Product Overview

Altai BX600-S is a sector base station unit that provides up to 250 Mbps net aggregate throughput while delivering access connectivity for up to 16 subscriber units. It operates in 4.9 to 6 GHz bands.

The unit comes with an integrated antenna.

Product Highlights

» Up to 250 Mbps net aggregated throughput
» Long range – up to 40 km
» Supports up to 16 subscriber units
» Guaranteed service level agreement (SLA) per subscriber unit
» Exceptional low and constant latency
» Single radio supporting multiple bands
» Advanced MIMO, OFDM, and diversity technologies
» Robust and reliable operation in harsh conditions, extreme temperatures, and non-line-of-sight scenarios
» Ease of operation and maintenance

Architecture

- Outdoor base station with an integrated antenna and built-in GPS

Network Interface

Data Interface	1 x 1 GE RJ45 Port with PoE PD
PoE and ODU Interfaces	Outdoor CAT-5e; Maximum Cable Length: 75m for 1000Base-T

Radio

Wireless Topology	PtMP Base Station
Maximum Capacity	250 Mbps Net Aggregate Throughput
Maximum Subscriber Units	Up to 16
Range	Up to 40 km
Frequency	4900 MHz – 6070 MHz *
Channel Bandwidth	Configurable: 10, 20, 40 MHz *
Dynamic Bandwidth Selection	20/40 MHz
Modulation	MIMO-OFDM (BPSK/QPSK/16QAM/ 64QAM/256 QAM)
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Adaptive Modulation/Coding	Supported
Duplex Technology	TDD
DFS	Supported *
Smart Bandwidth Mgmt.	Supported
Diversity	Supported
Antenna Modes	MIMO 2x2, Diversity, Adaptive MIMO/Diversity
End-to-End Latency	Typical: 3.5 ms @ 2 SUs; 20 ms @ 16 SUs
Maximum TX Power	26 dBm *
Encryption	AES128
TDD Intra-Site Synchronization	Supported via Built-in GPS Receiver
TDD Inter-Site Synchronization	Supported via Built-in GPS Receiver
Uplink/Downlink Allocation	Configurable: Symmetric or Asymmetric

Antenna

Integrated Antenna	
Gain	12 dBi
VSWR	2.0: 1
3 dB Azimuth Beamwidth	90 ° (Typical)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	-25 dB (Typical)
Cross Polarization	-27 dB (Typical)
F/B Ratio	30 dB
Port-to-Port Isolation	40 dB (Typical)
Lightning Protection	DC Grounded

Networking

Sub Convergence Layer	Layer 2, Bridging Learning of 5K MAC Addresses
QoS	Packet Classification to 4 Priority Queues according to 802.1P or Diffserv
VLAN Support	802.1Q, QinQ, 4094 VLANs
MTU Size	Up to 9216 bytes
ODU Management	IPv4/IPv6 Dual-Stack; SNMPv1, SNMPv3; HTTP/HTTPS using Web Browser
Option 82	Supported
RADIUS Authorization	Supported
RADIUS User Authentication	Supported
Syslog	Supported

Physical Specification

Dimension	325 (w) x 325 (h) x 64 (d) mm
Weight	2 kg

Power Supply

Power Consumption	< 13W
Power Feeding	Power provided over ODU-IDU Cable

Environmental Specification

Operating Temperature	-35 °C to 60 °C
Humidity	100% Condensing
Enclosure Protection	IP67 per EN/IEC 60529, NEMA Type 4 Enclosure

Regulatory Compliance

Radio

USA	FCC 47CFR Part 15.407
EU	ETSI EN 301 893; ETSI 302 502

Safety

USA	UL/CSA-C22.2 62368-1, UL/CSA-C22.2 60950-22
EU	EN/IEC 62368-1, EN/IEC 60950-22

EMC

USA	FCC 47CFR Part 15 Subpart B, Class B
EU	ETSI EN 301 489-1, ETSI EN 301 489-4, ETSI 301 489-17

Product Ordering Information

BX600-S (Part No.: AT-5LB5-9154)

- BX600-S PtMP Base Station
- Mounting Kit
- IP67 Cable Gland

Optional Accessories
- PoE Injector with DC Input 10VDC – 60VDC
- PoE Injector with AC Input 100VAC – 240VAC

Contact Us
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BX600S-PB-20220607

* May be limited by regulation
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