

50Ω Output 3375 to 4750 MHz

+RoHS Compliant

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500

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.

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

TOP VIEW

SIDE VIEW

PCB Land Pattern

BOTTOM VIEW

Suggested Layout,
Tolerance to be within ± 0.02

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

Figure 1 is a mechanical drawing of the package outline for the 16-pin DIP package. The drawing shows a rectangular package with various dimensions and features. The dimensions are as follows:

- .066 TRACE WIDTH, 3 PL. (SEE NOTE BELOW)
- .037, 2 PL.
- .030, TYP.
- .040, 2 PL.
- .020, 2 PL.
- .060, 2 PL.
- 2X .065
- 17X .020 PTH FOR GROUND
- .020, 2 PL.
- PIN 6
- 4X .050

The drawing also includes a label "PACKAGE OUTLINE" pointing to the package boundary.

NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" $\pm$.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

Notes

A. 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.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuits 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-Circuits' website at www.minicircuits.com/MC/Store/terms_iso

- low conversion loss, 22 dB typ.
- high adjacent harmonic rejection, F4, -55 dBc typ., F6, 60 dBc typ.
- aqueous washable

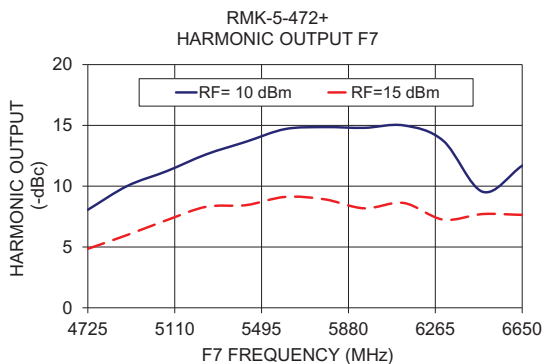
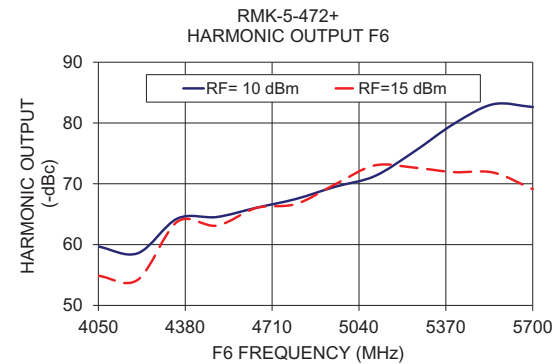
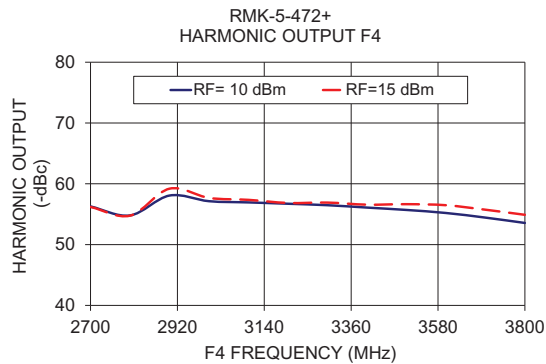
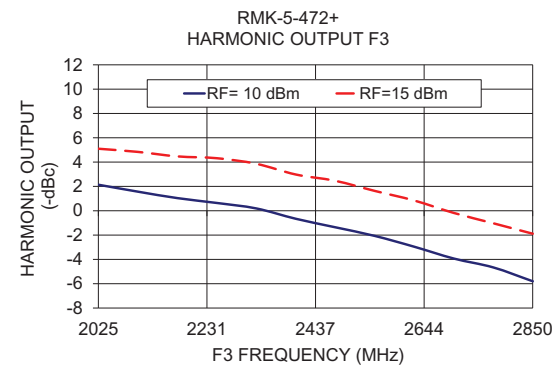
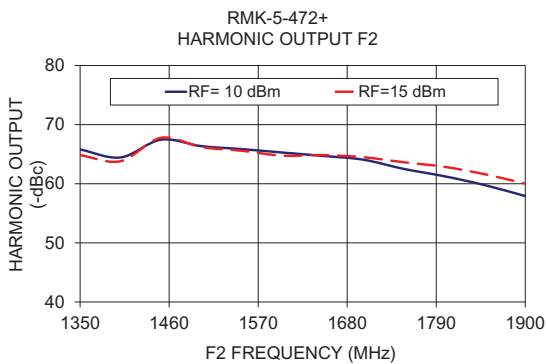
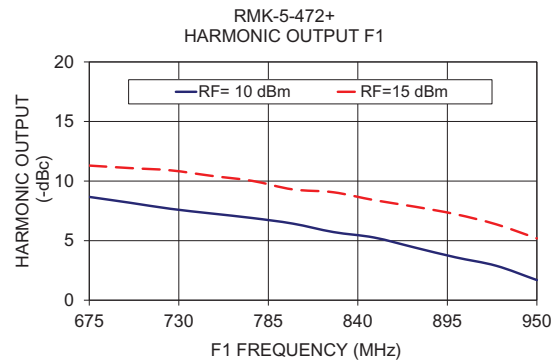
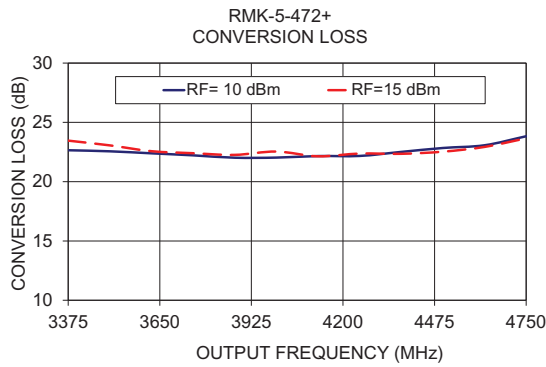
- synthesizers
- local oscillators
- satellite up and down converters

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 Ouput*	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

Frequency		Conv. Loss (dB)	Harmonic Rejection Below F5 (dBc) at RF Input Power 10 dBm					
Input (MHz)	Output (MHz)		F5	F1	F2	F3	F4	F6
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

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