

11N Multi-Function Client Bridge**ECB9300****2.4GH/ 1Tx1R 11N****150Mbps****AP/CB/CR/Router/WDS AP/WDS
bridge/Repeater mode**

ECB9300 is a multi-functioned 11n product with 7 major multi-functions, is designed to operate in every working environment for enterprises.

ECB9300 is a Wireless Network device that delivers up to 3x faster speeds and 2x extended coverage than 802.11g devices. ECB9300 supports home network with superior throughput, performance and unparalleled wireless range.

To protect data during wireless transmissions, ECB9300 encrypts all wireless transmissions through WEP data encryption and supports WPA/WPA2. ECB9300 also supports IEEE 802.1x Supplicant function in CB mode. Its MAC address filter allows users to select stations with access to connect network. In addition, the function of user isolation protects private network between client users. ECB9300 thus is the best product to ensure network safety for enterprises.

**Package Content**

- 1* 11N multi-function Client Bridge (ECB9300)
- 1* 7.5V/1A Power Adapter
- 1* Ethernet Cable
- 1* 2dBi 2.4GHz Dipole Antennas
- 1*QIG
- 1*CD (User's Manual)

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

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Features	Benefits
High Speed Data Rate Up to 150Mbps	Capable of handling heavy data payloads such as MPEG video streaming
10/100 Fast Ethernet	Support up to 100Mbps networking speed
IEEE 802.11n draft Compliant and backward compatible with 802.11b/g	Fully compatible with IEEE 802.11b/g/n devices
Multi-Function, 7 functions	Allowing users to select different mode in various environment
Point-to-point, Point-to-multipoint Wireless Connectivity	Allowing to transfer data from buildings to buildings
WDS (Wireless Distributed System)	Making wireless AP and Bridge mode simultaneously as a wireless repeater
Universal Repeater	The easiest way to your wireless network's coverage
Support Multi-SSID function (4 SSID) in AP mode	Allowing clients to access different networks through a single access point and to assign different policies and functions for each SSID by manager
WPA2/WPA/ IEEE 802.1x support	Powerful data security
802.1x Supplicant support (CB & CR mode)	More powerful data security in Client Bridge mode
MAC address filtering in AP mode	Ensuring secure network connection
User isolation support (AP mode)	Protecting the private network between client users.
PPPoE function support (CR mode)	Easy to access the internet via ISP service authentication
Keep personal setting	Keeping the latest setting when firmware upgrade
SNMP Remote Configuration Management	Helping administrators to remotely configure or manage the Access Point easily
QoS (WMM) support	Enhancing user performance and density

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Technical Specifications

Hardware Specifications

MCU	RT3050, 320MHz
Memory	32MB SDRAM
Flash	4MB
Expansion Slots	N/A
Physical Interface	<ul style="list-style-type: none">● LAN: One 10/100Mbps● Reset Button● Power Jack
LEDs Status	<ul style="list-style-type: none">● Power/ Status● LAN (10/100Mbps)● WLAN (Wireless Connection)
Power Requirements	<ul style="list-style-type: none">● Power Supply: 90 to 240 VDC \pm 10%, 50/60 Hz (depends on different countries)● Device: 7.5V/1A
Regulation Certifications	<ul style="list-style-type: none">● FCC Part 15/UL, CE

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➤ **RF Specification**

Frequency Band	2.400~2.484 GHz
Media Access Protocol	Carrier sense multiple access with collision avoidance (CSMA/CA)
Modulation Technology	- OFDM: BPSK, QPSK, 16-QAM, 64-QAM - DBPSK, DQPSK, CCK
Operating Channels	11 for North America, 14 for Japan, 13 for Europe
Receive Sensitivity (Typical)	- IEEE802.11n MCS0 @ -79dBm MCS7 @ -61dBm - IEEE802.11g 6Mbps@ -90dBm 54Mbps@ -70dBm - IEEE802.11b 1Mbps@ -87dBm 11Mbps@ -87dBm
Available transmit power	- IEEE802.11n/g 17dBm@6~9 Mbps / MCS0 17dBm@12~18 Mbps / MCS2 15dBm@24~36 Mbps / MCS4 14dBm@48~54 Mbps / MCS6 - IEEE802.11b 17.5dBm@1, 11Mbps
Antenna *1	Detachable Dipole antenna Peak Gain = 2 dBi (Reverse)

● **Antenna Specification**

Specification Data	1) Impedance	50 ohm
	2) Frequency Range	0~6GHz
	3) V.S.W.R.	≤ 1.5
	4) Working Voltage	≤ 250 Vrms
	5) Dielectric Withstanding	≤ 670Vrms
	6) Voltage Insulation Resistance	≥ 2000 Mega ohm
	7) Contact Resistance	Center contact: 3.0 Milliohms (Max.) Outer contact: 2.0 Milliohms (Max.)
	8) Recommended coupling nut torque	4.0~8.8 in. lbs (0.45~0.99Nm)
	9) Coupling nut retention force	≥ 50 lbs (222N)
	10) Contact captivation force	≥ 5 lbs (22.2N)
	11) Durability (mating)	≥ 500 cycles

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Software Features

Topology	Infrastructure																																																	
Operation Mode	Client Bridge / Access Point / WDS AP / WDS Bridge / Client Router / Router / Universal Repeater																																																	
LAN	DHCP Server DHCP Client																																																	
Wireless	<p>Wireless Mode – 11b / 11g / 11n / Disable</p> <p>Transmission Rate</p> <ul style="list-style-type: none"> ➤ 11 b/g: 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps ➤ 11n: <table border="1"> <thead> <tr> <th rowspan="2">MCS Index</th> <th colspan="2">Guard Interval 800ns</th> <th colspan="2">Guard Interval 400ns</th> </tr> <tr> <th>20MHz (Mbps)</th> <th>40MHz (Mbps)</th> <th>20MHz (Mbps)</th> <th>40MHz (Mbps)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>6.5</td> <td>13.5</td> <td>7.2</td> <td>15</td> </tr> <tr> <td>1</td> <td>13</td> <td>27</td> <td>14.4</td> <td>30</td> </tr> <tr> <td>2</td> <td>19.5</td> <td>40.5</td> <td>21.7</td> <td>45</td> </tr> <tr> <td>3</td> <td>26</td> <td>54</td> <td>28.9</td> <td>60</td> </tr> <tr> <td>4</td> <td>39</td> <td>81</td> <td>43.3</td> <td>90</td> </tr> <tr> <td>5</td> <td>52</td> <td>108</td> <td>57.8</td> <td>120</td> </tr> <tr> <td>6</td> <td>58.5</td> <td>121.5</td> <td>65</td> <td>135</td> </tr> <tr> <td>7</td> <td>65</td> <td>135</td> <td>72.2</td> <td>157.5</td> </tr> </tbody> </table> <p>Signal Strength Bandwidth Selection- 40/20 MHz for 11n</p>	MCS Index	Guard Interval 800ns		Guard Interval 400ns		20MHz (Mbps)	40MHz (Mbps)	20MHz (Mbps)	40MHz (Mbps)	0	6.5	13.5	7.2	15	1	13	27	14.4	30	2	19.5	40.5	21.7	45	3	26	54	28.9	60	4	39	81	43.3	90	5	52	108	57.8	120	6	58.5	121.5	65	135	7	65	135	72.2	157.5
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Security	<p>WEP Encryption-64/128 bit</p> <p>WPA Personal (WPA-PSK using TKIP or AES)</p> <p>WPA Enterprise (WPA-EAP using TKIP)</p> <p>802.1x Authenticator</p> <p>802.1x Supplicant- MD5/TTLS (CB & CR mode)</p> <p>Hide SSID in beacons</p> <p>Multiple SSID with 802.1q VLAN tagging (up to 4 SSIDs) in AP mode</p> <p>MAC Filter(AP mode)</p> <p>WLAN L2 isolation(AP mode)</p> <p>Wireless STA (Client) connected list (Idle/Connection Time, Pkt statistics)</p>																																																	
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Management

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Configuration	Web-based configuration HTTP / Telnet
Firmware Upgrade	Upgrade firmware via web-browser Keep latest setting when f/w update
Administrator Setting	Administrator password change
Reset Setting	Reboot (press 1 second) Reset to Factory Default (press 10 second)
System monitoring	Status, Statistics and Event Log
SNMP	v1, v2c
MIB	MIB I and MIB II (RFC1213) and Private MIB
Bandwidth Measurement	IP range and bandwidth management
Backup & Restore	Settings through Web

Environment & Physical

Temperature Range	Operating: 0°C to 45°C (32°F to 113°F) Storage: -20°C to 70°C (-4°F to 158°F)
Humidity (non-condensing)	5%~95% typical

V1.0

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