

Ashling Opella-XD for ARM

Ultra-high-speed JTAG Debug Probe

Ashling's **Opella-XD JTAG Debug Probe**, supplied and supported by Arcadi Systems, is the fastest-available debug probe for embedded development on ARM™ RISC cores.

Advanced features of Opella-XD include:

- Fast, easy-to-install USB 2.0 High-Speed Interface (480Mb/s)
- Up to 3MB/s download speed
- Works with Windows and Linux hosts
- Hot-plug support allows post-mortem debugging
- Supports all popular ARM™ cores
- Fast, trouble-free Plug-and-Play installation
- Small, versatile Target Probe Cable fits on any target board
- Fast in-target Flash Programming
- Wide target voltage range: 0.9V to 3.6V
- Versatile Target-Reset and Test-Port-Reset support
- Unique Auto-conditioning Probe provides maximum possible download speed to target with fastest JTAG clock frequencies
- Semi-hosting support (`stdio` calls to/from target hardware from/to host PC)
- Built-in diagnostics instantly show status of Target, Debug Probe and USB link
- Universal Hardware-Debug platform for all popular target architectures and compilers



Benefits of **Opella-XD** to the embedded hardware developer include:

- Accelerates the entire embedded-hardware debug process: ultra-fast installation, code download and flash programming saves time at every code rebuild
- Instantly auto-configures to target system
- Long-term investment: works with all popular target architectures and compilers
- Helps with the most difficult debugging tasks: hardware bring-up, operating-system boot, post-mortem debugging
- Future-proof: works with latest hardware-debug protocols, all popular host operating-systems
- Compact, easy-to-install target probe cables support all popular debug interfaces
- Powerful software package includes PathFinder Source Debugger and drivers, ensuring compatibility with a wide range of Compilers and third-party debuggers

Opella-XD Debug Probe Specification

- High-speed USB2.0 (480Mb/s) interface to host PC or Linux (x86) workstation
- Target JTAG clock rates up to 100MHz
- Auto-conditioning for fast JTAG clock frequencies
- Sustained code download to target at over 3MB/s (using 100MHz JTAG clock)
- Configurable Target-Reset and Test-Port-Reset, under full user control
- Fine-grained adjustment of JTAG clock frequency from 1KHz to 100MHz
- Supports target operating voltages from 0.9V to 3.6V. Opella-XD detects and automatically configures for the appropriate target voltage.
- Supports RTCK adaptive clocking of debug data from target
- "Hot-plug" support; allows connection to a running target without resetting or halting
- Fully powered by USB interface; no external power-supply needed
- Support for all on-chip hardware breakpoints; unlimited number of software breakpoints
- Full support for THUMB™ code compression
- Supplied with Ashling ARM™ RDI software drivers (Windows) and GDB server (Windows, Linux) which allow Opella-XD to work with a range of debuggers from ARM (RealView), Keil (µVision), GNU, Eclipse and IAR (C-Spy)
- Supplied with Ashling's **PathFinder-XD C** Source Debugger

PathFinder-ARM Source Debugger

PathFinder-ARM is Ashling's Source-level Debugger for ARM™-core devices, with multiple user-configurable windows and intuitive operation.

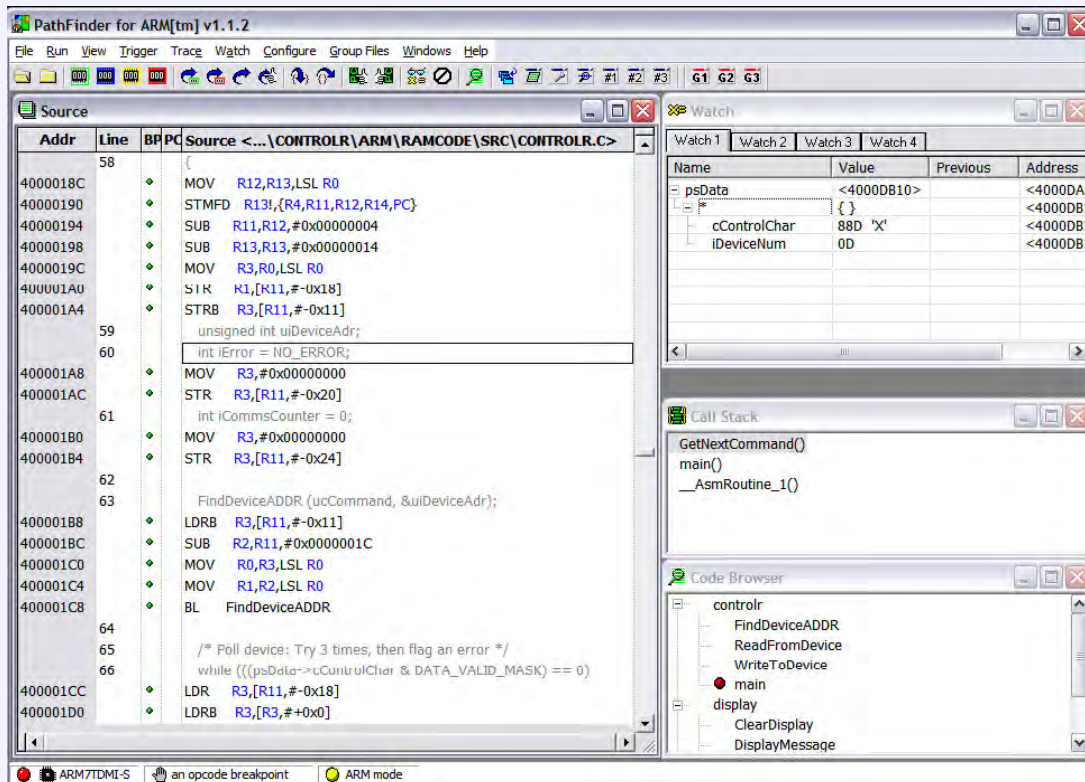
Full target debug control is supported, including program download, go/halt/step and setting/clearing of breakpoints. Variables, target memory and registers may also be viewed and modified.

A built-in script (macro) language allows automation of repetitive tasks.

Target flash programming support for a broad range of devices is also provided.

Compiler support:

All popular ARM™ C/C++ compilers are supported, including ARM, Keil, IAR, GNU GCC, Green Hills Software, Wind River and all other ELF/DWARF compliant compilers.



GDB-Server-XD-ARM

Ashling's GDB-Server-XD-ARM software package, supplied with Opella-XD-ARM, allows Opella-XD-ARM to be used with third-party debuggers such as ARM RealView, Keil μVision and the GNU GDB ARM and Eclipse CDT open-source debuggers.

Broad Device Support

All popular ARM™ cores are supported, including ARM7, ARM9 and ARM9E devices. In addition, Opella-XD supports devices from the following ARM™ licensees: Analog Devices, Atmel, NXP, OKI, Samsung, Sony, ST and TI. New devices are added frequently; please contact Arcadi Systems for the latest support information.

Order Codes

Product	Order Code
Opella-XD-ARM Debug Probe. Includes PathFinder-XD-ARM Source Debugger, GDB-Server-XD-ARM software drivers, TPAOP-ARM20 probe cable, USB 2.0 cable	Opella-XD-ARM
20-pin Target Probe Cable with 0.1"-pitch IDC connector. Supports target voltages 0.9V to 3.6V	TPAOP-ARM20
PathFinder-ARM Source Debugger software for Windows hosts; supports all popular ARM compilers.	PF-XD-ARM
GDB-Server-XD-ARM drivers: Connects RDI- and GDB-Server-compliant Source Debuggers (ARM, Keil, GNU GCC, Eclipse CDT, IAR, Green Hills, Wind River) to Opella-XD Probe.	GDB-Server-XD-ARM

Ashling Microsystems Ltd. reserves the right to alter product specifications at any time and without notice

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