



SONOVE M2 Maritime Panel PC



- ✓ Designed for Maritime Automation and Navigation
- ✓ Display Sizes: 27", 24", 24" HB, 18.5", 18.5" HB
- ✓ With or without PCAP Multi-Touch
- ✓ Full Range Dimming (0 .. 100%)
- ✓ Additional I/O and COM Ports for Remote Control
- ✓ ECDIS Compliant / Calibrated for your ECDIS Applications
- ✓ CPU: Up to 11th Generation
- ✓ „Made in Germany“
- ✓ Type Approval: DNV, tested according to EN 60945
EU-RO-MR



Display

M2-PPC-27	27 inch, 1920 x 1080, 16:9, 300 cd/m ²
M2-PPC-24	24 inch, 1920 x 1080, 16:9, 300 cd/m ²
M2-PPC-24HB	24 inch, High Bright, 1920 x 1080, 16:9, 1000 cd/m ²
M2-PPC-18.5	18.5 inch, 1920 x 1080, 16:9, 300 cd/m ²
M2-PPC-18.5HB	18.5 inch, High Bright 1920 x 1080, 16:9, 1000 cd/m ²

Performance

CPU	Up to 11th Generation Intel® Core™ Processors
Memory	Up to 64 GB RAM
Storage	Up to 2 x 2 TB (RAID)
Graphics	Up to Intel® Iris® Xe Graphics

Technical Data M2-PPC

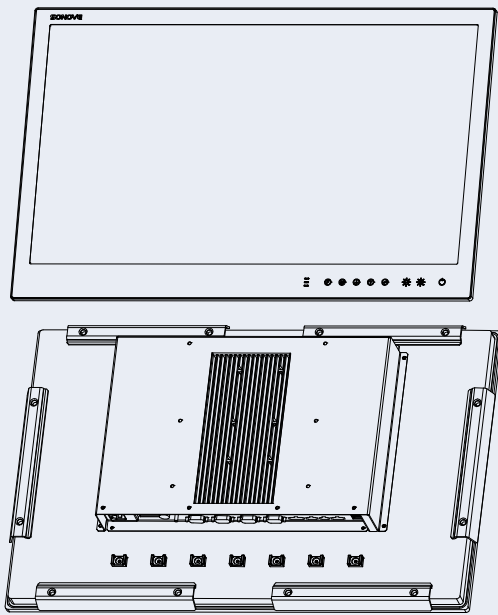
System	Processor	6th Generation Intel® Core™ Processors Intel® Core™ i7-6600U, Dual Core, 4M Cache, 2.60 GHz up to 3.40 GHz Intel® Core™ i5-6300U, Dual Core, 3M Cache, 2.40 GHz up to 3.00 GHz		7th Generation Intel® Core™ Processors Intel® Core™ i7-7600U, 2 Cores, 4M Cache, 2.80 GHz up to 3.90 GHz Intel® Core™ i5-7300U, 2 Cores, 3M Cache, 2.60 GHz up to 3.50 GHz Intel® Core™ i3-7100U, 2 Cores, 3M Cache, 2.40 GHz Intel® Celeron® 3965U, 2 Cores, 2M Cache, 2.20 GHz		11th Generation Intel® Core™ Processors Intel® Core™ i7-1185GRE, 4 Cores, 12M Cache, 1.80 GHz up to 4.40 GHz Intel® Core™ i5-1145GRE, 4 Cores, 8M Cache, 1.50 GHz up to 4.10 GHz	
	Memory	Up to 16GB, Dual Channel DDR3L 1600MHz		Up to 32GB, Dual Channel DDR4 1866/2133MHz		Up to 64GB, Dual Channel DDR4 up to 3200MHz	
	Storage	1 x mSATA SSD up to 1TB 2 x SSD up to 2TB RAID 0/1/5		1 x M.2 SSD up to 1TB or SATA3.0/PCIe Gen3 x2 NVMe 2 x SSD up to 2TB RAID 0/1/5		1 x M.2 SSD up to 1TB or SATA3.0/PCIe Gen3 x4 NVMe 2 x SSD up to 2TB RAID 0/1/5	
Graphics	Controller	Intel® HD Graphics 520		Intel® HD Graphics GT Series		Intel® Iris® Xe Graphics for i7/i5 Processors	
	Feature	OpenGL 4.4, DirectX 12, OpenCL 2.1 HW Decode: AVC/H264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8/9 HW Encode: AVC/H.264, MPEG2, JPEG, HEVC/H265, VP8, VP9		OpenGL 4.4, DirectX 12, OpenCL 2.1 HW Decode: AVC/H264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: AVC/H.264, MPEG2, JPEG, HEVC/H265, VP8, VP9		OpenGL 4.5, DirectX 12, OpenCL 2.1 HW Decode: WMV9, AVC/H264, JPEG/MJPEG, HEVC/H265, VP9, AV1 HW Encode: AVC/H264, JPEG, HEVC/H265, VP9	
	Displays	Triple Displays; Internal Display + 1 x DP + 1 x DP++		Triple Displays; Internal Display + 2 x DP++		Triple Displays; Internal Display + 1 x HDMI + 1 x DP++	
Expansion	Interface	1 x PCIe x4 (Gen3) Low Profile		1 x PCIe x4 (Gen 3) Low Profile		1 x PCIe x4 (Gen3 x4) Low Profile	
Rear I/O	Ethernet	2 x GbE (RJ-45)	Optional up to 6 x GbE	2 x GbE (RJ-45)	Optional up to 6 x GbE	3 x GbE (RJ-45)	Optional up to 7 x GbE
	USB	4 x USB 3.0	Optional up to 8 x USB	4 x USB 3.0	Optional up to 8 x USB	4 x USB 3.1 Gen2 (Type-A) 1 x USB 4.0 Type-C (Thunderbolt 3) (Support USB 3.1 Gen2, DP 1.4)	Optional up to 9 x USB
	Display	1 x DP, 1 x DP++		2 x DP++		1 x DP++, 1 x HDMI	
	Audio	1 x Line-out, 1 x Mic-in		1 x Line-out, 1 x Mic-in			Optional 1 x Line-out, 1 x Mic-in
	Serial		Optional up to 4 x COM (RS232, RS422/485)		Optional up to 4 x COM (RS232, RS422/485)		Optional up to 4 x COM (RS232, RS422/485)
Optional (M2 CB)	Controller	M2 Controller Board		M2 Controller Board		M2 Controller Board	
	Feature	1 x Internal Alarm-Buzzer 1 x Out for ext. Alarm-Buzzer 1 x Potentiometer In, 2 x Push Button In 2 x Out for Status LED		1 x Internal Alarm-Buzzer 1 x Out for ext. Alarm-Buzzer 1 x Potentiometer In, 2 x Push Button In 2 x Out for Status LED		1 x Internal Alarm-Buzzer 1 x Out for ext. Alarm-Buzzer 1 x Potentiometer In, 2 x Push Button In 2 x Out for Status LED	
Watchdog Timer	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds		System Reset, Programmable via Software from 1 to 255 Seconds		System Reset, Programmable via Software from 1 to 255 Seconds	
Security	TPM	dTPM 2.0 (available upon request)		TPM 2.0 (Opt.)		dTPM 2.0/ftPM (Opt.)	
Power Options	DC	24 VDC		24 VDC		24 VDC	
	AC	230/115 VAC (50/60Hz)		230/115 VAC (50/60Hz)		230/115 VAC (50/60Hz)	
	DCAC	24 VDC + 230/115 VAC (redundant)		24 VDC + 230/115 VAC (redundant)		24 VDC + 230/115 VAC (redundant)	
OS Support		Windows 7 Windows 8.1 Windows 10 Linux		Windows 10 Linux		Windows 10 Linux	
Environment	Operating Temp.	-15 to +55°C		-15 to +55°C		-15 to +55°C	
	Storage Temp.	-20 to +70°C		-20 to +70°C		-20 to +70°C	
	IP Rating	IP66 (front) - IP20 (rear)		IP66 (front) - IP20 (rear)		IP66 (front) - IP20 (rear)	
Type Approval		DNV, tested according to EN 60945 EU-RO-MR		DNV, tested according to EN 60945 EU-RO-MR		DNV, tested according to EN 60945 EU-RO-MR	

Options and additional features are configurable. Contact your Sonove sales representative for further information.
Depending on the product configuration, interfaces or slot brackets may differ from the figures in this document.

Mounting Options

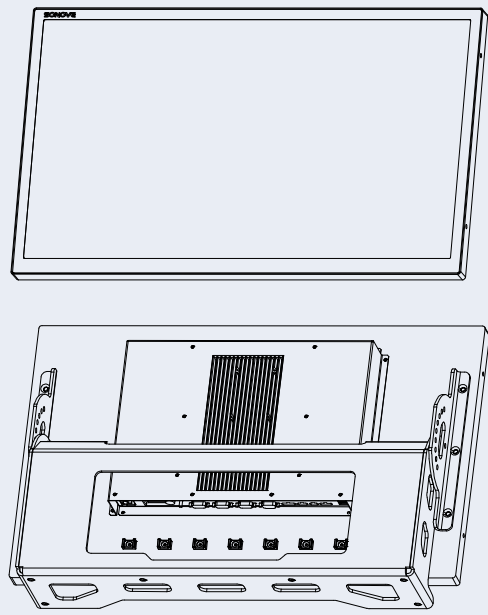
Flush Mount (FM)

- ✓ Flush Mounting with Console Mounting Kit
- ✓ Capacitive Front Keys, Power On/Off and Dimming
Optional Multi-Color Status LEDs
- ✓ Capacitive Multi-Touch or Antireflex Glass
- ✓ M2 Control Interface

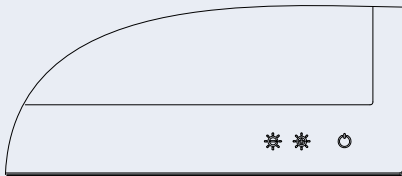


Desktop, Wall, Ceiling

- ✓ Desk, Wall, Ceiling Mounting with Mounting Bracket
- ✓ Thin Frame without any Front Keys and LEDs
(Backside Keys and LED)
- ✓ Capacitive Multi-Touch or Antireflex Glass
- ✓ M2 Control Interface



M2 Front Keys and LEDs

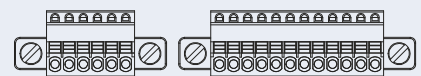


- ✓ Capacitive Front Keys, Power On/Off with Status LED
- ✓ Capacitive Front Keys for Dimming
- ✓ All Keys with Backlight (dimnable)
- ✓ Multi-Color Status LEDs (optional)

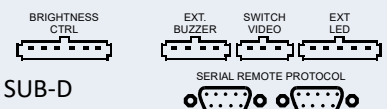
M2 Remote Control Interface

- ✓ RS 232/485/422 for Remote Control
- ✓ Dig. IN for Dimming Keys (+/-) and Potentiometer IN
- ✓ Dig. IN for Video Source Select
- ✓ Buzzer Control IN and Relais OUT for External Buzzer
- ✓ Analog OUT for Multi-Color Status LED

- ✓ Screwless
Cable Entry Plugs



- ✓ Alternatively
SMP Connectors and SUB-D



Examples of M2 Panel PC standard systems with order information

M2 Panel PC, 18.5 inch		
M2-PPC-18.5 DT GL i7(S) DCAC	463.053.yyyy	M2 Panel PC, 18.5 inch, Redundant 24VDC and 115/230VAC, Intel® Core™ i7-6600U, 2.60 GHz, 8 GB RAM, 128 GB SSD, Windows® 10 IoT Ent.
M2-PPC-18.5 FM CT i5(K) DC	468.022.yyyy	M2 Panel PC, 18.5 inch, Flush Mount, Capacitive Multi Touch, 24VDC, Intel® Core™ i5-7300U, 2.60 GHz, 8 GB RAM, 128 GB SSD, Windows® 10 IoT Ent.
M2 Panel PC, 18.5 inch, High Bright		
M2-PPC-18.5HB DT GL i7(S) DCAC	463.153.yyyy	M2 Panel PC, 18.5 inch, High Bright, Redundant 24VDC and 115/230VAC, Intel® Core™ i7-6600U, 2.60 GHz, 8 GB RAM, 128 GB SSD, Windows® 10 IoT Ent.
M2-PPC-18.5HB FM CT i5(K) DC	468.122.yyyy	M2 Panel PC, 18.5 inch, High Bright, Flush Mount, Capacitive Multi Touch, 24VDC, Intel® Core™ i5-7300U, 2.60 GHz, 8 GB RAM, 128 GB SSD, Windows® 10 IoT Ent.
M2 Panel PC, 24 inch		
M2-PPC-24 DT GL i5(S) DCAC	482.033.yyyy	M2 Panel PC, 24 inch, Redundant 24VDC and 115/230VAC, Intel® Core™ i5-6300U, 2.40 GHz, 8 GB RAM, 128 GB SSD, Windows® 7
M2-PPC-24 FM CT i7(K) AC	488.011.yyyy	M2 Panel PC, 24 inch, Flush Mount, Capacitive Multi-Touch, 115/230VAC, Intel® Core™ i7-7600U, 2.80 GHz, 16 GB RAM, 256 GB SSD, Windows® 10 IoT Ent.
M2 Panel PC, 24 inch, High Bright		
M2-PPC-24HB DT CT i5(K) DC	487.122.yyyy	M2 Panel PC, 24 inch, High Bright, Capacitive Multi-Touch, 24VDC Intel® Core™ i5-7300U, 2.60 GHz, 16 GB RAM, 256 GB SSD, Windows® 10 IoT Ent.
M2-PPC-24HB FM GL i7(K) DCAC	483.113.yyyy	M2 Panel PC, 24 inch, High Bright, Flush Mount, Redundant 24VDC + 115/230VAC, Intel® Core™ i7-7600U, 2.80 GHz, 16 GB RAM, 256 GB SSD, Windows® 10 IoT Ent.
M2 Panel PC, 27 inch		
M2-PPC-27 DT GL i7(K) DCAC	491.013.yyyy	M2 Panel PC, 27 inch, Redundant 24VDC and 115/230VAC, Intel® Core™ i7-7600U, 2.80 GHz, 16 GB RAM, 256 GB SSD, Windows® 10 IoT Ent.
M2-PPC-27 FM CT i5(K) AC	497.021.yyyy	M2 Panel PC, 27 inch, Flush Mount, Capacitive Multi Touch, 115/230VAC, Intel® Core™ i5-7300U, 2.60 GHz, 8 GB RAM, 128 GB SSD, Windows® 10 IoT Ent.

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