EnGenius		C	DATASHEET	
Dual Radio Concurrent AP/CB		В	EOA7530	
2.4GHz / 5GHz	54Mbps	802.11a/b/g	Flexible Application	

EOA7530 equips with two powerful independent RF interfaces which support 802.11a and 802.11b/g. With certified IP-65 protection, it is designed to deliver high reliability under harsh outdoor environment.

Built-in advanced multi-functions provide flexibility in constructing scalable WiFi networks for all possible applications. With two individual interfaces, each can be configured into 3 different modes with maximum of 5 combinations. EOA7530 offers bandwidth up to 54Mbps to accommodate heavy traffic services such as multimedia streaming. Establishing backbone network using 802.11a ensures stability and reduces interference while 802.11b/g offers great compatibility to all wireless clients.

EOA7530 provides wide-range of authentication and encryption standards (including WEP, WPA, WPA2, TKIP/AES and IEEE 802.1X) to enforce maximum security. Furthermore, friendly security management user interface reduces configuration complexity. EOA7530 is a true carrier-grade product which is guaranteed to fulfill any business proposals.



### **Package Content**

- $\rightarrow$  1 x Dual Radio Concurrent AP (EOA7530)
- $\rightarrow$  1 x PoE injector with Power Adapter(48V)
- $\rightarrow$  1 x Mounting kit
- $\rightarrow$  1 x Grounding Cable
- ightarrow 1 x CD with User's Manual
- $\rightarrow$  1 x QIG
- ightarrow 2 x N-type Dual Band Omni Antenna

## Features

#### Wireless

- **Dual Radio** Two radio ( a, radio1 and b/g, radio2 ) for independent application
- **High Data Rate** High speed physical transmitting rate up to 54Mbps, support large payload such as MPEG video streaming
- *Multifunction application* 8 Modes (AP-AP, AP-CB, AP-CR, CB-AP, CR-AP, AP Concurrent, CB Concurrent, CR Concurrent)
- **Signal Strength Display** Show the signal condition for more convenient installation and setup.
- **QoS(WMM)** Enhance performance and density
- BSSID Basic Service Set ID
- **Multiple SSID** 4 BSSID supported. Primary (1<sup>st</sup>) BSSID for normal setting follow this router's main default setting for security setting. Each SSID can set itself wireless or WAN access setting.

#### Networking

- **PPPoE** Point-to-Point Protocol over Ethernet at Client Router mode. This function will keep trying when failed or disconnected
- **PPTP** The **Point-to-Point Tunneling Protocol** (PPTP) is a method for implementing virtual private networks
- VPN Pass Through

#### Security

- 802.11i WEP, WPA-PSK(TKIP or AES), WPA2
- 802.1x 802.1x Authenticator, EAP-TLS/TTLS
- MAC address functions MAC address access control list, MAC address filter

#### Management

- Firmware Upgrade Upgrading firmware via web browser, setting are reserved after upgrade
- Reset & Backup Reset to factory default. User can export all setting into a file via WEB
- **Telnet** teletype network provides a bidirectional interactive communications facility to easy uesr to communicate with network device.
- MIB MIB I, MIB II(RFC1213) and private MIB
- SNMP V1, V2c

# **Technical Specifications**

Hardware Specification	
MCU	Atheros AR7161
RF	Atheros AR5413 (Radio1) + Atheros AR5413 (Radio2)
Memory	64MB DDR RAM
Flash	8MB
Physical Interface	1 x RJ-45 : 10/100 Fast Ethernet
	1 x Reset Button
Power Requirements	Power over Ethernet, 48V DC
Regulation Certifications	FCC Part 15C/15B/15E, EN301 893, EN 300 328, EN 301 489-1/-17, EN60950

RF Specification			
Frequency Band	802.11a		
	5.15 ~ 5.35GHz,		
	5.47 ~ 5.725GHz, 5.725~5.825GHz		
	802.11b/g		
	U.S., Europe and Japan	product covering 2.400 to	2.484 GHz,
	programmable for diffe	erent country regulations	
Modulation Technology	OFDM = BPSK, QPSK, 16-QAM, 64-QAM		
	DSSS = DBPSK, DQPSK, CCK		
Operating Channels	802.11a		
	US/Canada:12 non-overlapping channel (5.15~5.35GHz, 5.725~5.825GHz)		
	Europe:19 non-overlapping channel (5.15~5.35GHz, 5.47~5.825GHz)		
	Japan:4 non-overlapping channel (5.15~5.25GHz)		
	China:5 non-overlapping channel (5.725~5.85GHz)		
	802.11b/g		
	11 for North America, 14 for Japan, 13 for Europe		
Receive Sensitivity (Typical)	802.11a	802.11g	802.11b
	-92dBm @ 6Mbps,	-94 dBm @ 6Mbps,	-97 dBm @ 1Mbps
	-73dBm @ 54Mbps	-74 dBm @ 54Mbp	-92 dBm @ 11Mbps

 \* 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.

Available transmit power	Radio 1 (WLAN	1)		
	FCC		ETSI	
	Frequency	Power	Frequency	Power
	5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 22dBm@54Mbps	5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 22dBm@54Mbps
	5.470~5.725 GHz IEEE802.11a	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 22dBm@54Mbps	5.470~5.725 GHz IEEE802.11a	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 22dBm@54Mbps
	5.725~5.825 GHz IEEE802.11a	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 22dBm@54Mbps	5.725~5.825 GHz IEEE802.11a	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 22dBm@54Mbps
	Radio 2 (WLAN	2)		
	FCC		ETSI	
	Frequency	Power	Frequency	Power
	2.412~2.462 GHz IEEE802.11g	28dBm@6~24Mbps 26dBm@36Mbps 25dBm@48Mbps 24dBm@54Mbps	2.412~2.472 GHz IEEE802.11g	28dBm@6~9Mbps 26dBm@12~18Mbps 25dBm@24~36Mbps 24dBm@48~54Mbps
	2.412~2.462		2.412~2.472	
	GHz IEEE802.11b	29dBm@1~11Mbps	GHz IEEE802.11b	29dBm@1~11Mbps
Antenna	2 x N-Type Conr	nector for 802.11a & 80	2.11b/g	

Software Features	
General	
Тороlоду	Infrastructure
Protocol / Standard	IEEE 802.3 (Ethernet)
	IEEE 802.3u (Fast Ethernet)
	IEEE 802.11a (5GHz WLAN)
	IEEE 802.11b/g (2.4GHz WLAN)
Operation Mode	Access Point ( Radio1 ) – Access Point ( Radio2 )
	Access Point ( Radio1 ) – Client Bridge ( Radio2 )
	Client Bridge ( Radio1 ) – Access Point ( Radio2 )
	Access Point ( Radio1 )– Client Router ( Radio2 )
	Client Router ( Radio1 ) – Access Point ( Radio2 )
	AP Concurrent
	CB Concurrent
	CR Concurrent
LAN	DHCP Server(AP mode)
	DHCP Client(CR mode)

\* 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.

Wireless	Auto Channel Selection (Setting varies by Regular Domains)
	Transmission Rate
	- 11 a/g:54, 48, 36, 24, 18, 12, 9, 6 Mbps
	- 11b : 11, 5.5, 2, 1 Mbps
	Distance Control (802.1x Ack timeout)
	Bandwidth Selection
	Multiple SSID (4 SSID)
	VLAN
	WDS AP/WDS Bridge
Security	Authentication:
	- 802.11i (WPA, WPA2)
	- 802.1x (including EAP-TLS/TTLS)
	IEEE 802.1x Supplicant support in CB mode
	Encryption: Open, WEP-64/128, TKIP, AES
	MAC address access control list
	Hide SSID in beacons
	User Isolation
	MAC address Filtering
	NAT in Client Router mode
QoS	WMM
Management	
Configuration	Web-based configuration (HTTP)/Telnet
Firmware Upgrade	Upgrade firmware via web browser
	Fix latest setting parameter when firmware upgrading
Administrator Setting	Administrator password can be changed
System monitoring	Status in hand , useful statistic and Event log
Reset Setting	Reset to factory default and reboot
MIB	MIB I , MIB II(RFC1213) and Private MIB
SNMP	V1 , V2c
Backup	Save all setting and condition to a file by web

## **Environment & Mechanical**

Temperature Range	Operating -20°C~70°C
	Storage -30°C to 80°C
Humidity (non-condensing)	$0\%{\sim}95\%$ typical
Dimensions	260mm (L) x 175mm (W) x 65mm (H)
Weight	730g

 \* 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.