

## DATA SHEET

# Nile NWA 1100 Indoor Wi-Fi 6E Access Points

## OVERVIEW

As the current trend leans towards wireless connectivity for work and personal use, users expect nothing less than an exceptional experience. In certain use cases, this includes the need for Wi-Fi 6E that unlocks the 6GHz band, providing more than double the available capacity.

Nile's Wi-Fi 6E NWA 1100 access points (APs) provide high-performance connectivity, with a radically simplified operational model for any organization with growing mobility requirements. As a key component of the Nile Service Block, the NWA 1100 is an integral part of the Nile Access Service. It offers the industry's first performance guarantees for wireless coverage, network capacity, and system availability.

The Nile Access Service is designed for quick and straightforward activation, ensuring a seamless Day 1 deployment experience. Using an intuitive mobile app and step-by-step guidance for installing and activating APs, installers can set up the network with zero configuration errors.

Wireless features for the NWA 1100 include Orthogonal Frequency Division Multiple Access (OFDMA) and bidirectional multi-user MIMO for enhanced multi-user efficiency. A fourth radio acts as a monitoring sensor to provide continuous testing of the Nile Access Service's availability, coverage, and capacity. The RF neighborhood information provided is used to optimize the wireless LAN experience.



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## ADDITIONAL WIFI FEATURES

### Transmit beamforming (TxBF)

- Increased signal reliability and range

### Target Wake Time (TWT)

- Ideal for IoT devices that communicate infrequently, TWT establishes a schedule for when clients need to communicate with an AP to help improve client power savings and reduce airtime contention with other clients.

### 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

- AP radios automatically orchestrate sophisticated auto-channel and power allocation for optimized performance in a given environment. Includes coverage hole detection and auto mitigation.

### Optimized connection and QoS

- Features that steer dual-band capable devices to a better frequency/band and move devices that are sticking to APs with lower RSSI to a better AP to ensure an optimum connection.

## SECURITY

### WPA3 and Enhanced Open

- The latest version of WPA provides support for stronger encryption and authentication for enterprise-protected networks. Enhanced Open offers seamless new security for users connecting to open networks, where each session is automatically encrypted to protect user passwords and data on guest networks.

### Secure Management

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

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Hardware Model	
	NWA 1100 - Internal Antenna Mode
Wi-Fi Radio Specifications	
	Indoor, Quad-radio <ul style="list-style-type: none"> <li>• 6GHz radio, 802.11ax 4x4 MIMO</li> <li>• 5GHz radio, 802.11ax 4x4 MIMO</li> <li>• 2.4GHz radio, 802.11ax 4x4 MIMO</li> <li>• Tri-band capable 4th radio, 802.11ax</li> </ul>
Primary WLAN Radios	
6GHz Radio	4x4 SU-MIMO Capable; DL-MU-MIMO, UL-MU-MIMO, DL-OFDMA, UL-OFDMA capable
5GHz Radio	4x4 SU-MIMO Capable; DL-MU-MIMO, UL-MU-MIMO, DL-OFDMA, UL-OFDMA capable
2.4GHz Radio	4x4 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 5.150-5.250GHz 5.250-5.350GHz 5.470-5.725GHz 5.725-5.850GHz 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
Forth Radio (Monitoring/Sensor)	
	Tri-Band capable, 802.11ax, 2x2 radio; Operating Band: Dual band – 2.400-2.4835GHz, 5.150-5.250GHz, 5.250-5.350GHz, 5.470- 5.725GHz, 5.725-5.850GHz, 6.425 to 6.525 GHz, 6.525 to 6.875 GHz, 6.875 to 7.125 GHz U-NII-8
Transmit power	6GHz – Max 30 dBm (EIRP) 5GHz – Max 22dBm (EIRP); 2.4GHz – 20dBm (EIRP)
Antenna	Omni-directional internal antenna
Ethernet	
	Interface: 1x 1/2.5/5GbE RJ45 port, with line rate MACSec Support
Power Sources, power consumption	
	Power over Ethernet: 802.3bt Power budget – 42W at full load

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### Nile NWA 1100 Indoor Wi-Fi 6E Access Points

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) Weight: 3.86 lbs (1.75 kg)
Mounting	Industrial design to support easy mounting/installation Supports universal mount kits and tool-less mounting Ceiling and wall mount capable The appropriate wall mount kit will be provided based on the defined deployment plan
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