



2.4m multi-band manually pointed 'Flyaway' antenna system

Model **PICO240**



KEY FEATURES

- 2.4m Segmented Carbon Fibre Reflector
- Fully integrated manually pointed antenna
- RAMU includes Assisted Pointing with Orientation Sensors and Beacon Receiver and modem
- The RAMU can optionally be delivered without Modem as the RAPU
- Android Mercury App for quick Satellite Acquisition
- High Performance Interchangeable feeds for C, X, Ku and Ka band
- Highly robust carbon fibre construction
- Manual Polarization Adjustment for Linear Polarized systems
- Eutelsat and ITU-R S.465 compliant



General Description

This 2.4 m integrated portable flyaway terminal is made of state-of-the-art composite materials for both the reflector and feed arm. The system is compliant with international standards and has interchangeable multi-band feed systems for fast switching of frequency bands: C, X, Ku and Ka.

RAMU, ACU + modem + beacon receiver

The RAMU, is the fully embedded ReQuTech Antenna Control Unit with built in Modem PCBs. The system can optionally be offered as the RAPU without modem for applications where rack-mounted solutions are preferred.

Positioner

The elevation over azimuth positioner is designed for robustness and reliable use in all weather conditions in all environments.

Multi band Antenna System

The offset prime focus antenna system is comprised of a light weight composite reflector, manufactured with high tolerances to allow for X to Ka band operation with high gain, accurate beam pointing and antenna patterns. The system can be delivered with feed systems for C, X, Ku and Ka band operation. Other variations of feed solutions are available and can be tailored to the system.

TECHNICAL DETAILS

	X band		Extended Ku band		Ka band	
	Tx	Rx	Tx	Rx	Tx	Rx
Frequency Range (GHz)	7.9 - 8.4	7.25 - 7.75	13.75-14.5	10.7 - 12.75	27.5-30 or 29-31	17.7-20.2 or 19.2-21.2
Polarization	Circular	Circular	Linear	Linear	Circular	Circular
G/T @ 20° Elevation dB/K	-	24.3 (LNB NT=50K)	-	26.7 (LNB NT=55K)	-	29.2 (LNB NT=50K)
EIRP dBW	62.8 dBW (80W) 63.7 dBW (100W)	-	68.0 dBW (80W) 65.8 dBW (50W)	-	76.5 dBW (30W) 65.5 dBW (20W)	-
Flange	WR112	WR112	WR75	WR75	WR28	WR42
Return Loss Tx/Rx	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB
Isolation Tx-Rx	110 dB	110 dB	80 dB	80 dB	100 dB	100 dB
Gain @ midband	45.0 dB	44.1 dB	49.8 dBi	48.2dBi	56.1 dBi	52.4 dBi
XPD	-	-	35dB	32dB	-	-
Axial Ratio	0.8 dB	0.8 dB	-	-	0.8 dB	0.8 dB





MECHANICAL DETAILS

EL/AZ Positioner	Manually pointed positioner
Pol Skew Adjust (Lin pol)	±180° Linear RHCP LHCP Circular
Reflector	ReQuTech Segmented 2.4m Carbon Fibre
Elevation Travel	0° to 90°, pointing accuracy 0.02°
Azimuth Adjustment	360° Pointing Accuracy 0.02°
Assembly Time	2-men < 20 mins
Weight	220 kg in X band configuration
Packed in 8 cases	Estimated Total Weight: 330kg Case sizes vary according to RF specification

ENVIRONMENTAL DETAILS

Wind - Operational	40kph (25mph) no ballast/anchors
Wind - Operational	80kph (50mph) with ballast/anchors
Wind - Survival	130kph (80mph) with ballast/anchors
Temperature (Operational)	-30°C to 60°C
Temperature (Storage)	-40°C to 70°C
Shock and Vibration	Designed to meet MIL-STD-810G
Corrosion	Suitable for all regions including Marine and Industrial
Humidity	100% with condensation
Rain	>100mm/hr

ABOUT REQUTECH

ReQuTech has been designing and supplying bespoke antenna systems for Communications, EW, SIGINT and Radar for Government and Defense Sub-contractor customers since 2009. ReQuTech's team of mostly ex-Saab Aerospace and Ericsson engineers have many decades of experience between them. ReQuTech's design tools include a combination of in-house algorithms and well-established tools. With know-how in electromagnetic theory, computational electromagnetics and experience within manufacturing and production of antenna and microwave systems, ReQuTech can ensure the successful delivery of every project.

ReQuTech has now developed several new products for general release. The PICO family includes a range of manpack, flyaway, and driveaway antennas for C/ X/Ku/Ka band. The Atlas family is a growing range of pedestal mounted antennas and the RESA family is a new family of phased array flat panel antennas.

Contact ReQuTech for more information.

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