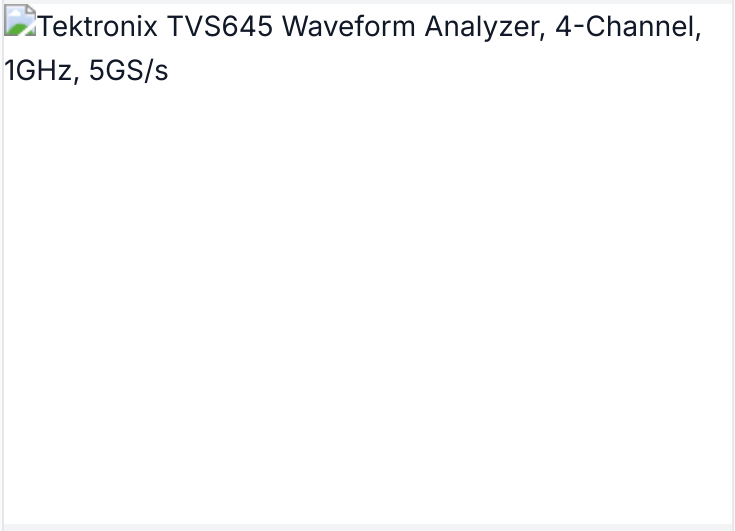
Aumictech
Test & measurement · bought, sold, repaired, calibrated

Data Sheet
July 30, 2026

TEKTRONIX

Tektronix TVS645 Waveform Analyzer, 4-Channel, 1GHz, 5GS/s

Tektronix TVS645 Waveform Analyzer, 4-Channel, 1GHz, 5GS/s The Tektronix TVS645 isaC-size, double-wide VXI waveform analyzer module in the TVS600 Series. Public Tektronix service and user manual references describe the TVS645 asafour-channel, high-performance acquisition module with 1 GHz analog bandwidth andamaximum real-time sample rate of 5 GS/s, suitable for automated test systems and detailed electronic signal characterization. The TVS645 is intended for VXI-based test and measurement systems requiring simultaneous multi-channel waveform capture. Typical uses include high-speed digital and analog signal characterization, transient capture, system-level verification, and automated production or R&D measurements using VXIplug&play compliant instrumentation. The Tektronix TVS645 isaC-size, double-wide VXI waveform analyzer module in the TVS600 Series. Public Tektronix service and user manual references describe the TVS645 asafour-channel, high-performance acquisition module with 1 GHz analog bandwidth andamaximum real-time sample rate of 5 GS/s, suitable for automated test systems and detailed electronic signal characterization. The TVS645 is intended for VXI-based test and measurement systems requiring simultaneous multi-channel waveform capture. Typical uses include high-speed digital and analog signal characterization, transient capture, system-level verification, and aut



MODEL **Tektronix TVS645**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **TVS645**	LISTING **https://aumictechlabs.com/products/tvs645-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Tektronix TVS645 is a 4-channel waveform analyzer built for VXI-based systems, delivering 1 GHz bandwidth and 5 GS/s simultaneous sampling across all channels. It combines oscilloscope-grade signal acquisition with advanced waveform analysis, enabling real-time single-shot capture and detailed characterization of high-speed electronic phenomena.Technical Specifications Acquisition Performance Bandwidth: 1 GHz Maximum sampling rate: 5 GS/s on all channels Sample interval: 200 ps/point minimum Acquisition memory: 15,000 samples (standard) or 30,000 samples (extended real-time mode) Acquisition modes: Auto-advance, Envelope, Average Channel-to-channel delay: 100 ps Rise time: 5 ns Channel Configuration 4 independent input channels Input sensitivity: 10 mV to 100 V full scale Input impedance: 1 MΩ or 50 Ω (selectable) Input coupling: AC or DC Maximum input voltage: 100 V (DC+peak) Triggering Sources: Input channels, front panel external trigger, VXI backplane triggers Internal modes: Main, Delayed, Edge, Pulse Trigger sensitivity: 0.25 V Waveform Analysis FFT analysis with digital filtering (High, Low, Bandpass) Waveform math and transforms Template testing and measurement limit testing Zoned waveform testingKey Features Real-time multi-channel acquisition with auto-advance fast rearm capability Extended memory support for longer capture windows Selectable input impedance for matched or high-impedance measurement Comprehensive trigger flexibility across multiple sources Fast computational engine for measurements and waveform analysisTypical Applications Signal integrity characterization, multi-channel transient capture, frequency-domain analysis, waveform quality assessment, and automated pass/fail testing.Compatibility & Integration Fully programmable via SCPI command set with VXIplug&play framework support (Windows, Windows NT). Integrates with Tektronix active and passive probes. Fast Data Channel for rapid waveform transfer.

Features & description

From manufacturer datasheet

Features

• 4 full-featured input channels • 1 GHz analog bandwidth • 5 GS/s maximum real-time sample rate • Simultaneous single-shot capture on all channels • 1 MOhm / 50 Ohm selectable inputs • C-size double-wide VXI module form factor • Digital real-time acquisition technology • Support for Tektronix active and passive probes • Auto-advance waveform acquisition with time-stamping

TVS645 Characteristics / Specifications

PARAMETER	VALUE
Model	TVS645
Instrument Type	VXI Waveform Analyzer Module
Form Factor	C-size, double-wide VXI
Input Channels	4
Maximum Sample Rate	5 GS/s
Analog Bandwidth	1 GHz
Vertical Resolution	8 bits
Record Length	15K
Time Resolution at Full Rate	200 ps per point
Input Impedance	1 MOhm +/-0.5% in parallel with 10 pF +/-3 pF, or 50 Ohm
Input VSWR	Less than or equal to 1.3:1 from DC to 500 MHz; less than or equal to 1.5:1 from 500 MHz to 1 GHz
Full Scale Sensitivity Range	Approximately 10 mV to 100 V full scale depending on range setting
Bandwidth Selections	20 MHz, 250 MHz, and FULL
Channel Isolation	At least 300:1 at 100 MHz
Acquisition	Digital real-time acquisition with simultaneous capture on all channels Family Context Within the TVS600 Series: - TVS645: 4 channels, 5 GS/s, 1 GHz - TVS641: 4 channels, 1 GS/s, 250 MHz - TVS625: 2 channels, 5 GS/s, 1 GHz - TVS621: 2 channels, 1 GS/s, 250 MHz
TVS645	4 channels, 5 GS/s, 1 GHz
TVS641	4 channels, 1 GS/s, 250 MHz
TVS625	2 channels, 5 GS/s, 1 GHz
TVS621	2 channels, 1 GS/s, 250 MHz
Bandwidth	andamaximum real-time sample rate of 5 GS/s, suitable for automated test systems and detailed electronic signal characterization.

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 acquisition module with 1 GHz analog bandwidth andamaximum real-time sample rate of 5 GS/s, suitable for automated test systems and detailed electronic signal characterization.

Applications
The TVS645 is intended for VXI-based test and measurement systems requiring simultaneous multi-channel waveform capture. Typical uses include high-speed digital and analog signal characterization, transient capture, system-level verification, and automated production or R&D measurements using VXIplug&play compliant instrumentation.

Key Features
- 4 full-featured input channels
- 1 GHz analog bandwidth
- 5 GS/s maximum real-time sample rate
- Simultaneous single-shot capture on all channels
- 1 MOhm / 50 Ohm selectable inputs
- C-size double-wide VXI module form factor
- Digital real-time acquisition technology
- Support for Tektronix active and passive probes
- Auto-advance waveform acquisition with time-stamping

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	TVS645
Instrument Type	VXI Waveform Analyzer Module
Form Factor	C-size, double-wide VXI
Input Channels	4
Maximum Sample Rate	5 GS/s
Analog Bandwidth	1 GHz
Vertical Resolution	8 bits
Record Length	15K
Time Resolution at Full Rate	200 ps per point
Input Impedance	1 MOhm +/-0.5% in parallel with 10 pF +/-3 pF, or 50 Ohm
Input VSWR	Less than or equal to 1.3:1 from DC to 500 MHz; less than or equal to 1.5:1 from 500 MHz to 1 GHz
Full Scale Sensitivity Range	Approximately 10 mV to 100 V full scale depending on range setting
Bandwidth Selections	20 MHz, 250 MHz, and FULL
Channel Isolation	At least 300:1 at 100 MHz

Channel-to-Channel Delay: 100 ps or less at full bandwidth with equal sensitivity and coupling
Acquisition: Digital real-time acquisition with simultaneous capture on all channels

Family Context
Within the TVS600 Series:
- TVS645: 4 channels, 5 GS/s, 1 GHz
- TVS641: 4 channels, 1 GS/s, 250 MHz
- TVS625: 2 channels, 5 GS/s, 1 GHz
- TVS621: 2 channels, 1 GS/s, 250 MHz

Operational Notes
The TVS645 is designed for use in VXIplug&play compliant systems and providesahigh-performance front end suitable for detailed characterization of electronic phenomena in automated environments.

Notes
This manual OEM source was compiled from official Tektronix TVS600 Series user and service manual references for the TVS645 waveform analyzer.

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

NIST-traceable calibration · SAM registered · 30-day returns
NAICS 423690 · 811210 · 541380
Generated July 30, 2026