# AP 6522

## DUAL RADIO 802.11A/B/G/N WIRELESS ACCESS POINT

Designed for small offices and retail locations, the AP 6522 can handle the increasing number of Wi-Fi enabled devices and bandwidth heavy applications connecting to your wireless network. The AP 6522 is a site survivable wireless access point that does not require a controller. With it's WiNG 5 intelligence, this access point offers higher throughput along with direct forwarding, security, QoS services and site survivability. The AP 6522 can also serve as a virtual controller and coordinate the operation of up to 24 neighboring access points.

### MULTI-PURPOSE FOR MULTIPLE APPLICATIONS
The AP 6522 is a multipurpose access point designed to lower the cost of deploying and operating a secure, reliable 802.11n wireless LAN (WLAN). The access point features MIMO radios with superior receive and transmit sensitivity, a console port for configuration, and a GiGE LAN/WAN POE enabled port for local or remote network connectivity. This easy-to-deploy solution delivers the speed and reliability to support the increase in WLAN traffic from employees bringing their own devices (BYOD) and supports the most demanding applications, including real-time video and voice . 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. One radio can be used for client access while the second radio is used for simultaneous client access on a different frequency band or as a dedicated sensor on both 2.4 and 5.0 GHz bands for security and troubleshooting.

### MESH NETWORKING
To enable the extension of wireless network coverage to areas where ethernet cabling is cost-prohibitive or otherwise impractical, the AP 6522 can operate wirelessly, connecting to other access points for data backhaul, in a mesh topology. Enabling an array of applications over mesh, this feature offers a cost-effective way to extend the network, relying on a highly resilient, self-configuring system. Taking advantage of the dual-radio architecture and the easy-to-use configuration interface, it becomes a simple task to deploy a wireless network of access points connected securely via 802.11n, providing enterprise-class service.

### 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 6522 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
The AP 6522 provides enterprise class security with layer 2-7 stateful packet filtering firewall, AAA RADIUS services, Wireless IPS-lite, VPN gateway, and location-based access control. The security capability of the AP 6522 is further enhanced when deployed in combination with premise or cloud-based versions of the WLAn Security Services

## ZEBRA

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

### Dual Radio Design
Radios can be configured for client access on 2.4Ghz and 5.0Ghz or independently used with one radio for client access and the second radio for sensing

### 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

### Mesh Networking
Extend wireless network coverage in a cost-effective way to enable a wide array of applications

### LESS IS MORE
Zebra's WiNG 5 WLAN solutions offer all the benefits of 11n—and then some. Our distributed architecture

Platform which increase the security and resiliency of AP 6522 networks with an array of advanced security and network assurance features including Spectrum Analysis, Wireless IPS, Live RF, Advanced Forensics and AP Testing to proactively identify and mitigate network disruptions.

**FAST AND EASY DEPLOYMENT**

Access points require no configuration or manual firmware maintenance. The Zebra 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 6522 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.

For more information on how the AP 6522 can benefit your business, please visit us on the web at **www.zebra.com/wlan** or access our global contact directory at **www.zebra.com/contact**

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.

## AP 6522 SPECIFICATIONS CHART

### PHYSICAL CHARACTERISTICS

| | |
|---|---|
| Dimensions: | AP 6522 (INTERNAL ANTENNA) 7.5W x 9.5L x 1.1H AP 6522 (EXTERNAL ANTENNA) 5.0W x 7.8L x 1.0H |
| Weight: | AP 6522 (INTERNAL ANTENNA) 0.85 lbs AP 6522 (EXTERNAL ANTENNA) 1.75 lbs |
| Part number: | AP 6522 (INTERNAL ANTENNA) AP-6522-66030-US & -WR AP 6522 (EXTERNAL ANTENNA) AP-6522-66040-US & -WR |
| Available mounting configurations: | AP 6522 (INTERNAL ANTENNA) Wall, Ceiling , Open Beam (with KT-135628-01) AP 6522 (EXTERNAL ANTENNA) Wall, Open Beam, Ceiling (with KT-135628-01) |
| LED indicators: | Yes |

### RADIO CHARACTERISTICS

| | |
|---|---|
| Operating channels: | **Radio 1**: 2.4GHz: Chan 1-13 (2412-2472 MHz), Chan 14 (2484 MHz) Japan only **Radio 2**: 2.4GHz: Chan 1-13 (2412-2472 MHz), Chan 14 (2484 MHz) Japan only 5GHz: All channels from 5200 MHz to 5825 MHz Actual operating frequencies depend on national regulatory limits |

### 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: | 0 to 40°C |
| Storage temperature : | -40 to 85°C |
| Operating humidity: | 5 to 95% RH, non-condensing |
| Operating altitude: | 8,000 ft @ 28°C |
| Storage humidity: | 85% RH, non-condensing |
| Storage altitude: | 30,000 ft @ 12°C |

| Maximum available transmit power: | 2.4GHz: 21dBm per chain, 5.0GHz : 20dBm per chain |
|---|---|
| Transmit power Adjustment: | 1dB increment |
| Antenna configuration: | 1x1, 1x2, 2x2 |
| Operating bands: | 2412 to 2472 MHz and 2484 MHz, 5180 to 5825 MHz |

## POWER SPECIFICATIONS

| Operating voltage: | 48Vdc (PoE in) / 12Vdc (Aux in) |
|---|---|
| Operating current: | 0.25A (PoE) / 1.0A (Aux) |
| DC Power Consumption: | 12W Max |

## INTERNAL ANTENNA INFORMATION

| INTERNAL ANTENNA DESCRIPTION | VALUES |
|---|---|
| Radio 1: 2.4GHz band | 3.9dBi |
| Radio 2: 2.4GHz band | 4.4dBi |
| Radio 2: 5.0GHz band | 7.5dBi |

| Electrostatic discharge: | 15kV air and 8kV contact @ 50% RH |
|---|---|

## MAXIMUM RADIO TRANSMIT POWER:

| SINGLE ANTENNA TRANSMIT POWER | +21 dBm (2400MHZ) +20 dBm (5200MHZ) |
|---|---|
| DUAL ANTENNA COMPOSITE TRANSMIT POWER | +24 dBm (2400MHZ) +23 dBm (5200MHZ) |

## REGULATORY

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

# CONDUCTED RECEIVER SENSITIVITY (ANTENNA ELEMENT NOT INCLUDED)
## *(typical) at antenna housing connector*

| 2400MHZ BAND | | |
|---|---|---|
| RATE/MCS | MODE | SENSITIVITY (DBM) |
| 1 | Legacy | -94 |
| 2 | Legacy | -93 |
| 5.5 | Legacy | -93 |
| 11 | Legacy | -89 |
| 6 | Legacy | -91 |
| 9 | Legacy | -91 |
| 12 | Legacy | -91 |
| 18 | Legacy | -89 |
| 24 | Legacy | -87 |
| 36 | Legacy | -84 |
| 48 | Legacy | -80 |
| 54 | Legacy | -78 |
| MCS0 | HT20 | -91 |

| RATE/MCS | MODE | SENSITIVITY (DBM) |
|---|---|---|
| MCS1 | HT20 | -91 |
| MCS2 | HT20 | -89 |
| MCS3 | HT20 | -85 |
| MCS4 | HT20 | -82 |
| MCS5 | HT20 | -78 |
| MCS6 | HT20 | -76 |
| MCS7 | HT20 | -74 |
| MCS8 | HT20 | -91 |
| MCS9 | HT20 | -88 |
| MCS10 | HT20 | -86 |
| MCS11 | HT20 | -83 |
| MCS12 | HT20 | -79 |
| MCS13 | HT20 | -74 |
| MCS14 | HT20 | -73 |
| MCS15 | HT20 | -71 |
| MCS0 | HT40 | -88 |
| MCS1 | HT40 | -87 |
| MCS2 | HT40 | -85 |
| MCS3 | HT40 | -82 |
| MCS4 | HT40 | -78 |
| MCS5 | HT40 | -75 |
| MCS6 | HT40 | -73 |
| MCS7 | HT40 | -70 |
| MCS8 | HT40 | -87 |
| MCS9 | HT40 | -84 |
| MCS10 | HT40 | -83 |
| MCS11 | HT40 | -79 |
| MCS12 | HT40 | -75 |
| MCS13 | HT40 | -71 |
| MCS14 | HT40 | -69 |
| MCS15 | HT40 | -67 |
| **5200MHZ BAND** | | |
| **RATE/MCS** | **MODE** | **SENSITIVITY (DBM)** |
| 6 | Legacy | -92 |
| 9 | Legacy | -92 |
| 12 | Legacy | -92 |
| 18 | Legacy | -90 |
| 24 | Legacy | -87 |
| 36 | Legacy | -83 |
| 48 | Legacy | -80 |

| 54 | Legacy | -83 |
|---|---|---|
| MCS0 | HT20 | -92 |
| MCS1 | HT20 | -92 |
| MCS2 | HT20 | -90 |
| MCS3 | HT20 | -85 |
| MCS4 | HT20 | -82 |
| MCS5 | HT20 | -78 |
| MCS6 | HT20 | -76 |
| MCS7 | HT20 | -75 |
| MCS8 | HT20 | -91 |
| MCS9 | HT20 | -88 |
| MCS10 | HT20 | -86 |
| MCS11 | HT20 | -82 |
| MCS12 | HT20 | -79 |
| MCS13 | HT20 | -74 |
| MCS14 | HT20 | -72 |
| MCS15 | HT20 | -71 |
| MCS0 | HT40 | -90 |
| MCS1 | HT40 | -89 |
| MCS2 | HT40 | -87 |
| MCS3 | HT40 | -82 |
| MCS4 | HT40 | -79 |
| MCS5 | HT40 | -75 |
| MCS6 | HT40 | -73 |
| MCS7 | HT40 | -72 |
| MCS8 | HT40 | -88 |
| MCS9 | HT40 | -85 |
| MCS10 | HT40 | -83 |
| MCS11 | HT40 | -79 |
| MCS12 | HT40 | -76 |
| MCS13 | HT40 | -71 |
| MCS14 | HT40 | -70 |
| MCS15 | HT40 | -68 |

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