

Description	Manufacturer	Manufacturer Part No.	Designators	Component Count	Value
(-25 to 70 DegC) SWITCH TACTILE SPST-NO 0.05A 24V H:4.3mm Switch-PushButton	Omron	B3FS-1010P	B1, B2, B3, B4, B5, B6, B7, B8	8	
(-55 to 85 DegC) CAP CER 10UF 50V 10% X5R 1206	Samsung	CL31A106KBHNNNE	C1, C2, C18, C19, C20, C23, C40, C43, C205, C265, C266, C272, C273, C274, C275, C278, C281, C284, C293, C331, C332	21	10uF/50V
(-55 to 125 DegC AEC) Cap Ceramic 0.1uF 50V X7R 10% 0402	Murata	GRT155R71H104KE01D	C3, C5, C7, C8, C9, C10, C11, C12, C17, C29, C34, C48, C65, C66, C67, C68, C69, C70, C74, C78, C79, C80, C83, C84, C85, C86, C87, C88, C89, C91, C92, C93, C97, C99, C100, C107, C109, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C123, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C144, C145, C146, C147, C155, C170, C171, C172, C173, C174, C175, C176, C178, C179, C182, C188, C192, C193, C194, C195, C196, C197, C200, C201, C202, C203, C204, C206, C207, C208, C209, C210, C211, C212, C217, C218, C219, C223, C224, C228, C229, C231, C232, C233, C234, C235, C236, C237, C238, C239, C240, C241, C242, C243, C244, C245, C246, C249, C250, C251, C252, C254, C256, C259, C260, C261, C262, C270, C276, C286, C287, C292, C294, C296, C297, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C314, C315, C316, C317, C318, C319, C320, C321, C322, C323, C324, C326, C328, C333, C342, C345, C350, C351, C352, C353, C354, C356, C357, C358, C359, C360, C381, C382, C387, C388, C389, C390, C392, C394	180	100nF
(-55 to 85 DegC) CAP CER 22uF 16V X5R 0805	Samsung	CL21A226MOQNNNE	C4, C13, C14, C15, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C139, C140, C285	21	22uF/16V
(-55 to 125 DegC AEC) CAP CER 1.5nF 10% 50V X7R 0402	Taiyo Yuden	UMK105B7152KVHF	C6, C268	2	1.5nF
(-55 to 125 DegC) CAP CER 470PF 50V NP0 0603	Samsung Electro-Mechanics America, Inc.	CL10C471JB8NNNC	C16, C184, C189, C336, C338, C341	6	470pF
(-55 to 85 DegC) CAP CER 22UF 6.3V 20% X5R 0402	Murata	GRM155R60J226ME11D	C21, C22, C24, C25, C26, C39, C41, C72, C73, C75, C76, C82, C90, C108, C110, C122, C149, C150, C151, C152, C153, C154, C247, C248, C253, C255, C257, C258, C347	29	22uF/6.3V
(-55 to 125 DegC) Cap Ceramic 10nF 50V X7R 10% 0402	Yageo	CC0402KRX7R9BB103	C27, C289	2	10nF
(-55 to 85 DegC) CAP CER 100UF 10V 20% X5R 1206	Murata	GRM31CR61A107MEA8L	C28, C32, C33, C190, C191, C198, C199, C325, C343, C344	10	100uF/10V
(-55 to 85 DegC) CAP CER 10UF 16V 10% X5R 0603	Murata	GRM21BR61C106KE15L	C30	1	10uF/16V
(-55 to 85 DegC) CAP CER 4.7UF 10V 20% X5R 0603	Samsung	CL10A475KP8NNNC	C31, C35, C355	3	4.7uF/10V

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(-55 to 125 DegC) CAP CER 1000PF 50V 5% NP0 0402	Samsung Electro-Mechanics America, Inc	CL05C102JB5NNNC	C36, C121, C124, C125, C127	5	1nF
(-55 to 125 DegC AEC) Cap Ceramic 47pF 100V C0G/NP0 5% SMD 0603	Samsung	CL10C470JC81PNC	C37, C277	2	47pF
(-55 to 125 DegC) CAP CER 220PF 50V 5% NP0 0603	Samsung	CL10C221JB8NCNC	C38, C339, C340	3	220pF
(-55 to 85 DegC) CAP CER 47UF 10V X5R 0805	Murata	GRM21BR61A476ME15L	C42, C44, C45, C46	4	47uF/10V
(-55 to 85 DegC) CAP CER 1UF 16V 20% X5R 0402	Murata	GRM155R61C105MA12D	C49, C141, C142, C158, C160, C161, C164, C165, C166, C167, C168, C169, C213, C214, C295, C298, C334	17	1uF/16V
Cap 0603 DNP			C50, C98	2	DNP
(-55 to 125 DegC) CAP CER 1000PF 2KV X7R 1206	Johanson Dielectrics Inc.	202R18W102KV4E	C71, C101, C148, C186, C288, C329, C330, C346	8	1nF/2KV
(-55 to 125 DegC AEC) CAP CER 20PF 5% 50V C0G/NPO 0402	Samsung	CL05C200JB51PNC	C77, C81	2	20pF
(-55 to 85 DegC) CAP CER 4.7UF 6.3V 20% X5R 0402	Murata Electronics North America	GRM155R60J475ME87D	C94, C96, C102, C103, C104, C105, C106, C220, C221, C222, C230, C280, C282, C327, C348, C349	16	4.7uF/6.3V
(-55 to 85 DegC) CAP CER 2.2UF 10V 20% X5R 0402	Yageo	CC0402MRX5R6BB225	C95, C225, C226, C227, C271	5	2.2uF/10V
(-55 to 125 DegC AEC) CAP CER 30PF 5% 50V C0G/NPO 0402	Murata	GCM1555C1H300JA16D	C126, C128, C159, C162, C177, C267	6	30pF
(-55 to 85 DegC) CAP CER 10UF 6.3V 20% X5R 0402	Murata	GRM155R60J106ME44D	C143, C156, C157, C163, C335, C337, C365, C366, C367, C368, C369, C374, C375, C376, C377, C378, C379, C380, C385, C386, C391, C393	22	10uF/6.3V
(-55 to 85 DegC) CAP CER 47UF 10V 20% X5R 1206	Samsung	CL31A476MPHNNNE	C180, C181, C183, C185, C187, C283	6	47uF/10V
(-55 to 125 DegC) CAP CER 3600PF 50V C0G/NP0 0603	Murata	GRM1885C1H362JA01D	C215, C216, C263, C264	4	3.6nF
(-55 to 125 DegC) CAP CER 0.047UF 50V X7R 0603	TDK Corporation	C1608X7R1H473K080AA	C269	1	47nF
(-55 to 125 DegC) CAP CER 560PF 25V C0G/NPO 0603	Yageo	CC0603JRNPO8BN561	C279	1	560pF
(-55 to 125 DegC) CAP CER 330PF 100V 5% NP0 0603	Samsung	CL10C331JC8NNNC	C290, C291	2	330pF
(-55 to 85 DegC AEC) CAP CER 1UF 50V X7R 0603	Murata	GRT188R61H105ME13D	C299, C300	2	1uF
(-55 to 85 DegC) CAP CER 100UF 6.3V X5R 1206	Yageo	CC1206MKX5R5BB107	C361, C362, C363, C364, C370, C371, C372, C373, C383, C384	10	100uF/6.3V
(-55 to 150 DegC) TVS DIODE 28VWM 59VC SMA	STMicroelectronics	SMAJ28CA-TR	D1, D31	2	
(-30 to 85 DegC) LED RED 0603 99mcd Vf:2.0V	Vishay Lite-On	LTST-C190KRKT	D2, D24, D34	3	
(-55 to 150 DegC) DIODE SCHOTTKY 15A 50V Vf:0.3V@1.5A 0.47V@15A SMA	Diodes	SDT15H50P5-13	D3	1	

(-40 to 85 DegC) LED GREEN 0603 50mcd	Kingbright	APT1608CGCK	D4, D5, D6, D7, D9, D11, D14, D18, D20, D21, D25, D26, D29, D30, D45, D48, D49	17	
(-65 to 155 DegC) TVS DIODE Vwm:5V Vcl:14V@6A SOD-923	Diodes	D5V0L1B2S9-7	D8, D15, D33, D35, D36, D37, D38, D43, D50	9	
(-55 to 125 DegC) DIODE SCHOTTKY 30V 200MA SOD523 / SC79	ON Semiconductor	BAT54XV2T5G	D10, D13	2	
(-55 to 125 DegC) DIODE SCHOTTKY 30V 200MA SOT23, comm. Cathode	ON Semi	BAT54CLT1G	D12, D16, D17, D19, D22, D28	6	
(-40 to 100 DegC) LED RGB DIFFUSED 4PLCC SMD	Broadcom	ASMB-MTB0-0B3A2	D39, D40, D41, D42	4	
(-65 to 150 DegC) DIODE ZENER 12V 225MW SOT23-3	On Semi	BZX84C12LT1G	D44	1	12V
(-55 to 150 DegC) DIODE GEN PURP 100V 300MA SOD123	Diodes	1N4148W-7-F	D46	1	
(-55 to 90 DegC) FUSE BOARD MOUNT 15A 63VDC SLOW	Schurter	3413.0330.22	F1	1	15A/63VDC
(-55 to 125 DegC) FUSE SLOW 63VDC 6A 1206 14.5mohm	Bel	0685T6000-01	F2	1	
(-40 to 105 DegC) CONN HEADER MALE VERT 2x10 20POS 2.54MM TH	Würth Electronics	61302021121	J1, J2, J3, J5, J7, J9, J12	7	
(-40 to 105 DegC) CONN HEADER FEMALE VERT 1x10 10POS 2.54MM TH	Würth Electronics	61301011821	J1A, J1B, J2A, J2B, J3A, J3B, J5A, J5B, J7A, J7B, J9A, J9B, J12A, J12B, J13, J60, J61	17	
(-40 to 105 DegC) CONN HEADER MALE VERT 2x12 24POS 2.54MM TH	Würth Electronics	61302421121	J4, J6, J8	3	
(-40 to 105 DegC) CONN HEADER FEMALE VERT 1x12 12POS 2.54MM TH	Würth Electronics	61301211821	J4A, J4B, J6A, J6B, J8A, J8B	6	
(-40 to 105 DegC) CONN HEADER MALE VERT 2x4 8POS 2.54MM TH	Würth Electronics	61300821121	J10, J11, J19	3	
(-40 to 125 DegC) CONN HEADER FEMALE 1x4 4POS 2.54MM TH	Würth Electronics	61300411821	J10A, J10B, J11A, J11B, J50, J53	6	
(-40 to 105 DegC) CONN HEADER MALE VERT 2x6 12POS 2.54MM TH	Würth Electronics	61301221121	J14	1	
(-40 to 125 DegC) CONN HEADER FEMALE 1x6 6POS 2.54MM TH	Würth Electronics	61300611821	J14A, J14B, J15, J16, J55, J94, J96	7	
(-40 to 85 DegC) CONN HDR VERT 1x2 2pos 2.54mm 0.1in Gold no-shroud	Amphenol FCI	67996-200HLF	J18, J29, J45, J49, J58, J63, J64, J66, J68, J73, J74, J75, J76, J79, J80, J81, J82, J85, J86, J89, J90, J92	22	
(-30 to 120 DegC) CONN TERM BLK 2POS SIDE ENTRY 5MM SCREW 16A 300V	Würth Electronics	691137710002	J20	1	
(-65 to 125 DegC) CONN HDR VERT 3x1 3pos 2.54mm 0.1in Gold no-shroud	Amphenol ICC / FCI	68001-203HLF	J21, J87, J91	3	

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(-40 to 85 DegC) Conn USB TYPE C RA, 24 (16 Dummy) Position, SMT/TH	Global Connector Technology	USB4105-GF-A-120	J23, J65	2	
(-20 to 85 DegC) CONN RCPT DISPLAYPORT 20P SMD RA/TH	Molex	47272-0001	J27	1	
(-40 to 85 DegC) CONN SD CARD PUSH-PULL R/A, OPEN	Same Sky	SD-4-B	J30	1	
(-40 to 85 DegC) Conn USB TYPE C RA SMT	Amphenol Communications Solutions	12401826E412A	J32, J72	2	
(-40 to 85 DegC) Conn USB 3.1 Type A R/A TH	Amphenol Commercial	GSB4112312HR	J33	1	
(-40 to 85 DegC) CONN MAGJACK 1PORT 1000 BASE-T Isolated Taps	Pulse	JXD0-0025NL	J34, J36	2	
(-40 to 80 DegC) CONN M2 M.2 Key B 67pos H=2.75mm Gold	Amphenol Commercial	MDT275B03001	J39	1	
(-40 to 85 DegC) CONN MICRO SIM CARD PUSH-PULL	Molex, LLC	787231001	J42	1	
(-40 to 85 DegC) CONN M.2 KEYM FEMALE 67POS 0.020 GOLD 4.2MM HEIGHT	Amphenol Communications Solutions	MDT420M01501	J43	1	
(-55 to 125 DegC) CONN SELF-MATE 60POS SMD GOLD	Samtec	LSS-130-03-L-DV-A-K-TR	J44	1	
(-20 to 85 DegC) CONN JACK STEREO 3.5MM 5pos TipSwitch TH R/A	Same Sky	SJ-43515TS	J46	1	
(-40 to 125 DegC) CONN HEADER FEMALE 2x3 6POS 2.54MM TH	Würth Electronics	61300621821	J47, J48	2	
(-40 to 80 DegC) CONN HEADER VERT 4POS 2.54MM - 1 Wall Shrouded	Molex	47053-1000	J56	1	
(-55 to 125 DegC) CONN HEADER VERT 9POS 2x5 1.27MM JTAG	Samtec	FTSH-105-01-L-DV-007-K	J59	1	
(-55 to 105 DegC) CONN D-SUB PLUG 9POS R/A SOLDER Male	Assmann WSW Components	A-DS 09 A/KG-T2S	J67	1	
(-40 to 85 DegC) CONN FFC VERT 24POS 0.50MM SMD	Hirose	FH12-24S-0.5SVA(54)	J70, J71	2	
(-40 to 105 DegC) CONN HEADER MALE VERT 2x5 10POS 2.54MM TH	Würth Electronics	61301021121	J77, J78, J83, J84	4	
CONN SPRING PISTON 5POS PCB 2.54MM TH	Mill-Max	821-22-005-10-004101	J95, J97	2	
(-40 to 125 DegC AEC) CMC Choke 21A 83OHM 9x8.5x4.8mm DCR = 3mohm	Würth Electronics	7427523	L1	1	83 ohm/21A
(-40 to 85 DegC) FIXED IND 4.7UH 11A Is:13A 14 mohm typ, 15.4 moh max SMD 8.4x8x5 full-shield	Eaton Bussmann	EXL1V0705-4R7-R	L4, L6	2	4.7uH/11A

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(-40 to 125 DegC) FIXED IND 1UH I:5.5A Isat:6.5A 32mohm max 26mohm typ, full-shield SMD 1210	Bourns	SRP3212-1R0M	L5	1	1uH/5.5A
(-50 to 150 DegC) FIXED IND 2.2UH 22A 4.2 mOHM 13.5x12.5x6.4mm	Bourns	SRP1265A-2R2M	L9	1	2.2uH/22A
(-55 to 125 DegC) FERRITE BEAD 5 OHM @ 100MHz 0402 0.5A DCR:80mohm	Murata	BLM15BB050SN1D	L10, L11, L12, L43, L45	5	5ohm/0.5A
(-55 to 125 DegC) FERRITE BEAD 330 OHM 0603 1.7A 80mohm, typ 48mohm	TDK Corporation	MPZ1608S331ATA00	L13, L15, L16, L17, L18, L19, L20, L21, L26, L31, L32, L33, L41, L42, L46, L47, L48, L49, L55, L56, L57, L60, L61, L62, L63, L66, L71, L72, L75, L78, L79, L80, L91, L92	34	330 ohm/1.7A
(-40 to 125 DegC) INDUCTOR COMMON MODE 90 OHM 0.4A 0.3ohm	Bourns Inc.	SRF2012-900YA	L14, L30, L36, L39, L99	5	90 ohm/0.4A, 90R/0.4A
(-40 to 85 DegC) Ind CMC Choke 12 Ohm 0.1A 1ohm 0.85x0.65x0.5mm	Panasonic	EXC-14CH120U	L22, L23, L28, L29, L34, L35, L37, L38, L50, L51, L52, L53, L54, L76, L81, L82, L83, L84, L85, L86, L87, L88, L89, L90, L94, L95, L96, L97, L100, L101, L102, L103	32	12 ohm/0.1A, 12R/0.1A
(-40 to 125 DegC) INDUCTOR COMMON MODE 220 OHM 0.3A 0.4ohm	Bourns Inc.	SRF2012-221YA	L58, L59, L73, L74	4	220 ohm/0.3A
(-55 to 125 DegC AEC) FERRITE BEAD 42ohm 10A 0.75mohm 3x3mm SMD	Laird Steward	35F0121-0SR-10	L77	1	42ohm/10A
(-55 to 125 DegC) CONN AcceleRate HD APM6 0.635MM 400POS SMD HIGH DENSITY ARRAY, 5MM STACK HEIGHT (UN-BALLED)	Samtec	APM6-100-01.5-L-04-0-A-FR	M1	1	
(-55 to 150 DegC) ROUND STANDOFF M3X0.5 STEEL 8MM For Apalis	Würth Electronics Inc.	9774080360R	ME1, ME2, ME3, ME4	4	
(-55 to 155 DegC) ROUND STANDOFF M3X0.5 BRASS 5MM	Sinhoo	SMTSO3050CTJ	ME5, ME6, ME7, ME8, ME9, ME10, ME11, ME12	8	
(-55 to 155 DegC) ROUND STANDOFF M2X0.4 STEEL 0.5MM	Würth Electronics	9774005243R	ME13, ME14, ME15, ME18	4	
(-40 to 85 DegC) Bumper Polyurethane, D: 9.5mm, H: 6.3mm, adhesive	3M	SJ61A3	MP1, MP2, MP3, MP4, MP5, MP6, MP7, MP8, MP9, MP10	10	
(-55 to 150 DegC) MOSFET N-CH 40V 27A Vth:1.8V Ron typ:3.5mohm@4.5V Vgsm:2.45V 8-VSONP (5x6)	Texas Instruments	CSD18511Q5AT	Q1, Q2, Q23	3	
(-55 to 150 DegC) MOSFET P-CH 20V 18A 4.2mohm@4.5V 7mohm@1.8V Vgsm:10V 3x3mm POWERDI3333	Diodes	DMP26M7UFG-7	Q3	1	
(-55 to 155 DegC) MOSFET N-CH 25V 220MA SOT-23 Vth:1.1V Ron typ:4ohm@3V Vgsm:8V	Fairchild/ON Semiconductor	FDV301N	Q4, Q5, Q6, Q8, Q21, Q28, Q29	7	
(-40 to 85 DegC) MOSFET N/P-CH 20V 0.54/0.43A Vgs:1V SOT-563	ON Semiconductor	NTZD3155CT1G	Q7, Q30	2	
(-55 to 150 DegC) MOSFET 2N-CH (dual) 20V 0.54A SOT-563 1.6x1.6mm Vth:1V Ron typ:400m@4.5V, 500m@2.5V, 700m@1.8V	ON Semiconductor	NTZD3154NT1G	Q9, Q10, Q11, Q12, Q15, Q18, Q19, Q31, Q32	9	

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(-55 to 150 DegC) MOSFET P-CH 30V 3.8A 65mohm SOT23	Diodes Incorporated	DMP3099L-7	Q13	1	
(-55 to 150 DegC) TRANS NPN 160V 60mA 1.2x1.2 SOT723	ON Semiconductor	MMBT5551M3T5G	Q14, Q16, Q25	3	
(-55 to 150 DegC) MOSFET N-CH 40V 3.6A SOT-23-3 Ron typ 60mohm@5V, ---@3V	Infineon Technologies	IRLML0040TRPBF	Q17	1	
(-55 to 150 DegC) MOSFET N-CH 40V 19A Vth:1.8V Ron typ:4.3mohm@10V Vgsm:2.45V 8-VSONP (5x6)	Texas Instruments	CSD18503Q5A	Q22	1	
(-55 to 150 DegC) MOSFET 2P-CH 30V 9.2A 8SO	Infineon Technologies	IRF9358TRPBF	Q24	1	
(-55 to 150 DegC AEC) MOSFET N-CH SGL 60V SOT-23 0.3A 1.3ohm@5V	NXP	2N7002P,215	Q26, Q27	2	
(-55 to 155 DegC AEC) RES 887K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT887K	R1, R389	2	887K
(-55 to 155 DegC) RES SMD 24.9K OHM 1% 1/10W 0603 100ppm	Stackpole Electronics	RMCF0603FT24K9	R2, R6, R44, R49, R142, R143, R309	7	24.9K
(-55 to 155 DegC) RES SMD 20K 1% 1/10W 0603 100ppm	Bourns	CR0603-FX-2002ELF	R3, R7, R46, R303, R304, R310, R311, R323, R326, R336	10	20K
(-55 to 155 DegC AEC) RES 27K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT27K0	R4, R19, R20, R29, R30, R31, R36, R45, R55, R86, R87, R89, R90, R104, R114, R129, R134, R165, R166, R182, R193, R195, R198, R203, R283, R285, R335, R378, R379	29	27K
(-55 to 155 DegC) RES 100K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-07100KL	R5, R9, R35, R37, R53, R56, R57, R63, R115, R256, R257, R259, R261, R263, R270, R289, R290, R307, R317, R344, R360, R361, R362, R366, R368, R369, R370, R374, R375, R376, R377, R391, R393, R394, R399, R404, R434	37	100K
(-55 to 170 DegC AEC) RES 0.003 OHM 1% 2W 2512 50ppm	Bourns	CRF2512-FZ-R003ELF	R8	1	0.003/2W
(-55 to 155 DegC AEC) RES 10K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT10K0	R10, R27, R43, R50, R58, R59, R67, R68, R95, R108, R113, R116, R117, R118, R122, R135, R136, R137, R152, R154, R162, R169, R171, R173, R181, R186, R188, R189, R218, R230, R231, R238, R266, R268, R269, R271, R273, R274, R279, R280, R281, R282, R313, R314, R327, R332, R333, R334, R343, R345, R352, R358, R382, R383, R384, R385, R408, R418, R432, R453, R454, R455, R456, R457, R459, R460, R470, R473, R474, R476	70	10K
(-55 to 155 DegC) RES 0.0 OHM 1/10W JUMP 0603, RES 0.0 OHM 1/10W JUMP 0603	Samsung	RC1608J000CS	R11, R15, R17, R28, R32, R33, R38, R54, R64, R110, R131, R183, R185, R192, R194, R199, R212, R214, R217, R221, R222, R223, R228, R232, R233, R234, R251, R252, R287, R297, R299, R300, R301, R302, R308, R329, R331, R337, R339, R340, R341, R354, R355, R359, R367, R406, R435, R436, R437, R438, R447, R448, R449, R464	54	0

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(-55 to 155 DegC AEC) RES 200K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT200K	R12, R69, R70, R77, R100, R126, R127, R248, R363, R371	10	200K
(-55 to 155 DegC) RES 4.70K OHM 1/16W 1% 0402 100ppm	Yageo	RC0402FR-074K7L	R13, R14, R24, R26, R40, R60, R71, R72, R73, R74, R78, R79, R83, R102, R103, R119, R144, R145, R172, R174, R239, R249, R250, R272, R312, R364, R365, R372, R373, R387, R396, R402, R403, R430, R431, R445, R446, R465	38	4.7K
RES 0603			R16, R18, R34, R96, R106, R107, R109, R124, R138, R139, R180, R191, R224, R225, R226, R229, R235, R236, R237, R253, R254, R284, R286, R288, R320, R321, R328, R330, R338, R342, R346, R386, R390, R407, R439	35	DNP
(-55 to 155 DegC) RES 10 OHM 1/16W 1% 0402 SMD	Rohm Semiconductor	MCR01MRTF10R0	R21, R25, R348, R349, R353	5	10
(-55 to 150 DegC) RES CURRENT SENSE .010 OHM 1W 1% 50ppm, RES CURRENT SENSE .010 OHM 1W 1% 50ppm	Ohmite	MCS1632R010FER	R22, R23, R39, R51	4	0.010/1W
(-55 to 155 DegC) RES SMD 220K OHM 1% 1/10W 0603	Yageo	RC0603FR-07220KL	R41, R42, R48	3	220K
(-55 to 155 DegC AEC) RES 15K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT15K0	R47, R324, R452	3	15K
(-55 to 155 DegC AEC) RES 1.87K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT1K87	R52, R75, R76, R88, R99, R175, R187, R196, R197, R202, R204, R227, R264, R265, R409, R410, R411, R412, R413, R414, R426, R427, R442, R443, R468, R469, R471, R472, R477, R478	30	1.87K
(-55 to 155 DegC) RES 300K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-07300KL	R61, R84, R325	3	300K
RES 0402			R62, R65, R125, R128, R140, R141, R149, R150, R151, R158, R161, R164, R167, R168, R184, R200, R219, R322, R392, R417, R450, R451, R475	23	DNP
(-55 to 155 DegC) RES 5.1K OHM 1/10W 1% 0603 SMD	Rohm	MCR03ERTF5101	R80, R81, R315, R388, R405	5	5.1K
(-55 to 155 DegC) RES SMD 1M OHM 5% 0.25W 10ppm 1206	TE Connectivity	CRGCQ1206J1M0	R82, R120, R148, R179, R267, R319, R397, R398	8	1M/0.25W
(-55 to 155 DegC AEC) RES 86.6K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT86K6	R85, R97, R98, R190, R241, R243, R245, R247, R275, R276, R277, R278, R440, R441, R444	15	86.6K
(-55 to 155 DegC AEC) RES 12K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT12K0	R91, R132, R306	3	12K
(-55 to 155 DegC AEC) RES 1M OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT1M00	R92, R93, R94, R458, R467	5	1M
(-55 to 155 DegC) RES SMD 2K OHM 1% 1/10W 0603 100ppm	Yageo	RC0603FR-072KL	R101, R112	2	2K

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(-55 to 155 DegC AEC) RES 120 OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT120R	R105, R111, R121, R123, R159, R160, R210, R213, R220, R298, R350, R356, R357, R380, R381, R395, R400, R401, R433	19	120
(-55 to 155 DegC) RES 56K OHM 1/10W 1% 0603	Samsung Electro-Mechanics America, Inc	RC1608F563CS	R130	1	56K
(-55 to 155 DegC AEC) RES 1K OHM 1% 1/16W 100ppm 0402	TE Connectivity	CRGCQ0402F1K0	R133, R291, R292, R316, R351	5	1K
(-55 to 155 DegC) RES 510 OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-07510RL	R146, R147, R177, R178, R240, R242, R244, R246, R255, R258, R260, R262	12	510
(-55 to 155 DegC) RES SMD 2.49K OHM 1% 1/16W 0402 100ppm	Yageo	RC0402FR-072K49L	R153, R155, R157, R163, R170	5	2.49K
(-55 to 155 DegC) RES 5.76K OHM 1/16W 1% 0402 SMD	Stackpole Electronics	RMCF0402FT5K76	R156	1	5.76k
(-55 to 155 DegC AEC) RES SMD 11K OHM 1% 1/16W 0402 100ppm 0402	Yageo	AC0402FR-0711KL	R176	1	11K
(-55 to 155 DegC) RES SMD 60.4 OHM 1% 1/10W 0603	Bourns	CR0603-FX-60R4ELF	R205, R206, R207, R208, R293, R294, R295, R296	8	60.4
(-55 to 155 DegC) RES 2.20K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-072K2L	R216	1	2.2K
(-55 to 155 DegC) RES SMD 240 OHM 1% 1/16W 0402	Yageo	RC0402FR-07240RL	R305	1	240
(-55 to 155 DegC AEC) RES 330 OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT330R	R318, R347	2	330
(-55 to 155 DegC AEC) RES 5.6K OHM 1% 1/16W 100ppm 0402	Yageo	RC0402FR-075K6L	R420, R421, R422, R423	4	5.6K
(-55 to 155 DegC) RES SMD 22 OHM 1% 1/16W 0402	Murata	GRT155R71H104KE01D	R461, R462	2	22
(-55 to 125 DegC) RES ARRAY 2 RES 22 OHM 5% 0606 200ppm	Panasonic	EXB-34V220JV	RA1, RA15, RA17, RA29, RA35, RA37, RA41	7	2 x 22
(-55 to 125 DegC) RES ARRAY 4 RES 10K 1% 200ppm 1206	Yageo	TC164-FR-0710KL	RA3, RA8, RA9, RA10	4	4 x 10K
RES ARRAY 2 RES 0606			RA4, RA5, RA6	3	DNP
(-55 to 125 DegC) RES ARRAY 4 RES 22 OHM 0804 300ppm SMD	Bourns	CAT10A-220J4LF	RA7, RA11, RA14, RA16, RA18, RA19, RA20, RA21, RA22, RA23, RA24, RA25, RA26, RA27, RA28, RA30, RA31, RA32, RA33, RA34, RA36, RA38, RA39, RA40, RA45	25	4x22
(-20 to 70 DegC) Slide switch DPDT 12V 100mA SMT 9.1x6.9mm VERT SLIDE	Same Sky (CUI)	SLW-913535-2A-SMT	S1, S2, S3, S4	4	
(-40 to 150 DegC) IC REG LINEAR LDO Vin: 45V/max Vout:5V fixed 80mA SOT223-3	Microchip	MCP1799T-5002H/DB	U1, U104	2	



(-40 to 85 DegC AEC) IC SURGE SUPPRESSION ADJ 2.5-60V OVERVOLTAGE/UNDERVOLTAGE/OVERCURRENT PROTECT 10DFN	Analog Devices / Linear Technology	LTC4368IDD-2#PBF	U2	1
(-40 to 85 DegC) IC TRANSLTR BIDIRECTIONAL I2C SM8	Texas Instruments	PCA9306DCTR	U3, U9, U10, U11, U19, U57, U81, U83, U88	9
(-40 to 125 DegC) IC MONITOR PWR/CURR BIDIR 10MSOP I2C Vos:10uV max, 0.1%Gain Err max, 2.7-5.5Vcc, 0-36V	Texas Instruments	INA226AIDGSR	U4	1
(-40 to 125 DegC) IC IC REG BUCK ADJ 2.2MHz Vin:2.4-5.5V Io:3A Sync 8-VFDFN 8VSON-HR	Texas Instruments	TPS62823DLCR	U5	1
(-40 to 85 DegC) 8A Synchronous Buck Regulator (Auto Restart), QFN4x4-22L, 4-28V	Alpha & Omega Semiconductor	AOZ2261AQI-15	U6	1
(-40 to 85 DegC) IC REG BOOST ADJ 7A SYNC 20VQFN Vin:2.7-12V, Vout:4.5-12.6V 11VQFN	Texas Instruments	TPS61089RNRR	U7	1
(0 to 70 DegC) IC PB ON/OFF CONTROLLER TSOT23-8	Analog Devices / Linear Technology	LTC2954CTS8-2#TRMPBF	U8	1
(-40 to 125 DegC AEC) TVS DIODE 5.5VWM 16VC SOT-23-6	Texas Instruments	TPD4E001QDBVRQ1	U12, U17, U18, U42	4
(-40 to 85 DegC) IC REG LIN LDO POS ADJ 300MA (450 max) SOT23-5 2.5-6 Vin 0.3Vd@0.3A	Diodes Incorporated	AP2127K-ADJTRG1	U13	1
(-40 to 85 DegC) IC EEPROM 2KBit 128x16 SPI 2MHz SOT23-6 2.5-5.5V	Microchip	93LC56BT-I/OT	U14	1
(-40 to 85 DegC) IC USB HS QUAD UART/SYNC 64-LQFP	FTDI, Future Technology Devices International Ltd	FT4232HL-REEL	U15	1
(-40 to 85 DegC) IC PWR SWITCH 3-5.5V EN-Active-High ENth:1.5V With-Discharge 65mohm typ ADJ 0.1-2.1A 6SSOP	Diodes	AP22653AW6-7	U16, U28, U29, U80	4
(-55 to 150 DegC) IC TVS DIODE 4ch Vrm:3.3V Vbr:6.2 Vcl:5V@16A 12KV/12KV 0.5pF 10-UFDFN 0.5mm	Diodes	D3V3F4U10LP-7	U20, U23, U24, U30, U31, U32, U33, U34, U38, U39, U46, U47, U53, U84, U98, U99, U100	17
(-40 to 85 DegC) IC PWR SWITCH 3-5.5V EN-Active-High ENth:1.2V With-Discharge 40mohm typ ADJ 0.4-4A TSOT-26	Diodes	AP22615AWU-7	U21, U97	2
(-40 to 85 DegC) IC USB Type-C CC Logic and port control DRP 16-HX2QFN 2.6x2.6	NXP Semiconductors	PTN5110NHQZ	U22	1
(-65 to 150 DegC) TVS DIODE 2-CH 15VWM 44VC ESD:30KV TO236AB	Nexperia	PESD15VL2BT,215	U25, U40	2
(-40 to 85 DegC) IC REG LDO LINEAR POS ADJ 5V 2A 8SO	Diodes	AP2132BMP-2.5TRG1	U26, U35, U36	3
(-40 to 85 DegC) IC 4 port USB3.2 HUB 56-VFQFN	Microchip	USB5744T-I/2G	U27	1

(-40 to 85 DegC) 1G PHY Gigabit Ethernet Transceiver with SGMII QFN-48	Texas Instruments	DP83867ISRGZR	U37	1
(-40 to 105 DegC) IC SWITCH MULTIPLEXER 2:1 DPST, SPDT X 2 3.3V/1.8V 20VQFN	Texas Instruments	TMUXHS4212IRKSR	U41, U96	2
(-65 to 150 DegC) IC TVS DIODE 5ch Vrm:5V Vcl:10V@1A 6-UFDFN	Diodes	D5V0M5B6LP16-7	U43	1
(-40 to 125 DegC AEC) IC Translator 4ch BiDirer 0.8 to 3.6V 380MBps 16TSSOP	Nexperia	74AVC4T774PW-Q100J	U44, U60, U61, U62, U64, U82, U89	7
(-40 to 125 DegC) IC INVERTER SCHMITT 1CH 1IN 1.65-5.5V SOT353	Diodes	74LVC1G14SE-7	U45	1
(-40 to 125 DegC) IC TXRX CAN FD 8MBPS Vio:1.8-5V Standby 8SOIC	Texas Instruments	TCAN1044VDRQ1	U48, U49, U69, U70	4
(-55 to 175 DegC AEC) TVS DIODE CAN 2-ch 35V Vcl: 59Vmax, 8/20:3A, ESD:30KV air,30KV cont, 15pF, SOT323	STMicroelectronics	ESDCAN06-2BWY	U50, U51, U71, U72	4
(-40 to 85 DegC) IC AUDIO CODEC STEREO 32QFN	Cirrus Logic	WM8904CGEFL/RV	U52	1
(-55 to 125 DegC) IC Temp Sensor I2C 1.7-5.5V WSON8	Texas Instruments	TMP1075DSGR	U54	1
(-40 to 85 DegC) IC EEPROM 2KBIT (256B) 400KHZ 8TSSOP 1.7-5.5V adr 0x50	STMicroelectronics	M24C02-FDW6TP	U55	1
(-40 to 85 DegC) IC FLASH 256MBIT SPI/QU 1.65-2V 24TBGA	Macronix	MX25U25645GXD100	U56	1
(-40 to 125 DegC) IC TEMP MONTR/PWM FANCTRL 3.3-5V, I2C 16SSOP	Texas Instruments	AMC6821SDBQR	U58	1
(-40 to 125 DegC) IC Protected Analog SW 4CH-DPDT (4 Switches), 1.5-5.5V, R:2ohm, 4.5ohm max, 2GHz 7pF 1.8Vc with pull down SOT23-16 4.2x2	Texas Instruments	TMUX1574DYR	U59	1
(-40 to 125 DegC) IC GATE AND 1CH 2-INP 0.8-3.6V 5-TSSOP	Nexperia	74AUP1G08GW,125	U63	1
(-40 to 125 DegC) IC Isolated DC DC Converter-Output 3.3V, 5V 140mA, 4.5V-5.5V Input	Texas Instruments	UCC12040DVER	U65, U66	2
(-40 to 125 DegC) IC DGTL ISO GENERAL-PURPOSE, DUAL-CHANNEL, 1x In, 1x Out 1.71-5.5V	Texas Instruments	ISO6721RBDR	U67, U68	2
(-40 to 125 DegC) IC REG BUCK 6-42V INPUT 20VFQFN 1MHz	Texas Instruments	LM25145RGYR	U73	1
(-40 to 125 DegC) IC COMPARATOR QUAD LP 14-TSSOP 2-30V OC Iq:1.3mAtp 2.5mAmax Vos:1mVtyp 15mVmax Ib:25nAtp 400nAmax	ST	LM2901PT	U74	1
(-40 to 125 DegC) IC USB Type C PMIC 20V/5A Max 24-QFN (4x4)	Infineon Technologies	CYPD3177-24LQXQ	U75	1

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(-40 to 125 DegC) IC TRANSCEIVER HALF 1/1, 3V3 RS-485, 1.65V I/O, 10VSON	Texas Instruments	SN65HVD01DRCR	U76	1	
(-40 to 85 DegC) IC TRANSCEIVER RS-232 2/2 24-VQFN (4x4)	Texas Instruments	TRS3122ERGER	U77	1	
(-40 to 85 DegC) IC MIC Bot Port PDM 3.5x2.6mm 1.65-3.63V	TDK InvenSense	MMICT390200012	U78, U79	2	
(-40 to 85 DegC) IC I2C MUX BUS SWITCH 1:2 1.65-5.5V 400kHz	Texas Instruments	TCA9543APWR	U85	1	
(-40 to 85 DegC) IC REG LIN LDO POS 1.8V 300MA (450 max) SOT23-5 2.5-6 Vin 0.3Vd@0.3A	Diodes	AP2127K-1.8TRG1	U86	1	
(-40 to 125 DegC AEC) IC Translator 4ch BiDirer 0.8 to 3.6V 380MBps 16TSSOP	Nexperia	74AVC4T774PW-Q100J	U87	1	
(-40 to 85 DegC) IC USB TYPE-C CC LOGIC W/ DIR PIN 12-XFQFN	Texas Instruments	TUSB321AIRWBR	U95	1	
TestPoint TH			X1, X3, X10, X11, X12, X13, X14, X15, X16, X18, X19, X21, X22, X23, X24, X25, X28, X29, X30, X31, X32, X33, X34, X41, X42, X43, X45, X46, X47, X50, X51, X52, X53, X54, X55, X56, X57, X63, X65, X68, X70, X71, X72, X73, X74, X75, X76, X80, X82, X83, X84, X85, X86, X90, X93, X94, X95, X96, X102, X104, X107, X108, X109, X110, X111, X112, X113, X114, X115	69	
(-40 to 85 DegC) Test Point Hook Black TH	Keystone Electronics	5281	X2, X4, X5, X6, X7, X8, X9	7	
TestPoint SMD			X17, X20, X27, X36, X37, X38, X39, X48, X49, X59, X60, X61, X62, X64, X66, X67, X69, X87, X89, X91, X92, X98, X99, X100, X101, X103, X105, X106	28	
Battery Holder Coin 10mm SMD	Keystone Electronics	3030TR	XB1	1	
(-40 to 85 DegC) CRYSTAL 12MHZ 10PF SMD +30ppm +20ppm 3.2x2.5mm Caps:16pF	Abracon LLC	ABM8G-106-12.000MHZ-T	Y1	1	12 MHz
(-40 to 85 DegC) CRYSTAL 25.0MHZ 18PF SMD +50ppm +20ppm 3.2x2.5mm	IQD Frequency Products	LFXTAL055299REEL	Y2, Y3	2	25 MHz