

# Coaxial Frequency Mixer

## ZEM-4300MH+ ZEM-4300MH

Level 13 (LO Power +13 dBm) 300 to 4300 MHz

### Maximum Ratings

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

### Coaxial Connections

LO	2
RF	1
IF	3

### Features

- low conversion loss, 6.42 dB typ.
- broadband, 300 to 4300 MHz
- IF response to DC

### Applications

- UHF/VHF
- MMDS
- ISM/GPS
- instrumentation



CASE STYLE: V37

Connectors	Model	Price	Qty.
SMA	ZEM-4300MH(+)	\$89.95	(1-9)

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

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Electrical Specifications

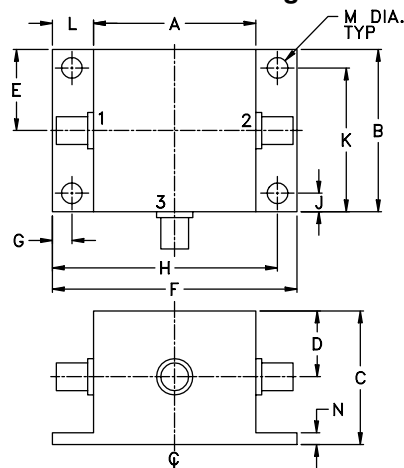
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)				LO-IF ISOLATION (dB)						
		Mid-Band		Total Range Max.		L		U				
LO/RF $f_L$ - $f_U$	IF $\bar{X}$ $\sigma$	$\bar{X}$	$\sigma$	Max.	L	U	L	U				
		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.			
300-4300	DC-1000	6.42	0.15	8.5	40	20	40	20	14	7	12	7

1 dB COMP.: +9 dBm typ.

L = low range [ $f_L$  to  $10 f_L$ ]

U = upper range [ $10 f_U$  to  $f_U$ ]

### Outline Drawing



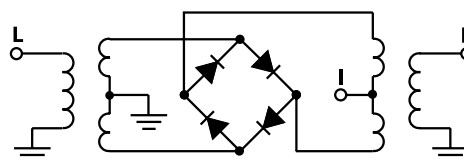
### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.83	.83	.75	.37	.42	1.25	.100
21.08	21.08	19.05	9.40	10.67	31.75	2.54
H	J	K	L	M	N	wt
1.150	.095	.735	.21	.106	.06	grams
29.21	2.41	18.67	5.33	2.69	1.52	34

### 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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
300.00	500.00	7.02	42.09	9.54	2.21	5.54
500.00	700.00	6.66	33.47	9.04	3.20	5.20
575.86	775.86	6.30	35.56	9.47	3.19	5.14
600.00	800.00	6.62	35.00	9.79	2.55	6.32
989.66	789.66	6.61	36.09	17.49	1.64	4.48
1000.00	800.00	6.53	36.06	17.37	2.66	3.06
1403.45	1203.45	6.30	32.65	14.72	5.34	2.48
1679.31	1479.31	5.89	39.70	19.11	4.31	4.59
2000.00	1800.00	6.16	34.09	23.50	2.63	2.77
2093.10	1893.10	6.43	33.26	23.82	2.48	1.88
2231.03	2031.04	6.54	32.41	25.64	2.42	1.88
2368.97	2168.97	6.30	31.34	28.66	2.35	1.89
2506.90	2306.90	6.24	29.89	27.33	2.26	1.90
2920.69	2720.69	6.23	27.73	17.77	2.30	2.41
3000.00	2800.00	6.20	26.08	16.39	2.29	2.23
3334.48	3134.48	6.22	27.73	15.67	2.29	3.01
3610.34	3410.35	6.38	30.12	13.56	1.82	2.73
4000.00	3800.00	6.47	33.12	10.27	2.35	1.84
4162.07	3962.07	6.54	35.73	10.47	2.27	2.41
4300.00	4100.00	6.83	39.65	11.87	2.30	3.08

### Electrical Schematic



**Mini-Circuits®**  
ISO 9001 ISO 14001 CERTIFIED

ALL NEW  
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

RF/IF MICROWAVE COMPONENTS

REV. A  
M98898  
ZEM-4300MH  
DJ/TD/CP  
061211

# Performance Charts

# ZEM-4300MH+ ZEM-4300MH

