

# PRODUCT DATASHEET

Wireless Outdoor Multi-Client Bridge/AP/ WDS

NOC-3220

2.4 GHz

802.11 b/g

54 Mbps

The Outdoor Wireless Multi-Client Bridge/Access Point/WDS (wireless distribution system) operates seamlessly in the 2.4 GHz frequency spectrum supporting the 802.11b (2.4GHz, 11Mbps) and the newer, faster 802.11g (2.4GHz, 54Mbps) wireless standards. It's the best way to add wireless capability to your existing wired network, or to add bandwidth to your wireless installation.

To protect your wireless connectivity, it can encrypt all wireless transmissions through 64/128-bit WEP data encryption and also supports WPA. The MAC address filter lets you select exactly which stations should have access to your network. With the Wireless Multi-Client Bridge/Access Point/WDS, you'll experience the best wireless connectivity available today.



Features	Benefits
High Speed Data Rate Up to 54Mbps	Capable of handling heavy data payloads such as MPEG video streaming
High Output Power up to 26 dBm	Excellent output power spreads the operation distance
IEEE 802.11b/g Compliant	Fully Interoperable with IEEE 802.11b/IEEE802.11g compliant devices
Point-to-point, Point-to-multipoint Wireless Connectivity	Let users transfer data between two buildings or multiple buildings
WPA/ IEEE 802.1x Authenticator support	Powerful data security
WDS (Wireless Distribution System)	Make wireless AP and Bridge mode simultaneously as a wireless repeater
Watertight and Weatherproof	Avoid water invaded and weather corroded
Wide temperature range and robust mechanical design	Delivers reliable, top performance in the most demanding environments
Power-over-Ethernet (IEEE802.3af Compliant)	Flexible Access Point locations and cost savings

\* Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

\*\* All specifications are subject to change without notice.

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## Technical Specifications

### Data Rates

1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps

### Standards

IEEE802.11b/g, IEEE802.1x, IEEE802.3, IEEE802.3u

### Compatibility

IEEE 802.11g/ IEEE 802.11b

### Power Requirements

Active Ethernet (802.3af) – 48 VDC/0.35A

### Regulation Certifications

FCC Part 15/UL, ETSI 300/328/CE

### RF Information

#### Frequency Band

2.400~2.484 GHz

### Media Access Protocol

Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA)

### Modulation Technology

Orthogonal Frequency Division Multiplexing (OFDM)  
DBPSK @ 1Mbps  
DQPSK @ 2Mbps  
CCK @ 5.5 & 11Mbps  
BPSK @ 6 and 9 Mbps  
QPSK @ 12 and 18 Mbps  
16-QAM @ 24 and 36 Mbps  
64-QAM @ 48 and 54 Mbps

### Operating Channels

11 for North America, 14 for Japan, 13 for Europe, 2 for Spain, 4 for France

### Receive Sensitivity (Typical)

-72dBm @ 54Mbps

### Available transmit power (Typical)

25dBm @ 1, 2, 5.5 and 11Mbps  
23dBm @ 6, 9, 12 and 18Mbps  
22dBm @ 24, 36Mbps  
21dBm @ 48, 54Mbps

### Antenna

9dBi Internal

### RF Connector

SMA Type (Option)

### Networking

#### Topology

Ad-Hoc, Infrastructure

#### Operation Mode

Point-to-Point/ Point-to-Multipoint Bridge/ AP/ Client Bridge/ WDS

#### Interface

One 10/100Mbps RJ-45 LAN Port

#### Security

IEEE802.1x authenticator / RADIUS client (EAP-MD5/TLS/TTLS) support in AP mode  
WPA / Pre Share KEY (PSK)/ TKIP  
MAC address filtering  
Hide SSID in beacons  
Layer 2 Isolation

#### IP Auto-configuration

DHCP client/server

#### Management

#### Configuration

Web-based configuration (HTTP)

#### Firmware Upgrade

Upgrade firmware via web-browser  
Serial Interface (RS-232)  
TFTP

#### Physical

#### Dimensions

163.8(L)mm \* 135.2(W)mm \* 47.0(H)mm

#### Weight

1.2 Kg (2.6 lbs)

#### Environmental

#### Temperature Range

Operating: -20°C to 70°C (-4°F to 158°F) -  
Storage: -40°C to 80°C (-40°F to 176°F)

#### Humidity (non-condensing)

5%~95% Typical

#### Package Contents

- Outdoor Wireless Client Bridge unit
- 24V, 0.8A AC/DC adapter with wall-plug power code
- Inline Power Injector (PoE)
- 1.8m Grounding Cable
- User's manual CD-ROM
- Wall mounting kit
- Mast mounting kit
- Waterproof kit

#### Related Product(s)

11a/b/g Wireless Cardbus Adapter

3054CB+ (802.11g)  
3054CB+ Aries2 (802.11g)  
SPC-362 (802.11g)  
5354CB+ Aries2 (802.11a/b/g)

11a/b/g High-power Wireless USB Adapter

NUB-362 (802.11b/g)  
NUB-862 (802.11a/b/g)  
NUB-8310 (802.11a/b/g)

11b High-power Wireless Cardbus Adapter

2511CD PLUS

11b High-power Client Bridge 2611CB3 PLUS (Deluxe)

11b Outdoor AP/ Router 2511HS PLUS  
2511BG PLUS

11b/g Outdoor AP-Client 2611CB5 PLUS  
NCB-3220

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