

Pin	Pin Name	I/O	Reset Value	Pin Description	Level
61	ANTCTL1	O	PD	Tunable ANT CTRL1, default low	1.8V
63	ANTCTL2	O	PD	Tunable ANT CTRL2, default low	1.8V
65	ANTCTL3	O	PD	Tunable ANT CTRL3, default low	1.8V

3.8 Configuration Interface

The FM101 module provides 4 configuration pins, they are output pins, used to read the level of H/L for the host system, so the host system can know the module type insert in the M.2 slot. If the host system is not need to know the module type, that is no need to connect these 4 pins, let they are floating is OK.

This module is configured as the WWAN-SSIC-0 type M.2 module:

Pin	Pin Name	I/O	Reset Value	Pin Description	Type
1	CONFIG_3	O	GND	GND, FM101 M.2 module is configured as the WWAN – SSIC, USB 3.0 interface type	-
21	CONFIG_0	-	NC	NC, FM101 M.2 module is configured as the WWAN – SSIC, USB 3.0 interface type	-
69	CONFIG_1	O	GND	GND, FM101 M.2 module is configured as the WWAN – SSIC, USB 3.0 interface type	-
75	CONFIG_2	O	GND	GND, FM101 M.2 module is configured as the WWAN – SSIC, USB 3.0 interface type	-

The M.2 module configuration is shown in the following table:

Config_0	Config_1	Config_2	Config_3	Module Type and Main	Port
----------	----------	----------	----------	----------------------	------

(pin21)	(pin69)	(pin75)	(pin1)	Host Interface	Configuration
NC	GND	GND	GND	WWAN-SSIC	0

Please refer to "PCI Express M.2 Specification Rev4.0" for more details.

4 Radio Frequency

4.1 RF Interface

4.1.1 RF Interface Functionality

The FM101 module supports two RF connectors used for external antenna connection. As the Figure 16 shows, "M" is for Main antenna, which is used to receive and transmit RF signal; "D/G" is for Diversity antenna, which is used to receive the diversity RF signal and GNSS signal.



Figure 16. RF connectors

4.1.2 RF Connector Characteristic

Rated Condition		Environment Condition
Frequency Range	DC-6GHz	Temperature Range: -40°C-+85°C
Characteristic Impedance	50Ω	

4.1.3 RF Connector Dimensions

FM101 module uses standard M.2 RF connectors. The RF connector part number is 818004607 manufactured by ECT cooperation, and the size is 2×2×0.6mm. The connector dimension is shown as following picture:

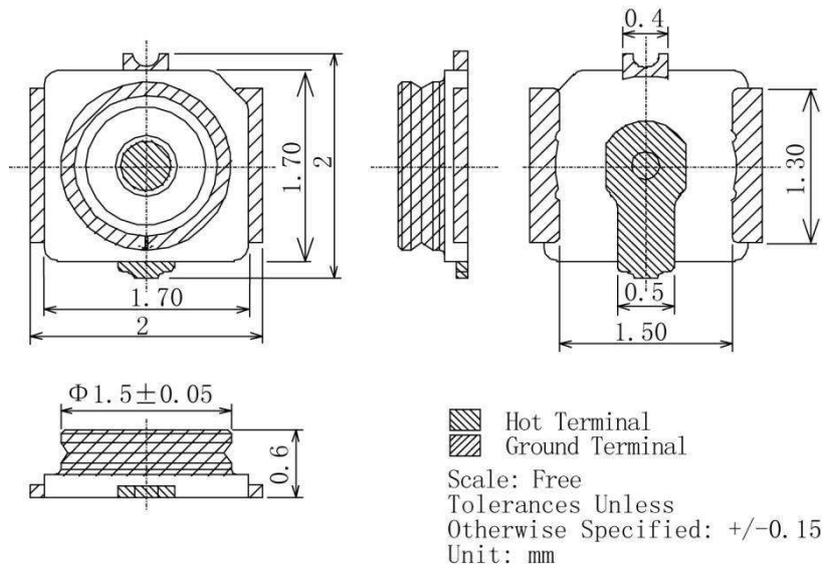


Figure 17. RF connector dimensions

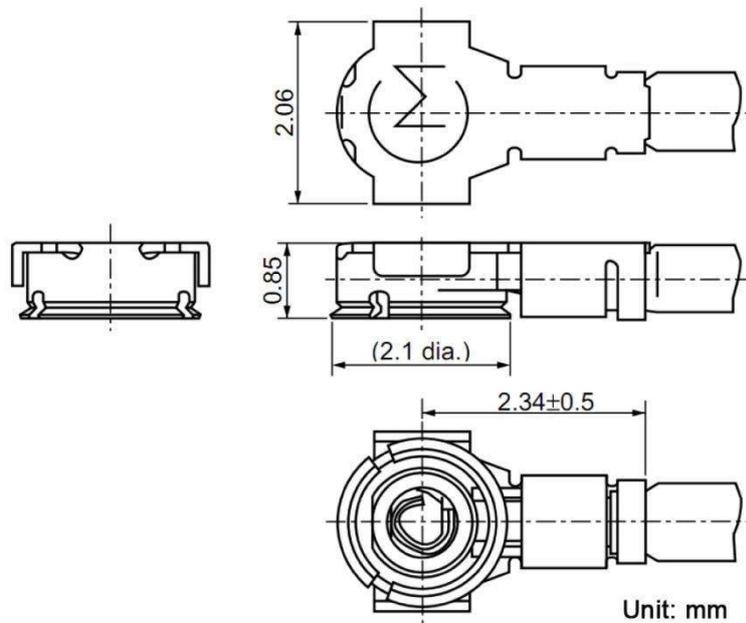


Figure 18. 0.81mm coaxial antenna dimensions

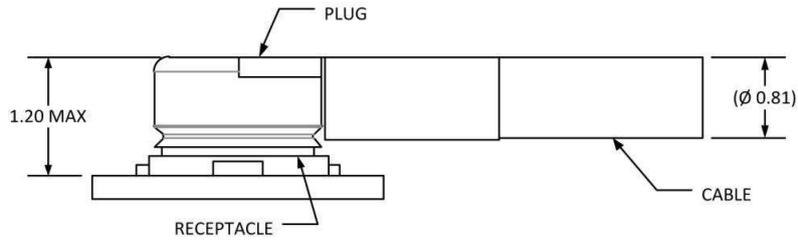


Figure 19. Schematic diagram of 0.81mm coaxial antenna connected to the RF connector

4.1.4 RF Connector Assembly

Mate RF connector parallel refer Figure 20, do not slant mate with strong force.

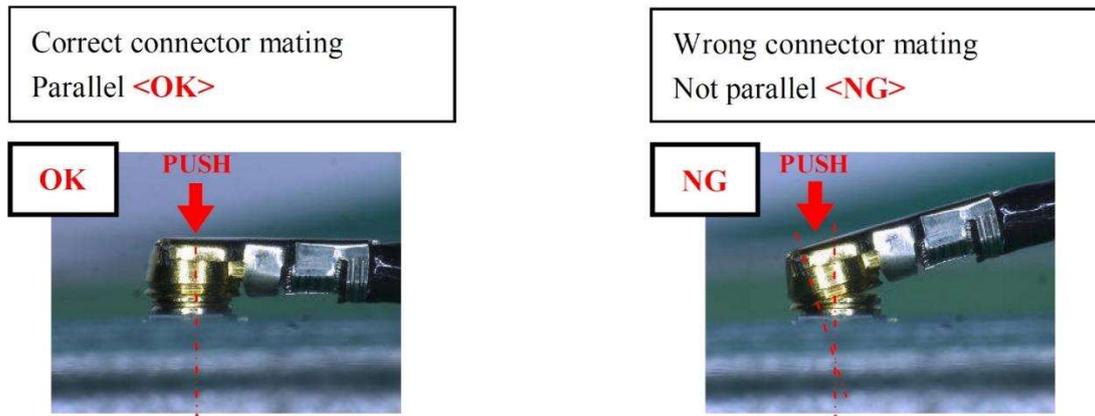


Figure 20. Mate RF connector

To avoid damage in RF connector mating, it is recommended using pulling JIG as Figure 21, and the pulling JIG must be lifted up vertically to PCB surface (see Figure 22 and 23). Pulling JIG must be lifted up vertically to PCB surface (see Figure 22 and 23).

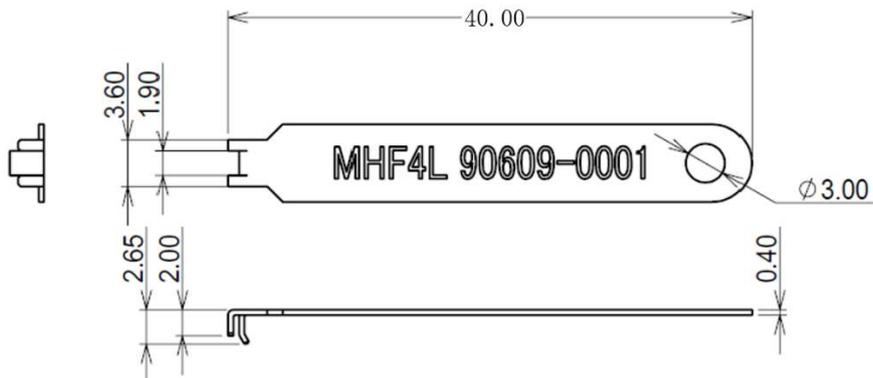


Figure 21. Pulling JIG

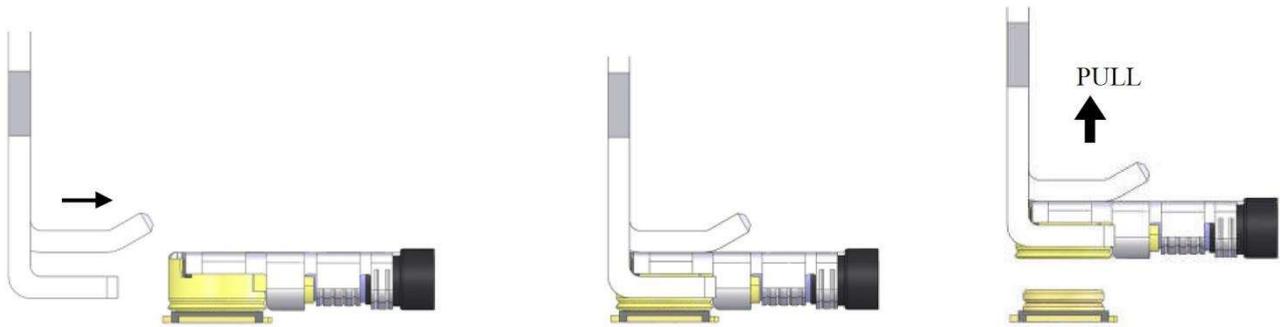


Figure 22. Lift up pulling JIG

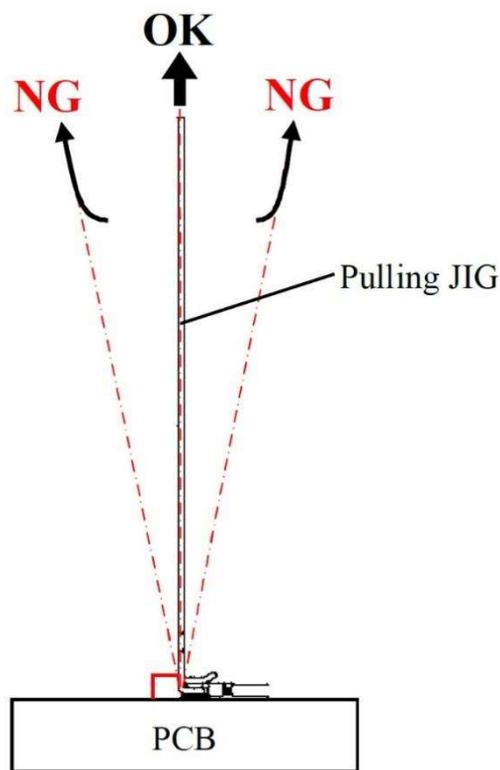


Figure 23. Pulling direction

4.2 Operating Band

The operating bands of FM101 module are shown in the following table:

Operating Band	Description	Mode	Tx (MHz)	Rx (MHz)
Band 1	2100MHz	LTE FDD/WCDMA	1920-1980	2110-2170

Operating Band	Description	Mode	Tx (MHz)	Rx (MHz)
Band 2	1900MHz	LTE FDD/WCDMA	1850-1910	1930-1990
Band 3	1800MHz	LTE FDD	1710-1785	1805-1880
Band 4	1700MHz	LTE FDD/WCDMA	1710-1755	2110-2155
Band 5	850MHz	LTE FDD/WCDMA	824-849	869-894
Band 6	850MHz	LTE FDD/WCDMA	830-840	875-885
Band 7	2600Mhz	LTE FDD	2500-2570	2620-2690
Band 8	900MHz	LTE FDD/WCDMA	880-915	925-960
Band 12	700MHz	LTE FDD	699-716	729-746
Band 13	700MHz	LTE FDD	777-787	746-756
Band 14	700MHz	LTE FDD	788-798	758-768
Band 17	700MHz	LTE FDD	704-716	734-746
Band 18	800MHz	LTE FDD	815-830	860-875
Band 19	800MHz	LTE FDD/WCDMA	830-845	875-890
Band 20	800MHz	LTE FDD	832-862	791-821
Band 25	1900MHz	LTE FDD	1850-1915	1930-1995
Band 26	850MHz	LTE FDD	814-849	859-894
Band 28	700MHz	LTE FDD	703-748	758-803
Band 29	700MHz	LTE FDD	-	716-728
Band 30	2300MHz	LTE FDD	2305-2315	2350-2360
Band 66	1700MHz	LTE FDD	1710-1780	2110-2200
Band 71	680MHz	LTE FDD	663-698	617-652
Band 38	2600MHz	LTE TDD	2570-2620	

Operating Band	Description	Mode	Tx (MHz)	Rx (MHz)
Band 39	1900MHZ	LTE TDD	1880-1920	
Band 40	2300MHZ	LTE TDD	2300-2400	
Band 41	2500MHZ	LTE TDD	2496-2690	
Band 42	3500MHZ	LTE TDD	3400-3600	
Band 43	3700MHZ	LTE TDD	3600-3800	
Band 48	3600MHZ	LTE TDD	3550-3700	
GPS L1	-	-	-	1575.42±1.023
GLONASS L1	-	-	-	1602.5625±4
BDS	-	-	-	1561.098±2.046
Galileo	-	-	-	1575.42±1.023

4.3 Transmitting Power

The transmitting power for each band of FM101 module is shown in the following table:

Mode	Band	3GPP Requirement (dBm)	Tx Power (dBm)	Note
WCDMA	Band 1	24+1.7/-3.7	23.5±1	-
	Band 2	24+1.7/-3.7	23.5±1	-
	Band 4	24+1.7/-3.7	23.5±1	-
	Band 5	24+1.7/-3.7	23.5±1	-
	Band 6	24+1.7/-3.7	23.5±1	-
	Band 8	24+1.7/-3.7	23.5±1	-
	Band 19	24+1.7/-3.7	23.5±1	-

Mode	Band	3GPP Requirement (dBm)	Tx Power (dBm)	Note
LTE FDD	Band 1	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 2	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 3	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 4	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 5	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 7	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 8	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 12	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 13	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 14	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 17	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 18	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 19	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 20	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 25	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 26	23±2.7	24±1	10MHz Bandwidth, 1 RB
	Band 28	23+2.7/-3.2	24±1	10MHz Bandwidth, 1 RB
Band 30	23±2.7	22±1	10MHz Bandwidth, 1 RB	
Band 66	23±2.7	23±1	10MHz Bandwidth, 1 RB	
Band 71	23+2.7/-3.2	24±1	10MHz Bandwidth, 1 RB	
LTE TDD	Band 38	23±2.7	23±1	10MHz Bandwidth, 1 RB

Mode	Band	3GPP Requirement (dBm)	Tx Power (dBm)	Note
	Band 39	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 40	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 41 (HPUE)	26±2.7	26±1	10MHz Bandwidth, 1 RB
	Band 41 (Non-HPUE mode)	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 42	23+3/-4	23±1	10MHz Bandwidth, 1 RB
	Band 43	23+3/-4	23±1	10MHz Bandwidth, 1 RB
	Band 48	23+2/-3	21±1	10MHz Bandwidth, 1 RB



Module default max capability support HPUE. The real working mode is decided by NW. If NW support HPUE, the module can work in HPUE. If NW can only support PC3, the module will work in non-HPUE mode.

4.4 Receiver Sensitivity

4.4.1 Dual Antennas Receiver Sensitivity

All bands support dual antennas, the receiver sensitivity for each band of FM101 module is shown in below table:

Mode	Band	3GPP Requirement (dBm)	Rx Sensitivity Typical(dBm)	Note
WCDMA	Band 1	-106.7	TBD	BER < 0.1%
	Band 2	-104.7	TBD	BER < 0.1%

Mode	Band	3GPP Requirement (dBm)	Rx Sensitivity Typical(dBm)	Note
	Band 4	-106.7	TBD	BER < 0.1%
	Band 5	-104.7	TBD	BER < 0.1%
	Band 6	-106.7	TBD	BER < 0.1%
	Band 8	-103.7	TBD	BER < 0.1%
	Band 19	-106.7	TBD	BER < 0.1%
	Band 1	-96.3	TBD	10MHz Bandwidth
	Band 2	-94.3	TBD	10MHz Bandwidth
	Band 3	-93.3	TBD	10MHz Bandwidth
	Band 4	-96.3	TBD	10MHz Bandwidth
LTE FDD	Band 5	-94.3	TBD	10MHz Bandwidth
	Band 7	-94.3	TBD	10MHz Bandwidth
	Band 8	-93.3	TBD	10MHz Bandwidth
	Band 12	-93.3	TBD	10MHz Bandwidth
	Band 13	-93.3	TBD	10MHz Bandwidth

Mode	Band	3GPP Requirement (dBm)	Rx Sensitivity Typical(dBm)	Note
	Band 14	-93.3	TBD	10MHz Bandwidth
	Band 17	-93.3	TBD	10MHz Bandwidth
	Band 18	-96.3	TBD	10MHz Bandwidth
	Band 19	-96.3	TBD	10MHz Bandwidth
	Band 20	-93.3	TBD	10MHz Bandwidth
	Band 25	-92.8	TBD	10MHz Bandwidth
	Band 26	-93.8	TBD	10MHz Bandwidth
	Band 28	-94.8	TBD	10MHz Bandwidth
	Band 29	-93.3	TBD	10MHz Bandwidth
	Band 30	-95.3	TBD	10MHz Bandwidth
	Band 66	-95.8	TBD	10MHz Bandwidth
	Band 71	-93.5	TBD	10MHz Bandwidth

Mode	Band	3GPP Requirement (dBm)	Rx Sensitivity Typical(dBm)	Note
LTE TDD	Band 38	-96.3	TBD	10MHz Bandwidth
	Band 39	-96.3	TBD	10MHz Bandwidth
	Band 40	-96.3	TBD	10MHz Bandwidth
	Band 41	-94.3	TBD	10MHz Bandwidth
	Band 42	-95	TBD	10MHz Bandwidth
	Band 43	-95	TBD	10MHz Bandwidth
	Band 48	-95	-102	10MHz Bandwidth



The above values are measured in dual antennas condition (Main+Diversity). For single main antenna (without Diversity), the sensitivity will drop about 3dBm for each band of LTE.

4.5 GNSS

FM101 module supports GPS/GLONASS/BDS/GALILEO and adopts RF Diversity and GNSS integrated antenna.

Description	Positioning system	Condition	Test Result
			Typical
Current	GPS	Fixing	TBD
		Tracking	TBD
		Sleep	TBD
	GPS+ BDS+ GLONASS+ Galileo	Fixing	TBD
		Tracking	TBD
		Sleep	TBD
TTF	GPS	Cold start	TBD
		Warm start	TBD
		Hot Start	TBD
	GPS+ BDS+ GLONASS+ Galileo	Cold start	TBD
		Warm start	TBD
		Hot Start	TBD
Sensitivity	GPS	Tracking	TBD
		Acquisition	TBD
	GPS+ BDS+ GLONASS+ Galileo	Tracking	TBD
		Acquisition	TBD



GNSS current is tested with RF disabled at 25°C temperature.

4.6 Antenna Design

The FM101 module provides two antenna interfaces, and the antenna design requirements are shown in the following table:

 FM101 Module Main Antenna Requirement

Frequency range	The most proper antenna to adapt the frequencies should be used.
-----------------	--

Bandwidth (WCDMA)	WCDMA band 1 (2100): 250 MHz
	WCDMA band 2 (1900): 140 MHz
	WCDMA band 4 (1700): 445 MHz
	WCDMA band 5 (850): 70 MHz
	WCDMA band 6 (8500): 55 MHz
	WCDMA band 8 (900): 80 MHz
	WCDMA band 19 (850): 60 MHz

Bandwidth (LTE)	LTE band 1 (2100): 250 MHz
	LTE band 2 (1900): 140MHz
	LTE Band 3 (1800): 170 MHz
	LTE band 4 (1700): 445MHz
	LTE band 5 (850): 70 MHz
	LTE band 7 (2600): 190 MHz
	LTE Band 8 (900): 80 MHz
	LTE Band 12 (700): 47 MHz
	LTE Band 13 (700): 41 MHz
	LTE Band 14 (700): 40 MHz
	LTE Band 17 (700): 42 MHz
	LTE Band 18 (800): 80 MHz
	LTE Band 19 (800): 80 MHz
LTE band 20 (800): 71 MHz	
LTE band 25 (1900):145 MHz	

FM101 Module Main Antenna Requirement

- LTE band 26 (850): 80 MHz
- LTE band 28 (700): 100 MHz
- LTE band 29 (700): 12 MHz
- LTE band 30 (2300): 55 MHz
- LTE band 66 (1700): 490MHz
- LTE band 71 (680): 35MHz
- LTE band 38 (2600): 50 MHz
- LTE Band 39 (1900): 40 MHz
- LTE band 40 (2300): 100 MHz
- LTE band 41 (2500): 194 MHz
- LTE band 42 (3500): 200 MHz
- LTE band 43 (3700):200MHz
- LTE band 48 (3600):150MHz

- Bandwidth (GNSS)
- GPS: 2 MHz
 - GLONASS: 8 MHz
 - BDS: 4 MHz
 - Galileo: 2 MHz

- Impedance 50Ω
- Input power > 28 dBm average power WCDMA & LTE
- Recommended standing-wave ratio (SWR) ≤2:1



ANT on B30 suggestion: Peak gain < 1dBi, for FCC EIRP requirement, Efficient > 50% for carrier TRP requirement. If integrator doesn't follow the instruction, may

cause FCC EIRP or carrier TRP certification fail.

5 ESD Characteristics

The module is generally not protected against Electrostatic Discharge (ESD). ESD handling precautions that apply to ESD sensitive components should be strictly followed. Proper ESD handling procedures must be applied throughout the processing, handling, assembly and operation of any application with module. The ESD characteristics are shown in the following table (Temperature: 25°C, Relative Humidity: 40%).

Interface	Contact Discharge	Air Discharge
GND	±8 kV	±15 kV
Antenna Interface	±8 kV	NA
Golden Finger	±1KV	NA



ESD performance is based on EVB-M2 development board.

6 Structure Specification

6.1 Product Appearance

The product appearance for FM101 module is shown in Figure 24:



Figure 24. Module appearance



The label of each module is subject to the good shipped.

6.2 Dimension of Structure

The structural dimension of the FM101 module is shown in Figure 25:

Module Nomenclature
Sample type 3042-S3-B
 Type **XX XX - XX - X - X^U**



- ☒ Use ONLY when a double slot is being specified
- ☒☒ Label included in height dimension
- ☒☒☒ Key G is intended for custom use. Devices with this key will not be M.2-compliant. Use at your own risk!
- ☒☒☒☒ Insulating label allowed on connector-based designs

Figure 26. M.2 interface model

6.4 M.2 Connector

FM101 module connects with host by M.2 connector which is built in host. The recommended part number is APCI0026-P001A manufactured by LOTES Corporation, and the dimensions are shown in Figure 27. For stack-up top-mount single-sided module, the recommended part number is APCI0144-P001A, manufactured by LOTES Corporation, and the dimension is shown in Figure 28. The package of connector, please refer to the specification.

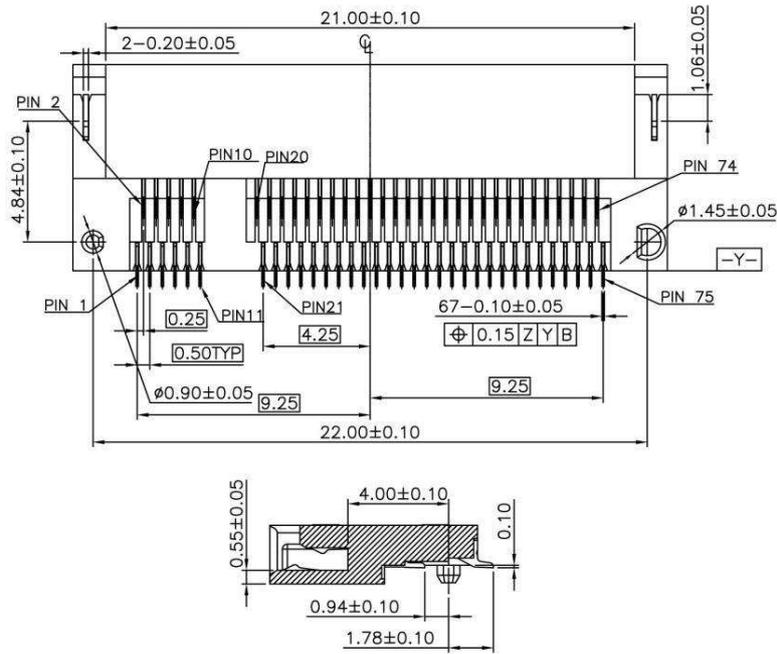


Figure 27. M.2 Dimensions of structure for stack-up Mid-mount single-sided module

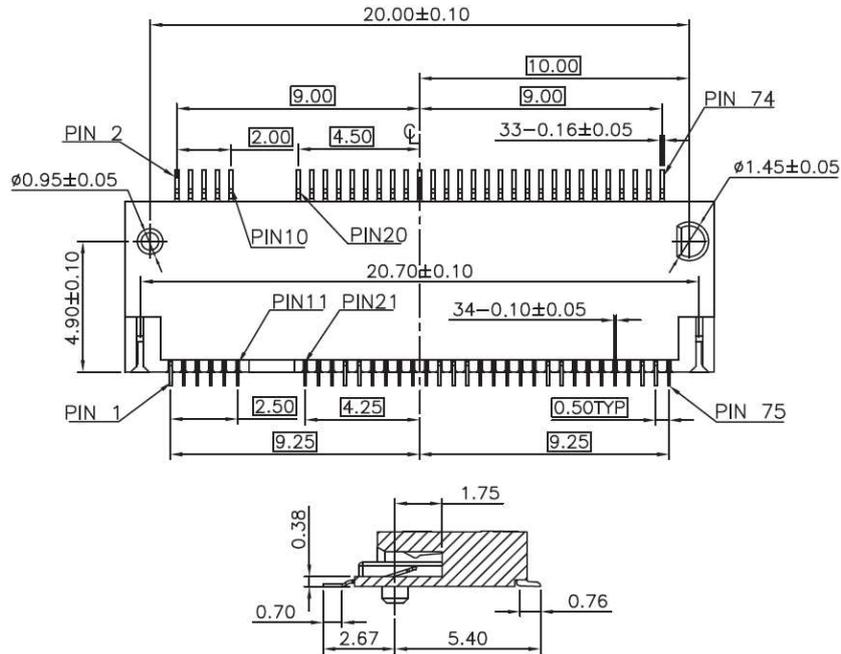


Figure 28. M.2 dimensions of structure for stack-up top-mount single-sided module

6.5 M.2 Card Assembly

6.5.1 Card Insertion

Angled insertion is allowable and preferred; intent is to minimize the insertion and extraction force. The minimum angle of insertion is 5°. For APCI0144-P001A, the maximum angle of insertion is 5°. For APCI0026-P001A, the maximum angle of insertion is 20°. Refer to Figure 29 and Figure 30 to insert and extract the module.

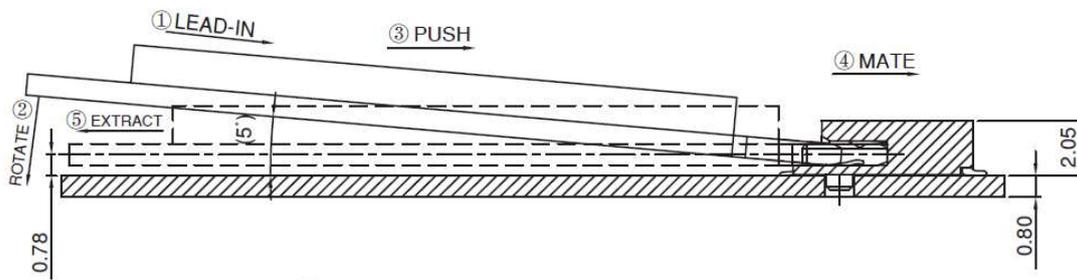


Figure 29. Angle of insertion for APCI0144-P001A

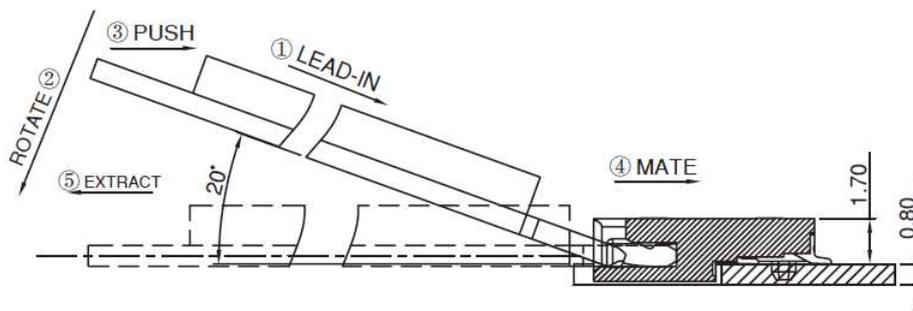


Figure 30. Angle of insertion for APCI0026-P001A

6.5.2 Mid-mount Connection with Single-Sided Module

Stack-up Mid-mount (In-line) single-sided module is shown in Figure 31. The maximum height of components is 1.5 mm.

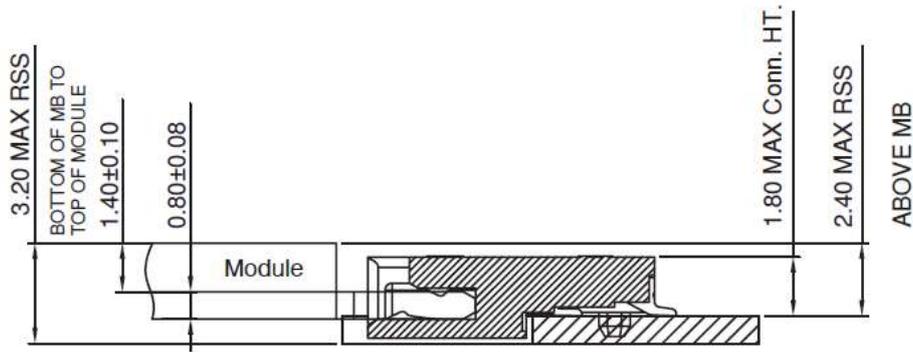


Figure 31. Stack-up mid-mount single-sided module



2.4 mm maximum above mother board

Suggest to cut the area of mother board under M.2 module

6.5.1 Top-mount Connection with Single-Sided Module

Stack-up top-mount single-sided module is shown in Figure 32. The maximum height of components is 1.5 mm.

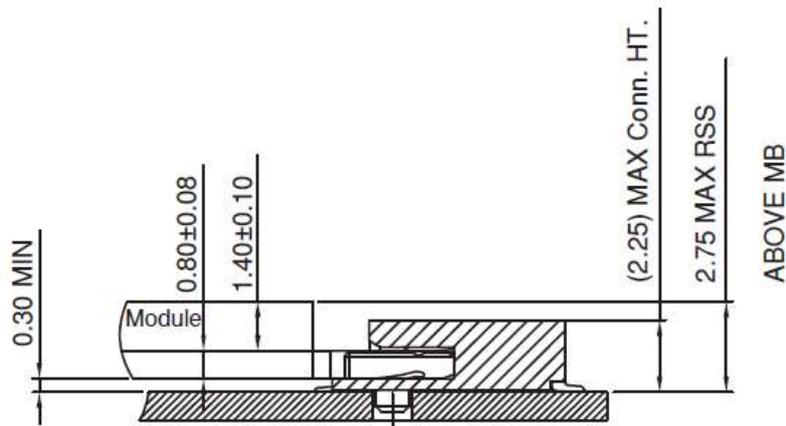


Figure 32. Stack-up top-mount single-sided module



2.75 mm maximum above mother board. Full keep out area 30 mm × 42 mm below module, which means don't place any components and routings below M.2 module. Add thermal pad between M.2 module and mother board for thermal dissipation.

6.6 Storage

6.6.1 Storage Life

Storage Conditions (recommended): Temperature is $23 \pm 5^{\circ}\text{C}$, relative humidity is less than RH 60%.

Storage period: Under the recommended storage conditions, the storage life is 12 months.

6.7 Packaging

The FM101 module uses the tray sealed packing, combined with the outer packing method using the hard cartoon box, so that the storage, transportation and the usage of modules can be protected to the greatest extent.



The module is a precision electronic product, and may suffer permanent damage if no correct electrostatic protection measures are taken.

6.7.1 Tray Package

The FM101 module uses tray package, 20 pcs are packed in each tray, with 5 trays including one empty tray on top in each box and 5 boxes in each case. Tray packaging process is shown in Figure 33:

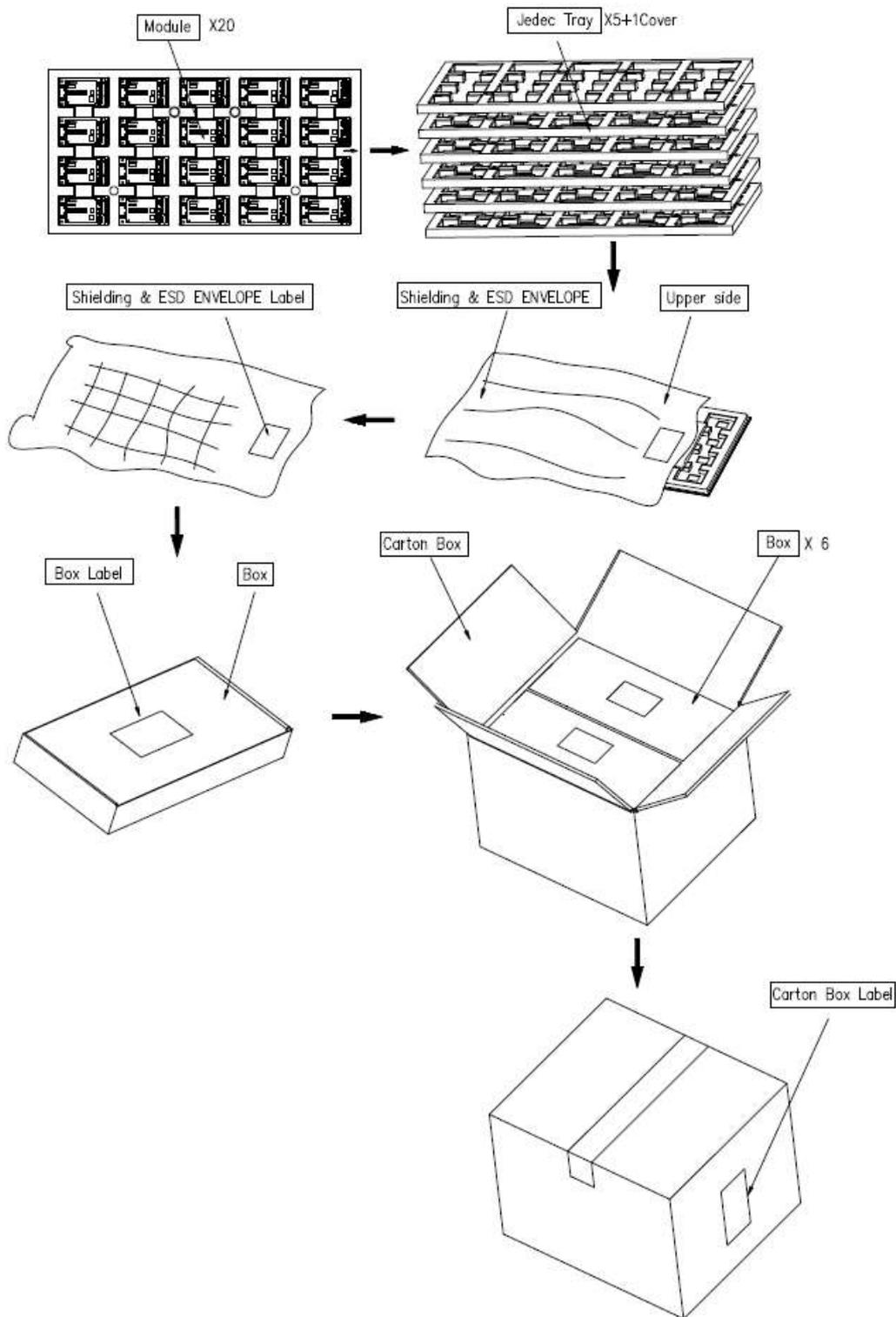


Figure 33. Tray packaging process

6.7.2 Tray Size

The pallet size is 315 mm × 170 mm × 6.5 mm, and is shown in Figure 34:

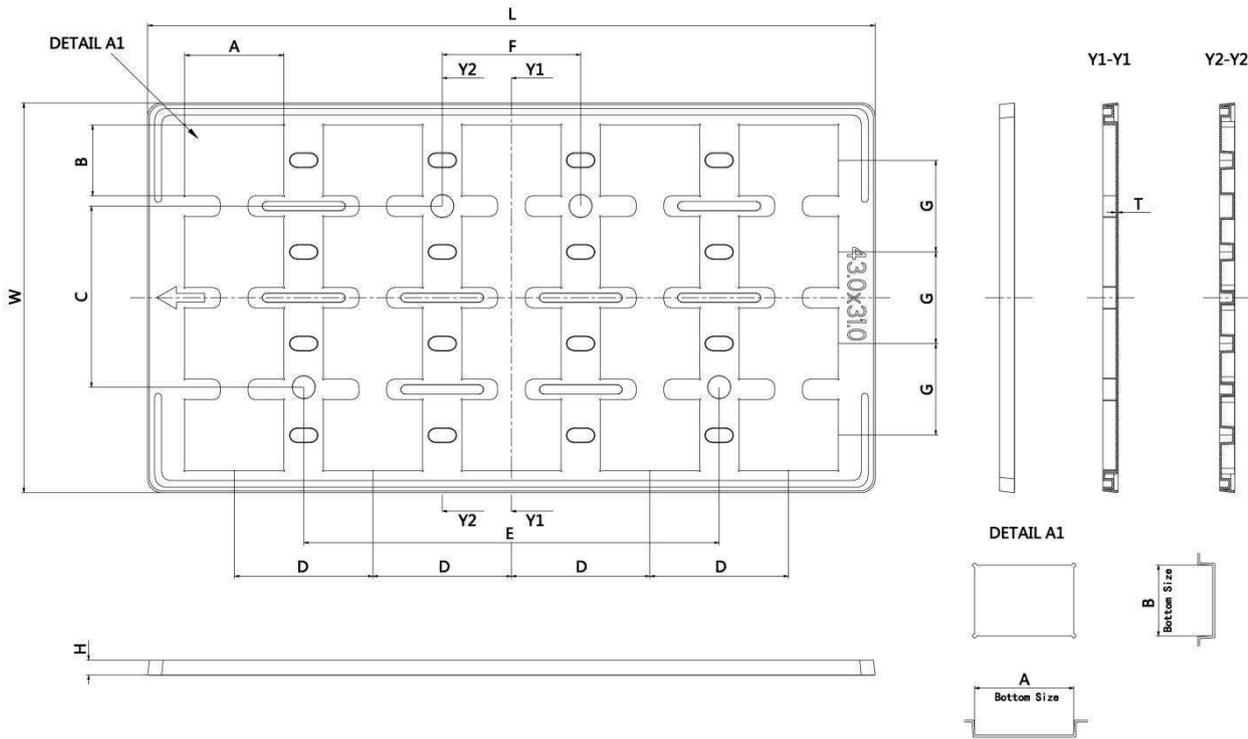


Figure 34. Tray size (unit: mm)

ITEM	DIM (Unit: mm)
L	315.0±2.0
W	170.0±2.0
H	6.5±0.3
T	0.8±0.1
A	43.0±0.3
B	31.0±0.3
C	79.0±0.2
D	60.0±0.2
E	180.0±0.2
F	60.0±0.2

G	40.0±0.2
---	----------

OEM/Integrators Installation Manual

Important Notice to OEM integrators 1. This module is limited to OEM installation ONLY. 2. This module is limited to installation in mobile or fixed applications, according to Part 2.1091(b). 3. The separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and different antenna configurations 4. For FCC Part 15.31 (h) and (k): The host manufacturer is responsible for additional testing to verify compliance as a composite system. When testing the host device for compliance with Part 15 Subpart B, the host manufacturer is required to show compliance with Part 15 Subpart B while the transmitter module(s) are installed and operating. The modules should be transmitting, and the evaluation should confirm that the module's intentional emissions are compliant (i.e. fundamental and out of band emissions). The host manufacturer must verify that there are no additional unintentional emissions other than what is permitted in Part 15 Subpart B or emissions are compliant with the transmitter(s) rule(s). The Grantee will provide guidance to the host manufacturer for Part 15 B requirements if needed.

Important Note

notice that any deviation(s) from the defined parameters of the antenna trace, as described by the instructions, require that the host product manufacturer must notify to **Fibocom** that they wish to change the antenna trace design. In this case, a Class II permissive change application is required to be filed by the USI, or the host manufacturer can take responsibility through the change in FCC ID (new application) procedure followed by a Class II permissive change application

End Product Labeling

When the module is installed in the host device, the FCC/IC ID label must be visible through a window on the final device or it must be visible when an access panel, door or cover is easily re-moved. If not, a second label must be placed on the outside of the final device that contains the following text: "Contains FCC ID: **ZMOFM101GL**" "Contains IC: **21374-FM101GL**". The FCC ID/IC ID can be used only when all FCC/IC 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

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 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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

List of applicable FCC rules

This module has been tested and found to comply with part 22, part 24, part 27, part 90, part 96 requirements for Modular Approval.

The modular transmitter is only FCC authorized for the specific rule parts (i.e., FCC transmitter rules) listed on the grant, and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. If the grantee markets their product as being Part 15 Subpart B compliant (when it also contains unintentional-radiator digital circuitry), then the grantee shall provide a notice stating that the final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

This device is intended only for OEM integrators under the following conditions: (For module device use)

- 1) The antenna must be installed such that 20 cm is maintained between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna.

As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

Industry Canada Statement

This device complies with Industry Canada's licence-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 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, même si le brouillage est susceptible d'en compromettre le fonctionnement."

Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

This device is intended only for OEM integrators under the following

conditions: (For module device use)

- 1) The antenna must be installed such that 20 cm is maintained between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna. As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes: (Pour utilisation de dispositif module)

- 1) L'antenne doit être installée de telle sorte qu'une distance de 20 cm est respectée entre l'antenne et les utilisateurs, et
- 2) Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

Tant que les 2 conditions ci-dessus sont remplies, des essais supplémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requis pour ce module installé.

IMPORTANT NOTE:

In the event that these conditions cannot be met (for example certain laptop configurations or colocation with another transmitter), then the Canada authorization is no longer considered valid and the IC ID 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 Canada authorization.

NOTE IMPORTANTE:

Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considéré comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains IC: **21374-FM101GL**".

Plaque signalétique du produit final

Ce module émetteur est autorisé uniquement pour une utilisation dans un dispositif où l'antenne peut être installée de telle sorte qu'une distance de 20cm peut être maintenue entre l'antenne et les utilisateurs. Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: "Contient des IC: **21374-FM101GL**".

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.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.