Aeronautical Telemetry Solutions

Advanced systems for missile launch and test telemetry applications

Aeronautical telemetry is employed in defense and civilian applications to enable real-time monitoring of environmental conditions in flying objects. It is a critical “real-time backbone” service for commercial and military flight tests of aircraft, aerostats, satellites, sounding rockets, and unmanned flight systems (UAS).

Due to the high costs involved in missile launches and flight tests, 100% reliability and fast target acquisition is essential for ensuring first-time mission success. Engineers are required to download vast amounts of data from sensors on the aerial platform to ground station antennas in real time.

Orbit aeronautical telemetry systems are known for their reliability and outstanding performance, utilizing high speed tracking antennas that can accurately track the fastest flying objects at long or short ranges. Orbit’s antenna systems can be installed in the toughest environmental and weather conditions, in close proximity to the ocean or on high mountain ranges.
Serving a wide customer base with a variety of solutions

For decades Orbit’s ground station telemetry solutions have been serving the most demanding government, military and civilian customers around the globe, providing system solutions for tracking the most challenging targets. The company’s telemetry product portfolio includes antennas ranging from 1.2 m and up to 10 m in diameter.

Depending on the solution required, Orbit provides fixed, transportable and/or portable antenna systems managed from on-site control stations. Tailored according to customer requirements, Orbit’s offerings vary from a single antenna/pedestal system to a turnkey solution comprising a complete ground telemetry station. Orbit’s advanced systems embrace all future tracking requirements in order to satisfy client expectations.

Key features

- E-scan, mono-pulse & conical scan-based antenna solutions
- High dynamic accuracy with very low backlash
- Dual and triple axis pedestals
- Multi-band configurations to support future growth
- Innovative user interface
- Stabilized and non-stabilized solutions
- Mobile and fixed platforms
- Turnkey solutions or standard off-the-shelf building blocks
- Upgrades and refurbishment capabilities for all brand names reducing customer costs

RF feeds configurations

These systems are available with the following RF configurations:

- Single band: L, S or C
- Dual band L&S or S&C
- Tri-band, patented covering all three bands L, S and C simultaneously; outperforming any solution on the market today