

Item #	Part Name	Designator	Qty	Manufacturer	Mfg Part #	Description / Value	Package/Footprint	Type
1	Capacitor	C9	1	TDK	CGA4J3X7S1A106KT000N	10uF ±10% 10V X7S 0805 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0805_C	SMD
2	Capacitor	C1,C2,C10, C14, C15, C19, C34	7	Yageo	CC0402KRX5R7BB104	100nF ±10% 16V X5R 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0402_C	SMD
3	Capacitor	C11, C13	2	Murata	GRM21BR71H104KA01L	100nF ±10% 50V X7R 0805 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0805_C	SMD
4	Capacitor	C3	1	Darfon Elec	C1005X7R332KGTS	3.3nF ±10% 50V X7R 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0402_C	SMD
5	Capacitor	C4, C5, C16, C21	4	Taiyo Yuden	EMK325ABJ107MM-P	100uF ±20% 16V X5R 1210 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	1210_C	SMD
6	Capacitor	C6, C7	2	CCTC	TCC0402C0G220J500AT	22pF ±5% 50V C0G 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0402_C	SMD
7	Capacitor	C8,C155	2	Darfon Elec	C1005X5R105KCT	1uF ±10% 6.3V X5R 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0402_C	SMD
8	Capacitor	C12	1	Yageo	CC0402KRX7R8BB223	22nF ±10% 25V X7R 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0402_C	SMD
9	Capacitor	C17	1	Yageo	CC0402KRX7R7BB472	4.7nF ±10% 16V X7R 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0805_C	SMD
10	Capacitor	C18	1	Walsin Tech Corp	0805N621J500CT	620pF ±5% 50V NP0 0805 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0805_C	SMD
11	Capacitor	C20	1	TDK	CGA4J3X7R1C475KT0Y0S	4.7uF ±10% 16V X7R 0805 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0805_C	SMD
12	Capacitor	C32, C33	2	TDK	C2012X5R1A226MT000N	22uF ±20% 10V X5R 0805 Multilayer Ceramic Capacitors MLCC - SMD/SMT RoHS	0805_C	SMD
13	Diode	D1	1	ON Semiconductor	NRVB120VLSFT1G	DIODE	SOD-123FL	SMD
14	Microprocessor	1C1	1	Microchip Tech	ATMEGA32U4-AU	8-Bit FLASH AVR 16MHz 2.7V ~ 5.5V QFP-44_10x10x08P ATMEL & AVR RoHS	TQFP44	SMD
15	Over Current Protection	IC2	1	Analog Devices Inc.	LTC4361ITS8-1#TRMPBF	Handheld/Mobile Devices PMIC TSOT-23-8	TSOT-23-8	SMD
16	Inductor	L3	1	Suntech Tech	SLO0630H3R3MTT	3.3uH ±20% SMD, 7.1x6.6x3mm Power Inductors RoHS		SMD
17	Inductor	L4	1	EMTEK	PIS2D18LP-1R5M-T	1.5uH ±20% 900mA 48mΩ SMD, 3.2x3.2x1.8mm Power Inductors RoHS		SMD
18	Resistor	R1, R4, R5, R10, R14, R15, R16, R30, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73	19	Panasonic	ERJ3GEYJ103V	10kΩ ±5% 0.1W ±200ppm/°C 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
19	Resistor	R2, R3	2	TyoHM	RMC0603221%N	22Ω ±1% 0.1W 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
20	Resistor	R6, R7, R31	3	UNI-ROYAL(Uniroyal Elec)	1206W4F250MT5E	0.025Ω ±1% 1/4W ±800ppm/°C 1206 Low Resistors & Current Sense Resistors - Surface Mount RoHS	1206_R	SMD
21	Resistor	R8, R19, R41	3	Panasonic	ERJ3RBD4701V	4.7kΩ ±0.5% 0.1W ±50ppm/°C 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
22	Resistor	R9, R32	2	TyoHM	RMC06031005%N	100Ω ±5% 0.1W 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
23	Resistor	R11, R26	2	Panasonic	ERJ3EKF4303V	430kΩ ±1% 0.1W ±100ppm/°C 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
24	Resistor	R12, R17, R27, R28, R77	5	Panasonic	ERJPB3D1003V	100kΩ ±0.5% 0.2W ±50ppm/°C 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
25	Resistor	R13	1	Yageo	RC0603FR-0764K9L	64.9kΩ ±1% 0.1W ±100ppm/°C 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
26	Resistor	R18	1	Panasonic	ERA3AEB1053V	105kΩ ±0.1% 0.1W ±25ppm/°C 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD
27	Resistor	R29	1	Viking Tech	AR03FTC4532	45.3K ±1% 1/16W 0603 High Precision & Low TCR SMD Resistors RoHS	0603_R	SMD
28	Resistor	R33	1	Yageo	AC0603FR-0747KL	47kΩ ±1% 0.1W ±100ppm/°C 0603 Chip Resistor - Surface Mount RoHS	0603_R	SMD

29	Battery Charger IC	U\$2	1	Analog Devices	LTC3119EFE#PBF	18V 5A TSSOP-28 DC-DC Converters RoHS	TSSOP-28	SMD
30	Current sensor IC	U2,U4	2	Analog Devices	LT6106CS5#TRPBF	High Side 2.7V~36V 2.7V~36V TSOT-23-5 PMIC - Current & Power Monitors & Regulators RoHS	TSOT-23-5	SMD
31	SMA Connector	X2	1	Linx Technologies Inc.	CONSMA001-SMD-G	SMA Connector Receptacle, Female Socket 50Ohm Surface Mount Solder		SMD
32	DC/DC Connector	U3	1	Texas Instruments	LM2830XQMF/NOPB	5.5V 1A SOT-23-5 DC-DC Converters RoHS	SOT-23-5	SMD
33	Oscillator	Q1	1	Abrocon	ABLS-16.000MHZ-B4-T	16MHz ±30ppm Crystal 18pF 40 Ohms HC-49/US	49SMD	SMD
34	LoRa module	TX	1	RF Solutions	RFM98W-433S2	802.15.4, General ISM < 1GHz LoRa™ Transceiver Module 433MHz Surface Mount	MODULE	SMD
35	Micro USB connector	J4	1	Amphenol ICC (FCI)	10118194-0001LF	USB - micro B USB 2.0 Receptacle Connector 5 Position Surface Mount, Right Angle; Through Hole		SMD
36	MOSFET	TR1	1	Toshiba	SSM6K411TU(TE85L,F)	N-Channel 20V 10A (Ta) 1W (Ta) Surface Mount UF6		SMD
37	Flash memory	FM	1	Micron Technology Inc.	MT25QL01GBBB8ESF-0SIT	FLASH - NOR Memory IC 1Gb (128M x 8) SPI 133MHz 16-SO	16SOIC	SMD
38	Battery Holder	CELL1	1	Keystone Electronics	1043	BATTERY HOLDER 18650 PC PIN		DIP
39	Real Time Clock	J3	1	Adafruit Industries LLC	3295	PCF8523 Real Time Clock (RTC) Timing Evaluation Board		DIP
40	USB connector	J4	1	Amphenol ICC	10103594-0001LF	USB connector, female Amphenol FCI		DIP
41	4 pin connector	JP2, JP3, JP4, JP5, JP11, JP12, JP13, JP15, JP16	9	Sullins Connector Solutions	PPTC022LFBN-RC	4 Position Header Connector Through Hole		DIP
42	6 pin connector	JP7, JP8, JP9	3	Sullins Connector Solutions	PPTC032LFBN-RC	6 Position Header Connector Through Hole		DIP
43	6 pin connector	JP1	1	Sullins Connector Solutions	PREC003DFAN-RC	CONN HEADER VERT 6POS 2.54MM		DIP
44	2 pin connector	JP10, JP14	2	Useconn Electronics Ltd	PH-1x40SG	2.54mm pitch type. Single in-line type (single column type).		DIP