

### KEY FEATURES

- Cooling Unit (CU) controller for  $\mu$ TCA
- Dual IPMI bus for redundancy
- Three additional I<sup>2</sup>C busses
- Manages up to five zones
- Five PWM signals<sup>†</sup>
- Ten TACH inputs<sup>†</sup>
- Three 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

<sup>†</sup> VT096 can be modified for more fan zone as well as to bring in more TACH inputs.

The VadaTech VT096 IPMI Fan Controller is compliant with the IPMI 2.0 specification and includes dual I<sup>2</sup>C busses for redundancy. The VT096 is targeted for  $\mu$ TCA chassis implementations and can easily be modified to meet customer requirements.

The VT096 can manage up to ten fans. It outputs five PWM signals for a five zone fan tray and it has ten TACH inputs<sup>†</sup>.

The module has an external watchdog timer to monitor the CPU in addition to its internal watch dog timer, dual temperature sensors, fan tray and hot swap switch. The hot swap switch input has a +/-15KV ESD-protected switch debouncer. The module has three additional I<sup>2</sup>C busses that can be routed to external devices such as temp sensors to monitor the  $\mu$ TCA chassis.

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

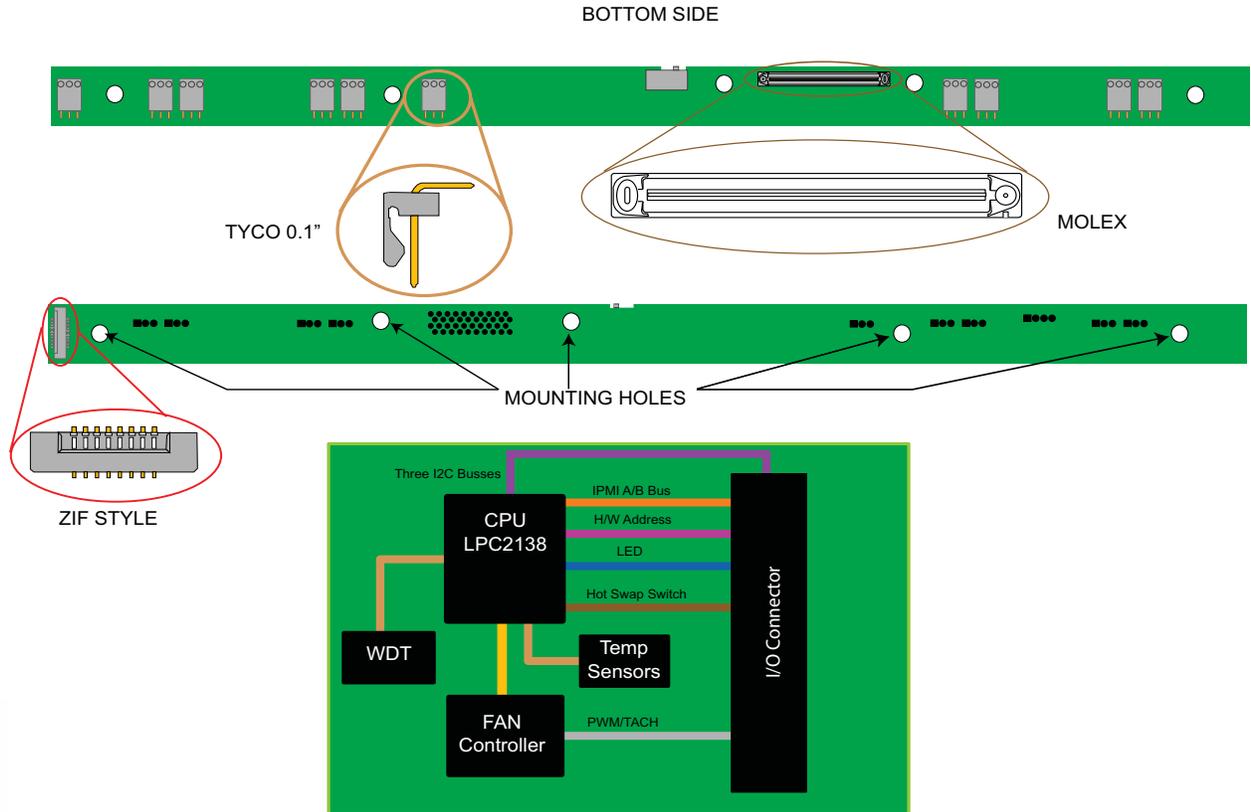
VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).



# IPMI Fan Controller for $\mu$ TCA Chassis

## SPECIFICATIONS

Architecture		
Physical	Dimensions	Width: 0.725 in. (18.42 mm)
		Depth: 14.5 in. (367 mm)
Type	IPMI FAN Controller	Intelligent fan controller for $\mu$ TCA style chassis
Standards		
Module Management	IPMI	IPMI Version 2.0, PICMG 3.0 and $\mu$ TCA Cooling Unit (CU) specification
Configuration		
Power	VT096	< 1W
Environmental	Temperature	Operating Temperature: 0° to 65° C, Available in Industrial Temp
		Storage Temperature: -40° to +90° C
	Vibration	1G, 5-500Hz each axis
	Shock	30Gs each axis
Features	Relative Humidity	5 to 95 percent, non-condensing
	External interface	Molex EBB1 50D, Tyco 0.1" header and Molex 1.0 ZIF
	LEDs	IPMI Management Control Blue, Red, Amber and Green
	Switch	Hot swap switch input with +/-15KV ESD protection
	Zones	Five zones with ten TACH inputs
	Temp Sensor	Two temp sensors on board
Other		
MTBF	MIL Spec 217-F > 409,000 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 NEBA	
Warranty	Two (2) years	
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**FIGURE 2.** VT096 Functional Block Diagram

## ORDERING OPTIONS

VT096 - 000 - 000 - OHJ

**H = Operating Temp**

- 1 = Commercial
- 2 = Industrial

**J = Conformal Coating**

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