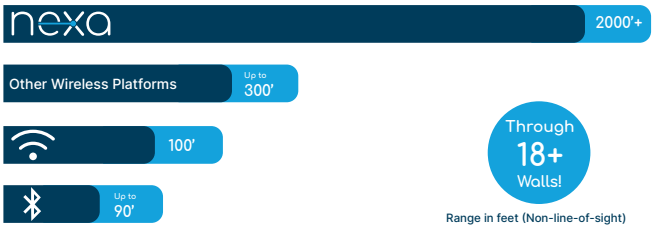
Product Specification

Dual Gateway

WNG3-9-CME-CCE-2Y

Nexa™ Dual Gateway features a powerful wireless transceiver with up to 1 Watt transmission strength, an amplified receiver, and 4G LTE CAT-M1/NB2 cellular technology to backhaul Nexa sensor data. The gateway can send and receive data communications with Nexa wireless sensors 2,000+ feet through 18+ walls in commercial building environments.

You only need a power source and the Nexa cloud platform to monitor virtually any environment and equipment using Nexa wireless IoT devices. The Nexa gateway communicates with Nexa sensors and the Nexa platform to deliver data and send alerts about various machine, equipment, or area conditions.



Primary Applications

- Domestic hot water pipes, risers, and branches
- Cold water lines
- Boiler and chiller supply and return
- Ambient temperature

Features

- 4G LTE CAT-M1/NB2 cellular technology
- Wireless range of 2,000+ feet through 18+ walls[1]
- Frequency-hopping Spread Spectrum (FHSS)
- Best-in-class interference immunity
- Encrypt-RF® Security (256-bit Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- 32,000 sensor message memory[2]
- Over-the-air (OTA) firmware updates (future-proof)
- True plug and play, hassle-free internet configuration setup
- No computer required for operation
- Local LEDs with transmission and online status indicators
- AC power adapter
- Up to 60-hour battery backup in power outage
- RJ-45 with 10/100BASE-TX Ethernet jack for configuration and server connectivity

NOTICE

Watts is not responsible for the failure of alerts due to connectivity issues, power outages, or improper installation.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Inquire with governing authorities for local installation requirements.

[1] Actual range may vary depending on environment.

[2] Total messages in memory varies with sensor type; 32,000 applies to temperature sensors. Additional information available at Nexa.

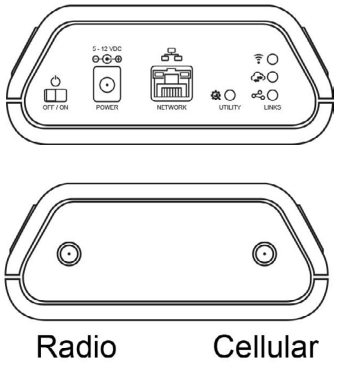
Technical Specification

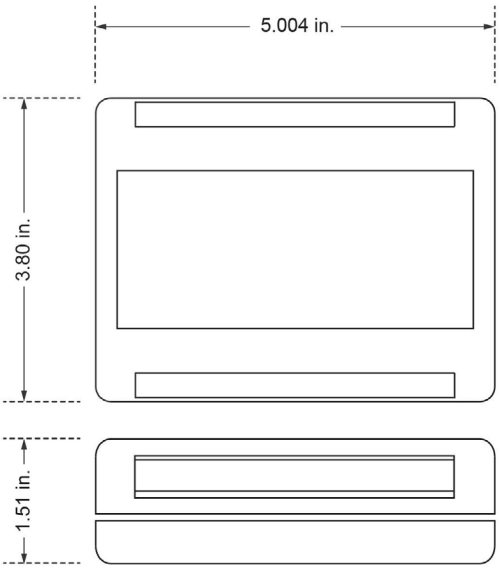
Call customer service if you need assistance with technical details.

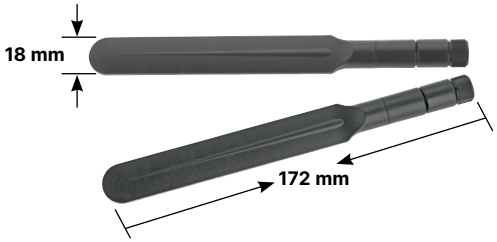
Model	
Dual Function	WNG3-9-CME-CCE-2Y
Cellular	
Cellular Technology	LTE CAT-M1 / NB2 module for global use in bands 1,2,3,4,5,8,12,13,18,19,20,25,26,27,28,66,71,85
SIM Card Compatibility	Mini-SIM (3FF) 15 mm x 12 mm x 0.76 mm
Cellular Antenna Type	Connector: SMA / Gain: 4.0 dBi
GNSS Antenna Type	Internal Mount Active (28db) Ceramic Patch
GNSS Satellites Supported	GPS, GLONASS, BeiDou, Galileo, and QZSS
Ethernet	
Hardware	IEEE 802.3 10/100BASE-TX compatible controller
Operation	Full- and Half-Duplex
Cross-over Correction	Automatic MDI / MDI-X
Protocols Supported	DHCP, DNS, UDP, TCP, SNTP, MSVR Proprietary
Power	
Input Power	5.0 VDC @ 1 A
	Battery Backup
	Battery Type: 2900mAh Rechargeable Lithium Polymer
	Battery Duration: Up to 60 hours
	Battery Cycle Life: 500 times
	Battery Safety: IEC62133
Mechanical	
Power Connector	2.1 mm x 5.5 mm
Ethernet Connector	RJ-45
LEDs	Internet Connectivity, Gateway Services, Nexa Network Status
Enclosure	
Material	ABS
Dimensions	5.0 in. x 3.8 in. x 1.5 in.
Weight	7 oz
Environmental	
Operating Temperature	41°F to 113°F (5°C to 45°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)
Wireless	
Transmit Power	+30dBm or 1W
Antenna Type	Connector: RP-SMA / Gain: 3.0 dBi (Antenna EIRP: 32.6dBm or 1.8W rating)
Wireless Range[1]	2,000+ ft non-line-of-sight
Security	Encrypt-RF® (256-bit Diffie-Hellman key exchange and AES-128 CBC)
Device Memory	Up to 32,000 sensor messages (Sensor messages are stored in the event of an internet outage and transferred when the connection is restored.)
Certifications	Safety: IEC 62368-1 EMC: FCC 47 CFR Part 15, subpart B and ICES - 001 Issue 6; RF: Include Models FCC ID: ZTL-G2XL1 / IC: 9794A-G2XL1 FCC ID: XMR202007BG95M6 / IC:10224A-2020BG95M6)

[1] Actual range may vary depending on the installation environment.

Dimensions







Cellular Antenna (Extended Details)

Frequency Range	698-960/ 1710-2700(MHz)
Gain	5 dBi
VSWR	2.5 Max
Polarization	Vertical
Impedance	50 (Ω)
Connector Type	SMA male
Antenna Length	6.77 in. (172 mm)
Type	Omni-directional, Multi-band antenna

Nexa Antenna (Extended Details)

Frequency Range	902-946 (MHz)
Gain	3 dBi
VSWR	1.8 Max
Polarization	Vertical
Impedance	50 (Ω)
Connector Type	RP-SMA male
Antenna Length	8.26 in. (210 mm)
Type	Omni-directional dipole antenna

Operating Conditions

Nexa gateways are designed for applications in ordinary environments (normal room temperature, humidity, and atmospheric pressure). Do not use the gateways under the following conditions, as these factors can deteriorate the product characteristics and cause failures and burnout.

- Corrosive or deoxidizing gas such as chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxide gas
- Volatile or flammable gas
- Dusty conditions
- Under extremely low or high pressure
- Wet or excessively humid locations
- Places where saltwater, oils, chemical liquids, or organic solvents are routinely present
- Applications/locations prone to excessive or strong vibration
- Other sites where similar hazardous conditions exist

Use these products within the Nexa specified temperature range. Higher temperatures may cause deterioration of the characteristics or the material quality.