







Industry Certified, Network Ready.

# How to Certify an Integrated Device

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# Section 1 General

### 1.1 Purpose

The purpose of this document is to describe the process to obtain PTCRB<sup>™</sup> certification for an Integrated Device.

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.

IoT Devices are certified under a special IoT Network Certified<sup>™</sup> certification program. More information is available at <u>GetIoTNetworkCertified.com</u>.

### 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 <a href="https://www.ptcrb.com/certification-program/">https://www.ptcrb.com/certification-program/</a>:

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



## Section 2 Requesting Access to the PTCRB Certification Database

To request access to the PTCRB certification database, go to <u>https://certify.ptcrb.com/</u>, select "New User Registration," and complete the form.

The registration must be for a specific individual and the email address used to register must be from a valid company domain. User registration requests using web-based email addresses will not be accepted.

The Certification Database Administrator will respond to your request after verifying your access request with your company's primary point of contact, and you will then receive your username and password by email. If this is your company's first PTCRB certification database access request, you will be appointed as the primary point of contact.

PTCRB <sup>™</sup> Industry Certified, Network Ready.		
HOME		
	Login	
	PTCRB Certification and Test Case Databases	
	User Name:	
	Password:	

Login

		⊣⊢		
Ρ	Т	С	R	B™

www.ptcrb.com

ы.

	User Registre	ation	Request	
* First Name		* Last Ne	Name	
* Business Title		* Email		
* Work Phone	Ext.	Mobile F	Phone	
* Address 1				
Address 2				
Address 3				
* Country				
Select One			~	
* City	State/Province Not required for se	lected coun	* Zip/Postal Code	
* Di			* •	
Description of company's bu	isiness/operations		Select One	•
			* Company Name	
			* Company Website	
* Agreement				
Agreement  Database Terms and Conditions  Updated April 2020				
These Terms & Conditions (*	Terms") constitute a binding	g agreemen	nt between CTIA Certification and	
I have read and agreed to	the above rules and instruction	ons.		
Submit				
	* Requi	ired fields		

−−−− PTCRB<sup>™</sup>

# Section 3 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:

- Submit New Request: For submitting new certification requests
- Check/Update Request: For checking and updating certification requests already submitted
- Certified Devices: For viewing all your certified devices
- IMEI TACs: For viewing IMEI TACs issued
- Withdrawn Requests: For viewing any certification requests you have withdrawn
- Authorized Test Labs: For viewing a list of all PTCRB Authorized Test Labs and the authorized testing capabilities of each



The PTCRB NAPRD03 Document defines the technical requirements for certification.



## Section 4 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
  - o Module HW
  - Module SW
  - $\circ \quad \text{Module SVN}$
- 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 your 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 <u>support@ctiacertification.org</u>.



## 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"

ΡΤ	——–– PTCRB <sup>™</sup>						
HOME	CERTIFICATION DATABASE	TC DATABASE	UPDATE PROFILE	LOG OUT			
Welcome, <b>Bill</b>	SUBMIT NEW REQUEST						
Certific	IMEI TACS WITHDRAWN REQUESTS	nts Docume	nts				
PTCRB Progre	AUTHORIZED TEST LABS	<u>ıload Document)</u>					
The PTCRB P	DEVICE RE-CATEGORIZATION	fines the process to obt	ain certification.				
PTCRB NAPR	PTCRB NAPRD03 Document(Download Document)						

The PTCRB NAPRD03 Document defines the technical requirements for certification.

# **Submit New Request**

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





- Select "No" in response to whether a PTCRB TAC Request has been submitted for this device
- Select "Integrated Device" under the Device Type option
- Indicate "Yes" if your device contains more than one cellular (WWAN) module. If there is only one cellular radio module, select "No".
- Identify if your device is an IoT Device.
  - If it is an IoT Device, it will be certified under a special IoT Network Certified program. Visit <u>GetIoTNetworkCertified.com</u> for more details.
- Select "Continue"

# **Initial Certification Request**

Manufacturer	Initech					
Has a PTCRB IMEI TAC Request been submitted for this model?       Is this an IoT device         O Yes Image No       O Yes Image No						
Device Type	Integrated Device 💌					
Does this device contain multiple WWAN modules? O Yes  No						

Continue



#### 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: The 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.

home> submit new request > certification request

# **Initial Certification Request**

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



#### Available Modules:

Search for a module

Add



## 4.1.2 Selecting the Correct Module Configuration

• Search for and select the module that is integrated in your device. Select "Add" to link the module to the request.



- 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



Chosen Module:						
Module	HW Version	SW Version				
PTCRB Test Modu	le AutofillHW387 ,	AutofillSVN387	Remove			
			Continue			



#### 4.1.3 Device Technologies and Bands Supported

- Review the technologies and frequency bands supported, which are automatically populated from the integrated module you selected.
- You may deselect any bands not supported by your device.
- Any bands that are not supported by the module will be not be modifiable as it is not possible to enable any bands that were not certified in the module.
- Select "Continue".

Technologies/Bands:	✓ GSM	🗷 850 MHz	🖉 900 MHz	🗷 1800 MHz	🗹 1900 MHz		
		🗷 Band I	🖉 Band II	🗷 Band IV	Band IX	Band V	Band VIII
	E-UTRA FDD	🗷 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	Band 24	Band 25
		Band 26	Band 27	Band 28	Band 29	Band 30	Band 31
		Band 32	Band 65	Band 66	Band 67	Band 68	Band 69
		Band 70					
	E-UTRA TDD	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			
	E-UTRA CA Downlink	CA_1A-5A		CA_1A-18A		CA_1A-19A	
		CA_1A-26A		CA_2A-2A		CA_2A-4A	

#### 4.1.4 Device Detailed Information

Identify the regulatory ID(s) associated with the 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

1	Туре	ID	Issuing Country	
	FCC ID 🗸	Test	United States	Add 🕇



1

- Enter the hardware and software 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 device does not have SW at the Integrated Device level, indicate a SW version of "0".
- The Point of Contact (POC) will auto-populate based on the user entering the request.
- Add the billing contact information for the certification fee.
  - If a Purchase Order is required to process the certification fee invoice and payment, enter a PO number and this will be listed in the invoice. This may also 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:	AutofillHW302
SW Version:	Note: If your Integrated Device does not have Integration           AutofillSW302         level software, please indicate SW Version of "0"
Point of Contact (POC):	Test Manufacturer
POC E-mail:	test@test.com
POC Phone:	111-111-1111
Billing Company Name:	AutofillBC302
Billing Address:	AutofillBA302
Billing POC:	Test Manufacturer
Billing POC Phone:	111-111-1111
Billing POC E-mail:	test@test.com
Purchase Order # (if applicable):	
	Continue



#### 4.1.5 Device Features Supported

- Review the features supported by your device, which are automatically populated from the module you selected.
- Certain features may not be modified as they are required to match those supported by the module. If you need to modify these, contact CTIA Certification for assistance after submitting your request.
- Review and update the selections for the remaining features to reflect those your device supports.
- Select "Continue"

# **Initial Certification Request**

Mar	nufacturer:	ТМ
Mod	lel Name/Number:	Your Device Model
Dev	се Туре:	Integrated Device
Tech	nologies/Bands:	GSM: 850 / 900 / 1800 / 1900, UMTS FDD: Band I / Band II / Band IV, E-UTRA FDD: Band 1 / Band 2 / Band 3
Feat	ures:	
	A-GNSS	
	GNSS	
	AMR-NB	
	AMR-WB	
	AT Commands	
	Bluetooth	
	CDMA2000	
	Circuit Switched Void	:e
1	DARP	
	EGPRS Multislot Cla	55
	FUMO	
	GAN/UMA	
	GPRS Multislot Class	5
	HAC	3 V M-Rating
		3 ▼ T-Rating (Optional)
	HSDPA	
	HSUPA	



IMPS	
ISM	
LTE UE Downlink Category	- <b>v</b>
LTE UE Uplink Category	
lwM2M	
	- <b>v</b>
MM5 Kelease	- V
Multi-SIM Support	- • Number
	- *
	Feature
OMA_Browsing	
OMA PoC	
OMA DM	
OMA SUPL	
Consumer Remote SIM Provisioning	eSIM OS Vendor (e.g. Gemalto, G&D)
(GSMA SGP.22)	Add
M2M Remote SIM Provisioning	eSIM OS Vendor (e.g. Gemalto, G&D)
(GSMA SGP.02)	Add
SCOMO	
STK SIM	
STKUSIM	
TD-SCDMA	
TTY	
Video Telephony	
UICC-Based NFC	
VoLTE	
WAP Version	
Wi-Fi	
	802.11a
	802.11b
	Wi-Fi Solution Manufacturer and Model
	Name/Number



### 4.1.6 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"
- Select "Continue"

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



### 4.1.7 Specifying the IMEI Information

#### 4.1.7.1 IMEI Issuer

• You may use the module's IMEI TAC allocation if your production will not exceed 100,000 units. In this case, select the option for using the module's TAC and select the appropriate module TAC(s) from the list displayed.

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.





• If your production will exceed 100,000 units, a unique TAC is required. In this case, select the option "We are requesting a new TAC", then identify the TAC issuing body.

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

• We	'e are reque	sting a new TAC	
We	'e are ONLY	using the module's TAC	
We	'e are using	the module's TAC AND r	requesting a n
Cor	ontinue 🛃		
Who	o will issue	the IMFI TAC?	
vvno v	o will issue	the IIVIEL TAC?	
0 P	PTCRB	BABT or other	

### 4.1.7.2 Requesting a PTCRB-issued IMEI TAC (If Applicable)

- If selecting PTCRB as the TAC issuing body, please complete the additional information to request a unique TAC assignment. CTIA Certification will then allocate a unique TAC number for your device.
- Note: There are GSMA fees for TAC allocation. Please see
   <a href="https://imeidb.gsma.com/imei/tacallocation-termsandconditions">https://imeidb.gsma.com/imei/tacallocation-termsandconditions</a> for details.

www.ptcrb.com

#### 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://imeidb.gsma.com/imei/tacallocation-termsandconditions for details.

Model Name:	Your Model Name
Brand Name:	PTCRB
Marketing Name:	Your Model Name
Equipment Type:	IoT Device 🔻
Operating	
System/Platform	Proprietary OS 🔻
Supported:	
5G Series Supported:	Select option



#### 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 🔘 N	ю
Does your device support Cat-NB1?	⊖Yes ●N	ło
Does your device support Cat-NB2?	⊖ Yes 🔍 N	ło
Does your Cat-NB device support multicast?	⊖ Yes ® N	10
Does your device support Cat-M1?	• Yes ON	ło
Does your device support Cat-M2?	⊖ Yes ® N	ło
Does your Cat-M device support multicast?	• Yes 🔍 N	ło





#### 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 here.

Does your device support removable UICC? 💿 Yes 💿 No	Does your device support removable eUICC? 🔍 Yes 💿 No
How many removable UICC does the device support?	How many removable eUICC does the device support?
1 UICC V	0 eUICC V
Does your device support Non removable UICC? O Yes 💿 No	Does your device support Non removable eUICC? <ul> <li>Yes</li> <li>No</li> </ul>
How many Non removable UICC does the device support?	How many Non removable eUICC does the device support?
0 UICC V	1eUICC ▼
Total number of IMEI assigned to this device or model:	Total number of SIM Slots used in the device:
1 •	1 Continue

#### 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
PTCRB	123 Main St, Any Town, USA 12345
Contact Name	Contact Email
Test Manufacturer	testptcrb@ptcrb.com
Contact Phone	Contact Job Title
2027363200	PTCRB
	×

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



Continue



Continue

#### 4.1.8 Selecting the Publish Options

- 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, Model Name/Number, Device Type, Cellular 0 Technologies (i.e., 2G, 3G, 4G, 5G)
  - "Detailed" includes the Manufacturer, Model Name/Number, Device Type, 0 Cellular Technologies (i.e., 2G, 3G, 4G, 5G), Supported Technologies and Frequency Bands, HW Version, SW Version, Certification Date

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

Publish when certified	
O Publish days after certification	
Please select the amount of information to be published:	
⊖ Basic	

#### 4.1.9 Sharing the Request with an Operator

• 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).

Continue

You may modify this selection at any time after submitting your certification request. •



Please select any operators allowed to view this request, and all its ECOs, while in pending status

#### **Operators:**

Select all operators 🗌

□ AT&T
Bell Mobility
DISH Network
🗆 Eastlink
Firstnet
□ KORE Wireless
Rogers Communications Partnership
SaskTel
Southern Linc Wireless
🗆 T-Mobile
US Cellular
Verizon Wireless

#### 4.1.10 Submitting the Request

• Select "Submit" at the bottom of this page to submit your certification request. The next section of this document describes the next steps needed to complete the certification of your device.

Request #103311 has been submitted successfully. You can review your requests by clicking here.

Upload Documents	
------------------	--

Done

Submit



## Section 5 Next Steps

- At this stage your certification request has been submitted and will be in the lab queue for them to process.
- You can view the pending request by navigating to the **Check/Update Request** page under the Certification Database menu. Click on the request # to go to the request page and view the submitted device information.

#### 5.1 Modifying Pending Request 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 <a href="mailto:support@ctiacertification.org">support@ctiacertification.org</a>.

### 5.2 Uploading Required Documents

- A product description is required for the certification request. To upload the product description, go to the "Required Documents" section on the second page of the request and select "Choose File" next to the product description field. Select "Upload Docs" to upload the document to the database.
  - The product description 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 user manual or product brochure
  - The file name may not contain any spaces or special characters
- If you indicated that your device contains multiple radio (WWAN) modules, a "Description of Multiple Modules Implementation" is also required. This document shall include the following:
  - o Identify how many modules are in the device
  - o Identify the module manufacturers, model names/numbers, and SW versions
  - o Indicate whether the modules have a dedicated antenna or share an antenna
  - Indicate whether the modules can transmit simultaneously

#### Required Documents

Please upload the following required documents.

#### Product Description

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

Choose File	o file chosen	$\square$
	Upload	Docs



#### 5.2.1 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 <a href="support@ctiacertification.org">support@ctiacertification.org</a> with any questions.

PAYMENT RECEIVED					
Invoice	PTCRB84457				
Customer ID	MANU000				
Date	August 11, 2020				
Description		Certification Fee			<b>*</b>
PTCRB Certification - Integ	rated Device Initial	\$1,500.00			
			Subtoto	al \$1,500.00	
			Misc.	\$0.00	
			Total	\$1,500.00	
Payment Note		N/A			

## Section 6 Questions

 If you have any questions, please contact CTIA Certification at <u>support@ctiacertification.org</u> 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.

Date	Version	Description
September 2015	1.0	Initial release
December 2018	1.1	Updated PTCRB logo/images and process steps
May 2020	1.2	<ul> <li>Updated CTIA Certification contact email</li> <li>Updated database screenshots throughout document</li> <li>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</li> </ul>
August 2020	1.3	Updated database screenshots throughout the document
December 2021	1.4	<ul> <li>Updated sections 2 through 4 with updated screenshots and process steps to align with certification database updates</li> <li>Editorial updates and some updated screenshots throughout document</li> <li>Added references to IoT Network Certified program for IoT devices</li> </ul>

# Appendix A Revision History

