

Coaxial Frequency Mixer

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

ZX05-42MH+
ZX05-42MH



CASE STYLE: FL905

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

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

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

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Electrical Specifications (T_{AMB}=25°C)

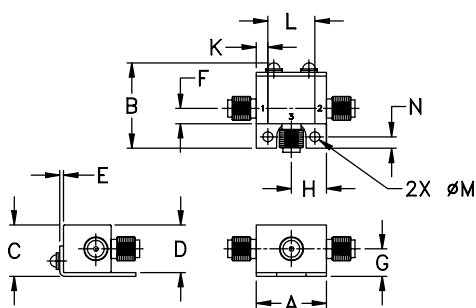
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
LO/RF f _L -f _U	IF	Mid-Band m			Total Range Max.	L		M		U		L		M		U		
		\bar{X}	σ	Max.		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
		5-4200	DC-3500	7.5	0.2	9.8	11.8	47	28	29	20	30	15	34	23	26	17	

1 dB COMP.: +9 dBm typ.

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]

Outline Drawing



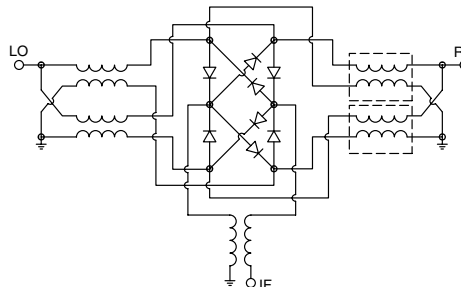
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	wt
.74	.90	.54	.50	.04	.16	.29	.37	--	.122	.496	.106	.122	grams
18.80	22.86	13.72	12.70	1.02	4.06	7.37	9.40	--	3.10	12.60	2.69	3.10	20.0

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



Mini-Circuits®
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

REV. C
M98898
ZX05-42MH
RVN/TD/CP/AM
070117
Page 1 of 2

Performance Charts

