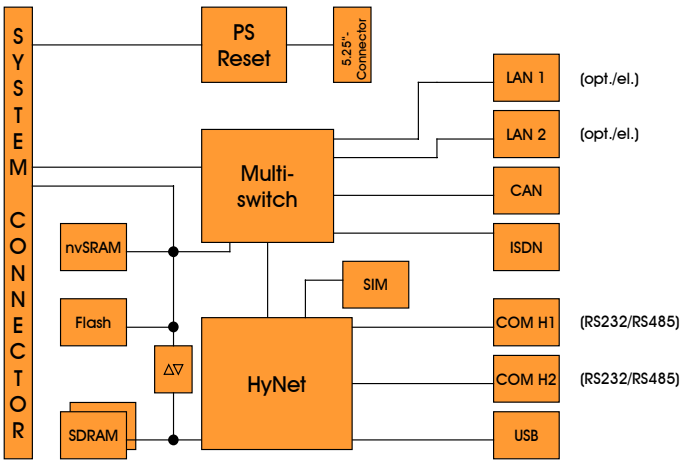
DLC-200_HCB32M

HyNet32XS Evaluation Board

- multiple Interfaces
  - 2 x Ethernet (optical / electrical)
  - 2 x RS232/RS485
  - USB 1.1
  - CAN
  - ISDN
- power supply via standard PC power pack
- socket for processor (optional)
- extension possible by system connector
- flexible configuration by multi switch
- memory
  - 2 banks SDRAM
  - Flash
  - nvSRAM
- integrated smart card reader



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■ The HyNet32XS Evaluation Board

gives the opportunity for software verification and development for the HyNet32XS processor with all its interfaces and to create customer designed applications based on it. The processor can easily be accessed and configured using a personal computer, the provided software and a UART Adapter Card (e.g. hyICE-Card by Hyperstone AG). A multi switch allows very flexible routing of the processor's GPIO-pins either to the physical interfaces or the system connector. Using the Evaluation Board as base easy development of any extension card is possible.

■ Features

- Interfaces
  - Ethernet:
    max. 2 ethernet channels (10BASE-T / 100BASE-TX), electrical or optical operation by hardware variation possible, isolation 1kV, RJ45 connector (electrical), duplex ST receptacle (optical)
  - Serial interface:
    max. 2 serial interfaces in RS232 (fully operational) or in RS485 mode, RS232 or RS485 selectable by software control, bit rates up to 1.1 Mbit/s for COM H2 and 500 kBit/s for COM H1
  - CAN:
    Fully compliant with the ISO 11898 standard, high speed (up to 1 MBaud), at least 110 nodes can be connected, isolation 1kV, 9-pin DSUB connector
  - ISDN:
    operating modes NT or TE, full duplex 2 B + D S/T interface according to ITU-T I,430, 8-pin TAJ-connector
  - USB:
    compliant with USB specification 1.1, assembly operates as device, supports 12 Mbit/s "full speed" and 1.5 Mbit/s "low speed" serial data transmission, ESD protection > 2kV (HBM), standard USB connector (Type B)
- Memory
  - Working memory:
    max. 2 banks SDRAM, up to 256 MByte memory size, 32 Bit data width
  - Program memory:
    up to 64 MByte memory size, 16 Bit data width, optionally on socket
  - nvSRAM:
    for storing of data which have to be existent even on a suddenly power loss, 32 kByte memory size, 8 Bit data width
- Smartcard
  Smartcard Reader for standard SIM-Cards compliant to ISO 7816 standard, adjustable clock allows variation of transmission speed (1953 Bit/s to 1.25 Mbit/s)
- Multi Switch
  flexible routing of the processor's general purpose IOs to the interfaces or the system connector respectively
- Socket
  a True BGA-socket for the processor is optionally equipped for a fast and easy replacement of the processor
- Debug
  an interface card (hyICE) can be connected to the board to communicate with a host system (e.g. PC)
- Power Supply
  via standard 5.25"-power supply jack and PC power pack or via system connector by another assembly, power monitoring with reset control, reset generation by
  - software
  - watchdog
  - manually

Technical Data

Interfaces	
2 x RS232/RS485	TAJ 10-pin
2 x Ethernet (optical/electrical)	RJ45, ST
ISDN	TAJ 8-pin
CAN	9-pin DSUB
USB 1.1	USB connector (Type B)

Memory	
SDRAM	max. 256 MByte, 7.5ns cycle time, 32 Bit data width
Flash	max. 64 MByte, 90ns access time, 16 Bit data width
nvSRAM	max. 32 kByte, 45ns access time

System Connector
4 rows DIN 41612 (180°, 90° for backplane systems)

Dimension (L x W x H)
160 x 100 x 14

Electrical Specifications	
Supply voltage	5 V
Power consumption	ca. 10 W

Operating conditions	
Temperature range	0°C to 70°C