

AXS-BS-130-N

3.3 - 3.9GHz 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-130-N pico-base station has been designed to provide coverage to access networks in the 3.3 - 3.9GHz 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 3.3 - 3.9GHz 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 | 3300-3900MHz |
| 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 |

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 Alcentia Systems products are designed and manufactured in the EU

PRODUCT DATASHEET AXS-BS-130-N



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

www.alcentia.com