FCC Modular Integration Instructions

CAN Mobilities, Inc.
MODEL: CAN Go

Modification statement

CAN Mobilities, Inc., has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

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 interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

FCC Class B digital device notice

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.

List of applicable FCC rules

Part 15 Subpart B

Summary of the specific operational use conditions

The "CAN Go™" is built on the BT chip nRF52840 from Nordic semiconductor. The module is using an omni-directional antenna, no limitation needs to be remarked. The module uses LTE module FCC ID: 2AVFA-CANGO-4G-EC21 modified to limit maximum transmit power to 15dBM.

Limited module procedures

"CAN Go™" is certified as Single Modular Approval.

Trace antenna designs

Not applicable. "CAN Go™" uses external antennas please refer to Antennas section below.

Antennas

This radio transmitter has been approved by FCC 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.

1. BLE antenna – TDK ANT016008LCS2442MA1
2. LTE main antenna – Shanghai Deep Fast Technology, 2R001A
3. LTE div antenna – Shanghai Deep Fast Technology, 2R001B

The following table includes the maximum permissible gain of the LTE antennas.

	Main Antenna	Diversity Antenna
Antenna Type	FPC Patch antenna	FPC Patch antenna
Band 12 - peak Gain (dBi)	-5.05671	-10.55255142
Band 4 - peak Gain (dBi)	2.955644	-2.81187831
Band 2 - peak Gain (dBi)	0.50861	-4.569752913

The following table includes the maximum permissible gain of the BLE antennas

	BLE Antenna
Antenna Type	Chip antenna
Band 12 - peak Gain (dBi)	-5.05671
Manufacturer	TDK
Model number(Manufacturer)	ANT016008LCS2442MA1
Model number(tdk.com)	ANT016008LCS2442MA1
Gain (dBi)	1.6 dBi
Connector type	soldered on PCB

Label and Compliance Information

The host device shall be properly labeled to identify the modules within the host device. The certification label of the module shall be clearly visible at all times when installed in the host device, otherwise, the host device must be labeled to display the FCC ID of the module, preceded by the words "Contains transmitter module", or the word "Contains", or similar wording expressing the same meaning, as follows:

Contains FCC ID: 2AVFA-CANGO-4G-EC21

RF exposure considerations

The module is being used in a portable configuration- a walking cane (Model: CAN Go, FCC ID: 2AVFA-YESWECAN). The antenna is used less than 20 cm from the user hand, torso, or extremities. The module LTE maximum transmit power is restricted to 15dBM. The UAT has been tested and meets applicable limits for radio frequency (RF) exposure for simultaneous transmission of LTE and BLE radio.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Information on test modes and additional testing requirements

1) Bluetooth
   Module is always on and can be reset using the factory reset in step (3) below
2) Cellular
   Module is always on and can be reset using the factory reset in step (3) below
3) How to reset to factory default
   Press and hold the middle and left buttons in the unit for 30 seconds.

Additional testing, Part 15 Subpart B disclaimer

"CAN Go™" is manufactured as the programmable logic controller using Nordic nRF52840 Bluetooth module and Quectel EC21 cellular radio