

Frequency Mixer

ZX05-10H-S+

Level 17 (LO Power +17 dBm) 10 to 1000 MHz

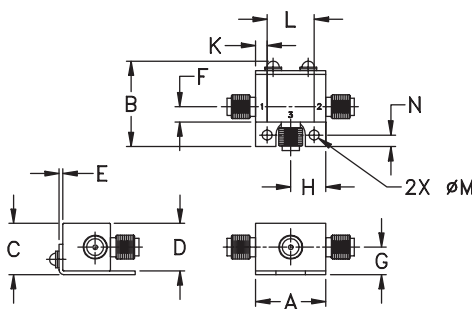
Maximum Ratings

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; 6,790,049 & 6,947,717

Applications

- cellular
- PCS
- instrumentation
- satellite communication

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		L		M		U		L		M		U		
		$\overline{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
		7.0	0.1	8.5	9.5	68	52	55	38	47	25	46	30	32	20	26	13	

1 dB COMP: +14 dBm typ.

Conversion Loss increases when IF is above 150 MHz.

L = low range [f_L to 10 f_L]

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

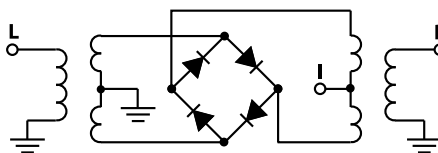
M = mid range [10 f_L to f_U/2]

U = upper range [f_U/2 to f_U]

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
10.10	40.10	7.55	81.69	62.06	1.43	1.13
50.10	80.10	7.39	69.91	47.32	1.39	1.09
100.10	70.10	7.47	64.18	40.85	1.40	1.13
143.85	113.85	7.39	61.39	37.09	1.39	1.18
215.10	185.10	7.24	56.02	32.50	1.38	1.20
262.60	232.60	7.10	54.66	30.65	1.38	1.19
310.10	280.10	7.07	53.72	29.51	1.40	1.20
357.60	327.60	7.02	53.34	28.60	1.39	1.17
405.10	375.10	7.15	51.82	28.24	1.40	1.20
452.60	422.60	7.04	50.25	27.84	1.39	1.18
500.10	470.10	7.24	48.94	27.66	1.41	1.24
552.10	522.10	7.17	46.94	27.44	1.39	1.23
616.10	586.10	7.30	45.19	27.21	1.38	1.30
648.10	618.10	7.31	44.07	27.04	1.38	1.32
712.10	682.10	7.39	42.17	25.98	1.35	1.34
776.10	746.10	7.14	39.71	24.50	1.32	1.45
840.10	810.10	7.25	36.65	23.70	1.28	1.53
904.10	874.10	7.47	34.81	23.29	1.26	1.56
968.10	938.10	7.65	33.06	22.47	1.23	1.69
1000.10	970.10	7.67	32.44	21.87	1.23	1.70

Electrical Schematic



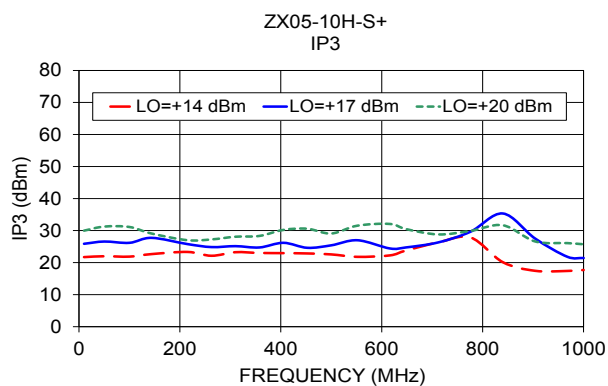
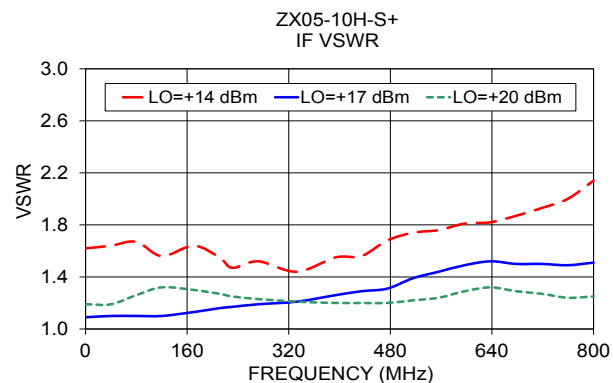
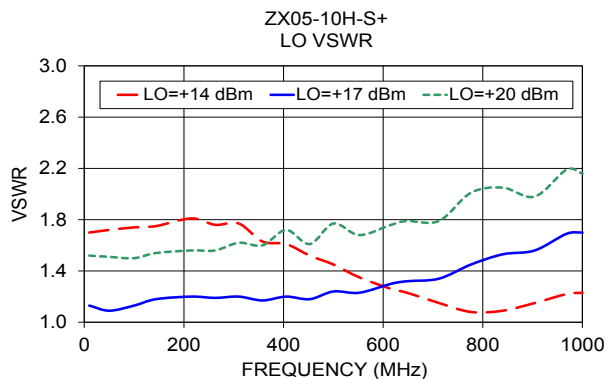
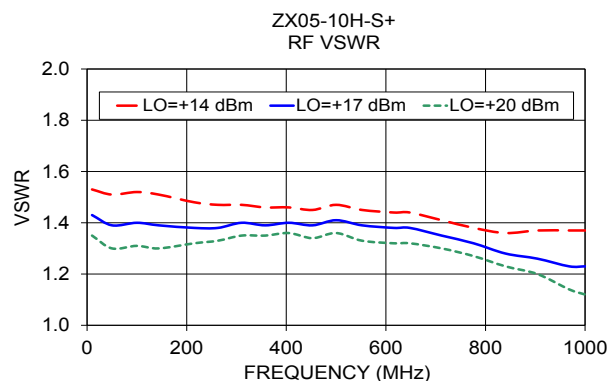
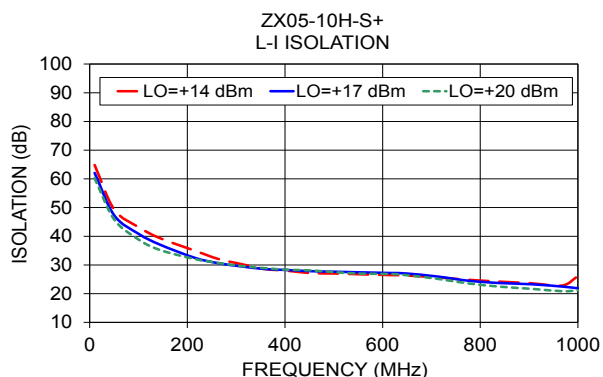
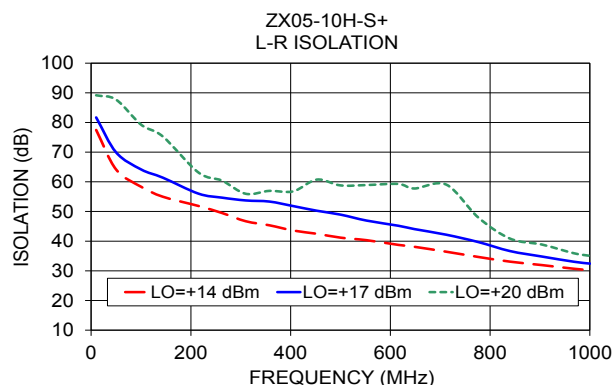
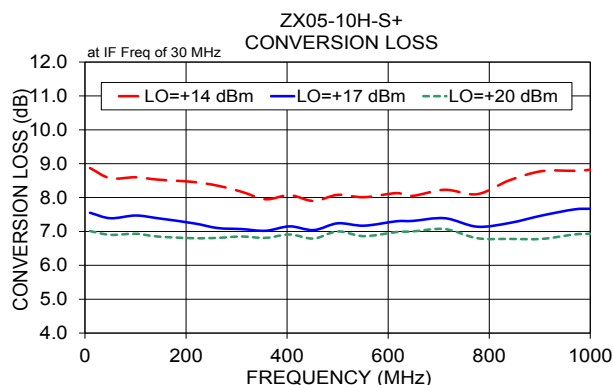
Notes

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Performance Charts

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