

Uprog ICP / USB



Uprog ICP - new, flexible and powerful programmer designed to in-circuit programming tasks. Powered through USB, Uprog ICP does not require external power supplier and supports wide range of integrated circuits: microcontrollers (8051, PIC, AVR, MSP430, ARM, ST72, etc.), serial EEPROMs & flash (I2C, SPI, Microwire, 1-wire, etc.), CPLD & FPGA. Target device can be powered by the programmer (**5V** down to **1.8V**), programming voltage up to **14V** can be also provided. Thanks to **USB 2.0** interface and specialized microprocessor we achieved short programming times close to vendor's maximum ratings. Uprog is able to working in **High Speed** and **Full Speed** modes.

New software for Windows 2000 and newer systems was designed to intuitive operation. It supports many programmers simultaneously, so several programmers may be connected to the PC in order to increase efficiency of whole system.

Device list

Key features



- designed to in-circuit programming tasks
- **USB** interface - **USB 2.0 (HighSpeed and FullSpeed)** and USB 1.1 compatible
- USB powered
- Short programming times thanks specialized **FPGA** based microprocessor (20 ns cycle).
- **Pin contact check** feature
- Ulogic - Uprog based logic analyzer with pattern generator feature (option)
- Multi color status **LEDs**: power, busy, error, good.
- Software for Windows 2000/XP/Vista supports many independent programmers simultaneously.
- compact case: 110mm x 70mm x 25mm
- additional board with ZIF socket - Uprog ICP Programming Socket (option)

In-circuit programming connector (ICP)



Uprog portable has Build-in interface for in-circuit programming, so as to be able to program chips working via **SPI, I2C, BDM, JTAG, 1 WIRE, 3 WIRE** and others. Serial programming interface was designed to allow to archive maximum data speed transfer and allows to adjust signal voltage level for any technology. Serial Programming Adapter assure:

- adaptation of voltage levels (1.2V - 5V)
- fast data transfer
- flexible connection between programmer and programmed device
- possibility to connect **VPP, VCC, GND, CLK,** and 6 universal IO pins.

ICP allows to be pin-checked, so as to be able to keep good contacts with programmed chip.

Ulogic - digital signal analyser (option).



Main features:

- 16 input channels
- maximum sampling rate: 200MHz¹
- buffer length: 64K x 16 or 256K x 16
- short data transfer time
- external clock input
- flexible **trigger settings:** edge, level (pattern) or combination of edge and/or pattern
- Pre-trigger and Post-trigger buffer
- capture delay and edge counter feature
- input impedance: 100kΩ
- **sampling booster** - the area near Trigger may be sampled with double rate
- serial protocol interpreter: RS-232, SPI*, I2C*, CAN*, 1-wire* (* - available soon)
- state machine analyser
- mnemonics code analyser for microprocessors
- possibility of signal comparing (three independent buffers)
- **pattern generator**

Ulogic, the Uprog based logic analyzer, makes the programmer an excellent measurement tool. Simply connect probes to the connector at front panel, run software and enjoy capturing the data.

Technical parameters

Sampling rates	200MHz ¹ , 100MHz, 50MHz, 40MHz ¹ , 20MHz, 10MHz, 5MHz, 4MHz ¹ , 2MHz, 1MHz, 500kHz, 400kHz ¹ , 200kHz, 100kHz, 50kHz, 40kHz ¹ , 20kHz, 10kHz, 5kHz, 4kHz ¹ , 2kHz, 1kHz, 500Hz, 400Hz ¹ , 200Hz
Digital input	16 channels, TTL and low voltage levels
Buffer length	Adjustable size: 16384, 32768, 65536, 131072 ² , 262144 ² samples
Trigger settings	<i>Edge</i> - rising or falling edge <i>Edge, skip N</i> - edge counter <i>Pattern</i> - specified pattern <i>Edge and (or) Pattern</i> - combinations of edge and pattern <i>Force</i> - trigger can be also forced by the user.
Threshold level for digital signals	Supported standards: 5V (TTL), 3.3V, 2.5V, 1.8V
Capture Delay	A capture delay is the delay between trigger occurrence and data acquisition
Pre/Post Trigger buffer	Define how much of the sampling-buffer will be used to store data before the trigger
External clock input	External clock source may be used for sampling. Max. clock frequency 50MHz.
Software	The easy to use and flexible software displays captured data. Any number of channels can be displayed, the name of any channel can be changed. Three cursors are available for time/frequency measurements. Zoom options, jump to cursor buttons and scrollbar in connection with cursors make data analysing very easy.

Notes:

1. Sampling rate available in limited buffer area (12K samples near cursor T) when **Booster** is enabled.
2. Available after memory expansion.

Pattern generator (option)



Pattern generator is a tool designed for developing and testing of digital equipment. Thanks to user friendly pattern editor user can define any sequence of 16 digital signals and apply them to device's digital interface. Generated patterns are fully compliant with general standards of digital signals. Except possibility of pattern definition user can change voltage level of output signals.

Main

features:

- 16 output channels
- Generation rates from 100MHz (state changes every 10ns) down to 200Hz
- maximum buffer length: 64K samples (optionally 256K).
- adjustable buffer length from 1 to maximal length
- possibility of save defined signals for further use
- available work modes:
 - **Auto** - generation of defined signals,
 - **Repeat** - cyclic generation of signals after trigger
 - **Single** - single generation of signals after trigger
- adjustable voltage level of output: 1.8V, 2.5V, 3.3V, 5V (TTL).
- user friendly pattern editor.

Additional board with ZIF socket *Uprog ICP Programming Socket (option)*



The programmer can optionally be equipped with an additional board with ZIF socket that allows non-ICP programmings of devices in DIL packages, or other after using package adapters. Using short cables user is able to connect control signals from programmer's ICP socket to respective pins of the device.

Package includes:

- Programmer
- CD-ROM with software
- In-circuit programming cable
- USB cable
- Logic analyzer cables (option)

Gallery



