



## FREQUENCY DOUBLERS

**D-0102**



### Features

- Input 1.0 to 2.0 GHz
- Output 2.0 to 4.0 GHz
- 9.5 dB Typical Conversion Loss
- 30 dBc Typical Third 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	Typ	Max	Diode Option LO drive level (dBm)
Conversion Loss (dB)						
F(in)	1.0-2.0			9.5	12.0	
2F(out)		2.0-4.0				
Suppressions (dBc)						
F(in) Fundamental		1.0-2.0	15	20		
3F(out) Third Harmonic		3.0-4.0	20	30		
Input Level (dBm) <i>(Consult Marki Microwave for Higher Input Levels)</i>						L (+10 to +13) M (+13 to +16)

### Part Number Options

Package Styles		Examples		
Connectorized	<a href="#">A</a>	D-0102LA, D-0102LEZ		
Microstrip <sup>1</sup>	<a href="#">E</a>	<u>D-0102</u>	<u>L</u>	<u>EZ</u>
Surface Mount <sup>1</sup>	<a href="#">EZ</a>	(Model)	(Diode Option)	(Package)

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

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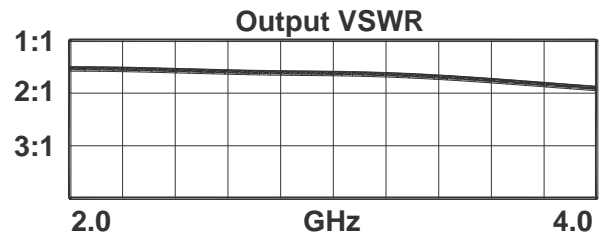
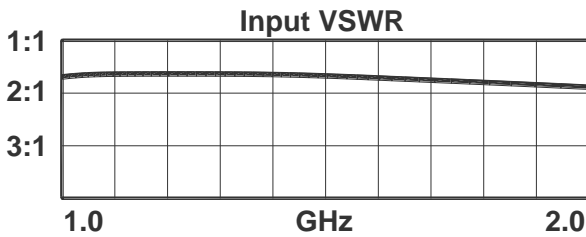
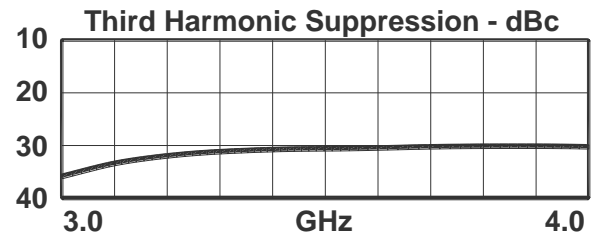
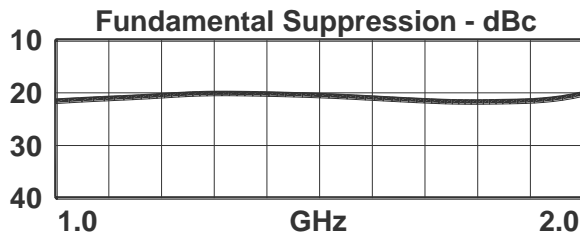
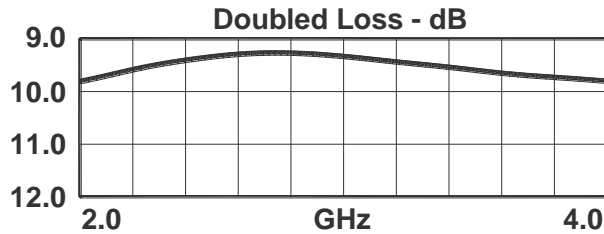
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Input 1.0 to 2.0 GHz  
Output 2.0 to 4.0 GHz

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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215 Vineyard Court, Morgan Hill, CA 95037 | Ph: 408.778.4200 | Fax: 408.778.4300 | [info@markimicrowave.com](mailto:info@markimicrowave.com)

[www.markimicrowave.com](http://www.markimicrowave.com)