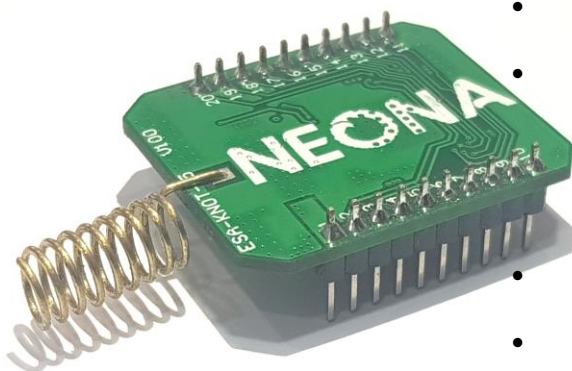


Neona Wi-sun RF 6LoWPAN Module

(28 dBm, V 2.07)

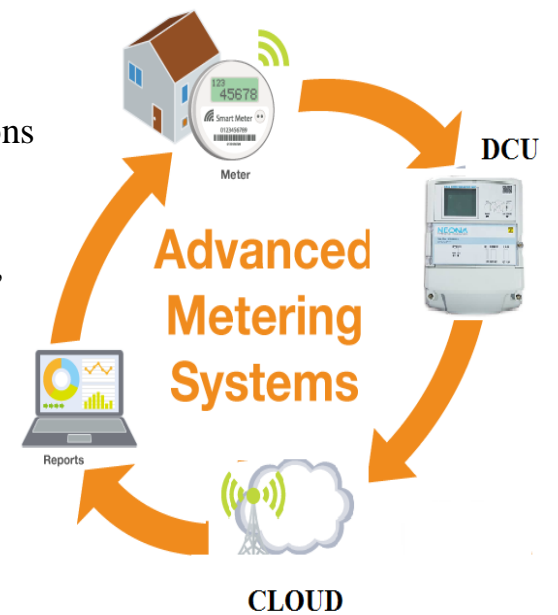
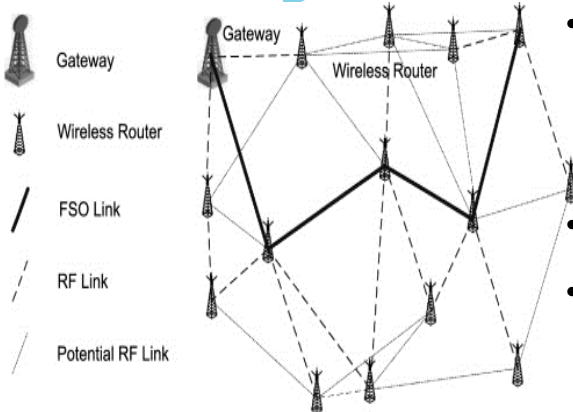
MAIN FEATURES

- Renesas RL78/G1H, 16 bit MCU with integrated sub GHz Transceiver
- Operating Frequency : 860MHz, 865 MHz - 920 MHz
- 2FSK/GFSK, 4FSK/GFSK modulation with support for data rates
 - ❖ 2FSK/GFSK; 10 kbps to 300 kbps
 - ❖ 4FSK/GFSK; 200 kbps/400 kbps
- Factory calibrated High TX Power of up to 28 dBm and RX Antenna diversity
- Industry's lowest power consumption in standby mode (6 mA at 3.3V)
- Complying IEEE 802.15.4e/g Standards developed for 6LoWPAN (IPV6 over Wireless Personal Area Network)
- Support **DLMS** mode of operation (Specially for Energy Metering Application)
- Field tested with 200's of nodes and simulation tested with upto 1000 nodes.
- Simple UART interface for easy OEM integration
- Forward Error Correction (FEC) function
- Low power consumption
 - ❖ RF transmission current: 21 mA (TYP) @3.0 V, 100 kbps, 2FSK, +10 dBm/at STOP mode of MCU
 - ❖ RF receiving current: 6.9 mA (TYP) @3.0 V, 100 kbps, 2FSK/at STOP mode of MCU
- MAC
 - ❖ 32-bit timer function
 - ❖ Transmission RAM/Receiving RAM: both 256 bytes
 - ❖ 16-bit/32-bit auto CRC function
 - ❖ Address filter & auto ACK reply function
 - ❖ Antenna diversity function
 - ❖ Auto CSMA-CA function



APPLICATIONS

- Point-Point and Point-to-Multi Point Applications
- Smart metering and Smart city
- Utility AMR/AMI Network for Electricity, Gas, Water Meters etc., and Wi-SUN Network and 6LoWPAN
- Automatic Street Light Control
- Home Automation Systems



INTERFACE SPECIFICATIONS

- Interface: UART Interface, 115,200, 9600 baud, 2.0mm Pitch
- Operating Voltage 3.3V +/- 10%
- Operating current
 - ❑ Transmission current: 21 mA
 - ❑ Receiving current: 6.9 mA
- Stand by Current 6 mA
- RF Antenna connector Dual UFL

SPRING ANTENNA SPECIFICATION

- Impedance: 50 OHM
- Length 13mm
- Frequency range: 860, 865 - 920 MHz

TECHNICAL SPECIFICATION

Memory : Program Flash 512 KB, Data flash 8 KB, SRAM 48 KB

PHYSICAL SPECIFICATIONS

Mechanical Dimension - (L) 30 mm x (W) 25mm

ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature Range
- -40 deg C to +85 deg C

