



75-MANPACK

75 cm, Ku, Ka-Band Antenna terminal

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. The antenna 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 BENEFITS

- Fully integrated manpack
- Eutelsat and ITU-R S.465 compliant
- Robust Ku and Ka-band antenna system
- Delivered in one single case for single band operation
- Compliant feeds for X, Ku, K-bands are available

TECHNICAL DETAILS

Application	Ku-band manpack
Transceivers	RQT 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
Polarity	Linear, mechanical skew adjustment
Flange for connections	WR75
Return-loss Tx/Rx	20 dB
Isolation Tx-Rx	70 dB
Tx gain (mid)	39.0 dBi
Rx gain (mid)	38.5 dBi
Tx XPD	30 dB
Rx XPD	30 dB

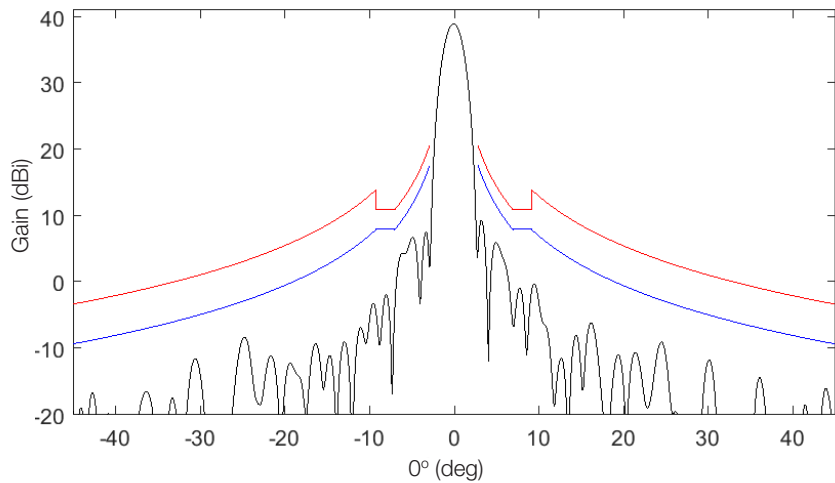
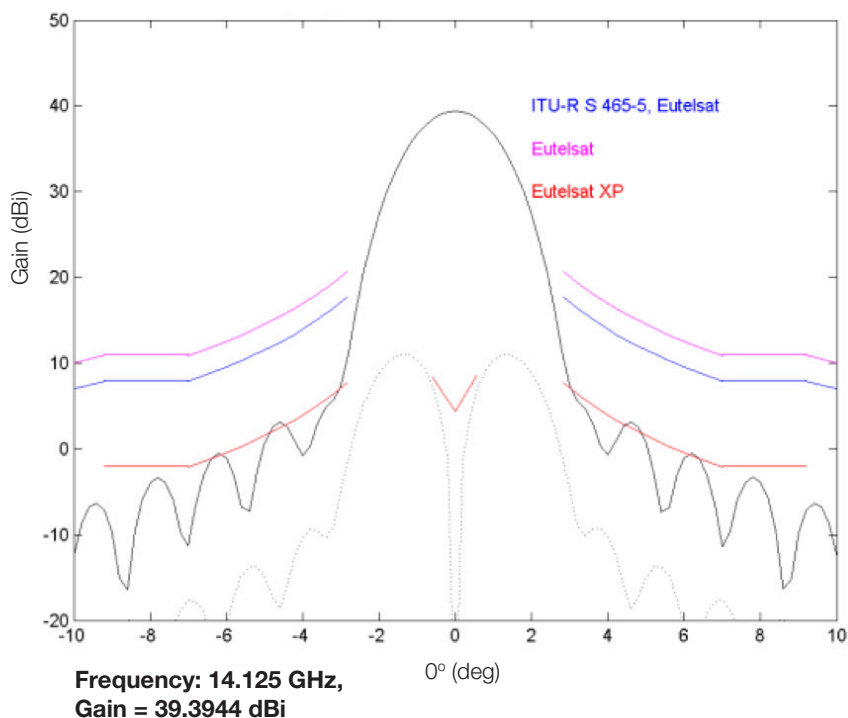
Application	Ka-band manpack
Transceivers	E TRIA transceiver, Skyware Technologies, HughesNet transceiver, RQT 2 port or 4 port, Feed systems for optional BUC/LNB
TX Frequency	29.0 – 30.0 GHz
RX Frequency	19.2 - 20.2 GHz
Polarity	Circular RHCP / LHCP, mechanical pol. change,
Flange for connections	WR28 WR42
Return-loss Tx/Rx	20 dB
Isolation Tx-Rx	70 dB
Tx gain (mid)	45.4 dBi
Rx gain (mid)	42.3 dBi
Tx AR	0.8 dB
Rx AR	0.8 dB



Light segmented Ku/Ka Manpack



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



Crosspolar discrimination at bore site: 45.3783 dB
Min. XPD within 1 dB lobe: 29.0351 dB

1-dB beamwidth: 1.1°
3-dB beamwidth: 2°

MECHANICAL DETAILS

Manual positioner specification

Azimuth 360°, pointing accuracy 0.1°

Elevation 0-90°, pointing accuracy 0.1°

Pointing stability <0.25°

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.

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