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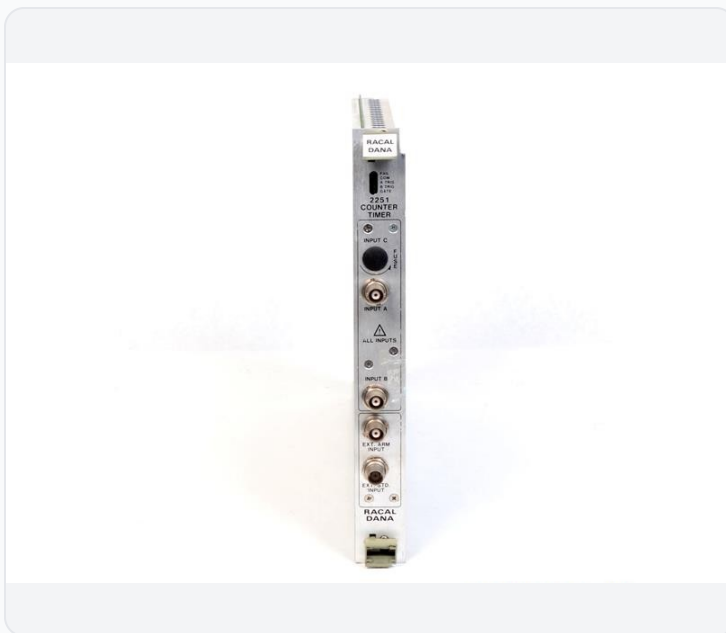
Data Sheet

August 2, 2026

ASTRONICS / EADS / RACAL

Astronics / EADS / Racal 2251 VXI Counter Timer

Astronics / EADS / Racal 2251 VXI Counter Timer The Astronics / EADS / Racal 2251 (2251) is a single-slot C-size VXIbus universal counter/timer module from Racal Instruments for automated test and measurement. The 2251/2251A provides precision frequency and time-interval measurement with extensive arming and triggering control, operating under VXI Slot 0 resource manager direction with VXIbus Revision 1.4 compliance. Standard channels measure DC to about 200 MHz on Channel A and DC to about 160 MHz on Channel B; optional Channel C (Option 41) extends frequency measurement to about 1.3 GHz. Time-interval resolution is about 1 ns single-shot (about 100 ps with averaging). Remote control is via VXIbus only—no local front-panel operation. Related Racal VXI counter family includes 2201 benchtop and 2461 VXI modules. The Astronics / EADS / Racal 2251 (2251) is a single-slot C-size VXIbus universal counter/timer module from Racal Instruments for automated test and measurement. The 2251/2251A provides precision frequency and time-interval measurement with extensive arming and triggering control, operating under VXI Slot 0 resource manager direction with VXIbus Revision 1.4 compliance. Standard channels measure DC to about 200 MHz on Channel A and DC to about 160 MHz on Channel B; optional Channel C (Option 41) extends frequency measurement to about 1.3 GHz. Time-interval resolution is about 1

**MODEL****Astronics / EADS /
Racal 2251****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****2251****LISTING**<https://aumictechlabs.com/products/2251-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Astronics / EADS / Racal 2251 is a single-slot, C-size VXI counter timer module engineered for precision measurement applications requiring extensive arming and triggering control. Installed in a VXIbus-compatible mainframe and controlled remotely over VXIbus, it delivers frequency, period, time interval, pulse width, rise/fall time, frequency ratio, phase, and totalizing measurements across multiple input channels with nanosecond-level resolution. Technical Specifications Form Factor & Control Single-slot, C-size VXI module VXIbus System Specification Revision 1.4 compatible Remote VXIbus control only; no local control NSN: 6625-01-371-8269

Frequency Measurement Channel A: DC to 200 MHz Channel B: DC to 160 MHz Channel C (Option 41): 40 MHz to 1.3 GHz Resolution: Up to 9 digits per second at 1 GHz; 10 nHz at 10 Hz in one second Time & Period Measurement Period: 5 nS (Channel A), 6.25 nS (Channel B) Time Interval: -2 ns to $1 \times 10^9 \text{ sec}$; 1 ns (single-shot), 100 ps (average mode) Pulse Width: 5 ns to 20 ms Input Conditioning Sensitivity: <100 MHz: 25 mVrms, 75 mVp-p Input Voltage Range: $\pm 5.1 \text{ V}$ or $\pm 42 \text{ V}$ Trigger Resolution: 2.5 mV (manual mode) Low Pass Filters: 50 kHz per channel Measurement Functions Frequency Ratio: Channel A/B; Channel C/B (Option 41, to 1.3 GHz) Phase Measurement: Phase A relative to B; 0.10 to 360 degrees Totalizing: Total A by B; manual totalize modes Rise/Fall Time: Programmable trigger level -5.1 V to $+5.1 \text{ V}$ Check Mode operation Accuracy & Performance Accuracy: $\pm \text{Resolution} \pm \text{Timebase Error} \times \text{Frequency}$ VXIbus CLK10: 100 ppm typ. Typical Applications Frequency and period measurement; time interval and pulse width characterization; rise/fall time analysis; phase relationship determination; event counting and frequency ratio computation. Compatibility & Integration Operates within VXIbus mainframe environments. No standalone operation.

Features & description

From manufacturer datasheet

Features

- Single-slot C-size VXI universal counter/timer
- Channel A: DC to about 200 MHz; Channel B: DC to about 160 MHz
- Optional Channel C to about 1.3 GHz (Option 41)
- About 1 ns single-shot TI resolution (about 100 ps averaged)
- Extensive arming and triggering control
- VXIbus Revision 1.4; remote VXI control only
- Microprocessor-controlled measurement engine
- Related: 2251A revision; 2461 VXI family; 2201 benchtop class

2251 Characteristics / Specifications

PARAMETER	VALUE
Model	2251 (2251A revision class)
Manufacturer	Astronics Test Systems / EADS / Racal Instruments
Instrument Type	Universal counter / timer VXI module
Form Factor	Single-slot C-size VXIbus
Frequency Range (standard)	ChannelADC to about 200 MHz; ChannelBDC to about 160 MHz
Frequency Range (Option 41)	ChannelCabout 40 MHz to about 1.3 GHz; 50 Ω input
Time Interval Resolution	about 1 ns single-shot; about 100 ps with averaging
Time Interval Range	about -2 ns to 800,000 s (family manual class)
Control	VXIbus remote only (Racal command set)
VXI Compliance	Revision 1.4
Ordering Class Examples	404681-005 / 404675-005 (confirm faceplate) Standard Operating Conditions Install in a VXI mainframe with Slot 0 resource manager. Configure input impedance, attenuation, and trigger levels per signal. Select timebase option when absolute accuracy is required.
Channel A	DC to about 200 MHz; Channel B: DC to about 160 MHz
Related	2251A revision; 2461 VXI family; 2201 benchtop class

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
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Control	VXIbus remote only (Racal command set)
VXI Compliance	Revision 1.4

Options Class: Option 11 precision 10 MHz reference; Option 41 Channel C (1.3 GHz); Option 02M CIIL/MATE; Option 10 external reference multiplier

Ordering Class Examples: 404681-005 / 404675-005 (confirm faceplate)

Standard Operating Conditions

Install inaVXI mainframe with Slot 0 resource manager. Configure input impedance, attenuation, and trigger levels per signal. Select timebase option when absolute accuracy is required.

Operational Notes

Confirm 2251 vs 2251A faceplate and installed options (especially Option 41 Channel C) before assuming GHz-range capability. No local front-panel control-plan VXI programming or Soft Front Panel access.

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.