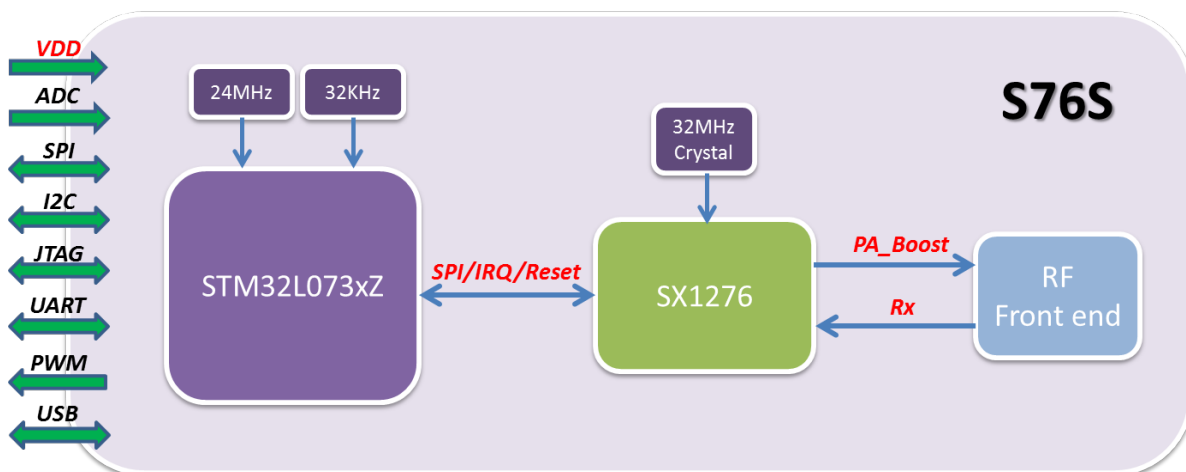


## FEATURE

- Chipset: STM32L073xZ and SX1276
- High performance ARM® Cortex®-M0+ 32-bit RISC core operating at a 32 MHz frequency
- Embedded memories (up to 192 Kbytes of Flash memory and 20 Kbytes of RAM)
- LoRa Modem
- +20 dBm constant RF output vs. V supply
- Programmable bit rate up to 300 kbps
- High sensitivity: down to -137 dBm
- Excellent blocking immunity
- FSK, GFSK, MSK, GMSK, LoRa and OOK modulation
- Packet engine up to 256 bytes with CRC
- Built-in temperature sensor and low battery indicator
- Epoxy molding finished module in LGA type
- Small footprint : 13 mm x 11 mm x 1.1 mm

## S76S Block Diagram



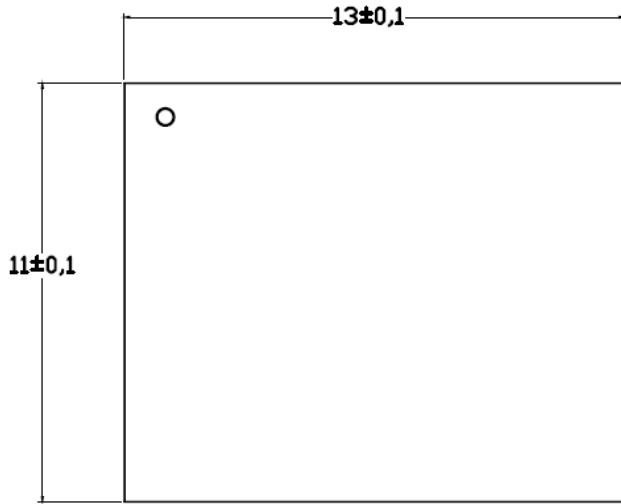
| Technical Specification   |                                     |
|---------------------------|-------------------------------------|
| Model Name                | S76S                                |
| Product Description       | LoRa Wireless Communication Module  |
| Package                   | LGA type                            |
| Host Interface            | UART                                |
| Dimension                 | 13 mm x 11 mm x 1.1 mm              |
| Operation Conditions      |                                     |
| Operating Voltage         | 3.3V                                |
| Temperature               | Storage -50 ~ +105                  |
|                           | Operating -40 ~ +85                 |
| Humidity                  | Operating 10 ~ 95% (Non-Condensing) |
|                           | Storage 5 ~ 95% (Non-Condensing)    |
| Electrical Specifications |                                     |
| Frequency                 | EU868 / US915                       |
| Band Width                | 62.5~500KHz                         |
| Tx Power                  | +20dBm max.                         |
| Sensitivity               | Down to -137dBm                     |

## S76S PIN Definition

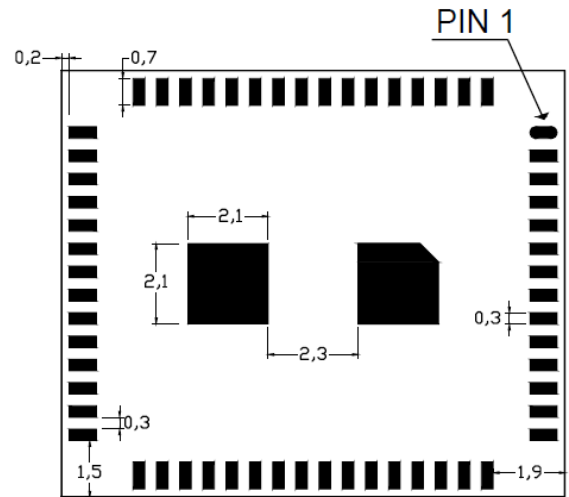
| Pin No. | Pin Name      | Pin No. | Pin Name        |
|---------|---------------|---------|-----------------|
| 1       | NC            | 32      | GND             |
| 2       | GND           | 33      | RF_ANT          |
| 3       | GND           | 34      | GND             |
| 4       | PC0           | 35      | GND             |
| 5       | PC1           | 36      | PA1_RF_FEM_CPS  |
| 6       | PC2           | 37      | GND             |
| 7       | PC3           | 38      | NC              |
| 8       | NC            | 39      | GND             |
| 9       | NC            | 40      | NC              |
| 10      | NC            | 41      | GND             |
| 11      | NC            | 42      | NC              |
| 12      | NRESET        | 43      | VDD             |
| 13      | PA0           | 44      | VDD             |
| 14      | GND           | 45      | PA8_USART1_CK   |
| 15      | GND           | 46      | PA10_USART1_RX  |
| 16      | PA2_TXD_A     | 47      | PA9_USART1_TX   |
| 17      | PA3_RXD_A     | 48      | PA11_USART1_CTS |
| 18      | PA4_SPI1_NSS  | 49      | PA12_USART1_RTS |
| 19      | PA5_SPI1_SCK  | 50      | PA13_SWDIO      |
| 20      | PA6_SPI1_MISO | 51      | PA14_SWCLK      |
| 21      | PA7_SPI1_MOSI | 52      | PC10            |
| 22      | PC4           | 53      | PC11            |
| 23      | PC5           | 54      | PC12            |
| 24      | PB0_IO_INT1   | 55      | PD2             |
| 25      | PB1_IO_INT2   | 56      | PB5             |
| 26      | PC6           | 57      | PB6_SCL         |
| 27      | PC7           | 58      | PB7_SDA         |
| 28      | PC8           | 59      | BOOT0           |
| 29      | PC9           | 60      | PB8_IO_LED_FCT  |
| 30      | RXTX/RFMOD    | 61      | GND             |
| 31      | GND           | 62      | GND             |

## S76S Mechanical Dimension

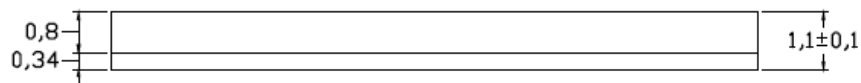
Unit: mm



Top View



Bottom View



Side view

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