

Hermes-Lite 2.0beta4 BOM

Assembly Build - September 19, 2017

Part ID	Description	Part Number	Sub OK	Designators	Footprint	Pins	Quantity
15331	0.1uF 0603 \geq X5R \geq 50V \leq 20%	C0603C104M5RACTU	Y	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,B68,B69,B70, B71,B72,B73,B74,B75, B76,B77,B78,B79,B80, B81,B83,B84,B85,B86, B87,B88,B89,B90,B91, B92,B94,B97,B98,B99, B100,B101,B102,B103, B105,B106,B108,B109, B111,B113,B114,B115, B116,B118,B119,B120, B122	0603	2	108
20411	10uF 0603 \geq X5R \geq 6.3V \leq 20%	GRM188R60J106KE47D	Y	C1,C2,C3,C4,C6,C7, C8,C9,C12,C25,C35, C38,C39,C40,C41,C44, C45,C62,C64,C66,C70	0603	2	21
	100uF 1206 \geq X5R \geq 6.3V \leq 20%	GRM31CR60J107ME39K	Y	C5,C16,C22	1206	2	3
55004	4.7nF 0603 \geq X5R \geq 25V \leq 20%	CL10B472KB8NNNC	Y	C13,C19,C27,C90,C91	0603	2	5
46786	22uF 0805 \geq X5R \geq 16V \leq 20%	CL21A226MOCLRNC	Y	C14,C15,C20,C21,C28, C29,C30,C31,C32	0805	2	9
14236	10uF 1206 \geq X5R \geq 25V \leq 20%	CL31A106KAHNNNE	Y	C17,C23,C33,C43,C48, C86,C88	1206	2	7
2131	4.7uF 0805 \geq X5R \geq 25V \leq 20%	GRM21BR61E475KA12L	Y	C18,C24,C34	0805	2	3

Part ID	Description	Part Number	Sub OK	Designators	Footprint	Pins	Quantity
16531	1uF 0603 \geq X5R \geq 6.3V \leq 20%	GRM188R61E105KA12D	Y	C26,C60,C61,C63,C65, C67,C68,C69,C71,C72, C73,C74	0603	2	12
1996	15pF 0603NP0 \geq 6.3V \leq 5%	CC0603JRNPO9BN150	Y	C36,C37	0603	2	2
29074	1uF 0805 \geq X5R \geq 25V \leq 20%	CL21B105KAFNNNE	Y	C46,C89,C144,C145, C146,C147	0805	2	6
	75pF 0805NP0 \geq 50V \leq 5%	C0805C750J1GACTU	N	C49	0805	2	1
	150pF 0805NP0 \geq 50V \leq 5%	CC0805JRNPO0BN151	N	C50	0805	2	1
	160pF 0805NP0 \geq 50V \leq 5%	GRM2165C2A161JA01D	N	C51	0805	2	1
2142	100pF 0805NP0 \geq 50V \leq 5%	CC0805JRNPO0BN101	N	C52,C57,C81	0805	2	3
2137	10pF 0805NP0 \geq 50V \leq 5%	CC0805JRNPO9BN100	Y	C53	0805	2	1
	180pF 0805NP0 \geq 50V \leq 5%	CC0805JRNPO0BN181	N	C56	0805	2	1
	270pF 0805NP0 \geq 50V \leq 5%	CC0805JRNPO0BN271	Y	C84	0805	2	1
	8.2pF 0805NP0 \geq 25V \leq 5%	CL21C8R2DBANNNC	Y	C87	0805	2	1
	2x5 M 0.1in	67997-410HLF	Y	CN1	Custom	10	1
	Eth MagJack	L829-1J1T-43	N	CN3	Custom	18	1
	TVS Diode	CDSOD323-T05LC	N	D1	SC-76, SOD-323	2	1
	LED RA	LTST-S220KFKT	N	D2,D3,D4,D5	2.1x1.0mmRightAngle	2	4
	TVS Diode	SMBJ18CA	N	D12	DO-214AA (SMB)	2	1
	FUSE PTC 3.0A 24V	MF-LSMF300/24X-2	N	F1	2920 7.36x5.12mm	2	1
	FB 0603 \geq 600R@100MHz \leq 200mOhm@DC 1A \leq 25%	MPZ1608S601ATA00	Y	FB1,FB2,FB3,FB4,FB5, FB6,FB7,FB8,FB9,FB10, FB11,FB12,FB13,FB14, FB15,FB16,FB17,FB18, FB19,FB20,FB21,FB22, FB23,FB24,FB25,FB26, FB28,FB30	0603	2	28
21903	0Ohm 0603 \leq 5% \geq 1/10W	RC0603JR-070RL	Y	J1,J2,J9,J10,J11, J14,J15,J19,J21,J22, J30,J31,J32,L33,L34	0603	2	15
	3.3uH \geq 2.4A	SRN5020-3R3M	N	L1,L3	5x5mm	2	2
	2.2uH \geq 2.4A	SRN5020-2R2Y	N	L2	5x5mm	2	1
	240nH	LQW2BASR24J00L	N	L4,L7	0805	2	2
	270nH	LQW2BASR27J00L	N	L5,L6,L8,L9	0805	2	4
	330nH	LQW2BASR33J00L	N	L10,L11	0805	2	2
	MOSFET P-CH 30V	DMP3099L-7	N	Q1	SOT-23-3	3	1
	Inductive Load Driver	NUD3124LT1G	N	Q2,Q5	SOT-23-3	3	2
	RF LDMOS	AFT05MS003NT1	N	Q3,Q4	SOT-89-3	3	2

Part ID	Description	Part Number	Sub OK	Designators	Footprint	Pins	Quantity
	Thermal Sensor	MCP9700T-E/TT	N	Q6	SOT-23-3	3	1
23867	33 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0733RL	Y	R1,R42,R50,R64	0603	2	4
26547	10K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-0710KL	Y	R2,R3,R4,R5,R6,R7, R14,R21,R22,R23,R24, R25,R27,R28,R29,R131, R132	0603	2	17
23666	2.2 0603 $\leq 5\% \geq 1/10W$	RC0603FR-072R2L	Y	R10	0603	2	1
	35.7K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0735K7L	Y	R11	0603	2	1
	11.5K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0711K5L	Y	R12,R91	0603	2	2
4591	20K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0720KL	Y	R15	0603	2	1
	16.2K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0716K2L	Y	R19	0603	2	1
4597	2.2K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-072K2L	Y	R20,R26,R49,R65,R75, R76,R79,R80	0603	2	8
	12.1K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0712K1L	Y	R34	0603	2	1
23889	4.7K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-074K7L	Y	R43,R44,R48,R53,R95, R101,R106,R107,R124, R125,R126,R130	0603	2	12
4584	1.8K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-071K8L	Y	R46	0603	2	1
23987	9.1K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-079K1L	Y	R47,R66	0603	2	2
24078	22 0603 $\leq 5\% \geq 1/10W$	RC0603FR-0722RL	Y	R51,R63	0603	2	2
	12 0805 $\leq 5\% \geq 1/8W$	RC0805FR-0712RL	Y	R52,R54,R61,R62,R94, R100	0805	2	6
23514	120 0603 $\leq 1\% \geq 1/10W$	RC0603FR-07120RL	Y	R55	0603	2	1
23865	330 0603 $\leq 1\% \geq 1/10W$	RC0603FR-07330RL	Y	R56,R59	0603	2	2
21904	1K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-071KL	Y	R57,R58,R67,R68,R71, R72,R73,R74,R109	0603	2	9
	1.6K 0603 $\leq 5\% \geq 1/10W$	RC0603FR-071K6L	Y	R69,R102	0603	2	2
23694	27K 0603 $\leq 1\% \geq 1/10W$	RC0603FR-0727KL	Y	R70,R127	0603	2	2
23502	100 0603 $\leq 1\% \geq 1/10W$	RC0603FR-07100RL	Y	R77,R78,R81,R82,R120, R121,R122	0603	2	7
23693	270 0603 $\leq 5\% \geq 1/10W$	RC0603FR-07270RL	Y	R92,R99,R108,R133, R134	0603	2	5
	0.04 1206 $\leq 1\% \geq 1/4W$	RL1206FR-070R04L	Y	R123	1206	2	1
	1:1 RF Transformer	MABAES0060	N	T1	SM-22-5 3.81x3.81mm	5	1
	8:1 RF Transformer	MABA-010143-FLUX18	N	T2	SM-22-5 3.81x3.81mm	5	1
	EEPROM 2Mx8bit >40MHz	W25Q16JVSNIQ	N	U1	8-SOIC (3.90mm)	8	1
	FPGA	EP4CE22E22C8N	N	U2	144-LQFP EP	144	1
	Switching Regulator	ST1S10PHR	N	U3,U8,U16	8-SOIC (3.90mm) EP	8	3

Part ID	Description	Part Number	Sub OK	Designators	Footprint	Pins	Quantity
	Gigabit EthPhy	KSZ9031RNXCC	N	U4	48-VFQFN EP	48	1
	Clock Generator	5P49V5923B000NLGI	N	U6	24-VFQFN EP	24	1
	RF ADC DAC	AD9866BCPZ	N	U7	64-VFQFN EP	64	1
	RF Preamplifier OpAmp	OPA2677IDDA	N	U9	8-SOIC (3.90mm) EP	8	1
	RF Switch	4259-63	N	U10,U11	SC70-6	6	2
	LDO Regulator	AP2204MP-ADJTRG1	N	U12	8-SOIC (3.90mm) EP	8	1
	Slow ADC	MAX11613EUA	N	U13	8-MSOP (3.00mm)	8	1
	Current Sense AMP	INA199A1DC	N	U14	SC-70-6	6	1
	Digital Rheostat 5K	MCP4662-502E/UN	N	U15	10-MSOP (3.00mm)	10	1
	LDO Regulator	TPS73025DBVR	N	U17	SOT-23-5	5	1
	LDO 10V 150mA	LP2985-10DBVR	N	U19	SOT-23-5	5	1
	25MHz XTAL	NX3225SA-25.000M-STD-CSR-3	Y	X1	3.2x2.5mm	4	1
	38.4MHz Osc 3.3V≤10ppm	ASTXR-12-38.400MHZ-514054-T	N	X2	2.5x2mm	4	1

Line Items: SMT:73 Assembled TH:2

Parts: SMT:362 Assembled TH:2

Pins: SMT:1080 Assembled TH:28

Do Not Assemble: B55 B58 B65 B67 B82 B96 B104 B107 B112 B117 B121 C10 C11 C42 C47 C54 C55 C58 C59 C75 C76 C77 C78 C79 C80 C82 C83 C85 C148 C149 CL1 CL2 CL3 CL4 CN2 CN4 CN5 CN6 CN7 CN8 CN9 CN10 CN11 CN12 D6 D7 D8 D9 D10 D11 D13 D14 DB1 DB2 DB3 DB4 DB5 DB6 DB7 DB8 DB9 DB10 DB11 DB12 DB14 DB16 DB17 DB19 DB20 DB22 DB23 DB24 DB26 DB27 EN1 FB27 FB29 J3 J4 J5 J6 J7 J8 J12 J13 J16 J17 J18 J20 J23 K2 PB1 PG1 Q7 R8 R9 R13 R16 R17 R18 R30 R31 R32 R33 R35 R36 R37 R38 R39 R40 R41 R45 R60 R83 R84 R85 R86 R87 R88 R89 R90 R93 R96 R97 R98 R103 R104 R112 R113 R114 R115 R116 R117 R118 R119 R128 R129 R135 RF1 RF2 RF3 T3 U5 U18 X3