PRODUCT SPEC SHEET
AP 6521



AP 6521

VERSATILE SINGLE RADIO 802.11A/B/G/N WIRELESS ACCESS POINT

The AP 6521 is a versatile access point with the cost-efficiency of a single radio. With it's WiNG 5 intelligence, this access point offers higher throughput along with direct forwarding, security, QoS services and site survivability. The AP 6521 can also serve as a virtual controller and coordinate the operation of up to 23 neighboring access points.

UNIQUE VALUE
The AP 6521 is a 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 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. The AP 6521 can also be used as a sensor for both 2.4 Ghz and 5.0 Ghz frequency bands for multi-band intrusion protection or troubleshooting.

AUTOMATIC CHANNEL AND POWER OPTIMIZATION
Common problems such as building attenuation, electronic interference or sub-optimal access point placement are minimalized 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 6521 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 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.

DEVICE AND NETWORK ACCELERATION
Device and network performance can be accelerated through a virtual LAN feature via the switch/controller. Each AP 6521 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.

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FEATURES

Full 802.11n performance with standard 802.3af

Simplifies and reduces total cost of installation using standard Power-over-Ethernet (PoE)

Mobility
Supports fast secure roaming

Security
This unique multi-purpose device can execute and enforce the IDS/IPS security policies configured in the Zebra wireless switch, and can also be utilized as a 24x7 dedicated sensor with Wireless IPS from WLAN Security Services

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

LESS IS MORE
Zebra'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

For more information on how the AP 6521 can benefit your business, please visit us on the web at www.zebra.com/wlan or access our global contact directory atwww.zebra.com/contact.

complicated, less expensive way to more capacity, more agility, and more satisfied users.

AP 6521 SPECIFICATIONS CHART

PHYSICAL CHARACTERISTICS

Dimensions:	AP 6521 (INTERNAL ANTENNA) 6.0 in. L x 5.5 in. W x 1.63 in. H 15.24 cm L x 13.97 cm W x 4.11 cm H AP 6521 (EXTERNAL ANTENNA) 6.0 in. L x 5.5 in. W x 1.63 in. H 15.24 cm L x 13.97 cm W x 4.11 cm H
Weight:	AP 6521 (INTERNAL ANTENNA) 0.60 lbs./0.272 kg AP 6521 (EXTERNAL ANTENNA) 0.60 lbs./0.272 kg
Part number:	AP 6521 (INTERNAL ANTENNA) AP-6521-60010-US AP-6521-60010-WR AP 6521 (EXTERNAL ANTENNA) AP-6521-60020-US AP-6521-60020-OUS AP-6521-60020-WR
Available mounting configurations:	AP 6521 (INTERNAL ANTENNA) Ceiling-mount (to suspended ceiling T-bars, below tile); wall mount AP 6521 (EXTERNAL ANTENNA) Ceiling-mount (above tile); wall-mount
Plenum rated:	Yes, certified to UL 2043
LED indicators:	2 LED indicators with multiple modes indicating 2.4GHz/5 GHz Activity, Power, Adoption and Errors

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:	27dBm
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

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

USER ENVIRONMENT

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)

MAXIMUM RADIO TRANSMIT POWER:

SINGLE ANTENNA COMPOSITE TRANSMIT POWER	+27 dBm (2400MHZ) +22 dBm (5200MHZ)
DUAL ANTENNA COMPOSITE TRANSMIT POWER	+30 dBm (2400MHZ) +25 dBm (5200MHZ)

ANTENNA PORT SPECIFICATON

Type:	Integrated 2.4 GHz and 5.2 GHz Dual-Antenna Elements (AP 6521 (INTERNAL ANTENNA)) Two RP-SMA connectors for

	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

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

DC VOLTAGE	48V (Option1) 48V (Option2)
DC AMPS	270mA (Option1) 209mA (Option2)
DC POWER CONSUMPTION	12.95W (Option1) 10.00W (Option2)

INTERNAL ANTENNA INFORMATION

VALUES	3.0dBi (Peak gain, 2.4GHz band) 6.0dBi (Peak gain, 5.2GHz band)
	external antennas (not included) (AP 6521 (EXTERNAL ANTENNA))
Band:	2.4 GHz to 2.5 GHz; 4.9 GHz to 5.180 GHz (actual operating frequencies depend on regulatory rules and certification agency)

REGULATORY

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

CONDUCTED RECEIVER SENSITIVITY (ANTENNA ELEMENT NOT INCLUDED)
(maximum) at antenna housing connector

RATE/MCS (2400MHZ BAND)	MODE (2400MHZ BAND)	SENSITIVITY (DBM) (2400MHZ BAND)	RATE/MCS (5200MHZ BAND)	MODE (5200MHZ BAND)	SENSITIVITY (DBM) (5200MHZ BAND)
1	Legacy	-95	6	Legacy	-94
2	Legacy	-95	9	Legacy	-93
5.5	Legacy	-95	12	Legacy	-93
11	Legacy	-92	18	Legacy	-91
6	Legacy	-96	24	Legacy	-87
9	Legacy	-96	36	Legacy	-84
12	Legacy	-95	48	Legacy	-80
18	Legacy	-93	54	Legacy	-79
24	Legacy	-89	MCS0	HT20	-94
36	Legacy	-86	MCS1	HT20	-92
48	Legacy	-82	MCS2	HT20	-90

54	Legacy	-81	MCS3	HT20	-86
MCS0	HT20	-96	MCS4	HT20	-84
MCS1	HT20	-94	MCS5	HT20	-79
MCS2	HT20	-91	MCS6	HT20	-78
MCS3	HT20	-88	MCS7	HT20	-76
MCS4	HT20	-85	MCS8	HT20	-91
MCS5	HT20	-81	MCS9	HT20	-88
MCS6	HT20	-79	MCS10	HT20	-86
MCS7	HT20	-78	MCS11	HT20	-83
MCS8	HT20	-93	MCS12	HT20	-80
MCS9	HT20	-90	MCS13	HT20	-75
MCS10	HT20	-87	MCS14	HT20	-74
MCS11	HT20	-85	MCS15	HT20	-72
MCS12	HT20	-82	MCS0	HT40	-90
MCS13	HT20	-77	MCS1	HT40	-88
MCS14	HT20	-76	MCS2	HT40	-86
MCS15	HT20	-74	MCS3	HT40	-83
MCS0	HT40	-92	MCS4	HT40	-80
MCS1	HT40	-90	MCS5	HT40	-76
MCS2	HT40	-88	MCS6	HT40	-74
MCS3	HT40	-85	MCS7	HT40	-73
MCS4	HT40	-82	MCS8	HT40	-88
MCS5	HT40	-78	MCS9	HT40	-85
MCS6	HT40	-76	MCS10	HT40	-82
MCS7	HT40	-75	MCS11	HT40	-80
MCS8	HT40	-89	MCS12	HT40	-76
MCS9	HT40	-86	MCS13	HT40	-72
MCS10	HT40	-84	MCS14	HT40	-71
MCS11	HT40	-81	MCS15	HT40	-69
MCS12	HT40	-78			
MCS13	HT40	-73			
MCS14	HT40	-72			
MCS15	HT40	-70			





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