

Frequency Mixer

Level 13 (LO Power +13 dBm) 5 to 4200 MHz

ZX05-42MH-S+

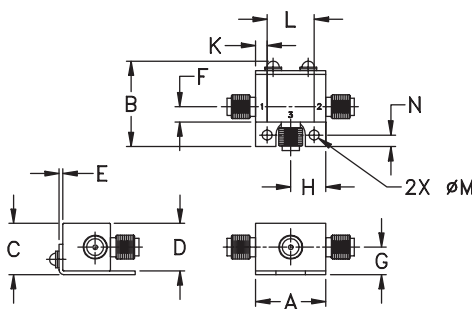
Maximum Ratings

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

Applications

- cellular
- PCS
- instrumentation
- satellite communication



Generic photo used for illustration purposes only

CASE STYLE: FL905

Connectors	Model
SMA	ZX05-42MH-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			Typ.	Min.	Typ.	Min.		Typ.	Min.	Typ.	Min.	Typ.	Min.		
		7.5	0.2			9.8	11.8	47	28		29	20	30	15	34	23	26	
5-4200	5-3500																19	

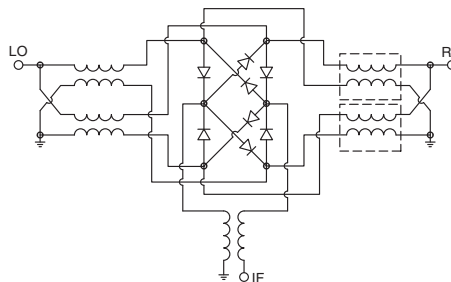
1 dB COMP.: +9 dBm typ.

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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
5.10	35.10	7.31	45.95	33.54	1.31	2.39
20.10	50.10	7.13	55.97	35.83	1.21	2.33
100.10	70.10	7.16	55.79	35.64	1.18	2.30
305.66	275.66	7.25	42.66	33.81	1.09	2.24
516.77	486.77	7.39	38.77	31.55	1.18	2.11
727.88	697.88	7.37	37.99	28.97	1.43	1.91
938.99	908.99	7.48	39.66	27.24	1.79	1.79
1150.10	1120.10	7.63	46.71	25.76	2.01	1.65
1361.21	1331.21	7.98	46.26	24.65	2.17	1.53
1572.32	1542.32	8.18	40.21	24.25	2.31	1.45
1783.43	1753.43	8.20	36.57	24.45	2.07	1.35
1994.54	1964.54	8.27	34.51	24.79	1.97	1.34
2200.10	2170.10	8.25	32.76	24.92	1.88	1.36
2485.81	2455.81	8.28	31.48	24.30	1.95	1.35
2771.53	2741.53	8.66	30.19	23.95	1.86	1.35
3057.24	3027.24	8.99	28.98	24.12	1.96	1.27
3342.96	3312.96	9.21	28.90	24.58	1.80	1.11
3628.67	3598.67	9.11	29.94	25.59	1.81	1.14
3914.39	3884.39	9.25	31.33	26.21	1.38	1.25
4200.10	4170.10	9.88	31.78	27.67	1.21	1.39

Electrical Schematic



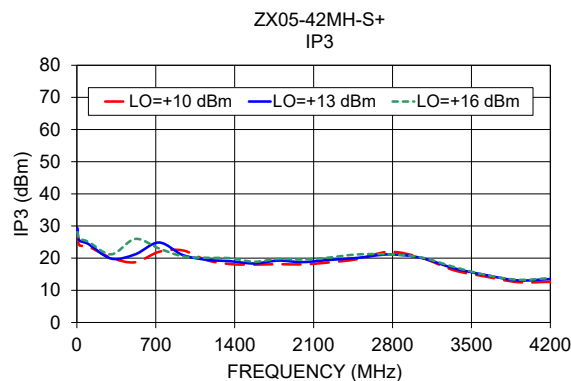
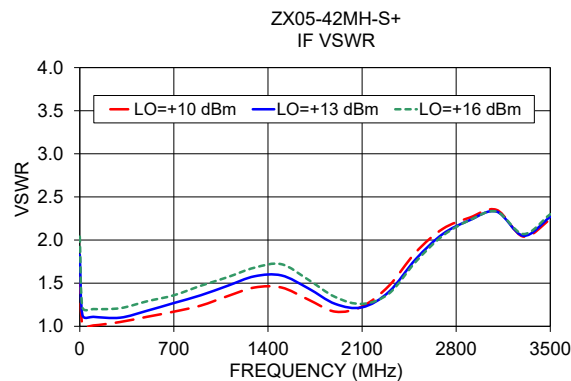
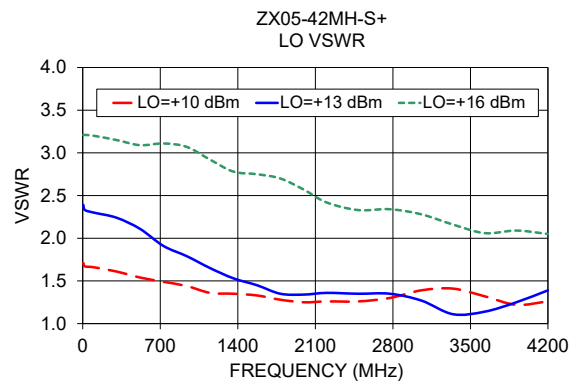
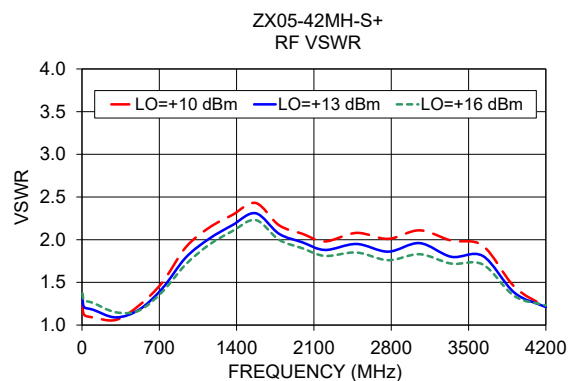
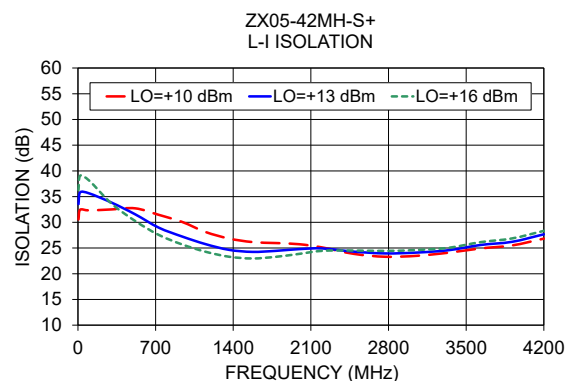
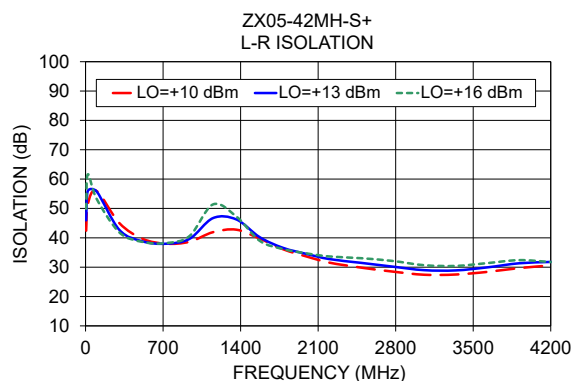
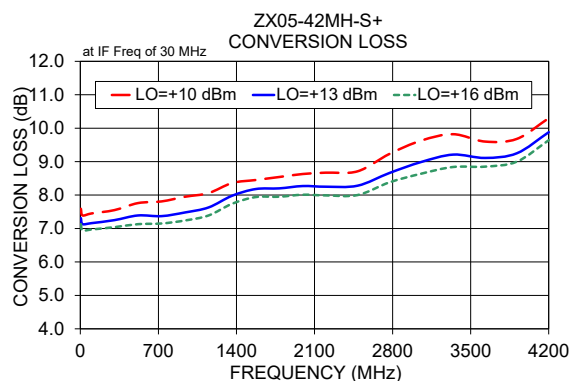
Notes

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Performance Charts

ZX05-42MH-S+



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