BelAir
N E T W O R K S

BelAir20 Access Point

BelAir20 Access Point (AP) is the industry's highest performance and most flexible dual-radio indoor access node and provides dual-radio 802.11n capability. Offering all the same features and management as the other BelAir products, the BelAir20 provides connectivity between indoor and outdoor networks, enabling true standards-based seamless mobility for critical applications, including voice and video, as they move from outside to inside.

Dual-radio architecture

The dual-radio design of the BelAir20 provides support for concurrent 600Mbps operation using both the 2.4 and 5 GHz frequency bands. The 5 GHz frequency band can fully mesh with other indoor or outdoor 5 GHz radios available on any of the BelAir products.

Wireless radio modules

The BelAir20 is available in both single radio and dual radio options. The dual radio variant includes one dual band 2.4/5 GHz and one single band 2.4 GHz radio module. The single radio variant provides one 2.4/5 GHz module. Both radio modules support the IEEE 802.11n Draft 2.0 and can be software upgraded as the specification is finalized. Each radio supports full 3x3 MIMO operation. The BelAir20 also supports 802.11a/b/g operation for full compatibility with legacy clients.

Mesh and Layer 2 networking capabilities

The BelAir20 has an integrated Layer 2 network processor that runs all the BelAirOS features including extensive WMM, QoS, VLAN, Network Security and Traffic Management capabilities, necessary for transporting mission critical, time-sensitive applications like voice and video. It also runs all the state of the art mesh networking features that BelAir has developed for its industry leading outdoor products, enabling easy wireless interconnection of multiple indoor nodes or bridging of indoor and outdoor networks.

Network Management

The BelAir20 can be managed using all the powerful BelAirOS management tools including the BelAirOS Command Line Interface (CLI), Web GUI or with BelAir Networks BelView. Both CLI and Web GUI provide device

Features
- Dual-radio concurrent 600Mbps architecture
- Supports IEEE 802.11a/b/g/n
- Supports all BelAirOS networking features
- Network management via CLI, Web or BelView
- Can be 802.3af PoE or AC powered – with both radios active
- Very compact package with single set of antennas for unobtrusive deployment
- Wall, ceiling, plenum or desk mount
- 10/100/1000BaseT Ethernet interface

Radio module options
- Single radio 2.4/5 GHz variant
- Dual radio 2.4/5 + 2.4 GHz variant

level support, and BelView provides complete network-wide support for Fault, Configuration and Performance Management. BelView works on either Windows XP or SUN Solaris platforms and can also be integrated into other management systems like HP OpenView or IBM NetView.

BelAir Networks is the trusted brand of the world's most demanding customers.

Networking
- 1-port 10/100/1000Base-TX (Cat.5 RJ-45)
- IEEE 802.1D MAC Bridging
- IEEE 802.1Q VLANs
- IEEE 802.1w (RSTP)
- IEEE 802.1p prioritization with 4 queues
- L2TP Tunneling for seamless mobility
- 16 SSIDs per access radio. MBSSID support for 8 virtual APs per access radio
- Support for SNTP, ICMP, HTTP, ARP, TCP, UDP, Telnet, TFTP and IP traffic

Management
- Secure local and remote access
- Command line, HTTP and HTTPS Web GUI, SNMPv1/v2/v3 and SSHv2 management interfaces
- MIBs: MIB-II, SNMPv2, 802.11, Ethernet-like, Interface Group
- Multiple user privilege levels with RADIUS authentication
- Firmware upgrade through TFTP with support for automatic rollback
- RADIUS accounting

Security
- WPA and WPA2 compliant
- Authentication: 802.1x (RADIUS) and EAP methods
- Encryption: WEP 64 and 128 bit, TKIP / MIC per 802.1x, 802.11i AES
- MAC address access control lists
- Rogue AP detection

Radios
- 2400~2483.5 MHz (for US, Canada, ETSI, Japan)
- 5150~5350 5470~5725 5725~5825 MHz (for US, Canada)
- 4900~5000 5030~5091 5150~5250 MHz (for Japan)
- 5150~5350 5470~5725 5725~5875 MHz (for ETSI)

 Output power
    2.4GHz (±2dBm)
- 802.11n 2.4GHz
- *HT20:20dBM (MSC0,MSC8) 15dBm (MSC7,MCS15)
- *HT40: 20dBM (MSC0,MSC8) 14dBm (MSC7,MCS15)
- 802.11b: 21dBm@1Mbps, 21dBm@11Mbps
- 802.11g: 20dBm@6Mbps, 20dBm@18Mbps, 16dBm@54Mbps

    5GHz (±2dBm)
- 802.11n 5GHz
- *HT20:18dBM (MSC0,MSC8) 11dBm (MSC7,MCS15)
- *HT40: 19dBM (MSC0,MSC8) 11dBm (MSC7,MCS15)
- 802.11a: 18dBm@6Mbps, 18dBm@18Mbps, 16dBm@54Mbps

Sensitivity
    2.4GHz (3RX)
- 802.11n 2.4GHz
- *HT20:-88dBM (MSC0), -74dBm (MSC7)
- *HT40: -87dBM (MSC0), -70dBm (MSC7)
- 802.11b: -92dBm@1Mbps, -87dBm@11Mbps
- 802.11g: -89dBm@6Mbps, -84dBm@18Mbps, -77dBm@54Mbps

    5GHz (3RX)
- 802.11n 5GHz
- *HT20:-87dBM (MSC0), -71dBm (MSC7)
- *HT40: -85dBM (MSC0), -70dBm (MSC7)
- 802.11a: -88dBm@6Mbps, -81dBm@18Mbps, -70dBm@54Mbps

Approvals
- Radio: FCC part 15 and part 27, ETSI EN 300 328, EN 300 440, EN 301 893 and Industry Canada RSS 210 Issue 5
- EMC: FCC 47 CFR part 15, subpart B Class B and EN 301 489-1/-17 Class B
- Safety: ANSI/UL std no.60950-1, CSA-C22.2 std no. 60950-1, CB-60950-1
- RF safety: FCC OET Bulletin 65, Health Canada Safety code 6
- CE! mark

Physical and Electrical
- Dimensions (W x D x H): 210mm x 125mm x 25mm
- LED Indicators: RF-1, RF-2, LAN, PWR
- PoE Nominal Input Voltages: 48V/0.35A
- AC/DC Power adapter: Input:100~240ACV, Output: 48V/0.8A
- Wall, ceiling, plenum and desk mountable

Environmental
- Temperature/Humidity: Operation (-20° ~ 50°C), storage (-20° ~ 70° C), Humidity: Max 95%
- Environment Vibration: IEC 68 part, test Ee& Fh,
- Environment Shock: IEC 68-2-29, ASTM D3332
- Drop: IEC 68-2-32, or ISO 4180/2
- Altitude: IEC 68-2-40 test Z/AM, IEC 68-2-41 test Z/AMD
- Acoustic: ISO 7779, IS
- Plenum: UL2043

BelAir20 Shipped with:
- BelAir20 – Qty 1
- Antennas – Qty 3
- AC Power Cord –110V US interface – Qty 1
- Power Supply – Qty 1
- Ceiling and Wall Mounting Bracket – Qty 1
- Installation Quick Guide – Qty 1

BelAir
N E T W O R K S

To find out more, contact BelAir Networks:
info@belairnetworks.com
sales@belairnetworks.com
1-877-BelAir1 (1-877-235-2471)
1-613-254-7070
www.belairnetworks.com

BDMA02010-A01