
JXBLE251F512ET32
Module Specification

Ver 1.0.0

2019/8/6

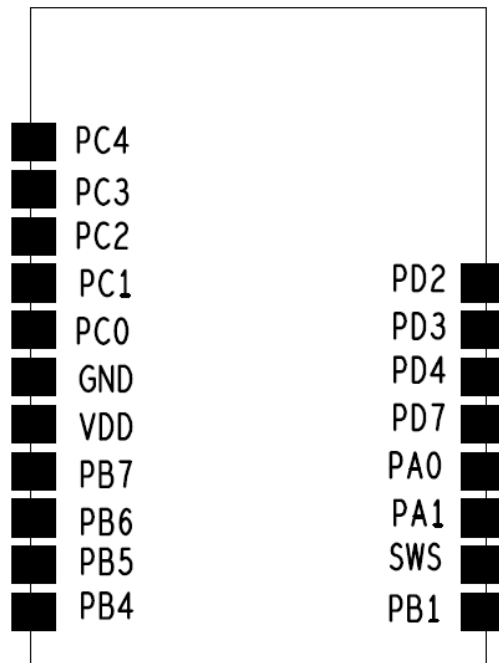
Keyword:

Features; Interfaces; Working modes; Electrical specifications; Reference design;

1.3 Target applications

- ✧ Smartphone and tablet accessories
- ✧ Remote Control and 3D glasses
- ✧ Sports and fitness tracking
- ✧ Wearable devices

1.4 Pins definition



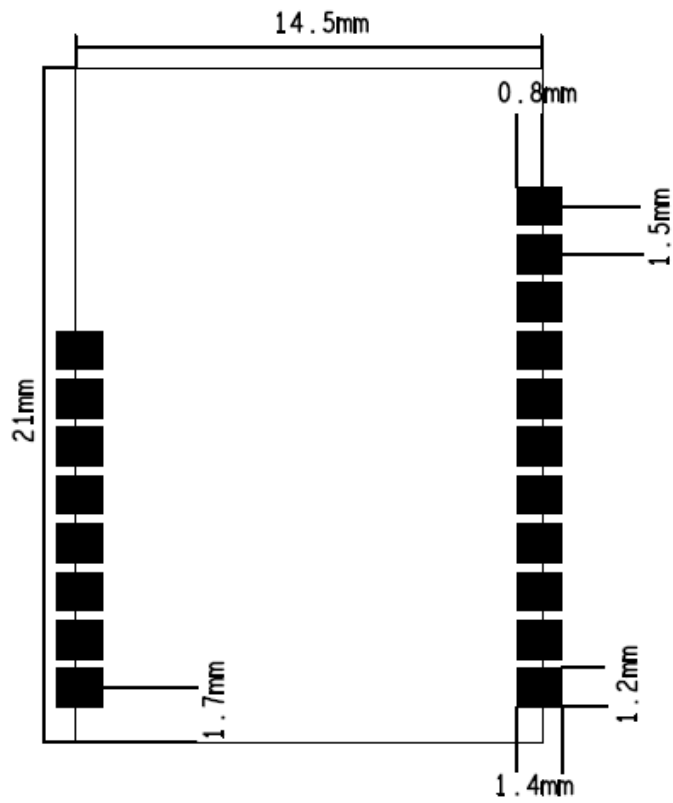
Bottom

Figure 1-1 Module Pins Description

Pin name	Description	Reset
PC4	I/O	PWM2/PON/ADC
PC3	I/O	PWM1/I2C_SCK
PC2	I/O	PWM0/I2C_SDA
PC1	I/O	PWM1/I2C_SCK
PC0	I/O	PWM4/ I2C_SDA
GND	GND	-
VDD	PWR	-
PB7	I/O	SPI_DO/RX/ADC
PB6	I/O	SPI_DI/ADC

PB5	I/O	PWM5/ADC
PB4	I/O	PWM4/ADC
PD2	I/O	SPI_CN/PWM3
PD3	I/O	PWM1
PD4	I/O	SWM/ PWM2
PD7	I/O	SPI_CK
PA0	I/O	PWM0N
PA1	I/O	-
SWS	I/O	PA7
PB1	I/O	PWM4

1.5 Module pins size



Top

Figure 1-2 Module pins size

2 Key Electrical Specifications

2.1 Absolute maximum ratings

Table 2-1 Absolute Maximum Ratings

Characteristics	Sym.	Min.	Max	Unit	Test Condition
Supply Voltage	VDD	-0.3	3.6	V	All AVDD, DVDD and VDD_IO pin must have the same voltage
Voltage on Input Pin	V _{In}	-0.3	VDD+0.3	V	
Output Voltage	V _{Out}	0	VDD	V	
Storage temperature Range	T _{Str}	-65	150	°C	
Soldering Temperature	T _{Sld}		260	°C	

CAUTION: Stresses above those listed in “Absolute Maximum Ratings” may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied.

2.2 Recommended operating condition

Table 2-2 Recommended operation condition

Item	Sym.	Min	Typ.	Max	Unit	Condition
Power-supply voltage	VDD	1.8	3.3	3.6	V	All AVDD, DVDD and VDD_IO pin must have the same voltage
Supply rise time (from 1.6V to 1.8V)	t _R			10	ms	
Operating Temperature Range	T _{Opr}	-40		85	°C	ET version
		-40		125	°C	AT version

3 FCC Test Result

No.	Test Items				Test Result
FCC (DUT FW: EMI binary file)					
1	Tx Peak Power Output - field strength				Pass
	RF Channel	2.402GHz	2.440GHz	2.480GHz	
	dBm	11.5	11.32	11.5	
2	Tx Power Spectral Density				Pass
	RF Channel	2.402GHz	2.440GHz	2.480GHz	
	dBm@100kHz	10.77	10.5	10.6	
	dBm@3kHz	-4.46	-4.73	-4.63	
3	Tx Minimum 6dB Bandwidth				Pass
	RF Channel	2.402GHz	2.440GHz	2.480GHz	
	MHz	770	770	770	
4	Tx Band Limit				Pass
	Frequency	30MHz ~ 2400MHz	2483.5MHz ~ 25GHz	-	
	dB@100kHz	-50	-50	-	
5	TX Mode Harmonic (Radiated), Peak				Pass
	Frequency	4900MHz	7350MHz	9800MHz	
	dBm@1MHz	-41.7	-50	-45	
6	TX Mode Harmonic (Radiated) 1-25GHz, Average				Pass
	Frequency	4900MHz	7350MHz	9800MHz	
	dBm@1MHz	-61	-43.7	-58	
7	Tx Radiated emission 30-1000MHz, Peak				Pass
	Frequency	475MHz	-	-	
	dBm@100kHz	-51.5	-	-	
8	Tx Radiated emission >1GHz, Average				Pass
	Frequency	2.1GHz	7.35GHz	-	
	dBm@100kHz	-47.6	-42	-	
9	RX Mode Spurious Emission (25MHz ~ 25GHz)				Pass
	Frequency	432MHz	-	-	
	dBm@100kHz	-55.2	-	-	