



PPC440 Debugger

- Full HLL and ASM support available
- Batch processing
- Supports ELF/DWARF format
- 3.3 Volt support
- Support for internal triggers
- Break on code or data
- Unlimited software breakpoints
- Fast download (ETHERNET or PARALLEL) up to 1000KB/sec

The debugger for IBM PowerPC 440 family allows fast access to the BDM interface of the chip. Up to 1 MByte can be downloaded in 1 second. The systems supports C, C++ and JAVA.

Features

- ❑ Active and Passive JTAG Debugger available
- ❑ Software Compatible to In-Circuit Emulator and Monitor
 - Operation System
 - PRACTICE
 - ASM Debugger
 - HLL Debugger for C and C++
 - Peripheral Windows
- ❑ High-Speed Download
 - Up to 1000 KByte/sec
- ❑ Variable Debug Clock Speed
 - 10 kHz...5 MHz
 - 1/4 CPU Clock
 - 1/8 CPU Clock
 - Variable up to 100 MHz (PowerDebug only)
- ❑ Trigger
 - Input from PODBUS
 - Output to PODBUS
- ❑ Support for EPROM/FLASH Simulator
 - Breakpoints in ROM Area
 - 8, 16 and 32 Bit EPROM/FLASH Emulation

Connector

Connector Type

standard 100 mil connector (BETRG, AMP, etc.)

Connector 16 pin

Signal	Pin	Pin	Signal
TDO	1	2	N/C
TDI	3	4	TRST- (*)
N/C	5	6	VCCS
TCK	7	8	N/C
TMS	9	10	N/C
HALT-	11	12	N/C
N/C	13	14	KEY
N/C	15	16	GND

Connector MICTOR

Signal	Pin	Pin	Signal
N/C	1	2	N/C
N/C	3	4	N/C
N/C	5	6	TRACECLK
HALT-	7	8	N/C
N/C	9	10	N/C
TDO	11	12	VTREF
N/C	13	14	N/C
TCK	15	16	N/C
TMS	17	18	N/C
TDI	19	20	N/C
TRST-	21	22	N/C
N/C	23	24	ES4
BS0	25	26	TS0
BS1	27	28	TS1
BS2	29	30	TS2
ES0	31	32	TS3
ES1	33	34	TS4
ES2	35	36	TS5
ES3	37	38	TS6

Operation Voltage

Operation Voltage

This list contains information on probes available for other voltage ranges. Probes not noted here supply an operation voltage range from 4.5V to 5.5V.

Adapter	Code	OrderNo	Voltage Range
JTAG Debugger for PPC44x (ICD)	DEBUG-PPC44X	LA-7752	1.6 .. 5.5 V
JTAG Debugger License for PPC44x Add.	DEBUG-PPC44X-A	LA-7752A	1.6 .. 5.5 V
JTAG Debugger Extension for PPC44x (ICD)	DEBUG-PPC44X-X	LA-7752X	1.6 .. 5.5 V

Supported Devices

CPU	ICE	FIRE	ICD DEBUG	ICD MONITOR	ICD TRACE	POWER INTEGRATOR	INSTRUCTION SIMULATOR
APM86190			YES		YES		YES
APM86190B			YES		YES		YES
APM86290			YES		YES		YES
APM86290B			YES		YES		YES
APM86491			YES		YES		YES
APM86692			YES		YES		YES
PPC440			YES		YES		YES
PPC440Axx			YES		YES		YES
PPC440EP			YES		YES		YES
PPC440EPX			YES		YES		YES
PPC440GP			YES		YES		YES
PPC440GR			YES		YES		YES
PPC440GRX			YES		YES		YES
PPC440GX			YES		YES		YES
PPC440Gxx			YES		YES		YES
PPC440SP			YES		YES		YES
PPC440SPE			YES		YES		YES
PPC460EX			YES		YES		YES
PPC460GT			YES		YES		YES
PPC460SX			YES		YES		YES
PPC476			YES		YES		YES

Order Information

Module Description

OrderNo Code	Text
LA-7752 DEBUG- PPC44X	JTAG Debugger for PPC44x (ICD) supports (1.8V - 5.0V) PPC440 includes software for Windows, Linux and MacOSX requires Power Debug Module debug cable with 16 pin connector requires LA-7986 if the target has a Mictor38 connector
LA-7752A DEBUG- PPC44X-A	JTAG Debugger License for PPC44x Add. supports PPC440 Extension applicable to the following debug cables (purchased separately): for LA-3730 (Debugger for MicroBlaze) please add the serial number of the base debug cable to your order
LA-7752X DEBUG- PPC44X-X	JTAG Debugger Extension for PPC44x (ICD) Extension applicable to the following debug cables (purchased separately): LA-7723 JTAG Debugger for PPC400 requires a valid software guaranty or a valid software license key please add the serial number of the base debug cable to your order
LA-3731 JTAG-PPC- CON-XILINX	JTAG Converter to Xilinx Target Adapter 14 Converter from PPC400 16 pins to Xilinx PPC400/Microblaze 14 pins target adapter
LA-7986 JTAG-PPC4XX- 2X38	Mictor-Mictor-JTAG 16pin Converter for PPC4xx Converter MICTOR 38 on target to 16 pin male connector JTAG Debugger PPC4XX and MICTOR 38 of LA-7929 Preprocessor for PPC4xx family fast flex or LA-3900 Preproc. for PPC4XX AUTOFOCUS II Flex required if no separate JTAG connector is provided on the target

Detailed Order Information

Order No.	Code	Text
LA-7752	DEBUG-PPC44X	JTAG Debugger for PPC44x (ICD)

Order No.	Code	Text
LA-7752A	DEBUG-PPC44X-A	JTAG Debugger License for PPC44x Add.
LA-7752X	DEBUG-PPC44X-X	JTAG Debugger Extension for PPC44x (ICD)
LA-3731	JTAG-PPC-CON-XILINX	JTAG Converter to Xilinx Target Adapter 14
LA-7986	JTAG-PPC4XX-2X38	Mictor-Mictor-JTAG 16pin Converter for PPC4xx
Additional Options		
LA-7723X	DEBUG-PPC400-X	JTAG Debugger Extension for PPC400 (ICD)
LA-3730A	JTAG-MICROBLAZE-A	JTAG Debug. License for MicroBlaze Additional
LA-7960X	MULTICORE-LICENSE	License for Multicore Debugging

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