

SPECIFICATION FOR APPROVAL

CUSTOMER/PROJECT : LANDI IL001

CUSTOMER P.N./ : _____

PRODUCT NAME./ : LTE Antenna

MODEL NO./ : 5U081E

SPECIFICATION/ : _____

VERSION	DATE	REVISION DESCRIPTION
T:A	2025-04-08	newly added
T:B	2025-05-22	Update drawings

SUPPLIER AUTHORIZED SIGNATURE		
PREPARED	CHECKED	APPROVED
XUHAIJUN		

CUSTOMER AUTHORIZED SIGNATURE			
Project		Quality	

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1 Noun explanation

dBi	Decibel relative isotropic antenna
Tx	Transmit frequency
Rx	Receive frequency
TRP	Total Radiated Power
TIS	Total Isotropic Sensitivity
VSWR	Voltage Standing Wave Ratio
GSM	Global Service for Mobile communication
DCS	Digital Communication System
CDMA	Code Division Multiple Access
WCDMA	Wideband Code Division Multiple Access

2 Test equipment

Can be increased or decreased according to actual situation

vector network analyzer

Comprehensive test instrument

GTS darkroom

3 Working frequency band

The yellow Identification is the using band

System	up	down
GSM850	824MHz~849MHz	869MHz~894MHz
GSM900	890MHz~915MHz	935MHz~960MHz
DCS1800	1710MHz~1785MHz	1805MHz~1880MHz
PCS1900	1850MHz~1910MHz	1930MHz~1990MHz
CDMA800	825MHz~835MHz	870MHz~880 MHz
CDMA2000	824MHz ~849MHz	869MHz ~894MHz
WCDMA2100	1920MHz~1980MHz	2110MHz~2170MHz
WIFI (2. 4G/5G)	2400MHz~5850MHz	2400MHz~5850MHz
LTE	700MHz ~2690MHz	700MHz ~2690MHz

4 Test project

4.1 VSWR plot

4.2 Simth plot

4.3 Radiation pattern

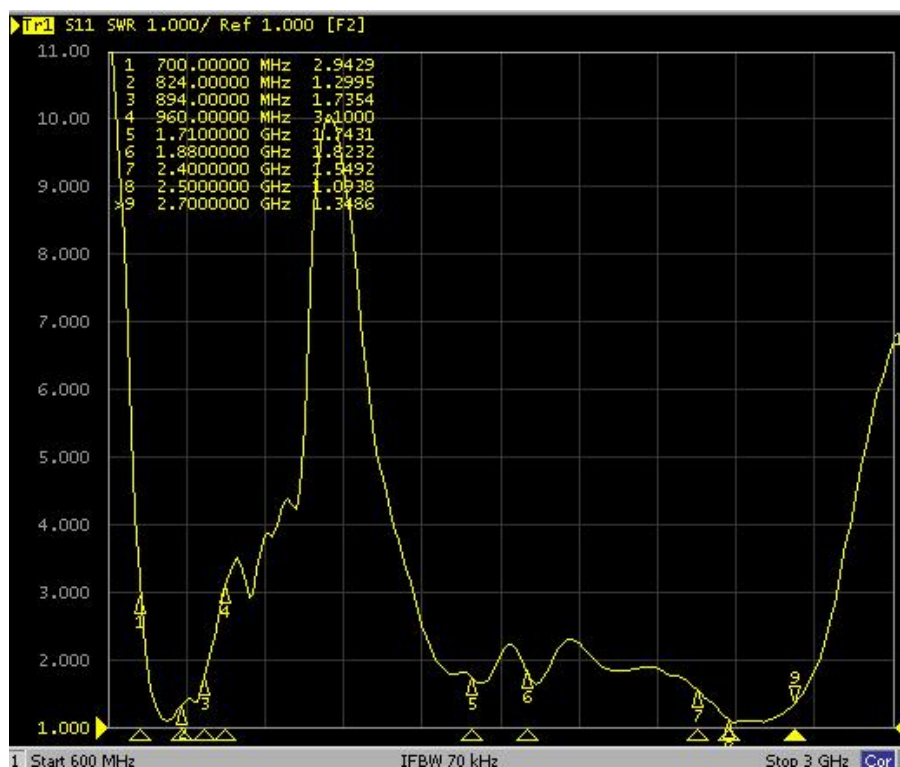
4.4 Gain & Efficiency

4.5 TRP&TIS

5 Antenna parameter

5.1 VSWR(LTE Antenna)

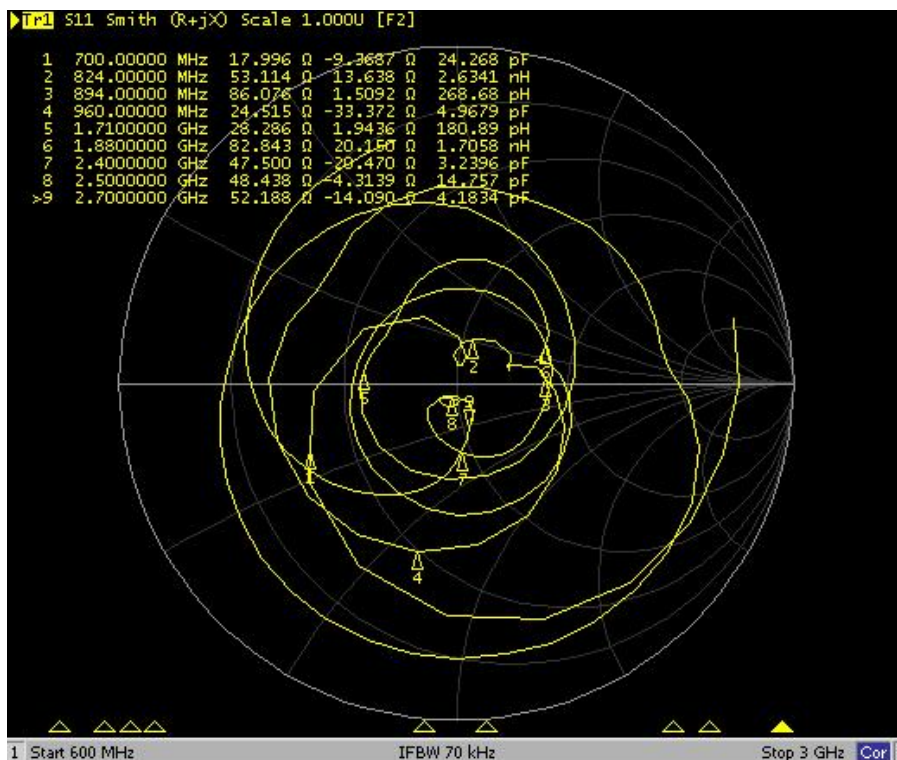
5.1.1 VSWR plot



5.1.2 VSWR data

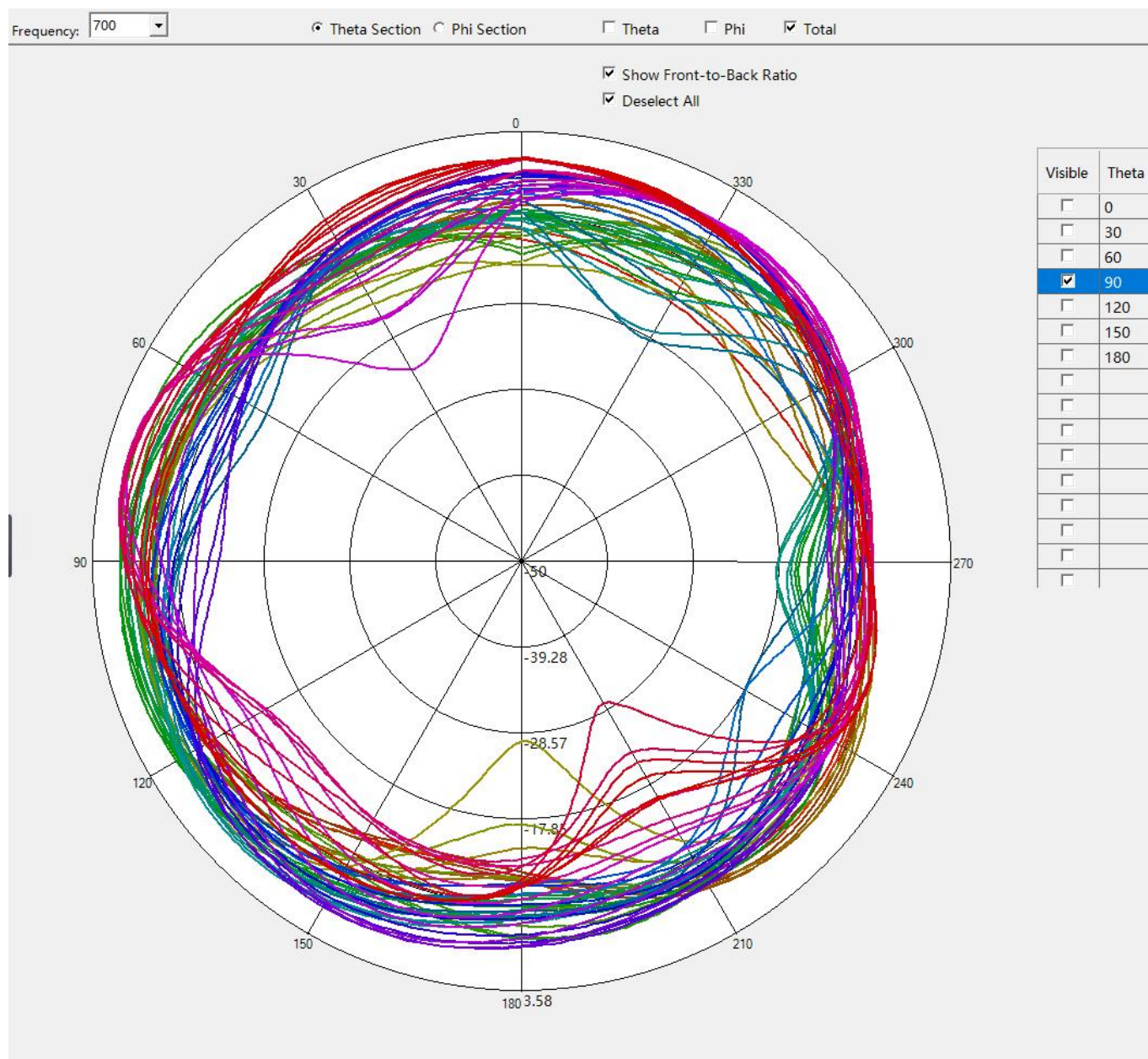
Freq/MHz	700	820	960	1710	1880	2400	2690
VSWR	2.9	1.2	3.1	1.7	1.8	1.5	1.3

Smith impedance circle diagram



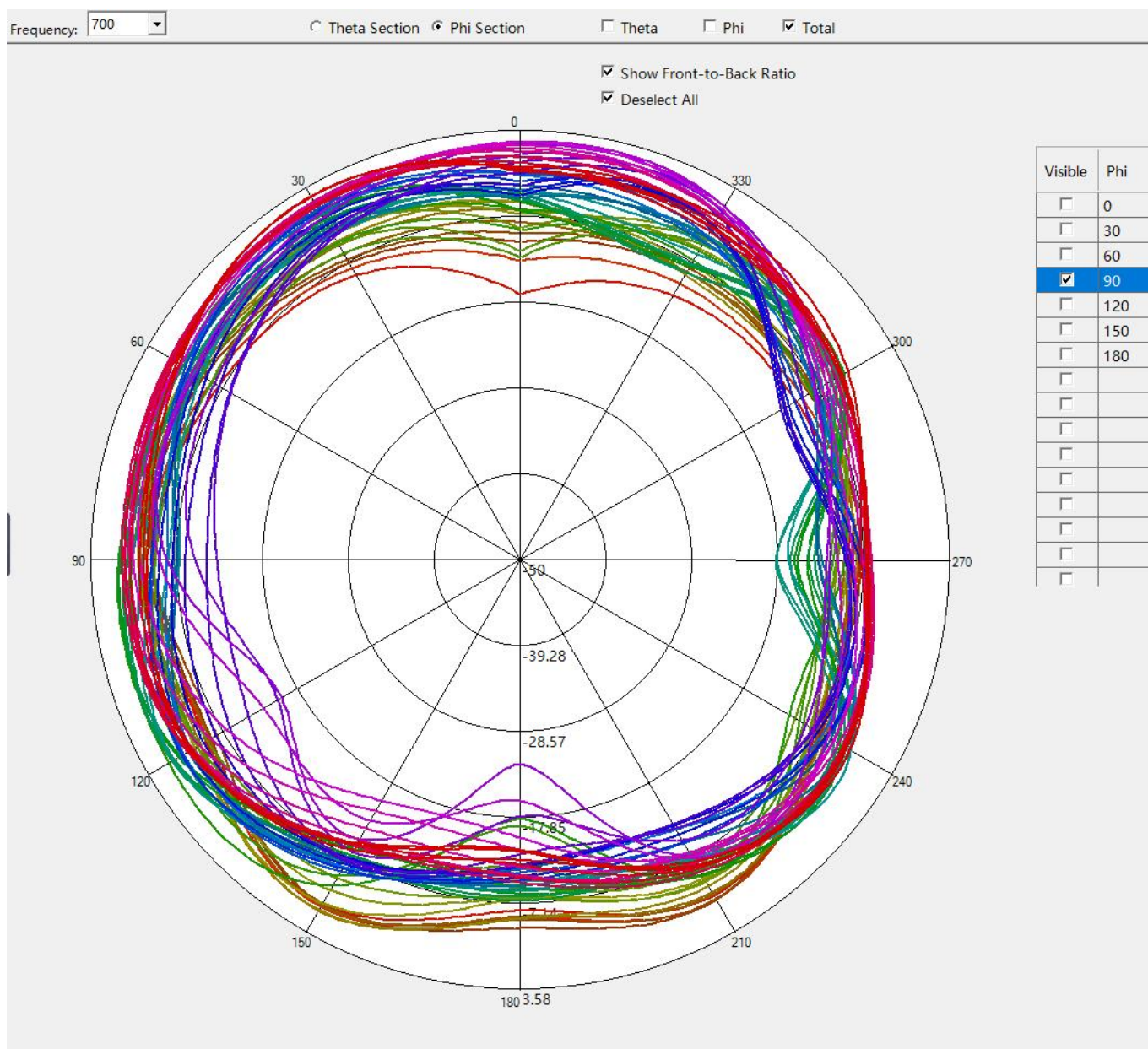
5.3 Radiation pattern

5.3.1 H-plane



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E2



5.4 Gain & Efficiency

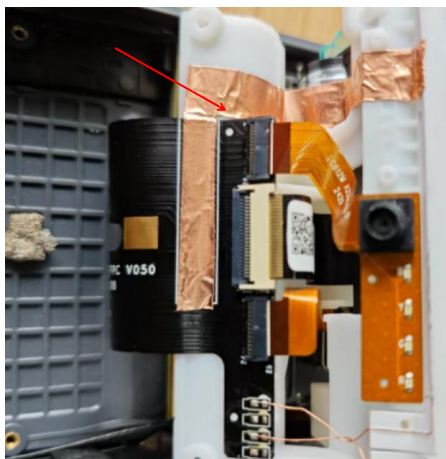
Freq (MHZ)	Eff (%)	GAIN	Freq (MHZ)	Eff (%)	GAIN	Freq (MHZ)	Eff (%)	GAIN
700	24.80	-0.74	1710	41.92	1.40	2300	58.21	4.10
720	25.20	-1.89	1750	43.99	1.64	2330	54.41	4.21
740	38.16	0.29	1790	44.52	1.80	2370	59.08	4.64
760	47.29	1.56	1830	45.98	1.55	2400	56.27	4.65
780	49.05	1.91	1870	47.40	2.05	2450	54.98	4.89
800	52.09	2.18	1900	49.04	1.26	2480	49.58	4.23
820	47.17	1.61	1930	50.38	1.02	2510	47.38	3.77
840	37.26	0.33	1960	54.03	2.10	2540	50.75	3.80
860	25.91	-2.37	1990	58.21	2.83	2570	47.72	3.14
880	32.05	-1.17	2100	61.81	2.86	2600	52.30	3.35
900	48.76	0.57	2130	63.49	3.16	2630	51.31	2.77
920	48.39	0.76	2160	66.08	3.47	2660	50.84	2.32
940	38.54	-0.35				2690	51.41	2.49
960	33.68	-1.03						

5.5TRP&TIS

FDD		TRP	TIS
	Channel	Average value	Average value
BAND1	50	19.78	
	300	20.26	
	550	19.55	-97.40
BAND3	1250	19.35	
	1575	19.42	
	1900	18.97	-95.17
BAND5	2450	17.36	
	2525	17.86	
	2600	17.94	-90.90
BAND7	2800	18.50	
	3100	19.18	
	3400	19.14	-94.81
BAND8	3500	18.79	
	3625	17.83	
	3750	17.44	-89.85
BAND20	6200	17.29	
	6300	17.72	
	6400	17.58	-87.20
BAND28	9260	17.13	
	9435	17.20	
	9610	17.18	-87.40

TDD		TRP	TIS
	Channel	Average value	Average value
BAND38	37800	18.67	
	38000	18.90	
	38200	18.84	-91.07
BAND40	38700	19.33	
	39150	19.31	
	39600	18.81	-93.39
BAND41	40340	18.67	
	40740	18.66	
	41140	18.73	-90.49

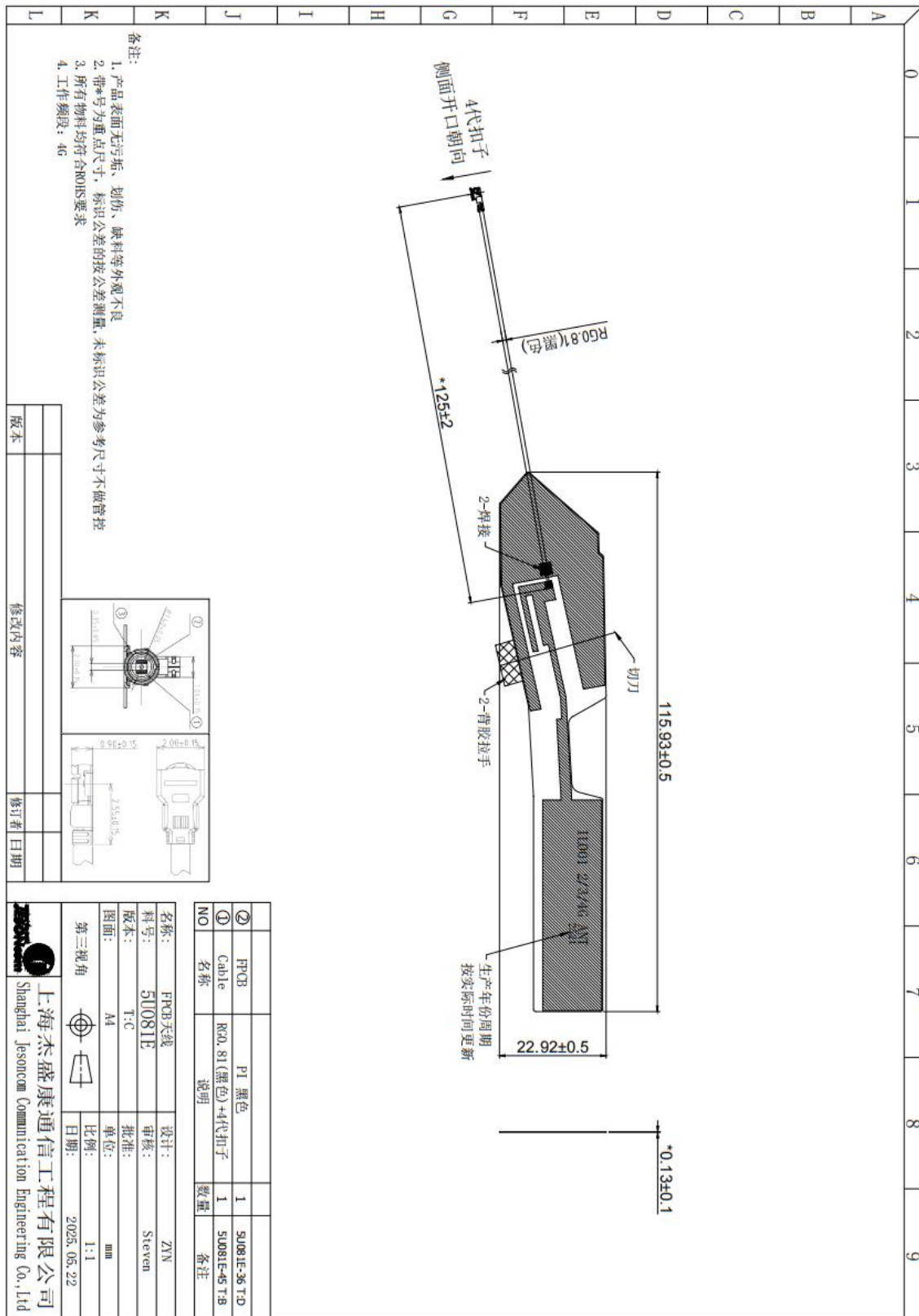
6 Environmental treatment suggestions



7 Impedance matching

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8 Antenna plan



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9 Antenna installation guide

9.1 Antenna installation instructions



10 Other