

**Ceramic Chip Antennas**



**B**

Frequency (MHz)	Case Size	Gain (dBi) Peak / Average	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Johanson Technology Part No.
				1	10	100		Qty.	Pricing	
2,400 - 2,500, 4,900 - 5,900	46-1	1.0 / -1.5	712-1000-1-ND	.76	.67	.62	712-1000-2-ND	1,000	306.37	2450AD46A5400E
	50†	-0.7 / -2.6	712-1002-1-ND	1.66	1.44	1.33	712-1002-2-ND	1,000	663.56	0920AT50A080E
	18-4	0.5 / -0.5	712-1005-1-ND	.54	.47	.43	712-1005-2-ND	3,000	213.45/M	2450AT18A100E
	18-4	0.5 / -0.5	712-1006-1-ND	.28	.25	.23	712-1006-2-ND	3,000	112.53/M	2450AT18B100E
2,400 - 2,500	42-1	0 / -1.0	712-1007-1-ND	.57	.50	.46	712-1007-2-ND	2,000	226.51/M	2450AT42A100E
	42-2	0 / -1.5	712-1008-1-ND	.61	.53	.49	712-1008-2-ND	2,000	243.94/M	2450AT42B100E
	43-1	2.0 / 0.5	712-1009-1-ND	.60	.52	.48	712-1009-2-ND	1,000	239.58	2450AT43A100E
	43-2	1.0 / -0.5	712-1010-1-ND	.68	.60	.55	712-1010-2-ND	1,000	273.70	2450AT43B100E
	44-1	1.3 / 0	712-1011-1-ND	.67	.58	.54	712-1011-2-ND	1,000	265.72	2450AT44A100E
	45-1	3.0 / 1.0	712-1012-1-ND	.70	.61	.56	712-1012-2-ND	1,000	280.24	2450AT45A100E
Tri-Band	43-1	2.0 / -4.0	712-1013-1-ND	1.66	1.44	1.33	712-1013-2-ND	1,000	662.84	2500AT52M3555E
	43-1	3.3 / -2.3	712-1015-1-ND	.55	.48	.45	712-1015-2-ND	1,000	220.70	5250AT43A200E
	18-4	2.0 / -2.5	712-1016-1-ND	.48	.42	.39	712-1016-2-ND	3,000	191.67/M	5400AT18A100E
	43-1	3.9 / -1.5	712-1017-1-ND	.90	.78	.72	712-1017-2-ND	1,000	359.37	5775AT43A100E
	51	1.5 / -3.5	712-1402-1-ND†	1.69	1.47	1.36	712-1402-2-ND†	1,000	678.08	3100AT51A7200E
	44	2.5 / 0.5	712-1403-1-ND†	.62	.55	.51	712-1403-2-ND†	1,000	250.47	2500AT44M0400E

† See Digi-Key website for detailed specifications.

**Ceramic Chip Baluns and Balun Filters**



Frequency (MHz)	Case Size	Impedance Unbalanced / Balanced (Ω)	Phase Difference	Amplitude Difference Maximum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Johanson Technology Part No.
						1	10	100		Qty.	Pricing	
2,300 - 2,700	14-1	50 / 50	180° ±15°	1.5	712-1046-1-ND†	.55	.48	.45	712-1046-2-ND†	4,000	220.71/M	2500BL14M050T
2,300 - 2,700	14-1	50 / 100	180° ±15°	1.5	712-1047-1-ND†	.55	.48	.45	712-1047-2-ND†	4,000	220.71/M	2500BL14M100T
3,300 - 3,900	14-1	50 / 50	180° ±15°	1.5	712-1048-1-ND†	.55	.48	.45	712-1048-2-ND†	4,000	220.71/M	3600BL14M050T
3,300 - 3,900	14-1	50 / 100	180° ±15°	1.5	712-1049-1-ND†	.55	.48	.45	712-1049-2-ND†	4,000	220.71/M	3600BL14M100T
3,400 - 4,000	15-1B	50 / 50	180° ±25°	2.0	712-1050-1-ND	.37	.32	.30	712-1050-2-ND	4,000	147.38/M	3700BL15B050E
3,400 - 4,000	15-1B	50 / 100	180° ±20°	1.0	712-1051-1-ND	.37	.32	.30	712-1051-2-ND	4,000	147.38/M	3700BL15B100E
3,400 - 4,000	15-1	50 / 200	180° ±20°	1.0	712-1052-1-ND	.37	.32	.30	712-1052-2-ND	4,000	147.38/M	3700BL15B200E
3,100 - 4,800	14-1	50 / 100	180° ±20°	1.5	712-1053-1-ND†	.55	.48	.45	712-1053-2-ND†	4,000	220.71/M	4000BL14U100T
5,150 - 5,350	14-1	50 / 100	180° ±15°	1.5	712-1054-1-ND	.55	.48	.45	712-1054-2-ND	4,000	220.71/M	5250BL14B100T
5,150 - 5,350	15-1B	50 / 100	180° ±10°	2.0	712-1055-1-ND	.37	.32	.30	712-1055-2-ND	4,000	147.38/M	5250BL15B100E
5,150 - 5,500	15-1B	50 / 50	180° ±10°	2.0	712-1056-1-ND	.37	.32	.30	712-1056-2-ND	4,000	147.38/M	5325BL15B050E
4,900 - 5,875	14-1	50 / 100	180° ±10°	1.5	712-1057-1-ND	.43	.38	.35	712-1057-2-ND	4,000	172.07/M	5400BL14B100T
4,900 - 5,900	15-1B	50 / 50	180° ±10°	2.0	712-1058-1-ND	.37	.32	.30	712-1058-2-ND	4,000	147.38/M	5400BL15B050E
4,900 - 5,900	15-1B	50 / 100	180° ±10°	2.0	712-1059-1-ND	.37	.32	.30	712-1059-2-ND	4,000	147.38/M	5400BL15B100E
4,900 - 5,875	15-1B	50 / 200	180° ±10°	2.0	712-1060-1-ND	.37	.32	.30	712-1060-2-ND	4,000	147.38/M	5400BL15B200E
4,900 - 5,875	15-1A	50 / 50	180° ±10°	2.0	712-1061-1-ND	.36	.32	.29	712-1061-2-ND	4,000	143.75/M	5400BL15K050E
5,150 - 5,875	15-1B	50 / 100	180° ±10°	2.0	712-1062-1-ND	.26	.23	.21	712-1062-2-ND	4,000	103.82/M	5512BL15B100E
5,725 - 5,875	15-1B	50 / 100	180° ±8°	0.75	712-1063-1-ND	.37	.32	.30	712-1063-2-ND	4,000	147.38/M	5800BL15B100E
2,400 - 2,500	18-4	50 / —	180° ±10°	2.0 TX, 3.0 RX	712-1064-1-ND◇	1.10	.96	.89	712-1064-2-ND◇	3,000	442.14/M	2450BM18A001E
<b>Balun Filters</b>												
2,400 - 2,500	15-1A	50 / 50	180° ±10°	1.0	712-1065-1-ND	.73	.64	.59	712-1065-2-ND	4,000	294.76/M	2450FB15A050E
2,400 - 2,500	15†	50 / —	180° ±10°	1.5	712-1066-1-ND	.74	.64	.60	712-1066-2-ND	4,000	295.49/M	2450FB15K0001E
2,400 - 2,500	39†	50 / 22	180° ±8°	1.0	712-1114-1-ND	1.13	.98	.91	712-1114-2-ND	3,000	450.85/M	2450FB39K001E
2,400 - 2,500	39-2	50 / 50	180° ±10°	1.0	712-1067-1-ND	.76	.66	.61	712-1067-2-ND	3,000	300.57/M	2450FB39A050E
2,400 - 2,500	39-2	50 / 100	180° ±10°	1.0	712-1068-1-ND	.61	.53	.49	712-1068-2-ND	3,000	243.94/M	2450FB39B100E
2,400 - 2,500	39†	50 / 100	180° ±8°	1.0	712-1069-1-ND	.76	.66	.61	712-1069-2-ND	3,000	300.57/M	2450FB39C100E
2,300 - 2,390	39-2B	50 / 50	180° ±10°	1.5	712-1404-1-ND†	.67	.58	.54	712-1404-2-ND†	3,000	265.72/M	2345FB39A050E
2,500 - 2,690	39-2B	50 / 50	180° ±10°	1.5	712-1405-1-ND†	.67	.58	.54	712-1405-2-ND†	3,000	265.72/M	2595FB39A050E
3,400 - 3,600	39-2B	50 / 50	180° ±12°	1.5	712-1406-1-ND†	.66	.58	.54	712-1406-2-ND†	3,000	264.99/M	3500FB39A050E

† See Digi-Key website for detailed specifications. ◇ Matching networks

**Baluns 2.45GHz WiFi/Bluetooth**



Frequency (MHz)	Case Size	Impedance Unbalanced / Balanced (Ω)	Phase Difference	Amplitude Difference Maximum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel Pricing		Johanson Technology Part No.
						1	10	100		Qty.	4,000	
2,400 - 2,500	14-1	50 / 50	180° ±10°	2.0	712-1034-1-ND	.23	.21	.19	712-1034-2-ND	93.66/M		2450BL14B050T
2,400 - 2,500	14-1	50 / 100	180° ±10°	2.0	712-1035-1-ND	.72	.63	.58	712-1035-2-ND	287.50/M		2450BL14B100T
2,400 - 2,500	14-1	50 / 200	180° ±10°	2.0	712-1036-1-ND	.68	.60	.55	712-1036-2-ND	273.71/M		2450BL14B200T
2,400 - 2,500	14-1	50 / 50	180° ±10°	2.0	712-1037-1-ND	.54	.47	.44	712-1037-2-ND	215.63/M		2450BL14C050T
2,400 - 2,500	14-1	50 / 100	180° ±10°	1.5	712-1038-1-ND	.54	.47	.44	712-1038-2-ND	215.63/M		2450BL14C100T
2,400 - 2,500	14-1	50 / 200	180° ±10°	2.0	712-1039-1-ND	.54	.47	.44	712-1039-2-ND	215.63/M		2450BL14C200T
2,400 - 2,500	15-1B	50 / 50	180° ±10°	2.0	712-1040-1-ND	.26	.23	.21	712-1040-2-ND	103.82/M		2450BL15B050E
2,400 - 2,500	15-1B	50 / 100	180° ±10°	2.0	712-1041-1-ND	.20	.18	.17	712-1041-2-ND	82.04/M		2450BL15B100E
2,400 - 2,500	15-1B	50 / 150	180° ±10°	2.0	712-1042-1-ND	.36	.32	.29	712-1042-2-ND	143.75/M		2450BL15B150E
2,400 - 2,500	15-1B	50 / 200	180° ±10°	2.0	712-1043-1-ND	.26	.23	.21	712-1043-2-ND	103.82/M		2450BL15B200E
2,400 - 2,500	15-1B	50 / 50	180° ±10°	2.0	712-1044-1-ND	.26	.23	.21	712-1044-2-ND	103.82/M		2450BL15K050E
2,400 - 2,500	15-1B	50 / 100	180° ±10°	2.0	712-1045-1-ND	.37	.32	.30	712-1045-2-ND	147.38/M		2450BL15K100E

**Baluns GSM / DCS / PCS / CDMA**



Frequency (MHz)	Case Size	Impedance Unbalanced / Balanced (Ω)	Phase Difference	Amplitude Difference Maximum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel Pricing		Johanson Technology Part No.
						1	10	100		Qty.	Pricing	
900 - 940	41-2	50 / 50	—	—	712-1018-1-ND	.85	.74	.68	712-1018-2-ND	2,000	339.04/M	0918BD41B050E
460 - 470	15-3	— / 100	180° ±10°	1.5	712-1019-1-ND	.72	.63	.58	712-1019-2-ND	4,000	287.50/M	0465BL15B100E
800 - 900	15-1D	50 / 200	180° ±10°	1.0	712-1020-1-ND	.37	.32	.30	712-1020-2-ND	4,000	147.38/M	0866BL15C200E
851 - 941	14-1	50 / 50	180° ±7°	0.7	712-1021-1-ND	.73	.64	.59	712-1021-2-ND	4,000	294.76/M	0896BL14B050T
800 - 1,000	15-1D	50 / 50	180° ±10°	2.0	712-1022-1-ND	.37	.32	.30	712-1022-2-ND	4,000	147.38/M	0900BL15C050E
800 - 1,000	18-1	50 / 100	180° ±10°	2.0	712-1023-1-ND	.36	.32	.29	712-1023-2-ND	3,000	143.75/M	0900BL18B100E
800 - 1,000	18-1	50 / 200	180° ±10°	2.0	712-1024-1-ND	.29	.25	.24	712-1024-2-ND	3,000	115.44/M	0900BL18B200E
1,700 - 1,900	18-1	50 / 200	180° ±10°	2.0	712-1028-1-ND	.37	.32	.30	712-1028-2-ND	3,000	147.38/M	1800BL18B200E
1,700 - 2,000	15-1	50 / 50	180° ±10°	2.0	712-1029-1-ND	.37	.32	.30	712-1029-2-ND	4,000	147.38/M	1850BL15A050E
1,700 - 2,000	15-1B	50 / 50	180° ±10°	2.0	712-1030-1-ND	.37	.32	.30	712-1030-2-ND	4,000	147.38/M	1850BL15B050E
1,700 - 2,000	15-1B</											

Baluns WiMAX and WCDMA



Frequency (MHz)	Case Size	Impedance Unbalanced / Balanced (Ω)	Phase Difference	Amplitude Difference Maximum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Johanson Technology Part No.
						1	10	100		Qty.	Pricing	
1,400 - 1,500	15-1B	50 / 200	180° ±10°	2.0	712-1025-1-ND	.37	.32	.30	712-1025-2-ND	4,000	147.38/M	1450BL15A200E
1,500 - 1,700	15-1B	50 / 50	180° ±10°	2.0	712-1026-1-ND	.37	.32	.30	712-1026-2-ND	4,000	147.38/M	1600BL15B050E
1,500 - 1,700	15-1B	50 / 100	180° ±10°	2.0	712-1027-1-ND	.37	.32	.30	712-1027-2-ND	4,000	147.38/M	1600BL15B100E
2,000 - 2,200	18-1	50 / 200	180° ±10°	2.0	712-1033-1-ND	.37	.32	.30	712-1033-2-ND	3,000	147.38/M	2100BL18B200E

BandPass Filters



Frequency (MHz)	Case Size	Insertion Loss Maximum (dB)	Return Loss Minimum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Johanson Technology Part No.
					1	10	100		Qty.	Pricing	
1,710 - 1,910	07-1	2.0	9.5	712-1070-1-ND	.28	.25	.23	712-1070-2-ND	10,000	109.63/M	1810BP07B200E
1,710 - 1,910	07-1	2.0	9.5	712-1071-1-ND	.30	.26	.24	712-1071-2-ND	10,000	114.71/M	1810BP07C200E
1,893 - 1,920	18-3B	1.5	9.5	712-1073-1-ND	.85	.74	.68	712-1073-2-ND	3,000	339.05/M	1906BP18A027E
1,893 - 1,920	39†	2.8	9.5	712-1075-1-ND	.65	.57	.52	712-1075-2-ND	3,000	259.19/M	1906BP39B027E
1,893 - 1,920	18†	3.0	9.5	712-1074-1-ND	.85	.74	.68	712-1074-2-ND	3,000	339.05/M	1906BP18C027E
2,400 - 2,500	07†	2.5	9.5	712-1076-1-ND	.76	.66	.61	712-1076-2-ND	10,000	290.40/M	2450BP07A0100E
2,400 - 2,500	14†	2.0	9.5	712-1077-1-ND	.76	.66	.61	712-1077-2-ND	4,000	300.57/M	2450BP14C0100T
2,400 - 2,500	15-3	2.2	9.5	712-1078-1-ND	.36	.32	.29	712-1078-2-ND	4,000	143.75/M	2450BP15B100E
2,400 - 2,500	15-3B	2.8	9.5	712-1079-1-ND	.54	.47	.44	712-1079-2-ND	4,000	215.63/M	2450BP15C100E
2,400 - 2,500	15-1F	2.6	9.5	712-1080-1-ND	.68	.59	.55	712-1080-2-ND	4,000	270.08/M	2450BP15D100E
2,400 - 2,500	15-3C	1.5	9.5	712-1081-1-ND	.83	.72	.67	712-1081-2-ND	4,000	331.06/M	2450BP15E0100E
2,450 ±50	18-2	2.0	9.5	712-1083-1-ND	.83	.72	.67	712-1083-2-ND	3,000	330.33/M	2450BP18C100E
2,450 ±50	18-3A	2.5	9.5	712-1084-1-ND	.48	.42	.39	712-1084-2-ND	3,000	191.67/M	2450BP18C100E
2,400 - 2,500	18-3B	2.0	9.5	712-1085-1-ND	.83	.72	.67	712-1085-2-ND	3,000	330.33/M	2450BP18C100E
2,400 - 2,500	18-3C	2.3	9.5	712-1086-1-ND	.83	.72	.67	712-1086-2-ND	3,000	330.33/M	2450BP18D100E
2,450 ±50	39-1	2.5	9.5	712-1087-1-ND	.34	.30	.28	712-1087-2-ND	3,000	135.77/M	2450BP39C100E
2,450 ±50	39-1	1.8	9.5	712-1088-1-ND	.36	.32	.29	712-1088-2-ND	3,000	143.75/M	2450BP39C100E
2,400 - 2,500	39-1	1.5	9.5	712-1089-1-ND	.33	.29	.26	712-1089-2-ND	3,000	129.96/M	2450BP39C100E
2,400 - 2,500	39-1	2.2	9.5	712-1090-1-ND	.37	.32	.30	712-1090-2-ND	3,000	147.38/M	2450BP39C100E
2,400 - 2,500	39-1	2.5	9.5	712-1091-1-ND	.38	.33	.31	712-1091-2-ND	3,000	150.29/M	2450BP39D100E
2,400 - 2,500	39-1	1.2	9.5	712-1092-1-ND	.65	.57	.52	712-1092-2-ND	3,000	259.19/M	2450BP39D100E
2,400 - 2,500	39-1	2.6	8.9	712-1093-1-ND	.65	.56	.52	712-1093-2-ND	3,000	258.46/M	2450BP39E100E
2,450 ±50	41-1	2.3	9.5	712-1095-1-ND	.92	.80	.74	712-1095-2-ND	2,000	368.08/M	2450BP41D100E
2,450 ±50	41-1	1.3	9.5	712-1096-1-ND	.90	.78	.72	712-1096-2-ND	2,000	359.37/M	2450BP41D100E
2,450 ±50	41-1	2.5	9.5	712-1094-1-ND	.73	.64	.59	712-1094-2-ND	2,000	294.76/M	2450BP41D100E
2,300 - 2,700	15†	2.0	9.5	712-1097-1-ND†	.90	.78	.72	712-1097-2-ND†	4,000	359.37/M	2500BP15M400E
2,500 - 2,686	44-1	2.0	9.5	712-1098-1-ND	1.29	1.12	1.04	712-1098-2-ND	2,000	515.46/M	2593BP44B186E
3,300 - 3,900	15-3B	1.8	9.5	712-1099-1-ND†	.65	.57	.52	712-1099-2-ND†	4,000	259.19/M	3600BP15M600E
3,100 - 4,900	15-2B	2.3	8.5	712-1100-1-ND†	.72	.63	.58	712-1100-2-ND†	4,000	287.50/M	4000BP15U1800E
3,100 - 7,160	18-4	1.6	9.5	712-1101-1-ND†	.85	.74	.68	712-1101-2-ND†	3,000	339.05/M	5130BP18U4060E
5,150 - 5,570	15-3C	5.0	9.5	712-1102-1-ND	.65	.56	.52	712-1102-2-ND	4,000	258.46/M	5450BP15T600E
5,150 - 5,825	15-1B	1.8	9.5	712-1103-1-ND	.65	.57	.52	712-1103-2-ND	4,000	259.19/M	5487BP15B675E
5,150 - 5,825	15-1B	1.8	9.5	712-1104-1-ND	.65	.57	.52	712-1104-2-ND	4,000	259.19/M	5487BP15C675E
5,150 - 5,875	15-3B	1.5	9.5	712-1105-1-ND	.36	.32	.29	712-1105-2-ND	4,000	143.75/M	5515BP15B725E
5,150 - 5,875	15-3B	2.5	9.5	712-1109-1-ND	.31	.28	.26	712-1109-2-ND	4,000	125.60/M	5515BP15C725E
5,150 - 5,875	15-1B	2.8	9.5	712-1106-1-ND	.65	.57	.52	712-1106-2-ND	4,000	259.19/M	5515BP15B730E
4,900 - 5,875	15-3B	1.5	9.5	712-1107-1-ND	.36	.32	.29	712-1107-2-ND	4,000	143.75/M	5515BP15B975E
4,900 - 5,875	15-3B	2.0	8.5	712-1136-1-ND	.36	.32	.29	712-1136-2-ND	4,000	143.75/M	5515BP15C975E
4,900 - 5,920	15-3B	1.5	9.5	712-1108-1-ND	.36	.32	.29	712-1108-2-ND	4,000	143.75/M	5515BP15C1020E

† See Digi-Key website for detailed specifications.

Ceramic Chip Diplexers



Frequency (MHz)	Case Size	Attenuation Low Band (dB)	Attenuation High Band (dB)	Return Loss (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel Pricing 4,000	Johanson Technology Part No.
						1	10	100			
2,450 - 5,400	15-1D	0.70	19	9.5	712-1110-1-ND	.72	.63	.58	712-1110-2-ND	287.50/M	2450DP15F5400E

EMI Filters



No. of Sections	Case Size	Cutoff Frequency (MHz)	Attenuation Minimum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Johanson Technology Part No.
					1	10	100		Qty.	Pricing	
4	18-4	200	10 @ 1500 - 3000MHz	712-1111-1-ND	.61	.53	.49	712-1111-2-ND	3,000	244.67/M	0200FA18A0200E
	15†	400	20 @ 800 - 1000MHz	712-1112-1-ND	.37	.32	.30	712-1112-2-ND	4,000	147.38/M	0400FA15A0400E
	18-4	400	10 @ 1500 - 2500MHz	712-1113-1-ND	.61	.53	.49	712-1113-2-ND	3,000	244.67/M	0400FA18A0400E

† See Digi-Key website for detailed specifications.

High and Low Pass Filters



Frequency (MHz)	Case Size	Insertion Loss Maximum (dB)	Return Loss Minimum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Johanson Technology Part No.
					1	10	100		Qty.	Pricing	
<b>High Pass Filters</b>											
2,450 - 2,500	14-1B	1.3	14	712-1115-1-ND	.57	.49	.46	712-1115-2-ND	4,000	225.79/M	2450HP14A100T
2,450 - 2,500	15†	0.85	9.5	712-1116-1-ND	.62	.55	.51	712-1116-2-ND	4,000	250.47/M	2450HP15A100E
<b>Low Pass Filters</b>											
0 - 500	15-1A	0.7	9.5	712-1117-1-ND	.66	.58	.54	712-1117-2-ND	4,000	264.99/M	0500LP15A500E
824 - 915	14-1	0.6	10.9	712-1118-1-ND	.66	.58	.54	712-1118-2-ND	4,000	264.99/M	0869LP14A090T
824 - 960	07-1	0.7	9.5	712-1119-1-ND	.83	.72	.67	712-1119-2-ND	10,000	320.17/M	0892LP07A136E
880 - 915	18-2	0.6	10.9	712-1120-1-ND	.85	.74	.68	712-1120-2-ND	3,000	339.05/M	0898LP18A035E
902 - 928	15-2A	0.65	9.5	712-1121-1-ND	.65	.56	.52	712-1121-2-ND	4,000	258.46/M	0915LP15A029E
902 - 928	15-2A	0.5	14.0	712-1122-1-ND	.66	.58	.54	712-1122-2-ND	4,000	264.99/M	0915LP15B029E
1,710 - 1,785	18-2	0.6	10.9	712-1123-1-ND	.70	.61	.56	712-1123-2-ND	3,000	280.24/M	1748LP18A075E
1,710 - 1,910	07-1	0.5	10.9	712-1124-1-ND	.55	.48	.45	712-1124-2-ND	10,000	213.45/M	1810LP07A200E
1,710 - 1,910	07-1	0.6	9.5	712-1125-1-ND	.37	.32	.30	712-1125-2-ND	10,000	142.30/M	1810LP07B200E
1,710 - 1,910	14-1	0.6	11.7	712-1126-1-ND	.66	.58	.54	712-1126-2-ND	4,000	264.99/M	1810LP14A200T
1,850 - 1,910	14-1	0.6	11.7	712-1127-1-ND	.66	.58	.54	712-1127-2-ND	4,000	264.99/M	1880LP14A060T
2,400 - 2,483	18-2	0.6	10.9	712-1128-1-ND	.68	.60	.55	712-1128-2-ND	3,000	272.98/M	2442LP18A083E
2,400 - 2,500	14-1	0.5	14.0	712-1129-1-ND	.66	.58	.54	712-1129-2-ND	4,000	264.99/M	2450LP14A100T
2,400 - 2,500	14-1	0.5	14.0	712-1130-1-ND	.65	.57	.52	712-1130-2-ND	4,000	259.19/M	2450LP14B100T
2,400 - 2,500	14-1	0.6	11.7	712-1131-1-ND	.65	.56	.52	712-1131-2-ND	4,000	258.46/M	2450LP14C100T
2,400 - 2,500	14-1	0.5	10.0	712-1132-1-ND	.33	.29	.27	712-1132-2-ND	4,000	132.86/M	2450LP15A050E
2,400 - 2,500	15†	0.5	10.9	712-1133-1-ND	.68	.59	.55	712-1133-2-ND	4,000	270.08/M	2450LP15B050E
3,400 - 3,700	14-1	0.6	14.0	712-1134-1-ND†	.37	.32	.30	712-1134-2-ND†	4,000	147.38/M	3550LP14A300T
5,150 - 5,875	15-2A	0.65	10.9	712-1135-1-ND	.33	.29	.27	712-113			

Directional Couplers



Frequency (MHz)	Case Size	Insertion Loss Maximum (dB)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel Pricing 4,000		Johanson Technology Part No.
				1	10	100		Qty.	Pricing	
<b>Dual Band, Dual Path</b>										
824 - 915, 999 - 1,102	14†	0.4, 0.6	712-1148-1-ND	.73	.64	.59	712-1148-2-ND	294.76/M	0869CP14B1050T	
824 - 915, 1,710 - 1,910	14†	0.4, 0.4	712-1137-1-ND	.57	.49	.46	712-1137-2-ND	225.79/M	0869CD14A1810T	
880 - 915, 1,710 - 1,785	15-2A	0.4, 0.4	712-1138-1-ND	.92	.80	.74	712-1138-2-ND	368.09/M	0898CD15B1748E	
880 - 915, 1,710 - 1,785	15-2A	0.35, 0.45	712-1139-1-ND	.44	.39	.36	712-1139-2-ND	177.15/M	0898CD15C1748E	
880 - 915, 1,710 - 1,785	15-2A	0.35, 0.5	712-1140-1-ND	.92	.80	.74	712-1140-2-ND	368.09/M	0898CD15D1748E	
<b>Couplers with Low Pass Filter</b>										
880 - 915	15-1C	0.7	712-1141-1-ND	.44	.39	.36	712-1141-2-ND	177.15/M	0898CF15A035E	
1,710 - 1,785	15-1C	0.5	712-1142-1-ND	.44	.39	.36	712-1142-2-ND	177.15/M	1748CF15A075E	
<b>Splitter, 3dB Hybrid</b>										
850 - 910	15-4	3.3 ±0.5	712-1143-1-ND	.85	.74	.68	712-1143-2-ND	339.05/M	0880CH15A060E	
1,900 - 2,000	15-4	3.3 ±0.5	712-1145-1-ND	.85	.74	.68	712-1145-2-ND	339.05/M	1950CH15A100E	
<b>Directional Couplers</b>										
810 - 885	14-1	0.25	712-1146-1-ND	.73	.64	.59	712-1146-2-ND	294.76/M	0848CP14A075T	
824 - 915	14-1	0.3	712-1147-1-ND	.73	.64	.59	712-1147-2-ND	294.76/M	0869CP14A090T	
880 - 915	14-1	0.28	712-1149-1-ND	.55	.48	.45	712-1149-2-ND	220.71/M	0898CP14A035T	
880 - 915	14-1	0.25	712-1150-1-ND	.73	.64	.59	712-1150-2-ND	294.76/M	0898CP14B035T	
880 - 915	15-1C	0.5	712-1151-1-ND	.66	.58	.54	712-1151-2-ND	264.99/M	0898CP15A035E	
955 - 979	14-1	0.5	712-1152-1-ND	.73	.64	.59	712-1152-2-ND	294.76/M	0967CP14A024T	
1,710 - 1,785	14-1	0.44	712-1153-1-ND	.55	.48	.45	712-1153-2-ND	220.71/M	1747CP14A075T	
1,710 - 1,785	15-1C	0.5	712-1154-1-ND	.66	.58	.54	712-1154-2-ND	264.99/M	1748CP15A075E	
1,710 - 1,910	14-1	0.3	712-1155-1-ND	.73	.64	.59	712-1155-2-ND	294.76/M	1810CP14A200T	
2,400 - 2,500	14-1	0.74	712-1156-1-ND	.57	.49	.46	712-1156-2-ND	225.79/M	2450CP14A100T	
2,400 - 2,500	14-1	0.34	712-1157-1-ND	.57	.49	.46	712-1157-2-ND	225.79/M	2450CP14B100T	

† See Digi-Key website for detailed specifications. † Dual Band, Single Path

Designer Kit

‡ 712-1400-ND WIMAX 0402 Series Designer Kit ..... 43.56



RF Chip Inductors



Package Type	Inductance (nH)	Tolerance	Test Frequency (MHz)	Rate Current (mA)	Q (Min.)	DCR (Ω)	SRF Min. (MHz)	Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape and Reel Pricing		Johanson Technology Part No.	
									1	10	100		Qty.	Pricing		
0402	10	±5	100	250	8	.45	3,700	712-1407-1-ND	.04	.30	2.35	712-1407-2-ND	10,000	10.17/M	L-07C10NJV6T	
	15	±5	100	250	8	.60	3,100	712-1408-1-ND	.04	.30	2.35	712-1408-2-ND	10,000	10.17/M	L-07C15NJV6T	
	18	±5	100	200	8	.65	2,900	712-1409-1-ND	.04	.30	2.35	712-1409-2-ND	10,000	10.17/M	L-07C18NJV6T	
	1.0	±0.3	100	300	8	.12	15,000	712-1410-1-ND	.04	.30	2.35	712-1410-2-ND	10,000	10.17/M	L-07C11NOSV6T	
	1.2	±0.3	100	300	8	.12	15,000	712-1454-1-ND	.04	.30	2.35	712-1454-2-ND	10,000	10.17/M	L-07C12NSV6T	
	1.5	±0.3	100	300	8	.13	15,000	712-1411-1-ND	.04	.30	2.35	712-1411-2-ND	10,000	10.17/M	L-07C11NSV6T	
	1.8	±0.3	100	300	8	.14	14,000	712-1412-1-ND	.04	.30	2.35	712-1412-2-ND	10,000	10.17/M	L-07C11NSV6T	
	2.4	±0.3	100	300	8	.16	10,000	712-1456-1-ND	.04	.30	2.35	712-1456-2-ND	10,000	10.17/M	L-07C2N4SV6T	
	3	±0.3	100	300	8	.18	9,000	712-1457-1-ND	.04	.30	2.35	712-1457-2-ND	10,000	10.17/M	L-07C3NOSV6T	
	3.9	±0.3	100	300	8	.22	7,000	712-1459-1-ND	.04	.30	2.35	712-1459-2-ND	10,000	10.17/M	L-07C3NSV6T	
	4.3	±0.3	100	300	8	.24	6,000	712-1460-1-ND	.04	.30	2.35	712-1460-2-ND	10,000	10.17/M	L-07C4NSV6T	
	5.1	±0.3	100	300	8	.26	5,500	712-1461-1-ND	.04	.30	2.35	712-1461-2-ND	10,000	10.17/M	L-07C5N1SV6T	
	5.6	±0.3	100	300	8	.27	5,400	712-1462-1-ND	.04	.30	2.35	712-1462-2-ND	10,000	10.17/M	L-07C5NSV6T	
	7.5	±5	100	250	8	.40	4,600	712-1463-1-ND	.03	.26	2.12	712-1463-2-ND	10,000	9.44/M	L-07C7N5JV6T	
	12	±5	100	250	8	.50	3,200	712-1453-1-ND	.04	.30	2.35	712-1453-2-ND	10,000	10.17/M	L-07C12NJV6T	
	22	±5	100	200	8	.80	2,100	712-1455-1-ND	.04	.30	2.35	712-1455-2-ND	10,000	10.17/M	L-07C22NJV6T	
	39	±5	100	150	8	1.20	1,400	712-1458-1-ND	.04	.30	2.35	712-1458-2-ND	10,000	10.17/M	L-07C39NJV6T	
	27.0	±5	100	200	8	.90	1,900	712-1413-1-ND	.04	.30	2.35	712-1413-2-ND	10,000	10.17/M	L-07C27NJV6T	
	2.2	±0.3	100	300	8	.16	12,000	712-1414-1-ND	.04	.30	2.35	712-1414-2-ND	10,000	10.17/M	L-07C2N2SV6T	
	2.7	±0.3	100	300	8	.17	9,500	712-1415-1-ND	.04	.30	2.35	712-1415-2-ND	10,000	10.17/M	L-07C2N7SV6T	
	3.3	±0.3	100	300	8	.19	8,500	712-1416-1-ND	.04	.30	2.35	712-1416-2-ND	10,000	10.17/M	L-07C3N3SV6T	
	4.7	±0.3	100	300	8	.24	6,000	712-1417-1-ND	.04	.30	2.35	712-1417-2-ND	10,000	10.17/M	L-07C4N7SV6T	
	6.8	±5	100	250	8	.32	5,000	712-1419-1-ND	.04	.30	2.35	712-1419-2-ND	10,000	10.17/M	L-07C6N8JV6T	
	8.2	±5	100	250	8	.40	4,600	712-1420-1-ND	.04	.30	2.35	712-1420-2-ND	10,000	10.17/M	L-07C8N2JV6T	
	33.0	±5	100	200	8	1.00	1,600	712-1464-1-ND	.04	.30	2.35	712-1464-2-ND	10,000	10.17/M	L-07C33NJV6T	
	47.0	±5	100	150	8	1.30	1,200	712-1421-1-ND	.04	.30	2.35	712-1421-2-ND	10,000	10.30/M	L-07C47NJV6T	
	68.0	±5	100	100	8	2.20	1,000	712-1422-1-ND	.04	.30	2.35	712-1422-2-ND	10,000	10.30/M	L-07C68NJV6T	
	100	±5	100	100	8	2.50	850	712-1423-1-ND	.05	.42	3.34	712-1423-2-ND	10,000	14.62/M	L-07CR10JV6T	
	0603	1.0	±0.3	100	300	8	.10	17,000	712-1424-1-ND	.04	.35	2.80	712-1424-2-ND	4,000	12.23/M	L-14C1NOSV4T
		1.5	±0.3	100	300	8	.10	17,000	712-1425-1-ND	.04	.35	2.80	712-1425-2-ND	4,000	12.23/M	L-14C1NSV4T
1.8		±0.3	100	300	8	.10	13,000	712-1426-1-ND	.04	.35	2.80	712-1426-2-ND	4,000	12.23/M	L-14C1N8SV4T	
2.2		±0.3	100	300	8	.15	12,000	712-1427-1-ND	.04	.35	2.80	712-1427-2-ND	4,000	12.23/M	L-14C2N2SV4T	
3.3		±0.3	100	300	8	.20	6,500	712-1428-1-ND	.04	.35	2.80	712-1428-2-ND	4,000	12.23/M	L-14C3NSV4T	
3.9		±0.3	100	300	8	.20	6,300	712-1429-1-ND	.04	.35	2.80	712-1429-2-ND	4,000	12.23/M	L-14C3NSV4T	
4.7		±0.3	100	300	8	.20	5,400	712-1430-1-ND	.04	.35	2.80	712-1430-2-ND	4,000	12.23/M	L-14C4N7SV4T	
5.6		±0.3	100	300	8	.25	4,600	712-1431-1-ND	.04	.35	2.80	712-1431-2-ND	4,000	12.23/M	L-14C5NSV4T	
6.8		±5	100	300	8	.30	4,500	712-1432-1-ND	.04	.35	2.80	712-1432-2-ND	4,000	12.23/M	L-14C6N8JV4T	
8.2		±5	100	300	8	.33	3,800	712-1433-1-ND	.04	.35	2.80	712-1433-2-ND	4,000	12.23/M	L-14C8N2JV4T	
10		±5	100	300	8	.35	3,700	712-1434-1-ND	.05	.41	3.23	712-1434-2-ND	4,000	14.13/M	L-14C10NJV4T	
12		±5	100	300	8	.40	3,200	712-1435-1-ND	.05	.41	3.23	712-1435-2-ND	4,000	14.13/M	L-14C12NJV4T	
15		±5	100	300	8	.45	2,900	712-1436-1-ND	.05	.41	3.23	712-1436-2-ND	4,000	14.13/M	L-14C15NJV4T	
18		±5	100	300	10	.50	2,100	712-1437-1-ND	.05	.41	3.23	712-1437-2-ND	4,000	14.13/M	L-14C18NJV4T	
22		±5	100	300	10	.55	2,100	712-1438-1-ND	.05	.41	3.23	712-1438-2-ND	4,000	14.13/M	L-14C22NJV4T	
27		±5	100	300	10	.60	2,000	712-1439-1-ND	.05	.41	3.23	712-1439-2-ND	4,000	14.13/M	L-14C27NJV4T	
33		±5	100	300	10	.65	1,600	712-1440-1-ND	.05	.41	3.23	712-1440-2-ND	4,000	14.13/M	L-14C33NJV4T	

(Continued)

Digi-Reel Most SMT cutdown parts are available on a Digi-Reel. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key Services on page 2 for additional information.

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