In-circuit debugging probes

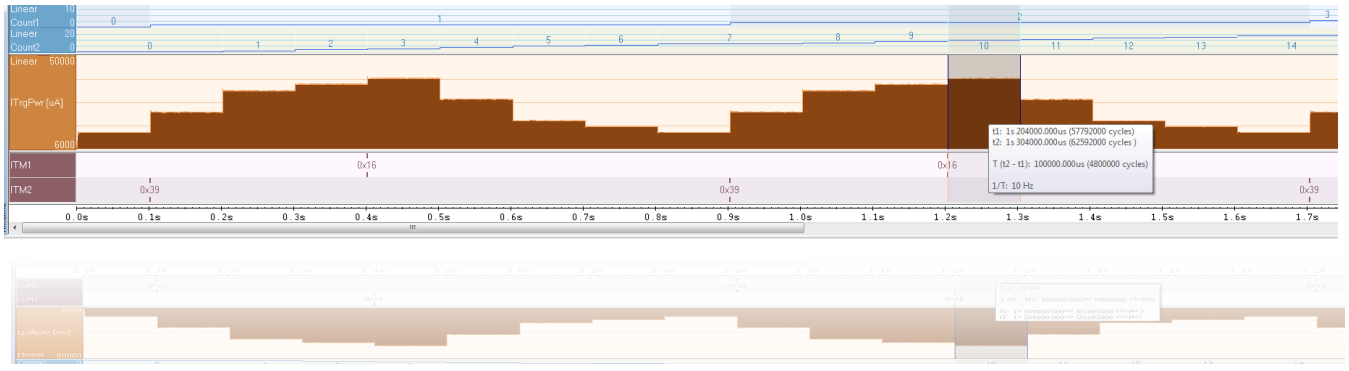
I-jet™

I-jet is a slim in-circuit debugging probe, which connects to the target board via a JTAG or SWD connection, and to the host PC via the USB port. It is fully plug-and-play compatible, seamlessly integrated into the IAR Embedded Workbench IDE, and enables high-speed debugging and full power profiling.

Key features

- Support for ARM7/ARM9/ARM11 and Cortex-M/R/A cores
- Seamless integration into the IAR Embedded Workbench IDE (IAR Embedded Workbench for ARM, version 6.30.8 or later)
- Plug-and-play compatibility
- High-speed USB 2.0 interface (480Mbps)
- Powered entirely through USB
- Target power of up to 400mA can be supplied from I-jet with overload protection
- Target power consumption can be measured with ~200µA resolution at 200kHz
- JTAG and Serial Wire Debug (SWD) clocks up to 32MHz (no limit on the MCU clock speed)
- Serial Wire Viewer (SWV) with UART and Manchester encoding
- Support for SWO speeds of up to 60MHz
- Embedded Trace Buffer (ETB) support
- Download speed of up to 1MByte/sec
- Automatic core recognition
- Support for multiple JTAG devices with automatic chain detection and graphical display
- Direct download into flash memory of most popular microcontrollers
- Support for JTAG adaptive clocking (RTCK)
- Automatic JTAG/SWD detection
- JTAG voltage measurement and monitoring
- Supports target voltage range from 1.65V to 5V
- Standard MIPI-20 and MIPI-10 JTAG cables are included
- ARM-20 (0.1in x 0.1in) JTAG adapter is included

For more product information, visit www.iar.com/ijet



Power Debugging

I-jet enables refined power measurements in IAR Embedded Workbench and lets you monitor the power consumption during program execution. Combining I-jet with I-scope adds current and voltage measurements. Thanks to the correlation with the source code, you can find out how the power consumption is affected by the code, and test and tune for power optimization. IAR Embedded Workbench integrates Power Debugging in your code writing process, allowing you to develop low-power software from the very beginning.

I-scope™

I-scope is a small probe that adds current and voltage measurement capabilities to I-jet.

The measurements can be done at any designated points on the target board and are displayed in real-time by the C-SPY Debugger in IAR Embedded Workbench for ARM.

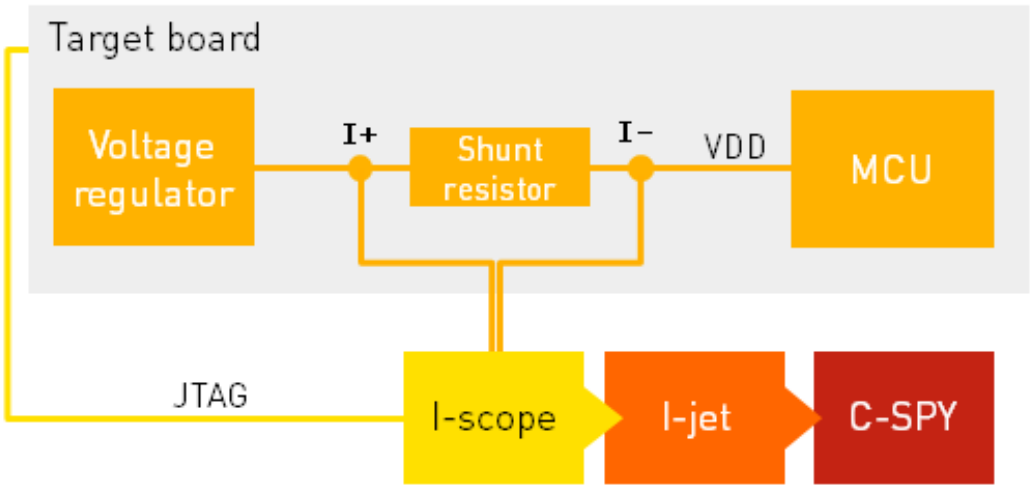
Key features

- I-scope measures current and voltages and sends it to I-jet, which synchronizes the data with the program counter of the running application.
- The data can be graphed and profiled in real time and analyzed using the C-SPY Debugger in IAR Embedded Workbench for ARM.
- The current sensing is done by connecting two differential current measurement leads across a shunt resistor on the target board.
- The power analysis can for example be used to:
  - Reveal the power consumption of individual functions and peripherals
  - Identify I/O activities that cause current spikes
  - Diagnose low power mode
  - Investigate MCU frequency and core voltage power savings
  - Find conflicting hardware setup
  - Reduce RF emissions by identifying and eliminating unwanted current spikes
  - Measure and compare battery consumption in various MCU sleep modes

Specifications

- I+ and I- differential voltage, 110mV full scale across shunt resistor
- One differential current channel, 0-6V common mode
- Three voltage channels, 0-6V
- Sampling rate up to 200 kHz with 12 bit resolution
- Includes a MIPI-20 flat cable for attaching to the I-jet
- Includes 6 flying test leads and 6 grabbers
- Supports all ARM cores
- I-scope is used in combination with I-jet

For more product information, visit www.iar.com/iscope



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