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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 200T1G3A

Amplifier Research 200T1G3A TWT Microwave Amplifier The Amplifier Research 200T1G3A is a self-contained forced-air-cooled broadband TWT amplifier providing 200 W CW minimum from 0.8 GHz to 2.8 GHz. OEM datasheets list 53 dB minimum gain, 35 dB minimum gain adjustment, 1.0 mW maximum input for rated output, and IEEE-488 remote control with TypeNRF connectors. Microwave susceptibility testing, wireless component drive, and laboratory CW power from 0.8 to 2.8 GHz. Digital forward and reflected power display The Amplifier Research 200T1G3A is a self-contained forced-air-cooled broadband TWT amplifier providing 200 W CW minimum from 0.8 GHz to 2.8 GHz. OEM datasheets list 53 dB minimum gain, 35 dB minimum gain adjustment, 1.0 mW maximum input for rated output, and IEEE-488 remote control with TypeNRF connectors. Microwave susceptibility testing, wireless component drive, and laboratory CW power from 0.8 to 2.8 GHz. Digital forward and reflected power display Power Output Nominal Fundamental: 242 watts



MODEL

**Amplifier Research
200T1G3A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

200T1G3A

LISTING

<https://aumictechlabs.com/products/200t1g3a-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 200T1G3A is a self-contained, air-cooled broadband traveling wave tube (TWT) microwave amplifier delivering 200 W CW output across 0.8 GHz to 2.8 GHz instantaneously. This benchtop-configured unit features 53 dB minimum gain with 35 dB

continuous adjustment range and operates at 1.0 mW input for rated output. Purpose-built for susceptibility testing and RF laboratory applications, it combines high instantaneous bandwidth with precise gain control and built-in output power foldback protection. The amplifier accepts AM, FM, and pulse modulation, supports video pulse widths down to 0.05 μ s, and includes IEEE-488 (GPIB) remote control as standard. Type N connectors serve RF input, output, and sample ports; forced-air cooling and 19-inch rack compatibility enable flexible deployment in test benches or integrated systems.

Technical Specifications

RF Performance

Frequency Range: 0.8 GHz to 2.8 GHz (instantaneous) Output Power (CW): 200 W minimum Linear Output Power (1 dB compression): 50 W minimum Power Gain (maximum): 53 dB minimum Gain Adjustment: 35 dB continuous range Input for Rated Output: 1.0 mW maximum Input Impedance: 50 Ω , VSWR 2.0:1 maximum Output Impedance: 50 Ω , VSWR 2.5:1 typical Noise & Distortion Noise Power Density: -77 dBm/Hz typical, -72 dBm/Hz maximum Harmonic Distortion: -6 dBc typical, -3 dBc maximum Frequency Response $\pm$ 12 dB maximum across 0.8 GHz – 2.8 GHz $\pm$ 1.2 dB maximum across 1.0 GHz – 2.0 GHz Pulse Characteristics Minimum Pulse Width: 0.05 μ s Maximum PRF: 100 kHz RF Rise/Fall Time: 30 ns maximum (10% to 90%) Pulse Delay: 300 ns maximum Pulse Width Distortion: $\pm$ 30 ns maximum Power Supply Input: 190 – 260 Vac, 50/60 Hz, single phase Consumption: 200 W minimum, 242 W nominal, 2.5 kVA maximum

Key Features

Mismatch tolerance operates without damage across any load impedance Output power foldback protection when reflected power exceeds 40 W VSWR protection included as standard Modulation support: AM, FM, and pulse Forced-air self-contained cooling with rear-panel airflow Compatibility & Integration IEEE-488 (GPIB) interface for remote operation Type N female connectors (input, output, sample port) DB-15 female interlock connector Video monitoring via BNC connector 19-inch rack-mount capable

200T1G3A Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	200 watts minimum
Power Output Nominal Fundamental	242 watts
Linear Power At 1 dB Compression	50 watts minimum
Flatness Maximum	plus or minus 1.2 dB maximum equalized plus or minus 0.5 dB at rated power class
Frequency Response	0.8 to 2.8 GHz instantaneously
Input For Rated Output	1.0 milliwatt maximum
Gain At Maximum Setting	53 dB minimum
Gain Adjustment Range	35 dB minimum
Harmonic Distortion	minus 3 dBc maximum minus 4.5 dBc typical
Noise Power Density Pulse On Maximum	minus 72 dBm/Hz
Noise Power Density Pulse On Typical	minus 77 dBm/Hz
Noise Power Density Pulse Off Typical	minus 140 dBm/Hz
Primary Power	190 to 260 VAC 50/60 Hz single phase
Primary Power Consumption	2.5 kVA maximum
RF Connectors	TypeNfemale rear panel
Remote Interface	IEEE 488 GPIB
Cooling	Forced air self contained fans
Video Pulse Width Minimum	0.05 microseconds
Video Pulse Rate Maximum	100 kHz
RF Rise Fall Maximum	30 ns
Form Factor	Self contained TWT amplifier cabinet
Series Family	200T1G3A M1 through M5

200T1G3A Specifications

PARAMETER	VALUE
Amplifier Research 200T1G3A TWT Microwave Amplifier	Overview
Applications	Microwave susceptibility testing, wireless component drive, and laboratory CW power from 0.8 to 2.8 GHz.
Key Features	TWT broadband 0.8 to 2.8 GHz
Digital forward and reflected power display	35 dB minimum gain adjustment
Technical Specifications	Rated Output Power: 200 watts minimum
Notes	From Amplifier Research Model 200T1G3A OEM datasheet (M1 through M5). Confirm mass and exact enclosure on the configuration table.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.