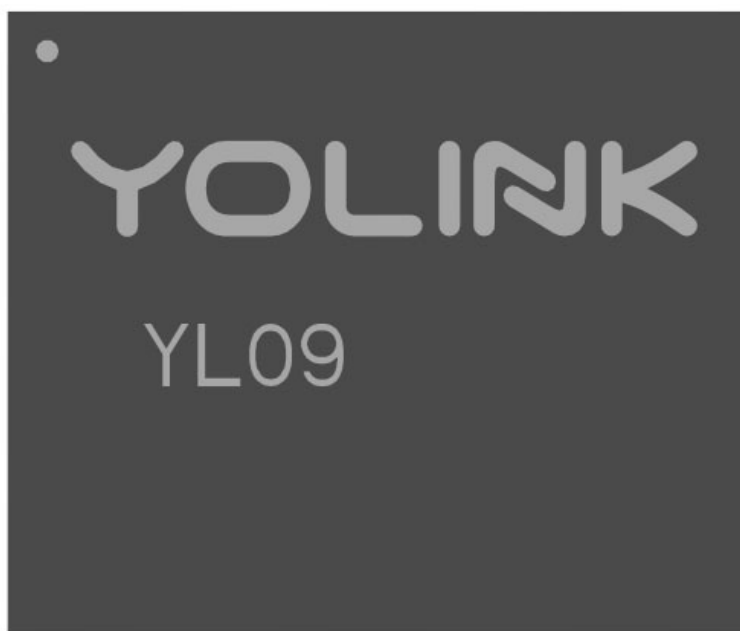# YOLINK

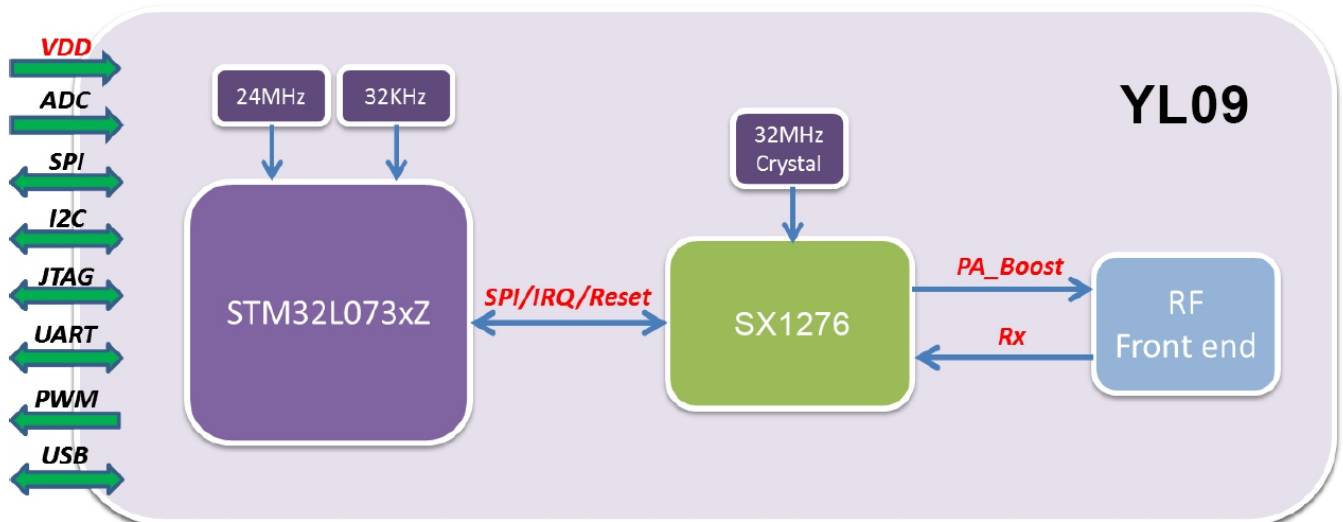# YL09

Product Specification

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 -138 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: 13mm x 11mm x 1.1mm

YL09 Block Diagram

Technical Specifications

Model Name	YL09
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	868 MHZ / 915 MHz
Band Width	62.5~500 KHz
Tx Power	+20 dBm max
Sensitivity	Down to -138 dBm

YL09 PIN Definition

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

YL09 Mechanical Dimension

Unit: mm

Top View

Bottom View

Side View