

# quantumdata™ 804A

## 300 MHz HDMI

### Video Generator

Testing up to 300MHz



### Key Features

- Run video pattern testing on four (4) HDMI inputs on UHD TV with four (4) HDMI 2.0 outputs at 300MHz
- Use standard video formats and test patterns.
- View EDID data of connected sink to verify contents
- Run HDMI audio tests using programmable LPCM sine wave tones or compressed Dolby and DTS tones
- Run verification tests HDMI HDCP version 1.4
- Analog video outputs—BNC, VGA composite—for RGB and YPbPr
- Automate testing using command line interface – RS-232 or USB
- Color touch display for control and viewing status
- Rack-mountable instrument fits in standard 19" relay rack
- Report File Creation optional feature provides HTML formatted report of tests performed

The Teledyne LeCroy quantumdata 804A Video Test Generator supports testing of HD and UHD TVs and displays at pixel rates up to 300 MHz on its HDMI outputs. This enables testing of high end 4K resolutions at 50/60Hz in accordance with HDMI 2.0 4:2:0 pixel encoding. The instrument also supports testing of 21:9 format resolutions. The 804A instrument supports functional protocol tests such as EDID and HDCP. You can verify the EDID of HDMI sinks including new data elements related to HDMI 2.0. HDCP 1.4 verification tests are supported as well. The 804A can also output component analog and composite analog for testing the analog video inputs of HDTVs and computer displays.

The 804A 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 804A's programmable analog audio outputs.

### Video Generation

The rack mountable 804A is optimized for testing modern HDMI flat panel TVs on a production line. 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.

### Ease of Use

The 804A's color touch screen provides ease of use. The rich set of routine tests and diagnostic tests are accessible with just a few touch clicks. You can quickly configure settings on the outputs. The command set, available either through USB or RS-232 serial ports, supports automated testing.

# SPECIFICATIONS

## HDMI Tx Ports

Version	HDMI 2.0
Standard Formats	VESA, CEA
Connector four (4)	Type A Tx (4)
Protocol	HDMI, DVI
Video Colorimetry	ITU-R BT.601-5, ITU-R BT.709-5,
Video Max Pixel Rate	300MHz (3.00 Gbps/channel TMDS rate)
Color Depths	8, 10, 12 bits (up to 225MHz)
Video Encoding	RGB, YCbCr
Video Sampling Modes	4:4:4, 4:2:2, 4:2:0
Audio	Sampling rates (kHz): 32.0, 44.1, 48.0, 88.2, 96.0, 176.4, 192.0 Channels: 2 to 8 Bits per sample: 16, 20, 24 LPCM: (programmable) Sine Wave, 10Hz to 20kHz, -99dB to 0dB Compressed Clips: Dolby Digital, Dolby Digital plus, DTS-ES clips
HDCP	Version 1.4

## BNC Component Analog

Connectors (3)	BNC (3)
Video Max Pixel Rate	80 MHz (resolutions above 80MHz supported by pixel doubling)
Color Depths	24 bits
Video Encoding	YPbPr
Sync Type	Composite

## RGB Component Analog

Connector	VGA (D-Sub)
Video Max Pixel Rate	80 MHz resolutions above 80MHz supported by pixel doubling)
Color Depths	24 bits
Video Encoding	RGB, YPbPr
Sync Type	Separate and Composite

## Analog Composite Port

Connector	BNC (CVBS), S-Video (Y/C)
Video Max Pixel Rate	13.52 MHz
Video Encoding	NTSC (-J, -M, -4, -4.43), PAL
Sync Type	Composite

## Analog Audio Port

Connector	RCA (2)
Channels	2
Parameters	Sine Wave, 10Hz to 20kHz in 1Hz increments, -99dB to 0dB in 1 dB increments

## Administration

RS-232 Serial	Command line control
USB Host	Attachable keypad
USB Peripheral	Command line control; updating firmware and gateway
SD Card	Updating firmware and gateway

## 804A Chassis

Embedded Display	Resolution: 480 (H) x 272 (V); 24 bit RGB color.
Power	100-240 VAC, 50-60Hz
Weight	6.62 LBS; 3.0 Kg
Size	Height: 3.25 in. (8.3 cm); Width: 16.5 in. (41.9 cm); Depth: 8.0 in. (20.3 cm)
Environmental	Operating Temp: 32 to 104 (F); 0 to 40 (C) Humidity: 30% to 80% RH non-condensing



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