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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 350S1G4

Amplifier Research 350S1G4 Solid State Microwave Amplifier The Amplifier Research 350S1G4 is a high-power solid-state air-cooled broadband amplifier providing 350 W CW class output across the S1G4 instantaneous band near 0.8 GHz to 4.2 GHz. OEM family documentation targets wireless and EMC applications needing high linear microwave power. High-field EMC radiated immunity, high-power wireless component testing, and multi-band microwave driver service through 4.2 GHz. High power solid state Class A microwave design The Amplifier Research 350S1G4 is a high-power solid-state air-cooled broadband amplifier providing 350 W CW class output across the S1G4 instantaneous band near 0.8 GHz to 4.2 GHz. OEM family documentation targets wireless and EMC applications needing high linear microwave power. High-field EMC radiated immunity, high-power wireless component testing, and multi-band microwave driver service through 4.2 GHz. High power solid state Class A microwave design Digital local and remote amplifier control



MODEL

**Amplifier Research
350S1G4**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

350S1G4

LISTING

<https://aumictechlabs.com/products/350s1g4-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 350S1G4 is a solid-state, air-cooled RF amplifier delivering 350 watts minimum continuous-wave output across 0.8 GHz to 4.2 GHz instantaneously. Engineered for EMC testing, wireless component validation, and communication systems development, this

broadband amplifier combines high linearity with exceptional mismatch tolerance, operating without damage or oscillation across any source and load impedance condition. It functions as a standalone test instrument or as a driver stage in integrated multi-kilowatt systems.

Technical Specifications

Frequency and Power: Frequency range: 0.8 GHz to 4.2 GHz instantaneously Rated output power: 350 W minimum (CW) Maximum input for rated output: 1.0 mW Harmonic distortion: -20 dBc maximum at 325 watts Third order intercept point: 65 dBm typical Spurious: -73 dBc typical

Gain and Impedance: Gain (maximum): 55.5 dB minimum Gain adjustment range: 15 dB minimum Input impedance: 50 ohms, VSWR 2.0:1 maximum Output impedance: 50 ohms nominal

Linearity and Modulation: Phase linearity: ± 1 deg/100 MHz typical Modulation support: AM, FM, and pulse modulation reproduced faithfully Impedance Mismatch: Rated power delivery: 100% without foldback Mismatch tolerance: Operates without damage or oscillation with any magnitude and phase of source and load impedance

Power Requirements: Primary power: 90–132 VAC or 180–264 VAC, 50/60 Hz, single phase (automatically selected)

Key Features

High-linearity design ensures accurate signal reproduction across the operating band Instantaneous bandwidth eliminates tuning delay for wideband test scenarios Exceptional mismatch tolerance eliminates risk of amplifier shutdown due to load impedance variations Integrated attenuation control supports gain adjustment of 15 dB minimum

Typical Applications

EMC testing (radiated and conducted immunity) Wireless communication component and subsystem validation CDMA, W-CDMA, TDMA, and GSM system testing Research and development across multiple frequency bands

Compatibility & Integration

The 350S1G4 integrates as a sub-amplifier into higher-power configurations, including 600-watt, 900-watt, and 1200-watt systems, enabling scalable test architectures.

Features & description

From manufacturer datasheet

High power solid state ClassAmicrowave design

Digital local and remote amplifier control RF output level protection Forced air self contained cooling
Safety interlock support class Technical Specifications Rated Output Power: 350 watts minimum
Frequency Response: 0.8 to 4.2 GHz instantaneously Gain At Maximum Setting Class: 55 dB minimum
class Input For Rated Output Class: 1.0 milliwatt maximum Flatness Maximum Class: plus or minus 2.0
dB Input Impedance Class: 50 ohms VSWR 2.0:1 maximum Output Impedance Class: 50 ohms nominal
Mismatch Tolerance Class: 100 percent of rated power without foldback Harmonic Distortion Class:
minus 20 dBc maximum near rated power Modulation Capability Class: AM FM pulse faithful
reproduction Remote Interfaces Class: IEEE 488 RS 232 USB Ethernet class Cooling: Forced air self
contained fans RF Connector Class: TypeNinput with high power output connector options Form
Factor: Floor standing or large portable air cooled cabinet Series Family: Amplifier Research S1G4 0.8
to 4.2 GHz Power Class Sibling 250S1G4: 250 W minimum Primary Power Class: Universal AC mains
kilowatt class Export Classification Class: EAR99 family class Circuit Topology: Push pull solid state
broadband stages Spurious Typical Class: minus 73 dBc class family

350S1G4 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	350 watts minimum
Frequency Response	0.8 to 4.2 GHz instantaneously
Gain At Maximum Setting Class	55 dB minimum class
Input For Rated Output Class	1.0 milliwatt maximum
Flatness Maximum Class	plus or minus 2.0 dB
Input Impedance Class	50 ohms VSWR 2.0:1 maximum
Output Impedance Class	50 ohms nominal
Mismatch Tolerance Class	100 percent of rated power without foldback
Harmonic Distortion Class	minus 20 dBc maximum near rated power
Modulation Capability Class	AM FM pulse faithful reproduction
Remote Interfaces Class	IEEE 488 RS 232 USB Ethernet class
Cooling	Forced air self contained fans
RF Connector Class	TypeNinput with high power output connector options
Form Factor	Floor standing or large portable air cooled cabinet
Series Family	Amplifier Research S1G4 0.8 to 4.2 GHz
Power Class Sibling 250S1G	250 W minimum
Primary Power Class	Universal AC mains kilowatt class
Export Classification Class	EAR99 family class
Circuit Topology	Push pull solid state broadband stages
Spurious Typical Class	minus 73 dBc class family
ALC Capability Class	Internal external ALC path class
Forward Reflected Metering Class	Digital forward reflected power display 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 frequency from Amplifier Research 350S1G4 OEM/rental S1G4 family documentation. Confirm exact lower-band edge (0.7 vs 0.8 GHz), gain, and mass on the unit datasheet.	

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.