

PRODUCT OVERVIEW



Dimonoff's Third Generation (H3) RME Node is a complete and scalable all-in-one lighting control system. It includes a future-proof firmware architecture that adapts to developments in radio technologies (including LoRa, NBIoT and others). It is suitable for both small and large networks that use groups, zones, adaptive lighting, scheduling functions, and many other cutting-edge features.

The RME is compatible with both 7-pin ANSI C136.41 and Zhaga Book 18 receptacles. By installing multiple H3s on street and parking lot lights (such as in car dealerships and malls), you create a seamless wireless mesh network that allows to connect other types of sensors and smart devices.

AT A GLANCE

- **NEW:** Voltage on the H3 is autocalibrated. This results in both more precise metering and fewer false alarms.
- **NEW:** Enhanced revenue-grade power metering (+/- 0.5 % accuracy) with multiple user-configurable alarms.
- **NEW:** Includes real-time operating system (RTOS) that can run multiple simultaneous tasks with minimal latency.
- Complete integration with Dimonoff's Gateways and Smart Central Management System including Dimonoff | SCMS and DOO Express software platform.
- Compact addressable modules that offer advanced wireless control, monitoring and metering for each fixture.
- On/Off switching and flexible dimming, adjustable minimum and maximum levels with 1 % steps.
- Integrated photocell. In its default configuration, the photocell operates immediately upon installation (no need for a network connection).
- A tilt sensor measuring the earth's gravity angles changes is included.
- Compatible with BACnet via Dimonoff gateways G3 and G3+.
- Programmable delay after blackout for peak shaving.
- Built-in demand response (load shedding) feature.
- Lumen depreciation compensation over time available upon request.

LUMINAIRES

- **NEW:** Dimming driver of your choice between 0-10 V or the DALI interface (DALI standard IEC 62386 including SR and Dexal, DALI Part 252 - Energy reports and DALI Part 253 - Diagnostics and maintenance)
- **NEW:** Adaptive DALI with or without DALI bus power supply (with 24V power supply option).
- Adaptable Sink & Source 0-10 V output compatible with most dimming drivers (refer to luminaire spec sheet for capacity)

Dimonoff's RME Smart Wireless Node is designed for LED fixtures, but is also compatible with other technologies including HPS (high pressure sodium), MH (metal halide) and MV (mercury vapor). This module works with voltages between 110 and 480 Vac and 50/60 Hz, or with a 24V auxiliary power supply.

Including a 7-pin ANSI C136.41 or Zhaga Book 18 receptacle of your choice and an internal photocell, the node allows optional support of digital and analog sensors (e.g. motion detector, adaptive lighting or advanced lighting controls) through pins 6 and 7. It is also compatible with ANSI C136.41 5-pin and ANSI C136.10 3-pin standard receptacles with no light level control.

INSTALLATION

The mobile scanning app compatible with Dimonoff | SCMS enables quick, simple and economical commissioning. Upon installation, it performs both an instant functional test and geolocation. As an option, you can add GPS hardware directly in the RME for enhanced GPS-based geolocation.

COMMUNICATION

Clients can choose from a wide range of radio options, including:

- Digi XBee PRO 2.4 GHz
- Digi XBee PRO 900 MHz
- NBloT
- Honeywell / Elster (Energy Axis EA900, SynergyNet)
- LoRaWAN (in development)

SECURITY AND MAINTENANCE

Communication between devices occurs over a private radio network and is encrypted using 128-bit AES protocol (AES 256-bit encryption available with Digi XBee PRO radio option). Each node is uniquely serialized with an individual address. The node firmware can be upgraded over-the-air.

SPECIFICATIONS

ELECTRICAL

- Operating voltage: 110 to 480 Vac (+/-10 %) -50 & 60 Hz. Optional 24V auxiliary power supply.
- Less than 1-Watt node consumption (may vary according to specific configuration)
- Maximum load amperage: 7 Amps (7 A at 120-240 Vac, 5 A at 277-347 Vac and 2 A at 480 Vac)
- Power metering: amperage, voltage, power (+/- 0.5 % accuracy), power factor, energy, burn-time and cycles counters - C12.20 metering protocol compliance
- Meets the standard IEC61000-4-3 and EN61000-4-3: immunity to radiated electromagnetic fields
- Surge protection (6kV/3kA)

ELECTRONIC

- **NEW:** Sensor multipurpose input/output: analogic input 0-30 V or digital output 24 Vdc or DOOWire interface for sensor boards (Example: CO detector)
- 0-10 V: for all types of 0 - 10 V drivers & ballasts requiring either sourced (up to 20 mA) or sunk (up to 5 mA)
- DALI: Bus Power supply: 24 mA / DALI load: 2 mA (with optional 24V auxiliary power supply)
- Sensor output: 24 Vdc - max: 50 mA total

OPTIONS

- Internal GPS
- 110-480 Vac or 24V auxiliary power supply
- NEMA 7-pin or Zhaga Book 18 receptacle
- 0-10V or DALI lamp driver
- Different dome colours (standard: smoked)

ENVIRONMENTAL

- Ambient temperature range: -40 °C to +70 °C (-40 °F to 158 °F)
- Relative Humidity: up to 99 % non-condensing
- IP66
- IK09

LISTINGS

- ANSI/UL 773, CSA 22.2 No. 182.2 (Dimonoff file ID E476540)
- UL 94 V-0
- U.S. FCC (Digi XBee PRO 2.4 GHz): MCQ-PS2CTH, Canada IC: 1846A-PS2CTH, Europe CE: ETSI, Australia: C-TICK, Japan: TELEC
- U.S. FCC (Digi XBee PRO 900 MHz) Part 15.247 Class A: MCQ-XB900HP
- U.S. FCC (Honeywell / Elster): QZC-ELIR1
- DLC & RoHS compliant

WARRANTY

- Limited 5-year warranty (Up to 10-year extended available)

DIMENSIONS (DIAMETER X HEIGHT) (PO/MM)

- 3.125 x 3.75 po / 79.4 x 95.3 mm
- RME-XBP / RME-9HP : 222 g
- RME-ELS : 246 g

* All Dimonoff packaging is fully recyclable. Please contact Dimonoff to organize return of packing materials (e.g. foam) for reuse. The protective foam is recyclable, please throw it away for recycling if it is not returned to us.

COMMUNICATIONS

	Digi XBee PRO 2.4 GHz	Digi XBee PRO 900 MHz	Honeywell / Elster
Recommended Distance	<ul style="list-style-type: none"> ○ Up to 300 meters/1000 ft between modules ○ Communication range may vary widely depending on environmental factors. 		
Transmitting Power	63 mW (+18 dBm)	Up to 250 mW (+24 dBm)	Up to 250 mW (+24 dBm)
Receiver Sensitivity	- 101 dBm	- 101 dBm	- 105 dBm

WIRING DIAGRAM

Please refer to the wiring diagram if you want to install another device (e.g. motion sensor, switch, luxmeter) to be wired directly with a third-party C136.41 socket.

ORDERING INFORMATION

RME	Radio type	Driver (0-10V by default)	Power supply (110-480V by default)	Receptacle (ANSI C136.41 by default)	Options	Dome colour (smoked by default)
	XBP : Digi XBee PRO 2.4 GHz	DALI : DALI	AME : Auxiliary 24V	ZB18 : Zhaga Book 18	GPS : Internal GPS module	BLK : Black
	9HP : Digi XBee PRO 900 MHz					WH : White
	ELS : 900 MHz Honeywell / Elster					