Application Note, V1.2, Sept. 2007

AP 1664

MiniMon

Freeware Monitor for the Infineon C166, XC16x and XC2000 Families

Microcontrollers

Never stop thinking.

AP 1664

Revision History:	**09-2007**	V1.2
Previous Version:	09-2005 (V1.1)	

Page	Subjects (major changes since last revision)
all	updated for XC2000 family

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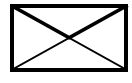

1 MiniMon Overview

MiniMon is a tiny & tricky system-monitor, suitable for all members of the Infineon C166, XC166 and XC2000 microcontroller families. The downloaded monitor kernel requires only a minimum of system resources (RAM).

MiniMon is *Freeware* and therefore not supported by Infineon!

System requirements:

- Common C16x/XC16x/XC2000 bootstrap loader
- Free ASC0 (XC2000: U0C0 USIC) channel
- Free internal RAM (see Help - Technical Info - Used Resources)

Supported Operating Systems:

- Windows 95™ and above, Windows NT™ V4.0 and above

Some MiniMon Features:

- Hex Editor
- Memory Transfer Function
- On-chip OTP/ Flash Memory Programming
- Disassembler
- SFR Manipulation
- Low-level Degugging
- Batch Functionality by Script File (e.g. with loop option)
- Monitor relocatable to any address (internal or external memory) at any time
- Baudrate “on-the-fly” switchable
- RSTCON (C166 family) or PLLCON (XC166 family) “on-the-fly” switchable
- Help Function
- User definable log file
- Settings are stored in DEFAULT.INI - this file may be copied and replaced to support different user settings

Main Applications:

- Hex Editing
- Memory Dumps (8, 16, 32 bit format)
- In-System Flash or OTP Programming
- Testing of Microcontroller On-Chip Peripherals
- Testing of external Hardware
- Downloading, Starting and (restricted) Debugging of User Applications

1.1 Notes & Hints

- By default MiniMon expects serial communication via RS232, but MiniMon also supports single wire data transmission (K-Line). When using the K-Line option, transmission speed can be significantly increased by deactivating the FIFO of the used communication port of the PC. This concerns Windows 95 as well as Windows NT.

- K-Line as well as extendet functions like protection levels for the XC16x family are supportet in different kernels - see Settings - Kernel ... and Help - kernel administration

- MiniMon cannot operate when the selected COM port is already used by another device.

- Get comfortable on-line help via “F1” function key.

- Existing driver files for built-in Flash or OTP programming can be adapted due to requirements of other or future C16x, XC16x or XC2000 device steps by the user itself: driver sources are free and part of MiniMon.

- Please always have a look at the Status Sheet/ Errata Sheet of the used device step!

- **Version 2.2.33 notes:**

- Erase Wordline with flexible size size:
  XC16x family: 256 Bytes
  XC2000 Family 128 Bytes
  Erase wordline size is now configurable as ERASESIZE in the memory section of a configuration file.
  Note: Intelligent Program uses the erase wordline feature instead of sector erase

- K-Line Support of XC2000 Step AA only:
  use XC2000_KLINE_STEPA11 (instead of XC2000_KLINE for later steps)

- By default, Minimon sends a 0 byte to initiate communication with the bootstrap loader. By the use of the parameter INITCHAR in the configuration file, a different init character can be used.

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