

# AquaARX

DVB-S2 Modem



## BROADBAND SATCOM-ON-THE-MOVE

### OVERVIEW

Unmanned Surface Vehicles and Speedboats are critical for operations around the world in coast guard, surface warfare, military operations, troop and equipment transport, intelligence, surveillance, and reconnaissance (ISR) missions. These operations need broadband, seamless, resilient, real-time communication anywhere and anytime to make mission-critical decisions.

The AquaARX consists of a modem, a 12-inch antenna and a ground control unit. Despite the high speed of the Vehicles, the antenna's high azimuth and elevation speeds and accelerations ensure uninterrupted communication. It transmits sound, image and data packages instantly wherever needed in the world. Instant data transmission will provide mission flexibility and enable better planning during unexpected situations.



SATCOM On The Move Antenna



#### DVB-S2 MODEM FEATURES

L-Band Frequencies

Waveform

Data Encryption

Interfaces

Connectors

Power Consumption

Operating Voltage

Box Features

Box Dimensions

Weight

Operating Temperature Range

Storage Temperature Range

#### DVB-S2 MODEM SPECIFICATIONS

TX : 950–2150 MHz

RX : 950–2150 MHz

DVB-S2 (ETSI EN 302 307)

AES-256

24 V DC Power Input

L-Band RF TX and RX

10/100/1000 Mbps Ethernet x2 Controlling/Monitoring/Maintenance

10/100/1000 Mbps Ethernet x1 Telemetry/Telecommand Data

10/100/1000 Mbps Ethernet x1 Antenna Control Unit

RS-422 x2 CLI Control

RS-232 x1 Linux Command Line

SMA 50 Ohm Female Connector L-Band RF TX and RX

Power Input Military Type Circular Connector

Data/Control

72 W

Nominal 28 V DC,

16–32 V DC

Fan Cooled Finned Aluminum Body

312x261x133 mm (Length x Width x Height)

5.4 kg

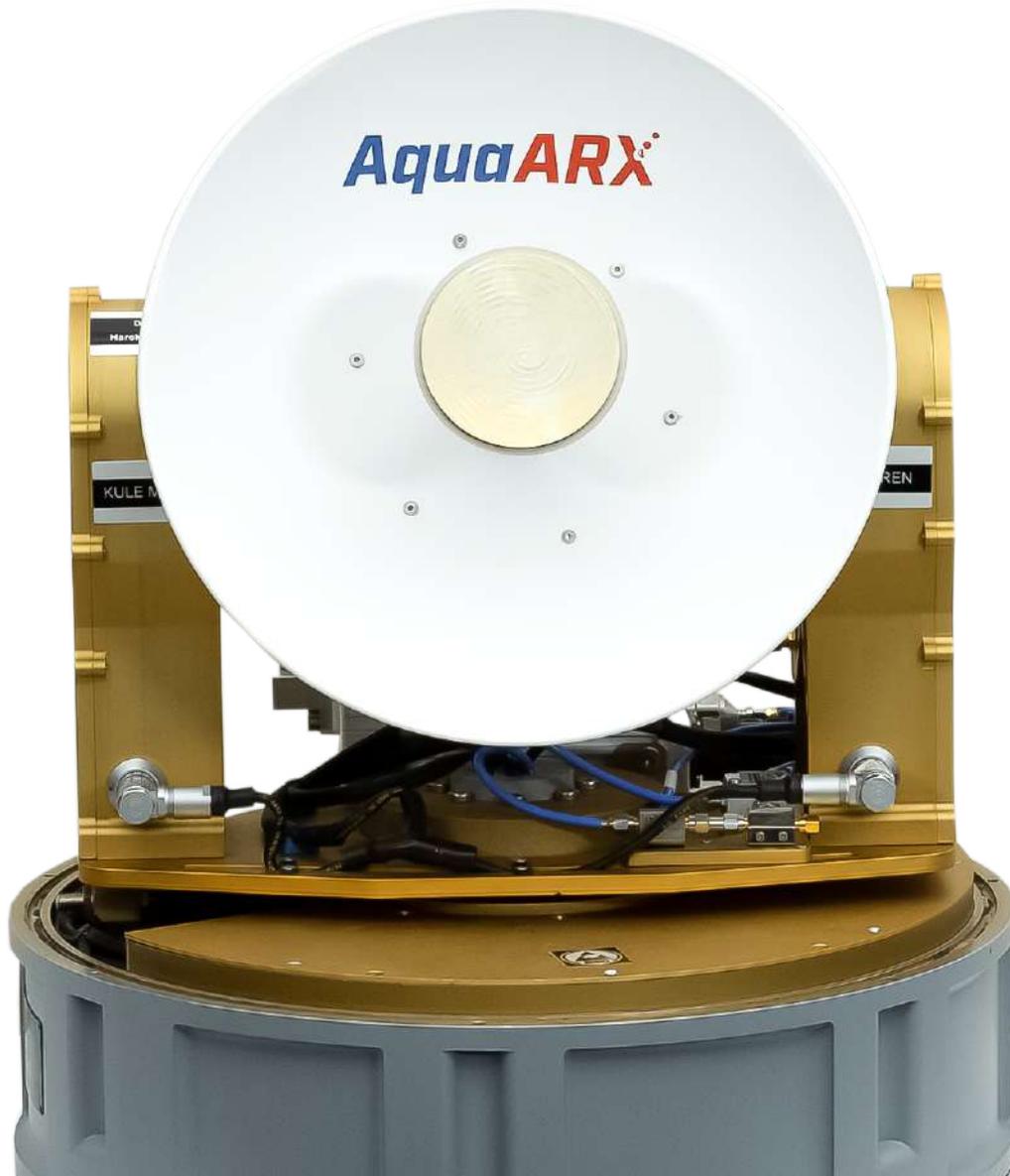
-40°C/+55°C

-55°C/+70°C

## ANTENNA FEATURES

## ANTENNA SPECIFICATIONS

Ku-Band Frequencies	10.95–12.75 GHz RX 13.75–14.5 GHz TX
BUC	50 W
EIRP	44.6 dBW @ 14 GHz
G/T	7.8 dBi/K @ 11,7 GHz
Polarization	Linear (Vertical + Horizontal)
Interfaces	L-Band RF TX and RX (N Type) GNSS #1 and GNSS #2 (TNC) Power Communication Reserve INS
Power Consumption (W)	Nominal < 500 W, Peak < 700W
Operating Voltage	Nominal 24 V DC 16-32 V DC
Elevation scope	+5° / +85°, continuous
Azimuth scope	360°, continuous
Polarization scope	-135° / +135°, continuous
Elevation max velocity-acceleration	100°/sec - ≤500°/sec <sup>2</sup>
Azimuth max velocity-acceleration	150°/sec - ≤500°/sec <sup>2</sup>
Polarization max velocity-acceleration	100°/sec - ≤500°/sec <sup>2</sup>
Operating temperature range	-32°C/+50°C
Storage temperature range	-40°C/+60°C





Ground Modem

#### GROUND MODEM FEATURES

L-Band Frequencies

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#### GROUND MODEM SPECIFICATIONS

TX: 950–2150 MHz

RX: 950–2150 MHz

DVB-S2 (ETSI EN 302 307)

AES-256

Power Input

L-Band RF TX and RX

10/100/1000 Mbps Ethernet x2 Controlling/Monitoring/Maintenance

10/100/1000 Mbps Ethernet x1 Telemetry/Telecommand Data

10/100/1000 Mbps Ethernet x1 Antenna Control Unit

RS-422 x2 CLI Control

RS-232 x1 Linux Command Line

SMA 50 Ohm Female Connector L-Band RF TX and RX

Power Input Military Type Circular Connector

Data/Control

72 W

Nominal 28 V DC

16–32 V DC

Fan Cooled Finned Aluminum Body

502x 483 x44mm (Length x Width x Height)

8.4 kg

-40°C/+55°C

-55°C/+70°C