

# PRO-SU-1150-23

5 GHz BAND SUBSCRIBER UNIT

Strong protection against interferences

35Mbps net throughput

QoS guarantee

Extraordinary spectral efficiency

Accurate latency control

Full-outdoor

High security levels

Robustness and reliability



## PRODUCT OVERVIEW

The subscriber unit **PRO-SU-1150-23** has been designed for **professionals applications** in the 5GHz band. This equipment provides **35 Mbps net throuput** that can be distributed among the uplink and downlink, allowing assign up to 100% for surveillance applications.

This subscriber unit implements advanced quality of service mechanisms **in order to guarantee capacities for competing differentiated services** such as video or VoIP.

It is a very robustness and reliability full-outdoor equipment with high security levels. The subscriber unit **PRO-SU-1150-23** implements strong protection against interferences, such as ARQ and TBIM, and the use of very narrow channel of 10GHz.

Such advantages make ARBA **pro** equipment the strongest of market and assure an **adequate transmission in scenarios presenting highly saturated spectrums**.

Designed with **aerDOCSIS** technology, it is completely interoperable with other 802.16 implementations.

## APPLICATIONS

- Civic video surveillance
- Traffic control
- Mining and industrial applications
- The hydrocarbon sector
- Corporative connectivity
- Extension of fiber optic networks
- Boarded nomadism
- Transport mobility



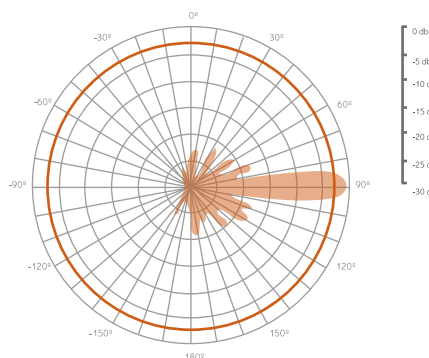
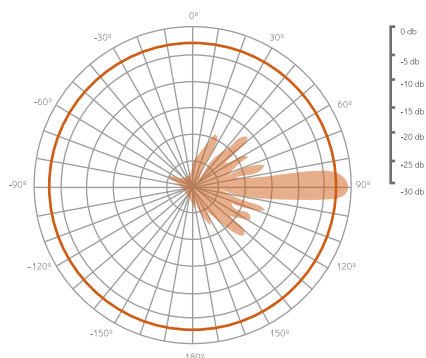
## Specifications

### RADIO PARAMETERS

Frequency band	4900-5875MHz
Channel step	1MHz
Net capacity	35 Mbps
Channel bandwidth	10 / 7 / 5 / 3.5 / 1.75 MHz
Net spectral efficiency	3.5bps/Hz
BPSK sensitivity	-92 dBm @ 10MHz -99 dBm @ 1.75MHz
64QAM sensitivity	-75 dBm @ 10MHz -82 dBm @ 1.75MHz
Max. transmission power	23 dBm
Antenna	23 dBi integrated
Modulation	OFDM
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)
TDD synchronism	N/A

### QUALITY OF SERVICE (QoS)

QoS control	Layer 2 QoS. Guaranteed min/max capacity per differentiated service flow
Max. CPEs	Unlimited
Service differentiation	Layer 2: MAC source/destination address, EtherType, VLAN/PPPoE tag Layer 3: DSCP ToS, IP source/destination address, subnet, protocol Layer 4: TCP or UDP source/destination port



### NETWORKING AND SECURITY

Layer 2 functionality	Bridging (IEEE 802.1), VLAN 802.1q
Layer 3 functionality	Dynamic/static routing, NAT, DHCP server/client
Encryption	AES 256, AES 128 and 3DES
Latency	5ms
X.509 certificates	Yes
Data interface	Ethernet 10/100 Base T
Max. packet size	2048 bytes

### MANAGEMENT

Remote	Web, SSH, XML-RPL, SNMP v1, 2 and 3, Radius
Advanced	SMC support, double IP data/management
Local	Port per Handheld Unit, Serie

### PHYSICAL FEATURES

Dimensions	360 x 350 x 110 mm (packaged)
Dimensions	306 x 306 x 82 mm
Weight	3 kg (mounting kit included)
PoE supply (not included)	100-240 VAC 50/60Hz input 56 VDC output (Optional DC input 18-72 VDC)
Power consumption	< 4,5 W
Temperature range	From -30°C to +55°C (working environment temperature)

### STANDARDS

Protocol	aerDOCSIS compatibility with 802.16-2012
Enclosure ODU	Painted aluminium ADC12
Radio	ETSI EN 301 893 V1.5.1 (5GHz), ETSI EN 302 502 V1.2.1 (5.8GHz), 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)