

MCDS Support by UDE

Multi-Core-Debug-System MCDS Support by UDE

The Multi-Core-Debug-Support **MCDS** is a highly sophisticated on-chip emulator located on a emulation device introduced by Infineon.

An emulation device (e.g. TC1796ED) consists beside of the normal chip of trace memory, calibration memory and a complex trigger logic. It is produced on the same silicon die as the normal "production" chip and runs at the same speed. It has the same behavior as the "production" chips plus all the features of MCDS. Because of the on-chip memory a normal JTAG connector can be used to make the rich functionality available.

With the high compression of trace messages and well defined filters, instruction traces with more than 1 million instructions are possible. FIFO's are used to ensure a continues trace stream even if data and instruction trace is used in parallel. MCDS Infineon chips are supporting OCDS Level 3 that is equivalent to Nexus Class Level 3+. This includes trace of program flow, data trace, trace of owner chip, memory substitution for calibration etc.



Feature comparison of MCDS vs. OCDS L2

Feature list	new MCDS	known OCDS L2
Supported Chips	TC1796ED, TC1766ED	Any TriCore Derivative
TriCore Instruction Pointer Trace	✓	✓
DMA Trace	✓	✓
PCP Instruction Pointer Trace	✓	✓
PCP Channel (Priority) Trace	✓	
Data Trace, Watch point Trace, Bus Trace	✓	
TriCore-PCP mixed Instruction Pointer Trace	✓	
Number of Ranges to be traced simultaneously	6 ranges	1 range
OCDSL1 Trigger Condition	✓	✓
Sequential Trigger Condition	✓	
Reference-Clock (USB-Clock) based Time Stamps	✓	
Time based Trigger Condition	✓	
Tick based Time Stamps	✓	✓
Single shot Time Stamps for Time measurement	✓	
Stopping TriCore and/or PCP on Trigger Condition	✓	manual configuration
Emitting Signal on external Break pin on Trigger Condition	✓	manual configuration
Connector	standard 16-pin JTAG	additional 60-pin connector
UDE-Tool Ordering Code	UDE/UAD2 and UEC	UDE/UAD2+TC L2

If you have any questions about your application development tools, please contact us at:

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