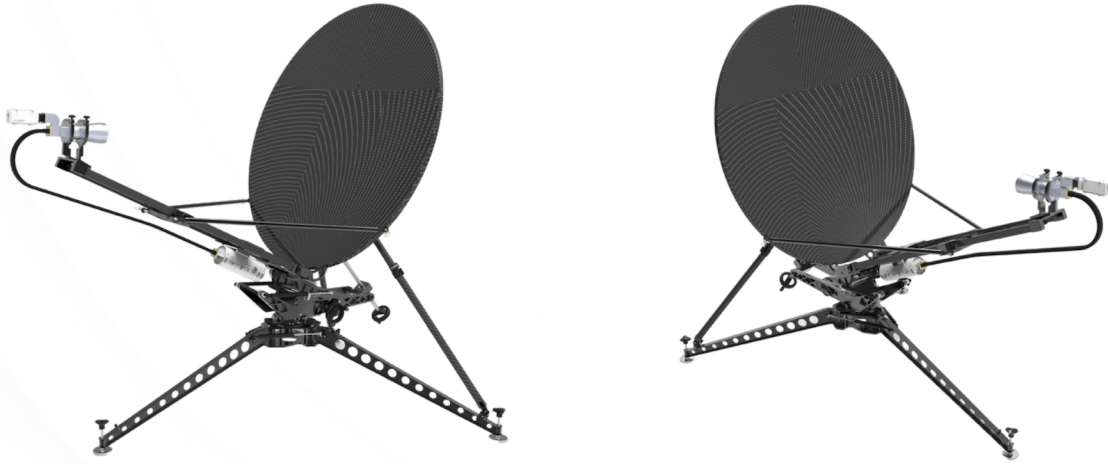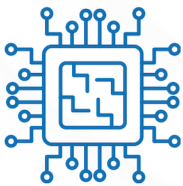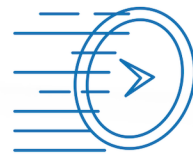# PICO120m

120cm X, Ku, and Ka-band manual flyaway terminal

Fully integrated manpack terminal

Multiband

Rapid deployment and tooless aseembly

The PICO120 is a **1.2m** fully integrated flyaway terminal that is meticulously engineered for versatility and robust performance across **X**, **Ku**, and **Ka**-bands.

This system boasts a comprehensive **MIL-STD-810**-compliant design and is also compliant with the requirements of **ITU-R S.465** and the **EUTELSAT ESOG120 standards**.

At the heart of the system lies the **RAPU** Unit that contains the ACU, Beacon receiver, control, monitor, and sensor kit module with Mercury app for **rapid satellite acquisition**.

eutelsat
characterized

TECHNICAL DETAILS

| Ku - Band		Ka- Band		X- Band	
Transceivers	ReQuTech feed specifcation Ku-band Horn, OMT and filters for optional BUC and LNB	Transceivers	E TRIA transceiver, Skyware Technologies, HughesNet transceiver ReQuTech feed specifcation 2 or 4 port, Feed systems for optional BUC/LNB	Transceivers	ReQuTech feed specifcation X-band Horn, OMT and filters for optional BUC and LNB
TX Frequency	13.75 - 14.5 GHz	TX Frequency	27.5 – 30.0 GHz or 29 – 31GHz	TX Frequency	7.9-8.4 GHz
RX Frequency	10.7 - 12.75 GHz	RX Frequency	17.7 – 20.2 GHz or 19.2 – 21.2 GHz	RX Frequency	7.25 - 7.75 GHz
EIRP	55.4 dBW (with 20W BUC) 53.3 dBW (with 12W BUC)	EIRP	65.0 dBW (with 40W BUC) 62.0 dBW (with 20W BUC) 59.8 dBW (with 12W BUC)	EIRP	51.7 dBW (with 25W BUC) 55.1 dBW (with 55W BUC)
Polarity	Linear, mechanical skew adjustment	Polarity	Circular RHCP / LHCP, mechanical pol. change	Polarity	Circular RHCP / LHCP, mechanical pol. change
Flange for connections	WR75	Flange for connections	WR28 WR42	Flange for connections	WR112
Return-loss Tx/Rx	20 dB	Return-loss Tx/Rx	20 dB	Return-loss Tx/Rx	20 dB
Isolation Tx-Rx	70 dB	Isolation Tx-Rx	70 dB	Isolation Tx-Rx	70 dB
Tx gain @midband	43.5 dBi	Tx gain @midband	49.6 dBi	Tx gain @midband	38.7 dB
Rx gain @midband	42.8 dBi	Rx gain @midband	46.5 dBi	Rx gain @midband	38.0 dBi
Tx AR	30 dB	Tx AR	0.9 dB	Axial ratio	1 dB
Rx AR	30 dB	Rx AR	0.8 dB	G/T Rx	17.8 dB/K
G/T RX	21.4 dB/K	G/T Rx	24.9 dBi/K		

Mechanical details	
Azimuth	adjustment ± 100°, with pointing accuracy 0.1°
Elevation	adjustment 0-90°, with pointing accuracy 0.1°
Pointing stability	≤ 0.16°
Beam drift	Under wind flow 75 km/h - beam drift below 0,35°
Time to acquisition	Typically 5 minutes
Assembly Time	< 20 mins
Weight	
Packaging: Option of soft or hard cases	Total weight of system including 55W BUC, LNB and RAPU: 42.3 kg.

Environmental details	
Wind - Operational	45 km/h (gusts 75 km/h)
Temperature (Operational)	-30°C to 52°C
Temperature (Survival)	-40°C to 60°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

RAPU for fast satellite acquisition

The Requtech Assisted Pointing Unit (RAPU) houses the Antenna Control Unit (ACU), and all sensors required for assisted pointing, system monitoring and control. The RAPU runs Requtech's proprietary Mercury software suite; its GUI can be accessed either by Android app over WiFi/Bluetooth or Web interface via ethernet.

The RAPU can optionally be provided with an embedded modem and/or beacon receiver for a complete turnkey terminal solution. The ACU supports OpenAMIP communications and is OpenBMIP ready. This means that the ACU is able to communicate with most modems on the market. Please contact Requtech if your configuration requires other non-OpenAMIP modems.
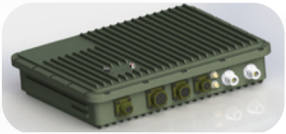
Requtech AB, based in Linköping, Sweden, is at the forefront of satellite communication technology. We specialize in developing high-performance, reliable satellite communication systems. Our mission is to revolutionize communication capabilities, enhancing global connectivity through innovative solutions.

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