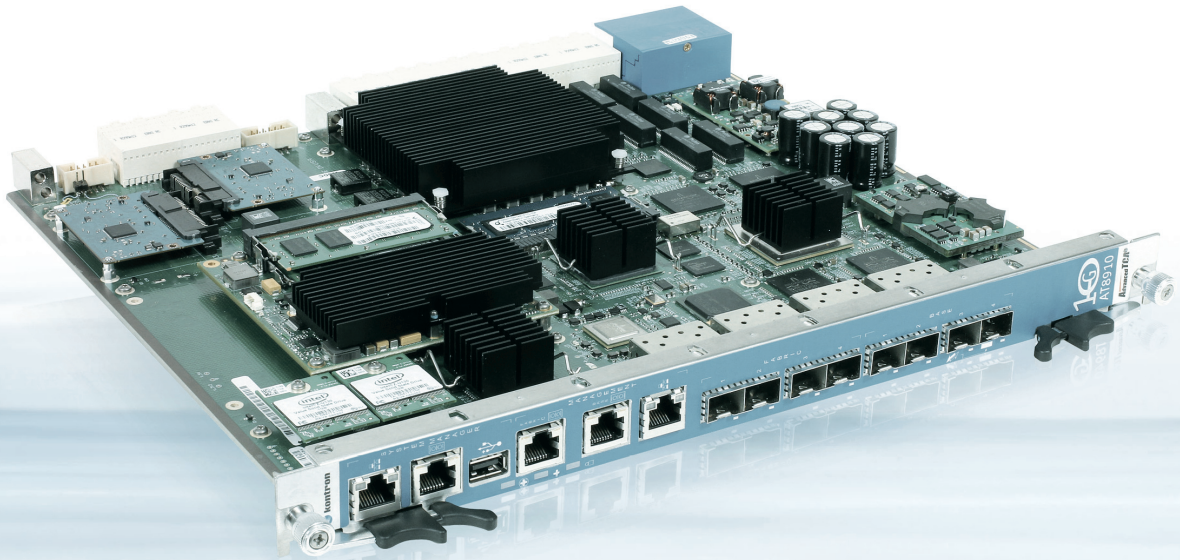


AT8910



2ND GEN 10G ATCA SWITCH WITH 320 GBPS NON-BLOCKING SWITCHING BANDWIDTH IDEAL FOR 4G LTE, 3G AND DATA CENTER NETWORKS

- ▶ support for 14x 10GbE nodes and one redundant hub meeting NEBS and ETSI standards
- ▶ separate switch silicon for base and fabric interface
- ▶ 4x 10GbE front fabric uplinks; 4x 10GbE front base uplinks
- ▶ 1x GE Mgmt. and 2x Serial console
- ▶ support for synchronous ethernet on RTM

AT8910

NEXT GENERATION 10 GBE ATCA SWITCH

TECHNICAL INFORMATION

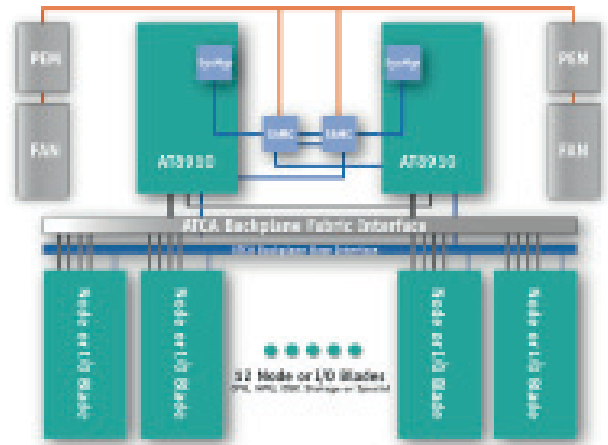
10G FABRIC INTERFACE		<p>Broadcom StrataXGS®IV Metro Ethernet Switch Architecture Broadcom BCM56842 high performance Ethernet Multilayer Switch:</p> <ul style="list-style-type: none"> - 320Gbps Switching Capacity; - Support of up to 14 Fabric IF 10GBase-BX4 (XAUI) or 1GBase-BX; - Support one port 10G HUB interlink to backplane at 10GBase-BX4 (XAUI) or 1GBase-BX. <p>Support of 4 10G interfaces to RTM Support of 4 1G/10G SFP+ front uplinks with 10GBase-SR/LR/LRM/ direct attach copper cables SFP+ monitoring SyncE and BroadSync(tm) interface connection to FPGA for future usage</p>
BASE INTERFACE		<p>Broadcom StrataXGS®IV Metro Ethernet Access Switch Architecture Broadcom BCM56334 24-Port GbE Ethernet Multilayer Switch with 4 10GbE Uplinks:</p> <ul style="list-style-type: none"> - 14 Base Interface ports running at 10/100/1000Base-T/TX/T; - One Hub interlink running at 10/100/1000Base-T/TX/T. <p>One port configurable either as Hub interlink via Update Channel or IPMC link for IPMI/Serial over LAN Hub interlink running at 1000Base-BX ShMC A/B connect running at 10/100Base-T/TX 4 1G/10G SFP+ front uplinks with 10GBase-SR/LR/LRM/ direct attach copper cables 3 RTM uplinks running at 10/100/1000Base-T/TX/T (SGMII) or 1000Base-x (Fiber) SFP/SFP+ monitoring One port connected to Unit Computer running at 1000Base-BX One port connected to System Manager running at 1000Base-BX</p>
UNIT COMPUTER AND SYSTEM MEMORY		<p>Dual-core Freescale P2020 1000 MHz processor 1 GByte DDR3 SODIMM; 2x 128 MByte NOR FLASH with dual Image Support Windriver Hypervisor running Windriver Linux as guest OSs on each core</p>
SWITCH MANAGEMENT SOFTWARE		
	BROADCOM FASTPATH®	<p>Base package including switching, Quality of Service and Management Switching protocols and functions including Ethernet Multicast (GVRP, GARP, RSTP, LAG, IGMP Snooping, DiffServ, ACL ...)</p> <p>IPv4 unicast and multicast routing:</p> <ul style="list-style-type: none"> - Unicast forwarding protocols & functions (ARP, OSPF, VRRP, RIP...) - Multicast forwarding protocols & functions (PIM-DM, PIM-SM, DVMRP, IGMP ...) <p>IPv6 unicast and multicast routing: IPv6 unicast forwarding protocols and functions (discovery, OSPFv3, MLD, 6to4/4to6 tunneling)</p> <ul style="list-style-type: none"> - Virtual LAN's per IEEE 802.1Q-2005 - Link aggregation load sharing - Tag based IEEE 802.1p frame priority - Rapid Spanning Protocol (RSTP) - GARP VLAN Registration Protocol (GVRP) - Multiple Spanning Tree Protocol (MSTP) - Group addresses according to IEEE 802.1 - Flow control - Support for GMRP - Link Layer Discovery Protocol (LLDP) - Link Aggregation (LAG) - Link Aggregation Control Protocol (LACP) - IGMPv3 snooping - Dynamic Host Configuration Protocol (DHCP) - SNMP, Telnet, TFTP, DHCP, SSH, SFTP, ICMP-echo (ping) - SNMPv3 - Address Resolution Protocol (ARP) - Trivial File Transfer Protocol (TFTP) - Reverse Address Resolution Protocol (RARP) - Secure Shell (SSH) - Internet Control Message Protocol (ICMP) - Simple Network Management Protocol (SNMP) - Internet Group Management Protocol (IGMP)
KONTRON SOFTWARE FEATURE EXTENSIONS		<p>Ethernet Switching:</p> <ul style="list-style-type: none"> - Meshed multicast, multicast and RSTP interoperability, same port bridging, link aggregation, LLDP, lossless Ethernet <p>IP Routing:</p> <ul style="list-style-type: none"> - IPinIP tunneling, automatic tunnel failover, multicast <p>Management Enhancements:</p> <ul style="list-style-type: none"> - Access control lists, monitoring, SNMP, provisioning, KEX control API, diagnostics, reliable field upgrades, location based DHCP server, file services, watchdog, real time clock. <p>Enhanced Optical/Copper module support:</p> <ul style="list-style-type: none"> - XFP, SFP+, SFP, auto detection and selection Wind River Hypervisor support for FASTPATH BSP

► TECHNICAL INFORMATION

I/O INTERFACES	Front: 1 SFP+ cage to support multi-rate fiber SFP+ modules Front: RJ45 for RS232 access to Processor
IPMI	PICMG 3.0 / PICMG 3.1 / HPM.1 / IPMI 2.0 compliant IOL/SOL support Temperature, Current and Voltage Sensors
SUPPORT	RTM8940 Rear Transition Module (RTM) Up to 80Gbps uplink capability on Fabric Interface: - 2x QSFP configured as (2x 40G; AT8940 only) or 8x 10G uplinks using 2 active copper cables - 1x QSFP configured as (1x 40G; AT8940 only) or 4x 10G and 4x SFP+ uplinks - Telco clocking is standard - Option to remove the QSFP uplinks and/or Telco clocking is available on demand Support for 2x SFP 1 GbE uplinks on Base Interface: - 1000Base-SX/LX Optical Modules - 10/100/1000Base-T Copper Module Master Clock Generator with Stratum 3 accuracy and SyncE support: - 2x ETSI T3 E1/T1 BITS input/outputs - 2x ETSI T4 E1/T1 Upstream/Downstream Chassis Clock Support - ATCA Synchronisation Clock Support CLK1 A/B, CLK2 A/B, CLK3 A/B - Clock Synchronisation to MCG of redundant HUB/RTM AMC like Management Interface
SYSTEM MANAGER	Support for basic and micro COM Express ETX Modules with Type 1 connector, according COMExpress 0 R1.0 Management connection to System Manager via RS232 front RJ45, or 10/100/1000Base-T front RJ45 Front panel USB port Support of ETX modules up to 30W Additional Ethernet Connection to Base IF and redundant HUB Support on-board for JEDEC SerialATA MO-297 SSD Support for RTM SATA applications Support on-board of up to 2 eUSB Flash Modules
POWER	ATCA compliant Power Input System Total power is below 220 W



// RTM8940 REAR TRANSITION MODULE (RTM)



// OM9141 - 10G OPEN MODULAR CORE PLATFORM CONNECTIVITY

► TECHNICAL INFORMATION

ENVIRONMENTAL	TEMPERATURE* HUMIDITY* ALTITUDE* SHOCK* VIBRATION*	Operating: 0-55° C/32-131° F with 30CFM airflow Storage and Transit: -40 to +70° C/-40 to 158° F Operating: 15 % to 90 % @55° C/131° F non-condensing Storage and Transit: 5 % to 95 % @ 40° C/104° F non-condensing Operating: 4,000 m / 13,123 ft Storage and Transit: 15,000 m / 49,212 ft Operating: 3G each axis Storage and Transit: 18G each axis Operating: 5-200 Hz. 0.2G, each axis Storage and Transit: 5 Hz to 20 Hz @ 1 m2/s3 (0.01 g2 /Hz) (flat) 20 Hz to 200 Hz @ -3 dB/oct (slope down)
RELIABILITY		MTBF to meet or exceed approximately 280,000 hours Whole board protected by active breaker USB voltage protected by an active breakers
SAFETY / EMC		Meet or exceed: Safety: UL 60950-1; CSA C22.2 No 60950-1-03; EN 60950-1:2001; IEC60950-1; EMI/EMC: FCC 47 CFR Part 15, Class B; CE Mark to EN55022/EN55024/ EN300386
WARRANTY		Two years limited warranty

* Designed to meet or exceed.

► CORPORATE OFFICES

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