A750

Indoor Wi-Fi 6 (802.11ax) Access Point

ACCESS NETWORKS

DATA SHEET

BENEFITS

CONNECT MORE DEVICES SIMULTANEOUSLY

Improve device performance, by enabling more simultaneous device connections with built-in 8 spatial streams (4x4:4 in 5GHz, 4x4:4 in 2.4GHz), MU-MIMO and OFDMA technology.

HIGH DENSITY PERFORMANCE

Provides exceptional end-user experience within large meeting halls, general enterprise spaces, and large classrooms with the Access Networks Ultra-High-Density Technology Suite.

CONVERGED ACCESS POINT

Allows customers to eliminate siloed networks and unify WiFi and non-WiFi wireless technologies into one single network by using built-in BLE and Zigbee, and also expanding to any future wireless technologies through the USB port.

MULTIGIGABIT ACCESS SPEEDS

Optimized multi-gigabit Wi-Fi performance delivered using the built-in 2.5GbE port to connect to multigigabit switches.

MULTIPLE MANAGEMENT OPTIONS

Manage the A750 with on premise physical/ virtual appliances and control auto- provisioning for faster deployment and seamless firmware upgrades.

ENHANCED SECURITY

The latest Wi-Fi security standard with WPA3 and receive enhanced protection from man-in-the-middle attacks in the most secure way.

The A750 is based on the latest Wi-Fi 6 standard and bridges the performance gap from 'gigabit' Wi-Fi to 'multi-gigabit' Wi-Fi in support of the insatiable demand for better and faster Wi-Fi. The A750 is the first Wi-Fi 6 AP to be certified by Wi-Fi Alliance as **Wi-Fi CERTIFIED 6**. As part of the Wi-Fi Alliance testbed, the A750 validates other devices for Wi-Fi CERTIFIED 6 interoperability.

The Access Networks A750 is our high-end concurrent dual-band Wi-Fi 6 AP that supports 8 spatial streams (4x4:4 in 5GHz, 4x4:4 in 2.4GHz). The A750, with OFDMA and MU-MIMO capabilities, efficiently manages up to 1024 client connections with increased capacity, improved coverage and performance in ultra-high dense environments.

The A750, with OFDMA, TWT and MU-MIMO capabilities, efficiently manages up to 1024 client connections with increased capacity, improved coverage and performance in ultra-dense environments. Furthermore, multi-gigabit Ethernet ensures the backhaul is not a bottleneck for full use of available Wi-Fi capacity.

Also, wireless requirements within enterprises are expanding beyond Wi-Fi with BLE, Zigbee and many other non-Wi-Fi wireless technologies. Enterprises need a unified platform to eliminate network silos. The Access Networks AP portfolio is equipped to solve these challenges through wireless convergence.

The A750 has built-in IoT radios with onboard BLE and Zigbee capabilities. In addition, the A750 is a converged access point that allows customers to seamlessly integrate any new wireless technologies with our USB port.

The A750 addresses the increasing client demands in transit hubs, auditoriums, conference centers, and other high traffic indoor spaces. It is the perfect choice for data-intensive streaming multimedia applications like 4K video transmissions, while supporting latency sensitive voice and data applications with stringent quality-of-service requirements. Th e A750 is also easy to manage through Access Networks C120 or Unleashed management options.

The A750 when paired with the Access Networks Ultra-High-Density Technology Suite found only in the Access Networks Wi-Fi portfolio, dramatically improves network performance through a combination of patented wireless innovations and learning algorithms that includes:

- **Airtime Decongestion:** Increases average network throughput in heavily congested environments
- **Transient Client management:** Reduces interference traffic from unconnected Wi-Fi devices
- **BeamFlex+ Antennas:** Extended coverage and optimized throughput with patented multi-directional antennas and radio patterns

Whether you are deploying ten or ten thousand APs, the A750 is also easy to manage through Access Networks' C 120 or Unleashed management options.

Front View

Weight: 2.23 lbs (1.01kg)

ACCESS POINT ANTENNA PATTERN

Access Networks' BeamFlex+ adaptive antennas allow the A750 AP to dynamically choose among a host of antenna patterns (over 4,000 possible combinations) in real-time to establish the best possible connection with every device. This leads to:

- Better Wi-Fi coverage
- Reduced RF interference

Traditional omni-directional antennas, found in generic access points, oversaturate the environment by needlessly radiating RF signals in all directions. In contrast, the Access Networks BeamFlex+ adaptive antenna directs the radio signals per- device on a packet by-packet basis to optimize Wi-Fi coverage and capacity in real- time to support high device density environments. BeamFlex+ operates without the need for device feedback and hence can benefit even devices using legacy standards.

Figure 1. Example of BeamFlex+ pattern

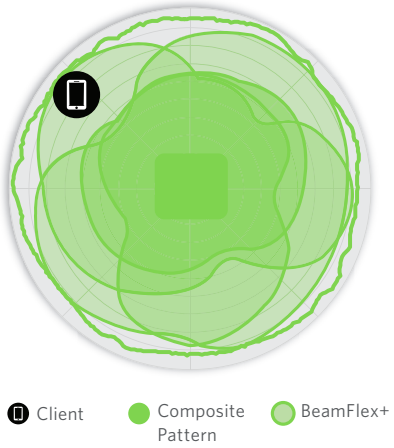

Figure 2. A750 2.4GHz AzimuthAntenna Patterns

Figure 3. A750 5GHz AzimuthAntenna Patterns

Figure 4. A750 2.4GHz Elevation Antenna Patterns

Figure 5. A750 5GHz Elevation Antenna Patterns

Note: The outer trace represents the composite RF footprint of all possible BeamFlex+ antenna patterns, while the inner trace represents one BeamFlex+ antenna pattern within the composite outer trace.

OvrC® Integration for Unleashed Access Networks Wi-Fi 6 Access Points

OvrC is a free, cloud-based remote management platform created by Snap One that empowers professionals to configure, manage, and troubleshoot devices across a network seamlessly. By combining high-performance, reliable hardware with the power of OvrC, the Access Networks® Unleashed Wi-Fi 6 Access Points provide a comprehensive solution for your networking needs. Enjoy streamlined setup, easy scalability, enhanced remote management capabilities, and more.

Access Networks Unleashed Wi-Fi 6 Access Points are also now available through the client OvrC Connect app.

WI-FI	
Wi-Fi Standards	• IEEE 802/11a/b/g/n/ac/ax
Supported Rates	• 802.11ax: 4 to 2400 Mbps • 802.11ac: 6.5 to 1732 Mbps • 802.11n: 6.5 to 600 Mbps • 802.11a/g: 6 to 54 Mbps • 802.11b: 1 to 11 Mbps
Supported Channels	• 2.4GHz: 1-13 • 5GHz: 36-64, 100-144, 149-165
MIMO	• 4x4 SU-MIMO • 4x4 MU-MIMO
Spatial Streams	• 4 for both SU-MIMO & MU-MIMO
Radio Chains and Streams	• 4x4:4
Channelization	• 20, 40, 80, 160/80+80MHz
Security	• WPA-PSK, WPA-TKIP, WPA2 AES, WPA3,802.11i, Dynamic PSK, OWE • WIPS/WIDS
Other Wi-Fi Features	• WMM, Power Save, Tx Beamforming, LDPC, STBC, 802.11r/k/v • Hotspot • Hotspot 2.0 • Captive Portal • WISPr

RF	
Antenna Type	• BeamFlex+ adaptive antennas with polarization diversity • Adaptive antenna that provides 4,000+ unique antenna patterns per band
Antenna Gain (max)	• Up to 3dBi
Peak Transmit Power (Tx port/chain + Combining gain)	• 2.4GHz: 26dBm • 5GHz: 28 dBm
Frequency Bands	• ISM (2.4-2.484GHz) • U-NII-1 (5.15-5.25GHz) • U-NII-2A (5.25-5.35GHz) • U-NII-2C (5.47-5.725GHz) • U-NII-3 (5.725-5.85GHz)

2.4GHZ RECEIVE SENSITIVITY (dBm)

HT20		HT40		VHT20		VHT40	
MCS0	**MCS7**	**MCS0**	**MCS7**	**MCS0**	**MCS7**	**MCS0**	**MCS7**
-96	-78	-93	-75	-96	-78	-93	-75
HE 20				HE40			
MCS0	**MCS7**	**MCS9**	**MCS11**	**MCS0**	**MCS7**	**MCS9**	**MCS11**
-96	-78	-73	-67	-93	-75	-70	-64

5GHZ RECEIVE SENSITIVITY (dBm)

VHT20				VHT40				VHT80			
MCS0	**MCS7**	**MCS8**	**MCS9**	**MCS0**	**MCS7**	**MCS8**	**MCS9**	**MCS0**	**MCS7**	**MCS8**	**MCS9**
-98	-80	-77	-	-95	-77	-	-72	-92	-74	-	-69
HE20				HE40				HE80			
MCS0	**MCS7**	**MCS9**	**MCS11**	**MCS0**	**MCS7**	**MCS9**	**MCS11**	**MCS0**	**MCS7**	**MCS9**	**MCS11**
-98	-80	-75	-70	-95	-77	-72	-67	-92	-74	-69	-64

2.4GHZ TX POWER TARGET (PER CHAIN)

Rate	Pout (dBm)
MCS0 HT20	20
MCS7 HT20	16
MCS8 VHT20	15
MCS9 VHT40	14
MCS11 HE40	12

5GHZ TX POWER TARGET (PER CHAIN)

Rate	Pout (dBm)
MCS0, VHT20	22
MCS7, VHT40, VHT80	19
MCS9, VHT40, VHT80	17
MCS11, HE20, HE40, HE80	15

PERFORMANCE AND CAPACITY	
Peak PHY Rates	• 2.4GHz: 1148 Mbps • 5GHz: 2400 Mbps
Client Capacity	• Up to 1024 clients per AP
SSID	• Up to 31 per AP

ACCESS NETWORKS RADIO MANAGEMENT	
Antenna Optimization	• BeamFlex+ • Polarization Diversity with Maximal Ratio Combining (PD-MRC)
Wi-Fi Channel Management	• ChannelFly • Background Scan Based
Client Density Management	• Adaptive Band Balancing • Client Load Balancing • Airtime Fairness • Airtime-based WLAN Prioritization
SmartCast Quality of Service	• QoS-based scheduling • Directed Multicast • L2/L3/L4 ACLs
Mobility	• SmartRoam
Diagnostic Tools	• Spectrum Analysis • SpeedFlex

NETWORKING	
Controller Platform Support	• SmartZone • ZoneDirector • Unleashed[1] • Standalone
Mesh	• SmartMesh™ wireless meshing technology. Self-healing Mesh
IP	• IPv4, IPv6, dual-stack
VLAN	• 802.1Q (1 per BSSID or dynamic per user based on RADIUS) • VLAN Pooling • Port-based
802.1x	• Authenticator & Supplicant
Tunnel	• L2TP, GRE, Soft-GRE
Policy Management Tools	• Application Recognition and Control • Access Control Lists • Device Fingerprinting • Rate Limiting
IoT Capbale	• Yes

PHYSICAL INTERFACES	
Ethernet	• One 2.5Gbps Ethernet port and one 1Gbps Ethernet port • Power over Ethernet (802.3af/at/bt) with Category 5/5e/6 cable • LLDP
USB	• 1 USB 2.0 port, Type A

PHYSICAL CHARACTERISTICS	
Physical Size	• 23.5cm (L), 20.6cm (W), 6.2cm (H) • 9.3in (L) x 8.1in (W) x 2.4in (H)
Weight	• 1.01 kg • 2.23 lbs
Mounting	• Wall, acoustic ceiling, desk • Secure bracket (sold separately)
Physical Security	• Hidden latching mechanism • Kensington Lock Hole • T-bar Torx • Bracket (902-0120-0000) Torx screw & padlock (sold separately)
Operating Temperature	• 0°C (32°F) - 50°C (122°F)
Operating Humidity	• Up to 95%, non-condensing

OPTIONAL ACCESSORIES	
902-0180-XX00	• PoE Injector (60W)
902-1170-XX00	• Power Supply (48V, 0.75A, 36W)
902-0120-0000	• Spare, Accessory Mounting Bracket
902-0195-0000	• Spare, T-bar ceiling mount kit for mounting to flush frame ceiling

PLEASE NOTE: When ordering Indoor APs, you must specify the destination region by indicating -US, -WW, or -Z2 instead of XX. When ordering PoE injectors or power supplies, you must specify the destination region by indicating -US, -EU, -AU, -BR, -CN, -IN, -JP, -KR, -SA, -UK, or -UN instead of -XX.
For access points, -Z2 applies to the following countries: Algeria, Egypt, Israel, Morocco, Tunisia, and Vietnam.

[1] Refer to Unleashed datasheets for SKU ordering information.
[2] Max power varies by country setting, band, and MCS rate.
[3] For complete list of WFA certifications, please see Wi-Fi Alliance website.
[4] For current certification status, please see price list.

POWER[2]		
Power Supply	**Operating Characteristics**	**Max Power Consumption**
802.3af PoE	• 2.4GHz radio: 2x4, 19dBm per chain • 5GHz radio: 2x4, 20dBm per chain • 2nd Ethernet port, onboard IoT & USB disabled	PoE: 12.54W
802.3at PoE+	• Full Functionality • 2.4GHz radio: 4x4, 20 dBm per chain • 5GHz radio: 4x4, 22 dBm per chain • 2nd Ethernet Port, onboard IoT & USB Enabled (3W)	PoE+ : 22.34W DC Power: 22.69W

CERTIFICATIONS AND COMPLIANCE	
Wi-Fi Alliance[3]	• Wi-Fi CERTIFIED™ a, b, g, n, ac, ax • Passpoint®, Vantage
Standards Compliance[4]	• EN 60950-1 Safety • EN 60601-1-2 Medical • EN 61000-4-2/3/5 Immunity • EN 50121-1 Railway EMC • EN 50121-4 Railway Immunity • IEC 61373 Railway Shock & Vibration • EN 62311 Human Safety/RF Exposure • WEEE & RoHS • ISTA 2A Transportation

SOFTWARE AND SERVICES	
Location Based Services	• SPoT
Network Analytics	• SmartCell Insight (SCI)
Security and Policy	• Cloudpath

ORDERING INFORMATION	
ANW-A750-XX00 **ANU-A750-XX00**	• A750 dual-band (5GHz and 2.4GHz concurrent) 802.11ax wireless access point, 4x4:4 streams, adaptive antennas, dual ports, onboard BLE and Zigbee, PoE support. Includes adjustable acoustic drop ceiling bracket. One Ethernet port is 2.5GbE. Does not include power adaptor.

Warranty: This Access Networks product includes a limited lifetime warranty. This warranty is described in greater detail here:
https://www.snapone.com/legal/limited-hardware-warranty