

v. 1.0.0
DATASHEET

GATEWAY OUTDOOR



Born to be smart

Urbana Gateway is a Plug&Play device for smart city applications.

The device incorporates multifunctional interfaces which are able to connect a wide range of devices to Urbana IoT Platform.

Urbana Gateway is a plug-and-play device for integrating any sensor and actuator into Urbana IoT Platform.

Connect any sensor and actuator using world class technologies

The device deploys LoRa®

radio technology for last mile communication. It can operate on 868/915 MHz frequencies with coverage radius up to 5 Km for indoor scenarios and up to 15 Km for outdoor. LoRa technology provides the highest performances for radio communication in terms of reliability, scalability and obstacles penetration with low power consumption. The maximum power consumption is 10 dBm with 153 dB of link budget and high sensitivity of -140 dBm.

Multi standard device

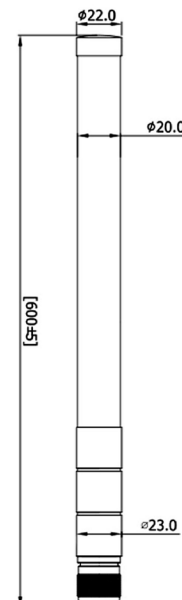
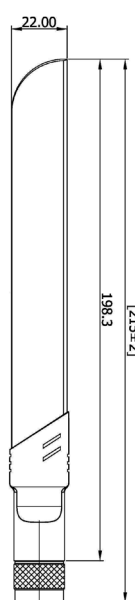
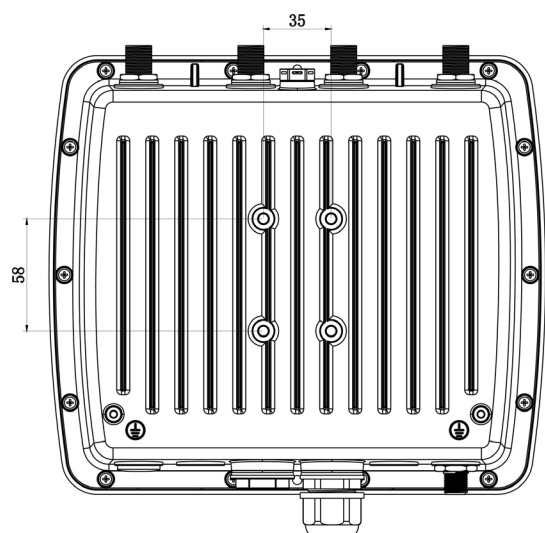
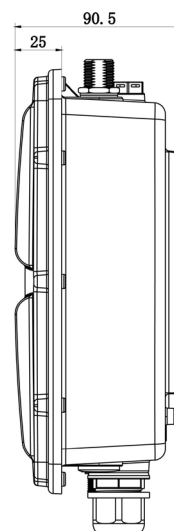
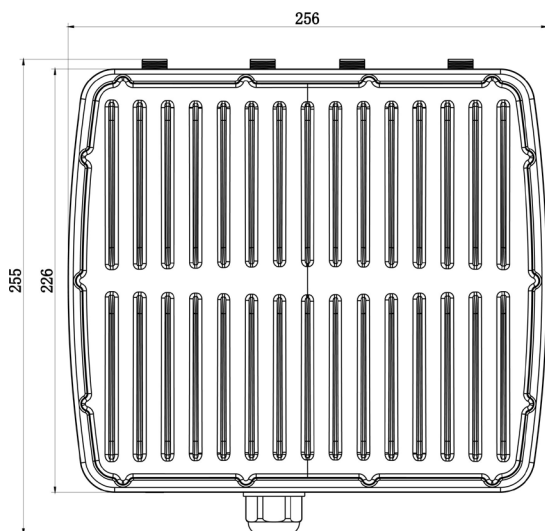
Connectivity has never been so simple. Thanks to the several interfaces used into Urbana Gateway, you can easily connect your IoT solutions in a while.

Real-time optimization through Urbana IoT Platform

All supervised devices can be controlled in real-time.

DEVICE DIMENSION

Device dimension in mm



TECHNICAL SPECIFICATION

MECHANICAL

Housing:	Solid Case
Material:	Alluminium
Dimension:	256 x 226 x 90.5 mm (without antenna)
Mounting:	Wall or Pole Mounting

ELECTRICAL

Input Voltage:	100 ~ 240 VAC, 50/60 Hz
Input Power (max):	5W Typical, 6.5W Max
Insulation Class:	II

ENVIRONMENTAL

Operating Temperature:	- 40°C to + 70°C (- 40°F to + 158°F) Reduced Cellular Performance Above 60°C
Storage Temperature:	- 40°C to + 85°C (- 40°F to + 185°F)
Operating Relative Humidity (max):	0% to 95% (non-condensing) at 25°C/ 77°F
IP Rating:	IP67
Certification:	CE, FCC

ETHERNET INTERFACE

Port:	1×RJ45 (PoE PD)
Physical Layer:	10/100/1000 Base-T (IEEE 802.3)
Data Rate:	10/100/1000 Mbps (Auto-Sensing)
Interface:	Auto MDI/MDIX
Mode:	Full or Half Duplex (Auto-Sensing)

CELLULAR

Connectors:	1 × 50Ω N-Type (Center PIN: Female)
SIM Slots:	2

HARDWARE SYSTEM

CPU:	800 MHz, 64-bit ARM Cortex-A53
Memory:	512 MB DDR3 RAM
Flash:	8 GB eMMC
Storage:	1 × M.2 slot supports SATA M.2 SSD

POWER SUPPLY AND CONSUMPTION

Connector:	1 × 802.3 af/at PoE input
Power Consumption:	Typical 5W, 6.5W Max

CONFIGURATION

Plug&Play using Urbana IoT Platform

LORAWAN® INTERFACE

Connector:	1 × 50 Ω N-Type (Center PIN: Female)
Channel:	8
Frequency Band:	EU863-870, AS923
Sensitivity:	- 140 dBm Sensitivity @292bps
Output Power (Max):	27 dBm Max
Protocol:	V1.0 Class A/Class C + V1.0.2 Class A/Class C

SOFTWARE

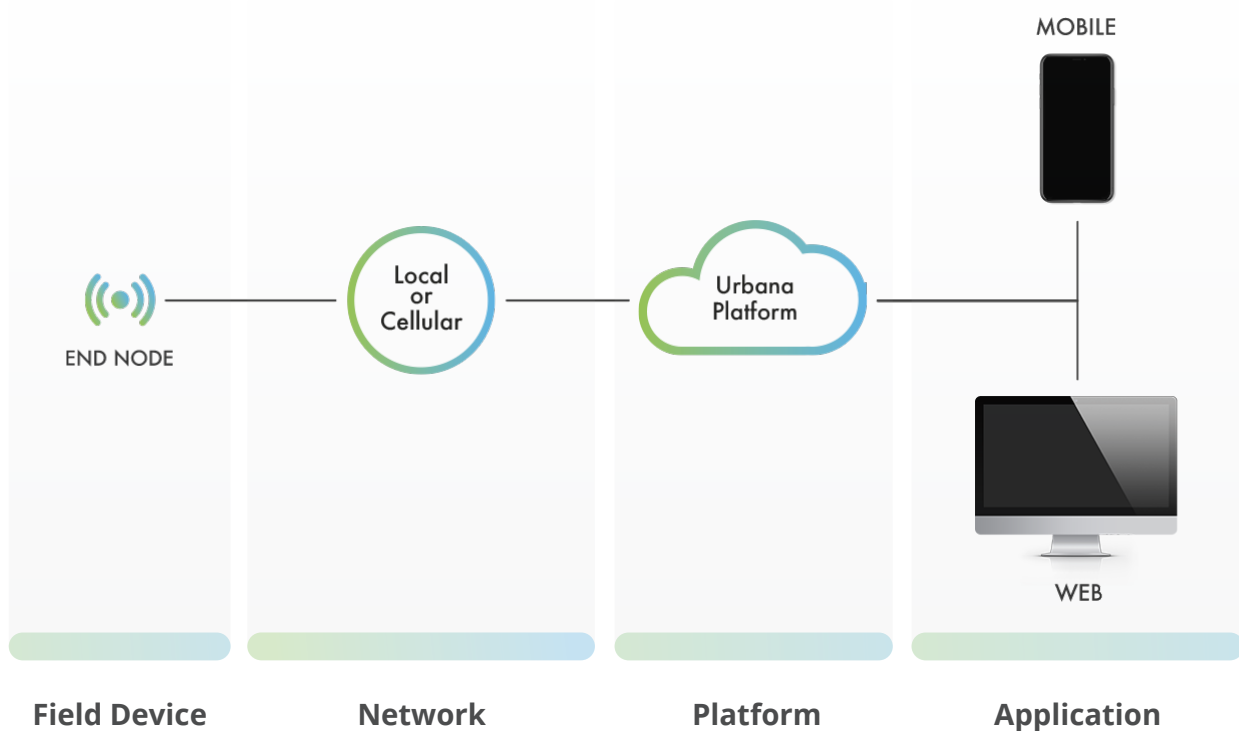
Network Protocols:	PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, DDNS, HTTP, HTTPS, DNS, ARP, SNTP, Telnet, SSH, MQTT, etc.
VPN Tunnel:	OpenVPN/ IPsec/ PPTP/ L2TP/ GRE/ DMVPN
Access Authentication:	CHAP/PAP/MS-CHAP/MS-CHAPV2
Firewall:	ACL/ DMZ/ Port Mapping/ MAC Binding/ URL Filter
Management:	Web, CLI, SMS, On-demand dial up, DeviceHub
Reliability:	WAN Failover, Dual SIM Backup

COMPLIANCES

Council Directive	2014/53/EU
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URBANA IoT PLATFORM

Urbana platform is designed to provide end-to-end IoT solutions from hardware to software. The core structure of the platform is based on a scalable distributed and containerised infrastructure maintaining the requirements of clients to scale up whenever needed. The tech stack used in Urbana allows us to have no restriction based on number of devices, features, users and availability. With use of these highly scalable and available databases, Urbana IoT Platform is able to provide advanced reporting and fallback mechanism to provide high level of reliability. One of the most important components of the Urbana IoT Platform is the MQTT broker (server). The MQTT layer is the gate that connects the cloud-based part of the infrastructure to the local field network of devices. It plays a critical role both in terms of security and scalability but also in terms of interoperability. Urbana infrastructure can interface with any device compliant with LoRaWAN® network protocol as standardized by the LoRa Alliance®. Urbana Smart Solutions, being an end-to-end provider, have in-house LoRaWAN® gateways readily for the clients if needed, which are Plug&Play compliant with all the Urbana devices.



Gateway Outdoor - GO01
Datasheet

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