

AYECKA AR-1100 IoT SATELLITE TERMINAL

For Smart Grid, M2M, and Remote IoT Applications

FLEXIBLE IOT CONNECTIVITY WITH BROADBAND CAPABILITIES

AYECKA AR-1100 is a compact, high-performance satellite terminal engineered to deliver scalable, low-cost IoT and M2M connectivity across a wide range of remote applications. Leveraging AYECKA's patented RFModem® technology, the AR-1100 combines efficient bandwidth usage with the flexibility to support both low-rate data streams and wideband return links. This makes it ideal not only for SCADA, Smart Grid, ATM, and telemetry use cases but also for more data-intensive applications like security video backhaul and environmental monitoring. Its software-defined radio (SDR) architecture ensures long-term adaptability to evolving satellite standards and network protocols.

OPTIMIZED FOR EFFICIENT DEPLOYMENT IN REMOTE LOCATIONS

Built into a rugged, all-outdoor enclosure, AYECKA AR-1100 is optimized for installation with small, cost-effective DTH-type reflectors and can withstand extreme environmental conditions. Its compact design and low power draw enable efficient operation in off-grid and solar-powered scenarios. The terminal supports secured private networks, and with remote management capabilities, it simplifies mass deployment across widely distributed assets. Whether for utility monitoring, agricultural automation, smart infrastructure, or mission-critical remote systems, the AR-1100 delivers reliable satellite connectivity with minimal CAPEX and OPEX, enabling scalable IoT networks with fast return on investment.



PRODUCT SHEET

HIGHLIGHTS

- All-in-one outdoor unit
- Efficient SWaP: compact size, low weight, and reduced power consumption
- Wideband return channel for video and high-data-rate telemetry
- Efficient access scheme reduces bandwidth cost and improves channel efficiency
- Operates with cost-effective, small DTH-type satellite reflectors
- Energy-saving modes for solar and battery-powered sites
- Low CAPEX and OPEX with
- Easy antenna pointing and commissioning via mobile app
- Intuitive user interface and remote terminal management

AYECKA AR-1100 IoT SATELLITE TERMINAL - SPECIFICATIONS

BASEBAND

RX Waveforms:

DVB-S2/S2X
TX Waveforms:
F-SIM, ESSA, RCS2
RX Modulations:
QPSK, 8PSK, 16APSK, 32APSK
TX Modulations:
BPSK FEC rate 1/3 as per FSIM standard with variable spreading
RX Symbol Rate:
Up to 60 Msps sustainable user data
RX Bitrate:
Up to 80 Mbps sustainable user data
TX Bitrate:
Up to 1Mbps

TX Channel Bandwidth: 2.5, 5, 10 MHz

Frequency Bands: Tx: Ku 13.75 – 14.5 GHz Rx: Ku 10.7 – 12.75 GHz (dual band) RF Output Power:

1W

Encapsulation: Rx: MPE

TX: RLE

Antenna size:

From 74 cm (40 cm possible with long spreading sequences). 75 cm antenna is type approved by Eutelsat.

Functionality: Integrated, all in one: feeds array, RF Router and modem

ADDITIONAL INFORMATION

Maintenance:

Software, Firmware and boot loader are field upgradable using OTA protocol (Flute) Management: Web GUI, REST Networking: DHCP, NAT/PAT, SSDP, VLAN IP Routing: Multicast and Unicast, Static and Dynamic

Interface

Connection to IDU: F-Type (Ethernet Over Coax) ODU to IDU Cable: RG-6, 75 Ohms, up to 100 m

Environmental & Physical

Dimensions: 160 × 76 × 144 mm Weight: ~1kg Operational Temperature: -33°C to +55°C Rain: <100mm/Hr Humidity: 0% to 100% non-condensing Enclosure Rating: IP65

Standards Compliance

CE, FCC

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