

TEST REPORT

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Report Number: 2601R49433E-RF-22F

Test Standard (s)

ETSI EN 301 908-1 V15.2.1 (2023-01), ETSI EN 301 908-2 V13.1.1 (2020-06)

Sample Description

Product Type: Smartphone
Model No.: KINGKONG ES 5
Multiple Model(s) No.: N/A
Trade Mark: CUBOT
Date Received: 2026-03-08
Issue Date: 2026-05-29

Test Result:

Pass▲

▲ In the configuration tested, the EUT complied with the standards above.

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Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2601R49433E-RF-22F	Original Report	2026-05-29

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Frequency Range	WCDMA 2100: 1920-1980MHz(TX), 2110-2170MHz(RX) WCDMA 900: 880-915MHz(TX), 925-960MHz(RX)
Maximum Transmit Power	WCDMA 2100: 22.47 dBm WCDMA 900: 23.67 dBm
Modulation Technique	WCDMA: BPSK, QPSK, 16QAM, 64QAM
Voltage Range	DC 5/9V from adapter or DC 3.91V from Battery
Sample serial number	3JPM-5 for Radiated Emissions Test 3JPM-1 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Normal/Extreme Condition[#]	N.V.: Nominal Voltage: 3.91V _{DC} L.V.: Low Voltage: 3.52V _{DC} ; L.T.: Low Temperature -10°C N.V.: Normal Voltage: 4.3V _{DC} ; N.T.: Normal Temperature +25°C H.V.: High Voltage: 4.5V _{DC} ; H.T.: High Temperature +55°C
Adapter Information	Model: TD-203G200170VF01 Input: AC 100-240V, 50/60Hz, 0.6A Output: DC 5V/3A, 9V/3A, 12V/2.5A, 15V/2A, 20V/1.5A PPS: 3.3V-16V/2A, 3.3V-11V/3A

Objective

This test report is in accordance with ETSI EN 301 908-1 V15.2.1 (2023-01), IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements and ETSI EN 301 908-2 V13.1.1 (2020-06), IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (UE).

The objective is to determine compliance with ETSI EN 301 908-1 V15.2.1 (2023-01), ETSI EN 301 908-2 V13.1.1 (2020-06).

Measurement Uncertainty

Item	Parameter	F _{lab}	Maximum allowable uncertainty
1	Transmitter maximum output power	±0.86 dB*	±0,7 dB
2	Transmitter spectrum emissions mask	±1.32 dB	±1,5 dB
3	Transmitter spurious emissions $f \leq 2.2$ GHz	±1.6 dB*	±1,5 dB
4	Transmitter spurious emissions $2.2 \text{ GHz} < f \leq 4 \text{ GHz}$	±1.6 dB	±2,0 dB
5	Transmitter spurious emissions $f > 4 \text{ GHz}$	±1.6 dB	±4,0 dB
6	Transmitter spurious emissions $4 \text{ GHz} < f \leq 12,75 \text{ GHz}$	±1.6 dB	±4,0 dB
7	Transmitter spurious emissions Co-existence band (≥ -60 dBm)	±1.6 dB	±2,0 dB
8	Transmitter spurious emissions Co-existence band (< -60 dBm)	±1.6 dB	±3,0 dB
9	Transmitter Minimum output power	±0.86 dB	±1,0 dB
10	Receiver Adjacent Channel Selectivity (ACS)	±2.8 dB*	±1,1 dB
11	Receiver Blocking characteristics $f < 15$ MHz offset	±1.5 dB*	±1,4 dB
12	Receiver Blocking characteristics $15 \text{ MHz offset} \leq f \leq 2.2 \text{ GHz}$	±1.5 dB*	±1,0 dB
13	Receiver Blocking characteristics $2.2 \text{ GHz} < f \leq 4 \text{ GHz}$	±1.5 dB	±1,7 dB
14	Receiver Blocking characteristics $f > 4 \text{ GHz}$	±3.3 dB*	±3,1 dB
15	Receiver spurious response $f \leq 2.2 \text{ GHz}$	±1.5 dB*	±1,0 dB
16	Receiver spurious response $2.2 \text{ GHz} < f \leq 4 \text{ GHz}$	±1.5 dB	±1,7 dB
17	Receiver spurious response $f > 4 \text{ GHz}$	±3.3 dB*	±3,1 dB
18	Receiver intermodulation characteristics	±1.3 dB	±1,3 dB
19	Receiver spurious emissions UE receive band (-60 dBm)	±1.6 dB	±3,0 dB
20	Receiver spurious emissions UE transmit band (-60 dBm)	±1.6 dB	±3,0 dB
21	Receiver spurious emissions $f \leq 2.2 \text{ GHz}$	±1.6 dB	±2,0 dB
22	Receiver spurious emissions $2.2 \text{ GHz} < f \leq 4 \text{ GHz}$	±1.6 dB	±2,0 dB
23	Receiver spurious emissions $f > 4 \text{ GHz}$	±1.6 dB	±4,0 dB
24	Out of synchronization of handling power DPCCCH Ec/Ior	±0.4 dB	±0,4 dB
25	Out of synchronization of handling power Transmit OFF power	±1.0 dB	±1,0 dB
26	Transmitter adjacent channel leakage power ratio	±0.8 dB	±0,8 dB

Note 1:

** Test system of laboratory have a measurement uncertainty greater than that specified in harmonized standard, this equipment can still be used provided that an adjustment is made follows:
any additional uncertainty in the test system over and above that specified in harmonized standard should be used to tighten the test requirements - making the test harder to pass (for some tests, e.g. receiver tests, this may require modification of stimulus signals). This procedure will ensure that a test system not compliant with harmonized standard does not increase the probability of passing an EUT that would otherwise have failed a test if a test system compliant with harmonized standard had been used.*

Note 2: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

Each test item follows test standards and with no deviation.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing according to ETSI EN 301 908-1 V15.2.1 (2023-01), ETSI EN 301 908-2 V13.1.1 (2020-06)

EUT Exercise Software

No exercise software.

Special Accessories

No special accessory.

Equipment Modifications

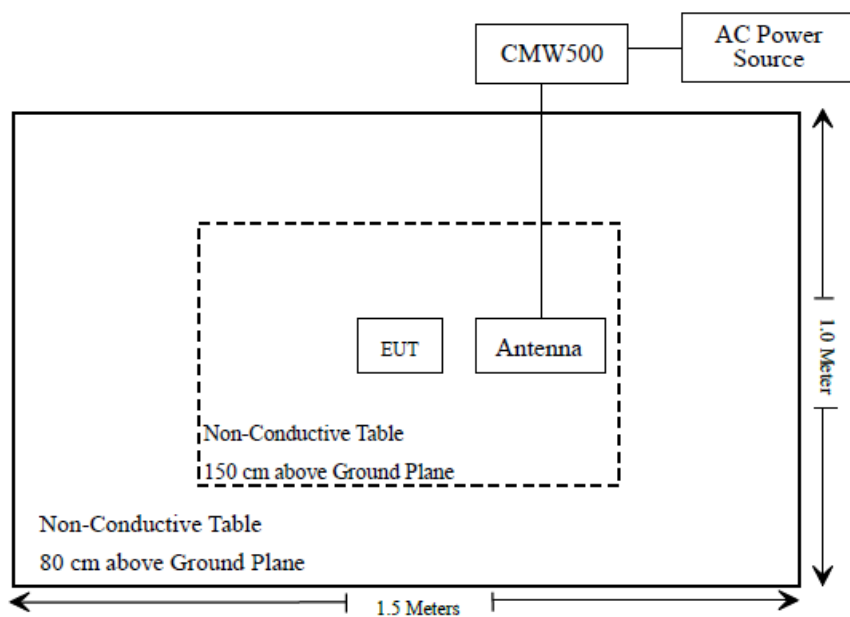
No modification was made to the EUT.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520

External I/O Cable

Cable Description	Length (m)	From Port	To
/	/	/	/

Block Diagram of Test Setup

SUMMARY OF TEST RESULTS

ETSI EN 301 908-1 V15.2.1	Description of Test	Test Result
§4.2.2	Radiated emissions (UE)	Compliant
§4.2.3	Radiated emissions (BS and repeater)	Not Applicable
§4.2.4	Control and monitoring functions (UE)	Compliant

ETSI EN 301 908-2 V13.1.1	Description of Test	Test Result
§4.2.2	Transmitter maximum output power	Compliant
§4.2.3	Transmitter spectrum emission mask	Compliant
§4.2.4	Transmitter spurious emissions	Compliant
§4.2.5	Transmitter minimum output power	Compliant
§4.2.6	Receiver Adjacent Channel Selectivity (ACS)	Compliant
§4.2.7	Receiver blocking characteristics	Compliant
§4.2.8	Receiver spurious response	Compliant
§4.2.9	Receiver intermodulation characteristics	Compliant
§4.2.10	Receiver spurious emissions	Compliant
§4.2.11	Out-of-synchronization handling of output power	Compliant
§4.2.12	Transmitter Adjacent Channel Leakage power Ratio (ACLR)	Compliant
§4.2.13	Receiver Reference Sensitivity level	Compliant
§4.2.14	Receiver Total Radiated Sensitivity (TRS)	Not Applicable*
§4.2.15	Total Radiated Power (TRP)	Not Applicable*

Not Applicable: The device not a BS and repeater.

Not Applicable*: The requirement applies to handheld phones/DUTs that are wider than or equal to 56 mm and narrower than or equal to 72 mm. The width of EUT is 86mm.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2025/09/01	2026/08/31
Sonoma instrument	Pre-amplifier	310 N	186238	2025/09/08	2026/09/07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Chamber A Cable	Cable A1	Cable A1	2025/09/08	2026/09/07
Unknown	Chamber A Cable	Cable A2	Cable A2	2025/09/08	2026/09/07
TDK	Chamber	Chamber A	2#	2023/07/12	2026/07/11
COM-POWER	Dipole Antenna	3121C	9209-860	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2025/09/01	2026/08/31
A.H.System	Preamplifier	PAM-0118P	489	2025/09/08	2026/09/07
Schwarzbeck	Horn Antenna	BBHA9120D (1201)	1143	2023/07/26	2026/07/25
The Electro-Mechanics Co.	Horn Antenna	3115	9107-3694	2024/06/06	2027/06/05
Unknown	Chamber B Cable	Cable B1	Cable B1	2025/09/08	2026/09/07
Unknown	Chamber B Cable	Cable B2	Cable B2	2025/09/08	2026/09/07
Unknown	Chamber B Cable	Cable B3	Cable B3	2025/09/08	2026/09/07
Agilent	Signal Generator	N5183A	MY50140588	2025/09/18	2026/09/17
JD	Filter Switch Unit	DT7220FSU	DS79906	2025/08/12	2026/08/11
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2025/08/12	2026/08/11
TDK	Chamber	Chamber B	1#	2023/07/14	2026/07/13

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV40	101942	2025/09/01	2026/08/31
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	146520	2025/09/18	2026/09/17
Agilent	Signal Generator	N5183A	MY50140588	2025/09/18	2026/09/17
Keysight	MXG Vector Signal Generator	N5182B	MY53051503	2025/09/18	2026/09/17
Keysight	MXA Signal Analyzer	N9020A	MY48490106	2025/7/29	2026/7/29
instek	DC Power Supply	GPS-3030DD	EM832096	NCR	NCR
Fluke	Digital Multimeter	287	19000011	2025/04/29	2026/04/28
WCS	Switch Box	SMU-3003	BK20231011	2025/09/08	2026/09/07
WCS	WCS-Cellular software	Unknown	24.10.1020	NCR	NCR
Unknown	RF Cable	Cable RF2	Cable RF2	2025/09/17	2026/09/16
Unknown	RF Cable	Cable RF3	Cable RF3	2025/09/17	2026/09/16

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

REQUIREMENTS AND TEST PROCEDURES

Radiated emissions (UE)

Applicable Standard

This test assesses the ability of radio communications equipment and ancillary equipment to limit unwanted emissions from the enclosure port.

This test is applicable to radio communications equipment and ancillary equipment, except for NR UE operating in FR2.

NOTE: For NR UE operating in FR2, the radiated emission is covered by radiated spurious emission requirement in ETSI EN 301 908-25 [i.12].

This test shall be performed on the radio communications equipment and/or a representative configuration of the ancillary equipment.

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
$30 \text{ MHz} \leq f < 1\,000 \text{ MHz}$	-57 dBm/100 kHz	-36 dBm/100 kHz	All
$1 \text{ GHz} \leq f < 12.75 \text{ GHz}$	-47 dBm/1 MHz	-30 dBm/1 MHz	All
$12.75 \text{ GHz} \leq f < 5^{\text{th}}$ harmonic of the upper frequency edge of the Uplink operating band in GHz	-47 dBm/1 MHz	-30 dBm/1 MHz	All (note 3)
$12.75 \text{ GHz} < f < 26 \text{ GHz}$	-47 dBm/1 MHz	-30 dBm/1 MHz	All (note 4)
$f_c - 2.5 \times 5 \text{ MHz} < f < f_c + 2.5 \times 5 \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	UTRA FDD, UTRA TDD, 3.84 Mcps option, cdma2000, spreading rate 3
$f_c - 2.5 \times \text{BW}_{\text{Channel}} \text{ MHz} < f < f_c + 2.5 \times \text{BW}_{\text{Channel}} \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	E-UTRA FDD, E-UTRA TDD, Mobile WiMAX™
$f_c - (1.5 \times \text{BW}_{\text{Channel}} + 5) \text{ MHz} < f < f_c + (1.5 \times \text{BW}_{\text{Channel}} + 5) \text{ MHz}$ (note 1)	Not defined	Not defined	NR operating in FR1
$f_c - 2.5 \times 10 \text{ MHz} < f < f_c + 2.5 \times 10 \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	UTRA TDD, 7.68 Mcps option
$f_c - 4 \text{ MHz} < f < f_c + 4 \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	UTRA TDD, 1.28 Mcps option cdma2000, spreading rate 1
NOTE 1: f_c 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 Results Summary

According to the recorded data in following table, the EUT complied with the ETSI EN 301 908-1 V15.2.1 (2023-01).

Control and monitoring functions (UE)

Applicable Standard

This requirement, together with other control and monitoring technical requirements identified in the table of cross references in the applicable part, verifies that the control and monitoring functions of the UE prevent it from transmitting in the absence of a valid network.

This test is applicable to radio communications equipment and ancillary equipment in the operating band defined in the applicable part of this multi-part harmonised standard.

This test shall be performed on the radio communications equipment and/or a representative configuration of the ancillary equipment.

Limit

For NR UE operating in FR2, the maximum measured radiated power during the duration of the test shall not exceed -13 dBm.

For any other UE (including NR UE operating in FR1), the maximum measured power during the duration of the test shall not exceed -30 dBm.

Test Procedure

a) 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 μ s 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.

b) The UE shall be switched on for a period of approximately fifteen minutes, and then switched off.

c) 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.

d) 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.

Transmitter maximum output power

Applicable Standard

The nominal maximum output power and its tolerance are defined according to the power class of the UE.

The nominal power defined is the broadband transmit power of the UE, i.e. the power in a bandwidth of at least $(1 + \alpha)$ times the chip rate of the radio access mode. The period of measurement shall be at least one timeslot.

Limits

The UE maximum output power shall be within the shown value in table 4.2.2.1.2-1 even for the multi-code DPDCH transmission mode.

Table 4.2.2.1.2-1: UE power classes

Operating Band	Power Class 3		Power Class 3bis		Power Class 4	
	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)
Band I	+24	+1,7/-3,7			+21	+2,7/-2,7
Band III	+24	+1,7/-3,7			+21	+2,7/-2,7
Band VII	+24	+1,7/-3,7	+23	+2,7/-2,7	+21	+2,7/-2,7
Band VIII	+24	+1,7/-3,7	+23	+2,7/-2,7	+21	+2,7/-2,7
Band XV	+24	+1,7/-3,7	+23	+2,7/-2,7	+21	+2,7/-1,7
Band XVI	+24	+1,7/-3,7	+23	+2,7/-2,7	+21	+2,7/-1,7
Band XX	+24	+1,7/-3,7	+23	+2,7/-2,7	+21	+2,7/-2,7
Band XXII	+24	+1,7/-5,2	+23	+2,7/-4,2	+21	+2,7/-4,2

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 ETSI TS 125 101 [4].

NOTE 2: The range of UE maximum output power for the various power classes are specified in ETSI TS 125 101 [4], clause 6.2.1. The values in table 4.2.2.1.2-1 correspond to the measurement limits taking into account the measurement uncertainty of measurement equipment (see clause 5.2).

Test Procedure

According to ETSI EN 301 908-2 V13.1.1 (2020-06)§5.3.1.

Transmitter spectrum emission mask

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.3, The spectrum emission mask of the UE applies to frequencies, which are between 2,5 MHz and 12,5 MHz away from the UE centre carrier frequency. The out of channel emission is specified relative to the RRC filtered mean power of the UE carrier.

Limits

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 β_c , β_d , β_{hs} , β_{cc} and β_{ed} defined in TS 125 214 [7].

Table 4.2.3.1.2-1: 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	$\left\{ -33,5 - 15 \cdot \left(\frac{\Delta f}{\text{MHz}} - 2,5 \right) \right\} \text{dBc}$	-69,6 dBm	30 kHz (see note 3)
3,5 MHz to 7,5 MHz	$\left\{ -33,5 - 1 \cdot \left(\frac{\Delta f}{\text{MHz}} - 3,5 \right) \right\} \text{dBc}$	-54,3 dBm	1 MHz (see note 4)
7,5 MHz to 8,5 MHz	$\left\{ -37,5 - 10 \cdot \left(\frac{\Delta f}{\text{MHz}} - 7,5 \right) \right\} \text{dBc}$	-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

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §5.3.2.

Transmitter spurious emissions

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.4, Spurious emissions are emissions, which are caused by unwanted transmitter effects such as harmonics emission, parasitic emission, intermodulation products and frequency conversion products, but exclude out-of-band emissions.

Limits

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
$9 \text{ kHz} \leq f < 150 \text{ kHz}$	1 kHz	-36 dBm
$150 \text{ kHz} \leq f < 30 \text{ MHz}$	10 kHz	-36 dBm
$30 \text{ MHz} \leq f < 1\,000 \text{ MHz}$	100 kHz	-36 dBm
$1 \text{ GHz} \leq f < 12,75 \text{ GHz}$	1 MHz	-30 dBm
$12,75 \text{ GHz} \leq f < 5^{\text{th}}$ 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	$462,5 \text{ MHz} \leq f \leq 467,5 \text{ MHz}$	1 MHz	-50 dBm
	$791 \text{ MHz} \leq f \leq 821 \text{ MHz}$	3,84 MHz	-60 dBm
	$921 \text{ MHz} \leq f < 925 \text{ MHz}$	100 kHz	-60 dBm (note 1)
	$925 \text{ MHz} \leq f \leq 935 \text{ MHz}$	100 kHz	-67 dBm (note 1)
	$935 \text{ MHz} < f \leq 960 \text{ MHz}$	100 kHz	-79 dBm (note 1)
	$1\,805 \text{ MHz} \leq f \leq 1\,880 \text{ MHz}$	3,84 MHz	-60 dBm
		100 kHz	-71 dBm (note 1)
	$2\,010 \text{ MHz} < f < 2\,025 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,110 \text{ MHz} \leq f \leq 2\,170 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,300 \text{ MHz} \leq f \leq 2\,400 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,585 \text{ MHz} \leq f \leq 2\,690 \text{ MHz}$	3,84 MHz	-60 dBm

Operating band	Frequency bandwidth	Measurement bandwidth	Minimum requirement
VIII	$791 \text{ MHz} \leq f \leq 821 \text{ MHz}$	3,84 MHz	-60 dBm
	$925 \text{ MHz} \leq f \leq 935 \text{ MHz}$	100 kHz 3,84 MHz	-67 dBm (note 1) -60 dBm
	$935 \text{ MHz} < f \leq 960 \text{ MHz}$	100 kHz 3,84 MHz	-79 dBm (note 1) -60 dBm
	$1\,805 \text{ MHz} < f \leq 1\,830 \text{ MHz}$	100 kHz 3,84 MHz	-71 dBm (notes 1 and 2) -60 dBm (note 2)
	$1\,830 \text{ MHz} < f \leq 1\,880 \text{ MHz}$	100 kHz 3,84 MHz	-71 dBm (note 1) -60 dBm
	$1\,880 \text{ MHz} \leq f \leq 1\,920 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,010 \text{ MHz} \leq f \leq 2\,025 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,110 \text{ MHz} \leq f \leq 2\,170 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,300 \text{ MHz} < f < 2\,400 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,585 \text{ MHz} \leq f \leq 2\,640 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,640 \text{ MHz} \leq f \leq 2\,690 \text{ MHz}$	3,84 MHz	-60 dBm (note 2)

Test Procedure

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §5.3.3.

Transmitter minimum output power**Applicable Standard**

The minimum controlled output power of the UE is when the power is set to a minimum value. This is when both the inner loop and open loop power control indicate a minimum transmit output power is required.

The minimum transmit power is defined as a mean power in one time slot.

Limits

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

Test Procedure

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §5.3.4.

Receiver Adjacent Channel Selectivity (ACS)

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.6, Adjacent Channel Selectivity (ACS) is a measure of a receiver's ability to receive a WCDMA signal at its assigned channel frequency in the presence of an adjacent channel signal at a given frequency offset from the centre frequency of the assigned channel. ACS is the ratio of the receive filter attenuation on the assigned channel frequency to the receive filter attenuation on the adjacent channel(s).

Limits

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
I _{or}	dBm/3,84 MHz	<REFI _{or} > + 14 dB	<REFI _{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 <REFI _{or} > as specified in ETSI TS 134 121-1 [1].			
NOTE 2: The I _{oac} (modulated) signal consists of the common channels and the 16 dedicated data channels as specified in ETSI TS 125 101 [4].			

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.

Details of test method for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clauses 6.4 and 6.4A.

Receiver blocking characteristics

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.7, The blocking characteristic is a measure of the receiver's ability to receive a wanted signal at its assigned channel frequency in the presence of an unwanted interferer on frequencies other than those of the spurious response or the adjacent channels, without this unwanted input signal causing a degradation of the performance of the receiver beyond a specified limit. The blocking performance shall apply at all frequencies except those at which a spurious response occur.

Limits

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
I_or	dBm/3,84 MHz	<REFI_or> + 3 dB	<REFI_or> + 3 dB	<REFI_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.			

Parameter	Unit	Frequency range 1	Frequency range 2	Frequency range 3
Band III operation	For 1 790 MHz $\leq f \leq$ 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 $\leq f \leq$ 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 $\leq f \leq$ 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 $\leq f \leq$ 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 $\leq f \leq$ 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 $\leq f \leq$ 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 $\leq f \leq$ 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 _{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.				

Table 4.2.7.2-3: Test parameters for narrow band blocking

Parameter	Unit	Band III, VIII
DPCH E_c	dBm/3,84 MHz	<REFSENS> + 10 dB
I_{or}	dBm/3,84 MHz	<REF I_{or} > + 10 dB
$I_{blocking}$ (GMSK)	dBm	-56
F_{uw} (offset)	MHz	2,8
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4)
NOTE 1: <REFSENS> and <REF I_{or} > as specified in ETSI TS 134 121-1 [1].		
NOTE 2: $I_{blocking}$ (GMSK) is an interfering signal as defined in ETSI TS 145 004 [8]. 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 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.

Details of test method for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clause 6.5.

Receiver spurious response

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.8, Spurious response is a measure of the receiver's ability to receive a wanted signal on its assigned channel frequency without exceeding a given degradation due to the presence of an unwanted CW interfering signal at any other frequency at which a response is obtained i.e. for which the out-of-band blocking limit as specified in table 4.2.7.2-2 is not met.

Limits

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
\hat{I}_{or}	<REF \hat{I}_{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.

Details of test method for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clause 6.6.

Receiver intermodulation characteristics

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.9, Third and higher order mixing of the two interfering RF signals can produce an interfering signal in the band of the desired channel. Intermodulation response rejection is a measure of the capability of the receiver to receive a wanted signal on its assigned channel frequency in the presence of two or more interfering signals which have a specific frequency relationship to the wanted signal.

Limits

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 ETSI TS 125 101 [4].			
NOTE 2: <REFSENS> and <REF \hat{I}_{or} > as specified in ETSI TS 134 121-1 [1].			
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 ETSI TS 134 121-1 [1].			
NOTE 2: I_{ouw2} (GMSK) is an interfering signal as defined in ETSI TS 145 004 [8]. 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.

Details of initial conditions for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clause 6.7.

Receiver spurious emissions

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.10, The spurious emissions power is the power of emissions, generated or amplified in a receiver, which appear at the UE antenna connector. The requirements in UE transmit bands are valid in URA_PCH, Cell_PCH and idle state.

Limits

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
$30 \text{ MHz} \leq f < 1 \text{ GHz}$	100 kHz	-57 dBm
$1 \text{ GHz} \leq f \leq 12,75 \text{ GHz}$	1 MHz	-47 dBm

Table 4.2.10.2-2: Additional receiver spurious emission requirements

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

Band	Frequency Range	Measurement Bandwidth	Maximum level
XVI	$791 \text{ MHz} \leq f < 821 \text{ MHz}$	3,84 MHz	-60 dBm
	$921 \text{ MHz} \leq f < 925 \text{ MHz}$	100 kHz	-60 dBm (see note)
	$925 \text{ MHz} \leq f < 935 \text{ MHz}$	100 kHz	-67 dBm (see note)
		3,84 MHz	-60 dBm
	$935 \text{ MHz} \leq f \leq 960 \text{ MHz}$	100 kHz	-79 dBm (see note)
	$1\,805 \text{ MHz} \leq f \leq 1\,880 \text{ MHz}$	100 kHz	-71 dBm (see note)
	$2\,010 \text{ MHz} \leq f \leq 2\,025 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,110 \text{ MHz} \leq f \leq 2\,170 \text{ MHz}$	3,84 MHz	-60 dBm
	$2\,585 \text{ MHz} \leq f \leq 2\,690 \text{ MHz}$	3,84 MHz	-60 dBm
XX	$832 \text{ MHz} \leq f \leq 862 \text{ MHz}$	3,84 MHz	-60 dBm
XXII	$3\,410 \text{ MHz} \leq f \leq 3\,490 \text{ MHz}$	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 analyzer (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.

Details of test method for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clause 6.8.

Out-of-synchronization handling of output power

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.11, The UE shall monitor the DPCCH quality in order to detect a loss of the signal on Layer 1. The threshold Q_{out} specifies at what DPCCH quality levels the UE shall shut its power off. The threshold is not defined explicitly, but is defined by the conditions under which the UE shall shut its transmitter off, as stated in this clause.

The DPCCH quality shall be monitored in the UE and compared to the threshold Q_{out} for the purpose of monitoring synchronization. The threshold Q_{out} should correspond to a level of DPCCH quality where no reliable detection of the TPC commands transmitted on the downlink DPCCH can be made. This can be at a TPC command error ratio level of e.g. 20 %.

Limits

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

The quality level at the thresholds Q_{out} correspond 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 Q_{out} can be generated by a DPCCH E_c/I_{or} ratio of -25 dB. The DL reference measurement channel 12,2 kbit/s is specified in ETSI TS 134 121-1 [1] and with static propagation conditions. The downlink physical channels, other than those specified in table 4.2.11.2-1, are as specified in ETSI TS 134 121-1 [1].

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: <ul style="list-style-type: none"> -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 E_c/I_{or} ratio varies from a level where the DPCH is demodulated under normal conditions, down to a level below Q_{out} where the UE shall shut its power off.

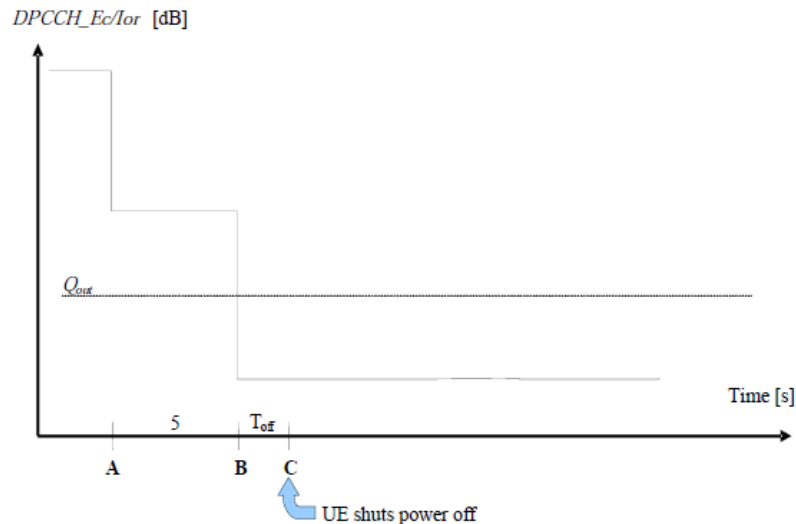


Figure 4.2.11.2-1: Conditions for out-of-synchronization handling in the UE

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 receiver performance requirements type 1 for DCH)	DPCCH_Ec/Ior (UE, supporting enhanced receiver 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 200 ms 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.

Details of test method for UEs supporting UTRA FDD can be found in ETSI TS 134 121-1 [1], clause 5.4.4.

Transmitter Adjacent Channel Leakage power Ratio (ACLR)

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.12, Adjacent Channel Leakage power Ratio (ACLR) is the ratio of the RRC filtered mean power centred on the assigned channel frequency to the RRC filtered mean power centred on an adjacent channel frequency.

Limits

If the adjacent channel power is greater than -50 dBm then the ACLR shall be higher than the value specified in table 4.2.12.1.2-1. The requirements are applicable for all for the values of β_c , β_d , β_{hs} , β_{ec} and β_{ed} defined in ETSI TS 125 214 [7].

Table 4.2.12.1.2-1: 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: The requirement shall still be met in the presence of switching transients.		

Test Procedure

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §5.3.11.

Receiver Reference Sensitivity level

Applicable Standard

According to ETSI EN 301 908-2 V13.1.1 (2020-06) §4.2.13, The reference sensitivity level <REFSENS> is the minimum mean power received at the UE antenna port at which the Bit Error Ratio (BER) shall not exceed a specific value.

Limits

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>	<REF _{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 <REFSENS> and corresponding <REF_{or}> 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

- 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 DATA AND RESULTS

Radiated Emissions

Environmental Conditions

Temperature (°C)	24.9-25.8	Relative Humidity (%)	48-51
ATM Pressure (kPa):	100.3-100.6	Test engineer:	Anson Su & Wing K Ji
Test date:	2026.03.27-2026.03.30		
EUT operation mode:	Transmitting/Idle		
Note:	Test Result: Compliant, Pre-test with low, middle, high channel, the worst case as below		

Traffic Mode

Frequency (MHz)	Receiver Reading (dBμV)	Polar (H / V)	Substituted			Absolute Level (dBm)	EN 301 908-1	
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)		Limit (dBm)	Margin (dB)
WCDMA 2100								
80.65	44.11	H	-70.28	0.75	0.00	-69.53	-36.00	33.53
171.46	30.87	V	-73.19	0.84	0.00	-72.35	-36.00	36.35
3900.00	52.12	H	-61.48	1.7	9.6	-53.58	-30.00	23.58
3900.00	52.41	V	-61.19	1.7	9.6	-53.29	-30.00	23.29
WCDMA 900								
80.43	42.04	H	-72.35	0.75	0.00	-71.60	-36.00	35.60
175.85	29.61	V	-74.45	0.84	0.00	-73.61	-36.00	37.61
1795.20	48.51	H	-65.69	1.4	9.1	-57.99	-30.00	27.99
1795.20	46.84	V	-67.96	1.4	9.1	-60.26	-30.00	30.26

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

Idle Mode

Frequency (MHz)	Receiver Reading (dBμV)	Polar (H / V)	Substituted			Absolute Level (dBm)	EN 301 908-1	
			Substituted Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi/dBd)		Limit (dBm)	Margin (dB)
WCDMA 2100								
80.17	43.41	H	-70.98	0.75	0.00	-70.23	-57.00	13.23
168.52	31.09	V	-72.97	0.84	0.00	-72.13	-57.00	15.13
1572.30	47.03	H	-67.27	1.50	8.60	-60.17	-47.00	13.17
1622.90	46.71	V	-68.19	1.50	8.60	-61.09	-47.00	14.09
WCDMA 900								
80.58	41.67	H	-72.72	0.75	0.00	-71.97	-57.00	14.97
179.62	28.63	V	-75.43	0.84	0.00	-74.59	-57.00	17.59
1595.40	47.42	H	-66.88	1.50	8.60	-59.78	-47.00	12.78
1387.50	48.56	V	-66.44	0.90	7.80	-59.54	-47.00	12.54

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

RF Conducted data

Temperature (°C)	23.9	Relative Humidity (%)	57
ATM Pressure (kPa):	100.5	Test engineer:	Ciel Jiang
Test date:	2026.04.28		
EUT operation mode:	Transmitting/Receiving		

Test Result: Compliant, please refer to Appendix B.

EXHIBIT A - EUT PHOTOGRAPHS

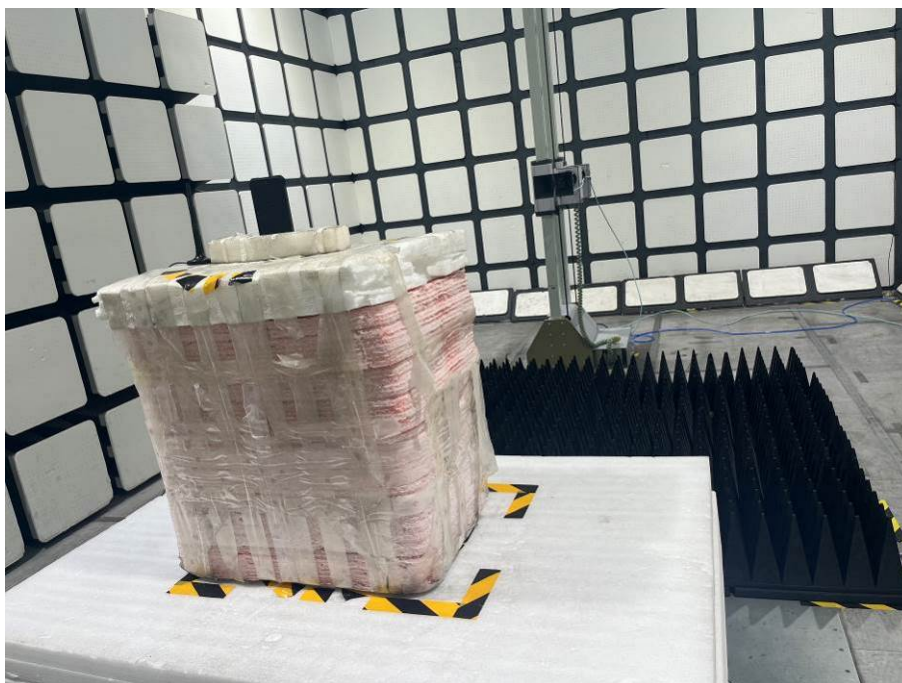
Please refer to the report number is 2601R49433E-EUT.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Radiated Spurious Emissions Test View (Below 1GHz)



Radiated Spurious Emissions Test View (Above 1GHz)



*******END OF REPORT*******