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Data Sheet

August 13, 2026

ASTRONICS / EADS / RACAL

Astronics / EADS / Racal 3152A Precision PLL Waveform Generator

Astronics / EADS / Racal 3152A Precision PLL Waveform Generator The Astronics / EADS / Racal 3152A is a single-slot C-size VXIbus precision PLL waveform synthesizer combining function generation and arbitrary waveform generation. Standard waveforms span about 100 uHz to 50 MHz with 7-digit frequency resolution. Arbitrary waveforms sample at up to 100 MHz with 12-bit vertical resolution and memory options (64k standard; 256k/512k optional class). A built-in phase-locked loop locks to external references (about 500 Hz to 10 MHz class for standard waveforms). Amplitude ranges from 10 mV to 16 Vpk-pk into 50 ohm (20 mV to 32 Vpk-pk open circuit). Default reference is VXI CLK10 (about 100 ppm); optional internal TCXO provides 1 ppm accuracy. Features include counted burst, internal trigger, backplane phase synchronization, front-panel PLL, and VXI plug&play / WaveCAD support. The 3152A sits between base 3152 and later 3152B extended-performance models. The Astronics / EADS / Racal 3152A is a single-slot C-size VXIbus precision PLL waveform synthesizer combining function generation and arbitrary waveform generation. Standard waveforms span about 100 uHz to 50 MHz with 7-digit frequency resolution. Arbitrary waveforms sample at up to 100 MHz with 12-bit vertical resolution and memory options (64k standard; 256k/512k optional class). A built-in phase-locked loop locks to external reference



MODEL

**Astronics / EADS /
Racal 3152A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

3152A

LISTING

[https://aumictechlabs.c
om/products/3152a-2/](https://aumictechlabs.com/products/3152a-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Astronics/EADS/Racal 3152A is a VXIbus single-slot C-size synthesized waveform generator combining function generation and arbitrary waveform synthesis. It delivers precision frequency control and low phase noise through an integrated phase-locked loop, making it ideal for demanding test, calibration, and signal simulation across military and commercial applications. The 3152A improves upon its predecessor with high-speed commands, binary download modes, and an accelerated internal CPU for faster test sequence execution.

Technical Specifications

Waveform Generation Arbitrary waveforms: 100 MHz sampling rate, 12-bit vertical resolution
Standard waveforms: Sine, Square, Triangle, Ramp, Pulse, DC, Exponential Pulse, Gaussian Pulse, Sinc
Sequenced waveforms: Linkage of multiple segments and bursts for complex pulse patterns
Swept waveforms: Frequency sweep capability for sine, square, triangle waveforms

Frequency Performance Standard waveform range: 100 μ Hz to 50 MHz
Arbitrary waveform clock rates: 100 mHz to 100 MHz
Frequency resolution: 7-digit programming capability
PLL locks to external analog signals; 4-digit frequency readback up to 10 MHz
Default CLK10 reference: 100 ppm accuracy and stability
Optional internal TCXO: 1 ppm accuracy and stability with full 7-digit frequency programming

Amplitude Characteristics Open circuit: 20 mV to 32 Vp-p programmable
50 Ω load: 10 mV to 16 V programmable

Key Features Front-panel PLL with external signal phase-locking to 30 Vrms
Waveform memory for storage and rapid complex waveform execution
High-speed command processing and binary download modes
VXIbus integration for seamless platform compatibility

Typical Applications Military and commercial test platforms, frequency response analysis, pulse pattern generation, signal simulation, and precision calibration requiring stable, low-noise synthesis.

Compatibility & Integration VXIbus architecture supports standard test platform integration on military and commercial systems.

Features & description

From manufacturer datasheet

Features

- Single-slot C-size message-based VXI synthesizer

3152A Characteristics / Specifications

PARAMETER	VALUE
Model	3152A
Manufacturer	Astronics Test Systems / EADS / Racal Instruments
Instrument Type	VXI precision PLL waveform / arbitrary generator
Form Factor	C-size, single-slot, message-based VXI
Sample Clock (Arbitrary)	100 mHz to 100 MHz
Vertical Resolution	12 bits
Waveform Memory	64k standard; 256k or 512k optional class
Standard Waveform Frequency	100 uHz to 50 MHz
Frequency Resolution	7 digits (with suitable reference)
Amplitude into 50 ohm	10 mV to 16 Vpk-pk
Amplitude Open Circuit	20 mV to 32 Vpk-pk
Amplitude/Offset Resolution	4 digits
Reference Default	CLK10 about 100 ppm
Reference Optional	internal TCXO 1 ppm
PLL External Lock (std waveforms)	about 500 Hz to 10 MHz class
Sine Spectral Purity	high-SNR synthesizer class (3152/3152A)
Operating Modes	normal, gated, burst, phase class
Protocol	A16/A24/D16 slave, message-based
Connectors	P1, P2 VXI; front TRIG/PLL IN, CLOCK IN, SYNC OUT, PM IN class
Software	WaveCAD; VXIplug&play LabVIEW/CVI class
Related Models	3152 (base); 3152B (extended 250 MS/s class successor)
Ordering Class	407510-xxx family variants (memory/TCXO options) Notes Specs from Racal/Astronics 3152/3152A family datasheets. Confirm faceplate 3152A vs 3152/3152B and installed memory/TCXO option before assuming 512k or 1 ppm performance. 3152B extends sample rate and vertical resolution beyond 3152A.

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 models.

Applications

VXI ATE precision stimulus; PLL-locked function and arbitrary waveforms; telecom and high-SNR sine/square generation; replacement/legacy support for 3152-series TPS; synchronized multi-module waveform systems.

Key Features

- Single-slot C-size message-based VXI synthesizer
- Function generator plus arbitrary waveform generator
- External PLL lock; phase modulation input
- Standard waveforms 100 uHz to 50 MHz
- Arb sample clock to 100 MHz, 12-bit
- Optional 1 ppm TCX0 reference
- Built-in frequency counter class features on family
- VXIplug&play and WaveCAD compatible

Technical Specifications

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Instrument Type	VXI precision PLL waveform / arbitrary generator

Specifications

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Notes

Specs from Racal/Astronics 3152/3152A family datasheets. Confirm faceplate 3152A vs 3152/3152B and installed memory/TCXO option before assuming 512k or 1 ppm performance. 3152B extends sample rate and vertical resolution beyond 3152A.

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
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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.