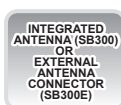


AirEther™ SB300/SB300E

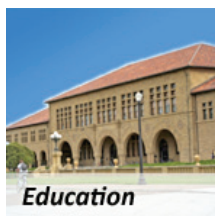
802.11b/g/n MIMO Outdoor AP/Router/Bridge System



Inscape Data's AirEther™ SB300 802.11b/g/n 2x2 MIMO Outdoor AP/Router/Bridge/Repeater System is designed for long-range wireless broadband access solution for fixed or mobile networks. Based on the IEEE 802.11b/g/n standards operating on 2.4GHz frequency, the AirEther SB300 and SB300E are the ideal cost-effective solutions for campus or city wide wireless to support WiFi enabled smart phones, tablet computers, notebook computers, and mobile devices. The SB300 product is capable of operating in multiple modes including: access point bridge, access point router, bridge, and repeater. The SB300 offers an integrated 12dBi antenna while the SB300E offers two external type N antenna connectors. The ruggedness of IP68 rated enclosure and extreme temperature ratings along with host of product features makes the AirEther SB300 System the product choice for Wifi mobility applications.

Our AirEther wireless products are designed with the Power over Ethernet (PoE) feature, which allows power and data transmitted over a single network cable. This capability provides for simple, convenient installation. When you use with one of the Inscape Data LPS1000/2000/3000 Outdoor PoE Switch products and network with any of the NVC Series 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.

APPLICATIONS



KEY FEATURES & BENEFITS

Industrial Quality

Long range wireless solutions built with industrial components offering high reliability, availability, and low maintenance. The IP68 compliant weatherproof enclosure, military type antenna connectors, and extreme weather rating electronic components continue to perform in the most extreme weather conditions.

License Free Long Range Operation

Software Selectable 2.4 GHz operation offers over 20 non-overlapping channels for the most flexible interference free application scenario without the need for regulatory frequency licensing.

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.

Integrated 12dBi 2.4GHz 2x2 MiMo Antenna (SB300 Only)

Internal 2.4GHz antenna offers up to 300 mbps data rate in an easy to install form factor.

Industrial external N-type antenna connector (SB300E Only)

Two external antenna connectors for 2.4Ghz omni-directional, sector, or high gain antenna.

* Product photo shown with optional dual 9dBi omni-directional antenna

Wireless Multimedia

Based on the IEEE 802.11e standard, Wireless multimedia (WMM) provides enhancement for voice and video over IP applications

Multifunctional Signal Strength LED

Six easy to read signal strength LED offers easy alignment and system configuration

Multi-Mode Configuration

Single device with up to four modes of operation: IEEE compliant 802.11b/g/n Access Point, Wireless Bridge, Wireless Repeater, and Wireless Router

Power over Ethernet

The built-in 24VDC Passive PoE feature eliminates power connection at the camera location. This eliminates the need of running an additional power line cable.

Integrated Wireless Interference Utility

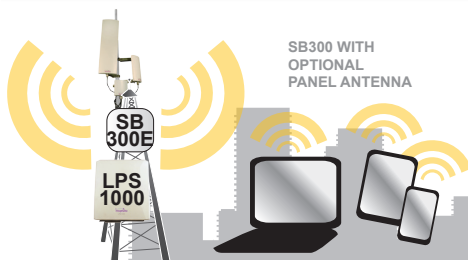
Wireless interference utility built into every radio for simplified frequency planning and installation.

Secure Wireless Transmission

Equipped with Government Strength Advance Encryption System (AES), transmission of top level information is highly secure with the AirEther outdoor wireless system.

SYSTEM CONFIGURATIONS

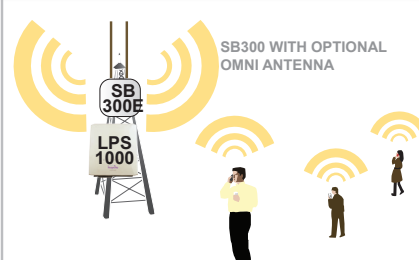
City Wide Wifi



Outdoor Wireless Internet Service



Outdoor Wireless VoIP Service



TECHNICAL SPECIFICATIONS : SB300

SYSTEM DIMENSIONS & INTERFACES

RX SPECIFICATIONS							
	DataRate	Sensitivity (2 chains)	Tolerance		DataRate	Sensitivity (2 chains)	Tolerance
802.11g	6 Mbps	-96dBm	±2dB	802.11g	24Mbps	-90dBm	±2dB
	9 Mbps	-96dBm	±2dB		38Mbps	-87dBm	±2dB
	12 Mbps	-95dBm	±2dB		48Mbps	-83dBm	±2dB
	18 Mbps	-93dBm	±2dB		54Mbps	-81dBm	±2dB
2.4GHz 11n HT20	MCS0	-96dBm	±2dB	2.4GHz 11n HT40	MCS0	-92dBm	±2dB
	MCS1	-94dBm	±2dB		MCS1	-90dBm	±2dB
	MCS2	-91dBm	±2dB		MCS2	-87dBm	±2dB
	MCS3	-87dBm	±2dB		MCS3	-86dBm	±2dB
	MCS4	-85dBm	±2dB		MCS4	-84dBm	±2dB
	MCS5	-82dBm	±2dB		MCS5	-82dBm	±2dB
	MCS6	-81dBm	±2dB		MCS6	-81dBm	±2dB
	MCS7	-79dBm	±2dB		MCS7	-77dBm	±2dB
Wireless							
Standards			IEEE 802.11 b/g/n, 802.11h TPC, DFS, 802.11d, 802.11x, 802.11i				
Data Rates			300 mbps				
Radio Chains			2 x 2 Spatial Multiplexing				
Spatial Streams			2				
RF Transmit Power			23 dBm / 200 mW				
Channel Width			• 20MHz • 40MHz				
Frequency Band			• 2.412GHz ~ 2.462GHz (US & Canada) • 2.412GHz ~ 2.484GHz (Japan) • 2.412GHz ~ 2.472GHz (Europe)				
Modulation			• OFDM: BPSK, QPSK, 16-QAM, 64-QAM • DSSS: DBPSK, DQPSK, CCK				
Opearting Channels			• 2.4 GHz channels: US/Canada: 1-11, Europe (ETSI X30): 1-13 • 802.11g 6m @ -94dBm, 54m @ -78dBm				
Receiver Sensitivity			• 802.11n 2.4G HT20 MCS0 @ -93dBm, MCS7 @ -73dBm • 802.11n 2.4G HT40 MCS0 @ -90dBm, MCS7 @ -71dBm				
BSSID			4				
Wireless Security			• WPA, WPA2, PSK, RADIUS • AES-CCMP, TKIP, 64/128/152Bit WEP • 802.11x • 802.11i AES • Hide SSID • Client Isolation • NIST FIPS-140-2 Level 2				
Quality of Service Management			Wireless Multimedia				
Device Reset			• Push Button • IP Locator Utility				
Operation Mode			• DHCP Client • DHCP Server • Bandwidth Control • Access Point • Point to Point & Multipoint Bridge • Repeater Mode • Access Point Client • WDS • Router				
Security			• HTTP or HTTPS login • Read Only Account • ACL List • NIST FIPS-140-2 Level 2				
Configuration			• NTP • Bridged Station List • Site Survey • HTTP Web based configuration • fallback IP • Static, DHCP Client, PPPoE • Message Log • Configuration file backup/Restore • Statistics support • Telnet • SSH • SNMP v2c • Ping Watchdog • Auto-Reboot • Host Name • VPN Pass Through				
Device Upgrade			Web Based via Software				
Network			• NAT • STP • DMZ • IP/Port Forwarding • Static Routing • RIP v1 & V2 • VLAN Tag support • Firewall • UPnp • Multicast Routing • 128 Maximum Ethernet Clients Supported				
Operating System			Windows 7, Windows Vista, Windows XP, Windows 2000				
Physical & Environmental							
Weatherproof PoE Port			1				
Integrated Antenna			12 dBi 2.4GHz 2 x 2 MIMO Panel Antenna				
Type N Antenna Connector (SB300E Only)			2				
LED Indicator			Power, WLAN, LAN, Signal Strength				
Humidity			Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)				
Temperature			Operating: -40°C to +85°C Storage: -40°C to 90°C				
Device Dimension			7.50" x 4.73" x 1.84"				
Package Shipping Weight			5 lbs				
Power							
Standby			4 W				
Max Consumption			5.7 W				
Passive PoE			4,5(+), 7,8 (-) Input Range 9V - 24V DC				
PIP100 PoE Injector			1 x RJ45 In (Data 1,2,3,6) 1 x RJ45 Out (Data 1,2,3,6, Power 4,5 (+), 7,8(-) 1 x 2.5mm Barrel Jack for 24VDC Input				
Max PoE Cable Length			100 meters / 300 feet @ 24VDC				
Compliance							
Wireless			FCC, CE, ETSI, Japan				
Mechanical			IP68, ROHS				

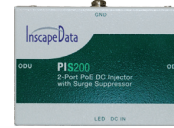
Dimensions
a. 7.5 inches
b. 4.73 inches
c. 1.84 inches

Interface
1. Signal Strength LED
2. Power, LAN, WLAN Status LED
3. Type N Antenna Interface (SB300E Only)
4. RJ45 Female Power over Ethernet Interface
5. Earth Ground Port



ACCESSORIES

PIS200
Dual-Port DC PoE Injector
with Surge Suppressor



PES100
1-Port PoE
Surge Suppressor



LSS0001
RF Lighting Arrestor
(0 to 6GHz)



WC002
Waterproof
Connector Set



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



WC Series
Outdoor UV protected 25, 50, 75, 100 FT
CAT5 Network Cable



OA Series Omni-Directional Antenna



OA05
2.4GHz 5dBi



OA09
2.4GHz 9dBi



OA12
2.4GHz 12dBi

PA Series Panel Antenna



PA21MM
2x2 MIMO 2.4GHz 21dBi

GA Series Parabolic-Grid Antenna



GA24MIMO
2x2 MIMO 2.4GHz 24dBi



GA21MIMO
2x2 MIMO 2.4GHz 21dBi

COMPATIBILITY

- LPS2000/3000 5-Port Gigabit Managed and Non-Managed PoE Switches
- LPS1000 Adjustable Voltage Outdoor 5-Port PoE Switch
- BR300 802.11a/n MIMO Outdoor AP/Router/Bridge/Repeater System
- NVC IP Video Camera
- NVS IP Video Server

PACKAGE CONTENT

1. SB300 or SB300E
 2. 24VDC AC/DC Power Adapter
 3. WC002 Weatherproof Connector Set
 4. PIP100 1-Port DC PoE Injector
 5. User Manual Resource Disc
 6. Pole Mount Bracket System
 7. Installation Guide and Warranty
- * Antennas Not Included



THE LEADING
OUTDOOR NETWORK
APPLIANCE COMPANY

Product Information Online: <http://www.inscapedata.com/sb300.htm>

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