

Up Converter Frequency Mixer

Level 13 (LO Power +13 dBm) 0.1 to 7400 MHz

ZX05-U742MH+



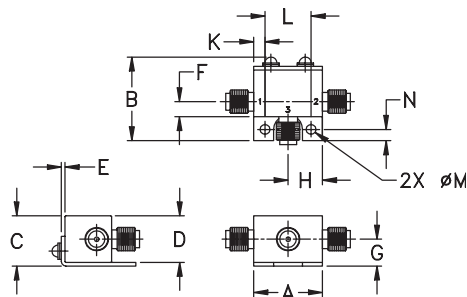
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
IF Power	50mW
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

LO	2
IF (IN)	1
RF (OUT)	3

Outline Drawing



Outline Dimensions (inch)

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

- up converter mixer
- low conversion loss, 8.3 dB typ.
- high IP3, 20 dBm typ.
- rugged construction
- small size
- protected by US patents, 6,790,049 and 7,027,795

Applications

- instrumentation
- wide band receivers
- ISM

CASE STYLE: FL905

Connectors	Model	Price	Qty.
SMA	ZX05-U742MH-S+	\$47.95	(1-24)

+RoHS Compliant

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

Electrical Specifications

FREQUENCY (MHz)			CONVERSION LOSS* (dB)			LO-IF (IN) ISOLATION (dB)		LO-RF (OUT) ISOLATION (dB)		IP3 at center band (dBm)
IF (IN)	LO	RF (OUT)	Typ.	σ^{**}	Max.	Typ.	Min.	Typ.	Min.	Typ.
0.1-3300	2300-7400	2300-7400	8.3	0.2	9.9	23	10	25	11	20

1 dB COMPR. +9 dBm typ.

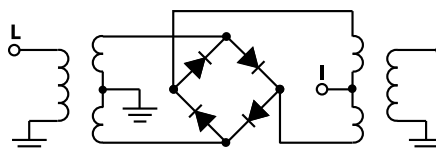
* Conversion Loss at 4075 MHz RF

** σ is a standard deviation

Typical Performance Data

Frequency (MHz)			Conversion Loss (dB)	Freq. (MHz)	Isolation L-I (dB)	Isolation L-R (dB)	VSWR LO Port (:1)	VSWR RF (OUT) Port (:1)
IF (IN)	LO	RF (OUT)	LO +13dBm		LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
10.10	4085.10	4075.00	5.57	2300.10	21.13	38.74	2.92	2.95
100.10	4175.10	4075.00	5.36	2600.10	26.47	35.51	2.17	3.33
300.10	4375.10	4075.00	5.43	2900.10	28.02	30.76	1.89	3.40
500.10	4575.10	4075.00	5.56	3200.10	26.53	27.62	1.82	3.19
700.10	4775.10	4075.00	5.99	3500.10	23.07	27.19	1.96	2.47
900.10	4975.10	4075.00	6.27	3800.10	23.29	26.81	2.17	2.35
1100.10	5175.10	4075.00	7.07	4100.10	28.75	25.94	2.69	2.47
1300.10	5375.10	4075.00	7.99	4400.10	23.50	23.80	3.31	2.61
1500.10	5575.10	4075.00	8.41	4700.10	15.33	22.60	3.80	2.51
1700.10	5775.10	4075.00	8.80	5000.10	13.50	21.09	4.23	3.21
1900.10	5975.10	4075.00	8.78	5300.10	13.95	20.80	4.70	3.40
2100.10	6175.10	4075.00	8.45	5600.10	15.79	20.24	4.55	3.49
2300.10	6375.10	4075.00	7.73	5900.10	19.40	19.04	3.76	3.29
2500.10	6575.10	4075.00	7.42	6200.10	24.99	17.57	2.67	3.31
2700.10	6775.10	4075.00	7.02	6500.10	31.86	16.35	1.87	3.10
2900.10	6975.10	4075.00	6.74	6800.10	32.02	15.61	1.88	2.67
3100.10	7175.10	4075.00	6.89	7100.10	26.63	15.09	3.00	2.72
3200.10	7275.10	4075.00	7.13	7300.10	20.91	15.81	4.08	3.21
3250.10	7325.10	4075.00	7.33	7350.10	19.57	15.70	4.32	2.68
3300.10	7375.10	4075.00	7.70	7400.10	19.47	16.10	4.73	3.67

Electrical Schematic



Notes

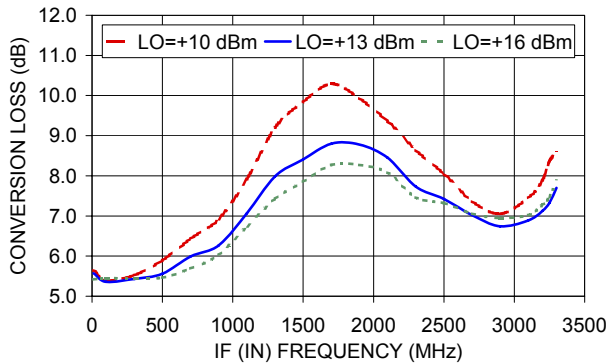
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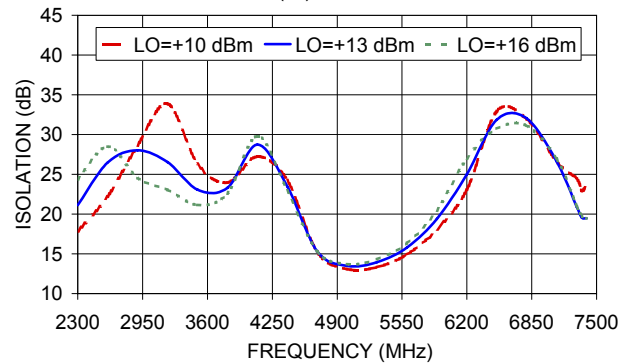
Performance Charts

ZX05-U742MH+

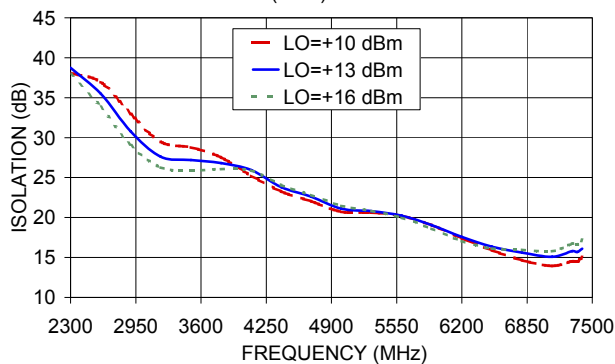
ZX05-U742MH+
CONVERSION LOSS



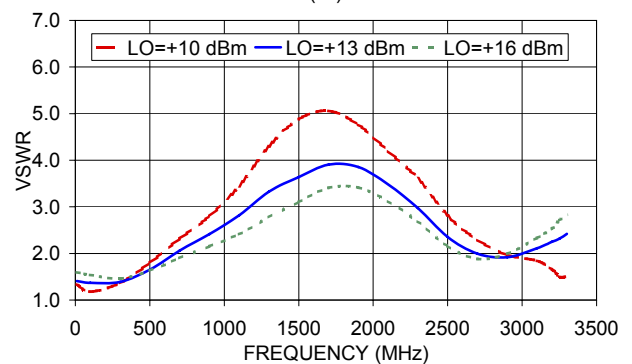
ZX05-U742MH+
L-I (IN) ISOLATION



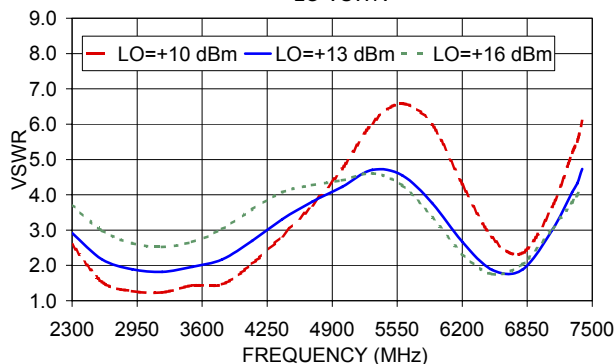
ZX05-U742MH+
L-R (OUT) ISOLATION



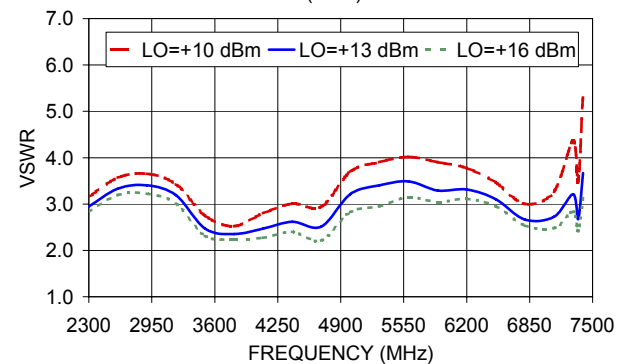
ZX05-U742MH+
IF (IN) VSWR



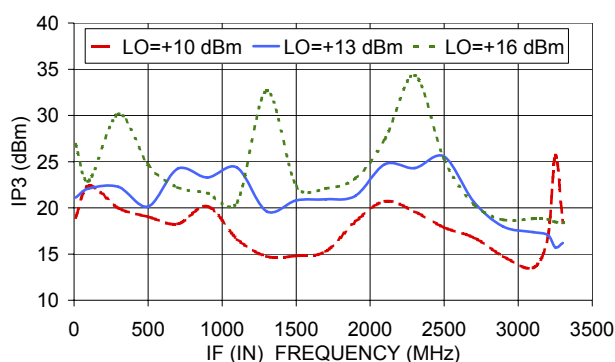
ZX05-U742MH+
LO VSWR



ZX05-U742MH+
RF (OUT) VSWR



ZX05-U742MH+
IP3



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