Project :Y240704918
Date. 2024.07.26
REV：A0

Antenna SPEC

Customer name：Closeli,Inc.

Customer project：CF-0

Customer P/N：

B&T P/N：74220502

Spec.：Built-in antenna -2.4G- gray 1.13 tin wire-1st generation terminal-L = 80mm-FPC-40× 10.8mm

Sealed by corporation:

compilation	verify	approval
Qiucuiping	Liangxiaotang	Liulihua

Sealed by customer：

check	verify	approval

Contact information of B&T:

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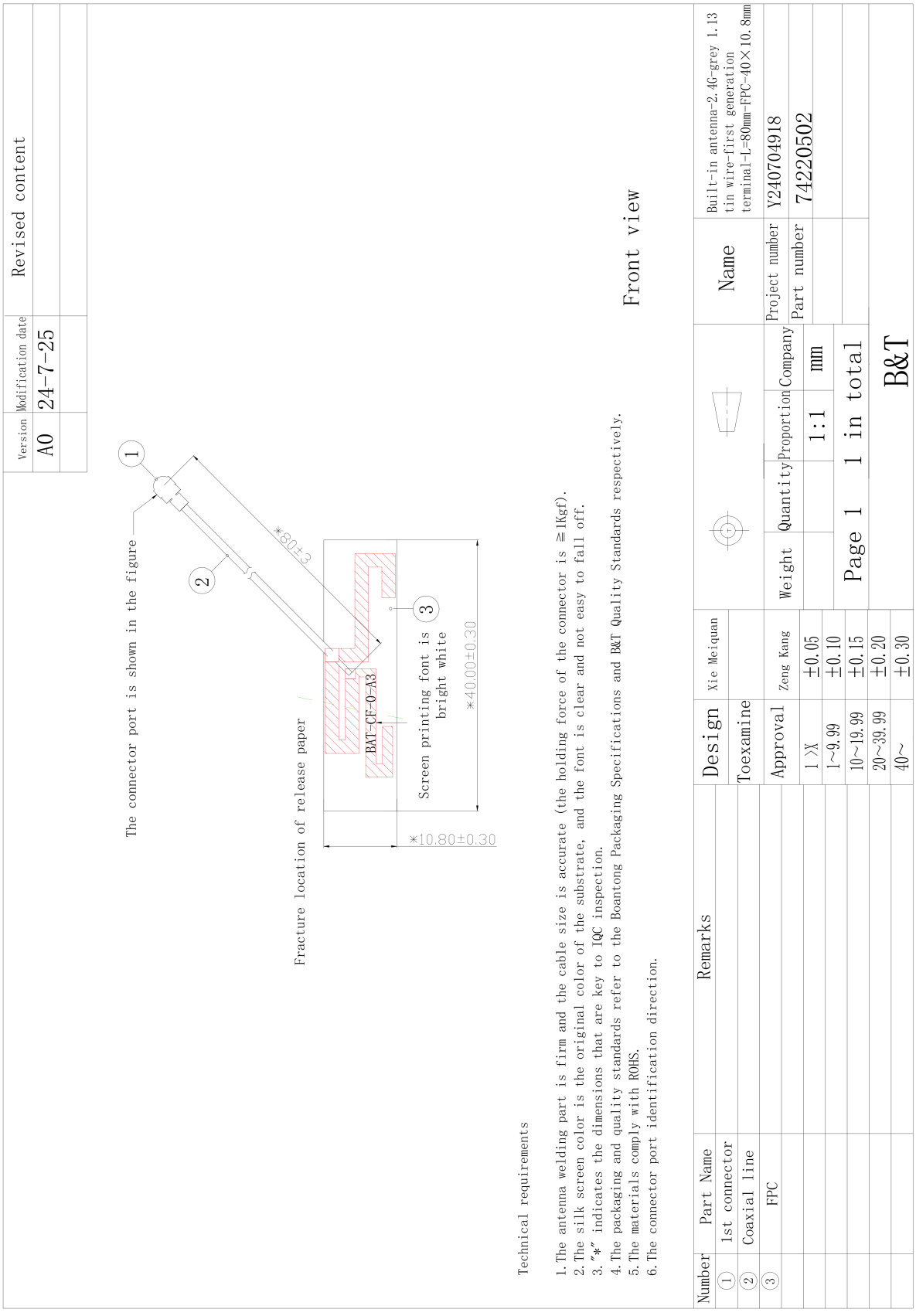
Document making / revising / abolishing resume

Edition	Date	Formulate/Revised content	Formulate	approval
A0	2024.07.26	First formulation	Qiucuiping	Liangxiaotang/Liulihua

Contents

3、Product drawing



4、Properties &parameter

Electrical Parameter	
Freq Range	2400~2480MHz
Characteristic Impedance	50 Ω
VSWR	≤2.0
Gain	2.76 dBi
The Max input power	<10w
Polarization mode	Linear polarization
Radiation mode	Omni directional
Joint type	IPEX
Mechanics Properties	
Length	80±3mm
Maintain the force	≥1kgf
Coaxial cable	Gray 1.13 tin-tin wire
Salt spray test	24H
Environment parameter	
Operating Temp	-30℃~65℃

5、Electrical test report

S11 Parameter

Standing wave ratio data

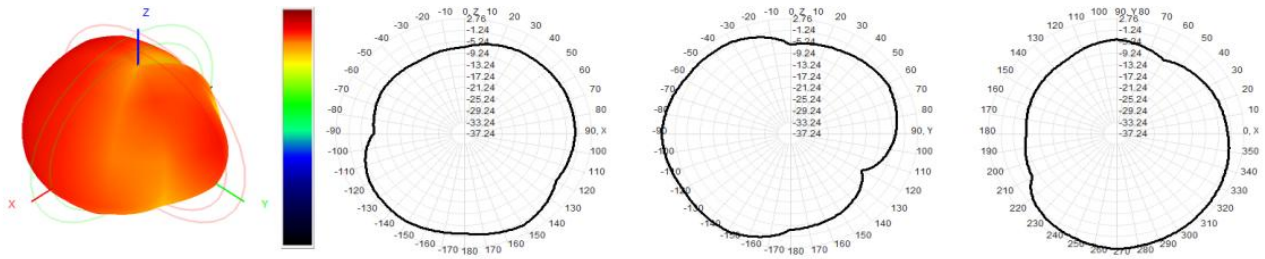
Freq/MHz	2412MHz	2437MHz	2462MHz
VSWR	1.5	1.2	1.7

Antenna darkroom test data

Frequenc	Efficiency	Gain (dBi	Efficiency (%)
2400.0	-2.61	2.18	54.86
2420.0	-2.52	2.25	55.95
2440.0	-2.52	2.49	56.03
2460.0	-2.42	2.76	57.30
2480.0	-2.91	2.07	51.13

Antenna direction diagram

2460MHz 3D-E1-E2-H



6、Table of Materials and Hazardous Substances

Item	Specification	Texture of material	ROHS Test Results（PPM）						ICP test number	Test time
			Cd	Pb	Hg	Cr+6	PBB	PBDE		
1	wire	FEP	ND	ND	ND	ND	ND	ND	NGBPC24000131241	2024/1/16
		Tinned wire	ND	ND	ND	ND	ND	ND	A2240376995101001	2024/7/1
2	Terminal	PBT	ND	ND	ND	ND	ND	ND	A2240126395101004E	2024/3/16
		Phosphor Bronze	ND	6	ND	ND	ND	ND	CANEC24000977301	2024/1/22
3	FPC	PI	ND	ND	ND	ND	ND	ND	SHAEC24028809005	2024/12/20
		Tape	ND	ND	ND	ND	ND	ND	SHAEC24027480901	2024/12/6

PACKING CRITERION

P/N：74220502

Spec.：Built-in antenna -2.4G- gray 1.13 tin wire-1st generation terminal-L = 80mm-FPC-40 × 10.8mm

一、contents of label(according to the customer's name, refer to the corresponding finished product label production requirements. If there is no requirement, it will follow the ordinary label requirements.)

Label for PE bag/ carton, L:10cm;W:6cm

buyer	**********		
vender	Zhongshan B&T Communication Technology Co., Ltd. Sichuan B&T Communication Technology Co., Ltd.		
Purchase No	**********		
Material No.	**********		
Part name	********	QC	**
Q'ty/Unit	*****	Manufacture date	****.**.*
Trace code	********	Running water number	********

Label for PE bag/ carton, L:10cm;W:6cm

buyer	**********		
vender	Zhongshan B&T Communication Technology Co., Ltd. Sichuan B&T Communication Technology Co., Ltd.		
Purchase No	**********		
Material No.	**********		
Part name	*******	QC	**
Q'ty/Unit	*****	Manufacture date	****.**.*
Trace code	*******	Running water number	********

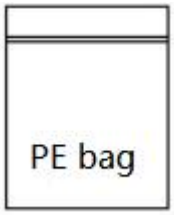
二、Packing requirement

Operating description：

1. inner packing：

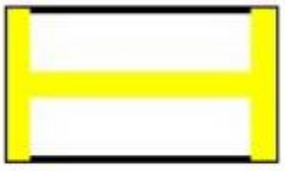
50 PCS/ small bag,

200 PCS/ big bag

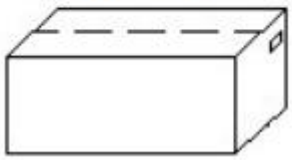


2. outer packing：

Quantity according to actual packing PCS/carton



Carton



Notice：

8、Antenna mounting position diagram

9、Reliability test requirements

No.	Reliability test name	Test conditions	Judgment criteria
1	Constant temperature and humidity test	High temperature:70°C， Humidity:80%RH 24H; low temperature: -40°C 24H; total duration: 48H;	Appearance requirements before and after the test: The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc. The non-metallic parts should not change color, crack, deform, degumming or other defects. Electrical performance testing meets standard requirements;
2	High and low temperature thermal shock test	70°C for 2H, -40°C for 2H, 6 cycles, 24 hours in total;	Appearance requirements before and after the test: The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc. The non-metallic parts should not change color, crack, deform, degumming or other defects. Electrical performance testing meets standard requirements.
3	Salt spray test	Prepare a concentration (5±1)% NACL solution to ensure that the pH value of the salt solution is neutral (6.5~7.2); The temperature of the pressure barrel is 47±1°C, the spray pressure is maintained at 1.00±0.1kgf/cm2, and the spray volume is 1.0~2.0ml;/80cm2/h; Test time: 24H;	There should be no oxidation or rust on the exposed areas of the product surface; Oxidation/rust area after salt spray test in other areas < 1.0%

4	Connector retention test	Normal temperature and humidity; Test maintenance requirements: ≥1.0 kgf;	There are no loose or loose terminals or cables. After the test, the electrical performance test meets the standard requirements.
5	Connector insertion and extraction force test	Normal temperature and humidity; The terminal and the seat are connected normally, and the insertion force/pull-out force is ≥1.0kgf;	The terminal insertion force/extraction force meets the requirements, and the terminals have no defects such as falling off or damage.