

BDI1000

High-speed BDM/JTAG Debug Interface

- BDM support for CPU12/16/32/32+, PowerPC 5xx/8xx, ColdFire
- JTAG support for M-CORE, PowerPC 4xx, ARM, XScale
- Host communication via RS232 and Ethernet
- Program download speed up to 130 Kbytes/s
- Target communication speed up to 5.5 Mbit/s (BDM), 11 Mbit/s (JTAG)
- Supports target system voltages from 1.8 – 5 V
- Supports debuggers from leading vendors
- Same hardware for all supported targets and debuggers
- Powered from target system with 2.5 – 5 V or external line adapter
- Optimally prepared for portable field applications
- Flash memory on-board programming
- Robust EMC-optimized design
- Excellent price-performance payoff
- 3 years warranty



On-chip Debugging

The increasing complexity of today's software and hardware designs is leading to some fresh approaches to debugging. Silicon manufacturers offer more and more on-chip debugging features for emulation of new processors.

This capability, implemented in various processors under such names as Background Debug Mode (BDM), JTAG and on-chip emulation, puts basic debugging functions on the chip itself. With BDM or JTAG debug port, you control and monitor the microcontroller solely through the stable on-chip debugging services. This debugging mode runs even when the target system crashes and enables developers to continue investigating the cause of the crash. You won't waste time and target resources with a software ROM monitor, and you eliminate the cabling problems typical of ICEs.

Capitalizing on this technology, Abatron offers the high-speed BDI1000 BDM/JTAG interface with a comprehensive support for debuggers from leading vendors.

BDI1000 allows communication via RS232 or 10 BASE-T Ethernet between the development computer and the BDM/JTAG interface of the target system.



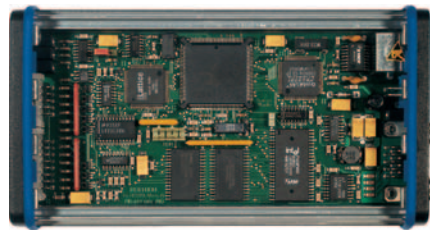
High Performance

The BDI1000 communicates with the target system with up to 5.5 Mbit/s (BDM) respectively 11 Mbit/s (JTAG) and allows fast program download rates of up to 130 Kbytes/s.

In most cases, the BDI1000 and the associated software packages eliminate the need for expensive hardware such as an in-circuit emulator. Even better, the BDI1000 accesses the on-chip emulation capabilities of today's newest processors which aren't supported by traditional ICEs.

Flexible Hardware

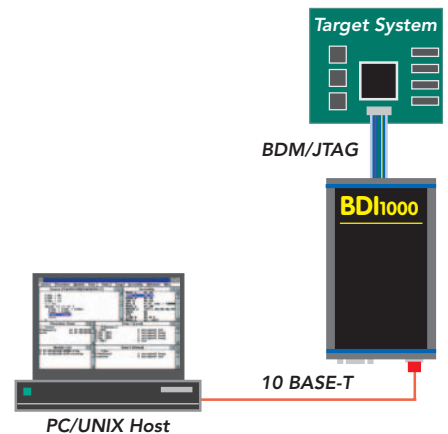
As a result of consistent implementation of latest technology, the BDI1000 is optimally prepared for further enhancements.



The firmware and the programmable logic of the BDI1000 can be updated by the user with a simple Windows based configuration program. Thanks to the built-in DC-DC converter, the BDI1000 can be directly supplied from the target system (2.5 – 5 Volts) or with an external line adapter (option).

Typical Application

The following example shows BDM/JTAG debugging via 10 BASE-T Ethernet connection.



Contact your local sales representatives or Abatron for specific debugger and CPU support.

Specifications

Operating Voltage Limiting	2.5 ... 5.25 VDC
Power Supply Current	typ. 230 mA @ 5V
Baud Rates (RS232)	max. 115 Kbaud
Network Interface	10 BASE-T
Target Interface	BDM and JTAG
Serial Transfer Rate between BDI and Target	5.5/11 Mbit/s (BDM/JTAG)
Supported Target Voltage	1.8 ... 5 VDC
Operating Temperature	+ 5 °C ... + 60 °C
Storage Temperature	- 20 °C ... + 65 °C
Relative Humidity (non-condensing)	< 90% rF
Size (without cables)	160 x 85 x 35 mm
Electromagnetic Compatibility (EMC)	EN 50081-2, EN 50082-2

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