Seamless Connectivity for Smart Container Terminals
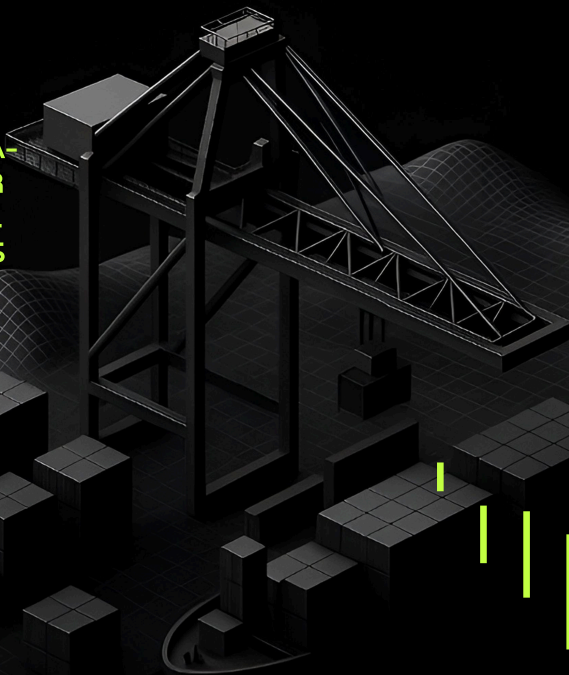
Remote RTG & STS Control → Terminal Automation → Operational Excellence → Cost Optimization

DELIVERING ULTRA-LOW LATENCY FOR MISSION-CRITICAL PORT OPERATIONS

ASTRADRIVE

Ultra-Low Latency Performance

Sub-30 ms response time ensuring real-time remote control of RTG and STS with precision and safety

High-Capacity Infrastructure

Dedicated bandwidth of 100+ Mbps, sufficient for CCTV feeds, TOS integration, and voice communication

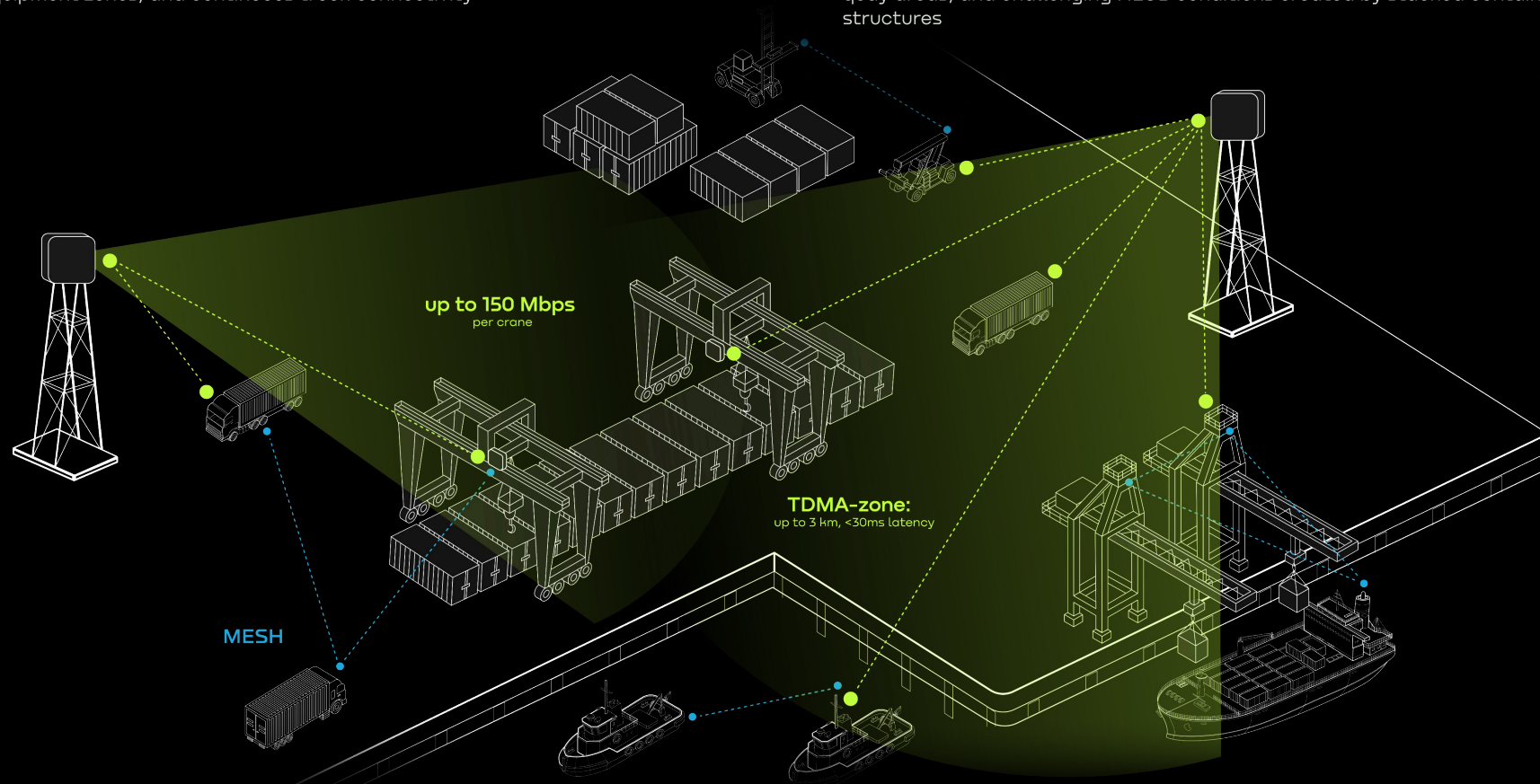## Self-Optimizing, Fail-Safe Network

Maintains performance across moving equipment, adapts to layout changes, and ensures continuous connectivity for critical operations

Precision-Engineered For Container Terminal Operations

ASTRADRIVE is built for demanding port environments — featuring industrial-grade hardware, high-gain antennas, and ultra-low latency architecture for remote crane control, dense equipment zones, and continuous truck connectivity

Adaptive Hybrid Connectivity

ASTRADRIVE combines TDMA for guaranteed low-latency performance (<30 ms) and MESH for extended coverage, ensuring stable connectivity across container yards, quay areas, and challenging NLOS conditions created by stacked containers and metal structures

up to 150 Mbps
per crane

TDMA-zone:
up to 3 km, <30ms latency

MESH

Multi-Service Platform Integration

Supports TOS data exchange, HD CCTV streaming from RTG and STS cranes, clear voice communication, and remote RTG control — combining all key terminal services within one wireless platform

End-To-End Vendor Support

Astrawireless provides comprehensive terminal network design, including precise infrastructure placement to minimize equipment count while maximizing coverage across quay walls, container yards, and gate areas. Optimization ensures cost-effective scalability for expanding terminal operations

AstraMUX-GE4-S2

Industrial switch optimizing mobile network performance, enabling traffic balancing and seamless switching between moving and fixed infrastructure
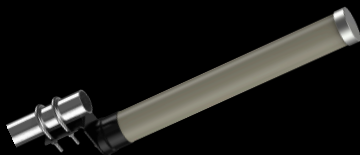
AstraMUX-GE8

High-capacity rack-mount switch for network aggregation and centralized traffic management, supporting multiple switches and base stations to ensure a stable, scalable backhaul infrastructure for offshore and onboard networks
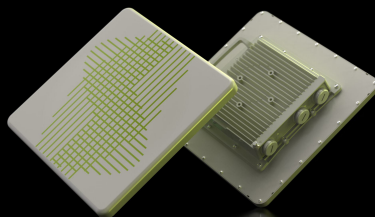
ANT-OMNI-10

Omnidirectional antenna with dual polarization, corrosion-resistant housing, and consistent 10 dBi gain across its 360° beamwidth and all operating frequencies
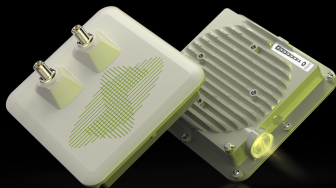
DRIVE E5-BSI

Sector base station with an integrated 16 dBi antenna, featuring a wide 90° beamwidth and throughput of up to 800 Mbps for high-performance coverage across its entire sector
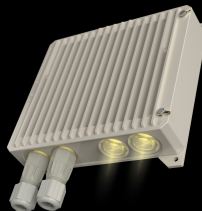
DRIVE E6-STE

Subscriber terminal with external antenna connectors, delivering up to 670 Mbps of wireless throughput. Special lacquer coating ensures enhanced resistance to salt fog and harsh marine conditions

Terminal Unit

Industrial-grade module enabling high-speed, low-latency data exchange between cranes, vehicles, and terminal infrastructure — ensuring reliable control, monitoring, and traffic aggregation across port operations

Astrawireless

Develops high-capacity wireless systems for backhauls and access networks, designed for complex, high-performance environments