

X5 Frequency Multiplier

50Ω Output 3375 to 4750 MHz

RMK-5-472+



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 adjacent harmonic rejection, F4, -55 dBc typ., F6, 60 dBc typ.
- aqueous washable

CASE STYLE: TT1224

PRICE: \$21.95 ea. QTY (10-49)

+RoHS Compliant

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

Applications

- synthesizers
- local oscillators
- satellite up and down converters

Electrical Specifications at 25°C

Parameter	Min.	Typ.	Max.	Unit
Multiplier Factor		5		
Frequency Range, Input (F1)	675		950	MHz
Frequency Range, Output (F5)	3375		4750	MHz
Input Power	10	—	15	dBm
Conversion Loss	—	22	26.5	dB
Harmonic Output*	F1	-3	4	dBc
	F2	40	60	
	F3	-8	0	
	F4	40	55	
	F6	40	60	
	F7	0	5	

* Harmonics of input frequency below the power level of F5

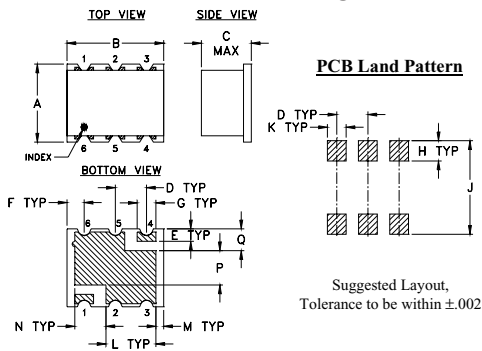
Typical Performance Data

Frequency		Conv. Loss (dB)	Harmonic Rejection Below F5 (dBc)						
Input (MHz)	Output (MHz)		F5	F1	F2	F3	F4	F6	F7
675	3375	22.65	8.67	65.80	2.14	56.28	59.68	8.06	
700	3500	22.56	8.18	64.45	1.57	54.80	58.58	10.02	
725	3625	22.39	7.67	67.46	1.04	58.07	64.28	11.24	
750	3750	22.22	7.28	66.36	0.64	57.14	64.54	12.62	
775	3875	22.02	6.90	65.86	0.19	56.94	66.06	13.65	
800	4000	22.03	6.43	65.28	-0.66	56.72	67.50	14.70	
825	4125	22.16	5.72	64.71	-1.36	56.48	69.52	14.86	
850	4250	22.17	5.26	64.07	-2.07	56.09	71.27	14.80	
875	4375	22.51	4.42	62.51	-2.96	55.70	75.31	15.00	
900	4500	22.84	3.60	61.27	-3.93	55.20	79.85	13.74	
925	4625	23.07	2.89	59.77	-4.66	54.44	83.09	9.54	
950	4750	23.83	1.69	57.92	-5.80	53.56	82.63	11.69	

at RF Input Power 15 dBm

675	3375	23.46	11.30	64.84	5.10	56.19	54.87	4.85	
700	3500	23.06	11.09	63.82	4.84	54.76	54.22	5.99	
725	3625	22.57	10.90	67.78	4.47	59.20	63.77	7.21	
750	3750	22.40	10.44	66.20	4.32	57.68	63.12	8.31	
775	3875	22.26	10.02	65.58	3.86	57.36	66.03	8.44	
800	4000	22.54	9.30	64.75	2.98	56.85	66.67	9.12	
825	4125	22.14	9.06	64.85	2.46	56.91	69.93	8.92	
850	4250	22.37	8.40	64.49	1.63	56.57	73.03	8.18	
875	4375	22.35	7.85	63.64	0.84	56.65	72.66	8.62	
900	4500	22.53	7.22	62.87	-0.18	56.48	71.92	7.25	
925	4625	22.93	6.37	61.61	-1.03	55.74	71.85	7.71	
950	4750	23.66	5.19	60.02	-1.89	54.90	69.13	7.64	

Outline Drawing

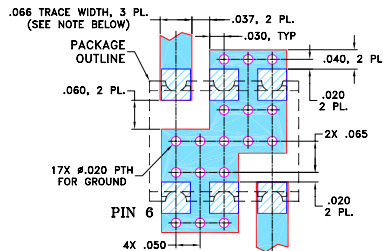


Suggested Layout, Tolerance to be within ±.002

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

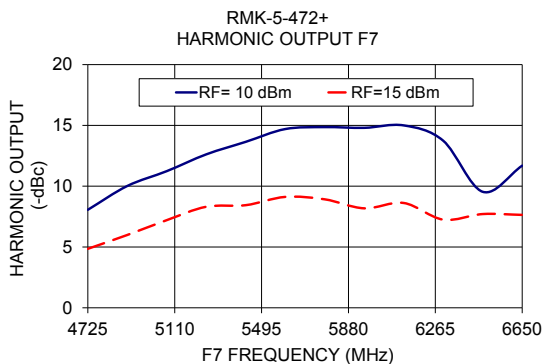
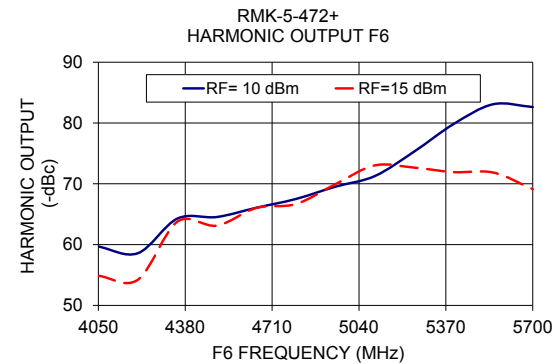
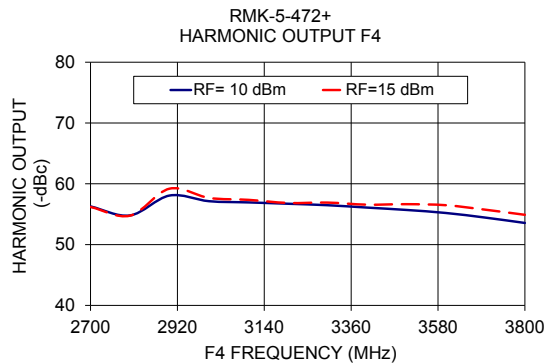
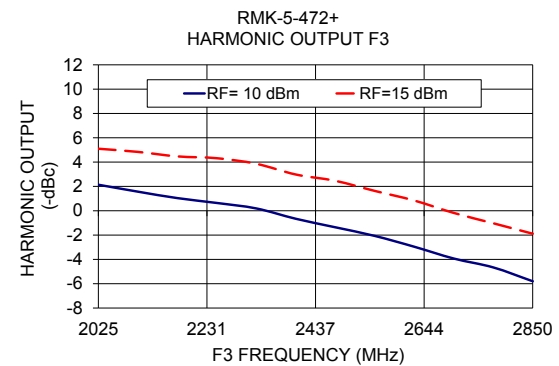
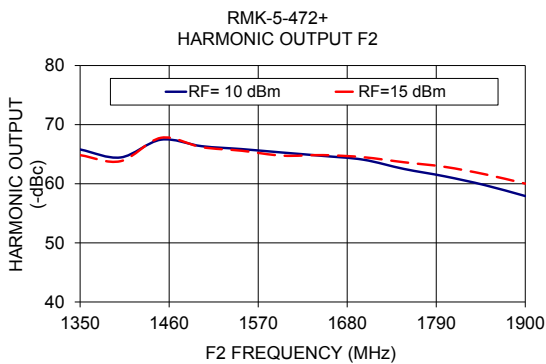
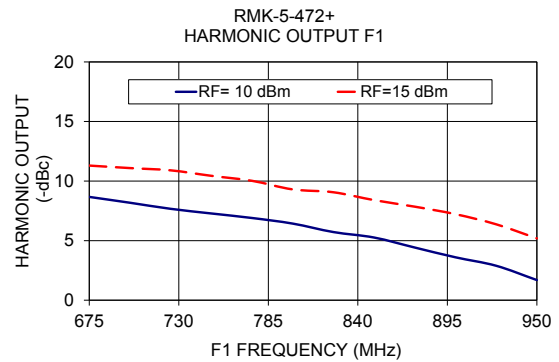
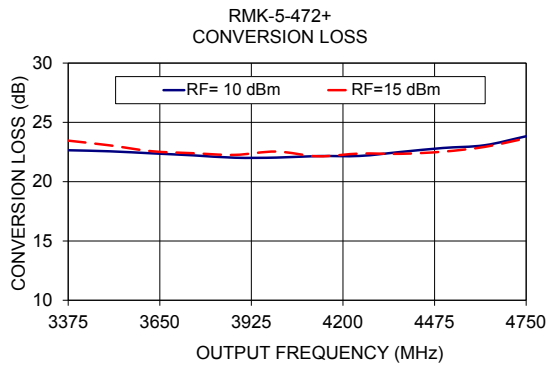
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