



## Maritime VSAT antenna with 60 cm dish size for Ku-band services.

EPAK's answer to the needs of inland waterways: the Ri6 Ku Evo.

With its optimized tracking and re-lock performance, the Ri6 Ku Evo ensures best possible online-availability even under the challenging conditions of urban areas. The automated polarization tracking guarantees best link quality wherever the vessel cruises.

Completed with fine-tuned components and the perfect interaction between each single part of the antenna, the Ri6 Ku Evo guarantees excellent network availabilities both when you are anchored in harbour and when you are sailing in the inland waterways, in any weather condition.

Operating on several vessels and platforms all over the world, the Ri6 Ku Evo is the perfect solution anyone looking for an affordable, smart and light device for the enjoyment of an internet connection at harbours, rivers and lakes.

### KEY FEATURES:

- Evolution: 2 Gyro techniques together for a perfect satellite pointing
- Highest pointing accuracy due to EPAK's patented EBF-Gyro
- Easy to install
- Range movement from -10 ° to +90 °
- Automatic satellite acquisition
- Contained weight and dimensions
- Compatible with most common modems

## Ri6 Ku - Evo

Reflector diameter



60 cm

Max. Tracking Speed



12°/s

Max. BUC power



8 W

### Remote Management Access

Access, monitor and control the Ri6 Ku Evo from every location in the world or set up an automated system diagnostics including event logging.

### Easy installation

Simple 3-wire-coax cable connection between ODU and IDU.

### 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.



Evolution Series

Feed Subsystem	
<b>Reflector diameter</b>	60 cm (23.62")
<b>Minimum E.I.R.P.</b>	46 dBW
<b>LNB</b>	Universal (LOF 9.75/10.6 GHz, PLL stabilized, internal ref.)
<b>BUC</b>	Super extended Ku (LOF 12.80 GHz, PLL stabilized, external ref.)
<b>Available BUC power</b>	4 W / 8 W
<b>RX antenna gain</b>	36.3 dBi @ 12.5 GHz
<b>TX antenna gain</b>	37.0 dBi @ 14.25 GHz
<b>RX / TX polarization</b>	Linear, X-pol
<b>G/T</b>	>15 dB/K (clear sky, 30° elevation)
<b>Position acquisition</b>	Internal GNSS (GPS)
<b>Tracking receiver</b>	Internal, 950 - 2150 MHz; BW 2.5 - 10 MHz

Frequency Band	
<b>RX frequency</b>	10.7 - 12.75 GHz
<b>TX frequency</b>	13.75 - 14.5 GHz

Drive Subsystem	
<b>Tracking technology</b>	EPAK® Evo: Electronic Beam Forming (EBF-Gyro) + 3D Rate Gyro + 3D inertial + GNSS
<b>EBF Gyro drift calibration rate</b>	12.5 msec (80 times per sec)
<b>Maximum tracking speed</b>	12°/s (each axis)
<b>Azimuth range</b>	Unlimited
<b>Elevation range</b>	-10° to +90°
<b>Skew range</b>	-120° to +120°
<b>Motion system</b>	2-axis plus auto skew

Miscellaneous	
<b>Lock on time</b>	Typ. 30 sec (Time to Online depends on modem)
<b>Satellite acquisition</b>	Completely automated by DVB-S2-Receiver and/or modem confirmation (according to ETSI 302 340)
<b>EPAK® Diversity-Kit compatible</b>	✓
<b>Modem approval</b>	Standard type approval; CE & EPAK type approval
<b>Operating temperature</b>	-20°C to 55°C
<b>Storage temperature</b>	-30°C to 85°C
<b>Humidity</b>	According to IEC 60945, 100% condensing
<b>Vibration</b>	According to IEC 60945; MIL-STD-167-1
<b>Shock</b>	According to IEC 60721-4-6; MIL-STD-810F
<b>Rain</b>	IP56
<b>Wind</b>	<ul style="list-style-type: none"> <li>Operational: &lt; 150 km/h (&lt; 81 knots)</li> <li>Survival &lt; 200 km/h (&lt; 108 knots)</li> </ul>
<b>Compass safe distance</b>	≥ 2.00 m (according to IEC 60945)

<b>Compliance</b>	<ul style="list-style-type: none"> <li>CE (Maritime), ETSI</li> <li>Complies with the specifications of EC directive 1999/5/EC Radio &amp; Telecommunications Terminal Equipment (R&amp;TTE); compliance with EC directive 2006/95/EC, EMC directive 2004/108/EC and IEC 301-427</li> </ul>
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Power Specifications	
<b>Power supply antenna (ODU)</b>	24 V DC (supplied by ACU)
<b>Antenna input voltage TX (BUC)</b>	24, 30, 48 V DC / 250 VA (supplied by ACU)
<b>Power consumption (ODU excl. BUC)</b>	20-100 VA (supplied by ACU)

Dimensions and Weight	
<b>Radome (D x H)</b>	73 cm x 81 cm (28.74" x 31.88")
<b>Weight (incl. radome)</b>	37 kg (81.57 lbs)

Antenna Control Unit	
<b>Dimensions</b>	48 cm x 4.45 cm x 47.8 cm (18.9" x 1.75" x 18.82") (19" Rack 1HU size)
<b>Weight</b>	5.1 kg (11.24 lbs)
<b>Gyro interface</b>	NMEA0183 / NMEA2000 (via RS422 or RS232) / SIMRAD RGC11
<b>Input voltage, frequency</b>	90~264 V AC, 47~63 Hz
<b>External I/O</b>	RS232, RS422, Ethernet, USB
<b>Local user interface</b>	LED - 2 push keys
<b>Modem interface</b>	Ethernet port
<b>Modem protocols</b>	openAMIP / SNMP / Telnet
<b>Remote access</b>	TCP / IP
<b>Position acquisition</b>	Supplied by ODU
<b>Operating temperature</b>	-20°C to 55°C
<b>Storage temperature</b>	-30°C to 85°C
<b>Humidity</b>	According to IEC 60945
<b>IP class</b>	IP 30
<b>Compass safe distance</b>	0.5 m according to IEC 60945

### Modems implemented

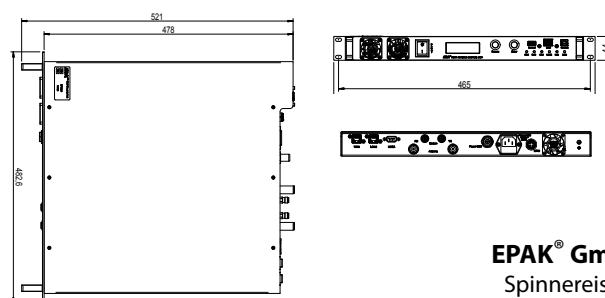
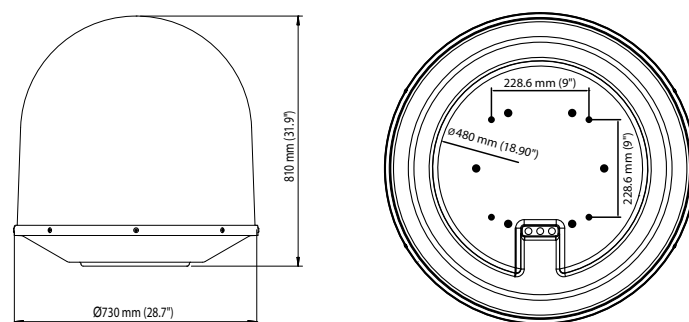
- iDirect iINFINITI, Evolution, Velocity
- Hughes HX200
- ViaSat SBT-M
- Comtech CDM-250/840
- Gilat Skyedge II C4
- Paradise PD25L, Datacom Q-Flex
- Advantech VR700, VR7400
- STM Satlink 1910
- Romantis / Eastar UHP 1000 / UHP 2000
- others on request

### Modem types

### Cables and Connectors

<b>ACU to Antenna</b>	<ul style="list-style-type: none"> <li>• 3x Double shielded coax cable (ECO-FLEX 10) with N-plugs</li> </ul>
<b>ACU to Modem</b>	<ul style="list-style-type: none"> <li>• 2x Double shielded coax cable (RG6) with F and TNC-plugs</li> <li>• 1x Ethernet crosslink with RJ45 plugs</li> </ul>
<b>ACU to Network</b>	<ul style="list-style-type: none"> <li>• Ethernet patch with RJ45 plugs</li> <li>• RS422/RS232 (9 Pin Sub-D)</li> </ul>

### Radome and ACU Dimensions



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