

Frequency Doubler

Rev. V2

Features

- INPUT: 50 TO 3300 MHz
- OUTPUT: 100 TO 6600 MHz
- INPUT DRIVE LEVEL +10 dBm (NOMINAL)
- HERMETICALLY-SEALED PACKAGE

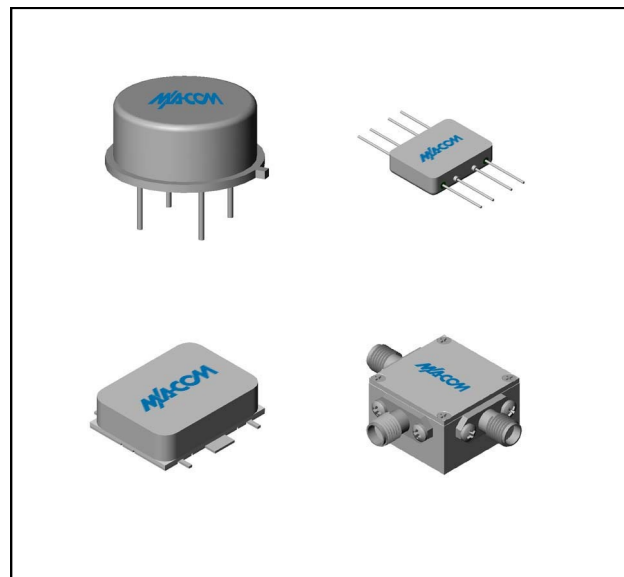
Description

The FD26 is a passive bridge diode frequency doubler, designed for use in military, commercial and test equipment applications. The design utilizes Schottky bridge quad diodes and broadband soft dielectric and/or ferrite baluns to attain excellent performance. The use of high temperature solder assembly processes used internally makes it ideal for use in manual and semi-automated assembly. Environmental screening available to MIL-STD-883, MIL-STD-202, or MIL-DTL-28837, consult factory.

Ordering Information

Part Number	Package
FD26	TO-8
FD26C	SMA Connectorized
FD26E	Flatpack
SFD26	Surface Mount

Product Image

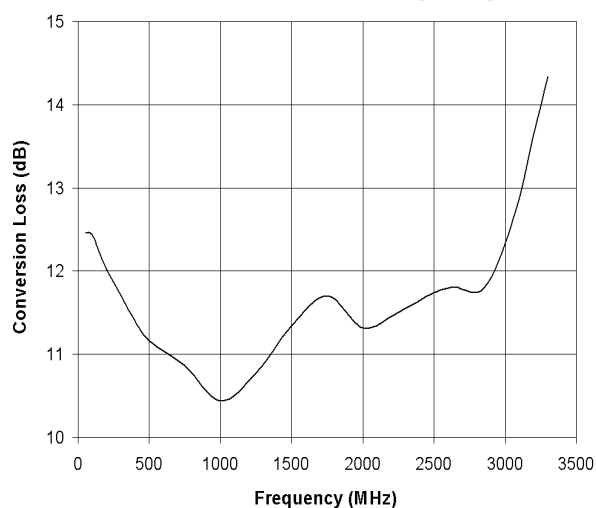
Electrical Specifications: $Z_0 = 50\Omega$ $P_{in} = +10$ dBm

Parameter	Test Conditions	Units	Typical	Guaranteed	
				+25°C	-54° to +85°C*
SSB Conversion Loss (max)	$f_{in} = 5$ to 400 MHz	dB	12.0	14.5	15.0
	$f_{in} = 400$ to 2500 MHz	dB	12.0	13.5	14.0
	$f_{in} = 2500$ to 3000 MHz	dB	12.5	14.0	14.5
	$f_{in} = 3000$ to 3300 MHz	dB	13.5	15.5	16.0
Fundamental Suppression (min)	$f_{in} = 50$ to 500 MHz	dBc	25	22	20
	$f_{in} = 500$ to 3300 MHz	dBc	20	17	15
Third Harmonic Suppression	$f_{in} = 50$ to 200 MHz	dBc	25	22	20
	$f_{in} = 200$ to 3300 MHz	dBc	19	17	15
Input VSWR	$f_{in} = 50$ to 2500 MHz		1.5:1		
	$f_{in} = 2500$ to 3300 MHz		2.0:1		

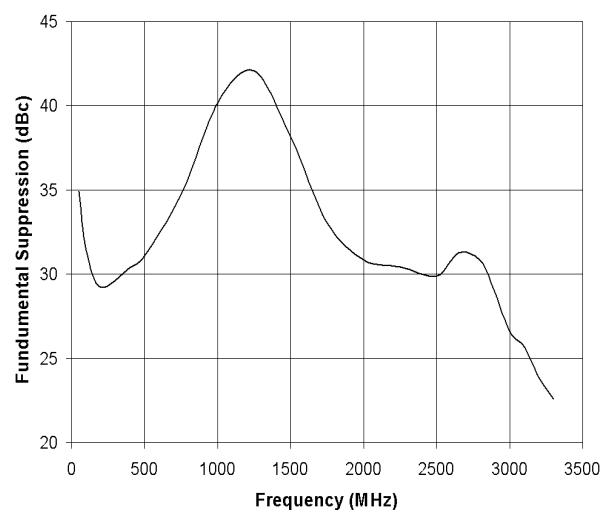
* The FD26C specification limits apply at 0°C to +50°C.

Typical Performance Curves

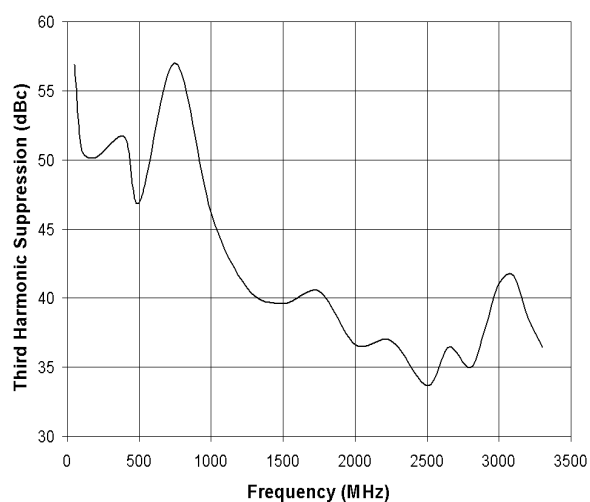
Conversion Loss vs. Frequency



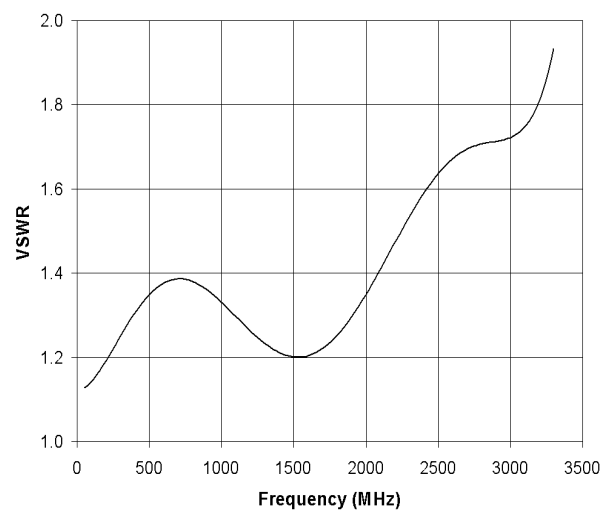
Fundamental Suppression vs. Frequency



Third Harmonic Suppression vs. Frequency



Input VSWR vs. Frequency



Rev. V2

Parameter	Absolute Maximum
Operating Temperature	-54°C to +100°C
Storage Temperature	-65°C to +100°C
Peak Input Power	+23 dBm max @ +25°C +20 dBm max @ +100°C

[illegible]

Technical drawing of the ZK 375 connector showing front, side, and top views with dimensions in inches and millimeters.

Front View:

- PRODUCT IDENTIFICATION AREA
- 500 (22.86)
- ZK 375 (9.52)
- INPUT
- OUTPUT
- 300 (22.86)
- 2X 450 (11.43)

Side View:

- 550 (13.97)
- ZK 370 (9.41)
- 2X 100 (2.54)
- MOUNTING SURFACE

Top View:

- 2X 700 ± 010 (17.78 ± .25)
- 2X 100 (2.54)
- 4X MOUNTING HOLES
THREADED INSERT
.085 - 56 UNC - 36 ± .180 ± .030

Weight: 21 grams (0.74 oz.) max

Technical drawing of a 100 mg oral tablet, showing front, side, and cross-sectional views with dimensions in inches and millimeters.

Front View Dimensions:

- Top edge: 4X .080 (2.03)
- Bottom edge: 4X .125 (3.18)
- Left side: 2X .100 (2.54)
- Right side: 2X .350 (8.89)
- Bottom edge (width): 4X .016 ± .002 (.406 ± .051)
- Product Identification Area: Indicated by a dot and arrow.

Side View Dimensions:

- Thickness: .155 (3.94)
- Width: .0100 +.0020 / -.0005 (-.0254 +.051 / -.013)

Cross-sectional View Dimensions:

- Top edge: 4X .150 (3.81)
- Bottom edge: 2X .055 (1.40)
- Height: .510 (12.95)
- Width: .385 (9.78)
- Side edge: 2X .225 (5.72)

Weight: 2 grams (0.07 oz.) max

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