



AirEther™ SB54 Dual Band Outdoor Wireless Bridge, Access Point, Repeater

Inscape Data's AirEther™ SB54 Dual Band Outdoor Wireless Bridge, Access Point, Repeater product is designed for outdoor long-range wireless communication up to 50km. Based on the IEEE 802.11 a/b/g standards operating on 2.4GHz or 5GHz frequency with peak transmit power up to 500mW* and 300mW* respectively. The AirEther SB54 is an ideal cost-effective solutions for building-to-building wireless communications, parking lot security, and last-mile internet subscriber applications. The SB54 product is capable of operating at one of the four modes: Access Point, Wireless Bridge, Repeater, or Client Bridge. The ruggedness of IP68 rated enclosure and extreme temperature ratings along with host of product features makes the AirEther SB54 the product choice for long range wireless networking and IP video security applications.

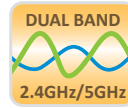
Our AirEther SB54 products are designed with the Power over Ethernet (PoE) feature, which allows power and data transmitted over a single network cable. This capability provides for simple, convenient installation. When you use the LPS1000 Outdoor PoE Switch and networking with any of the NVC Series 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.

*For continuous power specification at various wireless data rates, please refer to backside of datasheet.

Key Features & Benefits



Carrier Class Quality
 Carrier class broadband wireless access solution provides scalability, reliability, and superior performance in the most challenging environments.



License Free Long Range Dual Band Operation
 Software Selectable 2.4 GHz or 5 GHz operation offers over 20 non-overlapping channels for the most flexible interference free application scenario without the need for regulatory frequency licensing.



Internal and External Antenna Selection
 Embedded 12 dBi 2.4 GHz antenna offers nominal wireless range. If extended range up to 50km is desired, the use of external 2.4 GHz or 5GHz antenna is optional.



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

Rugged Outdoor Weatherproof Design
 The IP68 compliant weatherproof enclosure, connectors, and extreme weather rating electronic components continue to perform in the most extreme weather conditions.

Multi-Mode Configuration
 Single device with up to four modes of operation: IEEE compliant 802.11a/b/g Access Point, Wireless Bridge, Wireless Repeater, and IEEE compliant 802.11a/b/g Client.

Power over Ethernet
 The built-in PoE feature eliminates power connection at the camera location. This eliminates the need of running an additional power line cable.

Integrated RF Site Survey Tool
 RF wireless site survey tool 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.

Applications



WIRELESS VIDEO SECURITY
 For hard to wire video applications, Inscape Data outdoor antenna system economically transmit and receive sensitive security images to secure parking lots, property perimeter, and even the most remote places.



WIRELESS INFRASTRUCTURE
 Complete outdoor wireless infrastructure solutions from Inscape Data catering to wireless internet service providers, municipalities, SCADA, wireless machine to machine, telemetry, institutions, campuses, and more. Inscape Data is your one-stop source for high performance economical wireless base station solutions.



WIRELESS NETWORK SOLUTIONS
 Building to building wireless connectivity or point to multipoint wireless bridges, Inscape Data outdoor wireless system provides high reliability and performance for the most demanding wireless networking applications.



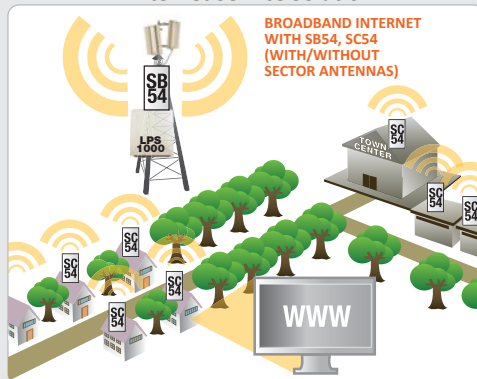
CARRIER SOLUTIONS
 Inscape Data outdoor long range wireless solutions provide the best in class 2.4 GHz and 5.8 GHz IP bridge system. The high performance characteristics keep the carrier wide-band high capacity backhaul and wireless transmission networks moving in the most extreme weather conditions.

System Configurations

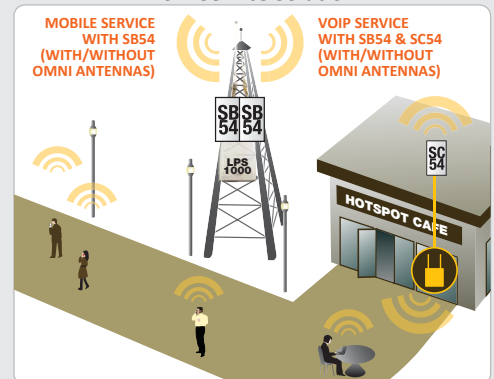
Outdoor Wireless IP Video Surveillance Solution



Outdoor Wireless Internet Service Solution



Outdoor Wireless VoIP Service Solution



Technical Specifications

SB54

Hardware	
Enclosure Protection	IP68 Compliant
Environmental	-40°C to +85°C
Humidity	95% @ 55°C
Frequency	2.412 ~ 2.477 GHz, 5.180 ~ 5.250 GHz, 5.260 ~ 5.320 GHz, 5.745 ~ 5.825 GHz
LAN port	1
Number of Radio	1
Operating Channels	IEEE802.11 b/g: 1 ~ 11 Channels (America), 1 ~ 13 Channels (General Europe), 1 ~ 14 Channels (Japan) IEEE802.11a: 4 Channels (Japan), 19 Channels (Europe), 18 Channels (USA)
Modulation	OFDM (64-QAM, QPSK, BPSK / DSSS (DBPSK, DQPSK, CCK))
Transmit Power 802.11a**	19dBm @ 6-24Mbps, 18dBm @ 36Mbps, 17dBm @ 48Mbps, 16dBm @ 54Mbps
Transmit Power 802.11g**	25dBm @ 6-24Mbps, 23dBm @ 36Mbps, 22dBm @ 48Mbps, 21dBm @ 54Mbps
Transmit Power 802.11b**	25dBm
Receiver Sensitivity 802.11a	-92dBm @ 6-24Mbps, -80dBm @ 36Mbps, -76dBm @ 48Mbps, -72dBm @ 54Mbps
Receiver Sensitivity 802.11g	-92dBm @ 6-24Mbps, -80dBm @ 36Mbps, -76dBm @ 48Mbps, -72dBm @ 54Mbps
Receiver Sensitivity 802.11b	-96dBm @ 1Mbps, -95dBm @ 2Mbps, -93dBm @ 5.5Mbps, -92dBm @ 11Mbps
Software	
Wireless	802.11R IEEE 802.11a IEEE 802.11 b/g Wireless Channel Support Country Selection: FCC, ETSI, Japan SSID assignment Client BSSID assignment WMM Support Bandwidth Control: UP/DOWN kbps 802.11g Only Support TPC (Transmit Power Control) Support: 5 Steps RSSI (dBm) RF Site Survey Burst Mode Maximum Range (Use of External Antenna): 50km
Operation Mode	AP: 64 Stations PTMP Bridge - No AP (AP + PTMP Bridge) WDS Client
Security	Http User Name & Password Access Control List, i.e (None/Accept/Deny) 802.1x Support, i.e (EAP-MDS, EAP-TLS, EAP-TTLS, PEAP) Wireless Encryption: Open, Shared, WPA-PSK, WPA2-PSK, WPA & WPA2, 64bit/128bit/256bit WEP, TKIP, AES-CCMP Support Wireless Station Isolation Hide SSID
Management	Wireless Client/Station List HTTP Web Based Configuration (IE) IP Alias Configuration File Backup / Restore SNMP v1, v2c, 802.11 Mib Host Name
Configuration Retention after FW Upgrade	Yes
DHCP Client	Yes
VPN Pass Through	Yes
Network	
Protocols	TCP/IP, RTSP, UDP, IGMP, DHCP, Tags, PPPoE
Maximum Ethernet Clients Supported	64
Compliance	



** 2.4GHz Peak Transmit Power Up to 500mW. 5GHz Peak Transmit Power Up to 300 mW.

System Dimensions & Interfaces

Dimensions

- 7.5 inches
- 4.73 inches
- 1.84 inches

Interface

- Status LED
- Type N Antenna Interface
- RJ45 Female Power over Ethernet Power



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 Cat5 Network Cable



OA Series Omni-Directional Antenna



OA09
2.4GHz 9dBi

PA Series Panel Antenna



PA21
2.4GHz 21dBi

PA5G18
5GHz 18dBi

SA Series Sector Antenna



SA1821
2.4GHz 18 ~ 21dBi

GA Series Parabolic-Grid Antenna



GA5G24
5GHz 24dBi

Compatibility

- LPS1000**
Adjustable Voltage
Outdoor 5-Port
PoE Switch
- NVS IP Video Server**
- SC54**
Dual Band Outdoor
Long Range
Wireless Client Bridge
- NVC IP Video Camera**

Package Content

- SB54
- AC/DC Power Adapter
- WC002 Weatherproof Connector Set
- PIP100 1-Port DC PoE Injector
- User Manual CDROM
- Pole Mount Bracket System
- Installation Guide and Warranty

Product Information Online: www.inscapedata.com/sb54.htm



**THE LEADING
OUTDOOR NETWORK
APPLIANCE COMPANY**

Total Turnkey Solutions for Outdoor PoE, Wired/Wireless, and IP Video Applications

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