



STANDARD
MIL-STD
810

STANDARD
MIL-STD
461

STANDARD
MIL-STD
188-164

Size: 0.6m, 0.8m, 1.0m, 1.3m

PMA SERIES

Rapid-Deployment Anywhere

Designed for rapid tactical deployment, the system is fully operational in minutes with no tools required for assembly or teardown. Its extra-compact, ultra-lightweight architecture enables effortless transportation, while manual hand adjustment provides quick back-up field alignment. Built for demanding operational environments, the rugged pedestal delivers reliable auto pointing.

Instantly Operational

Supporting multiple operating modes, the terminal adapts seamlessly to diverse mission requirements. Multi-band feed compatibility, field-interchangeable RF modules and a modem-agnostic architecture maximize operational flexibility while simplifying upgrades and maintenance. Integrated M&C capabilities provide straightforward control of external modules and system peripherals.

Reliable Network Connections

Advanced algorithms deliver precise satellite acquisition and stable link performance throughout the mission. The built-in Web GUI and ruggedized field interface enable intuitive operation, while passive heatsink cooling eliminates the need for fans, improving reliability. Optimized for high-performance IP networks, VPN services and video streaming in mission-critical applications.

Key Features

- Extra Compact and Fast Deployment
- AC / DC Power
- BB2590 MIL Battery Operation
- Auto - pointing or Assisted Manual Pointing
- Field Changeable Multi Band Feed options
- Ruggedized Display Screen GUI
- Modem Agnostic Integrated M&C
- Fanless Silent IP67 ACU
- Backpack or Trolley Case options
- Toolless Manual Override Mechanism
- Low MTTR
- Optional Spectrum Display





TECHNICAL SPECIFICATIONS / PMA SERIES

Scan the QR code for more information.

GENERAL SPECIFICATIONS

	PMA-60-MIL	PMA-80-MIL	PMA-100-MIL	PMA-130-MIL
Reflector Diameter	0.6m Carbon - Fiber	0.8m Carbon - Fiber	1.0m Carbon - Fiber	1.3m Carbon - Fiber
Antenna Concept	Segmented	Segmented	Segmented	Segmented
Power Supply	120-240 VAC 50/60 Hz	120-240 VAC 50/60 Hz	120-240 VAC 50/60 Hz	120-240 VAC 50/60 Hz
DC Power Input	24 to 48VDC	24 to 48VDC	24 to 48VDC	24 to 48VDC

RF CHARACTERISTIC

PMA-60

	Ku-Band	Ka-Band
Frequency (GHz) Tx	13.75 - 14.50	27.50 - 31.00
Frequency (GHz) Rx	10.70 - 12.75	17.70 - 21.20
Antenna Gain (± 0.2 dBi) Tx	≥ 36.4	≥ 42.9
Antenna Gain (± 0.2 dBi) Rx	≥ 35.3	≥ 39.3
Polarization	Linear	Circular
Axial Ratio (dB)		1.5
Antenna Pattern Compliance	ITU-R S.580-6 and ITU-R S.465-6	ITU-R S.580-6 and ITU-R S.465-6

RF CHARACTERISTIC

PMA-80

	Ku-Band	Ka-Band
Frequency (GHz) Tx	13.75 - 14.50	27.50 - 31.00
Frequency (GHz) Rx	10.70 - 12.75	17.70 - 21.20
Antenna Gain (± 0.2 dBi) Tx	≥ 39.00	≥ 45.00
Antenna Gain (± 0.2 dBi) Rx	≥ 38.10	≥ 41.40
Polarization	Linear	Circular
Axial Ratio (dB)		1.5
Tx/Rx Isolation (dB)	85	85
Antenna Pattern Compliance	ITU-R S.580-6 and ITU-R S.465-6	ITU-R S.580-6 and ITU-R S.465-6

RF CHARACTERISTIC

PMA-100

	X-Band	Ku-Band	Ka-Band
Frequency (GHz) Tx	7.90 - 8.40 GHz	13.75 - 14.50 GHz	27.5 - 31.0
Frequency (GHz) Rx	7.25 - 7.75 GHz	10.70 - 12.75 GHz	17.7 - 21.2
Antenna Gain (± 0.2 dBi) Tx	≥ 36 dBi	≥ 40.8 dBi	≥ 46.7 dBi
Antenna Gain (± 0.2 dBi) Rx	≥ 35.3 dBi	≥ 39.8 dBi	≥ 43.2 dBi
Polarization	Circular	Linear	Circular
Axial Ratio (dB)	≤ 1.2	≥ 35 dB (CPI)	≤ 1.2 (Rx) / ≤ 1.0 (Tx)
Antenna Pattern Compliance	ITU-R S.580-6 and ITU-R S.465-6	ITU-R S.580-6 and ITU-R S.465-6	ITU-R S.580-6 and ITU-R S.465-6

RF CHARACTERISTIC

PMA-130

	X-Band	Ku-Band	Ka-Band
Frequency (GHz) Tx	7.90 - 8.40 GHz	13.75 - 14.50 GHz	27.5 - 31.0
Frequency (GHz) Rx	7.25 - 7.75 GHz	10.70 - 12.75 GHz	17.7 - 21.2
Antenna Gain (± 0.2 dBi) Tx	≥ 38.3 dBi	≥ 43.2 dBi	≥ 48.9 dBi
Antenna Gain (± 0.2 dBi) Rx	≥ 37.6 dBi	≥ 42 dBi	≥ 45.5 dBi
Polarization	Circular	Linear	Circular
Axial Ratio (dB)	≤ 1.2	≥ 35 dB (CPI)	≤ 1.2 (Rx) / ≤ 1.0 (Tx)
Antenna Pattern Compliance	ITU-R S.580-6 and ITU-R S.465-6	ITU-R S.580-6 and ITU-R S.465-6	ITU-R S.580-6 and ITU-R S.465-6

Specifications are subject to change.





TECHNICAL SPECIFICATIONS / PMA SERIES

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MECHANICAL SPECIFICATIONS

Antenna Motion Range	5 - 90°	± 180°	± 90°
Antenna Drive Rate	0.1° /S ~ 3° /s	0.1° /S ~ 3° /s	1° /s
Motor	DC Brushless Servo	DC Brushless Servo	DC Brushless Servo

ENVIRONMENTAL SPECIFICATIONS

Temperature Range Operational	-46°C - +71°C
Wind Speed Operational	72 km/h anchored
Wind Speed Survival	90 km/h anchored
Protection Grade	IP65
Modem Options	Comtech, Teledyne, SkyWan, iDirect, Datum, Gilat, Hughes, Newtec

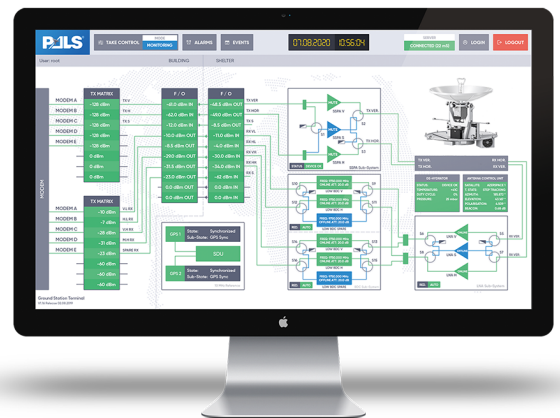
PMA SERIES

M&C Interface

Ethernet interface for M&C and user interface.

Full remote operation and monitoring with multiple tracking options.

The antenna can be controlled via the provided computer software application or via a customer interface.



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PMA (Manpack Antenna) Technology Advantages

Compact & Low-Profile: Features a modular, space-saving design that collapses completely into a single tactical backpack for seamless field storage.

Cost-Effective Solution: Maximizes operational performance at a highly competitive price point by utilizing streamlined manufacturing and robust commercial-off-the-shelf components.

Global Anywhere Connectivity: Delivers instant, multi-band satellite links anywhere on earth, ensuring uninterrupted communication in the most remote or degraded environments.

Enhanced Soldier Portability: Engineered with ultra-lightweight carbon fiber materials to minimize individual combat load and reduce operator fatigue during long missions.

Rapid Deployment: Allows tactical field operators to assemble, align, and lock onto target satellites within minutes without requiring any special tools.

Carbon Fiber Reflector Advantages

All sizes in the PALS PMA-MIL series feature PALS designed Carbon Fiber reflectors, providing a lightweight, rigid, and highly efficient tracking solution.

Exceptional Surface Accuracy:
Delivered in modular petals, the reflector assemblies with close-fitting bolting to ensure accurate alignment and a surface accuracy better than 0.3 mm rms.

Seamless Field Rebuilds:
Factory photogrammetry scans guarantee that the reflector can be disassembled, shipped, and rebuilt in the field with no significant change in performance.

Superior Thermal Stability:
Carbon fiber offers a much lower thermal expansion coefficient ($<2 \times 10^{-6}$) compared to aluminum (23×10^{-6}), ensuring the system remains viable and stable in extreme temperatures.

High Durability:
These reflectors are significantly stronger and stiffer than aluminum, resist easy damage, and can be quickly repaired on-site from minor impacts without surrounding distortion.

Modem Options

- Comtech
- Teledyne
- SkyWan
- iDirect
- Datum
- Gilat
- Hughes
- Newtec