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Data Sheet

August 2, 2026

ASTRONICS / EADS / RACAL

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

Astronics / EADS / Racal 3151 100MS/s Waveform Generator The Astronics / EADS / Racal 3151 (3151) is the original single-slot C-size VXIbus 100 MS/s waveform generator in the Racal Instruments 3151 family. It provides standard and arbitrary waveform generation with 12-bit vertical resolution and configuration-dependent memory (64 k or 512 k class, with optional 1 ppm reference). Frequency coverage is about 100 uHz to 50 MHz class with amplitudes suitable for VXI ATE stimulus (up to about 16 Vpk-pk into 50 ohm family class). WaveCAD and VXIplug&play drivers support the series. Original ordering used 407382-xxx; 3151A / 3151A+ / 3151B are later replacements with emulation options. The Astronics / EADS / Racal 3151 (3151) is the original single-slot C-size VXIbus 100 MS/s waveform generator in the Racal Instruments 3151 family. It provides standard and arbitrary waveform generation with 12-bit vertical resolution and configuration-dependent memory (64 k or 512 k class, with optional 1 ppm reference). Frequency coverage is about 100 uHz to 50 MHz class with amplitudes suitable for VXI ATE stimulus (up to about 16 Vpk-pk into 50 ohm family class). WaveCAD and VXIplug&play drivers support the series. Original ordering used 407382-xxx; 3151A / 3151A+ / 3151B are later replacements with emulation options. Legacy VXI waveform stimulus; TPS environments written for base 3151; standard a



MODEL

**Astronics / EADS /
Racal 3151**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

3151

LISTING

[https://aumictechlabs.c
om/products/3151-2/](https://aumictechlabs.com/products/3151-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Astronics/EADS/Racal 3151 is a C-sized VXIbus waveform generator that combines function generation, pulse generation, programmable sequencing, and arbitrary waveform synthesis into a single module. Operating at 100 MS/s with 12-bit vertical resolution, it delivers complex signal generation across a 512k-point arbitrary waveform buffer and supports up to 4096 segmentable waveforms. The instrument generates standard waveforms - sine, square, triangle, sinc, ramp, pulse, DC, exponential, and Gaussian pulse - with flexible triggering, advanced sequencing, and modulation capabilities including AM, FM, PM, PWM, 3D, and amplitude/frequency hopping. Though manufacturer support has ended, third-party suppliers continue to stock and support the 3151, with optional legacy emulation available for Test Program Set compatibility. Technical Specifications Sampling Rate: 100 MS/s Vertical Resolution: 12-bit Arbitrary Waveform Buffer: 512k points maximum Waveform Memory: Segmentable; up to 4096 waveforms of variable size Frequency Range: 100 Hz to 50 MHz (sine and square waves to 50 MHz) Amplitude Output (open circuit): 20 mV to 32 V(pk-pk) Amplitude Output (50 Ω load): 10 mV to 16 V(pk-pk) Amplitude Resolution: 4 digits Trigger Delay: Up to 2 M wave points Sweep Range: Linear/log sweep up to 100 MHz Key Features Standard and arbitrary waveform generation Programmable sequencer with looping and conditional jumps External gate and trigger source inputs Modulation modes: AM, FM, PM, PWM, 3D, amplitude/frequency hopping VXIbus integration with flexible trigger line combining and sync capability WaveCAD™ software for waveform design VXIplug&play drivers for LabWindows/CVI and LabVIEW (Windows 98, NT, 2000) Compatibility & Integration Single-slot C-sized VXI module Fully backwards compatible with Model 3151A Optional emulation for legacy 3151, 3151A, and 3151A+ models Front panel connectors compatible with legacy 3151 family

Features & description

From manufacturer datasheet

Features

- Single-slot C-size VXI 100 MS/s waveform generator
- Standard and arbitrary waveforms
- 12-bit vertical resolution
- 64 k or 512 k memory configurations (ordering dependent)
- Optional 1 ppm reference configurations
- Frequency about 100 uHz to 50 MHz class
- WaveCAD / VXIplug&play family support
- Related successors: 3151A, 3151A+, 3151B

3151 Characteristics / Specifications

PARAMETER	VALUE
Model	3151 (3151)
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 class
Vertical Resolution	12 bits
Waveform Memory	64 k or 512 k (407382-001/-002 class)
Frequency Range	about 100 uHz to 50 MHz class
Amplitude	up to about 16 Vpk-pk into 50 ohm (family class)
Ordering Class	407382-xxx (obsolete; replace with 3151A+/3151B per cross-reference)
Software	WaveCAD; VXIplug&play Standard Operating Conditions Operate in improperly cooled VXI mainframe. Confirm memory and oscillator options from the installed unit before assuming 512 k or 1 ppm performance. Operational Notes Base 3151 differs from 3151A and 3151A+ in firmware/ID and options. When replacing, use the Astronics cross-reference to select the correct 3151A+ or 3151B emulation configuration.
Related successors	3151A, 3151A+, 3151B

3151 Specifications

PARAMETER	VALUE
Astronics / EADS / Racal 3151 100MS/s Waveform Generator	Overview
Applications	Legacy VXI waveform stimulus; TPS environments written for base 3151; standard and arbitrary signal generation in C-size VXI systems.
Key Features	- Single-slot C-size VXI 100 MS/s waveform generator
Technical Specifications	Model: 3151 (3151)

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	3151 (3151)
Manufacturer	Astronics Test Systems / EADS / Racal Instruments
Instrument Type	VXI arbitrary / function waveform generator
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Software: WaveCAD; VXIplug&play

Standard Operating Conditions

Operate inproperly cooled VXI mainframe. Confirm memory and oscillator options from the installed unit before assuming 512 k or 1 ppm performance.

Operational Notes

Base 3151 differs from 3151A and 3151A+ in firmware/ID and options. When replacing, use the Astronics cross-reference to select the correct 3151A+ or 3151B emulation configuration.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.