

Hermes-Lite 2.0beta2 BOM

Standard Build - November 21, 2016

Reference	Spec	Part No.	Supplier	SKU	Price	Qty	Total
B1,B2,B3,B4,B5,B6, B7,B8,B9,B10,B11, B12,B13,B14,B15,B16, B17,B18,B19,B20,B21, B22,B23,B24,B25,B26, B27,B28,B29,B30,B31, B32,B33,B34,B35,B36, B37,B38,B39,B40,B41, B42,B43,B44,B45,B46, B47,B48,B49,B50,B51, B52,B53,B54,B56,B57, B59,B60,B61,B62,B63, B64,B66,B67,B68,B69, B70,B71,B72,B73,B74, B75,B76,B77,B78,B79, B80,B81,B83,B84,B85, B86,B87,B88,B89,B90, B91,B92,B93,B94,B95, B96,B97,B98,B99,B100, B101,B102,B103,B104, B105,B106,B107,B108, B109,B110,B111,B113, B114,B115,B116,B117, B119,B120	0.1uF 0603 \geq X5R \geq 50V \leq 20%	C0603C104M5RACTU	Mouser	80-C0603C104M5R	0.01	114	1.03
C1,C2,C3,C4,C6,C7, C8,C9,C12,C25,C35, C38,C39,C40,C41,C44, C45,C62,C64,C66,C70	10uF 0603 \geq X5R \geq 6.3V \leq 20%	GRM188R60J106KE47D	Digi-Key	490-12538-1-ND	0.09	21	1.95
C5,C16,C22	100uF 1206 \geq X5R \geq 6.3V \leq 20%	GRM31CR60J107ME39K	Digi-Key	490-7217-1-ND	0.60	3	1.80
C13,C19,C27	4.7nF 0603 \geq X5R \geq 25V \leq 20%	CL10B472KB8NNNC	Digi-Key	1276-1098-1-ND	0.10	3	0.30
C14,C15,C20,C21	22uF 0805 \geq X5R \geq 6.3V \leq 20%	GRM21BR60J226ME39L	Digi-Key	490-1719-1-ND	0.24	4	0.96
C17,C23,C33	10uF 1206 \geq X5R \geq 25V \leq 20%	CL31A106KAHNNNE	Digi-Key	1276-1075-1-ND	0.22	3	0.66
C18,C24,C34	4.7uF 0805 \geq X5R \geq 25V \leq 20%	GRM21BR61E475KA12L	Digi-Key	490-3335-1-ND	0.15	3	0.45

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C26,C60,C61,C63,C65, C67,C68,C69,C71,C72, C73,C74	1uF 0603 \geq X5R \geq 6.3V \leq 20%	GRM188R61C105KA93D	Mouser	81-GRM39R105K16	0.02	12	0.22
C28,C29,C30,C31,C32	22uF 0805 \geq X5R \geq 25V \leq 20%	GRM21BR61E226ME44L	Mouser	81-GRM21BR61E226ME4L	0.40	5	2.00
C36,C37	15pF 0603NP0 \geq 6.3V \leq 5%	CC0603JRNPO9BN150	Digi-Key	311-1060-1-ND	0.10	2	0.20
C48,C150	10uF 0805 \geq X5R \geq 6.3V \leq 20%	GRM21BR60J106ME19L	Mouser	81-GRM21BR60J106ME19	0.10	2	0.20
C49	75pF 0805NP0 \geq 100V \leq 5%	08051A750JAT2A	Mouser	581-08051A750J	0.12	1	0.12
C50	150pF 0805NP0 \geq 100V \leq 5%	CC0805JRNPO0BN151	Digi-Key	311-1839-1-ND	0.13	1	0.13
C51	160pF 0805NP0 \geq 100V \leq 5%	GRM2165C2A161JA01D	Mouser	81-GRM2165C2A161JA1D	0.16	1	0.16
C52,C55,C57,C81	100pF 0805NP0 \geq 100V \leq 5%	CL21C101JCANNNC	Digi-Key	1276-1261-1-ND	0.10	4	0.40
C53	10pF 0805NP0 \geq 6.3V \leq 5%	CC0805JRNPO9BN100	Digi-Key	311-1099-1-ND	0.10	1	0.10
C56	180pF 0805NP0 \geq 100V \leq 5%	CC0805JRNPO0BN181	Mouser	603-CC805JRNPO0BN181	0.23	1	0.23
C84	270pF 0805NP0 \geq 100V \leq 5%	CL21C271JCANNNC	Digi-Key	1276-2627-1-ND	0.13	1	0.13
C144,C145,C146,C147, C151	1uF 0805 \geq X5R \geq 25V \leq 20%	CL21B105KAFNNNE	Digi-Key	1276-1066-1-ND	0.10	5	0.50
CN1	2x5 M 0.1in	67997-410HLF	Mouser	649-67997-410HLF	0.25	1	0.25
CN2	Power	OSTTC020162	Digi-Key	ED2600-ND	0.46	1	0.46
CN3	Eth MagJack	L829-1J1T-43	Mouser	530-L829-1J1T-43	5.72	1	5.72
CN4	4x2 M 0.1in HDR RA	61300821021	Digi-Key	732-5353-ND	0.70	1	0.70
CN11	2x1 M 0.1in HDR RA	M20-9960245	Mouser	855-M20-9960245	0.15	1	0.15
D1	TVS Diode	CDSOD323-T05L	Mouser	652-CDSOD323-T05L	0.87	1	0.87
D2,D3,D4,D5	LED RA	LTST-S220KFKT	Digi-Key	160-2031-1-ND	0.25	4	1.00
D8,D9,D10,D11	Schottky Barrier Diode	1N5711WS-7-F	Digi-Key	1N5711WS-FDICT-ND	0.42	4	1.68
EN1	Enclosure	Aluminum 100x100x50	EBay	EBay	9.00	1	9.00
F1	FUSE PTC 3.0A 24V	MF-LSMF300/24X-2	Mouser	652-MF-LSMF300/24X-2	0.56	1	0.56
FB1,FB2,FB3,FB4,FB5, FB6,FB7,FB8,FB9,FB10, FB11,FB12,FB13,FB14, FB15,FB17,FB18,FB19, FB20,FB23,FB24,FB25, FB26,FB28,FB30	FB 0603 100MHz 1A \leq 25%	MPZ1608S601ATA00	Digi-Key	445-2205-1-ND	0.08	25	1.98
J1,J2,J9,J10,J11, J14,J15,J19,J20,J21, J22,J24,J25,J26,J27, J29	00hm 0603 \leq 5% \geq 1/10W	RC0603JR-070RL	Mouser	603-RC0603JR-070RL	0.01	16	0.13
K2	Relay	EC2-3NU	Digi-Key	399-11042-5-ND	1.81	1	1.81
L1,L3	3.3uH \geq 2.4A	SRN5020-3R3M	Mouser	652-SRN5020-3R3M	0.36	2	0.72
L2	2.2uH \geq 2.4A	SRN5020-2R2Y	Mouser	652-SRN5020-2R2Y	0.36	1	0.36
L4,L7	240nH	LQW2BASR24J00L	Mouser	81-LQW2BASR24J00L	0.24	2	0.48

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L5,L6,L8,L9	270nH	LQW2BASR27J00L	Mouser	81-LQW2BASR27J00L	0.24	4	0.96
L10,L11	330nH	LQW2BASR33J00L	Mouser	81-LQW2BASR33J00L	0.24	2	0.48
L33,L34	00hm 0805 $\leq 5\% \geq 1/10W$	RC0805JR-070RL	Digi-Key	311-0.0ARCT-ND	0.10	2	0.20
PB1	PCB	PCB	Tindie	Tindie	18.00	1	18.00
PG1	Programmer	USB Blaster	EBay	EBay	3.00	1	3.00
Q1	MOSFET P-CH 30V	DMP3099L-7	Mouser	621-DMP3099L-7	0.33	1	0.33
Q2	Inductive Load Driver	NUD3124LT1G	Mouser	863-NUD3124LT1G	0.40	1	0.40
Q3,Q4	RF LDMOS	AFT05MS003NT1	Digi-Key	AFT05MS003NT1CT-ND	1.79	2	3.58
Q5	MOSFET N-CH 60V 300mA	2N7002K-T1-E3	Digi-Key	2N7002K-T1-E3CT-ND	0.20	1	0.20
Q6	Thermal Sensor	MCP9700T-E/TT	Digi-Key	MCP9700T-E/TTCT-ND	0.25	1	0.25
R1,R42,R50,R64	33 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0733RL	Digi-Key	311-33.0HRCT-ND	0.10	4	0.40
R2,R3,R4,R5,R6,R7, R15,R21,R22,R23,R24, R25,R27,R28,R29,R70, R75,R76,R79,R80	10K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-0710KL	Mouser	603-RC0603FR-0710KL	0.01	20	0.20
R10	2.2 0603 $\leq 5\% \geq 1/10W$	RC0603FR-072R2L	Digi-Key	311-2.2HRCT-ND	0.10	1	0.10
R11	35.7K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0735K7L	Digi-Key	311-35.7KHRCT-ND	0.10	1	0.10
R12	11.5K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0711K5L	Digi-Key	311-11.5KHRCT-ND	0.10	1	0.10
R14	20K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0720KL	Digi-Key	311-20.0KHRCT-ND	0.10	1	0.10
R19	16.2K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0716K2L	Digi-Key	311-16.2KHRCT-ND	0.10	1	0.10
R20,R26,R49,R65	2.2K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-072K2L	Digi-Key	311-2.20KHRCT-ND	0.10	4	0.40
R30,R31,R56,R59,R71, R72,R73,R74,R77,R78, R81,R82	330 0603 $\leq 1\% \geq 1/10W$	RC0603FR-07330RL	Mouser	603-RC0603FR-07330RL	0.01	12	0.12
R32,R33,R57,R58,R67, R68,R103,R108,R111, R114	1K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-071KL	Mouser	603-RC0603FR-071KL	0.01	10	0.10
R34	12.1K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0712K1L	Digi-Key	311-12.1KHRCT-ND	0.10	1	0.10
R43,R44,R48,R53,R106, R107	4.7K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-074K7L	Digi-Key	311-4.70KHRCT-ND	0.10	6	0.60
R46	1.5K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-071K5L	Digi-Key	311-1.50KHRCT-ND	0.10	1	0.10
R51,R63	22 0603 $\leq 5\% \geq 1/10W$	RC0603FR-0722RL	Digi-Key	311-22.0HRCT-ND	0.10	2	0.20
R52,R62	10 0805 $\leq 5\% \geq 1/4W$	ESR10EZPF10R0	Mouser	755-ESR10EZPF10R0	0.15	2	0.30
R54,R61,R94,R100	14 0805 $\leq 5\% \geq 1/4W$	ESR10EZPF14R0	Digi-Key	RHM14.0AECT-ND	0.16	4	0.64
R55	75 0603 $\leq 5\% \geq 1/10W$	RC0603FR-0775RL	Digi-Key	311-75.0HRCT-ND	0.10	1	0.10
R69	1.6K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-071K6L	Digi-Key	311-1.60KHRCT-ND	0.10	1	0.10
R92,R99	270 0805 $\leq 5\% \geq 1/8W$	RC0805FR-07270RL	Digi-Key	311-270CRCT-ND	0.10	2	0.20
R95,R101	1K 0805 $\leq 5\% \geq 1/8W$	RC0805FR-071KL	Digi-Key	311-1.00KCRCT-ND	0.10	2	0.20

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R104,R109,R112,R115	1.8K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-071K8L	Digi-Key	311-1.80KHRCT-ND	0.10	4	0.40
R105,R110,R113,R116	220K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-07220KL	Digi-Key	311-220KHRCT-ND	0.10	4	0.40
RF1,RF2	SMA Straight	5-1814832-1	Mouser	571-5-1814832-1	1.58	2	3.16
T1,T2	Binocular Core	BN43-2402	Kits&Parts	BN43-2402	0.25	2	0.50
T3	Binocular Core	BN43-202	Kits&Parts	BN43-202	0.50	1	0.50
U1	EEPROM 2Mx8bit >40MHz	S25FL116K0XMF1011	Mouser	797-25FL116K0XMF1011	0.48	1	0.48
U2	FPGA	EP4CE22E22C8N	Digi-Key	544-3193-ND	35.52	1	35.52
U3,U8,U16	Switching Regulator	ST1S10PHR	Digi-Key	497-6904-1-ND	1.98	3	5.94
U4	Gigabit EthPhy	KSZ9031RNXCC	Mouser	998-KSZ9031RNXCC	3.37	1	3.37
U6	Clock Generator	5P49V5923B000NLGI	Digi-Key	800-3404-ND	2.80	1	2.80
U7	RF ADC DAC	AD9866BCPZ	Mouser	584-AD9866BCPZ	34.59	1	34.59
U9	RF Preamplifier OpAmp	OPA2677IDAR	Digi-Key	296-22968-1-ND	3.90	1	3.90
U10,U11	RF Switch	4239-52	Digi-Key	1046-1023-1-ND	1.07	2	2.14
U13	Slow ADC	MAX11613EUA	Mouser	700-MAX11613EUA	1.76	1	1.76
U14	LDO 5V 150mA	LP2985-50DBVR	Mouser	595-LP2985-50DBVR	0.55	1	0.55
U15	Digital POT 10K	MCP4661-103E/ST	Digi-Key	MCP4661-103E/ST-ND	1.26	1	1.26
U17	LDO Regulator	TPS73025DBVR	Mouser	595-TPS73025DBVR	0.65	1	0.65
U18	OpAmp	LMV324IDR	Mouser	595-LMV324IDR	0.74	1	0.74
X1	25MHz	NX3225SA-25.000M-STD-CSR-3	Digi-Key	644-1267-1-ND	0.76	1	0.76
X2	38.4MHz 3.3V $\leq 10ppm$	ASTXR-12-38.400MHZ-514054-T	Digi-Key	535-13192-1-ND	2.18	1	2.18

Total Price: \$170.66

Line Items: SMT:73 Assembled TH:5 Manual TH:7 Total:85

Parts: SMT:360 Assembled TH:5 Manual TH:9 Total:374

Pins: SMT:1077 Assembled TH:48 Manual TH:24 Total:1149

Do Not Include: B55 B58 B65 B82 B112 B118 B121 C10 C11 C42 C43 C46 C47 C54 C58 C59 C75 C76 C77 C78 C79 C80 C82 C83 C85 C148 C149 CL1 CL2 CL3 CL4 CN5 CN6 CN7 CN8 CN9 CN10 CN12 D6 D7 DB1 DB2 DB3 DB4 DB5 DB6 DB8 DB9 DB10 DB11 DB12 DB13 DB14 DB16 DB17 DB18 DB19 DB20 DB22 DB23 DB24 DB26 DB27 DB28 FB27 FB29 J3 J4 J5 J6 J7 J8 J12 J13 J16 J17 J18 J23 J28 Q7 R8 R9 R13 R16 R17 R18 R35 R36 R37 R38 R39 R40 R41 R45 R47 R60 R83 R84 R85 R86 R87 R88 R89 R90 R91 R93 R96 R97 R98 R102 R117 R118 R119 R120 R121 R122 R125 RF3 U5 U12 X3