



How to Certify an Integrated Device

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1.0 General

1.1 Purpose

The purpose of this document is to describe the process to obtain PTCRB certification for an integrated device. This process is often used by vendors of IoT devices to get their products certified.

The PTCRB certification program provides a streamlined process for certifying devices that incorporate fully certified wireless modules (“integrated devices”), providing an efficient and low-cost pathway for certification of IoT devices.

1.2 What is PTCRB Certification?

PTCRB certification demonstrates a device's compliance to international wireless standards for 4G and 5G network interoperability. Many wireless operators in North America require devices accessing their network to obtain this certification. Without PTCRB certification, vendors run the risk that their devices will perform poorly on these networks.

CTIA Certification is the administrator for the PTCRB certification process and for the allocation of PTCRB IMEI TACs.

1.3 Certification Requirements Documents

There are two documents detailing the procedures and requirements for PTCRB certification, which can both be accessed on the PTCRB website at <https://www.ptcrb.com/certification-program/>:

- The **PTCRB Program Management Document (PPMD)** defines the process to obtain certification
- The **PTCRB NAPRD03 Document** defines the technical requirements for certification

2.0 Requesting Access to the PTCRB Certification Database

To get access to the PTCRB certification database go to <https://www.ptcrb.com>, click on “Login,” select “New User Registration,” and complete the form. You will receive your username and password by email, usually within the same day.

The email address used to register must be from a valid company domain. User registration requests from web-based email services will not be accepted.

Once your new user registration request has been accepted, please send an email to support@ctiacertification.org to request access to the certification database. Make sure your username is included in the request to CTIA Certification.



HOME

Login

PTCRB Certification and Test Case Databases

User Name:

Password:

[Login](#)

[I Forgot My Password](#)

[New User Registration](#)

HOME

I already have an account on the PTCRB or CTIA certification database.

User Name:

Password:

I do not have an account on the PTCRB or CTIA certification database.

User Registration Request

* Given Name:

* Surname/Family Name:

* Business Title:

* Address:

Address 2:

Address 3:

* City:

State:

* Zip/Postal Code:

* Country:

* Email:

* Company:

* Company Website:

* Phone:

* Description of company's business/operations:

Manufacturer
 Network Operator
 PTCRB Authorized Test Lab
 Test Equipment Vendor

* My company is a (please choose one):
 Manufacturer
 Network Operator
 PTCRB Authorized Test Lab
 Test Equipment Vendor

* Agreement: **Database Terms and Conditions**
Updated April 2020

These Terms & Conditions ("Terms") constitute a binding agreement between CTIA

I have read and agreed to the above rules and instructions.

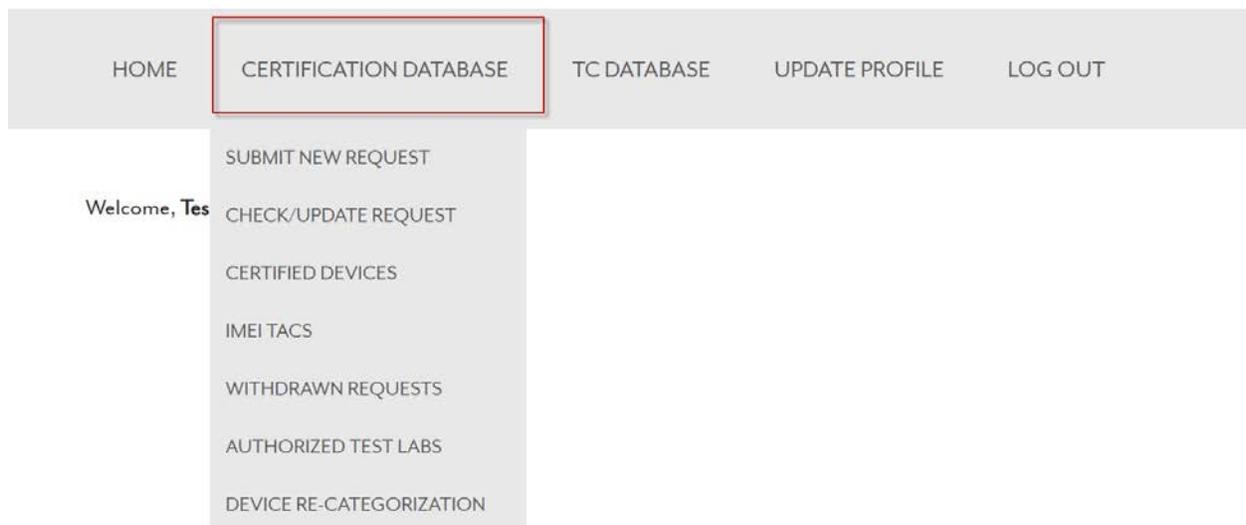
* Required fields

3.0 Navigating the PTCRB Certification Database

Once you have gained access to the PTCRB certification database and logged in with your username and password, you will see the “Certification Database” tab in the menu header.

Within this menu there are options for the following items:

- Submitting a new certification request
- Checking the status of requests already submitted (Check/Update Request)
- Viewing all previous approved devices for your company
- Viewing IMEI TACs issued
- Viewing withdrawn certification requests
- Viewing a list of all PTCRB Authorized Test Labs and the authorized testing capabilities of each



4.0 Entering a Request in the Database

Before submitting a new PTCRB certification request, make sure you have collected some key pieces of information ahead of time:

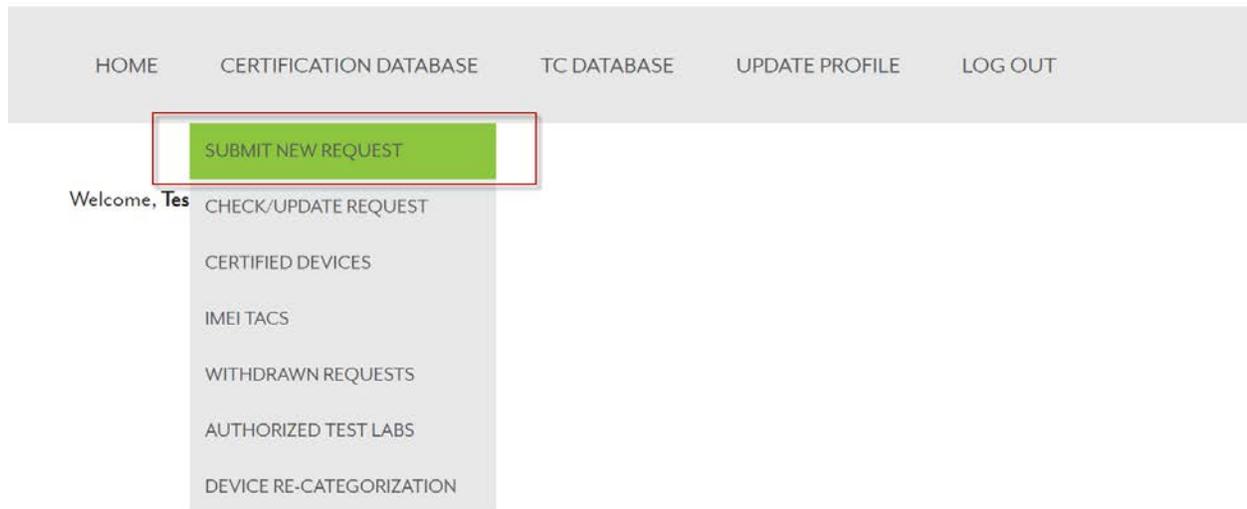
- Talk to your module manufacturer to confirm the module configuration you should select for certification:
 - Module model name/number
 - Module HW
 - Module SW
 - Module SVN
- Establish which PTCRB Authorized Test Lab will be performing the certification testing
 - Use the Authorized Test Labs link to find labs that are approved to be able to perform testing
 - Make sure you are aware of the lab costs and certification timelines before assigning a certification request to the lab
- Make sure you have the model name/number available for the integrated device
- Generate a PO number if your organization requires CTIA Certification to put that on the certification fee invoice
 - The PTCRB certification fee for an Integrated Device is \$1,500 for an Initial certification request.

Every effort should be made to enter correct and accurate information into the database when submitting a request. Once a lab accepts the certification request you will be unable to modify the information provided. If you find later that there are mistakes, first contact your PTCRB test lab, as they are able to update much of this information as they process the certification request.

For any additional updates to your certification request information, please contact CTIA Certification at support@ctiacertification.org.

4.1 Submitting a New Request

- From the Certification Database tab, select “Submit New Request”
- Select “Initial Certification Request” from the drop-down menu
- Select “Continue”



[home](#) > [submit new request](#)

Submit New Request

Please choose the type of request you would like to submit from the following options.

Request Type:



Variant Certification Request

ECO Certification Request

IMEI TAC Request

Test IMEI TAC Request

- Select “No” in response to whether a PTCRB TAC Request has been submitted for this device
- Select “Integrated Device” under the Device Type option
- Select “Continue”

Initial Certification Request

Manufacturer: TM

Has a PTCRB IMEI TAC Request been submitted for this model?

If you are unsure, check for your model by using the search box below. If you see your model, choose Yes. Otherwise, choose No.

Yes No

Device Type:



4.1.1 Device Name and Basic Details

- Enter the model name/number for your integrated device. This is the reference by which the device will be certified.

Note: this model name/number shall identify a single device; wild-card digits are not permitted for naming a device.

- Optional: Additional marketing name(s) under which your device shall be placed on the market may be listed in the optional marketing name field. Please enter each additional marketing name as a separate entry and click “Add” to list each marketing name. Note that multiple marketing names shall all reference back to the same model name/number.

Initial Certification Request

Please enter the Model Name/Number and select the module.

Manufacturer: TM

Device Type: Integrated Device

Model Name/Number:

Marketing Name(s):

No additional marketing names

Does this device contain multiple modules? Yes No

Available Modules:

4.1.2 Selecting the Correct Module Configuration

- If your device contains more than one cellular radio module, indicate “Yes” for the question, “Does this device contain multiple modules?” If there is only one cellular radio module, “No” should be selected.
- Search for or select the module which is integrated in the device. Select “Add” to link the module to the request.

Note: It is only possible to link one module to an integrated device certification request. If your device contains multiple cellular radio modules, there will be a document upload section in the request where it will be required to upload a declaration indicating the number of modules in the integrated device and identifying each of them.

Does this device contain multiple modules? Yes No

Available Modules:

PTCRB Test Module

- Then, select the radio button next to the HW version, SW version, and SVN of the module being integrated in your device.
- Select “Continue”.

Please select the HW/SW version

PTCRB Test Module

HW Version	SW Version	SVN
<input type="radio"/> AutofillHW387	<input type="radio"/> AutofillSW387	<input type="radio"/> AutofillSVN387

Chosen Module:

Module	HW Version	SW Version	
PTCRB Test Module	AutofillHW387	AutofillSVN387	<input type="button" value="Remove"/>

4.1.3 Device Detailed information

- Specify whether your device is considered an IoT device by selecting “Yes” or “No”. If “Yes,” fill in the additional related questions. Multiple market segments may be selected by holding down the “Ctrl” key and selecting multiple options.

Initial Certification Request

Manufacturer: TM
Model Name/Number: Your Device Model
Device Type: Integrated Device
Is this an IoT device? Select an option ▼ Please choose an option
Select an option
Technologies/Bands:
 Yes
 No
 850 MHz
 900 MHz
 1800 MHz
 1900 MHz
 Band I
 Band II
 Band IV
 Band IX
 Band V
 Band VI

Is this an IoT device? Yes ▼

In its intended application, does the IoT DUT transmit more than 100 kbytes in a transaction? Select an option ▼

On average, is the IoT DUT expected to send more than 24 transactions per day? Select an option ▼

Is the IoT DUT and its antenna intended for installation in a fixed orientation relative to the horizon? Select an option ▼

Market Segment:
 Select one or more:
 Advertising
 Aerospace
 Agricultural
 Asset Management
 Automotive
 Construction
 Education
 Financial Services
 Government

Device Category: Select one ▼

- Review the technologies/bands information, which the database will have inherited from the embedded module you selected. You may uncheck any bands not supported by your integrated device. However, it is not possible to enable any frequency band that was not originally approved on the embedded module.

Technologies/Bands: GSM

UMTS FDD

E-UTRA FDD

E-UTRA TDD

E-UTRA CA Downlink

850 MHz

900 MHz

1800 MHz

1900 MHz

Band I

Band II

Band IV

Band IX

Band V

Band VIII

Band 1

Band 2

Band 3

Band 4

Band 5

Band 6

Band 7

Band 8

Band 9

Band 10

Band 11

Band 12

Band 13

Band 14

Band 15

Band 16

Band 17

Band 18

Band 19

Band 20

Band 22

Band 23

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Band 25

Band 26

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Band 32

Band 65

Band 66

Band 67

Band 68

Band 69

Band 70

Band 33

Band 34

Band 35

Band 36

Band 37

Band 38

Band 39

Band 40

Band 41

Band 42

Band 43

Band 44

Band 45

Band 46

Band 48

CA_1A-5A

CA_1A-18A

CA_1A-19A

CA_1A-21A

CA_1A-26A

CA_2A-2A

CA_2A-4A

CA_2A-5A

- Enter the regulatory ID associated with this device and select “Add”. If your device meets the condition of the module’s FCC grant and you will be using the module’s FCC ID, you may also select “This device is using the module’s Regulatory Approval IDs”.

Regulatory Approval IDs:

- This device has its own Regulatory Approval IDs
- This device is using the module's Regulatory Approval IDs

Type	ID	Issuing Country	
FCC ID	AutofillFCCID	United States	<input type="button" value="Add"/>

Regulatory Approval IDs:

- This device has its own Regulatory Approval IDs
- This device is using the module's Regulatory Approval IDs

Type	ID	Issuing Country
FCC	AutofillID387	United States

- Enter the HW and SW versions of your integrated device (end product)
 - Note that the SW and HW version of the integrated device seeking certification should not be the same as the module versions
 - If your integrated device does not have integration level SW, indicate a SW version of "0".
- The POC will auto populate based on the user entering the request. Add the billing contact information for the certification fee.
- If a PO number is required in order to process the certification fee invoice and payment, enter a PO number and this will be listed in the invoice. If the PO number is not available yet, this can be added later after the request is submitted.
- Once the invoice is generated, CTIA Certification will send a notification email to the request POC and the listed billing contact.
- Select "Continue".

HW Version:

SW Version: Note: If your Integrated Device does not have Integration level software, please indicate SW Version of "0"

Point of Contact (POC):

POC E-mail:

POC Phone:

Billing Company Name:

Billing Address:

Billing POC:

Billing POC Phone:

Billing POC E-mail:

Purchase Order # (if applicable):



4.1.4 Device Features Supported:

- Features supported by the module selected shall already be checked when you reach this screen
- Many features cannot be changed by the integrated device; those are shown with shaded text.
- Select from the remaining any additional features supported by the device.
- Select “Continue”

Initial Certification Request

Manufacturer: TM
Model Name/Number: Your Device Model
Device Type: Integrated Device
Technologies/Bands: GSM: 850 / 900 / 1800 / 1900, UMTS FDD: Band I / Band II / Band IV, E-UTRA FDD: Band 1 / Band 2 / Band 3

Features:

- A-GNSS
- GNSS
- AMR-NB
- AMR-WB
- AT Commands
- Bluetooth
- CDMA2000
- Circuit Switched Voice
- DARP
- EGPRS Multislot Class
- FUMO
- GAN/UMA
- GPRS Multislot Class
- HAC
 - M-Rating
 - T-Rating (Optional)
- HSDPA
- HSUPA

- IMPS
- ISM
- LTE UE Downlink Category
- LTE UE Uplink Category
- LwM2M
- MIMO Downlink
- MIMO Uplink
- MMS Release
- Multi-SIM Support Number

Feature

- OMA_Browsing
- OMA PoC
- OMA DM
- OMA SUPL
- Consumer Remote SIM Provisioning (GSMA SGP.22) eSIM OS Vendor (e.g. Gemalto, G&D)
- M2M Remote SIM Provisioning (GSMA SGP.02) eSIM OS Vendor (e.g. Gemalto, G&D)

- RX Diversity
- SCOMO
- STK SIM
- STK USIM
- TD-SCDMA
- TTY
- Video Telephony
- UICC-Based NFC
- VoLTE
- WAP Version
- Wi-Fi

- 802.11a
- 802.11b
- 802.11g

Wi-Fi Solution Manufacturer and Model Name/Number

4.1.5 Selecting the Test Lab

- From the drop-down list, select the test lab who will be performing the certification testing. Contact should have been made with lab prior to entering the certification request in the database.
- Select the point of contact at the lab if known, otherwise select “All”
- If your target operator(s) require LTE / LTE CA Interoperability testing, you may select this optional test at this time.
- Select “Continue”

Initial Certification Request

Manufacturer: TM
Model Name/Number: Your Device Model
Device Type: Integrated Device
Technologies/Bands: GSM: 850 / 900 / 1800 / 1900, UMTS FDD: Band I / Band II / Band IV, E-UTRA FDD: Band 1 / Band 2 / Band 3
Features: DARP,Wi-Fi,GNSS,HAC,Bluetooth

Please select a lab and point of contact for the testing.

Primary Lab	Point of Contact
testLab	-All-

Please check this box if LTE / LTE CA Interoperability Testing is required.

Continue



4.1.6 Specifying the IMEI Information

4.1.6.1 IMEI Issuer

- The PTCRB certification requirements allow an integrated device to use the module’s IMEI TAC allocation if the integrator is shipping less than 100,000 devices
 - If this condition is true, you may select the option for using the module’s TAC and select the appropriate module TACs from the list.

Please select the IMEI TAC you will be using for certified commercially available products.

- We are requesting a new TAC
- We are ONLY using the module's TAC
- We are using the module's TAC AND requesting a new TAC

Please note you may only use the module manufacturer's IMEI TAC if your production will not exceed 100,000 units. If this is the case, please select the TAC(s) below and click Continue. If not, please choose "We are requesting a new TAC" above.

Test Module TACs:

A screenshot of a web form. At the top, the text 'Test Module TACs:' is displayed. Below it is a dropdown menu with the value '35721830' selected and highlighted in blue. A red arrow points from the right to the dropdown menu. Below the dropdown menu is a 'Continue' button. A red arrow points from the right to the 'Continue' button.

- If the device will be shipping more than 100,000 units, a unique TAC is required.
 - If your integrated device has already been assigned a unique IMEI TAC, or if you require a unique TAC assignment for your integrated device, select the option "We are requesting a new TAC", then identify the TAC issuing body.
 - Select "Continue".

Please select the IMEI TAC you will be using for certified commercially available products.

- We are requesting a new TAC
- We are ONLY using the module's TAC
- We are using the module's TAC AND requesting a new TAC

A screenshot of a 'Continue' button. A red arrow points from the right to the button.

Who will issue the IMEI TAC?

- PTCRB
- BABT or other

4.1.6.2 Requesting a PTCRB-issued IMEI TAC (If Applicable)

- If requesting CTIA Certification to issue a PTCRB IMEI TAC, additional information will be required to complete your IMEI TAC assignment.
- **Note:** There are GSMA fees for TAC allocation. Please see <https://imei.db.gsm.com/imei/tacallocation-termsandconditions> for details.

GSM Association (GSMA) - Required Information:

Please provide the IMEI TAC details as they will be listed in the GSMA IMEI Database. The details below are unique to this TAC request for the purpose of reporting to GSMA only and will not impact your PTCRB certification request.

NOTE: There are GSMA fees for TAC allocation. Please see <https://imei.db.gsm.com/imei/tacallocation-termsandconditions> for details.

Model Name:

Brand Name:

Marketing Name:

Equipment Type:

Operating System/Platform Supported:

5G Series Supported:



GSM Association (GSMA) - Required Information:

Please provide the IMEI TAC details as they will be listed in the GSMA IMEI Database. The details below are unique to this TAC request for the purpose of reporting to GSMA only and will not impact your PTCRB certification request.

Select the Low Power Wide Area Network [LPWAN] supported by your device

Does your device support EC-GSM-IOT? Yes No

Does your device support Cat-NB1? Yes No

Does your device support Cat-NB2? Yes No

Does your Cat-NB device support multicast? Yes No

Does your device support Cat-M1? Yes No

Does your device support Cat-M2? Yes No

Does your Cat-M device support multicast? Yes No



GSM Association (GSMA) - Required Information:

Please provide the IMEI TAC details as they will be listed in the GSMA IMEI Database. The details below are unique to this TAC request for the purpose of reporting to GSMA only and will not impact your PTCRB certification request. Please see description of UICC and eUICC [here](#).

Does your device support removable UICC? Yes No

How many removable UICC does the device support?

Does your device support removable eUICC? Yes No

How many removable eUICC does the device support?

Does your device support Non removable UICC? Yes No

How many Non removable UICC does the device support?

Does your device support Non removable eUICC? Yes No

How many Non removable eUICC does the device support?

Total number of IMEI assigned to this device or model:

Total number of SIM Slots used in the device:



GSM Association (GSMA) - Required Information:

Please provide the IMEI TAC details as they will be listed in the GSMA IMEI Database. The details below are unique to this TAC request for the purpose of reporting to GSMA only and will not impact your PTCRB certification request. Please read the definition of technical design [here](#).

Are you responsible for the technical design and manufacture of the device? Yes No

The following information will be shown as the manufacturing details for this model.

Manufacturer Name

Manufacturer Head Office Address

Contact Name

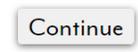
Contact Email

Contact Phone

Contact Job Title



One TAC allows for the allocation of 1,000,000 IMEIs. Please choose the number of TACs you wish to request.



4.1.7 Submitting the Request

- Before submitting your certification request, you may choose how your device is listed on the public portion of the PTCRB website after it is certified.
 - You may choose to publish the device when it is certified, or choose to publish up to 365 days after certification by entering the number of days in the box.
 - “Basic” includes the Manufacturer and Model Name/Number
 - “Detailed” includes the Manufacturer, Model Name/Number, Supported Technologies and Frequency Bands, HW Version, SW Version

Please select when the device shall be published on the ptcrb.com certified devices list.

- Publish when certified
- Publish days after certification

Please select the amount of information to be published:

- Basic
- Detailed



- On the next screen, you will be able to check the box next to any operator(s) you would like to grant access to view your certification request (and any subsequent ECOs of this device model) while the submission is in pending status (prior to being certified).
- Select “Submit”.

Initial Certification Request

Manufacturer: TM
Model Name/Number: Your Device Model
Device Type: Integrated Device
Technologies/Bands: GSM: 850 / 900 / 1800 / 1900, UMTS FDD: Band I / Band II / Band IV, E-UTRA FDD: Band 1 / Band 2 / Band 3
Features: DARP,Wi-Fi,GNSS,HAC,Bluetooth

Market Segment: Unknown - Legacy

Request #51335 (Initial) and #51336 (TAC) have been submitted successfully. You can review your requests by clicking [here](#).

4.2 Next Steps

- At this stage the certification request has been submitted and will be in the lab queue for them to process.
- After your device is submitted to the certification database, you can view the pending request by navigating to the Check/Update Request page under the Certification Databases tab. Click on the request # to go to the request page and view the submitted device information.
- Once a lab accepts the request for testing, you will be unable to modify the certification request information. If you find that there are mistakes, first contact your PTCRB test lab, as they are able to update much of this information as they process the certification request. For any additional updates to your certification request information, please contact CTIA Certification at support@ctiacertification.org.

4.2.1 Uploading Required Documents

- The only thing left to complete in the database is to upload the user manual. Under the “Required Documents” section on the second page of the request, there is a field to upload the user manual. Use the “Choose File” button to locate the user manual on your local drive and upload it to the database. Then select “Upload Docs”.
 - The user manual must reference the manufacturer name and model name/number of the device
 - Draft documents are acceptable as well as any document describing the device such as a product brochure
 - The file name may not contain any spaces or special characters
- If you indicated that your device contains multiple radio modules, you will also see an additional section to upload a “Description of Multiple Modules Implementation”. This document is required to include the following elements:
 - Identify how many modules are in the device
 - Identify the module makes, model names/numbers, and SW versions
 - Indicate whether the modules have a dedicated antenna or share an antenna
 - Indicate whether the modules can transmit simultaneously

Initial Certification Request - Requirements Checklist

Request #: 51094
Submitter: Test Manufacturer
Manufacturer: PTCRB
Model Name/Number: Your Model Name

Required Documents

Please upload the following required documents.

- Users Manual

Key: ✓ - Approved | - - Not Yet Approved | ✗ - Rejected



Optional Supporting Documentation

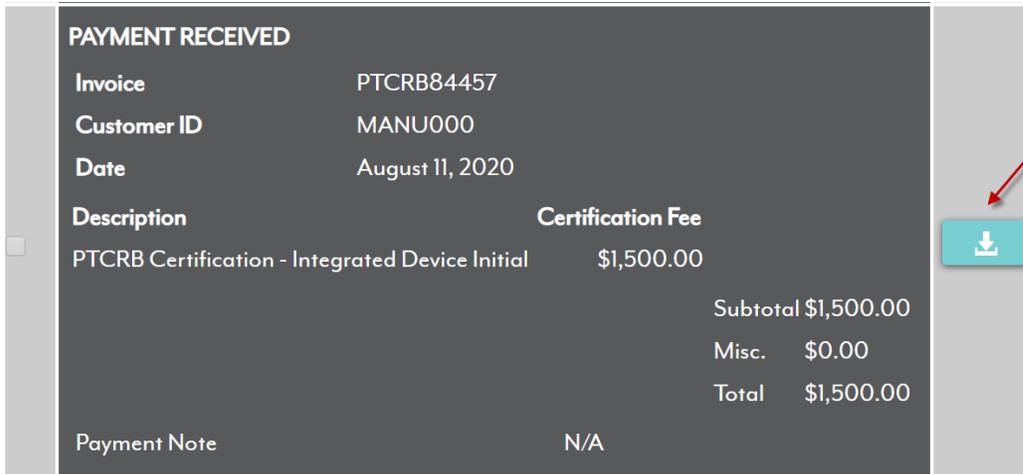
If you have supporting documentation you would like to provide with this request, please name the documents and upload them here.

Document Title	Select Document
<input type="text"/>	<input type="button" value="Choose File"/> <input type="text" value="No file chosen"/>
<input type="text"/>	<input type="button" value="Choose File"/> <input type="text" value="No file chosen"/>
<input type="text"/>	<input type="button" value="Choose File"/> <input type="text" value="No file chosen"/>

4.2.2 Payment

- The invoice for the PTCRB certification fee will be automatically generated as soon as the lab accepts the request for testing. Once the invoice is available, you will receive a notification via email. The invoice can be downloaded from the Payment section on the second page of the request as shown. Please contact CTIA Certification at support@ctiacertification.org with any questions.

PAYMENT RECEIVED	
Invoice	PTCRB84457
Customer ID	MANU000
Date	August 11, 2020
Description	Certification Fee
PTCRB Certification - Integrated Device Initial	\$1,500.00
	Subtotal \$1,500.00
	Misc. \$0.00
	Total \$1,500.00
Payment Note	N/A



5.0 Questions

- If you have any questions, please contact CTIA Certification at support@ctiacertification.org and one of the certification team members will be happy to assist. If your question is about a specific certification request, please provide the request number in your email to locate it more quickly.

Change History

Date	Version	Description
September 2015	1.0	<ul style="list-style-type: none"> Initial release
December 2018	1.1	<ul style="list-style-type: none"> Updated PTCRB logo/images and process steps
May 2020	1.2	<ul style="list-style-type: none"> Updated CTIA Certification contact email Updated database screenshots throughout document Updated process steps to include marketing name field, IoT device categories and market segments, requirements for devices with multiple modules, and requirements for use of module's TAC
August 2020	1.3	<ul style="list-style-type: none"> Updated database screenshots throughout the document