

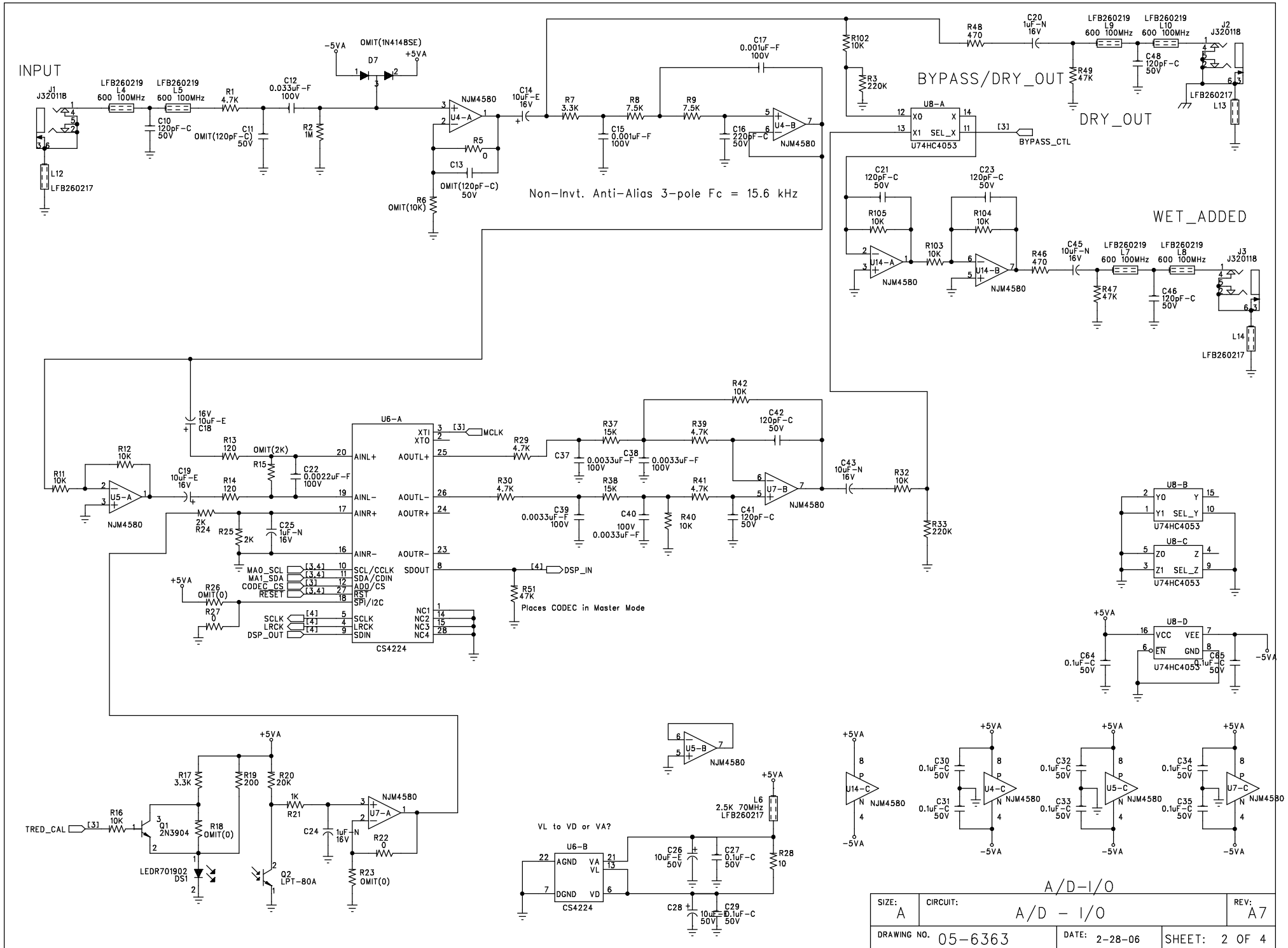
REV	DESCRIPTION	ECN #	DATE
A8	Change CODEC to ROHS compliant part	31507	2-28-06
A7	ADD MFG LABEL, NO REV CHANGE.	2090 MTB	8-27-02
A7	Change DS1&R19 and Description on U9	1890	11-21-01
A6	Change Part Number Rev on U9	1877	11-14-01
A5	Remove Socket	1386	9-21-00
A4	Change -5 V Reg to insulated device	1180	4-14-00
A3	Change R17 & R19	1111	3-14-00
A2	Update Software	1110	03-14-00
A1	Add Socket, Change Software	1104	3-09-00
A0	Release to Production		2-16-00
P1	Second Prototype	N/A	2-7-00
P0	PROTOTYPE	N/A	1-12-00

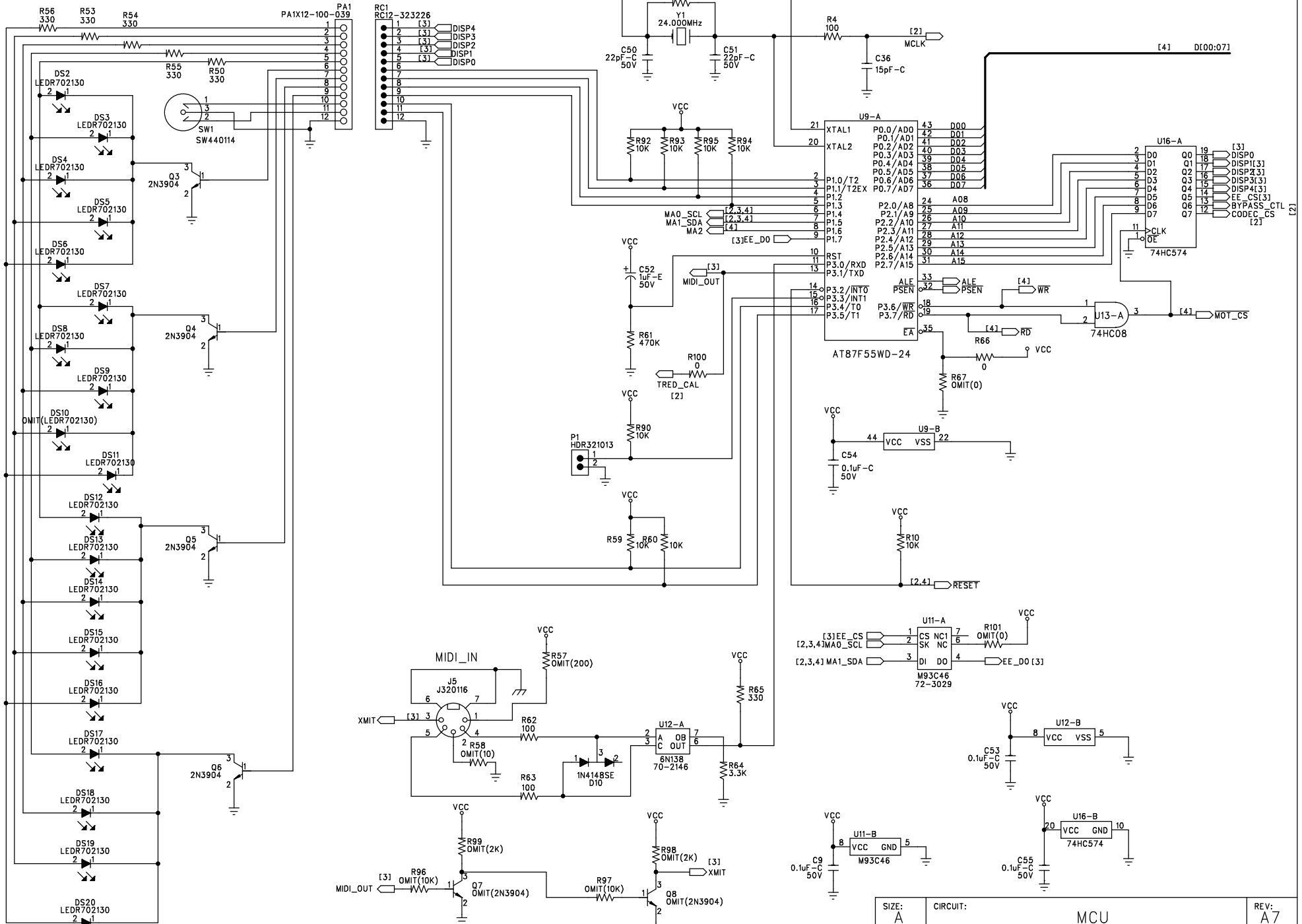
REVISION HISTORY

**DigiTech**  
8760 South Sandy Parkway Sandy Utah 84070

TITLE: WHAMMY4 Main PCB Assembly

DESIGNER: J Brush	DATE: 11-21-01	ENGINEER: A. LOVEGROVE	DATE: 11-21-01
SIZE A	DRAWING NO: 05-6363	REVISION A8	
DATE: 2-28-06	FILENAME: 056363A8.SCH	SHEET: 1 OF 4	

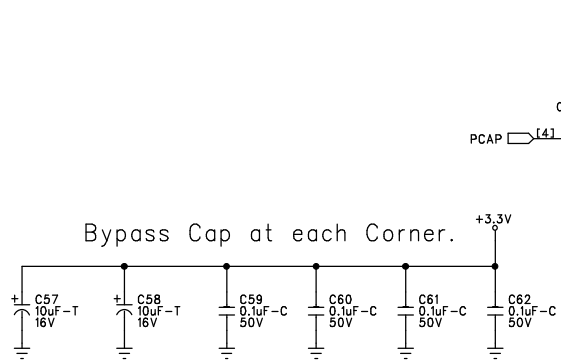
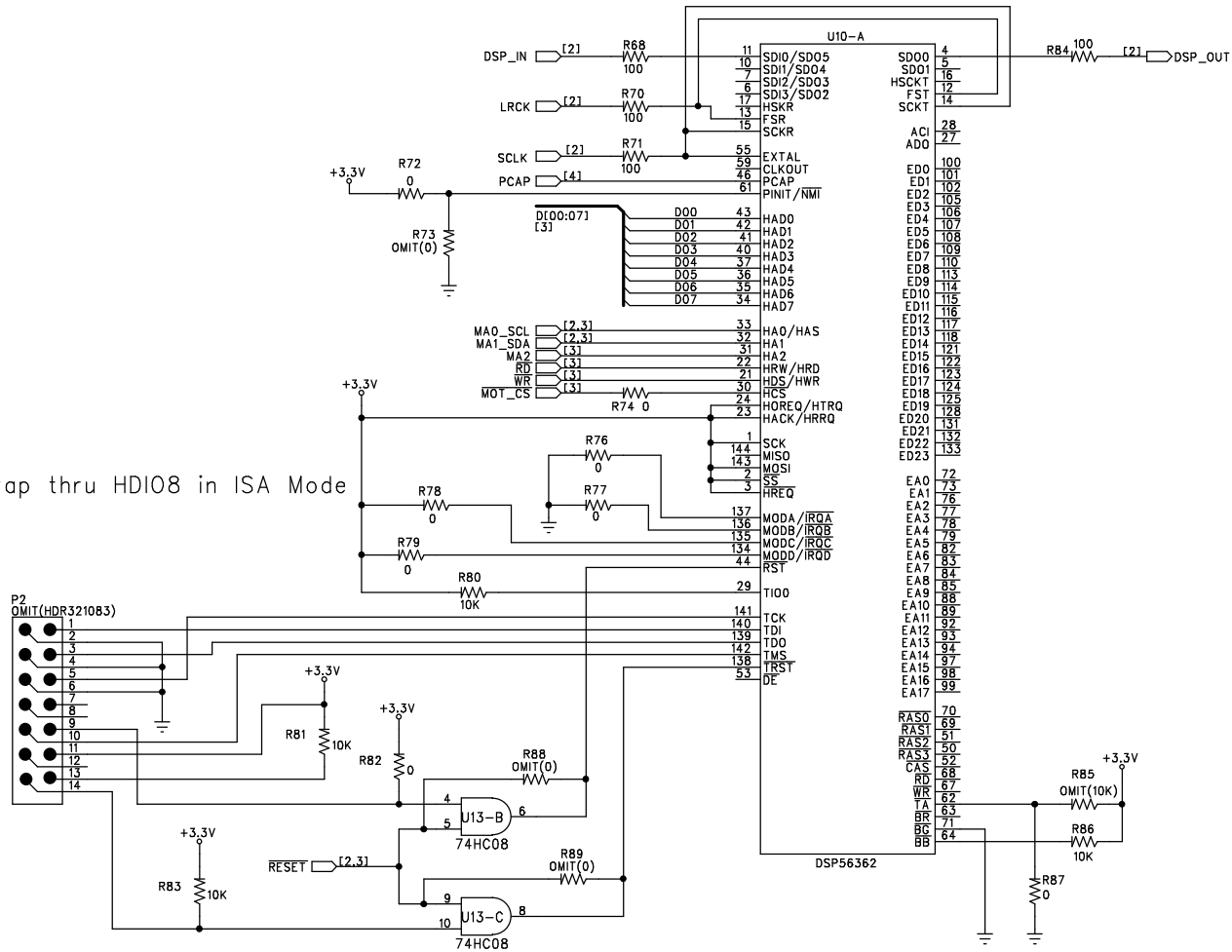




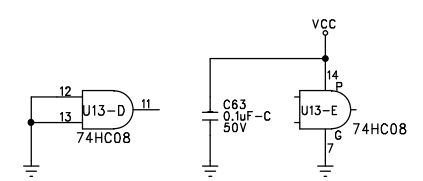
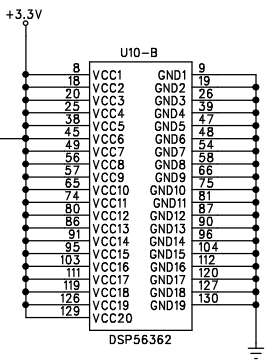
Encoder/LED Breakout PCB

SIZE: A	CIRCUIT: MCU	REV: A7
DRAWING NO. 05-6363	DATE: 2-28-06	SHEET: 3 OF 4

Bootstrap thru HDI08 in ISA Mode



Bypass Cap at each Corner.



2 Tantalums - opposite side of IC.

SIZE: A	DSP	REV: A7
DATE: 2-28-06	05-6363	SHEET: 4 OF 4

Bill Of Materials for 056363A8.sch on Tue Feb 28 15:34:05 2006

Qty	Reference	HMG#	Description
Audit	Schematic Part	PCB Decal	
1	PCB1	80-6363-A	PCB, <806363> <PCB Whammy4>
PT1046	80XXXXYY	PCBNULL	
7	B1 B3 B6 B8- 11	NON- PART	NON- PART, PCB ONLY, BREAKOFF PART
PT1481	BRKOFF	BRKOFF	
2	C15 C17	56-0000	CAP 0.001uF FILM PTR 100V 5% AF TA
PT1629	CO.001UF100JR	RFCC200	
1	C22	56-0002	CAP 0.0022uF FILM PTR 100V 5% RF TA
PT1001	CO.0022UF100JR	RFCC200	
4	C37- 40	56-0003	CAP 0.0033uF FILM PTR 100V 5% RF TA
PT1103	CO.0033UF100JR	RFCC200	
2	C12 C56	56-0009	CAP 0.033uF FILM PTR 100V 5% RF TA
PT1401	CO.033UF100JR	RFFE200	
19	C9 C27 C29- 35	62-3139	CAP 0.1uF CER 50V 20% Y5V 0805 TA
PT1087	CO.1UC50MD805	0805	
	C53- 55 C59- 65		
3	C3 C5 C7	60-0064	CAP 1000uF EL 16V 20% GP 10x17R 5LL BK
PT1334	C1000UE16MR	REM200P	
6	C4 C6 C8 C14 C18- 19	60-0049- 01	CAP 10uF EL 16V 20% GP 5x7R 5LS TA
PT1080	C10UE16MR	RED200P	
2	C26 C28	60-0090	CAP 10uF EL 50V 20% GP 5x11R 5LS TA
PT1206	C10UE50MR	REE200P	
2	C43 C45	60-0051- 01	CAP 10uF ELNP 16V 20% GP 5x11R 5LS TA
PT1449	C10UN16MR	REE200	
2	C57- 58	62-0163	CAP 10uF TANT 16V 20% RT TA
PT1385	C10UT16MR	RTF100P	
7	C10 C21 C23 C41- 42	62-3135	CAP 120pF CER 50V 5% NPO 0805 TA
PT1440	C120PC50J0805	0805	
	C46 C48		
1	C13	OMIT	OMIT CAP 120pF CER 50V 5% NPO 0805 TA (62-3135)
PT1441	C120PC50J08050	0805	
1	C11	OMIT	OMIT CAP 120pF CER 50V 10% Y5P RC TA (62-0002)
PT2400	C120PC50KR0	RCAB200	
1	C36	62-3128	CAP 15pF CER 50V 5% COG 0805 TA
PT1106	C15PC50J0805	0805	

1	C52	60-0044-01	056363A8.pps	
PT1079	C1UE50MR	RED200P	CAP 1uF EL 50V 20% GP 5x7R 5LS TA	
3	C20 C24-25	60-0046-01	CAP 1uF ELNP 16V 20% GP 5x11R 5LS TA	
PT1447	C1UN16MR	REE200		
1	C16	62-3138	CAP 220pF CER 50V 10% X7R 0805 TA	
PT1286	C220PC50K0805	0805		
2	C50-51	62-3134	CAP, 22pF, CER, 50V, 5%, 0805, T&R	
PT1107	C22PC50J0805	0805		
6	D1-6	70-0017	DI O, 1N4005, 600V, 1 AMP, RDB200, AMMO	
PT1455	D1N4005-R	RDB200		
1	D10	70-0113	DI O, MMBD4148SE, DUAL DIODE, 75V, 600mA, SOT-23, T&R	
PT1326	D1N4148SE-S	SOT-23		
1	D7	OMIT	OMIT, DI O, MMBD4148SE, DUAL DIODE, 75V, 600mA, SOT-23, T&R, (70-0113)	
PT1327	D1N4148SE-S-0	SOT-23		
5	F1-5	NON-PART	NON-PART, FIDUCIAL, TARGET FOR AUTO INSERTION	
PT1271	FIDUCIAL	FIDUCIAL		
1	P1	32-1013	HDR, 2 PIN, 1X2, 0.100 SPACING	BJK
	HDR321013	HC2M		
1	P2	OMIT	OMIT HDR 14 PIN 0.1" SPC 2 X 7 VERT MALE (32-1083)	
PT2127	HDR321083-0	HC72		
2	HS1-2	70-4201	HSK TO-220 VRT BK	
PT1346	HS704201	HS704201		
1	J4	32-0089	JACK POWER BARREL JACK 2.5MM	
PT1918	J320089	J320089		
1	J5	32-0116	CON JACK SHIELDED 5 PIN DIN PCB MOUNT	
PT2370	J320116	J320116		
3	J1-3	32-0118	CON, JACK, 1/4 PHONO, PLAIN NOSE THREAD, SLIMLINE	
PT1792	J320118	J320118		
1	LBL1	30-0121	LABEL BARCODE AUTOINSERTABLE RAW	
PT2790	LABEL300121	LABEL300121		
1	DS1	70-1902	LED, RED, R/A, ANTI-TIP HOUSING	
PT1133	LEDR701902	D701902		
18	DS2-9 DS11-20	70-2130	LED Red w/Spacer 9mm Hght T1 Ammo TA	
PT2420	LEDR702130	RLC100		
1	DS10	OMIT	OMIT LED Red w/Spacer 9mm Hght T1 Ammo TA (70-2130)	
PT2422	LEDR702130-0	RLC100		
4	L1-3 L11	26-0215	IND FBD 70 OHM @ 100MHz RIC200 TA	
PT1262	LFB260215	RIC200		
4	L6 L12-14	26-0217	IND, FERRITE BEAD, 2.5K OHM @ 70MHz, 0805, T&R	
PT1261	LFB260217	0805		
6	L4-5 L7-10	26-0219	INDUCTOR, FERRITE BEAD, 600 OHM @ 100MHz, 0805, T&R	
PT1453	LFB260219	0805		
3	M2-4	NON-PART	NON-PART, MOUNTING HOLE, 0.156" NON-PLATED, #6	
PT1044	MH156	MH156		

1	MI	NON- PART	056363A8. pps	
	MH156- E	MH156E	ELECTRICAL, 0.156" DIA, MOUNTING HOLE	
2	M5- 6	NON- PART	NON- PART, TOOLING PIN HOLE, 156MIL HOLE	
	PT1416 MH156- TOOL	MH156- TOOL		
1	PA1	NON- PART	NON- PART, PAD ARRAY, 12 PIN, 0.1"SPACING, 0.039" HOLE	jb
	PA1X12- 100- 039	PA1X12- 100- 039		
5	Q1 Q3- 6	70- 1058	XSTR, 2N3904, NPN, SOT- 23, T&R	
	PT1203 Q2N3904- S	SOT- 23		
2	Q7- 8	OMIT	OMIT XSTR 2N3904 NPN SOT- 23 T&R (70- 1058)	
	PT2126 Q2N3904- S- 0	SOT- 23		
1	Q2	70- 2010	XSTR, LPT80A, PHOTOTRANSISTOR, VERTICAL	
	PT1625 QLPT80A- V	QLPT80A- V		
13	R5 R22 R27 R66 R72	50- 1531	RES 0 5% 1/10W SM 0805 TA	
	PT1099 R0- C5- 0805	0805		
	R74 R76- 79 R82 R87			
	R100			
8	R18 R23 R26 R67 R73	OMIT	OMIT, RES, 0 OHM, 5%, 1/10W, 0805, T&R (50- 1531)	
	PT1006 R0- C5- 08050	0805		
	R88- 89 R101			
7	R4 R62- 63 R68	50- 1515	RES 100 5% 1/10W SM 0805 TA	
	PT1018 R100- C5- 0805	0805		
	R70- 71 R84			
1	R28	50- 1500	RES 10 5% 1/10W SM 0805 TA	
	PT1309 R10- C5- 0805	0805		
1	R58	OMIT	OMIT RES 10 OHM 5% 1/10W SM 0805 TA (50- 1500)	
	PT1332 R10- C5- 0805- 0	0805		
22	R10- 12 R16 R32 R40	50- 1503	RES 10K 5% 1/10W SM 0805 TA	
	PT1095 R10KC5- 0805	0805		
	R42 R59- 60 R80- 81			
	R83 R86 R90 R92- 95			
	R102- 105			
4	R6 R85 R96- 97	OMIT	OMIT RES 10K 5% 1/10W SM 0805 TA (50- 1503)	
	PT1304 R10KC5- 08050	0805		
2	R13- 14	50- 1534	RES 120 5% 1/10W SM 0805 TA	
	PT1367 R120- C5- 0805	0805		
2	R37- 38	50- 1516	RES 15K 5% 1/10W SM 0805 TA	
	PT1019 R15KC5- 0805	0805		

			056363A8. pps
1	R21	50- 1505	RES 1K 5% 1/10W SM 0805 TA
PT1010	R1KC5- 0805	0805	
2	R2 R52	50- 1506	RES 1M 5% 1/10W SM 0805 TA
PT1011	R1MC5- 0805	0805	
1	R19	50- 1510	RES 200 5% 1/10W SM 0805 TA
PT1013	R200- C5- 0805	0805	
1	R57	OMIT	OMIT RES 200 5% 1/10W SM 0805 TA (50- 1510)
PT1484	R200- C5- 08050	0805	
1	R20	50- 1507	RES 20K 5% 1/10W SM 0805 TA
PT1098	R20KC5- 0805	0805	
2	R3 R33	50- 1514	RES 220K 5% 1/10W SM 0805 TA
PT1017	R220KC5- 0805	0805	
2	R24- 25	50- 1508	RES 2K 5% 1/10W SM 0805 TA
PT1278	R2KC5- 0805	0805	
3	R15 R98- 99	OMIT	OMIT RES 2K 5% 1/10W SM 0805 TA (50- 1508)
PT1744	R2KC5- 08050	0805	
3	R7 R17 R64	50- 1525	RES 3. 3K 5% 1/10W SM 0805 TA
PT1097	R3. 3KC5- 0805	0805	
6	R50 R53- 56 R65	50- 1517	RES 330 5% 1/10W SM 0805 TA
PT1020	R330- C5- 0805	0805	
5	R1 R29- 30 R39 R41	50- 1509	RES 4. 7K 5% 1/10W SM 0805 TA
PT1012	R4. 7KC5- 0805	0805	
2	R46 R48	50- 1518	RES 470 5% 1/10W SM 0805 TA
PT1021	R470- C5- 0805	0805	
1	R61	50- 1523	RES 470K 5% 1/10W SM 0805 TA
PT1025	R470KC5- 0805	0805	
3	R47 R49 R51	50- 1502	RES 47K 5% 1/10W SM 0805 TA
PT1009	R47KC5- 0805	0805	
2	R8- 9	50- 1521	RES 7. 5K 5% 1/10W SM 0805 TA
PT1024	R7. 5KC5- 0805	0805	
1	RC1	32- 3226	RBN CBL 12 COND. 0. 1 SPC 2" LONG
PT2708	RC12- 323226	PA1X12- 100- 039	
1	SW1	44- 0114	ENCODER, 24 POS, VERT MOUNT, 15mm SHAFT
PT1301	SW440114	SW440114	
1	U12	70- 2146	IC, 6N138, OPTO ISOLATOR, DIP8- 300- S
PT1492	U6N138- S1	DIP8- 300- S	
1	U13	72- 1441	IC, 74HC08, QUAD 2- INPUT POS- AND, S014
PT1421	U74HC08- S	S014	
1	U8	72- 0087	IC, 74HC4053, MUX, TRIPLE 2 CHANNEL ANALOG, S016
PT1566	U74HC4053- S	S016	
1	U16	72- 1263	IC, 74HC574, FLIP- FLOP, EDGE TRIGGERED, OCTAL, S020W, T&R
PT1352	U74HC574- S	S020W	
1	U2	70- 4014	V- REG, 7805, +5V, 1. 5 AMP, TO- 220
PT1591	U7805	TO220(IG0) - V	



1	U3	70-4002	056363A8.pps	
PT2205	U7905-1	T0220(GI0)-V	V-REG 7905 -5V 1AMP TO-220	
1	U11	72-3029	IC, M93C46 8K X 16 EEPROM, S08	JB
	U93C46-S	S08		
1	U6	72-1470	IC, CS4224, 24 BIT CODEC CONVERTER, SSOP28	
PT1483	UCS4224-SS	SSOP28		
1	U10	72-1466	IC, DSP56362, DSP PROCESSOR, QFP144-20X20	
PT1316	UDSP56362-Q	QFP144-20X20		
1	U1	70-4021	V-REG, LD1117V33, +3.3V, 0.8 AMP, TO-220, BULK	
PT1795	ULD1117V33	T0220(GO1)-V		
4	U4-5 U7 U14	72-1480	IC, NJM4580, DUAL OP-AMP, S08	
PT1374	UNJM4580-S	S08		
1	U9	72-5530-01v1	IC OTP87C54 EPROMMhammy4, V1	
PT2423	UP725530	PLCC-44		
1	Y1	76-0202	XTAL 24.000MHz METAL CAN SURFACE MOUNT T&R	
PT1928	Y24.000M760202	XTAL2-V		