

# X5 Frequency Multiplier

## RMK-5-2751+

50Ω Output 2250 to 2750 MHz

### Maximum Ratings

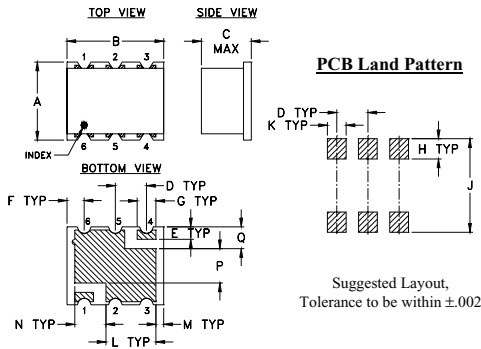
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Input Power	20 dBm

Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

INPUT	1
OUTPUT	4
GROUND	2,3,5,6

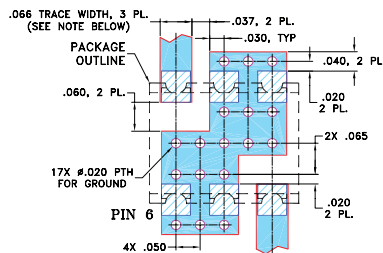
### Outline Drawing



### Outline Dimensions (inch)

A	B	C	D	E	F	G	H
.25	.31	.16	.100	.040	.055	.060	.065
6.35	7.87	4.06	2.54	1.02	1.40	1.52	1.65
J	K	L	M	N	P	Q	wt.
.300	.060	.160	.025	.100	.110	.070	grams
7.62	1.52	4.06	0.64	2.54	2.79	1.78	0.16

### Demo Board MCL P/N: TB-393 Suggested PCB Layout (PL-258)



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at [www.minicircuits.com/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)

### Features

- low conversion loss, 22 dB typ.
- high rejection of adjacent harmonics, 58 dBc typ.
- aqueous washable

### Applications

- synthesizers
- local oscillators
- satellite up and down converters



Generic photo used for illustration purposes only  
CASE STYLE: TT1224

### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost	
Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500

### Electrical Specifications at 25°C

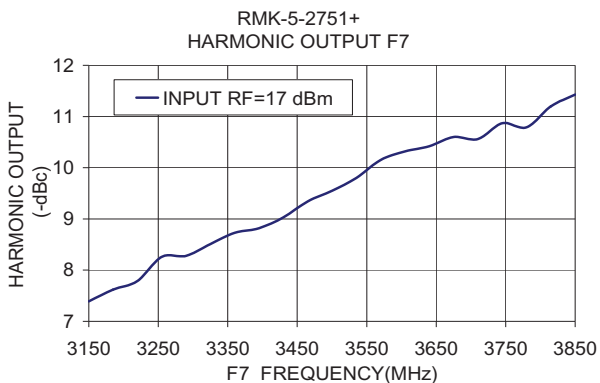
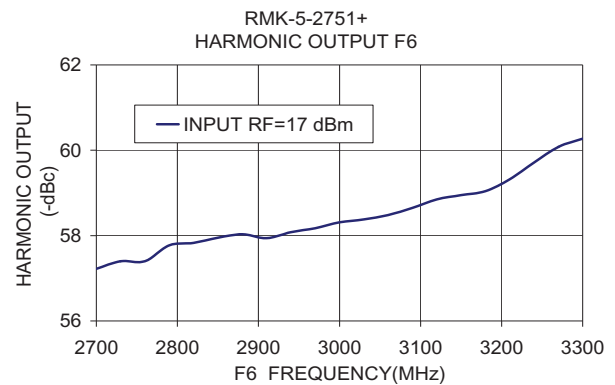
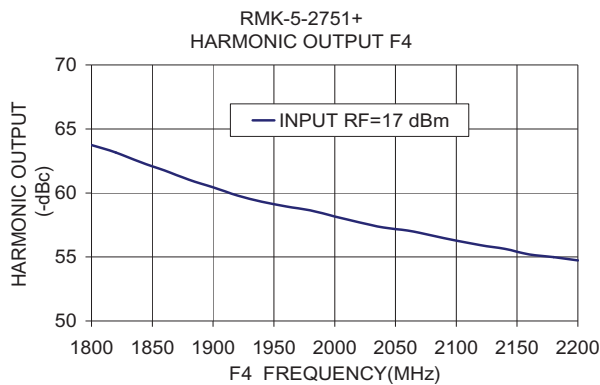
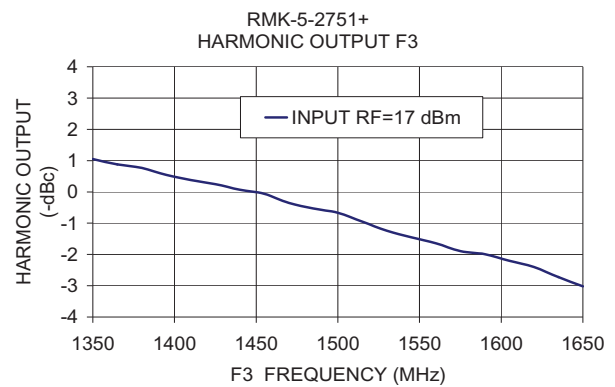
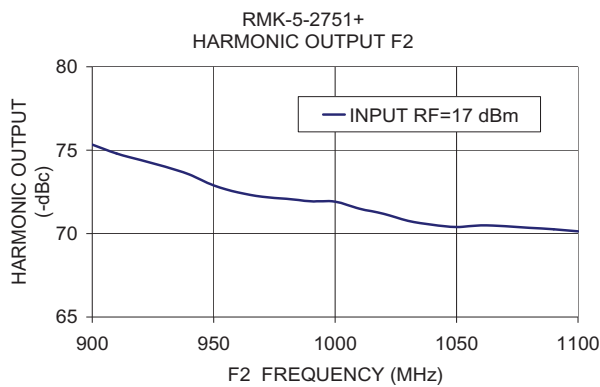
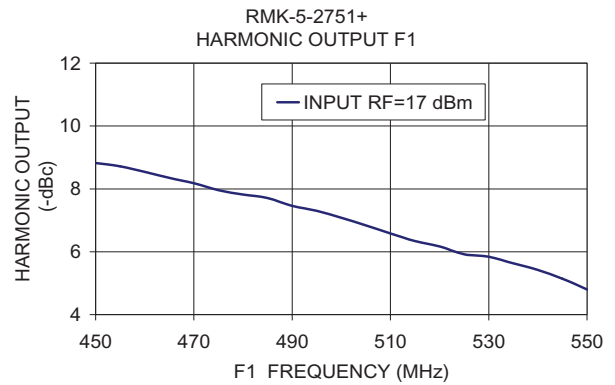
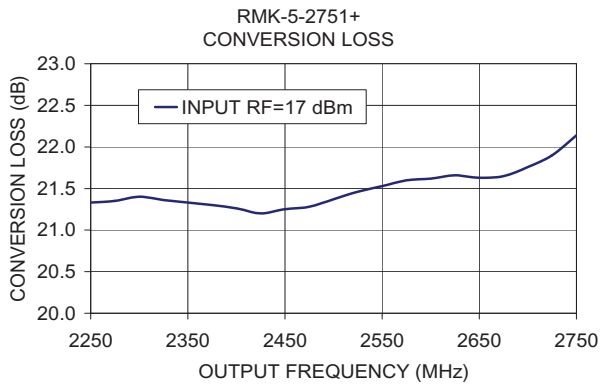
Parameter	Min.	Typ.	Max.	Unit
Multiplier Factor		5		
Frequency Range, Input (F1)	450	—	550	MHz
Frequency Range, Output (F5)	2250	—	2750	MHz
Input Power	—	17	—	dBm
Conversion Loss	—	22	24.5	dB
Harmonic Output*	F1	3.0	4.8	—
	F2	38	67.8	—
	F3	-7	-3.0	—
	F4	40	54	—
	F6	40	57	—
	F7	4	7	—

\* Harmonics of input frequency below the power level of F5

### Typical Performance Data

Frequency	Input (MHz)	Output (MHz)	Conv. Loss (dB) F5	Harmonic Rejection Below F5, (dB) at RF Input Power 17 dBm						
				F1	F2	F3	F4	F6	F7	
450.00	2250.00	21.33	8.82	75.33	1.05	63.74	57.22	7.39		
455.00	2275.00	21.35	8.72	74.80	0.88	63.16	57.40	7.62		
460.00	2300.00	21.40	8.54	74.41	0.77	62.42	57.40	7.79		
465.00	2325.00	21.36	8.35	74.01	0.54	61.76	57.77	8.26		
470.00	2350.00	21.33	8.18	73.54	0.38	61.04	57.83	8.28		
475.00	2375.00	21.30	7.96	72.89	0.25	60.45	57.95	8.51		
480.00	2400.00	21.26	7.82	72.47	0.07	59.80	58.03	8.73		
485.00	2425.00	21.20	7.71	72.21	-0.06	59.31	57.94	8.82		
490.00	2450.00	21.25	7.46	72.09	-0.35	58.94	58.08	9.03		
495.00	2475.00	21.28	7.30	71.94	-0.53	58.64	58.17	9.34		
500.00	2500.00	21.37	7.08	71.91	-0.67	58.16	58.31	9.55		
505.00	2525.00	21.46	6.84	71.50	-0.95	57.71	58.38	9.80		
510.00	2550.00	21.53	6.58	71.19	-1.24	57.31	58.48	10.15		
515.00	2575.00	21.60	6.34	70.76	-1.45	57.06	58.65	10.32		
520.00	2600.00	21.62	6.17	70.53	-1.64	56.67	58.85	10.42		
525.00	2625.00	21.66	5.92	70.40	-1.89	56.27	58.95	10.60		
530.00	2650.00	21.63	5.84	70.50	-1.99	55.92	59.04	10.56		
535.00	2675.00	21.65	5.63	70.45	-2.20	55.63	59.32	10.87		
540.00	2700.00	21.76	5.42	70.35	-2.40	55.20	59.71	10.79		
545.00	2725.00	21.90	5.14	70.26	-2.72	54.99	60.08	11.20		
550.00	2750.00	22.14	4.80	70.14	-3.02	54.73	60.27	11.43		

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