

X2 Frequency Multiplier

50Ω Output 1000 to 2200 MHz

Maximum Ratings

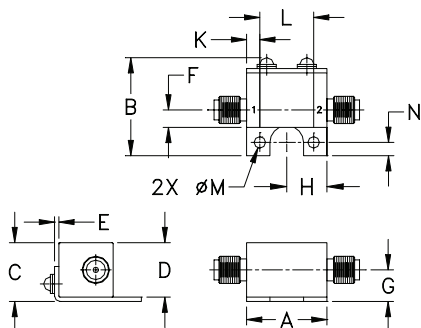
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Input Power, 25°C	23 dBm

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

INPUT	2
OUTPUT	1

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	19.0

Features

- broadband
- low conversion loss, 10.5 dB typ.
- rugged construction
- protected by US Patent 6,790,049

Applications

- synthesizers
- local oscillators

ZX90-2-11+



CASE STYLE: JA1242

Connectors	Model	Price	Qty.
SMA	ZX90-2-11-S+	\$35.95	(1-9)

+RoHS Compliant

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

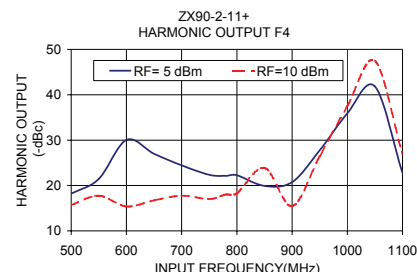
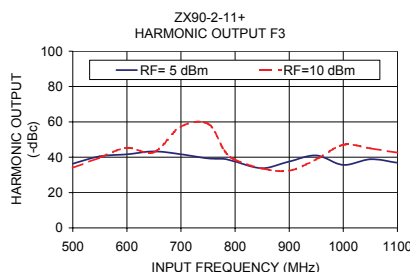
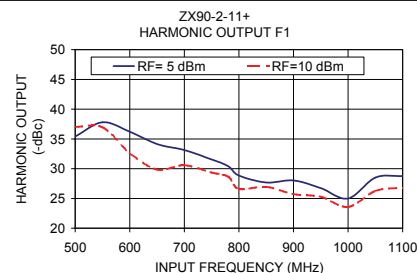
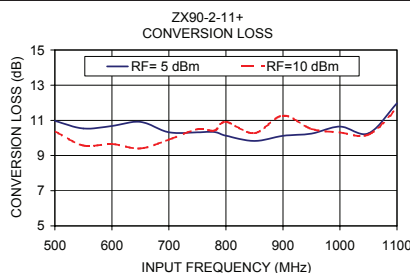
Electrical Specifications

MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1	F2					F1		F3		F4	
	Input	Output	Min.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.
2	500-1100	1000-2200	5	10	10.5	13.5	27	21	34	25	21	12
	550-750	1100-1500	5	10	10.0	13.5	30	21	34	25	21	12

* Harmonics of input frequency below the power level of F2

Typical Performance Data

INPUT RF= 5 dBm					INPUT RF= 10 dBm			
Input Frequency (MHz)	Conversion Loss (dB)	Harmonic Output Below F2 (-dBc)			Conversion Loss (dB)	Harmonic Output Below F2 (-dBc)		
		F1	F3	F4		F1	F3	F4
500.00	10.97	35.40	36.29	18.22	10.38	37.01	33.95	15.69
550.00	10.54	37.80	40.50	21.45	9.57	36.95	39.73	17.75
600.00	10.68	36.20	41.69	30.06	9.65	32.62	45.38	15.36
650.00	10.91	34.14	43.30	26.98	9.40	29.85	42.77	16.72
700.00	10.32	33.12	41.66	24.46	9.90	30.58	57.35	17.75
750.00	10.32	31.55	39.36	22.36	10.50	29.34	58.89	17.00
780.00	10.34	30.45	39.07	22.12	10.42	28.69	43.80	18.01
800.00	10.13	28.86	37.56	22.27	10.91	26.60	38.56	18.27
850.00	9.83	27.68	33.80	19.92	10.27	26.95	33.58	23.87
900.00	10.12	28.01	37.54	20.74	11.27	25.72	32.38	15.46
950.00	10.25	26.73	40.97	27.76	10.51	25.27	38.76	26.46
1000.00	10.65	24.98	35.69	35.91	10.31	23.56	47.02	37.48
1050.00	10.26	28.50	38.88	41.83	10.19	26.25	44.99	47.45
1100.00	11.97	28.75	36.89	22.73	11.66	26.83	42.54	26.84



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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