TANK−GM45A

Extended Temperature Fanless Embedded System with Intel® Core™ 2 Duo Processor

Features

- ♦ Socket P Intel® 45nm Mobile Core™2 Duo Processor Supported
- ♦ Extended Temperature Fanless design support -20ºC~70ºC
- ♦ High Performance MPEG-2 Decoding, WMV9(VC-1) and H.264(AVC) supported
- ♦ Built-in DDR2 SO-DIMM 2G memory
- ♦ Support 2xCOM, 4xUSB2.0, 2x Intel® GbE LAN
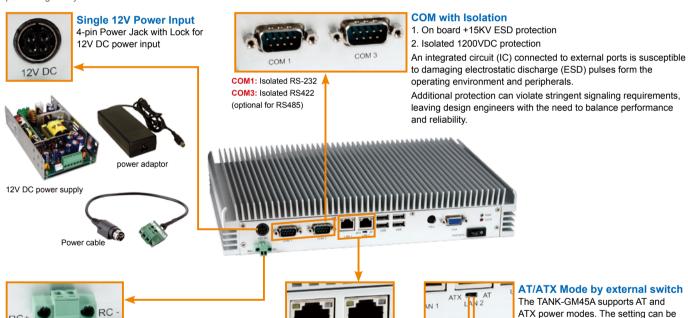- ♦ IEI One Key Recovery solution allows you to creat rapid OS backup aand recovery

One Key Recovery · Fanless · +70°C / -20°C

Extended Temperature System with Multi−Function

TANK-GM45A supports extended Temperature from -20ºC up to 70ºC with One Industrial 2.5" SATA Flash Disk. IEI IFD 2.5" SSD supporting SATA SLC solutions features anti-vibration, low power consumption, high performance and perfect reliability. SSD not only performs much better IOPS than HDD but also can be operated anytime because of no mobile components like the motor, bearing or and rotating head. In addition, SSD can absolutely fulfill specialized application performing in any harsh environment.

Single 12V Power Input
4-pin Power Jack with Lock for 12V DC power input

12V DC power supply

power adaptor

Power cable

COM with Isolation
1. On board +15KV ESD protection
2. Isolated 1200VDC protection

An integrated circuit (IC) connected to external ports is susceptible to damaging electrostatic discharge (ESD) pulses form the operating environment and peripherals.

Additional protection can violate stringent signaling requirements, leaving design engineers with the need to balance performance and reliability.

COM1: Isolated RS-232
COM3: Isolated RS422
(optional for RS485)

Turn off the system: more than **1 V** input
Turn on the system: less than **0.5 V** input

RC+ / RC−
RC+ DIO   **RC−** GND

DIO Signal
The GPIO terminal block connects to a remote control device. Users can control the system power on/off by inputting high or low voltage into the terminal block.

One 2.5" SATA HDD Space

AT/ATX Mode by external switch
The TANK-GM45A supports AT and ATX power modes. The setting can be made through the AT/ATX switch on the external peripheral interface panel

ATX ←→ **AT**

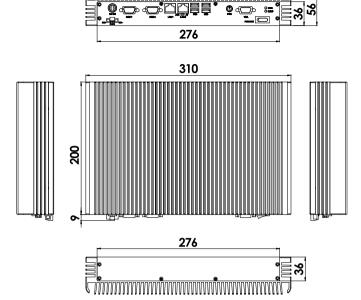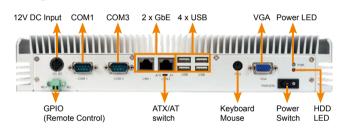LAN 1   LAN 2   ATX   AT

High Performance Intel® GbE
• Intel® 82574L
The 82574 provides one PCIe lane operating at 2.5 GHz with sufficient bandwidth to support 1000 Mb/s transfer rate. Supports 9018-byte jumbo packets, 40 KB of on-chip buffering mitigates instantaneous receive bandwidth demands and eliminates transmit under–runs by buffering the entire outgoing packet prior to transmission.

• Intel® WG82567LM
The 82567 is a single port GbE physical layer Transceiver (PHY) that connects to its Media Access Controller (MAC) through a dedicated interconnect and supports operation at data rate of 10/100/1000 Mb/s. Supports up to 9 kB jumbo frames (full duplex)

IP Video Surveillance

Digital Security Surveillance

Specifications

Model Name	TANK-GM45A
Platform	Intel®

Chassis	Color	Sliver
	Dimensions	310 x 200 x 56mm
	Chassis Construction	Aluminum Alloy with heavy duty metal

Motherboard	Motherboard Model	System Board
	M/B Size	System Board
	Processor CPU	Intel® Core™ Duo 2.4GHz, 3MB L2 cache, processor P8600 Intel® Celeron™ M 2.0GHz 1MB L2 cache, processor 575
	Chipset	Intel® GM45 + ICH9M
	System Memory	2 GB DDR2 SODIMM Memory Pre-installed

Storage	Hard Drive	1 x 2.5" SATA HDD Space

System Function	PS2 (KB/MS)	1
	USB 2.0	4
	Ethernet	2 x Intel® GbE One Intel® 82574L Ethernet Controller One Intel® WG82567LM Ethernet PHY
	RS-232	1 w/ isolation
	RS-232/422/485	One RS422/RS485 Default RS422 with isolation
	Digital I/O	DIO signal for Remote on/off Control
	Display	1 x VGA
	Resoluiton	2048 x 1536 @ 75 Hz

Power	Power input	12V DC in
	Power consumption	12@3.85A (Intel® Core2 Duo P8600 2.4GHz with 3MB L2 Cache, DDR2 2GB)

Reliability	Mounting	Desk top, wall mount
	Operating Temperature	-20°C ~ 70°C with SSD
	Operating Vibration	Meet MIL-STD-810F 514.5C-1
	Weight (Net/Gross)	3.5kg/4.2kg

Dimensions (Unit: mm)

Integrated I/O

12V DC Input | COM1 | COM3 | 2 x GbE | 4 x USB | VGA | Power LED

GPIO (Remote Control) | ATX/AT switch | Keyboard Mouse | Power Switch | HDD LED

Packing List

1 x Power Cable (Terminal Block DC in Cable) (P/N: 32002-002000-100-RS)	
1 x Screw set for Wall Mount Kit	1 x QIG
2 x Wall Mount Backets	1 x CD

Power Cable

Wall Mount bracket

Ordering Information

Part No.	Description
TANK-GM45A-R10/P8600/2GB	Extend temperture fanless embedded system with Intel® Core™2 Duo P8600 2.4 GHz 3MB L2 cache and GM45 chipset, with 2GB DDR2 memory, 12VDC, -20ºC~70ºC,RoHS
TANK-GM45A-R10/CM575/2GB	Extend temperture fanless embedded system with Intel® Celeron® M 575 2.0 GHz 1MB L2 cache and GM45 chipset, with 2GB DDR2 memory, 12VDC, -20ºC~70ºC, RoHS
63000-FSP060DBAB1554-RS	POWER ADAPTER; FSP060-DBAB1554; VAC:90V~264V; 12V/ 60W with ERP and PSE certificates
63000-FSP096AHB-RS	POWER ADAPTER; FSP096-AHB; VAC:90V~264V; 12V/ 96W with ERP and PSE certificates
32000-000002-RS	17.5cm European Standard Power Cord
32000-000025-RS	18.3cm American Standard Power Cord
32006-00300-100-RS	PS2 KB/MS Y Cable
IFD-2510WT-XXXXX	iFD 2.5" SATA 3.0 2510WT SLC SSD Wide Temp. Grade -40ºC~85ºC (8GB~128GB)
IFD-2510RW-XXXXX	iFD 2.5" SATA 3.0 2510RW SLC SSD Wide Temp. Grade -40ºC~85ºC (1GB~32GB)
IFD-2000JW-XXXXX	iFD 2.5" SATA 3.0 2000JW SLC SSD Wide Temp. Grade -40ºC~85ºC (8GB~128GB)

XXXXX=Capacity