A.DUO

Dual Band High-Power PoE AP Router

- ● Dual Band Concurrent AP Router
- ● 11a + 11a/b/g Hi-Power Radios
- ● 802.3af PoE Port
- ● 108Mbps Atheros Super Turbo modes
- ● 7 Wireless Operation Modes
- ● 4.9GHz to 6.1GHz Channel Support
- ● 5/10/20/40 Variable Channel Width
- ● Home Digital Network Application
- ● School, Enterprise, Shopping Mall, and Hotel networks
- ● SNMP, Bandwidth Control, HTTPS, SSH, PPPoE Servers

2.4 GHz | **5 GHz** | **802.3af PoE** | **Hi Power** | **108 Mbps**

Super Channels | **Channel Width** | **SNMP** | **PPPoE Server** | **Bandwidth Control**

The AirLive A.DUO is a concurrent dual band router in a league of its own. It features two wireless radios that can operate in both 5GHz and 2.4GHz at the same time. Both radios are hi-powered to provide 3 times more coverage. Yet, each radio can operate independently in 7 different wireless operation modes. To top it off, the 802.3af compliant PoE port allows you to install the A.DUO far away from power source. The A.DUO is designed for the applications you need today and beyond.

Dual Hi-Powered Atheros Radios

The A.DUO's 2 radio system allows users to create both 5GHz and 2.4GHz networks at the same time. You can run mission critical applications such as video and game network on 5GHz, and the PC wireless network on 2.4GHz. While most concurrent dual band routers have limited coverage, the A.DUO's hi-powered radios provides up to 3 times more coverage on both radios. That means not only it can reach longer distance but also less number of APs are needed to cover the same area.

A.DUO vs. Normal AP/Router		
Output Power (without antenna)	A.DUO	Normal AP/ Router
5GHz	23dBm (200mW)	14dBm (25mW)
2.4GHz	23dBm*(200mW)	17dBm (50mW)
*2.4GHz limited to 20dBm in EU.		

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7 Wireless Modes

The A.DUO is much more than a normal dual band concurrent router. Each radio is capable to operate independently, this combines to 7 different operation modes. Therefore, the A.DUO can act as a WISP 2-Way CPE, repeater, bridge, hotspot, and more

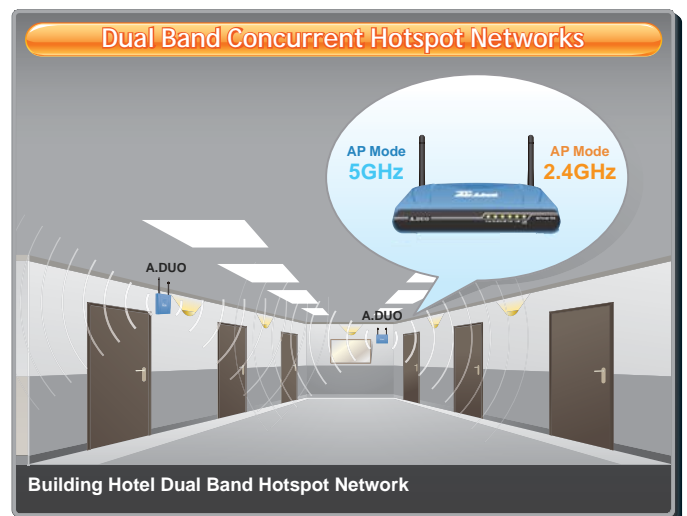| Mode	Radio 1(11a)	Radio2(11a/b/g)	Applications
Dual Band Router	AP Router	AP Router	Dual Home Networks: 5GHz for Games/AV and 2.4GHz for PC
Dual AP Mode	Access Point	Access Point	Dual Band Hotspots
WISP + AP	Client Mode	AP Router	Sharing WISP 5GHz Broadband Wirelessly
Bridge + AP	Bridge Mode	Access Point	WDS Wireless Repeater
Dual Bridge	Bridge Mode	Bridge Mode	Long Distance Wireless Relay Station
Client + AP	Client	Access Point	Universal Repeater
Bridge + Gateway	Bridge	AP Router	Sharing remote Internet bandwidth

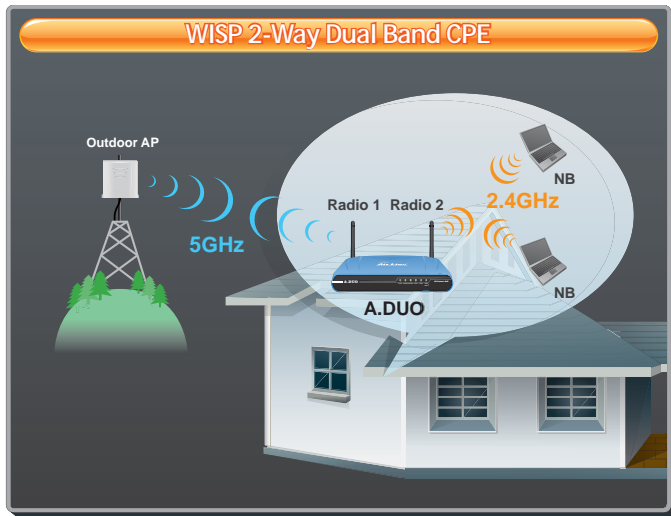# Digital Home Network

Home Digital Media Network

The A.DUO's dual radio system is designed for digital home applications. The 5GHz network is less vulnerable to interference and provides stable bandwidth; therefore, it is suitable for video streaming, game networks, and IP Camera connections. The 2.4GHz radio provides a separate network for computers, tablet PC, and smart phones where only 2.4GHz WiFi is available.

Hotel, School, and Business Network

The A.DUO is also designed for the networks in the public areas. With the built-in 802.3af PoE port, you can install the A.DUO in locations where there is no nearby electricity. This is crucial for hotel, shopping malls, warehouse, and office environments. In addition, the 5GHz radio can operate in Super Channels**(4.9GHz to 6.1GHz) to avoid malice intrusion and wireless jamming. This provides safe frequency band for IP Cameras, servers, and other mission critical applications. Software functions such as multiple SSID, virtual AP, and VLAN functions allow enterprise customers to manage their wireless network access.

Dual Band Concurrent Hotspot Networks
Building Hotel Dual Band Hotspot Network

WISP 2-WAY CPE

WISP 2-Way Dual Band CPE

Outdoor AP

Radio 1 Radio 2

NB

2.4GHz

5GHz

NB

A.DUO

With two separate radios, A.DUO is ideal for WISP application. The 5GHz radio can be used for connection with WISP outdoor AP, and the 2.4 GHz radio is used for indoor WiFi network for home and office. Therefore, WISP no longer have to install 2 separate units to provide wireless access in subscriber's home.

AirLogic Interface

The A.DUO is packed with advance software functions such as Bandwidth Control, PPPoE server, SNMP, SSH, Multi-DMZ, Variable Channel Width, and almost 100 other features. All these powerful functions are harnessed by the user friendly AirLogic Interface. Everything is arranged in the most logical layout, so you can immediately configure the A.DUO quickly without even looking at the user's manual. Best of all, the user's interface is selectable in 7 different languages

** The use of 4.9Ghz and 6.1GHz frequency band might require license in your country. Please make sure you have the right to use the frequency bands.

Specifications

Hardware
- Atheros CPU
- High power design, up to 26dBm with included antennas (limit to 23dBm in U.S. and 20dBm in EU)
- 3 x 10/100Mbps LAN/WAN Ports
- 802.3af PoE Port
- Dual wireless interface 11a + 11a/b/g operation simultaneously.
- Super A/G mode support (Atheros Proprietary)
- Turbo A/G mode Support(Atheros Proprietary)
- RoHS compliant
- 8MB Flash, 32MB SDRAM

Antenna
- 2 x R-SMA antenna connectors

Frequency Range
- WLAN1(Radio 1)
  - 802.11a : 5.15 to 5.825 GHz
  - Super Channels Support(4.9 to 6.1GHz) in specific domain
- WLAN2 (Radio 2)
  - 802.11b/g : 2.412 to 2.472 GHz
  - 802.11a : 5.15 to 5.825 GHz
  - Super Channels Support(4.9 to 6.1GHz) in specific domain

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Frequency Band
- 5.15 to 5.25GHz: U-NII Low and ETSI Band1
- 5.25 to 5.35GHz: U-NII Mid and ETSI Band2
- 5.47 to 5.725GHz: U-NII World Wide and ETSI Band3
- 5.745 to 5.825GHz, U-NII Upper Band
- 4.9GHz and 6.1GHz: Supper Channels

Frequency Channel
- WLAN1(Radio 1)
  - 802.11a
    - USA (FCC) : 12
    - Europe (ETSI) : 19
- WLAN2(Radio 2)
  - 802.11b/g
    - USA (FCC) : 11
    - Europe (ETSI) : 13
  - 802.11a
    - USA (FCC) : 12
    - Europe (ETSI) : 19

Power Supply
- 5.5V at 2.5A DC Power Adapter
- Optional 802.3af 48V Power over Ethernet Adapter + Injector (AirLive model: PoE-48PB)

Modulation Technology
- IEEE802.11a 5GHz OFDM
- IEEE802.11b 2.4GHz CCK
- IEEE802.11g 2.4GHz OFDM
- Atheros Proprietary Super A/G mode 802.11a Orthogonal

Wireless transfer Data Rate with Automatic Fallback
- 802.11b: 1, 2, 5.5, 11Mbps
- 802.11g: 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54Mbps
- 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps

Supported WLAN Mode
- 11a mode
- SuperA without Turbo
- SuperA with Dynamic Turbo
- SuperA with Static Turbo
- 11g/b
- 11g only
- Super-G
- Super-G with Static Turbo
- Super-G wiith Dynamic Turbo

Output Power (without antennas)
- 802.11a
  - 54 Mbps @ 17dBm
  - 48 Mbps @ 18dBm
  - 36 Mbps @ 19 dBm
  - 6, 9, 12, 18, 24 Mbps @ 23 dBm
- 802.11g
  - 54 Mbps @ 19dBm
  - 48 Mbps @ 20dBm
  - 36 Mbps @ 21 dBm
  - 6, 9, 12, 18, 24 Mbps @ 23 dBm

RSSI
- 802.11a
  - 6Mbps @ -92 dBm
  - 9Mbps @ -89 dBm
  - 12Mbps @ -88 dBm
  - 18Mbps @ -86 dBm
  - 24Mbps @ -82 dBm
  - 36Mbps @ -79 dBm
  - 48Mbps @ -73 dBm
  - 54Mbps @ -71 dBm
- 802.11g
  - 6Mbps @ -90 dBm
  - 9Mbps @ -88 dBm
  - 12Mbps @ -88 dBm
  - 18Mbps @ -86 dBm
  - 24Mbps @ -82 dBm
  - 36Mbps @ -79 dBm
  - 48Mbps @ -75 dBm
  - 54Mbps @ -73 dBm

Software
- 7 Wireless Modes
  - Dual Band Concurrent Router
  - Dual Band AP Mode
  - WISP + AP Mode
  - Bridge + AP Mode
  - Dual Bridge Mode
  - Client + AP Mode
  - Bridge + Gateway mode
- Wi-Fi, WPA, WPA2, WMM compatible interoperability
- WPA-PSK, WPA2-PSK, and Radius Support
- 8 WDS Entries, Bridge Infrastructure Mode, 802.1d Spanning Tree
- SNMP v1/v2 support
- SSH, SSH2, HTTPS, Telnet, and Web Managements
- Support adjustable output power
- Client Isolation supported, Hide SSID
- Site Survey and Signal Survey connection wizard

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- Distance and ACK Timeout setting
- User Limitation (Static Load Balancing)
- Ping Watchdog, DFS Control, 802.11d Global
  Roaming
- PPPoE Server, Access Control List
- Multiple SSID(Virtual AP), VLAN, TOS
- 5/10/20/40MHz Channel Width
- Every 5MHz Channel in 5GHz band
- Device Status: Memory Usage, CPU Consumption,
  ARP Table
- Traffic Status: Trasmit/Receive/Error Packets,
  Wireless Client Table
- 152-bit WEP support (Atheros Proprietary)
- Super A/G mode support (Atheros Proprietary)
- Turbo A/G mode support (Atheros Proprietary)
- Multiple DMZ, Virtual Server, Special
  Application(Trigger Port), IP Filtering
- Disable NAT, RIP, Static Route

- Bandwidth Control by IP, IP Group, MAC Address,
  and P2P(router mode)
- DDNS, NTP Server, UPnP, Syslog
- Ping and Tracerouter utilities
- Bootloader Protection and Emergency Firmware
  Upload Code in bootloader
- Firmware Upgrade and Configuration Backup/
  Restore

Certification
- CE
- FCC

Product Weight (g)
- 341 g

Product Size (L x W x H mm)
- 191 x 145.5 x 29 mm

Ordering Information:

AirLive A.DUO   Dual Band High-Power PoE AP Router, ETSI
Dual Band High-Power PoE AP Router, USA

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