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Data Sheet
July 31, 2026

TEKTRONIX

Tektronix DSA72004C 4 Ch 20 GHz Digital Signal Analyzer

Dimensions (HxWxD): 29.8 cm x 45.1 cm x 49.9 cm (11.74 in x 17.75 in x 19.29 in) Operating Altitude: Up to 3000 m (9843 ft) Examples from the DPO/DSA/MSO70000 ecosystem include USB 3.0 automated transmitter testing, Serial Data Link Analysis (SDLA), DisplayPort, DDR, SATA/SAS, Ethernet, HDMI, MIPI D-PHY/M-PHY, InfiniBand, and ultra-wideband spectral analysis options. Availability depends on installed software licenses and bandwidth. Bandwidth enhancement (DSP) provides magnitude and phase correction through the probe tip and can be disabled when maximum throughput is preferred. The DSA72004C ships asaserial-focused configuration of the 70000 Series, with mask testing, serial pattern trigger, and DPOJET included as standard rather than optional as on DPO models. Operating Altitude: Up to 3000 m (9843 ft) Examples from the DPO/DSA/MSO70000 ecosystem include USB 3.0 automated transmitter testing, Serial Data Link Analysis (SDLA), DisplayPort, DDR, SATA/SAS, Ethernet, HDMI, MIPI D-PHY/M-PHY, InfiniBand, and ultra-wideband spectral analysis options. Availability depends on installed software licenses and bandwidth. Bandwidth enhancement (DSP) provides magnitude and phase correction through the probe tip and can be disabled when maximum throughput is preferred. The DSA72004C ships asaserial-focused configuration of the 70000 Series, with mask testing, serial pattern trigger, and DPO

No photo

MODEL	CALIBRATION
Tektronix DSA72004C	N/A — off-catalog OEM datasheet
CONDITION	STATUS
See OEM documentation	Not listed on Aumictech inventory
RFQ / SKU	LISTING
DSA72004C	Off-catalog — OEM dat asheet only

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

Features & description

From manufacturer datasheet

Features

• Up to 20 GHz analog bandwidth on all four channels with user-selectable DSP bandwidth enhancement • 100 GS/s real-time sample rate on 1 or 2 channels; 50 GS/s on all four channels • Standard 31.25 MS record length per channel; optional memory up to 250 MS/ch (Option 20XL) • Greater than 300,000 wfms/s waveform capture rate with FastAcq / DPX acquisition • Typical rise time 18 ps (10% to 90%) and 14 ps (20% to 80%) • Pinpoint triggering with over 1400 trigger combinations • Real-time serial pattern trigger and protocol decode with built-in clock recovery up to 6.25 Gb/s (standard on DSA) • Communications mask testing (standard on DSA) • DPOJET jitter, timing, and eye-diagram analysis (standard on DSA) • Pattern lock triggering for long serial patterns with random-jitter removal • TekConnect probing interface and OpenChoice connectivity

DSA72004C Characteristics / Specifications

PARAMETER	VALUE
Model	DSA72004C
Instrument Type	Digital Serial Analyzer / Digital Signal Analyzer
Input Channels	4
Rise Time 10% to 90% (typical)	18 ps
Rise Time 20% to 80% (typical)	14 ps
Vertical Noise (typical)	Approximately 0.56% to 0.59% of full scale (50 mV/div, bandwidth filter on)
Effective Number of Bits (typical)	5.5 bits (50 mV/div, bandwidth filter on, max bandwidth up to 13 GHz, max sample rate)
DC Gain Accuracy	+/-2% of reading
Channel Delay (typical)	Less than or equal to 10 ps for any two channels at equal V/div and coupling
Input Coupling	DC (50 Ohm), GND
Input Impedance	50 Ohm +/-2% to +/-3%; 1 MOhm with TCA-1MEG adapter
Input Sensitivity (20 GHz settings)	20 mV/div to 500 mV/div (200 mV to 5 V full scale)
Position Range	+/-5 divisions
Vertical Resolution	8 bit (11 bit with averaging)
Passband Flatness (typical)	+/-0.5 dB to 50% of nominal bandwidth at 25 C (20, 50, 100, 250 mV/div) Acquisition And Timebase
Timing Resolution at 100 GS/s	10 ps
Standard Record Length (DSA)	31.25 MS on all four channels
Maximum Duration with Option 20XL	Approximately 2.5 ms
Time Base Range	10 ps/div to 1000 s/div
Time Resolution (ET/IT mode)	100 fs
Time Base Accuracy	+/-1.5 ppm initial accuracy; aging less than 1 ppm per year
Trigger Jitter (RMS)	1 ps typical with enhanced triggering off; less than 100 fs RMS with enhanced triggering on

PARAMETER	VALUE
Maximum FastAcq Waveform Capture Rate	Greater than 300,000 wfms/s per channel DSA Standard Serial Analysis Features Communications mask testing for industry-standard serial data streams Real-time serial pattern triggering and protocol decode with built-in clock recovery
Display	12.1-inch (307.3 mm) diagonal color TFT LCD, XGA 1024 × 768
Display Formats	YT, XY, XYZ
Color Palettes	Normal, Green, Gray, Temperature, Spectral, and user-defined
Waveform Styles	Vectors, Dots, Variable Persistence, Infinite Persistence MultiView Zoom for navigation of deep records TekConnect probe interface OpenChoice architecture for PC connectivity and analysis software Physical And Environmental
Dimensions (HxWxD)	29.8 cm x 45.1 cm x 49.9 cm (11.74 in x 17.75 in x 19.29 in)
Net Weight	Approximately 24 kg (53 lb)
Operating Temperature	+5 C to +45 C
Operating Altitude	Up to 3000 m (9843 ft) Optional Application Software Examples from the DPO/DSA/MSO70000 ecosystem include USB 3.0 automated transmitter testing, Serial Data Link Analysis (SDLA), DisplayPort, DDR, SATA/SAS, Ethernet, HDMI, MIPI D-PHY/M-PHY, InfiniBand, and ultra-wideband spectral analysis options. Availability depends on installed software licenses and bandwidth.
Bandwidth	on all four channels with user-selectable DSP bandwidth enhancement - 100 GS/s real-time sample rate on 1 or 2 channels; 50 GS/s on all four channels - Standard 31.25 MS record length per channel; optional memory up to 250 MS/ch (Option 20XL) - Great
Rise Time	18 ps (10% to 90%) and 14 ps (20% to 80%) - Pinpoint triggering with over 1400 trigger combinations - Real-time serial pattern trigger and protocol decode with built-in clock recovery up to 6.25 Gb/s (standard on DSA) - Communications mask testing (s

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	+5 C to +45 C
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Dimensions (HxWxD)	29.8 cm x 45.1 cm x 49.9 cm (11.74 in x 17.75 in x 19.29 in)
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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	DSA72004C
Instrument Type	Digital Serial Analyzer / Digital Signal Analyzer
Input Channels	4

User-selectable DSP-enhanced Bandwidth (-3 dB): 20 GHz
Hardware Analog Bandwidth (-3 dB): 16 GHz, typical

Specifications

PARAMETER	VALUE
Rise Time 10% to 90% (typical)	18 ps
Rise Time 20% to 80% (typical)	14 ps
Vertical Noise (typical)	Approximately 0.56% to 0.59% of full scale (50 mV/div, bandwidth filter on)
Effective Number of Bits (typical)	5.5 bits (50 mV/div, bandwidth filter on, max bandwidth up to 13 GHz, max sample rate)

Signal-to-Noise Ratio (typical): 34 dB
DC Gain Accuracy: +/-2% of reading
Channel Delay (typical): Less than or equal to 10 ps for any two channels at equal V/div and coupling
Channel-to-Channel Isolation (equal vertical scale): Greater than or equal to 120:1 (0 to 10 GHz); greater than or equal to 80:1 (greater than 10 to 12 GHz); greater than or equal to 50:1 (greater than 12 to 15 GHz); greater than or equal to 25:1 (greater than 15 GHz)

Specifications

PARAMETER	VALUE
Input Coupling	DC (50 Ohm), GND
Input Impedance	50 Ohm +/-2% to +/-3%; 1 MOhm with TCA-1MEG adapter
Input Sensitivity (20 GHz settings)	20 mV/div to 500 mV/div (200 mV to 5 V full scale)

Max Input Voltage, 50 Ohm: Less than 5.0 VRMS for greater than or equal to 100 mV/div; 1.0 VRMS for less than 100 mV/div (also determined by TekConnect accessory)

Specifications

PARAMETER	VALUE
Position Range	+/-5 divisions

PARAMETER	VALUE
Vertical Resolution	8 bit (11 bit with averaging)
Passband Flatness (typical)	+/-0.5 dB to 50% of nominal bandwidth at 25 C (20, 50, 100, 250 mV/div)

Acquisition And Timebase
Maximum Real-time Sample Rate, 1 or 2 Channels: 100 GS/s
Maximum Real-time Sample Rate, 3 or 4 Channels: 50 GS/s
Equivalent-time / Interpolated Mode (Maximum): 10 TS/s
Timing Resolution at 100 GS/s: 10 ps
Standard Record Length (DSA): 31.25 MS on all four channels
Optional Record Length: 62.5 MS (2XL), 125 MS (5XL), up to 250 MS on all four channels (20XL)
Maximum Duration at Highest Real-time Resolution with Standard DSA Memory: Approximately 0.31 ms

Specifications

PARAMETER	VALUE
Maximum Duration with Option 20XL	Approximately 2.5 ms
Time Base Range	10 ps/div to 1000 s/div
Time Resolution (ET/IT mode)	100 fs

Channel-to-Channel Deskew Range: +/-75 ns
Jitter Noise Floor (typical, BW enhance enabled): 400 fs

Specifications

PARAMETER	VALUE
Time Base Accuracy	+/-1.5 ppm initial accuracy; aging less than 1 ppm per year
Trigger Jitter (RMS)	1 ps typical with enhanced triggering off; less than 100 fs RMS with enhanced triggering on
Maximum FastAcq Waveform Capture Rate	Greater than 300,000 wfms/s per channel

DSA Standard Serial Analysis Features
Communications mask testing for industry-standard serial data streams
Real-time serial pattern triggering and protocol decode with built-in clock recovery
8b/10b serial pattern trigger and decode covering data rates up to 6.25 Gb/s
Pattern lock triggering synchronized to long serial test patterns with random-jitter removal
DPOJET jitter, timing, and eye-diagram analysis with contiguous cycle measurements and trend plots

Triggering And Debug
Pinpoint A/B trigger system with Silicon Germanium technology for high sensitivity and low trigger jitter
Over 1400 trigger combinations including glitch, runt, width, timeout, transition, pattern, state, setup/hold, and window typesBEvent Scan for capturing burst/eye data sequenced from anAevent
FastFrame segmented memory for widely spaced burst events
Advanced Search and Mark for isolating key events within long acquisitions
Acquisition modes including Sample, Peak Detect, Hi-Res, Average, Envelope, Waveform Database, FastAcq, and FastFrame

Display And Connectivity

Specifications

PARAMETER	VALUE
Display	12.1-inch (307.3 mm) diagonal color TFT LCD, XGA 1024 x 768

PARAMETER	VALUE
Display Formats	YT, XY, XYZ
Color Palettes	Normal, Green, Gray, Temperature, Spectral, and user-defined
Waveform Styles	Vectors, Dots, Variable Persistence, Infinite Persistence

MultiView Zoom for navigation of deep records
TekConnect probe interface
OpenChoice architecture for PC connectivity and analysis software

Physical And Environmental

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Net Weight	Approximately 24 kg (53 lb)
Operating Temperature	+5 C to +45 C
Operating Altitude	Up to 3000 m (9843 ft)

Optional Application Software
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Operational Notes
Bandwidth enhancement (DSP) provides magnitude and phase correction through the probe tip and can be disabled when maximum throughput is preferred. The DSA72004C ships asaserial-focused configuration of the 70000 Series, with mask testing, serial pattern trigger, and DPOJET included as standard rather than optional as on DPO models.

Notes
This manual OEM source was compiled from official Tektronix DPO/DSA/MSO70000 Series datasheet specifications for the DSA72004C Digital Serial Analyzer.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

Request a quote: **sales@aumictech.com** · +1 (484) 841-9341

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