

# Coaxial Frequency Mixer

## ZX05-C24MH-S+

Level 13 (LO Power +13 dBm) 300 to 2400 MHz

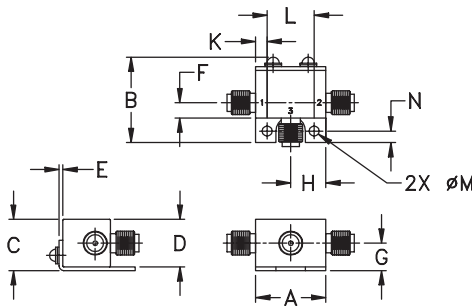
### Maximum Ratings

Operating Temperature	-40°C to 85°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	1
RF	2
IF	3

### Outline Drawing



### Outline Dimensions (inch/mm)

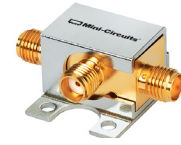
A	B	C	D	E	F	G
.74	.90	.54	.50	.04	.16	.29
18.80	22.86	13.72	12.70	1.02	4.06	7.37
H	J	K	L	M	N	wt
.37	--	.122	.496	.106	.122	grams
9.40	--	3.10	12.60	2.69	3.10	20.0

### Features

- rugged construction
- small size
- low conversion loss
- high L-R isolation
- protected by US Patents 6,790,049 & 7,027,795

### Applications

- cellular
- PCS
- instrumentation
- satellite communication



Generic photo used for illustration purposes only

CASE STYLE: FL905

Connectors	Model
SMA	ZX05-C24MH-S+

### +RoHS Compliant

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

### Electrical Specifications (T<sub>AMB</sub>=25°C)

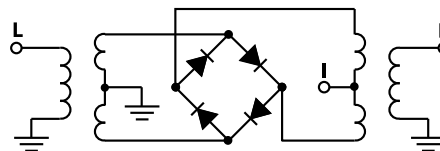
FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF	IF	Mid-Band m			Typ.	Min.	Typ.	Min.	Typ.
f <sub>L</sub> -f <sub>U</sub>		$\bar{X}$	$\sigma$	Max.					
300-2400	DC-700	6.1	0.1	8.6	40	20	25	14	13

1 dB COMP: +9 dBm typ.  
m= mid band [2f<sub>L</sub> to f<sub>U</sub>/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
300.10	330.10	5.72	49.84	21.77	9.50	19.41
407.79	437.79	5.29	41.51	22.91	10.50	3.41
515.49	545.49	5.99	40.56	25.38	5.31	1.86
623.18	593.18	6.04	54.07	28.08	4.54	1.61
730.87	700.87	5.66	40.08	26.63	5.89	2.12
838.56	808.56	6.11	38.68	29.99	5.11	2.85
1000.10	970.10	6.19	39.74	23.66	5.51	3.17
1107.79	1077.79	6.07	40.41	26.29	6.06	3.77
1215.49	1185.49	6.08	40.14	29.33	5.32	4.06
1323.18	1293.18	6.00	40.23	30.52	6.52	4.23
1430.87	1400.87	5.21	44.53	29.34	9.09	3.66
1538.56	1508.56	5.33	40.37	26.94	12.11	2.04
1700.10	1670.10	5.15	35.10	28.24	12.93	2.18
1807.79	1777.79	5.51	34.07	26.14	10.06	2.20
1915.49	1885.49	5.79	32.41	25.33	8.85	2.69
2023.18	1993.18	6.28	31.06	26.23	6.18	3.00
2130.87	2100.87	7.15	31.11	30.92	5.13	3.00
2238.56	2208.56	6.78	32.24	28.04	5.43	3.18
2346.25	2316.25	6.76	32.56	26.59	6.09	3.84
2400.10	2370.10	6.75	31.57	27.31	6.66	4.15

### Electrical Schematic



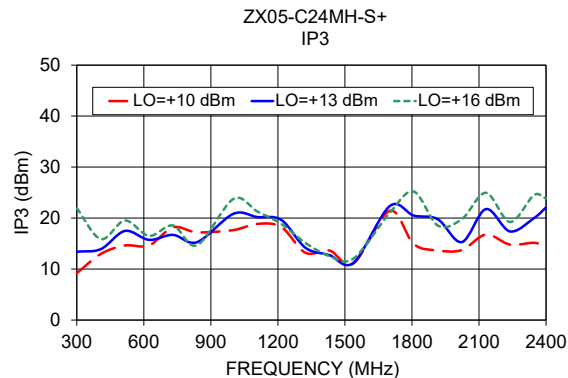
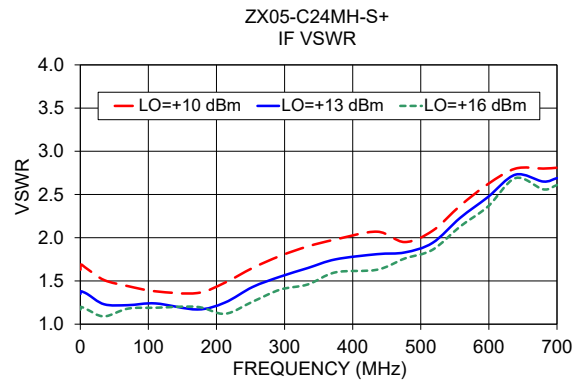
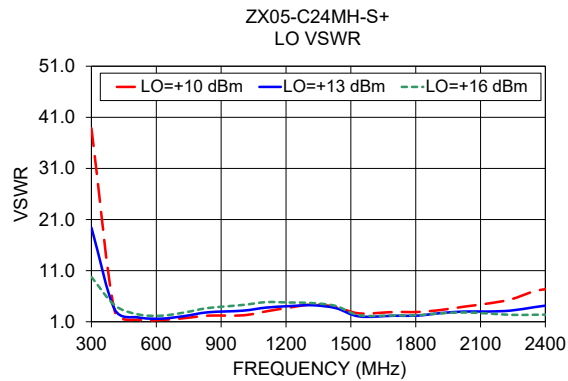
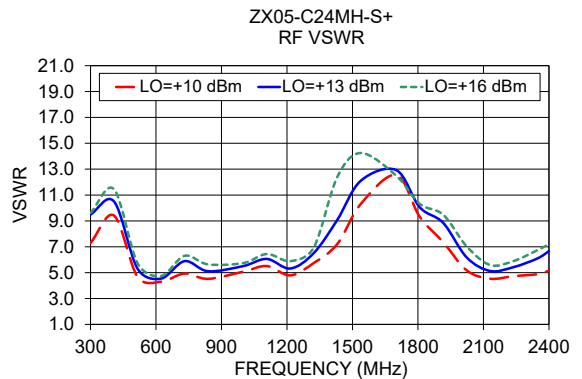
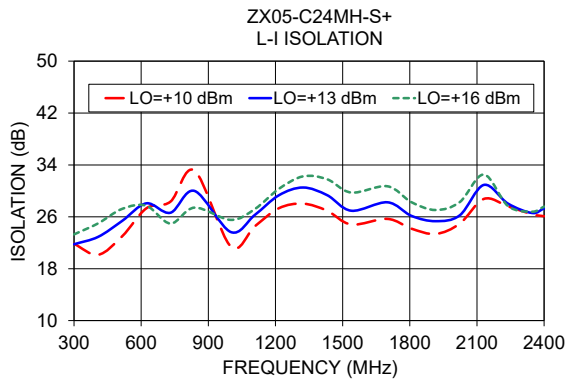
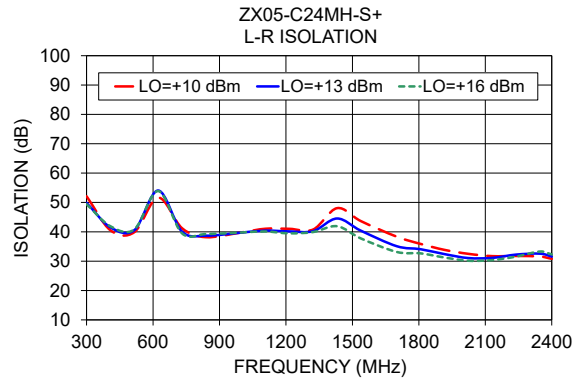
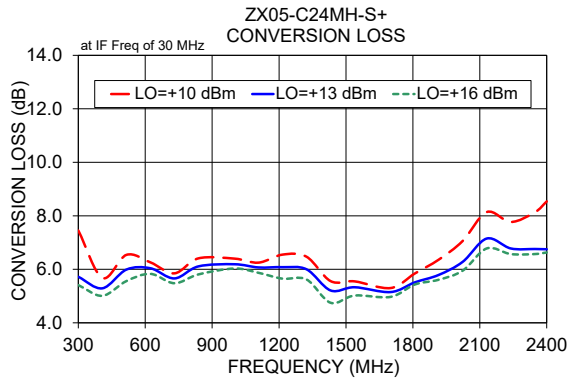
### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document 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](http://www.minicircuits.com/MCLStore/terms.jsp)



[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. F  
M171494  
ZX05-C24MH-S+  
RVN/TD/CP/AM  
200811  
Page 1 of 2



**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.
- C. The parts covered by this specification document 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](http://www.minicircuits.com/MCLStore/terms.jsp)

