

# DSi13 Ku PRO

Reflector diameter



130 cm

Tracking speed



up to 35°/s

Max. BUC power



60 W

SIM LTE



available



## *Maritime VSAT antenna with 130 cm dish size and 3-axis motion system for Ku-Band services.*

EPiK's latest innovation in maritime satellite communication is the VSAT DSi13 Ku PRO, a maritime satellite antenna for Internet connection operating in Ku-band.

The 130 cm diameter dish system is so far the largest antenna in EPiK's portfolio. Its high-end technical features allow reliable functionality even in regions with fading signals or under harsh weather conditions.

The 3-axis motion system make the antenna free to move and point to whichever direction the satellite is.

The DSi13 Ku PRO has been designed for addressing the communication needs of superyachts, oil and gas platforms, navy boats and frigates, cruise ships and all other vessels demanding for a strong and reliable but yet easy to install satellite system for Internet at sea.

The DSi13 Ku PRO reaches excellent tracking performance under the hardest maritime motion profile "Class A", defined by Global VSAT Forum and Fraunhofer Institute.



### Remote Management Access

Access, monitor and control the DSi13 Ku PRO from any location in the world or set up an automated system diagnostics including event logging.

### Web Interface

EPiK 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.

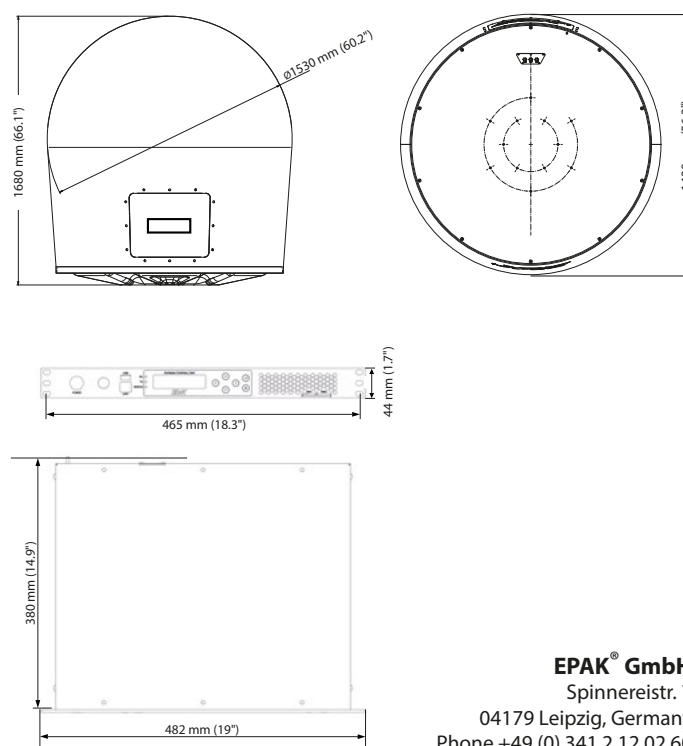
### KEY FEATURES:

- 3-axis motion system + auto skew
- Range movement from -20° to +115°
- Tracking speed up to 35°/s
- LTE Plug & Go SIM cards
- LEO, MEO, GEO tracking supported
- Easy to install
- 130 cm dish for high-quality signal reception and transmission
- Electronically switchable in x-pol and co-pol operation
- Compatible with most modems
- Honeycomb FRP radome
- VoIP optional

<b>Feed Subsystem</b>	
<b>Reflector diameter</b>	130 cm (51.18")
<b>Minimum E.I.R.P.</b>	40 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>	8 W / 16 W / 25 W / 40 W / 60 W
<b>RX antenna gain</b>	43.1 dBi @ 12.5 GHz
<b>TX antenna gain</b>	44.3 dBi @ 14.25 GHz
<b>RX / TX polarization</b>	Linear, Co-pol and X-pol
<b>G/T</b>	>20.9 dB/K (clear sky, 30° elevation)
<b>Position acquisition</b>	Internal GNSS (GPS / Glonass / Galileo / Beidou / QZSS)
<b>Tracking receiver</b>	Internal, 950 - 2150 MHz; BW 0.5 - 50 MHz
<b>Frequency Band</b>	
<b>RX frequency</b>	10.7 - 12.75 GHz
<b>TX frequency</b>	13.75 - 14.5 GHz
<b>Drive Subsystem</b>	
<b>Tracking technology</b>	Twin RF tracking receiver + 6D inertial + GNSS (NMEA input optional)
<b>Maximum tracking speed</b>	35°/s (each axis)
<b>Azimuth range</b>	Unlimited
<b>Elevation range</b>	-20° to +115°
<b>Skew range</b>	-120° to +120°
<b>Cross level range</b>	-45° to +45°
<b>Maximum ship motion</b>	<ul style="list-style-type: none"> <li>Roll ±30° @ 9 sec</li> <li>Pitch ±20° @ 9 sec</li> <li>Yaw ±8° @ 12 sec</li> </ul>
<b>Ship motion (for stabilization accuracy tests)</b>	<ul style="list-style-type: none"> <li>Roll ±30° @ 10-12 sec</li> <li>Pitch ±20° @ 8-10 sec</li> <li>Yaw ±8° @ 15 sec</li> </ul>
<b>Motion system</b>	3-axis plus auto skew
<b>Miscellaneous</b>	
<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>	-30°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</li> <li>Survival: &lt; 200 km/h</li> </ul>
<b>Compass safe distance</b>	≥ 2.00 m (according to IEC 60945) <ul style="list-style-type: none"> <li>CE (Maritime), ETSI</li> <li>Complies with the specifications of EC directive 2014/53/EU Radio &amp; Telecommunications Terminal Equipment (R&amp;TTE); compliance with EC directive 2014/35/EU, EMC directive 2014/30/EU and IEC 301-427</li> </ul>
<b>Compliance</b>	
<b>Power Specifications</b>	
<b>Power supply antenna (ODU)</b>	48 V DC (supplied by ACU)
<b>Antenna input voltage TX (BUC)</b>	25 W BUC and less: 24, 48 V DC / 250 VA (supplied by ACU) 40 W BUC: 48 V / 350 VA (supplied by additional power supply)
<b>Power consumption (ODU excl. BUC)</b>	Up to 180 VA (supplied by ACU)
<b>Dimensions and Weight</b>	
<b>Radome (D x H)</b>	153 cm x 168 cm (60.24" x 66.14")
<b>Weight (incl. radome)</b>	120 kg (264 lbs)
<b>Radome material</b>	Honeycomb FRP

<b>Antenna Control Unit</b>	
<b>Dimensions (WxHxD)</b>	48.2 cm x 4.4 cm x 38 cm (19" x 1.7" x 14.9") (19" Rack 1HU size)
<b>Weight</b>	5.1 kg (11.24 lbs)
<b>Gyro interface</b>	NMEA0183 / NMEA2000 (via RS422 or RS485 or RS232) / SIMRAD RGC11
<b>Input voltage, frequency</b>	90~264 V AC, 47~63 Hz
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>1x RS232/RS422 (RJ45)</li> <li>4x Ethernet + 1x open BMIP (RJ45)</li> <li>2x USB</li> <li>1x GPIO</li> </ul>
<b>Local user interface</b>	256x64px OLED-Display, 3 Status-LEDs, 6 Push-Buttons
<b>Modem interface</b>	Ethernet port + GPIO
<b>Modem protocols</b>	openAMIP / SNMP / Telnet / open BMIP
<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>	-40°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
<b>Supported modems</b>	
	<ul style="list-style-type: none"> <li>iDirect iNFINITI, Evolution, Velocity</li> <li>Hughes HX200</li> <li>ViaSat SBT-M</li> <li>Comtech CDM-250/840</li> <li>Gilat Skyedge II C4</li> <li>Paradise PD25L, Datacom Q-Flex</li> <li>Advantech VR700, VR7400</li> <li>STM Satlink 1910</li> <li>Romantis / Eastar UHP 1000 / UHP 2000</li> <li>others on request</li> </ul>
<b>Modem type</b>	
<b>Cables and Connectors</b>	
<b>ACU to Antenna</b>	<ul style="list-style-type: none"> <li>2x Double shielded coax cable (ECOFLEX 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 with RJ45 plugs</li> </ul>

## Radome and ACU Dimensions



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