Air Defense Systems

Aslan 150M2/G

Aslan 150M2/G

Capabilities

240 cm Length

210 cm Width

3000 kg Weight

20 km/h Maximum Speed

Hybrid Motor

Armor Protection

SARP Dual Weapon System

Telescoping Surveillance System with Mast

Remote Control of All Functions

Autonomous Mobility and Mission Capabilities

Wireless/Wired and 4G/LTE Communication

Countermeasure with Smoke Grenade Launcher

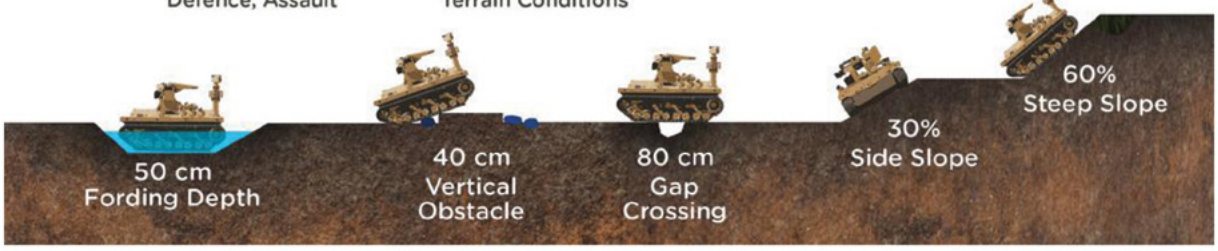
Backup Power Unit (Generator)

Load Case and Load Carrying Kit for Logistics Purposes

Carrying Trailer and Lifting Lugs for Transportability Purposes

Target Acquisition, Border/Facility Security, Defence, Assault

Enduring for Harsh Environmental and Terrain Conditions



ALKAR 100/81

100/81

- Weight 650 kg
- Time for First Fire: < 60 seconds
- Range: 500 m ≤ x ≤ 5900 m
- Rate of Fire: 15/min
- Elevation: 45° - 85°
- Azimuth: ± 195°

81 mm MORTAR WEAPON SYSTEM

- Indigenous and Original Design
- Modern Weapon System Integrated into the Turret
- Automatic Weapon Aiming System
- Recoil Mechanism
- Fire Control System
- Integrated into Tracked Vehicles, Tactical Wheeled Vehicles and Stationary Platforms
- Ability to Work Integrated with Command Control Systems
- Precise Position and Barrel Laying Detection with Inertial Navigation System
- Ammunition Muzzle Velocity Detection through Muzzle Velocity Radar
- Ability to Use Different Types of Ammunition
- Resistant to Harsh Environmental and Terrain Conditions

ALP 300-G

Early Warning Radar System

ALP 300-G, is a new generation S-Band radar developed for long range early warning, with its AESA and digital beamforming antenna architecture. ALP 300-G has the ability to detect and track air breathing targets, ballistic missiles, anti-radiation missiles and stealth/low RCS targets from very long ranges.

AESA and Digital Beam Foming architecture together with Multi Channel Receivers allows to produce simultenous beams in space paving the way for multi-function and multi-mission operations. ALP 300-G uses weather information to optimize its detection and tracking performance. ALP 300-G is a highly mobile standalone system with its radar, command control/communication and power systems on tactical trucks without mounting/demounting operations for deployment and marchorder. ALP 300-G can be connected to radar networks and can exchange 3D air picture among different ALP 300-G systems and the Air Force command centers thru radios, radio links and army backbone thru AWCIES messaging. ALP 300-G can perform data fusion and track handover amongst themselves, which is a critical feature especially for ballistic missile defense. A long range Mode 5 IFF interrogator is integrated with a high gain IFF antenna to cooperate with radar's operational modes. ALP 300-G AESA arhitecture and modular design approach support the concepts of high availability and low cost maintenance. ALP 300-G, has several ECCM features such as frequency / time agility, low side lobe levels, jammer strobe and nulling, side lobe blanking, to name a few.

Operational & Tactical Specifications

- Effectiveness against a broad set of threats at long range
- Detection and Tracking of Targets with Very Small RCS at Long Range
- Detection and Tracking of Ballistic Missiles
- Electronic Scanning in Azimuth and Elevation
  State of the Art Solid-State Power Amplifier Technology
- Digital Beamforming
- Target Classification Capability
- Various Tactical Operation Modes
  Long Range Mod5/S IFF System (Compatible with NATO STANAG-4193)
- Local and Remote Radar Control
  Performance Evaluation Subsystem
- Integration with the National C2 Systems and NATO Air Command and Control System (ACCS)
- Integration with the Air and Missile Defense Systems
- Compliance with the Tactical Communication Networks
- Advanced Electronic Protection Measures and Cyber Security
- Counter Measures against Anti-Radiation Missiles
- Portability with 10 Ton Class Tactical Wheeled Vehicles (TWV)
- Transportable with C130/A400M
- 24/7 Operation
- 3000 Hours MTBCF
- %99.9 Availability
- 30 Minutes Deployment and March-Order Time
- Advanced Built-in Test (BIT) Capabilities
- 30 Minutes MTTR
- Endurance to Harsh Environmental Conditions (MIL-STD-810G)
- Advanced Algorithms for Windfarm Mitigation

Multifunction Aesa Air Surveillance Radar System

ALP 110-G is a multifunction AESA Air Surveillance Radar System that can be used not only as the main search radar for the ground based air defense systems but also as a gap filler radar to cover the areas which cannot be covered by other long range radar systems.

System can perform target detection and tracking functions within medium/long range (>100 NM) and low/ medium/high altitude and can identify targets by using its onboard Secondary Surveillance System (Mod-5/S capable).

Improved system mobility is one of the main advantages of the being integrated on 8x8 tactical wheeled vehicle including power generator and communication equipment. System is compact enough to be transported by an A400M aircraft.

Two operators can prepare the system for transport or operation within 15 minutes.

The system has the ability to detect and warn for ballistic objects such as Rocket Artillery and Mortar (Sense and Warn). System offers a dedicated mode for weapon locating, reporting point of launch enabling precise counter-fire and generating automated alarms by calculating point of impact.

Features

- 3D Detection and Tracking Fighters, Helicopters, Hovering Helicopters, Unmanned Air Vehicles (UAVs), Cruise Missiles
- Multiple target tracking
- Classification of targets
- Identification of targets with integrated
- Mode-5 IFF
- Jammer direction finding
- Remote operation with Command Control System

Technical Specifications

- Operating Frequency : S-Band
- Instrumented Range : > 110 NM
- Target Track Capacity : > 1000
- Azimuth Coverage : 360°
- Elevation Coverage : -6° / +70°

HISAR O 100

Medium Range Air and Missle Defense System

HISAR O 100

MEDIUM RANGE AIR AND MISSILE DEFENSE SYSTEM

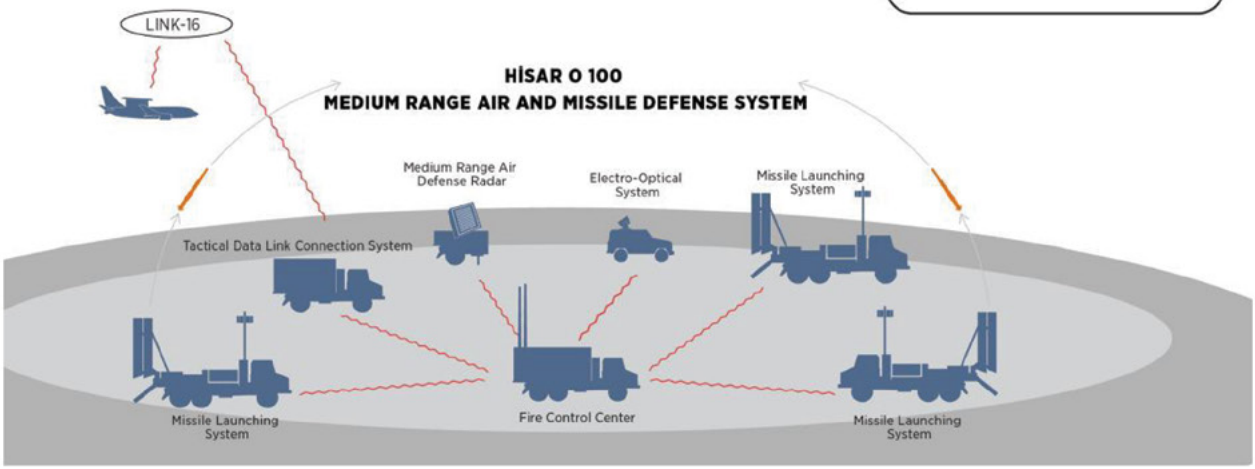
HISAR O 100 Medium Range Air and Missile Defense System, dedicated to protect stationary forces and high value assets, is the Türkiye's first air and missile area defense system in a distributed and flexible architecture.

FEATURES

- Effective Air Defense Execution with Distributed Architecture and Flexible Deployment
- Multiple Engagement and Successive Firing
- 360° Threat Destruction via Vertical Launcher
- Threat Evaluation and Weapon Assignment
- Target Interception with IIR and RF Missiles
- Operation In Day, Night and Adverse Weather Conditions

Specifications

- System Interception Range: **> 25 Km**
- System Interception Altitude: **> 15 Km**
- Number of Tracks: **> 60 Targets**
- Ready-to-fire Missile: **18**



HISAR O+

Medium Range Air Defense Missle System

HISAR O+

Air Defense of Stationary Forces and Critical Assets Target Interception with IIR and RF Missles Multiple Engagement and Successive Firing Threat Evaluation and Weapon Assigment Operation in day, night and adverse weather conditions mobility in tactical area.

HISAR O+ Medium Range Air Defense Missle System is dedicated to air defense of Stationary Forces and Critical Assets against:

- Fighters
- Helicopters
- UAVs
- Cruise Missiles
- Air to Surface Missiles

HISAR O+ performs target detection, classification, identification, tracking, command & control and fire control functions in a distributed and flexible architecture.
One HISARO+ Battery consists of battery level FCC, battery level Radar, Electro-Optical System, TDLCS and Missile Launching Systems. HISAR O+ Battery has the capability of target detection,tracking, identification and performing command & control and fire control functions autonomously.
HISARO+ is organized in battalion level and consists of battalion level Fire Control Center (Battalion FCC), battalion level Radar, three HISAR O+ Batteries, Tactical Data Link Connection System and Support Vehicles. Battalion FCC produces Integrated Air Picture using track information provided by battalion level Radar and Air Defense Batteries in the Battalion, performs threat evaluation and assignment for Batteries.
HISARO+ Medium Range Air Defense Missile System is state of Medium Range Air Defense Missile System is state of future technology.

Specifications

- System Interception Range : 25 km
- Ready-to-Fire Missile : ≥ 18 (Battery Level)
  : ≥ 54 (Battalion Level)
- Fighter Detection&Track Range : 40-60 km
- Number of Tracks : > 60 targets

Features

- Effective Air Defense Execution with Distributed Architecture and Flexible Deployment .
- Air Defense mission planning at battery and battalion level.
- Management and distribution of command and control information.
- Integrated air picture generation.
- Target Interception with IIR and RF Missiles.
- 360° Threat Destruction via Vertical Launcher.
- Multiple engagement and successive firing.
- Data Link for midcourse guidance.
  Operation in day, night and adverse weather conditions.
- Global positioning system and navigation.
- Remote control.
- Wired or wireless communication between systems.
- Work in coordination with Turkish Air/Naval/Land Forces command and control units using Link 1/Link 11B/Link 16 tactical data links and JREAP.
- Automatic target tracking and shooting with using EO sensors.
- Identification Friend or Foe (IFF).
- Threat Evaluation and Weapon Assignment.
- Multi Target, Multi Radar Fusion.
- Embedded Simulation.
- Built-in test, Effective ILs and maintenance.

SIPER

Long Range Air and Missile Defense System

- LONG RANGE AIR DEFENSE of strategic facilities against enemy attacks
- Distributed Architecture
- Close and Remote deployment capability
- Multiple engagement and successive firing
- Ability to operate in coordination with Air/Naval/Land Forces command and control units using tactical data links
- Transportation capability with land, air, naval and railroad
- Connection with Radar Network and HvBS

SİPER Long Range Air and Missile Defense System is effective against:

- Air Breathing Targets
- Cruise Missiles
- Air to Surface Missiles
- UAV's

SİPER System consists of:

- Command and Control Level
- Command and Control Center
- Long Range Surveillance Radar

Battery Level

- Fire Control Center
- Fire Control Radar
- Missile Launching System
- Missile Transport Loading System
- Long Range Missiles
- Communication Systems
- Support Equipment's and Class Type Training Center

Specifications

System Max. Interception Range	: 150 km
System Interception Altitude	: 0.1-30 km
Coverage	: 360°
Number of Tracks	: 100
Battery Level Engagement Capability	: 10
Battery Level Missile Guidance Capability	: 20

Features

- Air Defense mission planning and coordination
- Management and distribution of command and control information
- Integrated air picture generation
- Multiple engagement and successive firing
- Manual/Semi Automatic/Automatic engagement capability
- Identification Friend or Foe (IFF)
- Automatic diagnosis management
- Threat evaluation and weapon assignment
- Multi-Target Multi-Radar fusion
- Data Link (Uplink and Downlink)
- Terminal guidance with RF Seeker
- RF Target Detector
- Highly effective Warhead
- Wired or wireless communication between systems
- Vertical/Oblique launching capability
- Radar Network and HvBS connection capabilitiy
- Operation in day, night and adverse weather conditions
- Ability to operate in coordination with Air/Naval/Land Forces command and control units
- Embeded Simulation
- Ability to operate with 6 missiles on the Missile Launching System
- Solid propellant propulsion system (monobody)

TIMSAH T360S/T375S

Thermal Weapon Sight

TIMSAH T360S/T375S

- **NEW GENERATION UNCOOLED THERMAL SIGHT**
- **8-12 µm WAVELENGTH**
- **DIFFERENT OBJECTIVE ALTERNATIVES**
- **WIRELESS HEAD-UP DISPLAY (OPTIONAL)**
- **ERGONOMIC**
- **COMPACT & LIGHT**

Applications

- NightShooting & Marksmanship
- Observation & Surveillance

Technical Specifications

- Operation Wavelenght : 8-12 µm (LWIR)
- Detector Type : Uncooled
- Detector Resolution : 640 x 480
- Detector NETD : Max. 50 mK
- Video Format : PAL
- Color Reticle : Available
- Image/Video Storage : Available
- Internal Memory : Available (32GB)
- Tilt Sensor : Optional
- Ammo.Counter : Optional
- Battery : Li-Ion (re-chargable)
- Operation Time : 8 hours

Main Features

- Automatic Image Optimization
- Image Recording and Playback
- Polarity Options
- Wireless Head-up Display (Optional)
- Ballistic Reticle
- Light Proof Eyecup
- Rugged Design
- Rechargable Li-Ion Battery

Field of View	10.3° x 7.7°	8.3° x 6.2°
Magnification	x2.2	x2.8
Electronic Zoom	x2, x4	x2, x4
Weight (w/o battery & accessories)	780 g	1010 g
Dimension (WXLXH)	85x230x82mm	100x260x100mm

Environmental Conditions

- Operating Temperature : -32°C / +50°C
- Storage Temperature : -40°C / +65°C
- Water Resistant : 1 m, 30 min
- Environmetal Spec : MIL-STD-810 G

Standard Accessories

- Eyecup
- Carrying Case
- Transportation Case
- Objective Cover
- Optical Cleaning Kit

Optional Accessories

- Wireless Head-Up Display
- Solar Charger
- IR Pointer
- Laser Zeroing Device

ACAR-K

Surveillance Radar Series

ACAR-K

Overview

ACAR-K Surveillance Radar Series is designed and developed for detecting, tracking and classifying targets moving on the ground at day and night in all weather conditions.

Technical Features

- Operating Frequency : Ku-Band
- Adjustable Sector Width : 10° - 360°
- Antenna Elevation Tilt : +/- 24°
- Antenna Rotation Speed : 4 rpm / 15 rpm
- Instrumented Range : 15 km / 40 km
- Elevation Coverage (ACAR-K44) : 4°
  (ACAR-K1015) : 10°
- Compliance with MIL-STD-810G and MIL-STD-461F

General Features

- Advanced Digital Signal Processing (DSP) Techniques
- Ku-band Pulsed Doppler Radar with Pulse Compression
- Track-While-Scan (TWS) in Surveillance Mode
- Multi-target Tracking
- Automatic Track Classification
- Low Output Power for Low Probability of Intercept (LPI)
- B-Scope or PPI Display
- Digital Map Overlay
- Remote Control
- High Accuracy and Resolution
- 360° Continuous or Sector Scanning
- Selectable Range Scales
- User Defined Alarm and Friendly Zone Selection
- Built In Test (BITE)

Applications

- Homeland Security
- Border Surveillance
- Battlefield Surveillance
- Mobile Applications
- Artillery Fire Adjustment

System Units and Accessories

Main Units

- Sensor Unit
- Antenna Unit
- Control Display Unit

Accessories

- Tripod
- Headphones
- North Calibration Unit

Auxiliary Units

- Interconnection Cables
- AC / DC Converter
- Battery Pack
- Carrying Case

AURA-200G

Multifunction Surveillance Radar

AURA-200G

NOVA A341/A361

Night Vision Weapon Sight

NOVA A341/A361

- **4X/6X MAGNIFICATION**
- **HIGH PERFORMANCE AT LOW LIGHT LEVELS**
- **GEN2+ / GEN3 HIGH PERFORMANCE IMAGE INTENSIFIER**
- **ERGONOMIC & RUGGED DESIGN**
- **COMPACT & LIGHTWEIGHT**

Applications

- Night Shooting & Marksmanship
- Observation & Surveillance
- Rapid & Accurate Firing

Standard Accessories

- Eyecup
- Carrying Case
- Transportation Case
- Objective & Eyepiece Covers
- Optical Cleaning Kit

Environmental Conditions

- Operating Temperature : -51°C / +51°C
- Storage Temperature : -51°C / +65°C
- Water Resistant : 1 m for 30 min.
- Environmental Spec : MIL-STD-810G

Optional Accessories

- Laser Pointer
- IR illuminator
- Mounting Adapter for Various Weapons

Main Features

- A341: 4X Magnification
- A361: 6X Magnification
- Adjustable Diopter
- Single AA Battery Operated
- Reticle and Reticle Adjustment Options
- Reticle Brightness Adjustment
- Mounting Adapters for Various Weapons
- STANAG 4694 (MIL-STD-1913) Compatible Weapon Adapter

Technical Specifications	A341	A361
Magnification	4x	6x
Field of View	10°	6.3°
Eye Relief	25 mm	25 mm
Diopter Adjusment	6 /+2	-6 /+2
Reticle	Duplex/ Mil-Dot/Custom Design	Duplex/ Mil-Dot/Custom Design
Reticle Adjustment	1.5 cm @ 100 m	1cm @ 100 m
Battery	1xAA 1.5 VDC	1xAA 1.5 VDC
Weight (w/o battery & accessories)	1200 grams	1380 grams

AYA TS100

Multifunctional Thermal Monocular

AYA TS100

Usage Areas

- Day/Night Surveillance
- Optimized for Multiple Usage Modes
- Handheld, Weapon Mounted and Helmet-Mounted Usability
- Situational Awareness
- Search and Rescue

Key Features

- Automatic Image Calibration
- High Resolution and Color OLED
- Different Color Palette Options
- Automatic Display Mode
- Diopter Adjustment
- Athermalized Fixed Focus
- User Friendly Easy Menu
- Wi-Fi
- Internal Infrared Laser Pointer
- Compatible MIL-STD-810G
- Image and Video Recording
- Media Gallery

Technical Specifications

Detector	: 320x240 12 µm Uncooled Micro-Bolometer
Field of View	: 12.2° x 9.2° (±10%)
Electronic Magnification	: Up to 4X (Continuous)
Screen	: 1024 x 768 Resolution and Color OLED
Reticle	: Laser Target Pointer
Diopter	: -6 /+2
IR Pointer	: Internal 830 ±20 nm
Battery	: 1 X Li-on Re-chargeable (Li-on 18500)
Continuous Operation Time	: ≤ 4 hours
Dimensions	: 160mm x 60mm x 60mm
Weight	: ≤ 290 g

Standard Accessories

- Eye Cup
- Lens Cover
- Battery (18500 Li-on)
- Carrying Case
- Optical Cleaning Kit
- Battery Charger

Environmental Conditions

Operation Temperature	: -20°C / +50°C
Storage Temperature	: -40°C / +65°C
Immersion	: 1m / 30 min.

Optional Accessories

- Helmet Mount Adapter

HISAR

Missile Launching System

HISAR Missile Launching System is a multi purpose missile launcher which uses short and medium range air defense missiles.

AIR DEFENSE OF STATIONARY/MOVING FORCES AND CRITICAL ASSETS

LAUNCHES SHORT RANGE MISSILES UNDER CONTROL OF KORKUT-FIRE CONTROL SYSTEM

LAUNCHES MEDIUM RANGE MISSILES UNDER CONTROL OF HISAR O+ AIR DEFENCE SYSTEM

HIGH MOBILITY

HISAR Missile Launching System is a multi purpose missile launcher which deploys and launches short and medium range HISAR Air Defense Missiles.

HISAR A+ Missile Launching System, configured as a short range air defense missile launcher, operates under control of KORKUT-Fire Control System which provides coordinated operation of 35 mm towed guns and Missile Launching System.

HISAR O+ Missile Launching System, configured as a medium range air defense missile launcher, is controlled by HISAR O+ Fire Control Center which supervises three launchers within an air defense battalion.

HISAR Missile Launching System is a state of the art technology and has open HW&SW architecture for utilizing future technology.

Specifications

System Interception Range	: 15 km (HISAR A+), 25 km (HISAR O+)
Ready-to-fire Missile	: 6
Max Road Speed	: 65km/h
Gradient	: 60%
Side Slope	: 30%

HISAR Missile Launching System are dedicated to air defense of Stationary/Moving Forces and critical assets against:

- Fighters
- Helicopters
- UAVs
- Cruise Missiles
- Air to Surface Missiles

Features

- Multi purpose missile launcher
- Multiple engagement and successive firing
- Data Link for midcourse guidance
- Operation in day, night and adverse weather conditions
- Global positioning system and navigation
- Remote control
- Mobility in tactic area
- Fast deployment and short startup-time
- Automatic leveling system
- Effective ILS and maintenance

DORUK

Hand-Held Electro-Optic Sensor

- **HIGH RESOLUTION MID-WAVE SENSOR**
- **CONTINUOS ZOOM (IR AND DAY)**
- **INTEGRATED LRF, DMC AND GPS**
- **DATA AND IMAGE STORAGE**
- **MIL-STD-810G QUALIFIED**
- **COMBAT PROVEN DESIGN**
- **COMPACT AND RUGGED DESIGN**

Applications

- Border Surveillance
- Reconnaissance
- Fire Support
- Situational Awareness
- Special Forces
- Law Enforcement

Main Features

- Polarity: Black-hot, White-hot, color palettes
- Motorized focus, FOV and zoom adjustment
- Automatic image optimization and image enhancement
- Real time calculation of target coordinates
- Target coordinate transmission via radio
- Data and image storage
- Easy battery change
- Shuttered eyecups
- Hight resolution OLED display

Optional Accessories

- Pirate – Head Mounted Display
- Motorized Pan-Tilt
- Remote Control Unit
- 1.5x Magnifier Objective
- Goniometer
- Sun Shield

Standard Accessories

- Tripod with Manual Adjustment Unit
- External Video Cable
- Rechargeable Batteries
- Battery Charger
- External AC/DC Adapter
- Eyecup
- Lens Cover
- Optical Cleaning Kit
- Carrying Case
- Transportation Case

Technical Specifications

Thermal Imager

- Sensor : 640x512 MWIR (3-5 µm)
- Cool-down Time : <7 min.
- Field of View
  - WFOV : 16.8° x 13.5°
  - MFOV : 6° x 4.8°
  - NFOV : 2° x 1.6°
  - Continuous from NFOV to WFOV
- E-Zoom : 2x

Laser Range Finder

- Laser Type : Class 1, Eye Safe, 1.54 µm
- Range : <20 km
- Accuracy : 5m rms

Color TV

- Sensor : 1920 x 1080 Full HD CMOS
- Field of View
  - WFOV : 16.8° x 12.6°
  - MFOV : 6° x 4.5°
  - NFOV : 2° x 1.5°
  - Continuous from NFOV to WFOV
- E-Zoom : 12x

Digital Magnetic Compass

- Accuracy : 1° rms

GPS

- Accuracy : 15 rms

Physical

- Weight : ≤4.2 kg (with battery)
- Battery Life : ≥4 hours
- Dimensions : 275 mm x 270 mm x 125 mm

Environmental Conditions

- Operationg Temperature : -32°C to +55°C
- Storage Temperature : -40°C to +65°C
- Environmental Spec : MIL-STD-810G

MEERKAT

Manpack Integrated Drone Dtetection & Jamming System

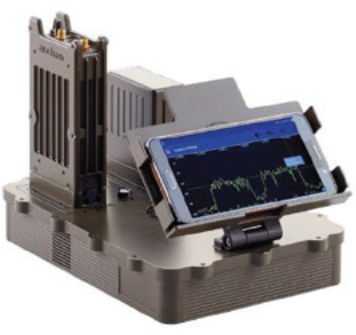
MEERKAT

IHASAVAR Anti Drone Jammer Subsystem

- Providing protection against Drone/Mini-Micro UAV threats with manual active jamming with threat detection of MEERKAT Subsystem
- Jamming for Drone/Mini-Micro UAVs; remote control frequencies, GNSS frequencies (GPS L1, GLONASS L1, GALILEO E1 and BEIDOU B1) and data link/telemetry frequencies
- Software defined jammer
- Programming of more than 100 different jamming profiles
- Fully Programmable State-of-Art Digital Frequency Synthesizers
- Control and monitoring of the System by Remote Control Unit
- Operation Time: 1.5 hour from the Batteries
- Easy-to-use with user friendly interface
- Compact system architecture
- Built-in VSWR protection
- Built-in test feature
- MIL-STD-810 compliant

MEERKAT- Detection Subsystem

- Drone/Mini-Micro UAV and Remote Controller detection and identification supported by Threat Library
- Control opportunity from Android Based Devices (Mobile Phone, tablet)
- Easy to use with user friendly interface
- Real-time spectrum monitoring of all relevant drone frequency bands
- 360° detection with omni-directional antenna
- Usability in combination with the IHASAVAR system
- MIL-STD-810 compliant
- Operation Time: 1.5 hour



KANGAL™

Drone - Mini/MIcro UAV & Rcied Jammer System




KANGAL™ Drone - Mini/Micro UAV & Rcied Jammer System is designed to protect Convoys, VIP vehicles in motion against Radio Controlled Improvised Explosive Devices (RCIED) and protect military bases, facilities, high value assets, ceremony/meeting/demonstration areas and checkpoints against Drone - Mini/Micro UAVs.

KANGAL™ covers the whole Radio Frequency (RF) band and applies active jamming on RCIED triggering frequencies of Radios, Remote Control Devices, Mobile Phones (2G, 3G, 4G/LTE,Wifi) and frequency bands of Remote Control, GNSS (GPS/GLONASS/ Galileo), Data Link and Image/Video Forwarding Modules of Drone - Mini/Micr UAVs simultaneously.

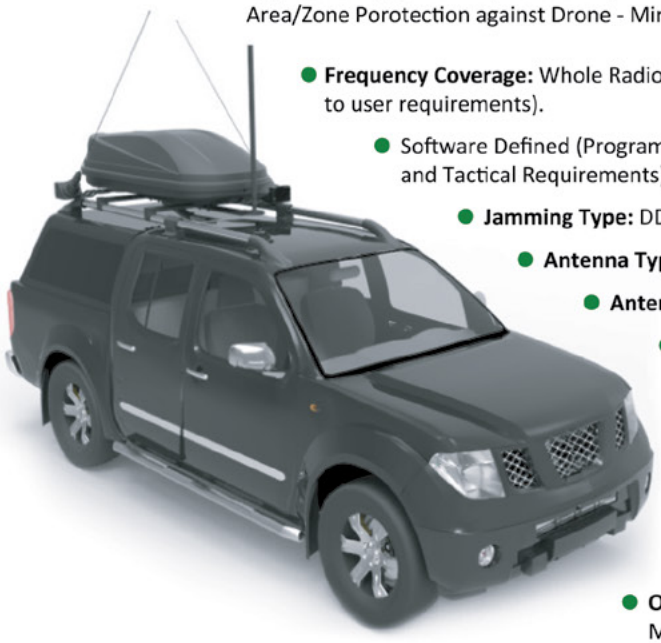
KANGAL™ uses omni-directional antennas and specially designed antenna patterns to create 360° protection to defeat ground threats such as roas-side RCIEDs and to form a semi-spherical protection umbrella to defeat even fleet attacks (multiple DRONE - Mini/Micro UAVs approaching from different directions).

KANGAL™ is operate for unlimited durations powered via vehicle alternator or an additional Alternator or for a limited time via system batteries.

KANGAL™ is a vehicle independent system being able to be installed on any type of vehicle (e.g. armored/unarmored SUVs, pickups and military trucks).

KANGAL™ is a Software Defined Jammer System and its programmability features provide the user with utmost customization flexibility to specific operational and tactical requirements. User defined "jamming profile" includes setting of numerous jammed frequency bands and output power levels for simultaneous jamming of multiple threats. New jamming waveforms can quickly and easily be added to the system to counter new threats and region specific threats. Dynamic Communication Channels can be programmed to provide friendly force communication during jamming.

Technical Specifications



- **Application Type:** Convoy Protection, VIP Vehicle Protection against RCEIDs, Static Infrastructure, Area/Zone Porotection against Drone - Mini/Micro UAVs.
- **Frequency Coverage:** Whole Radio Frequency (RF) Band (Configures and prioritized according to user requirements).
- Software Defined (Programmable) Jammer (Configurable according to Operatoinal and Tactical Requirements).
- **Jamming Type:** DDS-Based FPGA-Controlled Swept Jamming.
- **Antenna Type:** Omni-Directional Antennas
- **Antenna Pattern:** Semi-spherical
- **RF Output Power:** <450 Watt
- **Power Source & Operation Time:**
  - Continuous Operation via Vehicle Alternator
  - At least 1 hour via Batteries
- **Weight:** <25kg (RF Jammer Unit)
- **Electric Field (SAR):** Compatible with ICNIRP standards (Human Safe).
- **Other Environmental Conditions:** Compatible with MIL-STD-810G/F Conditions (Humidity, Rain, Sand, Shock, Vibration).

MEERKAT ™

Integrated Drone detection & Jamming System

MEERKAT ™

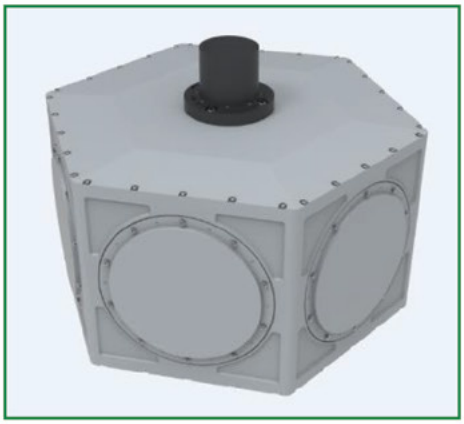
Meerkat™ Detection System

- **Frequency Range:** UHF and SHF (partial) (1)
- **Antenna Type:** Directional and Omni-Directional
- Drone/Mini-Micro UAV detection and identification (2)
- Fixed site configuration for the protection of critical facilities, borders, private and government facilities, airports, etc.
- Ability to work at night and all adverse weather conditions with its unique RF detection technology.
- Easy to use with user friendly interface.
- Spectrum monitoring of all relevant drone frequency bands.
- Ability to simultaneously detect multiple threats (swarms) from different sectors controlled at different frequencies.
- Direction/sector finding (DF) of drones by using the directional antenna set.
- 7/24 operation from the mains supply.
- Ability to be integrated with IHASAVAR™ Anti-Drone RF Jammer System in a co-operative manner.
- MIL-STD-810 compliant.

(1) SHF partial; you can contact us for more information.
(2) Identification feature is supported only for threats that are listed in our Threat Libraray.

IHASAVAR™ Anti Drone Jammer Subsystem

- Providing protection against Drone/Mini-Micro UAV threats with automatic or manual active jamming with threat detection of MEERKAT Subsystem.
- Jamming for Drone/Mini-Micro UAVs; remote control frequencies, GNSS frequencies (GPS L1, GLONASS L1, GALILEO E1 and BEIDOU B1) and data link/telemetry frequencies.
- Software defined jammer.
- Programming of more than 100 different jamming profiles.
- Fully Programmable State-of-Art Digital Frequency Synthesizers.
- Control and monitoring of the System with a Laptop.
- Protection of military bases, facilities with Omni-Directional Antennas.
- 7/24 operation from the mains supply.
- Easy-to-use with user friendly interface.
- Compact system architecture.
- Built-in VSWR protection.
- Built-in test feature.
- High efficiency multi-band power amplifiers.
- MIL-STD-810 compliant.



IHTAR

Anti-Drone System

Anti-Drone System, aims to neutralize mini and micro UAV threats in urban and rural environments. It is used for protection of critical facilities, prevention of illegal border infiltration and safety of highly populated events.

General Specs

- Detecting and tracking multiple UAVs with high accuracy using portable radar
- Low false alarm rate
- Recognizing the threats from a distance using
- TV/Thermal cameras
- Automatic video tracking
  Directional jamming capability for specific threats
- Omni directional jamming capability for swarm attacks
- Ability to switch to preloaded jamming frequency groups
- Software programmable jamming frequencies
- Requires minimum operator intervention
- Built-in-Test (BIT) capabilities
- Operating in all-weather conditions for 7/24
- Customizable with its open and modular architecture
- Compatible with military standards
- Easy to include other means of sensors (acoustic drone detection system, direction finding (DF) system) and effectors (Unmanned air vehicle (UAV) hard kill system, Laser defense system)
- Compatible to work with TAFICS infrastructure

ACAR Radar System

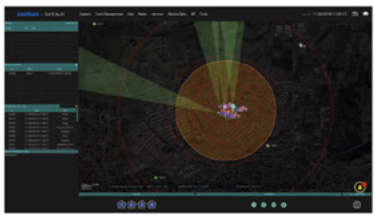
- Ku-band Pulsed Doppler Radar with Pulse Compression
- Track-While-Scan (TWS) mode
- Multi-target tracking, Automatic target tracking
- 360° Continuous or Sector Scanning,
- 30 rpm rotation speed
- Automatic Target Classification
- 40° instantaneous elevation coverage Adjustable Sector Width

GERGEDAN RF Countermeasure System

- Programmable RF Jammer System
- Active jamming of RFEYP trigger frequencies of radios, remote controls, mobile phones (2G, 3G, 4.5G/LTE, WI-FI) and GNSS, remote control, data/image/video transmission frequencies of Drones/Mini-Micro-UAVs in the entire radio frequency band.
- Protection against swarm threats with co-directional antenna set
- Type of antennas: with directional/co-directional antenna, antennas hidden inside the roof rack.

GÜNGÖR/DÖRTGÖZ Electro-Optic Systems

- The third-generation thermal imaging system DÖRTGÖZ developed for long distance surveillance and reconnaissance, can perform many tasks such as border surveillance, tactical reconnaissance, coast guard, facility security, long distance surveillance under all weather conditions day and night.
- GÜNGÖR HD is a family of high-definition daytime cameras; used for long-range surveillance and reconnaissance, fixed and mobile security applications, situational awareness, air defense applications and security units.



Command and Control System

- Centralized Command & Control capabilities with integrated GIS, alarm zones, filtering etc.
- Air picture generation
- Decision support algorithms
- Sensor fusion and auto-tracking
- Threat evaluation and effector allocation algorithms
- Centralized command & control of all sensors and effectors
- Integration of new sensors and systems with open architecture feature

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