Features

System

- Chipset: STM32WLE5xx
- High performance ARM® Cortex®-M4 32-bit RISC core operating up to 48 MHz frequency
- Embedded memories (up to 256 Kbytes of Flash memory and 64 Kbytes of RAM)
- Hardware encryption AES 256-bit
- True random number generator (RNG)
- CRC calculation unit
- Unique device identifier (64-bit UID compliant with IEEE 802-2001 standard)
- 96-bit unique die identifier
- Hardware public key accelerator (PKA)
- 1.8 V to 3.6 V power supply
- –40 ℃ to +85 ℃ temperature range

Clock Source

32 MHz TCXO

32 kHz XTAL for RTC

System peripherals

- 2 DMA, 2 USART, 1 LPUART, 2 SPI, 3 I2C
- RTC wakeup counter, SysTick, Watchdog
- Channel Timer

Radio

- LoRa Modem
- +22 dBm max. RF output vs. V supply
- Programmable bit rate up to 300 kbps
- High sensitivity: down to -136 dBm for LoRa @125kHz, SF12 and -122dBm for 2-FSK @1.2kbps
- Excellent blocking immunity
- Automatic RF Sense and CAD with ultra-fast AFC
- Supports FSK, GFSK, MSK, GMSK, BPSK, LoRa modulation
- Epoxy molding finished module in LGA type
- Small footprint：11 mm x 11 mm x 1.4 mm

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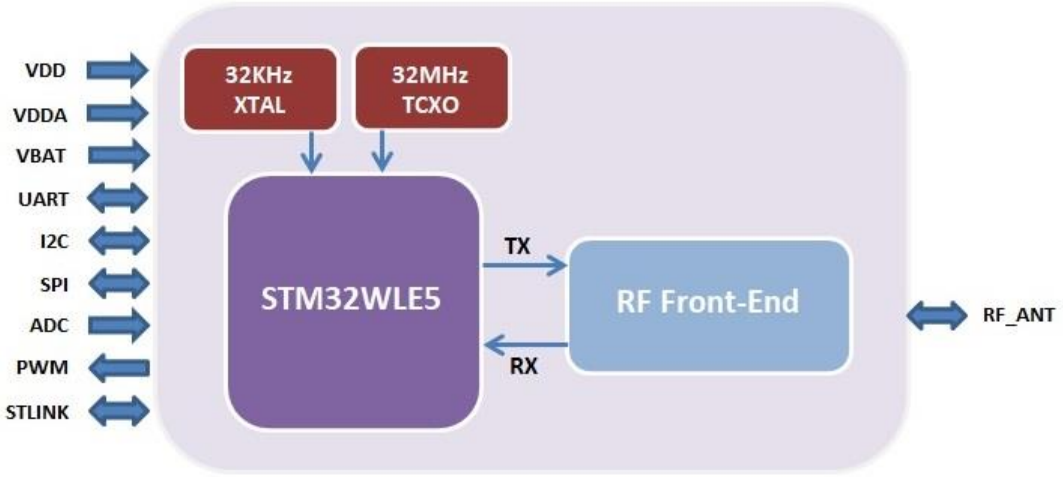
Block Diagram



Technical Specification	
Model Name	EZ55WL
Product Description	LoRa Wireless Communication Module
Package	LGA type
Host Interface	UART
Dimension	11 mm x 11 mm x 1.4 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	779-928 MHz ISM frequency band
Band Width	LoRa® Rx/Tx, BW = 7.8 - 500 kHz
Bit rate	LoRa : BR = 0.013 – 17.4 kb/s, (G)FSK : BR = 0.6 - 300 kb/s
SF	LoRa : SF5 to SF12,
Tx Power	+22dBm max.
Sensitivity	Down to -136dBm

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PIN Definition

Pin No.	Pin Name	Pin No.	Pin Name
1	GND	31	PA8
2	PA13(SWDIO)	32	PA9
3	PA14(SWCLK)	33	NRST
4	PA15	34	BOOT0
5	PB5	35	GND
6	PB4	36	GND
7	PB3	37	RF_ANT
8	VREF+	38	GND
9	VDDA	39	GND
10	VFBSMPS	40	GND
11	GND	41	GND
12	VDD	42	GND
13	VDDSMPS	43	GND
14	VLXSMPS	44	GND
15	PB6	45	PB9
16	PB7	46	PB10
17	PB8	47	PB11
18	PC0	48	PB12
19	PC1	49	PB13
20	PC2	50	PB14
21	PC3	51	PB15
22	PC6	52	GND
23	PA0	53	VDDPA
24	PA1	54	PB1
25	PA2	55	PB2
26	PA3	56	VBAT
27	PA4	57	PA10
28	PA5	58	PA11
29	PA6	59	PA12
30	PA7	60	PC13
61~65	GND		

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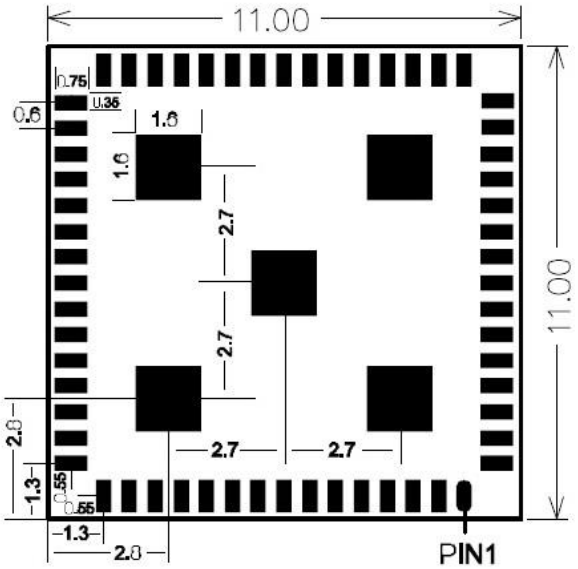
Mechanical Dimension

Unit: mm

Unit : mm

TOP View



Bottom View

Side View

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