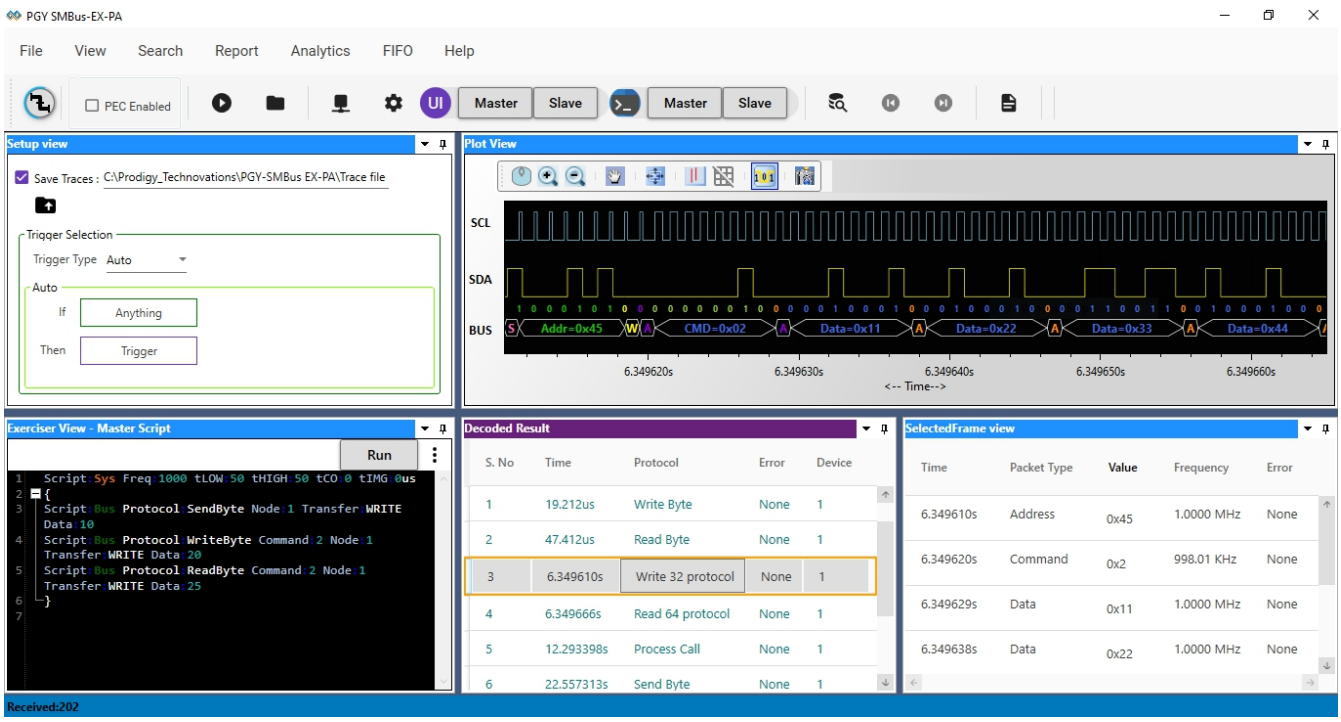
PGY-SMBus-EX-PD SMBus Protocol Exerciser and Analyzer

SM Bus Serial bus interface has been widely used for voltage and temperature monitoring of the system.

PGY-SMBus -EX-PD is the leading instrument that enables the design and test engineers to test the SM Bus designs for its specifications by configuring PGY-SM Bus -EX-PD as master/slave, generating SM Bus traffic with error injection capability and decoding SM bus Protocol decode packets.

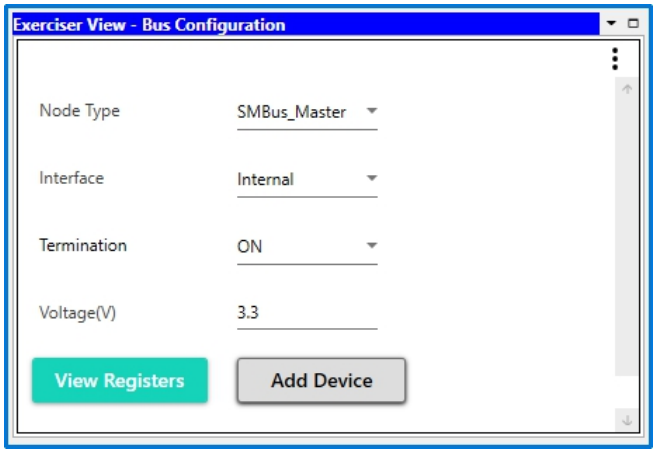
Features
● Supports SMBus 3.4Mbps Speed ● Ability to configure it as Master or Slave ● Simultaneously generate SMBus traffic and Protocol decode of the Bus ● SMBus Master and Slaves ● Error Injection ACK/NACK errors ● Variable SMBus data speeds and duty cycle ● Continuous streaming of protocol data to host computer to provides large buffer ● Timing diagram of Protocol decoded bus ● Listing view of Protocol activity ● Error Analysis in Protocol Decode ● Ability to write exerciser script to combine multiple data frame generation at different data speeds ● USB 2.0/3.0 host computer interface ● API support for automation in Python or C++

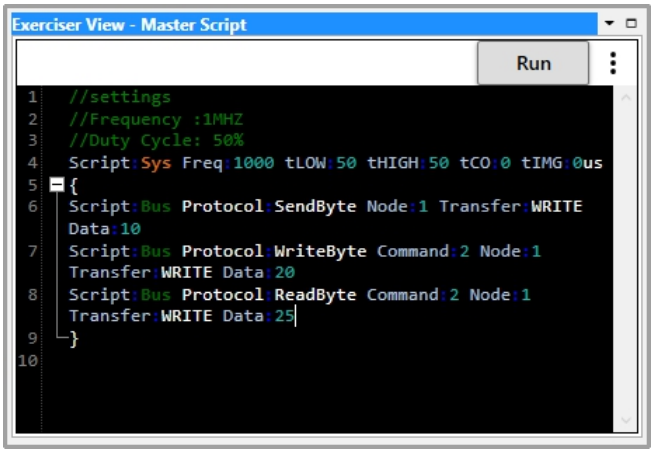
Multi Domain view



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

Exerciser

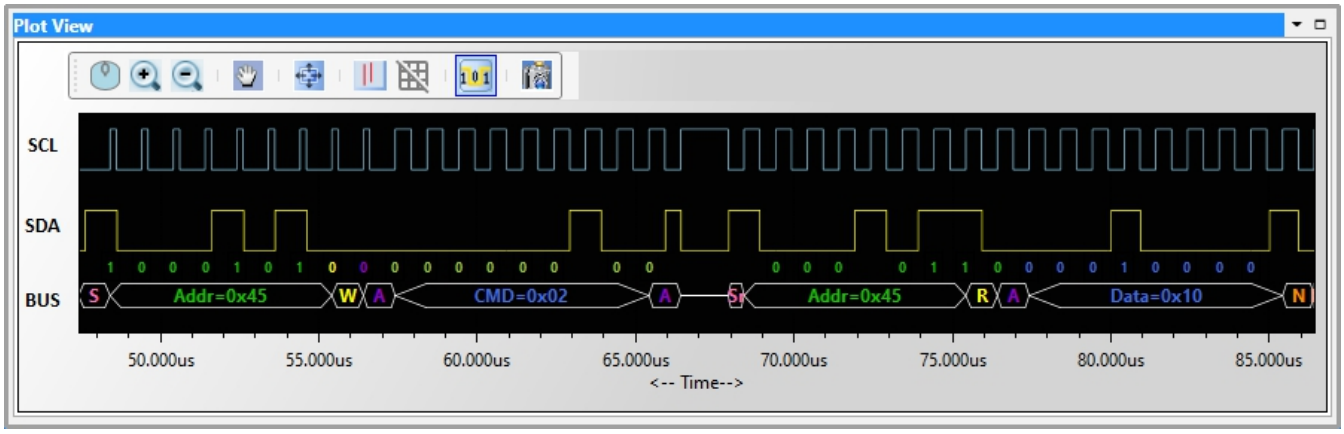




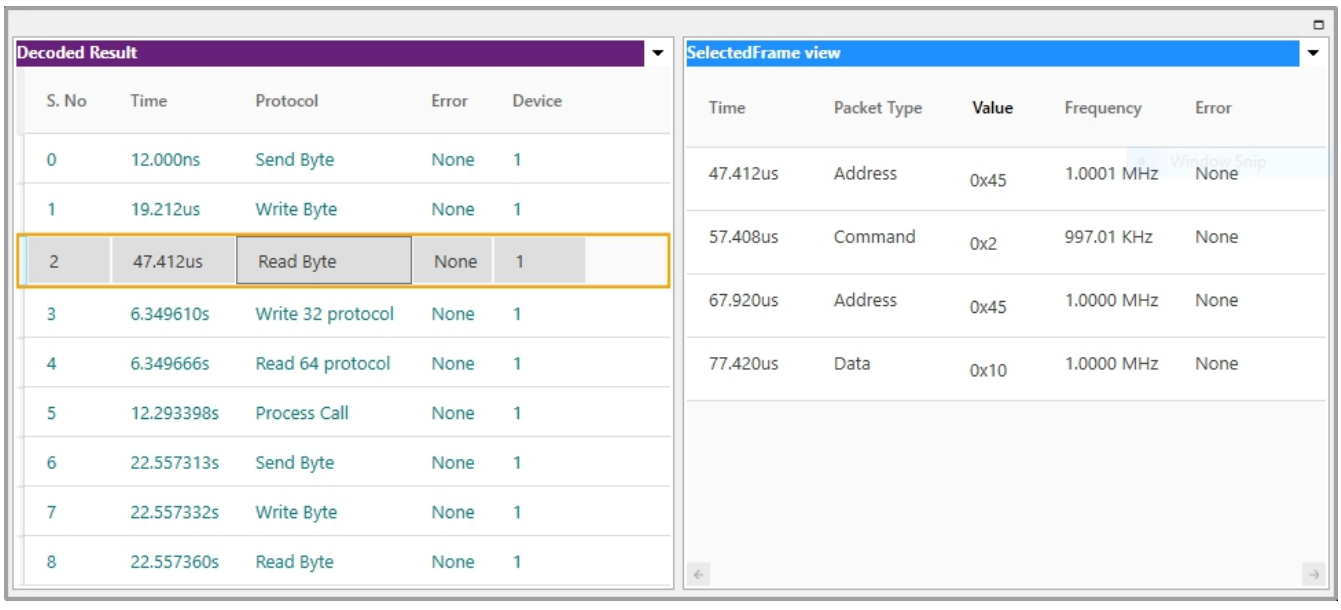
PGY-SMBus-EX-PD supports SMBus traffic generation using GUI and Script. User can generate simple traffic generation using the GUI to test the DUT. Script based GUI provides flexibility to emulate the complete expected traffic in real world including error injections. In this sample script user can generate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

Script line #4: Set system Frequency 1MHz, Duty cycle to 50%, clk to data delay to 0ns, system inter message gap to 0us
Script line #6: SendByte
Script line #7: WriteByte
Script line #8: ReadByte

Timing Diagram and Protocol Listing View

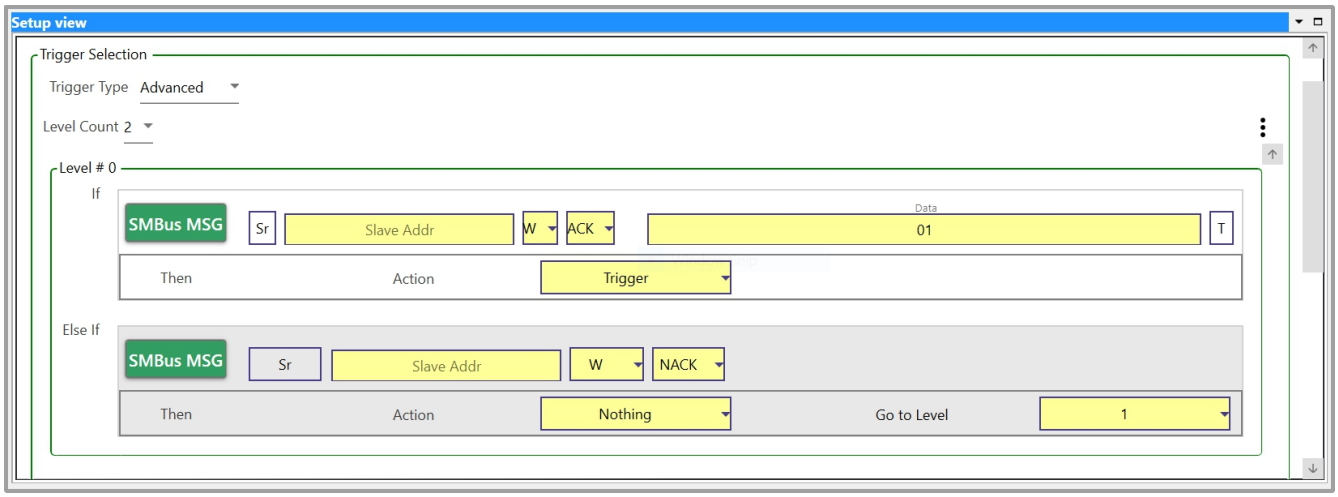


Timing view provides the plot of SCL and SDA signals with bus diagram. Overlaying of Protocol bits on the digital timing waveform will help easy debugging of Protocol decoded data. Cursor and Zoom features will make it convenient to analyze Protocol in timing diagram for any timing errors.



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

Powerful Trigger Capabilities



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

SMBus Specifications

PGY-SMBus Specification	Features	PGY- SMBus - EX-PD
Exerciser:		
Configurable	1 Master + 2 Slaves	✔
SMBus Traffic Generation	Custom SMBus traffic generation Simulate real world network traffic	✔
SCL Frequency	100KHz to 3.4MHz	✔
Voltage Drive Level	1V to 3.3V at steps of 100mV	✔
SCL Duty Cycle variation	User Defined	✔
SCL & SDA Delay	User Defined	✔
Delay between two messages	User Defined	✔
Error Injection	ACK/NACK Errors	✔
API Support	Support for Automation of operation using Python or C++	✔
Protocol Analysis:		
Supports	SMBus 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 SMBus 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-SMBus-EX-PD SMBus Exerciser and Protocol Analyzer

Deliverables for PGY-SMBus-EX-PD

PGY- SMBus -EX-PD Unit
USB 3.0 cable
PGY- SMBus -EX-PD Software in CD
12V DC adapter
Flying lead probe cable with female connector to connect to DUT

Warranty Information

Hardware Warranty - 2 years
Software and Firmware Warranty - 1 year
Probes (covered under warranty for any manufacturing defect) - 6 months

Contact Information

+91-80-42126100

contact@prodigytehcno.com

www.prodigytechno.com

Prodigy Technovations Pvt. Ltd.
294, 3rd Floor, 7th Cross,
7th Main BTM II Stage,
Bangalore 560076.
Karnataka, India.

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.