



PMA-120

The PMA-120 is a compact, portable Man-Pack antenna that is designed for ease of transportation 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 X, Ku, and Ka Bands
- LEO/MEO Overhead Tracking Option
- Lightweight, high-strength carbon-fiber reflector with an accuracy of R.M.S 0.25mm
- 3-Axes simultaneous motorisation
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions
- 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	$\pm 7^\circ$		
Accuracy	Heading:	$\leq 0.2^\circ/\text{m}$	Speed: $\leq 0.03\text{m/s}$
	Positioning:	2m CEP 2cm+1ppm RTK	Timing: 20ns

RF CHARACTERISTICS

		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		$10^\circ/\text{S}$ (Variable)	$10^\circ/\text{S}$ (Variable)	$3^\circ/\text{S}$ (Variable)
Antenna Travels		$\pm 200^\circ$	$10^\circ \sim 90^\circ$	$\pm 110^\circ$ (Ku Model Only)
Peaking Speed		$7^\circ/\text{S}$	$7^\circ/\text{S}$	
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: $\leq 0.6\text{Kg}$		
Battery Working Temperature (Optional)		$-20^\circ\text{C} \sim +55^\circ\text{C}$ ($-30^\circ\text{C} \sim +55^\circ\text{C}$ Option)		
PMS Weight / Size (Optional)		2.2 Kg (Include 2 sets PT18650) / $150 \times 110 \times 80\text{mm}$		

ENVIRONMENTAL SPECIFICATIONS

Temperature	Operational	$-30^\circ\text{C} \sim +60^\circ\text{C}$
	Survival	$-40^\circ\text{C} \sim +70^\circ\text{C}$
Wind Speed	Operational	50km/h (With weight balance)
	Gusts	65km/h (With reinforcement weight)
Humidity (Relative)		0-98%
Altitude Above Sea Level		$\leq 5000\text{m}$
Protection Grade		IP67

TURKEY

P : +90 216 540 72 57
M : sales@pals.com.tr
W : www.pals.com.tr

NETHERLANDS

P : +31 6 85 52 63 16
M : sales@pals-comsat.com
W : www.pals-comsat.com

