requtech

Your provider of fully integrated terminal solutions for LEO, MEO, GEO and Troposcatter

PICO 120A

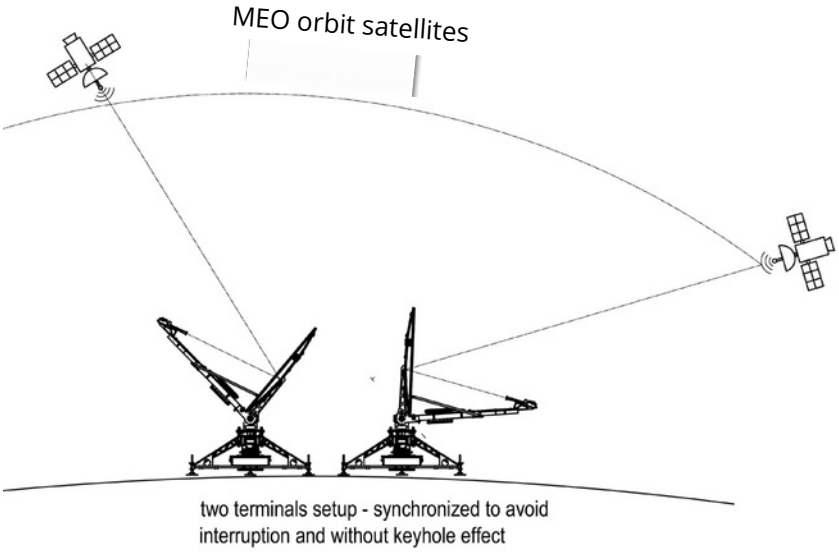
120 cm multi orbit fly-away terminal for LEO, MEO and GEO satellite communication

General Description

This multi orbit, 1.2 m integrated portable fly-away terminal is made with a state-of-the-art composite reflector and extremely strong and stiff feed arm able to carry some of the heaviest BUCs. The system is compliant with international standards and has interchangeable feed systems for fast switching of frequency bands: X, Ku and Ka.

KEY FEATURES

- 1.2 m segmented carbon fiber reflector
- MEO compliant and tested on SES mPower
- Fully integrated auto-point fly-away terminal
- RAPU: ACU, Beacon receiver, control, monitor and
- sensor kit module
- Android Mercury App for quick satellite acquisition
- High performance interchangeable feeds for X, Ku
- and Ka bands
- Highly robust construction and toolless deployment
- Eutelsat and ITU-R S.465 compliant
- Delivered in robust packing cases



two terminals setup - synchronized to avoid interruption and without keyhole effect

Multi Orbit LEO, MEO, GEO terminal

Terminals can be shipped as a pair for LEO or MEO operation, or as a single GEO autopointing terminal. Feed systems for X, Ku and Ka band are available.

RAPU and Modem Integration

Terminals can be shipped with the option of an integrated modem, enabling automatic satellite acquisition.

Positioner LEO/MEO complaint

The elevation over azimuth positioner is designed for robustness and reliable use in all weather conditions in all environments. Innovative LEO/MEO complaint system without key-hole effect.

Robust and rugged design

Deployment of a PICO terminal is easily and quickly done with minimum training due to the toolless design and robust components.

The reflector is made of carbon fiber, and feed arm and legs out of flight grade aluminum for optimum robustness and ease of handling in all weather conditions.

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.

TECHNICAL DETAILS

Application Ku band PICO120 MEO **Feed** Ku-band Horn, OMT and filters for optional BUC and LNB

TX Frequency 13.75 - 14.5 GHz

RX Frequency 10.7 - 12.75 GHz

EIRP 55.4 dBW (with 20W BUC)
53.3 dBW (with 12W BUC)

Polarity Linear, mechanical skew adjustment

Flange for connections WR75

Return-loss Tx/Rx 20 dB

Isolation Tx-Rx 70 dB

Tx gain @midband 43.5 dBi

Rx gain @midband 42.8 dBi

Tx XPD 30 dB

Rx XPD 30 dB

G/T Rx 21.0 dB/K

Application Ka band PICO120 MEO

Feed 2 port or 4 port, Feed systems for optional BUC/LNB

TX Frequency 27.5 – 30.0 GHz or 29 - 31GHz

RX Frequency 17.7 – 20.2 GHz or 19.2 - 21.2 GHz

EIRP 65.0 dBW (with 40W BUC)
62.0 dBW (with 20W BUC)
59.8 dBW (with 12W BUC)

Polarity Circular RHCP / LHCP, mechanical pol. change

Flange for WR28 **connections** WR42

Return-loss Tx/Rx 20 dB

Isolation Tx-Rx 70 dB

Tx gain @midband 49.6 dBi

Rx gain @midband 46.5 dBi

Tx AR 0.9 dB

Rx AR 0.8 dB

G/T Rx 25.2 dB/K

Application X band PICO120 MEO

Feed X-band Horn, OMT and filters for optional BUC and LNB

TX Frequency 7.9 - 8.4 GHz

RX Frequency 7.25 - 7.75 GHz

EIRP 51.7 dBW (with 25W BUC)/
55.1 dBW (with 55W BUC)

Polarity Circular RHCP / LHCP, mechanical pol. change

Flange for connections WR112

Return-loss Tx/Rx 20 dB

Isolation Tx-Rx 70 dB

Tx gain @midband 38.7 dBi

Rx gain @midband 38.0 dBi

Axial Ratio 1 dB

G/T Rx 17.8 dB/K

Automatic positioner specification

Azimuth adjustment	±110°
Elevation adjustment	0-90°
Tracking speed	2 °/min (nominal)
Retracing time	Less than 30 seconds
Pointing stability	Less than 1dB loss from installation gain
Operational wind load	56 km/h with gusts up to 72 km/h, degraded performance up to 100km/h
Survival wind load	Up to 120 km/h (in pos. 90 deg. for beam)

Antenna must be bolted or tied to ground above 50 km/h wind load.

Weights

Packaging in 3 hard Mil grade cases weights around 50 kG.

Option: 4 airship cases per antenna with weights between 25 and 32 kg.

Requtech develops state-of-the-art fully integrated systems and microwave components for radar and communications. Our goal is to deliver reliable and robust systems and work with our customers to find the most suitable solutions for each application.

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