



STANDARD
MIL-STD
810F

STANDARD
MIL-STD
464

STANDARD
ITU-R-S
728-1

Size:

0.35m

PAIR-35

Advanced Stabilization for Dynamic Platforms

The PALS PAIR-35 is a high-performance 0.35m airborne antenna system, featuring 3-axes stabilization and 4-axes tracking designed for robust connectivity on aircraft, UAVs, and military platforms. Its lightweight, modular design offers high-speed data rates and seamless integration for critical intelligence, surveillance, and reconnaissance missions.

Modular Agility for Critical Missions

Featuring a modular design with a common gimbal and certified RF payloads, the system enables rapid band switching in under five minutes. This agility makes it ideal for extended-duration aerial SATCOM missions, providing critical Beyond Line of Sight (BLOS) communication for real-time data and command.

Precision Tracking for Uninterrupted Links

The PAIR-35 combines high-bandwidth stabilization with an integrated tracking receiver to achieve exceptional satellite tracking accuracy. This ensures a stable, secure, and continuous communication link, which is vital for mission success during high-motion operations and intelligence gathering.

Key Features

- Ku, Ka Bands available
- Fast initial satellite pointing time
- High tracking accuracy
- Exceptional tracking stability
- Rapid blockage recovery time
- Fast satellite switching time: <8 seconds
- Easy maintenance
- Dynamic pointing and dynamic satellite switching
- 4-Axes tracking system
- 4 Mbps return link upgradable to 10 Mbps
- Ku and Ka SATCOM operations including Military and Commercial-Ka



Scan the QR code for more information.

TECHNICAL SPECIFICATIONS / PAIR-35

GENERAL SPECIFICATIONS

Reflector Diameter
Pointing Satellite Mode
Stabilization Platform
Power Supply

PAIR-35

0.35m
Auto
3-Axes for stability, 4-axes for tracking
Nominal 100W @ 28VDC

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)
Radiation Pattern Compliancy

Ku-Band

13.75~14.50
10.70~12.75
32.40 @ 14.25 GHz
31.20 @ 11.70 GHz
2 Port Linear
>35 dB within 1 dB beamwidth
9.1
Compliant with ITU-R S.580-6 and ITU-R S.465-6

Ka-Band

29.50~31.00
19.70~21.20
38.90 @ 29.00 GHz
35.40 @ 19.00 GHz
Circular
10.2

MECHANICAL SPECIFICATIONS

Motion Range
Antenna Speed
Antenna Acceleration
Signal Tracking Accuracy
Blockage recovery time

Azimuth

360° continuous
100°/s
200°/s2
<0.2° (R.M.S)
≤5s (blockage 20min)

Elevation

-10° - 100°
100°/s
200°/s2

Polarization

± 110°

Roll

± 30°

ENVIRONMENTAL SPECIFICATIONS

Temperature Range Operational
Temperature Range Survival
Environmental Compliance

PAIR-35

-40 ~ +60°C
-50~ +70°C
RTCA DO-160G / MIL-STD

Specifications are subject to change.

