

WE SIMPLY SOUND BETTER.

AVR 505-507 S2

SERVICE MANUAL

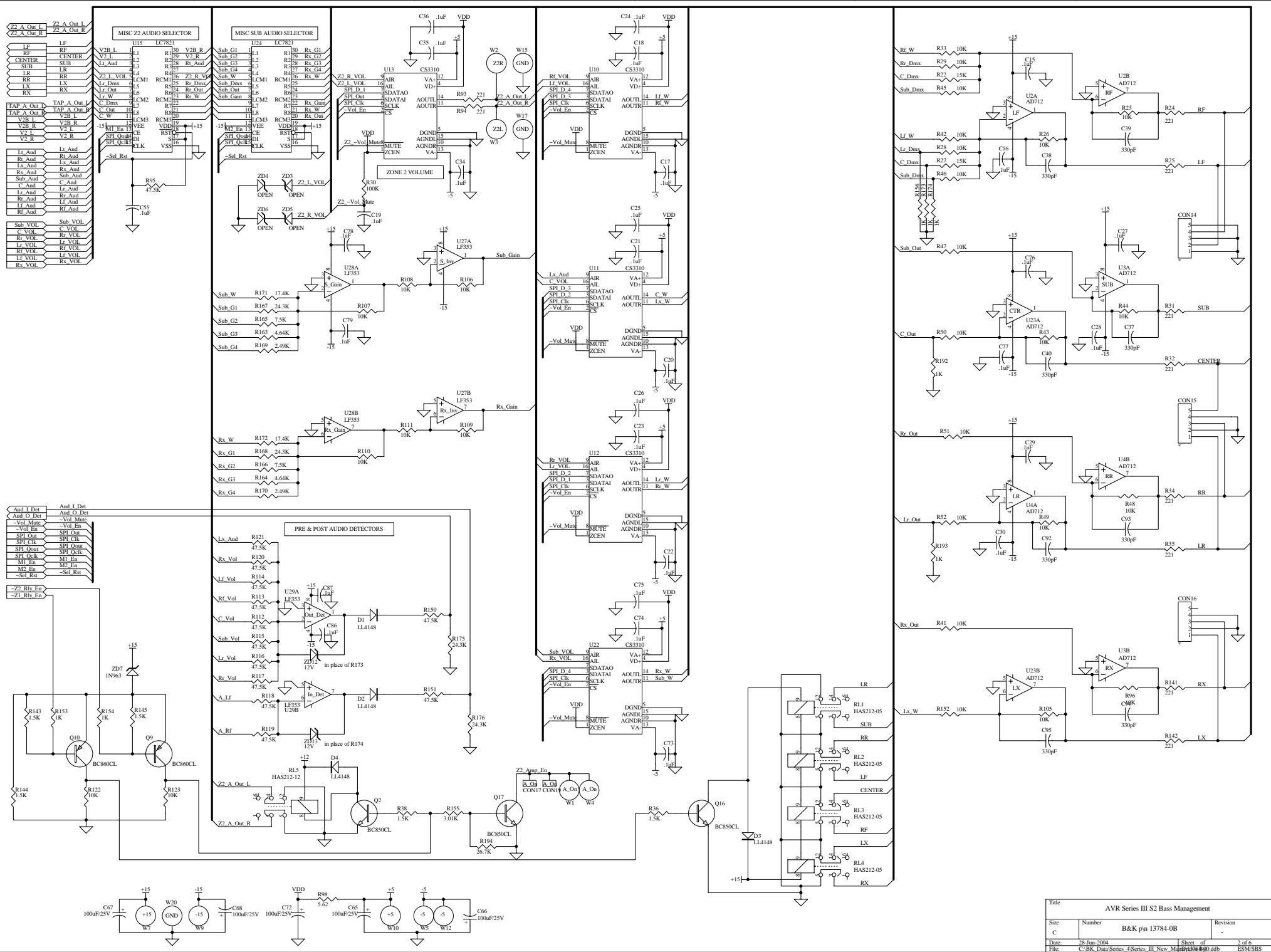
B&K COMPONENTS, LTD.
2100 Old Union Road
Buffalo, New York 14227-2725
U.S.A.

B & K

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Schematics

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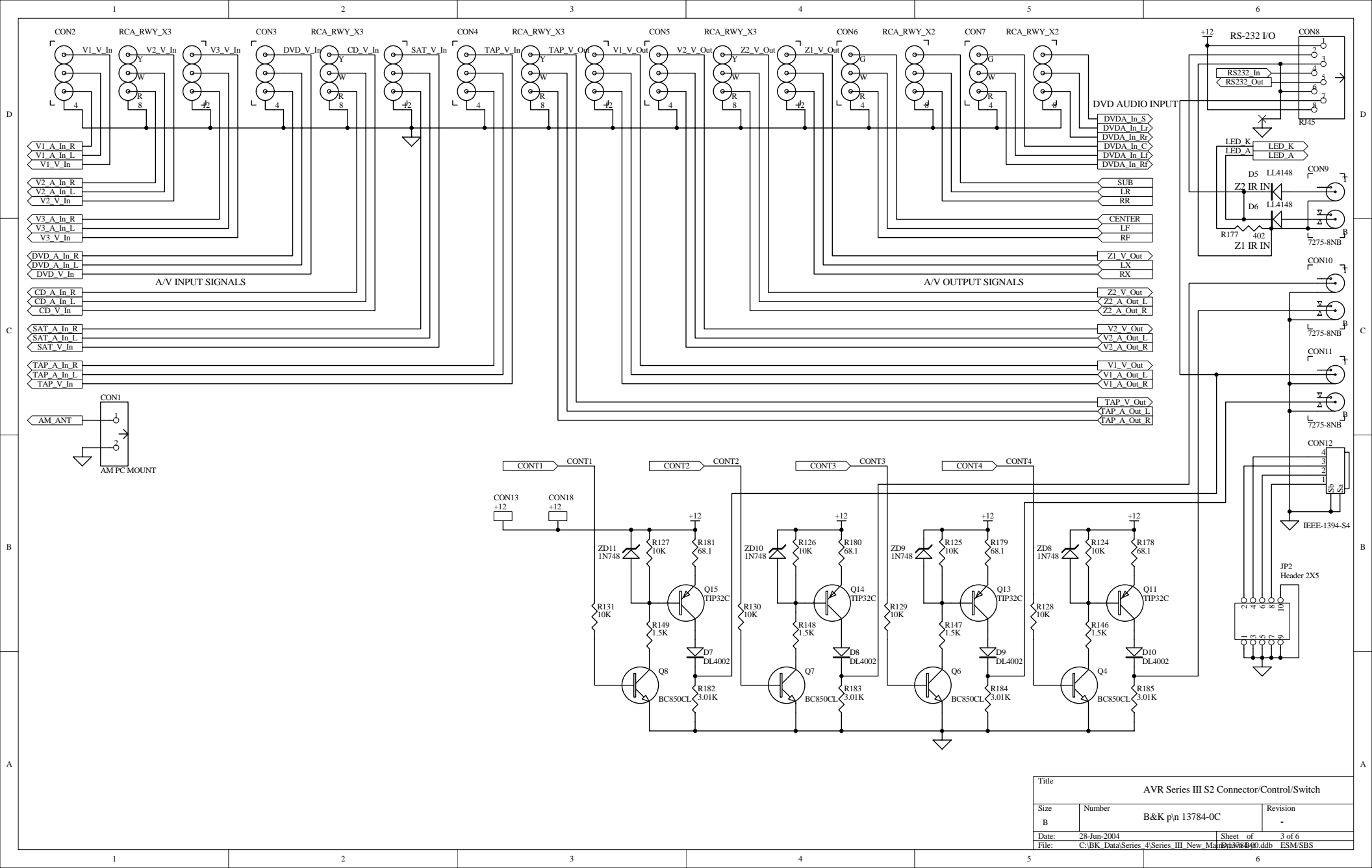
MISC Z2 AUDIO SELECTOR

Z2 A Out L	Z2 A Out L
Z2 A Out R	Z2 A Out R
LF	LF
CENTER	CENTER
SUB	SUB
RR	RR
LR	LR
LX	LX
RX	RX
TAP A Out L	TAP A Out L
TAP A Out R	TAP A Out R
V2B L	V2B L
V2B R	V2B R
V2 L	V2 L
V2 R	V2 R
Li Aud	Li Aud
Ri Aud	Ri Aud
Lx Aud	Lx Aud
Rx Aud	Rx Aud
Sub Aud	Sub Aud
C Aud	C Aud
Lr Aud	Lr Aud
Lf Aud	Lf Aud
Rf Aud	Rf Aud
Sub Vol	Sub Vol
C Vol	C Vol
Rr Vol	Rr Vol
Lr Vol	Lr Vol
Lf Vol	Lf Vol
Rf Vol	Rf Vol
Rx Vol	Rx Vol

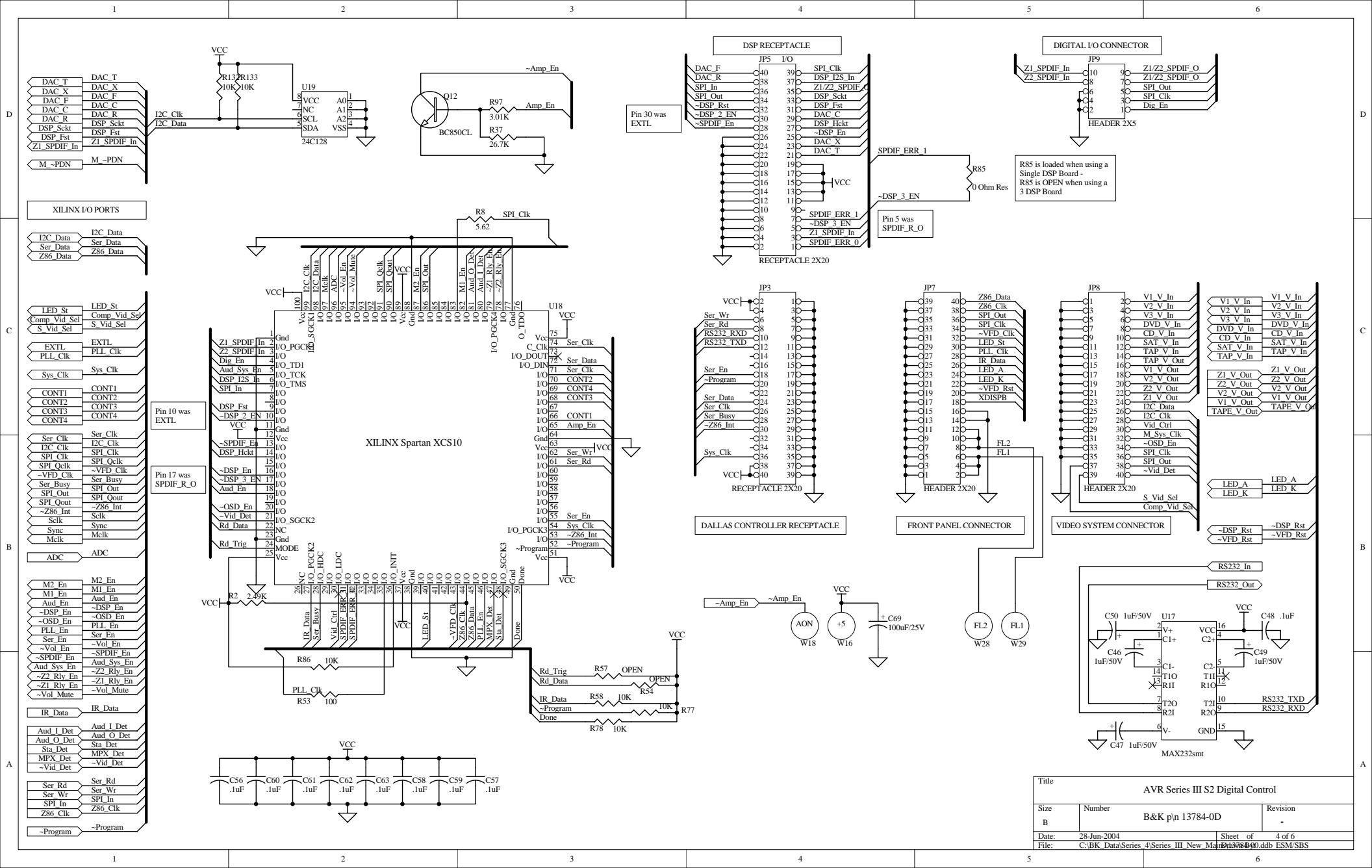
PRE & POST AUDIO DETECTORS

Aud I Det	Aud I Det
Aud O Det	Aud O Det
-Vol Mute	-Vol Mute
-Vol En	-Vol En
SPI Out	SPI Out
SPI Clk	SPI Clk
SPI Qout	SPI Qout
SPI Qclk	SPI Qclk
M1 En	M1 En
M2 En	M2 En
-Sel Rst	-Sel Rst
Z2 Rv En	Z2 Rv En
Z2 Rv En	Z2 Rv En

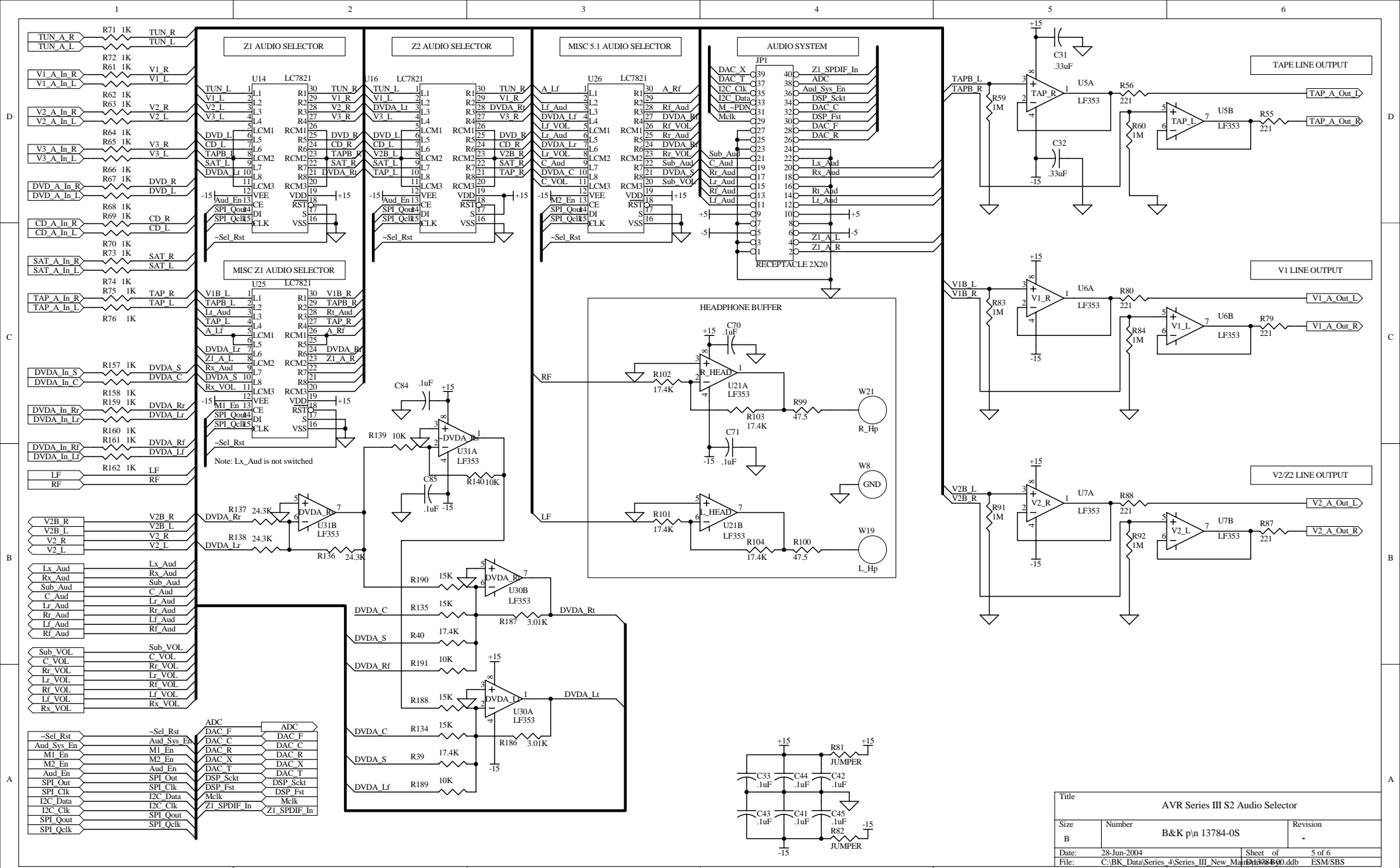
Title				AVR Series III S2 Bass Management
Size	Number	B&K p/n	Revision	
C		B&K p/n 13784-0B		
Date:	26 Jun 2004	Sheet of	2 of 6	
File:	C:\Bk_DataSeries\Series_III_New_Man\4438490.ddb	ESMSBS		



Title		
AVR Series III S2 Connector/Control/Switch		
Size	Number	Revision
B	B&K p/n 13784-0C	-
Date:	28-Jun-2004	Sheet of 3 of 6
File:	C:\BK_Data\Series 4\Series III New Mat\13784-0C.ddb	ESM/SBS

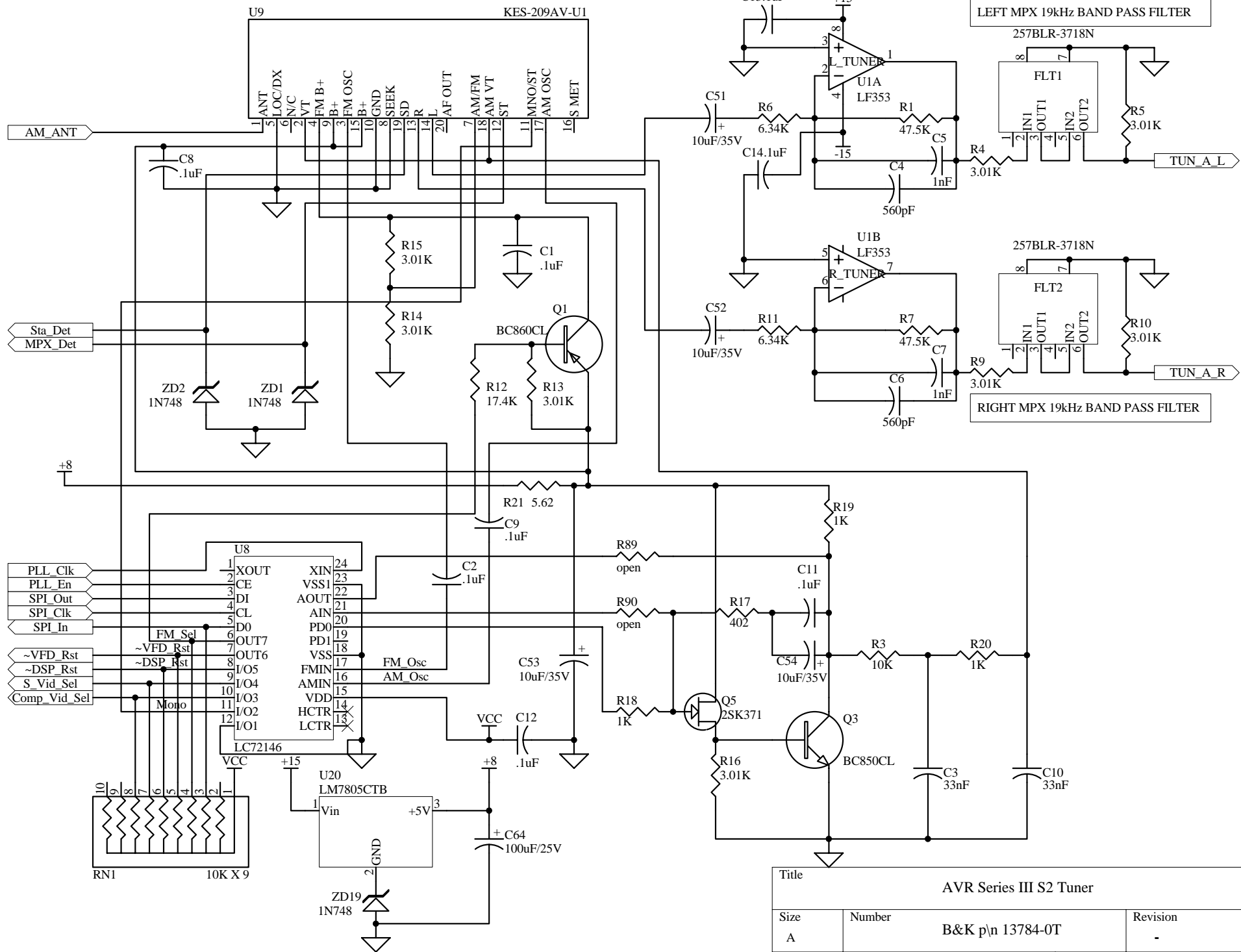


Title			
AVR Series III S2 Digital Control			
Size	Number	B&K p/n 13784-0D	Revision
B			-
Date:	28-Jun-2004	Sheet of	4 of 6
File:	C:\BK_Data\Series 4\Series III New Mat...	Part No:	400.ddb ESM/SBS

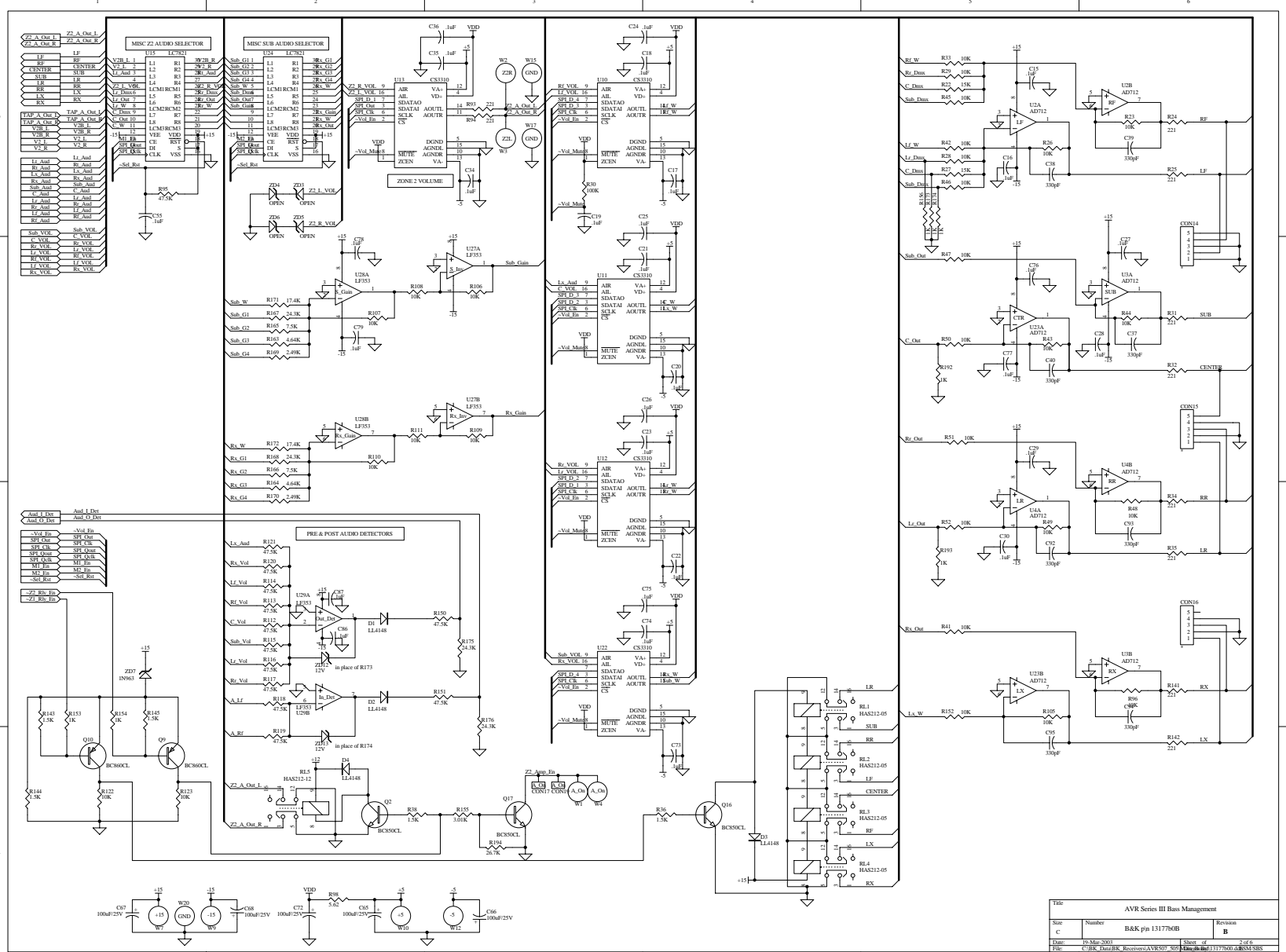


-Sel_Rst	-Sel_Rst	ADC	ADC
Aud Sys En	Aud Sys En	DAC F	DAC F
M1_En	M1_En	DAC R	DAC R
M2_En	M2_En	DAC X	DAC X
Aud_En	Aud_En	DAC T	DAC T
SPI_Out	SPI_Out	DSP Sckt	DSP Sckt
SPI_Clk	SPI_Clk	DSP Fst	DSP Fst
I2C_Data	I2C_Data	Mclk	Mclk
I2C_Clk	I2C_Clk	Z1_SPDIF_In	Z1_SPDIF_In
SPI_Qout	SPI_Qout		
SPI_Qclk	SPI_Qclk		

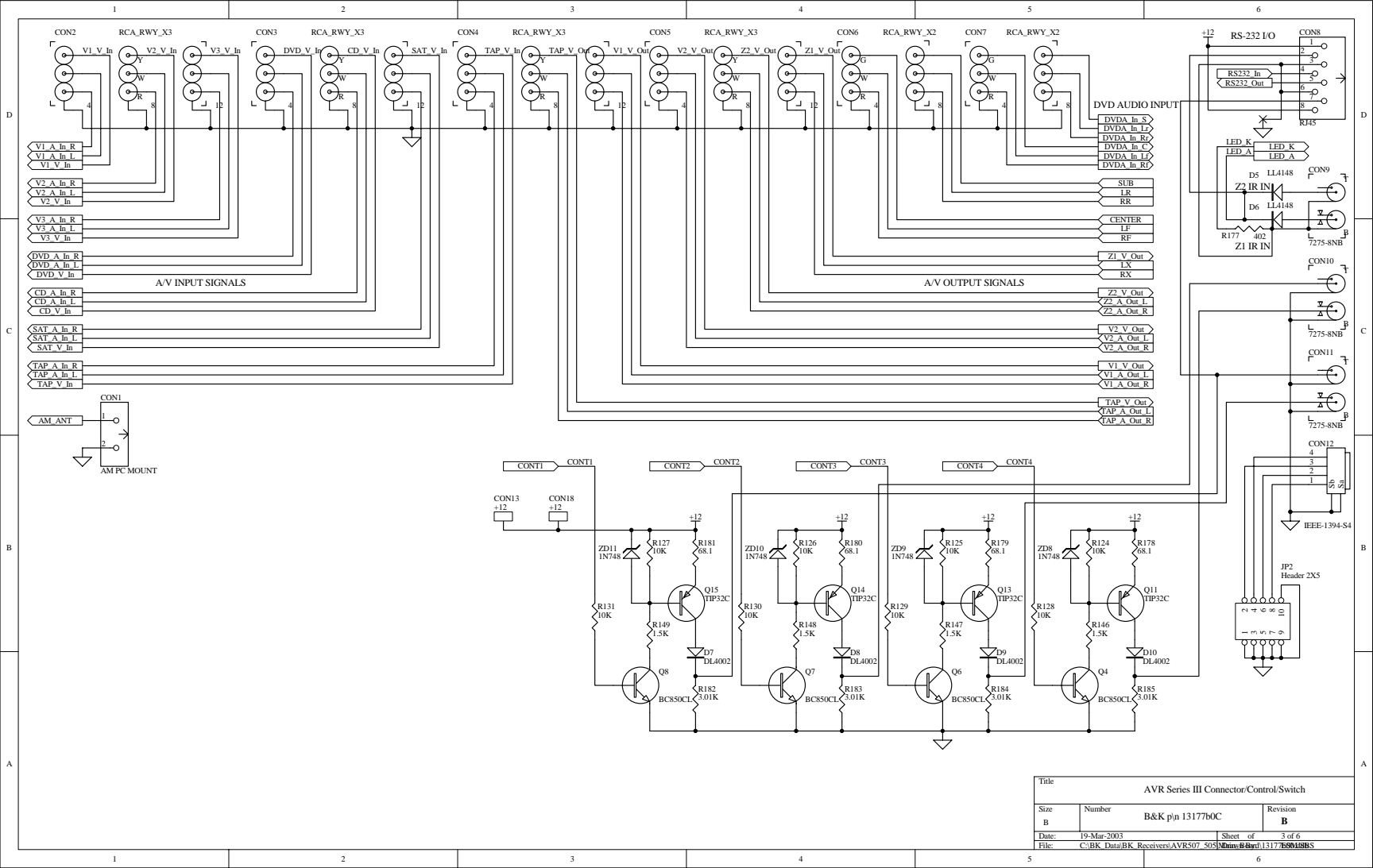
Title			
AVR Series III S2 Audio Selector			
Size	Number	B&K p/n 13784-0S	Revision
B			-
Date:	28-Jun-2004	Sheet of	5 of 6
File:	C:\BK_Data\Series 4\Series III New Mat\B13784-0S.ddb		ESM/SBS



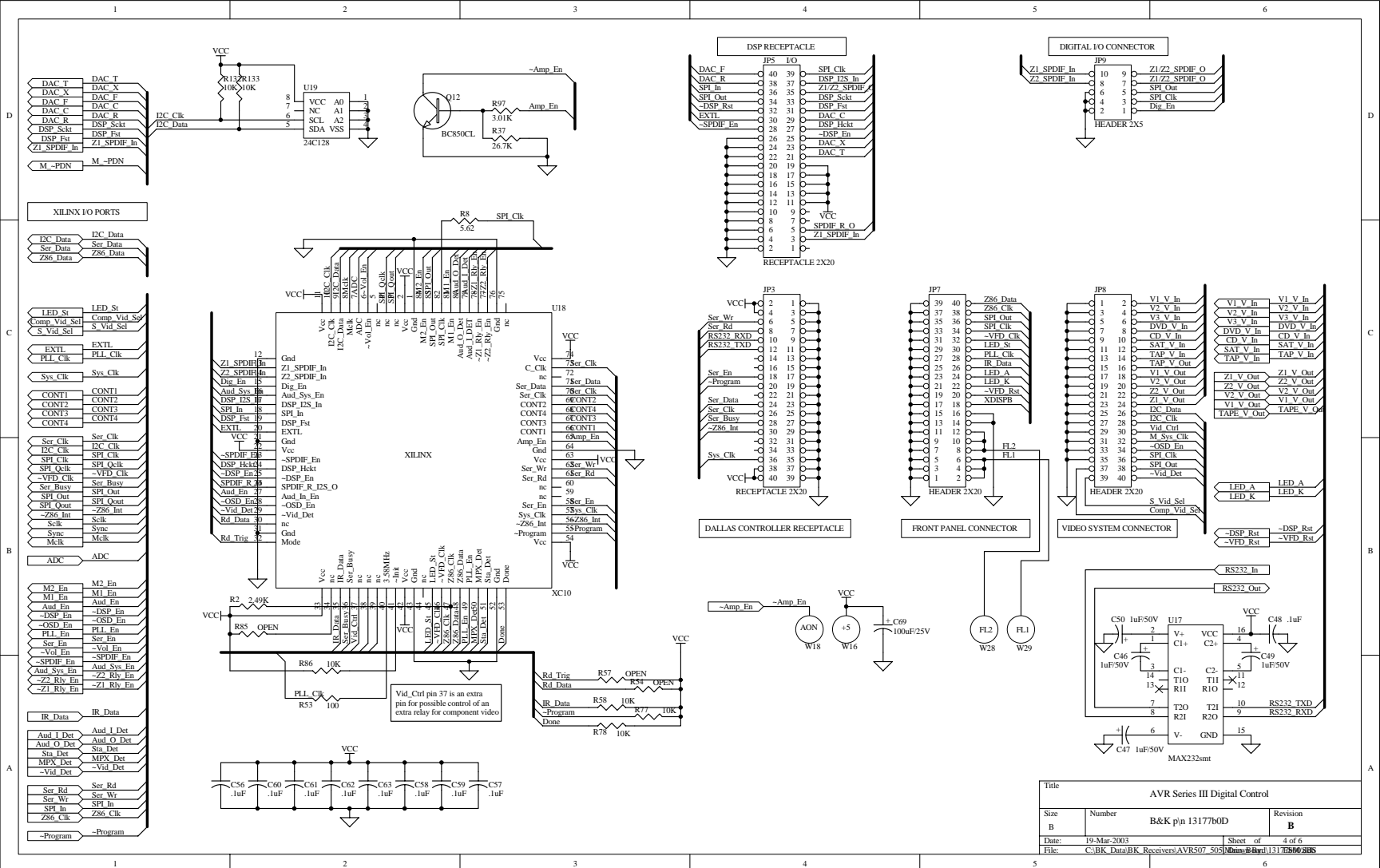
Title				AVR Series III S2 Tuner			
Size	Number			Revision			
A	B&K p/n 13784-0T			-			
Date:	28-Jun-2004		Sheet of	6 of 6			
File:	C:\BK_Data\Series_4\Series_III_New_Main\13784-00.ddb		ESM/SBS				

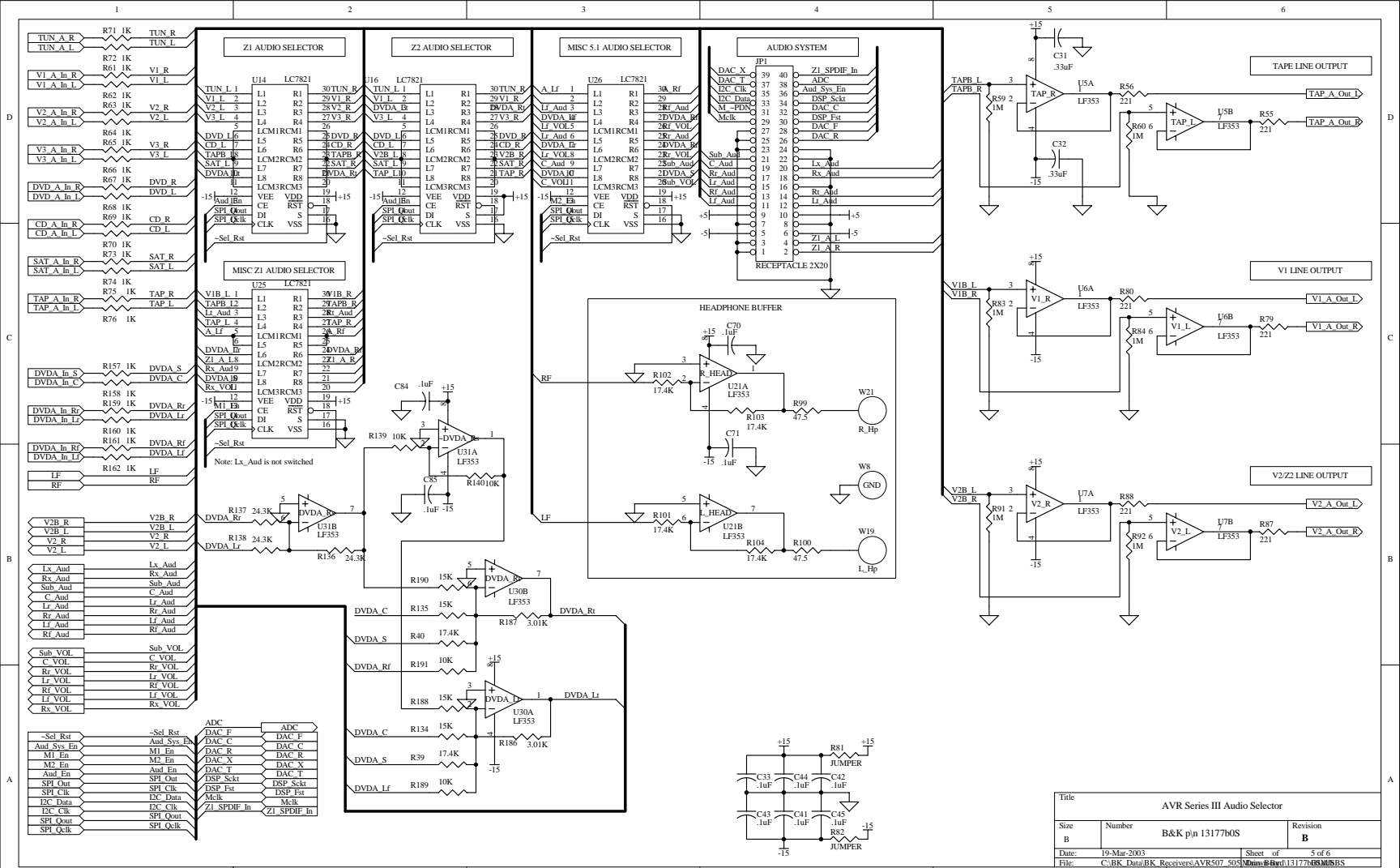


Tab:		AVR Series III Base Management	
Size	Number	B&K pin 1317760B	
Date:	9-Mar-2003	Sheet of	2 of 6
File:	C:\B&K Data\B&K Receivers\AVR03-002	Sheet of	1317760B & B&K SRS

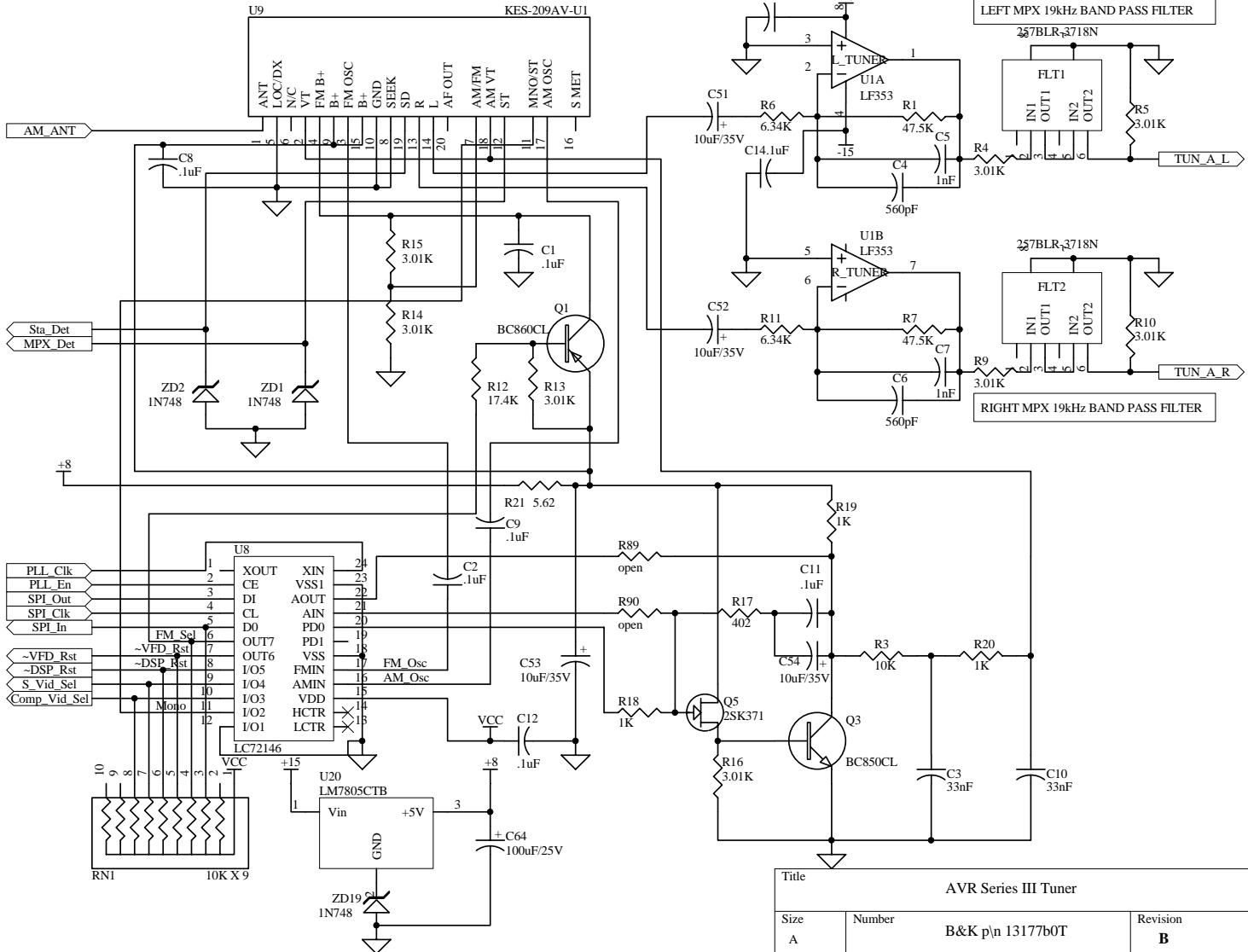


Title			
AVR Series III Connector/Control/Switch			
Size	Number	B&K p/n	Revision
B		13177B0C	B
Date:	19-Mar-2003	Sheet of	3 of 6
File:	C:\BK Data\BK Receivers\AVR507_505\Draws\B4r1\13177B011BBS	Sheet of	3 of 6

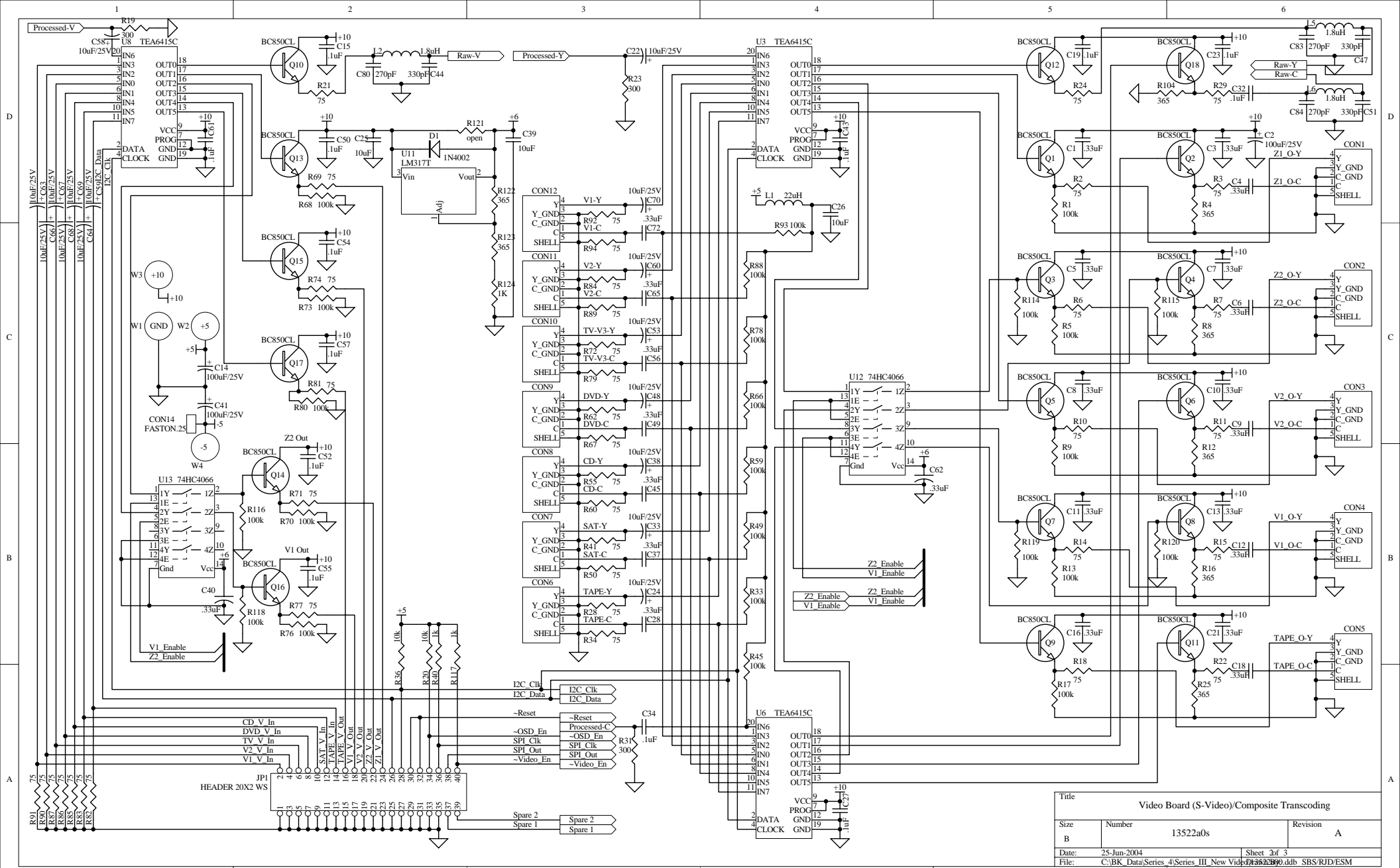




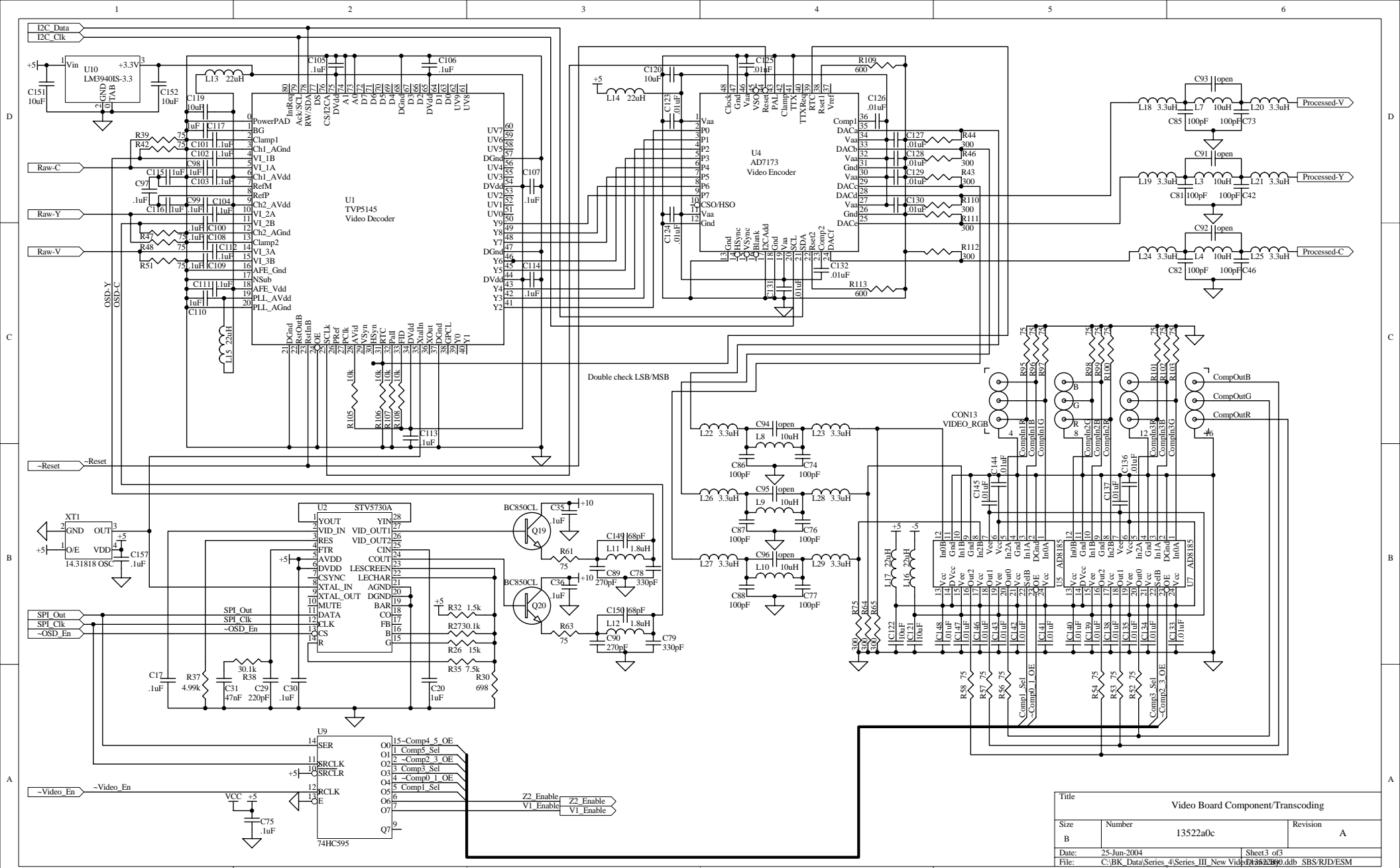
Title			
AVR Series III Audio Selector			
Size B	Number	B&K p/n 13177B05	Revision B
Date:	19-Mar-2003	Sheet of	5 of 6
File:	C:\BK Data\BK Receivers\AVR507_505	Sheet of	5 of 6



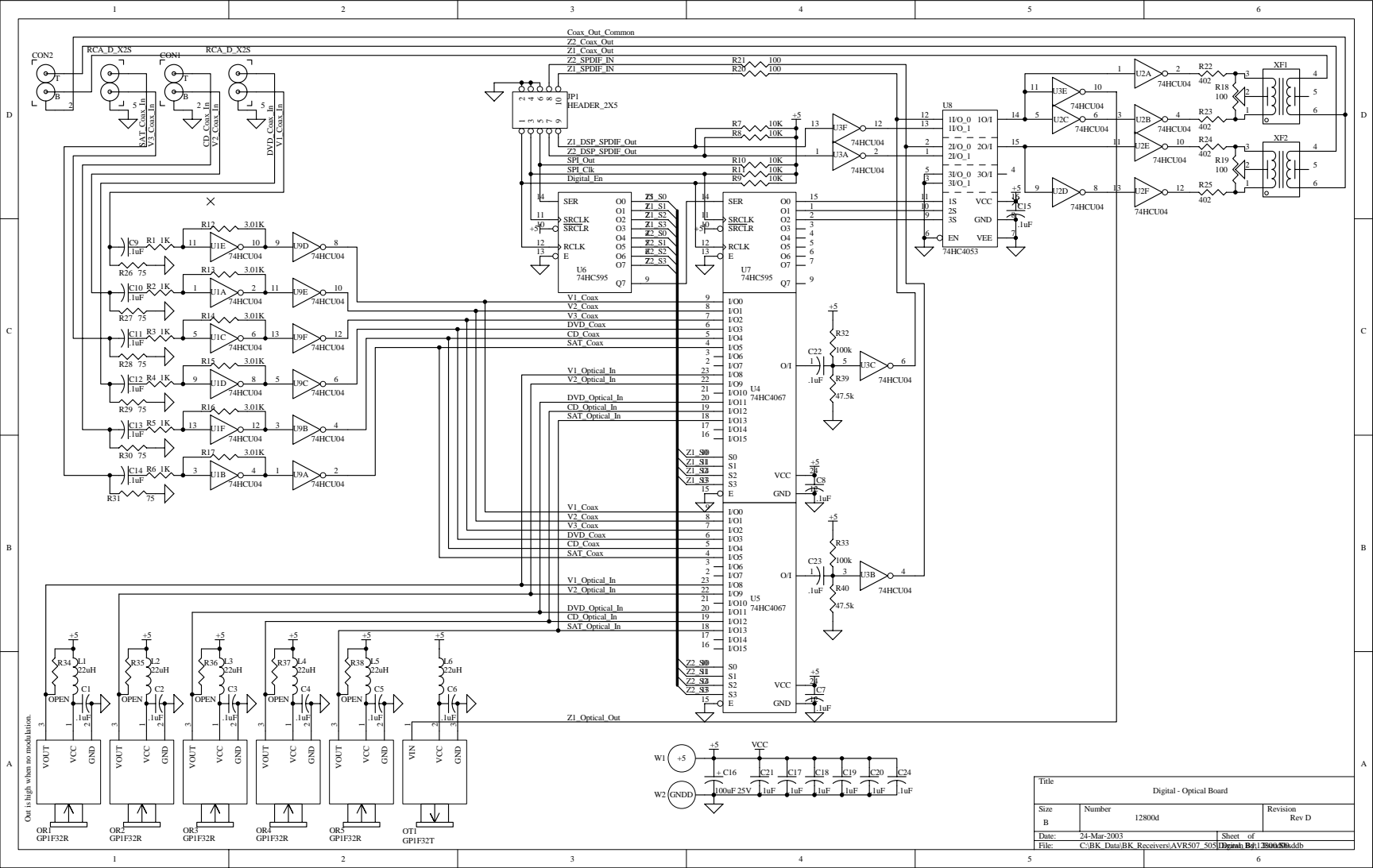
Title		AVR Series III Tuner	
Size	Number	B&K p\n 13177b0T	Revision
A			B
Date:	19-Mar-2003	Sheet of	6 of 6
File:	C:\BK_Data\BK_Receivers\AVR507_505\Bnk_Bn\13177b00Bm\SBS		



Title			
Video Board (S-Video) Composite Transcoding			
Size	Number	Revision	
B	13522a0s	A	
Date:	25-Jun-2004	Sheet	3f of 3
File:	C:\BK_Data\Series 4\Series III New Vids\Dr35320B00.ddb SBS/RJD/ESM		

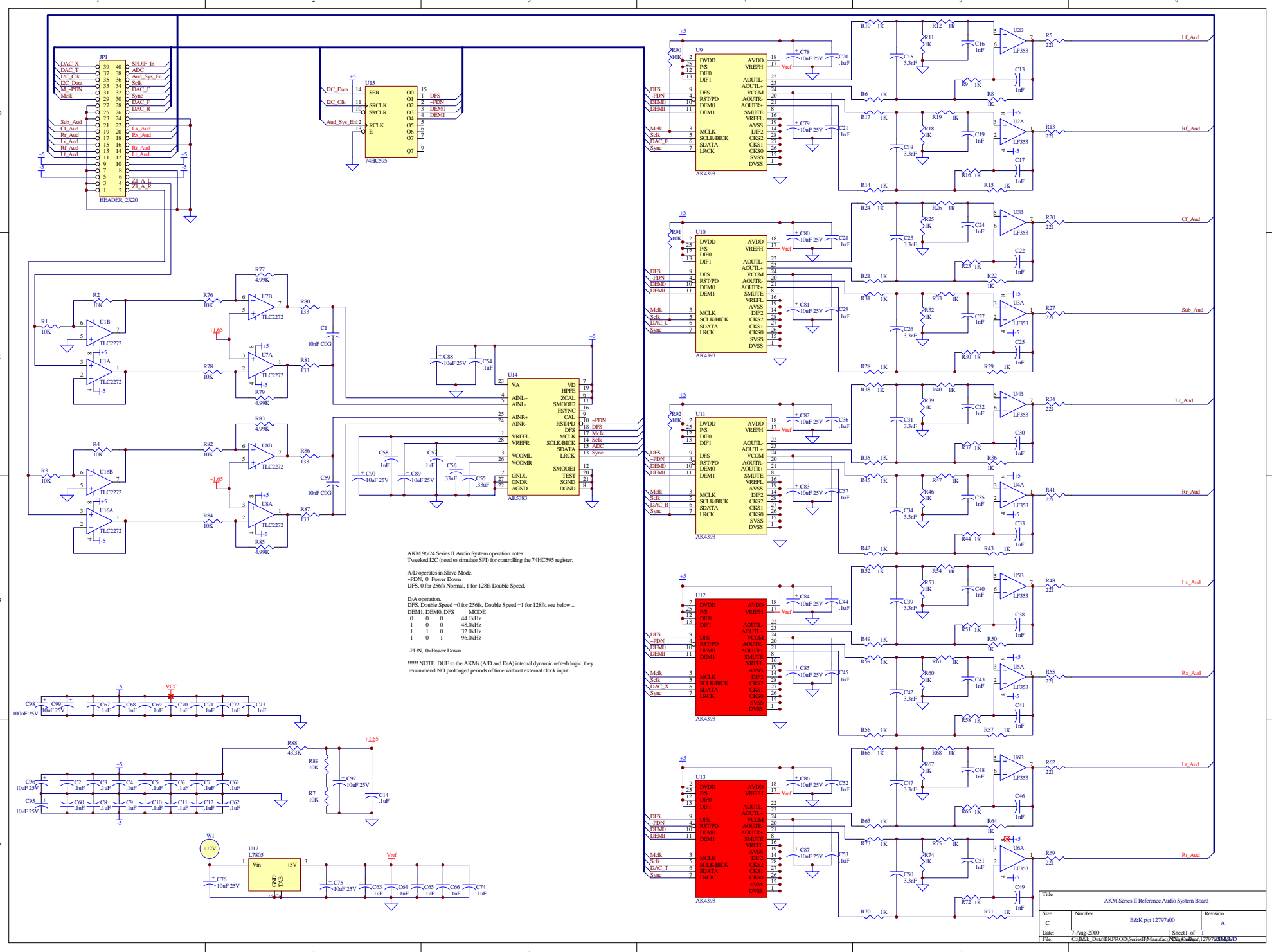


Title		
Video Board Component/Transcoding		
Size	Number	Revision
B	13522a0c	A
Date:	25-Jun-2004	Sheet 3 of 3
File:	C:\BK_Data\Series 4\Series III New Vids\Dr3582c090.dbs SBS/RJD/ESM	



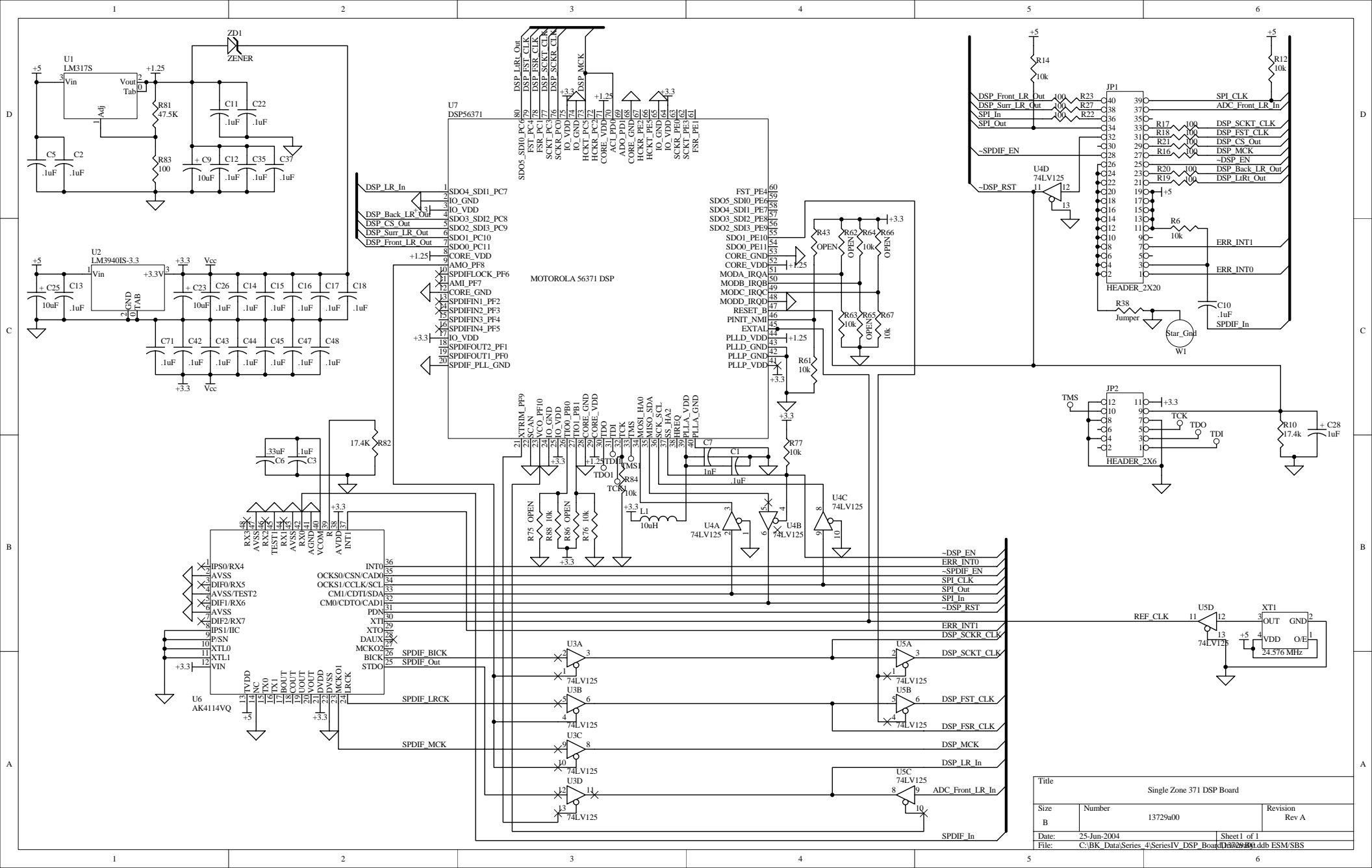
Title		Digital - Optical Board	
Size	Number	12800d	Revision
B			Rev D
Date:	24-Mar-2003	Sheet of	
File:	C:\BK_Data\BK_Recievers\AVRS07_5051\Drawn_Brd\12800d00a.dtb		

Out is high when no modulation.

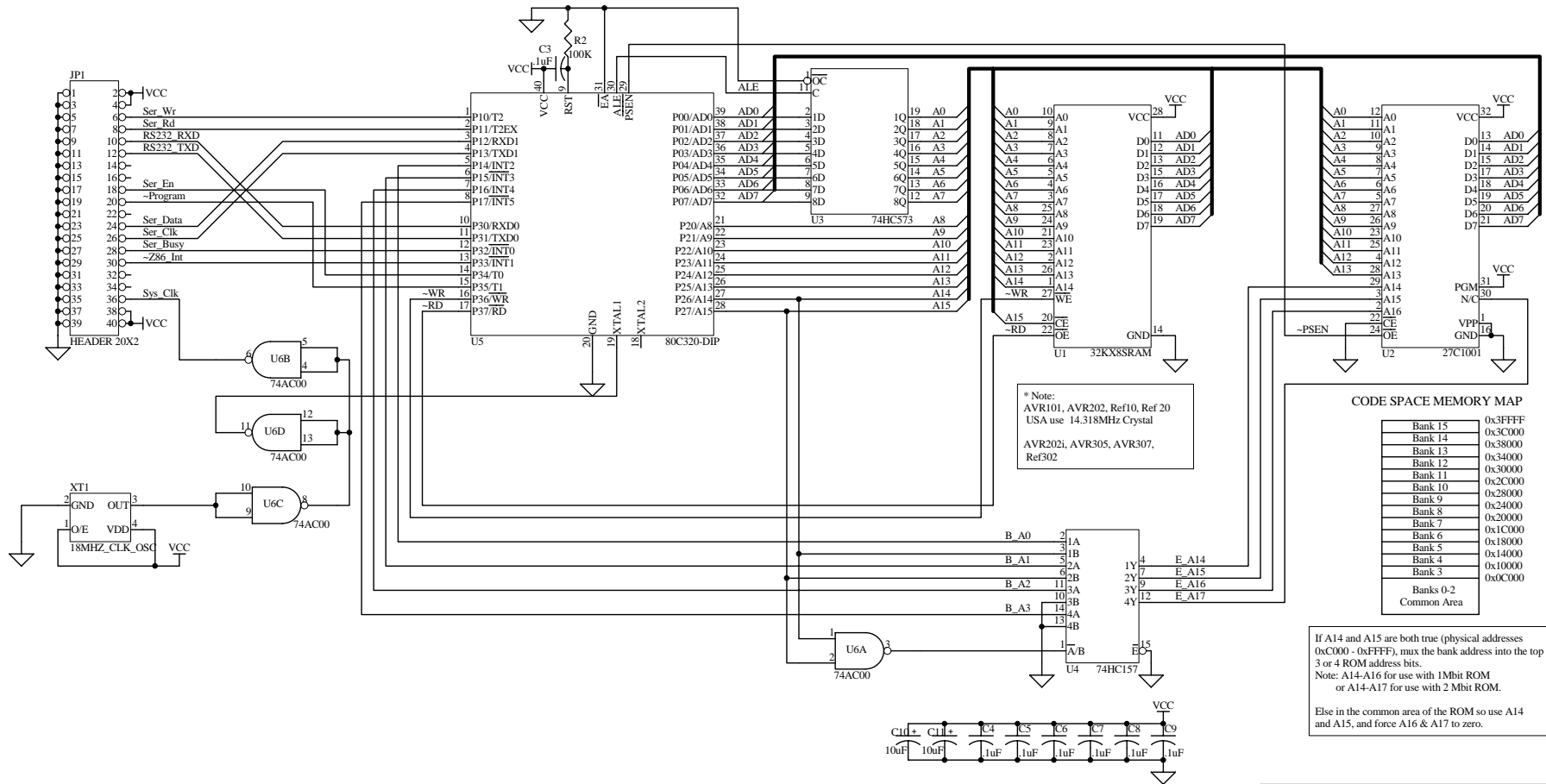


AKM 9624 Series II Audio System operation notes:
 Tweaked I2C (need to simulate SPI) for controlling the 74HC595 register.
 A/D operates in Slave Mode.
 -PDN, 0=Power Down
 DFS, 0 for 256k, Normal, 1 for 128k Double Speed,
 D/A operation,
 DFS, Double Speed=0 for 256k, Double Speed=1 for 128k, see below...
 DEM1, DEM0, DFS MODE:
 0 0 0 44.1kHz
 1 0 0 48.0kHz
 1 1 0 32.0kHz
 1 0 1 96.0kHz
 -PDN, 0=Power Down
 !!!!! NOTE: DUE to the AKMA(A/D and D/A) internal dynamic refresh logic, they
 recommend NO prolonged periods of time without external clock inputs.

Title			
AKM Series II Reference Audio System Board			
Size	Number	B&K pin 12797/00	Revision
C			A
Date:	7-Jun-2003		Sheet 1 of
File:	C:\B&K_Data\BKPROD\SeriesII\Manual		Sheet 1 of 12797/0004/0



Title		
Single Zone 371 DSP Board		
Size	Number	Revision
B	13729a00	Rev A
Date:	25-Jun-2004	Sheet 1 of 1
File:	C:\BK_Data\Series 4\SeriesIV_DSP_Board\03000400.dtb	ESM/SBS



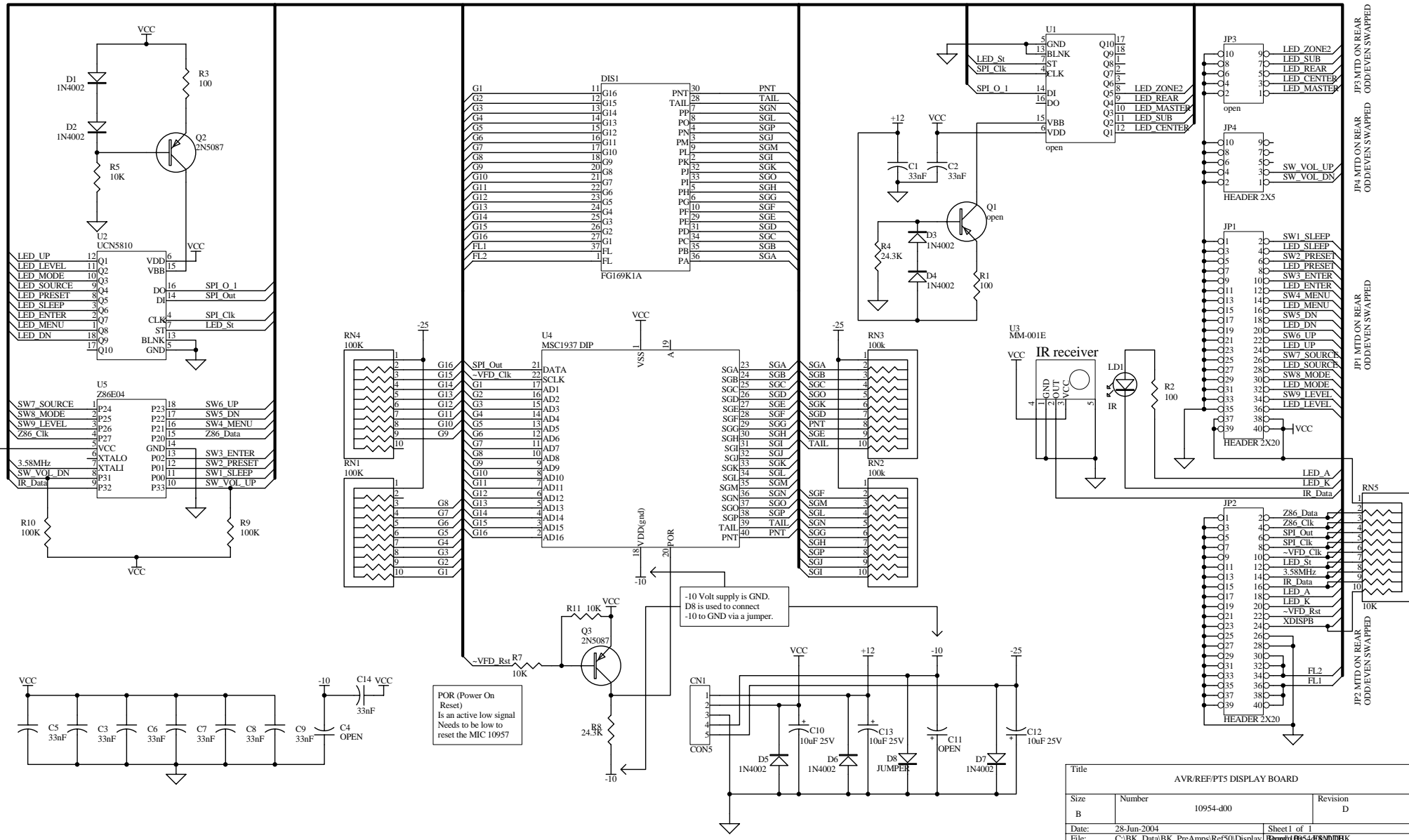
* Note:
 AVR101, AVR202, Ref10, Ref 20
 USA use 14.318MHz Crystal
 AVR202i, AVR305, AVR307,
 Ref302

CODE SPACE MEMORY MAP

Bank 15	0x3FFFF
Bank 14	0x3C000
Bank 13	0x38000
Bank 12	0x34000
Bank 11	0x30000
Bank 10	0x2C000
Bank 9	0x28000
Bank 8	0x24000
Bank 7	0x20000
Bank 6	0x1C000
Bank 5	0x18000
Bank 4	0x14000
Bank 3	0x10000
Banks 0-2	0x0C000
Common Area	

If A14 and A15 are both true (physical addresses 0xC000 - 0xFFFF), mux the bank address into the top 3 or 4 ROM address bits.
 Note: A14-A16 for use with 1Mbit ROM or A14-A17 for use with 2 Mbit ROM.
 Else in the common area of the ROM so use A14 and A15, and force A16 & A17 to zero.

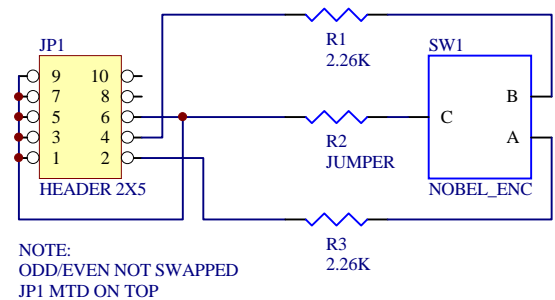
Title		
AVR/REF MICRO-CONTROLLER BOARD with RS-232		
Size	Number	Revision
B	12741600	B
Date:	28-Jun-2004	Sheet of 1 of 1
File:	C:\BK_Data\BK_PreAmps\Ref50\Control\Board\B2741600.DDB	SBS/RJD/ESM



POR (Power On Reset)
Is an active low signal
Needs to be low to
reset the MIC 10957

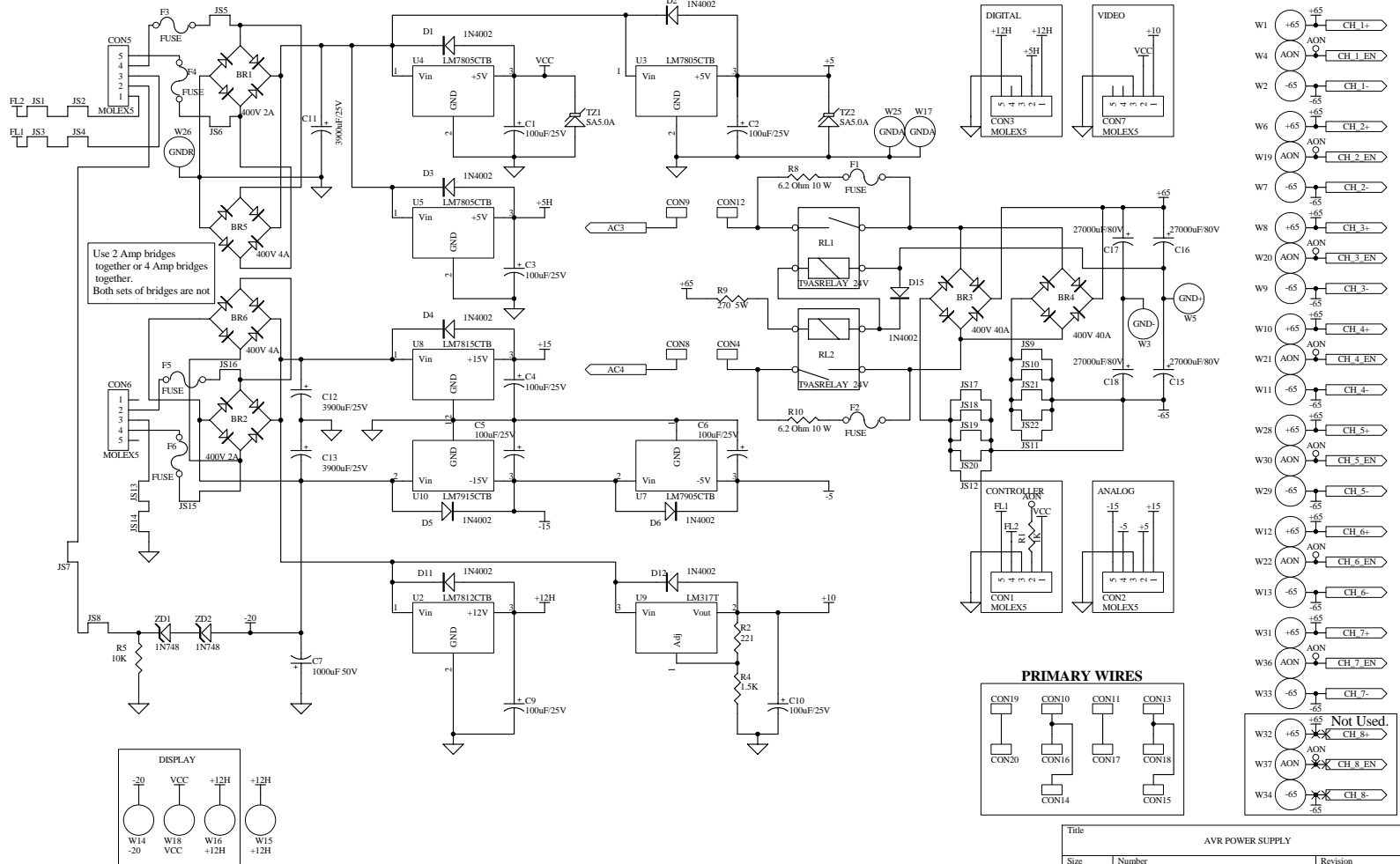
-10 Volt supply is GND.
D8 is used to connect
-10 to GND via a jumper.

Title AVR/REF/PT5 DISPLAY BOARD			
Size B	Number 10954-00	Revision D	
Date: 28-Jun-2004	Sheet 1 of 1		
File: C:\BK_Data\BK_PreAmps\Ref50\Display	Board10954-00	DK	

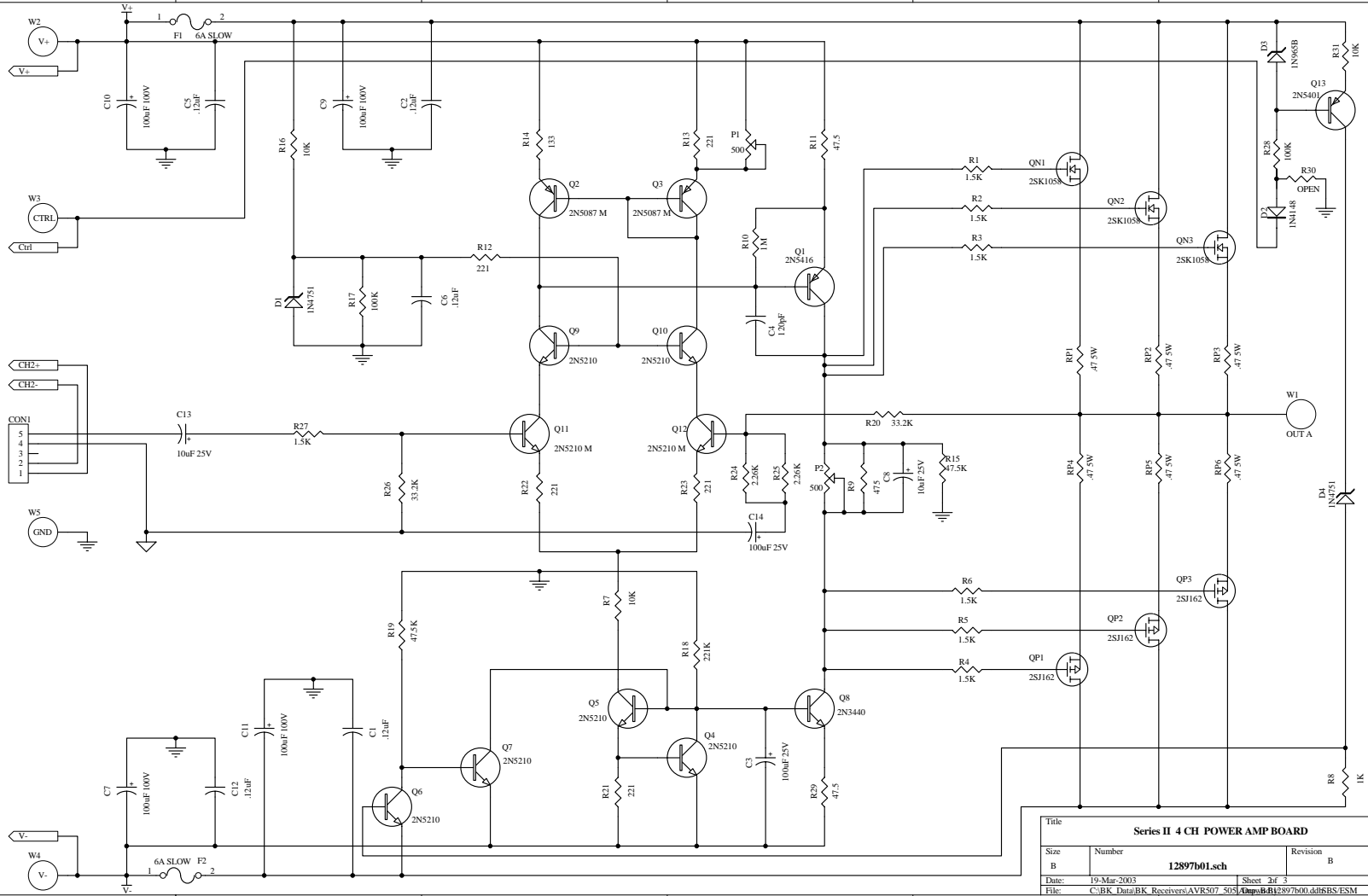


NOTE:
 ODD/EVEN NOT SWAPPED
 JP1 MTD ON TOP

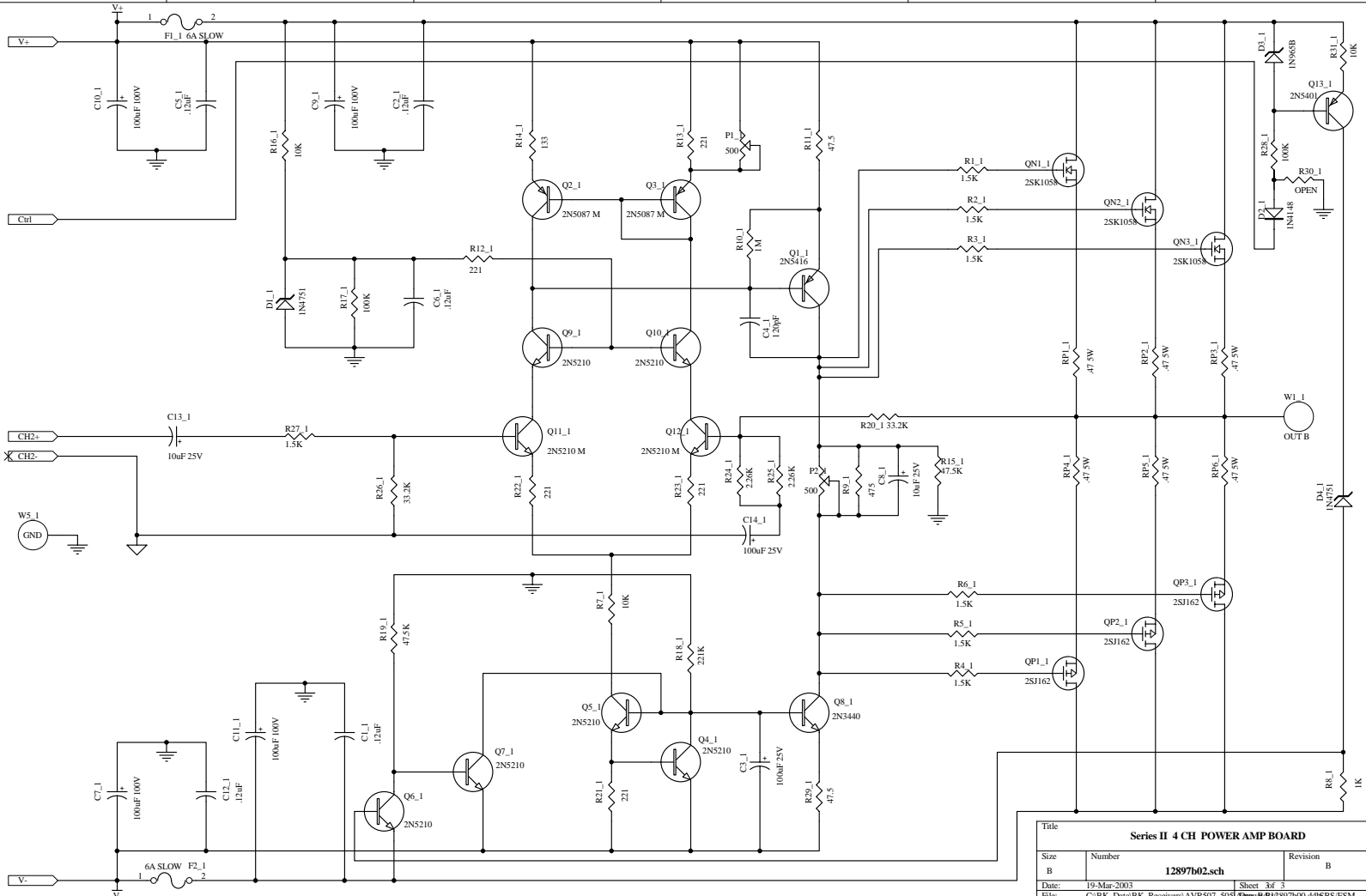
Title		
AVP/AVR/REF/TP ROTARY ENCODER BOARD		
Size	Number	Revision
A		A
Date:	7-Aug-2000	Sheet 1 of 1
File:	C:\B&k_Data\BKPROD\SeriesII\Manufact\HOB\G\Bent\1376a00.DDB	



Title		
AVR POWER SUPPLY		
Size	Number	Revision
B	12801600	REV B
Date:	19-Mar-2003	Sheet of 1 of 1
File:	C:\BK Data\BK Receivers\AVR507_505\PowerSupply\12801600.SMB	



Title		
Series II 4 CH POWER AMP BOARD		
Size	Number	Revision
B	12897b01.sch	B
Date:	19-Mar-2003	Sheet 2 of 3
File:	C:\BK_Data\BK_Receiver\AVR507_505	AutoB412897600.dlt\B85\ESM



Title		
Series II 4 CH POWER AMP BOARD		
Size	Number	Revision
B	12897b02.sch	B
Date:	19-Mar-2003	Sheet 3 of 3
File:	C:\BK_Data\BK_Receiver\AVR507_505	Amn\B412897600.d\H8BS\ESM