

Frequency Mixer

Level 17 (LO Power +17 dBm) 2 to 600 MHz

TUF-1HSM+



CASE STYLE: NNN150
PRICE: \$12.45 ea. QTY (1-9)

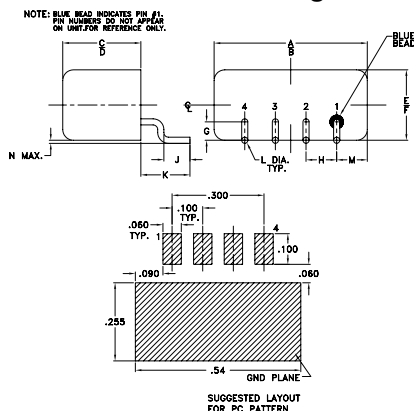
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Pin Connections

LO	4
RF	1
IF	2
GROUND	3
CASE GROUND	3

Outline Drawing

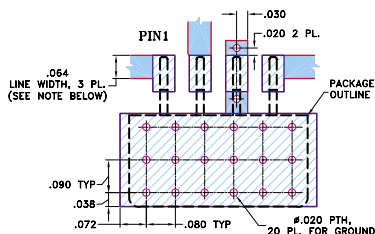


Outline Dimensions (inch mm)

A	B	C	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

H	J	K	L	M	N	wt
.100	.09	.16	.020	.09	.005	grams
2.54	2.29	4.06	0.51	2.29	0.13	1.9

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



Features

- low conversion loss, 5.90 dB typ.
- high IP3, 26 dB typ.
- excellent isolation, 50 dB typ. L-R, 48 dB typ. L-I
- rugged welded construction

Applications

- VHF/UHF
- defense & federal communications

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify 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 @ CENTER BAND (dBm)
LO/RF	IF	Mid-Band m			Total Range Max.	L		M		U		L		M		U		Typ.
		\bar{X}	σ	Max.		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.			
2-600	DC-600	5.90	0.18	7.0	8.0	68	50	50	30	43	25	62	45	48	30	33	22	26

1 dB COMP.: +14 dBm typ.

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

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
2.00	32.00	6.30	62.98	52.28	1.22	1.67
5.00	35.00	5.95	62.06	52.79	1.10	1.60
10.00	40.00	5.92	60.47	52.35	1.03	1.63
20.00	50.00	5.91	57.14	51.13	1.02	1.61
34.13	64.13	5.81	53.27	49.30	1.04	1.58
50.00	80.00	5.72	50.24	47.27	1.06	1.57
66.26	96.26	5.66	48.03	45.61	1.07	1.55
82.33	112.33	5.71	46.33	44.27	1.08	1.54
100.00	130.00	5.63	44.99	43.26	1.09	1.57
130.52	160.52	5.61	43.18	41.91	1.10	1.55
162.65	192.65	5.61	41.46	40.45	1.10	1.55
200.00	240.00	5.60	40.12	39.22	1.08	1.60
259.04	299.04	5.42	38.10	37.51	1.07	1.67
307.24	347.24	5.62	37.54	36.13	1.06	1.70
355.43	395.43	5.86	37.41	36.94	1.05	1.76
387.56	427.56	5.92	36.35	35.99	1.04	1.82
435.76	475.76	5.81	35.35	33.91	1.05	1.84
467.89	507.89	5.90	36.34	33.81	1.06	1.85
483.95	523.95	6.08	36.44	33.54	1.08	1.87
500.00	540.00	6.27	36.27	33.21	1.09	1.90
600.00	640.00	6.18	36.36	33.38	1.09	1.89

Electrical Schematic

