# Marine Panel PC Series



The maritime field faces critical environmental challenges, making reliable and rugged systems essential. IEI provides maritime professionals and marine-grade computers and panel PCs that use leading technologies and reliable designs which are perfect for applications on the dock, on the open deck, or in the control room or bridge.

- 19" and 24" Fanless Panel PC with 4th Generation Intel® Core™ i5 Dual-core Processor
- -15°C ~ +55°C Wide Temperature and IP66 Protection with Flat-bezel Projected Capacitive Touchscreen
- Excellent Visual Performance
  - · Three independent displays
  - Full OSD function configuration
  - 0%~100% full range dimming
  - 178°/178° wide viewing angles
  - · Optical bonding improves visibility under bright light (optional)
- Isolation Protection
  - RS-232/422/485 isolated serial ports
  - Isolated 18V ~ 36V DC input
  - 2 x Isolated CAN-bus 2.0B
- iRIS Remote Management Module











## Multiple Isolated Ports for Comprehensive Protection against Electrical Surges

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.

2.5 kV Isolation Protection on the RS-232/422/485

IEI marine computer is protected from any stray electrical signals from other devices on the ship. Electric surges that were generated from other electronic devices which often passed through serial lines to the marine computer can cause severe damage and malfunction to the computers.

■ Isolated 18~36V DC Power 2250VDC Input to Output Basic Insulation



■ Two independent CAN 2.0B channels with 2.5 kV Isolation Protection

CAN 2.0B is a kind of marine electronics data network for communication between marine electronic devices such as chart plotters, navigation instruments, GPS receivers, etc.



# **S24A-QM87**

## Intel® Core™ i5 Dual-core Processor



## S19A-QM87

#### Intel® Core™ i5 Dual-core Processor





#### **Features**



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#### • Isolation Protection

- RS-232/422/485 isolated serial ports
- Isolated 18V ~ 36V DC input
- 2 x Isolated CAN-bus 2.0B
- iRIS Remote Management Module







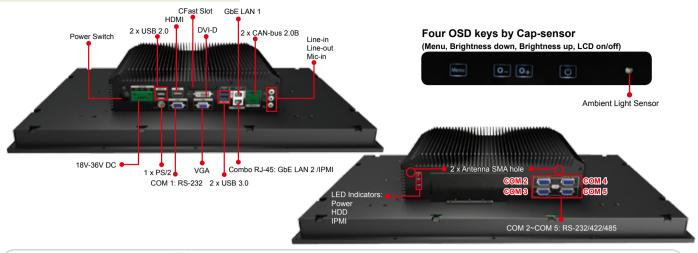


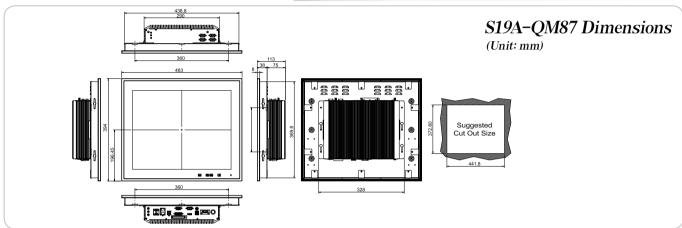


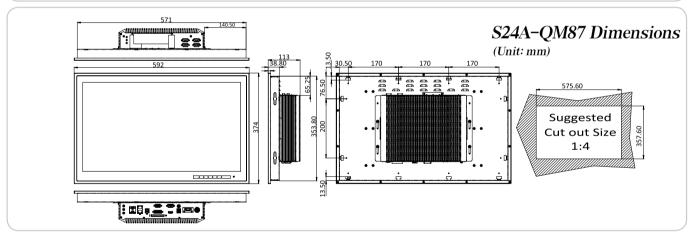


### **Specifications**

Model		Coming Soon	S19A-QM87	New S24A-QM87		
	LCD Size	19"		24"		
	Panel Type	PMVA		AMVA		
	Max. Resolution	1280 x 1024 (5:4)		1920 x 1080 (16:9)		
	Contrast Ratio	2000 : 1		5000 : 1		
LCD	Brightness (cd/m²)	300		300		
	LCD Color	16.7M		16.7M		
	Pixel Pitch (um)	294 x 294		276.75 x 276.75		
	Viewing Angles (H-V)	178° / 178°		178° / 178°		
	Backlight MTBF (HRs)	50000		50000		
Touchscreen & Controller	r		EXC7920 (10-point)	EXC7200 (2-point)		
	SBC Model	SMB-QN		M87-R10		
	Chipset		Intel®	QM87		
System	CPU	Intel® 22nm 4th Generation Mobil		e Core™ i5-4400E 2.7GHz processor		
	RAM	4GB 1600MHz DDR3 SDRAM (2GB*2) Two 204-pin 1600/1333MHz dual-channel DDR3 SDRAM support up to 16GB				
Input Interfaces	I/O Ports & Switch	2 x USB 2.0 1 x Isolated 18V ~ 36V DC 3-pin terminal block 2 x USB 3.0 1 x POwer button 1 x VGA 1 x PS2 (through Y-type cable supporting KB/MS) 2 x CAN-bus 2.0B, 3-pin terminal block (2.5 kv isolation protect 1 x HDMI 1 x DB-9 RS-232 (non-isolated), 1 x Mic-in 4 x DB-9 RS-232/422/485 (2.5 kv isolation protection) 1 x Line-out 2 x RJ-45 GbE LAN with teaming support (2KV isolation protection)				
	Expansion	2 x Full-size PCle Mini slot, 1 x iRIS-2400 slot (iRIS remote management module)				
Ethernet Controller		GbE1: Intel® I217LM with Intel® AMT 9.0 support GbE2: Intel® I210-AT PCIe controller				
Sensor		Ambient light sensor (0% ~ 100%)				
OSD		Menu, E	-	by cap-sensor (Graphic Engine: Genesis STDP6038)		
Storage		2 x 2.5" SSD bay with RAID 0/1 function 1 x Accessible CFast socket				
LED Indicator		Power (power on: green; power off: orange)/storage (red, blinking)/IPMI (blue)				
Power Requirement		Isolated 18V ~ 36V DC, screw-type 3-pin terminal block				
Operating Temperature		-15°C ~ 55°C (5°F ~ 131°F)				
Storage Temperature		-20°C ~ 60°C (-4°F ~ 140°F)				
Humidity		5% to 95% RH				
Thermal Design		Fanless				
Watchdog Timer Certifications		Supports 1~255 sec. system reset  EMC: CE, FCC  Safety: DNV, IEC 60945 4th, IACS-E10, IEC 61174  IP rating: IP66 compliant front panel and IP22 compliant rear cover				
Housing		Front aluminum sheet metal (Black C)				
Cut-out Dimensions (L x W)		442 mm x 373 mm		576 mm x 358 mm		
Dimensions (L x W x H)		463 mm x 394 mm x 113 mm		592 mm x 374 mm x 113 mm		
Net Weight (kg)	,		9.91	13.03		
Gross Weight (kg)		13.38		17.19		
Vibration and Shock		IEC 60945 / DNV 2.4 compliant / IACS-E10				
Power Supply (DC Input)		DC Input ATX Power Supply - P/N: 041D710-00-101-RS - 150W Power Supply - Input: 18~36V DC, 8-4A (max.) - Output (max.): 12V @13A				
Power Consumption		112W		117W		







### **Packing List**

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Item	Q'ty	Remark
S19A-QM87 or S24A-QM87	1	
User Manual & Driver CD	1	Drivers and User Manual
One Key Recovery CD	1	
Screw Pack	1	Including necessary screws
PS/2 Cable	1	Round cable; PS/2 cable
Wire strain band	3	Wire strain band

### **Options**

Item	Part No.	Description	
Devel Messet 16th	PK-S19A-R10	For S19A	
Panel Mount Kit	PK-S24A-R10	For S24A	
Desktop Stand Ceiling Mount Kit	STAND-S24A-R10	For S19A & S24A	
	CEILMT-S24-R10	For S19A/S24A	
iRIS Module	iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SQ-DIMM socket interface	

### **Ordering Information**

P/N	Description
	19" 300cd/m² SXGA marine panel PC with Intel® Mobile
S19A-QM87i-i5/PC/4G-R10	Core™ i5-4400E 2.7GHz CPU, 2*2GB DDR3 RAM, projected
5 19A-QIVI071-13/PC/4G-R 10	capacitive touchscreen, isolated 18-36V DC, iRIS-2400
	supported, R10
	24"300cd/m² FHD marine panel PC with Intel® Mobile
0044 0M07: :E/D0/40 D40	Core™ i5-4400E 2.7GHz CPU, 2*2GB DDR3 RAM, projected
S24A-QM87i-i5/PC/4G-R10	capacitive touchscreen, isolated 18-36V DC, iRIS-2400
	supported, R10





STAND-S24A-R10

CEILMT-S24-R10

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

IEI:

S19A-QM87i-i5/PC/4G-R10 S24A-QM87i-i5/PC/4G-R10