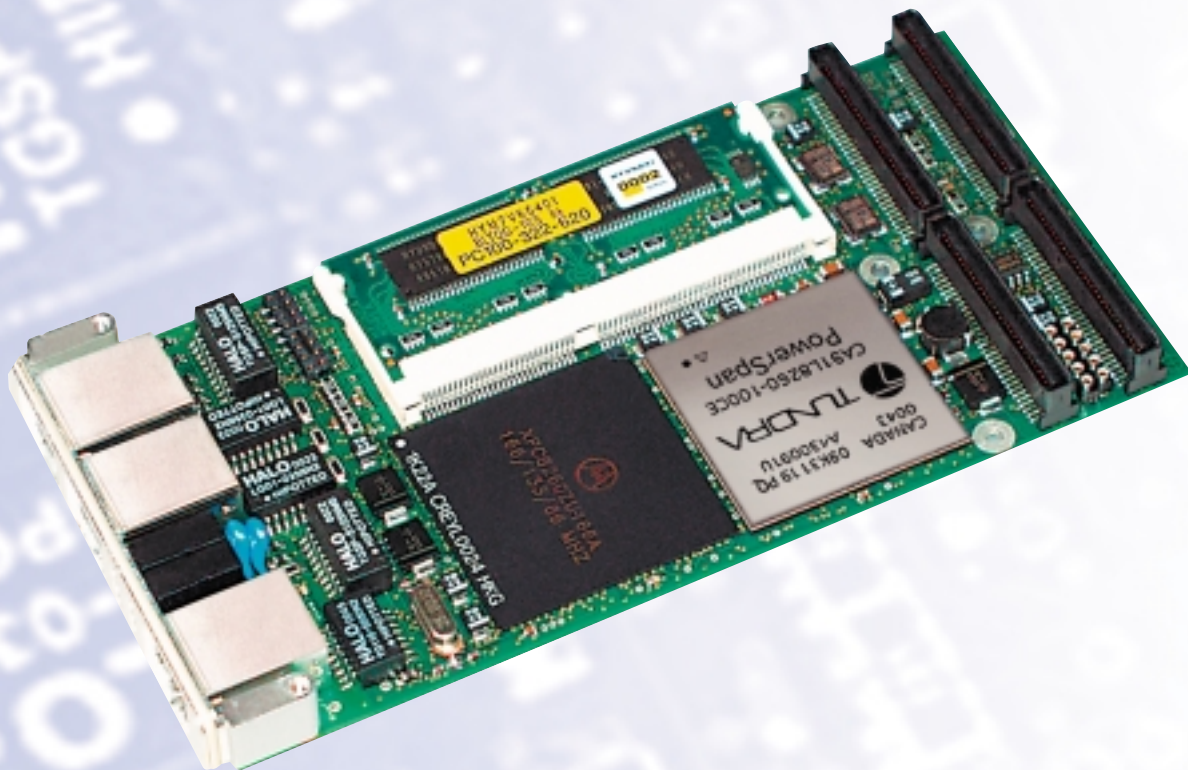


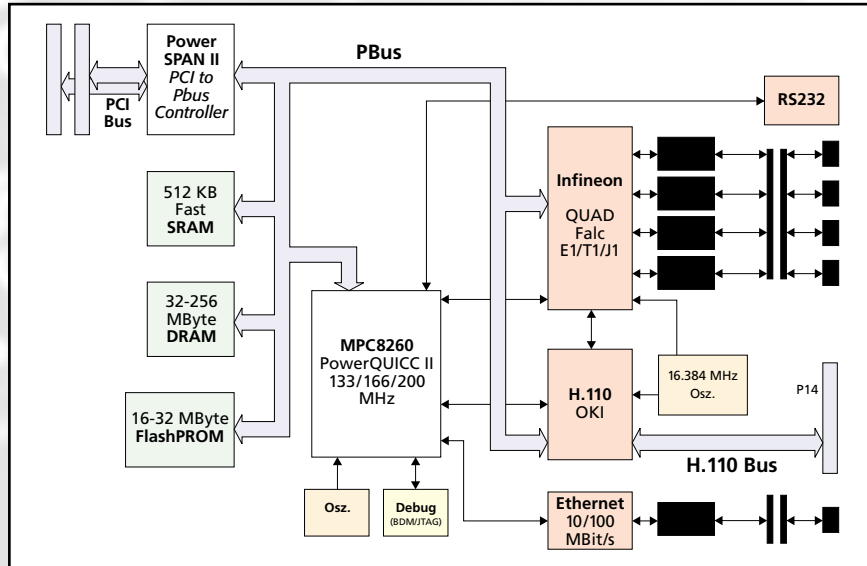
Telecommunication PMC Module



NPMC-8260-E1/T1

The NPMC-8260-E1/T1 is a high-performance PMC module, based on the Motorola versatile MPC8260 „PowerQuicc II“ processor. It supports 4 E1/T1 ports as well as a 100BaseT Ethernet port using standard RJ45 connectors on the front panel. Equipped with an H.110 TDM bus controller the NPMC-8260-E1 is optimized for use in sophisticated telecom applications in SS7, ISDN, ATM or VoIP environments.

Technical Data



Overview

The NPMC-8260-E1/T1 is a telecommunications interface board in PMC (PCI mezzanine card) form factor. Based on the Motorola MPC8260 „PowerQuicc II“ CPU the NPMC-8260-E1/T1 is targeted at telecom applications with a need for a powerful and versatile platform, such as applications using SS7, ISDN, ATM, VoIP or any combination of these protocols.

Hardware

The NPMC-8260-E1/T1 is a P1386.1/Draft 2.0 compatible PMC module, that can be plugged onto any VME, cPCI or other carrier board offering a PMC extension slot. Using the Tundra PowerSpan II PCI-to-Qbus bridge, the NPMC-8260-E1/T1 is PCI Rev. 2.2 compatible and capable of running in both 32 and 64 bit PCI bus architectures.

The four primary rate line interfaces (E1/T1/J1) are driven using Infineon PEB22554 „Quad Falc“ framer, and are available on two standard RJ-45 connectors at the front panel.

In addition to the four E1/T1 lines the NPMC-8260-E1/T1 offers either an RS232 serial interface or a 100 Mega-bit/sec (100BaseT) Ethernet interface on an RJ45 connector to be used with a standard CAT5 UTP cable. Thus the NPMC-8260-E1/T1 is the generic platform for any implementation switching between the classic TDM streams as on E1/T1/J1 and the new

generation of packetized data applications running on Ethernet.

Moreover, the 100BaseT port can serve as a configuration and management port, i.e. for SNMP.

The onboard OKI CT812 H.110 bus controller offers access to the H.110 TDM (Time Division Multiplex) bus and its SC Bus subset on the PMC P14 multi-purpose I/O connector.

Equipped with up to 128MB DRAM, 256KB fast SRAM and either 4 or 8MB onboard erasable Flash-Memory the NPMC-8260-E1/T1 is optimized to meet the performance and memory requirements of state-of-the-art communication protocols and applications.

Firmware

Communication protocols like SS7, ISDN, etc., are available as binary firmware images as well as operating system independent source code licenses. By default these firmware protocols run on the well proven N.A.T. real-time kernel OK-1, which is optionally available in source code. Also available for the NPMC-8260-E1/T1 are BSPs for other operating systems such as VxWorks.

As well as standard protocols N.A.T. offers customized firmware development.

Enhanced software development and effective debugging is supported by the onboard BDM/JTAG interface.

CPU

Motorola MPC8260
„PowerQuicc II“ at 150-250 MHz

PCI Interface and Compliance

Tundra PowerSpan, both 32 bit (33MHz) or 64 bit (66MHz)
PCI Rev. 2.2

H.110 Bus

OKI CT812, H.110 on PMC P14 connector

DRAM

32-256 MB SDRAM (PC-100, 64 bit)
installed in a SODIMM slot

SRAM

512 KB fast synchronous SRAM
(32 bit)

Flash PROM

16-32 MB Flash PROM

Line Interface

four primary rate E1/T1/J1 lines (I.431) on standard RJ45 connectors at front panel supplied by Infineon PEB22554 „QuadFalc“

Serial I/O

RS232 compatible at front panel

Networking

100BaseT Ethernet (IEEE 802.3) on standard RJ45 connector at front panel

Indicator LEDs

6 software programmable LEDs at the front panel

Operating System Support and Firmware

OK-1, VxWorks, LINUX
SS7, ISDN and others

Power Consumption

3.3V 0.5A 5V 0.8A

Environmental

Temperature (operating):
0°C to +60°C with forced air cooling,
Temperature (storage):
-40°C to +85°C
Relative Humidity: 10% to 90%
at +55°C (non-condensing)

Standard Compliance

P1386 and P1386.1/Draft 2.0

N.A.T.

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