X3 Frequency Multiplier

50Ω Output 6000 to 8100 MHz

ZX90-3-812+

CASE STYLE: JA1242

Connectors	Model	Price	Qty.
SMA	ZX90-3-812-S+	$51.95	(1-9)

+RoHS Compliant

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 Input Power	17 dBm

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

Coaxial Connections

INPUT	1
OUTPUT	2

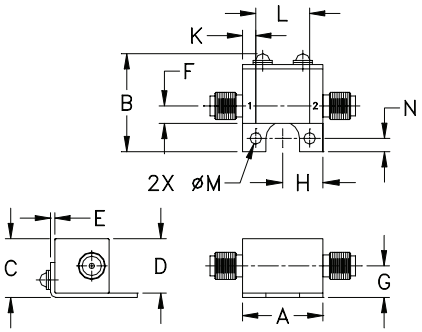
Features

- broadband
- high rejection F1, 30 dBc typ.; F2, 48 dBc typ., F4, 55 dBc typ.
- rugged construction
- protected by US Patent 6,790,049

Applications

- synthesizers
- local oscillators
- satellite up and down converters

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	19.0

Electrical Specifications

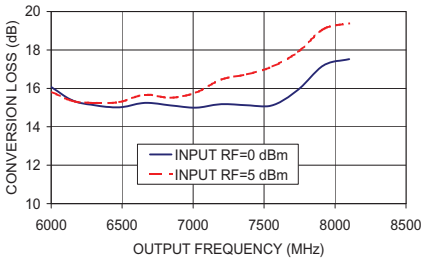
MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1	F3					F1		F2		F4	
	Input	Output	Min.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.
3	2000-2700	6000-8100	0	5	15	22	30	21	48	30	48	27

* Harmonics of input frequency below the power level of F3

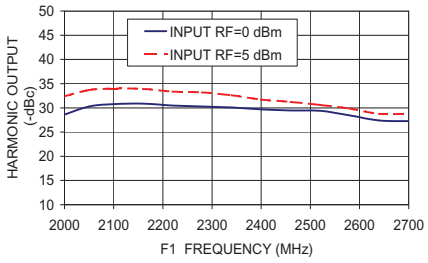
Typical Performance Data

	INPUT RF= 0 dBm				INPUT RF= 5 dBm			
Input Frequency (MHz)	Conversion Loss (dB)	Harmonic Output Below F3 (-dBc)			Conversion Loss (dB)	Harmonic Output Below F3 (-dBc)		
	F3	F1	F2	F4	F3	F1	F2	F4
2000.00	16.07	28.61	39.71	32.76	15.82	32.38	40.92	47.75
2050.00	15.37	30.27	43.04	36.29	15.35	33.69	42.23	44.35
2100.00	15.13	30.77	52.29	38.99	15.25	33.98	55.15	40.09
2160.00	15.01	30.86	54.04	44.45	15.29	33.91	64.18	43.05
2220.00	15.25	30.46	54.81	46.76	15.67	33.37	58.33	47.65
2280.00	15.11	30.28	57.32	48.63	15.51	33.19	53.77	53.41
2340.00	15.00	30.09	55.94	49.94	15.78	32.61	49.10	55.01
2400.00	15.18	29.69	50.59	52.35	16.46	31.72	45.50	55.73
2460.00	15.12	29.47	46.97	51.62	16.73	31.24	43.44	51.87
2520.00	15.12	29.39	44.21	49.41	17.14	30.59	41.38	47.42
2580.00	15.93	28.46	43.39	47.25	17.90	29.86	39.40	44.54
2640.00	17.20	27.38	42.79	44.54	19.09	28.76	37.26	41.18
2700.00	17.52	27.28	42.93	43.92	19.38	28.74	36.75	39.96

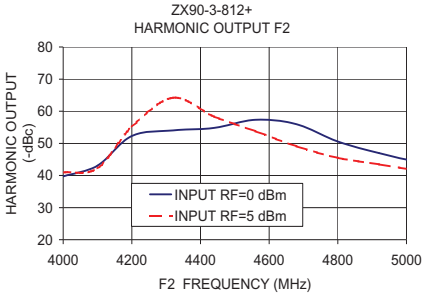
ZX90-3-812+
CONVERSION LOSS



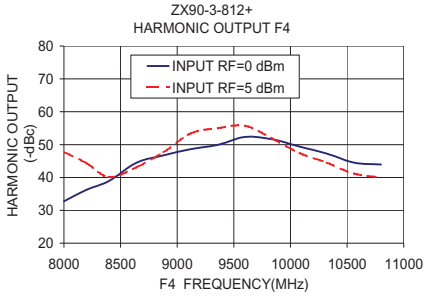
ZX90-3-812+
HARMONIC OUTPUT F1



ZX90-3-812+
HARMONIC OUTPUT F2



ZX90-3-812+
HARMONIC OUTPUT F4



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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