

ECB7510

Wireless Gigabit Dual Band Concurrent Router AP

- 802.11a/b/g/n
- 300 + 300 Mbps
- Concurrent radios
- Multi-Function



PRODUCT DESCRIPTION

ECB7510 set for speed – optimized for media, music, movies, gaming: what-ever you're into, the Simultaneous Dual Band N Wireless Device will double the bandwidth and media-optimized performance so you can enjoy it more smoothly, with less lag, all around.

ECB7510 is defined as multi-function WiFi system so it can satisfy all different kinds of environment and let System Integrator have high flexibility to build up Wireless Connection.

Features	Benefits
Multi mode Functions	Access Point/Client Bridge / Repeater/ WDS
Dual concurrent N	Allows simultaneous operation of 2.4GHz and 5GHz wireless network
WDS (Wireless Distributed System)	Make wireless AP and Bridge mode simultaneously as a wireless repeater
Support Multi-SSID function	Allow clients to access different networks through a single access point and assign different policies and functions for each SSID by manager
Wireless security supports WPA/WPA2-PSK/RADIUS & 64/128-bit WEP Encryption	Powerful data security
Power-over-Ethernet (IEEE802.3at)	Power supply via Ethernet cable which makes the setup more flexible avoids restricting from wiring lines.
WPS button support	Easy and secure to establishment of a wireless connection
Gigabit Ethernet	10/100/1000Mbps compatible Ethernet

TECHNICAL SPECIFICATION	
> HARDWARE SPECIFICATIONS	
MCU	AR7161, 680MHz + AR9223(2.4G)+AR9220(2.4G/5G)
Memory	64MB DDR (32+32)
Flash	8MB
PCB dimension	215mm x 138mm
Physical Interface	Ethernet x 1: 10/100/1000 Giga Ethernet RJ-45 (802.3at support)
	DC-IN
	WPS Button (WiFi Protected Setup)
	Reset Button
	EUP Power Switch
LEDs Status	Power Status
	2.4G WLAN
	5G WLAN
	WPS
	Ethernet

Power Requirements	12V1A
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> Top Panel (LED Status)	
WPS	1 (Link-> Associate Done, Processing->blink)
Power	1 (Link-> blue static on)
2.4G WLAN	1 (Link-> blue static on, traffic->blink, WPS)
5G WLAN	1 (Link-> blue static on, traffic->blink, WPS)
Ethernet	1 (Link-> blue static on, traffic->blink)

> WPS Button Behavior		
Press & Release	Active Band	LED indication
0~5 seconds	2.4GHz WPS	2.4GHz ON & 5GHz Off
6~10 seconds	5GHz WPS	2.4GHz Off & 5GHz ON

RF SPECIFICATION					
Frequency Band	Radio I: 11b/g/n : 2.412 ~ 2.484 GHz Radio II: 11a/n :5.18 ~ 5.24 & 5.26 ~ 5.32 & 5.5 ~ 5.7 & 5.745 ~ 5.825 GHz				
Modulation Technology	<ul style="list-style-type: none"> OFDM (BPSK, QPSK, 16QAM, 64QAM) DBPSK, DQPSK, CCK 				
Operating Channels	2.4G (11 for North America, 14 for Japan, 13 for Europe) 5G (TBD)depend on what region				
Wireless Setting	Wireless Mode – 11b/ 11g /11n Channel Selection (Setting varies by Country) Channel Bandwidth (Auto, 20Mhz, 40Mhz) Transmission Rate -11g: Best. 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps				
		Guard Interval 800ns		Guard Interval 400ns	
	MCS Index	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
8	13	27	14.4	30
9	26	54	28.9	60
10	39	81	43.3	90
11	52	108	57.8	120
12	78	162	86.7	180
13	104	216	115.6	240
14	117	243	130	270
15	130	270	144.4	300
Receive Sensitivity (Typical)	2.412 ~ 2.472 GHz(11.n) 20MHz	MCS 0	≤ -82 dBm	
		MSC 7	≤ -64 dBm	
		MSC 8	≤ -82 dBm	
		MSC 15	≤ -61 dBm	
	2.412 ~ 2.462 GHz (11.n) 40MHz	MCS 0	≤ -79 dBm	
		MSC 7	≤ -61 dBm	
		MSC 8	≤ -79 dBm	
		MSC 15	≤ -60 dBm	
	5.18~5.825 GHz (11.n) 20MHz	MCS 0	≤ -82 dBm	
		MSC 7	≤ -64 dBm	
		MSC 8	≤ -82 dBm	
		MSC 15	≤ -61 dBm	
	5.18~5.825 GHz (11.n) 40MHz	MCS 0	≤ -79 dBm	
		MSC 7	≤ -61 dBm	
		MSC 8	≤ -79 dBm	
		MSC 15	≤ -60 dBm	
IEEE802.11g 6 Mbps ≤ -90dBm				
54 Mbps ≤ -70dBm				
IEEE802.11a 6 Mbps ≤ -90dBm				
54 Mbps ≤ -70dBm				

Available transmit power	Mode	Bandwidth	Optimal Power (dBm)
	2.412 ~ 2.462 GHz(11.b)	1~11Mbps	18
	2.412 ~ 2.462 GHz (11.g)	6~9Mbps	18
		12~18Mbps	18
		24~36Mbps	17
		48~54Mbps	16
		MCS 0~1/MCS 8~9	18
	2.412 ~ 2.462 GHz (11.n)	MCS 2~3/MCS10~11	18
		MCS 4~5/MCS/12~13	15
		MCS 6~7/MCS14~15	13
		6~9Mbps	17
	5.18~5.825 GHz (11.a)	12~18Mbps	17
		24~36Mbps	17
		48~54Mbps	16
		MCS 0~1/MCS 8~9	17
	5.18~5.825 GHz (11.n)	MCS 2~3/MCS10~11	17
		MCS 4~5/MCS/12~13	15
		MCS 6~7/MCS14~15	14
Antenna *2	2.4G/5G (3dBi/5dBi) Dual Band Antenna		

SOFTWARE FEATURES

> Management	
Topology	Infrastructure
Operation Mode	Access Point / Client Bridge / Repeater / WDS (AP&Station)
LAN	DHCP Server DHCP Client
WAN (Client Router /AP Router mode)	<ul style="list-style-type: none"> ● PPPoE ● Static IP ● DHCP Client
Router	<ul style="list-style-type: none"> ● NAT ● Static Routing ● Dynamic Route ● Virtual server mapping

	<ul style="list-style-type: none"> ● IP address mapping ● Port Forwarding ● Port Triggering ● ALG(Application Layer Gateway) ● DNS Relay ● DDNS ● Time Zone(NTP client)
VPN	VPN pass-through (PPTP, L2TP, IPSEC)
Wireless	<p>Isolation</p> <p>Multiple SSID</p> <p>Output Power Control</p> <p>WDS</p> <p>Power saving(Green technology)</p> <p>64/128 bit WEP Encryption</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>Hide SSID in beacons</p> <p>Wi-Fi Protection Setup (WPS)</p> <p>MAC filter</p> <p>Best channel selection</p>
Security	<p>WEP Encryption-64/128/152 bit</p> <p>WPA Personal (WPA-PSK using TKIP or AES)</p> <p>WPA Enterprise (WPA-EAP using TKIP)</p> <p>802.1x Authenticator (AP mode)</p> <p>802.1x Supplicant- TTLS (CB mode)</p> <p>Hide SSID in beacons</p> <p>Multiple SSID with 802.1q VLAN tagging (up to 4 SSIDs)(AP mode)</p> <p>MAC Filter(AP mode)</p> <p>L2 isolation(AP mode)</p> <p>Wireless STA (Client) connected list</p> <p>Lock to AP MAC (CB mode)</p>

> Setting	
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 5 seconds)
System monitoring	Status, Statistics and Event Log
SNMP	V1, V2c
MIB	MIB I, MIB II
Backup & Restore	Settings through Web

ENVIRONMENT PHYSICAL	
Temperature Range	0 to 45° C - Operating, -10 to 70 ° C - Storage
Humidity (non-condensing)	15% ~ 95% typical
Dimensions	154mm x 119mm

PACKAGE CONTENT
▶ Enterprise AP (ECB7510)
▶ Power Adaptor
▶ CD with User's Manual
▶ QIG
▶ 2 x Dual Band ANTs