

# EOA7535

Dual Radio Concurrent AP/CB

- 2.4GHz / 5GHz
- 54Mbps
- 802.11a/b/g
- Flexible Application



## PRODUCT DESCRIPTION

EOA7535 equips with two powerful independent RF interfaces which support 802.11a and 802.11b/g. With certified IP-68 protection and lightning protector, 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 8 combinations. EOA7535 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.

EOA7535 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. EOA7535 is a true carrier-grade product which is guaranteed to fulfill any business proposals.

## Package Content

- 1 x Dual Radio Concurrent AP (EOA7535)
- 1 x PoE injector with Power Adapter
- 1 x Wall Mounting kit
- 1 x 1.8m Grounding Cable
- 1 x CD with User's Manual
- 1 x QIG
- 2 x Dual Band N-type Omni Antenna

EOA7535 Datasheet Version 03172010

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

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

BUSINESS CLASS

# EOA7535

### Features

#### Wireless

- **Dual Radio** Two radio ( a, radio1 and b/g, radio2 ) for independent application
- **High Data Rate** High speed physical transmitting rate to support large payload
- **Multifunction** Dual AP/AP+CB/CB+AP/AP+CR/CR+AP/AP Concurrent/CB Concurrent/CR Concurrent
- **Signal Strength Display** 0% ~ 100% to show the signal condition for more convenient installation
- **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
- **VPN Pass Through**

#### Security

- **Rugged Security** WEP Encryption-64/128/152 bit, WPA/WPA2 Personal (WPA-PSK using TKIP or AES), WPA/WPA2 Enterprise (WPA-EAP using TKIP), 802.1x Authenticator, Hide SSID in beacons, MAC address filtering up to 50 field, L2 isolation(AP mode), Wireless STA (Client) connected list, Hidden SSID broadcast to prevent illegal connection
- **IP 68 Protection** it is designed to deliver best reliability under harsh outdoor environment. There is not any limitation on installing and setup.

#### 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
- **MIB** MIB I, MIB II(RFC1213) and private MIB
- **SNMP** V1, V2c

HARDWARE SPECIFICATIONS																																																																							
<b>&gt; Technical Specifications</b>																																																																							
MCU	Atheros AR7161																																																																						
RF	Atheros AR5413 (Radio1) + Atheros AR5413 (Radio2)																																																																						
Memory	64MB SDRAM																																																																						
Flash	8MB																																																																						
Physical Interface	One 10/100 Gigabit Ethernet RJ-45 One Reset Button																																																																						
Power Requirements	Power over Ethernet, 48V DC IN																																																																						
<b>&gt; RF Specification</b>																																																																							
Frequency Band	<b>802.11a</b> 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz, 5.725~5.825GHz <b>802.11b/g</b> U.S., Europe and Japan product covering 2.400 to 2.484 GHz, programmable for different country regulations																																																																						
Modulation Technology	OFDM = BPSK, QPSK, 16-QAM, 64-QAM DSSS = DBPSK, DQPSK, CCK																																																																						
Operating Channels	<b>802.11a</b> 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) <b>802.11b/g</b> 11 for North America, 14 for Japan, 13 for Europe																																																																						
Receive Sensitivity (Typical)	<b>802.11a</b> -92dBm @ 6Mbps, -73dBm @ 54Mbps	<b>802.11g</b> -94 dBm @ 6Mbps, -74 dBm @ 54Mbps	<b>802.11b</b> -97 dBm @ 1Mbps -92 dBm @ 11Mbps																																																																				
Available transmit power	<table border="1"> <thead> <tr> <th colspan="4">Radio 1 (WLAN1)</th> </tr> <tr> <th colspan="2">FCC</th> <th colspan="2">ETSI</th> </tr> <tr> <th>Frequency</th> <th>Power</th> <th>Frequency</th> <th>Power</th> </tr> </thead> <tbody> <tr> <td rowspan="4">5.150~5.350 GHz IEEE802.11a</td> <td>28dBm@6~24Mbps</td> <td rowspan="4">5.150~5.350 GHz IEEE802.11a</td> <td>28dBm@6~24Mbps</td> </tr> <tr> <td>26dBm@36Mbps</td> <td>26dBm@36Mbps</td> </tr> <tr> <td>24dBm@48Mbps</td> <td>24dBm@48Mbps</td> </tr> <tr> <td>22dBm@54Mbps</td> <td>22dBm@54Mbps</td> </tr> <tr> <td rowspan="4">5.470~5.725 GHz IEEE802.11a</td> <td>28dBm@6~24Mbps</td> <td rowspan="4">5.470~5.725 GHz IEEE802.11a</td> <td>28dBm@6~24Mbps</td> </tr> <tr> <td>26dBm@36Mbps</td> <td>26dBm@36Mbps</td> </tr> <tr> <td>24dBm@48Mbps</td> <td>24dBm@48Mbps</td> </tr> <tr> <td>22dBm@54Mbps</td> <td>22dBm@54Mbps</td> </tr> <tr> <td rowspan="4">5.725~5.825 GHz IEEE802.11a</td> <td>28dBm@6~24Mbps</td> <td rowspan="4">5.725~5.825 GHz IEEE802.11a</td> <td>28dBm@6~24Mbps</td> </tr> <tr> <td>26dBm@36Mbps</td> <td>26dBm@36Mbps</td> </tr> <tr> <td>24dBm@48Mbps</td> <td>24dBm@48Mbps</td> </tr> <tr> <td>22dBm@54Mbps</td> <td>22dBm@54Mbps</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="4">Radio 2 (WLAN2)</th> </tr> <tr> <th colspan="2">FCC</th> <th colspan="2">ETSI</th> </tr> <tr> <th>Frequency</th> <th>Power</th> <th>Frequency</th> <th>Power</th> </tr> </thead> <tbody> <tr> <td rowspan="4">2.412~2.462 GHz IEEE802.11g</td> <td>28dBm@6~24Mbps</td> <td rowspan="4">2.412~2.472 GHz IEEE802.11g</td> <td>28dBm@6~9Mbps</td> </tr> <tr> <td>26dBm@36Mbps</td> <td>26dBm@12~18Mbps</td> </tr> <tr> <td>25dBm@48Mbps</td> <td>25dBm@24~36Mbps</td> </tr> <tr> <td>24dBm@54Mbps</td> <td>24dBm@48~54Mbps</td> </tr> <tr> <td>2.412~2.462 GHz IEEE802.11b</td> <td>29dBm@1~11Mbps</td> <td>2.412~2.472 GHz IEEE802.11b</td> <td>29dBm@1~11Mbps</td> </tr> </tbody> </table>			Radio 1 (WLAN1)				FCC		ETSI		Frequency	Power	Frequency	Power	5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps	5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps	26dBm@36Mbps	26dBm@36Mbps	24dBm@48Mbps	24dBm@48Mbps	22dBm@54Mbps	22dBm@54Mbps	5.470~5.725 GHz IEEE802.11a	28dBm@6~24Mbps	5.470~5.725 GHz IEEE802.11a	28dBm@6~24Mbps	26dBm@36Mbps	26dBm@36Mbps	24dBm@48Mbps	24dBm@48Mbps	22dBm@54Mbps	22dBm@54Mbps	5.725~5.825 GHz IEEE802.11a	28dBm@6~24Mbps	5.725~5.825 GHz IEEE802.11a	28dBm@6~24Mbps	26dBm@36Mbps	26dBm@36Mbps	24dBm@48Mbps	24dBm@48Mbps	22dBm@54Mbps	22dBm@54Mbps	Radio 2 (WLAN2)				FCC		ETSI		Frequency	Power	Frequency	Power	2.412~2.462 GHz IEEE802.11g	28dBm@6~24Mbps	2.412~2.472 GHz IEEE802.11g	28dBm@6~9Mbps	26dBm@36Mbps	26dBm@12~18Mbps	25dBm@48Mbps	25dBm@24~36Mbps	24dBm@54Mbps	24dBm@48~54Mbps	2.412~2.462 GHz IEEE802.11b	29dBm@1~11Mbps	2.412~2.472 GHz IEEE802.11b	29dBm@1~11Mbps
Radio 1 (WLAN1)																																																																							
FCC		ETSI																																																																					
Frequency	Power	Frequency	Power																																																																				
5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps	5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps																																																																				
	26dBm@36Mbps		26dBm@36Mbps																																																																				
	24dBm@48Mbps		24dBm@48Mbps																																																																				
	22dBm@54Mbps		22dBm@54Mbps																																																																				
5.470~5.725 GHz IEEE802.11a	28dBm@6~24Mbps	5.470~5.725 GHz IEEE802.11a	28dBm@6~24Mbps																																																																				
	26dBm@36Mbps		26dBm@36Mbps																																																																				
	24dBm@48Mbps		24dBm@48Mbps																																																																				
	22dBm@54Mbps		22dBm@54Mbps																																																																				
5.725~5.825 GHz IEEE802.11a	28dBm@6~24Mbps	5.725~5.825 GHz IEEE802.11a	28dBm@6~24Mbps																																																																				
	26dBm@36Mbps		26dBm@36Mbps																																																																				
	24dBm@48Mbps		24dBm@48Mbps																																																																				
	22dBm@54Mbps		22dBm@54Mbps																																																																				
Radio 2 (WLAN2)																																																																							
FCC		ETSI																																																																					
Frequency	Power	Frequency	Power																																																																				
2.412~2.462 GHz IEEE802.11g	28dBm@6~24Mbps	2.412~2.472 GHz IEEE802.11g	28dBm@6~9Mbps																																																																				
	26dBm@36Mbps		26dBm@12~18Mbps																																																																				
	25dBm@48Mbps		25dBm@24~36Mbps																																																																				
	24dBm@54Mbps		24dBm@48~54Mbps																																																																				
2.412~2.462 GHz IEEE802.11b	29dBm@1~11Mbps	2.412~2.472 GHz IEEE802.11b	29dBm@1~11Mbps																																																																				
Antenna	2 x N-type connector for 802.11a and 802.11b/g																																																																						

EOA7535 Datasheet Version 03172010

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

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

BUSINESS CLASS

EOA7535

TECHNICAL SPECIFICATIONS	
<b>&gt; Software Features</b>	
General	
Topology	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)
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
<b>&gt; Management</b>	
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 AND MECHANICAL	
Temperature Range	Operating -30°C~70°C Storage -40°C to 80°C
Humidity (non-condensing)	0% ~ 95% typical
Dimensions	245mm (L) x 200mm (W) x 75mm (H)
Weight	1370g

