Savronik

KU-BAND MOBILE EARTH STATION

Savronik Ku-Band Mobile Earth Station enables the user to exchange uplink and downlink information between the Ground Control Station and UAV/Manned platform in Ku-band frequency range for the beyond line of sight communication. The uplink carries the aircraft command and voice information while the downlink carries the EO/IR payload information and telemetry data.

The Mobile Earth Station is an easy system to deploy, operate and maintain, which consists of 3.8 m Ku-Band tracking antenna mounted on a rugged chassis equipped with an on-board generator and environmentally controlled rack enclosure. Beyond LOS is achieved for two aircrafts simultaneously at different frequencies.

The Mobile Earth Station is upgradable to support X, and Ka band frequencies for future purposes. It employs beacon receiver for tracking and an antenna control unit (ACU) that provides auto-acquisition and optional tracking algorithms including inclined orbit tracking.

KEY FEATURES

- Full Duplex, Ku-Band Mobile Earth Station
- 3.8 meter Motorized Tracking Antenna
- Automatic Stow and Deploy of Antenna
- Rugged trailer chassis
- 2 to 18 Mbps data Rate
- 2 simultaneous channels (Dual redundant TX and RX Interfaces)
- On-board generator with 120 lt diesel fuel tank and environmentally controlled equipment enclosure for rack mounted equipment
- Compliant with FCC 25.209 and ITU-RS-580-6 for side lobe performance
- Upgradeable to support both X and Ka-band frequencies.
- Automatic acquisition and inclined orbit tracking algorithms.
- 24 hour Operation support without Mains
- Heavy-Road, harsh environment Trailer with stabilizers and level provisions.
- 1:1 Uninterruptable Power Supply
- Integrated LNA, BUC&HPAs in redundancy configuration
- Power Distribution Unit with remote control

Savronik Elektronik Sanayi ve Ticaret A.Ş.

ESKİŞEHİR : ORGANİZE SANAYİ BÖLGESİ 20. CADDE NO:19, 26110 ESKİŞEHİR TÜRKİYE TEL: (+90) 222 236 1590 FAKS: (+90) 222 236 1589

ANKARA : MUTLUKENT MAH.ANGORA BULVARI 2010.SOK NO:33 06800 BEYSUKENT ANKARA TURKIYE TEL: (+90) 312 236 64 55 FAKS: (+90) 312 219 5795

İSTANBUL : YAZMACI TAHİR SOKAK NO:52/5 34744 BOSTANCI KADIKÖY İSTANBUL TÜRKİYE TEL: (+90) 216 410 7298 FAKS: (+90) 216 410 7299

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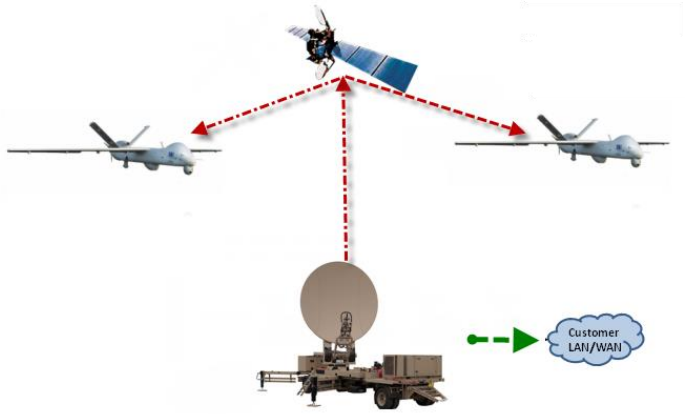

Figure 1: Support of Two Air Platforms Simultaneously

Figure 2: Dual Redundant TX Interface

GENERAL

Polarization	: Linear Orthogonal 2-por
System G/T	: 29.71 dB/K
Maximum EIRP	: 65.99 dBW with 50 W HPA
Link Supported	: 2 System at the same time
Encyrption	: AES-128, AES-256 or User Type

RF PARAMETERS

Data Rate	: 2-18 Mbps
RF Frequency	: Uplink : 14.0-14.5 Ghz Downlink : 10.95-12.75 Ghz
Output RF Power	: 50 Watt (To the Antenna)
Transmit/Receive Configuration	: 1:2 Redundant

USER INTERFACES

Fiber	: 3 x F/O (Military type)
Maintenance	: 1 x 10/100/1000 Ethernet
Power	: 1 x 220 VAC Mains Input

POWER

Required Voltage	: 220 V AC @ 50 Hz
Required Current	: 52 Amp Max
Power Support	: Generator, UPS and Mains
System Support	: 24 Hour without fueling
Power Control	: Remote over Ethernet Interface

ANTENNA SPECIFICATION

Antenna Gain	: 50.60 dbi @ Receive 53.00 dbi @ Transmit
Radiation Pattern	: FCC 25.209, ITU-R S.580-6
Motor Drive Type	: Motorized Drive
Azimuth Axis	: ±135°
Elevation Axis	: 0° to +90°
Polarization Axis	: ±95°
Tracking Accuracy	: 0.1 to 3.0 dB Selectable
AZ/EL/POL Accuracy	: 0.1° Max
Inclined Orbit Tracking Modes	: Step-Track, Memory-Track Intelli-Search™, Program Track
Cross-Pol Isolation	: 35.0 dB On Axis/Within Pointing Core
Antenna Noise Temperature	: 54 K @ 20° Elevation 51 K @ 40° Elevation

ENVIRONMENTAL

Operating Temperature	: -30°C to 50°C
Storage Temperature	: -33°C to 60°C
Humidity:	: 95% non-condensing

MECHANICAL SPECIFICATION

Height	: 2.45 m @ Stow position
Dimensions	: 10 x 2.55 (WxL) m

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