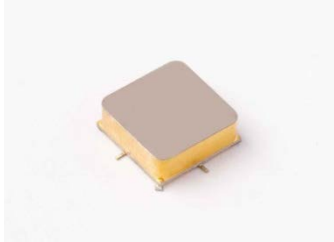


# Standard Microwave Amplifier

Frequency Range: 50 MHz to 6000 MHz



## Features

- Broadband Operation: 50 MHz to 6000 MHz
- High Output Power: +19 dBm
- Low Noise Figure: +3.5 dB
- Hermetic Package

Model TN9600 is a broadband amplifier covering 50 MHz to 6000 MHz. This higher power design utilizes a hermetically sealed package for superior environmental protection. This standard design may also be ordered in a MIL-STD-883 screened version (Model #SN9600) All specification ratings are based on measurements in a 50 Ω (ohm) system with a DC supply of 15 volts and a voltage tolerance of +/- 2%.

## Technical Specifications

Parameter	Unit	Typical	Min/Max
Frequency Range	MHz	50 - 6000 MHz	50 - 6000 MHz
Gain	dB	19	17 (Min)
Noise Figure	dB	3.5	4.5 (Max)
Output Power @ 1 dB Compression*	dBm	19	18 (Min)
Output 3 <sup>rd</sup> Order Intercept	dBm	30	---
Output 2 <sup>nd</sup> Order Intercept	dBm	45	---
Reverse Isolation	dB	35	---
Input VSWR	---	1.5:1	2.0:1 (Max)
Output VSWR	---	1.5:1	2.0:1 (Max)
Supply Voltage	volts	+15	+15
Supply Current	mA	150	160 (Max)

## Absolute Maximum Ratings

Maximum (No Damage) Ratings	
Storage Temperature	-62°C to +125°C
Operating Temperature	-55°C to +85°C
DC Voltage @ 25°C	+17 volts
Input Drive @ 25°C (CW)	+18 dBm

Typical values are measured at 25°C, but not guaranteed.

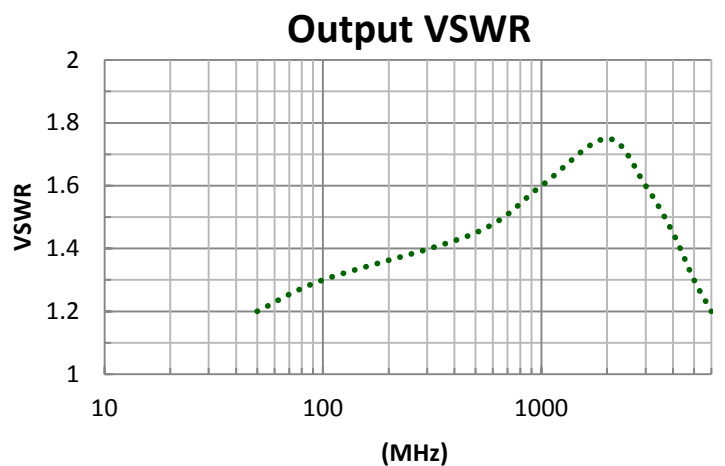
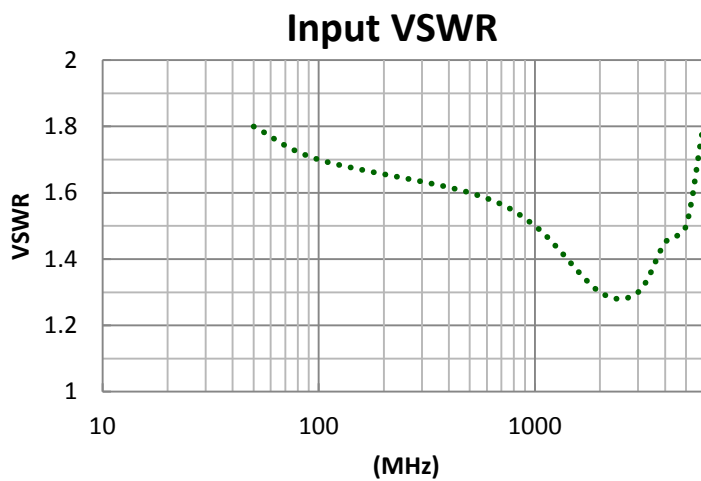
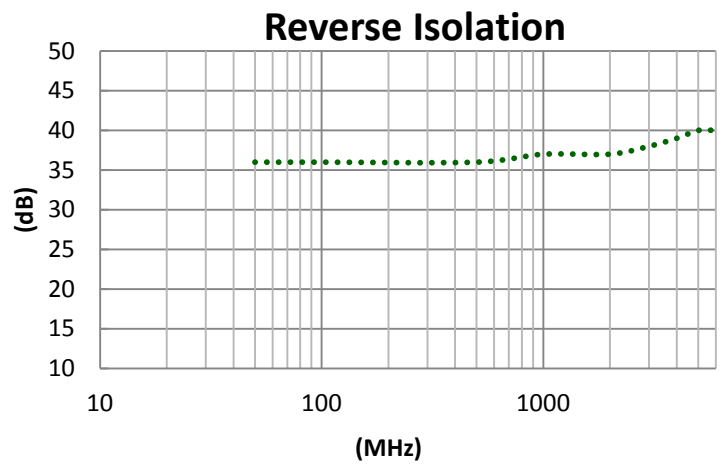
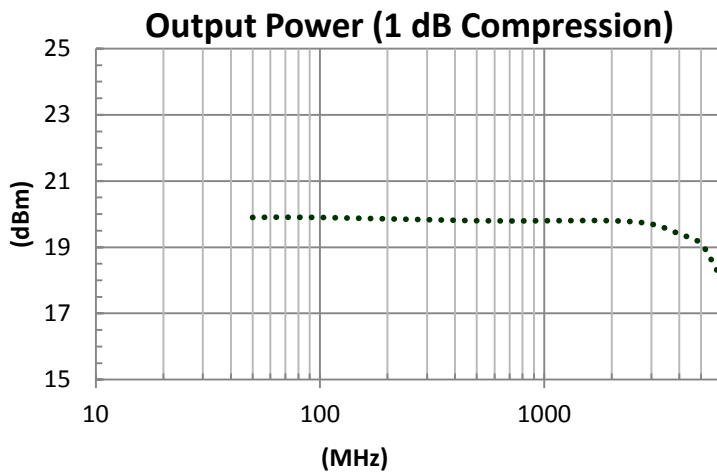
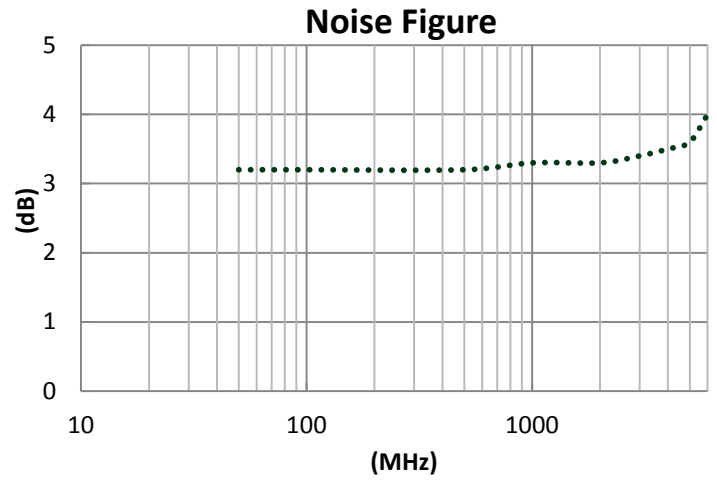
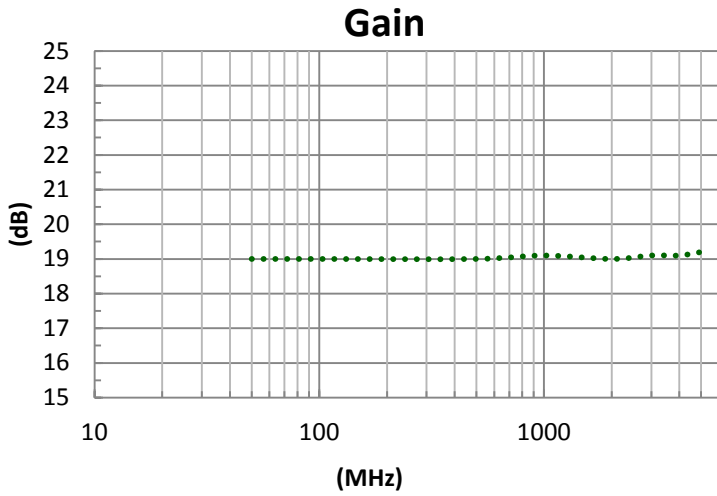
\* Output Power will be 1 dB less at 6000 MHz.

## Mechanical & Electrical

Parameter	Specification
Specification Temperatures (Min/Max)	-55°C to +85°C
Package Size	TN9600: 0.450" Square Surfacement
Package Drawing	SM3 Package ( SMA Connectorized Version HF1)
RF Connectors	TN9600 (None), BX9600 (SMA)



## Typical Performance Graphs



# Typical Performance Graphs

## Instructions

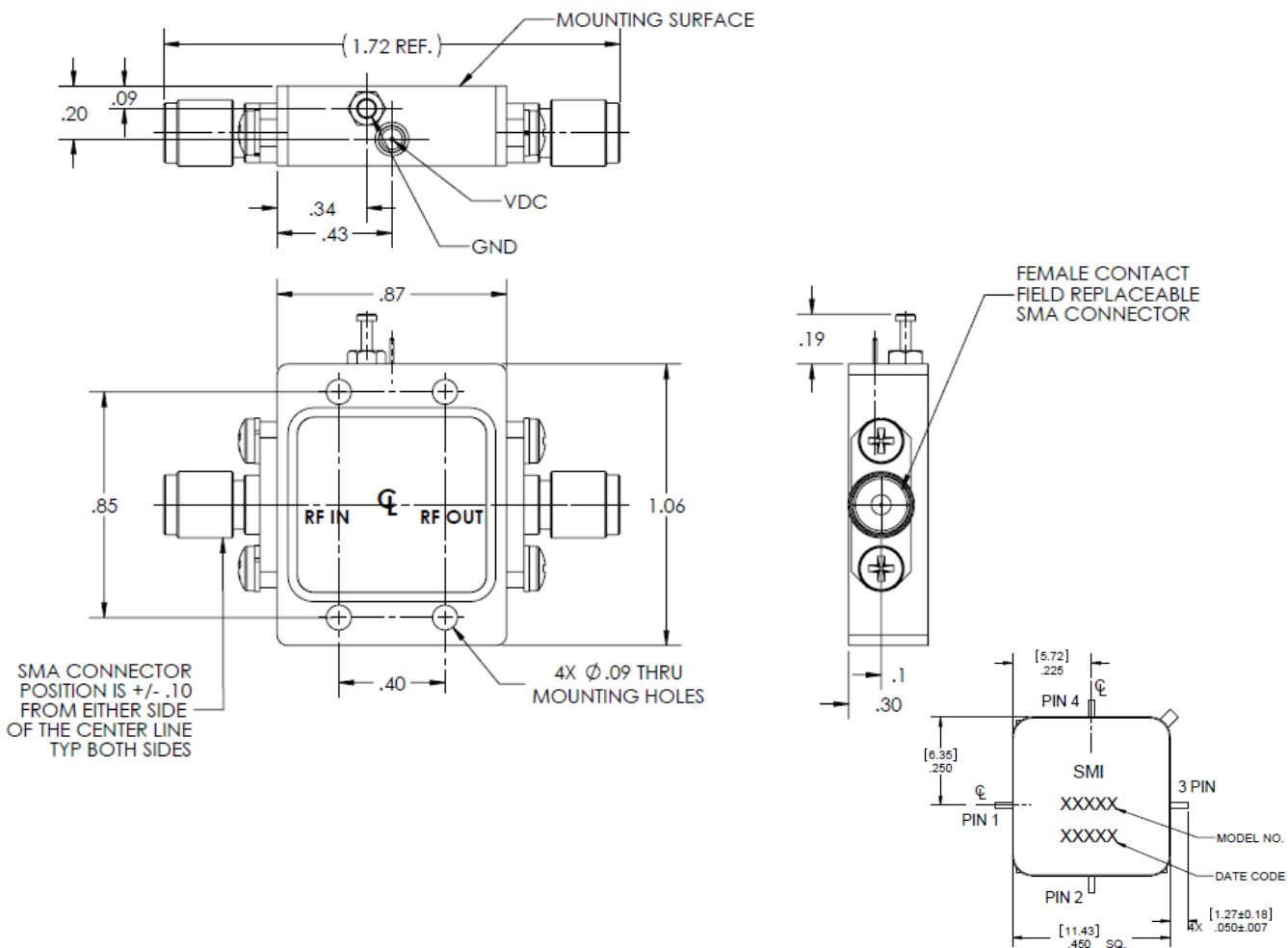
Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	Spectrum Control reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (ohm) system.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

## Outline Drawing

(For reference only)

NOTES:

- HOUSING & SEAL COVER ALUMINUM, COVER IS LASER WELDED TO FORM A HERMITIC SEAL.  
HOUSING: IS NICKEL PLATED PER AMS-C-26074 CLASS 3, GRADE B,  
WELD COVER: CHEMICAL FILM MIL-DTL-5541, TYPE II CLASS 3



**BX9600**

**TN9600**