

## 7026 Specifications

<b>Bandwidth</b>	500 MHz
<b>Channels</b>	4
<b>Sample rate on each channel</b>	5 GS/s
<b>Maximum record length</b>	10 K points on all models
<b>Vertical resolution</b>	9 Bits on all models
<b>Vertical sensitivity (/div)</b>	1 mV - 10 V on all models
<b>Vertical accuracy</b>	±2% on all models* <sup>1</sup> * <sup>1</sup> Derated at 0.025%/°C for temperatures above +30°C and below +18°C.
<b>Max input voltage (1 Megaohm)</b>	150 V <sub>RMS</sub> CAT I on all models (300 V CAT II with standard 10X probe)
<b>Position range</b>	± 5 div on all models
<b>BW limit</b>	20, 150 MHz
<b>Input coupling</b>	AC, DC, GND on all models
<b>Input impedance selections</b>	1 Megaohm in parallel with 13 pF or 50 Ohm
<b>Time base</b>	
<b>Range (/div)</b>	1 ns - 10 s/div
<b>Accuracy</b>	20 ppm
<b>Display monitor</b>	Color LCD
<b>Acquisition Modes</b>	
<b>DPO</b>	Captures and displays complex waveforms, random events and subtle patterns in actual signal behavior. DPOs are able to provide 3 dimensions of signal information in real time: Amplitude, time and the distribution of amplitude over time.
<b>Peak Detect</b>	High frequency and random glitch capture. Captures glitches as narrow as 1 ns.
<b>WaveAlert</b>	Monitors the incoming signals on all channels and alerts the user to any waveform that deviates from the normal waveform being acquired.
<b>Sample</b>	Sample data only.
<b>Envelope</b>	Max/min values acquired over one or more acquisitions.
<b>Average</b>	Waveform data from 2 to 512 (selectable) acquisitions is averaged.
<b>Single Sequence</b>	Use the Single Sequence button to capture a single triggered acquisition sequence at a time.
<b>Trigger System</b>	
<b>Main Trigger Modes</b>	Auto (supports Roll Mode for 40 ms/div and slower), Normal.
<b>B Trigger</b>	Trigger after time or events.
<b>Trigger After Time Range</b>	13.2 ns to 50 s.
<b>Trigger After Events Range</b>	1 to 9,999,999 events.
<b>External Trigger Input</b>	>1 Megaohm in parallel with 17 pF; Max input voltage is 150 V <sub>RMS</sub> .
<b>Trigger Types</b>	
<b>Edge</b>	Conventional level-driven trigger. Positive or negative slope on any channel. Coupling selections: DC, noise reject, HF reject, LF reject.
<b>Video</b>	Trigger on all lines or individual line, odd/even or all fields or analog HDTV formats (1080i, 1080p, 720p, 480p). See optional TDS3VID and TDS3SDI application modules for extended video triggering and measurement features.
<b>Logic (requires TDS3TRG)</b>	PATTERN: Specifies AND, OR, NAND, NOR when true or false for a specific time. STATE: Any logic state. Triggerable on rising or falling edge of a clock. Logic triggers can be used on combinations of 2 inputs (not 4).

<b>Pulse (requires TDS3TRG)</b>	WIDTH (or GLITCH): Trigger on pulse width less than, greater than, equal to or not equal to a selectable time limit ranging from 39.6 ns to 50 s. RUNT: Trigger on a pulse that crosses one threshold but fails to cross a second threshold before crossing the first again. SLEW RATE: Trigger on pulse edge rates that are either faster or slower than a set rate. Edges can be rising, falling or either.
<b>Comm (requires TDS3TMT)</b>	Provides isolated pulse triggering required to perform DS1/DS3 telecommunications mask testing per ANSI T1.102 standard.
<b>Alternate</b>	Sequentially uses each active channel as a trigger source.
<b>Measurement System</b>	
<b>Automatic Waveform Measurements</b>	Period, Frequency, +Width, -Width, Rise Time, Fall Time, +Duty Cycle, -Duty Cycle, +Overshoot, -Overshoot, High, Low, Max, Min, P-P, Amplitude, Mean, Cycle Mean, RMS, Cycle RMS, Burst Width, Delay, Phase, Area* <sup>1</sup> , Cycle Area* <sup>1</sup> . Display any four measurements from any combination of waveforms. * <sup>1</sup> Requires TDS3AAM module.
<b>Thresholds</b>	Settable in percentage or voltage.
<b>Gating</b>	Measurements can be gated using the screen or vertical cursors.
<b>Waveform Processing</b>	
<b>Deskew</b>	Channel-to-channel deskew $\pm 10$ ns may be manually entered for better timing measurements and more accurate math waveforms.
<b>Arithmetic Operators</b>	Add, subtract, multiply, divide.
<b>Autoset</b>	Single-button, automatic setup on selected input signal for vertical, horizontal and trigger systems.
<b>Display Characteristics</b>	
<b>Waveform Style</b>	Dots, vectors and variable persistence.
<b>Graticules</b>	Full, grid, cross-hair, frame, NTSC, PAL, SECAM, vectorscope 100% and 75% color bars (with optional TDS3VID and TDS3SDI video application modules).
<b>Format</b>	YT, XY and Gated XYZ (XY with Z-axis blanking available on TDS30X4C only).
<b>I/O Interface</b>	
<b>Hardcopy Port (standard)</b>	Centronics-type parallel.
<b>TDS3GV Communications Module</b>	GPIB (IEEE -488.2) programmability: Full talk/listen modes; Control of all modes, settings and measurements. VGA: Monitor output for direct display on large VGA-equipped monitors. DB-15 female connector, 31.6 kHz sync rate, EIA RS-343A compliant. RS-232-C interface programmability: Full talk/listen modes; Control of all modes, settings and measurements. Baud Rate up to 38,400. DB-9 male connector. Programmer manual: 071-0381-01.
<b>Hard Copy Capability</b>	
<b>Graphics File Formats</b>	Interleaf (.img), TIF, PCX (PC Paintbrush), BMP (Microsoft Windows) and Encapsulated Postscript (EPS).
<b>Printer Formats</b>	Bubblejet, DPU-3445, Thinkjet, Deskjet, Laserjet, Epson (9- and 24-Pin).
<b>Environmental &amp; Safety</b>	
<b>Temperature</b>	+5 to +50°C (operating), -20 to +60°C (nonoperating).
<b>Humidity</b>	20% to 80% RH below 32°C, derate to 30% RH at 45°C (operating), 5% to 90% RH below 41°C, derate to 30% RH at 60°C (nonoperating).
<b>Altitude</b>	to 3,000 m (operating), 15,000 m (nonoperating).
<b>Electromagnetic Compatibility</b>	Meets or exceeds EN55011 Class A radiated and conducted emissions; EN50082-1; FCC 47 CFR, Part 15, Subpart B, Class A; Australian EMC framework; Russian GOST EMC regulations.
<b>Safety</b>	UL3111-1, CSA1010.1, EN61010-1, IEC61010-1.