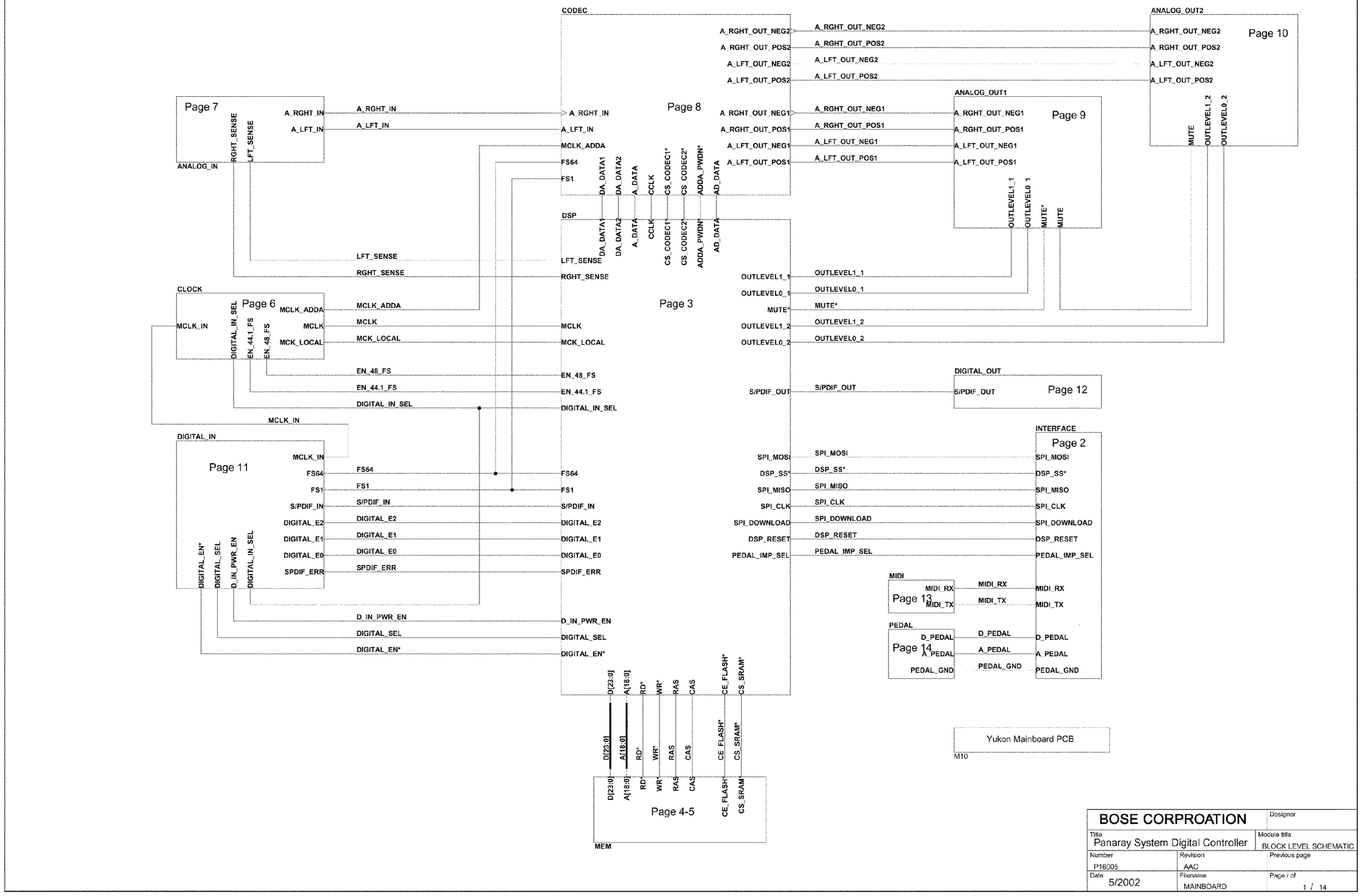
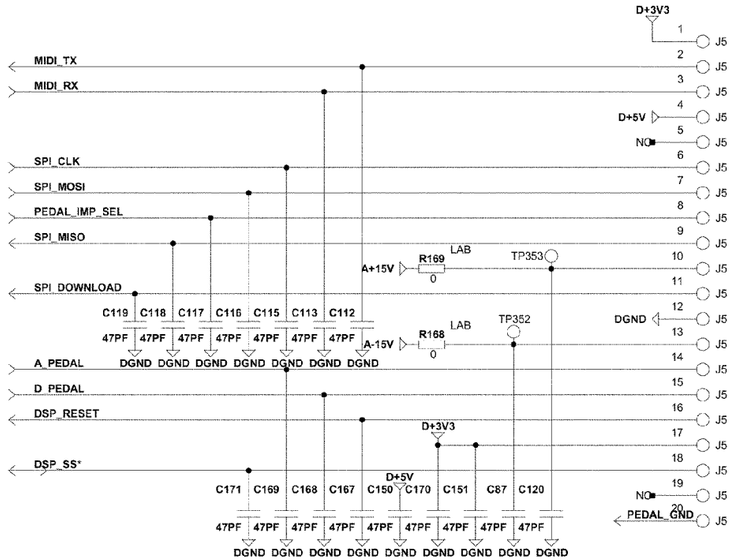
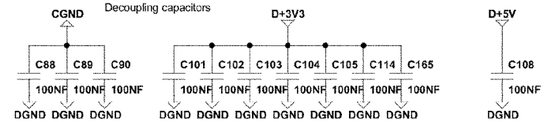
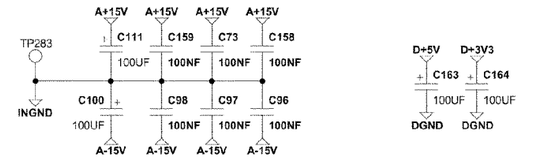
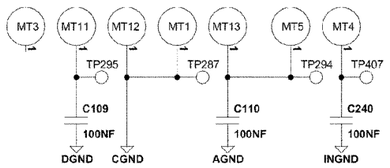

CODEC
Page 8
DSP
Page 3
Page 7
ANALOG_IN
CLOCK
Page 6
MCLK_IN
DIGITAL_IN
Page 11
Page 9
ANALOG_OUT1
ANALOG_OUT2
Page 10
DIGITAL_OUT
Page 12
INTERFACE
Page 2
MIDI
Page 13
PEDAL
Page 14
MEM
Page 4-5
A_RGHT_IN
A_LFT_IN
MCLK_ADDA
FS64
FS1
DA_DATA1
DA_DATA2
A_DATA
CCLK
CS_CODEC1*
CS_CODEC2*
ADDA_PWDN*
AD_DATA
LFT_SENSE
RGHT_SENSE
MCLK
MCK_LOCAL
EN_48_FS
EN_44.1_FS
DIGITAL_IN_SEL
S/PDIF_IN
DIGITAL_E2
DIGITAL_E1
DIGITAL_E0
SPDIF_ERR
D_IN_PWR_EN
DIGITAL_SEL
DIGITAL_EN*
A_RGHT_OUT_NEG2
A_RGHT_OUT_POS2
A_LFT_OUT_NEG2
A_LFT_OUT_POS2
A_RGHT_OUT_NEG1
A_RGHT_OUT_POS1
A_LFT_OUT_NEG1
A_LFT_OUT_POS1
OUTLEVEL1_1
OUTLEVEL0_1
MUTE*
OUTLEVEL1_2
OUTLEVEL0_2
S/PDIF_OUT
SPI_MOSI
DSP_SS*
SPI_MISO
SPI_CLK
SPI_DOWNLOAD
DSP_RESET
PEDAL_IMP_SEL
MIDI_RX
MIDI_TX
D_PEDAL
A_PEDAL
PEDAL_GND
D[23:0]
A[18:0]
RD*
WR*
RAS
CAS
CE_FLASH*
CS_SRAM*
Yukon Mainboard PCB
M10
BOSE CORPROATION
Designer
Title
Panaray System Digital Controller
Module title
BLOCK LEVEL SCHEMATIC
Number
P16005
Revision
AAC
Previous page
Date
5/2002
Filename
MAINBOARD
Page / of
1 / 14

Connect to Front

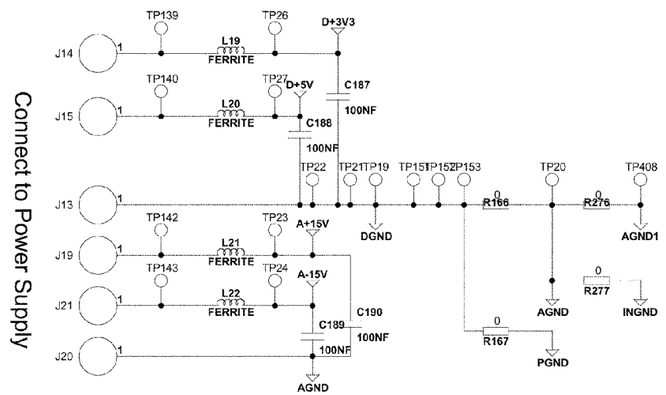


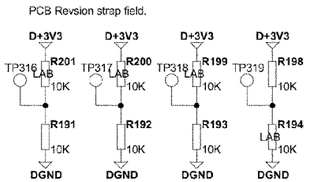




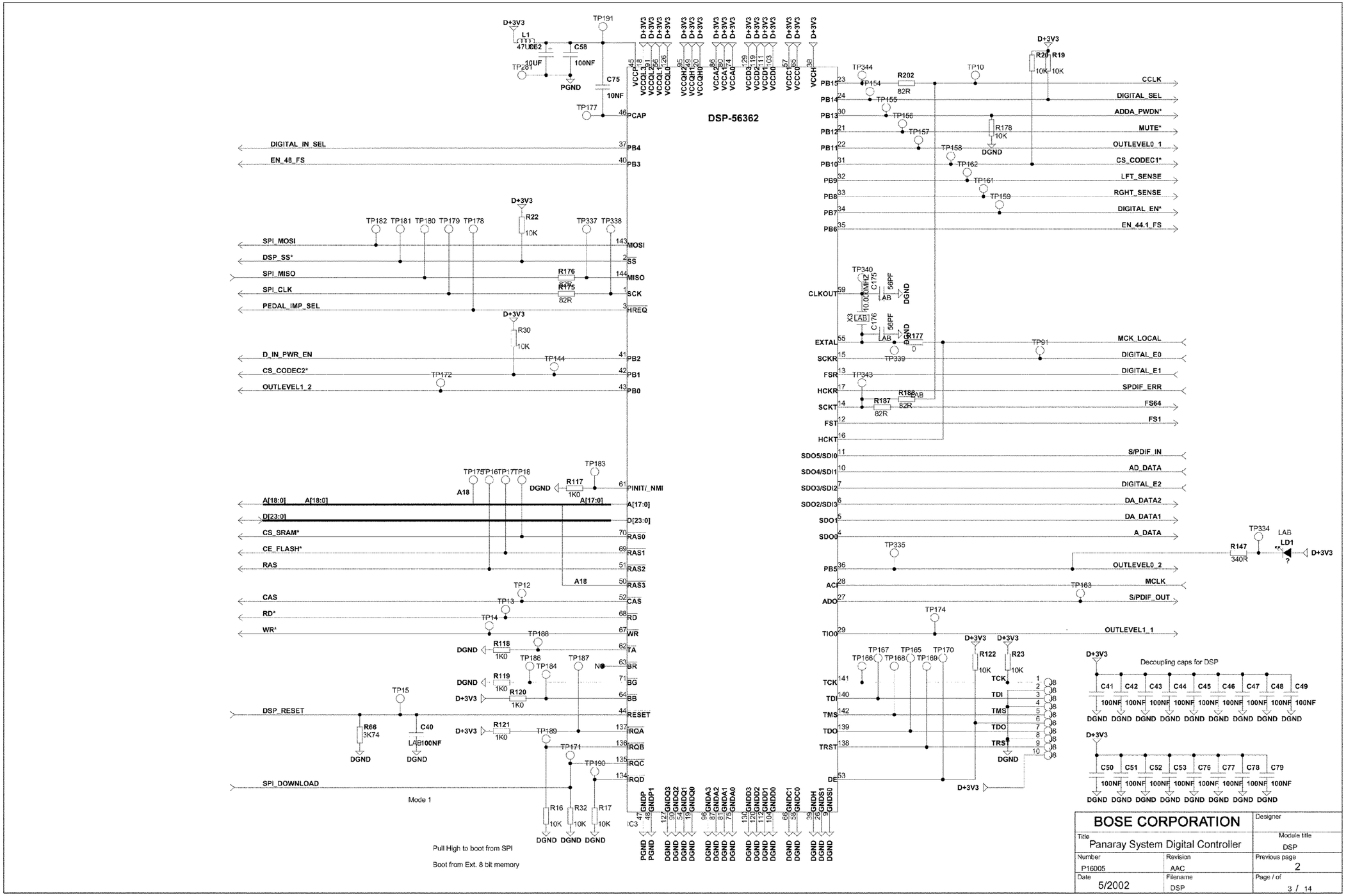


Connect to Power Supply





BOSE CORPROATION		Designer
Title: Panaray System Digital Controller		Module title: INTERFACE TO FRONT AND POWER
Number: P16005	Revision: AAC	Previous page: 1
Date: 5/2002	Filename: INTERFACE	Page / of: 2 / 14


DSP-56362
D+3V3
L1
47UH62
C58
100NF
10UF
TP281
PGND
TP191
C75
10NF
TP177
PCAP
DIGITAL_IN_SEL
EN_48_FS
PB4
PB3
TP182 TP181 TP180 TP179 TP178
R22
10K
TP337 TP338
SPI_MOSI
DSP_SS*
SPI_MISO
SPI_CLK
PEDAL_IMP_SEL
MOSI
SS
MISO
SCK
HREQ
R176
82R
R175
82R
R30
10K
D_IN_PWR_EN
CS_CODEC2*
OUTLEVEL1_2
TP144
TP172
PB2
PB1
PB0
TP175 TP16 TP17 TP18
A18
DGND
R117
1K0
TP183
PINIT/_NMI
A[18:0]
A[17:0]
D[23:0]
CS_SRAM*
CE_FLASH*
RAS
RAS0
RAS1
RAS2
RAS3
CAS
RD*
WR*
TP12
TP13
TP14
CAS
RD
WR
TP188
R118
1K0
TA
TP186
TP184
TP187
BR
BG
BB
R119
1K0
R120
1K0
TP15
DSP_RESET
R66
3K74
C40
LAB100NF
R121
1K0
RESET
IRQA
IRQB
IRQC
IRQD
TP189
TP171
TP190
SPI_DOWNLOAD
Mode 1
R16
10K
R32
10K
R17
10K
Pull High to boot from SPI
Boot from Ext. 8 bit memory
R202
82R
R20
10K
R19
10K
TP344
TP154
TP155
TP156
TP157
TP10
R178
10K
TP158
TP162
TP161
TP159
CCLK
DIGITAL_SEL
ADDA_PWDN*
MUTE*
OUTLEVEL0_1
CS_CODEC1*
LFT_SENSE
RGHT_SENSE
DIGITAL_EN*
EN_44.1_FS
TP340
10.0MHZ
C175
56PF
LAB
CLKOUT
X3
C176
56PF
R177
0
TP339
EXTAL
SCKR
FSR
HCKR
SCKT
FST
HCKT
TP91
TP343
R188
82R
R187
82R
MCK_LOCAL
DIGITAL_E0
DIGITAL_E1
SPDIF_ERR
FS64
FS1
SDO5/SDI0
SDO4/SDI1
SDO3/SDI2
SDO2/SDI3
SDO1
SDO0
S/PDIF_IN
AD_DATA
DIGITAL_E2
DA_DATA2
DA_DATA1
A_DATA
TP334
R147
340R
LD1
TP335
PB5
ACI
ADO
TIO
OUTLEVEL0_2
MCLK
S/PDIF_OUT
OUTLEVEL1_1
TP174
TP163
TP167 TP166 TP168 TP165 TP169 TP170
R122
10K
R23
10K
TCK
TDI
TMS
TDO
TRST
DE
TRS
Decoupling caps for DSP
C41 C42 C43 C44 C45 C46 C47 C48 C49
C50 C51 C52 C53 C76 C77 C78 C79
100NF
BOSE CORPORATION
Designer
Title
Panaray System Digital Controller
Module title
DSP
Number
P16005
Revision
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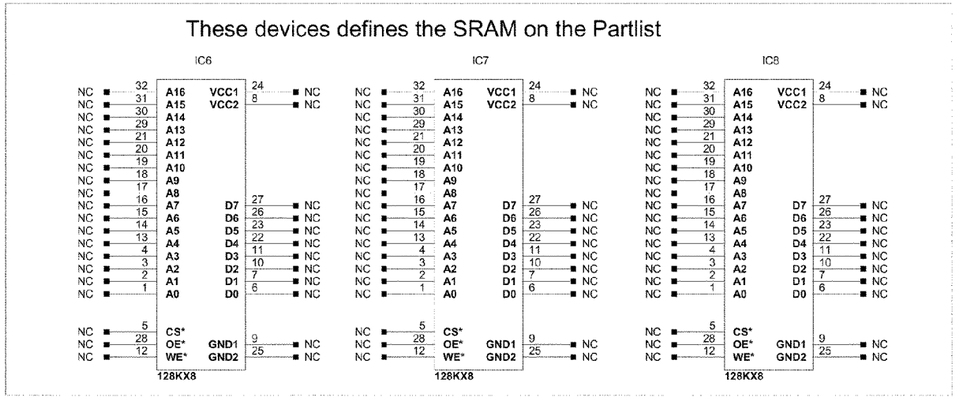
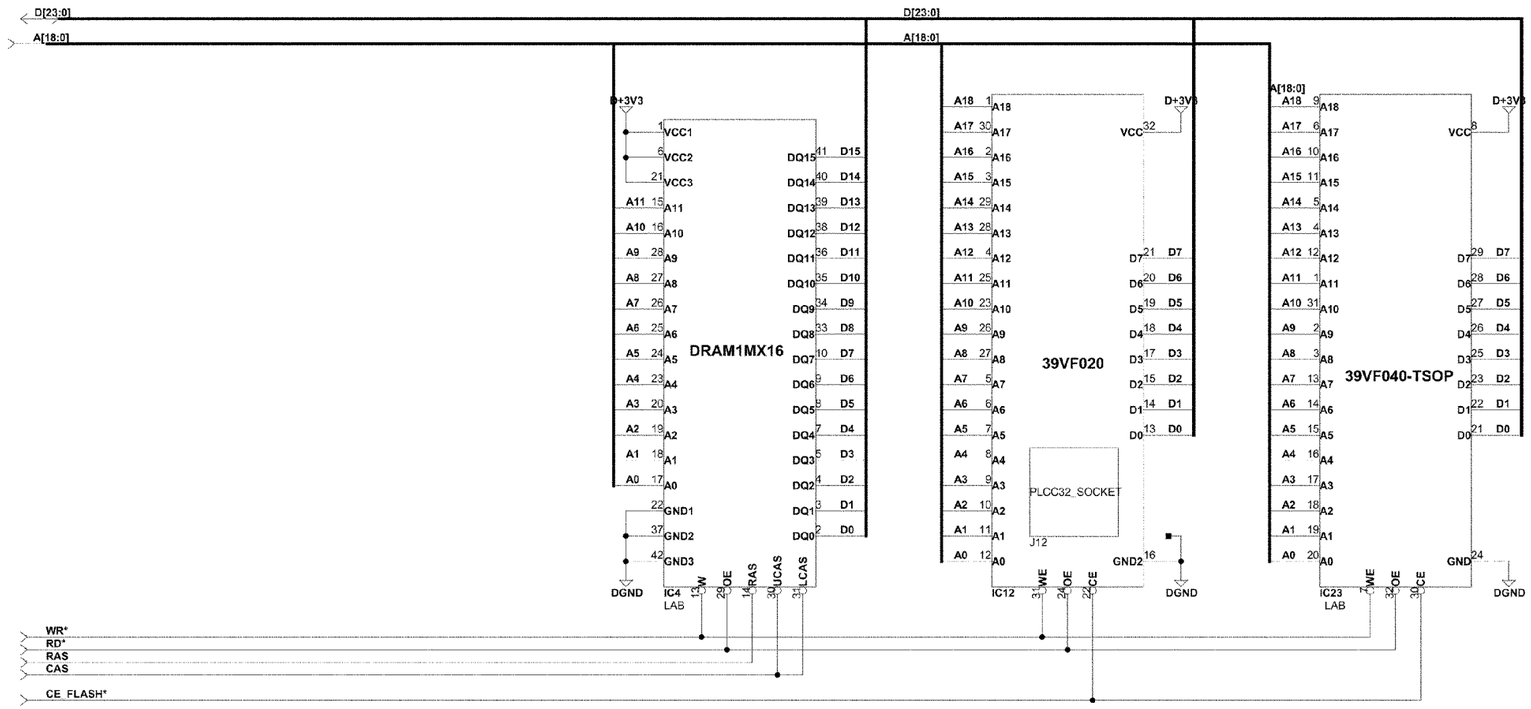
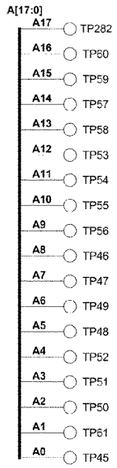
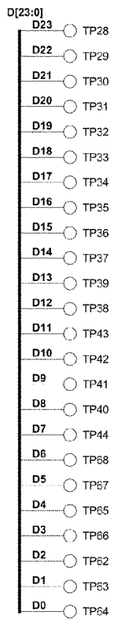
Date
5/2002
Filename
DSP
Page / of
3 / 14



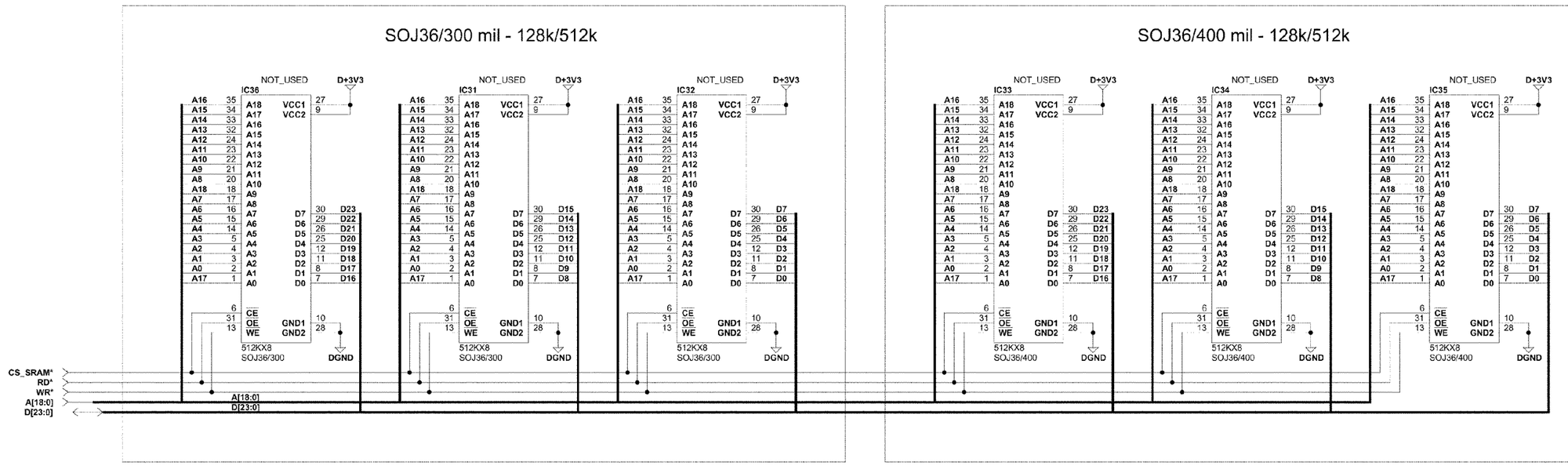






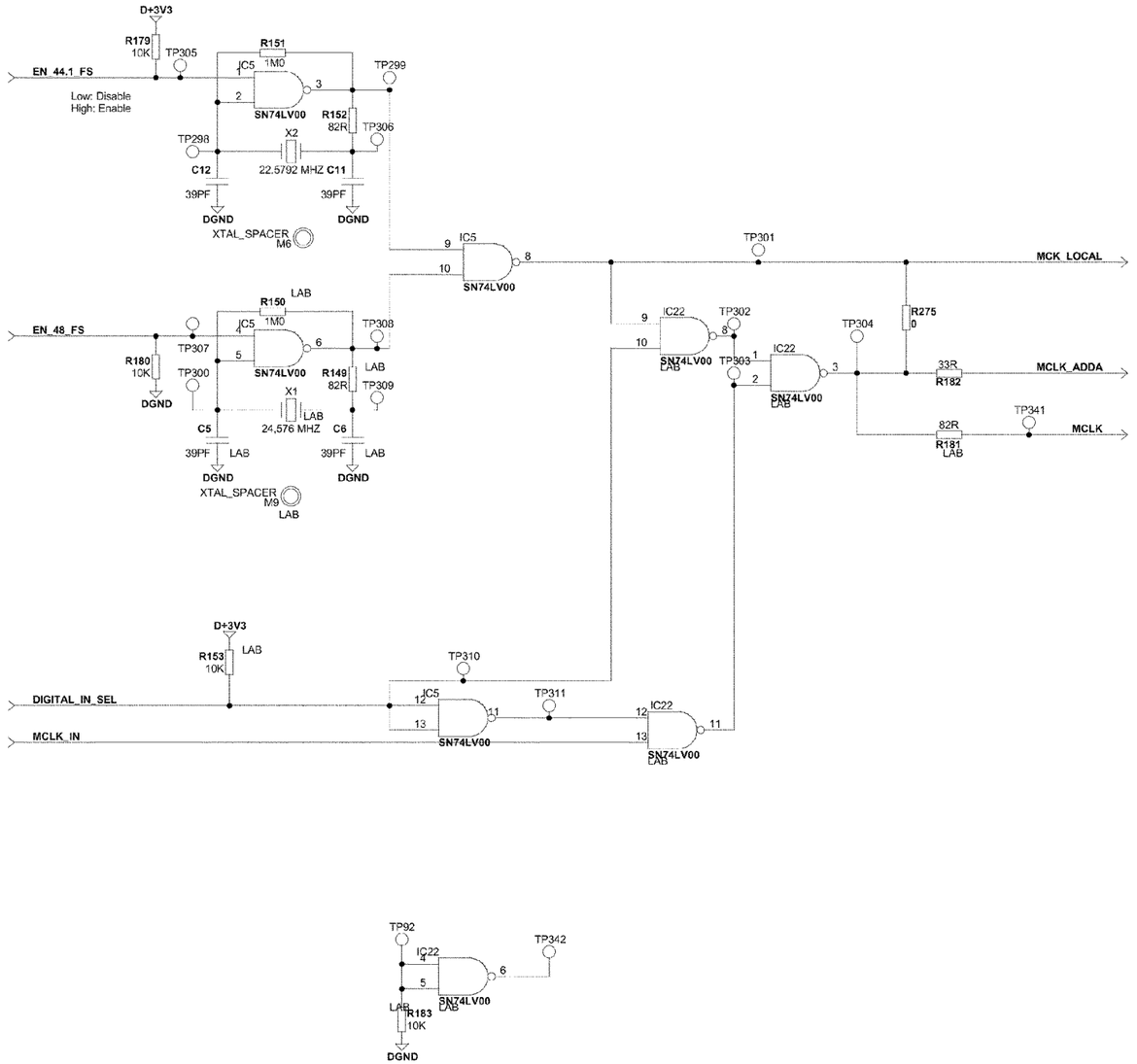
Note: Only one of the Flash types are mounted

BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: MEMORY
Number: P16005	Revision: AAC	Previous page: 3
Date: 5/2002	Filename: MEM	Page / of: 4 / 14

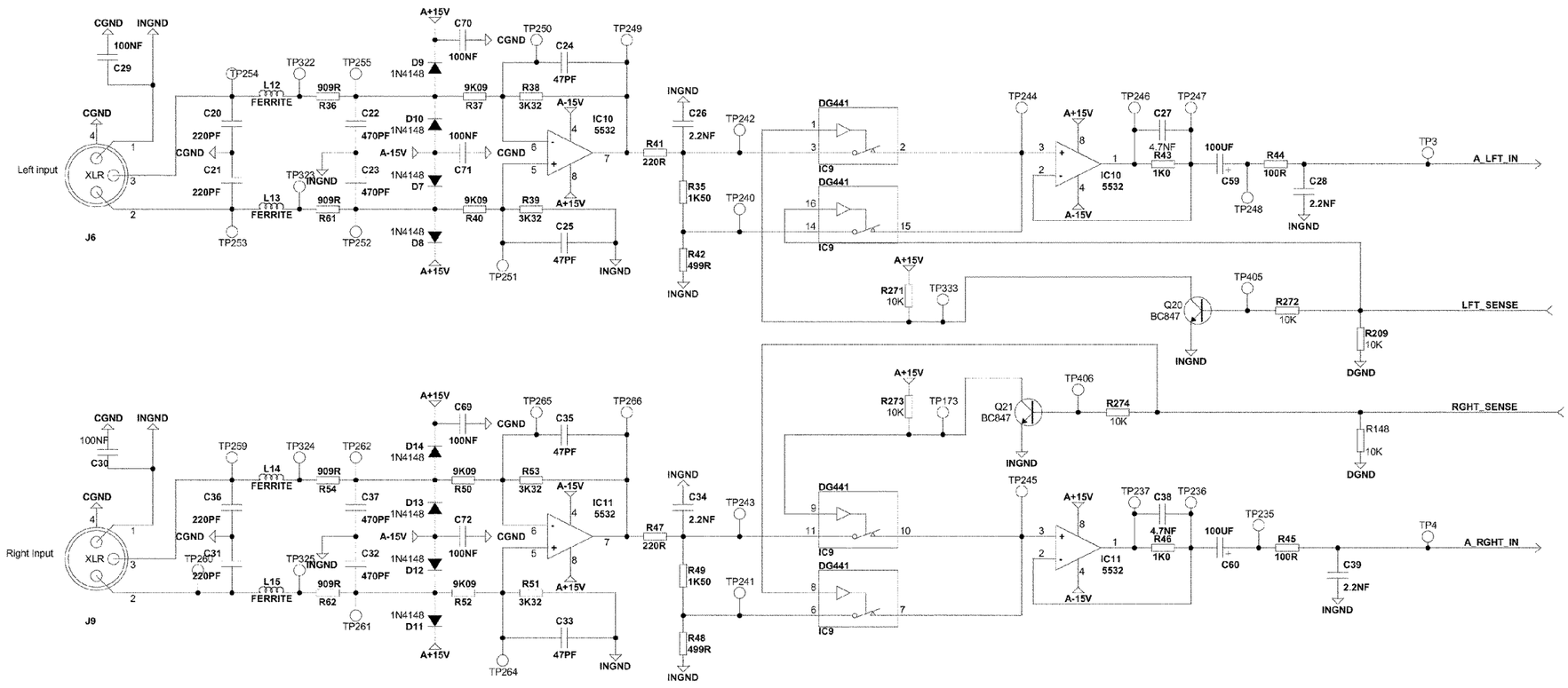


These SRAM devices defines the PCB layout

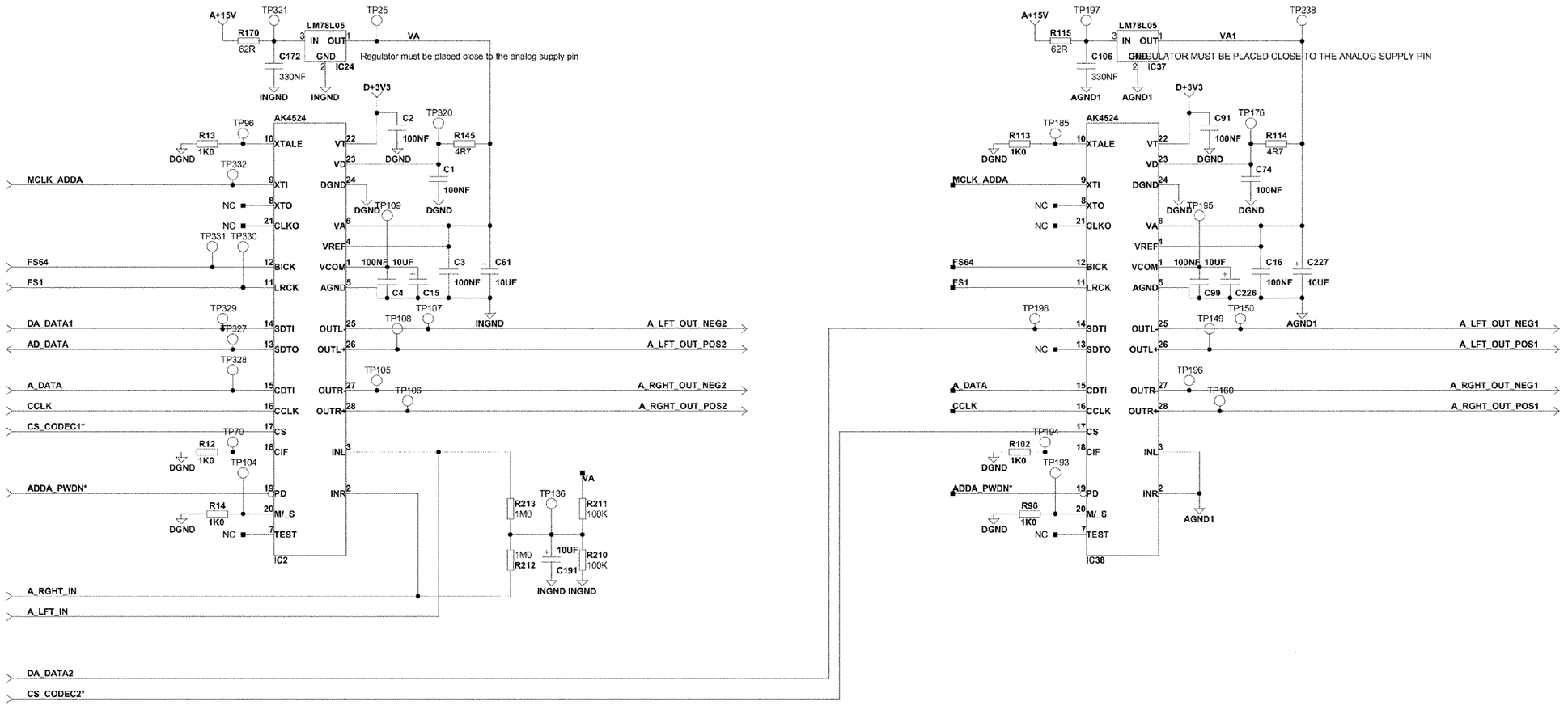
BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: MEMORY - ALT PACKAGE
Number: P16005	Revision: AAC	Previous page: 4
Date: 5/2002	Filename: MEM	Page / of: 5 / 14



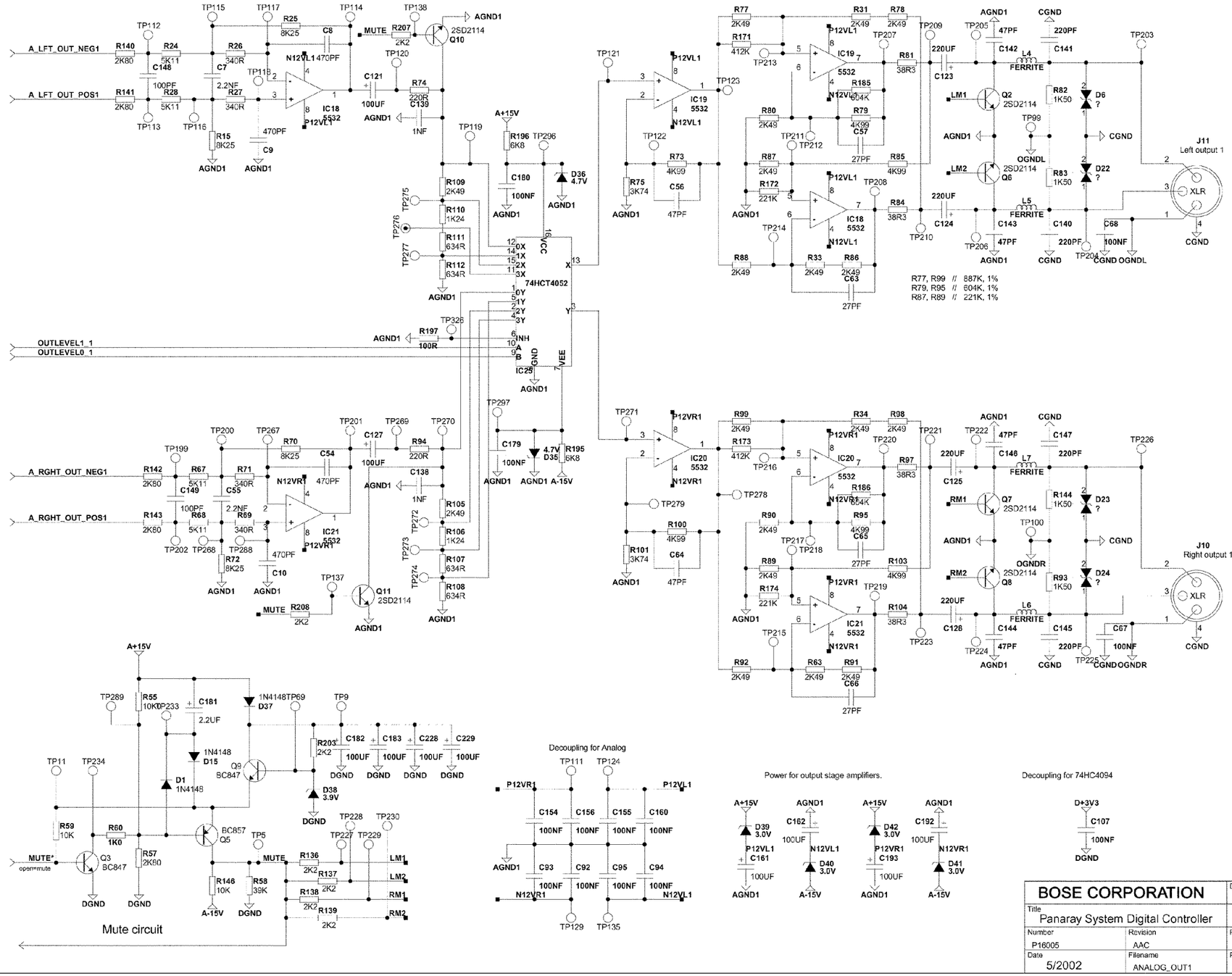
BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: CLOCK
Number: P16506	Revision: AAC	Previous page: 5
Date: 5/2002	Filename: CLOCK	Page / of: 6 / 14



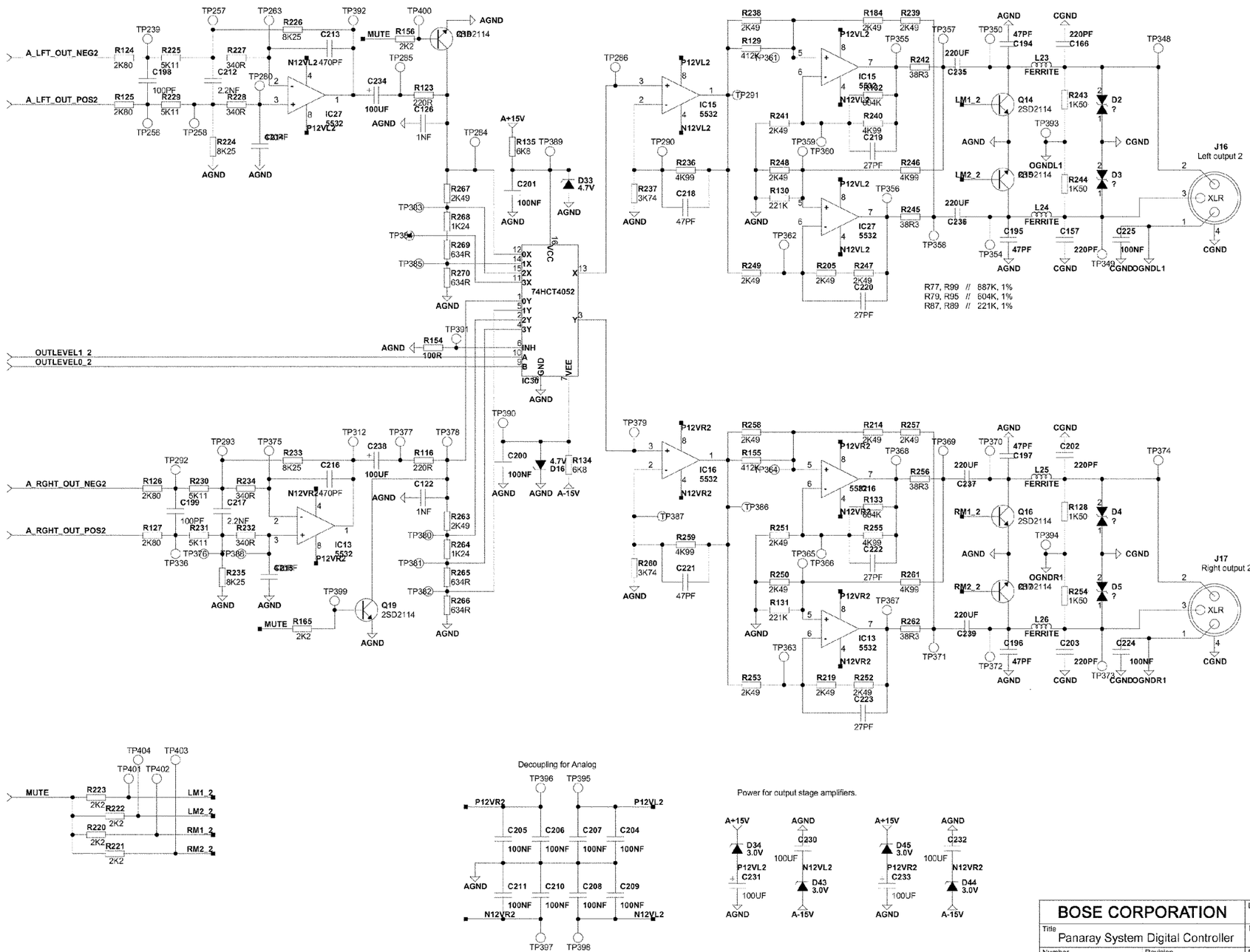
BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: ANALOG INPUT
Number: P16005	Revision: AAC	Previous page: 6
Date: 5/2002	Filename: ANALOG_IN	Page / of: 7 / 14

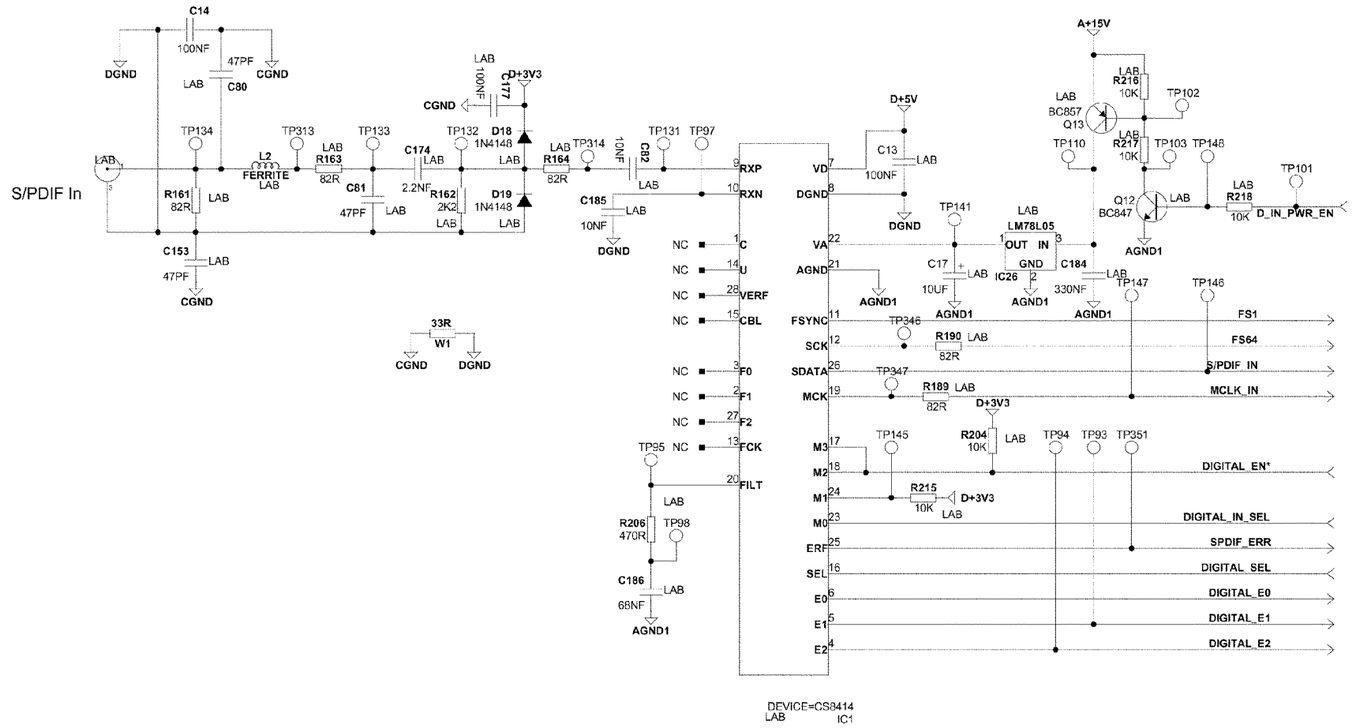


BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: CODEC
Number: P16005	Revision: AAC	Previous page: 7
Date: 5/2002	Filename: CODEC	Page / of: 8 / 14

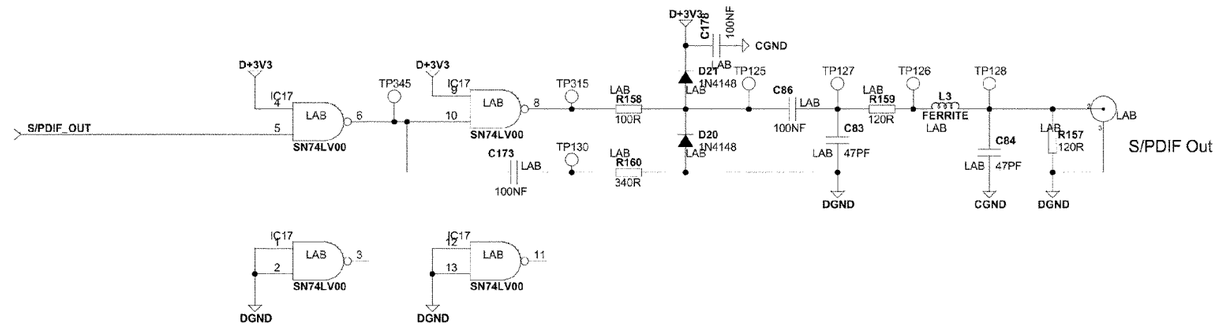


BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: ANALOG OUTPUT 1
Number: P16005	Revision: AAC	Previous page: 8
Date: 5/2002	Filename: ANALOG_OUT1	Page / of: 9 / 14

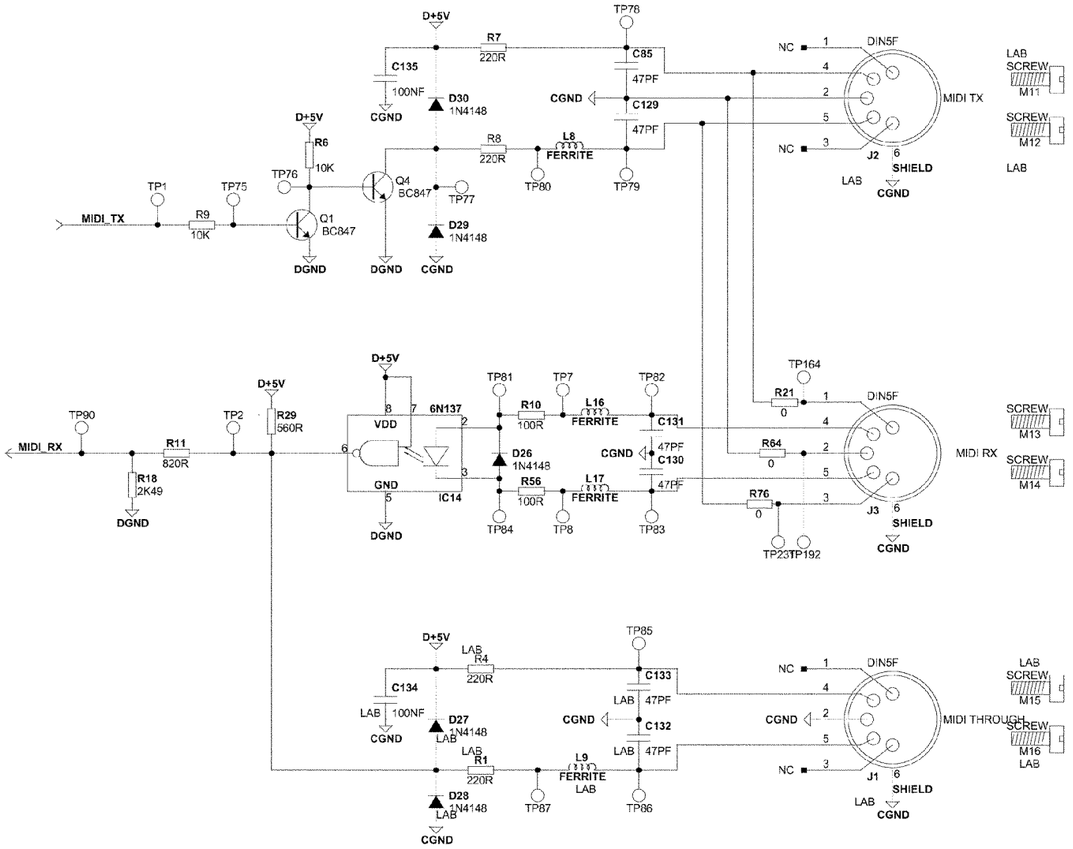

A_LFT_OUT_NEG2
A_LFT_OUT_POS2
A_RGHT_OUT_NEG2
A_RGHT_OUT_POS2
OUTLEVEL1_2
OUTLEVEL0_2
MUTE
74HCT4052
IC36
IC27 5532
IC15 5532
IC16 5532
IC13 5532
Q19 2SD2114
Q14 2SD2114
Q16 2SD2114
J16
Left output 2
J17
Right output 2
XLR
FERRITE
R77, R99 // 887K, 1%
R79, R95 // 604K, 1%
R87, R89 // 221K, 1%
Decoupling for Analog
Power for output stage amplifiers.
D34 3.0V
D45 3.0V
D43 3.0V
D44 3.0V
BOSE CORPORATION
Panaray System Digital Controller
ANALOG OUTPUT 2
P16005
AAC
5/2002
ANALOG_OUT2
9
10 / 14



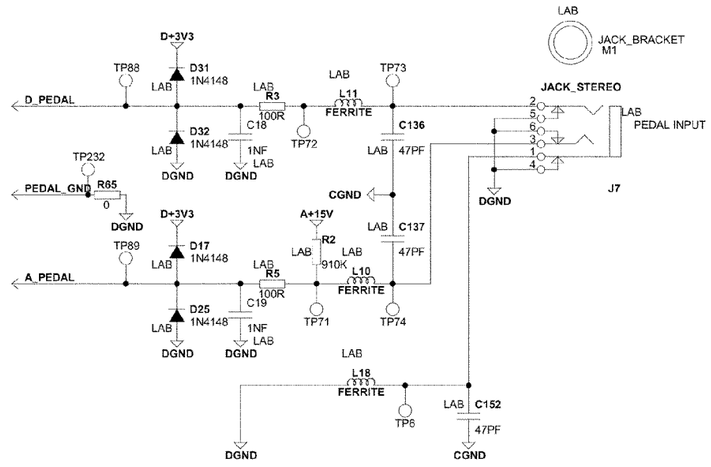
BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: DIGITAL INPUT
Number: P16005	Revision: AAC	Previous page: 10
Date: 5/2002	Filename: DIGITAL_IN	Page / of: 11 / 14



BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: DIGITAL OUTPUT
Number: P16005	Revision: AAC	Previous page: 11
Date: 5/2002	Filename: DIGITAL_OUT	Page / of: 12 / 14



BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: MIDI INTERFACE
Number: P16005	Revision: AAC	Previous page: 12
Date: 5/2002	Filename: MIDI	Page / of: 13 / 14



BOSE CORPORATION		Designer
Title: Panaray System Digital Controller		Module title: PEDAL INTERFACE
Number: P16005	Revision: AAC	Previous page: 13
Date: 5/2002	Filename: PEDAL	Page / of: 14 / 14