



# quantumdata

## TPA-MHL2-8R

### TEST POINT ADAPTER FOR MHL 2.0 DEVICES

Mobile High-Definition Link (MHL) is a video interface derived from HDMI but targeted to provide an interface from mobile devices like smart phones to TVs or other displays. The MHL standard is designed to connect to smart phones by reusing the existing 5 pin micro-USB connector that many phones have rather than requiring a separate 19 pin HDMI connector. The MHL cable is micro-USB on the source mobile device and HDMI Type A on the other end.

Quantum Data offers a comprehensive suite of test solutions for testing MHL source and sink devices. The TPA-MHL2-8R is a test point adapter that enables protocol analysis, MHL compliance testing and HDCP compliance testing for MHL 1.3, 2.0, 2.1 devices. Protocol analysis and MHL compliance testing requires the Quantum Data 980 Protocol Analyzer. HDCP compliance testing requires the Quantum Data 882EA.

**Note:** There is a prior Test Point Adapter (TPA-MHL-8R) for MHL 1.2 testing.



### TPA-MHL2-8R APPLICATIONS

**MHL protocol analysis for MHL 1.3, 2.0, 2.1 source devices**  
View details of MHL protocol data. Monitor in MHL metadata in real time or capture and store for analysis. Requires TPA-MHL2-8R, Quantum Data 980 Protocol Analyzer.

**MHL compliance testing for MHL 1.3, 2.0, 2.1 source devices**  
Run MHL compliance tests on MHL source devices in accordance with Section 3 of the MHL 1.3, 2.0 or 2.1 compliance Test Specification. Requires TPA-MHL2-8R, Quantum Data 980 Protocol Analyzer module, and MHL source compliance option.

**HDCP compliance testing for MHL 1.3, 2.0, 2.1 source devices**  
Run HDCP compliance tests on MHL source device in accordance with the HDCP 1.2 Compliance Test Specification. Requires TPA-MHL2-8R, Quantum Data 882EA, and HDCP compliance option.

**MHL C-Bus monitoring between a source and sink device**  
View details of MHL C-Bus transactions. Monitor in real time or capture and store for analysis. Requires TPA-MHL2-8R, Quantum Data 980 Protocol Analyzer 297MHz "Gen 3".

**MHL compliance testing for MHL 1.3, 2.0, 2.1 sink devices**  
Run MHL compliance tests on MHL sink devices in accordance with Section 4 of the MHL 1.3, 2.0 or 2.1 compliance Test Specification. Requires TPA-MHL2-8R, Quantum Data 882EA, and MHL sink compliance option.

**HDCP compliance testing for MHL 1.3, 2.0, 2.1 sink devices**  
Run HDCP compliance tests on MHL sink devices in accordance with the HDCP 1.2 Compliance Test Specification. Requires TPA-MHL2-8R, Quantum Data 882EA, and HDCP compliance option.

**MHL compliance testing for MHL 1.3, 2.0, 2.1 dongle devices**  
Run MHL compliance tests on MHL dongle devices in accordance with Section 5 of the MHL 1.3, 2.0 or 2.1 compliance Test Specification. Requires TPA-MHL2-8R, Quantum Data 882EA, and MHL sink/dongle compliance option.

**HDCP compliance testing for MHL 1.3, 2.0, 2.1 dongle devices**  
Run HDCP compliance tests on MHL dongle devices in accordance with the HDCP 1.2 Compliance Test Specification. Requires TPA-MHL2-8R, Quantum Data 882EA, and HDCP compliance option.

**General Specifications**

Size (mm) Width: 8-1/2 in (21.59cm)  
 Depth: 3-7/8in (9.82cm)  
 Height: 1-7/8in (4.76cm)

Weight 1.58lbs (718 grams)  
 Humidity 30% to 80% RH non condensing

**Power**

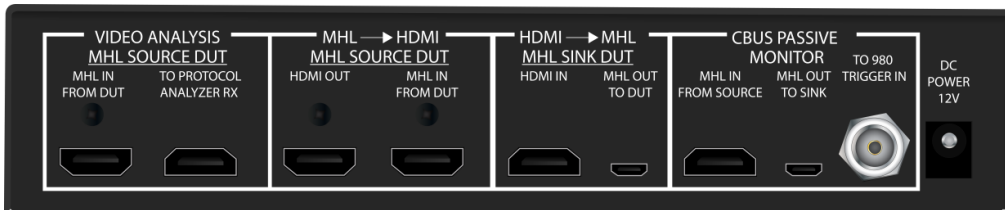
AC Mains Frequency 50 to 60Hz  
 Voltage 100 to 240VAC → 12VDC

**Options**

Cable Kit 78-00061  
 RG590A BNC cable 30-00125  
 (2) MHL Cables 30-00189  
 HDMI Cable 30-00146



TPA-MHL2-8R Item	Label	Function
VBUS Ground pins	VBUS	Access pins for measuring VBUS voltage.
	GND	
Power	POWER	LED indicating that power is applied to the Test Point Adapter.
HDMI to MHL Block Status	HDMI -> MHL	LED indicating that there is a connection to the MHL port on this section.
MHL to HDMI Block Status	MHL -> HDMI	LED indicating that there is a connection to the MHL port on this section.
Video Analysis Block Status	VIDEO ANALYSIS	LED indicating that there is a connection to the MHL port on this section.



TPA-MHL2-8R Rear Section	Connector Label	Applications	Connection
VIDEO ANALYSIS MHL SOURCE DUT	MHL IN FROM DUT	Protocol Analysis for MHL 1.3, 2.0 and 2.1 source devices. Uses 980 Protocol Analyzer.	Connect MHL cable from MHL mobile device (MHL source).
	TO PROTOCOL ANALYZER	Protocol compliance testing for MHL 1.3, 2.0 and 2.1 source devices. Uses 980 Protocol Analyzer.	Connect HDMI cable to the Rx port on 980 Protocol Analyzer.
MHL -> HDMI MHL SOURCE DUT	HDMI OUT	HDCP compliance testing of an MHL 1.3, 2.0 and 2.1 source. Uses 882EA and EST device.	Connect HDMI cable to the 882EA Encryption Status Tester (EST).
	MHL IN FROM DUT		Connect MHL cable from MHL mobile device (MHL source).
HDMI -> MHL MHL SINK DUT	HDMI IN	Protocol compliance test of an MHL 1.3, 2.0 and 2.1 sink. Uses 882EA and 980 Protocol Analyzer.	For MHL Sink Compliance: Connect HDMI cable from 882EA HDMI OUT. For MHL HDCP Sink Compliance: Connect HDMI cable to the 882EA Encryption Status Tester (EST).
	MHL OUT TO DUT	HDCP compliance testing of an MHL 1.3, 2.0 and 2.1 sinks. Uses Quantum Data 882EA and EST device.	For MHL Sink Compliance: Connect MHL cable to the MHL 2.0 sink device under test, e.g. HDTV. For MHL HDCP Sink Compliance: Connect MHL cable to MHL sink DUT.
CBUS PASSIVE MONITOR	MHL IN FROM SOURCE	CBUS Passive monitoring with 980 Protocol Analyzer.	Connect MHL cable from MHL 1.3, 2.0 and 2.1 source device under test, e.g. mobile phone.
	MHL OUT TO SINK		Connect MHL cable to the MHL 1.3, 2.0 and 2.1 sink device under test, e.g. HDTV.
	TO 980 TRIGGER IN		Connect coax cable to TRIG IN port on 980 Protocol Analyzer.
DC POWER 12V	MHL IN FROM SOURCE	Not applicable	Connects to 12V DC power adapter.