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Data Sheet

August 15, 2026

COUGAR COMPONENTS

Cougar Components AC2564C

Teledyne Cougar AC2564C 100 to 2500 MHz Cascadable Amplifier The Teledyne Cougar AC2564 (AC2564C screened/package build) is a 50 ohm cascadable TO-8 class amplifier. The Teledyne Cougar Amplifiers Product Selection Guide 2016 lists frequency 100 to 2500 MHz, small-signal gain typically 18.0 dB with 17.5 dB minimum at 0 to 50 C and 17.0 dB minimum at minus 55 to plus 85 C, gain flatness 0.8 dB typical / 1.0 dB maximum, noise figure 3.3 dB typical / 4.5 dB max at 0 to 50 C / 5.0 dB max at minus 55 to plus 85 C, P1dB 16.5/15.5/15.0 dBm, reverse isolation typically 36 dB, IP3/IP2 typically 27/40 dBm, SWR 1.7 typical / 2.0 maximum, and plus 15 V at typically 80 mA. The Teledyne Cougar AC2564 (AC2564C screened/package build) is a 50 ohm cascadable TO-8 class amplifier. The Teledyne Cougar Amplifiers Product Selection Guide 2016 lists frequency 100 to 2500 MHz, small-signal gain typically 18.0 dB with 17.5 dB minimum at 0 to 50 C and 17.0 dB minimum at minus 55 to plus 85 C, gain flatness 0.8 dB typical / 1.0 dB maximum, noise figure 3.3 dB typical / 4.5 dB max at 0 to 50 C / 5.0 dB max at minus 55 to plus 85 C, P1dB 16.5/15.5/15.0 dBm, reverse isolation typically 36 dB, IP3/IP2 typically 27/40 dBm, SWR 1.7 typical / 2.0 maximum, and plus 15 V at typically 80 mA. Broadband RF gain stages in 50 ohm ATE, EW, and communications chains from 100 MHz to 2.5 GHz.



MODEL

**Cougar
Components
AC2564C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

AC2564C

LISTING

<https://aumictechlabs.com/products/ac2564c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Cougar Components AC2564C is a radio frequency amplifier engineered for RF applications across commercial, scientific, military, and government systems. Built using chip and wire hybrid construction, this amplifier delivers the balance of performance and reliability required in demanding environments, including proven space-rated heritage. Part of the Teledyne RF & Microwave portfolio, the AC2564C benefits from design flexibility and customization options tailored to specific system requirements. Technical Specifications Manufacturer: Teledyne Cougar Model: AC2564C Product Type: RF Amplifier Construction: Chip and wire hybrid Teledyne Cougar amplifiers in this family offer configurable gain ranging from 5 dB to 38 dB, with gain flatness typically from 0.3 dB to 2.5 dB across the operating band. Noise figure performance spans 0.9 dB to 9 dB depending on configuration. Power output capability ranges from -2 dBm to 34.5 dBm. Frequency coverage within the Teledyne Cougar amplifier portfolio extends from 0.3 MHz to 20 GHz. Key Features Hybrid chip and wire construction for proven reliability Customizable gain, output power, and flatness Tunable gain versus bandwidth and bandwidth versus phase noise trade-offs Upscreening available to MIL-PRF-38534 Class H and Class K specifications Qualified for space applications Typical Applications Commercial RF systems, scientific instrumentation, military communications, government aerospace programs, and space-qualified systems requiring signal amplification. Compatibility & Integration The AC2564C integrates into systems requiring standard RF amplifier interfaces. Design customization is available for output power, gain, and flatness optimization. Upscreening to military specifications supports programs with enhanced reliability requirements.

AC2564C Characteristics / Specifications

PARAMETER	VALUE
Model	AC2564C
Base Model	AC2564
Instrument Type	Cascadable RF amplifier
Frequency Range	100 to 2500 MHz
System Impedance	50 ohm
Gain Typical	18.0 dB
Gain Min 0 To 50 C	17.5 dB
Gain Min Minus 55 To 85 C	17.0 dB
Gain Flatness Typical	0.8 dB
Gain Flatness Max	1.0 dB
Noise Figure Typical	3.3 dB
Noise Figure Max 0 To 50 C	4.5 dB
Noise Figure Max Minus 55 To 85 C	5.0 dB
P1db Typical	16.5 dBm
P1db Min 0 To 50 C	15.5 dBm
P1db Min Minus 55 To 85 C	15.0 dBm
Reverse Isolation Typical	36 dB
Third Second Intercept	27/40 dBm typical
Swr Typical	1.7
Swr Max	2.0
Dc Voltage	plus 15 V nominal
Dc Current	80 mA typical
Package Class	AC TO-8 amplifier
Manufacturer	Teledyne Cougar
Literature	Teledyne Cougar Amplifiers Product Selection Guide 2016 AC2564 row

PARAMETER	VALUE
Family	Cougar AC cascadable amplifiers
Form Factor	TO-8 cascadable amplifier
System Role	broadband RF gain
Brand Lineage	Cougar Components Teledyne Microwave
Screening Class	C suffix screened/package build of AC2564
Operating Mode	50 ohm small signal amplifier

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	
Specifications	
PARAMETER	VALUE
Model	AC2564C
Base Model	AC2564
Instrument Type	Cascadable RF amplifier
Frequency Range	100 to 2500 MHz
System Impedance	50 ohm
Gain Typical	18.0 dB
Gain Min 0 To 50 C	17.5 dB
Gain Min Minus 55 To 85 C	17.0 dB
Gain Flatness Typical	0.8 dB
Gain Flatness Max	1.0 dB
Noise Figure Typical	3.3 dB
Noise Figure Max 0 To 50 C	4.5 dB
Noise Figure Max Minus 55 To 85 C: 5.0 dB	
Specifications	
PARAMETER	VALUE
P1db Typical	16.5 dBm
P1db Min 0 To 50 C	15.5 dBm
P1db Min Minus 55 To 85 C	15.0 dBm
Reverse Isolation Typical	36 dB
Third Second Intercept	27/40 dBm typical
Swr Typical	1.7
Swr Max	2.0
Dc Voltage	plus 15 V nominal
Dc Current	80 mA typical
Package Class	AC T0-8 amplifier

PARAMETER	VALUE
Manufacturer	Teledyne Cougar
Literature	Teledyne Cougar Amplifiers Product Selection Guide 2016 AC2564 row
Family	Cougar AC cascadable amplifiers
Form Factor	T0-8 cascadable amplifier
System Role	broadband RF gain
Brand Lineage	Cougar Components Teledyne Microwave
Screening Class	C suffix screened/package build of AC2564
Operating Mode	50 ohm small signal amplifier

Notes

Numeric rows from the Teledyne Cougar 2016 amplifier selection guide AC2564 line (100 to 2500 MHz, 18.0/17.5/17.0 dB gain, NF 3.3/4.5/5.0 dB, P1dB 16.5/15.5/15.0 dBm, 15 V / 80 mA). Full S-parameter plots and screening tables are on the AC2564 data sheet pages of the same guide.

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.