RF TEST REPORT

Product Name	:	Tablet PC
Brand Name	:	Blackview
Test Model	:	Active 8
Series Model	:	N/A
Applicant	:	DOKE COMMUNICATION (HK) LIMITED
Address	:	RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA
Manufacturer	:	Shenzhen DOKE Electronic Co., Ltd
Address	:	801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China
Date of Receipt	:	2023.05.25
Date of Test	:	2023.05.25-2023.06.13
Issued Date	:	2023.06.14
Report Version	:	V1.0
Test Sample	:	Engineering Sample No.: AIT23052502-1
Standard(s)	:	ETSI EN 301 908-1 V15.1.1: 2021-09 ETSI EN 301 908-2 V13.1.1: 2020-06

Lab: Dongguan Yaxu (AiT) Technology Limited
Add: No.22, Jinqianling 3rd Street, Jitigang, Huangjiang,Dongguan, Guangdong, China
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This device has been tested and found to comply with the stated standard(s), which is (are) required by the council directive of 2014/53/EU and indicated in the test report and are applicable only to the tested sample identified in the report.

Reviewed by: Simba Huang
Simba huang

Approved by: Seal Chen
Seal Chen

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	2023.06.14	Valid	Initial Release

TABLE OF CONTENTS

1. PRODUCT INFORMATION

1.1. PRODUCT TECHNICAL DESCRIPTION

Details of technical specification refer to the description in follows:

EUT Name:	Tablet PC
Model No:	Active 8
Serial Model:	N/A
Difference Description	N/A
Brand Name:	Blackview
Power Supply	DC 3.87V 22000mAh for Battery
Hardware Version	DK051-T616-V1.0
Software Version	Active8_EEA_T30_V1.0
WCDMA Information:	
Frequency Bands	☒ FDD Band I ☒ FDD Band VIII (EU Bands) ☐ FDD Band V ☐ FDD Band II (Non-EU Bands)
Operation Frequency Range	TX: 1922.6MHz~1977.4MHz (FDD Band I) TX: 882.6MHz~912.4MHz (FDD Band VIII)
	RX: 2112.6MHz~2167.4MHz (FDD Band I) RX: 927.6MHz~957.4MHz (FDD Band VIII)
Modulation Type	HSDPA: QPSK/16QAM; HSUPA: BPSK; WCDMA: QPSK
Power Class	3
GSM Release Version	R99
WCDMA Release Version	Release 6 and later
Antenna Type	FPC Antenna
Antenna Gain	FDD Band I:-0.60dBi FDD Band VIII:-2.50dBi
SIM Card Description	There are dual-SIM cards for UMTS.

Note:

1. The above information was declared by the manufacturer.
2. The equipment submitted representative production models.
3. For more details, please refer to the User's manual of the EUT.

1.2. DESCRIPTION OF TEST MODES AND TEST FREQUENCY

Bands	Sub-test	Channel	Frequency (MHz)	
WCDMA Band I	---	9613	Low	1922.6
		9750	Mid	1950.0
		9887	High	1977.4
WCDMA Band VIII	---	2713	Low	882.6
		2788	Mid	897.6
		2863	High	912.4

1.3. OBJECTIVE

Perform Radio Spectrum tests for CE Marking according to the provisions of article 3.2 of the Radio Equipment Directive (2014/53/EU) for the Radio function of the EUT.

1.4. TEST ITEMS AND THE RESULTS

Leading reference documents for testing:

ETSI EN 301 908-1	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements Release 15
ETSI EN 301 908-2	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (UE)

Specific reference documents for testing:

3GPP TS 34.121-1	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Terminal conformance specification; Radio transmission and reception (FDD)
3GPP TS 34.121-2	3rd Generation Partnership Project; Technical Specification Group Radio Access Network User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 2: Implementation Conformance Statement (ICS)

Technical requirements specifications for transmitter/ receiver ETSI EN 301 908-1 V15.1.1 (2021-09) & ETSI EN 301 908-2 V13.1.1 (2020-06)			
Ref.	Subclause	Test Item	Result
4.1	4.2.2	Transmitter Maximum Output Power	Pass
4.2	4.2.3	Transmitter Spectrum Emission Mask	Pass
4.3	4.2.4	Transmitter Spurious Emissions	Pass
4.4	4.2.5	Transmitter Minimum Output Power	Pass
4.5	4.2.6	Receiver Adjacent Channel Selectivity (ACS)	Pass
4.6	4.2.7	Receiver Blocking Characteristics	Pass
4.7	4.2.8	Receiver Spurious Response	Pass
4.8	4.2.9	Receiver Intermodulation Characteristics	Pass
4.9	4.2.10	Receiver Spurious Emissions	Pass
4.10	4.2.11	Out-Of-Synchronization Handling of Output Power	Pass
4.11	4.2.12	Transmitter Adjacent Channel Leakage Power Ratio (ACLR)	Pass
4.12	4.2.13	Receiver Reference Sensitivity Level	Pass
4.21	4.2.2	Radiated Emissions (UE)	Pass
4.22	4.2.4	Control And Monitoring Functions (UE)	Pass
-	4.2.14	Receiver Total Radiated Sensitivity (TRS)	N/A (Note 4)
-	4.2.15	Total Radiated Power (TRP)	N/A (Note 4)

Note:

1.The measurement uncertainty is not included in the test result.

2.N/A: means this test item is not applicable for this device according to the technology characteristic of device.

3.EUT Orthogonal Axis: “X” - denotes Laid on Table; ”Y” - denotes Vertical Stand; ”Z” - denotes Side Stand.

4.This requirement applies to handheld phones/DUTs with a width ranging from 56mm-72mm.

1.5. TYPE OF MOBILE STATION AND ADDITIONAL INFORMATION

Item	Release	FDD (DS) RF Baseline Implementation capabilities	Support	Allowed Value	Comments
1	R99	Chip rate 3.84 Mbps	YES	Yes/No	--
2	R99	Frequency band: 1920-1980, 2110-2170 MHz	YES	Yes/No	Band I
3	R99	Frequency band: 1850-1910, 1930-1990 MHz	NO	Yes/No	Band II
9	R99	UE Power Class 1 (+33 dBm)	NO	Yes/No	--
10	R99	UE Power Class 2 (+27 dBm)	NO	Yes/No	--
11	R99	UE Power Class 3 (+24 dBm)	YES	Yes/No	--
12	R99	UE Power Class 4 (+21 dBm)	NO	Yes/No	--
14	R99	Frequency band: 1710-1785, 1805-1880 MHz	NO	Yes/No	Band III
15	R99	Frequency band: 1710-1755, 2110-2155 MHz	NO	Yes/No	Band IV
16	R99	Frequency band: 824-849, 869-894 MHz	NO	Yes/No	Band V
17	R99	Frequency band: 830-840, 875-885 MHz	NO	Yes/No	Band VI
18	R99	Frequency band: 2500-2570, 2620-2690 MHz	NO	Yes/No	Band VII
19	R99	Frequency band: 880-915, 925-960 MHz	YES	Yes/No	Band VIII
20	R99	Frequency band: 1749.9-1784.9, 1844.9-1879.9 MHz	NO	Yes/No	Band IX
21	R99	Frequency band: 1710-1770, 2110-2170 MHz	NO	Yes/No	Band X
22	R99	Frequency band: 1427.9-1452.9, 1475.9-1500.9 MHz	NO	Yes/No	Band XI
23	R99	Frequency band: 698-716, 728-746 MHz	NO	Yes/No	Band XII
24	R99	Frequency band: 777-787, 746-756 MHz	NO	Yes/No	Band XIII
25	R99	Frequency band: 788-798, 758-768 MHz	NO	Yes/No	Band XIV

2. TEST ENVIROMENT

2.1 ADDRESS OF THE TEST LABORATORY

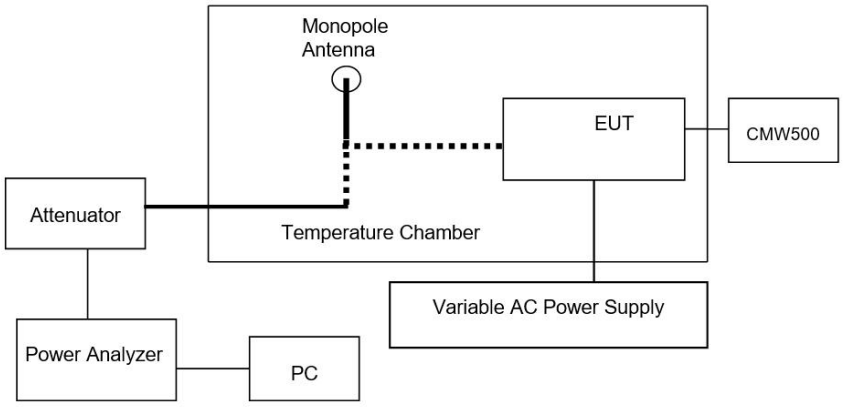
Test Site	Dongguan Yaxu (AiT) Technology Limited
Location	Add: No.22, Jinqianling 3rd Street, Jitigang, Huangjiang,Dongguan, Guangdong, China
CNAS- Registration No	L6177

2.2 ENVIRONMENTAL CONDITIONS

	NORMAL CONDITIONS	EXTREME CONDITIONS
Temperature range (℃)	15 - 35	-10 - 50
Relative humidty range	20 % - 75 %	20 % - 75 %
Pressure range (kPa)	86 - 106	86 - 106
Power supply	DC 3.87V	LV:DC 3.28V/HV: DC 4.45V
Note: 1.The Extreme Temperature and Extreme Voltages declared by the manufacturer. 2.The Limit Voltage 4.40V was declared by manufacturer, 3.The EUT couldn't be operate normally with higher voltage. 4.The maximum temperature of 40 is not a standard requirement and is measured according to the maximum service temperature stated by the manufacturer.		

2.2 SETUP CONFIGURATION OF EUT

Conducted measurements configuration of EUT shall be as follows:



Remarks:
The Signal Analyzer could be connected to a monopole antenna or directly connected to the EUT, if the EUT has already employing an antenna connector.

2.4 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Parameter	Conditions	Test System Uncertainty
Transmitter Maximum Output power	--	±0,6dB
Transmitter spectrum emissions mask	--	±1,4 dB
Transmitter spurious emissions	f ≤ 2,2 GHz 2,2 GHz < f ≤ 4 GHz f > 4 GHz Co-existence band (≥ -60 dBm) Co-existence band (< -60 dBm)	±1,35 dB ±1.8 dB ±3.5 dB ±1.8 dB ±2.7 dB
Transmitter Minimum output power	--	±0.8 dB
Receiver Adjacent Channel Selectivity(ACS)	--	±0.9 dB
Receiver Blocking characteristics	f < 15 MHz offset: 15 MHz offset ≤ f ≤ 2,2 GHz 2,2 GHz < f ≤ 4 GHz f > 4 GHz	±1,1 dB ±0.8 dB ±1,5 dB ±2.9 dB
Receiver spurious response	f ⩽ 2,2 GHz 2,2 GHz < f ≤ 4 GHz f > 4 GHz	±0.8 dB ±1,5 dB ±2.9 dB
Receiver intermodulation characteristics	--	±1,2 dB
Receiver spurious emissions	For UE receive band (-60 dBm) For UE transmit band (-60 dBm) Outside the UE receive band: f ≤ 2,2 GHz 2,2 GHz < f ≤ 4 GHz f > 4 GHz	±2.8 dB ±2.9 dB ±1.8 dB ±1.7 dB ±3.6 dB
Out of synchronization of handing power	DPCCH Ec/Ior Transmit OFF power	±0,3 dB ±0.8 dB
Transmitter adjacent channel leakage power ratio	--	±0,7 dB
Effective radiated RF power between 30 MHz and 180 MHz	--	±5 dB
Effective radiated RF power between 180 MHz and 12,75 GHz	--	±2 dB
Conducted RF power	--	±0.9 dB

2.5 LIST OF EQUIPMENTS USED

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	Spectrum Analyzer	R&S	FSV40	101470	2022.09.02	2023.09.01
2	EMI Measuring Receiver	R&S	ESR	101660	2022.09.02	2023.09.01
3	Low Noise Pre Amplifier	HP	HP8447E	1937AIT23052502-1855	2022.09.02	2023.09.01
4	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2022.09.02	2023.09.01
5	Passive Loop	ETS	6512	00165355	2022.09.03	2024.09.02
6	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9160	9160-3206	2021.08.29	2024.08.28
7	Broadband Horn Antenna	SCHWARZBECK	BBHA9120D	452	2021.08.29	2024.08.28
8	SHF-EHF Horn Antenna 15-40GHz	SCHWARZBECK	BBHA9170	BBHA9170367d	2020.11.24	2023.11.23
9	EMI Test Receiver	R&S	ESCI	100124	2022.09.02	2023.09.01
10	LISN	Kyoritsu	KNW-242	8-837-4	2022.09.02	2023.09.01
11	LISN	R&S	ESH3-Z2	0357.8810.54-101161-S2	2022.09.02	2023.09.01
12	Pro.Temp&Humi.chamber	MENTEK	MHP-150-1C	MAA08112501	2022.09.02	2023.09.01
13	RF Automatic Test system	MW	MW100-RFCB	21033016	2022.09.02	2023.09.01
14	Signal Generator	Agilent	N5182A	MY501430009	2022.09.02	2023.09.01
15	Wideband Radio communication tester	R&S	CMW500	1201.0002K50	2022.09.02	2023.09.01
16	RF Automatic Test system	MW	MW100-RFCB	21033016	2022.09.02	2023.09.01
17	DC power supply	ZHAOXIN	RXN-305D-2	28070002559	N/A	N/A
18	RE Software	EZ	EZ-EMC_RE	Ver.AIT-03A	N/A	N/A
19	CE Software	EZ	EZ-EMC_CE	Ver.AIT-03A	N/A	N/A
20	RF Software	MW	MTS 8310	2.0.0.0	N/A	N/A
21	temporary antenna connector(Note)	NTS	R001	N/A	N/A	N/A
Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.						

3. SUMMARY OF TEST RESULTS

Terms in the column “Verdict” for the test results list of the section:

Verdict	Description
PASS	EUT passed this test case
FAIL	EUT failed this test case
INC.	EUT did not pass and did not fail this test case, therefore the verdict is inconclusive
N/A	Test case not applicable for the EUT, see the column “Note” for detailed

ETSI EN 301 908-1

Test case	Description	Condition	FDDI		FDDVIII		Note
			Sample	Result	Sample	Result	
5.3.1	Radiated emission (UE)	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	Reference to the section 4.15
5.3.3	Control and monitoring functions (UE)	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	

ETSI EN 301 908-2

Test case	Description	Condition	FDDI		FDDVIII		Note
			Sample	Result	Sample	Result	
4.2.2	Transmitter Characteristics/Maximum Output Power	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	Reference to the section 4.1
4.2.2	Transmitter Characteristics/Maximum Output Power	HT/HV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.2	Transmitter Characteristics/Maximum Output Power	HT/LV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.2	Transmitter Characteristics/Maximum Output Power	LT/HV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.2	Transmitter Characteristics/Maximum Output Power	LT/LV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.5	Transmitter Characteristics/Output Dynamics in the Uplink/Minimum Output Power	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.5	Transmitter Characteristics/Output Dynamics in the Uplink/Minimum Output Power	HTHV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.5	Transmitter Characteristics/Output Dynamics in the Uplink/Minimum Output Power	HTLV	AIT23052502-1	PASS	AIT23052502-1	PASS	

4.2.5	Transmitter Characteristics/Output Dynamics in the Uplink/Minimum Output Power	LT/HV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.5	Transmitter Characteristics/Output Dynamics in the Uplink/Minimum Output Power	LT/LV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.11	Transmitter Characteristics/Output Dynamics in the Uplink/Out-of-synchronization Handling of Output power	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.3	Transmitter Characteristics/Spectrum Emission Mask	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.3	Transmitter Characteristics/Spectrum Emission Mask-HSDPA&HSUPA	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)	HT/HV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)	HT/LV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)	LT/HV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)	LT/LV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)-- HSDPA&HSUPA	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)-- HSDPA&HSUPA	HT/HV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)-- HSDPA&HSUPA	HT/LV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.12	Transmitter Characteristics/Adjacent	LT/HV	AIT23052502-1	PASS	AIT23052502-1	PASS	

	Channel Leakage Power Ratio (ACLR)-- HSDPA&HSUPA						
4.2.12	Transmitter Characteristics/Adjacent Channel Leakage Power Ratio (ACLR)-- HSDPA&HSUPA	LT/LV	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.4	Transmitter Characteristics/Spurious Emissions	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.6	Receiver Characteristics/Adjacent Channel Selectivity (ACS)	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.7	Receiver Characteristics/Blocking Characteristics	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.8	Receiver Characteristics/Spurious Response	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.9	Receiver Characteristics /Intermodulation Characteristics	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.10	Receiver Characteristics/Spurious Emissions	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.13	Receiver Reference Sensitivity level	NTC	AIT23052502-1	PASS	AIT23052502-1	PASS	
4.2.14	Receiver Total Radiated Sensitivity (TRS)	NTC	AIT23052502-1	NA	AIT23052502-1	NA	
4.2.15	Total Radiated Power (TRP)	NTC	AIT23052502-1	NA	AIT23052502-1	NA	

Note:

1. The test result is SIM Card 1 and recorded in the test report.

2. The device width is greater than 72mm and does not need to meet the OTA test.

4. ETSI EN 301 908-1/-2 REQUIREMENTS

4.1. TRANSMITTER MAXIMUM OUTPUT POWER

TEST LIMIT

ETSI EN 301 908-2 Sub-clause 4.2.2.1

Power Class 3	
Power (dBm)	Tol (dB)
+24	+1.7/-3.7

NOTE 1: These requirements do not take into account the maximum power reduction allowed to the UE in the presence of HS-DPCCH and E-DCH specified in TS 125 101 [5].

NOTE 2: The range of UE maximum output power for the various power classes are specified in TS 125 101 [5], clause 6.2.1. The values in table 4.2.2.2-1 correspond to the measurement limits taking into account the measurement uncertainty of measurement equipment (see clause 5.2).4.2.2.3 Conformance.

Table 5.2AA.2: Maximum Output Powers with HS-DPCCH for test

Sub-test in table C.10.1.4	Power Class 3		Power Class 4	
	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)
1	+24	+1.7/-3.7	+21	+2.7/-2.7
2	+24	+1.7/-3.7	+21	+2.7/-2.7
3	+23.5	+2.2/-3.7	+20.5	+3.2/-2.7
4	+23.5	+2.2/-3.7	+20.5	+3.2/-2.7

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

Table 5.2B.5: Maximum Output Powers with HS-DPCCH and E-DCH for test

Sub-test in table C.11.1.3	Power Class 3		Power Class 4	
	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)
1	+24	+1.7/-6.7	+21	+2.7/-5.7
2	+22	+3.7/-5.2	+19	+4.7/-4.2
3	+23	+2.7/-5.2	+20	+3.7/-4.2
4	+22	+3.7/-5.2	+19	+4.7/-4.2
5	+24	+1.7/-3.7	+21	+2.7/-2.7

NOTE 1: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

NOTE 2: The test procedure for sub-test 1 to 4 will result in a power slightly below the maximum, and therefore the lower limits in Table 5.2B.5 are made lower by 1.5 dB.

NOTE 3: The test procedure allows UE to decrease its maximum transmit power for E-TFC selection in sub-test 1, and therefore the lower limits of sub-test 1 in Table 5.2B.5 are made lower by 1.5 dB.

NOTE 4: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

TEST PROCEDURE

1. Set and send continuously Up power control commands to the UE.
2. Measure the mean power of the UE in a bandwidth of at least (1 + α) times the chip rate of the radio access mode. The mean power shall be averaged over at least one timeslot.

TEST RESULTS

FDD Band I

Test Condition	Result(dBm)			Limit(dBm)	Verdict
	CH9613	CH9750	CH9887		
NTNV	23.33	23.32	23.22	20.3 to 25.7	PASS

FDD Band I HSDPA

Test Condition		Result(dBm)			Limit(dBm)	Verdict
		CH9613	CH9750	CH9887		
NTNV	Sub-test 1	22.17	22.03	22.33	20.3 to 25.7	Pass
	Sub-test 2	21.14	21.06	20.99	20.3 to 25.7	Pass
	Sub-test 3	21.62	21.65	21.78	19.3 to 25.7	Pass
	Sub-test 4	21.16	21.00	21.36	18.3 to 25.7	Pass

FDD Band I HSUPA

Test Condition		Result(dBm)			Limit(dBm)	Verdict
		CH9613	CH9750	CH9887		
NTNV	Sub-test 1	22.65	22.68	22.61	17.3 to 25.7	Pass
	Sub-test 2	21.64	21.58	21.43	16.8 to 25.7	Pass
	Sub-test 3	21.54	21.49	21.69	17.8 to 25.7	Pass
	Sub-test 4	21.33	21.12	21.41	16.8 to 25.7	Pass
	Sub-test 5	22.10	22.29	22.19	17.3 to 25.7	Pass

FDD Band VIII

Test Condition	Result(dBm)			Limit(dBm)	Verdict
	CH2713	CH2788	CH2862		
NTNV	23.55	23.66	23.44	20.3 to 25.7	PASS

FDD Band VIII HSDPA

Test Condition		Result(dBm)			Limit(dBm)	Verdict
		CH2713	CH2788	CH2862		
NTNV	Sub-test 1	22.90	22.84	22.85	20.3 to 25.7	Pass
	Sub-test 2	21.35	21.35	21.30	20.3 to 25.7	Pass
	Sub-test 3	21.42	21.60	21.23	19.3 to 25.7	Pass
	Sub-test 4	21.27	21.11	21.43	18.3 to 25.7	Pass

FDD Band VIII HSUPA

Test Condition		Result(dBm)			Limit(dBm)	Verdict
		CH2713	CH2788	CH2862		
NTNV	Sub-test 1	22.22	22.11	22.18	17.3 to 25.7	Pass
	Sub-test 2	21.63	21.73	21.46	16.8 to 25.7	Pass
	Sub-test 3	21.29	21.39	21.20	17.8 to 25.7	Pass
	Sub-test 4	21.87	21.94	21.87	16.8 to 25.7	Pass
	Sub-test 5	22.31	22.38	22.47	17.3 to 25.7	Pass

4.2. TRANSMITTER SPECTRUM EMISSION MASK

TEST LIMIT

The power of any UE emission shall not exceed the levels specified in table 4.2.3.2-1. The requirements are applicable for all for the values of βc, βd, βhs, βec and βed defined in TS 125 214 [8].

Table 4.2.3.2-1: Spectrum emission mask requirement

Δf in MHz (note 1)	Minimum requirement (note 2)		Measurement bandwidth (note 5)
	Relative requirement	Absolute requirement (in measurement bandwidth)	
2,5 MHz to 3,5 MHz	$\left\{-33{,}5-15\cdot\left(\frac{\Delta f}{MHz}-2{,}5\right)\right\}dBc$	-69,6 dBm	30 kHz (see note 3)
3,5 MHz to 7,5 MHz	$\left\{-33{,}5-1\cdot\left(\frac{\Delta f}{MHz}-3{,}5\right)\right\}dBc$	-54,3 dBm	1 MHz (see note 4)
7,5 MHz to 8,5 MHz	$\left\{-37{,}5-10\cdot\left(\frac{\Delta f}{MHz}-7{,}5\right)\right\}dBc$	-54,3 dBm	1 MHz (see note 4)
8,5 MHz to 12,5 MHz	-47,5 dBc	-54,3 dBm	1 MHz (see note 4)

NOTE 1: Δf is the separation between the carrier frequency and the centre of the measurement bandwidth.
NOTE 2: The minimum requirement is calculated from the relative requirement or the absolute requirement, whichever is the higher power.
NOTE 3: The first and last measurement position with a 30 kHz filter is at Δf equals to 2,515 MHz and 3,485 MHz.
NOTE 4: The first and last measurement position with a 1 MHz filter is at Δf equals to 4 MHz and 12 MHz.
NOTE 5: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

TEST PROCEDURE

1) Set and send continuously Up power control commands to the UE until the UE output power shall be at the maximum level.

2) Measure the power of the transmitted signal with a measurement filter of bandwidths according to table 4.2.3.2-1. Measurements with an offset from the carrier centre frequency between 2,515 MHz and 3,485 MHz shall use a 30 kHz measurement filter. Measurements with an offset from the carrier centre frequency between 4 MHz and 12 MHz shall use 1 MHz measurement bandwidth and the result may be calculated by integrating multiple 50 kHz or narrower filter measurements. The characteristic of the filter shall be approximately Gaussian (typical spectrum analyzer filter). The centre frequency of the filter shall be stepped in contiguous steps according to table 4.2.3.2-1. The measured power shall be recorded for each step.

3) Measure the RRC filtered mean power centred on the assigned channel frequency.

4) Calculate the ratio of the power 2) with respect to 3) in dBc.

TEST RESULTS

Mode	Test Frequency (MHz)	Test Condition					Result
Band I	1922.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1950.0	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1977.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
Band VIII	882.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	897.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	912.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance

4.3. TRANSMITTER SPECTRUM EMISSION MASK WITH HS-DPCCH

TEST LIMIT

Table 5.9A.1: Spectrum Emission Mask Requirement

Δf in MHz (Note 1)	Minimum requirement (Note 2)		Measurement bandwidth
	Relative requirement	Absolute requirement	
2.5 - 3.5	$\left\{-35-15\cdot\left(\frac{\Delta f}{MHz}-2.5\right)\right\}dBc$	-71.1 dBm	30 kHz (Note 3)
3.5 - 7.5	$\left\{-35-1\cdot\left(\frac{\Delta f}{MHz}-3.5\right)\right\}dBc$	-55.8 dBm	1 MHz (Note 4)
7.5 - 8.5	$\left\{-39-10\cdot\left(\frac{\Delta f}{MHz}-7.5\right)\right\}dBc$	-55.8 dBm	1 MHz (Note 4)
8.5 - 12.5 MHz	-49 dBc	-55.8 dBm	1 MHz (Note 4)

Note 1: Δf is the separation between the carrier frequency and the centre of the measurement bandwidth.
Note 2: The minimum requirement is calculated from the relative requirement or the absolute requirement, whichever is the higher power.
Note 3: The first and last measurement position with a 30 kHz filter is at Δf equals to 2.515 MHz and 3.485 MHz.
Note 4: The first and last measurement position with a 1 MHz filter is at Δf equals to 4 MHz and 12 MHz.

TEST PROCEDURE

1) Set and send continuously Up power control commands to the UE until the UE output power shall be at the maximum level.

2) Measure the power of the transmitted signal with a measurement filter of bandwidths according to table 5.9A.1. Measurements with an offset from the carrier centre frequency between 2,515 MHz and 3,485 MHz shall use a 30 kHz measurement filter. Measurements with an offset from the carrier centre frequency between 4 MHz and 12 MHz shall use 1 MHz measurement bandwidth and the result may be calculated by integrating multiple 50 kHz or narrower filter measurements. The characteristic of the filter shall be approximately Gaussian (typical spectrum analyzer filter). The centre frequency of the filter shall be stepped in contiguous steps according to table 5.9A.1. The measured power shall be recorded for each step.

3) Measure the RRC filtered mean power centred on the assigned channel frequency.

4) Calculate the ratio of the power 2) with respect to 3) in dBc.

TEST RESULTS

Mode	Test Frequency (MHz)	Test Condition					Result
Band I	1922.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1950.0	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1977.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
Band VIII	882.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	897.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	912.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance

4.4. TRANSMITTER SPURIOUS EMISSIONS (UE)

TEST LIMIT

The power of spurious emissions shall not exceed the limits defined in tables 4.2.4.1.2-1 and 4.2.4.1.2-2. The limits shown in tables 4.2.4.1.2-1 and 4.2.4.1.2-2 are only applicable for frequencies, which are greater than 12,5 MHz away from the UE centre carrier frequency.

Table 4.2.4.1.2-1: General spurious emissions requirements

Frequency bandwidth	Measurement bandwidth	Minimum requirement
9 kHz ≤ f < 150 kHz	1 kHz	-36 dBm
150 kHz ≤ f < 30 MHz	10 kHz	-36 dBm
30 MHz ≤ f < 1 000 MHz	100 kHz	-36 dBm
1 GHz ≤ f < 12,75 GHz	1 MHz	-30 dBm
12,75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	1 MHz	-30 dBm (note)
NOTE: Applies only for Band XXII.		

Table 4.2.4.1.2-2: Additional spurious emissions requirements

Operating band	Frequency bandwidth	Measurement bandwidth	Minimum requirement
I	462,5 MHz ≤ f ≤ 467,5 MHz	1 MHz	-50 dBm
	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f < 925 MHz	100 kHz	-60 dBm (note 1)
	925 MHz ≤ f ≤ 935 MHz	100 kHz	-67 dBm (note 1)
	935 MHz < f ≤ 960 MHz	100 kHz 3,84 MHz	-79 dBm (note 1) -60 dBm
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz 3,84 MHz	-71 dBm (note 1) -60 dBm
	2 010 MHz < f < 2 025 MHz	3,84 MHz	-60 dBm
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 300 MHz ≤ f ≤ 2 400 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
III	462,5 MHz ≤ f ≤ 467,5 MHz	1 MHz	-50 dBm
	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f < 925 MHz	100 kHz	-60 dBm (note 1)
	925 MHz ≤ f ≤ 935 MHz	100 kHz	-67 dBm (note 1)
	935 MHz < f ≤ 960 MHz	100 kHz	-79 dBm (note 1)
	1 805 MHz ≤ f ≤ 1 880 MHz	3,84 MHz	-60 dBm
	1 880 MHz ≤ f ≤ 1 920 MHz	3,84 MHz	-60 dBm
	2 010 MHz < f < 2 025 MHz	3,84 MHz	-60 dBm
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 300 MHz ≤ f ≤ 2 400 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
VII	462,5 MHz ≤ f ≤ 467,5 MHz	1 MHz	-50 dBm
	729 MHz ≤ f ≤ 746 MHz	3,84 MHz	-60 dBm
	746 MHz ≤ f ≤ 756 MHz	3,84 MHz	-60 dBm
	758 MHz ≤ f ≤ 768 MHz	3,84 MHz	-60 dBm
	859 MHz ≤ f ≤ 894 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f < 925 MHz	100 kHz	-60 dBm (note 1)
	925 MHz ≤ f ≤ 935 MHz	100 kHz	-67 dBm (note 1)
	935 MHz < f ≤ 960 MHz	100 kHz 3,84 MHz	-79 dBm (note 1) -60 dBm
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz 3,84 MHz	-71 dBm (note 1) -60 dBm
	1 900 MHz ≤ f ≤ 1 920 MHz	3,84 MHz	-60 dBm
	1 930 MHz ≤ f ≤ 1 995 MHz	3,84 MHz	-60 dBm
	2 010 MHz < f < 2 025 MHz	3,84 MHz	-60 dBm
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 300 MHz < f < 2 400 MHz	3,84 MHz	-60 dBm
	2 350 MHz ≤ f ≤ 2 360 MHz	1 MHz	-50 dBm
	2 620 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
	2 595 MHz ≤ f ≤ 2 620 MHz	1 MHz	-40 dBm

Operating band	Frequency bandwidth	Measurement bandwidth	Minimum requirement
VIII	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	925 MHz ≤ f ≤ 935 MHz	100 kHz 3,84 MHz	-67 dBm (note 1) -60 dBm
	935 MHz < f ≤ 960 MHz	100 kHz 3,84 MHz	-79 dBm (note 1) -60 dBm
	1 805 MHz < f ≤ 1 830 MHz	100 kHz 3,84 MHz	-71 dBm (notes 1 and 2) -60 dBm (note 2)
	1 830 MHz < f ≤ 1 880 MHz	100 kHz 3,84 MHz	-71 dBm (note 1) -60 dBm
	1 880 MHz ≤ f ≤ 1 920 MHz	3,84 MHz	-60 dBm
	2 010 MHz ≤ f ≤ 2 025 MHz	3,84 MHz	-60 dBm
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 300 MHz < f < 2 400 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 640 MHz	3,84 MHz	-60 dBm
	2 640 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm (note 2)
XV	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f ≤ 925 MHz	100 kHz	-60 dBm (note 1)
	925 MHz ≤ f ≤ 935 MHz	100 kHz 3,84 MHz	-67 dBm (note 1) -60 dBm
	935 MHz ≤ f ≤ 960 MHz	100 kHz	-79 dBm (note 1)
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz	-71 dBm (note 1)
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 620 MHz	3,84 MHz	-50 dBm
	2 620 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
XVI	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f ≤ 925 MHz	100 kHz	-60 dBm (note 1)
	925 MHz ≤ f ≤ 935 MHz	100 kHz 3,84 MHz	-67 dBm (note 1) -60 dBm
	935 MHz ≤ f ≤ 960 MHz	100 kHz	-79 dBm (note 1)
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz	-71 dBm (note 1)
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 620 MHz	3,84 MHz	-50 dBm
	2 620 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
XX	470 MHz ≤ f ≤ 790 MHz	8 MHz	-65 dBm (note 3)
	758 MHz ≤ f ≤ 788 MHz	1 MHz	-50 dBm
	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f ≤ 925 MHz	100 kHz	-60 dBm (note 1)
	925 MHz ≤ f ≤ 935 MHz	100 kHz 3,84 MHz	-67 dBm (note 1) -60 dBm
	935 MHz ≤ f ≤ 960 MHz	100 kHz 3,84 MHz	-79 dBm (note 1) -60 dBm
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz 3,84 MHz	-71 dBm (note 1) -60 dBm
	2 010 MHz ≤ f ≤ 2 025 MHz	3,84 MHz	-60 dBm
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 300 MHz ≤ f ≤ 2 400 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 620 MHz	3,84 MHz	-50 dBm
	2 620 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm

Operating band	Frequency bandwidth	Measurement bandwidth	Minimum requirement
XXII	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f < 925 MHz	100 kHz	-60 dBm (note 1)
	925 MHz ≤ f ≤ 935 MHz	100 kHz 3,84 MHz	-67 dBm (note 1) -60 dBm
	935 MHz < f ≤ 960 MHz	100 kHz 3,84 MHz	-79 dBm (note 1) -60 dBm
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz 3,84 MHz	-71 dBm (note 1)
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 620 MHz	3,84 MHz	-50 dBm
	2 620 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
	3 510 MHz ≤ f ≤ 3 525 MHz	1 MHz	-40 dBm
	3 525 MHz ≤ f ≤ 3 590 MHz	1 MHz	-50 dBm
	3 600 MHz ≤ f ≤ 3 800 MHz	3,84 MHz	-50 dBm
NOTE 1: The transmitter additional spurious emission measurements are made on frequencies which are integer multiples of 200 kHz. As exceptions, up to five measurements with a level up to the applicable requirements defined in table 4.2.4.1.2-1 are permitted for each UARFCN used in the measurement. NOTE 2: The transmitter additional spurious emission measurements are made on frequencies which are integer multiples of 200 kHz. As exceptions, measurements with a level up to the applicable requirements defined in table 4.2.4.1.2-1 are permitted for each UARFCN used in the measurement due to 2nd, 3rd and 4th harmonic spurious emissions. NOTE 3: The conformance shall be assessed using the measurement position placed at the following centre frequencies: 474 MHz, 586 MHz, 690 MHz, 754 MHz, 770 MHz and 786 MHz.			

TEST PROCEDURE

1) Set and send continuously Up power control commands to the UE until the UE output power shall be maximum level.

2) Sweep the spectrum analyses (or equivalent equipment) over a frequency range and measure the average power of spurious emission.

TEST RESULTS

Mode	Test Frequency (MHz)	Test Condition					Result
Band I	1922.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1950.0	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1977.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
Band VIII	882.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	897.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	912.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance

4.5. TRANSMITTER MINIMUM OUTPUT POWER

TEST LIMIT

The minimum output power shall be less than -49 dBm.

TEST PROCEDURE

1) Set and send continuously Down power control commands to the UE.
2) Measure the mean power of the UE.

TEST RESULTS

Mode	Test Frequency (MHz)	Test Condition					Result
Band I	1922.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1950.0	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1977.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
Band VIII	882.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	897.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	912.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance

4.6. TRANSMITTER ADJACENT CHANNEL LEAKAGE POWER RATIO

TEST LIMIT

If the adjacent channel power is greater than -50 dBm then the ACLR shall be higher than the value specified in table 4.2.12.2-1.The requirements are applicable for all for the values of βc, βd, βhs, βec and βed defined in TS 125 214 [8].

Table 4.2.12.2-1: UE ACLR

Power Class	Adjacent channel frequency relative to assigned channel frequency	ACLR limit
3	+5 MHz or -5 MHz	32,2 dB
3	+10 MHz or -10 MHz	42,2 dB
4	+5 MHz or -5 MHz	32,2 dB
4	+10 MHz or -10 MHz	42,2 dB
NOTE 1: The requirement shall still be met in the presence of switching transients. NOTE 2: The ACLR requirements reflect what can be achieved with present state of the art technology. NOTE 3: Requirement on the UE shall be reconsidered when the state of the art technology progresses.		

TEST PROCEDURE

1) The SS sends continuously Up power control commands to the UE until the UE transmitter power reaches maximum level.
2) Measure the RRC filtered mean power.
3) Measure the RRC filtered mean power of the first adjacent channels and the second adjacent channels.
4) Calculate the ratio of the power between the values measured in 2) and 3) above.

TEST RESULTS

Mode	Test Frequency (MHz)	Test Condition					Result
Band I	1922.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1950.0	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1977.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
Band VIII	882.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	897.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	912.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance

4.7. RECEIVER SPURIOUS EMISSIONS

TEST LIMIT

The power of any narrow band CW spurious emission shall not exceed the maximum level specified in tables 4.2.10.2-1 and 4.2.10.2-2.

Table 4.2.10.2-1: General receiver spurious emission requirements

Frequency band	Measurement bandwidth	Maximum level
30 MHz ≤ f < 1 GHz	100 kHz	-57 dBm
1 GHz ≤ f ≤ 12,75 GHz	1 MHz	-47 dBm

Table 4.2.10.2-2: Additional receiver spurious emission requirements

Band	Frequency Range	Measurement Bandwidth	Maximum level
I	1 920 MHz ≤ f ≤ 1 980 MHz	3,84 MHz	-60 dBm
III	1 710 MHz ≤ f ≤ 1 785 MHz	3,84 MHz	-60 dBm
VII	2 500 MHz ≤ f ≤ 2 570 MHz	3,84 MHz	-60 dBm
VIII	880 MHz ≤ f ≤ 915 MHz	3,84 MHz	-60 dBm
XV	791 MHz ≤ f < 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f < 925 MHz	100 kHz	-60 dBm (see note)
	925 MHz ≤ f < 935 MHz	100 kHz 3,84 MHz	-67 dBm (see note) -60 dBm
	935 MHz ≤ f ≤ 960 MHz	100 kHz	-79 dBm (see note)
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz	-71 dBm (see note)
	1 900 MHz ≤ f ≤ 1 920 MHz	3,84 MHz	-60 dBm
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm

Band	Frequency Range	Measurement Bandwidth	Maximum level
XVI	791 MHz ≤ f < 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f < 925 MHz	100 kHz	-60 dBm (see note)
	925 MHz ≤ f < 935 MHz	100 kHz 3,84 MHz	-67 dBm (see note) -60 dBm
	935 MHz ≤ f ≤ 960 MHz	100 kHz	-79 dBm (see note)
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz	-71 dBm (see note)
	2 010 MHz ≤ f ≤ 2 025 MHz	3,84 MHz	-60 dBm
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
XX	832 MHz ≤ f ≤ 862 MHz	3,84 MHz	-60 dBm
XXII	3 410 MHz ≤ f ≤ 3 490 MHz	3,84 MHz	-60 dBm
NOTE:	The receiver additional spurious emission measurements are made on frequencies which are integer multiples of 200 kHz. As exceptions, up to five measurements with a level up to the applicable requirements defined in table 4.2.10.2-1 are permitted for each UARFCN used in the measurement. This note applies also to receiver additional spurious emission measurements according to table 4.2.12.1.2-1.		

TEST PROCEDURE

Sweep the spectrum analyser (or other suitable test equipment) over a frequency range from 30 MHz to 12.75 GHz and measure the average power of the spurious emissions.

TEST RESULTS

Mode	Test Frequency (MHz)	Test Condition					Result
Band I	1922.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1950.0	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	1977.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
Band VIII	882.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	897.6	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance
	912.4	Normal	L.V. L.T.	L.V. H.T.	H.V L.T	H.V. H.T	Compliance

4.8. RECEIVER ADJACENT CHANNEL SELECTIVITY (ACS)

TEST LIMIT

For the UE of power class 3 and 4, the BER shall not exceed 0,001 for the parameters specified in table 4.2.6.2-1. This test condition is equivalent to the ACS value 33 dB.

Table 4.2.6.2-1: Test parameters for adjacent channel selectivity

Parameter	Unit	Case 1	Case 2
DPCH_Ec	dBm/3,84 MHz	<REFSENS> + 14 dB	<REFSENS> + 41 dB
$\hat{I}_{or}$	dBm/3,84 MHz	<REF$\hat{I}_{or}$> + 14 dB	<REF$\hat{I}_{or}$> + 41 dB
I_{oac} mean power (modulated)	dBm	-52	-25
F_{uw} (offset)	MHz	+5 or -5	+5 or -5
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4)	20 (for Power class 3) 18 (for Power class 4)
NOTE 1: <REFSENS> and <REF$\hat{I}_{or}$> as specified in TS 134 121-1 [2]. NOTE 2: The I_{oac} (modulated) signal consists of the common channels and the 16 dedicated data channels as specified in TS 125 101 [5].			

TEST PROCEDURE

1) Set the parameters of the interference signal generator as shown in table 4.2.6.2-1 case 1.
2) Set the power level of UE according to the table 4.2.6.2-1 case 1 with ±1 dB tolerance.
3) Measure the BER of DCH received from the UE at the SS.
4) Set the parameters of the interference signal generator as shown in table 4.2.6.2-1 case 2.
5) Set the power level of UE according to the table 4.2.6.2-1 case 2 with ±1 dB tolerance.
6) Measure the BER of DCH received from the UE at the SS.

TEST RESULTS

PASS.

4.9. RECEIVER BLOCKING CHARACTERISTICS

TEST LIMIT

The BER shall not exceed 0,001 for the parameters specified in tables 4.2.7.2-1 and 4.2.7.2-2. For table 4.2.7.2-2 up to 24 exceptions are allowed for spurious response frequencies in each assigned frequency channel when measured using a 1 MHz step size.

Table 4.2.7.2-1: Test parameters for in-band blocking characteristics

Parameter	Unit	Level	
DPCH_Ec	dBm/3,84 MHz	<REFSENS> + 3 dB	
I_{or}	dBm/3,84 MHz	<$REFI_{or}$> + 3 dB	
$I_{blocking}$ mean power (modulated)	dBm	-56 (for F_{uw} offset ±10 MHz)	-44 (for F_{uw} offset ±15 MHz)
F_{uw} (Band I operation)	MHz	2 102,4 ≤ f ≤ 2 177,6	2 095 ≤ f ≤ 2 185
F_{uw} (Band III operation)	MHz	1 797,4 ≤ f ≤ 1 887,6	1 790 ≤ f ≤ 1 895
F_{uw} (Band VII operation)	MHz	2 612,4 ≤ f ≤ 2 697,6	2 605 ≤ f ≤ 2 705
F_{uw} (Band VIII operation)	MHz	917,4 ≤ f ≤ 967,6	910 ≤ f ≤ 975
F_{uw} (Band XX operation)	MHz	783,4 ≤ f ≤ 828,6	776 ≤ f ≤ 836
F_{uw} (Band XXII operation)	MHz	3 502,4 ≤ f ≤ 3 597,6	3 495 ≤ f ≤ 3 605
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4) (note 3)	
NOTE 1: <REFSENS> and <$REFI_{or}$> as specified in ETSI TS 134 121-1 [1]. NOTE 2: The $I_{blocking}$ (modulated) signal consists of the common channels and the 16 dedicated data channels as specified in ETSI TS 125 101 [4]. NOTE 3: The UE transmitted mean power shall be reduced by 0,5 dB for a UE operating in band XXII.			

Table 4.2.7.2-2: Test parameters for out-of-band blocking characteristics

Parameter	Unit	Frequency range 1	Frequency range 2	Frequency range 3
DPCH_Ec	dBm/3,84 MHz	<REFSENS> + 3 dB	<REFSENS> + 3 dB	<REFSENS> + 3 dB
$\hat{I}_{or}$	dBm/3,84 MHz	<REF$\hat{I}_{or}$> + 3 dB	<REF$\hat{I}_{or}$> + 3 dB	<REF$\hat{I}_{or}$> + 3 dB
$I_{blocking}$ (CW)	dBm	-44	-30	-15
F_{uw} (Band I operation)	MHz	2 050 < f < 2 095 2 185 < f < 2 230	2 025 < f ≤ 2 050 2 230 ≤ f < 2 255	1 < f ≤ 2 025 2 255 ≤ f < 12 750
F_{uw} (Band III operation)	MHz	1 745 < f < 1 790 1 895 < f < 1 940	1 720 < f ≤ 1 745 1 940 ≤ f < 1 965	1 < f ≤ 1 720 1 965 ≤ f < 12 750
F_{uw} (Band VII operation)	MHz	2 570 < f < 2 605 2 705 < f < 2 750	Na 2 750 ≤ f < 2 775	1 < f ≤ 2 570 2 775 ≤ f < 12 750
F_{uw} (Band VIII operation)	MHz	865 < f < 910 975 < f < 1 020	840 < f < 865 1 020 ≤ f < 1 045	1 < f ≤ 840 1 045 ≤ f < 12 750
Fuw (Band XV operation)	MHz	2 570 < f < 2 585 2 705 < f < 2 750	Na 2 750 ≤ f < 2 775	1 < f ≤ 2 570 2 775 ≤ f < 12 750
Fuw (Band XVI operation)	MHz	Na 2 705 < f < 2 750	2 500 < f ≤ 2 570 2 750 ≤ f < 2 775	1 < f ≤ 2 500 2 775 ≤ f < 12 750
F_{uw} (Band XX operation)	MHz	731 < f < 776 836 < f < 881	706 < f ≤ 731 881 ≤ f < 906	1 < f ≤ 706 906 ≤ f < 12 750
Fuw (Band XXII operation)	MHz	3 450 < f < 3 495 3 605 < f < 3 650	3 425 < f ≤ 3 450 3 650 ≤ f < 3 675	1 < f ≤ 3 425 3 675 ≤ f < 12 750
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4)		
Band I operation	For 2 095 MHz ≤ f ≤ 2 185 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
Band III operation	For 1 790 MHz ≤ f ≤ 1 895 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			

Parameter	Unit	Frequency range 1	Frequency range 2	Frequency range 3
Band III operation	For 1 790 MHz ≤ f ≤ 1 895 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
Band VII operation	For 2 605 MHz ≤ f ≤ 2 705 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
Band VIII operation	For 910 MHz ≤ f ≤ 975 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
Band XV operation	For 2 585 MHz ≤ f ≤ 2 705 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
Band XVI operation	For 2 570 MHz ≤ f ≤ 2 705 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
Band XX operation	For 776 MHz ≤ f ≤ 836 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
Band XXII operation	For 3 495 ≤ f ≤ 3 605 MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and clause 4.2.7.2-1 shall be applied. (note 2)			
NOTE 1: <REFSENS> and <REF$\hat{I}_{or}$> as specified in ETSI TS 134 121-1 [1]. NOTE 2: The UE transmitted mean power shall be reduced by 0,5 dB for a UE operating in band XXII.				

TEST PROCEDURE

1) Set the parameters of the CW generator or the interference signal generator as shown in tables 4.2.7.2-1, 4.2.7.2-2 and 4.2.7.2-3. For table 4.2.7.2-2 the frequency step size is 1 MHz.
2) Set the power level of the UE according to tables 4.2.7.2-1, 4.2.7.2-2 and 4.2.7.2-3 with a ±1 dB tolerance.
3) Measure the BER of DCH received from the UE at the SS.
4) For table 4.2.7.2-2, record the frequencies for which the BER exceeds the test requirements.

TEST RESULTS

PASS.

4.10. RECEIVER SPURIOUS RESPONSE

TEST LIMIT

The BER shall not exceed 0,001 for the parameters specified in table 4.2.8.2-1.

Table 4.2.8.2-1: Test parameters for spurious response

Parameter	Level	Unit
DPCH_Ec	<REFSENS> + 3 dB	dBm/3,84 MHz
I_{or}	<REFI_{or}> + 3 dB	dBm/3,84 MHz
$I_{blocking}$(CW)	-44	dBm
F_{uw}	Spurious response frequencies	MHz
UE transmitted mean power	20 (for Power class 3) 18 (for Power class 4) (note 2)	dBm
NOTE 1: <REFSENS> and <REF$\hat{I}_{or}$> as specified in ETSI TS 134 121-1 [1]. NOTE 2: The UE transmitted mean power shall be reduced by 0,5 dB, for a UE operating in band XXII.		

TEST PROCEDURE

1) Set the parameter of the CW generator as shown in table 4.2.8.2-1. The spurious response frequencies are determined in step 4) of clause 5.3.6.1.2.

2) Set the power level of the UE according to table 4.2.8.2-1 with a ±1 dB tolerance.

3) Measure the BER of DCH received from the UE at the SS.

TEST RESULTS

PASS.

4.11. RECEIVER INTERMODULATION CHARACTERISTICS

TEST LIMIT

The BER shall not exceed 0,001 for the parameters specified in table 4.2.9.2-1.

Table 4.2.9.2-1: Receive intermodulation characteristics

Parameter	Level		Unit
DPCH_Ec	<REFSENS> + 3 dB		dBm/3,84 MHz
$\hat{I}_{or}$	<REF$\hat{I}_{or}$> + 3 dB		dBm/3,84 MHz
I_{ouw1} (CW)	-46		dBm
I_{ouw2} mean power (modulated)	-46		dBm
F_{uw1} (offset)	10	-10	MHz
F_{uw2} (offset)	20	-20	MHz
UE transmitted mean power	20 (for Power class 3) 18 (for Power class 4) (note 3)		dBm
NOTE 1: I_{ouw2} (modulated) consists of the common channels and the 16 dedicated data channels as specified in TS 125 101 [5]. NOTE 2: <REFSENS> and <REF$\hat{I}_{or}$> as specified in TS 134 121-1 [2]. NOTE 3: The UE transmitted mean power shall be reduced by 0,5 dB for a UE operating in band XXII.			

Table 4.2.9.2-2: Test parameters for narrow band intermodulation characteristics

Parameter	Unit	Band III, VIII	
DPCH_Ec	dBm/3,84 MHz	<REFSENS> + 10 dB	
$\hat{I}_{or}$	dBm/3,84 MHz	<REF$\hat{I}_{or}$> + 10 dB	
I_{ouw1} (CW)	dBm	-43	
I_{ouw2} (GMSK)	dBm	-43	
F_{uw1} (offset)	MHz	3,6	-3,6
F_{uw2} (offset)	MHz	6,0	-6,0
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4)	
NOTE 1: <REFSENS> and <REF$\hat{I}_{or}$> as specified in TS 134 121-1 [2]. NOTE 2: I_{ouw2} (GMSK) is an interfering signal as defined in TS 145 004 [9]. It is a continuous GMSK modulated carrier following the structure of the GSM signals, but with all modulating bits (including the midamble period) derived directly from a random or any pseudo random data stream.			

TEST PROCEDURE

1) Set the parameters of the CW generator and interference generator as shown in tables 4.2.9.2-1 and 4.2.9.2-2.
2) Set the power level of the UE according to tables 4.2.9.2-1 and 4.2.9.2-2 with a ±1 dB tolerance.
3) Measure the BER of DCH received from the UE at the SS.

TEST RESULTS

PASS.

4.12. OUT-OF-SYNCHRONIZATION HANDLING OF OUTPUT POWER

TEST LIMIT

When the UE estimates the DPCCH quality over the last 160 ms period to be worse than a threshold Qout, the UE shall shut its transmitter off within 40 ms.

The quality level at the thresholds Qoutcorrespond to different signal levels depending on the downlink conditions DCH parameters. For the conditions in table 4.2.11.2-1, a signal with the quality at the level Qout can be generated by a DPCCH_Ec/Ior ratio of -25 dB. The DL reference measurement channel 12,2 kbit/s is specified in TS 134 121-1 [2] and with static propagation conditions. The downlink physical channels, other than those specified in table 4.2.11.2-1, are as specified in TS 134 121-1 [2].

Table 4.2.11.2-1: DCH parameters for test of out-of-synchronization handling

Parameter	Value	Unit
$\hat{I}_{or}/I_{oc}$	-1	dB
I_{oc}	-60	dBm/3,84 MHz
$\frac{DPDCH\_E_c}{I_{or}}$	See figure 4.2.11.2-1: Before point A: • -16,6 for UEs not supporting enhanced receiver performance type 1 for DCH • -19,6 for UEs supporting enhanced receiver performance type 1 for DCH After point A not defined	dB
$\frac{DPCCH\_E_c}{I_{or}}$	See figure 4.2.11.2-1	dB
Information Data Rate	12,2	kbit/s

Figure 4.2.11.2-1 and table 4.2.11.2-2 show an example scenario where the DPCCH_Ec/Ior ratio varies from a level where the DPCH is demodulated under normal conditions, down to a level below Qout where the UE shall shut its power off.

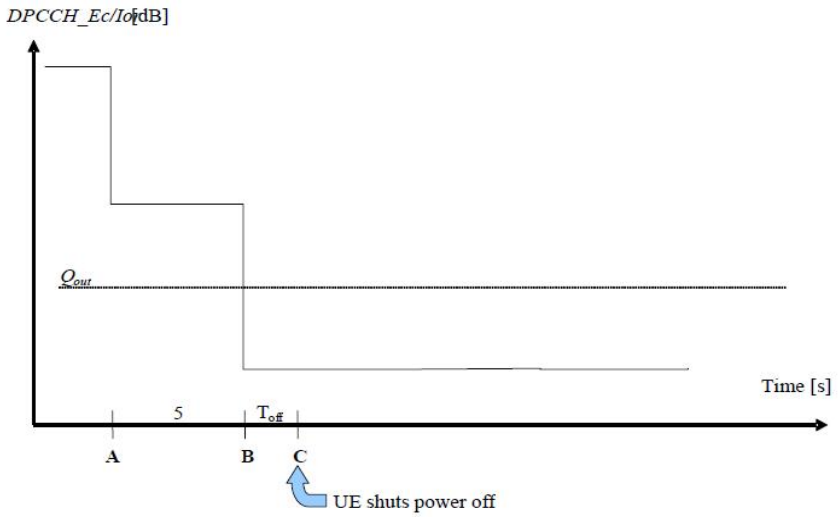


Figure 4.2.11.2-1: Conditions for out-of-synchronization handling in the UE

Table 4.2.11.2-2: Conditions for out-of-synchronization handling in the UE

Clause from figure 4.2.11.2-1	DPCCH_Ec/Ior (UE, not supporting enhanced performance requirements type 1 for DCH)	DPCCH_Ec/Ior (UE, supporting enhanced performance requirements type 1 for DCH)	Unit
Before A	-16,6	-19,6	dB
A to B	-21,6	-24,6	dB
After B	-28,4	-31,4	dB

The requirements for the UE are that it shall shut its transmitter off before point C.
The UE transmitter is considered to be OFF if the measured RRC filtered mean power is less than -55 dBm.

TEST PROCEDURE

1) The SS sends continuously up power control commands to the UE until the UE transmitter power reach maximum level.
2) The SS controls the DPCCH_Ec/Ior ratio level according to table 4.2.11.2-2, 'A to B'.
3) The SS controls the DPCCH_Ec/Ior ratio level according to table 4.2.11.2-2, 'after B'. The SS waits 200ms and then verifies that the UE transmitter has been switched off.
4) The SS monitors the UE transmitted power for 5 s and verifies that the UE transmitter is not switched on during this time.

TEST RESULTS

PASS.

4.13. RECEIVER REFERENCE SENSITIVITY LEVEL

TEST LIMIT

The measured BER shall not exceed 0,001.

Table 4.2.13.2-1: Test parameters for Reference Sensitivity Level

Operating Band	Unit	DPCH_Ec <REFSENS>	<REFÎ$_{or}$>
I	dBm/3,84 MHz	-116,3	-106
III	dBm/3,84 MHz	-113,3	-103
VII	dBm/3,84 MHz	-114,3	-104
VIII	dBm/3,84 MHz	-113,3	-103
XX	dBm/3,84 MHz	-113,3	-103
XXII	dBm/3,84 MHz	-113,3	-103
NOTE 1: For Power class 3 and 3bis this shall be at the maximum output power. NOTE 2: For Power class 4 this shall be at the maximum output power.			

NOTE: These requirements do not take into account the allowed increase of the reference sensitivity level of DPCH_Ec and corresponding < REFÎor>in ETSI TS 134 121-1 [1], table 6.2.2 by the amount defined in minimum requirement clause for the UE, which supports DB-DC-HSDPA or dual band 4C-HSDPA and/or E-UTRA inter-band carrier aggregation.

TEST PROCEDURE

The frequencies to be tested are low range, mid range, high range as defined in ETSI TS 134 108 [2], clause 5.1:

1) Connect the SS to the UE antenna connector.
2) A call is set up according to the Generic call setup procedure as per ETSI TS 134 108 [2], and RF parameters are set up according to table 4.2.13.2-1.
3) Enter the UE into loopback test mode and start the loopback test using the procedure defined in ETSI TS 134 109 [3], clause 5.3.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in ETSI TS 134 121-1 [1], ETSI TS 134 108 [2] and ETSI TS 134 109 [3].

Details of initial conditions for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clause 6.2.

1) Set and send continuously Up power control commands to the UE until the UE output power shall be maximum level.
2) Measure the BER of DCH received from the UE at the SS.

Details of initial conditions for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clause 6.2.

TEST RESULTS

PASS.

4.14. CONTROL AND MONITORING FUNCTIONS (UE)

TEST LIMIT

The maximum measured power during the duration of the test shall not exceed -30 dBm.Table 4.2.4.1.2-1: General spurious emissions requirements.

TEST PROCEDURE

1) At the start of the test, the UE shall be switched off. The UE antenna connector shall be connected to a power measuring equipment, with the following characteristics:
   - The RF bandwidth shall exceed the total operating transmit frequency range of the UE for operation with an applicable part.
   - The response time of the power measuring equipment shall be such that the measured power has reached within 1 dB of its steady state value within 100 µs of a CW signal being applied.
   - It shall record the maximum power measured.

   NOTE: The equipment may include a video low pass filter to minimize its response to transients or Gaussian noise peaks.
2) The UE shall be switched on for a period of approximately fifteen minutes, and then switched off.
3) The EUT shall remain switched off for a period of at least thirty seconds, and shall then be switched on for a period of approximately one minute.
4) The maximum power emitted from the UE throughout the duration of the test shall be recorded. The results obtained shall be compared to the limits in clause 4.2.4.2 in order to prove compliance.

TEST RESULTS

Test Case	Power-Real (Voltage)	Max Level (dBm)	Limit (dBm)	Margin (dBm)	Results
WCDMA Band I	DC 3.8V	-50.26	-30	-20.26	PASS
WCDMA Band VIII	DC 3.8V	-49.77	-30	-19.77	PASS

4.15. RADIATED EMISSIONS (UE)

TEST LIMIT

The frequency boundary and reference bandwidths for the detailed transitions of the limits between the requirements for out-of-band emissions and spurious emissions are based on Recommendations ITU-R SM.329-12 [1] and SM.1539-1 [i.6].

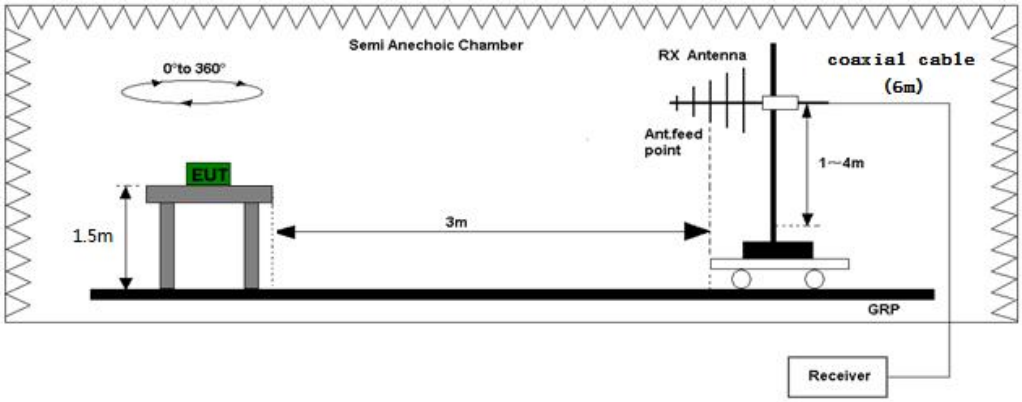
The requirements shown in table 4.2.2.2-1 are only applicable for frequencies in the spurious domain

Table 4.2.2.2-1: Radiated spurious emissions requirements (UE)

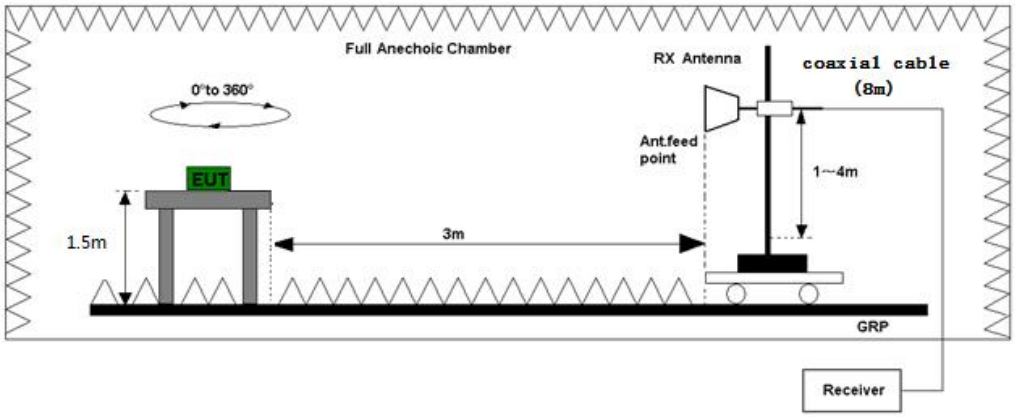
Frequency	Minimum requirement (e.r.p.)/ reference bandwidth idle mode	Minimum requirement (e.r.p.)/ reference bandwidth traffic mode	Applicability
30 MHz ≤ f < 1 000 MHz	-57 dBm/100 kHz	-36 dBm/100 kHz	All
1 GHz ≤ f < 12,75 GHz	-47 dBm/1 MHz	-30 dBm/1 MHz	All
12,75 GHz ≤ f < 5th harmonic of the upper frequency edge of the Uplink operating band in GHz	-47 dBm/1 MHz	-30 dBm/1 MHz	All (note 3)
12,75 GHz < f < 26 GHz	-47 dBm/1 MHz	-30 dBm/1 MHz	All (note 4)
fc - 2,5 × 5 MHz < f < fc + 2,5 × 5 MHz (note 1 and note 2)	Not defined	Not defined	UTRA FDD, UTRA TDD, 3,84 Mcps option, cdma2000, spreading rate 3
fc - 2,5 × $BW_{Channel}$ MHz < f < fc + 2,5 × $BW_{Channel}$ MHz (note 1 and note 2)	Not defined	Not defined	E-UTRA FDD, E-UTRA TDD, Mobile WiMAX™
fc - (1,5 x $BW_{Channel}$ + 5) MHz < f < fc + (1,5 x $BW_{Channel}$ + 5) MHz (note 1)	Not defined	Not defined	NR operating in FR1
fc - 2,5 × 10 MHz < f < fc + 2,5 × 10 MHz (note 1 and note 2)	Not defined	Not defined	UTRA TDD, 7,68 Mcps option
fc - 4 MHz < f < fc + 4 MHz (note 1 and note 2)	Not defined	Not defined	UTRA TDD, 1,28 Mcps option cdma2000, spreading rate 1
NOTE 1: fc is the UE transmit centre frequency. NOTE 2: This frequency range is not in the spurious domain, no requirement is then defined for this frequency range. NOTE 3: Applies for Band that the upper frequency edge of the Uplink Band more than 2,69 GHz. NOTE 4: Applies for Band that the upper frequency edge of the Uplink Band more than 5,2 GHz.			

TEST SETUP

Radiated Emission Test Set-Up Frequency 30 MHz ~ 1 GHz



Radiated Emission Test Set-Up Frequency Above 1 GHz



TEST PROCEDURE

Step 1:

The measurement is carried out in the fully anechoic chamber. EUT was placed on a 1.50 meter high nonconductive table at a 3 meter test distance from the test receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT. The height of receiving antenna is 1.50 m and varies in certain range to find the maximum power value. Connect the EUT to the BTS simulator via the air interface.

The measurement is carried out using a spectrum analyzer or receiver. Then the antenna height and turn table rotation is adjusted till the maximum power value is founded on spectrum analyzer or receiver.

A filter is necessary in the band near to the carrier frequency. A filter is needed to avoid the distortion of the testing equipment in the band above the carrier frequency.

Step 2:

A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT.

The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.

Calculation procedure:

The data of cable loss, antenna gain and air loss has been calibrated in full testing frequency range before the testing.

The power of the Radiated Spurious Emissions is calculated by adding the cable loss, antenna gain and air loss.

The basic equation with a sample calculation is as followed:

P=PR+LC+LA-G

Where

P: Power of the Radiated Spurious Emissions (dBm)

PR: reading of the receiver (dBm)

LC: Cable Lose and power amilifer gain and filter cable loss (dB)

LA: Air loss (dB)

G: Antenna Gain (dBi)

TEST RESULTS

This test was carried out in all the test modes, and record worst case as blow.

The EUT has met the requirements of 3GPP2 C.S0011-A's requirement.

Remark: Normal and extreme voltage test conditions have been tested, only the measurement data of normal voltage condition are reported.

WCDMA Band I				
Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	3900.00	-35.53	-30.00	5.53
2	5850.00	-37.67	-30.00	7.67
3	7800.00	-37.11	-30.00	7.11
4	9750.00	-43.44	-30.00	13.44
--	--	--	--	--
Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	3900.00	-34.34	-30.00	4.34
2	5850.00	-36.19	-30.00	6.19
3	7800.00	-35.89	-30.00	5.89
4	9750.00	-42.15	-30.00	12.15
--	--	--	--	--

HSDPA Band I				
Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	3900.00	-34.95	-30.00	4.95
2	5850.00	-36.67	-30.00	6.67
3	7800.00	-37.73	-30.00	7.73
4	9750.00	-44.68	-30.00	14.68
--	--	--	--	--
Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	3900.00	-33.31	-30.00	3.31
2	5850.00	-37.65	-30.00	7.65
3	7800.00	-37.32	-30.00	7.32
4	9750.00	-41.13	-30.00	11.13
--	--	--	--	--

HSUPA Band I			
Test mode:	Traffic mode	**Test condition:**	NTNV

Channel:		Middle	Polarity:	Horizontal
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	3900.00	-35.93	-30.00	5.93
2	5850.00	-37.78	-30.00	7.78
3	7800.00	-38.58	-30.00	8.58
4	9750.00	-43.72	-30.00	13.72
--	--	--	--	--
Test mode:		Traffic mode	**Test condition:**	NTNV
Channel:		Middle	**Polarity:**	Vertical
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	3900.00	-35.06	-30.00	5.06
2	5850.00	-36.48	-30.00	6.48
3	7800.00	-36.39	-30.00	6.39
4	9750.00	-40.98	-30.00	10.98
--	--	--	--	--

RESULT: PASS

Note:

1. Result Level = Reading Level + Correct Factor.
2.Margin Level = Limit Value- Result Level

WCDMA Band I				
Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	69.49	-76.55	-54.00	22.55
2	547.95	-70.88	-54.00	16.88
3	2563.96	-64.76	-47.00	17.76
4	8903.45	-63.57	-47.00	16.57
--	--	--	--	--
Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	314.41	-75.54	-54.00	21.54
2	757.58	-69.61	-54.00	15.61
3	2957.74	-63.42	-47.00	16.42
4	6081.45	-62.21	-47.00	15.21
--	--	--	--	--

HSDPA Band I				
Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	69.11	-72.57	-54.00	18.57
2	547.71	-69.01	-54.00	15.01
3	2564.39	-63.64	-47.00	16.64
4	8903.85	-63.48	-47.00	16.48
--	--	--	--	--
Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	314.73	-74.05	-54.00	20.05
2	757.19	-69.11	-54.00	15.11
3	2957.52	-61.94	-47.00	14.94
4	6081.17	-62.84	-47.00	15.84
--	--	--	--	--

HSUPA Band I			
Test mode:	Idle mode	**Test condition:**	NTNV

Channel:		Middle	Polarity:	Horizontal
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	69.43	-75.43	-54.00	21.43
2	547.62	-70.57	-54.00	16.57
3	2564.71	-62.59	-47.00	15.59
4	8904.16	-64.36	-47.00	17.36
--	--	--	--	--
Test mode:		Idle mode	**Test condition:**	NTNV
Channel:		Middle	**Polarity:**	Vertical
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	314.83	-74.06	-54.00	20.06
2	757.98	-68.18	-54.00	14.18
3	2957.54	-64.35	-47.00	17.35
4	6080.96	-62.07	-47.00	15.07
--	--	--	--	--

RESULT: PASS

Note:

1. Result Level = Reading Level + Correct Factor.
2.Margin Level = Limit Value- Result Level

WCDMA Band VIII				
Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-37.59	-30.00	7.59
2	2692.80	-40.24	-30.00	10.24
3	3590.40	-40.39	-30.00	10.39
4	4488.00	-43.59	-30.00	13.59
--	--	--	--	--
Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-36.23	-30.00	6.23
2	2692.80	-38.95	-30.00	8.95
3	3590.40	-39.23	-30.00	9.23
4	4488.00	-42.45	-30.00	12.45
--	--	--	--	--

HSDPA Band VIII				
Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-37.16	-30.00	7.16
2	2692.80	-38.81	-30.00	8.81
3	3590.40	-40.30	-30.00	10.30
4	4488.00	-42.77	-30.00	12.77
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Test mode:	Traffic mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-35.39	-30.00	5.39
2	2692.80	-38.52	-30.00	8.52
3	3590.40	-39.57	-30.00	9.57
4	4488.00	-42.23	-30.00	12.23
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HSUPA Band VIII			
Test mode:	Traffic mode	**Test condition:**	NTNV

Channel:		Middle	Polarity:	Horizontal
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-36.81	-30.00	6.81
2	2692.80	-40.94	-30.00	10.94
3	3590.40	-41.69	-30.00	11.69
4	4488.00	-43.46	-30.00	13.46
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Test mode:		Traffic mode	**Test condition:**	NTNV
Channel:		Middle	**Polarity:**	Vertical
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-35.39	-30.00	5.39
2	2692.80	-37.58	-30.00	7.58
3	3590.40	-38.71	-30.00	8.71
4	4488.00	-43.07	-30.00	13.07
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RESULT: PASS

Note:

1. Result Level = Reading Level + Correct Factor.
2.Margin Level = Limit Value- Result Level

WCDMA Band VIII				
Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	184.32	-74.02	-54.00	20.02
2	846.63	-72.85	-54.00	18.85
3	2656.10	-65.00	-47.00	18.00
4	9809.29	-64.99	-47.00	17.99
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Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	262.18	-72.91	-54.00	18.91
2	541.28	-71.77	-54.00	17.77
3	4462.65	-63.78	-47.00	16.78
4	4882.96	-63.64	-47.00	16.64
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HSDPA Band VIII				
Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Horizontal	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	184.77	-75.69	-54.00	21.69
2	846.87	-70.12	-54.00	16.12
3	2656.57	-63.78	-47.00	16.78
4	9808.90	-62.63	-47.00	15.63
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Test mode:	Idle mode	**Test condition:**	NTNV	
Channel:	Middle	**Polarity:**	Vertical	
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	262.03	-72.09	-54.00	18.09
2	541.15	-71.25	-54.00	17.25
3	4462.62	-63.07	-47.00	16.07
4	4883.38	-63.93	-47.00	16.93
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HSUPA Band VIII			
Test mode:	Idle mode	**Test condition:**	NTNV

Channel:		Middle	Polarity:	Horizontal
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-36.81	-30.00	6.81
2	2692.80	-40.94	-30.00	10.94
3	3590.40	-41.69	-30.00	11.69
4	4488.00	-43.46	-30.00	13.46
--	--	--	--	--
Test mode:		Idle mode	**Test condition:**	NTNV
Channel:		Middle	**Polarity:**	Vertical
Suspected List				
NO.	Freq. [MHz]	Result Level [dBm]	Limit (dBm)	Margin (dB)
1	1795.20	-35.39	-30.00	5.39
2	2692.80	-37.58	-30.00	7.58
3	3590.40	-38.71	-30.00	8.71
4	4488.00	-43.07	-30.00	13.07
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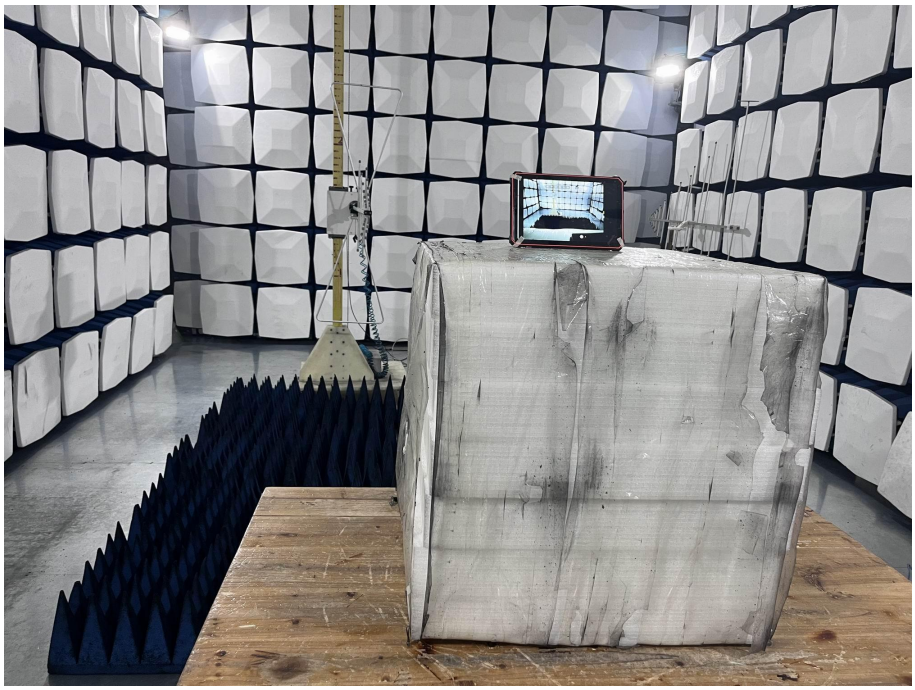
RESULT: PASS

Note:

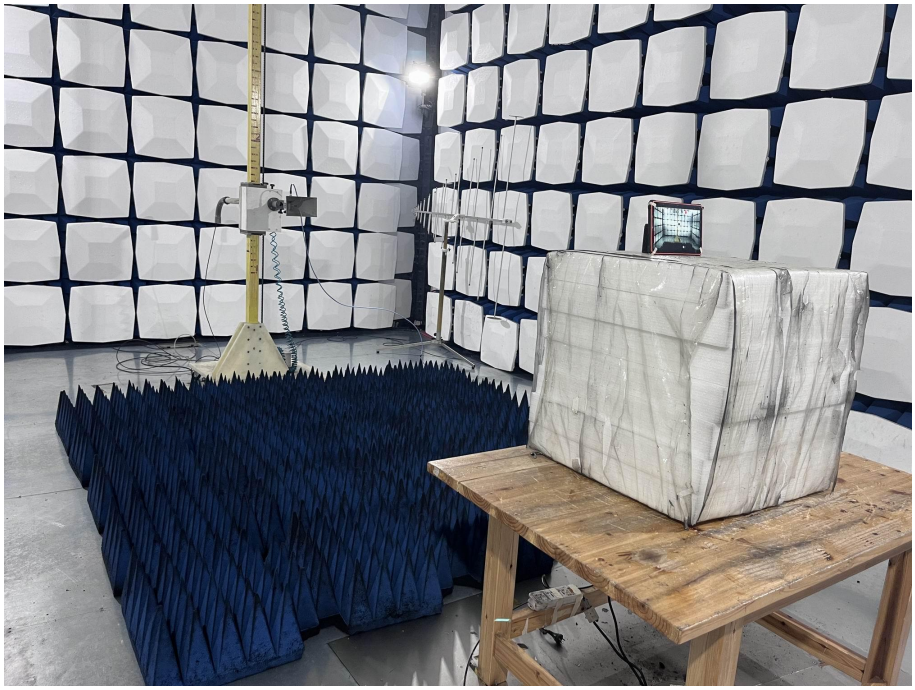
1. Result Level = Reading Level + Correct Factor.
2.Margin Level = Limit Value- Result Level

5. PHOTOGRAPHS OF TEST SETUP

RADIATED EMISSION TEST SETUP



RADIATED EMISSION ABOVE 1G TEST SETUP



-----END OF REPORT-----