

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



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 backwards 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



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	-75dBm @ 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 100/0 to 0/100
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 330 x 110 mm (packaged)
Weight	1,02 kg
PoE supply (not included)	110-240 ACV 50/60Hz input 24DCV output (Optional DC input 10-24V)
Power consumption	< 4.5 W
Temperature range	From -30°C to +55°C (working environment temperature)

STANDARDS

Protocol	aerDOCSIS compatibility with 802.16-2012
Radio	ETSI EN 302 326-2
Environment	ODU: IP55 (protection), ETSI EN 60950-1:2006 (security) IDU: IEC 61000-4-2 (ESD), IEC 61000-4-5 (Surge)



All Albentia Systems products are designed and manufactured in the EU

PRODUCT DATASHEET AXS-BS-150-N



Albentia Systems S.A.
C/ Margarita Salas, 22 - 28918 Leganés - Madrid (ESPAÑA)
Tel.: +34 91 440 0213
Fax: +34 91 327 4362
E-mail: sales@albentia.com

www.albentia.com