Analog Waveform Monitors

1720 Series • 1730 Series

Features & Benefits

- Performance and Economy
- Full Frame Line Select
- Simultaneous Channel A and B Display
- Dual Filter Display
- One-button Front Panel Recall
- RGB/YRGB Display Capability
- 1730 Series Displays D-2 Servo Waveforms
- Parallax-free Internal Graticules
- Differential Phase and Gain Measurement
- Stereo Audio Phase Measurement
- Vector Center Dot Clamping
- Remote Control Capability
- Available in NTSC and PAL Standards as Well as Dual Standard
- White Phosphor Available
- Composite Serial and Parallel Monitoring Is Available with 1730D Series

Applications

- Cost-effective Signal Monitoring in Camera Control Consoles and Video Transmission Applications

The Tektronix 1730 Series Waveform Monitors and 1720 Series Vectorscopes provide comprehensive television signal monitoring for both NTSC and PAL applications. These versatile instruments are lightweight, half-rack width and have bright CRTs for video signal monitoring. Both instruments exceed normal monitoring capabilities, and their unique features make them even more powerful when operated in tandem. Each monitor has its own advanced feature set and the proven 1700 Series family performance to provide more monitor for the money. These monitors do the job faster, better and easier at an economical price.

The 1720 Series and 1730 Series families cover a wide variety of video testing needs. For typical composite monitoring in the NTSC and PAL realm, the 1720 Series and 1730 Series more than handle the job.
If there is a need for Dual Standard testing (PAL and NTSC), the 1735 Waveform Monitor and 1725 Vectorscope can be used. Digital testing of both composite parallel and composite serial can be accomplished with the 1730D Series of Digital Waveform Monitors. Whatever the individual video testing application, the 1720 and 1730 Series family provide an easy to use, economical solution.

**Complete Line Select**

The 1730 Series Waveform Monitor has full frame line select, with alphanumeric readout, that can be tracked by the 1720 Series Vectorscope when in Auxiliary mode. Any one or two lines of the entire frame can be selected and displayed or the same line(s) in both fields can be viewed at one time. An intensified zone in the two-field sweep and on the picture monitor output signal indicates the location of the line selection. In addition, any successive 15 lines can be overlaid for camera and VTR adjustments.

**Simultaneous Channel A and B display**

These instruments have microprocessor front panel control. They are operator-friendly and provide outstanding features in half-rack waveform monitors or vectorscopes. Both the 1730 Series Waveform Monitor and the 1720 Series Vectorscope have dual channel display capability, allowing both input channels to be displayed on the CRT simultaneously.

![1730 Waveform Monitor - Simultaneous Channel A and B display.](image)

**Dual Filter Display**

The 1730 (NTSC) and the 1731 (PAL) Waveform Monitor include dual filter display, which provides low
pass and flat information in the same display. The 2-Field and 2-Line Display Modes have the Low Pass Filter applied to the left half of the trace. In the 1-Line Mode, the two signals are overlaid. These filter modes can also be used independently. Both versions of the 1730 Series have chroma filters centered around the subcarrier frequency.

One-Button Front Panel Recall

Once the front panel has been set up in a frequently used mode, the configuration can be stored for later one-button recall. In addition, when the 1720 is used in tandem with the 1730, it will respond to this Store/Recall operation. Up to four operator-selected front panel configurations can be stored from the front panel. Four other front panel configurations are factory-programmed settings and are accessible from the Remote Control interface.

1730 NTSC Dual Filter display.

1720 Stereo Audio display with phase error.
1721 PAL Vector display.

1731 PAL Dual Filter display.

Line Select Test Signal display.
Differential Phase And Gain Measurements

The 1720 Series Vectorscope graticule has scales for measuring Differential Phase and Gain. The Differential Phase scale has markings at 2° intervals. The Differential Gain scale has markings at 5% intervals. For even greater precision, the 1720 and 1730 Series can be coupled for differential phase measurements using the field or line sweep on the 1730 Series Waveform Monitor. The Waveform Monitor Chroma filter can be used for differential gain measurements.

Stereo Audio Phase Measurements

Balanced inputs for the X Y mode are available on the 1720 Series Vectorscope through a separate input connector. This mode is particularly useful for evaluation of stereo audio with a special X Y graticule scale for both amplitude and phase measurements. X Y measurements can be displayed individually or in combination with a vector display. This input can also be used for other applications where X Y monitoring is useful.

RGB-YRGB

The Waveform Monitor can display RGB or YRGB. The RGB/YRGB staircase input is through a rear panel connector.

Vector Center Dot Clamping

The 1720 Series Vectorscopes employ center dot clamping in Vector mode for easy detection of residual sub-carrier on the signal. In addition, with no signal present, the center dot automatically dims prolonging
the CRT life.

Parallax-Free Internal Graticules

Both instruments utilize post-accelerated, mesh-type CRTs equipped with internal graticules to provide parallax-free displays. Variable, evenly-illuminated scales, along with molded bezels, make waveform photography a snap.

Remote Control

Internal front panel presets, RGB/YRGB enable, along with front panel recall/setup can be accessed through the waveform monitor remote connector.

Available in NTSC, PAL and Dual Standard

Both the 1730 Series and the 1720 Series are available in either NTSC or PAL versions. The 1721 Vectorscope and the 1731 Waveform Monitor are the PAL versions. The 1735 Waveform Monitor and 1725 Vectorscope provide PAL/NTSC Dual Standard Monitoring.