SATRAX-XL

MODIS-TERRA & AQUA, NOAA, METOP, FENGYUN

REMOTE SENSING

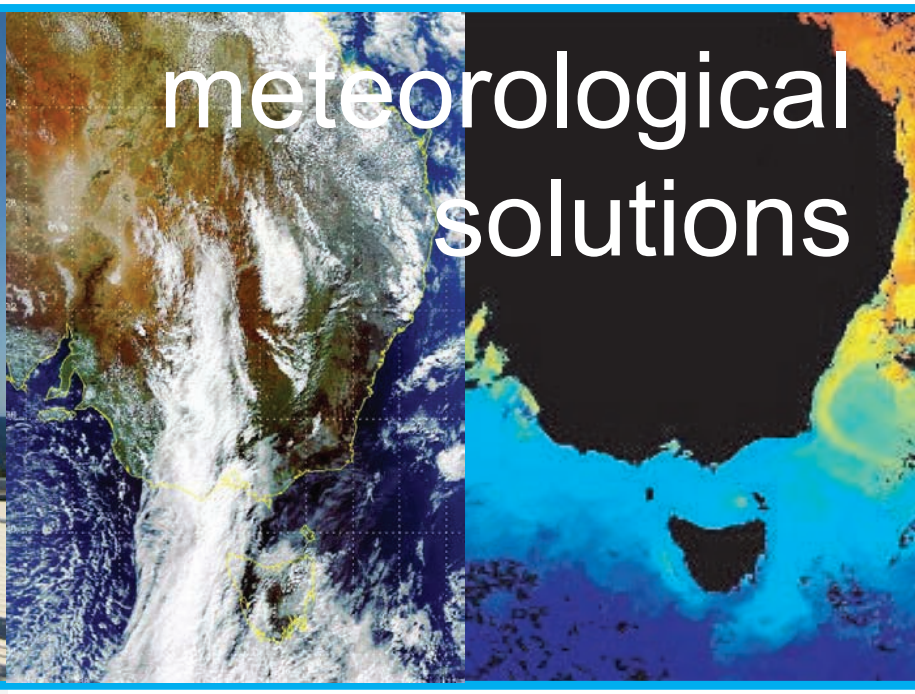
FEATURES

- High precision X/L-band reception
- XY tracking mount
- Flexible and upgradeable
- Robust design can be used without a radome
- Excellent demodulation performance
- Utilises the ESS3000 multi-mode receiver
- Fully automatic operation
- Interfaces with the powerful METEOR
- Satellite Image Processing Package

The ES&S SATRAX-XL groundstation is a high-performance, dual X- and L-band system that tracks, receives and processes data from the NASA Terra and Aqua satellites, US NOAA, EUMETSAT MetOp, and NSMC Fengyun-1spacecraft series.

Level-2 science products are derived from the Terra/Aqua MODIS, 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. In addition, the system decommutates all other direct-broadcast instruments from the Aqua satellite and makes this data available on disk for further processing.

SATRAX-XL software is comprised of two packages: the SATRAX700, which receives and processes X-band data, and the POESAT500, which receives and processes L-band data. Both packages use the ES&S SATKIT toolkit package to provide baseline services and so co-exist seamlessly.



The SATRAX-XL satellite reception system is a reliable, high-performance, fully automated system.

A fully automated system, the SATRAX-XL 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
- Agriculture & Forestry
- Climate and Global Change Studies
- Land-based Change Detection Studies (e.g. urbanization, tropical deforestation, desertification)

MADE IN AUSTRALIA

ISO 9001 CERTIFIED

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SATRAX-XL TECHNICAL SPECIFICATIONS

MOUNT

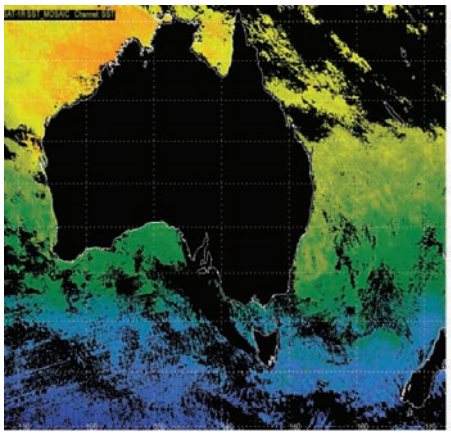
Mount configuration	X/Y
Antenna diameter	2.4m
Pointing accuracy	0.05 deg
Wind loading (operational)	120 km/hr
Wind loading (survival)	220 km/hr
Slew rate	> 5 deg/sec
Environmental	IP65
Mains supply	110/220/240 AC
Temperature range	-10 to 45 degrees C

FEED & LNA

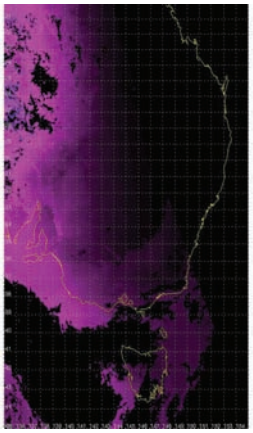
Gain	45dB
Noise Figure	45 deg K
Frequency	X-band 7750 - 8300 MHz
	L-band 1682 - 1710 MHz
Polarization	RHCP
LNA Gain	45 dB

ESS3000 MULTIMODE RECEIVER

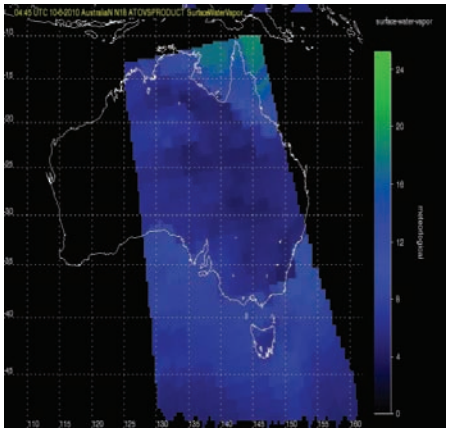
Modes	QPSK, BPSK, PSK, OQPSK
Demodulation	fully digital (FPGA)
Configuration	file download
Internal OS	Linux
Data rates	0.5Mbits/s - 20 Mbits/s
Decoders	Viterbi
Output	TCP/IP
Temperature range	-10 to 45 degrees C



Sea Surface Temperature
Mosaic (L-Band)



Moisture Profile
(X-Band)



Surface Water Vapour
(L-Band, ATOVS)

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