



RADIO TEST REPORT

For

Shenzhen Huafurui Technology Co., Ltd.

Smartphone

Test Model: NOTE 60

Prepared for : Shenzhen Huafurui Technology Co., Ltd.
Address : Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : April 28, 2025
Number of tested samples : 2
Sample No. : A250428037-1, A250428037-2
Serial number : Prototype
Date of Test : April 28, 2025 ~ May 20, 2025
Date of Report : May 21, 2025





RADIO TEST REPORT 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	
Report Reference No. : LCSA04285026EH	
Date of Issue : May 21, 2025	
Testing Laboratory Name : Shenzhen LCS Compliance Testing Laboratory Ltd.	
Address : Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China	
Testing Location/ Procedure ... : Full application of Harmonised standards <input checked="" type="checkbox"/> Partial application of Harmonised standards <input type="checkbox"/> Other standard testing method <input type="checkbox"/>	
Applicant's Name : Shenzhen Huafurui Technology Co., Ltd.	
Address : Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China	
Test Specification	
Standard : ETSI EN 301 511 V12.5.1 (2017-03)	
Test Report Form No. : TRF-4-E-140 A/0	
TRF Originator : Shenzhen LCS Compliance Testing Laboratory Ltd.	
Master TRF : Dated 2017-06	
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Test Item Description..... : Smartphone	
Trade Mark..... : CUBOT	
Test Model : NOTE 60	
Ratings : Please Refer to Page 6	
Result : Pass	

Compiled by:*Nadia Zhou*

Nadia Zhou/ Administrator

Supervised by:*Jack Liu*

Jack Liu/ Technique principal

Approved by:*Gavin Liang*

Gavin Liang/ Manager





RADIO -- TEST REPORT

Test Report No. : LCSA04285026EH	<u>May 21, 2025</u> Date of issue
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Test Model.....	: NOTE 60
EUT.....	: Smartphone
Applicant.....	: Shenzhen Huafurui Technology Co., Ltd.
Address.....	: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Shenzhen Huafurui Technology Co., Ltd.
Address.....	: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China
Telephone.....	: /
Fax.....	: /
Factory.....	: Shenzhen Huafurui Technology Co., Ltd.
Address.....	: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China
Telephone.....	: /
Fax.....	: /

Test Result	Pass
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.





Revision History

Report Version	Issue Date	Revision Content	Revised By
000	May 21, 2025	Initial Issue	---





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1. GENERAL INFORMATION

1.1. Product Description for Equipment Under Test (EUT)

EUT	: Smartphone
Test Model	: NOTE 60
Ratings	: Adapter1 Model: TPD-203A120167VF01 For AC Adapter Input: 100-240V~, 50/60Hz, 0.6A Adapter Output: 5.0V=3.0A 15.0W or 9.0V=2.22A 19.98W or 12.0V=1.67A 20.04W Adapter2 Model: HJ-PD18W-EU For AC Adapter Input: 100-240V~, 50/60Hz, 0.6A Adapter Output: 5.0V=3.0A 15.0W OR 9.0V=2.0A 18.0W OR 12.0V=1.5A 18.0W MAX DC 3.91V by Rechargeable Li-ion Battery, 7000mAh
Hardware Version	: 2501D-UF-V11
Software Version	: CUBOT_NOTE_60_F081C_V01
Bluetooth	:
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 79 channels for Bluetooth V5.0 (BDR/EDR) 40 channels for Bluetooth V5.0 (BT LE/ BT 2LE)
Channel Spacing	: 1MHz for Bluetooth V5.0 (BDR/EDR) 2MHz for Bluetooth V5.0 (BT LE/ BT 2LE)
Modulation Type	: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V5.0 (BDR/EDR) GFSK for Bluetooth V5.0 (BT LE/ BT 2LE)
Bluetooth Version	: V5.0
Antenna Description	: PIFA Antenna, 2.39dBi(Max.)
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz~2472MHz
Channel Number	: 13 Channel for 20MHz bandwidth(2412~2472MHz) 9 channels for 40MHz bandwidth(2422~2462MHz)
Channel Spacing	: 5MHz
Modulation Type	: 802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PIFA Antenna, 2.39dBi(Max.)
WIFI(5.2G Band)	:
Frequency Range	: 5180MHz~5240MHz
Channel Number	: 4 channels for 20MHz bandwidth(5180~5240MHz) 2 channels for 40MHz bandwidth(5190~5230MHz) 1 channels for 80MHz bandwidth(5210MHz)
Modulation Type	: 802.11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK)





802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)	
Antenna Description	: PIFA Antenna, 0.02dBi(Max.)
WIFI(5.8G Band)	:
Frequency Range	: 5745MHz~5825MHz
Channel Number	: 5 channels for 20MHz bandwidth(5745~5825MHz) 2 channels for 40MHz bandwidth(5755~5795MHz) 1 channels for 80MHz bandwidth(5775MHz)
Modulation Type	: 802.11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK) 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PIFA Antenna, 0.02dBi(Max.)
2G	:
Support Band	: <input checked="" type="checkbox"/> GSM 900 (EU-Band) <input checked="" type="checkbox"/> DCS 1800 (EU-Band) <input checked="" type="checkbox"/> GSM 850 (U.S.-Band) <input checked="" type="checkbox"/> PCS 1900 (U.S.-Band)
Release Version	: R99
GPRS Class	: Class 12
EGPRS Class	: Class 12
Uplink	: GSM 900: 880MHz~915MHz DCS 1800: 1710MHz~1785MHz
Downlink	: GSM 900: 925MHz~960MHz DCS 1800: 1805MHz~1880MHz
Type Of Modulation	: GMSK for GSM/GPRS; 8PSK for EGPRS
Antenna Description	: PIFA Antenna -1.56dBi (max.) For GSM 900 2.81dBi (max.) For DCS 1800
Power Class	: GSM 900: Level 5, DCS 1800: Level 0 EGPRS 900: Level 8, EGPRS 1800: Level 2
3G	:
Support Band	: <input checked="" type="checkbox"/> WCDMA Band I (EU-Band) <input checked="" type="checkbox"/> WCDMA Band VIII (EU-Band)
Release Version	: R8
Uplink	: WCDMA Band I: 1920MHz~1980MHz WCDMA Band VIII: 880MHz~915MHz
Downlink	: WCDMA Band I: 2110MHz~2170MHz WCDMA Band VIII: 925MHz~960MHz
Type Of Modulation	: QPSK/16QAM
Antenna Description	: PIFA Antenna 2.31dBi (max.) For WCDMA Band I -1.56dBi (max.) For WCDMA Band VIII
Power Class	: Level 3
LTE	:





Support Band : ☒ E-UTRA Band 1(EU-Band)
☒ E-UTRA Band 3(EU-Band)
☒ E-UTRA Band 7(EU-Band)
☒ E-UTRA Band 8(EU-Band)
☒ E-UTRA Band 20(EU-Band)
☒ E-UTRA Band 28(EU-Band)
☒ E-UTRA Band 38(EU-Band)
☒ E-UTRA Band 40(EU-Band)

LTE Release Version : R8

FDD Band : Uplink: E-UTRA Band 1: 1920MHz~1980MHz
E-UTRA Band 3: 1710MHz~1785MHz
E-UTRA Band 7: 2500MHz~2570MHz
E-UTRA Band 8: 880MHz~915MHz
E-UTRA Band 20: 832MHz~862MHz
E-UTRA Band 28: 703MHz~748MHz
Downlink: E-UTRA Band 1: 2110MHz~2170MHz
E-UTRA Band 3: 1805MHz~1880MHz
E-UTRA Band 7: 2620MHz~2690MHz
E-UTRA Band 8: 925MHz~960MHz
E-UTRA Band 20: 791MHz~821MHz
E-UTRA Band 28: 758MHz~803MHz

TDD Band : E-UTRA Band 38: 2570MHz~2620MHz
E-UTRA Band 40: 2300MHz~2400MHz

Type Of Modulation : QPSK/16QAM

Antenna Description : PIFA Antenna
2.31dBi (max.) For E-UTRA Band 1
2.81dBi (max.) For E-UTRA Band 3
1.04dBi (max.) For E-UTRA Band 7
-1.56dBi (max.) For E-UTRA Band 8
-2.05dBi (max.) For E-UTRA Band 20
-1.16dBi (max.) For E-UTRA Band 28
1.04dBi (max.) For E-UTRA Band 38
0.18dBi (max.) For E-UTRA Band 40

Power Class : Class 3

GPS Receiver :

Receive Frequency : 1575.42MHz

Channel Number : 1

Antenna Description : PIFA Antenna, 3.73dBi(Max.)

GLONASS Receiver :

Receive Frequency : 1602.5625MHz

Channel Number : 1

Antenna Description : PIFA Antenna, 3.73dBi(Max.)





Galileo Receiver	:
Receive Frequency	: 1589.74MHz
Channel Number	: 1
Antenna Description	: PIFA Antenna, 3.73dBi(Max.)
NFC	:
Frequency Range	: 13.56MHz
Modulation Type	: ASK
Antenna Type	: Internal Antenna, 0dBi(Max.)





1.2. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
SHENZHEN TIANYIN ELECTRONICS CO.,LTD.	AC Adapter	TPD-203A1201 67VF01	--	CE
Shenzhen Huajin Electronics Co., Ltd	Fast Charger	HJ-PD18W-EU	--	CE

1.3. External I/O

I/O Port Description	Quantity	Cable
Type-C USB Port	1	USB Cable: 1.0m, unshielded Earphone Cable: 1.0m, unshielded

1.4. Objective

Standard Referenced	Standard Title	Standard Version
ETSI EN 301 511	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	V12.5.1 (2017-03)
ETSI TS 151 010-1	Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (3GPP TS 51.010-1 version 12.8.0 Release 12)	V12.8.0 (2016-05)

The objective is to determine compliance with ETSI EN 301 511 V12.5.1 (2017-03).

1.5. Test Conditions

Conditions	Temperature	Voltage
Normal	21-25℃	DC 3.91V
Low extreme Temperature/Low extreme Voltage (TL/VL);	-10℃	DC 3.5V
Low extreme Temperature/High extreme Voltage (TL/VH);	-10℃	DC 4.5V
High extreme Temperature/Low extreme Voltage (TH/VL);	+45℃	DC 3.5V
High extreme Temperature/High extreme Voltage (TH/VH).	+45℃	DC 4.5V

Note1: For all conditions, the humidity range is: 25-75%, the pressure range is 86-106kPa.
The High Voltage DC 4.5V and Low Voltage DC 3.5V was declared by manufacturer





1.6. Description Of Test Mode

During all testing, EUT is in link mode with base station emulator at maximum power level in each test mode and channel as below:

Mode	Channel	Frequency(MHz)
GSM 900	975	880.2
	63	902.6
	124	914.8

Mode	Channel	Frequency(MHz)
DCS 1800	512	1710.2
	698	1747.4
	885	1784.8

Operating modes of EUT during test	
Traffic Mode	A communication link is set up with a System Simulator (ss). The Absolute Radio Frequency Channel Number is allocated to the lowest, middle and highest channel during the test for all working frequency bands. The EUT is commanded to operate at maximum transmitting power. A call has been established.
Idle Mode	The EUT is synchronized to SS, and able to respond to paging messages and incoming call. An established call has been released.

***Note: The EUT has two SIM card slots(SIM1 and SIM2). The result for GSM card slot(SIM1) is the worst case which was only recorded.

1.7. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Radio Frequency	0.9×10^{-4}
Total RF Power, Conducted	1.0 dB
RF Power Density, Conducted	1.8 dB
Spurious Emissions, Conducted	1.8 dB
All Emissions, Radiated	3.1 dB
Temperature	0.5°C
Humidity	1 %
DC And Low Frequency Voltages	1 %

1.8. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



2. SYSTEM TEST CONFIGURATION

2.1. Justification

N/A

2.2. EUT Exercise Software

N/A

2.3. Special Accessories

The special accessories were supplied by Shenzhen LCS Compliance Testing Laboratory Ltd.

2.4. Block Diagram/Schematics

Please refer to the related document.

2.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

2.6. Test Setup

Please refer to the test setup photo.





3. SUMMARY OF TEST RESULTS

Test Engineer	:	Paddi Chen
Temperature/ Humidity:	:	24.5°C/ 53.6%

Reference Clause No. (ETSI TS 151 010-1)	Reference Clause No. (ETSI EN 301 511)	Description of Test Items	GSM 900	DCS 1800
			Result	Result
13.1	4.2.1	Transmitter - Frequency error and phase error		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
		Vibration X-axis	Pass	Pass
		Vibration Y-axis	Pass	Pass
		Vibration Z-axis	Pass	Pass
13.2	4.2.2	Transmitter - Frequency error under multipath and interference conditions		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
13.16.1	4.2.4	Frequency error and phase error in GPRS multislot configuration		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
		Vibration X-axis	Pass	Pass
		Vibration Y-axis	Pass	Pass
13.3	4.2.5	Transmitter output power and burst timing		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
13.4	4.2.6	Transmitter - Output RF spectrum		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass





13.16.2	4.2.10	Transmitter output power in GPRS multislot configuration		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
13.16.3	4.2.11	Output RF spectrum in GPRS multislot configuration		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
12.1.1	4.2.12	Conducted spurious emissions - MS allocated a channel		
		Normal	Pass	Pass
		TN/VL	Pass	Pass
		TN/VH	Pass	Pass
12.1.2	4.2.13	Conducted spurious emissions - MS in idle mode		
		Normal	Pass	Pass
		TN/VL	Pass	Pass
		TN/VH	Pass	Pass
12.2.1	4.2.16	Radiated spurious emissions - MS allocated a channel		
		Normal	Pass	Pass
		TN/VL	Pass	Pass
		TN/VH	Pass	Pass
12.2.2	4.2.17	Radiated spurious emissions - MS in idle mode		
		Normal	Pass	Pass
		TN/VL	Pass	Pass
		TN/VH	Pass	Pass
14.7.1	4.2.20	Receiver Blocking and spurious response - speech channels		
		Normal	Pass	Pass
13.17.1	4.2.26	Frequency error and Modulation accuracy in EGPRS Configuration		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
13.17.2	4.2.27	Frequency error under multipath and interference conditions in EGPRS Configuration		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
13.17.3	4.2.28	EGPRS Transmitter output power		





		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
13.17.4	4.2.29	Output RF spectrum in EGPRS configuration		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass
14.18.5	4.2.30	Blocking and spurious response in EGPRS configuration		
		Normal	Pass	Pass
14.6.1	4.2.32	Intermodulation rejection - speech channels		
		Normal	Pass	Pass
14.6.2	4.2.33	Intermodulation rejection - control channels		
		Normal	N/A	N/A
14.18.4	4.2.34	Intermodulation rejection - EGPRS		
		Normal	Pass	Pass
14.8.1	4.2.35	AM suppression - speech channels		
		Normal	Pass	Pass
14.8.1	4.2.36	AM suppression - control channels		
		Normal	N/A	N/A
14.8.3	4.2.37	AM suppression - packet channels		
		Normal	Pass	Pass
14.5.1.1	4.2.38	Adjacent channel rejection - speech channels (TCH/FS)		
		Normal	Pass	Pass
14.5.2	4.2.39	Adjacent channel rejection - control channels		
		Normal	N/A	N/A
14.18.3	4.2.40	Adjacent channel rejection - EGPRS		
		Normal	Pass	Pass
14.2.1	4.2.42	Reference sensitivity - TCH/FS		
		Normal	Pass	Pass
14.2.3	4.2.43	Reference sensitivity - FACCH/F		
		Normal	Pass	Pass
14.16.1	4.2.44	Minimum Input level for Reference Performance - GPRS		
		Normal	Pass	Pass
		TL/VL	Pass	Pass
		TL/VH	Pass	Pass
		TH/VL	Pass	Pass
		TH/VH	Pass	Pass





14.18.1	4.2.45	Minimum Input level for Reference Performance - EGPRS		
		Normal	Pass	Pass
		TL/VL (for MCS 4 only)	Pass	Pass
		TL/VH (for MCS 4 only)	Pass	Pass
		H/VL (for MCS 4 only)	Pass	Pass
		TH/VH (for MCS 4 only)	Pass	Pass

***Note:

Result: Describes test result of Test Case.

Pass: Test Case passed on specified conformance test platform.

Normal(TN/VN): Normal temperature – 25°C; Normal voltage. – DC 3.91V

TH: High extreme Temperature – +45°C

VH: High extreme Voltage – DC 4.5V

TL: Low extreme Temperature – -10°C

VL: Low extreme Voltage – DC 3.5V

Vibration X-axis/ Y-axis/ Z-axis: Vibration test condition for X/Y/Z axis.

N/A: Not applicable.

—: Not test.





4. LIST OF MEASURING EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	LTE Test Software	Tonscend	JS1120-1	N/A	N/A	N/A
2	RF Control Unit	Tonscend	JS0806-1	158060009	2024-11-08	2025-11-07
3	MXA Signal Analyzer	Agilent	N9020A	MY51250905	2024-10-08	2025-10-07
4	DC Power Supply	Agilent	E3642A	N/A	2024-10-08	2025-10-07
5	MXG Vector Signal Generator	Agilent	N5182A	MY47071151	2024-06-06	2025-06-05
6	PSG Analog Signal Generator	Agilent	E8257D	MY4520521	2024-06-06	2025-06-05
7	Temperature & Humidity Chamber	Baro	/	/	2024-06-12	2025-06-11
8	EMI Test Software	Farad	EZ	/	N/A	N/A
9	3m Full Anechoic Chamber	MRDIANZI	FAC-3M	MR009	2022-08-17	2025-08-16
10	Positioning Controller	Max-Full	MF7802BS	MF780208586	N/A	N/A
11	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	00005	2024-07-13	2027-07-12
12	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2024-08-03	2027-08-02
13	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2024-07-13	2027-07-12
14	Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	791	2024-07-13	2027-07-12
15	Broadband Preamplifier	SCHWARZBECK	BBV9719	9719-025	2024-07-30	2025-07-29
16	EMI Test Receiver	R&S	ESR 7	101181	2024-06-06	2025-06-05
17	RS SPECTRUM ANALYZER	R&S	FSP40	100503	2024-06-06	2025-06-05
18	Low-frequency amplifier	SchwarzZBECK	BBV9745	00253	2024-10-08	2025-10-07
19	High-frequency amplifier	JS Denki Pte	PA0118-43	JSPA21009	2024-10-08	2025-10-07
20	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW 500	103818	2024-06-06	2025-06-05
21	RF Filter	Micro-Tronics	BRC50718	017	2024-10-08	2025-10-07
22	RF Filter	Micro-Tronics	BRC50719	011	2024-10-08	2025-10-07
23	RF Filter	Micro-Tronics	BRC50720	011	2024-10-08	2025-10-07
24	RF Filter	Micro-Tronics	BRC50721	013	2024-10-08	2025-10-07
25	RF Filter	Micro-Tronics	BRM50702	195	2024-06-06	2025-06-05
26	6dB Attenuator	/	100W/6dB	1172040	2024-06-06	2025-06-05
27	3dB Attenuator	/	2N-3dB	/	2024-10-08	2025-10-07





5. PHOTOGRAPHS OF TEST SETUP

Please refer to separated files Appendix D for Photographs of Test Setup_RF.

6. PHOTOGRAPHS OF THE EUT

Please refer to separated files Appendix C for Photographs of The EUT.





Annex A

Transmitter output power and burst timing(Worst Case)

Mode: GSM 900 , Low channel CH 975:880.2MHz						
Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
5	32.48	32.50	32.46	32.37	32.30	PASS
6	30.05	30.08	30.00	29.98	29.97	PASS
7	28.58	28.50	28.42	28.49	28.50	PASS
8	26.18	26.23	26.25	26.33	26.33	PASS
9	25.45	25.55	25.58	25.50	25.53	PASS
10	22.40	22.45	22.39	22.35	22.36	PASS
11	20.75	20.69	20.78	20.82	20.78	PASS
12	18.79	18.76	18.80	18.77	18.72	PASS
13	16.09	16.00	15.91	15.89	15.80	PASS
14	13.90	13.86	13.96	13.95	13.88	PASS
15	12.68	12.64	12.64	12.71	12.80	PASS
16	11.36	11.29	11.36	11.45	11.45	PASS
17	9.44	9.41	9.38	9.39	9.44	PASS
18	6.23	6.24	6.21	6.28	6.26	PASS
19	4.57	4.66	4.67	4.65	4.68	PASS





Mode: GSM 900 , middle channel CH 63:902.6MHz						
Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
5	32.48	32.50	32.57	32.67	32.61	PASS
6	29.97	30.01	29.95	30.04	30.14	PASS
7	28.47	28.42	28.42	28.49	28.56	PASS
8	26.08	26.13	26.20	26.29	26.28	PASS
9	25.43	25.50	25.49	25.46	25.47	PASS
10	22.53	22.52	22.55	22.49	22.53	PASS
11	20.76	20.78	20.76	20.76	20.71	PASS
12	18.71	18.75	18.65	18.72	18.68	PASS
13	16.06	16.02	16.03	16.08	15.99	PASS
14	13.92	13.97	13.91	13.86	13.94	PASS
15	12.70	12.73	12.77	12.67	12.64	PASS
16	11.44	11.44	11.38	11.43	11.43	PASS
17	9.40	9.42	9.39	9.39	9.31	PASS
18	6.13	6.16	6.09	6.04	6.07	PASS
19	4.47	4.40	4.48	4.47	4.56	PASS





Mode: GSM 900 , High channel CH 124:914.8MHz

Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
5	32.53	32.50	32.41	32.45	32.55	PASS
6	30.09	29.99	29.91	29.93	30.00	PASS
7	28.53	28.46	28.53	28.45	28.41	PASS
8	26.23	26.30	26.38	26.42	26.47	PASS
9	25.55	25.47	25.56	25.52	25.50	PASS
10	22.51	22.45	22.43	22.39	22.31	PASS
11	20.74	20.72	20.66	20.60	20.65	PASS
12	18.78	18.81	18.81	18.79	18.72	PASS
13	16.08	16.17	16.23	16.25	16.27	PASS
14	13.91	13.89	13.86	13.80	13.83	PASS
15	12.67	12.59	12.61	12.55	12.46	PASS
16	11.49	11.41	11.33	11.36	11.46	PASS
17	9.45	9.36	9.44	9.51	9.47	PASS
18	6.15	6.08	6.14	6.14	6.24	PASS
19	4.61	4.51	4.45	4.45	4.52	PASS





Mode: DCS1800, Low channel CH 512:1710.2MHz

Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
0	29.51	29.52	29.55	29.48	29.50	PASS
1	28.28	28.19	28.19	28.18	28.10	PASS
2	26.24	26.18	26.17	26.10	26.08	PASS
3	23.56	23.53	23.54	23.44	23.37	PASS
4	21.05	21.14	21.18	21.19	21.24	PASS
5	20.59	20.61	20.70	20.62	20.54	PASS
6	18.64	18.72	18.70	18.76	18.85	PASS
7	16.50	16.44	16.53	16.61	16.66	PASS
8	14.43	14.51	14.48	14.47	14.51	PASS
9	11.90	11.81	11.75	11.72	11.73	PASS
10	9.36	9.40	9.34	9.34	9.37	PASS
11	7.26	7.34	7.38	7.45	7.42	PASS
12	5.71	5.72	5.77	5.76	5.70	PASS
13	4.09	4.09	4.18	4.09	4.02	PASS
14	3.18	3.19	3.12	3.15	3.20	PASS
15	0.68	0.75	0.81	0.75	0.68	PASS





Mode: DCS1800, middle channel CH 698:1747.4MHz

Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
0	29.49	29.53	29.44	29.49	29.43	PASS
1	28.24	28.19	28.13	28.22	28.26	PASS
2	26.38	26.36	26.27	26.35	26.34	PASS
3	23.57	23.51	23.43	23.51	23.58	PASS
4	21.10	21.05	21.03	21.11	21.18	PASS
5	20.47	20.40	20.32	20.35	20.26	PASS
6	18.69	18.74	18.65	18.74	18.69	PASS
7	16.41	16.47	16.46	16.43	16.47	PASS
8	14.50	14.53	14.59	14.55	14.62	PASS
9	11.83	11.85	11.90	11.86	11.81	PASS
10	9.40	9.31	9.27	9.32	9.33	PASS
11	7.28	7.33	7.34	7.31	7.27	PASS
12	5.68	5.76	5.83	5.86	5.91	PASS
13	4.15	4.06	4.00	3.92	4.01	PASS
14	3.11	3.18	3.09	3.18	3.21	PASS
15	0.57	0.62	0.58	0.51	0.59	PASS





Mode: DCS1800, high channel CH 885:1784.8MHz						
Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
0	29.54	29.54	29.57	29.55	29.64	PASS
1	28.18	28.24	28.16	28.19	28.22	PASS
2	26.34	26.27	26.20	26.11	26.17	PASS
3	23.59	23.62	23.67	23.73	23.67	PASS
4	21.02	20.96	21.06	21.11	21.15	PASS
5	20.40	20.31	20.40	20.48	20.43	PASS
6	18.71	18.66	18.76	18.66	18.70	PASS
7	16.46	16.41	16.43	16.43	16.34	PASS
8	14.45	14.41	14.50	14.60	14.65	PASS
9	11.79	11.76	11.75	11.84	11.81	PASS
10	9.47	9.46	9.37	9.38	9.46	PASS
11	7.42	7.51	7.53	7.49	7.43	PASS
12	5.80	5.71	5.70	5.75	5.74	PASS
13	4.04	4.07	4.09	4.12	4.13	PASS
14	3.12	3.10	3.17	3.09	3.05	PASS
15	0.58	0.50	0.52	0.59	0.66	PASS





Mode: EGPRS 900 , Low channel CH 975:880.2MHz						
Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
8	26.09	26.10	26.06	26.00	25.90	PASS
9	25.48	25.52	25.51	25.60	25.63	PASS
10	22.48	22.46	22.46	22.39	22.46	PASS
11	20.71	20.64	20.59	20.60	20.69	PASS
12	18.78	18.72	18.73	18.82	18.88	PASS
13	16.00	16.09	16.09	16.08	16.00	PASS
14	13.99	14.05	14.13	14.08	14.02	PASS
15	12.70	12.74	12.78	12.87	12.89	PASS
16	11.48	11.53	11.59	11.61	11.66	PASS
17	9.37	9.31	9.24	9.33	9.39	PASS
18	6.17	6.09	6.12	6.17	6.07	PASS
19	4.65	4.57	4.63	4.60	4.54	PASS





Mode: EGPRS 900 , middle channel CH 63:902.6MHz						
Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
8	26.12	26.07	26.05	26.13	26.21	PASS
9	25.43	25.40	25.49	25.51	25.46	PASS
10	22.39	22.41	22.48	22.49	22.57	PASS
11	20.84	20.77	20.80	20.79	20.84	PASS
12	18.77	18.72	18.76	18.68	18.59	PASS
13	16.07	16.14	16.13	16.13	16.10	PASS
14	13.91	13.95	14.02	14.06	14.12	PASS
15	12.69	12.71	12.63	12.55	12.55	PASS
16	11.50	11.43	11.39	11.31	11.22	PASS
17	9.43	9.39	9.48	9.51	9.42	PASS
18	6.17	6.12	6.21	6.12	6.04	PASS
19	4.65	4.72	4.76	4.79	4.70	PASS





Mode: EGPRS 900 , High channel CH 124:914.8MHz

Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
8	26.21	26.13	26.07	26.05	26.13	PASS
9	25.49	25.43	25.46	25.52	25.56	PASS
10	22.42	22.48	22.44	22.37	22.39	PASS
11	20.72	20.82	20.74	20.69	20.76	PASS
12	18.77	18.79	18.84	18.75	18.83	PASS
13	16.13	16.19	16.09	16.05	16.13	PASS
14	14.03	14.03	14.08	14.06	14.00	PASS
15	12.79	12.84	12.87	12.78	12.73	PASS
16	11.52	11.50	11.50	11.55	11.58	PASS
17	9.40	9.37	9.29	9.36	9.41	PASS
18	6.12	6.20	6.12	6.11	6.10	PASS
19	4.66	4.60	4.53	4.48	4.42	PASS





Mode: EGPRS 1800, Low channel CH 512:1710.2MHz

Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
2	26.22	26.18	26.20	26.12	26.18	PASS
3	23.67	23.59	23.49	23.40	23.30	PASS
4	21.02	21.10	21.09	21.19	21.24	PASS
5	20.56	20.59	20.53	20.52	20.55	PASS
6	18.64	18.62	18.57	18.51	18.42	PASS
7	16.50	16.41	16.48	16.52	16.60	PASS
8	14.52	14.44	14.49	14.58	14.57	PASS
9	11.88	11.94	11.91	11.85	11.78	PASS
10	9.39	9.37	9.44	9.42	9.50	PASS
11	7.30	7.23	7.29	7.33	7.29	PASS
12	5.80	5.86	5.82	5.79	5.81	PASS
13	4.13	4.05	4.00	4.07	4.06	PASS
14	3.00	3.07	3.10	3.12	3.16	PASS
15	0.55	0.50	0.47	0.52	0.51	PASS





Mode: EGPRS 1800, middle channel CH 698:1747.4MHz

Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
2	26.32	26.26	26.32	26.32	26.30	PASS
3	23.54	23.46	23.51	23.56	23.52	PASS
4	20.97	21.05	21.09	21.13	21.09	PASS
5	20.59	20.52	20.44	20.44	20.41	PASS
6	18.66	18.71	18.63	18.57	18.56	PASS
7	16.44	16.50	16.56	16.59	16.55	PASS
8	14.56	14.59	14.58	14.49	14.51	PASS
9	11.91	11.83	11.90	11.95	11.89	PASS
10	9.52	9.46	9.41	9.42	9.40	PASS
11	7.28	7.20	7.28	7.28	7.19	PASS
12	5.68	5.61	5.67	5.64	5.57	PASS
13	4.16	4.18	4.21	4.30	4.36	PASS
14	3.18	3.10	3.16	3.24	3.28	PASS
15	0.71	0.71	0.77	0.68	0.63	PASS





Mode: EGPRS 1800, high channel CH 885:1784.8MHz

Power Control level	Output power(dBm)					Conclusion
	Normal	TL/VL	TH/VL	TL/VH	TH/VH	
2	26.30	26.26	26.17	26.22	26.29	PASS
3	23.62	23.63	23.67	23.58	23.54	PASS
4	21.10	21.11	21.07	21.16	21.26	PASS
5	20.54	20.50	20.42	20.51	20.57	PASS
6	18.77	18.75	18.69	18.64	18.74	PASS
7	16.44	16.46	16.49	16.57	16.59	PASS
8	14.48	14.40	14.46	14.50	14.55	PASS
9	11.75	11.69	11.60	11.61	11.68	PASS
10	9.38	9.44	9.43	9.36	9.28	PASS
11	7.35	7.35	7.36	7.30	7.35	PASS
12	5.79	5.88	5.86	5.95	6.03	PASS
13	3.97	4.01	4.06	4.04	4.08	PASS
14	3.17	3.12	3.05	3.10	3.16	PASS
15	0.67	0.60	0.51	0.50	0.44	PASS

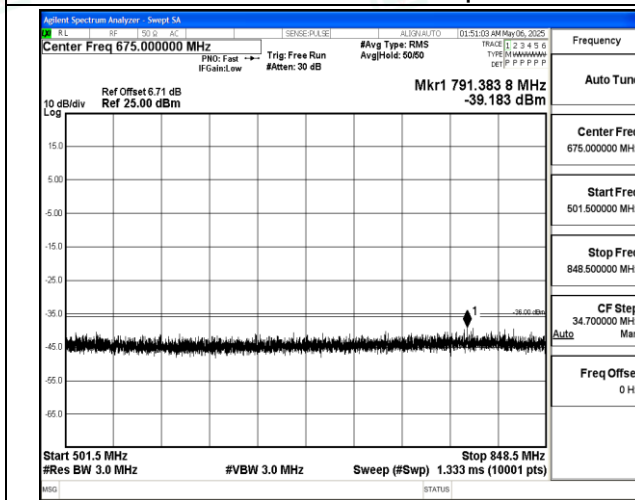




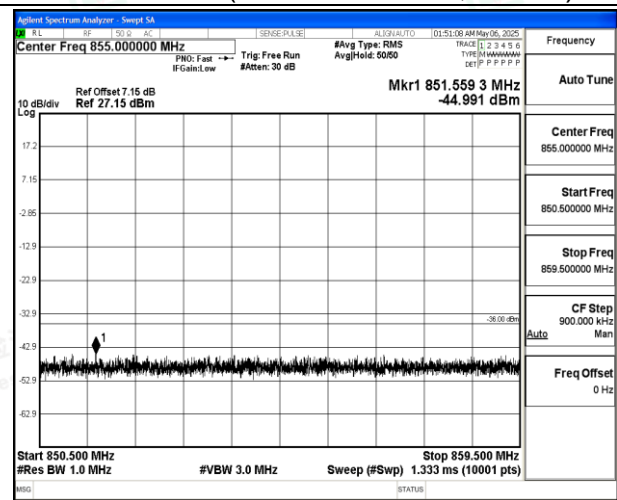
Transmitter spurious emissions

Conducted spurious emissions - MS allocated a channel (Worst Case)

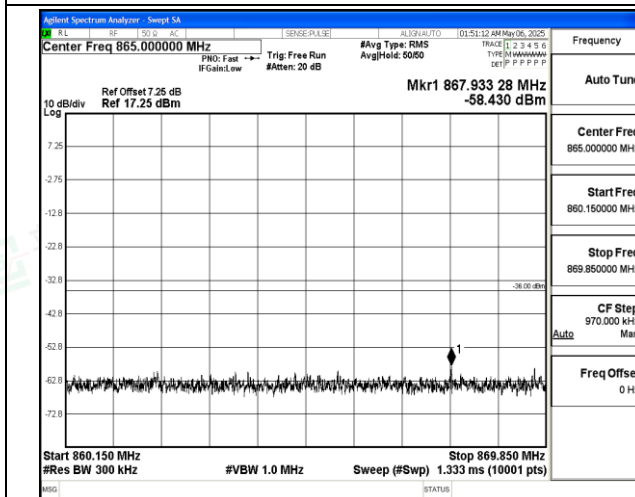
The Worst Test Result of Spurious Emissions for GSM 900 (Middle Channel, Traffic)



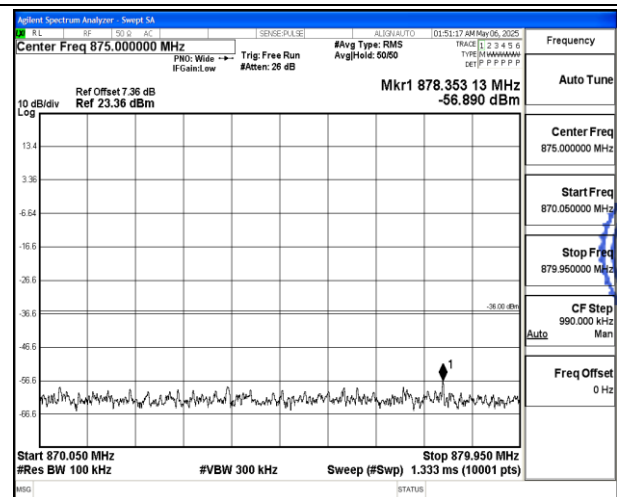
501.5MHz~848.5MHz



850.5MHz~859.5MHz



860.150MHz~896.850MHz



870.050MHz~879.950MHz



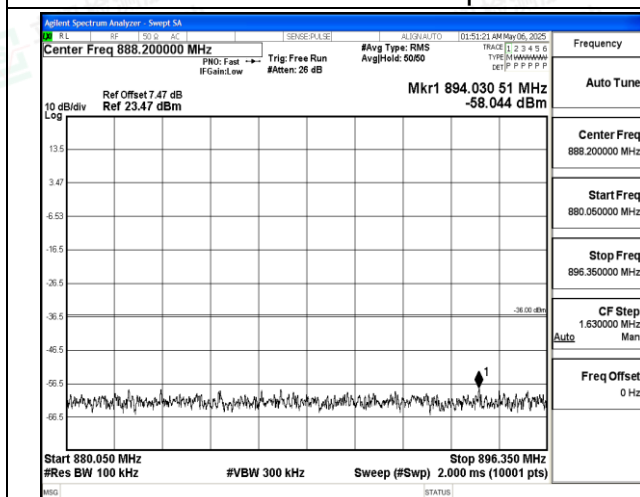
Shenzhen LCS Compliance Testing Laboratory Ltd.

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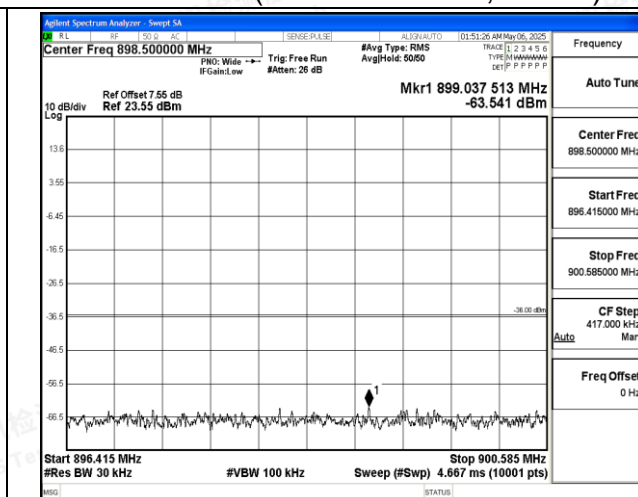
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Scan code to check authenticity

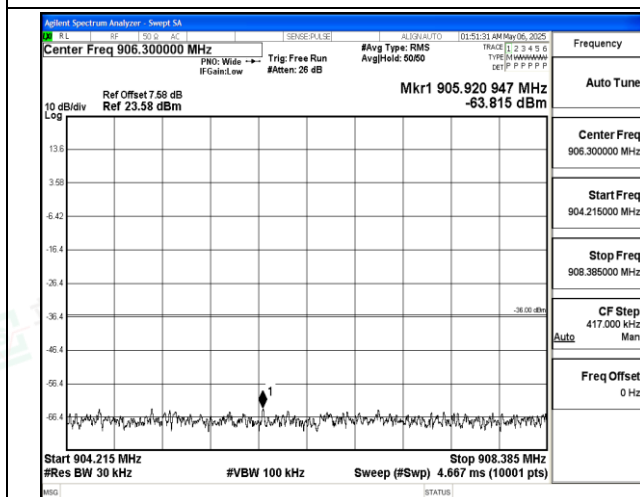
The Worst Test Result of Spurious Emissions for GSM 900 (Middle Channel, Traffic)



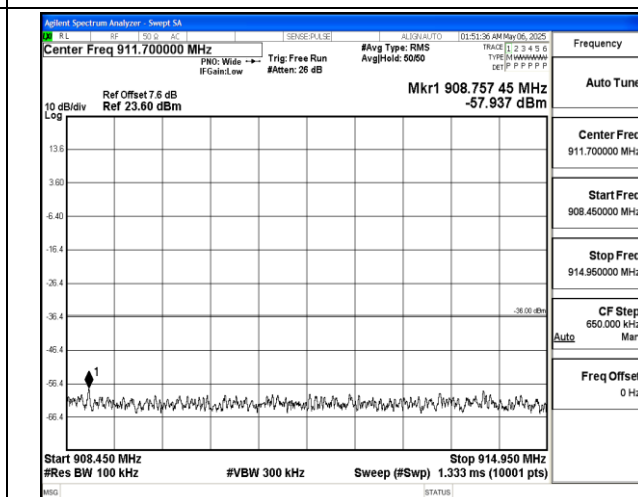
880.050MHz~896.350MHz



896.415MHz~900.558MHz



904.215MHz~908.385MHz



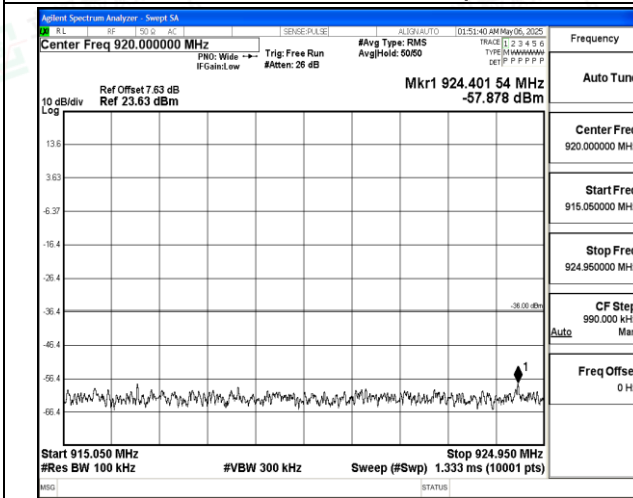
908.450MHz~914.950MHz



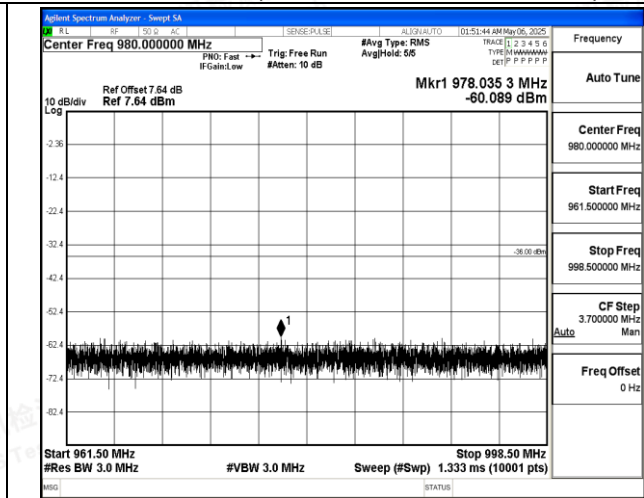
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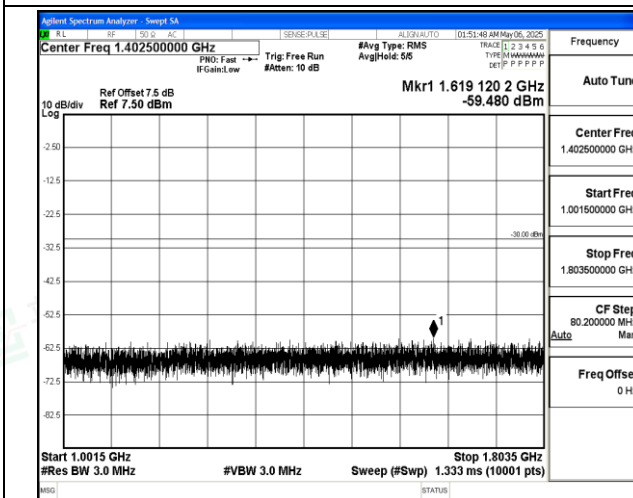
The Worst Test Result of Spurious Emissions for GSM 900 (Middle Channel, Traffic)



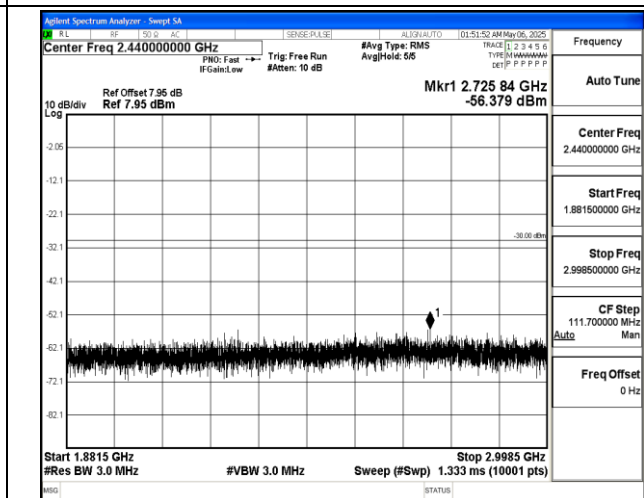
915.050MHz~924.950MHz



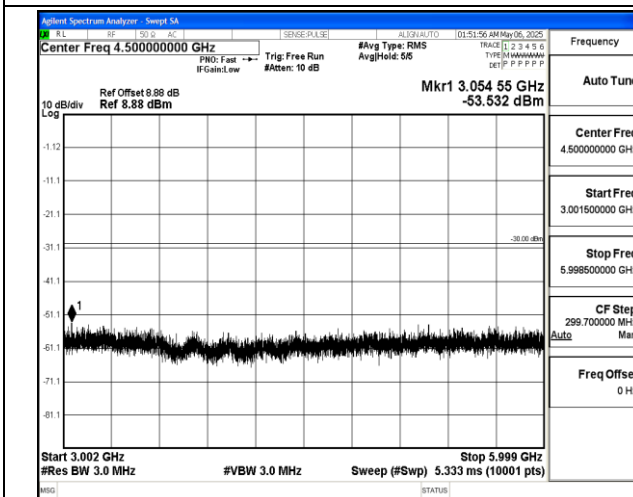
961.50MHz~998.50MHz



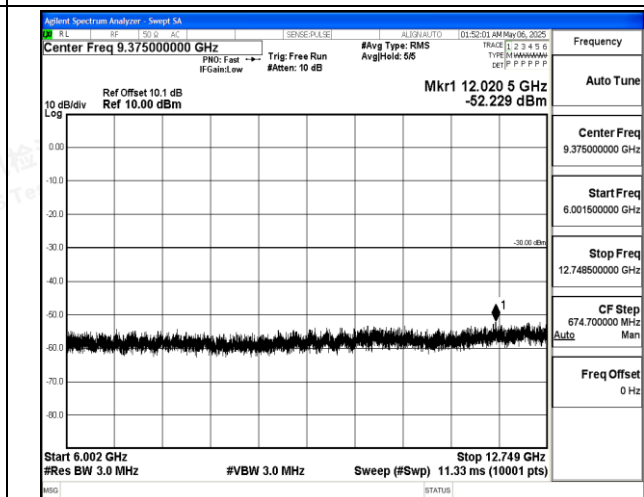
1.0015GHz~1.8035GHz



1.8815GHz~2.9985GHz



3.002GHz~5.999GHz



6.002GHz~12.749GHz



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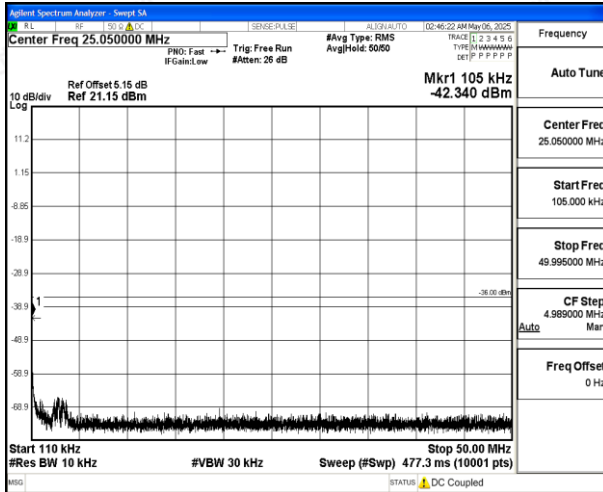
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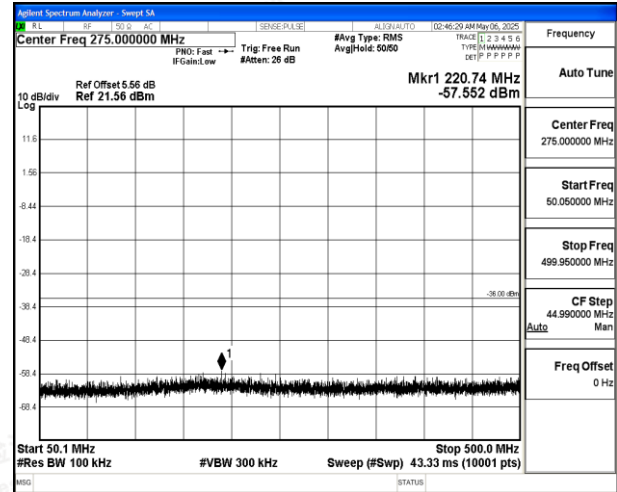
Scan code to check authenticity



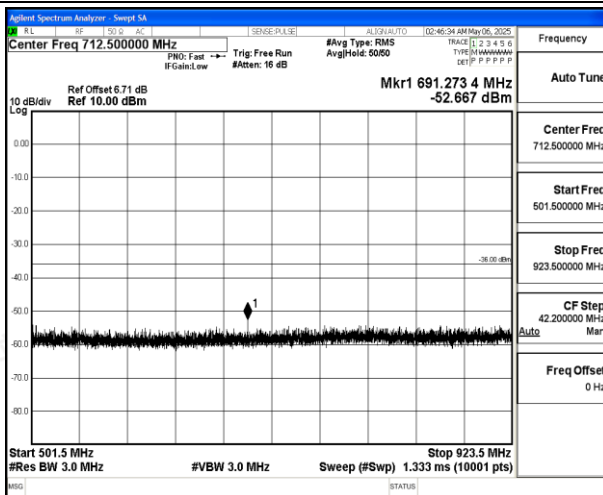
The Worst Test Result of Spurious Emissions for DCS 1800 (Middle Channel, Traffic)



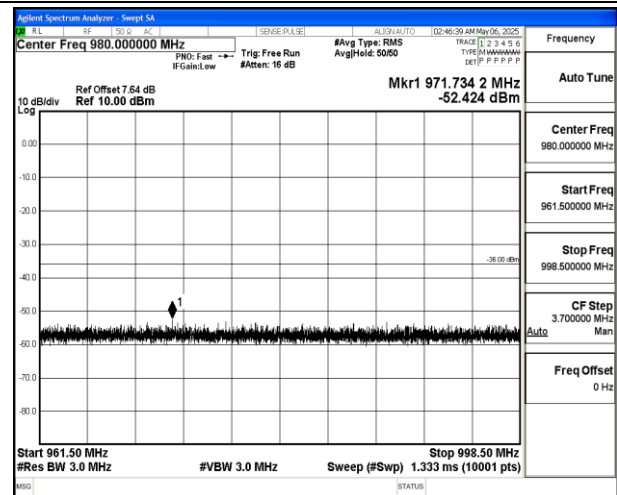
110KHz~50.00MHz



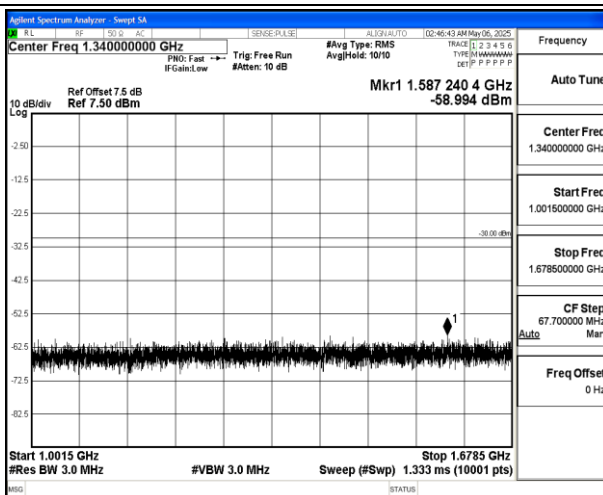
50.1MHz~500.0MHz



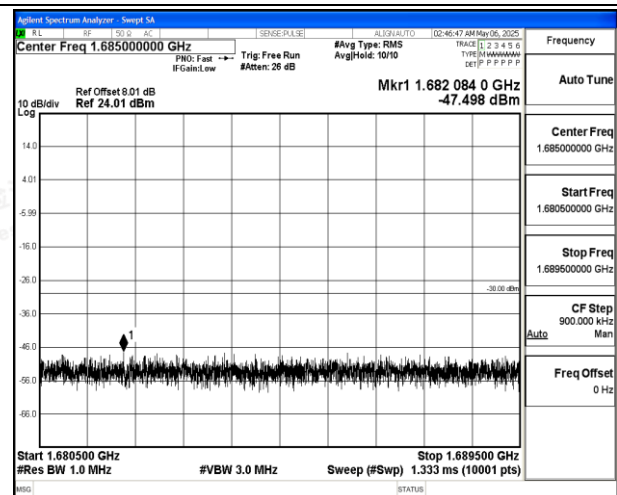
501.5MHz~923.5MHz



961.50MHz~998.50MHz



1.0015GHz~1.6785GHz

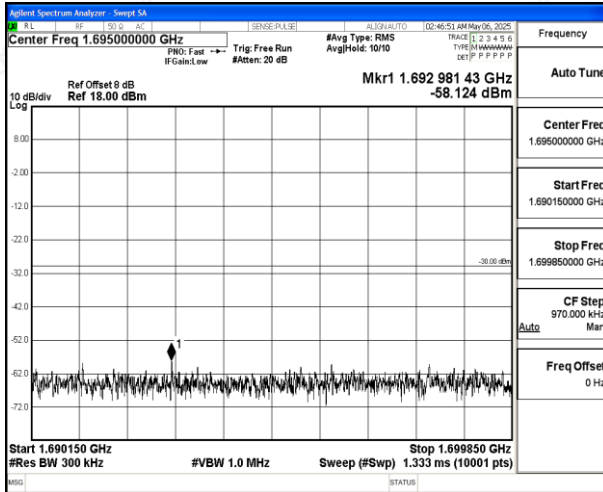


1.680500GHz~1.689500GHz

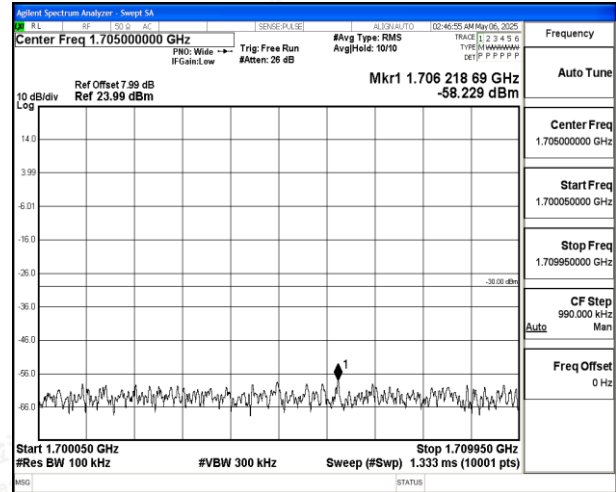




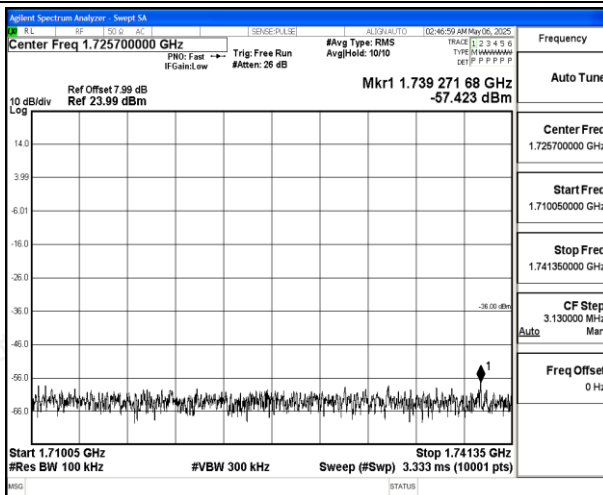
The Worst Test Result of Spurious Emissions for DCS 1800 (Middle Channel, Traffic)



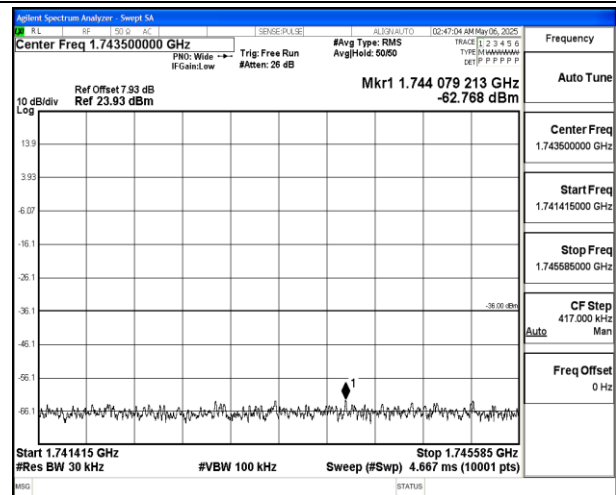
1.690150GHz~1.699850GHz



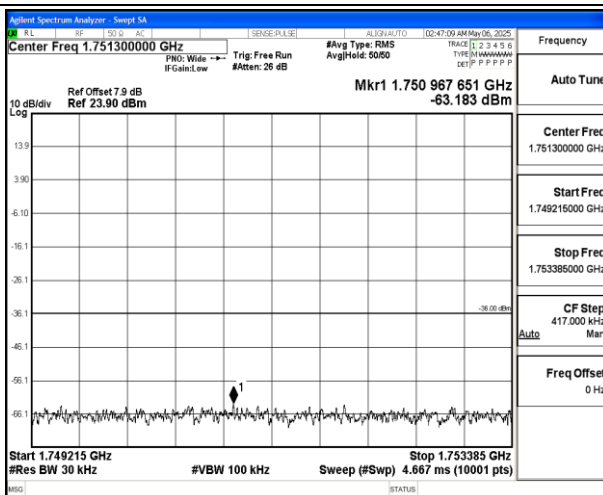
1.700050GHz~1.709950GHz



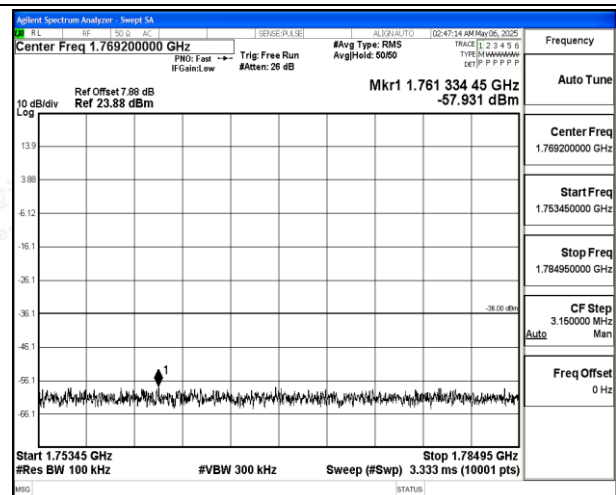
1.71005GHz~1.74135GHz



1.741415GHz~1.745585GHz



1.749215GHz~1.753385GHz



1.75345GHz~1.78495GHz



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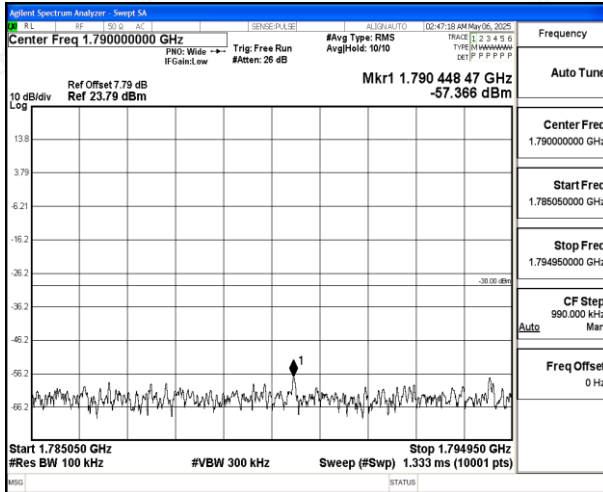
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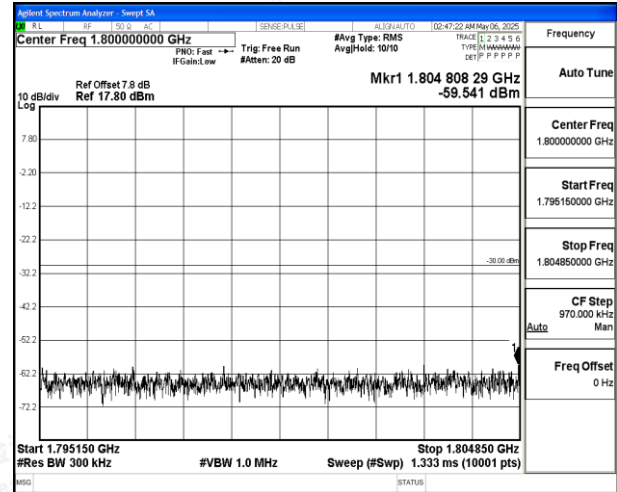
Scan code to check authenticity



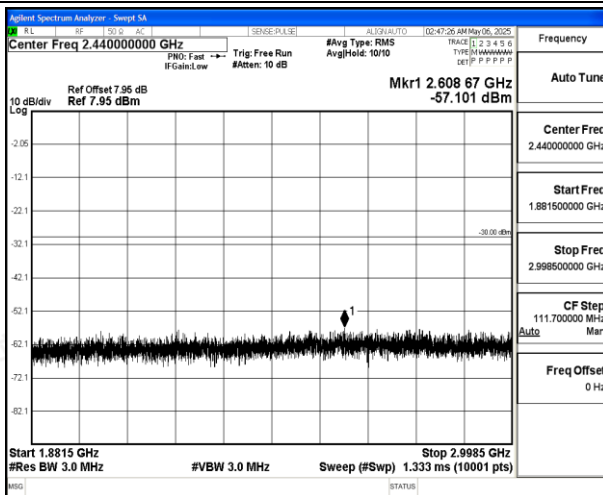
The Worst Test Result of Spurious Emissions for DCS 1800 (Middle Channel, Traffic)



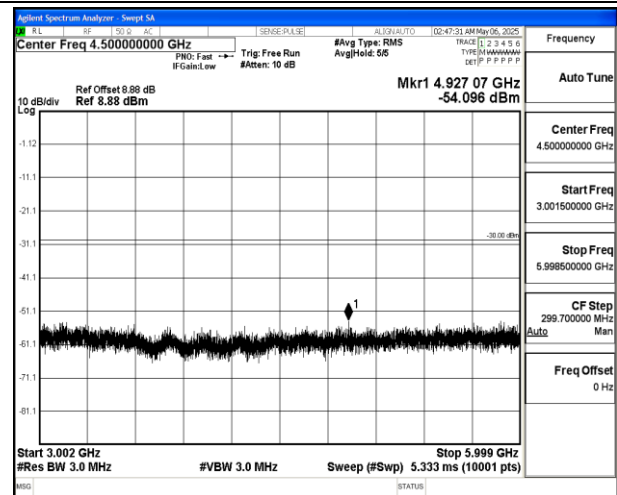
1.785050GHz~1.794950GHz



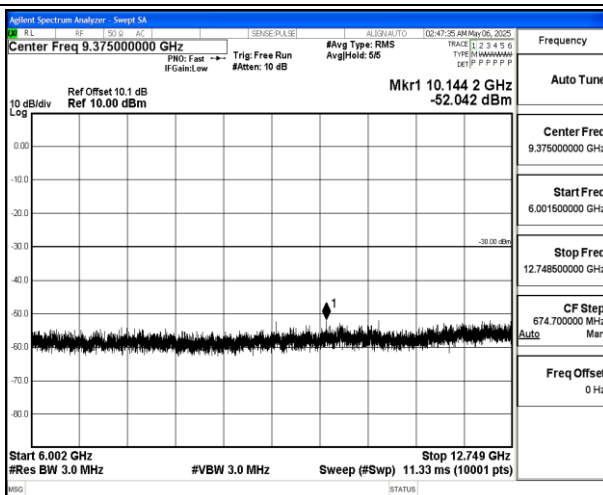
1.795150GHz~1.804850GHz



1.8815GHz~2.9985GHz



3.002GHz~5.999GHz



6.002GHz~12.749GHz



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Scan code to check authenticity



Transmitter spurious emissions

Radiated spurious emissions - MS allocated a channel(Worst Case)

GSM 900 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
170.57	Horizontal	-63.90	-36.00	Pass
402.14	H	-66.46	-36.00	
1791.79	H	-60.17	-30.00	
2692.83	H	-52.96	-30.00	
3590.56	H	-50.16	-30.00	
GSM 900 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
185.90	Vertical	-50.83	-36.00	Pass
397.41	V	-58.37	-36.00	
1790.63	V	-50.58	-30.00	
2694.30	V	-65.25	-30.00	
3586.61	V	-70.22	-30.00	

DCS 1800 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
231.05	Horizontal	-52.49	-36.00	Pass
398.95	H	-66.78	-36.00	
1440.83	H	-60.34	-30.00	
2822.65	H	-63.72	-30.00	
3492.15	H	-59.87	-30.00	
DCS 1800 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
213.06	Vertical	-54.68	-36.00	Pass
498.34	V	-52.78	-36.00	
1440.04	V	-63.49	-30.00	
2827.88	V	-69.58	-30.00	
3497.98	V	-51.23	-30.00	





Radiated spurious emissions - MS in Idle Mode(Worst Case)

GSM 900 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
268.14	Horizontal	-75.31	-57.00	Pass
372.48	H	-66.42	-57.00	
1697.98	H	-60.84	-47.00	
2297.11	H	-65.36	-47.00	
3363.14	H	-63.68	-47.00	
GSM 900 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
144.70	Vertical	-63.06	-57.00	Pass
494.83	V	-60.80	-57.00	
1000.49	V	-71.18	-47.00	
2890.41	V	-67.94	-47.00	
3035.96	V	-62.61	-47.00	

DCS 1800 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
258.85	Horizontal	-67.79	-57.00	Pass
387.30	H	-67.51	-57.00	
1707.37	H	-66.69	-47.00	
2955.81	H	-62.02	-47.00	
3481.56	H	-65.54	-47.00	
DCS 1800 Band: Middle Channel, Normal condition				
Frequency (MHz)	Radiated Spurious Emission		Limit (dBm)	Test Result
	Polarization	Level(dBm)		
194.23	Vertical	-70.88	-57.00	Pass
449.40	V	-66.42	-57.00	
1199.48	V	-65.55	-47.00	
2877.65	V	-63.01	-47.00	
3003.36	V	-68.35	-47.00	

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

