albentia systems

AXS-BS-453-N

3.5 GHz / 5 GHz BAND BASE STATION

- Strong protection against interference
- Net capacity of 70 Mbps + 70 Mbps
- QoS per CPE and service
- Synchronism GPS integrated
- High coverage range LOS
- Full-outdoor IP67
- Ultra-compact and energy-efficient
- 4 channels of 10MHz

aerDOCSIS TECHNOLOGY

PRODUCT OVERVIEW

The new AXS-BS-453-N base station has been designed to provide coverage to access networks in the 5 GHz band and the 3.5 GHz band at the same time.
It delivers up to 70 Mbps + 70 Mbps by using four 10 MHz radio channels and provides equivalent to cable networks (HFC) QoS.

It is a very compact full-outdoor and low power consumption base station, with high throughput and processing capacity. The AXS-BS-453-N base station minimizes the spectral use and the investment thanks to the use of very narrow channel bandwiths.

Designed with aerDOCSIS technology, it is completely interoperable with other 802.16 implementations. This helps protect the ISP's investment, guaranteeing the best profitability for wireless access networks in the 5 GHz licensed band.

APPLICATIONS

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

arba access

Specications

RADIO PARAMETERS

Frequency band	4900-5875MHz + 3300-3900MHz
Channel step	1MHz
Net capacity	70 Mbps + 70 Mbps
Channel bandwidth	10 / 7 / 5 / 3.5 / 1.75 MHz
Independent radio channels	4 (2 for 3.5 GHz and 2 for 5GHz)
Net spectral efficiency	3,5bps/Hz
BPSK sensitivity	-92 dBm @ 10MHz -99 dBm @ 1.75MHz
64QAM sensitivity	-74 dBm @ 10MHz -82 dBm @ 1.75MHz
Max. transmission power	23 dBm per channel / 29 dBm total
Antenna	4 connectors N per external antenna
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
Spectrum analyser	Yes, inteligence
Downlink/Uplink	From 100/0 to 0/100
Access control protocol	Synchronous TDMA with hardware implementation
Duplexing technique	TDD (Time Domain Duplexing)
Synchronism TDD	GPS integrated

QUALITY OF SERVICE (QoS)

QoS control	5 QoS levels (BE, nRTPS, eRTPS, RTPS, UGS). Separate queues per service and user
Max. number of services	Unlimited
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. CPEs per sector	Unlimited

NETWORKING AND SECURITY

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

MANAGEMENT

Remote	Web, SSH, XML-RPL, SNMP v1, 2 & 3
Advanced	SMC channel support, double IP data/management
User provisioning	Radius, CPS and xml local file

PHYSICAL FEATURES

Dimensions	330 x 330 x 110 mm (packaged)
Dimensions	265 x 265 x 70 mm (without packaging)
Peso	4,5 kg
PoE supply (not included)	100-240 VAC 50/60Hz input 56VDC output (Optional DC input 36-72 VDC)
Power consumption	< 30 W
Temperature range	De -30ºC a +55ºC (working environment temperature)

STANDARDS

Protocol	aerDOCSIS compatibility with 802.16-2012
Radio	ETSI EN 302 326-2
Environment	ODU: IP67 (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

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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