TH Range Extender

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TH Range Extender

The TH Range Extender is designed to extend 802.15.4 868/915MHz Wireless range. Multiple TH Range Extenders deploys a auto-configurable mesh network that increase wireless range.

The TH Range extender also measure environmental temperature and humidity. It is capable of measuring differential pressure between two points to detect air conditioning systems inefficiencies.

Features

- Configurable Temperature sample time (default: 5 min.)
- No re-calibration or maintenance required.
- Easy and quick deployment.

Characteristics

- Input voltage: from 5Vdc to 9Vdc
- Power consumption:
  - < 30mA @ 9Vdc. active
  - < 10uA @ 9Vdc. sleep mode

Wireless interface

- ISM 868 MHz. (Europe) / 915 MHz.
- Maximum RF power: +14dBm.
- RF range > 200m line of sight.
- External antenna.

Air pressure sensor

- scale: +- 2inch. H2O
- Internal temperature sensor
  - Monitoring range: 0ºC to +60ºC
  - Accuracy: 0,5ºC @ 25ºC
- Hysteresis: programmable threshold

Aplications

- Extend wireless range
- Environmental Temperature and Humidity measure.
- Measure differential pressure between two points.
  - Measure cooling system inefficiencies.

Mechanicals

- Dimensions: 71x71x27 mm
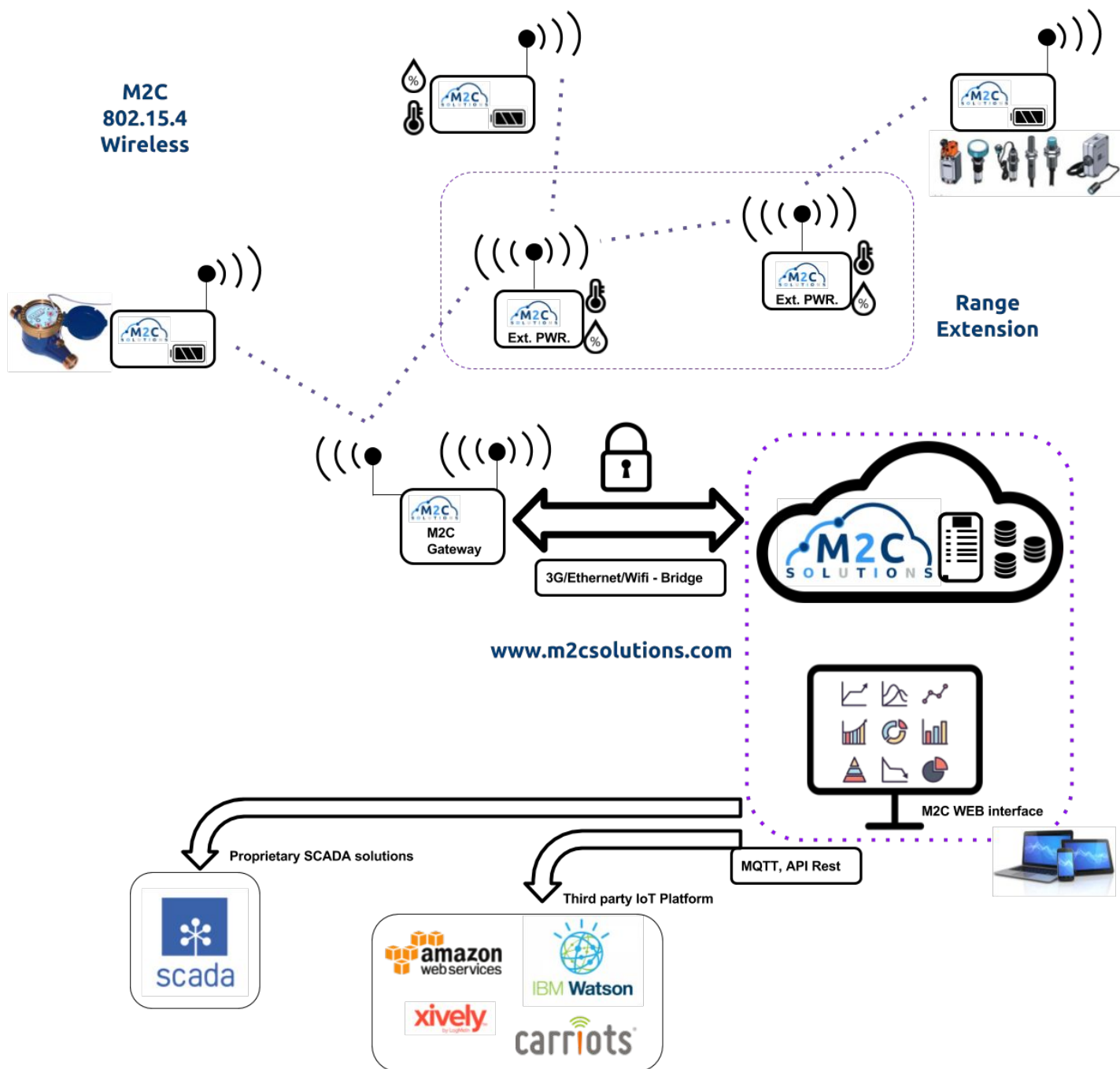- Weight: TBD
- Protection level: IP20

Operating environment

- Operating temperature:
  - Commercial: -15ºC to +60ºC
  - Industrial: -40ºC to +80ºC
- Operating humidity: 10% to 90% RH

Humidity sensor

- Internal humidity sensor
- Monitoring range: 5% - 95% RH
- Accuracy: 5% RH @ 25ºC
- Hysteresis: wireless programmable threshold

Ref. ds_TH_range_ext_en
Rev. 1.0

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Solution Description

Diagram of end to end service

M2C
802.15.4
Wireless

Range
Extension

Ext. PWR.

Ext. PWR.

M2C
Gateway

3G/Ethernet/Wifi - Bridge

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M2C WEB interface

Proprietary SCADA solutions

MQTT, API Rest

Third party IoT Platform

scada

amazon web services

IBM Watson

xively

carriots

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M2C Solutions Analog Industrial sensor Catalog

Devices part-numbers

Part number:	Description:
I-ES-TH-R	Temperature. Humidity. Wireless Repeater. External Powered.
I-ES-THAP	Temperature. Humidity. Differential pressure. Wireless Repeater. External Powered.

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