

G140 RFID User Guide

Select models have a contactless smart card reader module. The reader can read data from HF (High Frequency) RFID (Radio Frequency Identification) tags.



e	RFID reader	Reads data from RFID tags.
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This module is enabled by default. To enable or disable the module, run the BIOS Setup program and select Advanced → Device Configuration → RFID Card Reader. (See Chapter 5 for information on BIOS Setup.)

For optimal results when reading an RFID tag, have the tag face the antenna in the same orientation as indicated by the icon on the exterior of the computer.

NOTE:

When not using an RFID card, do not leave it within or near the antenna area.

➤ Federal Communication Commission Interference Statement

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. 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.

IMPORTANT NOTE:

This NFC devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. Any other installation or use will violate FCC Part 15 regulations. Modifications not expressly approved by Getac could void your authority to operate the equipment. This module apply limit module approval, and just only install in end product (Brand: Getac / Model: G140, G140Y).

Radiation Exposure Statement:

The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

End Product Labeling: The final end product must be labeled in a visible area with the following: "Contains **FCC ID: QYLSNNSVG7G14**". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

Manual Information to the End User:

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

KDB 996369 D03 OEM Manual rule sections:

2.2 List of applicable FCC rules

This module has been tested for compliance to FCC Part 15.225

2.3 Summarize the specific operational use conditions

LMA (without shielding, specific platform) G140, G140Y(Y= 10 characters, Y can be 0 to 9, A to Z, a to z, “/”, “\”, “-”, “_” or blank for marketing purpose)

This module is exclusively for use in the host device G140, G140Y(Y= 10 characters, Y can be 0 to 9, A to Z, a to z, “/”, “\”, “-”, “_” or blank for marketing purpose) (incorporates this module (module model name SN-NSVG7-C01) and the antenna certified for use with this module.

[This module is limited for Getac’s hosts only.](#) Incorporating this module into a host device other than G140, G140Y(Y= 10 characters, Y can be 0 to 9, A to Z, a to z, “/”, “\”, “-”, “_” or blank for marketing purpose) will require a separate reassessment through a class II permissive change or new certification. [The following test plan for the new specific host is required.](#)

Test Plan(for being installed into the new specific host)

1. RF:

Standard / Clause	Test Item
15.225 (a)	The field strength of any emissions within the band 13.553-13.567MHz
15.225 (b)	The field strength of any emissions within the band 13.410-13.553MHz and 13.567-13.710MHz
15.225 (c)	The field strength of any emissions within the band 13.110-13.410MHz and 13.710-14.010MHz
15.225 (d)	The field strength of any emissions appearing outside of the 13.110-14.010MHz band above 30MHz

2. RF Exposure

3. EMI:

Standard / Cause	Test Item
15.107	Conducted Emissions from Power ports
15.109	Radiated Emission up to 1GHz
15.109	Radiated Emission above 1GHz

2.4 Limited module procedures

Please addressed (same as module request letter)

LMA (without shielding, specific platform)

This module is certified as limited modular approval under the conditions integrated within the host product G140, G140Y(Y= 10 characters, Y can be 0 to 9, A to Z, a to z, “/”, “\”, “-”, “_” or blank for marketing purpose)

This Limited module if used on other host, field strength(15.225 a/b/c/d), RF exposure and EMI (15.107, 15.109) items should be re-test.

2.5 Trace antenna designs

Not applicable.

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Grantee Information:

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The requirements of KDB996369 have been met and shown on the following statements.

1. “The modular transmitter must have its own RF shielding.”

No, this EUT without RF shielding.

2. “The modular transmitter must have buffered modulation/data inputs.”

Yes, the EUT has buffered data inputs, it is integrated in chip NXP PN7362.

3. “The modular transmitter must have its own power supply regulation.”

Yes, the module contains its own power supply regulation, part number of this regulator is NXP PN7362.

4. “The modular transmitter must comply with the antenna requirements of section 15.203 and 15.204(C).”

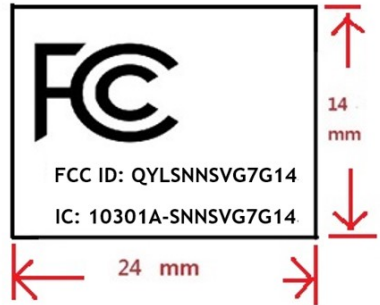
Yes, the EUT meets the FCC antenna requirements.

5. “ The modular transmitter must be tested in a stand-alone configuration”

No, the EUT was tested with host. It is authorized for use in specific end-product; host model we listed as below.

6. “The modular transmitter must be labeled with its own FCC ID number.”

Yes, the module has a permanently affixed label. And also in the exhibition Users Manual, there are instructions give to the OEM on how to label the end product, sample showed as below.



7. “The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements.”

Yes, the EUT is compliant with all applicable FCC rules. Detail instructions for maintaining compliance are given in the Users Manual.

8. “The modular transmitter must comply with any applicable RF exposure requirements.”

Yes, the EUT is compliant with all applicable RF exposure requirements. RF Exposure is addressed in the RF exposure exhibition.

➤ Industry Canada Statement

Canada, Industry Canada (IC) Notices

Class B digital circuitry of this device complies with Canadian ICES-003. This device complies with Industry Canada license-exempt RSS standard(s). 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. Under Industry Canada regulations, the radio transmitter(s) in this device may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This module apply limit module approval, and just only install in end product (Brand: Getac / Model: G140).

Radio Frequency (RF) Exposure Information

The radiated output power of this device is below the Industry Canada (IC) radio frequency exposure limits.

This device has been evaluated for and shown compliant with the IC Radio Frequency (RF) Exposure limits.

The device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has been certified for use in Canada. Status of the listing in the Industry Canada's REL (Radio Equipment List) can be found at the following web address:

<http://www.ic.gc.ca/app/sitt/reldtel/srch/nwRdSrch.do?lang=eng>

Additional Canadian information on RF exposure also can be found at the following web address:

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08792.html>

Informations sur l'exposition a la frequence radio (FR)

La puissance rayonnee de sortie de cet appareil est inferieure aux limites d'exposition a la frequence radio d'Industry Canada (IC). Cet appareil a ete evalue et juge conforme aux limites d'exposition a la frequence radio (FR) d'IC. Cet appareil devrait etre utilise de maniere a ce que le risque de contact humain au cours d'un fonctionnement normal soit reduit.

Cet appareil est homologue pour l'utilisation au Canada. Pour consulter l'entree correspondant a l'appareil dans la liste d'equipement radio (REL - Radio Equipment List) d'Industry Canada, rendez-vous sur:

<http://www.ic.gc.ca/app/sitt/reltel/srch/nwRdSrch.do?lang=eng>

Pour des informations canadiennes supplementaires sur l'exposition FR, rendez-vous sur :

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08792.html>

Canada, avis d'Industry Canada (IC)

La circuiterie numerique de Classe B de cet appareil est conforme a la norme canadienne ICES-003.

Cet appareil est conforme aux normes d'exemption de licence RSS d'Industry Canada.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interference et (2) cet appareil doit accepter toute interference, notamment les interferences qui peuvent affecter son fonctionnement.

Conformement aux reglementations d'Industry Canada, les emetteurs radio de cet appareil ne peuvent fonctionner qu'a l'aide d'une antenne dont le type et le gain maximal (ou minimal) pour ces emetteurs - transmetteurs sont approuves par Industry Canada. Pour reduire le risque d'interference eventuelle pour les autres utilisateurs, le type et le gain de l'antenne doivent etre choisis de maniere a ce que la puissance isotrope rayonnee equivalente (p.i.r.e.) minimale necessaire a une bonne communication soit fournie. Ce module applique l'approbation du module de limite et s'installe uniquement dans le produit final (Marque : Getac / **Modèle : G140**).

➤ Antenna Information:

Antenna	Model	Antenna Net Gain (dBi)	Frequency Range	Antenna Type	Connector Type
RFID 1 Antenna	Cannon_NFC_R00	0	13.56 MHz	Loop Antenna	I-PEX gen 4
RFID 2 Antenna	SR-RGFG7-001	0	13.56 MHz	Loop Antenna	I-PEX gen 4

➤ Label Sample:

