MSP2100-Portable

Multi Standard Programmer
Independently Working Mobile Tool
for Very High Speed Multiple Port Parallel Programming

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Overview

Development target for this multi-functional tool has been to provide the electronic manufacturers with a FLASH programmer that can be carried to any place in the production flow of an electronic application.

Consequentially the key criteria for this device are:

- Compact class dimensions
- Light weight, easy to carry on
- Comfortable software for safe and simple use
- Compatibility to ProMik's tool chain
- Unquestioned high programming quality output

Considering these development targets the MSP2100-Portable is qualified for usage in the domain of development and qualification, flashing in production as well as for re-flashing in OEM's carline or at service in the field.

Key Features

- Multi Standard Programmer with configurable I/Os supporting multiple *Very High Speed* interfaces (BDM, JTAG, SPI, SCI, $I^2C...$) with individual ground return lines for each signal
- Dedicated connector for BroadR-Reach, CAN and LIN interfaces
- USB 2.0 High Speed interface
- Onboard SD-Card slot
- Intelligent communication techniques exploiting the physical minimum programming time of a single flash cell
- Integrated Operating system (Linux Kernel) enabling high efficient file handling
- Software controlled onboard high current target power supply
- Fast Ethernet interface 10/100 M-Bit/s (auto-sensing speed and full/half duplex mode, auto cross-over capability)
- Achieves lowest production costs for demanding applications that include high-density MCU, NAND and NOR memories, like: Car Multi-media, Infotainment, Instrument clusters, Driver information platforms, Navigation systems

Software solutions

- FlashTASK-Portable GUI and related device driver
- Host controllable system

Technical Data

Data Transfer Rates to Target

Protocol	Speed	Cable Length
JTAG	50 MHz	1.5m
SPI	25 MHz	1.5m
I^2C	400 kHz	3m
CAN	1 Mbit/s	10m
BroadR-Reach	100 Mbit/s	10m

ProMik
Programmiersysteme für die Mikroelektronik GmbH

Südwestpark 100
D - 90449 Nürnberg

Tel +49 911 - 25 26 65 - 0
Fax +49 911 - 25 26 65 - 66

E-Mail info@promik.com
Web www.promik.com

Electrical Data

Power supply: 15 V DC
Current consumption: typ. 180mA (no target connected)
max. 4A (full target power)
Temperature range: 0..50°C

- Programming target interface
  Max. allowed voltage at the analog input,
  switched on $0 < U < 5.5V$
  Absolute voltage limit on the I/O signal lines while
  switched off: $U_{max} \pm 40V$
- I/O Voltage range for the digital in-/outputs
  2.7 – 5.5V (internal voltage source)
  1.2 – 5.5V (external voltage source)
- Umod power supply data
  Output voltage: 2.8 – 5.5V; adjustable
  Umod current: max 500mA
- Vpp power supply data
  The current is first limited, then turned off after 1-2s, until the hardware reaches the normal temperature range, then turned on again, cycling on/off if the short circuit persists.
  Vpp: 2.7 -13.5V; adjustable   Ipp: 1.5A permanently
  Tolerant inrush current: max. 4A; adjustable
  Inrush current time limit: 7ms – 500ms; adjustable
  Short-circuit output current: equals inrush current limit

Rear View

Mechanical Dimensions

Size:235 x 280 x 130mm   Weight: 4,35 kg
The MSP2100-Portable is based on a standard 7BU unit for a 19 inch half sub-rack.