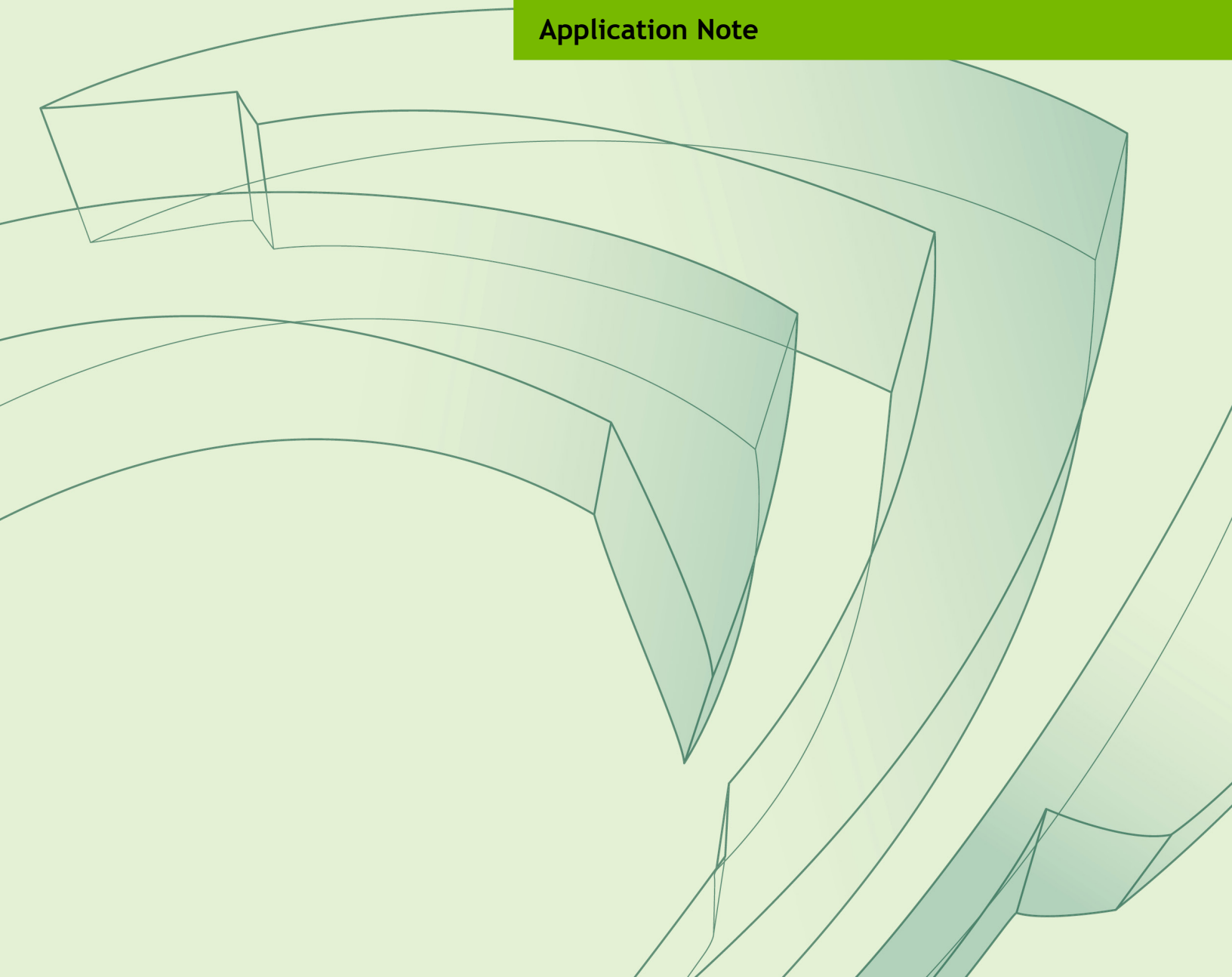




JETSON TX1 AND JETSON TX2 OEM WIRELESS COMPLIANCE GUIDE

DA-08149-001_v18 | June 2021

Application Note



DOCUMENT CHANGE HISTORY

DA-08149-001_v18

Version	Date	Description of Change
01	July 20, 2016	Initial Release
02	February 6, 2018	Added Jetson TX2 information
03	February 21, 2018	Added worldwide safe channel maps
04	May 3, 2018	Added Japan MIC certification process
05	June 1, 2018	Updated BTL Dongguan Lab contact information
06	September 26, 2018	<ul style="list-style-type: none"> Updated Broadcom references to Cypress Updated MIC certificate number for Japan in Table 1 Updated UL US contact information Updated China SGS lab contact information Updated “Japan MIC Certification Process” section
07	November 13, 2018	<ul style="list-style-type: none"> Added FCC and ISEC certification instructions Added EU certification instructions Added Table 4, customer maximum allowable antenna gain Updated “MIC Japan Certification Instructions” section Deleted 5.6 and 5.8 GHz band antenna gain and cable factors Added “Taiwan Certification Instructions” section
08	April 10, 2019	Added example of multi-transmission
09	June 18, 2019	Adjusted statement in the “Certification Actions Required by Country” section to avoid confusion.
10	August 16, 2019	Added customer end product registration process to RCB (Taiwan NCC Approved Recognized Certification Body).
11	August 20, 2019	Updated Taiwan compliance in Table 1
12	January 14, 2020	Updated SGS Shenzhen contact information
13	March 13, 2020	Updated UL US contact information
14	April 23, 2020	Updated SGS and BTL lab in “China Certification Instructions” section
15	August 3, 2020	Updated China, Japan, and Taiwan processes
16	November 30, 2020	Added UL US contact information at FCC/IC EU process
17	May 21, 2021	Updated SGS Shenzhen contact information
18	June 23, 2021	Updated “country” reference to “regulatory region” reference

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INTRODUCTION

This application note contains guidelines for OEMs to reuse NVIDIA wireless authorizations for products that implement the NVIDIA® Jetson™ TX1 or Jetson TX2 modules (Regulatory Model names P2180 and P3310 respectively).

PRODUCT DEFINITION

Jetson TX1 and Jetson TX2 are pre-certified Systems on a Module (SOM) that support 802.11a/b/g/n/ac and 802.15 wireless communication, via a Cypress BCM4354 single chip radio.

CERTIFICATION ACTIONS REQUIRED BY REGULATORY REGION

Jetson TX1 and Jetson TX2 come with targeted regulatory region safe OTP power table in the WLAN module.



Note: If the following conditions cannot be met, customers must add an external WiFi solution in their design.

To use NVIDIA certificates for their own products, use the following.

- ▶ Customers must use the same antenna type and equal or lower gain than what is provided with the Jetson TX1 and Jetson TX2 developer kits as described in Table 4 (both developer kits use the same antenna and cable).
- ▶ Customers must use the WW Safe Channels as described in Table 5 and Table 6.
- ▶ Customers must use the WW Safe Power table. Customers are not allowed to request new firmware and power table updates.
- ▶ NVIDIA Certificate, Grant, and/or DoC will be provided upon request.
- ▶ It is not possible to request customization of this power table and channel map.

Table 1 lists countries, where NVIDIA has obtained certifications for Jetson TX1 and Jetson TX2, and whether they may be leveraged.

Table 1. NVIDIA Compliant Regulatory Regions

Regulatory Region	Jetson TX1 Approval Number	Jetson TX2 Approval Number	Can Use NVIDIA Certificate ID
US	FCC ID: VOB-P2180	FCC ID:VOB-P3310	Yes
Canada	IC: 7361A-P2180	IC: 7361A-P3310	Yes
European Union	NVIDIA DoC	NVIDIA DoC	Yes
Taiwan	NCC ID: CCAJ15LP6160T6	CCAJ17LP1260T1	Refer to “Taiwan Certification Instructions”
Japan	MIC ID: 007-AG0140	MIC ID: 007-AG0141	Refer to “Japan Certification Instructions”
Australia and New Zealand	NVIDIA DoC	NVIDIA DoC	Yes
South Korea	MSIP ID: MSIP-CRM-NVA-P2180	MSIP ID: MSIP-CRM-NVA-P3310	Yes
China	CMIIT ID: 2015AJ6648 (M)	CMIIT ID: 2017AJ1049(M)	No, require new CMIIT ID from SRRC. Refer to “China Certification Instructions”
Israel	MoC ID: 51-54518	MoC ID: 51-60792	Yes, if same importer. No if different importer.
Russia	FCA DoC Crypto Notification (FSS) RU0000025187	FCA DoC. Crypto Notification (FSS) RU0000031610	Yes
India	NR-ETA-/3970; NR-ETA-/3971	ETA-1172/2017/ERLO ETA-1173/2017/ERLO	Yes
Singapore	Importer specific	Importer specific	Yes, if same importer. No if different importer

Notes: Antenna (Pulse, W1043) and cable (Pulse, W9009) specification can be found on the following Web site:
<http://www.pulseelectronics.com/products/>

For regions where the Jetson approvals cannot be leveraged (for example, China and Japan) Customers should contact their local lab partner or International Approvals agent for support

Regardless of whether the certifications are leveraged, the customer is fully responsible for regulatory compliance of the final end product.

FCC (U.S.) AND ISEC (CANADA) CERTIFICATION GUIDANCE

Always consult with a recognized certification body early in the product lifecycle to ensure a smooth certification process and avoid regulatory issues.

The host system manufacturer is responsible for their end product compliance. Some of the module-level test data can be leveraged to support compliance with the essential requirements for radio spectrum.

Refer to KDB 178919D01 for possible permissive change policies as applicable to the end product.

Compliance with the essential requirements for EMC and Safety will require assessment at the host level.

Recognized certification body (UL US lab) who also have NDA with NVIDIA:

UL U.S.

Contact: Maja Bland

Email: maja.bland@ul.com

Telephone: +1-919-316-5186

Address: 47173 Benicia St. Fremont, CA 94538, U.S.A.

EU CERTIFICATION GUIDANCE

The host system manufacturer is responsible for compliance of the end product. Some of the Jetson module test data maybe leveraged to satisfy compliance with the essential requirements of the radio spectrum (Article 3.2 of the *Radio Equipment Directive*) but partial testing (for example, spurious emissions) will still be required for the host + module. Additional testing will be required to meet the essential requirements for EMC and Safety (Article 3.1a and Article 3.1b). Once the requirement of the RED is met, the host manufacturer can create the DoC and label the product accordingly. If desired, a Notified Body can be engaged, and Type Examination Certificate issued. Note that all standards relating to Article 3.2 are all harmonized and have been applied in full.

Always consult with the lab partner/Notified Body to avoid regulatory issues.

The lab partner/Notified Body (UL US lab) who also have NDA with NVIDIA:

UL U.S.

Contact: Maja Bland

Email: maja.bland@ul.com

Telephone: +1-919-316-5186

Address: 47173 Benicia St. Fremont, CA 94538, U.S.A.

CHINA CERTIFICATION INSTRUCTIONS

China requires that all modules require re-certification even when utilizing NVIDIA programmed power settings in the module.

Customers wishing to utilize Wi-Fi in China should contact one of the SRRC agency labs who have an NDA with NVIDIA.

The agency lab will assist customers with registration, project application submission, conduct product pre-scan, and push the accredited lab to accelerate the tests.

The following items will need to be provided by the customer for China certification to SRRC:

- ▶ SRRC Application form
- ▶ Business license of the customer
- ▶ User's manual of customer's system
- ▶ Schematic and block diagram of customer's system
- ▶ Label design for customer's system
- ▶ ISO9001 of the applicant
- ▶ Declaration of antenna with signature and seal
- ▶ Photos of the product
- ▶ Schematic to show the relationship between the Jetson module and system

NVIDIA will provide the following details on request

- ▶ Testing instructions
- ▶ SRRC certificate of our module (Jetson TX1 or Jetson TX2)
- ▶ RF portion of Jetson TX1 or Jetson TX2 schematic
- ▶ RF portion of Jetson TX1 or Jetson TX2 material list

No software is required by the customer.

SRRC agency lab who also have NDA with NVIDIA:

SGS Shenzhen Lab

Contact: Cherry Cui
Email: cherry.cui@sgs.com
Phone: +138 2520 3244

BTL Dongguan Lab

Contact: Monica Jia
Email: monica.jia@newbtl.com
Phone: +138 2998 1264

JAPAN CERTIFICATION INSTRUCTIONS

The process for customers wishing to obtain Japan (MIC) certification on their product using the Jetson TX1 or Jetson TX2 module is provided in the following sub-sections. This process can only be used with the following restrictions.

- ▶ Customers must integrate the module within all certificate conditions.
- ▶ Customer must use the antennas certified with the NVIDIA module. The use of other antennas will require a permissive change application, even if the same type of antenna and same gain are used.
- ▶ Customers would be limited to the WW (WorldWide) safe power settings and NOT allowed to request new firmware/power table updates.

PROCESS

The following process must be followed to perform MIC Japan certification on their products.

- ▶ The Jetson customer submits a request for Japan (MIC) certification to UL Japan under NDA with NVIDIA.
- ▶ UL Japan will discuss with the customer how the module is integrated into the end product to ensure there are no violation of the certificate conditions and to determine if additional testing and/or a new certificate is required.
 - **Option #1:** add the customer's desired antenna to the existing NVIDIA MIC certificate ID.
 - UL Japan completes the “Application Form for Type Certification” form after receiving the antenna specification from the customer and sends the form to NVIDIA for review and approval.

- UL Japan will add customer's desired antenna type and gain to the existing NVIDIA MIC ID after review of the "Application Form for Type Certification" form from NVIDIA.
- **Option#2:** customer to test and/or certify their end product by leveraging NVIDIA compliance documentation allowing the customer to obtain their own MIC certification and ID. NVIDIA test reports or module exhibits will not be shared with the customer.
 - NVIDIA provides all test tools and firmware to UL Japan as required under NDA.
 - UL Japan required testing.
 - UL Japan provides test report and required technical documents to Japan MIC.
 - UL Japan creates the customer MIC certificate with their own MIC ID.

Customer pays the certification fees based on the option desired as discussed with UL Japan.

- ▶ For any issues UL Japan will reach out to the NVIDIA support team.
- ▶ Jetson customers should not require NVIDIA support unless there are issues.

UL lab who also have NDA with NVIDIA:

UL U.S.

Contact: Maja Bland

Email: maja.bland@ul.com

Telephone: +1-919-316-5186

Address: 47173 Benicia St. Fremont, CA 94538, U.S.A.

UL Japan

Contact: Akiko Nishimura

Email: akiko.nishimura@ul.com

Telephone: +81-596-24-8999

Address: Ise-shi, Mie-ken, 516-0021, Japan

TAIWAN CERTIFICATION INSTRUCTIONS

The process for customers wishing to obtain Taiwan (NCC) certification on their product using the Jetson TX1 or Jetson TX2 module is provided in the following sub-sections. This process can only be used with the following restrictions.

- ▶ Customers must integrate the module within all certificate conditions.
- ▶ Customer must use the antennas certified with the NVIDIA module. The use of other antennas will require a permissive change application, even if the same type of antenna and same gain are used.
- ▶ Customers are limited to the WW (World Wide) Safe power settings and NOT allowed to request new firmware/power table updates.

PROCESS

The following process must be followed to perform NCC Taiwan certification on their products.

- ▶ The customer submits a request for Taiwan (NCC) certification to an NCC Taiwan agency under NDA with NVIDIA.
- ▶ The NCC Taiwan agency will discuss with the customer how the module is integrated into the end product to ensure there are no violation of the certificate conditions and to determine if additional testing and/or a new certificate is required.
 - **Option #1:** add the customer's desired antenna to the existing NVIDIA NCC certificate ID.
 - NCC Taiwan agency will send "Application form for Type Certification" form to NVIDIA for review and approval.
 - NCC Taiwan Accredited lab will add customer's desired antenna type and gain to the existing NVIDIA NCC ID.

- **Option#2:** the customer to test and/or certify their end product by leveraging NVIDIA compliance documentation allowing the customer to obtain their own NCC certification and ID. No NVIDIA test reports or module exhibits will be shared with the customer.
 - NVIDIA provides all test tools and firmware to an NCC Taiwan agency lab as required under NDA.
 - NCC Taiwan agency lab performs required testing and provides test report and required technical documents to NCC Taiwan.
 - NCC Taiwan agency lab creates the customer NCC certificate with their own NCC ID.

Customer pays the certification fees based on the option desired as discussed with NCC Taiwan agency lab.

- ▶ For any issues NCC Taiwan agency lab will reach out to the NVIDIA support team.
- ▶ Customers need to request for NCC to post approved end product information to the NCC website by sending the following information by e-mail to RCB (Registered Certification Body: RCB@ttc.org.tw).
 - Product name
 - Model name
 - Brand Name
 - Six-sides photos of all end product
 - NCC certificate number

NCC will post customer's end product picture to <https://nccmember.ncc.gov.tw/> within a week.

NCC Taiwan agency lab who also have NDA with NVIDIA:

UL U.S.

Contact: Maja Bland

Email: maja.bland@ul.com

Telephone: +1-919-316-5186

Address: 47173 Benicia St. Fremont, CA 94538, U.S.A.

UL TAIWAN

Contact: Dora Chang

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Telephone: 886.2.2896.7790 ext 62009

Address: 1/F, 260, Da-Yeh Road, Peitou, Taipei City, Taiwan 112 (台北市北投區大業路 260 號 1 樓)

SGS TAIWAN

Contact: Helen Chen
Email: Helen-tw.Chen@sgs.com
Telephone: 886-2-2299-3279 Ext.1480
Address: No. 134, Wu Kung Rd., New Taipei Industrial Park Wuku Dist.
New Taipei City, 24803 Taiwan

REGULATORY MODULE INTEGRATION INSTRUCTIONS

The Jetson TX1 and Jetson TX2 modules have been granted modular approval for mobile applications. OEM integrators for host products may use the module in their final products without obtaining additional FCC / ISED (Innovation, Science and Economic Development Canada) authorizations provided they meet the following usage and grant conditions. Otherwise, additional FCC / ISED approvals must be obtained.

- ▶ The host product with the module installed must be evaluated for simultaneous transmission requirements.
- ▶ The user manual for the host product must provide specific operating requirements and conditions that must be observed to ensure compliance with current FCC / ISED RF exposure requirements, including separation distances to users (and other antennas if applicable).
- ▶ To comply with FCC / ISED regulations limiting both maximum RF output power and human exposure to RF radiation in a mobile-only exposure condition, the antenna must be of the same type and the maximum antenna gain, including cable loss, must not exceed the following listed in Table 4.
- ▶ The modules must incorporate wireless firmware that is provided by NVIDIA as part of the BSP and licensed under an NVIDIA end user license agreement.
- ▶ Any device incorporating this module for US and Canada applications must include an external, visible, permanent marking or label which states the following:
 - Jetson TX1
 - Contains FCC ID: VOB-P2180
 - Contains IC: 7361A-P2180
 - Jetson TX2
 - Contains FCC ID: VOB-P3310
 - Contains IC: 7361A-P3310

Table 2. Peak Antenna Gain

Frequency (GHz)	Gain (dBi)
2.4	2.41
2.44	2.81
2.48	2.86
5.2	5.49
5.3	5.57

Notes:

Antenna Manufacturer: Pulse; Part Number: W1043; Type: Dipole

The same antenna type (dipole) must be read.

Table 3. Antenna Cable Loss

Frequency (GHz)	Cable Loss (dBm)
2.4	0.9
2.44	0.9
2.48	0.9
5.2	2
5.3	2

Note: Cable Manufacturer: Pulse; Part Number: W9009.

Table 4. Customer Maximum Allowable Antenna Gain

Frequency (GHz)	Customer Antenna Gain (dBi)
2.4	1.51
2.44	1.91
2.48	1.96
5.2	3.49
5.3	3.57

Note: Calculated with “Peak Antenna Gain - Antenna Cable Loss”

It is likely that the final host with module integrated will need to be evaluated against the FCC Part 15 criteria for unintentional radiators in order to be properly authorized for operation as a Part 15 digital device. This evaluation will need to be performed with the module installed and operating.

Additional technical requirements may require additional testing and/or separate equipment authorization information for compliance demonstration. For example, if the host product and module combination is intended for use as a portable device (see following classifications) the host manufacturer is responsible for separate approvals to meet the SAR requirements of FCC Part 2.1093 and RSS-102.

Additional guidance for host manufactures using modules can be found in the FCC Modular Transmitter Integration Guide – Guidance for Host Product Manufacturers, KDB 996369 D04.

The manufacturer of the final product has the responsibility for the compliance of the composite system and should verify whether or not further standards, recommendations, or directives are in force. The host manufacturer may desire to file a change in ID application to manage any needed permissive change filings.

DEVICE CLASSIFICATIONS

Since host devices vary widely with design features and configurations, module integrators shall follow the following guidelines regarding device classification and simultaneous transmission and seek guidance from their preferred regulatory test lab to determine how regulatory guidelines will impact the device compliance. Proactive management of the regulatory process will minimize unexpected schedule delays and costs due to unplanned testing activities.

The module integrator must determine the minimum distance required between their host device and the user's body. The FCC provides device classification definitions to assist in making the correct determination. Note that these classifications are guidelines only; strict adherence to a device classification may not satisfy the regulatory requirement as near-body device design details may vary widely. Your preferred test lab will be able to assist in determining the appropriate device category for your host product and if a KDB or PBA is required to be submitted to the FCC.

FCC DEFINITIONS

Portable: (§2.1093) — A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is / are within 20 centimeters of the body of the user.

Mobile: (§2.1091) (b) — A mobile device is defined as a transmitting device designed to be used in other than fixed regulatory regions and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. Per §2.1091d(d)(4) In some cases (for example, modular or desktop transmitters), the potential conditions of use of a device may not allow easy classification of that device as either **Mobile** or **Portable**. In these cases, applicants are responsible for determining minimum distances for compliance for the intended use and installation of the device based on evaluation of either specific absorption rate (SAR), field strength, or power density, whichever is most appropriate.

SIMULTANEOUS TRANSMISSION EVALUATION

Any simultaneous transmission condition established through module integration into a host product must be evaluated per the requirements in KDB447498 and KDB616217 (for laptop, notebook, netbook, and tablet applications).

These requirements include, but are not limited to:

- ▶ Transmitters and modules certified for mobile or portable exposure conditions can be incorporated in mobile host devices without further testing or certification when:
 - The closest separation among all simultaneous transmitting antennas is >20 cm.

Or

- ▶ Antenna separation distance and MPE compliance requirements for ALL simultaneous transmitting antennas have been specified in the application filing of at least one of the certified transmitters within the host device. In addition, when transmitters certified for portable use are incorporated in a mobile host device, the antenna(s) must be >5 cm from all other simultaneous transmitting antennas.
- ▶ All antennas in the final product must be at least 20 cm from users and nearby persons.

MULTI-TRANSMISSION EXAMPLE

To avoid a C2PC for the NVIDIA module, the integrator should determine how the minimum separation distance for RF exposure is determined for any additional transmitters.

If the integrator has performed a system level evaluation for the additional transmitter(s), the RF exposure evaluation should already account for the additional transmitter(s) and the NVIDIA module.

If the additional transmitter(s) were certified as a module, the installation instructions and grant would specify the separation distance. In this case, the integrator should check that the separation distance for the additional transmitter(s) + NVIDIA module meet the $\geq 20\text{cm}$ requirement. Refer to “QUESTION 13B in KDB 996369 D02.”

OEM INSTRUCTION MANUAL CONTENT

Consistent with §2.909(a), the following text must be included within the user's manual or operator instruction guide for the final commercial product. OEM-specific content is displayed in ***bold-italics***.

OPERATING REQUIREMENTS AND CONDITIONS

The design of (***Product Name***) complies with U.S. Federal Communications Commission (FCC) guidelines respecting safety levels of radio frequency (RF) exposure for (***OEM manufacturer to insert device classification: Mobile or Portable***) devices.

FCC ID

This product contains FCC ID: (***Include FCCID of the Module***)

In the case where the host and module combination has been re-certified the FCCID shall appear in the product manual as follows:

FCC ID: (***Include Standalone FCC ID***)

MOBILE DEVICE RF EXPOSURE STATEMENT (IF APPLICABLE)

RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment (*when used with accessories supplied or designated for this product*). This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body (*The use of any other accessories may not ensure compliance with RF exposure limits*).

Only those antennas with same type and lesser/equal gain filed under this FCC ID number can be used with this device.

PORTABLE DEVICE RF EXPOSURE STATEMENT (IF APPLICABLE)

RF Exposure - This device has been tested for compliance with FCC RF exposure limits in a portable configuration. At least (*Insert Required Separation Distance from RF Exposure Evaluation*) cm of separation distance between the (*Product Name*) device and the user's body must be maintained at all times. This device must not be used with any other antenna or transmitter that has not been approved to operate in conjunction with this device.

WARNING STATEMENT FOR MODIFICATIONS

WARNING: The FCC requires that you be notified that any changes or modifications to this device not expressly approved by (*Company Name*) could void the user's authority to operate the equipment.

FCC PART 15 STATEMENT



Note: Only include this statement if the FCC Part 15 is required on the end product.

Note: This equipment has been tested and found to comply with the limits for a (*OEM to insert device type: Class A or Class B*) digital device, pursuant to Part 15 of the FCC rules.

OEM must follow Part 15 guidelines (§15.105 and §15.19) to determine additional statements required in this section for their device class.

Consistent with Innovation, Science and Economic Development Canada RSS_GEN and RSS-247, the following text must be included within the user's manual or operator instruction guide for the final commercial product. The content must be provided in **both** English and French OEM-specific content is displayed in ***bold-italics***. The content below does NOT contain certified translations.

OPERATING REQUIREMENTS AND CONDITIONS

This radio transmitter (*identify the device by certification number or model number if Category II*) has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (**identifier le dispositif par son numéro de certification**) a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

List of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi).

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

les dispositifs fonctionnant dans la bande de 5 150 à 5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

Note: high-power radars are allocated as primary users (for example priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Remarque: les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) des bandes de 5 250 à 5 350 MHz et de 5 650 à 5 850 MHz et ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs de RL-EL.

ISED ID

This product Contains IC: *(Include IC ID of the Module)*

Note: In the case where the Host / Module combination has been re-certified the ID shall appear in the product manual as follows:

IC: *(Include Standalone IC ID)*

MOBILE DEVICE RF EXPOSURE STATEMENT (IF APPLICABLE)

RF Radiation Exposure Statement

This equipment complies with radiation exposure limits set forth for an uncontrolled environment (*when used with accessories supplied or designated for this product*). This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body (*The use of any other accessories may not ensure compliance with RF exposure limits*).

Déclaration d'exposition aux radiations:

Cet appareil est conforme aux limites d'exposition aux rayonnements définies pour un environnement incontrôlé lorsqu'il est utilisé avec les accessoires fournis ou désignés pour ce produit. Cet équipement doit être installé et utilisé à une distance minimale de 20 centimètres entre le radiateur et votre corps. (*L'utilisation de tout autre accessoire peut ne pas garantir la conformité aux limites d'exposition RF.*)

PORTABLE DEVICE RF EXPOSURE STATEMENT (IF APPLICABLE)

RF Radiation Exposure Statement

This device has been tested for compliance with ISED RSS 102 RF exposure limits in a portable configuration. At least (*Insert Required Separation Distance from RF Exposure Evaluation*) cm of separation distance between the radiating elements and the user's body must be maintained at all times. This device must not be used with any other antenna or transmitter that has not been approved to operate in conjunction with this device.

Déclaration d'exposition aux radiations:

Ce dispositif a été testé pour la conformité avec ISED RSS 102 limites d'exposition aux RF dans une configuration portable. Au moins (*Insérer requis Séparation Distance de RF évaluation de l'exposition*) cm de distance de séparation entre les éléments rayonnants et le corps de l'utilisateur doit être maintenu en tout temps. Ce dispositif ne doit pas être utilisé avec une autre antenne ou émetteur qui n'a pas été approuvé pour fonctionner en combinaison avec cet appareil.

ISED RSS-GEN STATEMENT

This device complies with Innovation, Science and Economic Development Canada license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CHANNEL MAPS

Table 5 and Table 6 describe the world wide safe channel maps for Jetson TX1 and Jetson TX2.

Table 5. Jetson TX1 World Wide Safe Channel Map

Channel Number	Frequency (MHz)	11b/g/n20
1	2412	A
2	2417	A
3	2422	A
4	2427	A
5	2432	A
6	2437	A
7	2442	A
8	2447	A
9	2452	A
10	2457	A
11	2462	A
Channel Number	Frequency (MHz)	11a/n20/ac20
36	5180	A
40	5200	A
44	5220	A
48	5240	A
52	5260	DFS - P
56	5280	DFS - P
60	5300	DFS - P
64	5320	DFS - P

Channel Number	Frequency (MHz)	n40/ac40
38	5190	A
46	5230	A
54	5270	DFS - P
62	5310	DFS - P
Channel Number	Frequency (MHz)	ac80
42	5210	A
58	5290	DFS - P

Legend:
A = Active
P = Passive
DFS = Dynamic frequency selection

Table 6. Jetson TX2 World Wide Safe Channel Map

Channel Number	Frequency (MHz)	11b/g/n20
1	2412	A
2	2417	A
3	2422	A
4	2427	A
5	2432	A
6	2437	A
7	2442	A
8	2447	A
9	2452	A
10	2457	A
11	2462	A
12	2467	A
13	2472	A
Channel Number	Frequency (MHz)	11a/n20/ac20
36	5180	A
40	5200	A
44	5220	A
48	5240	A
52	5260	DFS - P
56	5280	DFS - P
60	5300	DFS - P
64	5320	DFS - P

Channel Number	Frequency (MHz)	n40/ac40
38	5190	A
46	5230	A
54	5270	DFS - P
62	5310	DFS - P
Channel Number	Frequency (MHz)	ac80
42	5210	A
58	5290	DFS - P

Legend:

A = Active

P = Passive

DFS = Dynamic frequency selection

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