

Item	Qty/Brd	Ref. Design	Value	Footprint
1	53	C1, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C18, C25, C26, C27, C28, C29, C37, C38, C39, C44, C45, C50, C51, C53, C54, C58, C59, C64, C65, C70, C71, C76, C77, C82, C83, C88, C89, C94, C95, C100, C101, C102, C103, C110, C111, C118, C119, C124, C125, C130, C131	0.1 μ F	0603
2	5	C2, C3, C19, C22, C34	10 μ F	0805
3	3	C20, C23, C33	0.01 μ F	0603
4	2	C21, C31	1 μ F	0805
5	1	C24	10 μ F	1210
6	64	C30, C32, C35, C36, C40, C41, C42, C43, C46, C47, C48, C49, C52, C55, C56, C57, C60, C61, C62, C63, C66, C67, C68, C69, C72, C73, C74, C75, C78, C79, C80, C81, C84, C85, C86, C87, C90, C91, C92, C93, C96, C97, C98, C99, C104, C105, C106, C107, C108, C109, C112, C113, C114, C115, C116, C117, C120, C121, C122, C123, C126, C127, C128, C129	1 pF	0402
7	3	D1, D2, D3	1N4004	D041-10
8	1	IC1	μ C	TQFP44
9	2	IC2, IC5	op amp	SOT23-6
10	16	IC3, IC4, IC7, IC8, IC9, IC10, IC11, IC12, IC13, IC14, IC15, IC16, IC17, IC18, IC19, IC21	op amp	14-SOIC
11	1	IC6	μ C	TQFP44
12	1	IC22	regulator	TSOT23-5
13	1	IC23	regulator	TSOT23-5
14	1	IC24	regulator	TSOT23-5
15	49	J1, J2, J3, J4, J7, J8, J9, J10, J13, J15, J17, J18, J19, J20, J21, R2, R7, R10, R11, R12, R23, R24, R35, R36, R54, R56, R58, R60, R62, R64, R66, R68, R70, R72, R74, R76, R78, R80, R82, R84, R86, R88, R90, R92, R94, R96, R146, R148, R150, R152, R154, R156, R158, R160, R177	0 Ω	0402
16	2	JP2, JP3	terminal	2 POS
17	2	L1, L2	ferrite	0603
18	18	R1, R3, R4, R6, R8, R9, R13, R14, R15, R16, R17, R19, R20, R21, R22, R33, R34, R39, R41, R43, R45, R47, R49, R51, R53	10 k Ω	0402

19	64	R5, R18, R37, R55, R57, R59, R61, R63, R65, R67, R69, R71, R73, R75, R77, R79, R81, R83, R85, R87, R89, R91, R93, R95, R97, R99, R101, R103, R105, R107, R109, R111, R113, R115, R117, R119, R121, R123, R125, R127, R129, R131, R133, R135, R137, R139, R141, R143, R145, R147, R149, R151, R153, R155, R157, R159, R161, R163, R165, R167, R169, R171, R173, R175	1 MΩ	0402
20	8	R25, R26, R27, R28, R29, R30, R31, R32	pot.	-
21	8	R38, R40, R42, R44, R46, R48, R50, R52	5.1 kΩ	0402
22	32	R98, R100, R102, R104, R106, R108, R110, R112, R114, R116, R118, R120, R122, R124, R126, R128, R130, R132, R134, R136, R138, R140, R142, R144, R162, R164, R166, R168, R170, R172, R174, R176	3.01 MΩ	0402
23	1	R178	1 kΩ	0402
24	2	R179, R181	249 kΩ	0402
25	2	R180, R182	200 kΩ	0402
26	10	R183, R185, R187, R189, R191, R193, R195, R197, R199, R201	3.4 kΩ	0201
27	10	R184, R186, R188, R190, R192, R194, R196, R198, R200, R202	10 kΩ	0201
28	3	SV1, SV2, SV11	Male Pin	8x2
29	2	SV3, SV6	Male Pin	6POS
30	1	SV4	Male Pin	8POS
31	1	SV5	Male Pin	10POS
32	1	U\$1	oscillator	6-SMD
33	1	U\$2	clock buf	20-SSOP
34	4	U\$3, U\$6, U\$9, U\$10	counter	TSSOP16
35	11	U\$4, U\$11, U\$12, U\$14, U\$15, U\$16, U\$17, U\$18, U\$19, U\$20, U\$21	dual bnc	through hole RA
36	1	U\$5	connector	BNC
37	2	U\$7, U\$8	mux	TQFP48
38	3	U\$22, U\$23, U\$25	PTC fuse	1812
39	1	U\$39	connector	Dual Male DB15
40	1	X1	connector	Male DB15
41	1	X2	connector	through hole
42	2	X4, X8	connector	M25HP

DO NOT INCLUDE IN ASSEMBLY

Description	Manf. Part #	Distributor	Distributor Part #
CAP CER 0.1UF 50V Y5V 0603	CC0603ZRY5V9BB104	Digikey	311-1343-1-ND
CAP TANT 10UF 6.3V 20% 0805	TCJR106M006R0500	Digikey	478-3471-1-ND
CAP CER 10000PF 50V 10% X7R 0603	C0603C103K5RACTU	Digikey	399-1091-1-ND
CAP TANT 1UF 16V 10% 0805	TAJR105K016RNJ	Digikey	478-3962-1-ND
CAP TANT 10UF 20V 10% 1210	TPSB106K020R0500	Digikey	478-9048-1-ND
CAP CER 1PF 50V NP0 0402	GRM1555C1H1R0WA01D	Digikey	490-6207-1-ND
DIODE GEN PURPOSE 400V 1A DO41	1N4004-T	Digikey	1N4004DICT-ND
IC MCU 32BIT 128KB FLASH 44TQFP	PIC32MX250F128D-50I/PT	Digikey	PIC32MX250F128D-50I/PT-ND
IC OPAMP R-R I/O 165MHZ SOT-23-6	LT6200CS6#TRMPBFCT-ND	Digikey	LT6200CS6#TRMPBFCT-ND
IC OPAMP JFET 3.5MHZ RRO 14SOIC	AD8643ARZ	Digikey	AD8643ARZ-ND
MCU 8BIT 32KB FLASH 36IO 44TQFP	PIC18LF45K50-I/PT	Digikey	PIC18LF45K50-I/PT-ND
IC REG LDO ADJ 0.1A TSOT23-5	LT1761IS5-BYP#TRMPBF	Digikey	LT1761IS5-BYP#TRMPBFCT-ND
IC REG LDO NEG ADJ 0.2A TSOT23-5	LT1964IS5-BYP#TRMPBF	Digikey	LT1964IS5-BYP#TRMPBFCT-ND
IC REG LDO 3.3V .5A TSOT23-5	CAT6219-330TDGT3	Digikey	CAT6219-330TDGT3CT-ND
RES 0.0 OHM 1/10W 0402 SMD	ERJ-2GE0R00X	Digikey	P0.0JCT-ND
TERM BLOCK 2POS SIDE ENTRY 5MM	1776244-2	Digikey	A97996-ND
FERRITE CHIP 330 OHM 1.7A 0603	MPZ1608S331A	Digikey	445-5221-1-ND
RES 10.0K OHM 1/10W 1% 0402 SMD	ERJ-2RKF1002X	Digikey	P10.0KLCT-ND

RES 1M OHM 1/10W 1% 0402 SMD	ERJ-2RKF1004X	Digikey	P1.00MLCT-ND
TRIMMER 10K OHM 0.5W TH	3362P-1-103LF	Digikey	3362P-103LF-ND
RES 5.10K OHM 1/10W 1% 0402 SMD	ERJ-2RKF5101X	Digikey	P5.10KLCT-ND
RES 3.01M OHM 1/16W 1% 0402	RMCF0402FT3M01	Digikey	RMCF0402FT3M01CT-ND
RES 1K OHM 1/10W 1% 0402 SMD	ERJ-2RKF1001X	Digikey	P1.00KLCT-ND
RES 249K OHM 1/10W 1% 0402 SMD	ERJ-2RKF2493X	Digikey	P249KLCT-ND
RES 200K OHM 1/10W 1% 0402 SMD	ERJ-2RKF2003X	Digikey	P200KLCT-ND
RES 3.4K OHM 1/20W 1% 0201 SMD	ERJ-1GEF3401C	Digikey	P3.40KABCT-ND
RES 10K OHM 1/20W .5% 0201 SMD	ERJ-1RHD1002C	Digikey	P15980CT-ND
CONN HEADER 16POS .100 STR TIN	67996-416HLF	Digikey	609-3220-ND
CONN HEADER VERT SGL 6POS GOLD	961106-6404-AR	Digikey	3M9451-ND
CONN HEADER VERT SGL 8POS GOLD	961108-6404-AR	Digikey	3M9452-ND
IDC BOX HEADER .100" 10POS	3020-10-0100-00	Digikey	1175-1609-ND
OSC XO 48.000MHZ CMOS SMD	SG-210STF 48.0000MS3	Digikey	SER3806CT-ND
IC CLK BUFF 1:10 166MHZ 20-SSOP	IDT74FCT3807DPYGI	Digikey	800-2507-5-ND
IC SYNCH BINARY COUNTERS 16TSSOP	SN74LV161APWR	Digikey	296-12344-1-ND
CONN BNC DUAL RCPT JACK R/A	364A2595	Digikey	991-1023-ND
CONN SOCKET BNC R/A 50 OHM PCB	1-1634613-0	Digikey	A97554-ND
IC MULTIPLEXER 32X1 48TQFP	ADG732BSUZ	Digikey	ADG732BSUZ-ND
PTC RESETTABLE 33V 1.10A 1812L	1812L110/33MR	Digikey	F3486CT-ND
CONN DB15 MALE MALE .900"SPACING	179-015-613R571	Digikey	1215MME-ND
CONN D-SUB PLUG R/A 15POS GOLD	5747841-4	Digikey	A32096-ND
D-Subminiature Connectors PLUG 68P R/A Series II boardlock	2-5174225-5	Digikey	A33476-ND
CONN D-SUB PLUG R/A 25POS GOLD	5747842-3	Digikey	A32099-ND