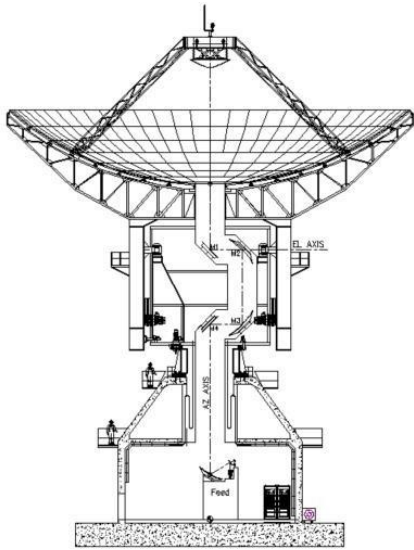


35.0 m Dual Reflector Antenna



Features

High Gain Antenna manufactured and delivered 32 m antenna systems to Korea Telecommunications (KT) in 1982. These antennas were installed at the Boeun KT site and used to broadcast 88 Olympic games. Since then we have designed and manufactured many large-diameter antennas and delivered to domestic and overseas customers. High Gain Antenna's several types of large-diameter antennas offer exceptional performances for Tx/Rx dual bands for the frequencies of L- through Ka-bands. These antenna systems can be used for the purpose of space communication, surveillance, and awareness for several satellite types and offer following features.

- Beam wave guide or center feed configuration
- Dual shaped high accuracy and strength formed reflectors
- Stiffness performance of antenna mount for required pointing accuracy for desired frequencies
- Excellent sidelobe performances and G/T
- Hot dipping galvanizing and zinc spraying treatments for surfaces of structural components

Options

- S, C, X, Ku, Ka band
- Dual or triple band simultaneous Rx/Tx systems
- De-icing system (Heat blower)
- Solar isolation pedestal system
- Antenna tracking systems (Step, Mono-pulse, TLE, Memory, or Manual)
- Turnkey installation and testing
- Full motion or Limited motion
- HPA, LNA, D/C, U/C system integration in the equipment room



Electrical specifications

Electrical Item	S-Band		Ku-Band	
	Receive	Transmit	Receive	Transmit
Frequency (GHz)	2.20 ~ 2.30	2.025 ~ 2.12	10.70 ~ 12.70	13.0 ~ 14.75
Gain (Low frequency, dBi)	56.08	55.36	69.60	71.18
Typical G/T (10 ° EL)	38.02 dB/K (15 K LNA)	N/A	51.0 dB/K (15 K LNA)	N/A
Polarization	CP		CP	
Antenna noise temperature 10°				
15°	49.00	N/A	57.50	N/A
20°	45.79	•	52.70	•
30°	43.21	•	48.81	•
45°	41.28	•	45.90	•
	40.4	•	44.01	•

* Gain values at feed flange

* G/T values at 10 ° elevation at clear weather of 18 °C temperature without RF interferences (wide open area)

35.0 m Dual Reflector Antenna

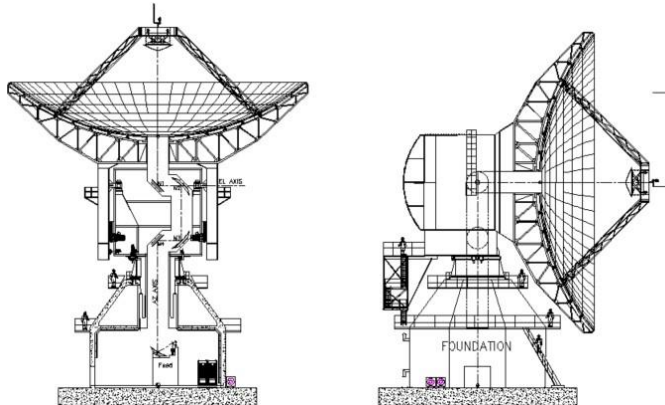
Mechanical specifications

Item	Specifications
Antenna type	Shaped dual reflectors
Pedestal type	Conical yoke tower (Options : middle or side equipment room)
Reflector	Shaping formed aluminum panels, galvanized steel back-up structure
Pedestal configuration	Dual motor drive on AZ, EL
Azimuth travel	$\pm 270^\circ$ or customized upon request
Elevation travel	0° to 90° continuous or customized upon request
Azimuth , elevation travel rate	0.01° to $1^\circ/\text{sec}$ or customized upon request
Foundation (L x W x D)	L , W = Antenna diameter * 0.71, D= Antenna diameter * 0.071
Soil bearing pressure	10,000 kg/m ²

Environmental specifications

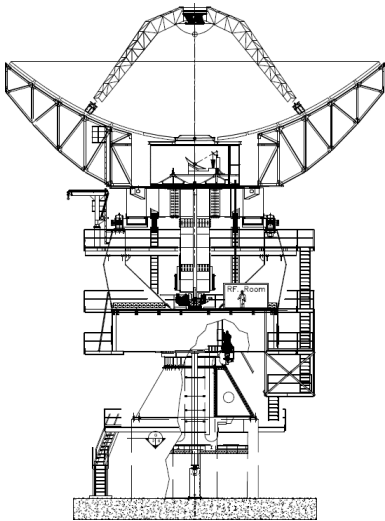
Item	Specifications
Survival wind loading	60 m/sec
Operational wind loading	20 m/sec, gusting to 27 m/sec
Operational temperature	-20° to $+50^\circ\text{C}$
Survival temperature	-30° to $+60^\circ\text{C}$
Rain	Up to 100 mm/h
Relative humidity	0 ~ 100 %
Solar radiation	1000 kcal/h/m ²
Ice (Survival)	2.5 cm on all surface with 130 km/h wind gusts
Shock and vibration	As encountered during shipment by airplane, ship, or truck
Atmospheric conditions	As encountered in coastal regions and/or heavily industrialized areas
Seismic (Survival)	0.3 G's horizontal, 0.1 G's vertical

Basic 2D views



Beam Wave guide
with slew ring type

35.0 m Dual Reflector Antenna



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35.0 m Dual Reflector Antenna

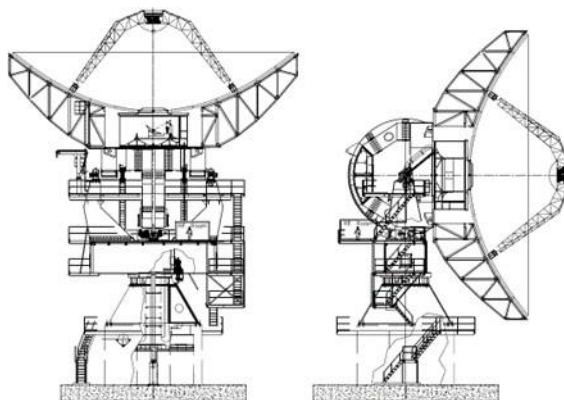
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Seismic (Survival)	0.3 G's horizontal, 0.1 G's vertical

Basic 2D views



Equipment room on EL.
floor with slewing type