



**5 Series Mixed Signal Oscilloscopes
MSO54, MSO56, MSO58
Installing Upgrade Options
Instructions**

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Product upgrade overview (option license upgrades)

This document describes how to install option license upgrades on the following Tektronix 5 Series Mixed Signal Oscilloscope products:

- **MSO54.** All serial numbers
- **MSO56.** All serial numbers
- **MSO58.** All serial numbers

Option license upgrades are field-installable licenses that add features to your oscilloscope. Customers can install these option upgrades by installing license files on the oscilloscope. Each option requires a separate license file.

Upgrades covered by these instructions

The following tables list the product upgrades that this document supports.

Table 1: Instrument function upgrades

Upgrade name	Description	Upgrade type
SUP5-RL-125M	Extend record length from 62.5 Mpoints per channel to 125 Mpoints per channel, all 5 Series oscilloscopes; Node locked license	Customer-installable upgrade. License upgrade file placed in customer Tek AMS account (notice sent to customer by email)
SUP5-AFG	Enable the Arbitrary/Function generator, all 5 Series Oscilloscopes; Node locked license	

Table 2: Serial protocol analysis upgrades

Upgrade name	Description	Upgrade type
SUP5-SRAUDIO	Adds Audio serial triggering and analysis (I ² S, LJ, RJ, TDM), all 5 Series oscilloscopes; Node locked license	Customer-installable upgrade. License upgrade file placed in customer Tek AMS account (notice sent to customer by email)
SUP5-SRAUTO	Adds automotive serial triggering and analysis (CAN, LIN, FlexRay), all 5 Series oscilloscopes; Node locked license	
SUP5-SRCOMP	Adds computer serial triggering and analysis (RS-232/422/485/UART), all 5 Series oscilloscopes; Node locked license	
SUP5-SREMBD	Adds Embedded serial triggering and analysis (I ² C, SPI), all 5 Series oscilloscopes; Node locked license	
SUP5-SRENET	Adds Ethernet serial triggering and analysis (10BASE-T, 100BASE-TX), all 5 Series oscilloscopes; Node locked license	
SUP5-SRUSB2	Adds USB serial triggering and analysis (USB 2.0 LS, FS, HS), all 5 Series oscilloscopes; Node locked license	

Table 3: Advanced analysis upgrade

Upgrade name	Description	Upgrade type
SUP5-DJA	Adds Advanced Jitter and Eye Analysis measurements, all 5 Series oscilloscopes; Node locked license	Customer-installable upgrade. License upgrade file placed in customer Tek AMS account (notice sent to customer by email)

Table 4: Bandwidth upgrades

Bandwidth upgrade product	Description	Upgrade type
MSO54 (4 channel) models		
SUP5-BW3T54	MSO54 bandwidth upgrade from 350 MHz to 500 MHz	Customer-installable upgrade. License upgrade file placed in customer Tek AMS account (notice sent to customer by email). Includes shipment of calibration data and a new front panel bandwidth label.
SUP5-BW3T104	MSO54 bandwidth upgrade from 350 MHz to 1 GHz ¹	
SUP5-BW5T104	MSO54 bandwidth upgrade from 500 MHz to 1 GHz ¹	
MSO56 (6 channel) models		
SUP5-BW3T56	MSO56 bandwidth upgrade from 350 MHz to 500 MHz	Customer-installable upgrade. License upgrade placed in customer Tek AMS account (notice sent to customer by email). Includes shipment of calibration data and a new front panel bandwidth label.
SUP5-BW3T106	MSO56 bandwidth upgrade from 350 MHz to 1 GHz ¹	
SUP5-BW5T106	MSO56 bandwidth upgrade from 500 MHz to 1 GHz ¹	
MSO58 (8 channel) models		
SUP5-BW3T58	MSO58 bandwidth upgrade from 350 MHz to 500 MHz	Customer-installable upgrade. License upgrade placed in customer Tek AMS account (notice sent to customer by email). Includes shipment of calibration data and a new front panel bandwidth label.
SUP5-BW3T108	MSO58 bandwidth upgrade from 350 MHz to 1 GHz ¹	
SUP5-BW5T108	MSO58 bandwidth upgrade from 500 MHz to 1 GHz ¹	

¹ New 1 GHz probes are included with upgrade from 350 MHz or 500 MHz to 1 GHz.

Table 5: Digital voltmeter upgrade

Upgrade name	Description	Upgrade type
SUP5-DVM	Digital voltmeter and trigger frequency counter, all 5 Series oscilloscopes (Free, available only with product registration) Register at www.tek.com/register5mso	Customer-installable upgrade. License upgrade file sent to customer by email.

For more information on upgrade options, see the Tektronix Web site (www.tek.com/5SeriesMSO) or your Tektronix representative.

Upgrades not covered by these instructions

The following tables list the product upgrades that are not supported by this document. These upgrades either have their own installation instructions, or require that you send the instrument to a Tektronix support center for new hardware and calibration. Contact Customer Support for information on ordering these hardware upgrades.

Table 6: Instrument function upgrades not covered by these instructions

Upgrade name	Description	Upgrade type
SUP5-WIN	Removable solid state drive (SSD) with Microsoft Windows 10 license, all 5 Series oscilloscopes	Customer-installable upgrade. SSD with Microsoft Windows 10 plugs into a bay on the bottom of instrument. This option comes with its own set of installation instructions

Table 7: Bandwidth upgrades to 2 GHz¹ not covered by these instructions

Bandwidth upgrade product	Description	Upgrade type
MSO54 (4 channel) models		
SUP5-BW3T204	MSO54 Bandwidth upgrade from 350 MHz to 2 GHz	2 GHz upgrades require hardware installation and recalibration at a Tektronix Service Center.
SUP5-BW5T204	MSO54 bandwidth upgrade from 500 MHz to 2 GHz	
SUP5-BW10T204	MSO54 bandwidth upgrade from 1 GHz to 2 GHz	
MSO56 (6 channel) models		
SUP5-BW3T206	MSO56 bandwidth upgrade from 350 MHz to 2 GHz	2 GHz upgrades require hardware installation and recalibration at a Tektronix Service Center.
SUP5-BW5T206	MSO56 bandwidth upgrade from 500 MHz to 2 GHz	
SUP5-BW10T206	MSO56 bandwidth upgrade from 1 GHz to 2 GHz	
MSO58 (8 channel) models		
SUP5-BW3T208	MSO58 bandwidth upgrade from 350 MHz to 2 GHz	2 GHz upgrades require hardware installation and recalibration at a Tektronix Service Center.
SUP5-BW5T208	MSO58 bandwidth upgrade from 500 MHz to 2 GHz	
SUP5-BW10T208	MSO58 bandwidth upgrade from 1 GHz to 2 GHz	

¹ All bandwidth upgrades to 2 GHz require purchasing option IFC or IFCIN.
 Option IFC (Service Installation and Calibration) is to replace the board, calibrate the instrument, and create a calibration report.
 Option IFCIN (Service Installation and Calibration, includes incoming calibration) includes option IF plus an incoming calibration inspection and report.

To install option upgrade licenses

You need the license file that is provided with each option upgrade. Each upgrade's unique license file is valid only for the specific model number and serial number of your instrument; it will not work on any other instrument. This single license file enables just the specified upgrade for your instrument; it does not affect options that were factory installed or any other upgrades that you may have already purchased and installed.

1. Follow the instructions you received to download the upgrade license file (<filename>.lic).
2. Copy the license file to a USB memory device.
3. Insert the USB drive into the powered-on oscilloscope for which the upgrade was purchased.
4. Select **Help > About**.
5. Tap **Install License** to open the Browse License Files dialog box.
6. Navigate to and select the upgrade license file to install.
7. Tap **Open**. The oscilloscope enables the license and returns to the About screen. Verify that the installed license was added to the Installed Options list.
8. Repeat steps 5 through 7 for each upgrade license file that you purchased and downloaded.
9. Power cycle the oscilloscope to enable installed upgrade(s).
10. If you installed a bandwidth upgrade, remove the model/bandwidth label from the lower-left corner of the front panel and install the new model/bandwidth label that was sent through normal mail channels as part of the upgrade purchase.