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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.

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Datasheet
ECB7510

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

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Power Requirements	12V1A

> **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	● 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

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

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	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		

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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
	2.412 ~ 2.462 GHz (11.n)	MCS 0~1/MCS 8~9	18
		MCS 2~3/MCS10~11	18
		MCS 4~5/MCS/12~13	15
		MCS 6~7/MCS14~15	13
	5.18~5.825 GHz (11.a)	6~9Mbps	17
		12~18Mbps	17
		24~36Mbps	17
		48~54Mbps	16
	5.18~5.825 GHz (11.n)	MCS 0~1/MCS 8~9	17
		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)	● PPPoE ● Static IP ● DHCP Client
Router	● NAT ● Static Routing ● Dynamic Route ● Virtual server mapping

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	● 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	Isolation Multiple SSID Output Power Control WDS Power saving(Green technology) 64/128 bit WEP Encryption WPA Personal (WPA-PSK using TKIP or AES) WPA Enterprise (WPA-EAP using TKIP) 802.1x Authenticator Hide SSID in beacons Wi-Fi Protection Setup (WPS) MAC filter Best channel selection
Security	WEP Encryption-64/128/152 bit WPA Personal (WPA-PSK using TKIP or AES) WPA Enterprise (WPA-EAP using TKIP) 802.1x Authenticator (AP mode) 802.1x Supplicant- TTLS (CB mode) Hide SSID in beacons Multiple SSID with 802.1q VLAN tagging (up to 4 SSIDs)(AP mode) MAC Filter(AP mode) L2 isolation(AP mode) Wireless STA (Client) connected list Lock to AP MAC (CB mode)

> Setting	
Configuration	Web-based configuration (HTTP)/Telnet

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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

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