

FREQUENCY DOUBLERS

D-1505



Features

- Input 1.5 to 5.0 GHz
- Output 3.0 to 10.0 GHz
- 10 dB Typical Conversion Loss
- 30 dBc Typical Third Harmonic Suppression
- Two Input Levels Available
- Multi-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) | 1.5-5.0 | | | 10.0 | 12.0 | |
| 2F(out) | | 3.0-10.0 | | | | |
| Suppressions (dBc) | | | | | | |
| F(in) Fundamental | | 1.5-5.0 | 15 | 25 | | |
| 3F(out) Third Harmonic | | 4.5-10.0 | 20 | 30 | | |
| 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-1505LA, D-1505LEZ | | | | | | |
| Microstrip ¹ | <u>E</u> | <u>D-1505</u> | <u>L</u> | <u>EZ</u> | | | | |
| Surface Mount ¹ | <u>EZ</u> | (Model) | (Diode Option) | (Package) | | | | |

¹Connectorized test fixtures available for most microstrip and surface mount packages. Consult factory.

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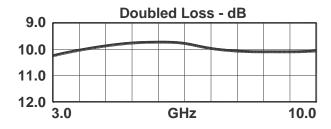
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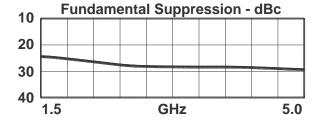
D-1505

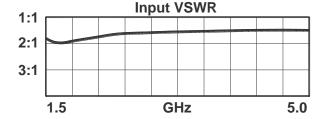
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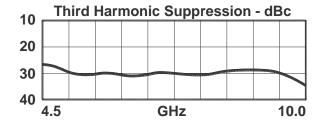
Input 1.5 to 5.0 GHz Output 3.0 to 10.0 GHz

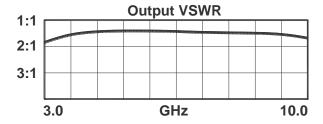
Typical Performance











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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