Coaxial

Frequency Mixer

ZX05-1HW+
ZX05-1HW

Level 17 (LO Power +17 dBm) 5 to 750 MHz

CASE STYLE: FL905

Connectors	Model	Price	Qty.
SMA	ZX05-1HW-S(+)	$41.95 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.

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

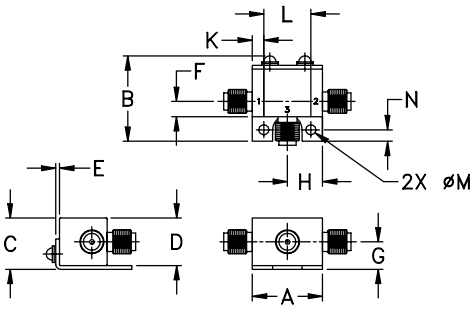
Features

- rugged construction
- small size
- low convesion loss
- high L-R isolation
- protected by US Patents 6,133,525 & 6,790,049

Applications

- cellular
- PCS
- instrumentation
- satellite communication

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 (T_{AMB}=25°C)

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
		Mid-Band m			Total Range	L		M		U		L		M		U		
LO/RF	IF																	
f_L-f_U		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
5-750	DC-750	6.0	0.1	8.6	9.0	64	45	48	35	42	28	50	35	40	30	30	20	26

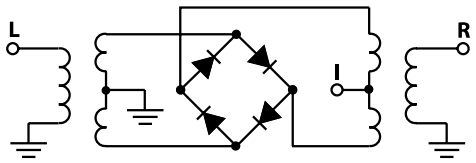
1 dB COMP.: +14 dBm typ.
Positive phase detection
Conversion loss specification at 30 MHz IF

L = low range [f_L to 10 f_L]
m= mid band [$2\bar{f}_L$ 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

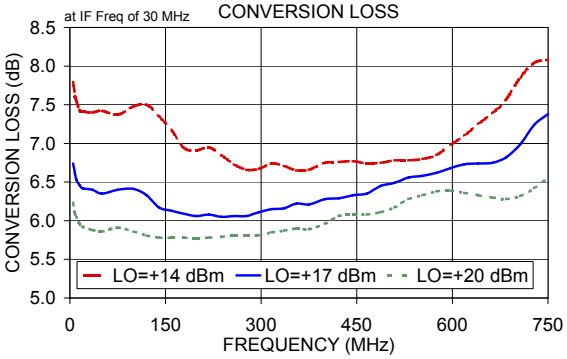
Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
5.10	35.10	6.74	94.96	63.87	1.31	1.53
35.10	65.10	6.40	67.86	54.58	1.12	1.48
75.10	45.10	6.40	60.85	49.58	1.11	1.61
120.10	90.10	6.33	56.83	47.30	1.07	1.61
139.72	109.72	6.17	55.81	45.58	1.04	1.61
159.33	129.33	6.13	54.98	44.04	1.03	1.61
198.56	168.56	6.06	52.51	43.49	1.03	1.58
237.79	207.79	6.05	52.13	42.27	1.04	1.56
277.02	247.02	6.06	49.94	42.33	1.05	1.56
316.25	286.25	6.15	48.93	42.92	1.07	1.54
355.49	325.49	6.22	49.43	41.63	1.08	1.60
400.10	370.10	6.28	49.34	39.26	1.10	1.63
443.85	413.85	6.33	47.39	37.31	1.11	1.68
487.60	457.60	6.45	43.70	35.86	1.13	1.74
531.35	479.48	6.56	42.87	33.92	1.14	1.79
575.10	545.10	6.62	42.60	31.89	1.15	1.82
618.85	588.85	6.73	42.18	30.57	1.16	1.85
662.60	632.60	6.75	42.16	29.55	1.19	1.91
706.35	676.35	6.99	40.42	29.93	1.24	2.03
750.10	720.10	7.38	40.62	29.75	1.36	2.11

Electrical Schematic

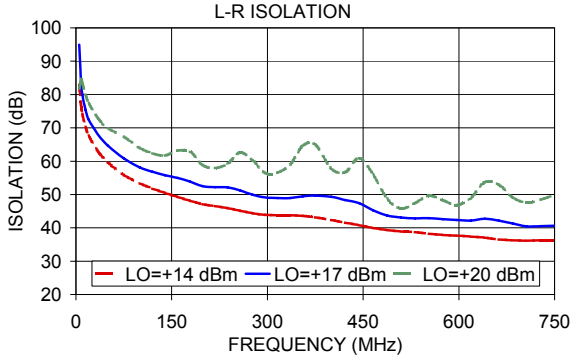


Performance Charts

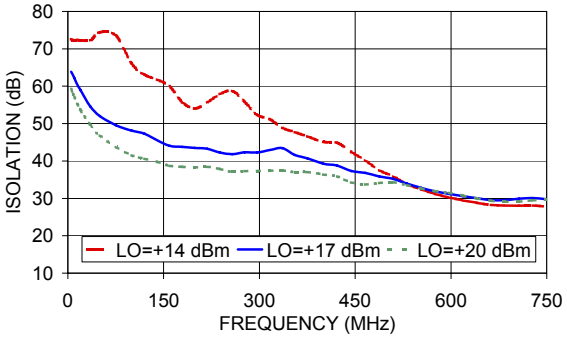
ZX05-1HW
CONVERSION LOSS
at IF Freq of 30 MHz



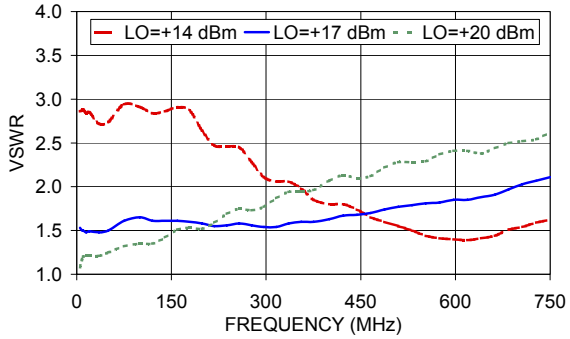
ZX05-1HW
L-R ISOLATION



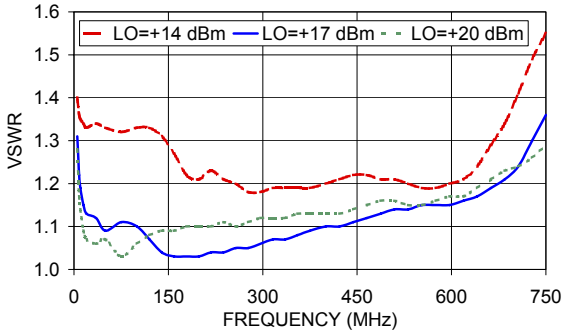
ZX05-1HW
L-I ISOLATION



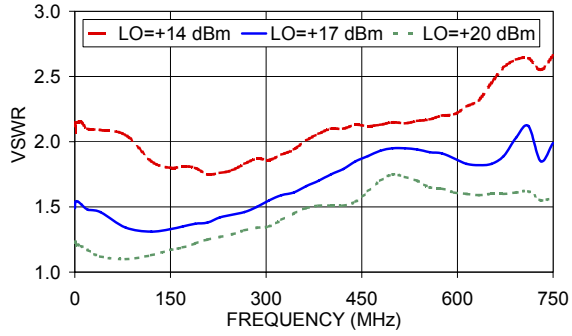
ZX05-1HW
RF VSWR



ZX05-1HW
LO VSWR



ZX05-1HW
IF VSWR



ZX05-1HW
IP3