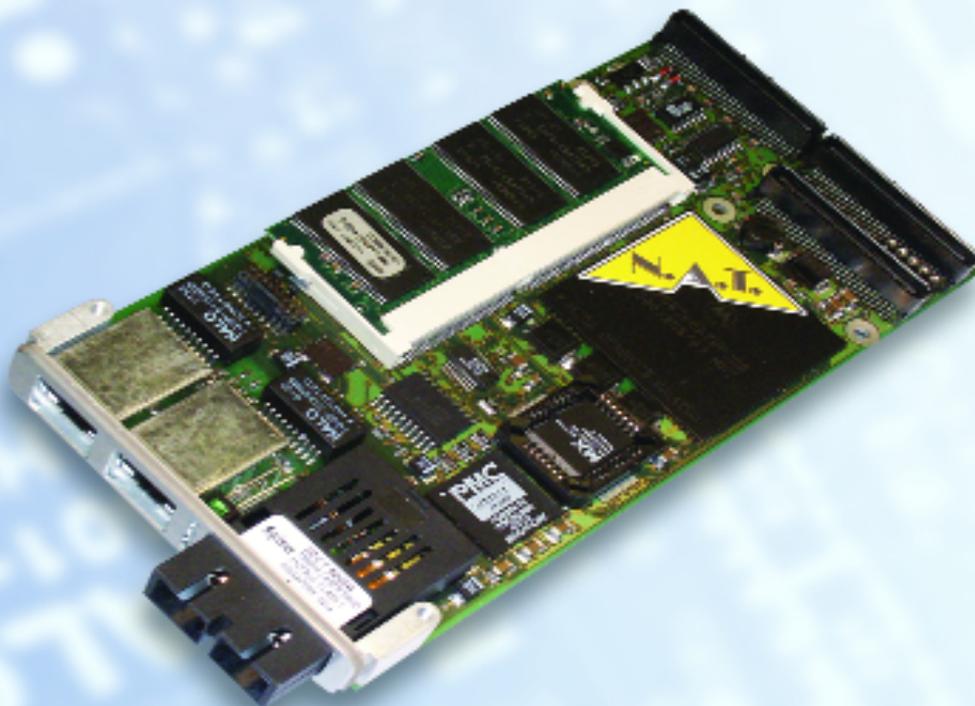


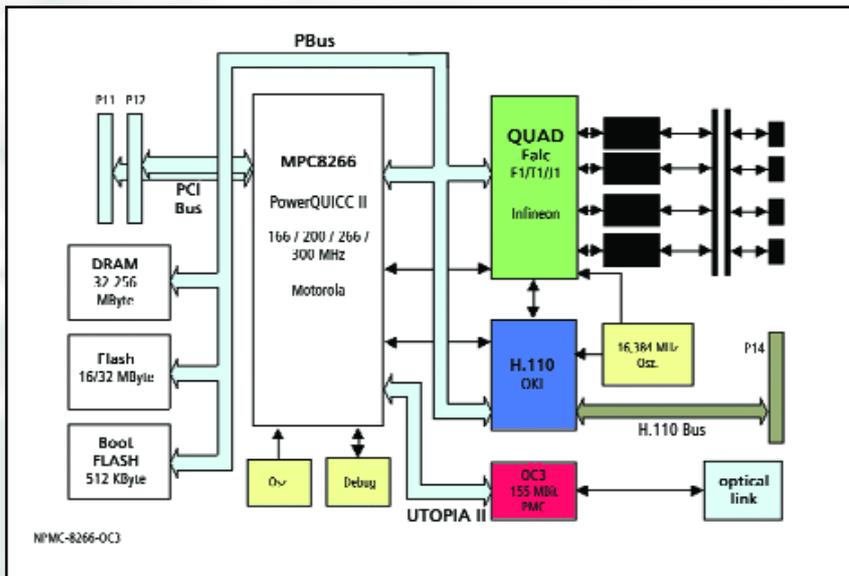
Telecommunication PMC Module



NPMC-8266-OC3

The NPMC-8266-OC3 is a high-performance PMC module, based on the powerful Motorola MPC8266 "PowerQuicc II" processor. It supports 4 E1/T1/J1 ports using standard RJ45 connectors as well as an ATM interface using an OC3 SDH/STM1 optical fibre port at the front panel. Equipped with an H.110 TDM bus controller the NPMC-8266-OC3 is optimized for use in sophisticated telecom applications in SS7, ISDN, ATM or VoP environments. Especially when IMA is a key requirement the NPMC-8266-OC3 is an ideal gateway platform for routing between Time Division Multiplex standards as E1/T1/J1 and cell oriented standards as ATM.

Technical Data



Overview

The NPMC-8266-OC3 is a telecommunication interface board in PMC (PCI mezzanine card) form factor. Based on the Motorola MPC8266 "PowerQuicc II" CPU the NPMC-8266-OC3 is targeted at telecom applications with a need for a powerful and versatile platform, such as applications using SS7, ISDN, ATM, VoP or any combination of these protocols. As the MPC8266 processor supports IMA (Inverse Multiplexing for ATM) the NPMC-8266-OC3 is an ideal single board platform to interface between TDM (Time Division Multiplex) standards as E1/T1/J1 and cell oriented standards as ATM.

Hardware

The NPMC-8266-OC3 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. By the on-chip PCI bridge of the MPC8266 the NPMC8266-OC3 is PCI Rev. 2.2 compatible (32bit). The four primary rate line interfaces (E1/T1/J1) are driven using the 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/J1 lines the NPMC-8266-OC3 offers an OC3 SDH/STM1 access using a standard optical fibre connector (SC duplex single or multi mode transceiver). Thus the NPMC-8266-OC3 is the generic platform for any implemen-

tation switching between the classic TDM streams as on E1/T1/J1 and the new generation of packetized data applications running on OC3, such as IMA in next generation mobile networks, i.e. UMTS.

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

Equipped with up to 256MB DRAM and either 16 or 32MB onboard erasable Flash-Memory the NPMC-8266-OC3 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-8266-OC3 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 MPC8266 "PowerQuicc II" at 166-300 MHz

PCI Interface and Compliance

MPC8266 on-chip PCI bridge (33MHz/66MHz), PCI Rev. 2.2

H.110 Bus

OKI CT812, H.110 on PMC P14 connector

DRAM

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

Flash PROM

16 or 32MB Flash PROM (32bit)

Line Interface

four primary rate E1/T1/J1 lines (L431) on standard RJ45 connectors at front panel supplied by Infineon PEB22554 "QuadFalc"

Networking

OC3 SDH/STM1 optical fibre on standard connector at front panel (SC duplex single or multi mode transceiver)

Indicator LEDs

4 software programmable LEDs at the front panel

Operating System Support and Firmware

OK-1, VxWorks, LINUXSS7, ISDN. IMA driver and others

Power Consumption

3.3V 0.5A (max.), 5.5V 0.8A (max.)

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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