



# **FCC Radio Test Report**

**FCC ID: R9C-CPH1941** 

This report concerns: Original Grant

Project No. : 1909C106

Equipment : Mobile Phone

Brand Name : OPPO
Test Model : CPH1941
Series Model : N/A

Applicant : GuangDong Oppo Mobile Telecommunications Corp., Ltd.Address : NO. 18 HaiBin Road, WuSha village, Chang An Town,

DongGuan City,Guangdong,China.

Manufacturer : GuangDong Oppo Mobile Telecommunications Corp., Ltd.Address : NO. 18 HaiBin Road, WuSha village, Chang An Town,

DongGuan City,Guangdong,China.

Factory : GuangDong Oppo Mobile Telecommunications Corp., Ltd.

Address : NO. 18 HaiBin Road, WuSha village, Chang An Town,

DongGuan City,Guangdong,China.

Date of Receipt : Sep. 19, 2019

**Date of Test** : Sep. 19, 2019 ~ Sep. 25, 2019

**Issued Date** : Oct. 24, 2019

Report Version : R00

Test Sample : Engineering Sample No.: DG20190920152

Standard(s) : FCC Part 15, Subpart C (15.225)

ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Prepared by: Vincent Tan

Approved by : Ethan Ma

ACCREDITION ACCREDITION

Certificate #5123.02

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#### **Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL**'s reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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**BTL**'s laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

#### Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective. Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.



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## **REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	Oct. 24, 2019



## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.225)				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	
15.205(a) 15.209(a) 15.225(a)-(d)	Radiated Emission	APPENDIX B APPENDIX C	PASS	
15.225(e)	Frequency Tolerance	APPENDIX D	PASS	
15.203	Antenna Requirement		PASS	Note(2)

## Note:

- (1) "N/A" denotes test is not applicable in this test report
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.



#### 1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

#### 1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)) The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 kHz ~ 30 MHz	2.32

#### B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
		9kHz ~ 30MHz	V	3.79
		9kHz ~ 30MHz	Н	3.57
		30MHz ~ 200MHz	V	4.88
DG-CB03	3 CISPR	30MHz ~ 200MHz	Ι	4.14
		200MHz ~ 1,000MHz	V	4.62
DG-CB03		200MHz ~ 1,000MHz	Ι	4.80
		1GHz ~ 6GHz	ı	4.58
		6GHz ~ 18GHz	ı	5.18
		18GHz ~ 26.5GHz	ı	3.80
		26.5GHz ~ 40GHz	-	4.30

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

#### 1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	60%	AC 120V/60Hz	Damon Deng
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Sheldon Ou
Radiated Emissions-30 MHz to 1GHz	25°C	60%	AC 120V/60Hz	Sheldon Ou
Frequency Tolerance	No	rmal, Extr	eme	Robin Zhuang



## 2. GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile Phone
Brand Name	OPPO
Test Model	CPH1941
Series Model	N/A
Model Difference(s)	N/A
Hardware Version	11
Software Version	ColorOS V6.0.1
Firmware Version	TBD
Operation Frequency	13.56 MHz
Antenna Type	Loop Antenna
Power Source	1. DC Voltage supplied from AC/DC adapter.  1# Model: OP52KAUH  2# Model: OP52JAUH  3# Model: OP52YAUH  2. Supplied from Li-ion Polymer battery.  1# Factory / Model: NVT / BLP727 (NA-P727-92)  2# Factory / Model: Desay / BLP727 (DA-P727-923)  3# Factory / Model: Sunwoda / BLP727 (XA-P727-922)  4# Factory / Model: Desay / BLP727 (DD-P727-918)  5# Factory / Model: Desay / BLP727 (DA-P727-931)  3. Supplied from USB port.
Power Rating	1. I/P:100-240V~ 50/60Hz 0.4A O/P:5V==2A 2. 3.87Vdc, 5000mAh/19.35Wh 3. DC 5V

#### Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.



#### 2.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX Mode_13.56MHz

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test		
Final Test Mode	Description	
Mode 1	TX Mode_13.56MHz	

F	Radiated emissions test - Below 1GHz
Final Test Mode	Description
Mode 1	TX Mode_13.56MHz

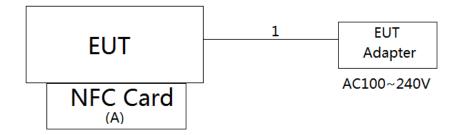
Conducted test		
Final Test Mode	Description	
Mode 1	TX Mode_13.56MHz	

#### Note:

For radiated emissions below 1GHz, all adapters had been pre-tested and in this report only recorded the worst case.



## 2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



## 2.4 SUPPORT UNITS

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	
Α	NFC Card	N/A	N/A	N/A	

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1m



#### 3. AC POWER LINE CONDUCTED EMISSIONS TEST

#### **3.1 LIMIT**

Fraguency of Emission (MHz)	Limit (dBμV)				
Frequency of Emission (MHz)	Quasi-peak	Average			
0.15 - 0.50	66 to 56*	56 to 46*			
0.50 - 5.0	56	46			
5.0 - 30.0	60	50			

#### Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

The femaling takes to the country of the feature.					
Receiver Parameters	Setting				
Attenuation	10 dB				
Start Frequency	0.15 MHz				
Stop Frequency	30 MHz				
IF Bandwidth	9 kHz				

#### 3.2 TEST PROCEDURE

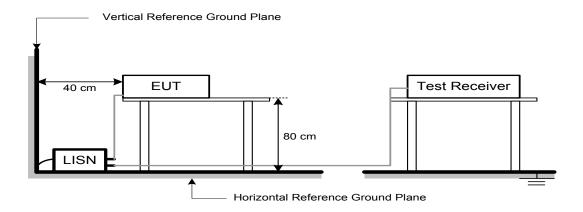
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

#### 3.3 DEVIATION FROM TEST STANDARD

No deviation



#### 3.4 TEST SETUP



#### 3.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical function (as a customer would normally use it), EUT was programmed to be in continuously transmitting data or hopping on mode.

#### 3.6 TEST RESULTS

Please refer to the APPENDIX A.

#### Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform in this case, a "\*" marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150 kHz to 30 MHz.



#### 4. RADIATED EMISSION TEST

#### **4.1 LIMIT**

Clause 15.225(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.

Clause 15.225(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.

Clause 15.225(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.

Clause 15.225(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.

§15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

## LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

#### Note:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).



#### **4.2 TEST PROCEDURE**

The test set-up was made in accordance to the general provisions of ANSI C63.10-2013. The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration. Sweep the whole frequency band through the range from 9 kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

During the test, below 30MHz, the center of the loop shall be 1 meters; above 30MHz, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.

Set the spectrum analyzer in the following:

Below 1GHz (detector: Peak and Quasi-Peak) RBW=100 kHz / VBW=300 kHz / Sweep=AUTO

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

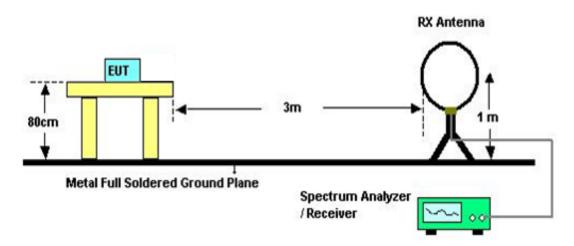
## 4.3 DEVIATION FROM TEST STANDARD

No deviation

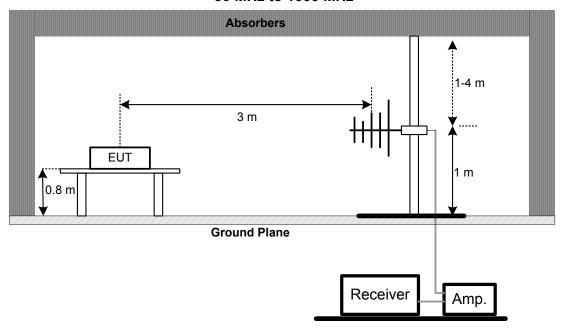


#### 4.4 TEST SETUP

#### 9 kHz-30 MHz



#### 30 MHz to 1000 MHz



#### 4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 4.6 TEST RESULTS - 9 kHz TO 30 MHz

Please refer to the APPENDIX B

## Remark:

- (1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

## 4.7 TEST RESULTS - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.



#### 5. FREQUENCY TOLERANCE TEST

#### **5.1 LIMIT**

FCC Part15 Subpart C					
Section	Limit				
15.225(e) Frequency Tolerance		±0.001MHz			

#### **5.2 TEST PROCEDURE**

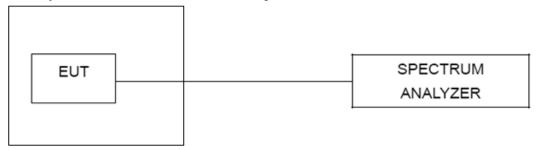
1. The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of –20 degrees to + 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

#### **5.3 DEVIATION FROM STANDARD**

No deviation.

#### **5.4 TEST SETUP**

# Temperature And Humidity Box



#### **5.5 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 3.5 unless otherwise a special operating condition is specified in the follows during the testing.

#### **5.6 TEST RESULTS**

Please refer to the APPENDIX D.



## **6. MEASUREMENT INSTRUMENTS LIST**

	AC Power Line Conducted Emissions								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 10, 2020				
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020				
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	May. 19, 2020				
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 10, 2020				
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A				
6	Cable	N/A	RG223	12m	Mar. 12, 2020				

	Radiated Emissions - 9 kHz to 30 MHz								
Item	Kind of Equipment	Manufacturer Type No.		Serial No.	Calibrated until				
1	Loop Antenna	EM EM-6876-1		230	Jan. 15, 2020				
2	Cable	N/A	RG 213/U	C-102	May 31, 2020				
3	EMI Test Receiver	R&S	ESCI	100895	Mar. 10, 2020				
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A				

	Radiated Emissions - 30 MHz to 1 GHz								
Item	Kind of Equipment	of Equipment   Manufacturer		Serial No.	Calibrated until				
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2020				
2*	Amplifier	HP	8447D	2944A09673	Aug. 11, 2021				
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020				
4	Cable	emci	LMR-400(30MHz- 1GHz)(8m+5m)	N/A	May 24, 2020				
5	Controller	CT	SC100	N/A	N/A				
6	Controller	MF	MF-7802	MF780208416	N/A				
7	Measurement Farad		EZ-EMC Ver.NB-03A1-01	N/A	N/A				

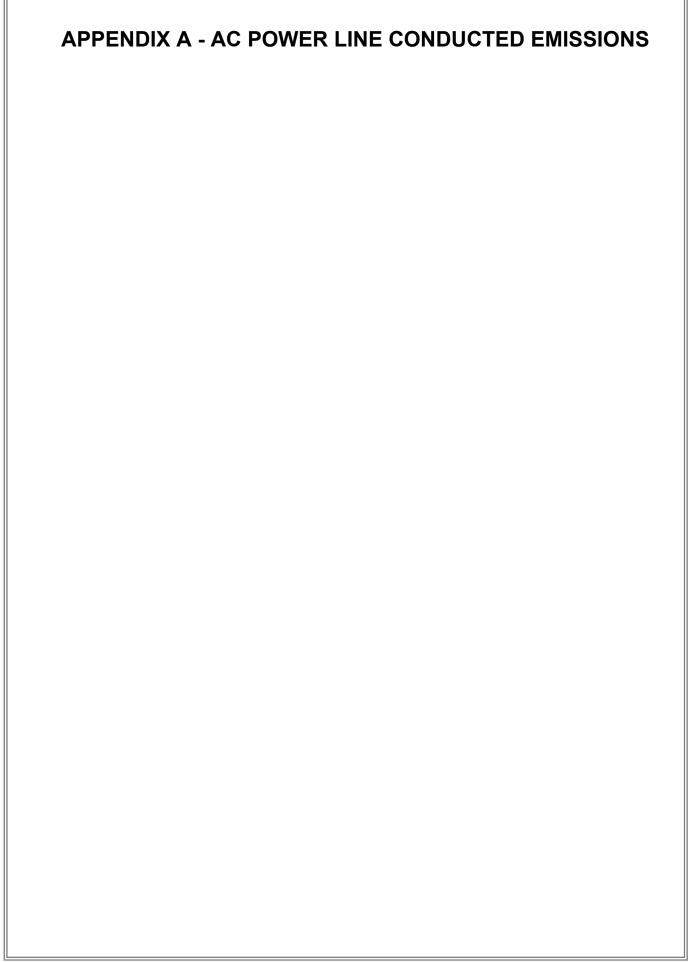
	Frequency Tolerance									
Item         Kind of Equipment         Manufacturer         Type No.         Serial No.         Calib										
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020					
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 10, 2020					

Remark "N/A" denotes no model name, serial no. or calibration specified.

Except \* item, all calibration period of equipment list is one year.

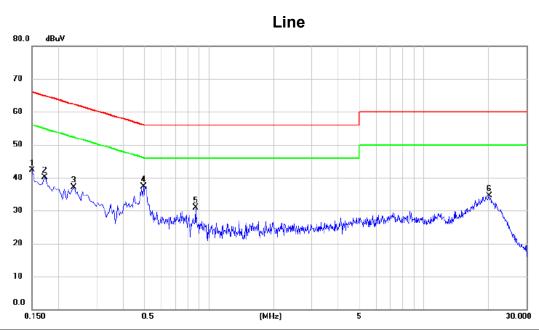
<sup>&</sup>quot;\*" calibration period of equipment list is three year.







Test Mode TX Mode\_13.56MHz

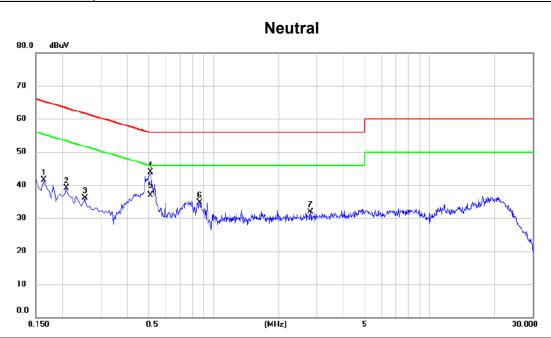


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.150	32.52	9.82	42.34	66.00	-23.66	peak	
2	0.172	30.35	9.82	40.17	64.84	-24.67	peak	
3	0.235	27.35	9.82	37.17	62.25	-25.08	peak	
4 *	0.496	27.52	9.88	37.40	56.06	-18.66	peak	
5	0.866	21.02	9.91	30.93	56.00	-25.07	peak	
6	20.108	23.32	11.19	34.51	60.00	-25.49	peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



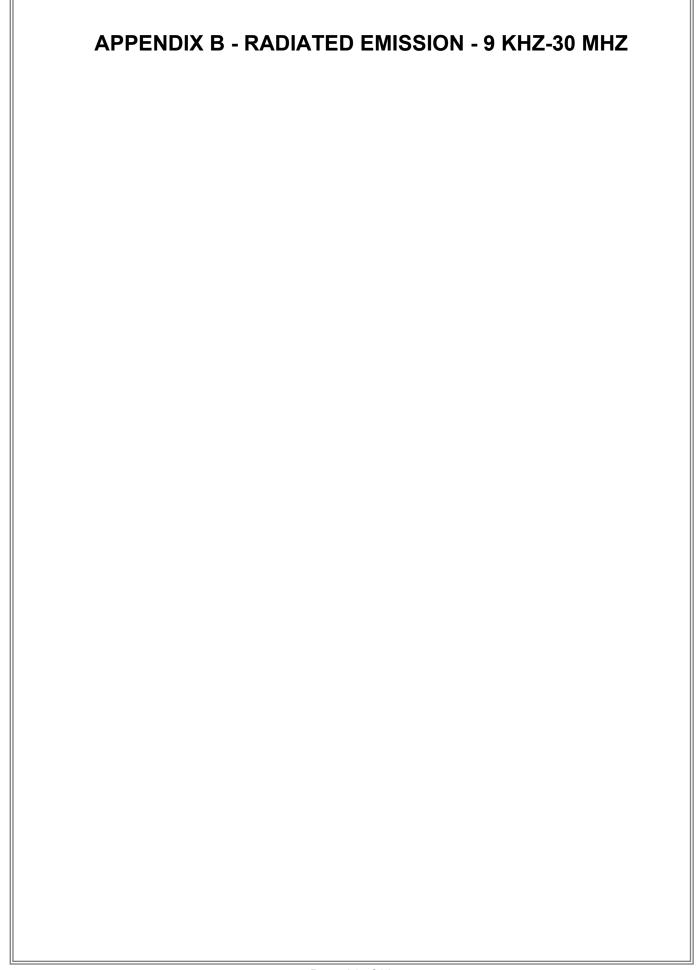
Test Mode TX Mode\_13.56MHz



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.164	31.56	9.91	41.47	65.28	-23.81	peak	
2	0.208	29.22	9.90	39.12	63.26	-24.14	peak	
3	0.254	26.16	9.93	36.09	61.64	-25.55	peak	
4	0.510	33.86	10.03	43.89	56.00	-12.11	peak	
5 *	0.510	26.86	10.03	36.89	46.00	-9.11	AVG	
6	0.861	24.66	10.09	34.75	56.00	-21.25	peak	
7	2.800	21.63	10.24	31.87	56.00	-24.13	peak	

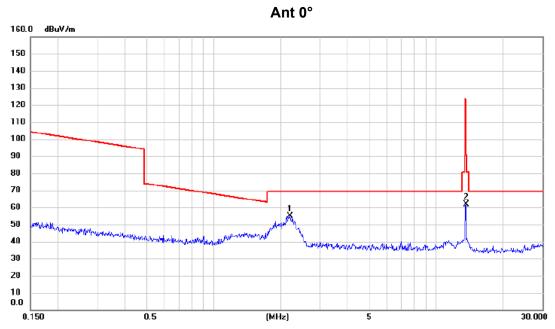
- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.









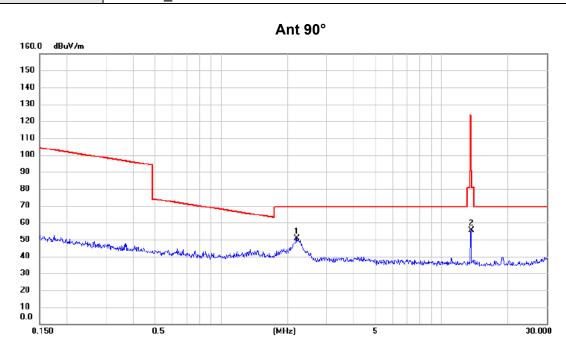


No. Mk.	Freq.			Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2.201	43.47	11.70	55.17	69.50	-14.33	peak	
2	13.623	50.02	11.59	61.61	90.50	-28.89	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode TX Mode\_13.56MHz

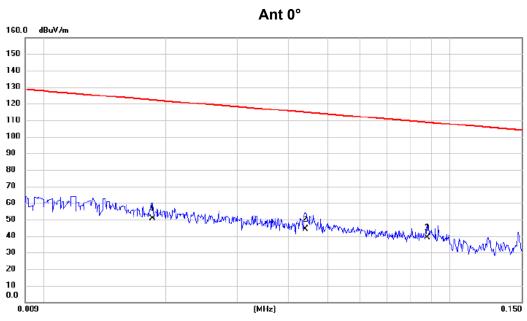


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2.201	38.96	11.70	50.66	69.50	-18.84	peak	
2	13.623	43.90	11.59	55.49	90.50	-35.01	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode TX Mode\_13.56MHz



No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.018	36.20	14.27	50.47	122.26	-71.79	AVG	
2	0.044	30.30	13.91	44.21	114.74	-70.53	AVG	
3 *	0.088	25.30	13.54	38.84	108.73	-69.89	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.

30.000



Test Mode TX Mode\_13.56MHz

## Ant 0° 160.0 dBuV/m 150 140 130 120 110 100 90 80 70 60 50 40 30 20 0.0

No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.452	31.20	13.18	44.38	94.51	-50.13	AVG	
2 *	2.167	35.20	11.72	46.92	69.54	-22.62	QP	
3	12.716	26.10	11.60	37.70	69.54	-31.84	QP	

(MHz)

## **REMARKS**:

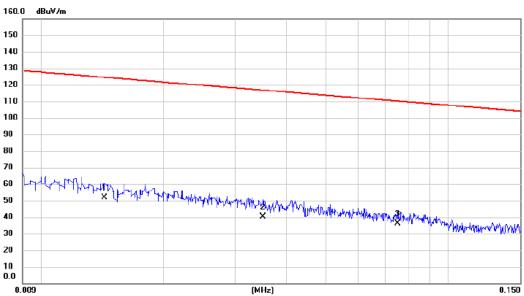
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.

0.5



TX Mode\_13.56MHz Test Mode

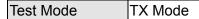
## Ant 90°

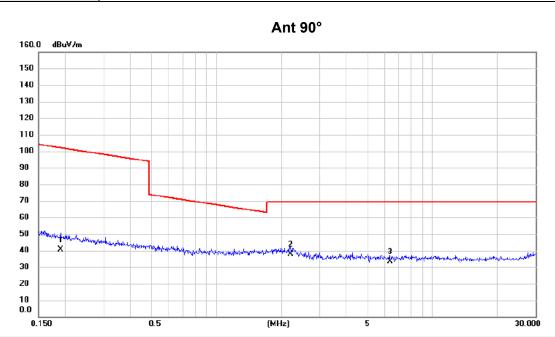


No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.014	36.30	15.53	51.83	124.50	-72.67	AVG	
2	0.035	26.20	13.88	40.08	116.72	-76.64	AVG	
3	0.075	22.50	13.53	36.03	110.08	-74.05	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



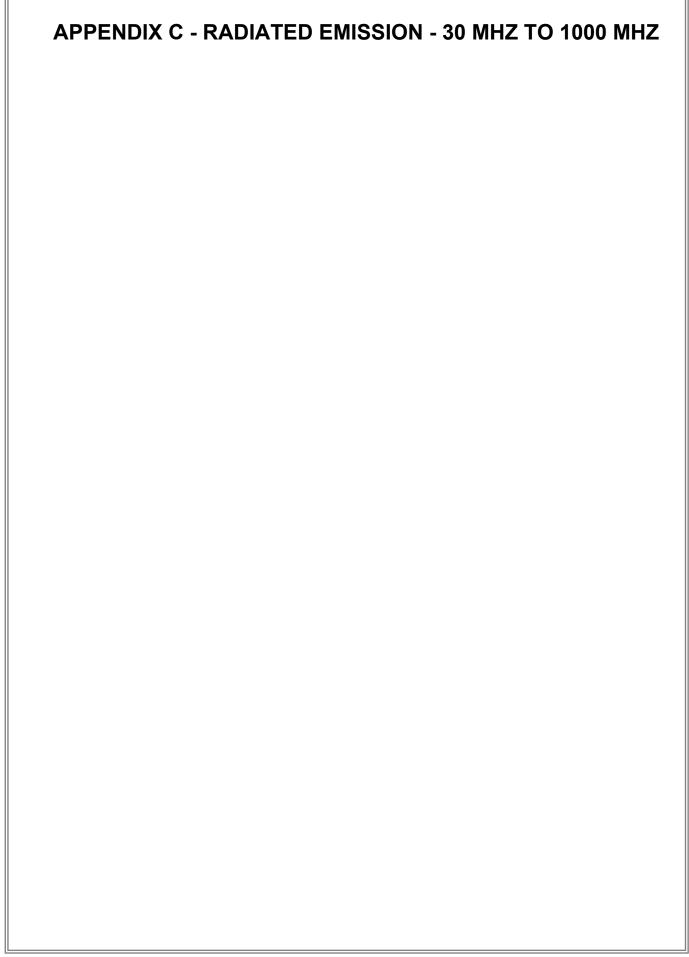




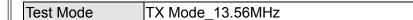
No. Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.190	27.10	13.60	40.70	102.03	-61.33	AVG	
2 *	2.213	26.30	11.69	37.99	69.54	-31.55	QP	
3	6.352	22.20	11.07	33.27	69.54	-36.27	QP	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.







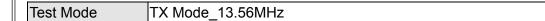


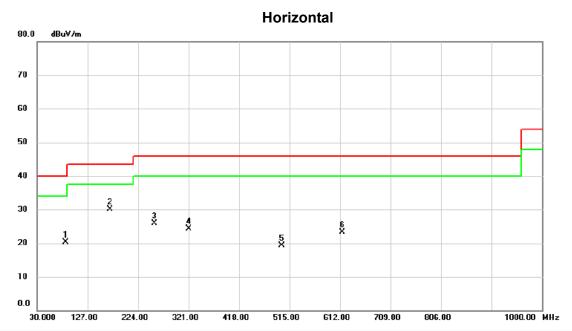
#### **Vertical** 80.0 dBuV/m 70 60 50 40 30 X 8 2 X 5 X 20 10 0.0 1000.00 MHz 30.000 127.00 224.00 321.00 418.00 515.00 612.00 709.00 806.00

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	31.940	37.84	-13.77	24.07	40.00	-15.93	peak	
2	110.510	44.84	-21.69	23.15	43.50	-20.35	peak	
3	194.900	46.10	-19.27	26.83	43.50	-16.67	peak	
4	311.300	34.04	-14.04	20.00	46.00	-26.00	peak	
5	533.430	29.42	-10.00	19.42	46.00	-26.58	peak	
6	735.190	30.20	-5.57	24.63	46.00	-21.37	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



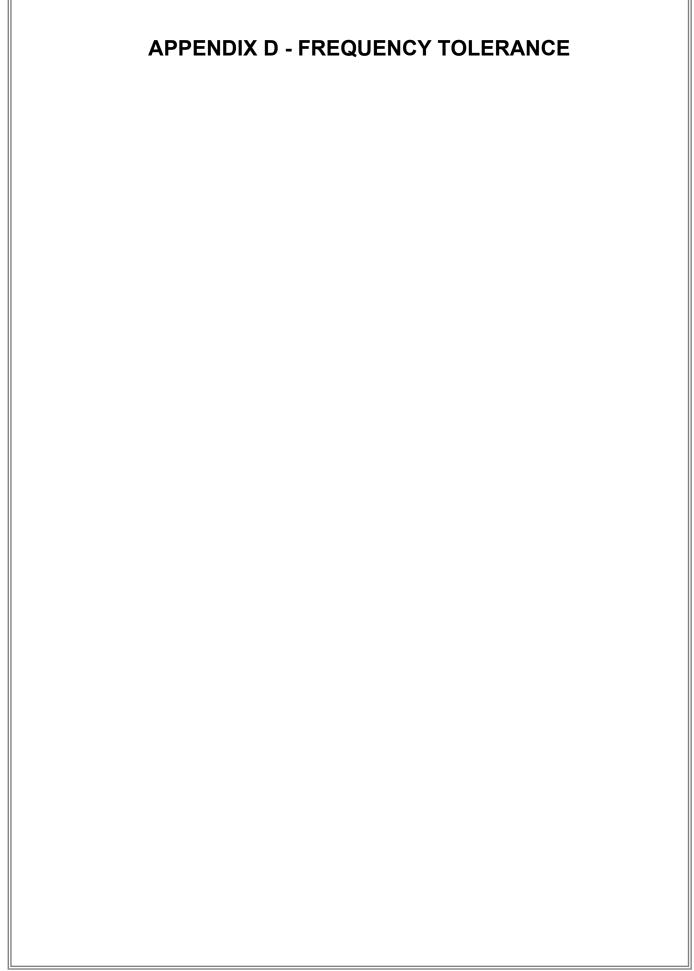




No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	85.290	42.95	-22.64	20.31	40.00	-19.69	peak	
2 *	170.650	50.38	-20.33	30.05	43.50	-13.45	peak	
3	255.040	42.70	-16.72	25.98	46.00	-20.02	peak	
4	321.000	38.18	-13.86	24.32	46.00	-21.68	peak	
5	499.480	29.98	-10.60	19.38	46.00	-26.62	peak	
6	615.880	31.48	-8.17	23.31	46.00	-22.69	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.







Test Mode	TX Mode_13.56MHz

	Frequency Tolerance Versus Environmental Temperature										
	Temper (°C		Voltage (V)	Frequency (MHz)	Frequency Error (kHz)	Limit (kHz)	Result				
	25	5	3.87	13.56	-	-	-				
0 min	50	)	3.87	13.562	2	+/- 1.356	PASS				
	-20	)	3.87	13.5605	0.5	+/- 1.356	PASS				
2 min	50	)	3.87	13.5605	0.5	+/- 1.356	PASS				
	-20	)	3.87	13.5603	0.3	+/- 1.356	PASS				
5 min	50	)	3.87	13.5606	0.6	+/- 1.356	PASS				
	-20	)	3.87	13.5597	-0.3	+/- 1.356	PASS				
10 min	50	)	3.87	13.5604	0.4	+/- 1.356	PASS				
	-20	)	3.87	13.5595	-0.5	+/- 1.356	PASS				
			Frequenc	y Tolerance Vers	us Input Voltag	je					
	Temperature V		ltage (V)	Frequency (MHz)	Frequency Error (kHz)	Limit (kHz)	Result				
2	5	V-nom	3.87	13.56	-	-	-				
2	5	V-min		13.5606	0.6	+/- 1.356	PASS				
2	25 V-ma		4.4505	13.5606	0.6	+/- 1.356	PASS				

**End of Test Report**