

# MWS Series

## Wireless LAN Access Points for Small to Medium-Sized Networks

The Allied Telesis MWS Series are cost-effective wireless LAN Access Points (APs). The MWS Series has three models, to provide a superior solution for any small to medium network installation.

### Overview

The MWS Series wireless APs support IEEE802.11a/b/g/n or IEEE802.11a/b/g/n/ac. Dual-band support utilizes the 2.4GHz and 5.0GHz frequencies at the same time.

The MWS Series is equipped with advanced encryption and authentication IEEE 802.11i capabilities. These APs protect WLANs by segmenting public and private access with multiple Service Set Identifications (SSIDs) and VLAN Tagging. Rogue AP detection prevents unauthorized entry to the wireless network.

MWS600AP supports two IEEE802.11n spatial streams, with throughput of 300Mbps in the 2.4GHz band and 300Mbps in the 5GHz band.

MWS1750AP supports three IEEE 802.11n/ac spatial streams, with throughput of 450Mbps in the 2.4GHz band and 1.3Gbps in the 5GHz band.

MWS2533AP supports four IEEE 802.11n/ac spatial streams, with throughput of 600Mbps in the 2.4GHz band and 1.7Gbps in the 5GHz band.

### Operational Mode

- ▶ Standalone

### Wireless

- ▶ QoS (WMM)
- ▶ Band steering
- ▶ Automatic select channel
- ▶ Configuration of transmission power
- ▶ Shaving per SSID
- ▶ Fast hand over
- ▶ Fast roaming
- ▶ Guest network
- ▶ VAP

### Management

- ▶ Graphical User Interface
- ▶ HTTP/HTTPS
- ▶ SNMP(v1, v2c, v3)
- ▶ Firmware Upgrade (HTTP)
- ▶ Backup / Restore Settings
- ▶ Auto Reboot
- ▶ E-mail Alert
- ▶ Syslog Notification
- ▶ Scheduling
- ▶ Speed test
- ▶ SNMP client

### Security

#### Authentication

- ▶ Open System Authentication
- ▶ Shared Key Authentication
- ▶ IEEE 802.1X (802.1X/EAP: EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0 / EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-AKA Prime, EAP-FAST)
- ▶ WPA (Enterprise, Personal)
- ▶ WPA2 (Enterprise, Personal)

#### Encryption

- ▶ WEP: 64/128/152 bit (IEEE 802.11a/b/g only)
- ▶ WPA/WPA2: AES, TKIP



## Key Features

### IEEE802.11ac/11n

- ▶ MWS2533AP supports 4x4 MIMO of IEEE802.11ac wave2
- ▶ MWS1750AP supports 3x3 MIMO of IEEE802.11ac
- ▶ MWS600AP supports 2x2 MIMO of IEEE802.11n

### Band Steering

- ▶ The MWS Series prioritizes connection to the 5GHz band wherever possible, to minimize interference with the busy 2.4GHz band.

### Scheduling

- ▶ It is possible to activate/deactivate SSIDs and restart APs with automatic scheduling.

### Fast Handover

- ▶ Clients connecting to an AP where signal strength is low can be forcibly handed over to an AP with a stronger signal.

### Graphical User Interface

- ▶ The Web-based user interface is user-friendly and intuitive, minimizing training needs.

### Physical Specifications

PRODUCT	WIDTH X DEPTH X HEIGHT	WEIGHT	10/100/1000T (RJ-45) COPPER PORTS	10/1000X SFP PORTS	POE+ ENABLE PORTS
MWS600AP	161.2 x 161.2 x 38 mm (6.37 x 6.37 x 1.50 in)	280 g (0.62 lb)	1	-	1(PoE-in)
MWS1750AP	161.2 x 161.2 x 38 mm (6.37 x 6.37 x 1.50 in)	340 g (0.75 lb)	1	-	1(PoE-in)
MWS2533AP	215 x 215 x 56 mm (8.46 x 8.46 x 2.20 in)	1.6 kg (3.53 lb)	2	-	2(PoE-in)

## Power Characteristics

100 - 240 VAC

PRODUCT	MAX POWER CONSUMPTION	MAX HEAT DISSIPATION	POWER BUDGET	MAX POE ENABLED PORTS AT 30W PER PORT
MWS600AP	11W	36.97 BTU/hr	-	1(PoE-in)
MWS1750AP	11W	37.92 BTU/hr	-	1(PoE-in)
MWS2533AP	21W	72.04 BTU/hr	-	2(PoE-in)

### MAC address filtering

- ▶ Up to 32 per wireless setting (SSID)
- Detection of neighbor APs
- Shielding SSID
- Prohibition of communicating between wireless clients
- L2 isolation

### Environmental Specifications

#### Operating temperature

- ▶ MWS600AP/1750AP: 0°C to 40°C (32°F to 104°F)

- ▶ MWS2533AP

PoE: 0°C to 50°C (32°F to 122°F)

AC adapter: 0°C to 45°C (32°F to 113°F)

#### Non-operating temperature

- ▶ MWS600AP/1750AP: -20°C to 60°C (-4°F to 140°F)

- ▶ MWS2533AP: -40°C to 70°C (-40°F to 158°F)

#### Operating humidity

- ▶ MWS600AP/1750AP: 10 - 80% (non-condensing)

- ▶ MWS2533AP: 5 - 90% (non-condensing)

#### Storage humidity

- ▶ MWS600AP/1750AP: 10 - 95% (non-condensing)

- ▶ MWS2533AP: 5 - 95% (non-condensing)

### Compliance

#### Certificates

- ▶ CE
- ▶ RCM
- ▶ Wi-fi certified

#### Safety

- ▶ EN 60950-1/A11/A1/A12/A2

#### ElectroMagnetic Interference (EMI)

- ▶ EN 55032, Class A (ver2.1.1)
- ▶ EN 55032, Class B (later ver2.2.0)
- ▶ AS/NZS CISPR 32, Class B
- ▶ VCCI Class B

#### ElectroMagnetic Susceptibility (EMS)

- ▶ EN55024
- ▶ IEC 61000-4-2
- ▶ IEC 61000-4-3/A1/A2
- ▶ IEC 61000-4-4
- ▶ IEC 61000-4-5
- ▶ IEC 61000-4-6
- ▶ IEC 61000-4-8
- ▶ IEC 61000-4-11
- ▶ EN 61000-3-2
- ▶ EN 61000-3-3

#### ElectroMagnetic Compatibility (EMC)

- ▶ EN 301 489-1, Class B
- ▶ EN 301 489-17
- ▶ EN 60601-1-2
- ▶ EN 55011

### Electromagnetic Fields (EMF)

- ▶ EN 62311
- ▶ EN 50385
- ▶ AS/NZS 2772.2

### Medical (EMC)

- ▶ EN 60601-1/-2

### Radio equipment

- ▶ EN 300 328
- ▶ EN 301 893
- ▶ AS/NZS 4628/A1
- ▶ ARIB STD-T66
- ▶ ARIB STD-T71

### RoHS

- ▶ EU RoHS

### Standards

- IEEE 802.11a/b/g/n/ac
- IEEE 802.11k Radio Resource Measurement of Wireless LANs
- IEEE 802.11r Fast Basic Service Set Transition
- IEEE 802.11e (WMM)
- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3x Flow Control
- IEEE 802.3at Power over Ethernet+
- IEEE 802.1Q VLAN Tagging

### Interfaces

#### Embedded Antennas

##### MWS600

- ▶ 2.4 GHz 3.87 (Max)dBi
- ▶ 5 GHz 6.36 (Max)dBi

##### MWS1750

- ▶ 2.4 GHz 4.46 (Max)dBi
- ▶ 5 GHz 4.92 (Max)dBi

##### MWS2533

- ▶ 2.4 GHz 3.98 (Max)dBi
- ▶ 5 GHz 5.84 (Max)dBi

### Radio Characteristics

#### Supported frequencies

- ▶ 2.400 ~ 2.4835 GHz
- ▶ 5.150 ~ 5.350 GHz
- ▶ 5.150 ~ 5.725 GHz
- ▶ 5.725 ~ 5.850 GHz

#### Modulation technique

- ▶ 802.11a/g/n/ac: OFDM
- ▶ 802.11b: DSSS, CCK, DQPSK, DBPSK
- ▶ 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM
- ▶ 802.11a/g/n: BPSK, QPSK, 16QAM, 64QAM

### Media access

- ▶ CSMA/CA + Ack with RTS/CTS

### Diversity

- ▶ Spatial diversity

### Data rate (maximum theoretical value):

#### For MWS600AP

- ▶ 802.11a/g: 54/48/36/24/18/12/9/6Mbps

- ▶ 802.11b: 11/5.5/2/1Mbps

- ▶ 802.11n: 6.5 – 300Mbps (MCS 0 - 23)

#### For MWS1750AP

- ▶ 802.11a/g: 54/48/36/24/18/12/9/6Mbps

- ▶ 802.11b: 11/5.5/2/1Mbps

- ▶ 802.11n: 6.5 – 450Mbps (MCS 0 - 23)

- ▶ 802.11ac: 6.5 – 1,300Mbps (MCS 0 - 9, NSS 1 - 3)

#### For MWS2533AP

- ▶ 802.11a/g: 54/48/36/24/18/12/9/6Mbps

- ▶ 802.11b: 11/5.5/2/1Mbps

- ▶ 802.11n: 6.5 – 600Mbps (MCS 0 - 31)

- ▶ 802.11ac: 6.5 – 1,733Mbps (MCS 0 - 9, NSS 1 - 4)

### Ordering Information

#### AT-MWS600AP<sup>1</sup>

Wireless Access Point with IEEE802.11n dual-band radio and embedded antennas

#### AT-MWS1750AP<sup>1</sup>

Wireless Access Point with IEEE802.11ac wave1 dual-band radio and embedded antennas

#### AT-MWS2533AP<sup>2</sup>

Wireless Access Point with IEEE802.11ac wave2 dual-band radio and embedded antennas

### Accessories

#### AT-BRKT-MWS01

Wall mount kit for MWS2533AP

#### AT-MWS0091

AC adapter

<sup>1</sup> Not available in NA/Canada

<sup>2</sup> Available in NA with the FW later than ver2.2.3 and Not available in Canada