































MQTT protocol with security



**FLEXIBLE** INTEGRATION

Compatible with industry-standard protocols



**LONG BATTERY** LIFE

Up to 2 years of



**SECURE DATA MONITORING** 

Consistent data for precise decision-making



**LONG-RANGE** COMMUNICATION

Effective in environments with barriers



**GUARANTEED COMPLIANCE** 

FDA CFR 21 Part 11 and GMP

• Continuous and reliable monitoring for controlled environments

- Uninterrupted data recording with global reach
- Flexible integration, compatible with legacy systems
- Secure and low-maintenance communication for several applications
- Resilient connectivity, ideal for pharmaceutical warehouses and data centers



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## **Technical Specifications**

		RHT Air+					
TEMPERATURE MEASUREMENT	Range: -10 to 70 °C (14 to 158 °F) Resolution: 0.1 °C Accuracy: ± 0.2 °C						
RELATIVE HUMIDITY MEASUREMENT	Range: 0 to 100 % RH Resolution: 0.1 % RH Accuracy: ± 1.5 % RH						
MEMORY	Туре	Circular					
	Capacity	15,000 logs (2 quantities) 50 days with a 5-minute recording interval					
ECORDING INTERVAL	2 to 720 minutes*						
COMMUNICATION INTERFACES	USB-C	For configuration, download and diagnostics.					
	LoRa		Models				
			915 MHz	868 MHz	865 MHz		
		Frequency [MHz]	915.4~927.4	865.15~869.85	865.15~866.86		
		Bandwidth [kHz]	500	250	250		
		Spreading factor	7~11	7~12	7~12		
		Transmission power [dBm]	20	14	20		
		Reception sensitivity	-136 dBm				
		Radio coverage	Up to 3km with a clear line of sight**				
POWER SUPPLY	Non-rechargeable batteries	Up to 2 years (publication interval of 10 minutes, SF10 and power of 14dBm)					
	USB-C	It is recommended to use a 5 V ~ 1 A power supply (Do not use cables longer than 1.5 m)					
ISPLAY	2 lines, 4 digits						
ROTECTION INDEX	IP65, Sensor: IP40						
ENVIRONMENT	Operating temperature: -10 to 70 °C (14 to 158 °F)						
	Storage temperature: -20 to 70 °C (-4 to 158 °F)						
	Humidity: 5 to 95 % RH (Non-condensed)						
IMENSIONS	70 mm x 175 mm x 45 mm						
OUSING	Polycarbonate (V2 flame retardant)						
SOFTWARE	NXperience (via USB)						
	NXperience Trust (FDA 21 CFR part 11)						
CERTIFICATIONS	Anatel	07860-24-07089					
	FCC	Contains LoRA module, FCC ID: 2ADHKR34M					
	ISED	Contains LoRA module, IC: 20266-R34M[1]					

<sup>\*</sup> The 915 MHz model can be configured with a log interval of 1 to 720 minutes, but it is recommended to use a log interval of 5 minutes or more. To increase performance, consider the maximum number of devices on the network in the ratio of 6 devices for each minute of logging interval.

[1] https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/devices-and-equipment/radio-equipment-standards/radio-standards-specifications-rss/rss-gen-general-requirements-compliance-radio-apparatus#s4.3 (itens 4.3, 8.4)

		AtuC-to Atus						
		AirGate Air+						
MEMORY	Туре	Circular						
	Capacity	480,000 logs (2 quantities)						
RECORDING INTERVAL		2 to 720 minutes*						
COMMUNICATION INTERFACES	USB-C	For configuration, download and diagnostics.	T					
				Models				
			915 MHz	868 MHz	865 MHz			
		Frequency [MHz]	915.4~927.4	865.15~869.85	865.15~866.86			
	LoRa	Bandwidth [kHz]	500	250	250			
	Lona	Spreading factor	7~11	7~12	7~12			
		Transmission power [dBm]	20	14	20			
		Reception sensitivity		-136 dBm				
		Radio coverage	Up to 3km with a clear line of sight**					
	Ethernet	10/100 Mb/s, IEEE standard 802.3u.						
	Wi-Fi	IEEE standard 802.11 b/g/n 2.4G GHz.						
	WI-FI	Support for WPA-Personal (PSK) WPA/WPA2 TKIP/AES/TKIP and AES encryption.						
PROTOCOLS	IP	SMTP, NTP, MQTT, and Modbus-TCP.						
POWER SUPPLY	External power supply	8~30 Vdc						
PROTECTION INDEX	IP20							
ENVIRONMENT	Operating temperature: -10 to	Operating temperature: -10 to 60 °C (14 to 140 °F)						
	Storage temperature: -20 to 70	Storage temperature: -20 to 70 °C (-4 to 158 °F)						
	Humidity: 5 to 95 % RH (Non-c	Humidity: 5 to 95 % RH (Non-condensed)						
DIMENSIONS	220 mm x 180 mm x 38 mm	220 mm x 180 mm x 38 mm						
HOUSING	ABS + PC	ABS + PC						
SOFTWARE	NXperience (via USB)	NXperience (via USB)						
	NXperience Trust (FDA 21 CFR	NXperience Trust (FDA 21 CFR parte 11)						
CERTIFICATIONS	Anatel	07859-24-07089						
	500	Contains Wi-Fi module, FCC ID: 2AC7Z-ESPWROOM32D						
	FCC	Contains LoRA module, FCC ID: 2ADHKR34M						
	1111	Contains Wi-Fi module, IC: 21098- ESPWROOM32D[1]						
	ISED	Contains LoRA module, IC: 20266-R34M						

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<sup>\*\*</sup>The communication distance decreases as the number of obstacles between the Gateway and the sensor increases.

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