

OKIS Automatic Take-Off and Landing System



Safe and Independent Operations

OKIS is a radar-based system for automating take-off and landing phases of the UAVs. OKIS consists of two subsystems; Airborne and Ground Segments. Airborne Segment is a transponder with its antenna set installed on the UAV and Ground Segment is an interrogator radar installed in the sideline of the runway.

Reliable Positioning Under GNSS Denied and Adverse Weather Conditions

Due to the unprotected nature of GPS signals against various jamming techniques, OKIS provides a reliable solution especially in wartime for the automatic take-off and landing processes of UAVs. OKIS also could be used for improving take-off and landing capability of helicopters during adverse weather conditions and night operations.

OKIS Airborne Segment having small size and weight could be used in almost any kind of UAVs without having any significant capacity degradation on payload capacity.

OKIS Ground Segment provides a safe and precise take-off/landing by feeding accurate UAV's 3D position information (range, bearing, elevation) to Ground Control Station (GCS).

OKIS has a strong mobility with its two man lift feature and easy installation and de-installation feature in a very short time. OKIS has a robust design against the battlefield conditions and mission reliability requirements and it facilitates ground operators to take-off and land UAVs in both ends of the runways..



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Non-Invasive Integration, Easy Installation

OKIS Airborne Segment having small size and weight could be used in almost any kind of UAVs without having significant capacity degradation on payload capacity. While OKIS Airborne Segment can be integrated to different types of UAVs easily, OKIS Ground Segment can be installed to any runway in 15 minutes.



Key Features



Operational Continuity



Long Detection and Tracking Ranges



High Positional Accuracy



Low RF Power Requirement



Platform-Independent Architecture



Two-men Lift Feature

Technical Specifications

OKIS generates UAV's 3D position data in high accuracy through the flight leg between the Final Approach Fix and Touchdown Point and send it to Ground Control Station (GCS). Optionally OKIS Ground Segment provides positional information directly to Airborne Segment.

Tracking process begins within 10 km in range along with the activation of the directed antenna and continues with the omni antenna within 300 m in range.

Using an onboard transponder enables high tracking performance for small and changing RCS applications. OKIS having small size, weight and power (SWAP) figures turns out to be a mandatory subsystem for the high-end UAVs

Parameters	Values
Range	10 km
Range Accuracy	1 m
Operating Frequency	KaBand
OKIS Ground Segmentt	
Azimuth Coverage	270°
Output Power	0.5 W
Weight	70kg
Power Consumption	500 W
OKIS Airborne Segmentt	
Output Power	100 mW
Number of Antennas	2 (Omni and Directional)
Weight	2.5 kg
Power Consumption	30 W