

quantumdata™ 804B

600 MHz HDMI

Video Generator

Testing up to 600MHz



Key Features

- Run video pattern testing on four (4) HDMI inputs on UHD TV with four (4) HDMI 2.0 outputs at 600MHz
- Use standard video formats and test patterns.
- View EDID data of connected sink to verify contents
- Run HDMI audio tests using LPCM audio tones or compressed Dolby and DTS tones
- Run verification tests HDMI HDCP
- 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 804B Video Test Generator supports testing of HD and UHD TVs and displays at pixel rates up to 600 MHz on its HDMI outputs. This enables testing of high end 4K resolutions at 50/60Hz in accordance with HDMI 2.0 4:4:4 pixel encoding. The instrument also supports testing of 21:9 format resolutions at or below 600 MHz pixel rate. The 804B 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. Both HDCP 1.4 and HDCP 2.2 verification tests are supported as well. The 804B can also output component analog and composite analog for testing the analog video inputs of HDTVs and computer displays.

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

Video Generation

The rack mountable 804B 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 804B'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. A rich command set, available either through USB or RS-232 serial ports, supports automated testing.

SPECIFICATIONS

HDMI Tx Ports

Version	HDMI 2.0a
Standard Formats	VESA, CEA
Connector four (4)	Type A Tx
Protocol	HDMI, DVI
Video Colorimetry	ITU-R BT.601-5, ITU-R BT.709-5,
Video Max Pixel Rate	600MHz (6.00 Gbps/channel TMDS rate)
Color Depths	8, 10, 12 bits (up to 1080p60)
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	Versions 1.4 & 2.2

BNC Component Analog Port

Connectors (3)	BNC (3)
Video Max Pixel Rate	75 MHz
Color Depths	24 bits
Video Encoding	YPbPr
Sync Type	Composite

RGB Component Analog Port

Connector	VGA
Video Max Pixel Rate	162 MHz
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

804B 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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