

Compact Deployable Ground Stations System (CDGSS)

Deployable Adaptive Optics Ground Station
Maximizing Free Space Optical
Communication Performance through
Real-Time Atmospheric Turbulence
Compensation

Ideal for

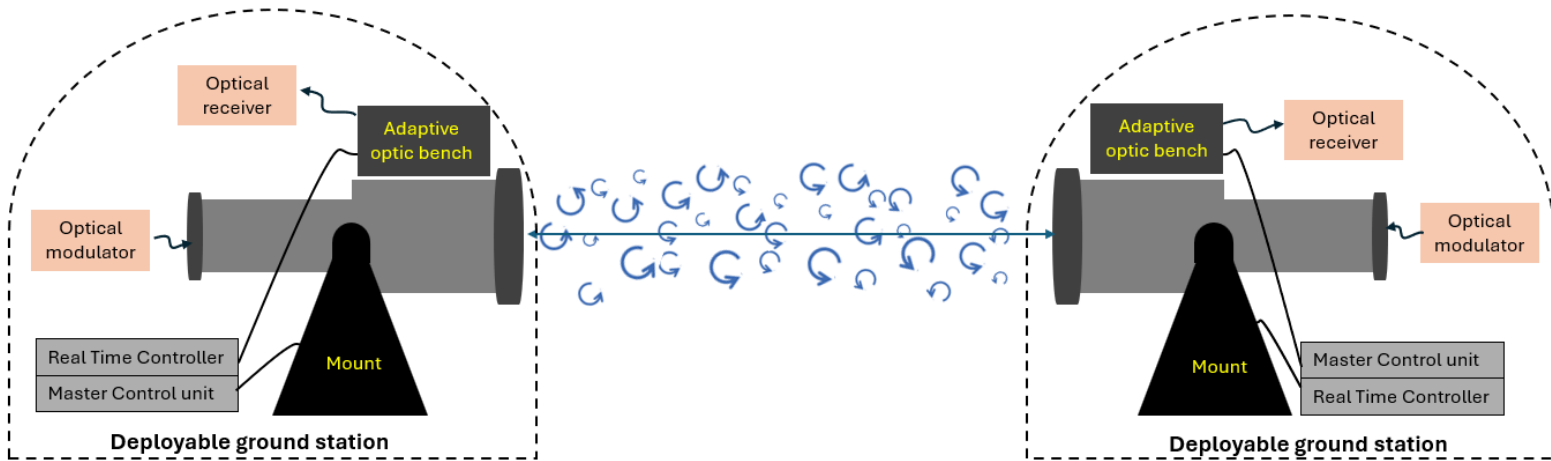
RESEARCH AND EXPERIMENTAL FSO
NETWORKS

SECURE POINT TO POINT OPTICAL
COMMUNICATIONS

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For more info





Real time controller + adaptive optic bench = compensate atmospheric turbulence

Master control unit + mount + tracking = compensate mechanical misalignment

Reliable Communications

- Robust performance under varying atmospheric conditions
- Enhanced link availability
- Continuous adaptive correction
- Stable optical tracking

Key features

- Compact and transportable architecture
- Modular design for flexible integration and upgrades
- Rapid deployment and simplified field operation
- Adaptive Optics real-time atmospheric turbulence compensation
- Wavefront sensing and correction
- Optimized Signal-to-Noise Ratio (SNR)
- Increased optical coupling efficiency
- High pointing stability
- Designed for long-range terrestrial optical communication
- Suitable for day and night operation
- Low maintenance requirements

Improved Link Performance

- Higher received optical power
- Better receiver sensitivity
- Increased communication margins
- Higher data throughput
- Lower Bit Error Rate (BER)

Operational Flexibility

- Deployable architecture
- Fast setup
- Modular configuration
- Easy transportation
- Scalability for different mission profiles

Technical specs

- Communication wavelength: 1550 nm (configurable)
- Optical aperture: 254 mm
- Adaptive Optics correction: Real-time
- rejection bandwidth: 115 Hz
- Tracking accuracy: 100 μ rad
- Wavefront correction: up to 15 nm PV

For more info

