

Be-Comfortable

—— 得自在 ——

Shenzhen be-comfortable Technology Co. Ltd.

SPECIFICATION FOR APPROVAL

CUSTOMER :	General Conway Intelligence
PART NAME :	P90
PART NO. :	
DZZ NO. :	N19-0729-R0A
REV. :	

	MANUFACTURERR SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY:		
DATE:	2023.10.18	

Shenzhen be-comfortable technology.co.,LTD

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Antenna Assembly

Specification(With housing)

1.Electrical Properties

1.1 Frequecy range.....700-960/1710-3800MHZ

1.2 Impedance.....50Ω Norminal

1.3 VSWR <4.0

1.4 Radiation.....Omni

1.5 Gain(Peak).....: 1-3dBi/3-6dBi

1.6 Polarization.....Linear

1.7 Admitted Power.....1W

1.8 Connector.....

2.Physical Properties

2.1 Working Temperature.....-30°C~+75°C

2.2 Storage Temperature.....-30°C~+75°C

Antenna Design for 1663

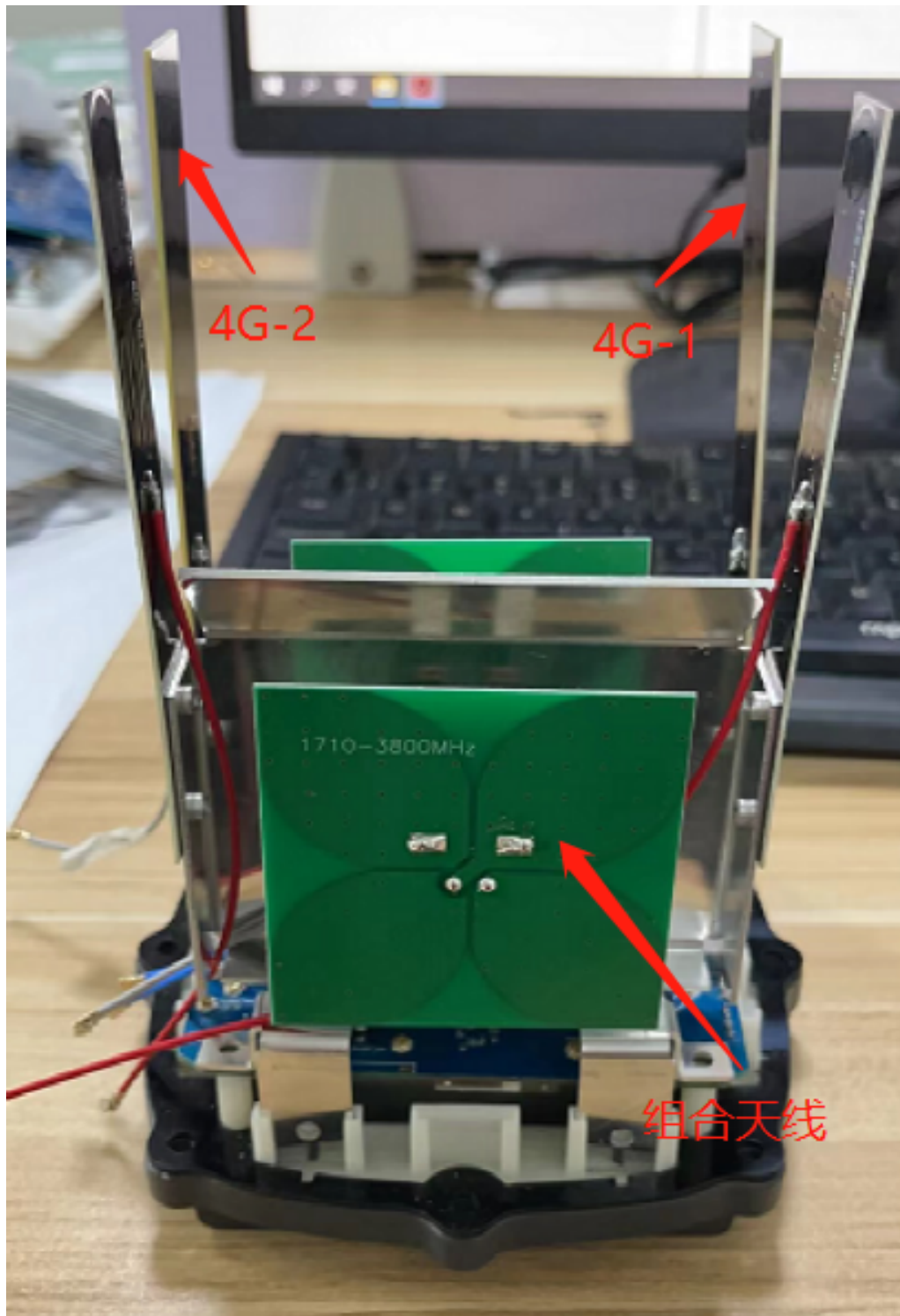
Document Number	DZZ-2023/02/24
Released Date	24/02/2023
Author	Bing Zhang
Review By	Huiping Feng

Revised History

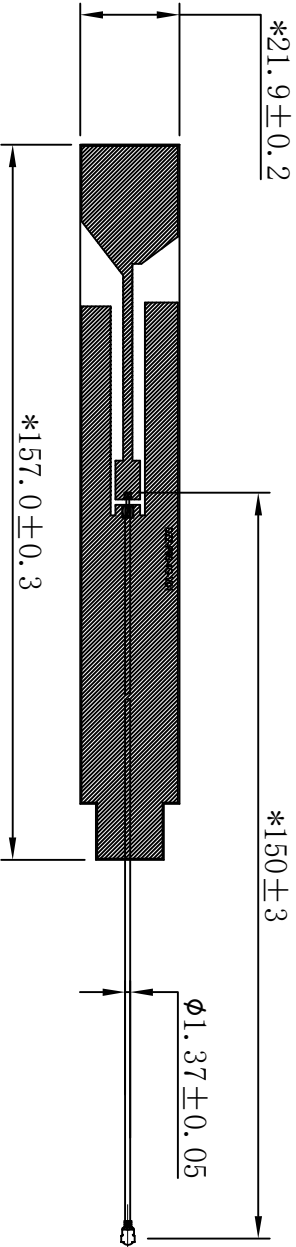
[illegible]

1. Antennas' setup and enviroment With housing

Single antenna



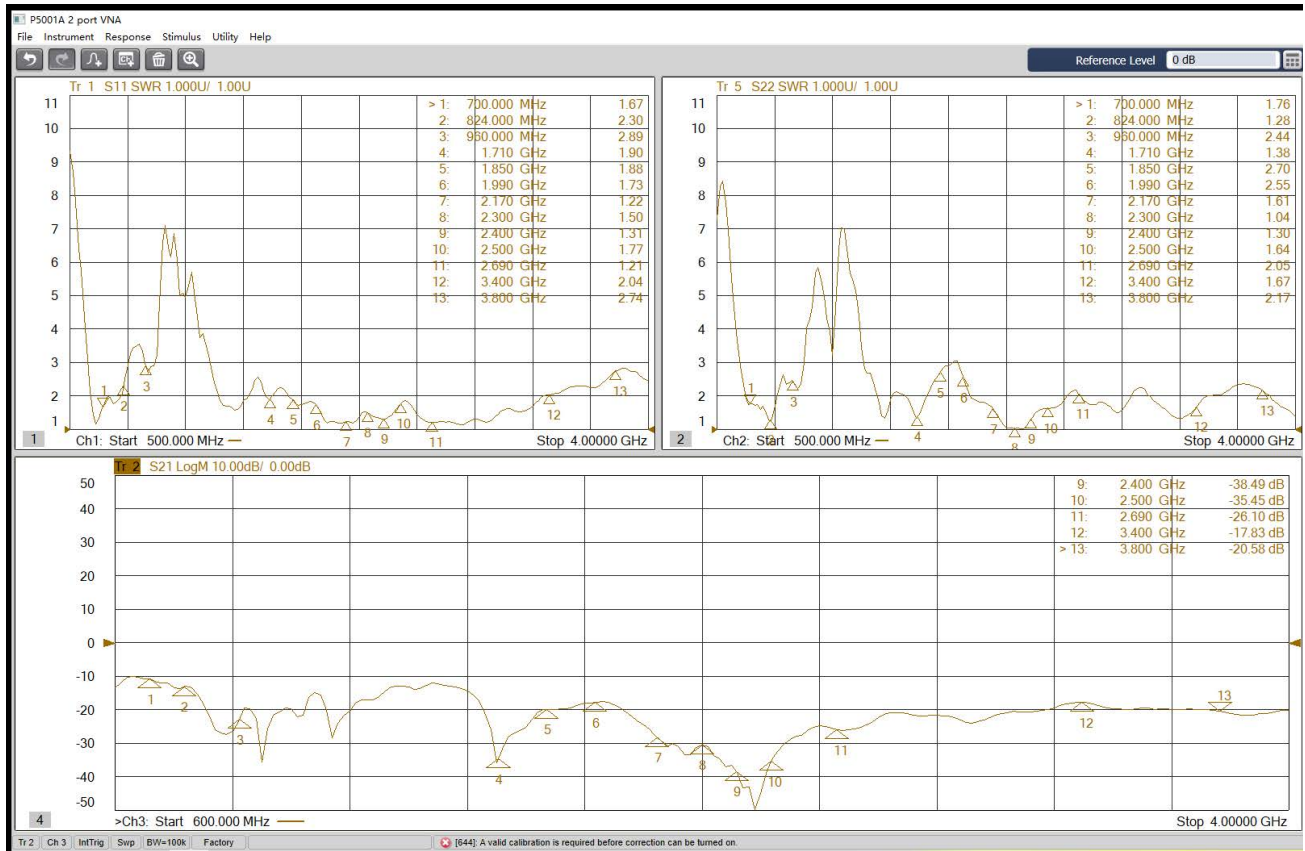
Rev	Description	Date	Remark
A	New drawing		



2		Cable	$\phi 1.37$ Cable, black, L=150MM, IPEX 1	1	
1		PCB	FR4 157*21.9*1.2mm Black	1	
No.	Part No.	Name	Specification	Amount	Remark
1	2	3	4	5	6

Be-Comfortable			深圳市得自在科技有限公司			
——得自在——			SHEN ZHEN BE-COMFORTABLE, LTD			
	Third Angle	Project	P90	Date	2022-03-04	
0~10	± 0.05	Part Name	4G天线-2	Designed by	王烈安	
10~18	± 0.10	Part No.	N19-0729-R0A	Checked by	MD	
18~30	± 0.12	Material		RF	张斌	
30~40	± 0.15	DWG No.	N19-0729-R0A	Approved by		
40~	± 0.20	Angle	$\pm 0.5^\circ$	Unit	mm	Scale
					1:1	Rev
						A

4. S11-4G-1



5. Gain & Efficiency& 3D Pattern

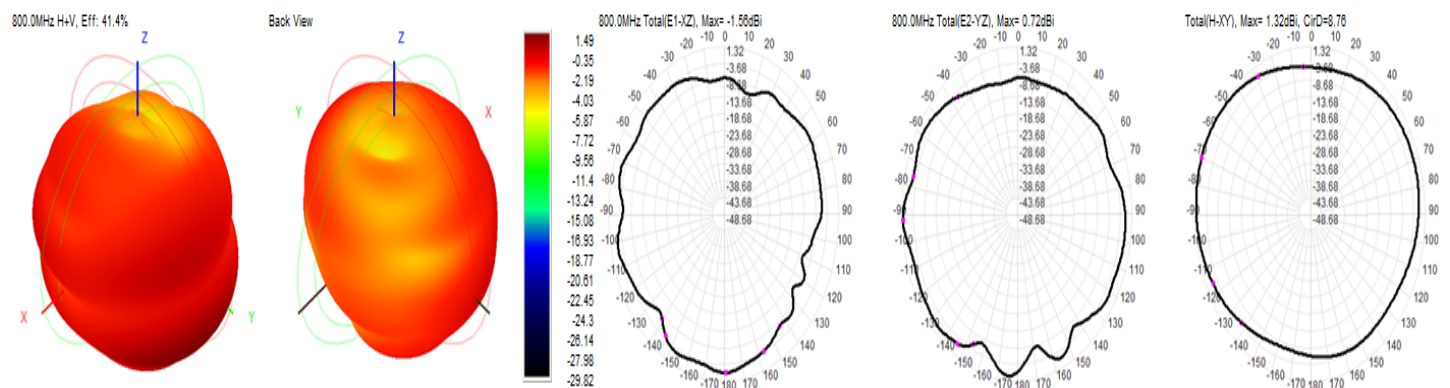
Frequency ID	1	3	5	7	9	11	13	15	17	19	21	23	25	27
Frequency (MHz)	700.0	720.0	740.0	760.0	780.0	800.0	820.0	840.0	860.0	880.0	900.0	920.0	940.0	960.0
Gain (dBi)	1.26	4.00	4.85	1.79	2.50	1.99	2.90	1.53	1.42	1.16	2.64	2.72	2.40	2.33
Efficiency (%)	60.17	51.23	65.07	54.17	62.82	62.99	71.12	63.58	61.54	53.25	54.05	58.63	57.76	51.28

33	37	41	43	47	51	55	57	59	65	67	71	75	79	81	82
1720.0	1800.0	1880.0	1920.0	2000.0	2080.0	2160.0	2200.0	2240.0	2360.0	2400.0	2480.0	2560.0	2640.0	2680.0	2700.0
6.10	4.48	3.77	3.40	3.73	4.67	5.62	5.67	6.23	7.48	7.80	7.05	5.04	5.10	5.48	5.48
77.02	65.78	65.37	63.89	49.60	61.24	69.59	73.76	75.85	83.10	83.28	76.42	74.55	72.69	69.64	68.65

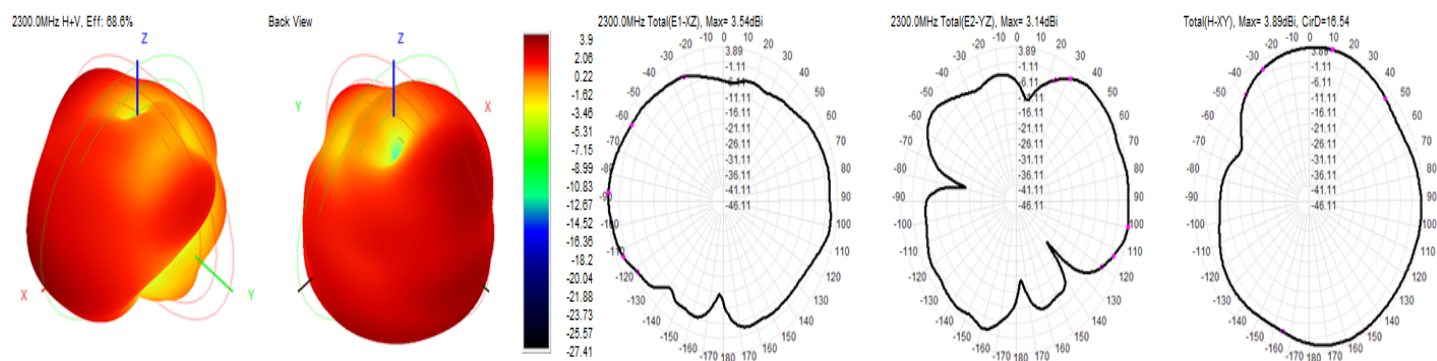
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	3300.0	3350.0	3400.0	3450.0	3500.0	3550.0	3600.0	3650.0	3700.0	3750.0	3800.0
Gain (dBi)	6.37	5.04	3.83	3.29	3.60	3.33	3.91	3.17	2.71	2.19	2.66
Efficiency (%)	72.74	67.96	68.53	67.76	64.98	61.75	59.27	57.55	53.53	55.72	56.33

3D Pattern @600-3800MHz

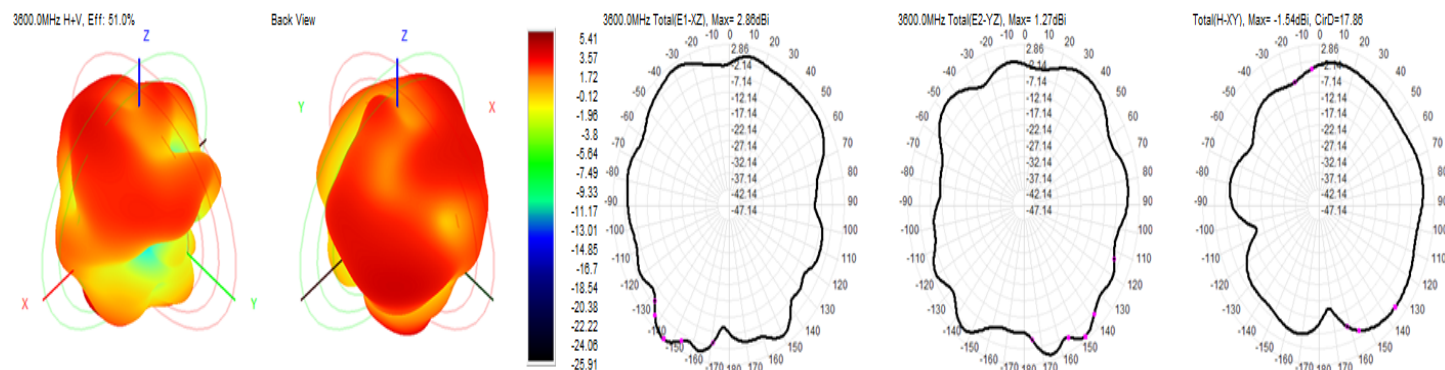
820MHZ



2300MHZ



3600MHZ



Active data omnidirectional antenna

1	3	5	7	8	20	28	34	38	39	40	41
21.47	20.97	20.91	20.14	19.89	20.17	22.45	18.94	21.58	19.4	20.12	19.75
21.34	21.22	20.95	21.81	20.03	19.55	22.92	18.95	21.54	18.7	19.43	21.86
20.81	20.63	20.35	21.72	19.89	18.98	21.58	18.89	21.55	18.8	19.58	21.12
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
-97.94	-95.66	-93.61	-97.56	-97.31	-93.65	-91.26	-98.32	-95.49	-94.04	-95.1	-96.7
10M	10M	10M	10M	10M	10M	10M	10M	20M	20M	20M	20M

Forward directional antenna

1	3	7	38	39	40	41
19.23	20.79	18.52	19.35	19.21	19.84	19.55
18.6	21.49	19.99	19.52	18.49	19.06	19.63
18.25	21.45	19.37	19.51	18.61	19.1	19.23
0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13	0.13	0.13
-95.8	-95.76	-97.38	-95.45	-94.68	-94.88	-96.34
10M	10M	10M	20M	20M	20M	20M

Rear directional antenna

1	3	7	38	39	40	41
19.56	21.1	19.37	20.01	19.21	20.27	20
19.3	21.5	20.7	20.02	18.37	19.65	20.18
18.6	21.3	20.17	19.99	18.55	19.7	19.42
0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13	0.13	0.13
-97.27	-97	-97.91	-96.89	-94.71	-95.49	-96.11
10M	10M	10M	20M	20M	20M	20M

Mexican plate

omnidirectional antenna

B2	B4	B66	B42	B43
19.43	20.82	21.78	20.3	19.98
19.87	20.85	22.87	19.94	19.74
20.38	20.86	21.03	19.03	19.89
0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13
-98.2	-93.9	-94.03	-91.1	-91.07
10M	10M	10M	20M	20M

Front directional antenna

B2	B4	B66	B42	B43
19.83	20.32	21.3	20.3	20.07
20.19	20.17	22.42	20.42	20.76
20.59	20.42	21.92	20.92	20.72
0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13
-97.5	-95.24	-93.93	-93.7	-90.14
10M	10M	10M	20M	20M

Rear directional antenna

B2	B4	B66	B42	B43
20.26	20.26	21.26	20.18	20.92
20.34	20.65	21.98	20.83	20.5
20.68	20.16	20.23	20.45	19.45
0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13
-98.3	-96.13	-95.07	-94.1	-91.13
10M	10M	10M	20M	20M

Packaging method

DATE: 2022-03-01

page: 1 of 1

Name : P90 4G antenna	Edition: A
General Conway Intelligence	

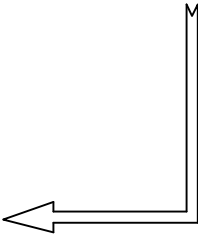
1: Antenna



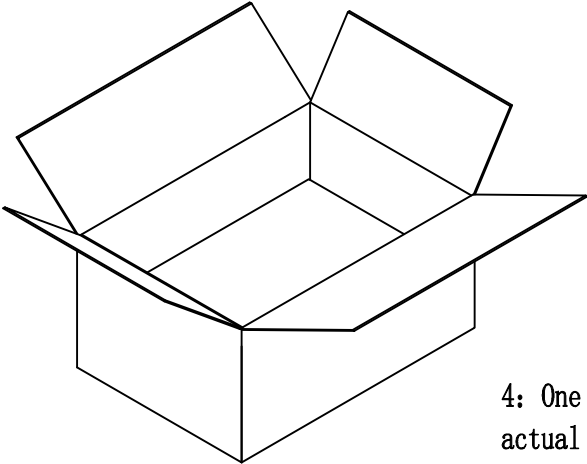
2: 50 PCS Antenna in a small bag.



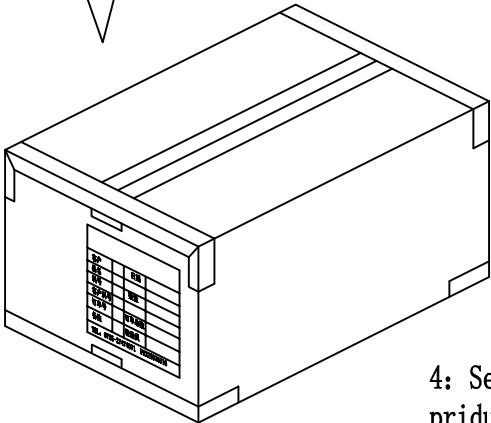
3: 10 pcs in a big bag



4: One box for every 10 package, (subject to the actual packaging).



4: Seal the box and paste our prduction label on the outer box.



Approval: _____

Confirm: _____

Fiction: 李从放