

Uprog Gang 4x / USB



Uprog Gang 4x - the new series of universal and extreme fast device programmers. Thanks to **USB 2.0** interface and specialized microprocessor we achieved short programming times close to vendor's maximum ratings. Its one of fastest IC programmers on world's market.



The programmer consists of four independent programming modules, each of them provides 48 fully universal pin-drivers - it provides a possibility of use different package adapters within one programmer. Wide range of supply and programming voltages ensures that future low-voltage devices will be supported. Full independence of programming modules additionally increases efficiency of programmer - each module starts independently on the status of other programming modules (concurrent, asynchronous programming). Each module provides in-circuit programming connector.

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

- Four **independent programming modules** in one case.
- **USB interface** - **USB 2.0 (HighSpeed and FullSpeed)** and USB 1.1 compatible
- Specialized **FPGA** based microprocessor (20 ns cycle).
- One of **fastest programmers** on the world's market, programming times close to vendor's maximum ratings.
- Four **in-circuit programming** connectors (ICP).
- 4x48-pins universal independent pindrivers which can provide **VPP: 0-30V, VCC: 0.8 - 8V, CLK: ~360Hz-24MHz, GND**
- No adapter required for any DIL devices.
- Devices supported: **EPROM, EEPROM, Flash, SPLD, CPLD, microcontrollers.**
- **Adapter Creator** feature allows to use many adapters from different providers.
- **Pin contact check** feature
- Test of digital ICs
- 8-bit EPROM/Flash simulator (option)
- 16-bit EPROM/Flash simulator (option)
- Ulogic - Uprog based logic analyzer with pattern generator feature (option)
- Multi color status **LEDs**: power, busy, error, good.
- Banana jack on the case for grounding purpose and ESD protection.
- Software for Windows 2000/XP/Vista supports many independent programmers simultaneously.

Sample programming times

Device	Size	Program	Read, Verify
K9F1G08U0A	1Gbit	95s	85s
M29W800DB	8Mbit	11s (P+V)*	2s
AM29F040B	4Mbit	12s (P+V)*	2s
AT25F4096	4Mbit	16s	2s
29DL64DF	64Mbit	58s (P+V)*	8,5s
* - Programming algorithm contains verification (P+V)			

In-circuit programming connector (ICP)



Updog 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.

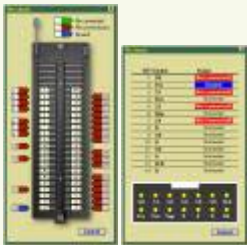
ICP allows to be pin-checked, so as to be able to keep good contacts with programmed chip.

Adapter Creator feature.



New unique feature of Uprog programmers - Adapter Creator - allows to use many adapters from different providers. User is able to **scan structure** of the adapter, save it to file and use with selected device. Uprog programmers support Flash memories (typical and NAND), EPROMs, EEPROMs, serial EEPROMs, microcontrollers, PLDs/CPLDs. The device list is quickly developing and all software updates are free of charge!. If we obtain IC samples, we offer free update on customer's demand.

Pin checking feature.



Uprog programmers always check if all pins have good contact to the socket before start of programming. It saves you against damages of programmed devices. You can always see very easy if you inserted the chip incorrectly. Pin which have poor contact are showed with red labels.

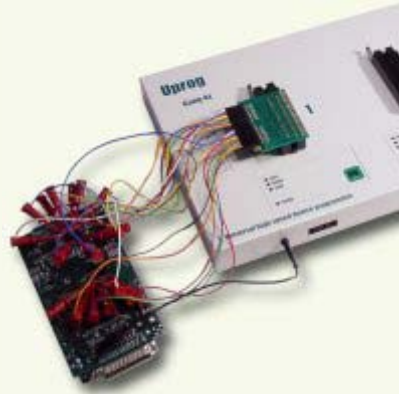
8-bit EPROM simulator (option).

Features	of	8-bit	EPROM	simulator:
• memory sizes from 2KB to 64KB (optional to 256KB - after memory expansion)				
• short		loading		time
• short	access	time:	approx.	30ns
• reset	after	data	loading	completion
• variable voltage level: 1.8V - 5V				

16-bit EPROM / Flash simulator (option).

Features	of	EPROM	simulator:
• memory size 64KWords (optional 128KWords and 256KWords - after memory expansion)			
• short		loading	time
• short	access	time:	approx.
• reset	after	data	loading
• variable voltage level: 1.8V - 5V			completion

Ulogic - digital signal analyser (option).



- 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: 470kΩ
- **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 small adapter board directly to the programmer's socket, 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, maximum input voltage: ±50V
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.

Package includes:

- Programmer
- CD-ROM with software

- In-circuit programming cable (4 units)
- USB cable
- Power supplier

Package adapters

name	class	additional info	
SOIC16-DIP48-CL-U	universal	SOIC8 - SOIC16 body 4mm (0.150in), pitch 1.27mm (0.050in)	view
SOIC28-DIP48-CL-U	universal	SOIC16 - SOIC28 body 7.5mm (0.300in), pitch 1.27mm (0.050in)	view
SOIC44-DIP48-CL-U	universal	SOIC8 - SOIC44 body 3.81mm (0.150in) - 15.24mm (0.600in), pitch 1.27mm (0.050in)	view
PLCC44-DIP48-CL-U	universal		view
PLCC44-DIP48-PO-U	universal		view
PLCC32-DIP48-CL-U	universal		view
PLCC32-DIP48-PO-U	universal		view
QFP44-DIP48-CL-U	universal	body 10mm x 10mm, pitch 0.8mm	view
TSOP40-DIP48-PO-U	universal	body 18mm, pitch 0.5mm	view
TSOP48-DIP48-PO-U	universal	body 18mm, pitch 0.5mm	view
TSOPII44-DIP48-CL-U	universal	body 10.16mm (0.400in), pitch 0.8mm (0.0315in)	view
PLCC68-DIP48-CL-87C550	specialized	for 87C550	view
QFP64-DIP48-CL-S	specialized	body 10mm x 10mm, pitch 0.5mm, realized against order	view
QFP100-DIP48-CL-S	specialized	body 14mm x 14mm, pitch 0.5mm, realized against order	view
SDIP-DIP48-CL-S	specialized	SDIP64 for selected devices, realized against order	view

Gallery

