# KALKAN | 050-G

## MULTI FUNCTION AIR DEFENSE RADAR

#Radar

**aselsan**

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## Overview

KALKAN 050-G Radar is a cutting-edge air defense radar system specifically designed for Short and Medium-Range Air Defense Systems. This radar provides advanced surveillance capabilities for both air and ground targets, ensuring effective protection for military assets and bases.

### Key features of the KALKAN 050-G include:

- 24/7 Operational Capability: Fully operational day and night
- Target Detection and Tracking: Capable of detecting and tracking a wide range of current airborne and ground targets, including fighter aircraft, helicopters, tactical UAVs, mini/micro UAVs, and more.
- Automatic Classification
- Seamless Integration: Compatible with ASELSAN AKREP 100-G Fire Control Radar for enhanced targeting precision
- Compact and Robust Design: Static components and easy integration into modern armored vehicle systems
- AESA Technology: Equipped with Active Electronically Scanned Array (AESA) radar, ensuring superior performance and reliability.

In addition to traditional air defense functions, the KALKAN 050-G Radar also offers ballistic munitions detection capabilities, with the ability to calculate impact/drop zones for base protection purposes.

## Technical Specifications

- Operating Frequency : S-Band
- Azimuth Coverage : 360°
- Elevation Coverage : -5° to +70°
- Compliance : MIL-STD-810G and MIL-STD-461F

## Key Features

- AESA Antenna with Electronic Beam Steering: Advanced beam steering technology for optimal target detection and tracking.
- Solid-State Transmitter Design: Ensures high reliability and longevity of the system.
- Automatic Tracking and Classification: Track While Scan (TWS) and Track While Correlate (TWC) capabilities allow automatic target tracking and classification during search operations.
- High Tracking Update Rate: The radar automatically adjusts the tracking update rate based on the target characteristics, ensuring timely and accurate tracking information.
- Data Fusion: Integrates information from multiple sensors to improve overall situational awareness and target tracking.
- Multiple Target Tracking: Capable of detecting and tracking multiple targets simultaneously, providing comprehensive threat management.
- High Accuracy and Resolution: Provides highly detailed target data with excellent resolution.
- 3D Target Position Information: Delivers three-dimensional position data (range, azimuth, and elevation) for precise targeting.
- Low False Alarm Rate: The system has been optimized to minimize false alarms, improving operational efficiency.
- Threat Categorization: Automatically identifies and categorizes friendly, hostile, and no-contact regions seamless for effective engagement decisions.
- Built-in Test (BIT) Capability: Ensures operational readiness and system reliability through continuous self-testing.
- TCP/IP Ethernet Communication: Facilitates data exchange and integration with other command and control systems.
- Data Logging and Record Keeping: Tracks system performance and logs critical operational data for analysis and future improvement.
- Interoperability: The system is compatible with other defense systems like CRAM, AKREP 100-G Fire Control Radar, and İHTAR for a fully integrated defense solution.

Specifications are subject to change without any notice. | All tolerances are within ±10%.

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