



SONOVE M2
Maritime PC Box





- ✓ Designed for Maritime Applications
- ✓ Box Sizes: M, L
- ✓ Serial: Optional up to 4 x COM (RS232, RS422/485)
- ✓ USB: Optional up to 9 x USB
- ✓ CPU: Up to 11th Generation
- ✓ „Made in Germany“
- ✓ Type Approval: DNV, Tested according to EN 60945
EU-RO-MR⁽¹⁾

Sizes

M2-PC Box M ⁽¹⁾	317 x 253 x 58 mm (Length x Width x Height)
M2-PC Box L ⁽¹⁾	390 x 253 x 58 mm (Length x Width x Height)

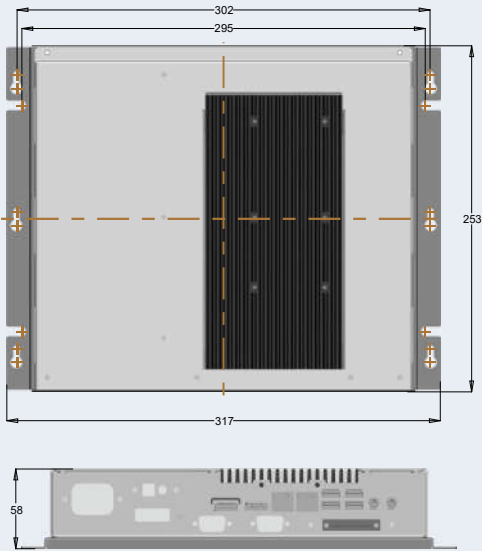
Performance

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

⁽¹⁾ expected Q1/2023

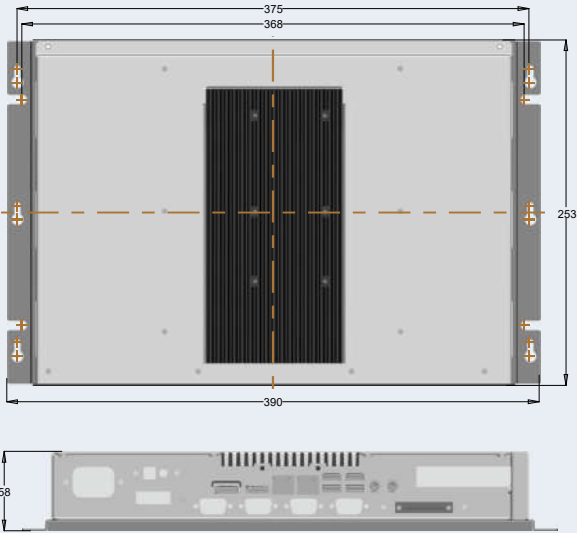
Mounting Options

Size: M



- ✓ 317 x 253 x 58 mm (Length x Width x Height)
- ✓ Black, RAL 9005 powder coated
- ✓ 6 adjustable holes

Size: L

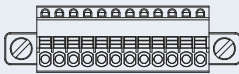


- ✓ 390 x 253 x 58 mm (Length x Width x Height)
- ✓ Black, RAL 9005 powder coated
- ✓ 6 adjustable holes
- ✓ 1 x PCIe slot (low profile)

M2 PC Remote Control Interface

- ✓ RS 232/485/422 for Remote Control
- ✓ Internal Buzzer
- ✓ Buzzer Control IN and Relais OUT for External Buzzer
- ✓ Analog OUT for Multi-Color Status LED

- ✓ Screwless Cable Entry Plug



Technical Data M2-PC Box

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, 4M 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, 4M Cache, 2.60 GHz up to 3.50 GHz Intel® Core™ i3-7100U, 2 Cores, 4M 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, 8M 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	IP20		IP20		IP20	
Type Approval		DNV, Tested according to EN 60945 EU-RO-MR ⁽¹⁾		DNV, Tested according to EN 60945 EU-RO-MR ⁽¹⁾		DNV, Tested according to EN 60945 EU-RO-MR ⁽¹⁾	

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.

Examples of M2 PC Box standard systems with order information

M2-PC Box L

M2-PC-L i7(K) DC	415.012.yyyy	PC Box, Intel® Core™ i7-7600U, 8 GB RAM, 128 GB SSD, 24VDC, Windows® 10 IoT Enterprise
M2-PC-L i5(K) AC	415.021.yyyy	PC Box, Intel® Core™ i5-7300U, 16 GB RAM, 2 x 512 GB SSD, 115/230VAC, Windows® 10 IoT Enterprise
M2-PC-L i5(S) DCAC	415.033.yyyy	PC Box, Intel® Core™ i5-6300U, 32 GB RAM, 128 GB SSD, Redundant 24VDC and 115/230VAC, Windows® 7 Professional for Embedded Systems

M2-PC Box M

M2-PC-M i7(K) DC	416.012.yyyy	PC Box, Intel® Core™ i7-7600U, 16 GB RAM, 512 GB SSD, 24VDC, Windows® 10 IoT Enterprise
M2-PC-M i5(K) AC	416.021.yyyy	PC Box, Intel® Core™ i5-7300U, 8 GB RAM, 128 GB SSD, 115/230VAC, Windows® 10 IoT Enterprise
M2-PC-M i5(K) DCAC	416.023.yyyy	PC Box, Intel® Core™ i5-7300U, 8 GB RAM, 128 GB SSD, Redundant 24VDC and 115/230VAC, Windows® 10 IoT Enterprise

Sonove GmbH
Hindelanger Str. 33
87527 Sonthofen
Germany

Phone +49 8321 67466 200
Fax +49 8321 67466 199
Mail marine@sonove.com
Web www.sonove.com

