Interworking Controller Next Generation

The IWORX-P, a further member of Infineon's interworking family, is a flexible communication network controller. It functions as an interworking element enabling the transport of the ATM traffic over PDH based networks. It is found in 3 G mobile infrastructure as well as in WAN Routers or multiservice applications. The IWORX-P supports all features of Infineon's established IWE-8 but integrates IMA, Microcontroller (e.g. for OAM functionality) and RAM additionally. It is supporting the adaptation of voice and video traffic via AAL 1 in line card applications with speeds of up to 16 Mbit/s. Shared location of 2 G and 3 G mobile networks for easy network migration path is enabled via AAL1 and CES. Being a system on a chip with integrated memory and controlled via high-level command interface (API), the IWORX-P is the optimized solution in terms of ease of use, space & power economy.

IWORX-P

Applications

- 3 G base transceiver stations (Node B) and radio network controller (RNC)
- Multiservice Linecards
- Multimedia Gateways
- DSLAM/DLC Uplink Cards
- WAN Routers

Features

ATM Adaptation Layer Functions

- AAL1 mode (ITU-T I.363-1)
  - Channelized and unchannelized Circuit Emulation Service (CES) (ATMF AF-VTOA 0078.000)
  - Support of Channel Associated Signaling (CAS)
  - Support of up to 256 AAL1 ATM connections
  - Built in SRTS and ACM clock recovery methods

ATM Layer Functions

- ATM OAM Fault Management according to ITU-T I.610 (99)
  - Alarm Indication Signal (AIS)
  - Remote Defect Indication (RDI)
  - Continuity Check (CC)
- Address Reduction & Header Translation

Transmission Convergence Sublayer Functions

- ATM TC sublayer (ITU-T G.804)
- ATM cell mapping on fractional E1/T1/J1 (AF-PHY-0130.00)
- IMA (ATMF AF-PHY 0086.000/ AF-PHY 0086.001)
- 4 IMA groups for up to 8 links
- 25 ms differential link delay com-pensation for IMA on chip

General Features

- Up to 16 Mbit/s datarate throughput
- Easy device configuration via Message Based Interface
- On chip memory and CPU for device configuration and operation
- System recovery support via read-back of configuration and connection data
- Power consumtion less than 2 W
- Power supply 3.3 V I/Os, 1.8 V core
- Temperature range -40°C to +85°C
- Package P-BGA-388

www.infineon.com/iworx

IWORX-P

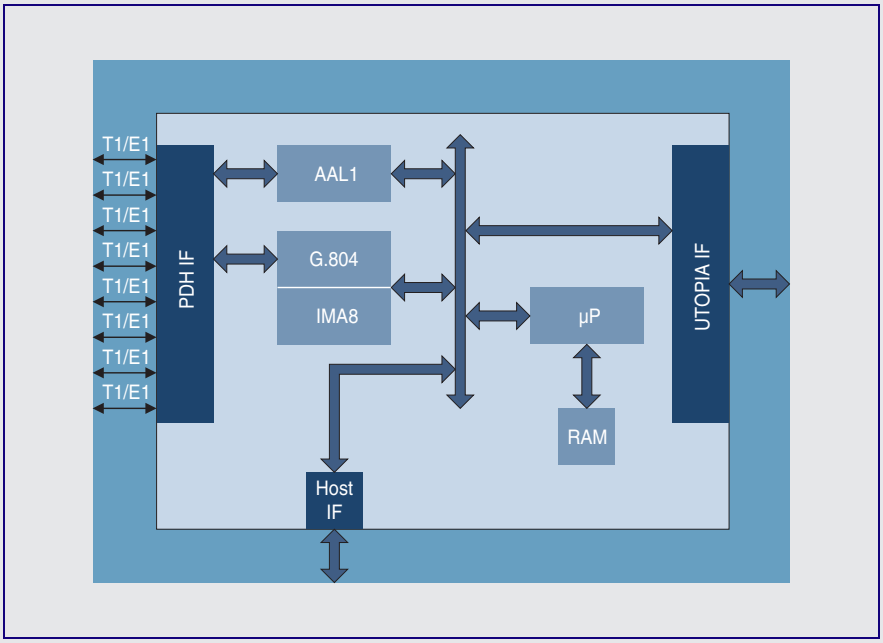
ATM Interworking Controller
PXF 4222

Infineon technologies

Never stop thinking.

Downloaded from Elcodis.com electronic components distributor

IWORX-P PXF 4222 Block Diagram



Interfaces

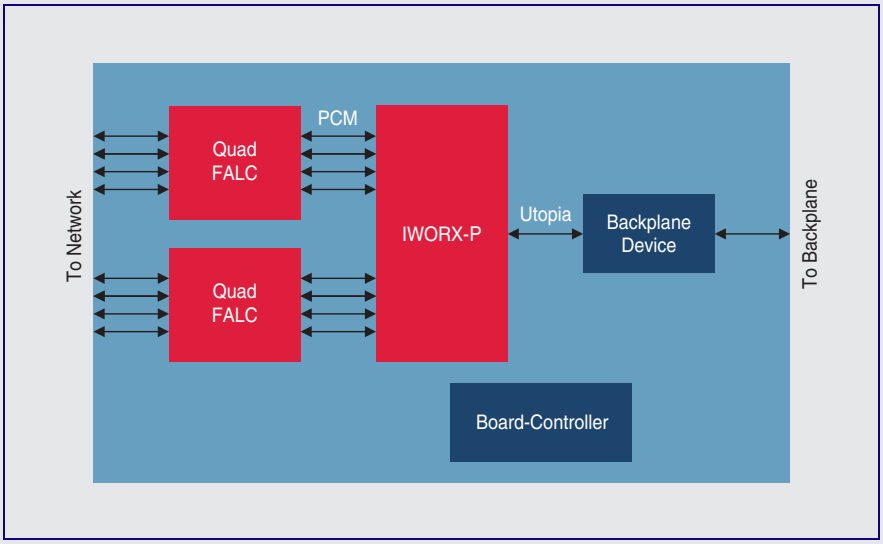
- 8 E1/T1/J1 interfaces with direct connection to external framers, e.g. QuadFALC®
- Utopia interface (ATMF AFPHY 0017.000, 0039.000), level 1 and 2 (Multi PHY Mode)
- 16/32-bit Microprocessor Interface (Intel or Motorola type)

Documentation and Support

- User's Manuals
  - Functional Description
  - Programmer´s Reference
- EASY 4222-R1 customer evaluation board
- Interworking Application wizard:
  - Configuration tool
  - Message Sequence Generator
- Low Level Driver

Product	Sales Code	Package
IWORX-P	PXF 4222 E	P-BGA-388

8 x E1/T1/J1 ATM-Linecard Application Example



How to reach us:
http://www.infineon.com

Published by
Infineon Technologies AG,
St.-Martin-Strasse 53,
D-81669 München

© Infineon Technologies AG 2003. All Rights Reserved.

Template: pb_tmplt.fm/2/2003-05-01

Attention please!
The information herein is given to describe certain components and shall not be considered as a guarantee of characteristics.

Terms of delivery and rights to technical change reserved.

We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

Information
For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office.

Warnings
Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Ordering No. B115-H8077-X-X-7600
Printed in Germany
PS 05031. NB

Published by Infineon Technologies AG

Downloaded from Elcodis.com electronic components distributor