

Antenna specification

Antenna Sample Confirmation From

Name of supplier	ShenZhen Aihui Technology Co. , Ltd				
Customer name	YI Heng Ke				
Sample name	C2				
model					
Sample size	Main antenna: E6-WIFI-AH Cable length: 105mm 1.13 Black Double-ended soldered wire Auxiliary antenna: E6-BT-AH Cable length: 70mm 0.81 Gray Double-ended soldered wire				
Inspection item	Performance test	Visual inspection	Structure	In the news	Test results
Notes					
Quality Audit		Project Audit		Business confirmation	

Shenzhen Aihui Technology Co. , Ltd.

The following is to be completed by the client	
Customer feedback	
Customer signature/seal	date:

Antenna Test Report

Test Unit: Shenzhen Aihui Technology Co. , Ltd.

Materials	FPC		
Antenna form	PIFA	Polarization mode	Linear
Application scenario	Wifi /BT		
Working band	WIFI/BT	VSWR	≤ 2
Power	Max: 2W	Impedance	50 Ω
dBi			
Test Equipment	HPE5071C、Shielding Room、3D automatic turntable		

Antenna Description::

1. Grounding processing and picture description: no

2. Need to change the motherboard to match: no

- Test voltage: 3.6V, check the antenna contact is good before testing.
- The RF cable of the integrated tester is kept in a natural state and can not be curled.

Specification:test the specified power level, all indicators must conform to the specifications.

1.Project Image

2.Test Fixture

3.Antenna matching circuit

4.S11 test

5.Antenna passive efficiency and gain

6.Darkroom test equipment and data

7.Schematic diagram of antenna assembly

8.Antenna environment handling

9.Antenna mass production index

10.Structural drawing

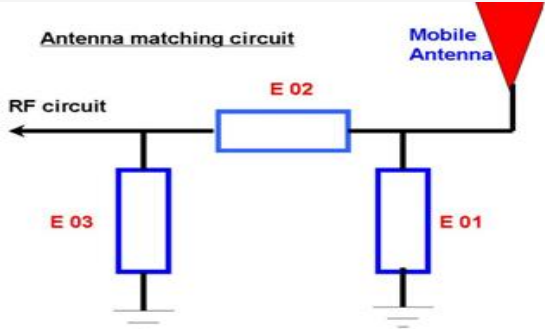
1.Project Image

The final verification antenna performance prototype in our company for at least one year, easy to analyze and solve the problem of antenna mass production, to ensure the quality of antenna shipment

2.Test Fixture

Objective: to test the passive parameters of antenna as accurately as possible. Making Method: the handset is made of a 50 ohm coaxial cable, one end of which is connected to the test point of the back end of the matching circuit of the handset motherboard (front end of the RF test hole) , and the other end is connected to the SMA joint. The diagram is as follows:

3、Antenna matching circuit



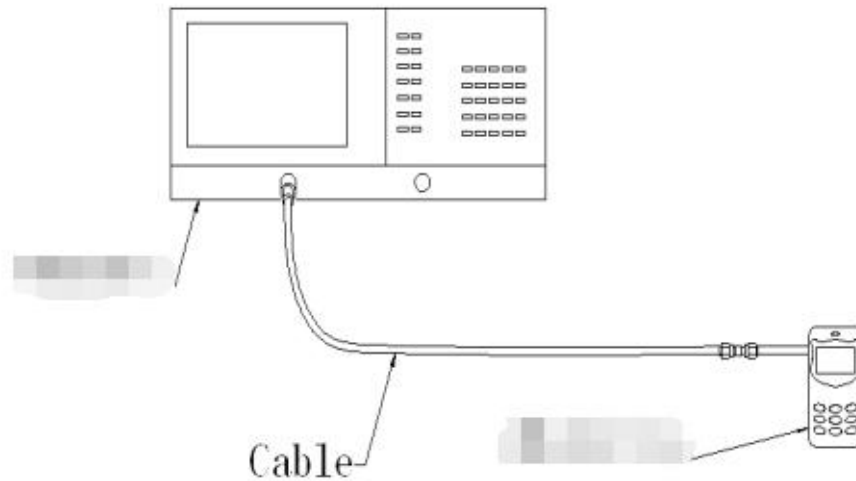
Modify

E01	E02	E03
No	No	No

Note: The match is unmodified.

4.S11 test

4.0 4.0s11 test method description of test equipment: Network Analyzer (E5071C) test method: a 50 ohm CABLE is used to export from the instrument test port. The SMA connector for connecting the handset is calibrated using a calibration piece, record the echo loss and standing wave ratio corresponding to the relevant frequency points. The test schematic is as follows:

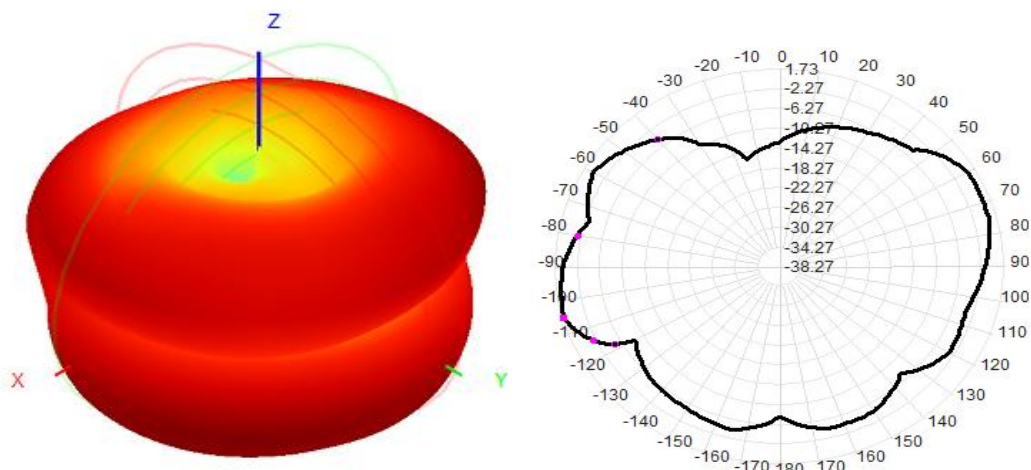


5.Darkroom test equipment and data

Frequency Band	2.4G-WIFI B模			2.4G-WIFI G模		
channel	L	M	H	L	M	H
TRP	16.85	17.44	17.14	16.36	16.44	16.52
TIS	-84.89	-83.52	-81.44	-71.52	-71.41	-70.63
Frequency Band	2.4G-WIFI N模			5.8G-WIFI A模		
channel	L	M	H	L	M	H
TRP	15.85	16.41	16.25	14.24	14.44	13.52
TIS	-69.63	-69.88	-69.74	-74.44	-74.25	-70.54

WIFI&BT

Test data:		
WIFI 2.4G		
Freq(MHz)	Efficiency (%)	Gain (dBi)
2400	54.63	1.62
2410	56.32	1.52
2420	54.25	1.42
2430	57.63	1.65
2440	58.82	1.48
2450	56.39	1.73
2460	57.15	1.25
2470	55.42	1.33
2480	55.36	1.42

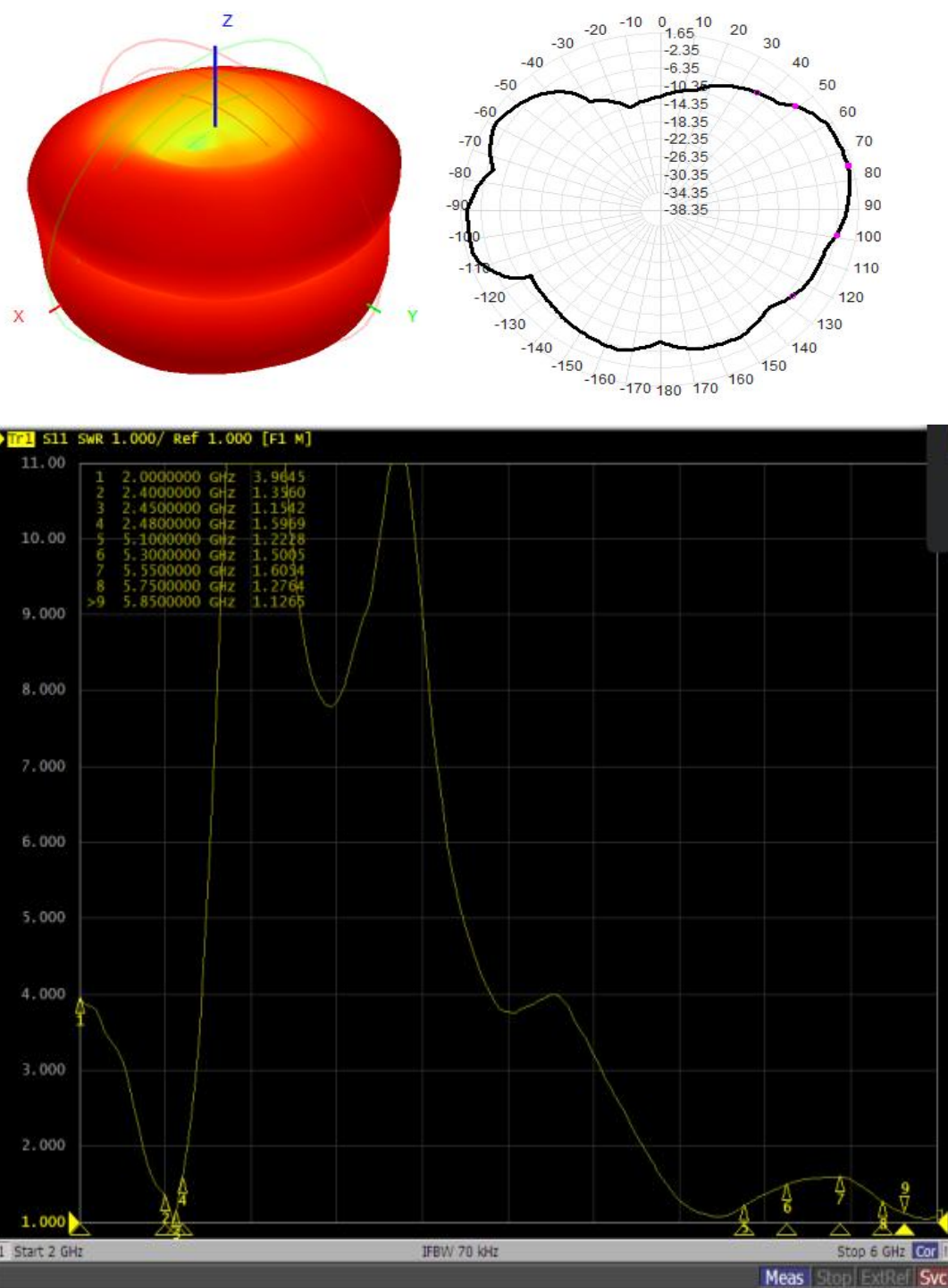


Test data:

WIFI 5.8G

Freq(MHz)	Efficiency (%)	Gain (dBi)
5000	54.91	1.40
5100	55.36	1.52
5200	56.19	1.44
5300	57.06	1.65
5400	58.28	1.63
5500	57.15	1.26
5600	56.36	1.48
5700	55.91	1.35
5800	54.85	1.52
5850	52.36	1.47

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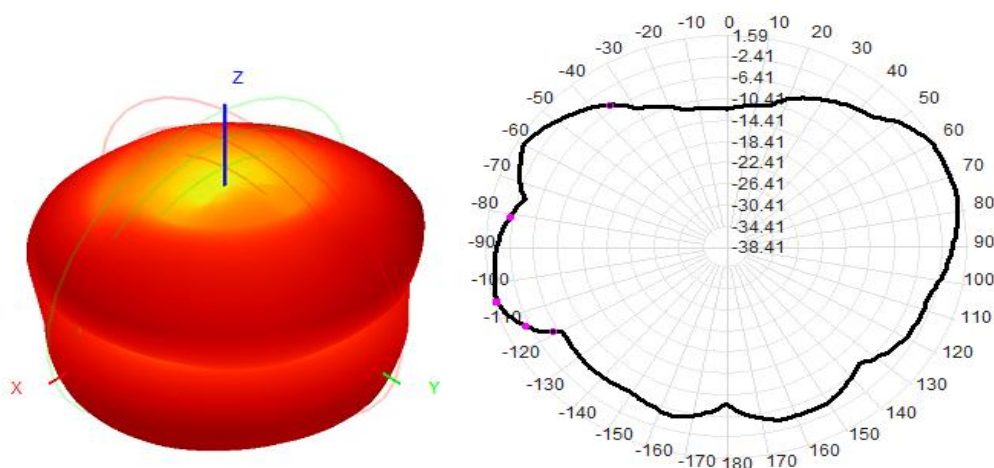


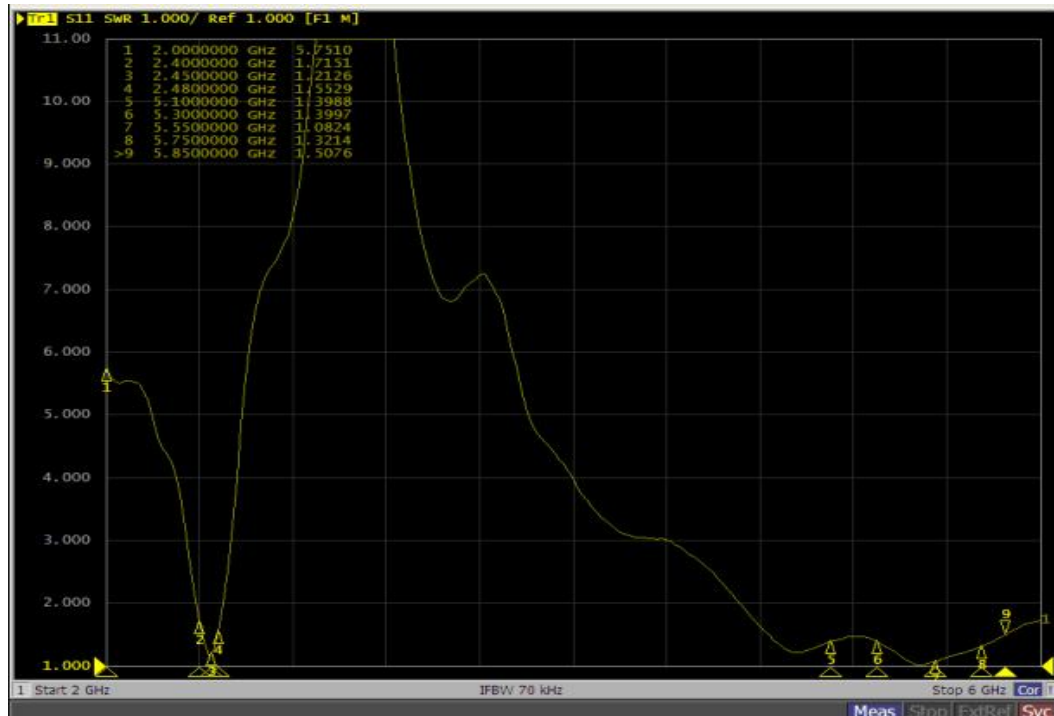
Address: 402TEL: 0755-23203435fax: 0755-23203435, Block C, Juxin Science and Technology Industrial Park, Nanchang community, xixiang, Baoan District, Shenzhen

Test data:

BT 2.4G

Freq(MHz)	Efficiency (%)	Gain (dBi)
2400	57.44	1.06
2410	58.16	1.11
2420	56.35	1.28
2430	54.82	1.35
2440	57.63	1.44
2450	58.16	1.59
2460	59.40	1.52
2470	55.25	1.47
2480	56.32	1.30



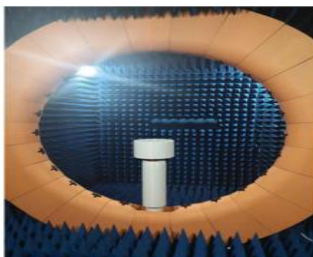


6. Test Equipment

Test system: shielded darkroom

The temperature was $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and the humidity was $50\% \pm 15\%$

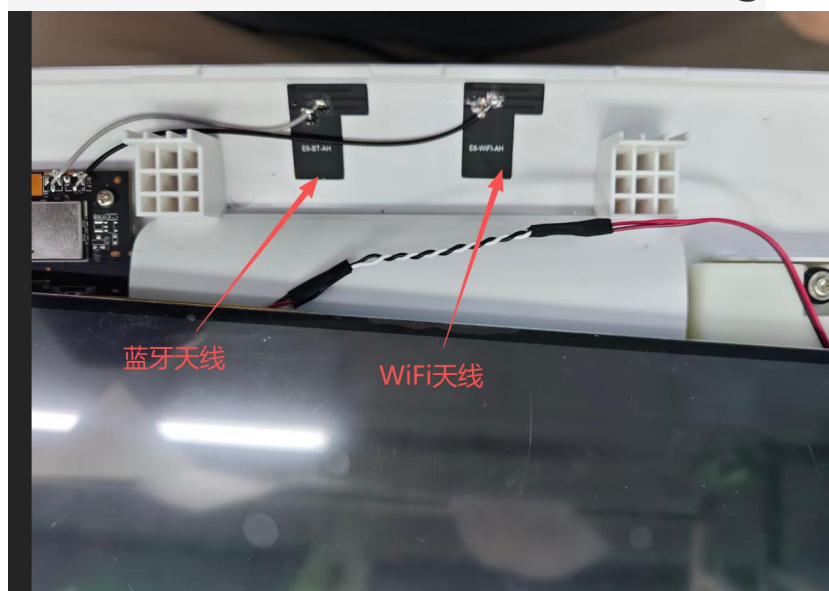
Test equipment: when testing passive data, use the Network analyzer AGILENTE5071C to test active data, use the omnibus CMW500



and

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7. Antenna environment handling



8. Antenna mass production index

When the antenna is mass-produced, the standing wave ratio is taken as the mass-produced test standard.

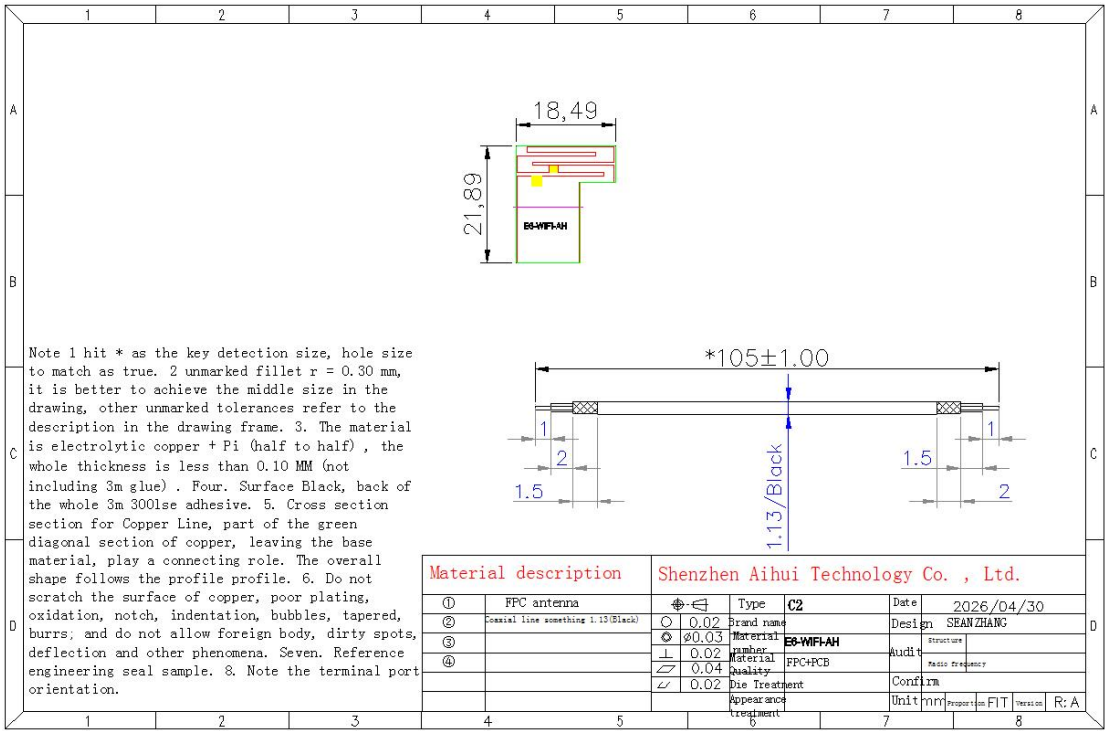
Based on the differences of the project itself, the following criteria are given:

Frequency	Standard for volume production
2400 MHZ -2500MHZ	VSWR (Mass Production performance) & LT; VSWR(recognition performance) 0.5

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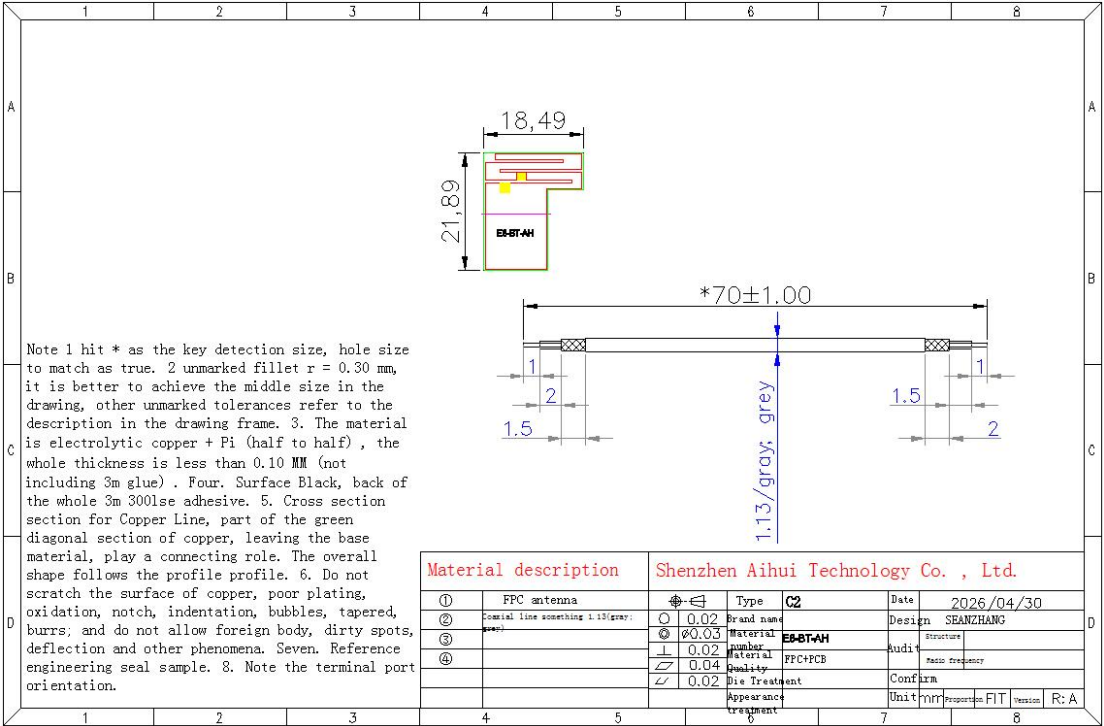
5100 MHZ -5850MHZ	VSWR (Mass Production performance) & LT; VSWR(recognition performance) 0.5
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9.Structural drawings



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