



**AFFORDABLE 5<sup>TH</sup> GENERATION WI-FI FOR ANY ENVIRONMENT**

# AP 7522E 802.11ac ACCESS POINT

**802.11AC WI-FI SPEED AND THROUGHPUT — ALL AT A LOW COST.**

Introducing the AP 7522E from Motorola Solutions, delivering 802.11ac speeds at half the cost of many of its competitors. Now, you can support virtually any of the mobile devices on your network running today's demanding applications, with a design that fits right in to any area in your environment. The 802.11n radio ensures backward compatibility with every mobile device in use in your operation today — and 256 QAM modulation boosts the bandwidth of the 802.11n radio to 802.11ac levels. 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 you need to achieve maximum range and performance in demanding industrial areas.

## **WiNG EXPRESS**

For midsize businesses, the WiNG Express portfolio provides the ability to deploy an enterprise-grade network that is affordable and scalable with ease. Businesses with up to 25 access points get the power of centralized management — without the need to purchase and manage a controller. Deployment of WiNG Express Manager can help deploy a network with different WiNG Express Access Points and scale with more than 25 access points.

For features supported by the WiNG Express portfolio, please see the WiNG Express portfolio brochure.

## **ENTERPRISE-GRADE WIRELESS FOR MIDSIZE BUSINESSES**

WiNG Express brings the power of enterprise award-winning WiNG 5 architecture to midsize businesses. With WiNG Express, smaller businesses now have access to latest wireless technology and always-on capability trusted by large enterprises. In addition, the portfolio contains purpose built enterprise-grade products for midsize businesses that will allow customers to scale their network with their business.

## **WiNG EXPRESS FAST PROVISIONING**

WiNG Express products can be configured and deployed in about 5 minutes. After powering on the access point, the user can connect to “WiNGExpress” SSID and go to [express.motorolasolutions.com](http://express.motorolasolutions.com) to configure the access point. Once an access point is configured, the user can enable the virtual controller feature and let the access point configure and manage additional access points by simply adding them to the network.

## **WiNG EXPRESS USER INTERFACE**

WiNG Express is Motorola Solutions’ powerful enterprise-class WLAN operating system wrapped in an easy-to-use and easy-to-understand graphical user interface that makes end-to-end deployment and management of WLAN network easy for midsize businesses. The user interface provides a concise menu with time tracked network and client information. As such, WiNG Express User Interface empowers smaller businesses with valuable information available to enterprise customers in a meaningful way, allowing your business to leverage wireless applications to drive business.

## **THE BANDWIDTH AND APPLICATION PERFORMANCE YOU NEED TO SUPPORT ALL OF YOUR USERS**

802.11ac technology builds on advances of 802.11n — the 802.11ac radio delivers more bandwidth and faster speeds through new technology advancements such as Multiple-Input

Multiple-Output (MIMO). 256 QAM modulation gives the 2X2 MIMO 802.11ac radio an additional performance boost, and increases the bandwidth of the 802.11n radio to 802.11ac speeds. In addition, interference from 2.4 GHz devices is finally eliminated. Since 802.11ac operates only in the 5 GHz band, Bluetooth® headsets, microwave ovens and more will no longer impact Wi-Fi network performance. 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 7522E 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 is improved, along with mobile device battery power.

# AP 7522E TECHNICAL SPECIFICATIONS

## 802.11ac CAPABILITIES

- Dual band radios; supports 256-QAM
- 2X2 MIMO with 2 Spatial Streams
- 20, 40 and 80 MHz Channels
- 1.267 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
Antenna connectors	Two RP SMAs (External only — AP-7522-67040-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-7522E-67030-xx: 15kV air, 8kV contact External AP-7522E-67040-xx: 12kV air, 6kV contact

## POWER SPECIFICATIONS

Operating voltage	48V
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Operating current	280 mA at 48 V
Integrated PoE support	802.3af

## 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 and WMM-UAPSD
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 300 Mbps; Turbo mode (256QAM) on 2.4G band: up to 400Mbps) 802.11ac: MCS 0-9 up to 866.7 Mbps
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	2x2 MIMO (transmit/receive on both 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

	One Antenna Tx Power	Two Antennas Tx Power
Internal Antennas (AP-7522E-67030-xx)		
2.4 GHz Band	20 dBm	23 dBm
5 GHz Band	20 dBm	23 dBm
External Antennas (AP-7522E-67040-xx)		
2.4 GHz Band	19 dBm	22 dBm
5 GHz Band	18 dBm	21 dBm

The AP 7522E — the power of 802.11ac wireless speed, at a new low cost.

For more information, visit [www.motorolasolutions.com/wingexpress](http://www.motorolasolutions.com/wingexpress)  
or access our global contact directory at [www.motorolasolutions.com/contactus](http://www.motorolasolutions.com/contactus)

**SPECIFICATION SHEET**

AP 7522E

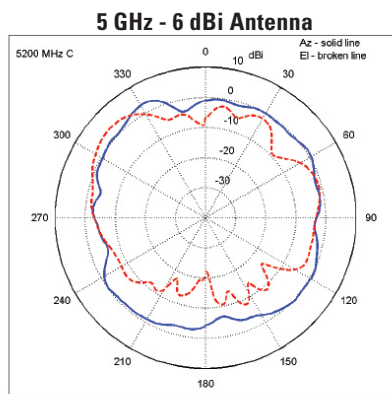
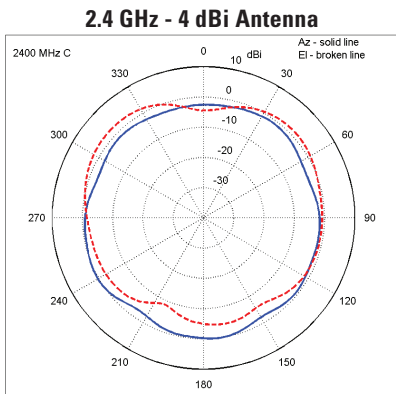
**AP 7522E RECEIVER SENSITIVITY**

802.11b (CCK)			
-98	@	1	Mbps
-95	@	2	Mbps
-92	@	5.5	Mbps
-91	@	11.0	Mbps
802.11g (non HT20)			
-97	@	6	Mbps
-96	@	9	Mbps
-95	@	12	Mbps
-93	@	18	Mbps
-89	@	24	Mbps
-86	@	36	Mbps
-82	@	48	Mbps
-80	@	54	Mbps
802.11a (non HT20)			
-95	@	6	Mbps
-95	@	9	Mbps
-94	@	12	Mbps
-92	@	18	Mbps
-88	@	24	Mbps
-85	@	36	Mbps
-81	@	48	Mbps
-79	@	54	Mbps
2.4 GHz: 802.11n (HT20)			
-95	@	MCS	0
-92	@	MCS	1
-90	@	MCS	2
-88	@	MCS	3
-86	@	MCS	4
-79	@	MCS	5
-77	@	MCS	6
-76	@	MCS	7
-93	@	MCS	8
-90	@	MCS	9
-87	@	MCS	10
-84	@	MCS	11
-81	@	MCS	12
-76	@	MCS	13
-74	@	MCS	14
-73	@	MCS	15

5 GHz: 802.11n (HT20)			
-95	@	MCS	0
-92	@	MCS	1
-90	@	MCS	2
-89	@	MCS	3
-86	@	MCS	4
-79	@	MCS	5
-77	@	MCS	6
-76	@	MCS	7
-93	@	MCS	8
-90	@	MCS	9
-87	@	MCS	10
-84	@	MCS	11
-81	@	MCS	12
-76	@	MCS	13
-74	@	MCS	14
-73	@	MCS	15
5 GHz: 802.11n (HT40)			
-92	@	MCS	0
-89	@	MCS	1
-87	@	MCS	2
-85	@	MCS	3
-84	@	MCS	4
-76	@	MCS	5
-75	@	MCS	6
-74	@	MCS	7
-90	@	MCS	8
-87	@	MCS	9
-84	@	MCS	10
-81	@	MCS	11
-77	@	MCS	12
-73	@	MCS	13
-72	@	MCS	14
-65	@	MCS	15

2.4 GHz: 802.11ac				
MCS Index	Spatial Streams	VHT20	VHT40	
0	1	-95	-93	
8	1	-70	-68	
0	2	-93	-90	
8	2	-68	-66	
5 GHz: 802.11ac				
MCS Index	Spatial Streams	VHT20	VHT40	VHT80
0	1	-95	-93	-90
8	1	-70	-68	-64
0	2	-93	-90	-85
8	2	-68	-66	-61

**AP 7522E TYPICAL ANTENNA PATTERNS (INTERNAL MODEL)**



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sales@eddywireless.com