

### Wireless Long Range Multi-function 7+1 AP

**ECB3500**

2.4GHz

Super G 108Mbps

Access Point/Client Bridge/Repeater/WDS AP/

EIRP up to 2000mW

WDS Bridge/Client Router/AP Router

**ECB3500** is a powerful, enhanced, enterprise level product supports 7 multi-functions to operate for every kind of working environment.

It supports high transmit output power and high data rate which plays different roles of Access Point/ Client Bridge / Repeater / WDS AP / WDS Bridge / Client Router / AP Router. It operates seamlessly in the 2.4 GHz frequency spectrum supporting the 802.11b (2.4GHz, 11Mbps) and super high speed of 802.11g (2.4GHz, 108Mbps) wireless standards. It supports different output power level settings, bandwidth selection, and RSSI indicator which enables the best transmitting and receiving signal for traffic communication.



For more sensitive security requirements, ECB3500 can encrypt all wireless transmissions through WEP data encryption and WPA/WPA2. ECB3500 also supports IEEE 802.1x Supplicant function in CB mode, and authenticator in AP mode. Those are the enhanced securities in AP/CB mode. The MAC address filter lets you select any stations should have access to your network. The User isolation function could protect the private network between client users. Normally, ECB3500 has mighty security function for your network safety.

#### Package Content

- 1\* Wireless Long range multi-function 7+1 AP (ECB3500)
- 1\* 12V/1A Power Adapter
- 1\* CAT5 UTP Cable
- 1\* QIG
- 1\* CD (User's Manual)
- 2\* 5dBi 2.4GHz Dipole Antennas

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

Features	Benefits
Super G solution up to 108Mbps	Capable of handling heavy data payloads such as MPEG, video streaming, large file transfer and VoIP
Total EIRP up to 2000mW	Extended excellent Range and Coverage (fewer APs)
IEEE 802.11b/g Compliant	Fully Interoperable with IEEE 802.11b/IEEE802.11g compliant devices
7+1 Multi Functions	Access Point/Client Bridge/Repeater/WDS AP/ WDS Bridge/Client Router/AP Router
Point-to-multipoint Wireless connectivity	Let users transfer data between two buildings or multiple buildings
WDS (Wireless Distributed System)	Make wireless AP and Bridge mode simultaneously as a wireless repeater
Repeater	The easiest way to expand your wireless networking coverage
Support Multi-SSID function (4 SSID) in AP mode (BSSID)	Allow clients to access different networks through a single access point and assign different policies and functions for each SSID by manager
Antenna diversity support	Enhance the traffic signal
WPA2/WPA/ IEEE 802.1x support	Powerful data security
MAC address filtering in AP mode(up to 50)	Ensure the security of network connections
User isolation support (AP mode)	Protect the private network between client users.
PPPoE function support (CR mode)	Easy to access internet via ISP service authentication
<b>Power-over-Ethernet (IEEE802.3af)</b>	Power supply via Ethernet cable which makes the setup more flexible avoids restricting from wiring lines.

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

## Technical Specifications

### Hardware Specifications

MCU	Atheros AR2316, 180MHz
Memory	32MB SDRAM
Flash	8MB
Expansion Slots	N/A
Physical Interface	<ul style="list-style-type: none"><li>● LAN: One 10/100 Fast Ethernet RJ-45</li><li>● Reset Button</li><li>● Power Jack</li></ul>
LEDs Status	<ul style="list-style-type: none"><li>● Power/ Status</li><li>● LAN (10/100Mbps)</li><li>● WLAN (Wireless Connection)</li></ul>
Power Requirements	<ul style="list-style-type: none"><li>● Power Supply: 90 to 240 VDC <math>\pm</math> 10%, 50/60 Hz (depends on different countries)</li><li>● Active Ethernet (Power over Ethernet, IEEE802.3af)- 48 VDC/0.375A</li><li>● Device: 12V/1A</li></ul>
Regulation Certifications	<ul style="list-style-type: none"><li>● FCC Part 15, CE</li></ul>

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

➤ **RF Specification**

Frequency Band	2.400~2.484 GHz
Media Access Protocol	Carrier sense multiple access with collision avoidance (CSMA/CA)
Modulation Technology	<ul style="list-style-type: none"> <li>• OFDM: BPSK, QPSK, 16-QAM, 64-QAM</li> <li>• DBPSK, DQPSK, CCK</li> </ul>
Operating Channels	11 for North America, 14 for Japan, 13 for Europe
Receive Sensitivity (Typical)	<ul style="list-style-type: none"> <li>• IEEE802.11g 6Mbps@ -92dBm 54Mbps@ -74dBm</li> <li>• IEEE802.11b 1Mbps@ -97dBm 11Mbps@ -89dBm</li> </ul>
Available transmit power	<ul style="list-style-type: none"> <li>• IEEE802.11g 26dBm@6~24 Mbps 25dBm@36 Mbps 23dBm@48 Mbps 22dBm@54Mbps</li> <li>• IEEE802.11b 27dBm@1 ~ 11Mbps</li> </ul>
Antenna *2	Detachable omni antenna TNC type; Peak Gain = 5dBi (Reverse)

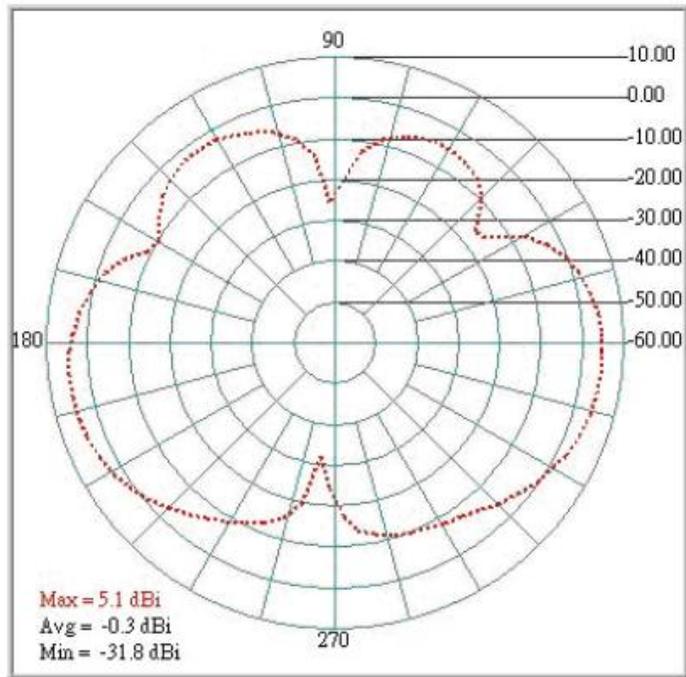
• **Antenna Specification**

Electrical Properties	Impedance	50 ohm
	Frequency Range	0~6 GHz
	V.S.W.R	1.5 (Max.)
	Working Voltage	≦ 500 Vrms
	Dielectric Withstanding Voltage	≦ 1500 Vrms
	Insulation Resistance	≧ 5000 Megohms
	Contact Resistance	Center contact: 1.5 Milliohms (Max.) Outer contact: 0.2 Milliohms (Max.)

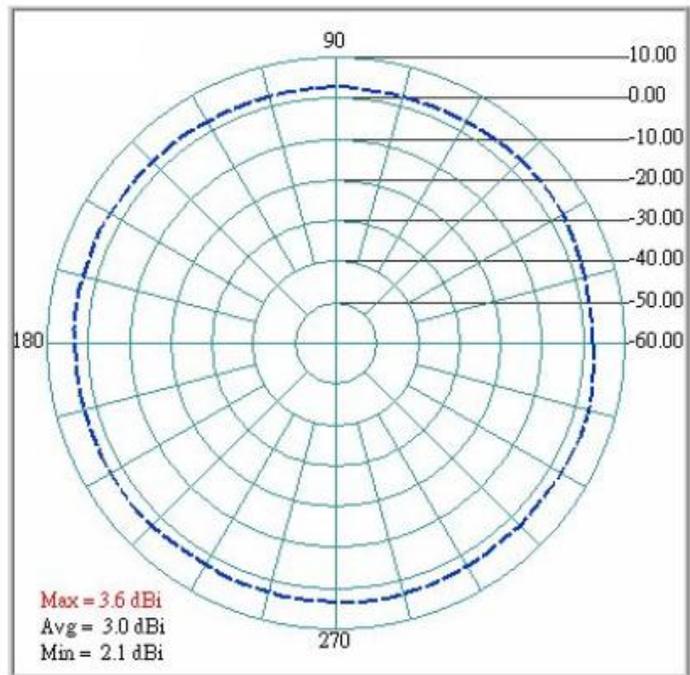
• **Antenna Radiation Patterns**

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

E-Plan  
2.4 GHz



H-Plan  
2.4 GHz



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

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

4/23/2010

- **Software Features**

- **Setting**

Topology	Infrastructure
Operation Mode	Access Point/Client Bridge/Repeater/WDS AP/ WDS Bridge/Client Router/AP Router
LAN	<ul style="list-style-type: none"> <li>•DHCP Server</li> <li>•DHCP Client</li> </ul>
WAN (Client Router /AP Router mode)	<ul style="list-style-type: none"> <li>•PPPoE</li> </ul>
Router	<ul style="list-style-type: none"> <li>•NAT/ NAPT</li> </ul>
VPN	VPN pass-through (PPTP, L2TP, IPSEC)
Wireless	<ul style="list-style-type: none"> <li>•Wireless Mode – 11b / 11g / Super G</li> <li>•Channel Selection (Setting varies by Country)</li> <li>•Transmission Rate <ul style="list-style-type: none"> <li>➤ 11 b/g: 108, 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps</li> </ul> </li> <li>•Transmit output power control</li> <li>•Signal Strength</li> </ul>
Security	<ul style="list-style-type: none"> <li>•WEP Encryption-64/128/152 bit</li> <li>•WPA Personal (WPA-PSK using TKIP or AES)</li> <li>•WPA Enterprise (WPA-EAP using TKIP)</li> <li>•802.1x Authenticator (AP mode)</li> <li>•802.1x Supplicant- TTLS (CB mode)</li> <li>•Hide SSID in beacons</li> <li>•Multiple SSID with 802.1q VLAN tagging (up to 4 SSIDs)(AP mode)</li> <li>•MAC Filter(AP mode)</li> <li>•L2 isolation(AP mode)</li> <li>•Wireless STA (Client) connected list</li> <li>•Lock to AP MAC (CB mode)</li> </ul>
QoS	<ul style="list-style-type: none"> <li>•WMM</li> </ul>

- **Management**

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

Configuration	Web-based configuration (HTTP)/Telnet
Firmware Upgrade	<ul style="list-style-type: none"> <li>• Upgrade firmware via web-browser</li> <li>• Keep latest setting when f/w update</li> </ul>
Administrator Setting	<ul style="list-style-type: none"> <li>• Administrator password change</li> </ul>
Reset Setting	<ul style="list-style-type: none"> <li>• Reboot (press 1 second)</li> <li>• Reset to Factory Default (press 5 seconds)</li> </ul>
System monitoring	Status, Statistics and Event Log
SNMP	V1, V2c
MIB	MIB I, MIB II
Backup & Restore	Settings through Web

• **Environment & Physical**

Temperature Range	<ul style="list-style-type: none"> <li>• Operating: 0°C to 45°C (32°F to 113°F)</li> <li>• Storage: -20°C to 70°C (-4°F to 158°F)</li> </ul>
Humidity (non-condensing)	5%~95% typical
Dimensions	125mm (L) x 108mm (W) x 31mm (H)
Weight	350g

V2.0

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