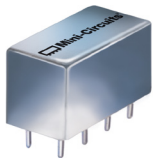
Plug-In, Low Noise

Active Mixer

NON-CATALOG

UNCL-L1H

Level 6 (LO Power +6 dBm) 10 to 500 MHz



CASE STYLE: A01

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	1
RF	7
IF	8
DC	4
GROUND	3,5,6
CASE GROUND	3,5,6
NOT USED	2

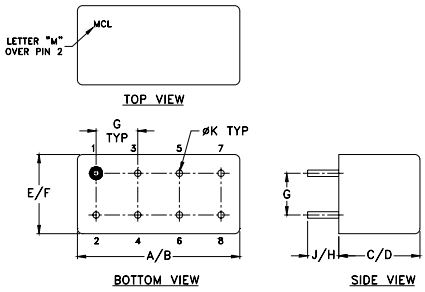
Features

- excellent conversion loss, 5.73 dB typ.
- good L-R isolation, 36 dB typ., L-I isolation, 25 dB typ.
- rugged welded construction
- hermetically sealed
- protected by US Patent, 6,943,629

Applications

- VHF/UHF
- transmitters

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K		wt
.200	.20	.14	.031		grams
5.08	5.08	3.56	0.79		5.2

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						INPUT POWER (dBm) 1 dB Compr.	DC POWER	
LO/RF	IF	Mid-Band m			Total Range	L		M		U		L		M		U				
f_L-f_U		$\overline{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Volt	Current (mA)
10-500	DC-500	5.73	0.07	8.0	8.5	45	25	36	20	24	17	32	18	25	15	18	10	14	12	60

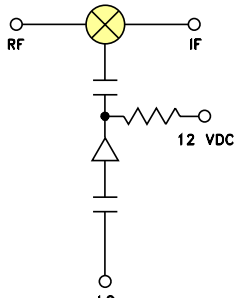
Up to 14 dBm RF

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 +6dBm	LO +6dBm	LO +6dBm	LO +6dBm	LO +6dBm
10.00	40.00	6.14	44.45	37.68	1.08	1.39
20.00	50.00	6.09	44.60	36.60	1.04	1.29
50.00	80.00	6.15	42.60	31.75	1.02	1.32
53.24	83.24	6.19	42.54	31.32	1.02	1.32
96.47	66.47	6.09	39.39	27.03	1.01	1.38
100.00	70.00	6.12	38.82	26.75	1.01	1.39
139.71	109.71	6.08	36.47	24.55	1.01	1.49
182.94	152.94	6.04	33.97	22.60	1.02	1.61
200.00	170.00	6.01	32.86	22.00	1.02	1.65
226.18	196.18	6.05	31.55	21.33	1.03	1.72
240.59	210.59	6.01	31.07	20.98	1.03	1.76
250.00	220.00	5.99	31.07	20.64	1.04	1.78
269.41	239.41	6.03	29.74	20.00	1.04	1.82
312.65	282.65	6.06	29.04	18.97	1.06	1.93
355.88	325.88	6.07	29.44	17.86	1.08	2.04
399.12	369.12	6.05	28.97	17.51	1.09	2.14
442.35	412.35	6.13	28.43	16.75	1.12	2.25
471.18	441.18	6.22	27.40	16.76	1.14	2.33
485.59	455.59	6.26	26.90	16.94	1.15	2.32
500.00	470.00	6.26	26.42	17.47	1.16	2.35

Electrical Schematic



Notes

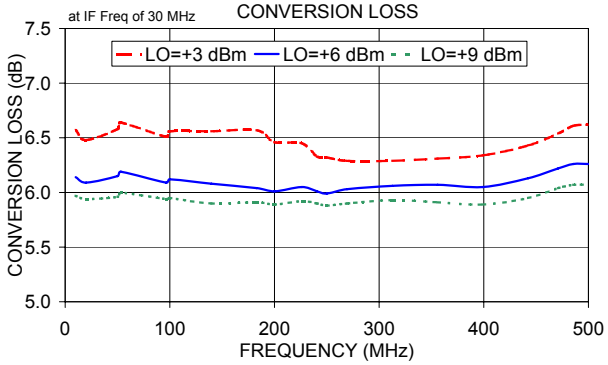
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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NON-CATALOG

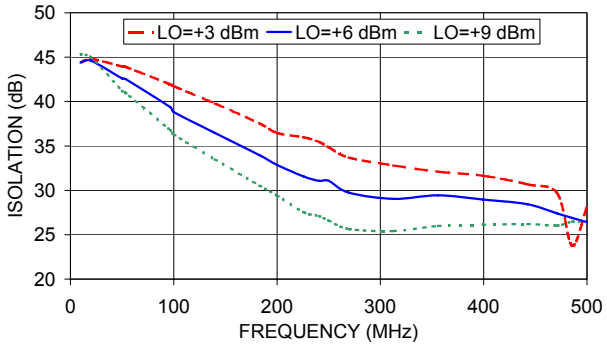
Performance Charts

UNCL-L1H

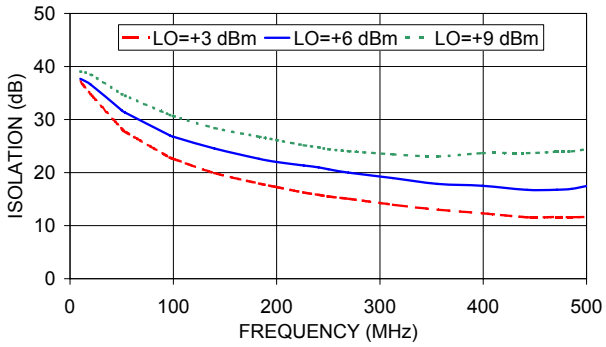
UNCL-L1H
CONVERSION LOSS
at IF Freq of 30 MHz



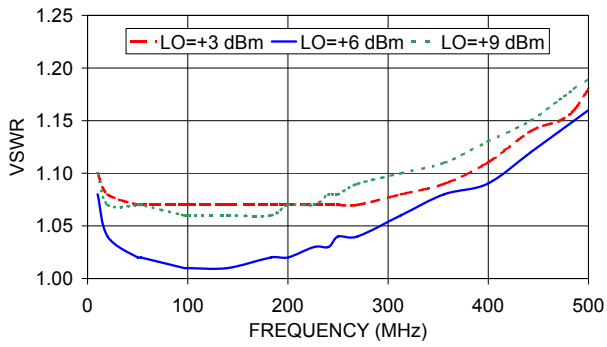
UNCL-L1H
L-R ISOLATION



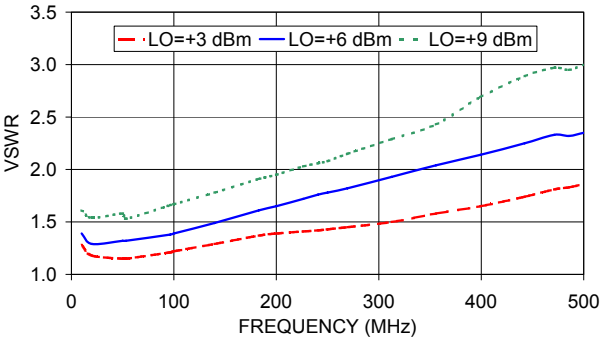
UNCL-L1H
L-I ISOLATION



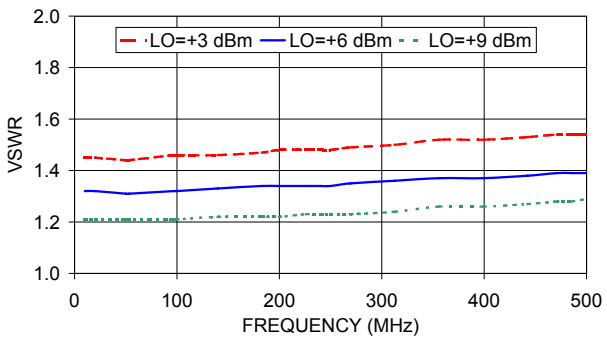
UNCL-L1H
RF VSWR



UNCL-L1H
LO VSWR



UNCL-L1H
IF VSWR



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