

ATLAS370

X, Ku or Ka band terminal

Requitech's 3.7m motorised antenna is designed for high pointing accuracy, ease of installation/set-up and robustness for long life. Made of state-of-the-art composite materials, hot dipped galvanised steelwork and high precision engineering.

RQT37R The RQT37R Rx only antenna can receive signals from the whole Ka band Rx range and can optionally be supplied with Swedish Microwave's LNA and multiple BDC systems to take advantage of the broadband feed/polariser/OMT ensuring that all signals can be captured. Other LNB solutions are available. The included OMT provides both RHCP and LHCP polarisations.

RQT37T The RQT37T Tx/Rx is compliant with Eutelsat's KA-SAT specification. Customers can specify their own LNBS and BUCs.

Reflector

The 9-piece (Hub and 8 Petals) Carbon fiber Reflector is easily deployed. When correctly assembled the reflector has an RMS surface accuracy of better than 0.5 mm – industry leading for this type of antenna – providing a Gain at 22 GHz of 56.1 dBi and at 30 GHz of 58.7 dBi. The design minimises shipping cost and the whole antenna can easily be shipped in a standard ISO container. Both the RQT37R and RQT37T utilise splashplate (backfire) feed designs meaning that all electronics can be mounted at the rear of the antenna for ease of maintenance. Requitech is happy to provide extra custom fixtures at the rear of the antenna for mounting customer equipment.

Positioner

The Positioner incorporates an embedded Requitech designed Antenna Control Unit (ACU) which interfaces to the modem either wirelessly or over ethernet. This means that power is only required at the antenna pedestal so that only a simple ethernet cable has to be laid across the site from the 'office'. The ACU has the OPEN/AMIP interface protocol so will work with most manufacturers' modems.

Non-Penetrating Mounts comprising multiple trays to hold standard concrete blocks (not supplied) are available.



KEY FEATURES

- Fully integrated motorised antenna
- Motorised Auto-pointing from TLE ephemeris data
- Android Mercury App for quick acquisition
- Interchangeable feeds (same antenna) for Rx only and Tx/Rx applications
- Packed into ISPM-15 wooden cases for international shipping
- Eutelsat KA-SAT and ITU-R S.465 compliant
- Carbon Fiber Segmented Reflector
- Hot dipped galvanised Pedestal
- Excellent Performance over -50 to +120 deg C (-58 to 248 deg F)

ELECTRICAL PERFORMANCE

X band		Ku band		Ka band	
TX Frequency	7.9-8.4 GHz	TX Frequency	13.75-14.5 GHz	TX Frequency (GHz)	27.50 - 30.0
RX Frequency	7.25-7.75 GHz	RX Frequency	12.7-13.5 GHz	RX Frequency (GHz)	17.70 - 20 .20
Polarity Tx-Rx feed	RHCP and LHCP switchable	Polarity Tx-Rx feed	Linear	Rx only frequency	17-22 GHz
Side-lobes Tx / Rx	FCC 25.218, ITU R S.468	Side-lobes Tx / Rx	FCC 25.218, ITU R S.468	Polarity Rx only	Dual RHCP & LHCP
Isolation Tx-Rx	50 dB	Isolation Tx-Rx	70 dB	Polarity Tx-Rx feed	RHCP / LHCP
Tx AR / XPD	1.0 dB / 30 dB	Tx XPD	35 dB on axis	Side-lobes Tx / Rx	FCC 25.218, ITU R S.468
Rx AR / XPD	1.0 dB / 30 dB	Rx XPD	35 dB on axis	Isolation Tx-Rx	90 dB
Gain Rx @ 7.5 GHz	46.2 dBi	Gain Rx @ 13.15 GHz	51.1 dBi	Tx AR / XPD	1.0 dB / 30 dB
Gain Tx @ 8.15 GHz	47 dBi	Gain Tx @ 14.125 GHz	51.7 dBi	Rx AR / XPD	1.0 dB / 30 dB
				Gain Rx @ 17 GHz	53.3 dBi
				Gain Rx @ 22 GHz	55 dBi
				Gain Tx @ 30 GHz	58 dBi



Requitech has been designing and supplying bespoke antenna systems for Communications, EW, SIGINT and Radar for Government and Defense Sub-contractor customers since 2005. Requitech's team of mostly ex-Saab and Ericsson engineers have many decades of experience between them. Requitech's design tools include a combination of in-house algorithms and well-established tools such as HFSS. With know-how in electromagnetic theory, computational electromagnetics and experience within manufacturing and production of antenna and microwave systems, Requitech can ensure the successful delivery of each project. Also as a subsidiary of Qamcom Research & Technology AB, Requitech can call on additional financial and engineering resource if required.

