SBOX-100-QM87

Maritime Embedded System



Features

- Fanless marine computer with 4th generation Intel® Core™ i5 dual-core processor
- -15°C ~ +55°C wide temperature
- · Isolation protection
 - » 4 x RS-232/422/485 isolated serial ports
 - » Isolated 18 V~24 V DC input
 - » 2 x Isolated CAN-bus 2.0B
- 2 x 2.5" SSD bay with RAID 0/1 function
- Supports IEI iRIS-2400 (IPMI 2.0 compliant)













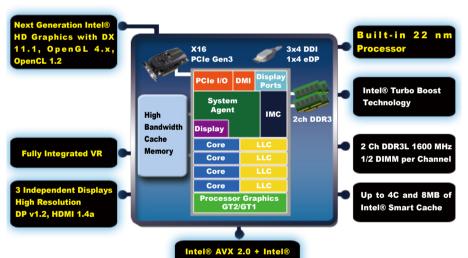




Intel® Core™ i5 High Performance Computing Power in a Fanless Design®

IEI's high performance marine solutions are built with the powerful Intel® Core™ i5 CPU within a fanless system architecture. No matter your applications are general marine system management, monitoring or conning systems, radar systems, or ECDIS navigation, IEI's marine computers will give you the most stability than ever.

- Improved CPU performance with Intel® 22nm 4th Generation Mobile Core™ i5-4400E 2.7 GHz processor
- Two 204-pin 1600/1333MHz dual-channel DDR3 SDRAM support up to 16 GB





With IEI's fanless solutions, your vessels can avoid the bothersome of replacement of fan, increasing safety and efficiency for the crew and the entire ship.

Three independent aluminum heat sinks help the heat dissipate averagely, and help the system efficiently achieve wide operating temperature range between -15°C~55°C.

3 independent displays: HDMI, DVI, and VGA

The three simultaneously independent displays are supported via the on-board video output combinations of VGA, DVI and HDMI. This versatile combination of display output options make the marine system ideal for multi-monitor required applications in the bridge room.





Display 3

Multiple Isolated Ports for Comprehensive Protection against Electrical Surges -

CAN 2.0B is a kind of marine electronic data network for communication between marine electronic devices such as

Ground loop and electric surges are common in the marine applications of electronic products due to the dense placement of devices. These stray electrical signals can cause equipment damage or malfunction.





IEI Remote Intelligent Management System-

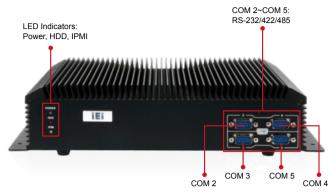
The marine computer supports IEI iRIS remote management solution which helps users to manage multiple devices through single management interface and elevates work efficiency. The iRIS solution only requires a module and Internet connection!



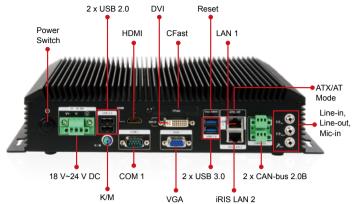
iRIS Key Feature	Detailed Functions	iRIS Key Feature	Detailed Functions		
System health monitor	Hardware monitor Health log Event log	Screen record	Remote video streaming record Event Trigger Setting & video record		
Remote system maintenance	Remote BIOS update Remote OS recovery Remote KVM + One Key Recovery Remote out-off-band backup	Remote power control	 Reset Power Power Off Server – Immediately Power Off Server – Orderly Power On Server Power Cycle Server 		
Active alert & notice	Send instant system alerts via e-mail Send instant system alerts via SMS Send instant system alerts to management server	Remote troubleshooting	Remote software update Remote OS installation & recovery Remote KVM Post code display		
Remote device control	Fan control Remote KVM Remote setting BIOS	Diagnose before dispatch	Health log analysis Event log analysis		
		Group control	Group control		

Fully Integrated I/O

Front view



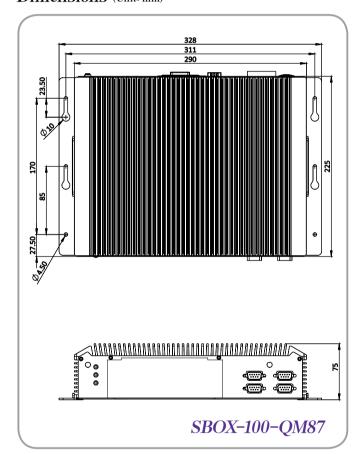
Rear view



Specifications

Model Name		SBOX-100-QM87		
Chassis	Color	Black		
	Dimensions (WxHxD) (mm)	290 x 75 x 225		
Chassis	System Fan	Fanless		
	Chassis Construction	Extruded aluminum alloy		
Motherboard	CPU	Intel® mobile Core™ i5-4400E (2.7 GHz, 37W)		
	Chipset	Intel® QM87		
	System Memory	2 x 204-pin DDR3 SO-DIMM slot (system max. 16 GB) Pre-installed 4 GB DDR3 SO-DIMM		
IPMI	iRIS Solution	iRIS-2400		
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s SSD bay with RAID 0/1 function		
	CF Card/CFast	1 x CFast		
	PS2 (KB/MS)	1		
I/O Interfaces	USB 3.0	2		
	USB 2.0	2		
	Ethernet	2 x RJ-45 with teaming support 1 x PCle GbE by Intel® I217LM 1 x PCle GbE by Intel® I210-AT (2 with 2 kV isolation)		
	COM Port	1 x DB-9 (non-isolated) 4 x RS-232/422/485 (with 2.5 kV isolation)		
	CAN-bus/OBD-II	2 x CAN-bus (with 2.5 kV isolation)		
	Display	1 x VGA, 1 x DVI-D, 1 x HDMI		
	Resolution	VGA: Up to 1920 x 1200 @ 60 Hz HDMI: Up to 2500 x 1600 @ 60 Hz DVI-D: Up to 2500 x 1600 @ 60 Hz		
	Audio	1 x Line-out, 1 x Line-in, 1 x Mic-in		
	Wireless	2 x Antenna SMA hole (reserved)		
Expansions	PCIe Mini	2 x Full size*		
LED Indicator & Button	Indicator	Power (power on: green, power off: orange), storage (red, blinking), IPMI (blue)		
	Power Input	Terminal block: Isolated 24V DC (18~31.2 V DC		
Power	Consumption	100 W (Intel® mobile Core™ i5-4400E with 4 GE DDR3 memory)		
	Mounting	Wall mount		
	Operating Temperature	-15°C ~ 55°C (5°F ~131°F) with air flow (SSD)		
	Storage Temperature	-20°C ~ 60°C (-4°F ~140°F)		
Reliability	Humidity	5% ~ 95%, non-condensing		
	Operating Shock Operating Vibration	IEC 60945 and DNV 2.4 IASC-E10 compliant		
	Weight	4.08 kg / 6.03 kg		
	(Net/Gross) Safety/EMC	EMC/CE/FCC/DNV, IEC 60945 4th, IACS-E10, IEC 61174 compliant		
	0	IP rating: IP22 compliant rear cover Microsoft® Windows® Embedded 8,		
os	Supported OS	Microsoft® Windows® Embedded Standard 7 E		

Dimensions (Unit: mm)



Ordering Information

Part No.	Description		
SBOX-100-QM87i-i5/4G-R10	Fanless marine computer with Intel® Mobile Core™ i5-4400E 2.7 GHz processor, 4 GB DDR3 memory, iRIS-2400 supported, isolated 18 V~36 V DC, R10		
SBOX-100-QM87i-QGW-R10	Fanless marine computer with Intel® Mobile Core™ i5-4400E 2.7GHz Processor, DDR3 8GB, iRIS-2400 supported, with QTS-Gateway, isolated 18~36V DC, RoHs		

Packing List

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Item	P/N	Qty	Description
User manual & driver CD		1	Drivers and user manual
PS/2 cable	32006-000300-100-RS	1	PS/2 cable
Rubber pad & screw pack		1	Rubber pad & screw pack