		CE19	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
11		CE2	0103-1221-1311	E/C VT 220uF 25V 105'C F-T (8*11.5mm)	1
12		CE20	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
13		CE21	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
14		CE22	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
15		CE23	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
16		CE24	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
17		CE25	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
18		CE26	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
19		CE27	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
20		CE28	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
21		CE29	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
22		CE3	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
23		CE30	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
24		CE31	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
25		CE32	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
26		CE33	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
27		CE34	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
28		CE35	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
29		CE36	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
30		CE37	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
31		CE38	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
32		CE39	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
33		CE4	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
34		CE40	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
35		CE41	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
36		CE42	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
37		CE43	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
38		CE44	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
39		CE45	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
40		CE46	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
41		CE47	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
42		CE48	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
43		CE5	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
44		CE56	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
45		CE57	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
46		CE58	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
47		CE59	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
48		CE6	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
49		CE61	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
50		CE62	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
51		CE63	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
52		CE64	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
53		CE65	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
54		CE66	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
55		CE67	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
56		CE68	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
57		CE69	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
58		CE7	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
59		CE70	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
60		CE71	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
61		CE72	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
62		CE73	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
63		CE74	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
64		CE75	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
65		CE76	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
66		CE77	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
67		CE8	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
68		CE84	0103-1221-1311	E/C VT 220uF 25V 105'C F-T (8*11.5mm)	1
69		CE87	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
70		CE88	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
71		CE89	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
72		CE9	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
73		CE90	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
74		CE91	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
75		CE92	0103-1220-1211	E/C VT 22uF 16V 105'C F-T (5*11mm)	1
76		CE93	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
77		CE94	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
78		CE95	0103-1101-1211	E/C VZ 100uF 16V 105'C F-T (5*11mm)	1
79		CE96	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
80		CE97	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
81		CE98	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
82		DCE1	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
83		DCE10	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
84		DCE11	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
85		DCE12	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
86		DCE13	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
87		DCE14	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
88		DCE15	0103-1471-1211	E/C VZ 470uF 16V 105'C F-T (8*11.5mm)	1
89		DCE17	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
90		DCE18	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
91		DCE19	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
92		DCE2	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
93		DCE20	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
94		DCE21	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
95		DCE22	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
96		DCE23	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
97		DCE24	0103-1470-1211	E/C VT 47uF 16V 105'C F-T (5*11mm)	1
98		DCE25	0103-1100-1511	E/C VT 10uF 50V 105'C F-T (5*11mm)	1
99		DCE26	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
100		DCE27	0103-1220-1511	E/C VT 22uF 50V 105'C F-T (5*11mm)	1
101		DCE3	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
102		DCE4	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
103		DCE5	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
104		DCE6	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
105		DCE7	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
106		DCE8	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
107		DCE9	0103-1221-1211	E/C VZ 220uF 16V 105'C F-T (6.3*11mm)	1
108		FB36	0370-0000-1011	FERRITE CORE RH 3.5X6X1.0(W)X2 L-F	1
109		L1	0370-0000-1011	FERRITE CORE RH 3.5X6X1.0(W)X2 L-F	1
110		L26	0370-0000-1011	FERRITE CORE RH 3.5X6X1.0(W)X2 L-F	1

364700120150M MAIN BD ASS'Y GV47L FHDTV10A MI

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		DL7	0361-2022-0030	COIL CHOKE 22UH 2.9A 11*12 DIP TSL1112RA-220K2R9-PF	1
2		DL8	0361-2022-0030	COIL CHOKE 22UH 2.9A 11*12 DIP TSL1112RA-220K2R9-PF	1
3		DP1	0300-6400-0031	OPTO CONN. Transmitter (134-0029-399A) L-F	1
4		DTU1	0980-0103-3060	MODULE TUNER DTVS205CH201A L-F	1
5		DU1	0430-6011-3210	IC MC7805CTG 3PIN TO-220 LF	1
6	SS		0430-6011-3204	IC LM7805CT TO-220 3PIN LF	
7	SS		0430-6011-3242	IC REGULATOR AZ7805T-E1 TO-220 3PIN LF	
8		DY1	0280-2500-0012	X'TAL 25MHZ 49/US 30PPM 20PF LF	1
9		J1	0451-1250-0366	WAFER 1.25mm 3P 90' DIP KINK (M24013R) L-F	1
10	SS		0451-1250-0363	WAFER 1.25mm 3P 90' KINK (A1251WR0-3P) L-F	
11		J6	0451-2000-0866	WAFER 2.0mm 8P 90' DIP KINK (M24268R) L-F	1
12	SS		0451-2003-0863	WAFER 2.00mm 8P 90' KINK (A2001WR2-8P) L-F	
13		J7	0451-2000-1566	WAFER 2.0mm 15P 90' DIP KINK (M242615R) L-F	1
14	SS		0451-2003-1563	WAFER 2.00mm 15P 90' KINK (A2001WR2-15P) L-F	
15		J8	0451-2000-0606	WAFER 2.0mm 6P 180' DIP KINK (M24266) L-F	1
16	SS		0451-2003-0603	WAFER 2.00mm 6P 180' KINK (A2001WV2-6P) L-F	
17		P12	0300-3041-0090	S-VIDEO 4PIN 90' (2MJ-0602-005) L-F	1
18		P13	0302-9020-0114	RCA JACK 2ROW 2I/O (W-R) L-F	1
19		P2	0302-9060-0022	RCA JACK 2ROW 6I/O (Y-W-R) L-F	1
20		P3	0300-1205-3151	D-SUB FEMALE 90' 15P 3ROW (DV11201-H5R6-4F) L-F	1
21		P4	0302-9060-0020	RCA JACK 2ROW 6I/O (G-B-R)	1
22		P5	0302-9040-0010	RCA JACK 2ROW 4I/O 90' (W-R) L-F	1
23		P6	0302-0350-0012	PHONE JACK 3.5 φ 5P 90' +SHIELD L-F	1
24		P8	0202-6000-0003	RJ11 6P6C Gray UNDER CONTACT L-F	1
25		P9	0302-9020-0114	RCA JACK 2ROW 2I/O (W-R) L-F	1
26		Y1	0280-2700-0012	X'TAL 27MHZ 49/US 30PPM 20PF 40ohm	1

364700120150S MAIN BD ASS'Y GV47L FHDTV10A SMD

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			364700120150B	MAIN BD ASS'Y GV47L FHDTV10A SMD BOT	1
2			364700120150T	MAIN BD ASS'Y GV47L FHDTV10A SMD TOP	1

3647-0012-0156 DISPLAY BD ASS'Y GV47L FHDTV10A

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			364700120156B	DISPLAY BD ASS'Y GV47L FHDTV10A SMD BOT	1
2			364700120156M	DISPLAY BD ASS'Y GV47L FHDTV10A MI	1
3			364700120156T	DISPLAY BD ASS'Y GV47L FHDTV10A SMD TOP	1

364700120150B MAIN BD ASS'Y GV47L FHDTV10A SMD BOT

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		C100	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
2	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
3		C101	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
4	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
5		C102	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
6	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
7		C103	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
8	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
9		C104	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
10	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
11		C105	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
12	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
13		C113	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
14	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
15		C121	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
16	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
17		C122	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
18	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
19		C123	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
20	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
21		C124	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
22	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
23		C125	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
24	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
25		C126	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
26	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
27		C127	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
28	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
29		C128	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
30	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
31		C130	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
32	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
33		C131	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
34	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
35		C133	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
36	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
37		C134	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
38	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
39		C135	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
40	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
41		C136	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
42	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
43		C137	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
44	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
45		C138	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
46	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
47		C140	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
48	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
49		C141	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
50	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
51		C142	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
52	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
53		C143	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
54	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
55		C144	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
56	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
57		C145	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
58	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
59		C146	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
60	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
61		C147	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
62	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
63		C148	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
64	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
65		C149	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
66	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
67		C150	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
68	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
69		C151	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
70	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
71		C152	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
72	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
73		C153	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
74	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
75		C154	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
76	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
77		C155	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
78	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
79		C156	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
80	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
81		C157	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
82	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
83		C158	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
84	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
85		C171	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
86	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
87		C172	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
88	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
89		C174	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
90	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
91		C175	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
92	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
93		C177	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
94	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
95		C179	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
96	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
97		C180	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
98	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
99		C181	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
100	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
101		C184	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
102	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
103		C186	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
104	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
105		C187	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
106	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
107		C188	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
108	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
109		C189	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
110	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
111		C190	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
112	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
113		C191	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
114	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
115		C192	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
116	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
117		C194	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
118	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
119		C196	0111-3101-5107	C/M Multi. 100PF 50V NPO J 0402	1
120	SS		0112-3101-5107	C/M Multi. 100PF 50V NPO J 0402	
121		C197	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
122	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
123		C23	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
124	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
125		C24	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
126	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
127		C25	0111-3101-5107	C/M Multi. 100PF 50V NPO J 0402	1
128	SS		0112-3101-5107	C/M Multi. 100PF 50V NPO J 0402	
129		C26	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
130	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
131		C27	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
132	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
133		C28	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
134	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
135		C281	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
136		C282	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
137		C289	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
138		C29	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
139	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
140		C30	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
141	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
142		C31	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
143	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
144		C32	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
145		C320	0112-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	1
146	SS		0111-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	
147		C322	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
148		C324	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
149		C325	0112-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	1
150	SS		0111-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	
151		C327	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
152		C328	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
153		C329	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
154		C33	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
155	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
156		C331	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
157		C333	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
158		C334	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
159		C335	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
160		C337	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
161		C338	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
162		C339	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
163		C34	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
164	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
165		C340	0272-0025-0961	ESD PROTECTOR 5V SMD (EGA1-0603-V05-B) LF	1
166		C35	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
167	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
168		C358	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
169	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
170		C36	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
171	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
172		C360	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
173	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
174		C361	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
175	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
176		C362	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
177	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
178		C367	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
179	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
180		C368	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
181	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
182		C369	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
183	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
184		C37	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
185	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
186		C370	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
187	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
188		C371	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
189	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
190		C372	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
191	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
192		C373	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
193	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
194		C374	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
195	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
196		C376	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
197	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
198		C377	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
199	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
200		C378	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
201	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
202		C379	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
203	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
204		C38	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
205	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
206		C380	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
207	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
208		C381	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
209	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
210		C39	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
211	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
212		C393	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
213	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
214		C394	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
215	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
216		C395	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
217	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
218		C42	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
219	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
220		C43	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
221	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
222		C44	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
223	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
224		C45	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
225	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
226		C46	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
227	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
228		C47	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
229	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
230		C48	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
231	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
232		C49	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
233	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
234		C5	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
235	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
236		C50	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
237	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
238		C51	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
239	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
240		C52	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
241	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
242		C53	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
243	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
244		C54	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
245	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
246		C55	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
247	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
248		C56	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
249	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
250		C57	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
251	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
252		C58	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
253	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
254		C59	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
255	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
256		C60	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
257	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
258		C61	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
259	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
260		C62	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
261	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
262		C63	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
263	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
264		C64	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
265	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
266		C65	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
267	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
268		C66	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
269	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
270		C67	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
271	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
272		C68	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
273	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
274		C69	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
275	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
276		C70	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
277	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
278		C71	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
279	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
280		C72	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
281	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
282		C73	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
283	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
284		C74	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
285	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
286		C75	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
287	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
288		C76	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
289	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
290		C77	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
291	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
292		C78	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
293	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
294		C79	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
295	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
296		C80	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
297	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
298		C81	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
299	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
300		C84	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
301	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
302		C85	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
303	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
304		C86	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
305	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
306		C87	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
307	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
308		C88	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
309	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
310		C89	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
311	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
312		C90	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
313	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
314		C91	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
315	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
316		C92	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
317	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
318		C93	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
319	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
320		C94	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
321	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
322		C95	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
323	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
324		C96	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
325	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
326		C97	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
327	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
328		C98	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
329	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
330		C99	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
331	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
332		DC100	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
333	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
334		DC101	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
335	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
336		DC102	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
337	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
338		DC103	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
339	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
340		DC104	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
341	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
342		DC105	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
343	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
344		DC106	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
345	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
346		DC107	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
347	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
348		DC108	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
349	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
350		DC109	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
351	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
352		DC110	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
353	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
354		DC112	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
355	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
356		DC114	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
357	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
358		DC115	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
359	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
360		DC116	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
361	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
362		DC117	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
363	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
364		DC118	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
365	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
366		DC119	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
367	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
368		DC121	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
369	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
370		DC122	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
371	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
372		DC123	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
373	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
374		DC124	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
375	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
376		DC126	0111-3100-5107	C/M Multi. 10PF 50V NPO J 0402	1
377	SS		0112-3100-5107	C/M Multi. 10PF 50V NPO 0402	
378		DC127	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
379	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
380		DC130	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
381	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
382		DC131	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
383	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
384		DC132	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
385	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
386		DC133	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
387	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
388		DC135	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
389	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
390		DC136	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
391	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
392		DC137	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
393	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
394		DC142	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
395	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
396		DC143	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
397	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
398		DC144	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
399	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
400		DC145	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
401	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
402		DC146	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
403	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
404		DC147	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
405	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
406		DC148	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
407	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
408		DC149	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
409	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
410		DC150	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
411	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
412		DC151	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
413	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
414		DC152	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
415	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
416		DC153	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
417	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
418		DC154	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
419	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
420		DC155	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
421	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
422		DC156	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
423	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
424		DC157	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
425	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
426		DC158	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
427	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
428		DC159	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
429	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
430		DC160	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
431	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
432		DC161	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
433	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
434		DC162	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
435	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
436		DC163	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
437	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
438		DC164	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
439	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
440		DC165	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
441	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
442		DC166	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
443	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
444		DC167	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
445	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
446		DC168	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
447	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
448		DC169	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
449	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
450		DC173	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
451	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
452		DC174	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
453	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
454		DC175	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
455	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
456		DC176	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
457	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
458		DC177	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
459	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
460		DC178	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
461	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
462		DC181	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
463	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
464		DC2	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
465	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
466		DC3	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
467	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
468		DC30	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
469	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
470		DC34	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
471	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
472		DC37	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
473	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
474		DC38	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
475	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
476		DC39	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
477	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
478		DC40	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
479	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
480		DC41	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
481	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
482		DC42	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
483	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
484		DC43	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
485	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
486		DC44	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
487	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
488		DC45	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
489	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
490		DC46	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
491	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
492		DC47	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
493	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
494		DC49	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
495	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
496		DC50	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
497	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
498		DC51	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
499	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
500		DC52	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
501	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
502		DC53	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
503	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
504		DC54	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
505	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
506		DC55	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
507	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
508		DC56	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
509	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
510		DC57	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
511	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
512		DC58	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
513	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
514		DC6	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
515	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
516		DC61	0111-3562-5117	C/M Multi. 5600PF 50V X7R K 0402	1
517	SS		0112-3562-5117	C/M Multi. 5600PF 50V X7R K 0402	
518		DC62	0111-3152-5117	C/M Multi. 1500PF 50V X7R 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
519	SS		0112-3152-5117	C/M Multi. 1500PF 50V X7R 0402 L-F	
520		DC63	0111-3152-5117	C/M Multi. 1500PF 50V X7R 0402	1
521	SS		0112-3152-5117	C/M Multi. 1500PF 50V X7R 0402 L-F	
522		DC66	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
523	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
524		DC67	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
525	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
526		DC68	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
527	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
528		DC69	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
529	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
530		DC70	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
531	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
532		DC71	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
533	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
534		DC72	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
535	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
536		DC73	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
537	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
538		DC74	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
539	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
540		DC75	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
541	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
542		DC76	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
543	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
544		DC77	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
545	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
546		DC81	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
547	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
548		DC82	0111-3101-5107	C/M Multi. 100PF 50V NPO J 0402	1
549	SS		0112-3101-5107	C/M Multi. 100PF 50V NPO J 0402	
550		DC83	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
551	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
552		DC84	0111-3331-5107	C/M Multi. 330PF 50V NPO 0402	1
553	SS		0112-3331-5107	C/M Multi. 330PF 50V NPO J 0402	
554		DC85	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
555	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
556		DC86	0111-3105-1636	C/M MULTI 1uF 16V Y5V 0603	1
557	SS		0112-3105-1636	C/M Multi. 1.0uF 16V Y5V 0603	
558		DC87	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
559	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
560		DC88	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
561	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
562		DC89	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
563	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
564		DC90	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
565	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
566		DC91	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
567	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
568		DC92	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
569	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
570		DC93	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
571	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
572		DC94	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
573	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
574		DC95	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
575	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
576		DC96	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
577	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
578		DC98	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
579	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
580		DC99	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
581	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
582		DFB7	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
583		DFB9	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
584		DRP17	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
585		DRP18	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
586		DRP22	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
587		DRP23	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
588		DRP7	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
589		DR101	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
590		DR102	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
591		DR103	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
592		DR104	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
593		DR107	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
594		DR121	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
595		DR122	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
596		DR132	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
597		DR133	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
598		DR135	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
599		DR138	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
600		DR139	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
601		DR140	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
602		DR141	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
603		DR142	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
604		DR143	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
605		DR56	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
606		DR58	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
607		DR95	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
608		DR97	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
609		DR98	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
610		D7	0390-6005-2103	SCHOTTKY DIODE 0.5A/40V MBR0540T1G SOD-123 LF	1
611		FB39	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
612		FB40	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
613		FB41	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
614		FB42	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
615		FB43	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
616		FB44	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
617		FB45	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
618		FB46	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
619		FB47	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
620		FB48	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
621		FB49	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
622		FB5	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
623		FB50	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
624		FB52	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
625		FB53	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
626		FB54	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
627		FB55	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
628		FB56	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
629		FB57	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
630		FB8	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
631		R123	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
632		R306	0130-3908-1858	RES. CF 3.9ohm 1/8W J 0805	1
633		R309	0130-3908-1858	RES. CF 3.9ohm 1/8W J 0805	1
634		R335	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
635		R336	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
636		R337	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
637		R339	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
638		R341	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
639		R342	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
640		R343	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
641		R344	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
642		R346	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
643		R347	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
644		R348	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
645		R349	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
646		R351	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
647		R356	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
648		R359	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
649		R367	0130-2000-1654	RES. CF 200ohm 1/16W J 0402	1
650		R400	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
651		R44	0131-4999-1614	RES. MF 49.9ohm 1/16W F 0402	1
652		R446	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
653		R447	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
654		R448	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
655		R45	0131-4999-1614	RES. MF 49.9ohm 1/16W F 0402	1
656		R470	0130-0000-1859	RES. CF 0.0ohm 1/8W J 1206	1
657		R471	0130-0000-1859	RES. CF 0.0ohm 1/8W J 1206	1
658		R497	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
659		R5	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
660		R54	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
661		R55	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
662		R59	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
663		R69	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
664		R76	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
665		R82	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
666		R87	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
667		R88	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
668		R89	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
669		R90	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
670		R91	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
671		R92	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
672		R93	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
673		R96	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
674		R98	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
675		R99	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
676		VZ27	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
677		VZ28	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
678		VZ29	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
679		VZ30	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
680		VZ33	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
681		VZ34	0272-0014-0960	ESD PROTECTOR 4V SMD (MLVS0603M04) L-F	1
682		VZ35	0272-0014-0960	ESD PROTECTOR 4V SMD (MLVS0603M04) L-F	1
683		VZ37	0272-0014-0960	ESD PROTECTOR 4V SMD (MLVS0603M04) L-F	1
684		VZ38	0272-0014-0960	ESD PROTECTOR 4V SMD (MLVS0603M04) L-F	1

364700120150T MAIN BD ASS'Y GV47L FHDTV10A SMD TOP

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-2272-2235	PCB MAIN BD FR4 380*168*1.6t 4M (PLT-4271/5071)(1:1)	1
2		C1	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
3	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
4		C10	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
5	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
6		C106	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
7	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
8		C107	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
9	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
10		C108	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
11	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
12		C109	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
13	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
14		C11	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
15	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
16		C110	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
17	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
18		C111	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
19	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
20		C112	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
21	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
22		C114	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
23	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
24		C115	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
25	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
26		C116	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
27	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
28		C117	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
29	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
30		C118	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
31	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
32		C119	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
33	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
34		C12	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
35	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
36		C120	0111-3332-5117	C/M Multi. 3300PF 50V X7R K 0402	1
37	SS		0112-3332-5117	C/M Multi. 3300PF 50V X7R K 0402 L-F	
38		C129	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
39	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
40		C13	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
41	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
42		C132	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
43	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
44		C139	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
45	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
46		C14	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
47	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
48		C15	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
49	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
50		C159	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
51	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
52		C16	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
53	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
54		C163	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
55	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
56		C164	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
57	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
58		C165	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
59	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
60		C166	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
61	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
62		C167	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
63	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
64		C168	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
65	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
66		C169	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
67	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
68		C17	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
69	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
70		C170	0111-3821-5117	C/M Multi. 820pF 50V X7R K 0402	1
71	SS		0112-3821-5117	C/M Multi. 820pF 50V X7R 0402 L-F	
72		C176	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
73	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
74		C18	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
75	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
76		C182	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
77	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
78		C183	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
79	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
80		C185	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
81	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
82		C19	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
83	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
84		C193	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
85	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
86		C195	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
87	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
88		C198	0111-3331-5107	C/M Multi. 330PF 50V NPO 0402	1
89	SS		0112-3331-5107	C/M Multi. 330PF 50V NPO J 0402	
90		C199	0111-3105-1636	C/M MULTI 1uF 16V Y5V 0603	1
91	SS		0112-3105-1636	C/M Multi. 1.0uF 16V Y5V 0603	
92		C2	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
93	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
94		C20	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
95	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
96		C202	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
97	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
98		C204	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
99	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
100		C205	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
101	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
102		C209	0111-3189-5107	C/M MULTI 1.8PF 50V NPO 0402	1
103	SS		0112-3189-5107	C/M MULTI 1.8PF 50V NPO 0402	
104		C21	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
105	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
106		C213	0130-2203-1654	RES. CF 220Kohm 1/16W J 0402	1
107		C215	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
108	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
109		C216	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
110	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
111		C217	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
112	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
113		C218	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
114	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
115		C219	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
116	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
117		C22	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
118	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
119		C220	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
120	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
121		C221	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
122	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
123		C232	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
124	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
125		C233	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
126	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
127		C234	0111-3101-5107	C/M Multi. 100PF 50V NPO J 0402	1
128	SS		0112-3101-5107	C/M Multi. 100PF 50V NPO J 0402	
129		C237	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
130	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
131		C239	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
132	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
133		C240	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
134	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
135		C241	0111-3104-1616	C/M Multi. 0.1uF 16V X7R 0603	1
136		C242	0111-3101-5107	C/M Multi. 100PF 50V NPO J 0402	1
137	SS		0112-3101-5107	C/M Multi. 100PF 50V NPO J 0402	
138		C244	0111-3104-1616	C/M Multi. 0.1uF 16V X7R 0603	1
139		C245	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
140	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
141		C246	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
142	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
143		C248	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
144	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
145		C249	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
146	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
147		C250	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
148	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
149		C253	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
150	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
151		C254	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
152	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
153		C255	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
154	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
155		C256	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
156	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
157		C257	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
158	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
159		C258	0111-3331-5107	C/M Multi. 330PF 50V NPO 0402	1
160	SS		0112-3331-5107	C/M Multi. 330PF 50V NPO J 0402	
161		C259	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
162	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
163		C260	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
164	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
165		C261	0111-3331-5107	C/M Multi. 330PF 50V NPO 0402	1
166	SS		0112-3331-5107	C/M Multi. 330PF 50V NPO J 0402	
167		C262	0111-3331-5107	C/M Multi. 330PF 50V NPO 0402	1
168	SS		0112-3331-5107	C/M Multi. 330PF 50V NPO J 0402	
169		C263	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
170	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
171		C264	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
172	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
173		C265	0111-3472-5117	C/M Multi. 4700PF 50V X7R K 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
174	SS		0112-3472-5117	C/M Multi. 4700PF 50V X7R K 0402 L-F	
175		C266	0111-3472-5117	C/M Multi. 4700PF 50V X7R K 0402	1
176	SS		0112-3472-5117	C/M Multi. 4700PF 50V X7R K 0402 L-F	
177		C267	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
178	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
179		C268	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
180	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
181		C269	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
182	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
183		C270	0111-3102-5117	C/M MULTI 1000PF 50V X7R 0402	1
184	SS		0112-3102-5117	C/M Multi. 1000PF 50V X7R 0402	
185		C271	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
186	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
187		C272	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
188	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
189		C273	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
190	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
191		C274	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
192	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
193		C275	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
194	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
195		C276	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
196	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
197		C277	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
198	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
199		C278	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
200	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
201		C279	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
202	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
203		C280	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
204	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
205		C283	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
206	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
207		C284	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
208	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
209		C285	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
210	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
211		C286	0111-3150-5107	C/M Multi. 15PF 50V NPO 0402	1
212	SS		0112-3150-5107	C/M Multi. 15PF 50V NPO 0402	
213		C287	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
214	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
215		C288	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
216	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
217		C290	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
218	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
219		C292	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
220	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
221		C293	0111-3472-5117	C/M Multi. 4700PF 50V X7R K 0402	1
222	SS		0112-3472-5117	C/M Multi. 4700PF 50V X7R K 0402 L-F	
223		C294	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
224	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
225		C296	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
226	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
227		C297	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
228	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
229		C299	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
230	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
231		C3	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
232	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
233		C300	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
234	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
235		C301	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
236	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
237		C302	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
238	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
239		C303	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
240	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
241		C304	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
242	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
243		C305	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
244	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
245		C306	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
246	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
247		C307	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
248	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
249		C308	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
250	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
251		C309	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
252	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
253		C310	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
254	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
255		C311	0111-3104-1616	C/M Multi. 0.1uF 16V X7R 0603	1
256		C313	0130-4703-1654	RES. CF 470Kohm 1/16W J 0402	1
257		C317	0112-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	1
258	SS		0111-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	
259		C319	0130-4703-1654	RES. CF 470Kohm 1/16W J 0402	1
260		C323	0111-3104-1616	C/M Multi. 0.1uF 16V X7R 0603	1
261		C326	0112-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	1
262	SS		0111-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	
263		C330	0111-3104-1616	C/M Multi. 0.1uF 16V X7R 0603	1
264		C332	0111-3104-1616	C/M Multi. 0.1uF 16V X7R 0603	1
265		C336	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
266	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
267		C341	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
268	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
269		C342	0111-3475-1135	C/M MULTI 4.7uF 10V Y5V 0805	1
270	SS		0112-3475-1135	C/M MULTI 4.7uF 10V Y5V 0805	
271		C343	0111-3475-1135	C/M MULTI 4.7uF 10V Y5V 0805	1
272	SS		0112-3475-1135	C/M MULTI 4.7uF 10V Y5V 0805	
273		C344	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
274	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
275		C347	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
276	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
277		C348	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
278	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
279		C349	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
280	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
281		C350	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
282	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
283		C355	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
284	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
285		C356	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
286	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
287		C359	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
288	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
289		C363	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
290	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
291		C364	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
292	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
293		C365	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
294	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
295		C366	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
296	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
297		C375	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
298	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
299		C382	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
300	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
301		C392	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
302	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
303		C396	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
304	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
305		C397	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
306	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
307		C398	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
308	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
309		C4	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
310	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
311		C40	0112-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603	1
312	SS		0111-3475-6056	C/M MULTI 4.7uF 6.3V X5R K 0603 L-F	
313		C41	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
314	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
315		C6	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
316	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
317		C7	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
318	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
319		C8	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
320	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
321		C82	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
322	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
323		C83	0111-3270-5107	C/M MULTI 27PF 50V NPO 0402	1
324	SS		0112-3270-5107	C/M Multi. 27PF 50V NPO 5% 0402	
325		C9	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
326	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
327		DC1	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
328	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
329		DC10	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
330	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
331		DC11	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
332	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
333		DC111	0111-3100-5107	C/M Multi. 10PF 50V NPO J 0402	1
334	SS		0112-3100-5107	C/M Multi. 10PF 50V NPO 0402	
335		DC113	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
336	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
337		DC120	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
338	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
339		DC128	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
340	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
341		DC129	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
342	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
343		DC134	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
344	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
345		DC138	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
346	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
347		DC139	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
348	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
349		DC14	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
350	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
351		DC140	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
352	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
353		DC141	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
354	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
355		DC15	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
356	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
357		DC16	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
358	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
359		DC170	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
360	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
361		DC171	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
362	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
363		DC172	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
364	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
365		DC179	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
366	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
367		DC180	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
368	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
369		DC182	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
370	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
371		DC183	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
372	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
373		DC184	0111-3104-5166	C/M MULTI 0.1UF 50V X7R J 0603	1
374	SS		0112-3104-5166	C/M Muitl. 0.1uF 50V X7R J 0603	
375		DC185	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
376	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
377		DC186	0111-3104-1616	C/M Multi. 0.1uF 16V X7R 0603	1
378		DC187	0111-3101-5107	C/M Multi. 100PF 50V NPO J 0402	1
379	SS		0112-3101-5107	C/M Multi. 100PF 50V NPO J 0402	
380		DC188	0111-3101-5107	C/M Multi. 100PF 50V NPO J 0402	1
381	SS		0112-3101-5107	C/M Multi. 100PF 50V NPO J 0402	
382		DC19	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
383	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
384		DC20	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
385	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
386		DC21	0111-3104-5166	C/M MULTI 0.1UF 50V X7R J 0603	1
387	SS		0112-3104-5166	C/M Muitl. 0.1uF 50V X7R J 0603	
388		DC22	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
389	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
390		DC23	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
391	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
392		DC24	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
393	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
394		DC25	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
395	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
396		DC26	0111-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	1
397	SS		0112-3473-2517	C/M Multi. 0.047uF 25V X7R 0402	
398		DC27	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
399	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
400		DC29	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
401	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
402		DC31	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
403	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
404		DC32	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
405	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
406		DC33	0111-3106-1135	C/M MULTI. 10uF 10V Y5V 0805	1
407	SS		0112-3106-1135	C/M MULTI 10uF 10V Y5V 0805	
408		DC35	0111-3180-5107	C/M Multi. 18PF 50V NPO 0402	1
409	SS		0112-3180-5107	C/M Multi. 18PF 50V NPO 0402	
410		DC36	0111-3180-5107	C/M Multi. 18PF 50V NPO 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
411	SS		0112-3180-5107	C/M Multi. 18PF 50V NPO 0402	
412		DC4	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
413	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
414		DC48	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
415	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
416		DC5	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
417	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
418		DC59	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
419	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
420		DC7	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
421	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
422		DC78	0111-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	1
423	SS		0112-3103-1617	C/M Multi. 0.01uF 16V X7R K 0402	
424		DC79	0111-3470-5107	C/M Multi. 47pF 50V NPO 0402	1
425	SS		0112-3470-5107	C/M Multi. 47PF 50V NPO J 0402	
426		DC8	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
427	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
428		DC80	0111-3102-5117	C/M MULTI 1000PF 50V X7R 0402	1
429	SS		0112-3102-5117	C/M Multi. 1000PF 50V X7R 0402	
430		DC9	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
431	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
432		DC97	0111-3220-5107	C/M Multi. 22PF 50V NPO J 0402	1
433	SS		0112-3220-5107	C/M Multi. 22PF 50V NPO J 0402	
434		DD1	0390-6005-5293	SCHOTTKY DIODE 3A 40V B340A-13-F SMA L-F	1
435		DD2	0390-6005-5293	SCHOTTKY DIODE 3A 40V B340A-13-F SMA L-F	1
436		DFB1	0371-6880-0482	CHIP COIL 0.68uH 300mA 0805 (GL201209TR68KTM) LF	1
437		DFB10	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
438		DFB2	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
439		DFB3	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
440		DFB4	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
441		DFB5	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
442		DFB6	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
443		DFB8	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
444		DL10	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
445		DL12	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
446		DL13	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
447		DL14	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
448		DL15	0390-6005-2103	SCHOTTKY DIODE 0.5A/40V MBR0540T1G SOD-123 LF	1
449		DL17	0360-1000-0420	POWER INDUCTOR L:10uH 1.44A 5.8x5.2mm SMD LF	1
450		DL2	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
451		DL3	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
452		DL4	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
453		DL5	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
454		DL6	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
455		DL9	0130-1808-1858	RES. CF 1.8ohm 1/8W J 0805	1
456		DRN25	0141-1001-3851	ARRAY RES. A(X) 1Kohm 4R J 8P	1
457		DRP1	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
458		DRP10	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
459		DRP11	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
460		DRP12	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
461		DRP13	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
462		DRP14	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
463		DRP15	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
464		DRP16	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
465		DRP19	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
466		DRP2	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
467		DRP20	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
468		DRP21	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
469		DRP24	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
470		DRP25	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
471		DRP26	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
472		DRP27	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
473		DRP3	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
474		DRP4	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
475		DRP5	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
476		DRP6	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
477		DRP8	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
478		DRP9	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
479		DR1	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
480		DR10	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
481		DR100	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
482		DR106	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
483		DR11	0130-1501-1654	RES. CF 1.5Kohm 1/16W J 0402	1
484		DR110	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
485		DR111	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
486		DR112	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
487		DR113	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
488		DR114	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
489		DR115	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
490		DR116	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
491		DR117	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
492		DR118	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
493		DR119	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
494		DR12	0130-1003-1654	RES. CF 100Kohm 1/16W J 0402	1
495		DR120	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
496		DR123	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
497		DR124	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
498		DR125	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
499		DR126	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
500		DR127	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
501		DR128	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
502		DR129	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
503		DR13	0130-1801-1654	RES. CF 1.8Kohm 1/16W J 0402	1
504		DR130	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
505		DR131	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
506		DR134	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
507		DR137	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
508		DR14	0130-1501-1654	RES. CF 1.5Kohm 1/16W J 0402	1
509		DR144	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
510		DR145	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
511		DR146	0131-6341-1614	RES. MF 6.34 Kohm 1/16W F 0402	1
512		DR147	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
513		DR15	0130-1201-1654	RES. CF 1.2Kohm 1/16W J 0402	1
514		DR16	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
515		DR18	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
516		DR21	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
517		DR23	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
518		DR24	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
519		DR25	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
520		DR27	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
521		DR28	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
522		DR31	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
523		DR32	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
524		DR33	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
525		DR35	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
526		DR36	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
527		DR37	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
528		DR38	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
529		DR39	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
530		DR4	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
531		DR40	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
532		DR41	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
533		DR42	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
534		DR43	0130-1004-1654	RES. CF 1Mohm 1/16W J 0402	1
535		DR44	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
536		DR5	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
537		DR52	0130-8201-1654	RES. CF 8.2Kohm 1/16W J 0402	1
538		DR53	0130-5109-1654	RES. CF 51ohm 1/16W J 0402	1
539		DR55	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
540		DR57	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
541		DR59	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
542		DR6	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
543		DR60	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
544		DR61	0130-1003-1654	RES. CF 100Kohm 1/16W J 0402	1
545		DR7	0130-1801-1654	RES. CF 1.8Kohm 1/16W J 0402	1
546		DR8	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
547		DR9	0130-1003-1654	RES. CF 100Kohm 1/16W J 0402	1
548		DR99	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
549		DU14	0430-3039-4645	IC MX29LV320CTTC-70G 48PIN TSOP LF	1
550	SS		0430-3039-4648	IC FLASH 32M EN29LV320T-70TCP TSOP 48PIN LF	
551		DU14X	0991-2003-0801	SOFTWARE GV47L FHDTV10A CPU:GV47LDMM01.bin	1
552		DU15	0430-7031-9603	IC DDR 16Mx16 NT5DS16M16CS-5T 66PIN TSOPII LF	1
553	SS		0430-7032-1612	IC DDR 16Mx16 A2S56D40BTP-G5PP 66PIN TSOPII LF	
554		DU16	0430-7031-9603	IC DDR 16Mx16 NT5DS16M16CS-5T 66PIN TSOPII LF	1
555	SS		0430-7032-1612	IC DDR 16Mx16 A2S56D40BTP-G5PP 66PIN TSOPII LF	
556		DU17	0430-6010-9028	IC G2996F1Uf 8PIN SOP-8(FD) LF	1
557		DU18	0430-6015-8079	IC DC/DC CONVERTER AP1522WA SOT23-5 5PIN LF	1
558		DU2	0430-6007-5079	IC AP1117E33LA LF SOT-223	1
559	SS		0430-6007-5075	IC AME1117CCGTZ 3PIN SOT-223 L-F	
560		DU3	0430-6002-8079	IC AP1117E25LA SOT-223 L-F	1
561		DU4	0430-6009-1051	IC AMC1117SKF-ADJ SMD 3PIN SOT-223 LF	1
562		DU5	0430-6015-5079	IC STEP DOWN CONVERTER AP1513SA SOP 8PIN LF	1
563		DU6	0430-6015-5079	IC STEP DOWN CONVERTER AP1513SA SOP 8PIN LF	1
564		DU7	0430-7043-5092	IC SWITCH PI5C3257QE QSOP 16PIN LF	1
565		DU8	0430-7043-1999	IC DEMODULATOR MT5112BD LQFP 100PIN LF	1
566		DU9	0430-7035-1999	IC MT5351AG 471PIN BGA LF	1
567		DX1	0286-2700-0024	OSC 27MHz 25ppm 3.3V SMD VCXO	1
568		D1	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
569	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
570	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
571		D10	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
572	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
573	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
574		D11	0390-5003-5293	DUAL SURFACE DIODES BAV99-7-F SOT-23 L-F	1
575	SS		0390-5003-5273	DUAL SURFACE DIODE BAV99 SMD (SOT-23) L-F	
576		D12	0390-5003-5293	DUAL SURFACE DIODES BAV99-7-F SOT-23 L-F	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
577	SS		0390-5003-5273	DUAL SURFACE DIODE BAV99 SMD (SOT-23) L-F	
578		D13	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
579	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
580	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
581		D14	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
582	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
583	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
584		D15	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
585	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
586	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
587		D16	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
588	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
589	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
590		D17	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
591	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
592	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
593		D18	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
594	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
595	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
596		D2	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
597	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
598	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
599		D21	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
600	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
601	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
602		D22	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
603	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
604	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
605		D25	0390-6005-9283	SCHOTTKY DIODE SS14-S100 SMA LF	1
606		D3	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
607	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
608	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
609		D4	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
610	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
611	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
612		D5	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
613	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
614	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
615		D6	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
616	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
617	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
618		D9	0390-5004-2343	GEN. DIODE LL4148WP SMD 1206 L-F	1
619	SS		0390-3006-7353	DIODE FAST 0.3A 100V LL4148 LL-34 LF	
620	SS		0390-5004-2223	GEN. DIODE RLS4148NTE-11 SMD L-F	
621		FB1	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
622		FB10	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
623		FB11	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
624		FB12	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
625		FB13	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
626		FB14	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
627		FB15	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
628		FB16	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
629		FB17	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
630		FB19	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
631		FB22	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
632		FB23	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
633		FB24	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
634		FB25	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
635		FB26	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
636		FB27	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
637		FB28	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
638		FB29	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
639		FB3	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
640		FB30	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
641		FB31	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
642		FB32	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
643		FB33	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
644		FB34	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
645		FB37	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
646		FB4	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
647		FB51	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
648		FB58	0370-0001-4773	CHIP BEAD CORE 80ohm (MCB1608H800GA) LF	1
649		FB59	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
650		FB6	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
651		FB60	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
652		FB61	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
653		FB63	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
654		FB9	0370-0001-4282	CHIP BEAD 80ohm 6A 0805 (GB201212K800TM) LF	1
655		F1	0185-1302-0073	FUSE 125V/3A SMD (R451003) LF	1
656		F2	0185-1152-0073	FUSE 125V/1.5A SMD (R45101.5) L-F	1
657		F3	0185-1152-0073	FUSE 125V/1.5A SMD (R45101.5) L-F	1
658		J5	0302-2000-2306	CONN MALE R/A 30P SMD (MS240430G) L-F	1
659		LG13	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
660		LG14	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
661		LG15	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
662		LG16	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
663		L10	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
664		L11	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
665		L12	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
666		L13	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
667		L14	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
668		L15	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
669		L16	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
670		L17	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
671		L18	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
672		L19	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
673		L20	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
674		L21	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
675		L22	0130-4700-0055	RES. CF 470ohm 1/10W J 0603	1
676		L23	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
677		L24	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
678		L27	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
679		L28	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
680		L29	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
681		L30	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
682		L7	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
683		L8	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
684		L9	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
685		P10	0304-1000-0113	CONN HDMI 19P 90' SMD With Flange (392M19-H58) L-F	1
686		P11	0304-1000-0113	CONN HDMI 19P 90' SMD With Flange (392M19-H58) L-F	1
687		Q1	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
688	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
689	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
690	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
691		Q10	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
692	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
693	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
694	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
695		Q11	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
696	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
697	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
698	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
699		Q13	0420-1004-9621	MOSFET N-CH 2N7002E-T1-E3 SMD (SOT-23) L-F	1
700	SS		0420-1004-9610	MOSFET N-CH 2N7002LT1G 60V 115mA SMD (SOT-23) LF	
701	SS		0420-1004-9611	MOSFET N-CH 2N7002 SMD (SOT-23) LF	
702		Q14	0420-1004-9621	MOSFET N-CH 2N7002E-T1-E3 SMD (SOT-23) L-F	1
703	SS		0420-1004-9610	MOSFET N-CH 2N7002LT1G 60V 115mA SMD (SOT-23) LF	
704	SS		0420-1004-9611	MOSFET N-CH 2N7002 SMD (SOT-23) LF	
705		Q15	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
706	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
707	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
708	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
709		Q16	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
710	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
711	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
712	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
713		Q18	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
714	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
715	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
716	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
717		Q19	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
718	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
719	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
720	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
721		Q20	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
722	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
723	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
724	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
725		Q21	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
726	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
727	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
728	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
729		Q22	0410-5000-5710	TRANSISTOR MMBT3906LT1G SOT-23 L-F	1
730	SS		0410-5000-5711	TRANSISTOR PMBS3906 SMD LF	
731	SS		0410-5000-5719	TRANSISTOR KN3906S SOT-23 LF	
732		Q24	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
733	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
734	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
735	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
736		Q25	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
737	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
738	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
739	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
740		Q27	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
741	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
742	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
743	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
744		Q28	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
745	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
746	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
747	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
748		Q29	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
749	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
750	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
751	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
752		Q3	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
753	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
754	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
755	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
756		Q31	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
757	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
758	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
759	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
760		Q32	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
761	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
762	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
763	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
764		Q33	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
765	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
766	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
767	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
768		Q34	0420-1004-9621	MOSFET N-CH 2N7002E-T1-E3 SMD (SOT-23) L-F	1
769	SS		0420-1004-9610	MOSFET N-CH 2N7002LT1G 60V 115mA SMD (SOT-23) LF	
770	SS		0420-1004-9611	MOSFET N-CH 2N7002 SMD (SOT-23) LF	
771		Q35	0410-5000-5710	TRANSISTOR MMBT3906LT1G SOT-23 L-F	1
772	SS		0410-5000-5711	TRANSISTOR PMBS3906 SMD LF	
773	SS		0410-5000-5719	TRANSISTOR KN3906S SOT-23 LF	
774		Q36	0410-5000-5710	TRANSISTOR MMBT3906LT1G SOT-23 L-F	1
775	SS		0410-5000-5711	TRANSISTOR PMBS3906 SMD LF	
776	SS		0410-5000-5719	TRANSISTOR KN3906S SOT-23 LF	
777		Q4	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
778	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
779	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
780	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
781		Q5	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
782	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
783	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
784	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
785		Q6	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
786	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
787	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
788	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
789		Q7	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
790	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
791	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
792	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
793		Q8	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
794	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
795	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
796	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
797		Q9	0410-5000-5610	TRANSISTOR MMBT3904LT1G SOT-23 L-F	1
798	SS		0410-5000-5611	TRANSISTOR PMBS3904 SMD T LF	
799	SS		0410-5000-5619	TRANSISTOR KN3904S SOT-23 LF	
800	SS		0410-5000-5622	TRANSISTOR MMBT3904 NL SOT-23 L-F	
801		RP1	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
802		RP10	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
803		RP11	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
804		RP12	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
805		RP13	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
806		RP14	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
807		RP15	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
808		RP16	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
809		RP17	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
810		RP18	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
811		RP19	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
812		RP2	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
813		RP20	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
814		RP21	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
815		RP22	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
816		RP23	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
817		RP24	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
818		RP25	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
819		RP26	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
820		RP27	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
821		RP28	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
822		RP29	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
823		RP3	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
824		RP30	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
825		RP31	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
826		RP35	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
827		RP36	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
828		RP37	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
829		RP38	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
830		RP39	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
831		RP4	0141-2209-3851	ARRAY RES. A(X) 22ohm 4R J 8P	1
832		RP40	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
833		RP41	0141-3309-3851	ARRAY RES. A(X) 33ohm 4R J 8P	1
834		RP5	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
835		RP6	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
836		RP7	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
837		RP8	0141-7509-3851	ARRAY RES. A(X) 75ohm 4R J 8P	1
838		RP9	0141-4709-3851	ARRAY RES. A(X) 47ohm 4R J 8P	1
839		R1	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
840		R10	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
841		R100	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
842		R101	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
843		R104	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
844		R105	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
845		R106	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
846		R107	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
847		R108	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
848		R109	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
849		R11	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
850		R110	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
851		R111	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
852		R112	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
853		R113	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
854		R114	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
855		R115	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
856		R116	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
857		R117	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
858		R118	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
859		R119	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
860		R12	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
861		R120	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
862		R127	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
863		R128	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
864		R129	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
865		R13	0130-4703-1654	RES. CF 470Kohm 1/16W J 0402	1
866		R130	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
867		R131	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
868		R132	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
869		R133	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
870		R134	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
871		R136	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
872		R137	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
873		R139	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
874		R141	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
875		R142	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
876		R143	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
877		R144	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
878		R145	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
879		R146	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
880		R147	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
881		R148	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
882		R149	0130-3302-1654	RES. CF 33Kohm 1/16W J 0402	1
883		R15	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
884		R150	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
885		R151	0130-3302-1654	RES. CF 33Kohm 1/16W J 0402	1
886		R152	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
887		R153	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
888		R154	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
889		R158	0130-8201-1654	RES. CF 8.2Kohm 1/16W J 0402	1
890		R16	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
891		R163	0130-1003-1654	RES. CF 100Kohm 1/16W J 0402	1
892		R165	0130-1809-1654	RES. CF 18ohm 1/16W J 0402	1
893		R166	0130-5609-1654	RES. CF 56ohm 1/16W J 0402	1
894		R167	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
895		R168	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
896		R169	0130-1809-1654	RES. CF 18ohm 1/16W J 0402	1
897		R17	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
898		R171	0130-5609-1654	RES. CF 56ohm 1/16W J 0402	1
899		R172	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
900		R173	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
901		R174	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
902		R175	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
903		R176	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
904		R177	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
905		R178	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
906		R18	0130-4703-1654	RES. CF 470Kohm 1/16W J 0402	1
907		R182	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
908		R183	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
909		R184	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
910		R185	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
911		R186	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
912		R187	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
913		R188	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
914		R189	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
915		R190	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
916		R191	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
917		R192	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
918		R193	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
919		R194	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
920		R195	0130-2702-1654	RES. CF 27Kohm 1/16W J 0402	1
921		R196	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
922		R198	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
923		R199	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
924		R2	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
925		R20	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
926		R200	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
927		R201	0130-5101-1654	RES. CF 5.1Kohm 1/16W J 0402	1
928		R202	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
929		R203	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
930		R204	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
931		R205	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
932		R206	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
933		R207	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
934		R208	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
935		R209	0131-7509-1614	RES. MF 75ohm 1/16W F 0402	1
936		R21	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
937		R210	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
938		R211	0130-2702-1654	RES. CF 27Kohm 1/16W J 0402	1
939		R212	0130-6802-1654	RES. CF 68Kohm 1/16W J 0402	1
940		R213	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
941		R214	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
942		R215	0130-5101-1654	RES. CF 5.1Kohm 1/16W J 0402	1
943		R216	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
944		R217	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
945		R218	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
946		R219	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
947		R220	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
948		R221	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
949		R222	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
950		R223	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
951		R224	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
952		R225	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
953		R226	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
954		R227	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
955		R228	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
956		R229	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
957		R23	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
958		R230	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
959		R231	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
960		R232	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
961		R233	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
962		R234	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
963		R235	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
964		R236	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
965		R237	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
966		R238	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
967		R239	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
968		R24	0130-4703-1654	RES. CF 470Kohm 1/16W J 0402	1
969		R240	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
970		R241	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
971		R242	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
972		R243	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
973		R244	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
974		R245	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
975		R246	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
976		R247	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
977		R248	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
978		R249	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
979		R25	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
980		R250	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
981		R251	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
982		R252	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
983		R253	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
984		R254	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
985		R255	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
986		R256	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
987		R257	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
988		R258	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
989		R259	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
990		R26	0130-4703-1654	RES. CF 470Kohm 1/16W J 0402	1
991		R260	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
992		R261	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
993		R262	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
994		R263	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
995		R264	0130-1800-1654	RES. CF 180ohm 1/16W J 0402	1
996		R265	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
997		R266	0130-6803-1654	RES. CF 680Kohm 1/16W J 0402	1
998		R267	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
999		R268	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1000		R269	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1001		R27	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1002		R270	0130-6809-1654	RES. CF 68 ohm 1/16W J 0402	1
1003		R271	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1004		R272	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1005		R273	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1006		R274	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1007		R275	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1008		R276	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1009		R277	0130-6809-1654	RES. CF 68 ohm 1/16W J 0402	1
1010		R278	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1011		R279	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1012		R28	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1013		R280	0130-6809-1654	RES. CF 68 ohm 1/16W J 0402	1
1014		R281	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1015		R282	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1016		R283	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1017		R284	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1018		R285	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1019		R286	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1020		R287	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1021		R288	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1022		R289	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1023		R29	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1024		R290	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1025		R291	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1026		R292	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1027		R293	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1028		R294	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1029		R295	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1030		R296	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1031		R297	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1032		R298	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1033		R299	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1034		R3	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1035		R30	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1036		R300	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1037		R301	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1038		R302	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1039		R303	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1040		R304	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1041		R305	0130-3908-1858	RES. CF 3.9ohm 1/8W J 0805	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1042		R307	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1043		R31	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1044		R311	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1045		R312	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1046		R314	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
1047		R316	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1048		R319	0130-3908-1858	RES. CF 3.9ohm 1/8W J 0805	1
1049		R321	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1050		R322	0131-1100-1614	RES. MF 110ohm 1/16W F 0402	1
1051		R323	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1052		R324	0130-3301-1654	RES. CF 3.3Kohm 1/16W J 0402	1
1053		R325	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1054		R326	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1055		R327	0131-2219-1614	RES. MF 22.1 ohm 1/16W F 0402	1
1056		R328	0130-4701-0055	RES. CF 4.7Kohm 1/10W J 0603	1
1057		R329	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1058		R33	0131-1100-1614	RES. MF 110ohm 1/16W F 0402	1
1059		R331	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1060		R333	0130-1801-1654	RES. CF 1.8Kohm 1/16W J 0402	1
1061		R334	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1062		R338	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
1063		R34	0131-6199-1614	RES. MF 61.9ohm 1/16W F 0402	1
1064		R340	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1065		R350	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1066		R352	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
1067		R355	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1068		R357	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1069		R358	0130-1008-1858	RES. CF 1.0ohm 1/8W J 0805	1
1070		R36	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1071		R360	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1072		R361	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1073		R362	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1074		R363	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1075		R364	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1076		R365	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1077		R366	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1078		R368	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1079		R369	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
1080		R370	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
1081		R373	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1082		R374	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1083		R375	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1084		R376	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1085		R378	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1086		R38	0130-0000-1858	RES. CF 0.0ohm 1/8W J 0805	1
1087		R380	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1088		R381	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1089		R383	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1090		R386	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1091		R387	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1092		R388	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1093		R389	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1094		R390	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1095		R391	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1096		R392	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1097		R393	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1098		R394	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1099		R395	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
1100		R396	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1101		R397	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1102		R398	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1103		R40	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1104		R402	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1105		R403	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1106		R404	0130-0000-1859	RES. CF 0.0ohm 1/8W J 1206	1
1107		R405	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1108		R406	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1109		R408	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1110		R410	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1111		R411	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1112		R412	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1113		R413	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1114		R414	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1115		R415	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1116		R416	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1117		R417	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1118		R419	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
1119		R42	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1120		R421	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1121		R423	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1122		R424	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1123		R426	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1124		R427	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1125		R428	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1126		R429	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1127		R43	0130-8200-1654	RES. CF 820ohm 1/16W J 0402	1
1128		R432	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1129		R433	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1130		R434	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
1131		R438	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1132		R443	0130-1501-1654	RES. CF 1.5Kohm 1/16W J 0402	1
1133		R444	0130-0000-0055	RES. CF 0.0ohm 1/10W J 0603	1
1134		R445	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1135		R449	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1136		R450	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1137		R451	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1138		R46	0131-4999-1614	RES. MF 49.9ohm 1/16W F 0402	1
1139		R47	0131-4999-1614	RES. MF 49.9ohm 1/16W F 0402	1
1140		R473	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1141		R476	0130-2202-1654	RES. CF 22Kohm 1/16W J 0402	1
1142		R477	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1143		R478	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1144		R479	0130-4702-1654	RES. CF 47Kohm 1/16W J 0402	1
1145		R48	0130-8203-1654	RES. CF 820Kohm 1/16W J 0402	1
1146		R484	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1147		R49	0130-3309-1654	RES. CF 33ohm 1/16W J 0402	1
1148		R491	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1149		R492	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1150		R50	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1151		R51	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1152		R52	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1153		R53	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1154		R56	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1155		R57	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1156		R58	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1157		R6	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1158		R60	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1159		R61	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1160		R62	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1161		R63	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1162		R64	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1163		R65	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1164		R66	0130-4709-1654	RES. CF 47ohm 1/16W J 0402	1
1165		R67	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1166		R68	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1167		R70	0130-4701-1654	RES. CF 4.7Kohm 1/16W J 0402	1
1168		R71	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1169		R72	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1170		R73	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1171		R74	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1172		R75	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1173		R77	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1174		R78	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1175		R79	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1176		R8	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1177		R80	0130-7509-1654	RES. CF 75ohm 1/16W J 0402	1
1178		R81	0130-1000-1654	RES. CF 100ohm 1/16W J 0402	1
1179		R83	0130-2209-1654	RES. CF 22ohm 1/16W J 0402	1
1180		R85	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1181		R86	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1182		R9	0130-1002-1654	RES. CF 10Kohm 1/16W J 0402	1
1183		R94	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1184		R95	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
1185		R97	0130-1001-1654	RES. CF 1Kohm 1/16W J 0402	1
1186		U1	0420-1005-4601	POWER MOS IRF7316TRPBF SMD 8PIN LF	1
1187	SS		0420-2004-9629	MOSFET P-CH 5A 30V AP4953GM SO-8 LF	
1188		U10	0430-6005-5079	IC AP1117E18LA LF SOT-223	1
1189	SS		0430-6009-7075	IC AME1117ECGTZ 1.8V 3PIN SOT-223 L-F	
1190		U11	0430-7044-4999	IC LCD SCALER MT8206AG/BD-L BGA 388PIN LF	1
1191		U11H	1712-0400-1930	HEAT SINK(46*46*20)(GV47L)	1
1192		U12	0430-3039-3645	IC MX29LV160CTTC-70G 48PIN TSOP LF	1
1193	SS		0430-3039-3648	IC FLASH 16M EN29LV160AT-70TCP TSOP 48PIN LF	
1194		U12X	0991-2003-0701	SOFTWARE GV47L FHDTV10A CPU:GV47LAMM01.bin	1
1195		U13	0430-7037-4629	IC DDR 8Mx16 V58C2128164SBI5 66PIN TSOP-II LF	1
1196		U14	0430-7037-4629	IC DDR 8Mx16 V58C2128164SBI5 66PIN TSOP-II LF	1
1197		U15	0430-6010-9028	IC G2996F1Uf 8PIN SOP-8(FD) LF	1
1198		U16	0430-6002-8079	IC AP1117E25LA SOT-223 L-F	1
1199		U17	0430-3006-9011	IC AT24C04N-10SU-2.7 SO-8 L-F	1
1200		U18	0430-6009-1051	IC AMC1117SKF-ADJ SMD 3PIN SOT-223 LF	1
1201		U19	0430-7041-6999	IC HDMI CINEMA RECEIVER MT8293AE-L 128Pin QFP LF	1
1202		U2	0420-1005-4601	POWER MOS IRF7316TRPBF SMD 8PIN LF	1
1203	SS		0420-2004-9629	MOSFET P-CH 5A 30V AP4953GM SO-8 LF	
1204		U20	0430-3039-6011	IC AT24C02BN-10SU-1.8 8Pin SOIC L-F	1
1205		U21	0430-1010-9088	IC DUAL OP AMP NJM4558M-TE3_PB SO8(DMP8) L-F	1
1206		U22	0430-0001-8015	IC CD4052BNSR 16PIN SOP16 L-F	1
1207		U23	0430-7027-3699	IC WM8776SEFT 48PIN TQFP L-F	1
1208		U27	0430-6015-6099	IC RESET STL8110GCL438 4.38V SOT-23 3PIN LF	1
1209		U28	0430-3004-3011	IC AT24C16AN-10SU-2.7 SO-8 L-F	1
1210		U29	0430-0001-8015	IC CD4052BNSR 16PIN SOP16 L-F	1
1211		U3	0420-1005-4601	POWER MOS IRF7316TRPBF SMD 8PIN LF	1
1212	SS		0420-2004-9629	MOSFET P-CH 5A 30V AP4953GM SO-8 LF	
1213		U30	0430-1010-8615	IC TTL LOGIC CD74HC157M96 SOIC 16PIN LF	1
1214		U31	0430-7044-1092	IC SWITCH PI3HDMI412FTZHE TQFN 42PIN LF	1
1215		U32	0430-3039-6011	IC AT24C02BN-10SU-1.8 8Pin SOIC L-F	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1216		U33	0430-7043-5092	IC SWITCH PI5C3257QE QSOP 16PIN LF	1
1217		U34	0430-3039-6011	IC AT24C02BN-10SU-1.8 8Pin SOIC L-F	1
1218		U4	0430-6007-5079	IC AP1117E33LA LF SOT-223	1
1219	SS		0430-6007-5075	IC AME1117CCGTZ 3PIN SOT-223 L-F	
1220		U5	0430-6009-1051	IC AMC1117SKF-ADJ SMD 3PIN SOT-223 LF	1
1221		U6	0430-6007-5079	IC AP1117E33LA LF SOT-223	1
1222	SS		0430-6007-5075	IC AME1117CCGTZ 3PIN SOT-223 L-F	
1223		U7	0430-6005-5079	IC AP1117E18LA LF SOT-223	1
1224	SS		0430-6009-7075	IC AME1117ECGTZ 1.8V 3PIN SOT-223 L-F	
1225		U8	0430-6007-5079	IC AP1117E33LA LF SOT-223	1
1226	SS		0430-6007-5075	IC AME1117CCGTZ 3PIN SOT-223 L-F	
1227		U9	0430-6005-5079	IC AP1117E18LA LF SOT-223	1
1228	SS		0430-6009-7075	IC AME1117ECGTZ 1.8V 3PIN SOT-223 L-F	
1229		VZ1	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1230		VZ10	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1231		VZ11	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1232		VZ12	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1233		VZ13	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1234		VZ14	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1235		VZ15	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1236		VZ16	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1237		VZ17	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1238		VZ18	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1239		VZ19	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1240		VZ2	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1241		VZ20	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1242		VZ21	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1243		VZ25	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1244		VZ26	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1245		VZ3	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1246		VZ31	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1247		VZ32	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1248		VZ4	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1249		VZ5	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1250		VZ6	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1251		VZ7	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1252		VZ8	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1253		VZ9	0272-0005-0960	ESD PROTECTOR 5V (VPORT 0603 220K V05) L-F	1
1254		ZD1	0400-0601-5012	ZENER 6.06~6.33V UDZSTE-176.2BB 1/5W SOD-323	1
1255		ZD2	0400-0941-2012	ZENER RLZ-10B 9.41~9.90V 1/2W LL-34 L-F	1

364700120156B DISPLAY BD ASS'Y GV47L FHDTV10A SMD BOT

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		D1	0440-2000-0126	LED AMBER LH-06038P1-A2-B10-02 SMD 0603 LF	1
2		D2	0440-2000-0126	LED AMBER LH-06038P1-A2-B10-02 SMD 0603 LF	1
3		D3	0440-2000-0126	LED AMBER LH-06038P1-A2-B10-02 SMD 0603 LF	1
4		D4	0440-2000-0126	LED AMBER LH-06038P1-A2-B10-02 SMD 0603 LF	1
5		D5	0440-2000-0126	LED AMBER LH-06038P1-A2-B10-02 SMD 0603 LF	1
6		D6	0440-2000-0126	LED AMBER LH-06038P1-A2-B10-02 SMD 0603 LF	1
7		D7	0440-2000-0126	LED AMBER LH-06038P1-A2-B10-02 SMD 0603 LF	1

364700120156B DISPLAY BD ASS'Y GV47L FHDTV10A SMD BOT

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			1701-0900-2150	MYLAR DISPLAY BD (GV47L F HDTV)(180.0*15.0*0.4t)	1

364700120156T DISPLAY BD ASS'Y GV47L FHDTV10A SMD TOP

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
1			0171-1771-1780	PCB DISPLAY BD FR4 182*17*1.6t (GV47L)(1:10)	1
2		CD1	0111-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	1
3	SS		0112-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	
4		CD10	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
5	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
6		CD11	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
7	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
8		CD2	0111-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	1
9	SS		0112-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	
10		CD3	0111-3223-1617	C/M Multi. 0.022uF 16V X7R K 0402	1
11	SS		0112-3223-1617	C/M Multi. 0.022uF 16V X7R K 0402	
12		CD4	0111-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	1
13	SS		0112-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	
14		CD5	0111-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	1
15	SS		0112-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	
16		CD6	0111-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	1
17	SS		0112-3153-1617	C/M MULTI 0.015UF 16V X7R 0402	
18		CD7	0111-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	1
19	SS		0112-3104-1617	C/M Multi. 0.1uF 16V X7R 0402	
20		CD8	0112-3563-1617	C/M Multi. 0.056uF 16V X7R K 0402	1
21	SS		0111-3563-1617	C/M Multi. 0.056uF 16V X7R K 0402	
22		CD9	0112-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	1
23	SS		0111-3224-2516	C/M Multi. 0.22uF 25V X7R 0603	
24		Q1	0420-1004-9621	MOSFET N-CH 2N7002E-T1-E3 SMD (SOT-23) L-F	1
25	SS		0420-1004-9610	MOSFET N-CH 2N7002LT1G 60V 115mA SMD (SOT-23) LF	
26	SS		0420-1004-9611	MOSFET N-CH 2N7002 SMD (SOT-23) LF	
27		RD1	0131-2211-1614	RES. MF 2.21 Kohm 1/16W F 0402	1
28		RD10	0131-1002-1614	RES. MF 10Kohm 1/16W F 0402	1
29		RD11	0131-2211-1614	RES. MF 2.21 Kohm 1/16W F 0402	1
30		RD12	0131-1002-1614	RES. MF 10Kohm 1/16W F 0402	1
31		RD13	0131-1004-1614	RES. MF 1M ohm 1/16W F 0402	1
32		RD14	0131-2211-1614	RES. MF 2.21 Kohm 1/16W F 0402	1
33		RD15	0131-1002-1614	RES. MF 10Kohm 1/16W F 0402	1
34		RD16	0131-2212-1614	RES. MF 22.1 Kohm 1/16W F 0402	1
35		RD19	0131-1212-1614	RES. MF 12.1Kohm 1/16W F 0402	1
36		RD2	0131-1002-1614	RES. MF 10Kohm 1/16W F 0402	1
37		RD20	0131-5602-1818	RES. MF 56Kohm 1/8W F 0805	1
38		RD22	0131-5602-1818	RES. MF 56Kohm 1/8W F 0805	1
39		RD24	0131-2701-1818	RES. MF 2.7Kohm 1/8W F 0805	1
40		RD25	0131-1502-1818	RES. MF 15Kohm 1/8W F 0805	1
41		RD26	0131-4701-1818	RES. MF 4.7Kohm 1/8W F 0805	1
42		RD27	0131-1802-1818	RES. MF 18Kohm 1/8W F 0805	1
43		RD28	0131-3091-1818	RES. MF 3.09Kohm 1/8W F 0805	1
44		RD29	0131-7501-1818	RES. MF 7.5 Kohm 1/8W F 0805	1
45		RD3	0130-0000-1654	RES. CF 0ohm 1/16W J 0402	1
46		RD30	0131-1002-1614	RES. MF 10Kohm 1/16W F 0402	1
47		RD31	0131-4321-1818	RES. MF 4.32Kohm 1/8W F 0805	1
48		RD33	0131-1004-1614	RES. MF 1M ohm 1/16W F 0402	1
49		RD34	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
50		RD35	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
51		RD36	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
52		RD37	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
53		RD38	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1

ITEM	M/S	LOCATION	PART NO.	DESCRIPTION	Q'TY
54		RD39	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
55		RD4	0131-2211-1614	RES. MF 2.21 Kohm 1/16W F 0402	1
56		RD40	0130-4700-1654	RES. CF 470ohm 1/16W J 0402	1
57		RD5	0131-2211-1614	RES. MF 2.21 Kohm 1/16W F 0402	1
58		RD6	0131-1002-1614	RES. MF 10Kohm 1/16W F 0402	1
59		RD7	0131-2211-1614	RES. MF 2.21 Kohm 1/16W F 0402	1
60		RD8	0131-2211-1614	RES. MF 2.21 Kohm 1/16W F 0402	1
61		RD9	0131-1002-1614	RES. MF 10Kohm 1/16W F 0402	1
62		UD1	0431-0001-0944	IC QT1080-ISG 32PIN QFN L-F	1
63		WD1	0451-1250-0886	WAFER 1.25mm 8P 180' SMD (MS24018) L-F	1