

SPECIFICATION FOR APPROVAL

Customer Name	Beijing Shenzhou Anfu Technology Co.,Ltd
Customer P/N.	123020067-12
Product Description	AF980 4G MAIN
BGS P/N	AFB-061A （ver.RA）
Manufacturer &Address	Shenzhen bogesi communication technology co.,ltd &Room B308, Building B, Saibainuo GMP Factory, No. 19, Keji Middle 1st Road, Maling Community, Yuehai Street, Nanshan District, Shenzhen City

BGS Sign and Seal/	Customer Sign and Seal

Change the content	Version	Date
first edition	RA	2025/8/13

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.

2025/8/13

Directory

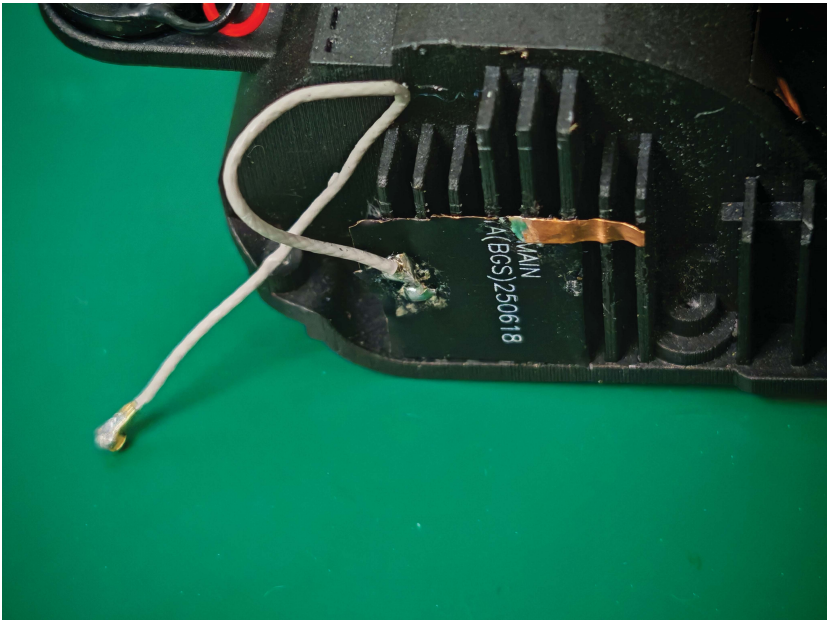
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1.Antenna Specification

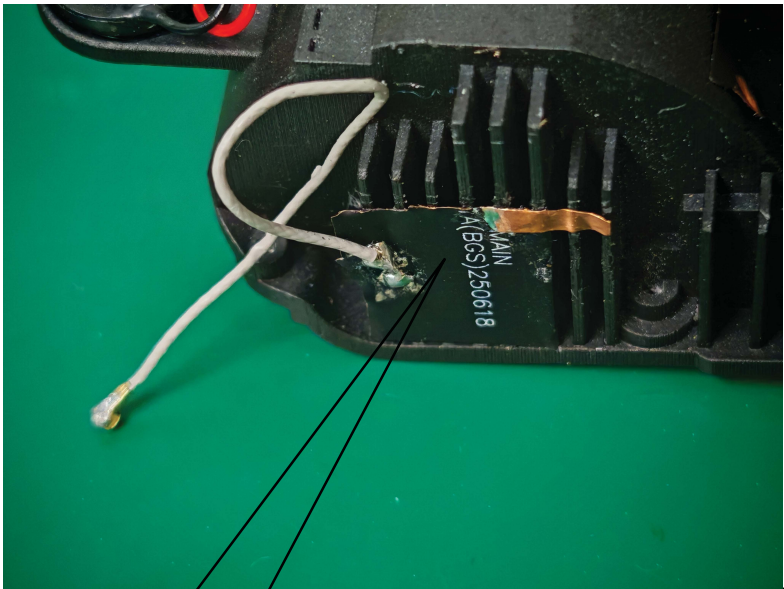
1.1: Electrical Specification	
Freq.Range（MHz）	700-960； 1700-2700
Impedance（Ω）	50
VSWR	≤3
Directional	Omni directional
Polarization	Linear
Gain（dBi）	700-960： -1.79
	1700-2700： 2.97
1.2: Mechanical Specification	
Material	FPC
RF Cable Type	RF0.81
Connector Type	Third generation terminals
1.3: Environmental Specification	
Operation temp	-40℃～+85℃
storage temperature	-40℃～+85℃

2.Antenna Picture and Installation Instructions

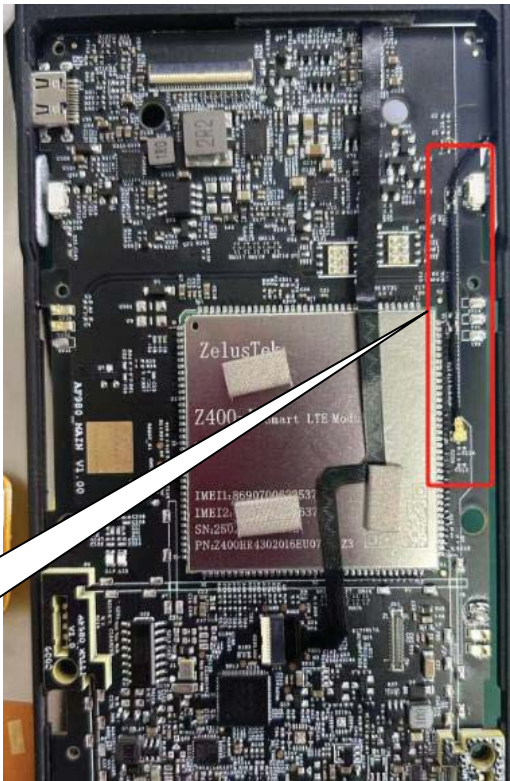
2.1: Antenna Picture



2.2: Installation Instructions



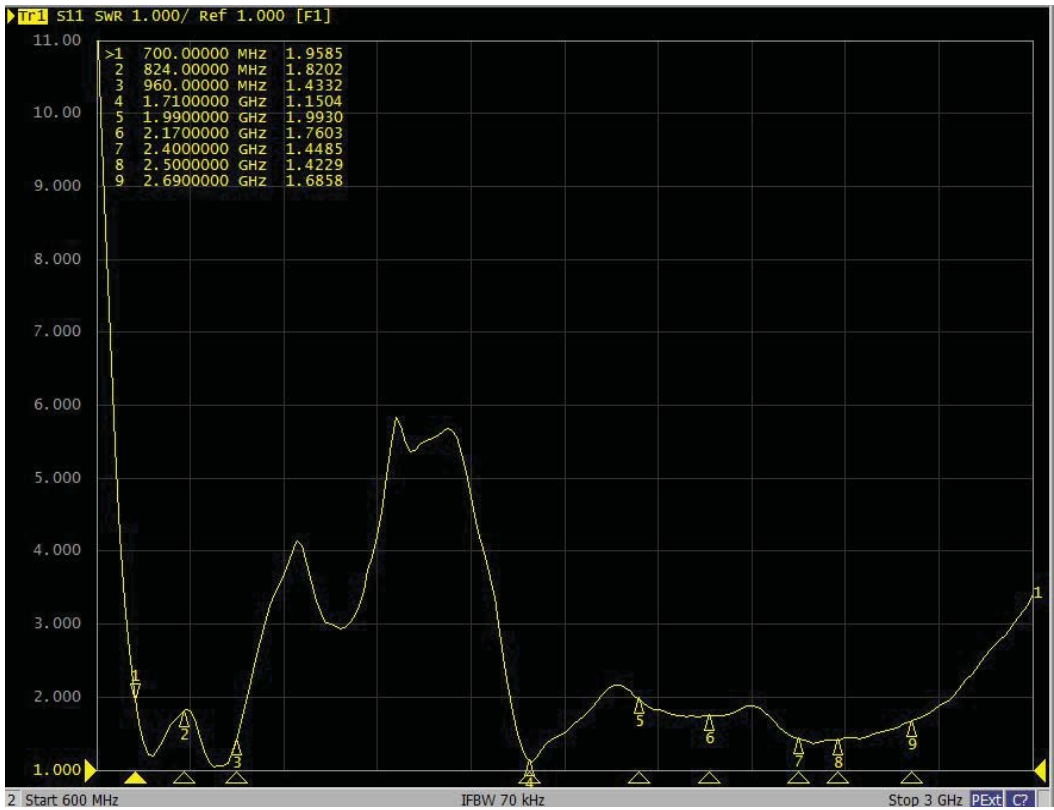
FPC mounting diagram



Installation diagram of RF cable

3.Test Report

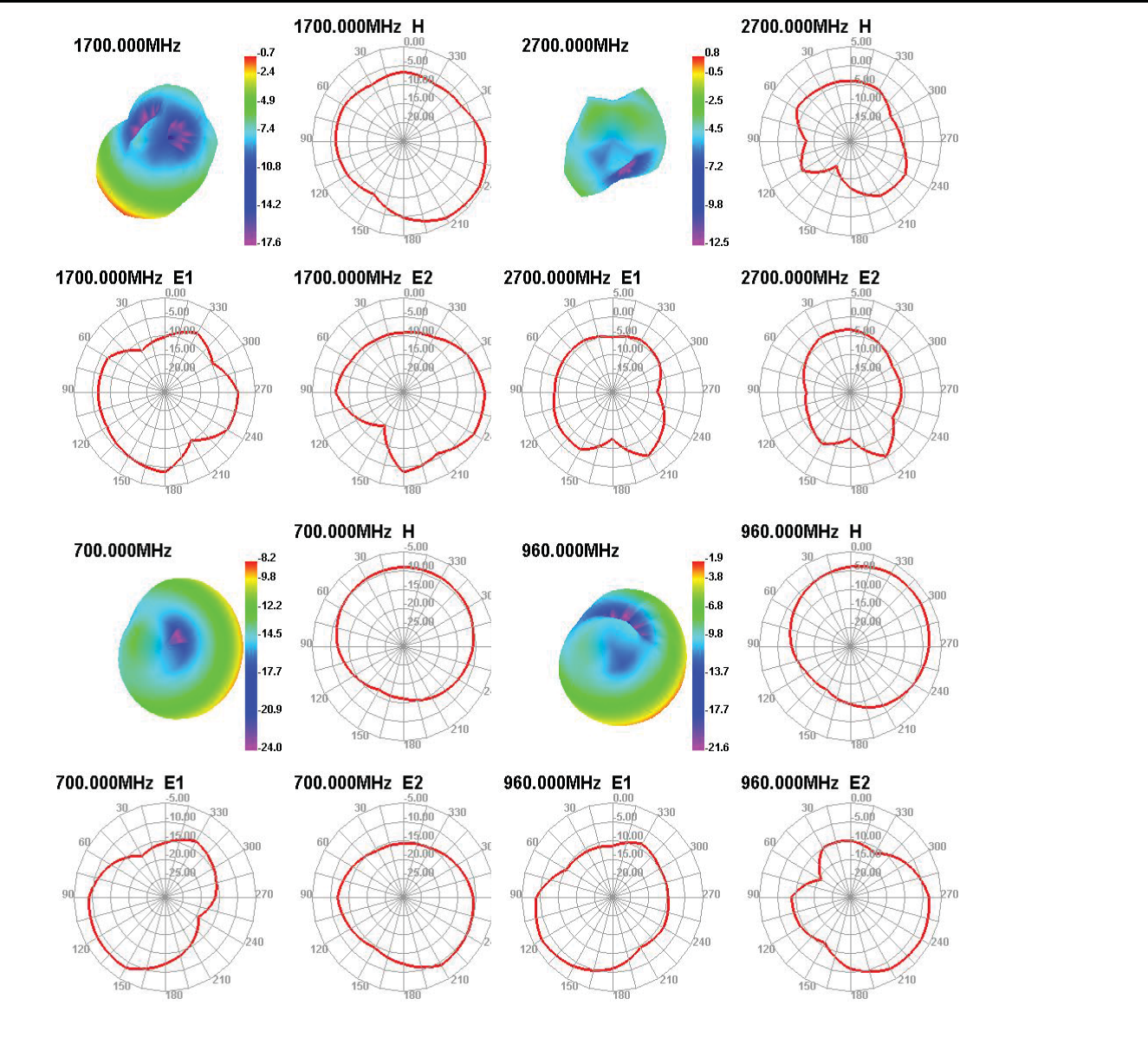
3.1:VSWR



3.2: Antenna efficiency and gain

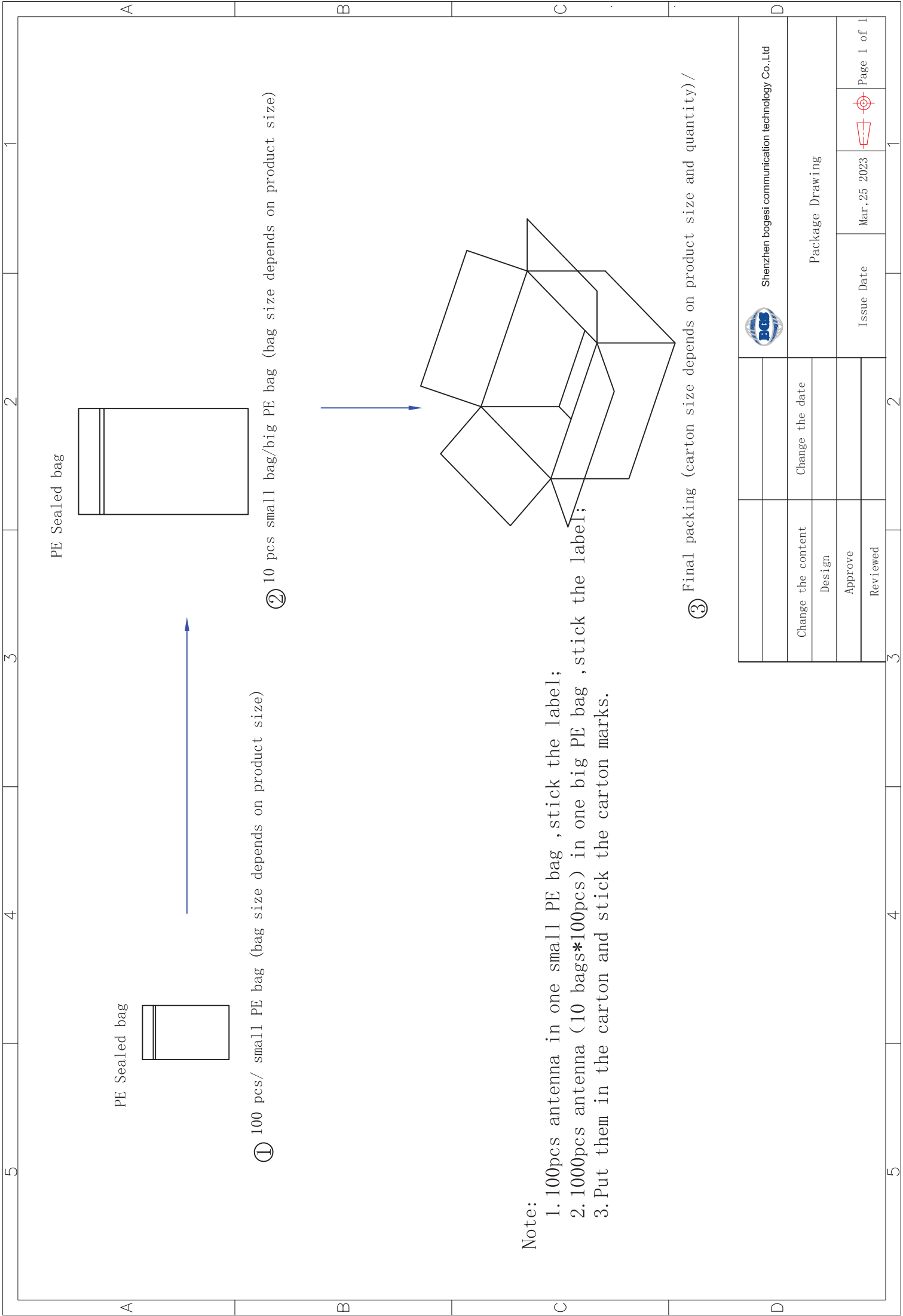
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
700	13.05	-8.23	1700	23.42	-0.68	2240	48.42	2.5
710	13.94	-7.64	1720	25.23	-0.44	2260	46.26	2.1
720	15.09	-6.93	1740	25.9	-0.42	2280	46.19	1.45
730	15.85	-6.64	1760	28.2	-0.28	2300	46.76	1.39
740	16.72	-6.29	1780	25.88	-0.96	2320	47.52	1.49
750	16.28	-6.44	1800	25.73	-1.04	2340	47.87	1.64
760	16.49	-6.22	1820	26.07	-1.27	2360	47.68	1.56
770	16.64	-5.96	1840	24.37	-2.07	2380	46.74	0.89
780	16.16	-6.02	1860	29.05	-1.61	2400	45.57	0.49
790	17.06	-5.46	1880	31.41	-1.07	2420	49.22	1.22
800	17.74	-5.07	1900	32.15	-0.74	2440	49.33	1.55
810	16.22	-4.8	1920	36.28	0.01	2460	45.35	1.59
820	16.45	-4.62	1940	38.79	0.36	2480	44.5	1.49
830	17.01	-4.3	1960	40.91	0.62	2500	43.24	1.25
840	18.14	-3.75	1980	45.25	0.95	2520	39.35	1.09
850	19.56	-3.14	2000	44.83	1.23	2540	36.9	0.42
860	20.35	-2.84	2020	46.5	1.71	2560	36	0.27
870	21.38	-2.55	2040	46.83	2.12	2580	35.29	0.06
880	22.06	-2.41	2060	42.48	1.9	2600	37.72	-0.13
890	22.95	-2.22	2080	45.6	2.23	2620	37.27	-0.24
900	23.23	-2.22	2100	47.31	2.49	2640	36.49	-0.45
910	23.16	-2.28	2120	48.3	2.44	2660	38.19	0.34
920	24.68	-2.01	2140	47.88	2.72	2680	38.8	0.67
930	24.71	-2.09	2160	45.25	2.97	2700	38.53	0.78
940	26.59	-1.79	2180	47.89	2.97			
950	27.09	-1.8	2200	49.88	2.93			
960	27.11	-1.87	2220	48.73	2.71			

3.3: Directional diagram



3.4: Active test data

Band	Channel	TRP (dBm)	TIS (dBm)
LTE1 (10M)	Low	19.06	
	Mid	19.02	
	High	18.94	-93.27
LTE2 (10M)	Low	19.08	
	Mid	19.56	
	High	18.85	-92.15
LTE3 (10M)	Low	19.13	
	Mid	18.74	
	High	18.8	-93.03
LTE4 (10M)	Low	19.39	
	Mid	19	
	High	18.74	-94
LTE5 (10M)	Low	15.04	
	Mid	14.58	
	High	15.45	-82.05
LTE7 (10M)	Low	19.21	
	Mid	18.9	
	High	19.44	-93.17
LTE8 (10M)	Low	15.03	
	Mid	15.26	
	High	15.39	-85.03
LTE20 (10M)	Low	15.13	
	Mid	15.04	
	High	16.02	-84.17
LTE28 (10M)	Low	15.18	
	Mid	15.31	
	High	14.17	-83.9
LTE38 (20M)	Low	19.14	
	Mid	19.44	
	High	19.13	-87.05
LTE40 (20M)	Low	19.46	
	Mid	19.23	
	High	18.7	-89.99
LTE41 (20M)	Low	19.07	
	Mid	19.1	
	High	19.36	-82.14



PE Sealed bag

PE Sealed bag

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)/

		Shenzhen bogesi communication technology Co.,Ltd	
Change the content	Change the date	Package Drawing	
Design			
Approve			
Reviewed		Issue Date	Page 1 of 1
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6.ROHS Report										
Product Description		AF980 4G MAIN	BGS P/N		AFB-061A			Declaration Date		2025/8/13
No.	Part name	Homogeneous Material Name	The homogeneous material contains the value of RoHS restricted substance (ppm)					Certification number	Test date	
			Cd	Pb	Hg	Cr+6	PBB			PBDE
1	FPC	Electrolytic flexible copper-clad foil substrate	ND	ND	ND	ND	ND	ND	SHAEC24028809006	2024/12/20
2		Solder resist ink	ND	ND	ND	ND	ND	ND	ETR25501383	2025/3/20
3		3M glue	ND	ND	ND	ND	ND	ND	SHAEC24027480901	2024/12/6
4	Wire	RF coaxial cable	ND	ND	ND	ND	ND	ND	CANEC25018034404	2025/7/30
5	Terminals	Gold plating	ND	ND	ND	ND	ND	ND	A2250437743101001E	2025/6/23
6		PBT	ND	ND	ND	ND	ND	ND	A2250134628103008E	2025/3/8
7		Nickel plating	ND	ND	ND	ND	ND	ND	A2250437743101002E	2025/6/23

Notes:

Material analysis expansion table is similar to our company's machine type BOM, which describes the composition of each material provided by the supplier, and then conducts RoHS control on each component (or the supplier shall conduct RoHS compliance management on his supplier, and provide tripartite inspection certificate).

A complete material analysis expansion table that includes:

1. Material expansion table: component composition decomposition
2. Third-party verification report of each component