TEKTRONIX

# TDS3034C

The Tektronix TDS3034C is a member of the TDS3000C series of Digital Phosphor Oscilloscopes (DPO). Combining a compact, portable design with 300 MHz bandwidth and 4 analog channels, it delivers real-time sample rates of up to 2.5 GS/s on all channels simultaneously. Equipped with a standard front-panel USB host port and a LAN interface, this model is built for versatile bench and field applications, with support for optional battery operation.

## SPECIFICATIONS

### General

| | |
|---|---|
| Display | 6.5 in. (165.1 mm) active-matrix TFT color LCD, 640 × 480 pixels (VGA) |

### Physical

| | |
|---|---|
| Power Supply | 100 V to 240 V AC ±10%, 47 Hz to 440 Hz (at 100 V to 120 V), 47 Hz to 63 Hz (at 115 V to 240 V), 75 W max.; optional battery power |
| Dimensions (W×H×D) | 375 mm × 176 mm × 149 mm mm |
| Weight | 3.2 kg kg |

### Vertical System (Analog Channels)

| | |
|---|---|
| Number of Channels | 4 |
| Analog Bandwidth | 300 MHz |
| Calculated Rise Time | 1.2 ns |
| Input Coupling | AC, DC, GND |
| Vertical Resolution | 9 bits |
| Vertical Sensitivity Range | 1 mV/div to 10 V/div (at 1 MΩ), 1 mV/div to 1 V/div (at 50 Ω) |
| DC Gain Accuracy | ±2% (±5% at 1 mV/div and 2 mV/div) |
| Maximum Input Voltage (50 Ω) | 5 Vrms with peaks less than ±30 V |

### Horizontal System (Timebase)

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|---|---|
| Timebase Range | 2 ns/div to 10 s/div |
| Timebase Accuracy | ±20 ppm over any interval ≥1 ms |
| Horizontal Delay Range | Pre-trigger: 0% to 100% of record length; Post-trigger: 0 to 10,000 divisions |

### Acquisition System

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|---|---|
| Maximum Real-Time Sample Rate | 2.5 GS/s on all channels |
| Record Length | 10 kpoints on all channels |
| Waveform Capture Rate | 3,600 wfms/s (continuous) |

### Trigger System

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|---|---|
| Trigger Coupling | AC, DC, Noise Reject, HF Reject, LF Reject |
| Trigger Level Range (Internal) | ±8 divisions from center of screen |

### Waveform Measurements & Math

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|---|---|
| Waveform Math Operators | Add, Subtract, Multiply, Divide |
| Anomaly Detection | WaveAlert® Automatic Waveform Anomaly Detection |
| Probe Interface | TekProbe® Level II interface (supports active, differential, and current probes) |

### Display & Interface

| | |
|---|---|
| Display Type | VGA Color Active Matrix LCD |
| Display Size | 6.5 in. (165.1 mm) diagonal |
| Display Resolution | 640 × 480 pixels |
| Waveform Display Modes | Vectors, Dots, Variable Persistence, Infinite Persistence |
| User Interface Languages | English, French, German, Italian, Spanish, Portuguese, Russian, Simplified Chinese, Traditional Chinese, Korean, Japanese |

### Connectivity & Storage

| | |
|---|---|
| External Trigger Input | No |

### Power Specifications

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|---|---|
| AC Input Voltage Range | 100 V to 240 V AC ±10% |
| Power Consumption | 75 W max. (typical) |
| Battery Operation Support | Optional (via TDS3BATC rechargeable lithium-ion battery pack, up to 3 hours) |

### Physical Characteristics

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|---|---|
| Rackmount Capability | Optional (via RM3000 Rackmount Kit) |
| Security Slot | Kensington lock slot |

### Environmental & Compliance

| | |
|---|---|
| Operating Altitude | Up to 3,000 m (9,843 ft) |

### Calibration & Warranty

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|---|---|
| Standard Warranty Period | 3 years |

### Standard Accessories

| | |
|---|---|
| Standard Probes Included | 4 × P6139A (10x passive, 500 MHz bandwidth) |

### Storage

| | |
|---|---|
| Internal Setup Storage | 10 front-panel setups |
| Internal Reference Waveform Storage | 4 reference waveforms |

### Advanced Analysis

| | |
|---|---|
| Waveform Limit Testing | Standard |

### General Specifications

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|---|---|
| Internal Real-Time Clock | Provides date and time stamp for stored data |

### Power

| | |
|---|---|
| Battery Run Time | Up to 3 hours (with optional TDS3BATC rechargeable battery pack) |

### Interfaces & Connectivity

| | |
|---|---|
| Optional Communication Module | TDS3GV (adds GPIB, RS-232, and VGA interfaces) |

### Physical & Power

| | |
|---|---|
| Optional Battery Pack Model | TDS3BATC lithium-ion battery pack |

### Environmental

| | |
|---|---|
| Operating Vibration | 0.31 g RMS, 5 Hz to 500 Hz |
| Non-Operating Vibration | 2.46 g RMS, 5 Hz to 500 Hz |
| Mechanical Shock (Non-Operating) | 50 g, 11 ms, half-sine |

### Measurement & Analysis

| | |
|---|---|
| Optional Application Modules | TDS3AAM (Advanced Analysis), TDS3LIM (Limit Testing), TDS3VID (Extended Video), TDS3SDI (601 Serial Digital Video) |

## TECHNOLOGY

Digital Phosphor Oscilloscope (DPO)

## APPLICATIONS

Electronic design, troubleshooting, service, maintenance, and education