PERFECT WIRELESS EXPERIENCE

FG132-NA-00
RF Test Report

V1.1

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Change History

V1.1(2025-03-06)	The chapter 5.6 add the SRS specifications
V1.0 (2024-10-09)	Initial version

1 Test Version Description

Table 1. Test version description

Product name	FG132-NA-00
Hardware version	V1.3
Software version	19003.1000.40.02.01.11

2 Test Device

Table 2. Test device list

No.	Device Name	Manufacturer	Model
1	Programmable constant temperature and humidity test chamber	XI'AN HUANKE TEST Equipment Co., Ltd.	GDJS-100C
2	Wideband radio communication tester	R&S	CMW500
3	Wideband radio communication tester	Anritsu	MT8821C
4	Wideband radio communication tester	R&S	CMX500
5	Wideband radio communication tester	Keysight	E7515R
6	DC power Analyzer	KEYSIGHT	N6705C
7	DC power supply	Agilent	66309D/66319D
8	Vector Signal Generator	R&S	SMBV100B

3 Test Summary

Table 3. Summary of test items

No.	Test Item	Test Result	Remarks (Failed Item)
1	LTE FDD	PASS	--
2	LTE TDD	PASS	--
3	LTE HPUE	PASS	--
4	5G RedCap FDD	PASS	--
5	5G RedCap TDD	PASS	--
6	5G RedCap SRS	PASS	--
7	GNSS	PASS	--
8	Max Throughput	PASS	--
9	Working Current	PASS	--

4 Test Standards and Conditions

4.1 Test Standards

Table 4. Supported systems and followed standards

No.	Communication System	Reference Standard/Specification
1	LTE	3GPP TS 36.521-1
2	5G RedCap	3GPP TS 38.521-1
3	GNSS	Product Specifications

4.2 Test Environment

Table 5. Test environment

No.	Test Environment	Test Temperature	Power Supply Voltage
1	Normal/NC	Normal temperature/room temperature: +25℃	Normal voltage: +3.8V
2	TL/VL	Low operating temperature: -35℃	Low voltage: +3.3V
3	TL/VH	Low operating temperature: -35℃	High voltage: +4.3V
4	TH/VL	High operating temperature: +75℃	Low voltage: +3.3V
5	TH/VH	High operating temperature: +75℃	High voltage: +4.3V

5 Test Items

5.1 LTE FDD Specifications

Description:

The maximum TX power of LTE FDD is measured by 10M QPSK 1RB. The RB position in low and medium channels is low, and the RB position in high channel is high.

Table 6. LTE-FDD maximum TX power & RX sensitivity (main+diversity) (Bandwidth=10M)

Band	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
		3GPP Requirement	Test Value		3GPP Requirement	Test Value	
			1225#	1332#		1225#	1332#
B2	L	23.0+2.7/-4.2	23.0	22.9	-94.3	-102.5	-102.3
	M	23.0±2.7	23.0	22.9		-102.9	-102.3
	H	23.0+2.7/-4.2	22.9	22.8		-102.7	-102.5
B4	L	23.0±2.7	22.9	22.8	-96.3	-102.3	-102.1
	M	23.0±2.7	22.9	22.9		-102.5	-102.7
	H	23.0±2.7	22.9	22.8		-101.9	-101.9
B5	L	23.0±2.7	23.2	23.0	-94.3	-103.1	-103.1
	M	23.0±2.7	23.2	23.1		-102.9	-102.9
	H	23.0±2.7	23.0	23.0		-102.9	-102.9
B7	L	23.0+2.7/-4.2	22.6	22.6	-94.3	-101.9	-102.1
	M	23.0±2.7	22.6	22.5		-101.9	-102.1
	H	23.0+2.7/-4.2	22.7	22.6		-101.7	-101.7
B12	L	23.0+2.7/-4.2	23.1	23.1	-93.3	-102.1	-101.9
	M	23.0±2.7	23.1	23.1		-102.1	-102.1
	H	23.0+2.7/-4.2	23.1	23.1		-102.3	-102.3
B13	L/M/H	23.0±2.7	23.1	23.0	-93.3	-102.3	-102.1
B14	L/M/H	23.0±2.7	22.9	23.0	-93.3	-101.9	-101.9
B17	L	23.0±2.7	23.2	23.1	-93.3	-102.3	-102.3
	M	23.0±2.7	23.1	23.1		-102.3	-102.3
	H	23.0±2.7	23.2	23.1		-102.3	-102.3
	L	23.0+2.7/-4.2	22.9	22.9		-102.4	-102.0

Band	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
		3GPP Requirement	Test Value		3GPP Requirement	Test Value	
			1225#	1332#		1225#	1332#
B25	M	23.0±2.7	22.9	22.9	-92.8	-102.6	-102.5
	H	23.0+2.7/-4.2	22.9	22.9		-102.4	-102.6
B26	L	23.0+2.7/-4.2	23.0	23.0	-93.8	-102.8	-102.8
	M	23.0±2.7	23.2	23.1		-103.0	-103.0
	H	23.0+2.7/-4.2	23.0	23.0		-102.6	-102.8
B30	L/M/H	23.0±2.7	23.1	23.0	-95.3	-101.7	-101.5
B66	L	23.0±2.7	22.8	22.8	-95.8	-102.2	-102.2
	M	23.0±2.7	22.8	22.8		-102.0	-102.0
	H	23.0±2.7	22.8	22.8		-102.2	-102.6
B71	L	23.0+2.7/-3.2	23.2	23.1	-93.5	-102.5	-102.5
	M	23.0+2.7/-3.2	23.1	23.1		-102.3	-102.5
	H	23.0+2.7/-3.2	23.0	23.0		-102.3	-102.3

Table 7. LTE-FDD maximum TX power & RX sensitivity (main&diversity) (Bandwidth=10M)

Band	Channel	Maximum TX Power (dBm)			RX Sensitivity (dBm)				
		3GPP Requirement	Test Value		3GPP Requirement	Test Value (Main)		Test Value (Diversity)	
			1225#	1332#		1225#	1332#	1225#	1332#
B2	L	23.0+2.7/-4.2	23.0	22.9	-94.3	-99.3	-99.3	-99.7	-99.5
	M	23.0±2.7	23.0	22.9		-99.7	-99.9	-99.7	-99.7
	H	23.0+2.7/-4.2	22.9	22.8		-99.9	-99.7	-99.7	-99.7
B4	L	23.0±2.7	22.9	22.8	-96.3	-98.9	-98.9	-99.5	-99.5
	M	23.0±2.7	22.9	22.9		-99.7	-99.7	-99.7	-99.5
	H	23.0±2.7	22.9	22.8		-99.1	-99.1	-99.3	-99.1
B5	L	23.0±2.7	23.2	23.0	-94.3	-99.3	-99.5	-100.7	-100.7
	M	23.0±2.7	23.2	23.1		-99.3	-99.3	-100.5	-100.5
	H	23.0±2.7	23.0	23.0		-99.3	-99.3	-100.3	-100.3
B7	L	23.0+2.7/-4.2	22.6	22.6	-94.3	-98.1	-98.5	-99.5	-99.5
	M	23.0±2.7	22.6	22.5		-98.5	-98.5	-99.5	-99.5
	H	23.0+2.7/-4.2	22.7	22.6		-98.3	-98.3	-99.1	-99.1

Band	Channel	Maximum TX Power (dBm)			RX Sensitivity (dBm)				
		3GPP Requirement	Test Value		3GPP Requirement	Test Value (Main)		Test Value (Diversity)	
			1225#	1332#		1225#	1332#	1225#	1332#
B12	L	23.0+2.7/-4.2	23.1	23.1	-93.3	-98.9	-98.9	-99.3	-99.3
	M	23.0±2.7	23.1	23.1		-99.1	-98.9	-99.7	-99.7
	H	23.0+2.7/-4.2	23.1	23.1		-98.9	-98.9	-99.9	-99.7
B13	L/M/H	23.0±2.7	23.1	23.0	-93.3	-98.9	-98.9	-99.7	-99.7
B14	L/M/H	23.0±2.7	22.9	23.0	-93.3	-98.7	-98.7	-99.3	-98.9
B17	L	23.0±2.7	23.2	23.1	-93.3	-98.9	-98.9	-99.9	-99.7
	M	23.0±2.7	23.1	23.1		-98.9	-98.9	-99.9	-99.9
	H	23.0±2.7	23.2	23.1		-98.9	-98.9	-99.9	-99.7
B25	L	23.0+2.7/-4.2	22.9	22.9	-92.8	-99.2	-99.2	-99.8	-99.4
	M	23.0±2.7	22.9	22.9		-99.8	-99.6	-100.0	-99.8
	H	23.0+2.7/-4.2	22.9	22.9		-99.8	-99.6	-99.8	-99.8
B26	L	23.0+2.7/-4.2	23.0	23.0	-93.8	-99.2	-99.0	-100.6	-100.4
	M	23.0±2.7	23.2	23.1		-99.6	-99.4	-100.8	-100.8
	H	23.0+2.7/-4.2	23.0	23.0		-99.4	-99.2	-100.2	-100.2
B30	L/M/H	23.0±2.7	23.1	23.0	-95.3	-98.5	-98.5	-99.1	-98.5
B66	L	23.0±2.7	22.8	22.8	-95.8	-99.0	-99.0	-99.6	-99.4
	M	23.0±2.7	22.8	22.8		-98.8	-99.0	-99.2	-99.2
	H	23.0±2.7	22.8	22.8		-99.4	-99.4	-99.4	-99.4
B71	L	23.0+2.7/-3.2	23.2	23.1	-93.5	-100.1	-100.1	-98.7	-98.7
	M	23.0+2.7/-3.2	23.1	23.1		-100.3	-100.3	-98.5	-98.5
	H	23.0+2.7/-3.2	23.0	23.0		-99.9	-99.9	-98.7	-98.7

Table 8. Other specifications of LTE-FDD

Band	Test Environment	Protocol Section	Test Case	Result
B2/B4/B5/B7/ B12/B13/B14/ B17/B25/B26/ B30/B66/B71	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.2	UE Maximum Output Power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.3	Maximum Power Reduction (MPR)	PASS
	NC	6.2.4	Additional Maximum Power Reduction (A-MPR)	PASS

Band	Test Environment	Protocol Section	Test Case	Result
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.5	Configured UE transmitted Output Power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.2	Minimum Output Power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3	Transmit OFF power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.1	General ON/OFF time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.2.1	PRACH time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.2.2	SRS time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.5.1	Power Control Absolute power tolerance	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.5.2	Power Control Relative power tolerance	PASS
	Normal	6.3.5.3	Aggregate power control tolerance	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.1	Frequency Error	PASS
	NC	6.5.2.1	Error Vector Magnitude (EVM) for PUSCH	PASS
	NC	6.5.2.1	Error Vector Magnitude (EVM) for PUCCH	PASS
	NC	6.5.2.1	Error Vector Magnitude (EVM) for PRACH	PASS
	Normal	6.5.2.1A	PUSCH-EVM with exclusion period	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.2.2	Carrier leakage	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.2.3	In-band emissions for non-allocated RB	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.2.4	EVM equalizer spectrum flatness	PASS
	Normal	6.6.1	Occupied bandwidth	PASS
	NC	6.6.2.1	Spectrum Emission Mask	PASS
	NC	6.6.2.2	Additional Spectrum Emission Mask	PASS
	Normal, TL/VL,	6.6.2.3	Adjacent Channel Leakage Power	PASS

Band	Test Environment	Protocol Section	Test Case	Result
	TL/VH, TH/VL, TH/VH		Ratio	
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	7.3	Reference sensitivity level	PASS
	NC	7.4	Maximum input level	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.3_3	Maximum Power Reduction (MPR) for UL 64QAM	PASS
	NC	6.2.4_2	Additional Maximum Power Reduction (A-MPR) for UL 64QAM	PASS
	NC	6.5.2.1_1	Error Vector Magnitude (EVM) for UL 64QAM	PASS
	NC	6.6.2.2_1	Additional Spectrum Emission Mask for UL 64QAM	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.6.2.3_4	Adjacent Channel Leakage Power Ratio for Multi-Cluster PUSCH with UL 64QAM	PASS
	NC	7.4_H	Maximum input level for 256QAM in DL	PASS

5.2 LTE TDD Specifications

Description:

The maximum TX power of LTE TDD is measured by 10M QPSK 1RB. The RB position in low and medium channels is low, and the RB position in high channel is high.

Table 9. LTE-TDD maximum TX power & RX sensitivity (main+diversity) (Bandwidth=10M)

Band	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
		3GPP Requirement	Test Value		3GPP Requirement	Test Value	
			1225#	1332#		1225#	1332#
B38	L	23.0±2.7	22.8	22.8	-96.3	-101.7	-102.1
	M	23.0±2.7	22.9	22.9		-101.9	-101.9
	H	23.0±2.7	22.8	22.8		-101.3	-101.3
B41	L	23.0+2.7/-4.2	22.8	22.9	-94.3	-101.1	-101.3
	M	23.0±2.7	22.9	22.9		-101.9	-102.1
	H	23.0+2.7/-4.2	22.8	22.8		-101.5	-101.7
B42	L	23.0+3.0/-4.0	22.8	22.6	-95.0	-102.4	-102.0
	M	23.0+3.0/-4.0	23.0	22.8		-102.0	-102.0

Band	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
		3GPP Requirement	Test Value		3GPP Requirement	Test Value	
			1225#	1332#		1225#	1332#
	H	23.0+3.0/-4.0	23.0	23.0		-102.4	-102.4
B43	L	23.0+3.0/-4.0	23.0	23.0	-95.0	-102.6	-102.6
	M	23.0+3.0/-4.0	23.0	23.0		-102.8	-102.6
	H	23.0+3.0/-4.0	23.1	23.2		-102.6	-102.6
B48	L	23.0±3.3	23.1	23.1	-95.0	-102.4	-102.4
	M	23.0±3.3	23.0	23.0		-102.6	-102.6
	H	23.0±3.3	23.0	23.0		-102.8	-102.6

Table 10. LTE-TDD maximum TX power & RX sensitivity (main&diversity) (Bandwidth=10M)

Band	Channel	Maximum TX Power (dBm)			RX Sensitivity (dBm)				
		3GPP Requirement	Test Value		3GPP Requirement	Test Value (main)		Test Value (diversity)	
			1225#	1332#		1225#	1332#	1225#	1332#
B38	L	23.0±2.7	22.8	22.8	-96.3	-99.7	-99.9	-97.9	-98.5
	M	23.0±2.7	22.9	22.9		-99.1	-99.5	-98.3	-97.9
	H	23.0±2.7	22.8	22.8		-96.5	-99.3	-97.7	-97.7
B41	L	23.0+2.7/-4.2	22.8	22.9	-94.3	-98.9	-99.1	-97.3	-97.3
	M	23.0±2.7	22.9	22.9		-99.5	-99.7	-98.3	-98.5
	H	23.0+2.7/-4.2	22.8	22.8		-98.9	-99.1	-98.1	-97.9
B42	L	23.0+3.0/-4.0	22.8	22.6	-95.0	-99.6	-99.2	-99.0	-99.0
	M	23.0+3.0/-4.0	23.0	22.8		-99.4	-99.2	-99.0	-99.0
	H	23.0+3.0/-4.0	23.0	23.0		-99.6	-99.4	-99.2	-99.6
B43	L	23.0+3.0/-4.0	23.0	23.0	-95.0	-99.6	-99.4	-99.6	-99.4
	M	23.0+3.0/-4.0	23.0	23.0		-99.8	-99.6	-99.8	-99.6
	H	23.0+3.0/-4.0	23.1	23.2		-99.8	-99.8	-99.6	-99.6
B48	L	23.0±3.3	23.1	23.1	-95.0	-99.4	-99.4	-99.2	-99.4
	M	23.0±3.3	23.0	23.0		-99.6	-99.6	-99.4	-99.6
	H	23.0±3.3	23.0	23.0		-99.8	-99.6	-99.8	-99.6

Table 11. Other specifications of LTE-TDD

Band	Test Environment	Protocol Section	Test Case	Result
B38/B41/B42/B43/B48	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.2	UE Maximum Output Power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.3	Maximum Power Reduction (MPR)	PASS
	NC	6.2.4	Additional Maximum Power Reduction (A-MPR)	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.5	Configured UE transmitted Output Power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.2	Minimum Output Power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3	Transmit OFF power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.1	General ON/OFF time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.2.1	PRACH time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.2.2	SRS time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.5.1	Power Control Absolute power tolerance	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.5.2	Power Control Relative power tolerance	PASS
	Normal	6.3.5.3	Aggregate power control tolerance	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.1	Frequency Error	PASS
	NC	6.5.2.1	Error Vector Magnitude (EVM) for PUSCH	PASS
	NC	6.5.2.1	Error Vector Magnitude (EVM) for PUCCH	PASS
	NC	6.5.2.1	Error Vector Magnitude (EVM) for PRACH	PASS
	Normal	6.5.2.1A	PUSCH-EVM with exclusion period	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.2.2	Carrier leakage	PASS
	Normal, TL/VL, TL/VH,	6.5.2.3	In-band emissions for non-allocated RB	PASS

Band	Test Environment	Protocol Section	Test Case	Result
	TH/VL, TH/VH			
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.2.4	EVM equalizer spectrum flatness	PASS
	Normal	6.6.1	Occupied bandwidth	PASS
	NC	6.6.2.1	Spectrum Emission Mask	PASS
	NC	6.6.2.2	Additional Spectrum Emission Mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.6.2.3	Adjacent Channel Leakage Power Ratio	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	7.3	Reference sensitivity level	PASS
	NC	7.4	Maximum input level	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.3_3	Maximum Power Reduction (MPR) for UL 64QAM	PASS
	NC	6.2.4_2	Additional Maximum Power Reduction (A-MPR) for UL 64QAM	PASS
	NC	6.5.2.1_1	Error Vector Magnitude (EVM) for UL 64QAM	PASS
	NC	6.6.2.2_1	Additional Spectrum Emission Mask for UL 64QAM	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.6.2.3_4	Adjacent Channel Leakage Power Ratio for Multi-Cluster PUSCH with UL 64QAM	PASS
	NC	7.4_H	Maximum input level for 256QAM in DL	PASS

5.3 LTE HPUE Specifications

Description:

The maximum TX power is measured by 10MHz QPSK 1RB. The RB position in low and medium channels is low, and the RB position in high channel is high.

Table 12. LTE HPUE maximum TX power

Band	Channel	Maximum TX Power (dBm)		
		3GPP Requirement	Test Value	
			1225#	1332#
B38	L	26.0±2.7	25.5	25.4
	M	26.0±2.7	25.8	25.7

Band	Channel	Maximum TX Power (dBm)		
		3GPP Requirement	Test Value	
			1225#	1332#
B41	H	26.0±2.7	25.8	25.7
	L	26.0+2.7/-4.2	25.6	25.5
	M	26.0±2.7	25.7	25.7
	H	26.0+2.7/-4.2	25.8	25.7
B42	L	26.0+3/-4	25.7	25.7
	M	26.0+3/-4	26.0	25.9
	H	26.0+3/-4	26.1	26.0
B43	L	26.0+3/-4	26.0	26.0
	M	26.0+3/-4	26.1	26.1
	H	26.0+3/-4	26.2	26.2

Table 13. Other specifications of LTE HPUE

Band	Test Environment	Protocol Section	Test Case	Result
B38/B40/ B41/B42/ B43	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.2_1	UE Maximum Output Power for HPUE	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.3_1	Maximum Power Reduction (MPR) for HPUE	PASS
	NC	6.2.4_1	Additional Maximum Power Reduction (A-MPR) for HPUE	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.5_1	Configured UE transmitted Output Power for HPUE	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.5_1.1	Power Control Absolute power tolerance for HPUE	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.5_1.2	Power Control Relative power tolerance for HPUE	PASS
	Normal	6.3.5_1.3	Aggregate power control tolerance for HPUE	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.6.2.3_1	Adjacent Channel Leakage Power Ratio for HPUE	PASS

5.4 5G RedCap FDD Specifications

Description:

- The maximum TX power of 5G RedCap is measured in FDD SCS=15KHz, TDD SCS=30KHz, UL DFT-s-OFDM QPSK Inner Full RB.
- The RX sensitivity of 5G RedCap is measured in FDD SCS=15KHz, TDD SCS=30KHz, the UL RB configure refer to 3GPP protocol 38.521-1 Table7.3.2.4.1-3.
- TT is the test tolerance, and the tolerance value of TX power is referred to 3GPP protocol 38.521-1 Table 6.2I.1.5-2, as shown in the following figure.

Table 6.2I.1.5-2: Test Tolerance (UE maximum output power)

	f ≤ 3.0GHz	3.0GHz < f ≤ 4.2GHz	4.2GHz < f ≤ 6.0GHz
BW ≤ 40MHz	0.7 dB	1.0 dB	1.0 dB

Figure 1. RedCap maximum TX power tolerance

Refer to 3GPP protocol 38.521-1 Table 7.3I.2.5-7 for tolerances of RX sensitivity, as shown in the following figure.

Table 7.3I.2.5-7: Test Tolerance (TT) for RX sensitivity level for RedCap UE

f ≤ 3.0GHz	3.0GHz < f ≤ 6.0 GHz
0.7 dB	1.0 dB

Figure 2. RedCap Tolerances of RX sensitivity

Table 14. RedCap maximum TX power & RX sensitivity (main+diversity)

Band	BW (MHz)	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
			3GPP Requirement	Test Value		3GPP requirement	Test Value	
				1381#	1423#		1381#	1423#
n2	20	L	23+2/-3.5±TT	22.7	22.7	-91.8+TT	-99.3	-99.7
		M	23±2±TT	22.7	22.8		-99.7	-99.9
		H	23+2/-3.5±TT	22.6	22.8		-99.5	-96.7
n5	20	L	23±2±TT	23.3	23.3	-86.8+TT	-100.1	-99.7
		M	23±2±TT	23.4	23.3		-100.3	-100.1
		H	23±2±TT	23.4	23.2		-100.1	-99.9
n7	20	L	23+2/-3.5±TT	23.2	23.1	-91.8+TT	-99.3	-99.3
		M	23±2±TT	23.3	23.1		-99.5	-99.5
		H	23+2/-3.5±TT	23.3	23.3		-99.1	-99.3
n12	10	L	23+2/-3.5±TT	23.4	23.2	-93.8+TT	-102.1	-102.1
		M	23±2±TT	23.4	23.2		-102.3	-102.3
		H	23+2/-3.5±TT	23.4	23.2		-102.5	-102.5

Band	BW (MHz)	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
			3GPP Requirement	Test Value		3GPP requirement	Test Value	
				1381#	1423#		1381#	1423#
n13	10	L/M/H	23±2±TT	23.2	23.0	-93.8+TT	-102.1	-102.3
n14	10	L/M/H	23±2±TT	23.1	23.0	-93.8+TT	-102.1	-102.3
n25	20	L	23+2/-3.5±TT	22.8	22.6	-90.3+TT	-99.2	-99.4
		M	23±2±TT	22.9	22.7		-99.6	-99.8
		H	23+2/-3.5±TT	22.9	22.6		-99.4	-99.6
n26	20	L	23+2/-3.5±TT	23.1	23.2	-87.6+TT	-99.9	-99.9
		M	23±2±TT	23.4	23.2		-99.9	-99.9
		H	23+2/-3.5±TT	23.2	23.1		-99.9	-99.9
n30	10	L/M/H	23±2±TT	23.3	23.3	-95.8+TT	-102.1	-101.9
n66	20	L	23±2±TT	23.1	22.9	-93.3+TT	-99.6	-99.6
		M	23±2±TT	22.9	22.7		-99.8	-99.8
		H	23±2±TT	22.7	22.7		-99.4	-99.6
n70	15	L/M/H	23±2±TT	22.9	22.8	-95.0+TT	-100.7	-100.7
n71	20	L	23+2+TT/-2.5-TT	23.3	23.3	-86.0+TT	-99.3	-99.5
		M	23+2+TT/-2.5-TT	23.1	23.2		-99.5	-99.5
		H	23+2+TT/-2.5-TT	23.0	23.1		-99.1	-99.3

Table 15. RedCap maximum TX power & RX sensitivity (main&diversity)

Band	BW	Channel	Maximum TX Power (dBm)			RX Sensitivity (dBm)				
			3GPP Requirement	Test Value		3GPP Requirement	Test Value (main)		Test Value (diversity)	
				1381#	1423#		1381#	1423#	1381#	1423#
n2	20M	L	23+2/-3.5±TT	22.7	22.7	-91.8+3+TT	-96.5	-96.3	-96.7	-97.1
		M	23±2±TT	22.7	22.8		-96.5	-96.5	-96.7	-97.1
		H	23+2/-3.5±TT	22.6	22.8		-96.5	-96.5	-96.7	-96.9
n5	20M	L	23±2±TT	23.3	23.3	-86.8+3+TT	-96.3	-96.1	-97.7	-97.5
		M	23±2±TT	23.4	23.3		-96.3	-96.3	-97.7	-97.5
		H	23±2±TT	23.4	23.2		-96.3	-96.3	-97.7	-97.5
		L	23+2/-3.5±TT	23.2	23.1		-95.9	-95.7	-96.9	-96.7

Band	BW	Channel	Maximum TX Power (dBm)			RX Sensitivity (dBm)				
			3GPP Requirement	Test Value		3GPP Requirement	Test Value (main)		Test Value (diversity)	
				1381#	1423#		1381#	1423#	1381#	1423#
n7	20M	M	23±2±TT	23.3	23.1	-91.8+3+TT	-95.7	-95.7	-96.9	-96.7
		H	23+2/-3.5±TT	23.3	23.3		-95.7	-95.7	-96.5	-96.5
n12	10M	L	23+2/-3.5±TT	23.4	23.2	-93.8+3+TT	-98.9	-98.7	-99.3	-99.5
		M	23±2±TT	23.4	23.2		-98.7	-98.5	-99.7	-99.7
		H	23+2/-3.5±TT	23.4	23.2		-98.5	-98.7	-100.1	-99.9
n13	10M	L/M/H	23±2±TT	23.2	23.0	-93.8+3+TT	-98.6	-98.4	-99.9	-99.9
n14	10M	L/M/H	23±2±TT	23.1	23.0	-93.8+3+TT	-98.7	-98.7	-99.7	-99.5
n25	20M	L	23+2/-3.5±TT	22.8	22.6	-90.3+3+TT	-96.2	-96.2	-96.6	-97.0
		M	23±2±TT	22.9	22.7		-96.4	-96.4	-96.8	-97.0
		H	23+2/-3.5±TT	22.9	22.6		-96.6	-96.6	-96.8	-97.0
n26	20M	L	23+2/-3.5±TT	23.1	23.2	-87.6+3+TT	-96.1	-96.1	-97.5	-97.5
		M	23±2±TT	23.4	23.2		-96.1	-96.1	-97.5	-97.5
		H	23+2/-3.5±TT	23.2	23.1		-96.1	-96.1	-97.5	-97.5
n30	10M	L/M/H	23±2±TT	23.3	23.3	-95.8+3+TT	-98.5	-98.5	-99.5	-99.3
n66	20M	L	23±2±TT	23.1	22.9	-93.3+3+TT	-96.2	-96.2	-96.8	-96.4
		M	23±2±TT	22.9	22.7		-96.8	-96.6	-96.6	-96.8
		H	23±2±TT	22.7	22.7		-96.2	-96.0	-96.6	-96.8
n70	15M	L/M/H	23±2±TT	22.9	22.8	-95.0+3+TT	-97.7	-97.5	-98.1	-98.1
n71	20M	L	23+2+TT/-2.5-TT	23.3	23.3	-86.0+3+TT	-96.9	-96.9	-95.7	-95.7
		M	23+2+TT/-2.5-TT	23.1	23.2		-97.1	-97.1	-95.7	-95.7
		H	23+2+TT/-2.5-TT	23.0	23.1		-96.9	-97.1	-95.5	-95.5

Table 16. Other specifications of RedCap

Band	Test Environment	Protocol Section	Test Case	Result
n2/ n5/n7 /n12/n13/ n14/n25/	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2I.1	UE maximum output power for RedCap	PASS
	Normal, TL/VL,	6.2.2	Maximum Power Reduction (MPR)	PASS

Band	Test Environment	Protocol Section	Test Case	Result
n26/n30/n66/ n70/n71	TL/VH, TH/VL, TH/VH			
	Normal	6.2.3	UE additional maximum output power reduction	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.4	Configured transmitted power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.1	Minimum output power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.2	Transmit OFF power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3	Transmit ON/OFF time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3.4	PRACH time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3.6	SRS time mask	PASS
	Normal	6.3.4.2	Absolute power tolerance	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.3	Power Control Relative power tolerance	PASS
	Normal	6.3.4.4	Aggregate power tolerance (PUCCH/PUSCH)	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.4.1	Frequency error	PASS
	Normal	6.4.2.1	Error Vector Magnitude (PUCCH/ PUSCH/PRACH)	PASS
	Normal	6.4.2.2	Carrier leakage	PASS
	Normal	6.4.2.3	In-band emissions (PUCCH/ PUSCH)	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.4.2.4	EVM equalizer spectrum flatness	PASS
	Normal	6.4.2.5	EVM equalizer spectrum flatness for Pi/2 BPSK	PASS
	Normal	6.5.1	Occupied bandwidth	PASS
	Normal	6.5.2.2	Spectrum Emission Mask	PASS
	Normal	6.5.2.3	Additional spectrum emission mask	PASS
	Normal, TL/VL,	6.5.2.4	Adjacent channel leakage ratio	PASS

Band	Test Environment	Protocol Section	Test Case	Result
	TL/VH, TH/VL, TH/VH			
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	7.3I.2	Reference sensitivity power level for RedCap	PASS
	Normal	7.4	Maximum input level	PASS

5.5 5G RedCap TDD Specifications

Description:

- The maximum TX power of 5G RedCap is measured in FDD SCS=15KHz, TDD SCS=30KHz, UL DFT-s-OFDM QPSK Inner Full RB.
- The RX sensitivity of 5G RedCap is measured in FDD SCS=15KHz, TDD SCS=30KHz, the UL RB configure refer to 3GPP protocol 38.521-1 Table7.3.2.4.1-3.
- TT is the test tolerance, and the tolerance value of TX power is referred to 3GPP protocol 38.521-1 Table 6.2I.1.5-2, as shown in the following figure.

Table 6.2I.1.5-2: Test Tolerance (UE maximum output power)

	f ≤ 3.0GHz	3.0GHz < f ≤ 4.2GHz	4.2GHz < f ≤ 6.0GHz
BW ≤ 40MHz	0.7 dB	1.0 dB	1.0 dB

Figure 3. RedCap maximum TX power tolerance

Refer to 3GPP protocol 38.521-1 Table 7.3I.2.5-7 for tolerances of RX sensitivity, as shown in the following figure.

Table 7.3I.2.5-7: Test Tolerance (TT) for RX sensitivity level for RedCap UE

f ≤ 3.0GHz	3.0GHz < f ≤ 6.0 GHz
0.7 dB	1.0 dB

Figure 4. RedCap Tolerances of RX sensitivity

Table 17. RedCap maximum TX power & RX sensitivity (main+diversity)

Band	BW (MHz)	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
			3GPP Requirement	Test Value		3GPP requirement	Test Value	
				1381#	1423#		1381#	1423#
n38	20	L	23±2±TT	22.9	23.0	-93.8+TT	-100.3	-100.2
		M	23±2±TT	22.9	22.9		-100.3	-100.1
		H	23±2±TT	23.0	22.8		-99.9	-100.1

Band	BW (MHz)	Channel	Maximum TX Power (dBm)			RX Sensitivity (Main+Diversity) (dBm)		
			3GPP Requirement	Test Value		3GPP requirement	Test Value	
				1381#	1423#		1381#	1423#
n41	20	L	23+2/-3.5±TT	22.9	22.8	-91.8+TT	-99.5	-99.7
		M	23±2±TT	23.0	23.0		-100.3	-100.3
		H	23+2/-3.5±TT	22.9	22.7		-99.5	-99.9
n48	20	L	23+2+TT/-3-TT	22.9	22.7	-92.8+TT	-100.7	-100.7
		M	23+2+TT/-3-TT	23.0	22.8		-100.5	-100.7
		H	23+2+TT/-3-TT	23.3	23.1		-100.7	-100.7
n77	20	L	23+2+TT/-3-TT	23.2	23.3	-92.3+TT	-99.8	-99.8
		M	23+2+TT/-3-TT	23.3	23.2		-100.6	-100.8
		H	23+2+TT/-3-TT	23.7	23.4		-100.6	-100.6
n78	20	L	23+2+TT/-3-TT	23.0	23.3	-92.8+TT	-99.7	-99.7
		M	23+2+TT/-3-TT	22.9	23.0		-100.7	-100.7
		H	23+2+TT/-3-TT	23.5	23.1		-100.7	-100.9

Table 18. RedCap maximum TX power & RX sensitivity (main&diversity)

Band	BW	Channel	Maximum TX Power (dBm)			RX Sensitivity (dBm)				
			3GPP Requirement	Test Value		3GPP Requirement	Test Value (main)		Test Value (diversity)	
				1381#	1423#		1381#	1423#	1381#	1423#
n38	20M	L	23±2±TT	22.9	23.0	-93.8+2.5+TT	-97.8	-98.0	-96.6	-96.4
		M	23±2±TT	22.9	22.9		-97.8	-97.8	-96.8	-96.8
		H	23±2±TT	23.0	22.8		-97.8	-97.6	-96.4	-96.2
n41	20M	L	23+2/-3.5±TT	22.9	22.8	-91.8+2.5+TT	-97.4	-97.2	-96.4	-96.0
		M	23±2±TT	23.0	23.0		-97.8	-97.8	-96.8	-96.6
		H	23+2/-3.5±TT	22.9	22.7		-97.4	-97.4	-96.4	-96.4
n48	20M	L	23+2+TT/-3-TT	22.9	22.7	-92.8+2.5+TT	-97.6	-97.6	-97.8	-97.6
		M	23+2+TT/-3-TT	23.0	22.8		-97.6	-97.6	-97.6	-97.6
		H	23+2+TT/-3-TT	23.3	23.1		-98.0	-97.8	-97.6	-97.6
n77	20M	L	23+2+TT/-3-TT	23.2	23.3	-92.3+2.5+TT	-96.9	-96.9	-96.9	-96.7
		M	23+2+TT/-3-TT	23.3	23.2		-97.9	-97.9	-97.5	-97.5

Band	BW	Channel	Maximum TX Power (dBm)			RX Sensitivity (dBm)				
			3GPP Requirement	Test Value		3GPP Requirement	Test Value (main)		Test Value (diversity)	
				1381#	1423#		1381#	1423#	1381#	1423#
n78	20M	H	23+2+TT/-3-TT	23.7	23.4	-92.8+2.5+TT	-97.7	-97.7	-97.5	-97.5
		L	23+2+TT/-3-TT	23.0	23.3		-96.8	-96.8	-96.8	-96.8
		M	23+2+TT/-3-TT	22.9	23.0		-97.6	-97.6	-97.6	-97.6
		H	23+2+TT/-3-TT	23.5	23.1		-97.8	-98.0	-97.8	-97.8

Table 19. Other specifications of RedCap

Band	Test Environment	Protocol Section	Test Case	Result
n38/n41/n48/ n77/n78	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2I.1	UE maximum output power for RedCap	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.2	Maximum Power Reduction (MPR)	PASS
	Normal	6.2.3	UE additional maximum output power reduction	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.2.4	Configured transmitted power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.1	Minimum output power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.2	Transmit OFF power	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3	Transmit ON/OFF time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3.4	PRACH time mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.3.6	SRS time mask	PASS
	Normal	6.3.4.2	Absolute power tolerance	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.3.4.3	Power Control Relative power tolerance	PASS
	Normal	6.3.4.4	Aggregate power tolerance (PUCCH/PUSCH)	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.4.1	Frequency error	PASS
	Normal	6.4.2.1	Error Vector Magnitude (PUCCH/	PASS

Band	Test Environment	Protocol Section	Test Case	Result
			PUSCH/PRACH)	
	Normal	6.4.2.2	Carrier leakage	PASS
	Normal	6.4.2.3	In-band emissions (PUCCH/ PUSCH)	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.4.2.4	EVM equalizer spectrum flatness	PASS
	Normal	6.4.2.5	EVM equalizer spectrum flatness for Pi/2 BPSK	PASS
	Normal	6.5.1	Occupied bandwidth	PASS
	Normal	6.5.2.2	Spectrum Emission Mask	PASS
	Normal	6.5.2.3	Additional spectrum emission mask	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	6.5.2.4	Adjacent channel leakage ratio	PASS
	Normal, TL/VL, TL/VH, TH/VL, TH/VH	7.3I.2	Reference sensitivity power level for RedCap	PASS
	Normal	7.4	Maximum input level	PASS

5.6 5G RedCap SRS Specifications

Table 20. SA 1T2R

Band	Channel	Maximum TX Power (dBm)	
		Test Value (TX0)	Test Value (TX0_SRS)
n38	M	21.0	20.4
n41	M	20.7	20.1
n48	M	20.8	20.5
n77	M	21.1	20.9
n78	M	20.8	20.7

5.7 GNSS Specifications

Table 21. GNSS specifications

Mode	Test Case	Unit	Test Value	
			6742#	6585#
GNSS	Tracking sensitivity	dBm	-157.0	-157.0
	Cold start (RX power@-130dBm)	s	30.5	30.4
	Warm start (RX power@-130dBm)	s	28.5	29.5
	Hot start (RX power@-130dBm)	s	1.5	2.2
	Acquisition Sensitivity at different power level (cold start)	dBm	-146.0	-146.0
	Position Accuracy (cold start@-130dBm, CEP 50%)	m	1.0	0.6
	C/N0 (RX power@-130dBm)	dB/Hz	38.8	38.8
	Current consumption fixing (Cold start - average current until TTFF with 20SVs @-130dBm)	mA	44.0	44.2
	Current consumption tracking (Weak signal,20SVs @-146dBm, no power saving, fix rate=1sec)	mA	45.8	44.9

5.8 Max Throughput

Single Band Max throughput

Description:

- For LTE single band maximum physical layer throughput test, the BW is the maximum BW defined by the 3GPP protocol. The uplink-downlink configurations of the TDD band to be set 5 when DL max physical layer throughput test, and to be set 0 when UL max physical layer throughput test, and the special subframe is 4.
- For SA single band maximum physical layer throughput test, the BW is the maximum BW defined by the 3GPP protocol. The FDD SCS is 15kHz, TDD SCS is 30kHz, the uplink-downlink configurations of the TDD band to be set 5ms 8DS1U S(10:2:2) when DL max physical layer throughput test, and to be set 3DS6U S(10:2:2) when UL max physical layer throughput test.

Table 22. Single Band Max throughput

System	Band	BW	Channel	DL Theoretical Value (Mbps)	DL Test Value (Mbps)	UL Theoretical Value (Mbps)	UL Test Value (Mbps)
LTE-FDD RMS	B2	20M	CH18700	194.973	194.973	75.376	75.376
			CH18900	194.973	194.973	75.376	75.376
			CH19100	194.973	194.973	75.376	75.376
	B4	20M	CH20050	194.973	194.973	75.376	75.376
			CH20175	194.973	194.973	75.376	75.376

System	Band	BW	Channel	DL Theoretical Value (Mbps)	DL Test Value (Mbps)	UL Theoretical Value (Mbps)	UL Test Value (Mbps)
			CH20300	194.973	194.973	75.376	75.376
	B5	10M	CH20450	97.462	97.462	36.696	36.696
			CH20525	97.462	97.462	36.696	36.696
			CH20600	97.462	97.462	36.696	36.696
	B7	20M	CH20850	194.973	194.973	75.376	75.376
			CH21100	194.973	194.973	75.376	75.376
			CH21350	194.973	194.973	75.376	75.376
	B12	10M	CH23060	97.462	97.462	36.696	36.696
			CH23095	97.462	96.973	36.696	36.696
			CH23130	97.462	97.462	36.696	36.696
	B13	10M	CH23230	97.462	97.462	36.696	36.696
	B14	10M	CH23330	97.462	97.462	36.696	36.696
	B17	10M	CH23780	97.462	97.462	36.696	36.696
			CH23790	97.462	97.462	36.696	36.696
			CH23800	97.462	97.462	36.696	36.696
	B25	20M	CH26115	194.973	194.973	75.376	75.376
			CH26365	194.973	194.973	75.376	75.376
			CH26615	194.973	194.973	75.376	75.376
	B26	15M	CH26765	149.899	149.899	55.056	55.056
			CH26865	149.899	149.899	55.056	55.056
			CH26965	149.899	149.899	55.056	55.056
	B30	10M	CH27710	97.462	97.462	36.696	36.696
	B66	20M	CH132072	194.973	194.973	75.376	75.376
			CH132422	194.973	194.973	75.376	75.376
			CH132572	194.973	194.973	75.376	75.376
	B71	20M	CH133222	194.973	194.973	75.376	75.376
			CH133322	194.973	194.973	75.376	75.376
			CH133372	194.973	194.973	75.376	75.376
	B38	20M	CH37850	170.89	170.89	45.226	45.226

System	Band	BW	Channel	DL Theoretical Value (Mbps)	DL Test Value (Mbps)	UL Theoretical Value (Mbps)	UL Test Value (Mbps)
LTE-TDD RMS			CH38000	170.89	170.89	45.226	45.226
			CH38150	170.89	170.89	45.226	45.226
	B41	20M	CH39750	170.89	170.89	45.226	45.226
			CH40620	170.89	170.89	45.226	45.226
			CH41490	170.89	170.89	45.226	45.226
	B42	20M	CH41690	170.89	170.89	45.226	45.226
			CH42590	170.89	170.89	45.226	45.226
			CH43490	170.89	170.89	45.226	45.226
	B43	20M	CH43690	170.89	170.89	45.226	45.226
			CH44590	170.89	170.89	45.226	45.226
			CH45490	170.89	170.89	45.226	45.226
	B48	20M	CH55340	170.89	170.89	45.226	45.226
			CH55990	170.89	170.89	45.226	45.226
			CH56640	170.89	170.89	45.226	45.226
RedCap FDD RMS	n2	20M	CH388000	230.74	230.74	122.98	122.98
			CH392000	231.15	231.15	122.98	122.98
			CH396000	230.95	230.95	122.98	122.98
	n5	20M	CH175800	231.36	231.36	122.98	122.98
			CH176300	231.36	231.36	122.98	122.98
			CH176800	230.74	230.74	122.98	122.98
	n7	20M	CH526000	230.74	230.74	122.98	122.98
			CH531000	231.36	231.36	122.98	122.98
			CH536000	231.15	231.15	122.98	122.98
	n12	15M	CH147300	173.24	173.24	92.2	92.2
			CH147500	173.85	173.85	92.2	92.2
			CH147700	173.85	173.85	92.2	92.2
	n13	10M	CH150200	111.91	111.91	60.46	60.46
	n14	10M	CH152600	111.91	111.91	60.46	60.46
			CH388000	230.74	230.74	122.98	122.98

System	Band	BW	Channel	DL Theoretical Value (Mbps)	DL Test Value (Mbps)	UL Theoretical Value (Mbps)	UL Test Value (Mbps)
RedCap TDD RMS	n25	20M	CH392500	231.36	231.36	122.98	122.98
			CH397000	231.15	231.15	122.98	122.98
	n26	20M	CH173800	231.15	231.15	122.98	122.98
			CH175300	231.36	231.36	122.98	122.98
			CH176800	230.74	230.74	122.98	122.98
	n30	10M	CH471000	112.52	112.52	60.46	60.46
	n66	20M	CH424000	230.74	230.74	122.98	122.98
			CH429000	231.36	231.36	122.98	122.98
			CH434000	231.15	231.15	122.98	122.98
	n70	15M	CH400500	173.24	173.24	92.2	92.2
	n71	20M	CH125400	231.36	231.36	122.98	122.98
			CH126900	230.74	230.74	122.98	122.98
			CH128400	230.95	230.95	122.98	122.98
	n38	20M	CH516000	193.31	193.31	78.08	78.08
			CH519000	193.31	193.31	78.08	78.08
			CH522000	193.31	193.31	78.08	78.08
	n41	20M	CH501204	193.31	193.31	78.08	78.08
			CH518598	193.21	193.21	78.08	78.08
			CH535998	193.41	193.41	78.08	78.08
	n48	20M	CH637334	193.21	193.21	78.08	78.08
			CH641666	193.21	193.21	78.08	78.08
			CH646000	193.31	193.31	78.08	78.08
	n77	20M	CH620668	193.31	193.31	78.08	78.08
			CH650000	193.56	193.56	78.08	78.08
			CH679332	193.41	193.41	78.08	78.08
	n78	20M	CH620668	193.31	193.31	78.08	78.08
			CH636666	193.21	193.21	78.08	78.08
			CH652666	193.41	193.41	78.08	78.08

5.9 Working Current

1. Test conditions: normal temperature of 25°C/3.8V
2. Test data:

Table 23. Single band working current

System	Band	Channel	1225#		1332#	
			Test value (mA)	Power (dBm)	Test value (mA)	Power (dBm)
LTE-FDD RMS (10MHz 1RB)	B2	CH18650	604	23.0	598	22.9
		CH18900	622	23.0	594	22.9
		CH19150	577	22.9	566	22.8
	B4	CH20000	626	22.9	596	22.8
		CH20175	627	22.9	590	22.9
		CH20350	608	22.9	589	22.8
	B5	CH20450	628	23.2	619	23.0
		CH20525	578	23.2	581	23.1
		CH20600	607	23.0	612	23.0
	B7	CH20800	709	22.6	694	22.6
		CH21100	647	22.6	639	22.5
		CH21400	758	22.7	744	22.6
	B12	CH23060	540	23.1	548	23.1
		CH23095	552	23.1	563	23.1
		CH23130	642	23.1	643	23.1
	B13	CH23230	604	23.1	606	23.0
	B14	CH23330	534	22.9	532	23.0
	B17	CH23780	585	23.2	581	23.1
		CH23790	608	23.1	607	23.1
		CH23800	644	23.2	640	23.1
	B25	CH26090	578	22.9	578	22.9
		CH26365	616	22.9	595	22.9
		CH26640	625	22.9	641	22.9
		CH26740	642	23.0	640	23.0

System	Band	Channel	1225#		1332#	
			Test value (mA)	Power (dBm)	Test value (mA)	Power (dBm)
LTE-TDD RMS (10MHz 1RB)	B26	CH26865	615	23.2	603	23.1
		CH26990	593	23.0	601	23.0
	B30	CH27710	716	23.1	717	23.0
	B66	CH132022	622	22.8	597	22.8
		CH132422	591	22.8	584	22.8
		CH132622	623	22.8	603	22.8
	B71	CH133172	571	23.2	596	23.1
		CH133297	488	23.1	498	23.1
		CH133422	541	23.0	533	23.0
	B38	CH37800	447	22.8	425	22.8
		CH38000	432	22.9	393	22.9
		CH38200	370	22.8	350	22.8
	B41	CH39700	372	22.8	375	22.9
		CH40620	409	22.9	368	22.9
		CH41540	414	22.8	375	22.8
	B42	CH41640	340	22.8	341	22.6
		CH42590	343	23.0	345	22.8
		CH43540	322	23.0	324	23.0
	B43	CH43640	317	23.0	317	23.0
		CH44590	304	23.0	300	23.0
		CH45540	328	23.1	318	23.2
	B48	CH55290	331	23.1	331	23.1
		CH55990	312	23.0	307	23.0
		CH56690	305	23.0	294	23.0
LTE-TDD HUPE RMS (10MHz 1RB)	B38	CH37800	25.5	624	25.4	588
		CH38000	25.8	617	25.7	579
		CH38200	25.8	578	25.7	529
	B41	CH39700	25.6	558	25.5	514
		CH40620	25.7	616	25.7	582

System		Band	Channel	1225#		1332#	
				Test value (mA)	Power (dBm)	Test value (mA)	Power (dBm)
			CH41540	25.8	573	25.7	533
		B42	CH41640	25.7	480	25.7	476
			CH42590	26.0	489	25.9	480
			CH43540	26.1	450	26.0	443
		B43	CH43640	26.0	429	26.0	425
			CH44590	26.1	407	26.1	398
			CH45540	26.2	446	26.2	429
RedCap RMS (10MHz Inner_Ful)	FDD	n2	CH387000	517	22.7	515	22.7
			CH392000	554	22.7	568	22.8
			CH397000	510	22.6	545	22.8
		n5	CH174800	583	23.3	586	23.3
			CH176300	578	23.4	582	23.3
			CH177800	572	23.4	578	23.2
		n7	CH525000	699	23.2	692	23.1
			CH531000	663	23.3	666	23.1
			CH537000	748	23.3	739	23.3
		n12	CH146800	559	23.4	548	23.2
			CH147500	576	23.4	577	23.2
			CH148200	534	23.4	541	23.2
		n13	CH150200	577	23.2	570	23.0
		n14	CH152600	551	23.1	558	23.0
		n25	CH387000	538	22.8	540	22.6
			CH392500	582	22.9	566	22.7
			CH398000	564	22.9	548	22.6
		n26	CH172800	601	23.1	610	23.2
			CH175300	580	23.4	582	23.2
			CH177800	579	23.2	587	23.1
		n30	CH471000	773	23.3	805	23.3
			CH423000	597	23.1	580	22.9

System		Band	Channel	1225#		1332#	
				Test value (mA)	Power (dBm)	Test value (mA)	Power (dBm)
		n66	CH429000	537	22.9	530	22.7
			CH435000	540	22.7	534	22.7
		n70	CH400000	618	22.9	622	22.8
			CH400500	614	23.0	614	22.8
			CH401000	605	22.9	608	22.8
		n71	CH124400	558	23.3	550	23.3
			CH126900	500	23.1	510	23.2
			CH129400	502	23.0	540	23.1
RedCap RMS (20MHz Inner_Ful)	TDD	n38	CH516000	247	22.9	250	23.0
			CH519000	243	22.9	247	22.9
			CH522000	230	23.0	232	22.8
		n41	CH501204	204	22.9	197	22.8
			CH518598	240	23.0	248	23.0
			CH535998	236	22.9	236	22.7
		n48	CH637334	219	22.9	214	22.7
			CH641666	203	23.0	202	22.8
			CH646000	207	23.3	207	23.1
		n77	CH620668	228	23.2	231	23.3
			CH650000	212	23.3	217	23.2
			CH679332	300	23.7	275	23.4
		n78	CH620668	226	23.0	230	23.3
			CH636666	237	22.9	234	23.0
			CH652666	214	23.5	216	23.1