Lyft SIT032B Scooter Interface Module User Manual

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Introduction

Module Summary

The Lyft SIT032B module provides wireless connectivity, location, and card reader functionality for the Lyft SCT-03-0-x shared e-scooter.
The module communicates with the controllers inside of the scooter to control motor speed, braking, and lighting; and to report the status of the scooter to an internet application over LTE.
This module is only intended to be used by Lyft for integration into their own products, and will not be sold to other companies or to consumers.
This module should not be used in any other circumstances

External Interfaces

The module exposes five external cables that connect to the shared scooter hardware.
These connectors are the following:

- **Connector 1 (5 pins):** Julet JL-F39-Z508JG Male
- **Connector 2 (4 pins):** Higo Z409BMP Male
- **Connector 3 (2 pins):** JST ZMR-02
- **Connector 4 (3 pins):** JST ZMR-03
- **Connector 5 (3 pins):** JST ZHR-03

Installation Instructions

The Module must only be installed on a host as approved by Lyft in the SCT-03-0-x manufacturing SOP in order to ensure compliance with applicable FCC regulations.
A brief summary of the key electrical and mechanical connections is included below for reference.

Electrical Connections

The connectors on the module must be attached in this order:

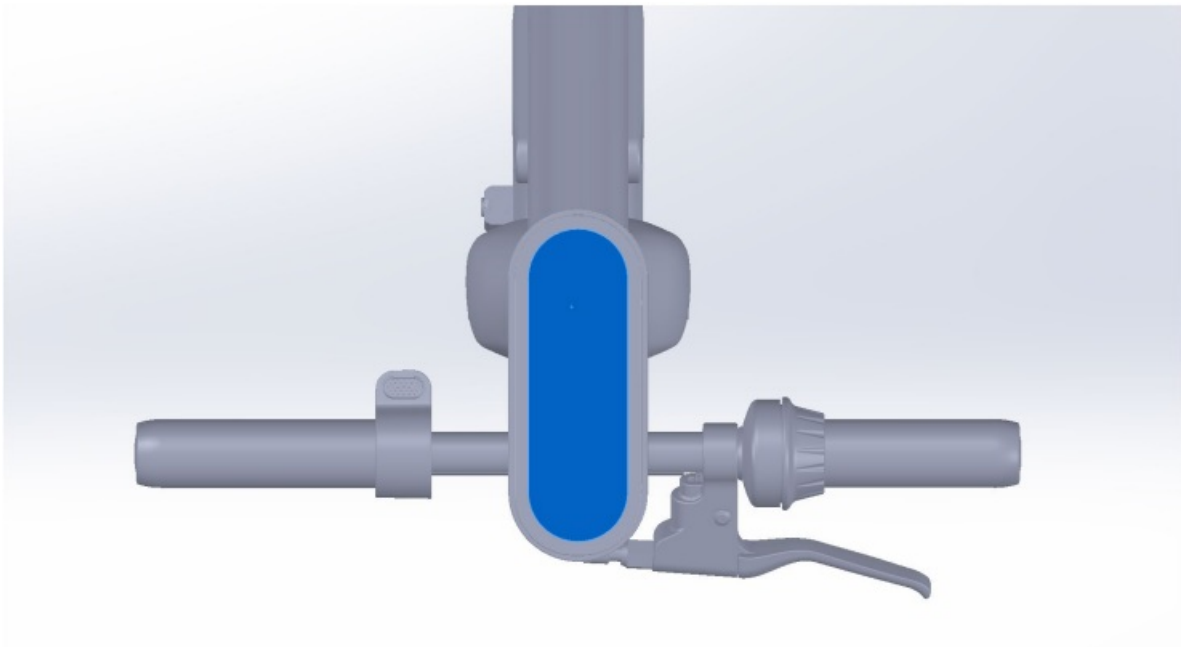
1. Connector 2 (optional)
2. Connector 3
3. Connector 4
4. Connector 5
5. Connector 1

Caution should be observed when plugging in Connector 1, as this applies power to the system.
To prevent damage during bring-up, the Connector 1 power should be disabled while inserting the connector.

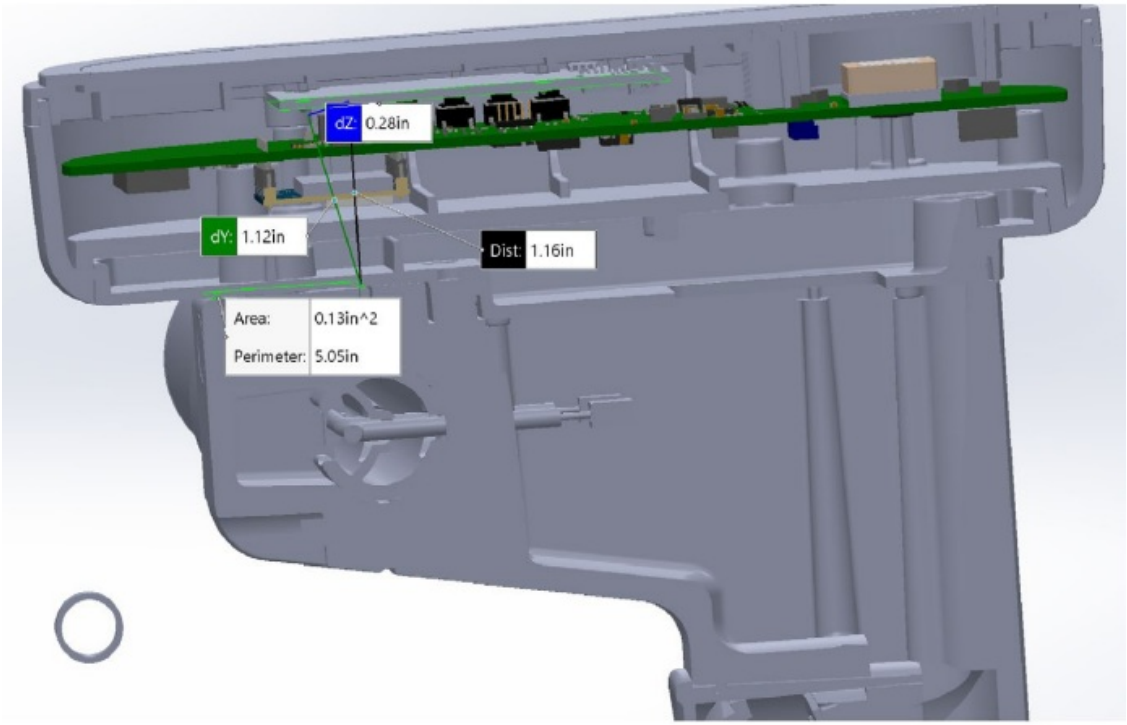
Mechanical Connections

The Module must be mechanically joined to the shared scooter to ensure that the signal and power connectors are securely mated during motion.
Screw threads are provided within the device's housing for secure attachment to the shared scooter base.
The mechanical mount has been designed to mate with a Lyft-designed custom, plastic plate that is affixed to the SCT-03- 0-x handlebar area.

The Module must be mounted by following the Lyft-approved manufacturing SOP in order to ensure that the user is more than 70mm away from all radiating elements.



In addition, the Module must only be mounted to a stem that shares the same stem and handlebar geometry as the SCT-03-0-x in order to ensure that the NFC antenna is isolated from the metal in the scooter handlebar and stem.



Environmental Limits

This module is intended for use in ambient operating temperatures ranging from -20C to 50C.

Operating Conditions

The device is intended for use between -20o C (-4o F) and 50o C (122o F) Electrical Supply:

Parameter	**Typical**
Input Voltage	36V
Operating Current	0.3A Max
Power Draw	10W Max

FCC Notices

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

NOTE: 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.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.
When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

ISED Canada Compliance Statement

This device complies with ISED 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.

Exposure to radio frequency energy: The radiated output power of this device meets the limits of FCC/ISED Canada radio frequency exposure limits.
This device should be operated with a minimum separation distance of 20 cm (8 inches) between the equipment and a person's body.

Documents / Resources

	Lyft SIT032B Scooter Interface Module [pdf] User Manual SIT032B, 2ASMPSIT032B, SIT032B Scooter Interface Module, Scooter Interface Module, Scooter Module