

SATELLITE COMMUNICATION SYSTEMS

AIR PLATFORM SOLUTIONS

Command control functions like fire support, maneuver control, information/electronic warfare, air defense and logistic support, which require different communication services and equipments to be used together, need to be executed simultaneously. This is possible only with secure data transport with high data rate in the tactical field.

With its ability of beyond line-of-sight communication and endurance to various geographical conditions, Satellite Communication Systems are indispensable communication tools in military units by satisfying operational requirements such as:

- Forming near real time tactical picture of the battle field,
- Providing near real time data communication between weapon, sensor and command centers,
- Providing automatic and consistent monitoring of military units' geographic locations from a center,
- Conferring these information to the use of commander level,

when there is no communication system left or the capabilities of the communication systems are restricted especially during the cross border operations.

Satellite Communication Systems Airborne Platform Solutions cover the tactics requirements of commanderships at the battle fields and the headquarters and the command centers to which the military units are connected at the battle field and provide secure voice, video and data transfer with high data rate, each of which is a part of command control systems, in all types of weather conditions and tactic operations. They can work with satellites under the use of Turkish Armed Forces as well as satellites belonging to friendly nations and NATO which provide service in relevant frequency bands.





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Airborne Satellite Communication Terminal:

- IP Based, Secure/Non-secure voice, data, video teleconferencing and fax communications via satellite
- Configurable voice/data rates according to user requirements
- Compact and lightweight (<22 kg)
- Operation at altitudes above 30.000 ft
- Compatible with MIL-STD-810G / DO-160G, MIL-STD-461F, MIL-STD-704F standards
- Antenna Subsystems
 - Ku-Band (Tx: 13.75-14.5 GHz & Rx: 10.95-12.75 GHz)
 - Composite Reflector
 - EIRP > 50 dBW
 - G/T > 11 dB/K
 - EIRP Mask compliant with ITU-R S.728-1 standard
 - Ku/Ka dual-band operation
- Antenna Control Subsystem
 - Composite Pedestal
 - 2 axes stabilization
 - 360° azimuth
 - 0° - +90° elevation
 - Polarization Tracking
 - 135° Polarization
 - Direct Drive (stiffness)
 - Satellite tracking with high accuracy (Tracking with beacon signal and INS data)
 - Antenna Pointing Accuracy < 0.2° RMS
- Airborne Satellite Modem
 - Data transfer rate up to 20 Mbps
 - Customizable Waveform Design
 - Efficient spectrum usage
 - Adaptive coding and modulation
 - Dynamic channel management
 - IP throughput optimization
 - DAMA / PAMA management
- Airborne Beacon Receiver
- Encryption according to user requirements
- TRANSEC
- Radome Solutions

* Features of the terminals may vary according to the system solutions.

