

# AMPLIFIER/DOUBLER/AMPLIFIER

# ADA-1020



## Features

- Input 10.0 to 20.0 GHz
- Output 20.0 to 40.0 GHz
- +20 dBm Typical Output Power

NOTE: ADA-1020 is approaching EOL. [Please see this letter for LTB and recommended part information.](#)

## Electrical Specifications - Specifications guaranteed from -30 to +70°C, measured in a 50-Ohm system.

Parameter	INPUT (GHz)	OUTPUT (GHz)	Min	Typ	Max
Input (dBm) F(in)	10.0-20.0		+5		+10
Output Converted Power (dBm) 2F(out)		20.0-40.0	+15	+20	
Suppressions (dBc) F(in) Fundamental 3F(out) Third Harmonic		10.0-20.0 30.0-40.0		See Plots	
Bias Requirements (mA) <sup>1</sup> +5 Volts DC -5 Volts DC				400 5	500 20

<sup>1</sup>It is required that the negative bias be applied before or concurrent with the positive bias. A heat sink is required.

## Part Number Options

<i>Please specify package style by adding to model number.</i>	
Package Style(s)	Example
<a href="#">CM</a> , <a href="#">CMM</a> , <a href="#">CMV</a> , <a href="#">CMMV</a> <a href="#">EOL</a>	ADA-1020 <a href="#">CM</a>

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# AMPLIFIER/DOUBLER/AMPLIFIER

# ADA-1020

Page 2

Input 10.0 to 20.0 GHz  
Output 20.0 to 40.0 GHz

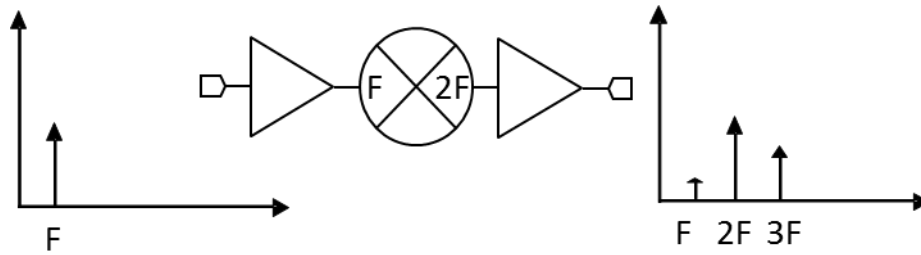
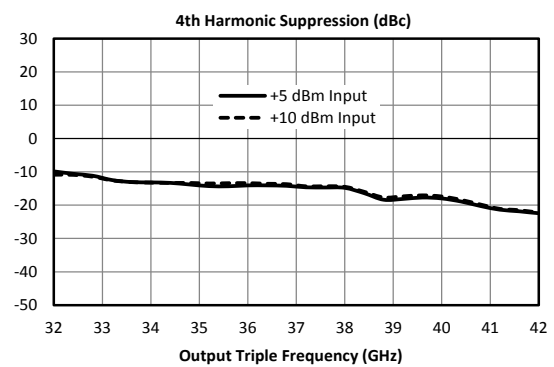
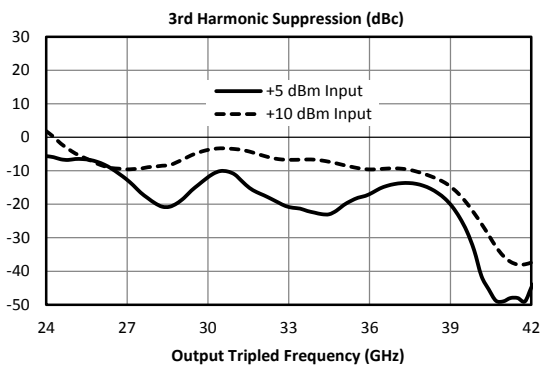
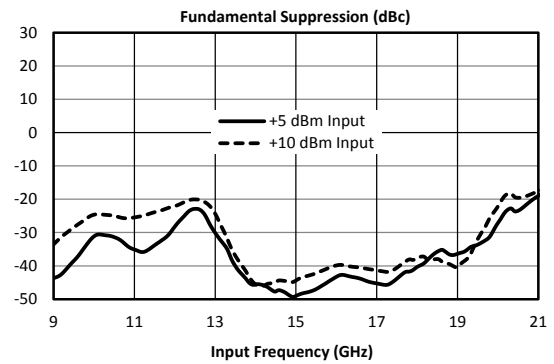
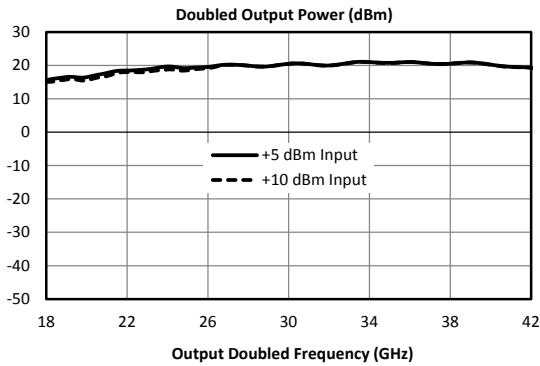


Figure 1. Schematic.

## Typical Performance



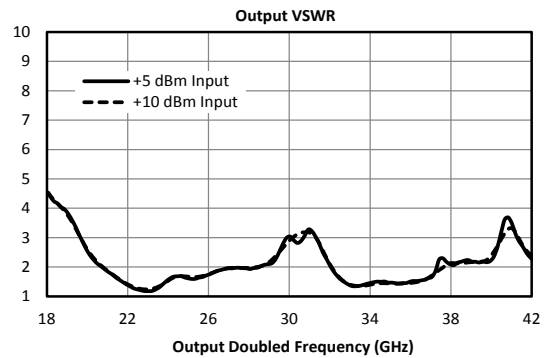
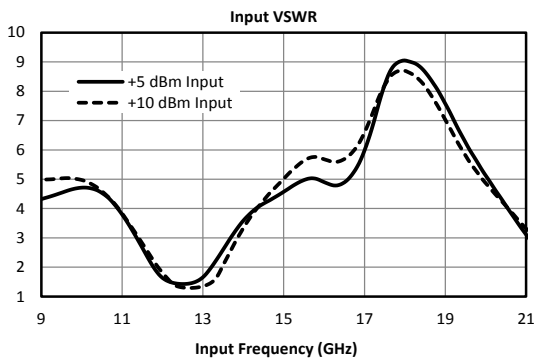
# AMPLIFIER/DOUBLER/AMPLIFIER

# ADA-1020

Page 3

Input 10.0 to 20.0 GHz  
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### Typical Performance (cont)



### DATA SHEET NOTES:

1. Maximum input power without damage is +16 dBm at +70°C.
2. A heat sink is required for sustained operation.
3. Specifications are subject to change without notice. Contact Marki Microwave for the most recent specifications and data sheets.

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