

APi2750D

DUAL BAND 2X2 INDOOR WIRELESS ACCESS POINT



OVERVIEW

The high performance APi2750D is a mountable indoor wireless access point which complies to the 802.11n wireless standard. Operating at both 2.4GHz and 5.0GHz frequencies and supporting a maximum data rate of 300Mbps for both 2.4GHz and 5.0GHz, the APi2750D is the ideal partner for highly populated locations and bandwidth conducive applications such as Voice and AV Streaming.

The APi2750D also offers reliable operating modes which are fully capable of providing for your network management and deployment needs. Depending on your network need, APi2750D can either be used as wireless access point, or as a managed access point that can be controlled by Aztech AP controllers. Through its FAT or THIN AP modes, you can easily manage the deployment of the APi2750D which would best fit your network need.

Equipped with 802.11n 2T2R (MIMO) technology and a dual-band concurrent feature, Aztech APi2750D is capable of providing speeds of up to 600Mbps rates and is capable of providing your network needs reliably at a cost-effective price, making this device a must have choice for your network's continually growing scale.

| Features | Additional Information |
|--|---|
| Chipset Solution | <ul style="list-style-type: none"> CPU: AR9342 + AR9382 Ethernet PHY: AR8035 |
| SPI Flash | 16Mbyte |
| Memory (DDR II) | 64Mbyte |
| Standard compliance | <ul style="list-style-type: none"> IEEE802.3u MDI / MDIX 10/100 Base-T Ethernet IEEE 802.ab 1000 Base-T Ethernet IEEE802.11a/b/g wireless LAN standard IEEE 802.11n wireless LAN standard |
| Interfaces | <ul style="list-style-type: none"> 1 RJ45 support 10/100/1000Mbps 1 Reset button 1 DC Jack |
| Ethernet Interface | 10/100/1000 BASE-T RJ-45 Ethernet connector |
| Antenna | 2 * 2.4GHz 5dBi PCB antennas 2 * 5.0GHz 5dBi PCB antennas |
| Antenna Connector | 4 * U.FL connector |
| PoE support | IEEE 802.3at support (Class4) |
| Reset button | Reset to factory default |
| HW Watchdog | IC EM6324QYSP5B(Cycle detection time:25s) |
| LED | Front Panel LED definition <ul style="list-style-type: none"> LED17: LED1 Green (Power): <ul style="list-style-type: none"> » Off: Power/ system off » On: Power/ system on LED18: LED2 Green (RF1 -> 2.4G) <ul style="list-style-type: none"> » Off: WLAN disabled » On: RF in-active (system boot-up finishes.) » Blinking: Data TX/RX through wireless access point LED19: LED3 Green(RF2 ->5.0GHz) <ul style="list-style-type: none"> » Off: WLAN disabled » On: RF in-active (system boot-up finishes.) » Blinking: Data TX/RX through wireless access point LED20: LED4 Green(LAN) <ul style="list-style-type: none"> » Off: LAN link-down » On: LAN link-up |
| Power supply | <ul style="list-style-type: none"> Support POE 802.3at Support +48V PTE |
| Power requirement | <ul style="list-style-type: none"> Support POE 802.3at <ul style="list-style-type: none"> » Output: +48V DC@0.5A » Input: 100~240V AC, 50/60Hz Support +48V PTE <ul style="list-style-type: none"> » Output >+48V DC@0.5A » Input: 100~240V AC, 50/60Hz |
| Current consumption (Input 48V) | ≤ 25W |

| | |
|---|---|
| Anti-static Grade | <ul style="list-style-type: none"> • IEC61000-4-2(B) • Contact discharge: 4KV • Air discharge: 8KV |
| Data rate | <ul style="list-style-type: none"> • 802.11a: 6/9/12/18/24/36/48/54 Mbps & Auto fallback • 802.11b: 1/2/5.5/11 Mbps & Auto fallback • 802.11g: 6/9/12/18/24/36/48/54 Mbps & Auto fallback • 802.11n: 6/ 6.5/ 13/ 13.5/ 19.5/ 26/ 27/ 39/ 40.5/ 52/ 54/ 58.5/ 65/ 78/ 81/ 104/108/ 117/ 121.5/ 130/ 135/ 162/ 216/ 243/ 270/ 300Mbps |
| Data modulation type | <ul style="list-style-type: none"> • IEEE 802.11 a/b/g <ul style="list-style-type: none"> » DSSS (DBPSK, DQPSK, CCK) » OFDM (BPSK, QPSK, 16-QAM, 64-QAM) • IEEE 802.11n <ul style="list-style-type: none"> » OFDM (BPSK, QPSK, 16-QAM, 64-QAM) |
| Operating Frequency & Channels | <ul style="list-style-type: none"> • IEEE 802.11b/g/gn 20MHz ISM Band <ul style="list-style-type: none"> » USA (FCC): 2.412GHz~2.462GHz » Europe (ETSI): 2.412GHz~2.472GHz » Japan(ARIB) : 2.412GHz~2.472GHz • IEEE 802.11gn 40MHz Band <ul style="list-style-type: none"> » USA (FCC): 2.422GHz~2.452GHz » Europe (ETSI): 2.422GHz~2.462GHz » Japan (ARIB): 2.422GHz~2.462GHz • IEEE 802.11a/an 20MHz/40MHz ISM Band <ul style="list-style-type: none"> » USA (FCC): 5.15GHz~5.25GHz; 5.725GHz~5.85GHz » Europe (ETSI): 5.15GHz~5.35GHz; 5.47GHz~5.725GHz » Japan (ARIB): 5.15GHz~5.35GHz; 5.47GHz~5.725GHz |

RF1 (2.4GHz)

| | | |
|---------------------------------|-----------------|---|
| Output power (per chain) | 11b (Per chain) | 20 dBm@1Mbps 20 dBm@2Mbps 20 dBm@5.5Mbps 20 dBm@11Mbps |
| | 11g (Per chain) | <ul style="list-style-type: none"> • 20 dBm@6Mbps • 20 dBm@9Mbps • 20 dBm@12Mbps • 20 dBm@18Mbps • 20 dBm@24Mbps • 20 dBm@36Mbps • 20 dBm@48Mbps • 20 dBm@54Mbps |
| Tolerance ±2dBm | 11gn | HT20 HT40 |
| | | <ul style="list-style-type: none"> • -82dBm@MCS0/8 • -79dBm@MCS1/9 • -77dBm@MCS2/10 • -74dBm@MCS3/11 • -70dBm@MCS4/12 • -66dBm@MCS5/13 • -65dBm@MCS6/14 • -64dBm@MCS7/15 <ul style="list-style-type: none"> • -79dBm@MCS0/8 • -76dBm@MCS1/9 • -74dBm@MCS2/10 • -71dBm@MCS3/11 • -67dBm@MCS4/12 • -63dBm@MCS5/13 • -62dBm@MCS6/14 • -61dBm@MCS7/15 |
| Sensitivity | 11b (Per chain) | -76dBm@11Mbps |
| | 11g (Per chain) | <ul style="list-style-type: none"> • -82dBm@6Mbps • -81dBm@9Mbps • -79dBm@12Mbps • -77dBm@18Mbps • -74dBm@24Mbps • -70dBm@36Mbps • -66dBm@48Mbps • -65dBm@54Mbps |
| | 11gn | HT20 (Per chain) HT40 (Per chain) |
| | | <ul style="list-style-type: none"> • -82dBm@MCS0/8 • -79dBm@MCS1/9 • -77dBm@MCS2/10 • -74dBm@MCS3/11 • -70dBm@MCS4/12 • -66dBm@MCS5/13 • -65dBm@MCS6/14 <ul style="list-style-type: none"> • -79dBm@MCS0/8 • -76dBm@MCS1/9 • -74dBm@MCS2/10 • -71dBm@MCS3/11 • -67dBm@MCS4/12 • -63dBm@MCS5/13 • -62dBm@MCS6/14 • -61dBm@MCS7/15 |

SPECIFICATIONS MAY CHANGE WITHOUT PRIOR NOTICE

RF2 (5.0GHz)

Output power (per chain) 11a
(Per chain)
Tolerance ±2dBm

- 20 dBm@6Mbps
- 20 dBm@9Mbps
- 20 dBm@12Mbps
- 20 dBm@18Mbps
- 20 dBm@24Mbps
- 20 dBm@36Mbps
- 20 dBm@48Mbps
- 20 dBm@54Mbps

| 11an | HT20 | HT40 |
|------|--|--|
| | <ul style="list-style-type: none"> • 20 dBm@MCS0/8 • 20 dBm@MCS1/9 • 20 dBm@MCS2/10 • 20 dBm@MCS3/11 • 20 dBm@MCS4/12 • 20 dBm@MCS5/13 • 20 dBm@MCS6/14 • 20 dBm@MCS7/15 | <ul style="list-style-type: none"> • 20 dBm@MCS0/8 • 20 dBm@MCS1/9 • 20 dBm@MCS2/10 • 20 dBm@MCS3/11 • 20 dBm@MCS4/12 • 20 dBm@MCS5/13 • 20 dBm@MCS6/14 • 20 dBm@MCS7/15 |

Sensitivity 11a
(Per chain)

- -82dBm@6Mbps
- -81dBm@9Mbps
- -79dBm@12Mbps
- -77dBm@18Mbps
- -74dBm@24Mbps
- -70dBm@36Mbps
- -66dBm@48Mbps
- -65dBm@54Mbps

| 11an | HT20 (Per chain) | HT40 (Per chain) |
|------|--|--|
| | <ul style="list-style-type: none"> • -82dBm@MCS0/8 • -79dBm@MCS1/9 • -77dBm@MCS2/10 • -74dBm@MCS3/11 • -70dBm@MCS4/12 • -66dBm@MCS5/13 • -65dBm@MCS6/14 • -64dBm@MCS7/15 | <ul style="list-style-type: none"> • -79dBm@MCS0/8 • -76dBm@MCS1/9 • -74dBm@MCS2/10 • -71dBm@MCS3/11 • -67dBm@MCS4/12 • -63dBm@MCS5/13 • -62dBm@MCS6/14 • -61dBm@MCS7/15 |

Software Specifications

| | |
|----------------------------------|--|
| Standard Compliance | <ul style="list-style-type: none"> • IEEE 802.3 and 802.3u 10Base-T and 100Base-TX physical layer specification • IEEE 802.11g specification compliance for wireless LAN • IEEE 802.11b specification compliance for wireless LAN • IEEE 802.1x security standard support • Power over Ethernet, IEEE 802.3at compliant |
| Operating Mode | <ul style="list-style-type: none"> • Thin AP mode • Fat AP mode |
| Thin AP | <ul style="list-style-type: none"> • FIT AP zero configuration • DHCP option 43,60 • DHCP detection • DNS detection • Static IP detection |
| Multiple BSSID | <ul style="list-style-type: none"> • Support up to 16 SSID Profile setting • Support up to 4 Strict Priority Queue at least and configuration of certain SSID corresponding to Strict Priority Queue so as to distinguish link service priority • Limitation of client connections (# is configurable, default: unlimited) • Bandwidth control |
| Spanning Tree Protocol | <ul style="list-style-type: none"> • 802.1d support |
| DHCP Client | <ul style="list-style-type: none"> • Ability to act as a DHCP client to get IP address from DHCP server from LAN port. • In DHCP client mode, if DHCP server is not available, then use default IP address. |
| VLAN | <ul style="list-style-type: none"> • Support per SSID VLAN tagging • Support system VLAN tagging |
| VPN pass through | <ul style="list-style-type: none"> • IPSec, PPTP and L2TP pass through support • Support in AP and WDS modes, but not in client mode. |
| Transmit Power Adjustment | <p>Manually adjustable</p> <ul style="list-style-type: none"> • Transmit power adjustable unit should be 1dBm • Transmit power adjustable range should be at least 8dB |
| Device Remote Management | <ul style="list-style-type: none"> • Support remote management via SSH, FTP, WWW, and SNMP • Administrator can specify the following method to allow for device management: <ul style="list-style-type: none"> » Interface (WLAN or Ethernet) » MAC address » IP address |
| System Monitoring | System status |
| Management | <ul style="list-style-type: none"> • Embedded Web Configuration management • Command-line interface: SSH support • FTP/Web for firmware downloading and configuration backup and restore. • Built-in Diagnostic Tool • SNMP Management (v1, v2C, C3) |
| Security | <ul style="list-style-type: none"> • MAC address filtering through WLAN (support 128 account) • IEEE 802.1x security (EAP-TLS, EAP-TTLS, PEAP, EAP-SIM, FAST, -AKA) • 64/128-bits WEP • Both WPA/WPA2 PSK & Enterprise support • Mixed WPA& WPA2 mode (support both WPA and WPA2 clients) |
| Quality of Service | WMM support |
| Diagnostics Capabilities | <ul style="list-style-type: none"> • The access point can perform self-diagnostic tests. These tests check the integrity of the following circuits: <ul style="list-style-type: none"> » FLASH memory » DRAM » Ethernet port » Wireless port • Sys log <ul style="list-style-type: none"> » Error log » Trace log » Packet Log |
| Association Management | <ul style="list-style-type: none"> • 5.0GHz Priority: In a dual-band AP, 5.0GHz band has a higher STA association priority than 2.4GHz band. • 11n Priority: 802.11n standard gets a higher association priority than 802.11b/g standards • Support Air Time Fairness for clients compliant to different standards of 802.11b/g/n. • Support the setting of automatic Disassociation with low-level MCS users. |

Integrated Spectrum Analyzer Ability to detect interference source and avoid interference by automatically selecting the best channel .

- » Ability to detect WLAN Devices Interference
- » Ability to detect Non WLAN Devices Interference

Newly-added MIB Nodes

wlanStationTable

- » SNR (Signal-to-Noise Ratio) of STAs associated to AP should be measured in dB.
- » Physical layer Transmit Rate of STAs associated to AP
- » Packet Error Ratio of STAs associated to AP

wlanStatisticTable

- » Co-Channel Interference, CCI
- » Adjacent Channel Interference, ACI
- » WLAN Devices Interference
- » Non WLAN Devices Interference

Physical Specifications

Dimension 213 (L) mm × 170(D) mm × 39 (H) mm

Weight 500g

Environmental Specifications

| | Items | Device | Power Adapter |
|------------------------------|-------|--------------|-------------------|
| Operating Temperature | | 0 to 50°C | 0 ~ 40°C 0 ~ 40°C |
| Storage Temperature | | -10 to 55°C | 20 to 90% RH |
| Operating Humidity | | 15 to 90% RH | -20 ~ 85°C |
| Storage Humidity | | 15 to 90% RH | 20 to 95% RH |

Environmental Specifications

| | | |
|-----------------|--------------------------|---|
| Safety | | EN 60950-1_2006+A11:2009 |
| EMI | European Union (CE mark) | EN 301 489-1 V1.8.1_2008-04 EN 301 489-17 V2.1.1_2009-05 |
| | North America | FCC Part15.107_2008-07 |
| Wireless | European Union | ETSI EN 300 328 V1.7.1_2006-10 |
| | North America | FCC Part 15.247, 15.407_2008-07 |