



Product Overview

Altai BX750-S is a cost-effective dual-carrier Point-to-Multipoint (PtMP) base station with an advanced beamforming antenna. It provides best-in-class radio interference mitigation and wide coverage, superior to any Access Points with a horn or uplink-only beamforming antenna.

The BX750-S is the only PtMP base station in its price range that supports an integrated bi-directional (uplink and downlink) beamforming antenna, enabling full network deployment with just two frequency channels.

Featuring PrimeCarrier for dynamic carrier selection per end-customer, the BX750-S ensures reliability and high-capacity in the heavily congested unlicensed spectrum for both uplink and downlink directions.

Offering 1.5 Gbps over a 90° sector, Altai BX750-S ensures revenue growth with lowest TCO and minimum spectrum usage, while delivering fiber-like residential services.

Product Highlights

- » Advanced beamforming antenna
- » Up to 1.5 Gbps, 6 Gbps per 4 sectors
- » Best-in-class interference immunity
- » PrimeCarrier for ultimate performance
- » Frequency reuse – 2 per network
- » Best effort class of service
- » Built-in GPS
- » WAN connectivity over SFP
- » 5 GHz band

Architecture

- Outdoor base station with integrated smart beamforming antenna and built-in GPS

Network Interface

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

Radio

- Wireless Topology: PtMP Base Station
- Maximum Capacity: 1.5 Gbps (2 x 750 Mbps) Net Aggregate Throughput
- Maximum Subscriber Units: Up to 128 / Up to 64 per Carrier
- Range: Up to 40 km
- Frequency: 4900 MHz – 5990 MHz *
- Channel Bandwidth: Configurable: 10, 20, 40, 80 MHz *
- Dynamic Bandwidth Selection: 20/40/80 MHz
- Modulation: 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 *
- Diversity: Supported
- Antenna Modes: MIMO 2x2, Diversity, Adaptive MIMO/Diversity
- Dynamic Bandwidth Mgmt.: Best Effort Service Level
- Maximum TX Power: 25 dBm *
- Encryption: AES128
- TDD Synchronization: Supported via Built-in GPS Receiver
- Uplink/Downlink Allocation: Configurable: Symmetric or Asymmetric

Antenna

- Integrated Antenna
- Gain: 17 dBi
- VSWR: 2.0: 1
- 3 dB Azimuth Beamwidth: 24° (Typical) Steered over 90 ° Sector
- 3 dB Elevation Beamwidth: 12° (Typical)
- Polarization: Dual Linear (Vertical and Horizontal)
- Sidelobes Level: -18 dB (Typical)
- Cross Polarization: -30 dB (Typical)
- F/B Ratio: 30 dB
- Port-to-Port Isolation: 35 dB (Typical)
- Lightning Protection: DC Grounded

Networking

- Sub Convergence Layer: Layer 2, Bridging Learning of 8K 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
- 802.1x: Supported
- Option 82: Supported
- DHCP Filtering: Supported
- IGMP Snooping: Supported
- PPPoE Filtering: Supported
- RADIUS Authorization: Supported
- RADIUS User Authentication: Supported
- Syslog: Supported

Physical Specification

- Dimension: 325 (w) x 340 (h) x 90 (d) mm
- Weight: 3.51 kg

Power Supply

- Power Consumption: < 35W
- Power Feeding: Power provided over ODU-IDU Cable
- PoE Nominal Voltage: 55V

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

BX750-S (Part No.: AT-5AG5-9854)

- BX750-S PtMP Base Station
- Mounting Kit
- IP67 Cable Glands

Optional Accessories

- PoE Injector with DC Input 20VDC – 60VDC
- PoE Injector with AC Input 100VAC – 240VAC

Contact Us

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** May be limited by regulation*

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