# FREQUENCY DOUBLER
# MODEL FD9xxN-1

Available as: FD9xxN-1, Connectorized Housing (ND)
FD9xMN-1, Without Connectors
FD9xPN-1, With Removable Connectors

## Features

- Input Power: +11 dBm
- Operating Temperature: -55 ºC to +85ºC

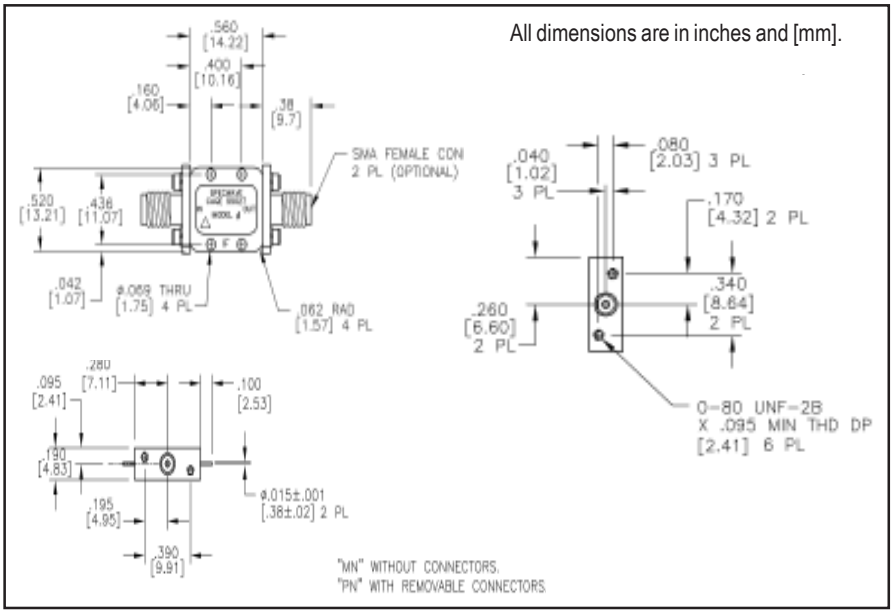
**RF Input: 1.5 to 10.0 GHz**
**RF Output: 3.0 to 20.0 GHz**

Electrical Specifications [1]:

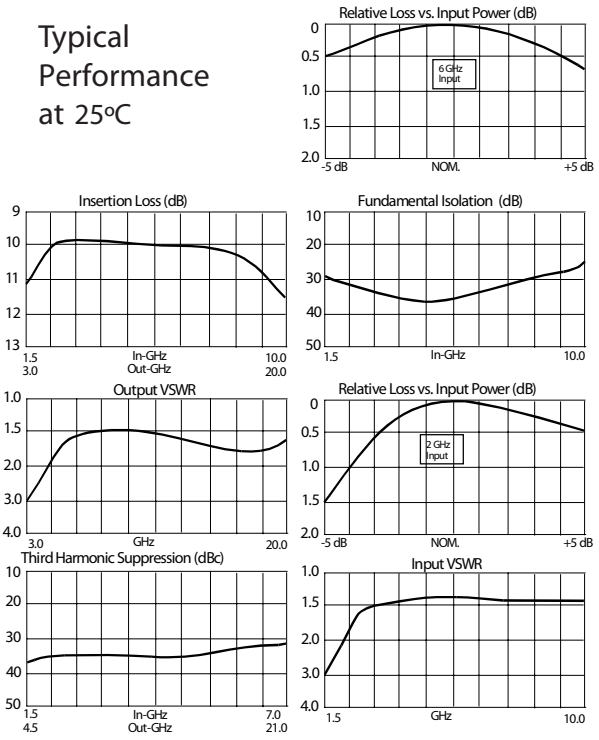
| Parameter | Conditions | | Specifications | | |
|---|---|---|---|---|---|
| | Input (GHz) | Output (GHz) | Min | Typical | Max |
| **Insertion Loss:** [2] | 2.5 - 9.0 | 5.0 - 18.0 | — | 11.0 dB | 12.5 dB |
| | 1.5 - 10.0 | 3.0 - 20.0 | — | 12.0 dB | 14.0 dB |
| **Fundamental Isolation:** [3] | 1.5 - 7.0 | 1.5 - 7.0 | 22 dB | 30 dB | — |
| **Third Harmonic Suppression:** [4] | 7.0 - 10.0 | 7.0 - 10.0 | 19 dB | 25 dB | — |
| | 1.5 - 10.0 | 3.0 - 20.0 | 20 dBc | 33 dBc | — |
| **Input VSWR:** | 1.5 - 5.0 | 3.0 - 10.0 | — | 2.0:1 | — |
| | 5.0 - 10.0 | 10.0 - 20.0 | — | 1.5:1 | — |
| **Input Power Range:** | 1.5 - 10.0 | 3.0 - 10.0 | | +11 dBm | FD96 |
| | — | — | — | +17 dBm | FD97 |

**Notes:**
1. Specifications are guaranteed when tested as a doubler in a 50 Ohm system at +25ºC with the nominal input power. Specifications indicated as typical are not guaranteed.
2. Insertion loss typically degrades less than 0.5 dB at +100ºC and improves less than 0.5 dB at -55ºC.
3. Fundamental isolation is referenced to the fundamental input.
4. Third Harmonic Suppression is referenced to the second harmonic output.

Case Outline (FD9xxN-1)




Typical Performance at 25ºC





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