albentia systems

AXS-CPE250-15

HIGH CAPACITY CPE IN 5GHz BAND
PRELIMINARY DOCUMENT

70Mbps net throughput

Great protection against interference

Cost-effective and easy to install

Ultra-compact and energy-efficient

QoS guarantee

Home-Gateway functionality

15dBi integrated antenna

aerDOCSIS TECHNOLOGY

PRODUCT OVERVIEW

The AXS-CPE250-15 user terminal has been designed by Albentia Systems to cover deployment needs in wireless access networks in the 5GHz band. This equipment is especially indicated for situations in which greater capacity and speed are needed.

It is a CPE for residential use, high capacity and easy installation, which allows the operator to offer services equivalent to those of wired access networks. Designed with aerDOCSIS technology, provides the operator with all advantages of the new technology doubling its capacity with respect to the AXS-CPE150-15 and it is completely interoperable with other 802.16 implementations.

Featuring Home-Gateway functionality, AXS-CPE250-15 offers an easy to configure web interface for end users and allows for cost savings as it eliminates the need for a home router.

APPLICATIONS

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

arba access

RADIO PARAMETERS

Frequency band	4900-5875MHz
Channel step	1MHz
Net capacity	70Mbps
Channel bandwidth	10 / 7 / 5 / 3.5 / 1.75 MHz
Net spectral efficiency	3,5bps/Hz
BPSK sensitivity	-91dBm @ 10MHz -98dBm @ 1.75MHz
64QAM sensitivity	-73dBm @ 10MHz -81dBm @ 1.75MHz
Max. transmission power	23dBm
Antenna	15dBi integrated antenna
Modulation	Carrier aggregation 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

NETWORKING AND SECURITY

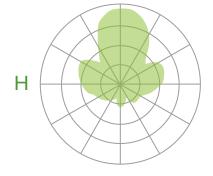|	
Layer 2 functionality	Bridging (IEEE 802.1)
VLAN	802.1q, 802.1p, q-in-q support, unlimited VLANs
Layer 3 functionality	Dynamic/static routing, NAT, DHCP server/client
Encryption	AES128/256
Latency	5ms
X.509 certificates	Yes
Data interface	Ethernet 10/100 Base T
Max. packet size	2048 bytes

MANAGEMENT

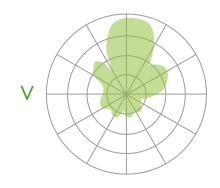|	
Local	ACC-HU port, Serie
Remote	Web, SSH, XML-RPL, SNMP v1, 2 & 3
Advanced	SMC channel support, double IP data/management

PHYSICAL FEATURES

Dimensions	220 x 85 x 120 mm (packaged)
Weight	370gr (packaged)
PoE supply (not included)	110-240 ACV 50/60Hz input 24DCV output (Optional DC input 10-24V)
Power consumption	< 8W (100% throughput
Temperature range	From -30ºC to +55ºC (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)

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PRODUCT DATASHEET AXS-CPE250-15

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