Blackhawk Scribe™

Blackhawk by EWA Technologies, Inc.

I²C and SMBus Monitor, Debugger, and Programmer

Powering Bus Analysis Solutions

In the world of rapidly accelerating product development cycles, engineers developing products which utilize the I²C and SMBus interfaces need a bus analyzer that is easy to use—fast and simple.

Unforeseen problems such as functional bugs can cause schedules to slip so it is important to have the right tool to resolve them quickly by isolating the root cause.

The Blackhawk Scribe™ analyzer is designed with that idea in mind—the right tool at the right price. Open the box and plug it in; *everything just works*.

Features

- Supports I^{2}C and SMBus.
- Supports Standard-mode, Fast-mode, and Fast-mode Plus (Fm+) with I^{2}C bus data rates up to 5 Mbit/s.
- Supports High-speed mode (Hs-mode) monitoring up to 5 Mbit/s.
- Passive traffic monitoring with unlimited state and timing recording.
- Time stamping, message filtering, and symbolic translating.
- Programmable trigger event to highlight bus transactions of interest.
- Automatic detection of bus voltage and signal thresholds.
- Two general purpose I/O channels.
- Programmable bus voltage reference and software configurable pull-up resistors on the SDA and SCL lines.
- In-System Programming of I^{2}C serial EEPROMs.
- High-speed USB 2.0 interface.
- Robust and portable bus-powered USB device, no external power supply required.
- I2C Exerciser software supports Windows® XP, Windows Vista®, and Windows 7, and Windows 8 operating systems.
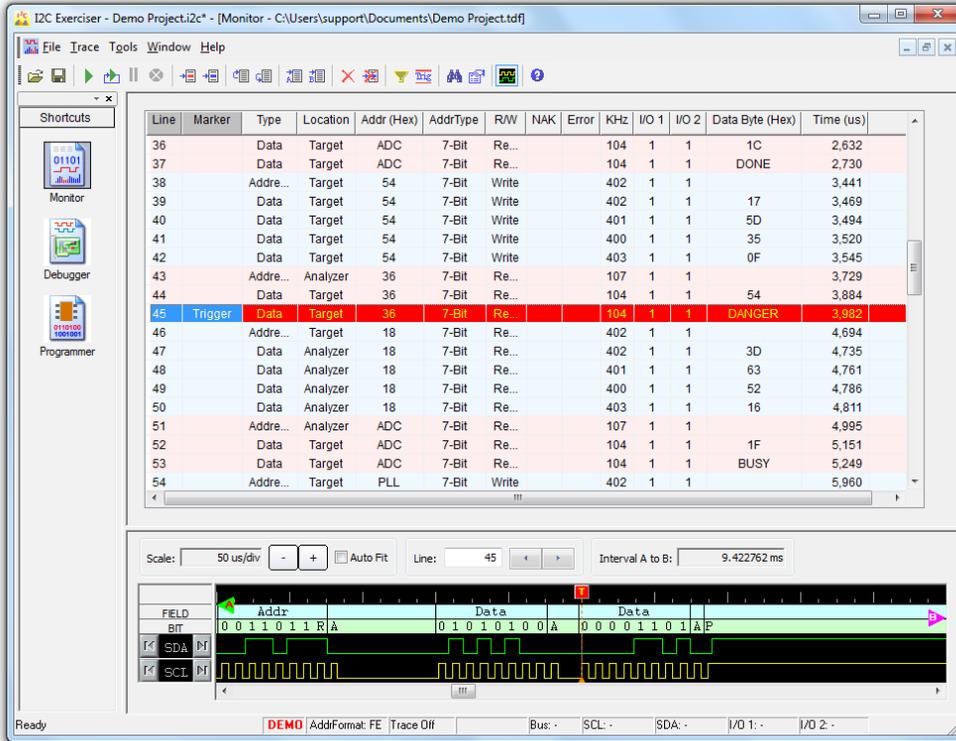
Applications

- **Software development** - Monitor and log I²C bus traffic in real-time.
- **Hardware debugging** - Generate traffic to exercise the bus and communicate with its peripheral components.
- **In-system programming** - Read, erase, program and verify I²C serial EEPROMs.

Benefits

- Monitor displays high-level view of I^{2}C bus traffic. Bit and protocol level information is also available and graphically displayed as a timing waveform.
- Debugger allows direct read/write access to peek and poke device registers on the I^{2}C bus. The Scribe acts as a master to generate I^{2}C transactions while simultaneously monitoring the traffic on the bus.
- I2C Exerciser software is easy to learn and use. Graphical interface allows quick access to the powerful functionality and filters out the noise so that you may focus on the trace data that you actually need to see.
- Everything needed to get started is provided. No need to purchase additional "optional" modules or adapter cables to be compatible.

Blackhawk Scribe™

The Blackhawk Scribe is an entry level, yet feature-packed and robust I^{2}C debugging tool. The Blackhawk Scribe allows engineers to save precious development time by providing low level visibility and control of an I^{2}C bus. There is no longer a need to hook up a logic analyzer to capture traffic on the bus and then spend hours sifting through mountains of data in order to find that one particular bit. The Blackhawk hardware and software provide a convenient and intuitive environment for hardware debugging, software development, and in-system programming.

I2C Exerciser Monitor Screen
Please see the *Blackhawk Scribe User's Manual* or the free downloadable software demonstration for more information and detailed technical specifications.

Ordering Information

Part Number—12207

For more information, or to order this product online, please visit our website at **http://www.blackhawk-dsp.com/Scribe**

System Requirements

- One available USB 2.0 Port.
- Windows® XP (SP2), Windows® Vista, Windows® 7, or Windows® 8.
- 3.2 GHz Pentium® 4 Processor (or equivalent).
- 1 GB of RAM.
- 600 MB of free Hard Disk Space (2 GB or more for continuous logging of trace data).

What's Included

- Blackhawk Scribe Hardware.
- 6' USB 2.0 Cable.
- 12" I^{2}C Target Interface Cable consisting of flying leads with test clips.
- Installation Disc.

Blackhawk

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Additional Information

- **User's Manual**

Hardware Specifications

General

Mechanical Dimensions	5.50 x 1.00 x 4.75 (+/- 0.10) inches
Certifications	RoHS Compliant , CE Marked

USB Interface

USB Transfer Rate	High-speed USB 2.0
USB Cable	Ships with a 6 foot USB 2.0 A to B cable.

I^{2}C Interface

I^{2}C Bus Connector	RJ45 (AMP P/N 406549-1)
I^{2}C Bus Cable	Ships with a 12 inch interface cable that terminates in flying leads suitable for connection to 0.025 inch square posts. Test clips are also included.