



Stabilized maritime VSAT antenna with 90 cm dish size for Ku-band services.

The DSi9 Ku Evo employs state-of-the-art technology and is our most sought VSAT antenna in Ku-band. With the latest generation of tracking technology the DSi9 Ku Evo represents the perfect solution for all requirements of a reliable and fast internet on any type of maritime vessel.

EPAK designs and builds VSAT antennas to work even in the harshest weather conditions at sea. Only top quality materials are used and manufacturing is done in-house, observing tight quality control regulations and safety norms.

The result is a robust and rugged stabilized antenna system with high tracking accuracy. In short, the perfect solution for those who venture into the open seas without wanting to give up a stable and fast internet connection.

KEY FEATURES:

- Evolution: 2 Gyro techniques together for a perfect satellite pointing
- Tracking performance approved by Fraunhofer IIS (Institute for Integrated Circuits) on hardest maritime motion profile "Class A"
- Easy to install
- Range movement from -10 ° to +90 °
- 90 cm dish for high-quality signal reception and transmission
- Electronically switchable in X-pol and Co-pol operation
- Compatible with most common modems
- Ku-Band / Ka-Band convertible



Evolution Series

DSi9 Ku - Evo

Reflector
diameter



90 cm

Max. Tracking
Speed



30 °/s

Max.
BUC power



25 W

Remote Management Access

Access, monitor and control the DSi9 Ku Evo from every location in the world or set up an automated system diagnostics including event logging.

Dual Band

Keep your options open.
Convert from Ka- to Ku-Band and vice versa.

EPAK® Evolution

Most precise satellite pointing accuracy thanks to the combination of two different tracking systems, an Electronic Beamforming (EBF) Gyro together with a 3D Gyro module.

Secured Traffic

If necessary, the whole traffic can be encrypted.

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.

Flexible Networks

Set up three different networks to set variable prioritizations, handle each network separately and set up various user rights.



Feed Subsystem	
Reflector diameter	90 cm (35.43")
Minimum E.I.R.P.	43 dBW
LNB	Universal (LOF 9.75/10.6 GHz, PLL stabilized, internal ref.)
BUC	Super extended Ku (LOF 12.80 GHz, PLL stabilized, external ref.)
Available BUC power	8 W / 16 W / 25 W
RX frequency	10.7 - 12.75 GHz
TX frequency	13.75 - 14.5 GHz
RX antenna gain	39.5 dBi @ 12.5 GHz
TX antenna gain	40.3 dBi @ 14.25 GHz
RX / TX polarisation	Linear, Co-pol and X-pol
G/T	>18.2 dB/K (clear sky, 30° elevation)
Position acquisition	Internal GNSS (GPS)
Tracking Receiver	Internal, 950 - 2150 MHz; BW 2.5/10 MHz

Frequency Band	
Convertible	Ku- and Ka-band

Drive Subsystem	
Tracking technology	EPAK® Evo: Electronic Beam Forming (EBF-Gyro) + 3D Rate Gyro + 3D inertial + GNSS
EBF Gyro drift calibration rate	12.5 msec (80 times per sec)
Maximum tracking speed	30°/s (each axis)
Azimuth range	Unlimited
Elevation range	-10° to +90°
Skew range	-120° to +120°

Maximum ship motion	<ul style="list-style-type: none"> Roll ±30° @ 6 sec Pitch ±20° @ 6 sec Yaw ±8° @ 6 sec
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Ship motion (for stabilization accuracy tests)	<ul style="list-style-type: none"> Roll ±30° @ 10-12 sec Pitch ±20° @ 8-10 sec Yaw ±8° @ 15 sec
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Motion system	2-axis + auto skew
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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)
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EPAK® Diversity-Kit compatible	✓
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Modem approval	Standard type approval; CE & EPAK type approval
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Operating temperature	-20°C to 55°C
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Storage temperature	-30°C to 85°C
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Humidity	According to IEC 60945, 100% condensing
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Vibration	According to IEC 60945; MIL-STD-167-1
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Shock	According to IEC 60721-4-6; MIL-STD-810F
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Rain	IP56
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Wind	<ul style="list-style-type: none"> Operational: < 150 km/h (< 81 knots) Survival < 200 km/h (< 108 knots)
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Compass safe distance	≥2.00 m (according to IEC 60945)
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Compliance	<ul style="list-style-type: none"> CE (Maritime), ETSI Complies with the specifications of EC directive 1999/5/EC Radio & Telecommunications Terminal Equipment (R&TTE), per compliance with EC directive 2006/95/EC, EMC directive 2004/108/EC and IEC 301-427
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Power Specifications	
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Power supply antenna (ODU)	24 V DC (supplied by ACU)
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Antenna input voltage TX (BUC)	24, 30, 48 V DC / 250 VA (supplied by ACU)
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Power consumption (ODU excl. BUC)	20-100 VA (supplied by ACU)
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Dimensions and Weight	
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Radome (D x H)	111 cm x 114 cm (43.9" x 44.9")
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Weight (incl. radome)	58 kg (127.87 lbs)
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Antenna Control Unit	
Dimensions	48 cm x 4.45 cm x 47.8 cm (18.9" x 1.75" x 18.82") (19" Rack 1HU size)
Weight	5.1 kg (11.24 lbs)
Gyro interface	NMEA0183 / NMEA2000 (via RS422 or RS232) / SIMRAD RGC11
Input voltage, frequency	90~264 V AC, 47~63 Hz
External I/O	RS232, RS422, Ethernet, USB
Local user interface	LCD - 2 push keys
Modem interface	Ethernet port
Modem protocols	openAMIP / SNMP / Telnet
Remote access	TCP / IP
Position acquisition	Supplied by ODU
Operating temperature	-20°C to 55°C
Storage temperature	-30°C to 85°C
Humidity	According to IEC 60945
IP class	IP 30
Compass safe distance	0.5 m according to IEC 60945

Modems implemented	
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Modem types	<ul style="list-style-type: none"> iDirect iFINITI, 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
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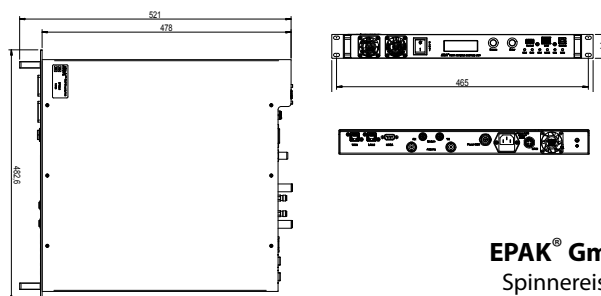
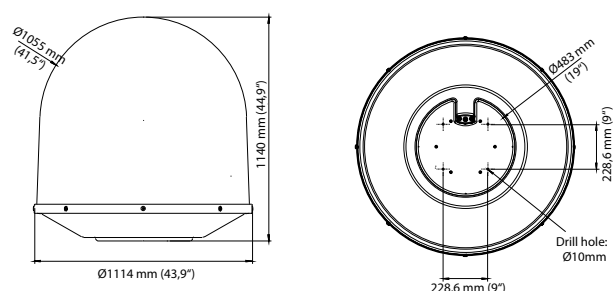
Cables and Connectors	
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ACU to Antenna	<ul style="list-style-type: none"> 3x Double shielded coax cable (ECOFLEX 10) with N-plugs
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ACU to Modem	<ul style="list-style-type: none"> 2x Double shielded coax cable (RG6) with F and TNC-plugs 1x Ethernet crosslink with RJ45 plugs
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ACU to Network	<ul style="list-style-type: none"> Ethernet patch with RJ45 plugs RS422/RS232 (9 Pin Sub-D)
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Radome and ACU Dimensions



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