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Data Sheet

August 2, 2026

ASTRONICS / EADS / RACAL

Astronics / EADS / Racal 3151A+ 100MS/s Waveform Generator

Astronics / EADS / Racal 3151A+ 100MS/s Waveform Generator The Astronics / EADS / Racal 3151A+ (3151A+) is a single-slot C-size VXIbus 100 MS/s waveform generator that combines high-frequency performance and arbitrary waveform capability in an economical VXI format. Outputs span about 100 uHz to 50 MHz with 12-bit vertical resolution and up to 512 k arbitrary waveform buffer. Included WaveCAD software supports sophisticated waveform creation. The 3151A+ is fully backwards compatible with the 3151A and can optionally emulate legacy 3151 models via an emulation switch for TPS compatibility. Ordering examples include 407824-001 (64 k), 407824-002 (512 k), and 1 ppm TCXO variants (407824-011/-012). Later succeeded by the 3151B. The Astronics / EADS / Racal 3151A+ (3151A+) is a single-slot C-size VXIbus 100 MS/s waveform generator that combines high-frequency performance and arbitrary waveform capability in an economical VXI format. Outputs span about 100 uHz to 50 MHz with 12-bit vertical resolution and up to 512 k arbitrary waveform buffer. Included WaveCAD software supports sophisticated waveform creation. The 3151A+ is fully backwards compatible with the 3151A and can optionally emulate legacy 3151 models via an emulation switch for TPS compatibility. Ordering examples include 407824-001 (64 k), 407824-002 (512 k), and 1 ppm TCXO variants (407824-011/-012). Later succeeded by the 3



MODEL

**Astronics / EADS /
Racal 3151A+**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

3151A+

LISTING

[https://aumictechlabs.c
om/products/3151a-4/](https://aumictechlabs.com/products/3151a-4/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Astronics/EADS/Racal 3151A+ is a VXIbus arbitrary waveform generator that combines function generation and arbitrary waveform synthesis in a single C-size module. Operating at 100 MS/s with 12-bit vertical resolution, it delivers up to 16 V peak-to-peak into 50 Ω and supports waveform memory up to 512 k standard. The instrument generates standard waveforms - sine, square, triangle, ramp, pulse, DC, exponential and Gaussian pulse - across multiple frequency ranges, and sequences up to 4096 arbitrary waveforms using high-speed download. Built-in triggering modes include immediate, delayed (up to 2M wave points), single waveform, burst, and sequential operation. Output impedance is 50 $\Omega \pm 1\%$. Power consumption remains under 25 W.

Technical Specifications Sampling Rate: 100 MS/s Vertical Resolution: 12 bits Waveform Memory: Up to 512 k standard Standard Waveform Frequency Range: 100 Hz to 50 MHz; 1.5 kHz to 100 MHz Arbitrary/Sequenced Waveforms: Up to 150 MS/s (subject to backplane limits) Output Amplitude: 16 V peak-to-peak into 50 Ω Output Impedance: 50 $\Omega \pm 1\%$ Power Consumption: < 25 W Form Factor: Single slot, C-size VXI module VXIbus Compliance: VXIbus 3.0 Key Features Eight built-in waveform functions including triangle, sine, sinc, square, ramp, pulse, DC, exponential and Gaussian pulse Sequencing capability for up to 4096 waveforms with high-speed sequence download Flexible triggering: immediate, delayed (up to 2M wave points), single waveform, burst, or sequence modes WaveCAD™ software for custom arbitrary waveform creation BNC front-panel I/O connectors Clock and reference inputs (NECL, 50 $\Omega \pm 5\%$; TTL or 0 dBm sine) Typical Applications Signal distortion simulation, power line cycle dropout testing, video signal generation, component failure emulation, power supply transient testing, and modulation source development for encoding scheme troubleshooting. Compatibility & Integration VXIplug&play drivers support Windows 98, NT, and 2000 with LabWindows/CVI and LabVIEW integration. The 3151B successor provides emulation for 3151, 3151A, and 3151A+ models.

Features & description

From manufacturer datasheet

Features

- Single-slot C-size VXI 100 MS/s waveform generator
- Backwards compatible with 3151A; optional 3151 emulation switch
- 12-bit vertical resolution; up to 512 k ARB memory
- Frequency about 100 uHz to 50 MHz class
- Amplitude to about 16 Vpk-pk into 50 ohm (family class)
- WaveCAD included / compatible
- VXIplug&play soft front panel and drivers
- Ordering class 407824-xxx

3151A Characteristics / Specifications

PARAMETER	VALUE
Model	3151A+ (3151A+)
Manufacturer	Astronics Test Systems / EADS / Racal Instruments
Instrument Type	VXI arbitrary / function waveform generator
Form Factor	C-size, single-slot VXI
Sample Rate	100 MS/s
Vertical Resolution	12 bits
Waveform Memory	64 k or 512 k (ordering dependent)
Frequency Range	about 100 uHz to 50 MHz
Compatibility	3151A default; optional 3151 emulation mode
Software	WaveCAD; VXIplug&play
Ordering Examples	407824-001 (64 k); 407824-002 (512 k); 407824-011/-012 (1 ppm)
Successor	3151B (250 MS/s class) Standard Operating Conditions Set emulation switch appropriately for the TPS under test. Confirm memory depth and TCXO option from the installed configuration. Operational Notes Catalog title 3151A+ is distinct from 3151A and base 3151. Prefer matching the exact ordering P/N and emulation mode when replacing legacy units.

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.

performance and arbitrary waveform capability in an economical VXI format. Outputs span about 100 uHz to 50 MHz with 12-bit vertical resolution and up to 512 k arbitrary waveform buffer. Included WaveCAD software supports sophisticated waveform creation. The 3151A+ is fully backwards compatible with the 3151A and can optionally emulate legacy 3151 models via an emulation switch for TPS compatibility. Ordering examples include 407824-001 (64 k), 407824-002 (512 k), and 1 ppm TCX0 variants (407824-011/-012). Later succeeded by the 3151B.

Applications

VXI ATE stimulus; drop-in replacement for 3151/3151A with optional legacy emulation; arbitrary and standard waveform generation with WaveCAD.

Key Features

- Single-slot C-size VXI 100 MS/s waveform generator
- Backwards compatible with 3151A; optional 3151 emulation switch
- 12-bit vertical resolution; up to 512 k ARB memory
- Frequency about 100 uHz to 50 MHz class
- Amplitude to about 16 Vpk-pk into 50 ohm (family class)
- WaveCAD included / compatible
- VXIplug&play soft front panel and drivers
- Ordering class 407824-xxx

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	3151A+ (3151A+)
Manufacturer	Astronics Test Systems / EADS / Racal Instruments
Instrument Type	VXI arbitrary / function waveform generator
Form Factor	C-size, single-slot VXI
Sample Rate	100 MS/s
Vertical Resolution	12 bits
Waveform Memory	64 k or 512 k (ordering dependent)
Frequency Range	about 100 uHz to 50 MHz
Compatibility	3151A default; optional 3151 emulation mode
Software	WaveCAD; VXIplug&play

Ordering Examples: 407824-001 (64 k); 407824-002 (512 k); 407824-011/-012 (1 ppm)

Successor: 3151B (250 MS/s class)

Standard Operating Conditions

Set emulation switch appropriately for the TPS under test. Confirm memory depth and TCX0 option from the installed configuration.

Operational Notes

Catalog title 3151A+ is distinct from 3151A and base 3151. Prefer matching the exact ordering P/N and emulation mode when replacing legacy units.

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.