Broy Engineering Ltd: BRLR01 User Manual **Rev 1.0**
08/2023

This module is based on Semtech 1276 LORA(™) device
16 pin PCB module Acting LORA “modem”
Nominal band 915 Mhz
2.0 to 3.6v VCC
SPI interface to CPU instruction set
- 0-10 power output scaling
- Max power output 10dBM
- Bandwith
- Spreading factor
- Data rate up to 300kps
- 256 byte package with CRC

16mm square PCB module - SMT or Through hole
Lead Free soldering Process
Rohs compliant module
Sensitivity as high as -148dBm

Pin Designation

1	Ground
2	MISO SPI Output
3	MOSI SPI Input
4	SCK SPI Clock
5	NSS SPI Chip Select
6	RESET
7	DIO5 Digital I/O
8	GND
9	ANT 50 ohm antenna pin
10	GND
11	DIO3 Digital I/O
12	DIO4 Digital I/O
13	VCC 3.3v nominal
14	DIO0 Digital I/O
15	DIO1 Digital I/O
16	DIO2 Digital I/O

For further information contact us.
Broy Engineering Ltd
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FCC Caution:

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

IC Caution:

- English:
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-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.

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

- French:
L’émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique 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;
2.L’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps

ATTENTION
This device is intended only for OEM integrators under the following conditions:
1) The antenna must be installed such that 20 cm is maintained between the antenna and users
2) This device and its antenna(s) must not be co‑located with any other transmitters except in accordance with FCC multi‑transmitter product procedures. Referring to the multitransmitter policy, multiple‑transmitter(s) and module(s) can be operated simultaneously without C2P.
3) For all products market in US, OEM has to limit the operation channels in CH0 by supplied firmware programming tool. OEM shall not supply any tool or info to the end‑user regarding to Regulatory Domain change.
USERS MANUAL OF THE END PRODUCT: In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated.
The end user has to be informed that the FCC radio‑frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.
If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of 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.

LABEL OF THE END PRODUCT:
The final end product must be labeled in a visible area with the following " Contains FCC ID: 2A8ACBRLR01". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of 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.