



STANDARD
MIL-STD
810G

PKA SERIES

The PKA Series ensures critical communication when terrestrial networks fail. **Its intelligent Autoswitch** **SATELLITE+GSM Hybrid system** continuously monitors 4G/5G and automatically switches to the satellite the moment the ground connection drops—guaranteeing zero data interruption.

The PKA Series features dual-transceiver support for Newtec, Hughes and any state of art modems/modem platforms, with models PKA-74/98/120 (Hughes) and PKA-74/98/120 (Newtec). Its advanced IP Router includes dual Nano-SIM/eSIM for global cellular failover and local network management. Paired with the PAC-500 controller and "One Touch and Live" auto-acquisition, it delivers instant satellite lock and unbreakable connectivity in under two minutes.

Lightweight and ultra-durable, the PKA Series installs quickly with vehicle-specific mounting. Its intelligent PAC-500 controller and high-gain reflector deliver a powerful, reliable link, fully manageable via controller, smartphone, or web browser from anywhere. Beyond disaster recovery, the PKA Antennas is engineered for mission-critical applications that demand reliable and remote connectivity in challenging and rugged environments. It is ideally suited for industries such as Oil & Gas Exploration, Military Communications, Disaster Management, Satellite News Gathering (SNG), Emergency Communications Backup, Cellular Backhaul, and many other demanding operational scenarios.

Key Features

- One-Touch Operation
- Optional 4G / 5G /LTE supported modem for load balancing and bonding solutions
- Fully motorized driving mechanism with zero backlash gear system
- Prime Focus antenna and feed system
- Easy vehicle integration
- Manual drive tool kit for emergency situations
- De-Ice Systems (Optional)
- Supports OpenAmp
- Supports all Modems





GENERAL SPECIFICATIONS

		PKA-74	PKA-98	PKA-120
Reflector Diameter		0.74m	0.98m	1.20m
Reflector Type		Elliptical	Elliptical	Prime Focus
Reflector Material		Steel	SMC / Carbon-Fiber	SMC / Carbon-Fiber
Platform Geometry		EL over AZ	EL over AZ	EL over AZ
Deployment Sensors		GPS antenna, Compass ± 2°, Tilt sensor ± 0.1°		
Antenna Travel	AZ	360°	± 200°	± 200°
	EL	0 - 90°	0° to 90°	0° to 90°
Polarization		Circular, Auto-switching (RH or LH)		
Deploy Speed	AZ	Variable, 10°/sec typ.	Variable, 10°/sec typ.	2°/sec
	EL	Variable, 10°/sec typ	Variable, 10°/sec typ	6°/sec
Peaking Speed		0.1°/sec	0.1°/sec	0.2°/sec

RF SPECIFICATION

Frequencies	TX: 28.44 - 30.00	TX: 29.00 - 30.00	TX: 29.00 - 30.00	TX: 29.00 - 30.00	TX: 28.10 - 29.10	TX: 29.20 - 31.00	TX: 17.30 - 20.20 (3W-XRE)	TX: 17.80 - 20.20 (3W-XRE)	TX: 17.70 - 20.20 (Konnect 3W-XRF)	TX: 18.10 - 20.20 (3W - TRX012 Optional)	TX: 17.70 - 20.20 (4W - AN8025 Optional)	TX: 17.70 - 20.20 (4W - AN8023 Optional)	TX: 19.40 - 21.20 (2 Port CP feed Optional)
Feed Interface	Circular												
Midband Gain (+0.5 dB / ± 0.2 dB)	TX: 45.3 @29.0 GHz	TX: 46.60 @29.75GHz	TX: 46.60 @29.75GHz	TX: 46.60 @29.75GHz	TX: 41.6 @19.2 GHz	TX: 43.50 @19.75 GHz	TX: 43.50 @19.75 GHz	TX: 43.50 @19.75 GHz	TX: 46.5 @19.75GHz	TX: 46.5 @19.75GHz	TX: 46.5 @19.75GHz	TX: 46.5 @19.75GHz	TX: 46.5 @19.75GHz
Antenna Noise Temp. (K)	30° EL= 50 Max.	30° EL= 62 Max.	30° EL= 62 Max.	30° EL= 62 Max.	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89	30° EL= 107 / 40° = 89

ENVIRONMENTAL SPECIFICATIONS

		PKA-74	PKA-98	PKA-120
Temperature Range		Operational: -30°C to 55°C Survival: -40°C to 60°C		
Wind Speed	Operational	95 km/h	80 km/h	72 km/h
	Survival	140 km/h	140 km/h	130 km/h
	Stowed	< 175 km/h	< 175 km/h	< 175 km/h
Rain		Survival in heavy rainstorm (sealing class IP65)		
Solar Radiation		1000 W/m²		
Humidity		0 to 100% with condensation		

MECHANICAL SPECIFICATIONS

		Azimuth	Elevation
Drive Rates	Slow	0.4° / sec	0.1° / sec
	Medium	2.5° / sec	1.5° / sec
	Fast	4.5° / sec	3.0° / sec
Antenna Travels		± 360°	Up to 90°
Manual Override Mechanism		Manual override for elevation and azimuth drive system	

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





MR-1200

The PALS MR-1200 is a versatile communications hub designed to bridge legacy and next-generation networks. It supports satellite, LTE/4G/5G, wired, and Wi-Fi connectivity, includes a built-in GPS, and can integrate Newtec, Hughes and any state of art modems internally. Available in three form factors—Portable Handheld, Supported Upright, and Rack Mount—it adapts to any operational environment.

Featuring integrated 5G/4G modems, the MR-1200 ensures seamless, uninterrupted connectivity. It also offers dual SIM/eSIM support, load balancing, Wi-Fi 5, Gigabit Ethernet, and runs on RutOS for industrial IoT protocols and secure VPN connectivity.

The system provides full remote monitoring and control via smartphones and tablets, and integrates with PALS Vision NMS for centralized network oversight. Ideal for broadcasting, emergency response, and remote operations, the MR-1200 is a resilient and intelligent hub for mission-critical communications.

Key Features

- Integrated satellite modem
- Integrated Routing RUTX12
- Flexible Networking, LAN & Openamip
- GPS positioning access
- Dual SIM & Enhanced LTE Support
- Dual-Band Wi-Fi
- High Durability
- High-Speed Throughput
- Dual, Nano-SIM and e-SIM support

MECHANICAL SPECIFICATIONS

Weight	≤4.5kg
Modem	Newtec, Hughes, iDirect, Comtech Modems
Interface	Power in Plug*1, Power out Plug*1, LAN RJ45 Plug*1 Open AMIP RJ45 Plug*1, Debugging/Commission Plug*1
Function	Supporting LTE1 Antenna *2, Supporting LTE2 Antenna *2 Supporting WiFi Antenna *2, Built-in GPS positioning function