



quantumdata

804A VIDEO TEST GENERATOR

Introducing the 804A Video Test Generator supporting HDMI 1.4 297MHz capability for testing HDTVs with 4K x 2K resolutions. 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. The 804A can also output component analog and composite analog for testing an HDTVs analog video outputs. The 804A is equipped with all the standard video timings up to 297 MHz and test patterns including 3D patterns and tests for HDMI protocols such as HDCP, EDID and CEC.

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.



KEY FEATURES + BENEFITS

Four (4) HDMI outputs

Max pixel clock 24 bit color: 297MHz; e.g. 4Kx2K 30Hz.
Max pixel clock 36 bit color: 165MHz; e.g. 1080p60
Max TMDS rate 297MHz; 2.97Gb/s per channel.

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 1.4a 3D test images.

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)

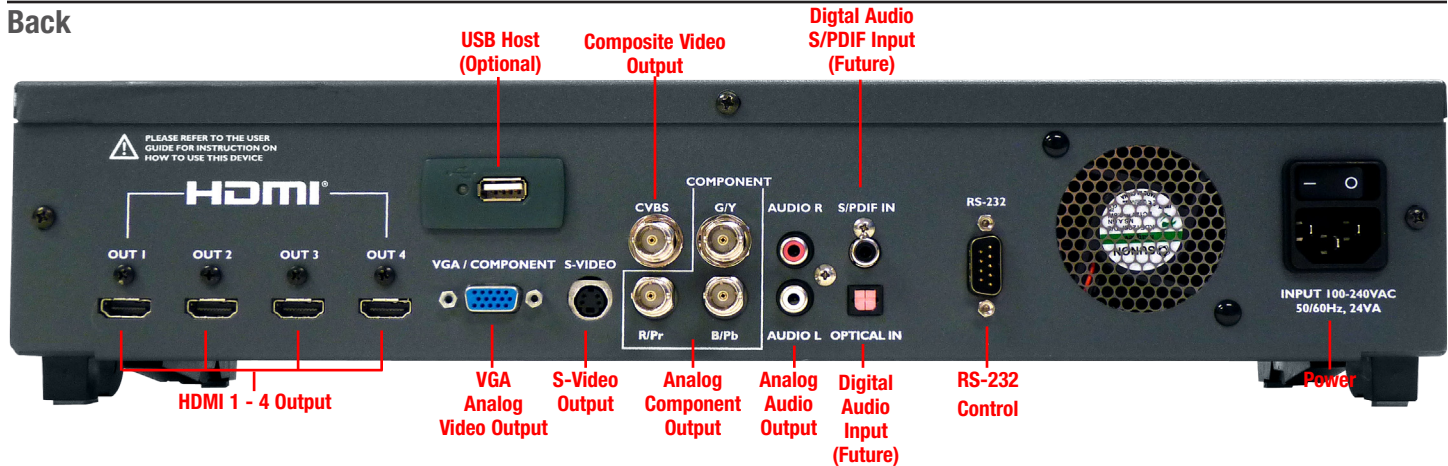
Attach a keypad for simplified testing

804A

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
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EDIDTest	EDID
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CEC	CEC Ping
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HDMI (DVI)

Connector	
(4) HDMI	Type A
Version	HDMI 1.4a

Video

Pixel rate	up to 297 MHz
TMDS clock rate	up to 297MHz (2.97 Gb/s per channel)
Max resolution	4K x 2K at 30Hz
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
Max TMDS clock rate with deep color	225MHZ
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

YPbPr Component Analog Video output

Connector	Component analog	(3) BNC
Video		
Bit depth	24 bit color	
Pixel rate	27mHz, 27.027mHz, 74.176mHz, 74.25mHz	
Colorimetry	YPbPr	
Sync type	Composite	

RGB Component Video output

Connector	VGA	D-Sub
Video		
Bit depth	24 bit color	
Pixel Rate	80mHz	
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

Digital Audio Input

Connector	Optical, S/PDIF
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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	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