



DELTA 3C

TRI-SECTOR CELL TOWER



PRODUCT OVERVIEW

The Delta 3C restores LTE or large-scale Public Safety coverage over a wide area utilizing an ultra-high bandwidth fiber-fed remote radio head MIMO on a heavy-lift drone, serving as a tower replacement and flying at up to 150m for 30 days at a time without landing. Deploying in under 60 minutes the Delta 3C utilizes carrier-agnostic MIMO architecture enabling bidirectional 10 Gbps throughput on multiple channels in a single fiber.

CAPABILITIES

Typical payloads range from 50 lbs to 120 lbs and include both the cellular payload and the antenna array. Built with safety and redundancy in mind, the 12-rotor drone can safely land on eight motors, can include safe-landing parachutes, and utilizes state of the art system monitoring that can land the drone for maintenance or repair. The drone, tether/power system, and cellular headend efficiently pack up in a service vehicle in 3 pelican cases.

ADDITIONAL FEATURES

The Delta 3C features 12 rotors on six arms, measures 53.7 in x 62 in x 28.3 in, and weighs 47 lbs before payload and batteries. Its tri-sector antenna array is housed in a weather-proof canister providing excellent coverage and data rates over a wide area. The system requires a line or generator 24 kW @ 240 VAC power supply and can support either manual or motorized tether systems.



EQUINOX INNOVATIVE SYSTEMS

www.equinoxinnovativesystems.com

COPYRIGHT © 2017

SPECIFICATIONS FOR DELTA 3C

DRONE

Ready to Fly for Equinox Innovative Systems

Dimensions 53.7 in x 62 in x 28.3 in

Weight 47 lbs

Additional Payload 75 optimal / 150 max

Wind Speed > 25 mph

Flight control and networking:

Pixhawk-2 Option: Pixhawk 2 flight controller
Non-DJI FPV video link
Optional combined drone and payload control and/or sensor data storage and video link display on a laptop (free flight and tethered)
RTK GNSS or Precision GPS

Optional 2nd payload controller

Configured for both free flight (30 minutes) and tethered flight (8+ hours)

Optional configuration for operation above a moving vehicle

GROUND UNIT

Line or Generator Supply

16 kW @ 240 VAC

Tether with power supply and auto-tensioned reel with tether up to 150m

Head end interface between cellular base station(s) and drone tether

Signal conditioning and optimal attenuation for RF to Optical modulation
Analog RF Over Fiber (RfOf) connectivity to drone tether
Ethernet Over Power drone telemetry and command and control

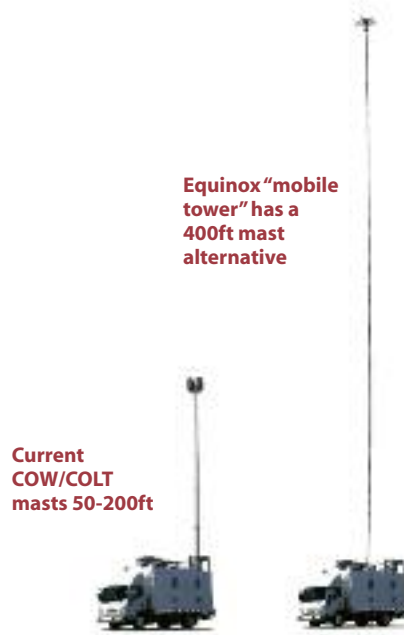
DRONE PAYLOAD

Fiber-fed remote radio head

2x2 MIMO
• 5 watt amplifier x6
• +37db
Single or dual band
Supports all US and international LTE bands
• Other commercial and Public Safety protocols available
Simultaneous connections: >2000

Wideband 2x2 MIMO antenna array

Canister houses three wideband panel antennas



“Equinox offers the first fully functional drone-based inspection platforms, mobile communications towers and test systems with variable elevation control, ultra-high bandwidth, operation on the move & unlimited flight time.”



COMPANY OVERVIEW

Headquartered in the Washington D.C. area, Equinox Innovative Systems is a products and services company focused on drone-based communications and inspection systems with an emphasis on RF engineering. Equinox is changing the face of Defense and Public Safety C4ISR and Broadband Communications. Our drones replace towers when they fail, or are not there when needed. We provide more power to sensors and bandwidth to communications than ever before through the optimization of ultra-efficient aerial platforms and our patent-pending technology in an ultra-high bandwidth tether system.

www.equinoxinnovativesystems.com

443.822.0952 • COLUMBIA, MARYLAND

COPYRIGHT © 2017