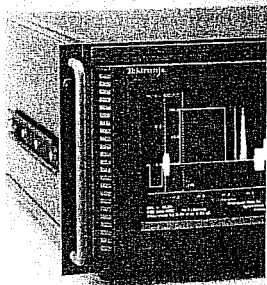
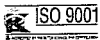


NTSC VIDEO MEASUREMENT SET

VM700T OPTION 01



For your local Tektronix representative see the list in the back of this catalog or outside the U.S. call: 1-503-627-1916, inside the U.S. call: 1-800-426-2200.



Tektronix measurement products are manufactured in ISO registered facilities.

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Electronic Test Equipment
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FEATURES – BENEFITS

- Many Capabilities in One Instrument
 - Digital Waveform Monitor
 - Digital Vectorscope
 - Picture Display
 - Group Delay and Frequency Response
 - Noise Measurement Set
 - Automatic Measurement Set

Award-winning User Interface
State-of-the-art Architecture
Extremely Fast Update Rate
Parallel and Serial Printer Ports
Three Input Channels
Channel Difference Modes
External VGA Display Port
Fully Documented Remote Control Operation
Hardcopy for Analysis and Documentation

APPLICATIONS

Automated Manufacturing Test
Unattended Monitoring of NTSC Video Signals from Studios, STLs, Earth Stations and Transmitters
Research and Development

NTSC VIDEO MEASUREMENTS

Recognized with a technical Emmy award, Tektronix' world class core competencies have enabled it to design and deliver the most comprehensive video measurement solutions in the industry.

Recognized as the de facto industry standard that keeps pace with evolving customer needs, the VM700T is a total solution for your baseband video and audio monitoring and measurement needs. Features such as an extremely fast and fully automatic measurement mode as well as full manual operation provides the first time user as well as the seasoned professional an unequalled value for their test and measurement investment.

AUTOMATIC VIDEO MEASUREMENT SET

The VM700T Auto mode makes standard video transmitter measurements quickly and automatically, including those specified in RS-250C/EIA-250C, NTC-7 and RS170A. Both vertical interval and full field measurements can be made and compared with user-defined limits. A dual limit verification system is employed to generate a caution or alarm message when either limit is violated. Reports can be generated and printed automatically at operator scheduled times or triggered from a conditional event.

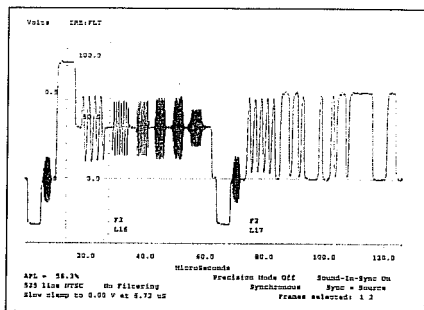
GRAPHIC DISPLAYS OF MEASUREMENTS

Measure mode provides virtual real-time graphic displays of measurement results automatically. Vertical interval or full field measurements including noise spectrum, group delay, K-Factor, differential gain and differential phase are presented as clever, easy to understand interactive digital displays. Such displays are indispensable when extremely fast measurement update rates (up to 30 times a second) are required to provide instant feedback of critical adjustments and analysis of signal variations. User-definable limits are visually integrated into each graphic display and can be used to trigger a measurement report or a user-definable macro function. Such a function can, for example, dial out through a modem to report measurement results or control a signal router. A relative to reference mode allows normalizing to a signal source or eliminate signal path errors from the desired measurement. Up to 2 video references can be stored in NVRAM. Additionally, after downloading to a PC through the VM700T FTP driver, the video reference can be uploaded to another VM700T for reuse. A running averaging mode can be used to reduce the effect of noise. When additional measurement data is required, a user can custom configure measurement parameters and report format.

A powerful Test Signal search capability quickly and automatically locates and identifies valid test signals required for a selected measurement, eliminating the annoying and time consuming task of manually locating test signals.

DIGITAL WAVEFORM MONITOR/VECTORSCOPE

The VM700T Waveform mode application provides real time graphics displays of the video signal allowing many additional measurements to be made manually. Easy to use measurement cursors are available to measure time, frequency and amplitude parameters of a video signal. These cursors allow a very quick and precise location of the 10%, 50% and 90% points on any transition. Cursor mode also employs an automatic calculation in the wave shape in the center of the display. The parameters calculated are sine peak-to-

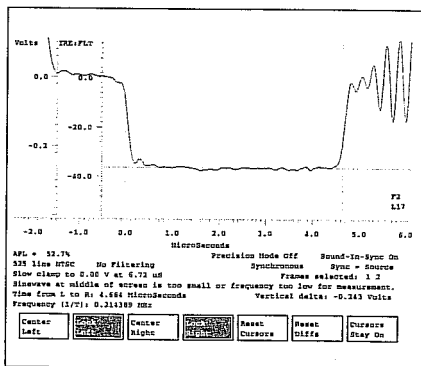


Vertical interval test signals can be seen very clearly for additional analysis of the signal. These can be printed as support documentation for automatic measurement results.

peak amplitude, frequency and offset from blanking level. This is very useful for frequency response measurements with the Multiburst signal.

The waveform display can be expanded around any point both vertically and horizontally. Since the data is digitized, the display remains bright and easy to read at all expansion factors. The scales automatically expand with the waveform, so all units are correct as displayed. A channel difference mode (A-B, A-C, B-A, B-C, C-A and C-B) is also provided. A screen memory selection enables Envelope mode, which is useful for looking at teletext, Jitter or other changes over time.

Vector mode provides the normal vectorscope display. The vectors may be rotated or expanded, with the rotation angle and gain values displayed numerically on the screen.



Even a single horizontal synchronization pulse can be displayed at a high intensity.

A unique "Find ColorBars" feature searches all video for ColorBars and displays the vectors if found. The vectors can be referenced to either the selected channel's burst or the burst of one of the other two channels or continuous subcarrier. The phase difference between the selected channel and the reference is always displayed.

Select Line in both Waveform and Vector modes can be used to quickly specify any line for display or automatic measurement if it is the proper signal.

PICTURE MODE

The signal source can be quickly verified using the picture display. Additionally, a "bright-up" line select mode allows a user to select any video line for use in Measure mode or for viewing in Waveform or Vector mode.

USER PROGRAMMABLE FUNCTIONS

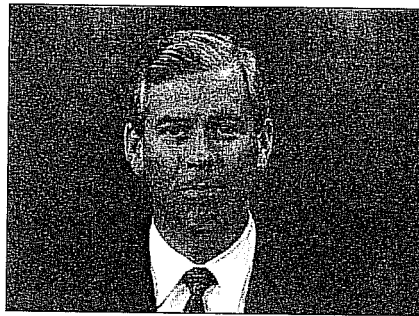
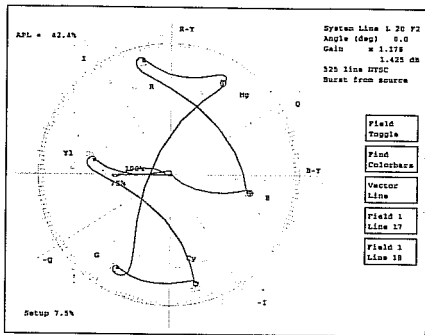
Function mode is an extremely powerful feature that allows a user to store a sequence of user operations as a macro function for later "playback."

For example, a set of measurements (complete with hardcopy commands) to be made on a transmitter demodulator video output, could be stored as a function labeled "DEMOD." The function "playback" could then be initiated manually, remotely or completely automatically as a user specified timed event. Function files can be stored as a text file on a PC for editing, copying or uploading to another VM700T. Other function capabilities include controlling of external serial devices such as video/audio routers, switchers, signal generators, telephone modems and many other devices which support RS-232 communications.

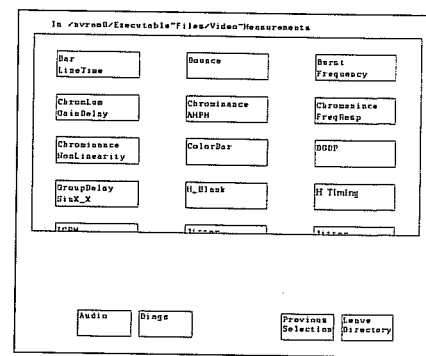
HARDCOPY

All information on the screen may be printed in high resolution graphics on printers supporting PostScript, Hewlett-Packard LaserJet, DeskJet and ThinkJet, or 24-Pin Epson graphics via the Centronics compatible parallel port or standard RS-232C interface.

Automatic measurement results in text format can be printed on most ASCII printers using the parallel or serial ports.



Picture Mode display. (Video courtesy of KOIN-TV, Portland, Oregon.)



Main Measure Mode display of available measurements.

In Vector Mode, the VM700T becomes a digital vectorscope with an electronic graticule. A "ColorBar Search" feature makes it easy to quickly display a line containing a color bar test signal.

REMOTE OPERATION

The VM700T has a powerful and fully documented remote control language. The VM700T can thus be operated from a remote terminal via RS-232C to monitor unattended transmission systems. In addition, all files can be uploaded to a main computer and downloaded to other VM700Ts. Two different protocols are supported: FTP (File Transfer Protocol) and TELNET. The user can also select a "no protocol" mode of the RS-232C interface when dealing with low baud rates. However, file transfers can only take place with FTP.

SPECIFICATIONS

The performance requirements cited in this section are valid only within the following environmental limits:

Temperature range of 0 to 50° C, with a minimum warm-up time of 20 minutes. The following tables list each measurement and its performance requirement.

The range specifies the extremes between which a measurement can be made.

All measurement accuracies specified are valid only with nominal input signals of 1 V pk-pk (± 6 dB) with an unweighted signal-to-noise ratio of at least 60 dB on the incoming signal and a termination accuracy of $\pm 0.025\%$ (Tektronix PN 011-0102-01 or equivalent).

MEASURE MODE*1, *2

BAR LINE TIME

Measurement Mode Accuracy	Range	Absolute Mode Accuracy	Relative
Bar Level	50 to 200 IRE	$\pm 0.5\%$	$\pm 0.2\%$
Sync Level	20 to 80 IRE	$\pm 0.5\%$	$\pm 0.2\%$
Sync to Bar Top	70 to 280 IRE	$\pm 0.5\%$	$\pm 0.2\%$
Sync/Bar Ratio	10% to 125% 100% nominal	$\pm 0.5\%$	$\pm 0.2\%$
Bar Tilt (Rec 569)	0 to 20%	$\pm 0.2\%$	$\pm 0.1\%$
Line Time Distortion (Rec 567)	0 to 20%	$\pm 0.2\%$	$\pm 0.1\%$
Bar Width	10 μ S to 30 μ S	± 100 nS	NA

BOUNCE

Measurement	Range	Accuracy
Peak Deviation	0 to 50%	$\pm 1\%$
Setting Time	0 to 10 sec	± 100 msec

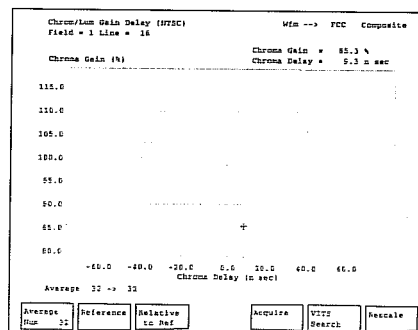
BURST FREQUENCY*3

Measurement	Range	Relative Mode Accuracy
Burst Frequency Error	± 100 Hz	± 0.5

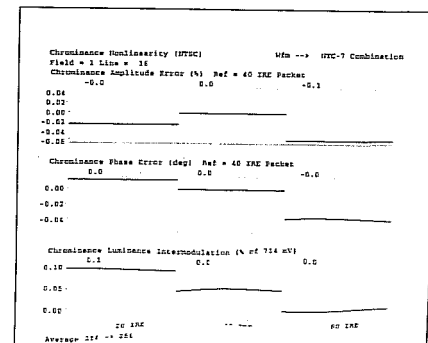
CHROMINANCE TO LUMINANCE GAIN AND DELAY

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Chrominance to Luminance Delay	± 300 ns	± 5 ns	± 1.0 ns
Chrominance to Luminance Gain Ratio	0 to 160%	$\pm 1.0\%$	$\pm 0.1\%$

*Footnotes defined on page 40.



Chrominance to Luminance Gain and Delay measurement.



Chrominance Nonlinearity measurement.

CHROMINANCE FREQUENCY RESPONSE

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Reference Amplitude	0 to 100 IRE	±1%	±0.5%
Frequency Response	0 to 100 IRE	±1%	±0.5%

CHROMINANCE NOISE

Measurement	Range	Absolute Mode Accuracy
AM Noise	-20 to -80 dB	±1 dB (-20 to -60 dB)
PM Noise	-20 to -70 dB	±1 dB (-20 to -60 dB)

CHROMINANCE NONLINEARITY*4

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Chrominance Amplitude	0 to 100%	±0.4%	±0.2%
Chrominance Phase	0 to 360°	±1°	±0.2°
Chrominance to Luminance Intermodulation	-50 to +50%	±0.2%	±0.2%

*1 All accuracies for measurements with averaging capabilities assume the default average of 32.
 *2 All accuracies for measurements with relative to reference mode assume an average of 256 was used to create the reference.
 *3 Requires a reference signal.
 *4 Accuracies for chrominance nonlinearity amplitude and phase measurements assume an average of 256.

COLOR BAR

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Luminance Level	0 to 100 IRE (0 to 714.3 mV)	±0.5 IRE	±0.2%
Chrominance Level (excluding gray and black)	0 to 100 IRE (0 to 714.3 mV)	±1.0% of nominal	±0.2%
Chrominance Phase	±180° of nominal	±0.5° of nominal	±0.1°

SMPT E COLOR BARS NOMINAL VALUES

Color	LUM (mV)	Chroma P-P (mV)	Phase (degrees)
Yellow	494.6	444.2	167.1
Cyan	400.4	630.1	283.4
Green	345.9	588.5	240.8
Magenta	256.7	588.5	60.8
Red	202.2	630.1	103.4
Blue	108.1	444.2	347.1

DIFFERENTIAL GAIN AND PHASE

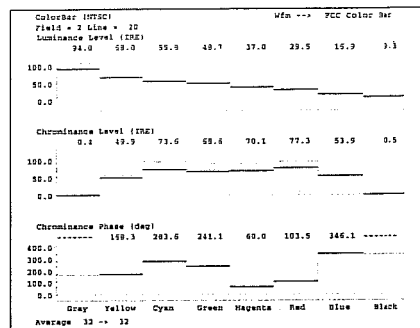
Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Differential Gain	0 to 100%	±0.3%	±0.03%
Differential Phase	0 to 360°	±0.3°	±0.03°

FREQUENCY RESPONSE AND GROUP DELAY

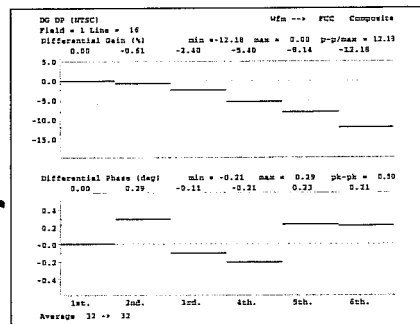
Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Frequency Response	±40 dB	±1.0 dB	±0.3 dB
Group Delay	±1.0 μs	±20 ns	±5 ns

HORIZONTAL BLANKING

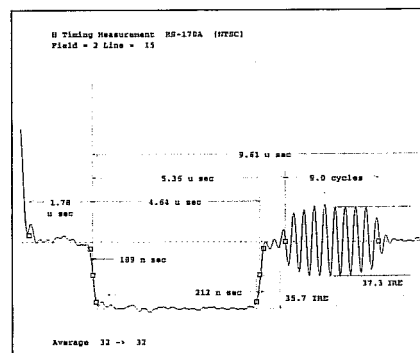
Measurement	Range	Absolute Mode Accuracy
Blanking Start	0.1 to 4.2 μs	±50 ns
Blanking End	6.8 to 12.2 μs	±50 ns
Blanking Width	6.9 to 16.4 μs	±50 ns



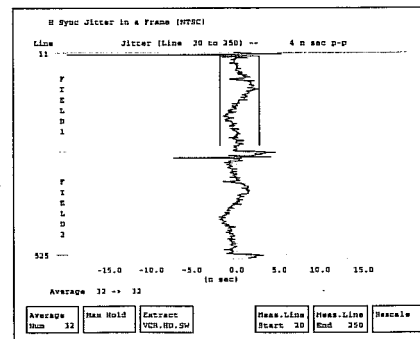
Color Bar measurement.



Differential Gain and Phase measurement.



Horizontal Timing measurement.



H Jitter.

HORIZONTAL TIMING

Measurement	Range	Absolute Mode Accuracy
Burst Level	10 to 80 IRE	±0.5%
Horizontal Sync Rise and Fall Time	80 ns to 1 μs	±10 ns
Horizontal Sync Width	3 to 7 μs	±10 ns
Burst Width	6 to 13 cycles	±0.1 cycles (FCC) ±0.5 cycles (RS-170A)
Sync to Burst Start (RS-170A)	4 to 10 μs	±150 ns
Sync to Burst End (FCC)	4 to 10 μs	±25 ns
Front Porch	0.1 to 3.5 μs	±10 ns (FCC) ±10 ns (RS-170A)
Sync to Setup	8.8 to 13.0 μs	±10 ns
Breezeway (FCC)	0.1 to 5 μs	±25 ns
Sync Level	20 to 80 IRE	±0.5%

INCIDENTAL CARRIER PHASE MODULATION

Measurement	Range	Accuracy
ICPM (requires zero Carrier Pulse and the quadrature output of the demodulator on Channel C)	0 to 90°	±1.0°

JITTER

Measurement	Range	Absolute Mode Accuracy
Jitter (2 Field)	±20 μs	±10 ns
Jitter Long Time	±20 μs	±10 ns

K-FACTOR

Measurement	Range	Absolute Mode Accuracy
2T Pulse K-Factor	0 to 10% Kf	±0.3%
KPB	10 to 5% KPB	±0.3%
Pulse to Bar Ratio	10 to 125%	±0.7%
Pulse Half Amplitude Duration (HAD)	100 to 500 ns	±5 ns

LEVEL METER

Measurement	Range	Accuracy
Level Meter	0 to 1.4 V	±3.5 mV

LINE FREQUENCY

Measurement	Range	Accuracy
Line Frequency	±3%	±0.1%
Field Frequency	±3%	±0.1%

LUMINANCE NONLINEARITY

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Luminance Nonlinearity	0 to 100%	±0.4%	±0.2%

MULTIBURST*5

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Reference Flag or Packet Amplitude	30 to 130 IRE	±1%	NA
Other Packets	-40 to +6 dB	±0.1 dB	±0.03 dB

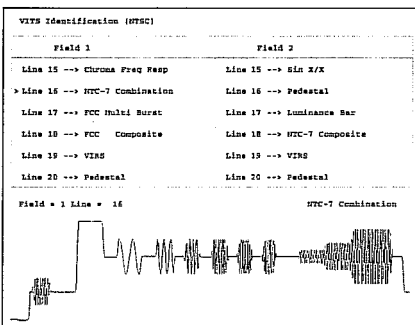
*5 Total Harmonic Distortion on packets must be ≤46 dB.

NOISE SPECTRUM

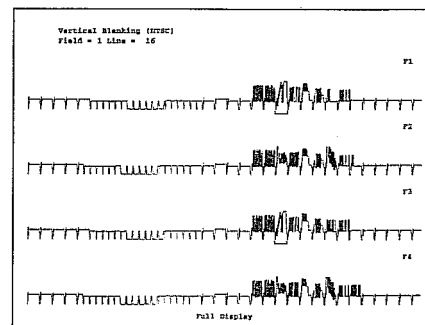
Measurement	Range	Absolute Mode Accuracy
Unweighted Signal-to-noise Ratio (5 MHz Low Pass)	-20 to -80 dB	±0.4 dB (-20 to -60 dB) ±1.0 dB (-60 to -70 dB)
Weighted Signal-to-noise Ratio (5 MHz Low Pass and Unified Weighting)	-20 to -80 dB	±1.0 dB (-20 to -0 dB) ±2.0 dB (-60 to -70 dB)

SCH PHASE

Measurement	Range	Absolute Mode Accuracy
SCH Phase	±90°	±5°
Sync Timing	±1 μs	±10 ns
Burst Timing	±180°	±5°



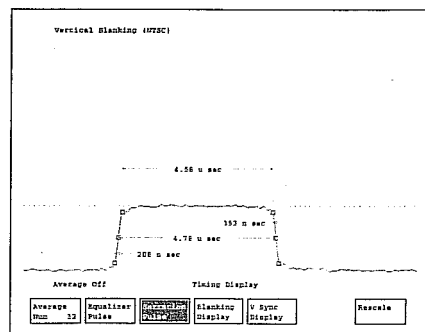
VITS ID display.



Vertical Blanking display.

VERTICAL BLANKING

Measurement	Range	Absolute Mode Accuracy
Equalizing Pulse Width	80 ns to 1 μs	±10 ns
Serration Pulse Width	80 ns to 1 μs	±10 ns



Vertical Blanking Serration Pulse measurement.

NTSC VIDEO MEASUREMENT SET

VM700T OPTION 01

AUTO MODE

RS-170A HORIZONTAL BLANKING INTERVAL TIMING MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Color Burst Width	6 to 13 cycles	±0.1 cycles	Horizontal Blanking
Front Porch Duration	0.5 to 2 µs	±20 ns	Horizontal Blanking
Horizontal Blanking Width	6 to 30 µs	±50 ns	Horizontal Blanking
Horizontal Sync Rise Time and Fall Time	80 to 120 ns, 120 to 300 ns, 300 ns to 1.0 µs	-10 to +30 ns, ±20 ns ±30 ns	Horizontal Blanking
Horizontal Sync Width	1 to 8 µs	±10 ns	Horizontal Blanking
SCH Phase	±90°	±5°	Horizontal Blanking
Sync to Setup	5 to 18 µs	±20 ns	Horizontal Blanking
Sync to Start of Burst	4 to 8 µs	±140 ns (0.5 cycles) ±20 ns	Horizontal Blanking

RS-170A VERTICAL BLANKING INTERVAL

Measurement	Range	Accuracy	Test Signal
Equalizing Pulse Width	1 to 20 µs	±10 ns	Vertical Blanking
Serration Width	1 to 20 µs	±10 ns	Vertical Blanking
Vertical Blanking Width	19 to 29 lines	-0.1 lines to +0.2 lines	Vertical Blanking

FCC HORIZONTAL BLANKING INTERVAL TIMING MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Breezeway Width	0.2 to 3.5 µs	±25 ns	Horizontal Blanking
Color Burst Width	6 to 13 cycles	±0.1 cycles	Horizontal Blanking
Front Porch Duration	0.5 to 2 µs	±10 ns	Horizontal Blanking
Horizontal Blanking Width	6 to 30 µs	±10 ns	Horizontal Blanking
Horizontal Sync Rise Time and Fall Time	80 to 120 ns, 120 to 300 ns, 300 ns to 1.0 µs	-10 to +30 ns ±20 ns, ±30 ns	Horizontal Blanking
Horizontal Sync Width	1 to 8 µs	±10 ns	Horizontal Blanking
Sync to Setup	5 to 18 µs	±20 ns	Horizontal Blanking
Sync to End of Burst	6 to 15 µs	±20 ns	Horizontal Blanking

FCC VERTICAL BLANKING INTERVAL TIMING MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Equalizing Pulse Width	25 to 100%, of nominal horizontal sync pulse width	±0.3%	Vertical Blanking
Serration Width	1 to 20 µs	±10 ns	Vertical Blanking
Vertical Blanking Width	19 to 29 lines	-0.1 lines to +0.2 lines	Vertical Blanking

AMPLITUDE AND PHASE MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Average Picture Level (APL)	0 to 200%	±3.0%	Full Field
Bar Top	0 to 90% of Maximum Carrier	±0.1%	FCC/NTC-7 Composite
Bar Amplitude	0 to 200 IRE	±0.3 IRE	FCC/NTC-7 Composite
Chrominance to Luminance Delay (Relative Chroma Time)	±300 ns	±5 ns	FCC/NTC-7 Composite
Chrominance to Luminance Gain (Relative Chroma Level)	0 to 160%	±1%	FCC/NTC-7 Composite
Differential Gain	0 to 100%	±0.3%	FCC/NTC-7 Composite
Differential Phase	0 to 360°	±0.3°	FCC/NTC-7 Composite
Luminance Nonlinear Distortion	0 to 50%	±0.4%	FCC/NTC-7 Composite
Relative Burst Gain	±100%	±0.3%	FCC/NTC-7 Composite
Relative Burst Phase	±180°	±0.3°	FCC/NTC-7 Composite
Burst Amplitude (% of sync)	25 to 200% of sync	±1.0%	Horizontal Blanking
Burst Amplitude (% of Bar)	10 to 80% of Bar (10 to 80 IRE when Bar is not used)	±0.4% (±0.4 IRE)	Horizontal Blanking
Sync Amplitude (% of Bar)	20 to 80% of Bar (20 to 80 IRE when Bar is not used)	±0.3% (±0.3 IRE)	Horizontal Blanking

AMPLITUDE AND PHASE MEASUREMENTS (CONTINUED)

Measurement	Range	Accuracy	Test Signal
Blanking Level	0 to 90% of Maximum Carrier	±0.2%	Horizontal Blanking
Sync Variation	0 to 50% of Maximum Carrier (0 to 50% of Bar when Zero Carrier is not used and 0 to 50 IRE when Zero Carrier and Bar are not used)	±0.3% for Zero Carrier (±0.3% for no Bar and ±0.3 IRE for no Zero Carrier and no Bar)	Horizontal Blanking
Blanking Variation	0 to 50% of Maximum Carrier (0 to 50% of Bar when Zero Carrier is not used and 0 to 50 IRE when Zero Carrier and Bar are not used)	±0.3% for Zero Carrier (±0.3% for no Bar and ±0.3 IRE for no Zero Carrier and no Bar)	Horizontal Blanking

FREQUENCY RESPONSE MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Multiburst Flag Amplitude	0 to 90% of Maximum Carrier (20 to 130% of Bar when Zero Carrier is not used and 20 to 130 IRE when Zero Carrier and Bar are not used)	±0.5% for Zero Carrier (±0.5% for no Bar and ±0.5 IRE for no Zero Carrier and no Bar)	FCC Multiburst or NTC-7 Combination
Multiburst Packet	0 to 100% of Flag NTC-7 Combination	±1% of Flag	FCC Multiburst or Amplitudes

INCIDENTAL CARRIER PHASE MODULATION

Measurement	Range	Accuracy	Test Signal
ICPM (requires Zero Carrier Pulse and the quadrature output of the demodulator on channel C)	0 to 30°	±1.0°	FCC or NTC-7 Composite

COLOR BAR MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Color Bar Amplitude Errors	±100% of nominal	±1.0%	FCC Color Bars
Color Bar Phase Errors	±180° from nominal	±0.5°	FCC Color Bars
Color Bar Chrominance to Luminance Gain Ratio	0 to 200% of nominal	±2%	FCC Color Bars

OUT-OF-SERVICE MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Field Time Distortion	0 to 40%	±0.5%	Field Square Wave

WAVEFORM DISTORTION MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Line Time Distortion	0 to 40% of Bar	±0.2%	FCC or NTC-7 Composite
Pulse to Bar Ratio	10 to 125%	±0.7%	FCC or NTC-7 Composite
Short Time Waveform Distortion (IEEE 511)	0 to 25% SD	±0.5% SD	NTC-7 Composite
Chrominance Nonlinear Gain Distortion	5 to 35 IREE (20 IRE chroma) 45 to 160 IRE (80 IRE chroma)	±0.4 IRE	NTC-7 Combination
Chrominance Nonlinear Phase Distortion	0 to 360°	±1.0°	NTC-7 Combination
Chrominance to Luminance Intermodulation	±50 IRE	±0.2 IRE	NTC-7 Combination
2T K-Factor	0 to 10% Kf	±0.3% Kf	FCC or NTC-7 Composite

NTSC VIDEO MEASUREMENT SET

VM700T OPTION 01

VIRS MEASUREMENT

Measurement	Range	Accuracy	Test Signal
VIRS Setup (Reference Black)	-20 to 130% of Bar (-20 to J521 130 IRE when Bar is not used)	±0.2% (±0.5 IRE when Bar is not used)	VIRS
VIRS Chrominance Reference Amplitude	0 to 200% of burst amplitude (0 to 80% of Bar when burst is not used and 0 to 80 IRE when burst and bar are not used)	±1% (±0.1% when burst is not used and ±1 IRE when burst and Bar are not used).	VIRS
VIRS Chrominance Phase Relative to Burst	±180°	±0.5°	VIRS
VIRS Luminance Reference	30 to 100% of Bar (30 to 100 IRE when Bar is not used)	±0.2% (±0.2 IRE)	VIRS

SIGNAL-TO-NOISE RATIO MEASUREMENTS

Measurement	Range	Accuracy	Test Signal
Unified Unweighted SNR	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Quiet Line
Unified Luminance Weighted SNR	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Quiet Line
NTC 7 Unweighted SNR	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Quiet Line
NTC 7 Luminance Weighted SNR	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Quiet Line
Periodic SNR	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Quiet Line

CHARACTERISTICS

POWER REQUIREMENTS

Mains Voltage Range – 87 VAC to 132 VAC
or 174 VAC to 250 VAC.

Mains Frequency – 47 Hz to 63 Hz.

Power Consumption – 250 W.

ENVIRONMENTAL

Operating Temperature Range – 0° C to
50° C ambient.

Safety – UL3111-1, CSA1010.1, EN61010-1,
IEC61010-1.

PHYSICAL CHARACTERISTICS

Dimensions	mm	in.
Width	483	19
Height	222	8.75
Depth	556	21.9
Weight	kg	lb.
Net	approx. 20	approx. 45

ORDERING INFORMATION

VM700T OPT. 01

NTSC Video Measurement Set.

Includes: Instruction manual, 75 Ω terminators (3)
011-0102-00, power cord.

ADDITIONAL OPTIONS

Opt. 11 – PAL Measurements.

Opt. 01/11 – Dual Standard Measurements.

Opt. 20 – Teletext Measurements.

Opt. 21 – Camera Measurements.

Opt. 30 – Component Measurements.

Opt. 40 – Audio Measurement Module.

Opt. 41 – 6 Channel Audio Measurement Module.

Opt. 42 – Audio to Video Delay Measurement.

Opt. 48 – GPIB Interface.

Opt. 1C – Cabinet Version.

Opt. 1G – Echo/Rounding Measurements.

Opt. 1P – Printer.

Opt. 1S – Serial Digital Video Measurements.

Opt. 1T – Calibration – NIST/MIL Traceable.

Opt. 1Z – Probe Adapter (067-1429-00).

Opt. 3Z – Probe Adapter (3 each of 067-1429-00).

VM700T SOFTWARE UTILITIES

VMBKUP – VM700T Backup Utility.

VMREMGR – Remote Graphics Software for the
VM700T.

VMT – VM700T Remote Control Software.

OPTIONAL ACCESSORIES

VM7FC1 – Field-installable conversion kit to convert
rackmount unit to cabinet.

VM7FR1 – Field-installable conversion kit to convert
cabinet to rackmount unit.

MEASUREMENT SERVICE OPTIONS

Opt. C3 – Three years of Calibration Services.

Opt. R3 (VM700T/VM100/VM101 only) – Repair
warranty extended to cover three years.

Opt. S1 – One year upgrade to "On-site" Service.

Opt. S3 – Three year upgrade to "On-site" Service.

Opt. S5 – Five year upgrade to "On-site" Service.

Opt. IN – Product Installation Service.

For your local Tektronix representative see the list in
the back of this catalog or outside the U.S. call:
1-503-627-1916, inside the U.S. call: 1-800-426-2200.

CE



Tektronix measurement products are manufactured
in ISO registered facilities.