

GEOTAC300 portable geostationary satellite ground station



Features

- Portable antenna with feed and downconverter
- Signal interface and processing unit
- Image display laptop computer, incorporating processing and ingest workstation
- Receiver
- Ingest and acquisition software
- METEOR LT image processing software
- Rugged carry cases

Applications

The GEOTAC300 satellite groundstation is a portable, high reliability, high-performance system designed to receive data from the Japan Meteorological Agency's MTSAT-1R spacecraft. It is a complete turn-key system, providing all hardware and software necessary to receive CCSDS transmissions from the spacecraft and process the data into image files.

The antenna and receiving equipment are easily transported in ruggedized cases, and can be quickly erected at remote locations.

The system consists of two sections: an antenna mount with feed and downconverter and a case mounted Signal Interface and Processing Unit (SIPU), which distributes power to all system components, accepts and demodulates the RF signal from the antenna and, via the inbuilt computer and software, display and analyze the received data.

Transit cases are provided to allow safe transportation of the complete system. The complete system can be assembled and made operational in less than 30 minutes.



Technical Specifications

Antenna		Receiver	
Type	Mesh, six petals	Input frequency	126 to 154MHz
Diameter	2.3m	Input dynamic range	-90 to -50dBm
Alignment	Integrated signal level indicator	Input impedance	50 ohms
G/T	10.5dB typical at 1691MHz	Demodulation modes	BPSK, PSK
Feed	Integrated cavity dipole feed and low noise 45K block downconverter	Support symbol rates	0.1 to 2.7 MSPS
Assembly	Single allen key and captivated pins	Temperature (operating)	0 to 50 degrees C non-condensing
Transport	Transport case supplied	Interface	RS-232 9600 baud
Weight	45.5Kg		

System Configuration

Portable Dish and Feed



GEOTAC300 Signal Interfacing and Processing Unit



GPS

Mains In
Ethernet

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