

CC3220SF-LAUNCHXL

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC81	1		Printed Circuit Board		WCS002	Any	-	-
C1, C4, C5, C14, C17, C24, C25, C28, C32, C33, C36, C37, C38, C43, C44, C46, C47, C57, C58, C59	20	0.1uF	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X5R, 0402	0402	C1005X5R1A104K050B A	TDK		
C2, C3, C7, C8, C9, C15, C21, C53, C54, C55, C56	11	0.01uF	CAP, CERM, 0.01 µF, 16 V, +/- 10%, X7R, 0402	0402	C1005X7R1C103K	TDK		
C6, C13	2	22pF	CAP, CERM, 22 pF, 50 V, +/- 1%, C0G/NP0, 0402	0402	GRM1555C1H220FA01 D	MuRata		
C10, C11, C19	3	0.1uF	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0603	0603	06033D104KAT2A	AVX		
C12, C16, C20, C22, C23	5	1uF	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0402	0402	C1005X5R1C105K050B C	TDK		
C18	1	2.2uF	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X5R, 0402	0402	C1005X5R1C225K050B C	TDK		
C26, C48, C49	3	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1H100JA01 D	MuRata		
C27	1	1uF	CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0402	0402	GRM155R61A105KE15 D	MuRata		
C29, C30, C31	3	4.7uF	CAP, CERM, 4.7 µF, 6.3 V, +/- 20%, X5R, 0402	0402	C1005X5R0J475M050B C	TDK		
C34	1	0.5pF	CAP, CERM, 0.5 pF, 50 V, +/- 10%, C0G/NP0, 0402	0402	GJM1555C1HR50BB01 J	MuRata		
C35, C42, C45	3	10uF	CAP, CERM, 10 µF, 6.3 V, +/- 20%, X5R, 0603	0603	GRM188R60J106ME47 D	MuRata		
C39, C40	2	22uF	CAP, CERM, 22 µF, 4 V, +/- 20%, X5R, 0603	0603	C1608X5R0G226M080A A	TDK		
C41	1	1uF	CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0402	0402	C1005X5R1A105K050B B	TDK		
C50, C51	2	6.2pF	CAP, CERM, 6.2 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1H6R2CA01 D	MuRata		
C52	1	0.01uF	CAP, CERM, 0.01 µF, 10 V, +/- 10%, X5R, 0402	0402	GRM155R61A103KA01 D	MuRata		
C60, C62	2	10uF	CAP, CERM, 10 µF, 10 V, +/- 10%, X5R, 0805	0805	GRM21BR61A106KE19 L	MuRata		
C61	1	22uF	CAP, CERM, 22 µF, 16 V, +/- 10%, X5R, 0805	0805	C2012X5R1C226K125A C	TDK		
C63, C64	2	100uF	CAP, CERM, 100 µF, 6.3 V, +/- 20%, X5R, 1206	1206	GRM31CR60J107ME39 L	MuRata		
D1, D8	2	Green	LED, Green, SMD	LED, GREEN, 0603	SML-LX0603GW-TR	Lumex		
D2, D6, D7, D10	4	Red	LED, Red, SMD	LED, 1.6x.8x.8mm	SML-311UTT86	Rohm		
D3, D9	2	Yellow	LED, Yellow, SMD	LED, 0603	150060YS75000	Würth Elektronik eiSos		
D4, D5	2	45V	Diode, Schottky, 45 V, 0.03 A, 0603 Diode	0603 Diode	CD0603-B00340	Bourns		
E1	1		ANT BLUETOOTH W-LAN ZIGBEE WIMAX, SMD	3.2x1.6mm	AH316M245001-T	Taiyo Yuden		
FL1	1	1.02 dB	Multilayer Chip Band Pass Filter For 2.4GHz W-LAN/Bluetooth, SMD	2x1.25mm	DEA202450BT-1294C1-H	TDK		
J1	1		Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT	Micro USB receptacle	105017-0001	Molex		
J3	1		Header, 2.54 mm, 5x2, Gold, TH	Header, 2.54mm, 5x2, TH	61301021121	Würth Elektronik		
J4, J8	2		Header, 1.27 mm, 5x2, Gold, TH	Header, 1.27 mm, 5x2, TH	FTSH-105-01-F-D-K	Samtec		
J5, J6, J22, J23	4		Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH	61300311121	Würth Elektronik		
J7	1		Header, 1.27mm, 7x2, Gold, SMT	Header, 1.27mm, 7x2, SMT	FTSH-107-01-F-DV	Samtec		
J9, J14, J15, J16, J17, J18, J19, J20, J21, J24	10		Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH	61300211121	Würth Elektronik		
J10	1		Connector, Ultra-Mini Coaxial, SMD	Ultra small CO-AX SMD	U.FL-R-SMT-1	Hirose Electric Co. Ltd.		
J11	1		Coaxial Connectors with Switch, 50 Ohm, SMD	Coaxial Connector with Switch	MM8030-2610RJ3	MuRata		
J13	1		Header, 2.54mm, 3x2, Gold, TH	Header, 2.54mm, 3x2, TH	61300621121	Würth Elektronik		
L1, L2	2	10 ohm	Ferrite Bead, 10 ohm @ 100 MHz, 1 A, 0402	0402	BLM15AG100SN1D	MuRata		
L3	1	3.3nH	Inductor, Multilayer, Air Core, 3.3 nH, 0.3 A, 0.17 ohm, SMD	0402 polarized	LQG15HS3N3S02D	MuRata		
L4, L6	2	2.2uH	Inductor, Multilayer, Ferrite, 2.2 µH, 1.3 A, 0.08 ohm, SMD	SMD, Body 2.5x2mm, Height 1.2mm	LQM2HPN2R2MG0L	MuRata		
L5	1	1uH	Inductor, Multilayer, Ferrite, 1 µH, 1.6 A, 0.055 ohm, SMD	SMD, Body 2.5x2mm, Height 1.2mm	LQM2HPN1R0MG0L	MuRata		
L7	1	10uH	Inductor, Wirewound, Ceramic, 10 µH, 0.48 A, 0.36 ohm, SMD	2.5x1.8x1.8mm	CBC2518T100M	Taiyo Yuden		
L8	1	2.2uH	Inductor, Wirewound, 2.2 µH, 1 A, 0.143 ohm, SMD	0805_140	BRC2012T2R2MD	Taiyo Yuden		
LBL1	1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H ~ 10,000 per roll	PCB Label 0.650"H x 0.200"W	THT-14-423-10	Brady	-	-
P1, P2, P3, P4	4		Connector, Receptacle, 100mil, 10x1, Gold plated, TH	10x1 Receptacle	SSW-110-23-F-S	Samtec		
Q1, Q4, Q6, Q7	4	50V	MOSFET, N-CH, 50 V, 0.22 A, SOT-23	SOT-23	BSS138	Fairchild Semiconductor		None
Q2	1	-50V	MOSFET, P-CH, -50 V, -0.13 A, AEC-Q101, SOT-363	SOT-363	BSS84DW-7-F	Diodes Inc.		None
Q3, Q5	2	-30V	MOSFET, P-CH, -30 V, -1.5 A, SSOT-3	SSOT-3	FDN358P	Fairchild Semiconductor		None
R1, R2, R3, R4, R5, R6, R8, R27, R31	9	33.0	RES, 33.0, 1%, 0.1 W, 0402	0402	ERJ-2RKf33R0X	Panasonic		

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R7, R9, R10, R11, R25, R29, R30, R32, R137, R138, R139, R144	12	1.0k	RES, 1.0 k, 5%, 0.063 W, 0402	0402	CRCW04021K00JNED	Vishay-Dale		
R12, R39, R40, R44, R45, R46, R60, R62, R64, R67, R68, R70, R71, R72, R74, R75, R76, R78, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R116, R117, R121, R123, R126, R128, R129, R130, R132, R133, R134, R135, R154	44	0	RES, 0, 5%, 0.063 W, 0402	0402	ERJ-2GE0R00X	Panasonic		
R13	1	100	RES, 100, 5%, 0.063 W, 0402	0402	CRCW0402100RJNED	Vishay-Dale		
R14	1	100k	RES, 100 k, 5%, 0.1 W, 0603	0603	CRCW0603100KJNEA	Vishay-Dale		
R15	1	330k	RES, 330 k, 5%, 0.063 W, 0402	0402	CRCW0402330KJNED	Vishay-Dale		
R16	1	220k	RES, 220 k, 5%, 0.063 W, 0402	0402	CRCW0402220KJNED	Vishay-Dale		
R17, R26, R41, R48, R49, R50, R136, R146, R151, R152, R153	11	100k	RES, 100 k, 5%, 0.063 W, 0402	0402	CRCW0402100KJNED	Vishay-Dale		
R51	1	2.7k	RES, 2.7 k, 5%, 0.063 W, 0402	402	CRCW04022K70JNED	Vishay-Dale		
R18, R19	2	220	RES, 220, 5%, 0.1 W, 0603	0603	CRCW0603220RJNEA	Vishay-Dale		
R20, R35, R53, R141, R142	5	10k	RES, 10 k, 5%, 0.063 W, 0402	0402	CRCW040210K0JNED	Vishay-Dale		
R21	1	100	RES, 100, 1%, 0.1 W, 0402	0402	ERJ-2RKF1000X	Panasonic		
R22	1	100	RES, 100, 1%, 0.063 W, 0402	0402	CRCW0402100RFKED	Vishay-Dale		
R23	1	4.87k	RES, 4.87 k, 1%, 0.1 W, 0603	0603	CRCW06034K87FKEA	Vishay-Dale		
R24, R143, R145, R147, R148, R149	6	270	RES, 270, 5%, 0.1 W, 0603	0603	CRCW0603270RJNEA	Vishay-Dale		
R28	1	51	RES, 51, 5%, 0.063 W, 0402	0402	CRCW040251R0JNED	Vishay-Dale		
R33, R34	2	33	RES, 33, 5%, 0.1 W, 0603	0603	CRCW060333R0JNEA	Vishay-Dale		
R36, R56	2	0	RES, 0, 5%, 0.1 W, 0603	0603	ERJ-3GEY0R00V	Panasonic		
R47	1	270	RES, 270, 5%, 0.063 W, 0402	0402	CRCW0402270RJNED	Vishay-Dale		
R52	1	2.2k	RES, 2.2 k, 5%, 0.063 W, 0402	0402	CRCW04022K20JNED	Vishay-Dale		
R102, R105, R110, R111	4	470	RES, 470, 1%, 0.1 W, 0402	0402	ERJ-2RKF4700X	Panasonic		
R103, R104, R112, R113	4	576k	RES, 576 k, 1%, 0.063 W, 0402	0402	CRCW0402576KFKEA	Vishay-Dale		
R106, R107, R114, R115	4	422k	RES, 422 k, 1%, 0.063 W, 0402	0402	CRCW0402422KFKEA	Vishay-Dale		
R118, R119	2	3.3k	RES, 3.3 k, 5%, 0.063 W, 0402	0402	CRCW04023K30JNED	Vishay-Dale		
R140	1	100k	RES, 100 k, 1%, 0.1 W, 0402	0402	ERJ-2RKF1003X	Panasonic		
SW1, SW2, SW3	3		Switch, SPST-NO, Off-Mom, 1 Pos, 0.05A, 12VDC, TH	7.3x5.9mm	MJTP1117	APEM		
SW4	1		Switch, Tactile, SPST-NO, SMT	Switch, 6.1x1.8x4.6 mm	EVQ-PSD02K	Panasonic		
TP2	1	SMT	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature	5015	Keystone		
U1	1		Tiva C Series Microcontroller, PDT0128A	PDT0128A	TM4C1294NCPDTI3R	Texas Instruments	TM4C1294NCPDTI3	Texas Instruments
U2	1		ESD Solution for High-Speed Differential Interface, 4 Channels, -40 to +85 degC, 10-pin SON (DQA), Green (RoHS & no Sb/Br)	DQA0010A	TPD4S010DQAR	Texas Instruments	Equivalent	Texas Instruments
U3, U4, U6	3		Single-Bit Dual-Supply Bus Transceiver With Configurable Voltage Translation and 3-State Outputs, DCK0006A	DCK0006A	SN74LVC1T45DCKR	Texas Instruments	SN74LVC1T45DCKT	Texas Instruments
U5	1		Precision Micropower Shunt Voltage Reference, 0.2% accuracy, 2.5 V, 15 ppm / degC, 15 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A	LM4040B25IDBZR	Texas Instruments	Equivalent	Texas Instruments
U7	1		SimpleLink Wi-Fi and Internet-of-Things Solution, a Single-Chip Wireless MCU, RGK0064B (VQFN-64)	RGK0064B	CC3220SF12ARGKR	Texas Instruments	CC3220SF12ARGKT	Texas Instruments
U8	1		ULTRA LOW POWER, 32M-BIT [x 1/x 2/x 4] CMOS MXSMIO(SERIAL MULTI I/O) FLASH MEMORY, SOP-8	8-SOP	MX25R3235FM1IL0	Macronix International Co., Ltd		
U9	1		Low Cost, Low Power, Rail-to-Rail Operational Amplifier MicroAmplifier(TM) Series, 2.7 to 5.5 V, -55 to 125 degC, 14-pin SOP (PW0014A), Green (RoHS & no Sb/Br)	PW0014A	OPA4342EA/250	Texas Instruments	Equivalent	None
U10	1		Infrared Thermopile Sensor in Chip-Scale Package, YZF0008AEAE	YZF0008AEAE	TMP006AIYZF	Texas Instruments		Texas Instruments
U11	1		Digital, triaxial acceleration sensor, 12LGA	LGA, 12-Leads, Body 2x2mm, Pitch 0.5mm	BMA222E	Bosch Solar Energy		
U12	1		Buck Step Down Regulator with 3 to 17 V Input and 3.3 V Output, -40 to 85 degC, 8-Pin WSON (DSG), Green (RoHS & no Sb/Br)	DSG0008A	TPS62162DSGR	Texas Instruments	Equivalent	Texas Instruments
Y1	1		Crystal, 16 MHz, 18 pF, SMD	ABM3	ABM3-16.000MHZ-D2Y-T	Abracorn Corporation		
Y2	1		CRYSTAL, 32.768KHZ, 9PF, SMD	3.2x0.9x1.5mm	ABS07-32.768KHZ-9-T	Abracorn Corporation		
Y3	1		Crystal, 40MHz, 8pF, SMD	2.5x2mm	Q24FA20H0039600	Epson		
FID1, FID2, FID3, FID4, FID5, FID6	0		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A		

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R37, R38, R42, R43, R54, R55, R58, R59, R61, R63, R65, R66, R69, R73, R77, R79, R93, R94, R95, R96, R97, R98, R99, R100, R101, R108, R109, R120, R122, R124, R127, R131	0	0	RES, 0, 5%, 0.063 W, 0402	0402	ERJ-2GE0R00X	Panasonic		
R57, R150	0	0	RES, 0, 5%, 0.1 W, 0603	0603	ERJ-3GEY0R00V	Panasonic		
R125	0	0	RES, 0, 5%, 0.125 W, 0805	0805	ERJ-6GEY0R00V	Panasonic		

Notes:
Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.