

# POESAT500

NOAA, METOP, FY-1

## FEATURES

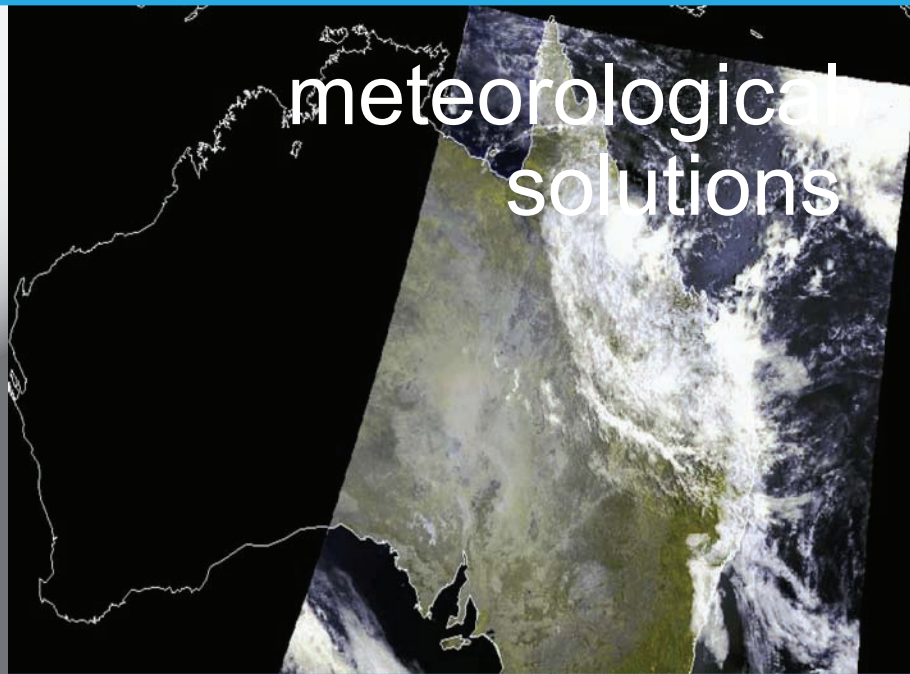
- High performance L-Band tracking antenna
- Fully automatic operation
- Integrated Feed, LNA and Downconverter
- Acquisition processing software
- METEOR image processing & display package
- High reliability
- Low cost

The ES&S POESAT500 groundstation is a high-performance system that tracks, receives and processes data from the US NOAA, EUMETSAT MetOp, and NSMC Fengyun-1 series of satellites.

Level-2 science products are derived from the NOAA/MetOp AVHRR and ATOVS payloads and, if a GTS feed is available at site, MetOp IASI science products are generated and integrated with other system outputs.

It is a complete turn-key system, providing all hardware and software necessary to receive transmissions and process the data into image files.

REMOTE SENSING



The POESAT500 NOAA satellite groundstation is a reliable, high-performance, fully integrated system.

A fully automated system, the POESAT500 earth station offers the latest in hardware and software technology for a wide variety of ocean, land, and atmosphere applications.

These include:

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



ISO 9001  
CERTIFIED

CERTIFIED  
QUALITY  
MANAGEMENT SYSTEM  
— ISO 9001 —  
CERTIFICATION N° 14363

# TECHNICAL SPECIFICATIONS

## DOWNCONVERTER

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

## PBB INGEST CARD / RECEIVER

Modes	BPSK, PSK
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	110/220/240 AC
Temperature Range	-20° to 60°C
Encoder Accuracy	0.5°

## FEED & LNA

Gain	45dB
Noise Figure	60 deg K
Frequency	1695 - 1709 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 Randome - Kevlar Reinforced Fibreglass



Antenna Controller & Power Module

Note: Specifications are based upon a 1.5m POESAT500 groundstation.