



## PMA-120

The PMA-120 is a compact, portable Man-Pack antenna that is designed for ease of transport in an IATA-compliant man-pack bag. It can be deployed within 2 minutes and is ready for live operation instantly, with no integration tools or training required.

The antenna supports manual, auto, and one-button satellite locking within 3 minutes. Its advanced feed structure delivers high gain, low side lobes, and excellent RF performance. The PMA-120 operates effectively on inclines up to 15°, without the need for leveling, making it suitable for use in hilly and mountainous terrain.

Ideal for challenging locations, the PMA-120 is perfect for quick applications such as broadcasting, corporate networks, military, and emergency communications. It is equipped with GPS, position detection, polarization adjustment, and a high-performance satellite receiving system.

## Key Features

- Available in Ku, Ka and X Band
- LEO/MEO Overhead Tracking Option
- Light-weight, high-strength carbon-fiber reflector with an accuracy of R.M.S 0.25mm
- 3-Axes simultaneous motorisation
- One-Button Operation
- Integrated GPS, Compass, Beacon / DVB Receiver
- Built-in Wi-Fi and a Web-Based User Interface
- Supports Wide Range BUCs (from 6W to 40W)
- Powered by Mains or Battery
- Integrated / External modem (iDirect, Comtech, Newtech, Hughes)
- Encryption Option
- Supports OpenAmip



### LEO / MEO OVERHEAD TRACKING OPTION

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

### RF CHARACTERISTIC

		X-Band	Ku-Band	Ka-Band
Frequency (GHz)	Tx	7.9~8.4 GHz	13.75~14.50 GHz	27.50~31.00 GHz
	Rx	7.25~7.75 GHz	10.70~12.75 GHz	17.70~21.20 GHz
Antenna Gain (±0.2 dBi)	Tx	37.8	42.8	49.3
	Rx	37.2	41.5	45.7
Tx / Rx Isolation (dB)		85	85	85
Rx / Tx Isolation (dB)		40	40	40
CPI (On Axis, linear)		Tx: 1.0/Rx: 1.5 (Axial Ratio) 35		Tx: 1.0/Rx: 1.5 (Axial Ratio)
Polarization		RHCP / LHCP (2 Ports)	Linear H/V (2 Ports)	RHCP / LHCP (2 Ports)
Waveguide Interface	Tx	WR-112	WR-75	WR-28
	Rx	WR-112	WR-75	WR-42
VSWR	Tx	1.30:1	1.30:1	1.30:1
	Rx	1.50:1	1.50:1	1.50:1

### MECHANICAL / POWER SPECIFICATIONS

	Azimuth	Elevation	Polarization
Deploy Speed	10°/S (Variable)	10°/S (Variable)	3°/S (Variable)
Antenna Travels	± 200°	10°~90°	± 110° (Ku Model Only)
Peaking Speed	7°/S	7°/S	
Weight	19.5 Kg		
Backpack Size	795x600x400mm		
Reflector Diameter	1.2m		
Antenna Type	Circular symmetric reflector with center feed		
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		

### ENVIRONMENTAL SPECIFICATIONS

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

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