RTX

WIRELESS WISDOM

RTX2041
NEXUS ICE
DATA SHEET

The RTX2041 Nexus ICE (In-Circuit Emulator) is a universal debugging interface unit which enables development and verification departments to quickly & effectively debug a number of core systems such as ARM Cortex Mx and Xtensa..

FEATURES

The RTX2041 Nexus ICE is designed with ESD-protected interfaces and galvanic isolation between the target hardware and the USB interface. The unit is connected via the USB port and powered from your Windows PC.

The Nexus debugger software is supplied on a USB memory stick and automatically downloads firmware upgrades to the RTX2041 Nexus ICE.

Connection to your design is achieved via a 2x10 pin connector using UART and/or JTAG. The kit also includes a set of standard PCB adapters for the 2x10 pin connector to provide flexibility for how you would like to connect to your target hardware. Optional adaptors are available.

APPLICATIONS

R&D USE
- *Fast Flash Programming*
- *Advanced debugging with:*
  - *Real-time monitoring of memory/variables*
  - *IAR UBROF and GCC ELF/DWARF debug file support*
- *Execution control*
- *Chip & OS awareness*
- *Interpreted view of registers, clock tree, etc.*
- *Scripting support*

QA USE
- *Read-out of target error logs from persistent memory*
- *Read-out of call stack, memory, etc. when testing w/ debugger*

PRODUCTION USE
- *DLL use for Fast Flash Programming in production line*
- *Communication access to target*
- *Configuration of non-volatile storage*
- *Production test interface commands*

TECHNICAL SPECIFICATIONS

FEATURE	SPECIFICATIONS			
UART INTERFACE	Standard & special baud rates UART emulation over JTAG (RAM Bus) for systems where target UART is occupied			
JTAG INTERFACE	5-wire/1-wire JTAG for Dialog CR16C+/SDI+ based targets - such as SC144xx series 2-wire JTAG (SWD) for ARM Cortex-Mx targets - such as Silicon Labs EFM32xx or EFR4xx series and Dialog DA14195 & DA14495 series			
	SIGNAL	**2X10 PIN CONNECTOR**	**2X5 PIN CONNECTOR**	**DB9**
	VCC_IO	1	1	9
	JTAG/SWDIO	10	3	1
	Target TX	14	5	3
	Target RX	12	7	2
	Target GPI/SWDCLK	16	10	7
	GND	2, 4, 6, 8, 20	2, 4, 6, 8, 9	5, 6
POWER RATINGS	Automatic I/O voltage adaption 1.8-3.3 V			
SYNCHRONOUS (OWI) 1-WIRE JTAG FREQUENCIES	0.300 MHz 1.296 MHz 5.184 MHz 9.216 MHz	10.368 MHz 12.000 MHz 12.288 MHz 20.736 MHz	24.000 MHz 41.472 MHz 82.944 MHz Others available on request	
DIMENSIONS (WXHXD)	70 x 19 x 105 mm (approx. 2 ¾ x ¾ x 4 ⅛ in)			
SUPPORTED OS	Signed drivers for Windows 7 and later, 32 bit & 64 bit			

ORDERING DETAILS

RTX NO.	DESCRIPTION	STD/OPT
95101391	RTX2041 Nexus ICE kit	Standard
95100502	Cable DB9 - 5 pin Molex	Optional
95100504	Cable DB9 - 6 pin Molex	Optional