



# Wavelet™ V2

## Industrial IoT Edge Device



### Interoperable

Connect any sensor to any software system

### Cost-effective

Save time and money with plug-and-play installation

### Cybersecure

Encryption, authentication and remote updates

### Comprehensive

Encompassing all required equipment and services

## DELIVERING DECISIONS FROM FIELD ASSETS DATA

Ayyeka's Wavelet™ is a ruggedized, battery-powered, wireless Industrial Internet of Things (IIoT) edge device. Seamlessly combined with powerful software, the Wavelet™ offers continuous monitoring and situational awareness. Our end-to-end solution helps municipal and industrial operators increase efficiency, reduce downtime and failures, and improve compliance.

The Wavelet™ is designed for compatibility and interoperability to connect decision-makers with their critical assets. The device generates and securely transmits sensor data to a software platform, where it can be managed and integrated into third-party applications, such as SCADA, data analytics, and GIS.

Through the creation and management of data from field assets, Ayyeka's solution transforms and adds intelligence to new and existing infrastructure networks alike.

## Sensors Inputs

<b>Sensors ports</b>	3 ports; supports up to 12 sensors using cable splitters
<b>Sensor connection</b>	Wired with M12 connectors
<b>Serial interfaces</b>	RS485, RS232, SDI-12
<b>Serial protocols</b>	Modbus RTU, ASCII, custom
<b>Serial channels</b>	16
<b>Analog channels</b>	4 - 4-20 mA / 0-24 V
<b>Digital input channels</b>	5 - Dry contacts or 2.8V max. With a subset of periodic, edge pulse counting configuration
<b>Digital output channels</b>	5 - 0V/2.8V output levels
<b>Sensor power supply</b>	350mA, 12V or 3.6V

## Power

<b>Primary power supply</b>	Internal lithium battery; field-replaceable
<b>Internal battery capacity</b>	32Ah
<b>Battery life<sup>1</sup></b>	Up to 10 years
<b>External power</b>	6-24VDC with automatic power source switching

## Data and software

<b>Data hosting</b>	Cloud or on-premises
<b>Software integration</b>	REST API, CSV
<b>SCADA integration</b>	CSV, DNP3, OPC-UA
<b>AyyekaGo mobile app</b>	iOS, Android
<b>Device memory</b>	8 GB
<b>Data communication</b>	Two-way
<b>Alarm threshold</b>	Up to 54 threshold per device
<b>Alert notification</b>	SMS, email, voice

1. Actual battery lifetime depends on sensor power consumption as well as sampling and transmission frequency and environmental conditions such as temperature and humidity.

2. Specific cellular technology availability depends on specific model number and geographic specifics

All statements concerning specifications and operating conditions of the Wavelet correspond to the best information available at the time of printing. Subject to change without prior notice.

## Connectivity

<b>Wireless communication<sup>2</sup></b>	4G/3G/2G Cellular Optional LoRaWAN
<b>SIM card(s)</b>	Dual SIM slots, 3FF
<b>Data transmission</b>	Periodic, data-dependent
<b>Cellular roaming</b>	Global multi-network SIM(s); data plan included for up to 180+ countries
<b>Configuration and upgrades</b>	Bluetooth Low Energy (BLE), remotely (over-the-air), USB connection
<b>Antenna</b>	External antenna & backup internal antenna
<b>Built-in GPS</b>	Included

## Mechanical Enclosure

<b>Dimensions (W x H x D)</b>	13.2 x 16.5 x 7.3 cm (5.2 x 6.5 x 2.9 in.)
<b>Operating temperature</b>	-40° to 80°C (-40° to 176°F)
<b>Ingress protection</b>	IP 68 / NEMA 6P
<b>Enclosure material</b>	Polycarbonate Stainless steel metal parts

## Cybersecurity

<b>Data in transit security</b>	TLS 1.3
<b>Device authentication</b>	Hardware based
<b>Bluetooth</b>	ECC key exchange, AES-256 encryption
<b>Firmware/security updates</b>	Full over the air
<b>Physical access</b>	Restricted to diagnostics only