



REPORT No. : SZ18050201W01

TEST REPORT

MANUFACTURER : Shenzhen Chainway Information Technology Co.,Ltd.
PRODUCT NAME : Mobile Data Terminal
MODEL NAME : C75
BRAND NAME : CHAINWAY
STANDARD(S) : ETSI EN 301 511 V12.5.1
ETSI TS 151.010-1 V13.5.0
TEST DATE : 2018-01-09 to 2018-02-01
ISSUE DATE : 2018-11-12

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MORLAB

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Change History		
Issue	Date	Reason for change
1.0	2018-11-12	First edition

1. Technical Information

Note: Provide by manufacturer.

1.1. Manufacturer and Factory Information

Manufacturer:	Shenzhen Chainway Information Technology Co.,Ltd.
Manufacturer Address:	9/F, Building 2, Daqian Industrial Park, Longchang Rd., District 67, Bao'an, Shenzhen
Factory:	Shenzhen Chainway Information Technology Co.,Ltd.
Factory Address:	9/F, Building 2, Daqian Industrial Park, Longchang Rd., District 67, Bao'an, Shenzhen

1.2. Equipment Under Test (EUT) Description

Frequency Bands	GSM900/1800MHz
Modulation Mode	GMSK,8PSK
Power Class	GSM900:4, GSM1800:1
Multislot Class	GPRS:12, EGPRS:12
HSCSD Multislot MS	Not Support
R-GSM MS	Not Support
Support of GPRS Multislot class on the uplink	Support
EGPRS	Support
EGPRS capable of 8PSK in Uplink, of all Multislot classes	Support
SIM cards description	SIM 1 and SIM 2 is a chipset unit and tested as a single chipset. The SIM 1 is chosen for test.

1.2.1 Photographs of the EUT

Please reference ANNEX D.



1.2.2 Identification of all used EUTs

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

EUT Identity	Hardware Version	Software Version
A01	C70_MB_V11	C75E_MT6737_V1.2_EU_GITe4dc34 6_201805171136

2. Test Results

2.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	ETSI EN 301 511 V12.5.1(2017-03)	Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU

Specific reference documents for testing:

No.	Identity	Document Title
2	ETSI TS 151.010-1 V13.5.0 (2017-11)	Mobile Station (MS) conformance specification; Part 1: Conformance specification

2.2. Test Conditions

Test Environment Conditions:

Relative Humidity:	30 ... 75 %
Air Pressure:	98 ... 102 kPa
Temperature:	Normal Temperature (NT)= +20 °C to +25 °C Low Temperature (LT) = -20°C High Temperature (HT) = +50°C
Voltage of the EUT:	Normal Voltage (NV) = 5V Low Voltage (LV) = 3.6V High Voltage (HV) = 4.35V

2.3. Test Results lists

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

Verdict	Description
PASS	EUT passed this test case
FAIL	EUT failed this test case
Decl.	"Declaration": Morlab has received documents from the applicant and/or manufacturer which show conformity to the applied standards for this test case.
N/A	Test case not applicable for the EUT, please see the column "Note" for detailed

Table A.1: The EN Requirements Table (EN-RT) (Ref. ETSI EN 301 511 Annex A)

ETSI TS 151 010-1 Clause	EN Reference	EN-R (note): Test Descriptions & Test Conditions	GSM900		DCS1800		Note
			EUT	Verdict	EUT	Verdict	
12.1.1	4.2.12	Conducted spurious emissions - MS allocated a channel.					
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		NT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		NT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
12.1.2	4.2.13	Conducted spurious emissions - MS in idle mode.					
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		NT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		NT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
12.2.1	4.2.16	Radiated spurious emissions - MS allocated a channel.					
		NT / NV	---	<u>N/A</u>	---	<u>N/A</u>	02
		NT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	01
		NT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	01
12.2.2	4.2.17	Radiated spurious emissions - MS in idle mode.					
		NT / NV	---	<u>N/A</u>	---	<u>N/A</u>	02
		NT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	01
		NT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	01
13.1	4.2.1	Transmitter - Frequency error and phase error.					



ETSI TS 151 010-1 Clause	EN Reference	EN-R (note): Test Descriptions & Test Conditions	GSM900		DCS1800		Note
			EUT	Verdict	EUT	Verdict	
		NT / NV LT / LV LT / HV HT / LV HT / HV Vibration X-axis Vibration Y-axis Vibration Z-axis	A01 A01 A01 A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	A01 A01 A01 A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	
13.2	4.2.2	Transmitter - Frequency error under multipath and interference conditions. NT / NV LT / LV LT / HV HT / LV HT / HV	A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	
13.3	4.2.5	Transmitter output power and burst timing - MS with permanent antenna connector. NT / NV LT / LV LT / HV HT / LV HT / HV	A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	
13.4	4.2.6	Transmitter - Output RF spectrum. NT / NV LT / LV LT / HV HT / LV HT / HV	A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	A01 A01 A01 A01 A01	<u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u> <u>PASS</u>	
13.16.1	4.2.4	Frequency error and phase error in GPRS multislot configuration					



ETSI TS 151 010-1 Clause	EN Reference	EN-R (note): Test Descriptions & Test Conditions	GSM900		DCS1800		Note
			EUT	Verdict	EUT	Verdict	
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		Vibration X-axis	A01	<u>PASS</u>	A01	<u>PASS</u>	
		Vibration Y-axis	A01	<u>PASS</u>	A01	<u>PASS</u>	
		Vibration Z-axis	A01	<u>PASS</u>	A01	<u>PASS</u>	
13.16.2	4.2.10	Transmitter output power in GPRS multislot configuration					
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
13.16.3	4.2.11	Output RF spectrum in GPRS multislot configuration					
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
13.17.1	4.2.26	Frequency error and Modulation accuracy in EGPRS Configuration					
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
13.17.2	4.2.27	Frequency error under multipath and interference conditions in EGPRS					



ETSI TS 151 010-1 Clause	EN Reference	EN-R (note): Test Descriptions & Test Conditions	GSM900		DCS1800		Note
			EUT	Verdict	EUT	Verdict	
		configuration NT / NV LT / LV LT / HV HT / LV HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
13.17.3	4.2.28	EGPRS Transmitter output power NT / NV LT / LV LT / HV HT / LV HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
13.17.4	4.2.29	Output RF spectrum in EGPRS configuration NT / NV LT / LV LT / HV HT / LV HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.2.1	4.2.42	Reference sensitivity - TCH/FS	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.2.3	4.2.43	Reference sensitivity - FACCH/F	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.5.1	4.2.38	Adjacent channel rejection - speech channels (TCH/FS) NT / NV LT / LV LT / HV HT / LV HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.5.2	4.2.39	Adjacent channel rejection - control channels					



ETSI TS 151 010-1 Clause	EN Reference	EN-R (note): Test Descriptions & Test Conditions	GSM900		DCS1800		Note
			EUT	Verdict	EUT	Verdict	
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.6.1	4.2.32	Intermodulation rejection - speech channels	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.6.2	4.2.33	Intermodulation rejection - control channels	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.7.1	4.2.20	Blocking and spurious response - speech channels.	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.8.1	4.2.35	AM suppression - speech channels	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.8.2	4.2.36	AM suppression - control channels	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.8.3	4.2.37	AM suppression - packet channels	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.16.1	4.2.44	Minimum Input level for Reference Performance - GPRS					
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.18.1	4.2.45	Minimum Input level for Reference Performance - EGPRS					
		NT / NV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		LT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / LV	A01	<u>PASS</u>	A01	<u>PASS</u>	
		HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
14.18.3	4.2.40	Adjacent channel					

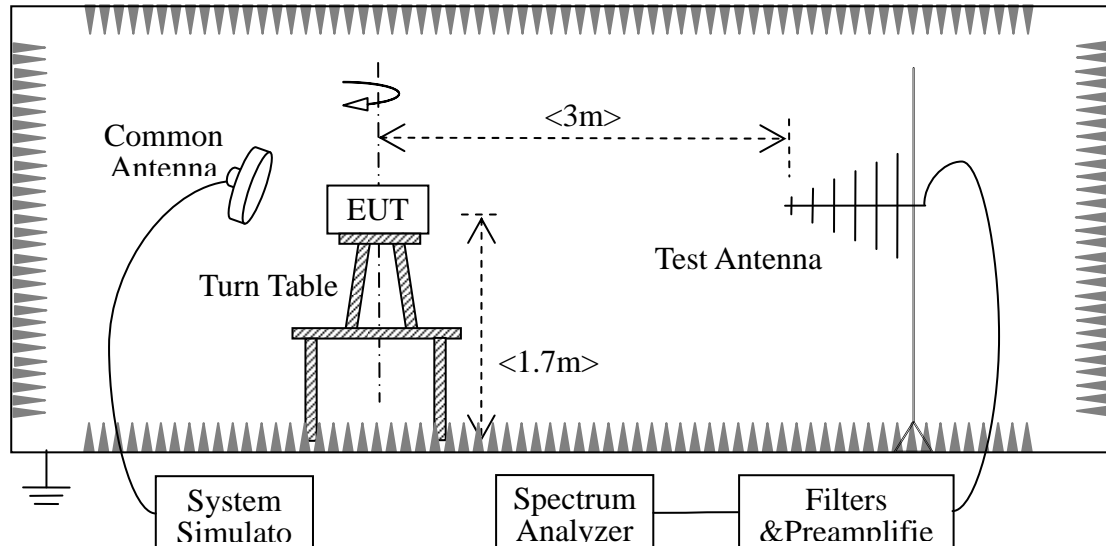
ETSI TS 151 010-1 Clause	EN Reference	EN-R (note): Test Descriptions & Test Conditions	GSM900		DCS1800		Note
			EUT	Verdict	EUT	Verdict	
		rejection - EGPRS NT / NV LT / LV LT / HV HT / LV HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
14.18.4	4.2.34	Intermodulation rejection - EGPRS NT / NV LT / LV LT / HV HT / LV HT / HV	A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
			A01	<u>PASS</u>	A01	<u>PASS</u>	
14.18.5	4.2.26	Blocking and spurious response in EGPRS configuration	A01	<u>PASS</u>	A01	<u>PASS</u>	

Note:

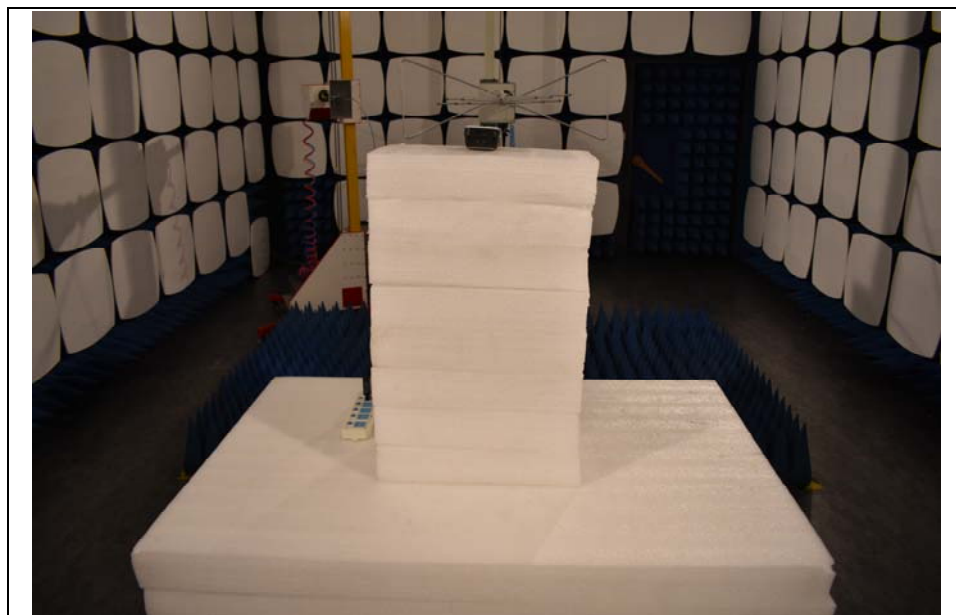
- 01 The EUT configuration of the Radiated spurious emissions tests is EUT + Battery + Charger + headset.
- 02 The test case is not performed under normal voltage (NV) conditions. Because high voltage (HV) and low voltage(LV) conditions are the WORST Phases for this test case.

Annex A Test Setup

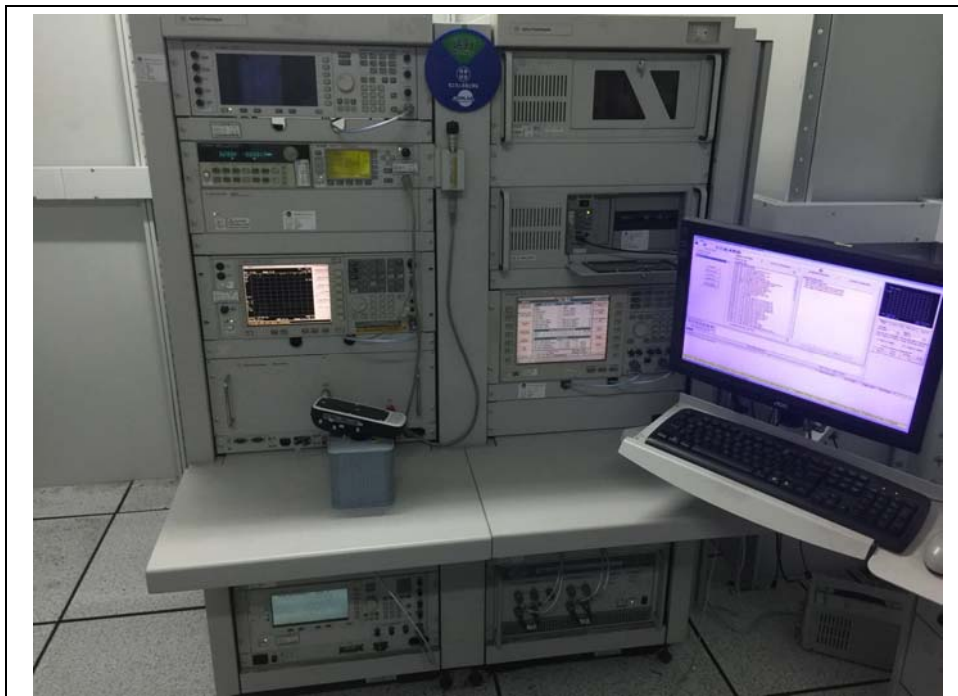
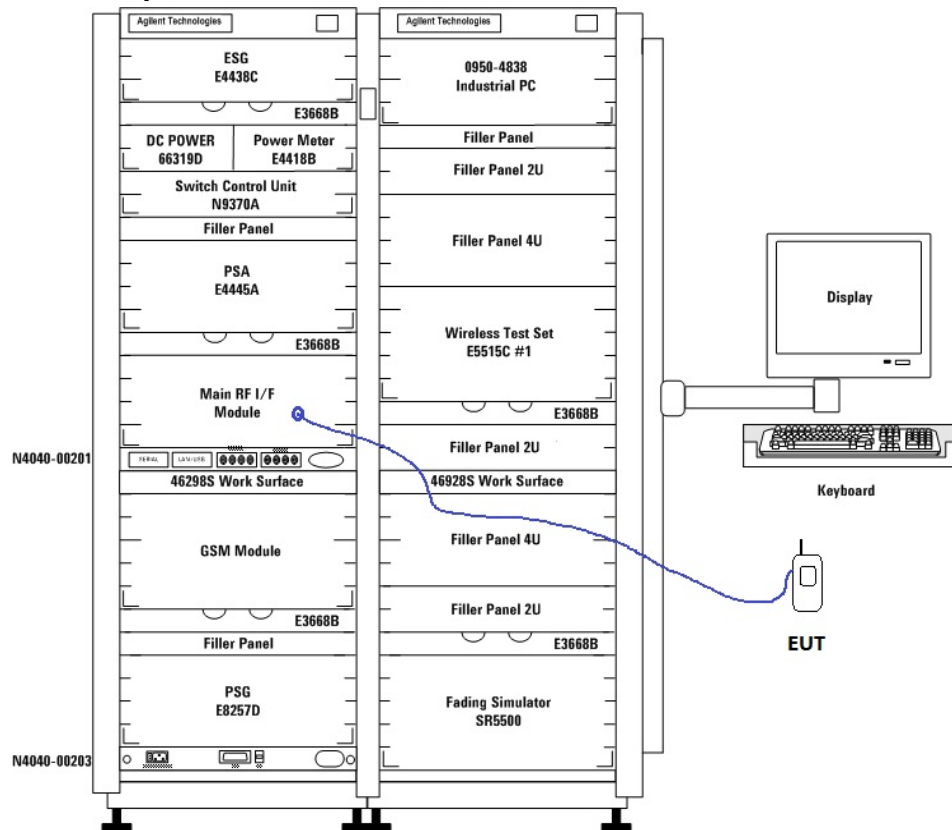
1. Radiated Spurious Emission Test Setup



The EUT, which is powered by the Battery charged with the AC Adapter, is located in a 3m Full-Anechoic Chamber; the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading. A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM1800MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded.



2. GS8800 Test Setup





Annex B Conducted Maximum Output Power

Mode	GSM900 (dBm)	DCS1800 (dBm)
GSM	33.69	29.61
GPRS	33.27	29.48
EGPRS	27.29	26.80

Annex C Conducted and Radiated Spurious Emissions

1. Conducted spurious emissions.

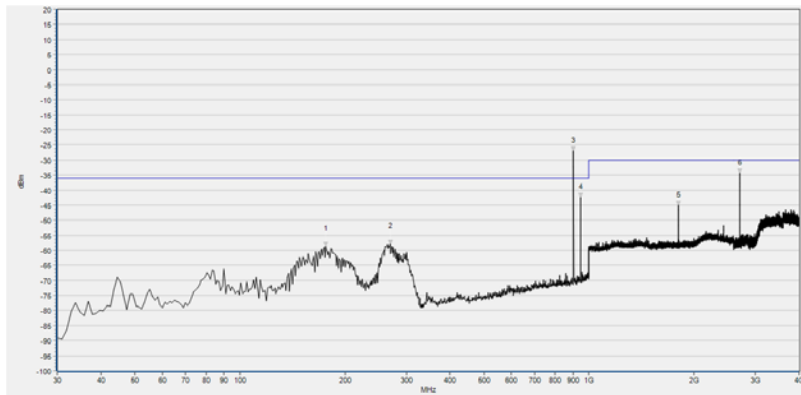
Test Type	Frequency Band	Test Condition (MHZ)	Measured Value(dBm)	Pass/Fail
Allocated	GSM900	890.9	-40.58	PASS
Allocated	GSM900	909.14	-40.97	PASS
Allocated	GSM900	872.11	-41.27	PASS
Allocated	GSM900	4512.7	-40.39	PASS
Allocated	GSM900	1805.3	-41.3	PASS
Allocated	GSM900	2706.7	-48.37	PASS
Allocated	DCS1800	677.7	-57.53	PASS
Allocated	DCS1800	924	-57.57	PASS
Allocated	DCS1800	973	-58.2	PASS
Allocated	DCS1800	1705.73	-44.18	PASS
Allocated	DCS1800	1707.33	-44.55	PASS
Allocated	DCS1800	1704.62	-44.73	PASS
Allocated	DCS1800	1739.91	-43.75	PASS
Allocated	DCS1800	1716.47	-44.26	PASS
Allocated	DCS1800	1723.03	-44.31	PASS
Allocated	DCS1800	1786.77	-44.28	PASS
Allocated	DCS1800	1786.38	-44.53	PASS
Allocated	DCS1800	1789.05	-44.63	PASS
Idle	GSM900	485.72	-72.15	PASS
Idle	GSM900	514.2	-72.22	PASS
Idle	GSM900	510.24	-72.28	PASS
Idle	GSM900	899.83	-71.73	PASS
Idle	GSM900	881.63	-71.99	PASS
Idle	GSM900	908.88	-72.55	PASS
Idle	GSM900	994.9	-71.31	PASS
Idle	GSM900	964.68	-71.94	PASS
Idle	GSM900	1382	-71.1	PASS
Idle	GSM900	1541.4	-71.58	PASS
Idle	GSM900	1626.3	-71.59	PASS
Idle	GSM900	1712.44	-70.99	PASS
Idle	GSM900	1758.75	-71.54	PASS



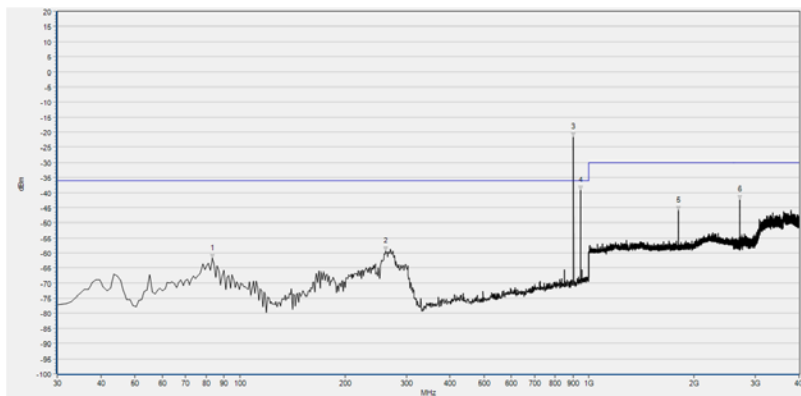
Test Type	Frequency Band	Test Condition (MHZ)	Measured Value(dBm)	Pass/Fail
Idle	GSM900	12698.6	-61.19	PASS
Idle	GSM900	12737	-61.84	PASS
Idle	GSM900	12725.2	-62.2	PASS
Idle	DCS1800	736.41	-71.79	PASS
Idle	DCS1800	861.76	-72.11	PASS
Idle	DCS1800	635.08	-72.3	PASS
Idle	DCS1800	894.93	-71.94	PASS
Idle	DCS1800	951.83	-72.21	PASS
Idle	DCS1800	1452.9	-71.37	PASS
Idle	DCS1800	1642.8	-71.39	PASS
Idle	DCS1800	1591.6	-71.41	PASS
Idle	DCS1800	1725.56	-71.33	PASS
Idle	DCS1800	1775.91	-71.44	PASS
Idle	DCS1800	12643.9	-61.84	PASS
Idle	DCS1800	12738.2	-62.03	PASS
Idle	DCS1800	12675.8	-62.06	PASS

2. Radiated spurious emissions-traffic mode.

GSM900:

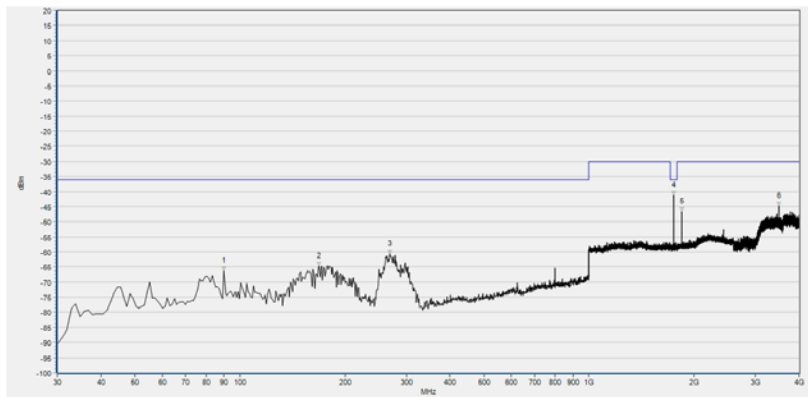


Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
176.470	-58.76	-36.00	Horizontal	PASS
269.590	-57.91	-36.00	Horizontal	PASS
902.030	-26.94	-36.00	Horizontal	N.A
947.620	-42.26	-36.00	Horizontal	N.A
1804.267	-45.14	-30.00	Horizontal	PASS
2707.240	-34.26	-30.00	Horizontal	PASS

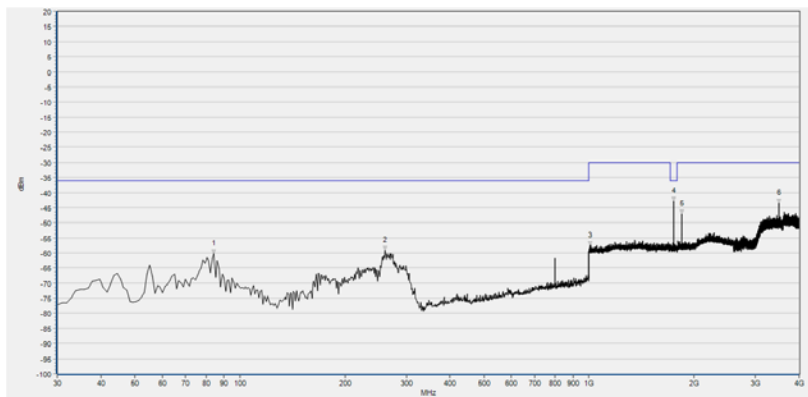


Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
83.350	-61.80	-36.00	Vertical	PASS
261.830	-59.31	-36.00	Vertical	PASS
902.030	-21.67	-36.00	Vertical	N.A
947.620	-39.28	-36.00	Vertical	N.A
1804.800	-45.95	-30.00	Vertical	PASS
2706.960	-42.40	-30.00	Vertical	PASS

DCS1800:



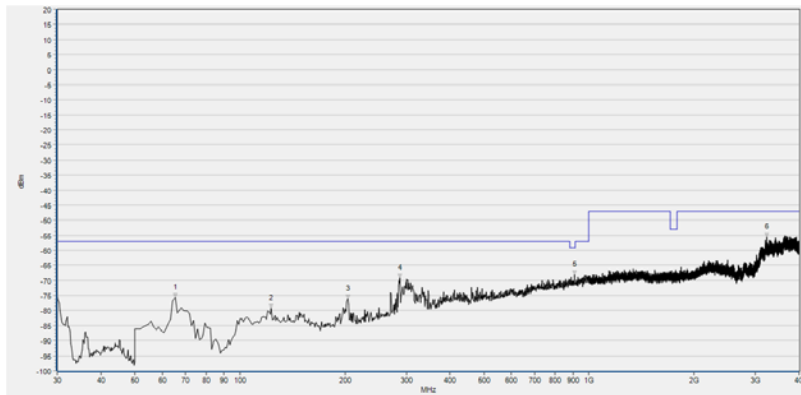
Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
90.140	-66.21	-36.00	Horizontal	PASS
168.710	-64.60	-36.00	Horizontal	PASS
268.620	-60.76	-36.00	Horizontal	PASS
1747.200	-41.20	-36.00	Horizontal	N.A
1842.133	-46.50	-30.00	Horizontal	N.A
3494.600	-44.83	-30.00	Horizontal	PASS



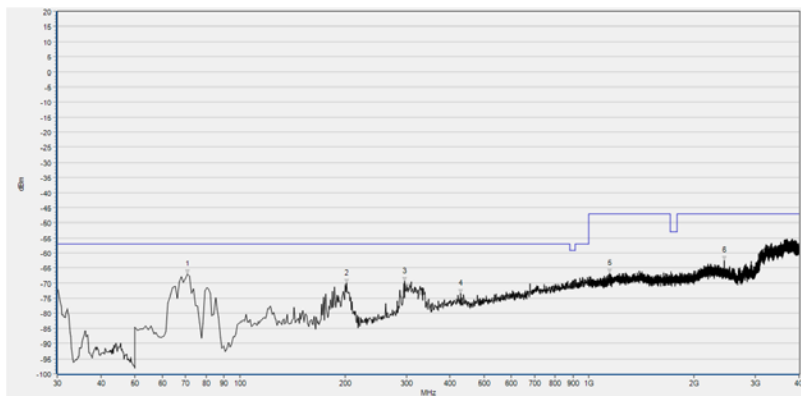
Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
84.320	-60.24	-36.00	Vertical	PASS
260.860	-59.05	-36.00	Vertical	PASS
1007.467	-57.59	-30.00	Vertical	PASS
1747.200	-42.71	-36.00	Vertical	N.A
1842.133	-46.96	-30.00	Vertical	N.A
3494.880	-43.48	-30.00	Vertical	PASS

2. Radiated spurious emissions-Idle mode.

GSM900:

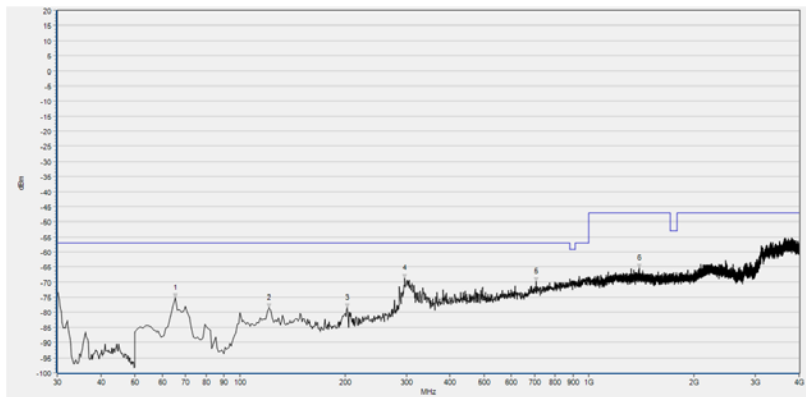


Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
65.200	-75.56	-57.00	Horizontal	PASS
123.150	-79.20	-57.00	Horizontal	PASS
203.900	-76.20	-57.00	Horizontal	PASS
287.500	-69.21	-57.00	Horizontal	PASS
908.800	-67.96	-59.00	Horizontal	PASS
3232.800	-55.52	-47.00	Horizontal	PASS

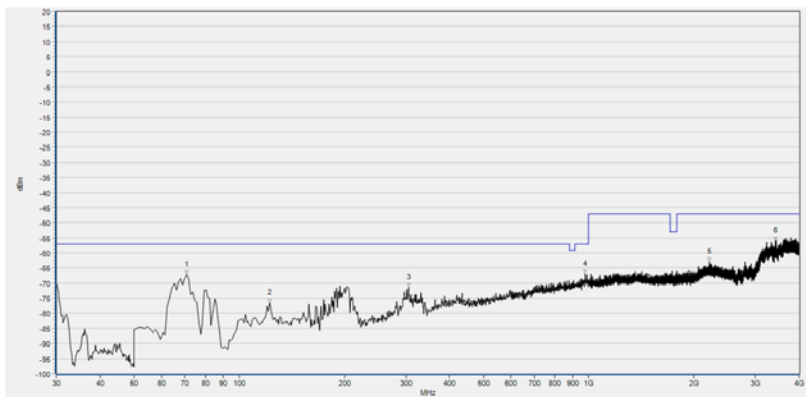


Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
70.900	-66.90	-57.00	Vertical	PASS
202.000	-70.08	-57.00	Vertical	PASS
297.000	-69.38	-57.00	Vertical	PASS
429.050	-73.43	-57.00	Vertical	PASS
1144.000	-66.72	-47.00	Vertical	PASS
2437.867	-62.55	-47.00	Vertical	PASS

DCS1800:



Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
65.200	-75.19	-57.00	Horizontal	PASS
121.250	-78.51	-57.00	Horizontal	PASS
202.950	-78.54	-57.00	Horizontal	PASS
297.000	-68.78	-57.00	Horizontal	PASS
706.450	-69.82	-57.00	Horizontal	PASS
1391.467	-65.41	-47.00	Horizontal	PASS



Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
70.900	-67.20	-57.00	Vertical	PASS
122.200	-76.65	-57.00	Vertical	PASS
305.550	-71.35	-57.00	Vertical	PASS
978.150	-66.98	-57.00	Vertical	PASS
2218.667	-62.96	-47.00	Vertical	PASS
3423.667	-55.90	-47.00	Vertical	PASS

Note: N.A means the frequency is the basic frequency or the base station frequency,they are no need to verdict.

Annex D Photographs of the EUT

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Annex E Test Uncertainty

3GPP TS 51.010-1	Test Description	Uncertainty
12.1.1 12.1.2	Conducted spurious emissions	$\pm 1.08\text{dB}$
12.2.1 12.2.2	Radiated spurious emissions	$\pm 3.74\text{dB}$
13.1 13.2 13.16.1 13.17.1 13.17.2	Frequency error and phase error Frequency error under multipath and interference conditions. Frequency error and phase error in GPRS multislot configuration Frequency error and Modulation accuracy in EGPRS Configuration Frequency error under multipath and interference conditions in EGPRS configuration	Freq Err < $\pm 12\text{Hz}$ RMS Phase Err < ± 1.0 degrees Peak Phase Err < ± 4.0 degrees
13.3	TX output power GSM900 DCS1800	$\pm 0.52\text{dB}$ $\pm 0.53\text{dB}$
	Power vs. Time $-7 \leq \text{power} \leq +1$	$\pm 0.66\text{dB}$
	$-20 \leq \text{power} \leq -7$	$\pm 1.08\text{dB}$
	$-32 \leq \text{power} \leq -20$	$\pm 2.03\text{dB}$
	$-45 \leq \text{power} \leq -32$	$\pm 2.52\text{dB}$
	$-50 \leq \text{power} \leq -45$	$\pm 2.72\text{dB}$
	$-60 \leq \text{power} \leq -50$	$\pm 3.01\text{dB}$
13.4	Output RF spectrum due to modulation and Switching Wideband Noise, 1800KHz offset to Edge of TX band Spurious emission in MS RX band	$\pm 0.54\text{dB}$ $\pm 0.79\text{dB}$ $\pm 0.98\text{dB}$
13.16.2 13.17.3	TX output power in GPRS (or EGPRS) multislot configuration GSM900 DCS1800	$\pm 0.68\text{dB}$ $\pm 0.69\text{dB}$
	Power vs. Time in GPRS (or EGPRS) configuration $-7 \leq \text{power} \leq +1$	$\pm 0.66\text{dB}$
	$-20 \leq \text{power} \leq -7$	$\pm 1.08\text{dB}$

3GPP TS 51.010-1	Test Description	Uncertainty
	-32≤power≤-20	±2.03dB
	-45≤power≤-32	±2.52dB
	-50≤power≤-45	±2.72dB
	-60≤power≤-50	±3.01dB
13.16.3 13.17.4	ORFS due to modulation in GPRS multislot configuration ORFS due to modulation in EGPRS multislot configuration	±1.79dB
	ORFS due to switching in GPRS multislot configuration ORFS due to switching in EGPRS multislot configuration	±1.54dB
	Wideband Noise,1800KHz offset to Edge of TX band in GPRS multislot configuration	±0.79dB
	Wideband Noise,1800KHz offset to Edge of TX band in EGPRS multislot configuration	
	Spurious emission in MS RX band in GPRS multislot configuration Spurious emission in MS RX band in EGPRS multislot configuration	±0.98dB
14.2.1 14.2.3 14.5.1 14.5.2 14.6.2	Reference sensitivity - TCH/FS Reference sensitivity - FACCH/F Adjacent channel rejection - speech channels (TCH/FS) Adjacent channel rejection - control channels Intermodulation rejection - control channels	±0.79126 dB
14.6.1 14.7.1 14.8.1	Intermodulation rejection - speech channels Blocking and spurious response - speech channels AM suppression - speech channels	
14.8.2 14.8.3	AM suppression - control channels AM suppression - packet channels	
14.16.1 14.18.1 14.18.3	Minimum Input level for Reference Performance - GPRS Minimum Input level for Reference Performance - EGPRS Adjacent channel rejection - EGPRS	
14.18.4 14.18.5	Intermodulation rejection - EGPRS Blocking and spurious response in EGPRS configuration	



Annex F General Information

1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Test Equipments Utilized

3.1 Agilent GS8800 System

Agilent GS8800 RF test system						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	8960 Wireless Communications Test Set	GB45071068	E5515C	Agilent	2018.04.17	2019.04.16
2	PSA Series Spectrum Analyzer	MY44300685	E4445A	Agilent	2018.11.06	2019.11.05
3	Mobile Communications DC Source	MY43000858	66319D	Agilent	2018.04.17	2019.04.16
4	EPM Series Power Meter	GB43318055	E4418B	Agilent	2018.04.17	2019.04.16
5	ESG Vector Signal Generator	MY49070387	E4438C	Agilent	2018.04.17	2019.04.16
6	PSG Analog Signal Generator	MY46521361	E8257D	Agilent	2018.04.17	2019.04.16
7	Electrical Safety Check	MY46130112	N9370A-001	Agilent	2018.04.17	2019.04.16
8	RF Interface	MY45490180	N1960-80103	Agilent	N/A	N/A



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9	GSM Module	MY45490176	N1960-8 0104	Agilent	2018.04.17	2019.04.16
10	Wireless Channel Emulator	WCE301M5	SR5500	Spirent	2018.04.17	2019.04.16
11	Industrial PC	0950-4838	TBN-806 0256	Advantech	N/A	N/A
Software Version: RCT.2.8.1.0.0						

3.2 RSE Test System

RSE Test System						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal.Due Date
1	System Simulator	117801	CMU200	R&S	2018.04.17	2019.04.16
2	MXE EMI Receiver	MY54130016	N9038A	Agilent	2018.04.17	2019.04.16
3	Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2018.04.17	2019.04.16
4	Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2018.05.18	2019.05.17
5	Anechoic Chamber	CRT	9m*6m*6m	(N/A)	2017.11.19	2020.11.18

3.3 Climate Chamber

Climate Chamber						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Climate Chamber	12108015	DTL-003S/01	YOMA	2018.04.17	2019.04.16

3.4 Vibration Table

Vibration Table						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Vibration Table	N/A	ACT2000- S015L	CMI-COM	2018.04.17	2019.04.16

3.5 Anechoic Chamber

Anechoic Chamber						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Anechoic Chamber	N/A	9m*6m*6m	Changning	2018.04.17	2019.04.16

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