

Nile Zero Trust Fabric NWA 1100 AP



Overview

The Nile NWA 1100 is an indoor Wi-Fi 6E (802.11ax) access point engineered for high-performance connectivity in offices, classrooms, and other dense indoor environments. It adds support for the 6 GHz band, unlocking wider channels and additional spectrum for multi-gigabit throughput and low-latency application performance. The AP features tri-band 4×4 radios for 2.4 GHz, 5 GHz, and 6 GHz operation, along with a dedicated tri-band sensor radio that continuously validates coverage, capacity, and availability.

As part of Nile's Zero Trust Fabric, the NWA 1100 runs in a secure, cloud-delivered network-as-a-service (NaaS) architecture with centrally enforced segmentation and autonomous operations for continuous assurance and optimization. QR-code activation through the Nile Nav app enables fast, error-free installation with guided workflows.

Features

Tri-band 4×4:4 MU-MIMO Capable

Delivers simultaneous 6 GHz, 5 GHz, and 2.4 GHz 4×4:4 MU-MIMO for high capacity and efficient multi-client throughput

Target Wake Time (TWT)

Ideal for low-traffic IoT devices, TWT schedules when clients communicate with the AP—reducing power use and minimizing airtime contention

Transmit Beamforming (TxBF)

Increased signal reliability and range

Dynamic Frequency Selection (DFS)

Optimized use of available RF spectrum

Seamless Device Roaming

Standards that aid in better Wi-Fi device roaming such as 802.11k, 802.11r, 802.11v.

Automatic Channel Planning

Radios automatically optimize channel and power settings for peak performance, with built-in coverage hole detection and mitigation.

Optimized Connection and QoS

Steers dual-band devices to the optimal band and moves low-RSSI clients to stronger APs for a better connection.

Zero Trust Security

● WPA3 & Enhanced Open Security

Stronger encryption and authentication for protected networks, with automatic session encryption on open networks to safeguard user data and passwords.

● Secure Management

Secure connectivity is enforced by a tamper-proof design, allowing management exclusively through the Nile Services Cloud.

Specifications

Hardware Model

NWA 1100 - Internal Antenna Model

Wi-Fi Radio Specifications

Indoor, Quad-radio

- 6GHz radio, 802.11ax 4×4 MIMO
- 5GHz radio, 802.11ax 4×4 MIMO
- 2.4GHz radio, 802.11ax 4×4 MIMO
- Tri-band capable 4th radio, 802.11ax

Primary WLAN Radios

6GHz Radio	4×4 SU-MIMO Capable; DL-MU-MIMO, UL-MU-MIMO, DL-OFDMA, UL-OFDMA capable
5GHz Radio	4×4 SU-MIMO Capable; DL-MU-MIMO, UL-MU-MIMO, DL-OFDMA, UL-OFDMA capable
2.4GHz Radio	4×4 SU-MIMO Capable; DL-MU-MIMO, UL-MU-MIMO, DL-OFDMA, UL-OFDMA capable
Supported Frequency Bands, Channels, DFS (country specific restrictions apply)	2.400 - 2.4835GHz (ISM) 5.150-5.250GHz (U-NII-1) 5.250-5.350GHz (U-NII-2A) 5.470-5.725GHz (U-NII-2C / U-NII-2E) 5.725-5.850GHz (U-NII-3) 6.425 to 6.525 GHz (U-NII-6) 6.525 to 6.875 GHz (U-NII-7) 6.875 to 7.125 GHz (U-NII-8) Channel availability depends on configured country (based on regulatory domain Dynamic Frequency Selection (DFS) optimized use of available RF Spectrum)
Transmit power	2.4GHz radio – Max 25dBm (25dBm EIRP), Min 0dBm 5GHz radio – Max 25dBm (27dBm EIRP), Min 0dBm 6GHz radio – Max 30dBm (24dBm EIRP), Min 0dBm

Fourth Radio (Monitoring/Sensor)

	Tri-Band capable, 802.11ax, 2×2 radio; Operating Band: Tri band – 2.400-2.4835 GHz, 5.150-5.250GHz, 5.250-5.350 GHz, 5.470-5.725 GHz, 5.725-5.850 GHz, 6.425 to 6.525 GHz, 6.525 to 6.875 GHz, 6.875 to 7.125 GHz
Transmit power	6GHz – Max 30 dBm (EIRP) 5GHz – Max 22dBm (EIRP); 2.4GHz – 20dBm (EIRP)
Antenna	Omni-directional internal antenna

Ethernet

Interface	Interface: 1× 1/2.5/5GbE RJ45 port, with line rate MACSec Support
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Power Sources, Power Consumption

Power over Ethernet: 802.3bt
Power budget – 42W at full load

Mechanical Specifications, Enclosure, LEDs, BT/BLT

Ceiling mount and wall mount capable with universal mount kit Indoor mechanical design
Shock and vibration resistant
Plenum rated for use in air-handling specs

Dimensions: 10.6" x 10.6" x 2.3" (270mm x 270mm x 60.2 mm)

Mounting

Industrial design to support easy mounting/installation
Supports universal mount kits and tool-less mounting
Ceiling and wall mount capable

QR Code

QR Code identifier on the enclosure

LED

Single LED with 3 colors: Red, Blue, Green

Bluetooth

Supported for hardware installation and activation

Environment/Operation Conditions

Operating Temperature

0°C to 45°C

Operating Humidity

5 to 90% Relative Humidity, non-condensing
ETS 300 019 class 3.2 Environments

Storage and Transportation Conditions

-40C to +70C; Humidity 5% to 93% non-condensing ETS 300 019 classes 1.2 and 2.3 environments

MTBF

148,631 hrs at 77°F (25°C)

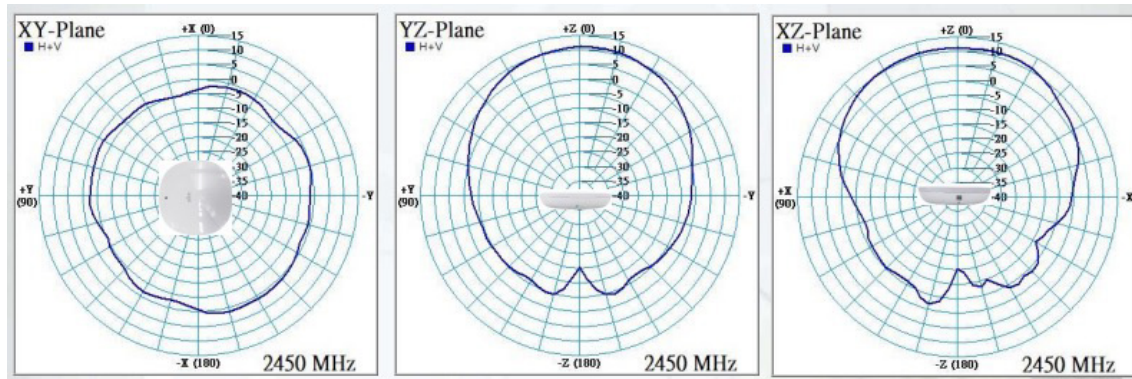
Regulatory Compliance

Meets required Regulatory Compliance standards applicable to similar products:

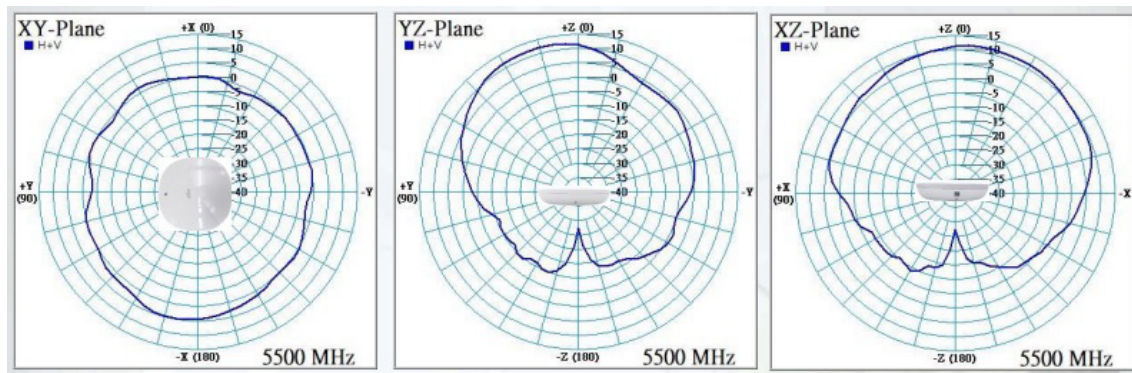
FCC/IC/CE
UL/IEC/EN 60950
UL2043 plenum rating
Bluetooth SIG
Wi-Fi Alliance Certified

Signal Coverage Patterns

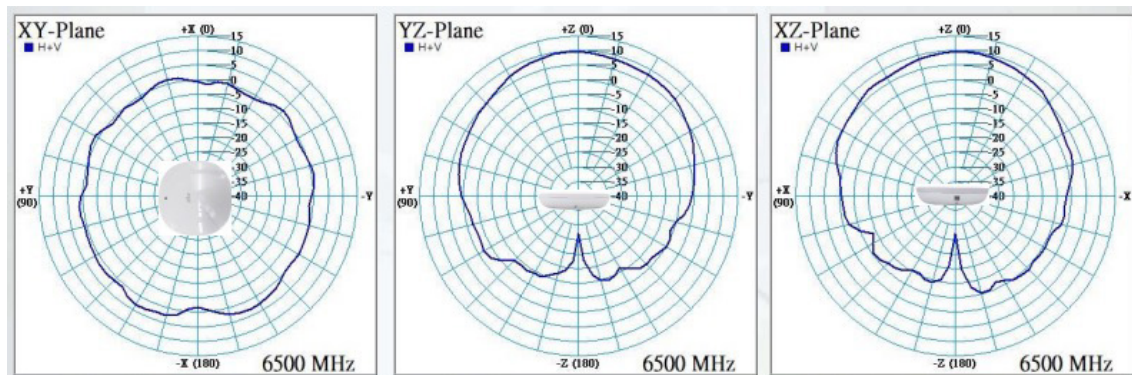
NWA 1100 – Client Serving - Normalized Radiation Pattern (2.4 GHz)



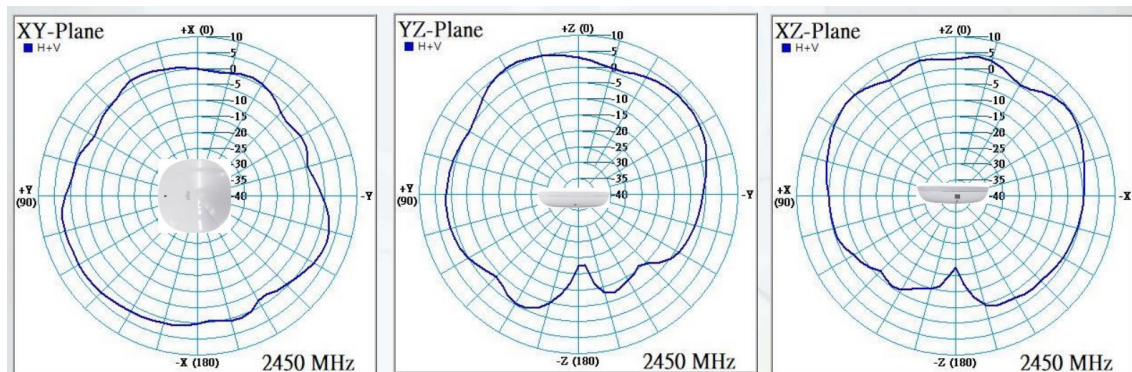
NWA 1100 – Client Serving - Normalized Radiation Pattern (5 GHz)



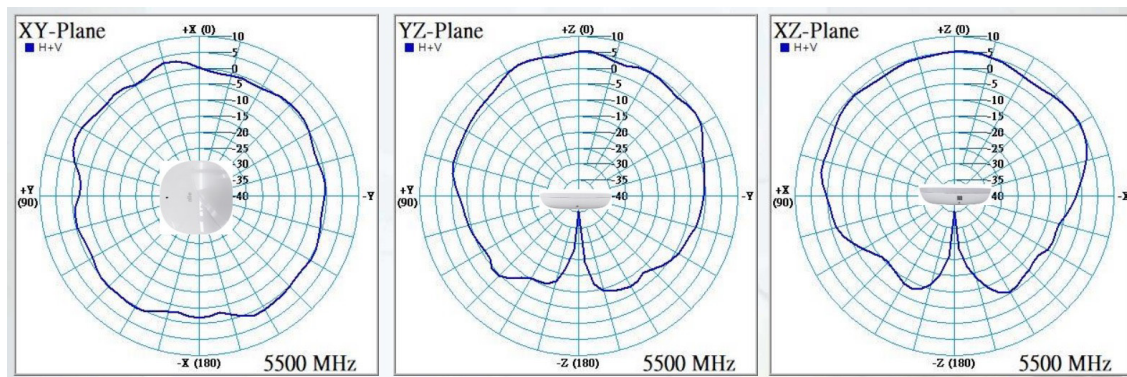
NWA 1100 – Client Serving - Normalized Radiation Pattern (6 GHz)



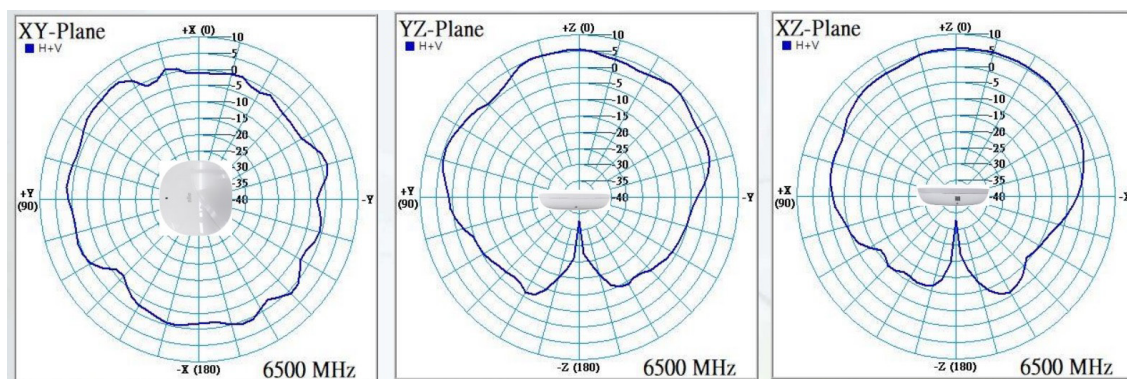
NWA 1100 – Scanning Radio - Normalized Radiation Pattern (2.4 GHz)



NWA 1100 – Scanning Radio - Normalized Radiation Pattern (5 GHz)



NWA 1100 – Scanning Radio - Normalized Radiation Pattern (6 GHz)



Warranty & Support

All Nile access points include 24x7 AI-driven cloud monitoring and lifecycle automation delivered through the Nile autonomous AI Command Center. Performance-based service options include a financially backed Performance Guarantee with service credits. Hardware replacement options include expedited RMAs aligned to the selected tier and region.

Ready to Get Started?

[Request a Demo](#)