COST-EFFICIENT SINGLE RADIO 802.11A/B/G/N WIRELESS ACCESS POINT

AP 621

The AP 621 combines the power WiNG 5 intelligence at the edge with the cost-efficiency of a single radio thin wireless access point. When deployed with a wireless controller, the access point offers top 802.11a/b/g/n performance along with direct forwarding, security and QoS services at the edge.

UNIQUE VALUE

The AP 621 is a thin (dependent) multipurpose access point designed to lower the cost of deploying and operating a secure, reliable 802.11n wireless LAN (WLAN) in branch offices or headquarters facilities. The access point features a MIMO radio, superior receive and transmit sensitivity, and a GigE WAN uplink port. The AP 621 is easily managed remotely by a Motorola RFS 7000 or other wireless controller. The embedded WiNG 5 intelligence ensures that traffic is locally forwarded along the most efficient paths without sacrificing quality of service and security implemented at the access point itself.

AUTOMATIC CHANNEL AND POWER OPTIMIZATION

Common problems such as building attenuation, electronic interference or sub-optimal access point placement are minimized as the SMART RF feature of the switch/ controller automatically optimizes power and channel selection so each user gets always-on high-quality access and mobility.

HIGH RELIABILITY

The AP 621 is designed to optimize network availability through its central and pre-emptive intelligence which dynamically senses weak or failing signals, securely moves mobile users to alternate APs, and boosts signal power to automatically fill RF holes and ensure uninterrupted mobile user access.

GAP-FREE SECURITY

Security includes layer 2-7 stateful packet filtering firewall, AAA RADIUS services, Wireless IPS-lite,VPN gateway, and location-based access control.

FAST AND EASY DEPLOYMENT

The access ports require no configuration or manual firmware maintenance. The Motorola wireless controller discovers access points on the network and automatically downloads all configuration parameters and firmware, greatly reducing installation, maintenance and troubleshooting costs for Layer 2 and Layer 3 deployments.

LESS IS MORE

Motorola's WiNG 5 WLAN solutions offer all the benefits of 11n—and then some. Our distributed architecture extends QoS, security and mobility services to the APs so you get 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, more agility, and more satisfied users.

DEVICE AND NETWORK ACCELERATION

Device and network performance can be accelerated through a virtual LAN feature via the switch/controller. Each AP 621 access point can be virtualized into four unique VLANs which can be customized to direct broadcast traffic to the intended recipient. This reduces overall network traffic while improving device performance and battery life up — to 25%. This also reduces the overall number of access points required to provide unique device services.

FEATURES

Full 802.11n performance with standard 802.3af
Simplifies and reduces total cost of installation using standard Power-over-Ethernet (PoE)

Multiband Operation
Supports both 2.4 Ghz and 5.0 Ghz frequency bands

Mobility
Supports fast secure roaming

Application Support
Supports Call Admission Control, for optimized VoWLAN performance, as well as video streaming and data throughput for 802.11 a/b/g/n clients

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

AP 621 SPECIFICATIONS CHART

PHYSICAL CHARACTERISTICS	AP 621 (INTERNAL ANTENNA)	AP 621 (EXTERNAL ANTENNA)
Dimensions:	9.5 in. L x 7.5 in. W x 1.7 in. H 24.13 cm L x 18.916 cm W x 4.36 cm H	8.5 in. L x 5.6 in. W x 1.5 in. H 21.64 cm L x 14.10 cm W x 3.771 cm H
Weight:	2.0 lbs./.91 kg	2.5 lbs./1.14 kg
Part number:	AP-0621-60010-US AP-0621-60010-WR	AP-0621-60020-US AP-0621-60020-OUS AP-0621-60020-WR
Available mounting configurations:	Ceiling-mount (to suspended ceiling T-bars, below tile); wall mount	Ceiling-mount (above tile); wall-mount
Plenum rated:	No	Yes, certified to UL 2043
LED indicators:	2 LED indicators with multiple modes indicating 2.4GHz/5 GHz Activity, Power, Adoption and Errors	

WIRELESS DATA COMMUNICATIONS AND NETWORKING	
Data rates supported:	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48, and 54Mbps 802.11a: 6,9,12,18,24,36,48, and 54Mbps 802.11n: MCS 0-15 up to 300Mbps
Network standard:	802.11a, 802.11b, 802.11g, 802.11n
Wireless medium:	Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM), and Spatial Multiplexing (MIMO)
VLANs/WLANs supported:	VLANs and WLANs are controller-dependent
Uplink:	Auto-sensing 10/100/1000Base-T Ethernet

RADIO CHARACTERISTICS	
Operating channels:	5GHz: All channels from 5180 MHz to 5825 MHz 2.4GHz: 2412-2472 MHz Actual operating frequencies depend on national regulatory limits
Maximum available transmit power:	24dBm
Transmit power Adjustment:	1dB increments
Antenna configuration:	2x2 MIMO (transmit on two and receive on two antennas)
Operating bands:	FCC EU 2.412 to 2.462 GHz 2.412 to 2.472 GHz 5.150 to 5.250 (UNII -1) 5.150 to 5.250 GHz 5.725 to 5.825 (UNII -3) 5.150 to 5.350 GHz 5.725 to 5.850 (ISM) 5.470 to 5.725 GHz

AP 621 SPECIFICATIONS CHART (continued)

USER ENVIRONMENT	AP 621 (INTERNAL ANTENNA)	AP 621 (EXTERNAL ANTENNA)
Operating temperature:	32°F to 104° F/0°C to 40° C	
Storage temperature:	-40°F to 158° F/-40°C to 70° C	
Operating humidity:	5%-95% (non-condensing)	
Operating altitude:	8,000 ft./2438 m	
Storage altitude:	15,000 ft./4572 m	
Electrostatic discharge:	+/- 15 kV (Air), +/- 8 kV (contact)	
POWER SPECIFICATIONS		
Operating voltage:	802.3af supply: 48 VDC @ 12.95W (typical), 36 VDC to 57 VDC (range)	
Operating current:	270mA rms at 48V	
Integrated Power-over-Ethernet support:	Standards-based IEEE 802.3af	
Typical Operational RMS Power Consumption:	10W (209mA at 48V)	

MAXIMUM RADIO TRANSMIT POWER:

BAND	SINGLE ANTENNA COMPOSITE TRANSMIT POWER	DUAL ANTENNA COMPOSITE TRANSMIT POWER
2400MHZ	+24 dBm	+27 dBm
5200MHZ	+20 dBm	+23 dBm

ANTENNA PORT SPECIFICATON

Type:	Integrated 2.4 GHz and 5.2 GHz Dual-Antenna Elements	Two RP-SMA connectors for external antennas (not included)
Band:	2.4 GHz to 2.5 GHz; 5.180 GHz to 5.850 GHz (actual operating frequencies depend on regulatory rules and certification agency)	

INTERNAL ANTENNA INFORMATION

INTERNAL ANTENNA DESCRIPTION	VALUES
Peak gain, 2.4GHz band	3.0dBi
Peak gain, 5.2GHz band	6.0dBi

REGULATORY

Product safety certifications:	UL 60950, cUL, EU EN 60950, TUV and UL 2043 (external antenna)
Radio approvals:	FCC (USA), Industry Canada, CE (Europe)

PRODUCT SPEC SHEET
AP 621

CONDUCTED RECEIVER SENSITIVITY (ANTENNA ELEMENT NOT INCLUDED)
(typical) at antenna housing connector, 2400MHz band

Rate/MCS	Mode	Sensitivity (dBm)
1	Legacy	-95
2	Legacy	-95
5.5	Legacy	-95
11	Legacy	-92
6	Legacy	-96
9	Legacy	-96
12	Legacy	-95
18	Legacy	-93
24	Legacy	-89
36	Legacy	-86
48	Legacy	-82
54	Legacy	-81
MCS0	HT20	-96
MCS1	HT20	-94
MCS2	HT20	-91
MCS3	HT20	-88
MCS4	HT20	-85
MCS5	HT20	-81
MCS6	HT20	-79
MCS7	HT20	-78
MCS8	HT20	-93
MCS9	HT20	-90
MCS10	HT20	-87
MCS11	HT20	-85
MCS12	HT20	-82
MCS13	HT20	-77
MCS14	HT20	-76
MCS15	HT20	-74
MCS0	HT40	-92
MCS1	HT40	-90
MCS2	HT40	-88
MCS3	HT40	-85
MCS4	HT40	-82
MCS5	HT40	-78
MCS6	HT40	-76
MCS7	HT40	-75
MCS8	HT40	-89
MCS9	HT40	-86
MCS10	HT40	-84
MCS11	HT40	-81
MCS12	HT40	-78
MCS13	HT40	-73
MCS14	HT40	-72
MCS15	HT40	-70

CONDUCTED RECEIVER SENSITIVITY (ANTENNA ELEMENT NOT INCLUDED)
(typical) at antenna housing connector, 5200MHz band

Rate/MCS	Mode	Sensitivity (dBm)
6	Legacy	-94
9	Legacy	-93
12	Legacy	-93
18	Legacy	-91
24	Legacy	-87
36	Legacy	-84
48	Legacy	-80
54	Legacy	-79
MCS0	HT20	-94
MCS1	HT20	-92
MCS2	HT20	-90
MCS3	HT20	-86
MCS4	HT20	-84
MCS5	HT20	-79
MCS6	HT20	-78
MCS7	HT20	-76
MCS8	HT20	-91
MCS9	HT20	-88
MCS10	HT20	-86
MCS11	HT20	-83
MCS12	HT20	-80
MCS13	HT20	-75
MCS14	HT20	-74
MCS15	HT20	-72
MCS0	HT40	-90
MCS1	HT40	-88
MCS2	HT40	-86
MCS3	HT40	-83
MCS4	HT40	-80
MCS5	HT40	-76
MCS6	HT40	-74
MCS7	HT40	-73
MCS8	HT40	-88
MCS9	HT40	-85
MCS10	HT40	-82
MCS11	HT40	-80
MCS12	HT40	-76
MCS13	HT40	-72
MCS14	HT40	-71
MCS15	HT40	-69

For more information on how the AP 621 can benefit your business, please visit us on the web at motorola.com/wlan or access our global contact directory at www.motorola.com/enterprisemobility/contactus

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