

**aselsan**

Professional Communication  
Solutions



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# Professional Communication Solutions

Public Safety and Emergency Communication System Solutions of ASELSAN are integrated systems designed to meet the needs of digital radio communication of different user groups in normal, crisis and disaster situations.

The modular system architecture provides reliable communication services to Public Safety and Emergency Organizations, Intelligence Organizations, Coast Guards, Security Forces, Municipalities, Public Companies as well as Commercial Users.

Public Safety and Emergency Communication System is able to meet the needs for communication traffic generated by different user groups, fully covering the territory in metropolises, city centers, suburbs or rural areas where Public Safety and Emergency Organizations or Security Forces are in charge and carry on their missions with minimum loss in case of disaster, emergency or homeland security cases to fulfill communication security needs.

ASELSAN provides turnkey Professional Communication Solutions based on P25 and DMR Standards.

These solutions can be configured for direct mode, wide area conventional mode or wide area trunking mode operations. There are two different radio series in ASELSAN Professional Communication solutions portfolio: 4700 radio series has a compact design. It supports data applications through the connection to a PC. This series supports P25 and DMR configurations. 4900 radio series is a high-end radio series which focuses on meeting the needs of users requiring high-level coordination. To assist these users, 4900 radio family is enriched with several data and location applications. These applications can be used without a PC connection. This radio series can be used in P25 configuration.

## 4900 Atlas Radio Series

**Handheld | Mobile | Desktop / Repeater**



## 4700 Radio Series

**Handheld | Vehicular | Desktop**



# Features of P25

The System is P25 compatible system in which Hardware and Software Design, Development of Application, Production, Assembly-Integration processes are realized by ASELSAN.

- Joint Use of Different Communication Systems (GSM Network, Fixed Telecom Networks, Data Network, Satellite Network, Public Safety & Emergency Networks...)
- Voice and Data Integration
- Cellular System Structure enabling Wide Area Coverage
- Disaster Reliability
- Fallback mode of operation in case of network collapse
- Hierarchical and Modular System Architecture
- Simulcast or Multicast turnkey communication solutions providing Frequency Efficiency on Wide Area Coverage Applications
- Instant Access to whole Coverage Area by Push-To-Talk feature
- Supports Trunk and Conventional Systems
- Operable in VHF or UHF bands



- Wide Product Spectrum with High Audio Output and Low Sensitivity Level
- Backward Compatibility
- Smooth Migration
  - able to communicate with current analog radios in direct mode
  - gradual implementation by deploying some of the previous analog system's frequencies.
- Secure Communication
  - End-to-end Digital Encrypted System solutions with hardware or software encryption options are available
  - Manual/ Automatic Re-Keying
- Closed User Groups
- Integration of User Defined Applications
- Compatible with APCO25 Open Standards
- Easy installation and maintenance requirements at minimum level



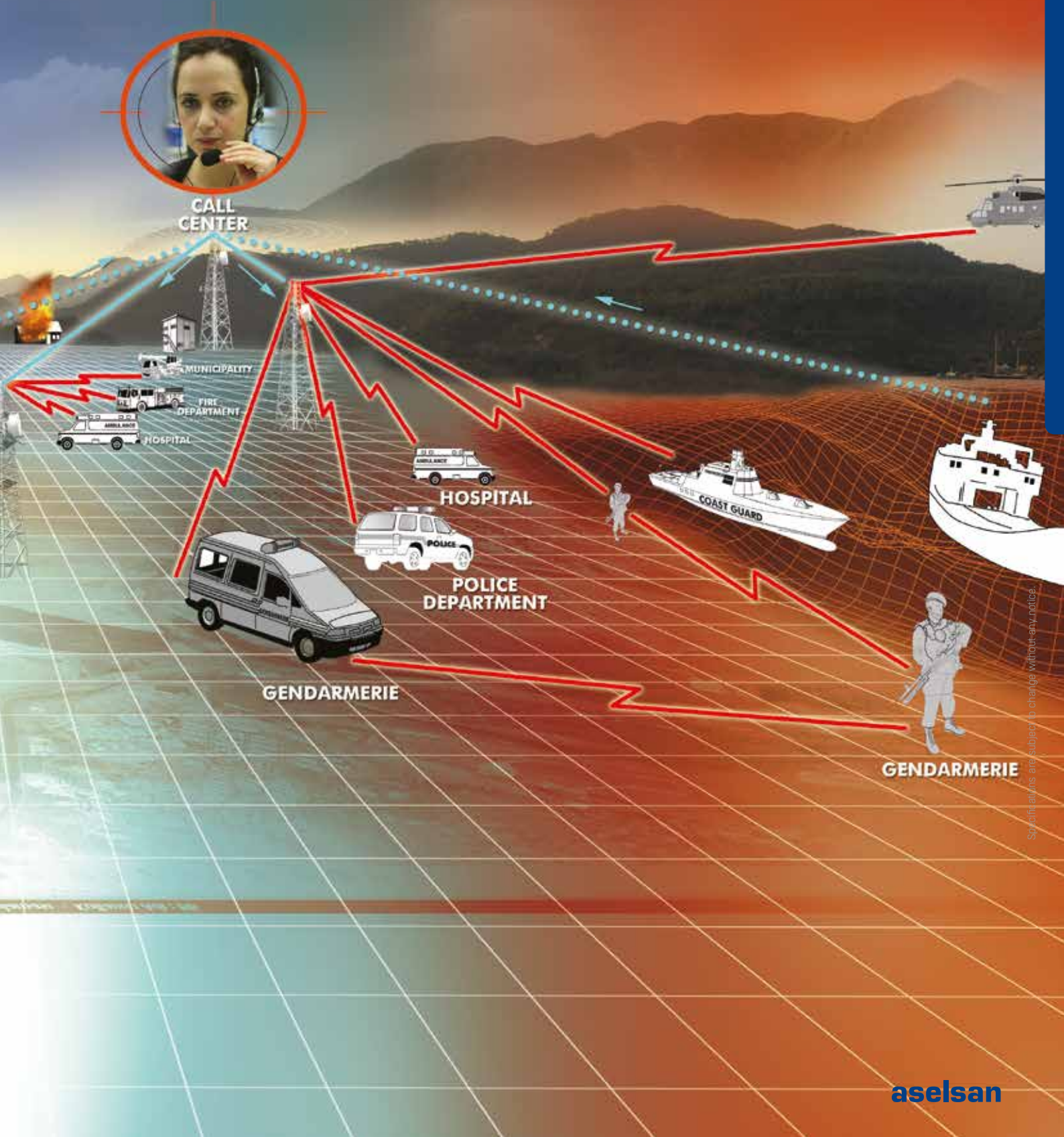
# Features of DMR

The System is DMR compatible system in which Hardware and Software Design, Development of Application, Production, Assembly-Integration processes are realized by ASELSAN.

- Providing Frequency efficiency with 2-slot TDMA
- Joint Use of Different Communication Systems (GSM Network, Fixed Telecom Networks, Data Network, Public Safety & Emergency Networks...)
- Voice and Data Integration
- Cellular System Structure enabling Wide Area Coverage
- Disaster Reliability
- Fallback mode of operation in case of network collapse
- Hierarchical and Modular System Architecture
- Multicast turnkey communication solutions on Wide Area Coverage Applications
- Instant Access to whole Coverage Area by Push-To-Talk feature
- Operable in VHF or UHF bands
- Backward Compatibility
- Smooth Migration
- - Able to communicate with current analog radios in direct mode
- - Gradual implementation by deploying some of the old analog system's frequencies.
- Secure Communication
  - End-to-end Digital Encrypted System solutions with software encryption options are available
  - Manual/Automatic Re-Keying
- Closed User Groups
- Integration of User Defined Applications
- Compatible with DMR Open Standards
- Easy installation and maintenance requirements at minimum level



**CALL CENTER**



Specifications are subject to change without any notice.

# Services

Based on customer requirements, a complete solution is provided including the infrastructure, terminals and the applications for each system mode which best fits the requirements.

<b>SERVICES</b>	<b>P25</b>	<b>DMR</b>
Group Call	√	√
Unaddressed Call	√	
Individual Call	√	√
Telephone Call	√	√
Digital Coded Squelch	√	√
Priority Call	√	√
Emergency Priority Call	√	√
Call Interruption	√	√
Channel Scan	√	√
Group Scan	√	√
Data	√	√
Registration	√	√
Roaming	√	√
Authorization	√	√
Radio Control	√	√
Ambiance Listening	√	√
Late Entry	√	√
Hw Or Sw Encryption (Optional)	√	√
Enable/Disable Over The Air	√	√
Inhibit Radio Over The Air	√	√
Encrypted communication (Optional)	√	√
Site Name	√	√
Active Status	√	
Call Alert	√	
Busy Channel Lockout	√	√
Gps Connection	√	√

## **ANALOG SERVICES**

1. Analog call
2. Selective call
3. Tone coded squelch



In addition to the system specific services, following standard services are available in all kind of sytem modes which are also the features of the radios in stand alone mode.

Moreover, optional/customized services can be provided upon request.

- Caller ID
- Audio Alerts
- Lighted Alerts
- Time Out Timer
- Analog DTMF Encoding
- Keypad Lock
- Battery Level Indicator
- RSSI Indicator
- Channel Mode
- Predefined / Status Messaging
- SMS Messaging
- Emergency Call
- Missed Call
- Index
- Alphanumeric Keypad
- Talkaround (DM Only)
- Password
- VOX
- Adjustable Squelch Level



# System Management Center

System Management Center provides a complete solution for the configuration management and controls the units of the total system.

- Configuration of voice and data channel parameters
- Management of user rights
- Provides system channel usage statistics
- Prioritize talkgroups for emergency \*
- Remote programming of repeaters
- Management of service priority \*
- Monitoring of alarm and status information history
- Dynamic grouping over the air
- Alarm notification with SMS (optional)
- Key distribution over the air
- Radio Inhibit
- Diagnostic Monitoring
- Voice Recording

\* Trunk only



# Call Center

- Call Center Application:
  - Management of emergency calls.
  - Operators can answer, record and follow-up incident / emergency calls.
  - Voice recording, efficient resource management, administrative statistics.
  - Time saving automatic (software based) guidance of the operators.
- Messaging
  - E-mail send/receive (File attachment)
  - Predefined Message Send
- Query
  - Database Query (Personnel, vehicle, stock etc.)
- Automatic Vehicle Tracking Applications:
  - Radio System based GPS data transfer
  - Instantaneous tracking of the public safety vehicles
  - Digital satellite and vector maps
  - Rich geographical information system tools and vector data analysis
  - Direction and path suggestions
- Console and Dispatch Applications:
  - Operator can monitor call traffic in whole radio system, listen when needed, make calls to a radio, to a group or to all users as an announcement by using this computer application
  - Radio Telephone Interconnection





ASELSAN A.Ş. is a Turkish Armed Forces Foundation company.

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