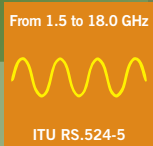


# SPACE DYNAMICS

satellite technologies and beyond



Aluminium panels with high-diffusive white paint

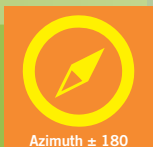


From 1.5 to 18.0 GHz

ITU RS.524-5



Survival 180 km/h



Azimuth  $\pm 180$



## 7M ANTENNA SYSTEM

KU OR C BAND / FOR EARTH STATION

# CASSEGRAIN ANTENNA

## WITH ELEVATION OVER AZIMUTH MOTORIZATION

# 7M ANTENNA SYSTEM

## DUAL SHAPED KU OR C BAND

### KU BAND

	RX Band	TX Band
Frequency in GHz	10.70 – 12.75	13.75 – 14.50
Polarization (four port feed)	Linear orthogonal	Linear orthogonal
Gain (linear pol.)	57.90 dBi @ 11.70 GHz	56.45 dBi @ 13.83 GHz
Off axis emissions	ITU RS.524-5	ITU RS.524-5
<b>ANTENNA NOISE TEMPERATURE</b>		
10° Elevation	67k	
20° Elevation	58k	
40° Elevation	31.30 K	
System G/T 60 K LNB plate, 40° Elev.) @ mid band	36.1 dB/K	
Cross polarization within -1 dB Beam width	< 35 dB	<35 dB
VSWR	<1.25:1	<1.25:1
Feed Insertion Loss	>0,4	>0,3
Total Power Handling		5 KW
TX – RX Isolation	> 70 dB	> 80 dB
Feed interface	WR-75	WR-62

### C BAND

	RX Band	TX Band
Frequency in GHz	3.4 - 4.2	5.85 - 6.665
Polarization (four port feed)	Linear or circular	Linear or circular
Gain (linear pol.)	44.40 dBi @ 3.8 GHz	48.30 dBi @ 6.25 GHz
Off axis emissions	ITU RS.524-5	ITU RS.524-5
<b>ANTENNA NOISE TEMPERATURE</b>		
10° Elevation	40k	
20° Elevation	39k	
40° Elevation	37k	
System G/T (20 K LNA plate, 30° Elev.) @ mid band	30.2 dB/K	
Cross polarization within 1 dB Beam width	< 29 dB circular < 35 dB linear	< 29 dB circular < 35 dB linear
VSWR	<1.25:1 linear & circular	<1.25:1 linear & circular
Feed Insertion Loss	Less then 0.5 dB	Less then 0.5 dB
Total Power Handling		6 KW
TX – RX Isolation	> 85 dB	> 85 dB
Feed interface	CPR-229G	CPR-137G

### MECHANICAL SPECIFICATIONS

Azimuth Travel	± 180°
Azimuth Travel rate	0.10 to 0.03 °/sec (Digital continuously controlled)
Elevation Travel	15° to 70° Continuous
Elevation Travel Rate	0.10 to 0.03 °/sec (Digital continuously controlled)
Polarization Travel	± 90°
Polarization Travel Rate	1 °/sec
Tracking Travel Rate (Az. And El.)	0.02 °/sec
Reflector Structure	Aluminium
Pedestal Structure	Steel
Finishes	Aluminium panels with high-diffusive white paint, Steel part with Hot-deep galvanized

### ENVIRONMENTAL SPECIFICATIONS

Operational winds	90 km/h
Survival Wind	180 km/h
Ambient Temperature Operational	-40° to +60°
Ambient Temperature Survival	- 40° to +60°
Rain	Operational and survival in heavy rainstorms
Snow	5 mm/h
Relative Humidity	0% to 100% with condensation
Solar Radiation	1000 W/mq
Radial Ice (Survival)	25 mm/h on all surface
Shock and Vibration	As encountered during shipment by commercial air, rail or truck
Corrosive Atmosphere	As encountered in coastal regions and/or heavily industrialized areas
Seismic (Survival)	0.3G's horizontal 1G's vertical



Also available L,S,X and DBS band feed configurations

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Note: all specifications are subject to change without notice.  
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