

# SkyARX<sup>®</sup>

KA-12

## NEW ULTRA SMALL AIRBORNE TERMINAL

ULTRA SMALL FOOTPRINT TERMINAL

Airborne Modem



### OVERVIEW

The CTECH SkyARX-Ka-12 Terminal is a complete airborne satellite terminal with an ultra small, compact and efficient 12" (30cm) antenna and lightweight equipment providing IP communications on the move.

With this Ka-band terminal corporate and government users can send live, full motion high definition video over the sky, make secure data communication and perform mission critical communications during flight.

Powered by integrated technologies and robust waveform this terminal delivers streaming data rates up to 13 Mbps. Ka-band SOTM airborne terminal is ultra-small and indigenous now.

Airborne Antenna



## AIRBORNE TERMINAL FEATURES

### Secure High Speed Communication

- Protected IP traffic with AES encryption
- Up to 13 Mbps streaming return link
- Up to 2 Mbps forward link
- Qualified for 40,000 ft altitude
- Automatic spotbeam switching
- ITU-R S.524-9 Compliant
- MIL-STD-810G Compliant
- MIL-STD-461E Compliant

### Userfriendly Design For Aircraft Requirements

- 30 cm antenna mounts on fuselage of aircraft
- Modem can be located any distance from antenna
- Accurate satellite tracking with 0.2° RMS
- 28 VDC powered
- Only 3 LRUs

## ENVIRONMENTAL & PHYSICAL CHARACTERISTICS

### 30 cm Antenna and ACU

- Power : <550 W @ 28VDC
- Operating Temperature : -40° to +55° C
- Storage Temperature : -55° to +70° C
- Weight : 16 kg with ACU
- MIL-STD-810G/MIL-STD- 461E/MIL-STD-704

### CTech Airborne Modem

- Power : 50 W @ 28VDC
- Operating Temperature : -40° to +55° C
- Storage Temperature : -55° to +70° C
- Weight : <2.25kg
- Dimensions : 194 mm x 150 mm x 89.5 mm
- MIL-STD-810G/MIL-STD- 461E/MIL-STD-704



Ground Modem

## SPECIFICATIONS

### OPERATING FREQUENCY

Transmit : 29.5 to 30.0 GHz  
Receive : 19.7 to 20.2 GHz

### MODULATION & FEC

Forward/Return Link : Variable Coding and Modulation,  
VCM and ACM  
Waveform : DVB-S2X

### TRANSMISSION RATES

Forward Link : Up to 2 Mbps  
Return Link : Up to 13 Mbps

## RF/TRACKING PERFORMANCE

EIRP : 50.6 dBW  
G/T : 11.5 dB/K

### Axes



- Azimuth 360° continuous
- Elevation: 5° to 175°
- Polarization: Circular LH&RH

### Velocity



- Azimuth 30°/s
- Elevation 15°/s

### Acceleration



- Azimuth: 50°/s<sup>2</sup>
- Elevation: 50°/s<sup>2</sup>

### Interfaces



- Data: 10/100/1000 BASE-T Ethernet
- Data Serial Interfaces: RS-232/RS-422
- Console: RS-232/RS-422
- INS/GPS: RS-232/RS-422/ARINC-429
- Encryption : AES-256 FIPS 140-2