

GT-1000D EMULATOR

THE GT-1000D REPRESENTS ONE OF AMERICAN ARIUM'S LATEST INTEGRATED DEBUG SOLUTIONS FOR ASICs AND ASSPs WITH ARM®-ARCHITECTURE CORES. THIS POWERFUL EMULATOR, WHICH OPERATES ON MICROSOFT® WINDOWS® AND LINUX PLATFORMS, SUPPORTS THE ARM® EMBEDDED TRACE MACROCELL (ETM) AND INTEL XSCALE® REAL TIME TRACE. IT FEATURES 1 GB OF TRACE MEMORY FOR UP TO 1024 MILLION PACKETS AND UNPRECEDENTED 320/640 MHz ETM TRACE CAPTURE. COUPLED WITH SUPERB CODE MANIPULATION AND REAL-TIME EVENT MANAGEMENT, THE GT-1000D OFFERS EXCEPTIONAL FUNCTIONALITY OF AND SUPERIOR VISIBILITY TO YOUR EMBEDDED SOFTWARE DEVELOPMENT.

DESIGNED FOR ARM, INTEL XSCALE, AND TI OMAP CORE ARCHITECTURES:

- Supports full instruction set for ARM7™/ARM9™/ARM11™-based cores.

- Supports full instruction set for all Intel XScale processors, including I/O, application, network, and control plane processors.
- Supports TI OMAP™ processors.

ARM JTAG DEBUG SUPPORT

- Non-intrusive debug
- Real time operation
- RealMonitor™ support
- High speed downloads
- Exceptional breakpoint control
- Semihosting support
- PLD programming
- Flash programming
- XScale trace
- Adjustable data termination; 88 - 200 or infinite Ohm pullup and 88 - 200 or infinite Ohm pulldown for unmatched data signal integrity
- Adjustable clock termination; 60, 90, 135, 180, or infinite Ohms to 0 - 100 percent of target VCC for unmatched clock signal integrity
- Selectable 44-bit floating point time stamp resolution down to 10 ns
- Supports all ETM trace configurations

TOOLCHAINS SUPPORTED:

- ARM ADS 1.1 and 1.2
- ARM RealView™ Developers Suite
- Green Hills® C/C++ (DWARF2)
- All GNU C/C++

Processor Depth (1 Gbyte)

Processor	Core Clock Rate	Processor Depth (1 Gbyte)	
		No Timestamp	With Timestamp
ARM11*	320 MHz full-rate	8-Bit Packets/Record 1024 million packets	8-Bit Packets/Record 512 million packets
	640 MHz half-rate		
ARM9	320 MHz full-rate	8/4-Bit Packet 640 million records	8/4-Bit Packet 320 million records
	640 MHz half-rate	16-Bit Packet 384 million records	256-Bit Packet 256 million records

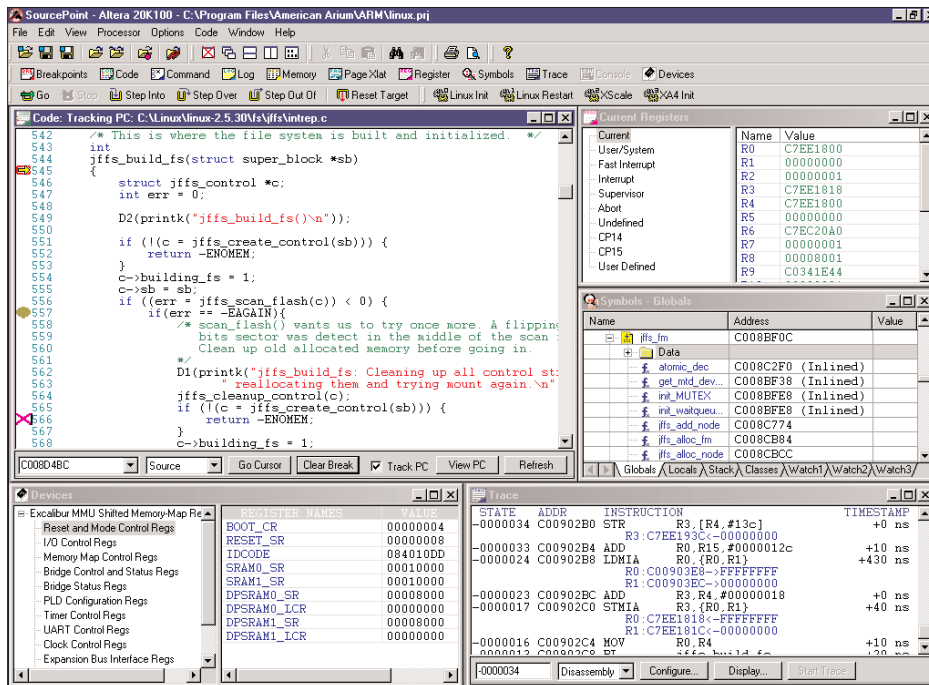
*Contact Arium for software availability.



KEY BENEFITS

- POWERFUL** - The GT-1000D offers outstanding real time debug, including exceptionally deep ETM trace for easier detection of software and firmware bugs.
- INTEGRATED & INTUITIVE** - The GT-1000D, with its companion software debugger, delivers a highly integrated, intuitive environment designed to help you minimize iterative steps and shorten your debug cycle.
- USER-FRIENDLY** - The GT-1000D is easy to install and configure. Downloads are fast. And the debugging solution is reliable.
- FLEXIBLE** - The GT-1000D works with multiple ARM-architecture cores on both Microsoft Windows and Linux platforms. Unlike some debuggers, you don't need a different emulator for each processor type.
- FULLY SUPPORTED** - All Arium units produced for the embedded market are fully supported by our highly trained staff of applications engineers.

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SOURCEPOINT™ INTERFACE

Included with the GT-1000D is American Arium's SourcePoint debugging software. The debugger interface is part of the company's core technology, developed specifically for SoC design and debug. The 32-bit application runs on Microsoft® Windows® NT/2000/XP and Linux platforms.

Key features include:

- Support of all toolchain formats
- Integrated, real time, deep trace
- Performance analysis without a compiler
- SourcePoint IDE
- Customizable views
- Handy symbols finder
- Robust, user-friendly command language
- Single view of all I/O-mapped devices
- Multi-core debugging
- Sophisticated scripting language

SPECIFICATIONS

Environmental

32-90° F (0-31° C)
Maximum humidity - 85%

Communications

10/100Base-T ethernet
USB 1.1

Download Speed

>200 KBytes/sec

BNC Trig In

>50 Ohm, 155 ns maximum delay

BNC Trig Out

50 Ohm, 125 ns maximum delay

JTAG Rate

1 KHz - 40 MHz

JTAG Logic Levels

1.2 - 3.3 nominal

Dimensions (in/cm)

(W) 5.45/13.98
(L) 7.56/19.38
(H) 1.98/5.08

PC HOST REQUIREMENTS

- PC host (Intel or AMD processor)
- Microsoft Windows NT 4.0 (SP4 or later)/2000/XP
- SVGA monitor (1024 x 768 or higher)
- 60 MB hard disk space, 128 MB RAM
- 10/100Base-T ethernet or USB 1.1

ORDERING INFORMATION

STANDARD

Includes emulator unit and JTAG, power supply, documentation, and one year service agreement.

GT-1000D JTAG/ETM trace emulator
PBD-GTE 38-pin ETM Mictor connector (includes 20-pin JTAG debug connector)

OPTIONS:

SP-1K SourcePoint debugger
DPA-2014 20-14 pin JTAG adapter
STAR-1 Extended service agreement

*14-pin JTAG debug connection available with DPA-2014 adapter

THE COMPANY

American Arium has been a major supplier of emulator debugging tools for more than 20 years, servicing both the embedded and PC markets. Arium hardware-assisted solutions support Intel XScale®, TI OMAP™, and ARM®-based processor cores, as well as Intel® Pentium®-based and AMD 64 processors.

American Arium's mission is to meet and exceed the needs of firmware and software developers by providing them with the best tools to help them minimize their debug cycle.

It's Hard to Compete Without the Right Tools



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