Television Products
Video Measurement Sets

Emmy Award-winning VM 700A automatic video measurement set.

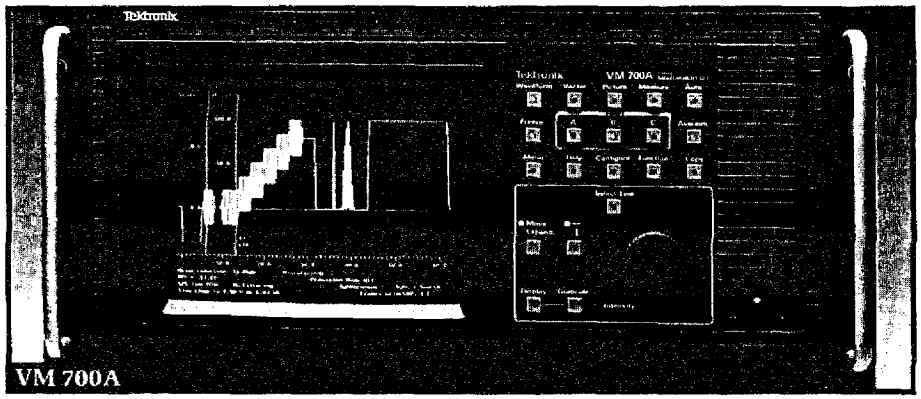
AVTIME audio to video delay measurement package.

Teletext measurements.

Camera measurements.

Component measurements.

- VM 700A
  - Opt. 20
  - Opt. 21
  - Opt. 30
  - Opt. 41
  - Opt. 42
- AVTIME
- VMBKUP
- VMT
- VMREMGR
- 1780R/1781R

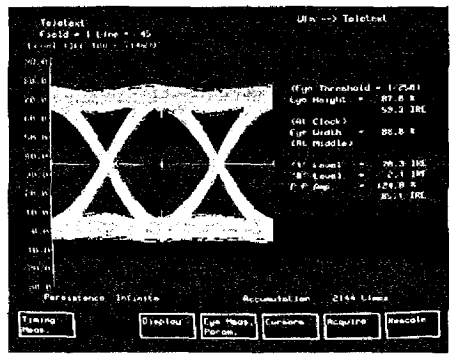


VM 700A Video Measurement Set

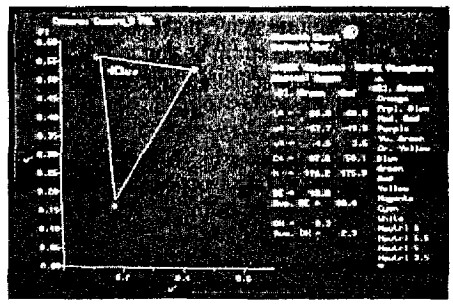
- Many capabilities in one instrument
  - Digital waveform monitor
  - Digital vectorscope
  - Group delay and frequency response
  - Noise measurement set
  - Automatic measurement set
- Auto Mode
  - Unattended monitoring of NTSC or PAL video signals from studios, STLs, earth stations, and transmitters
  - User-specified limits
- Remote control operation
- Automatic measurement of short duration audio test sequence
- Measure frequency response, distortion, phase, crosstalk, and other important audio parameters
- Measure mode provides graphic display of measurements
  - K factor
  - Differential gain and phase
  - Chrominance to luminance delay
  - Noise spectrum
  - Group delay with (Sin x)/x
  - Color bars
  - Relative-to-reference on most measurements
- Three input channels
- Averaging on most measurement modes
- Picture mode for source ID
- Hardcopy for analysis and documentation

VM 700A Option 20 Teletext Measurements

- Provides numerical results
  - Eye height
  - Eye width
  - Data levels (logical "0" and logical "1" levels)
  - Start of data code
  - Number of run-in bits
- Provides graphical displays
  - Eye height with variable persistence
  - Eye height with grading
  - Amplitude histogram
  - Teletext timing
- Multiple clock frequencies
  5.727272 MHz for System M (NTSC)
  6.9375 MHz for System B/G/I (PAL)
- Cursors for manual measurements



VM 700A Option 20



VM 700A Option 21

VM 700A Option 21 Camera Measurements

- Significantly simplifies key measurements of camera performance
- Compatible with NTSC or PAL cameras
- Automates pre-purchase evaluation and comparison of cameras
- *Reduces time spent on acceptance testing*, routine maintenance and operational adjustments
- Uses industry standard charts
- Camera matching simplified with relative-to-reference mode
- Ten key measurements:
  - Colorimetry
  - Vertical Smear
  - Gamma
  - Fixed Pattern Noise
  - Frequency Response
  - CDD Defects
  - Shading
  - Detail
  - Geometry/Registration
  - Frequency Response with Aliasing

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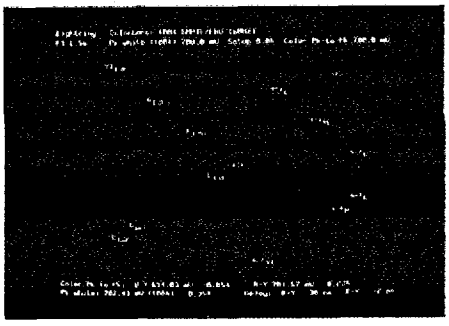


VM 700A Option 30
Component Measurements
- Provides numerical results for:
  - Relative timing of B-Y and R-Y
  - Relative amplitude of B-Y and R-Y
  - Peak to peak amplitude for B-Y and R-Y
  - Peak white amplitude
- Compatible with SMPTE/EBU, Sony Betacam®, and MII Formats
- Numerical results in all measurements
- Level meter displays amplitude of all three channels simultaneously
- Configurable for Y/R-Y/B-Y or GBR formats
- Full complement of component analog video measurements and displays

VM 700A Option 41
Three Stereo Audio Inputs
Option 41 adds three stereo audio inputs to the VM 700A. This provides the capability to measure the audio signals from three stereo audio sources via separate inputs. Each audio channel can be configured to follow one of the video inputs through the front panel video source selection.
- Three independent stereo audio inputs
- Same measurement capabilities as Option 40

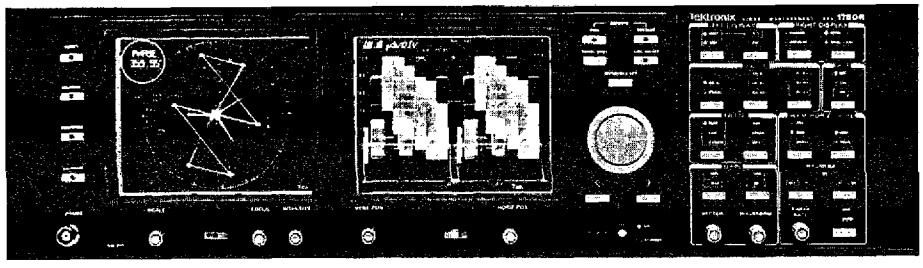
VM 700A Option 42
Audio to Video Delay Measurement
Option 42 provides the VM 700A with the capability to measure the timing difference between the audio and video portions of a program. The measurement is designed to operate with a Tektronix VITS 200 NTSC VITS Inserter or VITS 201 PAL VITS Inserter, and a Tektronix ASG 140 Audio Signal Generator.
- Measures audio to video delay of transmission paths
- Operates in both NTSC and PAL video standards
- Measures audio to video delay of up to 120 video frames
- Easy to read graphic display

VM 700A AVTIME
Audio to Video Delay Measurement Package
Complete audio to video time delay measurement package including VM 700A with Option 40 audio measurement hardware, audio to video delay measurement Option 42, a VITS 200 Series Inserter, and an ASG 140 Audio Signal Generator.

VMBKUP Backup and Remote Control Software
- Backup or restore sets of measurement configuration files, reference measurement files and function key definitions
- Perform individual file and directory operations on both the connected personal computer and VM 700A
- Use to restore backed up files to VM 700A after upgrade
- Control the VM 700A from a PC
- Use Serial Line Internet Protocol (SLIP) for data transfer over RS-232-C connection

VMT Remote Control Software
- Controls the VM 700 or VM 700A
- Pull down/pop up menus simplify operation
- Conditional testing of incoming data
- PC based functions
- Text and graphics capture
- Adapts to VM 700A and its options

VMREMGR Remote Graphics Software
- Display VM 700A graphics on a remote PC
- Perform front panel operations via mouse
- Issue remote commands
- Terminal operations



1780R/1781R Video Measurement Sets
- Full bandwidth analog processing
- Precision waveform/vector measurements
- Polar SCH presentation with calibration mode
- Four loop-through video input channels
- Component or composite waveform evaluation
- Measurement-grade time/voltage cursors
- Precision differential phase/differential gain measurements even with noisy signals
- Stereo audio phase and amplitude display
- User definable semi-automatic setups
- Available for either NTSC or PAL standards

ORDERING INFORMATION

VM 700A
Video Measurement Set **$16,500**
Opt. 01 – NTSC Measurements ..... **+$4,500**
Opt. 11 – PAL Measurements ..... **+$4,500**
Opt. 20 – Teletext Measurements ..... **+$3,000**
Opt. 21 – Camera Measurements ..... **+$4,500**
Opt. 30 – Component Measurements ..... **+$2,500**
Opt. 40 – Audio Measurements ..... **+$4,000**
Opt. 41 – Three Stereo Audio Inputs ..... **+$4,600**
Opt. 42 – Audio to Video Delay Measurement ..... **+$1,500**
Opt. 48 – GPIB Interface ..... **+$2,500**
Opt. 74 – White Phosphor CRT ..... **+$100**
Opt. 1C – Cabinet Version ..... **NC**
Opt. 1P – Printer Version (110 V only) ..... **+$625**
Opt. 1Z – Probe Adapter (067-1429-00) ..... **+$500**

AVTIME
Audio to Video Delay Measurement Package
Opt. 01 – NTSC System with an ASG 140 ..... **+$31,300**
Opt. 02 – NTSC System with an ASG 100 in place of an ASG 140. ..... **+$31,300**
Opt. 11 – PAL System with an ASG 140 ..... **+$30,800**
Opt. 12 – PAL System with an ASG 100 in place of an ASG 140 ..... **+$30,800**
VMBKUP – VM 700A Backup and Remote Control Software **$250**
VMREMGR – VM 700A Remote Graphics Software **$250**
VMT – VM 700A Remote Control Software **$195**
1780R (NTSC)/1781R (PAL) – Video Measurement Sets ... **$10,500**
1780F02 – Portable Carrying Case for 1780R/1781R **$295**
1780F05 – Rackmount Shelf **$100**