



SL-870 eARC PROTOCOL ANALYZER

The SL-870 eARC Protocol Analyzer is designed to validate source and sink devices for compliance with the latest High Definition Multimedia Interface (HDMI) 2.1 eARC Specification. It supports end user requirements for interoperability and compliance of eARC devices with HDMI 2.1 CTS Test Specification. The analyzer is essential for debugging interoperability issues between eARC devices and can also be used as an eARC audio transmitter or receiver.

KEY FEATURES

- Generates and receives eARC Data Streams
- Supports HDMI 2.1 eARC Transmitter devices
- Supports HDMI 2.1 eARC Receiver devices
- Comprehensive coverage of HDMI 2.1 CTS eARC Protocol tests
- Windows PC GUI application with USB connection
- Individual and Batch test modes
- Built-in CDF generator or load from Excel file
- Detailed log with summary report to help root cause issues
- Supports eARC audio transfers including
 - Uncompressed 2-channel and multi-channel LPCM streams
 - Compressed Dolby[®] and DTS[®] multi-channel streams
 - User supplied audio streams
- Supports capture and display of eARC control channel information including:
 - Timing of common mode channel activity
 - Decoding of eARC control channel messages
- Validates ARC fall-back mode

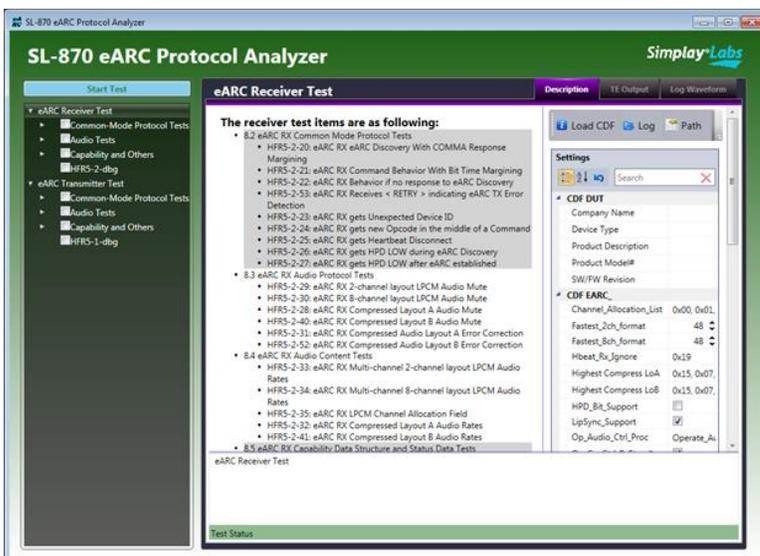
TEST EQUIPMENT



SL-870 eARC Protocol Analyzer Front Panel



SL-870 eARC Protocol Analyzer Back Panel



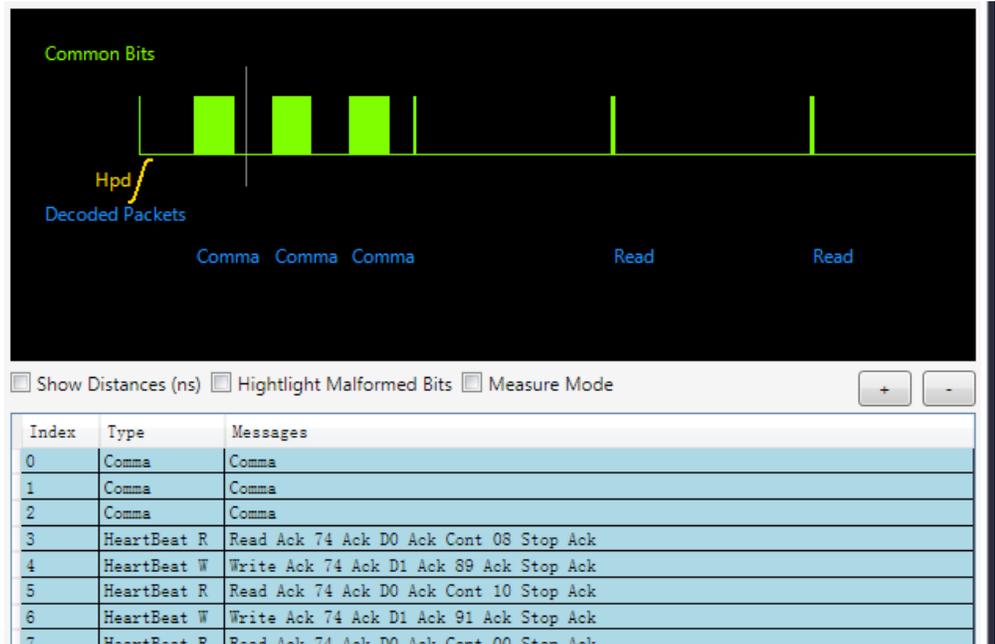
CTS Testing Support

The SL-870 supports comprehensive operational testing of the eARC standard. The SL-870 implements the most comprehensive suite of HDMI 2.1 eARC CTS Protocol tests including:

- Common Mode Protocol Tests
- Audio Tests
- Capability and Other Tests

WAVEFORM AND DECODED MESSAGES DISPLAY

The SL-870 supports capture and display of common mode control structures and messages. The waveform window is zoomable and the data is decoded for easy interpretation.



TEST RESULTS REPORT WINDOW

The SL-870 generates comprehensive reports for ease of testing and certification.



eARC Rx Report

Test Configuration Details	
Device Description	
Company Name	
Device Type	
Product Description	
Product Model#	
eARC CTS Version	1.0
SW/FW Version	
Last Test Date	3/5/2018 4:14:23 PM

Test Result Statistic

Status	Percentage	Value
Passed	3.57%	1
Failed	3.57%	1
Inconclusive	3.57%	1
Incomplete	82.14%	23
Skipped	3.57%	1
Warning	3.57%	1

Item	Description	Result
HFR5-2-20	eARC RX behavior during eARC Discovery	Passed
HFR5-2-21	eARC RX behavior after eARC established	Failed
HFR5-2-22	eARC RX behavior if no response to eARC Discovery	Inconclusive
HFR5-2-53	eARC RX Receives indicating eARC TX Error Detection	Incomplete
HFR5-2-23	eARC RX gets Unexpected Device ID	Skipped
HFR5-2-24	eARC RX gets new Opcode in the middle of a Command	Warning

SPECIFICATIONS

Software

Operating Systems Supported (32 and 64 bit)

- Windows 7 & 10

Hardware

- Dimensions (L x W x H):** 41.3 cm x 26.04 cm x 10.16 cm (16.25" x 10.25" x 4.0")
- Weight:** 3.27 kg (7.2 lb)
- Power:** 12 V DC 1.3A via 100 V – 240 V 50/60 Hz AC Adapter
- Operating Temperature:** 10 °C to 35 °C (50 °F– 95 °F)

AUDIO TESTING

The SL-870 generates the most common audio streams for compliance with CTS test suite. User-supplied audio can also be input to or extracted from the eARC stream via the SL-870's extensive I/O via the following back panel connectors:

- RCA S/PDIF
- TOSLINK optical S/PDIF
- I2S
- HDMI

For high bit-rate testing, HDMI or I²S is recommended to avoid the S/PDIF bandwidth limitation. For specific audio quality assessment, audio data can be output to an external audio analyzer.



Support Information

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