



QTrack™ Portable Low-Gain Antenna

Self-Contained Ground Station

The QTrack™ is a low-gain antenna based on the feed from our large-aperture PD-series antennas. Coupled with the industry-leading RDMS™ telemetry receiver, it is the perfect solution for portable or mast-mounted antenna applications. Quasonix is... Reinventing Telemetry™.

Automated Acquisition – Combined with our state-of-the-art antenna control unit (ACU) with its straightforward user interface, the QTrack enables simple and robust data capture for your missions.

Portable – Two-person transport and setup (transport cases available). Free-standing antenna can be set up easily using a QTrack Antenna Tripod (part number QSX-AC-TRIPOD).

Simultaneous LHCP and RHCP RF Outputs – 2-channel rotary joint allows continuous azimuth travel.

Dual-Axis Pedestal – Multi-band SCM feed mounted in a dual axis pedestal; includes power supplies, slip rings, and rotary joint; custom dual-axis positioner based on the rugged industry-standard Quickset MPT-50.

Electronic Scanning for Highly Dynamic Targets – Feeds sweep the beam electronically allowing scan rates from 500 Hz to 2 kHz—greatly mitigating challenges inherent in tracking targets that impose high degrees of amplitude modulation on transmitted signal.

Seamless L, S, and C Band Operation – Future-proof, with support for legacy TM bands while being ready for the move to C, all in one unit.

Bidirectional (Transmit/Receive) Configurations Available – Ideal for use with Ethernet Via Telemetry (EVTM); contact Quasonix for more information.

Optional QTrack Camera Kit Available – 1080p, 30fps, h.264 Ethernet Camera



Watch the agility of a QTrack as it auto-tracks a drone. Can your antenna do this?

Antenna Control Unit (ACU)

A straightforward user interface, available for local or remote control, enables the user to work from a single integrated display for configuring, monitoring, and controlling all missions. All status related to the pedestal and ACU operations can be continuously broadcasted via a multicast port, allowing any computer on the network to gather all system information in one data-log, time-stamped ASCII file.

- Azimuth and Elevation Axis
- Back-Panel USB, Ethernet, Serial, and Test Ports
- Solid-State Hard Drive
- Remote Operation



Antenna Control Unit Interface

Intuitive User Interface – Real-time pedestal interface; hand wheels or USB joystick for local control; mouse and keyboard provide intuitive remote control.

Multiple Tracking Modes – Accepts pointing data from remote customer slave sources.

Client-Server Architecture for Maximum Operator Control – Operates in either local or remote modes with the remote interface consuming only a few kbps of network bandwidth; multiple operators can view the local ACU simultaneously while a request channel allows control to be moved to any remote.

Comprehensive Diagnostics – Built-in Test (BIT) ensures peak performance on every mission; comprehensive data logging utilities allow detailed post-mission analysis.



Antenna and Pedestal Specifications

Antenna Specifications

Performance	
Operating Frequency	1435.0 - 2500.0 MHz continuous, 4400.0–5250.0 MHz continuous, Actual operating band based upon selected filters
Polarization	Receive: Simultaneous Right-Hand and Left-Hand Circular Transmit (with TXnn options): Left-Hand or Right-Hand Circular
Axial Ratio	2.0 dB maximum
Antenna Type	Electronic Scanning
Array Size (Diameter)	13.25 inches nominal
Weight	Feed: 44 lbs Camera (optional): 6.5 pounds
Antenna Gain (nominal, linear polarized receive, RHCP and LHCP outputs combined)	1435.0 MHz +7.0 dB 2400.0 MHz +10.0 dB 4400.0 MHz +9.0 dB 5250.0 MHz +9.0 dB
Antenna Beamwidth (3 dB) (nominal)	40°
Sidelobes (nominal)	10 dBp

Environmental	
Temperature	Operating -30°C to +55°C Storage -40°C to +71°C
Relative Humidity	Up to 100%, including condensation (radome protected)

Pedestal Specifications

Performance	
Type	Elevation/Azimuth
Azimuth Travel	Continuous
Elevation Travel	-20° to +90°
RF Cabling Capability	Two RF channels supporting frequencies through C-band, VSWR 2.0:1 Maximum each RF channel
Weight	32.5 lbs nominal

Pedestal Specifications

Environmental

Operating Temperature	-30°C to +55°C
Storage Temperature	-40°C to +71°C
Relative Humidity	Up to 100%, including condensation

QTrack Options

CA – Ethernet-based HD Camera, 1080p 30 fps, h.264.

Hardware h.264 to HDMI decoder included

DH – Dehydrator

GP – Differential GPS; Position and Heading

TD – Time-Diverse EVTm Transceiver Enclosure

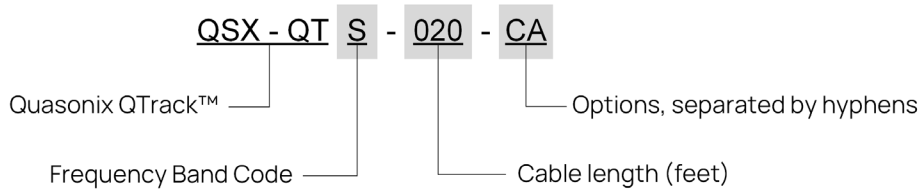
TR – Quasonix Tripod

TX05 – 5 Watt EVTm Transmitter

TX10 – 10 Watt EVTm Transmitter

TX20 – 20 Watt EVTm Transmitter

QTrack Part Numbering Example



Reinventing Telemetry™

With a razor-sharp focus on the aeronautical telemetry market and a team rich in talent, experience, and sheer determination, Quasonix is able to consistently design, develop, and manufacture what our customers regard as market-leading telemetry products.



Quasonix

All Quasonix products are under U.S. Dept. of Commerce jurisdiction. Antennas are categorized as 5A991.
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