



MEOS™ Antenna

3.0 m to 4.3 m L/S/X-Band

MEOS™ Antenna comes with dish sizes up to 4.3 m. This gives sufficient margin for data reception from direct readout and remote sensing satellites. Designed for optimal maintainability and reliability, the MEOS™ Antenna utilizes the most modern industrial components available. 25 years of satellite ground system experience is built into the design.

When integrated with a MEOS™ receiver and processing system, the total unit is a high performance data reception and processing terminal.

High reliability

- Positioner internals and electronics operate in dehydrated environment
- X/Y geometry for lower stress to drive chain
- TCP-IP on fibre cable between pedestal and indoor unit
- Low mean time to repair, < 2 hours
- Drive chain replacement possible with reflector and positioner installed
- Stable antenna control unit running Linux, supporting 24/7 operations without operator intervention.
- Resumes operation automatically after a power break
- Self test and remote diagnostics
- Robust computers and servo units. Low failure probability

Key features

- Pedestal connected to indoor unit by optical fibre
- Cable length > 3 km
- Single, dual band configuration available
- Designed for L-, S-, and X-band missions
- 3.0 m to 4.3 m dish size
- X/Y pedestal for elimination of overhead keyhole
- Extensive monitoring and control capabilities
- In-field diagnostics and alignment tools
- Remote and local monitoring and control available
- Real time and historic status available
- Java based graphical user interface
- MEOS™ Connect ready for integration in a ground station network
- Easy installation



Performance

Standard Reflector Sizes ¹			
	3.0 m	3.8 m	4.3 m
L Band G/T (1700)	10 dB/K	12 sB/K	13 dB/K
S Band G/T (2400)	13 dB/K	15 dB/K	16 dB/K
X Band G/T (8200)	25 dB/K	27 dB/K	28 dB/K
Pointing error	0.09° rms ²		
Pointing resolution	0.005° on both axis		
Velocity	6 deg/s		
Wind speed operational	30 m/s	27 m/s	Radome recommended
Wind speed survival	56 m/s	56 m/s	Radome recommended
Travel			
X-axis: Mechanical ± 90 deg, Tracking ± 87 deg			
Y-axis: Mechanical ± 90 deg, Tracking ± 87 deg			
1. Ask for other sizes			
2. Based on CFD (Computational fluid dynamics) and FEDEM (Finite Element Dynamics in Elastic Mechanisms) analysis for a 3.8 m dish with 27 m/s wind			

RF system

- L-Band
 - RF input: 1693-1710 MHz
 - IF out: 137.5 ± 10 MHz
- X-Band
 - RF input: 7.5 – 8.4 GHz
 - IF out: 720 MHz
- S-Band
 - Consult factory

Standard features

- WEB based monitor and control
- Local control via PC browser
- ACU with Program track
- Automatic ephemeris download from Internet
- External interface (MEOS™ Connect ready)
- Graphical User Interface
- GPS time server in ACU

Options

- Autotrack*
- Radome
- Data Capture system - MEOS™ Capture
- Monitor and Control of external units e.g. demodulators, modulators, (see MEOS™ Control Product data sheet)

*Maximum signal level tracking by helical scanning

Related products

(Separate datasheets)

- MEOS™ Capture; HRR, HRD, HRDFEP, HRFEP, HRTG
- MEOS™ Connect
- MEOS™ Control

Physical

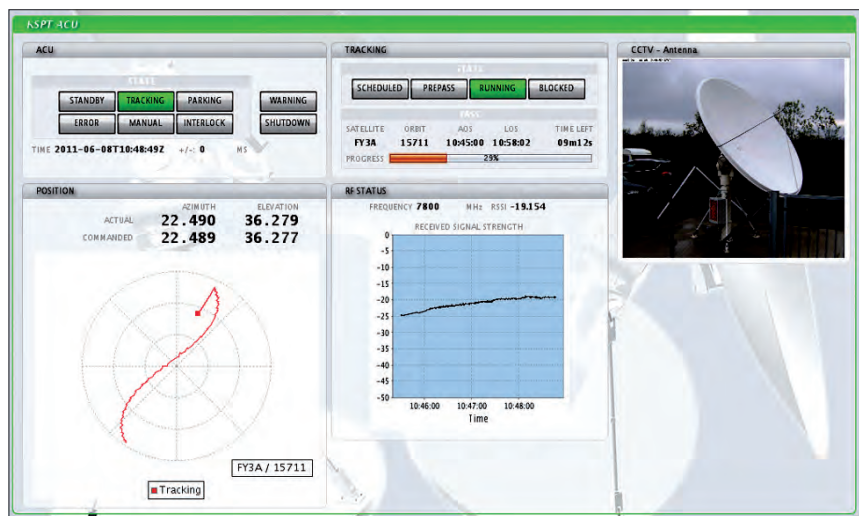
Antenna

- Temperature:
 - Operational: -40° C to 70° C
 - Storage: -40° C to 70° C
- Relative humidity:
 - 0-100 % including condensing
- Power requirements:
 - 200 - 264 V AC, 50 – 60 Hz
 - Nominal 230 V @ 2 x 16 A
- Weight: approx. 700 kg (reflector not included)

Indoor unit

- Rack mountable chassis
- Weight: approx. 20 kg
- Power:
 - 90-132 volts / 180-264 volts, 47 – 63 Hz
 - Dual power supplies
 - Maximum consumption: 500 W
- Temperature:
 - Operational: 10° C to 35° C
 - Storage: -30° C to 60° C
- Relative humidity (non condensing):
 - Operational: 10 % to 95 %
 - Storage: 5 % to 95 %
- Separate keyboard and monitor unit (optional)

Optional items can be made available upon request.



Operator interface and MEOS™ Antenna

Note:
MEOS is a registered trademark of Kongsberg Spacetek AS.
Specifications are subject to change without notice.

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