ATHENA
TELECOMMUNICATIONS LLC

EPAK®

DSi9 Ka Pro

Maritime VSAT antenna with 90 cm dish size and -3axis motion system for Ka-band services.

Made in Germany

Reflector diameter **90 cm**

Tracking speed up to **50°/s**

Max. BUC power **25 w**

SIM LTE available

The DSi9 Ka PRO is the EPAK maritime VSAT tracking antenna operating in Kaband that brings to you the fastest satellite internet connection.
Due to the Ka-band technology, the DSi9 Ka PRO can reach breath-taking speeds both in download and in upload - via satellite connection. The DSi9 Ka PRO is the perfect solution for high data-volume demands on board: its impressive speed both in download and in upload is ideal for Internet services and applications such as video phone calls, music and video streaming.

Remote Management Access

Access, monitor and control the DSi9 Ka Pro from any location in the world or set up an automated system diagnostics including event logging.

SIM LTE

You can insert two local SIM cards into the antenna's control unit to access low-cost, highspeed Internet when a 3G/4G network is available.

Automatic Satellite Acquisition

The acquisition of the satellite is completely automated by DVB-S2-Receiver and Modem confirmation.

Web Interface

EPAK VSAT antennas feature an embedded webserver to rovide a web user interface for making configurations and accessing live data from the antenna for simplified troubleshooting and monitoring performance.

Diversity Kit Compatibility

No more blind spots by combining the free line of sight ranges of two antennas in one bundle.
That will prevent nearly any loss of satellite signals through blockades.

Solid Hardware

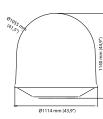Improved hardware reliability against sea conditions.
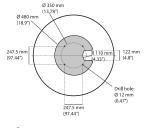
KEY FEATURES:

- 3-axis motion system + auto skew
- Range movement from -15° to +120°
- Tracking speed up to 50°/s
- Easy to install
- 90 cm dish for high-quality signal reception and transmission

- Electronically switchable in x-pol and co-pol operation
- Compatible with most modems
- Ku-Band / Ka-Band convertible
- VoIP optional
- RF optimized dome

Feed Subsystem

Reflector diameter	90 cm (35.43")
Converter/Transceiver	Skyware XGX35F85CD (other transceivers optional)
LNB*	Integrated in transceiver
BUC*	Integrated in transceiver
Available BUC power	5 W for XGX35F85CD, (other wattages optional)
RX antenna gain	43.0 dBi @ 20.2 GHz
TX antenna gain	46.7 dBi @ 29.5 GHz
RX / TX polarization	Circular (X-pol)
G/T	>18.5 dB/K (clear sky, 30 ° elevation)
Position acquisition	Internal GNSS (GPS / Glonass / Galileo / Beidou / QZSS)
Tracking receiver	Internal, 2150 - 950 MHz; BW 50 - 0.5 MHz

Frequency Band *

RX frequency	20.2 - 19.7 GHz
TX frequency	30.0 - 29.5 GHz
Convertible	From Ku- to Ka-Band via separate kit

Drive Subsystem

Tracking technology	Twin RF tracking receiver + 6D inertial + GNSS (NMEA input optional)
Maximum tracking speed	°50/s (each axis)
Azimuth range	Unlimited
Elevation range	°15- to °120+
Cross level range	°45- to °45+
Maximum ship motion	· Roll 6 @ °35± sec · Pitch 6 @ °25± sec · Yaw 6 @ °15± sec
Ship motion (for stabilization accuracy tests)	· Roll 12-10 @ °30± sec · Pitch 10-8 @ °20± sec · Yaw 15 @ °8± sec
Motion system	-3axis

Miscellaneous

Lock on time	Typ. 30 sec (Time to Online depends on modem)
Satellite acquisition	Completely automated by DVB-S-2Receiver and/or modem confirmation (according to ETSI 340 302)
EPAK®Diversity-Kit compatible	✔
Modem approval	Telenor type approval; Standard type approval; CE & EPAK type approval;
Operating temperature	°30-C to °55C
Storage temperature	°30-C to °85C
Humidity	According to IEC %100 ,60945 condensing
Vibration	According to IEC 60945; MIL-STD1-167-
Shock	According to IEC 6-4-60721; MIL-STD810-F
Rain	IP56
Wind	· Operational: < 150 km/h · Survival: < 200 km/h
Compass safe distance	≥ 2.00 m (according to IEC 60945)
Compliance	· CE (Maritime), ETSI · Complies with the specifications of EC directive 53/2014/EU Radio & Tele-communications Terminal Equipment (R&TTE); compliance with EC directive 35/2014/EU, EMC directive 30/2014/EU and IEC 427-301

Power Specifications

Power supply antenna (ODU)	48 V DC (supplied by ACU)
Antenna input voltage TX (BUC)	48 ,24 V DC / 250 VA (supplied by ACU)
Power consumption (ODU excl. BUC)	Up to 150 VA (supplied by ACU)

Dimensions and Weight

Radome (D x H)	111 cm x 114 cm (43.7" x 44.9")
Weight (incl. radome)	75 kg (165.35 lbs)

Antenna Control Unit

Dimensions (W xHxD)	48.2 cm x 4.4 cm x 38 cm (18.9" x 1.7" x 19) ("14.9" Rack 1HU size)
Weight	5.1 kg (11.24 lbs)
Gyro interface	NMEA0183 / NMEA2000 (via RS422 or RS485 or RS232) / SIMRAD RGC11
Input voltage, frequency	264~90 V AC, 63~47 Hz
Interfaces	· 1x RS232/RS422 (RJ45) · 4x Ethernet + 1x open BMIP (RJ45) · 2x USB · 1x GPIO
Local user interface	256x64px OLED-Display, 3 Status-LEDs, 6 Push-Buttons
Modem interface	Ethernet port + GPIO
Modem protocols	openAMIP / SNMP / Telnet / open BMIP
Remote access	TCP / IP
Position acquisition	Supplied by ODU
Operating temperature	°20-C to °55C
Storage temperature	°40-C to °85C
Humidity	According to IEC 60945
IP class	IP 30
Compass safe distance	0.5 m according to IEC 60945

Supported modems

Modem type	· iDirect iNFINITI, Evolution, Velocity · Hughes HX200 · ViaSat SBT-M · Comtech CDM840/250- · Gilat Skyedge II C4 · Paradise PD25L, Datacom Q-Flex · Advantech VR700, VR7400 · STM Satlink 1910 · Romantis / Eastar UHP 1000 / UHP 2000 · others on request

Cables and Connectors

ACU to Antenna	· 2x Double shielded coax cable (ECOFLEX 10) with N-plugs
ACU to Modem	· 2x Double shielded coax cable (RG6) with F and TNC-plugs · 1x Ethernet with RJ45 plugs