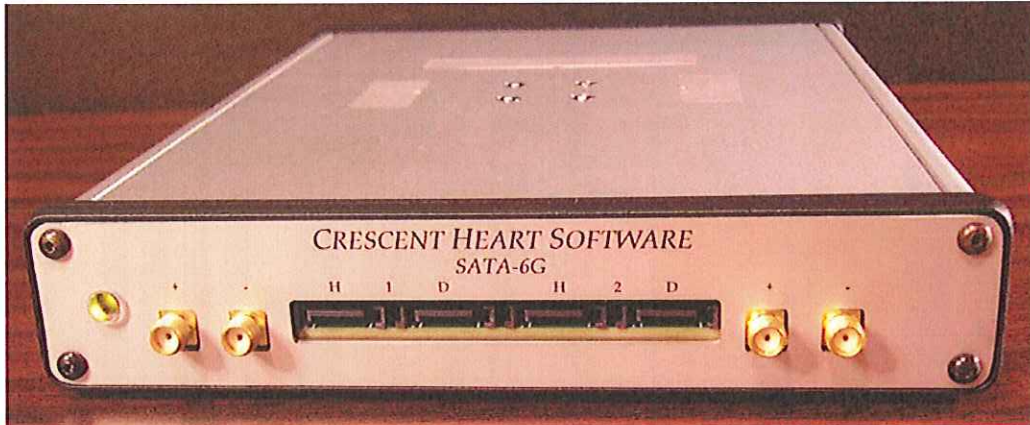


SATA-6G

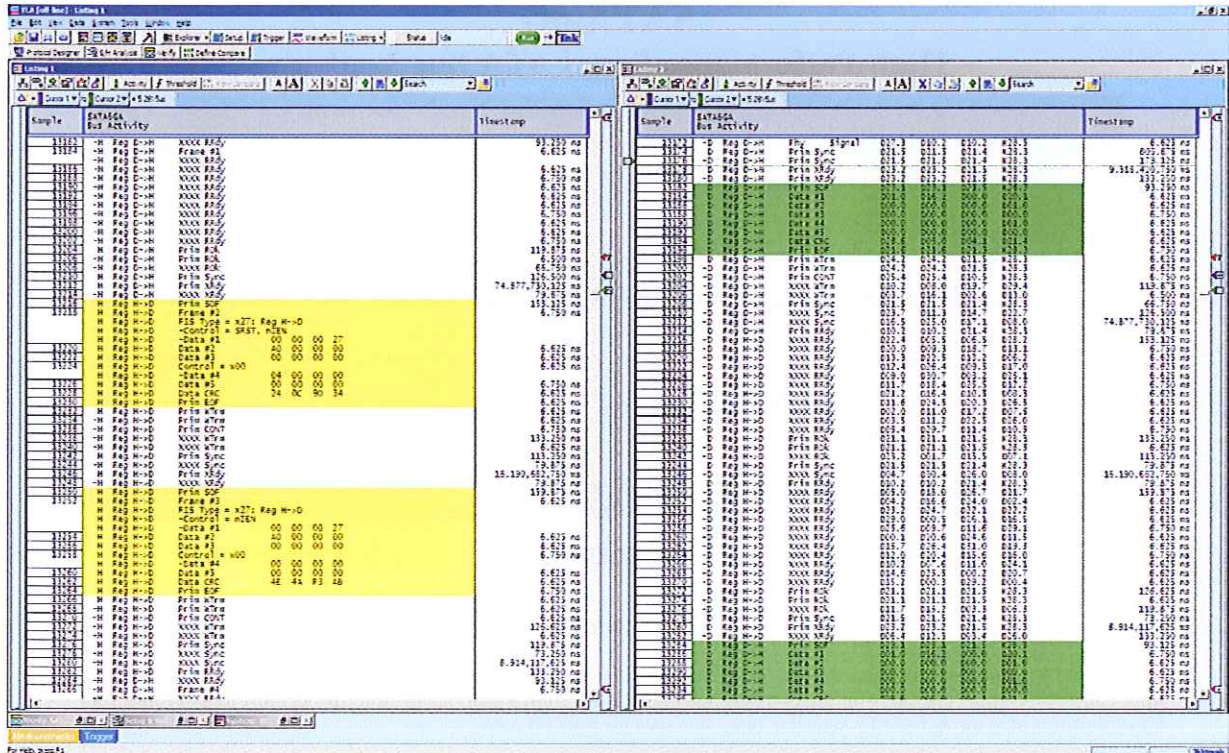
High-Performance Serial ATA Bus Analysis



Salient Features

- Serial ATA Revision 3.0 compliance
 - SATA 6 Gb/s third-generation, 3 Gb/s second-generation and 1.5 Gb/s first-generation bus signaling rates supported
 - Front-panel SATA connectors for connection of SATA cabling, allowing eSATA connection as well with crossover cabling; front-panel SMA input connectors for direct connection of compliance test signal cabling; front-panel SMA output connectors for oscilloscope monitoring of SATA signaling (may eliminate the need for power splitters when monitoring RSG test signals)
 - Receiver-sensitivity (RSG) frame error rate (FER) SATA compliance measurements *
 - Support for logic analyzer protocol analysis facilitates monitoring, triggering, acquisition and display of all aspects of SATA signaling, including bus signal level (squelch), out-of-band (OOB) signaling, primitives, FIS frames, encoding and protocol errors (including independent CRC verification) *
 - Supports connection to a maximum of two SATA lanes **
 - All-traffic-monitoring (ATM) capability facilitates protocol analysis of OOB, speed-negotiation and start-up sequences **
 - Spread-spectrum clocking (SSC) frequency-modulation measurements **
 - Receiver-sensitivity (RSG) basic bit error rate (BER) SATA compliance measurements; BER test of other protocols including SAS as well *
 - Support for DSO tracking and analysis of BER behavior **
 - Support for logic analyzer deep-memory tracking and analysis of BER behavior **
 - SATA signal generation, SSC supported **
 - Stand-alone (logic analyzer not required) protocol analysis using 256M DWord local storage ***
 - Stand-alone (logic analyzer not required) deep-memory BER analysis using 256M DWord local storage ***
 - Optional capabilities can be enabled for 25 hours of trial use before purchase **
 - Hardware configuration and control via Windows control application and USB connection
 - Logic analyzer protocol analysis requires Tektronix logic analyzer with 136 channels and 150 MHz acquisition capability, 300 MHz recommended (2x higher rates for two-lane acquisition); supports P6860 or P6419 probe connections (use thick-PCB elastomer holders)
 - Protocol analysis hierarchical display shows optionally-acquired undecoded/unscrambled data, primitives, FIS frames and device command protocol; efficient use of acquisition memory achieved through optional compressed storage of repeated primitives; acquisition of trailing portions of lengthy FIS Data frames can optionally be suppressed
 - Compact form factor 8.66" x 6.50" x 1.20" (220mm x 165mm x 30,5mm) extruded-aluminum case
- *: Optional functionality **: Expected optional functionality ***: Expected optional functionality of later-version hardware

• **HARDWARE & SOFTWARE PRODUCTS FOR USE WITH TEKTRONIX® LOGIC ANALYZERS & OSCILLOSCOPES** •



Example logic analyzer listing display of acquired Serial ATA host channel (left) and device channel (right) bus activity

SATA-6G Ordering Summary

- Includes SATA-6G probe adapter, DC power supply, AC power cable, SATA cables and USB cable; software, documentation and related files are downloadable from the Crescent Heart Software website at www.c-h-s.com/SATA.shtml or www.c-h-s.com/SATA_FER.shtml
- Part number SATA-6G-1 denotes the base unit (with at least one # option additionally required)
- Option SATA-6G-2 adds ATM capability (monitors one lane)**
- Option SATA-6G-4 adds FER-monitoring capability*(#)
- Option SATA-6G-8 adds SSC-frequency-modulation-measurement capability**
- Option SATA-6G-16 adds second-lane capability**
- Option SATA-6G-32 adds logic analyzer protocol analysis capability*(#)
- Option SATA-6G-64 adds stand-alone protocol analysis capability***(#)
- Option SATA-6G-128 adds signal generation capability**
- Option SATA-6G-256 adds basic BER-monitoring capability*(#)
- Option SATA-6G-512 adds DSO BER-monitoring capability**(#)
- Option SATA-6G-1024 adds logic analyzer deep-memory BER-monitoring capability**(#)
- Option SATA-6G-2048 adds stand-alone deep-memory BER-monitoring capability***(#)
- A complete product part number is formed by summing base unit and option part numbers (e.g., SATA-6G-1 + SATA-6G-4 = SATA-6G-5)
- SATA-6G units can be shipped with options enabled, or options can be enabled in the field (add -ITF suffix to part numbers; e.g., SATA-6G-128-ITF)

Contact Crescent Heart Software

- Internet: www.c-h-s.com; E-mail: sales@c-h-s.com; Voice: (+1)503-232-2232; Facsimile: (+1)503-232-2255
- Crescent Heart Software, a Tektronix® Embedded Systems Tools Partner and a member of the Tektronix® Logic Analyzer Third Party Developer team, is headquartered in Portland, Oregon USA, and has been a member of the SATA 1.0 and SATA II Working Groups
- Information presented herein is subject to change without notice (Datasheet Version 1.3, March 2010: clarification of part number formation; SSC-frequency-modulation-measurement option)

• **HARDWARE & SOFTWARE PRODUCTS FOR USE WITH TEKTRONIX® LOGIC ANALYZERS & OSCILLOSCOPES •**