# MSP430-JTAG FOR PROGRAMMING AND FLASH EMULATION WITH MSP430 MICROCONTROLLERS

#### **Features:**

- programs all MSP430Fxxx flash microcontrollers
- uses TI standard 2x7 pin JTAG connector
- no need for external power supply, all power is taken from the LPT port
- compatible with IAR Kickstart software for programming, real time emulation, debugging, step by step program execution, breakpoints, memory dump etc everything all high priced emulators do
- with IAR Kickstart you can write in assembler unlimited code size and to write in C with 2K limit for all MSP430 microcontrollers
- works with free GCC C compiler and Insight MSP430 toolchain and debugger
- dimensions 50x40 mm (2x1.6") + 20 cm (8") cable

# **Supported devices:**

All MSP430Fxxx flash microcontrollers

#### JTAG interface:

The JTAG connector is 2x7 pin with 0,1" step and TI recommended JTAG layout. The PIN.1 is marked with square pad on bottom and arrow on top.

JTAG TOP view PCB board layout:

# MSP430-JTAG

TDO	1	2 VCC_IN
TDI	3	4 VCC_OUT
TMS	Ŋ	6 NC
TCK	7	8 TEST/UPP
GND	9	10 NC
RST/NMI	11	12 NC
NC :	13	14 NC

# **Target microcontroller voltage:**

MSP430-JTAG has build-in target board voltage follower and the JTAG voltage levels follow MSP430 target board voltage, so target may be powered with voltage between 2.7 and 3.6 V (if the target voltage is under 2.7V Flash memory can't be programmed)

# **Ordering codes:**

MSP430-JTAG - assembled and tested

