



quantumdata

804B VIDEO TEST GENERATOR

The 804B Video Test Generator supports testing of high end 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 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. The 804B can also output component analog and composite analog for testing the analog video inputs of HDTVs and computer displays.

The 804B is equipped with all the standard video timings up to 600 MHz and test patterns including 3D patterns and tests for HDMI protocols such as HDCP, EDID and CEC.

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.

KEY FEATURES + BENEFITS

Four (4) HDMI outputs

Max pixel clock 24 bit color: 600MHz;
Supports 4Kx2K 50/60Hz per HDMI 2.0.
Max TMDS rate 600MHz; 6.00Gb/s per channel.

HDMI EDID Functional Tests

Verify EDID of connected HDMI sinks including both HD and UHD TVs.

HDMI HDCP 1.4 & 2.2 Functional Tests

Verify HDCP authentication with connected HDMI HD and Ultra HD TVs. Verify both HDCP 1.4 and 2.2 standards.

Analog component video output

Equipped with analog component outputs on BNC connectors. Supports resolutions up to 75MHz pixel rate.

Analog RGB computer video output

Equipped with analog component outputs on VGA connector. Supports VESA resolutions up to 162MHz pixel rate.

Analog composite video outputs

Equipped with CBVS and S-Video connectors for testing composite video per PAL and NTSC formats.

Standard video timings and patterns

Supports standard video timings and test patterns, including HDMI 3D test images as specified by the HDMI 1.4a specification.

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 804A through the touch interface.

USB host interface (Optional)

Attach a keypad for simplified testing

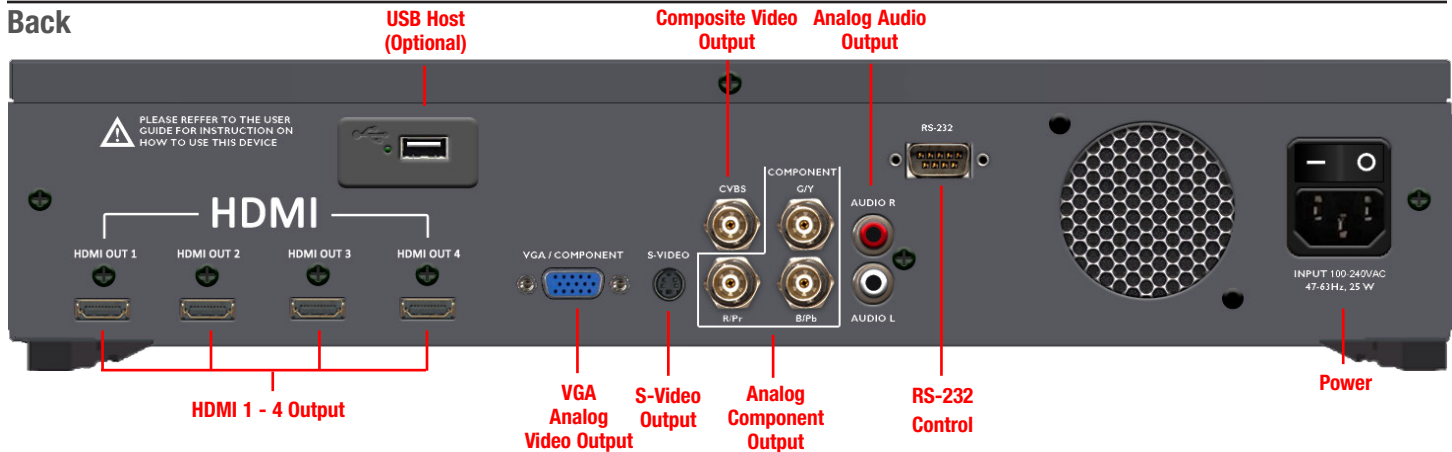


804B

Front



Back



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 bitmap
HDMI 3D	3D images; add 3D bitmap images
3D Formats	Top-and-Bottom, Side-by-Side, Frame Packing
Special test patterns	Functions
HDCPprod	HDCP 1.4 & 2.2
EDIDTest	EDID
CEC	CEC Ping

HDMI (DVI)

Connector	(4) HDMI	Type A
Video	Pixel rate	up to 600 MHz
	TMDS clock rate	up to 600 MHz (6.00 Gb/s per channel)
	Max resolution	4K x 2K UHD at 50/60Hz
	Encoding (HDMI)	RGB / YCbCr
	Encoding (DVI)	RGB
	Sampling mode (HDMI)	4:4:4 / 4:2:2 / 4:2:0 (per HDMI 2.0)
	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

BNC Component Analog Video Output

Connector	Component analog	(3) BNC
Video	Bit depth	24 bit color
	Pixel rate	Up to 75MHz
	Colorimetry	YPbPr
	Sync type	Composite

RGB Component Video Output

Connector	VGA	D-Sub
Video	Bit depth	24 bit color
	Pixel rate	Up to 162MHz
	Colorimetry	RGB, YPbPr
	Sync Type	Separate and Composite

Analog Composite Video output

Connector	CVBS	(1) BNC
	Y/C	S-Video
Video	Encoding	NTSC (-J, -M, -4.43), 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 / 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	8.0 inches; 20.3 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

Specifications are based on hardware and firmware revisions available as of March 2015, and are subject to change without notice. HDMI, the HDMI logo and High-Definition Multimedia interface are trademarks or registered trademarks of HDMI \ Licensing LLC.

Revised 03/06/15