

Plug-In, Low Noise Active Mixer

Level -4 (LO Power -4 dBm) 10 to 500 MHz

UNCL-L1+



CASE STYLE: A01
PRICE: \$29.20 ea. QTY (1-9)

+RoHS Compliant

The +Suffix identifies 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	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, 35 dB typ., L-I isolation, 23 dB typ.
- rugged welded construction
- hermetically sealed
- protected by U.S Patent 6,943,629

Applications

- VHF/UHF
- transmitters

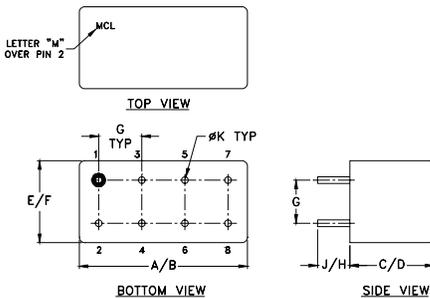
Electrical Specifications

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 Max.	L	M	U	L	M	U	L	M	U	Typ.	Current (mA)						
10-500	DC-500		5.73	0.08	8.0	8.5	45	30	35	20	25	17	32	20	23	15	18	12	1	12	35

Up to 1 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



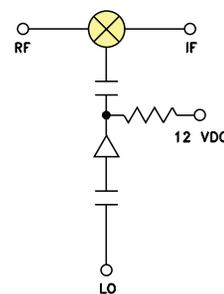
Outline Dimensions (inch/mm)

A	B	C	D	E	F
.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

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
10.00	40.00	5.70	62.39	50.19	1.11	1.43
20.00	50.00	5.67	57.15	44.63	1.07	1.34
50.00	80.00	5.70	49.25	36.60	1.06	1.39
53.24	83.24	5.70	48.94	36.12	1.06	1.39
96.47	66.47	5.69	44.45	31.86	1.05	1.49
100.00	70.00	5.69	44.16	31.79	1.06	1.50
139.71	109.71	5.68	42.08	29.24	1.07	1.62
182.94	152.94	5.68	39.66	26.97	1.09	1.81
200.00	170.00	5.70	38.64	26.20	1.10	1.87
226.18	196.18	5.69	37.39	25.18	1.11	1.97
240.59	210.59	5.70	37.10	24.79	1.13	2.03
250.00	220.00	5.70	36.64	24.38	1.13	2.06
269.41	239.41	5.69	35.64	23.95	1.14	2.15
312.65	282.65	5.71	34.48	23.15	1.17	2.26
355.88	325.88	5.70	33.01	22.80	1.21	2.36
399.12	369.12	5.74	32.87	23.17	1.25	2.43
442.35	412.35	5.72	32.64	23.55	1.30	2.46
471.18	441.18	5.77	30.96	25.05	1.34	2.48
485.59	455.59	5.77	30.40	25.57	1.36	2.48
500.00	470.00	5.77	29.18	26.74	1.38	2.48

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

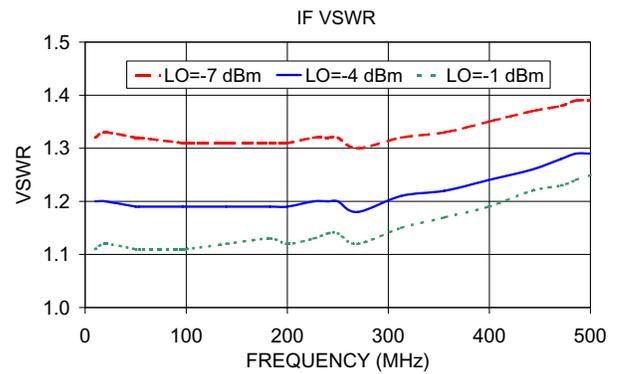
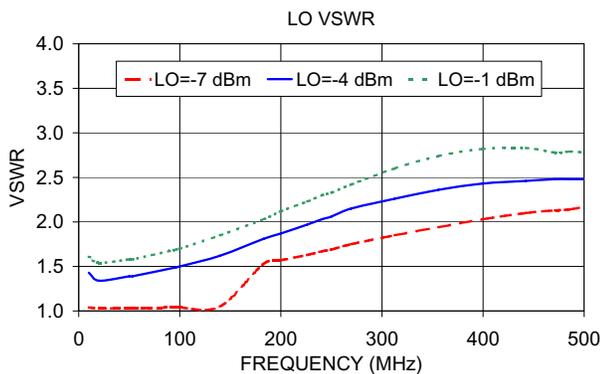
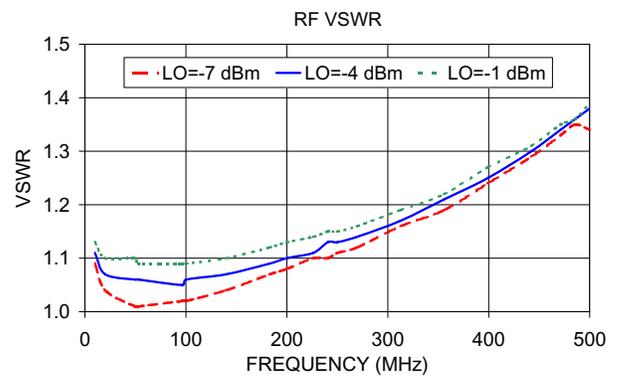
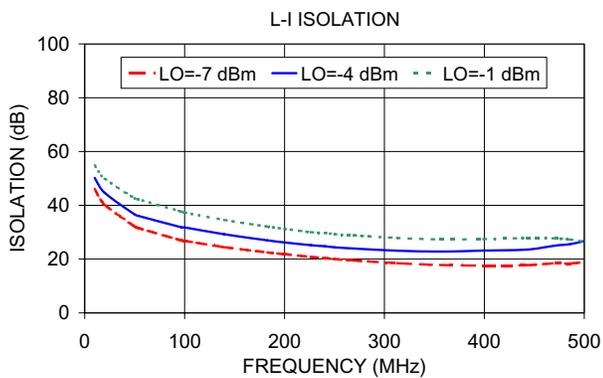
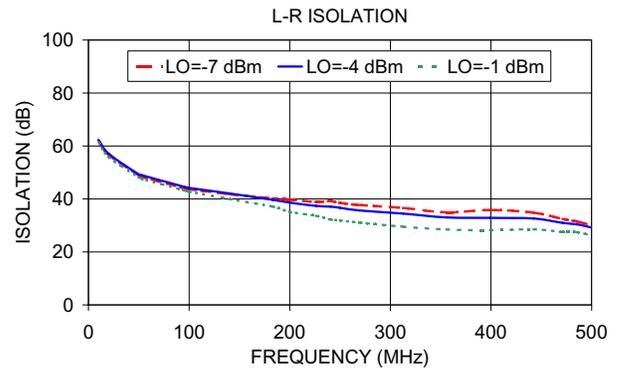
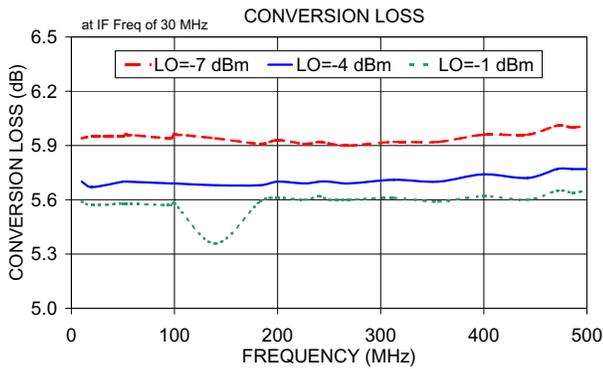
For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine www.minicircuits.com Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

REV. A
M107729
UNCL-L1+
DJ/TD/CP/AM
130502
Page 1 of 2



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp.