Wireless Product Matrix
June 2023

Large campuses, distributed enterprises, and small businesses all have diverse WLAN architecture needs. That’s why Fortinet provides a variety of models, from 2x2 to 4x4, internal or external antenna, to address any use case. Fortinet offers flexibility for configuration and control, either using our FortiGate security appliance as a controller or our cloud platform FortiLAN Cloud.

**FortiGate Managed**
The FortiGate Wireless Controller is built into all FortiGate models and does not require any additional licensing to use. This results in security-driven networking, where the network is converged with, and driven by security. The FortiLink protocol allows the FortiGate appliance to extend its best in class security directly to the wireless edge. Base NAC features are also included, giving more features and lower TCO. As part of our Security Fabric, the FortiGate Managed offering also allows for an extensive set of troubleshooting and reporting tools with FortiWLM and Artificial Intelligence with Machine Learning using FortiAIOps all within our Fabric Management Center.

**Non-FortiGate Managed**
FortiLAN Cloud management allows for centralized hosted cloud control of standalone FortiAP devices, scaling from a handful to thousands of FortiAPs. A FortiLAN Cloud subscription enables advanced features & troubleshooting plus additional configuration options and log retention.
## FortiAP™ Integrated or Cloud Managed Wi-Fi 6E (802.11ax) Access Points

### Suggested Use Cases
- FAP-231G: WiFi-6E Indoor
- FAP-431G: High Performance WiFi-6E Indoor
- FAP-831G: WiFi-6E Indoor

### Certifications
- DFS Certified
- CE Certified
- Wi-Fi Alliance Certified
- FCC, IC, CE, Japan, Brazil, Taiwan, Korea

### SSID Types Supported
- Local-Bridge, Tunnel & Mesh

### Number of Radios and Antennas
- **Radio 1 Capabilities**
  - 2.4 GHz: 23 dBm / 200 mW
  - Omni-directional rubber duck antenna: 4.5 dBi for 2.4 GHz, 4.5 dBi for 5 GHz

- **Radio 2 Capabilities**
  - 5.0 GHz: 23 dBm / 200 mW

- **Radio 3 Capabilities**
  - 6.0 GHz: 24 dBm / 251 mW

### Power Consumption (Max.)
- 1 x GE RJ45, 1x RS-232 RJ45 Serial Port

### Maximum Data Rate
- **Radio 1**
  - 2.4 GHz: up to 574 Mbps

- **Radio 2**
  - 5 GHz: up to 1201 Mbps

- **Radio 3**
  - 6.0 GHz: up to 2401 Mbps

### Maximum Tx Power
- Depends on PoE connected

### Number of Antennas
- 3 + 1 BLE

### Number of Clients
- Up to 512 per radio (Radio 1, 2 & 3)

### Antenna Type and Peak Gain
- 2x2 20/40/80MHz

### Interfaces
- 1 x GE RJ45, 1x RS-232 RJ45 Serial Port

### Power over Ethernet (PoE)
- 802.3af/at  802.3at & dual redundant 802.3af/at  Dual 802.3at for full function, 802.3at with USB disabled

### Maximum Throughput
- WiFi 6: 8x8 (Mode 1), 4x4 = 4x4 (Mode 2)

### Maximum Throughput (802.11ax)
- 1 x 2.5GE RJ45, 1x GE RJ45, 1x RS-232 RJ45 Serial Port

### Number of Radios
- 3

### Maximum Throughput (4 chains combined)
- Radio 1: 2.4GHz: 27 dBm / 500 mW (4 chains combined)
- Radio 2: 5GHz: 25.5 dBm / 224 mW (4 chains combined)
- Radio 3: NA

### Maximum Throughput (1x1)
- Radio 1: 2.4GHz: 23 dBm / 200 mW (4 chains combined)
- Radio 2: 5GHz: 23 dBm / 200 mW (4 chains combined)
- Radio 3: NA

### Maximum Throughput (2 chains combined)
- Radio 1: 2.4GHz: 23 dBm / 200 mW (2 chains combined)
- Radio 2: 5GHz: 23 dBm / 200 mW (2 chains combined)
- Radio 3: NA

### Maximum Throughput (chains combined)
- Radio 1: 2.4GHz: 23 dBm / 200 mW (4 chains combined)
- Radio 2: 5GHz: 23 dBm / 200 mW (4 chains combined)
- Radio 3: NA
### FortiAP™ Integrated or Cloud Managed Wi-Fi 6 (802.11ax) Outdoor and Wall Plate Access Points

<table>
<thead>
<tr>
<th>Model (Series)</th>
<th>Model (Series)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAP-221E</td>
<td>FAP-223E</td>
</tr>
</tbody>
</table>

**Suggested Use Case:**
- Medium density indoor
- Medium density outdoor

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Number of Radios</th>
<th>Number of Antennas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>4 Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 External (RP-SMA)</td>
</tr>
</tbody>
</table>

**Antenna Type and Peak Gain:**
- **Patch:** 4 dBi for 2.4 GHz, 5 dBi for 5 GHz
- **Dipole:** 4 dBi for 2.4 GHz, 5 dBi for 5 GHz

<table>
<thead>
<tr>
<th>Radio 1 Capabilities</th>
<th>Radio 2 Capabilities</th>
<th>Radio 3 Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4 GHz b/g/n (2x2:2) 20/40 MHz (256 QAM)</td>
<td>5 GHz a/n/ac (2x2:2) 20/40/80 MHz (256 QAM)</td>
<td>(Monitor Only)</td>
</tr>
</tbody>
</table>

**Maximum Data Rate:**
- **Radio 1:** up to 400 Mbps
- **Radio 2:** up to 867 Mbps

**Bluetooth (BT/BLE):**
- • •

<table>
<thead>
<tr>
<th>Interfaces</th>
<th>Power over Ethernet (PoE)</th>
<th>Power Consumption (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x GE RJ45</td>
<td>IEEE 802.3af</td>
<td>12.36 W</td>
</tr>
</tbody>
</table>

### FortiAP™ Integrated Indoor and Wall Plate Indoor 802.11ac Access Points

<table>
<thead>
<tr>
<th>Model (Series)</th>
<th>Model (Series)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAP-234F</td>
<td>FAP-432F</td>
</tr>
<tr>
<td>FAP-23JF</td>
<td></td>
</tr>
</tbody>
</table>

**Suggested Use Case:**
- 802.11ax outdoor
- High performance

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Number of Radios</th>
<th>Number of Antennas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 + 1 BLE</td>
<td>3 Internal + 1 BLE External</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 External + 1 BLE External</td>
</tr>
</tbody>
</table>

**Antenna Type and Peak Gain:**
- **Dipole:** 10 dBi for 2.4 GHz band, 10 dBi for 5.0 GHz
- **PCB:** 4.0 dBi for 2.4 GHz and 4.0 dBi for 5 GHz

<table>
<thead>
<tr>
<th>Radio 1 Capabilities</th>
<th>Radio 2 Capabilities</th>
<th>Radio 3 Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4 GHz</td>
<td>5.0 GHz</td>
<td>(Monitor Only)</td>
</tr>
<tr>
<td>20/40MHz</td>
<td>2x2 20/40/80MHz</td>
<td>2.4/5.0 GHz (1x1)</td>
</tr>
<tr>
<td>20/40MHz</td>
<td>4x4 20/40/80MHz, 2x2 160MHz</td>
<td>2.4/5.0 GHz (1x1)</td>
</tr>
<tr>
<td>451 MHz</td>
<td>2x2 20/40/80MHz</td>
<td>2.4/5.0 GHz (1x1)</td>
</tr>
</tbody>
</table>

**Maximum Data Rate:**
- **Radio 1:** up to 574 Mbps
- **Radio 2:** up to 1200 Mbps
- **Radio 3:** scan only

**Bluetooth (BT/BLE):**
- • • • •

<table>
<thead>
<tr>
<th>Interfaces</th>
<th>Power over Ethernet (PoE)</th>
<th>Power Consumption (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 1GE RJ45, 1x RS-232 RJ45 Serial Port</td>
<td>30.7 W w/o PSE out / 37.9 W with PSE out</td>
<td>17.5W w/o PSE out / 31W with PSE out</td>
</tr>
<tr>
<td>1x 2.5GE RJ45, 1x GE RJ45, 1x RS-232 RJ45 Serial Port</td>
<td>802.3af/at</td>
<td>25 W w/o PSE out / 35 W with PSE out</td>
</tr>
</tbody>
</table>

**Certifications:**
- Wi-Fi Alliance Certified
- DFS Certified

<table>
<thead>
<tr>
<th>Radio</th>
<th>2.4 GHz: 27 dBm / 800 mW (2 chains combined)*</th>
<th>5.0 GHz: 25.5 dBm / 354 mW (2 chains combined)*</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.4 GHz: 30 dBm / 1000 mW (4 chains combined)*</td>
<td>5.0 GHz: 26 dBm / 398 mW (2 chains combined)*</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Per Radio Client Capacity:**
- Up to 512

<table>
<thead>
<tr>
<th>Simultaneous SSIDs</th>
<th>Maximum Tx Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 (14 if background scanning enabled)</td>
<td>Radio 1: 2.4 GHz 27 dBm / 500 mW (2 chains combined) Radio 2: 5 GHz 25.5 dBm / 354 mW (2 chains combined) Radio 3: N/A</td>
</tr>
<tr>
<td></td>
<td>Radio 1: 2.4 GHz 30 dBm / 1000 mW (4 chains combined) Radio 2: 5 GHz 26 dBm / 398 mW (2 chains combined) Radio 3: N/A</td>
</tr>
</tbody>
</table>

**SSID Types Supported:**
- Local-Bridge, Tunnel & Mesh

**Power over Ethernet (PoE) Options:**
- 802.3af/at

**Power Consumption (Max.):**
- 15.5 W

**Certifications:**
- Wi-Fi Alliance Certified
- DFS Certified
- FCC, IC, CE, Japan, Brazil, Taiwan, Korea

<table>
<thead>
<tr>
<th>Power Consumption (Max.)</th>
<th>Power over Ethernet (PoE) Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.60 W</td>
<td>802.3af/at</td>
</tr>
</tbody>
</table>
**FortiAP Unified Threat Protection Capable Wi-Fi 6 (802.11ax) Access Points**

<table>
<thead>
<tr>
<th>Model</th>
<th>NP-2420AF</th>
<th>NP-2424AF</th>
<th>NP-2428AF</th>
<th>NP-2434AF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suggested Use Case</strong></td>
<td>Micro range 802.11 indoor</td>
<td>High performance 802.11 indoor</td>
<td>High performance 802.11 indoor</td>
<td>High performance 802.11 indoor</td>
</tr>
<tr>
<td><strong>Number of Radios</strong></td>
<td>3 + 1 BLE</td>
<td>3 + 1 BT/BLE</td>
<td>3 + 1 BLE</td>
<td>3 + 1 BLE</td>
</tr>
<tr>
<td><strong>Number of Antennas</strong></td>
<td>6 Internal + 1 BT/BLE</td>
<td>Internal 8 External (Type N)</td>
<td>6 Internal + 1 BT/BLE</td>
<td>Internal 8 External (Type N)</td>
</tr>
<tr>
<td><strong>Radio 1 Capabilities</strong></td>
<td>PIFA: 4 dBi for 2.4GHz, 6 dBi for 5GHz</td>
<td>PIFA: 4 dBi for 2.4 GHz, 6 dBi for 5 GHz</td>
<td>PIFA: 4 dBi for 2.4 GHz, 6 dBi for 5 GHz</td>
<td>PIFA: 4 dBi for 2.4 GHz, 6 dBi for 5 GHz</td>
</tr>
<tr>
<td><strong>Radio 2 Capabilities</strong></td>
<td>Dipole: 3.5 dBi for 2.4 GHz, 5 dBi for 5 GHz</td>
<td>Directional patch Antenna</td>
<td>3 + 1 BLE</td>
<td>3 + 1 BLE</td>
</tr>
<tr>
<td><strong>Radio 3 Capabilities</strong></td>
<td>1 x 802.3at PoE default, 1 x 802.3af PoE</td>
<td>1 x 2.5GE RJ45, 1 x GE RJ45, 1 x Type A USB, 1 x RS-232 RJ45 Serial Port</td>
<td>1 x 802.3at PoE default, 1 x 802.3af PoE</td>
<td>1 x 2.5GE RJ45, 1 x GE RJ45, 1 x Type A USB, 1 x RS-232 RJ45 Serial Port</td>
</tr>
<tr>
<td><strong>Per Radio Client Capacity</strong></td>
<td>16 (14 client, 2 monitor)</td>
<td>16 (14 client, 2 monitor)</td>
<td>16 (14 client, 2 monitor)</td>
<td>16 (14 client, 2 monitor)</td>
</tr>
<tr>
<td><strong>Simultaneous SSIDs</strong></td>
<td>2 + 4x GE RJ45 Ports (1x 802.3at PoE PD), 1x 802.3af PoE (PSE), 1x pass-thru port for IEEE 802.3af &amp; 802.3at Proprietary or 802.3at Power over Ethernet (PoE)</td>
<td>2 + 4x GE RJ45 Ports (1x 802.3at PoE PD), 1x 802.3af PoE (PSE), 1x pass-thru port for IEEE 802.3af &amp; 802.3at Proprietary or 802.3at Power over Ethernet (PoE)</td>
<td>2 + 4x GE RJ45 Ports (1x 802.3at PoE PD), 1x 802.3af PoE (PSE), 1x pass-thru port for IEEE 802.3af &amp; 802.3at Proprietary or 802.3at Power over Ethernet (PoE)</td>
<td>2 + 4x GE RJ45 Ports (1x 802.3at PoE PD), 1x 802.3af PoE (PSE), 1x pass-thru port for IEEE 802.3af &amp; 802.3at Proprietary or 802.3at Power over Ethernet (PoE)</td>
</tr>
<tr>
<td><strong>Network Capabilities</strong></td>
<td>16,000 clients, 16,000 simultaneously, DFS Certified</td>
<td>16,000 clients, 16,000 simultaneously, DFS Certified</td>
<td>16,000 clients, 16,000 simultaneously, DFS Certified</td>
<td>16,000 clients, 16,000 simultaneously, DFS Certified</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>Wi-Fi Alliance Certified</td>
<td>Wi-Fi Alliance Certified</td>
<td>Wi-Fi Alliance Certified</td>
<td>Wi-Fi Alliance Certified</td>
</tr>
<tr>
<td><strong>Power Consumption (Max.)</strong></td>
<td>24W (Depends on PoE connected and power over Ethernet)</td>
<td>24W (Depends on PoE connected and power over Ethernet)</td>
<td>24W (Depends on PoE connected and power over Ethernet)</td>
<td>24W (Depends on PoE connected and power over Ethernet)</td>
</tr>
<tr>
<td><strong>IEEE Standards</strong></td>
<td>802.11ac</td>
<td>802.11ac</td>
<td>802.11ac</td>
<td>802.11ac</td>
</tr>
</tbody>
</table>

**Radio 1**

- **Maximum Data Rate**
  - 2.4 GHz: 25 dBm / 316 mW (2 chains combined)
  - 5 GHz: 24 dBm / 251 mW (4 chains combined)
- **Interface**
  - 1x 802.11abg, 1x 802.11n, 1x 802.11ac
- **Power Consumption (Max.)**
  - 24W
- **Power over Ethernet (PoE)**
  - 12.99W

**Radio 2**

- **Maximum Data Rate**
  - 2.4 GHz: 22 dBm / 158 mW (2 chains combined)
  - 5 GHz: 25 dBm / 316 mW (2 chains combined)
- **Interface**
  - 1x 802.11abg, 1x 802.11n, 1x 802.11ac
- **Power Consumption (Max.)**
  - 22 W
- **Power over Ethernet (PoE)**
  - 12.8 W when in 802.3af power mode

**Radio 3**

- **Maximum Data Rate**
  - 2.4 GHz: 27 dBm / 501 mW (2 chains combined)
  - 5 GHz: 26 dBm / 400 mW (2 chains combined)
- **Interface**
  - 1x 802.11abg, 1x 802.11n, 1x 802.11ac
- **Power Consumption (Max.)**
  - 25 dBm / 316 mW (2 chains combined)
- **Power over Ethernet (PoE)**
  - 24W (Depends on PoE connected and power over Ethernet)