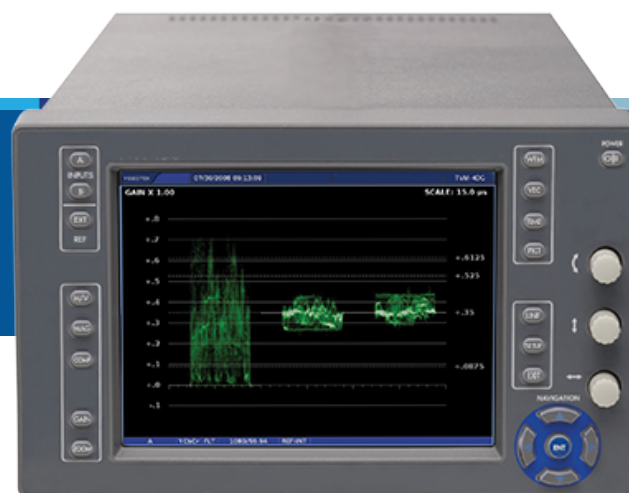# Videotek® TVM-4DG

Multiformat HD/SD-SDI Waveform Monitor/Vectorscope

The TVM-4DG multiformat waveform monitor/vectorscope is an easy-to-operate tool for monitoring HD-SDI (1080 and 720) and SD-SDI (525 and 625) signals and is housed in a convenient half-rack scope package. The display can show any one of the following:
waveform, vector, picture, Videotek® patented gamut display or Videotek® patented timing display.

Features

- Two passive looping HD/SD-SDI inputs with auto-detection of input format
- External reference input accepts blackburst or tri-level sync
- Simple operation
- On-screen display of picture, waveform, vector gamut or timing
- Low power consumption
- Convection cooled (no fan)
- LED backlit display (no mercury)
- GPI control of input and function selection
- Standards supported: SMPTE 292M, SMPTE 259M-C

Specifications

Specifications and designs are subject to change without notice

VIDEO	
Inputs A and B (Digital)	1080i/60, 1080i/59.94, 1080i/50, 1080p/30, 1080p/29.97, 1080p/25, 1080p/24, 1080p/23.98, 1080p/30sF, 1080p/29.97sF, 1080p/25sF, 1080p/24sF, 1080p/23.98sF, 720p/60, 720p/59.94, 720p/50, 720p/30, 720p/29.97, 720p/24, 720p/23.98, 525/59.94 or 625/50 auto-detect
Data Rate	1.485 Gb/s, 270 Mb/s auto-detect
Level	800 mV, nominal
Return Loss	≤-15 dB, 5 MHz to 1.485 GHz
Connectors	4 BNC, Hi-Z looping

REFERENCE	
Input	NTSC/PAL blackburst or composite video, tri-level sync auto-detect (per SMPTE 274M)
Signal Level	NTSC: blackburst 286 mV pk-pk $\pm$6 dB PAL: sync and burst 300 mV pk-pk $\pm$6 dB Tri-level: 600 mV pk-pk $\pm$3 dB
Connectors.	2 BNC, Hi-Z looping
Return Loss	≤-40 dB, 100 kHz to 5 MHz

CONTROL	
GPI	Input selection, function selection, momentary closure
Input Impedance	10 k ohms returned to +5 V
Connector	15-pin D-sub female
VFLASH	Ethernet port for firmware updates

DISPLAY

General	Picture, waveform, vector, gamut or timing
Waveform	YCbCr, RGB, YRGB, Digital as composite
Sweep Time Base	1 H, 2 H or 3 H with x1, x5, x10 magnification 1 V, 2 V or 3 V with x1, x5, x10, x25 magnification
Waveform Accuracy	$\pm 1\%$
Vector	Cr vs. Cb
Vector Accuracy	$\pm 1°$

POWER REQUIREMENTS

Power Input	90 to 260 V AC, 50/60 Hz, nominal
Power Consumption	25 W maximum

MECHANICAL

Dimensions H x W x D	5.25 x 8.25 x 16.63 in. (13.34 x 21.6 x 42.24 cm)
Weight	5.00 lb (2.27 kg)

ENVIRONMENTAL

Operating Temperature	0° to 50° C
Storage Temperature	-40° to 65° C
Humidity	90% maximum (non-condensing)
Operating Altitude	6562 ft (2000 m)
Pollution Degree	2
Standard Accessories	Operators manual GPI breakout North American power cord

Ordering Information

TVM-4DG	Multiformat waveform monitor/vectorscope, HD/SD-SDI inputs with auto detection of input format. External reference input accepts blackburst or tri-level sync. On-screen display of picture, waveform, vector or timing. Standards supported SMPTE 292M, SMPTE 259M-C

OPTIONS

PTC-2	Portable case with folding stand and handle
DRC-2A	Double rackmount case
BLK-1	Blank panel for DRC-2A
EPC	European power cord
EPC-UK	United Kingdom power cord
EPC-AA	Australian power cord