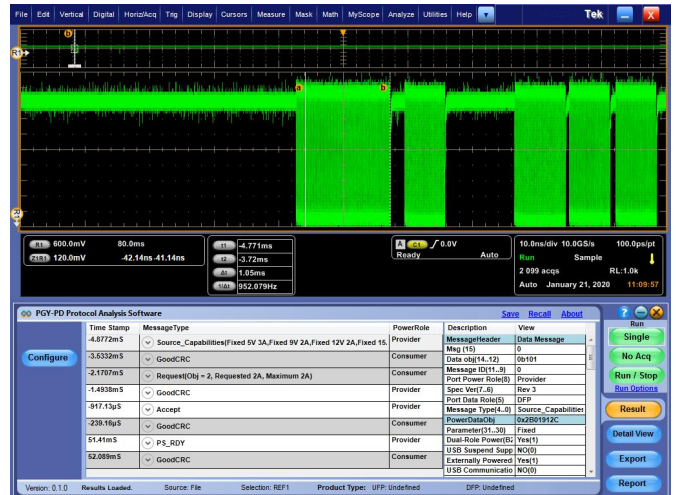


UART Electrical Validation and Protocol Decode Software

UART Electrical Validation and Protocol Decode Software offers electrical measurements compliance testing and protocol decoding as specified in the UART specification. PGY-UART Electrical validation and Protocol decode software runs in Tektronix Oscilloscope and provides electrical measurements and protocol decode at the click of a button. This allows engineers quickly check for UART compliance and flexibility to debug the failure. In addition to this engineers can decode the command and response of UART to debug the communication. PGY-UART takes advantage of digital channels of MSO and provides the decoding of UART data lines.



Decoded Message

RX DATA TX DATA

Waveform View

773.06 mV
-862.09 mV

-250.16 mS -150.10 mS -50.032 mS 50.032 mS 150.10 mS 250.16 mS

RX DATA TX DATA

Selected UART Frame / Message

773.06 mV
-862.09 mV

-249.10 mS -248.84 mS -248.58 mS -248.31 mS -248.05 mS -247.79 mS

0 0 1 1 0 1 0 0 0 0

Number Format: Hex
Legends: - RX DATA - TX DATA
Data: h2E
Annotation: Start Bit TX DATA RX DATA Parity Bit Stop Bit

Detailed View

Start	Tx Data	Rx Data	P Bit	Stop	C Parity	Time Stamp	Tx RiseTime Mean	Tx RiseTime Min	Tx RiseTime Max
0	h2E	-	-	1	EVEN	-249.04 mS	15.996 μS	15.944 μS	16.022 μS
0	-	h20	-	1	ODD	-248.21 mS	-	-	-
0	hD	-	-	1	ODD	-245.61 mS	16.037 μS	15.972 μS	16.157 μS
0	-	h53	-	1	EVEN	-244.77 mS	-	-	-
0	hA	-	-	1	EVEN	-242.27 mS	15.946 μS	15.824 μS	16.022 μS
0	-	h74	-	1	EVEN	-241.44 mS	-	-	-
0	-	h65	-	1	EVEN	-238.01 mS	-	-	-
0	-	h76	-	1	ODD	-234.57 mS	-	-	-
0	-	h65	-	1	EVEN	-231.24 mS	-	-	-
0	-	h2C	-	1	ODD	-227.80 mS	-	-	-
0	-	h20	-	1	ODD	-224.37 mS	-	-	-
0	h51	-	-	1	ODD	-222.50 mS	15.952 μS	15.942 μS	15.979 μS
0	-	h4A	-	1	ODD	-220.93 mS	-	-	-

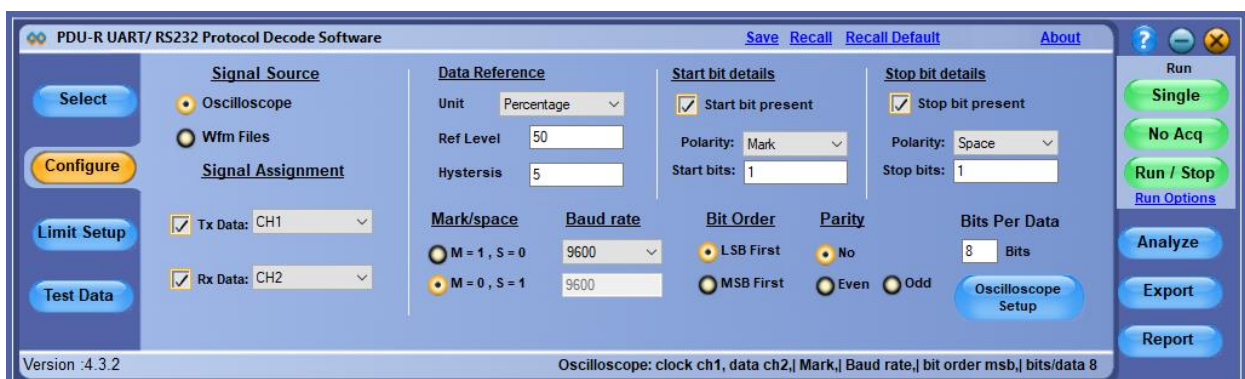
PDU-R with DPO70000/DSA70000 and MSO5, MSO6 high bandwidth oscilloscope series can be used to debug the UART/RS232 serial buses. This enables the designer to use DPO/DSA70000 series oscilloscope for debugging UART/RS232C signals along with high-speed designs SATA/DDR/HDMI/FBDIMM/PCIe and so forth.

Key Features

- ❖ Converts time-domain waveform information into data domain, and displays the contents in UART/RS232C message format.
- ❖ Simultaneous waveform and decoded data display in a single window allow efficient debugging.
- ❖ The ability to link any UART/RS232C frame to the waveform allows efficient analysis of UART/RS232 communication.
- ❖ The ability to zoom the waveform for any of the decoded data allows engineers to note analog characteristics of the waveform.
- ❖ The detailed view overlays the binary data on the waveform for selected UART/RS232 data.
- ❖ Flexibility to view the decoded data in hex, binary, decimal, and ASCII format..
- ❖ The search function helps in quickly locating the specific data in thousands of decoded UART/RS232 messages.
- ❖ Timestamp with reference to trigger position allows engineers to know the timing of data from the trigger position.
- ❖ Offline analysis with the Ref waveforms, .wfm (Tektronix oscilloscope's internal waveform file format), and .csv files.
- ❖ Capability to save the decoded messages in CSV format.

Advanced Debug Capabilities

The feature-rich PDU-R UART/RS232 protocol decode software imports the oscilloscope acquired UART/RS232 data and display the decoded data in different data formats. PDUR provides the flexibility in setting the bits of the number in the stop/start of the UART frame.



For easy and quick analysis, PDU-R offers flexibility to display the order of MSB and LSB bits in decoded bytes. Users can define the number of bits per data byte making PDU-R a customizable view of the decoded data. These features make the PDU-R software industry best decode and debug UART signals.



In PDU-R Protocol Decode Software user can quickly link the decoded data to the waveform by selecting data in the result table. In a detailed view, the '1' and '0' is overlaid on the waveform for quick analysis of data transition. When signals are decoded from a wfm or CSV file, the PDU-R waveform display would plot the waveform enabling a simultaneous view of the time and data domain of UART signals.

Tektronix Oscilloscopes Supported:

- DPO/MSO5000 series
- DPO7000 series
- DPO/MSO/DSA 70000 series
- MSO5 series, MSO6 series

All need to be windows 7 or higher OS based

Ordering Information:

The ordering information is as follows:

PDU-R UART/RS232 Protocol Decode Software. Includes: CD with Software.

Contact Information



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About Prodigy Technovations Pvt Ltd

Prodigy Technovations Pvt Ltd (www.prodigytechno.com) is a leading global technology provider of Protocol Decode, and Physical layer testing solutions on test and measurement equipment. The company's ongoing efforts include successful implementation of innovative and comprehensive protocol decode and physical layer testing solutions that span the serial data, telecommunications, automotive, and defense electronics sectors worldwide.