



quantumdata

804 MULTIMEDIA TEST INSTRUMENT

Introducing the 804 Multimedia Test Instrument for testing HDTVs on a production line. The rack mountable 804 is optimized for testing modern HDMI flat panel TVs. It features four (4) HDMI outputs—all active simultaneously—for testing HDTVs with multiple HDMI inputs. This eliminates the need for splitters often required for testing each HDMI input on an HDTV. The 804 can also output component analog and composite analog for testing an HDTVs analog video outputs. Switching between video timings is fast; less than 100ms. The 804 is equipped with all the standard video timings and test patterns including 3D patterns and tests for HDMI protocols such as HDCP, EDID and CEC.

The 804 tests compressed and uncompressed HDMI audio formats using a variety of audio test signals. An HDTV's analog audio inputs can also be tested using the 804's programmable analog audio outputs.

KEY FEATURES + BENEFITS

Four (4) HDMI outputs

Up to 36-bit/pixel (12-bit/component) Deep Color at 1080p; TMDS link up to 2.25 Gb/s.

Analog video outputs

Test HDTVs analog component and composite video inputs.

Standard video timings and patterns

Supports standard video timings and test patterns, including HDMI 1.4a 3D test images. Switches between timings and test patterns in less than 100ms.

HDMI and analog audio outputs

Support HDMI compressed and uncompressed audio formats. Various patterns with programmable amplitude, sampling rate and bit depths.

Serial command line interface

RS-232 and USB interface for command line control or for automated test system.

Rack mountable

Fits in a standard 19" relay rack. Occupies two rack units.

Color touch display

Monitor the status of the test on the color display. Configure the 804 through the touch interface.

USB host interface (Optional)

Attach a keypad for simplified testing

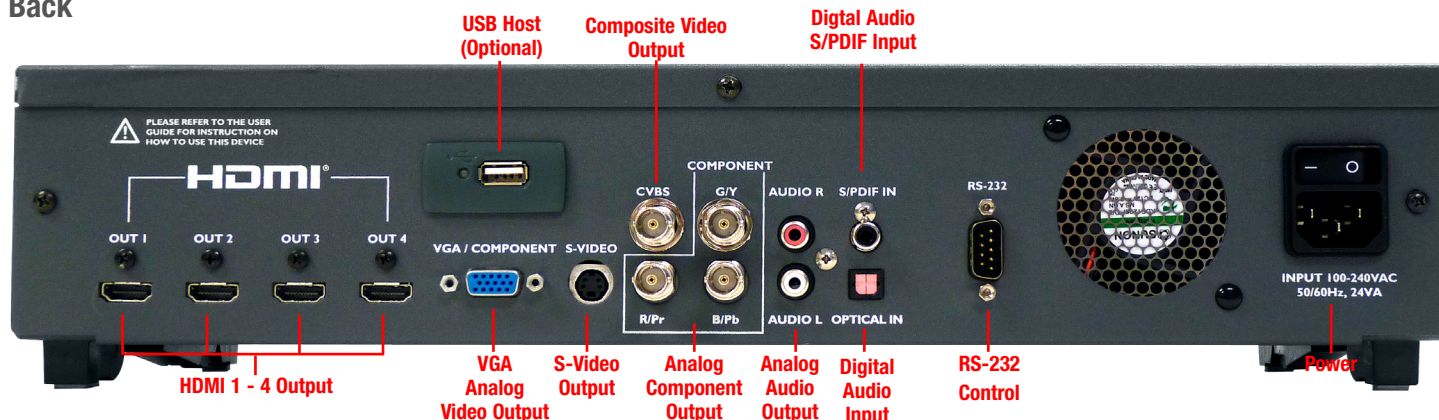


804

Front



Back



SPECIFICATION

Formats (timing)

Formats	Over 110 standard timings for Consumer Electronics, Computer
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Test Patterns

Patterns	Over 35 standard test patterns add custom bitmaps
Moving pattern	ZonePlate, PGCwrgb, imported bitmaps
HDMI 3D	3D images; add 3D bitmap images
3D Formats	Top-and-Bottom, Side-by-Side, Frame Packing
Special test patterns	Functions
HDCPprod	HDCP
EDIDTest	EDID
CEC	CEC Ping

HDMI (DVI)

Connector	(4) HDMI	Type A
Version		HDMI 1.4a 3D
Video		
Pixel rate		up to 165 mHz
TMDS clock rate		2.25 Gb/s
Encoding (HDMI)		RGB / YCbCr
Encoding (DVI)		RGB
Sampling mode (HDMI)		4:4:4 / 4:2:2
Sampling mode (DVI)		4:4:4
Color depth (HDMI)		24/30/36 bits per pixel
Color depth (DVI)		24 bits per pixel
Color space		ITU BT.601 & BT.709

Audio		
Sampling rates (kHz)		32.0, 44.1, 48, 88.2, 96, 176.4, 192.0
Number of channels		2 to 8
Audio content		FL, FR, LFE, RL, RR, RC, FLC, FRC, RLC
Bits per sample		16, 20, 24
Audio formats		LPCM, Dolby Digital, DD+, DTS-ES
Frequency range (sine wave LPCM)		10Hz to 20kHz in 1Hz increments
Amplitude		-99dB to 0dB in 1dB increments

YPbPr Component Analog Video output

Connector		
Component analog		(3) BNC
Video		
Bit depth		24 bit color
Pixel rate		27mHz, 27.027mHz, 74.176mHz, 74.25mHz
Colorimetry		YPbPr
Sync type		Composite

RGB Component Video output

Connector		
VGA		D-Sub
Video		
Bit depth		24 bit color
Pixel Rate		80mHz
Colorimetry		RGB, YPbPr
Sync Type		Separate and Composite

Analog Composite Video output

Connector		
CVBS		(1) BNC
Y/C		S-Video
Video		
Encoding		NTSC, PAL
Pixel Rate range		13.5 - 13.52mHz
Sync Type		Composite

Analog Audio Output

Connector		(2) RCA
Audio parameters		
Audio channels		2 (L R)
Audio signal		Sine wave
Frequency range		10Hz to 20kHz in 1Hz increments
Amplitude		-99dB to 0dB in 1dB increments

Digital Audio Input

Connector		Optical, S/PDIF
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Color Touch Display

Screen Size		480(H) x 272(V)
Color		24 bit RGB

Administration

Interfaces		
RS-232		Automated command line control
USB host - back		Attachable keypad
USB peripheral - front		Updating firmware / gateway and command line
SD Card - front		Updating firmware / gateway

Dimensions / Weight

Dimensions		
Height		3.25 inches; 8.3 cm
Width		16.5 inches; 41.9 cm
Depth		6.1 inches; 15.5 cm
Weight		6.62 lbs; 3.0 kg

Power

Voltage range		100 - 240 -VAC
Frequency		50 - 60 Hz
Power		24 VA

Environmental

Humidity		30% to 80% RH non-condensing
Temperature		32 - 104 Deg F; 0 - 40 deg C