TRACKER® 3700

Frequency Flexibility. Platform Scalability. Built on a Heritage of Reliability.
Any Network, Any Orbit, One Technology.

Product Sheet

When Connection Matters

The TRACKER antenna system powers HTS for more global offshore enterprises than any other brand today, unlocking new capabilities through unmatched performance and reliability. But, staying agile in the modern business environment demands greater flexibility than ever before. Managed IT service providers must position themselves to adapt quickly and cost effectively in delivering the desired customer outcome. Business decision makers increasingly expect a frictionless experience.

Introducing TRACKER 3700, a modern IT solution built for tomorrow's needs on the field-proven heritage of today's leading brand.

A Platform Designed for Scalability – invest at your own pace

Single, Dual, or Triband: invest in what you need today without sacrificing what you will want tomorrow. The TRACKER 3700 brings choice as the end user will have a single antenna pedestal capable of supporting C Band, Ku Band and Ka Band in any combination they desire. Capable of operating in any orbit, including LEO, MEO, GEO and HEO, TRACKER 3700 is the most versatile solution in the industry. Businesses can scale IT investment to suit their digital roadmap with a platform that enables flexibility. Service providers can build 100% orbit and network agnostic on-demand managed service offerings to meet evolving customer needs.

Unmatched Efficiency & Throughput – True 3.7m Performance Across All Frequencies

Built upon the heritage of over 30 years of research, development and customer collaboration, Cobham SATCOM has invested significantly in enhancing the new design to push performance. The RF architecture offers the most efficient design in the industry allowing for almost double the RF power with the same size antenna, easily outperforming all other offerings. The improved RF performance is driven by a number of factors including superior cross-pol isolation at Ku band; full transmit waveguide to keep the amplifiers for both transmit and receive close to the feed (OMT) to minimize loss whilst increasing RF performance; and finally full illumination of the Ka tolerant reflector as another way of reducing loss of performance.

Furthermore, TRACKER 3700's RF payload design allows the system to support far greater amplifier power in all bands than any other option. Existing Sea Tel systems in operation today exceed 2Kw in RF power operating in C and Ku-band.

Robust Design & Ease of Installation

One of the most important design considerations for any tracking antenna system is the pointing accuracy and reliability of the antenna system to ensure continous operations under all environmental conditions. Cobham SATCOM invented the stabilized antenna systems and continues to be a leader in the market with new earth stations being deployed.

The TRACKER 3700 series allows customers to purchase a single or dual band system now and upgrade to Triband if or wehn required.

With the TRACKER 3700 you are ready for the future. What you purchase today will be ready for the demands of tomorrow.

COBHAM

STABILIZED ANTENNA PEDESTAL ASSEMBLY	
Type	Three-axis (Level, Cross Level and Azimuth)
Pointing	Torque Mode Servo
Azimuth, level, cross level motors	Size 34 FOV controlled step motors operating in torque mode
Inertial reference	3 axis solid state rate sensors
Gravity reference	3 axis solid state accelerometers
AZ transducer	16 bit absolute encoder
Pointing accuracy (open loop)	0.5 degrees
Pointing accuracy (closed loop)	0.05 degrees (0.02 degrees Typ)

POWER REQUIREMENTS	
Input power	200-264 VAC, 47-63Hz, single phase

PEDESTAL RANGE OF MOTION	
Elevation Joint Angle	0 to + 180 degrees
Cross Level	+/- 15 degrees
Azimuth	+/- 270 nominal
Elevation Pointing	+5 to +175 degrees
Tracking modes	Dishscan (Autotrack), Program Track (TLE, ECEF)

ANTENNA REFLECTOR	
Type	Prime focus, parabola (2 piece)
Diameter	3.7 m (145.67 in)
Frequency TX	2.025 - 2.120 GHz (S-band)
Frequency RX	2.20 - 3.30 GHz (S-band), 8.0 - 8.5 GHx (X-band)
Size	3.7 m (12.14 ft)
Gain TX	34.9 dBi at 2.025 GHz
Gain RX	35.8 dBi at 2.25 GHz

G/T ELEVATION	
40 degree	12.5 dB/K (S Band) 25.5 dB/K (X Band)

FEED S-BAND (TX/RX) - X-BAND RX	
Frequency TX	2.025-2.120 GHz (S-band)
Frequency RX	2.20-2.30 GHz (S-band) 8.0-8.5 GHz (X-band)
Polarization	Single Pol TX/RX LHCP/RHCP Co Pol selectable for S Band, Dual Pol RX LHCP/RHCP for X-band
XPD	20 dB
VSWR	<1.3:1
Interface Antenna	Circular
Optics	Prime focus

RF EQUIPMENT	
	100 Watt Psat 50 Watt P1dB S-band SSPA

REDUNDANCY	N/A

RADOME ASSEMBLY	
Type	Frequency tuned
Material	Composite foam/laminate
Radome loss	0.75 dB (Reflective loss)
Radome life	20 Years

SIZE	
Diameter	4.30 m (168 inch)
Height	4.38 m (172 inch)
Side door	18" wide x 36" high
Number of panels	(8 upper, 8 lower & 8 extension panels + 1 cap
Installed height	4.38 m (190 inch) Including 18" lightning diverter.

FOUNDATION	
Mounting	Contract grade concrete pad
Mechanical alignment leveling	Not required
Mechanical alignment pointing	Not required

ENVIRONMENTAL CONDITIONS	
Temperature range (operating)	-40° to +55° C (-40° to +131° F)
Humidity	100% Condensing
Wind Speed	56 m/sec (125 mph)
Solar Radiation	1,120 Watts per square meter, 55° Celsius
Icing	Survive ice loads of 4.5 pounds per square foot. Degraded RF performance will occur under icing conditions.
Rain	Up to 101.6mm (4 inches) per hour. Degraded RF performance may occur when the radome surface is wet
Ingress Protection Rating	IP56

REGULATORY COMPLIANCE	
Survival shock and vibration	N/A
Operational shock and vibration	N/A
Safety	IEC 60950
EMI/EMC Compliance	ETSI EN 301 489-1 V1.4.1 (2002-08) ETSI EN 300 339 (1998-03)
Satellite earth stations and system (SES)	N/A
Safety compliance	IEC EN 60950-1:2001 (1st Edition)
Environmental compliance	RoHS Green Passport
Lightning/surge protection	IEC 61643-1, IEC 6143-12 & NFPA-780

Subject to change without further notice.

For further information please contact:
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