

Maritime Solutions



Easy Monitoring and Control



Avitech solutions provide an intuitive marine video and keyboard/mouse operation solution that can effectively centralize display of all necessary information for monitoring and control.

Pacific MS Overview



The Pacific MS is a modular matrix switcher system that enables switching, monitoring, and operation of up to 32 computers and video signals. The Pacific MS can centralize control and monitoring of navigation, radar, and other systems on 4K UHD displays. It offers non-compressed high-speed video routing, flexible KVM switching, and multiviewing capabilities through various input/output card combinations. Tested to IEC-60945 specifications for vibration, humidity, and temperature.

Pacific MS Graphical User Interface (GUI)

The screenshot displays the Pacific MS GUI interface, which is divided into several functional areas:

- Top Left:** A map showing the source signal and direct control of a computing device. It includes geographical markers like Cape Dezhneva, Cape Lowenstern, and Point Spencer.
- Top Right:** A radar-like display showing the source signal and direct control of a computing device, with associated technical data such as ALTITUDE, SCREEN RESERVE, and SUPPLY SPEED.
- Middle Left:** Detailed signal information with signal type, resolution, color space, and audio channel.
- Middle Right:** Output control menu with output port icons and auto detection of display connection indicator and label.
- Bottom Left:** Input control menu with auto detection of installed cards and port video/audio/KM signal status indicators with port label.
- Bottom Right:** System-related settings including time/date setup, EDID detection, and other system-related settings.
- Bottom Center:** A navigation bar for system management, including options for System1, System2, System3, PC, SSB Label, KVM Assign, Multiple Layout, Workstation, Power, User Accounts, Wake On Lan, Third party, and System.

Callouts from the surrounding text point to these specific features:

- Real time preview of source signal and direct control of a computing device (pointing to the map and radar views).
- Detailed signal information with signal type, resolution, color space, and audio channel (pointing to the signal data panel).
- Input control menu with auto detection of installed cards and port video/audio/KM signal status indicators with port label (pointing to the input port grid).
- Output control menu with output port icons and auto detection of display connection indicator and label (pointing to the output port grid).
- Multiple systems and a local PC can work in tandem (pointing to the System1-3 icons).
- Edit input and output port labels (pointing to the port icons).
- Keyboard/mouse port assignment (pointing to the KVM Assign icon).
- Dual and quad display layout (pointing to the Multiple Layout icon).
- Create user workstations (pointing to the Workstation icon).
- Salvo setup and scheduling (pointing to the Power icon).
- User account setup and authorization (pointing to the User Accounts icon).
- Computing device wake up on-LAN (pointing to the Wake On Lan icon).
- Third party device connection and setup (pointing to the Third party icon).
- Time/date setup, EDID detection, and other system-related settings (pointing to the System icon).

Pacific MS Modular Cards

Control Board card with in-system GUI from the HDMI output port

Input cards with HDMI, DVI-I, HDBaseT, BNC input ports

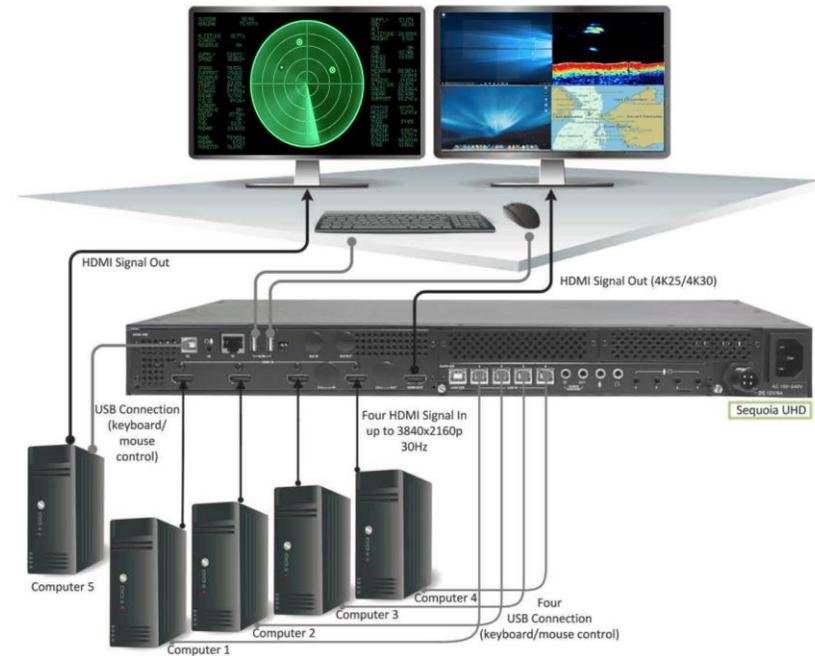


Output cards with quad multiview HDMI, dual multiview HDMI, and single view HDMI and HDBaseT output ports

Keyboard Mouse cards with USB B-type input ports

Sequoia UHD Overview

The Sequoia UHD consists of a 1RU chassis with optional modular cards for KVM, 4K multi-touch, and video wall applications. The basic main board (MB) provides one 4K multiview output for up to four 4K30 4:4:4 HDMI source inputs. By adding a keyboard mouse (KM) card, which has four USB and audio inputs, the Sequoia UHD becomes a multiviewer with an integrated KVM switcher and audio mixer. Tested to IEC-60945 specifications for vibration, humidity, and temperature.



Sequoia 4H Overview

For a smaller vessel looking for an easy control and monitoring solution, the Sequoia 4H and 2H2U can centralize the display and operation of up to 16 sources on four FHD (1080P) quads, enabling control from one keyboard and mouse.



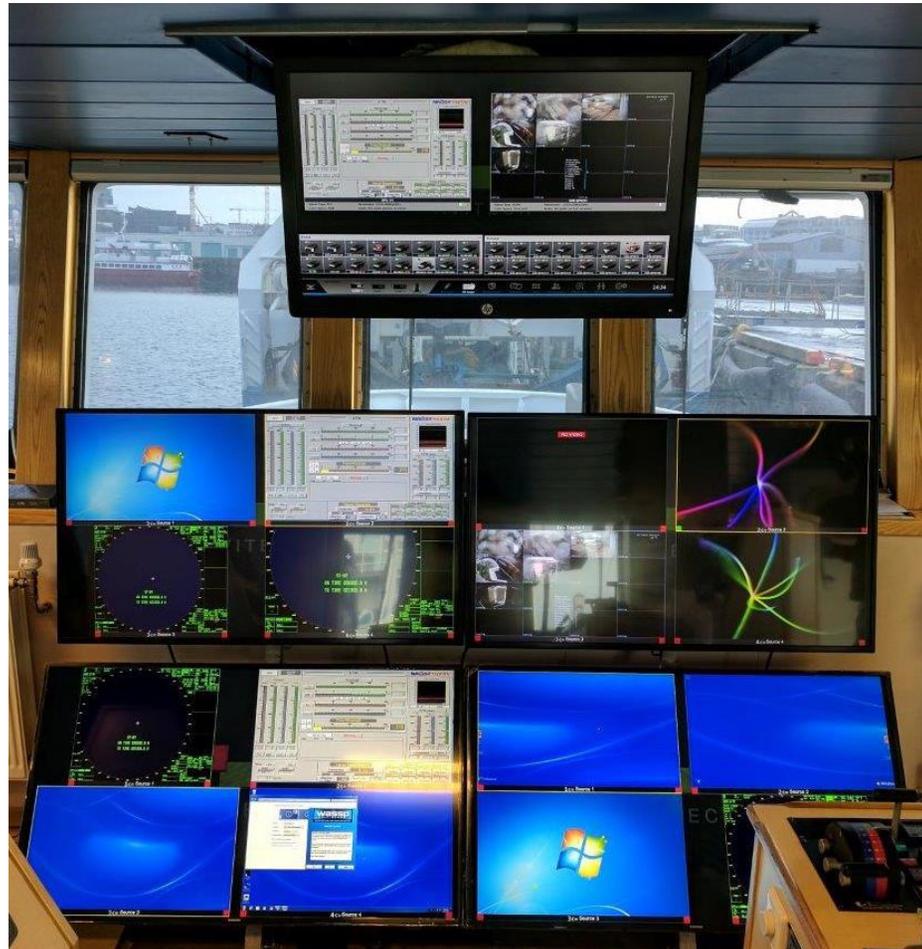
Pacific MS Marine Projects

Skinney SF-20

Skinney SF-20 – 29 meter trawler based in Iceland.

On the Skinney, each screen of a 2x2 video wall can show a multiview of four windows. The in-system GUI is shown on a display above the video wall for easy control by the operator. A second station on the bridge has two quad-view displays and a GUI for monitoring and control.

“I think it is a great system. I like that I can go to full screen and be able to see greater detail with a simple click of the mouse, and be able to surf across the screen simply and quickly, able to access a PC or any image.”
– Captain Maggi of the Skinney



Pacific MS Marine Projects

Birgitte

Birgitte – 32 meter newbuild trawler from Denmark



Pacific MS Marine Projects

Heimaey VE-1



Heimaey – 71 meter trawler from Iceland



Before



After



Pacific MS Marine Projects

Fruitful Bough



Fruitful Bough – 22 meter newbuild trawler from the United Kingdom



Pacific MS Marine Projects

Páll Jónsson



Páll Jónsson – 45 meter newbuild longliner from Iceland



Sequoia UHD Marine Projects

Argos Pereira



Argos Pereira – 83 meter Trawler
from Spain

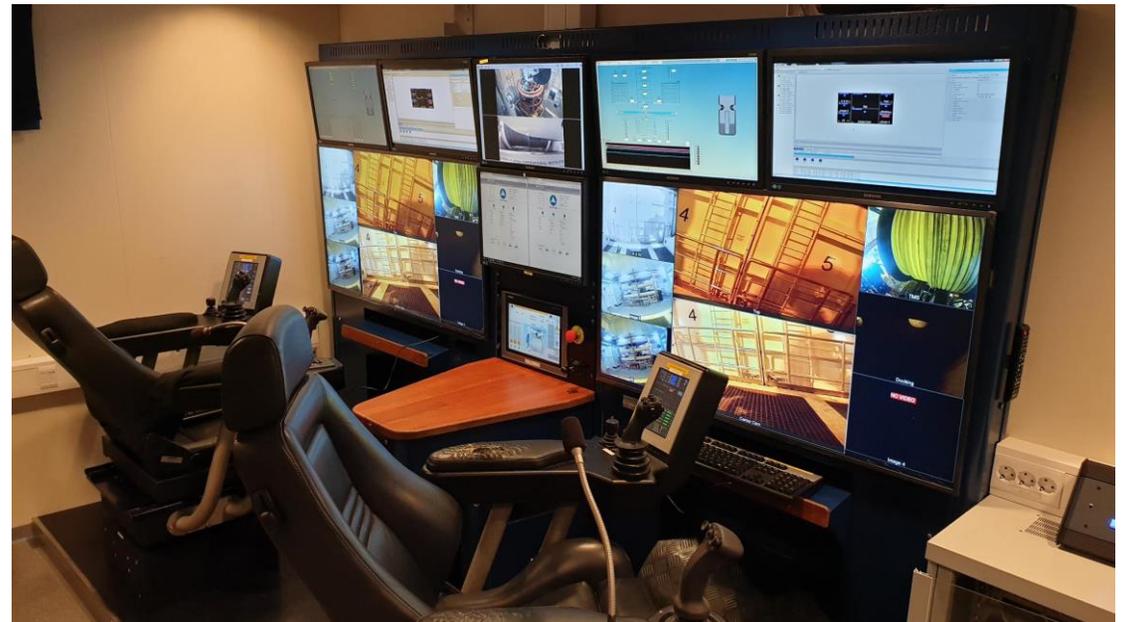


Rainier Summit 4K Multiviewer Marine Projects

Stril Explorer



Stril Explorer – 69 meter Offshore Support Vessel from Norway



Avitech Marine Compatibility

Examples of Marine Electronics In Use With Avitech Solutions

Canal Digital TV

FLIR M400XR Marine Thermal Camera

Furuno TZtouch2 Multifunction Display

Furuno CI-88 Doppler Sonar Current Indicator

Furuno FSV-30 Sonar

Furuno FSV-84 Sonar

Furuno FCV-1900 Fish finder

Furuno FAR-2218 Marine Radar

Furuno FAR-21x7-BB Series Radar

JRC JAN-9201 ECDIS

JRC JFC-180BB Echo Sounder

JRC JLN-652 Doppler Current Meter

JRC JMR-5400 Radar

Koden MDC-7012 Black Box Marine Radar

Koden MDC-7025 Black Box Marine Radar

Koden CVS-FX2BB Black Box Echo Sounder

Kaijo Sonar

Marport Trawl Sensors

MaxSea - Nobeltec TIMEZERO

OLEX Fishery Chart Software

Raymarine MFD

Scanmar Catch Control System

Scantrol iSYM Trawl Control System

SeaPix Sonar

Simrad ES70 Echo Sounder

Simrad ES80 Echo Sounder

Simrad RA83P Radar

Simrad FS70 Trawl Sonar

Sodena ECDIS

Transas ECDIS

Wesmar Trawl Sonar

WASSP Multibeam Sonar



Avitech Marine Projects



Avitech Marine Projects

Diagram Example (MS-6)

Three 4K quad-multiview screens for the fore bridge workstation



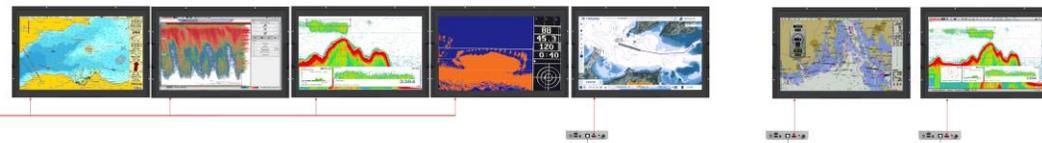
One GUI screen for setup and switching control



Two X2 Marine touch panels for switching and dimming control



- Cat5 – 10/100 Mb Ethernet
- Cat6 – HDBaseT Extension
- HDMI/DVI/VGA
- USB (keyboard/mouse)



Two workstations (aft bridge and port wing console) with KVM extenders over Catx cable for keyboard and mouse control up to 100m away from the Pacific MS

Avitech Marine Projects

Diagram Example (MS-3)

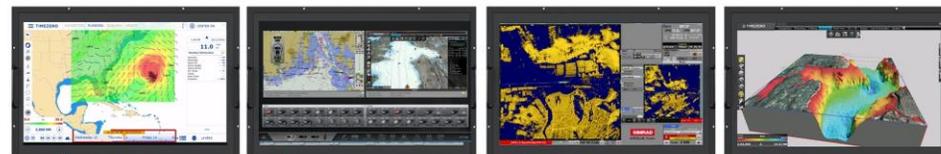
Three 4K quad-multiview screens for the fore bridge workstation



- HDBaseT HDMI/USB Extension
- HDMI/DVI
- USB (keyboard/mouse)
- 10/100M Ethernet



One X2 Marine touch panel for switching and dimming control



GUI screen for setup and switching control



Aft bridge workstation with mirrored GUI screen and keyboard and mouse control up to 100m away from the Pacific MS

Avitech Marine Projects

Diagram Example (MS-1)



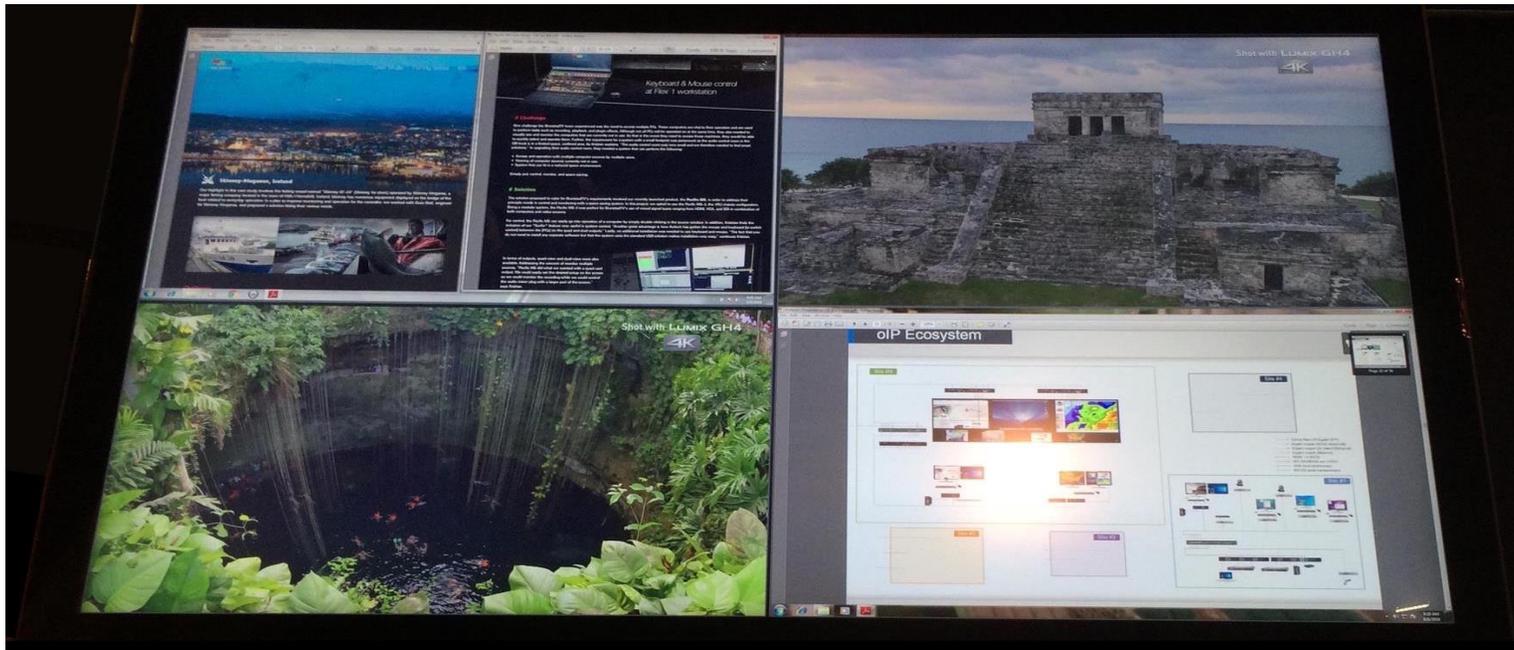
Pacific MS-1 with eight source inputs and one workstation with two quad-view outputs and four single-view outputs

The Pacific MS-1 supports a web-browser based GUI on Microsoft Edge, Mozilla Firefox, Google Chrome and Safari, with touch operation on Android, MS Windows, and Mac touch tablets.

Pacific MS-1 with eight source inputs and two workstations, each with one dual-view outputs and four single-view outputs



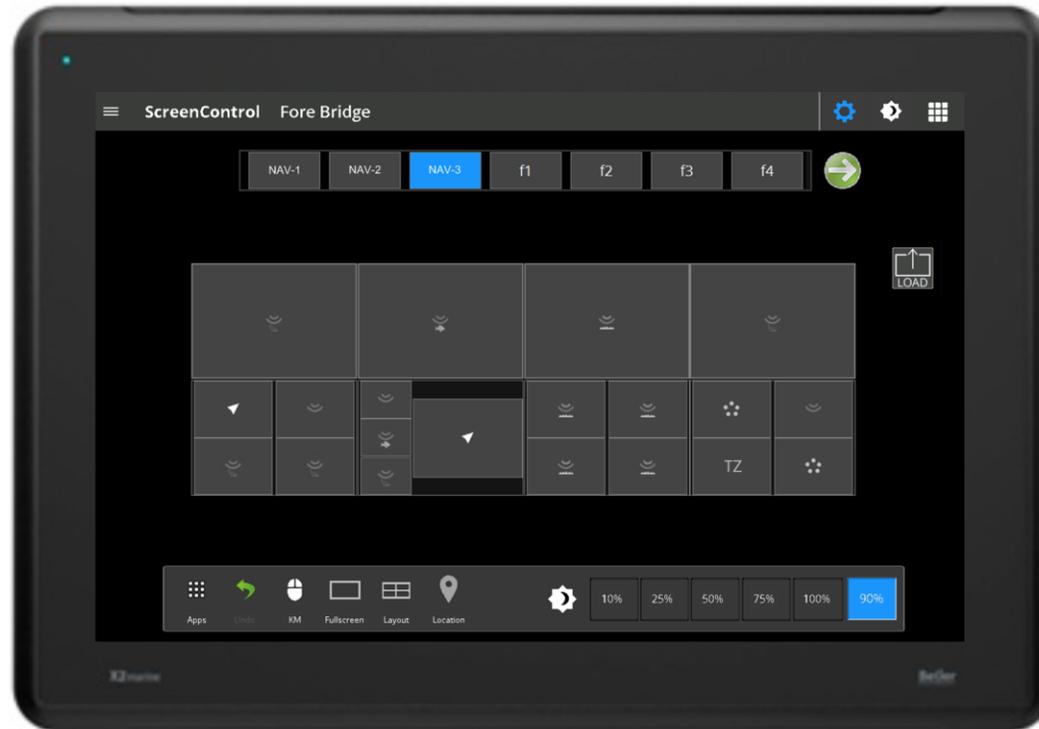
Sequoia UHD Touchscreen Marine Application Vessel Control Rooms



When combined with a UHD 4K Multi-touch screen, the Sequoia UHD enables control rooms across the vessel to easily monitor and quickly review information from multiple cameras and computers at the same time. For example, if an alarm is activated, a crew member can quickly pull up alarm details on one section of the screen, while reading protocols for the alarm on another section of the screen. The Sequoia UHD is currently in use on several Royal Caribbean cruise ship control rooms with Hatteland 55" monitor (HD 55T22 MVD).

“Our customer is very happy about the design of the Sequoia UHD for the ECR (Engine Control Room) in new cruise ships (360 meter long).” – Managing Director of a major cruise ship system integrator.

Touch Panel Control



X2 Marine touch panel with OpenBridge guided HMI design control software, enabling an operator to activate customizable presets, switch sources and mouse/keyboard control, change layout and make multiview windows fullscreen, and control brightness for approved monitors.

Currently can be used to control brightness on Hatteland Series X MMD G2 and MVD series monitors, ISIC monitors, AG Neovo QX and RX series monitors, and Samsung DBJ, QBH, QBH-N, QHH, and QMH series monitors.

Please contact your Avitech representative if there are other monitor models that you would want to control from an Avitech system.

Securing HDMI Cables



The two-piece Avitech HDMI hook prevents the HDMI cable from sliding out of the port, and lets the user easily remove the HDMI cable when needed. This provides maritime operators with peace of mind, without worrying about HDMI connections in rough conditions and prolonged vibration.



Additional KVM options



The Avitech Pacific X-HDU KVM extender can connect a computer source's HDMI, DVI or analog VGA video signal and USB KM control to a workstation up to 100m away.

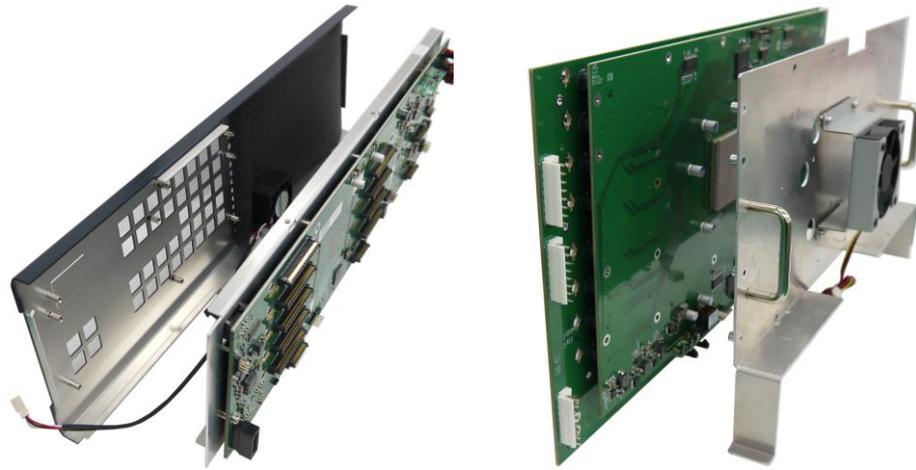


- HDBaseT HDMI/USB Extension
- HDMI/DVI
- USB (keyboard/mouse)



With the Avitech Mouse Keyboard Controller (MKC), a single mouse and keyboard can control up to eight computer sources with two cascaded units. The mouse cursor can move between the monitors or the user can use a hotkey to send the cursor to a specific source.

Reliability and Redundancy



Robust Design

Rigorously tested heat-management systems ensure dependable operation in extreme environments. Certified to IEC-60945 specifications for vibration, humidity, and temperature.



In-System Alerts

Built-in sensors keep watch 24/7

System

- General
 - Enable Power Supply Alert Monitor
- OSD Option
 - PSS IP address: 0 . 0 . 0 . 0 (for Pacific MS-2/-3 only)
- Network
 - PSS port number: 0 (for Pacific MS-2/-3 only)
- Date and Time
- Alerts Display
 - Warning interval: Display Hide
 - Power alert: 10 seconds 1 minute
- System Information
 - Enable Pacific MS Alert Monitor
- About
 - Warning interval: Display Hide
 - Fan: 10 seconds 1 minute
 - Temperature: 10 seconds 1 minute
 - Current temperature: 45°C (113°F)
 - Used Time: 0 year 1 day 12 hour (36 hours)

Apply Cancel OK

Hot-swappable Cards

Modular design maximizes system uptime

Company Overview

Headquartered in Redmond, Washington, Avitech International Corporation was founded in 1995 to address the growing demands faced in monitoring. We focus exclusively on the design, development and manufacture of multiviewers and their enhancing peripherals for a broad range of customers in the information technology, professional AV, marine electronics, television broadcast, and the surveillance industries. With over 20+ years of experience in the field and tens of thousands of units in private and public sectors, Avitech provides industry-recognized and award-winning solutions in dynamic markets.



History & Milestones

- 1995 ▶ Avitech International Corporation founded
- ▶ Meeting with ABC to discuss the concept of Virtual Wall Monitor

- 1997 ▶ Partnership with Seattle KOMO TV Station



- 2000 ▶ Featured editorial front page coverage on Television Broadcast, Oct 2000 Issue



- ▶ First ever editorial coverage in trade magazine about multiviewers

- 2001 ▶ Showcased world's largest Virtual Monitor Wall (120x50" screens) in Tulsa, Oklahoma

- 2003 ▶ Introduced Application Specific Integrated Circuit (ASIC) design for multiviewer performance

- 2005 ▶ Achieved RoHS Compliance (environmental standards test for materials hazardous to the environment)



- 2006 ▶ MCC-8004UE selected for World Cup football games in Germany

- 2007 ▶ Rainier series wins InfoComm Rental & Staging "Best Video/Broadcast Product Award"



- 2008 ▶ MCC-8004UE selected for European football games in Austria and Switzerland

- 2010 ▶ MCC-8004UE selected for World Cup football games in South Africa



- 2011 ▶ Editorial featured in Religious Product News e-newsletter: Redefining Multi-tasking

- ▶ Rainier 16U1V field report editorial featured in Broadcast Engineering November Issue

- 2012 ▶ Rainier 3G selected for European football games in Poland and Ukraine



- 2013 ▶ US patent granted - "Control System and Method for Controlling Information Processing Devices"

- 2014 ▶ US patent granted - "Securing Device for Securing of Transmission Cable with Connector" (HDMI Hook)
- ▶ Rainier 3G Plus selected for World Cup football games in Brazil

- 2016 ▶ Pacific MS non-compressed KVM and video matrix switcher introduced

- 2018 ▶ Launched the Avitech KVM and AV over IP ecosystem

- 2019 ▶ First Avitech KVM over IP ecosystem installation, including 66 screen video wall
- ▶ First installation of the Pacific MS-6 32x32 matrix switcher

Product Series Overview

Titan

Video Wall Processor / Card-Based Multiviewer

Newer generation video wall processor, TitanWall oIP and TitanWall ES series with open and distributed architecture deliver high-performance wall solutions with scalability. Installation of multiple walls at various sites on dedicated gigabit LAN also concurrently supports hundreds of user spaces in video wall management.

Pacific

Matrix Switcher / Converter / Extender / Distribution Amplifier

The Pacific family of products enables facility-wide integration and ensures consistent and powerful performance. The latest KVM and AV over IP solutions support ecosystems with signal conversion, extension, distribution, switching, monitoring, and operation.

Sequoia

Multiviewer with KVM Switcher

The Sequoia series adds another dimension of versatility to multiviewing with the integration of a switching function for keyboard / mouse control, audio and USB hubs with support of touch-screen operation.

Phoenix

GUI / Touch-Screen Control Panel

The Phoenix family includes easily configurable human interface devices and graphical user interface programs.

Rainier

Card-Based Multiviewer

The Rainier series features high quality multiviewers exclusively for processing SDI (3G/HD/SD) and CVBS (NTSC/PAL) signals.





Contact Avitech

Phone: 425.885.3863

Toll Free: 1.877.AVITECH

Fax: 425.885.4726

15377 NE 90th Street Redmond, WA 98052, USA

www.avitechvideo.com

sales@avitechvideo.com

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