Soward Antenna Commissioning Report

Customer name: Jixinwei

Project name: TXTK001-Bicycle helmet

Date: 2022.6.14

Project contact information

Customer contact: Luo Gong
cell phone:
Mail:

Thorward Structure: Yang Wende
cell phone:
Telephone:
Mail:

Thorward RF: Tang Liuxing
Mobile: 188 7591 1877
Tel: 0755-29985185
Email: tangliuxing@szsward.com

Project Description

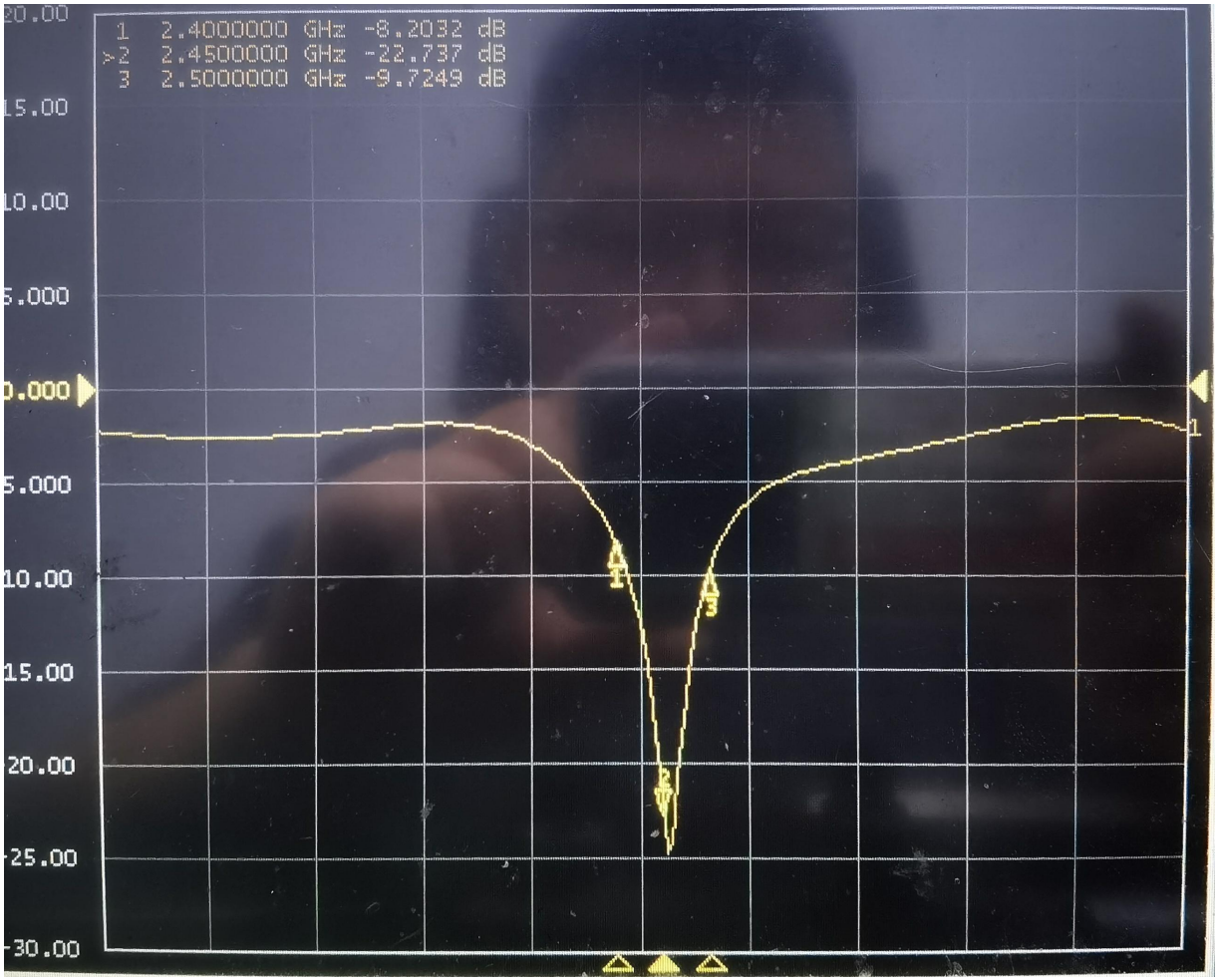
1.Project Overview

Project Antenna Number	Machine type
1	wifi recorder helmet
Machine shell material: plastic shell	

2.Antenna Brief

Antenna number	name	Working frequency/MHZ	Material/Structure
1	WIFI	2400-2500MHz	FPC

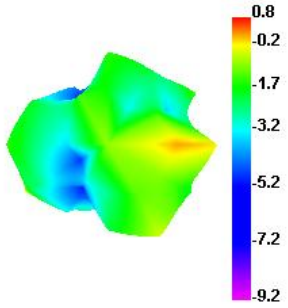
WIFIantennaS11



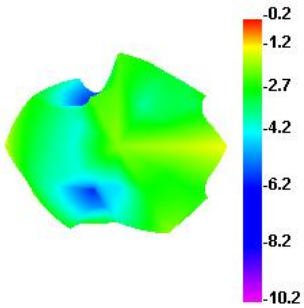
WIFIAntenna efficiency

Passive Test For 2.4Gwifi												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	30.28	-5.19	0.79	-1.36	14.481	15.798	0.79	-20.51	5.98	0	49.49	49.42
2410	29.49	-5.3	0.48	-1.67	13.753	15.735	0.48	-20.83	5.78	0	49.46	49.52
2420	27.92	-5.54	0.14	-2.01	12.724	15.197	0.14	-21.06	5.68	0	49.42	49.42
2430	26.45	-5.78	-0.19	-2.34	11.943	14.509	-0.19	-20.05	5.59	0	49.35	49.35
2440	26.59	-5.75	-0.25	-2.4	11.991	14.596	-0.25	-19.23	5.5	0	49.38	49.35
2450	26.71	-5.73	-0.18	-2.33	12.05	14.659	-0.18	-20.93	5.55	0	49.66	49.63
2460	25.36	-5.96	-0.25	-2.4	11.395	13.964	-0.25	-23.91	5.71	0	49.51	49.46
2470	23.49	-6.29	-0.51	-2.66	10.507	12.978	-0.51	-25.15	5.78	0	49.45	49.31
2480	23.5	-6.29	-0.73	-2.88	10.56	12.945	-0.73	-23.69	5.56	0	50.08	49.88
2490	23.11	-6.36	-0.97	-3.12	10.473	12.633	-0.97	-23.74	5.39	0	49.81	49.77
2500	22.69	-6.44	-1.19	-3.34	10.443	12.248	-1.19	-23.4	5.25	0	50.25	50.18

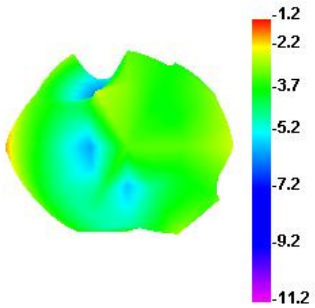
2400.000MHz



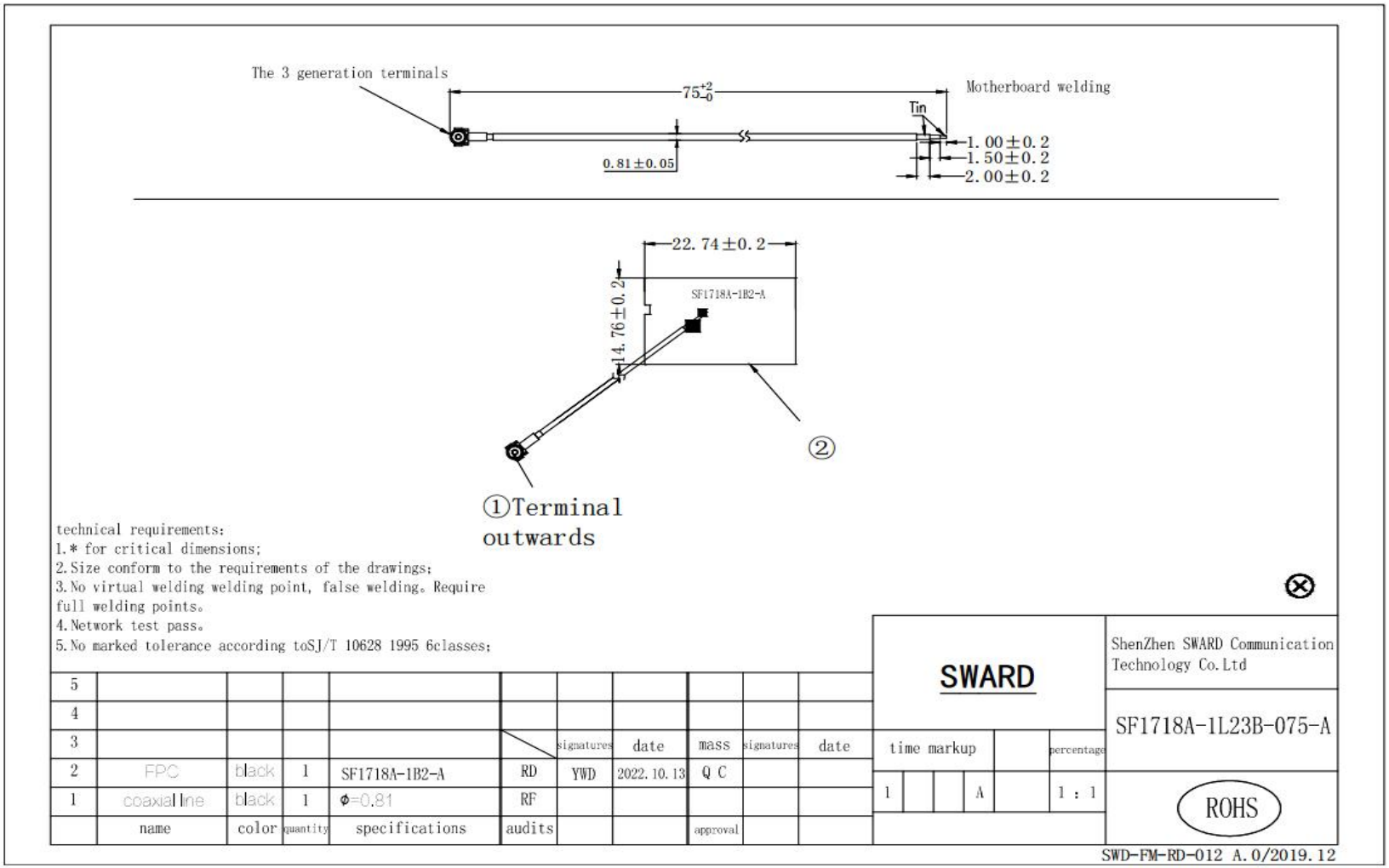
2450.000MHz



2500.000MHz



Structural drawings



	name	color	quantity	specifications	audits	signatures	date	approval	signatures	date
5										
4										
3										
2	FPC	black	1	SF1718A-1B2-A	RD	YWD	2022.10.13	Q C		
1	coaxial line	black	1	Φ=0.81	RF					

Note: 1. This report is based on the actual debugging and testing of the debugging prototype, including environmental treatment, antenna position and assembly position of each device
cannot be changed at will;
2. If there is any change in the materials used in the prototype, it is necessary to timely feedback to our company for re-verification;
3. List of sensitive components:
TP (material, coating, wiring, etc.)
Screen (amplifying circuit, LED, cable design, etc.)
Shell material (antenna assembly method, structural interference, shell material, antenna position height and area, etc.)
Mainboard (mainboard conduction, RF circuit matching, PA, duplexer, filter, LNA, power circuit, etc.)
Camera, battery, motor, MIC, fingerprint recognition module, etc.
4. Due to the small number of debugging prototypes or only one, some probabilistic problems cannot be completely found. It is recommended to check the problem points in small batches before mass production (such as splash screen, noise from speakers, TP jump, black screen of death, signal diving, etc.)