

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

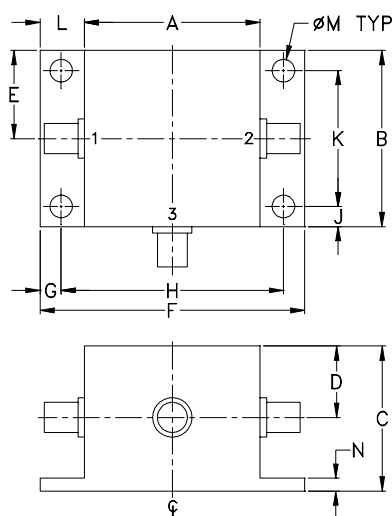
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)				LO-IF ISOLATION (dB)				
		Mid-Band		Total Range Max.		L		U		
LO/RF f_L - f_U	IF \bar{X} σ	\bar{X}	σ	Range Max.	L Typ.	U Typ.	L Min.	U Min.	L Typ.	U Typ.
300-4300	DC-1000	6.65	0.06	9.5	40	20	30	17	15	8

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



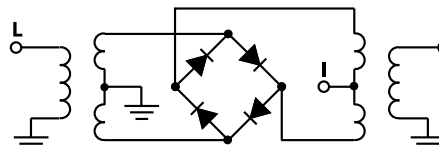
Outline Dimensions (inch/mm)

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)
300.00	400.00	7.36	51.34	31.66	5.75
414.29	514.29	6.29	64.83	33.69	3.35
528.57	428.57	5.08	49.72	36.96	2.55
757.14	657.14	4.96	41.17	38.13	1.71
1000.00	900.00	5.45	37.81	30.37	2.55
1214.29	1114.29	6.11	36.73	26.04	3.13
1442.86	1342.86	6.61	35.66	22.90	3.50
1671.43	1571.43	6.86	34.88	19.27	4.13
1900.00	1800.00	7.03	33.74	17.66	4.48
2000.00	1900.00	7.13	33.54	17.52	5.06
2128.57	2028.67	7.43	33.70	17.76	5.38
2471.43	2371.43	8.04	33.24	18.85	5.56
2700.00	2000.00	8.34	33.45	19.52	5.51
2814.29	2714.29	8.52	34.07	19.86	5.27
3000.00	2900.00	8.85	33.99	19.95	5.77
3157.14	3057.14	9.03	33.55	19.48	6.97
3500.00	3400.00	9.22	32.04	18.72	8.72
3728.57	3628.57	9.04	30.42	18.47	8.23
4000.00	3900.00	8.91	29.46	20.82	7.47
4300.00	4200.00	8.41	33.24	24.62	6.26

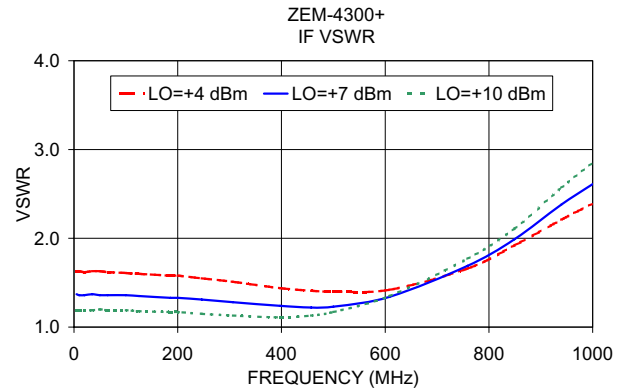
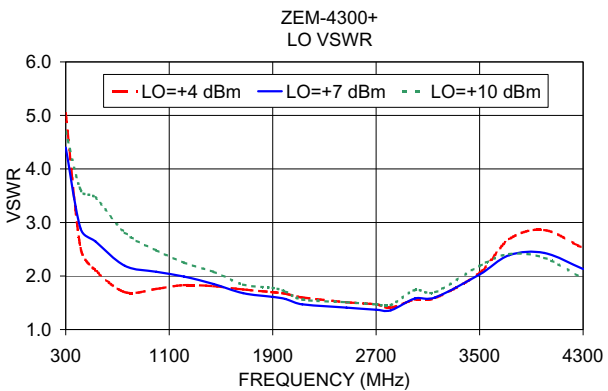
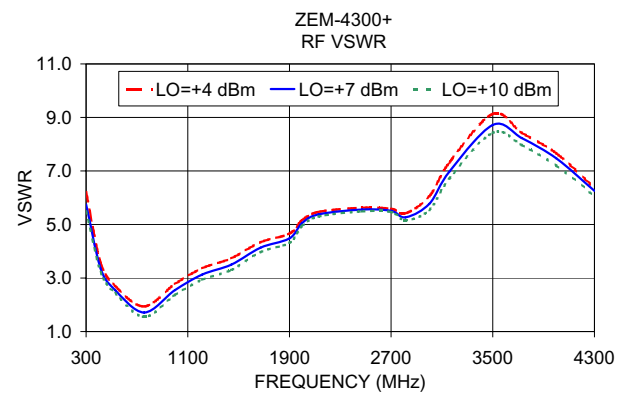
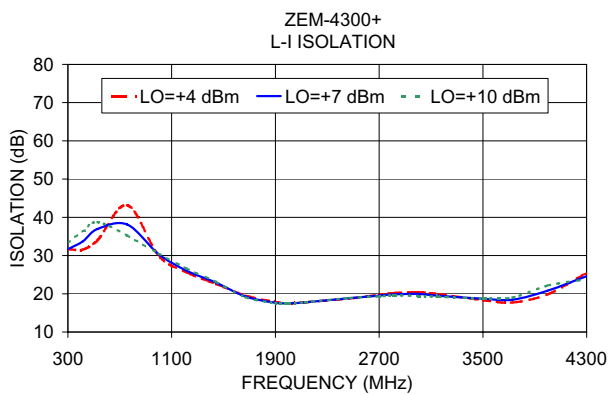
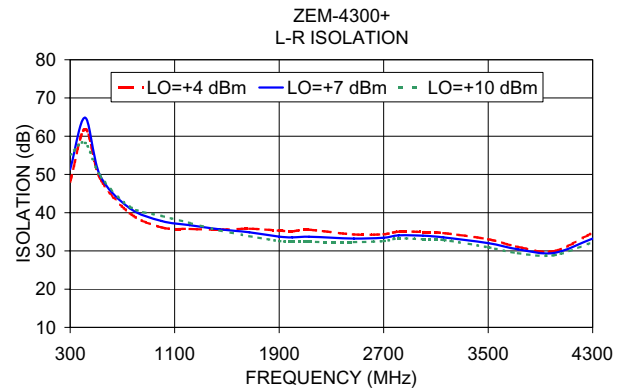
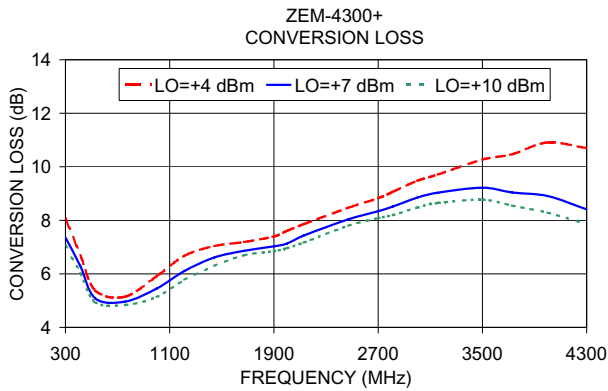
Electrical Schematic



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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