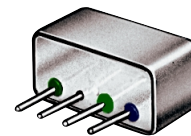


Plug-In

Frequency Mixer

Level 17 (LO Power +17dBm) 20 to 1500 MHz

TUF-5H+



CASE STYLE: B02
PRICE: \$15.45 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. There has been no change to the model's material, form, fit, or function. See our web site for RoHS Compliance methodologies and qualifications.

Features

- wideband, 20-1500 MHz
- low conversion loss, 7.5 dB typ.
- high L-R isolation, 50 dB typ.
- rugged welded construction, non-hermetic

Applications

- satellite distribution
- cellular
- GSM/ISM

Mixer Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)				LO-IF ISOLATION (dB)			
	LO/RF $f_L - f_U$	IF	Mid-Band		Max.	Total Range	L	M	U		L	M	U	
			x	σ										
TUF-5H+	20-1500	DC-1000	7.50	.17	8.5	9.0	62	55	50	40	38	25	40	25

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 $f_U/2$]

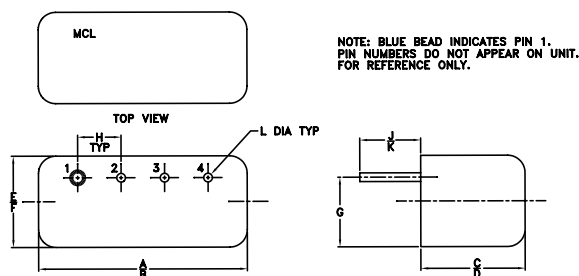
Pin Connections

LO	4
RF	1
IF	2
GROUND	3
CASE GROUND	3

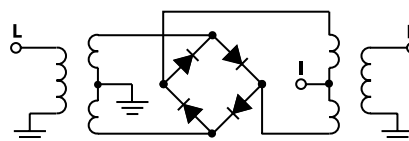
Maximum Ratings

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

Outline Drawing



electrical schematic



Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	L	wt.
.480	.500	.240	.255	.210	.230	.16	.100	.14	.20	.020	grams
12.19	12.70	6.10	6.48	5.33	5.84	4.06	2.54	3.56	5.08	.51	1.9



INTERNET <http://www.minicircuits.com>

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Mini-Circuits ISO 9001 & ISO 14001 Certified

REV. A
M98898
TUF-5H+
DJ/TD/CP
050916
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Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF port (:1)	VSWR LO port (:1)
RF MHz	LO MHz	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
20.00	50.00	6.69	76.70	54.80	1.64	1.69
50.00	80.00	6.37	69.50	48.00	1.53	1.71
110.00	140.00	5.99	65.00	43.50	1.61	1.63
200.00	230.00	5.98	61.10	39.10	1.64	1.63
320.00	350.00	6.13	58.30	36.40	1.80	1.58
500.00	530.00	6.49	56.50	33.60	1.94	1.62
635.00	665.00	6.96	50.80	31.50	2.02	1.62
740.00	770.00	7.59	47.20	30.20	2.32	1.69
845.00	875.00	8.29	46.10	29.80	2.73	1.77
950.00	980.00	8.38	44.20	28.60	3.05	1.89
1000.00	1030.00	8.21	41.40	27.80	3.16	1.86
1055.00	1085.00	7.97	38.90	27.10	3.29	1.84
1100.00	1130.00	7.98	36.60	25.20	3.59	1.93
1200.00	1230.00	7.63	37.20	24.10	3.70	2.03
1250.00	1280.00	7.55	36.30	22.90	3.65	2.08
1300.00	1330.00	7.47	35.00	21.70	3.58	2.08
1350.00	1380.00	7.23	34.50	21.10	3.45	2.14
1400.00	1730.00	7.30	34.00	19.90	3.21	2.24
1470.00	1500.00	7.17	33.80	19.30	3.06	2.24
1500.00	1470.00	7.21	33.30	17.00	2.92	2.37

Performance Charts

