

**6.2M Ka-band Antenna with Turning Head Type**

<b>ELECTRICAL SPECIFICATON</b>		
Type	6.2m Ka-Band	
Operating Frequency. GHz	Rx: 17.7-21.2	Tx: 27.5-31.0
Gain, Mid-band, dBi	$\geq 59.7+20\lg(F/20)$	$\geq 62.8+20\lg(F/30)$
VSWR	1.3:1	1.3:1
Noise Temperature(K)	4 port	
20° EL	$\leq 130$	
Power Capacity	/	500W(each port)
Interface type	WR-42	WR-34
Polarization type	Circular Pol.	
Feed Insertion Loss(dB)	$\leq 0.8^\circ$	$\leq 0.8^\circ$
Port Isolation(dB): Rx-Tx	$\geq 85$	/
Circular Pol. Tx-Tx, Rx/Rx	$\geq 20$	$\geq 20$
Axis ratio(dB)	$\leq 0.5^\circ$ (on axis)	$\leq 0.5^\circ$ (on axis)
First Sidelobe (dB)	$\leq -14$	$\leq -14$
Sidelobe envelope(more than 90% sidelobe envelope meet the requirement of this sidelobe envelope )	$29-25\lg(\theta)$ dBi $1^\circ \leq \theta \leq 20^\circ$ $-3.5$ dBi $20^\circ < \theta \leq 26.3^\circ$ $32-25\lg(\theta)$ dBi $26.3^\circ < \theta \leq 48^\circ$ $-10$ dBi $\theta > 48^\circ$	
<b>Mechanical Specification</b>		
Az travel range	$\pm 90^\circ$	continuous
El travel range	$5^\circ -90^\circ$	continuous
Surface Accuracy	$\leq 0.3$ mm(R. M. S)	
<b>Servo Control Specification</b>		
Az speed	$0.001^\circ /s \sim 1^\circ /s$	Dual DC motors
El speed	$0.001^\circ /s \sim 1^\circ /s$	DC ball-screw
Operational mode	Manual control speed, manual control position, preset satellite position, step tracking, mono-pulse tracking	
Display resolution	$0.001^\circ$ option	
Tracking accuracy	1/10~1/15 beam width	
Servo power consumption	3kw/380V 0.5kw/220V	
<b>Environment Specification</b>		



Wind Speed	Guaranteed accuracy wind operation 20.8m/s Degraded accuracy wind operation 28.4/s
Stow wind speed	35m/s
Not destroyed wind speed	55m/s (Antenna locking towards sky)
Temperature	-40°C ~ 60°C (Outdoor) -20°C ~ 60°C (Indoor)
Humidity	0% ~ 100%
Earthquake (Survival)	0.3G' s (Horizon) 0.15G' s (Vertical)
Solar Radiation	360BTU/h/ft <sup>2</sup>
Ice	3 cm