

**Marine Panel PC Series**

Intel® Core™ i5 Dual-core Processor

Intel® Core™ i5***F***D***e***u***a***a***t***l-***u***c***r***o***e***re***s***Processor

(Optional Stand Kit)

* **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**

***Specifications***

S24A-QM87

S19A-QM87

|  |  |  |  |
| --- | --- | --- | --- |
| **Model** | | **S19A-QM87** | **S24A-QM87** |
| LCD | 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 |
| 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 | | EEX3188 (10 point) , 6H | EEX3188 (10 point) , 6H |
| System | SBC Model | SMB-QM87-R10 | |
| Chipset | Intel® QM87 | |
| CPU | Intel® 22nm 4th generation Mobile Core™ i5-4400E 2.7GHz processor | |
| RAM | 4GB 1600MHz DDR3 SDRAM (2GB\*2)  Two 204-pin 1600/1333 MHz 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 3.1 Gen 1 (5Gb/s) 1 x Power button  1 x VGA 1 x PS2 (through Y-type cable supporting KB/MS)  1 x DVI-D 2 x CAN-bus 2.0B, 3-pin terminal block (2.5 kv isolation protection)  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   1. x Line-in (2KV isolation protection) 2. x Antenna SMA hole (reserved) | |
| Expansion | 2 x Full-size PCIe 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, brightness down, brightness up, LCD on/off by cap-sensor (graphics 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 24V DC (18~31.2 V 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 | | Supports 1~255 sec. system reset | |
| Certifications | | 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: 24V DC, 8-4A (max.) * Output (max.): 12V @13A | |
| Power Consumption | | 112W | 117W |

# *Ordering Information*

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| --- | --- |
| P/N | Description |
| S19A-QM87i-i5/PC/4G-R11 | 19” 300cd/m² SXGA marine panel PC with Intel® Mobile Core™ i5-4400E 2.7GHz CPU, 2\*2GB DDR3 RAM, projected capacitive  touch screen, isolated 18-36V DC, iRIS-2400 supported, R11 |
| S24A-QM87i-i5/PC/4G-R11 | 24” 300cd/m² FHD marine panel PC with Intel® Mobile Core™ i5-4400E 2.7GHz CPU, 2\*2GB DDR3 RAM, projected capacitive  touch screen, isolated 18-36V DC, iRIS-2400 supported, R11 |

***Options***

|  |  |  |
| --- | --- | --- |
| Item | Part No. | Description |
| Panel Mount Kit | PK-S19A-R10 | For S19A |
| PK-S24A-R10 | For S24A |
| Desktop Stand | STAND-S24A-R10 | For S19A & S24A |
| Ceiling Mount Kit | CEILMT-S24-R10 | For S19A/S24A |
| HDMI Lockable Kit | HDMI-LK-R10 | Universal HDMI Locking Adapter |
| iRIS Module | iRIS-2400-R10 | IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface |

***Packing List***

|  |  |  |
| --- | --- | --- |
| Item | Q’ty | Remark |
| S19A-QM87 or S24A-QM87 | 1 |  |
| Screw Pack | 1 | Including necessary screws |
| PS/2 Cable | 1 | Round cable; PS/2 cable |
| Wire Strain Band | 3 | Wire strain band |



STAND-S24A-R10 CEILMT-S24-R10

CFast Slot HDMI



GbE LAN 1

Power Switch

24V DC

2 x USB 2.0

1 x PS/2

DVI-D

VGA

2 x CAN-bus 2.0B

Line-in

Line-out Mic-in

Combo RJ-45: GbE LAN 2 /IPMI

COM 1: RS-232 2 x USB 3.1 Gen 1 (5Gb/s)

***Display System***



**Four OSD Keys by Cap-sensor**

**(Menu, Brightness down, Brightness up, LCD on/off)**



Ambient Light Sensor

LED Indicators: Power

HDD IPMI

2 x Antenna SMA hole

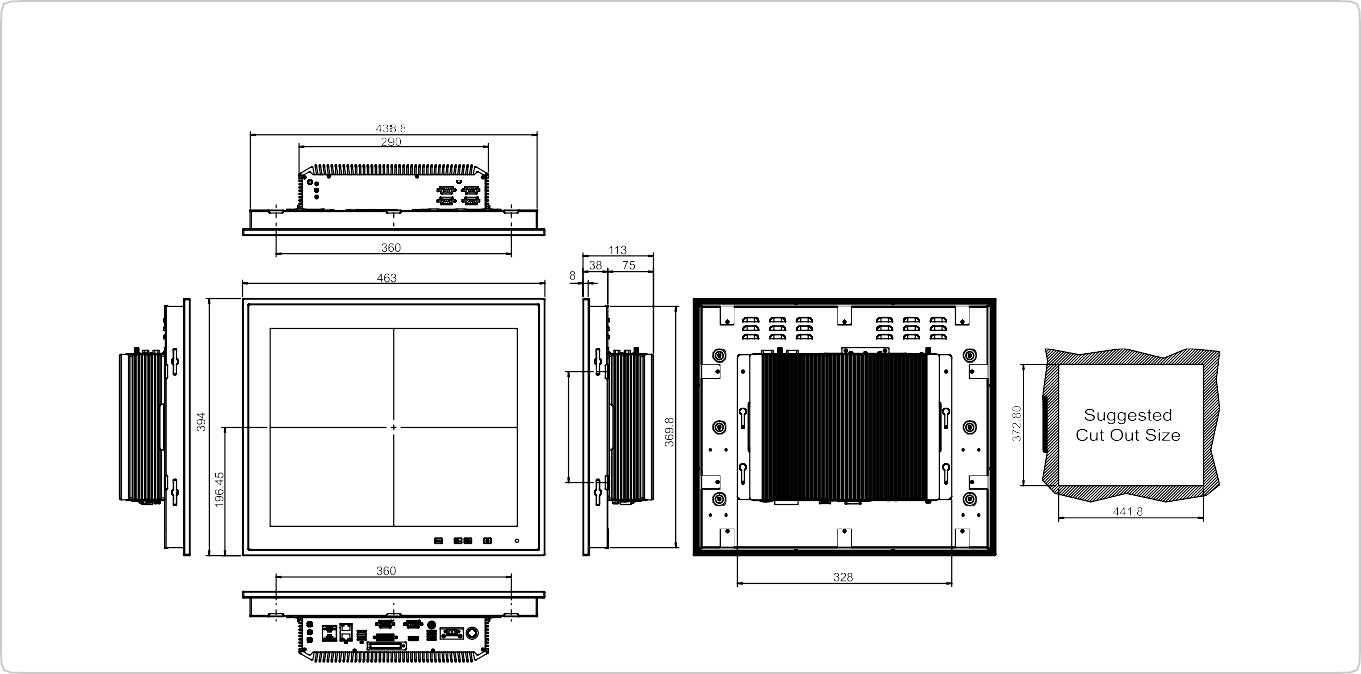
**COM 2**

**COM 3**

**COM 4**

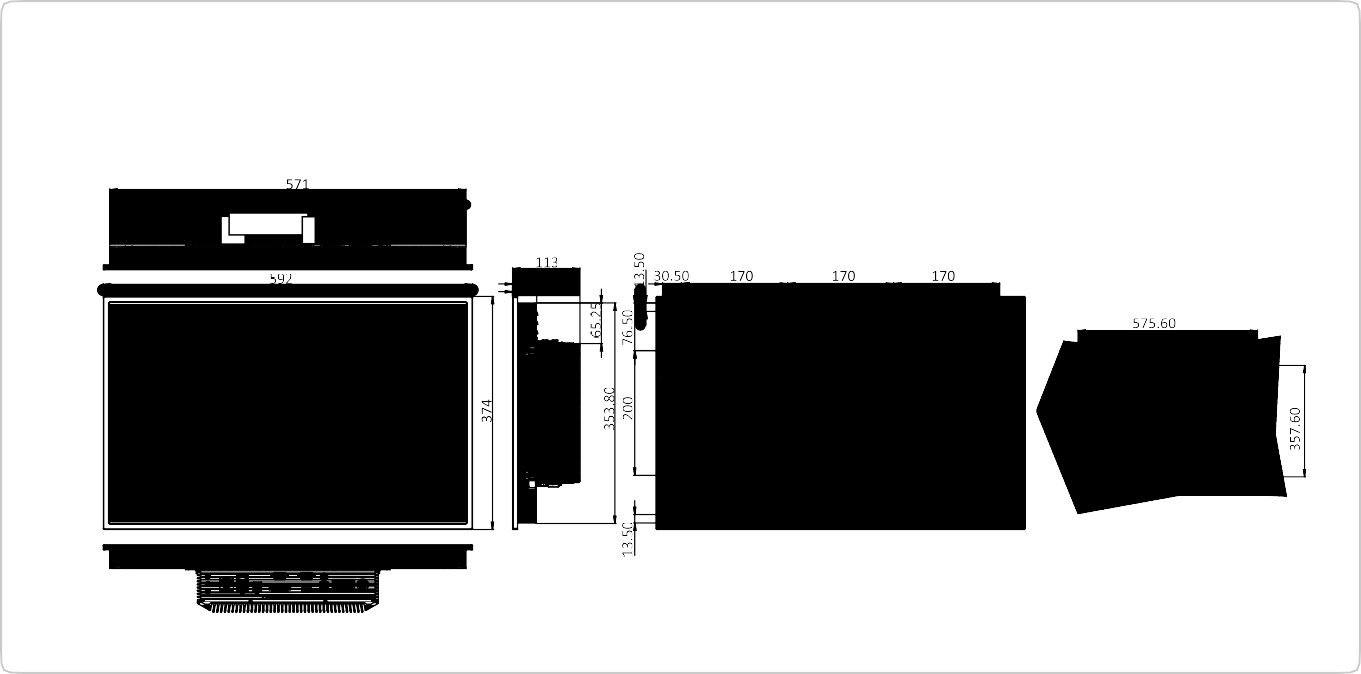
**COM 5**

COM 2~COM 5: RS-232/422/485



***S19A-QM87 Dimensions***

***(Unit: mm)***



***S24A-QM87 Dimensions***

***(Unit: mm)***