



Model 8010D At-A-Glance

- Compliant with FCC, ASIASAT, INTELSAT, EUTELSAT ITU and more
- Meets INTELSAT Standard F-2, F-3 and E-3 requirements
- High-efficiency shaped Gregorian optics
- Use with C-band or Ku-band systems (custom frequency options — consult factory)
- Add our 8860/8861A/8862 Antenna Controller with patented AdaptTrack for accurate tracking
- Minimal satellite repointing time with high-speed motorized option
- Generous electronics space in hub
- Precision high-strength structural steel TORQUETUBE™ mount
- Protected environment for LNAs/LNBs
- CE compliant

Model 8010D 7.3 Meter Earth Station Antenna

Model 8010D is a 7.3 meter earth station antenna that provides high gain and excellent pattern characteristics through the use of precision stretch-formed reflector panels and advanced computer-shaped Gregorian optics. Corrugated conical feed horns ensure excellent antenna gain and sidelobe performance. Sixteen high-strength aluminum panels are durable enough to withstand a range of environmental conditions. Antenna panels mount to radial trusses attached to a central hub without the need for field alignment. The hub also provides a protective enclosure for sensitive electronics.

The Model 8010D includes a TORQUETUBE™ mount with continuous 110° of motorized azimuth coverage in three overlapping sectors. An optional mount configuration is available, that provides continuous 180° coverage. The high-strength structural steel mount employs an elevation-over-azimuth geometry for easy pointing to any satellite within the visible orbital arc. The mount's stiff, rugged construction provides pointing accuracy for continuous operation, even under adverse wind conditions.

The TORQUETUBE design is the most cost-effective way to achieve superior pointing accuracy. An added bonus is the ease with which the ground level azimuth actuator sectors are changed. The hot-dip galvanized mount, all aluminum reflector, and stainless steel and galvanized hardware assures maximum product life.

Options

- 180° continuous azimuth
- Workplatform and ladder
- Hub light and fan
- Hub cover
- Cross-axis transmit waveguide (2 kW C-band, 700 W Ku-band)
- Hub heater
- Waveguide loads
- Crossguide couples
- Lightning protection
- Aircraft warning lights
- De-icing

SPECIFICATIONS

ELECTRICAL

	C-band	Ku-band
Operating Frequency¹ (GHz):		
Transmit	5.850 – 6.425	14.0 – 14.5
Receive	3.625 – 4.2	10.95 – 12.7
Gain (Midband, Ref. Feed Horn):		
Transmit	51.7 dBi	58.8 dBi
Receive	48.4 dBi	57.4 dBi
Feed Insertion Loss (dB):		
DP – 2-Port RX/RX Linear:		
Receive	0.050 dB	0.22 dB
RT – 2-Port RX/TX Linear:		
Transmit	0.20 dB	0.21 dB
Receive	0.30 dB	0.22 dB
4PL – 4-Port RX/TX Linear:		
Transmit	0.15 dB	0.20 dB
Receive	0.15 dB	0.35 dB
4PC – 4-Port RX/TX Circular:		
Transmit	0.15 dB	N/A
Receive	0.15 dB	N/A
VSWR:		
TX	1.3:1	1.3:1
RX	1.3:1	1.3:1
Beamwidth (-3 dB):		
Transmit	0.44°	0.19°
Receive	0.64°	0.22°
First Sidelobe Level (+/-2 dB):		
	14.0 dB	14.0 dB
Radiation Pattern:		
C- and Ku-band: Meets standards set by FCC, INTELSAT, ASIASEAT, EUTELSAT, ITU and others.		
Antenna Noise Temp (Typical, Ref. Feed Horn):		
Elevation	C-band	Ku-band
10°	27 K	36 K
20°	20 K	27 K
30°	17 K	25 K
40°	14 K	24 K
Power Handling Per TX Port:²		
	2.5 kW (CW)	1 kW (CW)
Cross Pol Isolation (on axis, min.) (Linear):		
Transmit	35 dB	35 dB
Receive	35 dB	35 dB
Feed Port Isolation (4-Port Linear):		
RX/TX (RX-band)	85 dB	50 dB
TX/RX (TX-band)	85 dB	85 dB
TX/TX	21 dB	35 dB
RX/RX	18 dB	35 dB
Axial Ratio:		
(Circular Polarization)	1.06:1	

NOTES:

¹ Consult factory for other frequency bands

² Higher power options available. Consult factory

³ Minimum elevation angle is 5° with the hot air de-icing option installed

MECHANICAL

Antenna Diameter:	7.3 meters (288 inches)
Antenna Type:	shaped dual reflector
Reflector Construction:	16 aluminum panels on hub and truss structure
Mount Type:	elevation-over-azimuth
Antenna Travel:	
Elevation:	0° to 90° continuous ³
Azimuth:	180° in 3 overlapping 110° sectors
	Optional 180° continuous
Polarization Adjustment:	
Manual:	360°
Motorized:	±90°
Antenna Travel Rate (Motorized):	
	Various — consult factory
Feed Interface:	
Transmit C-band:	CPR-137G
Transmit Ku-band:	WR-75
Receive C-band:	CPR-229G
Receive Ku-band:	WR-75
Weight C-Band:	
Net:	2,218 kg (4,880 lb.)
Ship:	3,206 kg (7,050 lb.)
Shipping Volume:	25 cubic meters (880 cubic feet)

ENVIRONMENTAL

Wind Loading:	
Operational:	121 km/h (75 MPH)
	gusting to 144 km/h (90 MPH)
Survival:	193 km/h (120 MPH), stowed, 15° C, no ice
Temperature Range:	
Operational:	-40° C to +65° C (-40° F to +150° F)
Atmospheric Conditions:	
Salt, pollutants and corrosive contaminants as found in coastal and industrial areas	



atlanta beijing new delhi rome san diego sydney

1725 Breckinridge Plaza • Duluth, Georgia • 30096 • USA

US Sales Telephone +1 678.924.2632 Int. Sale Telephone +1 678.924.2633

facsimile +1 770.935.3285

www.viasat.com

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