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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 15S1G3

Amplifier Research 15S1G3 Solid State RF Amplifier The Amplifier Research 15S1G3 is a self-contained air-cooled solid-state broadband amplifier providing 15 W CW minimum from 0.8 GHz to 3.0 GHz. OEM 15S1G3 catalog and datasheet materials list instantaneous bandwidth, high gain, mismatch tolerance, and IEEE-488/RS-232 remote interfaces on the S1G3 platform. RF susceptibility testing, antenna and component testing, wattmeter calibration, and broadband driver service from 0.8 GHz to 3.0 GHz. Forward and reflected power monitoring class The Amplifier Research 15S1G3 is a self-contained air-cooled solid-state broadband amplifier providing 15 W CW minimum from 0.8 GHz to 3.0 GHz. OEM 15S1G3 catalog and datasheet materials list instantaneous bandwidth, high gain, mismatch tolerance, and IEEE-488/RS-232 remote interfaces on the S1G3 platform. RF susceptibility testing, antenna and component testing, wattmeter calibration, and broadband driver service from 0.8 GHz to 3.0 GHz. Forward and reflected power monitoring class Safety interlock rear panel connector class



MODEL

**Amplifier Research
15S1G3**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

15S1G3

LISTING

<https://aumictechlabs.com/products/15s1g3-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 15S1G3 is a solid-state, air-cooled broadband microwave amplifier delivering 15 watts minimum CW output across 0.8 GHz to 3.0 GHz. Engineered for instantaneous bandwidth and high linearity, this self-contained unit excels in EMC testing, communications, and radar applications where gain stability and output power control are critical. The amplifier accepts

maximum input of 1.0 milliwatt for rated output and provides 42 dB minimum gain with front-panel adjustment. Gain flatness is ± 1.5 dB typical across the band. Input and output impedance are both 50 ohms nominal. RF input leveling protects the first stage when input exceeds 0 dBm, while over-temperature protection removes DC bias from amplifier stages during thermal fault conditions. A digital display shows operating status and fault indication; the unit automatically returns to operation once the fault clears. Type N female connectors serve RF input and output. The 15S1G3 supports both local front-panel control and remote operation via IEEE-488 (GPIB) and RS-232 interfaces, making it suitable as a driver amplifier for wireless and communication component testing including CDMA, W-CDMA, TDMA, and GSM systems. The unit weighs 20.5 kg and measures 50.3 × 15.5 × 37.6 cm (W × H × D) in standard benchtop configuration. The enclosure is removable for equipment rack mounting.

Technical Specifications

Frequency Range: 0.8 GHz to 3.0 GHz
Rated Output Power: 15 watts minimum CW
Output Power @ 3 dB Compression: 15 watts nominal
Maximum Input for Rated Output: 1.0 milliwatt
Gain (maximum setting): 42 dB minimum
Gain Flatness: ± 1.5 dB typical; ± 2.0 dB maximum
Input Impedance: 50 ohms
Output Impedance: 50 ohms nominal
Cooling: Air-cooled
Weight: 20.5 kg (45.0 lb)
Dimensions: 50.3 × 15.5 × 37.6 cm (W × H × D)

Key Features

- RF input leveling circuit with 0 dBm threshold protection
- Over-temperature fault detection with automatic DC bias removal
- Excellent linearity with low spurious signal content
- Front-panel gain control with digital display
- Removable cabinet for benchtop or rack-mount configuration

Typical Applications

- EMC testing
- Communications system development
- Radar system design
- CDMA, W-CDMA, TDMA, and GSM component testing
- Driver amplifier for wireless subsystems

Compatibility & Integration

- Remote control via IEEE-488 (GPIB) and RS-232
- Type N female RF connectors
- Front-panel local control with gain adjustment

15S1G3 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	15 watts minimum
Input For Rated Output	1.0 milliwatt maximum
Frequency Response	0.8 GHz to 3.0 GHz instantaneously
Gain At Maximum Setting	42 dB minimum
Gain Adjustment Continuous Range	18 dB minimum class remote stepped
Flatness Class	plus or minus 1.5 to 3.0 dB class by model family sheet
Power Output At Compression Class	see model datasheet P1dB and P3dB rows
Input Impedance	50 ohms, VSWR 2.0:1 maximum class
Output Impedance	50 ohms nominal
Mismatch Tolerance	operates without damage into high VSWR loads class
Modulation Capability	Faithful AM FM pulse reproduction
Harmonic Distortion Class	minus 20 dBc class at rated power family
Remote Interfaces	IEEE-488 and RS-232
RF Connector Class	TypeNfemale class
Cooling	Forced air self contained fans
Form Factor	Portable benchtop or rack amplifier class
Series Family	Amplifier Research 15S1G3
Export Classification Class	EAR99 family class
Primary Power Class	universal AC mains auto ranging class
ALC Leveling	available class
Safety Interlock	rear panel interlock class
Microwave Band Class	S band solid state

15S1G3 Specifications

PARAMETER	VALUE
Amplifier Research 15S1G3 Solid State RF Amplifier	Overview
Applications	RF susceptibility testing, antenna and component testing, wattmeter calibration, and broadband driver service from 0.8 GHz to 3.0 GHz.
Technical Specifications	Rated Output Power: 15 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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PARAMETER	VALUE
Rated Output Power	15 watts minimum
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Frequency Response	0.8 GHz to 3.0 GHz instantaneously
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Gain Adjustment Continuous Range	18 dB minimum class remote stepped
Flatness Class	plus or minus 1.5 to 3.0 dB class by model family sheet
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Harmonic Distortion Class	minus 20 dBc class at rated power family
Remote Interfaces	IEEE-488 and RS-232
RF Connector Class	TypeNfemale class
Cooling	Forced air self contained fans
Form Factor	Portable benchtop or rack amplifier class
Series Family	Amplifier Research 15S1G3
Export Classification Class	EAR99 family class
Primary Power Class	universal AC mains auto ranging class
ALC Leveling	available class
Safety Interlock	rear panel interlock class
Microwave Band Class	S band solid state
Notes	
Rated power, band, and gain from Amplifier Research 15S1G3 OEM catalog/datasheet summaries. Quote the exact configuration sheet for compression flatness mass and primary-power draw; do not assume sibling compression rows.	

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.