

Plug-In

Frequency Mixer

Level 10 (LO Power +10 dBm) 2 to 600 MHz

TUF-1LH+



CASE STYLE: B02
PRICE: \$9.50 ea. QTY (1-9)

+ 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.

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

Features

- low conversion loss, 6.0 dB typ.
- high L-R & L-I isolation, 50 dB typ.
- rugged welded construction

Applications

- VHF/UHF
- defense & federal communications

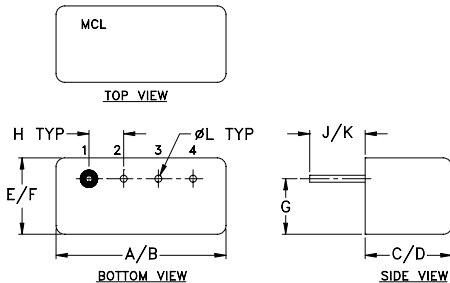
Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)			IP3 @ CENTER BAND (dBm)			
LO/RF	IF	Mid-Band		Total Range		L		M		U		L		M		U		Typ.
f_L - f_U		\bar{X}	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
2-600	DC-600	6.0	0.17	7.0	8.0	70	50	50	30	42	25	65	45	50	30	41	22	17

1 dB COMP.: +5 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 $f_U/2$]

Outline Drawing



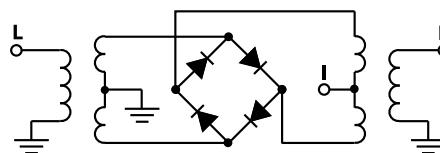
Outline Dimensions (inch/mm)

A	B	C	D	E	F
.480	.500	.240	.255	.210	.230
12.19	12.70	6.10	6.48	5.33	5.84
G	H	J	K	L	wt
.16	.100	.14	.20	.020	grams
4.06	2.54	3.56	5.08	0.51	1.9

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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
2.00	32.00	6.28	67.01	84.01	1.47	2.80
4.00	34.00	5.95	65.93	80.03	1.27	2.68
5.00	35.00	5.89	65.47	78.57	1.23	2.65
10.00	40.00	5.80	63.93	73.13	1.14	2.48
20.00	50.00	5.82	61.72	68.22	1.12	2.53
50.00	80.00	5.82	56.12	60.69	1.11	2.47
59.87	89.87	5.78	54.83	59.50	1.11	2.35
100.00	70.00	5.77	51.13	55.91	1.12	2.37
117.74	87.74	5.79	50.12	55.10	1.15	2.32
175.61	145.61	5.69	47.32	52.30	1.18	2.26
200.00	170.00	5.73	46.57	51.26	1.21	2.33
233.48	203.48	5.70	45.24	49.36	1.25	2.27
291.36	261.36	5.69	43.94	46.68	1.27	2.24
300.00	270.00	5.68	43.65	46.00	1.31	2.29
349.23	319.23	5.71	42.63	43.46	1.35	2.28
407.10	337.10	5.70	41.85	41.86	1.40	2.28
464.97	434.97	5.72	40.61	39.52	1.45	2.29
522.84	492.84	5.77	39.23	37.60	1.49	2.33
580.71	550.71	5.84	38.82	36.92	1.51	2.33
600.00	570.00	5.87	38.87	36.44	1.53	2.31

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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For detailed performance specs & shopping online see web site

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