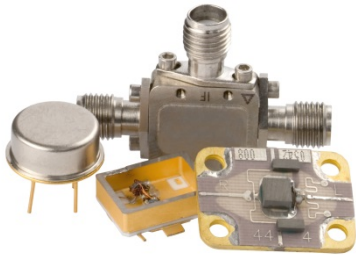


Frequency Doubler



Features

- Input Frequency Range: 2.0 – 9.2 GHz
- Output Frequency Range: 4.0 – 18.4 GHz
- 11.0 dB Typical Conversion Loss
- Broadband Surface Mount Solution

Electrical Specifications ⁽¹⁾

Parameter	Conditions		Limits		
	Input (GHz)	Output (GHz)	Min.	Typ.	Max.
Conversion Loss (dB) ⁽²⁾	2.0 – 9.2	4.0 – 18.4		11.0	13.5
Fundamental Isolation (dB) ⁽³⁾	2.0 – 9.2	4.0 – 18.4	25	32	
Third Harmonic Suppression (dBc) ⁽⁴⁾	2.0 – 9.2	4.0 – 18.4	20	26	
Input VSWR	2.0 – 5.0	4.0 – 10.0		2.5 :1	
	5.0 – 9.2	10.0 – 18.4		1.8 :1	
Input Power (dBm)	2.0 – 9.2	4.0 – 18.4		+11	

Notes:

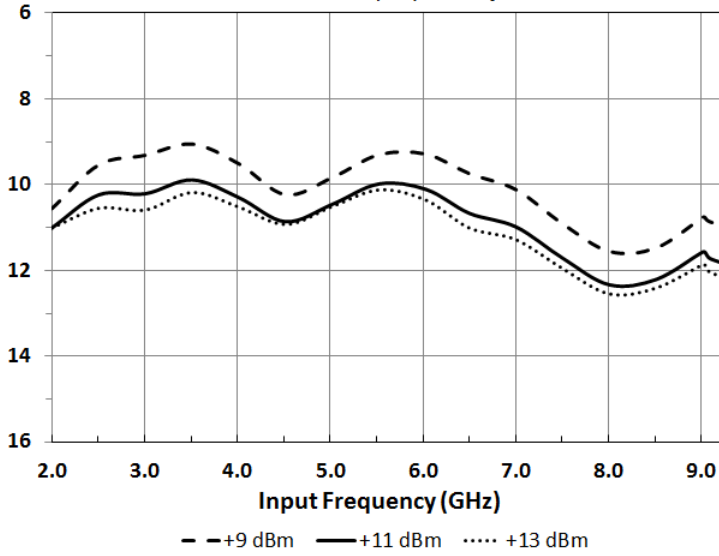
1. Min / Max specifications are guaranteed at 25°C when tested as a doubler in a 50 ohm system at nominal input power.
2. Conversion loss typically degrades less than 0.5 dB at +100°C, and improves less than 0.5 dB at -55°C.
3. Isolation is in reference to the fundamental input tone/frequency.
4. Third harmonic suppression is in reference to the output second harmonic.

General Specifications

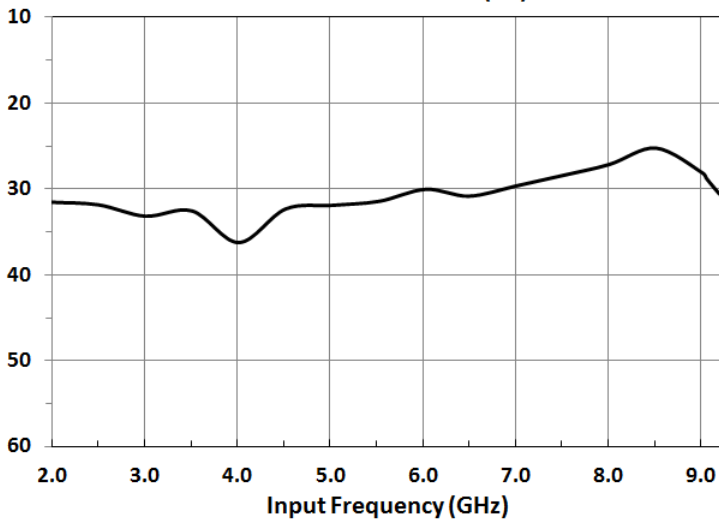
Parameter	Details
Package Style	Surface Mount Carrier (Non-hermetic)
Package Dimensions	API Outline Drawing 080-23144
Carrier Mounting	Screw Down or Tin/Lead Solder Attach
	Note: Relief under the inside ring of the mounting carrier is recommended for optimum performance. Refer to drawing 080-23144 (Note 2) for details on clearance area.
RF Input / Output Launches	Tin / Lead Solder Attach
Operating Temperature	-55°C to +100°C (Absolute Maximum)

Typical Performance Graphs

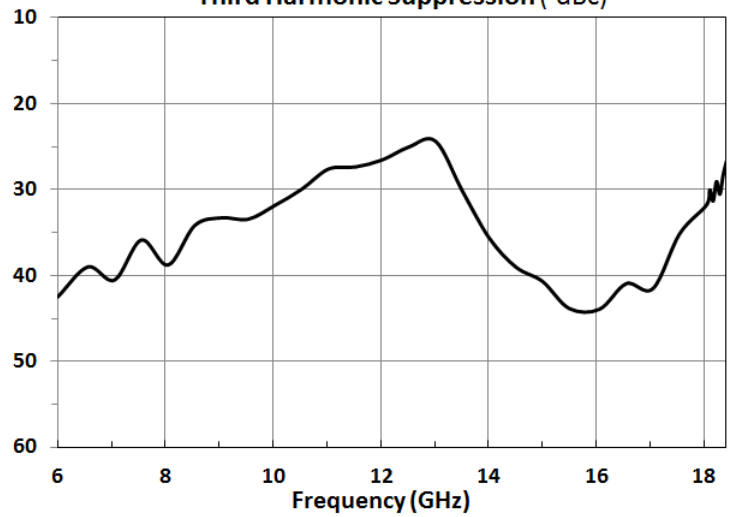
Conversion Loss (dB) vs. Input Power



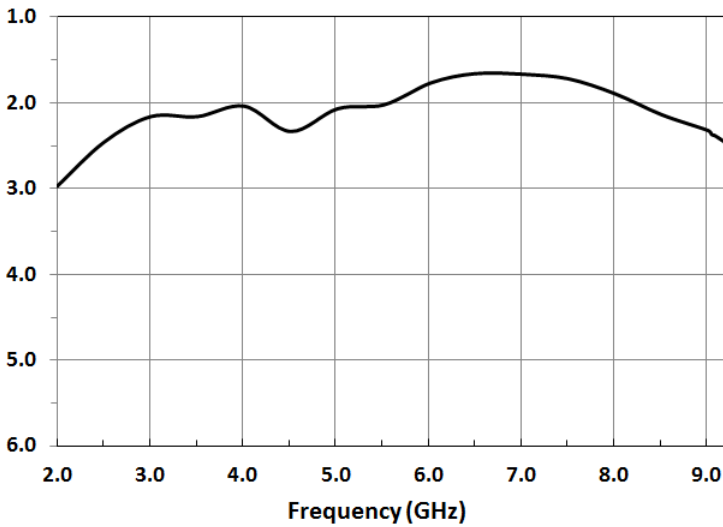
Fundamental Isolation (dB)



Third Harmonic Suppression (-dBc)



Input VSWR



Output VSWR

