LANBIRD

LBATCA-NS1216A
Product Brief

AdvancedTCA®

The LBATCA-NS1216A is a high performance network service processor board to take a key role in next-generation telecommunication equipment market. The LBATCA-NS1216A is compliant with PICMG 3.0 and PICMG 3.1(Option 9).

The LBATCA-NS1216A have two Octeon™ NSB (Network Service Processor) and each NSP is configured with sixteen MIPS64r2 core for network processing. Each cores are connected with high performance bus and perform to high-performance/multi-function network service blade with all accelerator.

The Octeon™ Network Service Processor has loaded a network accelerator for high-performance packet processing and be able to perform a role as high performance application linecard with programmability of general-purpose processor.

The Octeon™ NSP has a variable hardware accelerator built-in. In case of Security Accelerator, it provides a best performance in Ipsec protocol processing through hardware processing with DES/3DES/AES code algorithm and MD5/SHA solving algorithm. The TCP Accelerator providing a concurrent processing for each application flow through the hardware pre-processing in L2-L4 layer. The Regular Expression Accelerator provides the function as IDS/IPS equipment with high-speed pattern matching. The primary unit of accelerator is a packet order unit to execute it as concurrent processing of sixteen cores. Therefore, the Octeon™ NSP provides the high performance because of all packets are handled to parallel or pipeline method.

The Octeon™ NSP provides the latest high-speed memory interface. The Octeon NSP supports a 144bit dual-channel registered DDRII-800 SDRAM with ECC. It has a RLDRAM/FCRAM interface for content matching.

The LBATCA-NS1216A provides three mezzanine cards for front interface; Ten 10/100/1000 Base-T, Ten mini-GBIC(SFP) or Two 10GbE (XFP). It is designed to replace the mezzanine card for each application and interface.

The LBATCA-NS1216A provides two 10/100/1000 Base-T interface to the PICMG 3.0 Base Interface and two XAUI(10G) interface to the PICMG 3.1 Fabric Interface.

The LBATCA-NS1216A provides serial interface and 10Mbps Ethernet interface for management also provides separated serial interface for IPMC management.

Dual CN5860 NSP
New NS1216A

Dual Octeon NSP (Network Services Processor)

- NSP: OCTEON™Plus CN5860
- 16 x 1GHz(maxium) cnMIPS64 R2 cores
- cnMIPS64 R2 core
  - 32KB Icache, 8KB Dcache
  - MIPS64 Release2 Instruction Set
  - Security Accelerator
    - DES/3DES/AES/
    - MD5/SHA1/CRC etc
- 2MB Shared L2 Cache
- Regular Expression Accelerator
- Compression/Decompression Accelerator
- 2 x 10 x 1Gbps Ethernet Interfaces

Memory

- DDR2 Registered w/t ECC SDRAM
- 144-bit DDR2 DRAM up to 800MHz
- Up to 16GB with 4 DIMM

PICMG 3.0 Interfaces

- Two 10/100/1000 BASE-T ports for Base Interface
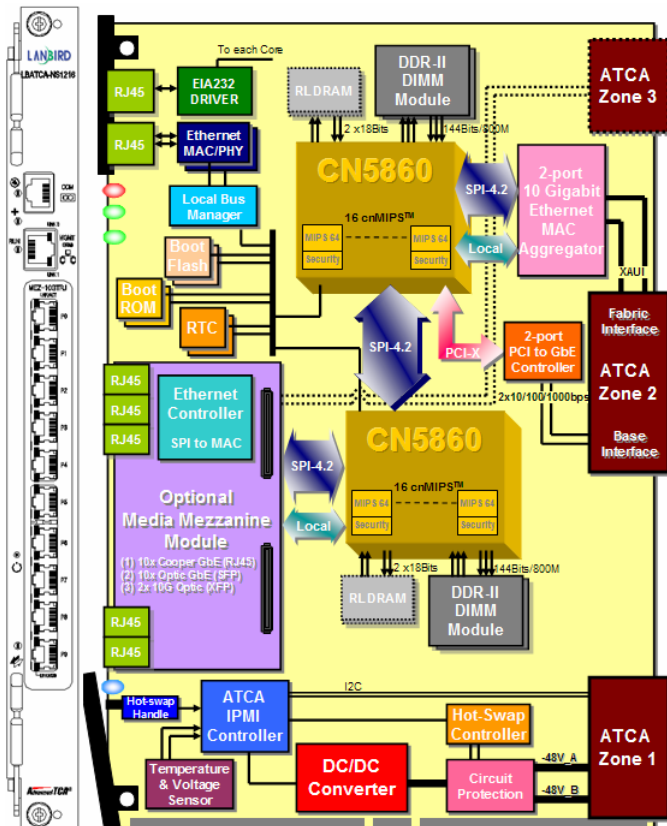
PICMG 3.1 Interfaces Option 9

- Two XAUI ports for Fabric Interface

Front Panel Interfaces

- Media Interface Module
  - Two 10Gigabit XFP port
  - Ten 1Gigabit RJ45 ports
  - Ten 1Gigabit SFP ports (TBD)
- One 10 BASE-TX Management Ethernet port (RJ45)
- One Console port (RJ45)

Rear Panel Interfaces

- Contact with LANBIRD

LBATCA-NS1216A Diagram

Intelligent Network Service Platforms !