

# PGY-eSPI eSPI Electrical Validation & Protocol Decode Software



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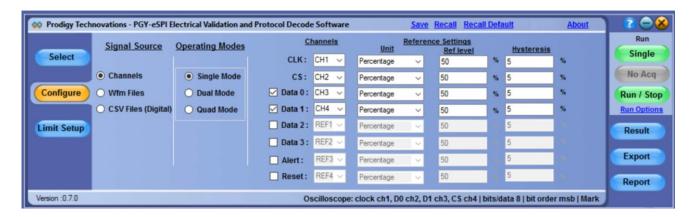
PGY-eSPI Electrical validation and Protocol decode software runs in Tektronix Oscilloscope provides electrical measurements and protocol decode at click of button. This allows engineers quickly check for eSPI compliance and flexibility to debug the failure. In addistion to this engineer can decode the command and response of eSPI debug the communication. PGY-eSPI takes advantage of digital channels of MSO and provides the decoding of eSPI datalines.

## **Features:**

- Electrical measurements and protocol decode for Single mode, Dual mode and Quad mode analysis using analog channels
- Protocol Decode in single, dual and quad mode using digital channels
- Customizable reference and hysteresis selection for all signals
- Customizable limit setup for pass/fail validation for all the measurements
- Customizable limits based on different data rates of operation
- Ability to store the eSPI protocol data and electrical data in CSV and txt format
- Report Generation
- Offline analysis of .wfm and .csv (digital) files



## **Configuration Panel**



Configure panel is used for selecting the signal source and the initial mode of operation. Live Analog or Digital Channels of the oscilloscope can be used for capturing and analysing the signal. The software decodes the waveform and displays both the protocol data and electrical measurements in case of analog signals and protocol data in case of digital signals.

The initial mode of operation of the bus (single/dual/quad) needs to be selected so that the software can decode the signal accordingly. This is only for the start of analysis. Based on the register values obtained during decode, the software updates the operation mode automatically decodes the eSPI operations.

In order to characterize and validate eSPI signals, PGY-eSPI software provides graphical measurement reference level setup to set measurement reference level of eSPI signals.

## **Supported eSPI Electrical Measurements**

PGY-QSPI software provides extensive list electrical measurements are (DTR not supported):

- Clock Frequency
- Clock High Time
- Clock Low Time
- Chip Select Setup Time
- Chip Select Hold Time
- Chip Select Deassert Time
- Data In Setup Time
- Data In Hold Time
- Output Data Valid Time
- Output Data Hold Time
- Output Disable Time after Chip Select Deassert
- Output Disable Time during Turn Around
- Chip Select Assert to Data1 or Alert Tristated
- Chip Select Deassert to Data1 or Alert Assert
- eSPI Reset Deassert to First Transaction
- Initial Bus Frequency upon Reset Deassert



#### **Detail View**



Once the electrical failure or protocol problems needs to located specific protocol packets to debug the design issues. In Detail view, the acquired waveform is plotted. The waveform plot is linked with the packet being displayed on the grid. The plot contains various features like zoom, pan and cursors. By linking specific protocol packet to electrical waveform, engineers can quickly locate root cause of the problems.

## **Oscilloscopes Supported**

The following Tektronix Oscilloscopes are supported:

- DPO/MSO5000 series
- DPO7000 series
- DPO/MSO/DSA 70000 series

#### **Ordering Information**

PGY-QSPI (shipment includes CD with PGY-QSPI Electrical Validation and Protocol Decode Software) License is locked to oscilloscope.



## **Contact Information**

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## **About Prodigy Technovations Pvt Ltd**

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.