



Star Tower™ 200

Next Generation Aerostat

Persistent Wide-Area
Communications, Broadband,
and Sensing Capabilities

Performance

Operating altitude:

- 2,000 ft AGL
- Density altitude: 10,000 ft

Payload capacity:

- Payload weight: 200 lbs
- Payload power: 28VDC, 30 amp

Wind limits:

- Operations: 70 kts
- Moored: 80 kts
- Launch and recovery: 25 kts

Launch & recovery

- Ascent Time: 20 min (2000 ft)
- Recovery Time: 20 min (2000 ft)
- Crew: 5 persons

Instrumentation

Envelope gas pressure

Envelope gas temperature

Outside air pressure (operating altitude)

Outside air temperature

Wind speed

GPS (elevation, location of envelope)

Envelope attitude (optional)

Aero Envelope

Dimensions

- Length: 50 ft, 15.2 m
- Width: 44.5 ft, 13.6 m
- Height: 15.4 ft, 4.7 m
- Volume: 20,019 ft³, 566.9 m³

Payload System

Composite payload housing

- Carries 200 pounds of comm./sensors
- Universal mounting rack
- Antenna mounts
- Payload sensors and specific interface not included

Base Station

Winch

- Winch type: Allied Power custom
- Electric powered
- Line speed 100 ft/min
- Spooling capacity 3,400 ft
- Brake strength 10,000 lbf

Tether

- Type: Powered w/fiber optics
- Core: 3 x #16 AWG copper conductors; 4 x single-mode fiber optic cables
- Diameter: 0.66 in
- Length: 2,000 ft useable
- Weight: 21 lbs/100 ft
- Working load limit: 8,000 lbf
- Break Strength: 54,000 lbf
- Lightning protection: Braided copper mesh
- Durable weather proof nylon jacket

Electric Generator

- 35 KVa, 28 kW, 3-phase

Transportation

- System will be configured to meet customer requirements. Options include: Trailer, ISO pallets, truck bed,
- Mounting – requires an 8 ft x 18 ft footprint
- Anchors and stabilizers enable remote installation

Gross System Weight: 13,500 lbs



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