Manuals+ — User Manuals Simplified.

Tektronix 6 Series B MSO Mixed Signal Oscilloscope User Guide

Tektronix®

**Series B MSO Mixed Signal Oscilloscope
User Guide**

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Series B MSO Mixed Signal Oscilloscope

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- Advanced Jitter
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- Advanced Power Analysis
- Inverters, Motors and Drives
- Double Pulse Testing
- Wideband Spectrum Analysis
- RF vs Time Analysis and Triggering
- User-defined Filter Creation
- Vector Signal Analysis

Extend Record Length
Increase to 125M, 250M, 500M or 1G points/channel

Function Generator Upgrade
Arbitrary / Function Generator

Add TLP058 Logic Probes
Access 8 digital channels on any FlexChannel input

Bandwidth Upgrades
- 2.5 GHz
- 4 GHz
- 6 GHz
- 8 GHz
- 10 GHz

Windows 10 Upgrade
Add solid state drive with Windows 10 license

Digital Voltmeter / Trigger Frequency Counter
Free with product registration

SAVE WITH APPLICATION BUNDLES

Eight Application Bundles deliver outstanding value. Available with 1-year (1Y) or (PER) perpetual licenses.
Starter Bundle (6-STARTER-1Y or -PER) – Capabilities that most engineers will find valuable

- Serial trigger, decode, search and event table analysis on IC, SPI, RS-232/422/485/UART buses
- Integrated Arbitrary/Function Generator with 13 predefined waveform types as well as arbitrary waveforms

Six Pro Bundles – Designed for specific applications and industries

- Choose one of the six bundles below to fit your application.
- Each includes the Starter Bundle (above).
- Each extends the record length to 250 M/ch.

Serial Protocol Decoding and Analysis (6-PRO-SERIAL-1Y or -PER)	
• 1-Wire	• LIN
• 8b10b	• Manchester
• Audio	• MEDIO
• CAN, CAN FD	• MIPI C-PHY
• CXPI	• MIPI D-PHY
• eSPI	• NRZ
• EtherCAT	• SDLC
• Ethernet	• SMBus
• USB	• SEMI
• FlexRay	• AVID
• I3C	• USB 2.0

Power
(6-PRO-POWER1Y or -PER)

- Advanced power analysis
- Digital power management analysis
- Inverter & motor drive analysis with DQ0 and mechanical measurements
- Double pulse testing for wide bandgap semiconductors
- SPMI decoding
- SVID decoding

**Signal Integrity
(6-PRO-SIGNAL-1Y or -PER)**

- Advanced jitter analysis
- DDR3 debug
- LVDS debug*
- Mask/limit testing
- PAM3 analysis*
- User-defined filters

**Standards Compliance
(6-PRO-COMPL-1Y or -PER)**

- 10/100/100BASE-T Ethernet with Multi-lane*
- 10BASE-T1L Industrial Ethernet*
- DDR3*
- MIPI D-PHY 1.2*
- MIPI D-PHY 2.1*
- USB 2.0*

**Automotive
(6-PRO-AUTO-1Y or -PER)**

- Advanced jitter analysis
- Automotive Ethernet PAM3 analysis*
- Automotive Ethernet signal separation*
- Automotive Ethernet compliance*
- MIPI D-PHY 1.2 Compliance*
- Inverter and motor drive analysis with DQ0 and mechanical measurements
- Double pulse testing for wide bandgap semiconductors
- 100BASE-T1 decoding
- CAN, CAN FD decoding
- CXPI decoding
- FlexRay decoding
- I3C decoding
- LIN decoding
- PSI5 decoding
- SENT decoding

Aerospace
(6-PRO-MILGOV-1Y or -PER)

- Advanced jitter analysis
- Mask/limit testing
- ARINC 429 decoding
- Manchester decoding
- MIL-STD-1553 decoding
- NRZ decoding
- SpaceWire decoding

Ultimate Bundle (6-ULTIMATE-1Y or -PER) – The most capability and greatest savings

- Includes Starter bundle and all Pro bundles
- PLUS: Record length extended to 1 Gpts/channel on 4 channels (500 Mpts > 4 channels), Spectrum View RF vs. time waveforms, extended Spectrum View capture bandwidth, and video triggers

* Requires solid state drive with Windows operating system (Option 6-WIN)

AVAILABLE UPGRADES – 6 SERIES B MSO
Individual Options

Feature	Upgrade	Description	Upgrade Option Details
Upgrade Bandwidth	SUP6B-BWn	Bandwidth upgrade for n-channel 6 Series B MSO. See the datasheet for details on all upgrade options.	All bandwidth upgrades can be performed in the field by installing a software license.

Feature	Node-Locked License Upgrade	Description
Instrument Functions	SUP6-AFG	Add arbitrary function generator
	SUP6-RL-1	Extend record length from 62.5 Mpts / channel to 125 Mpts / channel
	SUP6-RL-2	Extend record length from 62.5 Mpts / channel to 250 Mpts / channel
	SUP6-RL-3	Extend record length from 62.5 Mpts / channel to 500 Mpts / channel
	SUP6-RL-4	Extend record length from 62.5 Mpts / channel to 1 Gpts / channel on 4 channels (500 Mpts / channel on > 4 channels)
	SUP6B-LNX	Add removable SSD with closed-embedded OS

	SUP6B-WIN	Add removable SSD with Windows 10 license installed
Protocol Analysis Decode and search serial content. Some packages include hardware triggering as noted.	SUP6-SR8B10B	8b10b serial analysis
	SUP6-SRAERO	Aerospace serial triggering and analysis (MIL-STD-1553, ARINC 429)
	SUP6-SRAUDIO	Audio serial triggering and analysis (IS, LJ, RJ, TDM)
	SUP6-SRAUTO	Automotive serial triggering and analysis (CAN, CAN FD, LIN, FlexRay)
	SUP6-SRAUTOEN1	100BASE-T1 Automotive Ethernet protocol decode software
	SUP6-SRAUTOSEN	Automotive sensor serial triggering and analysis (SENT)
	SUP6-SRCOMP	Computer serial triggering and analysis (RS-232/422/485/UART)
	SUP6-SRCXPI	CXPI serial decoding and analysis
	SUP6-SREMBD	Embedded serial triggering and analysis (IC, SPI)
	SUP6-SRCPHY	MIPI C-PHY serial decoding and analysis
	SUP6-SRDPHY	MIPI D-PHY CSI/DSI serial decoding and analysis
	SUP6-SRENET	Ethernet serial triggering and analysis (10BASE-T, 100BASE-TX)
	SUP6-SRESPI	eSPI serial decoding and analysis
	SUP6-SRETHERCAT	EtherCAT serial decoding and analysis
	SUP6-SRI3C	MIPI I3C serial decoding and analysis
	SUP6-SRMANCH	Manchester serial analysis
	SUP6-SRMDIO	Management Data Input/Output (MDIO) serial decode and analysis
	SUP6-SRNRZ	NRZ serial analysis
	SUP6-SRONEWIRE	1-Wire serial decoding and analysis
	SUP6-SRPM	Power management serial triggering and analysis (SPMI)
	SUP6-SRPSI5	PSI5 serial decoding and analysis
	SUP6-SRSDLC	Synchronous Data Link Control (SDLC) serial decoding and analysis
	SUP6-SRSMBUS	SMBus serial decoding and analysis
	SUP6-SRSPACEWIRE	SpaceWire serial analysis

	SUP6-SRSVID	Serial Voltage Identification (SVID) serial decode and analysis
	SUP6-SRUSB2	USB 2.0 serial bus triggering and analysis (LS, FS, HS)
	SUP6-SREUSB2	Embedded USB2 (eUSB2) serial decode and analysis

Feature	Node-Locked License Upgrade	Description
Serial Compliance/Conformance[1] Perform automated pass/fail to test or margin testing per common standards, with numerical results and full reports.	SUP6-AUTO EN-SS	Automotive Ethernet signal separation
	SUP6-CAUTION	Automotive Ethernet compliance test (100BASE-T1, 1000BASE-T1)
	SUP6-CMAUTOEN10	Automotive Ethernet compliance test (10BASE-T1S Short Reach)
	SUP6-CMAUTOEN10G	Automotive Ethernet compliance test (2.5G/5GBASE-T1)
	SUP6-CMDPHY	MIPI D-PHY 1.2 compliance test
	SUP6-CMDPHY21	MIPI C-PHY conformance testing
	SUP6-CMENET	Ethernet compliance test (10BASE-T, 100BASE-T, 1000BASE-T)
	SUP6-CMENETML	Multilane Ethernet (10BASE-T, 100BASE-T, 1000BASE-T)
	SUP6-CMINDUEN10	Industrial Ethernet (10BASE-T1L Long Reach) automated compliance test solution
	SUP6-CMNBASET	Ethernet (2.5G and 5G BASE-T) compliance test
	SUP6-CMUSB2	USB 2.0 compliance test
	SUP6-CMXGBT	Ethernet (10G BASE-T) compliance test
	SUP6-AUTOEN-BND	Automotive Ethernet compliance, signal separation, PAM3 analysis (requires option 5-DJA), 100BASE-T1 serial decode
	SUP6-DBLVDS	Automated LVDS test solution
	SUP6-DJA	Advanced jitter and eye analysis
	SUP6-DPM	Digital Power Management
	SUP6B-IMDA	Inverters, motors, and drives analysis
	SUP6B-IMDA-DQ0	Add DQ0 measurements to IMDA
	SUP6B-IMDA-MECH	Add mechanical measurements to IMDA

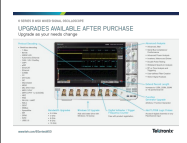|		
Advanced Analysis	SUP6-MTM	Mask and limit testing
	SUP6-PAM3	PAM3 analysis
	SUP6-PS2	Power solution bundle (SUP6-PWR, THDP0200, TCP0030A, 067-1686-xx (deskew fixture))
	SUP6-PWR	Advanced power measurements and analysis
	SUP6-SV-BW-1	Increase Spectrum View Capture Bandwidth to 2 GHz
	SUP6-SV-RFVT	Spectrum View RF versus Time Analysis and Trigger
	SUP6-UDFLT	User-defined filter creation tool
	SUP6-VID	NTSC, PAL, and SECAM video triggering
	SUP6-WBG-DPT	Wide bandgap SiC/GaN double pulse test measurements
Memory Analysis	SUP6-CMDDR3	DDR3 and LPDDR3 memory compliance test
	SUP6-DBDDR3	DDR3 and LPDDR3 memory debug and analysis
Digital Voltmeter	SUP6-DVM	Add digital voltmeter/trigger frequency counter (Free with product registration at **www.tek.com/register6mso**)

1. Option 6-WIN or upgrade SUP6B-WIN is required.
2. Additional upgrades are available from any record length to any greater record length. See datasheet for details.
3. This option requires a 6- or 8-channel instrument.
4. Option 6-DJA or upgrade SUP6-DJA required.
5. Option 6-CMENET required.

www.tek.com/6SeriesMSO

Documents / Resources

Tektronix 6 Series B MSO Mixed Signal Oscilloscope [pdf] User Guide
6 Series B MSO Mixed Signal Oscilloscope, 6 Series, B MSO Mixed Signal Oscilloscope, Mixed Signal Oscilloscope, Signal Oscilloscope, Oscilloscope

References

- [6 Series B MSO | Tektronix](#)
- [Welcome to 6 Series MSO Product Registration | Tektronix](#)