



PMA-80

One of the most compact PALS Man-Pack series antenna model is PMA-80. It supports manual, auto and one-button features for locking to the satellite in minutes. Its feed structure assures high gain, low side lobe and perfect RF performance. PMA-80 is available in various bands.

It is equipped with a GPS, position detection, polarization adjustment, and servo drive with a high-performance satellite receiving system

It can be carried in an IATA weight-compliant Back-Pack only by a person. It is deployable within 2 minutes PMA-80 can go to live instantly. No integration tool or any training is needed for starting the operation.

The PMA-80 is suitable for a wide range of quick applications including broadcasting, corporate networks, military, and emergency communications.

All system configurations are suitable for inaccessible locations, such as hills and mountains. The antenna does not need to be leveled and can operate on inclines of 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	34.6	39.2	45.9
	Rx	34.0	37.2	42.4
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	12.5 Kg		
Backpack Size	540x400x310mm		
Reflector Diameter	0.8m		
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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