PGY-PMBus

Exerciser and Protocol Analyzer

PMBus Protocol Analyzer (PGY-PMBus-EX-PD) is a Protocol Analyzer with multiple features to capture and debug communication between host and design under test/power subsystems. PMBus interface is a chosen interface which works with a variety of power management products, such as AC-DC power supplies, fan controllers, POL (point-of-load) converters.

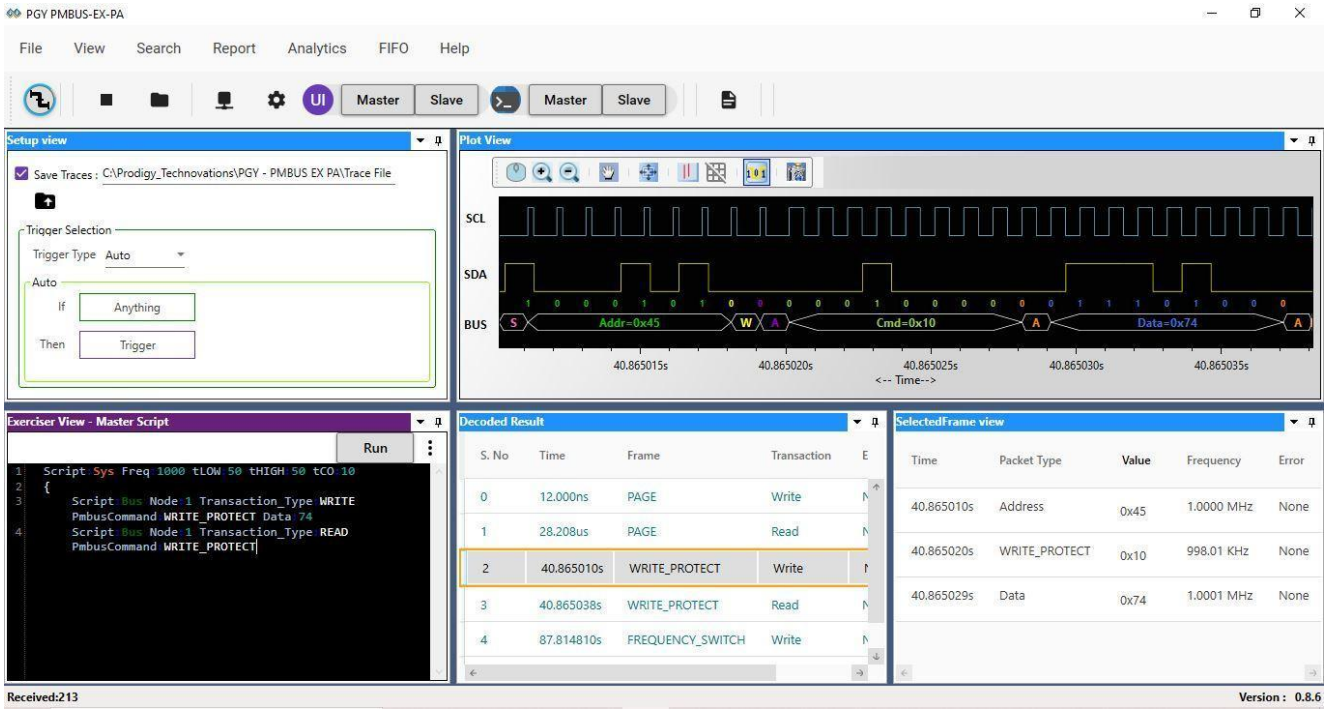
PGY-PMBus-EX-PD is the leading instrument that enables the design and test engineers to test the PMBus designs for its specifications by configuring PGY-PMBus-EX-PD as master/slave, generating PMBus traffic, and decoding PMBus Protocol decode packets.

Key Features

- Supports PMBus Specifications.
- Ability to configure it as Master/Slave.
- Variable data speeds.
- Generate PMbus traffic and protocol decode of the bus.
- Timing diagram of the protocol decoded bus.
- Listing view of protocol activity.
- Ability to write exerciser script to combine multiple frame generation at different data speeds.
- USB 2/3 host computer interface.
- Continuous streaming of protocol data to host computer to provide a large buffer.
- API support for automation in python or C++.

Multi-Domain View

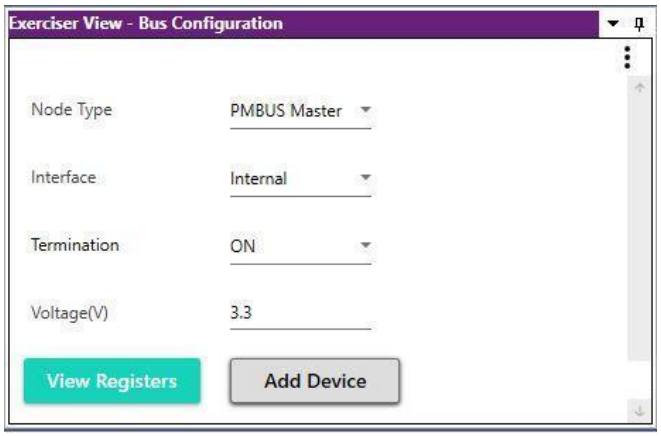
Multi-Domain View provides the complete view of PMBus Protocol activity in a single GUI. Users can easily setup the analyzer to generate PMBus traffic using a GUI or script. Users can set different trigger conditions from the setup menu to capture Protocol activity at specific events and decode the transition between Master and Slave. The decoded results can be viewed in the timing diagram and Protocol listing window with auto-correlation. This comprehensive view of information makes it industry's best, offering an easy-to-use solution to debug the PMBus protocol activity.

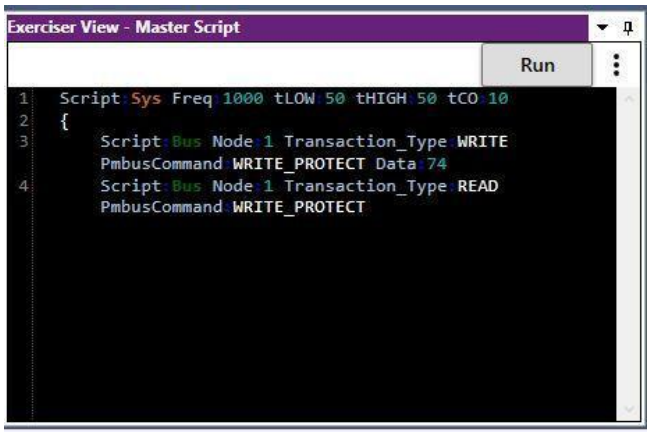


Exerciser

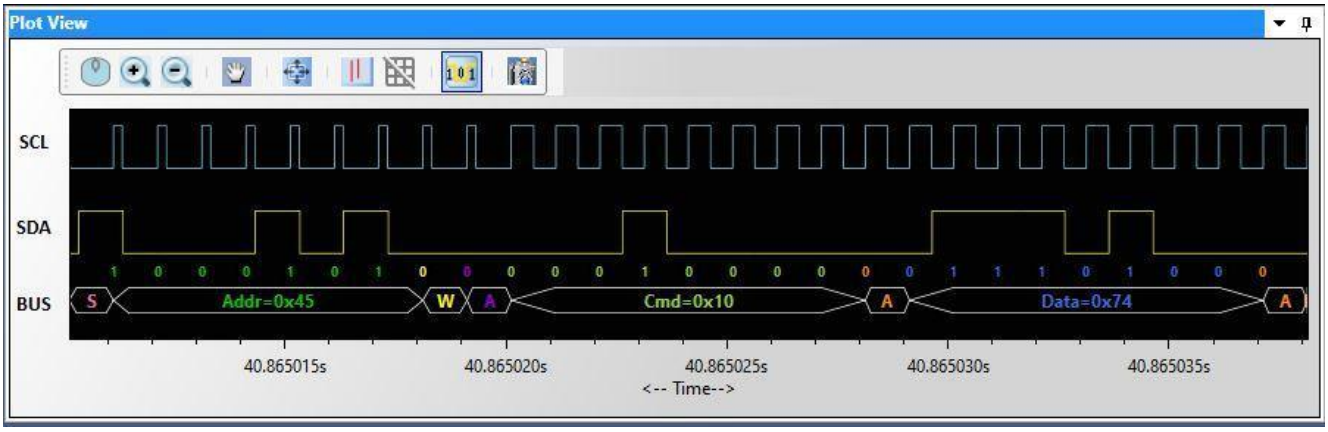
PGY-PMBus-EX-PD supports PMBus traffic generation using GUI and Script. Users can generate simple traffic generation using the GUI to test the DUT. Script-based GUI provides flexibility to emulate the complete expected traffic in the real-world including error injections. In this sample script user can generate PMBus traffic as below:

Script line #1: Set system Frequency 1MHz, Duty cycle to 50%, CLK to data delay to 10ns
Script line #3: WRITE Transaction_Type
Script line #4: READ Transaction_Type

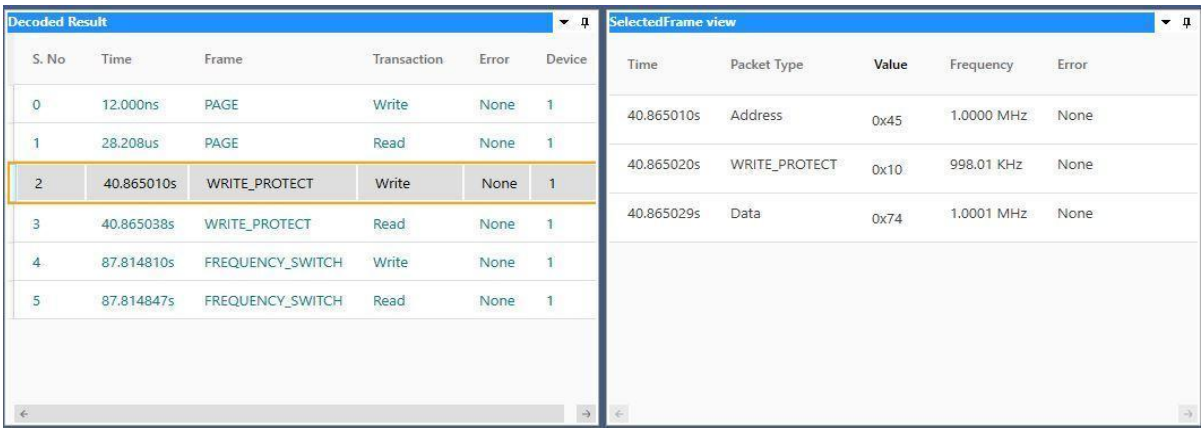




Timing Diagram and Protocol Listing View

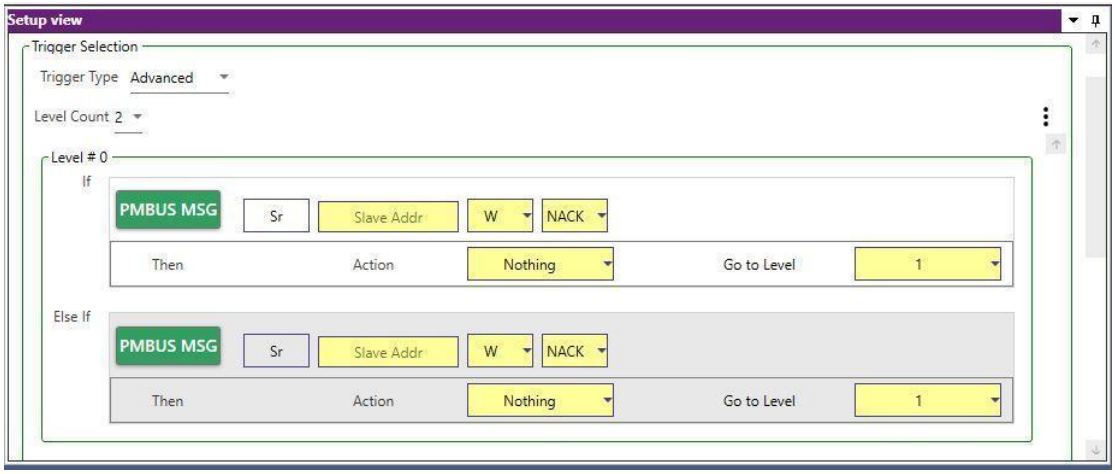


The timing view provides the plot of SCL and SDA signals with a bus diagram. Overlaying of Protocol bits on the digital timing waveform will help easy debugging of Protocol decoded data. Cursor and Zoom features will make it convenient to analyze Protocol in the timing diagram for any timing errors.



The protocol window provides the decoded packet information in each state and all packet details with error info in the packet. The selected frame in the protocol listing window will be auto correlated in the timing view to view the timing information of the packet.

Powerful Trigger Capabilities



PGY-PMBus-EX-PD supports Auto, simple, and advanced trigger capabilities. The Analyzer can trigger on any of the PMBus Protocol packets. Advanced Trigger provides the flexibility to monitor Multiple trigger conditions and can set multiple state trigger machines.

PGY-PMBus-EX-PD Specifications

PGY-PMBus Specifications	Features	PGY-PMBus-EX-PD
Exerciser:		
Configurable	1 Master + 3 Slaves	✔
PMBus Traffic Generation	Custom PMBus traffic generation Simulate real-world network traffic	✔
SCL Frequency	100KHz to 1MHz	✔
Voltage Drive Level	1V to 3.3V at steps of 100mV	✔
SCL Duty Cycle variation	User-Defined	✔
SCL & SDA Delay	User-Defined	✔
Error Injection	ACK/NACK Errors	✔
API Support	Support for Automation of operation using Python or C++	✔
Protocol Analysis:		
Supports	PMBus protocol decode	✔
Protocol Views	Timing Diagram View Protocol Listing View Bus-Diagram to display Protocol packets with timing diagram plot	✔
Protocol Trigger	Auto (Trigger on any packet). Simple (Trigger on user-defined PMBus packet). Advanced (Multistate & Multilevel trigger with timer capability).	✔
Protocol Error Report	ACK/NACK Errors Non-standard Frames	✔
Capture Duration	Continuous streaming Protocol Data to host HDD/SSD	✔
Host Connectivity	USB 3.0/2.0 interface	✔

Ordering Information

PGY-PMBus-EX-PD PMBus Exerciser and Protocol Analyzer.

Deliverables for PGY-PM bus -EX-PD

- PGY-PMBus-EX-PD Unit.
- USB3.0 cable.
- PGY-PMBus-EX-PD Software in CD.
- 12V DC adapter.
- Flying lead probe cable with female connector to connect to DUT.

Contact Information

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 the 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.