

FCC TEST REPORT

FCC ID : H795042344600
Equipment : RF REMOTE CONTROL
Brand Name : DELTA
Model Name : 5042344600
Applicant : Delta Electronics Incorporated
3 Tungyuan Road Chungli Industrial
Zone ,Taoyuan County, 32063,Taiwan
Manufacturer : Delta Electronics Incorporated
3 Tungyuan Road Chungli Industrial
Zone ,Taoyuan County, 32063,Taiwan
Standard : 47 CFR FCC Part 15.231

The product was received on Dec. 27, 2021, and testing was started from Jan. 03, 2022 and completed on Jan. 06, 2022. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.


Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Testing Applied Standards	6
1.3	Testing Location Information	6
1.4	Measurement Uncertainty	6
2	TEST CONFIGURATION OF EUT.....	7
2.1	Test Condition	7
2.2	The Worst Case Modulation Configuration	7
2.3	The Worst Case Measurement Configuration	7
2.4	Support Equipment.....	8
2.5	Test Setup Diagram	9
3	TRANSMITTER TEST RESULT	10
3.1	Emission Bandwidth	10
3.2	Fundamental Emissions	12
3.3	Transmitter Radiated Unwanted Emissions	14
3.4	Operation Restriction.....	26
4	TEST EQUIPMENT AND CALIBRATION DATA.....	28

APPENDIX A. TEST PHOTOS

PHOTOGRAPHS OF EUT v01



TEL : 886-3-327-3456
FAX : 886-3-327-0973
Report Template No.: HE1-C7 Ver3.0

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
-	15.207	AC Power-line Conducted Emissions	Not Required	Only employ battery power.
3.1	15.231(c)	Emission Bandwidth	PASS	-
3.2	15.231(b)	Fundamental Emissions	PASS	-
3.3	15.231(b)	Transmitter Radiated Unwanted Emissions	PASS	-
3.3.7	15.231(a)/(e)	Operation Restriction	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

None.

Reviewed by: Sam Tsai

Report Producer: Amber Chiu

1 General Description

1.1 Information

1.1.1 RF General Information

RF General Information				
Frequency Range(MHz)	Modulation	Ch. Frequency (MHz)	Channel Number	Fundamental Field Strength (dBuV/m)
433.92	ASK	433.92	1	65.31
Note 1: Field strength performed average level at 3m.				

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Delta	RYFP433	PCB antenna	N/A	-0.3

1.1.3 Type of EUT

Operational Condition	
EUT Power Type	From Battery
Type of EUT	
☒	Stand-alone
☐	Combined (EUT where the radio part is fully integrated within another device)
☐	Combined Equipment - Brand Name / Model No.: ...
☐	Plug-in radio (EUT intended for a variety of host systems)
☐	Host System - Brand Name / Model No.: ...
☐	Other:

1.1.4 Test Signal Duty Cycle

Test Signal Duty Cycle (%)	T(s)
1.6781	0.084

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Alan Chien	20.1~26.9℃ / 50~60%	03/Jan/2022~04/Jan/2022
Radiated	03CH03-HY	Justin Pan	20.1~23.1℃ / 55.7~60%	06/Jan/2022
☐ Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

1.4 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))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
Tnom Vnom	Tnom	20°C
-	Vnom	3V

2.2 The Worst Case Modulation Configuration

Modulation Used for Conformance Testing		
Mode	Field Strength (dBuV/m at3m)	Test Channel Frequencies (MHz)
Wireless transmit	65.31	433.92

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emission Bandwidth, Fundamental Emissions, Radiated Unwanted Emissions		
Test Condition	Radiated measurement		
User Position	☐ EUT will be placed in fixed position.		
	☐ EUT will be placed in mobile position and operating multiple positions.		
	☒ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.		
Operating Mode	CTX		
	☒ 1. Battery Mode		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

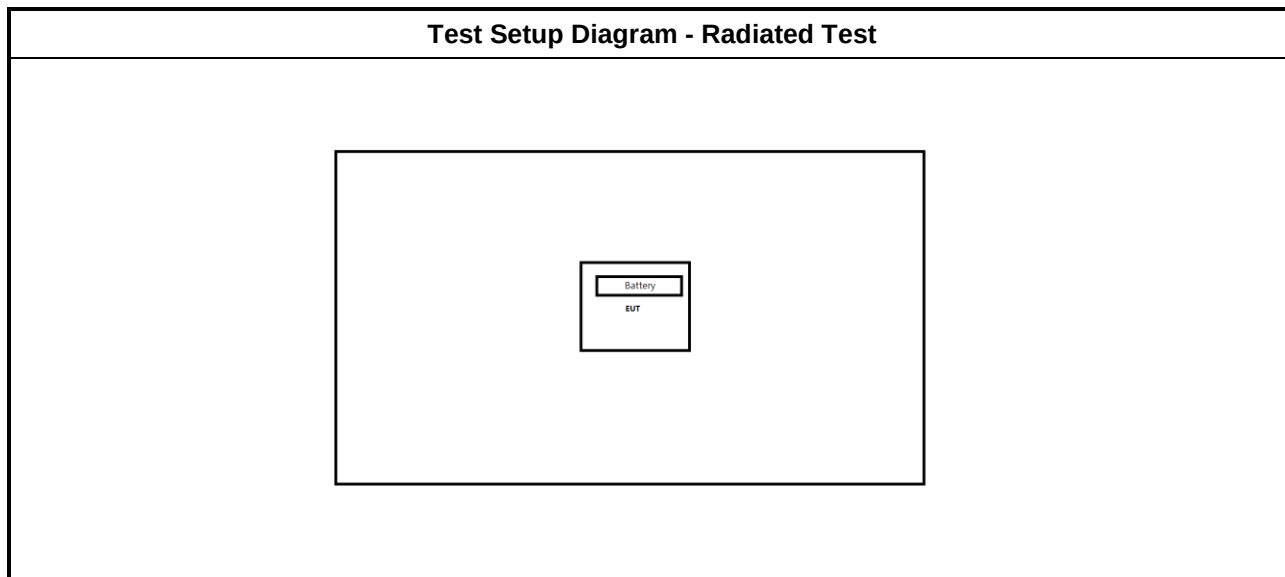
The Worst Case Mode for Following Conformance Tests	
Tests Item	Operation Restriction (silent time and operated time)
Test Condition	Conducted measurement
Test Mode	Operated normally mode for worst duty cycle condition.

2.4 Support Equipment

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	DC Power Supply	GW	GPS-3030DD	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Battery	FUJITSU	R03(4S)F-GP	-	-

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
☒	Emission bandwidth falls completely within authorized band.
☒	$F_c(70\sim 900\text{MHz}): BW \leq f_c \times 0.25\%$
☐	$F_c(>900\text{MHz}): BW \leq f_c \times 0.5\%$

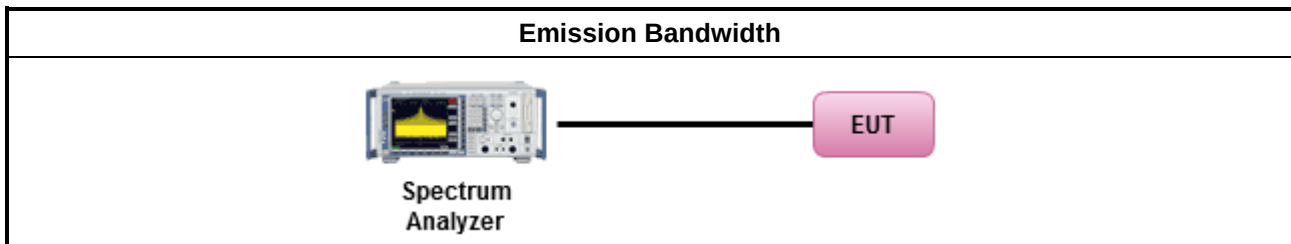
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method	
☒	Refer as ANSI C63.10, clause 6.9.3 for 20 dB emission bandwidth and 99% occupied bandwidth measurement.

3.1.4 Test Setup



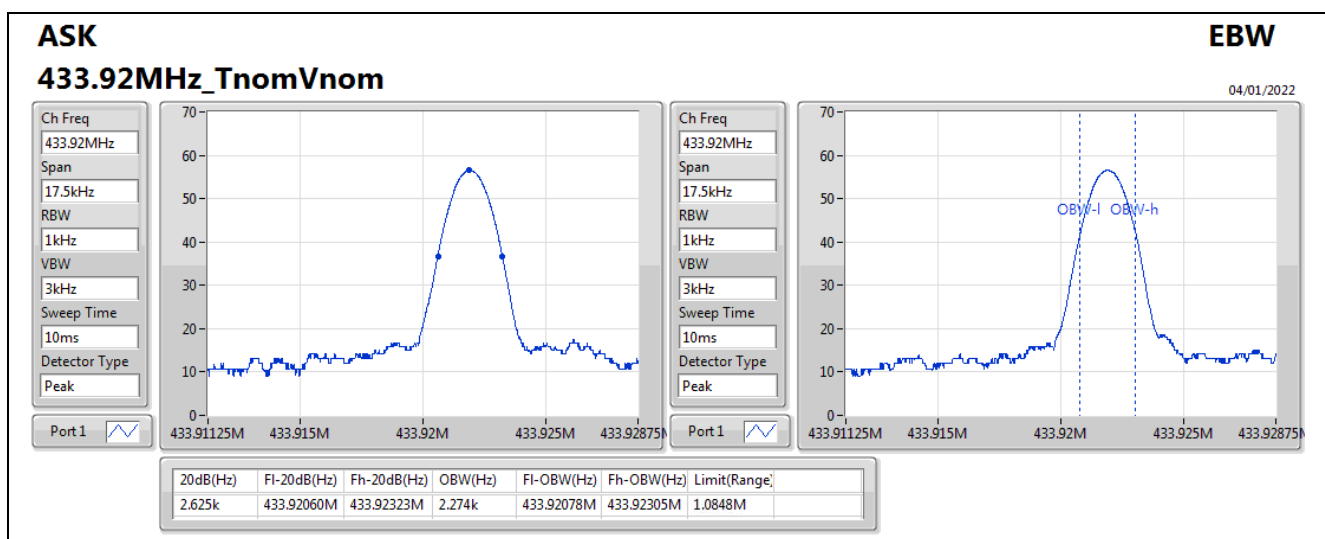
3.1.5 Test Result of Emission Bandwidth

Summary

Mode	20dB (Hz)	FI-20dB (Hz)	Fh-20dB (Hz)	OBW (Hz)	Limit (Hz)
433.92M	-	-	-	-	-
ASK	2.625k	433.92060M	433.92323M	2.274k	1.0848M

Result

Mode	Result	20dB (Hz)	FI-20dB (Hz)	Fh-20dB (Hz)	OBW (Hz)	FI-OBW (Hz)	Fh-OBW (Hz)	Limit (Hz)
ASK	-	-	-	-	-	-	-	-
433.92MHz_TnomVnom	Pass	2.625k	433.92060M	433.92323M	2.274k	433.92078M	433.92305M	1.0848M



3.2 Fundamental Emissions

3.2.1 Fundamental Emissions Limit

For manually operated within 5 sec, activated automatically within 5 sec, periodic transmissions		
Frequency Band (MHz)	Fundamental Limit (uV/m) at 3m	Fundamental Limit (dBuV/m) at 3m
40.66-40.70	2250	67
70-130	1250	61.9
130-174	1250-3750(**)	61.9-71.5
174-260	3750	71.5
260-470	3750-12500(**)	71.5-81.9
Above 470	12500	81.9
**1. Linear interpolations. Based on the average value of the measured emissions.		

For periodic transmissions (lower field strength)		
Frequency Band (MHz)	Fundamental Limit (uV/m) at 3m	Fundamental Limit (dBuV/m) at 3m
40.66-40.70	1000	60
70-130	500	54
130-174	500-1500(**)	54-63.5
174-260	1500	63.5
260-470	1500-5000(**)	63.5-74
Above 470	5000	74
** 1. Linear interpolations. Based on the average value of the measured emissions.		

3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

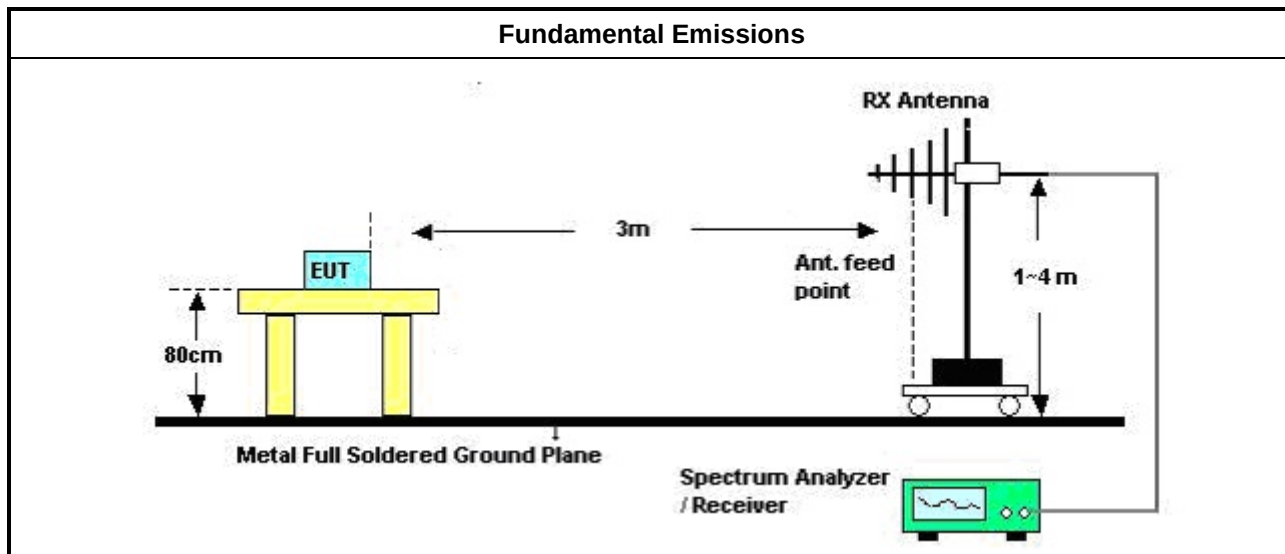
☒	For the transmitter emissions shall be measured using following options below:
☐	Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW) – Duty cycle $\geq$ 100%.
☒	Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions. Adjusted by a “duty cycle correction factor”, derived from $20\log(\text{dwell time}/100 \text{ ms})$. Average emission = peak emission + 20 log (duty cycle).
☒	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
☒	For radiated measurement, refer as ANSI C63.10, clause 6.5 for radiated emissions

3.2.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.2.5 Test Setup

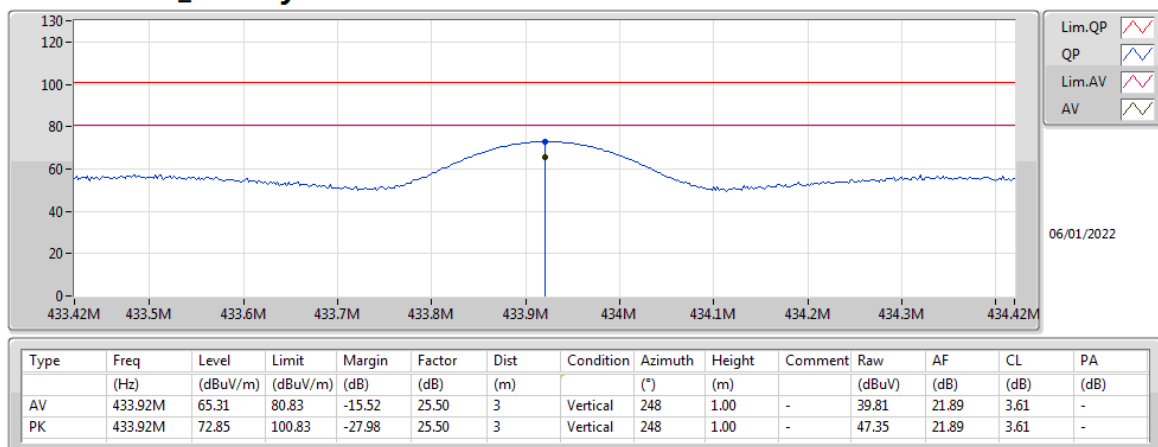


3.2.6 Test Result of Fundamental Emissions

Field Strength of Fundamental Emissions Result					
Modulation Mode	Frequency (MHz)	Fundamental (dBuV/m)@3m	Margin (dB)	Limit (dBuV/m)@3m	Type
ASK	433.92	65.31	15.52	80.83	Average
ASK	433.92	72.85	27.98	100.83	Peak
Result		Complied			
Note 1: Measurement worst emissions of receive antenna polarization: Vertical					
Note 2: If duty cycle < 100%, average emission = peak emission + 20 log (duty cycle).					

SRD_Nss1_1TX

433.92MHz_Battery



3.3 Transmitter Radiated Unwanted Emissions

3.3.1 Transmitter Radiated Unwanted Emissions Limit

For manually operated within 5 sec, activated automatically within 5 sec, periodic transmissions		
Unwanted emissions limit follow this table or the general limits FCC 15.209, whichever limit permits higher field strength.		
Frequency Band (MHz)	Spurious Limit (uV/m) at 3m	Spurious Limit (dBuV/m) at 3m
40.66-40.70	225	47
70-130	125	41.9
130-174	125-375(**)	41.9-51.5
174-260	375	51.5
260-470	375-1250(**)	51.5-61.9
Above 470	1250	61.9
**1. Linear interpolations. Based on the average value of the measured emissions.		

For periodic transmissions (lower field strength)		
Unwanted emissions limit follow this table or the general limits FCC 15.209, whichever limit permits higher field strength.		
Frequency Band (MHz)	Spurious Limit (uV/m) at 3m	Spurious Limit (dBuV/m) at 3m
40.66-40.70	100	40
70-130	50	34
130-174	50-150(**)	34-43.5
174-260	150	43.5
260-470	150-500(**)	43.5-54
Above 470	500	54
** 1. Linear interpolations Based on the average value of the measured emissions.		

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method – General Information	
☒	The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].
☐	Refer as ANSI C63.10, clause 6.10.3 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
☒	For the transmitter unwanted emissions shall be measured using following options below:
☐	Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW) – Duty cycle $\geq$ 100%.
☒	Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions. Adjusted by a “duty cycle correction factor”, derived from $20\log$ (dwell time/100 ms). Average emission = peak emission + 20 log (duty cycle).
☒	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
☒	For the transmitter bandedge emissions shall be measured using following options below:
☒	Refer as ANSI C63.10, clause 6.10 for band-edge testing.
☐	Refer as ANSI C63.10, clause 6.10.6.2 for marker-delta method for band-edge measurements.
☒	For radiated measurement.
☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
☒	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1 GHz and test distance is 3m.
☒	The any unwanted emissions level shall not exceed the fundamental emission level.
☒	All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
☐	KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
☐	- Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field. - Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

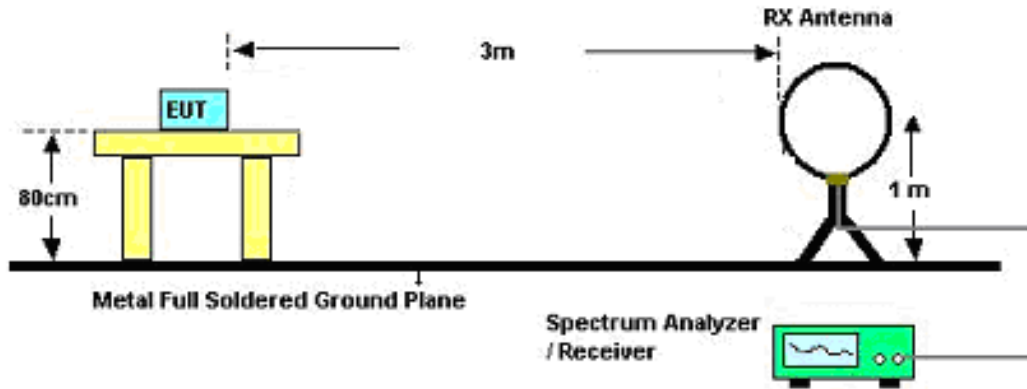
3.3.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

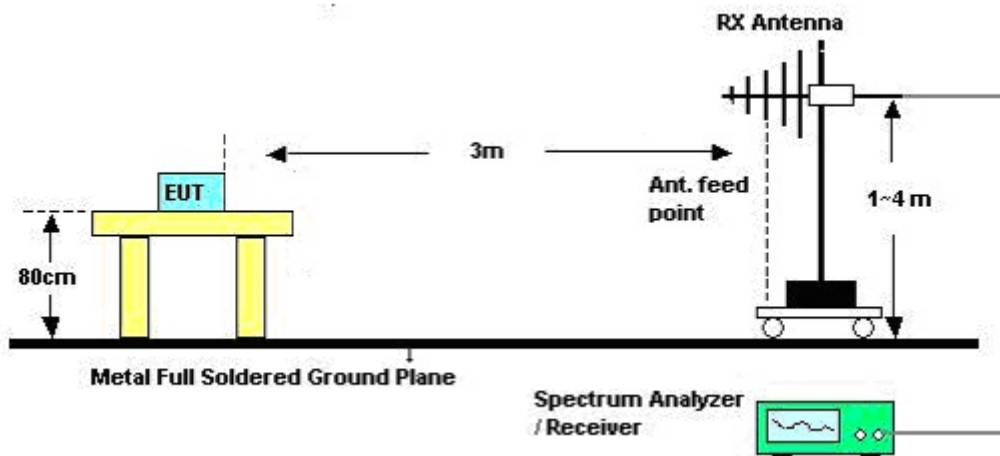
3.3.5 Test Setup

Transmitter Spurious and Out of Band Emissions (9 kHz - 30 MHz)

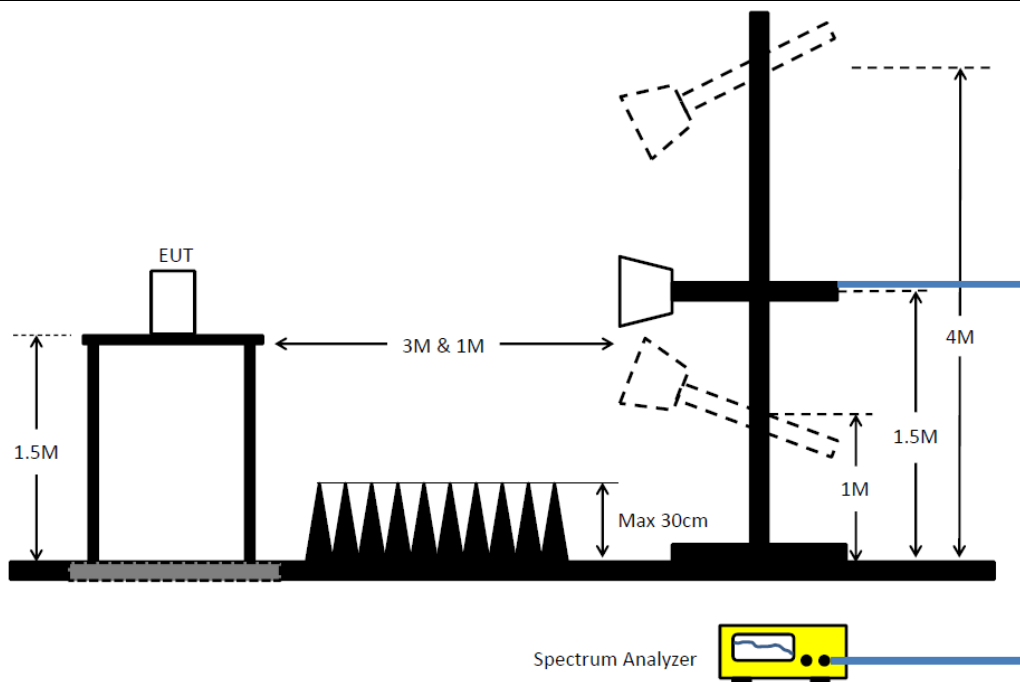


Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna.

Transmitter Radiated Unwanted Emissions (below 1GHz)



Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

Transmitter Radiated Unwanted Emissions (Above 1GHz)


Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

3.3.6 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

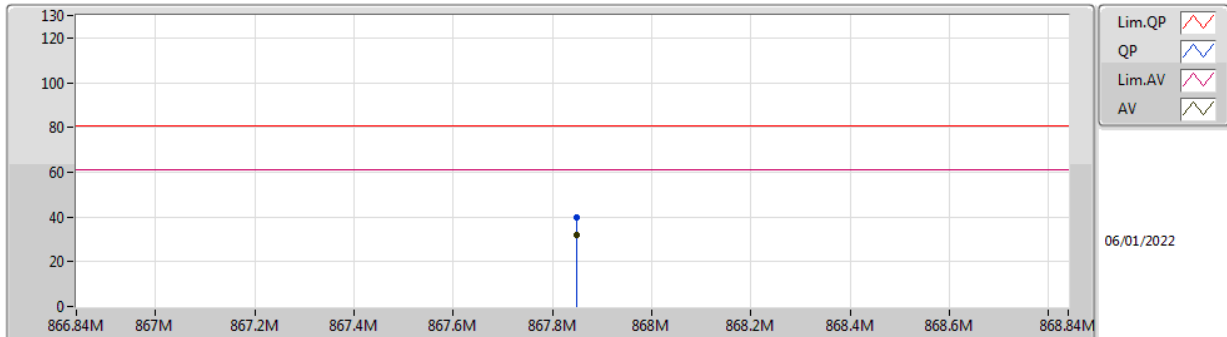
3.3.7 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Summary

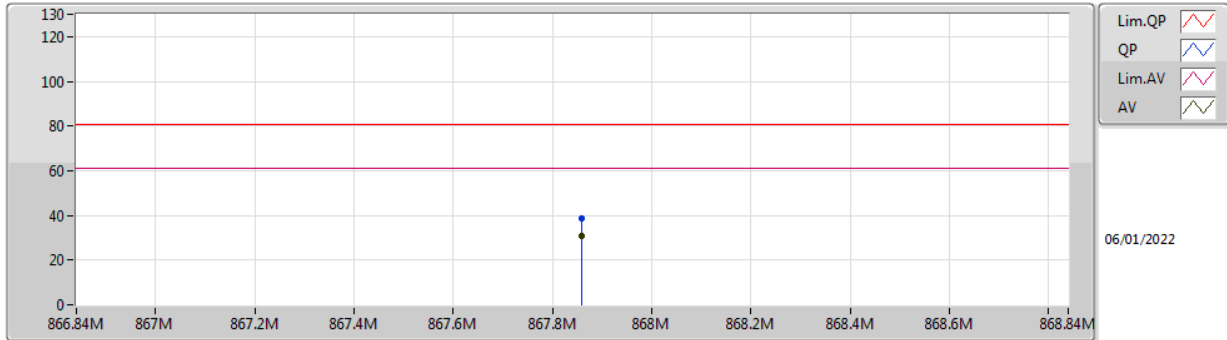
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
433.05-434.79MHz	-	-	-	-	-	-	-	-	-	-	-
SRD_Nss1_1TX	Pass	PK	406.36M	40.03	46.00	-5.97	3	Vertical	0	1.00	-

Result

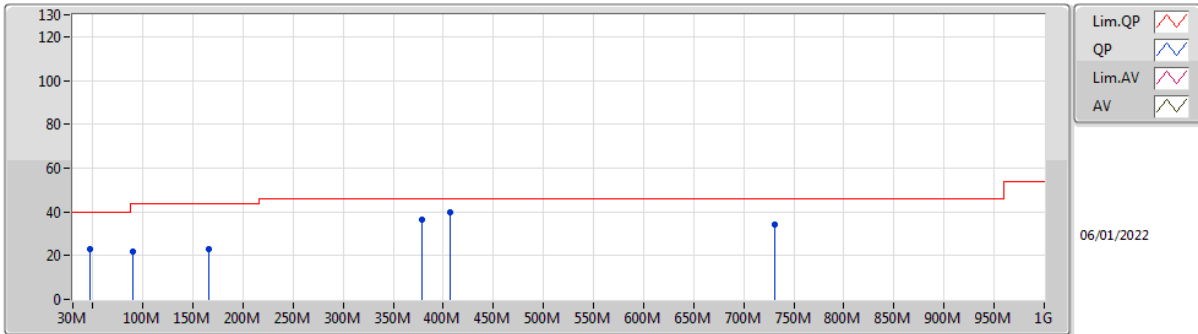
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
SRD_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-
433.92MHz_Battery	Pass	AV	433.92M	65.31	80.83	-15.52	3	Vertical	248	1.00	-
433.92MHz_Battery	Pass	PK	433.92M	72.85	100.83	-27.98	3	Vertical	248	1.00	-
433.92MHz_Battery	Pass	AV	433.93M	56.60	80.83	-24.23	3	Horizontal	173	1.50	-
433.92MHz_Battery	Pass	PK	433.93M	64.13	100.83	-36.70	3	Horizontal	173	1.50	-
433.92MHz_Battery	Pass	AV	867.85M	32.09	60.83	-28.74	3	Vertical	360	1.23	-
433.92MHz_Battery	Pass	PK	867.85M	39.63	72.84	-33.21	3	Vertical	360	1.23	-
433.92MHz_Battery	Pass	AV	867.86M	30.96	60.83	-29.87	3	Horizontal	318	1.50	-
433.92MHz_Battery	Pass	PK	867.86M	38.50	80.83	-42.33	3	Horizontal	318	1.50	-
433.92MHz_Battery	Pass	PK	47.46M	22.75	40.00	-17.25	3	Vertical	0	1.00	-
433.92MHz_Battery	Pass	PK	90.14M	21.94	43.50	-21.56	3	Vertical	0	1.00	-
433.92MHz_Battery	Pass	PK	165.8M	23.07	43.50	-20.43	3	Vertical	0	1.00	-
433.92MHz_Battery	Pass	PK	379.2M	36.54	46.00	-9.46	3	Vertical	0	1.00	-
433.92MHz_Battery	Pass	PK	406.36M	40.03	46.00	-5.97	3	Vertical	0	1.00	-
433.92MHz_Battery	Pass	PK	730.34M	34.21	46.00	-11.79	3	Vertical	0	1.00	-
433.92MHz_Battery	Pass	PK	99.84M	23.41	43.50	-20.09	3	Horizontal	360	1.00	-
433.92MHz_Battery	Pass	PK	121.18M	18.46	43.50	-25.04	3	Horizontal	360	1.00	-
433.92MHz_Battery	Pass	PK	249.22M	24.13	46.00	-21.87	3	Horizontal	360	1.00	-
433.92MHz_Battery	Pass	PK	379.2M	28.76	46.00	-17.24	3	Horizontal	360	1.00	-
433.92MHz_Battery	Pass	PK	406.36M	31.91	46.00	-14.09	3	Horizontal	360	1.00	-
433.92MHz_Battery	Pass	PK	747.8M	35.55	46.00	-10.45	3	Horizontal	360	1.00	-

SRD_Nss1_1TX
433.92MHz_Battery


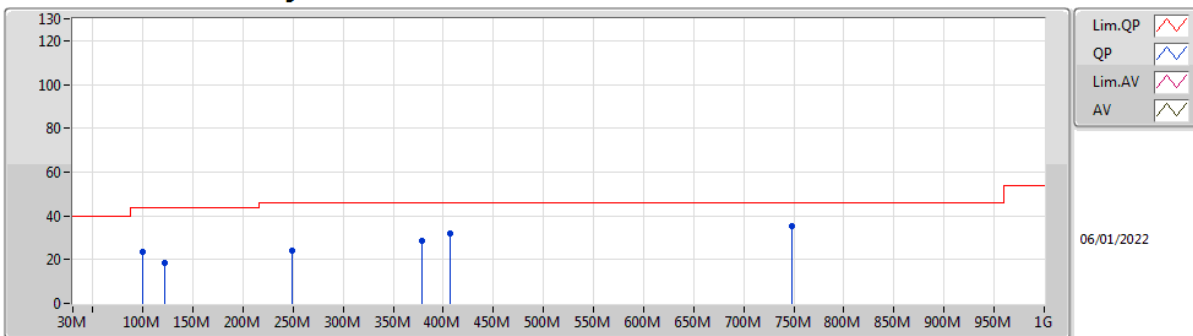
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	867.85M	32.09	60.83	-28.74	3.09	3	Vertical	360	1.23	-	29.00	25.55	5.21	27.67
PK	867.85M	39.63	72.84	-33.21	3.09	3	Vertical	360	1.23	-	36.54	25.55	5.21	27.67

SRD_Nss1_1TX
433.92MHz_Battery


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	867.86M	30.96	60.83	-29.87	3.09	3	Horizontal	318	1.50	-	27.87	25.55	5.21	27.67
PK	867.86M	38.50	80.83	-42.33	3.09	3	Horizontal	318	1.50	-	35.41	25.55	5.21	27.67

SRD_Nss1_1TX
433.92MHz_Battery


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	47.46M	22.75	40.00	-17.25	-12.26	3	Vertical	0	1.00	-	35.01	14.24	1.11	27.61
PK	90.14M	21.94	43.50	-21.56	-11.86	3	Vertical	0	1.00	-	33.80	14.03	1.58	27.47
PK	165.8M	23.07	43.50	-20.43	-10.14	3	Vertical	0	1.00	-	33.21	14.88	2.16	27.18
PK	379.2M	36.54	46.00	-9.46	-3.67	3	Vertical	0	1.00	-	40.21	20.10	3.37	27.14
PK	406.36M	40.03	46.00	-5.97	-2.58	3	Vertical	0	1.00	-	42.61	21.26	3.48	27.32
PK	730.34M	34.21	46.00	-11.79	1.48	3	Vertical	0	1.00	-	32.73	24.76	4.73	28.01

SRD_Nss1_1TX
433.92MHz_Battery


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	99.84M	23.41	43.50	-20.09	-9.84	3	Horizontal	360	1.00	-	33.25	15.85	1.70	27.39
PK	121.18M	18.46	43.50	-25.04	-8.12	3	Horizontal	360	1.00	-	26.58	17.34	1.90	27.36
PK	249.22M	24.13	46.00	-21.87	-6.62	3	Horizontal	360	1.00	-	30.75	17.44	2.67	26.73
PK	379.2M	28.76	46.00	-17.24	-3.67	3	Horizontal	360	1.00	-	32.43	20.10	3.37	27.14
PK	406.36M	31.91	46.00	-14.09	-2.58	3	Horizontal	360	1.00	-	34.49	21.26	3.48	27.32
PK	747.8M	35.55	46.00	-10.45	1.87	3	Horizontal	360	1.00	-	33.68	25.06	4.79	27.98



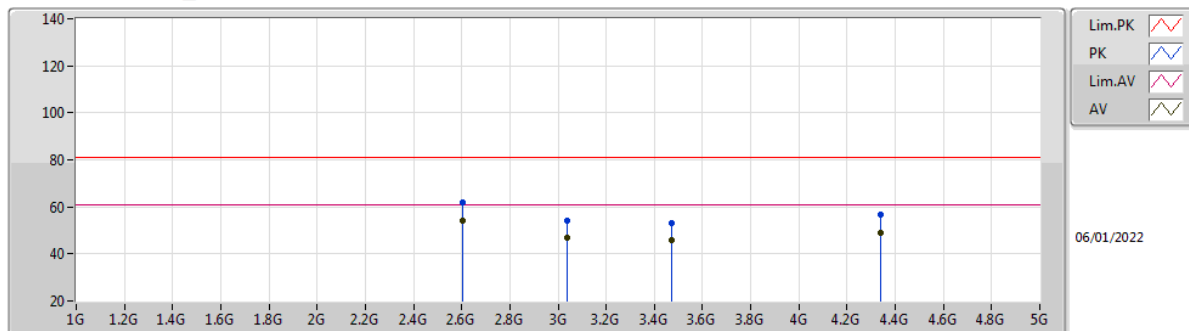
3.3.8 Transmitter Radiated Unwanted Emissions (Above 1GHz)

Summary

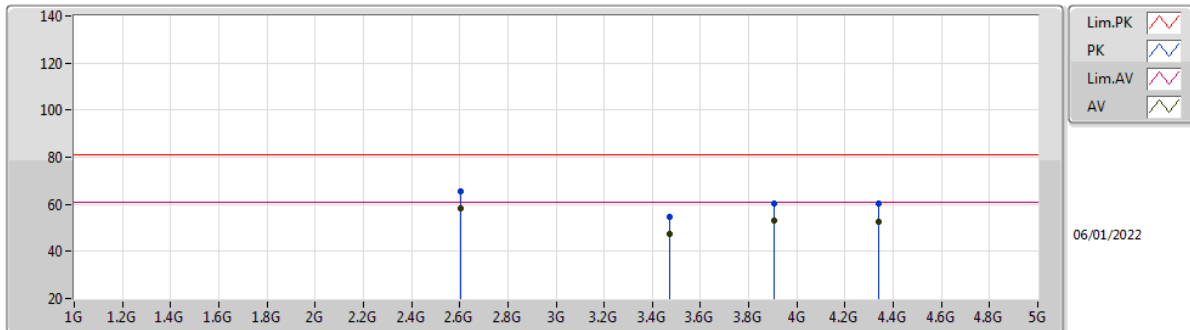
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
433.05-434.79MHz	-	-	-	-	-	-	-	-	-	-	-
SRD_Nss1_1TX	Pass	AV	2.60362G	58.12	60.83	-2.71	3	Horizontal	182	2.34	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
SRD_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-
433.92MHz_TX	Pass	AV	2.60357G	54.31	60.83	-6.52	3	Vertical	229	1.50	-
433.92MHz_TX	Pass	AV	3.03759G	46.82	60.83	-14.01	3	Vertical	208	2.13	-
433.92MHz_TX	Pass	AV	3.47136G	45.67	60.83	-15.16	3	Vertical	202	2.03	-
433.92MHz_TX	Pass	AV	4.33958G	49.13	60.83	-11.70	3	Vertical	121	2.20	-
433.92MHz_TX	Pass	PK	2.60357G	61.85	80.83	-18.98	3	Vertical	229	1.50	-
433.92MHz_TX	Pass	PK	3.03759G	54.36	80.83	-26.47	3	Vertical	208	2.13	-
433.92MHz_TX	Pass	PK	3.47136G	53.21	80.83	-27.62	3	Vertical	202	2.03	-
433.92MHz_TX	Pass	PK	4.33958G	56.67	80.83	-24.16	3	Vertical	121	2.20	-
433.92MHz_TX	Pass	AV	2.60362G	58.12	60.83	-2.71	3	Horizontal	182	2.34	-
433.92MHz_TX	Pass	AV	3.47143G	47.30	60.83	-13.53	3	Horizontal	0	1.50	-
433.92MHz_TX	Pass	AV	3.90543G	52.99	60.83	-7.84	3	Horizontal	176	2.22	-
433.92MHz_TX	Pass	AV	4.33937G	52.57	60.83	-8.26	3	Horizontal	184	3.00	-
433.92MHz_TX	Pass	PK	2.60362G	65.66	80.83	-15.17	3	Horizontal	182	2.34	-
433.92MHz_TX	Pass	PK	3.47143G	54.84	80.83	-25.99	3	Horizontal	0	1.50	-
433.92MHz_TX	Pass	PK	3.90543G	60.53	80.83	-20.30	3	Horizontal	176	2.22	-
433.92MHz_TX	Pass	PK	4.33937G	60.11	80.83	-20.72	3	Horizontal	184	3.00	-

SRD_Nss1_1TX
433.92MHz_TX


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.60357G	54.31	60.83	-6.52	-1.26	3	Vertical	229	1.50	-	55.57	28.19	4.67	34.12
AV	3.03759G	46.82	60.83	-14.01	0.17	3	Vertical	208	2.13	-	46.65	29.50	4.97	34.30
AV	3.47136G	45.67	60.83	-15.16	0.41	3	Vertical	202	2.03	-	45.26	29.56	5.29	34.44
AV	4.33958G	49.13	60.83	-11.70	3.26	3	Vertical	121	2.20	-	45.87	31.76	5.96	34.46
PK	2.60357G	61.85	80.83	-18.98	-1.26	3	Vertical	229	1.50	-	63.11	28.19	4.67	34.12
PK	3.03759G	54.36	80.83	-26.47	0.17	3	Vertical	208	2.13	-	54.19	29.50	4.97	34.30
PK	3.47136G	53.21	80.83	-27.62	0.41	3	Vertical	202	2.03	-	52.80	29.56	5.29	34.44
PK	4.33958G	56.67	80.83	-24.16	3.26	3	Vertical	121	2.20	-	53.41	31.76	5.96	34.46

SRD_Nss1_1TX
433.92MHz_TX


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.60362G	58.12	60.83	-2.71	-1.26	3	Horizontal	182	2.34	-	59.38	28.19	4.67	34.12
AV	3.47143G	47.30	60.83	-13.53	0.41	3	Horizontal	0	1.50	-	46.89	29.56	5.29	34.44
AV	3.90543G	52.99	60.83	-7.84	2.08	3	Horizontal	176	2.22	-	50.91	30.90	5.60	34.42
AV	4.33937G	52.57	60.83	-8.26	3.26	3	Horizontal	184	3.00	-	49.31	31.76	5.96	34.46
PK	2.60362G	65.66	80.83	-15.17	-1.26	3	Horizontal	182	2.34	-	66.92	28.19	4.67	34.12
PK	3.47143G	54.84	80.83	-25.99	0.41	3	Horizontal	0	1.50	-	54.43	29.56	5.29	34.44
PK	3.90543G	60.53	80.83	-20.30	2.08	3	Horizontal	176	2.22	-	58.45	30.90	5.60	34.42
PK	4.33937G	60.11	80.83	-20.72	3.26	3	Horizontal	184	3.00	-	56.85	31.76	5.96	34.46

3.4 Operation Restriction

3.4.1 Operation Restriction Limit

Operation Restriction Limit	
☒	Manually operated: manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 sec of being released.
☐	Activated automatically: transmitter activated automatically shall cease transmission within 5 sec after activation.
☐	Periodic transmissions: permitted with total transmission time of 2 sec per hour or less.
☐	Periodic transmissions (lower field strength): each transmission is not greater than 1 sec and the silent period between transmissions is at least 30 times the duration of the transmission but in no case less than 10 sec.

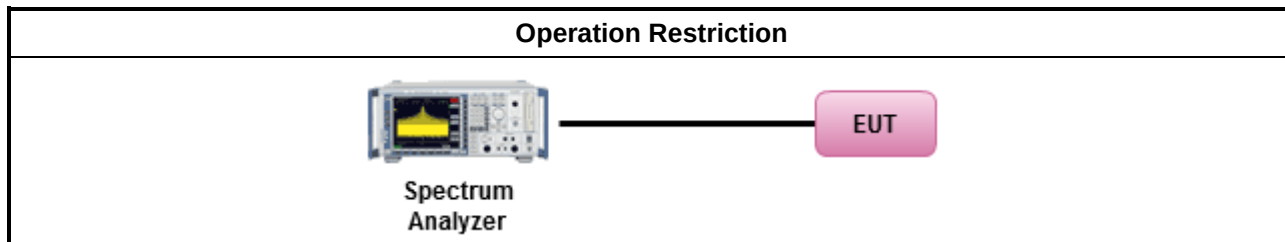
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

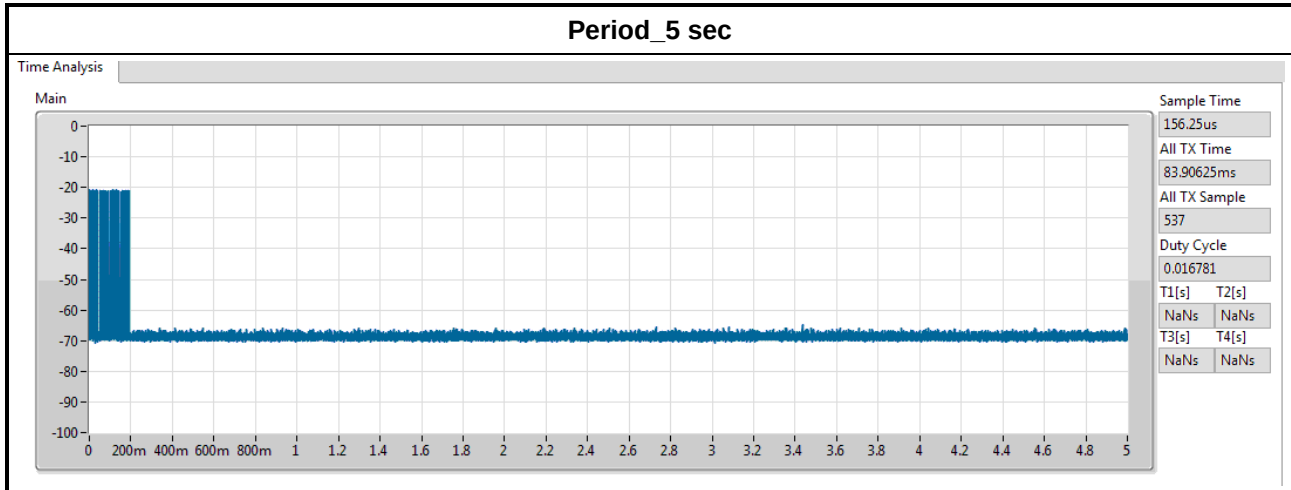
Test Method
☒ Refer as ANSI C63.10, clause 7.4 for periodic operation measurement.

3.4.4 Test Setup



3.4.5 Test Result of Operation Restriction

Operation Condition	Pulse Duration (s)	Limits (s)
Transmission time (TX-on)	0.084	5



4 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	20/Oct/2021	19/Oct/2022
SENSE-NFC	Spoton	v5.11.0	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	03/Aug/2021	02/Aug/2022
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	03/Aug/2021	02/Aug/2022
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	12/Oct/2021	11/Oct/2022
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	13/Apr/2021	12/Apr/2022
Bilog Antenna & 6dB Attenuator	SCHAFFNER / EMCI	CBL6112B / N-6-05	22237 / AT-N-0603	30MHz~1GHz	17/Oct/2021	16/Oct/2022
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	2267	1GHz~18GHz	14/Sep/2021	13/Sep/2022
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz~30MHz	16/Jun/2021	15/Jun/2022
RF Cable-R03m	Jye Bao	RG142	MY37335/4+C B021-1+CB02 1-2	30MHz~1GHz	17/Mar/2021	16/Mar/2022
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	SN MY38596/4+S N 804300/4	1GHz~40GHz	28/Jul/2021	27/Jul/2022
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz~26.5GHz	15/Jul/2021	14/Jul/2022
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	19/Apr/2021	18/Apr/2022
SENSE-15.247_DTS	Spoton	v5.10.7.13	N/A	N/A	N/A	N/A
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2021	15/Mar/2022