

WFM7200
Waveform Monitor
Release Notes

This document supports software version 3.3.X.



Copyright © Tektronix. All rights reserved. Licensed software products are owned by Tektronix or its subsidiaries or suppliers, and are protected by national copyright laws and international treaty provisions. Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specifications and price change privileges reserved.

TEKTRONIX and TEK are registered trademarks of Tektronix, Inc.

Contacting Tektronix

Tektronix, Inc.
14150 SW Karl Braun Drive
P.O. Box 500
Beaverton, OR 97077
USA

For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit www.tektronix.com to find contacts in your area.

Release notes

This document describes the key features and known limitations of software version 3.3.X of the WFM7200 Waveform Monitor. Some of these notes apply only to instruments with specific options installed. A list of available instrument options can be found at the Tektronix Web site (www.tektronix.com).

New features

Software version 3.3.X adds the following new features and capabilities:

- BT.2020 color space support for 3G and HD formats in waveform, vector, and gamut display modes
- Datalist display capabilities for 3G Level A / Level B deep color formats
- Other new format support includes:
 - 3G Level A / Level B deep color formats support
 - 3G-SDI and Dual-link HD-SDI 2K formats support at 47.95Hz/48 Hz frame rate
 - Additional format support for 3G-SDI and Dual-link HD-SDI 2K formats
- New audio features and enhancements include:
 - Audio Loudness session logging control (start, stop, or reset) via GPI or timecode
 - New audio level readouts added to the Audio Aux Loudness display and the Audio Session display

Features and benefits

- Multiformat, multistandard video monitoring
 - Includes standard auto-detection of HD/SD-SDI and multiple Dual Link video formats
 - Composite analog (PAL/NTSC) video support (Option CPS)
 - Simultaneous monitoring (with Option SIM) allows monitoring of two HD/SD-SDI inputs or one HD/SD-SDI input and one CPS input. Option 3G is required for 3G-SDI format support
 - Multiple Input Mode allows monitoring of two to four SDI inputs simultaneously (4-input mode requires Option 2SDI)
 - Upgradeable to 3G-SDI (Level A and Level B) format support (Option 3G)
- Comprehensive audio monitoring (Option AD or DPE)
 - Up to 16-channel audio monitoring for embedded audio
 - Multichannel Surround Sound display and flexible Lissajous display (Audio Surround Sound Display licensed from Radio Technische Werksütten GmbH and Co. KG (RTW))
 - Audio Loudness monitoring to ITU-R BS.1770-3
 - Support for analog, digital, and embedded audio. (Option AD)
 - Dolby Digital (AC-3), Dolby Digital Plus, and Dolby E (Option DPE)
 - Comprehensive Dolby metadata decode and display (Option DPE)
 - Dolby E Guard Band meter with user-defined limits (Option DPE)
- Unmatched display versatility
 - FlexVu™, the most flexible four-tile display, suited for various application needs to increase productivity
 - Tektronix-patented Diamond and Arrowhead displays for gamut monitoring
 - Tektronix-patented Timing and Lightning displays
 - Tektronix-patented Spearhead display and Luma Qualified Vector (LQV™) display facilitate precise color adjustment for post-production applications (Option PROD)
- Stereoscopic 3D video displays for camera alignment and production/post-production applications (Option S3D)
- Black picture and Tektronix-patented frozen picture detection

- Advanced ANC data monitoring
 - Simultaneous CEA708/608 Closed Caption, ARIB STD-B37 Closed Caption, Teletext, SMPTE 2031, and OP47 subtitle decode and monitoring
 - Detect and decode ANC data including AFD, WSS, Video Index, TSID, V-Chip, Broadcast Flag/CGMS-A, VITC, LTC, and ANC TC
 - ARIB STD-B35/B37/B39, TR-B22, and TR-B23 support
- In-depth digital data analysis helps quickly resolve difficult content quality and reliability issues (Option DAT)
- Standard and user-definable Safe Area graticules facilitate editing and format conversion tasks, reducing the need for rework
- Active Format Description (AFD) detection, decode, and automatically adjusted graticule in Picture display enables easy identification of aspect-ratio related issues
- Superior physical layer signal measurement
 - High-performance real-time eye pattern display, jitter measurements, and patented cable length measurement (Option PHY3)
 - Most comprehensive eye pattern measurements including eye amplitude, rise/fall time, and overshoot/undershoot measurements as well as Tektronix jitter waveform display (Option PHY3)
- Unmatched usability
 - CaptureVu[®] advanced video frame data capture simplifies troubleshooting and equipment setup
 - 32 instrument presets for quick recall of commonly used configurations tailored to engineers or operators
 - Front-panel USB port enables easy transfer of presets, captured video frame data, screenshots, and error log
 - Front-panel headphone port enables quick verification of selected audio pair
 - Intuitive menu structure and context-sensitive help
 - Extensive alarms, status reporting, and error logging
 - Bright, crisp, high-resolution LED backlight display
 - SNMP and Ethernet remote interface capabilities and GPI control facilitate centralized monitoring and control.

General limitations

This release has the following general limitations. Topics are listed in alphabetical order.

Dolby operation with Option DPE

- For listening mode selections other than FULL or EX, clipping may occur. For example, if the Dolby Digital input is 3/2 with full-scale test tones and Stereo listening mode is selected, clipping will likely occur. To avoid clipping, choose either compression mode, Dialnorm+Line or Dialnorm+RF in CONFIG > Audio Input/Outputs > Dolby D (AC-3) Setup > Dialnorm&DynRng.
- When in Channel Mode 2/2 and Phantom Listening Mode, the Surround Sound display (AUDIO tile) shows the Ls and Rs levels attenuated by 3 dB instead of displaying at full amplitude for this channel mode/listening mode combination.
- When in Channel Mode 3/0 and 3-Stereo Listening Mode, the Surround Sound display (AUDIO tile) shows the C level attenuated by 3 dB instead of displaying at full amplitude for this channel mode/listening mode combination.
- The Dolby E/Dolby Digital decoder will pass through PCM audio at 48 kHz frequencies or less. Audio frequencies above this will not pass through and may cause noise or distortion on both the bars and the audio outputs. If PCM audio at frequencies greater than 48 kHz is used, choose either AES A or B as the input source.
- When Dolby Digital Plus (DD+) is present, the parameters below Extended BSI are grayed out.

Firmware update to version 3.X

- The first time the instrument firmware is updated to version 3.X, the upgrade process must be run twice in order for the firmware to be properly installed. Subsequent upgrades will require only one attempt to upgrade the firmware.
- If you are updating firmware from 2.X to 3.X via USB, after the instrument reboots, you may have to remove and reinsert the USB flash drive to complete the update.

-
- Firmware update with any Dolby option** When updating the instrument firmware 2.X to 3.X and Option DPE is installed, do not cycle the instrument power until the Power-on diagnostic screen is cleared and the User interface is fully running. If the Instrument Fault LED is lit (red Power/Standby button), an additional instrument reboot is required. This may be performed by pressing the Power/Standby button. When the upgrade is complete, the Dolby firmware version will be 2.1.2.1. You can confirm the version on your instrument from the CONFIG > Utilities > SW Version menu.
- Incompatible operation** When applying 3 Gb/s signals to any instrument that does not support the signal formats, the unit indicates that the signal input is not standard. Applying unsupported video signals may result in a frozen PICT display.
- SNMP messages** Commands returning the audCurOutput OID return the string “Embed 7 & 8” for embedded audio channel pairs 9 & 10, 11 & 12, 13 & 14, and 15 & 16.
- Sweep** The waveform style must be set to Overlay to get 2 line or 2 field sweep.
- USB**
- Always press the MAIN button and select USB Status to safely “Unmount” and remove the USB memory device from the USB port. You risk permanent loss of any files saved on the USB device if you do not use the “Unmount” feature.
 - If there are more than 32 files saved in a Capture or Presets directory on the USB device, you can only view the first 32 files.
- Waveform mode cursor for XYZ color space** The voltage cursors are given in millivolt scale, but the XYZ color space is referenced in hex scale. To see the values for 000 to FFF, change the graticule settings to max and percent.
- Web browser**
- The Web browser applet will not resize when running in some versions of the Netscape browser and in some non-Windows Operating Systems (for example, Solaris).
 - We recommend using Java Runtime Engine (JRE) version 1.6 or above.

