



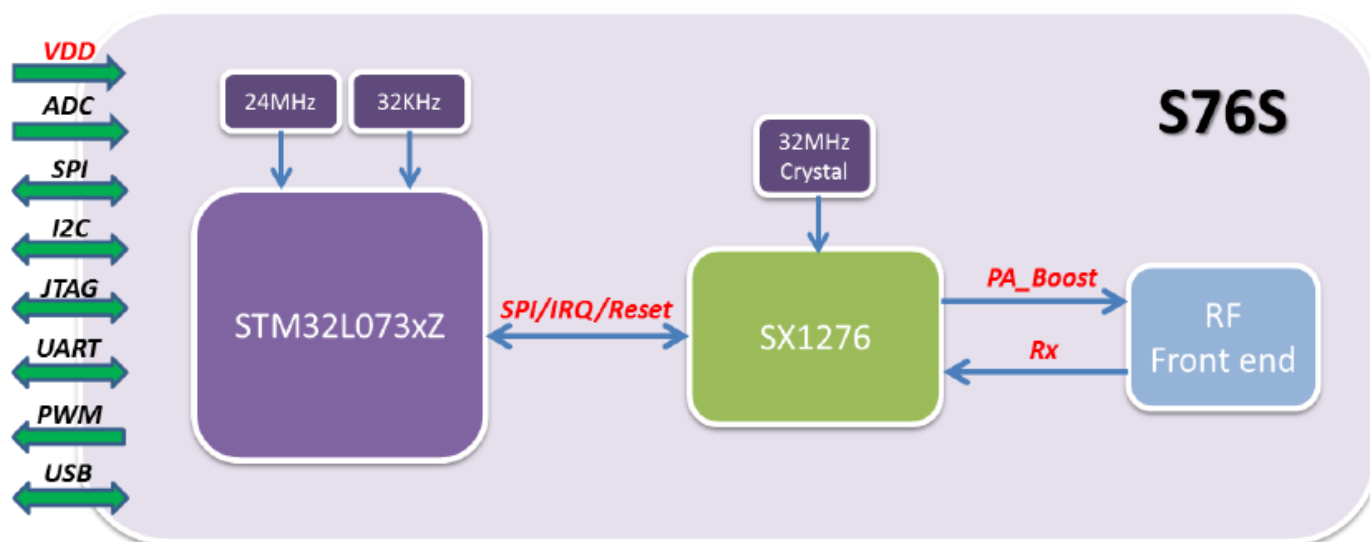
ORMS76S-ID-01

High Performance LoRa Module



Top view

Block Diagram



Feature

- Chipset: STM32L073xZ and SX1276
- +20dBm constant RF output vs. V supply
- High sensitivity: down to 137dBm
- board connection DIP type, 20pin
- FSK, GFSK, MSK, GMSK, LoRa and OOK Modulation
- Packet engine up to 256 bytes with CRC

Maximum Rating

Parameter	Min.	Typ.	Max.	Unit
Input Voltage	-0.3	3.3	3.9	V
Voltage on any digital pin	-0.3		VDD+0.3	V
Operating Temperature	-20		70	Deg. C
Storage Temperature	-50		105	Deg. C

Power Consumption

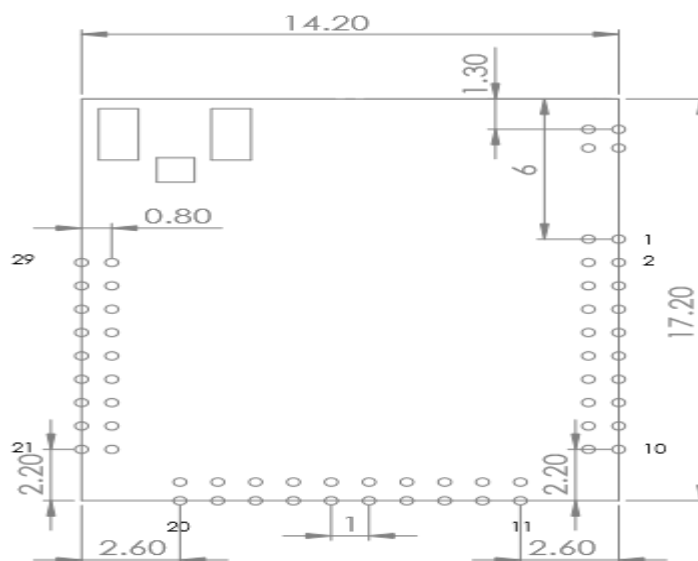
Parameter	Min.	Typ.	Max.	Unit
Rx Mode, -90dBm input		17.5		mA
Tx Mode, +7dBm output		49		mA
Tx Mode, +20dBm output		127		mA
Standby Mode		9	9.6	mA

Radio Performance

Item	Min.	Typ.	Max.
Freq Range (Band 1)		915MHz	
RX Sensitivity, 62.5kHz, SF=12		-137 dBm	
RX Sensitivity, 500kHz, SF=12		-128 dBm	

TX Power Level	18	19.5 dBm	21 dBm
EVM Offset			10%

SMD/DIP Type Dimensions



Pin Definition

Pin	Name	Type	Description
1	GND	Power	
2	RESET_N	Digital Input	Reset, low active
3	PB1	I/O	
4	PB0	I/O	
5	SPI_MI	I/O	
6	SPI_MO	I/O	
7	SPI_CS0	I/O	
8	SPI_CLK	I/O	
9	PA3	I/O	
10	PA2	I/O	
11	GND	Power	

12	PB7	I/O	20 mA drive capability
13	PB6	I/O	20 mA drive capability
14	RXD1	I/O	
15	TXD1	I/O	
16	SWDIO	Debug Data	
17	SWCLK	Debug Clock	
18	VDD	Power	
19	VDD	Power	
20	GND	Power	

ST LINK Interface

Debugger I/O	Z701 I/O
SWDIO	Pin 16
SWCLK	Pin 17