

Desc	Mfr	MfrNo	Value	Designator	Quantity
CAP CER 1000PF 2KV X7R 1206	Johanson Dielectrics Inc.	202R18W102KV4E	1nF/2KV	C2, C102, C109, C163, C257	5
(-55 to 125 DegC) CAP FEEDTHRU 1UF 20% 100V 1206 6A	TDK Corporation	YFF31HC2A105MT000N	1uF/100V/6A	C3, C67, C68, C80	4
(-55 to 85 DegC) CAP CER 22UF 6.3V 20% X5R 0402	Murata	GRM155R60J226ME11D	22uF/6.3V	C4, C5, C6, C7, C8, C17, C21, C39, C58, C66, C86, C88, C89, C91, C123, C124, C158, C159, C165, C166, C174, C176, C180, C181, C239, C241, C242, C243, C253	29
(-55 to 125 DegC AEC) Cap Ceramic 0.1uF 50V X7R 10% 0402	Murata	GRT155R71H104KE01D	100nF	C14, C16, C25, C28, C30, C32, C36, C38, C44, C50, C62, C64, C82, C97, C100, C101, C103, C106, C108, C111, C114, C127, C128, C129, C130, C145, C147, C148, C150, C151, C152, C153, C154, C155, C157, C160, C167, C170, C171, C172, C173, C175, C182, C185, C186, C187, C188, C193, C194, C195, C196, C197, C198, C199, C201, C205, C206, C209, C213, C215, C216, C225, C244, C245, C246, C247, C248, C249, C250, C251, C252, C254, C256, C258, C259, C260	76
Cap Ceramic 10nF 50V X7R 10% 0402	Yageo	CC0402KRX7R9BB103	10nF	C18, C24, C29, C31, C33, C35, C37, C40, C42, C45, C46, C47, C51, C52, C53, C56, C57, C63, C65	19
Cap Ceramic 1uF 6.3V X5R 20% SMD 0402 85C Paper T/R	Samsung	CL05A105MQ5NNNC	1uF/6.3V	C19, C26, C43, C134, C136, C137, C138, C140, C141, C144, C146, C149, C161, C162	14
CAP CER 1000PF 50V 5% NP0 0402	Samsung Electro-Mechanics America, Inc	CL05C102JB5NNNC	1nF	C20, C27, C34, C41, C48, C49, C54, C55, C59, C60	10
CAP CER 12PF 50V 5% NP0 0402	Samsung Electro-Mechanics America, Inc	CL05C120JB5NNNC	12pF	C22, C23	2
(-55 to 85 DegC) CAP CER 22uF 16V X5R 0805	Samsung	CL21A226MOQNNNE	22uF/16V	C61, C71, C74, C92, C94, C95, C96, C98, C99, C104, C191, C192, C200, C202, C240	15
(-55 to 85 DegC) CAP CER 10UF 50V 10% X5R 1210	Samsung	CL31A106KBHNNNE	10uF/50V	C73, C77	2
	Murata	GRM1885C1H362JA01D	3.6nF	C81	1
(-55 to 125 Degc AEC) CAP CER 100PF 50V 5% NPO 0402	Murata	GCM1555C1H101JA16D	100pF	C83, C183, C184, C189, C190	5
	Generic	No Physical Component	DNP	C84, C87	2
(-55 to 85 DegC) CAP CER 100UF 6.3V X5R 1206	Yageo	CC1206MKX5R5BB107	100uF/6.3V	C107	1
CAP CER 4700PF 50V 5% NP0 0603	Murata Electronics North America	GRM1885C1H472JA01D	4.7nF	C131, C132	2
(-55 to 85 DegC) CAP CER 10UF 6.3V 20% X5R 0402	Murata	GRM155R60J106ME44D	10uF/6.3V	C133, C135, C143, C164	4
CAP CER 18PF 50V 5% NP0 0402	Samsung Electro-Mechanics America, Inc	CL05C180JB5NNNC	18pF	C139, C142	2
(-55 - 125 DegC) CAP CER 30PF 50V C0G/NP0 0603	Kyocera AVX	06035A300JAT2A14K	30pF	C156, C177, C178, C179	4

(-55 to 105 DegC) CAP ALUM POLY 33UF 6.3V 20% SMD 10mohm 6.6x6.6x6.1mm Ir:3.9A (100kHz)	United Chemi-Con	APXF6R3ARA331MF61G	330uF/6.3V	C168, C169, C255	3
	Yageo	CC0603KRX5R8BB105	1uF/25V	C234, C235, C236, C237, C238	5
(-55 to 150 DegC) TVS DIODE 33VWM Vbrm:36.7V Vstd:53.3VC SMA	Vishay Semiconductor Diodes Division	SMAJ33CA-E3/5A		D1, D14, D15, D16, D17, D23, D24, D25, D26, D27, D28	11
(-55 to 150 DegC) DIODE SCHOTTKY 5A 100V DO-214AC SMA 850mV@5A	MCC	SK510A-LTP		D2	1
(-40 to 85 DegC) LED GREEN 0603 50mcd	Kingbright	APT1608CGCK		D4, D6, D10, D11, D12, D13, D18, D20, D21, D22	10
(-40 to 85 DegC) LED RGB 2.1mm x 1.9mm x 1mm 4SMD vf=2V Red, 2.6V Green, 2.7V Blue	Broadcom	ASMB-LTC3-0D335		D5, D7, D8, D9	4
(-65 to 150 DegC) DIODE ARRAY SeriesConnection 85V 140MA SOT23-3 Low Leakage Ilk=5nA	Diodes Incorporated	BAV199-7-F		D19	1
(-55 to 150 DegC) DIODE GEN PURP 100V 300MA SOD123	Diodes	1N4148W-7-F		D29, D30	2
(-65 to 155 DegC) TVS DIODE Vwm:5V Vcl:14V@6A SOD-923	Diodes	D5V0L1B2S9-7		D31, D32	2
(-55 to 125 DegC AEC) FUSE BOARD MOUNT 5A SLOW 125VAC/VDC	Bel	0680L5000-05		F1	1
	Generic	No Physical Component		J1	1
(-40 to 105 DegC) CONN HEADER VERT 8x2 16POS Shroud Latch Lock/Eject Hooks, Short 1.27MM SMT	CNC Tech	3210-16-001-12-00		J2	1
(-40 to 105 DegC) TERM BLOCK HDR 2POS 90DEG RA 3.5MM 8A ScrewFlange Black	Molex	395061002		J3	1
(-40 to 85 DegC) Conn USB TYPE C RA SMT/TH	Global Connector Technology	USB4105-GF-A-120		J4	1
(-50 to 100 DegC) TERM BLOCK HDR 20POS 90DEG 3.5MM	Weidmuller	1728700000		J5, J6	2
(-40 to 85 DegC) CONN MAGJACK 1PORT 1000 BASE-T Isolated Taps	Pulse	JXD0-0025NL		J7, J10	2
(-55 to 85 DegC) CONN MINI EXPRESS CARD 52POS SMD	TE Connectivity	1775862-2		J8	1
(-40 to 85 DegC) CONN SIM NANO PUSH PULL 6P, 1.35mm height	Global Connector Technology	SIM8055-6-1-14-00-A		J9	1
(-55 to 85 DegC) CONN MINI EXPRESS CARD LATCH SMD	TE Connectivity	1717832-2		J11	1
(-40 to 85 DegC) CONN MICRO SD CARD PUSH-PUSH R/A	Global Connector Technology	MEM2052-00-195-00-A		J12	1
(-55 to 125 DegC) CONN HEADER VERT 10POS 2x5 1.27MM SMT Gold Shroud	Samtec	FTSH-105-01-L-DV-K-TR		J13	1
(-40 to 105 DegC)	Sullins	GRPB021VWVN-RC		J14, J18, J19, J20, J21	5
(-40 to 105 DegC) CONN FFC SIDE 34POS 0.5MM VERT	Amphenol ICC / FCI	F314-1A7H1-11034		J15	1
(-40 to 85 DegC) Conn USB 3.1 Type A R/A TH	Amphenol Commercial	GSB4112312HR		J16	1

	Generic	No Physical Component		J17	1
(-55 to 125 DegC AEC) FERRITE BEAD 600ohm 1206 2.5A 50mohm R@1A@150MHz:40.7ohm	Würth Electronics	78279221601	600ohm/2.5A	L2, L8, L9	3
(-55 to 125 DegC) FERRITE BEAD 330 OHM 0603 1.7A 80mohm, typ 48mohm	TDK Corporation	MPZ1608S331ATA00	330 ohm/1.7A	L3, L5, L6, L7, L15, L16, L17, L24, L25, L26, L27, L28, L29, L30, L31, L32, L33, L34, L40	19
(-40 to 125 DegC) FIXED IND 1UH I:5.5A Isat:6.5A 32mohm max 26mohm typ, full-shield SMD 1210	Bourns	SRP3212-1R0M	1uH/5.5A	L11	1
(-40 to 125 DegC) CMC Choke 15A 60OHM 10x6x4mm 15A 0.7mohm	Laird-Signal Integrity Products	CM3421Y600R-10	60 ohm/15A	L12	1
(-55 to 125 DegC) FIXED IND 4.7UH FullShield 5.5A, 9A sat 40mohm 7.3x6.6x3.0mm	Pulse	BMRA000606304R7MA1	4.7uH/5.5A	L13	1
	Bourns Inc.	SRF2012-900YA	90 ohm/0.4A	L18	1
(-40 to 85 DegC) Ind CMC Choke 12 Ohm 0.1A 1ohm 0.85x0.65x0.5mm	Panasonic	EXC-14CH120U	12 ohm/0.1A	L35, L36, L37, L38, L39	5
Lightpipe R/A for 1210 size LEDs. 3.2mm x 1.8mm lens size. Board mount, press fit.	Lumex	LPF-S014331S		LP1	1
(-55 to 85 DegC) CONN DDR4 SODIMM 260P 5.2H STD	TE Connectivity	2309409-2		M1	1
(-55 to 155 DegC) ROUND STANDOFF M2X0.4 STEEL 7MM for Verdin	Würth Electronics	9774070243R		ME1, ME2	2
(-55 to 155 DegC) ROUND STANDOFF M2X0.4 STEEL 2.5MM for Verdin	Würth Electronics	9774025243R		ME3, ME4	2
(-40 to 85 DegC) SSR RELAY SPST-NO 2A 0-40V 90mOhm typ 5x12.5mm	Toshiba	TLP241A(TP1,F		PR1, PR2, PR3, PR4	4
(-40 to 85 DegC) PTC Ih:0.1A, It:0.3A, 60V, 1812, 1.6-15ohm	Bel	0ZCG0010FF2C		PTC1, PTC2, PTC3, PTC4, PTC5, PTC6, PTC7, PTC8	8
(-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		Q1, Q2, Q3, Q4, Q9, Q10, Q11, Q14, Q15	9
(-55 to 155 DegC) MOSFET N-CH 25V 220MA SOT-23 Vth:1.1V Ron typ:4ohm@3V Vgsm:8V	Fairchild/ON Semiconductor	FDV301N		Q5, Q6, Q7, Q8, Q13	5
(-55 to 155 DegC AEC) RES 120 OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT120R	120	R1, R2, R123, R124, R125, R126, R190	7
(-55 to 155 DegC) RES SMD 1M OHM 5% 0.25W 10ppm 1206	TE Connectivity	CRGCQ1206J1M0	1M/0.25W	R3, R55, R66, R131, R214	5
(-55 to 155 DegC AEC) RES 27K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT27K0	27K	R4, R36, R37, R51, R53, R54, R57, R58, R61, R62, R63, R106, R107, R108, R109, R133, R141, R146, R223	19
(-55 to 155 DegC) RES 0.0 OHM 1/10W JUMP 0603, [NoParam]	Samsung	RC1608J000CS	0	R5, R23, R119, R142, R143, R209, R217, R218, R219	9
	Generic	No Physical Component	DNP	R6, R22, R29, R59, R60, R132, R154, R157	8

(-55 to 155 DegC AEC) RES 1K OHM 1% 1/16W 100ppm 0402	TE Connectivity	CRGCQ0402F1K0	1K	R7	1
(-55 to 155 DegC AEC) RES 10K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT10K0	10K	R12, R13, R15, R16, R17, R18, R24, R25, R26, R28, R39, R67, R70, R71, R74, R75, R78, R79, R81, R149, R166, R167, R197, R198, R200, R202, R206, R210, R211, R212, R215, R221, R222, R225, R226, R227, R228, R263, R272, R273, R274, R275, R276	43
(-55 to 155 DegC) RES 100K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-07100KL	100K	R14, R27, R127	3
(-55 to 155 DegC) RES 100 OHM 1/10W 1% 0603	Yageo	RC0603FR-07100RL	100	R19, R20	2
(-55 to 155 DegC) RES 6.04K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF6041X	6.04k	R21	1
(-55 to 155 DegC) RES SMD 200K 1% 1/10W 0603 100ppm	Stackpole Electronics	RMCF0603FT200K	200K	R32, R48, R134, R182	4
(-55 to 155 DegC AEC) RES 12K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT12K0	12K	R35, R38, R52, R56, R121, R129, R139, R150, R185	9
(-55 to 155 DegC AEC) RES 1.87K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT1K87	1.87K	R40, R68, R72, R73, R77, R80, R83, R85, R98, R99, R100, R101, R135, R140, R147, R151, R152, R153, R160, R161, R162, R163, R183, R184, R193, R194, R204, R205, R207, R208, R220, R224	32
(-55 to 155 DegC AEC) RES 6.49K OHM 1% 0.25W 0805 100ppm	KOA Speer	RK73H2ATTD6491F	6.49K/0.25W	R41, R43	2
(-55 to 155 DegC) RES 4.70K OHM 1/16W 1% 0402 100ppm	Yageo	RC0402FR-074K7L	4.7K	R47, R49, R50, R69, R76, R82, R136, R137, R168, R169, R170, R171, R172, R173, R180, R181, R203, R264, R269, R270, R271	21
(-55 to 155 DegC AEC) RES 887K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT887K	887K	R64	1
RES SMD 274 OHM 1% 1/10W 0603	Yageo	RC0603FR-07274RL	274	R65, R155, R195, R196	4
(-55 to 155 DegC AEC) RES 86.6K OHM 1% 1/16W 100ppm 0402	Stackpole Electronics	RMCF0402FT86K6	86.6K	R84, R174, R175	3
(-55 to 155 DegC) RES 0.0 OHM 1/4W JUMPER 1206	TE	1623693-1	0.0/1206	R90, R91, R189, R233, R234, R235, R236, R237, R238, R239, R240, R241, R242, R243, R244, R245, R246, R247, R248, R249, R250, R251, R252, R253, R254, R255, R256, R257, R258, R259, R260, R261, R262	33
(-55 to 155 DegC) RES SMD 60.4k OHM 1% 1/10W 0603	Bourns	CR0603-FX-60R4ELF	60.4	R94, R95, R96, R97, R138, R148	6
RES SMD 680 OHM 1% 1/10W 0603	Yageo	RC0603FR-07680RL	680	R102, R103, R104, R105	4
(-55 to 155 DegC) RES SMD 10 OHM 5% 2W Pulse 2512	Bourns	CRM2512AJW-100ELF	10/2W/5%	R110, R111, R112, R113	4
	Yageo	RC0402FR-072K49L	2.49K	R114, R118	2
(-55 to 155 DegC) RES 5.76K OHM 1/16W 1% 0402 SMD	Stackpole Electronics	RMCF0402FT5K76	5.76k	R115, R120	2
	Generic	No Physical Component	DNP	R116, R117, R199, R201, R265, R266, R267, R268	8

(-55 to 155 DegC AEC) RES SMD 11K OHM 1% 1/16W 0402 100ppm 0402	Yageo	AC0402FR-0711KL	11K	R122	1
[NoParam], (-55 to 155 DegC) RES 47.0K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-0747KL	47K	R128, R130, R156	3
RES SMD 100 OHM 0.01% 0.5W 1206 5ppm	Stackpole Electronics	RNCF1206TKY100R	100/0.01%/0.5W	R158, R159	2
(-55 to 155 DegC) RES SMD 6.49K OHM 1% 1/16W 0402	Yageo	RC0402FR-076K49L	6.49K	R164, R165, R186	3
RES SMD 6.8K OHM 1% 1/10W 0603	Yageo	RC0603FR-076K8L	6.8K	R213, R216	2
(-55 to 125 DegC) RES ARRAY 4 RES 10K 1% 200ppm 1206	Yageo	TC164-FR-0710KL	4 x 10K	RA1, RA2	2
(-55 to 125 DegC) RES ARRAY 4 RES 10 KOHM 30 KOHM 1206	Vishay Beyschlag	ACASA1002S3002P100		RA6, RA7	2
(-30 to 85 DegC) SWITCH TACTILE SPST-NO Push Button RA 4.5x2.8x4.5mm	XKB Connectivity	TC-1109DE-C-A		S1, S2	2
(-55 to 85 DegC) IC TVS DIODE 4ch Vrm:5.5V Vcl:11V@5.5A 10-UFDNF 0.5mm	Diodes	DT1240-04LP-7		U1, U2, U15, U27, U28, U34, U36, U69, U70, U71	10
(-40 to 125 DegC AEC) TVS DIODE 5.5VWM 16VC SOT-23-6	Texas Instruments	TPD4E001QDBVRQ1		U4, U33, U66, U67	4
(-40 to 85 DegC) IC EEPROM 2KBIT (256B) 400KHZ 1.7-5.5V adr 0x50-57 2x3mm 8-UFDNF	STMicroelectronics	M24C02-FMC6TG		U5	1
(-55 to 125 DegC) IC Temp Sensor I2C 1.7-5.5V WSON8	Texas Instruments	TMP1075DSGR		U7	1
(-40 to 85 DegC) IC USB 3.0 HUB 4-PORT 68QFN	Infineon Technologies	CYUSB3304-68LTXI		U8	1
(-40 to 85 DegC) IC REG BUCK ADJ Sync 5A Vin:3.8 to 40V 100-2200kHz FSS (spread spectrum) MaxDuty:100% SO-8EP	Diodes	AP2132BMP-2.5TRG1		U9, U29, U30, U32, U65	5
(-40 to 125 DegC) IC IC REG BUCK ADJ 2.2MHz Vin:2.4-5.5V Io:3A Sync 8-VFDNF 8VSON-HR	Texas Instruments	TPS62823DLCR		U10	1
(-40 to 85 DegC) IC REG BUCK ADJ Sync 5A Vin:3.8 to 40V 100-2200kHz FSS (spread spectrum) MaxDuty:100% SO-8EP	Diodes	AP64500SP-13		U11	1
(-40 to 85 DegC) IC USB TYPE-C CC LOGIC AND PORT Control 12-X2QFN	Texas Instruments	TUSB320LIRWBR		U13	1
(-40 to 85 DegC) IC PWR SWITCH 2.8-5.5V EN-Active-High ENth:2.0V No-Discharge 89mohm typ ADJ 0.2-1.7A 6SSOP	Rohm	BD2222G-GTR		U14	1
(-40 to 125 DegC) IC TRANSLATION TXRX 0.65-3.6V 24UQFN	Texas Instruments	SN74AXC8T245RJWR		U16, U48	2
(-40 to 125 DegC) IC TXRX CAN FD 8MBPS Vio:1.8-5V Standby 8SOIC	Texas Instruments	TCAN1044VDRQ1		U22, U23	2
(-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		U24, U25	2
(-40 to 105 DegC) Eth Phy RGMII 1GBASE-T VQFN-48	Texas Instruments	DP83867ERGZR		U26	1
(-40 to 85 DegC) IC TRANSLTR BIDIRECTIONAL I2C SM8	Texas Instruments	PCA9306DCTR		U31, U47	2

(-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		U35, U64, U68	3
(-40 to 155 DegC) IC Current Loop Protector 50V TSOT-23-8	Texas Instruments	TPS26614DDFR		U37, U38	2
(-40 to 125 DegC) IC ADC 16BIT 4ch 1000SPS 16-TSSOP I2C Adr 0x40-0x4F IntRef SigmaDelta	Texas Instruments	ADS1119IPWR		U39, U40	2
(-40 to 125 DegC) IC REG LDO ADJ 0.15A SOT23-5 13.2V	Diodes Incorporated	AP2202K-ADJTRG1		U41, U42	2
(-40 to 125 DegC) IC TXRX 5V RS485/422 8-SOIC	Texas Instruments	SN65176BDR		U52	1
	ST	ST3232BTR		U56	1
(-65 to 150 DegC) TVS DIODE 2-CH 15VWM 44VC ESD:30KV TO236AB	Nexperia	PESD15VL2BT,215		U57, U58, U59	3
(-65 to 150 DegC AEC) IC CURRENT SOURCE SOT353 75V 50uA-50mA	Nexperia USA Inc.	PSSI2021SAY,115		U60, U61	2
OPTOISO 3.75KV TRANS 6-SO 4 LEAD TR:100-300%@5mA, 80V, 3.7x7mm	Toshiba	TLP185(GR-TPL,SE		U62, U63	2
(-40 to 105 DegC) Battery Holder Coin 12mm SMD 1216/1220/1225	Keystone Electronics	3000		XS1	1
(-20 to 70 DegC) XTAL CRYSTAL 26.0000MHZ 12PF SMD +10ppm +10ppm 3.2x2.5mm	Murata Electronics	XRCGB26M000F1SADR0	26 MHz	Y1	1
(-40 to 85 DegC) CRYSTAL 25.0MHZ 18PF SMD +50ppm +20ppm 3.2x2.5mm	IQD Frequency Products	LFXTAL055299REEL	25 MHz	Y2	1