



FG132-GL-00-M2-10

Baseband Test Report

V1.1

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Change History

V1.1 (2025-03-06)	The chapter 2 update the description of some devices The chapter 4.1 update the data of sleep mode
V1.0 (2025-01-02)	Initial version

1 Test Version Description

Table 1. Test version description

Product Name	FG132-GL-00-M2-10
Hardware version	V1.0
Software version	19003.1000.00.02.01.51

2 Test Device

Table 2. Test device list

No.	Device Name	Manufacturer	Model
1	Electrostatic discharge generator	Shanghai Lioncel Electromagnetic Technology Co., Ltd.	ESD-203B
2	DC power Analyzer	KEYSIGHT	N6705C
3	Wideband radio communication tester	R&S	CMW500
4	Vector signal generator	R&S	SMBV100A
5	Wideband radio communication tester	R&S	CMX500

3 Test Summary

Table 3. Test summary

No.	Test Item	Test Result	Remark
1	Low Power Consumption Test	PASS	--
2	Power-On/Off Stress Test	PASS	--
3	Reset Stress Test	PASS	--
4	Flash Stress Test	PASS	--
5	ESD test	PASS	--

4 Test Item

4.1 Low Power Consumption Test

4.1.1 Test Purpose

To verify the power consumption of the module in standby, sleep, and power off states.

4.1.2 Test Standard

Fibocom standards.

4.1.3 Test Conclusion

1. Test condition: normal temperature of 25°C, 3.8V.

2. Test Data

a. Power-off leakage current

Table 4. Test result of power-off leakage current

Mode	Condition	0578#	0693#
		Test Value (μA)	Test Value (μA)
Static leakage	Power supply, not power on	67.9	68.0
Hardware power-off	Press the power on/off key in power-on state	68.5	69.0
Software power-off	By AT command or selecting the power-off menu in power-on state	68.4	69.0

b. Sleep current

Table 5. Test result of sleep current

Mode	Condition	0578#	0693#
		Test Value (mA)	Test Value (mA)
NR-FDD	Paging Cycle #64(USB disconnected)	2.55	2.65
	Paging Cycle #128(USB disconnected)	2.29	2.40
	Paging Cycle #256(USB disconnected)	2.07	2.18
	eDRX=20.48s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.89	1.89
	eDRX=40.96s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.78	1.80
	eDRX=81.92s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.71	1.73

Mode	Condition	0578#	0693#
		Test Value (mA)	Test Value (mA)
NR-TDD	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	1.72	1.74
	Paging Cycle #64(USB disconnected)	2.49	2.61
	Paging Cycle #128(USB disconnected)	2.26	2.37
	Paging Cycle #256(USB disconnected)	2.05	2.17
	eDRX=20.48s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.83	1.89
	eDRX=40.96s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.78	1.80
	eDRX=81.92s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.71	1.73
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	1.70	1.71
LTE-FDD	Paging Cycle #64(USB disconnected)	2.45	2.57
	Paging Cycle #128(USB disconnected)	2.23	2.38
	Paging Cycle #256(USB disconnected)	2.08	2.26
	eDRX=20.48s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.94	2.03
	eDRX=40.96s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.86	1.95
	eDRX=81.92s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.82	1.91
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	1.82	1.93
LTE-TDD	Paging Cycle #64(USB disconnected)	2.46	2.58
	Paging Cycle #128(USB disconnected)	2.23	2.36
	Paging Cycle #256(USB disconnected)	2.09	2.23
	eDRX=20.48s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.89	2.02
	eDRX=40.96s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.83	1.95
	eDRX=81.92s; PTW=1.28s; DRX=1.28s (USB disconnected)	1.79	1.91
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	1.80	1.92
Radio Off	AT+CFUN=0, Flight Mode (USB disconnected)	1.67	1.74

c. Idle current

Table 6. Test result of idle current

Mode	Condition	0578#	0693#
		Test Value (mA)	Test Value (mA)
NR-FDD	Paging Cycle #64(USB connected)	19.0	19.2
	Paging Cycle #64(USB disconnected)	10.0	10.2

Mode	Condition	0578#	0693#
		Test Value (mA)	Test Value (mA)
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB connected)	18.0	17.8
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	9.0	8.9
NR-TDD	Paging Cycle #64(USB connected)	18.9	19.1
	Paging Cycle #64(USB disconnected)	10.0	10.2
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB connected)	17.8	17.7
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	9.0	8.9
LTE-FDD	Paging Cycle #64(USB connected)	19.5	19.6
	Paging Cycle #64(USB disconnected)	10.2	10.5
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB connected)	18.5	18.7
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	9.4	9.6
LTE-TDD	Paging Cycle #64(USB connected)	19.5	19.6
	Paging Cycle #64(USB disconnected)	10.3	10.5
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB connected)	18.5	18.7
	eDRX=81.92s; PTW=2.56s; DRX=1.28s (USB disconnected)	9.3	9.6

3. Test result:

PASS

4.2 Power-On/Off Stress Test

4.2.1 Test Purpose

Verify whether the power-on/off function and stability of the module meet the Fibocom standards.

4.2.2 Test Standard

Test times ≥ 5000 and test time ≥ 48 hours. After the test is completed, the functions of the module are normal, the power-on/off success rate is $\geq 99.5\%$, and the register success rate is $\geq 99\%$.

4.2.3 Test Conclusion

1. Test data

Table 7. Test result of the power on/off stress

Parameter	Test Standard	PWRKEY Signal Controlling Time Power on 0.1s, Power off 3s		PWRKEY Signal Controlling Time Power on 2s, Power off 8s	
		3168#	3499#	3168#	3499#
Test times	≥ 5000	5000	5100	5000	5100
Test time	≥ 48H	57H	57H	64H	64H
Power-on success rate	≥ 99.5%	100%	100%	100%	100%
Power-off success rate	≥ 99.5%	100%	99.94%	100%	99.92%
Register success rate	≥ 99%	100%	100%	100%	100%

2. Test result

PASS

4.3 Reset Stress Test

4.3.1 Test Purpose

To verify that the reset function and stability of the module satisfy Fibocom standards

4.3.2 Test Standard

Test times ≥ 5000 and test time ≥ 48 hours. After the test is completed, the functions of the module are normal, the reset success rate is ≥ 99.5%, and the register success rate is ≥ 99%.

4.3.3 Test Conclusion

1. Test data

Table 8. Test reset of the reset stress

Parameter	Test Standard	Reset signal controlling time: 0.7s		Reset signal controlling time: 1s	
		3168#	3499#	3168#	3499#
Test times	≥ 5000	5700	5609	5803	5685
Test time	≥ 48H	49H	64H	50H	65H
Reset success rate	≥ 99.5%	100%	100%	100%	100%
Register success rate	≥ 99%	100%	100%	100%	100%

2. Test result

PASS

4.4 Flash Stress Test

4.4.1 Test Purpose

To verify the Flash and system stability.

4.4.2 Test Standard

After a cumulative number of 10000 random power-down during read and write in Flash key partitions, the functions of the module are normal. There is no failure to boot or parameters loss.

4.4.3 Test Conclusion

1. Test data

Table 9. Test result of the flash stress

Cumulative Duration (Days)	1	2	3	4	5
Cumulative Times	1700	3500	5200	7200	10050
6239#	PASS	PASS	PASS	PASS	PASS
4457#	PASS	PASS	PASS	PASS	PASS
6213#	PASS	PASS	PASS	PASS	PASS
4028#	PASS	PASS	PASS	PASS	PASS
3541#	PASS	PASS	PASS	PASS	PASS

2. Test result

PASS

4.5 ESD Test

4.5.1 Test Purpose

To verify that the ESD performance of the module meets design requirements.

4.5.2 Test Standard

Table 10. ESD performance parameters (Temperature: 25°C, Humidity: 45%)

Test Point	Contact Discharge	Air Discharge	Unit
Antenna GND	± 8	± 15	kV
Antenna interface	± 8	--	kV
Other interfaces	± 0.5	± 1	kV

4.5.3 Test Conclusion

PASS