



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. 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 awardwinning 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 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 easyto-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 CAPABILI	TIES	Uper
<ul> <li>Dual band radios; si</li> <li>2X2 MIMO with 2 S</li> </ul>	upports 256-QAM patial Streams	Integ supp
<ul> <li>20, 40 and 80 MHz</li> <li>1.207 Chas data set</li> </ul>	Channels	RAD
<ul> <li>Packet Aggregation</li> <li>Reduced Interface S</li> <li>802.11 DFS</li> </ul>	es on dual concurrent radio operations (AMSDU, AMPDU) Spacing	Wire
<ul> <li>MIMO Power Save</li> <li>Advanced forward e</li> <li>802.11ac transmit b</li> </ul>	(Static and Dynamic) error correction coding: STBC, LDPC eamforming	Netv
PHYSICAL CHARAG	CTERISTICS	Data
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)	Oper
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	Ante
LAN Ethernet	1x IEEE 802.3 Gigabit Ethernet auto-sensing	Tran
Antenna	4dBi - 2.4 GHz band; 6 dBi - 5GHz band	adju
Antenna connectors	Two RP SMAs (External only — AP-7522-67040-xx)	Oper REG
Console port	RJ45	Produ
USER ENVIRONME	NT	certi
Operating temp	Internal antennas: 32° E to 104° E/0° C to 40° C	Radio
oporating temp.	External antennas: -4° F to 104° F/-20° C to 40° C	MA
Storage temp.	-40° F to 158° F/-40° C to 70° C	
Operating humidity	85% RH non-condensing	
Electrostatic	Internal AP-7522E-67030-xx:	Inter
discharge	15kV air, 8kV contact	2.4 0
	12kV air, 6kV contact	5 GH
POWER SPECIFICA	TIONS	Exter
Operating voltage	48V	2.4 0
,		5 GH

Operating current	280 mA at 48 V			
Integrated PoE support	802.3af			
RADIO SPECIFICATI	ONS			
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 (2560AM) 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 availabilit regulatory restrict	ty depends on local ion		
Antenna configuration	2x2 MIMO (transmit/receive on both antennas)			
Transmit power adjustment	1 dB increment			
Operating frequencies	2412 to 2472 MHz, 5	i180 to 5850 MHz		
REGULATORY				
Product safety certifications	UL / cUL 60950-1, IEC RoHS	C / EN60950-1, UL2043,		
Radio approvals	FCC (USA), EU, TELEC			
MAXIMUM CONDUC	CTED TRANSMIT P	OWER		
	One Antenna Tx Power	Two Antennas Tx Power		
Internal Antennas (AP-752	2E-67030-xx)			
2.4 GHz Band	20 dBm	23 dBm		
5 GHz Band	20 dBm	23 dBm		
External Antennas (AP-75	22E-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 or access our global contact directory at www.motorolasolutions.com/contactus

#### **AP 7522E RECEIVER SENSITIVITY**

	802.11	b (CCK)	
-98	@	1	Mbps
-95	@	2	Mbps
-92	@	5.5	Mbps
-91	@	11.0	Mbps
8	02.11g (	non HT2	D)
-97	@	6	Mbps
-96	@	9	Mbps
-95	@	12	Mbps
-93	@	18	Mbps
-89	@	24	Mbps
-86	@	36	Mbps
-82	@	48	Mbps
-80	@	54	Mbps
8	02.11a (	non HT2	D)
-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: 80	<mark>2.11n (H</mark> 7	<b>[20</b> ]
-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 (HT	20)
-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 (HT	40)
-92	GHz: 802 @	.11n (HT MCS	<b>40)</b> 0
-92 -89	GHz: 802 @ @	MCS MCS	<b>40)</b> 0 1
-92 -89 -87	GHz: 802 @ @ @	MCS MCS MCS MCS	<b>40)</b> 0 1 2
-92 -89 -87 -85	GHz: 802 @ @ @ @	.11n (HT MCS MCS MCS MCS	40) 0 1 2 3
-92 -89 -87 -85 -84	GHz: 802 @ @ @ @ @	MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4
-92 -89 -87 -85 -84 -76	GHz: 802 @ @ @ @ @ @ @	MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5
-92 -89 -87 -85 -84 -76 -75	GHz: 802 @ @ @ @ @ @ @	MCS MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5 6
-92 -89 -87 -85 -84 -76 -75 -74	GHz: 802 @ @ @ @ @ @ @ @	.11n (HT MCS MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5 6 7
5 -92 -89 -87 -85 -84 -76 -75 -75 -74 -90	GHz: 802 @ @ @ @ @ @ @ @ @ @	In (HT MCS MCS MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5 6 7 8
5 -92 -89 -87 -85 -84 -76 -75 -74 -90 -87	GHz: 802 @ @ @ @ @ @ @ @ @ @ @ @ @ @	A CS MCS MCS MCS MCS MCS MCS MCS MCS MCS M	40) 0 1 2 3 4 5 6 7 8 9
5 -92 -89 -87 -85 -84 -76 -75 -74 -90 -87 -84	GHz: 802 @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	L11n (HT MCS MCS MCS MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5 6 7 8 9 10
5 -92 -89 -87 -85 -84 -76 -75 -74 -90 -87 -84 -81	GHz: 802 @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	A CS MCS MCS MCS MCS MCS MCS MCS MCS MCS M	40) 0 1 2 3 4 5 6 7 8 9 10 11
5 -92 -89 -87 -85 -84 -76 -75 -74 -90 -87 -84 -81 -77	GHz: 802 @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	L11n (HT MCS MCS MCS MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5 6 7 8 9 10 11 12
5 -92 -89 -87 -85 -84 -76 -75 -74 -90 -87 -84 -81 -77 -73	GHz: 802 @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	L11n (HT MCS MCS MCS MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5 6 7 8 9 10 11 12 13
5 -92 -89 -87 -85 -84 -76 -75 -74 -90 -87 -84 -81 -77 -73 -72	GHz: 802 @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	L11n (HT MCS MCS MCS MCS MCS MCS MCS MCS MCS MCS	40) 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

	2.	4 G	Hz: 802.	11ac	
MCS In	Idex	Sp: Str	atial eams	VHT20	VHT40
0			1	-95	-93
8			1	-70	-68
0	0		2	-93	-90
8	8		2	-68	-66
	5	Gŀ	lz: 802.1	1ac	
MCS Index	Spatia Stream	ıl ns	VHT20	VHT40	VHT80
MCS Index 0	Spatia Strear 1	al ns	VHT20 -95	VHT40 -93	<b>VHT80</b> -90
MCS Index 0 8	Spatia Strear 1	al ns	<b>VHT20</b> -95 -70	VHT40 -93 -68	<b>VHT80</b> -90 -64
MCS Index 0 8 0	Spatia Stream 1 1 2	ns	VHT20 -95 -70 -93	VHT40 -93 -68 -90	VHT80 -90 -64 -85

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

2.4 GHz - 4 dBi Antenna





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### MOTOROLA WLAN UNLEASH OPTIMAL

