

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

NOTE: This product is not recommended for new designs in Microstrip and Surface Mount packages. [Please see this letter for more information.](#)

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) 2F(out)	1.5-5.0	3.0-10.0		10.0	12.0	
Suppressions (dBc) F(in) Fundamental 3F(out) Third Harmonic		1.5-5.0 4.5-10.0	15 20	25 30		
Input Level (dBm) (Consult Marki Microwave for Higher Input Levels)						L (+10 to +13) M (+13 to +16)

Part Number Options

Please specify diode level and package style by adding to model number.						
Package Options			Examples			
Connectorized	A		D-1505LA			
Package Options Not Recommended for New Designs			Examples			
Microstrip ^{1,2}	E		<u>D-1505</u>	<u>L</u>	<u>E</u>	<u>-2</u>
Surface Mount ^{1,2}	EZ		(Model)	(Diode Option)	(Package)	(I-Port Configuration)

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

²EZ/E packages are offered in support of designed in projects only. Expected obsolescence date is 2017. For new designs consult the [MLD-0416SM](#).

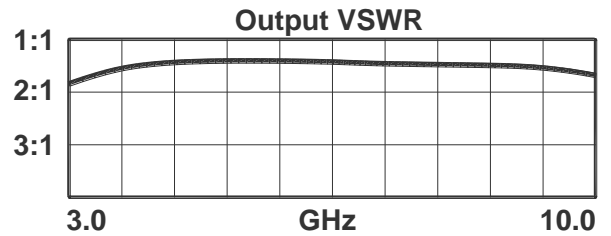
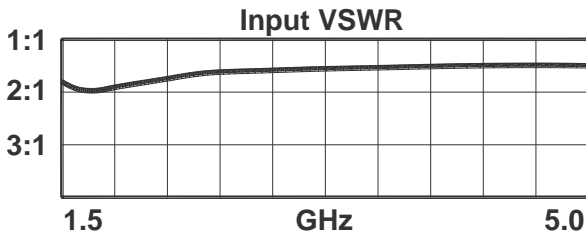
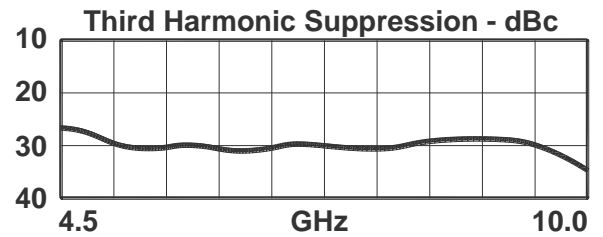
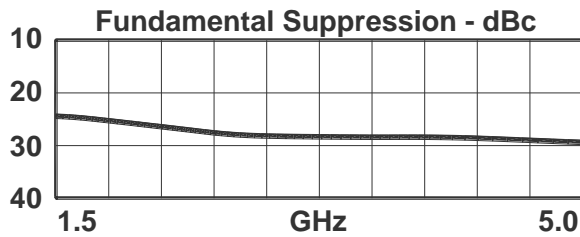
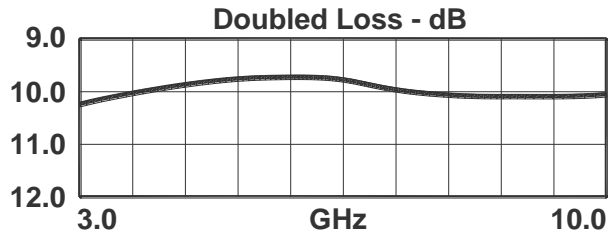
FREQUENCY DOUBLERS

D-1505

Page 2

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.

Marki Microwave reserves the right to make changes to the product(s) or information contained herein without notice. Marki Microwave makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does Marki Microwave assume any liability whatsoever arising out of the use or application of any product.

© Marki Microwave, Inc.



215 Vineyard Court, Morgan Hill, CA 95037 | Ph: 408.778.4200 | Fax 408.778.4300 | info@markimicrowave.com

www.markimicrowave.com