



T-ATCA 404

40GE ADVANCEDTCA® SWITCH BLADE

AdvancedTCA specifications enable rapid development of mission-critical telecom applications such as LTE, IPTV, media gateway, metro Ethernet, security, DPI and military operations. These require a cost-effective, high performance, high bandwidth and high availability solution, which can be achieved using ATCA standard architecture. Central to this architecture is the ATCA switch blade that provides connectivity between ATCA chassis node blades and external networks.

Telco Systems' T-ATCA 404 delivers unparalleled connectivity to ATCA platforms with support for 10/40Gbps multirate switching on the fabric interface (FI) and 1/10Gbps multirate switching on the base interface (BI). The T-ATCA 404 can provide up to 14x40GE fabric backplane interfaces and 8x10GE front panel interfaces, plus the option of 2x40GE front panel interfaces or 8x10GE ports for ingress traffic. Each FI port can be configured to multirate speeds of 10Gbps or 40Gbps to support simultaneous 10GE and 40GE ATCA service modules.

T-ATCA 404 uniquely delivers an extensive networking software suite, BiNOX™, to provide a complete networking solution for ATCA platforms. BiNOX™ is Telco Systems' field-proven, carrier-grade networking operating system offering superior control and security while delivering wire speed Layer 2-4 networking. BiNOX helps to eliminate oversubscription and traffic congestion and supports low latency requirements which are mandatory in carrier-grade and cloud networks.

BiNOX™ networking software delivers state of the art connectivity, including switching, IPv4/IPv6 routing, load balancing, MPLS, QoS, protection and redundancy, and clock synchronization. Telco Systems' BiNOX-powered T-ATCA product line delivers ready-to-deploy networking devices that allow much faster integration, interoperability with tier 1 network devices, and a more robust solution. Devices powered by BiNOX™ are widely deployed in critical carrier and enterprise networks worldwide.

- 4K VLAN address support
- 128 trunk group support
- 9MB integrated packet buffer memory
- Binary database advantages
- Fast Ethernet update channel between hub blades
- Full MPLS/VPLS/VPWS implementation
- OEM and private label options
- Flexible management options via SSH, Telnet, Console, SNMPv3, NETCONF (including Juniper, Cisco, ALU like CLI), Syslog



PRODUCT HIGHLIGHTS

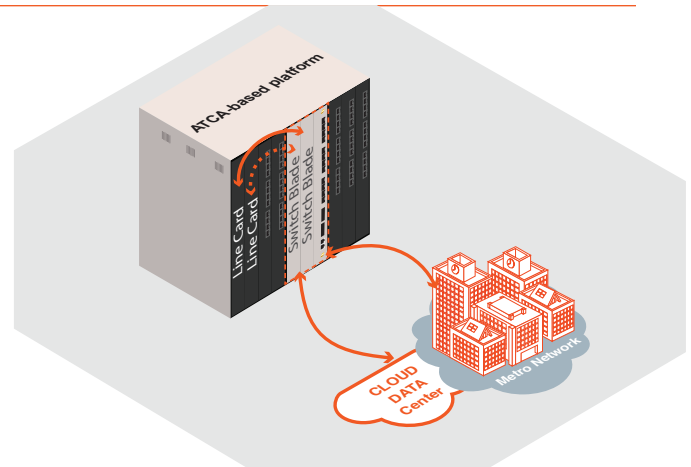
- PICMG 3.0 / 3.1 compliant
- Supports up to 16-slot platforms
- 1GE/10GE base interface with 4 uplinks
- 10GE/40GE fabric interface (40GBaseKR4, 4 x10GBaseKR, 10GBaseKX4)
- 8x10GE and 2x40GE (or additional 8x10GE) uplinks
- More than 160Gbps external connectivity, and a total of 640Gbps
- Wire speed non-blocking L2-4 switching
- IPv4 and IPv6 switching on both BI & FI
- 128K Mac address support
- 16K IPv4 / 8K IPv6 LPM
- Advanced load balancing on L2-L4
- Unique Hierarchal QoS (HQoS)* for service assurance
- Advanced security mechanisms
- Enhanced protection and resiliency options
- Enhanced clock synchronization (IEEE1588v2*, SynchE*)
- Proven interoperability with ATCA chassis, CPU blades and shelf management
- NEBS and ETSI compliant

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PRODUCT SPECIFICATIONS

Fabric Interface (FI)	Wire speed, 40GE ATCA switch 8 x SFP+(1/10GE) 2 x QSFP or 8 x SFP+ 640Gbps full duplex switch capacity Backplane: 16 x 40GE (40GBaseKR4, 4x10GbaseKR,10GBaseKX4)
Base Interface (BI)	4 x SFP+ (2 x10GE+2 x1GE) Backplane: 14 x GE (1000BaseT) 2 x 100BaseT shelf manager controller (ShMC)
Timing	SyncE*, IEEE 1588v2 PTP*, BITS* and phase clock*
Services	All MEF services, IEEE 802.1Q bridging (VLAN), IEEE 802.1ad Q-in-Q (TLS), one IP per chassis, VRRP, OSPF, IS-IS, OAM - IEEE 802.3ah EFM MPLS L2VPN - full VPLS PE, MTU HVPLS, VPWS, MPLS L3VPN*, MPLS-TP*
Resiliency	Sub-50ms RSVP-TE FRR, HVPLS dual homing, secondary LSP xSTP, 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, flow control
Multicast Management	IGMP snooping v1/v2/v3
Load balancing	Advanced load balancing capabilities with dynamic "bucket" management updates
Redundancy	Hitless switch over mechanism under switch/link fail, dual chassis LAG*, N+M payload blade control
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
T-ATCA404	Next generation 40GE ATCA switch blade, supports Layer 2/3; BiNOX network OS
BTI-10GSR-DD-SFP+	Single port 10 Gigabit Ethernet SFP+ transceiver multimode 850nm with digital diagnostics; Connector: LC; Distance: 300m
BTI-10GLR-DD-SFP+	Single port 10 Gigabit Ethernet SFP+ transceiver multimode 850nm with digital diagnostics; Connector: LC; Distance: 10KM
BTI-MGBIC-M-TX	1 port 1000BaseT copper mini-GBIC transceiver; Connector: RJ-45; Distance: 100m

*Future feature



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