



Fixed IoT Ku Terminal V2

ST Engineering iDirect's Fixed IoT terminal is part of a unique line of satellite terminals that brings together innovative technology to enable low data rate IoT with highly competitive services for existing and new markets. The Fixed IoT terminal is a low cost, compact satellite device based on a state-of-the-art design, ideal for mounting on objects such as buildings, poles or other fixed mounting positions with a clear view to the satellite.

Designed for outdoor applications, the Fixed IoT Ku Terminal features an integrated satellite modem with a low profile patch antenna, no moving mechanical parts, fast synchronization, and low power consumption for fixed LDR and MDR use cases. The device supports Power-over-Ethernet (PoE) for remote powering and adaptation to solar power configurations.

The Fixed IoT Ku terminal is intended for deployment in extremely remote regions for LDR/MDR applications in Utilities, Pipeline and other Energy markets as well as Mining or Agricultural sensor backhaul applications with low and medium data rates communication and services over Ku-GEO satellites.

The terminal features manual pointing and acquisition of signals using an intuitive smartphone app and provides versatile connectivity options using Wi-Fi for phone, tablets and sensors as well as wired PoE Ethernet for connecting to remote IoT aggregation, Edge Computing, or an IoT Sensor.

Markets

Utilities
Energy
Mining
Agriculture
Government

Main Features

- Ku-Band terminal with integrated modem and flat panel antenna design
- Ideal for low data rates: 7.33-200 Kbps
- Outdoor housing IP67 compliant
- Versatile Ethernet and WiFi interfaces
- Compact and lightweight design
- Low power consumption with PoE++
- Easy installation via smartphone app
- Can be installed by non-professionals
- Fast rain fade recovery



Fixed Modem Specification

| | |
|--------------------|---------------------|
| Modulation | BPSK |
| Data Burst Rates | 7.33Kbps - 200Kbps |
| FEC Type, Rates | Turbo, 1/3 |
| Ku Transmit Range | 13.75~14.5 GHz |
| Ku Receive Range | 10.7~12.75 GHz |
| Receiver Lock Time | ≤ 50msec |
| Eb/N0 Threshold | 1.5dB |
| Chip rate | 110Kcps - 3125Kcps |
| Spreading Factor | 5 - 64 (7dB - 18dB) |

Antenna Specifications

| | |
|--------------|---------|
| Type | Patch |
| EIRP | 52 dBW |
| G/T | -3 dB/K |
| Gain (TX/RX) | 21 dBi |
| Noise | 3.2 dB |
| Beam width | 12° |

Interfaces

| | |
|----------|------------------------------------|
| WiFi | 802.11 b/g/n 2.4Ghz |
| Ethernet | Ethernet with PoE 802.11bt / PoE++ |

Mechanical and Environmental

| | |
|------------------------|--|
| Dimensions | D 18 x W 30 x H 4.5 cm (D 7.08 in x W 11.81 in x H 1.77 in) |
| Weight | 2.3 kg (5.07 lbs) |
| Mounting | VESA compliant |
| Operating Temp.: | -20 to +55°C (-4 ° to + 131 °F) |
| Vibration & Salt Spray | SAE J1455 |
| Water Resistance | IP67 |

Power Supply

| | |
|-------------------|---|
| Power | PoE++ / 802.3bt |
| Power Consumption | 56 VDC @ 0.9A POE |
| | 16.5 Watts Nominal (Rx only) |
| | 38 Watts Full Rx/Tx mode |
| | >50 Watts Power Supply Mandatory (to allow for TX spikes) |

Specifications subject to change without notice