

# MEOS™ ANTENNA



KONGSBERG



3.0 m to 5.0 m L/S/C/X/Ka-Band

MEOS™ Antenna is delivered with reflector sizes up to 5.0 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.

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 operate in dehydrated environment
- Low mean time to repair, typically less than two hours
- Drive chain replacement possible with reflector and positioner installed
- Resumes operation automatically after a power break
- Self test and remote diagnostics
- Robust ACU and servo units with low failure probability

## STANDARD FEATURES

- Web based monitor and control
- Remote monitoring and control over fiber optic cable
- ACU with program and autotrack
- Automatic ephemeris download
- GPS time server in ACU
- External interfaces for integration by customer

## RF SYSTEM

- L-Band  
1693-1710 MHz RHCP/LHCP selectable
- S-Band downlink  
2,2 - 2,3 GHz RHCP/LHCP selectable
- S-Band uplink  
2025-2120 MHz RHCP/LHCP selectable  
EiRP 50 dBW.
- C-Band - please consult factory
- X-Band  
7,75 - 8,5 GHz RHCP/LHCP selectable
- Ka-Band  
25,5-27 GHz RHCP

*Consult factory for other options*

## ENVIRONMENT

- Temperature\*:  
Operational: -40° C to 55° C and  
Storage: -40° C to 60° C
- Relative humidity: 0-100 % including condensing
- Power requirements: 200 - 264 V AC, 50 - 60 Hz  
Nominal 230 V @ 16 A
- Weight: approx. 1000 kg

\* can be optionally extended.

*Optional items available upon request*

## FEATURES

- Designed for L-, S-, C-, X- and Ka-band missions
- Uplink
- Single and dual band configuration available
- 3.0 m to 5.0 m reflector size
- X/Y pedestal for elimination of overhead keyhole
- In-field diagnostics and alignment tools
- Remote and local monitoring and control available
- Easy installation
- Low maintenance
- Autotrack
- High torque positioner for heavy wind operation

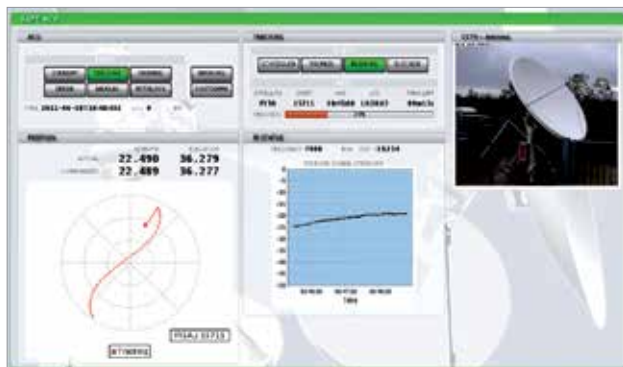


## TECHNICAL SPECIFICATIONS

### MEOS™ ANTENNA PERFORMANCE DATA

Standard Reflector Sizes <sup>1</sup>			
	3.0 m	3.7 m	5.0 m
L Band G/T (1700) <sup>2</sup>	10 dB/K	12 sB/K	14 dB/K
S Band G/T (2300) <sup>2</sup>	13 dB/K	15 dB/K	17 dB/K
C Band	Please consult factory		
X Band G/T (8200) <sup>2</sup>	dB/K	27 dB/K	29 dB/K
Ka-Band	32 dB/K		
Pointing error	0.09° rms <sup>3</sup>		
Pointing resolution	0.005° on both axis		
Velocity	6 deg/s		
Wind speed operational	40 m/s	27 m/s	Radome recommended
Wind speed survival	56 m/s	56 m/s	Radome recommended
Travel	Mechanical ±90 deg, Tracking from 1° elevation (except in keyhole position)		

1. Ask for other sizes
2. Radome losses not included
3. Based on CFD (Computational fluid dynamics) and FEDEM (Finite Element Dynamics in Elastic Mechanisms) analysis for a 3.8 m reflector with 27 m/s wind



Operator interface

### OPTIONS

- Radome
- MEOS™ Control for remote monitor and control.
  - Real time and historic status available
  - Monitor and Control for external units e.g. demodulators, modulators, (see MEOS™ Control Product data sheet)
- MEOS™ Capture - Data Capture system
- MEOS™ Connect

### RELATED PRODUCTS

- MEOS™ Capture
- MEOS™ Connect
- MEOS™ Control



MEOS™ Antenna 5 m



MEOS™ Ka-band antenna at Svalbard

Front page image: the Kongsberg Defence & Aerospace MEOS™ Antenna.

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