



quantumdata

804B VIDEO TEST GENERATOR - 600 MHz

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 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

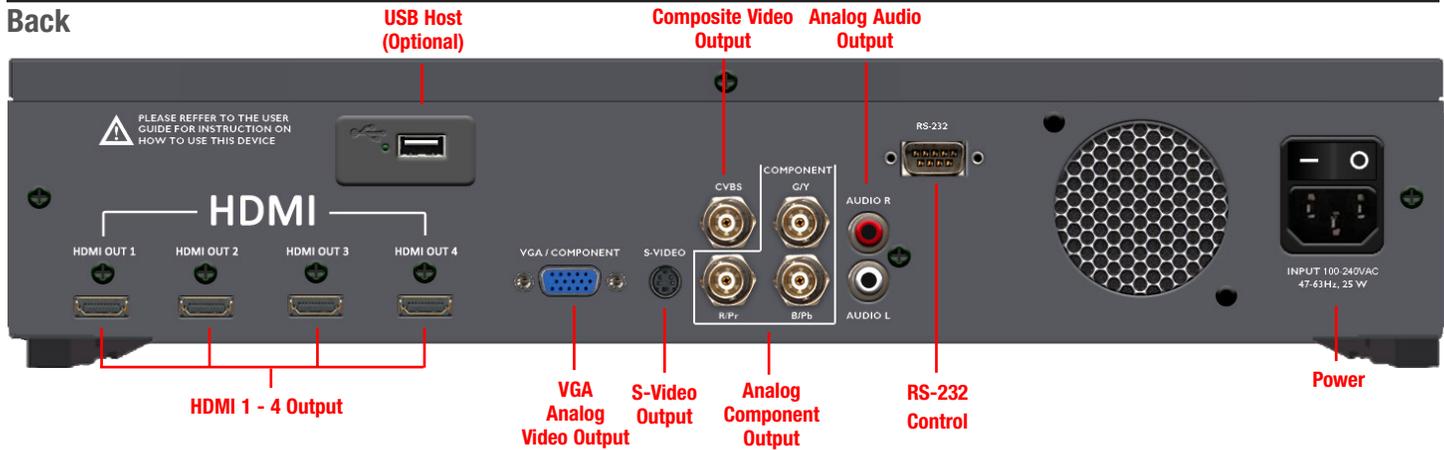


804B

Front



Back



SPECIFICATION

Formats (timing)

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

Patterns	Over 35 standard test patterns add custom bitmaps
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Moving pattern	ZonePlate, PGCwrgb, imported bitmap
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HDMI 3D	3D images; add 3D bitmap images
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3D Formats	Top-and-Bottom, Side-by-Side, Frame Packing
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Special test patterns	Functions
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HDCPprod	HDCP 1.4 & 2.2
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EDIDTest	EDID
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CEC	CEC Ping
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HDMI (DVI)

Connector (4) HDMI	Type A
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Video	
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Pixel rate	up to 600 MHz
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TMDS clock rate	up to 600 MHz (6.00 Gb/s per channel)
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Max resolution	4K x 2K UHD at 50/60Hz
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Encoding (HDMI)	RGB / YCbCr
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Encoding (DVI)	RGB
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Sampling mode (HDMI)	4:4:4 / 4:2:2 / 4:2:0 (per HDMI 2.0)
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Sampling mode (DVI)	4:4:4
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Color depth (HDMI)	24 bits/pixel;
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	30 & 36 bits/pixel up to 1080p60
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Color depth (DVI)	24 bits per pixel
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Color space	ITU BT.601 & BT.709
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Audio	
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Sampling rates (kHz)	32.0, 44.1, 48, 88.2, 96, 176.4, 192.0
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Number of channels	2 to 8
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Audio content	FL, FR, LFE, RL, RR, RC, FLC, FRC, RLC
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Bits per sample	16, 20, 24
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Audio formats	LPCM, Dolby Digital, DD+, DTS-ES
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Frequency range (sine wave LPCM)	10Hz to 20kHz in 1Hz increments
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Amplitude	-99dB to 0dB in 1dB increments
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BNC Component Analog Video Output

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

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

Connector	CVBS	(1) BNC
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Y/C	S-Video
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Video		
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Encoding	NTSC (-J, -M, -4.43), PAL
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Pixel Rate range	13.5 - 13.52MHz
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Sync Type	Composite
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Analog Audio Output

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

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

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

Dimensions		
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Height	3.25 inches; 8.3 cm
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Width	16.5 inches; 41.9 cm
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Depth	8.0 inches; 20.3 cm
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Weight	6.62 lbs; 3.0 kg
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Power

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

Humidity	30% to 80% RH non-condensing
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Temperature	32 - 104 Deg F; 0 - 40 deg C
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Specifications are based on hardware and firmware revisions available as of July 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.

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