United States FCC Module Approval

The G2SC Module complies with Part 15 of the FCC rules and regulations. 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 instruction manual, 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 of 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.

Warning: Changes or modifications not expressly approved by Monnit could void the user's authority to operate the equipment.

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.

Canada IC

English

Under Industry Canada regulations, this radio transmitter 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 isotopically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

The radio transmitter (IC: 9794A-G2SC1) has been approved by Industry Canada to operate with the antenna types listed with the maximum permissible gain and required antenna impedance for each antenna type 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.

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.

French

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent émetteur radio (IC: 9794A-G2SC1) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, méme si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC/IC Approved Antennas

The G2SC Module can be installed utilizing antennas and cables constructed with standard connectors (Type-N, SMA, TNC, and so forth.) if the installation is performed professionally and according to FCC guidelines. For installations not performed by a professional, non-standard connectors (RPSMA, RPTNC, and so forth.) must be used. G2SC modules have been tested and approved for use with all the antennas listed in the tables below. (Cable-loss **IS** required when using gain antennas as shown below.)

Part Number	Manufacturer	Description	Required Cable Loss
XQZ-900E-2	*Xianzi*	*3 dBi Dipole Omni*	*0 dB*
HG905RD-RSP	*Hyperlink*	*5 dBi Dipole Omni*	*0 dB*
HG908U-PRO	*Hyperlink*	*8dBi Fiberglass Omni*	*0 dB*
HG8909P	*Hyperlink*	*9dBi Flat Panel*	*0 dB*
HG914YE-NF	*Hyperlink*	*14dBi Yagi*	*0 dB*

Optional PCS/LTE Colocation:

If final device contains PCS/LTE Cellular Module, the maximum antenna gain permitted including cable loss must not exceed the power levels and antenna gains specified in the following table.

Cellular Bands	Frequency Band (MHz)	Max Conducted Power (dBm)	Max Antenna Gain (dBi)
LTE-B2	1850-1910	23.5	9.5
LTE-B4	1710-1755	23.5	6.5
LTE-B5	824-849	24.0	6.63
LTE-B12	698-716	24.0	10.1
LTE-B13	777-787	24.0	6.95
LTE-B17	704-716	*24.0*	*10.1*
3G-B2	1850-1910	*24.5*	*8.51*
3G-B5	824-849	*24.5*	*6.63*

The PCS/LTE required antenna impedance is 50 ohms.

RF Exposure

MPE for Stand-alone Module (no colocation with other transmitter):
The G2SC module is FCC/IC approved for fixed base station and mobile applications. If the antenna is mounted at least 20cm (9 in) in the USA, or 20cm (9 in) in Canada from nearby persons, the application is considered a mobile application. Antennas not listed in the table must be tested to comply with FCC Section 15.203 (Unique Antenna Connectors) and Section 15.247 (Emissions).

Optional PCS/LTE Colocation:
If final device contains PCS/LTE Cellular Module, then the following limits for fixed base station and mobile applications apply. These limits are that the antennas need to be mounted at least 31cm (12 in) in the USA, or 44cm (17 in) in Canada from nearby persons. PCS/LTE transmitters that cannot conform to these specifications or applications that cannot enforce these distance limitations are required to obtain specific certification and are not authorized to utilized the before mentioned certification identifiers.

OEM Labeling Requirements

The Original Equipment Manufacturer (OEM) must ensure that FCC and IC labeling requirements are met. This includes a clearly visible label on the outside of the final product enclosure that displays the contents shown in the figure below.

Required FCC/IC Label for OEM products containing the RFXL Module:

Contains FCC ID: ZTL-G2SC1
Contains FCC ID: (optional GENERIC PCS/LTE MODULE ID)
Contains Wireless Module IC: 9794A-G2SC1
Contains Wireless Module IC: (optional GENERIC PCS/LTE MODULE ID)

The enclosed device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (i.) this device may not cause harmful interference and (ii.) this device must accept any interference received, including interference that may cause undesired operation.

OEM Documentation Requirements

The statement contained in this section must be included as CAUTION statements in OEM product manuals in order to alert users of FCC and IC requirements for compliance. Omission of these statements in the OEM manuals invalidates certifications being leveraged by the OEM.

RF Exposure for FCC

WARNING: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 22 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

RF Exposure for FCC when collocated with a PCS/LTE Module

WARNING: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 31 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

RF Exposure for IC

WARNING: To satisfy IC RF exposure requirements for mobile transmitting devices, a separation distance of 33 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

AVERTISSEMENT: Pour satisfaire IC RF exigences d'exposition pour les appareils mobiles de transmission, une distance de séparation de 33 cm ou plus doit être maintenue entre l'antenne de cet appareil et des personnes pendant le fonctionnement de l'appareil. Pour assurer la conformité, les opérations au plus près que cette distance ne sont pas recommandés. L'antenne utilisée pour cet émetteur ne doit pas être situé en conjonction avec une autre antenne ou émetteur.

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RF Exposure for IC when collocated with the PCS/LTE Module

WARNING: To satisfy IC RF exposure requirements for mobile transmitting devices, a separation distance of 44 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

AVERTISSEMENT: Pour satisfaire IC RF exigences d'exposition pour les appareils mobiles de transmission, une distance de séparation de 44 cm ou plus doit être maintenue entre l'antenne de cet appareil et des personnes pendant le fonctionnement de l'appareil. Pour assurer la conformité, les opérations au plus près que cette distance ne sont pas recommandés. L'antenne utilisée pour cet émetteur ne doit pas être situé en conjonction avec une autre antenne ou émetteur.

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FCC Part 15 Compliance 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.

OEM Notices

IMPORTANT: The G2SC Module has been certified by the FCC for use with other products without any further certification (as per FCC section 2.1091). Modifications not expressly approved by Monnit Corporation could void the user's authority to operate the equipment.

IMPORTANT: OEM Integrators must test final product to comply with unintentional radiators (FCC section 15.107 & 15.109) before declaring compliance of their final product to Part 15 of the FCC Rules. Other compliance testing may also apply (for example, PC peripheral requirements, etc.).

IMPORTANT: The G2SC module has been certified for remote and base radio applications. If the module will be used for portable applications, the device must undergo SAR testing.

IMPORTANT: In the event that the minimum distance requirement or if the module is co-located with other transmitters, then current FCC and IC authorization is no longer valid and the FCC ID or IC number cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC and IC authorization.

For more information about our products or to place an order, please contact our sales department at 801-561-5555.

Visit us on the web at www.monnit.com.