



# Ai-WB2-13 Specification

Version V1.1.2

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Manufacturer: Shenzhen Ai-Thinker Technology Co., Ltd

Model: Ai-WB2-13

## Document resume

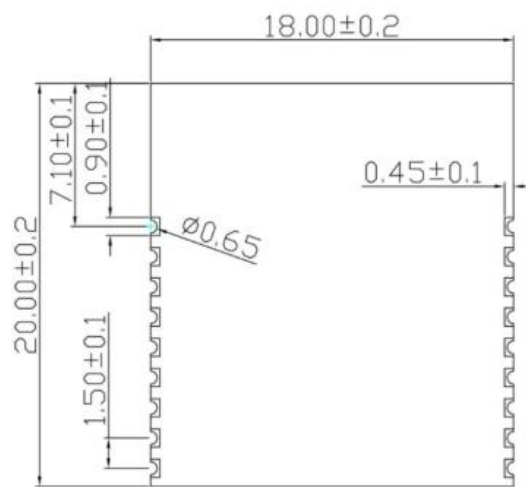
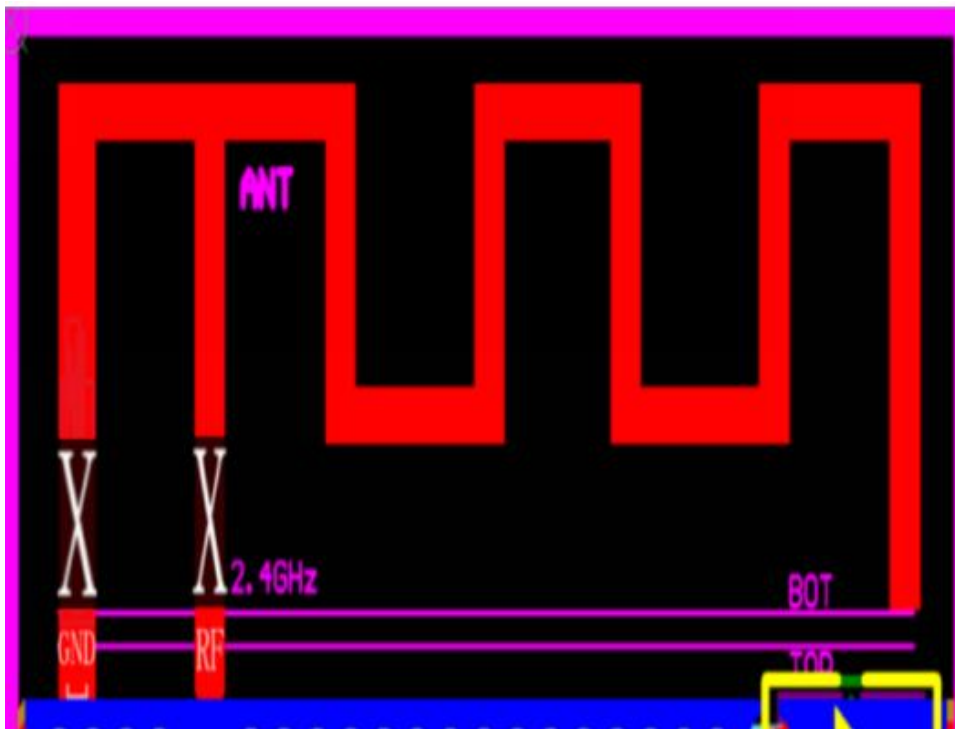
Version	Date	Develop/revise content	Edition	Approve
V1.1.0	2022.6.20	First Edition	NanNan Yuan	NingGuan
V1.1.1	2022.7.21	Update Rendering Figure	NanNan Yuan	NingGuan
V1.1.2	2022.10.31	Add RF OTA parameters	NanNan Yuan	NingGuan

## 1. Main parameters

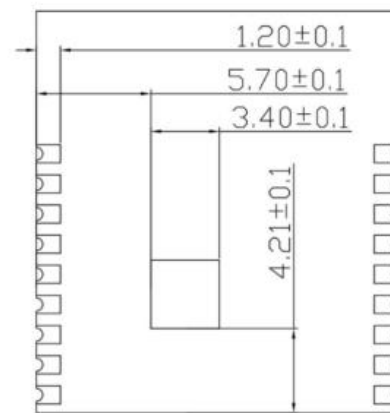
Table 1 Description of the main parameters

<b>Model</b>	Ai-WB2-13
<b>Package</b>	SMD-18
<b>Size</b>	20.0*18.0*3.1(±0.2)mm
<b>Antenna</b>	on-board PCB antenna
<b>Frequency</b>	2400 ~ 2483.5MHz
<b>Operating temperature</b>	-40°C ~ 85°C
<b>Storage temperature</b>	-40°C ~ 125°C, < 90%RH
<b>Power supply</b>	Support voltage 2.7V ~ 3.6V, supply current ≥500mA
<b>Interface</b>	UART/GPIO/ADC/PWM/I2C/SPI
<b>IO</b>	11
<b>UART rate</b>	Default 115200 bps
<b>Security</b>	WPS/WEP/WPA/WPA2 Personal/WPA2 Enterprise/WPA3
<b>Flash</b>	Default 4MByte, Support expansion

## 2. Appearance Dimensions

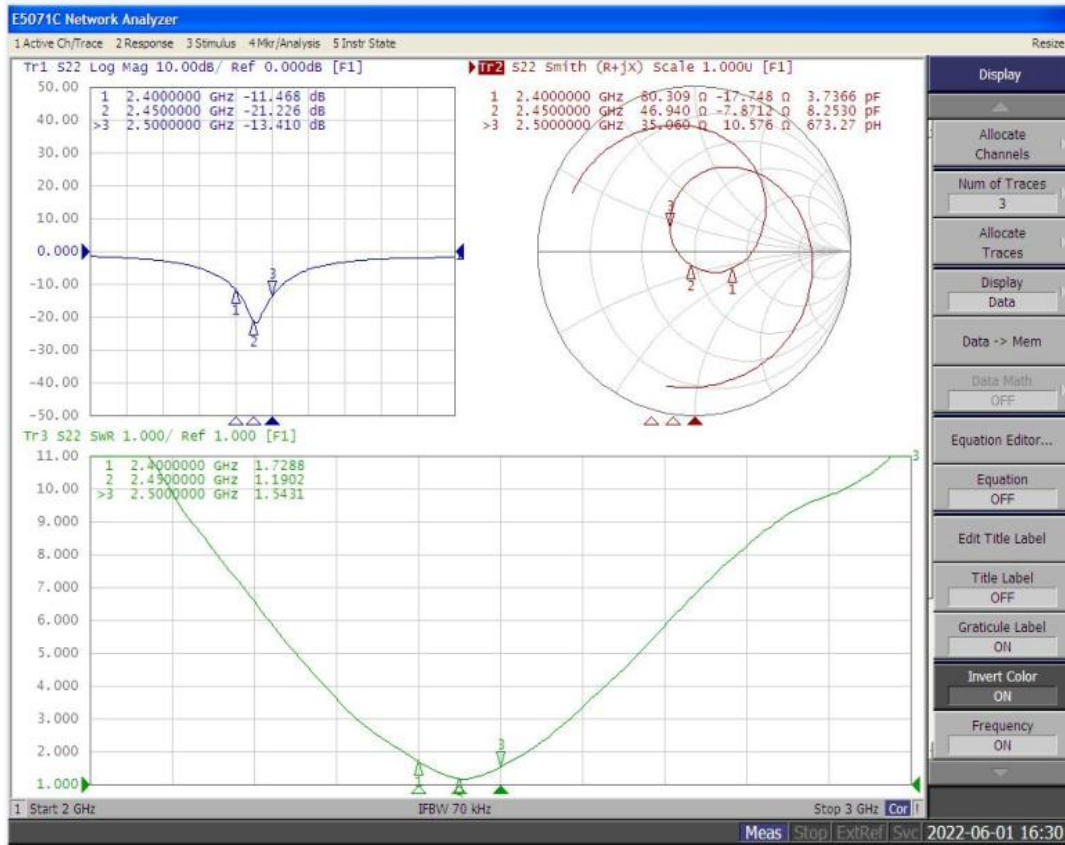


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## 3. Antenna S parameter



## 4. Antenna Gain and Efficiency

Table 7 Antenna Gain and efficiency

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.36	2.38	2.15	2.25	2.06	2.49	2.46	2.44	2.42	2.13	2.30
Efficiency (%)	70.35	70.39	67.97	69.50	65.53	71.32	70.92	69.44	67.91	61.87	61.11

## 5. Antenna pattern

