Surface Mount **High Reliability Mixer**

Level 7 (LO Power +7 dBm) 5 to 600 MHz

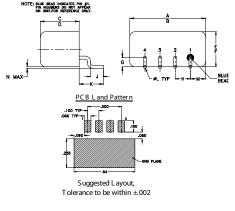
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any	of these limits are exceeded.

Pin Connections

LO	4
RF	1
IF	2
GROUND	3
CASE GROUND	3

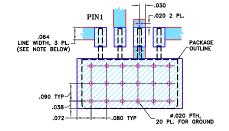




Outline Dimensions (inch)

Α	В	С	D	E	F	G
.50	.48	.255	.240	.23	.21	.06
12.70	12.19	6.48	6.10	5.84	5.33	1.52
н	J	к	L	М	Ν	wt
Н .100	J .09	К .16	L .020	M .09	N .005	wt grams

Demo Board MCL PIN: TB-201 Suggested PCB Layout (PL-081)



NOTES: 1.TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; COPPER: 1/2 02, 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

Features

- · hermetically sealed ceramic quad
- low conversion loss, 5.9 dB typ.
- excellent isolation L-R, 50 dB typ; L-I, 48 dB typ.
- rugged welded construction
- shielded metal case

Applications

- VHF/UHF
- FM radio
- defense & federal communications





CASE STYLE: NNN150

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

Electrical Specifications

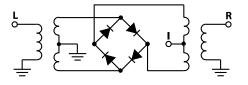
	JENCY Hz)			dB)	LOSS	LO-F	RF ISOLA (dB)	TION	LO-I	F ISOLAT (dB)	TION	IP3 at center band (dBm)
LO/RF	IF		m	iu.	Total	L	М	U	L	М	U	
f _∟ -f _∪		X	σ	Max.	Range Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Тур.
5-600	DC-600	5.9	0.2	7.0	8.0	60 45	50 32	42 26	60 43	48 34	40 25	16
1 dB COMP.: +	1 dBm typ.			L	= low ra	nge [f _L to 10	0 f _∟] M =	mid range [10 f_L to $f_U/2$] U = up;	per range [f	/2 to f _u]

m= mid band [2f, to f,/2]

Typical Performance Data

Typical Ferformance Data								
Frequency (MHz)		Conversion Loss (dB)	lsolation 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		
4.00 6.00 10.00 32.00 40.50	34.00 36.00 40.00 62.00 70.50	6.06 5.95 5.89 5.92 5.94	66.56 66.02 65.37 61.99 61.46	61.24 61.15 60.45 57.62 57.67	1.36 1.25 1.17 1.11 1.11	2.64 2.58 2.70 2.65 2.72		
49.00 66.00 74.50 83.00 91.50	79.00 96.00 104.50 113.00 121.50	5.93 5.94 5.95 5.95 5.95 5.95	60.24 58.07 58.24 57.74 57.54	56.26 54.36 54.77 54.71 54.68	1.11 1.11 1.11 1.11 1.11 1.11	2.56 2.47 2.64 2.65 2.59		
100.00 160.00 220.00 250.00 310.00	130.00 190.00 250.00 280.00 340.00	5.95 5.95 5.96 5.95 5.96 5.96	56.70 53.29 51.73 50.55 49.80	53.58 50.36 49.52 48.71 47.68	1.11 1.13 1.15 1.15 1.17	2.68 2.61 2.79 2.55 2.74		
340.00 400.00 442.50 527.50 600.00	370.00 430.00 472.50 557.50 630.00	5.93 5.97 5.99 6.08 6.25	49.37 46.91 46.17 46.85 45.82	46.42 43.69 43.81 41.81 42.54	1.20 1.18 1.20 1.27 1.29	2.48 2.76 2.74 2.74 2.47		

Electrical Schematic



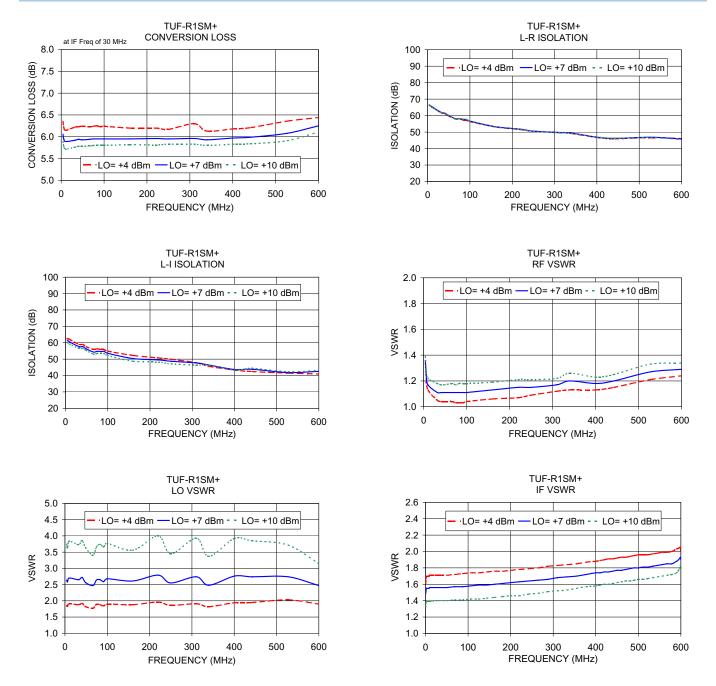
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Performance Charts

TUF-R1SM+



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