



Dell Networking W-IAP155/155P remote access points

Ultimate performance and scale for mobile devices

High-performance wireless and wired networking for SMBs, branch offices and teleworkers.

The multifunctional Dell W-IAP155 Series delivers secure 802.11n wireless and wired networking to SMBs and access to corporate resources from branch and home offices.

The W-IAP155 Series can be deployed flexibly in either "virtual controller" (or "Instant") mode (managed by Airwave Management Platform) or in "Controller Managed" mode where all traffic is centralized by Dell Networking W-Series Mobility Controllers.

The W-IAP155 Series offers a variety of enterprise-class features, including role-based network access, policy-based forwarding, and Adaptive Radio Management™, which gives remote workers and SMBs the same high-quality "enterprise class" WiFi experience.

At locations that require greater coverage, the W-IAP155 can join a Dell Instant™ WLAN cluster. Simply install additional W-IAP155s or any Instant Access Point (AP) and the entire cluster is managed as one. If one Instant AP fails, another AP automatically takes over with no disruption.

Delivering wireless data rates of up to 450Mbps, the dual-radio W-IAP155 has five Ethernet ports (one uplink and four local) and a USB port for connecting to 3G and 4G networks. Optionally, the W-IAP155 can supply Power over Ethernet (PoE) on two of its local Ethernet ports to power connected IP phones and other devices.

Advanced features

- Adaptive Radio Management delivers best-in-class RF management, including automatic transmit power and channel control with auto coverage-hole correction
- Spectrum analyzer remotely scans the 2.4 and 5GHz radio bands to identify sources of RF interference
- Security:
 - With an OpenDNS service subscription, Dell Instant APs delivers integrated web filtering, malware and botnet protection to every device connected to the WLAN
 - Integrated Trusted Platform Module for secure storage of credentials and keys
 - SecureJack-capable for secure tunneling of wired Ethernet traffic
 - VPN configuration functionality enables the Instant AP to create a single VPN tunnel from the Virtual Controller to a Dell Mobility Controller in the data center.

Operating modes

- Wireless
 - o Dell Instant AP
 - o Mobility Controller-managed WLAN AP or Remote AP (RAP)
 - o Air monitor (AM)
 - o Hybrid WLAN AP and AM
 - o Secure enterprise mesh
- Wired
 - 10/100/1000Base-T Ethernet uplink port, 4x 10/100/1000Base-T Ethernet local ports
 - o Two of the local Ethernet ports are PoE capable (product option)
 - User authentication: 802.1X, captive portal, MAC authentication or open access
 - Policy-based forwarding for local resource access

Delivering secure
802.11n wireless and
wired networking to
SMBs and access to
corporate resources.

Wireless radio specifications

- AP type: Dual radio, dual-band 802.11n indoor
- Software-configurable dual radio supports 2.4 and 5GHz
- 2x2 MIMO with two spatial streams and up to 300Mbps wireless data rate in 2.4GHz
- 3x3 MIMO with three spatial streams and up to 450Mbps wireless data rate in 5GHz
- Supported frequency bands (country-specific restrictions apply):
 - 2.400 to 2.4835GHz
 - 5.150 to 5.250GHz
 - 5.250 to 5.350GHz
 - 5.470 to 5.725GHz
 - 5.725 to 5.850GHz
- Available channels: Managed by Virtual Controller or Mobility Controller, dependent upon configured regulatory domain
- Dynamic Frequency Selection optimizes the use of available RF spectrum
- Supported radio technologies:
 - 802.11b: Direct-sequence spread-spectrum
 - 802.11a/g/n: Orthogonal frequency-division multiplexing (OFDM)
 - 802.11n (2.4GHz): OFDM, 2x2 MIMO with two spatial streams
 - 802.11n (5GHz): OFDM, 3x3 MIMO with three spatial streams
- Supported modulation types:
 - 802.11b: BPSK, QPSK, CCK
 - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Transmit power: Configurable in increments of 0.5dBm
- Maximum (conducted) transmit power (per radio transmit chain):
 - 2.4GHz band: +18dBm
 - 5GHz bands: +18dBm
 - Transmit power will be limited as needed to comply with local regulatory requirements
- Advanced Cellular Coexistence to effectively deal with interference from cellular systems
- Maximum Ratio Combining for improved receiver performance
- Cyclic Delay Diversity for improved downlink RF performance
- Short Guard Interval for 20 and 40MHz channels
- Space-Time Block Code for increased range and improved reception
- Supported data rates (Mbps):
 - 802.11b: 1, 2, 5.5, 11
 - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
 - 802.11n (2.4GHz): 6.5 to 300 (MCS0 to MCS15)
 - 802.11n (5GHz): 6.5 to 450 (MCS0 to MCS23)
- 802.11n high-throughput support: HT20/40
- 802.11n packet aggregation: A-MPDU, A-MSDU

Antennas

- 2.4GHz: Two internal omni-directional antennas for 2x2 MIMO with maximum antenna gain of 5.5dBi
- 5GHz: Three internal omni-directional antennas for 3x3 MIMO with maximum antenna gain of 5.0dBi
- Antennas are optimized for vertical orientation of the device

Other (non-RF) interfaces

- Network:
 - ENET0 (uplink): One 10/100/1000Base-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
 - ENET1-4 (local): Four 10/100/1000Base-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
 - ENET1 and ENET2 capable of sourcing PoE power (W-IAP155P only)
- DC power interface:
 - W-IAP155:
 - 12V DC +/- 5%
 - Connector: Circular plug, 1.7/4.0mm center-positive, 9.5mm length
 - W-IAP155P
 - 54V DC +/- 5%
 - Connector: Circular plug, 1.35/3.8mm center-positive, 11.0mm length
- One USB 2.0 port (Type A receptacle)
- Serial console interface (custom header, TTL signal levels)
- Visual indicators (LEDs):
 - Power/system status
 - Ethernet link status (2x)
 - WLAN radio status (2x)
 - PoE status (2x)
- Kensington security slot
- Reset button

Encrypted VPN throughput

- Up to 100Mbps

Power supply

- DC power source (adapter ships with unit, AC power cord ordered separately)
 - W-IAP155: 12V DC from external AC-to-DC power adapter
 - W-IAP155P: 54V DC from external AC-to-DC power adapter
- Maximum power consumption:
 - Without USB device connected: 17.5W
 - With USB device: 20W
 - When sourcing PoE power (W-IAP155P only), total power consumption may increase by up to 34W
- PoE power sourcing capabilities (RAP-155P only):
 - 802.3af or 802.3at power sourcing support (PSE) provided on two local Ethernet ports (ENET1, 2)
 - Device capable of supplying 1x full 802.3at power or 2x full 802.3af power

Mechanical

- Dimensions (unit):
 - With desk mount: 185 x 65 x 245mm (w x d x h)
- Weight (unit):
 - With desk mount: 700g
- Dimensions (shipping): 340 x 100 x 280mm (w x d x h)
- Weight (shipping): 1,300g

Mounting

- Desktop: Using stand supplied with product
- Wall: Using built-in wall mount features

Environmental

- Operating:
 - Temperature: 0°C to 40°C (32°F to 104°F)
 - Humidity: 5% to 95% non-condensing
- Storage and transportation:
 - Temperature: -40°C to 70°C (-40°F to 158°F)

Regulatory

- FCC/Industry of Canada
- CE Marked
- R&TTE Directive 1995/5/EC
- Low Voltage Directive 72/23/EEC
- EN 300 328
- EN 301 489
- EN 301 893
- UL/IEC/EN 60950
- EN 60601-1-1, EN60601-1-2

For more country-specific regulatory information and approvals, please see your Dell representative.

Certifications

- CB Scheme Safety, cTUVus
- Wi-Fi certified 802.11a/b/g/n



Warranty

- Limited lifetime warranty

Minimum software versions

- Dell Networking W-Series 6.3.0.0
- Dell Networking W-Series 3.3.0.0



RF performance table

	Maximum transmit power (dBm) per transmit chain	Receiver sensitivity (dBm) per receive chain
802.11b 2.4GHz		
1Mbps	18.0	-92.0
2Mbps	18.0	-92.0
5.5Mbps	18.0	-90.0
11Mbps	18.0	-88.0
802.11g 2.4GHz and 802.11a 5GHz		
6Mbps	18.0	-88.0
54Mbps	16.0	-75.0
802.11n HT20 2.4 and 5GHz		
MCS0/8/16	18.0	-88.0
MCS7/15/23	14.0	-71.0
802.11n HT40 2.4 and 5GHz		
MCS0/8/16	18.0	-85.0
MCS7/15/23	14.0	-68.0

Note: Table shows maximum capability of the hardware. Maximum transmit power may be reduced to comply with local regulatory requirements.

Ordering information

Part Number	Description
	AP-220 Series Access Points
W-IAP155	Dell Networking W-IAP155 Instant Access Point (wireless, 5x10/100/100Base-T, USB) This product should be considered "rest of world" products and MUST NOT be used for deployments in the United States, Japan or Israel
W-IAP155-US	Dell Networking W-IAP155 Instant Access Point (wireless, 5x10/100/100Base-T, USB) Restricted regulatory domain: United States
W-IAP155-JP	Dell Networking W-IAP155 Instant Access Point (wireless, 5x10/100/100Base-T, USB) Restricted regulatory domain: Japan
W-IAP155P	Dell Networking W-IAP155P Instant Access Point (wireless, 5x10/100/1000Base-T, USB, POE out) This product should be considered as 'Rest of World' products and MUST NOT be used for deployments in the United States, Japan or Israel
W-IAP155P-US	Dell Networking W-IAP155P Instant Access Point (wireless, 5x10/100/1000Base-T, USB, POE out) Restricted regulatory domain: United States
W-IAP155P-JP	Dell Networking W-IAP155P Instant Access Point (wireless, 5x10/100/1000Base-T, USB, POE out) Restricted regulatory domain: Japan
AP-AC-12V24UN	Dell Networking 12V AC-to-DC power adapter for W-IAP155
AP-AC-54V54	Dell Networking 54V AC-to-DC power adapter for W-IAP155P

*Select Dell Networking products carry an Extended Life Warranty with Basic Hardware Service. Warranty covers repair or replacement of the product for as long as it remains in use by the customer. In the event of discontinuance of product manufacture, Dell Extended Life Warranty extends until five (5) years after end of product model sales. Warranty limits any power supply, antennae or accessories to one (1) year from date of purchase. Warranty does not include troubleshooting, configuration, or other advanced service provided by Dell ProSupport. The Extended Life Limited Hardware Warranty is not transferrable. For more information see dell.com/warranty.

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