

X2 Frequency Multiplier

50Ω Output 2 to 1000 MHz

Maximum Ratings

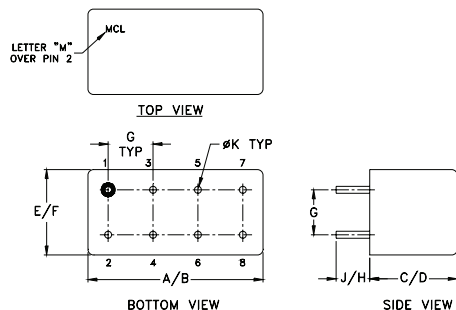
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Input Power	200mW
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

INPUT	1,3,4 [^]
OUTPUT	8
GROUND	2,5,6,7
CASE GROUND	2,5,6,7

[^] pins must be connected together externally

Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F
.480	.500	.390	.405	.210	.230
12.19	12.70	9.91	10.29	5.33	5.84

G	H	J	K	wt
.100	.20	.14	.020	grams
2.54	5.08	3.56	0.51	2.3

Features

- wideband, 2 to 1000 MHz
- low conversion loss, 13.5 dB typ.
- hermetic case

Applications

- synthesizers
- local oscillators
- military, hi-rel applications

AK-2+



CASE STYLE: A03
PRICE: \$25.20 ea. QTY (1-9)

+RoHS Compliant

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

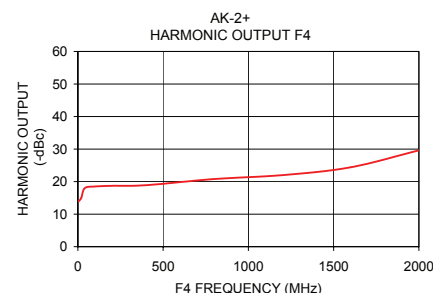
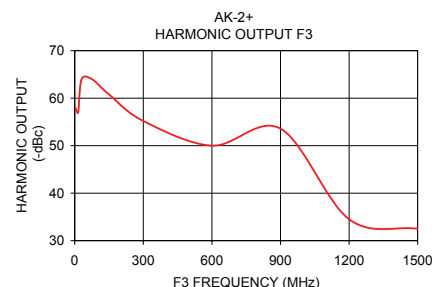
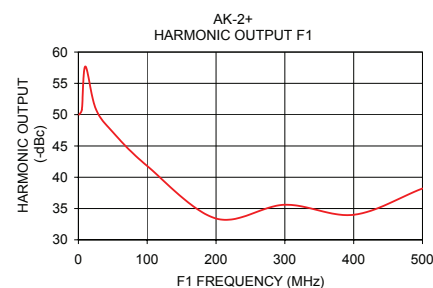
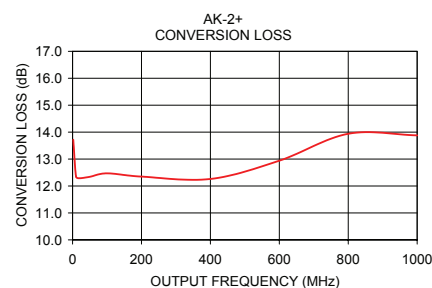
Electrical Specifications

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.	Typ. Min.	Typ. Min.	Typ. Min.
2	1-100	2-200	1	10	13.0	15.0	40	30	50	40	16	12
	100-300	200-600	1	10	13.5	15.5	25	20	40	30	16	12
	300-500	600-1000	1	10	14.0	17.5	20	15	30	25	16	12

* Harmonics of input frequency below the power level of F2

Typical Performance Data

Input Frequency (MHz)	Conversion Loss (dB) F2	Harmonic Output (-dBc)			
		F1	F3	F4	
1.00	13.72	50.00	58.00	13.90	
5.00	12.35	50.80	57.00	15.00	
10.00	12.29	57.70	64.00	18.00	
25.00	12.34	51.00	64.00	18.50	
50.00	12.47	47.20	60.80	18.70	
100.00	12.35	41.80	55.20	18.90	
200.00	12.26	33.40	50.00	20.80	
300.00	12.94	35.60	53.60	22.00	
400.00	13.94	34.00	34.50	24.40	
500.00	13.88	38.20	32.50	29.60	



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

