

# Release Notes



## WFM6100, WFM7000, and WFM7100 Waveform Monitors

**071-1895-01**

This document applies to firmware version 1.2X  
and above.

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# Release Notes

This document describes the new features introduced with this latest version of firmware, and describes the new features that have been introduced with the WFM6100, WFM7000, and WFM7100 Waveform Monitors. Also described are known problems and behaviors with the monitors.

## New Features with Firmware Version 1.2X

Firmware version 1.2X adds one feature enhancement to the waveform monitor, fixes several firmware bugs, and enhances the speed of certain functions.

### **DISPLAY Button**

The front-panel DISPLAY button now functions as a toggle between a full screen (one tile) display and a four-tile display. For example, if you are viewing a four-tile display and then press the DISPLAY button, the selected tile is immediately displayed full screen. Press the DISPLAY button again to immediately return to the four-tile display.

In the previous firmware version (1.0X), the DISPLAY button provided access to a softkey menu where you would then select between display modes before any display change was applied.

## Product Features

The product features described below were introduced with the new family of WFM6100, WFM7000, and WFM7100 waveform monitors.

### User Interface

The user interface offers the following new features:

**XGA Resolution Display with FlexVu.** All waveform monitor models are equipped with a high-resolution XGA display, which is controlled by high-quality signal processing to provide analog-like waveform displays of the digital signal. The FlexVu interface allows you to create multiple-view displays of the video signal you are monitoring.

**My Menu.** All waveform monitor models include a user-defined menu that allows quick access to frequently used functions, thereby simplifying the operation of the instrument.

**Presets.** All waveform monitor models allow you to save up to 20 instrument presets of configuration settings. To aid access, the presets are organized into 4 groups, with 5 presets per group. To aid identification, you can assign user-defined labels to the presets.

### CaptureVu

The WFM7100 and WFM6100 models allow you to capture a full frame of video data, and then compare that data to a live signal on the waveform, vector, gamut, and picture displays. You can manually initiate a data capture or you can trigger the instrument to capture data when alarm conditions occur. You can save the captured data onto a USB memory drive, which allows you to transfer the data to another waveform monitor or to a PC for additional in-depth analysis.

### Picture Display

All waveform monitor models can display up to four independently configured picture displays of the input signal. This allows you to display different safe area graticules and to decode different closed caption services at the same time.

### Timing Display

All waveform monitor models provide a Timing display that graphically shows the timing relationship between the input signal and an external-reference signal or a saved offset. This easy-to-interpret display includes numeric readouts of vertical and horizontal timing relationships, which reduces the time and effort to verify and correct signal timing.

**SDI Signal Analysis**

When you purchase the appropriate options, the WFM7100 and WFM6100 models offer the following new SDI signal analysis features:

**Multiple SDI Signal Displays.** These models can show up to four independently configured displays of SDI signal characteristics. The available displays include an Eye diagram with a jitter bar display and numeric readouts of key signal parameters, a jitter waveform display, and an SDI Status screen.

**Simultaneous Jitter Measurement.** These models can make two independent jitter measurements with separate high pass filters, letting you simultaneously monitor the peak-to-peak amplitudes of timing and alignment jitter.

**Cable Parameter Measurements.** These models measure cable loss and use this measurement to estimate the source level and cable length based on the user-specified cable type.

**Audio Analysis**

When you purchase the appropriate options, the waveform monitors offer the following new audio features:

**Headphone Port.** All waveform monitor models include a front-panel headphone port for quickly verifying sound quality. Touch screen controls let you quickly check the stereo pairs shown on the audio bar display.

**Dolby Audio.** The WFM7100 and WFM6100 models provide extensive support for monitoring Dolby audio content, including auto-sensing of Dolby formats, decoding Dolby content and automatically configuring the appropriate audio level and phase displays, and showing decoded Dolby metadata.

**USB Port**

All waveform monitor models include a front-panel USB 1.1 port for storing and recalling captured data and instrument presets. You can share saved data and presets between different waveform monitors.

## Problems and Behaviors

The following problems and behaviors are organized by the affected operating modes in the instrument:

**Alarms** The following topics apply to the Alarm operating mode:

**SDI Presence and SDI Lock Alarms.** When an SDI signal missing condition is detected, the waveform monitor will generate an SDI Input Missing alarm, but will not generate an SDI Input Signal Lock alarm.

**Nonfunctional Physical Layer Alarms.** The following alarms appear in the Physical Layer alarm list, but they do not function and do not report errors: Cable Length, Eye Unlocked, Eye Rise Over, and Eye Fall Over.

**Audio Mode** The following topic applies to the Audio operating mode:

**Follows Video Setting for Audio Source** The Audio Input soft key in the Audio menu will incorrectly show the audio input as Follows Video until the audio input is changed to a source other than Follows Video. For any subsequent change of the audio input, including a change to the Follows Video setting, the Audio Input soft key will correctly display the selected audio input.

**Capture Mode** The following topics apply to the Capture operating mode:

**Capture Menu for Composite Analog Video Inputs.** When you enable the Capture Buffer while monitoring a composite video input, the Capture menu will have both the Capture Buffer and Settings soft keys active. If you press the Capture Buffer soft key, there will be no effect because the Capture Buffer mode does not apply to composite analog signals.

For composite analog signals, use the Capture Trace mode, which is activated using the Settings soft key. Changing to the Capture Trace mode removes the Settings soft key. This soft key will reappear when a digital video input is selected for monitoring.

**Certain Fault Conditions May Not Trigger a Frame Capture.** Fault conditions such as CRC Errors and ANC Checksum Errors may not trigger an automatic frame capture. However, the Video Status Display will correctly indicate the occurrence of these faults.

**Cursor Mode** The following topic applies to the Cursor operating mode:

**Disabling Cursors in Track Mode.** If you set voltage or time cursors while in Track Cursor mode, and then turn a cursor off using the Show Volts or Show Time soft keys in the Cursor Menu, the cursor is placed in the Independent mode but the mode select soft-key label does not change to Independent. Use the soft key in the Cursor menu to select Independent mode, then select Track mode to set the cursors back to Track mode.

**Data Analysis Modes** The following topics apply to the Data Analysis operating modes:

**Line and Sample Cursor not Available on Thumbnail in Data Mode.** In Data Display mode when Line Select mode is enabled, the line and sample cursor is not shown in the Thumbnail display.

**Incorrect Initial DID and SDID Values in ANC Data Display with Factory Default Preset Settings.** When the waveform monitor settings are set to the factory defaults, the ANC Data Display standard is set to EIA 708, but the initial values are DID = 0 and SDID = 0 instead of DID = 60 and SDID = 01 as required by EIA 708. Reset the DID and SDID settings to the correct values to enable the ANC Data display to show the correct ancillary data information.

**ANC Data Display does not Show SMPTE 352M Raw Data after First Power Up.** Raw data is not shown in the ANC Data Display when the instrument is first powered up. The data will be shown correctly after the DID and SDID are reselected.

**Firmware Upgrade** The following topic applies to performing a firmware upgrade:

**Quick Start User Manual Missing a Step in Firmware Upgrade Procedure.** At the end of the firmware upgrade process, the waveform monitor must be rebooted. During the reboot, you are forced to recalibrate the touchscreen. Onscreen instructions direct you to touch crosshairs in five locations: top left, top right, bottom right, bottom left, and then center. After you recalibrate the touchscreen, the waveform monitor completes the reboot.

**Network** The following topic applies to operating the waveform monitor over a network:

**Incorrect Initial SNMP displayMode OID Value When in Four-Tile Mode.** When the waveform monitor is first powered up and is set to display four tiles, if you then initiate a “get” command on displayModeTable or on individual OIDs, the waveform monitor returns the value(s) from tile 1 (top left) as the value(s) for all four tiles. To fix this problem, use front panel controls or SNMP commands to change the display modes shown in tiles 2-4. The waveform monitor will then return the correct values for all four tiles when you initiate a “get” command.

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**NOTE.** *After you change the display modes in tiles 2-4, you can change them back to their original display modes. The workaround only requires that the display modes in tiles 2-4 be changed at least once to correct this problem.*

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