



ULINK™ Debug Adapters

- Overview
- ULINK Product Comparison

ULINKpro™

- Overview
- Specifications
- Supported Devices
- Knowledgebase Articles
- User's Guide

ULINK2™

- Overview
- Specifications
- Supported Devices
- Knowledgebase Articles
- User's Guide

ULINK-ME™

- Overview
- Specifications
- Supported Devices
- Knowledgebase Articles
- User's Guide

ULINK Accessories

- Isolation Adapter
- 5Volt Adapter

[Home](#) / [ULINK™ Debug Adapters](#)

ULINK Debugger Comparison

Feature	ULINKpro	ULINKpro D	ULINK2	ULINK-ME	ULINK
Debugging Features					
RAM Breakpoints	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
ROM Breakpoints (ARM7/9)	2 max	2 max	2 max	2 max	2 max
ROM Breakpoints (Cortex-M3)	8 max	8 max	8 max	8 max	8 max
ROM Breakpoints (μPSD) (Cannot Set While Executing)	n/a	n/a	5 max	n/a	5 max
ROM Breakpoints (XC800) (Cannot Set While Executing)	n/a	n/a	4 max	n/a	4 max
ROM Breakpoints (XC166)	n/a	n/a	4 max	n/a	4 max
Execution Breakpoints (Set While Executing)	☐	☐	☐	☐	☐
Access Breakpoints (ARM7/9)	2 max (R/W Only, With Value)	2 max (R/W Only, With Value)	2 max (R/W Only, With Value)	2 max (R/W Only, With Value)	2 max (R/W Only, With Value)
Access Breakpoints (Cortex-M3)	4 max (With value)	4 max (With value)	4 max (With value)	4 max (With Value)	☐
Access Breakpoints (μPSD)	n/a	n/a	3 max	n/a	3 max
Access Breakpoints (XC800)	n/a	n/a	1 in IDATA max	n/a	1 in IDATA max
Access Breakpoints (XC166)	n/a	n/a	1 max	n/a	1 max
Debugging Support					
Real-Time Agent (ARM7/9)	☐	☐	☐	☐	☐
Serial Wire Debug (Cortex-M)	☐	☐	☐	☐	☐
Data Trace (Cortex-M3/M4) (Serial Wire Viewer)	☐	☐	☐	☐	☐
Instruction Trace (Cortex-M3/M4) (Embedded Trace Macrocell - ETM)	☐	☐	☐	☐	☐
Performance					
JTAG Clock	<= 50MHz	<= 50MHz	<= 10MHz	<= 10MHz	<= 1MHz
Memory R/W	≈ 1MB/s	≈ 1MB/s	≈ 28KB/s	≈ 28KB/s	≈ 28KB/s
Flash R/W	32KB/s	32KB/s	≈ 25KB/s	≈ 25KB/s	≈ 15KB/s
Data Trace Streaming	800Mb/s	800Mb/s	1Mb/s	1Mb/s	☐
Connectors					
10-pin (0.05") (Cortex Debug Connector)	☐	☐	☐	☐	☐
20-pin (0.1") (ARM Standard JTAG Connector)	☐	☐	☐	☐	☐
20-pin (0.05")	☐	☐	☐	☐	☐

(Cortex Debug+ETM Connector)					
16-pin (0.1") (Infineon OCDS Connector)	☐	☐	☐	☐	☐
14-pin (0.1") (ST µPSD Connector)	☐	☐	☐	☐	☐
I/O Voltage Range	1.2V - 3.3V	1.2V - 3.3V	2.7V - 5.5V	3.0V - 3.6V	3.0V - 5.5V
Supported Device Families					
XC800 (8051)	☐	☐	☐	☐	☐
µPSD (8051)	☐	☐	☐	☐	☐
XC166/XE166/XC2000	☐	☐	☐	☐	☐
LPC950 (8051)	☐	☐	☐	☐	☐
ARM7	☐	☐	☐	☐	☐
ARM9	☐	☐	☐	☐	☐
Cortex-M0	☐	☐	☐	☐	☐
Cortex-M0+	☐	☐	☐	☐	☐
Cortex-M1	☐	☐	☐	☐	☐
Cortex-M3	☐	☐	☐	☐	☐
Cortex-M4	☐	☐	☐	☐	☐

Note that hardware breakpoints are limited by the ARM Embedded ICE Hardware.
The original [ULINK](#) has been replaced by ULINK2.

Products

Development Tools

ARM

C166

C51

C251

µVision IDE and Debugger

Hardware & Collateral

ULINK Debug Adaptors

Evaluation Boards

Product Brochures

Device Database

Distributors

Downloads

MDK-ARM

C51

C166

C251

File downloads

Support

Knowledgebase

Discussion Forum

Product Manuals

Application Notes

Contact

Distributors

Request a Quote

Sales Contacts

 **KEIL**
Tools by ARM

Contact Us | Site Feedback | Terms of Use | Privacy Policy

Copyright © 2013 ARM Ltd and ARM Germany GmbH. All rights reserved.

