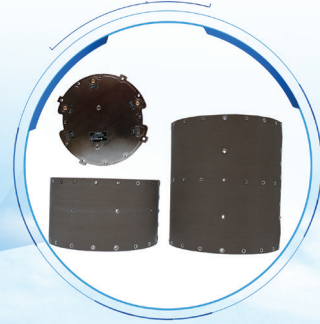




30-W, 30-G
RF DATA LINK SYTEMS
#MilitaryCommunication





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RF DATA LINK SYTEMS

GÜDÜ RF Data Link System, which is an integrated subsystem consisting of Missile Data Link and Ground Data Link Equipment that provides one-way digital data communication from point to multipoint in order to transmit target information to the missile in real-time during the flight of the missile, have been developed within the scope of Low and Medium Altitude Air Defense Missiles Systems.

The intended use of GÜDÜ RF Data Link System is to improve the missile's command control capability and from ground to missile transmit the target information obtained from the radar during the flight of the missile continuously and timely. In this way, it is aimed that the missile will successfully aim at the aerial target.

Technology

GÜDÜ RF Data Link System are designed with national resources and consist of 2 basics components which are GDLE (Ground Data Link Equipment) and MDL (Missile Data Link).

- MDL is the equipment consisting of the receiver, antenna, and cabling parts which are responsible for receiving the data transferred from the ground to the missile during the flight of the missile and transmitting that data to the relevant units in the missile.
- GDLE is the equipment, located on the Missile Launching Vehicle, with active phased array antenna architecture consisting of transmitter, antenna, and cabling components which are providing the data transfer from the ground to the missile. GDLE consists of 4 conjugate subunits.

General Specifications

- Ability to control up to 6 missiles at the same time
- Communication range up to 25 km for HISAR-O
- One-way communication (ground-to-missile)
- Communication in C and S-band frequency bands
- Electronic warfare resistant (random frequency hopping with national algorithm, DSSS capability)
- High-Speed frequency hopping
- Azimuth 0°-360°, elevation -5°-90° coverage
- Active phased array electronic steerable antenna (Ground)
- Helical antenna (Missile)
- Built-in test capability

Technical Specifications

RF and Control Unit

- Communication range : 15 - 25 Km
- Operating frequency : S and C Band
- Supply voltage : 24-32 VDC
- Operating temperature : -32oC to +44oC
- Storage temperature : -32oC to +63oC
- Working altitude : 42000 feet
- Shock, humidity, vibration : MIL-STD-810G
- EMI/EMC : MIL-STD-461E

Physical Specifications

- Missile data link
- Missile data link modem
- Dimension : 131mm diameter, 20mm thickness
- Weight : < 300 g

Missile Data Link Antenna

- One unidirectional and one bidirectional helical antenna wound on the missile in a way that does not disrupt the aerodynamic structure.
- Dimension: 160 mm diameter, 280 mm long (total length of 2 antennas)
- Weight : < 1500 g

Ground Data Link Equipment

- Equipment is located on the ground platform and consists of 4 sub-units.
- Dimension : 33 x 33 x33 cm
- Weight : < 15 kg

