

Frequency Multiplier (Tripler)

RMK-3-451+

Typical Performance Data

Test Conditions: RF Input Power = 12 dBm @ +25°C

FREQUENCY (MHz)				CONVERSION LOSS (dB)	HARMONIC OUTPUT* (-dBc)		
X1 OUTPUT	X2 OUTPUT	X3 OUTPUT	X4 OUTPUT	X3 OUTPUT	X1 OUTPUT	X2 OUTPUT	X4 OUTPUT
100.0	200.0	300.0	400.0	13.84	3.43	78.59	75.89
102.0	204.0	306.0	408.0	13.86	3.14	80.93	77.50
104.0	208.0	312.0	416.0	14.01	2.67	83.31	78.73
106.0	212.0	318.0	424.0	14.24	2.13	85.52	79.58
108.0	216.0	324.0	432.0	14.48	1.60	86.74	80.05
110.0	220.0	330.0	440.0	14.68	1.07	84.81	80.55
112.0	224.0	336.0	448.0	14.73	0.68	82.88	80.70
114.0	228.0	342.0	456.0	14.58	0.48	79.96	80.01
116.0	232.0	348.0	464.0	14.35	0.34	77.86	79.32
118.0	236.0	354.0	472.0	14.10	0.19	76.11	78.94
120.0	240.0	360.0	480.0	13.80	0.16	74.89	78.64
122.0	244.0	366.0	488.0	13.60	-0.07	73.99	77.97
124.0	248.0	372.0	496.0	13.42	-0.24	73.34	77.51
126.0	252.0	378.0	504.0	13.27	-0.42	72.97	77.45
128.0	256.0	384.0	512.0	13.15	-0.64	72.64	77.24
130.0	260.0	390.0	520.0	13.12	-0.89	72.19	77.14
132.0	264.0	396.0	528.0	13.17	-1.21	72.05	77.33
134.0	268.0	402.0	536.0	13.28	-1.58	71.69	77.81
136.0	272.0	408.0	544.0	13.43	-1.97	71.37	78.07
138.0	276.0	414.0	552.0	13.57	-2.42	71.15	78.51
140.0	280.0	420.0	560.0	13.59	-2.68	71.29	79.02
142.0	284.0	426.0	568.0	13.60	-3.00	71.27	78.53
144.0	288.0	432.0	576.0	13.57	-3.27	71.37	78.14
146.0	292.0	438.0	584.0	13.50	-3.45	71.60	77.56
148.0	296.0	444.0	592.0	13.41	-3.61	72.05	77.02
150.0	300.0	450.0	600.0	13.32	-3.80	72.43	76.46

* Harmonic Output below power level of X3 Output.

Frequency Multiplier (Tripler)

RMK-3-451+

Typical Performance Data

Test Conditions: RF Input Power = 12 dBm @ -40°C

FREQUENCY (MHz)				CONVERSION LOSS (dB)	HARMONIC OUTPUT* (-dBc)		
X1 OUTPUT	X2 OUTPUT	X3 OUTPUT	X4 OUTPUT	X3 OUTPUT	X1 OUTPUT	X2 OUTPUT	X4 OUTPUT
100.0	200.0	300.0	400.0	14.11	2.69	77.94	74.69
102.0	204.0	306.0	408.0	14.18	2.34	80.22	75.78
104.0	208.0	312.0	416.0	14.46	1.76	82.55	77.23
106.0	212.0	318.0	424.0	14.84	1.08	84.56	78.33
108.0	216.0	324.0	432.0	15.22	0.42	85.00	79.23
110.0	220.0	330.0	440.0	15.54	-0.21	82.35	79.68
112.0	224.0	336.0	448.0	15.59	-0.61	80.33	79.80
114.0	228.0	342.0	456.0	15.33	-0.72	78.19	79.38
116.0	232.0	348.0	464.0	14.90	-0.68	76.76	78.78
118.0	236.0	354.0	472.0	14.45	-0.66	75.22	78.37
120.0	240.0	360.0	480.0	13.94	-0.49	74.56	77.71
122.0	244.0	366.0	488.0	13.61	-0.60	73.65	77.54
124.0	248.0	372.0	496.0	13.31	-0.67	73.08	77.12
126.0	252.0	378.0	504.0	13.07	-0.78	72.80	76.77
128.0	256.0	384.0	512.0	12.93	-0.97	72.40	76.60
130.0	260.0	390.0	520.0	12.91	-1.24	72.17	76.66
132.0	264.0	396.0	528.0	13.01	-1.60	71.86	76.81
134.0	268.0	402.0	536.0	13.23	-2.06	71.35	76.93
136.0	272.0	408.0	544.0	13.46	-2.53	71.03	77.57
138.0	276.0	414.0	552.0	13.65	-3.02	70.85	77.87
140.0	280.0	420.0	560.0	13.61	-3.23	70.93	78.08
142.0	284.0	426.0	568.0	13.54	-3.49	71.07	77.76
144.0	288.0	432.0	576.0	13.44	-3.69	71.26	77.14
146.0	292.0	438.0	584.0	13.35	-3.86	71.65	76.66
148.0	296.0	444.0	592.0	13.35	-4.09	71.89	76.21
150.0	300.0	450.0	600.0	13.40	-4.39	72.27	75.62

* Harmonic Output below power level of X3 Output.



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Typical Performance Data

Test Conditions: RF Input Power = 12 dBm @ +85°C

FREQUENCY (MHz)				CONVERSION LOSS (dB)	HARMONIC OUTPUT* (-dBc)		
X1 OUTPUT	X2 OUTPUT	X3 OUTPUT	X4 OUTPUT	X3 OUTPUT	X1 OUTPUT	X2 OUTPUT	X4 OUTPUT
100.0	200.0	300.0	400.0	13.80	4.07	80.64	77.76
102.0	204.0	306.0	408.0	13.76	3.81	82.64	79.34
104.0	208.0	312.0	416.0	13.81	3.43	85.13	80.69
106.0	212.0	318.0	424.0	13.92	3.01	87.74	81.16
108.0	216.0	324.0	432.0	14.03	2.58	88.44	81.25
110.0	220.0	330.0	440.0	14.16	2.13	85.70	81.31
112.0	224.0	336.0	448.0	14.20	1.76	83.40	81.04
114.0	228.0	342.0	456.0	14.15	1.46	80.53	80.20
116.0	232.0	348.0	464.0	14.07	1.19	78.04	79.23
118.0	236.0	354.0	472.0	13.98	0.91	75.95	78.71
120.0	240.0	360.0	480.0	13.86	0.73	74.76	78.15
122.0	244.0	366.0	488.0	13.78	0.41	73.76	77.57
124.0	248.0	372.0	496.0	13.71	0.14	73.10	77.48
126.0	252.0	378.0	504.0	13.62	-0.10	72.72	77.30
128.0	256.0	384.0	512.0	13.54	-0.35	72.30	77.13
130.0	260.0	390.0	520.0	13.49	-0.59	71.97	77.07
132.0	264.0	396.0	528.0	13.48	-0.86	71.85	77.36
134.0	268.0	402.0	536.0	13.49	-1.15	71.63	77.45
136.0	272.0	408.0	544.0	13.56	-1.47	71.36	78.16
138.0	276.0	414.0	552.0	13.66	-1.89	71.15	78.37
140.0	280.0	420.0	560.0	13.73	-2.19	71.22	78.84
142.0	284.0	426.0	568.0	13.82	-2.57	71.15	78.58
144.0	288.0	432.0	576.0	13.85	-2.89	71.25	78.27
146.0	292.0	438.0	584.0	13.79	-3.08	71.39	77.67
148.0	296.0	444.0	592.0	13.64	-3.20	71.83	77.07
150.0	300.0	450.0	600.0	13.43	-3.30	72.23	76.53

* Harmonic Output below power level of X3 Output.



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Test Conditions: RF Input Power = 17 dBm @ +25°C

FREQUENCY (MHz)				CONVERSION LOSS (dB)	HARMONIC OUTPUT* (-dBc)		
X1 OUTPUT	X2 OUTPUT	X3 OUTPUT	X4 OUTPUT	X3 OUTPUT	X1 OUTPUT	X2 OUTPUT	X4 OUTPUT
100.0	200.0	300.0	400.0	14.03	7.03	78.15	73.97
102.0	204.0	306.0	408.0	13.82	6.85	77.23	73.64
104.0	208.0	312.0	416.0	13.61	6.65	76.35	73.72
106.0	212.0	318.0	424.0	13.39	6.45	75.85	74.12
108.0	216.0	324.0	432.0	13.17	6.26	75.39	74.87
110.0	220.0	330.0	440.0	13.03	6.01	74.88	75.33
112.0	224.0	336.0	448.0	13.04	5.70	74.67	76.78
114.0	228.0	342.0	456.0	13.20	5.27	74.39	77.85
116.0	232.0	348.0	464.0	13.45	4.78	74.32	78.82
118.0	236.0	354.0	472.0	13.72	4.26	74.18	79.55
120.0	240.0	360.0	480.0	14.01	3.79	73.33	80.53
122.0	244.0	366.0	488.0	14.22	3.25	72.59	79.56
124.0	248.0	372.0	496.0	14.42	2.78	72.33	78.70
126.0	252.0	378.0	504.0	14.53	2.38	72.20	78.64
128.0	256.0	384.0	512.0	14.57	2.05	71.90	78.88
130.0	260.0	390.0	520.0	14.50	1.80	71.45	79.01
132.0	264.0	396.0	528.0	14.33	1.65	71.00	79.42
134.0	268.0	402.0	536.0	14.05	1.57	70.37	79.26
136.0	272.0	408.0	544.0	13.80	1.45	69.79	79.45
138.0	276.0	414.0	552.0	13.69	1.19	69.41	79.52
140.0	280.0	420.0	560.0	13.88	0.81	69.18	78.99
142.0	284.0	426.0	568.0	14.22	0.26	69.18	77.83
144.0	288.0	432.0	576.0	14.59	-0.31	69.04	76.56
146.0	292.0	438.0	584.0	14.87	-0.82	69.91	76.97
148.0	296.0	444.0	592.0	14.31	-0.63	69.17	77.47
150.0	300.0	450.0	600.0	13.56	-0.39	68.14	77.78

* Harmonic Output below power level of X3 Output.



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Typical Performance Data

Test Conditions: RF Input Power = 17 dBm @ -40°C

FREQUENCY (MHz)				CONVERSION LOSS (dB)	HARMONIC OUTPUT* (-dBc)		
X1 OUTPUT	X2 OUTPUT	X3 OUTPUT	X4 OUTPUT	X3 OUTPUT	X1 OUTPUT	X2 OUTPUT	X4 OUTPUT
100.0	200.0	300.0	400.0	13.44	7.14	77.16	72.47
102.0	204.0	306.0	408.0	13.24	6.96	76.15	72.33
104.0	208.0	312.0	416.0	13.04	6.76	75.59	72.42
106.0	212.0	318.0	424.0	12.84	6.57	75.05	72.78
108.0	216.0	324.0	432.0	12.62	6.39	74.74	73.47
110.0	220.0	330.0	440.0	12.50	6.14	74.27	73.75
112.0	224.0	336.0	448.0	12.50	5.82	74.27	74.94
114.0	228.0	342.0	456.0	12.68	5.37	73.95	75.73
116.0	232.0	348.0	464.0	12.93	4.84	73.97	76.34
118.0	236.0	354.0	472.0	13.20	4.29	73.80	76.82
120.0	240.0	360.0	480.0	13.47	3.82	73.37	77.26
122.0	244.0	366.0	488.0	13.68	3.26	72.90	77.16
124.0	248.0	372.0	496.0	13.86	2.80	72.55	76.91
126.0	252.0	378.0	504.0	13.96	2.40	72.33	76.82
128.0	256.0	384.0	512.0	13.98	2.08	71.95	76.93
130.0	260.0	390.0	520.0	13.91	1.84	71.54	77.20
132.0	264.0	396.0	528.0	13.74	1.69	70.97	77.43
134.0	268.0	402.0	536.0	13.47	1.62	70.34	77.33
136.0	272.0	408.0	544.0	13.22	1.52	69.80	77.62
138.0	276.0	414.0	552.0	13.11	1.26	69.35	77.56
140.0	280.0	420.0	560.0	13.30	0.87	69.15	77.13
142.0	284.0	426.0	568.0	13.66	0.28	69.11	76.01
144.0	288.0	432.0	576.0	14.05	-0.31	69.11	74.94
146.0	292.0	438.0	584.0	14.27	-0.77	69.83	75.30
148.0	296.0	444.0	592.0	13.73	-0.58	69.11	75.73
150.0	300.0	450.0	600.0	12.93	-0.25	68.11	75.94

* Harmonic Output below power level of X3 Output.



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Typical Performance Data

Test Conditions: RF Input Power = 17 dBm @ +85°C

FREQUENCY (MHz)				CONVERSION LOSS (dB)	HARMONIC OUTPUT* (-dBc)		
X1 OUTPUT	X2 OUTPUT	X3 OUTPUT	X4 OUTPUT	X3 OUTPUT	X1 OUTPUT	X2 OUTPUT	X4 OUTPUT
100.0	200.0	300.0	400.0	14.71	6.83	79.18	74.82
102.0	204.0	306.0	408.0	14.50	6.63	77.90	74.53
104.0	208.0	312.0	416.0	14.28	6.42	76.92	74.53
106.0	212.0	318.0	424.0	14.06	6.20	76.10	74.93
108.0	216.0	324.0	432.0	13.83	5.99	75.54	75.67
110.0	220.0	330.0	440.0	13.69	5.73	74.95	76.18
112.0	224.0	336.0	448.0	13.69	5.45	74.60	77.79
114.0	228.0	342.0	456.0	13.86	5.06	74.29	78.99
116.0	232.0	348.0	464.0	14.10	4.62	74.14	80.00
118.0	236.0	354.0	472.0	14.37	4.14	73.99	80.62
120.0	240.0	360.0	480.0	14.66	3.70	73.20	81.28
122.0	244.0	366.0	488.0	14.87	3.19	72.67	79.94
124.0	248.0	372.0	496.0	15.08	2.72	72.57	79.75
126.0	252.0	378.0	504.0	15.20	2.32	72.43	79.80
128.0	256.0	384.0	512.0	15.25	1.97	72.09	80.19
130.0	260.0	390.0	520.0	15.19	1.71	71.78	80.31
132.0	264.0	396.0	528.0	15.02	1.53	71.15	80.89
134.0	268.0	402.0	536.0	14.74	1.43	70.55	81.02
136.0	272.0	408.0	544.0	14.50	1.27	69.90	81.14
138.0	276.0	414.0	552.0	14.38	1.00	69.44	81.34
140.0	280.0	420.0	560.0	14.57	0.63	69.34	80.63
142.0	284.0	426.0	568.0	14.91	0.12	69.31	79.54
144.0	288.0	432.0	576.0	15.25	-0.38	69.19	78.20
146.0	292.0	438.0	584.0	15.59	-0.95	69.98	78.54
148.0	296.0	444.0	592.0	15.01	-0.76	69.27	79.45
150.0	300.0	450.0	600.0	14.30	-0.63	68.17	79.45

* Harmonic Output below power level of X3 Output.