

Frequency Mixer

RMS-11X+

Level 7 (LO Power + 7dBm) 5 to 1900 MHz

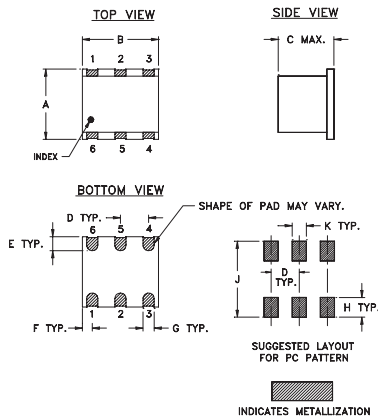
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

LO	1
RF	5
IF	4
GROUND	2,3,6

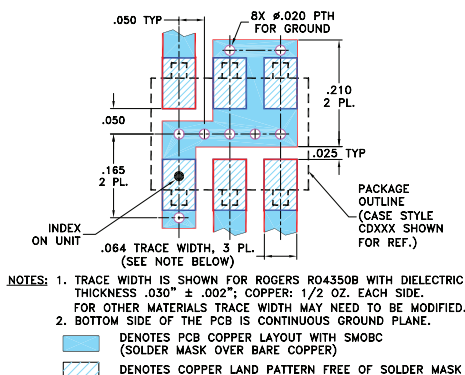
Outline Drawing



Outline Dimensions (inch mm)

A	B	C	D	E	F
.250	.31	.20	.100	.050	.055
6.35	7.87	5.08	2.54	1.27	1.40
G	H	J	K	wt	
.040	.070	.270	.050	grams	
1.02	1.78	6.86	1.27	0.50	

Demo Board MCL P/N: TB-03
Suggested PCB Layout (PL-052)



Features

- excellent L-R isolation, 35 dB typ.
- conversion loss, 7.1 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

- PCN
- satellite distribution
- GPS



CASE STYLE: TT240

PRICE: \$3.95 ea. QTY (1-9)

+RoHS Compliant

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

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
LO/RF	IF	Total Range				L		M		U		L		M		U		
		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
		f_L - f_U																
5-1900	5-1000	7.1	.10	8.2	9.8	58	45	35	20	27	18	56	45	37	20	27	20	10

1 dB COMP.: +1 dBm typ.

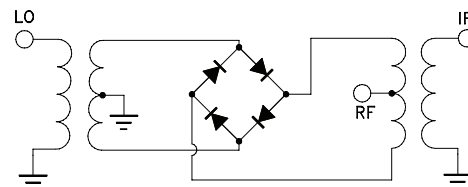
For phase detection, DC output positive with in-phase RF & LO.

L = low range [f_L to $10 f_L$]m = mid band [$2 f_L$ to $f_U/2$]M = mid range [$10 f_L$ to $f_U/2$]U = upper range [$f_U/2$ to f_U]

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO					
		LO +7 dBm	LO +7 dBm	LO +7 dBm	LO +7 dBm	LO +7 dBm
5.00	35.00	6.69	57.72	66.80	1.21	2.98
10.01	40.01	6.67	57.22	64.98	1.22	2.83
50.04	80.04	6.66	51.74	53.60	1.23	2.78
103.56	73.56	6.72	46.56	47.68	1.23	2.75
189.86	159.86	6.79	42.32	43.39	1.26	2.72
241.95	211.95	6.90	40.60	41.62	1.31	2.59
308.34	278.34	7.00	38.96	39.89	1.32	2.59
392.94	362.94	7.11	37.54	38.49	1.37	2.56
500.75	470.75	7.20	35.72	37.03	1.44	2.60
638.14	608.14	6.65	34.40	36.08	1.52	2.53
720.38	690.38	7.33	33.17	35.36	1.54	2.52
918.04	888.04	7.35	31.46	34.64	1.53	2.61
950.00	920.00	7.26	30.90	34.39	1.54	2.63
1036.36	1006.36	7.24	30.00	34.46	1.52	2.68
1200.00	1170.00	7.58	30.35	34.77	1.40	2.79
1320.71	1290.71	7.59	32.03	34.21	1.34	2.90
1500.00	1470.00	7.67	35.10	33.40	1.26	2.89
1800.00	1770.00	8.36	38.63	32.68	1.42	3.62
1850.00	1820.00	8.56	36.54	32.31	1.47	3.73
1900.00	1870.00	8.80	34.84	32.78	2.04	3.94

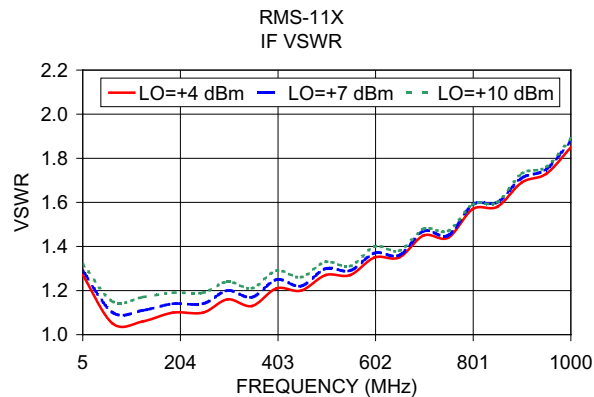
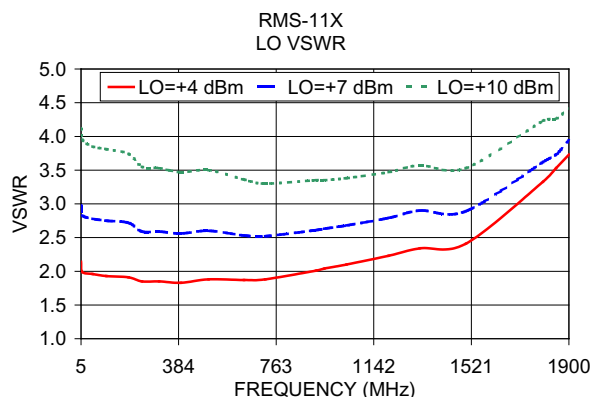
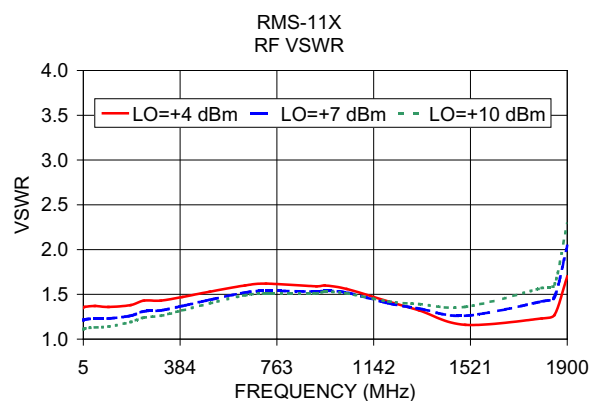
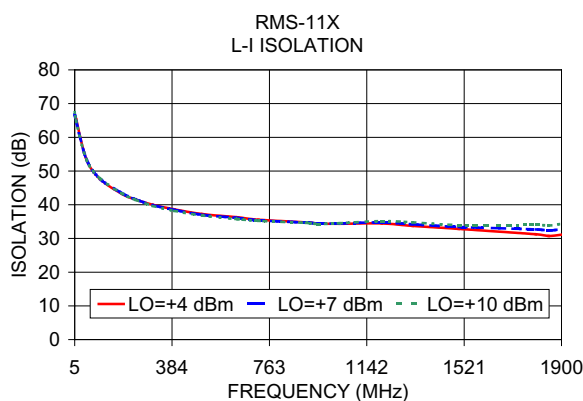
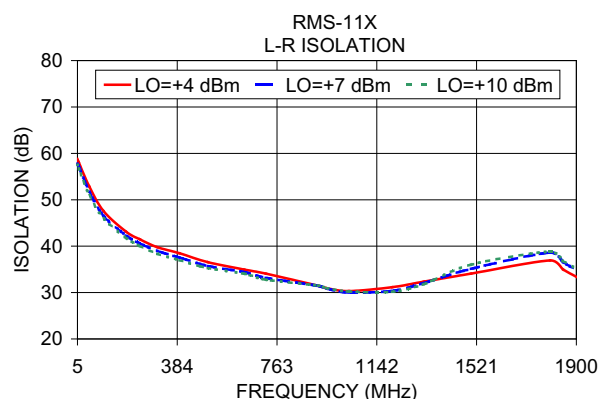
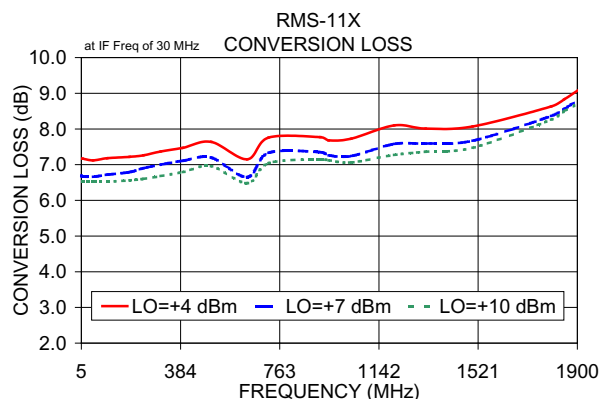
Electrical Schematic



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-Circuits' applicable established test performance criteria and measurement instructions.
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