

Cnt	Part References	P/NP	Mfg	Mfg PN	Description	Dist	Dist Part Number	Cost Ea.	Shipping	Cost Total
1	U1	NP	Mini Circuits	ZX60-P33ULN+	Connectorized SMA, Low Noise, Medium Power, Linear Amplifier, 400 MHz to 3000 MHz, 50Ω	Mini Circuits	ZX60-P33ULN+	\$145.41	\$15.69	\$161.10
1	U2	NP	Analog Devices	ADALM-PLUTO	Software-Defined Radio Active Learning Module	Analog Devices	ADALM-PLUTO	\$233.00	\$35.00	\$268.00
3	AE1	NP	OnlineMetals	1606	72" (6 ft) 0.125" Copper Round Bar 110-H04	OnlineMetals	1606	\$5.55	\$0.00	\$16.65
4	AE1	NP	TE Connectivity Linx	CONN003-W	N Connector	DigiKey	343-CONN003-W-ND	\$8.33	\$6.99	\$40.31
4	U3, U4	P	Skyworks Solutions Inc.	SKY13588-460LF	RF Switch IC WLAN SP3T 6 GHz 500hm 12-QFN (2x2)	DigiKey	863-1817-1-ND	\$1.95		\$7.80
2	U5	P	Texas Instruments	SN74AVC2T244DQER	Voltage Level Translator Unidirectional 1 Circuit 2 Channel 380Mbps 8-X2SON (1.4x1)	DigiKey	296-29673-1-ND	\$0.95		\$1.90
3	U6	P	Microchip Technology	MIC5365-1.8YC5-TR	Linear Voltage Regulator IC Positive Fixed 1 Output 150mA SC-70-5	DigiKey	576-3181-1-ND	\$0.12		\$0.36
3	U7	P	Microchip Technology	MIC5365-3.3YC5-TR	Linear Voltage Regulator IC Positive Fixed 1 Output 150mA SC-70-5	DigiKey	576-3193-1-ND	\$0.12		\$0.36
2	J5	P	Phoenix Contact	1729144	4 Position Wire to Board Terminal Block Horizontal with Board 0.200" (5.08mm) Through Hole	DigiKey	277-1249-ND	\$1.61		\$3.22
3	C8	P	Murata Electronics	GRM21BR61C106KE15K	10uF bypass caps	DigiKey	490-6473-1-ND	\$0.15		\$0.45
10	C5, C7	P	Samsung Electro-Mechanics	CL21A475KAQNNNE	CAP CER 4.7UF 25V X5R 0805	DigiKey	1276-1244-1-ND	\$0.10		\$1.00
3	D1	P	SMBJ5.0A-13-F	Diodes Incorporated	TVS DIODE 5VWM 9.2VC SMB	DigiKey	SMBJ5.0A-FDICT-ND	\$0.25		\$0.75
3	C6	P	Yageo	C0805C561J5GACTU	560 pF ±5% 50V Ceramic Capacitor COG, NP0 0805 (2012 Metric)	DigiKey	399-C0805C561J5GACTUCT-ND	\$0.11		\$0.33
3	Q1	P	Diodes Incorporated	DMP2008UFG-7	MOSFET P-CH 20V 14A PWRDI3333	DigiKey	DMP2008UFG-7DICT-ND	\$0.55		\$1.65
3	U13	P	Microchip Technology	MIC23050-SYML-TR	Buck Switching Regulator IC Positive Fixed 3.3V 1 Output 600mA 8-VFDFN Exposed Pad, 8-MLF®	Digikey	576-3351-1-ND	\$0.53		\$1.59
3	J7, J8	P	Assmann WSW Components	AU-Y1005-2	USB-A (USB TYPE-A) USB 2.0 Receptacle Connector 4 Position Through Hole, Right Angle	DigiKey	AE11191-ND	\$0.69		\$2.07
6	J1-J4	P	Phoenix Contact	1729128	2 Position Wire to Board Terminal Block Horizontal with Board 0.200" (5.08mm) Through Hole	DigiKey	277-1247-ND	\$0.79		\$4.74
3	R1	P	Panasonic Electronic Components	ERJ-6GEYJ104V	RES SMD 100K OHM 5% 1/8W 0805	DigiKey	P100KACT-ND	\$0.10		\$0.30
3	F2	P	Littelfuse Inc.	RGEF300K-2	PTC RESET FUSE 16V 3A RADIAL	DigiKey	RGEF300K-2HFCT-ND	\$0.64		\$1.92
3	F3	P	Bel Fuse Inc.	OZCK0020FF2G	PTC RESET FUSE 9V 200MA 0805	DigiKey	5923-OZCK0020FF2GCT-ND	\$0.23		\$0.69
3	L1	P	TDK Corporation	MLZ2012M1R0HT000	FIXED IND 1UH 800MA 100 MOHM SMD	DigiKey	445-8657-1-ND	\$0.10		\$0.30
1	ND	NP	JLPCPB	N/A	Power Board PCB Cost	JLPCPB	NA	\$3.20	\$1.50	\$4.70
1	U8	NP	UGREEN	634475546338	USB to Ethernet Adapter, 1000Mbps Ethernet Adapter with USB 3.0	Amazon	B00MYTSN18	\$9.99		\$9.99
1	U9	NP	DSLRKIT	LS-POE-1220MK2 2.5G 5.5x2.1	2.5G Gigabit Active PoE Splitter 12V 2A 24watt DC 5.5x2.1mm Ethernet 802.3AT	Amazon	B0CRGR35DM	\$16.99		\$16.99
1	U10	NP	PoE Texas	GAT-50V30W	PoE Texas DC-Powered PoE+ (30 watt) Gigabit Inline Injector	Amazon	B0CRVQ4GZ1	\$21.99		\$21.99
1	ND	NP	Kxable	KXCAT5E-50F-1P-WH	Cat5e Ethernet Cable 50 FT,White Snagless Patch Cord, UV Resistant, Flexible, Network, LAN, PoE	Amazon	B0BJNZ71K3	\$8.49		\$8.49
1	ND	NP	LitStar	N/A	12V 3A Adapter Power Supply AC to DC Plug 5.5 x 2.1mm & 2.5mm for 3.3ft Cord	Amazon	B08CZ7Z9TB	\$9.99		\$9.99
3	J10, J9	P	Cinch Connectivity Solutions Johnson	142-0711-821	CONN SMA JACK STR 50OHM EDGE MNT	DigiKey	J629-ND	\$6.64	\$12.99	\$32.91
3	ND	NP	Mini-Circuits	141-2SM+	Cable Assembly Coaxial SMA to SMA Hand Formable .141 2.000" (50.80mm)	DigiKey	3157-141-2SM+-ND	\$16.26		\$48.78
1	U15	P	Mini-Circuits	BPF-A1340+	RF FILTER BANDPASS 1.34GHZ 18SMD	DigiKey	3157-BPF-A1340+CT-ND	\$71.27		\$71.27
3	C10	P	Samsung Electro-Mechanics	CL21B104MACNNNC	0.1 µF ±20% 25V Ceramic Capacitor X7R 0805 (2012 Metric)	DigiKey	1276-2449-1-ND	\$0.10		\$0.30
3	C11	P	YAGEO	CC0805KRX7R8BB332	3300 pF ±10% 25V Ceramic Capacitor X7R 0805 (2012 Metric)	DigiKey	311-4318-1-ND	\$0.10		\$0.30
3	C12	P	Samsung Electro-Mechanics	CL21A226MQQNNNE	22 µF ±20% 6.3V Ceramic Capacitor X5R 0805 (2012 Metric)	DigiKey	1276-1100-1-ND	\$0.12		\$0.36
2	L2	P	Eaton - Electronics Division	DRA73-2R2-R	FIXED IND 2.2UH 4.18A 16MOHM SMD	DigiKey	283-DRA73-2R2-RCT-ND	\$1.75		\$3.50
10	R3,R4	P	YAGEO	RC0805JR-070RL	RES 0 OHM JUMPER 1/8W 0805	DigiKey	311-0.0ARCT-ND	\$0.10		\$1.00
2	U14	P	Texas Instruments	TPS62133RGTR	Buck Switching Regulator IC Positive Fixed 5V 1 Output 3A 16-VFQFN Exposed Pad	DigiKey	296-29937-1-ND	\$1.71		\$3.42
3	D1	P	SMBJ12A-13-F	Diodes Incorporated	TVS DIODE 12VWM 19.9VC SMB	Digikey	SMBJ12A-FDICT-ND	\$0.26		\$0.78
3	Q1	P	DMP4047LFDE-7	Diodes Incorporated	MOSFET P-CH 40V 3.3A 6UDFN	Digikey	DMP4047LFDE-7DITR-ND	\$0.74		\$2.22
2	U13	P	MAX8510EXK30+T	Analog Devices Inc./Maxim Integrated	IC REG LINEAR 3V 120MA SC-70-5	Digikey	MAX8510EXK30+TCT-ND	\$1.84		\$3.68
12	C1, C2, C3, C4, C5, C7	P	YAGEO	CC0805JKX7R8BB105	CAP CER 1UF 25V X7R 0805	Digikey	13-CC0805JKX7R8BB105CT-ND	\$0.07		\$0.84
5	C6	P	Murata Electronics	GRM2195C1H103JA01D	CAP CER 10000PF 50V COG/NP0 0805	Digikey	490-1642-1-ND	\$0.18		\$0.90
1	ND	NP	UGREEN	10396P	2 Pack On The Go Adapter Micro USB to USB OTG Cable	Amazon	B00N9S9Z0G	\$7.91		\$7.91
								TOTAL:		\$765.81

VERSION INFO

Rev	Date	Notes
v1.0	2025-02-07	First Draft of Inclusive BOM, Added LNA.
v2.0	2025-02-14	Added SDR (MISSING SHIPPING COST)
v3.0	2025-02-21	Added Copper Rod
v4.0	2025-02-28	Updated cost for SDR from misordering
v5.0	2025-03-15	Updated Quantiy for Copper Rods
v6.0	2025-03-16	Fixed mismatched versions
v7.0	2025-03-16	Ordered Power Management Board, N Connectors, and Filter Board IC's
v8.0	2025-04-02	Ordered PoE Parts through Amazon
v9.0	2025-04-04	Ordered PoE Parts through Amazon
v10.0	2025-04-11	Updated Components Bought in 2nd DigiKey Order
v11.0	2025-04-26	Ordered Poe Parts through Amazon

Power Board	
PoE	
RF Board	