

Frequency Mixer

Level 13 (LO Power +13 dBm) 10 to 1200 MHz

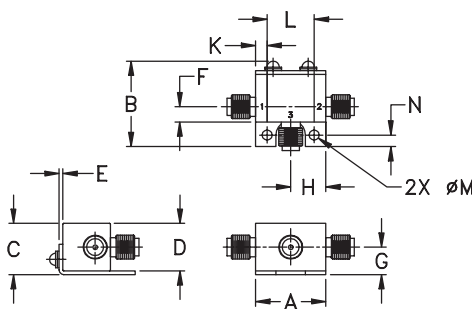
Maximum Ratings

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

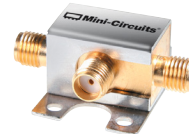
Features

- rugged construction
- small size
- low conversion loss
- high L-R isolation
- protected by US Patents 6,133,525 and 6,790,049

Applications

- cellular
- PCS
- instrumentation
- satellite communication

ZX05-12MH+



CASE STYLE: FL905

Connectors	Model
SMA	ZX05-12MH-S+

+RoHS Compliant

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

Electrical Specifications (T_{AMB}=25°C)

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
LO/RF f _L -f _U	IF	Mid-Band m			Total Range Max.	L		M		U		L		M		U		
		$\overline{X}$	σ	Max.		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
10-1200	DC-1200	6.3	0.1	8.0	9.3	62	45	45	32	40	26	68	40	42	27	30	20	22

1 dB COMP: +9 dBm typ.

L = low range [f_L to 10 f_L]
m= mid band [2f_L to f_U/2]

M = mid range [10 f_L to f_U/2]
U = upper range [f_U/2 to f_U]

1 dB COMP.: +9 dBm typ.

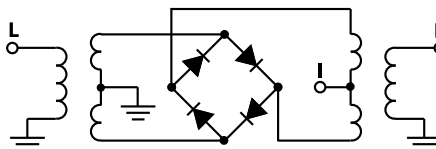
L = low range [f_L to 10 f_L]
m = mid band [2 f_L to f_L/2]

M = mid range [10 f_L to f_L/2] U = upper range [f_L/2 to f_U]

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
10.10	40.10	6.79	77.06	75.81	1.43	1.67
35.10	65.10	6.61	65.97	67.93	1.43	1.60
120.10	90.10	6.55	55.51	58.17	1.42	1.61
176.57	146.57	6.48	52.09	55.53	1.41	1.67
233.04	203.04	6.37	49.87	52.59	1.39	1.63
261.28	231.28	6.32	49.09	51.10	1.37	1.68
317.75	287.75	6.31	47.53	48.02	1.36	1.67
374.22	344.22	6.26	46.54	45.84	1.35	1.73
430.69	400.69	6.23	45.73	43.99	1.33	1.78
487.16	457.16	6.24	44.02	41.31	1.33	1.71
543.63	513.63	6.18	43.51	40.06	1.31	1.76
600.10	570.10	6.23	43.41	39.38	1.28	1.79
661.53	631.53	6.16	44.54	38.57	1.25	1.76
744.39	714.39	6.35	43.91	38.12	1.25	1.78
827.24	797.24	6.52	42.35	36.05	1.23	1.82
910.10	880.10	6.45	40.78	32.90	1.19	1.83
992.96	962.96	6.00	39.70	31.56	1.06	1.92
1075.81	1045.81	5.99	36.90	31.08	1.10	1.98
1158.67	1128.67	6.09	35.90	31.14	1.31	2.07
1200.10	1170.10	6.41	34.83	31.18	1.44	2.08

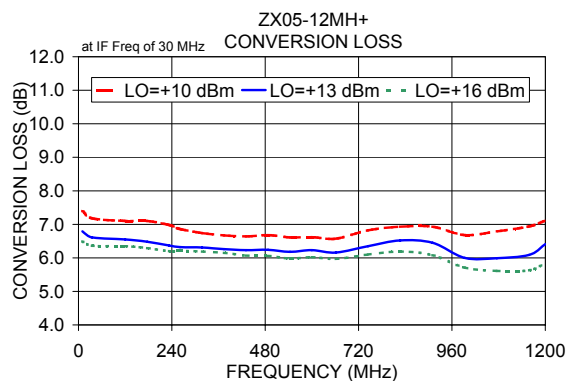
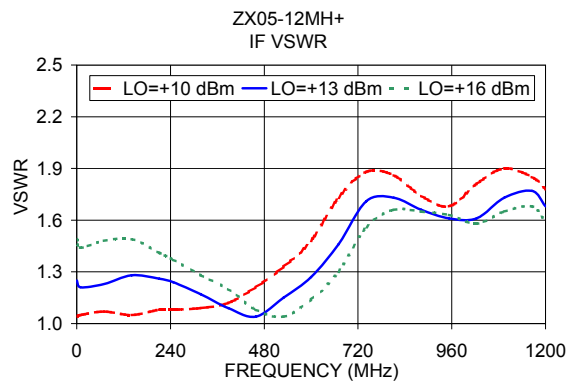
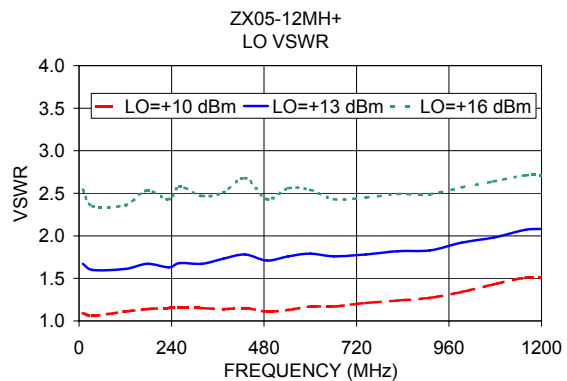
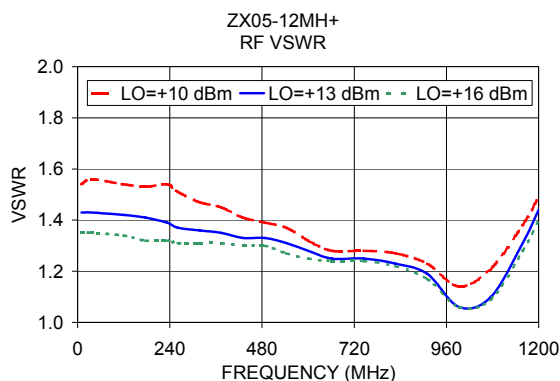
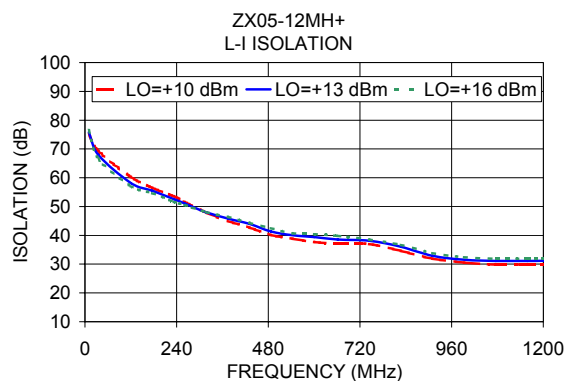
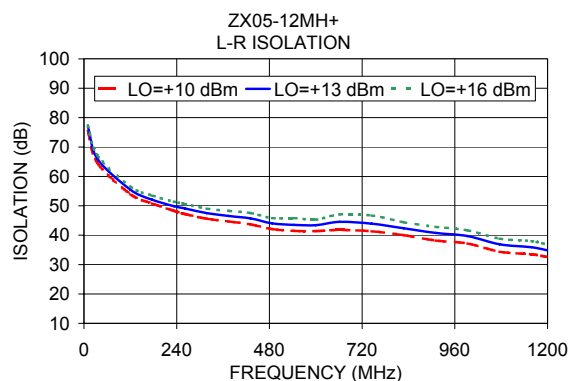
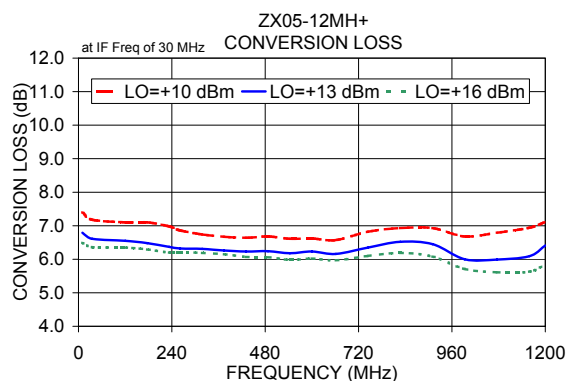
Electrical Schematic



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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