DSi9 Ka PRO

Reflector diameter	Tracking speed	Max. BUC power	SIM LTE
90 cm	up to **50°**/s	**5** W	available

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

The DSi9 Ka PRO is the EPAK maritime VSAT tracking antenna operating in Ka-band 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.

Web Interface
EPAK VSAT antennas feature an embedded web-server to provide a web user interface for making configurations and accessing live data from the antenna for simplified troubleshooting and monitoring performance.

SIM LTE
You can insert two local SIM cards into the antenna's control unit to access low-cost, high-speed 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.

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.
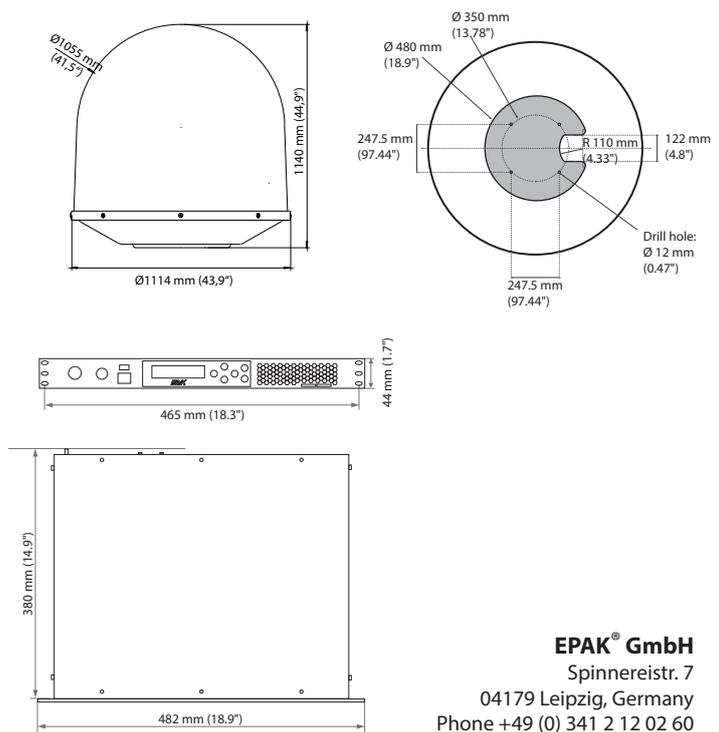
KEY FEATURES:

- 3-axis motion system
- Range movement from -15° to +120°
- Tracking speed up to 50°/s
- LTE Plug & Go SIM cards
- LEO, MEO, GEO tracking supported
- 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	42.2 dBi @ 20.2 GHz
TX antenna gain	46.0 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, 950 - 2150 MHz; BW 0.5 - 50 MHz

Frequency Band *

RX frequency	19.7 - 20.2 GHz
TX frequency	29.5 - 30.0 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 ±35° @ 6 sec • Pitch ±25° @ 6 sec • Yaw ±15° @ 6 sec
Ship motion (for stabilization accuracy tests)	• Roll ±30° @ 10-12 sec • Pitch ±20° @ 8-10 sec • Yaw ±8° @ 15 sec
Motion system	3-axis

Miscellaneous

Lock on time	Typ. 30 sec (Time to Online depends on modem)
Satellite acquisition	Completely automated by DVB-S2-Receiver and/or modem confirmation (according to ETSI 302 340)
EPAK® Diversity-Kit compatible	✓
Modem approval	Telenor type approval; Standard type approval; CE & EPAK type approval;
Operating temperature	-30°C to 55°C
Storage temperature	-30°C to 85°C
Humidity	According to IEC 60945, 100% condensing
Vibration	According to IEC 60945; MIL-STD-167-1
Shock	According to IEC 60721-4-6; MIL-STD-810F
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 2014/53/EU Radio & Tele-communications Terminal Equipment (R&TTE); compliance with EC directive 2014/35/EU, EMC directive 2014/30/EU and IEC 301-427

Power Specifications

Power supply antenna (ODU)	48 V DC (supplied by ACU)
Antenna input voltage TX (BUC)	24, 48 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)

*Values depending on the transceiver used.

Antenna Control Unit

Dimensions (WxHxD)	48.2 cm x 4.4 cm x 38 cm (18.9" x 1.7" x 14.9") (19" 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	90~264 V AC, 47~63 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 55°C
Storage temperature	-40°C to 85°C
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 CDM-250/840 • 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

Radome and ACU Dimensions

EPAK® GmbH
Spinnereistr. 7
04179 Leipzig, Germany
Phone +49 (0) 341 2 12 02 60
Fax +49 (0) 341 2 12 02 66
For more information visit **www.epak.de**