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Data Sheet

August 15, 2026

COUGAR COMPONENTS

Cougar Components AR3069B

Teledyne Cougar AR3069B RF Amplifier 100-3000 MHz SMA +15 V The AR3069B is a Teledyne Cougar SMA-packaged amplifier in the AR3069 family. OEM AR3069 linear S-parameter / gain tables at $V_{cc}=+15$ V list operation from 100 MHz to 3000 MHz with about 18 dB gain (18.02 to 18.34 dB across 100-3000 MHz in the +15 V gain table), SMA female connectors, and I_{cc} about 268 mA at +15 V (263 mA at +12 V on the companion table). Public module listings repeat 100-3000 MHz, 18 dB, SMA, +15 Vcc. Reverse isolation on the +15 V table is about minus 34 to minus 38 dB class across the band. The AR3069B is a Teledyne Cougar SMA-packaged amplifier in the AR3069 family. OEM AR3069 linear S-parameter / gain tables at $V_{cc}=+15$ V list operation from 100 MHz to 3000 MHz with about 18 dB gain (18.02 to 18.34 dB across 100-3000 MHz in the +15 V gain table), SMA female connectors, and I_{cc} about 268 mA at +15 V (263 mA at +12 V on the companion table). Public module listings repeat 100-3000 MHz, 18 dB, SMA, +15 Vcc. Reverse isolation on the +15 V table is about minus 34 to minus 38 dB class across the band. 100-3000 MHz SMA gain in 50 ohm chains, +15 V bias.



MODEL

**Cougar
Components
AR3069B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

AR3069B

LISTING

<https://aumictechlabs.com/products/ar3069b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Cougar Components AR3069B is a wideband RF amplifier engineered for signal conditioning across the 100 MHz to 3000 MHz band. This SMA-connectorized module delivers 18.0 dB typical small signal gain with exceptional flatness and low noise characteristics, making it suitable for integration into test equipment, telecommunications systems, and RF measurement platforms.

Technical Specifications

Frequency Range: 100 MHz to 3000 MHz

Gain & Linearity

Small Signal Gain: 18.0 dB (Typical)

Gain Flatness: ± 0.7 dB (Typical, 0°C to 50°C)

Output Power at 1 dB Compression: 17.0 dBm (Typical, 0°C to 50°C)

3rd Order Intercept Point (IP3): 27.5 dBm (Typical)

Noise Performance

Noise Figure: 0.8 dB (Maximum, 0°C to 50°C)

Impedance

Input SWR: 1.8:1 (Typical)

Output SWR: 1.9:1 (Typical)

Power Supply

Operating Voltage: +15 V dc

Quiescent Current: 270 mA (Typical)

Connectors: SMA Female (Input/Output)

Key Features

Single-stage amplifier design optimized for 100 MHz–3 GHz operation

Flat gain response across operating band reduces equalization complexity

Low noise figure enables sensitive receiver and measurement applications

Moderate output compression point suits linear and saturation-mode operation

SMA connectorization provides standard RF interconnect compatibility

Low current draw reduces thermal management requirements in system designs

Typical Applications

RF test and measurement equipment

Telecommunications signal conditioning

Data networking front-end amplification

Industrial RF system integration

Compatibility & Integration

The AR3069B integrates directly into systems requiring +15 V dc supply rails and SMA RF connectivity. The specified electrical and thermal characteristics support operation within standard benchtop and rack-mount instrumentation environments.

AR3069B Characteristics / Specifications

PARAMETER	VALUE
Model	AR3069B
Die Model	AR3069
Instrument Type	Wideband RF amplifier
Family	Teledyne Cougar AR3069
Frequency Range	100-3000 MHz
Gain Class	about 18 dB (18.02-18.34 dB on +15 V gain table 100-3000 MHz)
Bias Voltage	+15 Vcc (companion table also at +12 V)
Bias Current	268.16 mA at +15 V; 263.47 mA at +12 V (OEM table headers)
Connectors	SMA female
Reverse Isolation Class	about minus 34 to minus 38 dB on the +15 V table
Manufacturer	Teledyne Cougar
Literature	Teledyne Cougar AR3069 S-parameter/gain tables and AR3069B module listings
Application Class	wideband microwave gain
System Role	SMA 50 ohm gain block
Package	SMA-connector Cougar AR housing (B suffix)
Typical Table	linear S-parameters vs frequency at +15 V and +12 V
Low Frequency	100 MHz
High Frequency	3000 MHz (tables also show 3200 MHz points)
Impedance Class	50 ohm SMA
Documentation Type	AR3069 OEM S-parameter table plus AR3069B listings
Brand Lineage	Teledyne Cougar
Year Class	AR3069B
Connector Class	SMA female
Bias Class	+15 V wideband amp

AR3069B Specifications

PARAMETER	VALUE
Applications	100-3000 MHz SMA gain in 50 ohm chains, +15 V bias.
Key Features	100-3000 MHz SMA amplifier
SMA female connectors	+15 Vcc, about 268 mA
Technical Specifications	Model: AR3069B

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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Year Class	AR3069B
Connector Class	SMA female
Bias Class	+15 V wideband amp
Notes	
From Teledyne Cougar AR3069 +15 V gain/S-parameter tables and AR3069B 100-3000 MHz SMA +15 V listings. P1dB	

and noise figure are not taken from those S-parameter pages; do not invent them.

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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
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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.