

BDM-Debugger TX68k



Debug Control By The Chip

Motorola incorporates the Background Debug Mode (BDM) in all CPU32/CPU32+ core based microcontrollers. BDM provides Debug-Control by the chip itself via an 8- or 10-pin connector. This allows for building simple debug tools without the need for expensive hardware. TX68k also utilizes the BDM interface for debug control via HiTOP, providing access to Memory and Registers and Run-Control through breakpoints. Hardware breakpoints for the MC68360 are also supported. Additionally, TX68k gives the possibility of stepping through ROM or Flash memory not simulated by RAM.

In most cases, BDM-based debuggers use software modifications in order to set breakpoints. However, this can only work if the program is in writable memory. To facilitate this, the TX68k provides an EPROM adaptation to perform an EPROM simulation up to 512 K. No more modifications to the program are necessary for debugging purposes. Memory layout and chip selects, as well as reset and start procedures, may be tested in their final state.

TX68k knows a variety of algorithms for programming flash memories. Writing to a flash memory area through debugger commands automatically results in flash-reprogramming. For the developer, the flash memory can be treated as if it is RAM.

TX68k uses its own control processor and thus allows for running the target without control. This isolated mode is helpful for long-term testing without the host software being active.

HiLights

- BDM debugger
- Flash programming
- ROM debugging
- Hardware breakpoints with MC68360
- EPROM simulation 512 KByte
- HiTOP user interface
- High-speed serial connection
- Isolated operation

Technical Data

| | |
|--|---|
| Connection to the target system | BDM cable (length 50 cm) according to Motorola specification (2 x 5 "Berg" connector). The target system may provide a connector or jack; may also be used with 2 x 4 "Berg" connector. The BDM cable is attached to the basic unit. |
| Connection to the Host System | Serial connection of up to 115,200 Baud. |
| (Flash-) EPROM Emulation | Connection via two 32-contact EPROM adaptation cables (length 32 cm each). EPROM emulation is possible for 8- and 16-Bit-wide memory chips. Memory chips from 1024 KBit up to 4096 KBit in 28 pin- or 32 pin-packages can be used. EPROM emulation without wait states is ensured up to max. processor frequency of 25 MHz, if: <ul style="list-style-type: none"> • chip selects of the processor are used for address decoding • chip access time is at least 50 ns. |
| Auxiliary connection | <ul style="list-style-type: none"> • external signal by means of which program execution can be interrupted asynchronously. • power supply (+5 V) for the target system |
| Control | Reset button LED for status display |
| Flash devices supported by In-system programming feature | AMD 28F256, 28F512, 28F010, 28F010A, 29F016, 29F017, 28F020, 28F020A, 29F010, 29F040, 29F400, 29F080, 29F800, Intel 28F256A, 28F512, 28F12, 28F010, 28F020 |
| Dimensions (Basic unit) | 130 x 31 x 165 mm (W x H x D) |



The company

Hitex was formed in 1976 and has focused on efficient and professional solutions in the field of microprocessor development. Since then, we have been operating successfully in the fields of

DEVELOPMENT TOOLS AUTOMATION ENGINEERING

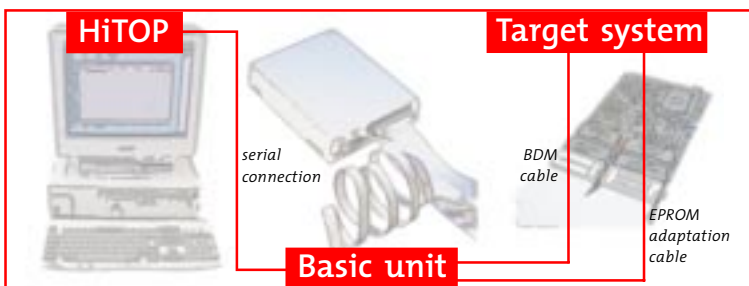
As a leading manufacturer of development tools for microprocessor systems, we are known worldwide by our customers, our partners and by the chip manufacturers. Our expert staff for automation engineering provides tailored solutions to your most complex design challenges.

In the field of DEVELOPMENT TOOLS each processor architecture has its own team. Each team member is well-acquainted with the relevant microprocessor and the entire tool chain. This ensures reliable support, including useful tips on applications – at every stage.

Complete Solution

Any BDM-based development system can only work together with the controller in an existing target hardware. Therefore, a TX68k without target hardware cannot be used. To build a simple starter kit for evaluation purposes we provide a general purpose target hardware based on an MC68332.

This is then bundled together with a compiler and an assembler. Ask for special prices for this starter kit.



Hitex Development Tools

Main Office

Greschbachstraße 12 Tel. (0721) 96 28-270
 D-76229 Karlsruhe Fax (0721) 96 28-149
 Email Team.68k@hitex.de

Hitex USA

2055 Gateway Place Tel. (800) 454-4839
 Suite 400 Tel. (408) 298-9077
 San Jose, CA 95110 Fax (408) 441-9486
 Email info@hitex.com

Hitex Asia

Blk. 3006 Tel. (65) 7452551
 Ubi Road 1, #04-386 Fax (65) 7454662
 Singapore 408700 Email hitexasia@pacific.net.sg

available worldwide

Branch Office

Oskar-von-Miller-Str.1 Tel. (08165) 771 03
 D-85386 Eching Fax (08165) 771 28

Hitex UK

Warwick University
 Science Park Tel. (01203) 69 20 66
 Sir William Lyons Road Fax (01203) 69 21 31
 GB-Coventry CV47EZ Email Sales@hitex.co.uk

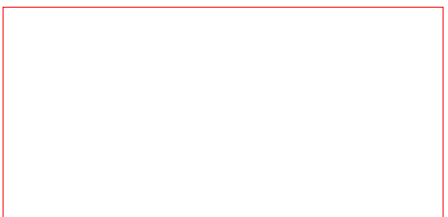
This brochure is intended to give overview information only. Since our policy is one of continuing development, changes and technical enhancements are possible. Trademarks of other companies used in the text refer exclusively to the products of these companies. Hitex, HITOP and RIAS are registered trademarks of Hitex.

www.hitex.de

International Sales

Tel. +49-721-9628-133
 Fax +49-721-9628-149
 Email Int.Sales@hitex.de

Our Partner



See www.hitex.de for current distributor list!