

ETSI EN 301 908-1 V7.1.1 (2015-03)
ETSI EN 301 908-2 V6.2.1 (2013-10)

TEST REPORT

For

Shenzhen Anysecu Technology Co., Ltd.

Building 1, 4th floor, F1 financial services technology innovation base, kefa
Road #8, Nanshan District, Shenzhen, China

Tested Model: GT-200
Multiple Model: GT-100, HD6500, HD6900

Report Type: Original Report	Product Type: Network Walkie Talkie
Report Number:	RXM171106070-22
Report Date:	2017-11-06
Reviewed By:	Dean Liu RF Engineer <i>Dean Liu</i>
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn



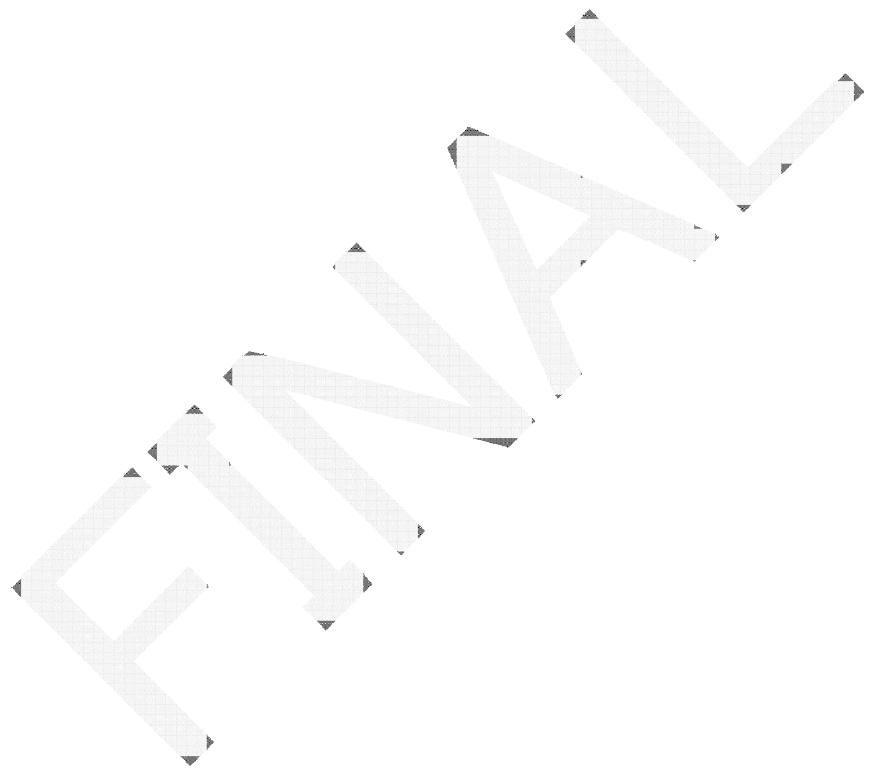
Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan).

TABLE OF CONTENTS

GENERAL INFORMATION.....	5
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	5
OBJECTIVE.....	5
RELATED SUBMITTAL(S)/GRANT(S).....	5
TEST METHODOLOGY.....	5
TEST FACILITY.....	6
SYSTEM TEST CONFIGURATION.....	7
DESCRIPTION OF TEST CONFIGURATION.....	7
EUT EXERCISE SOFTWARE.....	7
EQUIPMENT MODIFICATIONS.....	7
LOCAL SUPPORT EQUIPMENT LIST AND DETAILS.....	7
CONFIGURATION OF TEST SETUP.....	7
BLOCK DIAGRAM OF TEST SETUP.....	8
SUMMARY OF TEST RESULTS.....	9
ETSI EN 301 908-1 V7.1.1 (2015-03) §4.2.2 – RADIATED EMISSIONS (UE).....	10
APPLICABLE STANDARD.....	10
TEST EQUIPMENT LIST AND DETAILS.....	11
TEST DATA.....	11
ETSI EN 301 908-1 V7.1.1 (2015-03) §4.2.4 – CONTROL AND MONITORING FUNCTIONS (UE).....	13
APPLICABLE STANDARD.....	13
TEST EQUIPMENT LIST AND DETAILS.....	13
TEST DATA.....	13
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.2 – TRANSMITTER MAXIMUM OUTPUT POWER.....	14
APPLICABLE STANDARD.....	14
TEST EQUIPMENT LIST AND DETAILS.....	14
TEST PROCEDURE.....	14
TEST DATA.....	15
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.3 – TRANSMITTER SPECTRUM EMISSION MASK.....	17
APPLICABLE STANDARD.....	17
LIMITS.....	17
TEST EQUIPMENT LIST AND DETAILS.....	17
TEST PROCEDURE.....	18
TEST DATA.....	18
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.4 – TRANSMITTER SPURIOUS EMISSIONS.....	21
APPLICABLE STANDARD.....	21
TEST EQUIPMENT LIST AND DETAILS.....	23
TEST PROCEDURE.....	23
TEST DATA.....	23
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.5 – TRANSMITTER MINIMUM OUTPUT POWER.....	30
APPLICABLE STANDARD.....	30
TEST EQUIPMENT LIST AND DETAILS.....	30
TEST PROCEDURE.....	30
TEST DATA.....	30
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.6 – RECEIVER ADJACENT CHANNEL SELECTIVITY (ACS).....	32
APPLICABLE STANDARD.....	32

TEST EQUIPMENT LIST AND DETAILS.....	32
TEST PROCEDURE.....	32
TEST DATA.....	33
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.7 – RECEIVER BLOCKING CHARACTERISTICS.....	34
APPLICABLE STANDARD.....	34
LIMITS.....	34
TEST EQUIPMENT LIST AND DETAILS.....	36
TEST PROCEDURE.....	36
TEST DATA.....	36
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.8 – RECEIVER SPURIOUS RESPONSE.....	38
APPLICABLE STANDARD.....	38
TEST EQUIPMENT LIST AND DETAILS.....	38
TEST PROCEDURE.....	38
TEST DATA.....	39
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.9 – RECEIVER INTERMODULATION CHARACTERISTICS.....	40
APPLICABLE STANDARD.....	40
TEST EQUIPMENT LIST AND DETAILS.....	41
TEST PROCEDURE.....	41
TEST DATA.....	41
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.10 – RECEIVER SPURIOUS EMISSIONS.....	42
APPLICABLE STANDARD.....	42
TEST EQUIPMENT LIST AND DETAILS.....	43
TEST PROCEDURE.....	43
TEST DATA.....	44
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.11 – OUT-OF-SYNCHRONIZATION HANDLING OF OUTPUT POWER.....	50
APPLICABLE STANDARD.....	50
TEST EQUIPMENT LIST AND DETAILS.....	51
TEST PROCEDURE.....	52
TEST DATA.....	52
ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.12 – TRANSMITTER ADJACENT CHANNEL LEAKAGE POWER RATIO (ACLR).....	53
APPLICABLE STANDARD.....	53
TEST EQUIPMENT LIST AND DETAILS.....	53
TEST PROCEDURE.....	53
TEST DATA.....	54
EXHIBIT A - EUT PHOTOGRAPHS.....	56
EUT – ALL VIEW.....	56
EUT – TOP VIEW.....	56
EUT – BOTTOM VIEW.....	57
EUT – SIDE VIEW.....	57
EUT – SIDE VIEW.....	58
EUT – SIDE VIEW.....	58
EUT – SIDE VIEW.....	59
EUT – ANTENNA VIEW.....	59
EUT – ADAPTER VIEW.....	60
EUT – ADAPTER LABEL VIEW.....	60
EUT – CHARGING BASE VIEW.....	61
EUT – CHARGING BASE LABEL VIEW.....	61
EUT – UNCOVER VIEW.....	62
EUT – UNCOVER VIEW.....	62
EUT – UNCOVER VIEW.....	63
EUT – UNCOVER VIEW.....	63
EUT – UNCOVER VIEW.....	64

EUT – MAIN BOARD TOP VIEW..... 64
EUT –MAIN BOARD BOTTOM VIEW..... 65
EUT –RF MODULE TOP VIEW..... 65
EUT –RFMODULE BOTTOM VIEW..... 66
EUT –MAIN CHIP VIEW..... 66
EUT –BATTERY TOP VIEW..... 67
EUT –BATTERY BOTTOM VIEW..... 67
EUT –BATTERY LABEL VIEW..... 68
EXHIBIT B - TEST SETUP PHOTOGRAPHS..... 69
RADIATED EMISSIONS BELOW 1GHZ VIEW..... 69
RADIATED EMISSIONS ABOVE 1GHZ VIEW..... 69
DECLARATION LETTER..... 70



GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Shenzhen Anysecu Technology Co., Ltd.*'s product, model number: *GT-200* or (the "EUT") in this report was a *Network Walkie Talkie*, which was measured approximately: 15.7 cm (L) x 6.2 cm (W) x 5.3 cm (H), rated input voltage: DC7.4V from rechargeable Li-ion battery or DC 12V charging from adapter.

Adapter information:

Model: CGA-GT200

Input: 100-240V, 50/60Hz, 0.2A Max

Output: DC12V, 580mA

Note: The series product, model GT-200, GT-100, HD6500 and HD6900 are electrically identical, the difference between them just is the model name, we selected GT-200 for fully testing; the details were explained in the attached declaration letter.

All measurement and test data in this report was gathered from production sample serial number: 171106070 (Assigned by BACL Dongguan). The EUT was received on 2017-09-07.

Objective

This Type approval report is prepared on behalf of *Shenzhen Anysecu Technology Co., Ltd.* in accordance with ETSI EN 301 908-1 V7.1.1 (2015-03), IMT cellular networks, Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive, Part 1: Introduction and common requirements; and ETSI EN 301 908-2 V6.2.1 (2013-10), IMT cellular networks, Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive, Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (UE).

The objective is to determine the WCDMA of EUT compliance with ETSI EN 301 908-1 V7.1.1 (2015-03) and ETSI EN 301 908-2 V6.2.1 (2013-10).

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

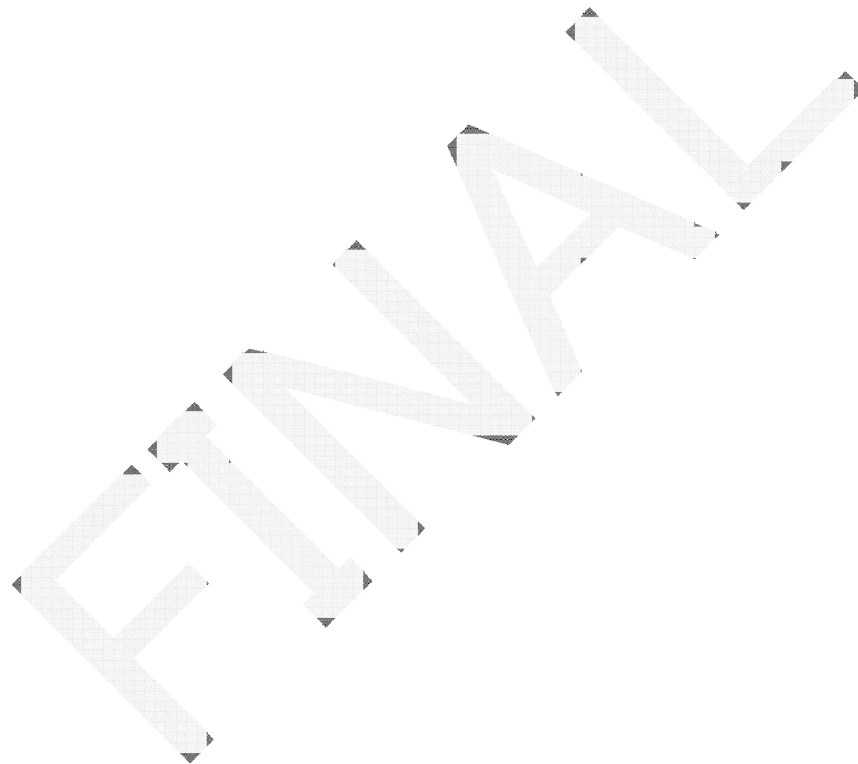
All measurements contained in this report were conducted with ETSI EN 301 908-1 V7.1.1 (2015-03) and ETSI EN 301 908-2 V6.2.1 (2013-10).

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxihu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) has been fully described in reports submitted to the Federal Communications Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 06, 2015.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.



SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing according to EN 301 908-1 and EN 301 908-2.

The normal & extreme conditions as follow:

L.V.: Low Voltage 6.7VDC; L.T.: Low Temperature -10°C; N.V.: Normal Voltage 8.14VDC
 N.T.: Normal Temperature +25°C; H.V.: High Voltage 8.2VDC; H.T.: High Temperature +55°C
 Nominal Voltage: 7.4VDC

The extreme voltage is declared by applicant.

EUT Exercise Software

N/A

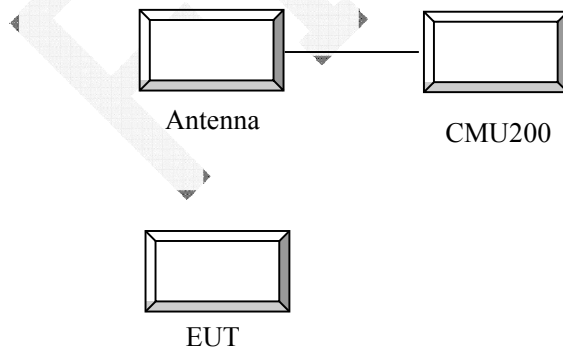
Equipment Modifications

No modifications were made to the unit tested.

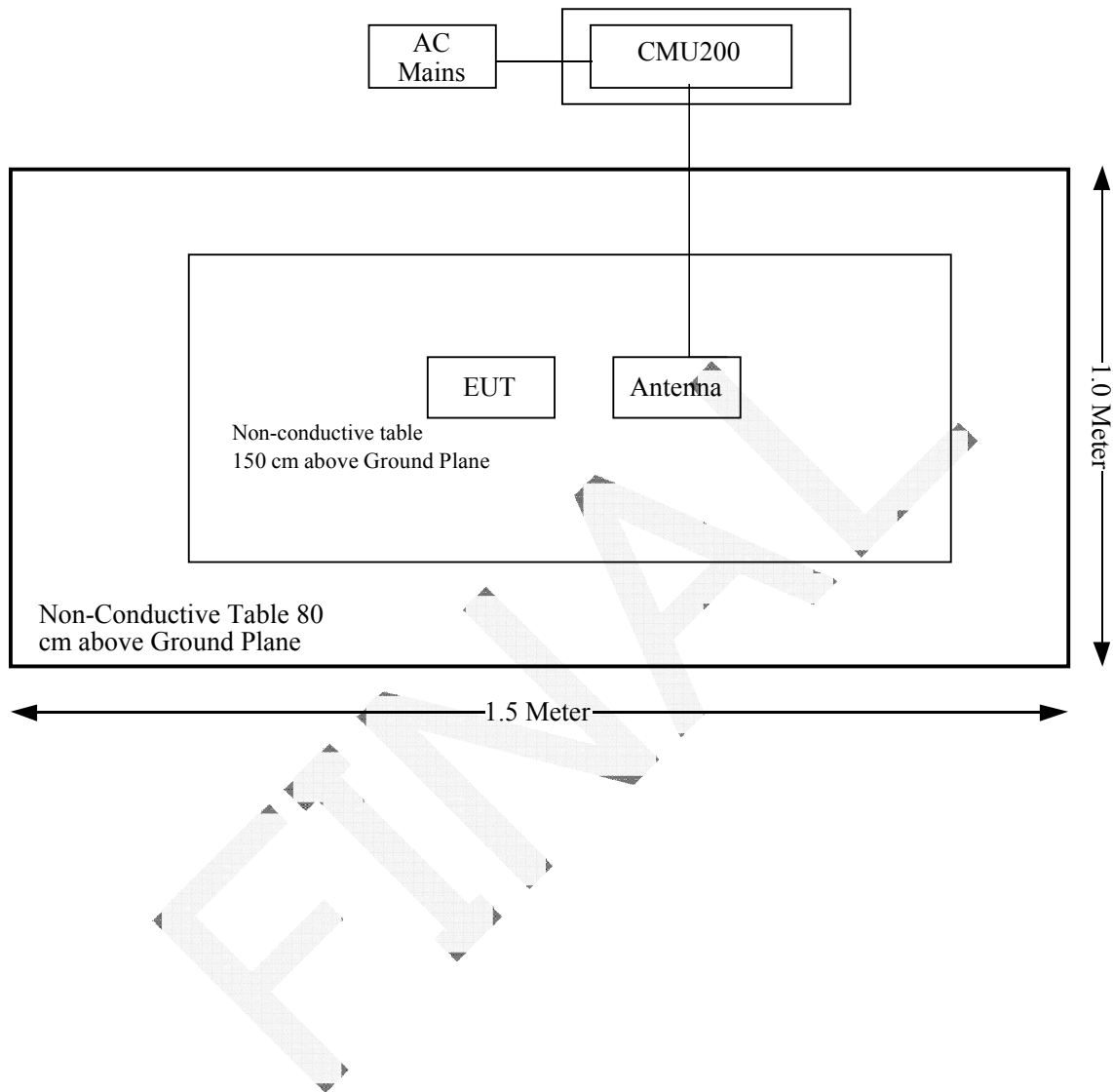
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
R&S	Universal Radio Communication Tester	CMU200	109 038
N/A	ANTENNA	N/A	N/A

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

ETSI EN 301 908-1 V7.1.1	Description of Test	Test Result
§4.2.2	Radiated emissions (UE)	Compliance
§4.2.3	Radiated emissions (BS and repeater)	Not Applicable
§4.2.4	Control and monitoring functions (UE)	Compliance

ETSI EN 301 908-2 V6.2.1	Description of Test	Test Result
§4.2.2	Transmitter maximum output power	Compliance
§4.2.3	Transmitter spectrum emission mask	Compliance
§4.2.4	Transmitter spurious emissions	Compliance
§4.2.5	Transmitter minimum output power	Compliance
§4.2.6	Receiver Adjacent Channel Selectivity (ACS)	Compliance
§4.2.7	Receiver blocking characteristics	Compliance
§4.2.8	Receiver spurious response	Compliance
§4.2.9	Receiver intermodulation characteristics	Compliance
§4.2.10	Receiver spurious emissions	Compliance
§4.2.11	Out-of-synchronization handling of output power	Compliance
§4.2.12	Transmitter Adjacent Channel Leakage power Ratio (ACLR)	Compliance

Test Time:2017-09-08~2017-10-27.

ETSI EN 301 908-1 V7.1.1 (2015-03)§4.2.2 – RADIATED EMISSIONS (UE)**Applicable Standard**

Limits

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 ITU-R Recommendations SM.329-10 [3] and SM.1539-1 [4].

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
$f_c - 2,5 \times 5 \text{ MHz} < f < f_c + 2,5 \times 5 \text{ MHz}$		Not defined	UTRA FDD, UTRA TDD, 3,84 Mcps option, cdma2000, spreading rate 3
$f_c - 2,5 \times BW_{\text{Channel}} \text{ MHz} < f < f_c + 2,5 \times BW_{\text{Channel}} \text{ MHz}$		Not defined	E-UTRA FDD, E-UTRA TDD, Mobile WiMAX, UMB
$f_c - 2,5 \times 10 \text{ MHz} < f < f_c + 2,5 \times 10 \text{ MHz}$		Not defined	UTRA TDD, 7,68 Mcps option
$f_c - 4 \text{ MHz} < f < f_c + 4 \text{ MHz}$		Not defined	UTRA TDD, 1,28 Mcps option cdma2000, spreading rate 1
$f_c - 500 \text{ kHz} < f < f_c + 500 \text{ kHz}$		Not defined	UWC 136, 200 kHz option
$f_c - 250 \text{ kHz} < f < f_c + 250 \text{ kHz}$		Not defined	UWC 136, 30 kHz option

NOTE: f_c is the UE transmit centre frequency.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Signal Generator	E8247C	MY43321350	2017-09-23	2017-09-22
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
Sunol Sciences	Antenna	JB3	A060611-2	2014-08-27	2018-08-26
HP	Amplifier	8447E	2434A02181	N/A	N/A
R&S	EMI Test Receiver	ESCI	100224	2017-09-01	2018-08-31
Agilent	Signal Generator	E8247C	MY43321350	2017-09-23	2018-09-22
Mini-Circuit	Amplifier	ZVA-213-S+	SN054201245	2017-02-19	2018-02-19
TDK RF	Horn Antenna	HRN-0118	130 084	2017-01-05	2019-01-04
ETS-Lindgren	Horn Antenna	3115	00052735	2017-01-05	2019-01-04
Agilent	Spectrum Analyzer	E4440A	SG43360054	2015-11-23	2019-12-22

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

Test Data**Environmental Conditions**

Temperature:	26.3 °C
Relative Humidity:	65 %
ATM Pressure:	99.7 kPa

The testing was performed by Liu Wentao on 2017-09-18.

Test Result: Compliant.

Please refer to following data table.

Pre-scan with Low/Middle/High channel and the worst case as follows:

Band I:

Traffic mode:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted antenna			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
Middle Channel								
3900.00	H	35.88	-57.2	13.4	3.2	-47.0	-30.0	17.0
3900.00	V	34.92	-57.1	13.4	3.2	-46.9	-30.0	16.9
5850.00	H	41.05	-50.8	14.1	2.6	-39.3	-30.0	9.3
5850.00	V	36.77	-54.3	14.1	2.6	-42.8	-30.0	12.8
731.21	H	24.89	-70.7	0.0	0.9	-71.6	-36.0	35.6
451.85	V	24.50	-78.5	0.0	0.7	-79.2	-36.0	43.2

Idle mode:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted antenna			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
2150.00	H	30.95	-64.9	11.1	1.9	-55.7	-47.0	8.7
2150.00	V	29.64	-65.4	11.1	1.9	-56.2	-47.0	9.2
591.53	H	25.33	-72.1	0.0	0.8	-72.9	-57.0	15.9
350.97	V	25.42	-79.3	0.0	0.6	-79.9	-57.0	22.9

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

Note 2:

Absolute Level = S.G. Level - Cable loss + Antenna Gain

Margin = Limit - Absolute Level

ETSI EN 301 908-1 V7.1.1 (2015-03) §4.2.4 – CONTROL AND MONITORING FUNCTIONS (UE)

Applicable Standard

Limits:

The maximum measured power during the duration of the test shall not exceed -30 dBm.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2015-11-23	2017-11-22
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01

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

Test Data

Environmental Conditions

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test Result: Compliant.

No emission was detected.

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.2 – TRANSMITTER MAXIMUM OUTPUT POWER

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.2, 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 4.2.2.2-1 even for the multi-code DPDCH transmission mode.

Table 4.2.2.2-1: 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/-1,7

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. 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.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01
Dongzhixu	High Temperature Test Chamber	DP1000	201105083-4	2017-09-10	2017-09-09

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

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 $(1 + \alpha)$ times the chip rate of the radio access mode. The mean power shall be averaged over at least one timeslot.

Test Data**Environmental Conditions**

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test Mode: Transmitting

Test Result: Compliant.

Please refer to following data tables.

Band	Test Frequency (MHz)	Test Condition					Result
		Normal	L.V. L.T.	L.V. H.T.	H.V L.T.	H.V. H.T.	
WCDMA 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 I:

Test Condition	Test Mode	3GPP Sub Test	Averaged Mean Power (dBm)			Limit (dBm)
			Low Frequency	Mid Frequency	High Frequency	
Normal	Rel 99	1	22.66	21.76	21.83	24+1.7 /-3.7
	HSDPA	1	21.62	20.57	20.80	
		2	21.59	20.71	20.84	
		3	21.57	20.75	20.79	
		4	21.60	20.69	20.86	
		5	21.64	20.68	20.85	
	HSUPA	1	21.63	20.71	20.89	
		2	21.46	20.75	20.84	
		3	21.65	20.76	20.87	
		4	21.70	20.77	20.89	
		5	21.67	20.68	20.87	

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.3 – TRANSMITTER SPECTRUM EMISSION MASK

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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_{ec} and β_{ed} 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01

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

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 Data

Environmental Conditions

Temperature:	27.4 °C
Relative Humidity:	51 %
ATM Pressure:	101.1 kPa

The testing was performed by Robin Zheng on 2017-10-26.

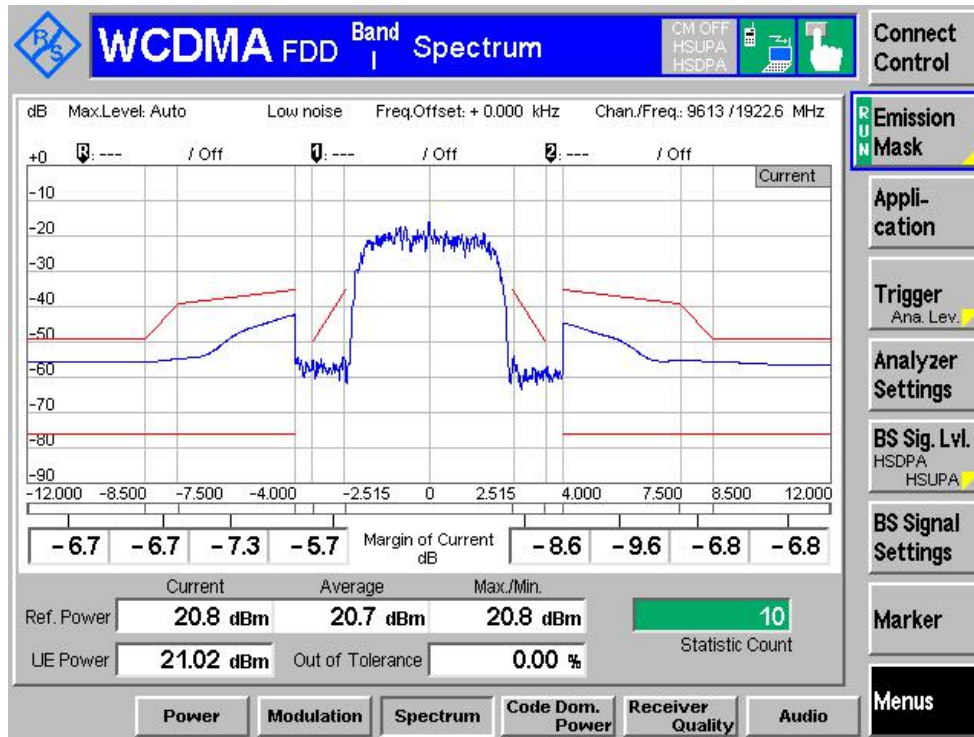
Test Mode: Transmitting

Test Result: Compliant.

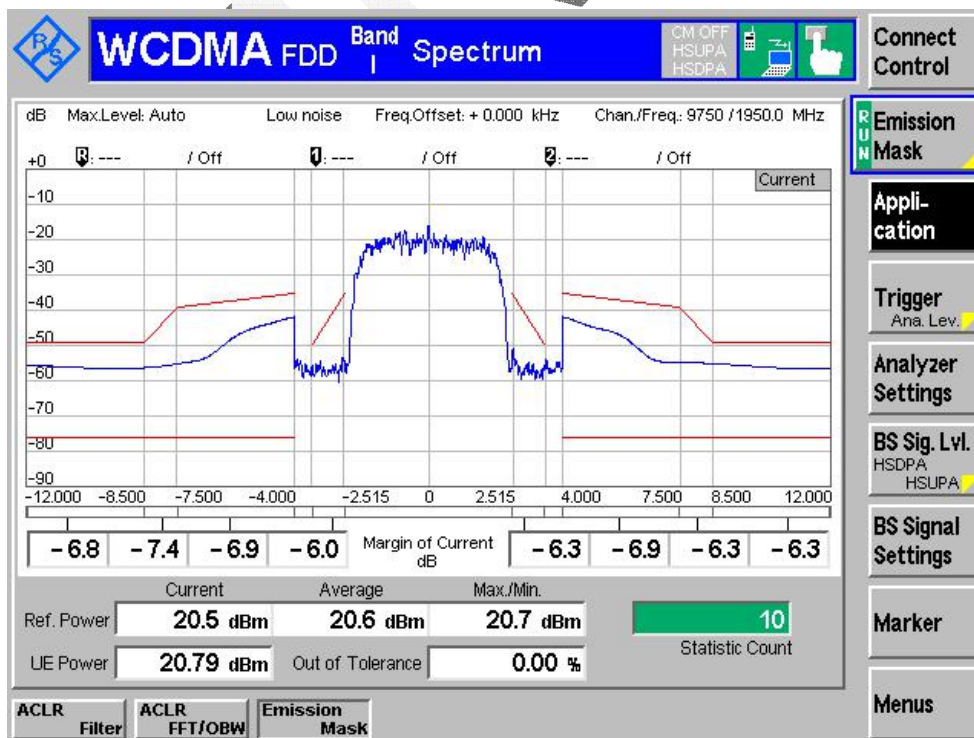
Please refer to following plots.

WCDMA Band I:

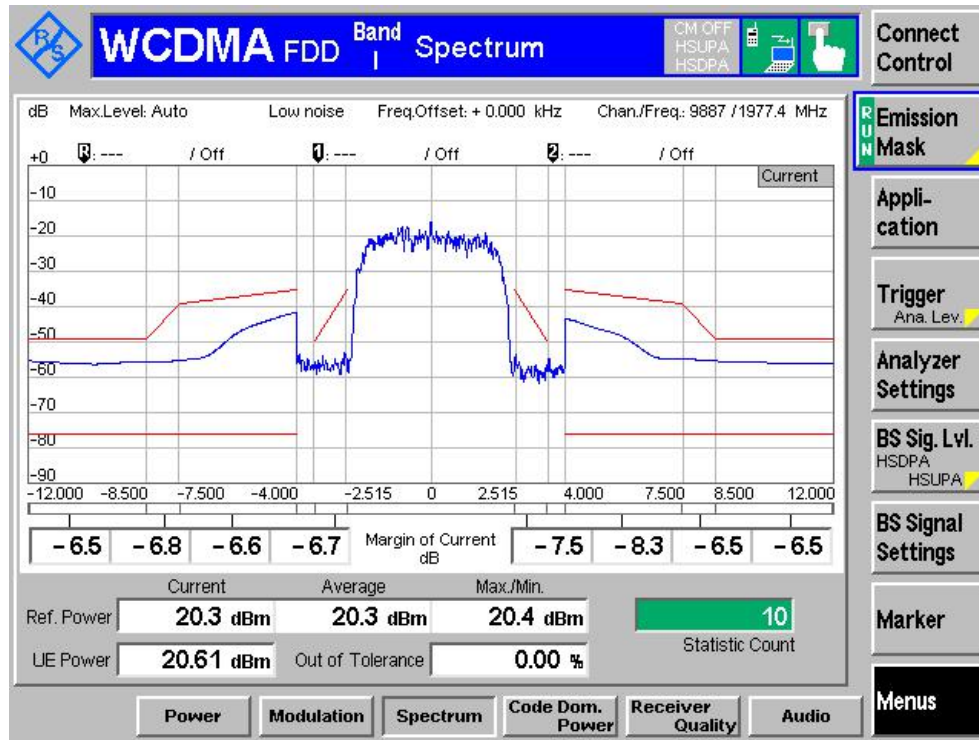
Low Channel



Middle Channel



High Channel



ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.4 – TRANSMITTER SPURIOUS EMISSIONS

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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 4.2.4.2-1 and 4.2.4.2-2. The limits shown in tables 4.2.4.2-1 and 4.2.4.2-2 are only applicable for frequencies, which are greater than 12,5 MHz away from the UE centre carrier frequency.

Table 4.2.4.2-1: 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

Table 4.2.4.2-2: Additional spurious emissions requirements

Operating band	Frequency bandwidth	Measurement bandwidth	Minimum requirement
I	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	100 kHz	-71 dBm (note 1)
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
III	2 585 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 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
VII	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 585 MHz ≤ f ≤ 2 690 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	100 kHz	-71 dBm (note 1)
VIII	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 590 MHz ≤ f ≤ 2 620 MHz	3,84 MHz	-50 dBm
	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)
XV	1 830 MHz < f ≤ 1 880 MHz	100 kHz 3,84 MHz	-71 dBm (note 1) -60 dBm
	2 110 MHz ≤ f ≤ 2 170 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)
	791 MHz ≤ f ≤ 821 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f ≤ 925 MHz	100 kHz	-60 dBm (note 1)
XVI	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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2015-11-23	2017-11-22
R&S	Spectrum Analyzer	FSEM	831259/019	2017-07-28	2017-07-27
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01

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

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 analyser (or equivalent equipment) over a frequency range and measure the average power of spurious emission.

Test Data

Environmental Conditions

Temperature:	29.4°C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

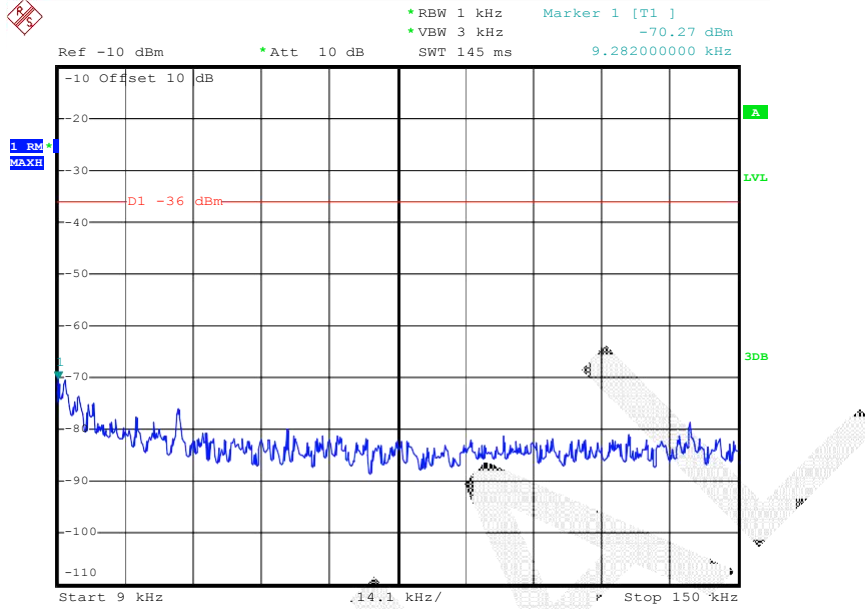
Test Mode: Transmitting

Test Result: Compliant.

Please refer to following plots.

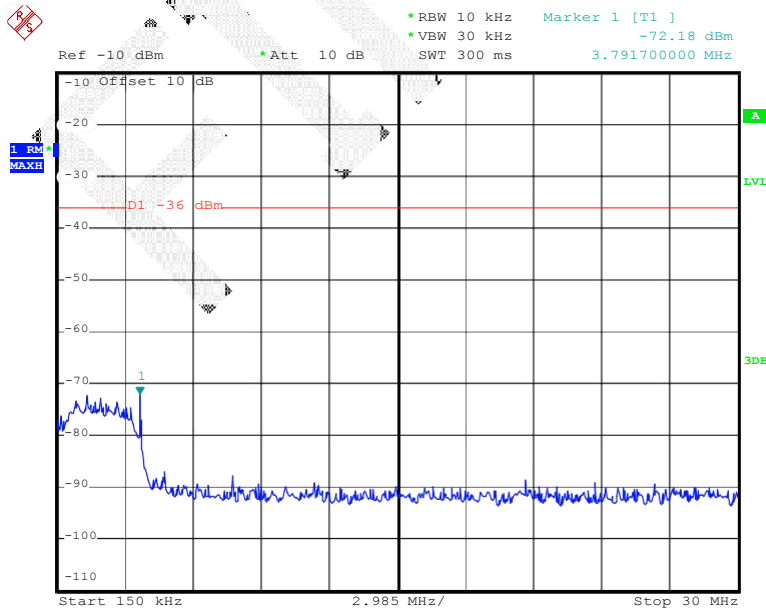
WCDMA Band I: (pretest with low, middle, high channel, the worst case is middle channel)

9 kHz - 150 kHz



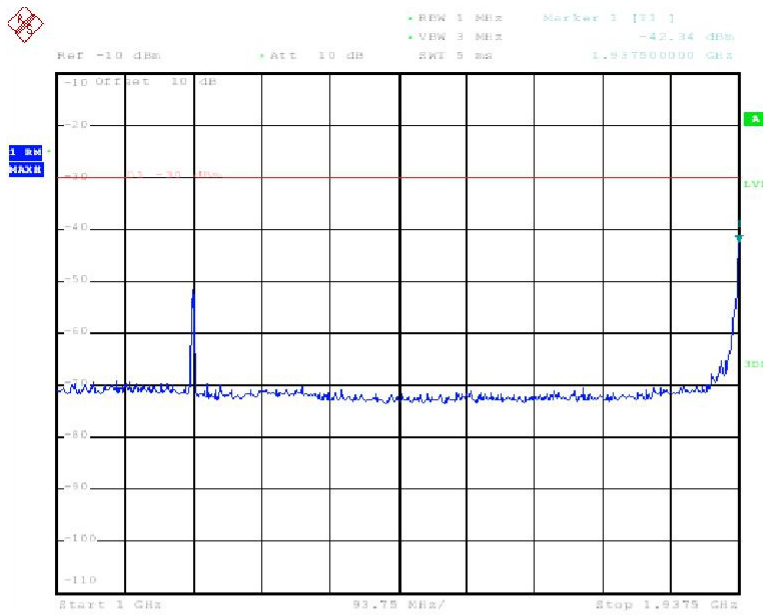
Date: 27.OCT.2017 16:26:56

150 kHz - 30 MHz



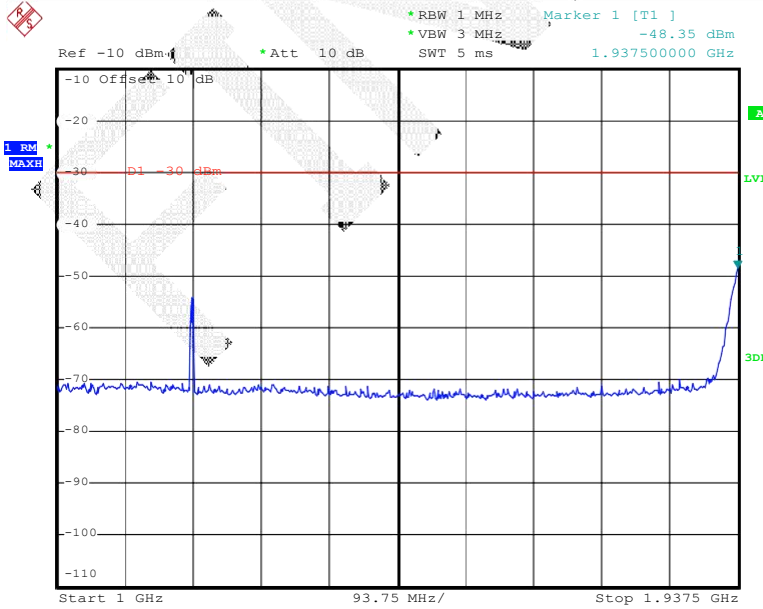
Date: 27.OCT.2017 16:27:09

30 MHz - 1GHz



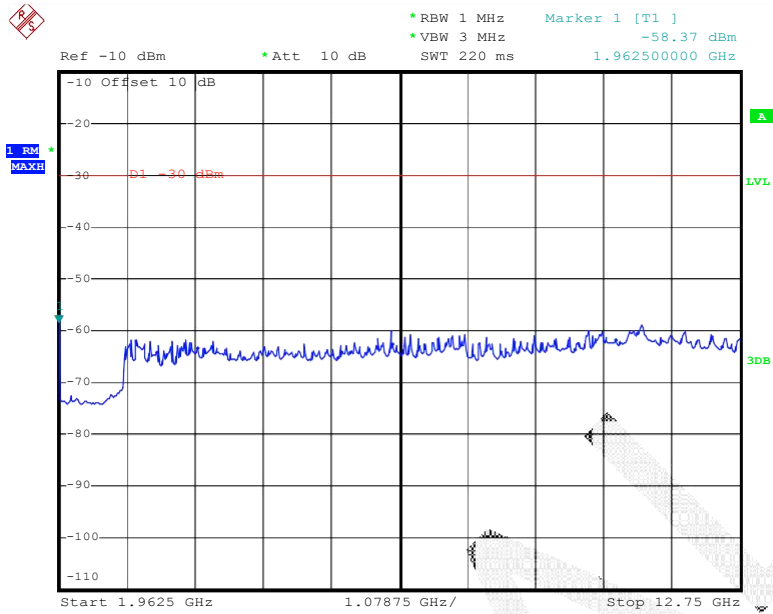
Date: 27.OCT.2016 22:06:13

1GHz - 1.9375GHz



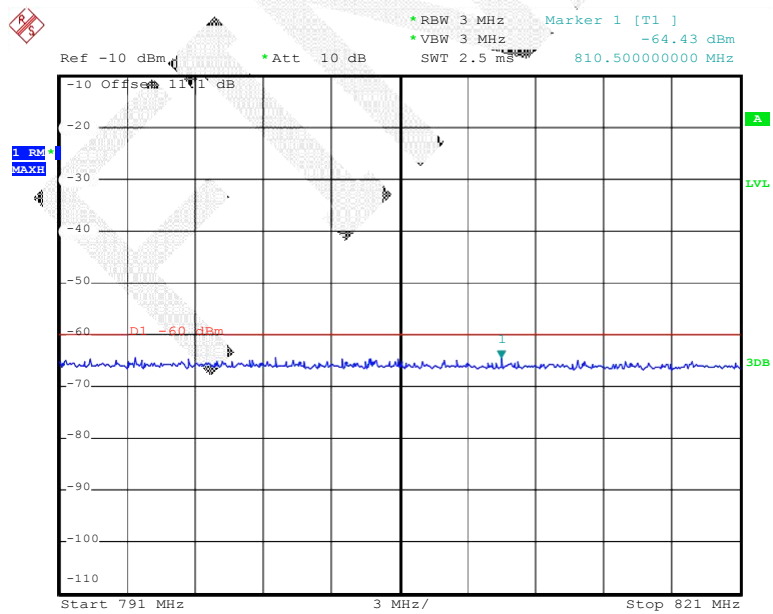
Date: 27.OCT.2017 16:27:32

1.9625GHz -12.75GHz



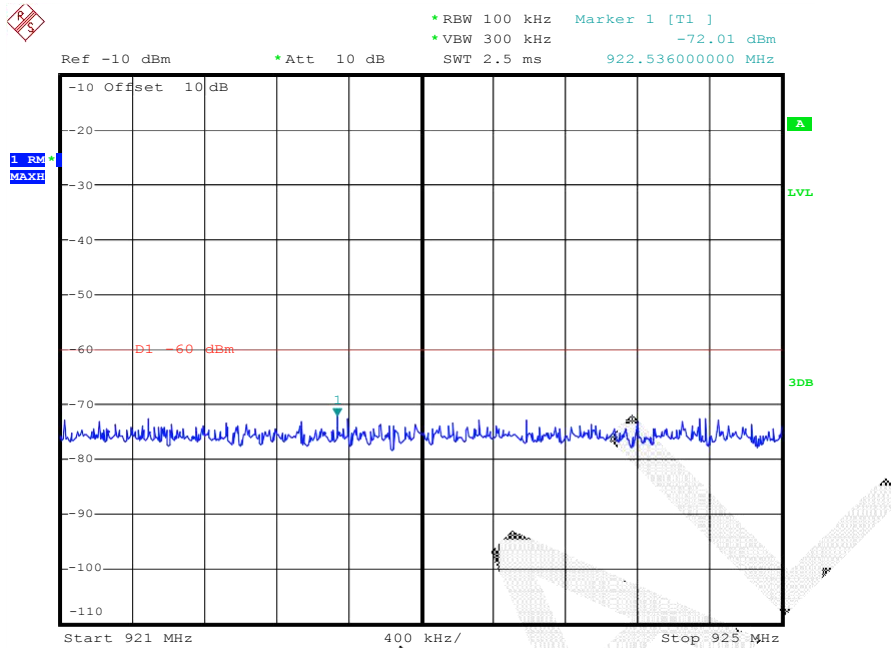
Date: 27.OCT.2017 16:27:42

791 MHz - 821 MHz



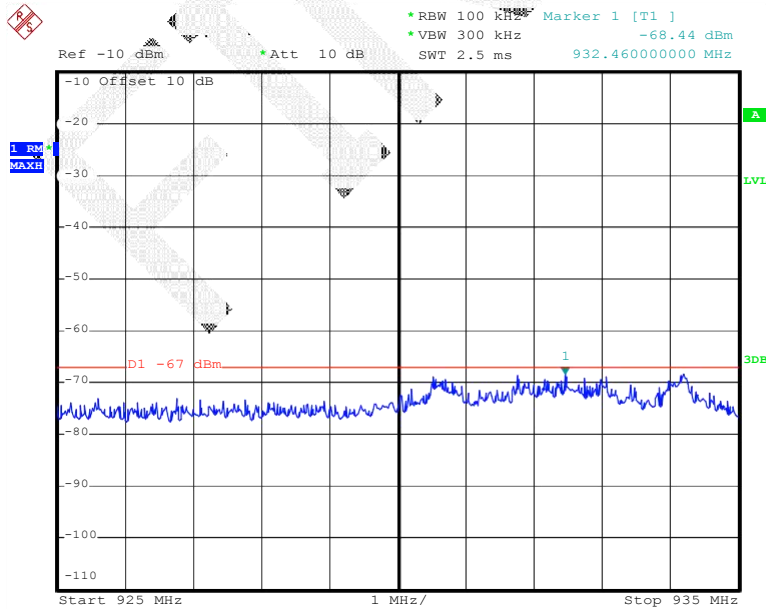
Date: 27.OCT.2017 16:27:53

921MHz – 925MHz



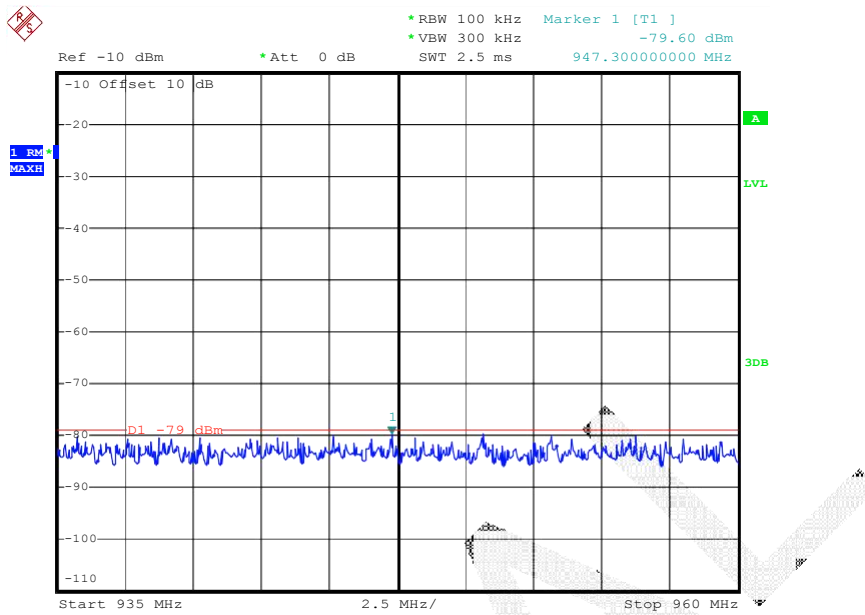
Date: 27.OCT.2017 16:28:03

925MHz – 935MHz



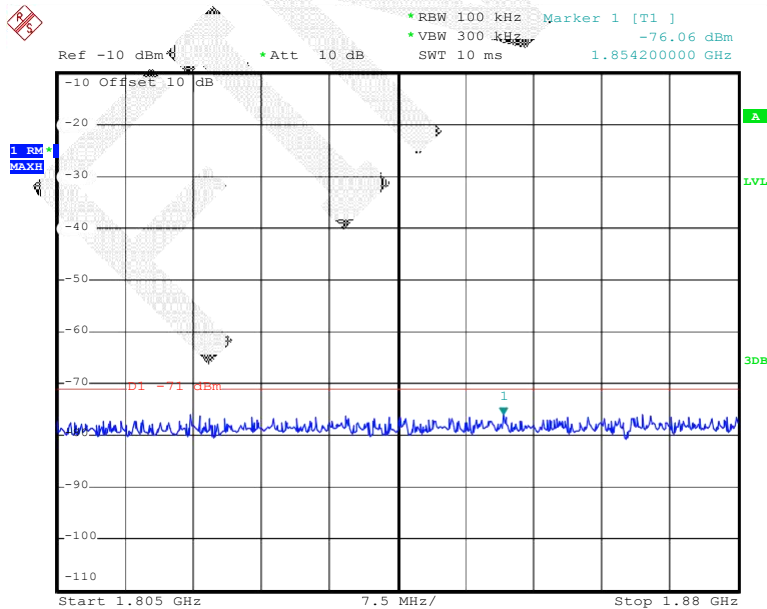
Date: 27.OCT.2017 16:28:15

935MHz -960MHz



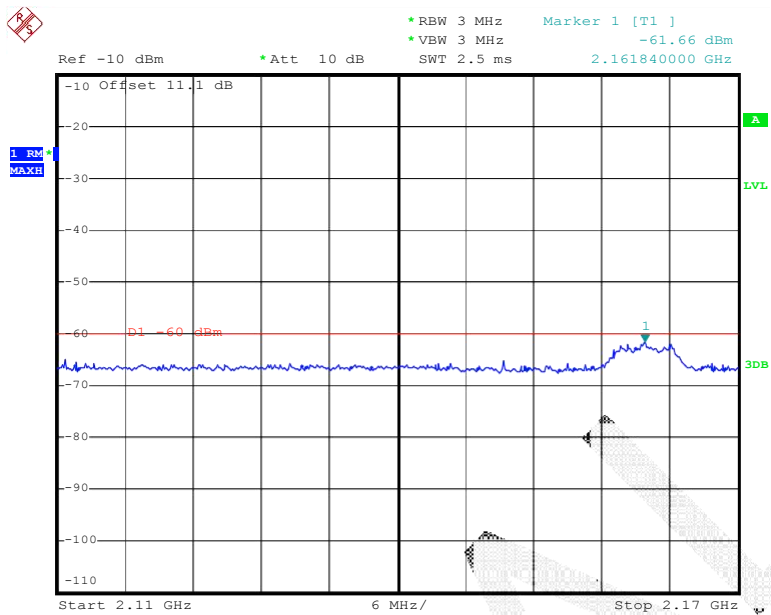
Date: 27.OCT.2017 16:44:51

1.805GHz -1.88GHz



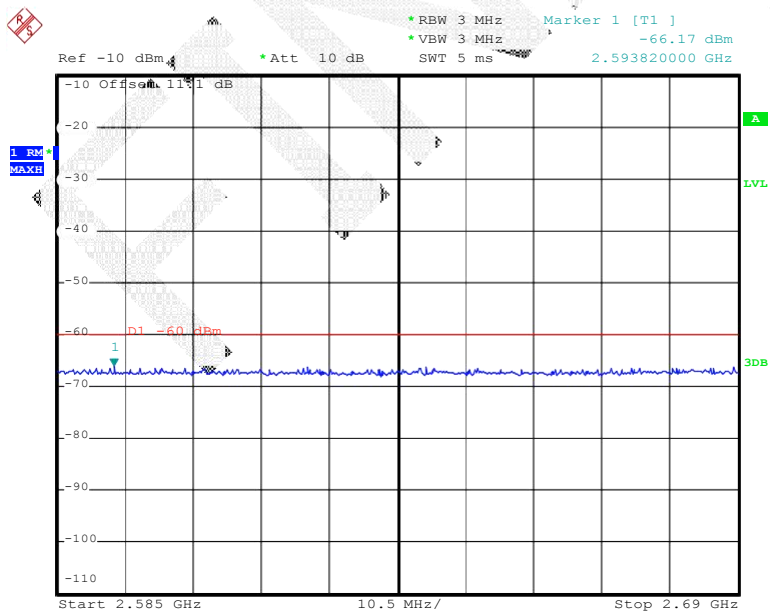
Date: 27.OCT.2017 16:28:36

2.11 GHz -2.17GHz



Date: 27.OCT.2017 16:28:47

2.585 GHz -2.69GHz



Date: 27.OCT.2017 16:28:56

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.5 – TRANSMITTER MINIMUM OUTPUT POWER

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.5, the minimum controlled output power of the UE is when the power is set to a minimum value. 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01
Dongzhixu	High Temperature Test Chamber	DP1000	201105083-4	2017-09-10	2017-09-09

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

Test Procedure

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

Test Data

Environmental Conditions

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

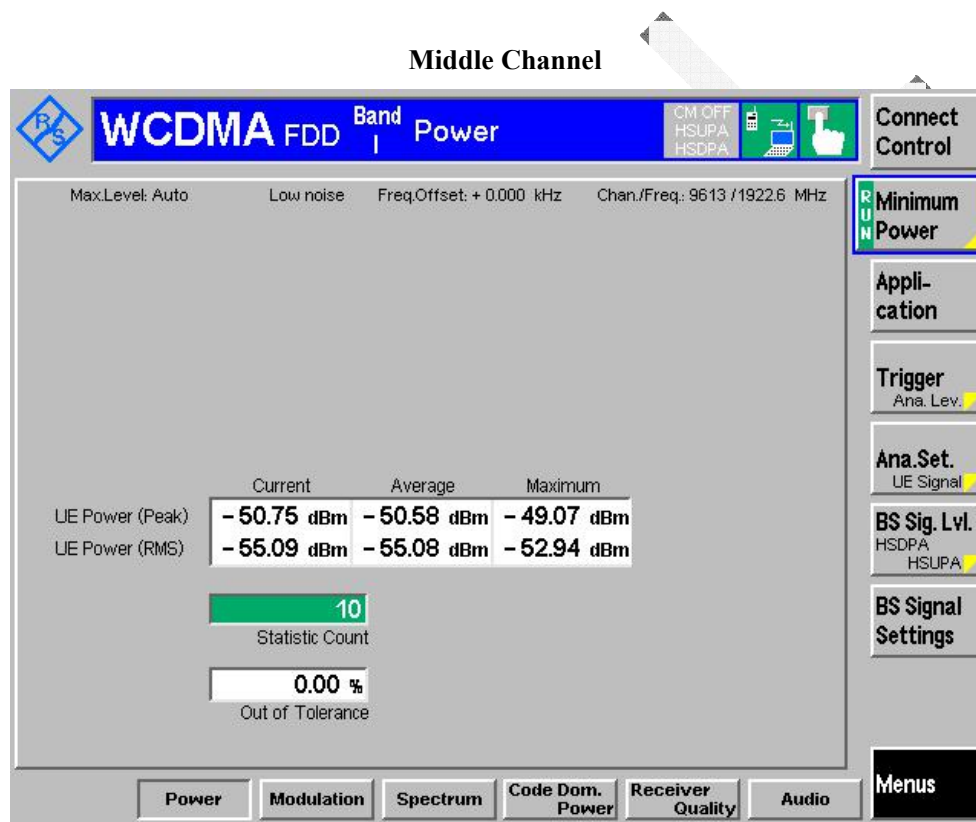
The testing was performed by Robin Zheng on 2017-10-27.

Test Mode: Transmitting

WCDMA Band I:

Test Condition	Averaged Mean Power (dBm)	Limit (dBm)
	Mid Frequency Range	
Normal	-55.08	<-49
LT/LV	-55.10	<-49
LT/HV	-55.11	<-49
HT/LV	-55.09	<-49
HT/HV	-55.07	<-49

Normal Condition:



ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.6 – RECEIVER ADJACENT CHANNEL SELECTIVITY (ACS)

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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 E_c	dBm/3,84 MHz	<REFSENS> + 14 dB	<REFSENS> + 41 dB
I_{or}	dBm/3,84 MHz	<REF I_{or} > + 14 dB	<REF 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 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01
Agilent	Signal Generator	E8247C	MY43321350	2017-09-23	2017-09-22

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

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 Data**Environmental Conditions**

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test channel: Middle channel

Test condition: Normal

Test Result: Compliant.

WCDMA:

The BER are 0.000%, in the case1 interfering signal and case 2 interfering signal conditions. No errors were detected

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.7 – RECEIVER BLOCKING CHARACTERISTICS

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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 table 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
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4)	
NOTE 1: <REFSENS> and <REFI _{or} > as specified in TS 134 121-1 [2].			
NOTE 2: The I _{blocking} (modulated) signal consists of the common channels and the 16 dedicated data channels as specified in TS 125 101 [5].			

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
F _{uw} (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
F _{uw} (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
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.			
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 clauses 4.2.6 and table 4.2.7.2-1 shall be applied.			
NOTE:	<REFSENS> and <REFI _{or} > as specified in TS 134 121-1 [2].			

Table 4.2.7.2-3: Test parameters for narrow band blocking

Parameter	Unit	Band III, VIII
DPCH_Ec	dBm/3,84 MHz	<REFSENS> + 10 dB
I _{or}	dBm/3,84 MHz	<REFI _{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 <REFI _{or} > as specified in TS 134 121-1 [2].		
NOTE 2: I _{blocking} (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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01
Agilent	Signal Generator	E8247C	MY43321350	2017-09-23	2017-09-22

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

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 Data

Environmental Conditions

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test channel: Middle channel

Test condition: Normal

Test Result: Compliance.

Please refer to following data Plot and comments.

The BER are 0.000%, for the parameters specified in table 8. No errors were detected
 The preliminary test has been performed for an interfering signal at all frequencies listed in table 9. The BER are less than 0.0015. So, the Blocking Characteristics test has been performed for some interfering signals at frequencies listed in Table 4.2.7.2-2, the test data (only list the several worst data) are list in the following table:

WCDMA Band I:

Frequency Range	Interfering Frequency (MHz)	Interfering Level (dBm)	BER
Frequency Range 1	2050	-44	0.0000
	2070	-44	0.0000
	2095	-44	0.0000
	2185	-44	0.0000
	2210	-44	0.0000
	2230	-44	0.0000
Frequency Range 2	2025	-30	0.0000
	2030	-30	0.0000
	2050	-30	0.0000
	2230	-30	0.0000
	2240	-30	0.0000
	2255	-30	0.0000
Frequency Range 3	2255	-15	0.0000
	2620	-15	0.0000
	2650	-15	0.0000
	2690	-15	0.0000
	12750	-15	0.0000

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.8 – RECEIVER SPURIOUS RESPONSE

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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
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)	dBm
NOTE: <REFSENS> and <REFI _{or} > as specified in TS 134 121-1 [2].		

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01
R&S	Spectrum Analyzer	FSEM	DE23437	2015-11-23	2017-11-22
Agilent	Signal Generator	E8247C	MY43321350	2017-09-23	2017-09-22

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

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 Data**Environmental Conditions**

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test channel: Middle channel

Test condition: Normal

Test Result: Compliant.

The test only be performed on the interfering signal frequencies which is out of band blocking limit as specified in table9 is not met.

The BER are 0.000%, for the parameters specified in table 4.2.8.2-1. No errors were detected in the presence.

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.9 – RECEIVER INTERMODULATION CHARACTERISTICS

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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 receiver 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
I_{or}	<REF 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)		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 I_{or} > as specified in TS 134 121-1 [2].			

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	
I_{or}	dBm/3,84 MHz	<REF 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 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Signal Generator	E8247C	MY43321350	2017-09-23	2017-09-22
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01

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

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 Data

Environmental Conditions

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test channel: Middle channel

Test condition: Normal

Test Result: Compliant.

The BER are 0.000%, No errors were detected in the presence.

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.10 – RECEIVER SPURIOUS EMISSIONS

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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 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	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	-67 dBm (see note)
	935 MHz < f ≤ 960 MHz	100 kHz	-79 dBm (see note)
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz	-71 dBm (see note)
	1 920 MHz ≤ f ≤ 1 980 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
III	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	-67 dBm (see note)
	935 MHz < f ≤ 960 MHz	100 kHz	-79 dBm (see note)
	1 710 MHz ≤ f ≤ 1 785 MHz	3,84 MHz	-60 dBm
	1 805 MHz ≤ f ≤ 1 880 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
VII	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	-67 dBm (see note)
	935 MHz < f ≤ 960 MHz	100 kHz	-79 dBm (see note)
	1 805 MHz ≤ f ≤ 1 880 MHz	100 kHz	-71 dBm (see note)
	2 110 MHz ≤ f ≤ 2 170 MHz	3,84 MHz	-60 dBm
	2 500 MHz ≤ f ≤ 2 570 MHz	3,84 MHz	-60 dBm
	2 620 MHz ≤ f ≤ 2 690 MHz	3,84 MHz	-60 dBm
VIII	791 MHz ≤ f < 821 MHz	3,84 MHz	-60 dBm
	880 MHz ≤ f ≤ 915 MHz	3,84 MHz	-60 dBm
	921 MHz ≤ f < 925 MHz	100 kHz	-60 dBm (see note)
	925 MHz ≤ f ≤ 935 MHz	100 kHz	-67 dBm (see note)
	935 MHz < f ≤ 960 MHz	100 kHz	-79 dBm (see note)
	1 805 MHz < f ≤ 1 880 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

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 3,84 MHz	-67 dBm (see note) -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
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 3,84 MHz	-67 dBm (see note) -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	$791 \text{ MHz} \leq f < 821 \text{ MHz}$	3,84 MHz	-60 dBm
	$832 \text{ MHz} \leq f \leq 862 \text{ MHz}$	3,84 MHz	-60 dBm
	$921 \text{ MHz} \leq f < 925 \text{ MHz}$	100 kHz	-60 dBm (see note)
	$925 \text{ MHz} \leq f \leq 935 \text{ MHz}$	100 kHz 3,84 MHz	-67 dBm (see note) -60 dBm
	$935 \text{ MHz} < f \leq 960 \text{ MHz}$	100 kHz	-79 dBm (see note)
	$1\ 805 \text{ MHz} \leq f \leq 1\ 880 \text{ MHz}$	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
NOTE:	The 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.		

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2015-11-23	2017-11-22
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01

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

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 Data

Environmental Conditions

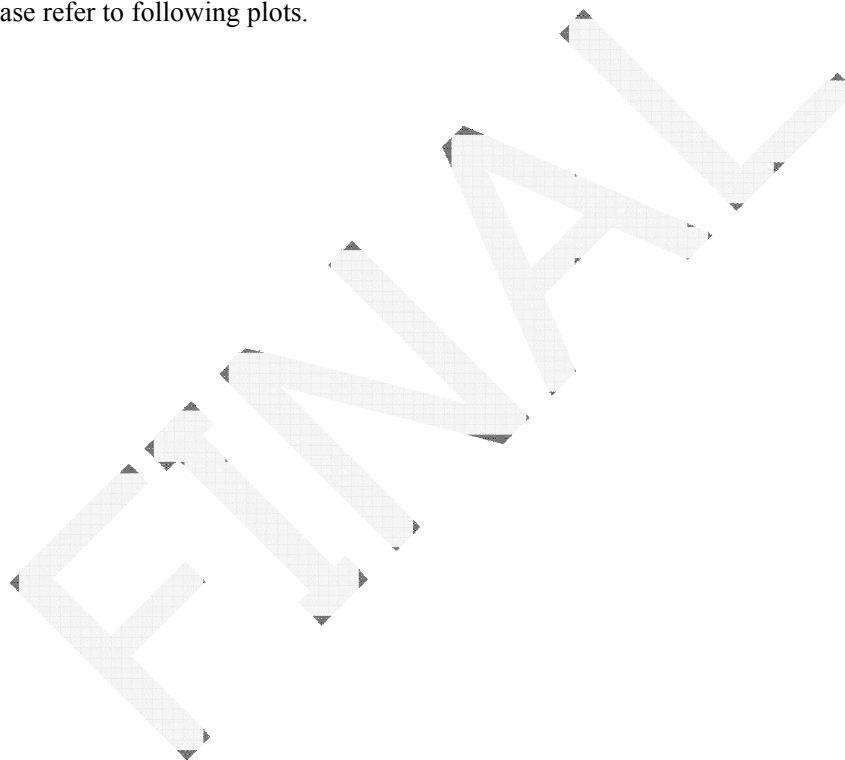
Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test Mode: Receiving

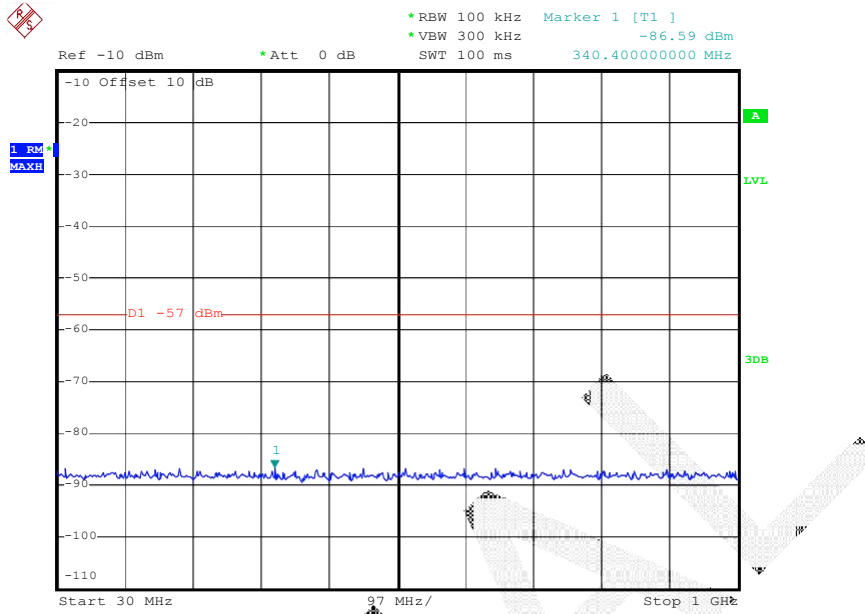
Test Result: Compliant.

Please refer to following plots.



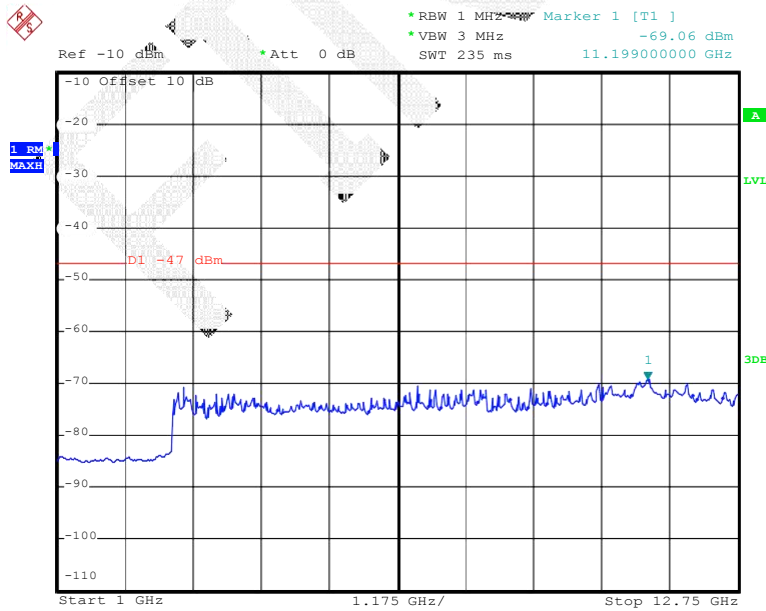
WCDMA Band I: (pretest with low, middle, high channel, the worst case is middle channel)

30MHz – 1GHz



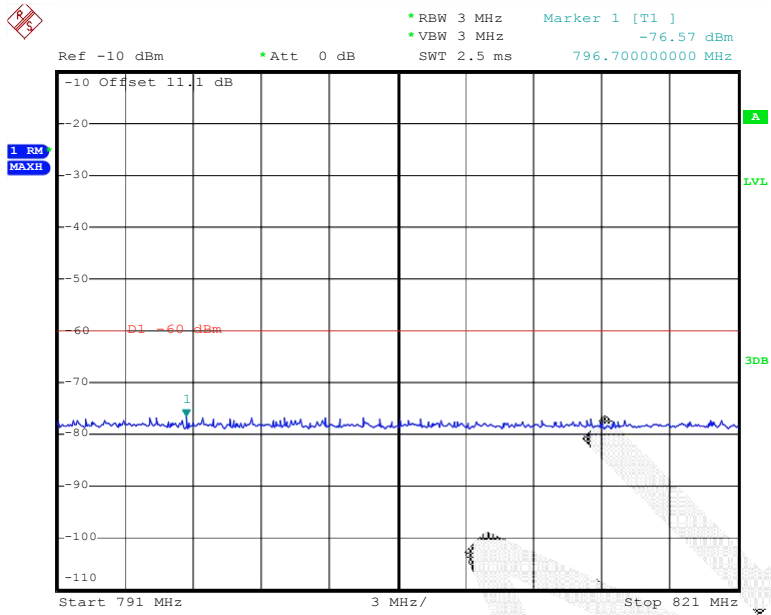
Date: 27.OCT.2017 18:47:20

1GHz – 12.75GHz



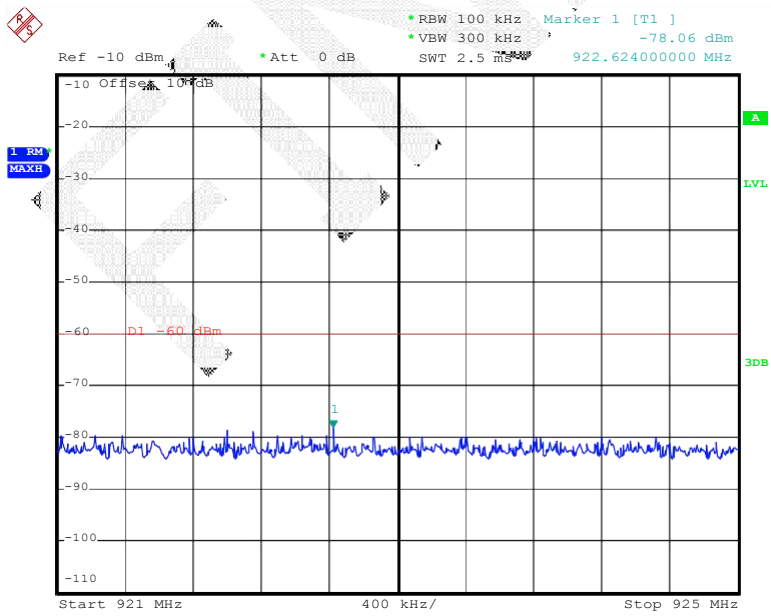
Date: 27.OCT.2017 18:47:32

791 MHz – 821 MHz



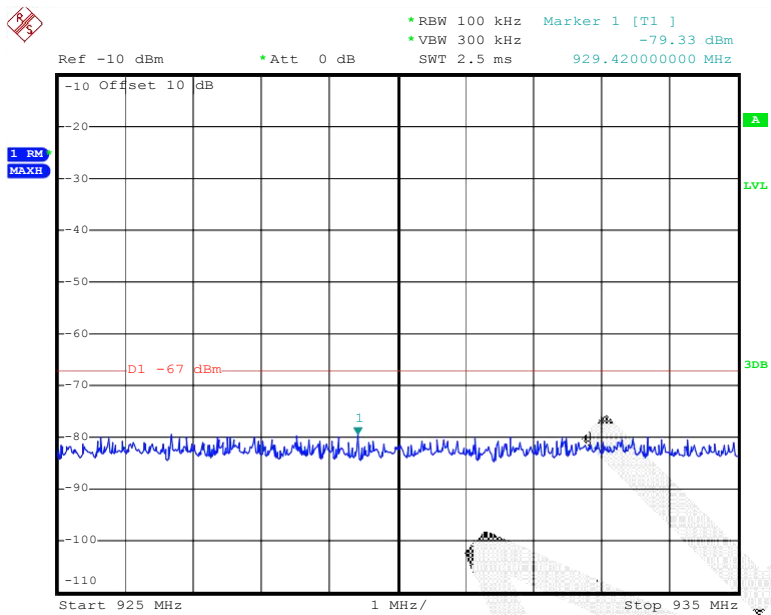
Date: 27.OCT.2017 18:47:42

921 MHz – 925 MHz



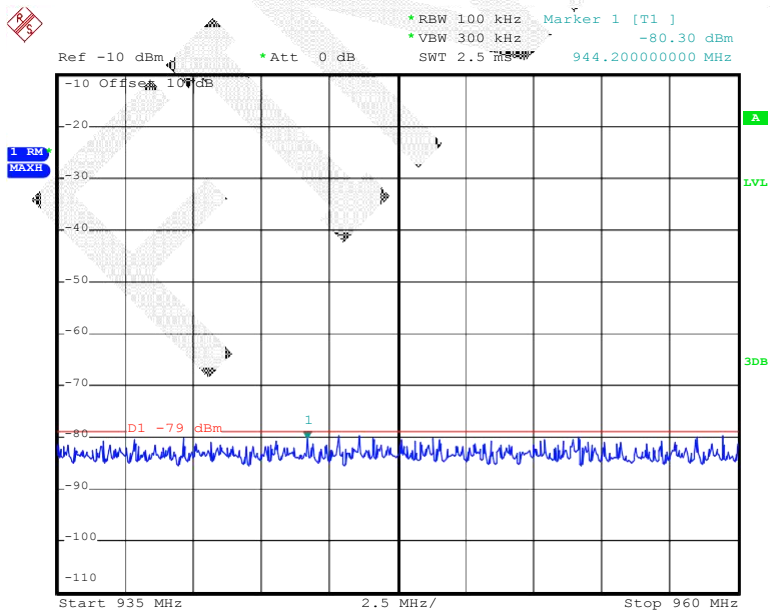
Date: 27.OCT.2017 18:47:53

925 MHz – 935 MHz



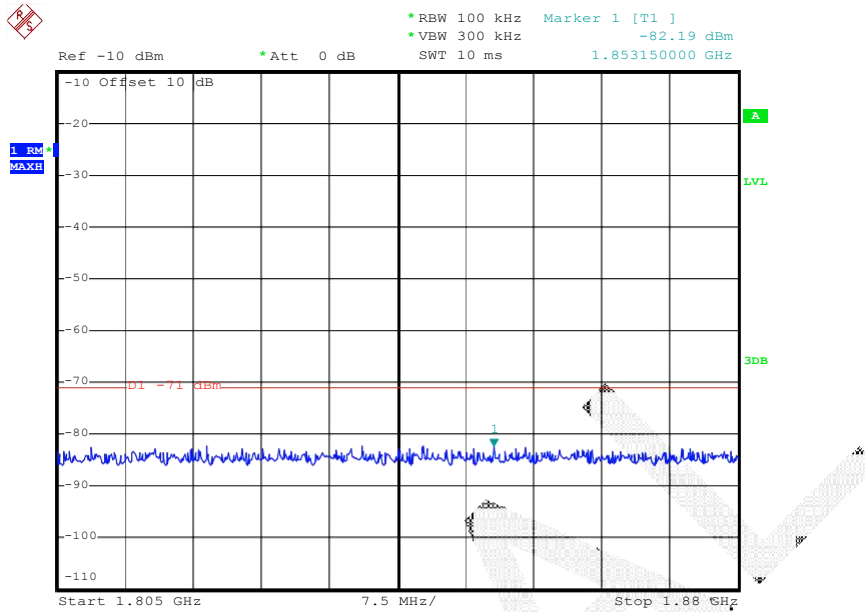
Date: 27.OCT.2017 18:48:05

935 MHz - 960 MHz



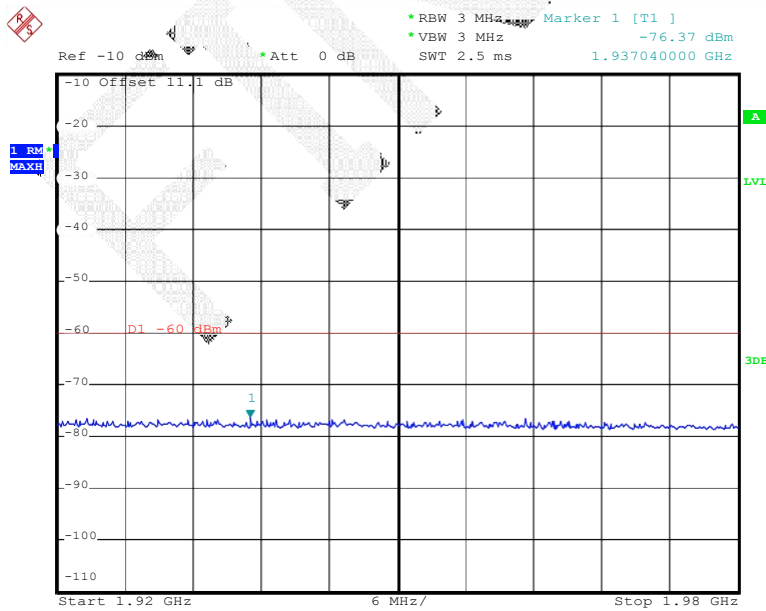
Date: 27.OCT.2017 18:53:28

1.805GHz -1.88GHz



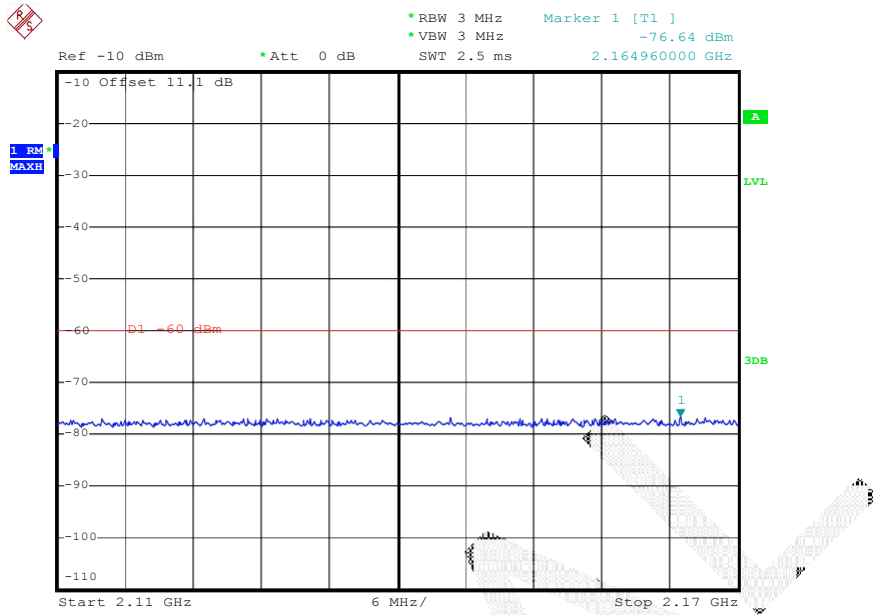
Date: 27.OCT.2017 18:48:29

1.92GHz -1.98GHz



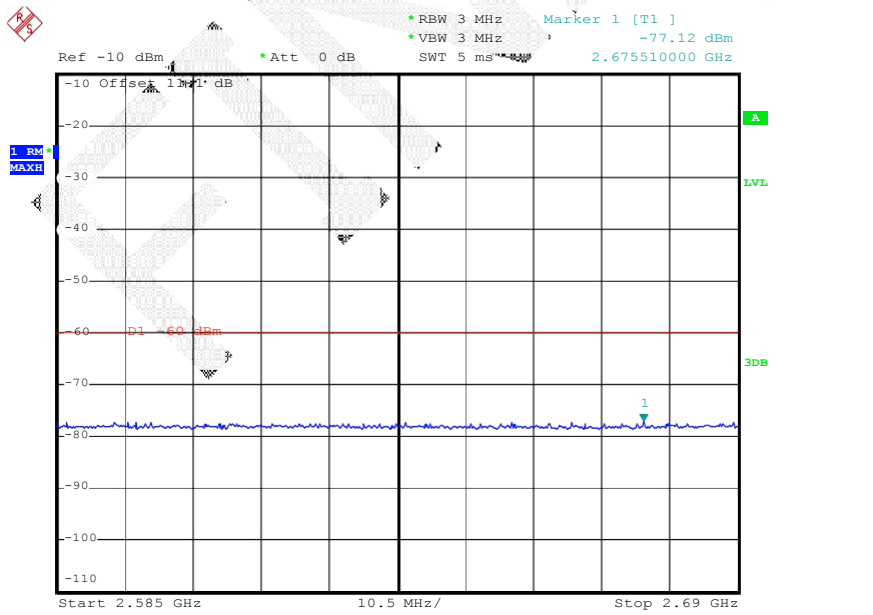
Date: 27.OCT.2017 18:48:40

2.11 GHz -2.17GHz



Date: 27.OCT.2017 18:48:52

2.585 GHz -2.69 GHz



Date: 27.OCT.2017 18:49:05

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.11 – OUT-OF-SYNCHRONIZATION HANDLING OF OUTPUT POWER

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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 $DPCCH_{Ec}/I_{or}$ 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
I_{or}/I_{oc}	-1	dB
I_{oc}	-60	dBm/3,84 MHz
$\frac{DPCCH_{Ec}}{I_{or}}$	See figure 4.2.11.2-1: Before point A: -16,6 for UEs not supporting enhanced performance type 1 for DCH -19,6 for UEs supporting enhanced performance type 1 for DCH After point A not defined	dB
$\frac{DPCCH_{Ec}}{I_{or}}$	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 $DPCCH_{Ec}/I_{or}$ 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.

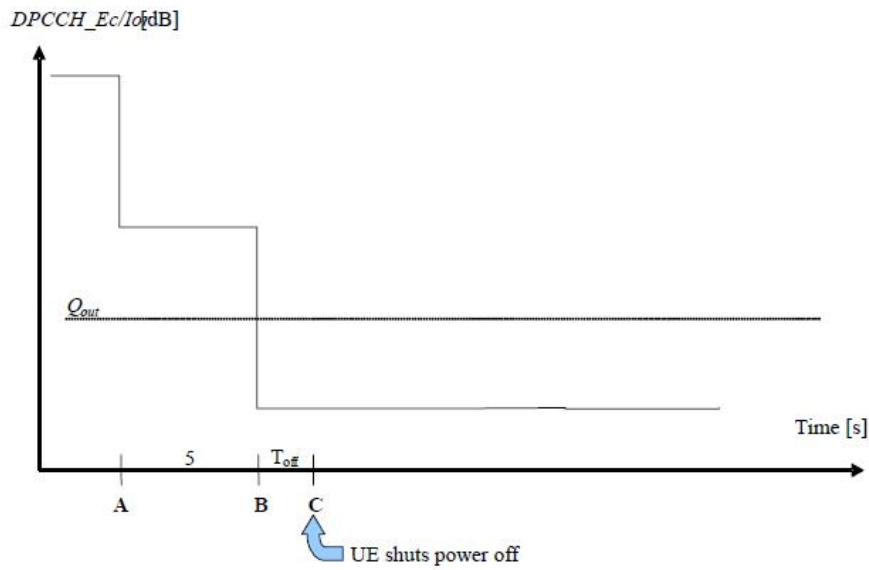


Figure 4.2.11.2-1: Conditions for out-of-synchronization handling in the UE

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 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01

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

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 Data

Temperature:	29.4 °C
Relative Humidity:	45 %
ATM Pressure:	101.2 kPa

The testing was performed by Robin Zheng on 2017-10-27.

Test Result: Compliant.

ETSI EN 301 908-2 V6.2.1 (2013-10) §4.2.12 – TRANSMITTER ADJACENT CHANNEL LEAKAGE POWER RATIO (ACLR)

Applicable Standard

According to ETSI EN 301 908-2 V6.2.1 (2013-10) §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 4.2.12.2-1. The requirements are applicable for all for the values of β_c , β_d , β_{hs} , β_{ec} and β_{ed} defined in 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Universal Radio Communication Tester	CMU200	109 038	2017-07-01	2017-07-01
Dongzhixu	High Temperature Test Chamber	DP1000	201105083-4	2017-09-10	2017-09-09

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

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 Data**Environmental Conditions**

Temperature:	27.4 °C
Relative Humidity:	51 %
ATM Pressure:	101.1kPa

The testing was performed by Robin Zheng on 2017-10-26.

Test Result: Compliance.

Please refer to following data table and plots.

WCDMA Band I:

Test Condition	ACLR			
	Frequency Offset	Limit	Frequency Offset	Limit
	±5MHz	dB	±10MHz	dB
Normal	38.3	>32.2	50.3	>42.2
LT/LV	39.1	>32.2	49.9	>42.2
LT/HV	38.5	>32.2	50.1	>42.2
HT/LV	38.7	>32.2	50.4	>42.2
HT/HV	38.9	>32.2	50.6	>42.2

Normal Condition:

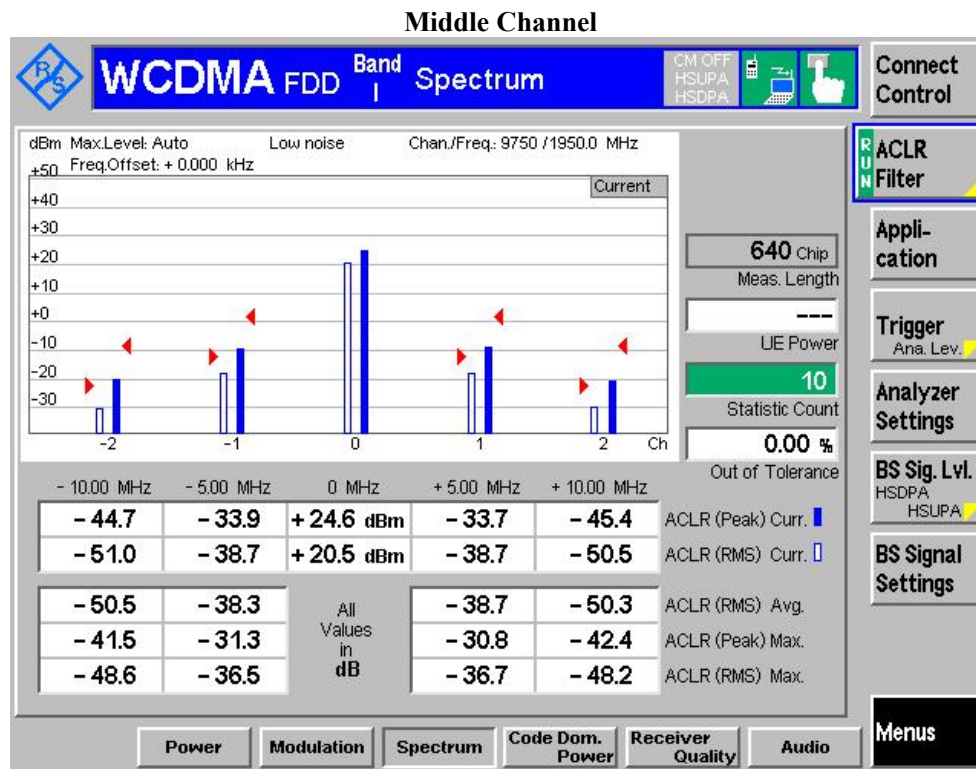


EXHIBIT A - EUT PHOTOGRAPHS

EUT – All View



EUT – Top View



EUT – Bottom View



EUT – Side View



EUT – Side View



EUT – Side View



EUT – Side View



EUT – Antenna View



EUT – Adapter View



EUT – Adapter Label View



EUT – Charging Base View



EUT – Charging Base Label View



EUT – Uncover View



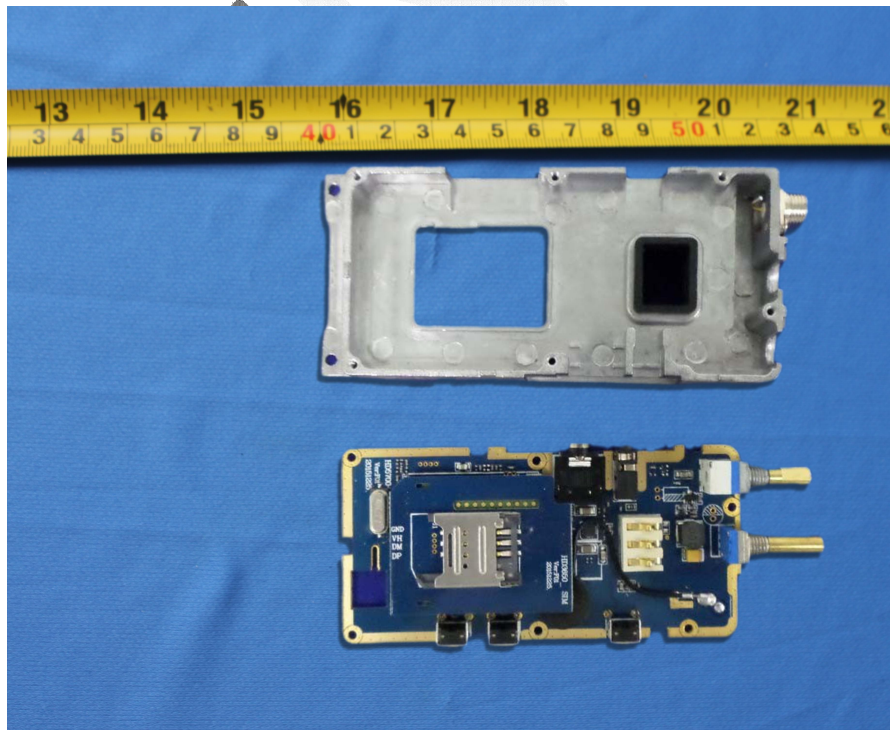
EUT – Uncover View



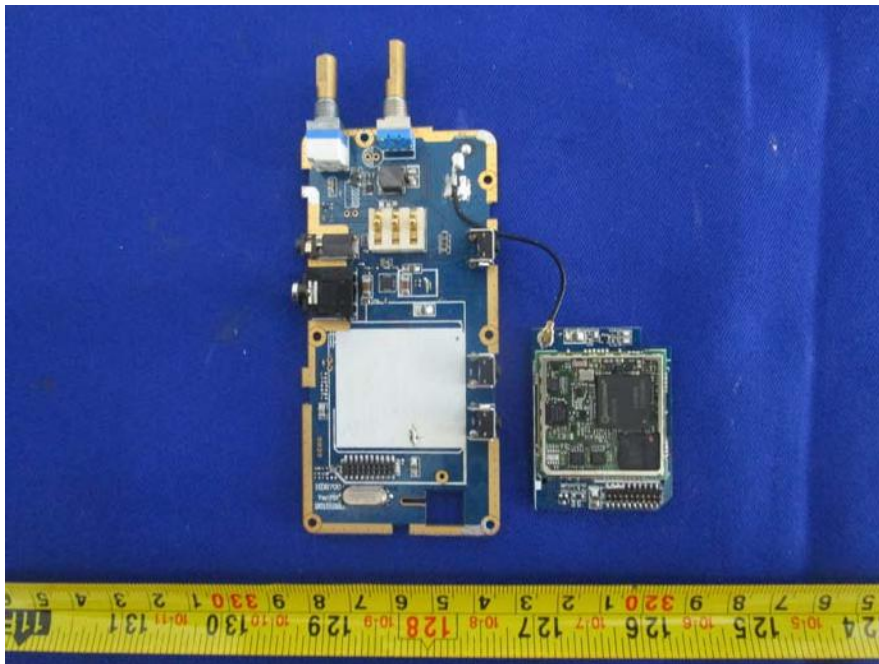
EUT – Uncover View



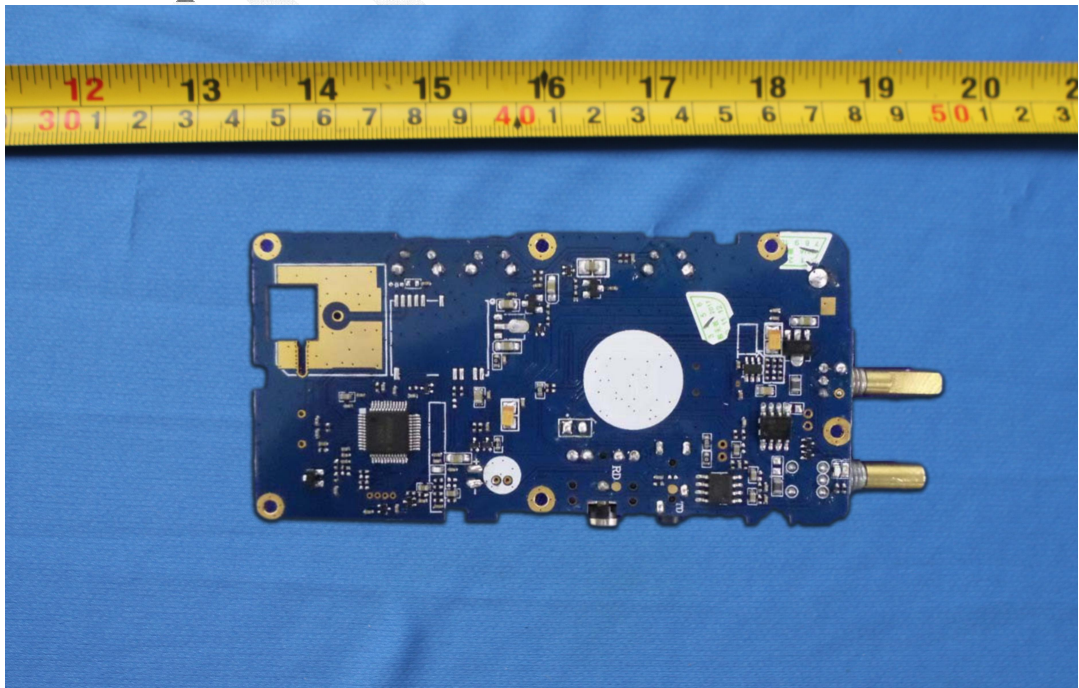
EUT – Uncover View



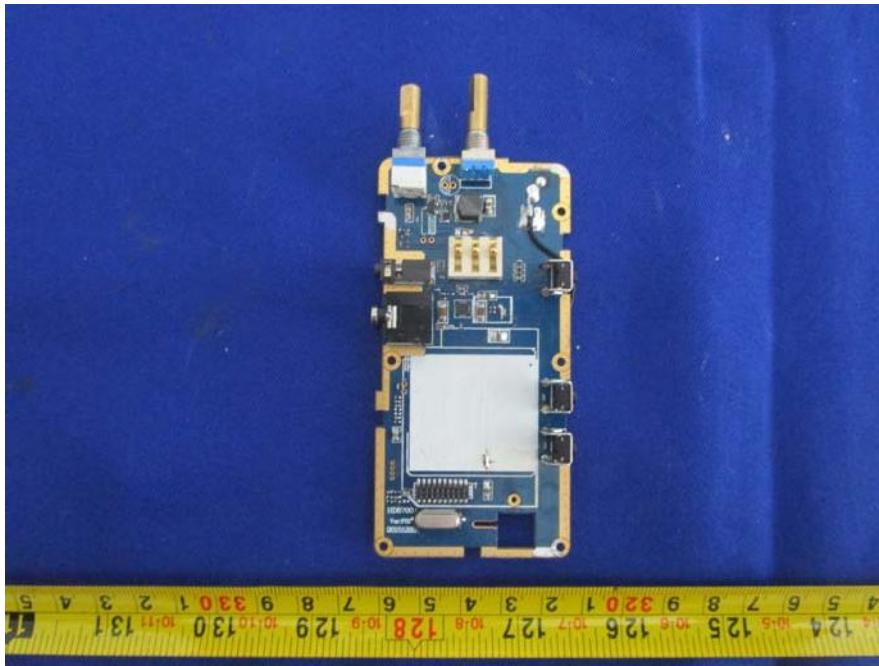
EUT – Uncover View



EUT – Main Board Top View



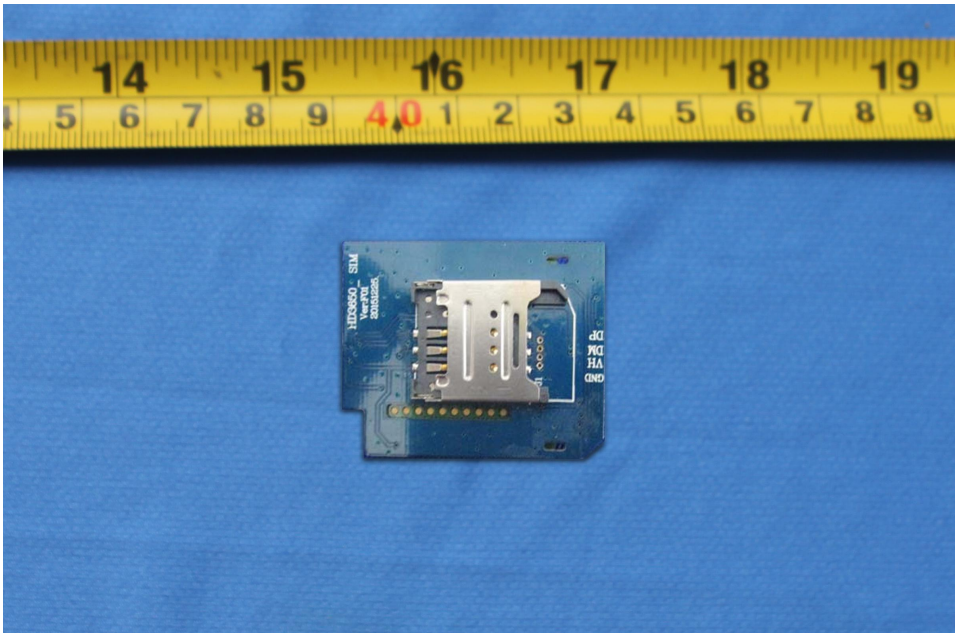
EUT –Main Board Bottom View



EUT – RF Module Top View



EUT –RF Module Bottom View



EUT – Main Chip View



EUT – Battery Top View



EUT – Battery Bottom View



EUT – Battery Label View



EXHIBIT B - TEST SETUP PHOTOGRAPHS

Radiated Emissions Below 1GHz View



Radiated Emissions Above 1GHz View



DECLARATION LETTER

Shenzhen Anysecu Technology Co., Ltd. EC Declaration of Conformity

We, Shenzhen Anysecu Technology Co., Ltd. (Building 1, 4th floor, F1 financial services technology innovation base, kefa Road #8, Nanshan District, Shenzhen, China)declare under our sole responsibility that the product:

Product name: Network Walkie Talkie

Model no (of supplier):GT-200

Is fully in conformity with the essential requirements of the following EU Directive or other normative documents. This declaration is based on the full compliance of the products with the following European standards:

Directive	Standard detail and/or measurement reference
RF Frequency Directive	ETSI EN 301 908-1 V7.1.1 (2015-03) ETSI EN 301 908-2 V6.2.1 (2013-10)
Electromagnetic compatibility directive	ETSI TR 100 028
RoHS Directive (2011/65/EU)	Complied
WEEE Directive (2002/96/EC)	Complied
REACH Directive (EC 1907/2006)	Complied
Batteries Directive (2006/66/EC)	Complied
Packaging and Packaging Waste Directive (94/62/EC)	EN13427, EN13428, EN 13430

By Manufacturer: Shenzhen Anysecu Technology Co., Ltd.

AUTHORISED SIGNATURE: 刘晓波

Division and Position: ___ C.E.O.

DATE ___ 6th Nov. 2017

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