

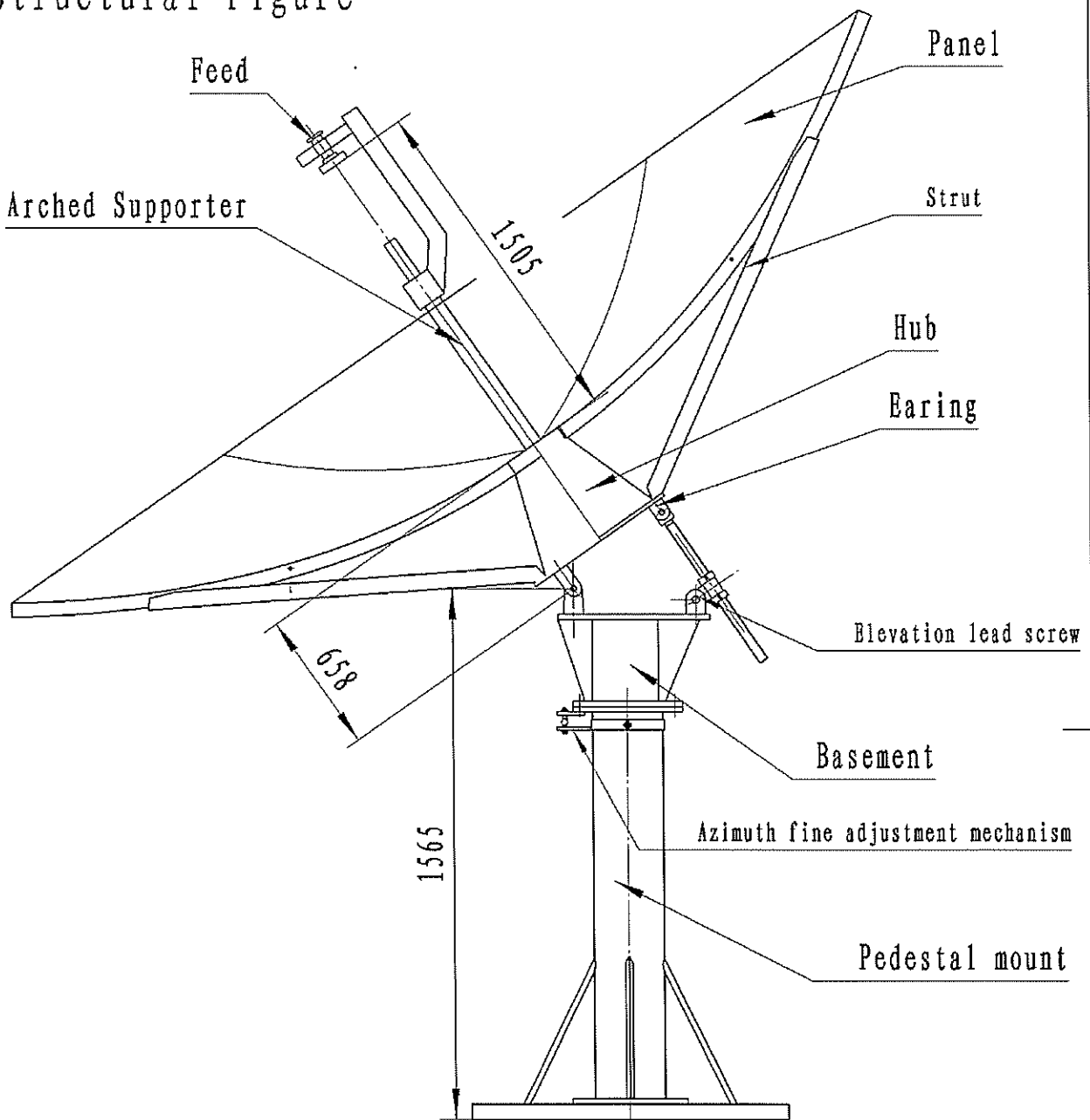


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4.3M TVRO Dish For C/Ku Band

Structure and Installation Information

Structural Figure



Components List

1	Pedestal mount	1	Combination with basement and elevation lead screw	6	Feed	1	
2	Hub	1		7	Foundation bolt	4	With nuts, washers
3	Strut	16		8	Elevation wrench	1	
4	Panel	16		9	Fastener	1bag	
5	Arched Supporter	1		10	Manual	1	

Antenna Performance Parameters

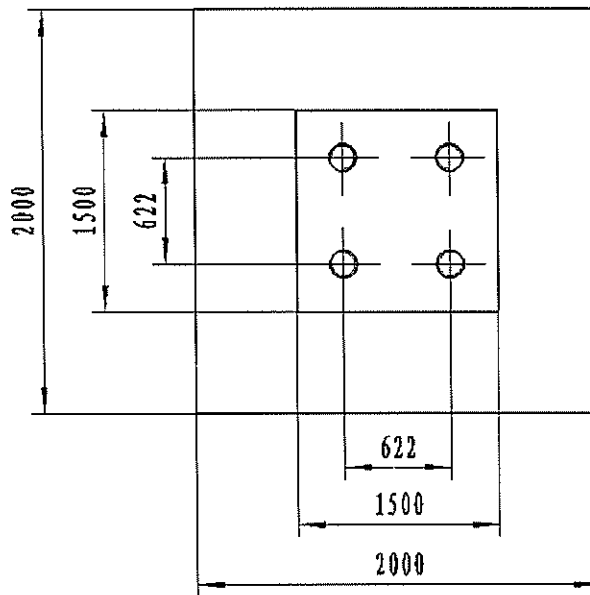
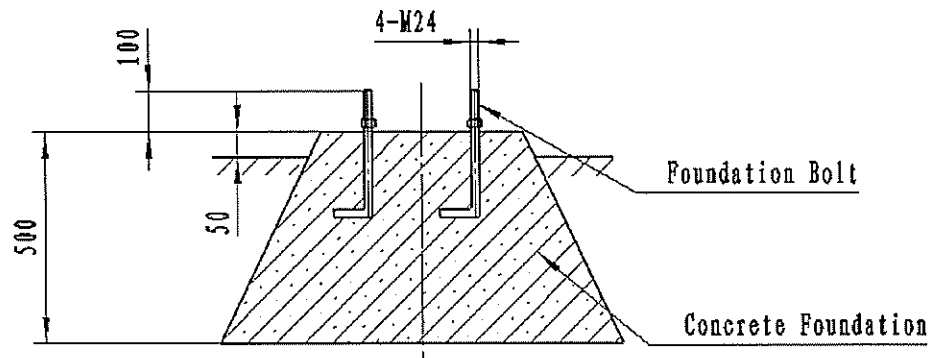
Antenna Gain (dBi)	C: 43.12dB@3.8GHz/Ku: 53.14dB@12.5GHz
Noise Temperature (° K)	C: 35° K@10° /Ku: 41° K@10°
Voltage Standing Wave Ratio	C/1.25:1 Ku/1.3:1
Weight (Kg)	300
Maximum Height (mm)	4300
Azimuth adjustment range	360°
Elevation adjustment range	5° ~ 90°
Environmental Specifications	-40° ~ 60°
Wind Loading Information	Work normally in gale, maintain precision in storm and can be locked firmly towards sky without being damaged in the hurricane.

Calculation of Azimuth and Elevation

$$\text{Azimuth} = \arctg \frac{\text{tg } \Delta \phi}{\sin \theta} \quad \left(\begin{array}{l} \theta = \text{Antenna Latitude} \\ \Delta \phi = \text{Satellite Longitude} - \text{Antenna Longitude} \end{array} \right)$$

$$\text{Elevation} = \arctg \frac{\cos \Delta \phi \cos \theta - 0.15107}{\sqrt{1 - [\cos \Delta \phi \cos \theta]^2}}$$

Foundation Figure



1. In-ground foundation is built in reinforce concrete ,using round steel 20#, $\phi 8$ to make meshes of the size 100×100 ; Using concrete of grade 300(2070M P a),where in cement of 425# should be 430kg/m , sands (with diameter within $0.35-0.5\text{mm}$) 623kg/m and gravels 1245kg/m

2. when the antenna is installed on the ground ,pour and cast after a pool below ground level as show in the figure is digged up.

when the antenna is installed on the floor, weld the steel bar in the foundation firmly with the main steel bar of the building.

Foundation Wind Load

Load(Kg)	Wind Load(m/s)	20	28.4	36.9	42
Maximum Pressure		1500	3006	5074	6574
Maximum Lift		1350	2760	4750	6300
Maximum Horizontal Tension		600	720	1000	1500