requtech

PICO75

75 cm Ku and Ka-band terminal

Manual / automated antenna terminal is designed as low cost, compact and robust Ku and Ka-band manpack. The system comprises of Antenna system, control unit and casing. For auto-pointing solution with motorization, ACU with WLAN connection to tablet for easy control are provided. The antenna RF system is provided with feed chain filters, polarizer and related microwave parts. The system is compliant with ITU-R S.465 and EUTELSAT ESOG120 standard.

KEY FEATURE

- Fully integrated manpack
- Feeds for X, Ku, Ka-bands are available
- Delivered in one single case for single band operation
- Eutelsat and ITU-R S.465 compliant
- Can be automated with add on motorization solution

TECHNICAL DETAILS

Application	Ku-band PICO75
Transceivers	**ReQuTech feed specification** 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	51.5 dBW (with 20W BUC) 49.3 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	39.25 dBi
Rx gain @midband	38.5 dBi
Tx XPD	30 dB
Rx XPD	30 dB
G/T Rx	18.5 dBi/K

Application	Ka-band PICO75
Transceivers	E TRIA transceiver, Skyware Technologies, HughesNet transceiver **ReQuTech feed specification** 2 port or 4 port, Feed systems for optional BUC/LNB
TX Frequency	29.0 - 30.0 GHz
RX Frequency	19.2 - 20.2 GHz
EIRP	57.2 dBW (with 20W BUC) 55.0 dBW (with 12W BUC)
Polarity	Circular RHCP / LHCP, mechanical pol. change,
Flange for connections	WR28 WR42
Return-loss Tx/Rx	20 dB
Isolation Tx-Rx	70 dB
Tx gain @midband	45.2 dBi
Rx gain @midband	42.2 dBi
Tx AR	30 dB
Rx AR	30 dB
G/T Rx	22.4 dBi/K

Light segmented Ku/Ka Manpack

Manual segmented Ku/Ka Manpack

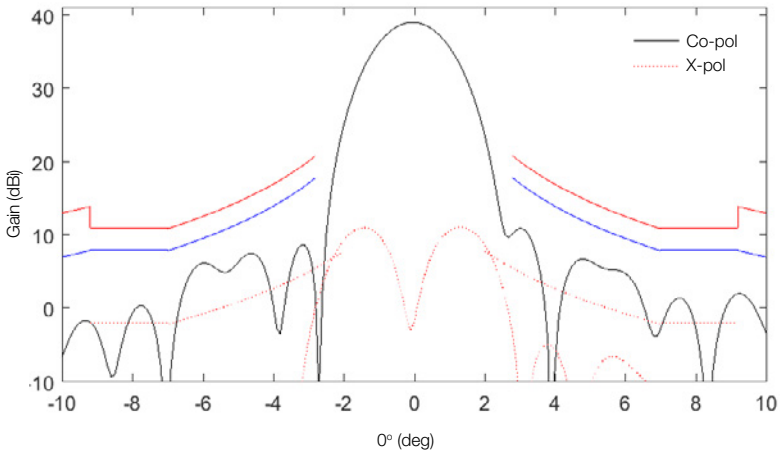
Auto segmented Ku/Ka Manpack

Packaging: soft case

Packaging: hard case

Antenna patterns for the system showing full compliance with ITU-R460 & Eutelsat ESOG120.

Ku band Tx pattern



Crosspolar discrimination at bore site: 40.9945 dB
Plane: Azimuth
Polarization: V-pol
Frequency: 14.25 GHz
1-dB beamwidth: 1.1°
3-dB beamwidth: 1.9°

Masks: ESOG 120
Gain: 39 dBi
XPD: within 1 dB lobe: 31 dB
X axeln: Azimuth (theta) deg
Y axeln: Gain (dBi)

MECHANICAL DETAILS

Manual positioner specification

Azimuth fine adjustment ± 5°, pointing accuracy 0.1°

Elevation adjustment 0-90°, quick adjustment ±10° and fine adjustment ±5° with pointing accuracy 0.1°

Pointing stability ≤ 0.16°

Under wind flow 75 km/h - beam drift below 0,35°

Weights

18 kg for manual terminal with Ku and Ka-band feeds included.

Packaging – soft case – weight aprox. + 1,8 kg dim. 550x300x170 (mm)

Packaging- hard case- weight aprox. + 8 kg (ATA/TSA ready for airline travel)

SEGMENTED CARBON FIBER REFLECTOR FOR EASY AND ROBUST INSTALLATION

Environmental specifications

Operating temperature, -30 to 70° C

Humidity 100% condensing

Wind speed 45 km/h with 75 km/h gusts

ReQuTech AB develops antenna systems and microwave components for satellite communications. Our goal is to design and produce tailored solutions for reflector antennas, OMT, Polarizer and Filter for satellite communications within C, Ku, X and Ka frequency bands.

Contact information
Telephone +46 (0)13 311771
E-mail info@requtech.se
www.requtech.com