



İKAS

PUBLIC ALERT AND WARNING SIREN SYSTEM

İKAS is a Public Alert and Warning Siren System designed and manufactured by Aselsan, which can be controlled from a single center in order to warn the public in the fastest way in all kinds of disasters, emergencies, dangers and civil defense situations, as well as to increase awareness of the specified situations with different kinds of notification signals, pre-recorded messages or live announcements.

The system can be activated and controlled from both Control Center or local siren unit on the field. In addition to activation of pre-recorded signal and alert audio files, it is possible to perform live announcements.

- The software running on siren units and Siren Monitoring and Control Software which is used in command centers has also been developed by ASELSAN.
- The secured connection between the command centers and siren units on the field is provided by ASELSAN's APCO-25 "JEMUS" encrypted radio infrastructure. In addition to that GSM/4G/Fiber/Ethernet communication channels can also be used for system communication
- Aselsan's Siren System has deployed and actively used in 8 cities of Türkiye (2023) and coverage is increasingly going on.

System Architecture

The system can be monitored and controlled from Main Command Center. In case of destruction of Main Command Center, Secondary Command Center get activated automatically and take on all authorization of MCC.

The system is capable of being triggered by third party software such as State Disaster Management Software.

In addition to Siren Units, the system has YSSM units which can be integrated to existing PA systems so that It can broadcast warning and alarm signals through existing systems in order to maximize coverage.

Installation Versions



Pylon Type
Installation



Roof Type
Installation



Mobile Siren
System

Technology & Capabilities

- Broadcasting Pre-recorded warning messages and signals
- Broadcasting Live Announcements (from control center or Local)
- Scheduled Alarm Activations
- 7/24 Remote Monitoring & Control
- Automatic Silent Self-Test Diagnosis
- Incident Monitoring & Reporting (Intrusion Alert, Local Login Alert etc.)
- Multi-layer Authorization and Access Management
- Advanced Log Mechanism
- AES 128 Bit encryption between control center and siren units communication.
- Time Synchronization
- GIS (Geographic Information System) Interface & Activation Area selection
- Training and Exercise (Drill) Modes
- MP3-WAV audio files support
- Add/Remove/Update Siren Units over Command Centers
- Specific Warning Signal Generation over Command Centers
- Overtemperature, Power & Status Information
- Independent Adjustment and Control of each Siren Speakers
- 7" LCD Touch Screen for Local Control of Siren Units
- Maintenance-Oriented Special Cabinet (Wiring) Design for ease of repairing
- Sound Level Adjustment between 70dB-115dB in 3 dB steps
- Efficient power consumption for Stand-by operations (<20Watt)
- 2x12V/100AH GEL Type Battery
- Battery Protection Unit (24V/100A) for battery group
- PV Solar Panel Energy System with MPPT (75V/15A) solar charge controller.
- 230VAC/16A AC Charge controller with absorption, floating, storage charging algorithms
- At least 5 days stand-by time without any external power supply
- At least 30 minutes alarming without any interruption without external power supply.
- Class-D Digital Amplifier for each siren horn.
- 19" 3U EURORACK Chassis for control and amplifier boards.
- Waterproof Speaker Horns
- Available Interfaces: RS232, ETHERNET, SERIAL, USB, HDMI

Auxiliary Systems & Optional Features

- Radio/GSM/Fiber/Ethernet Communication Infrastructure
- Mounting Equipment (Building(Roof)/Pole/Pylon/Mosque/etc.)
- Lightning Prevention System
- Uninterruptible Power Supply (UPS) for Each Command Center
- Aircraft Warning Lights
- PV-Solar Panel Energy System

Standards

- Acoustic Chamber 115 dB(C) (@30mt.) Sound Pressure Level Certification (ISO/TS 13472-2)
- IP 65 Protection Class For Siren Cabinet (EN 60529:1997)
- -25 °C / + 55 °C Operating Temperature For Siren Cabinet (EN 60068-2-1:2009 / EN 60068-2-2:2008)
- -40 °C / + 60 °C Operating Temperature For Siren Speakers (EN 60068-2-1:2009 / EN 60068-2-2:2008)
- EN IEC 60068-2-52/Method-4 Salt Mist Corrosion Test
- EN 55035:2017/A11:2020, EN55032:2015/A1:2020, EN IEC 62368-1:2020 LVD & EMC Test Standard.