albentia systems

AXS-BS-150-N

5GHz BAND PICO-BASE STATION

Cost-effective and easy to install

Ultra-compact and energy-efficient

QoS guarantee

35Mbps net throughput

N-type connector for external antenna

Home-Gateway functionality

aerDOCSIS TECHNOLOGY

PRODUCT OVERVIEW

The new AXS-BS-150-N pico-base station has been designed to provide coverage to access networks in the 5GHz band. It delivers up to 35Mbps net per each 10MHz channel, or 140Mbps net grouping four sectors, and offers QoS levels equivalent to cable networks (HFC).

It is a very compact full-outdoor base station with ultra-low power consumption, which features strong mechanisms for security and protection against interference.

This pico-base station has been designed with aerDOCSIS technology, this is a new implementation of the standard that includes new features and extensions, enhancing the operator experience without breaking backwords compatibility with other 802.16 implementations.

This helps protect the ISP's investment, guaranteeing the best profitability for wireless access networks in the 5GHz band.

APPLICATIONS

- Internet service
- Rural broadband access
- VoIP and videoconferencing
- Leased lines for corporate access
- Extension of fiber optic networks
- IPTV
- Smart-metering

arba access

RADIO PARAMETERS

Frequency band	4900-5875MHz
Channel step	1MHz
Net capacity	35Mbps
Channel bandwidth	10 / 7 / 5 / 3.5 / 1.75 MHz
Net spectral efficiency	3,5bps/Hz
BPSK sensitivity	-92dBm @ 10MHz -99dBm @ 1.75MHz
64QAM sensitivity	-74dBm @ 10MHz -82dBm @ 1.75MHz
Max. transmission power	23dBm
Antenna	N-type connector
Modulation	OFDM 256 subcarriers
Subcarrier modulation	Adaptive BPSK, QPSK, 16QAM y 64QAM (7 levels depending on FEC combination)
FEC	Yes, concatenated Reed-Solomon and convolutional code
DFS	Yes
Downlink/Uplink	From 12% to 95%
Access control protocol	Synchronous TDMA with hardware implementation
Duplexing technique	TDD (Time Domain Duplexing)

QUALITY OF SERVICE (QoS)

QoS control	5 QoS levels (BE, nRTPS, eRTPS, RTPS, UGS). Separate queues per service and user
Service differentiation	Layer 2: MAC source/destination address, EtherType, VLAN tag Layer 3: DSCP ToS, IP source/destination address, subnet, protocol Layer 4: TCP or UDP source/destination port
Max. number of services	Unlimited
Max. CPEs per sector	50

NETWORKING AND SECURITY

Layer 2 functionality	Bridging (IEEE 802.1)
VLAN	802.1q, 802.1p, q-in-q support, unlimited VLANs
Layer 3 functionality	Dynamic/static routing, NAT, DHCP server/client
Encryption	AES128/256
Latency	5ms
X.509 certificates	Yes
Data interface	Ethernet 10/100 Base T
Max. packet size	2048 bytes

MANAGEMENT

Local	ACC-HU port
Remote	Web, SSH, XML-RPL, SNMP v1, 2 & 3
Advanced	SMC channel support, double IP data/management

PHYSICAL FEATURES

Dimensions	330 x 330x 110 mm (packaged)
Weight	2,03 kg
PoE supply	PoE.3af 36-57VDC PIN 1,2 / 3,6
Power consumption	4W typ, 6W max. (100% traffic)
Temperature range	From -30ºC to +55ºC (working environment temperature)

STANDARDS

Protocol	aerDOCSIS compatibility with 802.16-2012
Radio	ETSI EN 301 893 V1.7.1 ETSI EN 302 502 V1.2.1
Environment	IP67 (protection) ETSI EN 60951-1 (security) UNE EN 60068-11/2/11/14/30 (environmental) ETSI EN 301 489-1 V1.9.2 (EMC) ETSI EN 301 489-17 V2.2.0 (EMC)

All Albentia Systems products are designed and manufactured in the EU