OSCILLOSCOPE SELECTION GUIDE





Resources to help you choose your next scope

Tektronix offers oscilloscopes for many different applications and uses. To help you choose the right scope for your needs, below are additional resources to understand the most common criteria for selecting a scope along with other helpful tips for determining your requirements. If you would like to talk with us directly about your needs please contact us at <u>https://www.tek.com/en/contact-tek</u>.

» 12 THINGS

AN OSCILLOSCOPE

TO CONSIDER WHEN CHOOSING





ABCs of Probes



Tektronix





<u>3 Series MSO, 4 Series MSO, 5 Series B MSO,</u> <u>6 Series B MSO Brochure</u>

Meet the family This selection guide provides an overview of the broad portfolio of Tektronix oscilloscopes. Whether you need an oscilloscope for teaching, troubleshooting, design validation or advanced research, Tektronix has an instrument for you. Image: Market Comparison of Comparison of the broad portfolio of Tektronix oscilloscopes. Whether you need an oscilloscope for teaching, troubleshooting, design validation or advanced research, Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix oscilloscope for teaching, troubleshooting, design validation or advanced research, Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of the broad portfolio of Tektronix has an instrument for you. Image: Market Comparison of Tektronix has an instrument for you. Image: Market Compa

	TBS1000C	TBS2000B	2 Series MSO	3 Series MDO
Bandwidth	50 MHz - 200 MHz	70 MHz - 200 MHz	70 MHz - 500 MHz	100 MHz - 1 GHz
Analog Channels	2	2 or 4	2 or 4	2 or 4
Digital Channels	-	-	16 (optional)	16 (optional)
Sample Rate	1 GS/s	1 GS/s - 2 GS/s	1.25 GS/s - 2.5 Gs/s	2.5 GS/s - 5 GS/s
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NEW!				

NEW!

	4 Series MSO	5 Series B MSO	6 Series B MSO
Bandwidth	200 MHz - 1.5 GHz	350 MHz - 2 GHz	1 GHz - 10 GHz
Analog Channels	4 or 6	4, 6 or 8	4, 6 or 8
Digital Channels	Up to 48 (optional)	Up to 64 (optional)	Up to 64 (optional)
Sample Rate	6.25 GS/s	6.25 GS/s	50 GS/s
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	DP070000C/DX	DP070000SX	8 Series Sampling		5 Series Low Profile Digitizer	6 Series Low Profile Digitizer
Bandwidth	8 GHz - 33 GHz	13 GHz - 70 GHz	30 GHz (optical BW)	Bandwidth	1 GHz	1 GHz - 8 GHz
Analog Channels	4	1 to 4	1 to 4 optical	Analog Channels	8	4 (SMA)
Digital Channels	16 (optional)	-	-	Digital Channels	Up to 64 (optional)	-
Sample Rate	25 GS/s - 100 GS/s	50 GS/s - 200 GS/s	300 kS/s (sampling)	Sample Rate	6.25 GS/s	25 GS/s
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TBS1000C Series

More features, more scope; the TBS1000C is in a class all on its own. With up to 200 MHz bandwidth, 32 automated measurements, and sample rates of up to 1 GS/s, the TBS1000C Series is designed for extensive monitoring and analysis activities. It can handle everyday test challenges without challenging your budget.

Analog Bandwidth	50 MHz, 70 MHz, 100 MHz, 200 MHz
Analog Channels	2
Sample Rate (per channel)	1 GS/s

- Two channel instruments
- Up to 1 GS/s sample rate on all channels
- Built-in EDU features including courseware
- 32 automated measurements, and FFT function for quick waveform analysis
- 5 year warranty as standard

LEARN MORE



TBS2000B Series

The TBS2000B Series, with up to 200 MHz bandwidth, a 9-inch WVGA display, 5-million-point record length and up to 2 GS/s sample rate, can capture and display significantly more signal to help you debug and validate designs faster. The front panel design facilitates accurate measurements and includes unique features for education labs.

Analog Bandwidth	70 MHz, 100 MHz, 200 MHz
Analog Channels	2 or 4
Sample Rate (per channel)	Up to 2 GS/s

- Large, 9-inch display, with 15 horizontal divisions lets you see more of your signal
- Up to 200 MHz bandwidth and four analog channels
- 32 automated measurements, and FFT function for quick waveform analysis
- TekVPI[®] probe interface supports active, differential, and current probes with automatic scaling and units
- Search and Mark features for easy identification of events that occur in the acquired waveform

NEW!



2 Series MSO

Unlock more space on your bench without compromising performance. At only 1.5 inches thick and less than 4 pounds, the 2 Series MSO is a fullfeatured, real-time touchscreen oscilloscope in a compact, portable form factor that feels like a tablet. On the benchtop, in the classroom, or to the field, take it wherever your measurement challenges take you.

Analog Bandwidth	70 MHz, 100 MHz, 200 MHz, 350 MHz, 500 MHz
Analog Channels	2 or 4
Digital Channels	16 (optional)
Analog Sample Rate	1.25 GS/s - 2.5 GS/s

- Optional two-slot battery pack supports up to 8 hours of battery life and can be hot swapped in the field
- Full suite of capture and analysis capabilities with advanced triggers, search and mark, math and measurements
- Optional 50 MHz integrated AFG and 4-bit pattern generator
- Supports decoding, triggering and analysis for the most common serial protocols
- Industry standard VESA mount for use with various accessories



3 Series MD0

The 3 Series mixed domain oscilloscope has an awardwinning user interface, the largest HD display in its class and more capabilities, including RF measurements with unique built-in hardware spectrum analyzer for EMI and IoT tests. All without using more bench space.

Bandwidth	100 MHz, 200, MHz, 350 MHz, 500 MHz, 1 GHz
Analog Channels	2 or 4
Digital Channels	16 (optional)
Sample Rate	Up to 5 GS/s

- The largest 11.6-inch HD (1920×1080) capacitive touch display in its class
- Award-winning user interface
- Optional 16 digital channels for mixed signal analysis
- Built-in spectrum analyzer available in 1 GHz or 3 GHz versions

LEARN MORE

• Optional built-in function generator



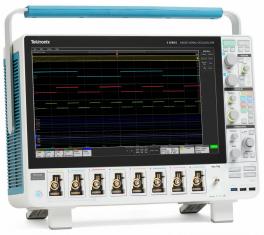
4 Series MSO

With the largest display and highest available channel count in its class, the 4 Series offers unprecedented insight in a bench-friendly package. And its made-fortouch user interface works exactly as you'd expect.

Bandwidth	200 MHz, 350 MHz, 500 MHz, 1 GHz, 1.5 GHz
Digital Channels	Up to 48 (optional)
Input Channels	4 or 6
Sample Rate	6.25 GS/s

- 13.3 inch, HD capacitive touch display
- 4 or 6 FlexChannel[™] inputs can each handle 1 analog or 8 digital signals
- 12-bit Analog-to-digital converters with enhanced resolution up to 16-bits
- Optional Arbitrary/Function generator
- Optional Power, Serial Bus, and Spectrum View analysis packages

NEW!



5 Series B MSO

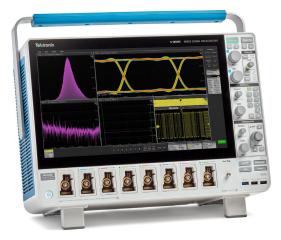
With a remarkably innovative pinch-swipe-zoom touchscreen user interface, the industry's largest high-definition display, and 4, 6, or 8 FlexChannel[™] inputs that let you measure one analog or eight digital signals, the 5 Series MSO is ready for today's toughest challenges, and tomorrow's too. It sets a new standard for performance, analysis, and overall user experience.

Bandwidth	350 MHz, 500 MHz, 1 GHz, 2 GHz
Digital Channels	Up to 64 (optional)
Input Channels	4, 6 or 8
Sample Rate	6.25 GS/s

- 15.6 inch, HD capacitive touch display delivers unmatched signal visibility
- 4, 6 or 8 FlexChannel[™] inputs can each handle 1 analog or 8 digital signals
- 12-bit Analog-to-digital converters with enhanced resolution up to 16 bits
- Maximum 500 Mpoints/ch record length
- Spectrum View spectrum analysis



OSCILLOSCOPE SELECTION GUIDE



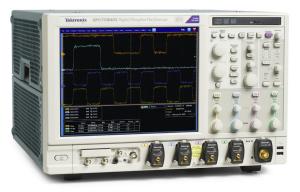
6 Series B MS0

For analyzing and debugging systems with GHz clock and bus speeds, the 6 Series B MSO provides the best signal fidelity with the lowest input noise and up to 10 GHz analog bandwidth. With its intuitive touchscreen user interface, a 15.6-inch high definition display and FlexChannel[™] inputs, the 6 Series is a high-performance instrument that's also a pleasure to use.

Bandwidth	1 GHz, 2.5 GHz, 4 GHz, 6 GHz, 8 GHz, 10 GHz
Digital Channels	Up to 64 (optional)
Input Channels	4, 6 or 8
Sample Rate	Up to 50 GS/s

- 15.6 inch, HD capacitive touch display delivers unmatched signal visibility
- 4 FlexChannel[™] inputs can each handle 1 analog or 8 digital signals
- Lowest noise at high sensitivity
- >70% noise reduction from previous generation oscilloscopes
- 12-bit Analog-to-digital converters with enhanced resolution up to 16 bits

LEARN MORE



MS0/DP070000C/DX Series

Whether you're at first power-up on your latest design, verifying compliance to the fastest standards, or researching fundamentals of the universe, these oscilloscopes deliver the performance, precision, and tools to get your job done faster.

Analog Bandwidth	4 GHz–33 GHz
Analog + Digital Channels	4 (DP0), 4 + 16 (MS0)
Sample Rate (2/4 Channels)	25 GS/s- 100/50 GS/s

- 4 to 33 GHz true analog bandwidth for measurements on the latest high-speed serial standards
- 100 GS/s sample rate on 2 channels
- 16 logic channels with 80 ps timing resolution for debug of digital and analog signals (MSO70000 models)
- iCapture One connection for analog and digital signals (MSO70000 models)
- Fastest waveform capture rate with >300,000 wfms/s maximum





DP070000SX Series

The DPO70000SX provides low-noise, real-time acquisition using Tektronix' patented Asynchronous Time Interleaving technology. Its compact, scalable package allows flexible system configurations. Get the most accurate real-time performance for ultrabandwidth measurement applications like coherent optical modulation, 100G/400G Datacom, wideband RF, and leading-edge research.

Analog Bandwidth	13–70 GHz, 13–33 GHz
Analog Channels	2–4, 4
Sample Rate	100–200 GS/s, 50–100 GS/s

- Wide range of models from 13 to 70 GHz bandwidth with low noise, high ENOB
- Compact package allows the scope to get very close to the device under test for accurate measurement results
- UltraSync architecture ensures precise data synchronization and convenient Master/Extension operation for scalability in multi-unit systems
- 200 GS/s sample rate for precise 5 ps timing resolution
- Up to 1 Gpoints record length with multiview zoom for quick navigation and advanced search





8 Series Sampling Oscilloscope

The 8 Series Sampling Oscilloscope provides a flexible, efficient solution for the research and design, validation, and manufacturing of optical devices. It combines a disaggregated architecture that's compact and easy to configure with an intuitive user interface, making it well suited for applying modern test methodologies on devices that demand faster, more complex signal modulations.

Optical Bandwidth	30 GHz (Multimode mode); >30 GHz Single mode
Optical Channels	Up to 4
Wavelength Range	750 to 1650 nm
Vertical Resolution	15.6 bits

- Best in class noise performance. Highest sensitivity for low power Multimode or Single Mode signal analysis
- Comprehensive signal analysis supporting complex optical measurement, eye diagram visualization, mask test, equalization, and others
- User reconfigurable, compact design with scaling from 1 to 4 optical channels as needed
- Waveform data streaming through network interface.
- Compliance testing for a wide range of industry NRZ / PAM4 standards, including 10G, 50G, 100G, 200G, and 400G IEEE 802.3TM standards



5 Series MSO Low Profile Digitizer

In applications that demand extreme channel density, the 5 Series MSO Low Profile Digitizer sets a new standard for performance. This mixed signal oscilloscope offers 8 input channels (plus AUX Trig) and 12-bit analog-to-digital converters in a compact package, only 3.5 inches high (2U). Replace your oscilloscopes and fit six times more channels into your existing rack space.

Bandwidth	1 GHz
Digital Channels	Up to 64 (optional)
Input Channels	8
Sample Rate	6.25 GS/s

- 8 FlexChannel[™] inputs with 1 GHz bandwidth
- 12-bit Analog-to-digital converter
- 125 Mpoints/ch record length
- Only 2 rack units (3.5 inches) high
- Aux trigger input



6 Series Low Profile Digitizer

Applications requiring high-speed digitizers shouldn't trade-off performance when turning on channels. The 6 Series Low Profile Digitizer sets a new standard by not interleaving sample rate, bandwidth or record length. You get the highest performance digitizer on all channels – all in a 2U space.

Bandwidth	1 GHz, 2.5 GHz, 4 GHz, 6 GHz, 8 GHz	
Input Channels	4 SMA inputs	
Sample Rate	25 GS/s	

- 1 GHz, 2.5 GHz, 4 GHz, 6 GHz, 8 GHz
- 12-bit Analog-to-digital converter
- 2 GHz RF capture bandwidth (span) with I/Q data offloading
- Only 2U rack units (3.5 inches) high
- Aux trigger input





2 Series MS0 and 3 Series MD0

Serial Bus Decoding and Advanced Analysis



	Options	2 Series MSO	3 Series MDO
	Aerospace serial trig. and analysis (MIL-STD-1553, ARINC429)		٠
	Audio serial trig. and analysis (I2S, LJ, RJ, TDM)		٠
d e	Automotive serial trig. and analysis (CAN, CAN FD, LIN)	٠	٠
Deco	Automotive serial trig. and analysis (FlexRay)		٠
Serial [Automotive sensor serial triggering and analysis (SENT)	•	
Sei	Computer serial triggering and analysis (RS-232/422/485/UART)	•	٠
	Embedded serial triggering and analysis (I ² C, SPI)	•	•
	USB serial triggering and analysis (USB 2.0 LS, FS, HS)		•
Advanced Analysis	Mask and limit testing		•
	Power measurement and analysis		٠

4 Series MS0, 5 Series B MS0 and 6 Series B MS0



Options	4 Series MSO	5 Series B MSO	6 Series B MSO
1-Wire serial decoding and analysis	•	•	•
8b10b serial decoding and analysis		•	•
Aerospace serial trig. and analysis (MIL-STD-1553, ARINC429)	•	•	•
Audio serial trig. and analysis (I2S, LJ, RJ, TDM)	•	•	•
Automotive serial trig. and analysis (CAN, CAN FD, LIN, FlexRay)	•	•	•
Automotive sensor serial triggering and analysis (SENT)	•	•	•
Computer serial triggering and analysis (RS-232/422/485/UART)	•	•	•
CXPI serial decoding and analysis	•	•	•
Embedded serial triggering and analysis (I ² C, SPI)	•	•	•
EtherCAT serial decoding and analysis	•	•	•
Ethernet serial triggering and analysis (10BASE-T, 100BASE-TX)	•	•	•
eSPI serial decoding and analysis eUSB2 serial decoding and analysis	•	•	•
	•	•	•
I3C serial decoding and analysis	•	•	•
Manchester triggering and analysis	•	•	•
MDIO serial decoding and analysis	•	•	•
MIPI D-PHY (CSI/DSI) decoding and analysis		•	•
NRZ serial decoding and analysis	•	•	•
Power management serial triggering and analysis (SPMI)	•	•	•
PSI5 serial decoding and analysis	•	•	•
SDLC serial decoding and analysis	•	•	•
SMBus serial decoding and analysis	•	•	•
SpaceWire serial decoding and analysis	•	•	•
SVID serial decoding and analysis	•	•	•
USB serial triggering and analysis (USB 2.0 LS, FS, HS)	•	•	•

4 Series MS0, 5 Series B MS0 and 6 Series B MS0 (continued)



	Options	4 Series MSO	5 Series B MSO	6 Series B MSO
Ð	Automotive Ethernet (10BASE-T1S) compliance solution			•
	Automotive Ethernet (100BASE-T1, 1000BASE-T1, 10BASE-T1S) automated compliance test application		٠	•
ian	DDR3 and LPDDR3 automated compliance solution			٠
Compliance	Ethernet (2.5G and 5G BASE-T) automated compliance solution			•
/ Co	Ethernet (10G BASE-T) automated compliance solution			•
Ce Ce	Ethernet (1000BASE-T, 100BASE-T, 10BASE-T, 10Base-T1L) automated compliance solution		•	•
nan	MIPI D-PHY 1.2 automated compliance solution			•
Conformance	MIPI C-PHY 2.0 automated compliance solution			•
Con	MIPI D-PHY 2.1 automated compliance solution			•
	Multi-Gigabit Automotive Ethernet (2.5G/5GBASE-T1) automated compliance solution			٠
	USB2.0 automated compliance test solution		•	•
	3-phase, inverter, motor, drive analysis		•	•
	3-phase power measurements and analysis	٠		
	Advanced jitter and eye analysis		•	•
	Advanced power measurement and analysis	٠	•	•
	Power measurements and analysis	٠		
alysi	DDR3 and LPDDR3 analysis and debug			•
Advanced Analysis	DQ0 measurements for inverter motor drives		•	•
JCeC	Enhanced security for instrument declassification	٠	•	•
dvai	Mask and Limit Testing	٠	•	•
	Mechanical measurements for inverter motor drives		•	•
	Removable SSD with Windows license		•	•
	User-defined filter creation tool		•	•
	Vector signal analysis (SignalVu-PC)		•	•
	Wide Bandgap SiC/GaN double pulse test measurements	٠	•	•

DP0/MS070000C/DX and DP070000SX



Option	DPO/MSO70000C/DX	DPO70000SX
64b/66b Serial Trigger and Analysis (Requires Opt. ST14G)		٠
8b/10b Serial Analysis	•	٠
8b/10b Serial Trigger and Analysis		٠
Aerospace Serial Triggering and Analysis (MIL-STD-1553B)	•	
Automotive Serial Triggering and Analysis (CAN/LIN/FlexRay)	•	
Computer Serial Triggering and Analysis (RS-232/422/485/UART)	•	٠
Custom Serial Analysis Kit for Developers	•	
Embedded Serial Analysis (10BASE-T and 100BASE-TX)	•	٠
	•	٠
Frame and Bit Error Rate Detector for High Speed Serial Stds (requires ST6G)	•	
⁰ Hi Speed Serial Bit Error Detector (Requires Opt. ST14G)		٠
High Speed Serial Link Training Analysis		٠
HSIC Essentials - Electrical Validation and Protocol Decode Solution (Optionally requires DJA for measurements)	•	
MIPI D-PHY (DSI / CSI2) Serial Analysis	•	
PCI Express Serial Analysis	•	٠
SSIC Protocol Decoder	•	٠
USB Serial Triggering and Analysis	•	٠
10GBASE-KR/KR4 Compliance and Debug Solution (Requires Opt. DJA, SR-CUST)	•	٠
10GBASE-TekExpress Conformance and Debug Solution	•	٠
10GBASE-TekExpress Conformance and Debug Solution 40GBASE-CR4 Debug and Automated Compliance Solution Automotive Ethernet (100BASE-T1, 1000BASE-T1) TekExpress Automated Compliance Test Solution	•	٠
Automotive Ethernet (100BASE-T1, 1000BASE-T1) TekExpress Automated Compliance Test Solution	•	٠
DDB Memory Rus Applysis (Requires Opt DIA)	•	•
DDR5 System-level Tx TekExpress Compliance/Debug Automation Software (Requires Options SDLA64, DJA, VET)	•	٠
DDR5 System-level Tx TekExpress Compliance/Debug Automation Software (Requires Options SDLA64,DJA,VET) DisplayPort 1.2 Source Test Automation Software	•	
DisplayPort 1.2 Source Test Automation Software (Requires Opt. DJA and 5XL)		•
DisplayPort 1.4 Source Test Automation Software	•	•

DP0/MS070000C/DX and DP070000SX (continued)



Option	DPO/MSO70000C/DX	DPO70000SX
Embedded Display Port (EDP) v1.4 TX Compliance Test Package		٠
Embedded Display Port 1.4 Essentials	•	٠
Embedded DisplayPort 1.3 Essentials	•	٠
Ethernet Compliance Testing		٠
Fiber Channel - 16G Essentials (Requires Opt. DJA)	•	•
HDMI 1.4 Compliance Testing	•	٠
HDMI 2.0 Advanced Analysis and Characterization Software for Rx tests	•	
HDMI 2.0 Advanced Analysis and Compliance Software for Rx tests upgrade option software for Tx tests	•	
HDMI 2.0 Advanced Analysis and Compliance Software for Tx tests	•	٠
HDMI 2.0 Direct Synthesis for RX testing		٠
HDMI 2.1 Advanced Analysis and Characterization Software for Rx tests	•	٠
HDMI 2.1 Advanced Analysis and Compliance Software for Rx tests	•	٠
HDMI 2.1 Advanced Analysis and Compliance Software for Tx tests	•	٠
HDMI Direct Synthesis for HDMI 1.4 (Requires Opt. HT3)	•	٠
 HDMI 2.0 Advanced Analysis and Compliance Software for Tx tests HDMI 2.0 Advanced Analysis and Compliance Software for Tx tests HDMI 2.1 Advanced Analysis and Characterization Software for Rx tests HDMI 2.1 Advanced Analysis and Compliance Software for Rx tests HDMI 2.1 Advanced Analysis and Compliance Software for Tx tests HDMI 2.1 Advanced Analysis and Compliance Software for Tx tests HDMI 2.1 Advanced Analysis and Compliance Software for Tx tests HDMI 2.1 Advanced Analysis and Compliance Software for Tx tests HDMI Direct Synthesis for HDMI 1.4 (Requires Opt. HT3) HDMI2.1 Advanced analysis and Compliance Software for eARC Rx tests HDMI2.1 Advanced analysis and Compliance Software for eARC Tx tests HDMI2.1 Advanced analysis and Compliance Software for eARC Tx tests IEEE-802.3bm: CAUI4 and IEEE-802.3bj: KR4/CR4 100Gbps Transmitter Compliance (Requires Opt. DJA and DJAN) IEEE-802.3bs/cd: 50-400GAUI, 50-200G-KR, 50-200G-CR, OIF-CEI (VSR, MR, LR) Electrical Transmitter Compliance 	•	٠
HDMI2.1 Advanced analysis and Compliance Software for eARC Tx tests	•	٠
IEEE-802.3bm: CAUI4 and IEEE-802.3bj: KR4/CR4 100Gbps Transmitter Compliance (Requires Opt. DJA and DJAN)	•	٠
IEEE-802.3bs/cd: 50-400GAUI, 50-200G-KR, 50-200G-CR, OIF-CEI (VSR, MR, LR) Electrical Transmitter Compliance (Requires Opt. DJA, DJAN, PAM4, SDLA64)	•	٠
LPDDR4 Memory Bus Electrical Validation and Analysis Oscilloscope Software (Requires Opt. DJA)	•	•
LVDS Tx Test Automation Software using TekExpress Framework	•	٠
Manual C-PHY Essentials Transmitter Solution	•	•
MHL 3.0 Advanced Analysis and Compliance Software for Tx, Rx, Dongle and Cable tests (requires Opt MHD)	•	
MHL Advanced Analysis and Compliance Software (Requires DJA and 2XL on DPO models)	•	
MHL Advanced Analysis and Compliance Software (Requires Opt. DJA and 2XL)		•
MIPI D-PHY 1.2 Tx Test Automation Software using TekExpress Framework	•	•

DPO/MS070000C/DX and DP070000SX (continued)



Option	DPO/MSO70000C/DX	DPO70000SX
MIPI M-PHY Transmitter Debug, Characterization and Compliance Test Solution (Requires Opt. DJA)	•	٠
MOST Essentials - Electrical Compliance and Debug Test Solution for MOST50 and MOST150 (Requires DJA)	•	
M-PHY Automated Receiver Solution	٠	
M-PHY Automated Transmitter Solution	•	
M-PHY Automated Transmitter Solution (Gear 1, 2, 3, 4)		٠
NBASE-T TekExpress Conformance and Debug Solution	•	٠
PCI Express® Gen1, Gen 2, and Gen 3 bundle TekExpress Compliance/Debug Automation Software (Requires Option DJA)	•	٠
PCI Express® Gen1/2 DPOJet Measurements Software Only [no TekExpress] (Requires Opt DJA)	•	•
PCI Express® Gen4 TekExpress Compliance/Debug Automation with DPOJet and SigTest Measurements Software (Requires Option PCE3, Option DJA and Option SR-PCIE)	•	٠
PCI Express® Gen5 Only Base-Only TekExpress Compliance/Debug Automation Software (Requires Option DJA)	•	٠
QPI 1.1 Test Automation Software	•	
SAS Transmitter Measurements includes a licensed set of WDP measurements	•	
SAS-3 Automated Tx Compliance Test Application (Requires Opt. DJA)		٠
SAS-3 Automated Tx Compliance Test Application. Compatible with all DPO/MSO70000C/DX series Oscilloscope	•	
SAS-3 TX Compliance Test Application	•	٠
SAS-3 WDP Transmitter Measurements (Requires Opt. SAS3-TSG)		٠
SAS4 DPOJET Essentials	•	•
SATA PHY/TSG/OOB Transmitter Tests for TekExpress.	•	•
SATA RSG/RMT Receiver Tests for TekExpress	•	•
SATA TekExpress SATA SW Bundle (TSG and RSG for Hosts or Devices)	٠	٠
SFP+ Compliance and Debug Solution - WDP Measurement (Requires Opt. DJA & SFP-TX)		•
SFP+ Compliance and Debug Solution – WDP Measurement (Requires Opt. DJA)	•	
SFP+ Compliance and Debug Solution (Requires Opt. DJA)	٠	•
SignalCorrect Cable, Channel, and Probe Compensation Software		•
Switch Matrix for PCIE - Multi Lane Automation	•	٠

MS0/DP070000C/DX and DP070000SX (continued)



	Option	DPO/MSO70000C/DX	DPO70000SX
e	Switch Matrix option for DisplayPort testing	•	
	Switch Matrix option for DisplayPort testing		٠
Conformance / Compliance (continued)	TEKEXP Upgrade for SATA RSG/RMT Receiver Tests for TekExpress	•	٠
omp (p	TekExpress Automated USB 3.0 Solution	•	٠
/ Co	TekExpress Ethernet Automated 10/100/1000 BASE-T Solution	•	٠
nce onti	Thunderbolt TX Compliance Test Application	•	
rma (c	USB 2.0 Automated Compliance Test Application	•	٠
onfo	USB 3.1 Automated TX Compliance Test Application	•	٠
ö	USB 3.2 Automated TX Compliance Test Application		٠
	USB Power Adapter/ EPS Compliance Automated Test Solution	•	٠
	Digital Serial Analysis Bundle (includes 5XL, DJA, MTH, ST6G)	•	
	DPOJET Noise, Jitter and Eye Analysis Tools (Requires Opt. DJA)	•	٠
	Frequency Counter-Timer		٠
sis	Jitter and Eye Analysis Tools - Advanced (DPOJET)	•	٠
Advanced Analysis	PAM4 Transmitter Analysis Software (requires 33 GHz or higher bandwidth oscilloscope)	•	
l An	PAM4 Transmitter Analysis Software for electrical signals (Requires Opt. DJA, DJAN)	•	•
JCe(PAM4 Transmitter Analysis Software for optical signals (Requires Opt. DJA, DJAN)	•	٠
dvar	Power Measurement and Analysis	•	•
Ac	Serial Data Link Analysis Visualizer	•	٠
	SignalCorrect Cable and Channel Compensation Software	•	
	Visual Trigger and Search	•	٠
	Waveform Limit Testing		•

MS0/DP070000C/DX and DP070000SX (continued)



	Option	DPO/MSO70000C/DX	DPO70000SX
	Advanced Signal Analysis (including pulse measurements) (Requires Opt. SVE)	•	٠
	AM/FM/PM Audio Signal Analysis (Requires Opt. SVE)	•	•
	APCO P25 compliance testing and analysis application (Requires Opt. SVE)	•	•
alys	Flexible OFDM Analysis (Requires Opt. SVE)	•	•
I An	Frequency and Phase Settling Time Measurements (Requires Opt. SVE)	•	•
tion	General Purpose Modulation Analysis (Requires Opt. SVE)	•	•
dule	IEEE 802.11ad and 802.11ay SC Wideband Waveform Analysis (Required Opt. SVE)	•	•
Δ	Settling Time, Frequency, and Phase (Requires Opt. SVE)	•	
and	SignalVu Bluetooth Basic LE TX SIG measurements (Requires Opt. SVE)	•	•
tral	SignalVu LTE Downlink RF measurements (Requires Opt. SVE)	•	•
pecti	SignalVu® Essentials - Vector Signal Analysis Software	•	•
S	WLAN 802.11ac measurement application (Requires Opt. SV24)	•	•
	WLAN 802.11n measurement application (Requires Opt. SV23)	•	•
	WLAN802.11a/b/g/j/p measurement application (Requires Opt. SVE)	•	•

PC Analysis Software for Oscilloscopes

SOFTWARE	KEY FEATURES	MORE INFORMATION
TekDrive	 A collaborative test and measurement workspace wherein users can upload, store, organize, search, download, and share files from any connected device. Analyze and explore standard files such as *.wfm, *.isf, *.tss, and *.csv in your browser Securely share files and folders instantly with other users REST API enables integration with any connected device or software application 	<u>https://www.tek.com/en/products/</u> software/tekdrive
TekScope PC Analysis Software	 Analyze waveforms anytime from anywhere with oscilloscope analysis on your PC. Perform basic instrument control, waveform transfer and advanced analysis with oscilloscopes Decode common serial protocols, including: I2C, SPI, RS-232/422/485/UART, CAN, CAN-FD, LIN Supports most waveform files (.wfm, .isf, .csv, .h5, .tr0, .trc, and .bin) 	https://www.tek.com/en/products/ software/tekscope-pc-analysis- software_
Keithley KickStart Software	 A full bench setup and control solution for arbitrary function generators, DC power supplies, digital multimeters, source measure units (SMUs) and oscilloscopes. This software helps you start running automated tests and measurements as soon as your instrument is out of the box. Save time by automating data collection of millions of readings Set up multi-instrument tests with the ability to independently control up to eight instruments Replicate tests quickly using saved test configurations 	https://www.tek.com/en/products/ keithley/keithley-control-software- bench-instruments/kickstart
Spectrum Analyzer Software – SignalVu	 Analyze RF and vector signals on your oscilloscope. This software software shows the time-variant behavior of these signals and is ideal for validating designs for EMI/EMC pre-compliance testing, wideband radar, wireless LAN, or frequency-hopping communications. Analyze waveforms without acquisition hardware present Free version includes 17 signal analysis and real-time spectrum analysis measurements Get the same signal analysis capabilities found in Tektronix real-time signal analyzers on your computer, tablet, or MSO/DPO oscilloscope with Windows 7/8/10 Intel i5 or i7 64-bit operating system 	https://www.tek.com/en/products/ software/signalvu-pc_ https://www.tek.com/en/product- software-series/signalvu-spectrum- analyzer-software

Oscilloscope Probes

Tektronix probes and accessories are perfectly matched to our industry-leading oscilloscopes. With over 100 choices available, you will find the probe you need. Need help finding the right probe for your application? The <u>Tektronix Probe Selector Tool</u> will guide you through the variety of probes we offer and help you choose the right probe for your needs.

LEARN



Isolated Probes

- High-resolution measurements in the presence of common mode signals or noise
- Up to 1 GHz bandwidth
- Complete galvanic isolation
- 1 Million to 1 (120 dB) of common mode rejection at 100 MHz



Optical Probes

LEARN

- DPO7OE1/DPO7OE2 high bandwidth optical probes, DC to 33/59 GHz with broad wavelength support from 750-1650 nm / 1200-1650 nm
- P6701B/P6703B DC to 1.0/1.2 GHz with broad wavelength support: 500-950 nm/ 1100-1650 nm



Power Rail Probes

Bandwidth up to 4 GHz

- Offset range up to ±60 V
- Lowest noise
- Flexible connectivity



Passive Probes

- Best-in-class bandwidth up to 1 GHz
- Best-in-class input capacitance as low as 3.9 pF, which minimizes probe loading effects
- Rugged and reliable
- High voltage versions with dynamic range up to 2500 V

Low Voltage Single-ended Probes

- Bandwidth up to 4 GHz
- True signal reproduction and fidelity
- Low input capacitance: down to < 0.8 pF
- Small, compact probe heads for probing small geometry circuit elements

Low Voltage Differential Probes

- Bandwidth up to 33 GHz
- Easily measure differential signals
- TriMode[™] probes let you easily switch between differential, single-ended, and common mode
- High common mode rejection ratio (CMRR)
- Wide range of probe tips for easier circuit access



High Voltage Differential Probes

- Dynamic range to ± 6000 V
- Bandwidth up to 200 MHz
- Most extensive set of probe accessories



Current Probes

- Easy to use and accurate AC/DC current measurements
- DC up to 2 GHz
- Amplitude measurements from 1 mA to 2,000 A
- Split core and solid core construction





Additional Oscilloscopes

The oscilloscopes listed below are still available for a limited time. For new applications we recommend you consider our newest oscilloscopes that have the latest capabilities and longer-term support.









	TPS2000B Digital Storage Oscilloscope	MSO2000B Mixed Signal Oscilloscope	MD03000 Mixed Domain Oscilloscope	MD04000C Mixed Domain Oscilloscope	
Bandwidth	100 MHz - 200 MHz	70 MHz - 200 MHz	100 MHz - 1 GHz	200 MHz - 1 GHz	
Analog Channels	2 or 4	2 or 4	2 or 4	4	
Digital Channels	-	16	16 (optional)	16 (optional)	
Sample Rate	1 GS/s - 2 GS/s	1 GS/s	2.5 GS/s - 5 GS/s	2.5 GS/s - 5 GS/s	
Recommended Replacement	-	2 Series MSO (see page 4)	3 Series MDO (see page 5)	4 Series MSO (see page 5)	

Service

Save up to 80% when you protect your investment with a service package for your Tektronix instrument.

Tektronix offers a range of calibration and warranty extension plans for purchase with your instrument to protect and maintain its performance over the years. With benefits from priority service to OEM-expert maintenance to accident protection, invest now to avoid unplanned downtime and expense. <u>View plans</u>.

Calibration Plans

- Tektronix Opt. C3Calibration service 3 years.
Includes traceable calibration
or functional verification where
applicable. Coverage includes
the initial calibration plus 2
additional years*.
- **Tektronix Opt. C5** Calibration service 5 years. Includes traceable calibration or functional verification where applicable. Coverage includes the initial calibration plus 4 additional years**.

*Maximum of 2 events. **Maximum of 4 events.

Which Plan is Right for You?

	Standard Protection	Extended Protection	tection Premium Protection	
Factory Service Plans	Ships with your instrument.	Basic coverage that extends your warranty to protect your investment and your uptime.	Save up to 80% and shield yourself from unexpected downtime and cost with these feature-rich plans.	
Features	Original factory warranty with purchase – 1 or 3 years)	Tek Care and Keithley Care Extended Warranties – 3 or 5 years	Total Protection Plan – 3 or 5 Years, Tek & Keithley	Gold Care Protection Plan – 1, 3 or 5 Years, Tek only
Original factory warranty	~			
Extension of factory warranty		v	~	
Protection from manufacturer defects	~	v	v	v
Free factory certified calibration with repair (if necessary)	~	V	v	~
Free in-country shipping	~	v	~	
Priority on-bench service			~	
Coverage of user-caused EOS and ESD damage			v	v
Coverage from accidental damage			 	
Coverage from normal wear and tear			v	
Loaner unit during repair shipped within 48 hours				V
Optional Factory-Certified Calibration Plans–3 or 5 year Various levels with and without data, for additional cost.	Initial factory calibration included	v	v	V
Suitable for	Included with every product	Any Tektronix and Keithley instruments	4-5-6 Series Oscilloscopes Function Generators Multimeters Probes Other advanced products	DP070k and 8 Series Oscilloscopes Probes Signal Sources Spectrum Analyzers

Contact Information:

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