### **PROFEN**

# MOBILE TELEMETRY GROUND STATION



#### **PROFEN Mobile Telemetry Ground Station**

collects, analyses, stores and delivers telemetry data from test flight or launch vehicle platforms.

It consists of a transportable and trailer-mounted Telemetry Tracking Antenna System and Operations Shelter. It is compliant to internal road and transportation regulations, and has fast antenna unfolding/folding and quick deployment features.

Its Telemetry Tracking Antenna System offers a wide range of tracking options including preloaded trajectory tracking. The Operations Shelter provides working positions for System Operators, monitor & control functions for the station, management of tracking functions, reception, demodulation, analysis, visualisation and telemetry data transmission.

Telemetry Ground Station M&C System provides local management facilities. Moreover, it provides orchestration, holistic remote management and seamless integration with Mission Control Centres.

## **Key Features**

- L and S band operation
- Rotatable Head Pedestal with deployment and packing modes to assist positioning
- Optional Low Gain antenna on the same pedestal
- Global Navigation Systems Based Automatic North calibration function
- Telemetry Application Consoles
- One M&C System Console
- Global Navigation Systems Based timestamping on telemetry and M&C data wherever required
- Optical Zoom Camera on antenna boresight
- Manuel Tracking Facility in the Operations Shelter
- Transmission of antenna camera videos, operator console screens and telemetry data to Mission Control Centers with appropriate infrastructure
- Voice control positions for voice communication with external systems

# **Technical Specifications**

Frequency Range	1400 – 2400 MHz
G/T	18 dB/K @ 2300 MHz
Antenna Diameter	6 m
Plarisation	Both LHCP and RHCP
Tracking Speed	5° / Sec
VSWR	2:0:1 maximum
Azimuth Travel	±270°
Demodulation	IRIG-106 Compliant SO-QPSK
RF Receiver	IRIG-106 Chapter-2
	IRIG-106 Chapter-4
Elevation Travel	0° - 90°
Wind Operating	25 m/sec
Wind Survival	40 m/sec
Operating Temperature	20°C to +50°C
Relative Humidity	Up to 95%







