



Report No.: SZEM201201227001

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TEST REPORT

Application No.: SZEM2012012270CR

Applicant: Xiaomi Communications Co., Ltd.

Address of Applicant: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing,

China, 100085

Manufacturer: Xiaomi Communications Co., Ltd.

Address of Manufacturer: #019, 9th Floor, Building 6, 33 Xi'ergi Middle Road, Haidian District, Beijing,

China, 100085

Factory: Xiaomi Communications Co., Ltd.

Address of Factory: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing,

China, 100085

Equipment Under Test (EUT):

EUT Name: Mobile Phone

Model No.: M2101K9AG

Trade mark: XIAOMI

FCC ID: 2AFZZK9AG

Standard(s): 47 CFR Part 15, Subpart C 15.225

Date of Receipt: 2020-12-01

Date of Test: 2020-12-16 to 2020-12-17

Date of Issue: 2020-12-17

Test Result: Pass*

Keny Xu EMC Laboratory Manager

Ceny. Ku



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^{*} In the configuration tested, the EUT complied with the standards specified above.



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	Revision Record						
Version	Version Chapter Date Modifier F						
01		2020-12-17		Original			

Authorized for issue by:		
	Landas	
	Leo Lai/Project Engineer	
	EvicFu	
	Eric Fu/Reviewer	



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Test Summary 2

Radio Spectrum Technical Requirement						
Item	Standard	Method	Requirement	Result		
Antenna Requirement	47 CFR Part 15, Subpart C 15.225	N/A	47 CFR Part 15, Subpart C 15.203	Pass		

Radio Spectrum Matter Part					
Item	Standard	Method	Requirement	Result	
20dB Bandwidth	47 CFR Part 15, Subpart C 15.225 15.225	ANSI C63.10 (2013) Section 6.9	47 CFR Part 15, Subpart C 15.215	Pass	
Conducted Emissions at Mains Terminals (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.225 15.225	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass	
Emission Mask	47 CFR Part 15, Subpart C 15.225 15.225	ANSI C63.10 (2013) Section 6.4	47 CFR Part 15, Subpart C 15.225(a)&(b)&(C)	Pass	
Frequency tolerance	47 CFR Part 15, Subpart C 15.225 15.225	ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.225(e)	Pass	
Radiated Emissions (30MHz-1GHz)	47 CFR Part 15, Subpart C 15.225 15.225	ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.225(d) & 15.209	Pass	
Radiated Emissions (9kHz-30MHz)	47 CFR Part 15, Subpart C 15.225 15.225	ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.225(d) & 15.209	Pass	



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General Information

4.1 Details of E.U.T.

Modulation Type:	ASK
Operation Frequency:	13.56MHz

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.			
The EUT has been tested as an independent unit.						

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
20dB Bandwidth	± 3%
Conducted Emissions at Mains Terminals (150kHz-30MHz)	± 3.0dB
Emission Mask	± 4.5dB (Below 1GHz)
Frequency tolerance	± 3%
Radiated Emissions (30MHz-1GHz)	± 4.5dB (Below 1GHz)
Radiated Emissions (9kHz-30MHz)	± 4.5dB (Below 1GHz)

Remark:

The Ulab (lab Uncertainty) is less than Ucispr (CISPR Uncertainty), so the test results

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.



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4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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Equipment List 5

20dB Bandwidth						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12	
DC Power Supply	Zhao Xin	KXN-6020D	SEM011-08	2020-09-23	2021-09-22	
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2020-09-23	2021-09-22	
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM031-02	2020-07-10	2021-07-09	

Conducted Emissions at Mains Terminals (150kHz-30MHz)						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2019-06-13	2022-06-12	
EMI Test Receiver	Rohde&Schwarz	ESCI	SEM004-02	2020-03-24	2021-03-23	
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM024-01	2020-07-10	2021-07-09	
LISN	Rohde&Schwarz	ENV216	SEM007-01	2020-09-23	2021-09-22	
LISN	ETS-LINDGREN	3816/2	SEM007-02	2020-04-01	2021-03-31	

Emission Mask					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2018-03-31	2021-03-30
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2020-11-02	2021-11-01
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2019-08-08	2022-08-07
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-04	2020-04-09	2021-04-08
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2020-08-14	2023-08-13
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM029-01	2020-07-10	2021-07-09

Frequency tolerance					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12
DC Power Supply	Zhao Xin	KXN-6020D	SEM011-08	2020-09-23	2021-09-22
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2020-09-23	2021-09-22
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-02	2020-07-10	2021-07-09



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Radiated Emissions(30MHz-1GHz)							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2020-07-19	2023-07-18		
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2020-12-15	2021-12-14		
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-02	2019-05-24	2022-05-23		
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2020-04-01	2021-03-31		
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A		
Coaxial Cable	SGS	N/A	SEM025-01	2020-07-10	2021-07-09		

Radiated Emissions (9k	Radiated Emissions (9kHz-30MHz)							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2018-03-31	2021-03-30			
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2020-11-02	2021-11-01			
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2019-08-08	2022-08-07			
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-04	2020-04-09	2021-04-08			
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2020-08-14	2023-08-13			
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A			
Coaxial Cable	SGS	N/A	SEM029-01	2020-07-10	2021-07-09			

General used equipmen	t				
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2020-09-15	2021-09-14
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2020-09-15	2021-09-14
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2020-04-07	2021-04-06



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Radio Spectrum Technical Requirement 6

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement.





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7 Radio Spectrum Matter Test Results

7.1 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215 Test Method: ANSI C63.10 (2013) Section 6.9

7.1.1 E.U.T. Operation

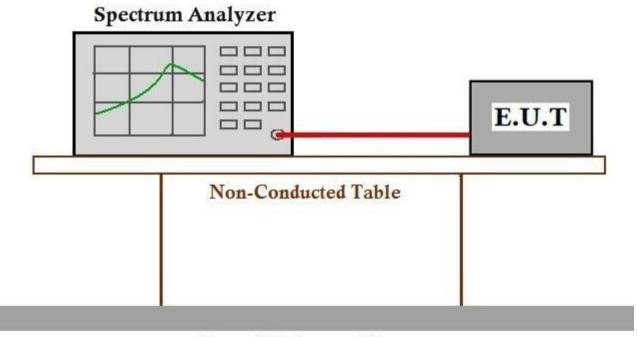
Operating Environment:

Temperature: 26.6 °C Humidity: 35.2 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

71112 100011	.ouo	our paou
Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode with modulation

7.1.3 Test Setup Diagram



Ground Reference Plane

7.1.4 Measurement Procedure and Data



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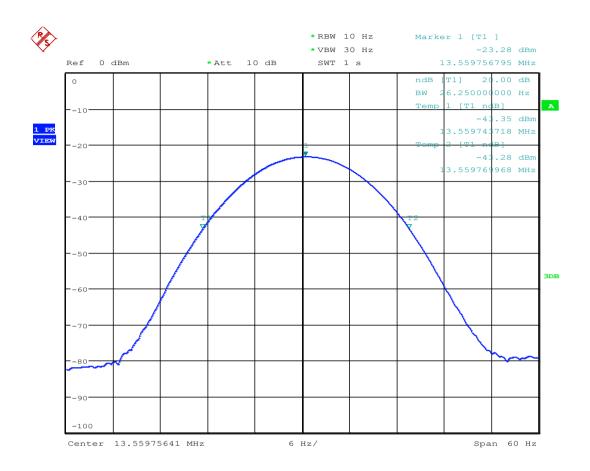
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7.2 Conducted Emissions at Mains Terminals (150kHz-30MHz)

47 CFR Part 15, Subpart C 15.207 Test Requirement Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Fraguency range (MLI=)	Limit (dBuV)				
Frequency range (MHz)	Quasi-peak	Average			
0.15-0.5	66 to 56*	56 to 46*			
0.5-5	56	46			
5-30	60	50			

^{*} Decreases with the logarithm of the frequency.

7.2.1 E.U.T. Operation

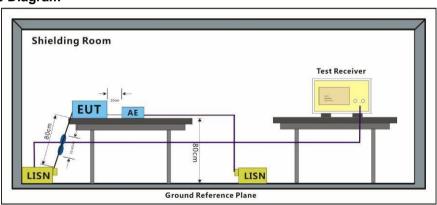
Operating Environment:

Temperature: 25.5 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode with modulation

7.2.3 Test Setup Diagram





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7.2.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50µH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: LISN=Read Level+ Cable Loss+ LISN Factor



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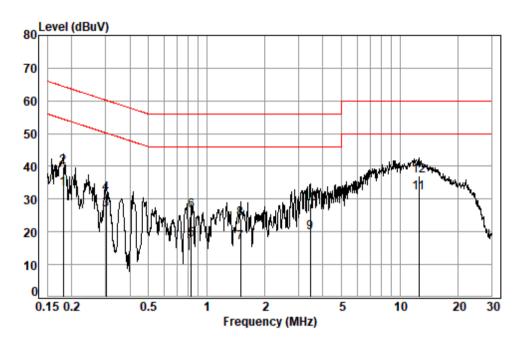
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Test Mode: 00: Line: Live line



: Shielding Room

Condition: Line Job No. : 12270CR

Test mode: 00

		Cable	LISN	Read		Limit	0ver	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1815	0.03	9.71	23.30	33.04	54.42	-21.38	Average
2	0.1815	0.03	9.71	30.26	40.00	64.42	-24.42	QP
3	0.3019	0.05	9.74	16.88	26.67	50.19	-23.52	Average
4	0.3019	0.05	9.74	21.82	31.61	60.19	-28.58	QP
5	0.8305	0.09	9.78	7.64	17.51	46.00	-28.49	Average
6	0.8305	0.09	9.78	16.62	26.49	56.00	-29.51	QP
7	1.5033	0.12	9.80	6.91	16.83	46.00	-29.17	Average
8	1.5033	0.12	9.80	14.10	24.02	56.00	-31.98	QP
9	3.4356	0.15	9.86	9.89	19.90	46.00	-26.10	Average
10	3.4356	0.15	9.86	18.69	28.70	56.00	-27.30	QP
11	12.5821	0.16	10.38	21.37	31.91	50.00	-18.09	Average
12	12.5821	0.16	10.38	26.61	37.15	60.00	-22.85	QP



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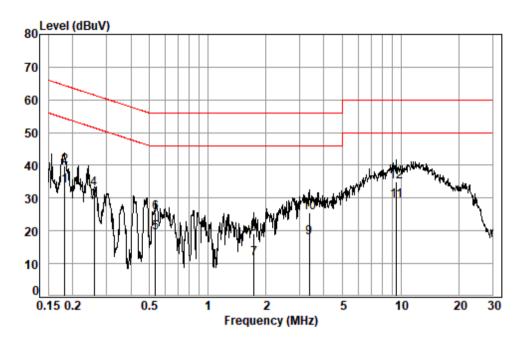
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Test Mode: 00: Line: Neutral Line



: Shielding Room

Condition: Neutral Job No. : 12270CR

Test mode: 00

		Cable	LISN	Read		Limit	0ver	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1825	0.03	9.72	23.87	33.62	54.37	-20.75	Average
2	0.1825	0.03	9.72	30.07	39.82	64.37	-24.55	QP
3	0.2589	0.05	9.73	19.10	28.88	51.47	-22.59	Average
4	0.2589	0.05	9.73	23.13	32.91	61.47	-28.56	QP
5	0.5378	0.08	9.76	9.73	19.57	46.00	-26.43	Average
6	0.5378	0.08	9.76	15.75	25.59	56.00	-30.41	QP
7	1.7437	0.12	9.80	1.79	11.71	46.00	-34.29	Average
8	1.7437	0.12	9.80	9.25	19.17	56.00	-36.83	QP
9	3.3635	0.15	9.86	7.91	17.92	46.00	-28.08	Average
10	3.3635	0.15	9.86	15.69	25.70	56.00	-30.30	QP
11	9.5016	0.16	10.19	18.97	29.32	50.00	-20.68	Average
12	9.5016	0.16	10.19	24.73	35.08	60.00	-24.92	QP



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7.3 Emission Mask

Test Requirement 47 CFR Part 15, Subpart C 15.225(a)&(b)&(C)

Test Method: ANSI C63.10 (2013) Section 6.4

Measurement Distance: 10m

Limit:

- (a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.



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7.3.1 E.U.T. Operation

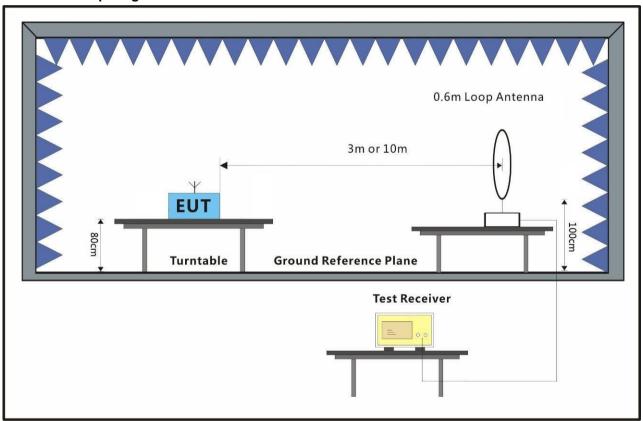
Operating Environment:

Temperature: 23.6 °C Humidity: 46 % RH Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode with modulation

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data



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Below 30MHz

The test was performed at a 10m test site.

The factor calculated by the following equation:

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left(\frac{d_{\text{limit}}}{d_{\text{mensure}}} \right)$$

where

 FS_{timit} is the calculation of field strength at the limit distance, expressed in dBµV/m

 FS_{max} is the measured field strength, expressed in dBµV/m d_{measure} is the distance of the measurement point from the EUT is the reference distance or the distance of the $\lambda/2\pi$ point

F	requency (MHz)	Cable loss (dB)	ANT Factor (dB)	Preamp Factor (dB)	Read Level @ 10m (dBuV)	Level @ 10m (dBuV/m)	Level @ 30m (dBuV/m)	Limit @ 30m (dBuV/m)	Margin (dB)
	13.56	0	8.88	32.5	78.53	54.91	35.83	84.00	-48.17



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7.4 Frequency tolerance

Test Requirement 47 CFR Part 15, Subpart C 15.225(e) Test Method: ANSI C63.10 (2013) Section 6.8

Limit:

±0.01

7.4.1 E.U.T. Operation

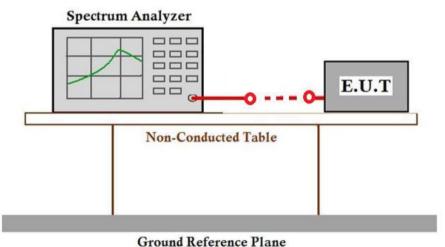
Operating Environment:

Temperature: 26.6 °C Humidity: 35.1 % RH Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode with modulation

7.4.3 Test Setup Diagram





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7.4.4 Measurement Procedure and Data

Declared Frequency (MHz)	13.56MHz
--------------------------	----------

Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Frequency Tolerance (%)	Limit (%)	Result
50		13.559702	-0.0022		Pass
40		13.559725	-0.0020		Pass
30	3.70	13.559739	-0.0019		Pass
20		13.559756	-0.0018		Pass
10		13.559751	-0.0018	.0.01	Pass
0		13.559748	-0.0019	±0.01	Pass
-10		13.559745	-0.0019		Pass
-20		13.559732	-0.0020		Pass
00	4.26	13.559756	-0.0018		Pass
20	3.15	13.559741	-0.0019		Pass



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7.5 Radiated Emissions (30MHz-1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.225(d) & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4&6.5

Measurement Distance: 3m

Limit:

Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.5 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

7.0.2 TC3t W	7.0.2 Test mode bescription						
Pre-scan / Final test	Mode Code	Description					
Final test	00	TX mode with modulation					



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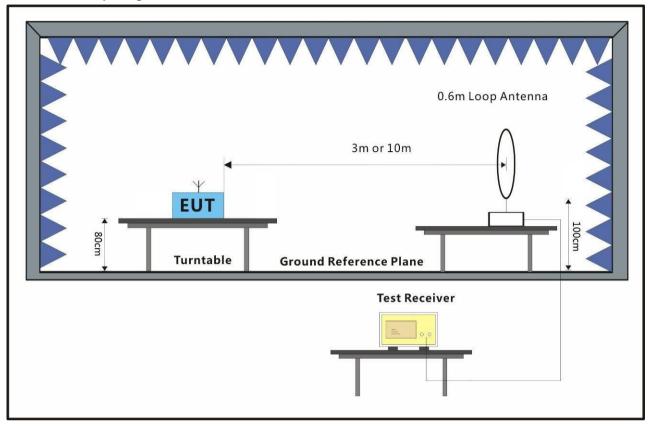
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7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground for below 1GHz at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- g. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



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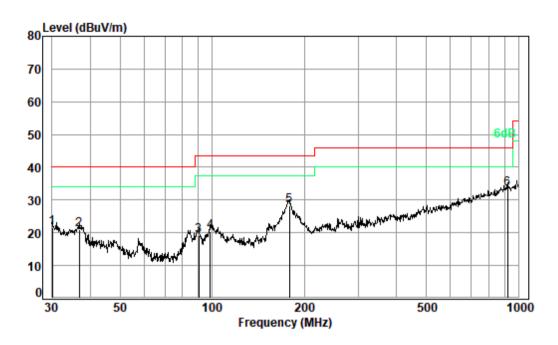
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Test Mode: 00; Polarity: Horizontal



Condition: 3m HORIZONTAL

Job No. : 12270CR

Mode : 00

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
_									
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	30.11	0.60	22.92	27.74	25.94	21.72	40.00	-18.28	QP
2	36.90	0.67	19.47	27.71	28.42	20.85	40.00	-19.15	QP
3	90.54	1.29	13.21	27.62	32.43	19.31	43.50	-24.19	QP
4	98.49	1.13	13.85	27.61	33.07	20.44	43.50	-23.06	QP
5	178.76	1.18	15.42	27.22	38.84	28.22	43.50	-15.28	QP
6 pp	922.52	3.52	29.20	27.05	27.74	33.41	46.00	-12.59	OP .



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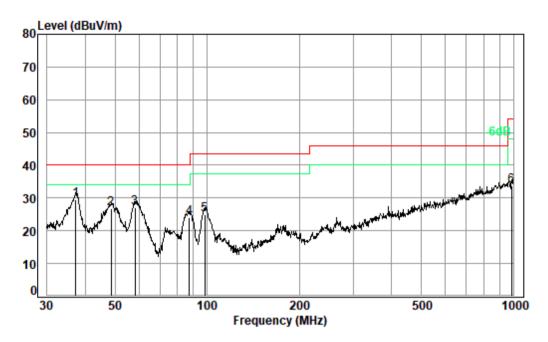
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Test Mode: 00; Polarity: Vertical



Condition: 3m VERTICAL : 12270CR Job No.

: 00 Mode

> Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Line Limit Remark Frea Level MHz dB dB/m dB dBuV dBuV/m dBuV/m dB 19.38 27.71 37.15 29.50 40.00 -10.50 OP 1 pp 37.29 0.68 2 26.62 40.00 -13.38 QP 48.67 0.70 14.43 27.69 39.18 3 26.96 40.00 -13.04 QP 58.20 0.78 13.16 27.67 40.69 4 87.42 1.28 12.78 27.62 37.44 23.88 40.00 -16.12 QP 5 98.14 1.14 13.81 27.61 37.62 24.96 43.50 -18.54 QP 986.07 3.59 29.59 26.73 27.19 33.64 54.00 -20.36 QP



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7.6 Radiated Emissions (9kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.225(d) & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4&6.5

Measurement Distance: 10m

Limit:

Frequency(MHz)	Field strength (microvolts/meter)	Limit (dBuV/m)	Detector	Measurement Distance (meters)
0.009-0.490	0.009-0.490 2400/F(kHz)		-	300
0.490-1.705	24000/F(kHz)	-	-	30
1.705-30	30	-	-	30
30-88	100	40.0	QP	3
88-216	150	43.5	QP	3
216-960	200	46.0	QP	3
960-1000	500	54.0	QP	3
Above 1000	500	54.0	AV	3

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C Humidity: 45 % RH Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode with modulation



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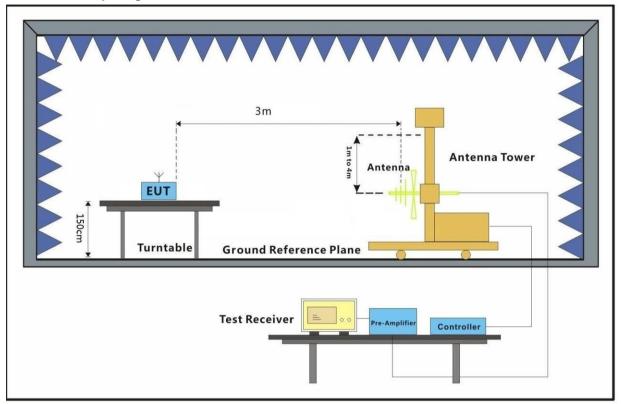
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7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Frequency (MHz)	Level @3m (dBuV/m)	Limit @ 300m (dBuV/m)	Limit @ 30m (dBuV/m)	Factor (dB)	Level @ 300m (dBuV/m)	Level @ 30m (dBuV/m)	Margin (dB)
0.0150	62.26	44.09	-	80.00	-17.74	-	-61.83
0.0419	60.25	35.15	-	80.00	-19.75	-	-54.90
0.0764	52.35	29.95	-	80.00	-27.65	-	-57.60
0.1945	53.86	21.83	-	80.00	-26.14	-	-47.97
0.5762	44.23	-	32.39	40.00		4.23	-28.16
0.9331	39.62	-	28.21	40.00		-0.38	-28.59

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor



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Test Setup Photo

Please refer to setup photos.

EUT Constructional Details (EUT Photos) 9

Refer to EUT external and internal photos

- End of the Report -



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