

Frequency Mixer

ZX05-42MH

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

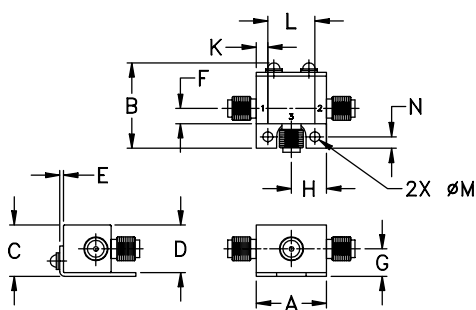
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

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

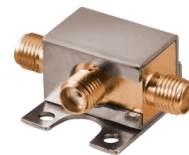
H	J	K	L	M	N	wt
.37	--	.122	.496	.106	.122	grams
9.40	--	3.10	12.60	2.69	3.10	20.0

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



CASE STYLE: FL905

Connectors	Model	Price	Qty.
SMA	ZX05-42MH-S	\$39.95 ea.	(1-24)

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		Total Range Max.		L		M		U		L		M		U		
		$\bar{X}$	σ			Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	
5-4200	DC-3500	7.5	0.2	9.8	11.8	47	28	29	20	30	15	34	23	26	17	23	17	

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

