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 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

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Front

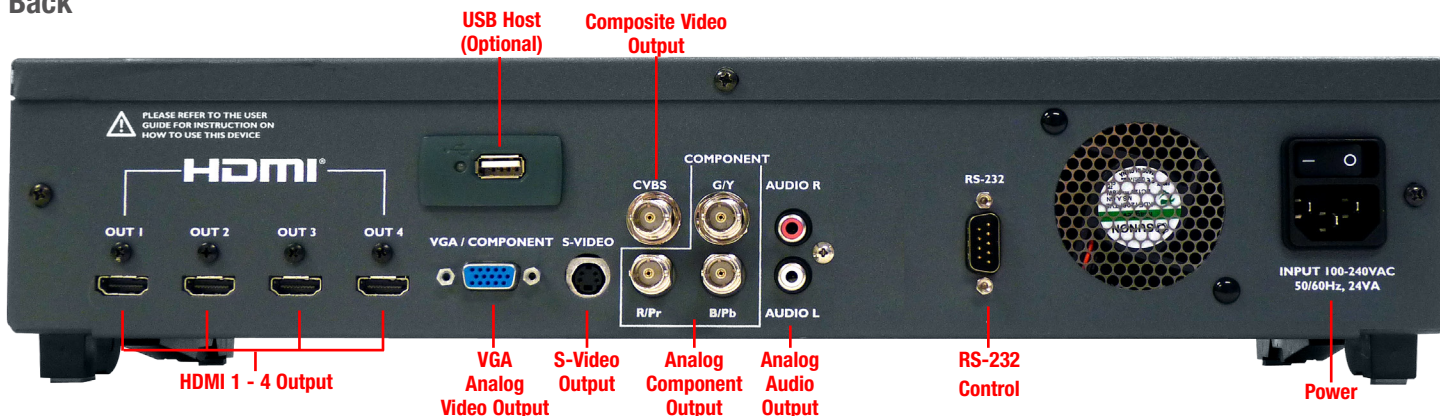Power Switch   Color Touch Display

804 VIDEO TEST GENERATOR

SD Card Slot
USB Device Interface
LEDs

Back

USB Host (Optional)   Composite Video Output

HDMI 1 – 4 Output

VGA Analog Video Output   S-Video Output   Analog Component Output   Analog Audio Output   RS-232 Control   Power

SPECIFICATION

Formats (timing)

Formats	Over 110 standard timings for Consumer Electronics, Computer

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
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
Applitude	-99dB to 0dB in 1dB increments

YPbPr Component Analog Video output

Connector	
Component analog	(3) BNC
Video	
Bit depth	24 bit color
Pixel rate	Up to 80MHz (resolutions above 80MHz are supported through pixel doubling.
Colorimetry	YPbPr
Sync type	Composite

RGB Component Video output

Connector	
VGA	D-Sub
Video	
Bit depth	24 bit color
Pixel rate	Up to 80MHz (resolutions above 80MHz are supported through pixel doubling.
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

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 / gateware and command line
SD Card - front	Updating firmware / gateware

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

Atec Advanced Team Enterprise Co.,Ltd.

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