VT098

IPMI Fan Controller for ATCA Chassis

The VadaTech VT098 IPMI Fan Controller is compliant with the IPMI 2.0 specification with dual I2C busses for redundancy. The VT098 is targeted for ATCA chassis implementations and can be modified easily to meet customer requirements. The VT098 can manage up to six fans. It outputs three PWM signals for a three zone fan tray and it has six TACH inputs.

The module has an external watchdog timer to monitor the CPU in addition to its internal watchdog timer, dual temperature sensor, fan tray monitor and hot swap switch. The hot swap switch input has a +/-15KV ESD-protected switch debouncer.

Once installed in the system the firmware is upgradable from the shelf manager controller.

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KEY FEATURES

- Dual IPMI busses for redundancy
- Manages up to six fans
- Three PWM signals
- Six TACH inputs
- Eight inputs for IPMI hardware address
- +12V input
- Blue, Red, Amber and Green LEDs
- 32-bit RISC processor
- Two banks of 256K flash for redundancy
- Firmware is field upgradable
- IPMI 2.0 compliant
- External as well as internal WDT
- Available with industrial temp range
## SPECIFICATIONS

**Architecture**

<table>
<thead>
<tr>
<th>Physical</th>
<th>Dimensions</th>
<th>Width: 2.2 in. (55.88 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>IPMI FAN Controller</td>
<td>Intelligent fan controller for ATCA-style chassis</td>
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</tbody>
</table>

**Standards**

| Module Management | IPMI | IPMI Version 2.0 and PICMG 3.0 |

**Configuration**

| Power | VT098 | < 1W |

**Environmental**

| Temperature | Operating Temperature: 0° to 65° C, Available in Industrial Temp |
| Vibration   | 1G, 5-500Hz each axis |
| Shock       | 30Gs each axis |
| Relative Humidity | 5 to 95 percent, non-condensing |

**Features**

| External interface | 2x15 0.1 Terminal Strip |
| LEDs              | IPMI Management Control Blue, Red, Amber and Green |
| Switch            | Hot swap switch input with +/-15KV ESD protection |
| Zones             | Three Zone with six TACH inputs |
| Temp Sensor       | Two temp sensors on-board |

**Other**

| MTBF    | MIL Spec 217-F > 432,000 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 |

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FIGURE 2. VT098 Functional Block Diagram

ORDERING OPTIONS

VT098 - A00 - 000 - 0HJ

A = Number of Fans
0 = 6 RPM Sensor
1 = 2 RPM Sensor

H = Operating Temp
1 = Commercial
2 = Industrial

J = Conformal Coating
0 = None
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic

Mounting holes for the assembly

IPMI A/B Bus
H/W Address
LED
Hot Swap Switch

PWM/TACH

CPU
LPC2138

FAN Controller

Temp Sensors

I/O Connector
2 x 15 0.1" Strip

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