Datasheet for the 3.7m Ka-band LMA

1. Antenna Photo

Fig.1 Photo of 3.7m Limit Motion Antenna

2. Antenna Electrical Characteristics

Item	Description	
Frequency	Tx:19 -20.2GHz;	Rx:28.8 – 30GHz
Gain (midband)	≥57.7dBi	≥54.4 dBi
Side Lobes	1st sidelobe not higher than -14dB Other sidelobes compliant with ITU-R S.580-6.	

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Antenna Noise Temperature	150K at 10°	
Feed	2-port LP feed	
Feed Isolation	Tx/Rx: 85dB	
VSWR	≤1.25	≤1.25
Power Handling	2kW	

3. Antenna Mechanical Characteristics

Item	Description
Antenna Type	Ring-focus Antenna, El over Az geometry
Antenna Diameter (m)	3.7
Main Reflector Accuracy (mm)	≤0.35 rms
Subreflector Accuracy (mm)	≤0.15 rms
Mount Type	Limit Motion
Driving Chain Mode	Single-motor for azimuth or elevation axis
Drive range	Az drive, 100° continuous, single-motor jack drive. El drive, 0° - 90° continuous, single-motor jack drive.
2-axis Servo Interface Kit	Limit Switch installation for final limit in both axes Low elevation mute switch installation Mounting facilities for GD angle transducers Mounting facilities for emergency stop switches
Hot Pot Galvanize Hempel Paint Lighting Arresting Rod Lighting Arrestor Down-conductors Foundation HW Access stairway & platform Hub Enclosure with door Feed Rain Blower	

4. Antenna Servo Control and Tracking Characteristics

Item	Description
Travel rate	Main Axis Drive：0° - 0.1°/s;
Antenna Operation Mode	Manual Driving; Position Preset(More than 30 satellites); Stand-by

5. Antenna Environmental conditions

Item	Description	Remark
Temperature	-10°～+60°C	
Relative Humidity	0%～100%	
Rain	50mm/h	
Anti-wind Capability	Steady Wind:47km/h, gust: 72km/h	Normal Operation
	Steady wind: 72km/h, gust: 97km/h	Operation with Degraded Performance
	Survival Wind: 160km/h	Antenna stow towards the sky
Life	≥15 years	
Availability	≥99.95%	
Sea freight Packing Installation in Australia 24-month warranty		