



SPECIFICATION FOR APPROVAL

Customer Name Edan

Customer P/N.

Product Description IM20 WIFI 2.4G/5G ANT

BGS P/N LBS-020A (RA version)

Manufacturer Shenzhen bogesi communication technology co.,ltd

Approve Date 2026/9/15

BGS Sign and Seal	Customer Sign and Seal

Note: 1. After the electronic file or paper file that has been stamped by BGS and was provided to the customer,, the customer need to sign the paper or electronic file of the approval back to BGS before place the formal order to BGS. If there is no formal change or change notice, BGS acqu iesce that the customer approvel and accept this specification of product .

2. The relevant intellectual property rights of this product are owned by Shenzhen Bogesi Communication Technology Co., Ltd. Without the permission of our BGS, please do not apply for patent rights for this product in other names, and please do not disclose this product and related information to others or provide to third-party for viewing and use.



1. Antenna Specification

1.1: Electrical Specification	
Freq.Range (MHz)	2400-2500; 5150-5850
Impedance (Ω)	50
VSWR	≤ 3
Directional	Omni directional
Polarization	Linear
Gain (dBi)	2400-2500MHz: $0.58\text{dBi} \leq \text{gain} \leq 2.17\text{dBi}$
	5100-5825MHz: $0.13\text{dBi} \leq \text{gain} \leq 2.43\text{dBi}$
1.2: Mechanical Specification	
Material	FPC+FR4
RF Cable Type	RF1.13
Connector Type	second-generation terminal
1.3: Environmental Specification	
Operation temp	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Storage temp	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$



3.Test Report

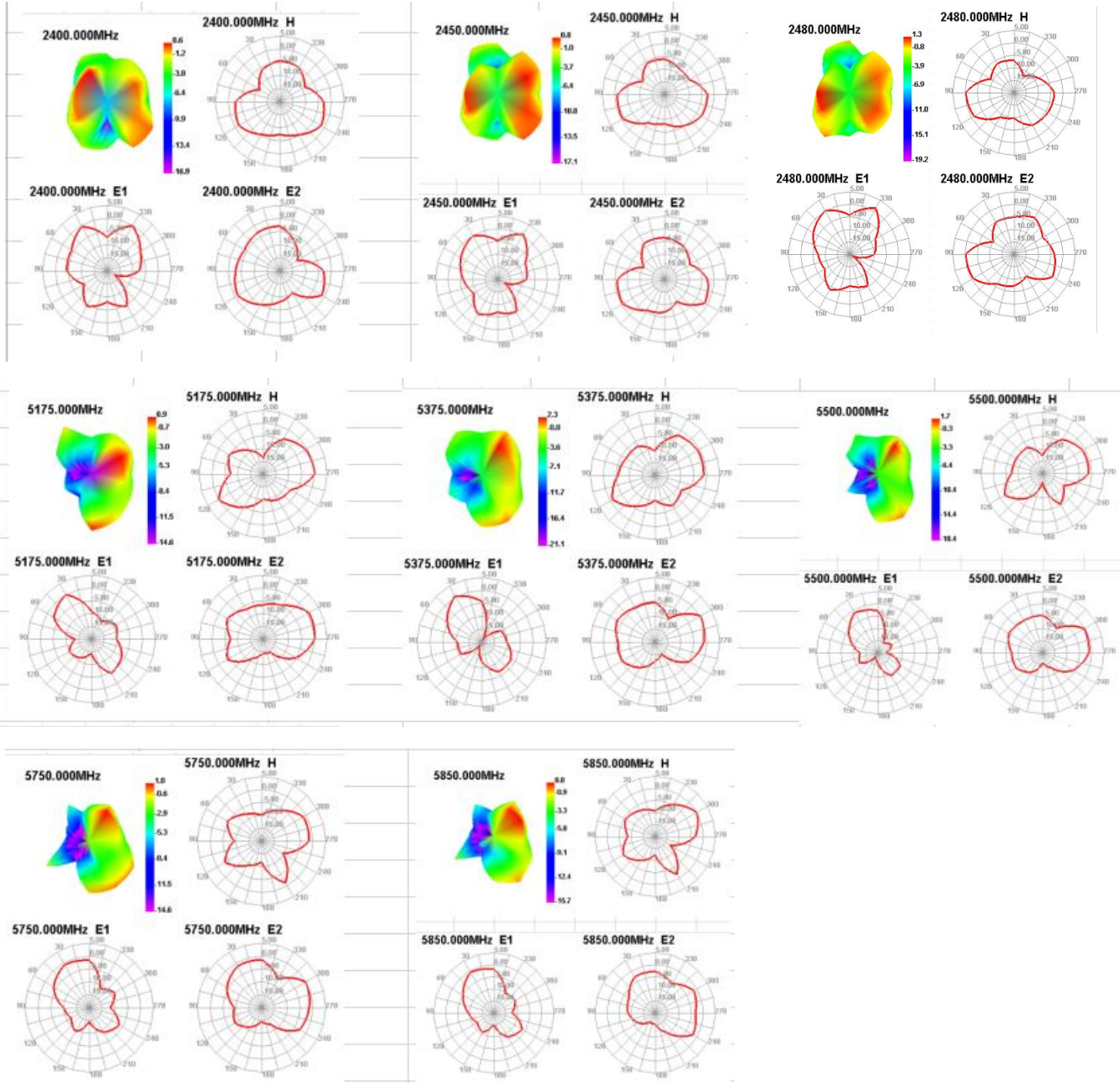
3.1: Active test data

Band	Channel	TRP	TIS
		11g/6M	11g/54M
2.4G	Low	10.14	-60.19
	Mid	13.76	-56.13
	High	10.32	-62.73
5G	Low	8.1	-65.07
	Mid	7.3	-65.48
	High	7.18	-65.52

3.2: Antenna efficiency and gain

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	46.6	0.58	5100	42.52	1.85	5475	44.16	2.33
2410	47.83	1.04	5125	42.93	2.01	5500	42.66	1.66
2420	48.5	1.35	5150	41.64	1.26	5525	41.66	1.99
2430	48.6	0.78	5175	37.89	0.89	5550	39.94	1.57
2440	49.01	1.48	5200	39	1.01	5575	38.6	1.64
2450	48.64	0.8	5225	38.85	1	5600	38.96	1.47
2460	49.1	1.2	5250	35.18	0.13	5625	37.16	1.34
2470	48.4	1.42	5275	39.78	1.61	5650	35.34	0.47
2480	47.96	1.27	5300	40.37	1.21	5675	38.24	1.24
2490	50.54	2.17	5325	38.39	0.89	5700	36.38	0.65
2500	49.87	2.06	5350	39.63	1.99	5725	37.26	0.9
			5375	41.71	2.29	5750	37.25	0.98
			5400	40.65	1.39	5775	36.6	0.79
			5425	42.7	2.04	5800	34.3	0.69
			5450	43.57	2.43	5825	35.99	0.78

3.3: Directional diagram

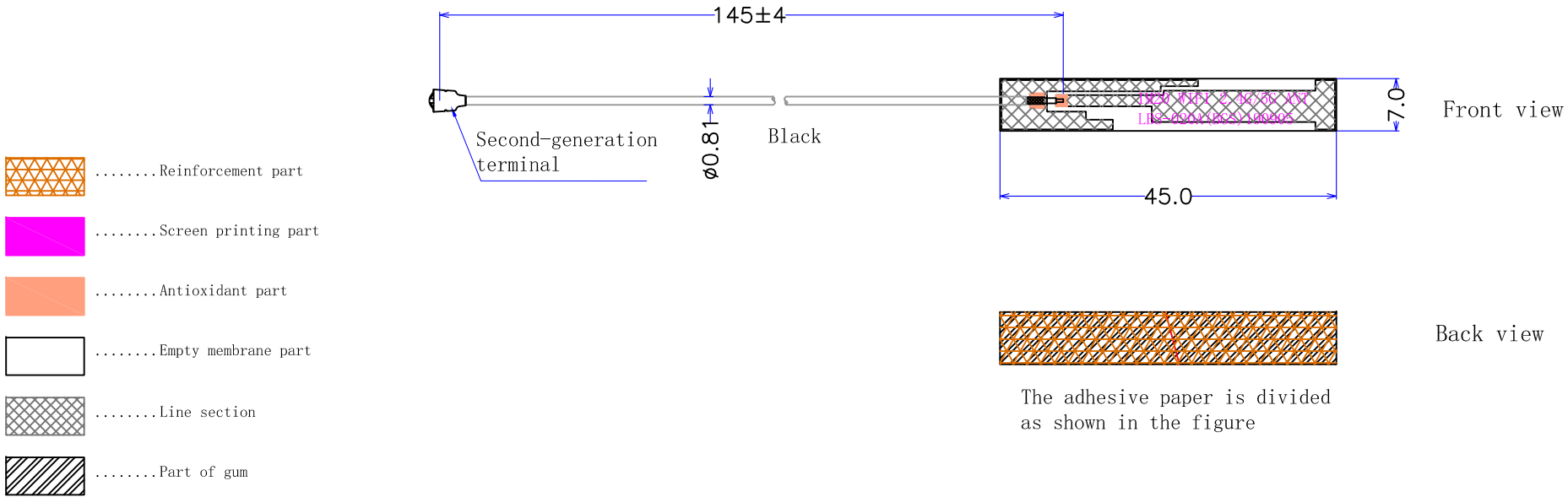


A

B

C

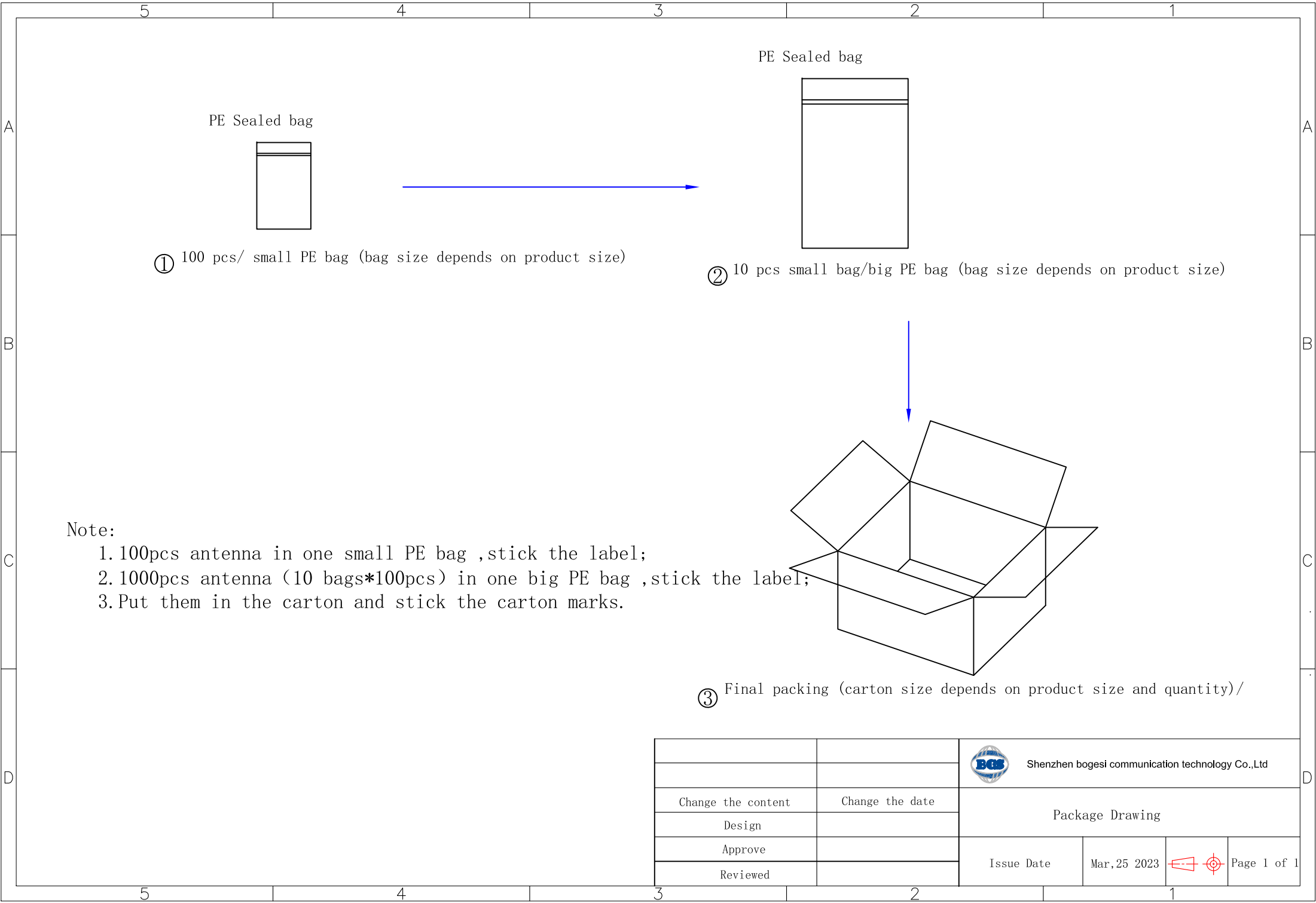
D



1. Pack one small package for every 100 antenna components, then pack another large package for every 10 small packages, and finally pack them into boxes;
2. If there is an addition of "." or ".." in the silk screen content, it is used by our company to distinguish suppliers
- Logo, but the product performance, material, and processing technology are completely the same;

②	LBS-020A-01A	FPC	FPC+FR4, Spray black oil on the front, anti-oxidation feed point, single-sided adhesive backing	1
①	LBS-020A-20J	Cable	0.81MM, Black, one end stripped and plated, one end Second-generation terminal	1
NO.	PART NO.	NAME	DESCRIPTION	QT'Y

		 Shenzhen Bogesi Communication Ttechnology co.,ltd			
Modify content		Modify date		Product NO.	LBS-020A
		Designer		Client NO.	\
limits of tolerance; Others less than ± 0.2		Auditing		Part name	Antenna
		Approve		Publish date	2019-10-16
				Material is qualitative	FPC/Cable
				Version of this	RA
				Item no.	LBS-020
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① 100 pcs/ small PE bag (bag size depends on product size)

② 10 pcs small bag/big PE bag (bag size depends on product size)

Note:

- 1.100pcs antenna in one small PE bag ,stick the label;
- 2.1000pcs antenna (10 bags*100pcs) in one big PE bag ,stick the label;
- 3.Put them in the carton and stick the carton marks.

③ Final packing (carton size depends on product size and quantity)/

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Change the content	Change the date	Package Drawing			
Design					
Approve					
Reviewed		Issue Date	Mar,25 2023		Page 1 of 1