TEKTELIC communications

LoRa Alliance Member

KONA Smart Room Sensor

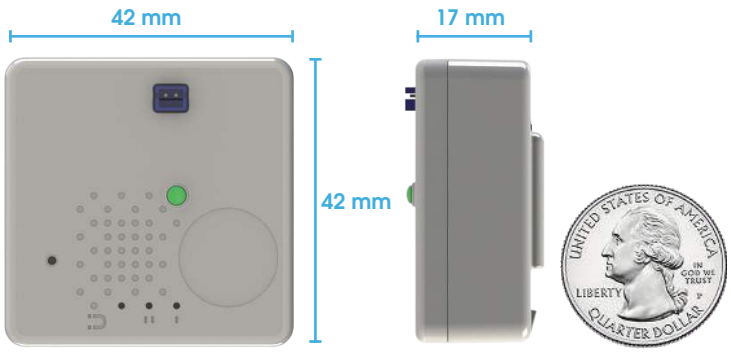
LoRaWAN® connected Home and Office Environment Monitoring

The KONA Smart Room Sensor integrates practical functionality into a very small form factor. The Smart Room Sensor is an ideal solution for holistically monitoring the home and office environment. The device is capable of measuring and reporting temperature, humidity, light, movement, motion, shock, detecting leaks, open / closed doors and windows. It also supports battery status updates for easy maintenance.

The sensor is optimized for long battery life and excellent wireless performance. It is fully configurable over-the-air by the user for custom applications, behaviours, thresholds, trigger events and reports, enabling it to support many different Smart Home and Office IoT applications. The Smart Room Sensor is available in two packaging options (Base variant and PIR variant).

Features

- User Configurable Parameters and Thresholds
- Designed for Optimal Battery Life
- Multiple PIR Masking Options
- Long Battery Life
- Wall, Ceiling or Table Mount Configurations
- Simple Deployment
- Sleek and Unobstructed Design



Applications

- Movement Detect (Doors, Windows, Drawers)
- G-Force Measurement (Settable Trigger)
- Motion Detection (PIR)
- On / Off External Contact
- On / Off Internal Magnetic Switch
- Pulse Reading (Water, Gas, other metering)
- Light Detection (On / Off)
- Temperature Measurement
- Humidity Measurement
- Moisture / Leak Detection

Available SKU's (Digi-Key)		
T-Code	**Region**	**Type**
T0006115	North America	Smart Room Sensor Base
T0006116	North America	Smart Room Sensor PIR
T0006117	Europe	Smart Room Sensor Base
T0006118	Europe	Smart Room Sensor PIR

INFO@TEKTELIC.COM

+1.403.338.6900

WWW.TEKTELIC.COM

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Technical and Functional System Specifications

General System Parameters

Operational Temperature	0°C to 60°C (10°C to 40°C optimal)
Storage Temperature	-30°C to 60°C (0°C to 30°C optimal)
Relative Humidity-Operational	5% - 95% Non-Condensing (Operational)
Ingress Protection	IP30
Size	42 x 42 x 17 mm (enclosure)
	42 x 42 x 20 mm (with bracket)
Weight (including batteries)	25g
Battery	CR2477
External Connector (Base Variant)	Connector Type: JST A02ZR02ZR28H305B
	≤ 20Hz (Pulse Reading)
	Driven by open drain/relay contact

Wireless Parameters

RF Power	15 dBm
RF Sensitivity	up to -137dBm
LoRa Radio	SX1261
Supported ISM Bands	NA915, EU868, EU433, AU915, AS923
	CN470, CN779, IN865, KR920, RU864
Antenna	Internal
LoRa Device Class	A

Sensor Variants

Sensor Function	PIR Variant	Base Variant
Motion Detection (PIR)	✓	
External Connector (Pulse Reading)		✓
Moisture/Leak Detection		✓
Accelerometer	✓	✓
G-Force Measurement	✓	✓
On/Off External Contact	✓	✓
Light Detection	✓	✓
Temperature	✓	✓
Humidity	✓	✓

Optimized Battery Life (Years) - CR2477

Operational Temperature	20°C
Tx Power	14 dBm
Rx Cycle/Hour	1

Variant	Transmission	SF 10 125 kHz	SF 7 125 kHz	SF 8 500 kHz
Base	4 packets / hour	4.8	11.2	13.0
	3 packets / hour	5.9	12.5	14.1
	2 packets / hour	7.8	14.1	15.5
	1 packets / hour	11.0	16.3	17.1
	1 packets / day	18.5	19.0	19.1
PIR	4 packets / hour	2.2	4.0	4.4
	3 packets / hour	2.5	4.3	4.6
	2 packets / hour	3.0	4.6	5.0
	1 packets / hour	4.0	5.1	5.3
	1 packets / day	5.5	5.5	5.6

PIR Detection Range (Wall Mount)

X Angle	70°
Y Angle	20°
Z Range	5 m

PIR Detection Range (Ceiling Mount)

X Angle	70°
Y Angle	84°
Height	3 m

* Assumes object in center of field of view

Regulatory Compliance

Safety	IEC 60950-1 (CE)
Regulatory	ETSI EN 300 220
	ETSI EN 301-489-1/-3
	FCC 15.247 FCC 15.209

Specifications subject to change without notice.

TEKTELIC Communications is a premier supplier of best-in-class LoRaWAN® IoT Gateways, Sensors, and custom applications. These elements combined provide a powerful end-to-end solution that can be easily, quickly, and cost effectively deployed to address the most demanding IoT challenges.

For more information please visit www.tektelic.com