



Size:

1.20m

PMA-120

Field-Ready Portability

The PMA-120 is a compact Man-Pack antenna engineered for true mobility. It transports easily in a single IATA-compliant backpack and can be deployed by one person in under two minutes. Requiring no integration tools or specialized training, it delivers live connectivity the moment it is deployed.

User-Friendly Control

Supporting manual, auto, and one-button operation modes, the PMA-120 locks onto the target satellite within three minutes. It features integrated GPS, precision position detection, and motorized polarization adjustment. The high-performance satellite receiving system ensures accurate and reliable links in any environment.

Rugged Versatility

Designed for the most inaccessible locations, the PMA-120 operates effectively on inclines up to 15° without the need for leveling. Its feed structure delivers high gain, low sidelobes, and exceptional RF performance across multiple bands, it is ideal for broadcasting, military, and emergency communications.

Key Features

- Available in X, Ku, and Ka Bands
- LEO/MEO Overhead Tracking Option
- Carbon-fiber reflector
- Supports Wide Range BUCs (from 6W to 40W)
- Supports OpenAmip
- Built-in Wi-Fi and a Web-Based User Interface
- Integrated / External modem (iDirect, Comtech, Newtech, Hughes)
- Powered by Mains or Battery
- Integrated / External modem (iDirect, Comtech, Newtech, Hughes)
- Encryption Option
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions



GENERAL SPECIFICATIONS

Reflector Diameter	1.2m
Antenna Type	Circular symmetric reflector with center feed

LEO/MEO OVERHEAD TRACKING OP.

Accuracy	≤0.2°/m
GPS	Dual GPS Module
Third Axis Rotation Range	±7°

PMA-120

Heading	Positioning	Speed	Timing
≤0.2°/m	2m CEP 2cm+1ppm RTK	≤0.03m/s	20ns
Dual GPS Module			
±7°			

RF CHARACTERISTIC

Frequency (GHz) Tx	79 ~ 8.4
Frequency (GHz) Rx	7.25 ~ 7.75
Antenna Gain (±0.2 dBi) Tx	37.8
Antenna Gain (±0.2 dBi) Rx	37.2
Tx / Rx Isolation (dB)	85
Rx / Tx Isolation (dB)	40
CPI (On Axis, linear) Tx	1.0
CPI (On Axis, linear) Rx	1.5 (Axial Ratio)
Polarization	RHCP/LHCP (2 Ports)
VSWR Tx	1.30:1
VSWR Rx	1.50:1

X-Band	Ku-Band	Ka-Band
79 ~ 8.4	13.75 ~ 14.50	27.50~31.00
7.25 ~ 7.75	10.70 ~ 12.75	17.70~21.20
37.8	42.8	49.3
37.2	41.5	45.7
85	85	85
40	40	40
1.0	35	1.0
1.5 (Axial Ratio)	-	1.5 (Axial Ratio)
RHCP/LHCP (2 Ports)	Linear H/V (2 Ports)	RHCP/LHCP (2 Ports)
1.30:1	1.30:1	1.30:1
1.50:1	1.50:1	1.50:1

MECHANICAL/ POWER SPEC.

Deploy Speed	10°/S (Variable)
Antenna Travels	± 200°
Peaking Speed	7°/S
Antenna Weight & Backpack Size	19.5 Kg, 795x600x400mm
DC Input	10-72 VDC @ 15 ADC (max) (External: Hand generator, Solar, AC and Vehicle)
DC Output	24VDC @ 8 ADC
Battery Details (Optional)	PT18650 (BB2590 Option) 18V 5.5Ah 99Wh (17V~18.5V) W: ≤0.6Kg
Battery Working Temperature (Optional)	-20°C~ +55°C(-30°C~ +55°C Option)
PMS Weight / Size (Optional)	2.2 Kg (Include 2 sets PT18650) / 150*110*80mm

Azimuth	Elevation	Polarization
10°/S (Variable)	10°/S (Variable)	3°/S (Variable)
± 200°	10°~90°	± 110° (Ku Band Only)
7°/S	7°/S	
19.5 Kg, 795x600x400mm		
10-72 VDC @ 15 ADC (max) (External: Hand generator, Solar, AC and Vehicle)		
24VDC @ 8 ADC		
PT18650 (BB2590 Option) 18V 5.5Ah 99Wh (17V~18.5V) W: ≤0.6Kg		
-20°C~ +55°C(-30°C~ +55°C Option)		
2.2 Kg (Include 2 sets PT18650) / 150*110*80mm		

ENVIRONMENTAL SPECIFICATIONS

Temperature Range Operational	-30°C~+60°C
Temperature Range Survival	-40°C~+70°C
Wind Speed Operational	50km/h (With weight balance)
Wind Speed Operational	65km/h (With reinforcement weight)
Humidity (Relative)	0-98%
Altitude Above Sea Level	≤5000m
Protection Grade	IP67

PMA-120

-30°C~+60°C
-40°C~+70°C
50km/h (With weight balance)
65km/h (With reinforcement weight)
0-98%
≤5000m
IP67

Specifications are subject to change.

