HYUNDAI

Hyundai Plasma Display

PD421 Svc Manual

. Circuit Service Methods

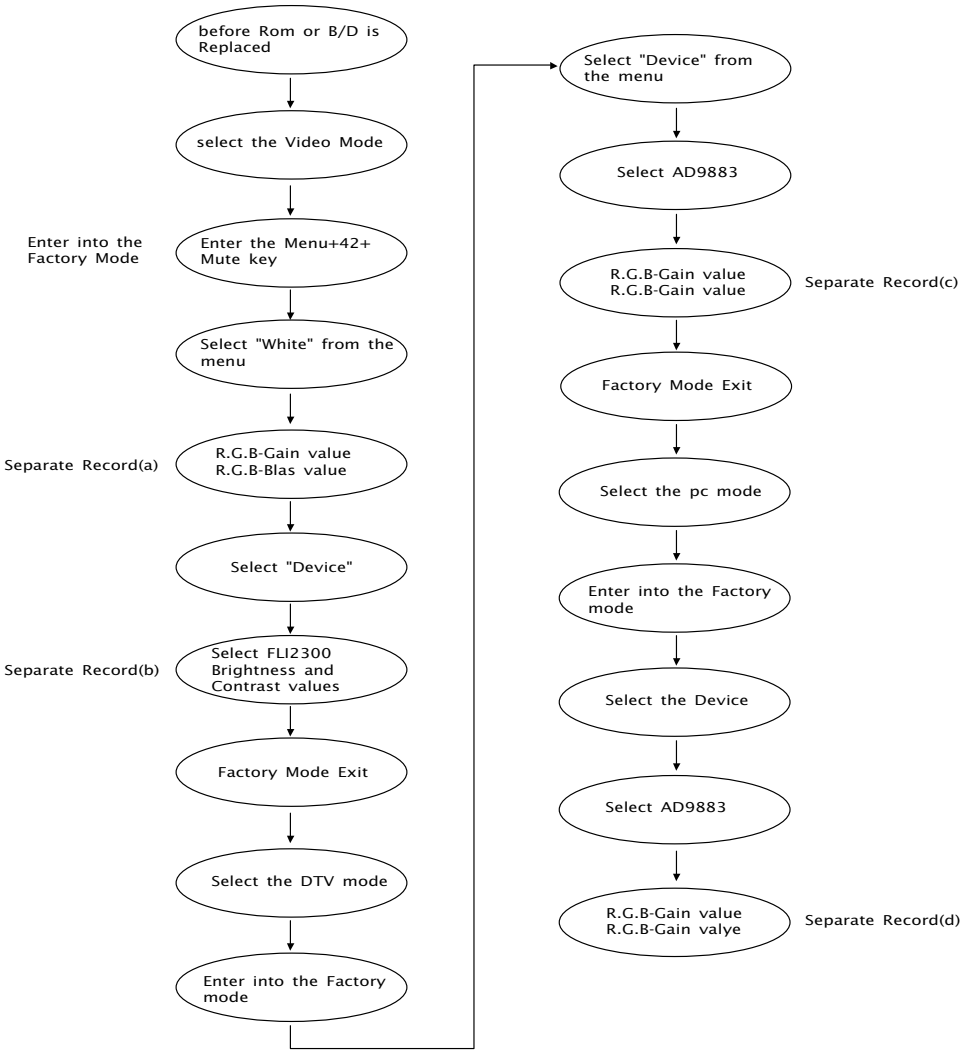
1. White Balance Adjustment

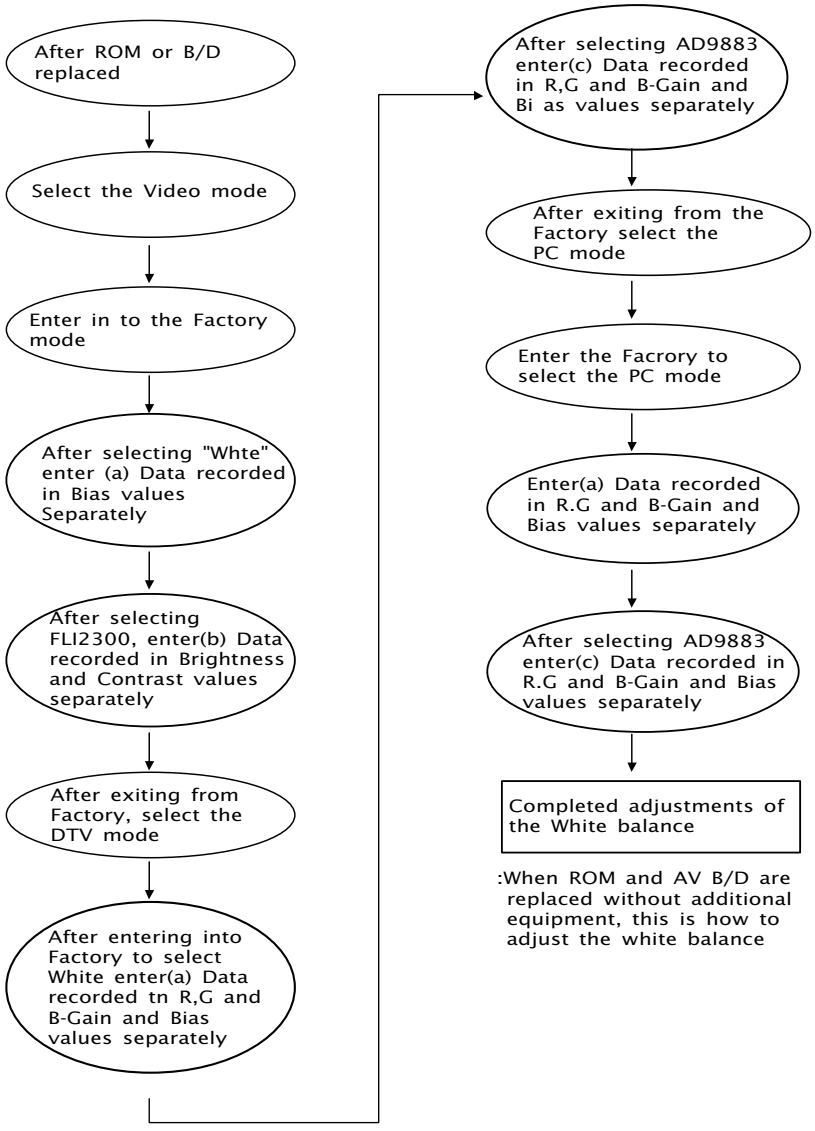
l Refer to adjustment specifications for information on making adjustments

m When white balance has to be adjusted during service

- If the module is replaced, it must be readjusted using VG-828 equipment, according to the adjustment specifications
- When making program upgrades [ROM (UM04) replacement] or replacing A/V B/D, the values stored in A/V B/D's EPROM (UM12) should be written down and re-entered into the new new Rom or A/V Board

The method of white Balane Adjustment before ROM or B/D IS Replaced





:When ROM and AV B/D are replaced without additional equipment, this is how to adjust the white balance

2. A/V Circuit BLOCK Diagram

1) PC Mode

PC inputs, R, G, B, H, and V signals, are entered through D-Sub 15pin (DSUB1). They are entered into the DTV/PC selection switch, BA7657 (UA01). When PC is selected in MCU, the signals are entered into the AD converter, AD9883 (UA02).

In AD9883, the signals are converted into 24 bits and entered into scaler ASI500.

BA7657 selects PC when pin16 is high and selects DTV when pin 16 is low.

AD9883 is controlled using the SDA/SCL line of pin 57/56.

PC input resolution is fh: 30~70k and fv: 50~85Hz, and the maximum resolution is 1080x768 at 85Hz.

If the resolution is above the specifications, an out of range message is displayed on the upper left hand corner of the screen. However, even if the resolution is within the specified range, if the input timing is different from the timing indicated on the manual, a 'not found vesa or out of range' message can be displayed. Please check the timing to identify the cause of the 'out of range' message.

PC input sync can receive H/V composite or separate, but if DPMS ON is selected in the PDP menu, DPMS cannot operate in composite and can operate only in separate sync.

The Auto Adjust function, which is used to adjust the picture position and size, should be carried out in the Windows desktop screen or full cross hatch.

The DTV signals, 480p, 720p, and 1080i, from the set-top box with a D-Sub out port, can be received through the D-Sub port and displayed in the PC mode.

DVI Mode

Signals entering through the DVI port (DV101) are converted to 24bits in the TMDS Receiver, SIL161B (UT02), and entered in scalar ASI500.

SIL161B is an output port and is activated when pin number 2 is high.

DTV signals 480p, 720p, and 1080i can be displayed through the DVI port.

However, PD421 cannot only display 60Hz DTV signals. It is unable to display 50Hz DTV signals. PC can support both 50Hz and 60Hz signals.

The resolution of DVI Mode is the same as the PC Mode.

2) DTV Mode

DTV signals are entered as Y, P b(Cb), and Pr(Cr) component signals, separated into Y, Cb, Cr, H, and V sync on (xan51AcuxA01) and entered to BA7657. If pin 16 is low, DTV signals are entered into ADC9883.

In the AD9883, like the PC signals, the DTV signals are converted to 24 bits and entered into scalar ASI500.

DTV signal is composed of 480p (50/60Hz) for SD, 720p (50/60Hz) for HD, and 1080i (50/60Hz). If the video signal, 480i component (DVD component output), is entered, the screen will not display properly. Also, because synchronization signal is in Y singal color Data is in Cr/Cb if the connections are incorrect, it will not operate properly

3) DVD Mode

DVD signals entered as Y, Pb, and Prcomponents are applied when entered as 480i (NT or PAL). 480p DVD signals should be entered through the DTV component port.

Y, Pb, and Pr signals entered through the DVD component port are entered into the video decoders, Main VPC3230 (UDM01) and Sub VPC3230 (UDS01), where they are converted to Y (8bits) and UV (8bits) digital signals and sent to the deinterlacer IC, FLI2310 (UFL1).

UV digital signal means Pb(Cb), and Pr(Cr) signals that have been converted to digital signals.

The video decoder, VPC3230, automatically detects NTSC and PAL/SECAM, identifies them as broadcast signals, converts the interlacer signal into the progressive signal (fh:15.7Khz-> 31Khz) in the deinterlacer IC, FLI2310 (UFL1), and sends to the scalar ASI500.

When the PD421's main screen is in PC, DVI or DTV mode, the sub-screen of the PIP or POP function is processed in the Main VIDEO DECODER (UDM01) and the MODE can be DVD, S-VHS, Video, or Scart.

PIP or POP between video modes is enabled by main video decoder (UDS01), sub video decoder (UDS01), and FIFO memory, MS81V04160 (UFM01). If the main screen is DVD, then the sub-screen will be S-VHS, Video, or Scart.

Please refer to the table in the back for more information on PIP or POP.

4) S-Video

S-Video signals are entered as Y/C signals, which is composed of Luminance

color signals. The NTSC and PAL/SECAM are automatically detected by the video decoders, main VPC3230 and sub VPC3230, and converted to Y (8bits) and UV (8bits) and sent to the deinterlacer IC, FLI2310, as 16bit digital signal.

S-Video input and composite video input share a single audio jack. Therefore, while the pictures for the two inputs can be viewed at the same time, only one of the sounds can be heard. PIP/POP operations are the same as described for the DVD mode.

5) Video

Video signal is a composite signal that combines the Luminance(Y) and color (CHROMA).

It is entered through the main VPC3230 and sub VPC3230 when selected in the input selection switch, TA8851 (UMX01).

If the signal is NTSC, it is first entered into the 3D Comb Filter (filter that separates the composite to Y/C signal), UPD 64083 (UCF 01) and separated into Luminance signal Y and color signal, C. The separated signals then enter the mux switch, TA8851, sent to TA8851 pin44 LUMA IN and pin43 CROMA IN, and finally sent to Main VPC3230.

When the video input is displayed on the main screen, it passes through the 3D comb filter, but if it is displayed on the sub-screen (when using PIP or POP), the video input does not pass through the 3D comb filter and is displayed using the composite signal.

PAL/SECAM signal cannot be processed by the 3D comb filter. It is sent as composite signal to the main VPC3230 and sub VPC3230.

If the signal is NTSC, the video input switch, BF7654 (UDM02), which is located in front of the main VPC3230, select the 3D Comb-Y to send the signal as a Y signal to the VPC 3230. If the signal is Pal, it selects CVBS to send the signal as a composite signal to the VPC3230.

Signals entered into VPC3230 are converted to 16bit digital signal (Y (8bits) and UV (8bits)) and sent to the scalar through the deinterlacer IC, FLI2310.

6) Scart Mode

Scart only supports CVBS signals, which are processed in the same way as video signals. The RF signal is not supported, and therefore, the Scart pin8 ID signal is ignored.

7) PIP/POP Support Mode Map

Main \ Sub	PC	DTV	DVD	S-VHS	Video	Scart	DVI
PC	X	X	O	O	O	O	X
DTV	X	X	O	O	O	O	X
DVD	O	O	X	O	O	O	O
S-VHS	O	O	O	X	O	O	O
Video	O	O	O	O	X	O	O
Scart	O	O	O	O	O	X	O
DVI	X	X	O	O	O	O	X

X: Not supported, O: Supported

Note: When displaying NTSC or PAL signals to PIP or POP, if the signals are displayed as Main: NTSC, Sub: PAL or in reverse, the picture can be seen, but the size scaling for the sub-screen will not display properly. This is because the signal is meant for the main screen. Main screen uses 50Hz PAL or 60Hz NTSC and sub screen uses 60Hz NTSC or 50Hz.

8) Scaler Output

Scaler output signals, R, G, and B (each 8bits), are outputted as 24bit TTL signal, converted into LVDS signal in the LVDS converter, DS90C385 (ULV01), and sent to the logic B/D in the PDP module. Output timing:

fh : 29.1Khz
fv : PAL 50Hz NTSC 60Hz
DCLK : about 27Mhz

9) Audio part

Audio inputport for each mode:

Input	Port	Remark
PC/DVI	RCA L/R 1EA	Shared
DTV	RCA L/R 1EA	
DVD	RCA L/R 1EA	
CVBS/S-Video	RCA L/R 1EA	Shared
Scart	Scart Jack L/R	

Audio input signal for PC/DVI, DTV, and DVD modes is entered into the audio processor IC, MSP3450G, and audio input signal for VIDEO/S-VIDEO, and SCART modes is first selected in MUX 8851 and entered into the audio processor.

As in other chips, the audio processor (MSP3450G) uses the SCL and SDA line to control volume, and left/right balance and mono/stereo.

The L/R audio signal sent by MSP3450 is amplified in the amplifier, TA2024 (UAU1) and sent to the speaker.

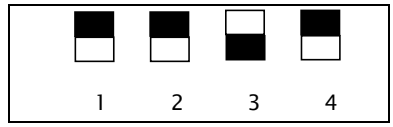
TA2024B support 10W(based on impedance 8Y) of output for each L/R.

3. Trouble shooting

1) Diagnosing defective module

If the power does not come on or if the module operates abnormally, check module defect. To do this, remove the rear cover and A/V B/D to reveal the module's logic B/D. The following figure represents the s/w on the logic B/D.

SW 2001



Signal	1	2	3	4	Remark
External	up	up	down	up	Forwarding Criteria
Internal	up	down	up	down	

If the switch is set to internal signals, it will operate without external signals, but the screen will be displayed in full white.

Therefore the module operation can be checked without the A/V board.

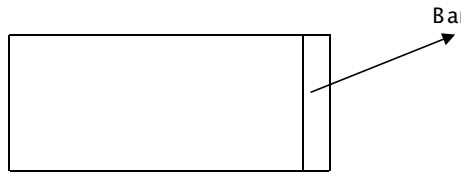
Here, be aware that the pin 8 and pin 9 of the power B/D's CN802(11p), which is located above the module's logic B/D, must be shorted and the A/C power supplied in order for the module to operate normally. Pin 8 is marked as PS-ON below the connector (CN802).

If module itself is tested and it does not power on or the picture is abnormal, the module is defective.

When reconnecting the A/V B/D, make sure to change the switch to external signals.

- The most common module defect is the appearance of a black or bright vertical line.

-



This occurs when the FPC wire, which connects the address line below the module, is damaged. Because the wire is on the bottom, it can be easily damaged when the module is lifted and assembled or from external shock. Use caution when handling the module and use the handle on the bottom of the module to lift or move.

If the vertical bar appears at the same location for all modes, the FPC wire is damaged.

FPC wire cannot be replaced. The entire module needs to be replaced.

- If the module does not power on, it is mostly likely due to an open fuse on the power B/D. Check the black and round fuse on the power B/D.

2) Diagnosis by Problem Type

- Power comes on, but the picture does display

  Check the AV B/D's communication lines, SDL and SDA lines.

  ICs controlled by the SDA and SCL line are ADC9883, FLI2310, MSP3450G, VPC3230, 3D comb filter, and TA8851. If after powering on, the SDA and SCL line's Vp-p is less than 4V and checks below 2.5V, the communication line is loaded at some point. Open and check each IC's communication line.

- Can also occur when the connection between the graphic B/D and video B/D is bad.

- If the picture turns off or the volume is muted while viewing through the set-top box, please check the status of the set-top box first.

- For abnormal picture when using PIP/POP function, refer to the section on Video Mode in the manual

- If the OSD screen cracks or displays abnormally:

  May be caused by bad connection between the graphic B/D's scaler and SDRAM, K4S643232C (UFB01, UFB02). Use the cleaner to clean the around the scaler and the UFB01/02.

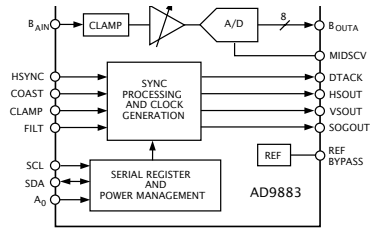
  OSD is processed by the scaler (ASI 500).

- If the power is on and the input signals and connections are normal, but the picture does not display.

Critical Parts Specification

AD9883

Sync Detect to "Hot" Plugging
Midscale Clamping
Power-Down Mode
Low Power : 500mW tYPICAL
Composite Sync Applications Require an External Coast



GENERAL DESCRIPTION

The AD9883 is a complete 8-bit, 110 MSPS monolithic analog interface optimized for capturing RGB graphics signals from personal computers and workstations. Its 110 MSPS encode rate capability and full-power analog bandwidth of 300 MHz supports resolutions up to SXGA (1280X1024 at 60Hz)

The AD9883 includes a 110 MHz triple ADC with internal 1.25 V reference, a PLL, and programmable gain, offset, and clamp control. The user provides only a 3.3 V power supply, analog input, and HSYNC and COAST signals. Three-state CMOS outputs may be powered from 2.5 V to 3.3 V.

The AD9883's on-chip PLL generates a pixel clock from HSYNC and COAST inputs. Pixel clock output frequencies range from 12 MHz to 110 MHz. PLL clock jitter is 500 ps p-p typical at 10 MSPS. When the COAST signal is presented, the PLL maintains its output frequency in the absence of HSYNC. A sampling phase adjustment is provided. Data, HSYNC and Clock output phase relationships are maintained. The AD9883 also offers full sync processing for composite sync and sync-on-green applications.

A clamp signal is generated internally or may be provided by the user through the CLAMP input pin. This interface is fully programmable via a two-wire serial interface.

Fabricated in an advanced CMOS process, the AD9883 is provided in a space-saving 80-lead LQFP surface mount plastic package and is specified over the 0 C to 70 C temperature range

AD9883–SPECIFICATIONS

Analog Interface (V_D = 3.3 V_{DD} = 3.3 V, ADC Clock = Maximum Conversion Rate)

Parameter	Temp	Test Level	AD9883KST-110 Min	Typ	Max	Unit
RESOLUTION				8		Bits
DC ACCURACY						
Differential Nonlinearity	25°C	I		0.5	+1.25/–1.0	LSB
	Full	VI			+1.35/–1.0	LSB
Integral Nonlinearity	25°C	I		0.5	1.85	LSB
	Full	VI			2.0	LSB
No Missing Codes	Full	VI		Guaranteed		
ANALOG INPUT						
Input Voltage Range						
Minimum	Full	VI			0.5	V p-p
Maximum	Full	VI	1.0			V p-p
Gain Tempco	25°C	V		100		ppm/°C
Input Bias Current	25°C	IV			1	µA
	Full	IV			1	µA
Input Offset Voltage	Full	VI		7	50	mV
Input Full-Scale Matching	Full	VI			6.0	% FS
Offset Adjustment Range	Full	VI	46	49	52	% FS
REFERENCE OUTPUT						
Output Voltage	Full	VI	1.20	1.25	1.32	V
Temperature Coefficient	Full	V		50		ppm/°C
SWITCHING PERFORMANCE						
Maximum Conversion Rate	Full	VI	110			MSPS
Minimum Conversion Rate	Full	IV			10	MSPS
Data to Clock Skew	Full	IV	–0.5		+2.0	ns
t_{BUFF}	Full	VI	4.7			ns
t_{STAH}	Full	VI	4.0			ns
t_{DHO}	Full	VI	0			ns
t_{DAL}	Full	VI	4.7			ns
t_{DAH}	Full	VI	4.0			ns
t_{DSU}	Full	VI	250			ns
t_{STASU}	Full	VI	4.7			ns
t_{STOSU}	Full	VI	4.0			ns
HSYNC Input Frequency	Full	IV	15		110	kHz
Maximum PLL Clock Rate	Full	VI	110			MHz
Minimum PLL Clock Rate	Full	IV			12	MHz
PLL Jitter	25°C	IV		400	700[1]	ps p-p
	Full	IV			1000[1]	ps p-p
Sampling Phase Tempco	Full	IV		15		ps/°C
DIGITAL INPUTS						
Input Voltage, High (V_{IH})	Full	VI	2.5			V
Input Voltage, Low (V_{IL})	Full	VI			0.8	V
Input Voltage, High (V_{IH})	Full	V			–1.0	µA
Input Voltage, Low (V_{IL})	Full	V			1.0	µA
Input Capacitance	25°C	V		3		pF
DIGITAL OUTPUTS						
Output Voltage, High (V_{OH})	Full	VI	V_D – 0.1			V
Output Voltage, Low (V_{OL})	Full	VI			0.1	V
Duty Cycle DATACK	Full	IV	45	50	55	%
Output Coding				Binary		

Parameter	Temp	Test Level	AD9883KST-110 Min	Typ	Max	Unit
POWER SUPPLY						
V_D Supply Voltage	Full	IV	3.0	3.3	3.6	V
V_{DD} Supply Voltage	Full	IV	2.2	3.3	3.6	V
P_{VD} Supply Voltage	Full	IV	3.0	3.3	3.6	V
I_D Supply Current (V_D)	25 C	V		132		mA
I_{DD} Supply Current (V_{DD})[2]	25 C	V		19		mA
IP_{VD} Supply Current (P_{VD})	25 C	V		8		mA
Total Power Dissipation	Full	VI		525	650	mW
Power-Down Supply Current	Full	VI		5	10	mA
Power-Down Dissipation	Full	VI		16.5	33	mW
DYNAMIC PERFORMANCE						
Analog Bandwidth, Full Power	25 C	V		300		MHz
Transient Response	25 C	V		2		ns
Overvoltage Recovery Time	25 C	V		1.5		ns
Signal-to-Noise Ratio (SNR)	25 C	V		44		dB
(Without Harmonics)	Full	V		43		dB
f_{IN} = 40.7 MHz						
Crosstalk	Full	V		55		dBc
THERMAL CHARACTERISTICS						
$_{JC}$ Junction-to-Case Thermal Resistance		V		16		C/W
$_{JA}$ Junction-to-Ambient Thermal Resistance		V		35		C/W

NOTES
[1]VCO Range = 10, Charge Pump Current = 110, PLL Divider = 1693.
[2]DATACK Load = 15 pF, Data Load = 5 pF.

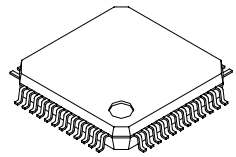
Specifications subject to change without notice.

CXA2151Q

Description

The CXA2151Q is a bipolar IC developed for multi scan TVs, and incorporates a four system video switch (including HV sync signal processing) and a YCbCr output matrix circuit.

48 pin QFP (Plastic)



Features

- Supports the ^{2}IC bus
- Supports multi scan
- Four system video switch (of which two systems support D3 pins)
- Matrix circuit
- Each YCbCr output can be switched between 0dB, 6dB (gain adjustable) and mute.
- Sync signal automatic identification circuit (with fixed mode)
- Sync separation circuit (supports HD)
- HD Tri-level sync identification circuit
- Sync signal frequency counter (both H and V)
- Dummy sync output

Applications

Multi scan TVs

Structure

Bipolar silicon monolithic IC

Absolute Maximum Ratings (Ta = 25°C, GND1, 2, 3 = 0V)

▪ Supply voltage	V_{CC}1, 2, 3	−0.3 to +5.5	V
▪ Operating temperature	Topr	−20 to +75	°C
▪ Storage temperature	Tstg	−65 to +150	°C
▪ Allowable power dissipation	P_D	1400	mW

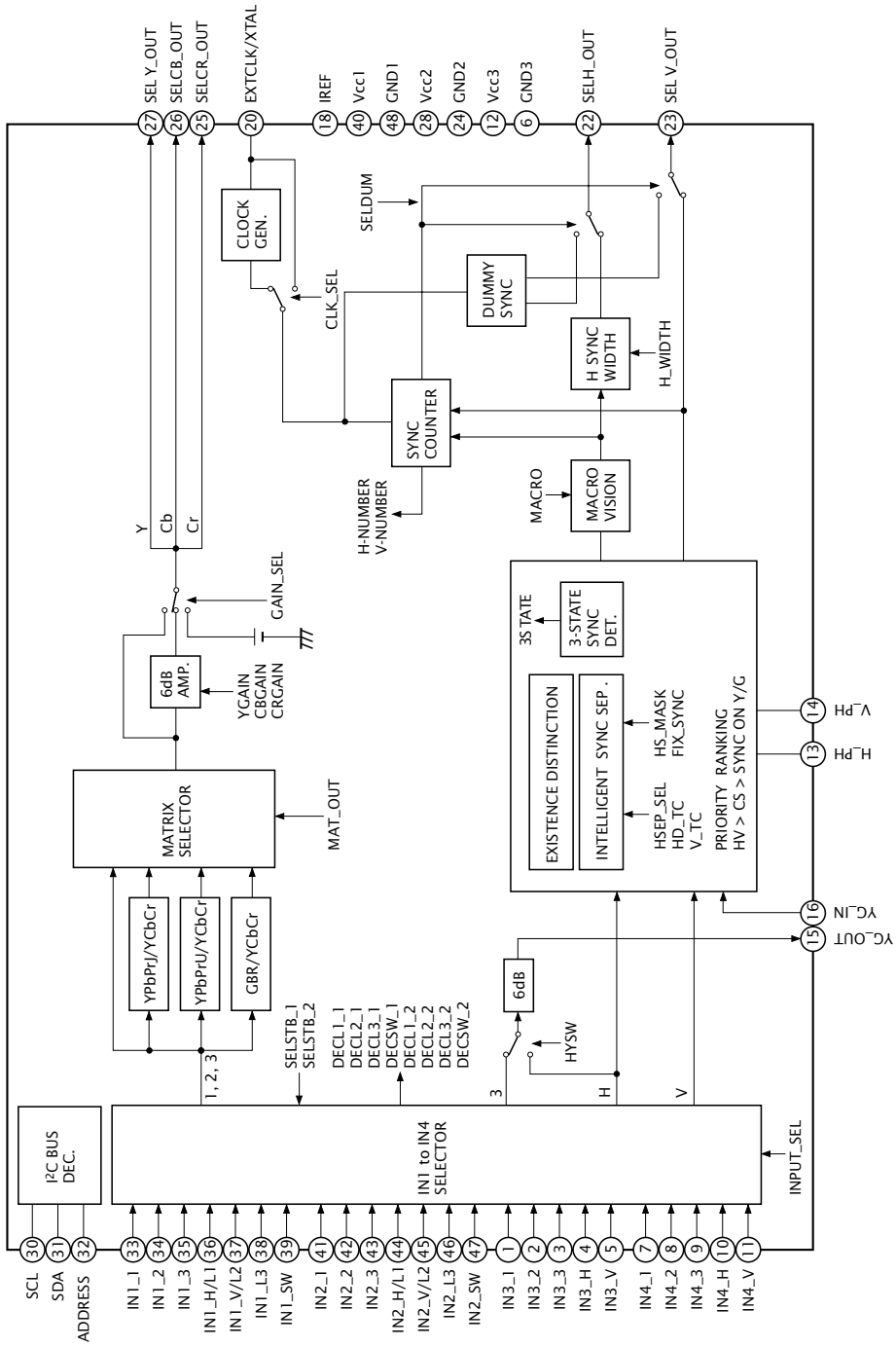
(when mounted on a 50mm 50mm board)

- Voltage at each pin: −0.3 to V_{CC}1, 2, 3 + 0.3 V

Recommended Operating Conditions

Supply voltage	V_{CC}1, 2, 3	5 ± 0.25	V

Block Diagram



DS90C385

General Description

The DS90C385 transmitter converts 28 bits of LVCMOS/LVTTL data into four LVDS (Low Voltage Differential Signaling) data streams. A phase-locked transmit clock is transmitted in parallel with the data streams over a fifth LVDS link. Every cycle of the transmit clock 28 bits of input data are sampled and transmitted. At a transmit clock frequency of 85 MHz, 24 bits of RGB data and 3 bits of LCD timing and control data (FPLINE, FPFRAME, DRDY) are transmitted at a rate of 595 Mbps per LVDS data channel. Using a 85 MHz clock, the data throughput is 297.5 Mbytes/sec. Also available is the DS90C365 that converts 21 bits of LVCMOS/LVTTL data into three LVDS (Low Voltage Differential Signaling) data streams. Both transmitters can be programmed for Rising edge strobe or Falling edge strobe through a dedicated pin. A Rising edge or Falling edge strobe transmitter will interoperate with a Falling edge strobe Receiver (DS90CF386/DS90CF366) without any translation logic.

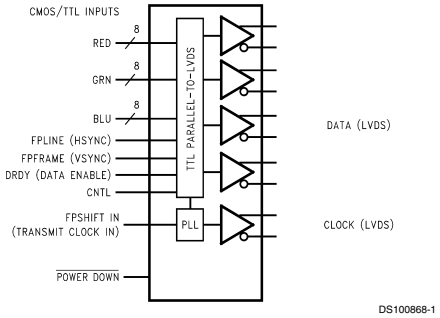
The DS90C385 is also offered in a 64 ball, 0.8mm fine pitch ball grid array (FBGA) package which provides a 44 % reduction in PCB footprint compared to the TSSOP package. This chipset is an ideal means to solve EMI and cable size problems associated with wide, high-speed TTL interfaces.

Features

- 20 to 85 MHz shift clock support
- Best±in±Class Set & Hold Times on TxINPUTs
- Tx power consumption <130 mW (typ) @85MHz Grayscale
- Tx Power-down mode <200 W (max)
- Supports VGA, SVGA, XGA and Single/Dual Pixel SXGA.
- Narrow bus reduces cable size and cost
- Up to 2.38 Gbps throughput
- Up to 297.5 Megabytes/sec bandwidth
- 345 mV (typ) swing LVDS devices for low EMI
- PLL requires no external components
- Compatible with TIA/EIA-644 LVDS standard
- Low profile 56-lead or 48-lead TSSOP package
- DS90C385 also available in a 64 ball, 0.8mm fine pitch ball grid array (FBGA) package

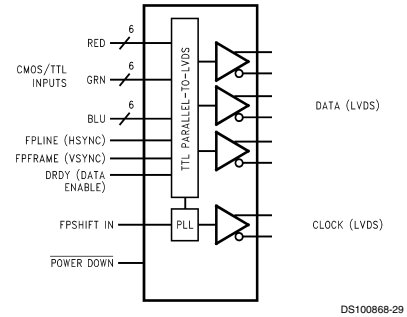
Block Diagrams

DS90C385



Order Number DS90C385MTD or DS90C385SLC
See NS Package Number MTD56 or SLC64A

DS90C365



Order Number DS90C365MTD
See NS Package Number MTD48

Absolute Maximum Ratings (Note 1)

If Military/Aerospace specified devices are required, please contact the National Semiconductor Sales Office/ Distributors for availability and specifications.

Supply Voltage (V_{CC})	-0.3V to +4V
CMOS/TTL Input Voltage	-0.5V to (V_{CC} + 0.3V)
LVDS Driver Output Voltage	-0.3V to (V_{CC} + 0.3V)
LVDS Output Short Circuit Duration	Continuous
Junction Temperature	+150°C
Storage Temperature	-65 C to +150°C
Lead Temperature (Soldering, 4 sec)	+260°C
Solder reflow Temperature (20 sec for FBGA)	+220°C
Maximum Package Power Dissipation Capacity @ 25°C	
MTD56 (TSSOP) Package: DS90C385MTD	1.63W
MTD48 (TSSOP) Package: DS90C365MTD	1.98W
SLC64 (FBGA) Package: DS90C385SLC	2.0W
Package Derating: DS90C385MTD	12.5mW/ C above +25°C
Package Derating: DS90C365MTD	16 mW/ C above +25°C
DS90C385SLC	10.2mW/ C above +25°C
ESD Rating (HBM, 1.5kW, 100pF)	> 7 kV
(EIAJ, 0W, 200 pF)	> 500V
Latch Up Tolerance @ 25°C	> +/-300mA

Recommended Operating Conditions

	Min	Nom	Max	Units
Supply Voltage (V_{CC})	3.0	3.3	3.6	V
Operating Free Air Temperature (T_A)	-10	+25	+70	°C
Supply Noise Voltage (V_{CC})			100	mV_{PP}
TxCLKIN frequency	20		85	MHz

Electrical Characteristics

Over recommended operating supply and temperature ranges unless otherwise specified.

Symbol	Parameter	Conditions		Min	Typ	Max	Units
LVCMOS/LVTTL DC SPECIFICATIONS							
V_{IH}	High Level Input Voltage			2.0		V_{CC}	V
V_{IL}	Low Level Input Voltage			GND		0.8	V
V_{CL}	Input Clamp Voltage	I_{CL} = -18 mA			-0.79	-1.5	V
I_{IN}	Input Current	V_{IN} = 0.4V, 2.5V or V_{CC}			+1.8	+10	A
		V_{IN} = GND		-10	0		A
LVDS DC SPECIFICATIONS							
V_{OD}	Differential Output Voltage	R_L = 100W		250	345	450	mV
DV_{OD}	Change in V_{OD} between complimentary output states					35	mV
V_{OS}	Offset Voltage (Note 4)			1.125	1.25	1.375	V
DV_{OS}	Change in V_{OS} between complimentary output states					35	mV
I_{OS}	Output Short Circuit Current	V_{OUT} = 0V, R_L = 100W			-3.5	-5	mA
I_{OZ}	Output TRI-STATE Current	Power Down = 0V, V_{OUT} = 0 V or V_{CC}			+/-1	+/-10	A
TRANSMITTER SUPPLY CURRENT							
ICCTW	Transmitter Supply Current Worst Case DS90C385	R_L = 100W, C_L = 5 pF, Worst Case Pattern *(Figures 1, 4)*	f = 32.5 MHz		31	45	mA
			f = 40 MHz		32	50	mA
			f = 65 MHz		37	55	mA
			f = 85 MHz		42	60	mA
ICCTG	Transmitter Supply Current 16 Grayscale DS90C385	R_L = 100W, C_L = 5 pF, 16 Grayscale Pattern *(Figures 2, 4)*	f = 32.5 MHz		29	38	mA
			f = 40 MHz		30	40	mA
			f = 65 MHz		35	45	mA
			f = 85 MHz		39	50	mA
ICCTW	Transmitter Supply Current Worst Case DS90C365	R_L = 100W, C_L = 5 pF, Worst Case Pattern *(Figures 1, 4)*	f = 32.5 MHz		28	42	mA
			f = 40 MHz		29	47	mA
			f = 65 MHz		34	52	mA
			f = 85 MHz		39	57	mA

Electrical Characteristics (Continued)

Over recommended operating supply and temperature ranges unless otherwise specified.

Symbol	Parameter	Conditions		Min	Typ	Max	Units
TRANSMITTER SUPPLY CURRENT							
ICCTG	Transmitter Supply Current 16 Grayscale DS90C365	R_L = 100W, C_L = 5 pF, 16 Grayscale Pattern *(Figures 3, 4)*	f = 32.5 MHz		26	35	mA
			f = 40 MHz		27	37	mA
			f = 65 MHz		32	42	mA
			f = 85 MHz		36	47	mA
ICCTZ	Transmitter Supply Current Power Down	$\overline{\text{Power Down}}$ = Low Driver Outputs in TRI-STATE under Power Down Mode			10	55	A

Note 1: "Absolute Maximum Ratings" are those values beyond which the safety of the device cannot be guaranteed. They are not meant to imply that the device should be operated at these limits. The tables of "Electrical Characteristics" specify conditions for device operation.

Note 2: Typical values are given for V_{CC} = 3.3V and T_A = +25C.

Note 3: Current into device pins is defined as positive. Current out of device pins is defined as negative. Voltages are referenced to ground unless otherwise specified (except V_{OD} and DV_{OD}).

Note 4: V_{OS} previously referred as V_{CM}.

Recommended Transmitter Input Characteristics

Over recommended operating supply and temperature ranges unless otherwise specified.

Symbol	Parameter	Min	Typ	Max	Units
TCIT	TxCLK IN Transition Time *(Figure 6)*	1.0		6.0	ns
TCIP	TxCLK IN Period *(Figure 7)*	11.76	T	50	ns
TCIH	TxCLK IN High Time *(Figure 7)*	0.35T	0.5T	0.65T	ns
TCIL	TxCLK IN Low Time *(Figure 7)*	0.35T	0.5T	0.65T	ns
TXIT	TxIN Transition Time	1.5		6.0	ns

Transmitter Switching Characteristics

Over recommended operating supply and temperature ranges unless otherwise specified.

Symbol	Parameter		Min	Typ	Max	Units
LLHT	LVDS Low-to-High Transition Time *(Figure 5)*			0.75	1.5	ns
LHLT	LVDS High-to-Low Transition Time *(Figure 5)*			0.75	1.5	ns
TPPos0	Transmitter Output Pulse Position for Bit 0 *(Figures 13, 14)* (Note 5)	f = 40 MHz	-0.25	0	0.25	ns
TPPos1	Transmitter Output Pulse Position for Bit 1		3.32	3.57	3.82	ns
TPPos2	Transmitter Output Pulse Position for Bit 2		6.89	7.14	7.39	ns
TPPos3	Transmitter Output Pulse Position for Bit 3		10.46	10.71	10.96	ns
TPPos4	Transmitter Output Pulse Position for Bit 4		14.04	14.29	14.54	ns
TPPos5	Transmitter Output Pulse Position for Bit 5		17.61	17.86	18.11	ns
TPPos6	Transmitter Output Pulse Position for Bit 6		21.18	21.43	21.68	ns
TPPos0	Transmitter Output Pulse Position for Bit 0 *(Figures 13, 14)* (Note 5)	f = 65 MHz	-0.20	0	0.20	ns
TPPos1	Transmitter Output Pulse Position for Bit 1		2.00	2.20	2.40	ns
TPPos2	Transmitter Output Pulse Position for Bit 2		4.20	4.40	4.60	ns
TPPos3	Transmitter Output Pulse Position for Bit 3		6.39	6.59	6.79	ns
TPPos4	Transmitter Output Pulse Position for Bit 4		8.59	8.79	8.99	ns
TPPos5	Transmitter Output Pulse Position for Bit 5		10.79	10.99	11.19	ns
TPPos6	Transmitter Output Pulse Position for Bit 6		12.99	13.19	13.39	ns

Transmitter Switching Characteristics (Continued)

Over recommended operating supply and temperature ranges unless otherwise specified

Symbol	Parameter		Min	Typ	Max	Units
TPPos0	Transmitter Output Pulse Position for Bit 0 *(Figures 13, 14)* (Note 5)	f = 85 MHz	-0.20	0	0.20	ns
TPPos1	Transmitter Output Pulse Position for Bit 1		1.48	1.68	1.88	ns
TPPos2	Transmitter Output Pulse Position for Bit 2		3.16	3.36	3.56	ns
TPPos3	Transmitter Output Pulse Position for Bit 3		4.84	5.04	5.24	ns
TPPos4	Transmitter Output Pulse Position for Bit 4		6.52	6.72	6.92	ns
TPPos5	Transmitter Output Pulse Position for Bit 5		8.20	8.40	8.60	ns
TPPos6	Transmitter Output Pulse Position for Bit 6		9.88	10.08	10.28	ns
TSTC	TxIN Setup to TxCLK IN *(Figure 7)*		2.5			ns
THTC	TxIN Hold to TxCLK IN *(Figure 7)*		0			ns
TCCD	TxCLK IN to TxCLK OUT Delay *(Figure 8)*	T_A = 25 C, V_{CC} = 3.3V	3.8		6.3	ns
	TxCLK IN to TxCLK OUT Delay *(Figure 8)*		2.8		7.1	ns
TJCC	Transmitter Jitter Cycle-to-Cycle *(Figures 15, 16)* (Note 6)	f = 85 MHz		110	150	ps
		f = 65 MHz		210	230	ps
		f = 40 MHz		350	370	ps
TPLLS	Transmitter Phase Lock Loop Set *(Figure 9)*				10	ms
TPDD	Transmitter Power Down Delay *(Figure 12)*				100	ns

Note 5: The Minimum and Maximum Limits are based on statistical analysis of the device performance over process, voltage, and temperature ranges. This parameter is functionality tested only on Automatic Test Equipment (ATE).

Note 6: The limits are based on bench characterization of the device's jitter response over the power supply voltage range. Output clock jitter is measured with a cycle-to-cycle jitter of +/- .3ns applied to the input clock signal while data inputs are switching (See Figures 15 and 16). A jitter event of 3ns, represents worse case jump in the clock edge from most graphics controller VGA chips currently available. This parameter is used when calculating system margin as described in AN-1059.

AC Timing Diagrams

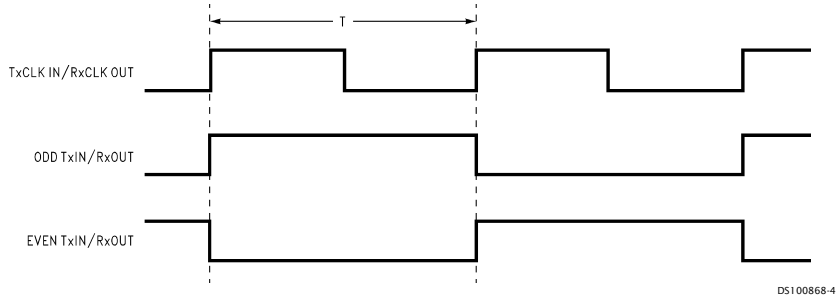


FIGURE 1. ™Worst Case∫ Test Pattern (Note 7)

P89C51RD2BA

DESCRIPTION

The P89C51RB2/RC2/RD2 device contains a non-volatile 16kB/32kB/64kB Flash program memory that is both parallel programmable and serial In-System and In-Application Programmable. In-System Programming (ISP) allows the user to download new code while the microcontroller sits in the application. In-Application Programming (IAP) means that the microcontroller fetches new program code and reprograms itself while in the system. This allows for remote programming over a modem link. A default serial loader (boot loader) program in ROM allows serial In-System programming of the Flash memory via the UART without the need for a loader in the Flash code. For In-Application Programming, the user program erases and reprograms the Flash memory by use of standard routines contained in ROM.

This device executes one machine cycle in 6 clock cycles, hence providing twice the speed of a conventional 80C51. An OTP configuration bit lets the user select conventional 12 clock timing if desired.

This device is a Single-Chip 8-Bit Microcontroller manufactured in advanced CMOS process and is a derivative of the 80C51 microcontroller family. The instruction set is 100% compatible with the 80C51 instruction set.

The device also has four 8-bit I/O ports, three 16-bit timer/event counters, a multi-source, four-priority-level, nested interrupt structure, an enhanced UART and on-chip oscillator and timing circuits.

The added features of the P89C51RB2/RC2/RD2 makes it a powerful microcontroller for applications that require pulse width modulation, high-speed I/O and up/down counting capabilities such as motor control.

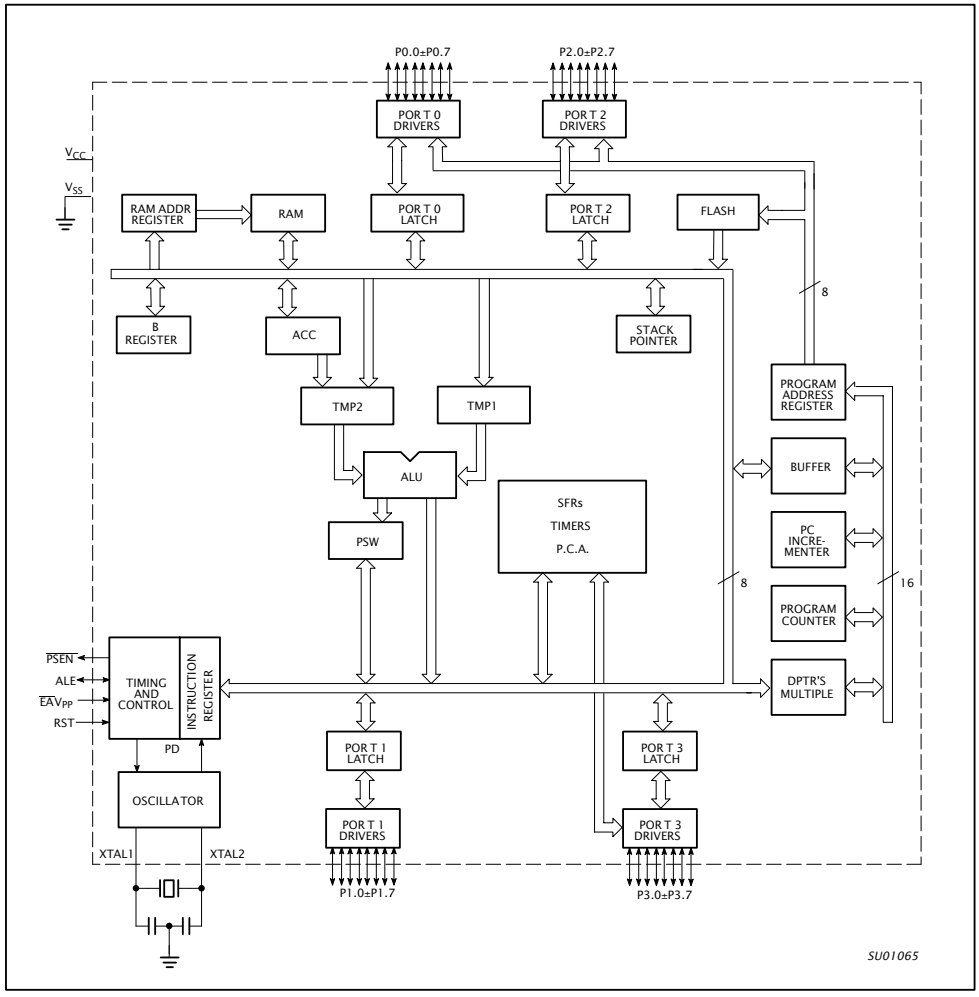
FEATURES

- 80C51 Central Processing Unit
- On-chip Flash Program Memory with In-System Programming (ISP) and In-Application Programming (IAP) capability
- Boot ROM contains low level Flash programming routines for downloading via the UART
- Can be programmed by the end-user application (IAP)
- 6 clocks per machine cycle operation (standard)
- 12 clocks per machine cycle operation (optional)
- Speed up to 20 MHz with 6 clock cycles per machine cycle (40 MHz equivalent performance); up to 33 MHz with 12 clocks per machine cycle
- Fully static operation
- RAM expandable externally to 64 kB
- 4 level priority interrupt
- 7 interrupt sources
- Four 8-bit I/O ports
- Full-duplex enhanced UART
  - ± Framing error detection
  - ± Automatic address recognition
- Power control modes
  - ± Clock can be stopped and resumed
  - ± Idle mode
  - ± Power down mode
- Programmable clock out
- Second DPTR register
- Asynchronous port reset
- Low EMI (inhibit ALE)
- Programmable Counter Array (PCA)
  - ± PWM
  - ± Capture/compare

ORDERING INFORMATION

	PHILIPS (EXCEPT NORTH AMERICA) PART ORDER NUMBER PART MARKING	PHILIPS NORTH AMERICA PART ORDER NUMBER	MEMORY		TEMPERATURE RANGE (°C) AND PACKAGE	VOLTAGE RANGE	FREQUENCY (MHz)		DWG #
			FLASH	RAM			6 CLOCK MODE	12 CLOCK MODE	
1	P89C51RB2HBA	P89C51RB2BA	16 kB	512 B	0 to +70, PLCC	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT187-2
2	P89C51RB2HBBD	P89C51RB2BBD	16 kB	512 B	0 to +70, LQFP	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT389-1
3	P89C51RC2HBP	P89C51RC2BP	32 kB	512 B	0 to +70, PDIP	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT129-1
4	P89C51RC2HBA	P89C51RC2BA	32 kB	512 B	0 to +70, PLCC	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT187-2
5	P89C51RC2HFA	P89C51RC2FA	32 kB	512 B	±40 to +85, PLCC	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT187-2
6	P89C51RC2HBBD	P89C51RC2BBD	32 kB	512 B	0 to +70, LQFP	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT389-1
7	P89C51RC2HFBD	P89C51RC2FBD	32 kB	512 B	±40 to +85, LQFP	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT389-1
8	P89C51RD2HBP	P89C51RD2BP	64 kB	1 kB	0 to +70, PDIP	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT129-1
9	P89C51RD2HBA	P89C51RD2BA	64 kB	1 kB	0 to +70, PLCC	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT187-2
10	P89C51RD2HBBD	P89C51RD2BBD	64 kB	1 kB	0 to +70, LQFP	4.5±5.5 V	0 to 20 MHz	0 to 33 MHz	SOT389-1

BLOCK DIAGRAM



S2310

DESCRIPTION

The s2300 is a highly integrated digital video format converter for DTV and DVD applications using patented deinterlacing and post processing algorithms from Faroudja Laboratories, coupled with highly flexible scaling, a wide variety of aspect ratio conversions, and other special video enhancing features to produce the highest quality image.

INPUTS –

- Input all industry standard and non-standard video resolutions, including 480i (NTSC), 576i (PAL/SECAM), 480p, 720p, 1080i, and VGA to SXGA
- Digital input, 8-bit Y/Cr/Cb (ITU-R BT656), 8-bit Y/Pr/Pb, 16-bit Y Cr/Cb (ITU-R BT601), 24-bit RGB, YCrCb, YPrPb
- Input pixel rate up to 75MHz maximum

OUTPUTS –

- Output resolutions include 480p, 576i, 576p, 720p, 1080i, 1080p, and VGA to SXGA
- Interlaced or Progressive output
- Output can be either analog YUV/RGB (through the integrated 10-bit DAC), or digital 24-bit RGB, YCrCb, YPrPb (4:4:4), or digital 16/20-bit Y Cr/Cb (4:2:2)
- Output pixel rate up to 150MHz maximum

FORMATS –

- Input color manipulation matrix supports all color spaces: RGB, YPrPb, 4:4:4 YCrCb, 4:2:2 YCr/Cb, ITU-R BT656, ITU-R BT601
- Output supports analog RGB, YPrPb, YCrCb, and digital RGB, YPrPb, 4:4:4 YCrCb, 4:2:2 YCr/Cb

FRONT END PROCESSING –

- Motion Adaptive Noise Reduction - Improves picture quality for off-air material.
- Cross Color Suppressor (CCS) - Removes cross color artifacts in composite video signals due to poor Y/C separation in standard 2D video decoders, eliminating the need for expensive 3D video decoders.

DEINTERLACING –

- Per-pixel Motion Adaptive Deinterlacing
- Patented FilmMode Processing - Used for proper de-interlacing of 3:2 and 2:2 pulldown material.
- Edit Correction - Film content is continuously monitored for any break in sequence caused by “bad edits” and quickly compensates for the most effective reduction in artifacts.
- DCDi™ - Video is analyzed on a single pixel granularity to detect presence or absence of angled lines and edges, which are then processed to produce a smooth & natural looking image without visible artifacts or “jaggies”.

SCALING –

- High Quality Fully Programmable Two Dimensional Scaler
- Aspect Ratio Conversion for “Anamorphic” or “Panoramic” (non-linear)
- Display 4:3 images on 16:9 displays and vice versa, including Letterbox to Fullscreen, Pillarbox, and Subtitle Display Modes

TrueLife™ ENHANCER –

Two dimensional, non-linear, luma & chroma video enhancer brings out details in the picture, producing a more life-like image.

MEMORY –

- 32-bit wide SDRAM (i.e. one 2Mx32bit, or two 1Mx16bit), up to 166MHz operation

FRC –

- Tearless Frame Rate Conversion, 50/60/72/75/100/120 Hz

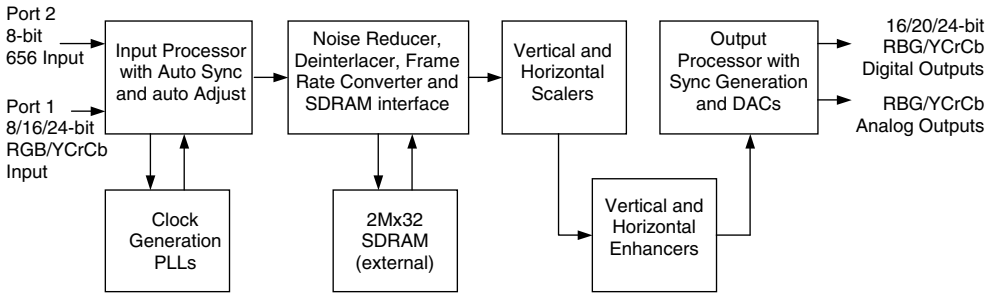
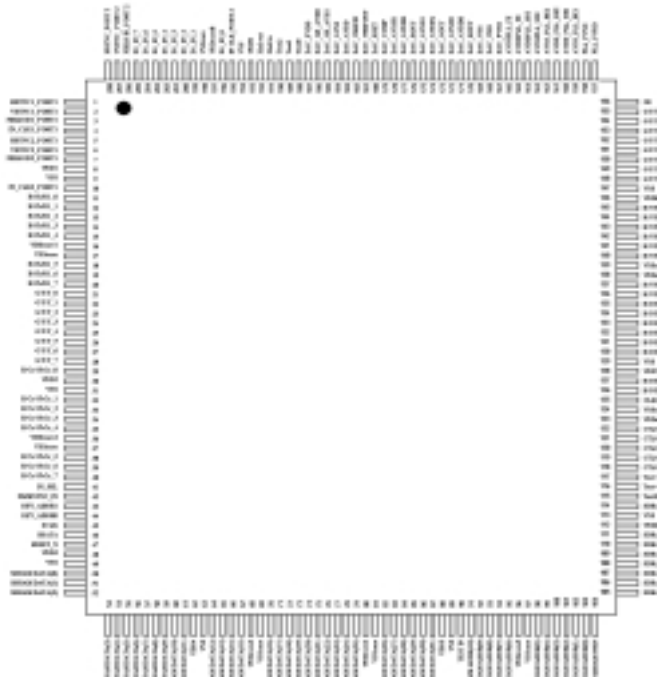


FIGURE 1: Packaging and Pinout Information



Package: 208-pin PQFP ja = TBD °C/watt

SiI161B

General Description

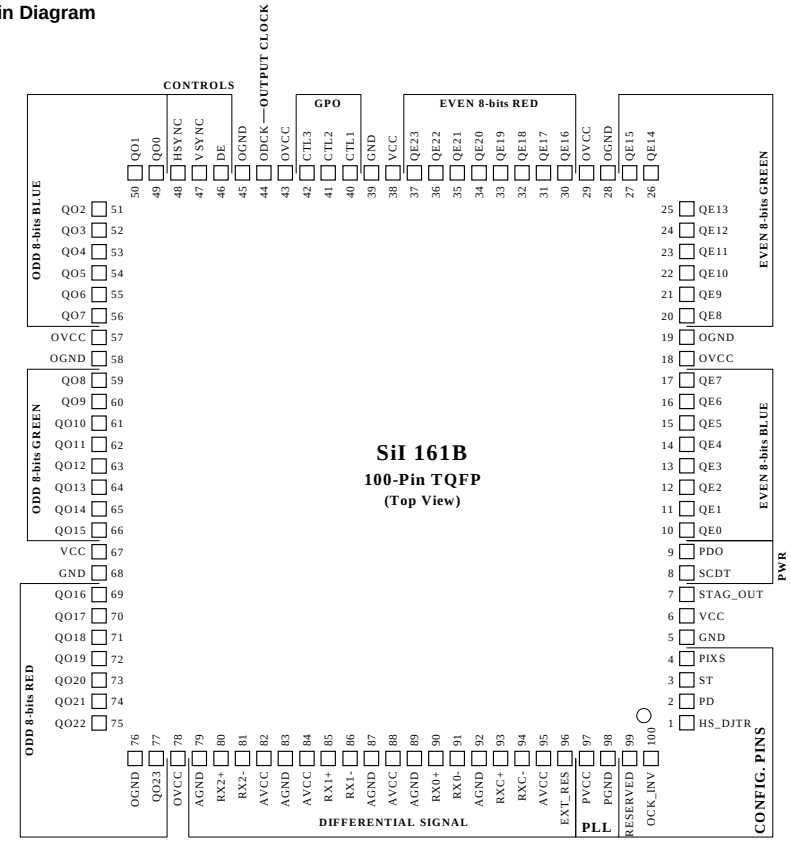
The SiI161B receiver uses PanelLink Digital technology to support high resolution displays up to UXGA. The SiI 161B receiver supports up to true color panels (24 bit/pixel, 16.7M colors) in 1 or 2 pixels/clock mode. In addition, the receiver data output is time staggered to reduce ground bounce that affects EMI. All PanelLink products are designed on a scaleable CMOS architecture. This ensures support for future performance requirements while maintaining the same logical interface. With this scalable architecture, system designers can be assured that the interface will be fixed through a number of technology and performance generations.

PanelLink Digital technology simplifies PC and display interface design by resolving many of the system level issues associated with high-speed mixed signal design, providing the system designer with a digital interface solution that is quicker to market and lower in cost.

Features

- Low Power Operation: 280mA max. current consumption at 3.3V core operation
- Time staggered data output for reduced ground bounce
- Sync Detect: for Plug & Display "Hot Plugging"
- Cable Distance Support: over 5m with twisted-pair, fiber-optics ready
- ESD tolerant to 5kV(HBM on all pins)
- Compliant with DVI 1.0 (DVI is backwards compatible with VESA® P&D™ and DFP)
- Hsync Dejitter Circuitry
- Low power standby mode with clock detect circuitry

SiI161B Pin Diagram



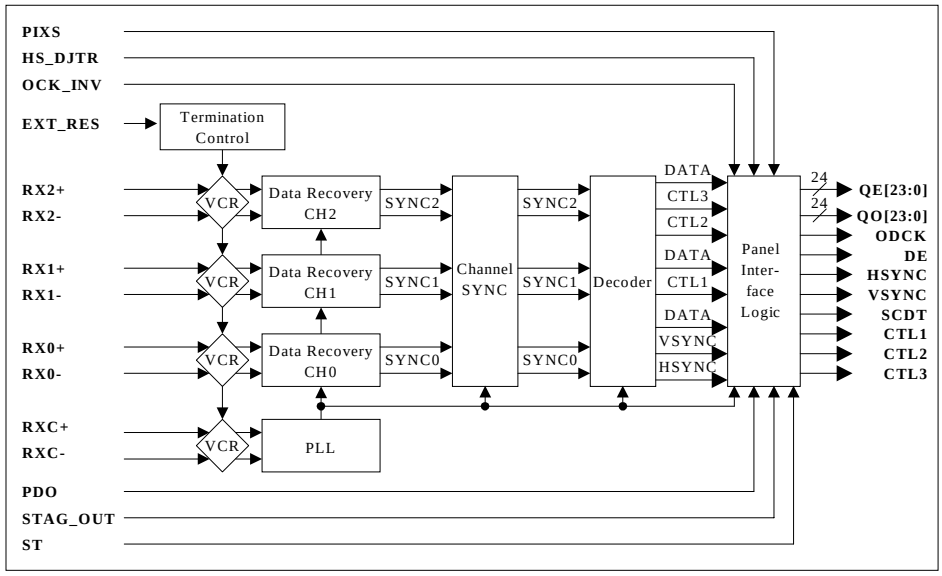
Differences Between SiI161A and SiI161B

While the SiI161B is pin to pin compatible with the SiI161A, there are minor differences in functions and suggested external component value. When designing the SiI161B into an existing design, note that the recommended external resistor (EXT_RES) value has changed from 560 to 390 to match the impedance of a 50 cable. Pin 1 of the SiI161A functions as a selection between Single Link and Dual Link mode. The SiI161B does not support Dual Link operation. Instead pin 1 is used to enable or disable the HSYNC Dejitter function. Table 1 lists the differences between SiI161A and SiI161B.

Pin/Function	SiI161A	SiI161B
Pin 1	S_D: to select Single/Dual Link mode. Pull high to select Dual Link and Pull low for Single Link.	HS_DJTR: to enable HSYNC Dejitter circuitry. Pull high to enable, Pull low to disable.
Pin 4	PIXS/M_S	PIXS
Pin 7	STAG_OUT/SYNCO	STAG_OUT
EXT_RES Resistor Value	560 390	

Table 1. SiI161A vs. SiI161B pin differences.

Functional Block Diagram



TA2024

GENERAL DESCRIPTION

The TA2024 is a 15W/ch continuous average two-channel Class-T Digital Audio Power Amplifier IC using Tripath's proprietary Digital Power Processing™ technology. Class-T amplifiers offer both the audio fidelity of Class-AB and the power efficiency of Class-D amplifiers.

APPLICATIONS

- Computer/PC Multimedia
- DVD Players
- Cable Set-Top Products
- Televisions
- Video CD Players
- Battery Powered Systems

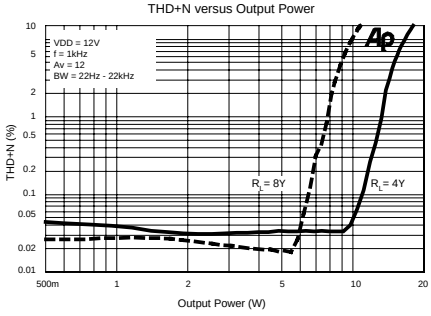
BENEFITS

- Fully integrated solution with FETs
- Easier to design-in than Class-D
- Reduced system cost with no heat sink
- Dramatically improves efficiency versus Class-AB
- Signal fidelity equal to high quality linear amplifiers
- High dynamic range compatible with digital media such as CD, DVD, and Internet audio

FEATURES

- Class-T architecture
- Single Supply Operation
- "Audiophile" Quality Sound
  - 0.04% THD+N @ 9W, 4Y
  - 0.18% IHF-IM @ 1W, 4Y
  - 11W @ 4Y , 0.1% THD+N
  - 6W @ 8Y , 0.1% THD+N
- High Power
  - 15W @ 4Y , 10% THD+N
  - 10W @ 8Y , 10% THD+N
- High Efficiency
  - 81% @ 15W, 4Y
  - 88% @ 10W, 8Y
- Dynamic Range = 102 dB
- Mute and Sleep inputs
- Turn-on & turn-off pop suppression
- Over-current protection
- Over-temperature protection
- Bridged outputs
- 36-pin Power SOP package

TYPICAL PERFORMANCE



ABSOLUTE MAXIMUM RATINGS (Note 1)

SYMBOL	PARAMETER	Value	UNITS
V_{DD}	Supply Voltage	16	V
V5	Input Section Supply Voltage	6.0	V
SLEEP	SLEEP Input Voltage	-0.3 to 6.0	V
MUTE	MUTE Input Voltage	-0.3 to V5+0.3	V
T_{STORE}	Storage Temperature Range	-40 to 150	°C
T_A	Operating Free-air Temperature Range	0 to 70	°C
T_J	Junction Temperature	150	°C

Note 1 : Absolute Maximum Ratings indicate limits beyond which damage to the device may
Note 2 : See Power Dissipation Derating in the Applications Information section.

OPERATING CONDITIONS (Note 4)

SYMBOL	PARAMETER	MIN.	TYP.	MAX.	UNITS
V_{DD}	Supply Voltage	8.5	12	13.2	V
V_{IH}	High-level Input Voltage (MUTE, SLEEP)	3.5			V
V_{IL}	Low-level Input Voltage (MUTE, SLEEP)			1	V

Note 3: Recommended Operating Conditions indicate conditions for which the device is fun
See Electrical Characteristics for guaranteed specific performance limits.

ELECTRICAL CHARACTERISTICS

See Test/Application Circuit. Unless otherwise specified, V_{DD} = 12V, f = 1kHz, Measurem
Bandwidth = 22kHz, R_L = 4Y, T_A = 25q C, Package heat slug soldered to 2.8 square-inch F

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNITS
P_O	Output Power (Continuous Average/Channel)	THD+N = 01% R_L = 4 R_L = 8 THD+N = 10% R_L = 4 R_L = 8	9 5.5 12 8	11 6 15 10		W W W W
$I_{DD,MUTE}$	Mute Supply Current	MUTE = V_{IH}		5.5	7	mA
$I_{DD, SLEEP}$	Sleep Supply Current	SLEEP = V_{IH}		0.25	2	mA
I_q	Quiescent Current	V_{IN} = 0 V		61	75	mA
THD + N	Total Harmonic Distortion Plus Noise	P_O = 9W/Channel		0.04		%
IHF-IM	IHF Intermodulation Distortion	19kHz, 20kHz, 1:1 (IHF)		0.18	0.5	%
SNR	Signal-to-Noise Ratio	A-Weighted, P_{OUT} = 1W, R_L = 8	89			dB
CS	Channel Separation	30kHz Bandwidth	50	55		dB
PSRR	Power Supply Rejection Ratio	Vripple = 100mV	60	80		dB
j	Power Efficiency	P_{OUT} = 10W/Channel, R_L = 8		88		%
V_{OFFSET}	Output Offset Voltage	No Load, MUTE= Logic Low		50	150	mV
V_{OH}	High-level output vblage (FAULT & OVER LOAD)	3.5				V
V_{OL}	Low-level output voltage (FAULT & OVER LOAD)				1	V
e_{OUT}	Output Noise Voltage	A-Weighted, input AC grounded		100		oV

Note: Minimum and maximum limits are guaranteed but may not be 100% tested.

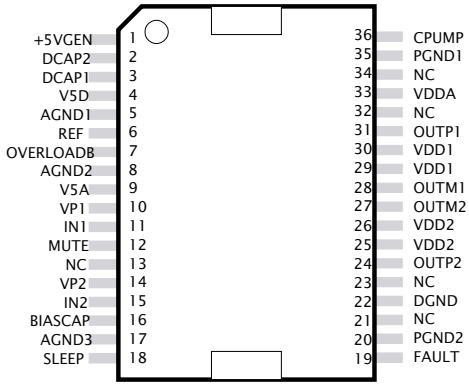
PIN DESCRIPTION

Pin	Function	Description
2, 3	DCAP2, DCAP1	Charge pump sw itching pins. DCAP1 (pin 3) is a free running 300kHz square wave between VDDA and DGND (12Vpp nominal). DCAP2 (pin 2) is level shifted 10 volts above DCAP1 (pin 3) w ith the same amplitude (12Vpp nominal), frequency, and phase as DCAP1.
4, 9	V5D, V5A	Digital 5VDC, Analog 5VDC
5, 8, 17	AGND1, AGND2, AGND3	Analog Ground
6	REF	Internal reference voltage; approximately 1.0 VDC.
7	OVERLOADB	A logic low output indicates the input signal has overloaded the amplifier.
10, 14	VP1, VP2	Input stage output pins.
11, 15	IN1, IN2	Single-ended inputs. Inputs are a "virtual" ground of an inverting opamp w ith approximately 2.4VDC bias.
12	MUTE	When set to logic high, both amplifiers are muted and in idle mode. When low (grounded), both amplifiers are fully operational. If left floating, the device stay s in the mute mode. This pin should be tied to GND if not used.
16	BIASCAP	Input stage bias voltage (approximately 2.4VDC).
18	SLEEP	When set to logic high, device goes into low power mode. If not used, this pin should be grounded
19	FAULT	A logic high output indicates thermal overload, or an output is shorted to ground, or another output.
20, 35	PGND2, PGND1	Pow er Grounds (high current)
22	DGND	Digital Ground
24, 27; 31, 28	OUTP 2 & OUTM2; OUTP 1 & OUTM1	Bridged outputs
25, 26, 29, 30	VDD2, VDD2 VDD1, VDD1	Supply pins for high current H-bridges, nominally 12VDC.
13, 21, 23, 32, 34	NC	Not connected. Not bonded internally .
33	VDDA	Analog 12VDC
36	CPUMP	Charge pump output (nominally 10V above VDDA)
1	5VGEN	Regulated 5VDC source used to supply power to the input section (pins 4 and 9).

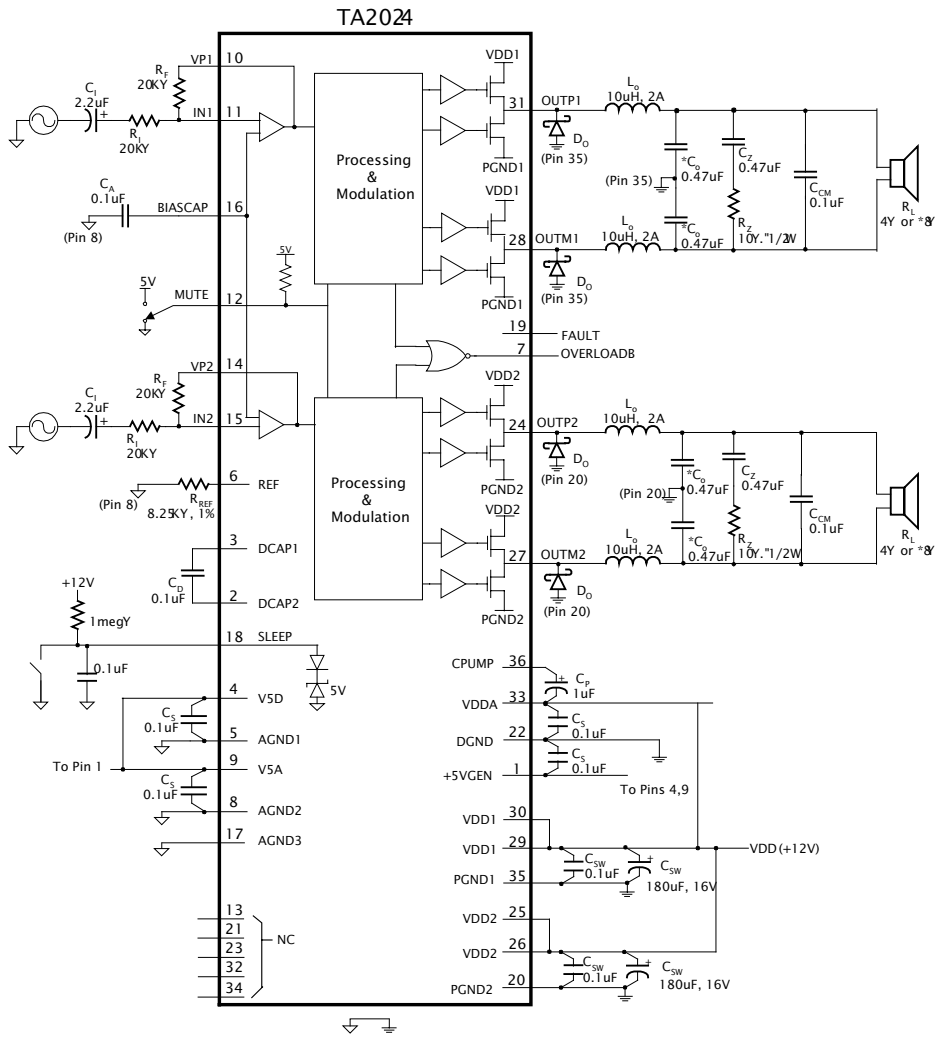
TA2024 PINOUT

36-pin Power SOP Package

(Top View)



APPLICATION /TEST CIRCUIT



Note: Analog and Digital/Power Grounds must be connected locally at the TA2024

Analog Ground

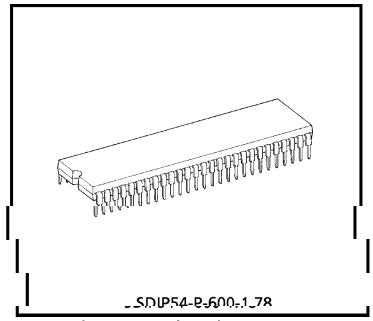
Digital/Power Ground

All Diodes Motorola MBRS130T3

* Use C_o = 0.22uF for 8 Ohm loads

TA8851

The TA8851BN / CN is an A / V SWITCH IC, which has 7 input channels and 2 output channels. Because the 2 output channels can be switched independently of each other, the TA8851BN / CN allows you to configure a PIP system input switching circuit easily.
The TA8851BN / CN can be interfaced easily to a microcontroller via the I^2C bus.
3 of 7 input channels can be used for Y / C separated input.



Weight : 1.0g (Typ.)

FEATURES

Video Stage

- Input
  - Composite video input : 7 channels
  - Y / C input : 3 channels
- Output
  - Composite video output : 2 channels (Main and Sub)
  - Y / C output : 2 channels (Main and Sub)

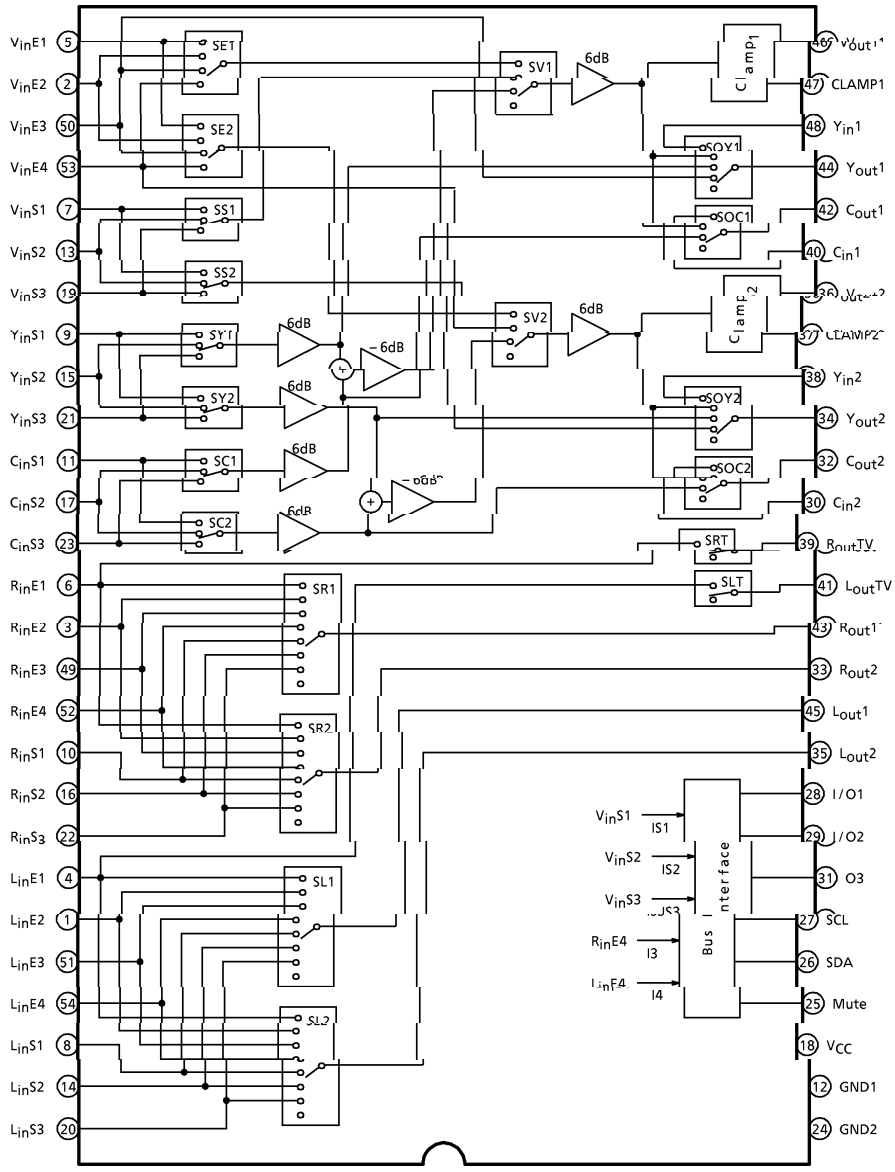
Audio Stage

- Input
  - L / R input : 7 channels
- Output
  - L / R output : 3 channels (2 of 3 depend on video, and the other is selectable from Main or Sub)

Functions

- I^2C bus interface
- External mute circuit
- DAC output (3 outputs)
- Video clamp circuit
- Mode output
- ADC input (4 inputs)

BLOCK DIAGRAM
TA8851BN



VPC3230

1. Introduction

The VPC 323xD is a high-quality, single-chip video front-end, which is targeted for 4:3 and 16:9, 50/60-Hz and 100/120 Hz TV sets. It can be combined with other members of the DIGIT3000 IC family (such as DDP 331x) and/or it can be used with 3rd-party products.

The main features of the VPC 323xD are

- high-performance adaptive 4H comb filter Y/C separator with adjustable vertical peaking
- multi-standard color decoder PAL/NTSC/SECAM including all substandards
- four CVBS, one S-VHS input, one CVBS output
- two RGB/YC_rC_b component inputs, one Fast Blank (FB) input
- integrated high-quality A/D converters and associated clamp and AGC circuits
- multi-standard sync processing
- linear horizontal scaling (0.25 ... 4), as well as non-linear horizontal scaling (Panoramavision)
- PAL+ preprocessing
- line-locked clock, data and sync, or 656-output interface
- peaking, contrast, brightness, color saturation and tint for RGB/YC_rC_b and CVBS/S-VHS
- high-quality soft mixer controlled by Fast Blank
- PIP processing for four picture sizes ($\frac{1}{4}$, $\frac{1}{9}$, $\frac{1}{16}$, or $\frac{1}{36}$ of normal size) with 8-bit resolution
- 15 predefined PIP display configurations and expert mode (fully programmable)
- control interface for external field memory
- I^2C-bus interface
- one 20.25-MHz crystal, few external components
- 80-pin PQFP package

1.1. System Architecture

Fig.1–1 shows the block diagram of the video processor

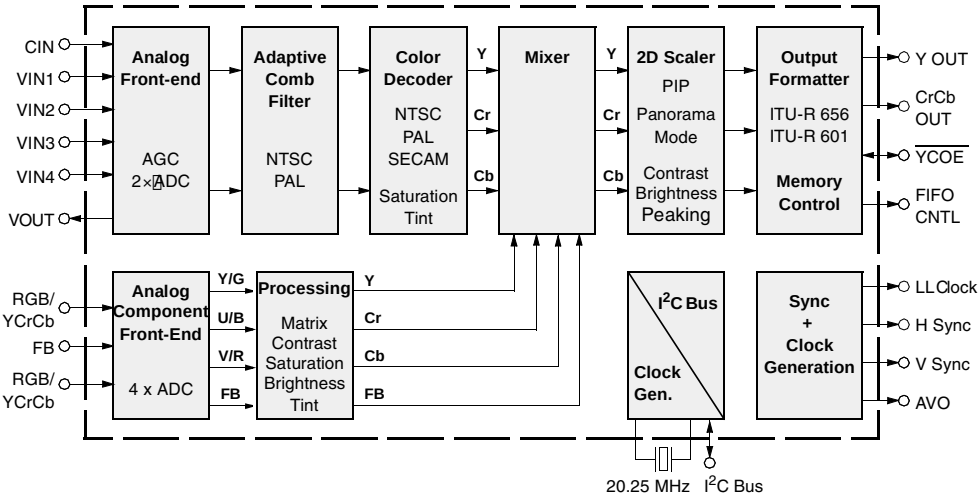


Fig. 1–1: Block diagram of the VPC 323xD

1.2. Video Processo r Family

The VPC video pro cessor family supports 15/32-kHz systems and is available with different comb filter options. Table 1ñ1 gives an overview of the VPC video proc essor family.

Table 1ñ1: VPC Processor Family for 100 Hz, Double-Scan and Line-Locked Clock Applications

	Features				
Type	Adaptive Comb filter (PAL/NTSC)	Panorama Vision	Analog Component Inputs	Vertical Scaler (PIP)	Digital Output Interface
VPC 3230D	4H	3	2	3	ITU-R 601, ITU-R 656
VPC 3231D		3	2	3	ITU-R 601, ITU-R 656
VPC 3232D	4H	3	3		ITU-R 601, ITU-R 656
VPC 3233D		3	3		ITU-R 601, ITU-R 656
VPC 3215C	4H	3			ITU-R 601
VPC 3210A	2H	3			ITU-R 601
VPC 3211A		3			ITU-R 601

1.3. VPC Applications

Fig. 1ñ2 depicts several VPC applications. Since the VPC functions as a video front-end, it must be complemented with additional functionality to form a complete TV set.

The DDP 331x contains the video back-end with video postprocessing (contrast, peaking, CTI,...), H/V-deflection, RGB insertion (SCART, Text, PIP,...) and tube control (cutoff, white-drive, beam current limiter). It generates a beam scan velocity modulation output from the digital YC_rC_b and RGB signals. Note, that this signal is not generated from the external analog RGB inputs.

The component interface of the VPC 323xD provides a high-quality analog RGB interface with character insertion capability. It also allows appropriate processing of external sources, such as MPEG-2 set-top boxes in transparent (4:2:2) quality. Furthermore, it transforms RGB/Fast Blank signals to the common digital video bus and makes those signals available for 100-Hz upconversion or double-scan processing. In some European countries (Italy), this feature is mandatory.

SRC (e. g. SDA 94xx from Micronas) indicates memory based image processing, such as scan rate conversion, vertical processing (Zoom), or PAL+ reconstruction. The VPC supports memory-based applications through line-locked clocks, syncs, and data. Additionally, the VPC 323xD provides a 656-output interface and FIFO control signals.

Examples:

- Europe: 15 kHz/50 Hz Æ 32 kHz/100 Hz interlaced
- US: 15 kHz/60 Hz Æ 32 kHz/60 Hz non-interlaced

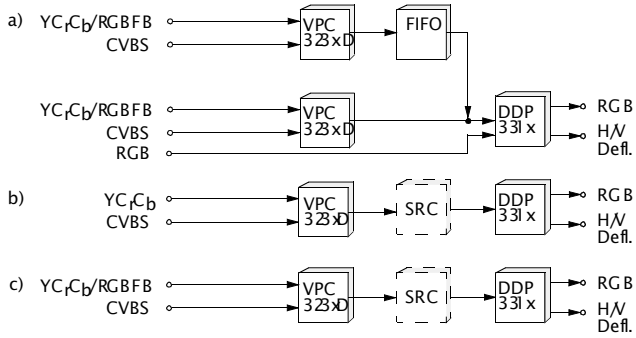


Fig. 1ñ2: VPC 32xxD applications
a) 15-kHz application Europe
b) double-scan application (US, Japan) with YC_rC_b inputs
c) 100-Hz application (Europe) with RGB FB inputs

uPD64083

PD64083 realizes a high precision Y/C separation and a noise reduction by the three-dimension signal processing for NTSC signal.
This product has the On-chip 4Mbit memory for flame delay, 2ch of high precision internal 10bit A/D converter, and adapting 10bit signal processing (only for luminance signal) and high picture quality. PD64083 is completely single chip system of 3DY/C separation.
This LSI includes the Wide Clear Vision ID signal (Japanese local format) decoder and ID-1 signal decoder.

FEATURES

- On-chip 4Mbit frame delay memory.
- 3 Operation mode (Compatible to PD64082)
  - Motion adaptive 3D Y/C separation
  - Frame recursive Y/C NR (for Y/C separated video input)
  - 2D Y/C separation + Frame recursive Y/C NR (for Composite video input)
- Embedded a high performance pipeline 10bit A/D converter (2ch)
- Embedded system clock generator, 2ch of D/A converter, Y coring, Vertical enhancer, Peaking filter, and Noise detector.
- Include ID-1 signal decoder
- I2C bus control.
- Dual power supply of 2.5V and 3.3V.
  - For digital : DVDD = 2.5V
  - For analog : AVDD = 2.5V
  - For DRAM : DVDDRAM = 2.5V
  - For I/O : DVDDIO = 3.3V

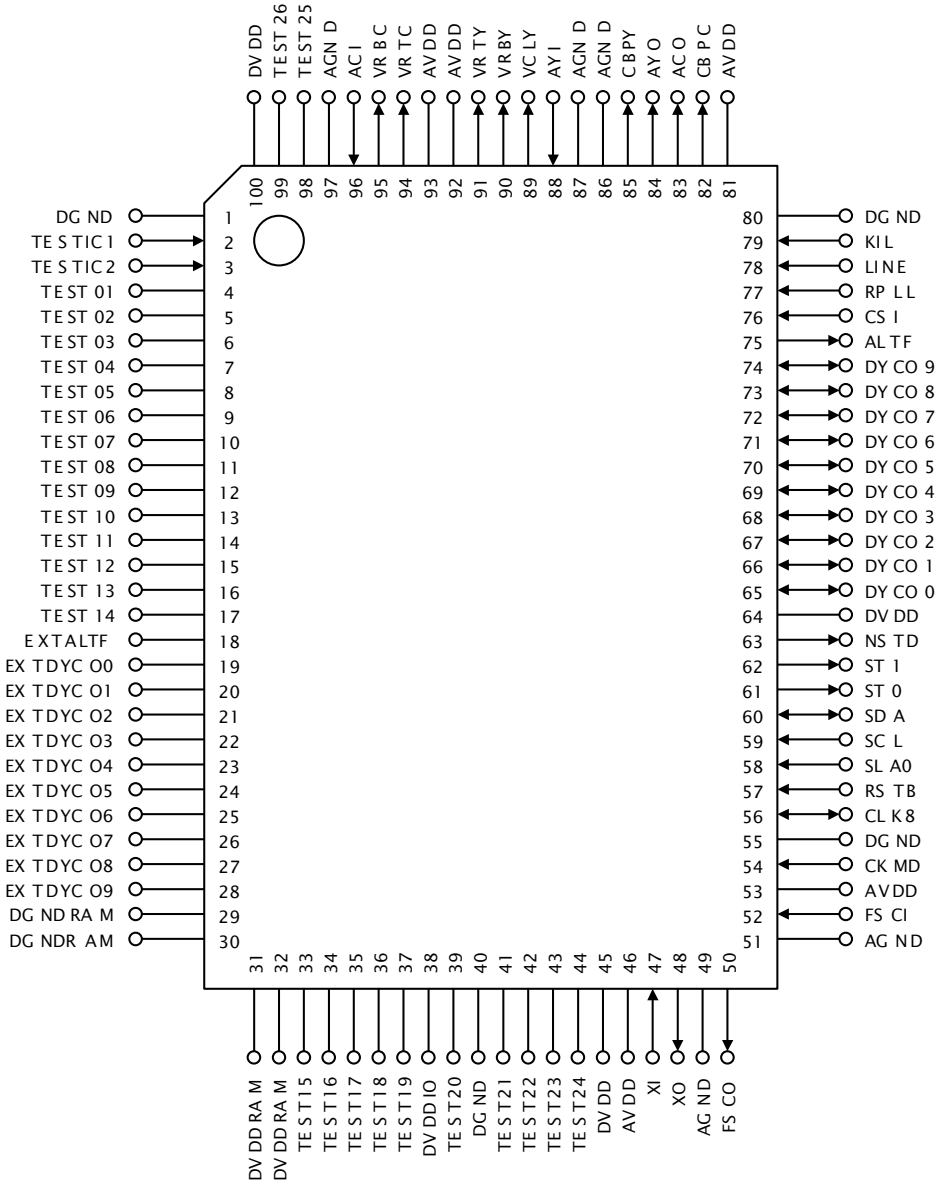
ORDERING INFORMATION

Part number	Package
PD64083GF-3BA	100-pin plastic QFP (14 20)

PIN CONFIGURATION (TOP VIEW)

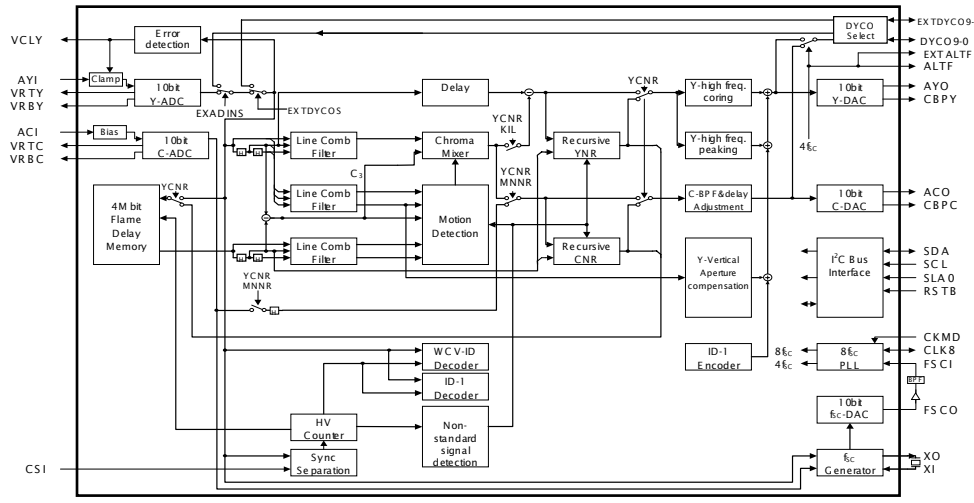
100-pin plastic QFP (14 20)

PD 64083GF-3BA



ACI	: Analog C (Chroma) Signal Input
ACO	: Analog C (Chroma) Signal Output
AGND	: Analog Section Ground
ALTF	: Alternate Flag for Digital Y/C Output
AVDD	: Analog Section Power Supply
AYI	: Analog Y (Luma) Signal Input
AYO	: Analog Y (Luma) Signal Output
CBPC	: C-DAC Phase Compensation Output
CBPY	: Y-DAC Phase Compensation Output
CKMD	: Clock Mode Selection
CLK8 :	8-SC Clock Input / Output
CSI	: Composite Sync. Input
DGND	: Digital Section Ground
DVDD	: Digital Section Power Supply
DYCO0 - DYCO9	: Digital Y/C Signal (Alternative) Outputs
EXTALTF	: Extend Alternate Flag for Digital Y/C Output
EXTDYCO0 – EXTDYCO9	: Extend Digital Y/C Signal (Alternative) Outputs
FSCI :	-SC (Subcarrier) Input
FSCO :	-SC (Subcarrier) Output
KIL	: Killer Selection
LINE	: Inter-Line Separate Selection
NSTD	: Non Standard Detection Monitor
RPLL	: Testing Selection
RSTB	: System Reset (Negative)
SCL	: Serial Clock Input
SDA	: Serial Data Input / Output
SLA0	: Slave Address Selection
ST1, ST0	: Inner States Monitor
TEST 01 – TEST 26	: Testing Selection
TEST IC1 - TEST IC2	: IC Testing Section
VCLY	: Clamp Voltage Output for Y-ADC
VRTC	: Top Voltage Reference Output for C-ADC
VRTY	: Top Voltage Reference Output for Y-ADC
VRBC	: Bottom Voltage Reference Output for C-ADC
VRBY	: Bottom Voltage Reference Output for Y-ADC
XI	: X'TAL input
XO	: X'TAL output

BLOCK DIA GRAM



Hyundai ImageQuest

PT421H

Working Board Schematic(GRAPHIC)

(ASI500)

Date:05/29/2003

Hyundai ImageQuest		
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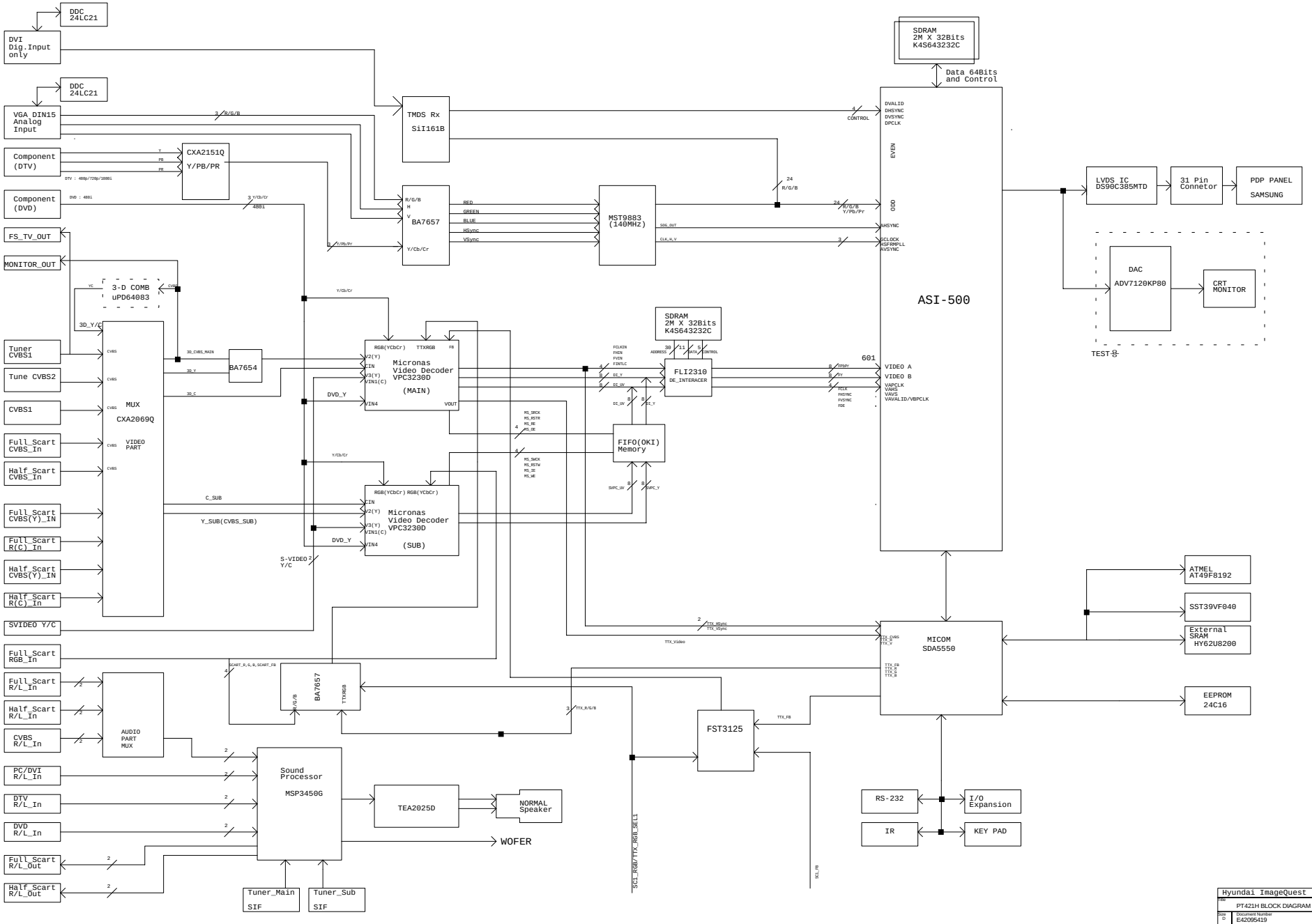
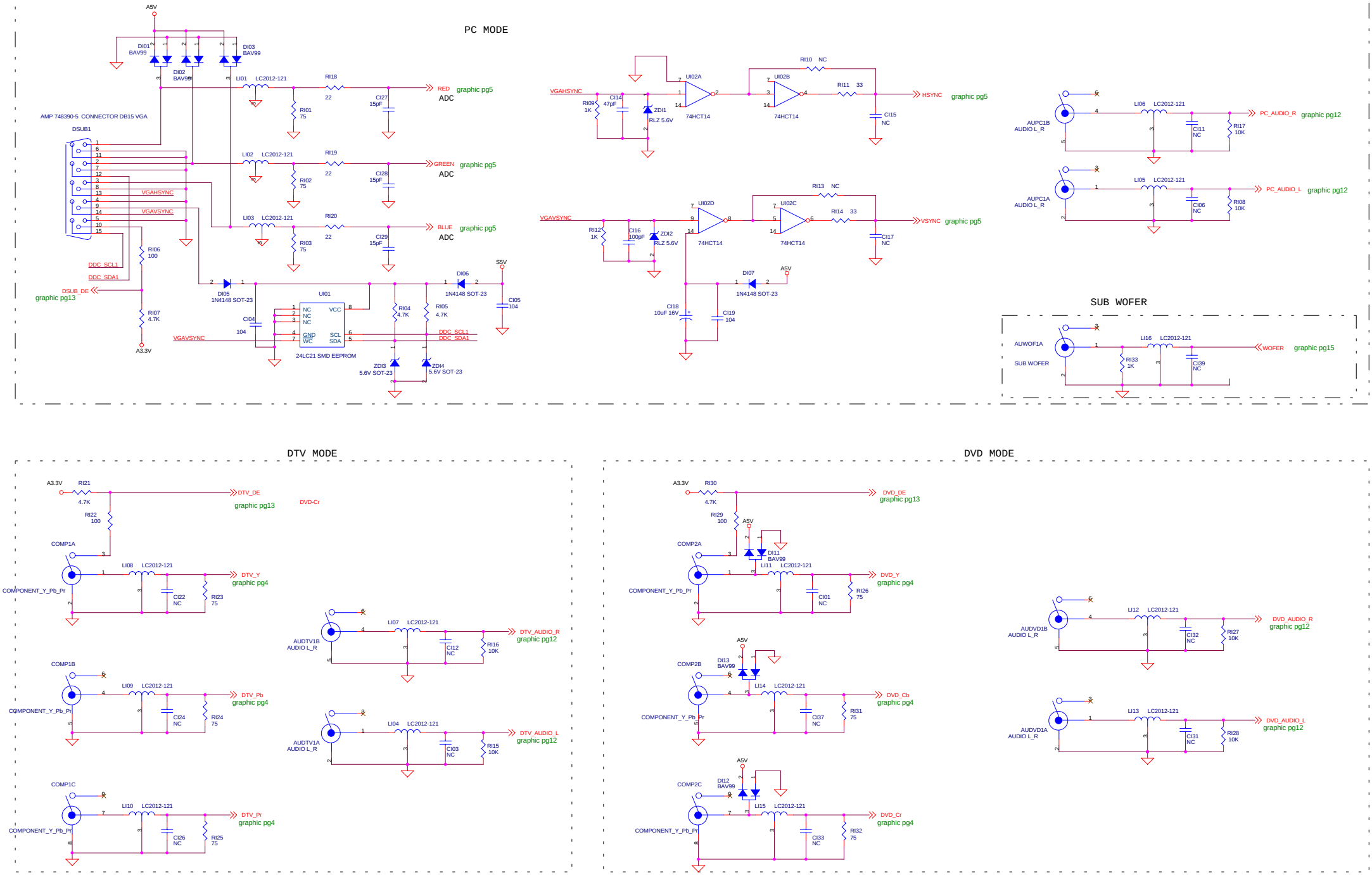
Size: B	Document Number: E42095419	Rev: 1.0
Date: Thursday, September 18, 2003	Sheet 1 of 15	


DDC 24LC21
DVI Dig.Input only
DDC 24LC21
VGA DIN15 Analog Input
Component (DTV)
Component (DVD)
CXA2151Q Y/PB/PR
TMDS Rx SiI161B
R/G/B H V
BA7657
Y/Cb/Cr
RED
GREEN
BLUE
HSync
VSync
MST9883 (140MHz)
SDRAM 2M X 32Bits K4S643232C
Data 64Bits and Control
ASI-500
DVALID
DHSYNC
DVSYNC
DPCLK
EVEN
ODD
AHSYNC
ACLOCK
ASFRMPLL
AVSYNC
LVDS IC DS90C385MTD
31 Pin Connetor
PDP PANEL SAMSUNG
DAC ADV7120KP80
CRT MONITOR
TEST
FS_TV_OUT
MONITOR_OUT
3-D COMB uPD64083
Tuner CVBS1
Tune CVBS2
CVBS1
Full_Scart CVBS_In
Half_Scart CVBS_In
MUX CXA2069Q
VIDEO PART
BA7654
Micronas Video Decoder VPC3230D (MAIN)
Micronas Video Decoder VPC3230D (SUB)
SDRAM 2M X 32Bits K4S643232C
FLI2310 DE_INTERACER
FIFO(OKI) Memory
VIDEO A
VIDEO B
VAPCLK
VAHS
VAVS
VAVALID/VBPCLK
601
Full_Scart CVBS(Y)_IN
Full_Scart R(C)_In
Half_Scart CVBS(Y)_IN
Half_Scart R(C)_In
SVIDEO Y/C
Full_Scart RGB_In
Full_Scart R/L_In
Half_Scart R/L_In
CVBS R/L_In
AUDIO PART MUX
PC/DVI R/L_In
DTV R/L_In
DVD R/L_In
Full_Scart R/L_Out
Half_Scart R/L_Out
Sound Processor MSP3450G
TEA2025D
NORMAL Speaker
WOFER
Tuner_Main SIF
Tuner_Sub SIF
FST3125
MICOM SDA5550
ATMEL AT49F8192
SST39VF040
External SRAM HY62U8200
EEPROM 24C16
RS-232
I/O Expansion
IR
KEY PAD
SCI_RGB/TTX_RGB_SEL1
SCI_FB
Hyundai ImageQuest
PT421H BLOCK DIAGRAM
Document Number E42095419
Thursday, September 18, 2003



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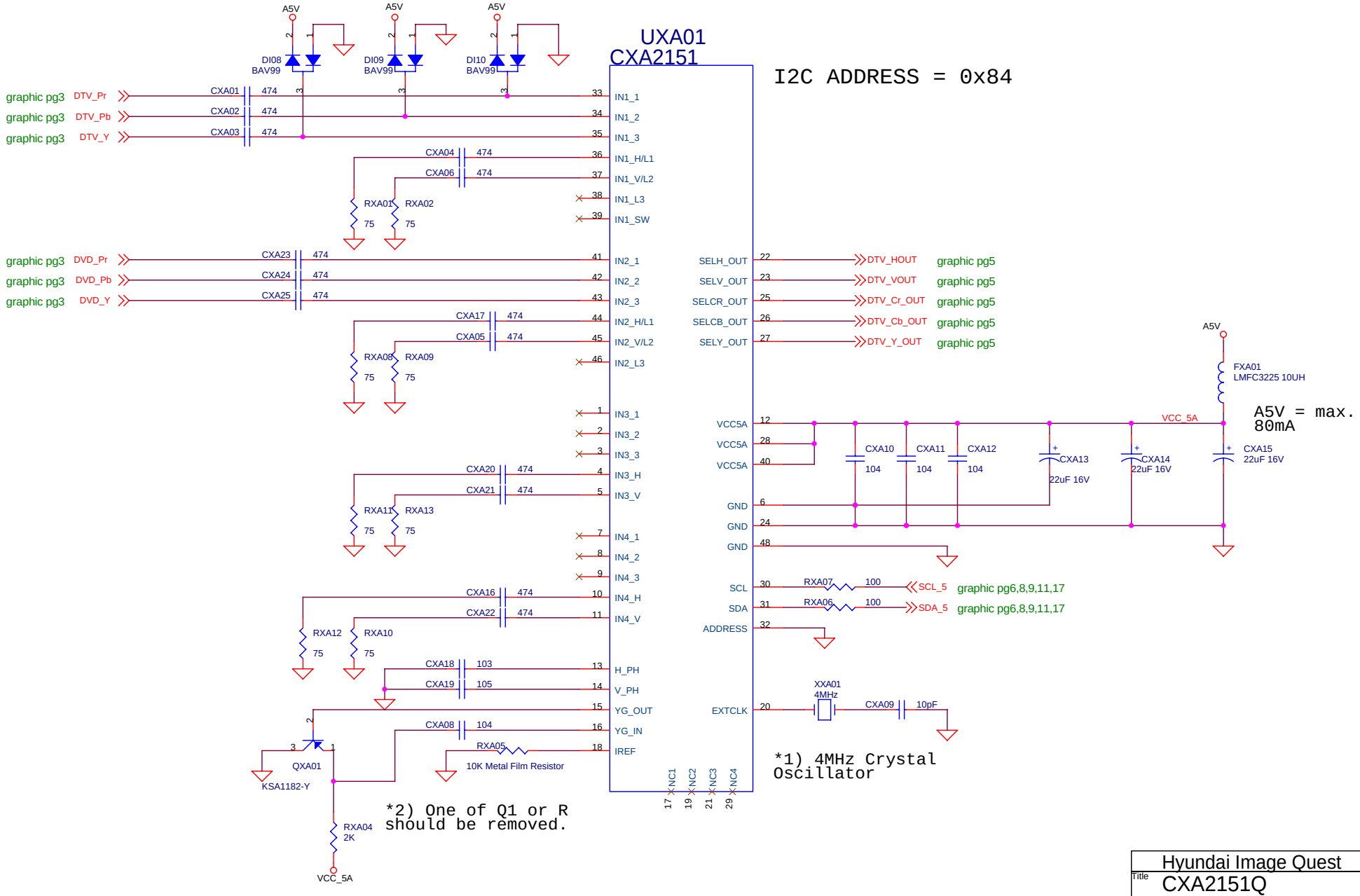
Date:	Sheet 3 of 15	



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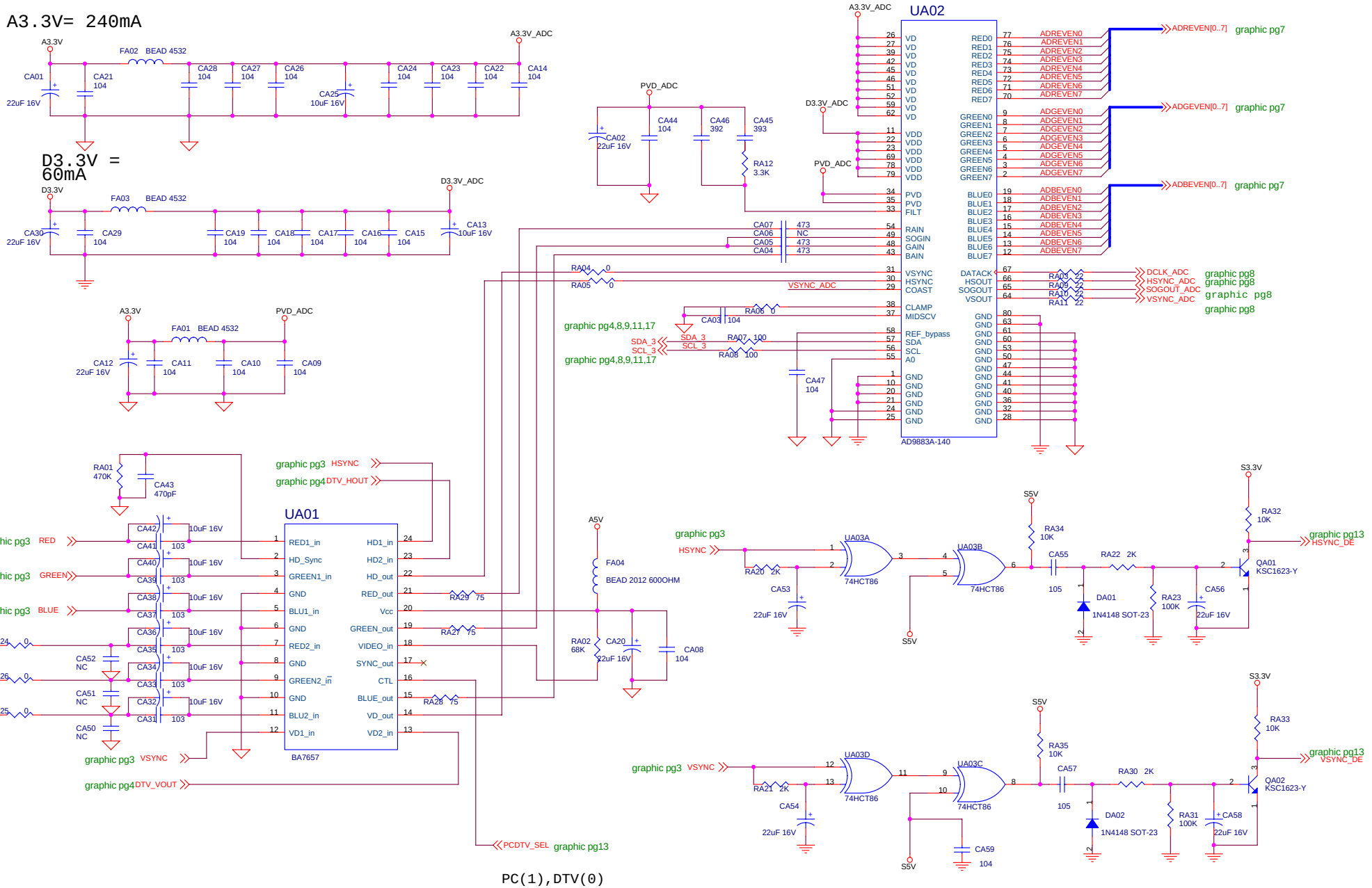
Size: B	Document Number: E42095419	Rev: 1.0
Date:	Sheet 4 of 15	

A3.3V= 240mA

D3.3V = 60mA



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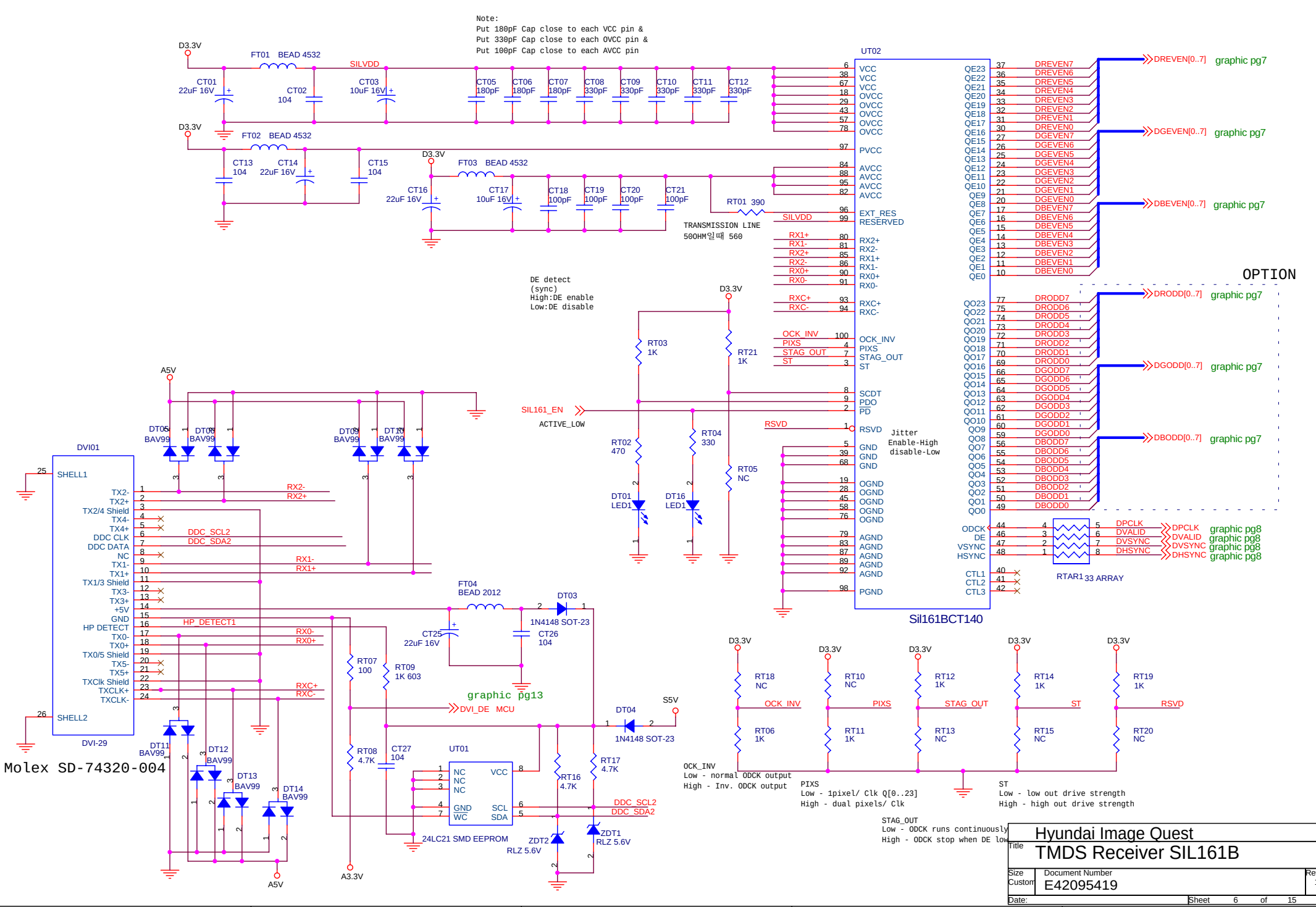
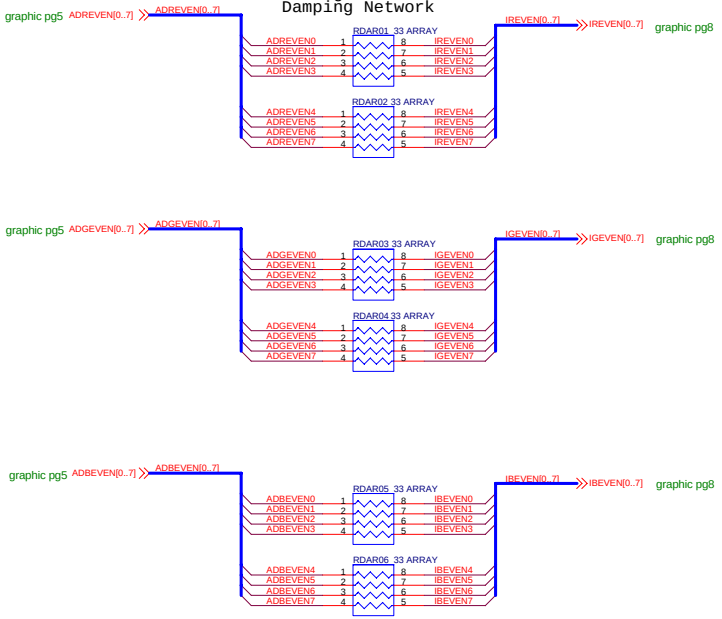
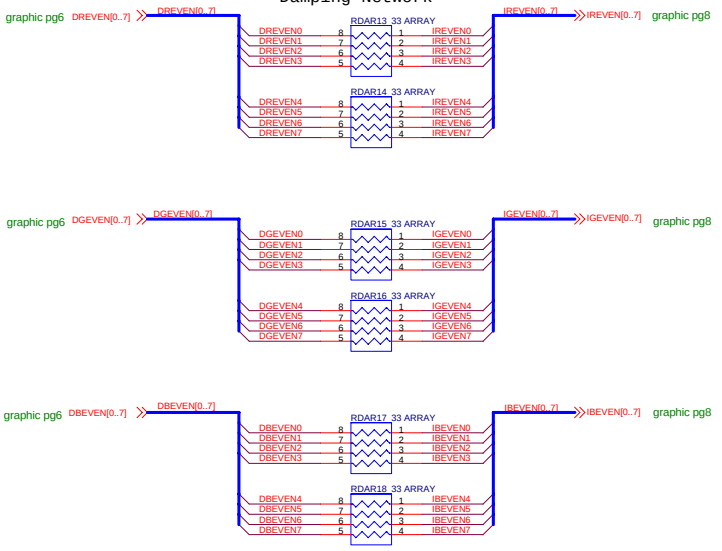
Date:		Sheet 5 of 15	


Note:
Put 180pF Cap close to each VCC pin &
Put 330pF Cap close to each OVCC pin &
Put 100pF Cap close to each AVCC pin
UT02
Sil161BCT140
OPTION
DE detect
(sync)
High:DE enable
Low:DE disable
TRANSMISSION LINE
50OHM일때 560
Jitter
Enable-High
disable-Low
DVI01
DVI-29
Molex SD-74320-004
graphic pg13
DVI_DE MCU
24LC21 SMD EEPROM
RTAR1 33 ARRAY
OCK_INV
Low - normal ODCK output
High - Inv. ODCK output
PIXS
Low - 1pixel/ Clk Q[0..23]
High - dual pixels/ Clk
ST
Low - low out drive strength
High - high out drive strength
STAG_OUT
Low - ODCK runs continuously
High - ODCK stop when DE low
Hyundai Image Quest
TMDS Receiver SIL161B
E42095419
Sheet 6 of 15

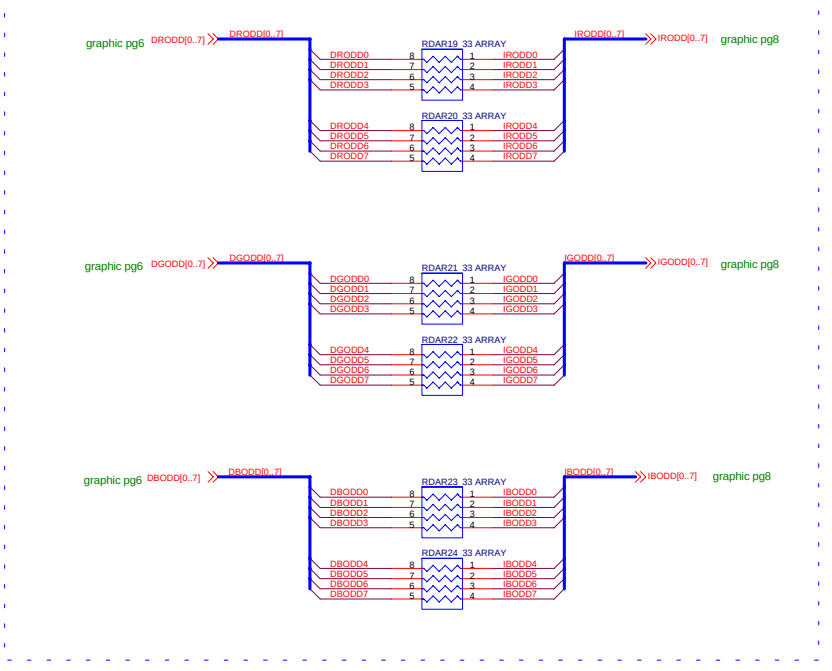
Analog Interface Damping Network



Digital Interface Damping Network



OPTION



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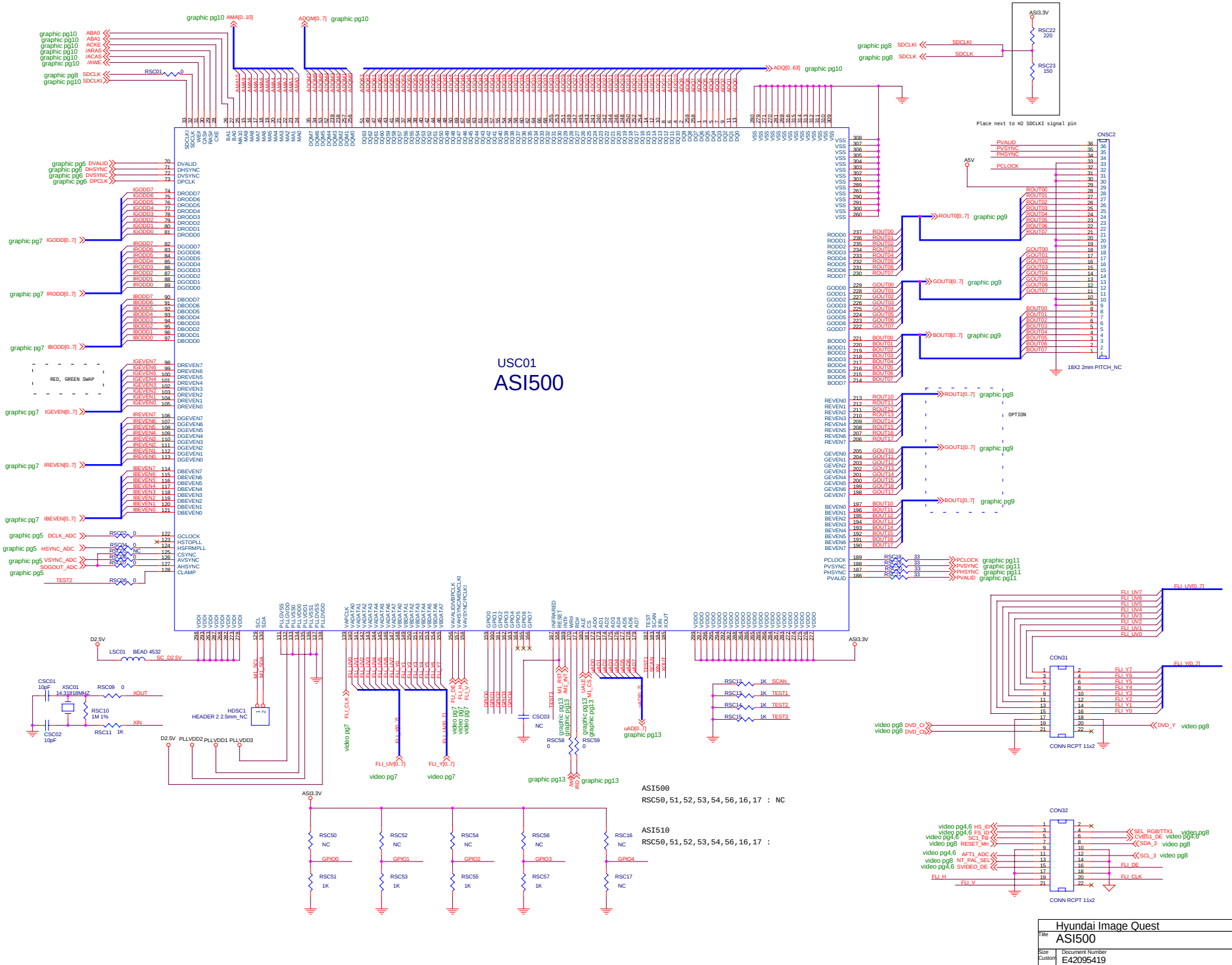
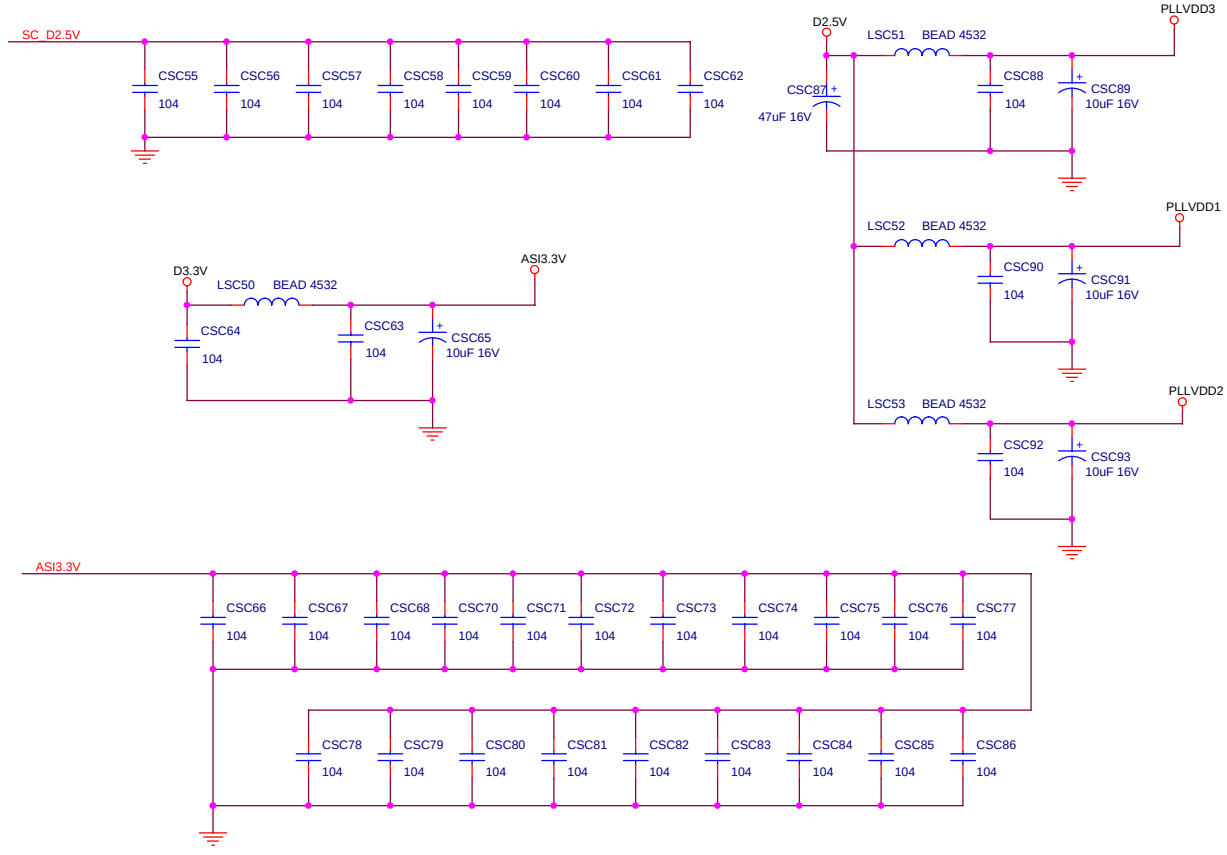
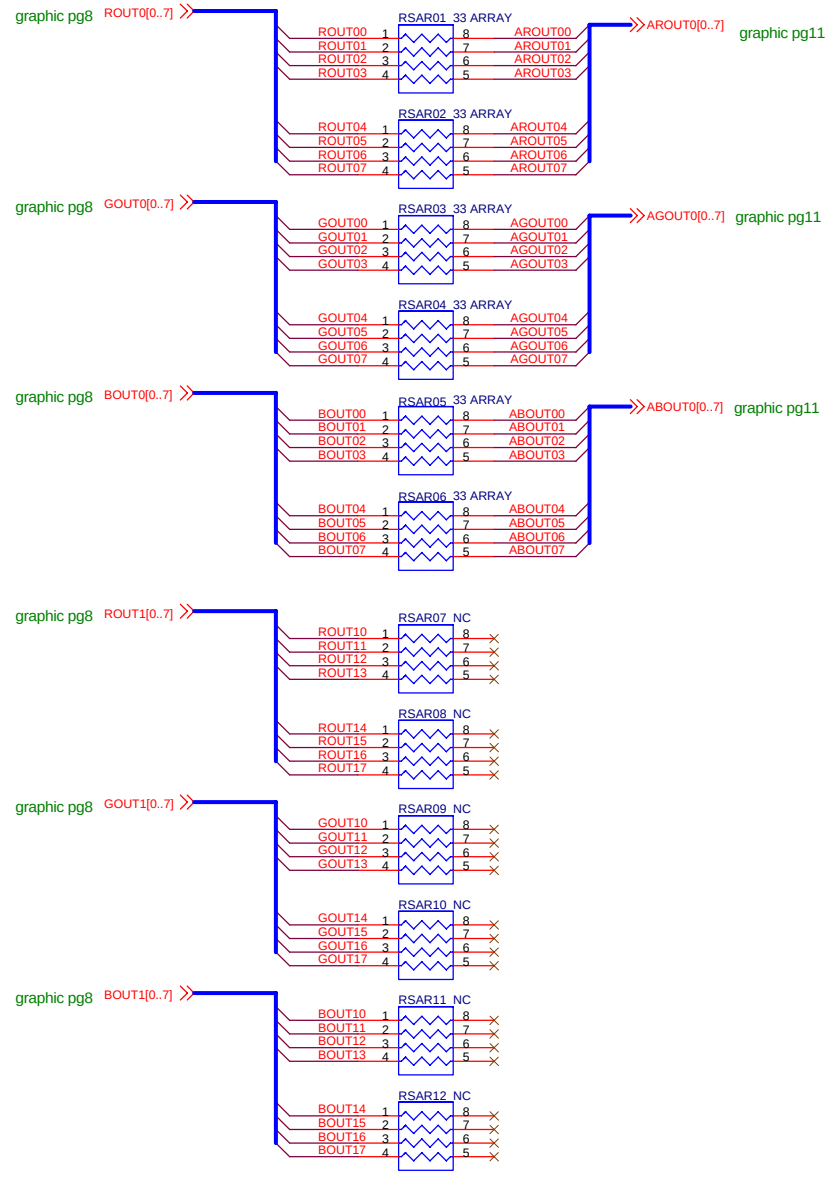

USC01
ASI500
RED, GREEN SWAP
OPTION
Place next to H2 SDCLKI signal pin
18X2 2mm PITCH_NC
CONN RCPT 11x2
CONN RCPT 11x2
ASI500
RSC50,51,52,53,54,56,16,17 : NC
ASI510
RSC50,51,52,53,54,56,16,17 :
Hyundai Image Quest
ASI500
E42095419



Panel Output Damping Network



OPTION

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Rev	1.0
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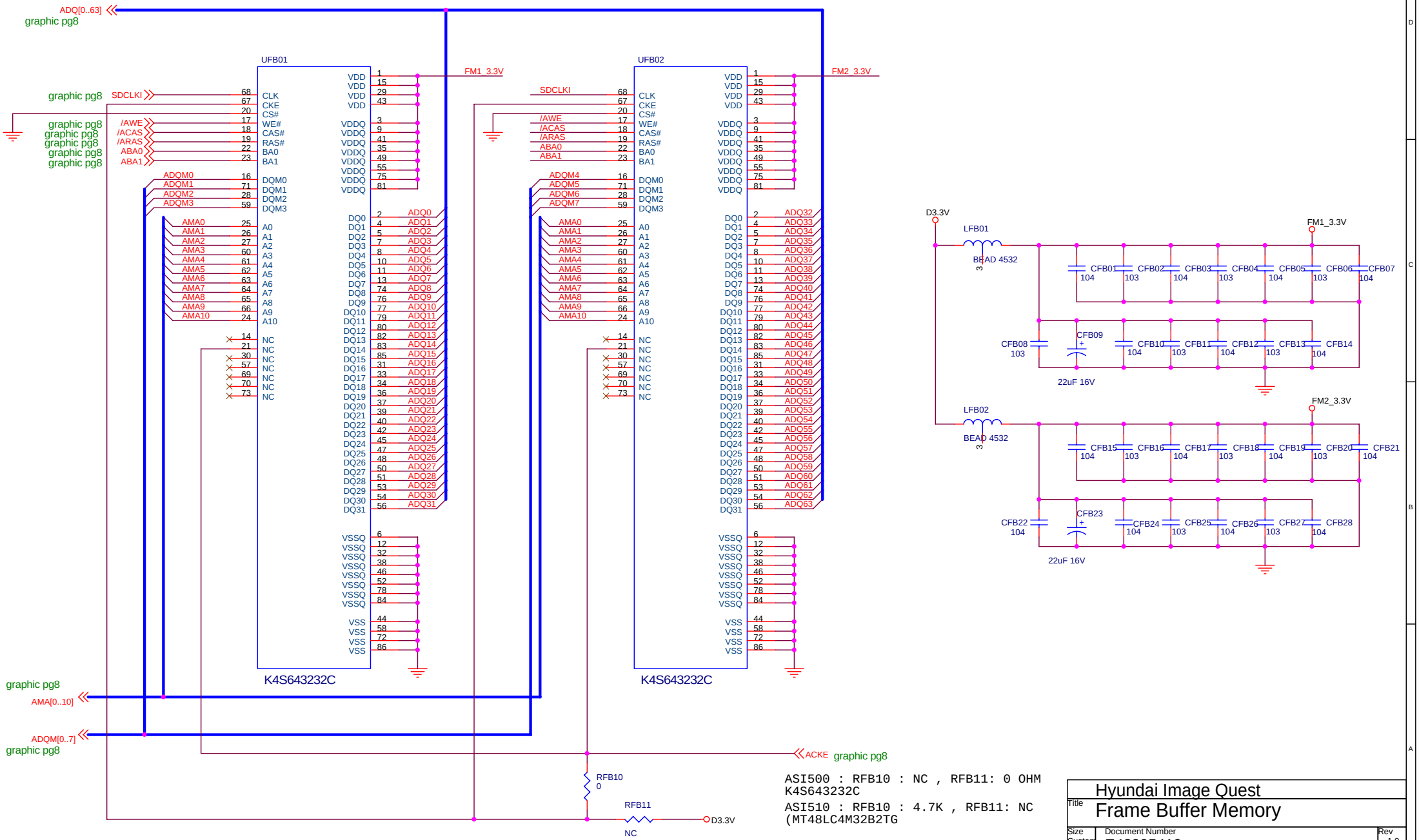

ASI500 : RFB10 : NC , RFB11: 0 OHM
K4S643232C

ASI510 : RFB10 : 4.7K , RFB11: NC
(MT48LC4M32B2TG

Hyundai Image Quest		
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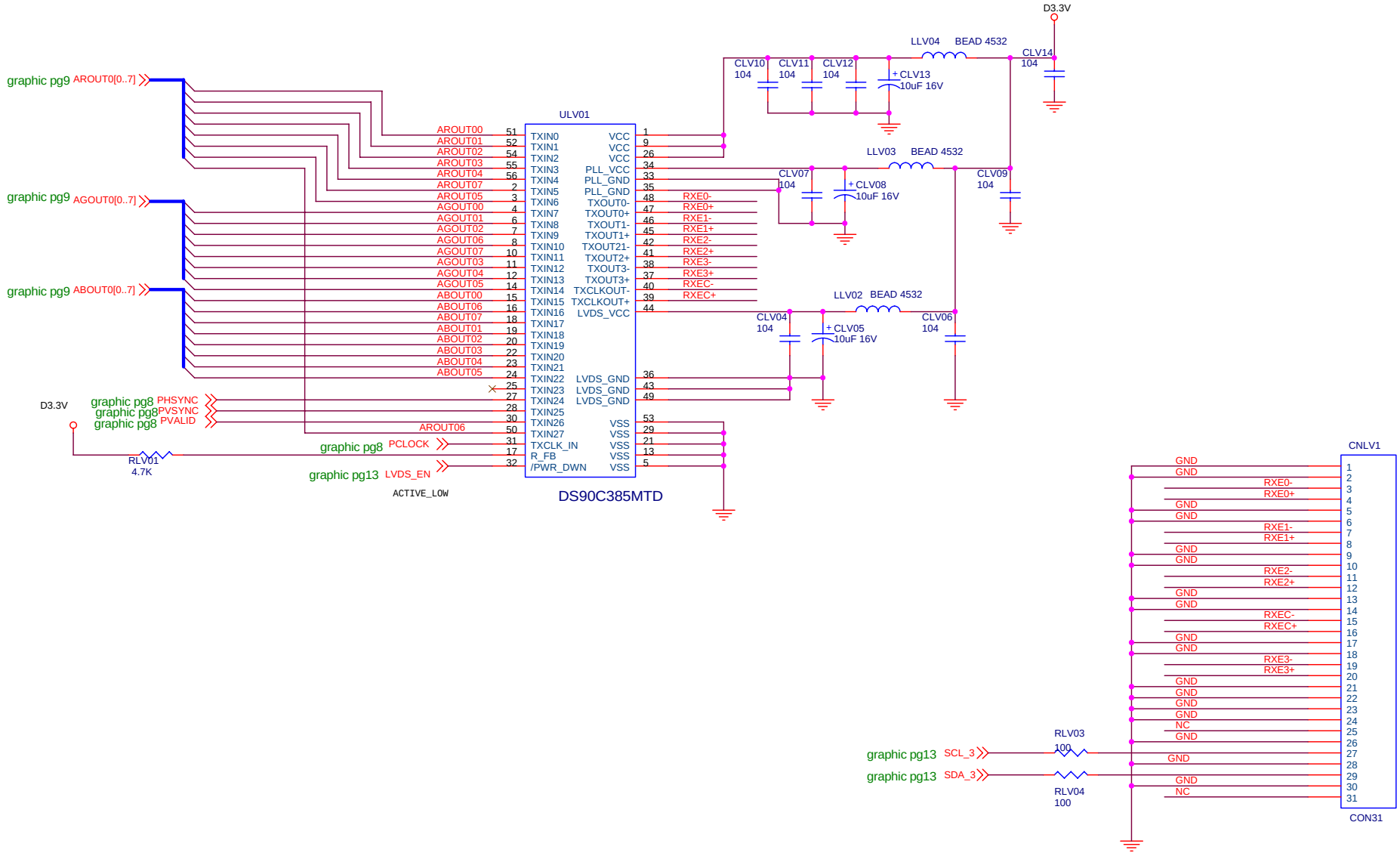
Size: Custom	Document Number: E42095419	Rev: 1.0
Date:	Sheet 10 of 15	



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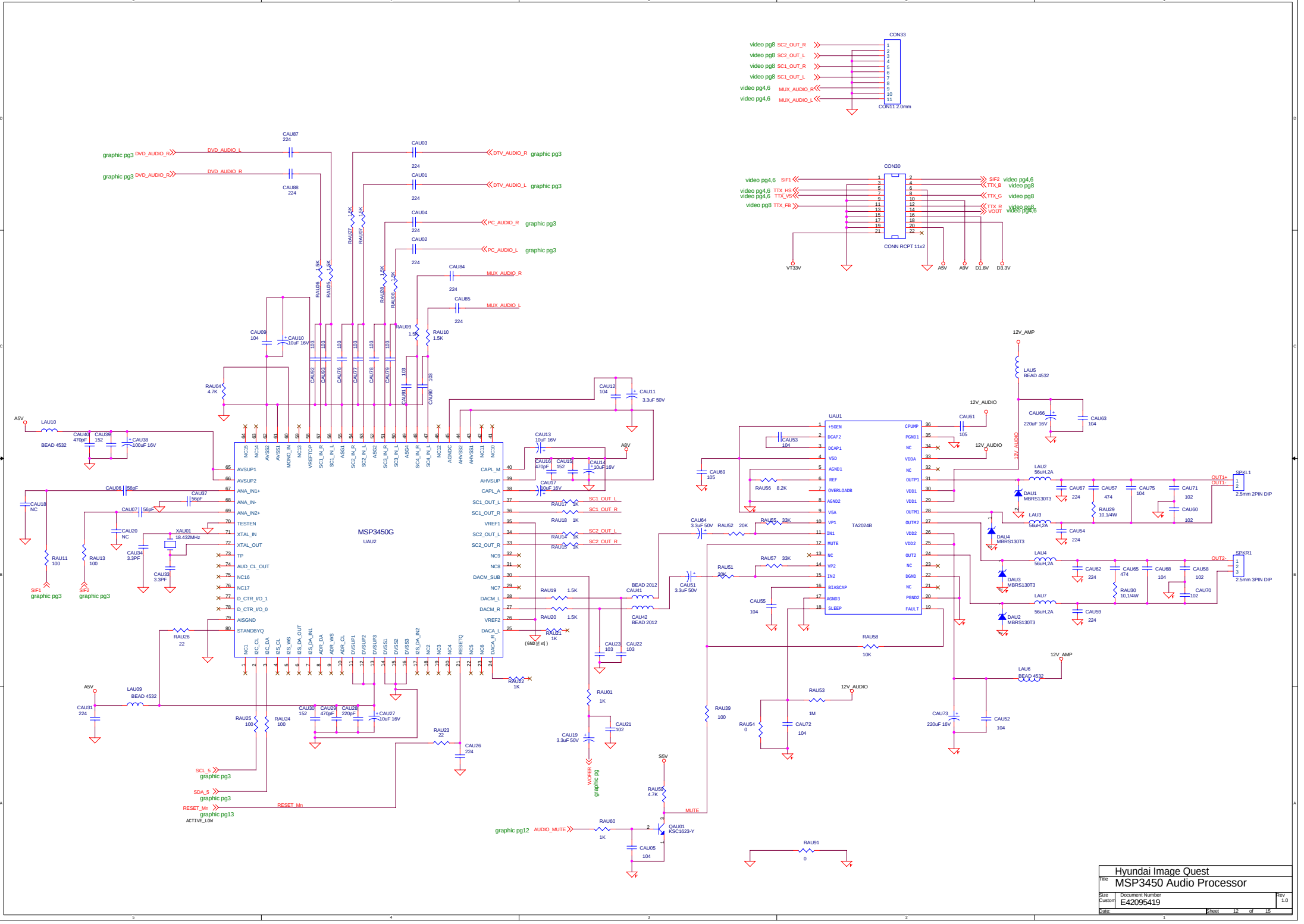
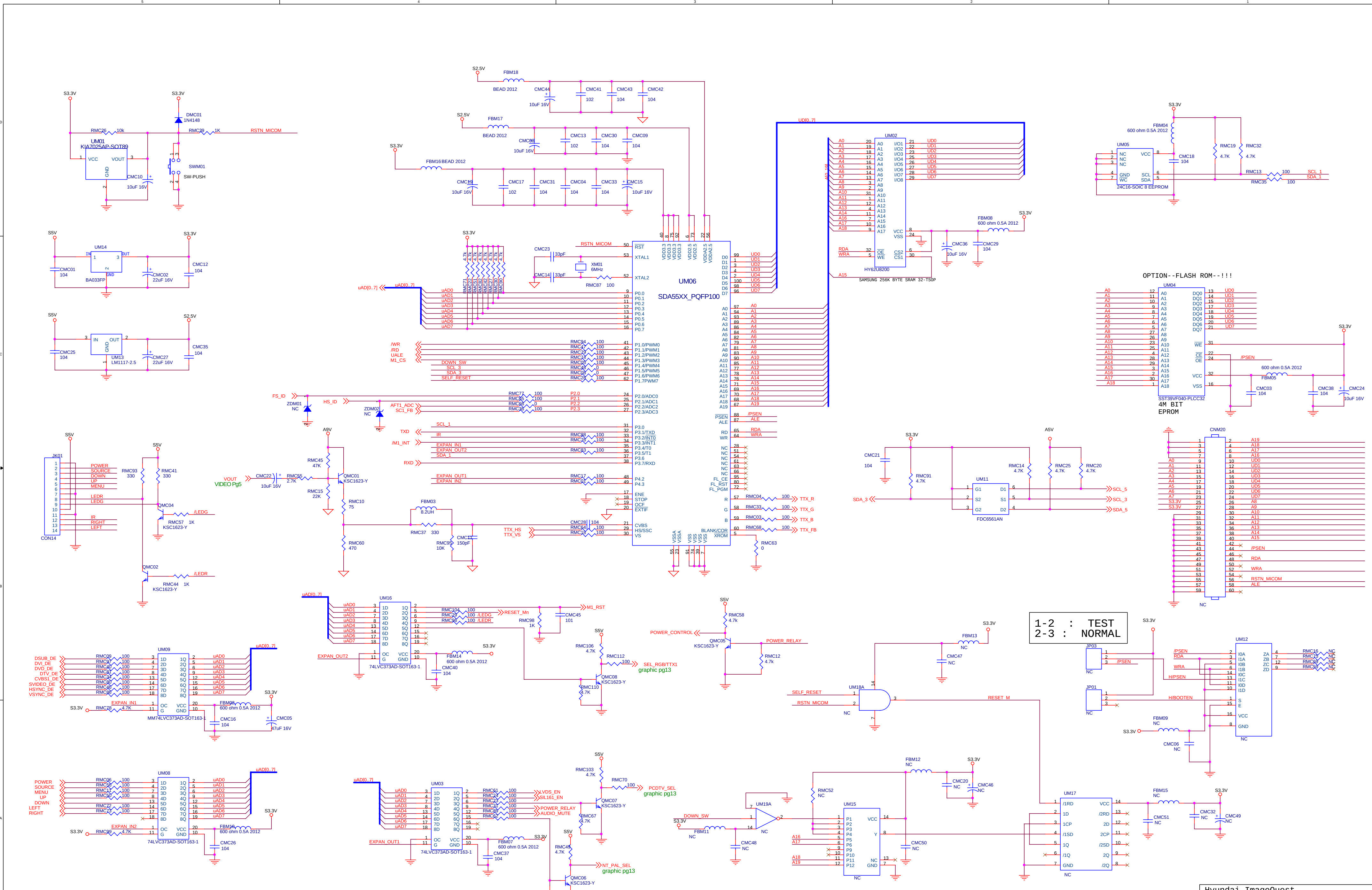

MSP3450G
UAU2
TA2024B
UAU1
CON33
CON11 2.0mm
CON30
CONN RCPT 11x2
Hyundai Image Quest
MSP3450 Audio Processor
E42095419
Rev 1.0
Sheet 12 of 15

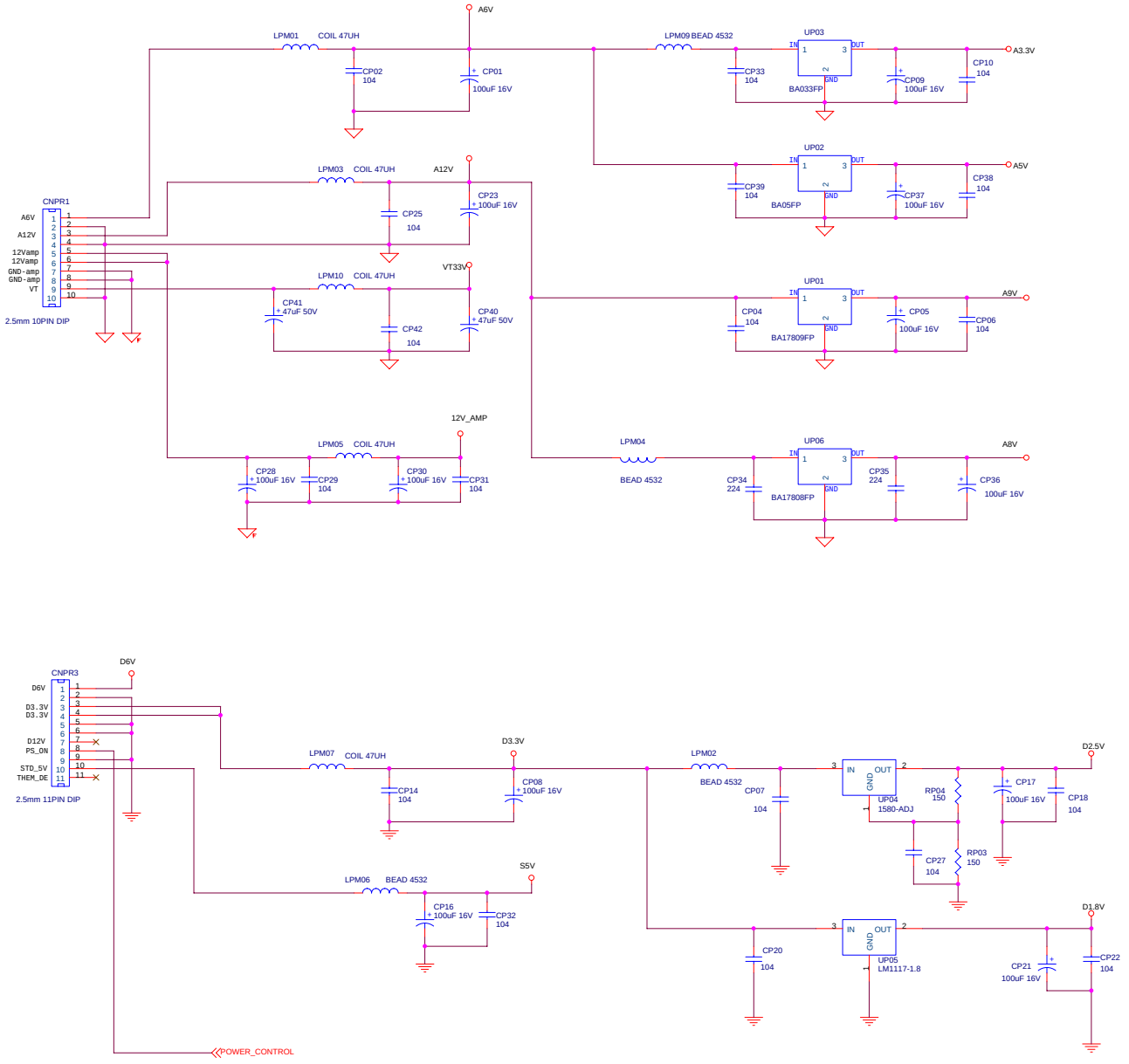


Hyundai ImageQuest

Title: MICROCONTROLLER SDA5550

Size	Document Number	Rev
Custom	E42095419	1.0

Date: Thursday, September 18, 2003 | Sheet 13 of 15



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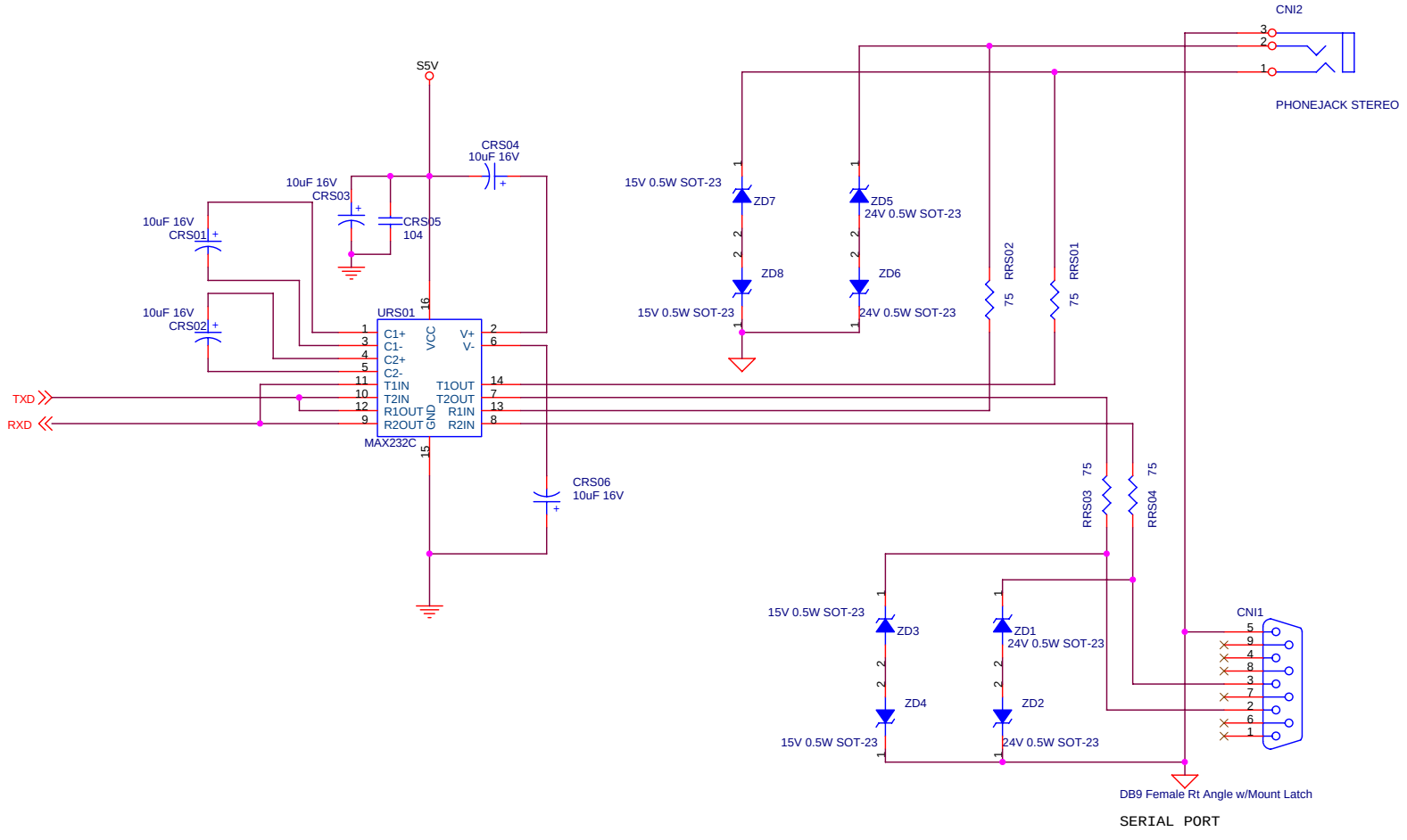

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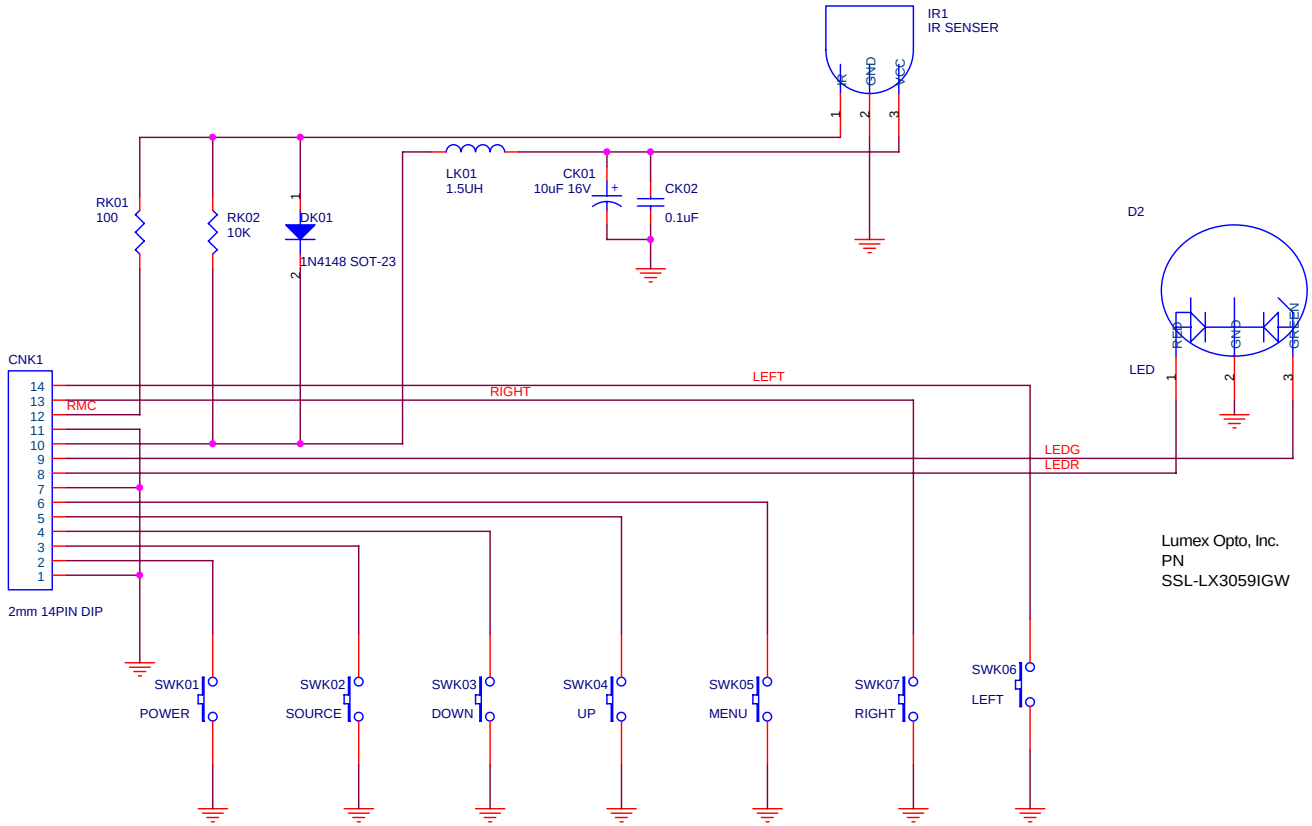


Hyundai Image Quest		
Title: Remocon & Keypad		
Size: B	Document Number: E42095417	Rev: 1.0
Date:	Sheet 1 of 1	

Hyundai ImageQuest

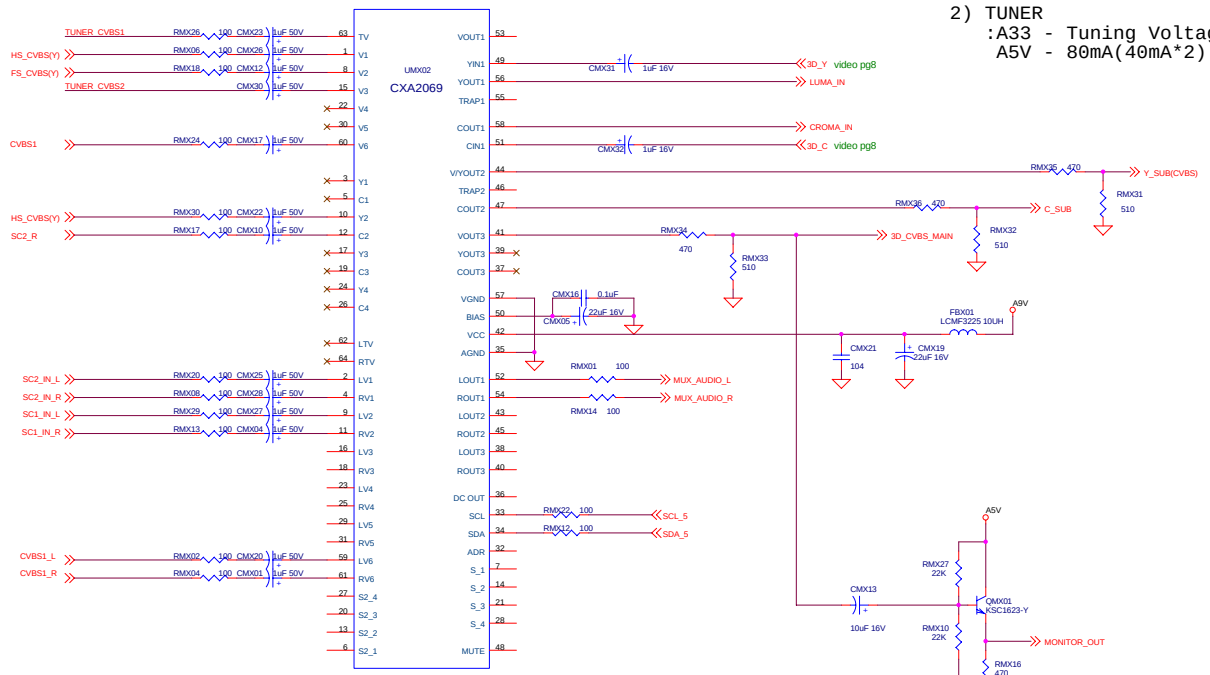
PT421H

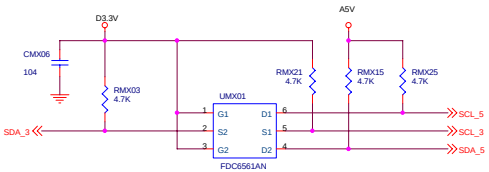
Schematic Diagram(VIDEO)

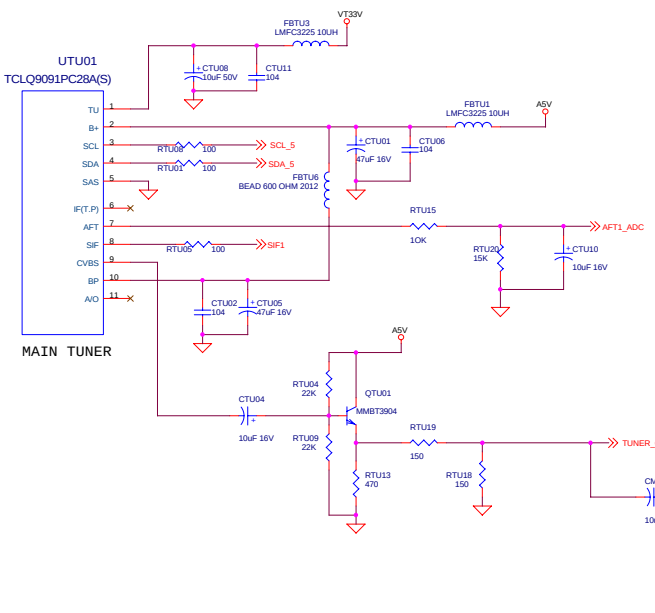
Date:05/29/2003

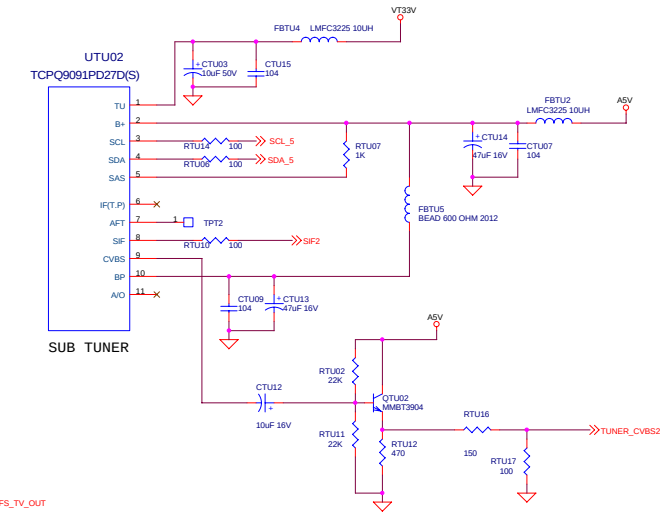
	Hyundai Image Quest
Title	PD421 SCHEMATIC DIAGRAM
Size B	Document Number E42095417 Rev 1.0
Date:	Sheet 1 of 08

1) CXA2069
   :A5V - 72mA
2) TUNER
   :A33 - Tuning Voltage
    A5V - 80mA(40mA*2)









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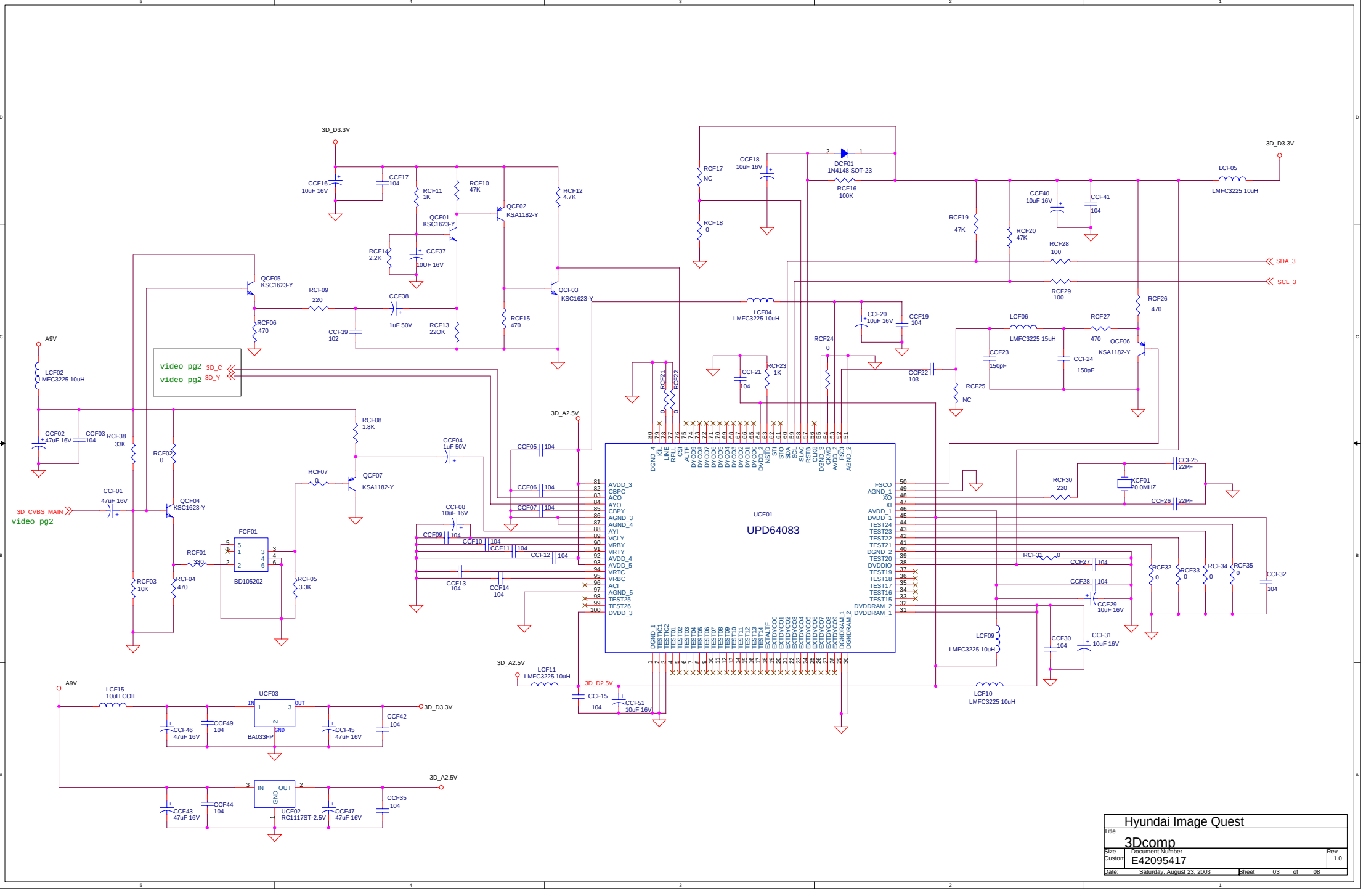
Date: Thursday, August 28, 2003	Sheet 2 of 08	

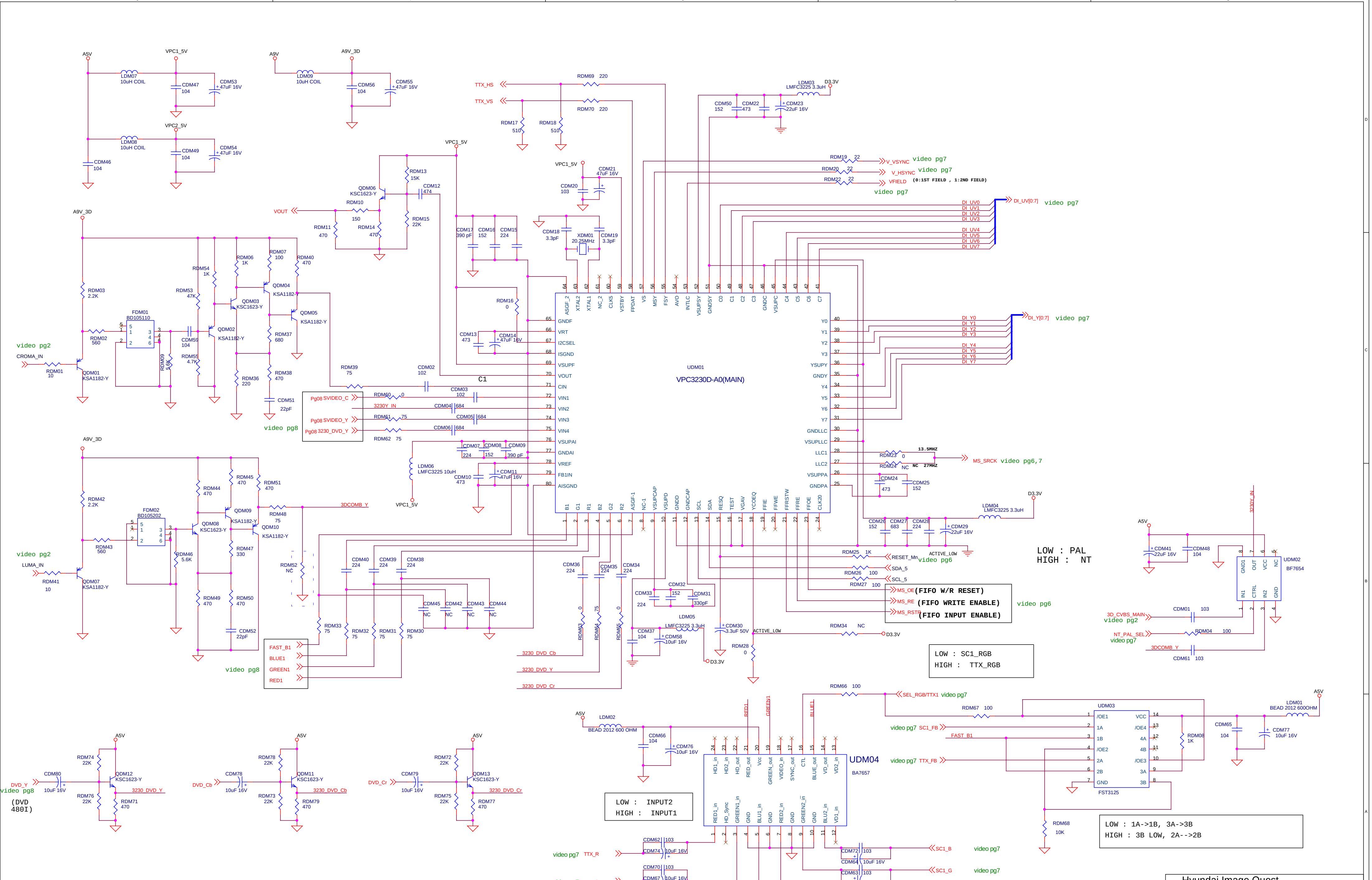


Hyundai Image Quest

Title: 3Dcomp

Size: Custom | Document Number: E42095417 | Rev: 1.0

Date: Saturday, August 23, 2003 | Sheet 03 of 08

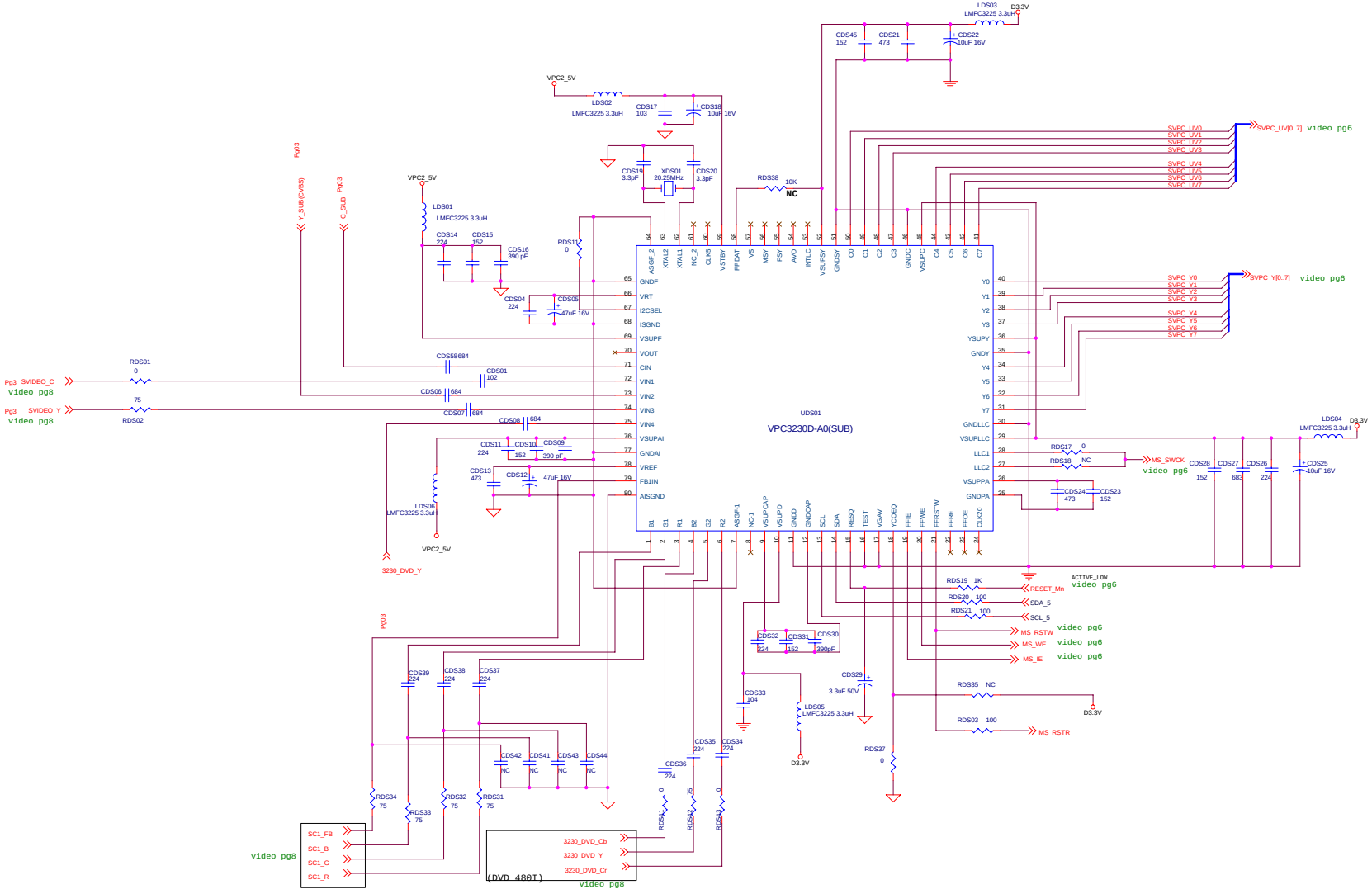


Hyundai Image Quest

Title: VPC3230 Video Decoder(Main)

Size: Custom | Document Number: E42095417 | Rev: 1.0

Date: Saturday, August 23, 2003 | Sheet 04 of 08



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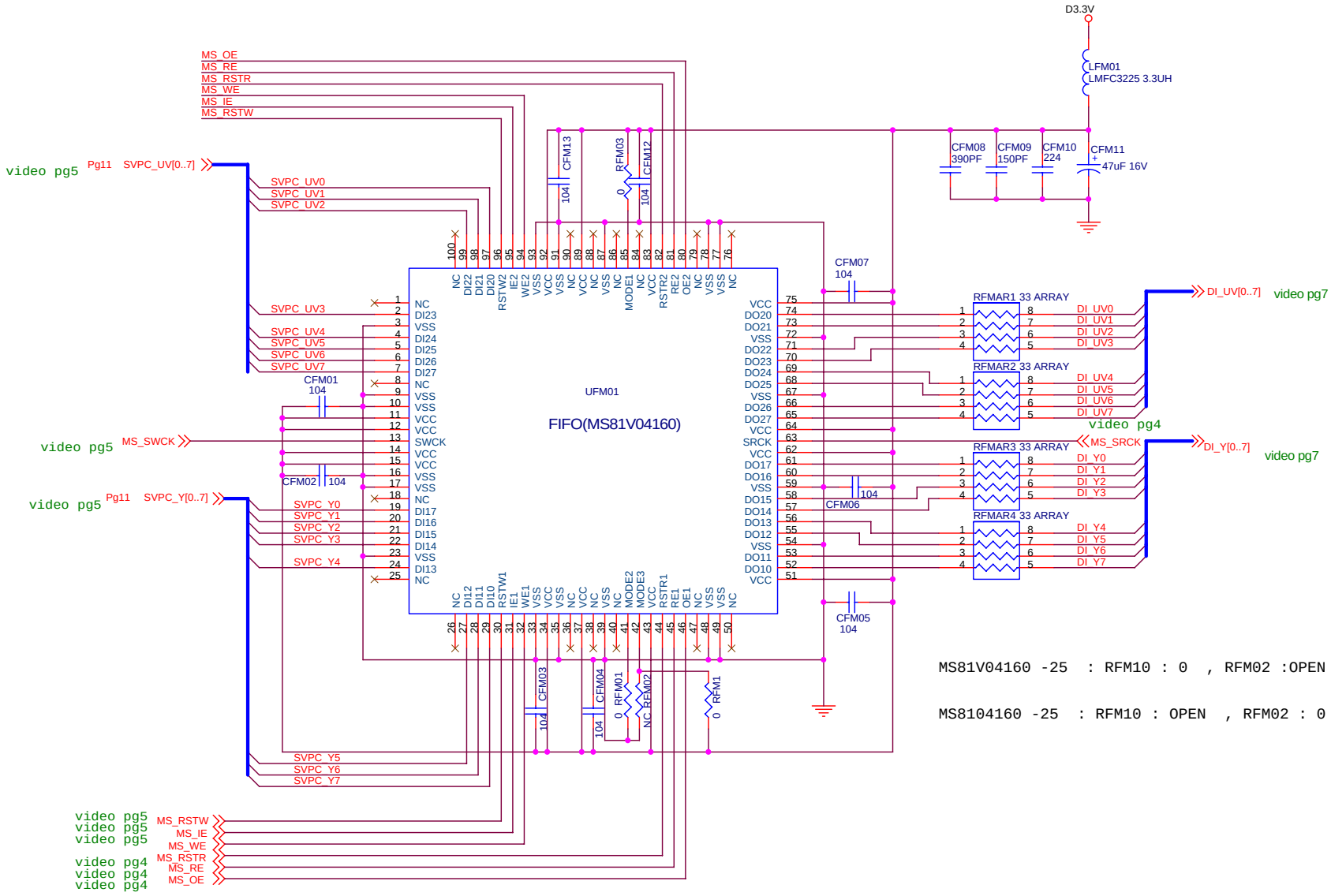
Size: Custom	Document Number: E4209547
Rev: 1.0	
Date: Saturday, August 23, 2003	Sheet 05 of 08



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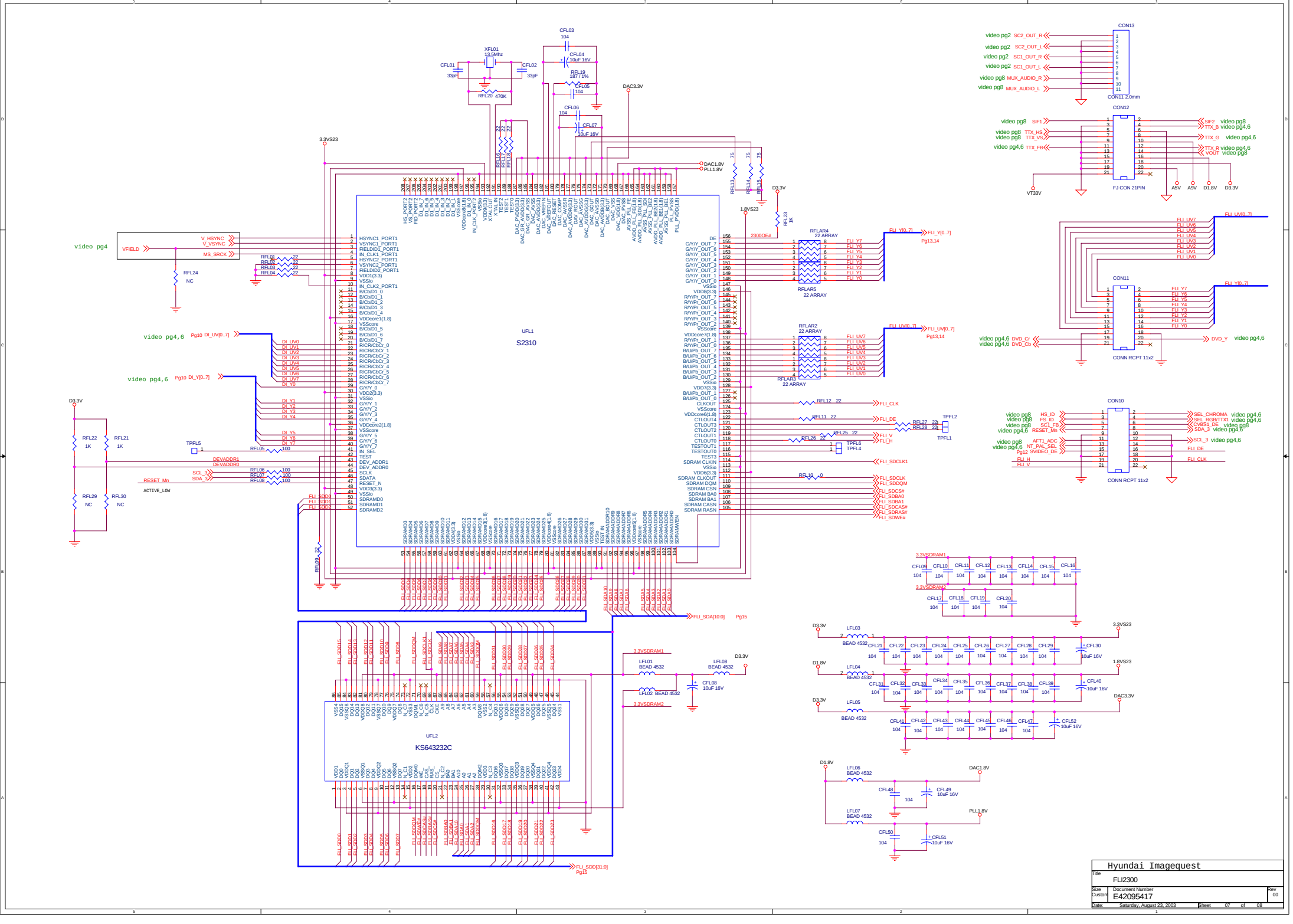
Title: FIFO Memory		
Size: B	Document Number: E42095417	Rev: 1.0
Date:	Sheet 06 of 08	


UFL1
S2310
UFL2
KS643232C
CON13
CON11 2.0mm
CON12
FJ CON 21PIN
CON11
CONN RCPT 11x2
CON10
CONN RCPT 11x2
video pg4
video pg4,6
video pg8
video pg2
3.3VS23
1.8VS23
DAC3.3V
DAC1.8V
PLL1.8V
D3.3V
D1.8V
3.3VSDRAM1
3.3VSDRAM2
FLI_SDA[10:0] Pg15
FLI_SDD[31:0] Pg15
FLI_Y[0..7] Pg13,14
FLI_UV[0..7] Pg13,14
DI_UV[0..7] Pg10
DI_Y[0..7] Pg10
Hyundai Imagequest
FLI2300
E42095417
Saturday, August 23, 2003
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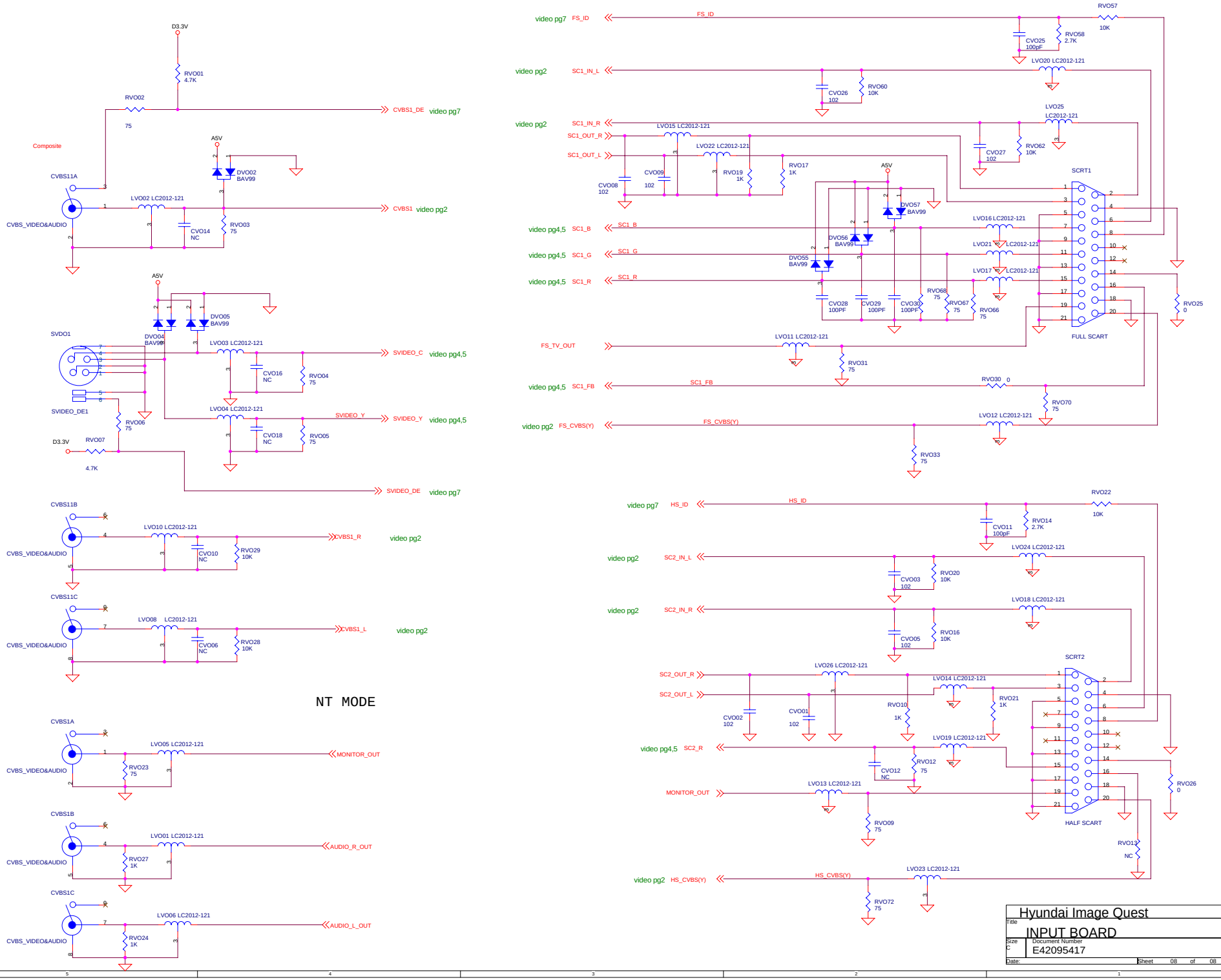


Hyundai Image Quest		
Title: INPUT BOARD		
Size: C	Document Number: E42095417	Rev: 1.0
Date:	Sheet 08 of 08	

PART LIST

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1		2011000006	CAP-AL-C,10UF 16V M 4052	
2		2011000006	CAP-AL-C,10UF 16V M 4052	
3		2011000006	CAP-AL-C,10UF 16V M 4052	
4	CAU10	2011000006	CAP-AL-C,10UF 16V M 4052	
5	CAU13	2011000006	CAP-AL-C,10UF 16V M 4052	
6	CAU14	2011000006	CAP-AL-C,10UF 16V M 4052	
7	CAU17	2011000006	CAP-AL-C,10UF 16V M 4052	
8	CAU27	2011000006	CAP-AL-C,10UF 16V M 4052	
9	CA13	2011000006	CAP-AL-C,10UF 16V M 4052	
10	CA25	2011000006	CAP-AL-C,10UF 16V M 4052	
11	CA32	2011000006	CAP-AL-C,10UF 16V M 4052	
12	CA34	2011000006	CAP-AL-C,10UF 16V M 4052	
13	CA36	2011000006	CAP-AL-C,10UF 16V M 4052	
14	CA38	2011000006	CAP-AL-C,10UF 16V M 4052	
15	CA40	2011000006	CAP-AL-C,10UF 16V M 4052	
16	CA42	2011000006	CAP-AL-C,10UF 16V M 4052	
17	CI18	2011000006	CAP-AL-C,10UF 16V M 4052	
18	CLV05	2011000006	CAP-AL-C,10UF 16V M 4052	
19	CLV08	2011000006	CAP-AL-C,10UF 16V M 4052	
20	CLV13	2011000006	CAP-AL-C,10UF 16V M 4052	
21	CM03	2011000006	CAP-AL-C,10UF 16V M 4052	
22	CM08	2011000006	CAP-AL-C,10UF 16V M 4052	
23	CM10	2011000006	CAP-AL-C,10UF 16V M 4052	
24	CM13	2011000006	CAP-AL-C,10UF 16V M 4052	
25	CM19	2011000006	CAP-AL-C,10UF 16V M 4052	
26	CM38	2011000006	CAP-AL-C,10UF 16V M 4052	
27	CP03	2011000006	CAP-AL-C,10UF 16V M 4052	
28	CP19	2011000006	CAP-AL-C,10UF 16V M 4052	
29	CRS01	2011000006	CAP-AL-C,10UF 16V M 4052	
30	CRS02	2011000006	CAP-AL-C,10UF 16V M 4052	
31	CRS03	2011000006	CAP-AL-C,10UF 16V M 4052	
32	CRS04	2011000006	CAP-AL-C,10UF 16V M 4052	
33	CRS06	2011000006	CAP-AL-C,10UF 16V M 4052	
34	CSC65	2011000006	CAP-AL-C,10UF 16V M 4052	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
35	CSC89	2011000006	CAP-AL-C,10UF 16V M 4052	
36	CSC91	2011000006	CAP-AL-C,10UF 16V M 4052	
37	CSC93	2011000006	CAP-AL-C,10UF 16V M 4052	
38	CT03	2011000006	CAP-AL-C,10UF 16V M 4052	
39	CT17	2011000006	CAP-AL-C,10UF 16V M 4052	
40	CXA13	2011000006	CAP-AL-C,10UF 16V M 4052	
41	CXA14	2011000006	CAP-AL-C,10UF 16V M 4052	
42	CCF08	2011000006	CAP-AL-C,10UF 16V M 4052	
43	CCF16	2011000006	CAP-AL-C,10UF 16V M 4052	
44	CCF18	2011000006	CAP-AL-C,10UF 16V M 4052	
45	CCF20	2011000006	CAP-AL-C,10UF 16V M 4052	
46	CCF29	2011000006	CAP-AL-C,10UF 16V M 4052	
47	CCF31	2011000006	CAP-AL-C,10UF 16V M 4052	
48	CCF37	2011000006	CAP-AL-C,10UF 16V M 4052	
49	CCF40	2011000006	CAP-AL-C,10UF 16V M 4052	
50	CCF51	2011000006	CAP-AL-C,10UF 16V M 4052	
51	CDM29	2011000006	CAP-AL-C,10UF 16V M 4052	
52	CDM58	2011000006	CAP-AL-C,10UF 16V M 4052	
53	CDS18	2011000006	CAP-AL-C,10UF 16V M 4052	
54	CDS22	2011000006	CAP-AL-C,10UF 16V M 4052	
55	CDS25	2011000006	CAP-AL-C,10UF 16V M 4052	
56	CFL04	2011000006	CAP-AL-C,10UF 16V M 4052	
57	CFL07	2011000006	CAP-AL-C,10UF 16V M 4052	
58	CFL08	2011000006	CAP-AL-C,10UF 16V M 4052	
59	CFL30	2011000006	CAP-AL-C,10UF 16V M 4052	
60	CFL40	2011000006	CAP-AL-C,10UF 16V M 4052	
61	CFL49	2011000006	CAP-AL-C,10UF 16V M 4052	
62	CFL51	2011000006	CAP-AL-C,10UF 16V M 4052	
63	CFL52	2011000006	CAP-AL-C,10UF 16V M 4052	
64	CMX07	2011000006	CAP-AL-C,10UF 16V M 4052	
65	CMX08	2011000006	CAP-AL-C,10UF 16V M 4052	
66	CMX12	2011000006	CAP-AL-C,10UF 16V M 4052	
67	CMX13	2011000006	CAP-AL-C,10UF 16V M 4052	
68	CMX17	2011000006	CAP-AL-C,10UF 16V M 4052	
69	CMX20	2011010014	CAP-AL-C,100UF 16V M 6357	
70	CMX30	2011010014	CAP-AL-C,100UF 16V M 6357	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
71	CMX31	2011010014	CAP-AL-C,100UF 16V M 6357	
72	CAU38	2011010014	CAP-AL-C,100UF 16V M 6357	
73	CP01	2011010014	CAP-AL-C,100UF 16V M 6357	
74	CP05	2011010014	CAP-AL-C,100UF 16V M 6357	
75	CP08	2011010014	CAP-AL-C,100UF 16V M 6357	
76	CP09	2011010014	CAP-AL-C,100UF 16V M 6357	
77	CP12	2011010014	CAP-AL-C,100UF 16V M 6357	
78	CP16	2011010014	CAP-AL-C,100UF 16V M 6357	
79	CP17	2011010014	CAP-AL-C,100UF 16V M 6357	
80	CP21	2011010014	CAP-AL-C,100UF 16V M 6357	
81	CP23	2011010014	CAP-AL-C,100UF 16V M 6357	
82	CP28	2011010014	CAP-AL-C,100UF 16V M 6357	
83	CP30	2011010014	CAP-AL-C,100UF 16V M 6357	
84	CP36	2012200005	CAP-AL-C,22UF 16V M 5052	
85	CP37	2012200005	CAP-AL-C,22UF 16V M 5052	
86	CMX02	2012200005	CAP-AL-C,22UF 16V M 5052	
87	CA01	2012200005	CAP-AL-C,22UF 16V M 5052	
88	CA02	2012200005	CAP-AL-C,22UF 16V M 5052	
89	CA12	2012200005	CAP-AL-C,22UF 16V M 5052	
90	CA20	2012200005	CAP-AL-C,22UF 16V M 5052	
91	CA30	2012200005	CAP-AL-C,22UF 16V M 5052	
92	CA53	2012200005	CAP-AL-C,22UF 16V M 5052	
93	CA54	2012200005	CAP-AL-C,22UF 16V M 5052	
94	CA56	2012200005	CAP-AL-C,22UF 16V M 5052	
95	CA58	2012200005	CAP-AL-C,22UF 16V M 5052	
96	CFB09	2012200005	CAP-AL-C,22UF 16V M 5052	
97	CFB23	2012200005	CAP-AL-C,22UF 16V M 5052	
98	CT01	2012200005	CAP-AL-C,22UF 16V M 5052	
99	CT14	2012200005	CAP-AL-C,22UF 16V M 5052	
100	CT16	2012200005	CAP-AL-C,22UF 16V M 5052	
101	CT25	2012210004	CAP-AL-C,220UF 16V M 8010	
102	CDM23	2012210004	CAP-AL-C,220UF 16V M 8010	
103	CDM41	2013390003	CAP-AL-C,3.3UF 50V M 4052	
104	CAU66	2013390003	CAP-AL-C,3.3UF 50V M 4052	
105	CAU73	2013390003	CAP-AL-C,3.3UF 50V M 4052	
106	CAU11	2013390003	CAP-AL-C,3.3UF 50V M 4052	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
107	CAU51	2013390003	CAP-AL-C,3.3UF 50V M 4052	
108	CAU64	2014700009	CAP-AL-C,47UF 16V M 6352	
109	CDM30	2014700009	CAP-AL-C,47UF 16V M 6352	
110	CDS29	2014700009	CAP-AL-C,47UF 16V M 6352	
111	CSC87	2014700009	CAP-AL-C,47UF 16V M 6352	
112	CXA15	2014700009	CAP-AL-C,47UF 16V M 6352	
113	CCF01	2014700009	CAP-AL-C,47UF 16V M 6352	
114	CCF02	2014700009	CAP-AL-C,47UF 16V M 6352	
115	CCF43	2014700009	CAP-AL-C,47UF 16V M 6352	
116	CCF45	2014700009	CAP-AL-C,47UF 16V M 6352	
117	CCF46	2014700009	CAP-AL-C,47UF 16V M 6352	
118	CCF47	2014700009	CAP-AL-C,47UF 16V M 6352	
119	CDM11	2014700009	CAP-AL-C,47UF 16V M 6352	
120	CDM14	2014700009	CAP-AL-C,47UF 16V M 6352	
121	CDM21	2014700009	CAP-AL-C,47UF 16V M 6352	
122	CDM53	2014700009	CAP-AL-C,47UF 16V M 6352	
123	CDM54	2014700009	CAP-AL-C,47UF 16V M 6352	
124	CDM55	2014700009	CAP-AL-C,47UF 16V M 6352	
125	CDS05	2014790003	CAP-AL-C,4.7UF 25V M 3052	
126	CDS12	2014790003	CAP-AL-C,4.7UF 25V M 3052	
127	CFM11	2014790003	CAP-AL-C,4.7UF 25V M 3052	
128	CMX11	2014790003	CAP-AL-C,4.7UF 25V M 3052	
129	CMX26	2014790003	CAP-AL-C,4.7UF 25V M 3052	
130	CMX27	2121000029	CAP-C-C,10PF 50V J COG 1608	
131	CVO01	2121000029	CAP-C-C,10PF 50V J COG 1608	
132	CVO11	2121000029	CAP-C-C,10PF 50V J COG 1608	
133	CAU33	2121000029	CAP-C-C,10PF 50V J COG 1608	
134	CAU34	2121010035	CAP-C-C,100PF 50V J COG 1608	
135	CSC01	2121010035	CAP-C-C,100PF 50V J COG 1608	
136	CSC02	2121010035	CAP-C-C,100PF 50V J COG 1608	
137	CM41	2121010035	CAP-C-C,100PF 50V J COG 1608	
138	CXA09	2121010035	CAP-C-C,100PF 50V J COG 1608	
139	CI16	2121010035	CAP-C-C,100PF 50V J COG 1608	
140	CT18	2121010035	CAP-C-C,100PF 50V J COG 1608	
141	CT19	2121010035	CAP-C-C,100PF 50V J COG 1608	
142	CT20	2121010035	CAP-C-C,100PF 50V J COG 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
143	CT21	2121010035	CAP-C-C,100PF 50V J COG 1608	
144	CMX09	2121010035	CAP-C-C,100PF 50V J COG 1608	
145	CMX10	2121010035	CAP-C-C,100PF 50V J COG 1608	
146	CVO25	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
147	CVO26	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
148	CVO27	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
149	CAU58	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
150	CAU60	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
151	CAU70	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
152	CAU71	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
153	CCF39	2121020039	CAP-C-C,1000PF 50V K X7R 1608	
154	CDM02	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
155	CDM03	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
156	CDS01	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
157	CAU22	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
158	CAU23	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
159	CAU76	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
160	CAU77	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
161	CAU78	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
162	CAU79	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
163	CAU90	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
164	CAU91	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
165	CAU92	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
166	CAU93	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
167	CA31	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
168	CA33	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
169	CA35	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
170	CA37	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
171	CA39	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
172	CA41	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
173	CFB02	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
174	CFB04	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
175	CFB06	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
176	CFB08	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
177	CFB11	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
178	CFB13	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
179	CFB16	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
180	CFB18	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
181	CFB20	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
182	CFB25	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
183	CFB27	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
184	CXA18	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
185	CCF22	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
186	CDM01	2121030061	CAP-C-C,0.01UF 50V K X7R 1608	
187	CDM20	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
188	CDM61	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
189	CDS17	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
190	CAU05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
191	CAU09	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
192	CAU12	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
193	CAU53	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
194	CAU55	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
195	CAU72	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
196	CA03	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
197	CA29	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
198	CA47	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
199	CA59	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
200	CLV04	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
201	CLV06	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
202	CLV07	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
203	CLV09	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
204	CLV14	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
205	CLV19	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
206	CLV22	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
207	CLV25	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
208	CM05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
209	CM09	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
210	CM11	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
211	CM12	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
212	CM15	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
213	CM17	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
214	CM20	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
215	CM23	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
216	CM24	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
217	CM39	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
218	CM40	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
219	CP02	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
220	CP04	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
221	CP06	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
222	CP07	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
223	CP10	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
224	CP13	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
225	CP14	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
226	CP18	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
227	CP20	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
228	CP22	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
229	CP25	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
230	CP29	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
231	CP31	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
232	CP32	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
233	CP33	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
234	CP38	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
235	CP39	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
236	CRS05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
237	CSC55	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
238	CSC56	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
239	CSC58	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
240	CSC63	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
241	CSC64	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
242	CSC88	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
243	CSC90	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
244	CSC92	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
245	CT13	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
246	CT15	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
247	CT26	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
248	CT27	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
249	CXA08	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
250	CXA10	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
251	CAU52	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
252	CAU63	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
253	CAU68	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
254	CAU75	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
255	CA08	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
256	CA09	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
257	CA10	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
258	CA11	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
259	CA14	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
260	CA15	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
261	CA16	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
262	CA17	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
263	CA18	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
264	CA19	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
265	CA21	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
266	CA22	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
267	CA23	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
268	CA24	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
269	CA26	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
270	CA27	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
271	CA28	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
272	CA44	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
273	CFB01	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
274	CFB03	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
275	CFB05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
276	CFB07	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
277	CFB10	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
278	CFB12	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
279	CFB14	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
280	CFB15	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
281	CFB17	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
282	CFB19	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
283	CFB21	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
284	CFB22	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
285	CFB24	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
286	CFB26	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
287	CFB28	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
288	CI04	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
289	CI05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
290	CI19	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
291	CLV10	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
292	CLV11	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
293	CLV12	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
294	CM16	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
295	CM18	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
296	CP27	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
297	CSC57	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
298	CSC59	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
299	CSC60	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
300	CSC61	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
301	CSC62	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
302	CSC66	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
303	CSC67	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
304	CSC68	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
305	CSC70	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
306	CSC71	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
307	CSC72	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
308	CSC73	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
309	CSC74	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
310	CSC75	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
311	CSC76	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
312	CSC77	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
313	CSC78	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
314	CSC79	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
315	CSC80	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
316	CSC81	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
317	CSC82	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
318	CSC83	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
319	CSC84	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
320	CSC85	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
321	CSC86	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
322	CT02	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
323	CXA11	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
324	CXA12	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
325	CCF03	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
326	CCF05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
327	CCF06	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
328	CCF07	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
329	CCF09	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
330	CCF10	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
331	CCF11	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
332	CCF12	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
333	CCF13	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
334	CCF14	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
335	CCF15	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
336	CCF17	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
337	CCF19	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
338	CCF21	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
339	CCF27	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
340	CCF28	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
341	CCF30	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
342	CCF32	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
343	CCF35	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
344	CCF41	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
345	CCF42	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
346	CCF44	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
347	CCF49	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
348	CDM37	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
349	CDM46	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
350	CDM47	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
351	CDM48	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
352	CDM49	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
353	CDM56	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
354	CDM59	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
355	CDS33	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
356	CFL03	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
357	CFL05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
358	CFL06	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
359	CFL09	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
360	CFL10	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
361	CFL11	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
362	CFL12	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
363	CFL13	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
364	CFL14	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
365	CFL15	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
366	CFL16	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
367	CFL17	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
368	CFL18	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
369	CFL19	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
370	CFL20	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
371	CFL21	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
372	CFL22	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
373	CFL23	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
374	CFL24	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
375	CFL25	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
376	CFL26	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
377	CFL27	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
378	CFL28	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
379	CFL29	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
380	CFL31	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
381	CFL32	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
382	CFL33	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
383	CFL34	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
384	CFL35	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
385	CFL36	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
386	CFL37	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
387	CFL38	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
388	CFL39	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
389	CFL41	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
390	CFL42	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
391	CFL43	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
392	CFL44	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
393	CFL45	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
394	CFL46	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
395	CFL47	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
396	CFL48	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
397	CFL50	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
398	CFM01	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
399	CFM02	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
400	CFM03	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
401	CFM04	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
402	CFM05	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
403	CFM06	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
404	CFM07	2121040045	CAP-C-C,0.1UF 50V Z Y5V 1608	
405	CFM12	2121050045	CAP-C-C,1UF 50V Z Y5V 1608	
406	CFM13	2121050045	CAP-C-C,1UF 50V Z Y5V 1608	
407	CMX01	2121050045	CAP-C-C,1UF 50V Z Y5V 1608	
408	CAU69	2121050045	CAP-C-C,1UF 50V Z Y5V 1608	
409	CAU61	2121050045	CAP-C-C,1UF 50V Z Y5V 1608	
410	CA55	2121500001	CAP-C-C,15PF 50V J COG 1608	
411	CA57	2121500001	CAP-C-C,15PF 50V J COG 1608	
412	CXA19	2121500001	CAP-C-C,15PF 50V J COG 1608	
413	CA50	2121510007	CAP-C-C,150PF 50V J COG 1608	
414	CA51	2121510007	CAP-C-C,150PF 50V J COG 1608	
415	CA52	2121510007	CAP-C-C,150PF 50V J COG 1608	
416	CCF23	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
417	CCF24	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
418	CFM09	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
419	CAU15	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
420	CAU30	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
421	CAU39	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
422	CM04	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
423	CM14	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
424	CDM08	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
425	CDM16	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
426	CDM25	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
427	CDM26	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
428	CDM32	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
429	CDM50	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
430	CDS10	2121520011	CAP-C-C,1500PF 50V J X7R 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
431	CDS15	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
432	CDS23	2121520011	CAP-C-C,1500PF 50V J X7R 1608	
433	CDS28	2121810013	CAP-C-C,180PF 50V J COG 1608	
434	CDS31	2121810013	CAP-C-C,180PF 50V J COG 1608	
435	CDS45	2121810013	CAP-C-C,180PF 50V J COG 1608	
436	CT05	2122210028	CAP-C-C,220PF 50V J COG 1608	
437	CT06	2122210028	CAP-C-C,220PF 50V J COG 1608	
438	CT07	2122210028	CAP-C-C,220PF 50V J COG 1608	
439	CAU28	2122210028	CAP-C-C,220PF 50V J COG 1608	
440	CDS41	2122210028	CAP-C-C,220PF 50V J COG 1608	
441	CDS42	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
442	CDS43	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
443	CDS44	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
444	CAU01	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
445	CAU02	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
446	CAU03	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
447	CAU04	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
448	CAU07	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
449	CAU08	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
450	CAU26	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
451	CAU31	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
452	CAU84	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
453	CAU85	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
454	CAU87	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
455	CAU88	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
456	CP34	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
457	CP35	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
458	CAU54	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
459	CAU59	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
460	CAU62	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
461	CAU67	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
462	CDM06	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
463	CDM07	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
464	CDM15	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
465	CDM28	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
466	CDM33	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
467	CDM34	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
468	CDM35	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
469	CDM36	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
470	CDM38	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
471	CDM39	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
472	CDM40	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
473	CDS04	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
474	CDS08	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
475	CDS11	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
476	CDS14	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
477	CDS26	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
478	CDS32	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
479	CDS34	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
480	CDS35	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
481	CDS36	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
482	CDS37	2122240044	CAP-C-C,0.22UF 50V Z Y5V 1608	
483	CDS38	2123300026	CAP-C-C,33PF 50V J COG 1608	
484	CDS39	2123300026	CAP-C-C,33PF 50V J COG 1608	
485	CFM10	2123310021	CAP-C-C,330PF 50V J NP0 1608	
486	CFL01	2123310021	CAP-C-C,330PF 50V J NP0 1608	
487	CFL02	2123310021	CAP-C-C,330PF 50V J NP0 1608	
488	CT08	2123310021	CAP-C-C,330PF 50V J NP0 1608	
489	CT09	2123310021	CAP-C-C,330PF 50V J NP0 1608	
490	CT10	2123310021	CAP-C-C,330PF 50V J NP0 1608	
491	CT11	2123310021	CAP-C-C,330PF 50V J NP0 1608	
492	CT12	2123310021	CAP-C-C,330PF 50V J NP0 1608	
493	CDM31	2123310021	CAP-C-C,330PF 50V J NP0 1608	
494	CDM42	2123310021	CAP-C-C,330PF 50V J NP0 1608	
495	CDM43	2123310021	CAP-C-C,330PF 50V J NP0 1608	
496	CDM44	2123310021	CAP-C-C,330PF 50V J NP0 1608	
497	CDM45	2123310021	CAP-C-C,330PF 50V J NP0 1608	
498	CVO28	2123390008	CAP-C-C,3.3PF 50V J COG 1608	
499	CVO29	2123390008	CAP-C-C,3.3PF 50V J COG 1608	
500	CVO30	2123390008	CAP-C-C,3.3PF 50V J COG 1608	
501	CDM18	2123390008	CAP-C-C,3.3PF 50V J COG 1608	
502	CDM19	2123910017	CAP-C-C,390PF 50V J COG 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
503	CDS19	2123910017	CAP-C-C,390PF 50V J COG 1608	
504	CDS20	2123910017	CAP-C-C,390PF 50V J COG 1608	
505	CDM09	2123910017	CAP-C-C,390PF 50V J COG 1608	
506	CDM17	2123910017	CAP-C-C,390PF 50V J COG 1608	
507	CDS09	2123910017	CAP-C-C,390PF 50V J COG 1608	
508	CDS16	2123920015	CAP-C-C,3900PF 50V K X7R 1608	
509	CDS30	2123930009	CAP-C-C,0.039UF 50V K X7R 1608	
510	CFM08	2124710037	CAP-C-C,470PF 50V J COG 1608	
511	CA46	2124710037	CAP-C-C,470PF 50V J COG 1608	
512	CA45	2124710037	CAP-C-C,470PF 50V J COG 1608	
513	CAU16	2124710037	CAP-C-C,470PF 50V J COG 1608	
514	CAU29	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
515	CAU40	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
516	CA43	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
517	CA04	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
518	CA05	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
519	CA07	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
520	CDM10	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
521	CDM13	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
522	CDM22	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
523	CDM24	2124730035	CAP-C-C,0.047UF 50V Z Y5V 1608	
524	CDS13	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
525	CDS21	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
526	CDS24	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
527	CXA04	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
528	CXA06	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
529	CAU57	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
530	CAU65	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
531	CXA01	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
532	CXA02	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
533	CXA03	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
534	CXA05	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
535	CXA16	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
536	CXA17	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
537	CXA20	2124740025	CAP-C-C,0.47UF 50V Z Y5V 1608	
538	CXA21	2125600009	CAP-C-C,56PF 50V J COG 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
539	CXA22	2125600009	CAP-C-C,56PF 50V J COG 1608	
540	CDM12	2126830010	CAP-C-C,0.068UF 16V K X7R 1608	
541	CAU36	2126830010	CAP-C-C,0.068UF 16V K X7R 1608	
542	CAU37	2126840013	CAP-C-C,0.68UF 50V Z Y5V 1608	
543	CDM27	2126840013	CAP-C-C,0.68UF 50V Z Y5V 1608	
544	CDS27	2126840013	CAP-C-C,0.68UF 50V Z Y5V 1608	
545	CDM04	2126840013	CAP-C-C,0.68UF 50V Z Y5V 1608	
546	CDM05	2126840013	CAP-C-C,0.68UF 50V Z Y5V 1608	
547	CDS03	2590007001	RES-C-NET,0 0.063W J 3216	
548	CDS06	2590007001	RES-C-NET,0 0.063W J 3216	
549	CDS07	2590007001	RES-C-NET,0 0.063W J 3216	
550	RDMAR1	2590007001	RES-C-NET,0 0.063W J 3216	
551	RDMAR2	2590007001	RES-C-NET,0 0.063W J 3216	
552	RDMAR3	2590007001	RES-C-NET,0 0.063W J 3216	
553	RDMAR4	2590007001	RES-C-NET,0 0.063W J 3216	
554	RDSAR1	2590007001	RES-C-NET,0 0.063W J 3216	
555	RDSAR2	2592209002	RES-C-NET,22 0.063W J 3216	
556	RDSAR3	2592209002	RES-C-NET,22 0.063W J 3216	
557	RDSAR4	2592209002	RES-C-NET,22 0.063W J 3216	
558	RFLAR2	2592209002	RES-C-NET,22 0.063W J 3216	
559	RFLAR3	2593309004	RES-C-NET,33 0.063W J 3216	
560	RFLAR4	2593309004	RES-C-NET,33 0.063W J 3216	
561	RFLAR5	2593309004	RES-C-NET,33 0.063W J 3216	
562	RDAR01	2593309004	RES-C-NET,33 0.063W J 3216	
563	RDAR02	2593309004	RES-C-NET,33 0.063W J 3216	
564	RDAR03	2593309004	RES-C-NET,33 0.063W J 3216	
565	RDAR04	2593309004	RES-C-NET,33 0.063W J 3216	
566	RDAR05	2593309004	RES-C-NET,33 0.063W J 3216	
567	RDAR06	2593309004	RES-C-NET,33 0.063W J 3216	
568	RDAR13	2593309004	RES-C-NET,33 0.063W J 3216	
569	RDAR14	2593309004	RES-C-NET,33 0.063W J 3216	
570	RDAR15	2593309004	RES-C-NET,33 0.063W J 3216	
571	RDAR16	2593309004	RES-C-NET,33 0.063W J 3216	
572	RDAR17	2593309004	RES-C-NET,33 0.063W J 3216	
573	RDAR18	2593309004	RES-C-NET,33 0.063W J 3216	
574	RDAR19	2593309004	RES-C-NET,33 0.063W J 3216	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
575	RDAR20	2593309004	RES-C-NET,33 0.063W J 3216	
576	RDAR21	2593309004	RES-C-NET,33 0.063W J 3216	
577	RDAR22	2593309004	RES-C-NET,33 0.063W J 3216	
578	RDAR23	2593309004	RES-C-NET,33 0.063W J 3216	
579	RDAR24	2593309004	RES-C-NET,33 0.063W J 3216	
580	RSAR01	2593309004	RES-C-NET,33 0.063W J 3216	
581	RSAR02	2593309004	RES-C-NET,33 0.063W J 3216	
582	RSAR03	2593309004	RES-C-NET,33 0.063W J 3216	
583	RSAR04	2593309004	RES-C-NET,33 0.063W J 3216	
584	RSAR05	2593309004	RES-C-NET,33 0.063W J 3216	
585	RSAR06	2593309004	RES-C-NET,33 0.063W J 3216	
586	RTAR1	2593309004	RES-C-NET,33 0.063W J 3216	
587	RFMAR1	2593309004	RES-C-NET,33 0.063W J 3216	
588	RFMAR2	2601002026	RES-C,10K 0.1W F 1608	
589	RFMAR3	2601502024	RES-C,15K 0.1W J 1608	
590	RFMAR4	2601801010	RES-C,1.8K 0.1W J 1608	
591	RXA05	2601870002	RES-C,187 0.1W F 1608	
592	RDM13	2602001017	RES-C,2K 0.1W J 1608	
593	RCF08	2602001017	RES-C,2K 0.1W J 1608	
594	RFL19	2602001017	RES-C,2K 0.1W J 1608	
595	RXA04	2602001017	RES-C,2K 0.1W J 1608	
596	RA20	2602001017	RES-C,2K 0.1W J 1608	
597	RA21	2602002012	RES-C,20K 0.1W J 1608	
598	RA22	2602002012	RES-C,20K 0.1W J 1608	
599	RA30	2602202014	RES-C,22K 0.1W J 1608	
600	RAU51	2602203009	RES-C,220K 0.1W J 1608	
601	RAU52	2603302014	RES-C,33K 0.1W J 1608	
602	RDM15	2603302014	RES-C,33K 0.1W J 1608	
603	RCF13	2603302014	RES-C,33K 0.1W J 1608	
604	RAU55	2603900007	RES-C,390 0.1W J 1608	
605	RAU57	2604702019	RES-C,47K 0.1W J 1608	
606	RCF38	2604702019	RES-C,47K 0.1W J 1608	
607	RT01	2604702019	RES-C,47K 0.1W J 1608	
608	RCF10	2604702019	RES-C,47K 0.1W J 1608	
609	RCF19	2604702019	RES-C,47K 0.1W J 1608	
610	RCF20	2604702019	RES-C,47K 0.1W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
611	RDM53	2604703009	RES-C,470K 0.1W J 1608	
612	RVO60	2604703009	RES-C,470K 0.1W J 1608	
613	RVO62	2604709017	RES-C,47 0.1W J 1608	
614	RA01	2605100008	RES-C,510 0.063W J 1608	
615	RFL20	2605100008	RES-C,510 0.063W J 1608	
616	RDS10	2605100008	RES-C,510 0.063W J 1608	
617	RMX01	2605600015	RES-C,560 0.1W J 1608	
618	RMX04	2605600015	RES-C,560 0.1W J 1608	
619	RMX06	2605601016	RES-C,5.6K 0.1W J 1608	
620	RDM02	2605601016	RES-C,5.6K 0.1W J 1608	
621	RDM43	2606802018	RES-C,68K 0.1W J 1608	
622	RDM09	2607509011	RES-C,75 0.1W J 1608	
623	RDM46	2607509011	RES-C,75 0.1W J 1608	
624	RA02	2607509011	RES-C,75 0.1W J 1608	
625	RXA01	2607509011	RES-C,75 0.1W J 1608	
626	RXA02	2607509011	RES-C,75 0.1W J 1608	
627	RA24	2607509011	RES-C,75 0.1W J 1608	
628	RA25	2607509011	RES-C,75 0.1W J 1608	
629	RA26	2607509011	RES-C,75 0.1W J 1608	
630	RA27	2607509011	RES-C,75 0.1W J 1608	
631	RA28	2607509011	RES-C,75 0.1W J 1608	
632	RA29	2607509011	RES-C,75 0.1W J 1608	
633	RI01	2607509011	RES-C,75 0.1W J 1608	
634	RI02	2607509011	RES-C,75 0.1W J 1608	
635	RI03	2607509011	RES-C,75 0.1W J 1608	
636	RI18	2607509011	RES-C,75 0.1W J 1608	
637	RI19	2607509011	RES-C,75 0.1W J 1608	
638	RI20	2607509011	RES-C,75 0.1W J 1608	
639	RI23	2607509011	RES-C,75 0.1W J 1608	
640	RI24	2607509011	RES-C,75 0.1W J 1608	
641	RI25	2607509011	RES-C,75 0.1W J 1608	
642	RRS01	2607509011	RES-C,75 0.1W J 1608	
643	RRS03	2607509011	RES-C,75 0.1W J 1608	
644	RRS04	2607509011	RES-C,75 0.1W J 1608	
645	RSS02	2607509011	RES-C,75 0.1W J 1608	
646	RXA08	2607509011	RES-C,75 0.1W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
647	RXA09	2607509011	RES-C,75 0.1W J 1608	
648	RXA10	2607509011	RES-C,75 0.1W J 1608	
649	RXA11	2607509011	RES-C,75 0.1W J 1608	
650	RXA12	2607509011	RES-C,75 0.1W J 1608	
651	RXA13	2607509011	RES-C,75 0.1W J 1608	
652	RDM30	2607509011	RES-C,75 0.1W J 1608	
653	RDM31	2607509011	RES-C,75 0.1W J 1608	
654	RDM32	2607509011	RES-C,75 0.1W J 1608	
655	RDM33	2607509011	RES-C,75 0.1W J 1608	
656	RDM39	2607509011	RES-C,75 0.1W J 1608	
657	RDM48	2607509011	RES-C,75 0.1W J 1608	
658	RDM61	2607509011	RES-C,75 0.1W J 1608	
659	RDM62	2607509011	RES-C,75 0.1W J 1608	
660	RDM64	2607509011	RES-C,75 0.1W J 1608	
661	RDS12	2607509011	RES-C,75 0.1W J 1608	
662	RDS31	2607509011	RES-C,75 0.1W J 1608	
663	RDS32	2607509011	RES-C,75 0.1W J 1608	
664	RDS33	2607509011	RES-C,75 0.1W J 1608	
665	RDS34	2607509011	RES-C,75 0.1W J 1608	
666	RDS40	2607509011	RES-C,75 0.1W J 1608	
667	RDS42	2607509011	RES-C,75 0.1W J 1608	
668	RFL13	2607509011	RES-C,75 0.1W J 1608	
669	RFL14	2607509011	RES-C,75 0.1W J 1608	
670	RFL15	2607509011	RES-C,75 0.1W J 1608	
671	RVO02	2607509011	RES-C,75 0.1W J 1608	
672	RVO03	2607509011	RES-C,75 0.1W J 1608	
673	RVO04	2607509011	RES-C,75 0.1W J 1608	
674	RVO05	2607509011	RES-C,75 0.1W J 1608	
675	RVO06	2607509011	RES-C,75 0.1W J 1608	
676	RVO10	2607509011	RES-C,75 0.1W J 1608	
677	RVO11	2607509011	RES-C,75 0.1W J 1608	
678	RVO12	2607509011	RES-C,75 0.1W J 1608	
679	RVO66	2607509011	RES-C,75 0.1W J 1608	
680	RVO67	2607509011	RES-C,75 0.1W J 1608	
681	RVO68	2608201013	RES-C,8.2K 0.1W J 1608	
682	RVO70	3010700832	REMOTE CONTROLLER ASSY,	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
683	RVO72	3011200001	PDP,S42SD-YDXX PD421	
684	RAU56	3100500198	DI-SW,BAV99 SMD	
685		3100500198	DI-SW,BAV99 SMD	
686		3100500198	DI-SW,BAV99 SMD	
687	DI01	3100500198	DI-SW,BAV99 SMD	
688	DI02	3100500198	DI-SW,BAV99 SMD	
689	DI03	3100500198	DI-SW,BAV99 SMD	
690	DI08	3100500198	DI-SW,BAV99 SMD	
691	DI09	3100500198	DI-SW,BAV99 SMD	
692	DI10	3100500198	DI-SW,BAV99 SMD	
693	DT05	3100500198	DI-SW,BAV99 SMD	
694	DT06	3100500198	DI-SW,BAV99 SMD	
695	DT09	3100500198	DI-SW,BAV99 SMD	
696	DT10	3100500198	DI-SW,BAV99 SMD	
697	DT11	3100500198	DI-SW,BAV99 SMD	
698	DT12	3100500198	DI-SW,BAV99 SMD	
699	DT13	3100500198	DI-SW,BAV99 SMD	
700	DT14	3100500198	DI-SW,BAV99 SMD	
701	DMX01	3100500198	DI-SW,BAV99 SMD	
702	DVO02	3100500198	DI-SW,BAV99 SMD	
703	DVO04	3100500198	DI-SW,BAV99 SMD	
704	DVO05	3100500198	DI-SW,BAV99 SMD	
705	DVO06	3100500198	DI-SW,BAV99 SMD	
706	DVO07	3100500198	DI-SW,BAV99 SMD	
707	DVO08	3100500198	DI-SW,BAV99 SMD	
708	DVO55	3101000392	DI-ZN,PTZTE255.6B	
709	DVO56	3101000392	DI-ZN,PTZTE255.6B	
710	DVO57	3101000392	DI-ZN,PTZTE255.6B	
711	ZDT1	3101000392	DI-ZN,PTZTE255.6B	
712	ZDT2	3101000392	DI-ZN,PTZTE255.6B	
713	ZDI1	3101000392	DI-ZN,PTZTE255.6B	
714	ZDI2	3101000393	DI-ZN,RLZTE-1124B	
715	ZDI3	3101000393	DI-ZN,RLZTE-1124B	
716	ZDI4	3101000393	DI-ZN,RLZTE-1124B	
717	ZD1	3101000393	DI-ZN,RLZTE-1124B	
718	ZD2	3101000394	DI-ZN,RLZTE-1115B	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
719	ZD5	3101000394	DI-ZN,RLZTE-1115B	
720	ZD6	3101000394	DI-ZN,RLZTE-1115B	
721	ZD3	3101000394	DI-ZN,RLZTE-1115B	
722	ZD4	3104100145	DI-SCHOT,MBRS130T3 SMD	
723	ZD7	3104100145	DI-SCHOT,MBRS130T3 SMD	
724	ZD8	3104100145	DI-SCHOT,MBRS130T3 SMD	
725	DAU1	3104100145	DI-SCHOT,MBRS130T3 SMD	
726	DAU2	3110100762	TR-GEN,KSC1623 SMD	
727	DAU3	3110100762	TR-GEN,KSC1623 SMD	
728	DAU4	3110100762	TR-GEN,KSC1623 SMD	
729	QAU01	3110100762	TR-GEN,KSC1623 SMD	
730	QA01	3110100762	TR-GEN,KSC1623 SMD	
731	QA02	3110100762	TR-GEN,KSC1623 SMD	
732	QM03	3110100762	TR-GEN,KSC1623 SMD	
733	QCF01	3110100762	TR-GEN,KSC1623 SMD	
734	QCF03	3110100762	TR-GEN,KSC1623 SMD	
735	QCF04	3110100762	TR-GEN,KSC1623 SMD	
736	QCF05	3110100762	TR-GEN,KSC1623 SMD	
737	QDM03	3110100762	TR-GEN,KSC1623 SMD	
738	QDM06	3110100762	TR-GEN,KSC1623 SMD	
739	QDM08	3110100763	TR-GEN,KSA1182 SMD	
740	QDS01	3110100763	TR-GEN,KSA1182 SMD	
741	QDS02	3110100763	TR-GEN,KSA1182 SMD	
742	QXA01	3110100763	TR-GEN,KSA1182 SMD	
743	QCF02	3110100763	TR-GEN,KSA1182 SMD	
744	QCF06	3110100763	TR-GEN,KSA1182 SMD	
745	QCF07	3110100763	TR-GEN,KSA1182 SMD	
746	QDM01	3110100763	TR-GEN,KSA1182 SMD	
747	QDM02	3110100763	TR-GEN,KSA1182 SMD	
748	QDM04	3110100763	TR-GEN,KSA1182 SMD	
749	QDM05	3110100763	TR-GEN,KSA1182 SMD	
750	QDM07	3110100763	TR-GEN,KSA1182 SMD	
751	QDM09	3200001491	IC-LIN,NCP1117ST25T3	
752	QDM10	3200001554	IC-LIN,RC1587 3A ADJ SOT	
753	QDS03	3200001567	IC-LIN,BA7654F-E2(VIDEO SIGNAL	
754	UCF02	3200001569	IC-LIN,AD9883A 140 MSPS	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
755	UP04	3200001571	IC-LIN,BA17808FP-E2	
756	UDM02	3200001572	IC-LIN,BA17809FP-E2	
757	UA02	3200001573	IC-LIN,BA033FP-E2	
758	UP06	3200001573	IC-LIN,BA033FP-E2	
759	UP01	3200001574	IC-LIN,TA8851BN DIP	
760	UP03	3200001575	IC-LIN,ST232CDR	
761	UCF03	3200001576	IC-LIN,SIL161B QFP	
762	UMX01	3200001577	IC-LIN,CXA2151Q QFP	
763	URS01	3200001578	IC-LIN,PD64083 QFP	
764	UT02	3200001579	IC-LIN,LM1117MP-1.8 SOT223	
765	UXA01	3200001580	IC-LIN,BA7657F-E2	
766	UCF01	3200001581	IC-LIN,TA2024 SOP	
767	UP05	3200001583	IC-LIN,BA05FP TO252-3	
768	UA01	3202001306	IC-TTL,74F14SC SOI	
769	UAU1	3202001306	IC-TTL,74F14SC SOI	
770	UP02	3202001516	IC-TTL,74HCT14 SOP	
771	UM02	3202001517	IC-TTL,DM74LS08M SOIC	
772	UM09	3202001518	IC-TTL,74F11 SOT	
773	UI02	3202001519	IC-TTL,DS90C385 TSOP	
774	UM07	3202001520	IC-TTL,74HCT86 SOT108	
775	UM08	3202001521	IC-TTL,74F373 SOIC	
776	ULV01	3202001521	IC-TTL,74F373 SOIC	
777	UA03	3202001521	IC-TTL,74F373 SOIC	
778	UM03	3202001521	IC-TTL,74F373 SOIC	
779	UM05	3202001521	IC-TTL,74F373 SOIC	
780	UM06	3203000745	IC-MEMO,24LC211/SN SOI	
781	UM10	3203000745	IC-MEMO,24LC211/SN SOI	
782	UM11	3203000879	IC-MEMO,S524A60X81-SCB0	
783	UI01	3203000914	IC-MEMO,K4S643232F-TC60	
784	UT01	3203000914	IC-MEMO,K4S643232F-TC60	
785	UM12	3203000914	IC-MEMO,K4S643232F-TC60	
786	UFB01	3203000916	IC-MEMO,MS81V04160-25TB	
787	UFB02	3203000917	IC-MEMO,W27C02 PLCC	
788	UFL2	3204000617	IC-INT,FLI2310 QFP	
789	UFM01	3205001412	IC-U,VPC3230D QFP VIDEO	
790	UM04	3205001412	IC-U,VPC3230D QFP VIDEO	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
791	UFL1	3205001413	IC-U,ASI500 BGA IMAGE PRO	
792	UDM01	3205001414	IC-U,MSP3450G PMQFP SOUND	
793	UDS01	3205001415	IC-U,P89C51RD2BA PLCC MCU	
794	USC01	3330600488	LED,SML-010LTT86N	
795	UAU2	3330600488	LED,SML-010LTT86N	
796	UM01	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
797	DT01	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
798	DT16	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
799	LDM03	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
800	LDM04	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
801	LDM05	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
802	LDS01	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
803	LDS02	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
804	LDS03	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
805	LDS04	3500101878	CHIP-INDUCTOR,LMFC3225T3R	
806	LDS05	3500101879	CHIP-INDUCTOR,LMFC3225T15	
807	LDS06	3500101881	CHIP-INDUCTOR,LMFC3225T10	
808	LFM01	3500101881	CHIP-INDUCTOR,LMFC3225T10	
809	LCF06	3500101881	CHIP-INDUCTOR,LMFC3225T10	
810	FA04	3500101881	CHIP-INDUCTOR,LMFC3225T10	
811	FXA01	3500101881	CHIP-INDUCTOR,LMFC3225T10	
812	LCF04	3500101881	CHIP-INDUCTOR,LMFC3225T10	
813	LCF05	3500101881	CHIP-INDUCTOR,LMFC3225T10	
814	LCF09	3500101881	CHIP-INDUCTOR,LMFC3225T10	
815	LCF10	3500101883	CHOKE-COIL,47uH 8x8	
816	LCF11	3500101883	CHOKE-COIL,47uH 8x8	
817	LDM08	3500101883	CHOKE-COIL,47uH 8x8	
818	LPM01	3500101883	CHOKE-COIL,47uH 8x8	
819	LPM03	3500101884	CHOKE-COIL,10uH 6x4 SMD PDP	
820	LPM05	3500101884	CHOKE-COIL,10uH 6x4 SMD PDP	
821	LPM07	3500101884	CHOKE-COIL,10uH 6x4 SMD PDP	
822	LCF02	3500101884	CHOKE-COIL,10uH 6x4 SMD PDP	
823	LCF15	3500101884	CHOKE-COIL,10uH 6x4 SMD PDP	
824	LDM06	3500101884	CHOKE-COIL,10uH 6x4 SMD PDP	
825	LDM07	3500101885	CHOKE-COIL,56uH 8x11	
826	LDM09	3500101885	CHOKE-COIL,56uH 8x11	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
827	LMX01	3500101885	CHOKE-COIL,56uH 8x11	
828	LAU2	3500101885	CHOKE-COIL,56uH 8x11	
829	LAU3	3520200199	FLT-LC,H354LAI-K5202=P3	
830	LAU4	3520200199	FLT-LC,H354LAI-K5202=P3	
831	LAU7	3520200200	FLT-LC,H354BAI-K5110=P3	
832	FCF01	3530200621	VIB-QUARTZ,DIP 4MHZ 100PF	
833	FDM02	3530200622	VIB-QUARTZ,DIP 20MHZ 22PF	
834	FDM01	3530200622	VIB-QUARTZ,DIP 20MHZ 22PF	
835	XXA01	3530200623	VIB-QUARTZ,DIP 18.432MHZ	
836	XM01	3530200624	VIB-QUARTZ,DIP 20.25MHZ	
837	XCF01	3530200624	VIB-QUARTZ,DIP 20.25MHZ	
838	XAU01	3530200625	VIB-QUARTZ,DIP 13.5MHZ 33	
839	XDM01	3530200626	VIB-QUARTZ,DIP 14.31818MH	
840	XDS01	3540800008	COR-CHP,HB-1M2012-601JT	
841	XFL01	3540800008	COR-CHP,HB-1M2012-601JT	
842	XSC01	3540800008	COR-CHP,HB-1M2012-601JT	
843	FT04	3540800008	COR-CHP,HB-1M2012-601JT	
844	LAU1	3540800008	COR-CHP,HB-1M2012-601JT	
845	LAU8	3540800008	COR-CHP,HB-1M2012-601JT	
846	LM01	3540800008	COR-CHP,HB-1M2012-601JT	
847	LM02	3540800008	COR-CHP,HB-1M2012-601JT	
848	LM04	3540800008	COR-CHP,HB-1M2012-601JT	
849	LM06	3540800008	COR-CHP,HB-1M2012-601JT	
850	LM07	3540800008	COR-CHP,HB-1M2012-601JT	
851	LM08	3540800008	COR-CHP,HB-1M2012-601JT	
852	LM09	3540800008	COR-CHP,HB-1M2012-601JT	
853	LM11	3540800008	COR-CHP,HB-1M2012-601JT	
854	LM12	3540800060	COR-CHP,FI-B2012-222KJT	
855	LM03	3540800060	COR-CHP,FI-B2012-222KJT	
856	LM05	3540800060	COR-CHP,FI-B2012-222KJT	
857	LI08	3540800060	COR-CHP,FI-B2012-222KJT	
858	LI09	3540800060	COR-CHP,FI-B2012-222KJT	
859	LI10	3540800060	COR-CHP,FI-B2012-222KJT	
860	LMX02	3540800060	COR-CHP,FI-B2012-222KJT	
861	LMX05	3540800060	COR-CHP,FI-B2012-222KJT	
862	LMX06	3540800060	COR-CHP,FI-B2012-222KJT	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
863	LVO02	3540800060	COR-CHP,FI-B2012-222KJT	
864	LVO03	3540800060	COR-CHP,FI-B2012-222KJT	
865	LVO04	3540800060	COR-CHP,FI-B2012-222KJT	
866	LVO05	3540800060	COR-CHP,FI-B2012-222KJT	
867	LVO06	3540800060	COR-CHP,FI-B2012-222KJT	
868	LVO07	3540800064	COR-CHP,HH-1M4532-121JT	
869	LVO08	3540800064	COR-CHP,HH-1M4532-121JT	
870	LVO10	3540800064	COR-CHP,HH-1M4532-121JT	
871	FA01	3540800064	COR-CHP,HH-1M4532-121JT	
872	FA02	3540800064	COR-CHP,HH-1M4532-121JT	
873	FA03	3540800064	COR-CHP,HH-1M4532-121JT	
874	FT01	3540800064	COR-CHP,HH-1M4532-121JT	
875	FT02	3540800064	COR-CHP,HH-1M4532-121JT	
876	FT03	3540800064	COR-CHP,HH-1M4532-121JT	
877	LAU09	3540800064	COR-CHP,HH-1M4532-121JT	
878	LAU10	3540800064	COR-CHP,HH-1M4532-121JT	
879	LAU5	3540800064	COR-CHP,HH-1M4532-121JT	
880	LAU6	3540800064	COR-CHP,HH-1M4532-121JT	
881	LFB01	3540800064	COR-CHP,HH-1M4532-121JT	
882	LFB02	3540800064	COR-CHP,HH-1M4532-121JT	
883	LLV02	3540800064	COR-CHP,HH-1M4532-121JT	
884	LLV03	3540800064	COR-CHP,HH-1M4532-121JT	
885	LLV04	3540800064	COR-CHP,HH-1M4532-121JT	
886	LPM02	3540800064	COR-CHP,HH-1M4532-121JT	
887	LPM04	3540800064	COR-CHP,HH-1M4532-121JT	
888	LPM06	3540800064	COR-CHP,HH-1M4532-121JT	
889	LPM09	3540800064	COR-CHP,HH-1M4532-121JT	
890	LSC01	3540800064	COR-CHP,HH-1M4532-121JT	
891	LSC50	3540800064	COR-CHP,HH-1M4532-121JT	
892	LSC51	3540800064	COR-CHP,HH-1M4532-121JT	
893	LSC52	3540800064	COR-CHP,HH-1M4532-121JT	
894	LSC53	3540800064	COR-CHP,HH-1M4532-121JT	
895	LFL01	3540800064	COR-CHP,HH-1M4532-121JT	
896	LFL02	3540800064	COR-CHP,HH-1M4532-121JT	
897	LFL03	3540800064	COR-CHP,HH-1M4532-121JT	
898	LFL04	3540800064	COR-CHP,HH-1M4532-121JT	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
899	LFL05	3540800064	COR-CHP,HH-1M4532-121JT	
900	LFL06	3610200115	BATTERY,AA 1.5V MERCURY&CADMIU	
901	LFL07	3720101388	CONN-M,SMW200-06P	
902	LFL08	3720101388	CONN-M,SMW200-06P	
903		3720101396	CONN-M,SMW250-02 2	
904	CNAU3	3720101397	CONN-M,SMW250-03 3	
905	CNMX1	3720101401	CONN-M,SMW250-08 8	
906	SPKR1	3720101401	CONN-M,SMW250-08 8	
907	SPKL1	3720101403	CONN-M,SMW250-10 10	
908	CNPR2	3720101404	CONN-M,SMW250-11 11	
909	CNFL2	3720101916	CONN-M,SMW200-14 14	
910	CNPR1	3720101996	CONN-M,GT121-31P-TD 31	
911	CNPR3	3720101997	CONN-M,53505-4090 40	
912	CNKEY1	3720101997	CONN-M,53505-4090 40	
913	CNLV1	3721100621	CONN-F,PLL-44-PPS-T-M 44	
914	CNSC1	3721101228	CONN-F,DVI FEMALE RIGHT ANG 24	
915	CNFL1	3721101233	CONN-F,D-SUB 15P R/A 15	
916	UM01	3721101237	CONN-F,PLCC-32P 32	
917	DVI01	3721101244	CONN-F,S-VIDEO JACK 7	
918	DSUB1	3721101246	CONN-F,STERO PHONE JACK 6	
919	UM04	3721101247	CONN-F,D-SUB 9P R/A 9	
920	SVD01	3721101259	CONN-F,SCART JACK 21P SHIELD	
921	CNI2	3725005278	CONN-A,8P CABLE 45MM PD42 8	
922	CNI1	3725005279	CONN-A,6P CABLE 45MM PD42 9	
923	SCRT2	3725005280	CONN-A,10P CABLE 240MM PD42 10	
924		3725005281	CONN-A,11P CABLE 60MM PD42 11	
925		3725005282	CONN-A,31P CABLE 180MM PD42 31	
926		3725005283	CONN-A,40P CABLE 45MM PD42 40	
927		3725005284	CONN-A,14P CABLE 280MM PD42 14	
928		3758000200	CBL-PWR,MW WALL 1.8MT EUROPEAN	
929		3758500477	CBL-SGN,7PAI 1.8M 2C MW STRIGH	
930		5001000579	SCR-MC,BIN + MC 3*8	
931		5004000187	SCR-TT2,BIN(+) MC 4*14	
932		5004000190	SCR-TT,BIN + MC 3*8	
933		5004000216	SCR-TT,BIN+ 4*10	
934		5004000217	SCR-TT BIN MC4*10(백색아연도금	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
935		5004000218	SCR-MC BIN+MC3*16	
936		5004000219	SCR-MC BIN+MC8*14(백색아연도금	
937		5004000222	SCR-MC BIN + MC 4*10(백색아연	
938		6101220101	REAR COVER PDP42	
939		6101221201	PD421 REAR COVER ASSY	
940		6110279900	FILTER BRKT V,P421	
941		6110279900	FILTER BRKT V,P421	
942		6110280000	FILTER BRKT H(TOP),P421	
943		6110280001	FILTER BRKT H(BOTTOM),P421	
944		6110280100	SPEAKER BRKT JACK,P421	
945		6110280200	BRKT AC INLET,P421	
946		6110282200	FILTER BRKT H(TOP) ASSY P421	
947		6110282300	FILTER BRKT H(BOTTOM) ASSY P42	
948		6110282400	FILTER BRKT V ASSY(LEFT) P421	
949		6110282500	FILTER BRKT V ASSY(RIGHT) P421	
950		6120054800	LOGO PLATE,P421	
951		6120055000	MODULE PLATE,P421	
952		6120055101	SHIELD TOP P421(수출용)	
953		6120055200	SHIELD BOTTOM,P421	
954		6120055300	42INCH PDP FILTER GLASS	
955		6120055400	SHIELD BOTTOM ASSY P421	
956		6128010133	GASKET EMI,S527B(12X110X6)	
957		6128011100	GASKET EMI W5 X T1 X L960	
958		6128011100	GASKET EMI W5 X T1 X L960	
959		6128011101	GASKET EMI W5 X T1 X L570	
960		6128011101	GASKET EMI W5 X T1 X L570	
961		6128011102	GASKET EMI W5 X T1 X L886	
962		6128011103	GASKET EMI W5 X T1 X L160	
963		6128011104	GASKET EMI W5 X T1 X L553	
964		6128011105	GASKET EMI W8 X T1 X L485	
965		6201317300	FRONT COVER,P421	
966		6201319400	42INCH PDP FRONT COVER ASSY	
967		6201326600	COVER REAR CAP PDP	
968		6220085900	RENS REMOTE,P421	
969		6223076800	HOLDER FLUSH,V770 KIOSK	
970		6223077000	SUPPORT,P910+ TWIST LOCK NYLON	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
971		6223088400	42INCH PDP BOX HOLDER	
972		6243037901	MANUAL PE BAG	
973		6243038301	PE_BAG(SET) P421	
974		6253119500	CUSHION TOP,P421	
975		6253119600	CUSHION BOTTOM,P421	
976		6253119601	CUSHION MIDDLE,P421	
977		6301191400	PALLET PAD,ALL MODEL,SW-3	
978		6301194000	PD421 CTN BOX TOP IQT ALL	
979		6301194100	42INCH PDP BOX CARTON(BOTTOM)	
980		6309037300	PAD,PALLET ANGLE	
981		201109000401	CAP-AL-C,1UF 50V M 4052	
982		201109000401	CAP-AL-C,1UF 50V M 4052	
983		301070082701	KEY BOARD ASSY,PD421	
984	CCF04	304100105802	PCB-DOUBLE, PDP 42" GRAPHIC B/	
985	CCF38	304100105901	PCB-DOUBLE, PDP 42" Video B/D	
986		372110124201	CONN-F,RCA JACK 204P 6	
987		372110124201	CONN-F,RCA JACK 204P 6	
988		372110124201	CONN-F,RCA JACK 204P 6	
989	AUDT1	372110124301	CONN-F,RCA JACK 304P 9	
990	AUPC1	372110124801	CONN-F,RCA JACK(RGB) 9	
991	AUDV1	372110124801	CONN-F,RCA JACK(RGB) 9	
992	AUCV1	372500528801	RCA 3P CABLE 1.8MT, PD421	
993	DTV1	372500528901	RGB 3P CABLE 1.8MT, PD421	
994	DVD1	372500529701	SPEAKER TERMINAL BLOCK CABLE A	
995		372500529801	SPEAKER TERMINAL BLOCK CABLE A	
996		372500529901	NOISE FILTER CABLE ASS'Y 230MM	
997		631637950302	BACK LABEL PD421 IQT(EXP)	
998		632023610201	USER'S GUIDE PD421 IQT(EXP)	
999		B4008500100A	CABLE TIE	
1000		B4204513263B	LABEL,B/CODE 64KHZ(DIC21)	
1001		B4204668904	KIT LAB & MAN PD421 HIE/SILVER	
1002		B4210332604	PDP MEC ASSY,PD421(SYN)	
1003		B4210332701	PDP KIT COVER ASSY,PD421	
1004		B4210332801	PDP PACKING ASSY,PD421	
1005		CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1006		CC7FCA1H220J	CAP-CC,22PF 50V J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1007		CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1008	CI27	CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1009	CI28	CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1010	CI29	CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1011	CM01	CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1012	CM02	CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1013	CCF25	CC7FCA1H220J	CAP-CC,22PF 50V J 1608	
1014	CCF26	DTRLS4148	DIODE,CHIP S/W RLS4148	
1015	CDM51	DTRLS4148	DIODE,CHIP S/W RLS4148	
1016	CDM52	DTRLS4148	DIODE,CHIP S/W RLS4148	
1017	DI05	DTRLS4148	DIODE,CHIP S/W RLS4148	
1018	DI07	DTRLS4148	DIODE,CHIP S/W RLS4148	
1019	DM01	DTRLS4148	DIODE,CHIP S/W RLS4148	
1020	DT03	DTRLS4148	DIODE,CHIP S/W RLS4148	
1021	DT04	DTRLS4148	DIODE,CHIP S/W RLS4148	
1022	DA01	DTRLS4148	DIODE,CHIP S/W RLS4148	
1023	DA02	E4001020808J	CAP,CHIP 50V 47PF J 1608	
1024	DI06	E42027039010	SWITCH TACT,5MM 160GF VERTICAL	
1025	DCF01	E4205020601	MAIN ASS'Y(M1),PD421	
1026	CI14	E4208422811	PCBA GRAPHIC TOP(AM),PD421	
1027	SWM01	E4208422812	PCBA VIDEO(AM),PD421	
1028		E4208422821	PCBA GRAPHIC BOTTOM(AM),PD421	
1029		E4208522801	PCBA GRAPHIC(MM),PD421	
1030		E4208522802	PCBA VIDEO(MM),PD421	
1031		E4208622802	PCBA VIDEO(TM),PD421	
1032		E4208722801	PCB ASSY,PD421	
1033		M11144010012	SCREW,BIN(+) 4*10 MSZPC	
1034		M11173008012	SCREW FLT(+) M3*8 MSZPC	
1035		M17744006012	SCREW,BIN(+) M4*6 MSZPC	
1036		RD-4P0T0100J	RES-CF,RD 1/4W 10 OHM J	
1037		RD-4P0T0100J	RES-CF,RD 1/4W 10 OHM J	
1038		RK1JC0T0000J	RES-C,0 0.063W J 1608	
1039	RAU29	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1040	RAU30	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1041	LI05	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1042	LI06	RK1JC0T0000J	RES-C,0 0.063W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1043	RAU54	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1044	RAU90	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1045	RAU91	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1046	RA04	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1047	RA05	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1048	RA06	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1049	RSC01	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1050	RSC02	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1051	RSC04	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1052	RSC06	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1053	RSC07	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1054	RSC08	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1055	RSC58	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1056	RSC59	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1057	LI01	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1058	LI02	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1059	LI03	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1060	LI04	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1061	LI07	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1062	RFB10	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1063	RSC09	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1064	RCF02	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1065	RCF07	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1066	RCF18	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1067	RCF21	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1068	RCF22	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1069	RCF24	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1070	RCF31	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1071	RCF32	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1072	RCF33	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1073	RCF34	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1074	RCF35	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1075	RDM16	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1076	RDM23	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1077	RDM28	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1078	RDM60	RK1JC0T0000J	RES-C,0 0.063W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1079	RDM63	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1080	RDM65	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1081	RDS02	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1082	RDS04	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1083	RDS09	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1084	RDS11	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1085	RDS17	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1086	RDS37	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1087	RDS41	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1088	RDS43	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1089	RFL10	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1090	RFL29	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1091	RFL30	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1092	RFM01	RK1JC0T0000J	RES-C,0 0.063W J 1608	
1093	RFM03	RK1JC0T0100J	RES-C,10 0.063W J 1608	
1094	RFM1	RK1JC0T0100J	RES-C,10 0.063W J 1608	
1095	RVO71	RK1JC0T0100J	RES-C,10 0.063W J 1608	
1096	RDM01	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1097	RDM41	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1098	RDS06	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1099	RAU24	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1100	RAU25	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1101	RAU39	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1102	RA07	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1103	RA08	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1104	RLV03	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1105	RLV04	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1106	RM03	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1107	RM25	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1108	RM26	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1109	RM27	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1110	RM28	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1111	RM29	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1112	RM31	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1113	RM33	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1114	RM34	RK1JC0T0101J	RES-C,100 0.063W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1115	RM35	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1116	RM36	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1117	RM37	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1118	RM38	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1119	RM39	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1120	RM40	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1121	RM41	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1122	RM42	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1123	RM43	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1124	RM44	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1125	RM53	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1126	RM54	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1127	RT07	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1128	RXA06	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1129	RXA07	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1130	RI06	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1131	RI22	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1132	RM56	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1133	RM57	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1134	RCF28	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1135	RCF29	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1136	RDM04	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1137	RDM07	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1138	RDM26	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1139	RDM27	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1140	RDS01	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1141	RDS05	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1142	RDS20	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1143	RDS21	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1144	RFL05	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1145	RFL06	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1146	RFL07	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1147	RFL08	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1148	RMX07	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1149	RMX08	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1150	RVO09	RK1JC0T0101J	RES-C,100 0.063W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1151	RVO63	RK1JC0T0101J	RES-C,100 0.063W J 1608	
1152	RVO64	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1153	RVO65	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1154	RVO69	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1155	RAU17	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1156	RAU18	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1157	RAU21	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1158	RAU22	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1159	RAU59	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1160	RAU60	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1161	RM01	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1162	RM14	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1163	RM16	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1164	RM51	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1165	RM71	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1166	RM72	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1167	RSC12	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1168	RSC13	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1169	RSC14	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1170	RSC15	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1171	RT03	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1172	RT06	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1173	RT09	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1174	RT11	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1175	RT12	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1176	RT14	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1177	RT19	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1178	RT21	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1179	RI09	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1180	RI12	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1181	RSC11	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1182	RSC51	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1183	RSC53	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1184	RSC55	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1185	RSC57	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1186	RCF11	RK1JC0T0102J	RES-C,1K 0.063W J 1608	

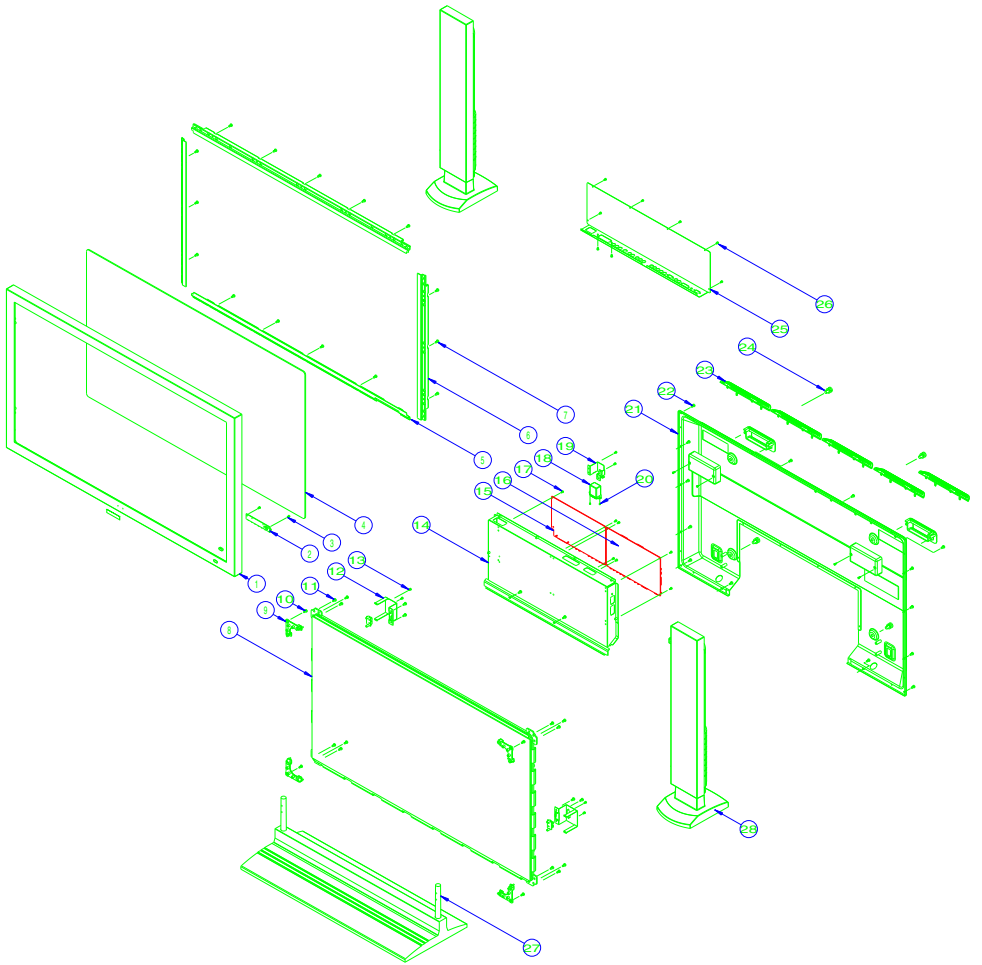
NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1187	RCF23	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1188	RDM06	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1189	RDM14	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1190	RDM25	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1191	RDM54	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1192	RDS19	RK1JC0T0102J	RES-C,1K 0.063W J 1608	
1193	RFL23	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1194	RVO59	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1195	RVO61	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1196	RAU58	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1197	RM13	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1198	RM46	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1199	RM47	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1200	RM48	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1201	RM49	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1202	RM50	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1203	RM73	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1204	RA32	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1205	RA33	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1206	RA34	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1207	RA35	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1208	RI08	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1209	RI15	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1210	RI16	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1211	RI17	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1212	RCF03	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1213	RDS13	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1214	RDS15	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1215	RMX02	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1216	RMX10	RK1JC0T0103J	RES-C,10K 0.063W J 1608	
1217	RVO14	RK1JC0T0104J	RES-C,100K 0.063W J 1608	
1218	RVO15	RK1JC0T0104J	RES-C,100K 0.063W J 1608	
1219	RVO57	RK1JC0T0104J	RES-C,100K 0.063W J 1608	
1220	RA23	RK1JC0T0105J	RES-C,1M 0.063W J 1608	
1221	RA31	RK1JC0T0105J	RES-C,1M 0.063W J 1608	
1222	RCF16	RK1JC0T0105J	RES-C,1M 0.063W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1223	RAU53	RK1JC0T0151F	R-CP 150 1% 1/16 1608	
1224	RM02	RK1JC0T0151F	R-CP 150 1% 1/16 1608	
1225	RSC10	RK1JC0T0151F	R-CP 150 1% 1/16 1608	
1226	RM30	RK1JC0T0151F	R-CP 150 1% 1/16 1608	
1227	RSC23	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1228	RP03	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1229	RP04	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1230	RAU05	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1231	RAU06	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1232	RAU07	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1233	RAU08	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1234	RAU09	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1235	RAU10	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1236	RAU19	RK1JC0T0152J	RES-C,1.5K 0.063W J 1608	
1237	RAU20	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1238	RAU27	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1239	RAU28	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1240	RAU23	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1241	RAU26	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1242	RA03	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1243	RA09	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1244	RA10	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1245	RA11	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1246	RDM19	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1247	RDM20	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1248	RDM22	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1249	RFL01	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1250	RFL02	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1251	RFL03	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1252	RFL04	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1253	RFL09	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1254	RFL11	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1255	RFL12	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1256	RFL16	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1257	RFL17	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1258	RFL18	RK1JC0T0220J	RES-C,22 0.063W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1259	RFL25	RK1JC0T0220J	RES-C,22 0.063W J 1608	
1260	RFL26	RK1JC0T0221J	RES-C,220 0.063W J 1608	
1261	RFL27	RK1JC0T0221J	RES-C,220 0.063W J 1608	
1262	RFL28	RK1JC0T0221J	RES-C,220 0.063W J 1608	
1263	RSC22	RK1JC0T0221J	RES-C,220 0.063W J 1608	
1264	RCF09	RK1JC0T0222J	RES CHIP 2.2K 5% 0.063W	
1265	RCF30	RK1JC0T0222J	RES CHIP 2.2K 5% 0.063W	
1266	RDM36	RK1JC0T0222J	RES CHIP 2.2K 5% 0.063W	
1267	RCF14	RK1JC0T0330J	RES-C,33 0.063W J 1608	
1268	RDM03	RK1JC0T0330J	RES-C,33 0.063W J 1608	
1269	RDM42	RK1JC0T0330J	RES-C,33 0.063W J 1608	
1270	RSC18	RK1JC0T0330J	RES-C,33 0.063W J 1608	
1271	RSC19	RK1JC0T0330J	RES-C,33 0.063W J 1608	
1272	RSC20	RK1JC0T0330J	RES-C,33 0.063W J 1608	
1273	RSC21	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1274	RI11	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1275	RI14	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1276	RM20	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1277	RM21	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1278	RM22	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1279	RM23	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1280	RT04	RK1JC0T0331J	RES CHIP 330 5% 1/16W	
1281	RCF01	RK1JC0T0332J	RES CHIP 3.3K 5% 1/16W	
1282	RDM47	RK1JC0T0332J	RES CHIP 3.3K 5% 1/16W	
1283	RDS35	RK1JC0T0332J	RES CHIP 3.3K 5% 1/16W	
1284	RA12	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1285	RCF05	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1286	RVO58	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1287	RT02	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1288	RCF04	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1289	RCF06	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1290	RCF15	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1291	RCF26	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1292	RCF27	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1293	RDM38	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1294	RDM40	RK1JC0T0471J	RES-C,470 0.063W J 1608	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1295	RDM44	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1296	RDM45	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1297	RDM49	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1298	RDM50	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1299	RDM51	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1300	RDS03	RK1JC0T0471J	RES-C,470 0.063W J 1608	
1301	RDS07	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1302	RDS08	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1303	RMX03	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1304	RAU03	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1305	RAU04	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1306	RM04	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1307	RM05	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1308	RM06	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1309	RM07	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1310	RM08	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1311	RM09	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1312	RM10	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1313	RM18	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1314	RM19	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1315	RM32	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1316	RM52	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1317	RM55	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1318	RT08	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1319	RT16	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1320	RT17	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1321	RI04	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1322	RI05	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1323	RI07	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1324	RI21	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1325	RLV01	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1326	RCF12	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1327	RDM55	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1328	RDS14	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1329	RDS16	RK1JC0T0472J	RES-CHIP 4.7K J 1/16W 1608	
1330	RVO01	RK1JC0T0681J	RES CHIP 680 5% 1/16W	

NO	LOCATION	PART NUMBER	DESCRIPTION	REMARK
1331	RVO07	TT2N3904D	TR,SMD 2N3904D TAPPING	
1332	RVO08	TT2N3904D	TR,SMD 2N3904D TAPPING	



NO.	PART NO.	PART NAME	DESCRIPION	QTY	REMARK
28		SPEAKER ASSY PD421	PC+ABS 94-V0	2	
27		STAND ASSY PD421		1	
26	5001000579	SCR-MC BIN MC3X8		9	
25	3010100140	SHIELD TOP PD421	A5052P T=1.0	1	
24	5004000219	SCR-MC BIN+MC 8X14		4	
23	6201326600	REAR COVER CAP PD421	ABS 94-HB	5	
22	5004000217	SCR-TT BIN MC4*10			
21	6101221200	REAR COVER ASSY PD421	A5052P T=1.0	1	
20	M11173008012	SCREW FLT(+) M3x8 MSZPC		2	
19	6110282200	BRKT AC INLET	SECC T=1.0	1	
18	3725005299	NOISE FILTER CABLE		1	
17	5004000218	SCR-MC BIN+MC 3X16		7	
16		GRAPHIC BOARD ASSY		1	
15		A/V BOARD ASSY		1	
14	6120055400	SHIELD BOTTOM ASSY	A5052P T=1.0	1	
13	5004000190	SCR-TT BIN+MC 3X8		8	
12	6110280100	SPEAKER BRKT JACK PD421	SECC T=1.0	2	
11	M11144010012	SCR BIN(+) 4X10 MSZPC		12	
10	5004000187	SCR TT2 BIN+MC 4X14			
9	6120055000	MODULE PLATE	ALDC 12S	4	
8	3011200001	PDP S42SD-YDXX PD421		1	
7	5004000217	SCR-TT BIN MC4*10		23	
6	611028242500	FILTER BRKT V ASSY	A1050P T=1.5	2	
5	611028222300	FILTER BRKT H ASSY	A1050P T=1.5	2	
4	6120055300	FILTER GLASS PD421		1	
3	5004000190	SCR-TT BIN+MC 3X8		8	
2	3010700082701	KEY BOARD ASSY PD421		1	
1	6201319400	COVER FRONT ASSY	PC+ABS	1	

DRAWN BY: S.K.KWAG 2022.04.21	CHECKED BY:	DESIGNED BY:	APPROVED BY:
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN +/- (INCHES) TOLERANCES ARE: LINEAR: ± ANGLES: ± RADII UNLESS NOTED ±	ANGLE: 3rd	TITLE: EXPLODED VIEW	REV: A
IMAGEQUEST	MDL: PD421	SIZE: A2	DWG NO.: B4210013701A
	REF NO.:		SHEET: 1/1
			FILE NAME : EXPLODED VIEW

TAMP 031-2