Service Manual

CDR420/U1B

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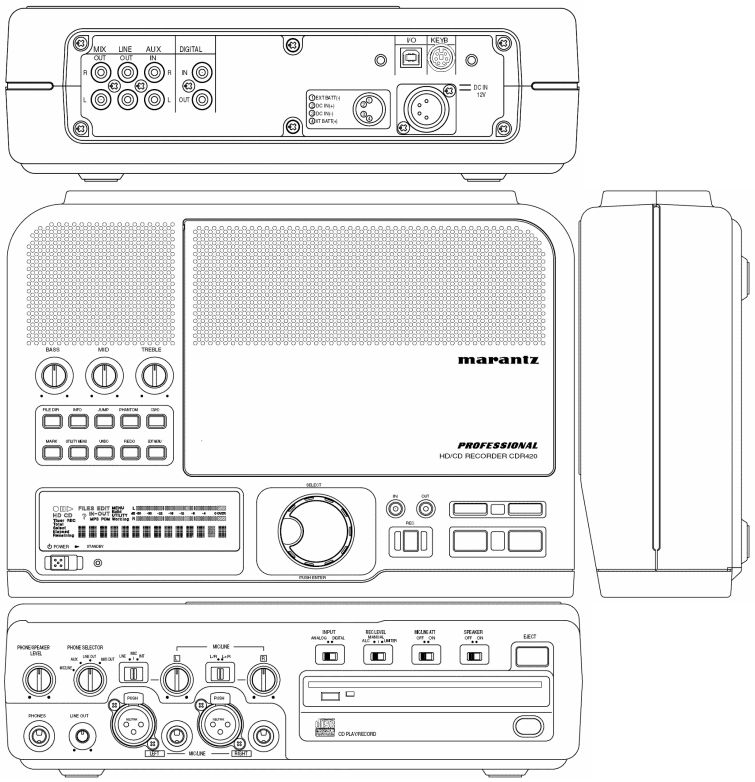

COMPACT disc DIGITAL AUDIO Recordable ReWritable

Please use this service manual in conjunction with the user guide (D.F.U.).
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

marantz®

CDR420/U1B

Part no. 90M19AK855020
(99-20-420S)
Revised 2005.10
MLI

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1. CDR420 Specifications

Digital Audio System

System ..... Hard Disk Recorder
Recording media ..... 2.5” 20GB HDD
Burning CD media ..... CD-R, CD-RW discs
Recording audio format
- MP3 (.mp3) ..... MPEG Audio Layer 3 compression
- WAVE (.wav) ..... 16 bit linear PCM

Recording bit rate
- MP3 Stereo ..... 320, 256, 160, 128, 80, 64 kbps
- MP3 Mono ..... 160, 128, 80, 64, 40, 32 kbps

Sampling frequency ..... 44.1 kHz
Number of channels ..... 2 (stereo), 1 (mono)
Frequency response ..... 20,000 Hz (-0.5dB)

Inputs/Outputs

MIC/LINE IN L/R
- Type ..... XLR (1:GND, 2:HOT, 3:COLD)
  ¼” T-R-S phone jack
- < Line level >
- Input sensitivity/Impedance ..... 500 mVrms/2k ohms
- Signal-to-Noise ratio (IEC-A weighted) ..... 80 dB
- Total Harmonic Distortion (0dB, PCM) 0.05%
- < MIC level >
- Input Sensitivity/Impedance ..... 1 mVrms/2k ohms
- Signal-to-Noise ratio (IEC-A weighted) ..... 60 dB
- Total Harmonic Distortion (0dB, PCM) 0.2%

AUX IN L/R
- Input Sensitivity/Impedance ..... 1 Vrms/23k ohms
- Signal-to-Noise ratio (IEC-A weighted) ..... 87 dB
- Total Harmonic Distortion (0dB, PCM) 0.05%

LINE OUT L/R
- Type ..... RCA jack
- Standard level/Impedance ..... 1 Vrms/2k ohms

MIX OUT L/R
- Type ..... RCA jack
- Standard level/Impedance ..... 1 Vrms/2k ohms

DIGITAL IN/OUT
- Type ..... RCA jack
- Standard output level/Impedance ..... 0.5 Vp-p/75 ohms
- Sampling frequency ..... 44.1 kHz

KEYBOARD PS2
USB ..... USB Type B

General

Headphone Output (10% THD) ..... 70 mW/32 ohms
Speaker Output ..... 1.7 W/8 ohms
Phantom power ..... +48V, 10mA
Power requirement ..... AC100V-240V, 50/60 Hz
Power consumption (maximum) 12V, 1.4A
Dimensions (maximum)
- Width ..... 279 mm (11.0”)
- Height ..... 102 mm (4.0”)

Depth ..... 229 mm (9.0”)
Weight ..... 2.5 kg (5 lbs. 8 oz.)
Included accessories
AC adaptor 1
Stereo audio cable 2
User Guide 1
Optional accessories**
Lead Acid battery pack RPS420
Carrying bag PRC300
Attaché carrying case CA300

**See www.d-mpro.com for details.
*Specifications subject to change without notice.

2. Firmware Update procedure

The Firmware update procedure is accessed by keeping both the Jog wheel button and the Standby switch activated until the "?" icon starts blinking during the CDR420 boot up sequence. When the mode is entered, screen FW1 will be displayed.

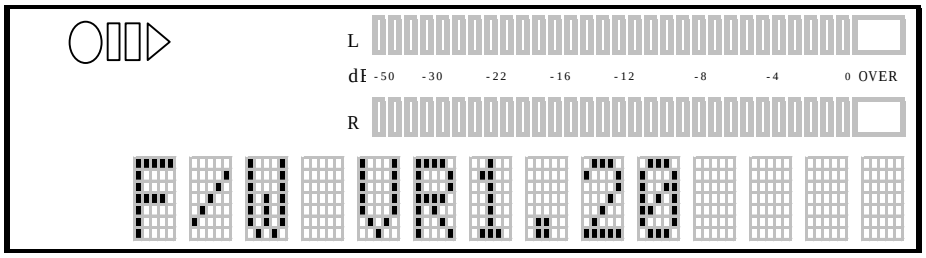
If the user places the device into Firmware update mode, the following sequence of screens will occur. No regular system functions can be accessed until the system has finished the firmware update procedure.

***Note: The firmware image must be placed in a folder named "System" on the HDD or CD for the CDR420 system to recognize it. ***

For the firmware update procedure to operate, the system must have passed all power on tests, and the new version of firmware must have already been placed on the HDD or a CD for the CDR420 to read. A CD can be placed in the drive after the mode has been entered, and the system will scan it for a valid firmware image.

Screen #FW1 – Display Firmware Update display

This screen displays the current version of the firmware programmed in the unit.



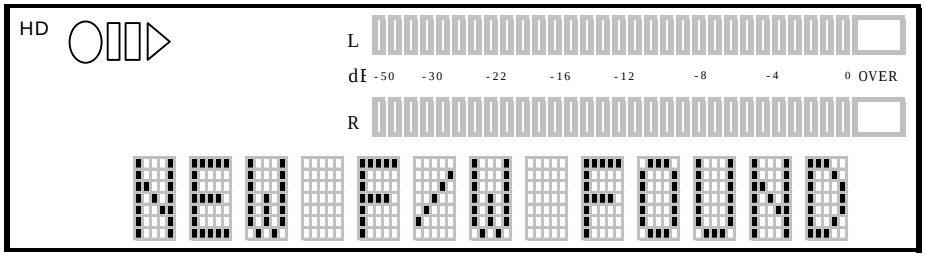
- Once the mode has been entered, the system will scan the CD for a valid firmware image. If a valid version is located on the CD, the system will copy this version to the HDD. Once placed on the HDD, the system will commence loading the image into the FLASH memory of the system and display screen #FW2.
- If no firmware is found on the CD, the system will search the HDD for a valid firmware image. If one is found on the HDD, the system will display screen #FW2 and start loading the image into FLASH memory.
- If there is no firmware on the HDD, or on the CD in the drive (and the system will eject the CD), or no CD in the drive, the system will display an Error Screen, then jump to screen #FW3.

Active Icons	Description
<None>	

Active Buttons	Description
<None>	

Display time out	Next Screen	Default value
1 second	FW2 or ER1 → FW3	n/a

Screen #FW2 – Firmware detected screen

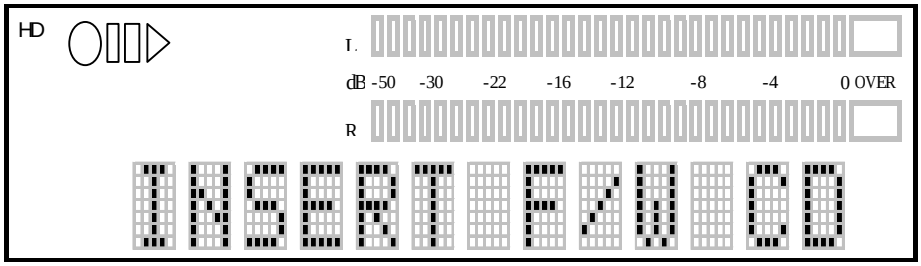


Active Icons	Description
HD	Solid on while system checks HD for Firmware
CD	Solid on while system checks CD for Firmware

Active Buttons	Description
<None>	

Display time out	Next Screen	Default value
1 second	FW6	n/a

Screen #FW3 – Insert Firmware screen



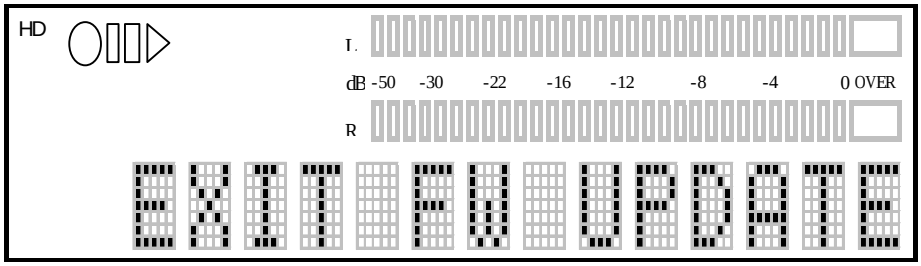
Active Icons	Description
HD	Solid on

Active Buttons	Description
Jog Wheel +/-	Toggles selection between “FW3” and “FW4”
Jog Enter	Instructs system to retry search for Firmware

Display time out	Next Screen	Default value
Until CD inserted	FW1 → MS1 → MS13 → FW6	n/a

- After a CD is inserted, the system will automatically commence searching it for a valid firmware image.
- If a CD without firmware is installed in the system, it will be ejected, and an error screen will be displayed.

Screen #FW4 – Exit Firmware Update screen

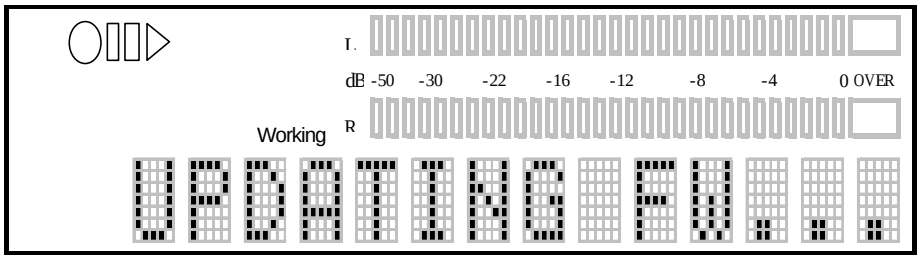


Active Icons	Description
HD	Solid on

Active Buttons	Description
Jog Wheel +/-	Toggles selection between “FW3” and “FW4”
Jog Enter	Exits the firmware update mode.

Display time out	Next Screen	Default value
Indefinite	MS2 → MN1	n/a

Screen #FW6 – Firmware Updating screen



Active Icons	Description
Working	Blinks at a 1Hz rate during update

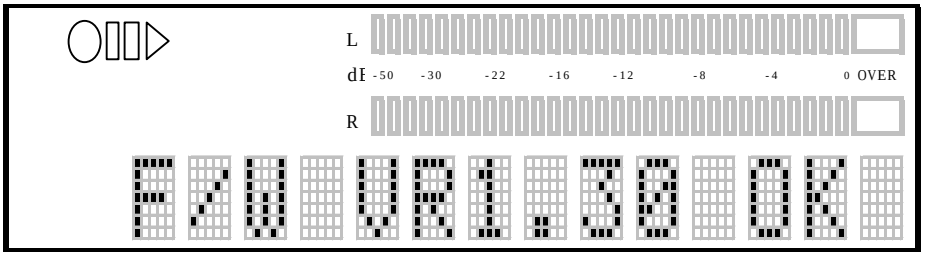
Active Buttons	Description
<None>	

Display time out	Next Screen	Default value
Until process done	FW7	n/a

- This process takes approximately 30 seconds to complete.

Screen #FW7 – Firmware Updated screen

This screen displays the updated version of the firmware programmed in the unit.



Active Icons	Description
<None>	

Active Buttons	Description
<None>	

Display time out	Next Screen	Default value
2 seconds	Standby mode	n/a

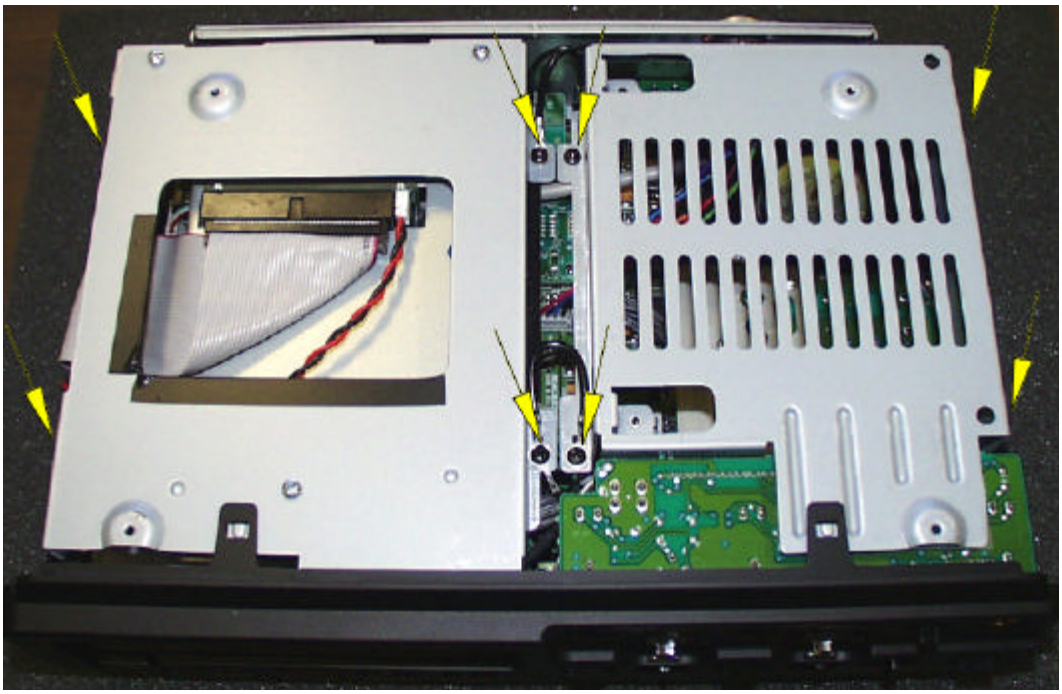
- If a problem occurs during the Firmware update procedure, the system will display “F/W VR1.30 BAD” continuously. The user will have to reboot the system to attempt reloading the firmware.
- After the firmware update is successful, the system will place itself in standby mode.

3. CDR420 Disassembly

CDR420 disassembly (STEPS 1-8)
For reassembly follow process in reverse installing instead of removing each part (STEPS 8-1).

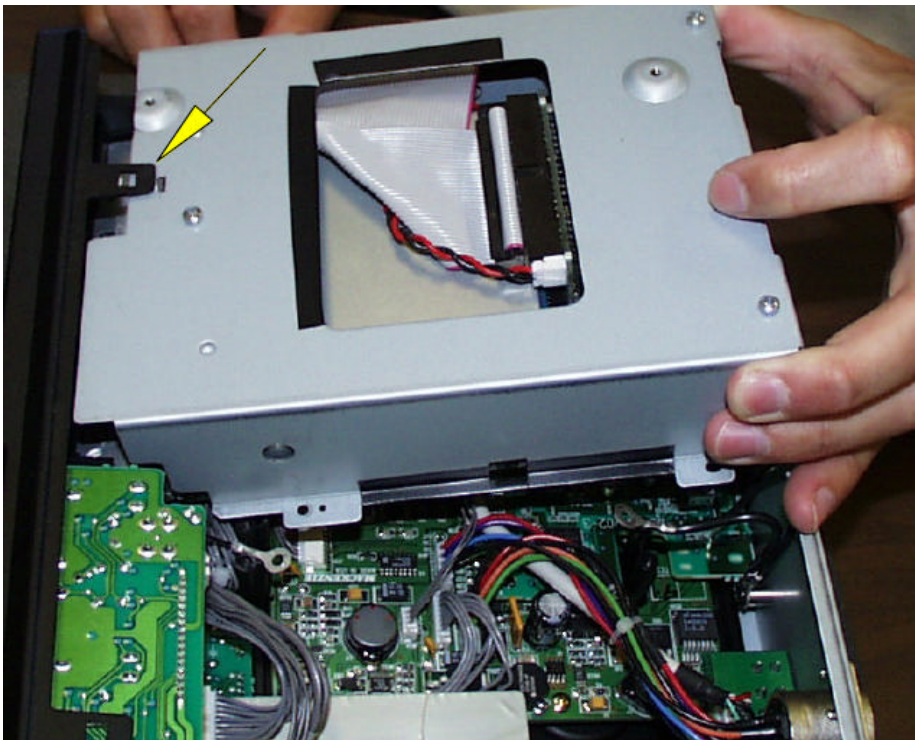
1- Remove 3 Screws from bottom of backpanel (use #2 Philips head)

2- Remove 4 Screws from bottom panel and remove bottom panel (use #2 Philips head)

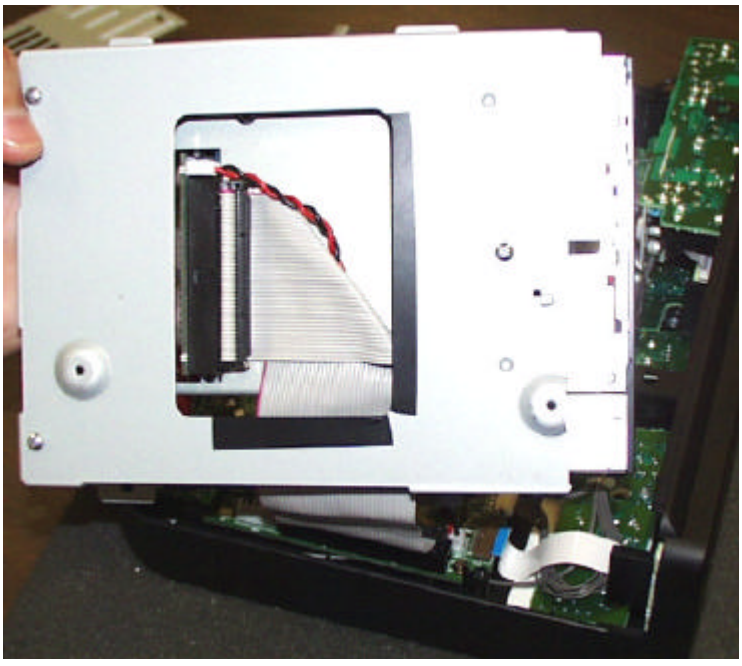


3- Remove 8 screws from internal brackets (use #2 Philips head)

4- To remove slotted bracket disengage plastic tap & pull back of bracket up and to the rear of the unit.

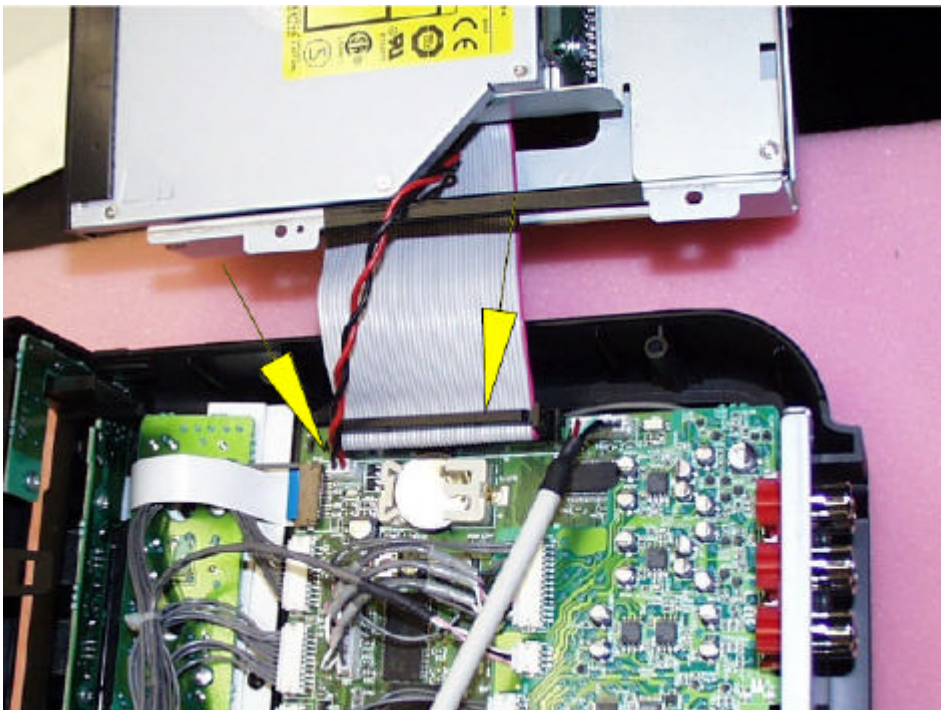


5- To remove HD/CDR bracket disengage plastic tap & pull back of bracket up and to the rear of the unit.

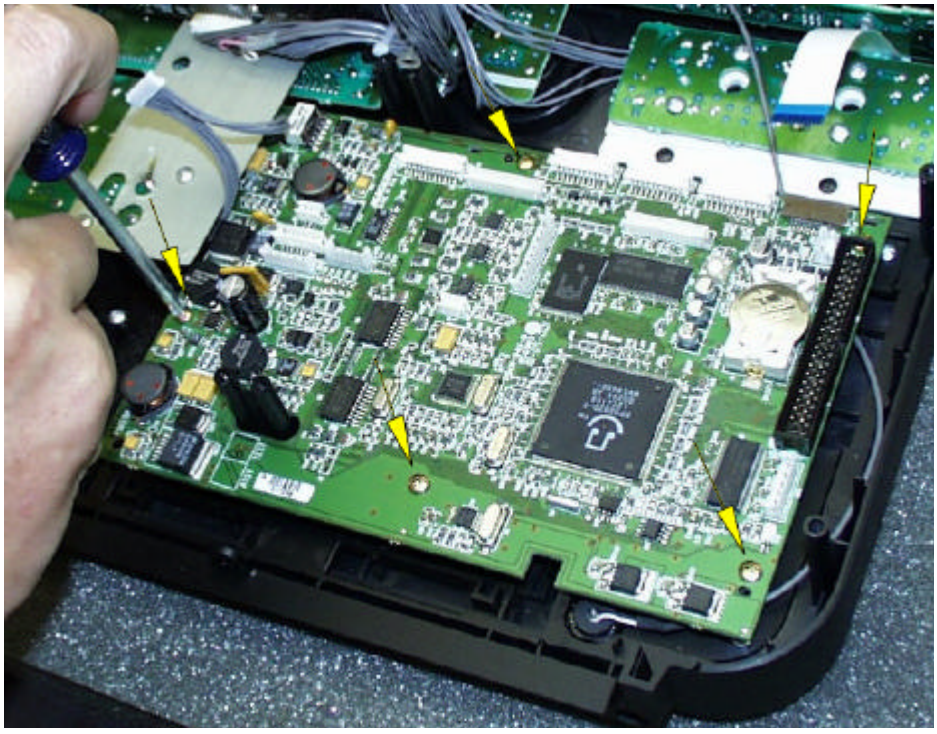


6- Once the CD mechanism bezel is clear of the front panel flip the bracket out to the side of the unit.

Note: when reassembling, see HD/CDR Bracket mounting procedure

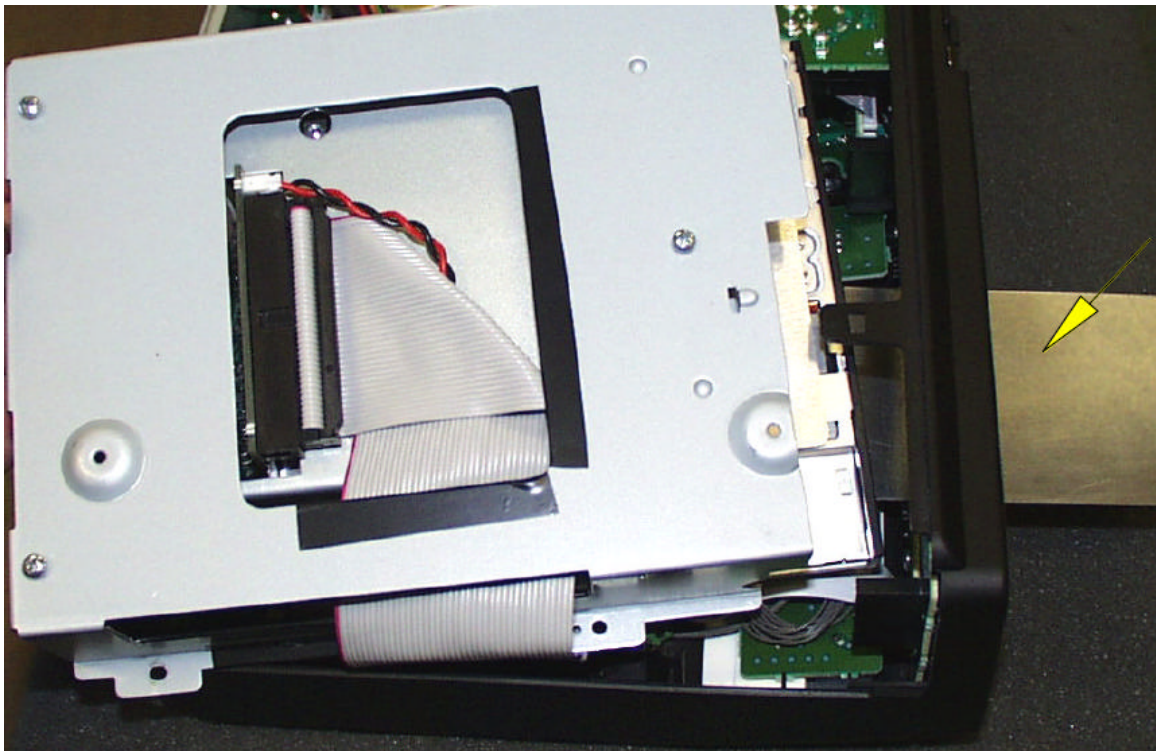


7- Remove IDE and power cable



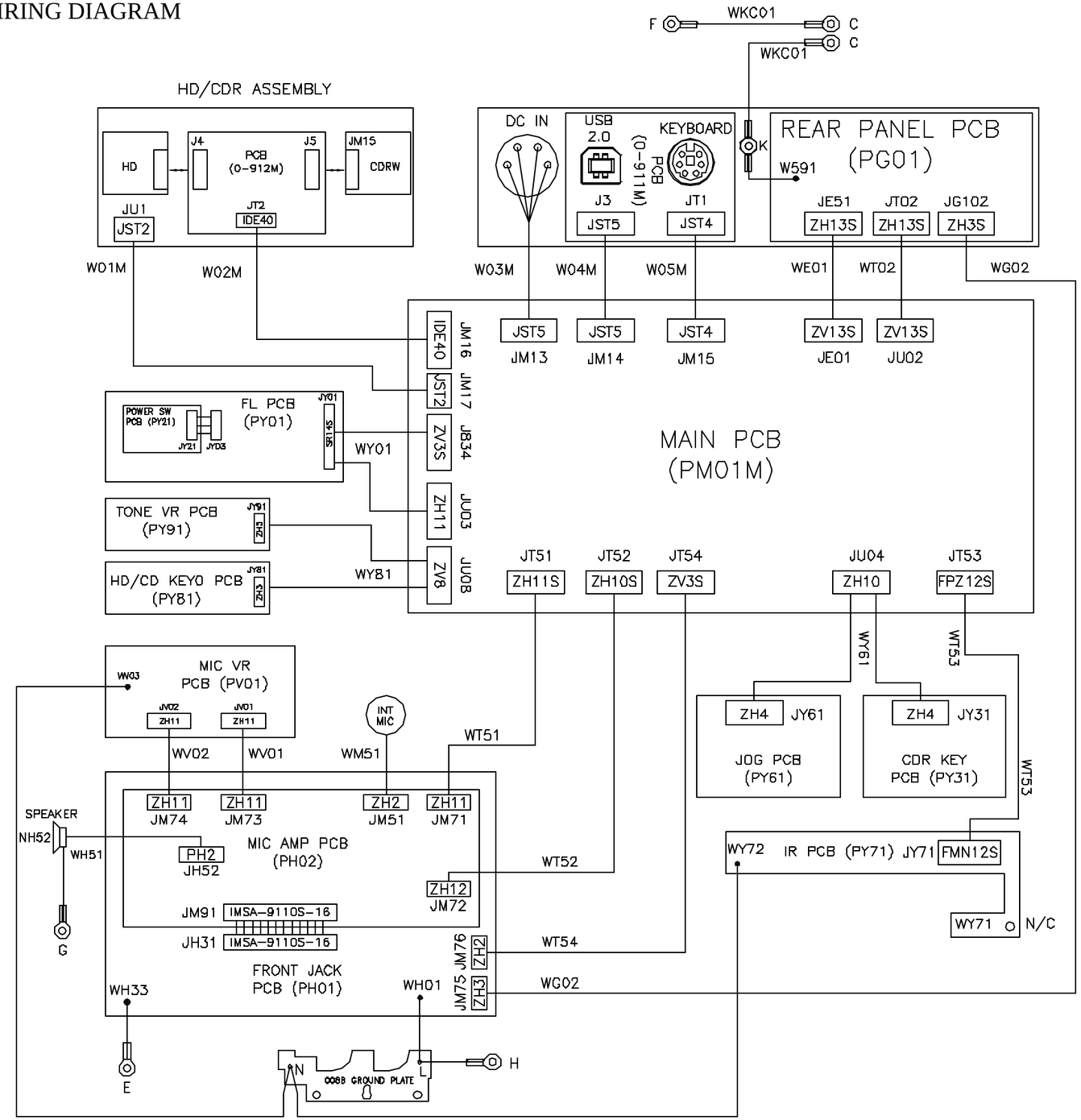
8- Remove all interface connectors, then remove 5 screws for main board (use #1 Philips head)

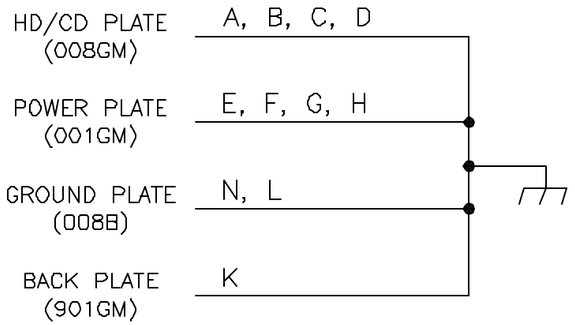
HD/CDR Bracket mounting procedure

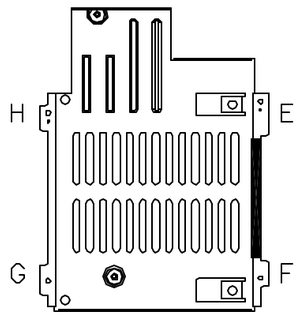


1- Install power, IDE Cable
2- Insert HD/CDR bracket guide plate through front panel as shown
3- Angle front of HD/CD bracket through front panel.
   Note: Be careful not to damage plastic registration pins near front mounting holes.
4- When all mounting holes align, install mounting screws.

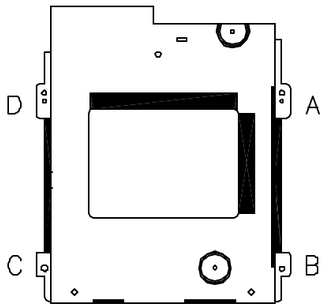
4. WIRING DIAGRAM







POWER PLATE
(001GM)



HD/CD PLATE
(008GM)

Main board
Board: PM01M

Connector: JT51 mates with board PH02, connector JM71

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	MIC/LINE_IN_L	Left side microphone / line signal from front mounted audio board	Input	Analog +/-6.5V	N	N/A
2	AGND	Analog ground	Ground		N	N/A
3	MIC/LINE_IN_R	Right side microphone / line signal from front mounted audio board	Input	Analog +/-6.5V	N	N/A
4	HDPHN_OUT_L	Switched, left side line level audio to headphone amplifier.	Output	Analog +/-6.5V	N	N/A
5	AGND	Analog Ground	Ground	Analog Ground	N	N/A
6	HDPHN_OUT_R	Switched, right side line level audio to headphone amplifier.	Output	Analog +/-6.5V	N	N/A
7	HDPHN_SEL_A	Headphone selection signal input (1 of 2) See Function table 1	Input	0-6.5VDC	N	N/A
8	HDPHN_INH	Inhibit headphone audio input control signal. When high, Headphone audio is disabled.	Input	0-6.5VDC Active high	N	N/A
9	MIC/LINE_ATT	Attenuate Mic/Line audio input control signal. When high, Mic/Line audio input is attenuated. Fed though to JT53, pin 9	Input	0-6.5VDC Active low	N	N/A
10	MIX_B	Mic/Line audio mix control signal (2 of 2). Fed through to JT53, pin 8. See Function table 2	Input	0-3.3VDC	Y	Used to determine if the Mic/Line audio signal should be mixed together prior to encoding
11	MIX_A	Mic/Line audio mix control signal (1 of 2). See Function table 2	Input	0-3.3VDC	Y	Used to determine if the Mic/Line audio signal should be mixed together prior to encoding

Function Table 1, Headphone audio routing table

	HDPHN_SEL_B	HDPHN_SEL_A	Function
1	L	L	Routes the line output of the device to the headphone output
2	L	H	Routes the raw Mic/Line input signal to the headphone output
3	H	L	Routes the raw Aux line input signal to the headphone output
4	H	H	Routes the Mix selected Mic/Line input signal to the headphone output

Function Table 2, Mix control table

	MIX_B	MIX_A	Function
1	L	L	Invalid, cannot occur with proposed hardware
2	L	H	Left and Right tracks are recorded as Stereo data
3	H	L	Left and Right tracks are mixed and stored as Mono data
4	H	H	Invalid, cannot occur with proposed hardware

Connector: JT52 mates with board PH02, connector JM72

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	HDPHN_SEL_B	Headphone selection signal input (2 of 2) See Function table 1.1	Input	0-6.5VDC	N	N/A
2	AGND	Audio reference signal (Audio ground)	Ground	Audio Ground	N	N/A

3	AMP_MUTE	Power amplifier mute signal. When high, the speaker output and headphone outputs are muted.	Output	0-5VDC Active high	Y	Microcontroller activates PNP transistor with active low signal to mute the power amplifier
4	SPKR_OFF	Speaker off control signal feed through to JM74. When low, the speaker output is muted.	Output	0-6.5VDC Active low	N	N/A
5	+5V	+5VDC for backup power to headphone amplifier	Power	+5VDC	N	N/A
6	GND	Power Ground	Ground	Ground	N	N/A
7	+6.5V	Audio power (+)	Power	+6.5VDC	N	N/A
8	-6.5V	Audio power (-)	Power	-6.5VDC	N	N/A
9	+48V	Phantom power	Power	+48VDC	N	N/A
10	+7.5V	Power amplifier power	Power	+7.5VDC	N	N/A

Connector: JT53 mates with board PY31, connector JY71

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	<Not used>	N/A	N/A	N/A	N	N/A
2	PGND	ESD Protection path	Ground	ESD Ground	N	N/A
3	<Not used>	N/A	N/A	N/A	N	N/A
4	CD_OPEN	Open CDR drawer momentary P.B. signal	Input	0-3.3V Active low	Y	The CD Drawer will be opened when this signal is active.
5	ANALOG	Analog/digital mode select maintained slide switch signal.	Input	0-3.3V Active low	Y	Analog audio is selected when signal is low. SPDIF audio is selected when the signal is high.
6	ALC	ALC mode select maintained slide switch signal (switch shared w/ Limiter function)	Input	0-6.5VDC Active low	N	N/A
7	LIMITER	Limiter mode select maintained slide switch signal (switch shared w/ ALC function)	Input	0-6.5VDC Active low	N	N/A
8	MIX_B	Mic/Line audio mix control signal (2 of 2). Fed from JT51, pin 10.	Input	0-6.5VDC	Y	See description of JT51, pin 10
9	MIC/LINE_ATT	Attenuate Mic/Line audio input control signal. Fed from JT51, pin 9	Input	0-6.5VDC Active low	N	N/A
10	AGND	Analog ground	Ground	Analog Ground	N	N/A
11	+6.5V	Audio power (+)	Power	+6.5V	N	N/A
12	SPKR_OFF	Speaker disable maintained slide switch signal. Speaker disabled when signal is active. Fed through to JT52, pin 4	Input	0-7.5VDC Active low	N	N/A

Connector: JE01 mates with board PG01, connector JE51

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	RECORDG	Record select control signal from Micro	Output	0-5VDC Active high	Y	Output from the micro to select audio processing type on PG01 board. When signal is low at micro, system is in record mode.
2	LIMITER	See description of JT53, pin 7. Signal is fed through from there.	Output	0-5VDC Active low	N	N/A
3	ALC	See description of JT53, pin 6. Signal is fed through from there.	Output	0-5VDC Active low	N	N/A
4	AUX_LINE_R	Right side auxiliary line input audio feed.	Input	Analog +/-6.5VAC	N	N/A
5	AGND	Audio ground	Ground	Analog	N	N/A

				Ground		
6	AUX_LINE_L	Left side auxiliary line input audio feed.	Input	Analog +/-6.5VAC	N	N/A
7	ALC_OUT_R	Processed right side ALC audio to CODEC.	Input	Analog +/-6.5VAC	N	N/A
8	AGND	Audio ground	Ground	Analog Ground	N	N/A
9	ALC_OUT_L	Processed left side ALC audio to CODEC.	Input	Analog +/-6.5VAC	N	N/A
10	ALC_IN_R	Processed right side audio feed to Mix Out Audio jack.	Output	Analog +/-6.5VAC	N	N/A
11	AGND	Audio Ground	Ground	Analog Ground	N	N/A
12	ALC_IN_L	Processed left side audio feed to Mix Out Audio jack.	Output	Analog +/-6.5VAC	N	N/A
13	P_DOWN	Power down signal used as Mute signal for Mix Out and Line Out jacks. When high, outputs are muted.	Output	0-6.5VDC Active high	N	Controlled by voltage supervisor. When high, outputs are muted.

Connector: JU02 mates with board PG01, connector JT02

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	<Not used>	N/A	N/A	N/A	N	N/A
2	<Not used>	N/A	N/A	N/A	N	N/A
3	<Not used>	N/A	N/A	N/A	N	N/A
4	LINE_MUTE	Mute signal for Mix Out and Line Out jacks. When low, outputs are muted.	Output	0-3.3VDC Active low	Y	N/A
5	+6.5V	Audio power (+)	Power	N/A	N	N/A
6	-6.5V	Audio power (-)	Power	N/A	N	N/A
7	+5V	5VDC Digital power	Power	N/A	N	N/A
8	+5V	5VDC Digital power	Power	N/A	N	N/A
9	SPDIF_IN	SPDIF digital audio data input from digital input jack.	Input	0-3.3VDC	Y	N/A
10	SPDIF_OUT	SPDIF Digital audio data output to digital output jack	Output	0.3.3VDC	Y	N/A
11	GND	Digital Ground	Ground	Ground	N	N/A
12	<Not used>	N/A	N/A	N/A	N	N/A
13	<Not used>	N/A	N/A	N/A	N	N/A

Connector: JU03 mates with board PY01, connector JY01

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	+5V	5VDC power for LED power and logic	Power	+5VDC	N	N/A
2	GND	Digital ground	Ground	Ground	N	N/A
3	VFD_RST	VFD Driver reset	Output	0-3.3VDC Active low	Y	Microcontroller output to reset the VFD
4	VFD_CS	VFD Driver chip select	Output	0-3.3VDC Active low	Y	Microcontroller output to enable the serial communication of the VFD
5	VFD_SCL	VFD Driver serial clock	Output	0-3.3VDC Pulse Train	Y	Microcontroller output to clock the serial data to the VFD
6	VFD_SDA	VFD Driver serial data line	Output	0-3.3VDC Pulse Train	Y	Microcontroller serial data output to the VFD
7	<Not used>	N/A	N/A	N/A	N	N/A
8	<Not used>	N/A	N/A	N/A	N	N/A
9	<Not used>	N/A	N/A	N/A	N	N/A
10	STBY_LED	Standby LED activation signal	Output	0-3.3VDC	Y	Microcontroller activates

				Active high		this signal when the device is in standby mode.
11	POWER_SW	Power toggle momentary switch signal	Input	0-3.3VDC Active low	Y	When activated, the microcontroller toggles the sleep mode status.

Connector: J834 mates with board PY01, connector JY01

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	-23V	-23VDC for Vacuum Florescent Display (VFD)	Power	-23VDC 250mA	N	N/A
2	-26V	-26VDC for VFD	Power	-26VDC 250mA	N	N/A
3	-28V	-28VDC for VFD	Power	-28VDC 250mA	N	N/A

Connector: JT54 mates with board PH01, connector JM76

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	CODEC_OUT_R	Right side audio output from CODEC	Input	Analog +/-6.5VAC	N	N/A
2	AGND	Audio Ground	Ground	Analog Ground	N	N/A
3	CODEC_OUT_L	Left side audio output from CODEC	Input	Analog +/-6.5VAC	N	N/A

Connector: JU04 mates with PY31, connector JY31

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	KEY3_IN	System function keys (x7) momentary P.B. signals (mux'd)	Input	Analog, 0–3.3VDC	Y	A/D Input of uC determines which switch of the ladder network is active and initiates function.
2	PLAY_LED	"Playing" LED activation signal	Output	0-3.3VDC Active high	Y	uC Activates this signal when the unit is playing a track from CD or HDD
3	STOP_LED	"Stopped" LED activation signal	Output	0-3.3VDC Active high	Y	uC Activates this signal when the unit is not playing or recording.
4	REC_LED	"Recording" LED activation signal	Output	0-3.3VDC Active high	Y	uC Activates this signal when the unit is recording to the HDD.
5	GND	Digital ground	Ground	Ground	N	N/A
6	+5V	5VDC power for LED power	Power	+5VDC	N	N/A

…Connector continued below.

Connector: JU04 mates with PY61, connector JY61

Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
7	JOG_ENTER	"Enter" momentary P.B. signal on jogwheel	Input	0-3.3VDC Active low	Y	uC reads this input as a selection signal for what is displayed on the VFD.
8	JOG_A	Rotary encoder "A" signal on jogwheel	Input	0-3.3VDC Pulse train	Y	uC reads this input along with JOG_B to determine what to display on VFD.
9	JOG_B	Rotary encoder "B" signal on jogwheel	Input	0-3.3VDC Pulse train	Y	uC reads this input along with JOG_A to determine what to display on VFD.
10	GND	Digital ground	Ground	Ground	N	N/A

Connector: JU08 mates with PY81 connector JY81

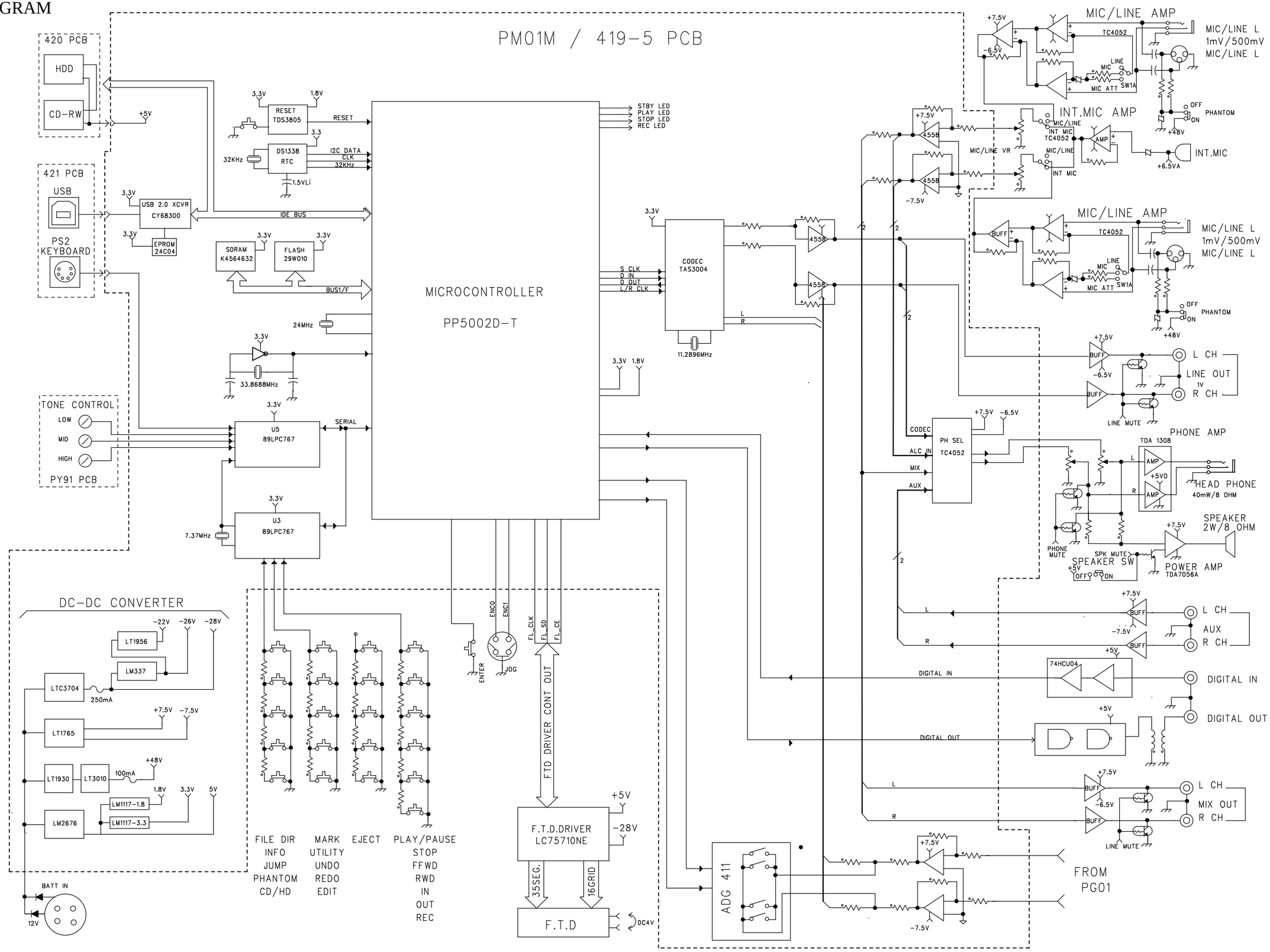
Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
1	GND	Digital ground	Ground	Ground	N	N/A
2	KEY0_IN	System function keys (x5) momentary P.B. signals (mux'd)	Input	Analog, 0–3.3VDC	Y	A/D Input of uC determines which switch of the ladder network is active and initiates function.
3	KEY1_IN	System function keys (x5) momentary P.B. signals (mux'd)	Input	Analog, 0–3.3VDC	Y	A/D Input of uC determines which switch of the ladder network is active and initiates function.

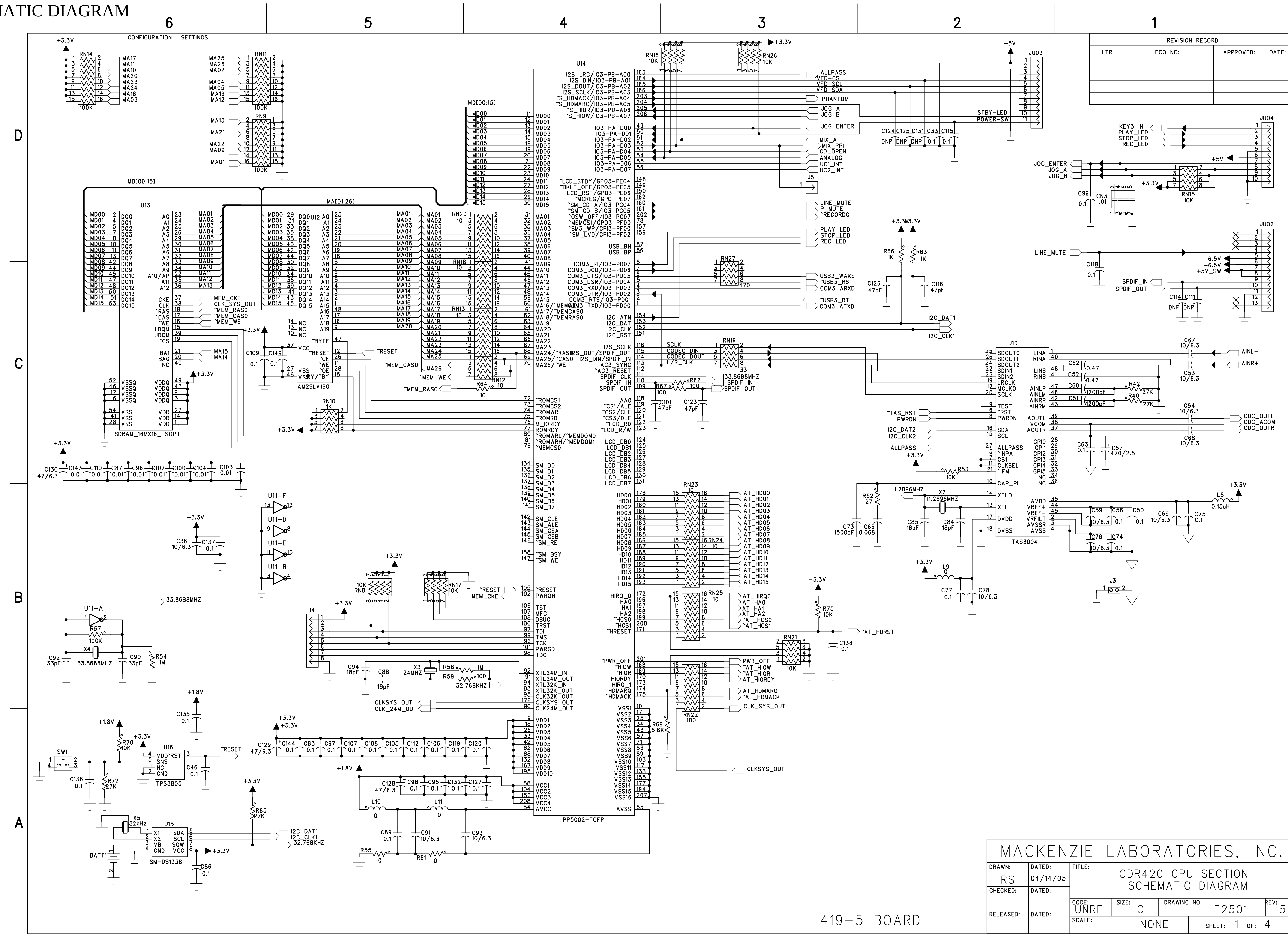
…Connector continued below.

Connector: JU08 mates with PY91 connector JY91

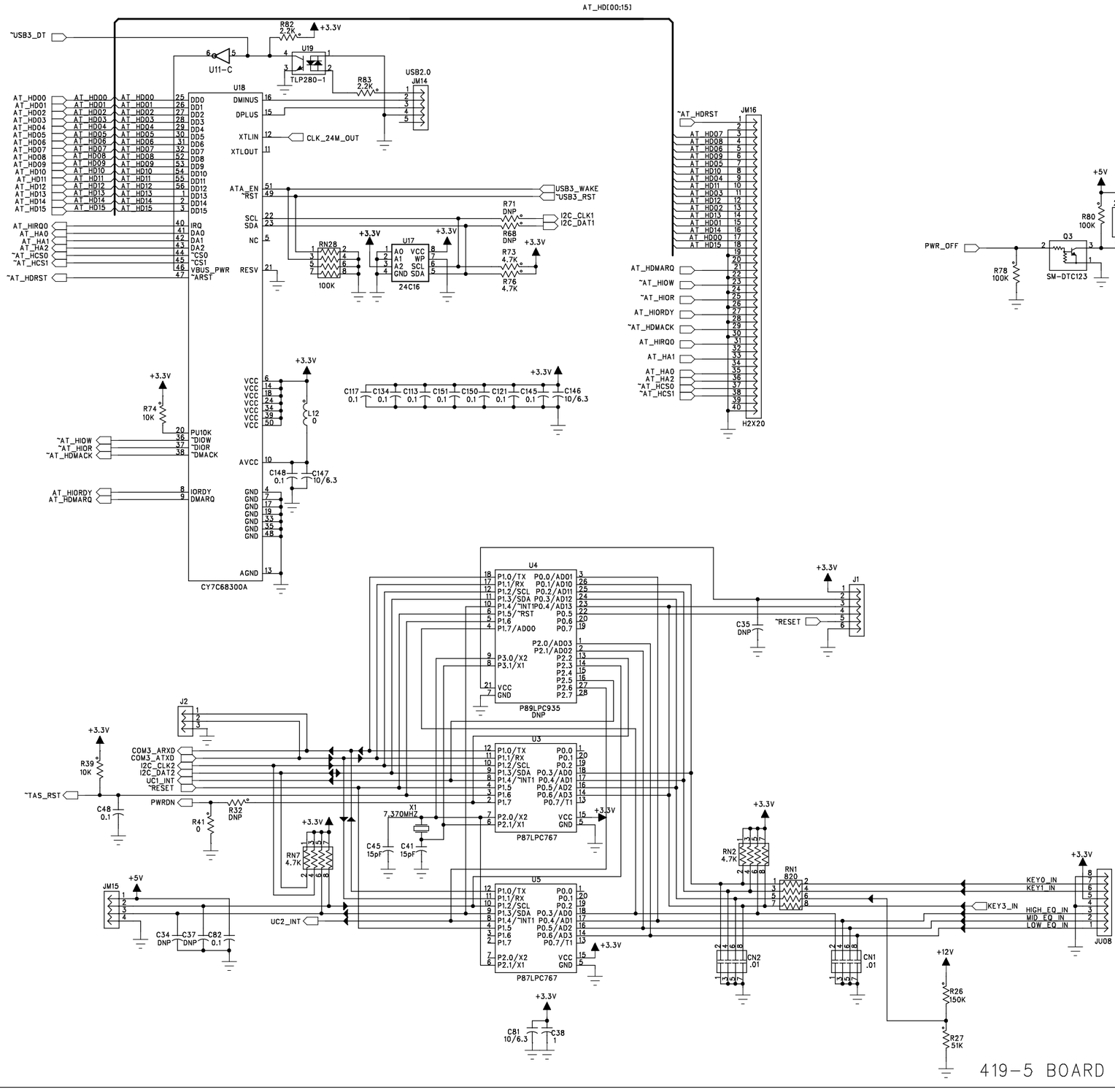
Pin #	MLI Pin Name	Signal Description	Signal Type	Signal spec at pin	Used by uC?	Microcontroller Function
4	+3.3V	3.3VDC power for potentiometer rail	Power	+3.3VDC	N	N/A
5	GND	Digital ground	Ground	Ground	N	N/A
6	HIGH_EQ_IN	Potentiometer output for control of the High frequency tone setting	Input	Analog, 0–3.3VDC	Y	A/D Input of uC determines level setting of pot, and sets High level setting of equalizer accordingly.
7	MID_EQ_IN	Potentiometer output for control of the Mid frequency tone setting	Input	Analog, 0–3.3VDC	Y	A/D Input of uC determines level setting of pot, and sets Mid level setting of equalizer accordingly.
8	LOW_EQ_IN	Potentiometer output for control of the Low frequency tone setting	Input	Analog, 0–3.3VDC	Y	A/D Input of uC determines level setting of pot, and sets Low level setting of equalizer accordingly.

5. BLOCK DIAGRAM




MACKENZIE LABORATORIES, INC.
TITLE: CDR420 CPU SECTION SCHEMATIC DIAGRAM
DRAWN: RS
DATED: 04/14/05
CODE: UNREL
SIZE: C
DRAWING NO: E2501
REV: 5
SCALE: NONE
SHEET: 1 OF: 4
419-5 BOARD
REVISION RECORD
CONFIGURATION SETTINGS
U14
PP5002-TQFP
U13
SDRAM_16MX16_TSOPII
AM29LV160
U10
TAS3004
U16
TPS3805
U15
SM-DS1338

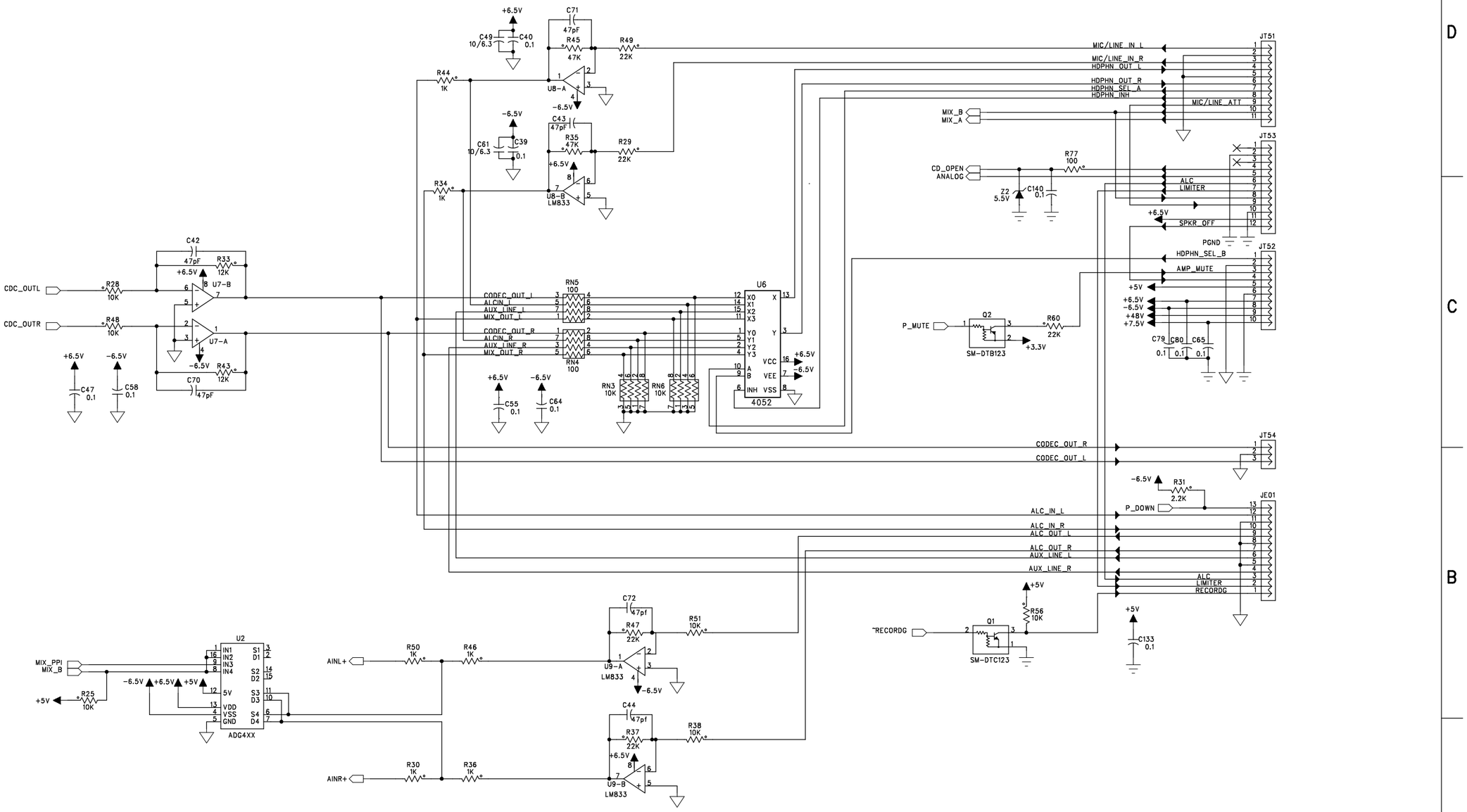
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



419-5 BOARD

MACKENZIE LABORATORIES, INC.			
DRAWN: RS	DATED: 04/14/05	TITLE: CDR420 CPU SECTION SCHEMATIC DIAGRAM	
CHECKED:	DATED:	CODE: UNREL	SIZE: C
RELEASED:	DATED:	SCALE: NONE	SHEET: 2 OF: 4

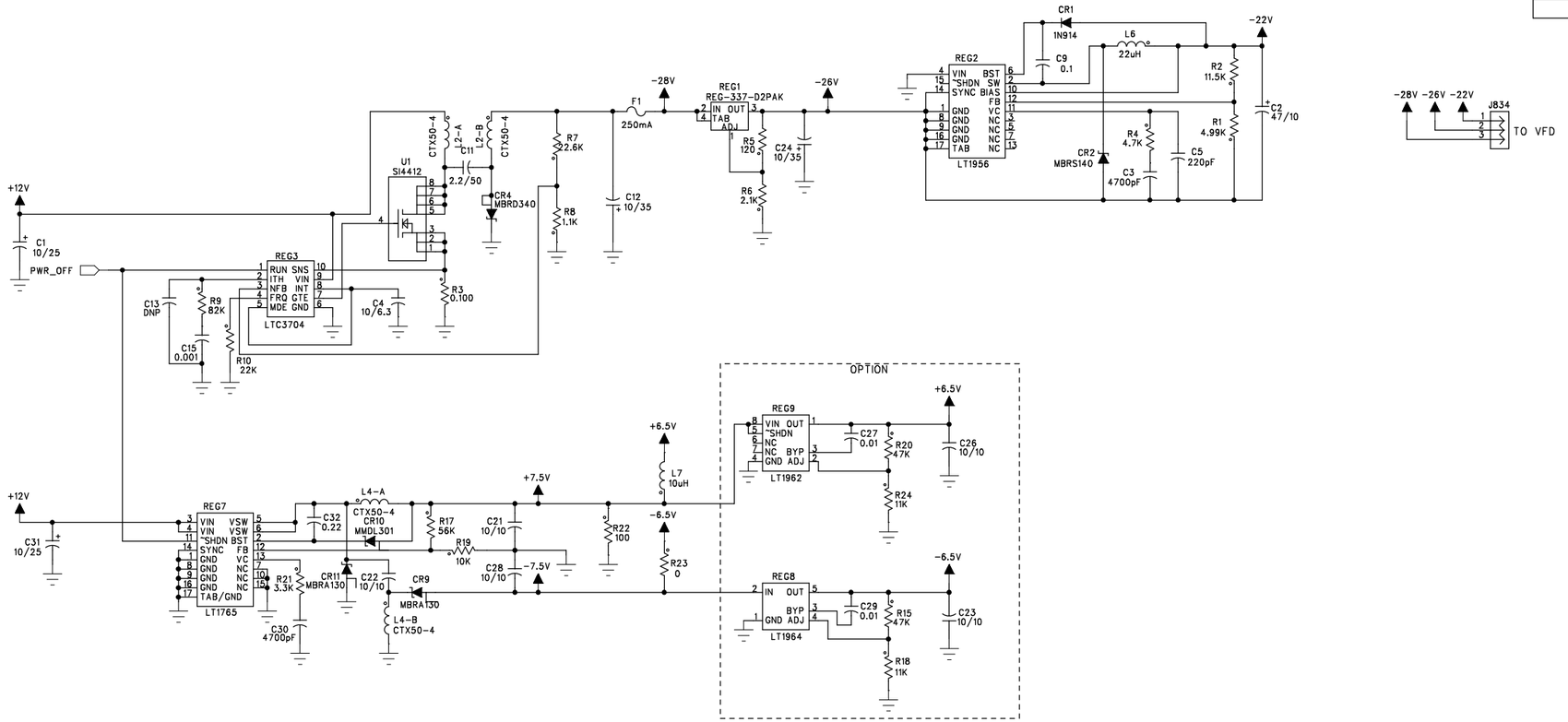
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



419-5 BOARD

MACKENZIE LABORATORIES, INC.			
DRAWN: RS	DATED: 04/14/05	TITLE: CDR420 CPU SECTION SCHEMATIC DIAGRAM	
CHECKED:	DATED:	CODE: UNREL	SIZE: C
RELEASED:	DATED:	SCALE: NONE	DRAWING NO: E2501 REV: 5
			SHEET: 3 OF: 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



419-5 BOARD

MACKENZIE LABORATORIES, INC.			
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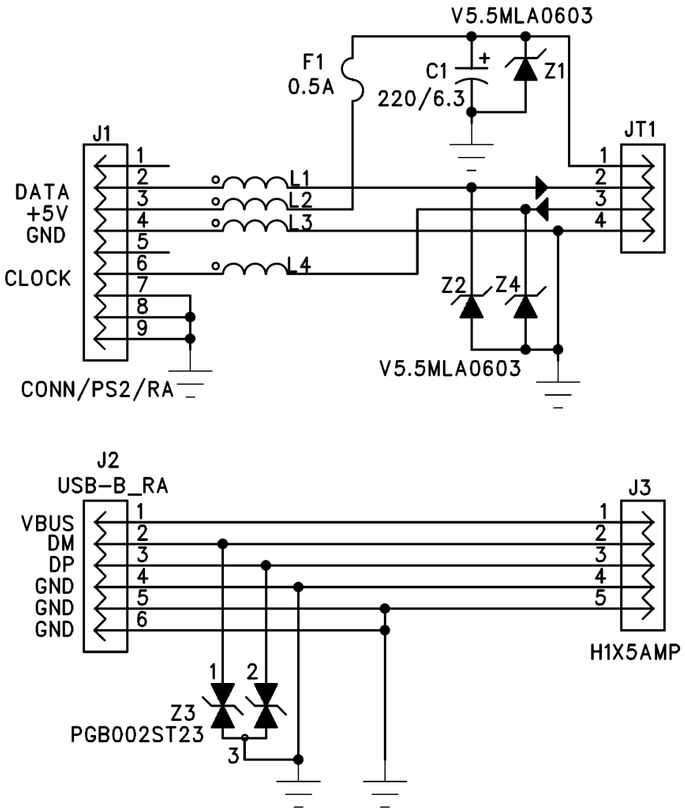
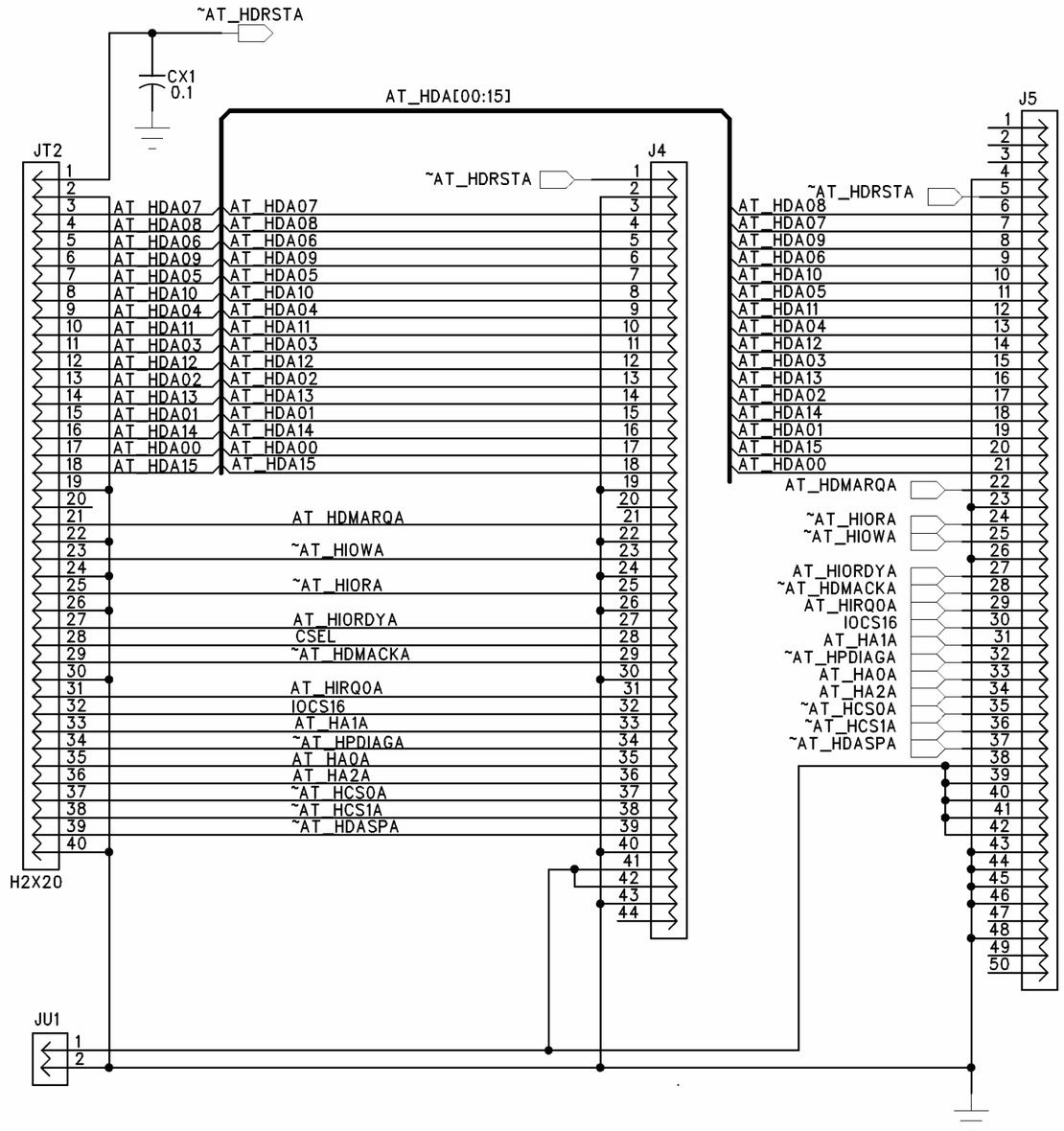
CHECKED:	DATED:	CODE: UNREL	SIZE: C
RELEASED:	DATED:	SCALE: NONE	SHEET: 4 OF: 4

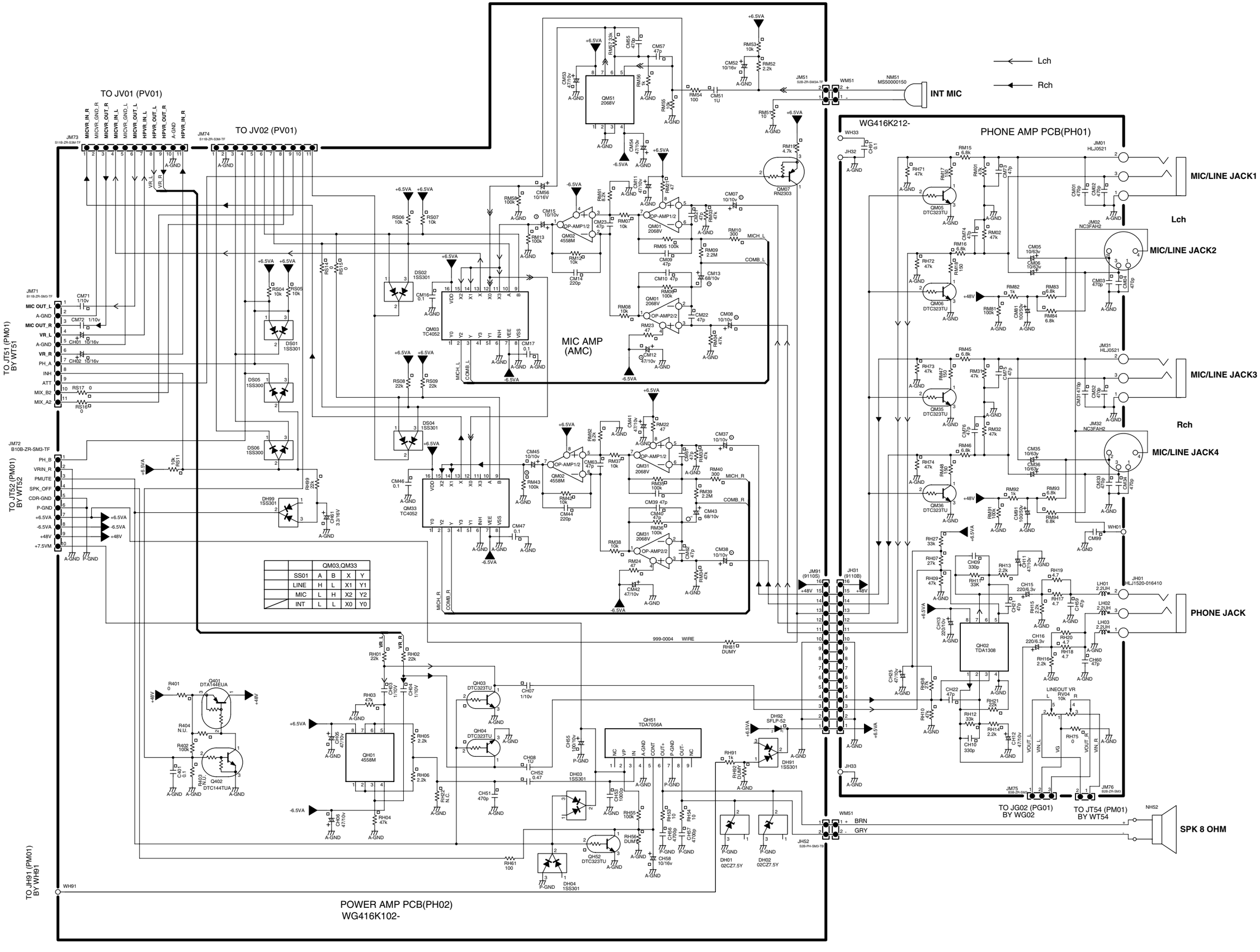
DRAWING NO: E2501 REV: 5

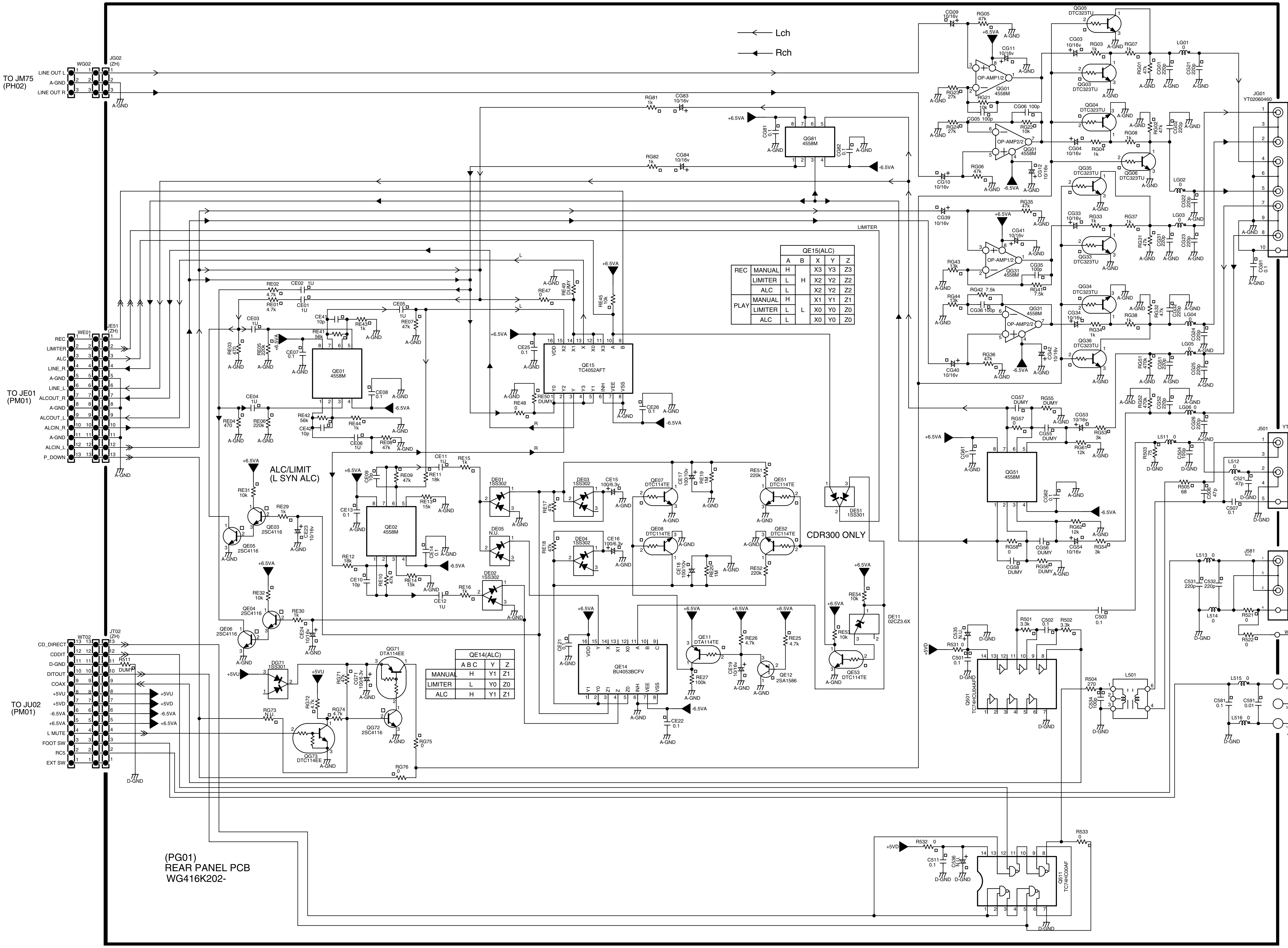


CDR420 USB/PS2 INTERFACE
421-3 BOARD



CDR420 IDE INTERFACE
420-3 BOARD


TO JV01 (PV01)
TO JV02 (PV01)
JM73
JM74
MICVR_IN_R
MICVR_GND_R
MICVR_OUT_R
MICVR_IN_L
MICVR_GND_L
MICVR_OUT_L
HPVR_IN_L
HPVR_OUT_L
HPVR_OUT_R
A-GND
HPVR_IN_R
VR_L
VR_R
Lch
Rch
INT MIC
JM51
WM51
NM51
MS50000150
WG416K212-
PHONE AMP PCB(PH01)
MIC/LINE JACK1
MIC/LINE JACK2
MIC/LINE JACK3
MIC/LINE JACK4
PHONE JACK
SPK 8 OHM
JM01
JM02
JM31
JM32
JH01
HLJ1520-016410
HLJ0521
NC3FAH2
MIC AMP
(AMC)
QM51
2068V
QM01
QM02
4558M
QM03
TC4052
QM31
QM35
QM36
DTC323TU
QH02
TDA1308
QH51
TDA7056A
QH01
QH03
QH04
DTC323TU
QH52
DTC323TU
QM07
RN2303
QM401
DTA144EUA
Q402
DTC144TUA
TO JT51 (PM01)
BY WT51
MIC OUT_L
MIC OUT_R
VR_L
VR_R
PH_A
INH
ATT
MIX_B2
MIX_A2
JM71
JM72
TO JT52 (PM01)
BY WT52
PH_B
VRIN_R
PMUTE
SPK_OFF
CDR-GND
P-GND
+6.5VA
-6.5VA
+48V
+7.5VM
TO JH91 (PM01)
BY WH91
WH91
WH33
JH32
JH33
JH31
(9110B)
JM91
(9110S)
JH52
S2B-PH-SM3-TB
BRN
GRY
TO JG02 (PG01)
BY WG02
TO JT54 (PM01)
BY WT54
NH52
999-0004 WIRE
RH81
DUMY
POWER AMP PCB(PH02)
WG416K102-
DH01
02CZ7.5Y
DH02
02CZ7.5Y
DH03
1SS301
DH04
1SS301
DH91
1SS301
DH92
SFLP-52
DS01
1SS301
DS02
1SS301
DS04
1SS301
DS05
1SS300
DS06
1SS300
DH99
1SS301
QM03,QM33
SS01 A B X Y
LINE H L X1 Y1
MIC L H X2 Y2
INT L L X0 Y0



QE15(ALC)		A	B	X	Y	Z
REC	MANUAL	H	H	X3	Y3	Z3
	LIMITER	L		X2	Y2	Z2
	ALC	L		X2	Y2	Z2
PLAY	MANUAL	H	L	X1	Y1	Z1
	LIMITER	L		X0	Y0	Z0
	ALC	L		X0	Y0	Z0

QE14(ALC)	A B C	Y	Z
MANUAL	H	Y1	Z1
LIMITER	L	Y0	Z0
ALC	H	Y1	Z1

FL PCB(PY01)
(AFC)
WG416K203-

FLT
VY01
BJ942GN

FL DRIVER
QY01
LC75710

TO JU03
(PM01)

WV01

JY01
(SR)

+5VU
GND
FL_RSTN
FL_CS
FL_SCL
FL_SDA
KEY2
KEY+
TEMPO+
SBY_LED
POWER_SW

TO J831
(P801)

-22V
-25.5V
-26V

D-GND

FL_RSTN
FL-CS
FL-SCL
FL-SDA
KEY2
SBY_LED

RY06 680
DY01 RED
QY02 DTC114TU

SY01 KEY-
SY02 KEY+
SY03 TEMPO-
SY04 TEMPO+
RY01 N.U.

-26V
+5VU

RY04 0
CY01 1/10
CY02 0.1
CY03 22p
RY05 0

FL-CS
FL-SCL
FL-SDA

IR PCB(PY71)
(AFC)
WG416K209-

REC LEVEL
ALC MANUAL LIMITER L+R L/R

LSYN ASS
K SYN PY71

INPUT SS72 ANA DIGI
SS71 CDR OPEN
ALC SS73 OFF ON
SPHIT MIC SS74 ST MONO
SPK SS75 OFF ON

RY73 N.U.
RY74 N.U.
RY76 0
RY77 0
RY78 0
RY75 N.U.
CDR300 only

JY71
(FMN)

R_OPEN
ANALOG
ALC
LIMITER
MIX_B
MIX_A
SPK OFF

TO WT53(PM01)

DY71 1SS301
DY72 1SS301
DY73 1SS301
DY74 1SS301
DY75 1SS301
DY76 1SS301

CY71 0.1
CY72 100/6.3V
CY73 0.1
CY74 0.1
CY75 0.1

WY71
EARTH

TONE VR PCB(PY91) WG416K206-
(AFC)

LOW RY91 50k
MID RY92 50k
HIGH RY93 50k
RY94 0

JY91
(ZH)

WY91
DUMY

CD KEY0 PCB(PY81) WG416K207-
(AFC)

SY81 TEXT
SY83 V.R.
SY85 PROG.
SY87 REPEAT
SY89 MENU/STORE
SY82 DISP.
SY84 DUBB.
SY86 SINGL
SY88 A-B
SY90 CLEAR/DELEAT

RY81 1k
RY83 1.8k
RY85 2.7k
RY87 4.7k
RY80 820
RY82 1k
RY84 1.8k
RY86 2.7k
RY88 4.7k
RY89 820

JY81
(ZH)

KEY1
KEY0
GND

TO JU04
(PM01)

WY61

KEY3
CDRPLAY_LED
CDRSTOP_LED
REC_LED
GND
+5VU
ENTER
JOG_A
JOG_B
GND

JY03

JY21
(ZH)

SY21
POWER ON
SSI012(1060)

POWER SW PCB(PY21)
(AFC)
WG416K211-

TO JU08
(PM01)

WY81

LOW
MID
HIGH
GND
+5VU
KEY1
KEY0
GND

JY61
(ZH)

SY61
ENCODER

RY61 0

JOG PCB(PY61)
(AFC)
WG416K210-

JY31
(ZH)

CDR KEY PCB(PY31)
(AFC)
WG416K205-

SY35 ERASE
SY36 FINALIZE
SY33 CDR_FF
SY34 CDR_REW
SY37 REC
SY31 CDR_PLAY
SY32 CDR_STOP

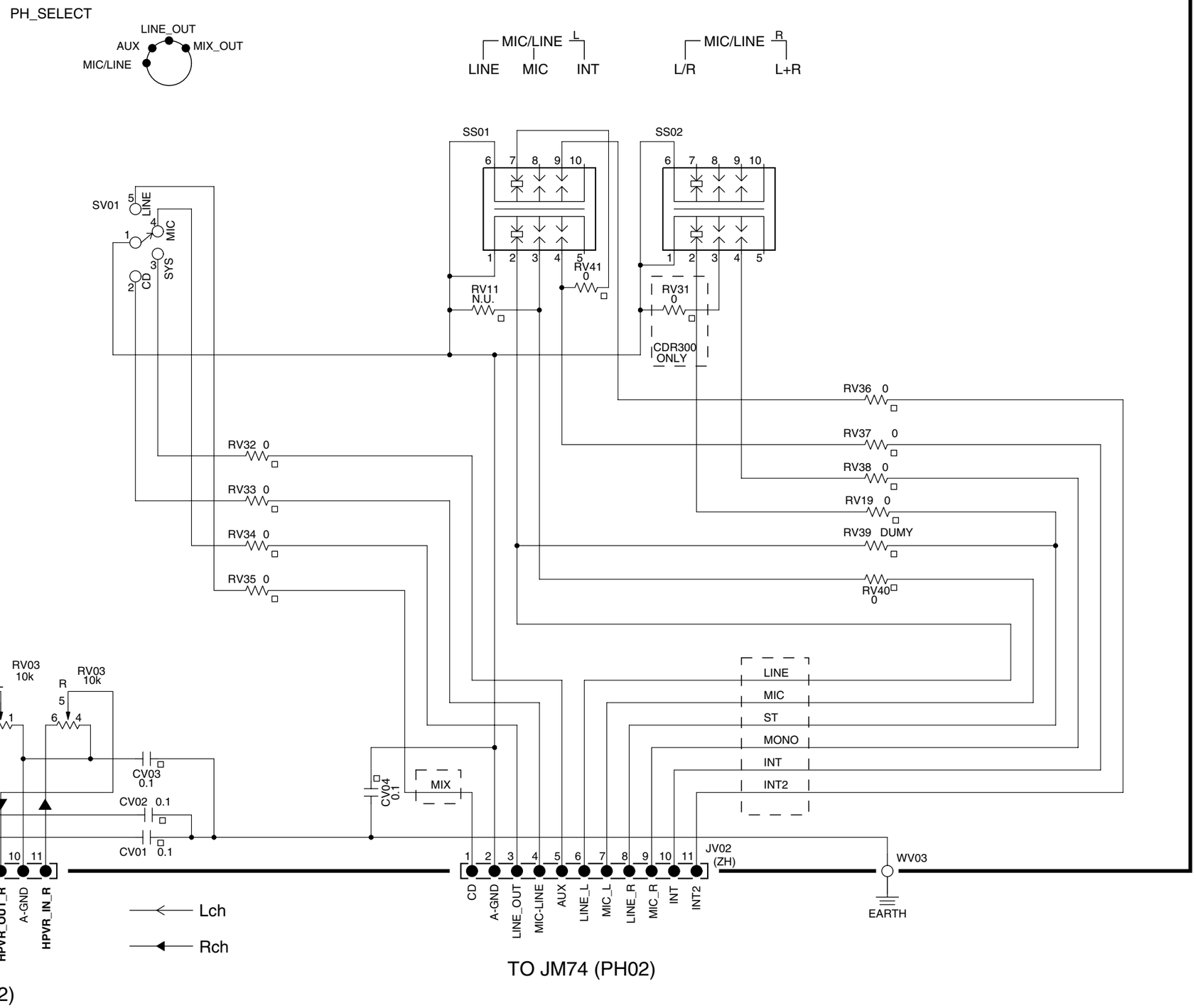
RY34 2.7k
RY35 4.7k
RY36 820
RY37 15k
RY38 1.8k
RY31 820
RY33 1.8k
RY32 1k

RY39 150
RY40 120
RY41 150
RY42 DUMY
RY43 680

DY34
DY31 GRN
DY32 ORG
DY33 RED

QY31 DTC114TE
QY32 DTC114TE
QY33 DTC114TE

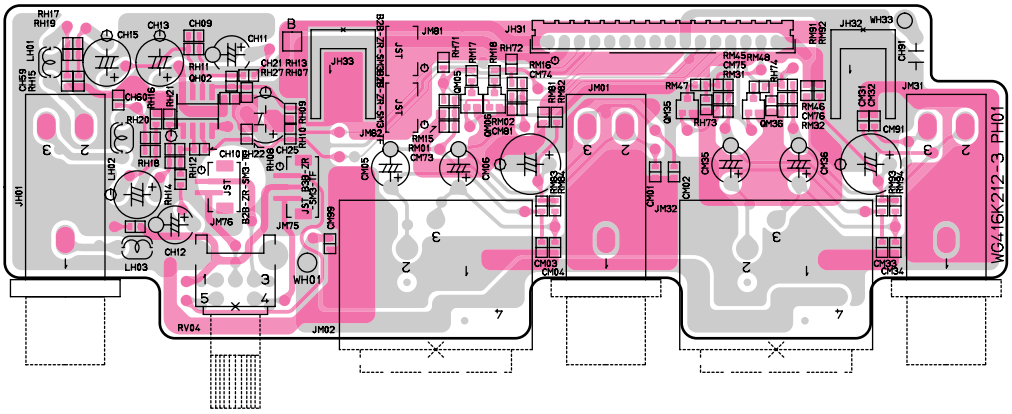
(PV01)


PH_SELECT
LINE_OUT
AUX
MIX_OUT
MIC/LINE
MIC/LINE L
LINE MIC INT
MIC/LINE R
L/R L+R
SS01
SS02
SV01
LINE
MIC
SYS
CD
RV11 N.U.
RV41 0
RV31 0
CDR300 ONLY
RV36 0
RV37 0
RV38 0
RV19 0
RV39 DUMY
RV40 0
RV32 0
RV33 0
RV34 0
RV35 0
LSYN AVR
K SYN PV01
WG416K204-
MIC2 RV01 10k
MIC1 RV02 10k
RV03 10k L
RV03 10k R
RV05 2.2k
RV06 2.2k
CV03 0.1
CV02 0.1
CV01 0.1
CV04 0.1
MIX
LINE
MIC
ST
MONO
INT
INT2
JV01 (ZH)
MICVR_IN_R
MICVR_GND_R
MICVR_OUT_R
MICVR_IN_L
MICVR_GND_L
MICVR_OUT_L
HPVR_IN_L
HPVR_OUT_L
HPVR_OUT_R
A-GND
HPVR_IN_R
Lch
Rch
TO JM73 (PH02)
JV02 (ZH)
CD
A-GND
LINE_OUT
MIC-LINE
AUX
LINE_L
MIC_L
LINE_R
MIC_R
INT
INT2
WV03
EARTH
TO JM74 (PH02)

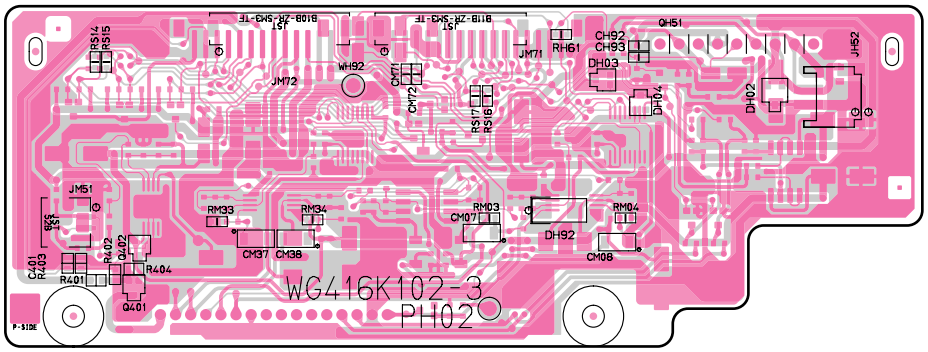
7. PARTS LOCATION

PH01

QH02 QM05 QM06 QM35 QM36

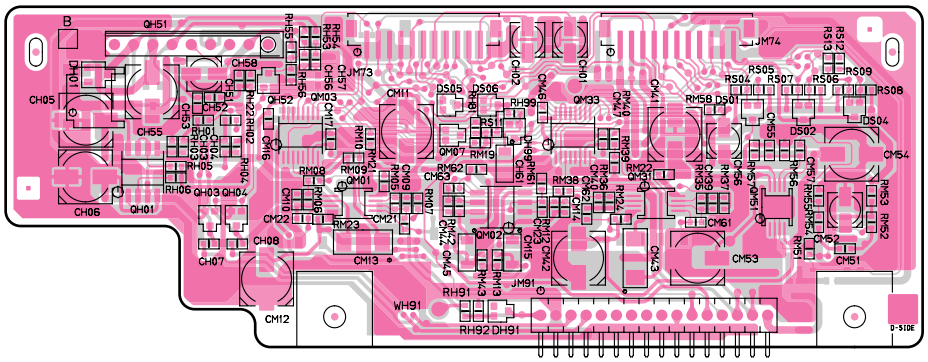


PH02 A



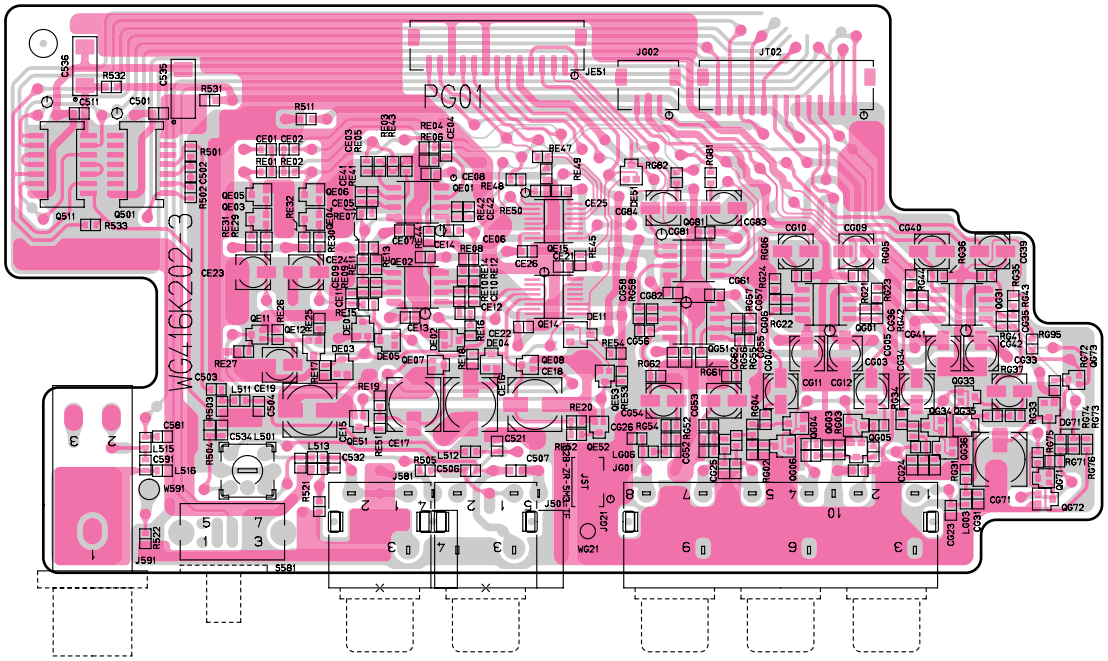
PH02 B

QH51 QH52
QH01 QM03 QM07 QM33
QH03 QH04 QM01 QM02 QM31 QM51

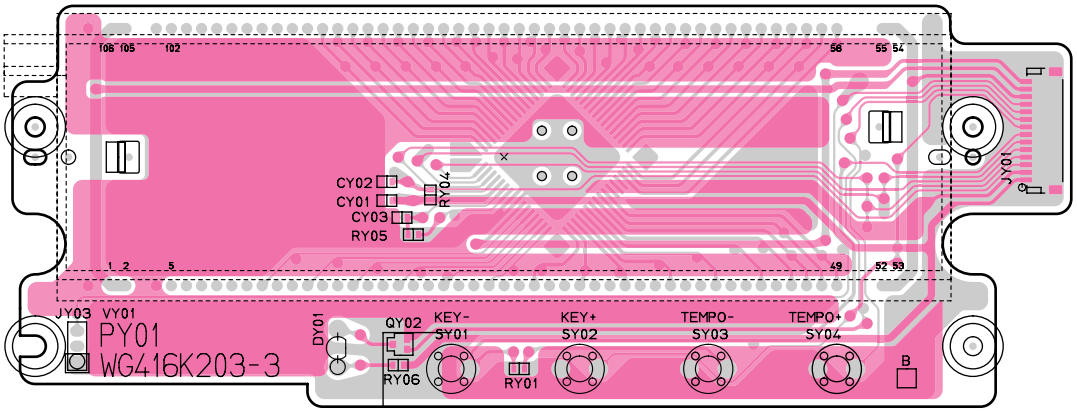


PG01

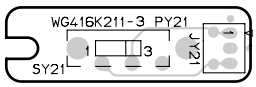
Q511 Q501 QE03 - QE06 QE01 QE15 QG81
QE11 QE12 QE02 QE14 QG51 QG01 QG31
QE07 QE08 QE53 QG03 - QG06 QG71 - QG73
QE52 QG33 - QG36



PY01

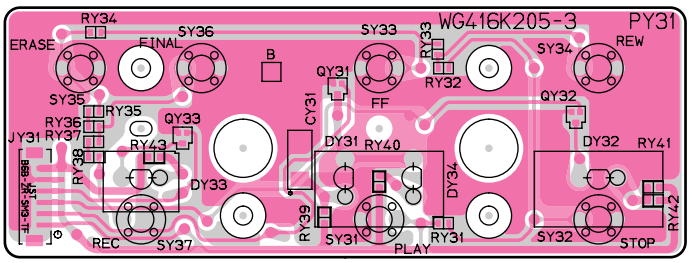


PY21

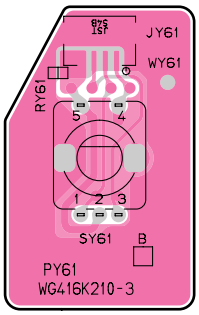


PY31

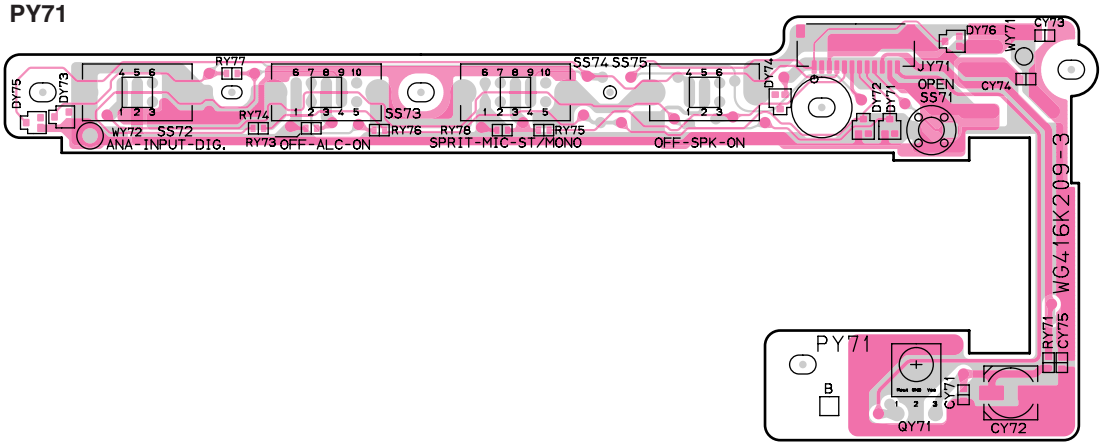
QY33 QY31 QY32



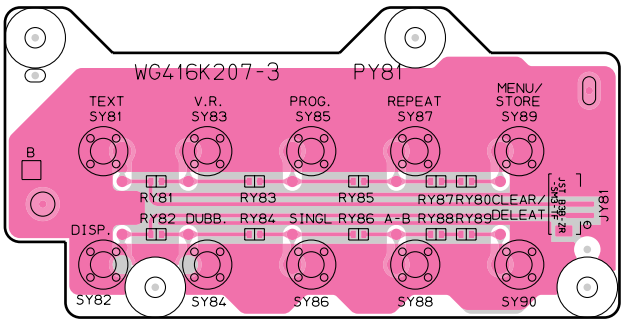
PY61



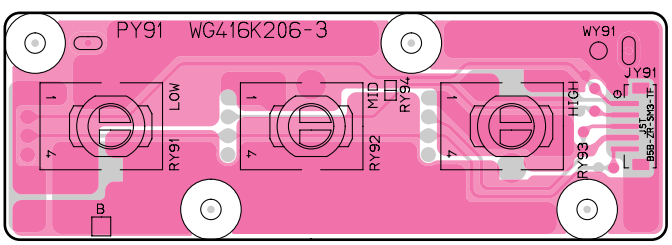
PY71



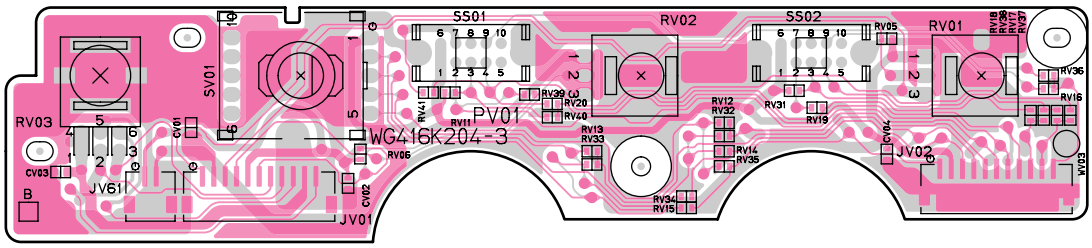
PY81



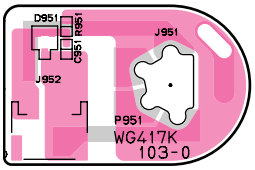
PY91



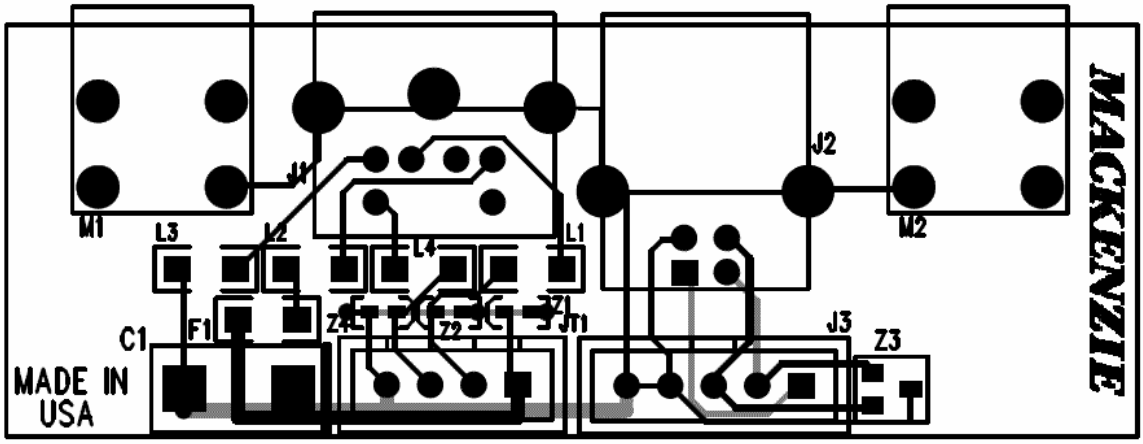
PV01


SS01
RV02
SS02
RV01
RV03
SV01
PV01
WG416K204-3
JV61
JV01
JV02

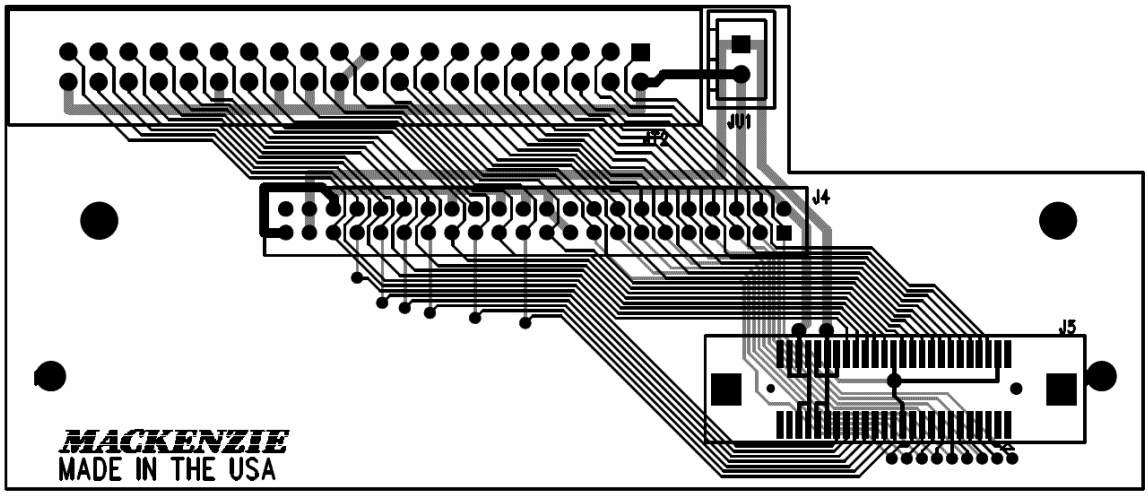
P951


D951
J951
J952
P951
WG417K
103-0

0-911M (421-2)



0-912M (420-2)



BATT1	C7	C75	C4	C150	D7	CR9	C2	JM13	C2	L1	D1	Q1	A4	R10	D1	R23	C2	R36	B3	R49	B4	R62	D5	R75	D7	REG5	A1	RN7	C3	RN20	C5	U4	C3	U17	E6
C1	D1	C76	D4	C151	C7	CR10	D2	JM14	D7	L2	C1	Q2	A5	R11	A2	R24	C2	R37	B3	R50	B4	R63	D6	R76	D7	REG6	A2	RN8	A4	RN21	D6	U5	C3	U18	C7
C2	A1	C77	C4	CN1	C3	CR11	C2	JM15	B2	L3	A1	Q3	A7	R12	A2	R25	A2	R38	A3	R51	A4	R64	B6	R77	A7	REG7	D2	RN9	A4	RN22	D6	U6	B3	U19	D7
C3	B1	C78	C4	CN2	D3	F1	B1	JM16	C7	L4	D2	Q4	A7	R13	A2	R26	E3	R39	C4	R52	D4	R65	D6	R78	A7	REG8	C2	RN10	C5	RN23	D6	U7	B4	X1	D3
C4	D1	C79	A4	CN3	C6	F2	C1	JM17	A7	L5	C2	R1	B1	R14	A2	R27	E3	R40	D4	R53	D4	R66	D6	R79	A7	REG9	C2	RN11	A5	RN24	C6	U8	B4	X2	D4
C5	B1	C80	A4	CR1	A1	F3	A2	JT51	A2	L6	A1	R2	B1	R15	C2	R28	C3	R41	C4	R54	E4	R67	A6	R80	A7	REG10	E6	RN12	C5	RN25	C6	U9	A4	X3	D5
C6	E1	C81	E4	CR2	A1	J1	C3	JT52	A4	L7	C2	R3	D1	R16	A2	R29	B3	R42	D4	R55	D4	R68	D6	R81	A7	REG11	E7	RN13	C5	RN26	C6	U10	C4	X4	E5
C7	E1	C82	A4	CR3	E2	J2	E3	JT53	A7	L8	C4	R4	B1	R17	D2	R30	B3	R43	B4	R56	A4	R69	D6	R82	D7	RN1	D3	RN14	A5	RN27	C6	U11	E5	X5	E5
C8	E1	C83	E4	CR4	C1	J3	C4	JT54	C4	L9	C4	R5	B1	R18	C2	R31	A3	R44	B4	R57	E5	R70	B6	R83	D7	RN2	D3	RN15	A5	RN28	B6	U12	B4	Z1	C2
C9	A1	C84	D4	CR5	A1	J4	A4	JU02	A5	L10	C5	R6	B1	R19	D2	R32	C3	R45	B4	R58	D4	R71	D6	REG1	B1	RN3	B3	RN16	C5	SW1	B6	U13	B6	Z2	A6
C10	D1	C85	C4	CR6	C2	J5	C5	JU03	A6	L11	C5	R7	D1	R20	C2	R33	B3	R46	B4	R59	D4	R72	B6	REG2	B1	RN4	B3	RN17	D5	U1	D1	U14	C6		
C11	C1	C86	B4	CR7	A2	J834	B1	JU04	A5	L12	D7	R8	D1	R21	D2	R34	B3	R47	B4	R60	A5	R73	D6	REG3	D1	RN5	B3	RN18	C5	U2	B2	U15	E6		
C12	C1	C87	B4	CR8	A2	JE01	A3	JU08	B2	LED1	A7	R9	D1	R22	C2	R35	B3	R48	C4	R61	D5	R74	D7	REG4	E2	RN6	A3	RN19	D5	U3	D3	U16	A6		
C13	D1	C88	D4																																
C14	D2	C89	D4																																
C15	D1	C90	E5																																
C16	A1	C91	D5																																
C17	C2	C92	E5																																
C18	A2	C93	C5																																
C19	A2	C94	D5																																
C20	A2	C95	D5																																
C21	D2	C96	D5																																
C22	C2	C97	C5																																
C23	C2	C98	C5																																
C24	B2	C99	A5																																
C25	A2	C100	B5																																
C26	C2	C101	D5																																
C27	C2	C102	B5																																
C28	C2	C103	A5																																
C29	C2	C104	A5																																
C30	D2	C105	C5																																
C31	D3	C106	B5																																
C32	C2	C107	A5																																
C33	B3	C108	B5																																
C34	B3	C109	D5																																
C35	C3	C110	C6																																
C36	C3	C111	A5																																
C37	B3	C112	D6																																
C38	C3	C113	C6																																
C39	B3	C114	A6																																
C40	B3	C115	A6																																
C41	D3	C116	D6																																
C42	B3	C117	C6																																
C43	B3	C118	A6																																
C44	B3	C119	C6																																
C45	D3	C120	B6																																
C46	C3	C121	C6																																
C47	C3	C122	E6																																
C48	C3	C123	A6																																
C49	B3	C124	A6																																
C50	D4	C125	A6																																
C51	D4	C126	D6																																
C52	D4	C127	C6																																
C53	C3	C128	B6																																
C54	C3	C129	B6																																
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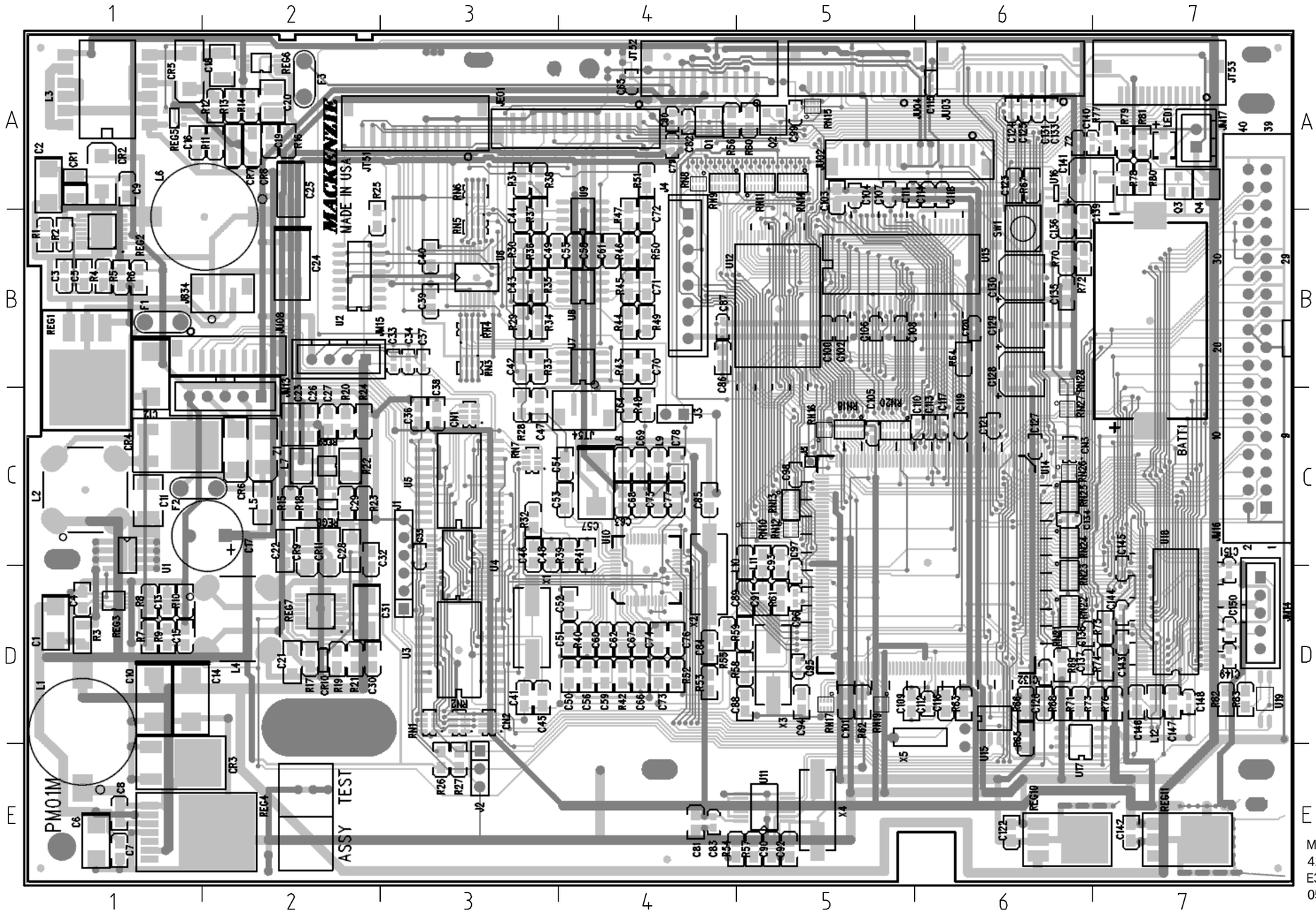
C63	C4	C138	D6																																
C64	C4	C139	B7																																
C65	A4	C140	A6																																
C66	D4	C141	A6																																
C67	D4	C142	E7																																
C68	C4	C143	D7																																
C69	C4	C144	D7																																
C70	B4	C145	C7																																
C71	B4	C146	D7																																
C72	B4	C147	D7																																
C73	D4	C148	D7																																
C74	D4	C149	D7																																



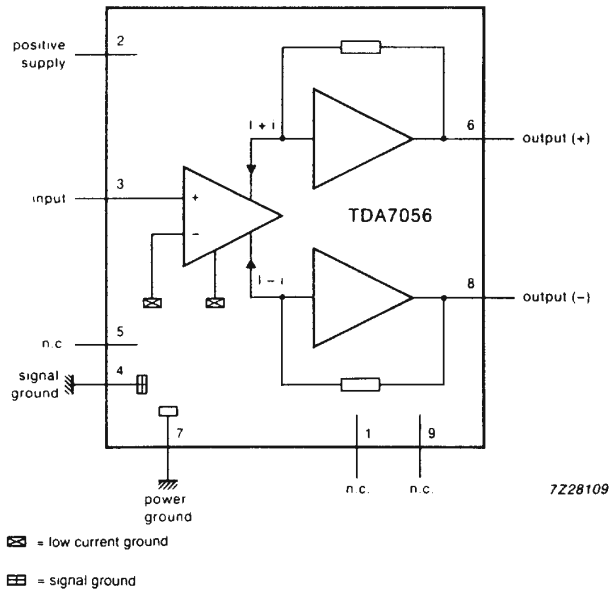
MACKENZIE
419-5 BOARD
E3010
05 MAY 2005

8. MICROPROCESSOR AND IC DATA

QH51 : TDA7056

Pin Description

PIN	DESCRIPTION
1	n.c.
2	VP
3	input (+)
4	signal ground
5	n.c.
6	output (+)
7	power ground
8	output (-)
9	n.c.

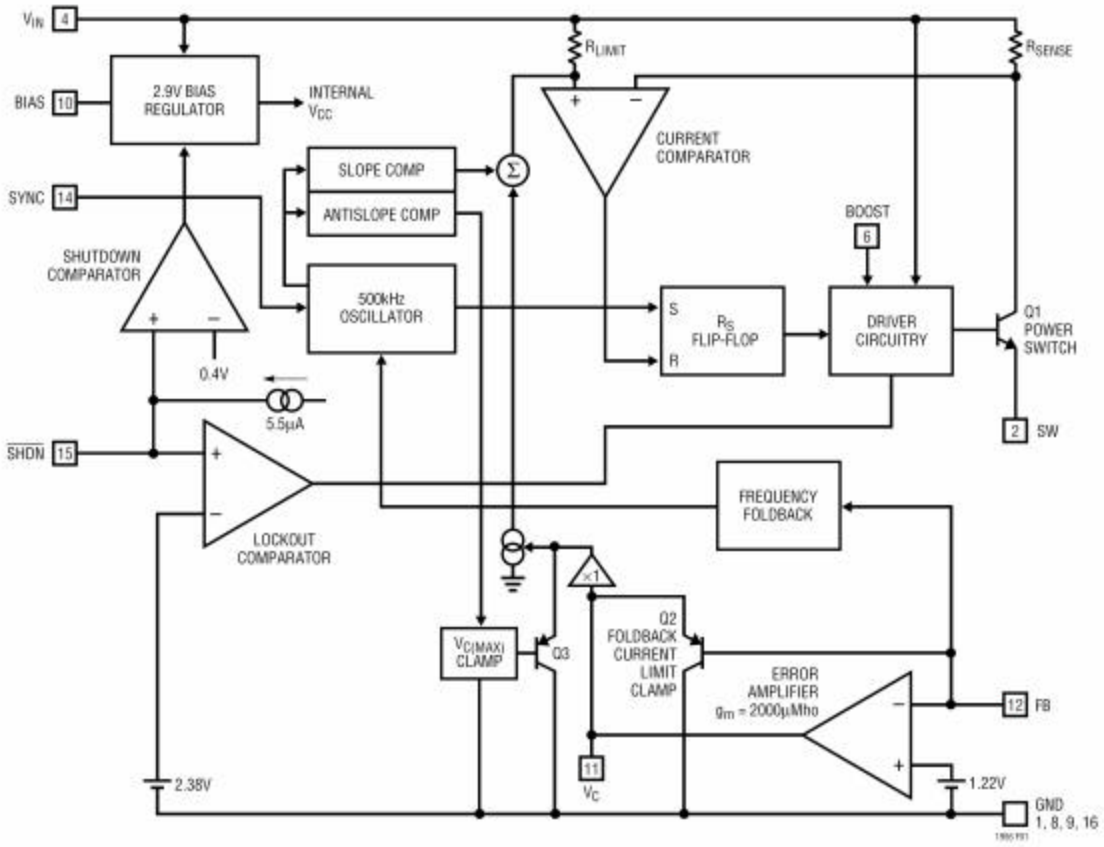


REG2 : LT1956

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	9	GND
2	SW	10	BIAS
3	NC	11	Vc
4	Vin	12	FB/SENSE
5	NC	13	NC
6	BOOST	14	SYNC
7	NC	15	SHDN
8	GND	16	GND

Block Diagram

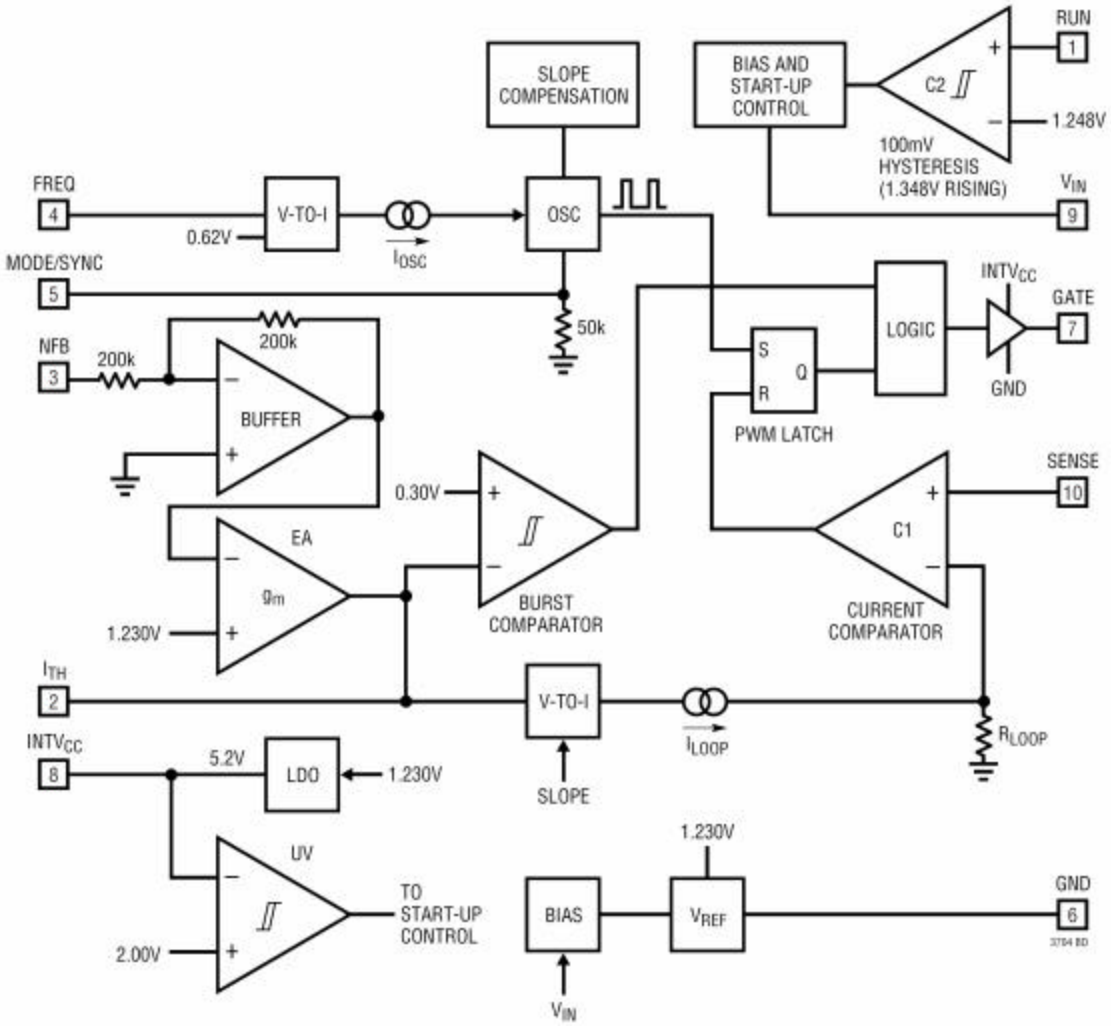


REG3 : LTC3704

Pin Description

PIN	DESCRIPTION
1	RUN
2	ITH
3	NFB
4	FREQ
5	MODE/SYNC
6	GND
7	GATE
8	INTVcc
9	Vin
10	SENSE

Block Diagram

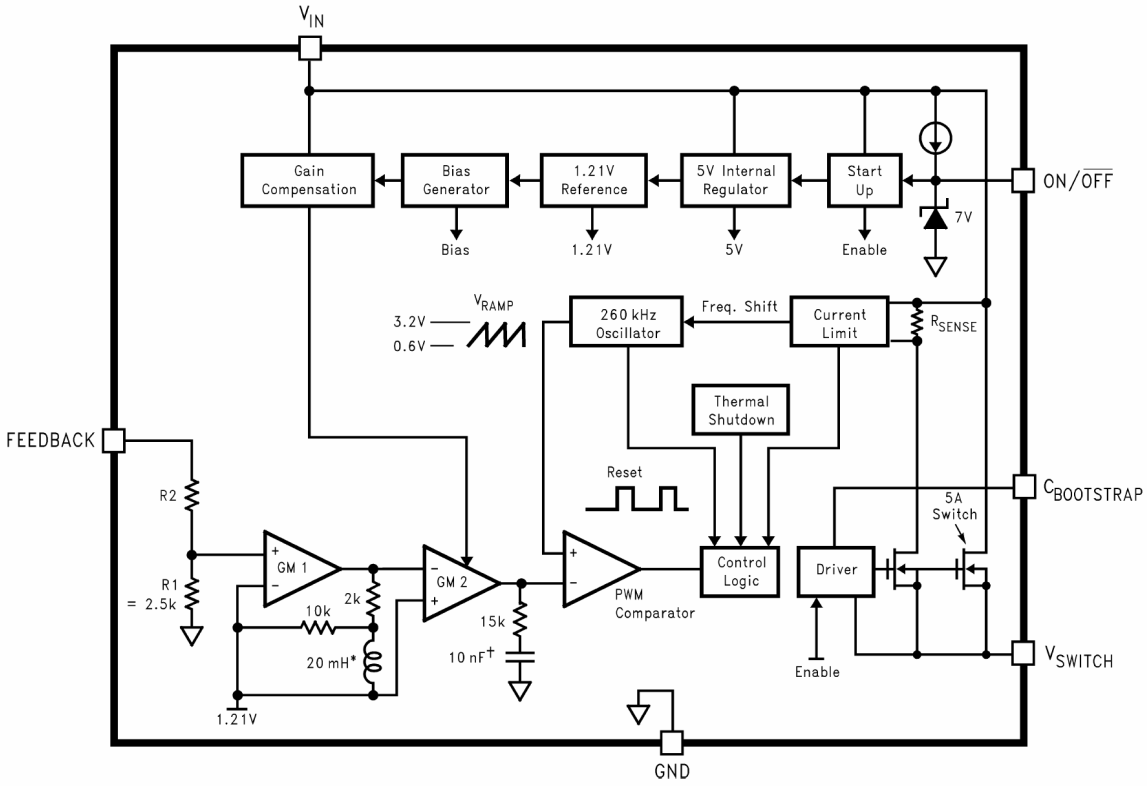


REG4 : LM2676

Pin Description

PIN	DESCRIPTION
1	SWITCH OUTPUT
2	INPUT
3	C BOOST
4	GROUND
5	NO CONNECTION
6	FEEDBACK
7	ON/OFF

Block Diagram

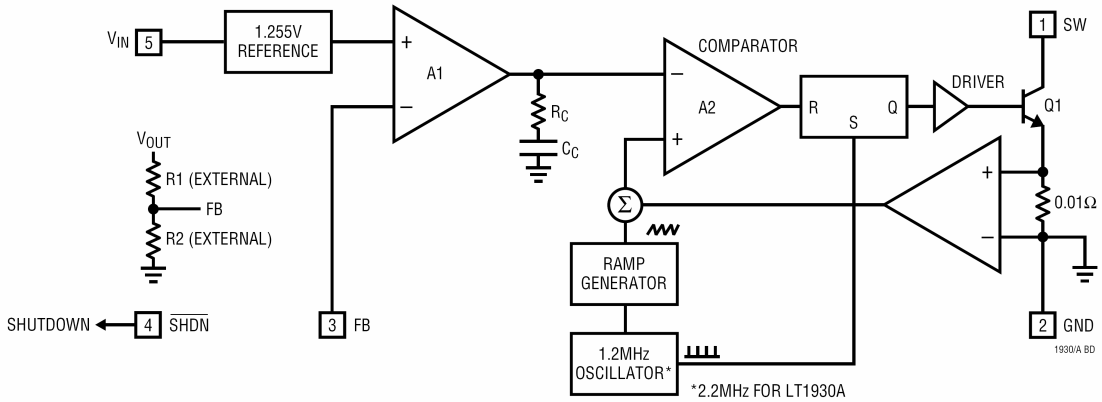


REG5 : LT1930

Pin Description

PIN	DESCRIPTION
1	SW1
2	GND2
3	FB3
4	SHDN
5	5 Vin

Block Diagram



REG6 : LT3010

Pin Description

PIN	DESCRIPTION
1	OUT
2	SENS / ADJ
3	NC
4	GND
5	SHDN
6	NC
7	NC
8	IN

Block Diagram

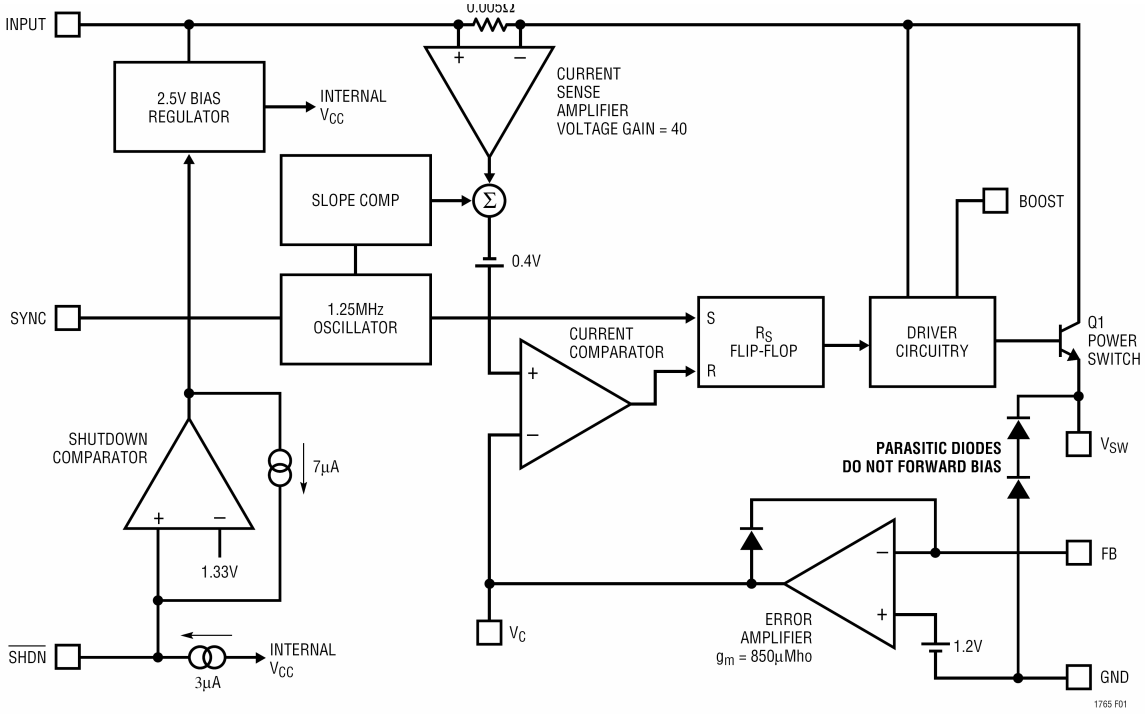
N/A

REG7 : LT1765

Pin Description

PIN	DESCRIPTION
1	GND
2	BOOST
3	VIN
4	VIN
5	SW
6	SW
7	NC
8	GND
9	GND
10	NC
11	SHDN
12	FB
13	VC
14	SYNC
15	NC
16	GND

Block Diagram

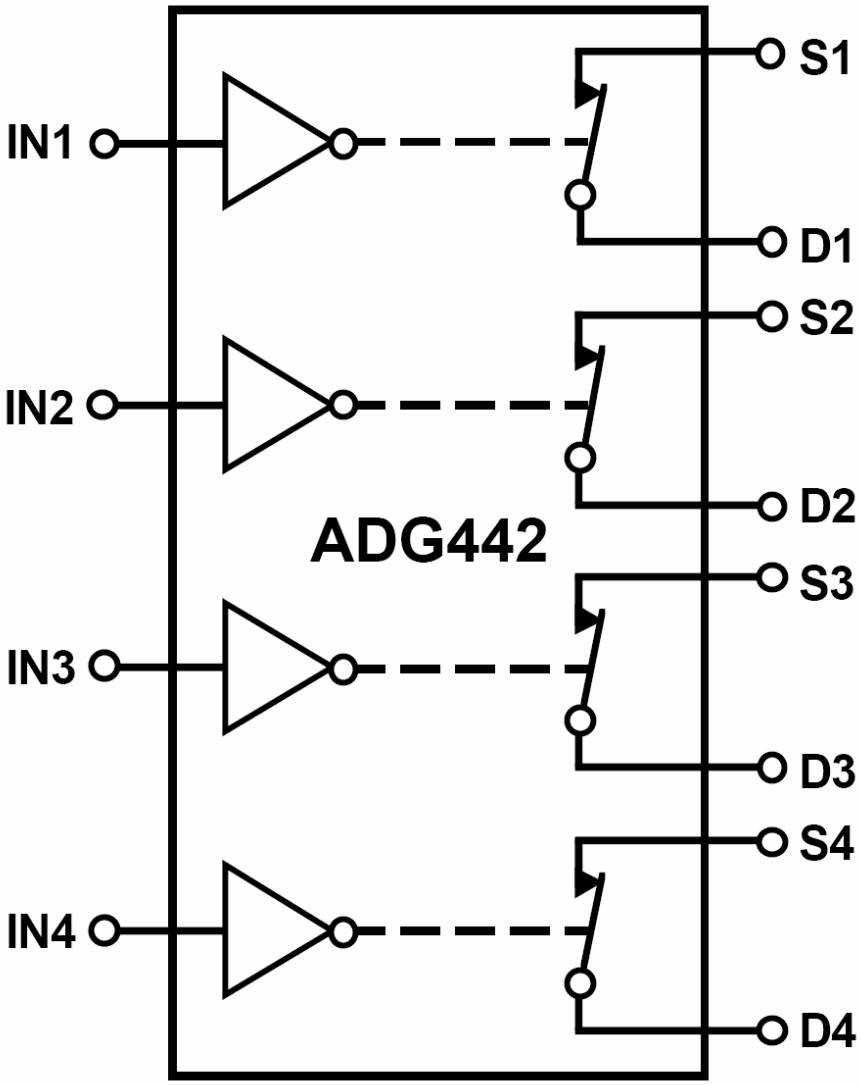


U2 : ADG442

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION
1	IN1	9	IN3
2	D1	10	D3
3	S1	11	S3
4	Vss	12	NC
5	GND	13	VDD
6	S4	14	S2
7	D4	15	D2
8	IN4	16	IN2

Block Diagram

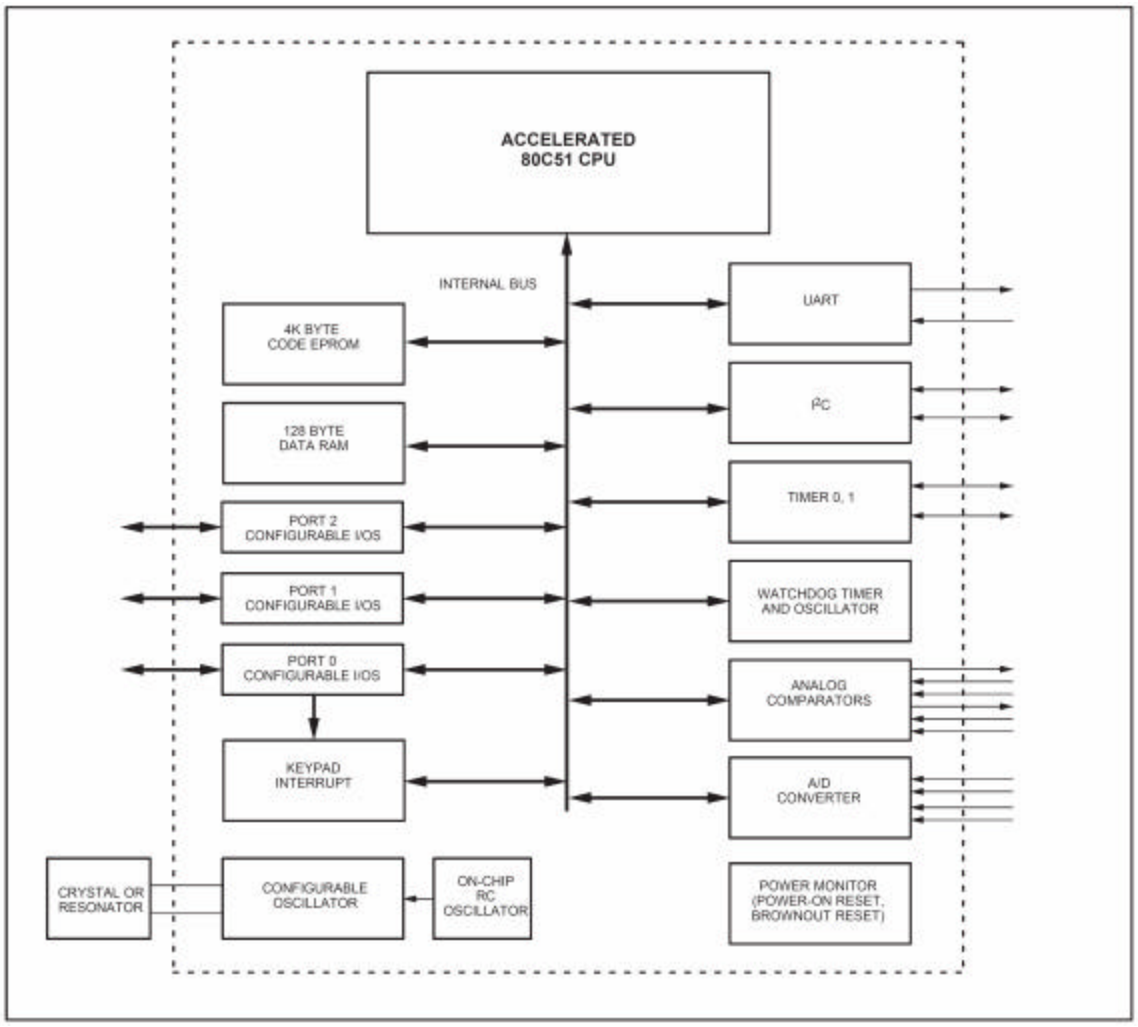


U3, U5 : P87LPC767

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION
1	CMP2/P0.0	11	P1.1/RxD
2	P1.7	12	P1.0/TxD
3	P1.6	13	P0.7/T1
4	RST/P1.5	14	P0.6/CMP1/AD3
5	Vss	15	VDD
6	X1/P2.1	16	P0.5/CMPREF/AD2
7	X2/CLKOUT/P2.0	17	P0.4/CIN1A/AD1
8	INT1/P1.4	18	P0.3/CIN1B/AD0
9	SDA/INT0/P1.3	19	P0.2/CIN2A
10	SCL/T0/P1.2	20	P0.1/CIN2B

Block Diagram

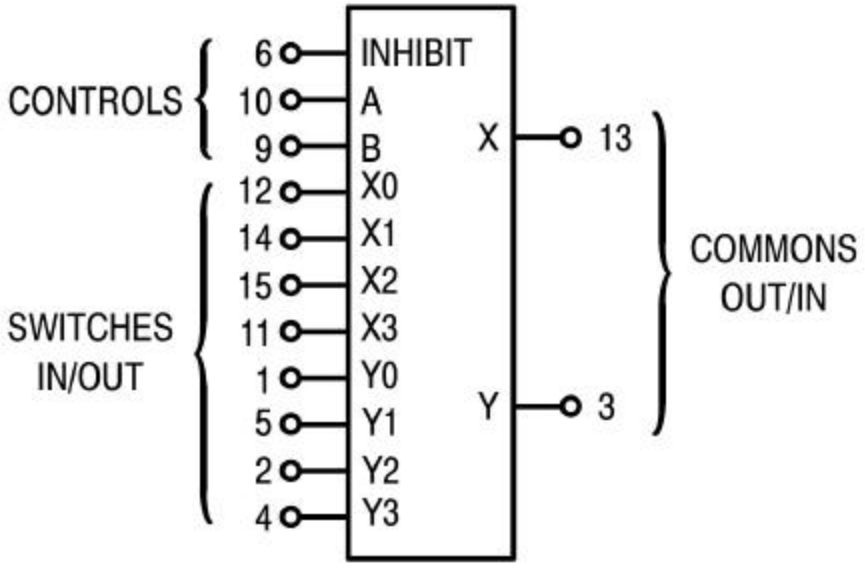


U6 : MC14052

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION
1	Y0	9	B
2	Y2	10	A
3	Y	11	X3
4	Y3	12	X0
5	Y1	13	X
6	INH	14	X1
7	VEE	15	X2
8	Vss	16	VDD

Block Diagram



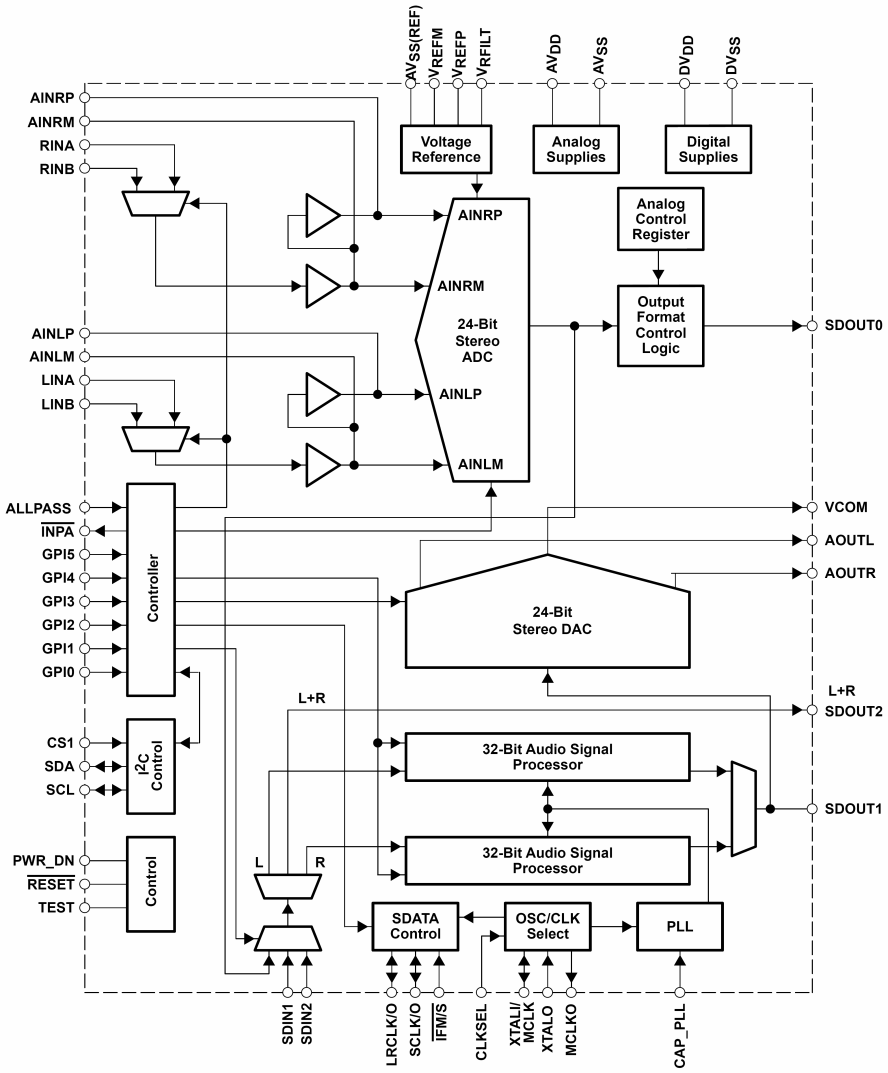
V_{DD} = PIN 16
V_{SS} = PIN 8
V_{EE} = PIN 7

U10 : TAS3004

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION
1	LINA	13	XTALI/MCLK	25	SDOUT0	37	AOUTR
2	VRFILT	14	XTALO	26	SDOUT1	38	VCOM
3	AVSS(REF)	15	SCL	27	ALLPASS	39	AOUTL
4	AVSS	16	SDA	28	GPI0	40	RINA
5	INPA	17	DVDD	29	GPI1	41	RINB
6	RESET	18	DVSS	30	GPI2	42	AINRP
7	CS1	19	LRCLK/O	31	GPI3	43	AINRM
8	PWR_DN	20	SCLK/O	32	GPI4	44	VREFP
9	TEST	21	IFM/S	33	GPI5	45	VREFM
10	CAP_PLL	22	SDIN1	34	NC	46	AINLM
11	CLKSEL	23	SDIN2	35	AVDD	47	AINLP
12	MCLKO	24	SDOUT2	36	NC	48	LINB

Block Diagram

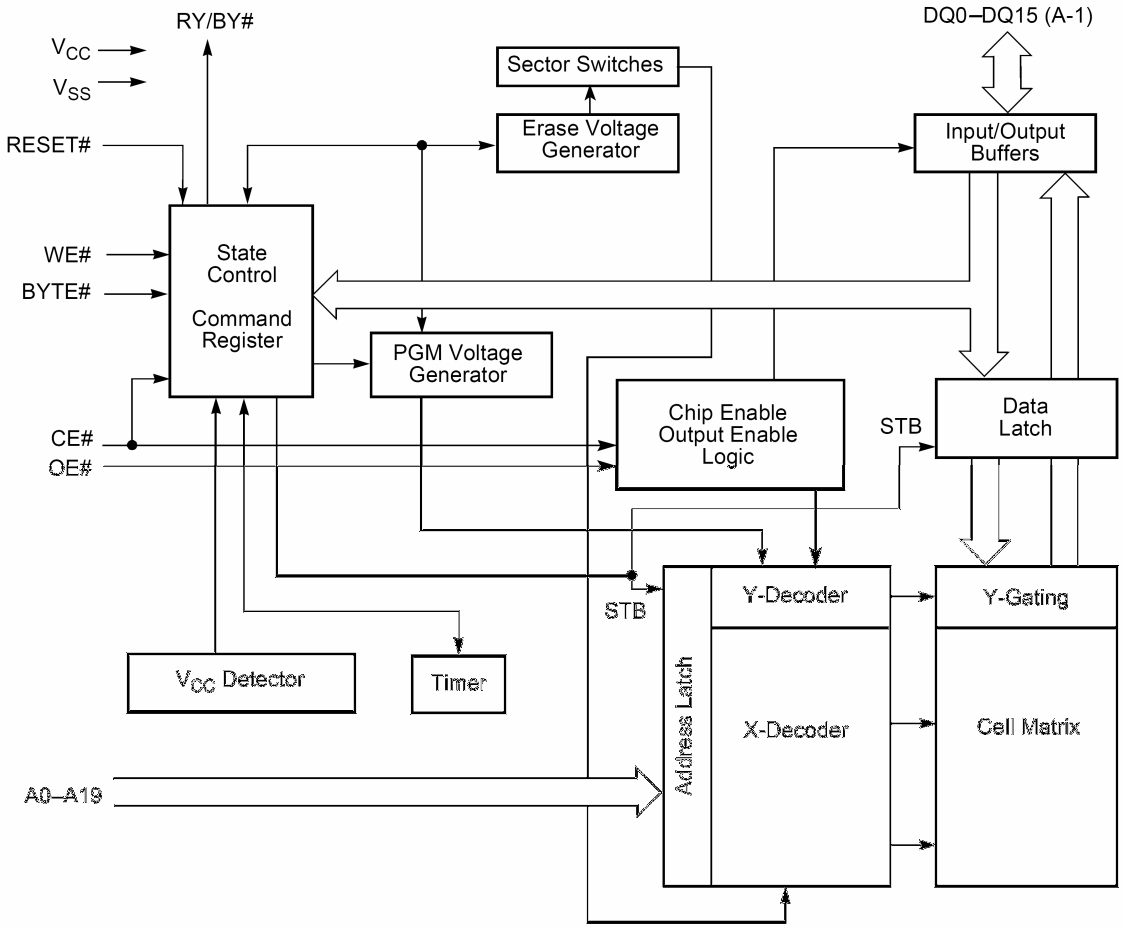


U12 : AM29LV160D

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION
1	A15	13	NC	25	A0	37	VCC
2	A14	14	NC	26	CE#	38	DQ4
3	A13	15	RY/BY#	27	VSS	39	DQ12
4	A12	16	A18	28	OE#	40	DQ5
5	A11	17	A17	29	DQ0	41	DQ13
6	A10	18	A7	30	DQ8	42	DQ6
7	A9	19	A6	31	DQ1	43	DQ14
8	A8	20	A5	32	DQ9	44	DQ7
9	A19	21	A4	33	DQ2	45	DQ15/A-1
10	NC	22	A3	34	DQ10	46	VSS
11	WE#	23	A2	35	DQ3	47	BYTE#
12	RESET#	24	A1	36	DQ11	48	A16

Block Diagram

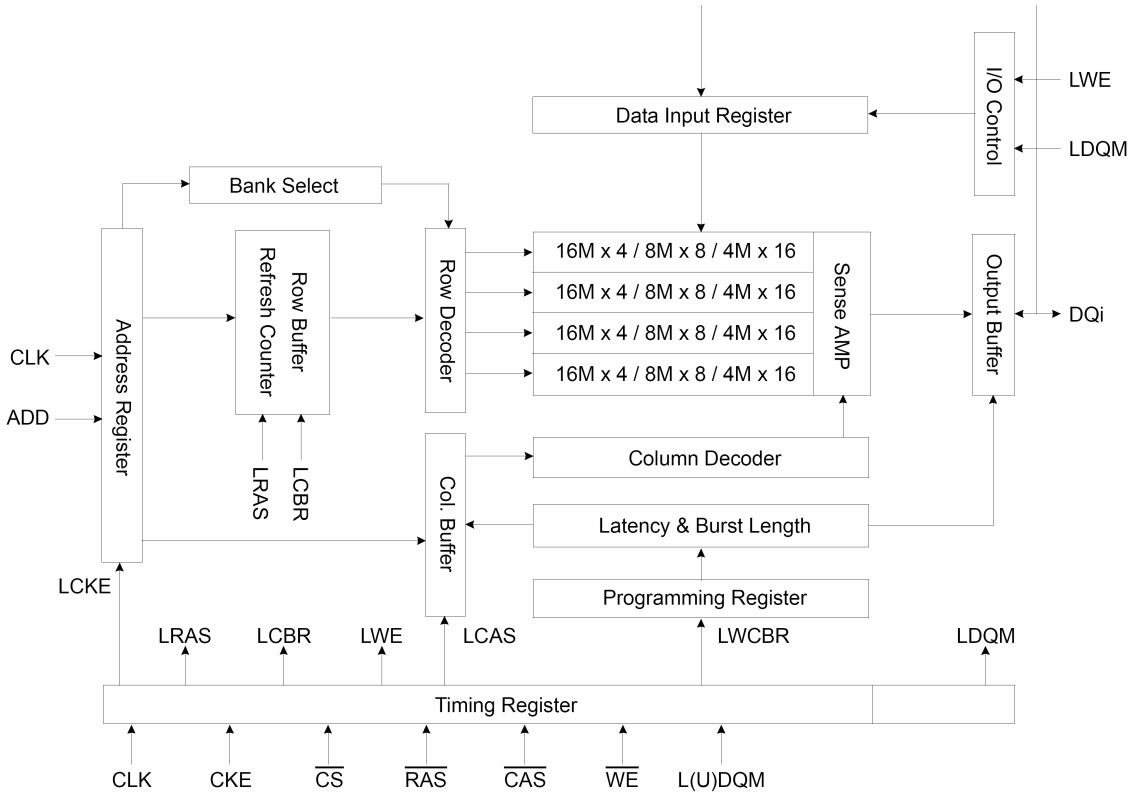


U13 : K4S561632E

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION
1	VDD	15	LDQM	29	A4	43	VDDQ
2	DQ0	16	WE	30	A5	44	DQ9
3	VDDQ	17	CAS	31	A6	45	DQ10
4	DQ1	18	RAS	32	A7	46	VSSQ
5	DQ2	19	CS	33	A8	47	DQ11
6	VSSQ	20	BA0	34	A9	48	DQ12
7	DQ3	21	BA1	35	A11	49	VDDQ
8	DQ4	22	A10/AP	36	A12	50	DQ13
9	VDDQ	23	A0	37	CKE	51	DQ14
10	DQ5	24	A1	38	CLK	52	VSSQ
11	DQ6	25	A2	39	UDQM	53	DQ15
12	VSSQ	26	A3	40	N.C/RFU	54	VSS
13	DQ7	27	VDD	41	VSS		
14	VDD	28	VSS	42	DQ8		

Block Diagram

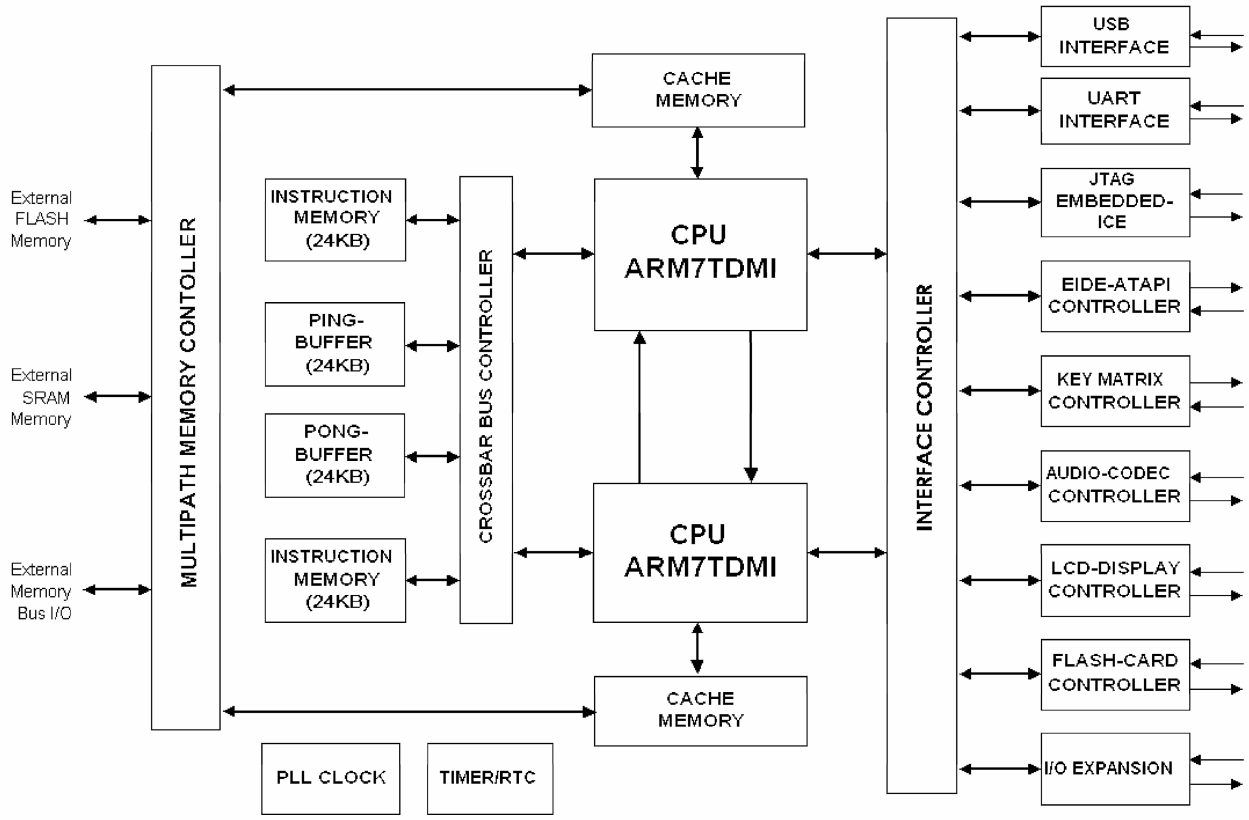


U14 : PP5002D

Pin Description

PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION
1	COM3 A.TXD	43	VSS/GND	85	AVSS	127	LC03 OB3	169	AT3 HIOR#
2	COM3 ARTS	44	XM2 MA10	86	USB3 BP	128	LC03 OB4	170	An HIORDY
3	COM3 ADTR	45	XM2 MA11	87	USB3 BN	129	LC03 OB5	171	AT3 HRE8ET#
4	COM3 A.RXD	46	XM2 MA12	88	VDD	130	LC03 OB6	172	AT3 HIRQ.O
5	COM3 ADSR	47	XM2 MA13	89	VSS	131	LC03 OB7	173	An HIRQ.1
6	COM3 ACTS	48	XM2 MA14	90	ClK 24M.OUT	132	VOO	174	A T3 HDMARQ
7	COM3 ADCD	49	103 PAiDOO	91	XTAl 24M.OUT	133	VSS/GNO	175	An HDMACK#
8	COM3_ARI	50	103 PAID01	92	XTAL 24M.IN	134	SM3 DO	176	CLK 8Y8.0UT
9	VDD	51	103 PAID02	93	XTAL 32K.OUT	135	SM301	177	V88
10	VSS	52	103 PAID03	94	XTAL 32K.IN	136	SM3 02	178	An HDOO
11	XM2 MDOO	53	103 PAID04	95	CLK 32K.OUT	137	SM3 03	179	AT3 HD01
12	XM2 MD01	54	103 PAID05	96	OBG3 TCK	138	SM3 04	180	An HD02
13	XM2 MD02	55	103 PAID06	97	OBG3 TOI	139	SM3 05	181	An HD03
14	XM2 MD03	56	103 PAID07	98	OBG3 TOO	140	SM3 06	182	An_HD04
15	XM2_MD04	57	VSS/GND	99	OBG3 TMS	141	8M3 D7	183	A T3 HD05
16	XM2 MD05	58	VCC1	100	OBG3 TRST	142	8M3 CLE	184	A T3 HD06
17	VSS	59	XM2 MA15	101	OBG3 RTCK	143	8M3 ALE	185	AT3 HD07
18	VDD	60	XM2 MA16	102	XM2 CKE	144	8M3 CE.A	186	A T3 HD08
19	XM2_MD06	61	XM2 MA17	103	VSS/GNO	145	8M3 CE.B)	187	An HD09
20	XM2_MD07	62	XM2 MA18	104	VCC2	146	8M3 RE#	188	An HD10
21	XM2 MD08	63	XM2 MA19	105	RESET#	147	8M3 WE#	189	AT3 HD11
22	XM2_MD09	64	XM2 MA20	106	CNF3 TST	148	LCD3 8TBY#	190	AT3 H012
23	XM2 MD10	65	XM2 MA21	107	CNF3 MFG	149	LCD3 BKL T.OFF#	191	An H013
24	XM2 MD11	66	XM2 MA22	108	CNF3 OBUG	150	LCD3 R8T#	192	AT3 H014
25	VSS	67	XM2 MA23	109	COM3 B.TXO	151	RM3 12C.R8T#	193	AT3 H015
26	VDD	68	XM2 MA24	110	COM3 B.RXO	152	RM3 12C.CLK	194	VSS
27	XM2_MD12	69	XM2 MA25	111	AC3 SPKR.OFF	153	RM3 12C.oAT	195	VOO
28	XM2 MD13	70	XM2 MA26	112	AC3 RESET#	154	RM3 12C.A TN#	196	AT3 HAO
29	XM2_MD14	71	VSS	113	AC3 SYNC	155	V88/GND	197	AT3 HA1
30	XM2 MD15	72	XM2 ROM.CS1#	114	AC3 SOIN.A	156	VCC3	198	AT3 HA2
31	XM2 MA01	73	XM2 ROM.CS2#	115	AC3 SOOUT	157	8M3 WP#	199	AT3 HCSO#
32	XM2_MA02	74	XM2 ROMWR#	116	AC3 BITCLK	158	8M3 B8Y#	200	AT3 HCS1#
33	VDD	75	XM2 ROM.RD#	117	VSS	159	8M3 LVD	201	AT3 PWR.OFF#
34	VSS/GND	76	XM2 M 10.RDY	118	LC03 AAO *(011)*	160	8M3 CD.A#	202	AT3 QSW.OFF#
35	XM2 MA03	77	XM2 ROM.RDY	119	LC03 CS1#/ALE	161	8M3 CD.B#)	203	103 PB/A04
36	XM2_MAO4	78	XM2 RAM.CS1#	120	LC03 CS2#/CLE	162	AC3 8DIN.B	204	103 PB/A05
37	XM2 MA05	79	XM2 RAM.CS2#	121	LC03 CS3#/OLE	163	103 PB/AOO	205	103 PB/A06
38	XM2_MA06	80	XM2 ROMWR l#	122	LC03 RO#	164	103 PB/A01	206	103 PB/A07
39	XM2 MA07	81	XM2 ROMWR H#	123	LCD3 *R/W#*	165	103 PB/A02	207	VSS/GNO
40	XM2_MA08	82	VDD	124	LC03 OBO	166	103 PB/A03	208	VCC4
41	XM2 MA09	83	VSS	125	LC03 OB1	167	VDD		
42	VDD	84	AVCC	126	LC03 OB2	168	AT3 HIOW#		

U14 : PP5002D
Block Diagram

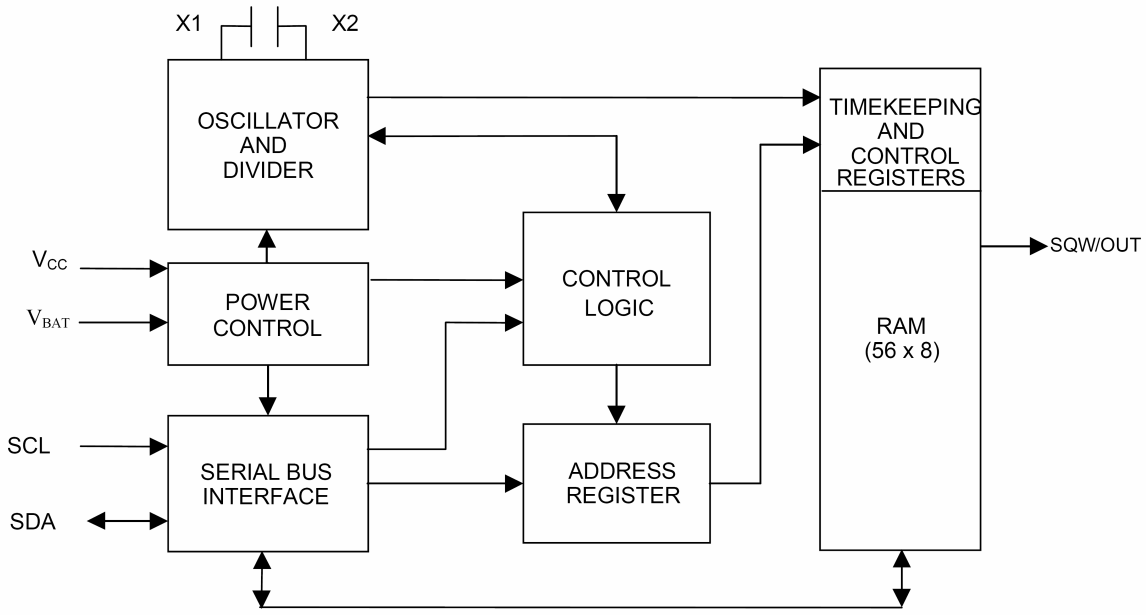


U15 : DS1338

Pin Description

PIN	DESCRIPTION
1	X1
2	X2
3	VBAT
4	GND
5	SDA
6	SCL
7	SQW/OUT
8	VCC

Block Diagram

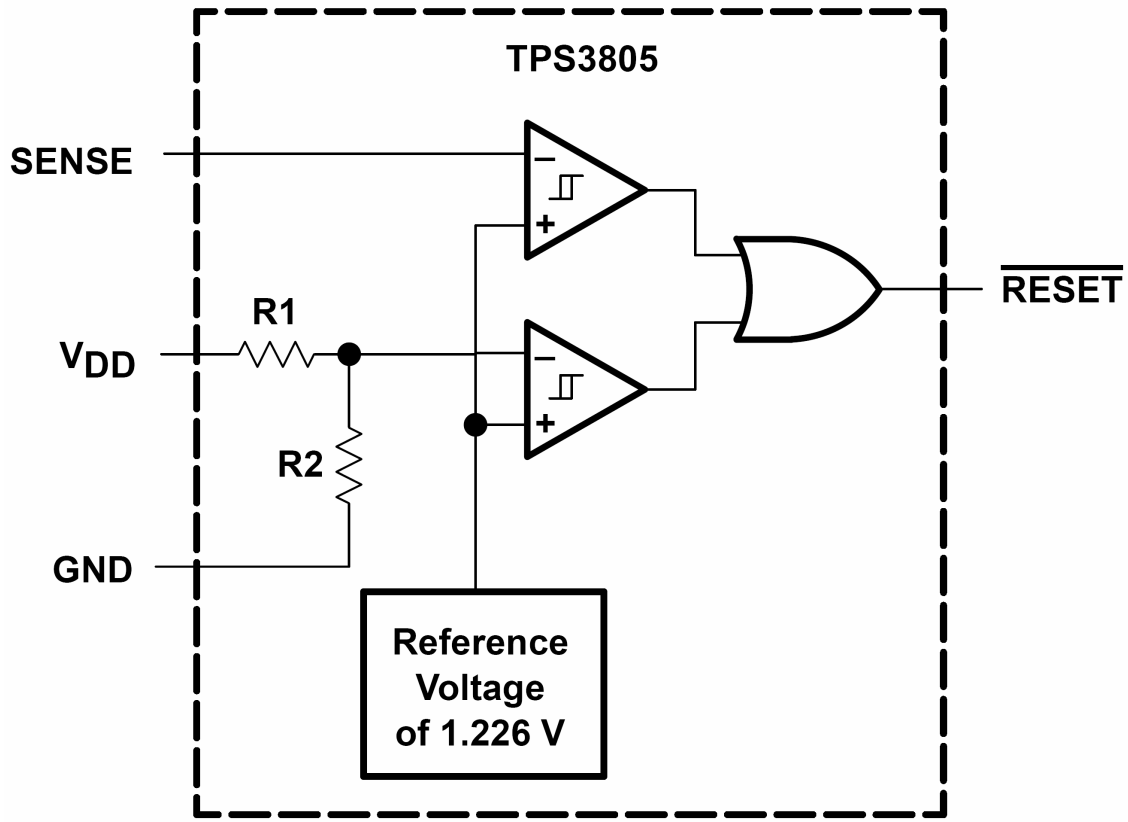


U16 : TPS3805

Pin Description

PIN	DESCRIPTION
1	NC
2	GND
3	RESET
4	VDD
5	SENSE

Block Diagram

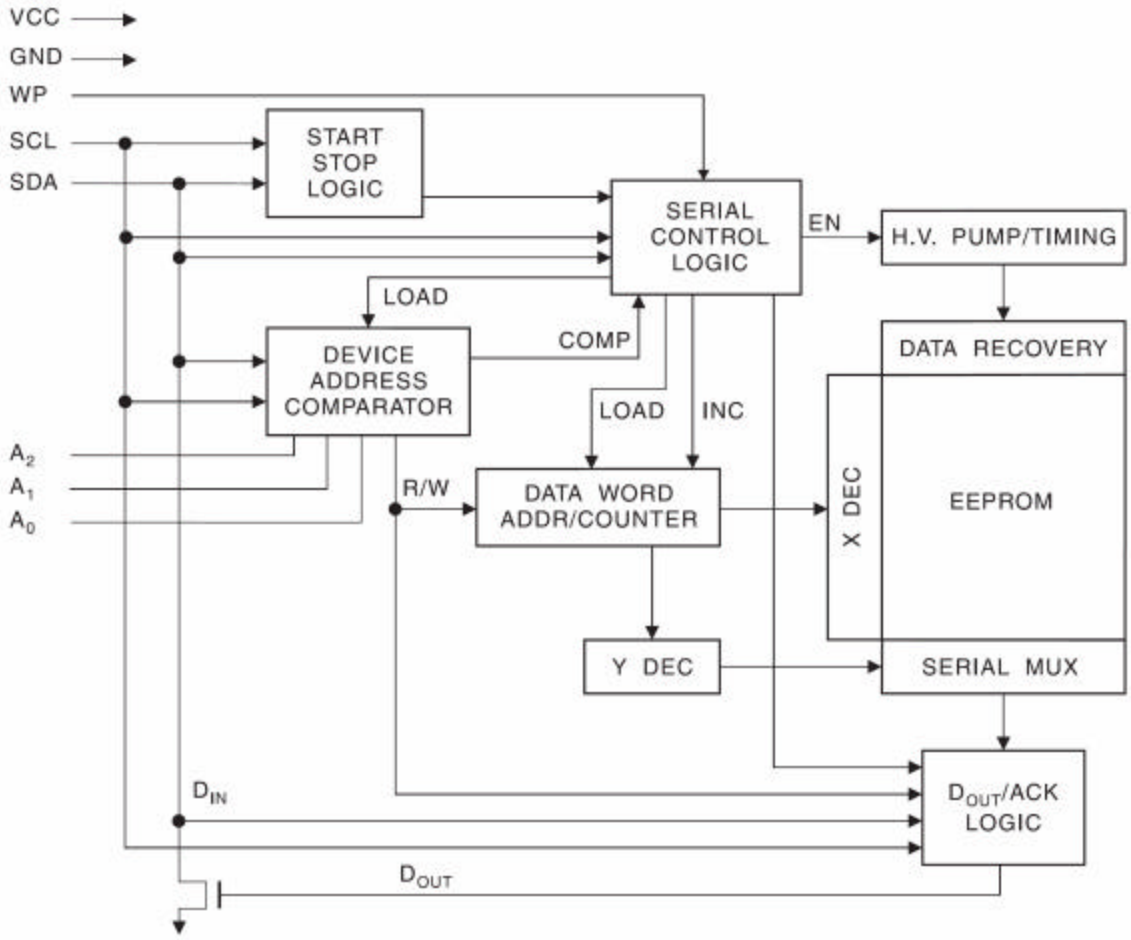


U17 : AT24C04

Pin Description

PIN	DESCRIPTION
1	A0
2	A1
3	A2
4	GND
5	SDA
6	SCL
7	WP
8	VCC

Block Diagram

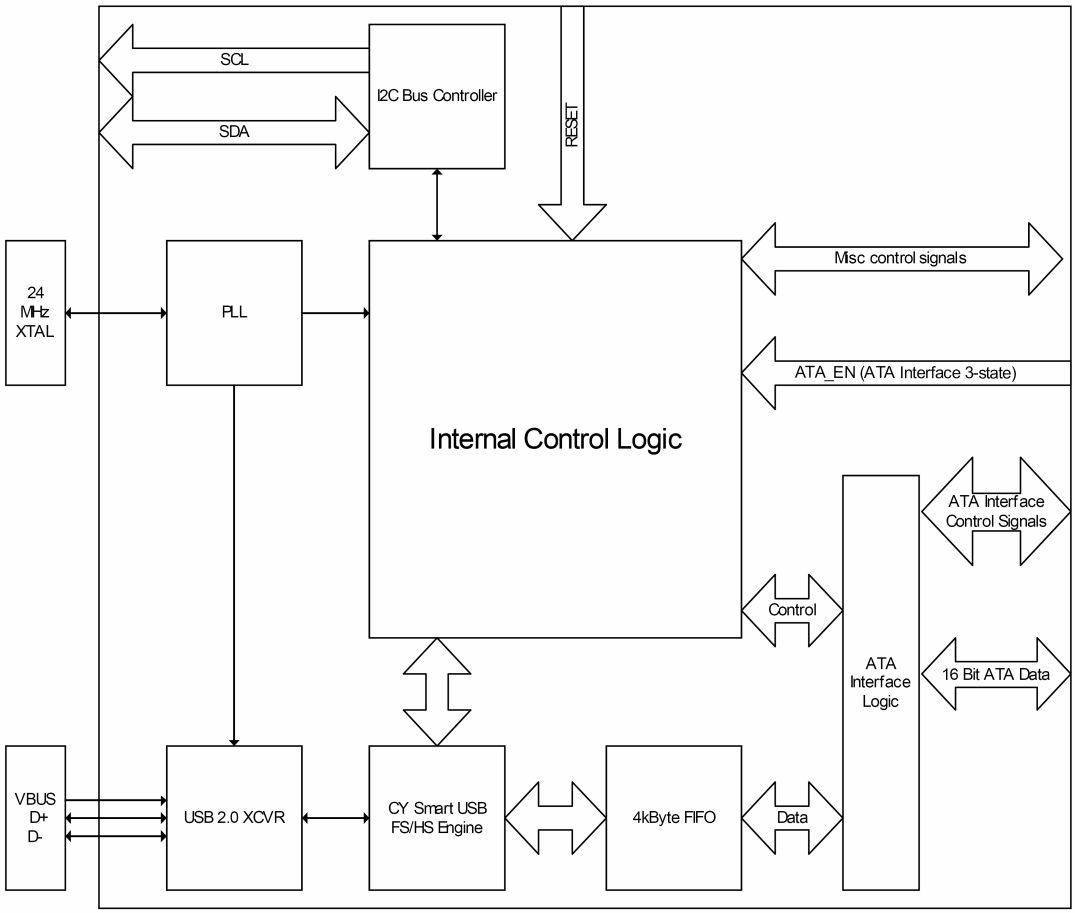


U18 : CY7C68300

Pin Description

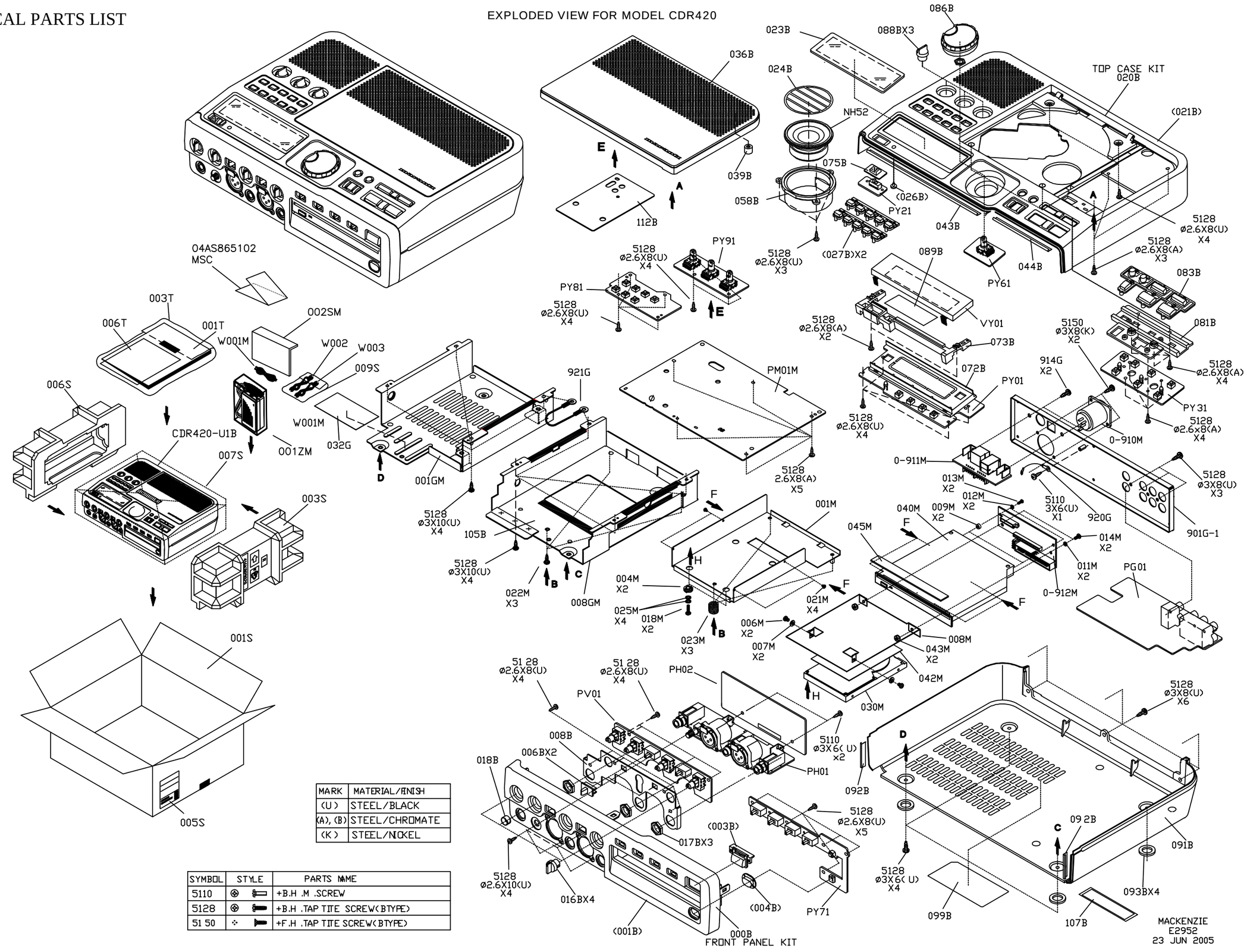
PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION
1	DD13	15	DPLUS	29	DD4	43	(DA2) DRVPWRVLD
2	DD14	16	DMINUS	30	DD5	44	CS0#
3	DD15	17	GND	31	DD6	45	CS1#
4	GND	18	VCC	32	DD7	46	DA2(vbus_pwr_valid)
5	ATAPUEN (GND)	19	GND	33	GND	47	ARESET#
6	VCC	20	PWR500#(PU10K)	34	VCC	48	GND
7	GND	21	GND (Reserved)	35	GND	49	RESET#
8	IORDY	22	SCL	36	DIOW#	50	VCC
9	DMARQ	23	SDA	37	DIOR#	51	VBUS_ATA_ENABLE
10	AVCC	24	VCC	38	DMACK#	52	DD8
11	XTALOUT	25	DD0	39	VCC	53	DD9
12	XTALIN	26	DD1	40	INTRQ	54	DD10
13	AGND	27	DD2	41	DA0	55	DD11
14	VCC	28	DD3	42	DA1	56	DD12

Block Diagram



9. MECHANICAL PARTS LIST

EXPLODED VIEW FOR MODEL CDR420



MARK	MATERIAL/FINISH
(U)	STEEL/BLACK
(A), (B)	STEEL/CHROMATE
(K)	STEEL/NICKEL

SYMBOL	STYLE	PARTS NAME
5110	⊗	+B.H .M .SCREW
5128	⊗	+B.H .TAP TITE SCREW(BTYPE)
5150	⁘	+F.H .TAP TITE SCREW(BTYPE)

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
	000B		00M416K248520	00M416K248520	PANEL	FRONT PANEL KIT
	006B		00M462T154010	00M462T154010	KNOB	SLIDE SW KNOB
	016B		00M350K154010	00M350K154010	KNOB	ROTARY VR KNOB
	017B		00M075S011010	00M075S011010	NUT	PHONE JACK NUT
	018B		00M153T005010	00M153T005010	CLAMPER	SW KNOB SPRING
	020B		00M416K064520	00M416K064520	CASE	TOP CASE KIT
	023B		00M416K158110	00M416K158110	WINDOW	FL WINDOW
	036B		00M416K053130	00M416K053130	COVER	TOP COVER
	075B		00M378V154260	00M378V154260	KNOB	POWER KNOB
	083B		00M378V270050	00M378V270050	BUTTON	CDR MECH BUTTON
	086B		00M416K154010	00M416K154010	KNOB	ENCODER KNOB
	088B		00M350K154010	00M350K154010	KNOB	TONE VR KNOB
	091B		00M416K064420	00M416K064420	CASE	BOTTOM CASE
	093B		00M416K057020	00M416K057020	LEG	LEG
	NH52		00MQK00502010	00MQK00502010	SPK	5.0CM SPEAKER 3W C050K12A
	NM51		00MMS50000150	00MMS50000150	MIC.UNIT	ECM (MICROPHONE UNIT)
	WT53		nsp	00MYU12090520	FPC	JT53-JY71 12P FFC FRONT-IR
NOT STANDARD SPARE PART						
	001S		00M19AK805010	00M19AK805010	MASS CARTON	MASTER CARTON
	002S		00M19AK801010	00M19AK801010	PACKING CASE	PKG
	003S		00M416K809010	00M416K809010	CUSHION	CUSHION L
	006S		00M416K809020	00M416K809020	CUSHION	CUSHION R

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
	001GM		420-001GM	BRACKET	POWER PCB BRACKET, MODEFIED
	001M		86420-01	HOLDER	HOLDER, HD/CDR
	001ZM		420-001ZM	POWER ADAPTOR	POWER ADAPTOR, PACK, CAT: (DA420CDR/E1B)
	004M		50-04-034	GROMMET	GROMMET, SHOCK
	007M		65-02-032	WASHER	WASHER, SPLIT C, HD MOUNTING
	008GM		420-008GM	BRACKET	HD/CDR, BRACKET MODIFIED
	008M		86420-02	HEATSINK	HD, HEATSINK
	009M		64-01-012-100	SPACER	SPACER, NYLON, SELF RETAINING
	011M		65-01-007	WASHER	WASHER, #4 FLAT, HEATSINK TO PCB/CD M'TG
	012M		65-02M2-01-ZI	WASHER	WASHER, M2, FLAT, CDR MOUNTING TO PCB
	013M		61-M20-PP-06-ZI	SCREW	SCREW, M2X6mm PHILLIPS, CDR MOUNTING TO PCB
	018M		61-M30-PP-10-ZI	SCREW	SCREW, M3X10mm PHILLIPS, HD MOUNTING
	022M		61-4PP-08-ZI	SCREW	SCREW, 4-40X1/2 PHILLIPS, HD/CD LEVEL ADJUST
	023M		66-03-002	SPRING	SPRING, COMPRISSION, HD/CD PLATFORM
	024M		51-98-004	FLAT CABLE	IDE 40 FLAT CABLE, ASSY
	030M		94-07-009	HARD DISK DRIVE	HARD DISK DRIVE
	040M		94-07-010	CDR-RW DRIVE	CDR-RW DRIVE
	0-420M		46420-420.2@00	PCB ASSEMBLY	IDE/HD/CDR BUS, PCB ASSEMBLY
	042M		17-99-087	PAD	PAD, HEAT CONDUCTIVE MAT'L
	043M		62-01-026	NUT	NUT, KEP, 4-40, ZINC I
	045M		65-03-037-1	BARRIER	BARRIER, CD, PLASTIC
	0-910M		420-0-910M	XLR-4	POWER ENTRY XLR-4 CONNECTOR ASSY
	0-911M		46420-421.2@00	PCB	USB/KEYBOARD, PCB ASSEMBLY
	PM01M		46420-419.4@00	PCB	CONTROL BOARD, PCB ASSEMBLY
	W001M		51-PWR-3C13-US	CORD	POWER CORD, USA
	W01M		51-98-005	CABLE	CABLE JUMPER, HD/CDR POWER
	W02M		51-98-004	CABLE	CABLE JUMPER, IDE 40
	W04M		51-98-002	CABLE	CABLE, INTERNAL USB, ASSY.
	W05M		51-98-003	CABLE	CABLE INTERNAL PS2, ASSY

10. ELECTRICAL PARTS LIST

PARTS INFORMATION

RESISTORS

1) 00MGD05×××140, Carbon film fixed resistor, ±5% 1/4W
2) 00MGD05×××160, Carbon film fixed resistor, ±5% 1/6W
① —— Resistance value

Examples ;
① Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

CERAMIC CAP.
3) 00MDD1××××370 — Ceramic capacitor, Disc type, Temp.coeff.P350 ～N1000, 50V
② ③ — Capacity value
② — Tolerance

Examples ;
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5% 5

＊ Tolerance of COMMON PARTS handled here are as follows :
0.5 pF～ 5 pF .... ±0.25 pF
6 pF～ 10 pF .... ±0.5 pF
12 pF～ 560 pF .... ±5%

③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101
1 pF 010	10 pF 100	220 pF 221
1.5 pF 015	47 pF 470	560 pF 561

CERAMIC CAP.
4) 00MDK16×××300, — High dielectric constant ceramic capacitor, Disc type, Temp.chara. 2B4, 50V
④ — Capacity value

Examples ;
④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

ELECTROLY CAP. (⏚)
5) 00MEA××××××10, — Electrolytic capacitor, One-way lead type, Tolerance ±20%
⑤ ⑥ — Working voltage
⑤ — Capacity value

Examples ;
⑤ Capacity value

0.1 µF 104	4.7 µF 475	100 µF 107
0.33 µF 334	10 µF 106	330 µF 337
1 µF 105	22 µF 226	1100 µF 118
		2200 µF 228

⑥ Working voltage

6.3V 006	25V 025
10V 010	35V 035
16V 016	50V 050

FILM CAP. (⏚)
6) 00MDF15×××350 → Plastic film capacitor, One-way type, Mylar ±5% 50V
00MDF15×××310
00MDF16×××310 → Plastic film capacitor, One-way type, Mylar ±10% 50V
⑦ — Capacity value

Examples ;
⑦ Capacity value

0.001 µF (1000 pF) 102	0.1 µF 104
0.0018 µF 182	0.56 µF 564
0.01 µF 103	1 µF 105
0.015 µF 153	

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
00MNH05×××140	RF25S××××ΩJ	(±5% 1/4W)
00MNH05×××120	RF50S××××ΩJ	(±5% 1/2W)
00MNH85×××110	RF73B2A××××ΩJ	(±5% 1/10W)
00MNH95×××140	RF73B2E××××ΩJ	(±5% 1/4W)

＊ Resistance value — Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
00MNF05×××140	ERD-2FCJ×××	(±5% 1/4W)
00MRF05×××140		
00MNF02×××140	ERD-2FCG×××	(±2% 1/4W)
00MRF02×××140		

＊ Resistance value — ＊ Resistance value

Examples ;
＊ Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
µ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRANSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL

NOTE ON FUSE :

Regarding to all parts of parts code **00MFS20xxx2xx**, replace only with Wickmann-Werke GmbH, Type 372 non glass type fuse.

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意：

⚠がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

040623ecm

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
PM01M	PM01M		46420-419.5@00	CDR-420	CONTROL BOARD ASSY.
PM01M	BATT1		40-03-016	LITHIUM BATTERY	3V BUTTON
PM01M	BATT1		40-99-007	BATTERY HOLDER	BATTERY HOLDER, SM
PM01M	C1		12-30-100-16	CAP. TANT, SM	10UF, 16V, B CASE
PM01M	C2		12-30-470-10	CAP. TANT, SM	47UF,10V
PM01M	C3		12-20-4700PF	CAP, CER, 0805	4700PF, 50V, 5%, NPO
PM01M	C4		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C5		12-20-220PF	CAP, CER, 0805	220PF, 50V, 5%, NPO
PM01M	C6		12-30-100-16	CAP. TANT, SM	10UF, 16V, B CASE
PM01M	C7		12-20-.47UF	CAP, CER, 0805	0.47uF, 16V, 10%, X7R
PM01M	C8		12-20-.01UF	CAP, CER, 0805	.01UF, 25V, 5%
PM01M	C9		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C10		12-30-101-6.3	CAP. TANT, SM	100UF, 6.3V, D SIZE CASE
PM01M	C11		12-26-010	CAP, CER, 1812	2.2UF, 50V, 5%, 1812
PM01M	C12		12-30-100-35	CAP. TANT, SM	10UF,35V
PM01M	C14		12-30-101-6.3	CAP. TANT, SM	100UF, 6.3V, D SIZE CASE
PM01M	C15		12-23-033	CAP, CER, 0805	.001UF, 10%, 16V, X7R
PM01M	C16		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C17		12-10-207	CAP. ELEC. RADIAL	1000uF,16V 20% .200
PM01M	C18		12-1210-105-50	CAP. CER, 1210	1UF, 10%, 50V, X7R
PM01M	C19		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C20		12-1210-105-50	CAP. CER, 1210	1UF, 10%, 50V, X7R
PM01M	C21		12-24-043	CAP, CER, 1206	10UF, 10V, 20%, Y5V
PM01M	C22		12-24-043	CAP, CER, 1206	10UF, 10V, 20%, Y5V
PM01M	C24		12-30-100-35	CAP. TANT, SM	10UF,35V
PM01M	C25		12-30-100-16	CAP. TANT, SM	10UF, 16V, B CASE
PM01M	C28		12-24-043	CAP, CER, 1206	10UF, 10V, 20%, Y5V
PM01M	C30		12-20-4700PF	CAP, CER, 0805	4700PF, 50V, 5%, NPO
PM01M	C31		12-30-100-16	CAP. TANT, SM	10UF, 16V, B CASE
PM01M	C32		12-20-.22UF	CAP, CER, 0805	0.22uF, 16V, 10%, X7R
PM01M	C33		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C36		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C38		12-20-013	CAP, CER, 0805	1UF, 20%, 25V
PM01M	C39		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C40		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C41		12-20-15PF	CAP, CER, 0805	15PF, 5%, 50V, NPO
PM01M	C42		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C43		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C44		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C45		12-20-15PF	CAP, CER, 0805	15PF, 5%, 50V, NPO
PM01M	C46		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C47		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C48		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C49		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C50		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C51		12-20-1200PF	CAP, CER, 0805	1200PF, 50V, 5%, NPO
PM01M	C52		12-20-.47UF	CAP, CER, 0805	0.47uF, 16V, 10%, X7R
PM01M	C53		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C54		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C55		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C56		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C57		12-30-477-4	CAP. TANT, SM	470UF,4V, CASE SIZE D
PM01M	C58		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C59		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C60		12-20-1200PF	CAP, CER, 0805	1200PF, 50V, 5%, NPO
PM01M	C61		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C62		12-20-.47UF	CAP, CER, 0805	0.47uF, 16V, 10%, X7R
PM01M	C63		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C64		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C65		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C66		12-20-.068UF	CAP, CER, 0805	0.068UF, 50V, 5%
PM01M	C67		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C68		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C69		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C70		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C71		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C72		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C73		12-20-1500PF	CAP, CER, 0805	1500PF, 50V, 5%, NPO
PM01M	C74		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C75		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C76		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C77		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C78		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C79		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C80		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
PM01M	C81		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C82		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C83		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C84		12-20-18PF	CAP, CER, 0805	18PF, 50V, 5%, NPO
PM01M	C85		12-20-18PF	CAP, CER, 0805	18PF, 50V, 5%, NPO
PM01M	C86		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C87		12-22-001-50	CAP. CER, 0603	0.01uF, 50V, 20%, Z5U
PM01M	C88		12-20-18PF	CAP, CER, 0805	18PF, 50V, 5%, NPO
PM01M	C89		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C90		12-20-33PF	CAP, CER, 0805	33PF, 50V, 5%, NPO
PM01M	C91		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C93		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C94		12-20-18PF	CAP, CER, 0805	18PF, 50V, 5%, NPO
PM01M	C95		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C96		12-22-001-50	CAP. CER, 0603	0.01uF, 50V, 20%, Z5U
PM01M	C97		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C98		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C99		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C100		12-22-001-50	CAP. CER, 0603	0.01uF, 50V, 20%, Z5U
PM01M	C101		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C102		12-22-001-50	CAP. CER, 0603	0.01uF, 50V, 20%, Z5U
PM01M	C103		12-20-.01UF	CAP, CER, 0805	.01UF, 25V, 5%
PM01M	C104		12-22-001-50	CAP. CER, 0603	0.01uF, 50V, 20%, Z5U
PM01M	C105		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C106		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C107		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C108		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C109		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C110		12-22-001-50	CAP. CER, 0603	0.01uF, 50V, 20%, Z5U
PM01M	C112		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C113		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C115		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C116		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C117		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C118		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C119		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C120		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C121		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C122		12-20-.47UF	CAP, CER, 0805	0.47uF, 16V, 10%, X7R
PM01M	C123		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C126		12-20-47PF	CAP, CER, 0805	47PF, 50V, 5%, NPO
PM01M	C127		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C128		12-40-470-6.3	CAP. SM, ELECT	47UF,6.3V MIN.
PM01M	C129		12-40-470-6.3	CAP. SM, ELECT	47UF,6.3V MIN.
PM01M	C130		12-40-470-6.3	CAP. SM, ELECT	47UF,6.3V MIN.
PM01M	C132		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C133		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C134		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C135		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C136		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C137		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C138		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C139		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
PM01M	C140		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C141		12-40-221-6.3	CAP. SM, ELECT	220UF, 6.3V
PM01M	C142		12-20-.47UF	CAP, CER, 0805	0.47uF, 16V, 10%, X7R
PM01M	C143		12-22-001-50	CAP. CER, 0603	0.01uF, 50V, 20%, Z5U
PM01M	C144		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C145		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C146		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C147		12-20-022	CAP, CER, 0805	10UF, 6.3V, 10%, X5R
PM01M	C148		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C149		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C150		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	C151		12-22-010-16	CAP. CER, 0603	0.1uF, 16V, 20%, Z5U
PM01M	CN1		12-8P4C-0.01UF	CAP, NET, , SM, 8 PIN, 4CAP	0.01UF, 50V, 10%, 1206
PM01M	CN2		12-8P4C-0.01UF	CAP, NET, , SM, 8 PIN, 4CAP	0.01UF, 50V, 10%, 1206
PM01M	CN3		12-8P4C-0.01UF	CAP, NET, , SM, 8 PIN, 4CAP	0.01UF, 50V, 10%, 1206
PM01M	CR1		17-01-014-2	DIODE, SIGNAL	SILICON, SM D0-213AA
PM01M	CR2		17-01-341	DIODE, SCHOTTKY, SM	1 AMP, 30 V, CASE SIZE SMA
PM01M	CR3		17-01-340	DIODE, SCHOTTKY, SM	3AMP, 40 V, DPAK
PM01M	CR4		17-01-340	DIODE, SCHOTTKY, SM	3AMP, 40 V, DPAK
PM01M	CR5		17-01-023	DIODE, RECTIFIER, SM	1 AMP, 200 V, CASE SIZE SMB
PM01M	CR6		17-01-017-2	DIODE, RECTIFIER, SM	1 A, 400 V, DO-213AB
PM01M	CR7		17-01-024	DIODE, SCHOTTKY, SM	0.5 AMP, 30 V, SOD-123

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
PM01M	CR8		17-01-024	DIODE, SCHOTTKY, SM	0.5 AMP, 30 V, SOD-123
PM01M	CR9		17-01-341	DIODE, SCHOTTKY, SM	1 AMP, 30 V, CASE SIZE SMA
PM01M	CR10		17-01-019	DIODE, SCHOTTKY, SM	250MW, 30 V, SOD-323
PM01M	CR11		17-01-341	DIODE, SCHOTTKY, SM	1 AMP, 30 V, CASE SIZE SMA
PM01M	F1		50-06-054	FUSE, POLYSWITCH	60V, 250MA PTC RESISTIVE
PM01M	F2		50-06-055	FUSE, POLYSWITCH	30V, 3A PTC RESISTIVE
PM01M	F3		50-06-057	FUSE, POLYSWITCH	60V, 100MA PTC RESISTIVE
PM01M	J3		32-99-095	JUMPER, AWG #24	SOLID, UNINSULATED
PM01M	J4		27-01-241-8	HEADER, TOP ENTRY, EH, JST FAMILY	8 POSITION
PM01M	J834		32-01-240-03	CONN., ZH FAMILY, JST, WHITE, SM	3 POS. TOP ENTRY TYPE
PM01M	JE01		32-01-240-13	CONN., ZH FAMILY, JST, WHITE, SM	13 POS. TOP ENTRY TYPE
PM01M	JM13		27-01-241-5	HEADER, TOP ENTRY, EH, JST FAMILY	5 POSITION
PM01M	JM14		27-01-241-5	HEADER, TOP ENTRY, EH, JST FAMILY	5 POSITION
PM01M	JM15		27-01-241-4	HEADER, TOP ENTRY, EH, JST FAMILY	4 POSITION
PM01M	JM16		32-01-171-40	HEADER, IDC, POLARIZED, DUAL ROW	40 PIN BOX HEADER
PM01M	JM17		27-01-241-2	HEADER, TOP ENTRY, EH, JST FAMILY	2 POSITION
PM01M	JT51		32-01-239-11	CONN., ZH FAMILY, JST, R/A, WHITE	11 POS. SIDE ENTRY TYPE
PM01M	JT52		32-01-239-10	CONN., ZH FAMILY, JST, R/A, WHITE	10 POS. SIDE ENTRY TYPE
PM01M	JT53		32-01-241-12	CONN., FPZ FAMILY, JST, BROWN	12 POS. RA, FLAT FLEX CONNECTOR
PM01M	JT54		32-01-240-03	CONN., ZH FAMILY, JST, WHITE, SM	3 POS. TOP ENTRY TYPE
PM01M	JU02		32-01-240-13	CONN., ZH FAMILY, JST, WHITE, SM	13 POS. TOP ENTRY TYPE
PM01M	JU03		32-01-239-11	CONN., ZH FAMILY, JST, R/A, WHITE	11 POS. SIDE ENTRY TYPE
PM01M	JU04		32-01-239-10	CONN., ZH FAMILY, JST, R/A, WHITE	10 POS. SIDE ENTRY TYPE
PM01M	JU08		32-01-240-08	CONN., ZH FAMILY, JST, WHITE, SM	8 POS. TOP ENTRY TYPE
PM01M	L1		23-01-078	INDUCTOR, POWER	22UH, 3.5A, SMD
PM01M	L2		23-03-078	INDUCTOR SM	33.57UH
PM01M	L3		23-01-083	INDUCTOR, VERSAPAC, SM	10.9 UH
PM01M	L4		23-03-078	INDUCTOR SM	33.57UH
PM01M	L5		23-03-083	INDUCTOR, CHOKE, 1206, SM	120 OHM, 300MA, 300MHZ
PM01M	L6		23-01-078	INDUCTOR, POWER	22UH, 3.5A, SMD
PM01M	L7		23-03-084	INDUCTOR, WIRE WOUND	10UH, 1210
PM01M	L8		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	L9		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	L10		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	L11		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	L12		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	LED1		17-06-088	LED, SM, YELLOW	YELLOW, LED, SURFACE MOUNT
PM01M	Q1		17-01-170-1	TRANSISTOR, DIGITAL, NPN	2.2K, 10K BIAS RES., SMT3 PACK
PM01M	Q2		17-01-155-1	TRANSISTOR, DIGITAL, PNP	2.2K, 10K BIAS RES., SMT3 PACK
PM01M	Q3		17-01-170-1	TRANSISTOR, DIGITAL, NPN	2.2K, 10K BIAS RES., SMT3 PACK
PM01M	Q4		17-02-030	IC, LOGIC, SM	P-CHANNEL 1.8V POWER MOSFET
PM01M	R1		04-20-4.99K	RES. SM 5% 1/10W/0805	4.99K OHM
PM01M	R2		04-20-11.5K	RES. SM 5% 1/10W/0805	11.5K OHM
PM01M	R3		04-24-0.100	RES. SM, SENSE 1% , WSL1206	0.100 OHM
PM01M	R4		04-20-4.7K	RES. SM 5% 1/10W/0805	4.7K OHM
PM01M	R5		04-20-120	RES. SM 5% 1/10W/0805	120 OHM
PM01M	R6		04-20-2.1K	RES. SM 5% 1/10W/0805	2.1K OHM
PM01M	R7		04-20-22.6K	RES. SM 5% 1/10W/0805	22.6K OHM
PM01M	R8		04-20-1.1K	RES. SM 5% 1/10W/0805	1.1K OHM
PM01M	R9		04-20-82K	RES. SM 5% 1/10W/0805	82 K OHM
PM01M	R10		04-20-22K	RES. SM 5% 1/10W/0805	22K OHM
PM01M	R11		04-20-51K	RES. SM 5% 1/10W/0805	51K OHM
PM01M	R12		04-20-196K	RES. SM 5% 1/10W/0805	196K OHM
PM01M	R13		04-20-4.99K	RES. SM 5% 1/10W/0805	4.99K OHM
PM01M	R14		04-20-4.99K	RES. SM 5% 1/10W/0805	4.99K OHM
PM01M	R16		04-20-182K	RES. SM 5% 1/10W/0805	182K OHM
PM01M	R17		04-20-56K	RES. SM 5% 1/10W/0805	56K OHM
PM01M	R19		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R21		04-20-3.3K	RES. SM 5% 1/10W/0805	3.3K OHM
PM01M	R22		04-1210-100	RES, SM, 1210	100 OHM
PM01M	R23		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	R25		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R26		04-20-150K	RES. SM 5% 1/10W/0805	150K OHM
PM01M	R27		04-20-51K	RES. SM 5% 1/10W/0805	51K OHM
PM01M	R28		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R29		04-20-22K	RES. SM 5% 1/10W/0805	22K OHM
PM01M	R30		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R31		04-20-2.2K	RES. SM 5% 1/10W/0805	2.2K OHM
PM01M	R33		04-20-12K	RES. SM 5% 1/10W/0805	12K OHM
PM01M	R34		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R35		04-20-47K	RES. SM 5% 1/10W/0805	47K OHM
PM01M	R36		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R37		04-20-22K	RES. SM 5% 1/10W/0805	22K OHM
PM01M	R38		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R39		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
PM01M	R40		04-20-27K	RES. SM 5% 1/10W/0805	27K OHM
PM01M	R41		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	R42		04-20-27K	RES. SM 5% 1/10W/0805	27K OHM
PM01M	R43		04-20-12K	RES. SM 5% 1/10W/0805	12K OHM
PM01M	R44		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R45		04-20-47K	RES. SM 5% 1/10W/0805	47K OHM
PM01M	R46		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R47		04-20-22K	RES. SM 5% 1/10W/0805	22K OHM
PM01M	R48		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R49		04-20-22K	RES. SM 5% 1/10W/0805	22K OHM
PM01M	R50		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R51		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R52		04-20-27	RES. SM 5% 1/10W/0805	27 OHM
PM01M	R53		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R54		04-20-1M	RES. SM 5% 1/10W/0805	1M OHM
PM01M	R55		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	R56		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R57		04-20-100K	RES. SM 5% 1/10W/0805	100K OHM
PM01M	R58		04-20-1M	RES. SM 5% 1/10W/0805	1M OHM
PM01M	R59		04-20-100	RES. SM 5% 1/10W/0805	100 OHM
PM01M	R60		04-20-22K	RES. SM 5% 1/10W/0805	22K OHM
PM01M	R61		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	R62		04-20-100	RES. SM 5% 1/10W/0805	100 OHM
PM01M	R63		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R64		04-20-10	RES. SM 5% 1/10W/0805	10 OHM
PM01M	R65		04-20-27K	RES. SM 5% 1/10W/0805	27K OHM
PM01M	R66		04-20-1K	RES. SM 5% 1/10W/0805	1K OHM
PM01M	R67		04-20-100	RES. SM 5% 1/10W/0805	100 OHM
PM01M	R69		04-20-5.6K	RES. SM 5% 1/10W/0805	5.6 K OHM
PM01M	R70		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R72		04-20-27K	RES. SM 5% 1/10W/0805	27K OHM
PM01M	R73		04-20-4.7K	RES. SM 5% 1/10W/0805	4.7K OHM
PM01M	R74		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R75		04-20-10K	RES. SM 5% 1/10W/0805	10K OHM
PM01M	R76		04-20-4.7K	RES. SM 5% 1/10W/0805	4.7K OHM
PM01M	R77		04-20-100	RES. SM 5% 1/10W/0805	100 OHM
PM01M	R78		04-20-100K	RES. SM 5% 1/10W/0805	100K OHM
PM01M	R79		04-20-000	RES. SM 5% 1/10W/0805	ZERO OHM
PM01M	R80		04-20-100K	RES. SM 5% 1/10W/0805	100K OHM
PM01M	R81		04-20-470	RES. SM 5% 1/10W/0805	470 OHM
PM01M	R82		04-20-2.2K	RES. SM 5% 1/10W/0805	2.2K OHM
PM01M	R83		04-20-2.2K	RES. SM 5% 1/10W/0805	2.2K OHM
PM01M	REG1		17-01-197	REGULATOR, ADJUSTABLE, SM	1.5 AMP, -1.2V TO -37V OUTPUT, D2T
PM01M	REG2		17-02-266	IC, POWER, SM	500KHZ, 1.5A, SWITCHING REGULATORS
PM01M	REG3		17-03-216	IC, REGULATOR, SM	DC/DC CONTROLLER
PM01M	REG4		17-02-259	IC, POWER, SM	260 KHZ, SWITCHMODE STEP DOWN
PM01M	REG5		17-02-260	IC, POWER, SM	1.2MHZ, SWITCHMODE DC-DC
PM01M	REG6		17-01-264	IC, REGULATOR, SM	ADJ, 50MA, MSOP, CODE LTZF
PM01M	REG7		17-02-261	IC, POWER	1.25MHZ, SWITCHMODE, TSSOP16
PM01M	REG10		17-01-253-3	IC, REGULATOR, SM	+1.8V, 0.8A, DPAK, TO-252
PM01M	REG11		17-01-253	IC, REGULATOR, SM	+3.3V, 0.8A, DPAK PACKAGE
PM01M	RN1		04-30-820	RES, NET, SM, 8T,4R, 0603	820 OHM
PM01M	RN2		04-30-4.7K	RES, NET, SM, 8T,4R, 0603	4.7K OHM
PM01M	RN3		04-30-10K	RES, NET, SM, 8T,4R, 0603	10K OHM
PM01M	RN4		04-30-100	RES, NET, SM, 8T,4R, 0603	100 OHM
PM01M	RN5		04-30-100	RES, NET, SM, 8T,4R, 0603	100 OHM
PM01M	RN6		04-30-10K	RES, NET, SM, 8T,4R, 0603	10K OHM
PM01M	RN7		04-30-4.7K	RES, NET, SM, 8T,4R, 0603	4.7K OHM
PM01M	RN8		04-8P4R-10K	RES, NET, SM, 8PIN, 4RES	10K OHM, 5%
PM01M	RN9		04-16P8R-100K	RES, NET, SM, 16PIN, 8RES	100K OHM, 5%
PM01M	RN10		04-8P4R-1K	RES, NET, SM, 8PIN, 4RES	1 K OHM, 5%
PM01M	RN11		04-16P8R-100K	RES, NET, SM, 16PIN, 8RES	100K OHM, 5%
PM01M	RN12		04-8P4R-10	RES, NET, SM, 8PIN, 4RES	10 OHM, 5%
PM01M	RN13		04-16P8R-10	RES, NET, SM, 16PIN, 8RES	10 OHM, 5%
PM01M	RN14		04-16P8R-100K	RES, NET, SM, 16PIN, 8RES	100K OHM, 5%
PM01M	RN15		04-8P4R-10K	RES, NET, SM, 8PIN, 4RES	10K OHM, 5%
PM01M	RN16		04-8P4R-10K	RES, NET, SM, 8PIN, 4RES	10K OHM, 5%
PM01M	RN17		04-8P4R-10K	RES, NET, SM, 8PIN, 4RES	10K OHM, 5%
PM01M	RN18		04-16P8R-10	RES, NET, SM, 16PIN, 8RES	10 OHM, 5%
PM01M	RN19		04-8P4R-33	RES, NET, SM, 8PIN, 4RES	33 OHM, 5%
PM01M	RN20		04-16P8R-10	RES, NET, SM, 16PIN, 8RES	10 OHM, 5%
PM01M	RN21		04-8P4R-10K	RES, NET, SM, 8PIN, 4RES	10K OHM, 5%
PM01M	RN22		04-16P8R-100	RES, NET, SM, 16PIN, 8RES	100 OHM, 5%
PM01M	RN23		04-16P8R-10	RES, NET, SM, 16PIN, 8RES	10 OHM, 5%
PM01M	RN24		04-16P8R-10	RES, NET, SM, 16PIN, 8RES	10 OHM, 5%

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
PM01M	RN25		04-16P8R-10	RES, NET, SM, 16PIN, 8RES	10 OHM, 5%
PM01M	RN26		04-8P4R-10K	RES, NET, SM, 8PIN, 4RES	10K OHM, 5%
PM01M	RN27		04-8P4R-470	RES, NET, SM, 8PIN, 4RES	470 OHM, 5%
PM01M	RN28		04-8P4R-100K	RES, NET, SM, 8PIN, 4RES	100K OHM, 5%
PM01M	SW1		37-01-120	SWITCH, TACTILE, VERTICAL, SMD	MOMENTARY
PM01M	U1		17-02-029	IC, LOGIC	N-CHANNEL LOGIC LEVEL POWER MOSFET
PM01M	U2		17-02-265	IC, QUAD SPST SWITCHES	44V, 18 PIN R-16A
PM01M	U3		17-03-299	IC, A/D, CONVERTER	8-BIT, 4KBYTE OTP
PM01M	U5		17-03-299	IC, A/D, CONVERTER	8-BIT, 4KBYTE OTP
PM01M	U6		17-02-220	IC, LOGIC, SM, 4052	QUAD 2:1 MUX
PM01M	U7		17-03-308	IC, AUDIO	DUAL OP AMP
PM01M	U8		17-03-308	IC, AUDIO	DUAL OP AMP
PM01M	U9		17-03-308	IC, AUDIO	DUAL OP AMP
PM01M	U10		17-02-264	IC, AUDIO PROCESSOR W/CODEC	24-BIT 100 MIPS, 48 PIN TQFP (PGB)
PM01M	U11		17-03-002-SM-1	IC, LOGIC, MC74LCX04	HEX INVERTERS TSSOP-14
PM01M	U12		17-11-304	IC, MEMORY	16MBIT, NOR FLASH, 3V, TSOP48
PM01M	U13		17-11-184	IC, MEMORY, SM	16M X 16 SDRAM, 133MHZ MAX.
PM01M	U14		17-04-500-T	IC, CPU	208 PIN TQFP
PM01M	U15		17-03-327-1	IC, REAL TIME CLOCK, DS1338	56 B, NV SRAM, SO8
PM01M	U16		17-01-268	3.3V, 5 PIN, SC-70, CODE AWK	TEXAS INSTRUMENTS
PM01M	U17		17-02-246	IC, MEMORY	EPROM, 4KB, SO8
PM01M	U18		17-04-185	IC, UP	USB 2.0 CONTROLLER, 56-PIN SSOP
PM01M	U19		17-06-177	IC, OPTICAL COUPLER	4 PIN, SM
PM01M	X1		17-20-250-SM-4	OSC, CRYSTAL, SMD	7.3728 MHZ
PM01M	X2		17-20-250-SM-6	OSC, CRYSTAL, SMD	11.2896MHZ
PM01M	X3		17-20-250-SM-2	OSC, CRYSTAL, SMD	24.0000MHZ
PM01M	X4		17-20-250-SM-5	OSC, CRYSTAL, SMD	33.8688 MHZ,
PM01M	X5		17-20-162	OSC, CRYSTAL,	32.768 KHZ
PM01M	Z1		17-01-123	TRANZORB, SM	24V, 600W
PM01M	Z2		17-01-125	TRANZORB, 0603	V5.5, 30A, 100MW

FOR CHANGES TO PM01M BOARD (419-6) REFER TO ADDENDUM A

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
0-912M	0-912M		46420-420.2@00	CDR-420	IDE/HD/CDR CONTROL BOARD ASSY.
0-912M	CX1		12-20-010	CAP, CER, 0805	0.1uF, 50V, 20%, Z5U
0-912M	J4		32-01-281-44	SOCKET, PCB, 2MM (0.079)	44 Pos Dual Row
0-912M	J5		32-01-270-50	CONN, RIBBON, 0.8MM, RECEPTACLE, STRAIGHT TYPE	50 Pin
0-912M	JT2		32-01-171-40	HEADER, IDC, POLARIZED, DUAL ROW	40 PIN BOX HEADER
0-912M	JU1		27-01-241-2	HEADER, TOP ENTRY	2 POSITION

P.C.B. NAME	POS. NO	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION
0-911M	0-911M		46420-421.2@00	CDR-420	USB/KEYBOARD, BOARD ASSY.
0-911M	C1		12-30-227-6.3	CAP. TANT, SM	220uF, 6.3V
0-911M	F1		50-06-059	FUSE, POLYSWITCH	30V, 100MA., RESETABLE FUSE
0-911M	J1		32-DIN-001	CONN, PS2 FAMILY	PLUG, RA
0-911M	J2		32-USB-002-1	z	B TYPE, 2.0 RECEPTACLE, MOLDED
0-911M	J3		27-01-241-5	a	5 POSITION
0-911M	JT1		27-01-241-4	HEADER, TOP ENTRY, EH, JST FAMILY	4 POSITION
0-911M	L1		04-20-000	Res. SM 5% 1/10W/0805	ZERO OHM
0-911M	L2		04-20-000	Res. SM 5% 1/10W/0805	ZERO OHM
0-911M	L3		04-20-000	Res. SM 5% 1/10W/0805	ZERO OHM
0-911M	L4		04-20-000	Res. SM 5% 1/10W/0805	ZERO OHM
0-911M	M1		50-02-100-M3	TERMINAL, PCB SCREW, HORIZONTAL TYPE	M3, LESS SCREW
0-911M	M2		50-02-100-M3	TERMINAL, PCB SCREW, HORIZONTAL TYPE	M3, LESS SCREW
0-911M	Z1		17-01-125	TRANZORB, 0603	V5.5, 30A, 100mW
0-911M	Z2		17-01-125	TRANZORB, 0603	V5.5, 30A, 100mW
0-911M	Z3		17-01-124	TRANZORB, SOT23, SM	150V, BIDIRECTIONAL, 2 CHANNEL
0-911M	Z4		17-01-125	TRANZORB, 0603	V5.5, 30A, 100mW

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
					PG01 LINE IN/OUT PCB (00MWG416K202-)	
PG01	C501		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	C502		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	C503		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	C504		nsp	00MDD95101300	CER. CAP.	100 PF +-5% CG 50V GR39
PG01	C506		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PG01	C507		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	C511		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	C521		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PG01	C531		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	C532		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	C534		nsp	00MDD95101300	CER. CAP.	100 PF +-5% CG 50V GR39
PG01	C591		nsp	00MDK98103300	CER. CAP.	0.01UF
PG01	CE01		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE02		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE03		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE04		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE05		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE06		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE07		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE08		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE09		nsp	00MDD91100300	CER. CAP.	10 PF +-0.5 PF CH 50V GR39
PG01	CE10		nsp	00MDD91100300	CER. CAP.	10 PF +-0.5 PF CH 50V GR39
PG01	CE11		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE12		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PG01	CE13		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE14		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE15		00MEY10700620	00MEY10700620	ELECT CAP.	100UF 6.3V
PG01	CE16		00MEY10700620	00MEY10700620	ELECT CAP.	100UF 6.3V
PG01	CE17		00MEY10701020	00MEY10701020	ELECT CAP.	100UF 10V
PG01	CE18		00MEY10701020	00MEY10701020	ELECT CAP.	100UF 10V
PG01	CE19		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CE21		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE22		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE23		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CE24		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CE25		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE26		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CE41		nsp	00MDD91100300	CER. CAP.	10 PF +-0.5 PF CH 50V GR39
PG01	CE42		nsp	00MDD91100300	CER. CAP.	10 PF +-0.5 PF CH 50V GR39
PG01	CG01		nsp	00MDK96221300	CER. CAP.	220PF (GR39)
PG01	CG02		nsp	00MDK96221300	CER. CAP.	220PF (GR39)
PG01	CG03		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG04		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG05		nsp	00MDD95101300	CER. CAP.	100 PF +-5% CG 50V GR39
PG01	CG06		nsp	00MDD95101300	CER. CAP.	100 PF +-5% CG 50V GR39
PG01	CG09		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG10		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG11		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG12		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG21		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG22		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG23		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG24		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG25		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG26		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG31		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG32		nsp	00MDD95221300	CER. CAP.	220 PF +-5% CG 50V GR39
PG01	CG33		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG34		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG35		nsp	00MDD95101300	CER. CAP.	100 PF +-5% CG 50V GR39
PG01	CG36		nsp	00MDD95101300	CER. CAP.	100 PF +-5% CG 50V GR39
PG01	CG39		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG40		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG41		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG42		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG51		nsp	00MDK96221300	CER. CAP.	220PF (GR39)

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PG01	CG52		nsp	00MDK96221300	CER. CAP.	220PF (GR39)
PG01	CG53		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG54		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG61		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CG62		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CG71		00MEY10700620	00MEY10700620	ELECT CAP.	100UF 6.3V
PG01	CG81		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CG82		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PG01	CG83		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG84		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PG01	CG91		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PG01	DE01		00MHZ20018050	00MHZ20018050	CHIP DIODE	1SS302 (TOSHIBA)
PG01	DE02		00MHZ20018050	00MHZ20018050	CHIP DIODE	1SS302 (TOSHIBA)
PG01	DE03		00MHZ20018050	00MHZ20018050	CHIP DIODE	1SS302 (TOSHIBA)
PG01	DE04		00MHZ20018050	00MHZ20018050	CHIP DIODE	1SS302 (TOSHIBA)
PG01	DE11		00MHZ30018050	00MHZ30018050	CHIP DIODE	3.6V 02CZ3.6X TOSHIBA
PG01	DE51		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PG01	DG71		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PG01	J501		00MYT02021220	00MYT02021220	TERMINAL	14X14 RA 2L2P BLK NI FLM-GND
PG01	JG01		00MYT02060460	00MYT02060460	TERMINAL	14X14 RA 2L6P W/R NI FLM-GND
PG01	L501		00MTP41042030	00MTP41042030	TRANSF.	PULSE TRNSF.(TPS247MN-0386AN)
PG01	L511		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	L512		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	L513		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	L514		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	L515		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	L516		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	LG01		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	LG02		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	LG03		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	LG04		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	LG05		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	LG06		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	Q501		00MHC700400Z0	00MHC700400Z0	IC	CMOS 74HCU04 FLAT TAPING
PG01	QE01		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PG01	QE02		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PG01	QE03		00MHX300012A0	00MHX300012A0	CHIP TRS.	2SC4081 (Q,R) 2SC4116 (Y,GR)
PG01	QE04		00MHX300012A0	00MHX300012A0	CHIP TRS.	2SC4081 (Q,R) 2SC4116 (Y,GR)
PG01	QE05		00MHX300012A0	00MHX300012A0	CHIP TRS.	2SC4081 (Q,R) 2SC4116 (Y,GR)
PG01	QE06		00MHX300012A0	00MHX300012A0	CHIP TRS.	2SC4081 (Q,R) 2SC4116 (Y,GR)
PG01	QE07		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PG01	QE08		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PG01	QE11		00MBA12111000	00MBA12111000	TRS.	DTA114TE /RN2111
PG01	QE12		00MHX100012A0	00MHX100012A0	CHIP TRS.	2SA1586 (Y,GR) 2SA1576A (Q,R)
PG01	QE14		00MHC405321Y0	00MHC405321Y0	IC	BU4053BCFV
PG01	QE15		00MHC705205Y0	00MHC705205Y0	IC	TC74HC4052AFT
PG01	QE51		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PG01	QE52		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PG01	QE53		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PG01	QG01		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PG01	QG03		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG04		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG05		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG06		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG31		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PG01	QG33		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG34		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG35		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG36		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PG01	QG51		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PG01	QG71		00MBA12102000	00MBA12102000	TRS.	RN2102,DTA114EEA
PG01	QG72		00MHX300012A0	00MHX300012A0	CHIP TRS.	2SC4081 (Q,R) 2SC4116 (Y,GR)
PG01	QG73		00MBA21102000	00MBA21102000	TRS.	DTC114EE,RN1102
PG01	QG81		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PG01	R501		nsp	00MNN05332610	CHIP RES.	3.3K OHM +-5% 1/16W
PG01	R502		nsp	00MNN05332610	CHIP RES.	3.3K OHM +-5% 1/16W
PG01	R503		nsp	00MNN05750610	CHIP RES.	75 OHM +-5% 1/16W

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PG01	R504		nsp	00MNN05271610	CHIP RES.	270 OHM +-5% 1/16W
PG01	R505		nsp	00MNN05680610	CHIP RES.	68 OHM +-5% 1/16W
PG01	R521		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	R522		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	R531		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	R532		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	R533		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	RE01		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PG01	RE02		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PG01	RE03		nsp	00MNN05471610	CHIP RES.	470 OHM +-5% 1/16W
PG01	RE04		nsp	00MNN05471610	CHIP RES.	470 OHM +-5% 1/16W
PG01	RE05		nsp	00MNN05224610	CHIP RES.	220K OHM +-5% 1/16W
PG01	RE06		nsp	00MNN05224610	CHIP RES.	220K OHM +-5% 1/16W
PG01	RE07		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RE08		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RE09		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RE10		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RE11		nsp	00MNN05183610	CHIP RES.	18K OHM +-5% 1/16W
PG01	RE12		nsp	00MNN05183610	CHIP RES.	18K OHM +-5% 1/16W
PG01	RE13		nsp	00MNN05153610	CHIP RES.	15K OHM +-5% 1/16W
PG01	RE14		nsp	00MNN05153610	CHIP RES.	15K OHM +-5% 1/16W
PG01	RE15		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RE16		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RE17		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RE18		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RE19		nsp	00MNN05105610	CHIP RES.	1M OHM +-5% 1/16W
PG01	RE20		nsp	00MNN05105610	CHIP RES.	1M OHM +-5% 1/16W
PG01	RE25		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PG01	RE26		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PG01	RE27		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PG01	RE29		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RE30		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RE31		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PG01	RE32		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PG01	RE41		nsp	00MNN05563610	CHIP RES.	56K OHM +-5% 1/16W
PG01	RE42		nsp	00MNN05563610	CHIP RES.	56K OHM +-5% 1/16W
PG01	RE43		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RE44		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RE45		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PG01	RE47		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	RE48		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	RE51		nsp	00MNN05224610	CHIP RES.	220K OHM +-5% 1/16W
PG01	RE52		nsp	00MNN05224610	CHIP RES.	220K OHM +-5% 1/16W
PG01	RE53		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PG01	RE54		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PG01	RG01		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG02		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG03		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG04		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG05		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG06		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG07		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG08		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG21		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PG01	RG22		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PG01	RG23		nsp	00MNN05273610	CHIP RES.	27K OHM +-5% 1/16W
PG01	RG24		nsp	00MNN05273610	CHIP RES.	27K OHM +-5% 1/16W
PG01	RG31		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG32		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG33		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG34		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG35		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG36		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG37		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG38		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG41		nsp	00MNN05752610	CHIP RES.	7.5K OHM +-5% 1/16W
PG01	RG42		nsp	00MNN05752610	CHIP RES.	7.5K OHM +-5% 1/16W

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PG01	RG43		nsp	00MNN05133610	CHIP RES.	13K OHM +-5% 1/16W
PG01	RG44		nsp	00MNN05133610	CHIP RES.	13K OHM +-5% 1/16W
PG01	RG51		nsp	00MNN05474610	CHIP RES.	470K OHM +-5% 1/16W
PG01	RG52		nsp	00MNN05474610	CHIP RES.	470K OHM +-5% 1/16W
PG01	RG53		nsp	00MNN05302610	CHIP RES.	3K OHM +-5% 1/16W
PG01	RG54		nsp	00MNN05302610	CHIP RES.	3K OHM +-5% 1/16W
PG01	RG57		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	RG58		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	RG61		nsp	00MNN05123610	CHIP RES.	12K OHM +-5% 1/16W
PG01	RG62		nsp	00MNN05123610	CHIP RES.	12K OHM +-5% 1/16W
PG01	RG71		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PG01	RG72		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PG01	RG74		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PG01	RG75		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	RG76		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PG01	RG81		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PG01	RG82		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
					PH01 PHONE AMP PCB (00MWG416K212-)	
PH01	CH09		nsp	00MDD95331300	CER. CAP.	330 PF +-5% CG 50V
PH01	CH10		nsp	00MDD95331300	CER. CAP.	330 PF +-5% CG 50V
PH01	CH11		nsp	00MOA47601020	ELECT. CAP.	47 UF M 10V RA-2
PH01	CH12		nsp	00MOA47601020	ELECT. CAP.	47 UF M 10V RA-2
PH01	CH13		nsp	00MOA22701020	ELECT. CAP.	220 UF M 10V RA-2
PH01	CH15		nsp	00MOA22700620	ELECT. CAP.	220 UF M 6.3V RA-2
PH01	CH16		nsp	00MOA22700620	ELECT. CAP.	220 UF M 6.3V RA-2
PH01	CH21		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CH22		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CH25		nsp	00MOA47601020	ELECT. CAP.	47 UF M 10V RA-2
PH01	CH59		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CH60		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CM01		nsp	00MDK96471300	CER. CAP.	470PF (GR39)
PH01	CM02		nsp	00MDK96471300	CER. CAP.	470PF (GR39)
PH01	CM03		nsp	00MDK96471510	CER. CAP.	470PF K 200V X7R
PH01	CM04		nsp	00MDK96471510	CER. CAP.	470PF K 200V X7R
PH01	CM05		00MEA10606310	00MEA10606310	ELECT CAP.	10UF 63V
PH01	CM06		00MEA10606310	00MEA10606310	ELECT CAP.	10UF 63V
PH01	CM31		nsp	00MDK96471300	CER. CAP.	470PF (GR39)
PH01	CM32		nsp	00MDK96471300	CER. CAP.	470PF (GR39)
PH01	CM33		nsp	00MDK96471510	CER. CAP.	470PF K 200V X7R
PH01	CM34		nsp	00MDK96471510	CER. CAP.	470PF K 200V X7R
PH01	CM35		00MEA10606310	00MEA10606310	ELECT CAP.	10UF 63V
PH01	CM36		00MEA10606310	00MEA10606310	ELECT CAP.	10UF 63V
PH01	CM73		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CM74		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CM75		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CM76		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH01	CM81		nsp	00MOA10705020	ELECT. CAP.	100 UF M 50V RA-2
PH01	CM91		nsp	00MOA10705020	ELECT. CAP.	100 UF M 50V RA-2
PH01	JH01		00MYJ01003020	00MYJ01003020	JACK	HLJ1520-016410
PH01	JH31		00MYP06021900	00MYP06021900	PLUG	IMSA-9110B-16
PH01	JM01		00MYJ01003050	00MYJ01003050	JACK	3.5PHI HEAD PHONE JACK HLJ0521
PH01	JM02		00MYJ01004340	00MYJ01004340	JACK	NC3FAH2 4P CANON TYPE HOLZ
PH01	JM31		00MYJ01003050	00MYJ01003050	JACK	3.5PHI HEAD PHONE JACK HLJ0521
PH01	JM32		00MYJ01004340	00MYJ01004340	JACK	NC3FAH2 4P CANON TYPE HOLZ
PH01	JM75		00MYP06015130	00MYP06015130	PLUG	B3B-ZR-SM3
PH01	JM76		00MYP06015120	00MYP06015120	PLUG	B2B-ZR-SM3
PH01	LH01		00MLC12220190	00MLC12220190	CHOKE COIL	LHLC06NB2R2M 2.2UH
PH01	LH02		00MLC12220190	00MLC12220190	CHOKE COIL	LHLC06NB2R2M 2.2UH
PH01	LH03		00MLC12220190	00MLC12220190	CHOKE COIL	LHLC06NB2R2M 2.2UH
PH01	QH02		00MHC10138490	00MHC10138490	IC	TDA1308 POWER OP AMP
PH01	QM05		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PH01	QM06		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PH01	QM35		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PH01	QM36		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PH01	RH07		nsp	00MNN05273610	CHIP RES.	27K OHM +-5% 1/16W
PH01	RH08		nsp	00MNN05273610	CHIP RES.	27K OHM +-5% 1/16W
PH01	RH09		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W

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P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PH01	RH10		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RH11		nsp	00MNN05333610	CHIP RES.	33K OHM +-5% 1/16W
PH01	RH12		nsp	00MNN05333610	CHIP RES.	33K OHM +-5% 1/16W
PH01	RH13		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PH01	RH14		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PH01	RH15		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PH01	RH16		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PH01	RH17		nsp	00MNN05047610	CHIP RES.	4.7 OHM +-5% 1/16W
PH01	RH18		nsp	00MNN05047610	CHIP RES.	4.7 OHM +-5% 1/16W
PH01	RH19		nsp	00MNN05047610	CHIP RES.	4.7 OHM +-5% 1/16W
PH01	RH20		nsp	00MNN05047610	CHIP RES.	4.7 OHM +-5% 1/16W
PH01	RH21		nsp	00MNN05223610	CHIP RES.	22K OHM +-5% 1/16W
PH01	RH27		nsp	00MNN05333610	CHIP RES.	33K OHM +-5% 1/16W
PH01	RH71		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RH72		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RH73		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RH74		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RH75		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PH01	RM01		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RM02		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RM15		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RM16		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RM17		nsp	00MNN05151610	CHIP RES.	150 OHM +-5% 1/16W
PH01	RM18		nsp	00MNN05151610	CHIP RES.	150 OHM +-5% 1/16W
PH01	RM31		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RM32		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH01	RM45		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RM46		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RM47		nsp	00MNN05151610	CHIP RES.	150 OHM +-5% 1/16W
PH01	RM48		nsp	00MNN05151610	CHIP RES.	150 OHM +-5% 1/16W
PH01	RM81		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH01	RM82		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PH01	RM83		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RM84		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RM91		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH01	RM92		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PH01	RM93		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RM94		nsp	00MNN05682610	CHIP RES.	6.8K OHM +-5% 1/16W
PH01	RV04		00MRM01031200	00MRM01031200	VAR. RES.	RK09K12A H L1=15MM (ALPS)
					PH02 POWER AMP PCB (00MWG416K102-)	
PH02	C401		nsp	00MDK98104300	CER. CAP.	0.1UF 50V F C1608JF1H104Z
PH02	CH01		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PH02	CH02		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PH02	CH03		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PH02	CH04		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PH02	CH05		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CH06		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CH07		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PH02	CH08		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PH02	CH51		nsp	00MDK96471300	CER. CAP.	470PF (GR39)
PH02	CH52		nsp	00MDK96474200	CER. CAP.	0.47UF 10V B(BJ) +-10%
PH02	CH53		nsp	00MDK96102300	CER. CAP.	1000 PF +-10% B 50V GR36
PH02	CH55		00MEY10701020	00MEY10701020	ELECT CAP.	100UF 10V
PH02	CH56		nsp	00MDK96472300	CER. CAP.	4700 PF +-10% B 50V GR39
PH02	CH57		nsp	00MDK96472300	CER. CAP.	4700 PF +-10% B 50V GR39
PH02	CH58		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PH02	CH61		00MEY33501670	00MEY33501670	TANTL.CAP CHIP	SK3-IC 3.3UF 16V
PH02	CM07		00MEY10601070	00MEY10601070	TANTL.CAP CHIP	10UF 10V
PH02	CM08		00MEY10601070	00MEY10601070	TANTL.CAP CHIP	10UF 10V
PH02	CM09		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM10		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM11		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CM12		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CM13		00MEY68601070	00MEY68601070	TANTL.CAP CHIP	MSVC1A686M 68UF 10V
PH02	CM14		nsp	00MDK96221300	CER. CAP.	220PF (GR39)
PH02	CM15		00MEY10601070	00MEY10601070	TANTL.CAP CHIP	10UF 10V
PH02	CM16		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF

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P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PH02	CM17		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PH02	CM21		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM22		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM23		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM37		00MEY10601070	00MEY10601070	TANTL.CAP CHIP	10UF 10V
PH02	CM38		00MEY10601070	00MEY10601070	TANTL.CAP CHIP	10UF 10V
PH02	CM39		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM40		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM41		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CM42		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CM43		00MEY68601070	00MEY68601070	TANTL.CAP CHIP	MSVC1A686M 68UF 10V
PH02	CM44		nsp	00MDK96221300	CER. CAP.	220PF (GR39)
PH02	CM45		00MEY10601070	00MEY10601070	TANTL.CAP CHIP	10UF 10V
PH02	CM46		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PH02	CM47		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PH02	CM51		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PH02	CM52		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PH02	CM53		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CM54		00MEY47601020	00MEY47601020	ELECT CAP.	47UF 10V
PH02	CM55		nsp	00MDD95471300	CER. CAP.	GRM39CH471J50PT
PH02	CM56		00MEY10601620	00MEY10601620	ELECT CAP.	10UF 16V
PH02	CM57		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM61		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM62		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM63		nsp	00MDD95470300	CER. CAP.	47 PF +-5% CG 50V GR39
PH02	CM71		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PH02	CM72		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PH02	DH01		00MHZ30750050	00MHZ30750050	CHIP DIODE	02CZ7.5Y TOSHIBA
PH02	DH02		00MHZ30750050	00MHZ30750050	CHIP DIODE	02CZ7.5Y TOSHIBA
PH02	DH03		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PH02	DH04		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PH02	DH91		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PH02	DH92		00MHZ20002080	00MHZ20002080	CHIP DIODE	SFPL-52 200V/0.9A
PH02	DH99		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PH02	DS01		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PH02	DS02		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PH02	DS04		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PH02	DS05		00MHZ21006000	00MHZ21006000	CHIP DIODE	1SS300,DAP202U UMT TYPE
PH02	DS06		00MHZ21006000	00MHZ21006000	CHIP DIODE	1SS300,DAP202U UMT TYPE
PH02	JM71		00MYP06021880	00MYP06021880	PLUG	B11B-ZR-SM3-TF
PH02	JM72		00MYP06021870	00MYP06021870	PLUG	B10B-ZR-SM3-TF
PH02	JM73		00MYP06021880	00MYP06021880	PLUG	B11B-ZR-SM3-TF
PH02	JM74		00MYP06021880	00MYP06021880	PLUG	B11B-ZR-SM3-TF
PH02	JM91		00MYJ06017160	00MYJ06017160	JACK	IMSA-9110S-16L
PH02	Q401		00MBA10014210	00MBA10014210	TRS.	DTA144EU (ROHM)
PH02	Q402		00MBA21712210	00MBA21712210	TRS.	DTC144TUA T106 ROHM
PH02	QH01		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PH02	QH03		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PH02	QH04		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PH02	QH51		00MHC10157490	00MHC10157490	IC	3W POWER IC TDA7056A
PH02	QH52		00MBA20080210	00MBA20080210	TRS.	DTC323TU
PH02	QM01		00MHC10168090	00MHC10168090	IC	NJM2068V (0P-AMP)
PH02	QM02		00MHC10011090	00MHC10011090	IC	NJM4558M(Y)
PH02	QM03		00MHC705205Y0	00MHC705205Y0	IC	TC74HC4052AFT
PH02	QM07		00MBA12303000	00MBA12303000	TRS.	DTA124EU,RN2303 UMT TYPE
PH02	QM31		00MHC10168090	00MHC10168090	IC	NJM2068V (0P-AMP)
PH02	QM33		00MHC705205Y0	00MHC705205Y0	IC	TC74HC4052AFT
PH02	QM51		00MHC10168090	00MHC10168090	IC	NJM2068V (0P-AMP)
PH02	R401		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PH02	R402		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RH01		nsp	00MNN05223610	CHIP RES.	22K OHM +-5% 1/16W
PH02	RH02		nsp	00MNN05223610	CHIP RES.	22K OHM +-5% 1/16W
PH02	RH03		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH02	RH04		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH02	RH05		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PH02	RH06		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PH02	RH53		nsp	00MNN05100610	CHIP RES.	10 OHM +-5% 1/16W

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PH02	RH54		nsp	00MNN05100610	CHIP RES.	10 OHM +-5% 1/16W
PH02	RH55		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RH61		nsp	00MNN05101610	CHIP RES.	100 OHM +-5% 1/16W
PH02	RH91		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PH02	RH99		nsp	00MNN05223610	CHIP RES.	22K OHM +-5% 1/16W
PH02	RM03		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH02	RM04		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH02	RM05		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RM06		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RM07		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM08		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM09		nsp	00MNN05225610	CHIP RES.	2.2M OHM +-5% 1/20W
PH02	RM10		nsp	00MNN05301610	CHIP RES.	300 OHM +-5% 1/16W
PH02	RM12		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM13		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RM19		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PH02	RM21		nsp	00MNN05470610	CHIP RES.	47 OHM +-5% 1/16W
PH02	RM22		nsp	00MNN05470610	CHIP RES.	47 OHM +-5% 1/16W
PH02	RM23		nsp	00MNN05470610	CHIP RES.	47 OHM +-5% 1/16W
PH02	RM24		nsp	00MNN05470610	CHIP RES.	47 OHM +-5% 1/16W
PH02	RM33		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH02	RM34		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PH02	RM35		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RM36		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RM37		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM38		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM39		nsp	00MNN05225610	CHIP RES.	2.2M OHM +-5% 1/20W
PH02	RM40		nsp	00MNN05301610	CHIP RES.	300 OHM +-5% 1/16W
PH02	RM42		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM43		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RM51		nsp	00MNN05100610	CHIP RES.	10 OHM +-5% 1/16W
PH02	RM52		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PH02	RM53		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM54		nsp	00MNN05101610	CHIP RES.	100 OHM +-5% 1/16W
PH02	RM55		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RM56		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PH02	RM57		nsp	00MNN05333610	CHIP RES.	33K OHM +-5% 1/16W
PH02	RM58		nsp	00MNN05104610	CHIP RES.	100K OHM +-5% 1/16W
PH02	RM61		nsp	00MNN05822610	CHIP RES.	8.2K OHM +-5% 1/16W
PH02	RM62		nsp	00MNN05822610	CHIP RES.	8.2K OHM +-5% 1/16W
PH02	RS04		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RS05		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RS06		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RS07		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RS08		nsp	00MNN05223610	CHIP RES.	22K OHM +-5% 1/16W
PH02	RS09		nsp	00MNN05223610	CHIP RES.	22K OHM +-5% 1/16W
PH02	RS11		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PH02	RS14		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PH02	RS15		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PH02	RS16		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PH02	RS17		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
					PV01 PHONE/MIC VOLUME PCB (00MWG416K204-)	
PV01	CV01		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PV01	CV02		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PV01	CV03		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PV01	CV04		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PV01	RV01		00MRK01031610	00MRK01031610	VAR. RES.	RK09L1140 V L=12.5MM (ALPS)
PV01	RV02		00MRK01031610	00MRK01031610	VAR. RES.	RK09L1140 V L=12.5MM (ALPS)
PV01	RV03		00MRM01031210	00MRM01031210	VAR. RES.	RK09L1240 V L1=12.5MM (ALPS)
PV01	RV05		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PV01	RV06		nsp	00MNN05222610	CHIP RES.	2.2K OHM +-5% 1/16W
PV01	RV19		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV31		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV32		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV33		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV34		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV35		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W

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P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PV01	RV36		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV37		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV38		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV40		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	RV41		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PV01	SS01		00MSS02030800	00MSS02030800	SLIDE SW	SSSF025100 V L=9MM (ALPS)
PV01	SS02		00MSS02022060	00MSS02022060	SLIDE SW	SSSF021900 V L=9MM (ALPS)
PV01	SV01		00MSR01040120	00MSR01040120	ROTARY SW	SRBV14 1-4 V LM1=20 (ALPS)
					PY01 FL PCB (00MWG416K203-)	
PY01	CY01		nsp	00MDK98105200	CER. CAP.	1UF 10V F
PY01	CY02		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PY01	CY03		nsp	00MDD95220300	CER. CAP.	22 PF +-5% CG 50V GR39
PY01	DY01		00MHI10062320	00MHI10062320	L.E.D.	LT3D8B RED 3PHI
PY01	JY03		00MYP07005510	00MYP07005510	PLUG	IMSA-9210B-1-03Z382-T
PY01	QY01		00MHC10381030	00MHC10381030	IC	LC75710NE VFD CONTROL DRIVER
PY01	QY02		00MBA21311000	00MBA21311000	TRS.	RN1311,DTC114TU
PY01	RY04		nsp	00MNN05473610	CHIP RES.	47K OHM +-5% 1/16W
PY01	RY05		nsp	00MNN05103610	CHIP RES.	10K OHM +-5% 1/16W
PY01	RY06		nsp	00MNN05681610	CHIP RES.	680 OHM +-5% 1/16W
PY01	VY01		00MHQ31403410	00MHQ31403410	DISPLAY	BJ942GN 5X7DOT 14GRID 106PIN
					PY21 POWER SW PCB (00MWG416K211-)	
PY21	JY21		00MYJ07008030	00MYJ07008030	JACK	IMSA-9117S-03D
PY21	SY21		00MSS01021060	00MSS01021060	SLIDE SW	SSST01-3A
					PY31 CD-R KEY PCB (00MWG416K205-)	
PY31	DY31		00MHI10095320	00MHI10095320	L.E.D.	LT3K44B GREEN 30MA
PY31	DY32		00MHI10111320	00MHI10111320	L.E.D.	GL3HS8 (SUNSET ORANGE) TAPING
PY31	DY33		00MHI10062320	00MHI10062320	L.E.D.	LT3D8B RED 3PHI
PY31	DY34		00MHI10095320	00MHI10095320	L.E.D.	LT3K44B GREEN 30MA
PY31	JY31		00MYP06015160	00MYP06015160	PLUG	B6B-ZR-SM3
PY31	QY31		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PY31	QY32		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PY31	QY33		00MBA21111000	00MBA21111000	TRS.	DTC114TE,RN1111
PY31	RY31		nsp	00MNN05821610	CHIP RES.	820 OHM +-5% 1/16W
PY31	RY32		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PY31	RY33		nsp	00MNN05182610	CHIP RES.	1.8K OHM +-5% 1/16W
PY31	RY34		nsp	00MNN05272610	CHIP RES.	2.7K OHM +-5% 1/16W
PY31	RY35		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PY31	RY36		nsp	00MNN05821610	CHIP RES.	820 OHM +-5% 1/16W
PY31	RY37		nsp	00MNN05153610	CHIP RES.	15K OHM +-5% 1/16W
PY31	RY38		nsp	00MNN05182610	CHIP RES.	1.8K OHM +-5% 1/16W
PY31	RY39		nsp	00MNN05121610	CHIP RES.	120 OHM +-5% 1/16W
PY31	RY40		nsp	00MNN05121610	CHIP RES.	120 OHM +-5% 1/16W
PY31	RY41		nsp	00MNN05151610	CHIP RES.	150 OHM +-5% 1/16W
PY31	RY43		nsp	00MNN05681610	CHIP RES.	680 OHM +-5% 1/16W
PY31	SY31		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY31	SY32		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY31	SY33		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY31	SY34		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY31	SY35		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY31	SY36		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY31	SY37		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
					PY61 JOG DIAL PCB (00MWG416K210-)	
PY61	RY61		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PY61	SY61		00MSR03030060	00MSR03030060	ROTARY SW	EC11B20244 V L=15MM (ALPS)
					PY71 IR PCB (00MWG416K209-)	
PY71	CY71		nsp	00MDK98104200	CER. CAP.	GRM39F104Z16 0.1UF
PY71	CY72		00MEY10700620	00MEY10700620	ELECT CAP.	100UF 6.3V
PY71	CY73		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PY71	CY74		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PY71	CY75		nsp	00MDK96104200	CER. CAP.	0.1 UF +-10% B 10V
PY71	DY71		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PY71	DY72		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PY71	DY73		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PY71	DY74		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PY71	DY75		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PY71	DY76		00MHZ21005000	00MHZ21005000	CHIP DIODE	1SS301,DAN202U UMT TYPE
PY71	RY71		nsp	00MNN05101610	CHIP RES.	100 OHM +-5% 1/16W

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P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MJI)	PART NAME	DESCRIPTION
PY71	RY76		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PY71	RY77		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PY71	RY78		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W
PY71	SS71		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY71	SS72		00MSS02021680	00MSS02021680	SLIDE SW	SSSF022-S06N0
PY71	SS73		00MSS01030350	00MSS01030350	SLIDE SW	SSSF013-S06N0
PY71	SS74		00MSS02021680	00MSS02021680	SLIDE SW	SSSF022-S06N0
PY71	SS75		00MSS02021680	00MSS02021680	SLIDE SW	SSSF022-S06N0
					PY81 CD KEY0 PCB (00MWG416K207-)	
PY81	JY81		00MYP06015130	00MYP06015130	PLUG	B3B-ZR-SM3
PY81	RY80		nsp	00MNN05821610	CHIP RES.	820 OHM +-5% 1/16W
PY81	RY81		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PY81	RY82		nsp	00MNN05102610	CHIP RES.	1K OHM +-5% 1/16W
PY81	RY83		nsp	00MNN05182610	CHIP RES.	1.8K OHM +-5% 1/16W
PY81	RY84		nsp	00MNN05182610	CHIP RES.	1.8K OHM +-5% 1/16W
PY81	RY85		nsp	00MNN05272610	CHIP RES.	2.7K OHM +-5% 1/16W
PY81	RY86		nsp	00MNN05272610	CHIP RES.	2.7K OHM +-5% 1/16W
PY81	RY87		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PY81	RY88		nsp	00MNN05472610	CHIP RES.	4.7K OHM +-5% 1/16W
PY81	RY89		nsp	00MNN05821610	CHIP RES.	820 OHM +-5% 1/16W
PY81	SY81		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY82		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY83		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY84		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY85		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY86		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY87		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY88		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY89		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
PY81	SY90		00MSP01013370	00MSP01013370	PUSH SW	EVQ11L05R H/5MM,160GF
					PY91 TONE VOLUME PCB (00MWG416K206-)	
PY91	JY91		00MYP06015150	00MYP06015150	PLUG	B5B-ZR-SM3
PY91	RY91		00MRK05030990	00MRK05030990	VAR. RES.	RK11K113 V CC-CT L1=20MM ALPS
PY91	RY92		00MRK05030990	00MRK05030990	VAR. RES.	RK11K113 V CC-CT L1=20MM ALPS
PY91	RY93		00MRK05030990	00MRK05030990	VAR. RES.	RK11K113 V CC-CT L1=20MM ALPS
PY91	RY94		nsp	00MNN05000610	CHIP RES.	0 OHM +-5% 1/16W

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ADDENDUM A: PM01M BOARD UPDATE (419-6)

BATT1	C7	C75	C4	C150	D7	CR9	C2	JE01	A3	JU08	B2	LED1	A7	R9	D1	R22	C2	R35	B3	R48	C4	R61	D5	R74	D7	REG4	E2	RN6	A3	RN19	D5	U3	D3	U16	A6
C1	D1	C76	D4	C151	C7	CR10	D2	JM13	C2	L1	D1	Q1	A4	R10	D1	R23	C2	R36	B3	R49	B4	R62	D5	R75	D7	REG5	A1	RN7	C3	RN20	C5	U4	C3	U17	E6
C2	A1	C77	C4	CN1	C3	CR11	C2	JM14	D7	L2	C1	Q2	A5	R11	A2	R24	C2	R37	B3	R50	B4	R63	D6	R76	D7	REG6	A2	RN8	A4	RN21	D6	U5	C3	U18	C7
C3	B1	C78	C4	CN2	D3	CR12	C2	JM15	B2	L3	A1	Q3	A7	R12	A2	R25	A2	R38	A3	R51	A4	R64	B6	R77	A6	REG7	D2	RN9	A4	RN22	D6	U6	B3	U19	D7
C4	D1	C79	A4	CN3	C6	F1	B1	JM16	C7	L4	D2	Q4	A7	R13	A2	R26	E3	R39	C4	R52	D4	R65	D6	R78	A7	REG8	C2	RN10	C5	RN23	D6	U7	B4	X1	D3
C5	B1	C80	A4	CR1	A1	F2	C1	JM17	A7	L5	C2	R1	B1	R14	A2	R27	E3	R40	D4	R53	D4	R66	D6	R79	A7	REG9	C2	RN11	A5	RN24	C6	U8	B4	X2	D4
C6	E1	C81	E4	CR2	A1	F3	A2	JT51	A2	L6	A1	R2	B1	R15	C2	R28	C3	R41	C4	R54	E4	R67	A6	R80	A7	REG10	E6	RN12	C5	RN25	C6	U9	A4	X3	D5
C7	E1	C82	A4	CR3	E2	J1	C3	JT52	A4	L7	C2	R3	D1	R16	A2	R29	B3	R42	D4	R55	D4	R68	D6	R81	A7	REG11	E7	RN13	C5	RN26	C6	U10	C4	X4	E5
C8	E1	C83	E4	CR4	C1	J2	E3	JT53	A7	L8	C4	R4	B1	R17	D2	R30	B3	R43	B4	R56	A4	R69	D6	R82	D7	RN1	D3	RN14	A5	RN27	C6	U11	E5	X5	D5
C9	A1	C84	D4	CR5	A1	J3	C4	JT54	C4	L9	C4	R5	B1	R18	C2	R31	A3	R44	B4	R57	E5	R70	B6	R83	D7	RN2	D3	RN15	A5	RN28	B6	U12	B4	Z1	C2
C10	D1	C85	C4	CR6	C2	J4	A4	JU02	A5	L10	C4	R6	B1	R19	D2	R32	C3	R45	B4	R58	D5	R71	D6	REG1	B1	RN3	B3	RN16	C5	SW1	B6	U13	B6	Z2	A6
C11	C1	C86	B4	CR7	A2	J5	C5	JU03	A6	L11	C5	R7	D1	R20	C2	R33	B3	R46	B4	R59	D5	R72	B6	REG2	B1	RN4	B3	RN17	D5	U1	C1	U14	C6		
C12	C1	C87	B4	CR8	A2	J834	B1	JU04	A5	L12	D7	R8	D1	R21	D2	R34	B3	R47	B4	R60	A5	R73	D6	REG3	D1	RN5	B3	RN18	C5	U2	B2	U15	D6		
C13	D1	C88	D4																																
C14	D2	C89	D5																																
C15	D1	C90	E5																																
C16	A1	C91	D5																																
C17	C1	C92	E5																																
C18	A2	C93	C5																																
C19	A2	C94	D5																																
C20	A2	C95	D5																																
C21	D2	C96	D5																																
C22	D2	C97	C5																																
C23	C2	C98	C5																																
C24	B2	C99	A5																																
C25	A2	C100	B5																																
C26	C2	C101	D5																																
C27	C2	C102	B5																																
C28	C2	C103	A5																																
C29	C2	C104	A5																																
C30	D2	C105	C5																																
C31	D2	C106	B5																																
C32	C2	C107	A5																																
C33	B3	C108	B5																																
C34	B3	C109	D5																																
C35	C3	C110	C5																																
C36	C3	C111	A5																																
C37	B3	C112	D6																																
C38	C3	C113	C6																																
C39	B3	C114	A5																																
C40	B3	C115	A6																																
C41	D3	C116	D6																																
C42	B3	C117	C6																																
C43	B3	C118	A6																																
C44	B3	C119	C6																																
C45	D3	C120	B6																																
C46	C3	C121	C6																																
C47	C3	C122	E6																																
C48	C3	C123	A6																																
C49	B3	C124	A6																																
C50	D4	C125	A6																																
C51	D4	C126	D6																																
C52	D4	C127	C6																																
C53	C4	C128	B6																																
C54	C4	C129	B6																																
C55	B4	C130	B6																																
C56	D4	C131	A6																																
C57	C4	C132	D6																																
C58	B4	C133	A6																																
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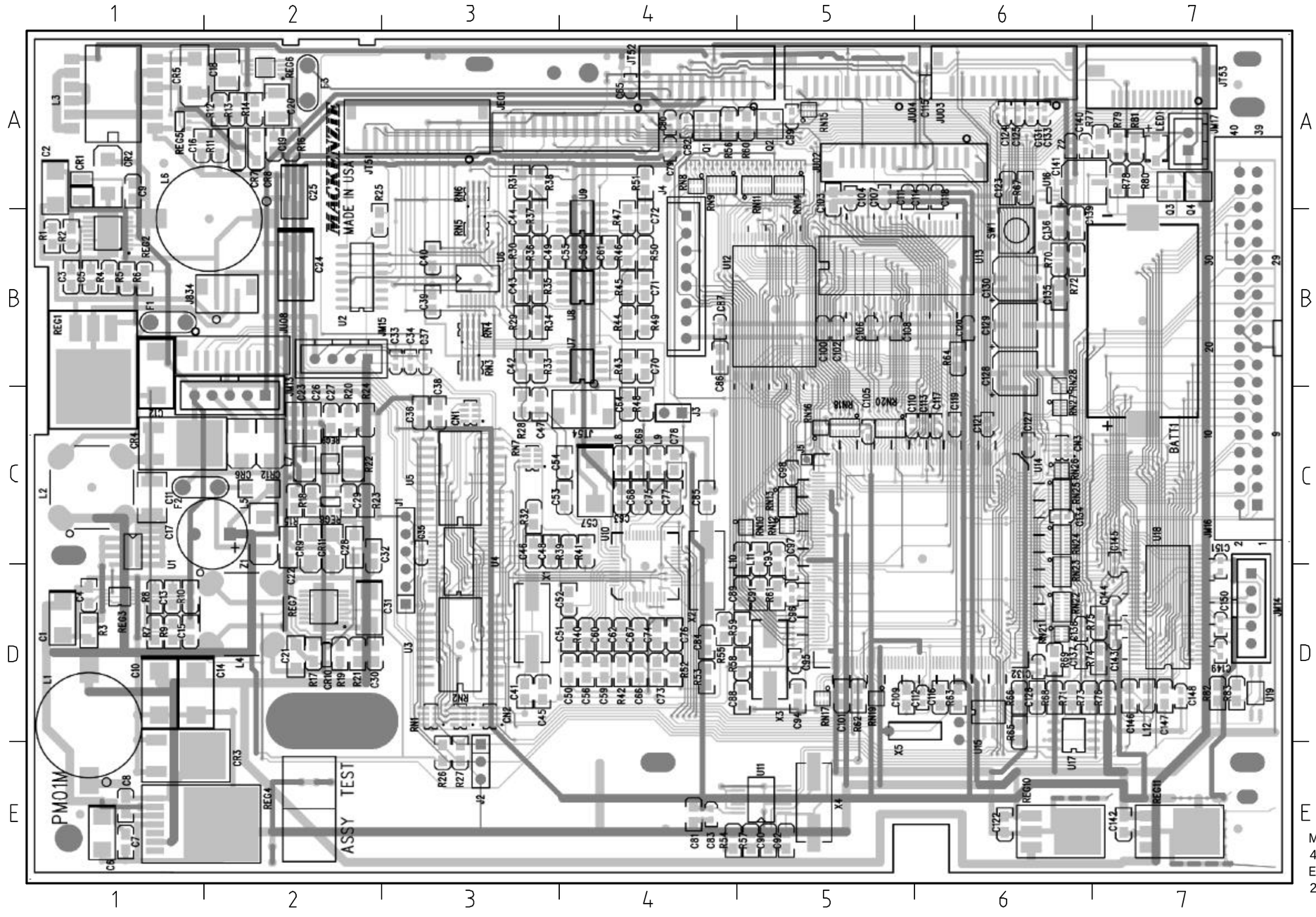
C60	D4	C135	B6																																
C61	B4	C136	B6																																
C62	D4	C137	D6																																
C63	C4	C138	D6																																
C64	C4	C139	B6																																
C65	A4	C140	A6																																
C66	D4	C141	A6																																
C67	D4	C142	E7																																
C68	C4	C143	D7																																
C69	C4	C144	D7																																
C70	B4	C145	C7																																
C71	B4	C146	D7																																
C72	B4	C147	D7																																
C73	D4	C148	D7																																
C74	D4	C149	D7																																



MACKENZIE
419-6 BOARD
E3084
24 OCT 2005

P.C.B. NAME	POS. NO.	VERS. COLOR	PART NO. (MACK)	PART NAME	DESCRIPTION	TYPE
PM01M	PM01M		46420-419.6@00	CDR-420	CONTROL BOARD ASSY.	CHANGE
PM01M	CR12		17-01-351	Diode, Schottky,	2A, 30 V	NEW