WINSOURCE ELECTRONICS

THE DATASHEET OF

RMK-5-2751+

X5 Frequency Multiplier

RMK-5-2751+

50Ω Output 2250 to 2750 MHz



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

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

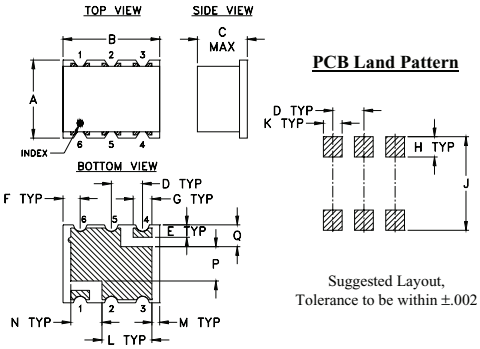
Features

- 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

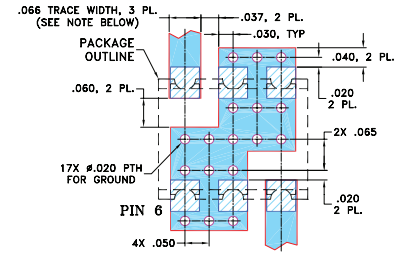
Outline Drawing



Outline Dimensions (inch / mm)

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.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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 Ouput*	F1	3.0	4.8	—	dB
	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

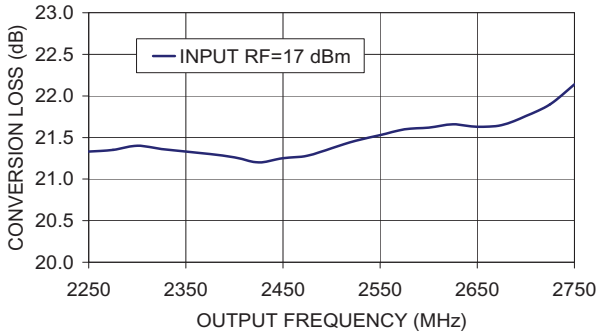
Typical Performance Data

Frequency		Conv. Loss (dB)	Harmonic Rejection Below F5, (dB) *at RF Input Power 17 dBm*					
Input (MHz)	Output (MHz)	F5	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

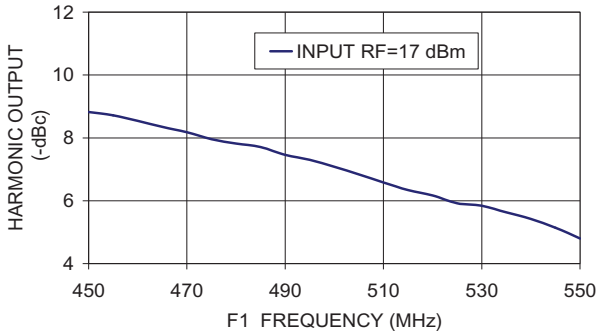
Notes

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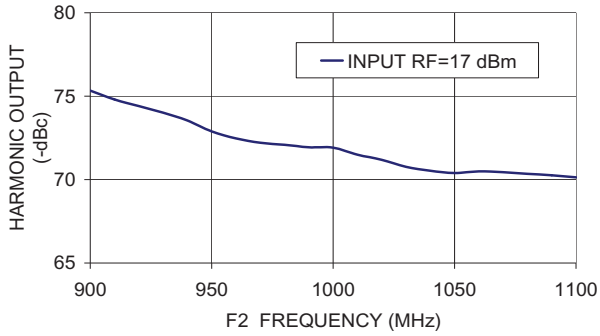
RMK-5-2751+
CONVERSION LOSS



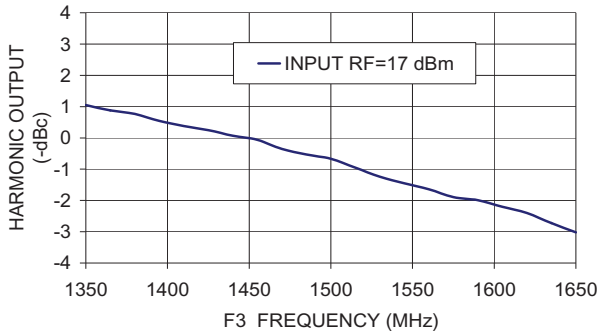
RMK-5-2751+
HARMONIC OUTPUT F1



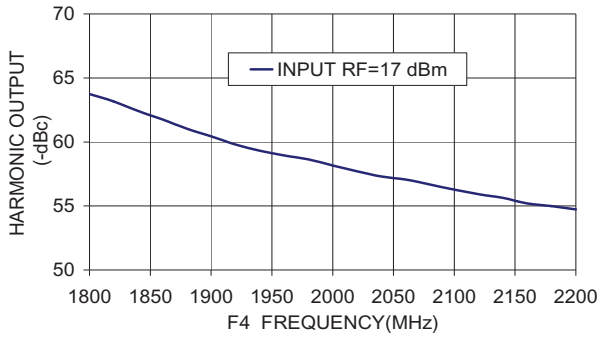
RMK-5-2751+
HARMONIC OUTPUT F2



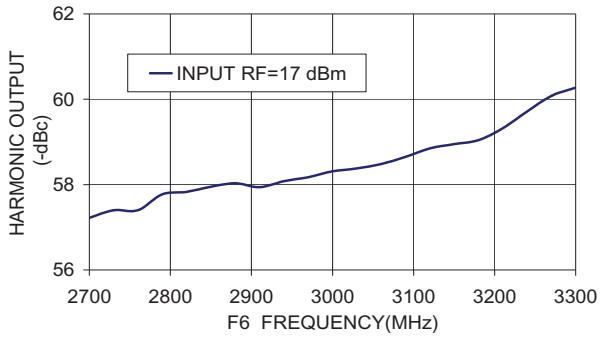
RMK-5-2751+
HARMONIC OUTPUT F3



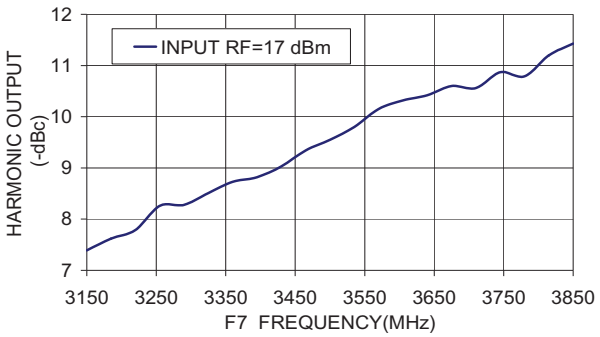
RMK-5-2751+
HARMONIC OUTPUT F4



RMK-5-2751+
HARMONIC OUTPUT F6



RMK-5-2751+
HARMONIC OUTPUT F7



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