



PointLink

Marine-Grade Microwave Communications for Integrated Operations

Reliable, high-capacity, cost-effective wireless communications solution for offshore connectivity. Features a unique stabilized antenna system to ensure continuous availability, even in harsh marine conditions.

Microwave radio is the most cost-efficient solution for connecting offshore operations and onshore facilities. Ceragon's unique PointLink solution coupled with Evolution radios and gyro-stabilized antennas provides the most reliable high-capacity, safe and cost-effective solution for Integrated Operations.

PointLink is an advanced microwave communication solution that provides higher capacity and lower latency connectivity than satellite solutions, at a far lower cost of deployment than fiber cable. Its stabilized antennas deployed on moving objects like drilling rigs and floating production, storage and offload ships (FPSO), stay in perfect alignment with those on land-based facilities or on other moving installations. Solving the technological and physical challenges associated with microwave communications over water, PointLink's reliability and high capacity enable the transition of offshore activities to onshore locations while maintaining a "virtual presence" at each of the offshore locations.

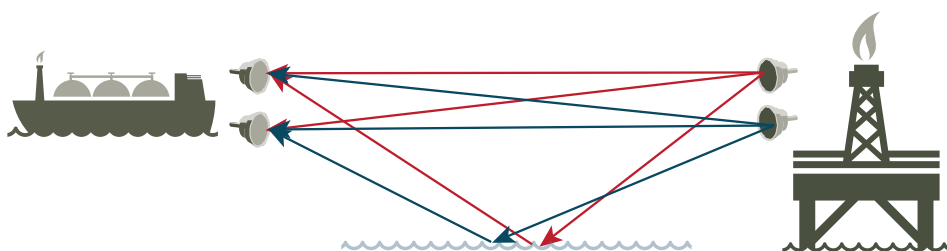
Ceragon's PointLink Solution

- **High capacity**
Up to 2 Gbps, Ethernet/IP or SONET/SDH
- **Mission-critical availability**
Gyro-stabilized antennas, quadruple space diversity
- **Lower TCO**
Avoid costly submarine fiber deployments
- **Safety certification**
ATEX Zone 1-certified radome, Zone 2-certified radio
- **Field-proven solution**
Over 30 years in offshore installations



PointLink is an ATEX-certified microwave radio solution for use on moving vessels where the antenna is stabilized in two axes - azimuth and elevation. It features a GPS gyro system for heading detection and a motion control system to compensate for pitch and roll. PointLink features **unparalleled pointing accuracy** ($\pm 0.2^\circ$) and ensures **continuous link availability**. In installation on rotating vessels, two PointLink units with a hitless switching mechanism ensure continuous operation even if 360 degree coverage cannot be provided in a single installation.

To overcome diffraction loss and reduced line of sight, Ceragon offers **quadruple space diversity** technology which acts as double space diversity with frequency diversity. This innovative technology has been proven to be the best method for protection against propagation disturbances like flat and selective fading, two of the most problematic issues when transmitting microwave signals over a sea surface.



Ceragon's PointLink Microwave System Overcomes Multipath Distortion Caused by Reflection

As part of the Pointlink solution, Ceragon delivers the ruggedized version of its Evolution radio with **salt-resistant anti-corrosion coating** and special offshore coated antennas making the system weather-proof and able to withstand very high waves, storms and other adverse weather conditions. The radio is ATEX approved Eex nR (Zone 2).

Ceragon offers a **full turnkey offshore solution** including field surveys, performance calculations, frequency planning, installation, testing and commissioning. After-sales services and Service Level Agreements guarantee top performance and mission-critical link availability.

Ceragon has been a key supplier of communication equipment to the offshore industry since the 1970s, delivering over 200 microwave links to numerous oil and gas operators. Ceragon boasts the world's longest microwave radio hop to an offshore rig, a 123 km link to Talisman's Yme oil field in the Norwegian North Sea. Today, Ceragon is the sole provider of a truly stabilized antenna system for microwave radio (4 to 18GHz), with the long-term expertise and safety certifications to deliver the complete solution – reliable, safe high-capacity offshore links which can withstand fading, harsh weather conditions and rig movements.



Ceragon Comprehensive Network Offering:



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