

## J-Link Adapters

The following adapters are available for J-Link:

### J-Link JTAG Isolator

The J-Link JTAG Isolator can be connected between J-Link and any ARM-board that uses the standard 20-pin JTAG-ARM connector to provide electrical isolation. This is essential when the development tools are not connected to the same ground as the application. It is also useful to protect the development tools from electrical spikes that often occur in some applications, such as motor control applications. Another typical field of application is development of products with sensors or other analog circuitry, in which case the target hardware is protected from electrical noise originating from the development PC. This product is compatible with J-Link, J-Link Pro and Flasher ARM.



### J-Link RX Adapter

The J-Link RX Adapter allows JTAG connections between J-Link and target hardware which comes with the Renesas RX600 series MCUs. The J-Link RX adapter is able to optionally power the connected target hardware. 3.3V or 5V supply voltage can be selected using a Jumper. The target is supplied via the VTref connection when the supply option is jumpered.



TCK	1 ●	2 ●	GND
TRSTn	3 ●	4 ●	EMLE
TDO	5 ●	6 ●	---
---	7 ●	8 ●	VTref
TMS	9 ●	10 ●	---
TDI	11 ●	12 ●	GND
nRES	13 ●	14 ●	GND

## J-Link 19-pin Cortex-M Adapter

The J-Link 9-pin Cortex-M Adapter allows JTAG, SWD and SWO connections between J-Link and Cortex-M based target hardware systems. It adapts from the 20-pin 0.1" JTAG connector to a 19-pin 0.05" Samtec FTSH connector as defined by ARM.

The J-Link 19-pin Cortex-M Adapter may also be used to connect J-Link to a non Cortex-M target as far as the target connector uses the same pinout as shown below.

By default, TRST is not connected, but the Cortex-M Adapter comes with a solder bridge (NR1) which allows TRST to be connected to pin 9 of the Cortex-M adapter.



VTref	1 ● ● 2	SWDIO/TMS
GND	3 ● ● 4	SWCLK/TCK
GND	5 ● ● 6	SWO/TDO
- - -	7 ● 8	TDI
NC	9 ● ● 10	nRESET
5V-Supply	11 ● ● 12	TRACECLK
5V-Supply	13 ● ● 14	TRACEDATA[0]
GND	15 ● ● 16	TRACEDATA[1]
GND	17 ● ● 18	TRACEDATA[2]
GND	19 ● ● 20	TRACEDATA[3]

## J-Link 9-pin Cortex-M Adapter

The J-Link 9-pin Cortex-M Adapter allows JTAG, SWD and SWO connections between J-Link and Cortex-M based target hardware systems. It adapts from the 20-pin 0.1" JTAG connector to a 9-pin 0.05" Samtec FTSH connector as defined by ARM.

The J-Link 9-pin Cortex-M Adapter may also be used to connect J-Link to a non Cortex-M target as far as the target connector uses the same pinout as shown below.

By default, TRST is not connected, but the Cortex-M Adapter comes with a solder bridge (NR1) which allows TRST to be connected to pin 9 of the Cortex-M adapter.



VTref	1 ● ● 2	SWDIO/TMS
GND	3 ● ● 4	SWCLK/TCK
GND	5 ● ● 6	SWO/TDO
- - -	7 ● 8	TDI
NC	9 ● ● 10	nRESET

### J-Link ARM 14-pin Adapter

This adapter allows to use J-Link with ARM7/9/11 targets using this 14-pin 0.1" mating JTAG connector defined by ARM.

The 14-pin connector, though defined by ARM as an alternative to the 20-pin connector is not widely used on modern eval boards.



VTref	1 ● ● 2	GND
nTRST	3 ● ● 4	GND
TDI	5 ● ● 6	GND
TMS	7 ● ● 8	GND
TCK	9 ● ● 10	GND
TDO	11 ● ● 12	RESET
VTref	13 ● ● 14	GND

### J-Link TI 14-pin Adapter

The J-Link TI 14 pin Adapter allows JTAG connections between J-Link and target hardware which use a TI MCU and provides a 14-pin connector (e.g. the BeagleBoard with an OMAP3530 on it), defined by TI. It adapts from the 20-pin 0.1" to a 14-pin 0.1" JTAG connector.



TMS	1 ● ● 2	TRST
TDI	3 ● ● 4	GND
VCCS	5 ● ● 6	NC
TDO	7 ● ● 8	GND
RTCK	9 ● ● 10	GND
TCK	11 ● ● 12	GND
EMU0	13 ● ● 14	EMU1