The ABM provides a high end traffic management solution within Infineons ATM622 Chipset.The ABM can handle CBR, VBR, ABR and UBR traffic classes and provides cell buffer for up to 64 K cells per direction, which will be stored in external SDRAMs. Shaping facilities, peak rate limiters and real time priority queues are implemented. The ABM can be used in three different modes for maximum flexibility: bidirectional mode, unidirectional mode (e.g. as a switch) and unidirectional mode with only one internal core (e.g. as a low power switch). Chip control is managed by a 16-bit microprocessor interface.

ABM

Potential Applications

- DSLAM (48/96 ADSL modems, 192 for cascaded ABM)
- Access Mux
- Switch Linecards

Features

- Throughout 2 x 622 Mbit/s
- High-end traffic management concept
- ABR, CBR, UBR, GFR, VBR support
- Per VC queuing
- Storage capability of 2 x 64 K cells
- Up to 8 K connections per direction, individually assignable to queues
- Up to 1024 queues per direction, individually assignable to schedulers and service classes
- 48 Schedulers per direction
- Up to 16 service classes
- 2 x 1024 shapers 40 kbit/s minimum rate
- Standard UTOPIA Level 2 interfaces for up to 24 PHYs
- Aggregated shaping for up to 2 x 48 PHYs 40 kbit/s minimum rate
- Guarantee of MCR / SCR per connection
- Weighted Fair Queuing WFQ
- High priority real time bypass
- Build-in data loop with minimum header translation for use as a mini switch
- Cell storage in SDRAMs
- Pointer storage in SSRAM
- 16-bit Intel / Motorola
- microprocessor interface
- JTAG Boundary Scan
- 0.35 µm 3.3 V CMOS
- P-BGA-352-1 package

Documentation and Support Package

- Product Overview to Version 1.1
- Data Sheet to Version 1.1
- Application Notes
- Evaluation System EASY622 V2.1

The ABM Interfaces

- Utopia receive upstream
- Utopia transmit upstream
- Utopia receive downstream
- Utopia transmit downstream
- Microprocessor interface
- Stream cell RAM
- Downstream cell RAM
- Common pointer RAM
- JTAG Boundary SCAN

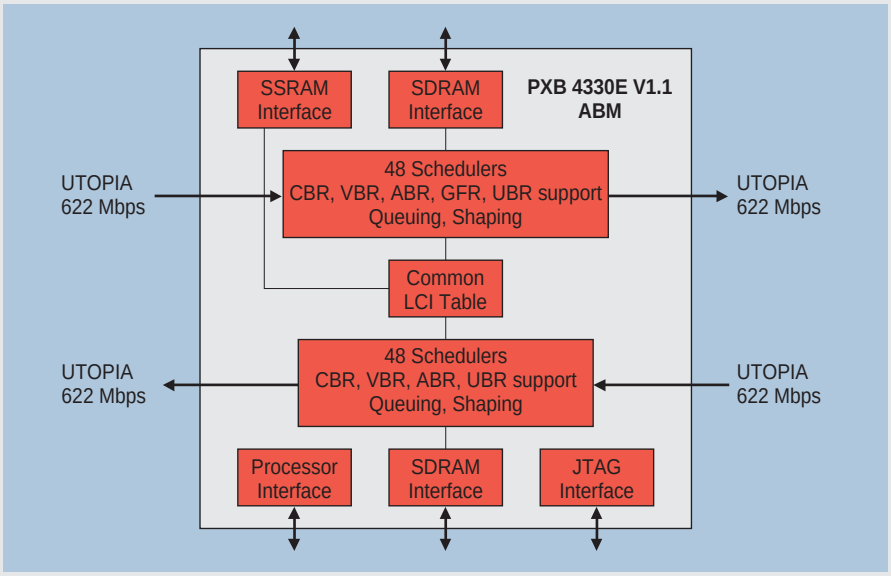
ABM

PXB 4330E V1.1
ATM Buffer Manager

Infineon technologies

Never stop thinking.

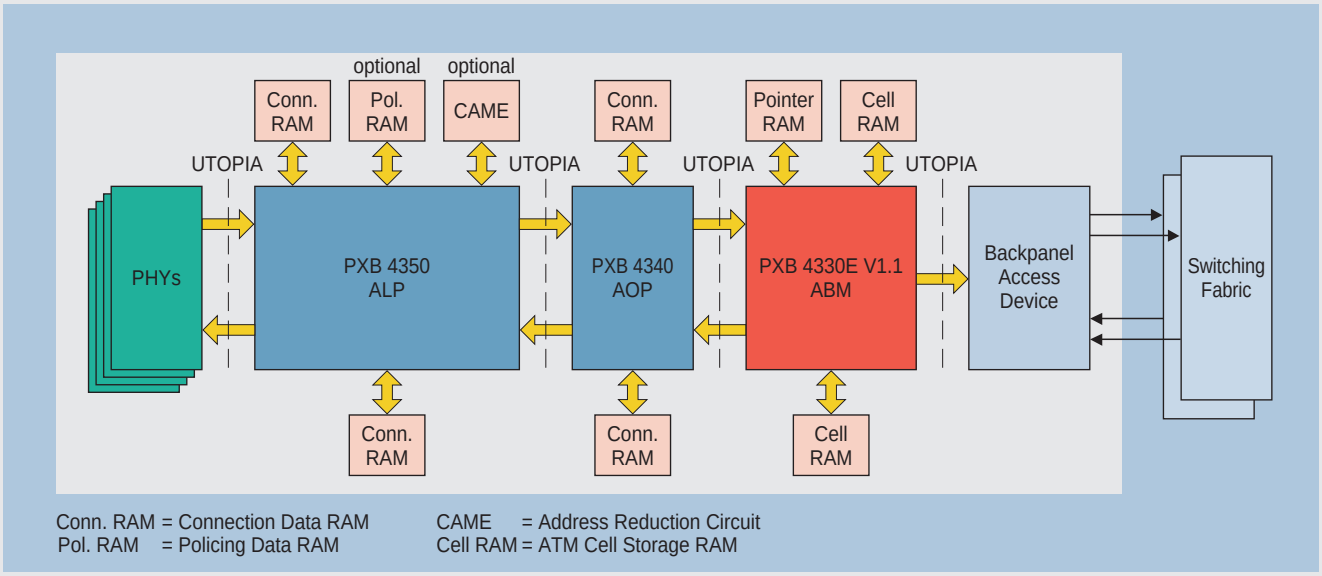
ABM Block Diagram



Availability

The ABM device is available with complete documentation and support package. A dedicated engineering support team is there to assist you. Please contact your local Infineon office for further details.

Application Example: Switch Linecard with ABM PXB 4330 V1.1 and the Infineon ATM products ALP and AOP



Conn. RAM = Connection Data RAM
Pol. RAM = Policing Data RAM
CAME = Address Reduction Circuit
Cell RAM = ATM Cell Storage RAM

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

Published by
Infineon Technologies AG,
Bereich Kommunikation,
St.-Martin-Strasse 53,
D-81541 München

Attention please!

The information herein is given to describe certain components and shall not be considered as warranted 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.

Infineon Technologies is an approved CECC manufacturer.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives worldwide.

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. B119-H7624-X-X-7600
Printed in Germany
PS 09005. NB

Published by Infineon Technologies AG