



SONOVE M2

Maritime Panel PC

Classic Series





- ✓ Designed for Maritime Applications
- ✓ Display Sizes: 19", 17", 15"
- ✓ Resistive Touch or Antireflex Glass
- ✓ Full Range Dimming (0 .. 100%)
- ✓ Fanless Cooling System
- ✓ Interfaces: Optional up to 7 x GbE
- ✓ CPU: Up to 11th Generation
- ✓ „Made in Germany“
- ✓ Type Approval: DNV, tested according to EN 60945
EU-RO-MR

Display

M2C-PPC-19	19 inch, 1280 x 1024, 5:4, 300 cd/m ²
M2C-PPC-17	17 inch, 1280 x 1024, 5:4, 300 cd/m ²
M2C-PPC-15	15 inch, 1024 x 768, 4:3, 350 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 M2C-PPC

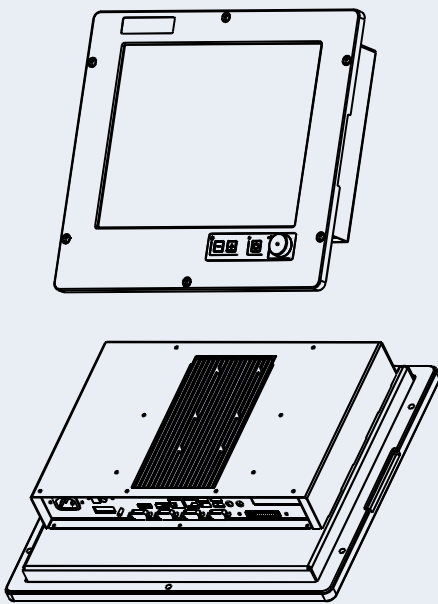
System	Processor	6th Generation Intel® Core™ Processors		7th Generation Intel® Core™ Processors		11th Generation Intel® Core™ Processors	
		Intel® Core™ i7-6600U, Dual Core, 4M Cache, 2.60 GHz up to 3.40 GHz Intel® Core™ i5-6300U, Dual Core, 3M Cache, 2.40 GHz up to 3.00 GHz		Intel® Core™ i7-7600U, 2 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		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	
Graphics	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	
	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	
Expansion	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++	
	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						
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/TPM (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

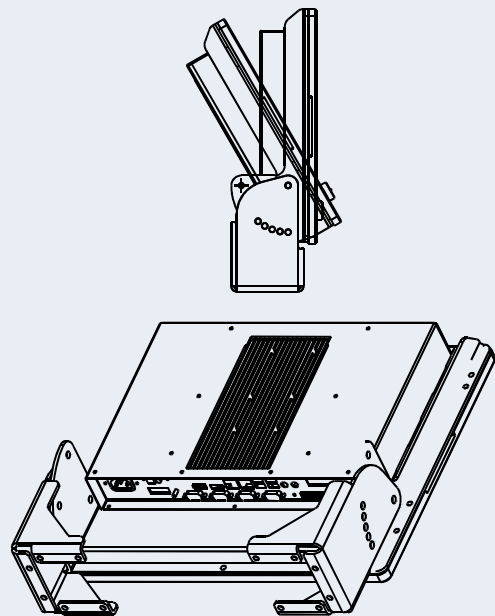
Flush Mount

- ✓ Flush Mounting with Console Mounting Kit
- ✓ Front Keys, Power On/Off and Dimming
Multi-Color Status LEDs
- ✓ Resistive Touch or Antireflex Glass
- ✓ M2C Control Interface

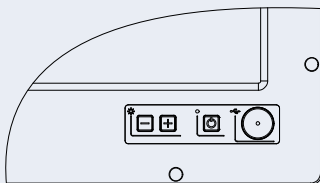


Desktop, Wall, Ceiling

- ✓ Desk, Wall, Ceiling Mounting with Mounting Bracket



M2C Front Keys and LEDs

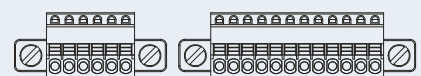


- ✓ Front Keys, Power On/Off with Status LED
- ✓ Front Keys for Dimming
- ✓ 2 x USB 2.0, Protected by Screw Cap (optional)
- ✓ All Keys with Backlight (dimmable)
- ✓ Multi-Color Status LEDs (Software API available)

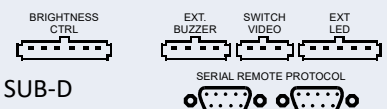
M2C Remote Control Interface

- ✓ 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





SONOVE M2 Classic Series Your Panel PC for Maritime Applications

Examples of M2C Panel PC standard systems with order information

M2C Panel PC, 15 inch		
M2C-PPC-15 RT i5(K) DCAC	446.023.yyyy	Panel PC Classic, 15 inch, Resistive Touch, CPU Intel® Core™ i5-7300U, 8 GB RAM, 128 GB SSD, Redundant 24VDC and 115/230VAC, Windows® 10 IoT Ent.
M2C-PPC-15 GL i5(TG) DC	441.072.yyyy	Panel PC Classic, 15 inch, CPU Intel® Core™ i5-1145GRE, 8 GB RAM, 1920 GB M.2-PCIe SSD, 24VDC, Windows® 10 IoT Ent.
M2C-PPC-15 RT i7(K) AC	446.011.yyyy	Panel PC Classic, 15 inch, Resistive Touch, CPU Intel® Core™ i7-7600U, 16 GB RAM, 512 GB SSD, 115/230VAC, Windows® 10 IoT Ent.

M2C Panel PC, 17 inch		
M2C-PPC-17 RT i7(S) AC	456.051.yyyy	Panel PC Classic, 17 inch, Resistive Touch, CPU Intel® Core™ i7-6600U, 8 GB RAM, 128 GB mSATA SSD, 115/230VAC, Windows® 7 Pro.
M2C-PPC-17 GL Cel(K) DC	451.042.yyyy	Panel PC Classic, 17 inch, CPU Intel® Celeron 3965U, 16 GB RAM, 512 GB M.2-SATA SSD, 24VDC, Windows® 10 IoT Ent.

M2C Panel PC, 19 inch		
M2C-PPC-19 GL i3(K) AC	461.061.yyyy	Panel PC Classic, 19 inch, CPU Intel® Core™ i3-7100U, 8 GB RAM, 128 M.2-SATA SSD, 115/230VAC, Windows® 10 IoT Ent.
M2C-PPC-19 RT i5(S) DCAC	466.033.yyyy	Panel PC Classic, 19 inch, Resistive Touch, CPU Intel® Core™ i5-6300U, 8 GB RAM, 256 GB SSD, Redundant 24VDC and 115/230VAC, Windows® 10 IoT Ent.
M2C-PPC-19 RT i7(TG) DCAC	466.083.yyyy	Panel PC Classic, 19 inch, Resistive Touch, CPU Intel® Core™ i7-1185GRE, 32 GB RAM, 960 GB M.2-PCIe SSD, Redundant 24VDC and 115/230VAC, Windows® 10 IoT Ent.

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