

### **Steamiq 0001101 Communications Module Instructions**

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#### FCC AND ISED MODULE INTEGRATION INSTRUCTIONS

#### LoRa module:

FCC ID: 2AVL60001101 ISED ID: 26726-0001101

PMN: SteamIQ HVIN: 2101

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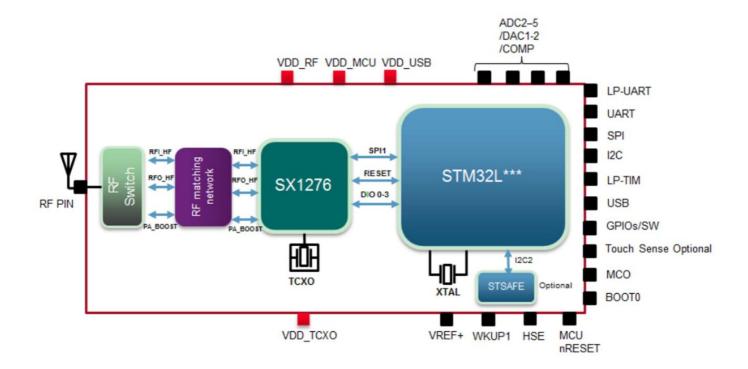
#### Features:

Interfaces: I2C, UART, USB, SPI Main ICs: STM32L082, SX1276

Reference Clocks: Integrated 32MHz clock (TCXO with frequency error=±2 ppm)

and 32.768KHz clock (frequency error=±20 ppm) Supported Frequencies: 915 MHz (902.3 – 914.9 MHz) Module Size: 12.5 mm x 11.6 mm x 1.76 mm (Max) Package: Metal Shield can

#### **Block Diagram:**



#### Specific operational conditions:

Applicable FCC rules: CFR 47 Part 15, Subpart C (15.247)

Applicable ISED rules: RSS-247

Limited module considerations: The module is limited to OEM installation ONLY.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install the module.

The final host product must be submitted to SteamIQ for confirmation that the host+module complies with the regulations of the USA (FCC) and Canada (ISED).

#### Antennas:

The Lora module is for use with external antennas ONLY.

The antenna is Monopole Antenna and the maximum gain is 1.04 dB.

Trace antenna design: not applicable

This module has been approved by FCC to operate with the antenna types 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. Specifically, if an antenna other than the model documented in the filling is used, a Class 2 Permissive Change must be filled with the FCC.

#### Additional testing, Part 15 Subpart B disclaimer

The modular transmitter is only FCC authorized for the specific rule parts listed on the grant, and 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 circuity), then additional Part 15 Subpart B compliance testing is required for the final host product with the modular transmitter installed.

## FCC Regulatory Statements for this module FCC Statements

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 product 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 product 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 product 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 party responsible for compliance could void the user's authority to operate the equipment.

#### RF Exposure considerations:

This equipment should be installed and operated with a minimum distance 20cm between the radiator and your body.

#### Label considerations:

When the FCC ID is not visible when after installation inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can be used as wording: "Contains transmitter module FCC ID: 2AVL60001101" or "Contains FCC ID: 2AVL60001101".

ISED Regulatory Statements for this module

ISED (Canada) Statements

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic

Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

- 1. This device may not cause interference.
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.

Under ISED Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by ISED 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.

When the Industry Canada certification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can be used with the wording "Contains transmitter module IC: 26726-0001101" or "Contains IC: 267260001101".

#### **Documents / Resources**



# Steamiq 0001101 Communications Module [pdf] Instructions 0001101, 2AVL60001101, 0001101 Communications Module, Communications Module

Manuals+,