

# **FREQUENCY DOUBLERS**

**D-0001** 



#### **Features**

- Input .5 to 1.0 GHz
- Output 1.0 to 2.0 GHz
- 9.5 dB Typical Conversion Loss
- 35 dBc Typical 3rd Harmonic Suppression
- Two Input Levels Available
- Octave Band Input

### Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50-Ohm system

Parameter	INPUT (GHz)	OUTPUT (GHz)	Min	Тур	Max	Diode Option LO drive level (dBm)
Conversion Loss (dB)						
F(in)	0.5-1.0			9.5	12.0	
2F(out)		1.0-2.0				
Suppressions (dBc)						
F(in) Fundamental		0.5-1.0	15	20		
3F(out) Third Harmonic		1.5-2.0	20	35		
Input Level (dBm)						L (+10 to +13)
(Consult Marki Microwave for Higher Input Levels)						M (+13 to +16)

### **Part Number Options**

Please specify diode level and package style by adding to model number.									
Package Styles		Examples							
Connectorized	<u>A</u>	D-0001LA, D-0001LEZ							
Microstrip <sup>1</sup>	<u>E</u>	<u>D-0001</u>	<u>L</u>	<u>EZ</u>					
Surface Mount <sup>1</sup>	<u>EZ</u>	(Model)	(Diode Option)	(Package)					

<sup>&</sup>lt;sup>1</sup>Connectorized test fixtures available for most microstrip and surface mount packages. Consult factory.

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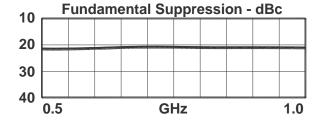
**D-0001** 

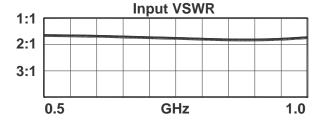
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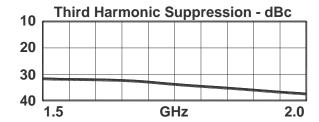
Input .5 to 1.0 GHz Output 1.0 to 2.0 GHz

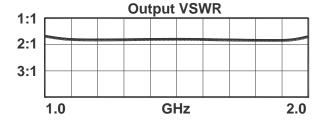
Typical Performance











#### DATA SHEET NOTES:

- 1. Doubled Loss typically degrades less than 0.5 dB at +100°C and improves less than 0.5 dB at -55°C.
- 2. Maximum input power is +23 dBm at +25°C, derated linearly to +20 dBm at +100°C.
- 3. Specifications are subject to change without notice. Contact Marki Microwave for the most recent specifications and data sheets.
- 4. Standard configuration for A, B, and C outlines are with connectors and bottom spacer.
- 5. Catalog doubler circuits are continually improved. Configuration control requires custom model numbers and specifications.

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