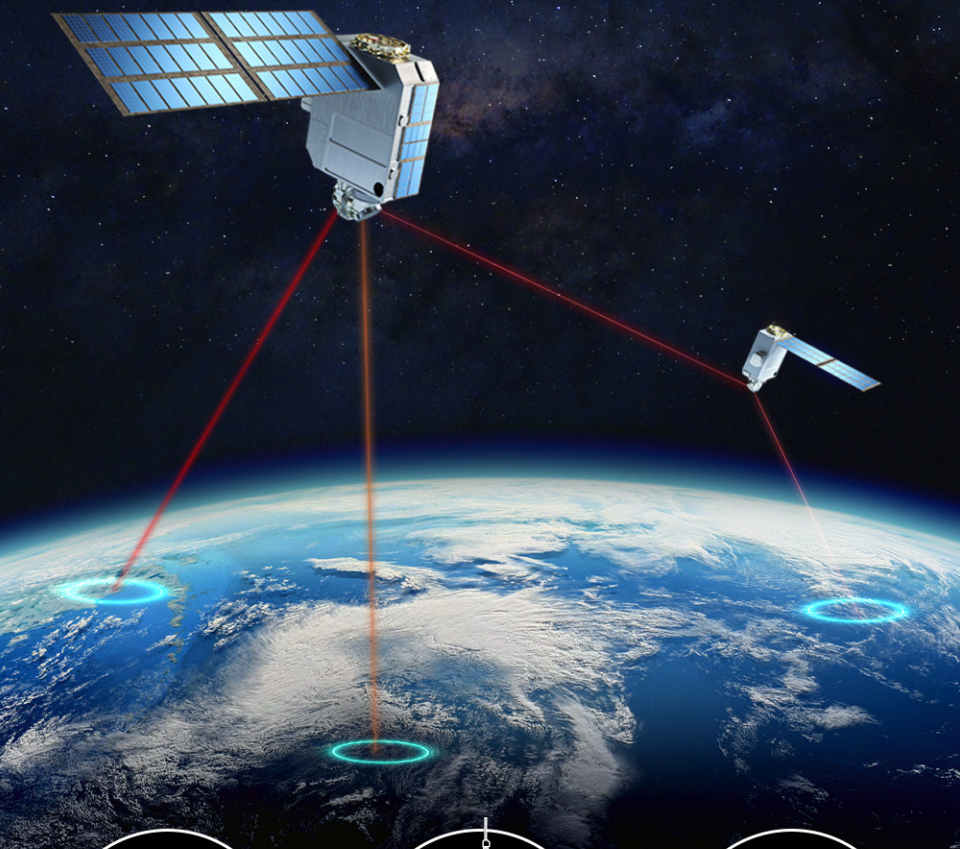


OPTICAL COMMUNICATIONS



GA-EMS' Optical Communication Terminals (OCTs) and Optical Ground Stations (OGSs) are scalable and adaptable to enable robust, multi-domain communications between space, air, land, and sea, across a variety of space orbits.

OCT | Optical Communication Terminal

- Compliant with SDA v3.1 OCT standard
- 10 W 1530-1565 nm transmit fiber laser
- 2.5 Gbps on-off keying
- 70 mm aperture for 5500+ km link range
 - Supports xGEO link ranges as well
- 20 kg mass
- Wide Field of View (WFOV); Hemispherical field of regard
- Fast slew time (25 deg/s)
- Software defined modem



OGS | Optical Ground Station

- Compliant with SDA v3.1 OCT standard
- 10 W 1530-1565 nm transmit fiber laser
- 2.5 Gbps on-off keying
- 70 cm aperture supports xGEO link ranges
- Adaptive optics for atmospheric turbulence mitigation supports advanced communication protocols
- Transportable trailer mount available
- Field experience since 2014



Expandable Capabilities

- Higher data rates and alternate coherent communication protocols (DPSK, DQPSK) via CCSDS 141-10 compatibility
- Additional commercial and customer-specific standards (ESTOL (ESA Standard))
- Scaled OCT apertures available – 70 mm, 135 mm, & 225 mm
- Adaptable OGS for mobile operations – smaller aperture and enhanced stabilization
- Higher power amplifiers (20+ W)