

Feitian Technologies Co., Ltd.



Project name:	F360
MATERIAL CODE:	01. 02. 021. 000124
Nameof Material:	WIFI&BT&GPS
Suppliers:	Fuzhou ZHONGTIANXUN CommunicationTechnology Co.,Ltd
Sample delivery time:	2024. 3. 11
Version:	V1. 0

SPECIFICATION APPROVAL SHEET

样品承认书

material	Material name	WIFI&BT&GPS		Description		F360-W/B/G				
	P\N	01.02.021.000124		MPN		E.03.00992				
	Vendor	Fuzhou Zhongtianxun		Manufacturer		Fuzhou Zhongtianxun				
	Sample QTY	6PCS		Model		F360				
	Address	34 Shilong Avenue, Shiyan Street, Baoan District, Shenzhen City, Guangdong Province								
quality	RoHS	☐ FA, ☐ REJ, ☐ N/A,		Information complete		☐ FA, ☐ REJ, ☐ N/A,				
	Consistency	☐ FA, ☐ REJ, ☐ N/A,								
	Result: ☐ FA, ☐ Risk Go QTY _____, ☐ REJ.									
	Risk go or reject comment: SQE: Remark: Appearance limit sample is confirmed by SQE and PQE together.									
DQA	Test report	☐ FA, ☐ REJ, ☐ N/A,		OTR confirm		☐ FA, ☐ REJ, ☐ N/A,				
	Test report	☐ FA, ☐ REJ, ☐ N/A,		Design Fix		☐ FA, ☐ REJ, ☐ N/A,				
	Result: ☐ FA, ☐ Risk Go QTY _____, ☐ REJ.									
	Risk go or reject comment: DQA:									
R&D	Dimension	☐ FA, ☐ REJ, ☐ N/A,		Specification		☐ FA, ☐ REJ, ☐ N/A,				
	Function	☐ FA, ☐ REJ, ☐ N/A,		Color		☐ FA, ☐ REJ, ☐ N/A,				
	Manual content	☐ FA, ☐ REJ, ☐ N/A,		Appearance		☐ FA, ☐ REJ, ☐ N/A,				
	Packing	☐ FA, ☐ REJ, ☐ N/A,		Safety certificate		☐ FA, ☐ REJ, ☐ N/A,				
	Result: ☐ FA, ☐ Risk Go QTY _____, ☐ REJ.									
	Risk go or reject comment:									
	Confirmer	ID	Packing	ME	HW	SW	SW TEST	Market	PM	Manager
	Note: the color, appearance and color limit samples of the structural parts shall be confirmed by ID representative. The contents of the specification shall be confirmed by software and packaging material representative together, and the packaging material representative shall confirm the packaging material. The structure material is confirmed by structure representative, the structure electronic material is confirmed by structure and hardware representative. The electronic material is confirmed by hardware representative. Device expert and software is responsible for the confirmation of corresponding devices, such as battery, camera, screen etc.									
Important inspection items (R&D comment)						☐ N/A,				
NO.	Key inspection item			Standard request		Confirmer		Remark		
vendor	Stamp			Quality confirm		RD redact				
				Yang Dengshan		Hu Xiaoliang				
Note: FA means accept, REJ means reject, N/A means not applicable; A cross-page seal is required.										

Catalogue

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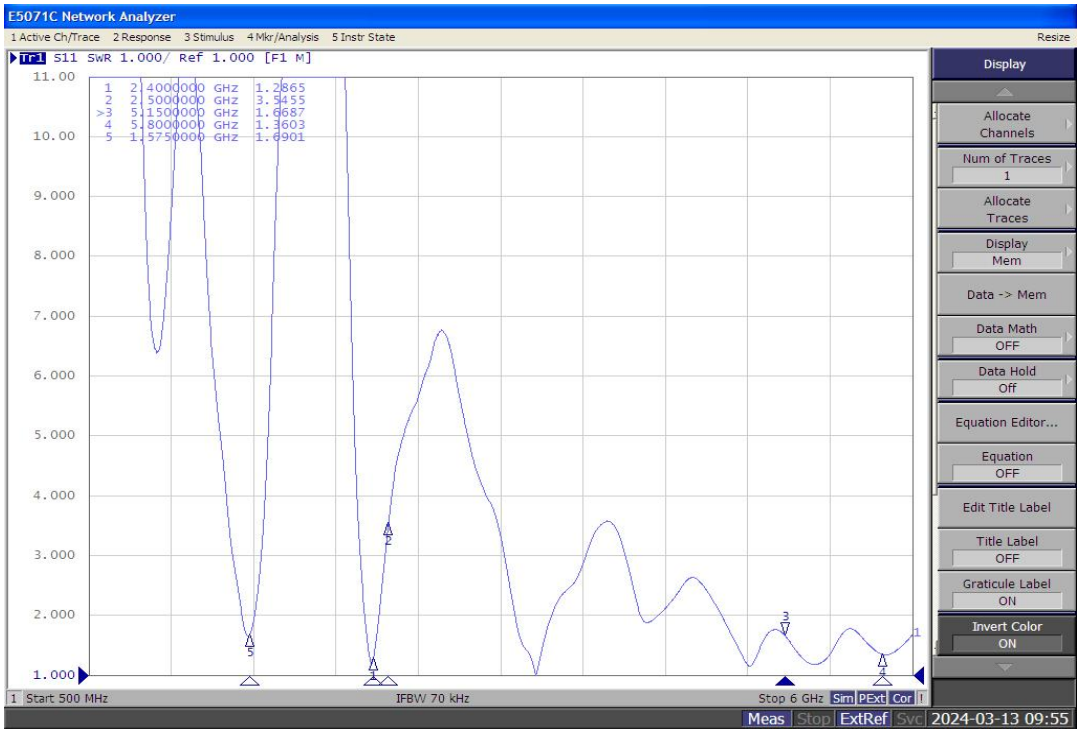
SPECIFICATION APPROVAL SHEET

Change resume

Rev	Acknowledge the change	Alteration party	auditor	approver	date
V1	First edition.				2024. 3. 11

A. Product specifications \2D drawings \ product material composition list

A-1 VSWR



SPECIFICATION APPROVAL SHEET

A-2 Passive efficiency

chNo	Freq (Mhz)	Gain(dBi)	Efficiency_Pcent (%)
1	1550	-0.972622311	31.10155467
2	1555	-1.011604508	31.77856044
3	1560	-0.956670148	32.48585008
4	1565	-0.942565973	32.80242378
5	1570	-0.991006435	32.47075488
6	1575	-0.983730656	32.1481657
7	1580	-1.075632935	31.20320394
8	1585	-1.281453291	30.51128958
9	1590	-1.394496067	30.04411734
10	1595	-1.353716616	30.17538763
11	1600	-0.684114413	34.10886747
12	1605	-0.677680633	34.14198428
13	1610	-0.576814253	34.41618272
14	1615	-0.524009181	34.247642
15	1620	-0.62347388	33.79954429
16	2400	-1.216660074	30.4557802

SPECIFICATION APPROVAL SHEET

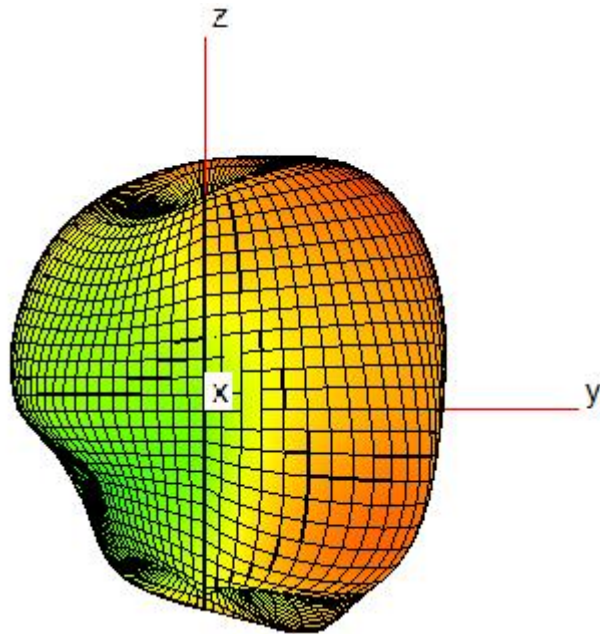
17	2410	-1.116829929	31.91743272
18	2420	-1.193796746	33.0973969
19	2430	-1.180439612	32.83861089
20	2440	-1.559546213	30.85459327
21	2450	-1.628764126	30.77519989
22	2460	-1.654795318	30.3151721
23	2470	-1.734516195	29.48667146
24	2480	-2.026530498	27.70122187
25	2490	-2.156411481	26.71604444
26	2500	-2.269264727	25.94114016
27	5150	-1.200847588	29.84893412
28	5200	-1.63262077	28.28068662
29	5250	-0.507418386	29.89882916
30	5300	-0.836970548	30.25839056
31	5350	-0.109902137	29.666705
32	5400	-1.740248386	27.0341733
33	5450	-2.207231255	21.84696281

SPECIFICATION APPROVAL SHEET

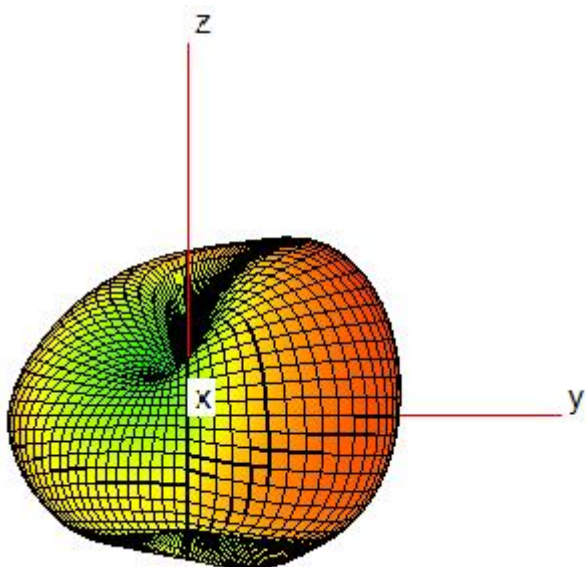
34	5500	-2.934204734	20.09411769
35	5550	-4.364577902	22.60133331
36	5600	-4.576731621	22.2939045
37	5650	-2.30141041	23.89171992
38	5700	-3.333431425	24.94500951
39	5750	-2.156665484	24.52808439
40	5800	-2.846152871	23.314602
41	5850	-1.973800232	20.67513907

A-3 3D radiation map

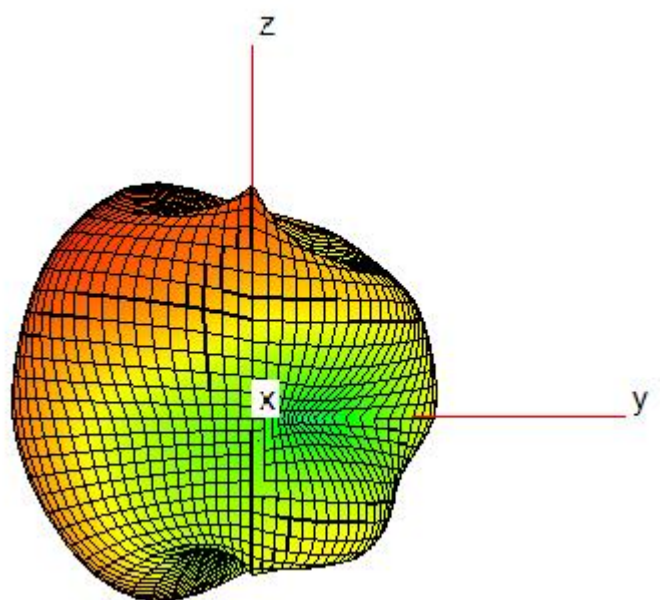
1575MHZ



2450MHZ



5550MHZ



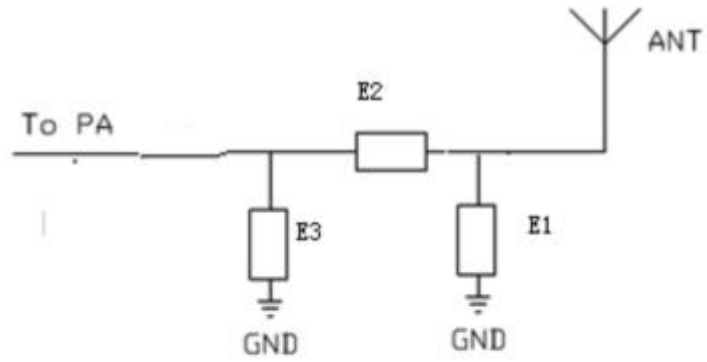
SPECIFICATION APPROVAL SHEET

A-4 Active data

Frequency band	Parameter \ channel	1	7	11
WIFI-11G	TRP(dBm)	11.80	12.26	12.24
	TIS(dBm)	-65.52	-69.07	-68.26
Frequency band	Parameter \ channel	36	64	165
WIFI-11A	TRP(dBm)	11.07	8.99	11.02
	TIS(dBm)	-68.32	-66.98	-64.69

SPECIFICATION APPROVAL SHEET

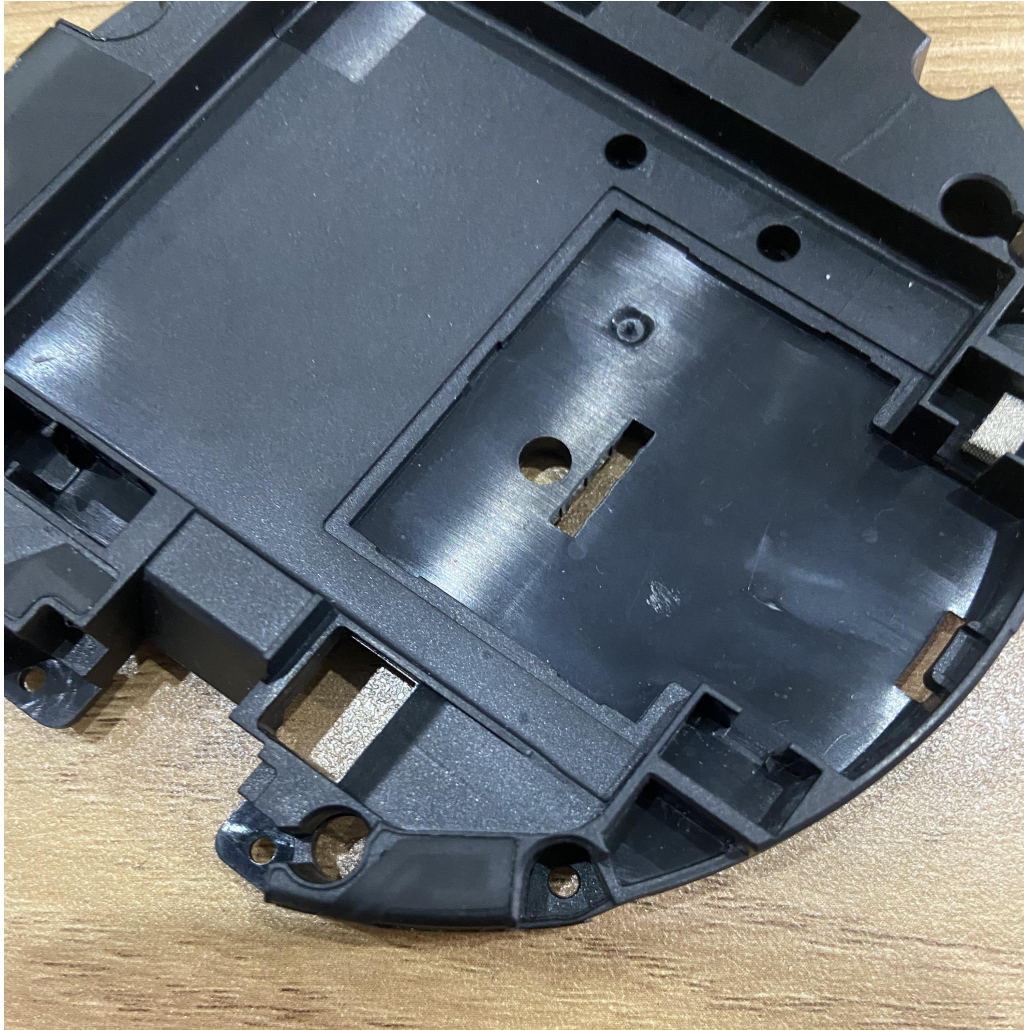
A-5 Matching specification



Matching structure	WIFI&BT&GPS
E1	NC
E2	1NH
E3	NC

SPECIFICATION APPROVAL SHEET

A-6 Assembly instruction



[illegible]

SPECIFICATION APPROVAL SHEET

B. Critical dimensional measurement report

Customer name	FEITIAN	Product name	F360 WIFI&BT&GPS	quantity	5pcs								
Product material	FPC	colour	black	date	2024/3/8								
Product type: ☐ New look ☐ reshape ☒ Mass production ☐ other													
NO.	dimension	Measured size										determine	remark
		1	2	3	4	5	6	7	8	9	10	OK/NG	
A	21.88±0.15	21.82	21.81	21.81	21.8	21.82						OK	
B	19.17±0.15	19.13	19.1	19.11	19.1	19.13						OK	
C	4.80±0.3	4.71	4.69	4.7	4.68	4.71						OK	
D													
E													
F													
G													
H													
I													
Performance: Conformance test OK													
Overall decision: ☒ OK ☐ NG approval: audit: consummate:													
remark:													

SPECIFICATION APPROVAL SHEET

C. Reliability test report

Test Report									
Product name		FPC		Part Model	F360 WiFi&BT&GPS	Ambient temperature	20±5℃	Date of test	2024/3/8
Specimens quantity		48 PCS		Customer number	/	Relative humidity	50-60%RH	Client/Dept	Quality department
Test reasons		New type/material verification				Test documentation		Antenna reliability testing reference	
NO.	Test projec	Samples Qty.	Test equipmen t	Test condition and note		Test result	conclusion	Sample picture/measured value	
1	Salt fog test	3	Salt mist tester	Conditions: The product is placed in 30 degrees and 5 degrees in the test box The test box parameter is adjusted for the test box. The concentration is 5%. Ph: 6.5~ 7.2; Laboratory temperature: 32-38cent; Air pressure: 1 (kg/m2) spray amount: : 1.0~ 2.0ml/80cm2/h relative humidity: 85%. Test product placement Angle: 30 degrees + / -10 degrees The time is 48 hours. 4. after cleaning, the 2h observation is placed in room temperature Requirements: non-shedding, foaming, corrosion and oxidation of the coating. There is no such thing as rust spot		No coating and oxidation were found.	Pass		
2	High temperature test	3	High and low temperature alternating wet heat test chamber	The sample is removed from the temperature 85 ℃ in the environment for 48 hours The function is placed at room temperature.		The coating surface of the product has no oxidation, no foaming, peeling, delamination, and the electrical function is intact	Pass		
3	Low temperature test	3	Cryogenic refrigerator	1. Keep the sample at a low temperature of -40 ℃ for 48 hours and then take it out 2. Leave for 2 hours at room temperature.		The coating surface of the product is not oxidized, no shedding, no stripping, electrical function is intact	Pass		
4	High temperature and wet storage test	3	Heat and heat test box	Sample 3pcs The test is placed in the test box (temperature 70g, 20, humidity 90%~ 95%rh1), and then the 48h is removed for inspection.		The coating surface of the product has no oxidation, no foaming, peeling, delamination, and the electrical function is intact	Pass		
Comments:									
Approved by:			Checked by:			Name of operator: Wei li			

D. Process flow chart

Process Flow Chart

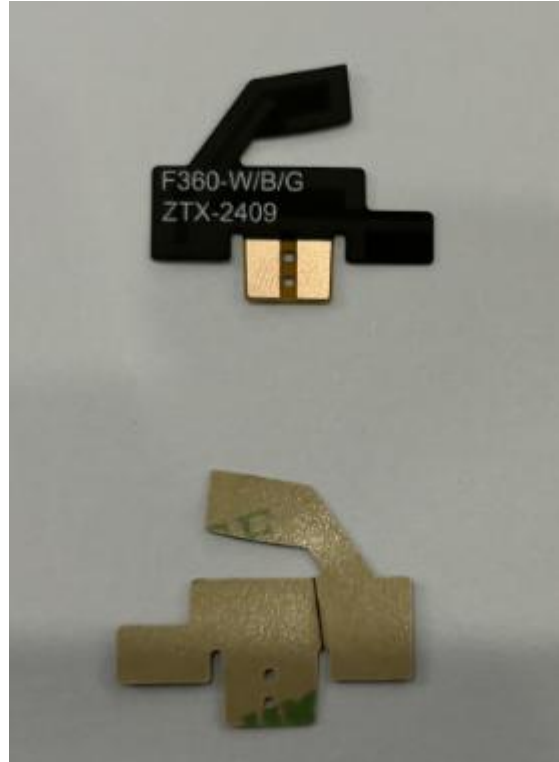
Customer	FEITIAN	Written By	Xiaoliang hu	Orig. Date	8-Mar-24
Part Number	E.03.00992	Revised By	Enyuan xie	Revised Date	8-Mar-24
Description	F360 WIFI&BT&GPS	Approved By	Erdong wang	Approved Date	8-Mar-24

Production flowchart

Process flow
blanching
Dry lamination
Exposure circuit
develop
Etched film retreat
AOI
Grinding plate
Machine printing and punching
Screen face welding
Ink drying
QC
Screen front character
Ink drying
QC
Goldfinger treatment
Gold face protection
IPQC
Demulching film
Dividing plate
3M adhesive bonding
Positioning holes for target shooting
Contour forming
FQC
Packing and warehousing

17 20

F. Product physical picture (front \ back)



SPECIFICATION APPROVAL SHEET

G. Material HSF declaration form

Part Number	Part Name	Measured Part Weight	unit	Supplier SUB-Part Number	Manufacturer	Application Project
F360 WIFI&BT&GPS	One and a half pairs of electrolytic copper	0.0328	g	E.03.00992	CAI Lungetti	General purpose material
	PSM-800FSMBL6	0.0031	g		Youli	General purpose material
	3M9471	0.0039	g		3M	General purpose material
	KSM-S6188-C	0.0009	g		Xindongfang	General purpose material
	gold	0.002	g		Qiansheng	General purpose material

SPECIFICATION APPROVAL SHEET

H. Related product inspection report

Customer name	FEITIAN	Order number	P00RD2024010292200	Material coding	01.02.021.000124							
Product type	F210 WIFI&BT&GPS	Production date	2024.1.5	Number of orders	235							
Production quantity	235	Date of inspection	2024.1.5	Sampling quantity	32							
Sampling plan: GB/T2828.1-2012/ISO2859-1:1999Sampling level (Level level) Single time C=0(Zero defect) Sampling plan												
Test mode: Normal test CR(0):0/1 MAJ(0.4): 0/1 MIN(1): 0/1												
project	Test content	Inspection requirement			Test result	CR	MAJ	MIN				
appearance	shard	The surface is not scratches, oil, pressure, oxidation/rust, wool, low hole/porous, deformation, etc.			/							
	FPC/PCB	No oxidation, no waste, no waste, no material, no matter, no matter, no matter, no matter, no hole/porous, color difference, spray oil, etc.			OK							
	Wire wood	No damage, color difference, no disconnect, tin, deformation, burn, etc., the end and the wire are riveted and strong, and the writing needs to be clear.			/							
	ferrite	No wrinkles, burrs/burrs, particles, foreign bodies, deformations, scratches, etc			/							
	Horn/stand	The button is no deformation/break, the surface is no plastic, the oil, the oil, the top, the top white, the deformation, the color difference, the water mouth is not treated and so on. The lead line is not broken, the pressure injury, the unwave is the first class bad. The writing needs to be clear and discernible			/							
	weld	No leakage welding, virtual welding, false welding, welding bridge, tin tip, tin, tin, tin, stripping, splash tin, high			/							
	Hot melt/fit	The slippage and the scaffold need to be attached tightly, no ups, blow points and so on. FPC and support should be closely tied, no ups, skew, wrinkles and so on.			/							
	Apply the backing/backki	No leakage, distortion, damage, warping and other bad			/							
Test item	1	2	3					determine				
Significant dimension	a.21.88±0.15	21.80	21.81	21.82	21.81	21.80	21.79	21.82	21.78	21.83	21.80	OK
	b.19.17±0.15	19.19	19.17	19.18	19.20	19.19	19.18	19.20	19.17	19.21	19.21	OK
other												
Packing (outer box label/internal packing) ☒ Whether it suits rohs												
Outer box label: quantity (105) ☒ specification ☒ name ☒ Object code ☐ Lot number ☒ Order number												
Internal sign: quantity (100) ☒ specification ☒ name ☒ Object code ☐ Lot number ☒ Order number												
Comprehensive judgment: ☒ Up to standard ☐ Below standard												
Approval: yi ailing QA: Xie Yongying												
Unqualified handling mode	☐ Provisional release ☐ Return check ☐ Back processing											
	Non-conforming processing countersign:											
Remarks	Test basis: the customer returns the relevant parameters in the specification book.											
	The data for the sampling test data.											