

LOIT-R02-KMKZ

LOIT-R02-KMKZ a Fixed-Wing Autonomous Tactical Attack UAV is designed for both reconnaissance and surveillance and for striking targets outside the line of sight with high accuracy, can be carried by a single soldier, and can operate autonomously or with remote control.

LOIT-R02-KMKZ can be effectively used day and night against fixed or moving targets with the help of embedded and real-time image processing and deep learning algorithms that we have developed with national facilities.

The system is comprised of "Fixed-Wing Smart Ammunition System", Launcher-Catapult" and "Ground Control Station" components.

AMMUNITIONS

Many different types of standard munition can bemounted with system and fuse drive. This is very important for changing multidifferent scenario. Possible to install normal 60 or 80mm Mortar i fragmentation or similar ammunitions.

GROUND CONTROL SYSTEM

The ground control station suitcase can command many and sel autonomous flights with waypoint maps or switch to semi-automatico flight on the last trip

CAMERA

nd hit the target and another payload target detection during flight. ow for surveil camera b Possible to selection load night spectral.

ASSEMBLY

Assembly in 10 minutes and ready to fly. Total we Take off with light and easy to assemblage catapult, without power supply or air compress required to launch.

ENGINE

Electrical available upon request. options Gasoline are

FLEET MISSION

Fleet missions upto 255 units can be planned with Ground Control Unit. and the other fleet members are slave

>>> Reliable Day and Night Operation

- >>> Autonomous precision strike with minimum collateral damage
- >>> Tracking Moving Targets
- >>> High Performance Navigation, Flight Control and Guidance Algorithms
- >>> Deployable and Operable by Single Soldier
- >>> In-Flight Mission Abort and Emergency Self-DestructionModes
- >>> Indigenous Electronic Ammunition Safety, Setup and Trigger Systems
- >>> Indigenous National Embedded Hardware and Software
- >>> Wide Lateral View Angle Image Processing-Based Control Applications
- >>> Embedded and Real-Time Object Tracking, Detection and Classification

Operational Features

Weight

-0,00

0,00

0,00

0,00

Ope

soline Engine Features

12 Kg

 $> 100 \, \mathrm{km}$

4580 g

two-cylinder air-cooled

petrol 95 oct. + 2% oil

1100 – 6000

Carburettor

ANTIJAMMING - SPOOFING GPS RECEIVER

Antennas

Bandwidth

Power

Modulation

Working temperature

Video Interface

Encryption

DATALINK OPTIONS

2.4 GHZ 20 km

10MHz (uplink)

10MHz(downlink)

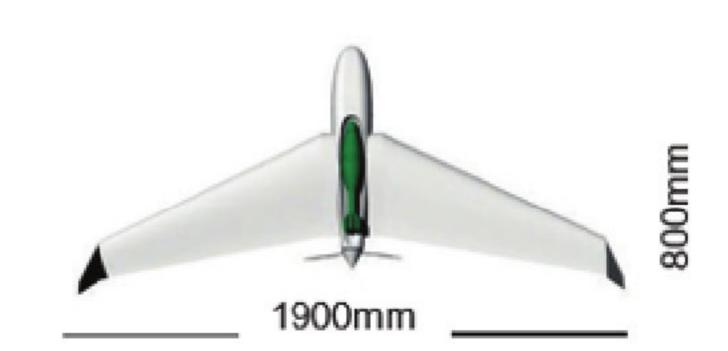
27dBm-30dBm

OFDM -20°C ~ 65°C

Ethernet

AES128/256

- Omnidirectional Antenna Ground 0km-100km
- Auto-Tracking Antenna System
- Ground Interference Resistance
- Retransmission Adaptive frequency hopping





Use Cases

- Perimeter / border security - Emergency portable cell phone tower - Port/stadium security

- Traffic monitoring

- Air quality monitoring

- Radio range extension of unmanned boats and ground vehicles

- Telecommunications

- Long endurance environmental assessments & surveys

- Soldier/ convoy over-watch

- Increased battlefield communications and situational awareness

TUAV - R02

KIS Tethered UAV (TUAV) is drone system that lifts payloads, such as cameras or radios/antennas up to 150 m. with 400+ hr. endurance. Just by lifting up an antenna, the TUAS system can extend ground/boat radio line of site upto 40+ km.

Designed for harsh conditions, KIS TUAV supports boarder security, stationary operations, small tactical units, and it dismounts in all terrain. With an 8 lb payload capacity, the TUAS can lift multiple payloads including EO/IR cameras and a radio for data back-haul.

KIS TUAV: Features

Stabilized, vehicle-agnostic tethered UAV: Deploy from manned or unmanned platforms (boats/vehicles). Intelligently follows the host vehicle at speeds up to 60 km/h

Deploy/recover in under 2 minutes

24/7 Endurance: operate as long as needed for without landing to change batteries

Automation: automated take-off, flight and following, and landing

User interface: simple, easy, 1-screen interface for UAV control

Installation: Vehicle agnostic; non-permanent installation

Speed/altitude: 25+ kts (46+ kmh), at up to 150 m above ground level

Secure Ethernet command/control through tether prevents jamming/hacking

Technical Description

Payload: 10 kg (SIGINT, DF, EO/IR and Comm relay payload)

Altitude: 150 m.

Small Footprint: Three Pelican cases

UAV Case: 90 x 90 x 40 cm

Tether Management System (TMS): 80 x 50 x 40 cm

Ground Power Unit (GPU): 90 x 50 x 50 cm

Power: 100-240 VAC, 4000W (Generator, inverter, etc)

Speed: 60 KMH

Reduced operators: Payload operator flies UAV.

Simple GUI and minimal operator input: Enable, Takeoff, Land & Change Altitude.

Payloads

Modular Payload Capabilities: HFI, EO/IR/LD/LR, DF, SIGINT, & jamming capabilities.

SIGINT: Provides 24 hr overwatch with DF capabilities

Datalink: Fiber Ethernet 1 gbps or Secure WiFi

