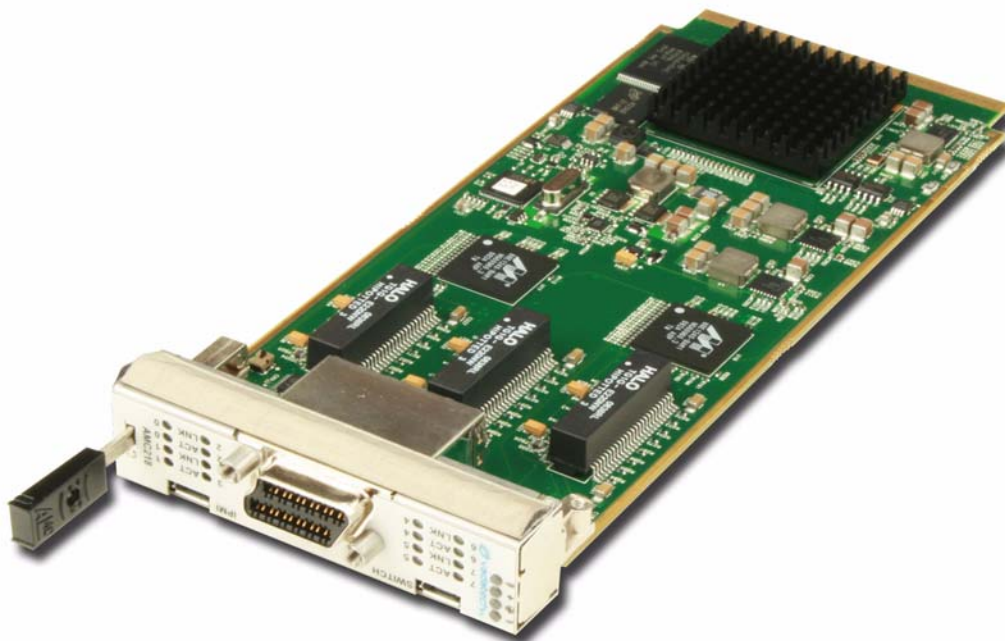




### KEY FEATURES

- AMC.2 compliant
- Managed Layer two switch
- Six 10/100/1000Mbit ports
- Front panel I/O via MRJ-21
- Two GbE routed to the rear
- 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 AMC218 is a single-width, mid-height AdvancedMC™ (AMC) based on the AMC.2 specification (full-height option available). The AMC218 provide six front panel 10/100/1000Mbit ethernet ports via MRJ-21. It has two additional GbE ports that are routed to the rear per the AMC.2 specification.

The switch is managed via http and supports a rich set of features such as VLAN, Spanning tree, QoS, Mirroring, etc.

VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).

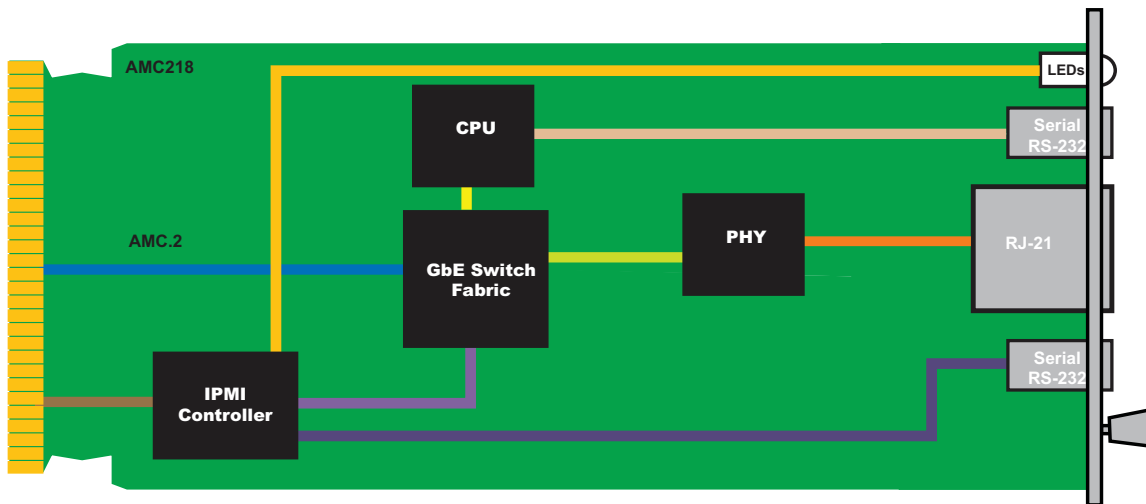
**AdvancedMC™**

# 8 Port AMC Managed Layer Two Switch

## SPECIFICATIONS

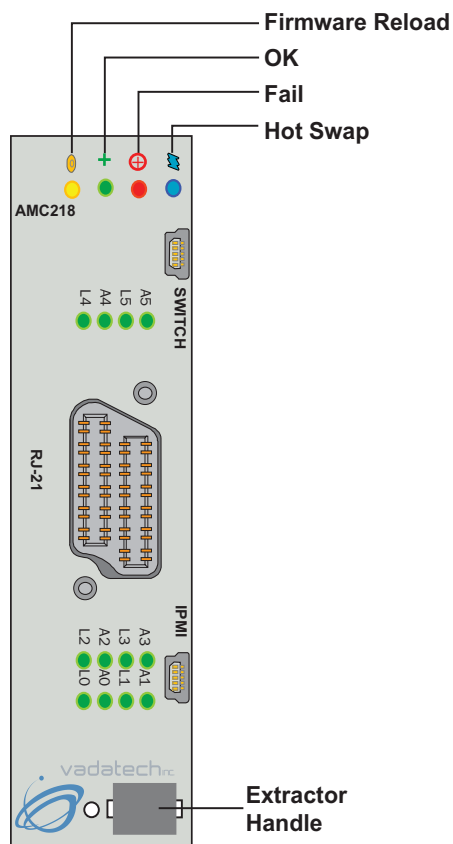
| Architecture         |                                                                                                                                                                                                                                                                                                                       |                                                                                         |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Physical             | Dimensions                                                                                                                                                                                                                                                                                                            | Single-Width, Mid-Height Front Panel (option for full-height)                           |
|                      |                                                                                                                                                                                                                                                                                                                       | Width: 2.89 in. (73.5 mm)                                                               |
|                      |                                                                                                                                                                                                                                                                                                                       | Depth: 7.11 in. (180.6 mm)                                                              |
| Type                 | AMC Ethernet                                                                                                                                                                                                                                                                                                          | GbE switch                                                                              |
|                      |                                                                                                                                                                                                                                                                                                                       | Eight ports                                                                             |
|                      |                                                                                                                                                                                                                                                                                                                       | 1 Gb/s per port                                                                         |
| Standards            |                                                                                                                                                                                                                                                                                                                       |                                                                                         |
| AMC                  | Type                                                                                                                                                                                                                                                                                                                  | AMC.2                                                                                   |
| Module Management    | IPMI                                                                                                                                                                                                                                                                                                                  | IPMI Version 2.0                                                                        |
| 1000BASE-BX          | Ports                                                                                                                                                                                                                                                                                                                 | 0 and 1                                                                                 |
| Configuration        |                                                                                                                                                                                                                                                                                                                       |                                                                                         |
| Power                | AMC218                                                                                                                                                                                                                                                                                                                | 7W                                                                                      |
| Environmental        | Temperature                                                                                                                                                                                                                                                                                                           | Operating Temperature: 0° to 65° C (Air flow requirement is to be greater than 200 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                                                                                                                                                                                                                                                                                                  | MRJ-21                                                                                  |
|                      | LEDs                                                                                                                                                                                                                                                                                                                  | IPMI Management Control                                                                 |
|                      |                                                                                                                                                                                                                                                                                                                       | 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. |                                                                                         |

## 8 Port AMC Managed Layer Two Switch



**FIGURE 1.** AMC218 Functional Block Diagram

**FIGURE 2.** AMC218 Front Panel



# 8 Port AMC Managed Layer Two Switch

## Managed Layer Two GbE

The GbE layer two managed switch fabric routes six GbE to front panel and two to the rear.

### 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
  - ◆ Mirror-to-port receives the unmodified packet for ingress mirroring
  - ◆ Mirror-to-port receives the modified packet for egress mirroring
- ❖ Content Aware Filter Processing
  - ◆ Intelligent Protocol Aware processor with backward-compatible, byte-based classification option
  - ◆ Parses up to 128 bytes per packet
  - ◆ -512 ACL rules support
  - ◆ Multiple matches and actions per packet
  - ◆ ACL-based policing
  - ◆ Ingress/egress port based filtering
  - ◆ MAC destination address remarking
  - ◆ Traffic class definition based on the filter
  - ◆ Programmable meters allows policing of flows
  - ◆ Metering granularity from 64 Kbps to 1Gbps
  - ◆ Multiple look-ups per packet
  - ◆ Metering support on ingress ports and CPU queues
- ❖ 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

# 8 Port AMC Managed Layer Two Switch

## ORDERING OPTIONS

AMC218 - 00C - 000 - 00J

**J = Conformal Coating**

- 0 = None
- 1 = Humiseal 1A33 Polyurethane
- 2 = Humiseal 1B31 Acrylic

**C = Front Panel Height**

- 1 = Reserved
- 2 = Mid-Height
- 3 = Full-Height



Document No \_\_\_\_\_ Date: January 2009, Pass two

