Surface Mount

Frequency Mixer

RMS-11F+

Level 7 (LO Power +7dBm) 350 to 2000 MHz

CASE STYLE: TT240
PRICE: $6.25 ea. QTY (1-9)

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	4
IF	5
GROUND	2,3,6

Features

- excellent L-R isolation, 36 dB typ.
- conversion loss, 55 dB typ.
- small size, 0.25"x0.31"x0.2"

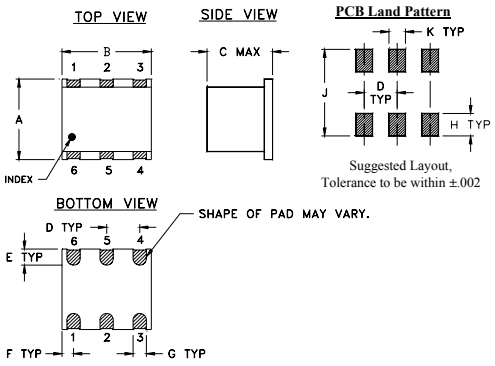
Applications

- GSM
- GPS
- PCS
- satellite distribution

+RoHS Compliant

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

Outline Drawing

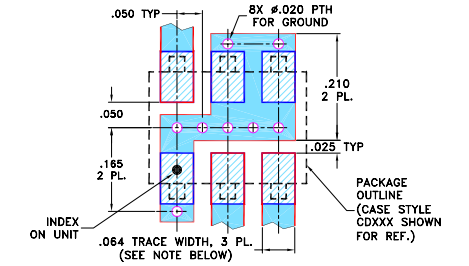


Outline Dimensions (inch / mm)

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)



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

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
LO/RF	IF					L		M		U		L		M		U		
f_L-f_U		$\overline{X}$	σ	Max.	Total Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
350-2000	DC-400	5.5	.20	7.0	9.2	37	26	36	20	32	20	22	14	29	20	28	20	12

1 dB COMP.: +1 dBm typ.

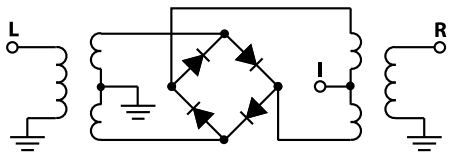
L = 350-750 MHz
m= 350-1000 MHz

M = 750-1000 MHz U = 1000-2000 MHz

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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
350.00	380.00	4.65	36.37	19.43	2.22	3.48
383.67	413.67	4.63	36.83	19.55	2.12	3.31
417.35	447.35	4.67	38.11	20.39	2.23	3.24
451.02	481.02	4.68	39.27	20.76	2.31	3.21
484.69	514.69	4.61	40.31	21.53	2.49	3.20
552.04	582.04	4.69	40.08	23.23	2.89	3.16
619.39	649.39	4.86	38.80	25.64	3.33	3.17
700.00	730.00	5.08	38.87	28.43	3.73	3.25
720.41	750.41	5.03	39.51	29.35	3.81	3.43
754.08	784.08	5.06	40.27	30.58	3.83	3.34
855.10	885.10	5.48	45.01	42.88	3.50	3.43
1000.00	1030.00	6.00	47.36	33.91	2.12	3.56
1124.49	1154.49	6.85	36.96	29.41	1.26	3.79
1292.86	1262.86	6.99	35.46	29.97	2.50	3.51
1427.55	1397.55	6.54	41.21	27.91	3.59	3.42
1562.24	1532.24	6.52	41.00	27.02	4.61	3.39
1696.94	1666.94	7.61	38.30	26.09	5.43	3.16
1797.96	1767.96	7.75	36.56	25.61	5.81	3.01
1898.98	1868.98	8.07	35.37	25.71	5.65	2.81
2000.00	1970.00	8.43	34.77	26.20	5.59	2.59

Electrical Schematic



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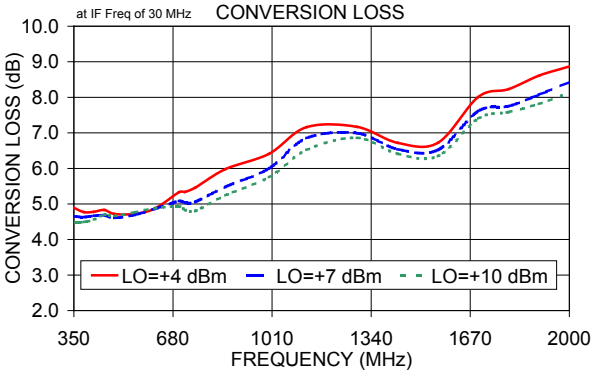
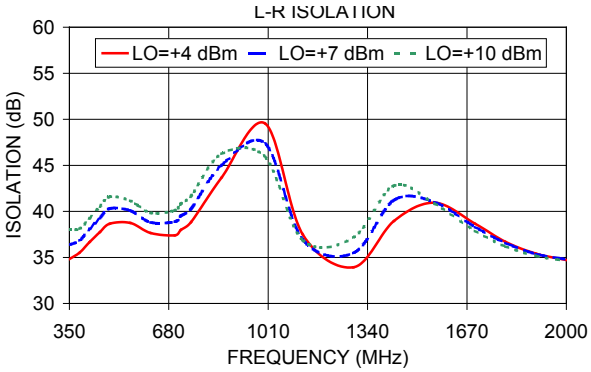
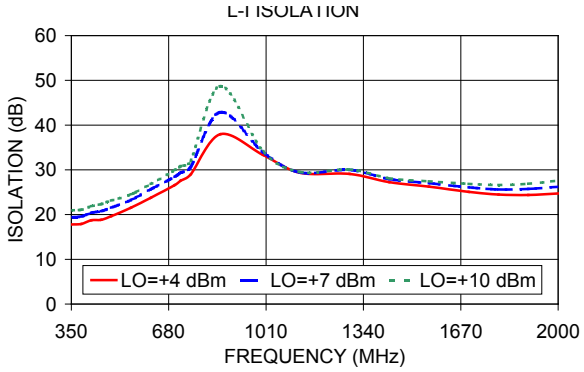
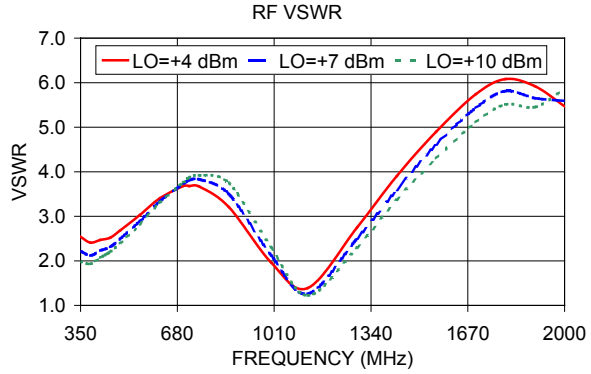
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

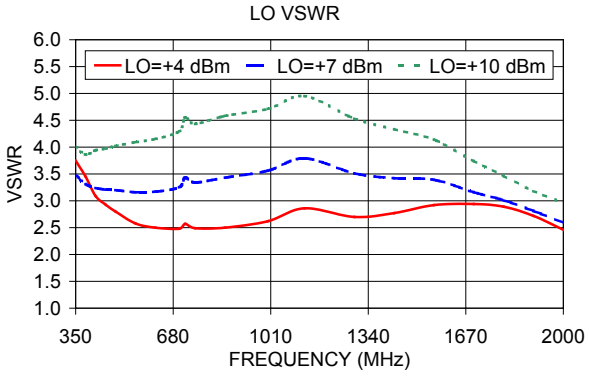
at IF Freq of 30 MHz

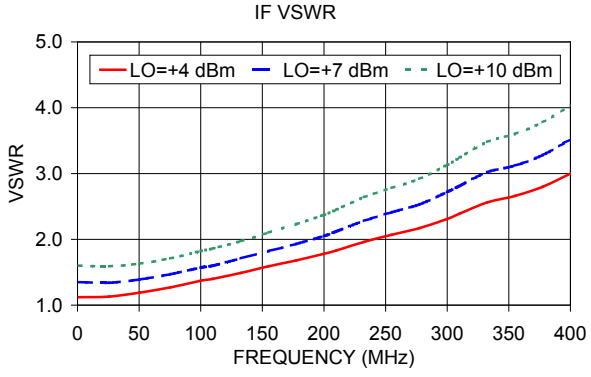












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