



# NPMC-8E1/T1/J1

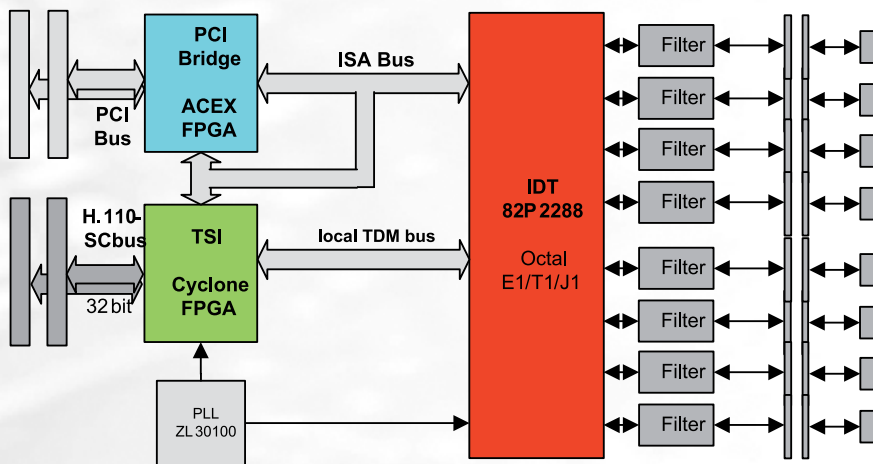


## NPMC-8E1/T1/J1

The **NPMC-8E1/T1/J1** is a highly efficient low-cost PMC module offering eight E1, T1 or J1 interfaces as well as access to the standard time division multiplex (TDM) H.110/SCSA bus. The module can be plugged onto any carrier board supporting PMC standards. The line interfaces as well as the H.110 controller can be initialized via the PCI bus, offering the possibility of assembling highly scalable, cost effective systems.

The **NPMC-8E1/T1/J1** is targeted at telecom applications in SS7, ISDN, VoIP or 3G/3.5G mobile environments and is intended to be used with a PMC carrier board, such as the N.A.T. NVTP1001, then providing a very cost-effective and intelligent solution.

# Technical Data



## Overview and Purpose

The **NPMC-8E1/T1/J1** is a telecommunications interface board in PMC (PCI mezzanine card) form factor. The module provides a highly scalable solution to telecom applications with the requirement of cost-effective E1/T1/J1 access.

Equipped with an onboard H.110/SCbus controller and eight primary rate E1, T1 or J1 interfaces the **NPMC-8E1/T1/J1** provides an ideal and efficient interface for use with VME, PCI, CompactPCI and proprietary platforms.

## PCI-Interface

The **NPMC-8E1/T1/J1** 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.

The **NPMC-8E1/T1/J1** is equipped with a PCI-to-local-bus bridge as the PCI interface. The local bus is directly connected to the onboard devices.

The **NPMC-8E1/T1/J1** is PCI Rev. 2.2 compatible (32bit).

## Line Interfaces

The eight primary rate line interfaces, available by standard RJ45 connectors on the front panel, are implemented using the octal E1/T1/J1 framer 82P2288 from IDT.

All line interfaces can be individually configured to work as user or network side interface. Additionally all framing parameters, i.e. line codes etc., are settable via the register interfaces.

## Backplane TDM Access

The onboard H.110 bus controller offers access to the backplane TDM bus supporting the full H.110 bus (PTMC) or the SC Bus subset on the PMC multi-purpose I/O connectors. It is implemented using an Altera FPGA and connects the backplane TDM bus with the internal TDM interfaces of the octal framer. Thus switching of timeslots between the different line interfaces as well as the TDM backplane is possible up to the full capacity of 4096 timeslots of the H.110 bus.

## PCI Interface and Compliance

PCI Rev. 2.2, 33MHz/32bit

## H.110 Bus (and subsets thereof)

H.110 (PTMC) and SCSA subset

## Line Interfaces

Four RJ45 connectors, implementing the 8 E1/T1/J1 line interfaces

## Indicator LEDs

4 software programmable LEDs at the front panel

## Operating System Support

OK-1, VxWorks, LINUX

## Power Consumption

3.3V 0.8A, 5V 0.1A

## 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

## Applications

- high density multiplexers, multi-service switches, edge routers and digital modems
- Frame Relay switches and access devices
- digital access cross-connect systems
- central office applications
- PBX and PABX applications
- gateways

