SKY✚CELL

IoT X

Model No. MR 816

Accessible and Reliable Monitoring

SkyCell IoT X is a wireless multi-use data logger designed for reliable pharma shipment monitoring. Lightweight, durable, and compact with an industry-leading long battery life, it ensures cost-effective tracking of critical environmental conditions during transit.

Key Features
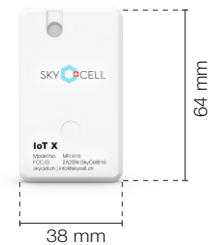
- **Location Tracking**
  Near real time location tracking using our established gateway infrastructure.

- **Sustainability and Reusability**
  Meet sustainability goals by assessing, refurbishing, and reintroducing the loggers into the supply chain.

- **Shipment Monitoring**
  The SkyCell IoT X logger ensures precise temperature monitoring from -40°C to +75°C, providing actionable insights to safeguard the integrity of the pharmaceutical payload and enabling timely interventions through milestone-based tracking.

Internal Temperature Sensor

Measurement Range	**-40°C to +75°C**
Accuracy	**±0.2°C > 0°C, ±0.3°C < 0°C**
Calibration	**Three point calibration at -20°C, 0°C, +30°C** **Traceable to national standards (as NIST, UKAS, DAkkS or equivalent)**
Recalibration	**Every 12 months**

Internal Humidity Sensor

Measurement Range	**0..100%**
Accuracy	**2% RH**
Resolution	**0.1% RH**
Amount of Stored Readings	**8'192 (equals to 57 days at 10 min measurement interval)**

Mechanical Specification

Weight	**35g**
Dimensions	**64 x 38 x 10 mm**
IP Rating	**IP67 (waterproof, submersible up to 1 meter for 30 minutes)**
Flammability Rating	**UL94 HB**

Operating Specification

Battery Life	**1y (up to 2y with custom configuration)**
Mount	**Optional holder with adhesive tape and screw holes/cable tie mount**
Operating Temperature Range	**-40°C to +75°C**
User Interface	**1x RGB LED 1x push button**

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INTERNAL TEMPERATURE
AUG 14 19:20
23°C
73,4°F

INTERNAL HUMIDITY
AUG 14 19:20
26%

EXTERNAL TEMPERATURE
AUG 14 19:20
45°C
113°F

ASSET TYPE
AUG 14 19:20
PACKAGING
102-10863

SHIPMENT
AUG 14 19:20
CT-030004

LOCATION
AUG 14 19:20
BOSTON
EAST BOSTON, MA 02128
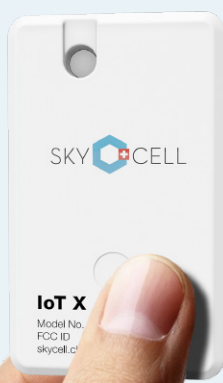UNITED STATES

Wireless Communication

Transmission Interval	**10 minutes (custom configuration on request)**
Connectivity	**Fully automated readout via SkyCell's LoRa gateway network or via IoT X Connect**
Wireless Communication Standards	**LoRa, BLE**
Frequency Band	**2.4 GHz global ISM band** **2.4 to 2.48 GHz**
RF Transmission Power	**max. 12.5 dBm/ 17.8 mW TX power**

Approval

Airline Approval	**Approved by major airlines as cargo tracking device** **complies with EASA, AMC1 CAT.GEN.MPA.140, 2019**
Conformity	**CE, FCC**
EU directives	**2014/30/EU Electromagnetic Compatibility (EMC)** **2014/53/EU Radio Equipment Directive (RED)** **2014/45/EU Low Voltage Directive (LVD)** **2015/863/EU on the Restriction of Hazardous Substance (RoHS3)**
FCC ID	**2A2SN-SKYCELL816**
Standards	**EN 301 489-1 V2.2.3 (EMC)** **EN 301 489-17 V3.2.4 (EMC)** **EN 300 328 V2.2.2 (Radio)** **EN 62368-1:2014+A11:2017 (Electrical Safety)** **EN 50663:2017 (RF Exposure)** **EN 63000:2018 (RoHS)** **FCC Part 15 C : 15.203 (Radio)** **FCC Part 15 C : 15.205 (Radio)** **FCC Part 15 C : 15.207 (EMC)** **FCC Part 15 C : 15.209 (EMC)** **FCC Part 15 C : 15.247 (Radio)** **47 CFR Part 2.1091 (RF Exposure)** **RTCA DO-160, Section 21, Category H (RF radiated emissions)** **UN38.3 (Battery)** **UL 1642 (Battery)**

MANUFACTURING · PACKAGING · DISTRIBUTOR 1 AIRPORT/HARBOUR · DISTRIBUTOR 2 · HOSPITAL / PHARMACY · PATIENT

One logger for your entire supply chain: SkyCell IoT X is a long-lasting logger providing an uninterrupted timeline of temperature and milestones.

Contact us today
pharma.monitoring@skycell.ch