MAXIMUM SPEED. MINIMUM COST.

AP 7532 802.11ac ACCESS POINT

GET BLAZING 802.11AC WI-FI SPEED AND THROUGHPUT TO SUPPORT ALL YOUR USERS AND APPLICATIONS — ALL AT A LOW COST.

You need more out of your wireless LAN — you need to support more wireless users and more of today's extremely demanding voice and data applications. You need the ultimate performance and bandwidth that 802.11ac can deliver, but cost has been an issue — until today.

Now, you can get maximum 802.11ac performance at a minimum cost with the AP 7532 from Motorola Solutions. The AP 7532 is packed with a comprehensive feature set that delivers today's fastest available Wi-Fi speeds. No matter how many users are on your WLAN or what applications they are using, they can count on dependable blazing desktop-style speed. The next generation 802.11ac radio delivers up to four times the speed of 802.11n. The 802.11n radio ensures backward compatibility with every mobile device in use in your operation today — and advanced technology helps boost the bandwidth of the 802.11n radio to 802.11ac levels. If you need sensor capability, you get the flexibility to meet different business needs — you can deploy a single AP 7532 as both a sensor and an access point for maximum cost-efficiency, or as a dedicated sensor for the most robust sensing functionality. No matter where you need 802.11ac speed, the AP 7532 will fit right in, from customer-facing public spaces to the warehouse floor. Choose internal antennas for a sleek understated look that is ideal in customer facing or carpeted office areas, or external antennas that allow you to choose the antennas that will deliver maximum range and performance in demanding industrial areas. And with our high-powered radios, you'll need fewer access points. The result? Maximum capacity and performance for your wireless LAN — at a new low cost.

INNOVATIVE FEATURES OF THE AP 7532

Highest performance wireless speeds with 3X3 MIMO and 256 QAM modulation
3 spatial streams plus 256 QAM modulation support on both the 2.4 GHz and 5 GHz radios deliver the maximum throughput needed to support virtually any enterprise application, including voice and HD video; works in conjunction with beamforming to boost range

Dual radio 802.11ac/802.11n
Provides an easy upgrade path to 5th generation 1.3Gbps Wi-Fi for unmatched performance and capacity, with continuing support for all existing Wi-Fi client devices (2.4 GHz/5 GHz)

The aesthetics for every inch of your environment
Choose the internal antenna option for a sleek look in public facing areas where aesthetics are important; choose external antennas when you need the flexibility to cover challenging areas

Radio Share and Off-Channel Scan
Enables a single AP 7532 to perform double duty as an access point and a sensor

Standard 802.3af
Simplifies and reduces total cost of installation using standard Power-over-Ethernet

Load balancing, pre-emptive roaming and rate scaling
Increases reliability and resilience of the wireless network to support mission critical applications

Gap-free security
Protects your network 24x7x365 with integrated security features

UNMATCHED BANDWIDTH FOR UNMATCHED NETWORK AND APPLICATION PERFORMANCE

802.11ac technology builds on 802.11n, delivering up to four times the bandwidth through new technology advancements. 3X3 Multiple-Input Multiple-Output (MIMO) allows 3-spatial streams of data to be sent simultaneously to a single mobile device, substantially improving bandwidth efficiency and utilization. 256 QAM modulation gives the 802.11ac radio an additional performance boost, and works hand-in-hand with MIMO technology to boost the bandwidth of the 802.11n radio to 802.11ac speeds. Since 802.11ac operates only in the 5 GHz band, interference from 2.4 GHz devices is finally eliminated — from Bluetooth® headsets to microwave ovens. The result? Your WLAN can support an unprecedented number of users and applications — including voice and video — allowing you to confidently deploy Bring Your Own Device (BYOD) initiatives and empower new workgroups with mobility.

EASY MIGRATION TO 5TH GENERATION 802.11ac WI-FI

The dual radio AP 7532 provides the simplest path to next generation Wi-Fi. The 802.11ac radio readies you to support new 5 GHz mobile devices, while the 802.11n radio ensures support for all existing mobile devices — including 2.4 GHz clients. The radios work together to allow you to migrate to 802.11ac at your own pace — and without the high cost of "rip and replace".

MORE ROBUST WIRELESS CONNECTIONS

Your users will experience a more robust wireless connection than ever before, thanks to improved beamforming. Beamforming creates the most efficient path for data transmission between an access point and a mobile device. Until today, the transmitting beamformer worked alone to define this path. Now, the receiver also assists, a process known as sounding. The result is a stronger connection that enables faster data transmission. Application throughput and performance are improved, along with mobile device battery power.

GAP-FREE SECURITY

The AP 7532 secures all your wireless transmissions, ensuring compliance with the government or industry regulations your business may be subjected to, such as PCI in retail and HIPAA in healthcare. Your network is protected every second of every day with comprehensive integrated security features that include layer 2-7 stateful packet filtering firewall, AAA RADIUS services, a VPN gateway and location-based access control.

FLEXIBLE WIPS SENSOR SUPPORT

You choose how you want to implement sensing to support AirDefense Network Assurance features. While you can always choose to deploy an AP 7532 as a dedicated sensor, Radio Share and Off-Channel Scan features work hand-in-hand to allow either or both radios to carry client data and act as a sensor, providing dual-band sensing without adding cost.

VOICE, LOCATIONING AND GUEST ACCESS

Support for Voice-over-wireless LAN (VoWLAN) quality of service (QoS) ensures toll quality, even with many simultaneous calls on a single access point. In addition, you can leverage locationing services to locate and track people and assets, as well as control network and application access. And since you can prevent users from accessing authorized networks, sites and applications, it's easy to provide hotspot and guest access.

THE MOTOROLA ADVANTAGE: A TURBOBOOST FOR PERFORMANCE AND SUPERIOR SCALABILITY

Since the AP 7532 802.11ac Access Point is part of our WiNG 5 family of WLAN infrastructure, it is "network aware", able to work in concert with all other Motorola WiNG 5 controllers and access points to define the route that will enable the fastest and most robust path for every transmission. And since the AP 7532 can be adopted by our controllers for easy centralized management, your network is easy to scale. No matter how many access points and controllers you need, or where in the world they are located, you can deploy, monitor, troubleshoot and manage them all from a single location. No matter how many users you need to support today or tomorrow, you get the peace of mind that comes from knowing your network is always ready and waiting.

SUPPORT SERVICES BRING OUR EXPERTISE RIGHT TO YOUR DOOR

Reduce risk, lower your capital investment and reduce operational costs with from-the-manufacturer support services. Our family of services can help you get and keep your WLAN up and running at peak performance by providing the assistance you need at every phase of network lifecycle — from planning and implementation to post-deployment everyday support.

UNLEASH OPTIMAL

Motorola's WiNG 5 WLAN operating system offers a distributed architecture that extends QoS, security and mobility services to the APs for better direct routing and network resilience. That means no bottleneck at the wireless controller, no latency issues for voice applications and no jitter in your streaming video. And with our broad selection of access points and flexible network configurations, you get the network you need with less hardware to buy. Let us show you the less complicated, less expensive way to more capacity and more agility. And more satisfied users.

WiNG FEATURE HIGHLIGHTS

- **802.11r Fast Roaming**: Supports fast roaming between access points for mobile clients.

- **Roaming Assistance:** Enables a sticky-free client WLAN network and improves network performance.

- **SMART-RF**: Allows the WLAN to automatically and intelligently adapt to changes in the RF environment to protect performance and eliminate unforeseen gaps in coverage. Senses potential interference from Wi-Fi and non Wi-Fi sources (such as faulty antennas and neighboring access point failures) and automatically adjusts channels and power as needed.

- **Smart Load Balancing**: Distributes clients evenly across access points and bands, improving overall network performance.

AP 7532 TECHNICAL SPECIFICATIONS

802.11ac CAPABILITIES

- Dual band radios; supports 256-QAM
- 3X3 MIMO with 3 Spatial Streams
- 20, 40 and 80 MHz Channels
- 1.9 Gbps data rates on dual concurrent radio operations
- Packet Aggregation (AMSDU, AMPDU)
- Reduced Interface Spacing
- 802.11 DFS
- MIMO Power Save (Static and Dynamic)
- Advanced forward error correction coding: STBC, LDPC
- 802.11ac transmit beamforming

PHYSICAL CHARACTERISTICS

Dimensions	7.1 in. L x 6.5 in. W x 1.6 in. H 180 mm L x 165 mm W x 41 mm H
Weight	1.8 lbs/0.82 kg
Housing	Plenum-rated housing (UL2043)
Available mounting	No additional hardware required to mount
Configurations	Above drop ceiling, under ceiling or on wall
LEDs activity indication	2 top mounted LEDs; activity indication
LAN Ethernet	1x IEEE 802.3 Gigabit Ethernet auto-sensing
Antenna	4dBi - 2.4 GHz band, 6 dBi - 5GHz band (Internal only — AP-7532-67030-xx)
Antenna connectors	Three RP SMAs (External only — AP-7532-67040-xx)
Console port	RJ45

USER ENVIRONMENT

Operating temp.	Internal antennas: 32° F to 104° F/0° C to 40° C External antennas: -4° F to 104° F/-20° C to 40° C
Storage temp.	-40° F to 158° F/-40° C to 70° C
Operating humidity	85% RH non-condensing
Electrostatic discharge	Internal AP-7532-67030-xx: 15kV air, 8kV contact External AP-7532-67040-xx: 12kV air, 6 kV contact

POWER SPECIFICATIONS

Operating voltage	48V
Operating current	312 mA at 48 V
Integrated PoE support	802.3af

CERTIFICATIONS

Wi-Fi Alliance (WFA) certified 802.11 a/b/g/n/ac

NETWORKING SPECIFICATIONS

Layer 2 and Layer 3	Layer 3 routing, 802.1q, DynDNS, DHCP server/client, BOOTP client, PPPoE and LLDP

NETWORKING SPECIFICATIONS (CONTINUED)

Security	Stateful Firewall, IP filtering, NAT, 802.1x, 802.11i, WPA2, WPA Triple-Methodology Rogue Detection: 24x7 dual-band WIPS sensing, on-board IDS and secure guest access (hotspot) with captive portal, IPSec and RADIUS Server
Quality of Service (QoS)	WMM, WMM-UAPSD, 802.1p, Diffserv and TOS

RADIO SPECIFICATIONS

Wireless medium	Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM) and Spatial Multiplexing (MIMO)
Network standards	IEEE 802.11a/b/g/n/ac, 802.11d and 802.11i WPA2, WMM, WMM-UAPSD, L2TPv3, Client VPN, MESH (released in a future version of WiNG), Captive Portal server
Data rates supported	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48 and 54 Mbps 802.11a: 6,9,12,18,24,36,48, and 54 Mbps 802.11n: MCS 0-23 up to 450 Mbps; Turbo mode (256 QAM) on 2.4 GHz band up to 600 Mbps 802.11ac: MCS 0-9 up to 1.3 Gbps
Operating channels	2.4 GHz band: channel 1 through channel 13 5.2 GHz band: channel 36 through channel 165 * Channel availability depends on local regulatory restriction
Antenna configuration	3x3 MIMO (transmit/receive on all three antennas)
Transmit power adjustment	1 dB increment
Operating frequencies	2412 to 2472 MHz, 5180 to 5850 MHz

REGULATORY

Product safety certifications	UL / cUL 60950-1, IEC / EN60950-1, UL2043, RoHS
Radio approvals	FCC (USA), EU, TELEC

MAXIMUM CONDUCTED TRANSMIT POWER

	1 Antenna Tx Power	2 Antennas Tx Power	3 Antennas Tx Power
Internal Antennas (AP-7532-67030-xx)			
2.4 GHz Band	20 dBm	23 dBm	24.7 dBm
5 GHz Band	20 dBm	23 dBm	24.7 dBm
External Antennas (AP-7532-67040-xx)			
2.4 GHz Band	19 dBm	22 dBm	23.7 dBm
5 GHz Band	18 dBm	21 dBm	22.7 dBm

NOTE: Technical specifications are preliminary and subject to change.

The AP 7532 — Blazing and affordable 802.11ac desktop-style wireless speed.

For more information, visit www.motorolasolutions.com/wlan or access our global contact directory at www.motorolasolutions.com/contactus

AP 7532 RECEIVER SENSITIVITY

802.11b (CCK)			
-98	@	1	Mbps
-94	@	2	Mbps
-93	@	5.5	Mbps
-90	@	11.0	Mbps

802.11g (non HT20)			
-95	@	6	Mbps
-95	@	9	Mbps
-95	@	12	Mbps
-93	@	18	Mbps
-90	@	24	Mbps
-86	@	36	Mbps
-82	@	48	Mbps
-81	@	54	Mbps

802.11a (non HT20)			
-95	@	6	Mbps
-95	@	9	Mbps
-95	@	12	Mbps
-93	@	18	Mbps
-90	@	24	Mbps
-86	@	36	Mbps
-82	@	48	Mbps
-81	@	54	Mbps

2.4 GHz: 802.11n (HT20)			
-95	@	MCS	0
-93	@	MCS	1
-91	@	MCS	2
-88	@	MCS	3
-86	@	MCS	4
-81	@	MCS	5
-79	@	MCS	6
-78	@	MCS	7
-94	@	MCS	8
-91	@	MCS	9
-89	@	MCS	10
-85	@	MCS	11
-82	@	MCS	12
-78	@	MCS	13
-76	@	MCS	14
-75	@	MCS	15
-93	@	MCS	16
-90	@	MCS	17
-88	@	MCS	18
-84	@	MCS	19
-81	@	MCS	20
-76	@	MCS	21
-75	@	MCS	22
-73	@	MCS	23

5 GHz: 802.11n (HT20)			
-96	@	MCS	0
-94	@	MCS	1
-92	@	MCS	2
-90	@	MCS	3
-89	@	MCS	4

5 GHz: 802.11n (HT20) (Cont.)			
-81	@	MCS	5
-80	@	MCS	6
-78	@	MCS	7
-95	@	MCS	8
-92	@	MCS	9
-90	@	MCS	10
-86	@	MCS	11
-83	@	MCS	12
-78	@	MCS	13
-77	@	MCS	14
-75	@	MCS	15
-94	@	MCS	16
-91	@	MCS	17
-88	@	MCS	18
-85	@	MCS	19
-82	@	MCS	20
-77	@	MCS	21
-76	@	MCS	22
-74	@	MCS	23

5 GHz: 802.11n (HT40)			
-94	@	MCS	0
-92	@	MCS	1
-89	@	MCS	2
-85	@	MCS	3
-86	@	MCS	4
-79	@	MCS	5
-77	@	MCS	6
-75	@	MCS	7
-92	@	MCS	8
-89	@	MCS	9
-86	@	MCS	10
-83	@	MCS	11

5 GHz: 802.11n (HT40) (Cont.)			
-80	@	MCS	12
-76	@	MCS	13
-74	@	MCS	14
-72	@	MCS	15
-91	@	MCS	16
-88	@	MCS	17
-85	@	MCS	18
-82	@	MCS	19
-79	@	MCS	20
-75	@	MCS	21
-73	@	MCS	22
-71	@	MCS	23

2.4 GHz: 802.11ac			
MCS Index	Spatial Streams	VHT20	VHT40
0	1	-95	-94
8	1	-72	-72
0	2	-93	-90
8	2	-68	-67
0	3	-93	-91
8	3	-69	-67

5 GHz: 802.11ac (VHT80)				
MCS Index	Spatial Streams	VHT20	VHT40	VHT80
0	1	-97	-94	-90
8	1	-70	-71	-68
0	2	-93	-90	-86
8	2	-68	-66	-63
0	3	-94	-90	-87
8	3	-68	-67	-63
9	3	-65	-65	-61

AP 7532 TYPICAL ANTENNA PATTERNS (INTERNAL MODEL)

2.4 GHz - 4 dBi Antenna

5 GHz - 6 dBi Antenna
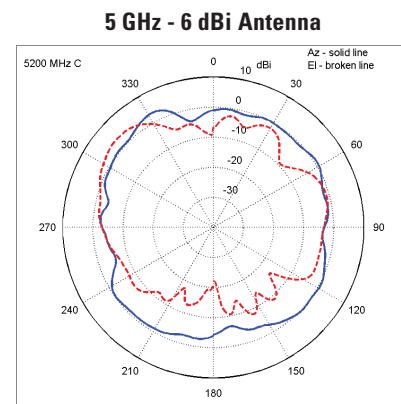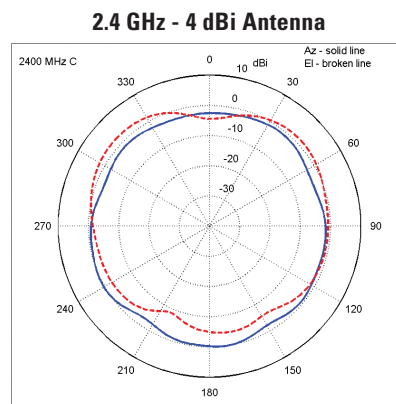
NOTE: Receiver sensitivity is represented with a 0 dBi antenna.

MOTOROLA WLAN
UNLEASH OPTIMAL

MOTOROLA