NOVELSAT

AYECKA AR-2200 ALL-OUTDOOR VSAT

For Enterprise and Government Connectivity

PRODUCT SHEET

COMPACT VSAT FOR BROADBAND CONNECTIVITY

AYECKA AR-2200 is a cost-effective, all-weather TDMA/SCPC VSAT that integrates a high-performance RFModem® and RFT into a compact, ruggedized unit, supporting antenna sizes from 0.5 to 1.8 meters. Designed as a software-defined radio, the AR-2200 supports DVB-S2/S2X for forward and return links and implements DVB-RCS2 for return TDMA access. Operating in the Ka-band with software-controlled automatic polarization switching, it delivers high throughput with outstanding SWaP (Size, Weight, and Power) efficiency, and supports energy-saving modes for enhanced power management.

AYECKA AR-2200 is ideal for broadband connectivity in underserved and remote areas, offering reliable service for enterprise and government users. Its compact all-outdoor design simplifies deployment and reduces infrastructure costs, making it well-suited for cost-sensitive rollouts and wide-scale network expansions.

HIGH PERFORMANCE IN ANY ENVIRONMENT

Engineered to perform in harsh outdoor conditions, AYECKA AR-2200 eliminates the need for an indoor shelter, making it the ideal choice for remote deployments where infrastructure is limited or unavailable. Its rugged, IP67-rated enclosure ensures reliable operation in extreme temperatures, high humidity, and challenging weather conditions. With direct-to-antenna installation, AYECKA AR-2200 reduces the need for long indoor-outdoor cabling, significantly simplifying setup and improving signal quality. The proximity to the antenna not only enhances performance but also accelerates deployment and minimizes total system costs, delivering resilient, high-quality connectivity anytime, anywhere.

HIGHLIGHTS

- All-outdoor TDMA / SCPC VSAT
- Designed for Ka-band operation
- Supports DVB-S2X and DVB-RCS2
- Compact, lightweight, and energy-efficient design
- Up to 500 Mbps Rx throughput
- Annex M Support
- Supports up to 4 slices with max 130 Msps aggregated rate
- Automatic polarization switching (Rx and Tx)
- Standard PoE interface for simplified deployment
- Energy-saving modes for enhanced power management
- Patented design (U.S. Patent #9401536)
- Secure, private network support with user-friendly operation

AYECKA AR-2200 ALL-OUTDOOR VSAT – SPECIFICATIONS

BASEBAND

Waveforms & Modulations:
DVB-S2/S2X (Rx/Tx), DVB-RCS2 (Tx), BPSK to 128APSK, TDMA and continuous waveform
Annex M Support
Frequency Bands:
Tx: 27.5–30.0 GHz
Rx: 17.7–20.2 GHz
RX Symbol Rate:
250 ksps to 500 Msps
RX Bitrate:
Matching OXFORD-1 specs
TX Symbol Rate:
128 ksps to 20 Msps
TX Bitrate:
Up to 20 Mbps in TDMA mode
Up to 60 Mbps in SCPC mode
RF Output Power:
33 dBm typ (ACPR min. 21 dB)
TX Polarization:
RHCP or LHCP (software-controlled)
RX Polarization:
LHCP or RHCP (software-controlled)
XPOL Isolation:
Rx: > 20 dB
Tx**:** Typ 23 dB / Min 19 dB
EIRP Adjustment Range:
> 20 dB
Spurious Emissions:
In-band: < –40 dBc (4 kHz RBW)
Out-of-band: < –55 dBc (4 kHz RBW)
NCR Synchronization

ADDITIONAL INFORMATION

Encryption: AES-128/256
Monitor & Control: Software API
Feedhorn Ratio (F/D): 0.8

Interface

RJ45 1GbE LAN
PoE 60W, 48–55V input
Cat6 cabling to indoor

Environmental & Physical

Operational Temperature:
–30°C to +50°C (direct sun)
Altitude:
up to 10,000 ft
Temp. gradient:
0.5°C/min (no service interruption)
Enclosure Rating: IP67
Power Consumption:
< 50W
MTBF:
Designed for 10 years

Standards Compliance

ETSI, FCC, ITU certified
(up to 50 dBi antenna)
EESS-502 Issue 15 Rev 2

04-05-2025

For more information visit
www.novelsat.com www.ayecka.com