

IMS16CM

**16bit embedded network SOM
(System On Module)**



Infinior MicroSystems' **IMS16CM** and Evaluation Board is true solution for developing embedded systems. **IMS16CM** is incorporated with CPU, Memory and Ethernet controller while maintaining the full pin-outs of IMS16C CPU to give flexibility, adaptability and save time with little efforts to develop user's embedded applications. Preloaded ZudraPro software will give simple-and-easy way to burn, run and debug the program. Several optional software modules and tools will give versatility and high performance to user.

<IMS16CM Evaluation Board>

CPU Module + Evaluation Board can ...

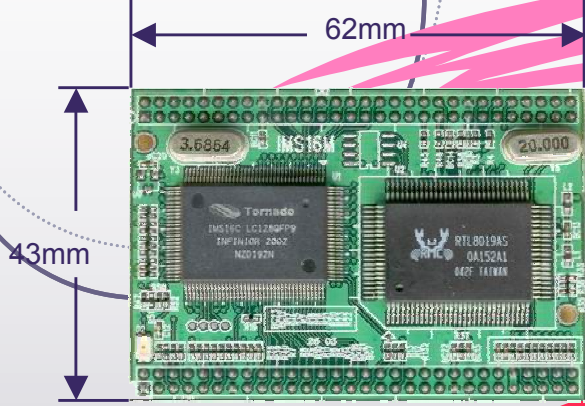
- help the user to develop their system more easily
- save the time to implement the Internet based application system
- help the user to evaluate CPU and emerging communication protocols

<IMS16CM Module>

- Optimized CPU and major parts
 - => Eliminates the efforts for building up circuit of CPU, Network and memory
- Integrated Industrial standard CPU which is proven to high-performance and stable
- Selectable development tools (ZudraPro from Infinior or Paradigm tool from Paradigm systems)
- Optimized RTOS and TCP/IP stack for IMS16C CPU

<IMS16CM : Application>

- Serial to Ethernet server
- Networked POS system
- Controller of Communication systems (DSLAM, Repeater..)
- Factory Automation, Home Automation, Building Automation
- Card reader (Magnetic/RF)
- Barcode, time recording system
- Metering and data gathering system



IMS16CM module



IMS16CM Evaluation Board

<Feature of IMS16CM Module>

- IMS16C-Tornado (x86 real mode 16bit embedded MPU)
 - Instruction level 100% compatible with 8086/80186 processor
 - Variable Clock speed (Max. 90.3MHz with 3.6864MHz X-tal)
 - Low power consumption and High performance
- Ethernet controller(RTL8019AS 10 Base-T, ISA full duplex)
- FLASH : 512 Kbytes (256K x 16bit)
- SRAM : 256 Kbytes (128K x 16bit) or SDRAM : 2Mbytes (1M x 16bit)
- 120 pin
- 5V supply from EVB

<Feature of Evaluation Board>

- Chip select switch (4 mode)
- Serial Ports : 9-pin(Female) for UART0, 1 + Pin out for UART2
- LAN port : Standard RJ45 (integrated Transformer)
- ROM socket : DIP or PLCC type(EVEN,ODD each)
- ROM emulator port & Assorted pin outs for user's convenience
- A/D, D/A converter and OP-amp with audio jack
- Scratch pad(total 865 holes) for User's own circuit
- LEDs : 8 for data, 4 for LAN (Link, Col, Tx, Rx)
- 7.5~20V (more than 1A) DC power input

<Software>

- Preloaded ZudraPro monitor program Package (PKG1)
- Paradigm C++ Pro Evaluation version Package (30 day limit) (PKG2)
- InfNet protocol stack library : IP, UDP, TCP, ICMP, ARP, Ethernet driver
- uCOS-II(RTOS), InfNet(TCP/IP stack) library support for PKG2
- Demo program and its source code for evaluation

<Packages>

- PKG1 : IMS16CM, Evaluation board, ZudraPro monitor program
 - PKG2 : PKG1+ RTOS, TCP/IP & Paradigm toolkit Eval ver.
- All packages include Accessory : Power adapter, Serial cable, CD, User Manual

***IMS16CM can be purchased individually**

<ZudraPro>

- Free software for IMS16CM
- In system programming
- Download programs to RAM or Flash memory
- Auto run
- Dump memory
- Enter memory
- Search memory
- Display registers
- Modify CPU registers
- Set breakpoints
- Trace programs
- Peripheral input/output
- DOS Emulation (INT21h)
- Firmware Upgrade
- All memory model support

<uCOS-II>

OS for hard real-time requirement
Visit : <http://ucos-ii.com/>

<InfNet>

IP, UDP, TCP, ICMP, ARP and Ethernet driver.
(InfNet is run on the uCOS-II)

<Paradigm.Tool>

Development environment for real mode embedded system application

Visit : <http://www.devtools.com>