
	Teledyne LeCroy - quantumdata™ 780 Series Product Selection Guide				Notes:	
	Product Family >	780	780C	780E		
Interface Technology	Description	Product/Hardware >	780	780C	780E	Interface Notes:
Tx HDMI 300MHz	HDMI Tx enables testing of HDMI sink devices up to 300MHz		●1	●	●	1. Only supports up to 225MHz TMDS rates with deep color. 2. Supports resolutions higher than 80MHz through pixel doubling.
Rx HDMI 300MHz	HDMI Rx enables testing of HDMI source devices up to 300MHz		●1	●	●	
Tx HDMI 600MHz	HDMI Tx enables testing of HDMI sink devices up to 600MHz				●	
Rx HDMI 600MHz	HDMI Rx enables testing of HDMI source devices up to 600MHz				●	
Tx HDBaseT 300MHz	HDBaseT Tx enables testing of HDBaseT sink devices up to 300MHz			●	●	
Rx HDBaseT 300MHz	HDBaseT Rx enables testing of HDBaseT source devices up to 300MHz			●	●	
Tx DisplayPort – 5.4Gb/s	DisplayPort Tx enables testing link rates up to 5.4Gb/s at 1, 2 or 4 lanes				●	
Rx DisplayPort – 5.4Gb/s	DisplayPort Rx enables testing link rates up to 5.4Gb/s at 1, 2 or 4 lanes				●	
Tx 3G-SDI – 2.97Gb/s	3G-SDI Tx enables testing of 3G-SDI sink devices up to 3G data rates			●		
Rx 3G-SDI – 2.97Gb/s	3G-SDI Rx enables testing of 3G-SDI source devices up to 3G data rates			●		
Analog TV Component	Test analog component video for TV sink devices up to 80MHz		●	●		
Analog RGB for computers	Test analog RGB video for PCs		●2	●2		
Functional Tests (Sinks)						Functional Tests (sinks) Notes
Video Pattern Testing	Run pattern tests using standard patterns and timing formats		●	●	●	1. Part of Network Analyzer optional feature package. 2. Part of Aux Channel Emulation monitor optional feature package. 3. Limited to: active interface (e.g. HDMI, VGA), format resolution and test pattern. 4. Also supports aux channel monitoring on HDBaseT ports. 5. Shows full status of HDMI outgoing stream: active interface (e.g. HDMI, VGA and HDBaseT for 780C and 780D and SDI for 780C), format resolution, test pattern, 3D status, audio format. HDCP status, AVMute status). 6. 780D supports deep color only supported up to 1080p60 formats. 780E supports deep color at: 10 bpc up to 480MHz; 12 bpc up to 400MHz; 16 bpc up to 300MHz
Format and Test Pattern Library	Large format library (VESA, CEA); Greater than 100 test patterns		●	●	●	
Customization	Ability to add new bitmaps, formats, store EDIDs		●	●	●	
Configurability	Ability to quickly set the video format and video type and mode, etc		●	●	●	
Deep Color Testing	Run pattern tests using deep color patterns and timing formats		●	●	●6	
HDMI 2.0 4:2:0 Testing	Generator patterns with 4:2:0 pixel encoding with 4K formats at 60Hz			●	●	
HDMI 2.0 21:9 Formats	Generator 861-F 21:9 video timing formats			●	●	
Audio Testing	Run audio tests with uncompressed and compressed formats		●	●	●	
3D Rendering	Run 3D pattern tests with using standard 3D patterns and mandatory formats		●	●	●	
Animated test patterns/clips	Support scrolling test patterns or clips for testing motion artifacts		●	●	●	
HDCP 1.4 Verification	Show HDCP 1.4 test on sink. Show each of the key steps in authentication		●1	●	●	
HDCP 2.2 Verification	Show HDCP 2.2 test on sink.				●	
EDID Verification	Read sink EDID in human text, run partial EDID compliance test		●1	●	●	
HDMI Aux Channel Monitoring	View hot plug events, EDID exchange, HDCP transactions and CEC messages		●2	●2,4	●2,4	
DP Aux Channel Monitoring	View link training, EDID exchange and HDCP transactions with sink				●	
Status bar showing Output status	Shows basic audio, video and other characteristics of the outgoing HDMI stream		●3	●5	●5	
Functional Tests (Sources)						Functional Tests (Sources) Notes
View Source metadata (snapshot)	View protocol and metadata data snapshots		●1	●	●	1. Part of Network Analyzer optional feature package. 2. Part of Aux Channel Emulation monitor optional feature package. 3. Also supports aux channel monitoring on HDBaseT ports 4. Part of Cable/Repeater optional feature package. 4. Limited to LPCM. 6. Shows full status of HDMI and other digital interface's incoming streams. 7. Optional feature.
View Incoming Video	Ability to view the video coming in from the HDMI source as a confidence test		●	●	●	
HDMI 2.0 4:2:0 Testing	View video content from HDMI 2.0 4:2:0 pixel encoding with 4K formats at 60Hz			●	●	
EDID Emulation	Create EDIDs and emulate any EDID and test source response		●	●	●	
HDCP 1.4 Verification	Emulate an HDCP 1.4 sink to test a source		●1	●	●	
HDCP 2.2 Verification	Emulate an HDCP 2.2 sink to test a source				●	
HDMI 2.0x EDID Emulation	Emulate EDIDs with HDMI 2.0 HF-VSDB			●	●	
HDMI Aux Channel Monitoring	View hot plug events, EDID, HDCP & CEC transactions with source		●2	●2,3	●2,3	
DP Aux Channel Monitoring	View link training, EDID exchange and HDCP transactions with sink				●	
Timing Analyzer (basic – snapshot)	View detailed timing data as snapshots; compare with standard timing		●1	●	●	
Frame Compare Test	Test for pixel errors with “golden frame”		●4	●4	●4	
Monitor incoming audio, audibly	Ability to listen to incoming audio			●5	●5	
ARC Rx emulation	Emulate an ARC Tx to test an ARC Rx (HDMI source)			●		
Status bar showing Input status	Shows basic audio, video and other characteristics of the incoming HDMI stream			●6	●6	
Auto EDID test	Test a sources response to user selected set of EDIDs			●7	●7	
Pass through video source to sink	Allow a source device's 4K input to be passed through to a connected display			●		
Functional Tests (cables/networks)						Functional Tests (cables/networks) Notes
Cable & Link Test (loopback)	Run pseudo-random noise tests on HDMI cables or distribution networks		●1	●1	●1	1. Part of Cable/Repeater optional feature package. 2. Part of Aux Channel Passive monitor optional feature package. 3. Also supports aux channel monitoring on HDBaseT ports.
HDMI Aux Channel Passive Monitoring	View hot plug events, EDID, HDCP, CEC transactions between source and sink		●2	●2,3	●2,3	
DP Aux Channel Passive Monitoring	View link training, EDID, HDCP transactions between source and sink				●	
Operational						Operational Notes
Touch Screen	Convenient operation and status information available through embedded GUI		●	●1	●1	1. Larger 7 inch color touch screen (800 x 480). 2. Does not support command line through RS-232.
Battery powered	Operates for limited time from internal battery (otherwise powered through AC)		●			
Command line through USB, RS-232	Control the operation through command line interface via the USB		●2	●	●	