

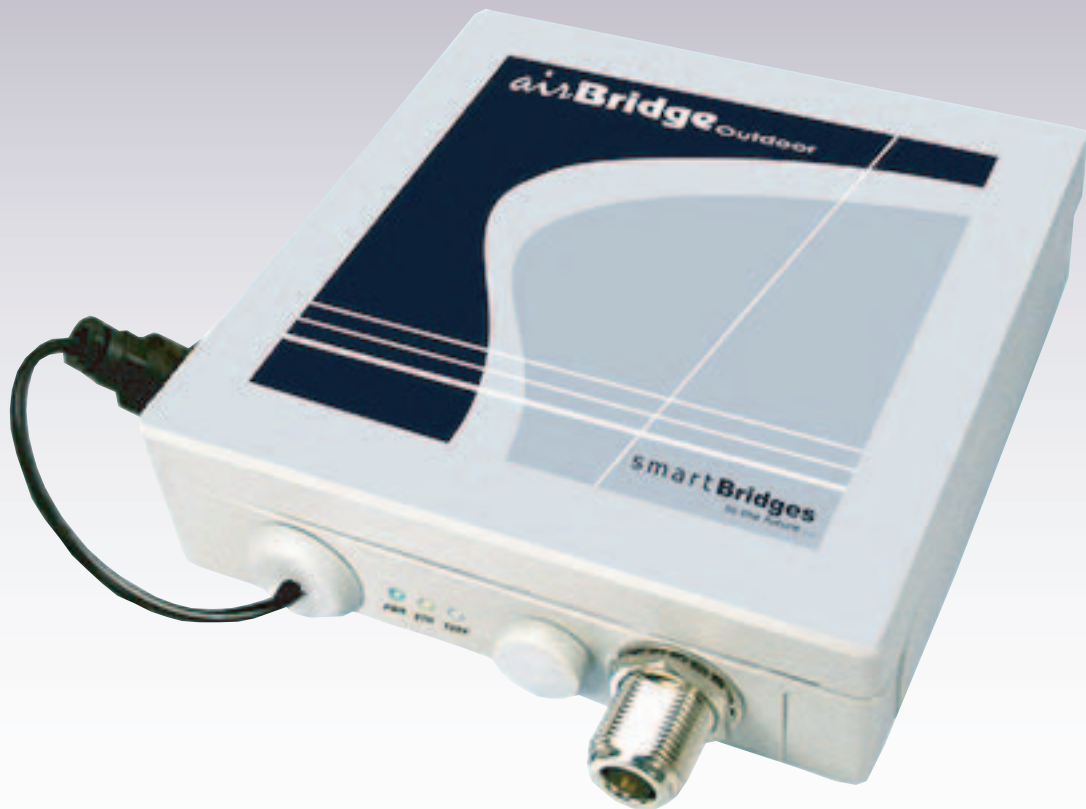
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to the future...

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# airBridge

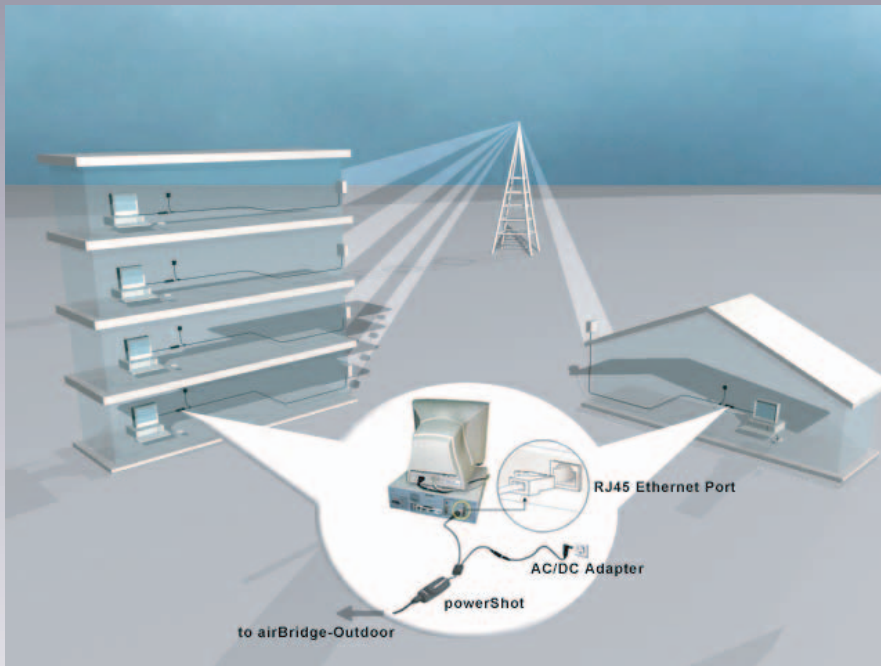
## Outdoor

Wireless Ethernet Client



*Simplifying the last mile*

airBridge™ Outdoor is a preferred CPE device to quickly and efficiently widen the reach of Broadband Wireless Internet Service Providers. Its unique LongRange™ wireless design, ease of installation, PoE and flexible antenna options lend WISP networks vital capabilities making network launches and expansions economically viable.



airBridge™ Outdoor is well-suited for use in a variety of other settings.

- Public parks
- Stadiums
- Marinas
- Convention centers
- Warehouses
- Beaches
- Shipyards

## Features at a glance

- Rugged weatherproof design in a compact and stylish enclosure
- Ideal for wireless LAN access in all indoor and outdoor areas.
- Flexible mounting on wall or antenna mast (up to 2 inch diameter)
- Enhanced output power for long range coverage of up to 34 kms (21 miles) at 11Mbps
- High receiver sensitivity; provides error free data transfer
- Auto Fall back data rate for long distance communication in noisy environments
- Powered through Ethernet cable using powerShot PoE injector
- Driver-less operation with true 'Plug and Play'
- Works with all Operating Systems
- High level security with full 128 bit Key WEP encryption
- Compatible with IEEE 802.11b & IEEE 802.3 standards
- Firmware is upgradeable to protect your investment
- Comprehensive 1 year warranty

## Technical Specifications

**Product No:** SB2110

**Output Power (with antenna):** upto +30dBm EIRP max with suitable antenna system configuration  
(Adjustable using "dial-a-power" software and antenna configuration to suit regulatory specifications)

**Transmitter Output Power (Device):** +17.5 dBm max

**Receiver Sensitivity:** -92dBm at 1Mbps / -83dBm at 11Mbps

**Antenna Connector, Impedance:** N(Female) Bulkhead Mount, 50 ohms

**Power Source:** Power over Ethernet enabled device remotely powered by SB2810 & AC/DC Adapter

**SB2810 PowerShot:** Power over Ethernet cable - Injecting Device Input 12V DC, Data separately,  
Output Data + Power combined on RJ45 connector (pins 4, 5 = Gnd; 7, 8 = +12V)

**Standards:** IEEE802.11b, IEEE 802.3

**PC Interface:** Ethernet 10 base T

**Frequency Band:** 2400 to 2483.5Mhz, ISM Band

**Wireless Media Access Protocol:** CSMA/CA with ACK

**Wireless Data Rates:** 11Mbps CCK with Auto Fallback to  
5.5Mbps CCK / 2Mbps DQPSK / 1Mbps DBPSK

**Channels (Overlapping):** 11 FCC, 13 ETSI, 14 Japan

**Modulation:** DSSS with CCK / DQPSK / DBPSK

**AC / DC Adapter:** Input: 90 to 260V AC, 50 / 60Hz, output: 12V DC, 1A

**Power Consumption:** 7W (typical)

**Management:** SNMP ver 1 (MIB, Tarps); TFTP (FW download)

**Mounting:** Pole or wall mount via 2pc U-Bolts & clamps (supplied)

**Cable:** 50 feet outdoor rated CAT5E cable connected to the Device;  
Length can be extended to Ethernet Spec. of 100 meters

**Enclosure include I/O ports:** Water Tight to NEMA4, 4X, 6, 12, 13; IP66; IK08

**Operating Temperature:** -40 deg C (-40 F) to +65 deg C (+150 F)

**Relative Humidity:** 10 to 90% typical

**Dimensions:** 130mm x 130mm x 35mm (5.11 inches x 5.11 inches x 1.38 inches)

**Weight:** 0.55kg (1.21lbs)



# HyperGain® HG2417P-120

## 2.4 GHz 17 dBi 120 Degree Sector Panel Antenna

### Superior Performance

The HyperGain® HG2417P-120 Sector Panel Antenna combines high gain with a wide 120° beam-width. It is a professional quality "cell site" antenna designed primarily for service providers in the 2.4 GHz ISM band.

### Rugged and Weatherproof

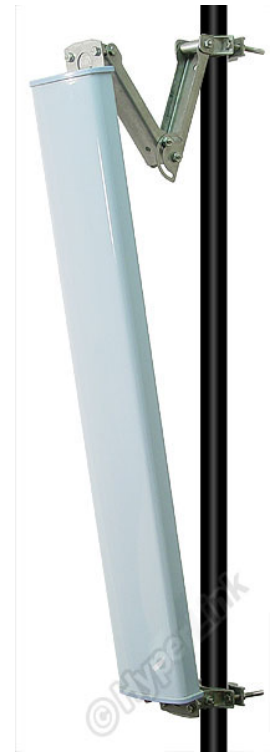
This antenna features a heavy-duty plastic radome for all-weather operation. The mounting system adjusts from 0 to 20 degrees down-tilt.

### Ideal for Wireless Internet "Cell" Sites

This antenna is an ideal choice for Wireless Internet Provider "cell" sites since the cell size can be easily determined by adjusting the down-tilt angle. Horizontal coverage is a full 120 degrees.

### Electrical Specifications

Frequency	2400-2500 MHz
Gain	17 dBi
Horizontal Beam Width	120 degrees
Vertical Beam Width	+/- 6.5°
Impedance	50 Ohm
Max. Input Power	250 Watts
VSWR	< 1.3:1 avg.
Connector	N Female
Lightning Protection	Direct Ground



### Mechanical Specifications

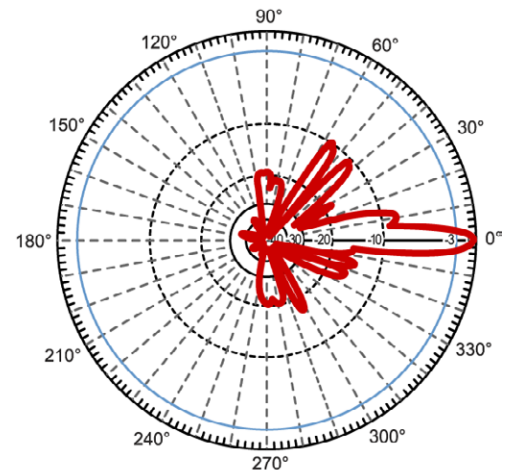
Weight	10 lbs. ( 4.54 Kg)	
Dimensions	39 x 6 x 2.5 inches (99 x 15.3 x 6.4 cm)	
Radome Material	UV-Inhibited Polymer	
Mounting	2.75 inch (7 cm) O.D. pipe max.	
Polarization	Vertical	
Downtilt (mech)	0 to 20 degrees (adjustable)	

### Wind Loading Data

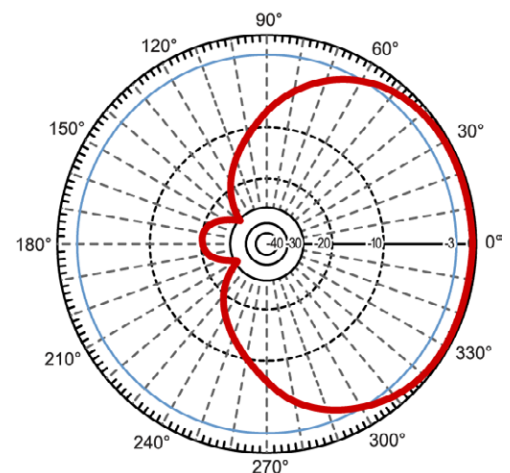
Wind Loading	Front Surface	Side Surface
Area	1.63 sq. ft. (.15 sq. meters)	0.68 (.06 sq. meters)
@ 100 MPH (161 KPH)	74 lbs. (33.5 Kg)	35 lbs.(15.8 Kg)

### Guaranteed Quality

This product is backed by Hyperlink's Limited Warranty.



**Vertical**



**Horizontal**



## Create a Wired or Wireless Hotspot

DSA-3100



- Creates a Public and Private Network Simultaneously
- User Bandwidth and Access Control
- Built-in DHCP Server and Advanced Firewall
- Supports RADIUS/POP3/LDAP and Local User Authentication

## Express EtherNetwork™ Public/Private Hotspot Gateway

D-Link, the worldwide leader in innovative networking products, now provides a simple and cost-effective way for any business to create a wired or wireless hotspot. The new *D-Link DSA-3100 Public/Private Hotspot Gateway* is an Ethernet-based gateway specifically designed to provide free or fee-based broadband connection to the public or to a company's employees while at the same time, providing a separate and secure private network that shares the same Internet connection. If your business relies on public patronage, now you have a way to give customers access to the Internet, or to networked printers and other resources. If you're a private company that wants to offer wireless Internet access for your employees, you can do so with the confidence that you're still maintaining a secure private network that a wireless user will never see. Connect a D-Link wireless access point to the DSA-3100 and you've got a wireless hotspot. Connect a D-Link switch and now your back office computers and printers can share the same broadband connection.

The DSA-3100 is a Network Access Control System (NACS) that intelligently manages Authentication, Authorization and Accounting (AAA) for all wired and wireless network users. The gateway manages up to 250 user accounts in its internal database and supports at least 50 users on-line at any time. The DSA-3100 also supports POP3, RADIUS, and LDAP external

authentication for larger-scale hotspot networks. Other features IP plug and play, user bandwidth control, network policy enforcement, customizable user timer, login/logout web-page, on-line traffic monitoring, and URL redirection provide a number of different ways for your company to configure and manage your hotspot as either as a free or revenue-generating service.

The DSA-3100 includes a built-in DHCP server and a built-in high-speed routing engine, an easy-to-use web-based graphical user interface (GUI) with SSL protection to securely and quickly configure the device. Configuration is also capable through the device's RS-232 console port. To prevent unwanted Internet intruders from accessing your network, the DSA-3100 has a built-in Security Firewall with Denial of Service (DoS) prevention. With IP PnP (Plug and Play) and IP/port redirection provided by the DSA-3100, users connecting to the hotspot don't need to re-configure their computer's settings to send or retrieve e-mail or access the Internet.

In a matter of just a few minutes, your business or organization can provide a wired or wireless hotspot while still maintaining a private network that the public will never see. Whether you're a sole proprietor, a merchants association, a small company, a school, a church, a public library the DSA-3100, together with an access point or a switch, is your instant hotspot solution.



# Express EtherNetwork™

## Public/Private

# Service Gateway



**DSA-3100**

### TECHNICAL SPECIFICATIONS

**Interface:**

- One 10/100Mbps WAN port
- One 10/100Mbps Local Network (private network) port
- One 10/100Mbps Authentication (public network) port
- One RS-232 Serial Console port

**Protocol Supported:**

- TCP/IP
- UDP
- NAT/NAPT
- DHCP client/server
- DNS
- POP3
- LDAP
- RADIUS
- HTTP
- HTTPS

**LEDs:**

- Power indicator
- WAN port indicator
- Local (private) Network port indicator
- Authentication (hotspot) port indicator

**Power Supply:**

DC 5V/3A

**Operating Temperature:**

0C - 50C

**Storage Temperature:**

-25C - 55C

**Dimensions:**

- H = 45mm
- D = 163mm
- W = 215mm

**EMI Certification:**

- FCC Class A
- CE Class A
- VCCI Class A
- C-Tick

**Safety:**

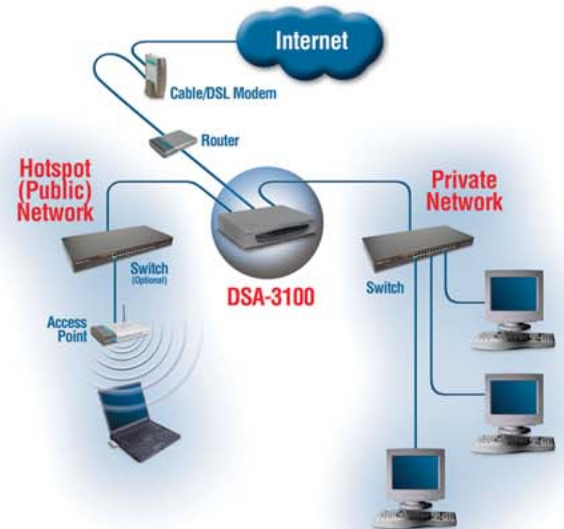
- UL
- CSA
- TUV/GS
- T-Mark

**Package Contents:**

- D-Link DSA-3100 Service Gateway
- CD-ROM (containing Manual & Warranty)
- Quick Installation Guide
- Two (2) CAT5 UTP/Straight-through Ethernet cables
- One (1) CAT5 UTP/Cross-over cable
- One (1) RS-232 Console cable
- 5V DC, 3A Power Adapter

**Warranty:**

1 year



### Advanced Firewall Features

Built-in NAT firewall	✓
IP based Access Control	✓
Denial of Service (DoS) Protection	✓
MAC Filtering	✓
Scheduling	✓

