

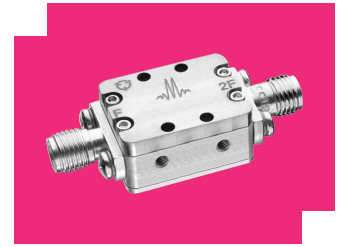
D-0308LP

Frequency Doubler

DEVICE OVERVIEW

General Description

The D-0308 is a passive doubler fabricated with silicon Schottky diodes. This operates over a guaranteed 3 to 8 GHz input frequency range or a doubled output frequency range of 6 to 16 GHz. It features excellent conversion loss, isolations, and harmonic suppressions across a broad bandwidth. D series doublers have generally been replaced with MMD doublers with superior performance, repeatability and availability. The D-0308 is still used in legacy systems and is suitable for laboratory use.



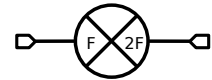
Features

- Input 3.0 to 8.0 GHz
- Output 6.0 to 16.0 GHz
- 9.0 dB Typical Conversion Loss
- 30 dBc Typical 3rd Harmonic Suppression
- Two Input Levels Available
- Multi-Octave Band Input

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Connectors	Green Status	Product Lifecycle	Export Classification	Recommended Replacement
D-0308LP	Frequency Doubler	P	<u>Standard</u>	Non-RoHS	Not Recommended for New Design	EAR99	<u>MMD-0415HS</u>

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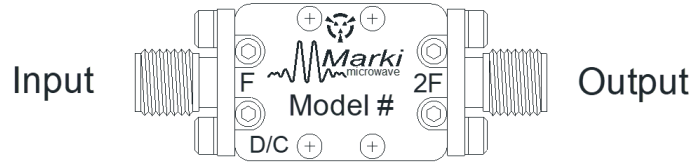
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NOT RECOMMENDED FOR NEW DESIGN

Port Configuration and Functions

Port Diagram



Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
2F	2F	SMAF	-	-
F	1F	SMAF	-	-

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Specifications

Package Information

Parameter	Details	Rating
Weight	Package name: P	15g
Dimensions	-	20.32 x 14.99 mm

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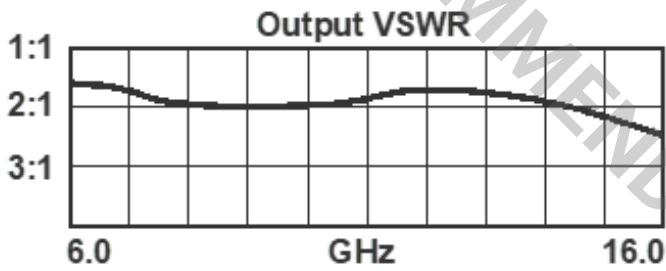
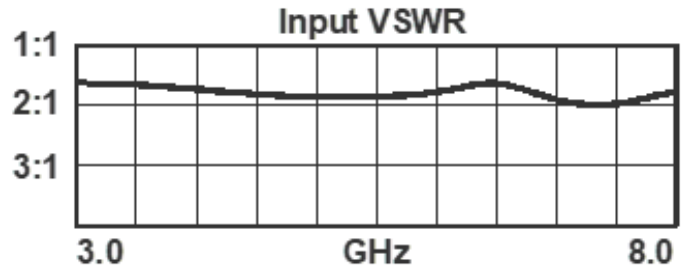
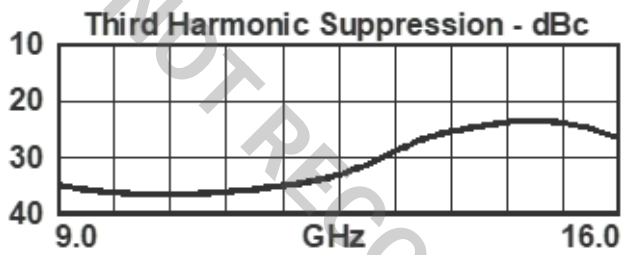
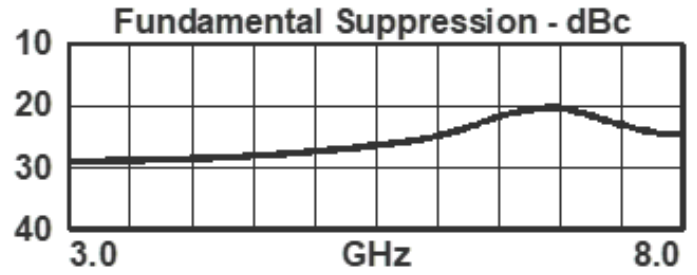
Electrical Specifications

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

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Conversion Loss	Second Harmonic Output	6	16	-	9	14	dB
Input Frequency Range	-	-	-	3	-	8	GHz
LO Input Drive Level, L Diode Option	-	-	-	10	-	13	dBm
Output Frequency Range	-	-	-	6	-	16	GHz
Spurious Suppression, All Harmonics	-	3	8	15	25	-	dBc
Suppression, 3F	-	9	16	20	30	-	dBc

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Typical Performance

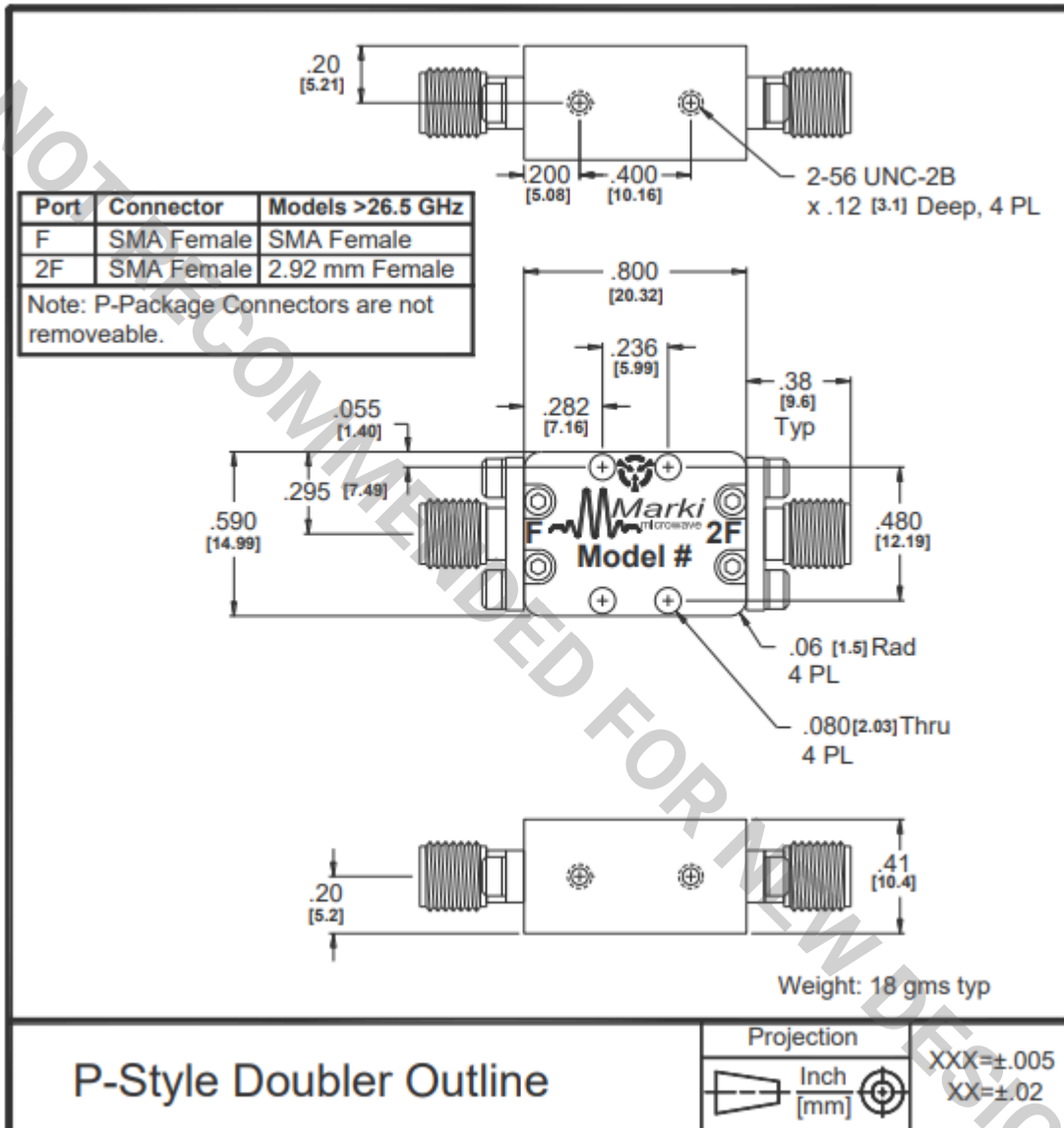


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Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)



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