

# Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 300 to 4300 MHz

## ZEM-4300+



Generic photo used for illustration purposes only

CASE STYLE: V37

Connectors	Model
SMA	ZEM-4300+

**+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.

### Coaxial Connections

LO	2
RF	1
IF	3

### Features

- low conversion loss, 6.65 dB typ.
- broadband, 300 to 4300 MHz
- IF response to DC

### Applications

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

### Electrical Specifications

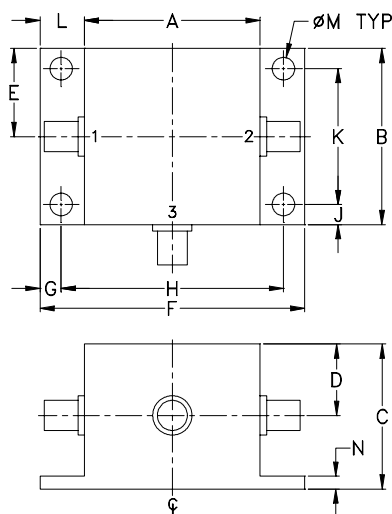
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)				LO-IF ISOLATION (dB)						
		Mid-Band		Total Range Max.		L		U				
LO/RF $f_L$ - $f_U$	IF $\bar{X}$ $\sigma$	$\bar{X}$	$\sigma$	Range Max.	L	U	L	U	L	U		
		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
300-4300	DC-1000	6.65	0.06	9.5	40	20	30	17	15	8	15	8

1 dB COMP.: +1 dBm typ.

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

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

### Outline Drawing



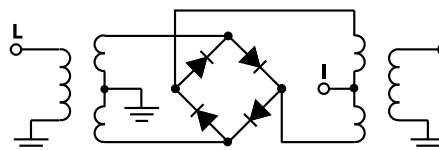
### Outline Dimensions (inch/mm)

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

### Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)	
						LO +7dBm
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	
300.00	400.00	7.36	51.34	31.66	5.75	4.40
414.29	514.29	6.29	64.83	33.69	3.35	2.89
528.57	428.57	5.08	49.72	36.96	2.55	2.65
757.14	657.14	4.96	41.17	38.13	1.71	2.19
1000.00	900.00	5.45	37.81	30.37	2.55	2.08
1214.29	1114.29	6.11	36.73	26.04	3.13	1.99
1442.86	1342.86	6.61	35.66	22.90	3.50	1.85
1671.43	1571.43	6.86	34.88	19.27	4.13	1.68
1900.00	1800.00	7.03	33.74	17.66	4.48	1.61
2000.00	1900.00	7.13	33.54	17.52	5.06	1.57
2128.57	2028.67	7.43	33.70	17.76	5.38	1.47
2471.43	2371.43	8.04	33.24	18.85	5.56	1.41
2700.00	2000.00	8.34	33.45	19.52	5.51	1.37
2814.29	2714.29	8.52	34.07	19.86	5.27	1.36
3000.00	2900.00	8.85	33.99	19.95	5.77	1.58
3157.14	3057.14	9.03	33.55	19.48	6.97	1.60
3500.00	3400.00	9.22	32.04	18.72	8.72	2.03
3728.57	3628.57	9.04	30.42	18.47	8.23	2.39
4000.00	3900.00	8.91	29.46	20.82	7.47	2.43
4300.00	4200.00	8.41	33.24	24.62	6.26	2.13

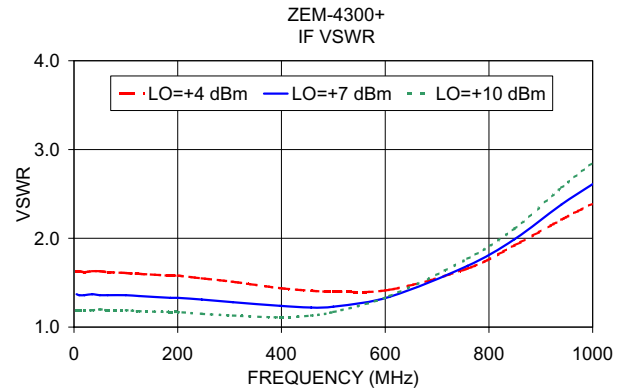
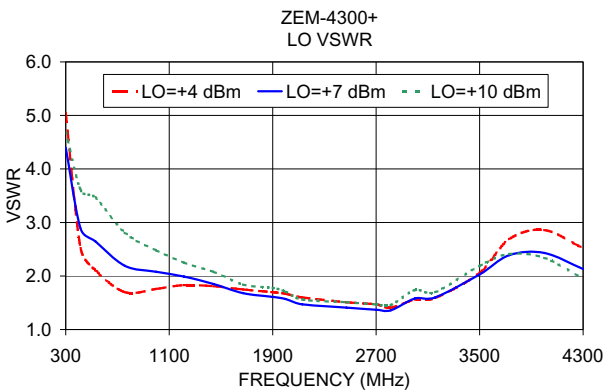
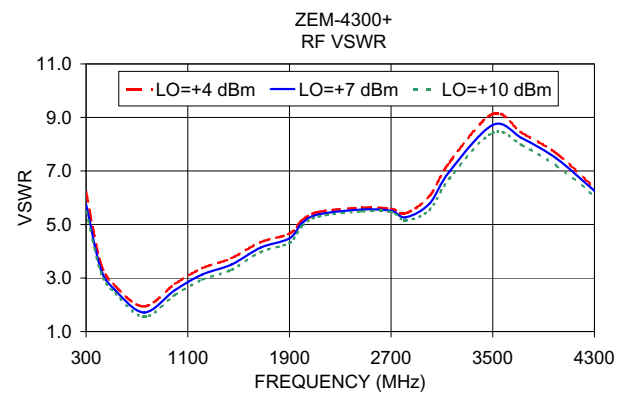
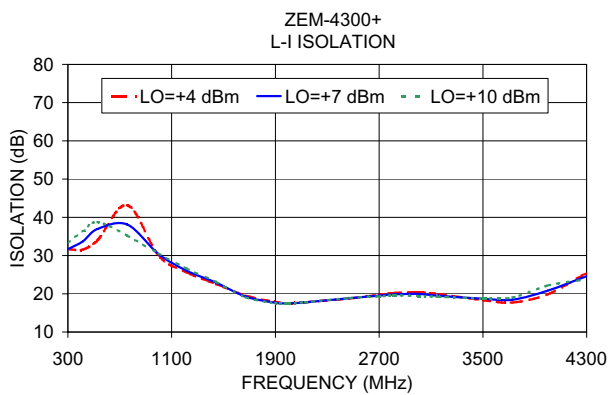
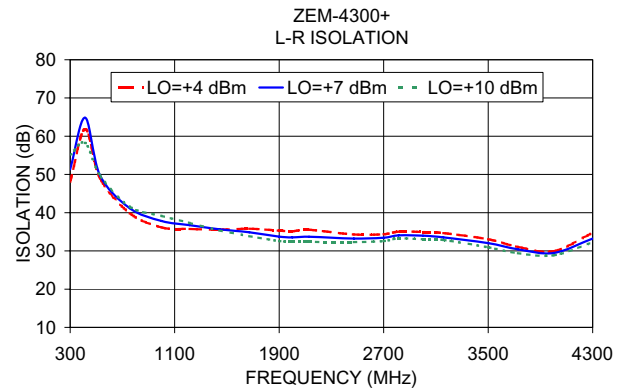
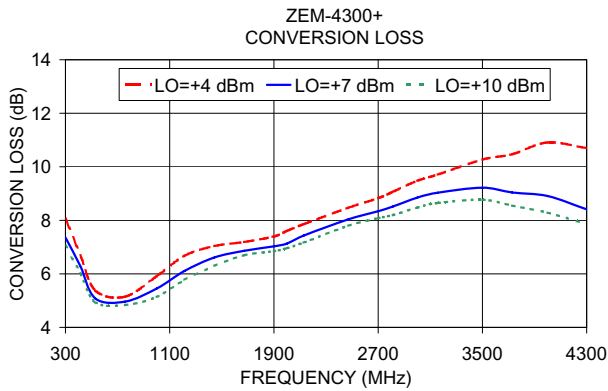
### Electrical Schematic



### 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.  
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.  
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