

SATRACK 150

Polar Orbiting Satellite Groundstation

FEATURES

- High performance L-Band tracking
- Fully automatic operation
- Integrated Feed, LNA and Downconverter
- Acquisition processing software
- METEOR image processing & display package
- High reliability
- Low cost

The SATRACK150 is a fully integrated satellite tracking, acquisition, and processing system for the reception of data from polar orbiting environmental spacecraft NOAA satellites.

It includes a powerful workstation, software for antenna control and automatic operation, data processing software, and a collection of general image processing and display functions using the ES&S satellite image processing system METEOR.

A fully automated system, the SATRACK150 earth station offers the latest in hardware and software technology for a wide variety of ocean, land, and atmosphere applications.

REMOTE SENSING



meteorological solutions

The SATRACK 150 satellite groundstation is a portable, reliable, high-performance, fully integrated system.

These applications include:

- Meteorology and Weather Forecasting
- Physical & Biological Oceanography
- Hydrology
- Fisheries
- Wildlife Research
- Agriculture & Forestry
- Naval & Coast Guard Operations
- Vulcanology
- Climate and Global Change Studies
- Land-based Change Detection Studies (e.g. urbanization, tropical deforestation, desertification)



TECHNICAL SPECIFICATIONS

DOWNCONVERTER

Input Frequency	1670—1720 MHz
Output Frequency	137 MHz
Gain	30 dB
Polarisation	RHCP

PBB INGEST CARD / RECEIVER

Modes	BPSK, PSK, QPSK
Data rates	665.4 Kb/s(1.4Mb/sec option)
Gain	30 dB
Polarisation	RHCP

TRACKING CONTROL SOFTWARE

- Satellite ephemeris retrieval
- Scheduling
- Vector calculation & antenna control
- Maintenance logging

MOUNT

Mount Configuration	Elevation over Azimuth
Antenna Diameter	1.5m
Pointing Accuracy	1 deg
Wind Loading	180 km (inside randome)
Slew Rate	>5deg/sec
Environmental	IP65
Mains Supply	110/220/240AC
Temperature Range	-20° to 60°C
Encoder Accuracy	0.5°

FEED & LNA

Gain	45dB
Noise Figure	60 deg K
Frequency	1670 - 1720 GHz
Polarisation	RHCP

ESS MULTIMODE RECEIVER

Modes	QPSK, BPSK, PSK
Demodulation	fully digital (FPGA)
Configuration	file download
Internal OS	Linux
Data rates	0.5Mbits/s - 20 Mbits/s
Decoders	Viterbi (R=1/2, 3/4; K=7)
Output	TCP/IP



2m Rاندome - Kevlar Reinforced Fibreglass



Antenna Controller & Power Module

Note: Specifications are based upon a basic 1.5m HRPT SATRACK150 groundstation. The SATRACK150 is under continuous technical review and product improvement. Therefore, specifications may change without notice.