InscapeData

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

AirEther™ SB300E

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

INDUSTRIAL QUALITY

INTEGRATED ANTENNA (SB300) OR EXTERNAL ANTENNA CONNECTOR (SB300E)

MULTIFUNCTIONAL SIGNAL STRENGTH LED

2x2 MIMO 300Mbps Bandwidth

Inscape Data's AirEther™ SB300E 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 SB300E is 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 SB300E product is capable of operating in multiple modes including: access point bridge, access point router, bridge, and repeater. 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 SB300E 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

Hospitality

Education

Small Business

Mall/Restuarants

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.

Industrial external N-type antenna connector
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 12VDC Passive PoE feature eliminates power connection at the camera location. This eliminates the need of running an additional power line cable.
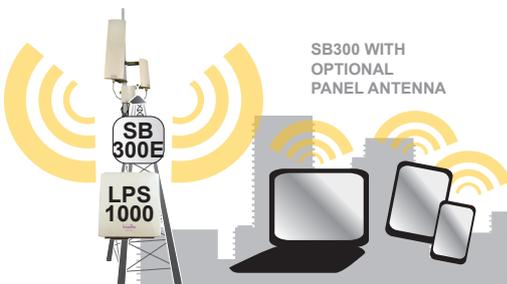
Integrated Wireless Interference Utility
Wireless interference utility built into every radio for simplified frequency planning and installation.

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.
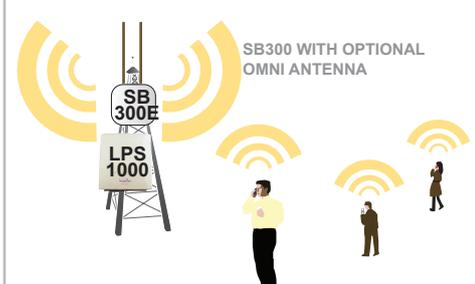
SYSTEM CONFIGURATIONS

City Wide Wifi
SB300 WITH OPTIONAL PANEL ANTENNA

SB 300E
LPS 1000

Outdoor Wireless Internet Service
SB300 WITH OPTIONAL SECTOR ANTENNA

SB 300E
LPS 1000
BR 300 BR 300 BR 300
WWW

Outdoor Wireless VoIP Service
SB300 WITH OPTIONAL OMNI ANTENNA

SB 300E
LPS 1000

TECHNICAL SPECIFICATIONS : SB300

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
Receiver Sensitivity	• 802.11g 6m @ -94dBm, 54m @ -78dBm • 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	Wireless Multimedia

Management

Device Reset	• Push Button • IP Locator Utility
Operation Mode	• DHCP Client • DHCP Server • Bandwidth Control • Acess 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
Type N Antenna Connector	2
LED Indicator	Power, WLAN, LAN, Signal Strength
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)
Temperature	Operating: -40ºC to +85ºC Storage: -40ºC to 90ºC
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

SYSTEM DIMENSIONS

Height: 9.6" (244mm)

Width: 7.9" (201mm)

Depth: 3.25" (83mm)

ACCESSORIES

PIS200
Dual-Port DC PoE Injector
with Surge Suppressor

LSS0001
RF Lighting Arrestor
(0 to 6GHz)

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

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

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

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. SB300E
2. 12VDC AC/DC Power Adapter
3. WC002 Weatherproof Connector Set
4. PIS100 1-Port DC PoE Injector with Surge Suppressor
5. User Manual Resource Disc
6. A Pair of 4" Stainless Worm Gear Hose Clamp for Mast Mounting
7. Installation Guide and Warranty
* Antennas Not Included

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

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