

WE SIMPLY SOUND BETTER.

Reference 50 S2

SERVICE MANUAL

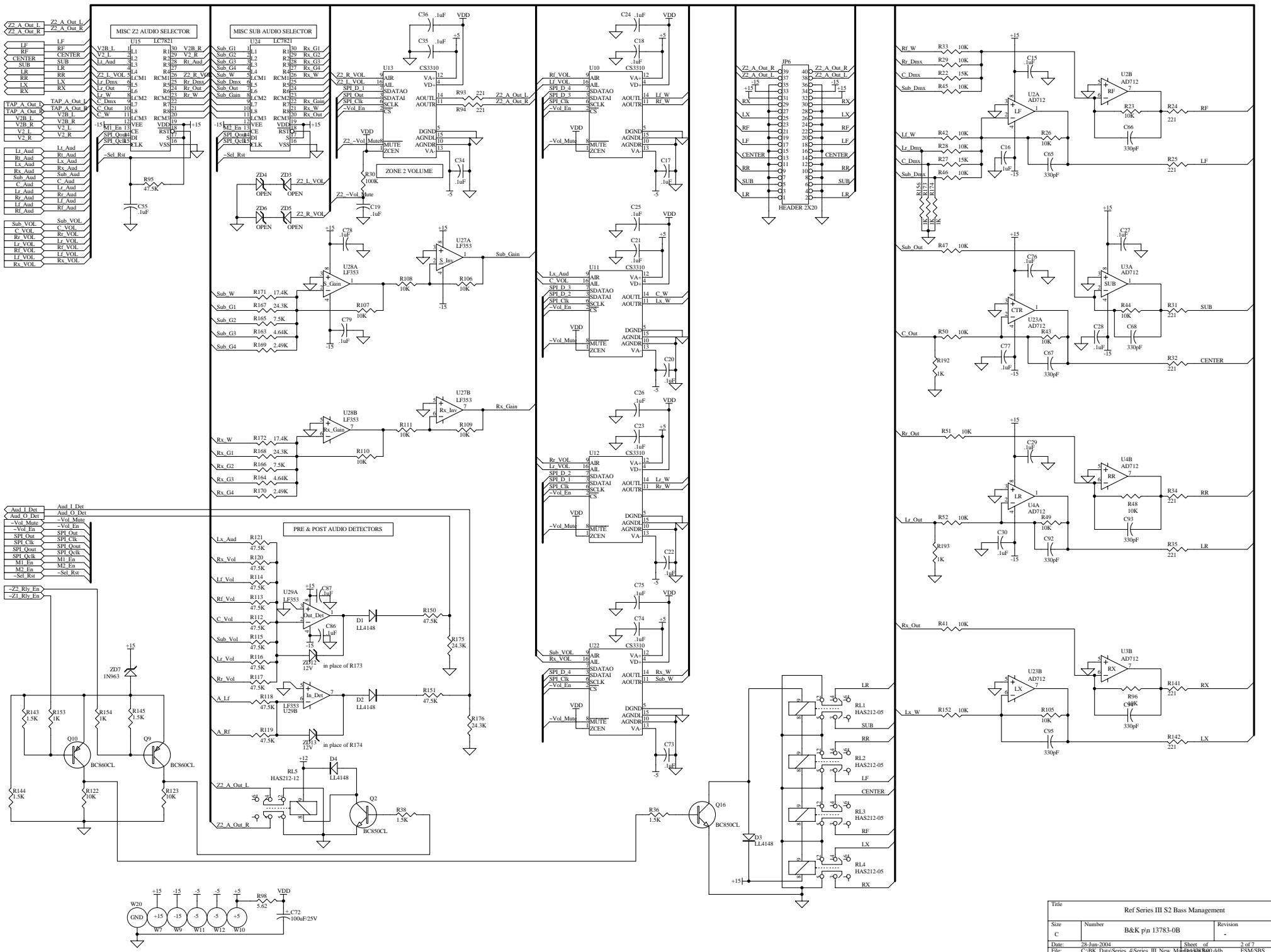
B&K COMPONENTS, LTD.
2100 Old Union Road
Buffalo, New York 14227-2725
U.S.A.

B & K

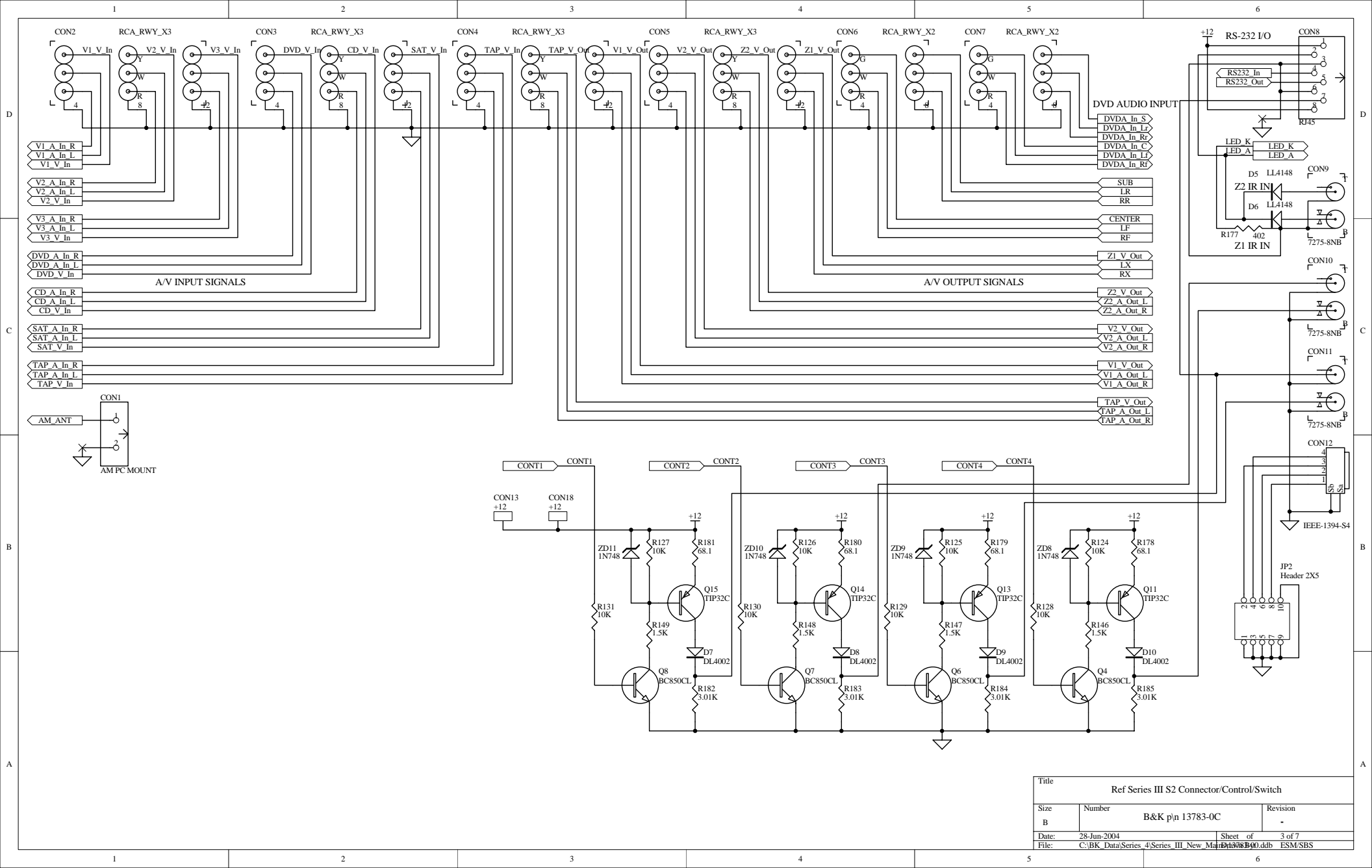
WE SIMPLY SOUND BETTER.

Schematics

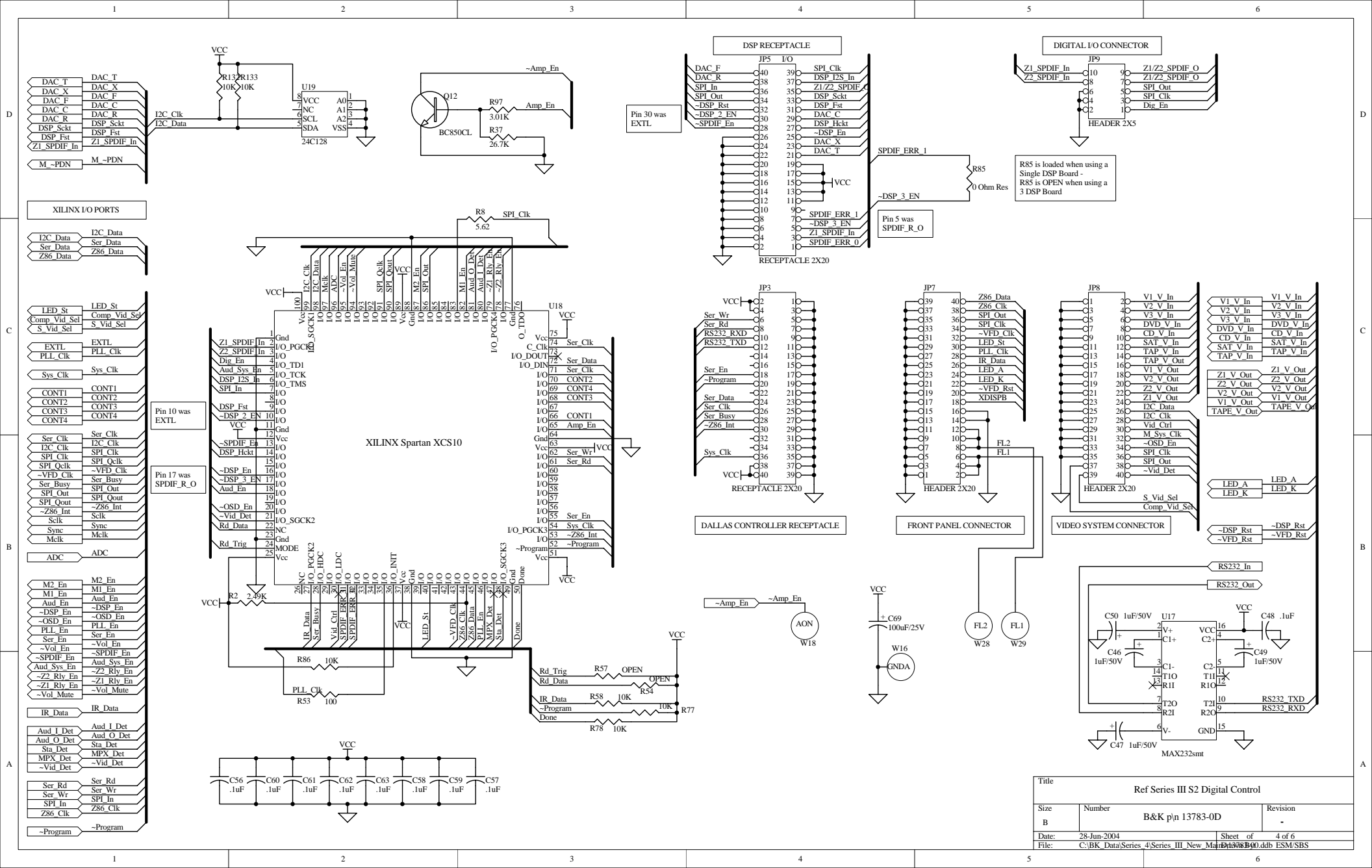
B&K COMPONENTS, LTD.
2100 Old Union Road
Buffalo, New York 14227-2725
U.S.A.



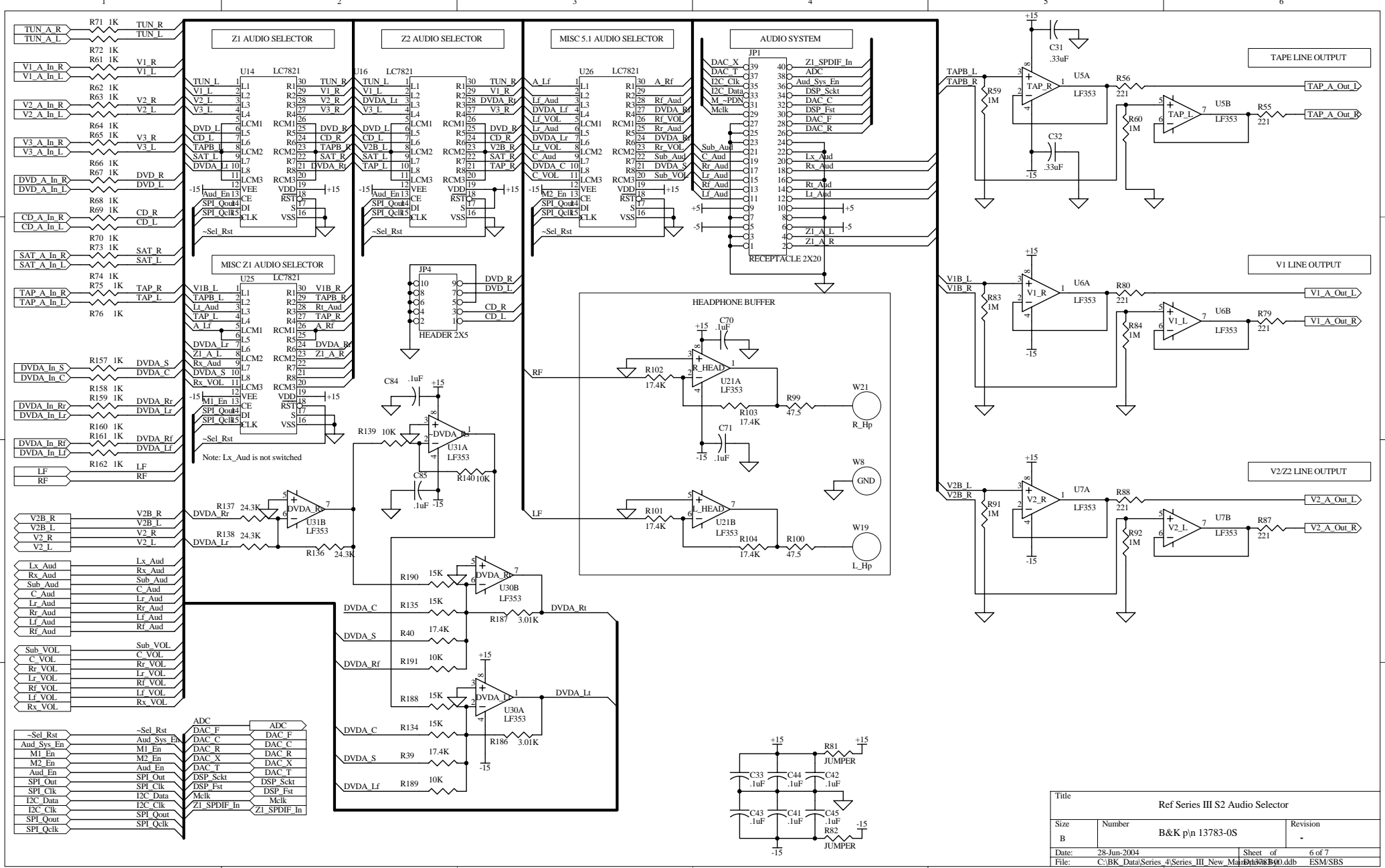
Title			
Ref Series III S2 Bass Management			
Size	Number	B&K p/n	Revision
C	3	B&K p/n 13783-0B	2 of 7
Date:		26-Jun-2004	Sheet of
File:		C:\BK_Data\Series_III_New_Mat\B&K_B0.dbb	ESMSBS



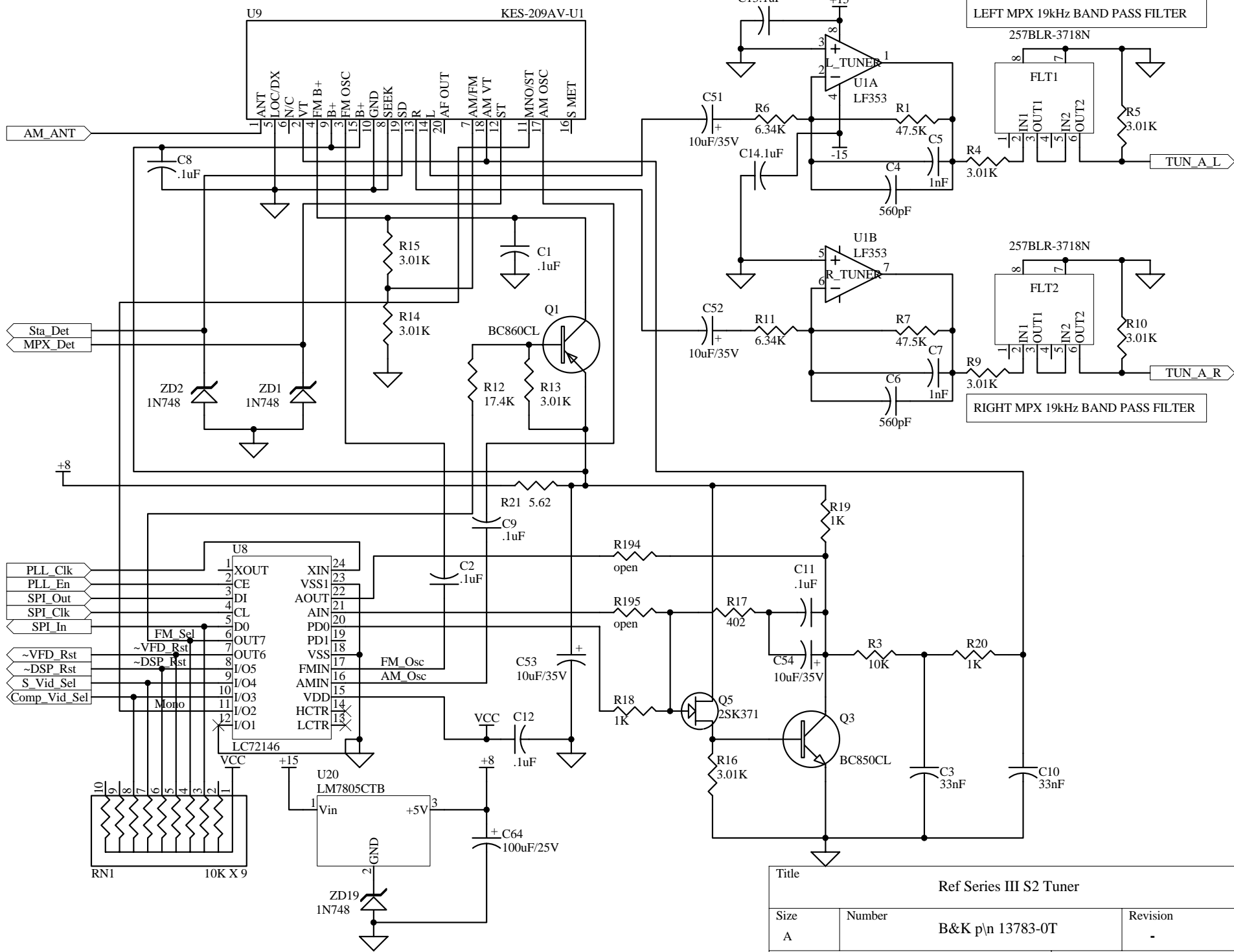
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Ref Series III S2 Connector/Control/Switch		
Size	Number	Revision
B	B&K p/n 13783-0C	-
Date:	28-Jun-2004	Sheet of 3 of 7
File:	C:\BK_Data\Series 4\Series III New Mat\13783B00.ddb	ESM/SBS



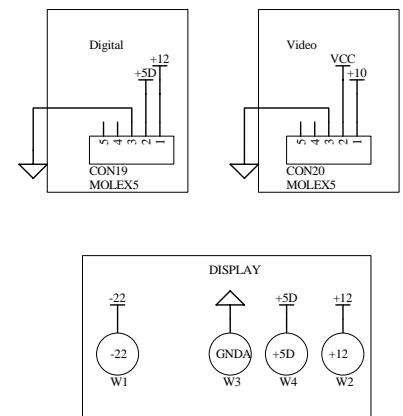
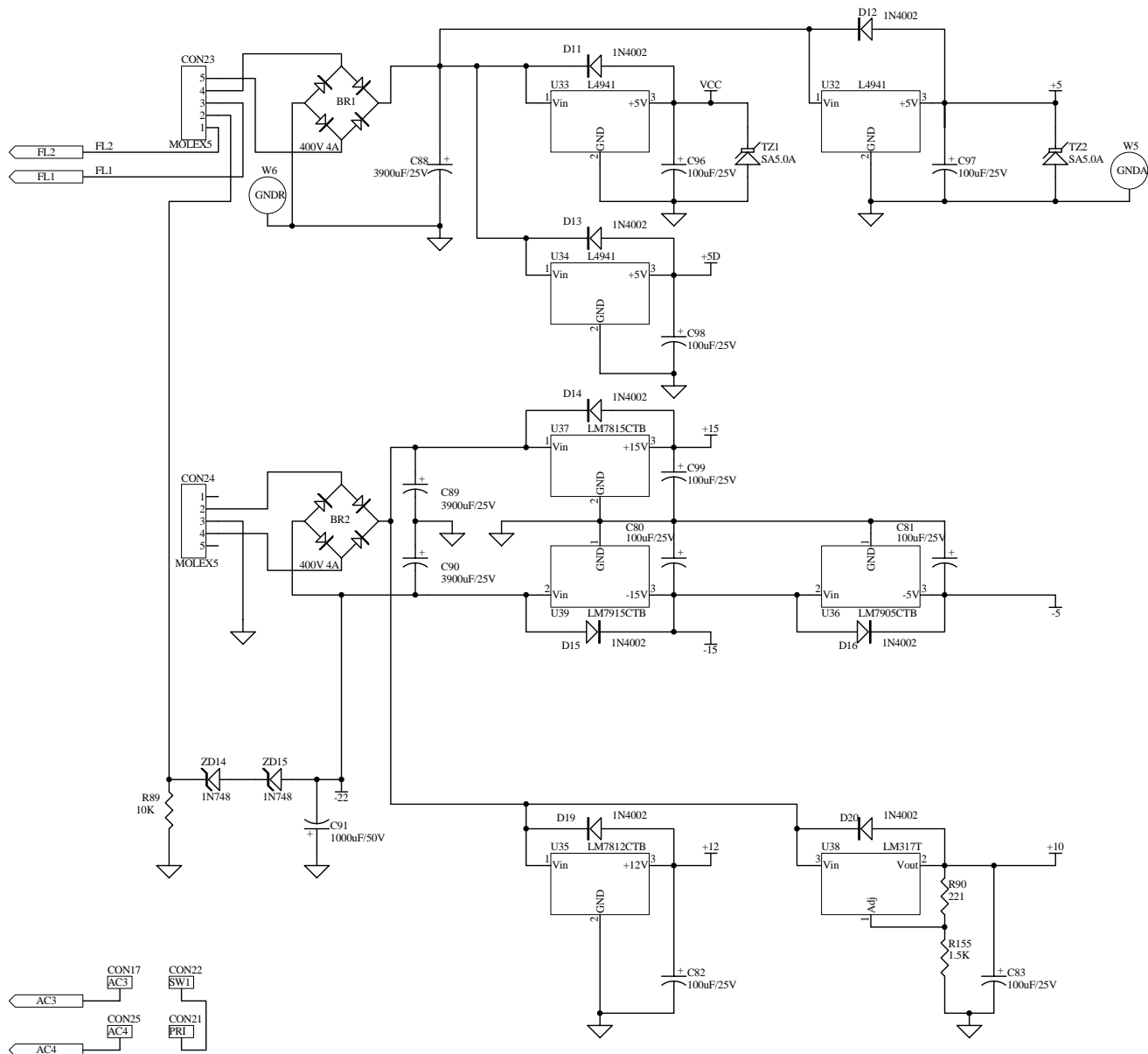
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Ref Series III S2 Digital Control			
Size	Number	Revision	
B	B&K p/n 13783-0D	-	
Date:	28-Jun-2004	Sheet of	4 of 6
File:	C:\BK_Data\Series 4\Series III New Mat\B&K\B400.ddb	ESM/SBS	



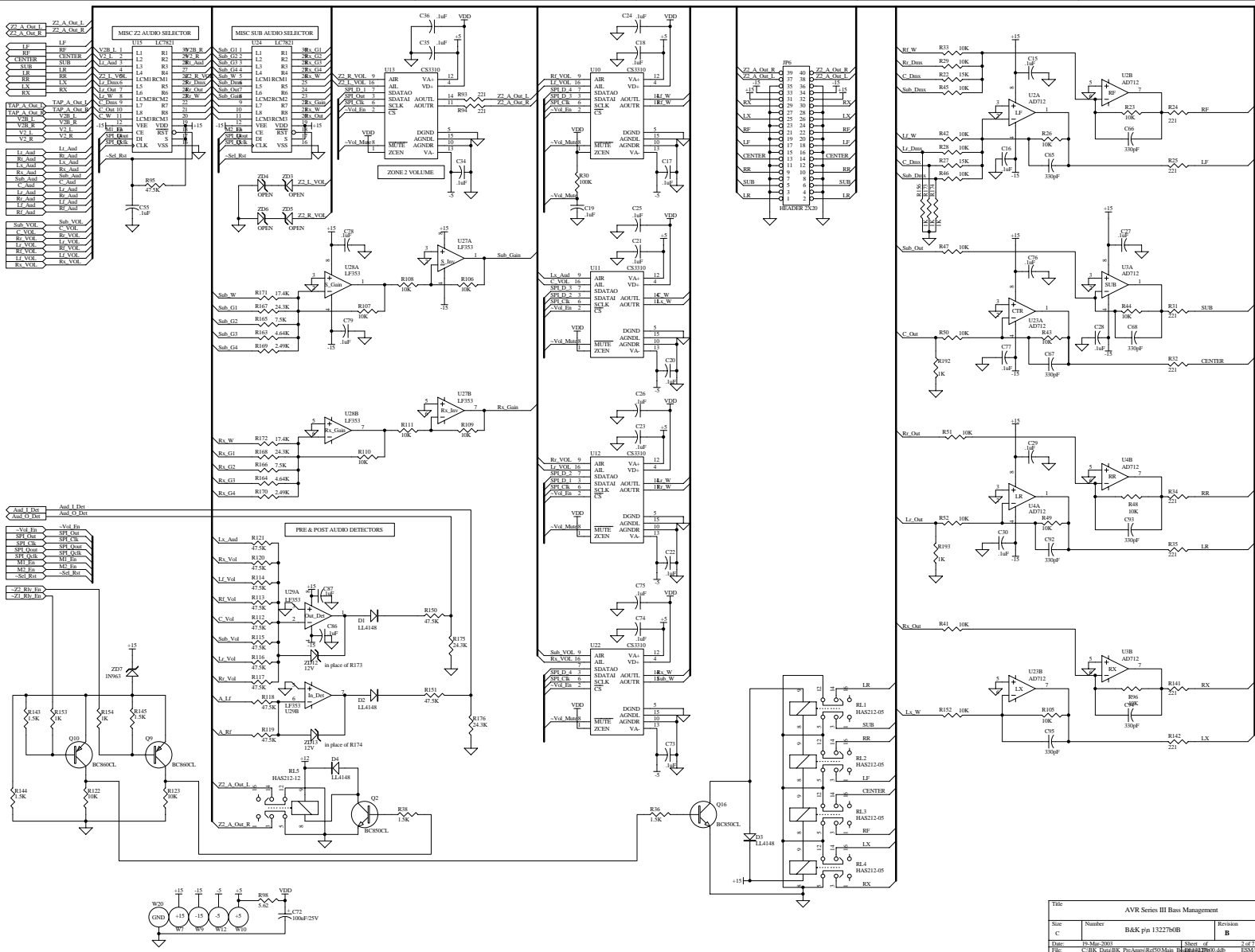
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Ref Series III S2 Audio Selector			
Size	Number	B&K p/n 13783-0S	Revision
B			-
Date:	28-Jun-2004	Sheet of	6 of 7
File:	C:\BK_Data\Series 4\Series III New Mat\B&KB00.ddb		ESM/SBS



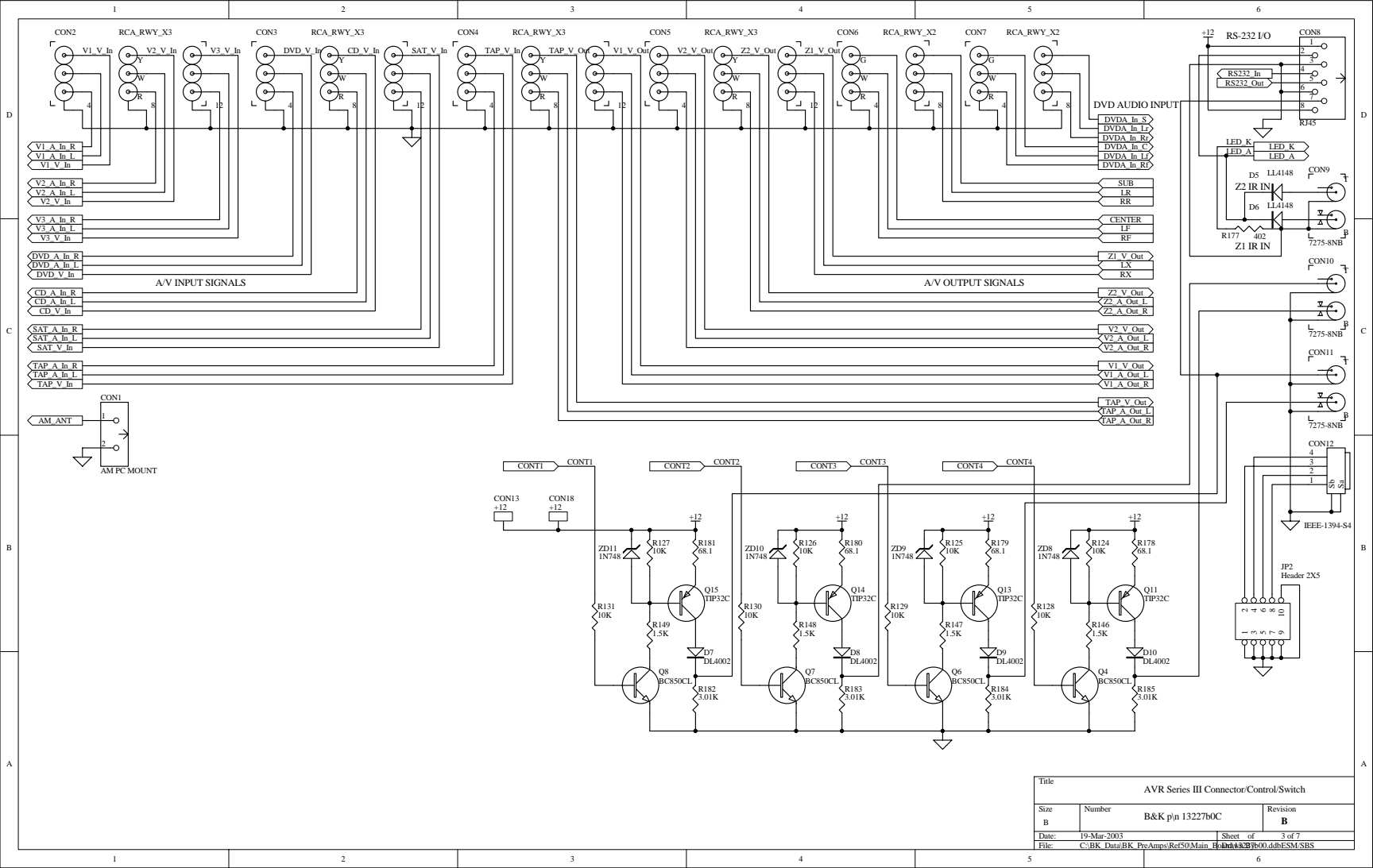
Title				Ref Series III S2 Tuner			
Size	Number			Revision			
A	B&K p\n 13783-0T			-			
Date:	28-Jun-2004		Sheet of	7 of 7			
File:	C:\BK_Data\Series_4\Series_III_New_Main\13783-00.ddb		ESM/SBS				



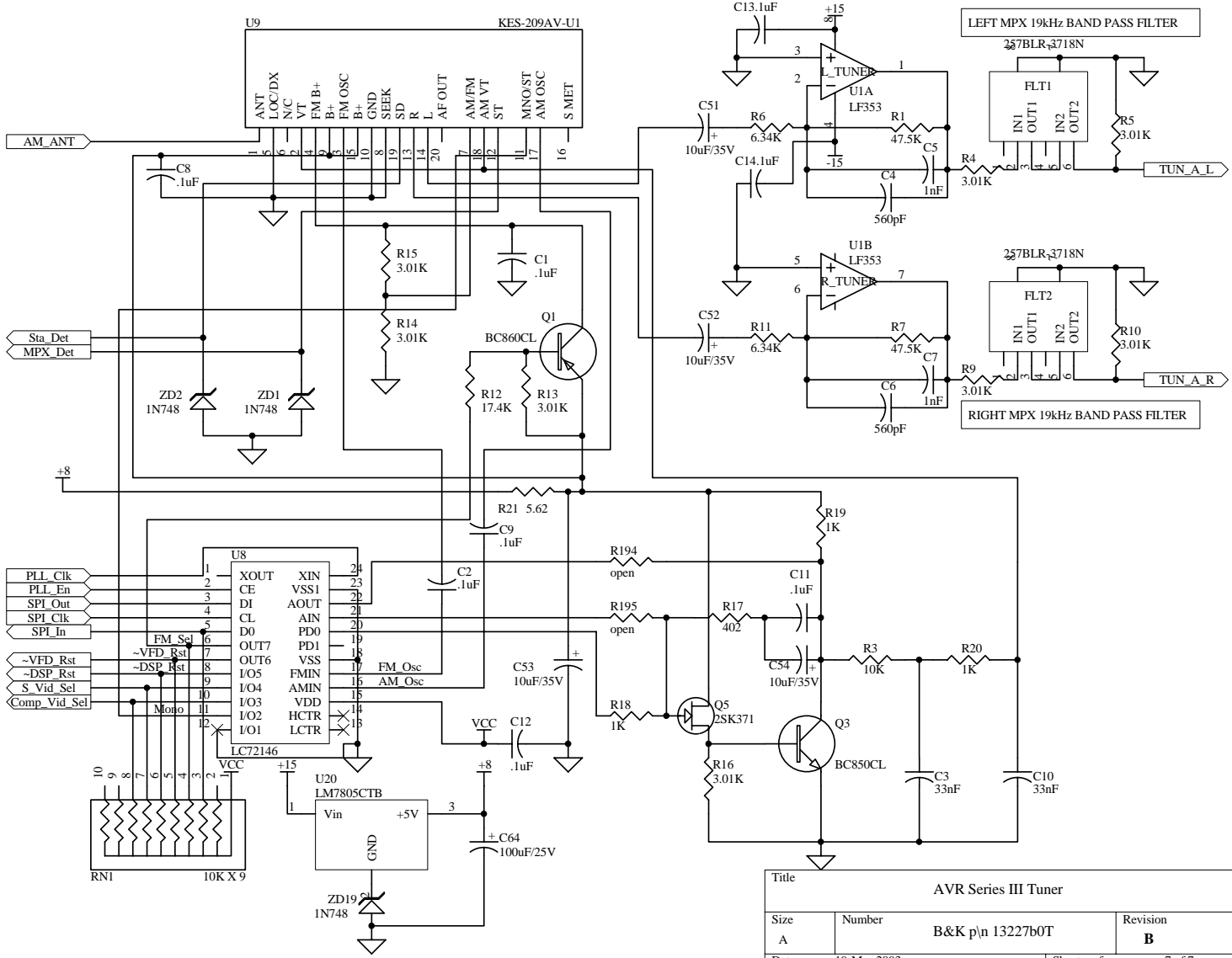
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Reference Series III S2 Power Supply/Connector			
Size	Number	Revision	
B	B&K p/n 13783-0P	-	
Date:	28-Jun-2004	Sheet of	5 of 7
File:	C:\BK_Data\Series 4\Series III_New_Mat\B13783-B00.ddb	ESM/SBS	



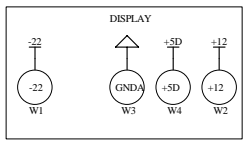
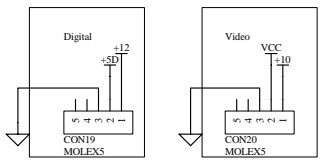
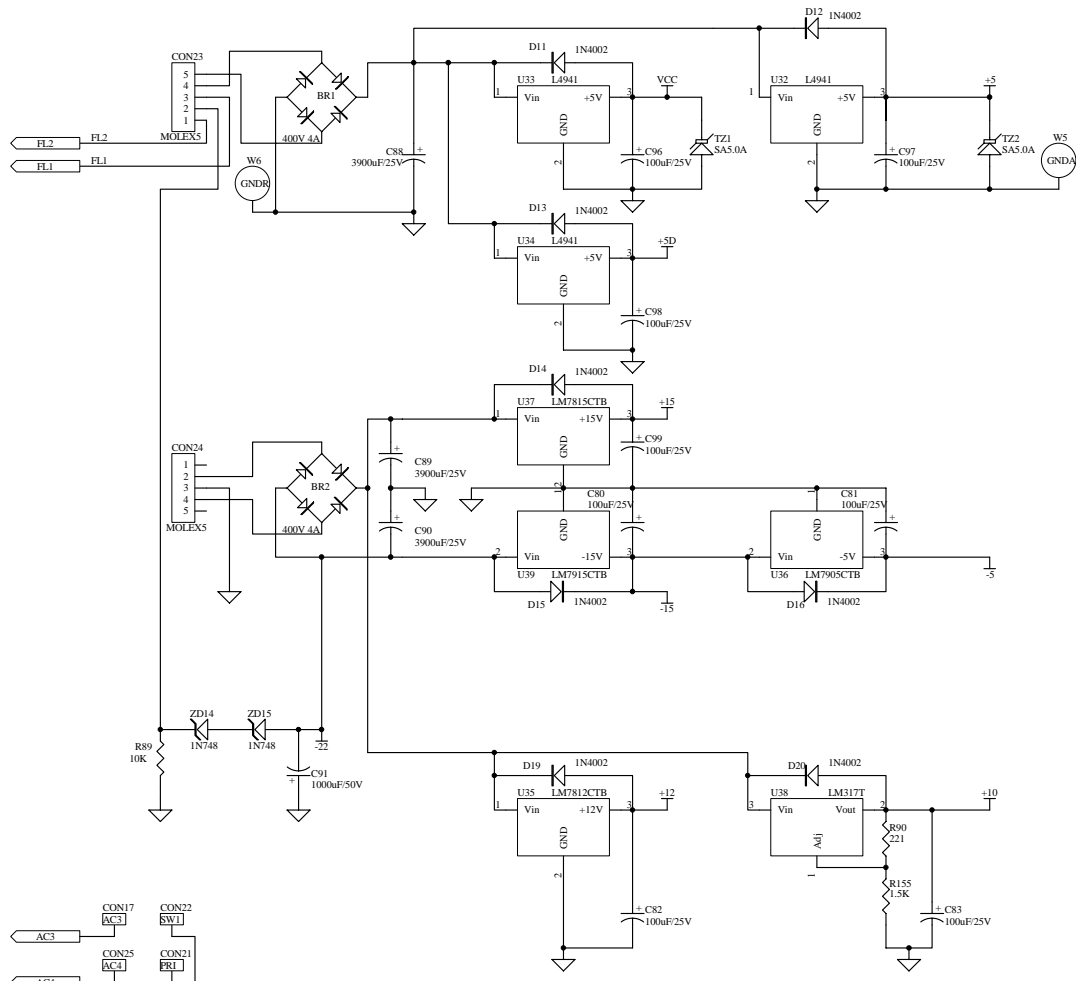
AVR Series III Base Management				
Size	Number	B&K pin	Revision	
C	1	1322760B	B	
Date:	10 Mar 2003			2 of 7
File:	C:\B&K_Data\B&K_Pie-Analog\B&K50\Man_44441417170.dtb			ESM SRS



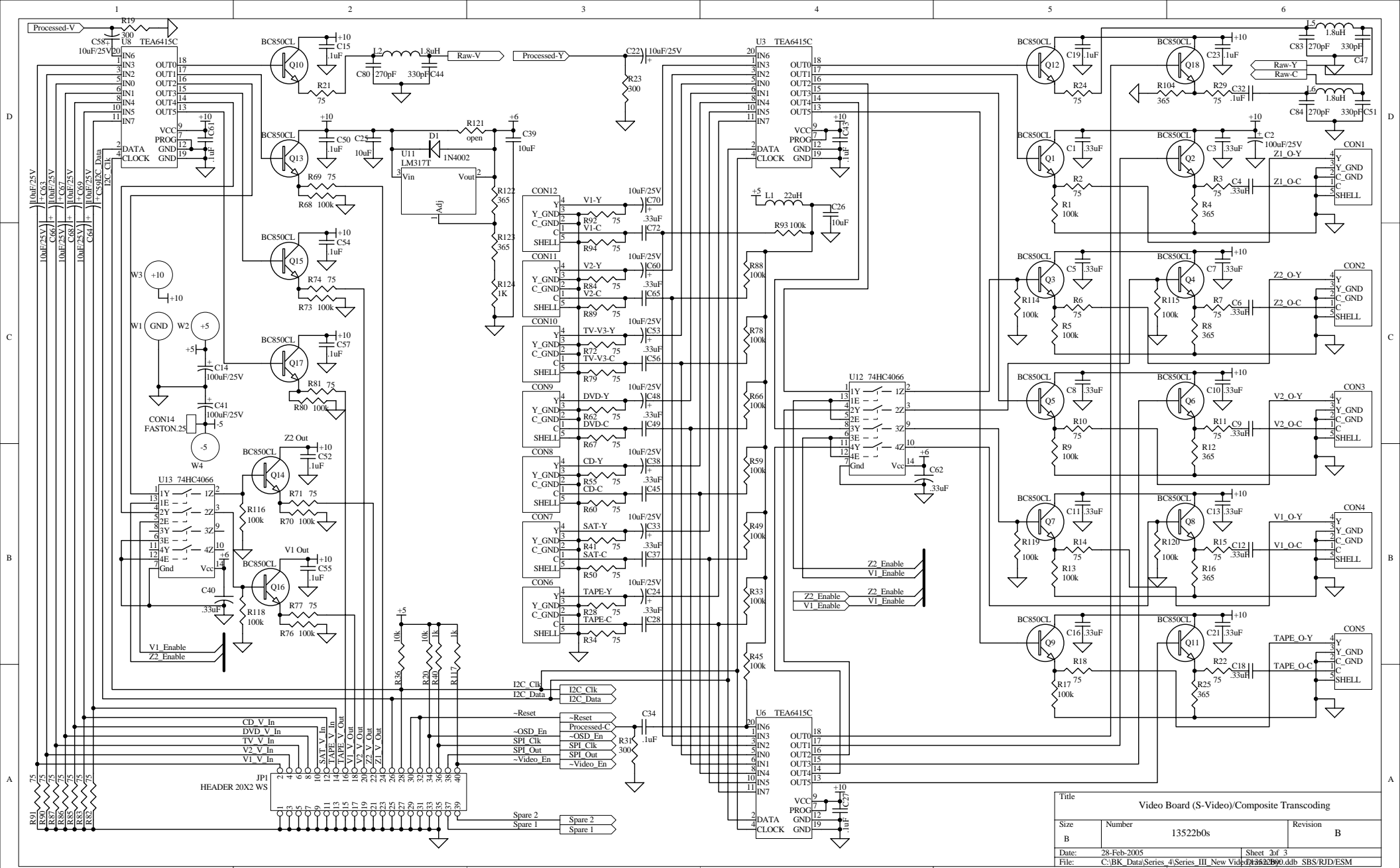
Title			
AVR Series III Connector/Control/Switch			
Size	Number	B&K p/n	Revision
B		13227B0C	B
Date:	19-Mar-2003	Sheet of	3 of 7
File:	C:\BK_Data\BK_PrepAmps\Ref50Main	Board	13227B00.ddb\ESM\SBS



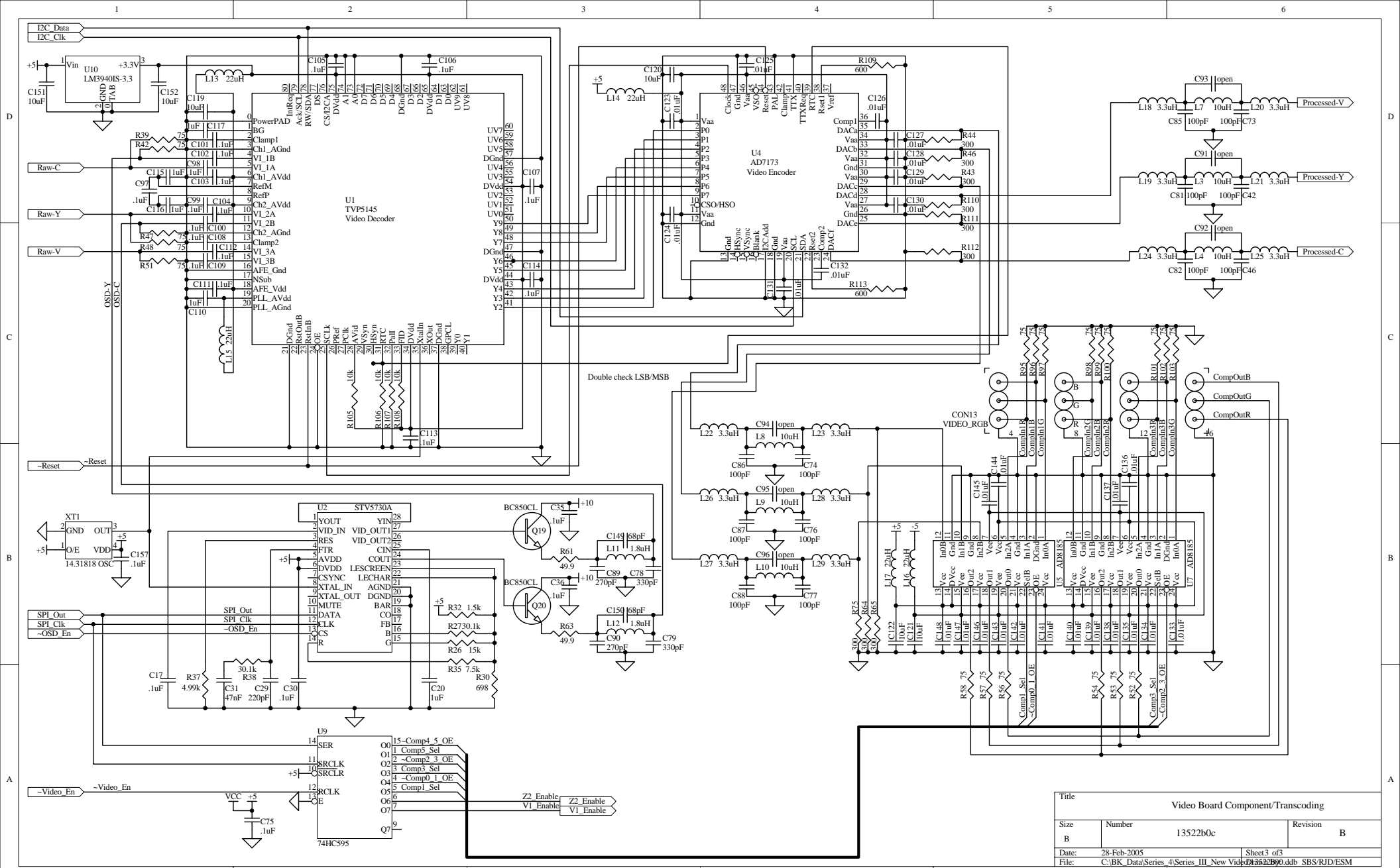
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AVR Series III Tuner			
Size	Number	Revision	
A	B&K p\n 13227b0T	B	
Date:	19-Mar-2003	Sheet of	7 of 7
File:	C:\BK_Data\BK_PreAmps\Ref50>Main Board\AVR000.ddb	ESM/SBS	



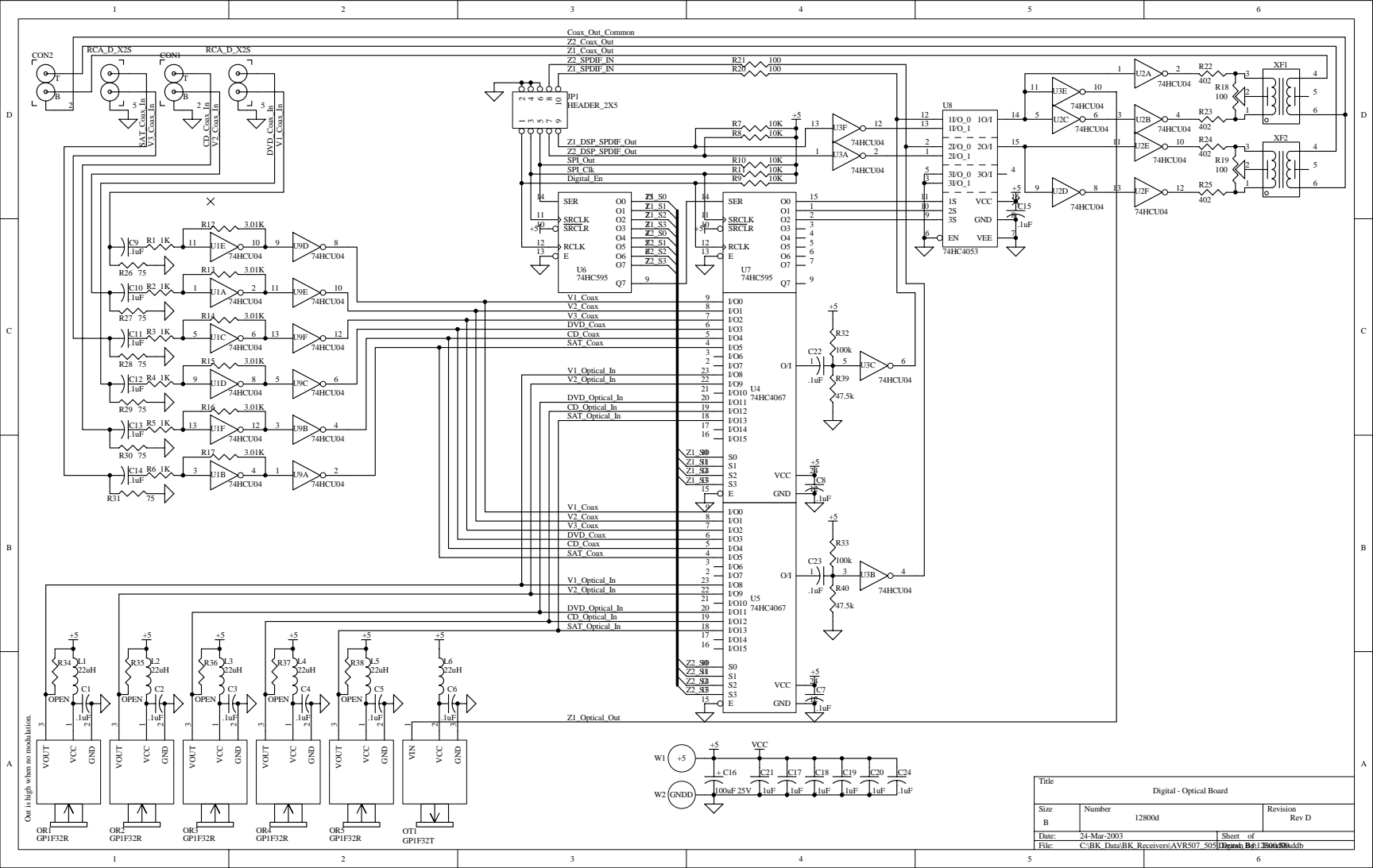
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Reference Series III Power Supply/Connector			
Size	Number	B&K p/n	Revision
B		13227bOP	B
Date:	19-Mar-2003	Sheet of	5 of 7
File:	C:\BK_Data\BK_PreAmps\Ref50Main	Board:	ESM/SBS

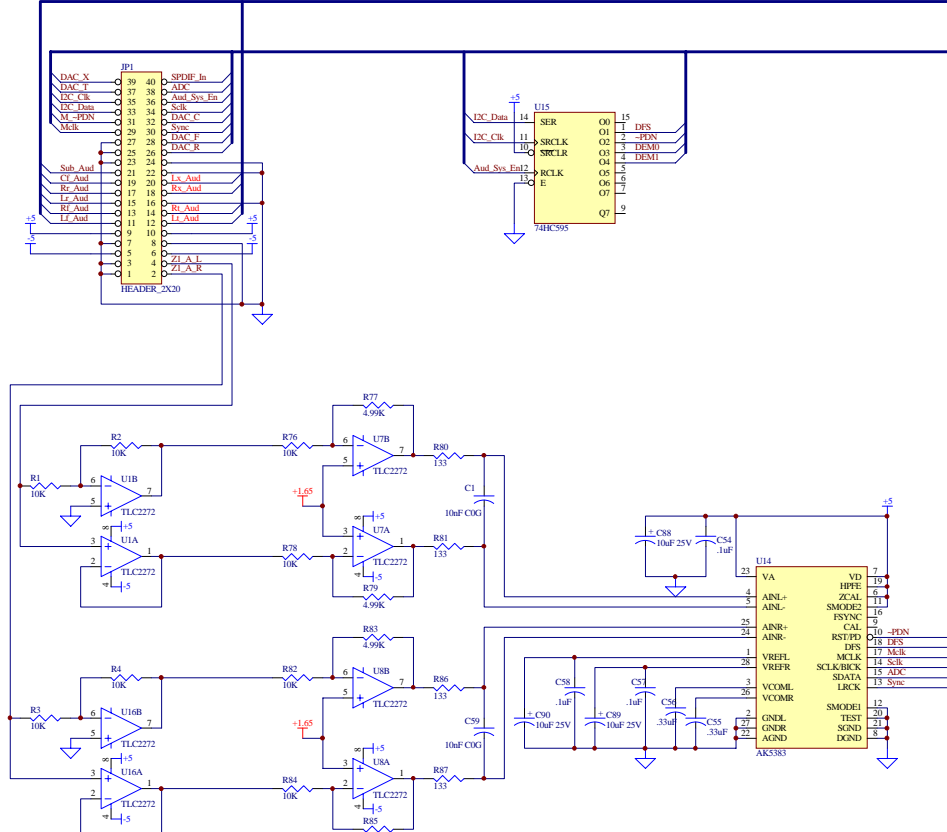


Title			
Video Board (S-Video) Composite Transcoding			
Size	Number	Revision	
B	13522b0s	B	
Date:	28-Feb-2005	Sheet	3 of 3
File:	C:\BK_Data\Series 4\Series III New Video\Dr3522b000.ddb SBS/RJD/ESM		

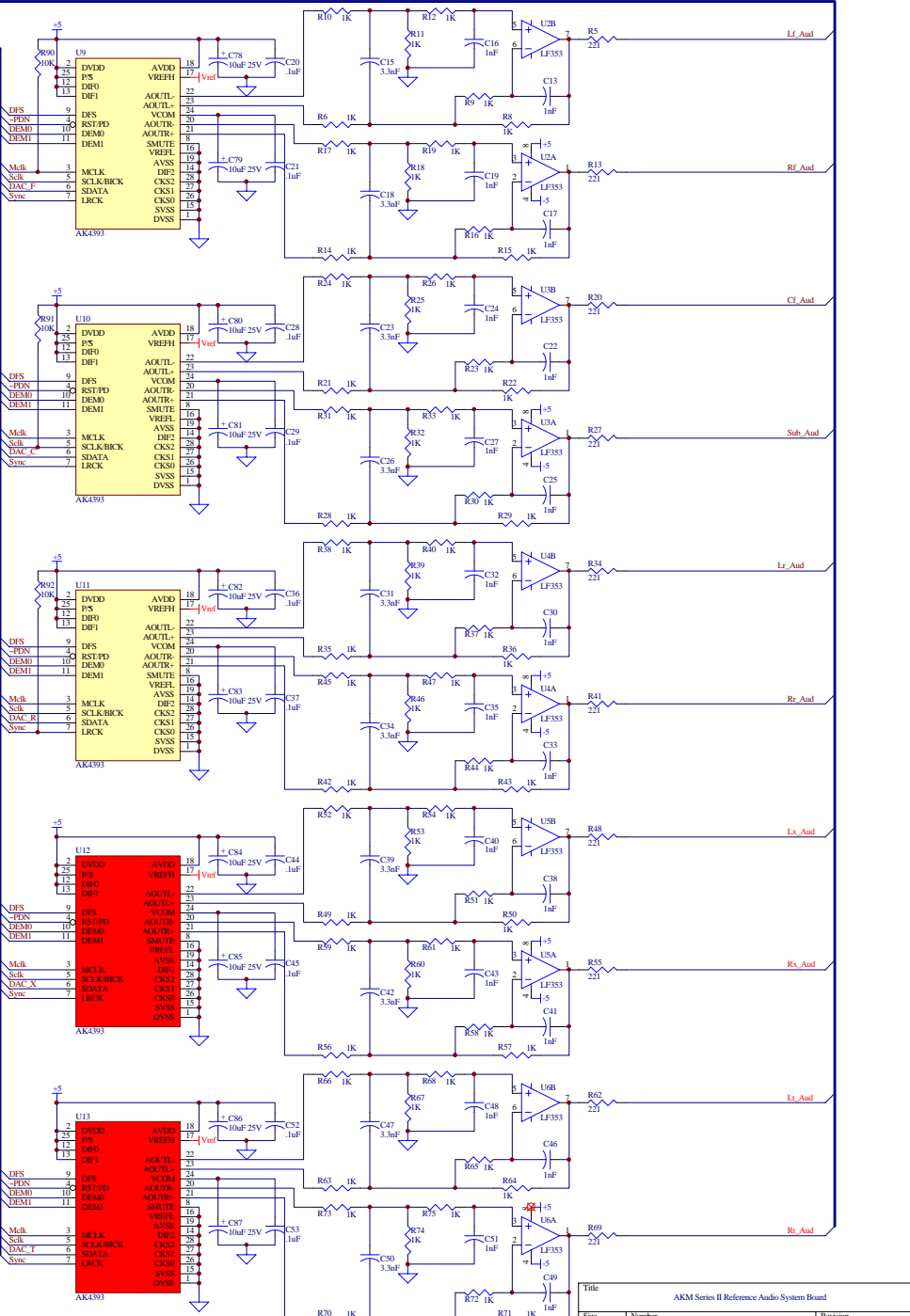
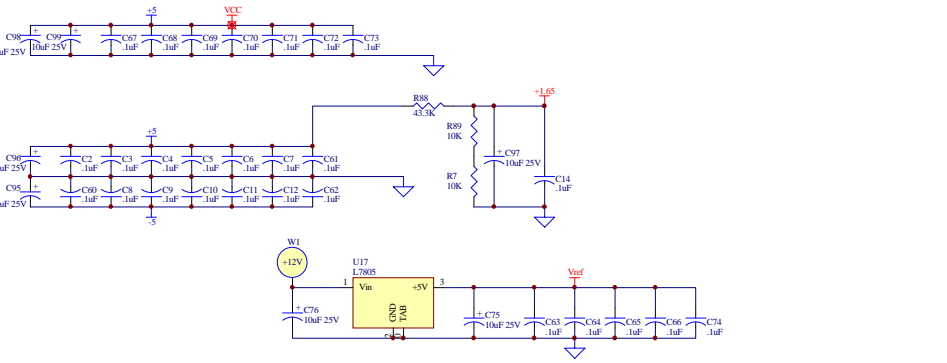


Title		
Video Board Component/Transcoding		
Size	Number	Revision
B	13522b0c	B
Date:	28-Feb-2005	Sheet 3 of 3
File:	C:\BK_Data\Series 4\Series III New Vids\Dr352cB900.sdb SBS/RJD/ESM	

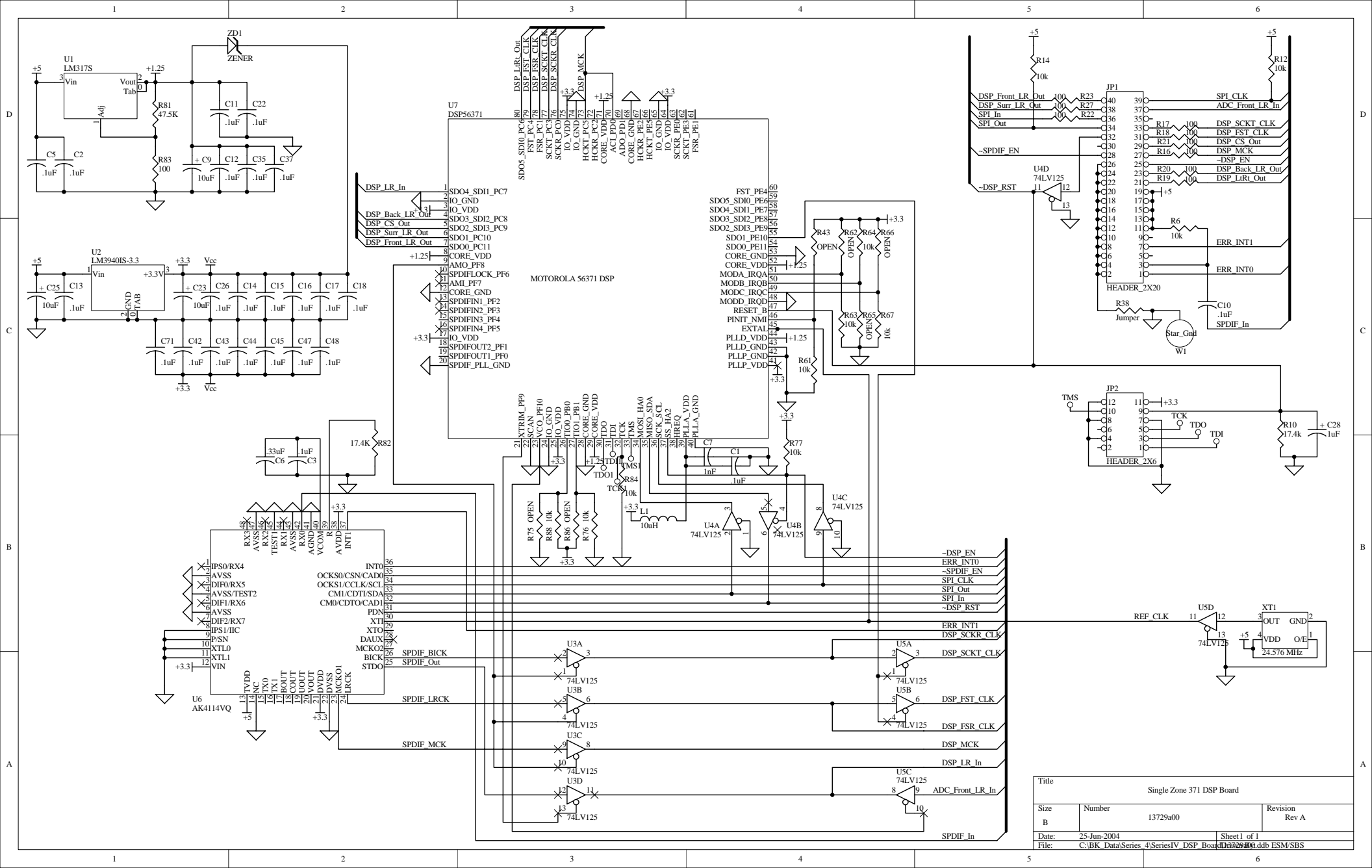




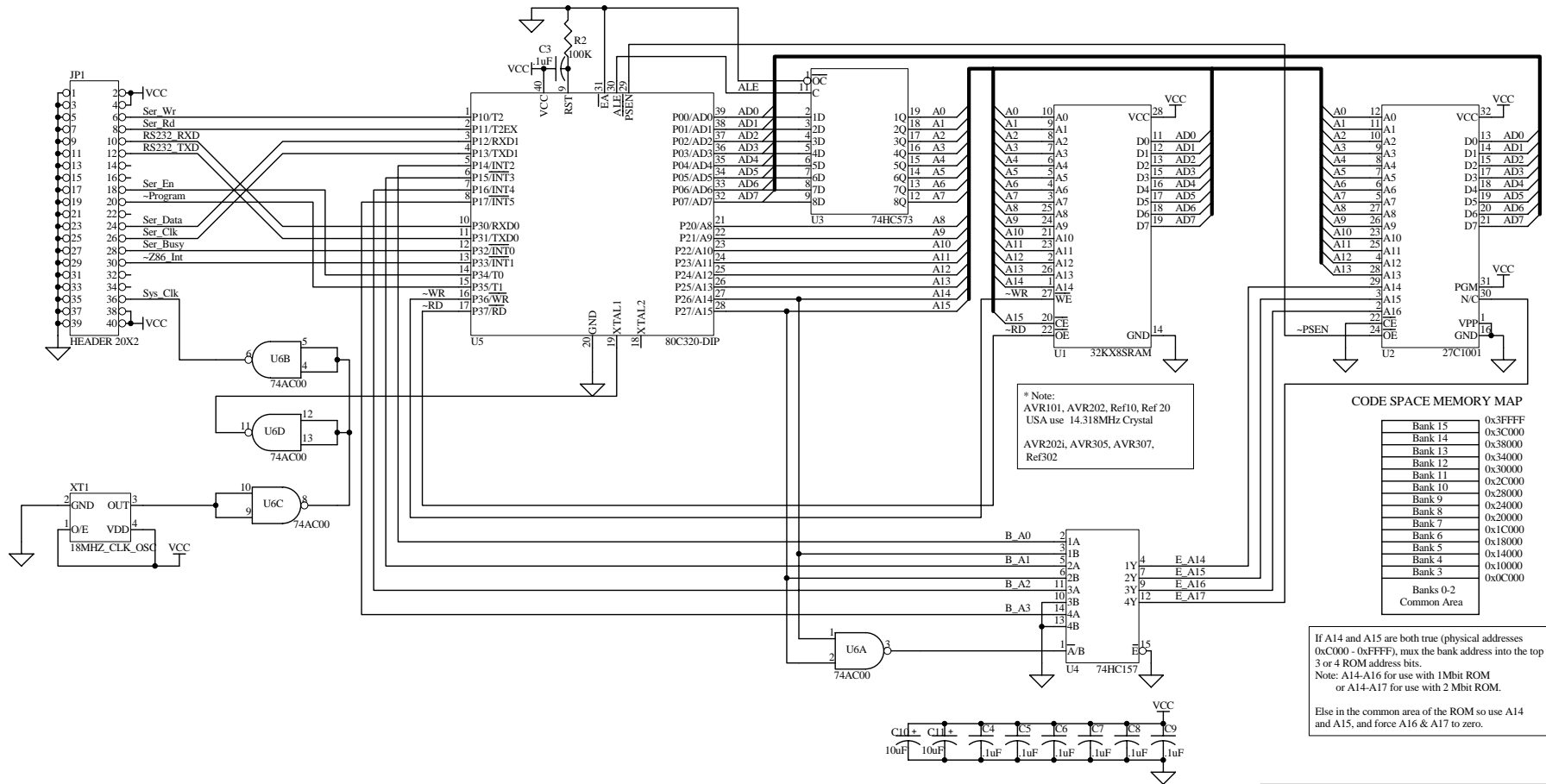
AKM 9624 Series II Audio System operation notes:
 Tweaked I2C (need to simulate SPI) for controlling the 74HC595 register.
 A/D operates in Slave Mode:
 -PDN, 0=Power Down
 DFS, 0 for 256fs Normal, 1 for 128fs Double Speed,
 D/A operation
 DFS, Double Speed=0 for 256fs, Double Speed=1 for 128fs, see below...
 DEM1, DEM0, DFS MODE:
 0 0 0 48.0kHz
 1 1 0 32.0kHz
 1 0 1 96.0kHz
 -PDN, 0=Power Down
 !!!!! NOTE: D/E is the AKMs (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 12797u00	Revision
C			A
Date:	7-Aug-2000	Sheet 1 of	
File:	C:\B&K_Dsm\BKPProd\SeriesII\Mamfile	Sheet 1 of	
		Sheet 1 of	12797u00u00



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.

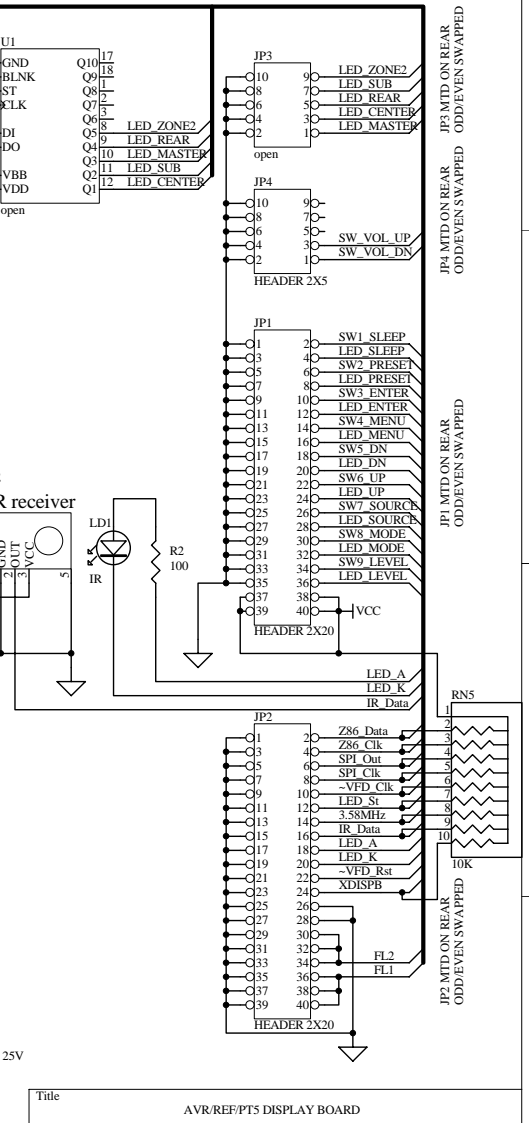
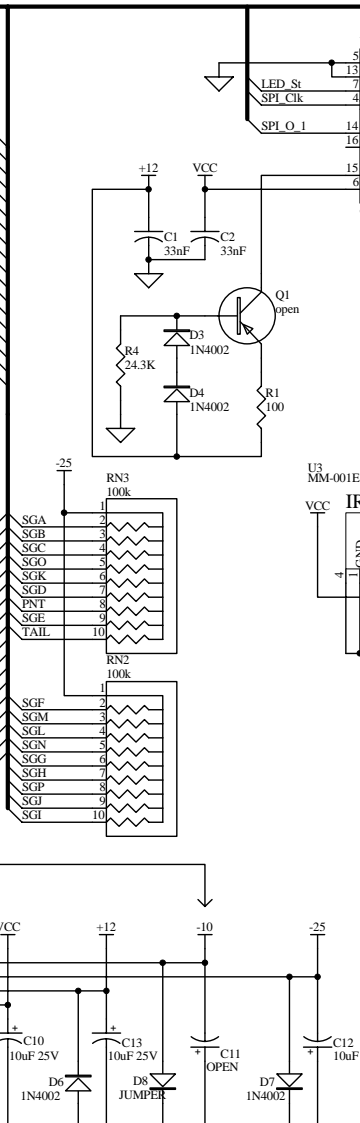
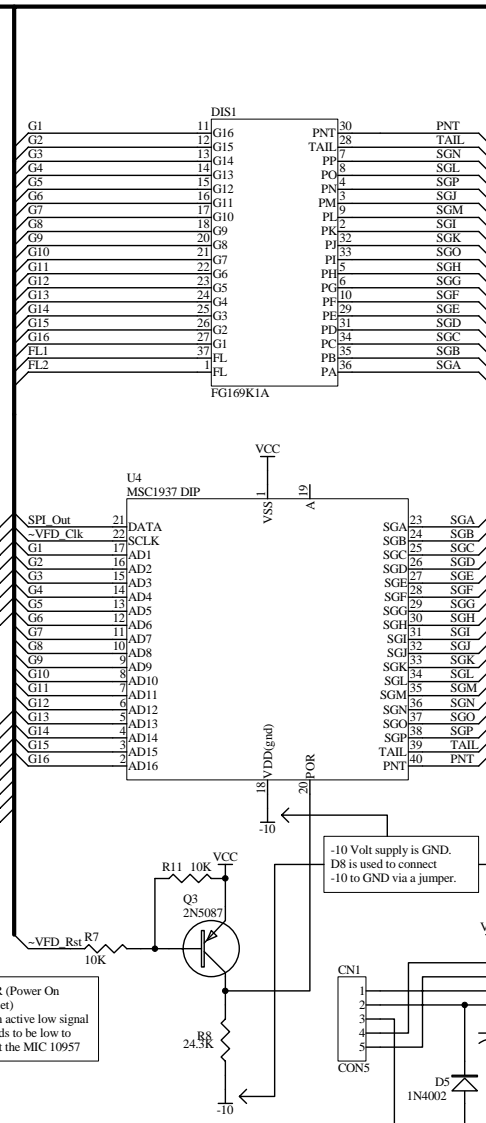
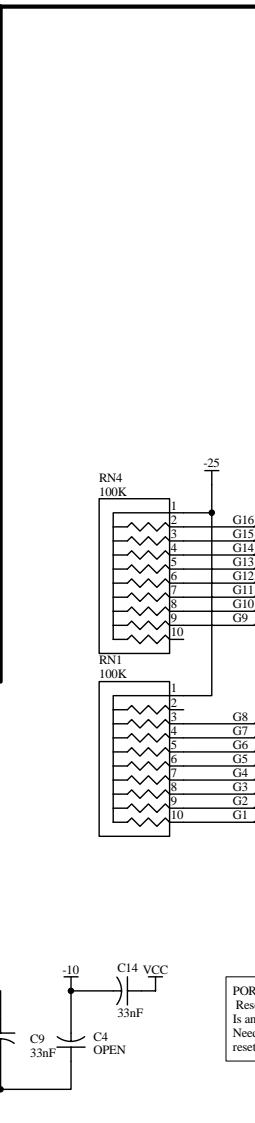
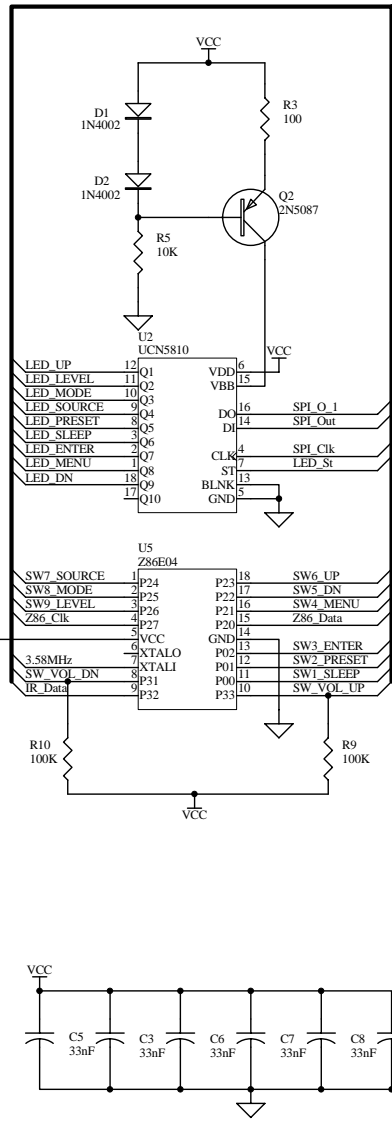
Title		
AVR/REF MICRO-CONTROLLER BOARD with RS-232		
Size	Number	Revision
B	12741600	B
Date:	28-Jun-2004	Sheet of 1 of 1
File:	C:\BK_Data\BK_PreAmps\Ref50\Control\Board\B2741600.DDB	SBS/RJD/ESM

D

C

B

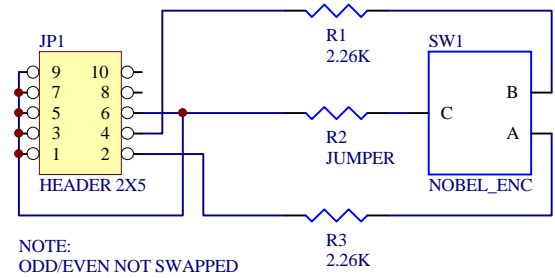
A



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

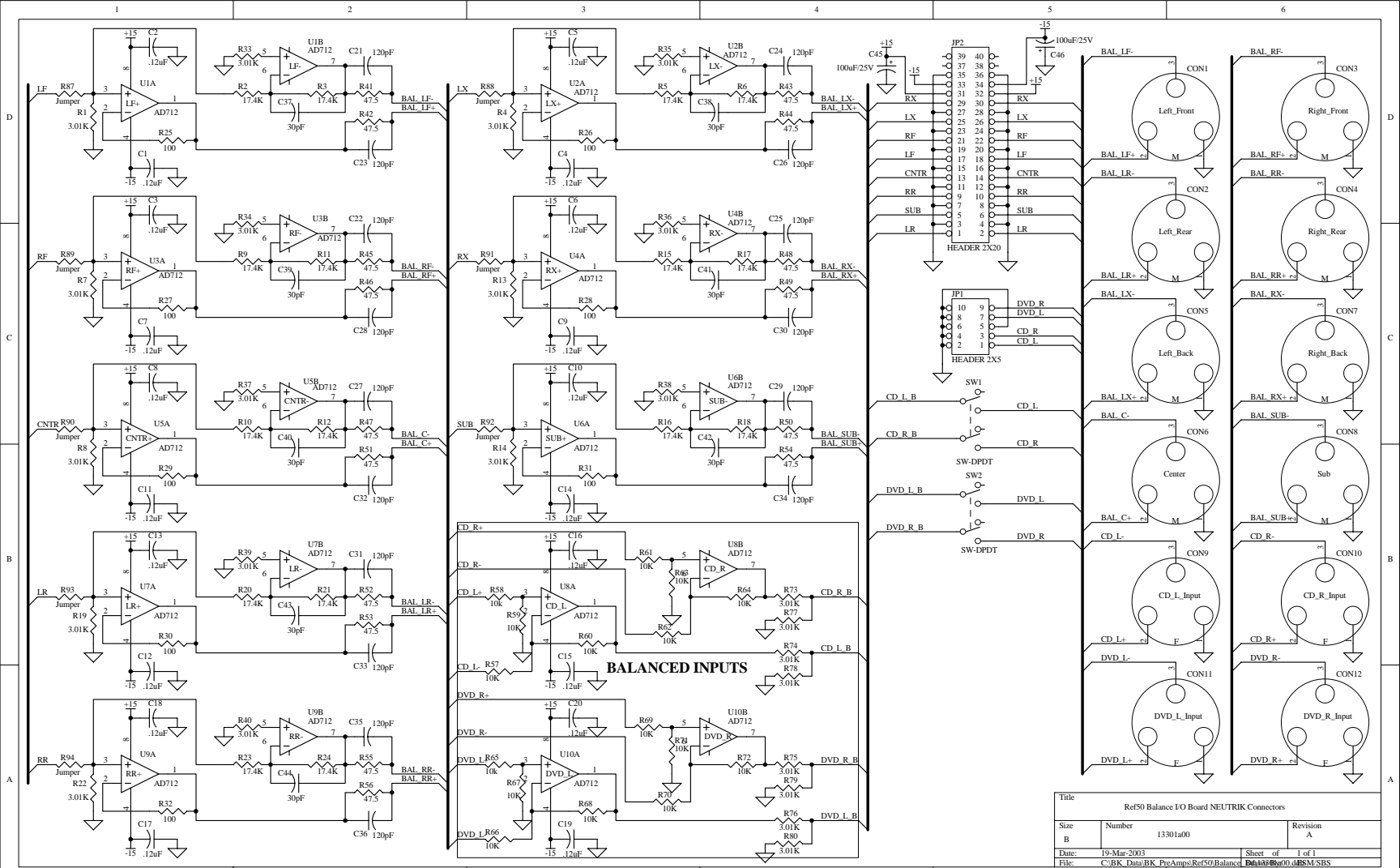
-10 Volt supply is GND.
D8 is used to connect
-10 to GND via a jumper.

Title			
AVR/REF/PT5 DISPLAY BOARD			
Size	Number	Revision	
B	10954-000	D	
Date:	28-Jun-2004	Sheet 1 of 1	
File:	C:\BK_Data\BK_PreAmps\Ref50\Display	Board10954-000.DDK	



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\H276a00.DDB	



Title		
Ref50 Balance I/O Board NEUTRIK Connectors		
Size B	Number 13301a00	Revision A
Date: 19-Mar-2003	Sheet of 1 of 1	
File: C:\BK Data\BK PreAmps\Ref50\Balance	Bnk040000.HSM/SBS	