



ALMC2483U is a full-size mini PCIe LoRa™ modem module based on Microchip™ RN2483A

The ALMC2483U LoRa™ modem module allows building certified LoRaWAN™ Class A or C end node on any system equipped with standard mini PCIe slot and USB 2.0 interface, using simple ASCII command interface over UART.

Availability of documentation and software, easy to use USB DFU based card's firmware upgrade and large community gathered around LPWAN technologies will help to kick start your next LoRa™ network project.

Key features

- 1 Microchip™ RN2483A LoRa™ modem module
- 2 FTDI™ FT230X USB 2.0 to UART bridge
- 3 6-pin UART header (2.54 mm pitch)
- 4 6-pin ICSP header (2.54 mm pitch)
- 5 IPEX/U.FL antenna connector for 433 MHz band
- 6 IPEX/U.FL antenna connector for 868 MHz band
- 7 mini PCIe form factor with USB 2.0 bus
- 8 2× LED

| | |
|-----------------------------------|---|
| Module | Microchip™ RN2483A |
| Frequency | 863.00 ~ 870.00 MHz (EU) 433.05 ~ 434.79 MHz (EU) |
| Modulation | LoRa™ FSK GFSK |
| TX power | 14 dBm (868 MHz band) 10 dBm (433 MHz band) |
| RX sensitivity | down to -146 dBm |
| Antenna connector | 1× IPEX/U.FL for 868 MHz band (CN1) 1× IPEX/U.FL for 433 MHz band (CN2) |
| Interface | USB 2.0 (FTDI™ FT230X USB 2.0 to UART bridge) |
| LED | 2× |
| Form factor | full-size mini PCIe |
| Operating humidity | 10 % ~ 90 % RH, non-condensing |
| Operating temperature | -40 ° ~ 85 ° C |
| Software and documentation | https://www.microchip.com/wwwproducts/en/RN2483 |

| Top | | Bottom | |
|----------------|-----|----------------|----|
| 1 | NC | 3.3 V | 2 |
| 3 | NC | GND | 4 |
| 5 | NC | NC | 6 |
| 7 | NC | NC | 8 |
| 9 | GND | NC | 10 |
| 11 | NC | NC | 12 |
| 13 | NC | NC | 14 |
| 15 | GND | NC | 16 |
| Mechanical key | | | |
| 17 | NC | GND | 18 |
| 19 | NC | NC | 20 |
| 21 | GND | RN2483A RESET | 22 |
| 23 | NC | 3.3 V | 24 |
| 25 | NC | GND | 26 |
| 27 | GND | NC | 28 |
| 29 | GND | NC | 30 |
| 31 | NC | NC | 32 |
| 33 | NC | GND | 34 |
| 35 | GND | USB 2.0 D- | 36 |
| 37 | GND | USB 2.0 D+ | 38 |
| 39 | NC | GND | 40 |
| 41 | NC | UART TX/RX LED | 42 |
| 43 | GND | UART TX/RX LED | 44 |
| 45 | NC | NC | 46 |
| 47 | NC | NC | 48 |
| 49 | NC | GND | 50 |
| 51 | NC | 3.3 V | 52 |

