

Coaxial Frequency Mixer

Level 13 (LO Power +13 dBm) 10 to 2400 MHz

Maximum Ratings

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

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

LO	3
RF	2
IF	1

Features

- low conversion loss, 6.9 dB typ.
- excellent isolation, 43 dB typ. L-R, 44 dB typ. L-I
- wideband, 10 to 2400 MHz

Applications

- VHF/UHF
- cellular
- GPS

ZEM-M2TMH+ ZEM-M2TMH



CASE STYLE: V37

Connectors	Model	Price	Qty.
SMA	ZEM-M2TMH(+)	\$114.95	(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)					
LO/RF	IF	Mid-Band		Total		L		M		U		L		M		U	
f_L - f_U		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
10-2400	10-1000	6.9	0.10	9.0	9.5	49	40	43	35	42	35	49	40	44	30	40	30

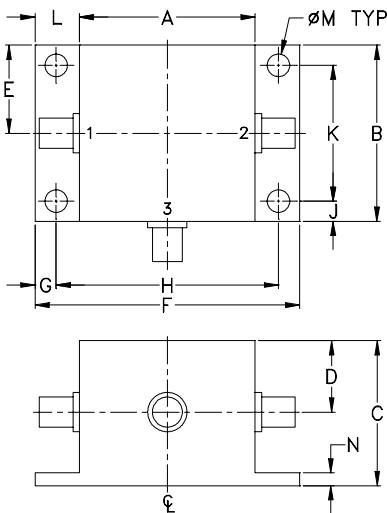
1 dB COMP.: +9 dBm typ.

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 $f_U/2$]

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
10.00	40.00	6.87	48.7	47.5	1.06	1.43
25.00	55.00	6.77	48.7	47.4	1.02	1.43
40.00	70.00	6.83	48.9	47.3	1.02	1.43
70.00	100.00	6.69	48.9	47.0	1.04	1.39
100.00	130.00	6.64	49.1	46.9	1.06	1.41
200.00	230.00	6.44	47.6	45.9	1.13	1.44
400.00	430.00	6.25	44.0	43.4	1.31	1.56
600.00	630.00	6.31	40.9	41.7	1.40	1.59
700.00	730.00	6.37	40.6	41.2	1.51	1.58
800.00	830.00	6.39	40.6	40.3	1.53	1.59
1000.00	1030.00	6.45	43.2	37.9	1.46	1.62
1200.00	1230.00	6.40	41.9	37.3	1.42	1.74
1300.00	1330.00	6.46	40.3	37.5	1.42	1.81
1500.00	1530.00	6.73	38.5	36.9	1.43	1.80
1700.00	1730.00	6.98	38.8	37.4	1.45	1.83
1800.00	1830.00	7.26	39.3	37.0	1.57	1.85
2000.00	2030.00	7.60	40.2	36.3	1.84	1.73
2200.00	2230.00	7.88	42.3	36.4	1.92	1.56
2300.00	2330.00	7.91	44.9	35.8	1.83	1.50
2400.00	2430.00	7.74	49.9	34.2	1.65	1.44

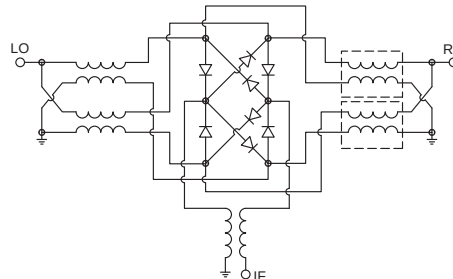
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.83	.83	.75	.37	.42	1.25	.10
21.08	21.08	19.05	9.40	10.67	31.75	2.54
H	J	K	L	M	N	wt
1.050	.10	.640	.21	.106	.06	grams
26.67	2.54	16.26	5.33	2.69	1.52	22.0

Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

REV. A
M98898
ZEM-M2TMH
DJ/TD/CP/AM
081103
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Performance Charts

ZEM-M2TMH+ ZEM-M2TMH

