

M190 IR Enabled Asset Tag

The M190 introduces two essential upgrades: a user-replaceable battery engineered to support asset tracking lifecycles of five years and beyond, and an onboard temperature sensor that delivers real-time, asset-level thermal intelligence alongside location data.



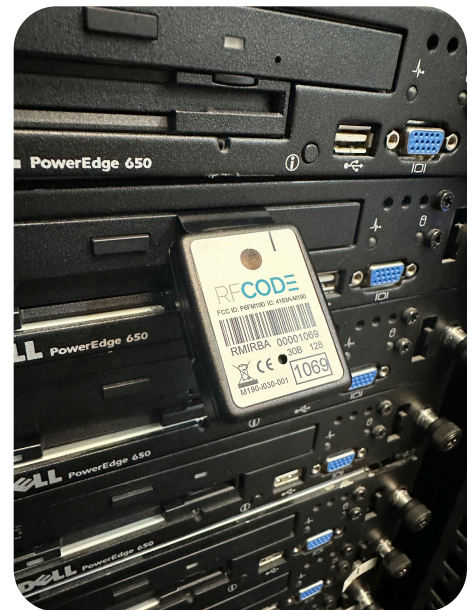
-  **Low power consumption** for long battery life
-  **User-replaceable battery** designed for asset lifecycles of 5+ years
-  **Small, light-weight** active RFID sensor
-  **Industrial-Strength** installation tabs keep sensors securely in place
-  **Superior anti-collision** technology for high sensor densities
-  **Onboard** temperature sensor for asset-level thermal monitoring
-  **Designed** for use with the A740 rack locator and A750 room locator

The M190 is equipped with on-board infrared (IR) and temperature sensors, and is designed to be deployed in concert with RF Code’s A740 Rack Locators and A750 Room Locators. IR-enabled tags monitor their environment for incoming IR signals and periodically report their unique ID, IR location code, and current temperature reading. Tagged assets can be rapidly located with rack-level or room-level precision, while simultaneous temperature data eliminates the gap between where an asset is and how it is performing thermally.

The M190 enclosure is injection-molded using an IR-transparent material that synchronizes the tag with the nearest IR transmitter. Location is determined via the IR code, requiring no signal strength calculations or triangulation algorithms. The integrated temperature sensor reports ambient conditions at the asset level, providing data that complements rack-level and row-level environmental monitoring systems with granular, per-asset visibility.

Designed for rack-mounted assets, the M190 battery-powered 433 MHz RF transmitter features a user-replaceable battery and replaceable installation tabs for quick, non-disruptive servicing. The replaceable battery design allows operations teams to extend the life of each deployed tag without removing it from the asset, a critical advantage for equipment with lifecycles exceeding five years. Interchangeable tabs support flag, loop, or thumb-screw installation on any standard U-mounted rack asset.

Powered by a standard coin cell battery, the M190 performs reliably across a wide temperature range (-20°C to +70°C) and resists humidity and thermal cycling. The M190 operates with a very low duty cycle, and with the user-replaceable battery, delivers an effectively unlimited tracking lifecycle with simple field maintenance. Every tag broadcasts its unique ID, IR location, and temperature using RF Code’s patented communication protocol, supporting very high tag densities with accurate, real-time data.



M190 IR Enabled Asset Tag Specifications

Operation

Operating Frequency	433.92 Mhz
Group Code & Sensor ID Codes	> 540,00 unique IDs per Group Code
Typical Transmission Range	> 30 ft. in the data center; up to 300 ft. open field
Emitted Radiated Power	71.8 dBu/m at 3 meters (maximum)
Stability	SAW stabilized

Enclosure

Case Length	1.56 in (39.6 mm)
Case Width	1.27 in (32.3 mm)
Case Height	0.35 in (8.9 mm)
Case Weight (with sensor)	0.4 oz (11 g)
Enclosure Material	Lexan polycarbonate
Durability	Tough, impact resistant and temperature stable
Mounting Options	Replaceable, interchangeable flag, loop, and thumb-screw mounting tab

Environmental

Operating Temperature	-20° C to +70° C
Storage Temperature	-40° C to +80° C
Operational Humidity	<95% RH non-condensing; not recommended for outdoor applications

Power

Battery Type	Lithium CR2032 coin cell
Smart Sensor Feature	Low battery indication
Battery Life	> 5 years (typical)

IR Compatibility

Rack Locators	RF Code A740 with Series 2 Protocol
Room Locators	RF Code A750 with Series 2 Protocol

Available Product SKUs

M190-i060-000
M190-i030-001

M190 IR Enabled Asset Tag Specifications (continued)

Regulatory

FCC Compliance	FCC Title 47 CFR Part 15; FCC ID: P6FM190
CE Compliance	RED Health and Safety 2014/53/EU Article 3.1(a) RED 2014/53/EU Article 3.1(b) RED Radio Spectrum 2014/53/EU Article 3.2 EN IEC 62368-1:2020+A11:2020 EN 55032:2015+A1:2020 EN 55035:2017+A11:2020 EN 62479: 2010
CE Marked	
WEEE Compliant	

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20cm between the radiator and your body, and fully supported by the operating and installation.

IC Warning

This device contains licence-exempt transmitters/receivers that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux normes CNR exemptes de licence d'Innovation, Sciences et Développement économique Canada. Son fonctionnement est assujéti aux deux conditions suivantes:

1. Cet appareil ne doit pas causer d'interférences.
2. Cet appareil doit accepter toute interférence, y compris celles qui peuvent entraîner un fonctionnement indésirable de l'appareil.

The device has been evaluated to meet general RF exposure requirement. To maintain compliance with RSS-102-Radio Frequency (RF) Exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Le dispositif a été évalué à répondre aux exigences générales d'exposition pour maintenir la conformité avec les directives d'exposition du RSS-102-Radio Frequency (RF). Ce matériel doit être installé et exploité à une distance minimale de 20cm entre le radiateur et votre

