

Aphelion 500AG

802.11a/b/g Multi-functional
Outdoor Wireless Access Point

WiFi

1xRF



The Aphelion 500AG is a multi-functional outdoor wireless AP Bridge. This 5GHz and 2.4GHz wireless bridge conforms to IEEE 802.11 a/b/g standards and provides a clean and highly reliable wireless point-to-point (PtP) networking solution for distant locations or a point-to-multipoint (PtMP) bridge.

Long operating range and connect more separate networks

- ((Bridges in Point to Point (PtP) connect two networks in different locations through a single wireless link
- ((Bridges in point-to-multipoint mode links more separate networks in scattered buildings through wireless links.

Low latency and high throughput over multiple wireless hops

- ((Reliable performance when deploying multiple nodes in bridged or routed environments.
- ((Bandwidth control module at subscriber level
- ((TCP/UDP Port and DSCP Level QoS

Comprehensive Security Features

- ((WPA-PSK / WPA-EAP with TKIP/ CCMP WPA Encryption Type support
- ((802.1x EAP-TLS / MD5 WEP Key support (Client and Server modes)
- ((64/128/152 bits Dynamic WEP keys
- ((Radius client
- ((Hide ESSID
- ((MAC address filtering
- ((NAT

Dynamic WAN Interface Configuration

- ((Flexible assignments of any wired or wireless interfaces as WAN links to adapt to different network topologies
- ((Bandwidth aggregation by logically combining multiple RF links to achieve super trunk mode for high bandwidth deployments
- ((Flexible wireless network distribution system

Harsh outdoor environments to keep operation

- ((Certified IP68 sturdy water-tight housing
- ((Built-in automatic thermal sensor and regulator module to facilitate deployment in cold regions

System Management

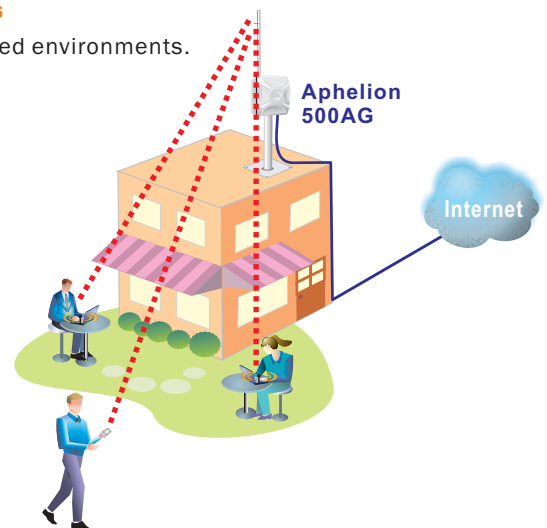
- ((Firmware upgrade through TFTP, FTP
- ((Batch firmware upgrade tool for Windows PCs
- ((Interface status display
- ((SSH Telnet
- ((Syslog
- ((SNMP v1/v2
- ((Easy Configuration backup
- ((SMT Menu and Command Line via console (RS-232) and Telnet

Simple Installation and Deployment

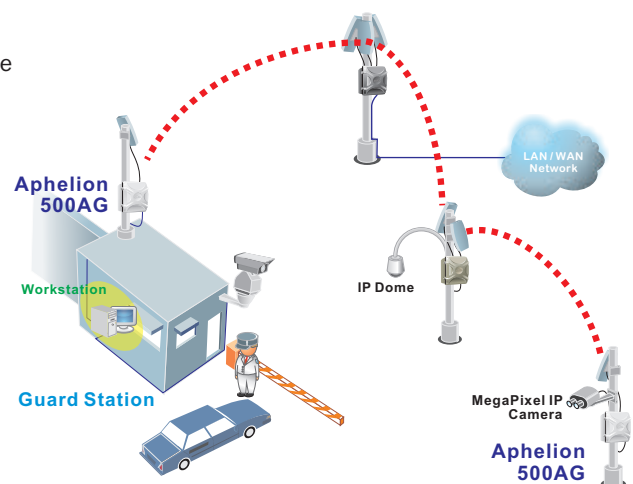
- ((Software Alignment / Deployment Tools
- ((Access Points Site Survey

Advanced Features

- ((Daisy Chain Mesh
- ((Multi-ESSID VLAN
- ((Wireless Client Access Control
- ((Multi-Cast Filter



((■ HotSpot



((■ Surveillance

Specifications



Standard Support

Wireless	IEEE802.11a, IEEE802.11b/g
Ethernet	IEEE802.3, IEEE802.3u, IEEE802.3af

Interface

Console	RS 232 Port
Wireless	Antenna Connector: 1 x Reversed Female N-type
Ethernet	1x10/100 Base-T RJ-45 Power over Ethernet (PoE)

Memory

SDRAM	32 Mbyte
Flash	8 Mbyte

Ethernet

Max. Bandwidth	Full Duplex: 100Mbps (100Base), 10Mbps (10Base)
	Half Duplex: 50Mbps (100Base), 5Mbps (10Base)

Physical Spec.

Power	<ul style="list-style-type: none"> DC 48V / 0.8A; AC Adapter 100V~240V Support Power over Ethernet (PoE)
Dimension	L x W x H: 226 x 197 x 79 mm
Weight	1600g
Dusty & Waterproof	IP68 Certified
Antenna	Reversed N-type (Option)

Regulation and Compliance

US	FCC Part 15 Class B & C & E
Europe	ETS 300 328, ETS 301 489-1&17, ETS 301 893 , EN 60950 compliant and CE Mark

Environment Spec.

Operating Temp	<ul style="list-style-type: none"> Non Heater : -30°C ~ 65°C With heater : -40°C ~ 65°C Built-in heater module is option
Storage	-40°C ~ 80°C
Humidity	0% ~ 95% non-condensing

System Setting

Interface Operation Mode	Access Point (AP) / Wireless Station (AP Client)
System Operation Mode	Bridge / Transparent Bridge / Router
Modulation Technique	<ul style="list-style-type: none"> ❖ 802.11b/g <ul style="list-style-type: none"> DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16-QAM, 64-QAM) ❖ 802.11a <ul style="list-style-type: none"> OFDM(BPSK, QPSK, 16-QAM, 64-QAM)
Channels Support	<ul style="list-style-type: none"> ❖ 802.11b/g <ul style="list-style-type: none"> US/Canada: 11 (1~11) Major European country: 13 (1~13) France: 4 (10~13) Japan: 11b: 14 (1~13 or 14th), 11g:13(1~13) China: 13 (1~13) ❖ 802.11a <ul style="list-style-type: none"> US/Canada: 12 non-overlapping channels (5.15~5.35GHz, 5.725~5.825GHz) Europe: 19 non-overlapping channel (5.15~ 5.35GHz, 5.47~5.725GHz, 5.745~5.825GHz) Japan: 4 non-overlapping channels (5.15 ~ 5.25GHz) China : 5 non-overlapping channels (5.725 ~ 5.85GHz)
Wireless Transmission Rate	802.11b/g: 11, 5.5, 2, 1 Mbps, auto-fallback, up to 54 Mbps 802.11a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps, auto-fallback
Transmitted Power	802.11b mode: 17dBm 802.11g mode: 17dBm @ 6Mbps, 15dBm @ 54Mbps 802.11a mode: 15dBm @ 6Mbps, 13dBm @ 54Mbps
Wireless Other Setting	<ul style="list-style-type: none"> DHCP Client/Server, Fixed IP Routing Table Setting RIP v1&v2 MS NetBIOS IP Filter Enable/Disable Connecting Clients Isolation 802.11h- Dynamic Frequency Selection (Auto DFS) Wireless Station Fix AP MAC Address Optional
Receiver Sensitivity	<ul style="list-style-type: none"> ❖ Receiver sensitivity: (PER < 8% for 11b; PER < 10% for 11g & 11a) ❖ 802.11b Sensitivity: <ul style="list-style-type: none"> DBPSK (1Mbps) -93 dBm DQPSK (2.2Mbps) -92 dBm CCK (5.5Mbps) -90 dBm CCK (11Mbps) -88 dBm ❖ 802.11g Sensitivity: <ul style="list-style-type: none"> BPSK(6Mbps) -89 dBm BPSK(9Mbps) -88 dBm QPSK(12Mbps) -86 dBm QPSK(18Mbps) -85 dBm 16QAM(24Mbps) -83 dBm 16QAM(36Mbps) -80 dBm 64QAM(48Mbps) -77 dBm 64QAM(54Mbps) -72 dBm ❖ 802.11a Sensitivity: <ul style="list-style-type: none"> BPSK(6Mbps) -88 dBm BPSK(9Mbps) -87 dBm QPSK(12Mbps) -85 dBm QPSK(18Mbps) -84 dBm 16QAM(24Mbps) -82 dBm 16QAM(36Mbps) -80 dBm 64QAM(48Mbps) -76 dBm 64QAM(54Mbps) -71 dBm

Package Contents



- Aphelion 500AG 802.11a/b/g Multi-functional Outdoor Wireless Access Point
- PoE Power Injector, Power Adapter & AC Power Cord
- 30M MIL-C-5015 IP68 Cat-5 Ethernet Cable
- 2M MIL-C-5015 IP67 RS-232 Console Cable
- Console Port Waterproof cover

- Wall Mounting Kit & Screw
- Mast Mounting Kit & Screw
- CD: User Manual
- Quick Installation Guide
- Grounding Wire

**If any of the above items are missing, please contact your reseller.



Aphelion Communications Inc.

- Tel: +886-3-452-3609
- Fax: +886-3-434-5414
- No.5, Tzu-Chiang 1st Road, Chungli Industrial Zone, Taoyuan Hsien, Taiwan
- Email: sales@aphelions.com
- http://www.aphelions.com

