

**EPAK**<sup>®</sup>

## DS9 Pro

Maritime TVRO antenna for seamless TV reception with 90 cm diameter dish and 3-axis motion system

Reflector diameter  
90 cmTracking speed  
up to 50°/sSIM LTE  
available

EPAK DS9 PRO is a very reliable and robust antenna specifically designed to meet even the hardest requirements in harsh seas and with its automated polarization tracking system it guarantees best signal quality even during extreme tilted positions.

Enjoy the quality of onboard television entertainment in High-Definition, in your language and wherever you are. With our Diversity Kit, you can forget about blind spots and signal interruptions, for a flawless and relaxing television experience at sea.

### Easy Installation

Due to its restrained weight for a 90 cm system, the DS9 PRO can be easily transported and refitted.

### No More Blind Spots

EPAK Diversity Kit combines the free line of sight ranges of two antennas in one bundle. That will prevent nearly any loss of satellite signals through blockades.

### All Your Favourite Channels

A large variety of satellites can be remotely stored by the user at anytime through the antenna Web Interface, allowing you to watch all your favourite TV programs in your language.

### 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.

### Sensor-based Satellite Reacquisition

Instant relock feature after passing obstacles like bridges, buildings, trees etc.

### Multi-user Kit

Through connection of multi-user kits an unlimited number of TV places can be served.

### KEY FEATURES:

- 3-axis motion system + auto skew
- Elevation range from -15° to +120°
- Tracking speed up to 50°/s per axis
- LTE Plug & Go SIM cards
- LEO, MEO, GEO tracking supported
- Easy to install
- High-quality material for operating even under the hardest conditions
- Quattro LNB, for connecting as many receivers you want
- Unlimited azimuth range (no cable unwrap)

Feed Subsystem	
Reflector diameter	90 cm (35.4")
Minimum E.I.R.P.	43 dBW
LNB	
LNB type	Universal Linear (LOF 10.6/9.75 GHz) or High-band Circular (LOF 10.75 GHz) or other LNB on request
Frequency	12.75 - 10.7 GHz
Antenna gain	39.5 dBi @ 12.5 GHz
Position acquisition	Internal GNSS (GPS / Glonass / Galileo / Beidou / QZSS)
Tracking receiver	Internal, 2150 - 950 MHz; BW 50 - 0.5 MHz
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+
Skew movement	Automated °120- to °120+
Cross level range	°45- to °45+
Maximum ship motion	<ul style="list-style-type: none"> <li>Roll 6 @ °30± sec</li> <li>Pitch 6 @ °20± sec</li> <li>Yaw 6 @ °8± sec</li> </ul>
Ship motion (for stabilization accuracy tests)	<ul style="list-style-type: none"> <li>Roll 12-10 @ °30± sec</li> <li>Pitch 10-8 @ °20± sec</li> <li>Yaw 15 @ °8± sec</li> </ul>
Motion system	-3axis + auto skew
Miscellaneous	
Lock on time	Typ. 30 sec
Satellite acquisition	Completely automated by DVB-S2 & SatFingerprint technology
Satellite positions	Customizable through webinterface or control panel
Satellite selection	Manually via Control Unit or through web interface
EPAK® Diversity-Kit compatible	✓
Operating temperature	°20-C to °55C
Storage temperature	°30-C to °85C
Power Specifications	
Power supply	48 V DC (supplied by ACU)
Power consumption	160 VA
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)
Shipping dimensions	
Box type	Wooden box
Dimensions - gross weight	126 cm x 126 cm x 137 cm - 197 kg (49.57" x 49.57" x 43.31" - 54.02 lbs)

Antenna Control Unit	
Dimensions (W x HxD)	48.2 cm x 4.4 cm x 38 cm (18.9" x 1.7" x 19") (1"4.9" Rack 1HU size)
Weight	51 kg (112.4 lbs)
Gyro interface	NMEA0183 / NMEA2000 (via RS422 or RS485 or RS232) / SIMRAD RGCII
Input voltage, frequency	264-90 V AC, 63-47 Hz
Interfaces	<ul style="list-style-type: none"> <li>1x NMEA [2 wire]</li> <li>1x RS232 [RJ45]</li> <li>1x RS422 (open BIMP) [RJ45]</li> <li>1x Ethernet front [RJ45]</li> <li>3x Ethernet back</li> <li>1x USB front</li> <li>1x USB back</li> <li>2x GPIO (opt.)</li> </ul>
Local user interface	256x64px OLED-Display, 3 Status-LEDs, 6 Push-Buttons
Remote access	TCP / IP
Position acquisition	Supplied by ODU
Operating temperature	°20-C to °55C
Storage temperature	°40-C to °85C
Humidity	According to IEC 60945
IP class	IP 30
Compass safe distance	0.5 m according to IEC 60945

