I2C Electrical Validation and Protocol Decode Software


I2C Electrical Validation and Protocol Decode Software offers electrical measurements compliance testing and protocol decoding as specified in the I2C specification. PGY-I2C 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 I2C compliance and flexibility to debug the failure. In addition to this engineers can decode the command and response of I2C to debug the communication. PGY-I2C takes advantage of digital channels of MSO and provides the decoding of I2C data lines.

Key Features

✧ Automated electrical measurements as specified in Rev 3 June 2007 I2C Bus specification documentation.

✧ Supports electrical measurement for standard, fast, fast plus and high-speed with limit comparison.

✧ Decodes standard, fast, fast plus and high-speed I2C signals for easy understanding of protocol between master and salve components.

✧ Links the protocol content to the electrical signal in the oscilloscope for easy understanding of the electrical characteristics of the protocol

✧ Overlays the protocol data on the analog waveform in a bus diagram window.

✧ Zooms the selected I2C packet content in the decode table in the bus diagram display for easy analysis of the electrical characteristics of the I2C frame.

- ✧ Color codes protocol content for easy analysis.
- ✧ Search capabilities to locate unique events in thousands of protocol data.
- ✧ Ability to view protocol and decode data in hexadecimal, decimal, binary, octal, and ASCII formats.
- ✧ Ability to store the I2C protocol data in CSV and text format.
- ✧ Utility features like zoom, undo, and fit the screen for easy debugging while correlating the protocol data to the waveform.
- ✧ Report generation in HTML format.
- ✧ Supports wfm and isf file formats for offline analysis.

Seamless Integration with Tektronix Oscilloscope
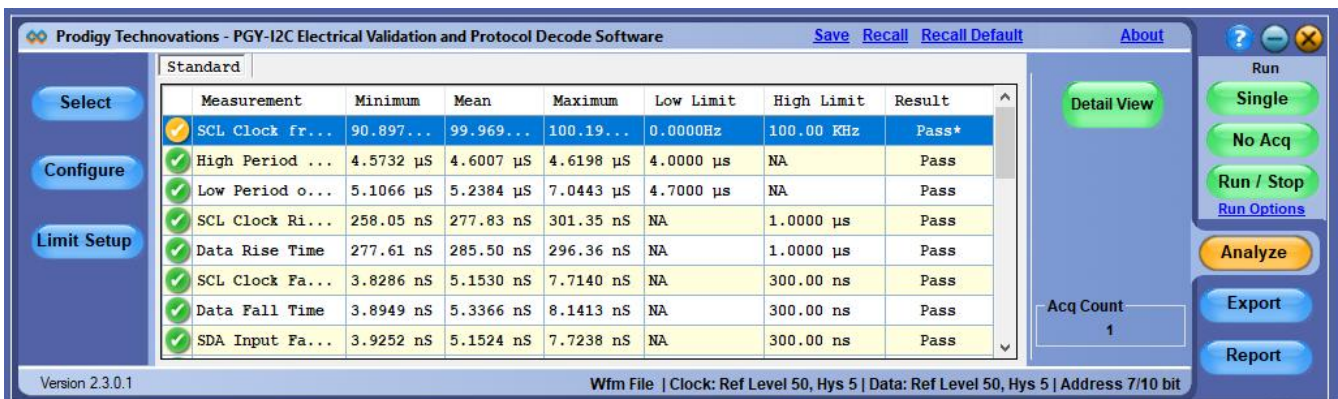
PGY-I2C runs inside the Tektronix oscilloscopes and makes the electrical measurements, decodes protocols and displays the decoded data in a bus diagram, a table, and links the decoded data to electrical signal in the bus diagram. I2C Protocol-based trigger can be setup using the built-in I2C trigger capabilities in Tektronix oscilloscopes.

Characteristics

Electrical Measurements	SCL Clock frequency	Data Valid Acknowledge time
	High Period-SCL	Rise Time
	Low Period-SCL	Fall Time
	Hold Time at Sr condition	Data Setup time
	Setup time Sr condition	Bus free time between stop and start condition
	Data Valid time	
	Data Hold time	Setup time for Atop
Bus Speed	Standard, Fast, Fast plus, and High speed	
Protocol Decode	Hexadecimal, Octal, Binary, Decimal, ASCII	
Find/search	Data and Address	
Waveform window	Overlay of protocol decode data on waveform	
Report generation	Customizable report in HTML format	
Export of data	CSV and TXT format	

Tektronix Oscilloscopes Supported

- DPO5000 Series
- DPO7000 Series
- DPO/MSO/DSA 70000 Series
- MSO5 series, MSO6 series

  All need to be windows 7 or higher OS based

Ordering Information:

PGY-I2C Electrical Validation and Protocol Decode Software (shipment includes CD with PGY-I2C software and license key)

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.