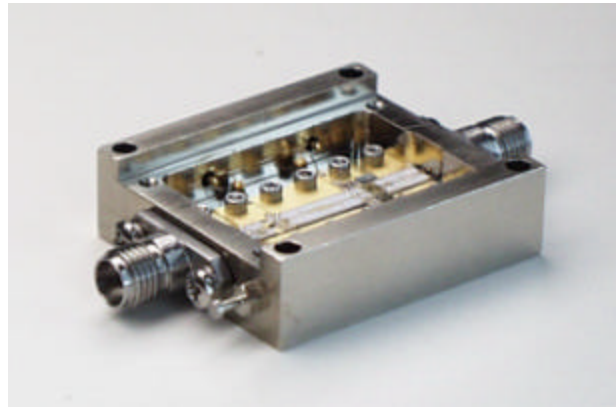


18-22 GHz INTEGRATED FREQUENCY DOUBLER

General Description

The NX00384 frequency doubler is an integrated microwave assembly that includes input buffer amplifier, balanced diode doubler, band-pass filter, output power amplifier and low-pass filter. The doubler is designed to provide high power, pure signal in 18 to 22 GHz frequency range. It operates at 0 to +10 dBm input power over -30 to +70 °C temperature range. The model incorporates voltage regulators and is available with field replaceable SMA connectors.



Performance at 25 °C (+2 dBm P_{in})

Parameter	Min.	Typ.	Max.	Units
Input Frequency	9		11	GHz
Output Frequency	18		22	GHz
Output Power	18	20		dBm
Output Power Flatness over Operating Frequency Range		± 1	±1.5	dBm
Fundamental Signal Rejection	45	50		dBc
Third Harmonic Rejection	40	45		dBc
Input VSWR		1.9:1	2.4:1	
Output VSWR (P_{in} not applied)		2.0:1	2.4:1	
DC Supply Voltage	+11	+12	+15	V
Supplied Current at +12 V		450	500	mA

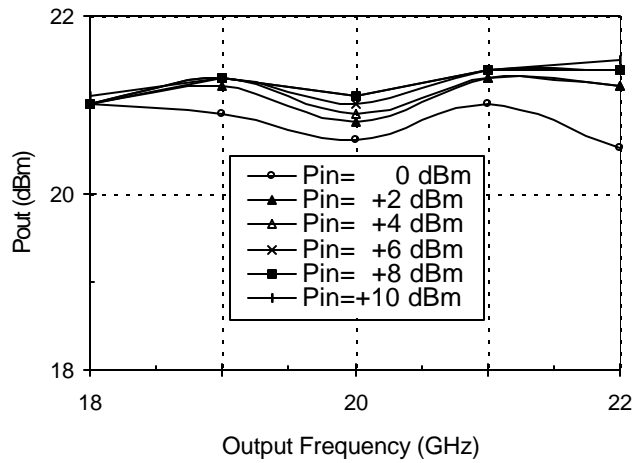
Note: All specifications and data mentioned in this document are preliminary and are subject to change without notice.

18-22 GHZ INTEGRATED FREQUENCY DOUBLER

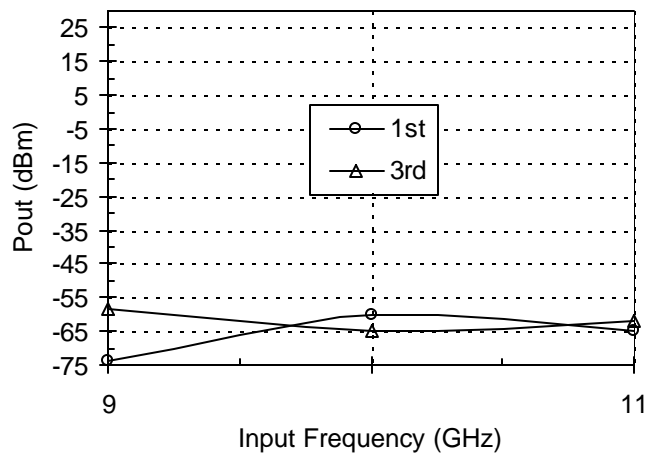
Typical Test Data

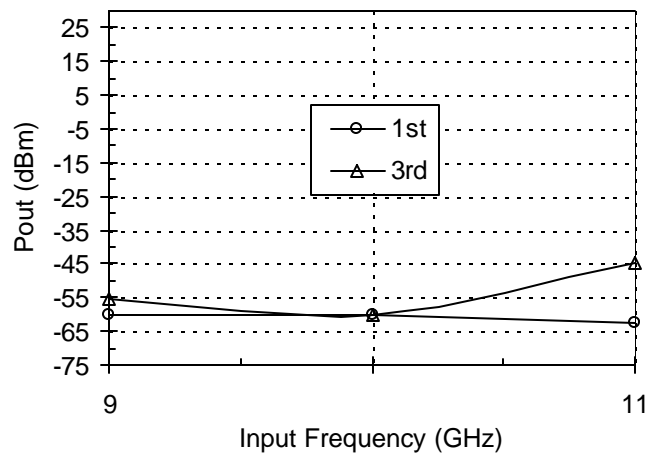
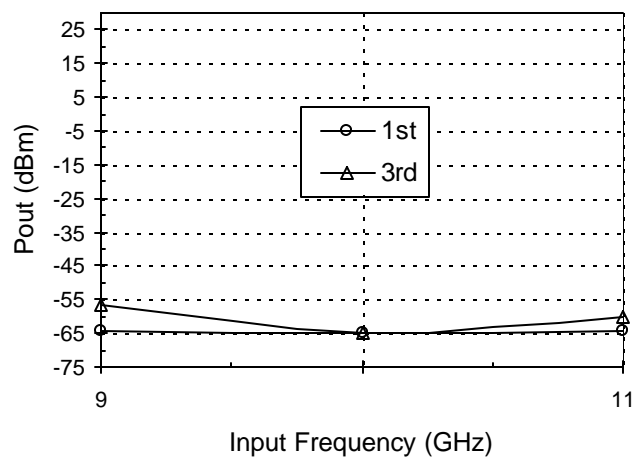
Typical Test Data at 25 °C

Output Power



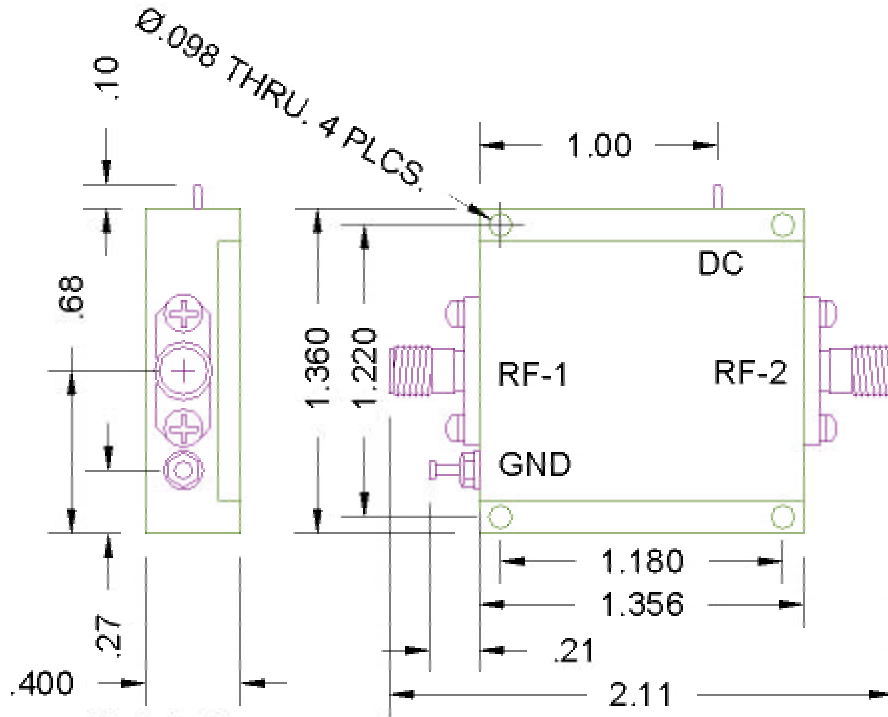
Harmonics at +0 dBm P_{in}



18-22 GHZ INTEGRATED FREQUENCY DOUBLER
Harmonics at +2 dBm P_{in}

Harmonics at +10 dBm P_{in}


18-22 GHZ INTEGRATED FREQUENCY DOUBLER

Outline Drawing



Unit: Inch

Tolerance: .xx±.015 .xxx±0.010 inch

Name	Type	Description
RF-1	SMA-F	RF Signal Input
RF-2	SMA-F	RF Signal Output
DC		DC Input
GND		Ground