

Frequency Mixer WIDE BAND

ZX05-83LH-S+

Level 10 (LO Power +10 dBm) 1700 to 8000 MHz



CASE STYLE: FL905

Connectors	Model
SMA	ZX05-83LH-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

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

LO	2
RF	3
IF	1

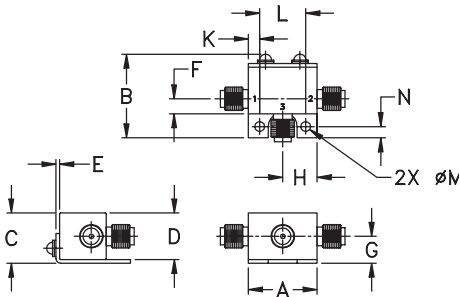
Features

- wide bandwidth, 1700 to 8000 MHz
- low conversion loss, 6.0 dB typ.
- excellent IF BW, DC to 3000 MHz
- rugged construction
- small size
- useable as up and down converter
- protected by US patents, 6,790,049 and 7,027,795

Applications

- satellite up and down converters
- defense radar and communications
- line of sight links
- federal fixed service
- WIFI
- blue tooth
- VSAT
- ISM

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

FREQUENCY (MHz)	CONVERSION LOSS* (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)			
		Typ.	Min.	Typ.	Min.				
LO/RF $f_L - f_U$	IF	Typ.	σ	Max.	Typ.	Min.	Typ.		
1700-8000	DC-3000								
1700-3200		6.3	0.1	8.5	33	25	23	17	10
3200-3700		5.9	0.1	7.5	28	24	23	18	15
3700-4200		5.9	0.1	7.5	30	24	28	19	18
4200-8000		5.6	0.2	8.5	23	16	18	8	11

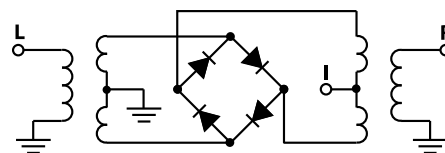
1 dB COMP. : +3 dBm typ.

* Conversion loss at 30 MHz IF. σ is a measure of repeatability from unit to unit.

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 +10dBm
RF	LO	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	
1700.10	1730.10	6.79	34.80	20.90	1.80	13.81
2000.10	2030.10	6.86	30.93	20.64	1.67	6.17
2300.10	2330.10	6.24	35.38	21.82	2.30	3.95
2600.10	2630.10	6.38	37.54	23.59	2.95	2.89
2900.10	2930.10	6.18	29.81	22.67	2.91	2.56
3200.10	3230.10	6.10	28.20	22.47	2.72	2.57
3700.10	3730.10	5.85	28.77	24.36	2.14	2.89
4000.10	4030.10	5.89	30.55	31.35	2.30	3.14
4200.10	4230.10	5.81	29.19	33.23	2.59	3.29
4600.10	4630.10	5.45	26.82	17.07	1.99	3.43
5200.10	5230.10	5.76	25.05	14.76	2.57	3.35
5500.10	5530.10	5.38	23.15	16.79	2.13	3.15
5800.10	5830.10	5.29	21.39	19.44	1.93	2.55
6100.10	6130.10	5.16	20.07	23.22	1.72	1.84
6400.10	6430.10	5.32	19.06	29.56	1.65	1.32
6700.10	6730.10	5.45	19.08	29.54	1.79	1.53
7000.10	7030.10	5.55	19.54	37.18	1.68	2.04
7300.10	7330.10	5.46	19.22	23.31	1.73	2.58
7600.10	7630.10	5.65	20.22	18.48	1.73	2.94
8000.10	8030.10	6.66	21.01	12.01	2.29	2.89

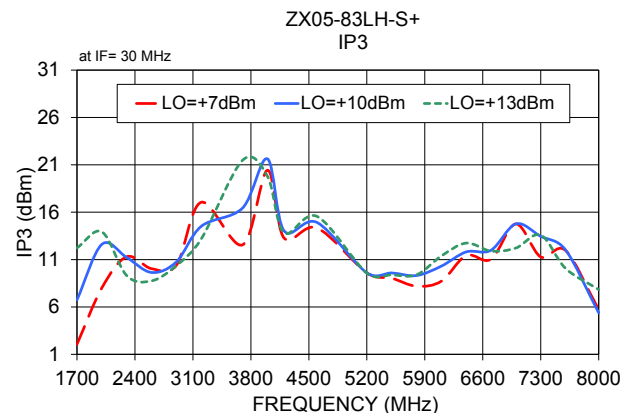
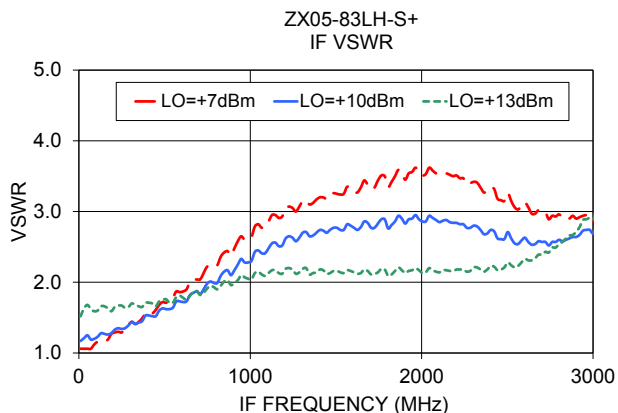
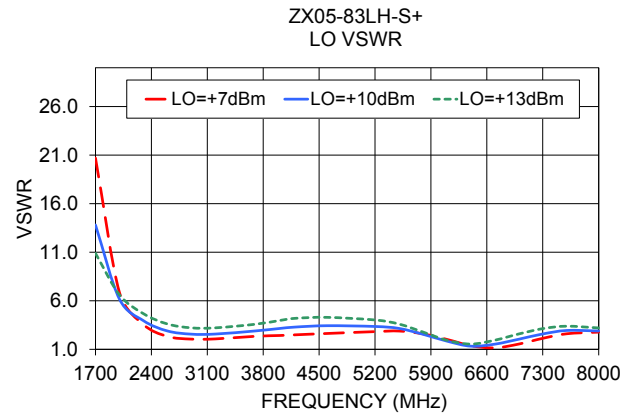
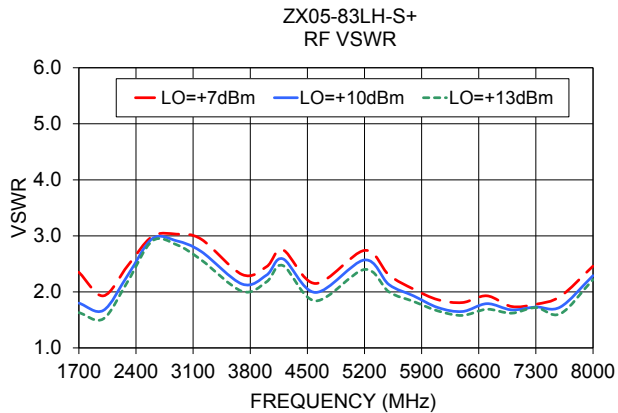
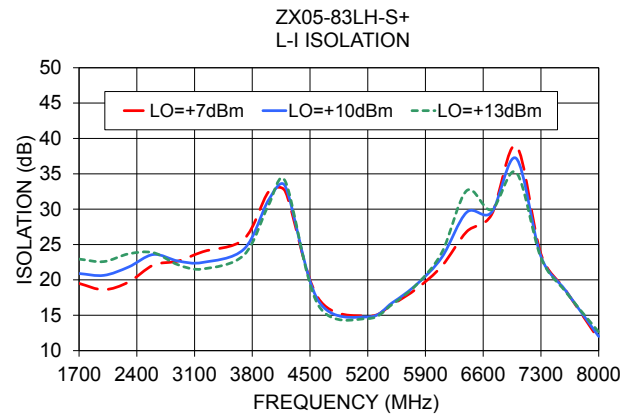
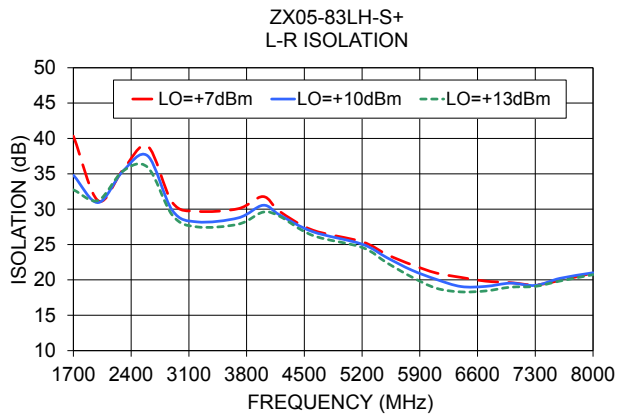
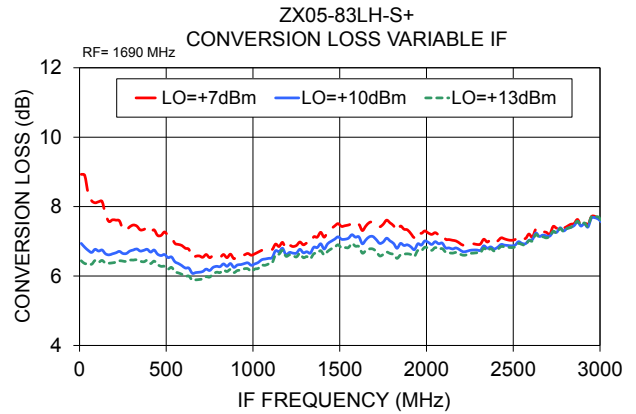
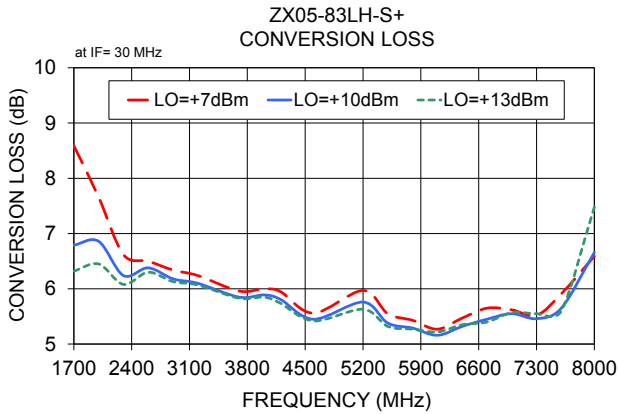
Electrical Schematic



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/WCLStore/terms.jsp





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

