InscapeData

THE LEADING OUTDOOR NETWORK APPLIANCE COMPANY
Total Turnkey Solutions for Outdoor PoE, Wired/Wireless, and IP Video Applications

AirEther™ BR3000

802.11a/b/g/n MIMO Outdoor Wireless Bridge/Backhaul

- AES-based & IEEE802.1x
- Carrier Class
- Multimedia & QoS
- FIPS 140-2 Level 2 Supported
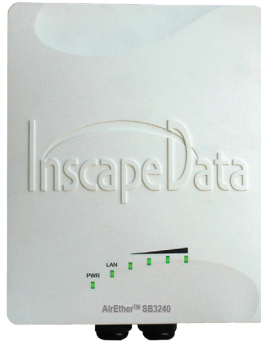
The AirEther BR3000 802.11a/b/g/n MIMO Outdoor Wireless Bridge is a family of high performance carrier class outdoor wireless bridge system with an integrated 5Ghz 18dBi panel antenna that delivers maximum network performance from 300Mbps on Solo model to aggregated 600Mbps bandwidth on the Duet/Trio models for point to point and point to multi-point high bandwidth multimedia communications, e.g., video security, or long range communication backhauls. The BR3000 outdoor radio product family consists of the following three models:

BR3500 – 802.11 a/n MIMO Outdoor Wireless Bridge
  o One 5GHz high power radio, 26 dBm transmit power per radio per chain
  o Two external antenna connectors
  o 300Mbps Bandwidth

BR3500 Duo – 802.11 a/n MIMO Dual Radio Outdoor Wireless Bridge
  o Two 5GHz high power radio, 26 dBm transmit power per radios per chain
  o Four external antenna connectors
  o 600Mbps Aggregated Bandwidth

BR3500 Pro – 802.11 a/n MIMO Outdoor Wireless Bridge
  o One 5GHz high power radio, 26 dBm transmit power per radio per chain
  o One integrated 5GHz 18dBi dual polarity patch antenna
  o 300Mbps Bandwidth

BR3500 Duo Pro – 802.11 a/n MIMO Dual Radio Outdoor Wireless Bridge
  o Two 5GHz high power radio, 26 dBm transmit power per radios per chain
  o One integrated 5GHz 18dBi dual polarity patch antenna (Pro only)
  o Two external antenna connectors
  o 600Mbps Aggregated Bandwidth

The AirEther BR3000 outdoor radio system is built with a diecast aluminum enclosure that is designed to compliant to IP68 outdoor rating and is capable of withstanding exposure to high and low temperatures, persistent moisture and precipitation, and is fully sealed for protection from airborne contaminants. All electrical interfaces include industrial-strength surge protection. With wall and mast mounting options, the BR3000 is built to provide years of trouble-free operation.

The AirEther BR3000 outdoor radio system is designed with the Power over Ethernet (PoE) feature and operates from a 100-240 volt AC power source, which allows power and data transmitted over a single network cable. This capability provides for simple, convenient installation. Furthermore, when you use the LPS1000/2000/3000 Outdoor PoE Switch and networking with any of the AirGoggle NVC Series H.264 and Mega-pixel Cameras, all the wireless devices and the cameras are networked within a single outdoor LAN (Local Area Network). It becomes much easier to manage, integrate, install, maintain, and troubleshoot. Based on Inscape Data's patent-pending technology, our new Outdoor PoE Switch greatly lessens challenges for outdoor LAN design, integration, and deployment.

KEY FEATURES & BENEFITS

Secure and Scalable
- AES-based, the wireless bridge link is secure and can scale to support multiple networks segmented by VLANs

High Performance MIMO Radio
- High power radio(s) and integrated 18dBi 5GHz panel antenna for immediate long range bridge deployment
- Idea for hotels and resorts, ideal for schools, stadiums, parking lots, and other outdoor sports facilities
- Excellent for large enterprises or warehouses that have shipping docks and other outdoor areas

Multimedia and QoS (Qualify of Service) Support
- Support Quality of Service based on the IEEE 802.11e standard
- Improve the user experience for audio, video, and voice applications by prioritizing data traffic
- Up to 16 BSSIDs with unique QoS and security policies can be configured

FIPS-140-2 Security Supported
- This product supports the federal information processing standard (FIPS-140-2) cryptographic module to be used for sensitive government and healthcare applications.
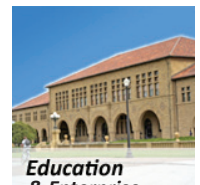
Ruggedized Enclosure For Harsh Outdoor Environments
- IP68 compliant plastic/diecast enclosure for long term durable outdoor deployment
- Outdoor grade enclosure supporting operating temperature between -40° C to 75° C
- Two or four external N-type antenna connectors
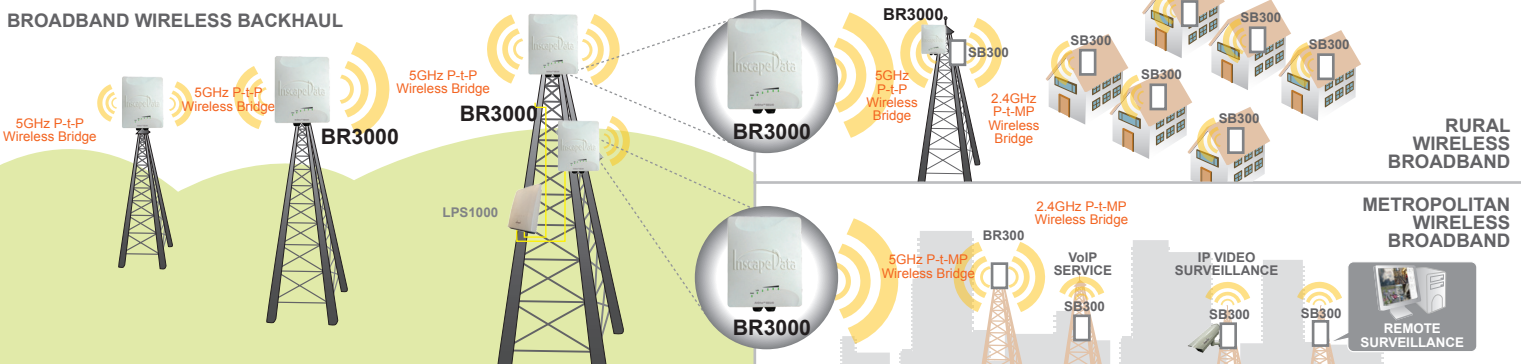
Easy Installation and Paring
- Simplified wiring by PoE support for 100 ~ 240 volt AC power source
- Sophisticated LED and aiming software with additional Signal strengthen indicator for more effective paring and aiming between the bridge stations
- Flexible wall and mast mounting options

APPLICATIONS

Security Surveillance Over Wireless

Education & Enterprise

Carriers

Government

SYSTEM CONFIGURATIONS

BROADBAND WIRELESS BACKHAUL

5GHz P-t-P Wireless Bridge

BR3000

LPS1000

BR3000

BR3000

5GHz P-t-P Wireless Bridge

2.4GHz P-t-MP Wireless Bridge

SB300

RURAL WIRELESS BROADBAND

METROPOLITAN WIRELESS BROADBAND

2.4GHz P-t-MP Wireless Bridge

5GHz P-t-MP Wireless Bridge

BR300

VoIP SERVICE

IP VIDEO SURVEILLANCE

SB300

REMOTE SURVEILLANCE

Software	
	IEEE 802.11 a
	IEEE 802.11 b/g (Trio Model only)
	IEEE802.11n
	Auto Channel Selection
	Wireless Channels Support
	Channel Bandwidth Support
	Country Selection
	Preamble Type
	RTS Threshold Adjustment
	Channel Spectrum Width, 5 / 10 / 20 / 40MHz
	Beacon Interval Adjustment
	SSID assignment
	MultiSSID (4 Virtual AP)
	VLAN Management Port/IP
	VLAN Per SSID
	Client BSSID assignment
	Short Slot time support
	IEEE 802.11d transparent Bridge
	Station Connection Info
Wireless	CTS-only & CTS/RTS protect mechanism support
	WMM support
	Bandwidth control
	Transmit Data Rate Lock (Auto, 54, 36, etc..)
	Client Limiting Feature
	TPC (Transmit Power Control) Support in dBm
	RSSI Values in dBm
	RF Site Survey
	Burst Mode
	User Adjustable ACK Timing
	Auto Adjust for Slottime, ACK Timeout, CTS Timeout
	Signal Strength Indicator (4 Levels)
	Max Data Rate per 300Mbps
	Remote AP-Preferred MAC
	Remote AP Lock
	Channel Scan List
	Rate Aggressiveness
	CTS Timeout
	Signal Strength Indicator
	Noise Immunity
	Enable/Disable Radio
	Antenna Selection, Ant 1, Ant2, 2x2
	DHCP Client
	DHCP Server
	AP
Operation Mode	PTMP Bridge
	Repeater Mode
	AP Client
	WDS
	Router
	Http User Name and Password
	Read Only Account
	HTTPS
Security	Access Control List, i.e (None/Accept/Deny)
	IEEE802.1x
	Wireless Station Isolation
	Hide SSID
	802.11i (AES)
	NIST FIPS-140-2 Level 2
	NTP
	Bridged Station List
	Site Survey
	HTTP Web based configuration
	Selectable HTTP port
	Fallback IP
	Static, DHCP Client, PPPoE
	Message Log
Management	Configuration Management (Backup/Restore System File)
	Statistics support
	Telnet
	SSH
	SNMP v2c
	Ping Watchdog
	Auto-Reboot
	Host Name
	Auto Provision
	Device Search, IP Locator
Firmware Upgrade	HTTP Network Protocol Download
	Configuration Retention after FW Upgrade

Network	
	NAT
	VPN Pass Through
	STP
	DMZ
	IP/Port Forwarding
	Static Routing
	RIP v1 & V2
	VLAN Tag support
	Firewall
	UPnp
	Multicast Routing
	Protocols Support,

Housing	
	LED
	PWR, LAN, WLAN
	4-Level Signal Strengthen LED
	LAN Port (1) , WAN Port (1)
	Adjustable Pan/Tilt Bracket
	No of Extenernal Antenna Connector (0,2, or 4 per model)
	WAN Port with PoE Enable, IEEE802.3af (48V ~ 56V)
	IP 68 Rating

System Compliance	FCC, CE, ROHS, ETSI, Japan

SYSTEM DIMENSIONS & INTERFACES

Height: 9.6" (244mm)

Width: 7.9" (201mm)

Depth: 3.25" (83mm)

ACCESSORIES

Power

PIA200
Gigabit PoE Injector

Cables

AC100
1M Low Loss
Antenna Cable
N-Male to N-Male

WC002
Waterproof
Connector Set

WC25, WC75, WC100
25Ft, 75Ft, and 100Ft CAT5
Outdoor Grade Ethernet Cables

Antenna Options

Omni-Directional Antenna

OA09	OA12	OA15
2.4GHz	2.4GHz	2.4GHz
9dBi	12dBi	15dBi

Panel MIMO Antenna (Dual Polarity)

PA12M	PA18M	PA21M	PA5G14M	PA5G18M
2.4GHz	2.4GHz	2.4GHz	5GHz	5GHz
12dBi	18dBi	21dBi	14dBi	18dBi

Parabolic Dish MIMO Antenna (Dual Polarity)

DA5G25M	DA5G28M	DA5G32M
5GHz	5GHz	5GHz
25dBi	28dBi	32dBi

PACKAGE CONTENT

1. AirEther BR3000 Series Unit
2. PoE DC Injector with internal switching power supply
3. Product CDROM
4. Mounting Kit: MWMK001 Bracket Mounting Kit
5. Warranty Information Sheet
6. Weatherproof Connector Set
7. Ground Cable

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System Reference Diagram

The BR3000 Solo offers one 2x2 MIMO radio. When paired with one MIMO high gain antennas, provides high capacity one to point or point to multipoint 300 mbps backhaul. Typical deployment looks like the following:
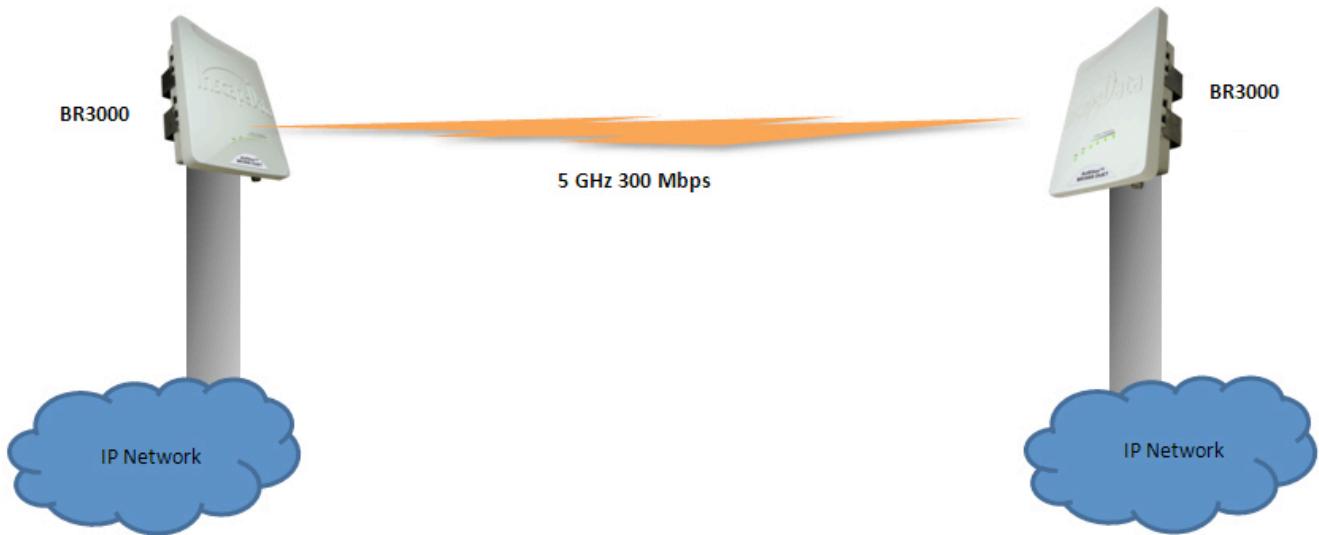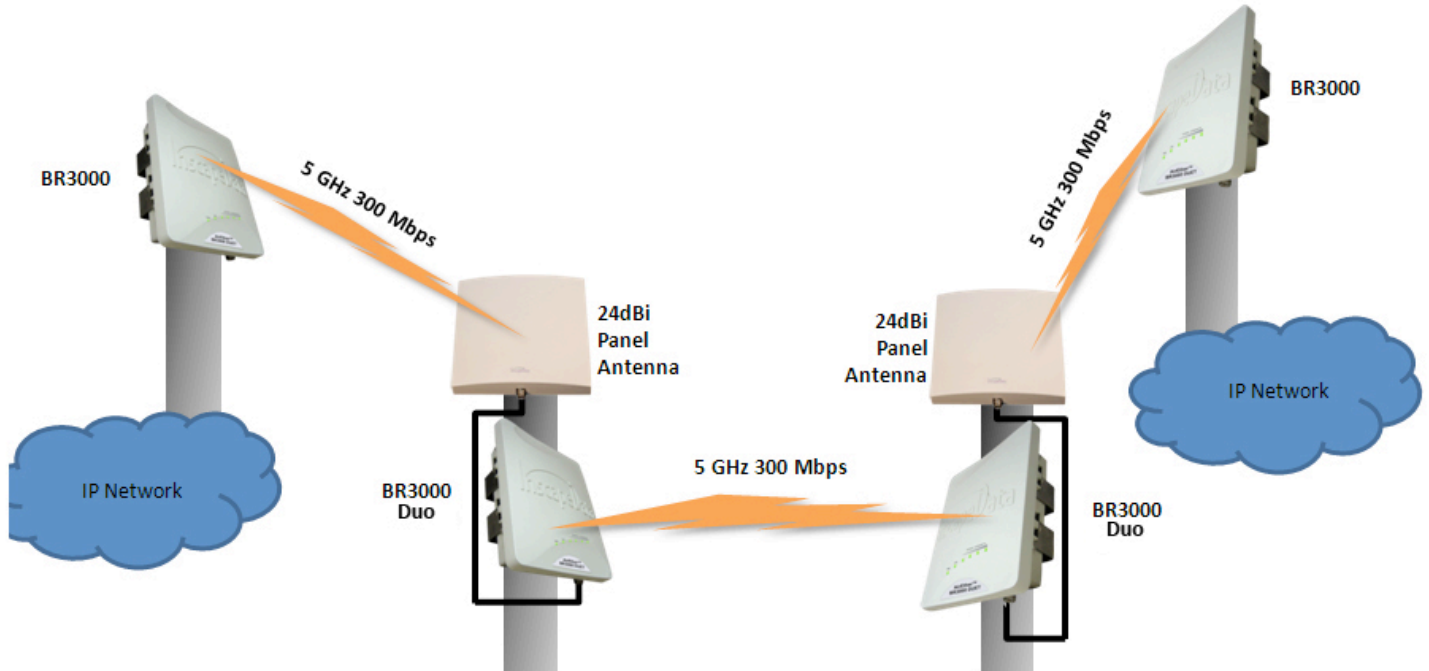

Applications:

1. Large Video Security Application

2. Enterprise Backhaul

3. Federal & Government

4. Education, e.g., Larger Campus

5. Carrier

System Reference Diagram

The BR3000 Duo offers two 2x2 MIMO radio. When paired with two MIMO high gain antennas, provides 600mbps aggregated data rate, double the amount offered in the BR3000 Solo. Typical deployment looks like the following:

Applications:

1. Large Video Security Application

2. Enterprise Backhaul

3. Federal & Government

4. Education, e.g., Larger Campus

5. Carrier