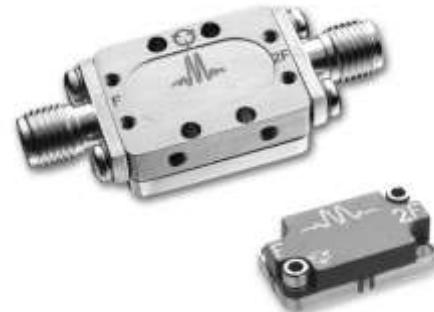


## FREQUENCY DOUBLERS

**D-0612**



### Features

- Input 6.0 to 12.0 GHz
- Output 12.0 to 24.0 GHz
- 9.5 dB Typical Conversion Loss
- 25 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<br>(GHz) | OUTPUT<br>(GHz)       | Min      | Typ      | Max  | Diode Option<br>LO drive level (dBm) |
|---|----------------|-----------------------|----------|----------|------|--------------------------------------|
| Conversion Loss (dB)<br>F(in)<br>2F(out)                                      | 6.0-12.0       | 12.0-24.0             |          | 9.5      | 12.0 |                                      |
| Suppressions (dBc)<br>F(in) Fundamental<br>3F(out) Third Harmonic             |                | 6.0-12.0<br>18.0-24.0 | 15<br>20 | 20<br>25 |      |                                      |
| Input Level (dBm)<br><i>(Consult Marki Microwave for Higher Input Levels)</i> |                |                       |          |          |      | L (+10 to +13)<br>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-0612LA, D-0612LEZ |                |           |
| Microstrip <sup>1</sup>   | <u>E</u>  | <u>D-0612</u>       | <u>L</u>       | <u>EZ</u> |
| Surface Mount <sup>1</sup>  | <u>EZ</u> | (Model)             | (Diode Option) | (Package) |

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

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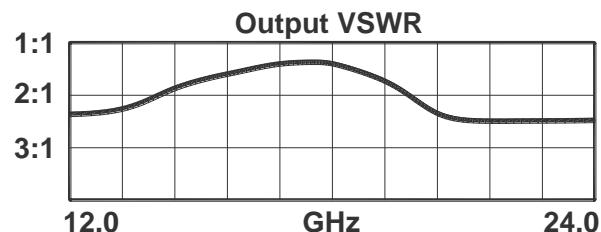
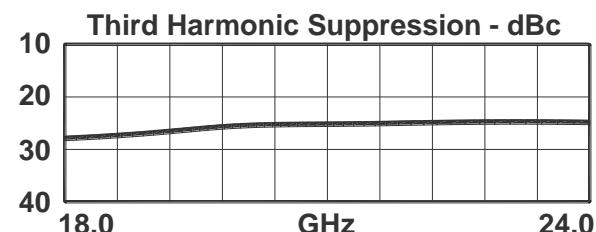
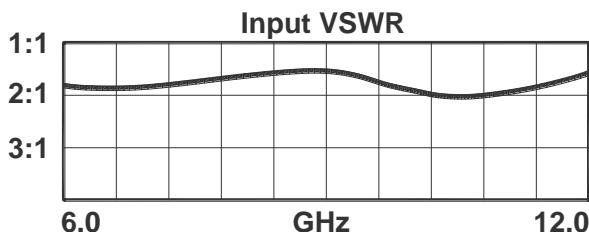
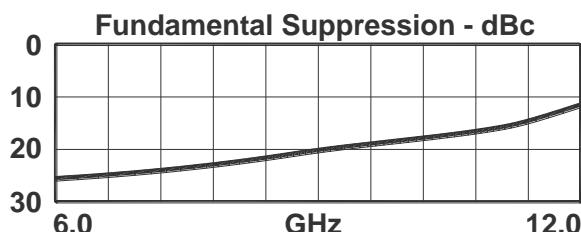
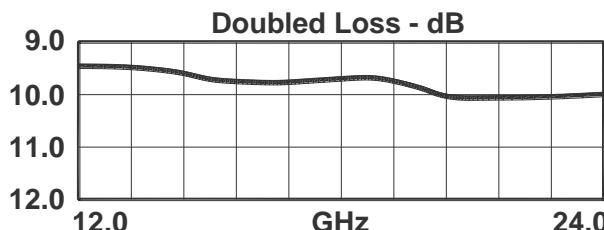
## FREQUENCY DOUBLERS

**D-0612**

**Page 2**

**Input 6.0 to 12.0 GHz  
Output 12.0 to 24.0 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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