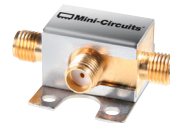


Frequency Mixer

Level 7 (LO Power +7 dBm) 5 to 1500 MHz

ZX05-5-S+



CASE STYLE: FL905

Connectors	Model
SMA	ZX05-5-S+

+RoHS Compliant

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

Maximum Ratings

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

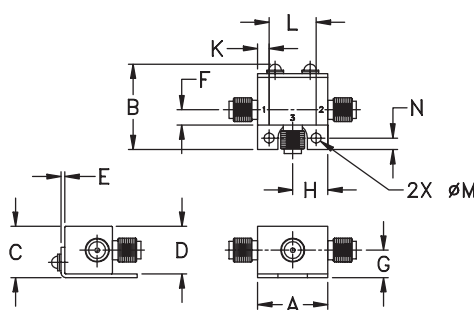
Features

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

Applications

- cellular
- PCS
- instrumentation
- satellite communication

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

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.	
5-1500	DC-1000	6.6	0.1	7.5	9.3	50	40	40	25	33	23	50	40	30	20	20	10	15

1 dB COMP: +1 dBm typ.

Positive detection: positive output with in-phase RF & LO signals

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

m = mid band [$2 f_L$ to $f_U/2$]

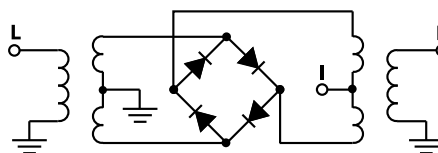
M = mid range [$10 f_L$ to $f_U/2$]

U = upper range [$f_U/2$ 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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
5.10	35.10	6.93	82.10	96.28	1.48	1.83
35.10	65.10	6.51	65.10	76.81	1.38	1.80
50.10	80.10	6.48	61.74	69.65	1.37	1.80
100.10	70.10	6.60	55.18	56.54	1.36	1.77
171.43	141.43	6.54	50.58	45.84	1.35	1.80
254.10	224.10	6.51	47.52	39.83	1.33	1.78
336.77	306.77	6.56	45.52	36.24	1.32	1.78
419.43	389.43	6.63	43.47	34.05	1.31	1.78
502.10	472.10	6.58	42.13	31.97	1.30	1.81
584.77	554.77	6.56	40.92	30.53	1.28	1.82
667.43	637.43	6.64	37.49	29.33	1.25	1.84
750.10	720.10	6.78	35.27	28.03	1.24	1.87
831.53	801.53	6.81	34.84	25.74	1.19	1.90
934.39	904.39	6.70	33.83	23.60	1.09	1.91
1037.24	1007.24	6.59	33.85	22.24	1.05	1.97
1140.10	1110.10	6.66	33.64	21.45	1.20	2.09
1242.96	1212.96	7.02	32.75	20.75	1.41	2.22
1345.81	1315.81	7.39	31.63	18.60	1.62	2.15
1448.67	1418.67	7.75	29.54	17.12	1.84	2.01
1500.10	1470.10	7.94	28.84	17.08	1.93	2.06

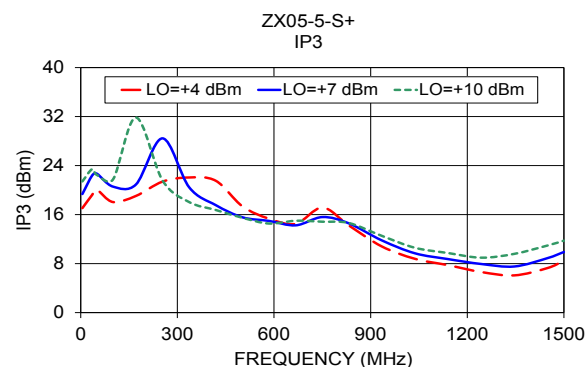
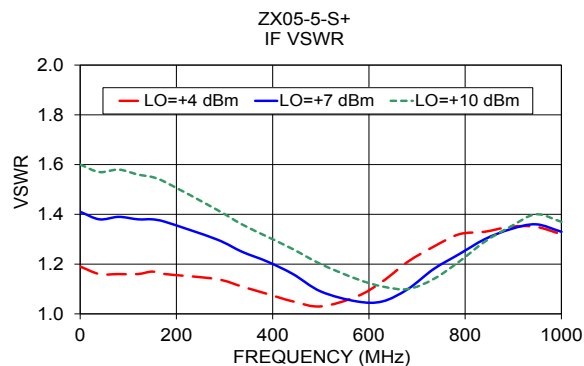
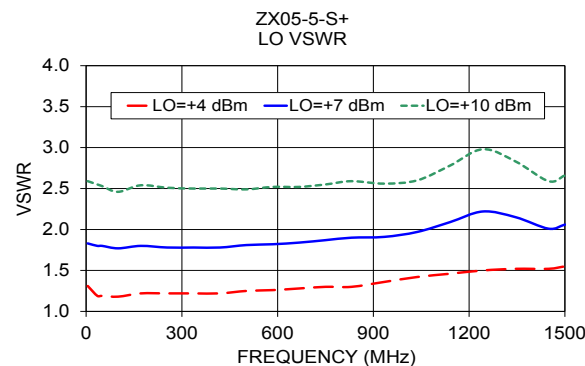
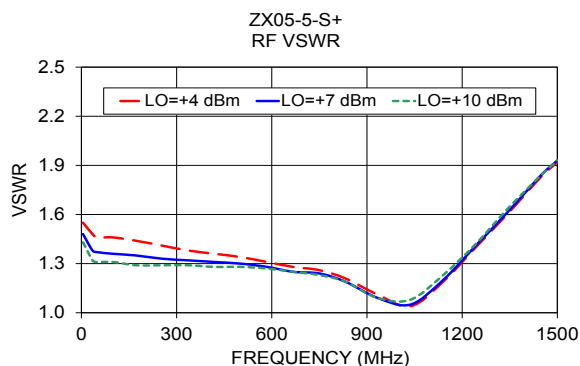
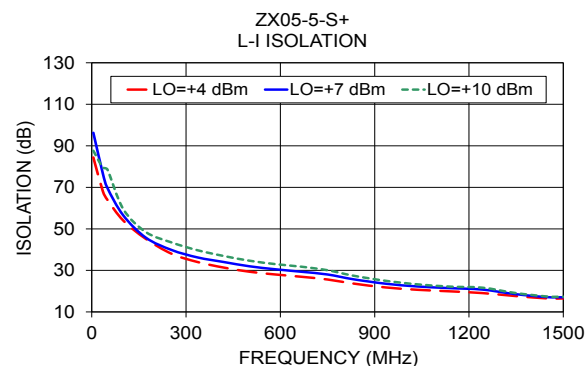
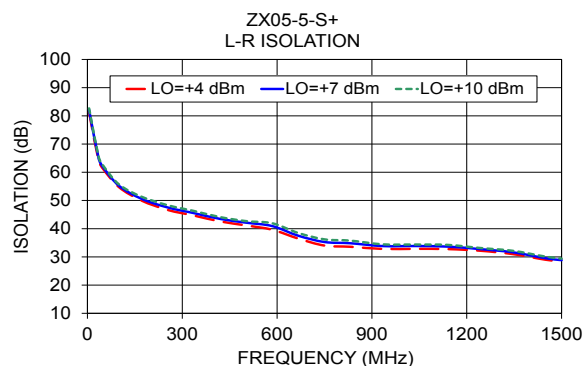
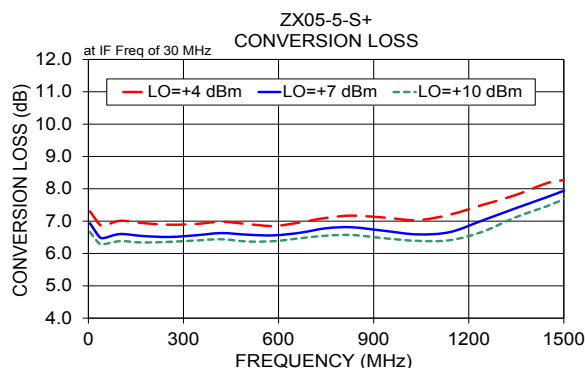
Electrical Schematic



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.
 C. The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp





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