



# Maritime VSAT antenna with 90 cm dish size for Ka-band services.

The DSi 9 Ka Evo 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 Evo can reach breath-taking speeds both in download and in upload - via satellite connection. The DSi9 Ka Evo 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.

## **KEY FEATURES:**

- Evolution: 2 Gyro techniques together for a perfect satellite pointing
- Dual Band: easily convertible from Ka- to Ku-band and vice versa
- Easy to install
- Tracking speed up to 30%
- Elevation range from -10 ° to +90 °
- Significantly higher throughput at lower monthly rates than Ku-band services
- Spotbeam technology for improved performance of shared access airtime plans
- Compatible with most common modems

Due to the solid, rugged and robust design the antenna is made to meet even the hardest requirements in harsh seas.



# DSi9 Ka - Evo

Reflector diameter

Max. Tracking Speed

Max. **BUC** power







90 cm

30°/s

#### **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

## **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.

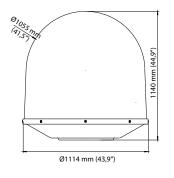


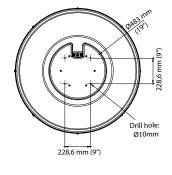
# **TECHNICAL SPECIFICATION**

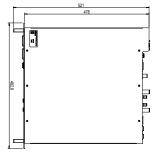
LNB       Integrated in transcher LOFs option         BUC       Integrated in transcher LOFs option         Available BUC power       5 W (other wattage of the LOFs option of other wattage of the LOFs option of the LOFs of LOFs option of the LOFs of LOFs option of the LOFs of LOFs option of LOFs	er transceivers optional)
Converter / Transceiver       NJR, Skyware (oth other LOFs option other LOFs option other LOFs option other LOFs option other LOFs option?         BUC       Integrated in transcher LOFs option?         Available BUC power       5 W (other waitag. RX antenna gain       43 dBi @ 20.2 GHz         TX antenna gain       46.7 dBi @ 29.5 GI         RX / TX polarization       Circular, X-pol         G/T       > 18.5 dB/K (clear Position acquisition       Internal GNSS (GP Internal, 950 - 215 Frequency Band         RX frequency       19.7 - 20.2 GHz       TX frequency Internal, 950 - 215 Frequency Band         RX frequency       19.7 - 20.2 GHz       TX frequency Internal, 950 - 215 Frequency Internal, 9	er transceivers optional)
LNB Integrated in transcher LOFs option BUC Integrated in transcher LOFs option Available BUC power 5 W (other wattage RX antenna gain 43 dBi @ 20.2 GHz TX antenna gain 46.7 dBi @ 29.5 GI RX / TX polarization Circular, X-pol G/T > 18.5 dB/K (clear Position acquisition Internal, 950 - 215 Frequency Band RX frequency 19.7 - 20.2 GHz TX frequency 29.5 - 30.0 GHz Convertible Ku- and Ka-band Drive Subsystem Tracking technology EPAK* Evo: Electror ro) + 3D Rate Gyro EBF Gyro drift calibration rate 12.5 msec (80 tim Maximum tracking speed 30°/s (each axis) Azimuth range Unlimited Elevation range 10° to +90° Maximum ship motion Pitch ±20° (** Yaw ±8° @** Motion system 2-axis  Miscellaneous Lock on time Typ. 60 sec (Time modern) Satellite acquisition Typ. 60 sec (Time modern) EPAK* Diversity-Kit compatible / Modem approval 2-proval 2-proval; CE & EPA Operating temperature -20° c to 55° C Storage temperature -30° c to 85° C Humidity According to IEC of Shock Rain IPS6 Wind - Operationa Survival < 2 Compliance  Compliance	
Available BUC power  Available BUC power  S W (other wattag RX antenna gain  A 3 dBi @ 20.2 GHz TX antenna gain  A 5 dBi @ 20.2 GHz TX antenna gain  A 6.7 dBi @ 29.5 GI RX / TX polarization  G/T  > 18.5 dB/K (clear Position acquisition  Internal GNSS (GP Tracking Receiver  Internal, 950 - 215 Frequency Band RX frequency  19.7 - 20.2 GHz TX frequency  29.5 - 30.0 GHz  Convertible  Ku- and Ka-band Drive Subsystem  Tracking technology  EPAK* Evo: Electror ro) + 3D Rate Gyro ro) + 3D Rat	sceiver (LOF 18.25 GHz, nal)
RX antenna gain 43 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 Position acquisition Internal GNSS (GP Tracking Receiver Internal, 950 - 215 Frequency Band RX frequency 19.7 - 20.2 GHz TX frequency 29.5 - 30.0 GHz Convertible Ku- and Ka-band Drive Subsystem  Tracking technology EPAK* Evo: Electro ro) + 3D Rate Gyro EBF Gyro drift calibration rate 12.5 msec (80 tim Maximum tracking speed 30°/s (each axis) Azimuth range Unlimited Elevation range -10° to +90° Maximum ship motion -10° to +90° Maximum ship motion -10° to +90° Ship motion (for stabilization accuracy tests) -10° to +90° Motion system 2-axis Miscellaneous Lock on time Typ. 60 sec (Time modem) Satellite acquisition Completely autor and/or modem c ETSI 302 340) EPAK* Diversity-Kit compatible  Modem approval Telenor type appraproval; CE & EP/ Operating temperature -20°C to 55°C Storage temperature -20°C to 55°C Compliance -2000 m according to IEC 6 Rain IP56  Wind - Operationa - Complete v Complete v Complete v Complies v EC directive 20 companies v EC directiv	nsceiver (LOF 28.05 GHz nal)
TX antenna gain  RX / TX polarization  G/T  Position acquisition  Internal GNSS (GP  Position acquisition  Internal, 950 - 215  Frequency  Internal, 950 - 20  Frequency  Internal, 950 - 20  Frequency  Internal, 950 - 20  Frequency  Internal Posic  Intern	jes optional)
RX / TX polarization  G/T  Position acquisition  Internal GNSS (GP  Internal, 950 - 215  Frequency Band  RX frequency  19.7 - 20.2 GHz  TX frequency  29.5 - 30.0 GHz  Convertible  Ku- and Ka-band  Drive Subsystem  Tracking technology  EPAK® Evo: Electro ro) + 3D Rate Gyro  EBF Gyro drift calibration rate  Maximum tracking speed  Azimuth range  Unlimited  Elevation range  10° to +90°  Roll ±30° @ Pitch ±20° ( Paw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Paw ±8° @ 6  Yaw ±8° @ 6  Yaw ±8° @ 6  Fall ±30° @ Pitch ±20° ( Paw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° ( Pitch ±20° ( Paw ±8° @ 6  Roll ±30° ( Paw	<u>!</u>
G/T  Position acquisition  Internal GNSS (GP  Tracking Receiver  Internal, 950 - 215  Frequency Band  RX frequency  19.7 - 20.2 GHz  TX frequency  29.5 - 30.0 GHz  Convertible  Ku- and Ka-band  Drive Subsystem  Tracking technology  EPAK® Evo: Electror ro) + 3D Rate Gyro  EBF Gyro drift calibration rate  12.5 msec (80 tim  Maximum tracking speed  30% (each axis)  Azimuth range  Unlimited  Elevation range  -10° to +90°  Roll ±30° @ Pitch ±20° e Yaw ±8° @ €  Ship motion (for stabilization accuracy tests)  Pitch ±20° e Yaw ±8° @ €  Motion system  2-axis  Miscellaneous  Lock on time  Typ. 60 sec (Time modem)  Satellite acquisition  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Modem approval  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Modem approval  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit Compatible  ✓  Completely autor and/or modem c ETSI 302 340)  EPAK® Diversity-Kit	-lz
Position acquisition Internal GNSS (GP Tracking Receiver Internal, 950 - 215 Frequency Band RX frequency 19.7 - 20.2 GHz TX frequency 29.5 - 30.0 GHz Ku- and Ka-band Drive Subsystem  Tracking technology EPAK* Evo: Electror ro) + 3D Rate Gyro ro) + 3D Rate Gyro EBF Gyro drift calibration rate 12.5 msec (80 tim Maximum tracking speed 30 % (eeach axis) Azimuth range Unlimited Elevation range -10° to +90° - Roll ±30° @ - Roll ±30° @ - Yaw ±8° @ - Roll ±20° (- Yaw ±8° @ - Pitch ±20° (-	
Tracking Receiver  Frequency Band  RX frequency  TX frequency  Convertible  EPAK® Evo: Electror on + 3D Rate Gyro on + 3D Rate Gyro  EBF Gyro drift calibration rate  Maximum tracking speed  Azimuth range  Elevation range  Maximum ship motion  Ship motion (for stabilization accuracy tests)  Motion system  Lock on time  Typ. 60 sec (Time modem)  Satellite acquisition  EPAK® Diversity-Kit compatible  Modem approval  Completely autor and/or modem on ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Completely autor and/or modem on ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Completely autor and/or modem on ETSI 302 340)  EPAK® Diversity-Kit compatible  According to IEC 60  Shock  According to IEC 60  Shock  According to IEC 60  Shock  Completely  C	sky, 30° elevation)
RX frequency 19.7 - 20.2 GHz TX frequency 29.5 - 30.0 GHz Convertible Ku- and Ka-band Drive Subsystem  Tracking technology EPAK® Evo: Electror ro) + 3D Rate Gyro EBF Gyro drift calibration rate 12.5 msec (80 tim Maximum tracking speed 30°/s (each axis) Azimuth range Unlimited Elevation range -10° to +90°  Maximum ship motion -Pitch ±20° -Yaw ±8° @ 6 Pitch ±20° -Yaw ±8° @ 7 Pitch ±20° -Ya	S)
RX frequency 19.7 - 20.2 GHz TX frequency 29.5 - 30.0 GHz Convertible Ku- and Ka-band Drive Subsystem  Tracking technology EPAK* Evo: Electroro) + 3D Rate Gyro complete grant	0 MHz; BW 2.5 - 10 MHz
TX frequency  Convertible  Drive Subsystem  Tracking technology  EPAK® Evo: Electror ro) + 3D Rate Gyro ro) + 3D Rate Gyro electror ro) + 3D R	
Tracking technology  EPAK® Evo: Electro ro) + 3D Rate Gyro electro ro) + 3D Rate Gyro telestro gyro drift calibration rate  Maximum tracking speed  Azimuth range  Unlimited  Elevation range  Maximum ship motion  Ship motion (for stabilization accuracy tests)  Motion system  Completely autor and/or modem of ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Coperating temperature  Humidity  Vibration  Complately autor and/or modem of ETSI 302 340)  EPAK® Diversity-Kit compatible  According to IEC 6  Shock  According to IEC 6  Rain  IP56  Wind  Compliance  EPAK® Evo: Electro roo) + 3D Rate Gyro  12.5 msec (80 time)  10.5 msec (80 time)  1	
Tracking technology  EPAK® Evo: Electro ro) + 3D Rate Gyro EBF Gyro drift calibration rate  Maximum tracking speed  Azimuth range  Unlimited  Elevation range  Ino to +90°  Maximum ship motion  Ship motion (for stabilization accuracy tests)  Motion system  Completely autor and/or modem of ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Coperating temperature  Joperating to IEC 6  According to IEC 6  Mind  Compliance  EPAK® Evo: Electror o) + 3D Rate Gyro  Pitch ±20° (e ach axis)  All ±30° (e) - Roll ±30° (e) - Pitch ±20° (e) - Pitch	
Tracking technology  EPAK® Evo: Electro ro) + 3D Rate Gyro  EBF Gyro drift calibration rate  Maximum tracking speed  Azimuth range  Unlimited  Elevation range  -10° to +90°  - Roll ±30° @ - Pitch ±20° @ - Yaw ±8° @ 6' - Roll ±30° @ - Pitch ±20° @ - Yaw ±8° @ 6' - Roll ±30° @ - Pitch ±20° @ - Yaw ±8° @ 6' - Yaw ±8° Manuelle - Yaw ±8° Manuelle - Yaw ±8° Manuelle - Yaw ±8° Manuell	
Facking technology   Fo) + 3D Rate Gyro	
Maximum tracking speed  Azimuth range  Elevation range  -10° to +90° - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Yaw ±8° @ 6 - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Yaw ±8° @ 7 - Yaw ±8° ©	nic Beam Forming (EBF-Gy + 3D inertial + GNSS
Azimuth range  Elevation range  -10° to +90°  - Roll ±30° @ - Pitch ±20° @ - Yaw ±8° @ ¹  Roll ±30° @ - Pitch ±20° @ - Yaw ±8° @ ¹  Roll ±30° @ - Pitch ±20° @ - Yaw ±8° @ ¹  Motion system  2-axis  Miscellaneous  Lock on time  Typ. 60 sec (Time modem)  Completely autor and/or modem of ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  Vibration  According to IEC @ Shock  Rain  IP56  Wind  Operationa - Survival < 2  2-2.00 m according Complies v EC directive communicae (R&TTE), p directive 2/ 2004/108/E	es per sec)
Elevation range  -10° to +90°  Roll ±30° @ Pitch ±20° ( Yaw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Yaw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Yaw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Yaw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Yaw ±8° @ 6  Motion system  2-axis  Miscellaneous  Lock on time  Typ. 60 sec (Time modem)  Completely autor and/or modem of ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Completely autor and/or modem of ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  According to IEC 6  Shock  According to IEC 6  Shock  Rain  IP56  Wind  Operationa Survival < 2  2.00 m according Compliance  Compliance  Compliance  Compliance	
Maximum ship motion  - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Roll ±30° @ - Pitch ±20° ( - Yaw ±8° @ 6 - Yaw ±8° @ 6 - Motion system  2-axis  Miscellaneous  Lock on time  Typ. 60 sec (Time modem)  Completely autor and/or modem or ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Telenor type appr approval; CE & EP/ - Operating temperature  - 20°C to 55°C  Storage temperature  - 30°C to 85°C  Humidity  According to IEC 6 - Shock  Rain  IP56  Wind  - Operationa - Survival < 2 - 2.00 m according - CE (Maritim or Complies v EC directive communication (R&TTE), p directive 2/2 2004/108/E	
Maximum ship motion  Pitch ±20° ( Yaw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Pitch ±20° ( Yaw ±8° @ 6  Roll ±30° @ Pitch ±20° ( Yaw ±8° @ 6  Motion system  2-axis  Miscellaneous  Lock on time  Typ. 60 sec (Time modem)  Completely autor and/or modem or ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Telenor type appr approval; CE & EP/ Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  According to IEC 6  Rain  IP56  Wind  Operationa Survival < 2  2.00 m according  Compliance  Compliance  Compliance  Compliance	
Ship motion (for stabilization accuracy tests)  Notion system  2-axis  Miscellaneous  Lock on time  Satellite acquisition  EPAK® Diversity-Kit compatible  Modem approval  Operating temperature  Storage temperature  -30°C to 85°C  Humidity  Vibration  Shock  According to IEC 6  Rain  IP56  Wind  Operationa  Survival < 2  2-00 m according  Compliance  Compliance  Compliance  Pitch ±20° co Yaw ±8° @ 1  Pitch ±20° co Yaw ±8° @ 1  Pyp. 60 sec (Time modem)  Completely autor and/or modem or ETSI 302 340)  Felon type appraproval; CE & EPA  Telenor type appraproval; CE & EPA  20°C to 55°C  According to IEC 6  According to IEC 6  Shock  According to IEC 6  Compliance  Compliance	@ 6 sec
Miscellaneous  Lock on time  Typ. 60 sec (Time modem)  Completely autor and/or modem or ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Telenor type apprrapproval; CE & EP/Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  According to IEC 6  Shock  According to IEC 6  Rain  IP56  Wind  Operationa Survival < 2  Compass safe distance  Compliance  Compliance  Compliance  Telenor type apprrapproval; CE & EP/Operating temperature  -20°C to 55°C  According to IEC 6  Compliance  Compliance  Telenor type apprrapproval; CE & EP/Operating temperature  -20°C to 55°C  According to IEC 6  Compliance  CE (Maritim Complies value of Compliance (R&TTE), possible of Compliance (R&TTE), possibl	@ 8-10 sec
Lock on time  Typ. 60 sec (Time modem)  Completely autor and/or modem of ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Telenor type appr approval; CE & EP/ Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  According to IEC € Shock  According to IEC € Shock  Rain  IP56  Wind  Operationa Survival < 2  Compliance  Compliance  Compliance  Typ. 60 sec (Time modem)  Typ. 60 sec (Time modem)  According to IEC € Compliance	
Satellite acquisition  Satellite acquisition  EPAK® Diversity-Kit compatible  Modem approval  Telenor type appr approval; CE & EP/ Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  According to IEC € Shock  According to IEC € Rain  IP56  Wind  Operationa  Survival < 2  Compliance  Compliance  Compliance  Telenor type appr approval; CE & EP/  According to pappr approval; CE & EP/  -20°C to 55°C  -30°C to 85°C  According to IEC €  According to IEC €  Compliance  Compass safe distance  - CE (Maritim  Compliance  Compliance	
Satellite acquisition  ETSI 302 340)  EPAK® Diversity-Kit compatible  Modem approval  Telenor type apprapproval; CE & EP/ Approval; CE & EP/ Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  According to IEC € Shock  According to IEC € Rain  IP56  Wind  Operationa Survival < 2  Compliance  Compliance  Compliance  And/or modem of ETSI 302 340)  Telenor type apprapproval; CE & EP/ Approval; CE & EP/ Approval Approval Approval Approval Approval Approva	to Online depends on
Modem approval  Telenor type approapproval; CE & EP/ Operating temperature  -20°C to 55°C  Storage temperature  -30°C to 85°C  Humidity  According to IEC € Shock  According to IEC € Shock  Rain  IP56  Wind  Operationa Survival < 2  Compliance  Compliance  Compliance  Telenor type approapproapproval; CE & EP/  -20°C to 55°C  -30°C to 85°C  According to IEC €  -30°C to 85°C  -30°C to 85°C  According to IEC €  -20 Operationa -20 Operationa -20 Compliance  -20 Ce (Maritim -20 Complies v -20 Ci directive -20 communication -20 Compliance	nated by DVB-S2-Receive onfirmation (according t
approval approval approval; CE & EP/ Operating temperature -20°C to 55°C  Storage temperature -30°C to 85°C  Humidity According to IEC €  Shock According to IEC €  Rain IP56  Wind - Operationa - Survival < 2  Compass safe distance ≥2.00 m according to IEC €  Compliance Compliance   CE (Martim - Complies v EC directive communica (R&TTE), p directive 2/2004/108/E	
Storage temperature  -30°C to 85°C  Humidity  According to IEC 6  Shock  According to IEC 6  Shock  Rain  IP56  Wind  - Operationa - Survival < 2  Compass safe distance  - CE (Maritim - Complies v EC directive communica (R&TTE), p directive 2/ 2004/108/E	oval; Standard type AK type approval;
Humidity According to IEC €  Shock According to IEC €  Rain IP56  Wind Operationa Survival < 2  Compass safe distance  Compliance  Compliance  Compliance  According to IEC €  According to IEC €  Operationa Survival < 2  EC (Maritim Complies v EC directive communica (R&TTE), p directive 2 2004/108/E	
According to IEC €  Rain IP56  Wind - Operationa - Survival < 2  Compass safe distance ≥ 2.00 m according - CE (Maritim - Complies v EC directive communica (R&TTE), p directive 2 2 2004/108/E	
Shock  Rain  IP56  Wind  Operationa Survival < 2  Compass safe distance  Compliance  Comp	60945, 100% condensing
Rain IP56  Wind • Operationa • Survival < 2  Compass safe distance ≥ 2.00 m according • CE (Maritim • Complies v EC directive communica (R&TTE), p directive 20 2004/108/E	60945; MIL-STD-167-1
Wind  Operationa Survival < 2  Compass safe distance  ≥2.00 m according  Compliance  Comp	50721-4-6; MIL-STD-810F
Compass safe distance  ≥2.00 m according  • CE (Maritim • Complies v EC directive communica (R&TTE), p directive 2/ 2004/108/E	
CE (Maritim Complies v EC directive communica (R&TTE), p directive 2/ 2004/108/E	l: < 150 km/h (< 81 knots) 00 km/h (< 108 knots)
Compliance  Compliance  Compliance  Compliance  Compliance  Compliance  Communication  (R&TTE), p  directive 2i  2004/108/E	g to IEC 60945
Power Specifications	a) ETCI
	e), E1SI vith the specifications of the specifications of Tele titions Terminal Equipmer er compliance with E1 006/95/EC, EMC directiv C and IEC 301-427
Power supply antenna (ODU) 24 V DC (supplied	vith the specifications of 2 1999/5/EC Radio & Tele Itions Terminal Equipmer er compliance with E 006/95/EC, EMC directiv
Antenna input voltage TX (BUC) 24, 30, 48 V DC / 2	vith the specifications of a 1999/5/EC Radio & Tele titions Terminal Equipmer er compliance with E 006/95/EC, EMC directiv C and IEC 301-427
Power consumption (ODU excl. BUC) 20-100 VA (suppli	vith the specifications of a 1999/5/EC Radio & Tele titions Terminal Equipmer er compliance with E 006/95/EC, EMC directiv C and IEC 301-427
Dimensions and Weight	vith the specifications of page 1999/5/EC Radio & Tele titions Terminal Equipmer er compliance with Et 2006/95/EC, EMC directiv C and IEC 301-427  by ACU)  150 VA (supplied by ACU)
Radome (D x H) 111 cm x 114 cm (4	vith the specifications of page 1999/5/EC Radio & Tele titions Terminal Equipmer er compliance with Et 2006/95/EC, EMC directiv C and IEC 301-427  by ACU)  150 VA (supplied by ACU)
Weight (incl. radome) 58 kg (127.87 lbs)	vith the specifications of a 1999/5/EC Radio & Tele titions Terminal Equipmer er compliance with E- 1006/95/EC, EMC directiv C and IEC 301-427  1 by ACU) 150 VA (supplied by ACU) 1ed by ACU)
Power supply antenna (ODU) 24 V DC (supplied Antenna input voltage TX (BUC) 24, 30, 48 V DC / 2  Power consumption (ODU excl. BUC) 20-100 VA (supplied Antenna input voltage TX (BUC) 20-100 VA (supplied Antenna	vith the specifications e 1999/5/EC Radio & Tel itions Terminal Equipme er compliance with I
-	with the specification 1999/5/EC Radio & 1 1000/1000 Terminal Equipm 1006/95/EC, EMC direct
	vith the specifications of 1999/5/EC Radio & Teletitions Terminal Equipmenter compliance with E 1006/95/EC, EMC directive C and IEC 301-427  by ACU)  50 VA (supplied by ACU)  ed by ACU)

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		
Modem types	<ul> <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>	
Cables and Connectors		
ACU to Antenna	3x Double shielded coax cable (ECOFLEX 10) with N-plugs	
ACU to Modem	<ul> <li>1x Double shielded coax cable (RG6) with F and TNC-plugs</li> <li>1x Ethernet crosslink with RJ45 plugs</li> </ul>	
ACU to Network	<ul><li>Ethernet patch with RJ45 plugs</li><li>RS422/RS232</li></ul>	

# 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