**Low Cost 26 Port ATCA Switch**

**ATC809**

**KEY FEATURES**

- AdvancedTCA open standard form factor
- PICMG 3.1 compliant
- Managed Layer two switch
- GbE to Base Interface for 15 Node slots plus two Shelf
- One port to the update channel
- Eight front panel 10/100/1000 Mbit Ethernet ports via RJ-45
- Support up to 8K MAC address
- 4K IEEE 802.1Q VLANs
- VLAN-based packet filtering
- Packet classification using IEEE802.1p QoS
- 9K Jumbo frames
- Spanning tree
- Mirroring
- QoS
- SNMP and RMON
- OS support for: — OS independent

The ATC809 is a low cost AdvancedTCA 26 port Gigabit Ethernet switch that serves a number of egress ports with support for a rich set of Layer two managed software. The Management is done via http.

The module provides eight GbE ports in the front via RJ-45. In addition it has 15 ports routed to the Base Channel, two ports to the Shelf Manager and one port to the update channel.

The IPMI management is utilizing VadaTech's second generation IPMI management controller.
## SPECIFICATIONS

| Architecture | Physical Dimensions | Width: 12.687 in. (322.25 mm)  
| | | Depth: 11.024 in. (280 mm)  
| Type | ATCA Switch  
| | 26 Ports of GbE  
| Standards Processor Type | MIPS For Management  
| PICMG | ATCA PICMG 3.0 R2.0  
| Module Management | IPMI IPMI Version 2.0  
| Configuration Power | ATC809 17W  
| Environmental Temperature | Operating Temperature: 0° to 65° C (Air flow requirement is to be greater than 100 LFM)  
| | Storage Temperature: -40° to +90° C  
| Vibration | 1G, 5-500Hz each axis  
| Shock | 30Gs each axis  
| Relative Humidity | 5 to 95 percent, non-condensing  
| Front Panel Interface Connectors | 8 RJ-45  
| LEDs | IPMI Management Control  
| | Link and Activity  
| Mechanical | Hot Swap Ejector Handle  
| Software Support Operating Systems | Independent  
| Other MTBF | MIL Handbook 217-F > TBD Hrs.  
| Certifications | Designed to meet FCC, CE and UL certifications where applicable  
| Standards | VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards  
| Compliance | RoHS and NEBS  
| Warranty | Two (2) years.  
| Trademarks and Logos | The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedMC™ and the AdvancedTCA™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.  

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FIGURE 1. ATC809 Functional Block Diagram
Managed Layer Two GbE

The GbE layer two managed switch fabric routes eight GbE to front panel, 15 ports to the Base Channel, two the Shelf Manager and one to the update channel.

**Key features:**

- **Configuration**
  - Ethernet/IEEE 802.3 Packet size (64 bytes to 1522 bytes)
  - Jumbo packets up to 9216 bytes

- **L2 Switching**
  - Supports up to 8K MAC address
  - Line rate switching for all packet sizes
  - Independent VLAN learning
  - VLAN flooding for broadcast and DLF packets
  - Hardware-based address learning
  - Six CPU-managed learning (CML) modes per port
  - Hardware-and-software-based aging
  - Software insertion/deletion/lookups of the L2 table
  - Same port bridging supported
  - Station movement control

- **L2 Multicast**
  - 4K VLANs
  - Protocol-based VLANs
  - IEEE 802.1p
  - IEEE 802.1Q
  - Independent VLAN learning (IVL)
  - Ingress filtering for IEEE 802.1Q VLAN security
  - VLAN-based packet filtering
  - MAC-based VLAN

- **Source Port Filtering**
  - Egress port block masks
  - Trunk group blocking masks

- **Storm Control Per-Port:**
  - Unknown unicast packet rate control
  - Broadcast packet rate control
  - Multicast packet rate control

- **Spanning Tree:**
  - IEEE 802.1D spanning tree protocol (single spanning tree per port)
  - IEEE 802.1s for multi spanning trees
  - IEEE 802.1w rapid spanning tree protocol-delete and/or replace per:
    - Port
    - VLAN
    - Port, per VLAN
  - Spanning tree protocol packets detected and sent to the CPU

- **Double-Tagging:**
  - Unqualified learning/forwarding
  - IEEE 802.1 Q-in-Q

- **Mirroring**
  - Ingress/egress mirroring support

- **QoS Features**
  - Four CoS queues per port
  - Per-port, per CoS drop profiles
  - Port level shaping
  - Traffic shaping available on CPU queues
  - Programmable priority to CoS queue mapping
  - Provides two levels of drop precedence per queue
  - Strict Priority (SP), Weighted Round Robin (WRR), and Deficit round Robin (DRR) mechanisms for shaped queue selection

- **DSCP**
  - DSCP-based prioritization
  - Back pressure metering
  - DSCP to IEEE 802.1p mapping

- **Port Security**
  - Per port blocking
  - Supports IEEE 802.1x
  - MAC address blocking

- **DoS Prevention**
  - Denial of Service detection/prevention

- **Management Information Base**
  - SMON MIB, IETF RFC 2613
  - RMON statistics group, IETF RFC 2819
  - SNMP interface group, IETF RFC 1213, 2836
  - Ethernet-like MIB, IETF RFC 1643
  - Ethernet MIB, IEEE 802.3u
  - Bridge MIB, IETF RFC 1493
## ORDERING OPTIONS

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<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Option Code</th>
</tr>
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<tbody>
<tr>
<td>ATC809 - 000 - 000 - 00J</td>
<td>J = Conformal Coating</td>
<td>0 = None</td>
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<tr>
<td></td>
<td></td>
<td>1 = Humiseal 1A33 Polyurethane</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = Humiseal 1B31 Acrylic</td>
</tr>
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