

TEST REPORT

Reference No..... :	WTX22X08156832W001
Manufacturer..... :	Descartes Systems Group Inc.
Address..... :	105 Trafalgar Street, Floor 2, Nelson, Tasman 7011, New Zealand
Product Name..... :	COREInsight® Reader
Model No..... :	RDR001
Standards..... :	ETSI EN 301 908-1 V15.1.1 (2021-09) ETSI EN 301 908-2 V13.1.1 (2020-06)
Date of Receipt sample :	2022-08-01
Date of Test..... :	2022-08-01 to 2022-08-28
Date of Issue..... :	2022-08-28
Test Report Form No. :	WTX_ETSI EN 301 908_1_2019W
Test Result..... :	Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

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Report version

Version No.	Date of issue	Description
Rev.00	2022-08-28	Original
/	/	/

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	COREInsight® Reader
Trade Name:	/
Model No.:	RDR001
Adding Model(s):	/
Rated Voltage:	DC12V
Rated Current:	3A
Adapter Model:	Model:ATS036T-W120V Input:AC240V ~ 50-60Hz 1A MAX Output:DC12V,3A
Software Version:	/
Hardware Version:	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
3G	
Support Networks:	WCDMA, HSDPA, HSUPA
Support Bands:	WCDMA Band 1, WCDMA Band 8
Frequency Range:	WCDMA Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz
	WCDMA Band 8: Tx: 880-915MHz, Rx: 925-960MHz
RF Output Power:	WCDMA Band 1: 23.43dBm, WCDMA Band 8: 23.56dBm
Modulation Type:	BPSK, QPSK, 16QAM
Antenna Type:	External Antenna
Antenna Gain:	WCDMA Band 1: 1dBi, WCDMA Band 8: 1dBi
<i>Note: The Antenna Gain is provided by the customer and can affect the validity of results.</i>	



1.2 Test Standards

The tests were performed according to following standards:

ETSI EN 301 908-1 V15.1.1 (2021-09): IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements.

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).

ETSI TS 134 121-1 V14.2.0 (2017-08): Universal Mobile Telecommunications System (UMTS); User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 1: Conformance specification (3GPP TS 34.121-1 version 14.2.0 Release 14).

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which maybe results in lowering the emission/immunity should be checked to ensure that compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ETSI EN 301 908-1, ETSI EN 301 908-2

The equipment under test (EUT) was configured to measure its highest possible emission level. For more detail refer to the Operating Instructions.

1.4 Test Facility

Address of the test laboratory

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.



1.5 EUT Setup and Test Mode

The EUT has been tested under typical operating condition. The Applicant provide software to control the EUT for staying in continuous transmitting and receiving mode for testing.

Test Mode List		
Test Mode	Description	Remark
TM1	UMTS FDD Band I	Transmitting/ Receiving/Idle
TM2	UMTS FDD Band VIII	Transmitting/ Receiving/Idle
Note: The EUT only supports one SIM card.		

Test Conditions					
	NTNV	LTLV	LTHV	HTHV	HTLV
Temperature (°C)	25	-10	-10	40	40
Voltage (V)	12	10.8	13.2	13.2	10.8
Temperature: 25 °C					
Relative Humidity: 45 %.					
ATM Pressure: 1019 mbar					

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Accessories Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/



1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Uncertainty	Notes
Conducted RF Output Power	$\pm 0.6\text{dB}$	(1)
Transmitter spectrum emission mask	$\pm 1.5\text{dB}$	(1)
Conducted Transmitter spurious emissions	$\pm 1.0\text{dB}$	(1)
Transmitter minimum output power	$\pm 1.0\text{dB}$	(1)
Receiver adjacent channel selectivity	$\pm 0.5\text{dB}$	(1)
Receiver blocking characteristics	$\pm 1.7\text{dB}$	(1)
Receiver spurious response	$\pm 1.7\text{dB}$	(1)
Receiver intermodulation characteristics	$\pm 1.3\text{dB}$	(1)
Conducted Receiver spurious emissions	$\pm 1.0\text{dB}$	(1)
Transmitter adjacent channel power leakage ratio	$\pm 0.8\text{dB}$	(1)
Receiver Reference Sensitivity level	$\pm 1.0\text{dB}$	(1)
Radiated Spurious Emissions	30-200MHz $\pm 4.52\text{dB}$	(1)
	0.2-1GHz $\pm 5.56\text{dB}$	(1)
	1-6GHz $\pm 3.84\text{dB}$	(1)
	6-18GHz $\pm 3.92\text{dB}$	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.



1.7 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Spectrum Analyzer	Agilent	N9020A	US47140102	2022-03-22	2023-03-21
Signal Generator	Agilent	83752A	3610A01453	2022-03-22	2023-03-21
Vector Signal Generator	Agilent	N5182A	MY47070202	2022-03-22	2023-03-21
Spectrum Analyzer	Agilent	E4407B	MY41440400	2022-03-25	2023-03-24
Communication Tester	HP	8921A	/	2022-03-22	2023-03-21
Temperature&Humidity Chamber	/	HTC-1	/	2022-03-22	2023-03-21
Universal Radio Communication Tester	Rohde & Schwarz	CMW500	148650	2022-03-22	2023-03-21
☒ Chamber A: Below 1GHz					
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2022-03-25	2023-03-24
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2022-03-22	2023-03-21
Amplifier	Agilent	8447F	3113A06717	2022-03-22	2023-03-21
Loop Antenna	Schwarz beck	FMZB 1516	9773	2022-03-22	2023-03-21
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2022-03-25	2023-03-24
☒ Chamber A: Above 1GHz					
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2022-03-22	2023-03-21
Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2022-03-22	2023-03-21
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2022-03-21	2023-03-20
Amplifier	C&D	PAP-1G18	2002	2022-03-21	2023-03-20
Horn Antenna	ETS	3117	00086197	2021-03-19	2023-03-18
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2021-04-27	2023-04-26
Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2022-03-25	2023-03-24
☐ Chamber B:Below 1GHz					
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2023-04-08
Amplifier	Agilent	8447D	2944A10179	2022-03-21	2023-03-20
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2022-03-25	2023-03-24
☐ Chamber C:Below 1GHz					
EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2022-01-07	2023-01-06
Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2021-05-28	2023-05-27
Amplifier	HP	8447F	2944A03869	2022-03-21	2023-03-20



Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1

*Remark: indicates software version used in the compliance certification testing.

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2. SUMMARY OF TEST RESULTS

Test Item	Test Requirement ESTI EN301 908-1		Test Conditions	Verdict
Radiated emissions (UE)	Section 4.2.2		NT/NV	Pass
Control and monitoring functions (UE)	Section 4.2.4		NT/NV	Pass
Test Item	Test Requirement ESTI EN301 908-2	Test Method ETSI TS134 121-1	Test Conditions	Verdict
Transmitter Maximum Output Power	Section 4.2.2	Clause 5.2	NT/NV	Pass
			LT/LV	Pass
			LT/HV	Pass
			HT/LV	Pass
			HT/HV	Pass
Transmitter Spectrum emission mask	Section 4.2.3	Clause 5.9	NT/NV	Pass
Transmitter Spurious Emissions	Section 4.2.4	Clause 5.11	NT/NV	Pass
Transmitter Minimum Output Power	Section 4.2.5	Clause 5.4.3	NT/NV	Pass
			LT/LV	Pass
			LT/HV	Pass
			HT/LV	Pass
			HT/HV	Pass
Receiver Adjacent Channel Selectivity	Section 4.2.6	Clause 6.4	NT/NV	Pass
Receiver Blocking Characteristics	Section 4.2.7	Clause 6.5	NT/NV	Pass
Receiver Spurious Response	Section 4.2.8	Clause 6.6	NT/NV	Pass
Receiver Intermodulation Characteristics	Section 4.2.9	Clause 6.7	NT/NV	Pass
Receiver Spurious Emissions	Section 4.2.10	Clause 5.11	NT/NV	Pass
Out-of-synchronisation handling of output power	Section 4.2.11	Clause 5.4.4	NT/NV	Pass
Transmitter Adjacent Channel Leakage Power	Section 4.2.12	Clause 5.10	NT/NV LT/LV	Pass Pass



Ratio			LT/HV HT/LV HT/HV	Pass Pass Pass
Receiver Reference Sensitivity level	Section 4.2.13	Clause 6.2	NT/NV LT/LV LT/HV HT/LV HT/HV	Pass Pass Pass Pass Pass
Receiver Total Radiated Sensitivity (TRS)	Section 4.2.14		NT/NV	N/A
Total Radiated Power (TRP)	Section 4.2.15		NT/NV	N/A

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3. Essential radio test suites

3.1 Transmitter maximum output power

Clause 5.2 of TS 134 121-1 applies.

RESULT: Pass

3.1.1 Definition and applicability

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.

3.1.2 Conformance requirements

Test environment: normal, TL/VL, TL/VH, TH/VL, TH/VH (see section 1.6).

The frequencies to be tested are low range, mid range and high range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

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 4.2.2.1.2-1: UE power classes

Operating Band	Power Class 3		Power Class 3bis		Power Class 4	
	Power	Tol	Power	Tol	Power	Tol
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



3.1.3 Set up for testing

- 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.

3.1.4 Test result

Test result transmitter maximum output power.

WCDMA Band 1

Test conditions		Maximum output power in dBm		
		Maximum output power RMC (Power Class 3: 24dBm)		
Temperature(°C)	Voltage (V)	Channel 9613	Channel 9750	Channel 9887
NT	NV	23.20	23.43	23.34
LT	LV	23.16	23.41	23.41
	HV	23.30	23.51	23.39
HT	LV	23.19	23.44	23.34
	HV	23.16	23.45	23.30
Max. permitted error		+1.7/-3.7dB		

Test conditions		Maximum output power in dBm		
		Maximum output power HSDPA (Power Class 3: 24dBm)		
Temperature(°C)	Voltage (V)	Channel 9613	Channel 9750	Channel 9887
NT	NV	22.12	22.24	22.30
LT	LV	22.19	22.22	22.28
	HV	22.12	22.19	22.36
HT	LV	22.18	22.30	22.37
	HV	22.18	22.28	22.37
Max. permitted error		+1.7/-3.7dB		

Test conditions		Maximum output power in dBm		
		Maximum output power HSUPA (Power Class 3: 24dBm)		
Temperature(°C)	Voltage (V)	Channel 9613	Channel 9750	Channel 9887
NT	NV	21.50	21.47	22.07
LT	LV	21.54	21.44	22.07
	HV	21.46	21.44	22.15
HT	LV	21.57	21.44	22.08
	HV	21.57	21.55	22.13
Max. permitted error		+1.7/-3.7dB		



WCDMA Band 8

Test conditions		Maximum output power in dBm		
		Maximum output power RMC (Power Class 3: 24dBm)		
Temperature(℃)	Voltage (V)	Channel 2713	Channel 2788	Channel 2862
NT	NV	23.53	23.40	23.56
LT	LV	23.61	23.39	23.66
	HV	23.63	23.45	23.53
HT	LV	23.50	23.43	23.65
	HV	23.55	23.45	23.54
Max. permitted error		+1.7/-3.7dB		

Test conditions		Maximum output power in dBm		
		Maximum output power HSDPA (Power Class 3: 24dBm)		
Temperature(℃)	Voltage (V)	Channel 2713	Channel 2788	Channel 2862
NT	NV	22.48	22.36	22.59
LT	LV	22.45	22.43	22.55
	HV	22.54	22.32	22.67
HT	LV	22.44	22.38	22.69
	HV	22.49	22.31	22.66
Max. permitted error		+1.7/-3.7dB		

Test conditions		Maximum output power in dBm		
		Maximum output power HSUPA (Power Class 3: 24dBm)		
Temperature(℃)	Voltage (V)	Channel 2713	Channel 2788	Channel 2862
NT	NV	21.41	21.39	21.55
LT	LV	21.47	21.48	21.52
	HV	21.45	21.37	21.57
HT	LV	21.49	21.34	21.51
	HV	21.46	21.35	21.57
Max. permitted error		+1.7/-3.7dB		



3.2 Transmitter spectrum emission mask

Clause 5.9 of TS 134 121-1 applies.

RESULT: Pass

3.2.1 Definition and applicability

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.

3.2.2 Conformance requirements

Test environment: normal (see section 1.6).

The frequencies to be tested are low range, mid range and high range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

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 4.2.3.1.2-1: 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.



3.2.3 Set up for testing

- 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.

3.2.4 Test result

WCDMA Band 1

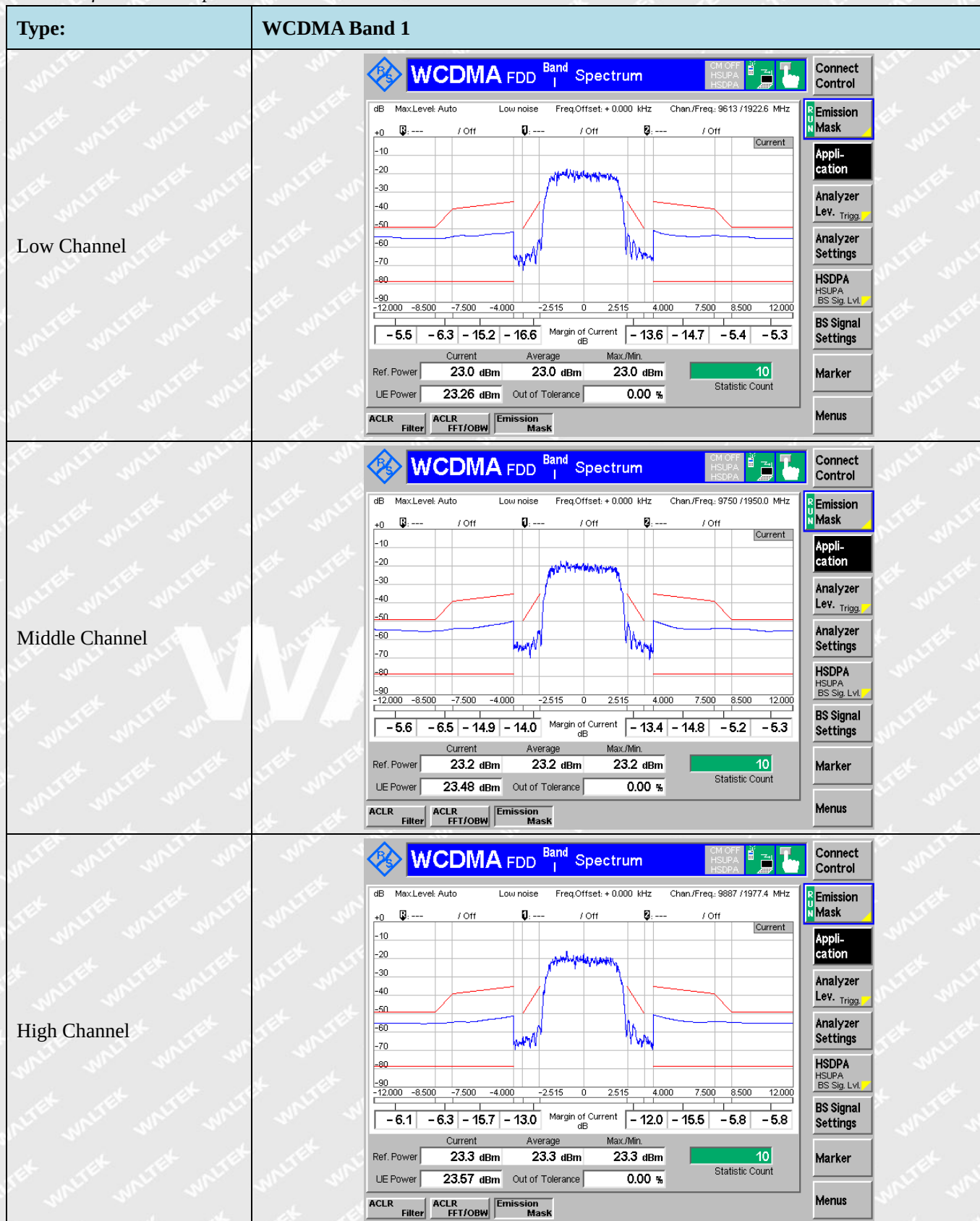
Transmitter spectrum emission mask – Max. emission value (dBc) in the measure frequency band			
Measure range	Low channel	Mid. Channel	High Channel
2.5MHz to 3.5MHz	Pass	Pass	Pass
3.5MHz to 7.5MHz	Pass	Pass	Pass
7.5MHz to 8.5MHz	Pass	Pass	Pass
8.5MHz to 12.5MHz	Pass	Pass	Pass

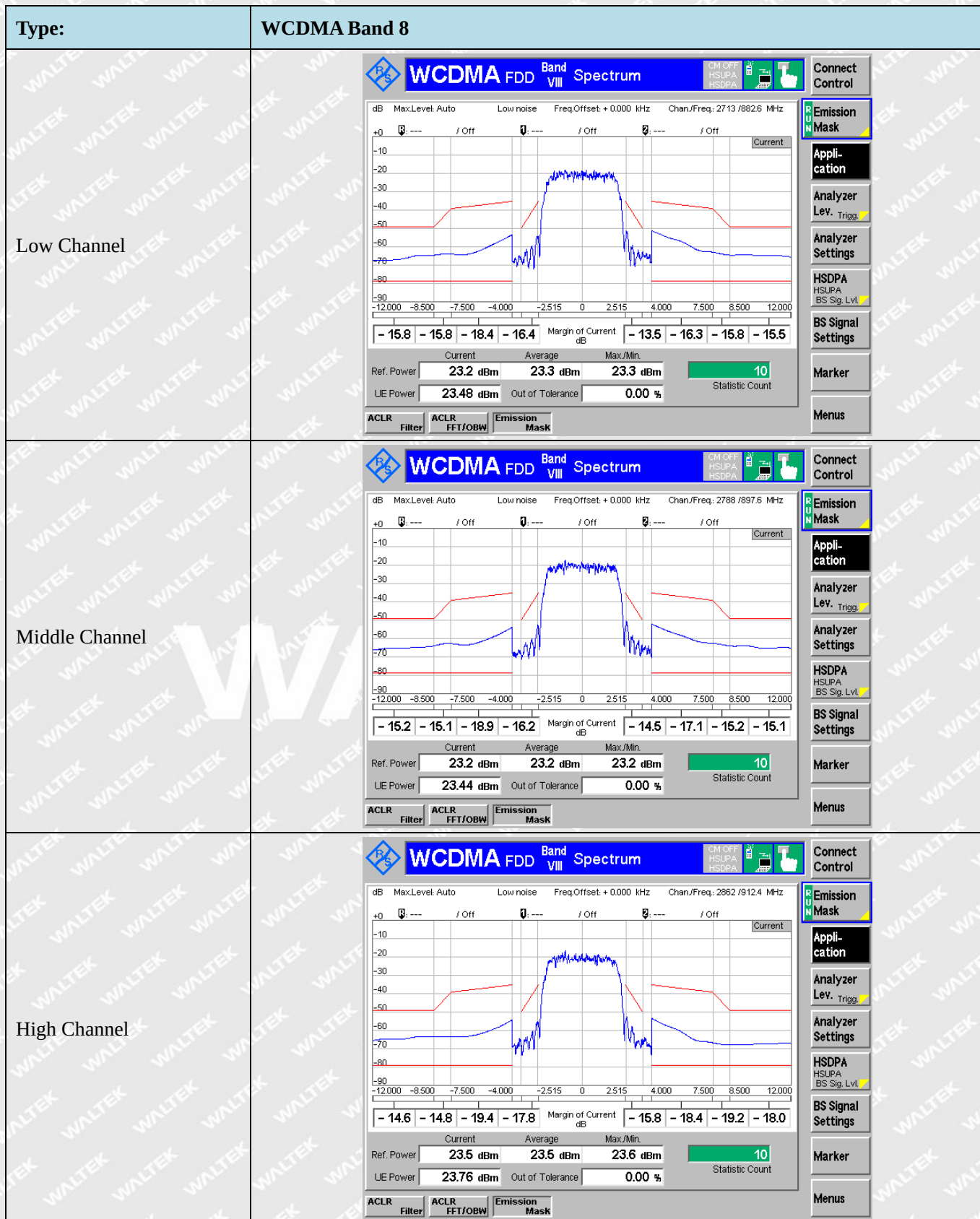
WCDMA Band 8

Transmitter spectrum emission mask – Max. emission value (dBc) in the measure frequency band			
Measure range	Low channel	Mid. Channel	High Channel
2.5MHz to 3.5MHz	Pass	Pass	Pass
3.5MHz to 7.5MHz	Pass	Pass	Pass
7.5MHz to 8.5MHz	Pass	Pass	Pass
8.5MHz to 12.5MHz	Pass	Pass	Pass



Please refer to the test plots as below:







3.3 Transmitter spurious emissions

Clause 5.11 of ETSI TS 134 121-1 applies.

RESULT: Pass

3.3.1 Definition and applicability

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.

3.3.2 Conformance requirements

Test environment: normal condition (see section 1.6).

The frequencies to be tested are low range, mid range and high range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

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 4.2.4.1.2-1: General spurious emissions requirements

Frequency bandwidth	Measurement bandwidth	Minimum requirement
$9\text{kHz} \leq f < 150\text{kHz}$	1kHz	-36dBm
$150\text{kHz} \leq f < 30\text{MHz}$	10kHz	-36dBm
$30\text{MHz} \leq f < 1\,000\text{MHz}$	100kHz	-36dBm
$1\text{GHz} \leq f < 12.75\text{GHz}$	1MHz	-30dBm
$12.75\text{GHz} \leq f < 5^{\text{th}}$ harmonic of the upper frequency edge of the UL operating band in GHz	1MHz	-30dBm (note)
NOTE: Applies only for Band XXII.		



Table 4.2.4.1.2-2: Additional spurious emissions requirements

Operating	Frequency bandwidth	Measurement	Minimum requirement
I	$791\text{MHz} \leq f \leq 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f < 925\text{MHz}$	100kHz	-60dBm (note 1)
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz	-67dBm (note 1)
	$935\text{MHz} < f \leq 960\text{MHz}$	100kHz	-79dBm (note 1)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (note 1)
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm
III	$791\text{MHz} \leq f \leq 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f < 925\text{MHz}$	100kHz	-60dBm (note 1)
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz	-67dBm (note 1)
	$935\text{MHz} < f \leq 960\text{MHz}$	100kHz	-79dBm (note 1)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	3.84MHz	-60dBm
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm
VII	$921\text{MHz} \leq f < 925\text{MHz}$	100kHz	-60dBm (note 1)
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz	-67dBm (note 1)
	$935\text{MHz} < f \leq 960\text{MHz}$	100kHz	-79dBm (note 1)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (note 1)
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2620\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm
	$2590\text{MHz} \leq f \leq 2620\text{MHz}$	3.84MHz	-50dBm
VIII	$791\text{MHz} \leq f \leq 821\text{MHz}$	3.84MHz	-60dBm
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz 3.84MHz	-67dBm (note 1) -60dBm
	$935\text{MHz} < f \leq 960\text{MHz}$	100kHz 3.84MHz	-79dBm (note 1) -60dBm
	$1805\text{MHz} < f \leq 1830\text{MHz}$	100kHz 3.84MHz	-71dBm (notes 1 and 2) -60dBm (note 2)
	$1830\text{MHz} < f \leq 1880\text{MHz}$	100kHz 3.84MHz	-71dBm (note 1) -60dBm
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2640\text{MHz}$	3.84MHz	-60dBm
	$2640\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm (note 2)
XV	$791\text{MHz} \leq f \leq 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f \leq 925\text{MHz}$	100kHz	-60dBm (note 1)
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz 3.84MHz	-67dBm (note 1) -60dBm
	$935\text{MHz} \leq f \leq 960\text{MHz}$	100kHz	-79dBm (note 1)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (note 1)



	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2620\text{MHz}$	3.84MHz	-50dBm
	$2620\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm
XVI	$791\text{MHz} \leq f \leq 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f \leq 925\text{MHz}$	100kHz	-60dBm (note 1)
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz 3.84MHz	-67dBm (note 1) -60dBm
	$935\text{MHz} \leq f \leq 960\text{MHz}$	100kHz	-79dBm (note 1)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (note 1)
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2620\text{MHz}$	3.84MHz	-50dBm
	$2620\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm

Operating	Frequency bandwidth	Measurement	Minimum requirement
XX	$470\text{MHz} \leq f \leq 790\text{MHz}$	8MHz	-65dBm (note 3)
	$791\text{MHz} \leq f \leq 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f \leq 925\text{MHz}$	100kHz	-60dBm (note 1)
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz 3084MHz	-67dBm (note 1) -60dBm
	$935\text{MHz} \leq f \leq 960\text{MHz}$	100kHz	-79dBm (note 1)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (note 1)
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2620\text{MHz}$	3.84MHz	-50dBm
	$2620\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm
XXII	$791\text{MHz} \leq f \leq 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f < 925\text{MHz}$	100kHz	-60dBm (note 1)
	$925\text{MHz} \leq f \leq 935\text{MHz}$	100kHz 3.84MHz	-67dBm (note 1) -60dBm
	$935\text{MHz} < f \leq 960\text{MHz}$	100kHz	-79dBm (note 1)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (note 1)
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2620\text{MHz}$	3.84MHz	-50dBm
	$2620\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm
	$3510\text{MHz} \leq f \leq 3525\text{MHz}$	1MHz	-40dBm
	$3525\text{MHz} \leq f \leq 3590\text{MHz}$	1MHz	-50dBm
	$3600\text{MHz} \leq f \leq 3800\text{MHz}$	3.84MHz	-50dBm



NOTE 1: The transmitter additional spurious emission measurements are made on frequencies which are intermultiples of 200 kHz. As exceptions, up to five measurements with a level up to the applicable requirements defined in table 4.2.4.1.2-1 are permitted for each UARFCN used in the measurement.

NOTE 2: The transmitter additional spurious emission measurements are made on frequencies which are integer multiples of 200 kHz. As exceptions, measurements with a level up to the applicable requirements defined in table 4.2.4.1.2-1 are permitted for each UARFCN used in the measurement due to 2nd, 3rd and 4th harmonic spurious emissions.

NOTE 3: The conformance shall be assessed using the measurement position placed at the following centre frequencies: 474MHz, 586MHz, 690MHz, 754MHz, 770MHz and 786MHz.

3.3.3 Set up for testing

- 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.

3.3.4 Test result

For WCDMA Band 1:

Measurement frequency range	Max. spurious emission frequency (MHz)	Measured value dBm	Limit dBm	Result
Low Channel 9613				
9k~150kHz	0.05	-49.44	-36	Pass
150kHz~30MHz	19.23	-43.70	-36	Pass
30MHz~791MHz	518.46	-42.06	-36	Pass
791MHz~821MHz	809.96	-64.98	-60	Pass
821MHz~921MHz	853.43	-43.26	-36	Pass
921MHz~925MHz	920.00	-63.36	-60	Pass
925MHz~935MHz	929.75	-71.06	-67	Pass
935MHz~960MHz	937.95	-85.38	-79	Pass
960MHz~1000MHz	989.02	-41.80	-36	Pass
1000MHz~1805MHz	1186.39	-41.98	-30	Pass
1805MHz~1880MHz	1871.98	-83.69	-71	Pass
1880MHz~2110MHz	1915.61	-39.72	-30	Pass
2110MHz~2170MHz	2146.15	-72.41	-60	Pass
2170MHz~2585MHz	2272.00	-49.25	-30	Pass
2585MHz~2690MHz	2627.30	-72.95	-60	Pass
2690MHz~12.75GHz	12049.04	-46.11	-30	Pass
Middle Channel 9750				
9k~150kHz	0.11	-52.68	-36	Pass
150kHz~30MHz	15.38	-43.05	-36	Pass



30MHz~791MHz	779.38	-48.98	-36	Pass
791MHz~821MHz	801.11	-63.40	-60	Pass
821MHz~921MHz	914.40	-42.82	-36	Pass
921MHz~925MHz	920.36	-62.79	-60	Pass
925MHz~935MHz	925.08	-72.38	-67	Pass
935MHz~960MHz	959.30	-81.63	-79	Pass
960MHz~1000MHz	997.90	-40.99	-36	Pass
1000MHz~1805MHz	1020.95	-38.63	-30	Pass
1805MHz~1880MHz	1805.10	-81.46	-71	Pass
1880MHz~2110MHz	1999.75	-42.11	-30	Pass
2110MHz~2170MHz	2148.00	-79.62	-60	Pass
2170MHz~2585MHz	2387.33	-40.75	-30	Pass
2585MHz~2690MHz	2606.02	-72.66	-60	Pass
2690MHz~12.75GHz	7325.40	-46.24	-30	Pass
High Channel 9887				
9k~150kHz	0.11	-48.48	-36	Pass
150kHz~30MHz	14.62	-42.74	-36	Pass
30MHz~791MHz	785.97	-42.08	-36	Pass
791MHz~821MHz	814.44	-63.95	-60	Pass
821MHz~921MHz	856.54	-42.87	-36	Pass
921MHz~925MHz	921.39	-63.99	-60	Pass
925MHz~935MHz	924.24	-71.86	-67	Pass
935MHz~960MHz	956.35	-86.15	-79	Pass
960MHz~1000MHz	976.37	-41.12	-36	Pass
1000MHz~1805MHz	1168.59	-42.42	-30	Pass
1805MHz~1880MHz	1803.58	-82.83	-71	Pass
1880MHz~2110MHz	1901.08	-40.81	-30	Pass
2110MHz~2170MHz	2120.68	-73.24	-60	Pass
2170MHz~2585MHz	2585.83	-47.37	-30	Pass
2585MHz~2690MHz	2639.08	-73.35	-60	Pass
2690MHz~12.75GHz	3307.47	-45.61	-30	Pass

For WCDMA Band 8:

Measurement frequency range	Max. spurious emission frequency (MHz)	Measured value dBm	Limit dBm	Result
Low Channel 2713				
9k~150kHz	0.77	-76.36	-36	Pass
150kHz~30MHz	24.62	-38.18	-36	Pass
30MHz~791MHz	126.92	-63.64	-36	Pass
791MHz~821MHz	804.62	-75.45	-60	Pass
821MHz~921MHz	916.15	-43.64	-36	Pass



921MHz~925MHz	923.08	-65.45	-60	Pass
925MHz~935MHz	925.38	-71.82	-67	Pass
935MHz~960MHz	953.08	-86.36	-79	Pass
960MHz~1000MHz	985.38	-41.82	-36	Pass
1000MHz~1805MHz	1525.38	-70.00	-30	Pass
1805MHz~1880MHz	1876.92	-85.45	-71	Pass
1880MHz~2110MHz	2077.69	-74.55	-30	Pass
2110MHz~2170MHz	2137.69	-85.45	-60	Pass
2170MHz~2585MHz	2360.77	-78.18	-30	Pass
2585MHz~2640MHz	2619.23	-78.18	-60	Pass
2640MHz~12.75GHz	6127.69	-75.45	-30	Pass
Middle Channel 2788				
9k~150kHz	0.77	-80.00	-36	Pass
150kHz~30MHz	0.77	-42.73	-36	Pass
30MHz~791MHz	54.62	-63.64	-36	Pass
791MHz~821MHz	819.23	-68.18	-60	Pass
821MHz~921MHz	903.85	-39.09	-36	Pass
921MHz~925MHz	922.31	-64.55	-60	Pass
925MHz~935MHz	924.62	-77.27	-67	Pass
935MHz~960MHz	937.69	-83.64	-79	Pass
960MHz~1000MHz	986.92	-42.73	-36	Pass
1000MHz~1805MHz	1556.15	-77.27	-30	Pass
1805MHz~1880MHz	1833.08	-86.36	-71	Pass
1880MHz~2110MHz	1940.00	-69.09	-30	Pass
2110MHz~2170MHz	2134.62	-84.55	-60	Pass
2170MHz~2585MHz	2179.23	-73.64	-30	Pass
2585MHz~2640MHz	2633.08	-78.18	-60	Pass
2640MHz~12.75GHz	8363.08	-70.91	-30	Pass
High Channel 2862				
9k~150kHz	0.77	-80.00	-36	Pass
150kHz~30MHz	11.54	-39.09	-36	Pass
30MHz~791MHz	313.08	-65.45	-36	Pass
791MHz~821MHz	820.77	-75.45	-60	Pass
821MHz~921MHz	837.69	-39.09	-36	Pass
921MHz~925MHz	921.54	-70.00	-60	Pass
925MHz~935MHz	925.38	-76.36	-67	Pass
935MHz~960MHz	941.54	-81.82	-79	Pass
960MHz~1000MHz	985.38	-42.73	-36	Pass
1000MHz~1805MHz	1204.62	-71.82	-30	Pass
1805MHz~1880MHz	1878.46	-83.64	-71	Pass
1880MHz~2110MHz	1944.62	-69.09	-30	Pass
2110MHz~2170MHz	2164.62	-81.82	-60	Pass



2170MHz~2585MHz	2363.08	-69.09	-30	Pass
2585MHz~2640MHz	2601.54	-79.09	-60	Pass
2640MHz~12.75GHz	9280.77	-77.27	-30	Pass

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3.4 Transmitter minimum output power

Clause 4.2.5 of EN 301 908-2 applies.

RESULT: Pass

3.4.1 Definition and applicability

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.

3.4.2 Conformance requirements

Test environment: normal, TL/VL, TL/VH, TH/VL, TH/VH (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4].

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

3.4.3 Set up for testing

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

3.4.4 Test result



Test conditions		Minimum output power in dBm		
		Minimum output power WCDMA Band 1		
Temperature(°C)	Voltage (V)	Channel 9613	Channel 9750	Channel 9887
NT	NV	-53.89	-53.98	-53.89
LT	LV	-53.83	-53.99	-53.83
	HV	-53.81	-53.88	-53.81
HT	LV	-53.92	-54.00	-53.93
	HV	-53.90	-53.94	-53.88
Max. permitted value		-49dBm		

Test conditions		Minimum output power in dBm		
		Minimum output power HSDPA Band 1		
Temperature(°C)	Voltage (V)	Channel 9613	Channel 9750	Channel 9887
NT	NV	-53.01	-53.36	-53.25
LT	LV	-53.04	-53.39	-53.21
	HV	-52.94	-53.34	-53.16
HT	LV	-53.05	-53.30	-53.21
	HV	-52.98	-53.31	-53.24
Max. permitted value		-49dBm		

Test conditions		Minimum output power in dBm		
		Minimum output power HSUPA Band 1		
Temperature(°C)	Voltage (V)	Channel 9613	Channel 9750	Channel 9887
NT	NV	-52.11	-52.32	-51.78
LT	LV	-52.05	-52.24	-51.76
	HV	-52.02	-52.25	-51.77
HT	LV	-52.04	-52.29	-51.76
	HV	-52.12	-52.24	-51.78
Max. permitted value		-49dBm		



Test conditions		Minimum output power in dBm		
		Minimum output power WCDMA Band 8		
Temperature(°C)	Voltage (V)	Channel 2713	Channel 2788	Channel 2862
NT	NV	-55.00	-55.05	-55.14
LT	LV	-54.98	-55.08	-55.18
	HV	-54.92	-55.05	-55.11
HT	LV	-54.92	-55.06	-55.16
	HV	-55.03	-54.96	-55.13
Max. permitted value		-49dBm		

Test conditions		Minimum output power in dBm		
		Minimum output power HSDPA Band 8		
Temperature(°C)	Voltage (V)	Channel 2713	Channel 2788	Channel 2862
NT	NV	-54.05	-54.15	-54.39
LT	LV	-53.98	-54.09	-54.34
	HV	-54.05	-54.15	-54.32
HT	LV	-53.97	-54.10	-54.40
	HV	-54.07	-54.13	-54.36
Max. permitted value		-49dBm		

Test conditions		Minimum output power in dBm		
		Minimum output power HSUPA Band 8		
Temperature(°C)	Voltage (V)	Channel 2713	Channel 2788	Channel 2862
NT	NV	-52.71	-52.90	-52.95
LT	LV	-52.73	-52.83	-52.97
	HV	-52.73	-52.82	-52.99
HT	LV	-52.65	-52.92	-52.94
	HV	-52.66	-52.88	-52.88
Max. permitted value		-49dBm		



3.5 Receiver adjacent channel selectivity

Clause 6.4 of TS 134 121-1 applies.

RESULT: Pass

3.5.1 Definition and applicability

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).

3.5.2 Conformance requirements

Test environment: normal (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure, and RF parameters are set up according to table 4.2.6.2-1.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

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/3.84MHz	<REFSENS> + 14dB	<REFSENS> + 41dB
$\hat{b}_r$	dBm/3.84MHz	<REF $\hat{b}_r$ > + 14dB	<REF $\hat{b}_r$ > + 41dB
Ioac mean power (modulated)	dBm	-52	-25
Fuw (offset)	MHz	+5 or -5	+5 or -5
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4)	20 (for Power class 3) 18 (for Power class 4)

NOTE 1: <REFSENS> and <REF $\hat{b}_r$ > as specified in ETSI TS 134 121-1 [1], clause 6.2.

NOTE 2: The Ioac (modulated) signal consists of the common channels and the 16 dedicated data channels as specified in ETSI TS 125 101 [4], clause 7.5.

3.5.3 Set up for testing

- 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.

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- 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.

3.5.4 Test result

WCDMA Band 1

WCDMA Band 1 - Receiver adjacent channel selectivity for Power Class 3				
Case	Fuw (offset)	BER	Limit	Test Result
Case 1	-5MHz	0	0.001	Pass
	+5MHz	0	0.001	Pass
Case 2	-5MHz	0	0.001	Pass
	+5MHz	0	0.001	Pass

WCDMA Band 8

WCDMA Band 8 - Receiver adjacent channel selectivity for Power Class 3				
Case	Fuw (offset)	BER	Limit	Test Result
Case 1	-5MHz	0	0.001	Pass
	+5MHz	0	0.001	Pass
Case 2	-5MHz	0	0.001	Pass
	+5MHz	0	0.001	Pass

The equipment complied with the requirement of this clause.



3.6 Receiver blocking characteristics

Clause 6.5 of TS 134 121-1 applies.

RESULT: Pass

3.6.1 Definition and applicability

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.

3.6.2 Conformance requirements

Test environment: normal (see section 1.6).

For in-band case, the frequencies to be tested are mid range as defined in TS 134 108 [3]. For out-of-band case, frequencies to be tested are mid range as defined in TS 134 108 [3].

For narrow band case, frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure, and RF parameters are set up according to tables 4.2.7.2-1, 4.2.7.2-2 and 4.2.7.2-3.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

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/3.84MHz	<REFSENS> + 3 dB	
$\hat{b}_r$	dBm/3.84MHz	<REF $\hat{b}_r$ > + 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	2102.4 ≤ f ≤ 2177.6	2095 ≤ f ≤ 2185
F _{uw} (Band III operation)	MHz	1797.4 ≤ f ≤ 1887.6	1790 ≤ f ≤ 1895
F _{uw} (Band VII operation)	MHz	2612.4 ≤ f ≤ 2697.6	2605 ≤ f ≤ 2705
F _{uw} (Band VIII operation)	MHz	917.4 ≤ f ≤ 967.6	910 ≤ f ≤ 975
F _{uw} (Band XX operation)	MHz	783.4 ≤ f ≤ 8286	776 ≤ f ≤ 836
F _{uw} (Band XXII operation)	MHz	3502.4 ≤ f ≤ 3597.6	3495 ≤ f ≤ 3605
UE transmitted mean power	dBm	20 (for Power class 3)18 (for Power class 4)(note 3)	

NOTE 1: <REFSENS> and <REF $\hat{b}_r$ > as specified in ETSI TS 134 121-1 [1], clause 6.2.

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], clause 7.6.

NOTE 3: The UE transmitted mean power shall be reduced by 0.5dB for a UE operating in band XXII.

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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> + 3dB	<REFSENS> + 3 dB
ĥ _{br}	dBm/3,84 MHz	<REF ĥ _{br} > + 3 dB	<REF ĥ _{br} > + 3dB	<REF ĥ _{br} > + 3 dB
I _{blocking} (CW)	dBm	-44	-30	-15
F _{uw} (Band I operation)	MHz	2050 < f < 2095 2185 < f < 2230	2025 < f ≤ 2050 2230 ≤ f < 2255	1 < f ≤ 2025 2255 ≤ f < 12750
F _{uw} (Band III operation)	MHz	1745 < f < 1790 1895 < f < 1940	1720 < f ≤ 1745 1940 ≤ f < 1965	1 < f ≤ 1720 1965 ≤ f < 12750
F _{uw} (Band VII operation)	MHz	2570 < f < 2605 2705 < f < 2750	Na 2750 ≤ f < 2775	1 < f ≤ 2570 2775 ≤ f < 12750
F _{uw} (Band VIII operation)	MHz	865 < f < 910 975 < f < 1020	840 < f < 865 1020 ≤ f < 1045	1 < f ≤ 840 1045 ≤ f < 12750
F _{uw} (Band XV operation)	MHz	2570 < f < 2585 2705 < f < 2750	Na 2750 ≤ f < 2775	1 < f ≤ 2570 2775 ≤ f < 12750
F _{uw} (BandXVI operation)	MHz	Na 2705 < f < 2750	2500 < f ≤ 2570 2750 ≤ f < 2775	1 < f ≤ 2500 2775 ≤ f < 12750
F _{uw} (Band XX operation)	MHz	731 < f < 776 836 < f < 881	706 < f ≤ 731 881 ≤ f < 906	1 < f ≤ 706 906 ≤ f < 12750
F _{uw} (Band XXII operation)	MHz	3450 < f < 3495 3605 < f < 3650	3425 < f ≤ 3450 3650 ≤ f < 3675	1 < f ≤ 3 425 3675 ≤ f < 12750
UE transmitted mean power	dBm	20 (for Power class 3) 18 (for Power class 4)		
Band I operation	For 2095MHz ≤ f ≤ 2185MHz, 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 1790MHz ≤ f ≤ 1895MHz, 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 2605MHz ≤ f ≤ 2705MHz, 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 910MHz ≤ f ≤ 975MHz, 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 2585MHz ≤ f ≤ 2705MHz, 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 2570MHz ≤ f ≤ 2705MHz, 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 776MHz ≤ f ≤ 836MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and table 4.2.7.2-1 shall be applied.			
BandXXII operation	For 3495 ≤ f ≤ 3605MHz, the appropriate in-band blocking or adjacent channel selectivity in clause 4.2.6 and clause 4.2.7.2-1 shall be applied. (note 2)			



NOTE 1: <REFSENS> and <REF $\hat{b}_r$ > as specified in ETSI TS 134 121-1 [1], clause 6.2.

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_Ec	dBm/3.84MHz	<REFSENS> + 10dB
$\hat{b}_r$	dBm/3.84MHz	<REF $\hat{b}_r$ > + 10dB
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 $\hat{b}_r$ > as specified in ETSI TS 134 121-1 [1], clause 6.2.

NOTE 2: I_{blocking} (GMSK) is an interfering signal as defined in ETSI TS 145 004 [8], clause 2. 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.

3.6.3 Set up for testing

- 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.

3.6.4 Test result

In-band blocking test In-band blocking test

WCDMA Band 1 - Receiver blocking characteristics for Power Class 3			
Parameter	Level		Unit
DPCH_Ec	-110		dBm/3.84MHz
I _{or}	-104.6		dBm/3.84MHz
I _{blocking} mean power (modulated)	-56 (for F _{uw} offset $\pm$ 10MHz)	-44 (for F _{uw} offset $\pm$ 15MHz)	MHz
UE transmitted mean power	20		dBm
BER	0	0	%
Limit	0.1	0.1	%
Result	Pass	Pass	

*Out-of-band blocking test*

WCDMA Band 1 – Receiver blocking characteristics for Power Class 3				
Parameter	Frequency range1	Frequency range2	Frequency range3	Unit
DPCH_Ec	-114	-114	-114	dBm/3.84MHz
Ior	-103.7	-103.7	-103.7	dBm/3.84MHz
Iblocking (cw)	-44	-30	-15	dBm
Fuw	2050<f<2095 2185<f<2230	2025<f<2050 2230<f<2255	1<f<2025 2255<f<12750	MHz
Spurious response frequency	No	No	188, 1763, 4088, 6042	MHz
Result	Pass	Pass	Pass	

WCDMA Band 8 - Receiver blocking characteristics for Power Class 3			
Parameter	Level		Unit
DPCH_Ec	-110		dBm/3.84MHz
Ior	-104.6		dBm/3.84MHz
Iblocking mean power (modulated)	-56 (for Fuw offse $\pm$ 10MHz)	-44 (for Fuw offse $\pm$ 15MHz)	MHz
UE transmitted mean power	20		dBm
BER	0	0	%
Limit	0.1	0.1	%
Result	Pass	Pass	

Out-of-band blocking test

WCDMA Band 8 – Receiver blocking characteristics for Power Class 3				
Parameter	Frequency range1	Frequency range2	Frequency range3	Unit
DPCH_Ec	-114	-114	-114	dBm/3.84MHz
Ior	-103.7	-103.7	-103.7	dBm/3.84MHz
Iblocking (cw)	-44	-30	-15	dBm
Fuw	2050<f<2095 2185<f<2230	2025<f<2050 2230<f<2255	1<f<2025 2255<f<12750	MHz
Spurious response frequency	No	No	188, 1763, 4088, 6042	MHz
Result	Pass	Pass	Pass	

The equipment complied with the requirement of this clause.



3.7 Receiver spurious response

Clause 6.6 of TS 134 121-1 applies.

RESULT: Pass

3.7.1 Definition and applicability

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.

3.7.2 Conformance requirements

Test environment: normal (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure, and RF parameters are set up according to table 4.2.8.2-1.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

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> + 3dB	dBm/3.84MHz
$\hat{I}_{br}$	<REF $\hat{I}_{br}$ > + 3dB	dBm/3.84MHz
Iblocking(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 $\hat{I}_{br}$ > as specified in ETSI TS 134 121-1 [1], clause 6.2.		
NOTE 2: The UE transmitted mean power shall be reduced by 0,5 dB, for a UE operating in band XXII.		



3.7.3 Set up for testing

- 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.

3.7.3 Test result

WCDMA Band 1 - Receiver spurious response for power class 3			
Spurious response frequencies (MHz)	BER	Limit	Result
288	0	0.001	Pass
1663	0	0.001	Pass
5288	0	0.001	Pass
63	0	0.001	Pass

WCDMA Band 8 - Receiver spurious response for power class 3			
Spurious response frequencies (MHz)	BER	Limit	Result
288	0	0.001	Pass
1663	0	0.001	Pass
5288	0	0.001	Pass
63	0	0.001	Pass

The equipment complied with the requirement of this clause.



3.8 Receiver intermodulation characteristics

Clause 6.7 of TS 134 121-1 applies.

RESULT: Pass

3.8.1 Definition and applicability

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.

3.8.2 Conformance requirements

Test environment: normal (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure as per TS 134 108 [3], and RF parameters are set up according to tables 4.2.9.2-1 and 4.2.9.2-2.
- 3) Enter the UE into loopback test mode and start the loopback test using the procedure defined in TS 134 109 [4].

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4].

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
DPOCH_Ec	<REFSENS> + 3dB		dBm/3.84MHz
$\hat{f}_{br}$	<REF $\hat{f}_{br}$ > + 3dB		dBm/3.84MHz
I _{ouw1} (CW)	-46		dBm
I _{ouw2} mean power (modulated)	-46		dBm
Fu _{w1} (offset)	10	-10	MHz
Fu _{w2} (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 table C.7 and the 16 dedicated data channels in table C.6 as specified in ETSI TS 125 101 [4].

NOTE 2: <REFSENS> and <REF $\hat{f}_{br}$ > as specified in ETSI TS 134 121-1 [1], clause 6.2.

NOTE 3: The UE transmitted mean power shall be reduced by 0,5 dB for a UE operating in band XXII.



3.8.3 Set up for testing

- 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.

3.8.4 Test result

WCDMA Band 1 - intermodulation characteristics for Power Class 3			
Channel	Level		Unit
DPCH_Ec	-116		dBm/3.84MHz
$\hat{b}_r$	-103.7		dBm/3.84MHz
Iouw1 (CW)	-46		dBm
Iouw2 (Modulated)	-45		dBm/3.84MHz
Fuw1 (offset)	10	-10	MHz
Fuw2 (offset)	20	-20	MHz
UE transmitted mean power	20		dBm
BER	0	0	%
Limit	0.1	0.1	%
Result	Pass	Pass	

WCDMA Band 8 - intermodulation characteristics for Power Class 3			
Channel	Level		Unit
DPCH_Ec	-116		dBm/3.84MHz
$\hat{b}_r$	-103.7		dBm/3.84MHz
Iouw1 (CW)	-46		dBm
Iouw2 (Modulated)	-45		dBm/3.84MHz
Fuw1 (offset)	10	-10	MHz
Fuw2 (offset)	20	-20	MHz
UE transmitted mean power	20		dBm
BER	0	0	%
Limit	0.1	0.1	%
Result	Pass	Pass	

The equipment complied with the requirement of this clause



3.9 Receiver spurious emissions

Clause 6.8 of TS 134 121-1 applies.

RESULT: Pass

3.9.1 Definition and applicability

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.

3.9.2 Conformance requirements

Test environment: normal (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect a spectrum analyser (or other suitable test equipment) to the UE antenna connector.
- 2) UE shall be in CELL_FACH state.
- 3) The UE shall be setup such that UE will not transmit during the measurement. (For guidance see TS 134 121-1 [2]).

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
$30\text{MHz} \leq f < 1\text{GHz}$	100kHz	-57dBm
$1\text{GHz} \leq f \leq 12.75\text{GHz}$	1MHz	-47dBm



Table 4.2.10.2-2: Additional receiver spurious emission requirements

Band	Frequency Range	Measurement	Maximum level
I	$1920\text{MHz} \leq f \leq 1\,980\text{MHz}$	3.84MHz	-60dBm
III	$1710\text{MHz} \leq f \leq 1\,785\text{MHz}$	3.84MHz	-60dBm
VII	$2500\text{MHz} \leq f \leq 2\,570\text{MHz}$	3.84MHz	-60dBm
VIII	$880\text{MHz} \leq f \leq 915\text{MHz}$	3.84MHz	-60dBm
XV	$791\text{MHz} \leq f < 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f < 925\text{MHz}$	100kHz	-60dBm (see note)
	$925\text{MHz} \leq f < 935\text{MHz}$	100kHz	-67dBm (see note)
	$935\text{MHz} \leq f < 960\text{MHz}$	3.84MHz	-60dBm
	$935\text{MHz} \leq f < 960\text{MHz}$	100kHz	-79dBm (see note)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (see note)
	$1900\text{MHz} \leq f \leq 1920\text{MHz}$	3.84MHz	-60dBm
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm

Band	Frequency Range	Measurement	Maximum level
XVI	$791\text{MHz} \leq f < 821\text{MHz}$	3.84MHz	-60dBm
	$921\text{MHz} \leq f < 925\text{MHz}$	100kHz	-60dBm (see note)
	$925\text{MHz} \leq f < 935\text{MHz}$	100kHz	-67dBm (see note)
	$935\text{MHz} \leq f \leq 960\text{MHz}$	100kHz	-79dBm (see note)
	$1805\text{MHz} \leq f \leq 1880\text{MHz}$	100kHz	-71dBm (see note)
	$2010\text{MHz} \leq f \leq 2025\text{MHz}$	3.84MHz	-60dBm
	$2110\text{MHz} \leq f \leq 2170\text{MHz}$	3.84MHz	-60dBm
	$2585\text{MHz} \leq f \leq 2690\text{MHz}$	3.84MHz	-60dBm
XX	$832\text{MHz} \leq f \leq 862\text{MHz}$	3.84MHz	-60dBm
XXII	$3410\text{MHz} \leq f \leq 3490\text{MHz}$	3.84MHz	-60dBm

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.

3.9.3 Set up for testing

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.



3.9.4 Test result

For WCDMA Band 1

Measurement frequency range	Max. spurious emission frequency (MHz)	Measured value (dBm)	Limit (dBm)	Result
Low Channel 9613				
30MHz~791MHz	295.19	-66.01	-57	Pass
791MHz~821MHz	797.94	-66.53	-60	Pass
821MHz ~921MHz	921.55	-69.90	-57	Pass
921MHz~925MHz	922.33	-62.82	-60	Pass
925MHz~935MHz	927.49	-73.32	-67	Pass
935MHz~960MHz	954.64	-85.93	-79	Pass
960MHz~1000MHz	960.52	-68.17	-57	Pass
1000MHz~1805MHz	1386.42	-70.04	-47	Pass
1805MHz~1880MHz	1873.10	-80.36	-60	Pass
1880MHz~1920MHz	1910.06	-66.14	-47	Pass
1920MHz~1980MHz	1969.55	-79.50	-60	Pass
1980MHz~2110MHz	2052.14	-64.33	-47	Pass
2110MHz~2170MHz	2160.58	-62.54	-60	Pass
2170MHz~2585MHz	2469.21	-68.22	-47	Pass
2585MHz~2690MHz	2596.94	-64.64	-60	Pass
2690MHz ~12.75GHz	7713.85	-66.27	-47	Pass
Middle Channel 9750				
30MHz~791MHz	563.11	-70.31	-57	Pass
791MHz~821MHz	810.98	-64.12	-60	Pass
821MHz ~921MHz	912.09	-65.94	-57	Pass
921MHz~925MHz	921.80	-64.61	-60	Pass
925MHz~935MHz	932.83	-71.90	-67	Pass
935MHz~960MHz	951.77	-82.86	-79	Pass
960MHz~1000MHz	972.24	-66.62	-57	Pass
1000MHz~1805MHz	1696.23	-66.24	-47	Pass
1805MHz~1880MHz	1820.10	-73.01	-60	Pass
1880MHz~1920MHz	1902.72	-64.35	-47	Pass
1920MHz~1980MHz	1979.57	-81.57	-60	Pass
1980MHz~2110MHz	2018.65	-62.65	-47	Pass
2110MHz~2170MHz	2140.34	-64.94	-60	Pass
2170MHz~2585MHz	2552.96	-68.12	-47	Pass
2585MHz~2690MHz	2644.35	-71.32	-60	Pass
2690MHz ~12.75GHz	5700.86	-64.96	-47	Pass
High Channel 9887				
30MHz~791MHz	637.65	-63.62	-57	Pass
791MHz~821MHz	815.93	-65.58	-60	Pass
821MHz ~921MHz	892.27	-63.23	-57	Pass



921MHz~925MHz	924.47	-70.54	-60	Pass
925MHz~935MHz	933.91	-77.57	-67	Pass
935MHz~960MHz	941.64	-85.18	-79	Pass
960MHz~1000MHz	987.79	-62.29	-57	Pass
1000MHz~1805MHz	1254.63	-63.16	-47	Pass
1805MHz~1880MHz	1820.31	-73.27	-60	Pass
1880MHz~1920MHz	1892.74	-70.24	-47	Pass
1920MHz~1980MHz	1963.09	-75.98	-60	Pass
1980MHz~2110MHz	2105.76	-69.32	-47	Pass
2110MHz~2170MHz	2125.74	-65.08	-60	Pass
2170MHz~2585MHz	2535.84	-65.61	-47	Pass
2585MHz~2690MHz	2651.23	-71.04	-60	Pass
2690MHz ~12.75GHz	637.65	-63.62	-47	Pass

For WCDMA Band 8

Measurement frequency range	Max. spurious emission frequency (MHz)	Measured value (dBm)	Limit (dBm)	Result
Low Channel 2713				
30MHz~791MHz	320.77	-68.26	-57	Pass
791MHz~821MHz	803.11	-66.46	-60	Pass
821MHz ~921MHz	822.06	-62.98	-57	Pass
921MHz~925MHz	924.85	-66.01	-60	Pass
925MHz~935MHz	933.36	-81.49	-67	Pass
935MHz~960MHz	941.66	-84.27	-79	Pass
960MHz~1000MHz	993.09	-65.48	-57	Pass
1000MHz~1805MHz	1527.66	-66.02	-47	Pass
1805MHz~1880MHz	1865.87	-78.80	-60	Pass
1880MHz~1920MHz	1888.56	-65.02	-47	Pass
1920MHz~1980MHz	1969.98	-75.02	-60	Pass
1980MHz~2110MHz	2097.59	-64.54	-47	Pass
2110MHz~2170MHz	2158.20	-65.95	-60	Pass
2170MHz~2585MHz	2199.55	-68.80	-47	Pass
2585MHz~2690MHz	2613.44	-69.91	-60	Pass
2690MHz ~12.75GHz	11392.00	-64.09	-47	Pass
Middle Channel 2788				
30MHz~791MHz	349.39	-63.96	-57	Pass
791MHz~821MHz	808.60	-69.30	-60	Pass
821MHz ~921MHz	920.03	-65.36	-57	Pass
921MHz~925MHz	922.38	-69.04	-60	Pass
925MHz~935MHz	926.00	-73.81	-67	Pass
935MHz~960MHz	943.65	-81.71	-79	Pass
960MHz~1000MHz	962.28	-67.09	-57	Pass



1000MHz~1805MHz	1444.35	-65.30	-47	Pass
1805MHz~1880MHz	1838.97	-80.06	-60	Pass
1880MHz~1920MHz	1888.72	-70.09	-47	Pass
1920MHz~1980MHz	1954.81	-81.37	-60	Pass
1980MHz~2110MHz	2054.32	-67.12	-47	Pass
2110MHz~2170MHz	2116.88	-66.04	-60	Pass
2170MHz~2585MHz	2328.57	-64.89	-47	Pass
2585MHz~2690MHz	2637.53	-62.29	-60	Pass
2690MHz ~12.75GHz	7366.61	-70.36	-47	Pass
High Channel 2862				
30MHz~791MHz	435.29	-71.21	-57	Pass
791MHz~821MHz	806.02	-63.12	-60	Pass
821MHz ~921MHz	895.61	-66.92	-57	Pass
921MHz~925MHz	924.46	-67.44	-60	Pass
925MHz~935MHz	934.00	-70.93	-67	Pass
935MHz~960MHz	934.77	-81.29	-79	Pass
960MHz~1000MHz	999.42	-66.28	-57	Pass
1000MHz~1805MHz	1015.06	-68.67	-47	Pass
1805MHz~1880MHz	1805.91	-77.64	-60	Pass
1880MHz~1920MHz	1912.44	-62.74	-47	Pass
1920MHz~1980MHz	1969.90	-76.21	-60	Pass
1980MHz~2110MHz	2060.10	-68.92	-47	Pass
2110MHz~2170MHz	2162.04	-65.54	-60	Pass
2170MHz~2585MHz	2569.23	-65.21	-47	Pass
2585MHz~2690MHz	2692.31	-68.65	-60	Pass
2690MHz ~12.75GHz	10829.26	-70.40	-47	Pass



3.10 Out-of-synchronization handling of output power

Clause 4.2.11 of EN 301 908 applies.

RESULT: Pass

3.10.1 Definition and applicability

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 %.

3.10.2 Conformance requirements

Test environment: normal (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure, with the following exception according to table 5.3.10.1.1-1 for information elements in System Information Block type 1 found in TS 134 108 [3].

UE Timers and constants in connected mode

Table 5.3.10.1.1-1: System Information Block type 1 message

Information Element	Value
UE Timers and constants in connected mode	
- T313	15 s
- N313	200

- 3) RF parameters are set up according to table 4.2.11.2-1 with DPCCH_Ec/Ior ratio level at -16,6 dB.

- 4) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

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/Ior ratio of -25 dB. The DL reference measurement channel 12,2 kbit/s is specified in TS 134 121-1 [2] and with static propagation conditions. The downlink physical channels, other than those specified in table 4.2.11.2-1, are as specified in TS 134 121-1 [2].

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

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

3.10.3 Set up for testing

- 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/I_{or} ratio level to -21.6 dB.
- 3) The SS controls the DPCCH_Ec/I_{or} ratio level to -28.4 dB. 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.

3.10.4 Test result

WCDMA Band 1 – Out-of-synchronization handling of output power			
Test Item	Test data	Limit	Result
Switch off power	-70.23	-55dBm	Pass

WCDMA Band 8 - Out-of-synchronization handling of output power			
Test Item	Test data	Limit	Result
Switch off power	-67.62	-55dBm	Pass

The equipment complied with the requirement of this clause.



3.11 Transmitter adjacent channel power leakage ratio

Clause 5.10 of ETSI TS 134 121-1 applies.

RESULT: Pass

3.11.1 Definition and applicability

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.

3.11.2 Conformance requirements

Test environment: normal, TL/VL, TL/VH, TH/VL, TH/VH (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

- 1) Connect the SS to the UE antenna connector.
- 2) A call is set up according to the Generic call setup procedure.
- 3) Enter the UE into loopback test mode and start the loopback test.

NOTE: When reference is made to test set up, call set up and loopback test mode, guidance on the applicability of these can be found in TS 134 121-1 [2], TS 134 108 [3] and TS 134 109 [4] respectively.

If the adjacent channel power is greater than -50dBm 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 4.2.12.1.2-1: UE ACLR

Power Class	Adjacent channel frequency relative to	ACLR limit
3	+5MHz or -5MHz	32.2dB
3	+10MHz or -10MHz	42.2dB
4	+5MHz or -5MHz	32.2dB
4	+10MHz or -10MHz	42.2dB

NOTE: The requirement shall still be met in the presence of switching transients.

3.11.3 Set up for testing

- 1) The SS sends continuously Up power control commands to the UE until the UE transmitter power reach 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.



3.11.4 Test result

WCDMA Band 1

Test conditions		Transmitter adjacent channel power leakage ratio for Power Class 3					
Temperature(°C)	Voltage (V)	ACF MHz	Low Channel dBc	Middle Channel dBc	High Channel dBc	Limit dBc	Result
NV	NT	+5	46.2	46.1	46.6	32.2	Pass
		-5	47.1	49.5	46.6	32.2	Pass
		+10	48.9	49.4	49.7	42.2	Pass
		-10	49.6	49.6	49.9	42.2	Pass
LT	LV	+5	46.5	46.5	46.9	32.2	Pass
		-5	47.4	49.8	46.2	32.2	Pass
		+10	49.0	49.9	49.5	42.2	Pass
		-10	49.2	49.6	49.5	42.2	Pass
	HV	+5	46.6	45.7	46.5	32.2	Pass
		-5	47.5	49.6	46.7	32.2	Pass
		+10	49.2	49.8	50.0	42.2	Pass
		-10	49.2	49.4	50.0	42.2	Pass
HT	LV	+5	46.3	46.2	46.5	32.2	Pass
		-5	46.7	49.3	46.9	32.2	Pass
		+10	49.0	49.6	49.7	42.2	Pass
		-10	50.0	49.6	49.9	42.2	Pass
	HV	+5	45.8	46.3	46.6	32.2	Pass
		-5	47.3	49.9	46.5	32.2	Pass
		+10	49.0	49.5	49.6	42.2	Pass
		-10	49.7	49.7	49.8	42.2	Pass



WCDMA Band 8

Test conditions		Transmitter adjacent channel power leakage ratio for Power Class 3					
Temperature(°C)	Voltage (V)	ACF MHz	Low Channel dBc	Middle Channel dBc	High Channel dBc	Limit dBc	Result
NV	NT	+5MHz	48.0	48.3	50.4	32.2	Pass
		-5MHz	50.5	50.3	51.2	32.2	Pass
		+10MHz	58.8	59.5	62.0	42.2	Pass
		-10MHz	61.0	59.8	59.7	42.2	Pass
LT	LV	+5MHz	48.0	47.9	50.2	32.2	Pass
		-5MHz	50.9	50.7	50.8	32.2	Pass
		+10MHz	58.4	59.8	61.6	42.2	Pass
		-10MHz	61.3	59.9	59.6	42.2	Pass
	HV	+5MHz	48.3	48.3	50.8	32.2	Pass
		-5MHz	50.8	50.7	50.9	32.2	Pass
		+10MHz	59.0	59.8	62.0	42.2	Pass
		-10MHz	60.8	59.6	59.9	42.2	Pass
HT	LV	+5MHz	47.6	48.3	50.5	32.2	Pass
		-5MHz	50.5	50.3	51.3	32.2	Pass
		+10MHz	58.7	59.6	61.7	42.2	Pass
		-10MHz	60.9	59.5	60.1	42.2	Pass
	HV	+5MHz	47.9	48.1	50.6	32.2	Pass
		-5MHz	50.7	50.3	51.3	32.2	Pass
		+10MHz	58.5	59.1	61.6	42.2	Pass
		-10MHz	60.8	60.2	60.0	42.2	Pass

The equipment complied with the requirement of this clause.



3.12 Receiver Reference Sensitivity level

Clause 6.2 of ETSI TS 134 121-1 applies.

RESULT: Pass

3.12.1 Definition and applicability

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.

3.12.2 Conformance requirements

Test environment: normal, TL/VL, TL/VH, TH/VL, TH/VH (see section 1.6).

The frequencies to be tested are mid range as defined in TS 134 108 [3]:

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

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

The measured BER shall not exceed ,001 for the parameters specified in table 6.2.1.



Table 6.2.1: Test parameters for Reference Sensitivity Level

Operating Band	Unit	DPCH_Ec<REFSENS>	<REF $\hat{b}_r$ >
I	dBm/3.84MHz	-117	-106.7
II	dBm/3.84MHz	-115	-104.7
III	dBm/3.84MHz	-114	-103.7
IV	dBm/3.84MHz	-117	-106.7
V	dBm/3.84MHz	-115	-104.7
VI	dBm/3.84MHz	-117	-106.7
VII	dBm/3.84MHz	-115	-104.7
VIII	dBm/3.84MHz	-114	-103.7
IX	dBm/3.84MHz	-116	-105.7
X	dBm/3.84MHz	-117	-106.7
XI	dBm/3.84MHz	-117	-106.7
XII	dBm/3.84MHz	-114	-103.7
XIII	dBm/3.84MHz	-114	-103.7
XIV	dBm/3.84MHz	-114	-103.7
XIX	dBm/3.84MHz	-117	-106.7
XX	dBm/3.84MHz	-114	-103.7
XXI	dBm/3.84MHz	-117	-106.7
XXII	dBm/3.84MHz	-114	-103.7
XXV	dBm/3.84MHz	-113.5	-103.2
XXVI	dBm/3.84MHz	-113.5	-103.2

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 3: For the UE which supports both Band III and Band IX operating frequencies, the reference sensitivity level of -114.5dBm DPCH_Ec <REFSENS> shall apply for Band IX. The corresponding <REF $\hat{b}_r$ > is -104.2dBm.

NOTE 4: For the UE which supports both Band XI and Band XXI operating frequencies, the reference sensitivity level is FFS.

3.12.3 Set up for testing

- 1) Connect the SS to the UE antenna connector as shown in figure A.1.
- 2) Channel conditions are initially set up with received CPICH_RSCP > -85 dBm. The relative power level of downlink physical channels to Ior are set up according to clause E.2.1. The parameter settings of the cell are set up according to TS 34.108 [3], clause 6.1.5 for "Default settings for a serving cell in a single cell environment".
- 3) Switch on the phone.
- 4) A call is set up according to the Generic call setup procedure in TS34.108 [3] sub clause 7.3.2.
- 5) The RF parameters are set up according to table 6.2.2.
- 6) Enter the UE into loopback test mode and start the loopback test.



3.12.4 Test result

WCDMA Band 1					
Temperature(°C)	Voltage (V)	Unit	DPCH_Ec<REFSENS>	<REF $\hat{I}_p$ >	Result
NT	NV	dBm/3.84MHz	-117	-106.7	Pass
LT	LV	dBm/3.84MHz	-117	-106.7	Pass
	HV	dBm/3.84MHz	-117	-106.7	Pass
HT	LV	dBm/3.84MHz	-117	-106.7	Pass
	HV	dBm/3.84MHz	-117	-106.7	Pass

WCDMA Band 8					
Temperature(°C)	Voltage (V)	Unit	DPCH_Ec<REFSENS>	<REF $\hat{I}_p$ >	Result
NT	NV	dBm/3.84MHz	-114	-103.7	Pass
LT	LV	dBm/3.84MHz	-114	-103.7	Pass
	HV	dBm/3.84MHz	-114	-103.7	Pass
HT	LV	dBm/3.84MHz	-114	-103.7	Pass
	HV	dBm/3.84MHz	-114	-103.7	Pass

WALTEK



3.13 Radiated emissions

Clause 4.2.2.1 of ETSI EN 301 908-1 applies.

RESULT: Pass

3.13.1 Definition and applicability

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.

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

3.13.2 Conformance requirements

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 the following table are only applicable for frequencies in the spurious domain.

Frequency	Minimum requirement (e.r.p.)/ reference bandwidth idle mode	Minimum requirement (e.r.p.)/ reference bandwidth traffic mode	Applicability
$30\text{MHz} \leq f < 1\,000\text{MHz}$	-57dBm/100kHz	-36dBm/100kHz	All
$1\text{GHz} \leq f < 12.75\text{GHz}$	-47dBm/1MHz	-30dBm/1MHz	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
$f_c - 2.5 \times \text{BW}_{\text{Channel}} \text{ MHz} < f < f_c + 2.5 \times \text{BW}_{\text{Channel}} \text{ MHz}$		Not defined	E-UTRA FDD, E-UTRA TDD, Mobile WiMAX™
$f_c - 2.5 \times 10\text{MHz} < f < f_{c1} + 2.5 \times 10\text{MHz}$		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

NOTE: f_c is the UE transmit centre frequency.



3.13.3 Set up for testing

Whenever possible the test site should be a fully anechoic chamber simulating the free-space conditions. EUT shall be placed on a non-conducting support. Mean power of any spurious components shall be detected by the test antenna and measuring receiver (e.g. a spectrum analyser).

At each frequency at which a component is detected, the EUT shall be rotated to obtain maximum response, and the effective radiated power (e.r.p.) of that component determined by a substitution measurement, which shall be the reference method. The measurement shall be repeated with the test antenna in the orthogonal polarization plane.

NOTE: Effective radiated power (e.r.p.) refers to the radiation of a half wave tuned dipole instead of an isotropic antenna. There is a constant difference of 2,15 dB between e.i.r.p. and e.r.p.

$$\text{e.r.p. (dBm)} = \text{e.i.r.p. (dBm)} - 2,15 \text{ (ITU-R Recommendation SM.329-10 [3], annex 1)}.$$

Measurements are made with a tuned dipole antenna or a reference antenna with a known gain referenced to an isotropic antenna. Unless otherwise stated, all measurements are done as mean power (RMS).

If a different test site or method is used, this shall be stated in the test report. The results shall be converted to the reference method values and the validity of the conversion shall be demonstrated.

3.13.4 Test result

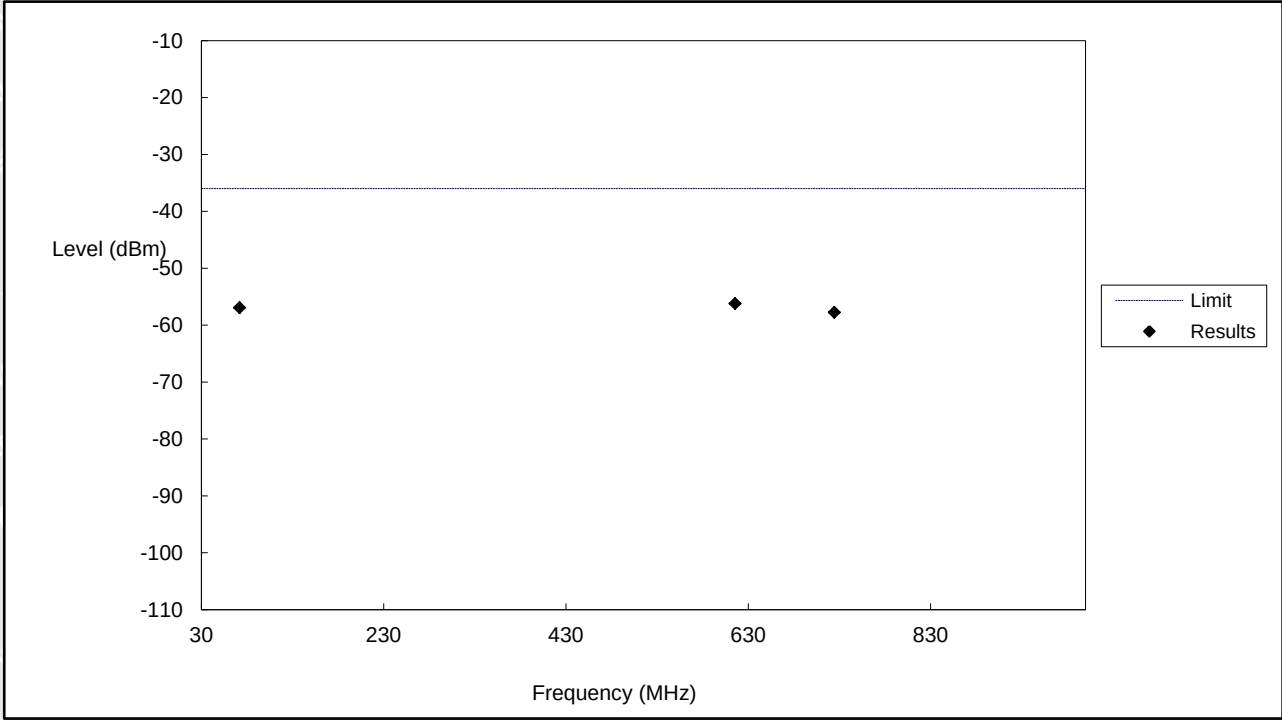
Please refer to the following test plots and data

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➤ Radiated Spurious Emissions(30MHz-1GHz)

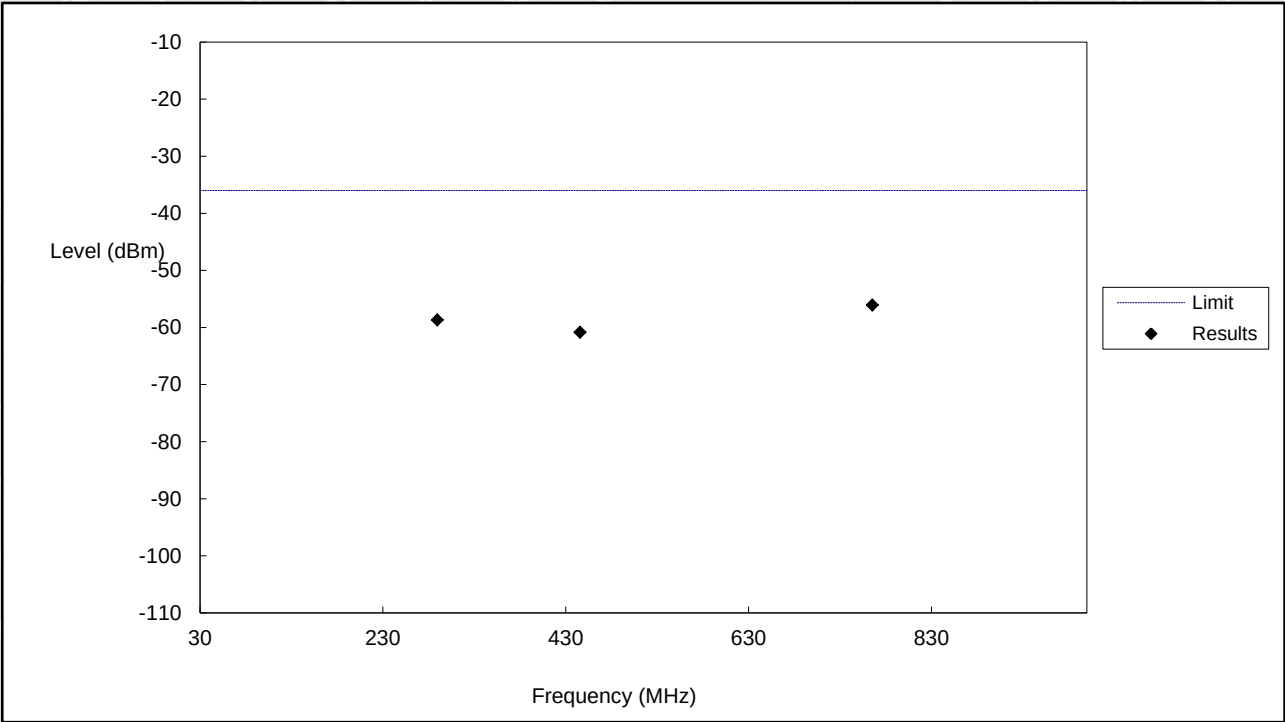
WCDMA Band 1			
Test mode:	Traffic Mode	Polarity:	Horizontal



No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	71.96	-56.95	-36	-20.95	RMS
2	615.61	-56.20	-36	-20.20	RMS
3	724.48	-57.75	-36	-21.75	RMS



Test mode:	Traffic Mode	Polarity:	Vertical
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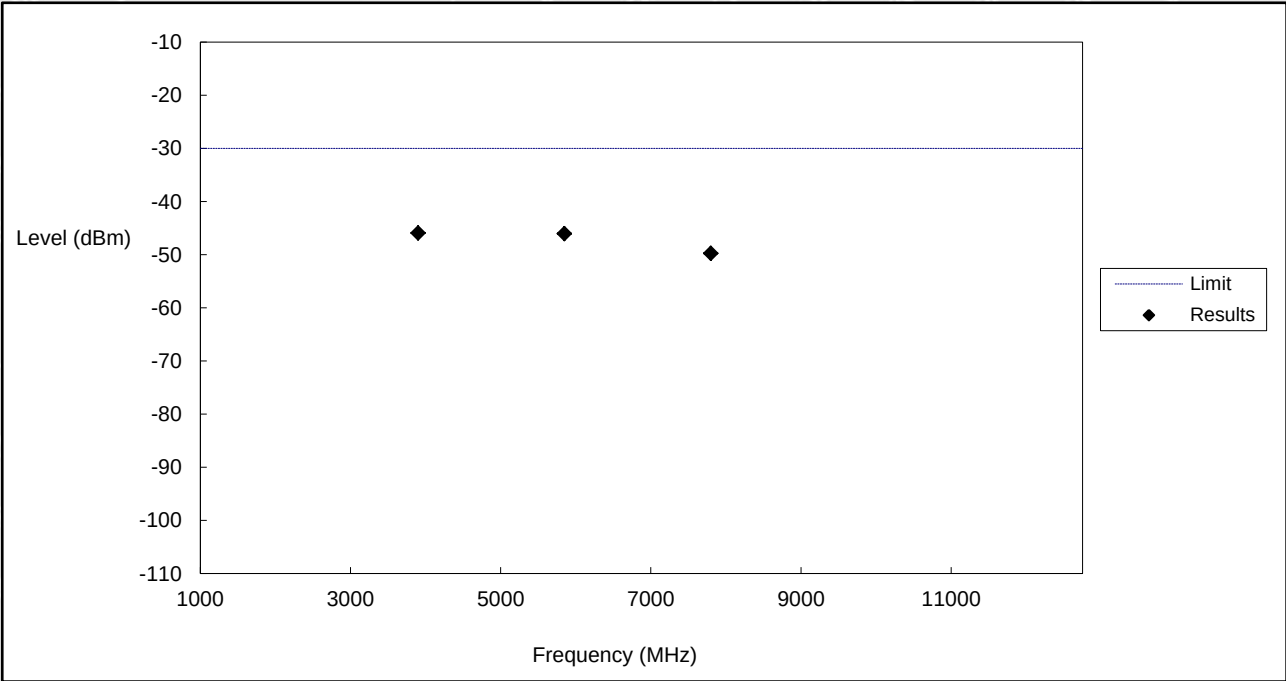


No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	289.54	-58.66	-36	-22.66	RMS
2	445.78	-60.83	-36	-24.83	RMS
3	765.44	-56.06	-36	-20.06	RMS



➤ Radiated Spurious Emissions(Above 1GHz)

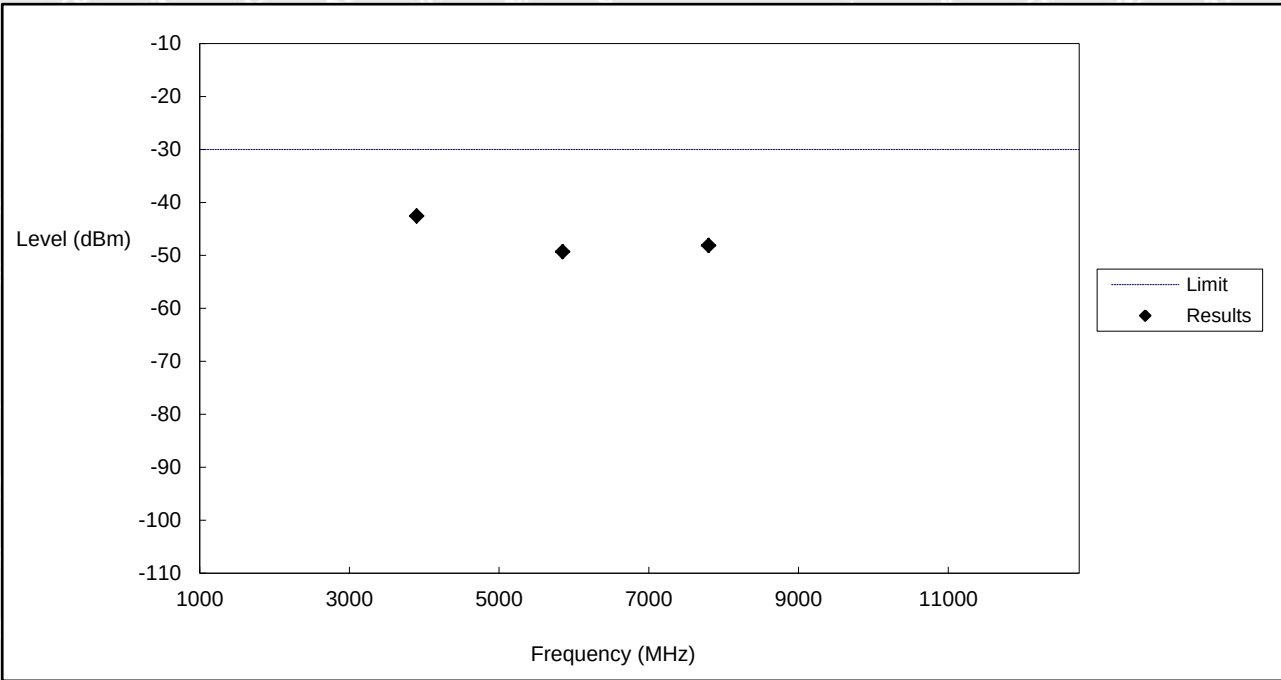
Test mode:	Traffic Mode	Polarity:	Horizontal
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No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3900.00	-45.92	-30	-15.92	RMS
2	5850.00	-46.02	-30	-16.02	RMS
3	7800.00	-49.73	-30	-19.73	RMS



Test mode:	Traffic Mode	Polarity:	Vertical
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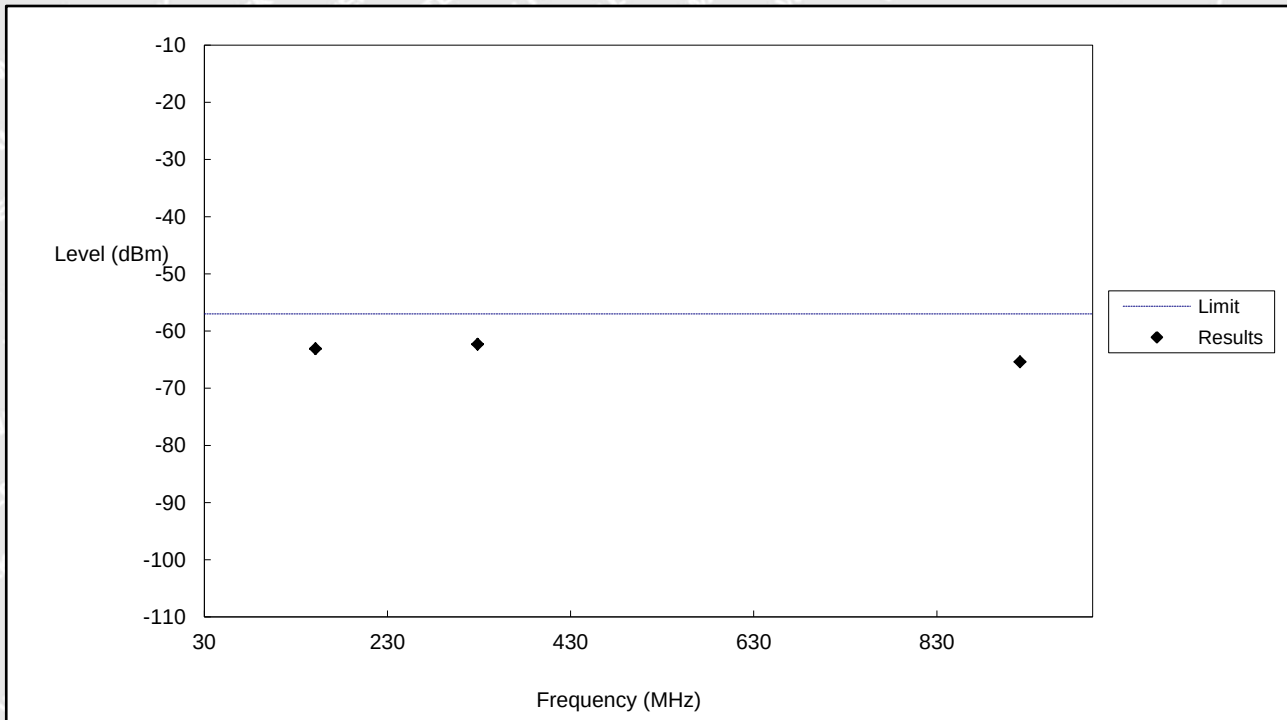


No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3900.00	-42.57	-30	-12.57	RMS
2	5850.00	-49.30	-30	-19.30	RMS
3	7800.00	-48.12	-30	-18.12	RMS



➤ Radiated Spurious Emissions(30MHz-1GHz)

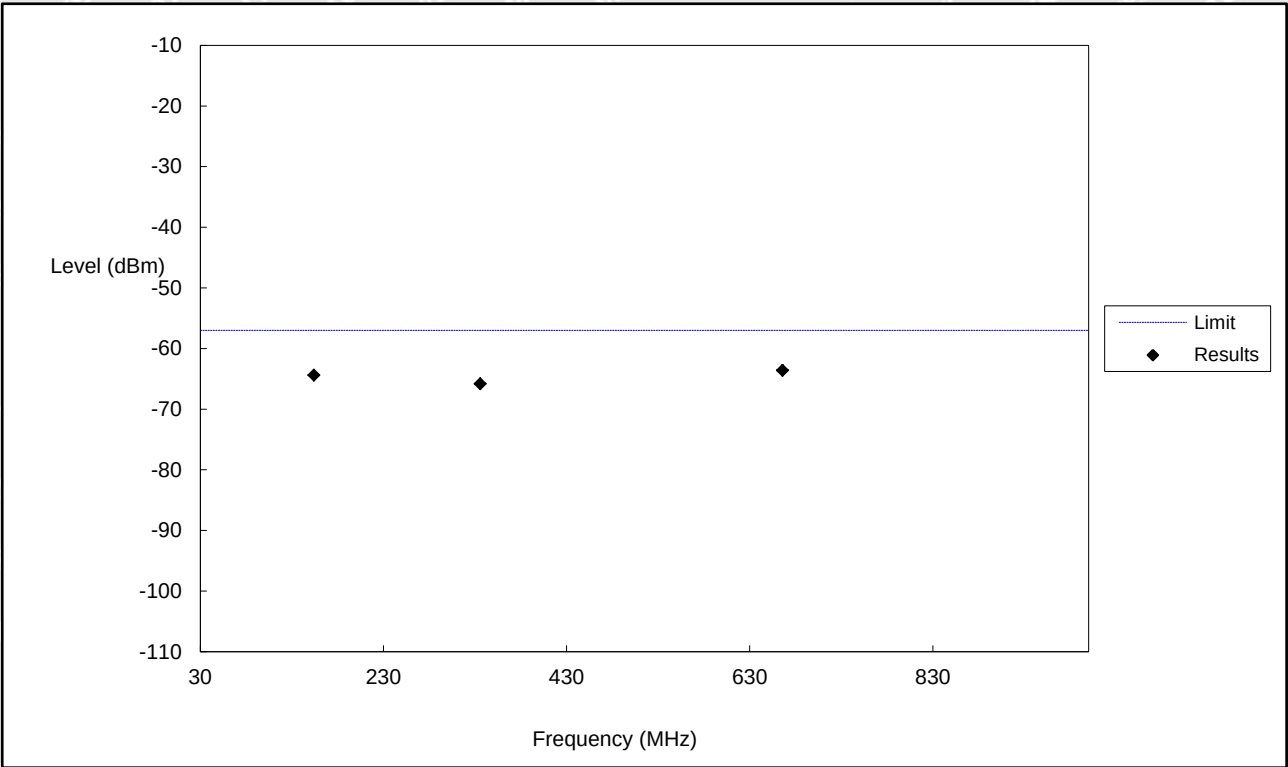
WCDMA Band 1			
Test mode:	Idle Mode	Polarity:	Horizontal



No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	336.05	-63.48	-57	-6.48	RMS
2	373.77	-66.12	-57	-9.12	RMS
3	693.87	-64.12	-57	-7.12	RMS



Test mode:	Idle Mode	Polarity:	Vertical
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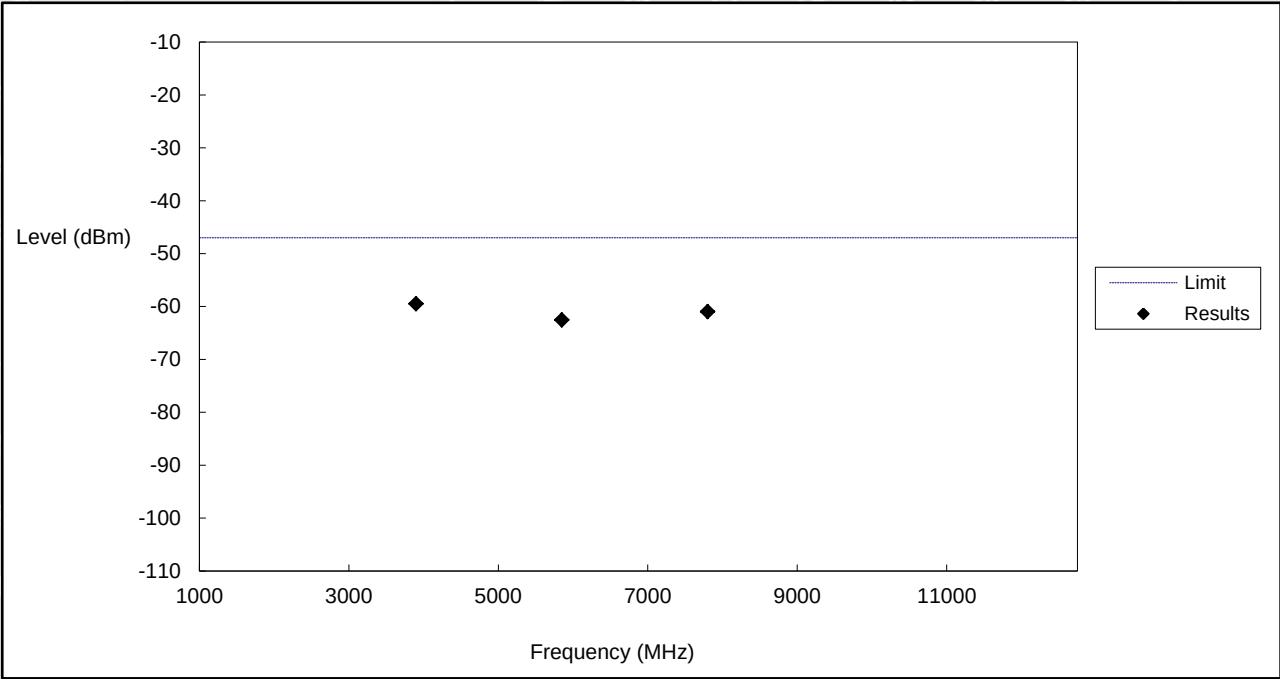


No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	154.08	-64.40	-57	-7.40	RMS
2	335.61	-65.82	-57	-8.82	RMS
3	665.83	-63.60	-57	-6.60	RMS



➤ Radiated Spurious Emissions(Above 1GHz)

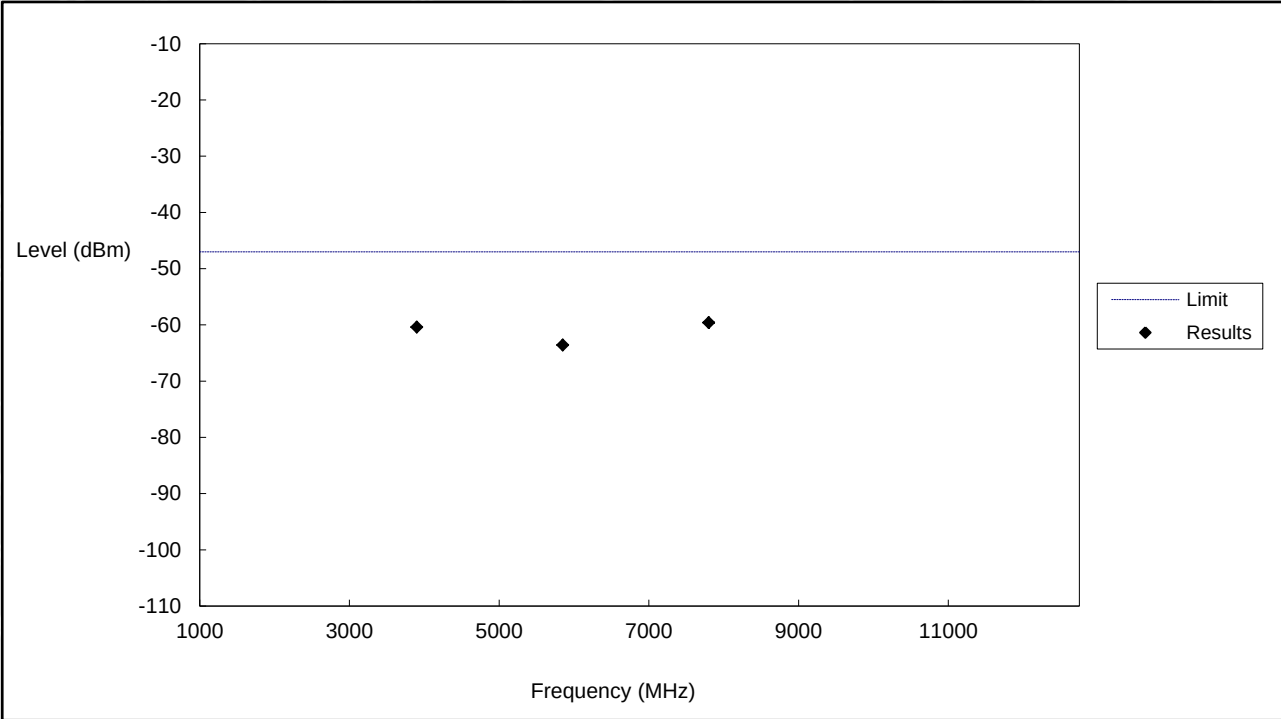
Test mode:	Idle Mode	Polarity:	Horizontal
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No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3900.00	-59.48	-47	-12.48	RMS
2	5850.00	-62.55	-47	-15.55	RMS
3	7800.00	-60.98	-47	-13.98	RMS



Test mode:	Idle Mode	Polarity:	Vertical
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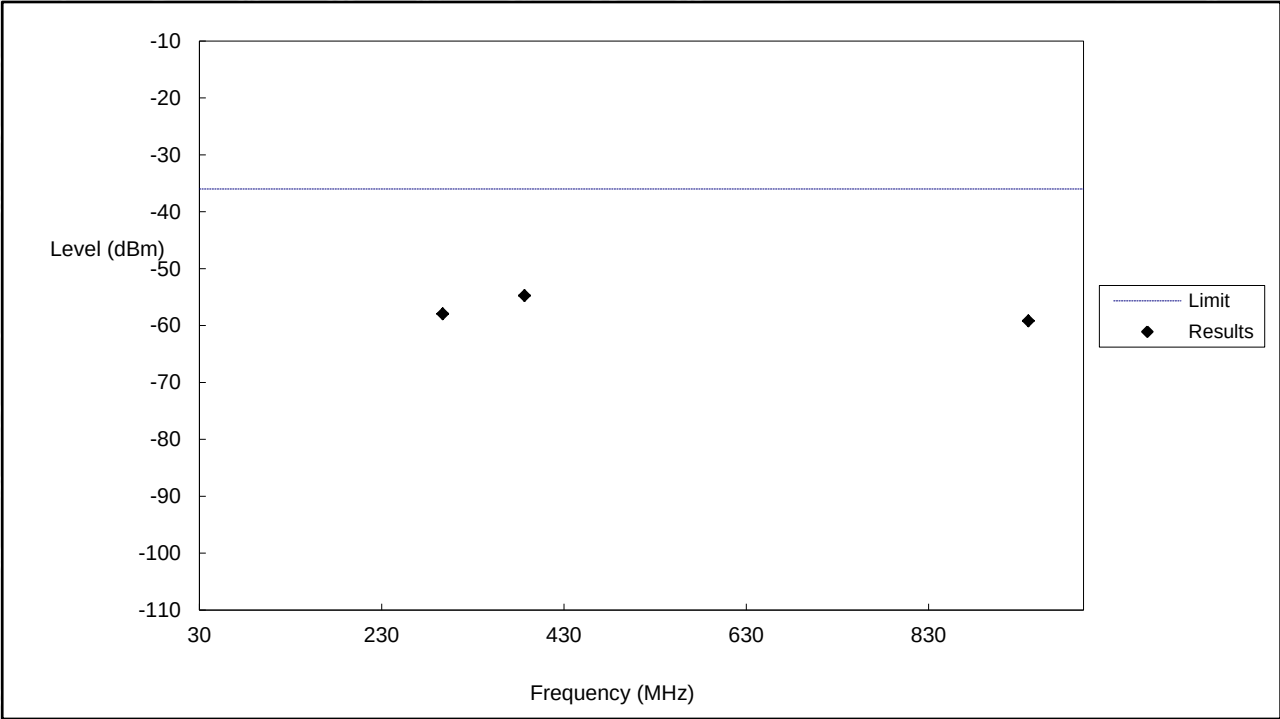


No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3900.00	-60.39	-47	-13.39	RMS
2	5850.00	-63.59	-47	-16.59	RMS
3	7800.00	-59.60	-47	-12.60	RMS



➤ Radiated Spurious Emissions(30MHz-1GHz)

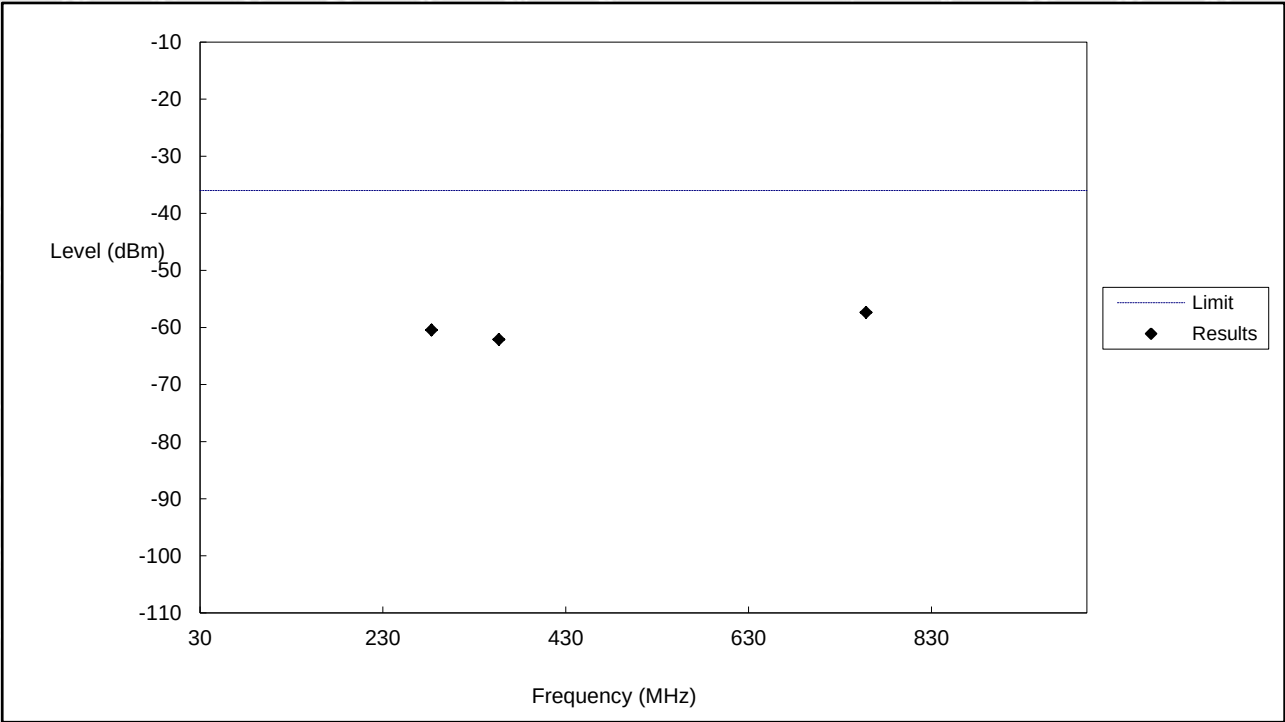
WCDMA Band 8			
Test mode:	Traffic Mode	Polarity:	Horizontal



No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	297.06	-57.94	-36	-21.94	RMS
2	386.76	-54.73	-36	-18.73	RMS
3	939.49	-59.20	-36	-23.20	RMS



Test mode:	Traffic Mode	Polarity:	Vertical
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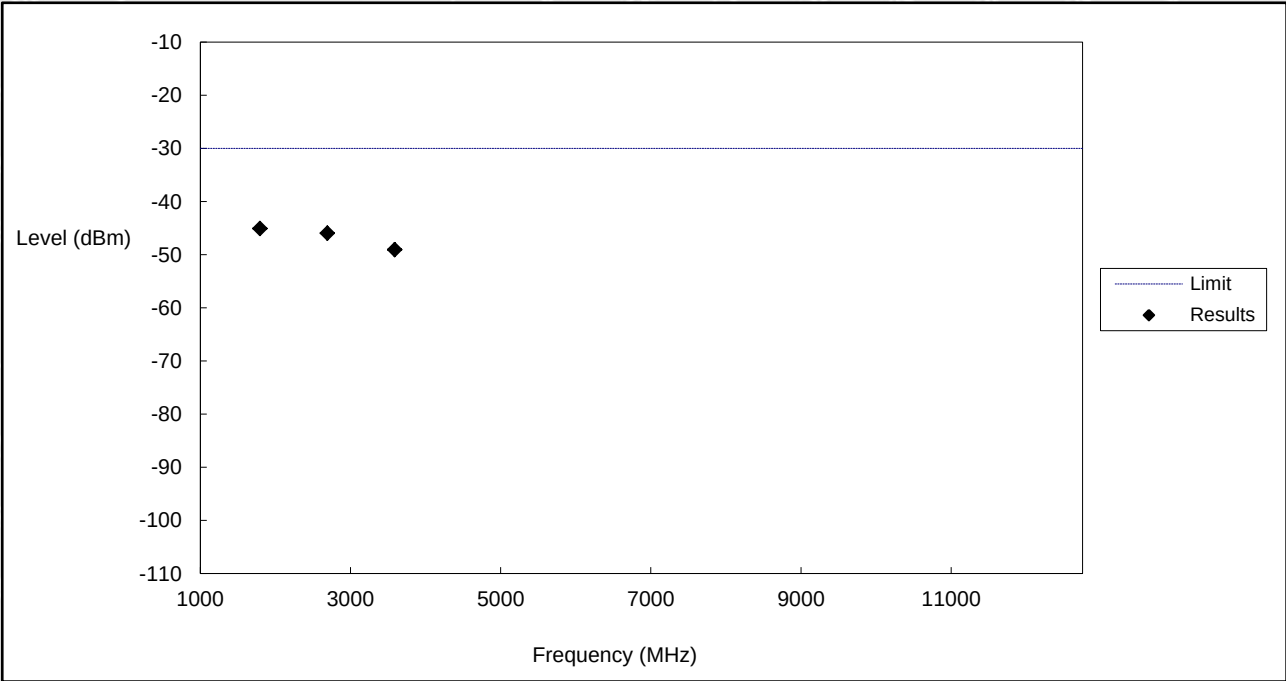


No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	283.25	-60.45	-36	-24.45	RMS
2	356.97	-62.09	-36	-26.09	RMS
3	758.62	-57.35	-36	-21.35	RMS



➤ Radiated Spurious Emissions(Above 1GHz)

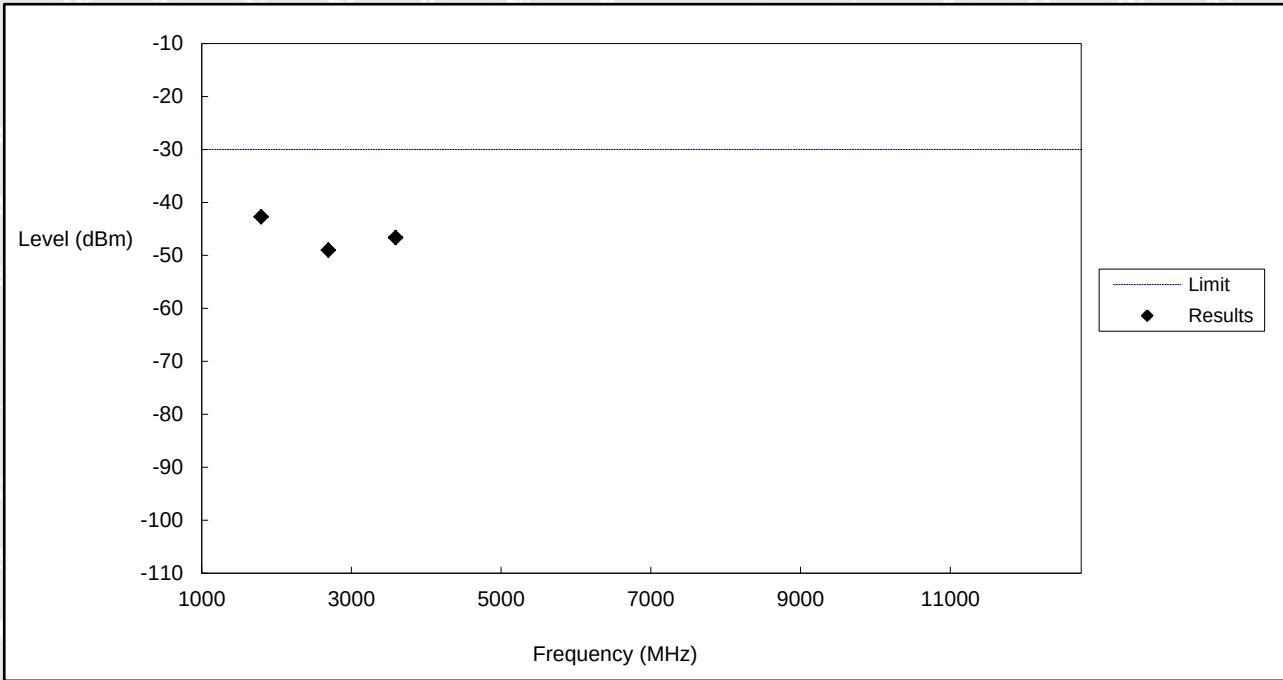
Test mode:	Traffic Mode	Polarity:	Horizontal
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No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1795.20	-45.05	-30	-15.05	RMS
2	2692.80	-45.95	-30	-15.95	RMS
3	3590.40	-49.05	-30	-19.05	RMS



Test mode:	Traffic Mode	Polarity:	Vertical
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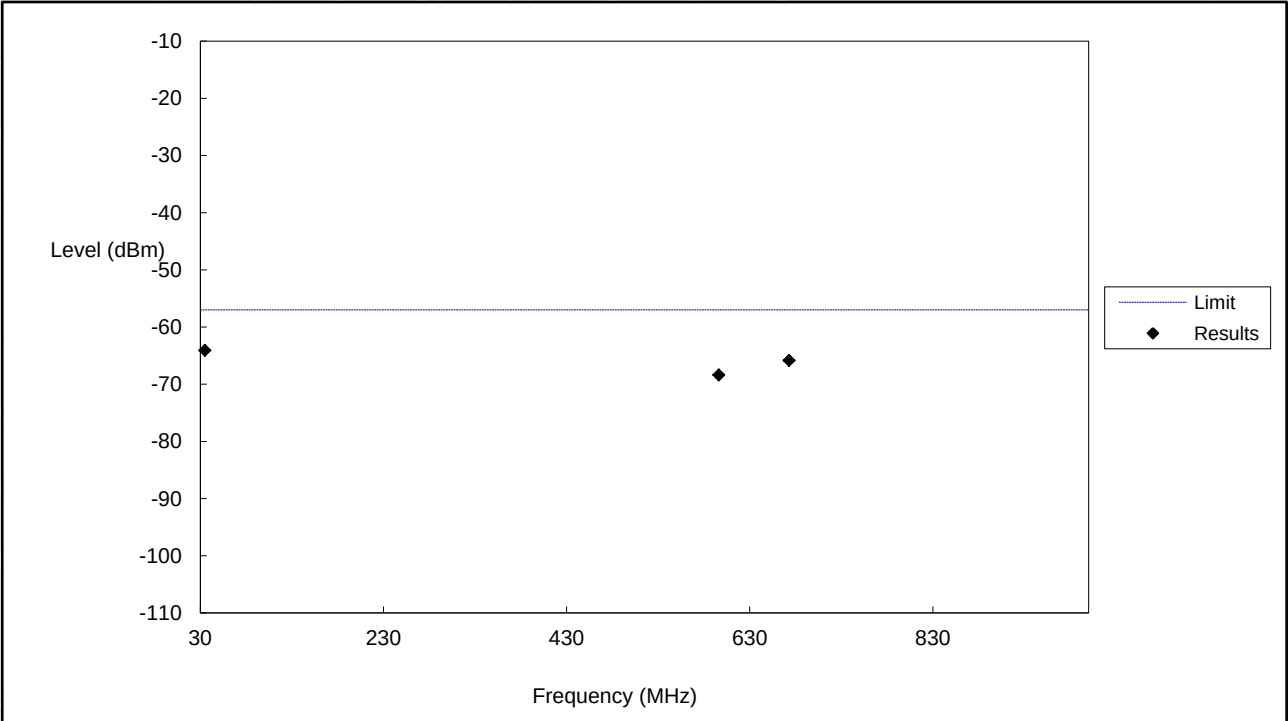


No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1795.20	-42.72	-30	-12.72	RMS
2	2692.80	-49.00	-30	-19.00	RMS
3	3590.40	-46.66	-30	-16.66	RMS



➤ Radiated Spurious Emissions(30MHz-1GHz)

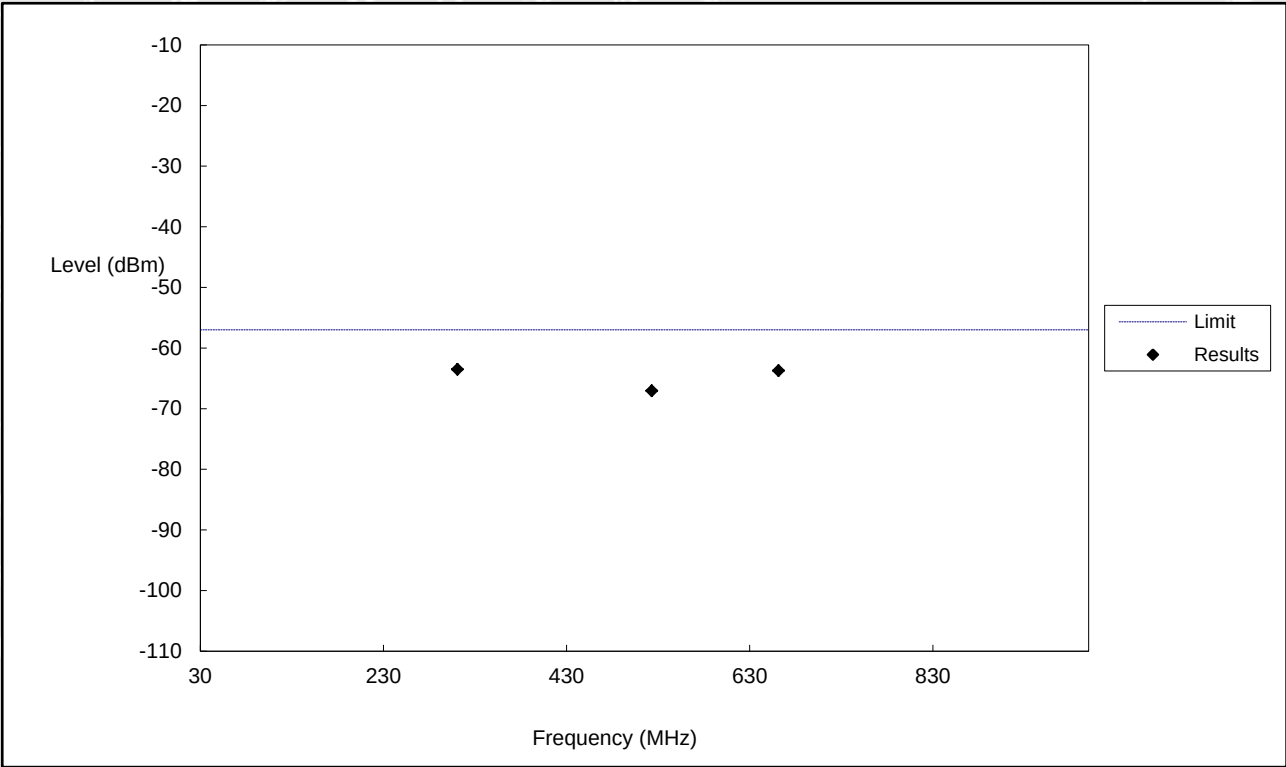
WCDMA Band 8			
Test mode:	Idle Mode	Polarity:	Horizontal



No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	35.10	-64.06	-57	-7.06	RMS
2	596.22	-68.37	-57	-11.37	RMS
3	673.02	-65.82	-57	-8.82	RMS



Test mode:	Idle Mode	Polarity:	Vertical
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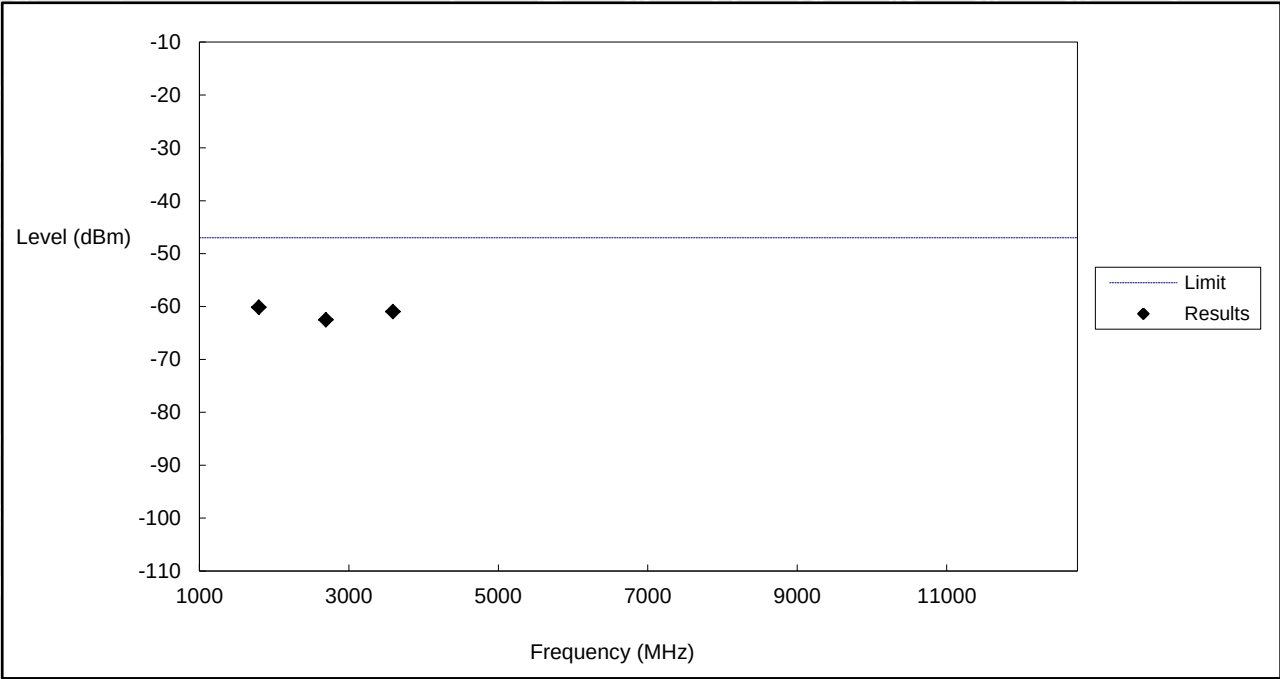


No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	310.91	-63.52	-57	-6.52	RMS
2	523.05	-67.08	-57	-10.08	RMS
3	661.53	-63.74	-57	-6.74	RMS



➤ Radiated Spurious Emissions(Above 1GHz)

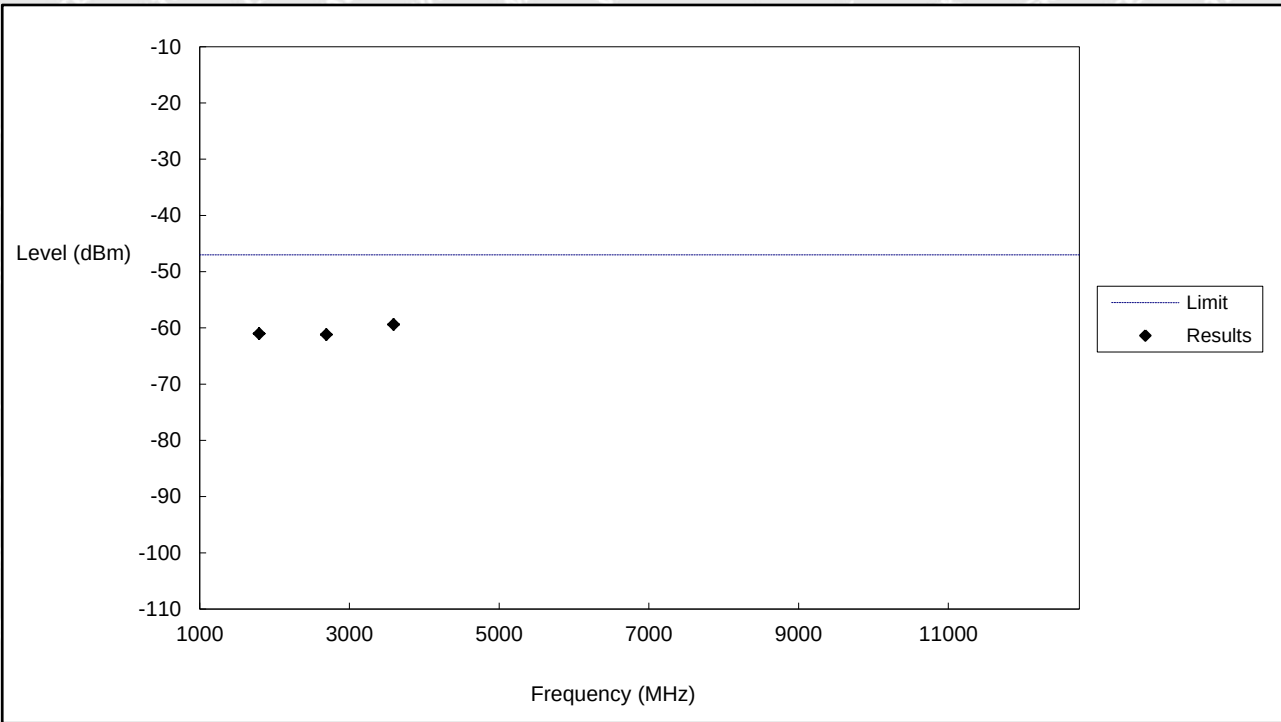
Test mode:	Idle Mode	Polarity:	Horizontal
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No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1795.20	-60.14	-47	-13.14	RMS
2	2692.80	-62.50	-47	-15.50	RMS
3	3590.40	-60.97	-47	-13.97	RMS



Test mode:	Idle Mode	Polarity:	Vertical
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No.	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1795.20	-61.04	-47	-14.04	RMS
2	2692.80	-61.20	-47	-14.20	RMS
3	3590.40	-59.41	-47	-12.41	RMS



3.14 Control and monitoring functions

Clause 4.2.4 of ETSI EN 301 908-1 applies.

RESULT: Pass

3.14.1 Definition and applicability

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 multipart harmonized standard.

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

3.14.2 Conformance requirements

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

3.14.3 Set up for testing

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 3.13.2 in order to prove compliance.

**3.14.4 Test result**

WCDMA Band 1 – Control and monitoring functions						
Measured range	Test data (dBm)				Limit (dBm)	Result
	1st	2nd	3rd	4th		
WCDMA Band 1 1920MHz to 1980MHz	-42.39	-41.20	-43.00	-41.29	-30	Pass

WCDMA Band 8 – Control and monitoring functions						
Measured range	Test data (dBm)				Limit (dBm)	Result
	1st	2nd	3rd	4th		
WCDMA Band 8 880MHz to 915MHz	-40.31	-41.21	-41.79	-41.01	-30	Pass

The equipment complied with the requirement of this clause.

WALTEK



EXHIBIT 1 - EUT PHOTOGRAPHS

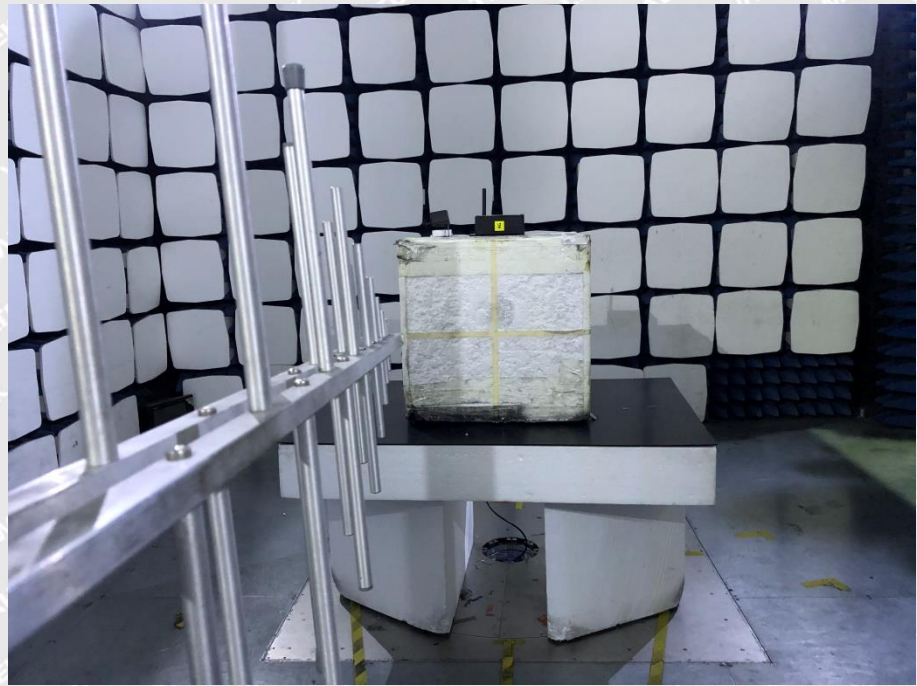
Please refer to “ANNEX”.

WALTEK

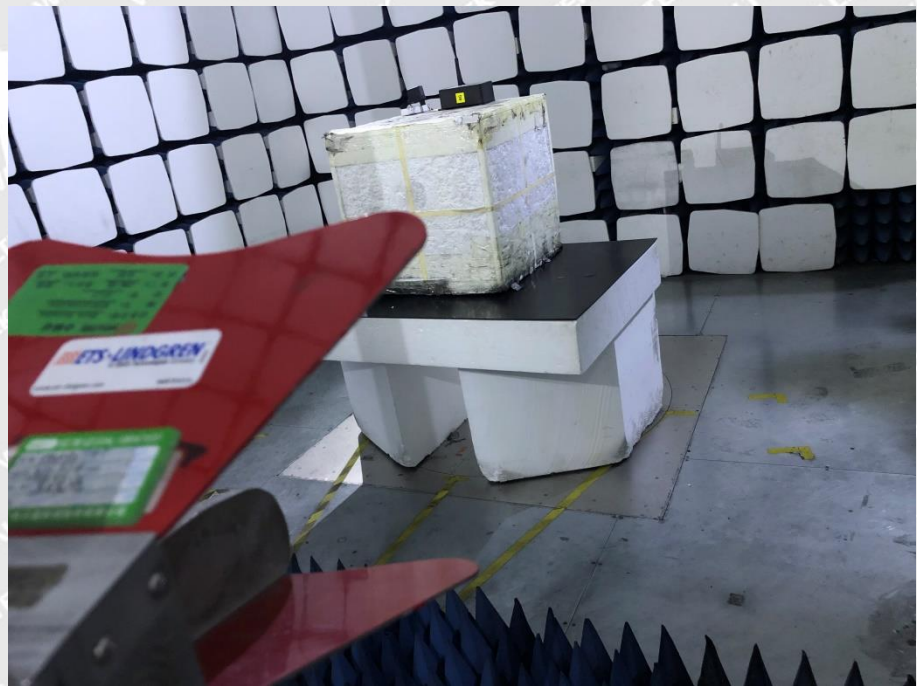


EXHIBIT 2 - TEST SETUP PHOTO

**Spurious Emission Test
Setup (Below 1GHz)**



**Spurious Emission Test
Setup (Above 1GHz)**



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