ALTAI Super WiFi

Altai B5 3.5 Wireless PTP Bridge

The Altai B5 3.5 Wireless PTP Bridge is designed to be used in Altai Super WiFi systems to provide carrier-grade ultra long range and high throughput backhaul bridging.

The Altai B5 3.5 PTP comprises of a number of high-performance antenna options which operate in both LOS and NLOS environments, in 3.5 GHz licensed frequency bands.

Featuring highest performing hardware and operating system coupled with most innovative radio technology providing with best sensitivity, increased output power across all modulations and wide dynamic range, Altai B5 3.5 PTP represents a perfectly balanced solution for any type of Point-to-Point connectivity.

Super High Throughput and Range Backhauling

LOS Bridge / B5 3.5 external antenna	80 km
LOS Bridge / B5 3.5 22 dBi antenna	30 km
Throughput	300 Mbps#

Benefits of Altai B5 3.5 Wireless PTP Bridge

The Altai B5 3.5 PTP is a wireless Point-to-Point solution which combines high-speed capability, up to 240 Mbps throughput, with a rich set of best-in-class features and benefits such as leading-edge radio protocols providing unrivalled spectral efficiency and wireless transmissions over distances in excess of 80 km.

Cost Effective to Deploy

Altai's diverse range of solutions enables service providers of all types to build higher capacity networks with even fewer network elements, thereby significantly reducing their overall CAPEX and subsequent OPEX throughout the life of their network.

Altai B5 3.5 Wireless PTP Bridge for Backhaul

The Altai B5 3.5 PTP product family is an optimal solution for mobile operators and all other service operators requiring multi-megabit capacity for their backhaul links. In all these applications, our solutions offer operational cost saving benefits such as quick deployment, ease of configuration and the ability to upgrade existing infrastructures via software download to cater for new requirements (i.e. "pay as you grow").

PTP bridge

Internet

B5 3.5 PTP bridge   B5 3.5 PTP bridge

As an integral part of our Super WiFi network infrastructure, the B5 3.5 PTP provides the following:

- Configurable 3.4 to 3.7 GHz frequency band
- Possible operational distances in excess of 80 km
- High capacity – up to 240 Mbps throughput
- 2x2 MIMO innovative technology
- "Pay as you grow" software upgradeable capacity feature

- 3.5/5/7/10/14/15/20/28/30/40 MHz channel widths
- Unique plug & play out-of-box ultra-long LOS and NLOS backhaul solution
- Gigabit Ethernet port and flexible uplink/downlink reallocation
- Advanced Quality-of-Service support, reliable and robust design

Wireless Interface

- Operating Mode   Point to Point Bridging
- Technology   MIMO 2x2 OFDM 64/128
- Modulation   BPSK 1/2 to QAM64 5/6
- Operating Frequency   3.4 to 3.7 GHz configurable
- Transmit Power   23 dBm (Max.)
- Receiver Sensitivity   -67 to -101 dBm
- Channel Bandwidth   3.5/5/7/10/14/15/20/28/30/ 40 MHz
- VoIP/ RTP Aware Superpacketing
- DFS
- Automatic Bitrate Control
- Automatic Transmit Power Control
- Automatic Distance Learning
- Channel Time Adjustment
- Spectrum Analyzer Mode
- Channel Testing Tools

Antenna

- Antenna type   2 antenna versions
  - Integrated 22 dBi Panel
  - External Antenna
- Frequency   3.5 GHz
- Polarization   Dual Polarized
- 3-dB Horizontal Beamwidth   9°
- 3-dB Vertical Beamwidth   9°
- Front-to-back Ratio   35 dB (Min.)
- Cross-polar discrimination   28 dB (Min.)

Performance

- Maximum Throughput   80, 150 and 300# Mbps License Upgradeable
- Distance   Up to 30 km
  Up to 80 km ext. antenna

Networking

- Gigabit Ethernet Port
- RS-232 Serial Port
- Ethernet-over-IP Tunneling
- ARP Protocol Support
- Fully-fledged Layer 2 Switch – Transparent Transport for MPLS, stacked VLAN etc., Multiple Switching Groups, Full VLAN, 802.1q and 802.1ad, STP/rSTP, IGMP Snooping, Trunk Groups
- RIPv2/ OSPFv2/ Static Routing
- L2/ L3 Firewall
- NAT (Multipool, H.323-aware)
- DHCP Client/ Server/ Relay
- Dynamic Adaptive Polling
- Pseudo-radio Interface

Security

- Line-speed AES128 over-the-air encryption
- Storm/ Flood Protection
- Password Protection
- Protocol Messages Encryption
- Secure Command-line Access via SSH Protocol

Management

- Web-based Administration Tool
- Command-line – SSH, Telnet, Serial Port, Remote Shell
- Remote Firmware Upgrade (HTTP, FTP)
- SNMPv1/ v3, MIB II, Private MIB
- Configurable SNMP Traps
- Automatic Over-the-Air Firmware Upgrade

Quality-of-Service

- 16 Priority Queues
- IEEE 802.1p Support
- IP TOS. DiffServ Support
- Full Voice Support
- Traffic Limiting – Absolute, Relative, Mixed
- Traffic Redirection

Physical Specification

- Dimension   370 x 370 x 85 mm for B5 3.5 22 dBi
  240 x 240 x 51 mm for B5 3.5 ext. ports
- Weight   3.7 kg for B5 3.5 22 dBi
  2.3 kg for B5 3.5 external ports

Power Supply

- Power Source   PoE Injector (48 VDC 110-240 VAC, 50/60 Hz)
- Power Consumption   30 W (Max.)

Environmental Specification

- Operating Temperature   -40 °C to +60 °C for Bridge
  0 °C to +40 °C for PoE Injector
- Humidity   100% Condensing for Bridge
  95% Non-condensing for PoE
- Wind Loading   124 mph (Survival) for B5 3.5 22 dBi
- Weatherproof   IP66 Compliant

Certification

- FCC*/ CE / Others

Product Ordering Information

Standard Package
- 2 choices of Bridge (Model No.: BR3522):
  - B5 3.5 Wireless PTP Bridge with 22 dBi Antenna
  - B5 3.5 Wireless PTP Bridge with external antenna ports
- Choices of 80, 150 or 300# Mbps maximum throughput
- PoE Injector and Mounting Accessories
- Optional 3.5 GHz External Antenna for B5 3.5 with external antenna ports

Contact Us
- Email: sales@altaitechnologies.com

 # Maximum real throughput will be capped at 240 Mbps
* Feature will be available in future release /

B5-PB-160815