

High Performance 2-50 GHz System Power Amplifier



Features

- 1W (30dBm) P_{sat} to 10 GHz
- Excellent performance at 20 GHz:
 - High gain (27dB, +2dB flatness)
 - 26dBm P_{-1dB} , 29dBm P_{sat}
- Easy to integrate into your lab:
 - Built-in cooling fan
 - AC power supply
- Power detector outputs
- Size: 5.5 x 4.5 x 2.75 inch

Description

The TA2U50HA Power System Amplifier is a high performance broadband amplifier with excellent power and gain from 2 to 50 GHz. The amplifier is designed to be easily used in lab and test applications; it features integrated cooling and temperature-referenced power detector outputs, and is completely self-contained with a standard AC power supply.

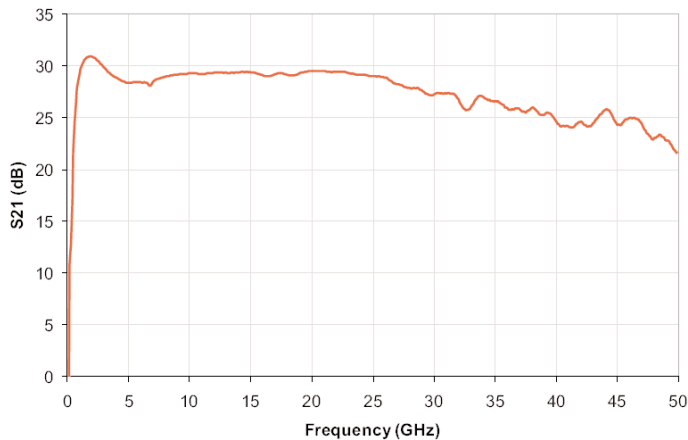
Application

The TA2U50HA is a test amplifier designed for broadband power and gain applications. It is ideally suited for saturated RF amplifier testing, driving TWT amplifiers, or as an antenna system amplifier. High gain and typically 22dBm output power at 50GHz will overcome long cable losses from the signal source, and will provide additional power required in many development and test applications.

Specifications @ 25°C

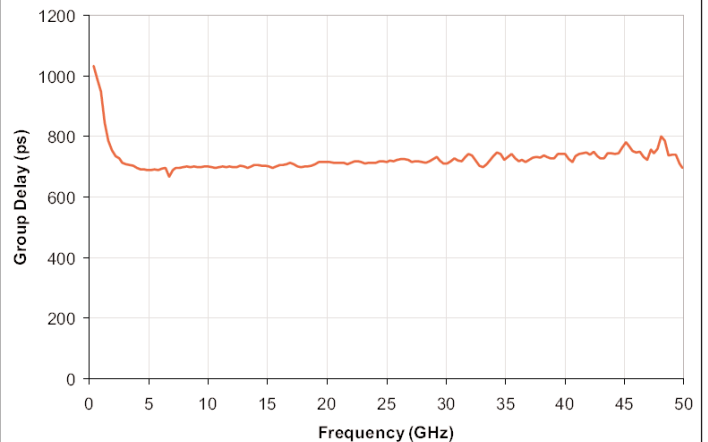
Parameter	Description	2 - 10 GHz			10-30 GHz			30 - 40 GHz			40 - 50 GHz		
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max
Psat (dBm)	Saturated Output Power	26	30	-	25	29	-	23	27	-	20	24	-
P-1 (dBm)	1 dB Compressed Power	24	28	-	23	27	-	21	25	-	17	22	-
S21 (dB)	Small Signal Gain	25	29	-	24	28	-	21	25	-	17	24	-
S11 (dB)	Input Match	-	-15	-	-	-15	-	-	-10	-	-	-8	-
S22 (dB)	Output Match	-	-15	-	-	-10	-	-	-6	-	-	-6	-
S12 (dB)	Reverse Isolation	-	-60	-	-	-60	-	-	-50	-	-	-50	-
NF (dBm)	Noise Figure	-	9	-	-	9	-	-	10.5	-	-	12	-
H2 (dBc)	2nd Harmonic @P-1	-	-40	-	-	-40	-	-	-35	-	-	-30	-
H3 (dBc)	3rd Harmonic @P-1	-	-20	-	-	-20	-	-	-	-	-	-	-

TA2U50HA S21



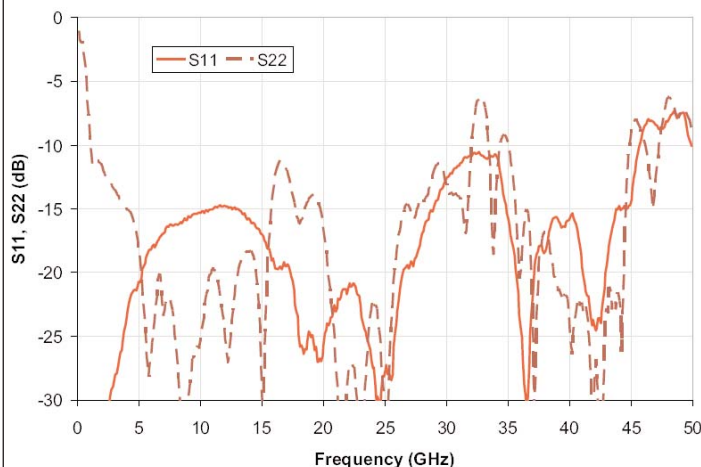
Typical module performance

TA2U50HA Group Delay



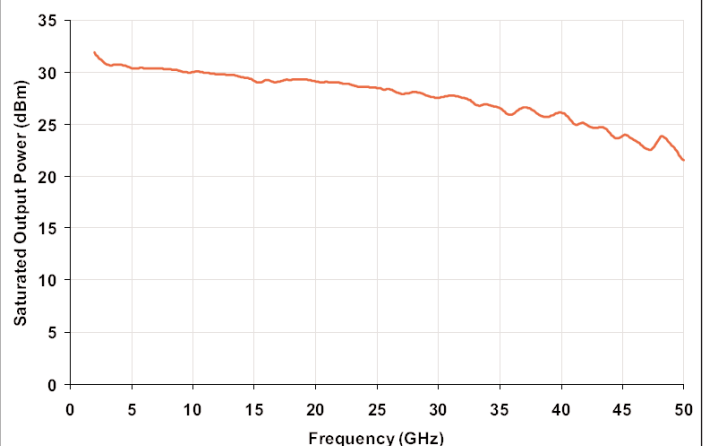
Typical module performance

TA2U50HA S11, S22



Typical module performance

TA2U50HA Saturated Output Power



Typical module performance



Supplemental Data

Operating Temperature	0°C - 55°C
Pin Max	26dBm
DC Power Dissipation	9V; 1.5A
Input Connector	2.4mm
Output Connector	2.4mm

Options

OPT101	European Power Cord
OPT102	UK Power Cord
OPT103	Domestic Power Cord
OPT300	1 Year Warranty Extended to 3 Years
OPT301	1 Year Warranty Extended to 5 Years