

We do  
what others  
talk about.

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[www.intech21.com](http://www.intech21.com)

INTRODUCING  
RESPONDIO™



# ABOUT INTECH 21

Founded in 1994, Intech 21, Inc. is a privately held company, which designs, develops and manufactures radio frequency based communication technologies, products and systems for a diverse range of control and monitoring applications.

Tens of thousands of Intech 21 wireless smart meters, process sensors and wireless heating control systems have been saving between 20% and 40% of energy consumption while dramatically reducing carbon emissions.

Integration of multiple functions in one smart device allow:

- Immediate cost savings and short payback
- Existing buildings can be retrofitted with virtually no downtime
- Significant cost savings for new construction projects vs. conventional systems

These products combine ruggedness to withstand noise and interference with sleek and unobtrusive design, which also provides sophistication in control strategies and open communications with other systems.

Intech 21's single cohesive enterprise solution offers:

- Remote, web based monitoring and control
- Immediate response to critical situations
- System management from any location
- Remote alarm notification via any media (email, SMS, cell, etc.)

Intech 21, Inc. has pioneered and has over a decade of track record with our patented fully addressable token ring method for communication over power lines as well as a self-healing wireless network.

The New York City Housing Authority has received awards for the implementation and use of the Intech 21 energy system, including Mayor Michael Bloomberg's award for best energy technology of the year.

The Intech 21 solution is equally effective in a five apartment building or a campus with more than 100 buildings - plug and save. It enables a standard air conditioner or a standard apartment radiator valve smarter, able to communicate and be remotely controlled. It allows a regular smoke or carbon monoxide detector to be connected into a central system.

# ABOUT RESPONDIO™

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intech 21

TM

# PRODUCT BRIEF

The Respondio™ processor can be used as a standalone local server, an RS-485 to Ethernet communication converter, a communication buffer, a pulse counter for energy, gas, and water metering, as well as a digital I/O interface.

The Respondio™ also provides an interface from alarm sensors, boilers, and heating distribution controllers to the Local Server, and serves as a data concentrator unit for a wide variety of controllers, digital and analog sensors.

Respondio™ is a perfect solution to your connectivity for numerous applications:

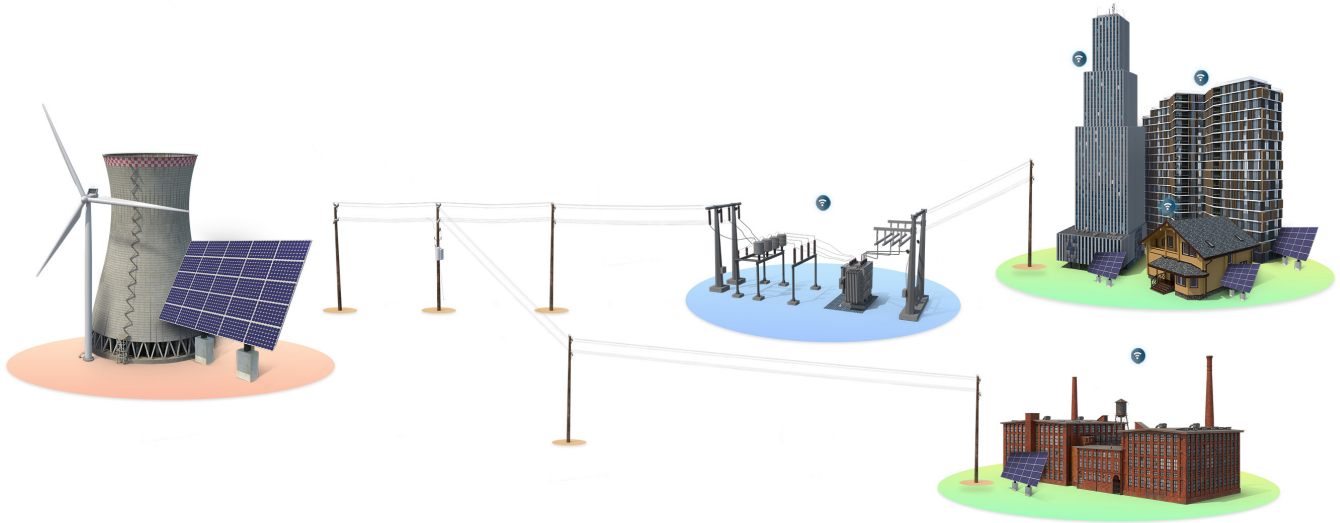
- **Advanced Meter Reading:** Electricity, Water, Fuel
- **Boiler and Heating Plant Control**
- **Alarms: Safety and Security**
- **Lighting Controls**
- **Cooling Systems and Units**

All the above and many other applications are custom configurable for any process by using Intech 21 standard adapters for wireless, powerline carrier, or any form of wired applications.

In addition, Intech 21 provides a host of building control and monitoring devices. You can inquire about a specific applications or system from your local integrator.



# INTECH 21 & GRT POWER LINK



## Bulk Generation

Power plant operation monitoring system

IED with functionality for generators measurements

## Transmission

WAMS for Power System

Stability Margins Monitoring System

Wide-area electromechanical oscillations monitoring and analysis

Centralized automatic emergency control system

Predictive maintenance for Grid Assets using AI

## Distribution

AMI

Reliability improvement

Voltage and frequency stability

DER and Energy Storage

Islands detection and synchronization

Power quality management

## Loads/Distributed Generation

Customer-side monitoring and control (DR/DSM)

Asset Management and Predictive Maintenance

Integrated with Transmission Control Microgrid Management System

Renewable management

Energy storage systems management

EV charging management

# REspondIO™ DETAILS

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## PROCESSOR

### QUAD-CORE CORTEX-472

(ARM v8) 64-bit SoC @ 1.5GHz



## MEMORY

### 4GB

LPDDR4



## SUPPORTED PROTOCOL

**MODBUS**    **METASYS**

**BACnet**    **MEPCO** PROPRIETARY

**XML**    **INTECH 21** PROPRIETARY

CUSTOM CONFIGURATIONS AVAILABLE  
FROM YOUR LOCAL INTEGRATOR



## SUPPORTED EQUIP.

**TS-2100**    **OPLC**

**PM-2104**    **HWHC**

**DLCC-2104**    **KW-2104**

**ZVLC**    **KW-2108**

**MEPCO**    **KYZ**

PREFERRED CONTROLLERS  
HEAT TIMER CONTROLLERS  
SIEMENS CONTROLLERS  
AUTO-FLAME CONTROLLERS  
SENSA-PHONE



## PERIPHERALS

**RS-485 PORT**

**2 USB**

**2 USB**

**USB-C CONNECTOR**

FOR 5V/3A POWER

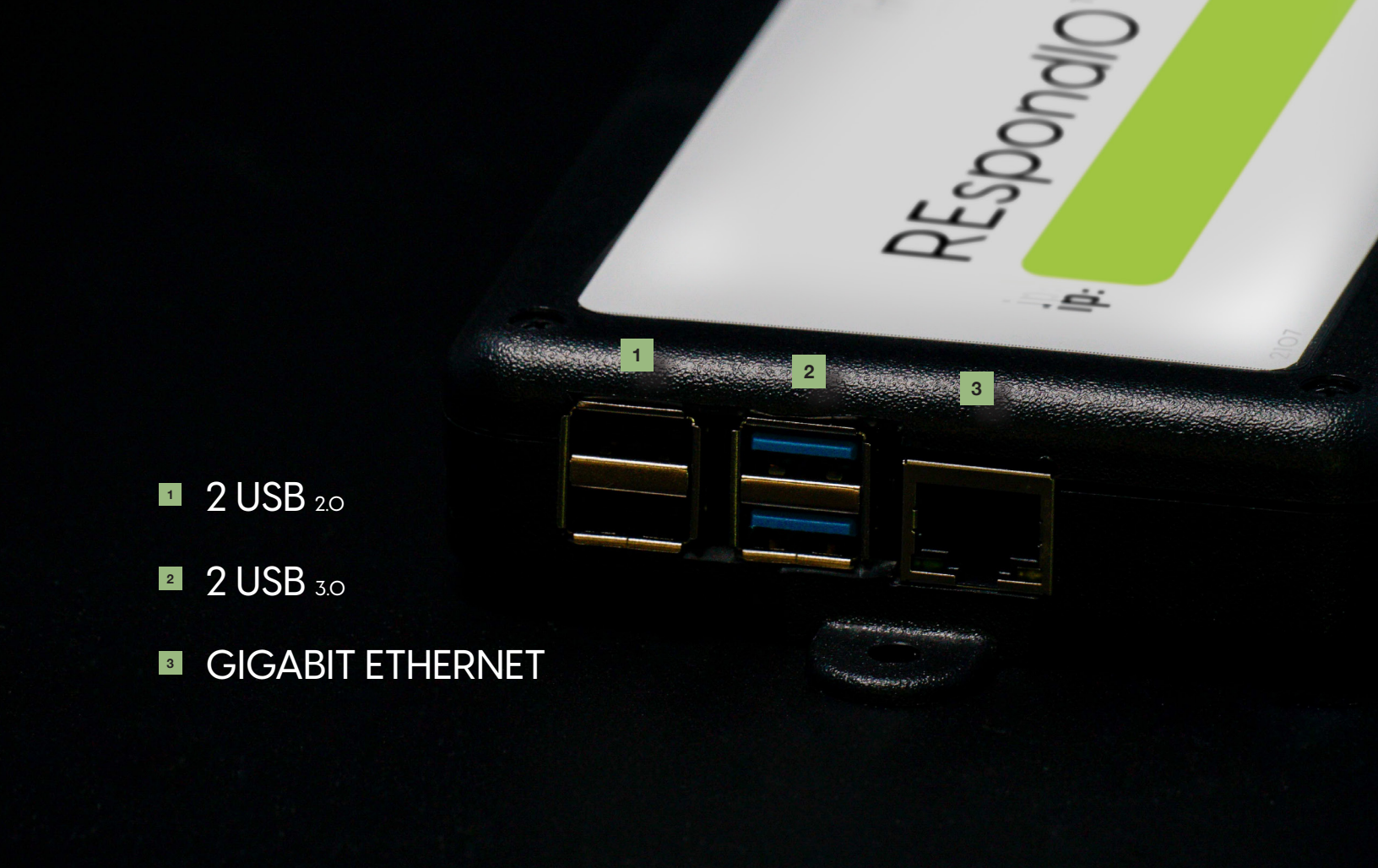
**DUAL BAND 2.4/5GHz**

WIRELESS LAN

**GIGABIT ETHERNET**

**MICRO HDMI PORT**





1 2 USB<sub>2.0</sub>

2 2 USB<sub>3.0</sub>

3 GIGABIT ETHERNET



4 RS-485 PORT

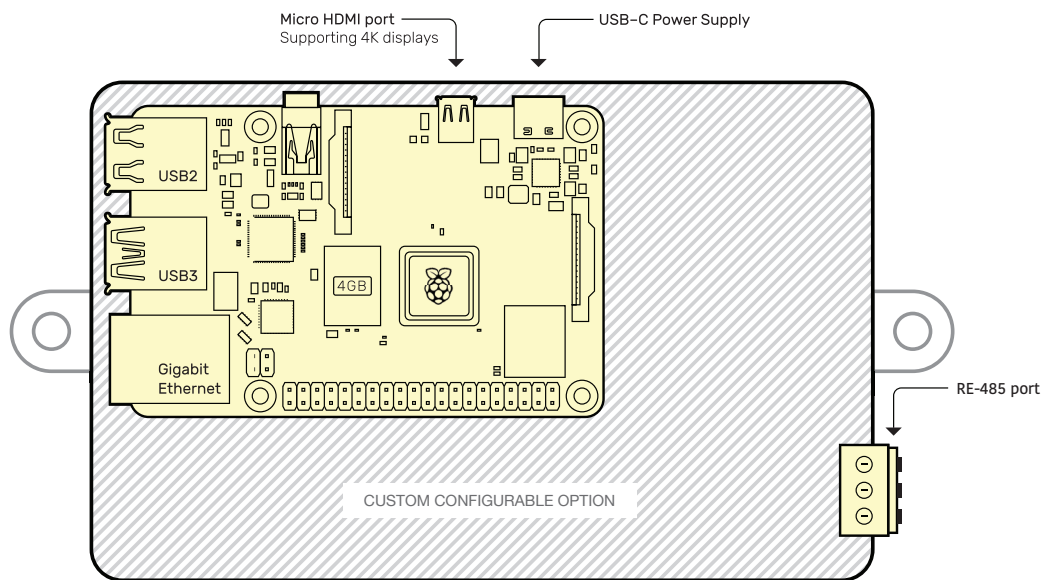




5 MICRO HDMI PORT

6 USB-C POWER SUPPLY

# REspondIO™ 2107 PROCESSOR BLOCK



# SPECIFICATIONS

<b>Device Type</b>	REspondIO™ 2107
<b>Device Name</b>	Respondio™
<b>Baseline Standards and Approvals</b>	FCC Part 15 Class B; IC ICES-003 Issue 4 Class B
<b>Data Retention</b>	During a power outage, settings and collected data are stored in the SD card
<b>Power Consumption</b>	5.1W
<b>Size</b>	4.0 x 7.1 x 1.14 inches
<b>Mounting</b>	Wall or panel mount
<b>Weight</b>	0.42 lb
<b>Environmental Conditioning</b>	Indoor Use Temperature Range: 0°C to +50°C Altitude up to 2000m Max relative humidity 80% for temperatures up to 31°C Pollution degree 2 in accordance with IEC664





Intech 21 pioneered a patented, fully addressable token ring method for communication over power lines. This method has a long standing track record and is a self-healing wireless network. Intech 21 has developed the only technology with the capability of providing a wireless solution that can manage thousands of devices within the same infrastructure – flawlessly.

