Version: [1.30]
Last Revised: [08/16/2018]
Products: This firmware supports all MDO3000 series oscilloscopes.

History
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v1.30 08/16/2018
    Enhancements:
    - Reduced the file size of saved screen shots to allow customers to save more data to a single USB drive
(AR60609, AR60574)
    - Enhancement to repetitive search data requests (AR61363)
    - Enhancement to the maximum screen brightness of the primary display

    Defects Fixed:
    - Correction applied in the case of termination set to the incorrect termination resistance.
    - Correction to USB attached keyboard functionality

v1.28 05/08/2018
    New Features:
    - Fixed the Flatness issue on the MDO3K product

v1.26 06/29/2017
    New Features:
    - ARINC429 support added to MDO3AERO

    Enhancements:
    - Added ability to recognize probes with gain factors up to 10,000
    - Enhanced "Act on event" to allow user to save RF I & Q data to .TIQ files
    - Added language support for attached USB keyboards

    Defects Fixed:
    - Fixed an application error that occurred when the largest record length
      is selected in roll mode
    - Fixed an issue where a probe attached prior to scope power-up would not
      be recognized
    - Fixed an issue with recalling a saved setup where the zoom factor was
      not recalled correctly
    - Fixed a case where horizontal position was incorrect after recalling a
      waveform to a reference channel
    - Fixed an issue with waveform clipping in Dual Wfm Math using single
      sequence mode
    - Fixed an issue downloading .CSV files through e*Scope
    - Fixed a case where center frequency and frequency/division settings were
      not properly recalled on math FFT waveforms
    - Fixed a case where "Act on event" was not properly sending the correct
      output to the Aux Out port
    - Fixed an issue where TPP probe compensation could report an inaccurate
      failure
    - Fixed an issue with cursors on advanced math not updating with change
      in cursor position
    - Fixed an issue where cursor readout values are incorrect
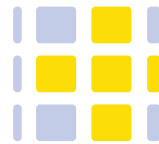   - Fixed an issue with duplicate timestamps found in .CSV files

v1.24 10/19/2016
    New Features:
    - CAN FD support added to MDO3AUTO

    Enhancements:
    - Expanded decode event table from 800 to 4000 maximum entries

Defects Fixed:
- Fix issue with file download in e*Scope
- Fix issue with CAN number of data bytes not being limited to actual
  number of supported bytes based on selected Trigger When condition
- Fixed an issue where old waveform data is not cleared after
  a Default Setup
- Fixed an issue where histogram on math is reset when stopped
- Fix a case where CAN Missing Ack at end of frame with an end of frame
  error will trigger but does not decode or search
- Fix .CSV timestamp resolution for large records
- Fix case where changes to horizontal scale when stopped and using
  large records would result in the waveform being cleared on screen
- Fix a case where scope would transition to PreVu when entering zoom
  mode after running for a long period of time
- Fix a case where loading setups with screen cursors on may result
  in an error reported from processing the setup file
- Fix a case where, in some settings, waveforms would appear in dots only
- Fix an issue with USB bus CRC calculation for a zero length data packet

v1.22 3/30/2016
  Enhancement:
  - Added control for readout transparency

  Defects Fixed:
  - Fixed an issue with CAN bus and zoom with large numbers of packets
    resulting in slow performance for pan across record
  - Fix an issue where DVM DC Autorange would not settle properly
  - Fixed "flicker" between RF manual and peak markers when they
    overlap
  - Fixed an issue with manual markers not displaying in the correct
    location on Frequeny Domain Reference waveforms
  - Fixed an issue with Peak markers not working if Stop Frequency was
    greater than maximum frequency range
  - Fixed an issue with recalling Frequeny Domain Reference waveforms
    not drawing in the correct position
  - Fixed an issue with channel 4 waveforms saving to Reference when
    saving after a single sequence acquisition
  - Fixed issue with frequency domain math waveforms being improperly
    converted to dBm during save to .csv files
  - Fixed issue with Save All with multiple frequency domain traces
    causing overwritten data values
  - Improved save operation where frequency domain waveforms are
    previewed
  - Fixed a case where frequency domain units did not match the saved
    data by forcing all RF trace data to be saved as dBm
  - Fixed an issue where RF saved setups would not properly recall
    vertical units
  - Fixed an issue with saved References not allowing very small
    vertical scales
  - Fixed a case where completing an acquisition with Roll Mode on
    Long Records could result in the first portion of the waveform
    being overwritten
  - Fixed an issue with RMS measurement with vertical position moved
    away from center screen
  - Fixed an issue where measurements would not complete after undoing
    an autoset
  - Fixed an issue with NPULSECOUNT measurement type not counting
    correctly
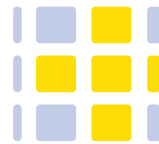
- Fixed an issue with immediate measurement on math when stopped
- Fixed a case where math units for absolute value were being cleared
- Fixed an issue with attachments for ePrint
- Fixed an issue with AC Coupled Trigger losing trigger with vertical position changes
- Fixed an issue with a legacy command 'HARDCOPY STARt'
- Fixed an issue with where pan range was locked in zoom mode
- Fixed an issue where an Application Error could appear with Roll Mode, 5M records, and HiRes acquisition modes. Under these conditions, acquisition trigger mode is forced to Normal
- Fixed an issue with RF Pre-Amp always downloading cal constants on attach
- Fixed an issue where RF Pre-Amp is in the wrong state on re-attach
- Fixed incorrect value displayed for digital sample rate
- Fixed an issue where Signal Path Compensation could fail if run after Diagnostics. An instrument reboot is recommended after running Diagnostics
- Improved edge trigger alignment for MagniVu on digital channels

Known Issues:
- Previewed spectrum data may save previewed header values instead of acquired data. This can result in incorrect save file data.
  To workaround: save frequency domain waveforms prior to making changes to horizontal or vertical parameters

v1.20 5/13/2015
  Defects Fixed:
  - Fixed LIN packet ID decode with no data response.

v1.18 2/21/2015
  Enhancement:
  - Moved acquire menu "Set Horizontal Position to" control to a side bezel sub-menu and enabled setting horizontal position control via front panel keypad

  Defects Fixed:
  - Fixed RF TIQ file download via e*Scope
  - Fixed e*Scope pan issue by including a stop button for better control
  - Fixed a case where math units could get locked when switching between RF and time domain acquisition modes
  - Fixed a case where an error would be reported when a setup was recalled using e*Scope or OpenChoice Desktop and a probe is attached
  - Removed AFG keypad units selection for GHz and ps
  - Improved instrument stability and signal path compensation (SPC)

v1.14 11/20/2014
  New Features:
  - Support for MDO3BND module

  Defects Fixed:
  - Fixed RF manual marker value readout when overlapped
  - Fixed RF manual marker cross-hair limited to 8 vertical divisions
  - Fixed an instrument crash in certain cases with RS232 packet decode
  - Fixed a waveform display anomaly at the top of the screen
  - Fixed readout for application module license transfer when module license was already transferred to another scope
  - Fixed printer list refresh when saving screen or network printing with Ink Saver On
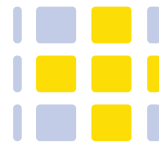
- Fixed incorrect Channel coupling after RF autoset
- Fixed a case where RF self-test might fail if an input signal is attached
- Fixed Acquisition self-test failures when scope record length was previously set larger than 10k
- Improvements to signal path compensation (SPC)

v1.12 7/29/2014

Enhancements:

- The minimized DVM readout is labeled DVM and is the color of the source

Defects Fixed:

- Fixed incorrect color on channels when stopped and trigger source changes
- Limit test following autoset can now be turned on
- RF detection method recalled correctly when recalling a setup file
- Fixed an Act-on-Event issue when Repeat is On and RF acquisition is active
- Fixed OPC completion issue when Act-on-Event is used
- Fixed TCP0020 bandwidth issue
- Fixed possible incorrect values from query of center frequency and span

v1.10 3/18/2014

Defects Fixed:

- Instrument now does an auto-reboot if the LCD fails to initialize

v1.08 2/25/2014

Defects Fixed:

- XY cursors now read correctly when YT overview or DVM is turned on
- DDU option now enables MDO3MSO, MDO3AFG, and MDO3SA options.
- Fixed false Self Test failure for triangle wave at extreme temperatures
- Network printing now works correctly
- Act on Event repeat count now updates correctly
- Fixed problems with loading/saving files from/to ARB slots and EMEM
- Recall setup in frequency domain correctly handles time-domain coupling
- Keypad works with digital thresholds
- Improved knob response in ARB menu
- DVM frequency readout shows correct number of digits
- Backlight timeout now set correctly after firmware upgrade
- Fixed various minor LXI compliance issues
- Minor InkSaver improvements

v1.02 1/10/2014

New features:

(This is a high-level list of features not available in the predecessor products, the DPO/MSO3000 series. Some of these features require option keys or application modules.)

- Spectrum Analyzer capability
- Integrated AFG with arbitrary waveform generation
- DVM (Digital VoltMeter) and frequency counter
- 10 million sample point record length
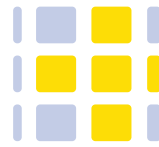
- FastAcq high-speed acquisition mode and color-graded display
- Dual edge trigger (either rising or falling edges)
- Supports low-capacitance passive probes (TPP0250, TPP0500B, TPP1000)
- Supports upgradable analog bandwidth
- USB serial trigger and bus decode
- Waveform histogram measurements
- Search/Mark table, exportable
- Act On Event: save/print/email after N number of trigger events
- Limit testing
- Custom mask testing
- Video Picture of NTSC and PAL signals
- Print to email-enabled printers
- Ability to disable I/O ports for security applications
- Ability to disable firmware upgrades