

# Portable 4K HDMI Video Test Pattern Generator/Analyzer

<https://www.montest.com/test-pattern-generators/portable-4k-test-pattern-generator-111.html>

- Three modes of operation – analyzer, pattern, and cable test.
- Generates 17 test patterns and features 23 built-in resolutions.
- Supports HDMI resolutions up to 4096x2160@60Hz (4:4:4).
- HDMI 2.0 and DVI 1.0 compliant.
- HDCP v1.4 and v2.2 analysis and control.
- Analyze and emulate EDID data, including the Status and Control Data Channel (SCDC), with 10 built-in default EDIDs and 10 user-definable EDIDs.
- Built-in sine wave tone generator for audio signal testing.
  - Up to 8 channels of LPCM audio test tones can be generated with a wide range of frequencies.
- Control the test pattern generator through OLED screen using front panel buttons or RS232 using USB serial port.
- OLED display provides a way to quickly view the current signal status information.
  - Displays video source information, including: resolution, refresh rate, scanning methods (interlaced or progressive), video type (2D or 3D, HDMI or DVI), HDCP version, general control packet status, color space information (RGB, YCbCr 4:4:4, 4:2:2, or 4:2:0), color depth (8bit, 10bit or 12bit), and audio information.
- Portable, compact design – powered by a single, rechargeable Lithium-ion battery (not included).
  - VPI recommends the Panasonic NCR18650BF Lithium-ion battery.
- Ideal for many applications, including: installer/integrator multi-function test tool; HDMI source and sink testing; UHD system/SCDC error identification; third-party equipment setup; source and sink EDID reading/writing/saving; HDCP compliance verification; production testing; R&D design and testing.



**MONTEST-HD4K-PTB**

The MONTEST-HD4K-PTB Portable 4K Ultra HD Video Test Pattern Generator generates video test patterns for evaluating and testing HDMI displays and components up to 4Kx2K @60Hz (4:4:4). HDMI timing, data packet, EDID and HDCP analysis are supported, along with EDID upload and emulation. It also supports audio test signals including a built-in sine wave tone generator.

## Specifications

### Video/Audio

- Female HDMI connectors for input and output.
- HDMI 2.0 (up to 4K@60Hz 4:4:4) and DVI 1.0 compliant.
- HDCP 1.4 and 2.2 compliant.
- HDMI resolutions supported: 480p@59Hz, 576p@50Hz, 720p@25/30/50/60Hz, 1080i@50/60Hz, 1080p@24/25/30/50/60Hz, 3840x2160@24/25/30/50/60Hz, and 4096x2160@24/25/30/50/60Hz.
- Video bandwidth: 600MHz (18 Gbps)
- Supports embedded digital audio.

### Control Methods

- RS232
  - One female USB Micro-B connector.
    - ◆ Also used for firmware updates and for battery charging.
  - Requires drivers to be installed for RS232 control.
- Front Panel Interface
  - Multi-function and multi-color backlit front panel buttons allow for easy operation.
  - OLED display provides a way to quickly view the current signal status information.

### Power

- Powered by Lithium-ion 18650 battery (not included) or 5VDC, 2.1A USB Power Adapter (not included).
  - VPI recommends the Panasonic NCR18650BF 3350mAh Lithium-ion battery.
    - ◆ Runtime: up to 4 hours, depending on usage and battery quality
  - 3.38-ft USB Type A to USB Micro-B male-to-male cable included.

### Environmental

- Operating temperature: 32 to 104°F (0 to 40°C).
- Storage temperature: -4 to 140°F (-20 to 60°C).
- Operating and storage relative humidity: 20 to 90% non-condensing RH.

### Dimensions

- WxDxH (in): 3.12x1.05x5.46 (79x27x279 mm)

### Regulatory Approvals

- CE, FCC, RoHS
- TAA compliant

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## Test Patterns

