Telco Systems
A BATM Company

T-ATCA 4020

HIGH DENSITY 10GE LINE INTERFACE CARD AND I/O EXTENSION FOR AdvancedTCA® FABRIC (NODE SLOT SWITCH)

AdvancedTCA line interface cards and I/O extensions T-ATCA 4020 and T-ATCA 4062 enable fast development of mission critical telecom applications such as mobile LTE, IPTV, media gateway, metro Ethernet, security, DPI and military applications. These require cost effective, high performance, high bandwidth and high availability solutions.

Our line interface card (LIC) products offer unmatched density with twenty 10GE ports in T-ATCA 4020 and sixty-two 1GE ports in the T-ATCA 4062. They offer non-blocking capacity toward the backplane, using 40GE triple mesh topology in T-ATCA 4020, resulting in 240GE capacity per blade, and provide a solution to the need for higher bandwidth, higher port density, and better switching capabilities.

Central to this ATCA architecture is the ATCA switch blade that provides connectivity between ATCA chassis node blades and external networks. The T-ATCA 4020 and T-ATCA 4062 expand the solutions offered by Telco Systems' T-ATCA switching blades and offer more connectivity options needed for many applications, while offloading the switching blades to perform more sophisticated activities at higher speeds (10GE,40GE and 100GE), and utilizing the existing infrastructure of the chassis or backplane.

The node slot switch product line is empowered by BiNOX, winner of the 2011 ATCA Best Software Award, which offers extensive built-in networking capabilities, including switching, IPv4/IPv6 routing, MPLS, link protection and redundancy, clock synchronization, and extensive QoS schemes including HQoS and load balancing.

This field-proven, carrier-grade networking operating system offers superior control and security while delivering wire speed Layer 2-4 networking. Mass amounts of BiNOX-enabled devices have been deployed in critical networks, global and local carrier networks, mobile operator and enterprise networks, and are offered within Telco Systems' Carrier Ethernet products, as well as in our line of T-ATCA switching blades

Additional hardware OAM (operations, administration and maintenance), in compliance with the latest MEF standards, including Carrier Ethernet 2.0 (CE 2.0) requirements, is provided to support metro Ethernet networking.

The node slot switch product line can be purchased as a stand-alone combined with a T-ATCA switching blade, or in a preconfigured system using the company's T-Metro 8006 carrier cloud gateway and high density service aggregation platform. This preconfigured system allows both IaaS (infrastructure as a service) cloud solutions providers and applications developers to add their solutions onto a ready-made system, reducing engineering and integration efforts even further, and reducing development risks by using field-proven systems.

PRODUCT HIGHLIGHTS

- PICMG 3.0/3.1 compliant
- Very high port density:
  - 20 10GE ports T-ATCA 4020
  - 62/32 1GE ports T-ATCA 4062
- 10GE/40GE fabric interface(40GBaseKR4, 4 x 10GbaseKR, 10GBaseKX4)
- Wire speed non-blocking L2-L4 switching
- IPv4 and IPv6 switching on both BI & FI
- MACs: 128K
  - LPM: 16K IPv4 / 8K IPv6
  - 9MB integrated packet buffer memory
  - 4K VLANs
  - 128 trunk groups
- Advanced load balancing 8 tuple matching on L2-L4
- Industry standard CLI
- NETCONF – Configurable CLI, Juniper, Cisco, ALU like CLI
- Highly manageable, via SSH, Telnet, Console, SNMPV3, NETCONF, Syslog
- Unique HQoS, security and protection
- Proven interoperability with ATCA chassis, CPU blades and shelf management
- Hardware OAM
- Telecom clock syncronization: SyncE*, IEEE 1588v2*
- Optional RTM for additional external interfaces
- MPLS/VPLS/VPWS and HVPLS
- OEM and private label options
- NEBS Level 3 and ETSI compliant

T-ATCA 4020

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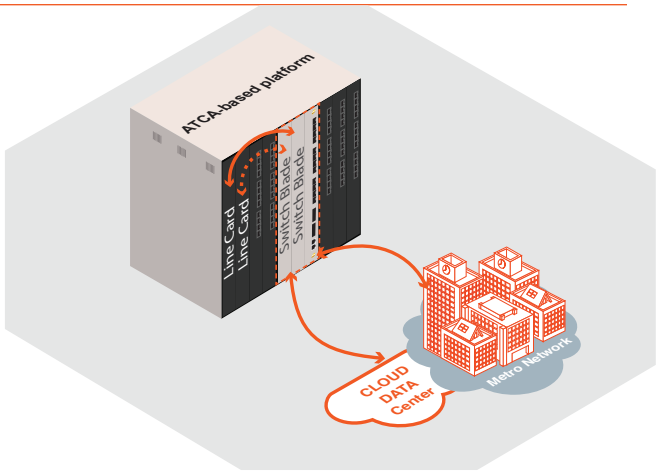
PRODUCT SPECIFICATIONS

Fabric Interface (FI)	Wire speed, 10GE ATCA payload switch 20 x SFP+ (1/10GE) 480Gbps full duplex switch capacity Backplane: 3 x 40GE (40GBaseKR4, 4 x 10GbaseKR,10GBaseKX4) to each hub blade
Base Interface (BI)	Backplane: 2 x GE (1000BaseT)
Timing	SyncE*, IEEE 1588v2 PTP*, BITS* and phase clock*
Services	All MEF services, IEEE 802.1Q bridging, IEEE 802.1ad Q-in-Q (TLS), MPLS L2VPN – Full VPLS PE, MTU HVPLS, VPWS MPLS L3VPN*, MPLS-TP*
Resiliency	Sub-50ms RSVP-TE FRR, HVPLS dual homing, secondary LSP ITU-T G.8032 access point, xSTP access point, resilient link LAG (Static/IEEE 802.3ad LACP/Multi-chassis*)
Quality of Service	Per Port/EVC/flow single/dual rate limiting Hierarchical rate limit per port/EVC/flow SP, WRR and hybrid frames scheduling, CoS marking and mapping per EVC
Multicast Management	IGMP v1/v2/v3*
Load balancing	Advanced load balancing capabilities up to 8 tuple matching Layer 2-4 fields with dynamic rule management updated
OAM	Hardware-based IEEE 802.3ah EFM, IEEE 802.1ag CFM
Testing & Monitoring	ITU-T Y.1564 and RFC2544 test head and service performance analyzer In-service testing capabilities, ITU-T Y.1731 PM, SM and SLM Per port/EVC/VLAN/COS, hardware-based flexible MAC-based loopbacks
Redundancy	Hitless switch over mechanism under switch/link fail
Management	Console, Telnet, SSHv2, Radius, TACACS+, SNMP v1/2/3, xFTP, NTP, DNS resolver
Security	ACLs, RADIUS, SSHv2, SNMPv3, SFTP, port security, broadcast storm prevention, secured access
EMC and Immunity	FCC 47 CFR, Part 15 Subpart B (2009 Class A) ICES-003 (2004) / CISPR 22: 2008 / ANSI C63.4:2009 EN 55022:2006 + A1:2007 + A2:2010, Class A EN 55024:2010 IEC 61000-4-2:2008 IEC 61000-4-3:2006 + A1:2007 + A2:2010 IEC 61000-4-4:2004 + A1:2010 IEC 61000-4-5:2005 IEC 61000-4-6:2008 IEC 61000-4-8:2009
Safety	UL 60950-1:2007, 2nd Edition CSA C22.2 No. 60950-1-07, 2nd Edition



KEY APPLICATIONS

- LTE Evolved Packet Core Infrastructure
- Security based application
- Intelligent Policy Enforcement (IPE)
- Gigabit Passive Optical Network (GPON) Optical Line Terminal
- Carrier Ethernet/MPLS Aggregation Platform

ORDERING INFORMATION

Part Number	Description
TATCA-4020A	ATCA Node I/O blade with 20 SFPP uplinks up to 200GE. L2/3 main switch offload

*Future feature

PICMG

advanced TCA summit 2011 BEST OF SHOW Software Product

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