



# 10 Steps to PTCRB Certification for Cellular Enabled IoT Devices

Deploying your Internet of Things (IoT) devices using cellular technology is easier than you think. Follow these ten simple steps to bring your IoT device to market quickly and cost-effectively.

## 01 Select a PTCRB Certified Module

IoT manufacturers must select the cellular radio technology that provides optimal application performance and value. A PTCRB certified radio module offers the necessary features and functions, the required regulatory approvals, and operator recognized industry certifications. Save time and cost with pre-certified modules for IoT applications.

A search of the PTCRB certification database provides a convenient list of certified cellular modules.

[www.ptcrb.com/certified-devices](http://www.ptcrb.com/certified-devices)

## 02 Review Module Selection with the MNO/MVNO

Determine if the module meets all operator prerequisites and certifications or if additional operator-specific evaluation, testing, or certification is required.

## 03 Integrate Module into the Host IoT Device

Generally, modules do not connect to an operator network by themselves. They are integrated into a product having an antenna, power conditioning circuitry, a controlling micro, and a SIM card. IoT manufacturers should design the radio into the host following guidelines and instructions provided by the module Original Equipment Manufacturer (OEM), as well as SIM and antenna component suppliers.

## 04 Comply with Government Regulations

In North America, the IoT device must comply with U.S. FCC and CanadaISED telecommunications rules. Consult with a qualified regulatory test lab to determine the compliance requirements for testing, labeling, and user instruction.

## 05 Request Certification Through PTCRB.com

Register on [www.ptcrb.com](http://www.ptcrb.com) and request certification for your IoT device. Devices integrating certified modules follow the same process as smartphones with the exception that the IoT manufacturer must indicate which module they are using when submitting their certification request.

The “PTCRB How to Certify an Integrated Device” guide provides step-by-step details on the PTCRB certification process.

## 06 Select a PTCRB Primary Laboratory

The PTCRB Primary Test Laboratory will determine which interfaces require re-evaluation due to the integration of a PTCRB-certified module. Their analysis will determine which specific test cases to execute for the IoT device.

A list of **PTCRB Primary Test Laboratories** can be found on [www.ptcrb.com](http://www.ptcrb.com).

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**Perform Testing**

Perform testing as specified by PTCRB lab. In many cases, an IoT device only requires testing on the interface with the integrated module. For example, testing may include evaluation of the audio interface, power interface, the SIM, RF radiated spurious emissions, and antenna performance.

Detailed information on testing and the evaluation process is in the “PTCRB NAPRD03” document available on [www.ptcrb.com/certification-program](http://www.ptcrb.com/certification-program).

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**Submit Required Documents to Database**

The PTCRB lab will submit testing related information to the PTCRB certification database. The IoT manufacturer will also provide user manuals and other relevant product information.

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**Fund Certification**

The IoT device manufacturer will pay the test lab for testing and CTIA for the PTCRB certification fee. Once funding is received, and all documents are submitted, the IoT device is PTCRB certified.

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**Keep Certification Updated**

Once a device is PTCRB certified, it is required to be manufactured as initially certified. Product changes and updates must be re-assessed to maintain certification status.



## Benefits of PTCRB Certification for Cellular Enabled IoT Devices

**What is PTCRB?**

PTCRB is a certification program established in 1997 by leading wireless operators to define test specifications and processes to ensure device interoperability on global wireless networks.

**Devices that PTCRB Certifies**

PTCRB certifies mobile devices including smartphones, laptops, and IoT product categories such as wearables, routers, payment systems, meter readers, automotive navigation systems, GPS telematics, and more.

**Why is PTCRB Certification Beneficial?**

PTCRB certification provides third-party assurance that certified devices meet a minimum set of requirements to ensure interoperability with wireless networks throughout the world.

**Operators that Require PTCRB Certification**

Several North American Mobile Network Operators (MNOs) and Mobile Virtual Network Operators (MVNOs) establish PTCRB certification as a prerequisite for placing a cellular device on their network.

**How Can I Learn More About PTCRB Certification for My IoT Device?**

See: [www.ptcrb.com/certification-program/](http://www.ptcrb.com/certification-program/)