



Embedded Software Solutions

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Embedded Software

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Production Tools

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Development Tools
J-Link ARM
Overview

J-Link ARM Emulator for ARM and Cortex-M3 cores

J-Link is a USB powered JTAG emulator for ARM cores. It connects via USB to the Windows (2000/XP/Vista) PC host.

Features

- Direct download into flash memory of most popular microcontrollers supported
- USB 2.0 interface
- Any ARM7/ARM9/ARM11, Cortex-M0/M1/M3 core support, including thumb mode
- Serial Wire Debug (SWD) support
- Serial Wire Viewer (SWV) support
- Automatic core recognition
- JTAG speed up to 12 MHz
- Download speed up to 720 Kbytes/second (ARM7 @ 50 MHz, 12MHz JTAG speed)
- DCC speed up to 800 Kbytes/second (ARM7 @ 50 MHz, 12MHz JTAG speed)
- Seamless integration into the IAR Embedded Workbench IDE
- No power supply required, powered through USB
- Support for adaptive clocking
- All JTAG signals can be monitored, target voltage can be measured
- Support for multiple devices
- Fully plug and play compatible
- Standard 20-pin JTAG connector
- Wide target voltage range: 1.2V - 3.3V, 5V tolerant
- USB and 20-pin ribbon cable included
- Memory viewer (J-Mem) included
- TCP/IP server included, which allows using J-Link via TCP/IP networks
- RDI interface available, which allows using J-Link with RDI compliant software
- Flash programming software (J-Flash) available
- Flash DLL available, which allows using flash functionality in custom applications
- Software Developer Kit (SDK) available
- Embedded Trace Buffer (ETB) support
- Adapter for 5V JTAG targets available
- 14-pin JTAG adapter available
- Optical isolation adapter available
- Target power supply: J-Link can supply up to 300 mA to target with overload protection

[Documentation download](#) [Subscribe to J-Link software notification](#)

Available Software Packages

J-Link ARM FlashBP

The J-Link software contains an additional feature, called flash breakpoints (J-Link ARM FlashBP). Flash breakpoints allow the user to set an unlimited number of software breakpoints when debugging in flash memory. This feature is also available for J-Link ARM RDI. [More info...](#)

J-Flash ARM

J-Flash is a PC software running on Windows 2000/XP systems, which enables you to program your Flash EEPROM devices via the On-Chip Debug connector (JTAG) on your target system. [More info...](#)

J-Link ARM GDB Server

The J-Link GDB Server is a remote server for the GDB. The GDB and GDB Server communicate via a TCP/IP connection, using the standard GDB remote serial protocol. The GDB Server translates the GDB monitor commands into J-Link commands. [More info...](#)

J-Link ARM SDK

The J-Link DLL is a standard Windows DLL typically used from "C" (Visual Basic or Delphi) projects are also doable. It makes the entire functionality of J-Link available thru the exported functions. [More info...](#)

J-Link ARM Flash SDK

An enhanced version of the J-Link SDK, which contains additional API functions for flash programming. The additional API functions (Prefixed JLINKARM_FLASH) allow erasing and programming the internal flash memory of many ARM 7/9 and Cortex-M3 MCUs. [More info...](#)

J-Link ARM RDI

The J-Link ARM RDI software is an RDI interface for J-Link. It makes it possible to use J-Link with any RDI compliant debugger. [More info...](#)

Available bundles including J-Link ARM

The following table shows the features which are included in the available J-Link bundles and Non-commercial package.

	J-Link MCU bundle (non commercial use)	J-Link ARM RDI/GDB - Server bundle	J-Link ARM Pro bundle	J-Link J-Flash bundle
Flash BP	yes	no	yes	no
GDB Server	yes	yes	yes	no
RDI	no	yes	yes	no
J-Flash	no	no	yes	yes

Specifications *

General	
Supported OS	Microsoft Windows 2000 Microsoft Windows XP Microsoft Windows XP x64 Microsoft Windows 2003 Microsoft Windows 2003 x64 Microsoft Windows Vista Microsoft Windows Vista x64 Windows 7 Windows 7 x64
Electromagnetic compatibility (EMC)	EN 55022, EN 55024
Operating temperature	+5°C ... +60°C
Storage temperature	-20°C ... +65 °C
Relative humidity (non-condensing)	Max. 90% rH
Size (without cables)	100mm x 63mm x 27mm
Weight (without cables)	70g
Mechanical	
USB interface	USB 2.0, fullspeed
Target interface	JTAG 20-pin (14-pin adapter available)
JTAG/SWD Interface, Electrical	
Power supply	USB powered Max. 50mA + Target Supply current.
Target interface voltage (Vf)	1.2V ... 5V
Target supply voltage	4.5V ... 5V (if powered with 5V on USB)
Target supply current	Max. 300mA



Data input rise time (Trdi)	Max. 20ns
Data input fall time (Tfdi)	Max. 20ns
Data output rise time (Trdo)	Max. 10ns
Data output fall time (Tfdo)	Max. 10ns
Clock rise time (Trc)	Max. 10ns
Clock fall time (Tfc)	Max. 10ns

* J-Link hardware revision 8 and up

