

X5 Frequency Multiplier

50Ω Output 2250 to 2750 MHz

RMK-5-2751+



CASE STYLE: TT1224

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

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

+RoHS Compliant

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

Electrical Specifications at 25°C

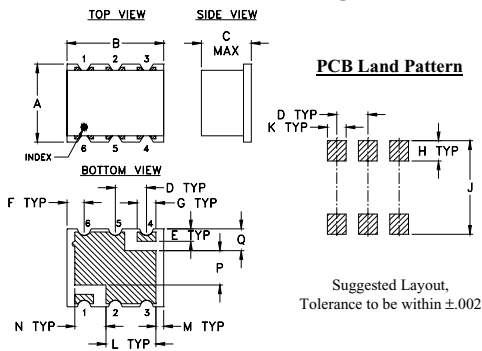
Parameter	Min.	Typ.	Max.	Unit
Multiplier Factor		5		
Frequency Range, Input (F1)	450	—	550	MHz
Frequency Range, Output (F5)	2250	—	2750	MHz
Input Power	—	17	—	dBm
Conversion Loss	—	22	24.5	dB
Harmonic Output*				dB
F1	3.0	4.8	—	
F2	38	67.8	—	
F3	-7	-3.0	—	
F4	40	54	—	
F6	40	57	—	
F7	4	7	—	

* Harmonics of input frequency below the power level of F5

Typical Performance Data

Frequency		Conv. Loss (dB)	Harmonic Rejection Below F5, (dB) <i>at RF Input Power 17 dBm</i>					
Input (MHz)	Output (MHz)		F5	F1	F2	F3	F4	F6
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

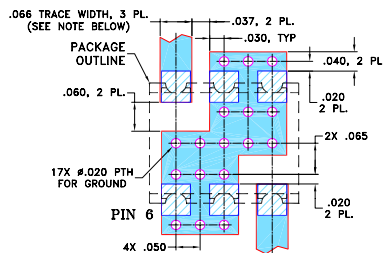
Outline Drawing



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: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

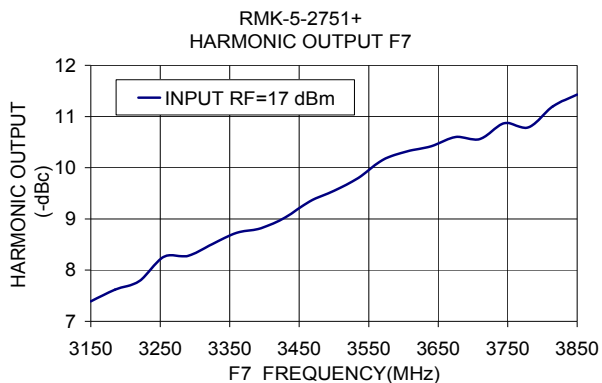
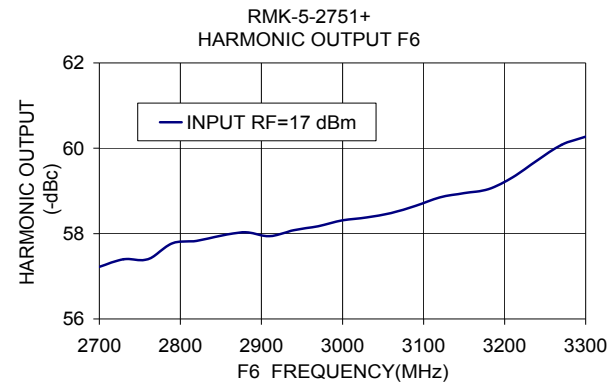
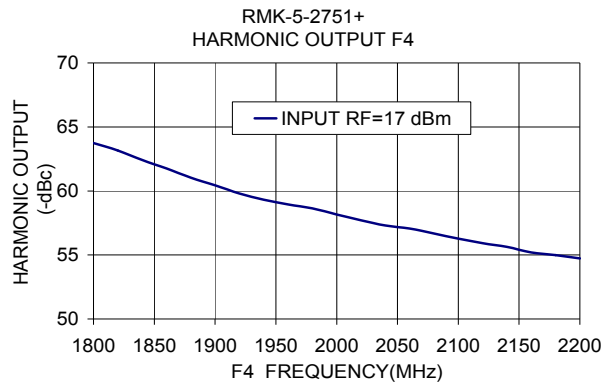
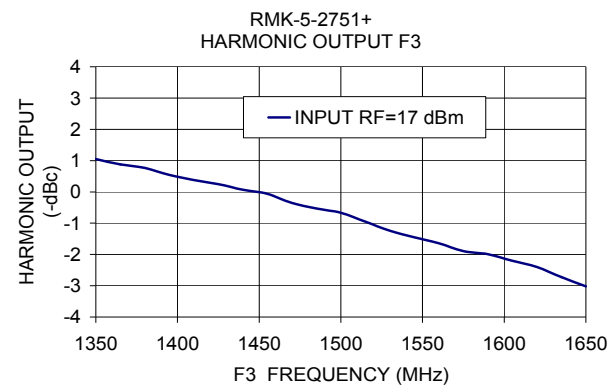
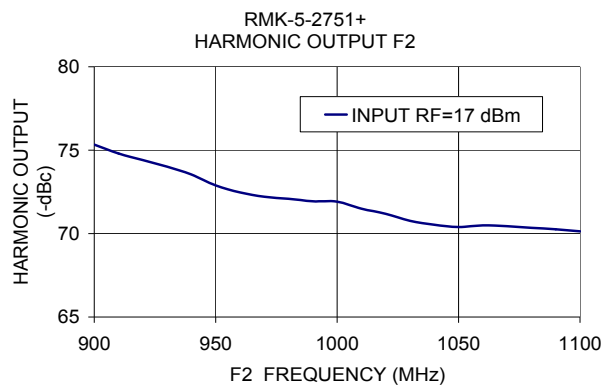
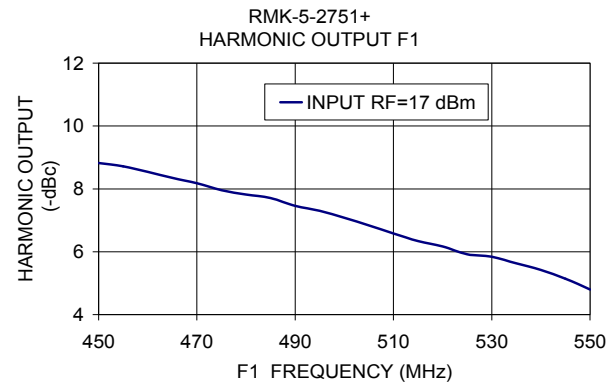
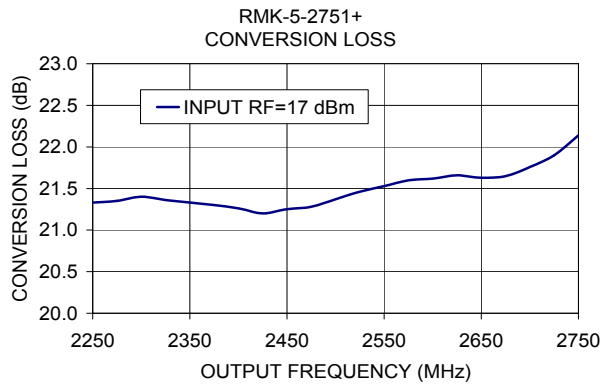
Notes

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