SATRAK150

polar orbiting satellite groundstation

Features

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

Applications

The SATRAK150 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 SATRAK150 earth station offers the latest in hardware and software technology for a wide variety of ocean, land, and atmosphere applications.

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)

es&s
environmental systems & services

MET
SEIS
ENV
GEO

Technical Specifications

Mount

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

Downconverter

Input Frequency	1696—1709 MHz
Output Frequency	137 MHz
Gain	30 dB

PBB ingest Card / Receiver

Modes	BPSK, PSK
Data rates	665.4 Kb/s(1.4Mb/sec option)

FEED and LNA

Gain	45 dB
Noise Figure	60 deg K
Frequency	1695—1709 GHz
Polarisation	RHCP

Tracking Control Software

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

Note: Specifications are based upon a basic 1.5m HRPT SATRAK150 groundstation. The SATRAK150 is under continuous technical review and product improvement. Therefore, specifications may change without notice.

2m Radome - Kevlar Reinforced Fibreglass

Antenna Controller and Power Module

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