

Shenzhen yGalax Technologies Limited

sample approval

ITEM name: U6

Customer Material code: YX-U6-MAIN-V4.0
YX-U6-DIV-V3.0
YX-U6-WIFI-V3.0

VISON/COLOR: black

SIGN DATE: 2025.04.25

supply check	made	RD	MD	QC

customer check	PROJECT	FACE	MD	QC

CONCLUSION	☐ MP ☐ Restricted use () K
------------	--

☐ ROHS

supply nme: Shenzhen yGalax Technologies Limited

add: Unit F, 4/F, Block A, Junxiangda Plaza, Zhongshanyuan Road, Nanshan District Shenzhen, China518000

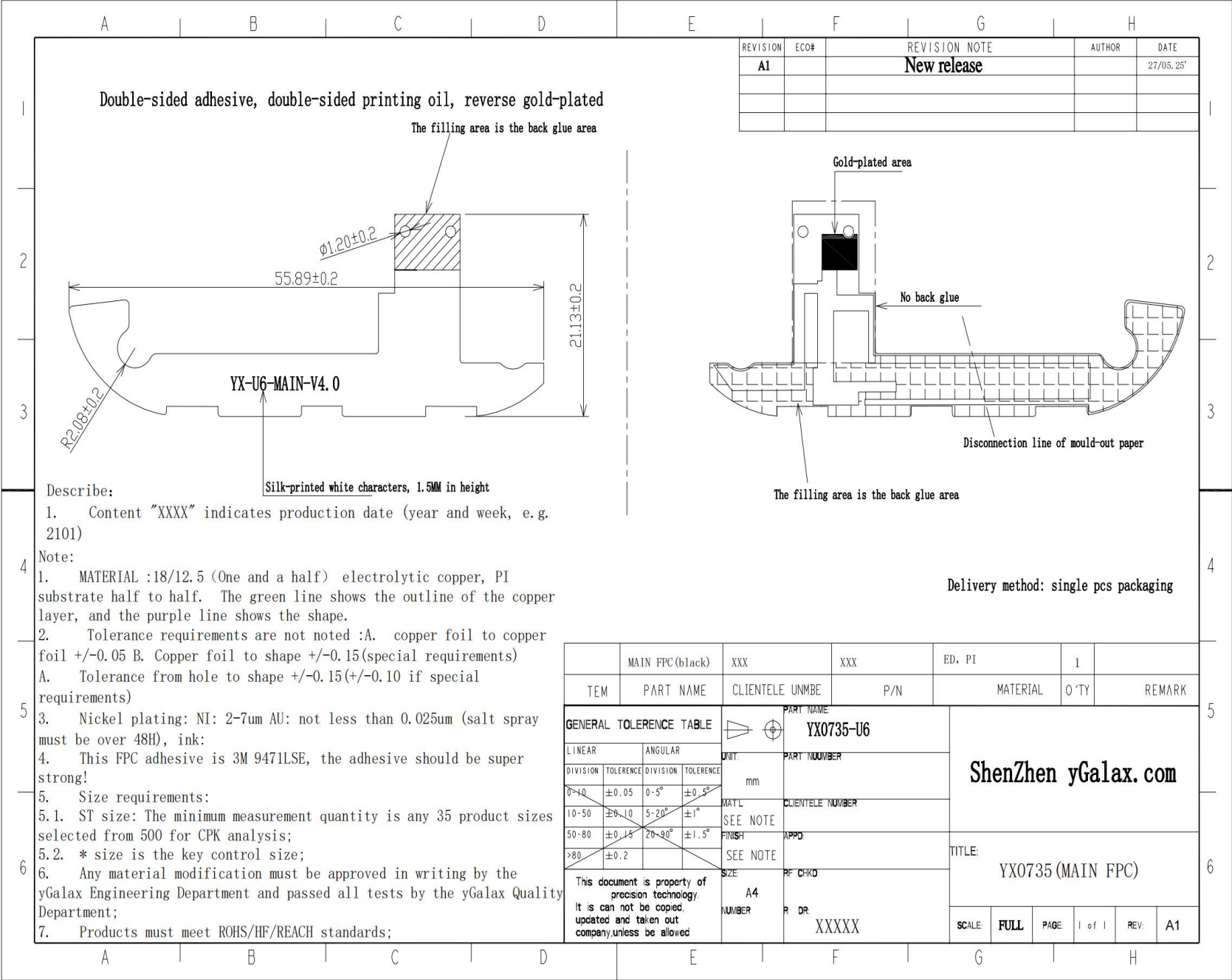
TEL: 0755-86 696901

fax: 0755-86 696901

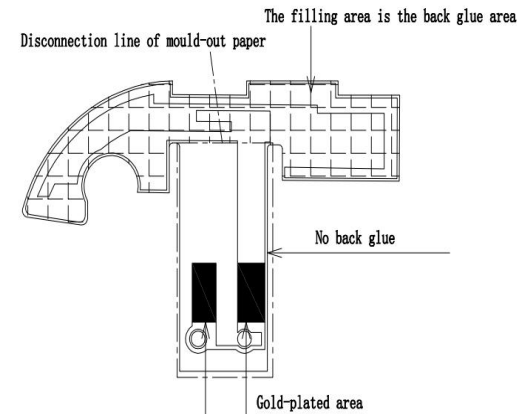
Directory

- 1、 face
- 2、 catalogue
- 3、 ICD drawing
- 4、 Antenna performance and precautions
- 5、 inspection specification
- 6、 Rohs data
- 7、 Salt spray test
- 8、 High and low temperature test

3. ICD图纸



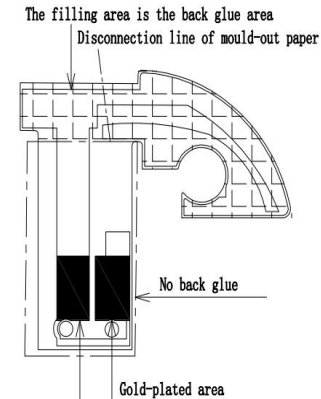
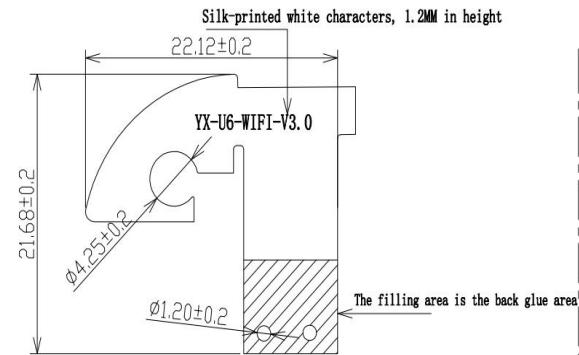
Double-sided adhesive, double-sided printing oil, reverse gold-plated



	DIV FPC(black)		XXX		XXX		ED, PI		1				
TEM		PART NAME		CLIENTE UNMBE		P/N		MATERIAL		O'TY		REMARK	
GENERAL TOLERANCE TABLE						PART NAME: YX0735-U6		ShenZhen yGalax.com					
LINEAR		ANGULAR		UNIT: mm		PART NUMBER							
DIVISION	TOLERANCE	DIVISION	TOLERANCE	MAT'L		CLIENTE NUMBER							
0-10	±0.05	0-5°	±0.5°	SEE NOTE									
10-50	±0.10	5-20°	±1°										
50-80	±0.15	20-90°	±1.5°	FINISH		APPD:		TITLE: YX0735 (DIV FPC)					
>80	±0.2			SEE NOTE									
This document is property of precision technology. It is can not be copied, updated and taken out company unless be allowed				SIZE: A4		RF CHKD		SCALE: FULL PAGE: 1 of 1 REV: A1					
				NUMBER		R DR: XXXXXX							

Double-sided adhesive, double-sided printing oil, reverse gold-plated

REVISION	ECO#	REVISION NOTE	AUTHOR	DATE
A1		New release		27/05.25'



Describe:

- Content "XXXX" indicates production date (year and week, e.g. 2101)

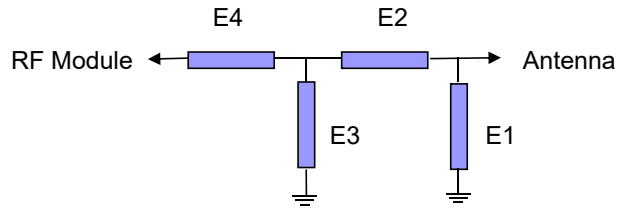
Note:

- MATERIAL :18/12.5 (One and a half) electrolytic copper, PI substrate half to half. The green line shows the outline of the copper layer, and the purple line shows the shape.
- Tolerance requirements are not noted :A. copper foil to copper foil ± 0.05 B. Copper foil to shape ± 0.15 (special requirements)
 - Tolerance from hole to shape ± 0.15 (± 0.10 if special requirements)
- Nickel plating: NI: 2-7um AU: not less than 0.025um (salt spray must be over 48H), ink:
- This FPC adhesive is 3M 9471LSE, the adhesive should be super strong!
- Size requirements:
 - ST size: The minimum measurement quantity is any 35 product sizes selected from 500 for CPK analysis;
 - * size is the key control size;
- Any material modification must be approved in writing by the yGalax Engineering Department and passed all tests by the yGalax Quality Department;
- Products must meet ROHS/HF/REACH standards;

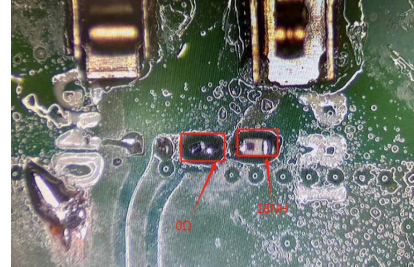
Delivery method: single pcs packaging

	WIFI FPC (black)	XXX	XXX	ED, PI	1			
TEM	PART NAME	CLIENTELE UNMBE	P/N	MATERIAL	O'TY	REMARK		
GENERAL TOLERANCE TABLE		 PART NAME: YX0735-U6		ShenZhen yGalax.com				
LINEAR		UNIT: mm					PART NUMBER	
ANGULAR		MTRL					CLIENTELE NUMBER	
DIVISION		TOLERANCE					SEE NOTE	
0-10	±0.05	0-5°	±0.5°	TITLE: YX0735 (WIFI FPC)				
10-50	±0.10	5-20°	±1°					
50-80	±0.15	20-90°	±1.5°					
>80	±0.2							
This document is property of precision technology. It is can not be copied, updated and taken out company unless be allowed		FINISH		APPD				
SIZE		SEE NOTE						
A4		RF: CHKD						
NUMBER		R DR						
		XXXXX						
				</				

Antenna Matching Modification



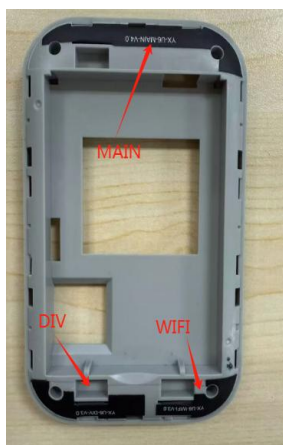
	Element	Value
Main antenna	E1	18NH
	E2	0 Ω
	E3	
	E4	



FS active efficiency of the main set

FS	Channel	TX (dBm)	RX (dBm)	FS	Channel	TX (dBm)	RX (dBm)	FS	Channel	TX (dBm)	RX (dBm)
LTE-1	L	19.83		LTE-12	L	18.19		LTE-28	L	18.62	
	M	20.29			M	18.45			M	18.57	
	H	18.39	-93.43		H	18.22	-92.95		H	18.56	-90.97
LTE-2	L	20.35		LTE-13	M	18.96	-91.01	LTE-66	L	19.3	
	M	20.19			M	20.13					
	H	20.03	-92.5		H	20.14	-93.64				
LTE-3	L	19.26		LTE-17	L	18.29		LTE-34	L	18.16	
	M	19.55			M	18.53			M	18.23	
	H	19.93	-93.88		H	18.05	-90.07		H	18.07	-92.71
LTE-4	L	19.46		LTE-18	L	19.14		LTE-38	L	21.09	
	M	19.71			M	19.02			M	20.7	
	H	21.29	-94.08		H	18.92	-92.52		H	20.82	-93.39
LTE-5	L	20.81		LTE-19	L	18.78		LTE-39	L	20.22	
	M	20.94			M	18.96			M	20.28	
	H	20.87	-94.03		H	19.31	-94.77		H	20.06	-93.25
LTE-7	L	20.23		LTE-20	L	18.55		LTE-40	L	20.65	
	M	19.74			M	18.09			M	19.54	
	H	19.79	-93.6		H	18.04	-93.45		H	20.58	-93.74
LTE-8	L	18.09		LTE-25	L	20.18		LTE-41	L	20.91	
	M	18.73			M	20.15			M	20.33	
	H	18.06	-92.75		H	19.72	-90.65		H	20.31	-92.93
LTE-9	L	19.87		LTE-26	L	18.93		WIFI2.4	1	16.05	
	M	19.95			M	19.06			6	16.17	
	H	20.02	-93.18		H	18.8	-92.9		11	15.36	-85.43

environment for installing the equipment



MAIN-Efficiency

Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi	Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi	Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
700	-6.21	23.93	0.18	1710	-5.15	30.55	-2.09	2300	-2.74	53.21	1.59
710	-6.22	23.88	-0.29	1730	-5.07	31.12	-1.29	2320	-2.77	52.84	1.57
720	-6.48	22.49	0.74	1750	-5.62	27.42	-1.69	2340	-2.74	53.21	1.52
730	-6.56	22.08	-1.2	1770	-6.51	22.34	-1.99	2360	-2.8	52.48	1.56
740	-6.23	23.82	-0.87	1790	-6.97	20.09	-2.17	2380	-2.87	51.64	1.65
750	-6.02	25	-0.4	1810	-7.5	17.78	-2.58	2400	-2.96	50.58	1.59
760	-5.73	26.73	0.14	1830	-7.82	16.52	-2.09	2420	-2.78	52.72	1.79
770	-5.6	27.54	0.12	1850	-7.85	16.41	-1.45	2440	-2.84	52	1.97
780	-5.53	27.99	-0.05	1870	-8	15.85	-1.84	2460	-2.81	52.36	2.13
790	-5.39	28.91	-0.36	1890	-7.86	16.37	-1.58	2480	-2.84	52	1.93
800	-5.72	26.79	-2.6	1910	-7.3	18.62	-0.67	2500	-2.88	51.52	1.62
810	-5.89	25.76	-2.59	1930	-7.01	19.91	-0.45	2520	-2.91	51.17	1.5
820	-5.8	26.3	-2.77	1950	-6.85	20.65	-0.37	2540	-2.82	52.24	1.52
830	-5.56	27.8	-2.43	1970	-6.64	21.68	-0.16	2560	-2.87	51.64	1.39
840	-5.43	28.64	-2.36	1990	-6.65	21.63	-0.22	2580	-2.93	50.93	1.32
850	-5.69	26.98	-2.89	2010	-6.18	24.1	0.31	2600	-2.96	50.58	1.23
860	-6.75	21.13	-3.72	2030	-5.98	25.23	0.58	2620	-3.01	50	1.27
870	-7.34	18.45	-4.78	2050	-5.47	28.38	0.92	2640	-2.86	51.76	1.45
880	-7.34	18.45	-5.11	2070	-5.05	31.26	0.89	2660	-2.95	50.7	1.27
890	-7.24	18.88	-5.05	2090	-4.57	34.91	1.42	2680	-2.9	51.29	1.52
900	-7.21	19.01	-4.85	2110	-4.28	37.33	1.98				
910	-7.38	18.28	-4.84	2130	-3.69	42.76	2.26				
920	-7.47	17.91	-4.92	2150	-3.42	45.5	1.64				
930	-7.44	18.03	-4.2	2170	-2.88	51.52	1.26				
940	-7.53	17.66	-3.94								
950	-7.65	17.18	-3.89								
960	-7.98	15.92	-4.51								

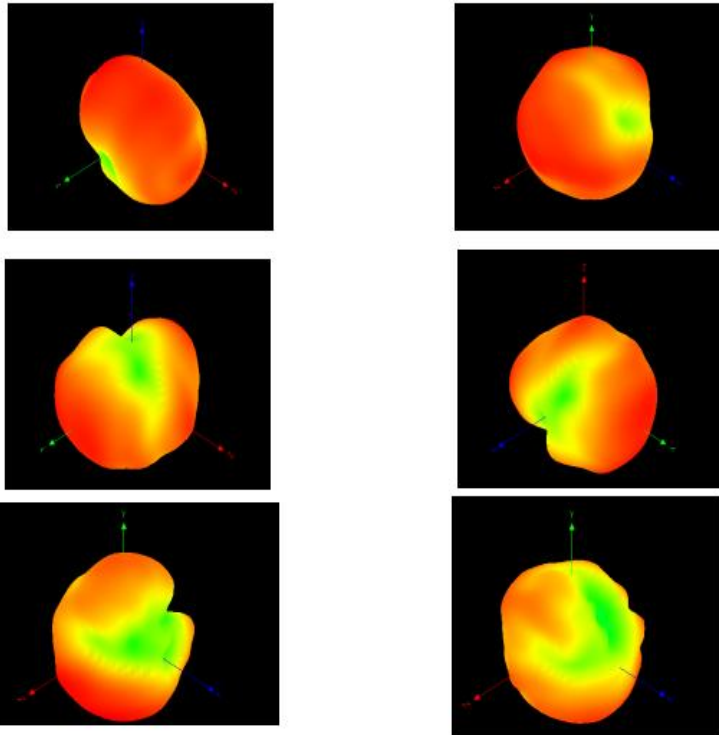
DIV-Efficiency

Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi	Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi	Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
700	-14.83	3.29	-8.53	1710	-3.53	44.36	-3.43	2300	-11.59	6.93	-5.71
710	-14.45	3.59	-8.38	1730	-3.3	46.77	-3.72	2320	-11.53	7.03	-5.77
720	-13.8	4.17	-7.83	1750	-2.96	50.58	-3.92	2340	-11.64	6.85	-6.39
730	-12.68	5.4	-7.12	1770	-2.87	51.64	-3.61	2360	-11.73	6.71	-6.17
740	-11.04	7.87	-5.58	1790	-2.62	54.7	-3.42	2380	-11.38	7.28	-5.56
750	-10.24	9.46	-4.67	1810	-2.51	56.1	-3.47	2400	-10.91	8.11	-5.01
760	-9.55	11.09	-3.87	1830	-3.01	50	-2.76	2420	-10.68	8.55	-4.1
770	-9.53	11.14	-4.15	1850	-3.3	46.77	-2.04	2440	-10.6	8.71	-3.71
780	-10.35	9.23	-5.31	1870	-3.32	46.56	-2.31	2460	-10.92	8.09	-3.79
790	-11.38	7.28	-5.74	1890	-3.5	44.67	-2.15	2480	-11.32	7.38	-4.47
800	-12.22	6	-8.28	1910	-3.88	40.93	-1.53	2500	-11.35	7.33	-5.55
810	-11.7	6.76	-8.1	1930	-4.36	36.64	0.73	2520	-11.13	7.71	-5.55
820	-10.61	8.69	-7.89	1950	-4.88	32.51	0.44	2540	-10.49	8.93	-4.87
830	-9.28	11.8	-6.9	1970	-5.41	28.77	-0.14	2560	-9.99	10.02	-4.49
840	-8.39	14.49	-5.72	1990	-6.08	24.66	-1.57	2580	-9.56	11.07	-4.2
850	-8.13	15.38	-5.24	2010	-6.28	23.55	-1.77	2600	-8.62	13.74	-3.28
860	-8.4	14.45	-5.32	2030	-6.96	20.14	-1.95	2620	-7.78	16.67	-2.34
870	-9.06	12.42	-6.15	2050	-7.15	19.28	-1.85	2640	-6.71	21.33	-1.54
880	-9.87	10.3	-7.3	2070	-7.41	18.16	-2.53	2660	-5.83	26.12	-0.58
890	-10.92	8.09	-8.69	2090	-7.71	16.94	-3	2680	-4.88	32.51	0.35
900	-12.06	6.22	-9.58	2110	-8.12	15.42	-3.16				
910	-13.3	4.68	-10.51	2130	-8.37	14.55	-3.4				
920	-14.38	3.65	-11.29	2150	-8.8	13.18	-4.1				
930	-15.3	2.95	-12.12	2170	-8.94	12.76	-4.23				
940	-16.38	2.3	-13.3								
950	-17.41	1.82	-14.18								
960	-18.56	1.39	-15.53								

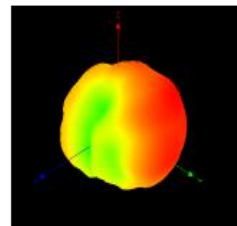
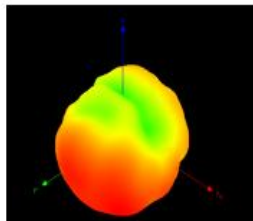
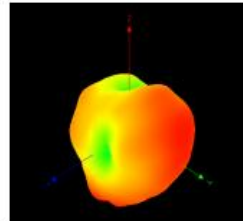
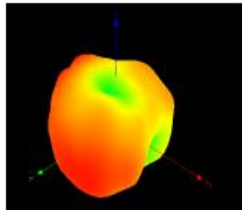
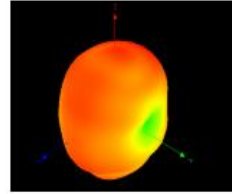
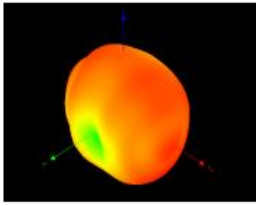
WIFI-Efficiency

Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
2400	-2.75	53.09	2.1
2410	-2.85	51.88	2.16
2420	-2.71	53.58	2.51
2430	-2.83	52.12	2.49
2440	-2.89	51.4	2.48
2450	-3	50.12	2.53
2460	-3.04	49.66	2.32
2470	-3.2	47.86	2.09
2480	-3.36	46.13	1.88
2490	-3.44	45.29	1.75
2500	-3.24	47.46	2.28

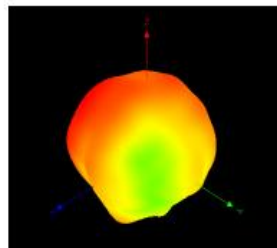
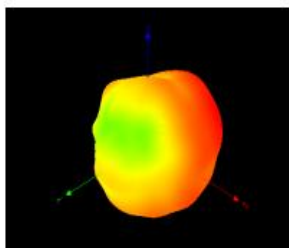
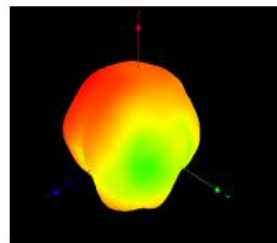
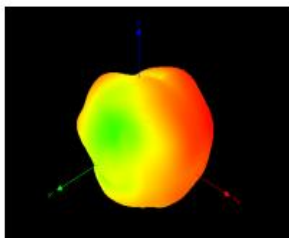
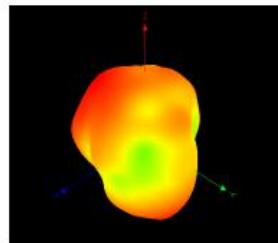
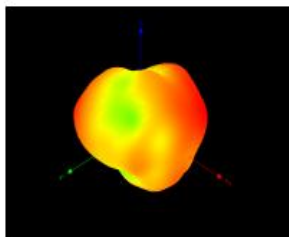
MAIN ANTA direct pattern



DIV ANTA DIRECT pattern



wifi anta direct



Shenzhen yGalax Technologies Limited		File NO#	
		MADE DATE	
		PAGE	
		VISION	A0
	FPC ante inspection specification		

1. purpose：Strict inspection, control the use of defective products, ensure product quality requirements.。
2. range of application: FPC Ante.
3. work content

item	content	tool	inspection standard	defect describe	FAULT GRADE
pack age	INDENTIFI CATION	by sight	The outer package has clear label, indicating the product name, specification, quantity, date, etc.	The mark is not clear and cannot be read.	MIN
	MATERIAL	by sight	Uniform packaging, clean and tidy, no damage, no impact on handling, storage, no wrong loading, mixed loading, less loading.	Packaging is not uniform, dirty, wet, damage, affect handling, storage.	MIN
face	FACIAL	by sight	No breakage, copper exposure, cracking, color difference, glue benefit on FPC, no oxidation, brittle crack on golden finger.	FPC has damage, copper exposure, cracking, color difference, glue, gold finger oxidation, brittle crack.	MAJ
stru ctur e	size	Vernie r	Circuit board size (length, width and height) is the same as	The dimensions are different from the pattern.	MAJ
	material proof	sample	Same as the sample.	The material is different from the template	MAJ
func tion	electropl ating	model	Gold finger gilded bright, 100% coverage.	Plating is not bright, plating coverage is low.	MAJ
	FIT	Frame	Attach the FPC to the housing, and the preset paste position is consistent, no more or less.	Attach the FPC to the housing, and the preset position of the paste is not consistent, there is more or less.	MAJ

MADE BY:	Audit:	Approver:

RoHS Restricted Substance Composition sheet

Product information provided												
customer name		Metarial NO#		Project name		manufacturer				green mark		
Shenzhen Zifeng Communication Co.,		YX-U6-MAIN-V4.0		U6		Shenzhen yGalax Technologies Limited				/		
Product composition information												
item	part name	part NO#	VOLUME UP	Third party test report		Limit substance content PPM						remark
				DATE	number	(Pb)	(Cd)	(Hg)	(Cr ⁶⁺)	(PBB)	(PBDE)	
1	3M adhesive	/	honjingxinban	2021/1/13	SHAEC2100467601	○	○	○	○	○	○	
2	COPPER CLAD LAMINATE	/	caigelundi	2021/3/3	SHAEC2103249001	○	○	○	○	○	○	
3	ink	/	kaiyao	2021/8/17	ERT2102095	○	○	○	○	○	○	
4	electroplating	/	jiahongtai	2021-5-13	A2210168276101001E	○	○	○	○	○	○	

Note: 1、请以○、×表示六项限用物质含量合规与否；合规者以○表示；不合规以×表示。
2、PPM限量值：镉<100PPM；铅/汞/六价铬/PBB/PBDE<1000PPM。
3、其中针对包装材料中铅、六价铬、汞和镉的总量不超过100ppm。
4、此表请供应商完整填写后盖章；此处供应商指直接交易方。（提供盖章的纸件或扫描PDF文件）

填写人：张海峰

填写人公司/部门：品质部

Salt spray test report

date: 20250425

product name	U6		
supplier	Shenzhen yGalax Technologies Limited	National test standard	GB/T 2423.2-2008
Sample situation	QTY: 5PCS		
	MATERIAL: One - sided half - half colloidal electrolytic copper	plating thickness : ≥3U"	
TEST DATE	FROM 2025/04/25 10:00 TO 2025/04/27 10: 00 TOTAL 48 H		
TEST TYPE:	☒ NSS	☐ ASS	☐ CASS
test condition	saline solution: 5%		PH:7.0
	the temperature inside the box: 35°C		relative humidity: 85%
	Spray way: ☒ continue ☐ gap		compressed air pressure: 1kg/cm²
	Salt spray sedimentation rate: 1-2ml/80cm2/h		Fog fluid collection:
	test cycle: A loop		Spray time: 48 h
test result	Appearance after test: The appearance is intact without significant change.		
	Coating: no peeling, no corrosion		
	Surface spraying, screen printing: no shedding, no bubbles		
NOTE: 1, salt spray test operating standards in accordance with the People's Republic of China national standard GB/T2423.17-2008 2. The test results shall be determined according to the national standard GB/T6461-02 of the People's Republic of China			
test date:		check:	

High and low temperature test records

product name	U6			
test QTY	6 pcs	TEST DATE	2025/4/25	
cycle-index	1	test time	48H	
test condition high temperature: + <u>65</u> ℃ humidity: <u>90</u> % RH low temprature: - <u> </u> ℃ test: high-temp: <u>48</u> H low-temp: <u> </u> H				
test project	Uncycled test		cycled test	
item	After the high temperature	After low temperature	After the high temperature	After low temperature
1	OK	/		
2	OK	/		
3	OK	/		
4	OK	/		
5	OK	/		
6	OK	/		
Post test defect:				
reason analysis:				
improvement measure:				
test result: ☒ pass ☐ fail				

AUDIT:

record: