

TEST REPORT

Applicant: Particle Industries, Inc.

EUT Description: M-SoM LTE-M/2G/Satellite + Wi-Fi for Global

Model: M635e

Brand: Particle

Standards: ETSI EN 301 511 V12.5.1
ETSI TS 151 010-1 V12.8.0

Date of Receipt: 2026/05/14

Date of Test: 2026/05/14 to 2026/06/11

Date of Issue: 2026/06/11

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.



Jim Huang
Approved By:



Carey Chen
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2026/06/11	Original	Carey Chen

Summary of Test Results

Test Item	Test Requirement	Test Method	Result
	ETSI EN 301 511	ETSI TS 151 010-1	
Transmitter - Frequency error and phase error	Clause 4.2.1	Clause 13.1	Reference report SZCR240600219902
Transmitter - Frequency error under multipath and interference conditions	Clause 4.2.2	Clause 13.2	
Frequency error and phase error in GPRS multislot configuration	Clause 4.2.4	Clause 13.16.1	
Transmitter output power and burst timing	Clause 4.2.5	Clause 13.3	
Transmitter - Output RF spectrum	Clause 4.2.6	Clause 13.4	
Transmitter output power in GPRS multislot configuration	Clause 4.2.10	Clause 13.16.2	
Output RF spectrum in GPRS multislot configuration	Clause 4.2.11	Clause 13.16.3	
Conducted spurious emissions - MS allocated a channel	Clause 4.2.12	Clause 12.1.1	
Conducted spurious emissions - MS in idle mode	Clause 4.2.13	Clause 12.1.2	
Receiver Blocking and spurious response - speech channels	Clause 4.2.20	Clause 14.7.1	
Frequency error and Modulation accuracy in EGPRS Configuration	Clause 4.2.26	Clause 13.17.1	
Frequency error under multipath and interference conditions in EGPRS Configuration	Clause 4.2.27	Clause 13.17.2	
EGPRS Transmitter output power	Clause 4.2.28	Clause 13.17.3	
Output RF spectrum in EGPRS configuration	Clause 4.2.29	Clause 13.17.4	
Blocking and spurious response in EGPRS configuration	Clause 4.2.30	Clause 14.18.5	
Intermodulation rejection - speech channels	Clause 4.2.32	Clause 14.6.1	
Intermodulation rejection - EGPRS	Clause 4.2.34	Clause 14.18.4	
AM suppression - speech channels	Clause 4.2.35	Clause 14.8.1	
Adjacent channel rejection - speech channels (TCH/FS)	Clause 4.2.38	Clause 14.5.1.1	
Adjacent channel rejection - EGPRS	Clause 4.2.40	Clause 14.18.3	
Reference sensitivity - TCH/FS	Clause 4.2.42	Clause 14.2.1	
Reference sensitivity - FACCH/F	Clause 4.2.43	Clause 14.2.3	
Minimum Input level for Reference Performance - GPRS	Clause 4.2.44	Clause 14.16.1	
Minimum Input level for Reference Performance - EGPRS	Clause 4.2.45	Clause 14.18.1	
Radiated spurious emissions - MS allocated a channel	Clause 4.2.16	Clause 12.2.1	Pass
Radiated spurious emissions - MS in idle mode	Clause 4.2.17	Clause 12.2.2	Pass
Remark: The EUT and test equipment were configured for testing according to EN 301 511 and ETSI TS 151 010-1.			

Remark:

The Radiated spurious emissions were tested in this report, and other items data please refer to the previous report with report number SZCR240600219902 issued by SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch.

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1 General Description

1.1 Lab Information

1.1.1 Testing Location

These measurements tests were conducted at the Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. facility located at F401 and F101, Building E, Hongwei Industrial Zone, Liuxian 3rd Road, Bao'an District, Shenzhen, China.

Tel.: +86-755-27212361

Contact Email: info@towewireless.com

1.1.2 Test Facility / Accreditations

A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

FCC Designation No.: CN1353

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory.

Test Firm Registration Number: 684095

Designation Number: CN1353.

ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0152

Company Number: 31000

1.2 Client Information

1.2.1 Applicant

Applicant:	Particle Industries, Inc.
Address:	548 Market St, PMB 34833, San Francisco, CA 94104, USA

1.2.2 Manufacturer

Manufacturer:	Particle Industries, Inc.
Address:	548 Market St, PMB 34833, San Francisco, CA 94104, USA

1.3 Product Information

EUT Description:	M-SoM LTE-M/2G/Satellite + Wi-Fi for Global		
Model:	M635e		
Brand:	Particle		
Hardware Version:	v0.2		
Software Version:	v6.4.1		
IMEI:	862063070036368		
Operating frequency bands:	Band	TX Frequency	RX Frequency
	E-GSM900	880MHz ~ 915MHz	925MHz ~ 960MHz
	DCS1800	1710MHz ~ 1785MHz	1805MHz ~ 1880MHz
GPRS Class:	12		
EGPRS Class:	12		
Modulation Type:	☒ GSM:	GMSK	
	☒ GPRS:	GMSK (CS1 ~ CS4)	
	☒ EGPRS:	GMSK (MCS1 ~ MCS4)	8PSK (MCS5 ~ MCS9)
Antenna Type:	Internal: Dipole Antenna External: Omnidirectional Antenna		
Antenna Gain:	Band	Ant1 Internal (dBi)	Ant4 External (dBi)
	E-GSM900	1.86	2.25
	DCS1800	4.12	1.15
Remark: The above EUT's information was declared by applicant, please refer to the specifications or user's manual for more detailed description.			

2 Test Configuration

2.1 Standards Specification

No.	Reference Standards	Standards Title
1	ETSI EN 301 511 V12.5.1	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
2	ETSI TS 151 010-1 V12.8.0	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)

2.2 Test Channel

E-GSM 900			DCS 1800		
Channel Number		Frequency (MHz)	Channel Number		Frequency (MHz)
Low channel	975	880.2	Low channel	512	1710.2
Middle channel	62	902.4	Middle channel	698	1747.4
High channel	124	914.8	High channel	885	1784.8

2.3 Test Mode

Modulation Type	Description
TM 1 mode:	Keep the EUT communication with simulated station in GSM mode
TM 2 mode:	Keep the EUT communication with simulated station in GPRS mode
TM 3 mode:	Keep the EUT communication with simulated station in EGPRS mode

2.4 Test Environment

Relative Humidity	45-56 % RH Ambient	
Condition	Temperature(°C)	Voltage(V)
NTNV	25	3.8
LTLV	-35	3.3
LTHV	-35	4.4
HTLV	75	3.3
HTHV	75	4.4
Vib.	Meet the requirements in Annex A1.2.4 of Standard ETSI TS 151 101-1	

Remark:

NTNV Normal Temperature Normal Voltage

LTLV Low Temperature Low Voltage

LTHV Low Temperature High Voltage

HTLV High Temperature Low Voltage

HTHV High Temperature, High Voltage

Vib. Means Vibration

2.5 Support Unit used in test

The EUT has been tested as an independent unit.

2.6 Test RF Cable

For all conducted test items: The offset level is set spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

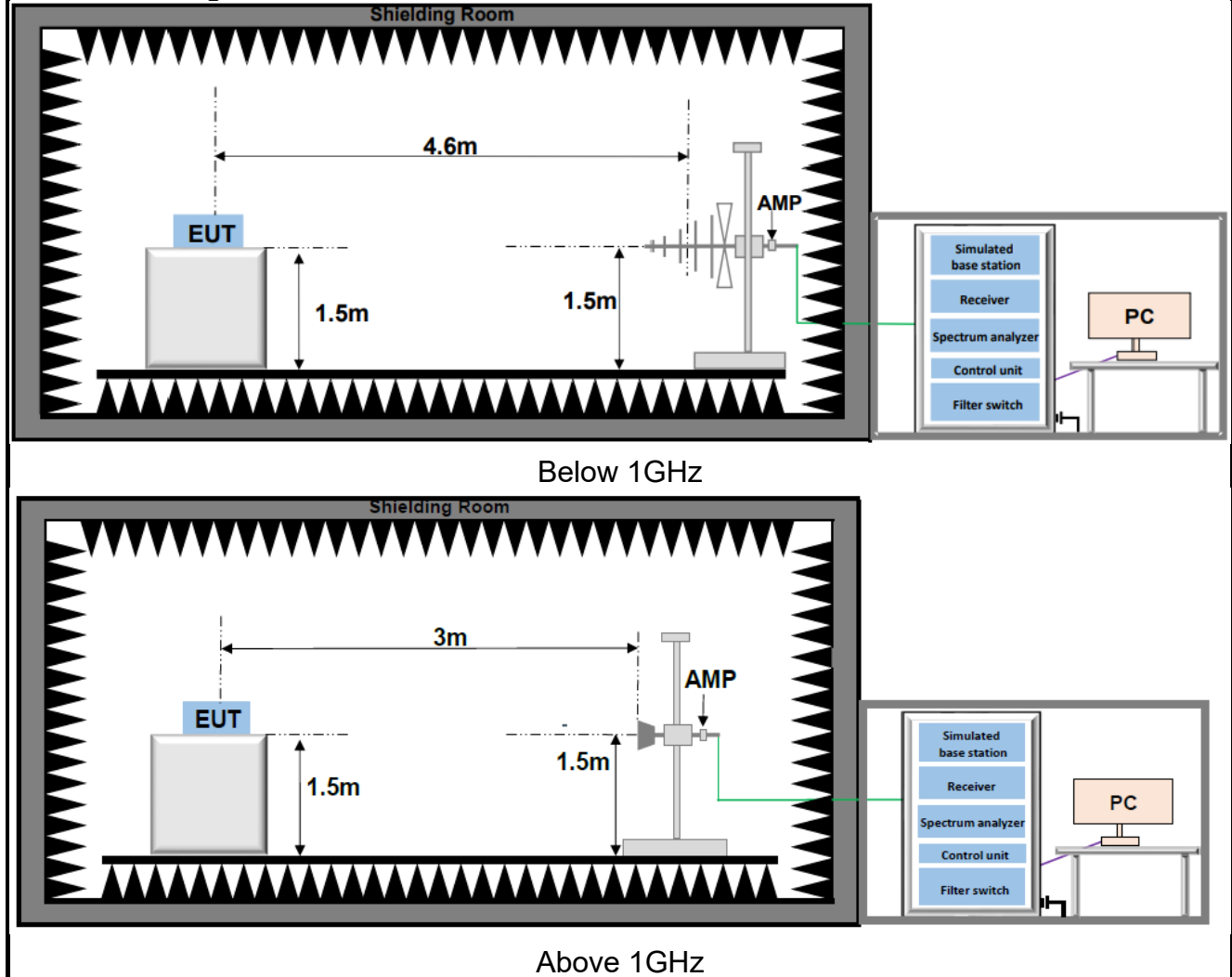
Offset = RF cable loss + attenuator factor.

2.7 Modifications

No modifications were made during testing.

2.1 Test Setup Diagram

Radiated Configuration:



3 Equipment and Measurement Uncertainty

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, whichever is less, and where applicable is traceable to recognized national standards.

3.1 Test Equipment List

Radiated Emission					
Description	Manufacturer	Model	S.N.	Last Due	Cal Due
Biconic Logarithmic Periodic Antennas	Schwarzbeck	VULB9163	1461	2023/06/25	2026/06/24
Double-Ridged Horn Antennas	Schwarzbeck	BBHA 9120D	2814	2023/06/25	2026/06/24
Signal Analyzer	Keysight	N9020A	US46470366	2026/03/06	2027/03/05
Wideband Radio Communication Tester	R&S	CMW500	150645	2026/03/06	2027/03/05
Low Noise Amplifier	Tonscend	TAP9K3G40	AP23A8060274	2025/03/11	2027/03/10
Low Noise Amplifier	Tonscend	TAP01018050	AP23A8060268	2025/03/11	2027/03/10
Hygrometer	BINGYU	HTC-1	N/A	2025/07/25	2026/07/24
Band Reject Filter Group	Tonscend	JS0806-F	23A806F0654	N/A	N/A
Test Software	Tonscend	TS+	Version: 5.0.0	N/A	N/A

3.2 Measurement Uncertainty

Parameter	U _{lab}
Radiation 30MHz~1GHz(FAR)	4.48dB
Radiation 1GHz~18GHz(FAR)	5.30dB
Radiation 18GHz~40GHz(FAR)	5.26dB

Uncertainty figures are valid to a confidence level of 95%

4 Test Results

4.1 Test Result Summary

EN 301 511 V12.5.1	ETSI TS 151 010-1 V12.8.0	Test Items	Testing Condition	Result	
				E-GSM900	DCS1800
4.2.16	12.2.1	Radiated spurious emissions – MS allocated a channel	NTNV	Pass	Pass
			NTLV	Pass	Pass
			NTHV	Pass	Pass
4.2.17	12.2.2	Radiated spurious emissions – MS in idle mode	NTNV	Pass	Pass
			NTLV	Pass	Pass
			NTHV	Pass	Pass

4.2 Radiated Spurious Emissions

4.2.1 MS allocated a channel

Test requirement, not exceed:

Frequency range	Power level in dBm		
	GSM850 & E-GSM900	DCS1800	PCS1900
30 MHz ~ 1000 MHz	-36	-36	-36
1 GHz ~ 4 GHz	-30	/	-30
1 GHz ~ 1.710 GHz	/	-30	/
1.710 GHz ~ 1.785 GHz	/	-36	/
1.785 GHz ~ 4GHz	/	-30	/

Initial conditions:

A call is set up by the SS according to the generic call set up procedure on a channel in the Mid ARFCN range.
NOTE: The power supply shall be connected to the MS such that the physical configuration does not change in a way that could have an effect on the measurement. In particular, the battery pack of the MS should not normally be removed. In cases where no practical connection can be made to the power supply, the MS's intended battery source shall be used.

The SS may command the MS to loop back its channel decoder output to its channel encoder input. The SS sends Standard Test Signal C1.

The SS sets the MS to operate at its maximum output power.

Test Procedure:

- Initially the test antenna is closely coupled to the MS and any spurious emission radiated by the MS is detected by the test antenna and receiver in the range 30 MHz to 4 GHz.
Note 1: This is a qualitative step to identify the frequency and presence of spurious emissions which are to be measured in subsequent steps.
- The test antenna separation is set to the appropriate measurement distance and at each frequency at which an emission has been detected, the MS shall be rotated to obtain maximum response and the effective radiated power of the emission determined by a substitution measurement. In case of an anechoic shielded chamber pre calibration may be used instead of a substitution measurement.
- The measurement bandwidth, based on a 5 pole synchronously tuned filter is according to table 12.8 of ETSI TS 151 010-1 and the power indication is the peak power detected by the measuring system. The measurement on any frequency shall be performed for at least one TDMA frame period, with the exception of the idle frame.
Note 2: This ensures that both the active times (MS transmitting) and the quiet times are measured.
Note 3: For these filter bandwidths some difficulties may be experienced with noise floor above required measurement limit. This will depend on the gain of the test antenna, and adjustment of the measuring system bandwidth is permissible. Alternatively, for test frequencies above 900 MHz, the test antenna separation from the MS may be reduced to 1 metre.
- The measurements are repeated with the test antenna in the orthogonal polarization plane.
- The test is repeated under extreme voltage test conditions (see [annex 1, TC2.2] of ETSI TS 151 010-1).

Test note:

The data list of Radiated Emissions, These frequencies which near “-” should be ignored because they are Fundamental(uplink and downlink) frequency

Test result: Appendix

4.2.2 MS in idle mode

Test requirement, not exceed:

Frequency range	Power level in dBm	
	E-GSM900 & DCS1800	GSM850 & PCS1900
30 MHz ~ 880 MHz	-57	-57
880 MHz ~ 915 MHz	-59	-57
915 MHz ~ 1000 MHz	-57	-57
1000 MHz ~ 1710 MHz	-47	/
1710 MHz ~ 1785 MHz	-53	/
1785 MHz ~ 4000 MHz	-47	/
1000 MHz ~ 1850 MHz	/	-47
1850 MHz ~ 1910 MHz	/	-53
1910 MHz ~ 4000 MHz	/	-47

Initial conditions:

The BCCH message content from the serving cell shall ensure that Periodic Location Updating is not used and that page mode is continuously set to Paging Reorganization and BS_AG_BLKES_RES is set to 0 so that the MS receiver will operate continually.

The CCCH_CONF shall be set to 000. 1 basic physical channel used for CCCH not combined with SDCCHs.

The BCCH allocation shall either be empty or contain only the serving cell BCCH.

Note 1: The power supply shall be connected to the MS such that the physical configuration does not change in a way that could have an effect on the measurement. In particular, the battery pack of the MS should not normally be removed. In cases where no practical connection can be made to the power supply, the MS's intended battery source shall be used.

Note 2: This is to ensure that the receiver does not scan other ARFCN. Scanning other ARFCN could lead to a moving in frequency of the spurious and therefore to the possibility of either not measuring a spurious emission or measuring it more than once.

The MS is in MM state "idle, updated".

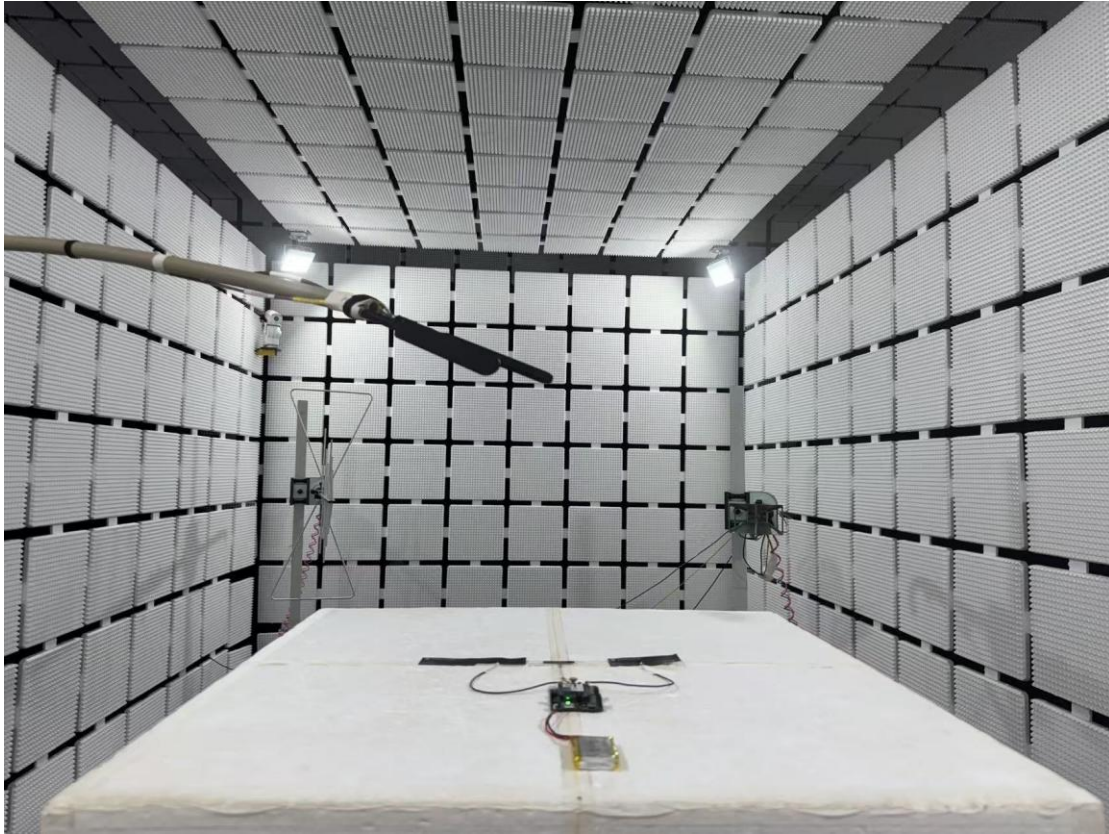
Test Procedure:

- Initially the test antenna is closely coupled to the MS and any spurious emission radiated by the MS is detected by the test antenna and receiver in the range 30 MHz to 4 GHz.
Note 1: This is a qualitative step to identify the frequency and presence of spurious emissions which are to be measured in subsequent steps.
- The test antenna separation is set to the appropriate measurement distance and at each frequency at which an emission has been detected, the MS shall be rotated to obtain maximum response and the effective radiated power of the emission determined by a substitution measurement. In case of an anechoic shielded chamber pre-calibration may be used instead of a substitution measurement.
- The measurement bandwidth, based on a 5 pole synchronously tuned filter is according to table 12.10 of ETSI TS 151 010-1 and the power indication is the peak power detected by the measuring system. The measurement on any frequency shall be performed for at least one TDMA frame period, with the exception of the idle frame.
Note 2: For these filter bandwidths some difficulties may be experienced with noise floor above required measurement limit. This will depend on the gain of the test antenna, and adjustment of the measuring system bandwidth is permissible. Alternatively, for test frequencies above 900 MHz, the test antenna separation from the MS may be reduced to 1 metre.
- The measurements are repeated with the test antenna in the orthogonal polarization plane.
- The test is repeated under extreme voltage test conditions (see [annex 1, TC2.2] of ETSI TS 151 010-1).

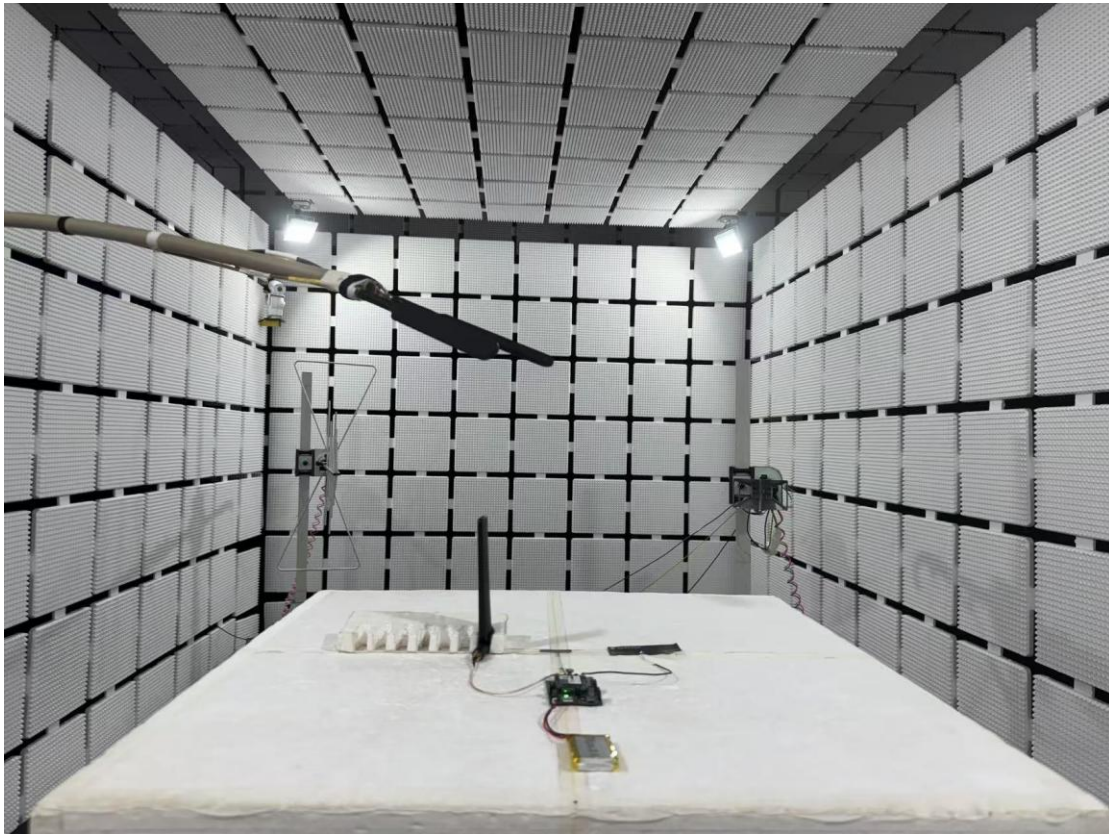
Test result: Appendix

5 Test Setup Photos

Dipole Antenna:



Omnidirectional Antenna:



Appendix

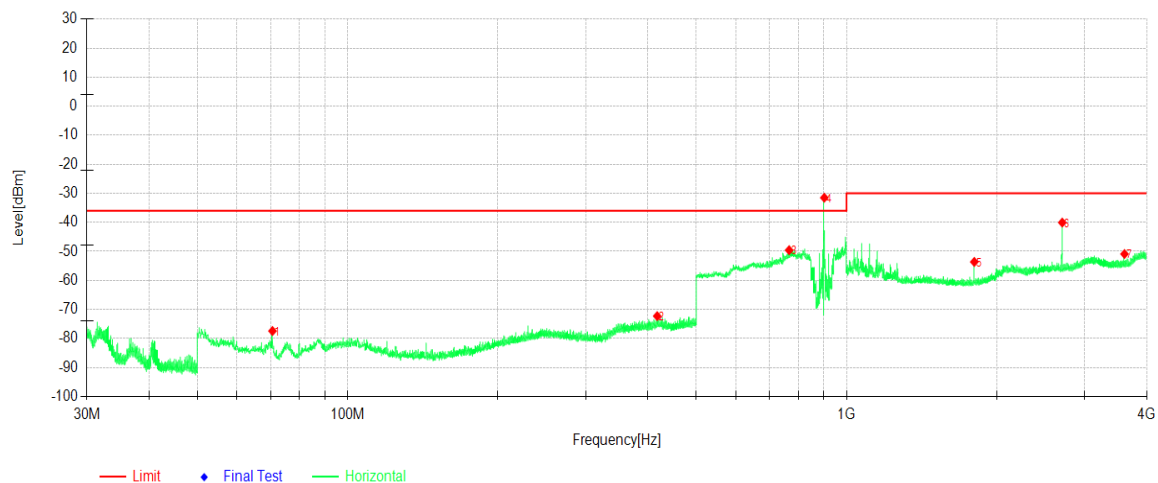
Radiated Spurious Emissions

MS allocated a channel

Test Result (Dipole Antenna)

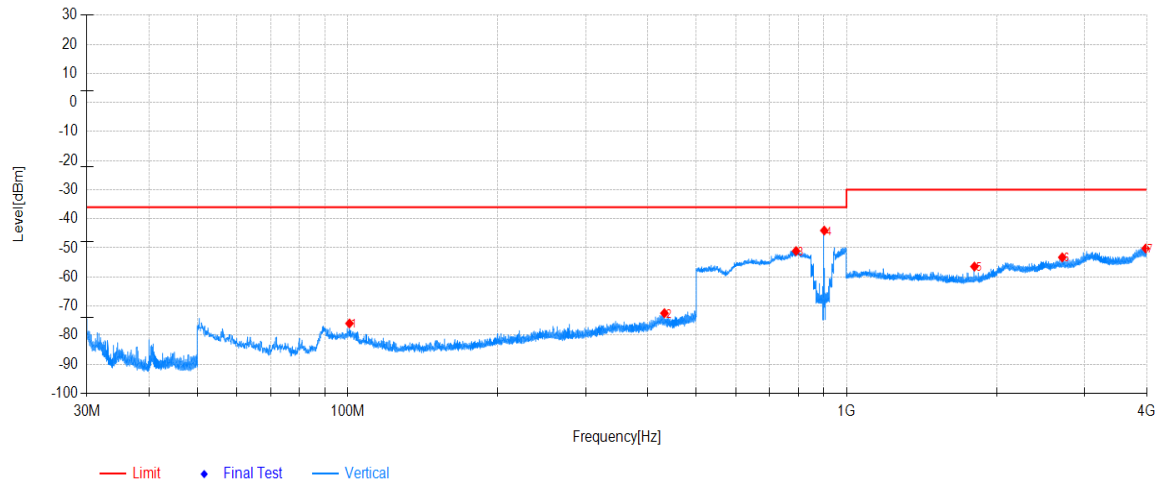
Project Information			
Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	ANT: Dipole		

Test Graph



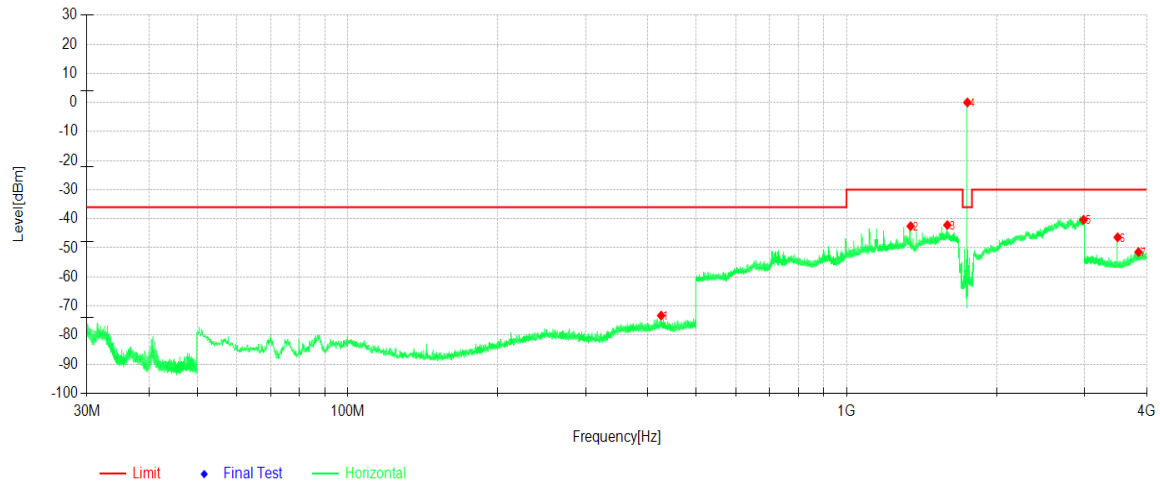
Data List							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	70.64	-59.25	-77.46	-36.00	41.46	-18.21	Horizontal
2	417.32	-64.96	-72.32	-36.00	36.32	-7.36	Horizontal
3	767.32	-49.74	-49.59	-36.00	13.59	0.15	Horizontal
4	902.47	-31.95	-31.51	-	-	0.44	Horizontal
5	1804.08	-41.83	-53.64	-30.00	23.64	-11.81	Horizontal
6	2707.47	-33.62	-40.07	-30.00	10.07	-6.45	Horizontal
7	3609.06	-47.21	-50.91	-30.00	20.91	-3.70	Horizontal

Project Information			
Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	ANT: Dipole		

Test Graph**Data List**

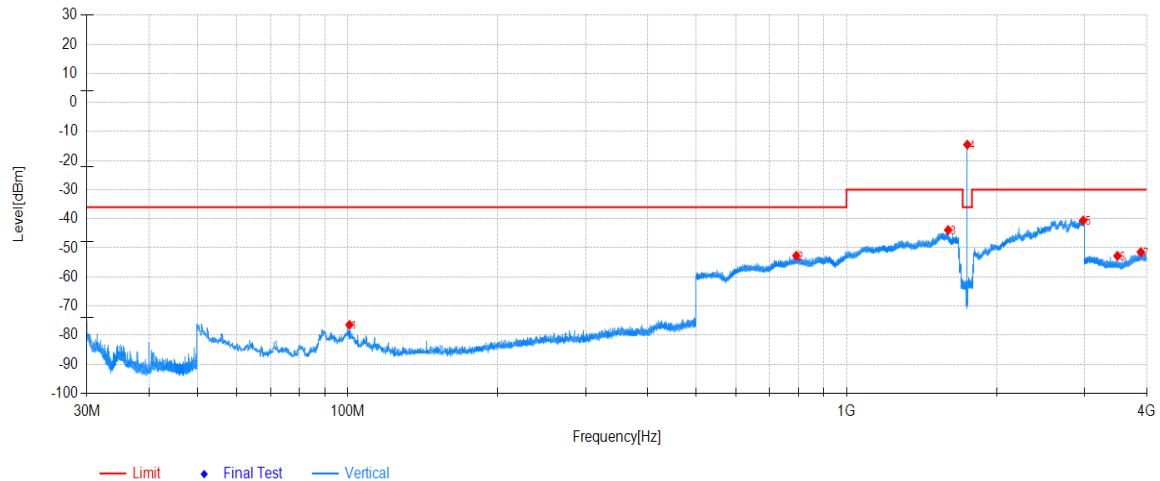
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	100.79	-62.61	-75.99	-36.00	39.99	-13.38	Vertical
2	431.40	-65.15	-72.47	-36.00	36.47	-7.32	Vertical
3	792.19	-51.39	-51.08	-36.00	15.08	0.31	Vertical
4	902.46	-44.21	-44.05	-	-	0.16	Vertical
5	1804.98	-44.55	-56.43	-30.00	26.43	-11.88	Vertical
6	2707.47	-47.09	-53.26	-30.00	23.26	-6.17	Vertical
7	3979.30	-49.25	-50.21	-30.00	20.21	-0.96	Vertical

Project Information			
Mode:	GSM	Band:	1800
Bandwidth:	-	Channel:	698
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	ANT: Dipole		

Test Graph**Data List**

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	425.02	-66.29	-73.31	-36.00	37.31	-7.02	Horizontal
2	1344.69	-48.05	-42.53	-30.00	12.53	5.52	Horizontal
3	1593.08	-51.28	-42.16	-30.00	12.16	9.12	Horizontal
4	1747.45	-9.33	0.03	-	-	9.36	Horizontal
5	2987.65	-59.98	-40.35	-30.00	10.35	19.63	Horizontal
6	3496.10	-42.53	-46.36	-30.00	16.36	-3.83	Horizontal
7	3849.97	-50.30	-51.45	-30.00	21.45	-1.15	Horizontal

Project Information			
Mode:	GSM	Band:	1800
Bandwidth:	-	Channel:	698
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	ANT: Dipole		

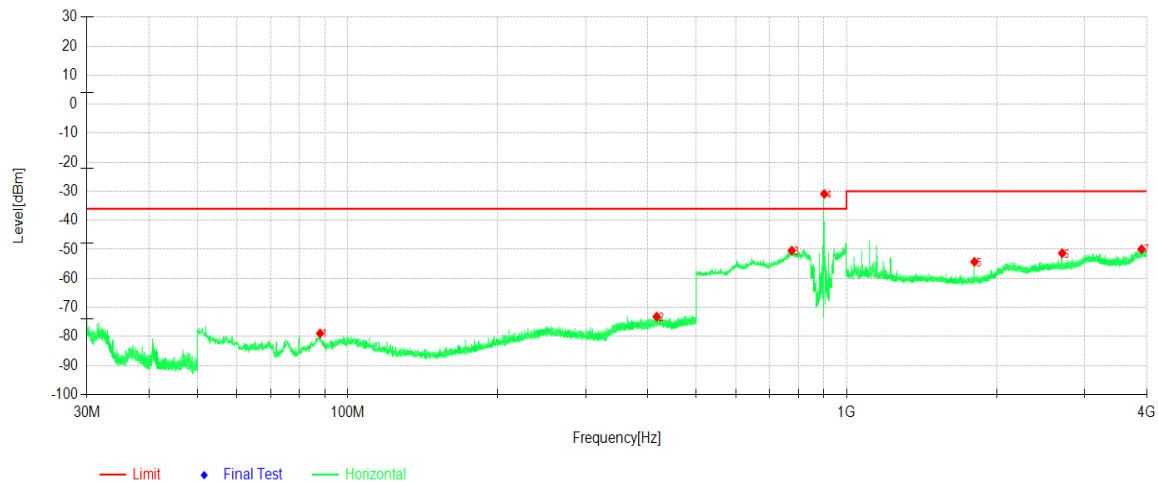
Test Graph**Data List**

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	100.77	-63.10	-76.47	-36.00	40.47	-13.37	Vertical
2	793.06	-53.00	-52.68	-36.00	16.68	0.32	Vertical
3	1599.06	-52.86	-43.86	-30.00	13.86	9.00	Vertical
4	1747.41	-23.54	-14.49	-	-	9.05	Vertical
5	2982.47	-59.91	-40.58	-30.00	10.58	19.33	Vertical
6	3494.10	-48.85	-52.77	-30.00	22.77	-3.92	Vertical
7	3891.38	-50.54	-51.45	-30.00	21.45	-0.91	Vertical

Test Result (Omnidirectional Antenna)

Project Information			
Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Ant: Omnidirectional		

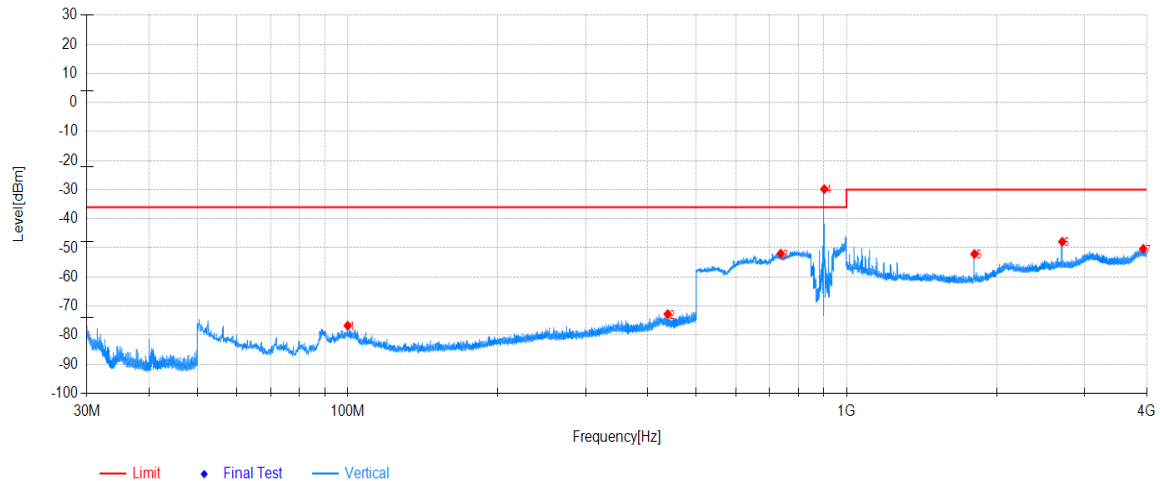
Test Graph



Data List

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	88.00	-62.47	-78.97	-36.00	42.97	-16.50	Horizontal
2	416.22	-65.81	-73.20	-36.00	37.20	-7.39	Horizontal
3	776.78	-51.16	-50.42	-36.00	14.42	0.74	Horizontal
4	902.47	-31.34	-30.90	-	-	0.44	Horizontal
5	1804.98	-42.50	-54.30	-30.00	24.30	-11.80	Horizontal
6	2705.97	-44.88	-51.33	-30.00	21.33	-6.45	Horizontal
7	3905.19	-49.46	-49.94	-30.00	19.94	-0.48	Horizontal

Project Information			
Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Ant: Omnidirectional		

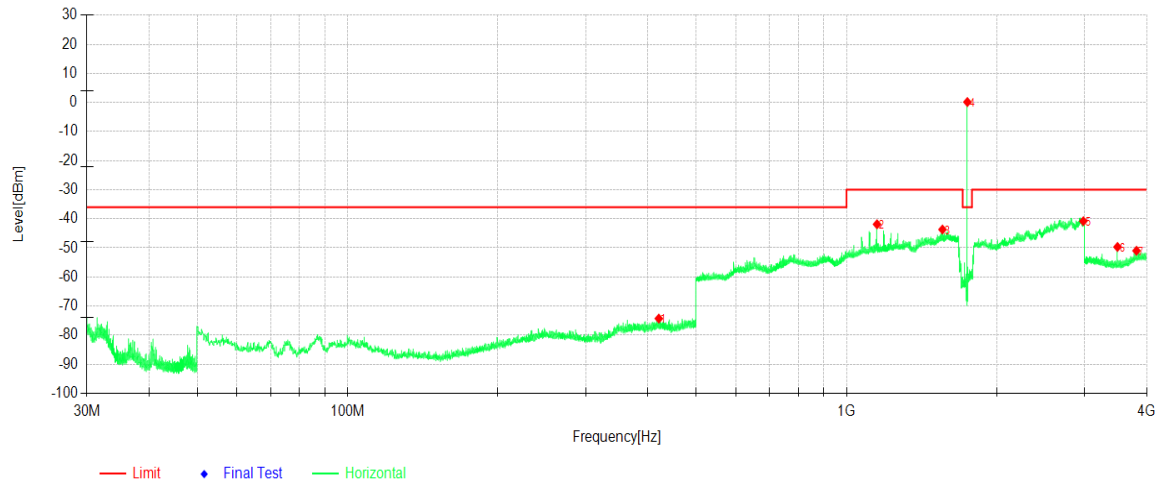
Test Graph**Data List**

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	99.96	-63.49	-76.78	-36.00	40.78	-13.29	Vertical
2	438.02	-65.17	-72.79	-36.00	36.79	-7.62	Vertical
3	738.24	-50.74	-51.99	-36.00	15.99	-1.25	Vertical
4	902.46	-29.93	-29.77	-	-	0.16	Vertical
5	1804.98	-40.25	-52.13	-30.00	22.13	-11.88	Vertical
6	2707.77	-41.72	-47.89	-30.00	17.89	-6.17	Vertical
7	3936.99	-49.60	-50.34	-30.00	20.34	-0.74	Vertical

Project Information

Mode:	GSM	Band:	1800
Bandwidth:	-	Channel:	698
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Ant: Omnidirectional		

Test Graph



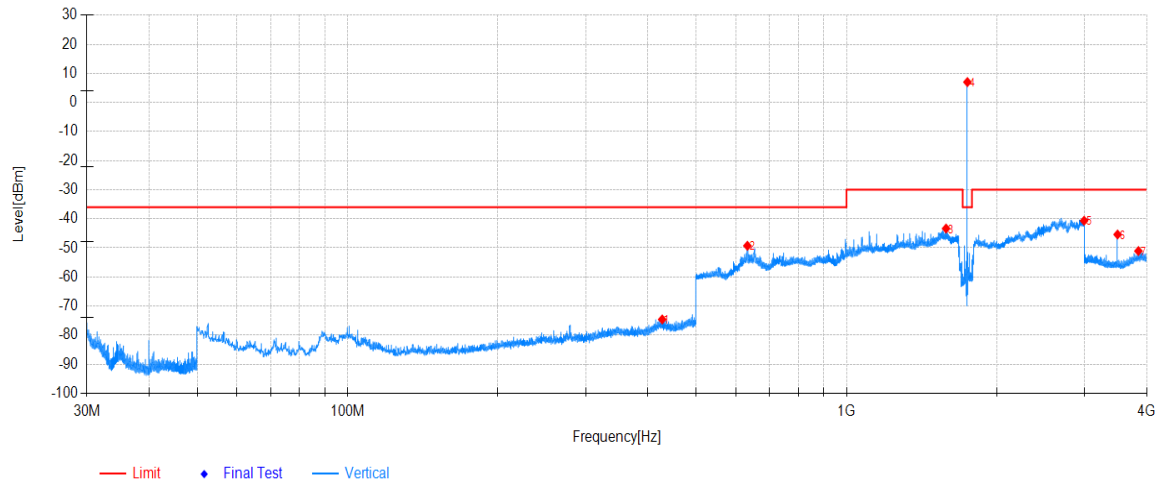
Data List

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	420.42	-67.12	-74.32	-36.00	38.32	-7.20	Horizontal
2	1151.26	-46.37	-41.89	-30.00	11.89	4.48	Horizontal
3	1557.44	-52.66	-43.68	-30.00	13.68	8.98	Horizontal
4	1747.47	-9.18	0.18	-	-	9.36	Horizontal
5	2984.46	-60.31	-40.84	-30.00	10.84	19.47	Horizontal
6	3494.30	-45.86	-49.68	-30.00	19.68	-3.82	Horizontal
7	3814.56	-49.52	-50.98	-30.00	20.98	-1.46	Horizontal

Project Information

Mode:	GSM	Band:	1800
Bandwidth:	-	Channel:	698
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Ant: Omnidirectional		

Test Graph

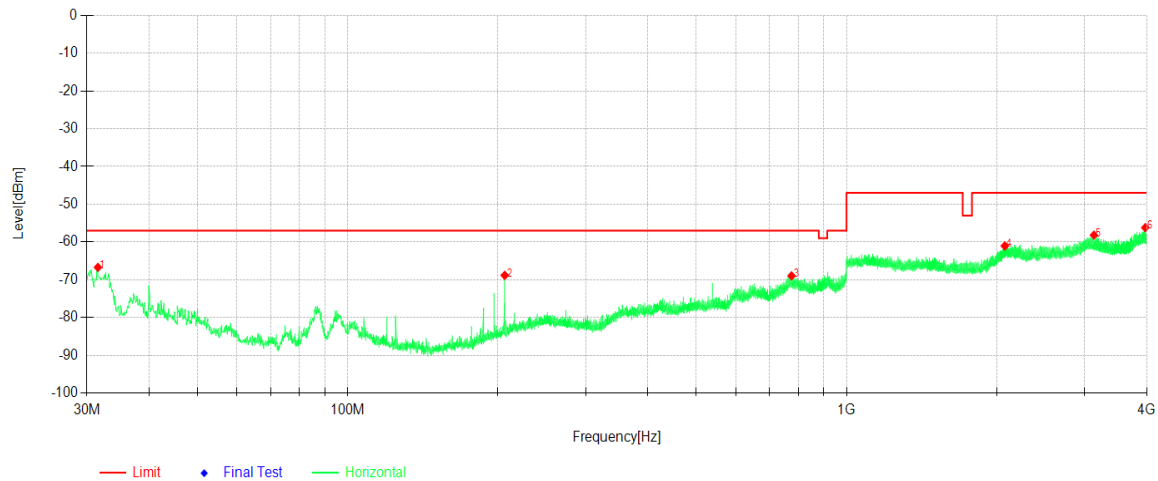


Data List

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	427.09	-67.58	-74.62	-36.00	38.62	-7.04	Vertical
2	632.83	-46.60	-49.28	-36.00	13.28	-2.68	Vertical
3	1583.56	-52.46	-43.35	-30.00	13.35	9.11	Vertical
4	1747.47	-2.00	7.05	-	-	9.05	Vertical
5	2994.82	-60.19	-40.66	-30.00	10.66	19.53	Vertical
6	3495.30	-41.47	-45.40	-30.00	15.40	-3.93	Vertical
7	3848.77	-49.67	-51.08	-30.00	21.08	-1.41	Vertical

MS in idle mode (Worst case)**Test Result (Dipole Antenna)**

Project Information			
Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Dipole		

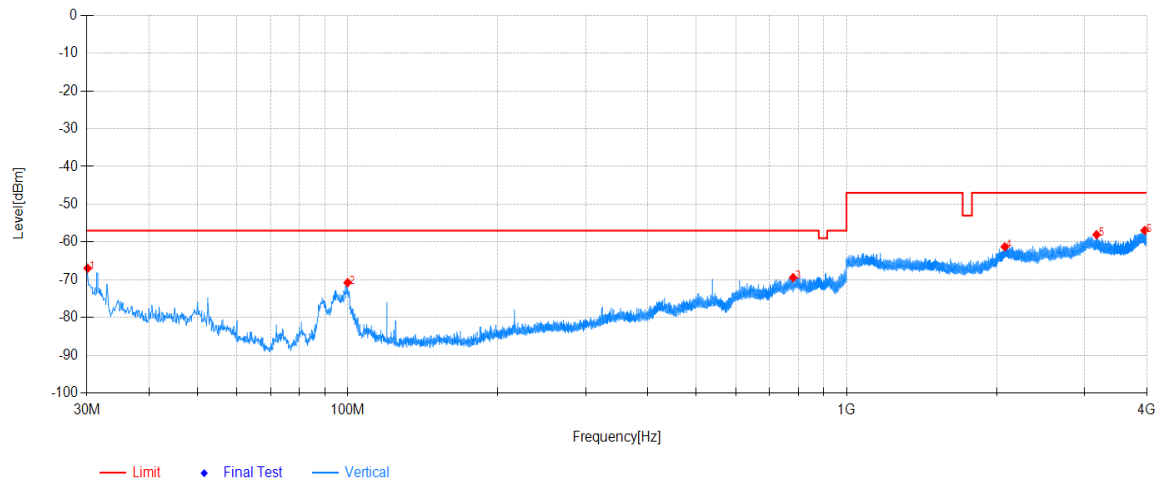
Test Graph

Data List							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.55	-55.60	-66.70	-57.00	9.70	-11.10	Horizontal
2	206.46	-55.26	-68.81	-57.00	11.81	-13.55	Horizontal
3	776.00	-69.71	-68.94	-57.00	11.94	0.77	Horizontal
4	2076.30	-53.45	-61.03	-47.00	14.03	-7.58	Horizontal
5	3133.86	-54.86	-58.16	-47.00	11.16	-3.30	Horizontal
6	3971.80	-55.60	-56.19	-47.00	9.19	-0.59	Horizontal

Project Information

Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Dipole		

Test Graph



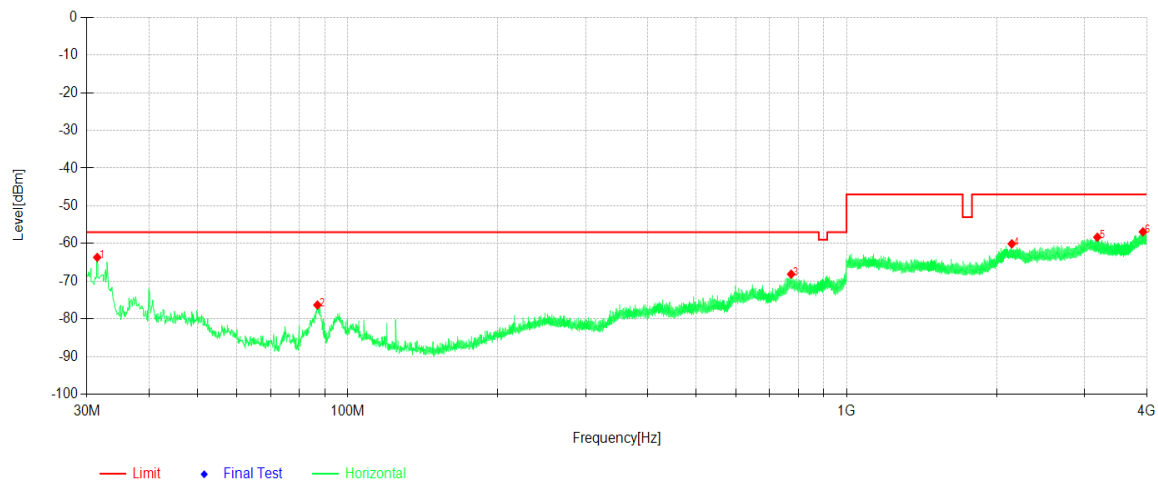
Data List

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	30.10	-53.95	-66.94	-57.00	9.94	-12.99	Vertical
2	99.94	-57.45	-70.75	-57.00	13.75	-13.30	Vertical
3	781.73	-69.48	-69.41	-57.00	12.41	0.07	Vertical
4	2076.30	-53.54	-61.28	-47.00	14.28	-7.74	Vertical
5	3171.96	-54.77	-58.05	-47.00	11.05	-3.28	Vertical
6	3961.15	-56.09	-56.95	-47.00	9.95	-0.86	Vertical

Test Result (Omnidirectional Antenna)

Project Information			
Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Omnidirectional		

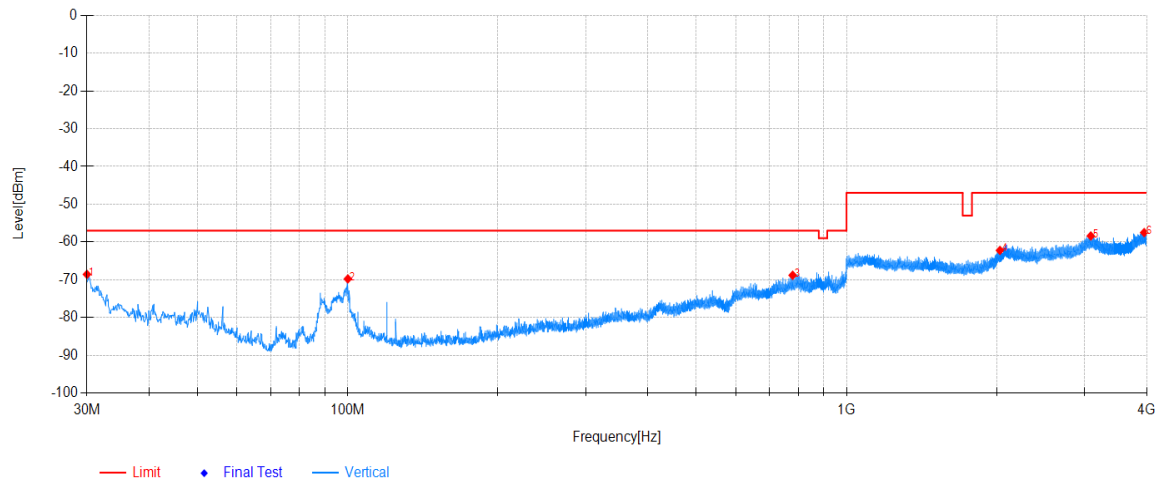
Test Graph



Data List

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.46	-52.57	-63.67	-57.00	6.67	-11.10	Horizontal
2	86.94	-59.56	-76.30	-57.00	19.30	-16.74	Horizontal
3	774.55	-68.86	-68.11	-57.00	11.11	0.75	Horizontal
4	2145.46	-52.98	-60.08	-47.00	13.08	-7.10	Horizontal
5	3184.56	-54.92	-58.31	-47.00	11.31	-3.39	Horizontal
6	3929.95	-56.39	-56.90	-47.00	9.90	-0.51	Horizontal

Project Information			
Mode:	GSM	Band:	900
Bandwidth:	-	Channel:	62
IMEI:	862063070036368	Engineer:	Zhangweizhi
Remark:	Omnidirectional		

Test Graph

Data List							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	30.00	-55.56	-68.56	-57.00	11.56	-13.00	Vertical
2	100.04	-56.46	-69.75	-57.00	12.75	-13.29	Vertical
3	779.89	-68.81	-68.79	-57.00	11.79	0.02	Vertical
4	2030.70	-53.38	-62.20	-47.00	15.20	-8.82	Vertical
5	3089.15	-55.31	-58.39	-47.00	11.39	-3.08	Vertical
6	3952.60	-56.67	-57.49	-47.00	10.49	-0.82	Vertical

~The End~