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.

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(1st) 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.
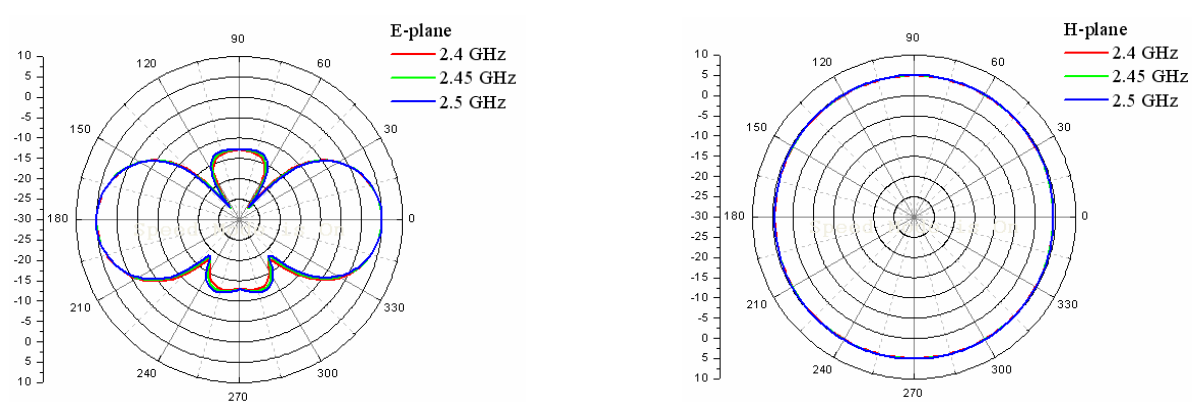
Management

- **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
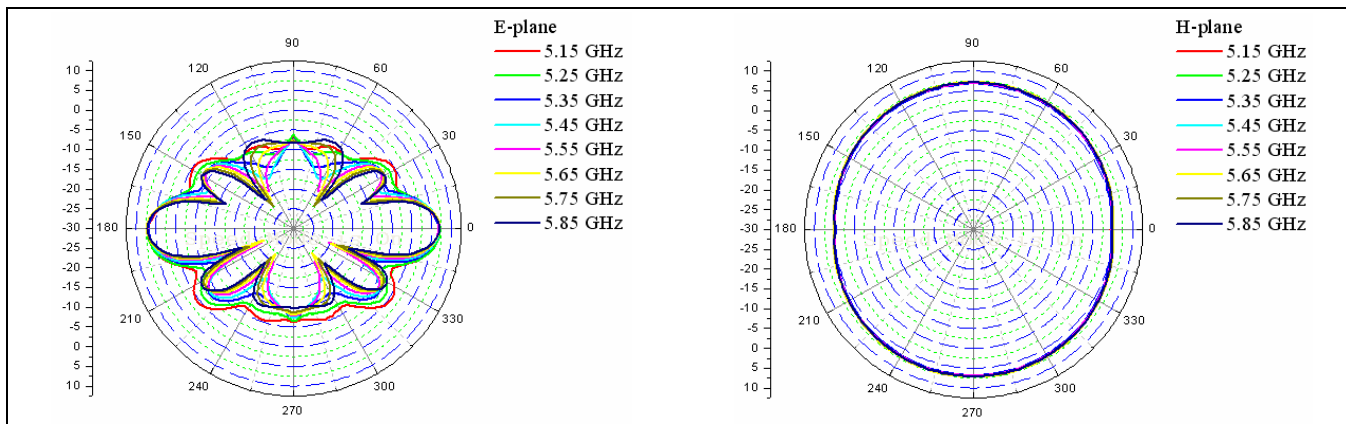- **SNMP** V1, V2c

TECHNICAL SPECIFICATIONS	
> Hardware Specification	
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

EOA7535 Datasheet Version 101110

*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

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Power Requirements	Power over Ethernet, 48V DC IN
> 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 different 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** -92dBm @ 6Mbps, -73dBm @ 54Mbps	**802.11g** -94 dBm @ 6Mbps, -74 dBm @ 54Mbp	**802.11b** -97 dBm @ 1Mbps -92 dBm @ 11Mbps

Available transmit power

Radio 1 (WLAN1)

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 (WLAN2)

FCC		ETSI	
Frequency	Power	Frequency	Power

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		28dBm@6~24Mbps		28dBm@6~9Mbps
	2.412~2.462 GHz	26dBm@36Mbps	2.412~2.472 GHz	26dBm@12~18Mbps
	IEEE802.11g	25dBm@48Mbps	IEEE802.11g	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

> **Antenna Specifications**

Electrical Properties	Impedance	50 ohm
	Frequency Range	0~6 GHz
	V.S.W.R	≦1.5
	Working Voltage	≦1000 Vrms
	Dielectric Withstanding	≦2500 Vrms
	Voltage Insulation Resistance	≧5000 Megohms
	Contact Resistance	Center contact : 1.0 Milliohms (Max) Outer contact : 0.2 Milliohms (Max)
Environmental Ratings	Operating Temperature	-65°C ~ +165°C
Material Specifications	Material data	Material
	Body	Brass
	Center Contact	Brass
	Insulator	Teflon or Delrin

> **Antenna Radiation Pattern**

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SOFTWARE FEATURES	
> 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 Concorrent
	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:

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	- 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

ENVIRONMENTAL AND PHYSICAL	
Temperature Range	Operating: -30°C~70°C
	Storage: -40°C to 80°C
Humidity (non-condensing)	0% ~ 90% typical
Dimensions	245mm (L) x 200mm (W) x 75mm (H)
Weight	1370g

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

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