

# MPQ-C2

# Four Port In-System Programmer for Silicon Labs C8051F/Si10xx

The MPQ-C2 is another addition to RPM's family of dedicated in-system device programmers. Like all MPQ's, it is designed to be reliable, efficient, flexible and cost effective - all of the features you require in a manufacturing programmer.

### **Fast and Portable**

Up to four different target images can be stored in the programmer's internal Flash memory, allowing faster programming times and standalone operation. In addition, our adaptive programming algorithm provides the fastest programming time for each image, while ensuring the image integrity of each device programmed.

# **Program Four Devices Simultaneously**

Four port programming allows each MPQ to program the same image on up to four separate target devices simultaneously, increasing manufacturing throughput fourfold.

# Stand-alone, ATE-Controlled or PC-Controlled

MPQ can be operated stand-alone (just press a button to initiate programming), directly from a host PC using MPManager software, or under the control of your Automated Test Equipment (ATE) system.

# Full Range of Voltage and Frequency Support

MPQ-C2 is compatible with the full range of power supply voltages supported by Silicon Labs C8051F series devices, from 1.8 to 3.6V.



# Rugged and Ready for Manufacturing World Wide

Features like an extruded aluminum chassis, universal power supply and extensive electrical protection ensure that MPQ-C2 will be at home in any manufacturing environment.

# **Secure Image Management**

Secure your programming images, preventing them from being read back from the programmer, and define a maximum number of parts to be programmed from each image. Send your MPQ to CM's anywhere in the world without worry.

# Powerful Software - Field Upgradable

MPQ-C2 comes complete with MPManager software to provide programmer configuration and image management, PC-controlled device programming, and more. MPManager also provides the ability to upgrade your MPQ-C2 programmer on site as support for new devices is released by RPM.

#### Autoserialization

MPQ-C2 supports on-the-fly image modification, allowing each device to be programmed with a unique serial number, MAC address, IP address, etc.

# MPQ-C2 In-System Programmer

# **Full Memory Programming Speeds for Selected Devices**

|                       | C8051F300 | C8051F320 |
|-----------------------|-----------|-----------|
| Operation             | (8 Kb)    | (16 Kb)   |
| Program / Read Verify | 1.9s      | 3.9s      |

3.3V Vcc. Times shown are typical times to erase, program and verify four devices using maximum size program images for each device.

## **Supported Devices**

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C8051F300, C8051F301, C8051F302, C8051F303, C8051F304, C8051F305, C8051F310, C8051F311, C8051F312, C8051F313,
C8051F314, C8051F315, C8051F316, C8051F317, C8051F320, C8051F321, C8051F326, C8051F327, C8051F330, C8051F330D,
C8051F331, C8051F332, C8051F333, C8051F334, C8051F335, C8051F340, C8051F341, C8051F342, C8051F343, C8051F344,
C8051F345, C8051F346, C8051F347, C8051F350, C8051F351, C8051F352, C8051F353, C8051F360, C8051F361, C8051F362,
C8051F363, C8051F364, C8051F365, C8051F366, C8051F367, C8051F368, C8051F369, C8051F410, C8051F411, C8051F412,
C8051F413, C8051F500, C8051F501, C8051F502, C8051F503, C8051F504, C8051F505, C8051F506, C8051F507, C8051F508,
C8051F509, C8051F510, C8051F511, C8051F520, C8051F521, C8051F523, C8051F524, C8051F526, C8051F527, C8051F530,
C8051F531, C8051F533, C8051F534, C8051F536, C8051F537, C8051F700, C8051F701, C8051F702, C8051F703, C8051F704,
C8051F705, C8051F706, C8051F707, C8051F708, C8051F709, C8051F710, C8051F711, C8051F712, C8051F713, C8051F714,
C8051F715, C8051F716, C8051F717, C8051F750, C8051F751, C8051F752, C8051F755, C8051F756, C8051F757, C8051F760,
C8051F761, C8051F762, C8051F763, C8051F766, C8051F767, C8051F800, C8051F801, C8051F802, C8051F803, C8051F804,
C8051F805, C8051F806, C8051F807, C8051F808, C8051F809, C8051F810, C8051F811, C8051F812, C8051F813, C8051F814,
C8051F815, C8051F816, C8051F817, C8051F818, C8051F819, C8051F820, C8051F821, C8051F822, C8051F823, C8051F824,
C8051F825, C8051F826, C8051F827, C8051F828, C8051F829, C8051F830, C8051F831, C8051F832, C8051F833, C8051F834,
C8051F835, C8051F901, C8051F902, C8051F911, C8051F912, C8051F920, C8051F921, C8051F930, C8051F931, C8051F960,
C8051F961, C8051F962, C8051F963, C8051F964, C8051F965, C8051F966, C8051F967, C8051F968, C8051F969, C8051F980,
C8051F981, C8051F982, C8051F983, C8051F985, C8051F986, C8051F987, C8051F988, C8051F989, C8051F990, C8051F991,
C8051F996, C8051F997, Si1000, Si1001, Si1002, Si1003, Si1004, Si1005, Si1010, Si1011, Si1012, Si1013, Si1014, Si1015, Si1020,
Si1021, Si1022, Si1023, Si1024, Si1025, Si1026, Si1027, Si1030, Si1031, Si1032, Si1033, Si1034, Si1035, Si1036, Si1037
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#### **Specifications**

Target Voltage Range: 1.80 to 3.60VDC

Power Supply: 100 to 240VAC, 50/60Hz \*\*

Operating Temperature Range:  $0^{\circ}$ C to  $+60^{\circ}$ C

# Software Support

# RPM Systems MPManager Software

- Progammer Image Management
- Programmer Configuration
- PC-Controlled Programming
- Windows<sup>TM</sup> 98, NT, 2000, XP, 7

MPQ Programmers are also available for these popular microcontroller families:

- Atmel AVR, AVR32
- ARM
- Cypress PSoC1//3/5, enCoRe II/III/V
- Zilog Z8 Encore!, Crimzon, ZNeo

<sup>\*\*</sup> MPQ-PS Power Supply included with MPQ-C2