



PSUB-45

Critical Communication Link

The PSUB-45 is a 0.45-meter, multi-band satellite communication terminal engineered specifically for submarines and Autonomous Underwater Vehicles (AUVs). It serves as the vital, secure, and long-range link between these submerged platforms during covert or data-gathering missions. By enabling real-time data transmission, it ensures operational success in the most remote environments.

Advanced Stabilized Antenna

The terminal's core features the most advanced, extensively tested three-axes stabilized antenna system. This technology is crucial for maintaining a stable and uninterrupted satellite link despite the constant pitch and roll of the sea. It guarantees trustful and continuous communications.

Pivotal Naval SATCOM System

As an integral part of modern military naval SATCOM architectures, the PSUB-45 is pivotal for providing the indispensable communication backbone by solidifying submarines and AUVs roles in the modern military naval communication.



Size:

0.45m

Key Features

- X, Ku, Ka Bands are available
- Automatic pointing with or without GPS
- Web interface for integrated control
- Compliant with military standards
- Supports various modems
- Supports encryption devices integration
- Continuous overhead satellite tracking
- 3-Axes for stability, 4-Axes for tracking





GENERAL SPECIFICATIONS

Reflector Diameter
Antenna Form
Antenna Material
Stabilization Platform
Power Input
Power Consumption

PSUB-45

0.45m
Circle against symmetrical reflector and cap feed
Carbon-Fiber
3-Axes for stability, 4-axes for tracking
DC18-32V
≤250W

RF CHARACTERISTIC

Frequency (GHz) Tx
Frequency (GHz) Rx
Antenna Gain (±0.2 dBi) Tx
Antenna Gain (±0.2 dBi) Rx
Polarization
Cross Polarization (dB)
G/T (dB/K)
EIRP (dBw)
Axial Ratio (dB)
Pointing Accuracy
Initial Acquisition Time
Radiation Pattern Compliancy
Blockage Recovery Time

X-Band	Ku-Band	Ka-Band
790~8.40	12.75 ~13.75	29.00~30.00
7.25~7.75	10.70~11.70	18.70~20.20
29.8+20lg(f/8.15) GHz	34.5+20lg(f/14.0) GHz	41.20+20lg(f/29.4) GHz
29.1 +20lg(f/7.5) GHz	33.4+20lg(f/12.25) GHz	37.4+20lg(f/19.6) GHz
LHCP/RHCP	Horizontal/Vertical	LHCP/RHCP
-	30 (Axis)	-
1	8.2	12.0
35.8 (10W BUC)	45.5 (16W BUC))	50.0 (10W BUC)
1.5	-	1.5
≤0.2° (R.M.S)		
≤2min		
Compliant with MIL-STD-188-164A, ITU - RS-580 and ITU-RS-465-6		
≤5s (Cover for 5min)		

MECHANICAL SPECIFICATIONS

Drive Rates Slow
Antenna Revolution
Weight
Antenna Travels

Azimuth	Elevation	Polarization	Roll
360° continuous	-5°-95°	±110° (Ku), 90° (Ka&X)	±20°
100°/S	100°/S		100°/S
4.5° / sec	3.0° / sec	3.42° / sec	
≤7.8Kg (excluding Radome)			

ENVIRONMENTAL SPECIFICATIONS

Temperature Operational
Temperature Survival
Vibrations
Pressure

PSUB-45
-40 ~ +55°C
-55 ~ +70°C
MIL-STD-167
>60 bars

Specifications are subject to change.