AHD-WNA
Internet Access to Böning Systems



- *Compact PC with a closed operating system and integrated user software*
- *Remote access for visualizing ship data or controlling selected functions via the Internet*
- *SSD hard drive and passive cooling system (no moving parts)*
- *DVI-I output (1920x1080 pixels)*
- *2 x LAN (ship network and optional customer network)*
- *4 x USB 2.0, 1 x RS232 (serial COM1)*
- *2 x digital inputs (optional external shutdown)*
- *2 x digital outputs (optional)*
- *Internal battery pack ensures backup operation for approx. 10 min*
- *Remote maintenance option for analysis and software updates*
- *Secure data transmission via AES256 encryption*

Overview

AHD-WNL is a black-box PC with a closed operating system that provides secure and fast Internet access to the Böning AMCS installed on board the vessel. It allows users to read ship data or trigger approved control functions.

To access the system, the user only needs an Internet browser; the display is identical to the onboard visualization. The familiar visualization interface can be operated as usual.

Control functions are also triggered via the graphical user interface, provided they have been enabled on the ship. All approved functions must be defined on a customer-specific basis and preconfigured accordingly. For safety reasons, critical functions, such as starting and stopping the engines, cannot generally be executed by the user.

With full integration (installation requiring a few additional cables and adapters), AHD-WNA gains access to all connected devices of the Böning AMCS, which opens up the additional option of convenient remote maintenance via the Internet.

This makes it easy to modify or update operating software, stored configurations, and display visualizations on the AHD-DPU 9 central processing units and the AHD-12xx displays.

Data Security

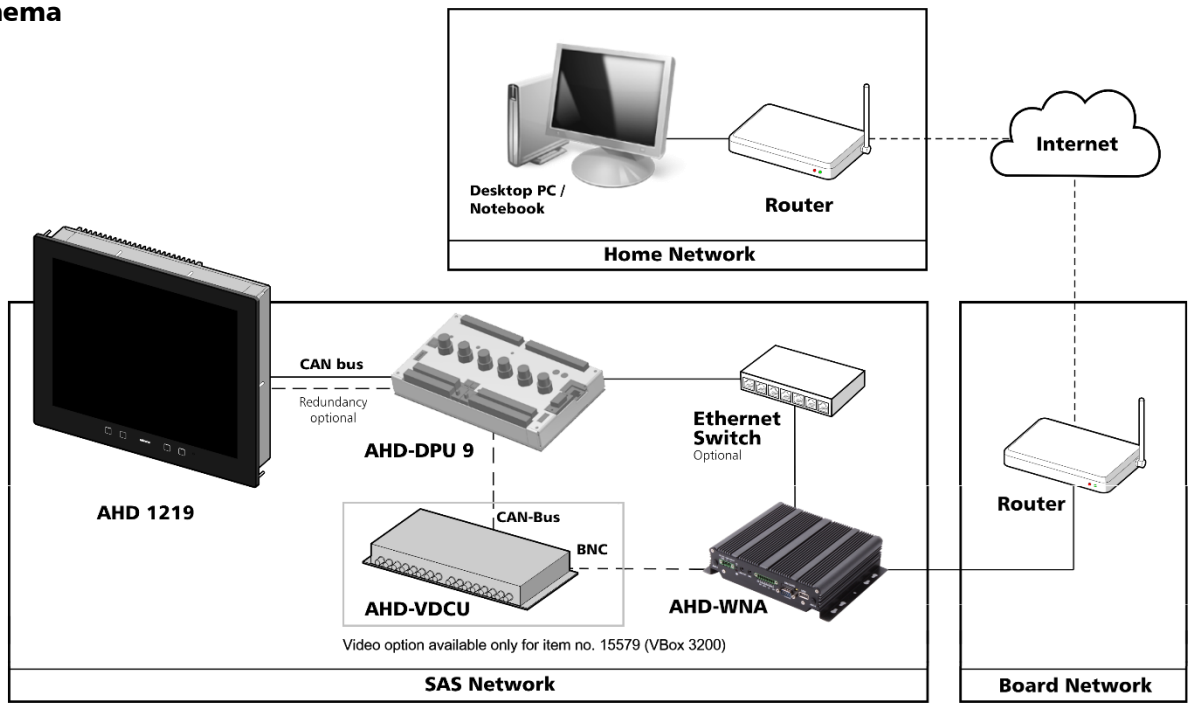
Internet access to the AHD-WNA unit is secured in multiple ways; the combination of a password and AES-256 encryption provides comprehensive protection against unauthorized access by third parties.

For smooth visualization and operation, an Internet connection provided by the operator with a data transfer rate of at least 3G is required. The connection between the AHD-WNA and the user is established via a VPN service provider.

Retrofitting

All existing Böning AMCS systems can be easily retrofitted with the AHD-WNA (please inquire).

Schema



Visualization Examplesisualization Examples

Menu Page (16:9)



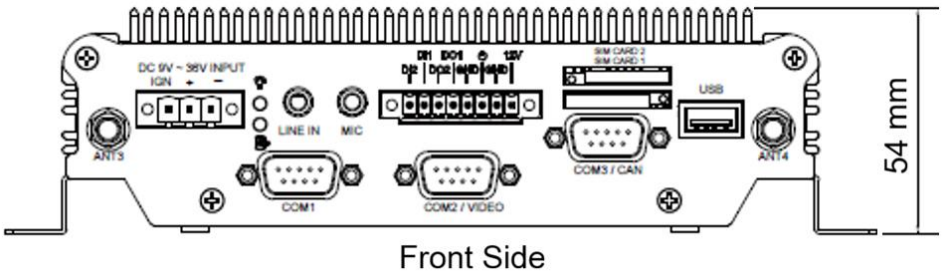
Engine Page (16:9)



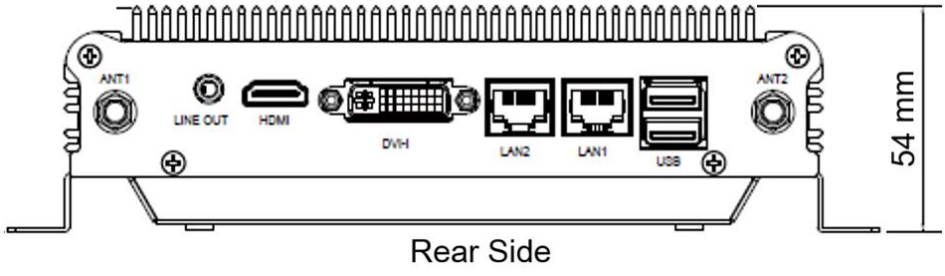
Tank Page (4:3)



AHD-WNL (Front and Rear Views)

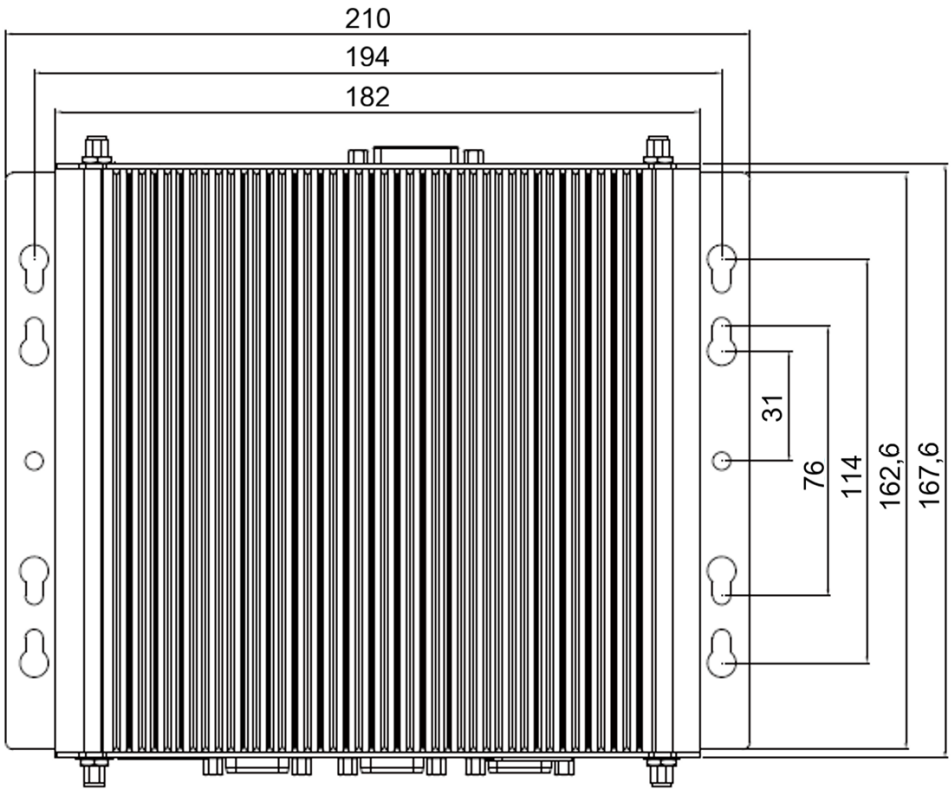


Front Side



Rear Side

AHD-WNL (Top View and Dimensions)



Dimensions in mm

AHD-WNL Technical Data

Power supply:	9...36 V DC
Current consumption:	Max. 60 W at 24 V DC
Operating temperature:	-20°C to 70°C
Storage temperature:	-30°C...85°C
Weight:	approx. 1.4 kg
Protection class:	IP 20
External dimensions:	182 x 168 x 52 mm
Interfaces:	DVI-I output (1920x1080 pixels) 2 x Ethernet 4 x USB 2.0, 1 x RS232 (serial COM1 adapter)
Inputs / Outputs:	2 x digital inputs (shutdown option) 2 x digital out (option)
Mounting type:	Wall mounting
	Internal battery pack (UPS runtime = approx. 10 min)
Item No.	24517 (AHD-WNA preconfigured, with UPS)