



PMA-100

The Man-Pack type PMA-100 has a 1.0m reflector size and supports manual, auto, and one-button satellite locking, enabling quick setup in minutes. Its advanced feed structure ensures high gain, low side lobes, and excellent RF performance.

Available in various frequency bands, the PMA-100 is equipped with GPS, position detection, polarization adjustment, and a servo drive integrated with a high-performance satellite receiving system.

The PMA-100 is designed for easy transportation in an IATA-compliant backpack, making it portable by a single user. It can be deployed within minutes and be ready for live operation instantly without any additional tools neither training required.

Ideal for broadcasting, corporate networks, military, and emergency communications, the PMA-100 is versatile and suitable for deployment in challenging locations, including hills and mountains. The antenna operates without leveling and can function on inclined angles up to 15°.

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 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	36.4	41.4	48.0
	Rx	35.7	39.3	44.5
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	16.5 Kg		
Backpack Size	680x450x350mm		
Reflector Diameter	1.0m		
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*110*80mm		

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	

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