

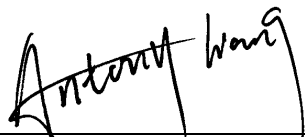
FCC Radio Test Report

FCC ID: RNE00985TX2

This report concerns: **Original Grant**

Project No. : 2107C157
Equipment : Weather Station
Brand Name : ACURITE
Test Model : 00986M
Series Model : 00986AX(X=1~9), 00986DI, 00986
Applicant : Chaney Instrument Co.
Address : Flat 09,19/F.,Metro Centre Phase I,32 Lam Hing Street, Kowloon Bay,
Kowloon, Hong Kong
Manufacturer : Chaney Instrument Co.
Address : Flat 09,19/F.,Metro Centre Phase I,32 Lam Hing Street, Kowloon Bay,
Kowloon, Hong Kong
Factory : Chaney Instrument Co.
Address : Flat 09,19/F.,Metro Centre Phase I,32 Lam Hing Street, Kowloon Bay,
Kowloon, Hong Kong
Date of Receipt : Jul. 22, 2021
Date of Test : Jul. 23, 2021 ~ Aug. 16, 2021
Issued Date : Aug. 31, 2021
Report Version : R02
Test Sample : Engineering Sample No.: DG20210722142-1, DG20210722142-2,
DG20210722143, DG20210722142-3
Standard(s) : FCC CFR Title 47, Part 15, Subpart C
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 : Antony Liang



Approved by : Ethan Ma



TESTING CERT #5123.02

Add: No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's Republic of China

Tel: +86-769-8318-3000

Web: www.newbtl.com

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.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any agency of the U.S. Government.

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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.

Table of Contents	Page
REPORT ISSUED HISTORY	5
1 . SUMMARY OF TEST RESULTS	6
1.1 TEST FACILITY	7
1.2 MEASUREMENT UNCERTAINTY	7
1.3 TEST ENVIRONMENT CONDITIONS	7
2 . GENERAL INFORMATION	8
2.1 GENERAL DESCRIPTION OF EUT	8
2.2 DUTY CYCLE	9
2.3 DESCRIPTION OF TEST MODES	13
2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
2.5 DESCRIPTION OF SUPPORT UNITS	14
3 . AC POWER LINE CONDUCTED EMISSIONS TEST	15
3.1 LIMIT	15
3.2 TEST PROCEDURE	15
3.3 DEVIATION FROM TEST STANDARD	15
3.4 TEST SETUP	16
3.5 EUT OPERATING CONDITIONS	16
3.6 TEST RESULTS	16
4 . RADIATED EMISSION TEST	17
4.1 LIMIT	17
4.2 TEST PROCEDURE	18
4.3 DEVIATION FROM TEST STANDARD	19
4.4 TEST SETUP	19
4.5 TEST DEVIATION	20
4.6 EUT OPERATION DURING TEST	20
4.7 TEST RESULT – 9 kHz TO 30 MHz	20
4.8 TEST RESULT – 30 MHz TO 1000 MHz	20
4.9 TEST RESULTS – ABOVE 1000 MHz	20
5 . BANDWIDTH TEST	21
5.1 LIMIT	21
5.2 TEST PROCEDURES	21
5.3 TEST SETUP LAYOUT	21

Table of Contents	Page
5.4 TEST DEVIATION	21
5.5 EUT OPERATION DURING TEST	21
5.6 TEST RESULTS	21
6 . TIMING TESTING	22
6.1 LIMIT	22
6.2 TEST PROCEDURES	22
6.3 TEST SETUP LAYOUT	22
6.4 TEST DEVIATION	22
6.5 EUT OPERATION DURING TEST	22
6.6 TEST RESULTS	22
7 . MEASUREMENT INSTRUMENTS LIST	23
8 . EUT TEST PHOTO	25
APPENDIX A – AC POWER LINE CONDUCTED EMISSIONS	29
APPENDIX B – RADIATED EMISSION – 9 KHZ TO 30 MHZ	30
APPENDIX C – RADIATED EMISSION – 30MHZ TO 1000MHZ	35
APPENDIX D – RADIATED EMISSION – ABOVE 1000MHZ	40
APPENDIX E – BANDWIDTH	43
APPENDIX F – TIMING TESTING	45

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Aug. 18, 2021
R01	Added series model.	Aug. 26, 2021
R02	Changed the antenna type.	Aug. 31, 2021

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
FCC 15.207	AC Power Line Conducted Emissions	Appendix A	N/A	-----
FCC 15.209 FCC 15.231(e)	Radiated Emissions	Appendix B Appendix C Appendix D	PASS	-----
FCC 15.231(c)	Bandwidth	Appendix E	PASS	-----
FCC 15.231(e)	Timing Testing	Appendix F	PASS	-----

Note:

(1) "N/A" denotes test is not applicable in this test report

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 Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's Republic of 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. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz ~ 30MHz	-	3.02
		30MHz ~ 200MHz	V	4.26
		30MHz ~ 200MHz	H	3.38
		200MHz ~ 1,000MHz	V	3.98
		200MHz ~ 1,000MHz	H	3.94
		1GHz ~ 6GHz	-	3.96
		6GHz ~ 18GHz	-	5.24
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

B. Other Measurement:

Test Item	Uncertainty
Bandwidth	±3.8 %
Temperature	±0.08 °C
Humidity	±1.5%

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
Radiated Emissions-9 kHz to 30 MHz	25°C	60%	DC 3V	Kwok Guo
Radiated Emissions-30 MHz to 1000 MHz	26°C	52%	DC 3V	Laughing Zhang
Radiated Emissions-Above 1000 MHz	26°C	52%	DC 3V	Laughing Zhang
Bandwidth	24°C	52%	DC 3V	Grani Zhou
Timing Testing	24°C	52%	DC 3V	Grani Zhou

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Weather Station
Brand Name	ACURITE
Test Model	00986M
Series Model	00986AX(X=1~9), 00986DI, 00986
Model Difference(s)	Only differ in packaging.
Power Source	Supplied from battery.
Power Rating	DC 3V
Product Type	Momentarily Operated Devices
Operation Frequency	433.92 MHz
Modulation Type	ASK/OOK
Number Of Channel	1CH, 433.92 MHz
Antenna Designation	Slingshot antenna, 0dBi
Field Strength	83.46 dBuV/m

Note:

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

2.2 DUTY CYCLE

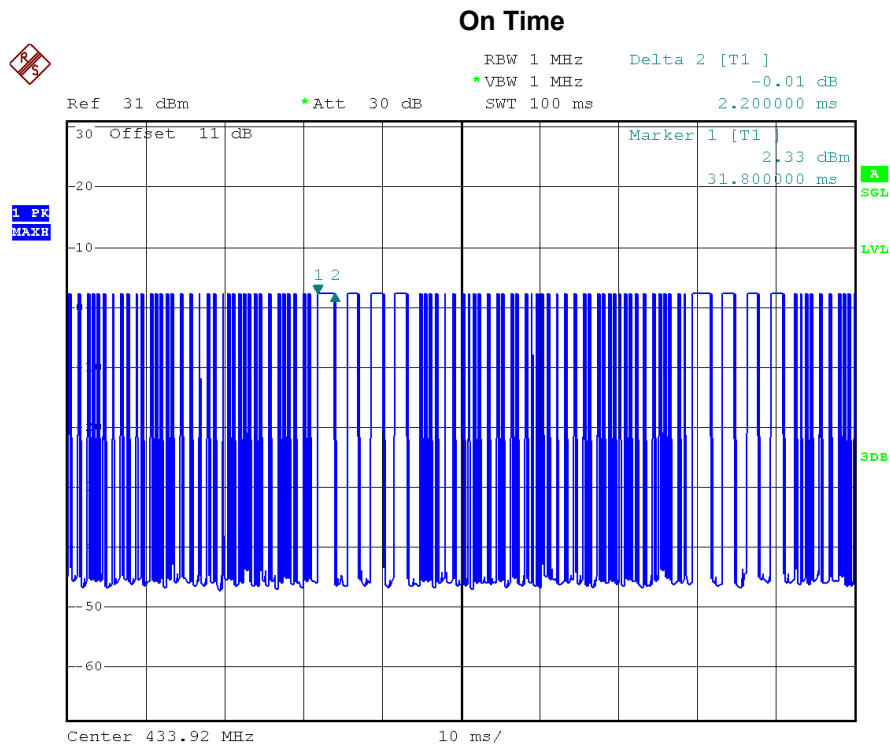
DWELL TIME OF PERIODIC OPERATION MEASUREMENT

$$\text{Duty Cycle} = (N1*L1+N2*L2+\dots+Nn-1*Ln-1+Nn*Ln)/100 \text{ or } T$$

$$\text{Duty Cycle} = (2.2*2+1.4*6+0.2*74+0.1*12)/100=0.288$$

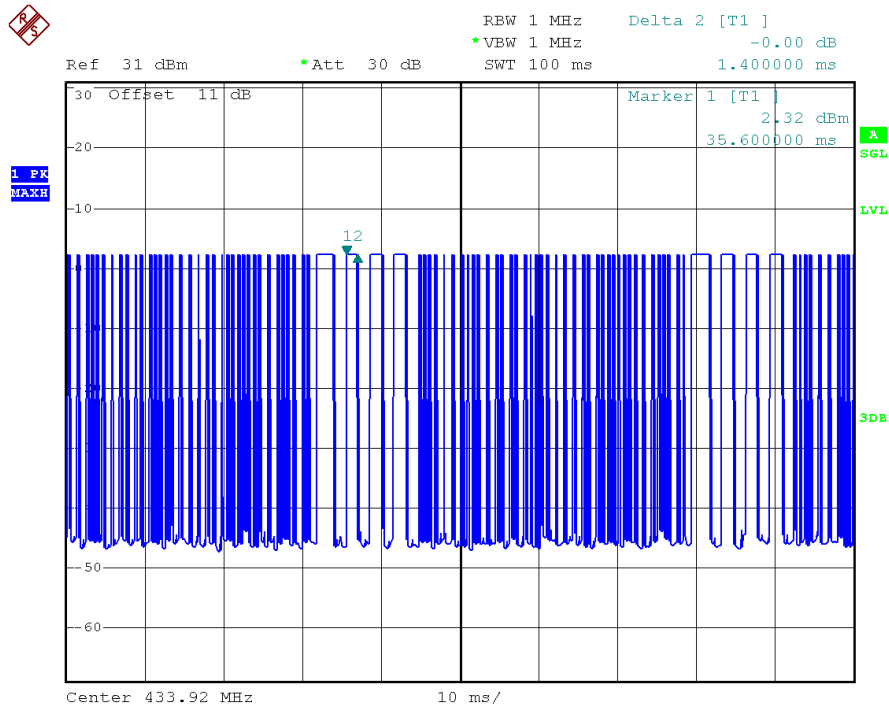
$$\text{Average Reading} = \text{Peak Reading (dBuV/m)} + 20\log (\text{Duty cycle})$$

$$\text{Average Reading} = \text{Peak}+20*\log (\text{Duty Cycle}) = \text{Peak}-10.81$$



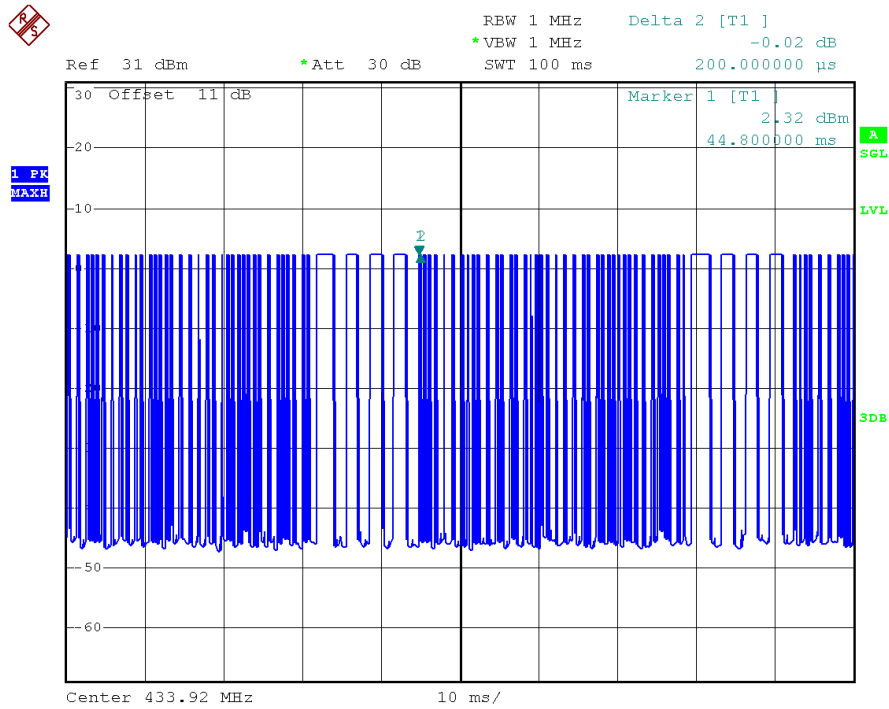
Date: 16.AUG.2021 16:44:43

On Time



Date: 16.AUG.2021 16:45:04

On Time



Date: 16.AUG.2021 16:45:29

2.3 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

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

Radiated emissions test	
Final Test Mode	Description
Mode 1	TX Mode

Conducted test	
Final Test Mode	Description
Mode 1	TX Mode

Note:

- (1) The EUT is considered a portable unit, it was pre-tested on the positioned of each 3 axis. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.
- (2) The product has two transmitters and one receiver. Only differ in the launch time interval between two transmitters. The one with the short time interval is transmitter 2. So only transmitter 2 are documented for all test items except Timing Testing.

2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED**2.5 DESCRIPTION OF SUPPORT UNITS**

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
-	-	-	-	-

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 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.

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.

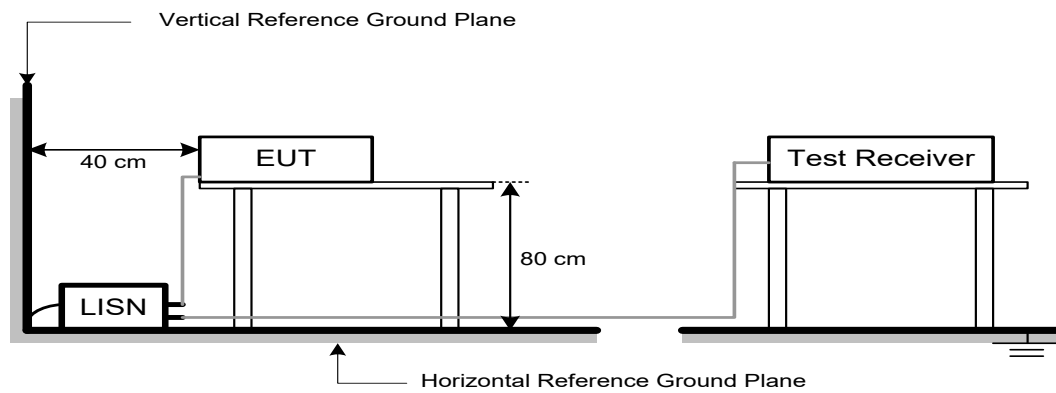
The following table is the setting of the receiver:

Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

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

Frequency Band (MHz)	Fundamental Emissions Limit($\mu\text{V/m}$) at 3m
40.66-40.70	1000
70-130	500
130-174	500-1500(Note1)
174-260	1500
260-470	1500-5000(Note1)
Above 470	5000

Frequency Band (MHz)	Spurious Emissions Limit($\mu\text{V/m}$) at 3m(Note2)
40.66-40.70	100
70-130	50
130-174	50-150(Note1)
174-260	150
260-470	150-500(Note1)
Above 470	500

Note:

1. Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

1) For the band 130 - 174 MHz, $\mu\text{V/m}$ at 3 meters = $22.73 \times (\text{operating frequency, MHz}) - 2454.55$.

2) For the band 260 - 470 MHz, $\mu\text{V/m}$ at 3 meters = $16.67 \times (\text{operating frequency, MHz}) - 2833.33$.

So the field strength of emission limits has been calculated in below table:

Carrier Frequency (MHz)	Fundamental Emissions Limit(dBuV/m) at 3m
433.92 MHz	72.87 (Average)
433.92 MHz	92.87 (Peak)

2. The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in §15.209(please refer to below table), whichever limit permits a higher field strength.

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

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	(dBuV/m at 3 m)	
	Peak	Average
Above 1000	74	54

4.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5 m, the height of the test antenna shall vary between 1 m to 4 m. 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 find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- i. For the actual test configuration, please refer to the related Item – EUT Test Photos.

The following table is the setting of the receiver:

Receiver Parameter	Setting
Attenuation	Auto
Center Frequency	Fundamental Frequency
RBW	120 kHz
Detector	Peak / Average

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, AV Mode with Dwell time

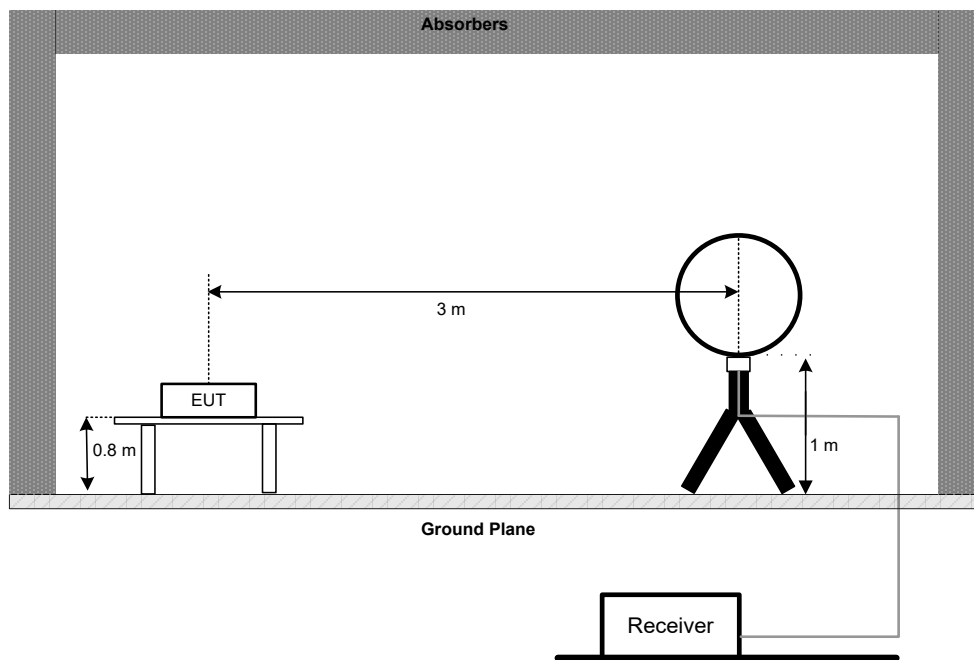
Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

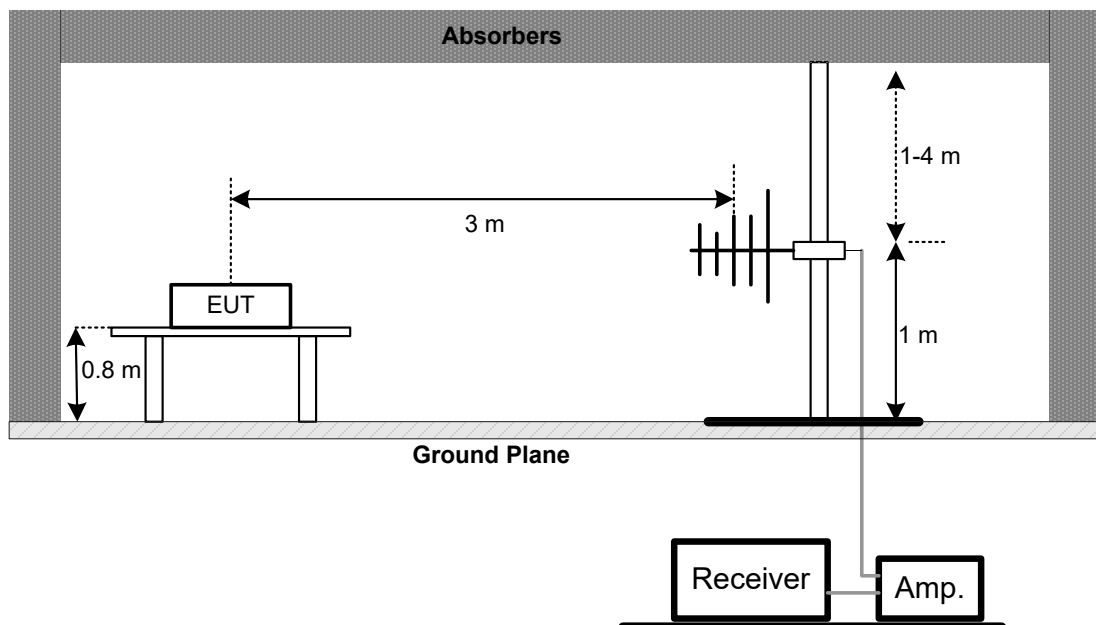
No deviation

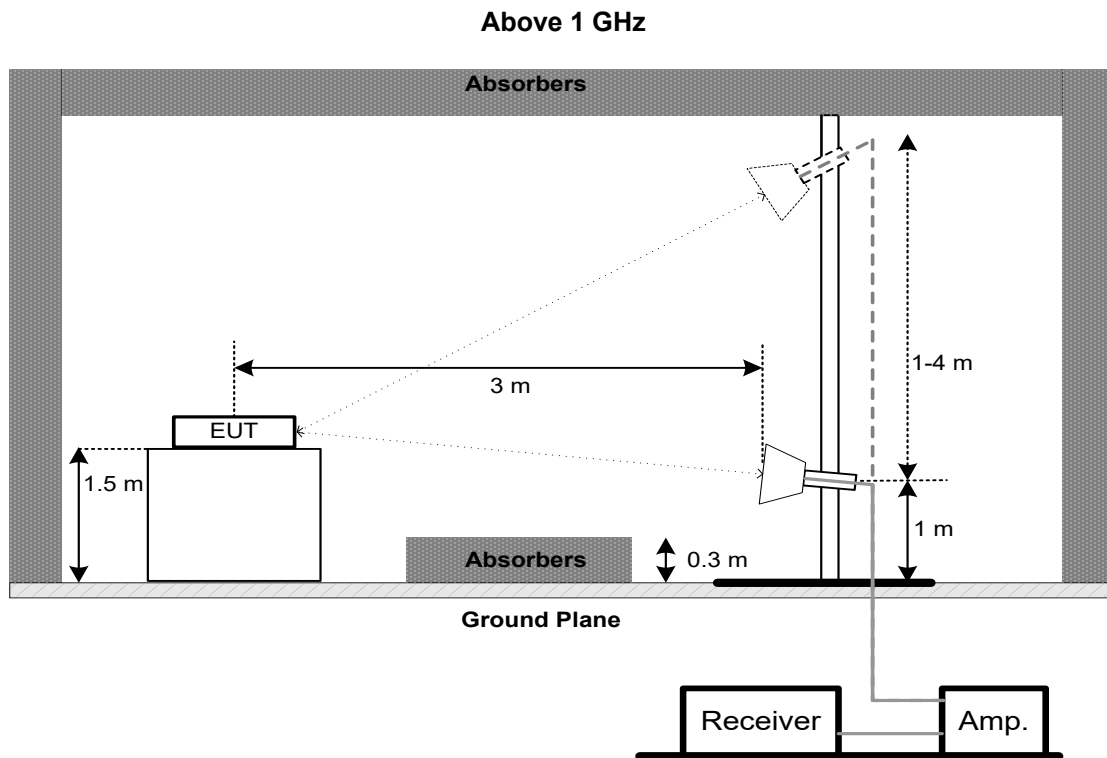
4.4 TEST SETUP

9 kHz to 30 MHz



30 MHz to 1 GHz





4.5 TEST DEVIATION

There is no deviation with the original standard.

4.6 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

4.7 TEST RESULT - 9 kHz TO 30 MHz

Please refer to the Appendix B.

Remark:

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

4.8 TEST RESULT - 30 MHz TO 1000 MHz

Please refer to the Appendix C.

4.9 TEST RESULTS - ABOVE 1000 MHz

Please refer to the Appendix D.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH TEST

5.1 LIMIT

The bandwidth of the emissions shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. So the emission bandwidth limits have been calculated in below table.

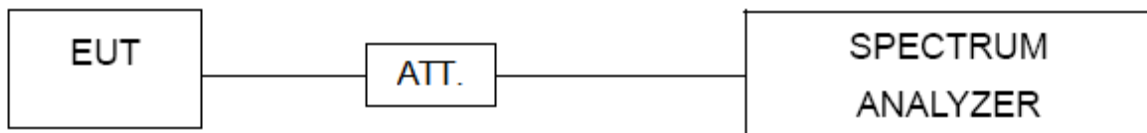
Fundamental Frequency	Limits (MHz)
433.92 MHz	1.0848

5.2 TEST PROCEDURES

1. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
2. The resolution bandwidth of 10 kHz and the video bandwidth of 10 kHz were used.
3. Measured the spectrum width with power higher than 20dB below carrier.
4. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 20dB Bandwidth
RB	10 kHz
VB	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 TEST SETUP LAYOUT



5.4 TEST DEVIATION

There is no deviation with the original standard.

5.5 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the Appendix E.

6. TIMING TESTING

6.1 LIMIT

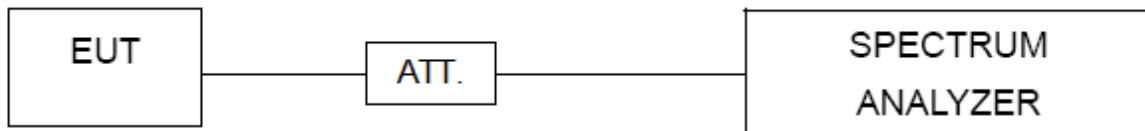
In addition, devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

6.2 TEST PROCEDURES

1. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
2. The resolution bandwidth of 1MHz and the video bandwidth of 1MHz were used.
3. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	Zero Span
RB	1MHz
VB	1MHz
Detector	Peak
Trace	Max Hold
Sweep Time	150 seconds

6.3 TEST SETUP LAYOUT



6.4 TEST DEVIATION

There is no deviation with the original standard.

6.5 EUT OPERATION DURING TEST

The EUT was programmed to be in normal mode.

6.6 TEST RESULTS

Please refer to the Appendix F.

7. MEASUREMENT INSTRUMENTS LIST

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	Apr. 28, 2022
2	Cable	N/A	RG 213/U	N/A	May 27, 2022
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 27, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022

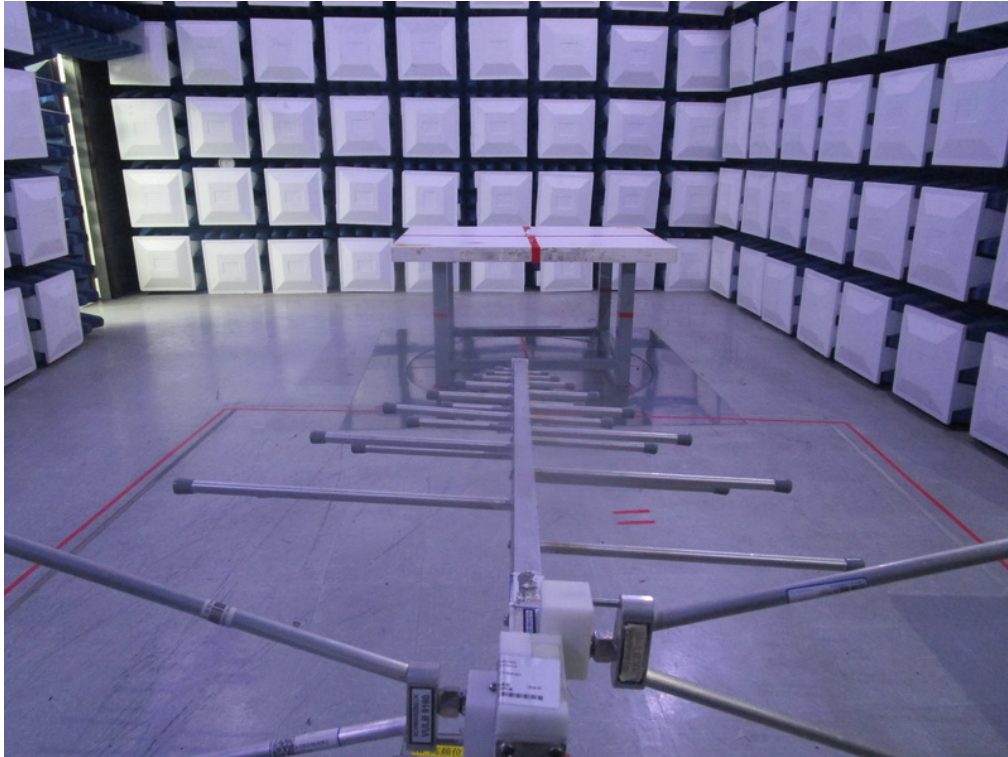
Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 15, 2022
2	Amplifier	HP	8447D	2944A08742	Feb. 28, 2022
3	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 20, 2022
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022

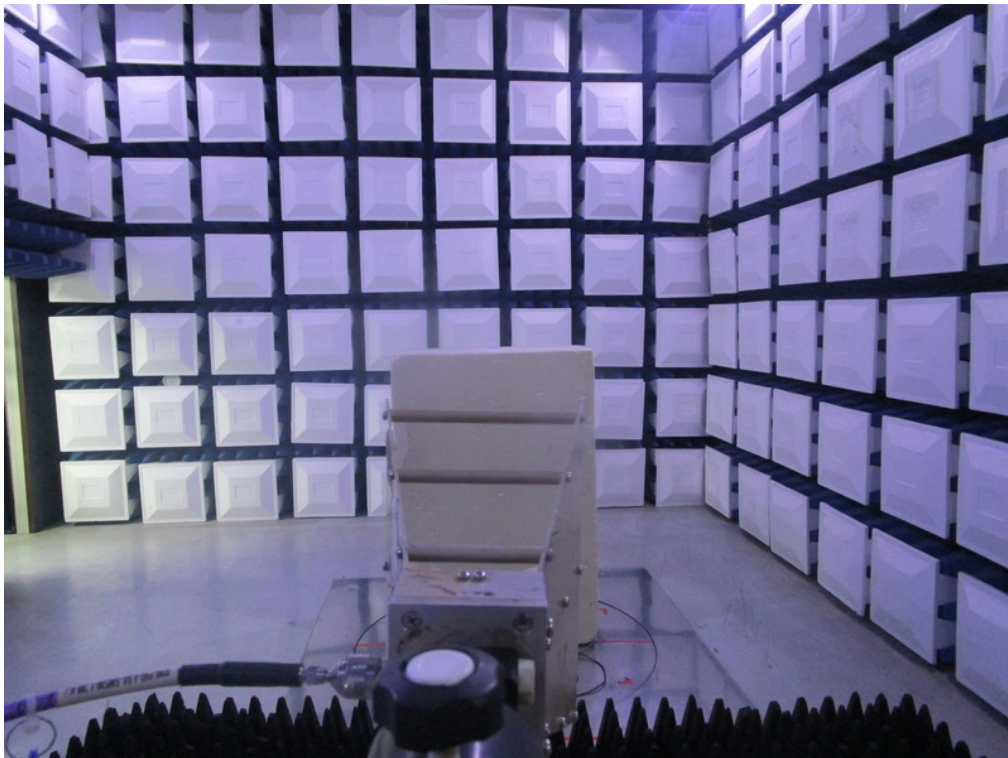
Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	May 10, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 28, 2022
5	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	N/A	EMC104-SM-SM-6 000	N/A	Oct. 16, 2021
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Filter	STI	STI15-9912	N/A	Jul. 10, 2022
11	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022

Duty Cycle & Bandwidth & Timing Testing					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 10, 2022
2	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 07, 2022
3	RF Cable	Tongkaichuan	N/A	N/A	N/A
4	DC Block	Mini	N/A	N/A	N/A

Remark "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

8. EUT TEST PHOTO**Radiated Emissions Test Photos****9 kHz to 30 MHz**

Radiated Emissions Test Photos**30 MHz to 1 GHz**

Radiated Emissions Test Photos**Above 1 GHz**



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

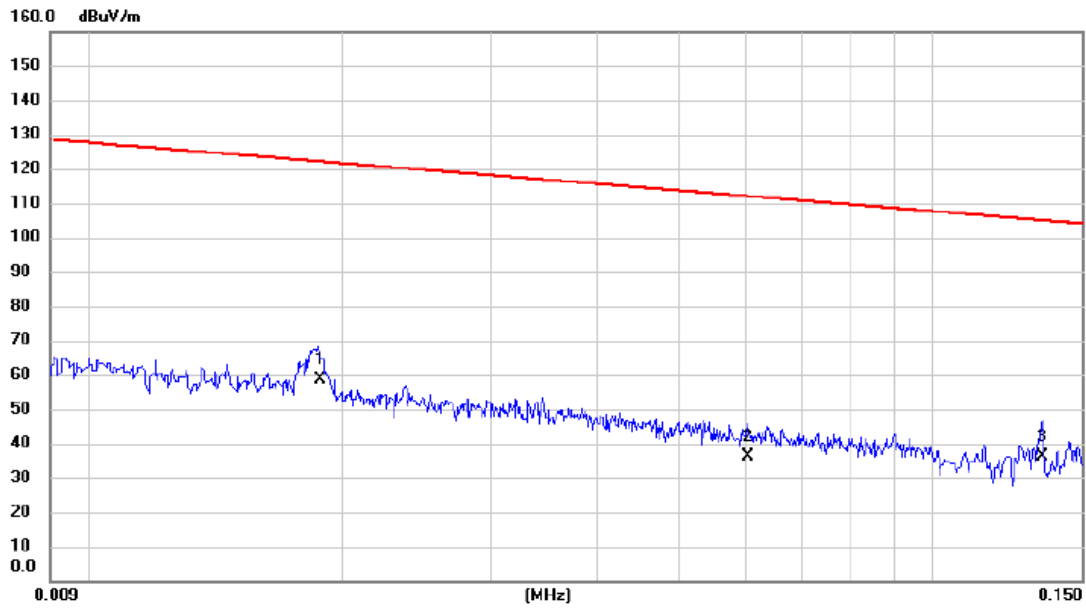
Test Mode: N/A

Note: "N/A" denotes test is not applicable to this device.

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX Mode

Ant 0°

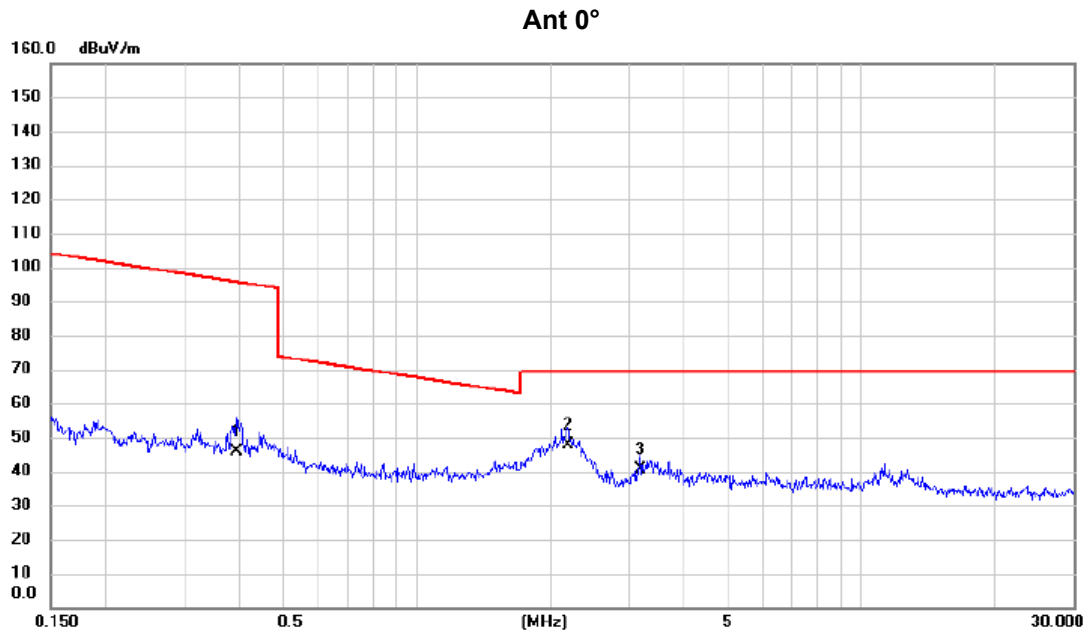


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	0.0188	44.83	13.59	58.42	122.12	-63.70	AVG		
2		0.0603	23.64	12.48	36.12	112.00	-75.88	AVG		
3		0.1348	23.58	12.73	36.31	105.01	-68.70	AVG		

REMARKS:

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

Test Mode: TX Mode



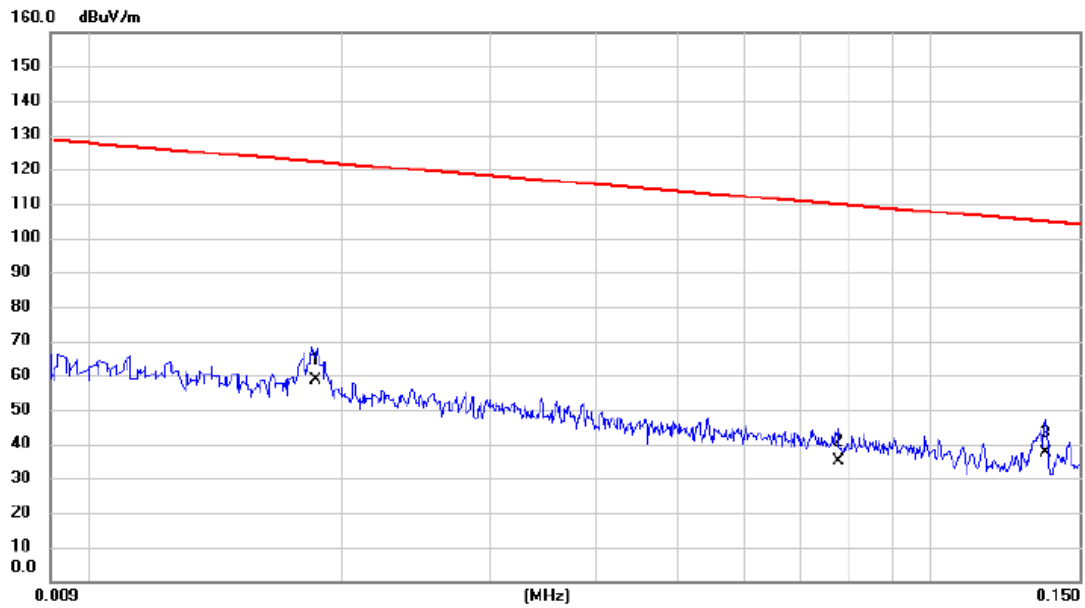
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.3933	33.56	12.28	45.84	95.71	-49.87			AVG
2	*	2.1898	36.74	11.21	47.95	69.54	-21.59			QP
3		3.1900	29.58	10.83	40.41	69.54	-29.13			QP

REMARKS:

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

Test Mode: TX Mode

Ant 90°



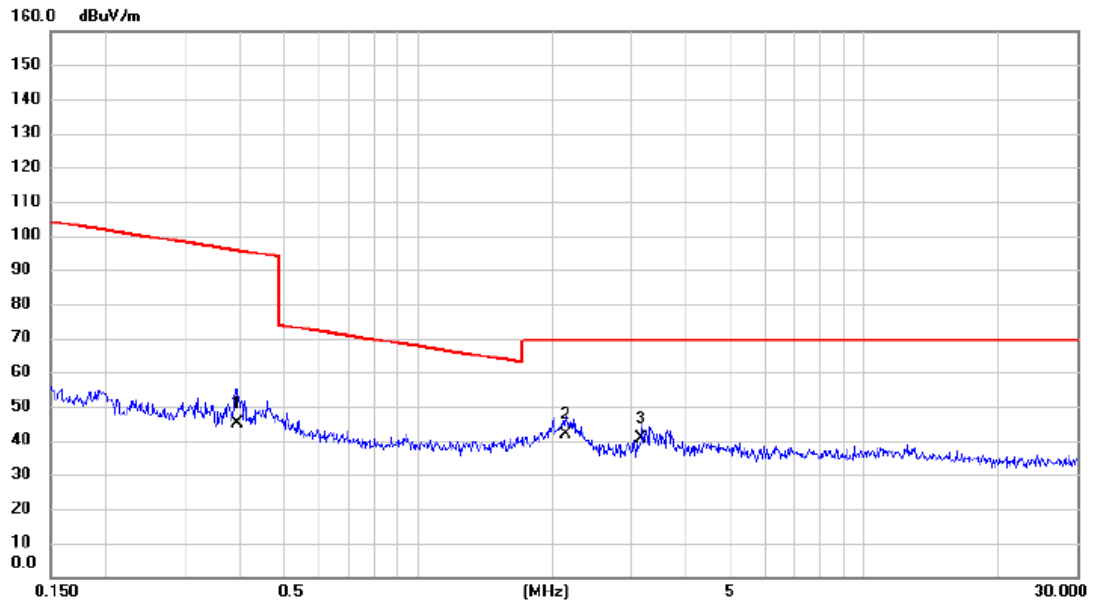
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	0.0186	44.83	13.65	58.48	122.21	-63.73	AVG		
2		0.0777	22.56	12.59	35.15	109.80	-74.65	AVG		
3		0.1367	24.79	12.73	37.52	104.89	-67.37	AVG		

REMARKS:

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

Test Mode: TX Mode

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1		0.3933	32.87	12.28	45.15	95.71	-50.56	AVG			
2	*	2.1440	30.43	11.23	41.66	69.54	-27.88	QP			
3		3.1731	29.68	10.83	40.51	69.54	-29.03	QP			

REMARKS:

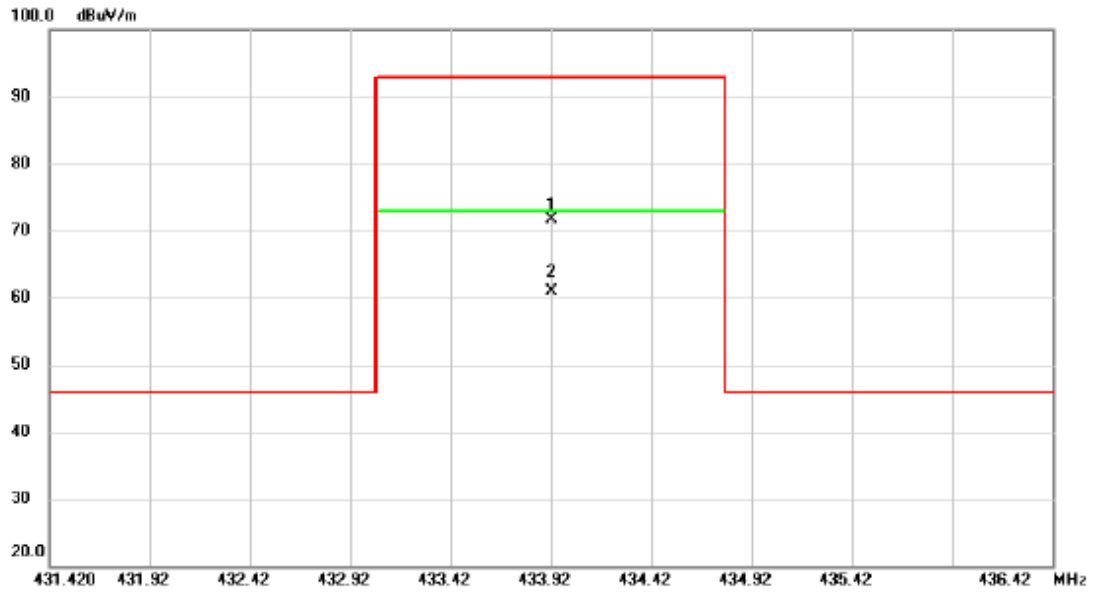
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30MHZ TO 1000MHZ

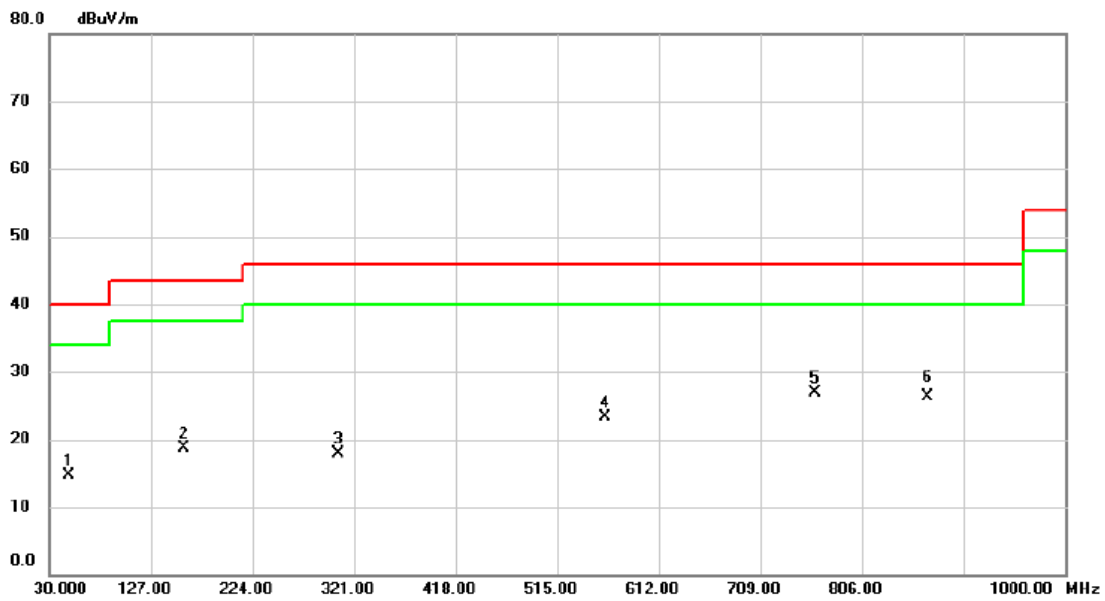
Test Mode : TX Mode

About the duty cycle correction factor calculated, please refer to the page 9

Orthogonal Axis: X
TX 433.92 MHz (Fundamental frequency, Vertical)



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		433.920	69.51	2.16	71.67	92.87	-21.20	peak	
2	*	433.920	58.70	2.16	60.86	72.87	-12.01	AVG	



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		48.430	28.47	-13.86	14.61	40.00	-25.39	peak	
2		159.010	29.47	-10.80	18.67	43.50	-24.83	peak	
3		306.450	28.80	-10.90	17.90	46.00	-28.10	peak	
4		560.590	29.87	-6.50	23.37	46.00	-22.63	peak	
5	*	761.380	29.97	-3.05	26.92	46.00	-19.08	peak	
6		868.080	27.85	-1.53	26.32	46.00	-19.68	QP	

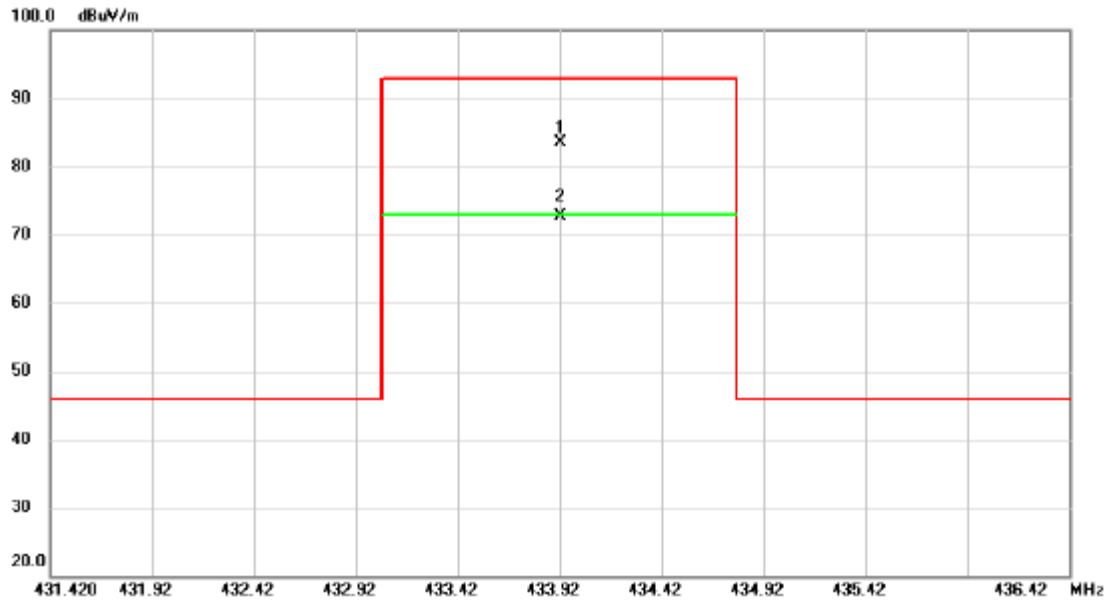
Remark:

- (1) The average value of fundamental frequency is:
 Average = Peak value + 20log(Duty cycle), Final AV=PK – 10.81

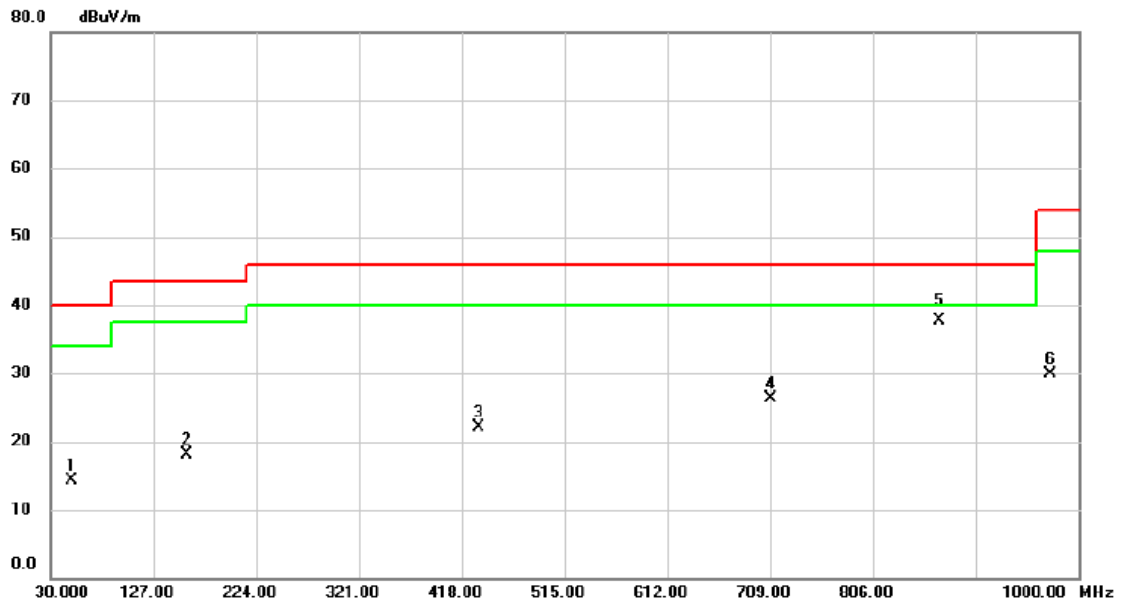
Test Mode : TX Mode

About the duty cycle correction factor calculated, please refer to the page 9

Orthogonal Axis: X
TX 433.92 MHz (Fundamental frequency, Horizontal)



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		433.925	81.30	2.16	83.46	92.87	-9.41	peak	
2	*	433.925	70.49	2.16	72.65	72.87	-0.22	AVG	



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	49.400	28.05	-13.65	14.40	40.00	-25.60	peak	
2	158.040	28.99	-10.93	18.06	43.50	-25.44	peak	
3	433.520	30.22	-8.09	22.13	46.00	-23.87	peak	
4	709.000	29.76	-3.51	26.25	46.00	-19.75	peak	
5 *	868.080	39.31	-1.53	37.78	46.00	-8.22	QP	
6	973.810	29.36	0.60	29.96	54.00	-24.04	peak	

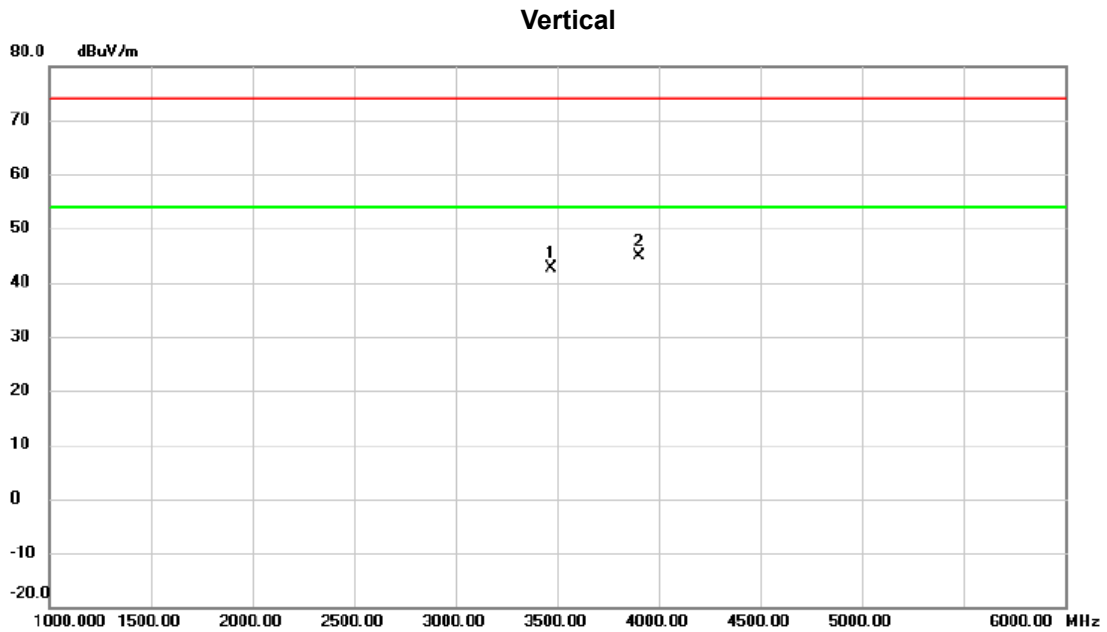
Remark:

- (1) The average value of fundamental frequency is:
Average = Peak value + 20log(Duty cycle), Final AV=PK – 10.81

APPENDIX D - RADIATED EMISSION - ABOVE 1000MHz

Test Mode : TX Mode

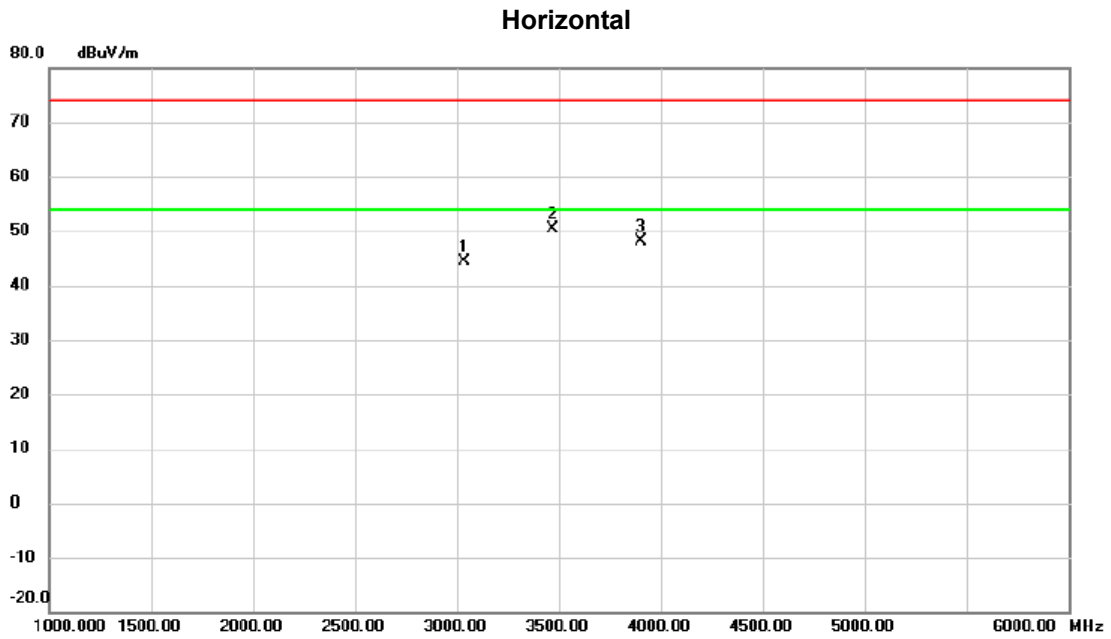
About the duty cycle correction factor calculated, please refer to the page 9



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		3470.000	41.16	1.44	42.60	74.00	-31.40	peak	
2	*	3905.000	42.09	2.74	44.83	74.00	-29.17	peak	

Test Mode : TX Mode

About the duty cycle correction factor calculated, please refer to the page 9

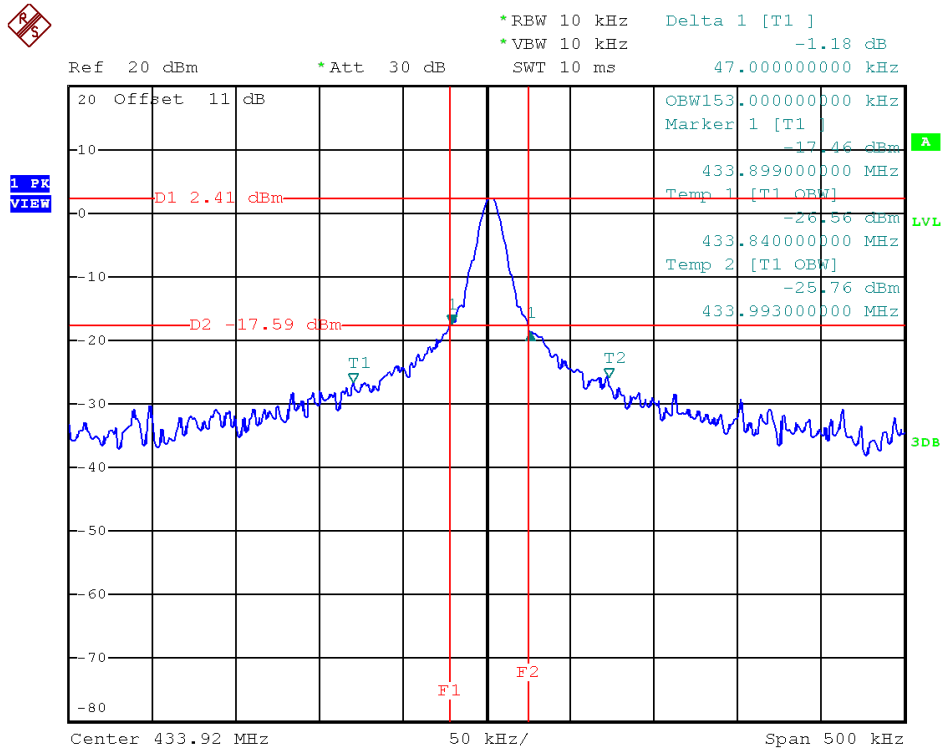


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		3035.000	44.18	0.27	44.45	74.00	-29.55	peak	
2	*	3470.000	48.93	1.44	50.37	74.00	-23.63	peak	
3		3905.000	45.47	2.74	48.21	74.00	-25.79	peak	

APPENDIX E - BANDWIDTH

Test Mode :	TX Mode
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Frequency (MHz)	20dB Bandwidth (MHz)	99% Occupied BW (MHz)	Limits (MHz)
433.92	0.047	0.153	1.0848



Date: 10.AUG.2021 19:40:23

APPENDIX F - TIMING TESTING

Test Mode :	TX Mode
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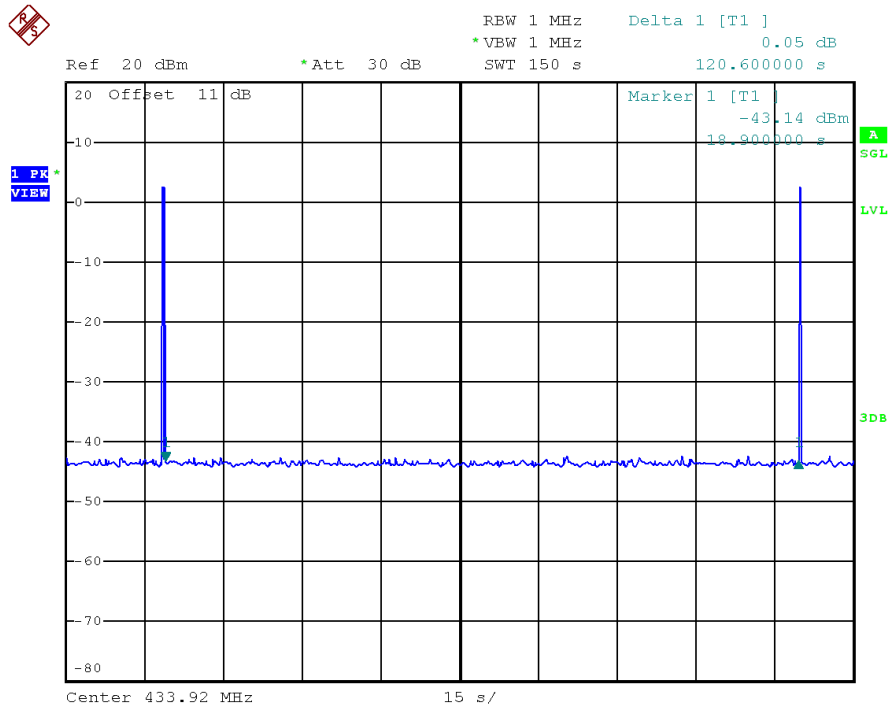
Frequency (MHz)	On Time (Sec)	Limit (Sec)
433.92	0.30	<1

Frequency (MHz)	Off Time_transmitter 1 (Sec)	Limit (Sec)
433.92	129.30	>10

Frequency (MHz)	Off Time_transmitter 2 (Sec)	Limit (Sec)
433.92	120.60	>10

Frequency (MHz)	On Time*30 (Sec)	Limit (Sec)
433.92	9	<129.30

Off Time_transmitter 2



Date: 10.AUG.2021 20:05:32

End of Test Report