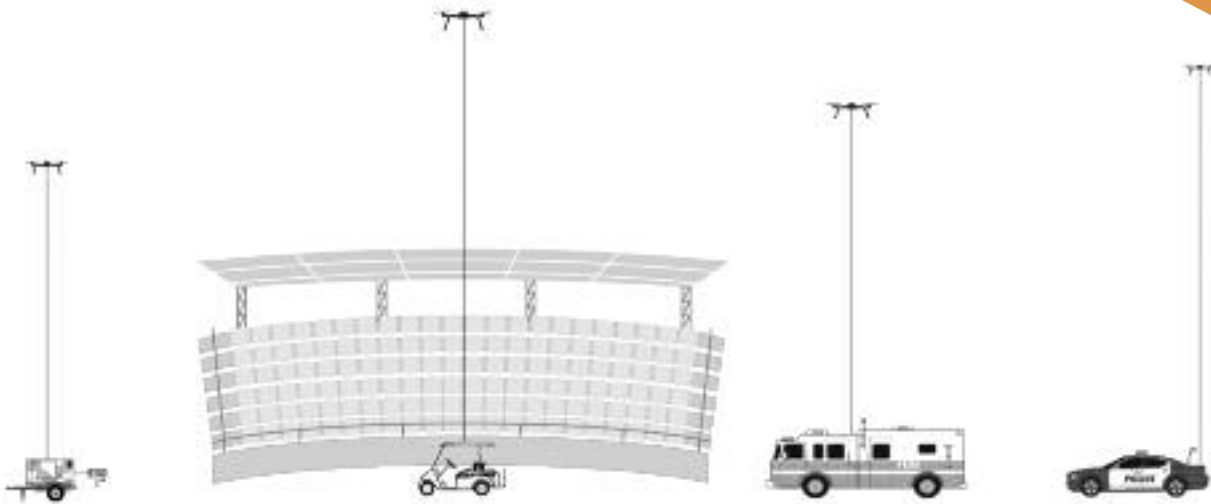




DELTA 1C

CELLULAR AND PUBLIC SAFETY TOWER



PRODUCT OVERVIEW

The Delta 1C restores LTE or large-scale Public Safety coverage with a high-bandwidth fiber-fed remote radio head on a heavy-lift drone, serving as a tower replacement and flying at up to 150m for 30 days at a time without landing. The Delta 1C can be deployed in under 60 minutes and utilizes a carrier-agnostic architecture enabling bidirectional 10 Gbps throughput on multiple channels in a single fiber.

CAPABILITIES

Typical payloads range from 25 lbs to 50 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 software that can land the drone for maintenance or repair. The Delta 1C requires 16 kW @ 240 VAC and can support either manual or motorized tether systems.

ADDITIONAL FEATURES

The Delta 1C features 12 rotors on six arms, measures 53.7 in x 62 in x 28.3 in, and weighs 41 lbs before payload and batteries. Transportable in 3 pelican cases alongside a 16 kW generator, the drone, tether/power system, and cellular headend efficiently pack up in a service vehicle. The single 2x2 MIMO omnidirectional antenna's spherical pattern provides excellent coverage, even directly under the drone.



EQUINOX INNOVATIVE SYSTEMS

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SPECIFICATIONS FOR DELTA 1C

DRONE

Ready to Fly for Equinox Innovative Systems

Dimensions 53.7 in x 62 in x 28.3 in

Weight 41 lbs

Additional Payload 55 optimal / 110 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 (RToF) 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 x2
• +37db
Single band
Supports all US and international LTE bands
• Other commercial and Public Safety protocols available
Simultaneous connections: >1000

Wideband 2x2 MIMO omni-directional antenna

Spherical pattern excellent nearfield and lateral coverage



Equinox "mobile tower" has a 400ft mast

"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.

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