# Ruggedized Embedded Computer System

Thermite® TVC-3.0 Model 1100

**High Performance in Any Environment** 

The Thermite TVC-3.0 Model 1100 offers state-of-the-art embedded computing, mobile graphics, and conduction cooling, delivering unparalleled graphics and processor performance for rugged battlefield applications. The Thermite TVC-3.0 Model 1100 is perfect for high-performance computing, advanced graphics, shader-based rendering, and GPGPU processing in a compact form factor for any environment.

### The Thermite TVC-3.0 Difference

The Thermite TVC-3.0 features a 1.6 GHz Intel Core 2 Duo processor with a NVIDIA FX770M GPU for superior compute and graphics processing performance, making it ideal for performance rich applications in battlefield, ground, air and maritime environments.

# **Processing Powerhouse**

The Thermite TVC-3.0 Model 1100 with a CUDA enabled GPU can handle accelerated GPGPU operations to solve complex compute-intensive applications in the most demanding of environments. The Thermite TVC-3.0 is perfect for field-based training, situational awareness, sensor processing/display, mission planning, mission rehearsal, weapon system control, maintenance, and other augmented reality simulations.

CUDA is a general purpose parallel computing architecture that leverages the parallel compute engine in NVIDIA graphics processing units to solve many complex computational problems in a fraction of the time required on a CPU. The fast parallel computing architecture is easily accessed using the most common programming languages in use today.

The Thermite TVC-3.0 brings capabilities of the most powerful PC workstations to the battlefield—for deployment on Ground Vehicles, Aircraft, Maritime, or other vehicles.

### **Benefits/Features of the TVC-3.0**

- Aggressive Performance Intel® Core 2 Duo LV processor and a CUDA-enabled GPU
- 3D Graphics NVIDIA® Quadro® FX770M GPU for visual rich applications
- **Power Efficient** Dynamic power control manages power consumption and thermal dissipation
- Versatile I/O Built-in USB, RS-232, RS-422, and gigabit Ethernet
- Rugged Designed to work in the most demanding field environments
- Storage for your needs Drive size and drive type to suit your needs
- Video Capture Advanced PCle-based video capture and processing options for real-time video capture

# **Specifications**

### **Technical:**

#### CPU

- Intel Core 2 Duo LV 1.6 GHz
- Intel 965GME "Santa Rosa" MCH, ICH8-M south bridge
- Up to 4MB L2 Cache

#### Memory

4 GB dual-channel DDR2 DRAM

#### **Graphics Processor**

- NVIDIA® FX770 CUDA parallel computing processor
- 32- core GPU module
- 256 MB DDR2 DRAM
- PCle x16 interface

#### **Operating System**

Microsoft® Windows® XP Embedded

#### **Removable Storage Options**

- High-performance rugged SSDs: 32GB or 128GB
- Rotating Hard Drive: 80GB

#### **Interfaces**

- Eidetix PCIe video capture
- IEEE 802.3 10/100/1000 Ethernet
- Two USB 2.0
- 2 RS-232C, 1 RS-422 Asynchronous, 1 RS-422 Synchronous (SDLC)

#### Power/Performance

- 10 36 VDC (Designed for MIL-STD-704F, STANAG 1008 and MIL-STD 1275)
- Advanced power-saving technologies

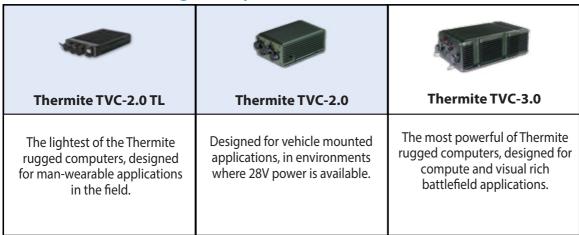
#### **Dimensions & Weight**

- 244 mm x 160 mm x 81.5 mm  $(D \times W \times H)$
- 4 kg (8.8 lbs)

### **Environmental\*:**

	With Rotating Disk Drive		With Solid State Drive	
	Operating	Non - Operating	Operating	Non - Operating
Ambient Temperature	0° C to +50°C	-40° C to +70° C	-25° C to +62 °C	-40° C to +85°C
Humidity Level	5% - 90%, NC	5% - 95%, NC	5% - 90%, NC	5% - 95%, NC
Altitude Level	-200 to 10,000 ft	-200 to 40,000 ft	-200 to 40,000 ft	-200 to 40,000 ft
Vibration Resistance	1 G, 15 -500 Hz	5 G , 22 -500 Hz	Up to 12 G RMS	Up to 12 G RMS
Shock Resistance	Up to 20 G	Up to 40 G	Up to 40 G	Up to 40 G
Immersion Resistance	1m for 30 minutes	1m for 30 minutes	1m for 30 minutes	1m for 30 minutes
*Subject to validation testing, and subject to change at any time				

## Which Thermite is right for you?















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