



NAUDI

National Association of
Ukrainian Defense Industries

UKRSPEC SYSTEMS



UAV TRACKING ANTENNA SYSTEM

Tracking antenna maximizes radio communication range between the drone and ground control station, it allows to use the maximum potential of the data link.

Our tracking antenna system is equipped with a video camera, which allows having visual control over your UAV from close to mid-range distance. Our system fully supports Pixhawk-based drone and MAVLink protocol.

Features



UAV tracking antenna system

Significantly increases the quality and range of stable communication and provides a reliable HD video transmission.



Two communication channels

To ensure maximum reliability during the mission.



Built-in video camera

Allows you to have visual control over your drone from close to mid-range distance.



Ability to operate using built-in battery

More than 2 hours of autonomous work at full battery charge.



Video and telemetry datalink

Up to 200 km main datalink (C2 and video).



Backup telemetry datalink

Up to 150 km backup datalink (C2).



Automatic 5 m mast

To increase range and signal strength.



MESH technology support

Compatible UAV can be used to extend the communication range of a second drone.



Powered by Silvus Technologies

Silvus Technologies Streamcaster grants our tracking antenna system perfect efficiency and high signal strength.

SPECIFICATIONS

Advantages

- Data rates >10 Mbps
- Software selectable > 433 MHz, 868 MHz, 900 MHz, 2.4 GHz & 5.8 GHz
- IP and serial data transmission simultaneous
- Power outputs 1 W and 4 W RF
- AES encryption 256-bit
- High bandwidth connectivity to unmanned aircraft at distances up to 200 km main datalink (C2 and video)
up to 150 km backup datalink (C2)
- Continuous rotation 360°
- Control software MAVLink mission planner USS
- Reliable signal strength and GPS aligned data-links +
- Real-time monitoring of signal and data quality +

System specifications

- Frequency options UHF, L-, S-, C-band;
- Position calibration visual positioning control;
- Serial interface IP and serial data transmission;
- Ethernet 100 Base-T;
- Polarization dual polarized
vertical/horizontal polarization;
- Deployment time with quadropod 15 minutes/2 person;
- Deployment time with mast 20 minutes/3 person;
- Pointing accuracy < 1 deg;
- Environmental resistance radio channel antennas - IP65,
radio modem Silvus - IP67,
telemetry channel unit - IP65,
tracker control unit - IP54,
IP camera - IP65.

Power Requirements

- Input voltage 24 V
- Input current 4 A

Mechanical

- Azimuth rotation 360°
- Elevation rotation -30 °C +75 °C
- Height above ground with mast 5 m
- Height above ground with quadropod 2.5 m
- Tracking head payload <10 kg
- Temperature -20 °C +45 °C
- Humidity 5-95 %

Dimensions and weight approximate

- Spread out telescopic mast with assembled antenna tracker 3800 x 3800 x 5800 mm
- Spread out quadropod with assembled antenna tracker 2605 x 2605 x 2800 mm
- Transports cases (from bigger to smaller)
 1. 1720 x 570 x 920 mm
 2. 1720 x 570 x 500 mm
 3. 1720 x 570 x 260 mm
- Weight of the telescopic mast with installed antenna tracker 178.2 kg
- Weight of the quadropod with installed antenna tracker 31.4 kg
- Weight with transport cases 318 kg



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