

Bill Of Materials March 8,2017 13:18:20

Item	Quantity	Reference	Part	Description	Footprint	ManufacturerPN	Manufacturer	Installed Component
7	5	C41,C44,C46,C49,C51	0.1uF	CAP, 0.1uF, 10V, ±10%, X7R, 0402	C0402L	GRM155R71A104KA01D	MuRata	NI
24	6	JS1,JS2,JS3,JS4,JS5,JS6	Jumper Shunt	Shunt, 1x2, 0.1in pitch, Tin plating	SHUNT	SN7-100-BK-T	Samtec	NI
31	6	PCB1,PCB2,PCB3,PCB4,PCB5,	PCB_PAD	PCB Feature, SINGLE PAD, SMD	TP-PAD	N/A	N/A	NI
43	2	R66,R67	49.9	RES, 49.9 Ohm, 1/16W, ±1%, ThickFilm, 0402	R0402L	CR0402-16W-49R9F	Venkel	NI
44	2	R68,R75	0	RES, 0 Ohm, 1A, ThickFilm, 0402	R0402L	CR0402-16W-000	Venkel	NI
48	12	R78,R80,R84,R86,R91,R94, R98,R101,R106,R108,R112,	42.2	RES, 42.2 Ohm, 1/10W, ±1%, ThickFilm, 0402	R0402	CR0402-10W-42R2F	Venkel	NI
		R114						
49	12	R79,R81,R85,R87,R92,R95, R99,R102,R107,R109,R113,	49.9	RES, 49.9 Ohm, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-49R9F	Venkel	NI
		R115						
51	2	R118,R119	1K	RES, 1K, 1/10W, ±1%, ThickFilm, 0805	R0805	CR0805-10W-1001F	Venkel	NI
57	4	R134,R135,R136,R137	0	RES, 0 Ohm, 1A, ThickFilm, 0603	R0603	CR0603-16W-000	Venkel	NI
62	9	TP1,TP2,TP3,TP4,TP5,TP6,	RED	TESTPOINT, RED, 0.050" LOOP, PTH	TESTPOINT	5000	Keystone	NI
63	3	TP10,TP11,TP12	RED	TESTPOINT, RED, PTH	TESTPOINT	151-207-RC	Kobiconn	NI
64	1	TP13	BLACK	TESTPOINT, BLACK, PTH	TESTPOINT	151-203-RC	Kobiconn	NI
65	3	TP14,TP15,TP16	BLUE	TESTPOINT, BLUE, PTH	CONN1X2	TSW-102-07-G-S	Samtec	NI
20	8	JP1,JP2,JP3,JP4,JP5,JP6,JP8,JP9	Header 1x2 TH	Header, 2x1, 0.1in pitch, 10u Full Au Plated	CONN-1X3	TSW-103-07-T-S	Samtec	NI
21	3	JP7,JP10,JP11	HEADER 1x2 TH	Header, 3x1, 0.1in pitch, Tin Plated	CONN-1X3	TSW-103-07-T-S	Samtec	NI
1	9	C1,C4,C9,C12,C17,C20,C28, C30,C33	0.01uF	CAP, 0.01uF, 16V, ±20%, X7R, 0603	C0603	C0603X7R160-103M	Venkel	
2	9	C2,C5,C10,C13,C18,C21, C25,C26,C34	4.7uF	CAP, 4.7uF, 10V, ±20%, X7R, 1206	C1206	C1206X7R100-475M	Venkel	
3	9	C3,C6,C11,C14,C19,C22, C27,C29,C75	10uF	CAP, 10uF, 25V, ±20%, TANT, CASE C	C6032	T491C106M025ZT	Kemet	
4	13	C7,C8,C15,C16,C23,C24, C31,C32,C35,C70,C72,C76, C82	1uF	CAP, 1uF, 16V, ±20%, X7R, 0805	C0805	C0805X7R160-105M	Venkel	
5	4	C36,C40,C42,C50	10uF	CAP, 10uF, 6.3V, ±20%, X5R, 0603	C0603L	C0603X5R6R3-106M	Venkel	
6	5	C37,C38,C39,C43,C48	0.1uF	CAP, 0.1uF, 10V, ±10%, X7R, 0402	C0402L	C0402X7R100-104K	Venkel	
8	2	C45,C47	18pF	CAP, 18pF, 50V, ±2%, C0G, 0402	C0402	GRM155SC1H180GA01	MuRata	
9	12	C52,C53,C56,C57,C58,C60, C61,C63,C64,C65,C68,C69	0.01uF	CAP, 0.01uF, 50V, ±10%, X7R, 0402	C0402L	GRM155R71H103KA88D	MuRata	
10	6	C54,C55,C59,C62,C66,C67	56pF	CAP, 56pF, 50V, ±2%, C0G, 0402	C0402	GRM155SC1H560GA01D	MuRata	
11	8	C71,C73,C74,C77,C78,C79, C84,C85	0.1uF	CAP, 0.1uF, 16V, ±10%, X7R, 0805	C0805	C0805X7R160-104K	Venkel	
12	3	C80,C81,C83	0.1uF	CAP, 0.1uF, 10V, ±10%, X7R, 0402	C0402	C0402X7R100-104K	Venkel	
13	12	C86,C87,C88,C89,C90,C91, C92,C93,C94,C95,C96,C97	2pF	CAP, 2pF, 50V, ±0.1pF, C0G, 0402	C0402	GRM155SC1H2080BA01D	MuRata	
14	8	C98,C99,C100,C101,C102, C103,C104,C107	0.1uF	CAP, 0.1uF, 10V, ±10%, X7R, 0402	C0402	GRM155R71A104KA01D	MuRata	
15	8	C108,C109,C110,C111,C112, C113,C114,C115	1uF	CAP, 1uF, 10V, ±10%, X7R, 0603	C0603	GRM188R71A105KA61D	MuRata	
16	1	D1	SP0503BAHT	Diode Array, TVS Avalanche	SOT143-AKKK	SP0503BAHTG	Littlefuse	
17	1	D2	Blue	LED, Blue, InGaN, 20mA, 78mW, 55mcd, 0805	LED-HSMX-C170	HSMR-C170	Avago Technologies	
18	2	D3,D4	Green	LED, Green, InGaN, 20mA, 78mW, 145mcd, 0805	LED-HSMX-C170	HSMQ-C170	Avago Technologies	
19	1	F81	22 Ohm	FERRITE BEAD, 22 Ohm @100MHZ, 0805	L0805	BLM21P52205N1	MuRata	
22	1	JP12	HEADER 1x3	Header, 3x1, 0.1in pitch, Tin Plated	CONN-1X3	TSW-103-07-T-S	Samtec	
23	6	JP13,JP14,JP15,JP16,JP17,JP18	Header 1x2 TH	Header, 2x1, 0.1in pitch, 10u Full Au Plated	CONN1X2	TSW-102-07-G-S	Samtec	
25	7	JS7,JS8,JS9,JS10,JS11, JS12,JS13	Jumper Shunt	Shunt, 1x2, 0.1in pitch, Tin plating	SHUNT	SN7-100-BK-T	Samtec	
26	16	J1,J2,J3,J4,J5,J6,J7,J8, J10,J11,J12,J13,J14,J15, J16,J17	SMA	CONN, SMA, 50 Ohm, End Launch Jack Receptacle - Round Contact, Edge Mount	SMA-EDGE-3	142-0701-801	Johnson Components	
27	1	J9	2x6.35mm	Terminal Block, 2 pos, 6.35 mm, 10-30AWG, 300V, 32A	CONN-TB-1714955	1714955	Phoenix Contact	
28	1	J18	CONN TRBLK 2	CONN, TERM BLOCK 2POS, 24A, 5MM PITCH, PTH	CONN-TB-1711026	1711026	PHOENIX CONTACT	
29	1	J19	USB Type B	CONN, USB Type B, Right Angle, PTH	CONN-USB-B	61729-0010BLF	FCI	
30	1	J20	5X2 Shrouded Header	CONN, HEADER, SHROUDED, 2X5, 0.1in, STR, Au	CONN2X5-4W	5103309-1	Tyco	
		PCB6						
32	8	R1,R2,R17,R18,R33,R34, R48,R49	30.1	RES, 30.1 Ohm, 1/4W, ±1%, ThickFilm, 1206	R1206	CR1206-4W-30R1F	Venkel	
33	18	R3,R4,R5,R6,R19,R20,R21, R22,R35,R36,R38,R40,R50, R51,R52,R53,R62,R63	10K	RES, 10K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-1002F	Venkel	
34	9	R7,R8,R23,R24,R37,R39, R54,R55,R65	1	RES, 1.0 Ohm, 1/10W, ±1%, ThickFilm, 0603	R0603	CR0603-10W-1R00F	Venkel	
35	5	R9,R13,R25,R29,R41	3.74K	RES, 3.74K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-3741F	Venkel	
36	5	R10,R14,R26,R30,R42	6.65K	RES, 6.65K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-6651F	Venkel	
37	5	R11,R15,R27,R31,R43	21.5K	RES, 21.5K, 1/10W, ±1%, ThickFilm, 0603	R0603	CR0603-10W-2152F	Venkel	
38	6	R12,R16,R28,R32,R44,R122	8.06K	RES, 8.06K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-8061F	Venkel	
39	3	R45,R56,R59	4.42K	RES, 4.42K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-4421F	Venkel	
40	3	R46,R57,R60	9.53K	RES, 9.53K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-9531F	Venkel	
41	5	R47,R58,R61,R124,R125	5.90K	RES, 5.90K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-5901F	Venkel	
42	1	R64	2.49K	RES, 2.49K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-2491F	Venkel	
45	2	R69,R73	2.32K	RES, 2.32K, 1/16W, ±1%, ThickFilm, 0603	R0603	CR0603-16W-2321F	Venkel	
46	14	R70,R74,R76,R77,R88,R89, R90,R96,R97,R103,R104, R105,R116,R117	0	RES, 0 Ohm, 1A, ThickFilm, 0402	R0402L	CR0402-16W-000	Venkel	
47	2	R71,R72	1K	RES, 1K, 1/16W, ±5%, ThickFilm, 0402	R0402	CR0402-16W-102J	Venkel	
50	6	R82,R83,R93,R100,R110,	0	RES, 0 Ohm, 1A, ThickFilm, 0603	R0603	CR0603-16W-000	Venkel	
		R111						
52	1	R120	0.05	RES, 0.050 Ohm, 2W, ±100PPM, ±1%, ThickFilm, 2512	R2512	LRC-LR2512LF-01-R050F	TT Electronics	
53	1	R121	0	RES, 0 Ohm, 2A, ThickFilm, 1206	R1206	CR1206-4W-000	Venkel	
54	1	R122	100	RES, 100 Ohm, 1/10W, ±1%, ThickFilm, 0805	R0805	CR0805-10W-1000F	Venkel	
55	7	R126,R127,R128,R129,R130, R131,R140	1K	RES, 1K, 1/10W, ±1%, ThickFilm, 0805	R0805	CR0805-10W-1001F	Venkel	
56	2	R132,R133	10K	RES, 10K, 1/10W, ±1%, ThickFilm, 0805	R0805	CR0805-10W-1002F	Venkel	
58	2	R138,R139	10.0K	RES, 10.0K, 1/10W, ±25PPM, ±0.1%, ThinFilm, 0603	R0603	ERA-3AE103V	Panasonic	
59	6	R141,R147,R148,R149,R150, R151	0	RES, 0 Ohm, 1A, ThickFilm, 0402	R0402	CR0402-16W-000	Venkel	
60	5	R142,R143,R144,R145,R146	2.49K	RES, 2.49K, 1/16W, ±1%, ThickFilm, 0402	R0402	CR0402-16W-2491F	Venkel	
61	1	S1	SW PUSHBUTTON	SWITCH, PB, TACTILE, NO, 6x6mm, PTH	SW4NG.5X4.5-PB	101-0161-EV	Mountain Switch	
66	1	U1	SI5332-32QFN	IC, Low Jitter Any-Frequency Clock Generator, 6 Outputs, QFN32	QFN32M5X5P0.5E3.15	SI5332-A00001-GM1	Silabs	
67	9	U2,U3,U4,U5,U6,U7,U8,U9, U10	TP576201	IC, VOLTAGE REGULATOR, ADJ, SOT23-5	TS05N2.8P0.95	TP576201DBV	Ti	
68	1	Y1	25MHz	XTAL 25MHz, 3.2MM X 2.5MM, LOW PROFILE SMD	XTAL4N3.2K2.5-FA238	FA-238 25.0000MB	Epson	
69	1	U12	CR051F380	IC, MCU, FULL SPEED USB, 48MIP, 64K FLASH, 4352 RAM, TQFP48	QFP48N9K9P0.5	CR051F380-GQ	Silabs	
70	1	U13	LTC4311	IC, I2C/SMBus Accelerator, LV, SC70-6	SC70-6N2.1P0.65	LTC4311LSC64FRMPBF	Linear Technology	
71	1	U14	PCA9537D	IC, I2C Buffer, Level Translating I2C-Bus Repeater, SO8	SO8N6.0P1.27	PCA9537D	NXP	
72	2	U15,U17	ADG728	IC, CMOS, Low-Voltage, 2-Wire Serially-Controlled, Matrix Switch	TSSOP16N6.4P0.65	ADG728BRUZ	Analog Devices	
73	1	U16	AD8628	IC, OPAMP, Zero-Drift, Single-Supply, Rail-to-Rail	SOT23-5N	AD8628AUJ-R2	Analog Devices	
74	2	U18,U19	PCA9535CPW	IC, I2C/SMBus, 16-bit GPIO Port w/INT, DO, TSSOP24	TSSOP24N6.4P0.65	PCA9535CPW	NXP	
75	1	U20	DS2431	IC, 1024-Bit, 1-Wire EEPROM, 6TSSOC	SO16N4.45P1.27	DS2431P+	Maxim	
76	4	SO1 SO2 SO3 SO4	STANDOFF			1902D	Keystone Electronics	
77	4	MHP MH6 MH7	4-40		MH-125NP MH-125	NSS-4-4-01	Richco Plastic Co	