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Data Sheet
August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 100S1G4

Amplifier Research 100S1G4 Solid State Microwave Amplifier The Amplifier Research 100S1G4 isaportable self-contained air-cooled broadband solid-state amplifier providing 100 W CW minimum from 0.8 GHz to 4.2 GHz. OEM datasheets list 50 dB minimum gain, push-pull high-power stages, and digital local/remote control for wireless and EMC drive. Multi-band wireless component and subsystem testing, CDMA/W-CDMA/TDMA/GSM class driver service, and EMC tests needing linear modulation envelopes. Solid state ClassAbroadband microwave design The Amplifier Research 100S1G4 isaportable self-contained air-cooled broadband solid-state amplifier providing 100 W CW minimum from 0.8 GHz to 4.2 GHz. OEM datasheets list 50 dB minimum gain, push-pull high-power stages, and digital local/remote control for wireless and EMC drive. Multi-band wireless component and subsystem testing, CDMA/W-CDMA/TDMA/GSM class driver service, and EMC tests needing linear modulation envelopes. Solid state ClassAbroadband microwave design Digital control panel with forward and reflected power

MODEL	CALIBRATION
Amplifier Research 100S1G4	Available on request
CONDITION	**STATUS**
Used	In stock
RFQ / SKU	**LISTING**
100S1G4	https://aumictechlabs.com/products/100s1g4-3/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 100S1G4 is a self-contained, air-cooled solid-state power amplifier engineered for broadband applications demanding high gain, linearity, and instantaneous

bandwidth. Operating across 0.8 GHz to 4.2 GHz, this amplifier delivers a minimum 100 W CW output with nominal 120 W at 3 dB compression. Push-pull circuitry in high-power stages reduces distortion and enhances stability across the operating range.Technical Specifications Output Power: Minimum 100 W CW; nominal 120 W at 3 dB compression; minimum 90 W at 3 dB compression; nominal 100 W at 1 dB compression; minimum 70 W at 1 dB compression Gain: Minimum 50 dB with 15 dB minimum continuous adjustment range Input for Rated Output: 1.0 mW maximum Harmonic Distortion: −20 dBc maximum at 80 W Flatness: ±1.5 dB typical; ±2.0 dB maximum; ±1 dB with internal leveling Spurious Signals: −73 dBc typical Phase Linearity: ±1 deg/100 MHz typical Input/Output Impedance: 50 Ω nominal; input VSWR 2.0:1 maximum Primary Power: 90–132 VAC or 180–264 VAC, 50/60 Hz, single phase (auto-selected); 340 W maximum consumption Modulation: AM, FM, PulseKey Features Digital control panel with local and remote operation via IEEE-488 (GPIB) and RS-232 Forward and reflected power display with internal RF detector Internal/external automatic level control (ALC) with front panel adjustment Pulse input capability with RF output level protection Keylock prevents unauthorized mode switching Type N female RF connectorsTypical Applications Broadband RF testing, EMC compliance, wireless communication system validation, and signal generation across L- to C-band frequencies.Compatibility & Integration The 100S1G4 integrates into automated test systems via GPIB and RS-232 interfaces. Forced-air cooling and portable form factor (50.3 cm × 47.0 cm × 61.0 cm; 86.2 kg) suit laboratory benches and field deployments.

100S1G4 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	100 watts minimum
Input For Rated Output	1.0 milliwatt maximum
Power Output At 3 dB Compression Nominal	120 watts
Power Output At 3 dB Compression Minimum	90 watts
Power Output At 1 dB Compression Nominal	100 watts
Power Output At 1 dB Compression Minimum	70 watts
Flatness Typical	plus or minus 1.5 dB
Flatness Maximum	plus or minus 2.0 dB
Frequency Response	0.8 to 4.2 GHz instantaneously
Gain At Maximum Setting	50 dB minimum
Gain Adjustment Range	15 dB minimum (4096 remote steps)
Input Impedance	50 ohms, VSWR 2.0:1 maximum
Output Impedance	50 ohms nominal
RF Power Display Range	0 to 150 watts
Harmonic Distortion	minus 20 dBc maximum at 80 watts
Mismatch Tolerance	100 percent of rated power without foldback
Modulation Capability	Reproduces AM FM or pulse modulation on the input
Remote Interfaces	IEEE 488 and RS 232
Weight Standard Config	86.2 kg (190 lb)
Size Standard Config WxHxD	50.3 × 47.0 x 61.0 cm
RF Connectors Standard	TypeNfemale
Cooling	Forced air self contained fans

100S1G4 Specifications

PARAMETER	VALUE
Key Features	Solid state Class A broadband microwave design
Internal ALC with threshold control	IEEE 488 and RS 232 remote interfaces
Technical Specifications	Rated Output Power: 100 watts minimum

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
From Amplifier Research Model 100S1G4 OEM datasheet (M1 through M8 configurations). Confirm connector placement and mass on the unit configuration table.

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
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
https://aumictechlabs.com

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