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Data Sheet

August 14, 2026

AMETEK / VTI INSTRUMENTS / VXI TECHNOLOGY

Ametek / VTI Instruments / VXI Technology VT1413C 64-Channel Scanning A/D Converter

The VT1413C is the VTI/Agilent continuation of the HP E1413C 64-channel 16-bit scanning A/D. OEM E1413C specification appendix lists plus or minus 62.5 mV to plus or minus 16 V ranges, 100 krdgs/s aggregate with filter off, 16-bit resolution including sign, greater than 100 MOhm differential input, and minus 105 dB CMR 0 to 60 Hz. VXI data acquisition of voltage, thermocouple, RTD, thermistor, resistance, and strain using SCPs in C-size mainframes. Measurement Resolution: 16 bits including sign DC Voltage Ranges Option 11 or 12: plus or minus 62.5 mV to plus or minus 16 V full scale AMETEK VTI VT1413C 64 Channel Scanning A/D Converter (HP E1413C) The VT1413C is the VTI/Agilent continuation of the HP E1413C 64-channel 16-bit scanning A/D. OEM E1413C specification appendix lists plus or minus 62.5 mV to plus or minus 16 V ranges, 100 krdgs/s aggregate with filter off, 16-bit resolution including sign, greater than 100 MOhm differential input, and minus 105 dB CMR 0 to 60 Hz. VXI data acquisition of voltage, thermocouple, RTD, thermistor, resistance, and strain using SCPs in C-size mainframes.



MODEL

**Ametek / VTI
Instruments / VXI
Technology
VT1413C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

VT1413C

LISTING

**[https://aumictechlabs.c
om/products/vt1413c-
3/](https://aumictechlabs.com/products/vt1413c-3/)**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Ametek VT1413C is a C-size, single-slot VXI module that delivers 64-channel scanning analog-to-digital conversion for data acquisition and computer-aided test systems. Operating at 16-bit resolution with 0.01% reading accuracy, this register-based converter handles scanning rates up to 100 kSa/s (divided by active channels) and stores data in a 64 kSample dual-ported FIFO buffer for rapid transfers to the controller.

Technical Specifications

Resolution: 16 bits (including sign) Channels: 64-channel scanning configuration Sampling Rate: Maximum 100 kSa/s, divided by number of active channels (1–64) Memory: 64 kSample dual-ported FIFO buffer Accuracy: 0.01% of reading per single sample; overall measurement accuracy depends on installed SCP module Input Impedance: 100 m Ω differential (SCP input impedance) Drift Error: 10 μ V/ $^{\circ}$ C $\div$ SCP gain per $^{\circ}$ C change from CAL:ZERO temperature (after 5-minute stabilization) Input Range: Basic $\pm$ 16 V full-scale with auto-ranging gains (x1, x4, x16, x64, x256); extended to 60 V with VT1513A attenuator SCPKey Features Programmable scanning modes with flexible sequencing and auto-advance capability Automatic self-calibration routines; periodic calibration via external voltage standard Multifunctional measurement within individual scans: DC voltage, temperature, resistance, strain Real-time current value table for live monitoring Support for up to eight Signal Conditioning Plug-on (SCP) daughter boards - one per eight channels Optional terminal blocks: QUIC (Option 013) or screw connectors (Option 011)

Typical Applications

Data acquisition systems requiring simultaneous multi-channel sampling, thermal and strain monitoring, automated test benches, and laboratory instrumentation where signal conditioning and range flexibility are essential.

Compatibility & Integration

Mounts in any VXI mainframe supporting C-size, single-slot register-based modules. Scalable via SCP daughter boards, each offering buffering, filtering, amplification, sample-and-hold, or bridge excitation functions. Specific measurement specifications determined by selected SCP modules.

VT1413C Characteristics / Specifications

PARAMETER	VALUE
Model	VT1413C / HP E1413C
Channels	64
Measurement Resolution	16 bits including sign
DC Voltage Ranges Option 11 or	plus or minus 62.5 mV to plus or minus 16 V full scale
Maximum Reading Rate Filter Off	100000 rdgs/s divided by channels in scan
Rate Example 64 Channels Filter Off	1.56 krdgs/s per channel
Rate Example 16 Channels Filter Off	6.25 krdgs/s per channel
Maximum Reading Rate Filter On	6400 rdgs/s divided by channels in scan
Thermocouple Range	minus 200 to plus 1700 C
Thermistor Range Option	minus 80 to plus 160 C
RTD Range Option	minus 200 to plus 850 C
Resistance Range Option 15 with	512 ohm to 131 kOhm FS
Strain Range	25000 microstrain or gage linear limit
Input Impedance	greater than 100 MOhm differential
Common Mode Rejection 0 to 60 Hz	minus 105 dB
Maximum Input Operating	less than plus or minus 16 V peak
Damage Level	greater than plus or minus 42 V peak
On Board Current Source	122 uA plus or minus 0.02 percent with plus or minus 17 V compliance
Linearity Class	0.01 percent of reading on listed A/D ranges
Offset Error 16 V Range 90 Day	488 uV at 23 C plus or minus 1 C after CAL
Trigger Timer Accuracy	100 ppm 0.01 percent from minus 10 C to plus 70 C
External Trigger	TTL negative true 100 ns minimum pulse width
SCP Power E1413C	1 A plus or minus 24 V and 3.5 A 5 V
Cooling Average	34 W/slot
Bus	C-size VXIbus D32 onCversion

PARAMETER	VALUE
Terminal Module Gradient Addendum	plus or minus 0.6 C when using HP terminal module as isothermal reference

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	
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Notes

From HP E1313A/E1413C High Speed A/D Module User Manual Appendix A. VTI VT1413C is the same scanning A/D; SCP options set exact analog path.

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.