

Imsys SNAP

Simple Network Application Platform

Applications

- Alarm Control Units
- Intelligent Power Distribution
- Remote Control Units
- Robotics & Sensors
- Vending Machine Controllers
- Physical Access Control Units
- Medical Diagnostics
- Weather Stations
- Track-and-Trace Controllers (GPRS and GPS)



SNAP is an internet-ready, Java-powered, plug-and-play reference platform. It is ideal for stand-alone remote control and data processing applications, as well as for managing everything from small sensors to advanced surveillance factory equipment. The Java ME CLDC runtime environment speeds up and simplifies your software development.

Features

- **Standard form factor**
The 72-pin SIMM form factor is a commercially proven interface supported by many available host board manufacturers.
- **Multiple interfaces**
SNAP includes 10/100 Mbit/s full-duplex Ethernet, three UARTs, two 1-Wire® interfaces, GPIO-ports, I²C, SPI, and CAN.
- **Standard development tools**
The use of free, standard development tools enables a quick and easy start.
- **Plug & play**
Shell features provide easy development over Ethernet using Telnet and FTP.
- **High performance**
SNAP offers native Java execution speed and power-efficient I/O, with DMA for maximum networking throughput.
- **Standard Java**
SNAP provides simple access to the underlying hardware through well defined Java API's including TCP/IP networking.
- **Public design**
The free and open reference design provides easy integration of SNAP functionality into customized and cost-optimized systems.
- **Optional IDE**
Imsys Developer is an optional professional tool for those designers requiring closer and faster access to the SNAP hardware.

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Hardware

- Plugs into most TINI390 SIMM72 sockets
- Standard 5V power supply
- Low-power 3.3V design, onboard 3.3V regulator
- Board size 31.8 × 102.9 mm
- Connector for optional debug interface (Imsys Trace Adapter)
- Ethernet 10/100 BaseT
- 3 × UARTs
 - 1 × RS-232, 115.2 kbit/s
 - 2 × TTL, 115.2/460.8 kbit/s
- 2 × 1-Wire® interface
- CAN-controller
- SPI
- I²C
- General-purpose digital I/O
- Parallel bus interface for system expansion
- 2 Mbyte flash memory
- 8 Mbyte DRAM
- Real-time clock and calendar

Software

- SNAP runtime environment
- Java ME CLDC, certified by Oracle Corporation
- java.net
- javax.comm
- Subset of com.dalsemi
- Works with free, standard Java development tools e.g SUN Java JDK
- Unlimited number of threads (to max heap size)
- High performance TCP/IP-stack
- Embedded web-server
- Optional IDE available for:
 - Java, C and Assembler debugger
 - KNI K Native Interface
 - Program Execution Simulation

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