

## AirEther™ SC54 Dual Band Outdoor Wireless Client Bridge



Inscape Data's AirEther™ SC54 Dual Band Outdoor Wireless Client Bridge 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 SC54 is an ideal cost-effective solution for wireless network service provider subscriber solution. The ruggedness of IP68 rated enclosure and extreme temperature ratings along with host of product features makes the AirEther SC54 the product choice for long range wireless subscriber for network service provider.

\*For continuous power specification at various 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.

#### Standards Base Wireless Subscriber Equipment

Long Range IEEE compliant 802.11a/b/g Client provides license free subscriber based network solutions for wireless network service providers.

#### 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 NETWORK SOLUTIONS

Subscriber based network solution compliant to IEEE 802.11a/b/g provides long range wireless point to multipoint solution to residential and business customers. The AirEther outdoor wireless system provides high reliability and performance for the most demanding wireless networking applications.



#### WIRELESS ISP

Complete license free standards based outdoor wireless infrastructure solutions from Inscape Data catering to wireless internet service providers. Inscape Data is your one-stop source for high performance economical outdoor wireless solutions.



#### WIRELESS INFRASTRUCTURE

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



#### CARRIER SOLUTIONS

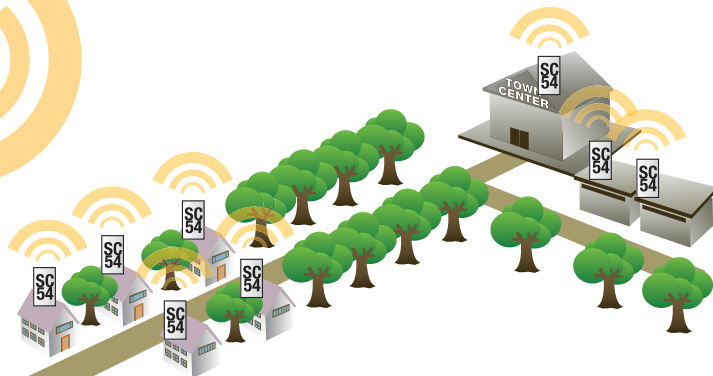
Inscape Data antenna outdoor wireless solutions provide the best in class 2.4 GHz and 5.8 GHz subscriber based network. The high performance characteristics keep high demand subscribers and wireless transmission networks moving in the most extreme weather conditions.


### SYSTEM CONFIGURATIONS: OUTDOOR WIRELESS INTERNET SOLUTION

BROADBAND INTERNET  
WITH SB54, SC54  
(WITH/WITHOUT  
SECTOR ANTENNAS)



SC54  
Dual Band  
Outdoor Wireless  
Client Bridge



Hardware	
<b>Enclosure Protection</b>	IP68 Compliant
<b>Environmental</b>	-40°C to +85°C
<b>Humidity</b>	95% @ 55°C
<b>Frequency</b>	2.412 ~ 2.477 GHz, 5.180 ~ 5.250 GHz, 5.260 ~ 5.320 GHz, 5.745 ~ 5.825 GHz
<b>LAN port</b>	1
<b>Number of Radio</b>	1
<b>Operating Channels</b>	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)
<b>Modulation</b>	OFDM (64-QAM, QPSK, BPSK / DSSS (DBPSK, DQPSK, CCK)
<b>Transmit Power 802.11a**</b>	19dBm @ 6-24Mbps, 18dBm @ 36Mbps, 17dBm @ 48Mbps, 16dBm @ 54Mbps
<b>Transmit Power 802.11g**</b>	25dBm @ 6-24Mbps, 23dBm @ 36Mbps, 22dBm @ 48Mbps, 21dBm @ 54Mbps
<b>Transmit Power 802.11b**</b>	25dBm
<b>Receiver Sensitivity 802.11a</b>	-92dBm @ 6-24Mbps, -80dBm @ 36Mbps, -76dBm @ 48Mbps, -72dBm @ 54Mbps
<b>Receiver Sensitivity 802.11g</b>	-92dBm @ 6-24Mbps, -80dBm @ 36Mbps, -76dBm @ 48Mbps, -72dBm @ 54Mbps
<b>Receiver Sensitivity 802.11b</b>	-96dBm @ 1Mbps, -95dBm @ 2Mbps, -93dBm @ 5.5Mbps, -92dBm @ 11Mbps
Software	
<b>Wireless</b>	802.11R IEEE 802.11a IEEE 802.11 b/g 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
<b>Operation Mode</b>	Client
<b>Security</b>	Http User Name & Password Wireless Encryption: Open, Shared, WPA-PSK, WPA2-PSK, WPA & WPA2, 64bit/128bit/256bit WEP, TKIP, AES-CCMP Support
<b>Management</b>	HTTP Web Based Configuration (IE) IP Alias Configuration File Backup / Restore SNMP v1, v2c, 802.11 Mib Host Name
<b>Configuration Retention after FW Upgrade</b>	Yes
<b>DHCP Client</b>	Yes
<b>VPN Pass Through</b>	Yes
Network	
<b>Protocols</b>	TCP/IP, RTSP, UDP, IGMP, DHCP, Tags, PPPoE
<b>Maximum Ethernet Clients Supported</b>	64
Compliance	
	

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

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

**Interface**  
1. Status LED  
2. Type N Antenna Interface  
3. 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**

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

**PACKAGE CONTENT**

1. SC54
2. AC/DC Power Adapter
3. WC002 Weatherproof Connector Set
4. PIP100 1-Port DC PoE Injector
5. Resource Kit Disc
6. Pole Mount Bracket System
7. Installation Guide and Warranty



THE LEADING  
OUTDOOR NETWORK  
APPLIANCE COMPANY

Product Information Online: <http://www.inscapedata.com/sc54.htm>

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