



STANDARD  
MIL-STD  
461F

STANDARD  
MIL-STD  
188-164A

STANDARD  
MIL-STD  
810G

## PFA-370

PFA-370 is designed as a portable 3.7m Earth Station. It can operate on C, X, Ku, and Ka bands and in different configurations. The reflector structure consists of lightweight carbon-fibre segmented panels. Feed options can be RxO, Tx/Rx, 2-ports or multiple ports. Polarization can be circular or linear according to feed options. Customized design and different feed arm options are possible to provide an interchangeable feed structure. The reflector is assembled with 19 carbon-fibre panels. It is designed to be lightweight and modular with robust components.

PFA-370's motorized version can be used with PALS PAC550 military-type antenna controller. It is provided with a GPS, position detection, polarization adjustment and servo drive and high-performance satellite beacon receiving system.

It supports manual, auto and one-button features for locking to the satellite within 5 minutes. Its feed structure assures high gain, low side lobe and perfect RF performance.

PFA-370 is able to do Tx/Rx operation under 60 km/h wind and it can survive up to 120 km/h wind. Optionally it meets operational 72 km/h and survival 150 km/h wind load specifications with a pedestal mount option. The total weight is less than 500 kg depending on mount and configuration options. It can be deployed by 2 people within 30 minutes. 9 transport cases are used for the package. Cases can be carried easily by 2 people.

## Key Features

- Multi-Band feeds changed in minutes
- Multiple mount options (mobile, pedestal, tactical, tripod, trailer mounts)
- C, X, Ku, Ka Band options are available
- 19 reflector panels (carbon-fiber)
- Motorized or non-motorized versions
- 9 transport cases (standard)
- Installation within 30 minutes
- Designed to comply with Mil-Spec standards
- Integrated DVB-S/S2 & Beacon Receiver
- Optional De-Ice
- Manual drive tool kit for emergency situations
- High gain, low side-lobe, high accuracy and very good cross polar rejection (> 35 dB)
- Supports OpenAmip





### GENERAL SPECIFICATIONS

Reflector Diameter	3.7m
Reflector Type	Circular, axially symmetric with 19 carbon-fiber panels, prime focus feed
Operation On-Air Time	~ 5 Minutes after Set-Up
Antenna Concept	Portable design with pedestal, trailer, tactical, tripod, mobile mounts.

### RF CHARACTERISTIC

Frequency (GHz)	Tx 13.75 - 14.50 GHz	Rx 10.70 - 12.75 GHz
Antenna Gain ( $\pm 0.2$ dBi)	Tx 52.6 dBi @ Midband	Rx 51 dBi @ Midband
Polarization	Linear	
Feed Insertion Loss	Tx 0.8 dB	Rx 0.3 dB
Waveguide Interface	WR - 75	
VSWR	1.3:1	
Cross-Polar Isolation	35 dB	
G / T	28.5 dB/K	

### OTHER FEED OPTIONS

		C-Band	X-Band	Ka-Band
Frequency	Tx	5.850-6.425 GHz	7.90-8.40 GHz	27.50-31.00 GHz
	Rx	3.625-4.200 GHz	7.25-7.75 GHz	17.70-21.20 GHz
Gain	Tx	45.1 dBi @ Midband	47.7 dBi @ Midband	57.11dBi+20lg(f/29.25 GHz)
	Rx	41.6 dBi @ Midband	47.0 dBi @ Midband	54.53dBi+20lg(f/29.25 GHz)

### MECHANICAL SPECIFICATIONS

	Azimuth	Elevation	Polarization
Drive Rates	0.3° /s	0.5° /s	0.5° /s
Antenna Travels	$\pm 180^\circ$ *	0° to 90°	$\pm 90^\circ$
*: Antenna azimuth travel range is $\pm 180^\circ$ when elevation is greater than 36°, Antenna azimuth travel range is $\pm 60^\circ$ from local 150° when elevation is less than 36°			
Manual Override Mechanism	Manual override for elevation and azimuth drive system		
Mount Type	Elevation over Azimuth		
Operational Limits	Hardware and software settable		

### ENVIRONMENTAL SPECIFICATIONS

Temperature	Operational	-30°C to +60°C
	Survival	-40°C to +70°C
Wind Speed	Operational	60 km/h (optional 72 km/h with pedestal mount)
	Survival	120 km/h (optional 150 km/h with pedestal mount)
Humidity (Relative)	0-100%	
Altitude	4000 m	

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