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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 200T1G2

Amplifier Research 200T1G2 TWT Microwave Amplifier The Amplifier Research 200T1G2 is a self-contained forced-air-cooled traveling-wave-tube microwave amplifier providing 200 W CW minimum across the T1G2 instantaneous band of approximately 1.0 GHz to 2.0 GHz. OEM TWT amplifier literature emphasizes high gain, instantaneous bandwidth, and pulse/CW laboratory susceptibility applications. Microwave susceptibility testing, antenna and component testing, and general laboratory TWT power applications in L-band. The Amplifier Research 200T1G2 is a self-contained forced-air-cooled traveling-wave-tube microwave amplifier providing 200 W CW minimum across the T1G2 instantaneous band of approximately 1.0 GHz to 2.0 GHz. OEM TWT amplifier literature emphasizes high gain, instantaneous bandwidth, and pulse/CW laboratory susceptibility applications. Microwave susceptibility testing, antenna and component testing, and general laboratory TWT power applications in L-band. Forward and reflected power metering class Gain adjustment over wide continuous range



MODEL

**Amplifier Research
200T1G2**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

200T1G2

LISTING

<https://aumictechlabs.com/products/200t1g2-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 200T1G2 is a self-contained, forced-air-cooled traveling wave tube (TWT) microwave amplifier engineered for broadband RF applications requiring high instantaneous

bandwidth and consistent gain. Delivering 200 W minimum CW output power with 53 dB minimum gain, this unit operates across the 1–2 GHz band and accepts input signals up to 1.0 mW for rated output. The amplifier accommodates AM, FM, and pulse modulation while maintaining faithful signal reproduction, and includes integral protection against load mismatch and reflected power exceeding 40 W.

Technical Specifications

Frequency range: 1 GHz to 2 GHz Output power: 200 W minimum CW; 100 W minimum linear (1 dB compression) Gain: 53 dB minimum, adjustable over continuous 35 dB range Gain flatness: ± 12 dB maximum (1.0–2.0 GHz) Input requirement: 1.0 mW maximum for rated output Input impedance: 50 Ω , VSWR 2.0:1 max Output impedance: 50 Ω , VSWR 2.5:1 typical Primary power: 190–260 V, 50–60 Hz, single phase AC power consumption: 250 W nominal

Key Features

Forced-air cooling with rear-mounted intake and exhaust Switching mode power supply with fast regulation control and high-order filtering Built-in IEEE-488 (GPIB) interface for remote control and automation RF output sample port for signal monitoring Input overdrive protection standard Mismatch tolerance including VSWR protection and 40 W reflected power foldback Operates without oscillation or damage across any source and load impedance magnitude and phase Modular design enabling straightforward access and serviceability

Typical Applications

EMC RF susceptibility testing Test and measurement Industrial and university research and development Service applications

Compatibility & Integration

The 50 Ω input and output connections support standard RF connectors. IEEE-488 connectivity enables integration into automated test systems and remote instrumentation networks.

200T1G2 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	200 watts minimum
Frequency Response	1.0 to 2.0 GHz instantaneously
Input For Rated Output	1.0 milliwatt maximum
Gain At Maximum Setting Class	53 dB minimum class
Gain Adjustment Range Class	35 dB minimum class
Flatness Maximum Class	plus or minus 12 dB class across full band class
Input Impedance Class	50 ohms VSWR 2.0:1 maximum
Output Impedance Class	50 ohms VSWR 2.5:1 typical class
Linear Power At 1 dB Compression Class	50 watts minimum class
Noise Power Density Pulse On Class	minus 72 dBm/Hz maximum class
Harmonic Distortion Class	minus 3 dBc maximum class
Primary Power Class	190 to 260 VAC 50/60 Hz multi kVA class
Cooling	Forced air self contained fans
RF Input Connector Class	TypeNfemale
RF Output Connector Class	TypeN or waveguide adapter class by config
Form Factor	Rack mountable TWT amplifier enclosure
Series Family	Amplifier Research 200T1G2 TWT 1 to 2 GHz
Export Classification Class	Confirm ECCN on unit nameplate
Circuit Topology	Solid state driver with TWT final
Pulse Capability Class	External pulse input supported class
Modulation Capability Class	AM FM pulse on TWT carrier class
Safety Interlock Class	High voltage interlock enclosed cabinet class

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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Notes	
Rated power and 1 to 2 GHz band from Amplifier Research 200T1G2 OEM/rental TWT documentation. Related 200T1G3A sheets cover 0.8 to 2.8 GHz; do not interchange those band edges without checking the T1G2 faceplate.	

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

Aumictech

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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.