

Texas Instruments -LAUNCHXL-CC1350-4 BOM for 433MHz/2.4GHz band

Rev A

Date January 23, 2017

DNP - Indicates Do Not Populate

Item Number	Description	Manufacturer	MPN	Part Reference	Value	Quantity	Notes/ Alternatives
1	ANTENNA PCB 868/915MHz	TEXAS INSTRUMENTS	ANTENNA PCB 868/915MHz	A1	ANTENNA PCB 868/915MHz	0	PCB Antenna
2	ANTENNA PCB 2.4 GHz	TEXAS INSTRUMENTS	ANTENNA PCB 2.4 GHz	A2	ANTENNA PCB 2.4 GHz	0	PCB Antenna
3	CAPACITOR, CERAMIC X7R, 100nF, 6.3V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM155R70J104KA01D	C3 C4 C5 C7 C9 C16 C20 C32 C38 C39 C43 C46 C52 C53 C54 C55 C56 C57	100nF	18	
4	CAPACITOR, CERAMIC, X5R, 22uF, 6.3V, -20%/+20%, -55DEGC/+85DEGC, 0603, SMD	MURATA	GRM188R60J226MEA0D	C6 C8	22uF	2	
5	CAPACITOR, CERAMIC COG/NP0, 3.6pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H3R6CA01D	C62	3.6pF	1	
6	CAPACITOR, CERAMIC COG/NP0, 8.2pF, 50V, -0.5pF/+0.5pF, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H8R2DA01	C11 C22	8.2pF	2	
7	CAPACITOR, CERAMIC COG/NP0, 1.8pF, 50V, -0.1pF/+0.1pF, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H1R8BA01	C71	1.8pF	1	
8	CAPACITOR, CERAMIC COG/NP0, 1.5pF, 50V, -0.1pF/+0.1pF, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H1R5BA01	C24	1.5pF	1	
9	CAPACITOR, CERAMIC COG/NP0, 330pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H331JA01	C15	330pF	1	
10	CAPACITOR, CERAMIC COG/NP0, 4.7pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H4R7CA01	C12 C14	4.7pF	2	
11	CAPACITOR, CERAMIC COG/NP0, 100pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H101JA01D	C58 C65	100pF	2	
12	CAPACITOR, CERAMIC COG/NP0, 12pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H120JA01D	C13 C17 C18 C33 C34 C63 C64	12pF	7	
13	CAPACITOR, CERAMIC X5R, 1uF, 10V, -10%/+10%, -55DEGC/+85DEGC, 0402, SMD	MURATA	GRM155R61A105KE15D	C19 C40 C42 C44	1uF	4	
14	CAPACITOR, CERAMIC COG/NP0, 1pF, 50V, -0.25pF/ +0.25pF, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H1R0CA01D	C21 C60 C68	1pF	3	
15	CAPACITOR, CERAMIC COG/NP0, 1pF, 50V, -0.25pF/ +0.25pF, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H1R0CA01D	C59	DNP	0	

16	CAPACITOR, CERAMIC C0G/NP0, 330pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H331JA01	C69	DNP	0	
17	CAPACITOR, CERAMIC, 0402			C61	DNP	0	
18	CAPACITOR, CERAMIC C0G/NP0, 12pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H120JA01D	C67	DNP	0	
19	CAPACITOR, CERAMIC X7R, 100nF, 10V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM155R71A104KA01D	C30 C70	100nF	2	
20	CAPACITOR, CERAMIC X7R, 10nF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM155R71E103KA01D	C35 C36 C37 C41 C50	10nF	5	
21	CAPACITOR, CERAMIC X5R, 2.2uF, 6.3V, -10%/+10%, -55DEGC/+85DEGC, 0402, SMD	MURATA	GRM155R60J225KE95D	C45 C48 C49	2.2uF	3	
22	CAPACITOR, CERAMIC C0G/NP0, 15pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	MURATA	GRM1555C1H150JA01D	C47	15pF	1	
23	OPTO, LED, GREEN COLOR, 562nm, 0.02A, 0.08W, 0603, SMD	OSRAM	LP L296-J2L2-25	CR1 CR5	LPL296-J2L2-25	2	
24	OPTO, LED, SUPER RED COLOR, 630nm, 1.8V TO 2.3V, 0.06A, 0603, SMD	OSRAM	LS L296-P2Q2-1	CR2 CR4	LS L296-P2Q2-1	2	
25	DIODE, PROTECTION, ESD ARRAY, 4 CHANNEL, 6V TO 8V, -40DEGC/+85DEGC, SON6, SMD	TEXAS INSTRUMENTS	TPD4E004DRYR	CR6	TPD4E004DRY	1	
26	DIODE, PROTECTION, ESD, 7V, -40DEGC/+85DEGC, QFN8, SMD	TEXAS INSTRUMENTS	TPD6E004RSER	CR7 CR8	TPD6E004RSER	2	
27	FIDUCIAL MARK			FIDU1 FIDU2 FIDU3 FIDU4 FIDU5 FIDU6	DNP	0	PCB Drafting item
28	FILTER, EMI, 1500@100MHz, -55DEGC/+125DEGC, 0603, SMD	MURATA	BLM18HE152SN1D	FL1	BLM18HE152SN1	1	
29	CONNECTOR, HEADER, FEMALE, STRAIGHT, 2 ROWS, 20 ROWS, 2.54mm, PTH	SAMTEC	SSQ-110-23-L-D	J1 J2	SSQ-110-23-L-D	2	
30	CONNECTOR, USB, FEMALE, RIGHT ANGLE, 1 ROW, 5 PINS, PITCH 0.65mm, SMD	MOLEX	105164-0001	J6	105164-0001	1	
31	INDUCTOR, STANDARD, CHIP, FERRITE CORE, SHIELDED, 6.8uH, -20%/+20%, 1.1A, -55DEGC/+125DEGC, 0805, SMD	TDK	MLZ2012N6R8LT000	L1	6.8uH	1	
32	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 2.2nH, -0.2nH/+0.2nH, 1A, -55DEGC/+155DEGC, 0402, SMD	MURATA	LQW15AN2N2C10D	L11 L21 L26	2.2nH	3	
33	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 20nH, -2%/+2%, 0.3A, -55DEGC/+125DEGC, 0402, SMD	MURATA	LQW15AN20NG00	L13 L14	20nH	2	
34	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 15nH, -2%/+2%, 0.3A, -55DEGC/+125DEGC, 0402, SMD	MURATA	LQW15AN15NG00	L12 L27	15nH	2	

35	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 1.5nH, -0.2nH/+0.2nH, 1A, -55DEGC/+125DEGC, 0402, SMD	MURATA	LQW15AN1N5C00D	L25	1.5nH	1	
36	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 100nH, -5%/+5%, 0.5A, -55DEGC/+125DEGC, 0402, SMD	MURATA	LQG15HSR10J02	L28 L29	100nH	2	
37	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 33nH, -2%/+2%, 0.3A, -55DEGC/+125DEGC, 0402, SMD	MURATA	LQW15AN33NG00	L30	33nH	1	
38	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 33nH, -5%/+5%, 0.3A, -55DEGC/+125DEGC, 0402, SMD	MURATA	LQG15HS33NJ02	L33	33nH	1	
39	INDUCTOR, 0402, SMD			L31	DNP	0	
40	INDUCTOR, 0402, SMD			L32	DNP	0	
41	LABEL1			LBL1	DNP	0	
42	LABEL2			LBL2	DNP	0	
43	CONNECTOR, SHUNT, CURRENT RATING 4.3A PER PIN, 2.54 X 5.08 X 6.1mm, BLACK	SAMTEC	SNT-100-BK-G	M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M13 M14	SNT-100-BK-G	14	Mount as per the Schematic
44	Mounting Hole			MH1 MH2	DNP	0	PCB Drafting item
45	Mounting Hole			MH3 MH4	DNP	0	PCB Drafting item
46	Mounting Hole			MH5	DNP	0	PCB Drafting item
47	CONNECTOR, HEADER, MALE, STRAIGHT, 1 ROW, 3 PINS, PITCH 2.54mm, PTH	GRADCONN	BB02-HC031-KB1-603000	P1 P2 P10	BB02-HC031-KB1-603000	3	
48	CONNECTOR, HEADER, MALE, STRAIGHT, 2 ROWS, 22 PINS, PITCH 2.54mm, PTH	GRADCONN	BB02-HJ221-KB1-603000	P4	BB02-HJ221-KB1-603000	1	
49	CONNECTOR, HEADER, MALE, STRAIGHT, 10 PINS, 2 ROWS, PITCH 1.27mm, SMD	SAMTEC	FTSH-105-01-F-DV-K	P5 P7	FTSH-105-01-F-DV-K	2	
50	CONNECTOR, HEADER, MALE, STRAIGHT, 2 ROWS, 4 PINS, PITCH 2.54mm, PTH	GRADCONN	BB02-HJ041-KB1-603000	P6	BB02-HJ041-KB1-603000	1	
51	NON COMPONENT, CONNECTOR CABLE, PLUG OF NAILS, 10 PINS, 2 ROWS, SMD	TAG-CONNECT	TC2050-IDC-NL	P8	DNP	0	Cable Connector
52	CONNECTOR, COAX, SMA, SMD, END LAUNCH	JOHNSON	142-0721-881	P11 P12	142-0721-881	2	
53	RESISTOR, THICK FILM, 100k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW0402100KJNED	R1 R61 R62 R63 R65	100k	5	
54	RESISTOR, THICK FILM, 3.3k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW04023K30JNED	R2 R3 R58	3.3k	3	
55	RESISTOR, THICK FILM, 2.2k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW04022K20JNED	R11	2.2k	1	

56	RESISTOR, THICK FILM, 220, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW0402220RJNED	R14 R25	220	2	
57	RESISTOR, THICK FILM, 180, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW0402180RJNED	R15 R23	180	2	
58	RESISTOR, THICK FILM, 10k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW040210K0JNED	R17	10k	1	
59	RESISTOR, THICK FILM, 4.7k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW04024K70JNED	R18	4.7k	1	
60	RESISTOR, 0402, SMD			R19 R21 R59 R60 R67 R68	DNP	0	
61	RESISTOR, THICK FILM, 100, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW0402100RJNED	R20 R55 R56 R57 R66	100	5	
62	RESISTOR, THICK FILM, 330k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW0402330KFKED	R22	330k	1	
63	RESISTOR, THICK FILM, 220k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW0402220KFKED	R24	220k	1	
64	RESISTOR, THICK FILM, 1k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW04021K00JNED	R27 R29 R30 R39	1k	4	
65	RESISTOR, THICK FILM, 4.87k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW04024K87FKED	R28	4.87k	1	
66	RESISTOR, THICK FILM, 51, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW040251R0JNED	R31	51	1	
67	RESISTOR, THICK FILM, 33k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW040233K0FKED	R32	33k	1	
68	RESISTOR, THICK FILM, 51k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW040251K0JNED	R33	51k	1	
69	RESISTOR, THICK FILM, 30k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW040230K0JNED	R34	30k	1	
70	RESISTOR, 0402, SMD			R46 R47 R48 R49 R51	DNP	0	
71	RESISTOR, THICK FILM, 0, 0R/+0.02R, 0.1W, 75V, -55DEGC/+155DEGC, 0603, SMD	VISHAY	CRCW06030000Z0EC	R52	0	1	
72	RESISTOR, THICK FILM, 0, 0.063W, 50V, - 55DEGC/+155DEGC, 0402, SMD	VISHAY	CRCW04020000Z0ED	R69	0	1	
73	SWITCH, TACT, 0.05A@250VAC, 0.05A@12VDC, 0.05A, 250V, SMD	DIPTRONICS	1188E-1K2-VDP-T/R	SW1 SW2 SW3	1188E-1K2-VDP-T/R	3	

74	IC, CUSTOM, CC1350F128RGZ, QFN48, SMD	TEXAS INSTRUMENTS	CC1350F128RGZT	U1	CC1350F128RGZ	1	
75	IC, MEMORY, FLASH, SERIAL, 8Mbit, 1.65V TO 3.6V, USON8, SMD	MACRONIX	MX25R8035FZUILO	U4	MX25R8035FZUILO	1	
76	IC, MICROPROCESSOR, TIVA C SERIES MICROCONTROLLER, ARM CRTEX-M4, 2.97V TO 3.63V, TQFP128, SMD	TEXAS INSTRUMENTS	TM4C1294NCPDTT3R	U5	TM4C1294NCPDTT3R	1	
77	IC, ANALOG, PRECISION MICROPOWER SHUNT VOLTAGE REFERENCE, 2.5V, SC70-5, SMD	TEXAS INSTRUMENTS	LM4040B25IDCKR	U6	LM4040B25IDCK	1	
78	IC, ANALOG, ULTRALOW-NOISE, HIGH PSRR, FAST, RF, 1A LOW-DROPOUT LINEAR REGULATORS, VIN:2.7V TO 5.5V, VOUT:1.2V TO 5.5V, SON8, SMD	TEXAS INSTRUMENTS	TPS79601DRBR	U7	TPS79601DR	1	
79	IC, DIGITAL, LOGIC, 4bit DUAL-SUPPLY BUS TRANSCEIVER 3 STATE OUTPUT, 1.2V TO 3.6V, UQFN16, SMD	TEXAS INSTRUMENTS	SN74AVC4T245RSVR	U8 U9 U10	SN74AVC4T245RSV	3	
80	IC, ANALOG, CMOS DP4T SWITCH FOR WIRELESS COMMUNICATION, 2.5V TO 3V, SMD	MURATA	XMSSJE3G0PA-003	U11	XMSSJE3G0PA-003	1	
81	CRYSTAL, RESONATOR, 32.768kHz, -20PPM/+20PPM, -40DEGC/+85DEGC, SMD	EPSON	FC-135 32.7680KA-AG0	Y1	32.768kHz	1	
82	CRYSTAL, CRYSTAL OSCILLATOR, 24MHz, -15PPM/DEGC/+15PPM/DEGC, -40DEGC/+85DEGC, SMD	EPSON	TSX-3225 24.0000MF15X-AC3	Y2	24MHz	1	
83	CRYSTAL, OSCILLATOR, 16MHz, -30PPM/DEGC/+30PPM/DEGC, -40DEGC/+85DEGC, SMD	NIHON DEMPA KOGYO	NX3225GA-16.000M-STD-CRG-1	Y3	16MHz	1	
84	PCB,4-Layer, FR4, 2.3"*4.7", 64 Mils thickness, 1Oz Copper					1	