Designator	Description	Qty	Value	Limits	Tolerance	Footprint
Resistors						
R27,R28	Thick film resistor	2	4.7R		1,00 %	0805
R1,R23	Thick film resistor	2	47R		1,00 %	0402
R3,R46,R47,R48,R49	Thick film resistor	5	56R		1,00 %	0805
R26	Thick film resistor	1	100R		1,00 %	0402
R5,R7,R14,R20,R21,R24,R29,R31,R37,R45	Thick film resistor	10	220R		1,00 %	0805
R33,R44	Thick film resistor	2	220R		1,00 %	0402
R57,R58	Thick film resistor	2	470R		1,00 %	0805
R34	Thick film resistor	1	680R		1,00 %	0402
R35	Thick film resistor	1	1.2k		1,00 %	0402
R2,R9,R10,R11,R12,R16,R17,R18,R22,R25 R42,R43	Thick film resistor	12	2.2k		1,00 %	0402
R6,R13,R32,R36,R38,R39,R40,R41	Thick film resistor	8	4.7k		1,00 %	0402
R50,R51	Thick film resistor	2	10k		1,00 %	0402
R8,R15,R53,R54	Thick film resistor	4	20k		1,00 %	0402
R52	Thick film resistor	1	22k		1,00 %	0402
R4,R19,R59,R60	Thick film resistor	4	75k		1,00 %	0402
R55,R56,R61	Thick film resistor	3	100k		1,00 %	0402
R30	Thick film resistor	1	1.0M		1,00 %	0402
TR1	Multiturn trimmer	1	10k			3296W
Capacitors						
C15,C19,C21	Film capacitor	3	47nF	63v	10,00 %	5.08mm
C1,C2,C5,C12,C14,C27	Ceramic capacitor	6	100nF	16v	10,00 %	0402
C3,C16	Ceramic capacitor	2	4.7uF	50v	10,00 %	1206
C7,C8,C9,C10,C11,C13,C17,C18,C20,C22	Ceramic capacitor	15	10uF	50v	10,00 %	1206
C23,C24,C25,C26,C28						
C4,C6	Electrolytic capacitor	2	100uF	16v	20,00 %	5x5.3mm
Miscs			0000 0 4000411	000 4		0000
L1,L2,L3,L4	Ferrite bead	4	600R @ 100MHz	300mA		0603
Semiconductors						
D1,D7,D8,D9	Signal diode	4	1N4148WS	150mA		SOD-323
D2,D3,D4,D5	Schottky diode	4	B5819W	1A		SOD-323
D6	3mm red LED	1	BOOTOVV	173		00B-120
Q1,Q2,Q5,Q6	NPN / PNP BJT	4	BC847BPN	100mA		SOT363
Q3,Q4,Q7,Q8	NPN BJT	4	BC847	100mA		SOT-23-3
Q0,Q1,Q1,Q0	14111201	i i	20011	10011111		331 23 3
ICs						
U1	Optocoupler logic	1	H11L1			DIL6
U2	+3v3 LDO regulator	1	AZ1117H-3.3			SOT223
U3	Stereo DAC	1	TM8211			SOIC8
U4	16bit MCU	1	PIC24FJ256GA702			DIL28
U5	Quad optocoupler	1	LTV-847			DIL16
U6	Rail-to-rail opamp	1	MC33202DR2G			SOIC8
Outitabas 0 mats						
Switches & pots						
RV5,RV6	10k linear pot	2	PTV09A-4020F-B103			
RV5,RV6 RV1,RV2,RV3,RV4	100k linear pot	2	PTV09A-4020F-B104			
RV5,RV6 RV1,RV2,RV3,RV4 SW1	100k linear pot Power switch		PTV09A-4020F-B104 PB400EEQR1BLK			
RV5,RV6 RV1,RV2,RV3,RV4 SW1 SW2,SW3,SW4,SW5,SW6,SW7,SW8	100k linear pot Power switch Illuminated tactile switch	4	PTV09A-4020F-B104 PB400EEQR1BLK TS6-00-7RR			
RV5,RV6 RV1,RV2,RV3,RV4 SW1	100k linear pot Power switch	4	PTV09A-4020F-B104 PB400EEQR1BLK			
RV5,RV6 RV1,RV2,RV3,RV4 SW1 SW2,SW3,SW4,SW5,SW6,SW7,SW8 TG1,TG2,TG3	100k linear pot Power switch Illuminated tactile switch	4 1 7	PTV09A-4020F-B104 PB400EEQR1BLK TS6-00-7RR			
RV5,RV6 RV1,RV2,RV3,RV4 SW1 SW2,SW3,SW4,SW5,SW6,SW7,SW8 TG1,TG2,TG3	100k linear pot Power switch Illuminated tactile switch Subminiature toggle switch	4 1 7 3	PTV09A-4020F-B104 PB400EEQR1BLK TS6-00-7RR			
RV5,RV6 RV1,RV2,RV3,RV4 SW1 SW2,SW3,SW4,SW5,SW6,SW7,SW8 TG1,TG2,TG3 Connectors J2	100k linear pot Power switch Illuminated tactile switch Subminiature toggle switch DIN5 socket	4 1 7 3	PTV09A-4020F-B104 PB400EEQR1BLK TS6-00-7RR			
RV5,RV6 RV1,RV2,RV3,RV4 SW1 SW2,SW3,SW4,SW5,SW6,SW7,SW8 TG1,TG2,TG3 Connectors J2 J4	100k linear pot Power switch Illuminated tactile switch Subminiature toggle switch DIN5 socket 2mm DC socket	4 1 7 3 1 1	PTV09A-4020F-B104 PB400EEQR1BLK TS6-00-7RR			
RV5,RV6 RV1,RV2,RV3,RV4 SW1 SW2,SW3,SW4,SW5,SW6,SW7,SW8 TG1,TG2,TG3 Connectors J2	100k linear pot Power switch Illuminated tactile switch Subminiature toggle switch DIN5 socket	4 1 7 3	PTV09A-4020F-B104 PB400EEQR1BLK TS6-00-7RR			