

Bill Of Materials - MAXREFDES155

Rev0

Item	Qty	Designator	Footprint	Comment
1	13	C1, C2, C4, C5, C6, C7, C8, C9, C10, C11, C12, C38, C40	CAP0603-3D	0.1uF
2	3	C3, C28, C39	CAP0603-3D	1uF
3	3	C13, C14, C15	CAP0402-3D	4.7uF
4	11	C16, C17, C18, C19, C21, C22, C23, C29, C30, C31, C32	CAP0402-3D	0.1uF
5	2	C20, C27	CAP0603-3D	10uF
6	2	C24, C25	CAP0603-3D	22uF
7	1	C26	CAP0402-3D	1uF
8	2	C33, C36	CAP0402-3D	10pF
9	2	C34, C35	CAP0402-3D	6.2pF
10	2	C41, C42	CAP1206-3D	100uF
11	1	D1	0603LED-3DGREEN	Secure Boot Pass
12	1	D2	0603LED-3DBLUE	WiFi Activity
13	1	D3	0603LED-3DGREEN	Laser Active
14	1	D4	LASERMODULE1	LASER_MODULE
15	1	FB1	0805FB-3D	BLM21PG221SN1D
16	1	FL1	FILTER1	FILTER
17	1	J1	SIP10-3D	CON10
18	2	J2, J5	SIP8-3D	CON8
19	2	J3, J7	SIP4 SMT RA JST-3D	CON4
20	1	J4	SIP6-3D	CON6
21	1	J6	SIP5	DNI
22	1	JP1	SIP2-3D	CON2 + Shunt Jumper
23	1	JP2	SIP2	DNI
24	2	L2, L4	1007INDUCTOR-3D	2.2uH
25	1	L3	1007INDUCTOR-3D	1uH
26	1	LCD1	LCD12-NHD-C12864A1Z	LCD
27	1	Q1	16001-3D	PMV65XP
28	2	R1, R2	0603-3D	3.3k
29	2	R3, R31	0603-3D	16k
30	8	R4, R5, R19, R20, R21, R22, R37, R38	0603-3D	10
31	1	R6	0603-3D	4.7k
32	8	R7, R8, R9, R10, R11, R12, R13, R34	0603-3D	10k
33	8	R14, R15, R16, R17, R18, R26, R27, R28	0402-3D	100k
34	3	R23, R24, R30	0603-3D	100k
35	2	R25, R29	0402-3D	10k
36	2	R32, R33	0603-3D	DNI
37	1	RT1	1206POLYFUSE-3D	PTC Fuse MF-NSMF012-2
38	7	SW1, SW2, SW3, SW4, SW5, SW6, SW7	RESET13-3D	Reset
39	1	SW8	RESET14-3D	Laser
40	1	U1	TDFN6 3mm .95	DS2476
41	1	U2	so23-6-3D	MAX3207E
42	1	U3	SO-8-3D	MAX66242
43	1	U4	TQFN64-9x9MM-0.5P-3D	CC3100
44	1	U5	SO-8-3D	AT25DF081A
45	1	U6	TDFN6 2MM .65	MAX13204E
46	1	U7	TDFN6 3mm .95	DS28C36
47	1	U8	TEMPSENSOR_IR_SIDEMOUNT	MLX90614
48	1	X1	CRYSTAL EPSON FA-20H	40 MHz
49	1	X2	CRYSTAL-ABS07	32 KHz
50	1	N/A	N/A	Connection Cable
51	1	N/A	N/A	Shunt Jumper

Manufacture Name	Part Number	Final Part Num
Samsung Electro-Mechanics America, Inc	CL10B104KO8NNNC	EC2256
Samsung Electro-Mechanics America, Inc	CL10B105KP8NNNC	
Murata Electronics North America	GRM155R60J475ME47D	
Murata Electronics North America	GRM155R71C104KA88J	
Murata Electronics North America	GRM188R60J106ME47D	
Taiyo Yuden	AMK107BBJ226MAHT	
Murata Electronics North America	GRM155R60J105KE19D	
Murata Electronics North America	GRM1555C1H100FA01D	
Murata Electronics North America	GRM1555C1H6R2BA01D	
AVX Corporation	F930J107MAA	
Dialight	598-8081-107F	ED0950
OSRAM Opto Semiconductors Inc	LB Q39G-L2N2-35-1	ED0986
Dialight	598-8081-107F	ED0950
Laser Components	LC-LMD-650-01	
Murata Electronics North America	BLM21PG221SN1D	
TDK	DEA202450BT-1294C1-H	
Sullins Connector Solutions	PREC040SAAN-RC	
Sullins Connector Solutions	PREC040SAAN-RC	
JST Sales America Inc.	SM04B-SRSS-TB(LF)(SN)	
Sullins Connector Solutions	PREC040SAAN-RC	
Sullins Connector Solutions	PREC040SAAN-RC	
Sullins Connector Solutions	PREC040SAAN-RC	
Sullins Connector Solutions	PREC040SAAN-RC	
Murata Electronics North America	LQM2HPN2R2MG0L	
Murata Electronics North America	LQM2HPN1R0MJ0L	
Newhaven Display	NHD-C12864A1Z-FSW-FBW-I	
NXP USA Inc.	PMV65XP,215	
Panasonic Electronic Components	ERJ-3EKF3301V	
Yageo	RC0603FR-0716KL	
Panasonic Electronic Components	ERJ-3EKF10R0V	
Rohm Semiconductor	MCR03ERTF4701	
Panasonic Electronic Components	ERJ-3EKF1002V	
Yageo	RC0402FR-07100KL	
Samsung Electro-Mechanics America, Inc.	RC1608F104CS	
Yageo	RC0402JR-0710KL	
Bourns Inc.	MF-NSMF012-2	EH1032
E-Switch	TL3301AF160QJ	EH0885
E-Switch	TL3300DF260Q	
Maxim Integrated	DS2476Q+U	
Maxim Integrated	MAX3207EAUT+	
Maxim Integrated	MAX66242ISA-A+	
Texas Instruments	CC3100R11MRGC	
Adesto Technologies	AT25DF081A	
Maxim Integrated	MAX13204EALT+	
Maxim Integrated	DS28C36Q+U	
Melexis Technologies NV	MLX90614ESF-BCI-000-TU	
Epson	FA-20H 40.0000MF15Z-AC3	
Abracon Corporation	ABS07-32.768KHZ-T	
JST Sales America Inc.	A04SR04SR30K305B	
3M	969102-0000-DA	

Description	Notes
CAP CER 0.1UF 16V 10% X7R 0603	
CAP 1.0μF 0603 10V Ceramic X7R 10%	
CAP CER 4.7μF 6.3V ±20% X5R 0402	
CAP CER 0.10μF 16V ±10% X7R 0402	
CAP 10μF 6.3V Ceramic X5R 0603	
CAP 22μF 4V Ceramic X5R 0603	
CAP 1.0μF ±10% 6.3v X5R 0402	
CAP 10pF 50V Ceramic C0G, NP0 0402	
CAP CER 6.2PF 50V NP0 0402	
CAP TANT 100UF 6.3V 20% 1206	
LED INGAN GREEN CLEAR 0603 SMD	
LED CHIPLED BLUE 470NM 0603 SMD	
LED INGAN GREEN CLEAR 0603 SMD	
4mm 650nm laser module	
FERRITE BEAD 220 OHM 0805	
FILTER BANDPASS 2.45 GHZ WLAN SMD	
10 Position Header 0.100" (2.54mm) Through Hole	
8 Position Header 0.100" (2.54mm) Through Hole	
CONN HEADER SH 4POS SIDE 1MM TIN	
6 Position Header 0.100" (2.54mm) Through Hole	
5 Position Header 0.100" (2.54mm) Through Hole	DNI
2 Position Header 0.100" (2.54mm) Through Hole	Add shunt (item 51)
2 Position Header 0.100" (2.54mm) Through Hole	DNI
2.2μH Shielded ML Inductor 1.3A 100 mOhm Max 1008 (2520 Metric)	
1μH Shielded ML Inductor 1.5A 113 mOhm Max 1008 (2520 Metric)	
Graphic LCD SPI 128 x 64	
MOSFET P-CH 20V 2.8A SOT-23	
RES SMD 3.3K OHM 1% 1/10W 0603	
RES SMD 16K OHM 1% 1/10W 0603	
RES 10 OHM 1/10W 1% 0603 SMD	
RES SMD 4.7K OHM 1% 1/10W 0603	
RES 10K OHM 1/10W 1% 0603 SMD, RES SMD 10K OHM 1% 1/10W 0603	
RES SMD 100K OHM 1% 1/16W 0402	
RES SMD 100K OHM 1% 1/10W 0603	
RES SMD 10K OHM 5% 1/16W 0402	
	DNI
PTC Fuse 1206	
Tactile Switch SPST-NO Top Actuated Surface Mount	
Tactile Switch SPST-NO Top Actuated Surface Mount	
DeepCover Secure Coprocessor	
Dual High-Speed Differential ESD-Protection IC	
DeepCover Secure Authenticator with ISO 15693, I ² C, SHA-256, and 4Kb User EEPROM	
IC RF TXRX+MCU WIFI 64-VFQFN	
Flash Memory 8M, 2.7-3.6V, 100Mhz Serial Flash	
4 Channel +/- 30kv ESD Protector	
DeepCover Secure Authenticator	
Temperature Sensor Digital, Infrared (IR) -40°C ~ 85°C 16 b TO-39	
CRYSTAL 40 MHZ 8 pF SMD	
CRYSTAL 32.768 KHZ 12.5 pF SMD	
4 Position Cable Assembly Rectangular Socket to Socket 1.0 foot (Joins the PCBs together)	
SHUNT JUMPER .1" BLACK GOLD	Install on JP1

Vendor	Vendor Part Number	Datasheet URL
Digikey	1276-1005-2-ND	http://www.samsungsem.com/servlet/FileDownload?type=spec&file=CL10B104KO8NN
Digikey	1276-1946-1-ND	http://www.samsungsem.com/servlet/FileDownload?type=spec&file=CL10B105KP8NN
Digikey	490-5915-1-ND	http://search.murata.co.jp/Ceramy/image/img/A01X/partnumbering_e_01.pdf
Digikey	490-6328-6-ND	http://search.murata.co.jp/Ceramy/image/img/A01X/G101/ENG/GRM155R71C104KA8
Digikey	490-3896-1-ND	http://search.murata.co.jp/Ceramy/image/img/A01X/partnumbering_e_01.pdf
Digikey	587-3262-1-ND	http://www.yuden.co.jp/productdata/catalog/en/mlcc01_hq_e.pdf
Digikey	490-1320-1-ND	http://search.murata.co.jp/Ceramy/image/img/A01X/partnumbering_e_01.pdf
Digikey	490-6186-1-ND	http://search.murata.co.jp/Ceramy/image/img/A01X/partnumbering_e_01.pdf
Digikey	490-8224-1-ND	http://search.murata.co.jp/Ceramy/image/img/A01X/partnumbering_e_01.pdf
Digikey	478-8155-1-ND	http://datasheets.avx.com/F93.pdf
Digikey	350-2036-1-ND	http://media.digikey.com/pdf/Data%20Sheets/Dialight%20PDFs/598_Series_0603_Pkg.p
Digikey	475-2816-1-ND	http://media.digikey.com/pdf/Data%20Sheets/Osram%20PDFs/LB_LT%20Q39G.pdf
Digikey	350-2036-1-ND	http://media.digikey.com/pdf/Data%20Sheets/Dialight%20PDFs/598_Series_0603_Pkg.p
		http://www.lasercomponents.com/fileadmin/user_upload/home/Datasheets/divers-opto/m
Digikey	490-1054-1-ND	http://search.murata.co.jp/Ceramy/image/img/PDF/ENG/L0110S0100BLM21P.pdf
Mouser	810-DEA202450BT1294C	http://www.mouser.com/ds/2/400/f_bpf_dea202450bt-1294c1-h_en-923648.pdf
Digikey	S1012EC-40-ND	http://media.digikey.com/PDF/Data%20Sheets/Sullins%20PDFs/z%20RzCzzzSzzN-RC,
Digikey	S1012EC-40-ND	http://media.digikey.com/PDF/Data%20Sheets/Sullins%20PDFs/z%20RzCzzzSzzN-RC,
Digikey	455-1804-1-ND	http://www.jst-mfg.com/product/pdf/eng/eSH.pdf
Digikey	S1012EC-40-ND	http://media.digikey.com/PDF/Data%20Sheets/Sullins%20PDFs/z%20RzCzzzSzzN-RC,
Digikey	S1012EC-40-ND	http://media.digikey.com/PDF/Data%20Sheets/Sullins%20PDFs/z%20RzCzzzSzzN-RC,
Digikey	S1012EC-40-ND	http://media.digikey.com/PDF/Data%20Sheets/Sullins%20PDFs/z%20RzCzzzSzzN-RC,
Digikey	490-5114-1-ND	http://search.murata.co.jp/Ceramy/image/img/PDF/ENG/L0075S0104LQM2HP_G0.pdf
Digikey	490-6699-1-ND	http://search.murata.co.jp/Ceramy/image/img/PDF/ENG/L0075S0104LQM2HP_J0.pdf
Digikey	NHD-C12864A1Z-FSW-FBW-HTT-ND	http://www.newhavendisply.com/specs/NHD-C12864A1Z-FSW-FBW-HTT.pdf
Digikey	568-2358-1-ND	http://www.nxp.com/documents/data_sheet/PMV65XP.pdf
Digikey	P3.30KHTR-ND	http://www.digikey.com/product-search/en/resistors
Digikey	311-16.0KHRCT-ND	http://www.yageo.com/NewPortal/yageodocoutput?fileName=/pdf/R-Chip/PYu-RC_Gro
Digikey	P10.0HTR-ND	http://industrial.panasonic.com/www-cgi/jvcr13pz.cgi?E+PZ+3+AOA0002+ERJ3EKF10
Digikey	RHM4.70KCFTR-ND	http://rohms.rohm.com/en/products/databook/datasheet/passive/resistor/chip_resistor/mc
Digikey	P10.0KHTR-ND	http://industrial.panasonic.com/www-cgi/jvcr13pz.cgi?E+PZ+3+AOA0002+ERJ3EKF10
Digikey	311-100KLRCT-ND	http://www.yageo.com/NewPortal/yageodocoutput?fileName=/pdf/R-Chip/PYu-RC_Gro
Digikey	1276-3486-2-ND	http://media.digikey.com/pdf/Data%20Sheets/Samsung%20PDFs/RC_Series_ds.pdf
Digikey	311-10KJRCT-ND	http://www.yageo.com/NewPortal/yageodocoutput?fileName=/pdf/R-Chip/PYu-RC_Gro
Digikey	MF-NSMF012-2DKR-ND	http://www.bourns.com/data/global/PDFs/MFNSMF.pdf
Digikey	EG4374TR-ND	http://www.e-switch.com/system/asset/product_line/data_sheet/185/TL3301.pdf
Digikey	EG4907CT-ND	http://spec_sheets.e-switch.com/specs/N301104.pdf
		https://www.maximintegrated.com/en/products/digital/memory-products/DS2476.html
		https://www.maximintegrated.com/en/products/interface/signal-line-protection-ics/MAX
		http://www.maximintegrated.com/en/products/digital/memory-products/MAX66242.html
Digikey	296-38010-ND	http://www.ti.com/lit/ds/symlink/cc3100.pdf
Mouser	556-AT25DF081A-SSH-B	http://www.mouser.com/ds/2/590/doc8715-531541.pdf
		https://www.maximintegrated.com/en/products/interface/signal-line-protection-ics/MAX
		https://www.maximintegrated.com/en/products/digital/memory-products/DS28C36.html
Digikey	MLX90614ESF-BCI-000-TU-ND	https://www.melexis.com/-/media/files/documents/datasheets/mlx90614-datasheet-melex
Mouser	732-FA-20H40F15Z-AC3	http://www.mouser.com/ds/2/137/A-20H_en-932938.pdf
Mouser	815-ABS07-32.768KHZT	http://www.mouser.com/ds/2/3/ABS07-11028.pdf
Digikey	455-3018-ND	http://www.gam-gec.com/index_htm_files/GAM-015.pdf
Digikey	3M9580-ND	http://multimedia.3m.com/mws/media/5481200/3mtm-shunt-ts2186.pdf

10B104KO8NNNC.pdf

10B105KP8NNNC.pdf

5R71C104KA88-01.pdf

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ts/divers-opto/module/lc-lmd-650-01.pdf

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02+ERJ3EKF10R0V+7+WW

chip_resistor/mcr_g.pdf

02+ERJ3EKF1002V+7+WW

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ip/PYu-RC_Group_51_RoHS_L_4.pdf

ection-ics/MAX3207E.html

MAX66242.html

ection-ics/MAX13204E.html

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