

# RADIO PERFORMANCE TEST REPORT

**Test Report No.** : OT-237-RWD-004

**Reception No.** : 2305001412

**Applicant** : BROS&COMPANY INC.

**Address** : 1010, Vision IT tower, 677-5, Dongtan-daero, Hwaseong-si, Gyeonggi-do, 18468,  
South Korea

**Manufacturer** : Shenzhen Boli Technology Co.,Ltd.

**Address** : 201A, A6 Building, Buxin Second Village Industrial Park, 74 Area, Xinan Street,  
Baoan District, Shenzhen, 518100

**Type of Equipment** : HANDS3 PRO DUAL

**FCC ID.** : 2AQIS-POUT-04101

**Model Name** : POUT-04101

**Multiple Model Name** : N/A

**Serial number** : N/A

**Total page of Report** : 69 pages (including this page)

**Date of Incoming** : June 15, 2023

**Date of issue** : July 06, 2023

## SUMMARY

The equipment complies with the regulation; **FCC CFR47 Part 15 Subpart C Section 15.207 and 15.209**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

**This report is not correlated with the "KS Q ISO/IEC 17025 and KOLAS accreditation" of Korean Laboratory Accreditation Scheme.**



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**Revision History**

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-237-RWD-004	July 06, 2023	Initial Release	All

### 1. VERIFICATION OF COMPLIANCE

APPLICANT : BROS&COMPANY INC.  
 ADDRESS : 1010, Vision IT tower, 677-5, Dongtan-daero, Hwaseong-si, Gyeonggi-do, 18468, South Korea  
 CONTACT PERSON : KIYEOL, PARK / CEO  
 TELEPHONE NO : +82-31-286-8646  
 FCC ID : 2AQIS-POUT-04101  
 MODEL NAME : POUT-04101  
 BRAND NAME : POUT  
 SERIAL NUMBER : N/A  
 DATE : July 06, 2023

EQUIPMENT CLASS	<b>DCD – Part 15 Low Power Transmitter Below 1 705 kHz</b>
KIND OF EQUIPMENT	HANDS3 PRO DUAL
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2013
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC&IC RULES PART(S)	FCC CFR47 Part 15 Subpart C Section 15.207 and 15.209
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 m, Semi Anechoic Chamber

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. The equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

## 2. TEST SUMMARY

### 2.1 Test items and results

SECTION	TEST ITEMS	RESULTS
15.209, 15.209(a)	Radiated emission, Spurious Emission and Field Strength of Fundamental	Met the Limit / PASS
15.207	Transmitter AC Power Line Conducted Emission	Met the Limit / PASS

### 2.2 Additions, deviations, exclusions from standards

No additions, deviations or exclusions have been made from standard.

### 2.3 Related Submittal(s) / Grant(s)

Original submittal only

### 2.4 Purpose of the test

To determine whether the equipment under test fulfills the requirements of the regulation stated in FCC CFR47 Part 15 Subpart C Section 15.207 and 15.209.

### 2.5 Test Methodology

Radiated testing was performed according to the procedures in ANSI C63.10: 2013 at a distance of 3 m from EUT to the antenna.

### 2.6 Test Facility

The Onetech Corp. has been designated to perform equipment testing in compliance with ISO/IEC 17025.

The Electromagnetic compatibility measurement facilities are located at 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea.

-. Site Filing:

VCCI (Voluntary Control Council for Interference) – Registration No. R-20122/ C-14617/ G-10666/ T-11842

ISED (Innovation, Science and Economic Development Canada) – Registration No. Site# 3736A-3

KOLAS (Korea Laboratory Accreditation Scheme) - Accreditation NO. KT085

FCC (Federal Communications Commission) - Accreditation No. KR0013

RRA (Radio Research Agency) – Designation No. KR0013

### 3. GENERAL INFORMATION

#### 3.1 Product Description

The BROS&COMPANY INC., Model: POUT-04101 (referred to as the EUT in this report) is an HANDS3 PRO DUAL. Product specification information described herein was obtained from product data sheet or user’s manual.

DEVICE TYPE	HANDS3 PRO DUAL
OPERATING FREQUENCY	Antenna 1: 110.58 kHz ~ 147.27 kHz Antenna 2: 110.61 kHz ~ 147.26 kHz
RATED RF OUTPUT POWER	79.30 dB $\mu$ V/m
ANTENNA TYPE	Coil Antenna
MODULATION	ASK
RATED SUPPLY VOLTAGE	DC 5.0 V, DC 9.0 V

#### 3.2 Accessories Description

DEVICE	MODEL	MANUFACTURER	SERIAL
Mobile Phone (Galaxy S8)	SM-G950N	SAMSUNG	R39J306J4J
EarPhone (Galaxy Buds2 Pro)	SM-R510	SAMSUNG	RFAT827V65D

#### 3.3 Alternative type(s)/model(s); also covered by this test report.

-. None

### 4. EUT MODIFICATIONS

-. None

## 5. SYSTEM TEST CONFIGURATION

### 5.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
Main Board	N/A	Hands 3 Pro Dual	N/A
SUB Board	N/A	N/A	N/A
Coil Antenna 1	N/A	N/A	N/A
Coil Antenna 2	N/A	N/A	N/A
Adapter [DC 5 V]	N/A	EP-TA50KWK	N/A
Adapter [DC 9 V]	N/A	U0181-KV	N/A

### 5.2 Peripheral equipment

-. None



### 5.3 Mode of operation during the test

For the testing, software used to control the EUT for staying in continuous transmitting is programmed.

For final testing, the EUT was set as following condition.

Mode		Operating Status	Operating Supply Voltage
1	Standby	Adapter + EUT	DC 5.0 V
2	Antenna 1	Adapter + EUT + EarPhone (Battery Status:<10 %)	DC 5.0 V
3		Adapter + EUT + EarPhone (Battery Status:50 % ~ 55 %)	DC 5.0 V
4		Adapter + EUT + EarPhone (Battery Status:> 90 %)	DC 5.0 V
5	Antenna 2	Adapter + EUT + MobilePhone (Battery Status:<10 %)	DC 5.0 V
6		Adapter + EUT + MobilePhone (Battery Status:50 % ~ 55 %)	DC 5.0 V
7		Adapter + EUT + MobilePhone (Battery Status:> 90 %)	DC 5.0 V
8	Antenna 1 + Antenna 2	Adapter + EUT + EarPhone + MobilePhone (Battery Status:<10 %)	DC 5.0 V
9		Adapter + EUT + EarPhone + MobilePhone (Battery Status:50 % ~ 55 %)	DC 5.0 V
10		Adapter + EUT + EarPhone + MobilePhone (Battery Status:>90 %)	DC 5.0 V
11	Standby	Adapter + EUT	DC 9.0 V
12	Antenna 1	Adapter + EUT + EarPhone (Battery Status:<10 %)	DC 9.0 V
13		Adapter + EUT + EarPhone (Battery Status:50 % ~ 55 %)	DC 9.0 V
14		Adapter + EUT + EarPhone (Battery Status:> 90 %)	DC 9.0 V
15	Antenna 2	Adapter + EUT + MobilePhone (Battery Status:<10 %)	DC 9.0 V
16		Adapter + EUT + MobilePhone (Battery Status:50 % ~ 55 %)	DC 9.0 V
17		Adapter + EUT + MobilePhone (Battery Status:> 90 %)	DC 9.0 V
18	Antenna 1 + Antenna 2	Adapter + EUT + EarPhone + MobilePhone (Battery Status:<10 %)	DC 9.0 V
19		Adapter + EUT + EarPhone + MobilePhone (Battery Status:50 % ~ 55 %)	DC 9.0 V
20		Adapter + EUT + EarPhone + MobilePhone (Battery Status:>90 %)	DC 9.0 V

To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

### 5.4 Configuration of Test System

**Line Conducted Test** : The EUT was tested in a charging mode. The EUT was connected to USB and the power of USB was connected to Adapter. All supporting equipment were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.4: 2009 7.3.3 to determine the worse operating conditions.

**Radiated Emission Test** : Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 m Semi Anechoic Chamber.  
The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

### 5.5 Antenna Requirement

According to section 15.203, 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.

**Antenna Construction:**

The antenna of the EUT is a Coil Antenna on the main board in the EUT, so no consideration of replacement by the user.

## 6. PRELIMINARY TEST

### 6.1 AC Power line Conducted Emissions Tests

During Preliminary Tests, the following operating modes were investigated

Operation Mode	The Worse operating condition (Please check one only)
Transmitting Mode & Charging Mode	X

### 6.2 General Radiated Emissions Tests

During Preliminary Tests, the following operating modes were investigated

Operation Mode	The Worse operating condition (Please check one only)
Transmitting Mode & Charging Mode	X

## 7. Spurious Emission Test

### 7.1 Regulation

According to §15.209(a), for an intentional device, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency [MHz]	Field strength [ $\mu$ V/m]	Field strength [dB $\mu$ V/m]	Measurement distance [m]
0.009 ~ 0.490	2 400 / F (kHz)	48.52 ~ 13.80	300
0.490 ~ 1.705	24 000 / F (kHz)	33.8 ~ 22.97	30
1.705 ~ 30	30	29.50	30
30 ~ 88	*100	40.00	3
88 ~ 216	*150	43.52	3
216 ~ 960	*200	46.02	3
Above 960	500	53.98	3

\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54 ~ 72 MHz, 76 ~ 88 MHz, 174 ~ 216 MHz or 470 ~ 806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

### 7.2 Test set-up

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on a non-conductive turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

The frequency spectrum from 30 kHz to 1 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 ms in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

### 7.3 Test date

June 16, 2023 ~ June 27, 2023

### 7.4 Test data for Standby Mode [DC 5 V]

#### 7.4.1 Spurious Radiated Emission Below 30 MHz

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 1

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.00	19.00	0.10	63.10	-16.90	44.08	60.98
0.034	PK	44.50	19.00	0.10	63.60	-16.40	36.97	53.37
*0.143	PK	57.00	19.00	0.10	76.10	-3.90	24.49	28.39
0.269	PK	40.10	19.00	0.10	59.20	-20.80	19.00	39.80

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	32.30	18.90	0.20	51.40	11.40	29.46	18.06
23.164	PK	15.40	19.90	0.90	36.20	-3.80	29.54	33.34

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,

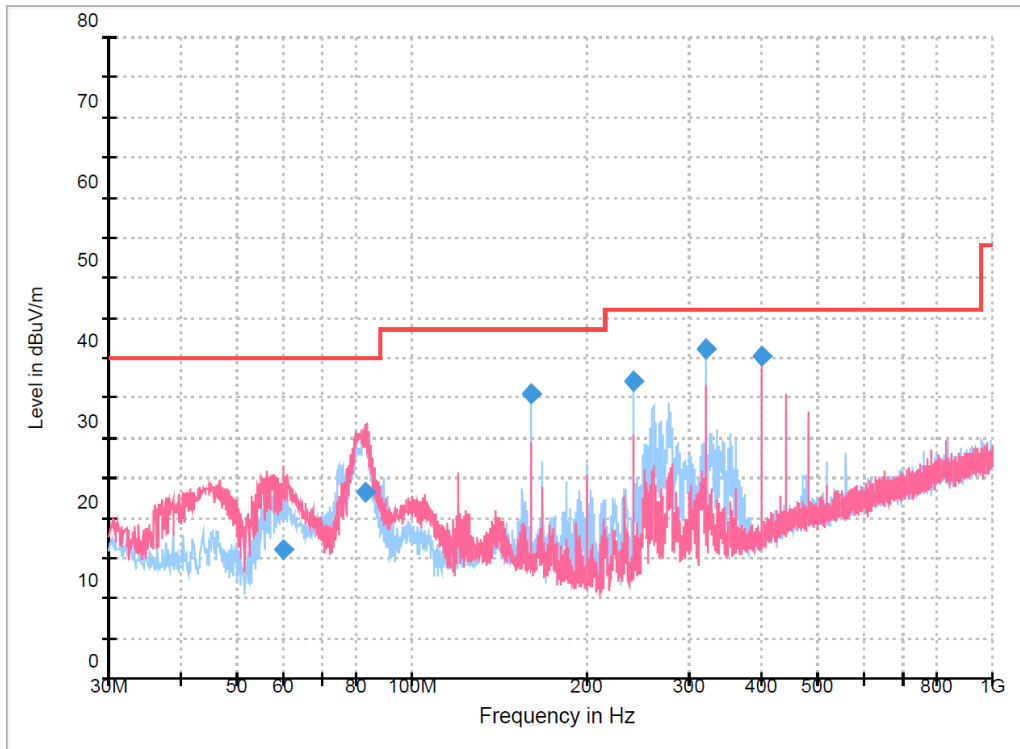
Below 30 MHz

### 7.4.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C  
 Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209  
 Frequency range : 30 MHz ~ 1 000 MHz  
 Result : PASSED

EUT : HANDS3 PRO DUAL  
 Operating Condition : Transmitting Mode & Charging Mode  
 -. Mode 1



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
60.130	16.18	40.00	23.82	3000	120	184.0	V	150.0	-18.8
83.291	23.32	40.00	16.68	3000	120	207.0	V	150.0	-17.6
160.000	35.43	43.50	8.07	3000	120	203.0	H	260.0	-12.1
239.985	37.15	46.00	8.85	3000	120	125.0	H	115.0	-12.9
320.010	41.16	46.00	4.84	3000	120	125.0	H	120.0	-9.2
400.035	40.31	46.00	5.69	3000	120	105.0	V	176.0	-7.4

**7.5 Test data for Antenna 1 [DC 5.0 V]**

**7.5.1 Spurious Radiated Emission Below 30 MHz**

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 2

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.40	19.00	0.10	63.50	-16.50	44.08	60.58
0.034	PK	44.40	19.00	0.10	63.50	-16.50	36.97	53.47
*0.143	PK	57.00	19.00	0.10	76.10	-3.90	24.49	28.39
0.269	PK	39.40	19.00	0.10	58.50	-21.50	19.00	40.50

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	31.70	18.90	0.20	50.80	10.80	29.46	18.66
23.463	PK	15.80	19.90	0.90	36.60	-3.40	29.54	32.94

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,

Below 30 MHz

-. Mode 3

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.40	19.00	0.10	63.50	-16.50	44.08	60.58
0.034	PK	44.20	19.00	0.10	63.30	-16.70	36.97	53.67
*0.143	PK	57.00	19.00	0.10	76.10	-3.90	24.49	28.39
0.269	PK	40.30	19.00	0.10	59.40	-20.60	19.00	39.60

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	29.90	18.90	0.20	49.00	9.00	29.46	20.46
21.463	PK	16.60	19.70	0.90	37.20	-2.80	29.54	32.34

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz

-. Mode 4

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.50	19.00	0.10	63.60	-16.40	44.08	60.48
0.034	PK	44.10	19.00	0.10	63.20	-16.80	36.97	53.77
*0.143	PK	56.90	19.00	0.10	76.00	-4.00	24.49	28.49
0.269	PK	38.30	19.00	0.10	57.40	-22.60	19.00	41.60
0.419	PK	34.00	18.90	0.10	53.00	-27.00	15.16	42.16

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
23.463	PK	17.50	19.90	0.90	38.30	-1.70	29.54	31.24

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz

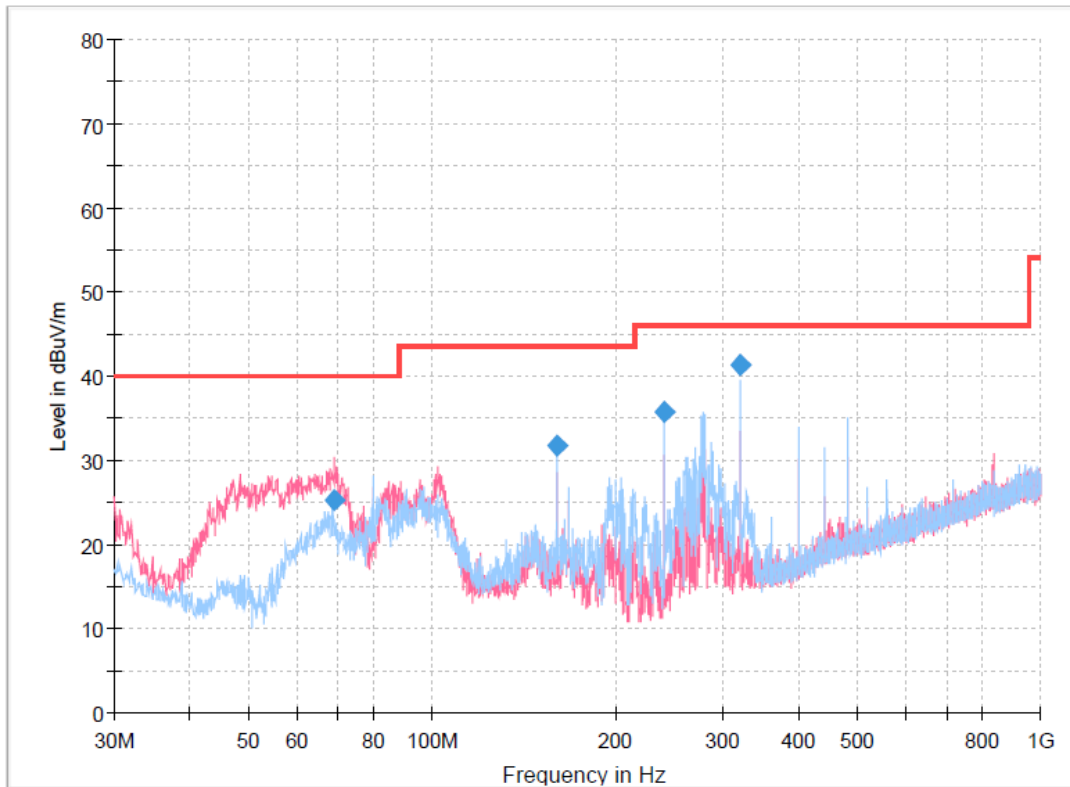


### 7.5.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C  
 Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209  
 Frequency range : 30 MHz ~ 1 000 MHz  
 Result : PASSED

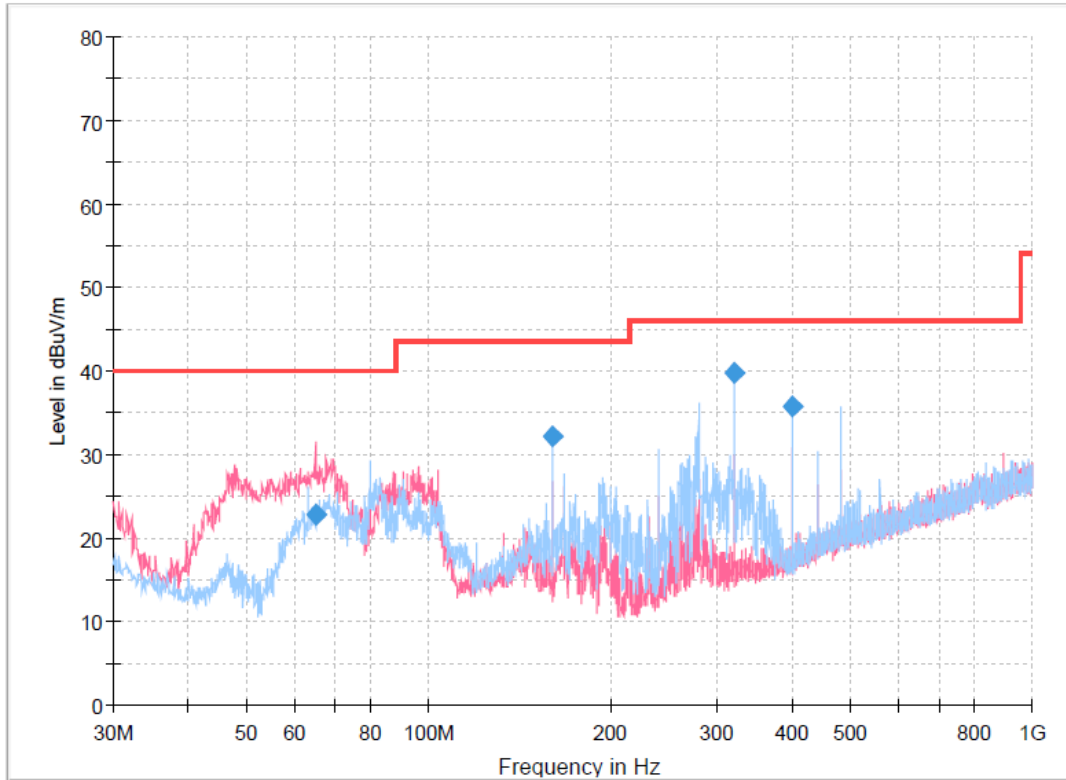
EUT : HANDS3 PRO DUAL  
 Operating Condition : Transmitting Mode & Charging Mode  
 -. Mode 2



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
68.944	25.20	40.00	14.80	5000	120	125.0	V	127.0	-18.1
160.000	31.83	43.50	11.67	5000	120	179.0	H	257.0	-12.1
240.025	35.74	46.00	10.26	5000	120	125.0	H	107.0	-12.9
320.050	41.32	46.00	4.68	5000	120	104.0	H	104.0	-9.2

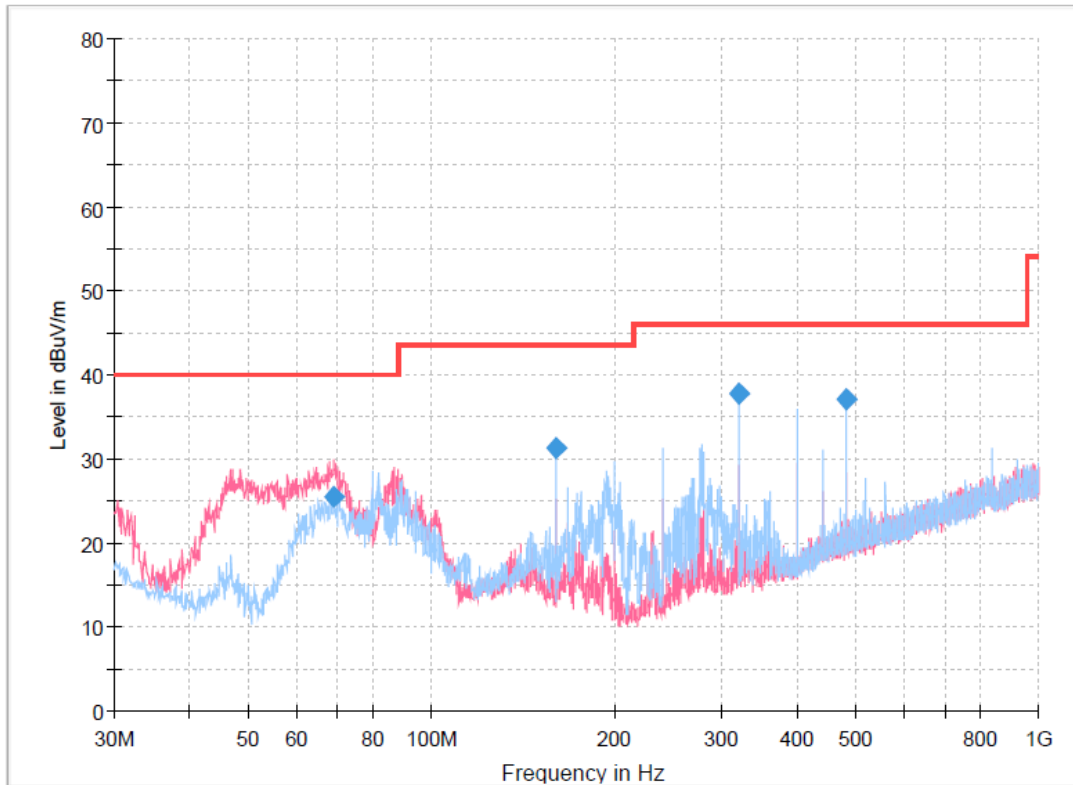
-. Mode 3



**Final Result**

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
65.180	22.83	40.00	17.17	5000	120	125.0	V	237.0	-18.5
160.000	32.27	43.50	11.23	5000	120	211.0	H	252.0	-12.1
320.010	39.82	46.00	6.18	5000	120	109.0	H	91.0	-9.2
400.034	35.86	46.00	10.14	5000	120	105.0	H	271.0	-7.4

-. Mode 4



**Final Result**

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
69.104	25.46	40.00	14.54	5000	120	175.0	V	144.0	-18.1
160.000	31.36	43.50	12.14	5000	120	200.0	H	252.0	-12.1
320.010	37.76	46.00	8.24	5000	120	108.0	H	110.0	-9.2
480.020	37.19	46.00	8.81	5000	120	183.0	H	156.0	-4.6

**7.6 Test data for Antenna 2 [DC 5 V]**

**7.6.1 Spurious Radiated Emission Below 30 MHz**

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 5

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.40	19.00	0.10	63.50	-16.50	44.08	60.58
0.034	PK	44.30	19.00	0.10	63.40	-16.60	36.97	53.57
*0.136	PK	54.30	19.00	0.10	73.40	-6.60	24.93	31.53
0.269	PK	37.60	19.00	0.10	56.70	-23.30	19.00	42.30

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	30.70	18.90	0.20	49.80	9.80	29.46	19.66
23.403	PK	20.50	19.90	0.90	41.30	1.30	29.54	28.24

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,

Below 30 MHz

-. Mode 6

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.30	19.00	0.10	63.40	-16.60	44.08	60.68
0.034	PK	44.10	19.00	0.10	63.20	-16.80	36.97	53.77
*0.135	PK	53.20	19.00	0.10	72.30	-7.70	24.99	32.69
0.269	PK	40.30	19.00	0.10	59.40	-20.60	19.00	39.60

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	30.20	18.90	0.20	49.30	9.30	29.46	20.16
23.224	PK	20.90	19.90	0.90	41.70	1.70	29.54	27.84

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz

-. Mode 7

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.20	19.00	0.10	63.30	-16.70	44.08	60.78
0.034	PK	43.90	19.00	0.10	63.00	-17.00	36.97	53.97
*0.139	PK	50.20	19.00	0.10	69.30	-10.70	24.74	35.44
0.269	PK	38.80	19.00	0.10	57.90	-22.10	19.00	41.10

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	29.80	18.90	0.20	48.90	8.90	29.46	20.56
25.582	PK	23.60	20.10	1.00	44.70	4.70	29.54	24.84

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz

### 7.6.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

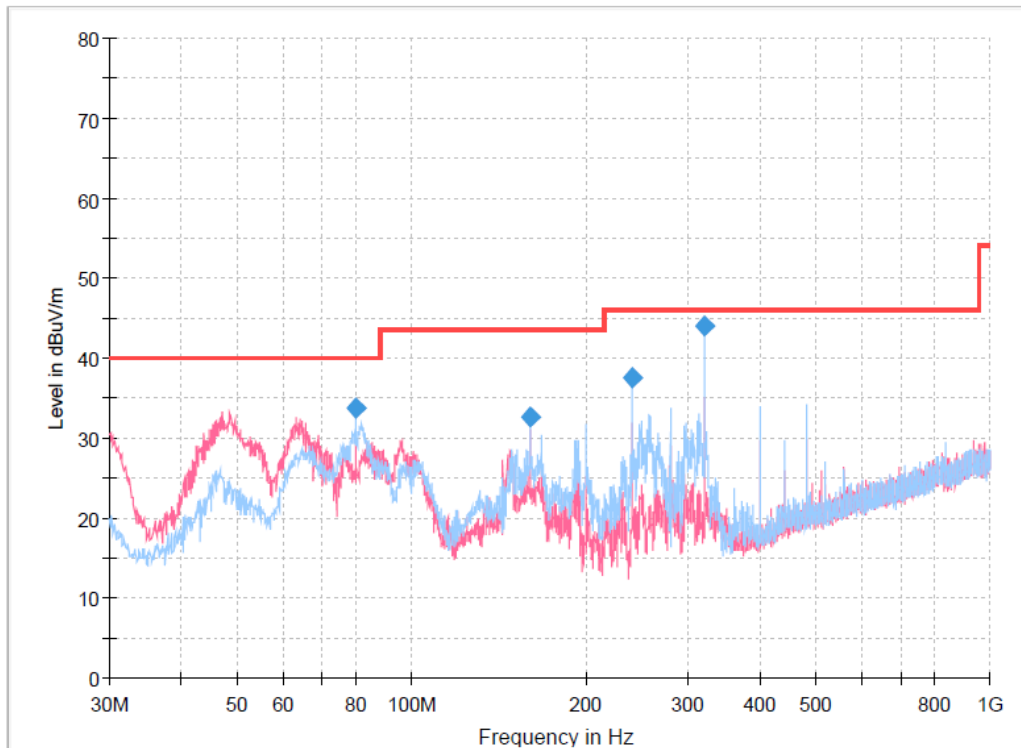
Frequency range : 30 MHz ~ 1 000 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

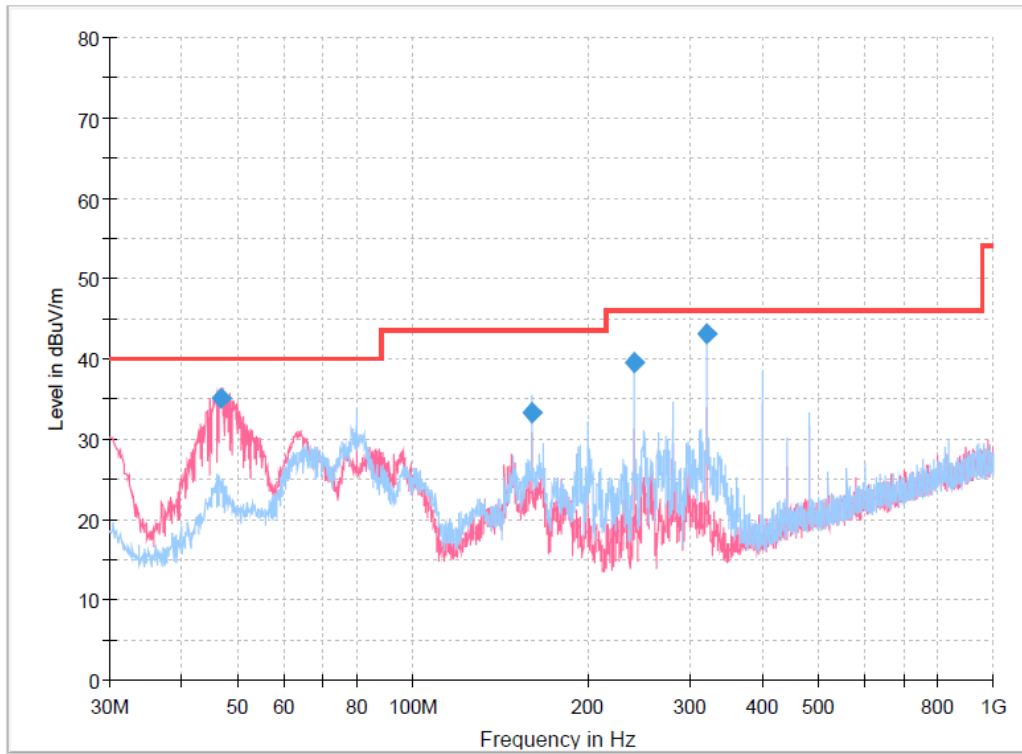
-. Mode 5



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
80.015	33.63	40.00	6.37	5000	120	225.0	H	56.0	-17.7
160.000	32.66	43.50	10.84	5000	120	125.0	H	244.0	-12.1
240.025	37.56	46.00	8.44	5000	120	125.0	H	109.0	-12.9
320.010	44.04	46.00	1.96	5000	120	107.0	H	100.0	-9.2

-. Mode 6

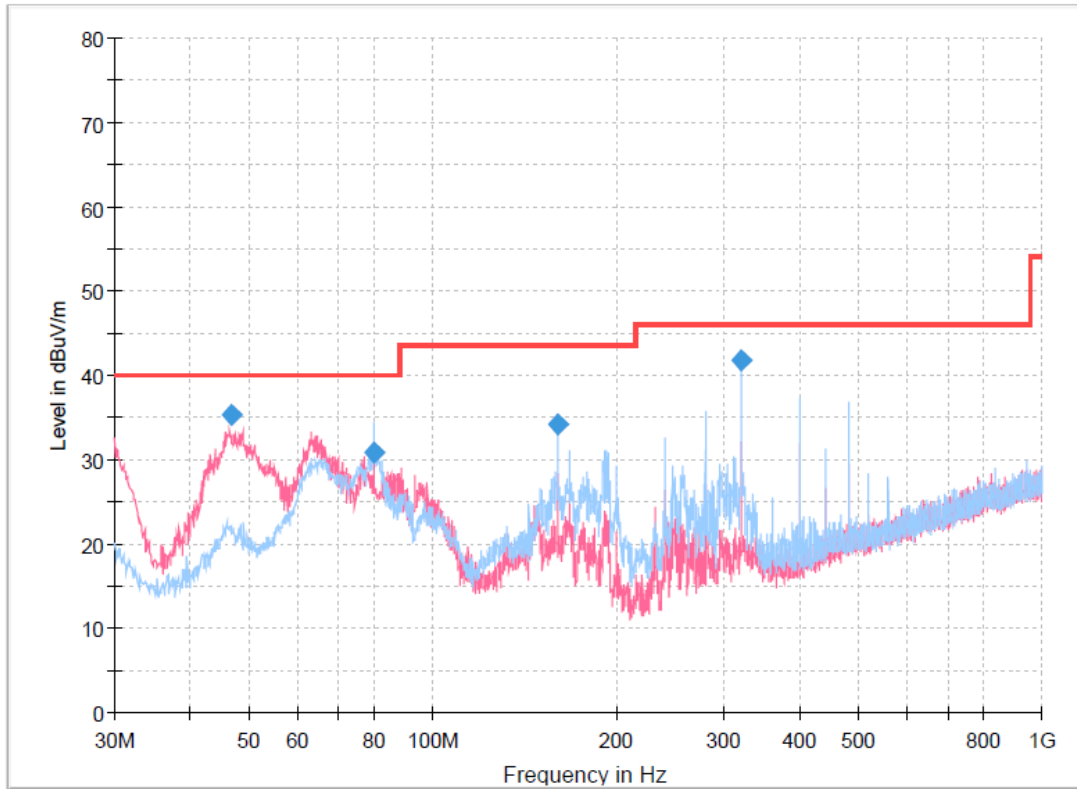


**Final Result**

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.715	35.11	40.00	4.89	5000	120	100.0	V	355.0	-17.1
160.000	33.29	43.50	10.21	5000	120	202.0	H	112.0	-12.1
239.985	39.45	46.00	6.55	5000	120	125.0	H	127.0	-12.9
320.010	43.23	46.00	2.77	5000	120	100.0	H	102.0	-9.2



-. Mode 7



**Final Result**

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.670	35.34	40.00	4.66	5000	120	100.0	V	5.0	-17.1
79.975	30.84	40.00	9.16	5000	120	281.0	H	210.0	-17.7
160.000	34.20	43.50	9.30	5000	120	187.0	H	257.0	-12.1
320.010	41.69	46.00	4.31	5000	120	100.0	H	103.0	-9.2

**7.7 Test data for Antenna 1 + Antenna 2 [DC 5 V]**

**7.7.1 Spurious Radiated Emission Below 30 MHz**

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 8

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.40	19.00	0.10	63.50	-16.50	44.08	60.58
0.034	PK	44.30	19.00	0.10	63.40	-16.60	36.97	53.57
*0.137	PK	54.60	19.00	0.10	73.70	-6.30	24.87	31.17
*0.143	PK	53.80	19.00	0.10	72.90	-7.10	24.49	31.59
0.269	PK	36.50	19.00	0.10	55.60	-24.40	19.00	43.40

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
23.224	PK	20.20	19.90	0.90	41.00	1.00	29.54	28.54

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,

Below 30 MHz

-. Mode 9

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 300m (dB $\mu$ V/m)	Limit at 300m (dB $\mu$ V/m)	Margin (dB)
0.015	PK	44.20	19.00	0.10	63.30	-16.70	44.08	60.78
0.034	PK	44.20	19.00	0.10	63.30	-16.70	36.97	53.67
*0.137	PK	53.20	19.00	0.10	72.30	-7.70	24.87	32.57
*0.143	PK	55.10	19.00	0.10	74.20	-5.80	24.49	30.29
0.269	PK	38.90	19.00	0.10	58.00	-22.00	19.00	41.00

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 30m (dB $\mu$ V/m)	Limit at 30m (dB $\mu$ V/m)	Margin (dB)
23.224	PK	19.00	19.90	0.90	39.80	-0.20	29.54	29.74

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dB $\mu$ V/m] = Reading [dB $\mu$ V] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dB $\mu$ V/m] – Limit at 300m [dB $\mu$ V/m]

= Emission Level at 300m [dB $\mu$ V/m] – Limit at 30m [dB $\mu$ V/m]

-. Emission Level at 300m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (30/3), 40 dB for above 0.49 MHz,

Below 30 MHz

-. Mode 10

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 300m (dB $\mu$ V/m)	Limit at 300m (dB $\mu$ V/m)	Margin (dB)
0.015	PK	45.00	19.00	0.10	64.10	-15.90	44.08	59.98
0.034	PK	43.80	19.00	0.10	62.90	-17.10	36.97	54.07
*0.117	PK	60.20	19.00	0.10	79.30	-0.70	26.24	26.94
*0.143	PK	56.10	19.00	0.10	75.20	-4.80	24.49	29.29
0.329	PK	40.20	19.00	0.10	59.30	-20.70	17.26	37.96

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 30m (dB $\mu$ V/m)	Limit at 30m (dB $\mu$ V/m)	Margin (dB)
25.493	PK	20.30	20.10	1.00	41.40	1.40	29.54	28.14

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dB $\mu$ V/m] = Reading [dB $\mu$ V] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dB $\mu$ V/m] – Limit at 300m [dB $\mu$ V/m]

= Emission Level at 300m [dB $\mu$ V/m] – Limit at 30m [dB $\mu$ V/m]

-. Emission Level at 300m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (30/3), 40 dB for above 0.49 MHz,

Below 30 MHz

### 7.7.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

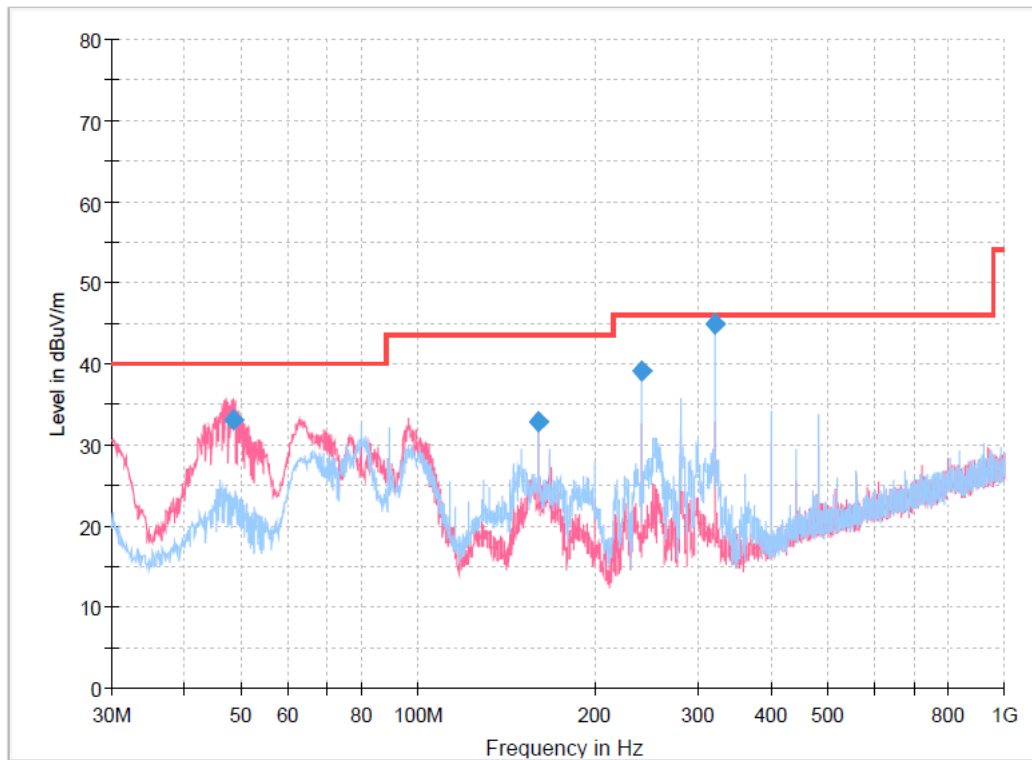
Frequency range : 30 MHz ~ 1 000 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

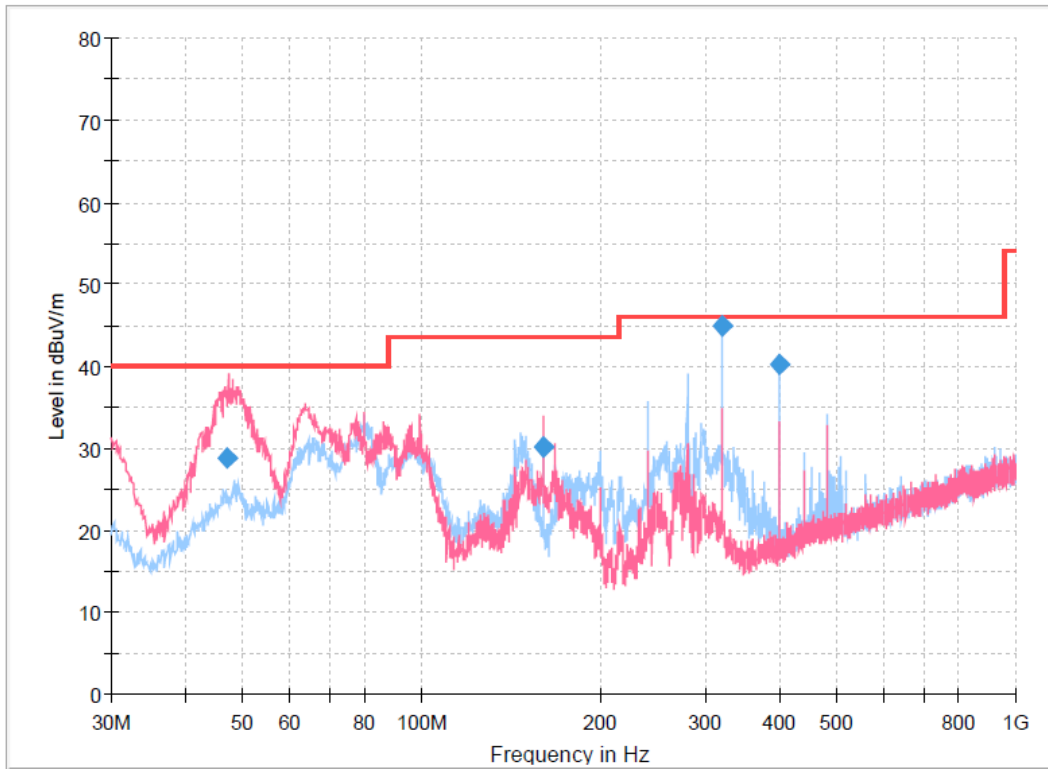
-. Mode 8



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.450	33.02	40.00	6.98	5000	120	100.0	V	2.0	-17.7
160.000	32.80	43.50	10.70	5000	120	281.0	H	266.0	-12.1
240.025	39.20	46.00	6.80	5000	120	125.0	H	118.0	-12.9
320.010	44.84	46.00	1.16	5000	120	100.0	H	97.0	-9.2

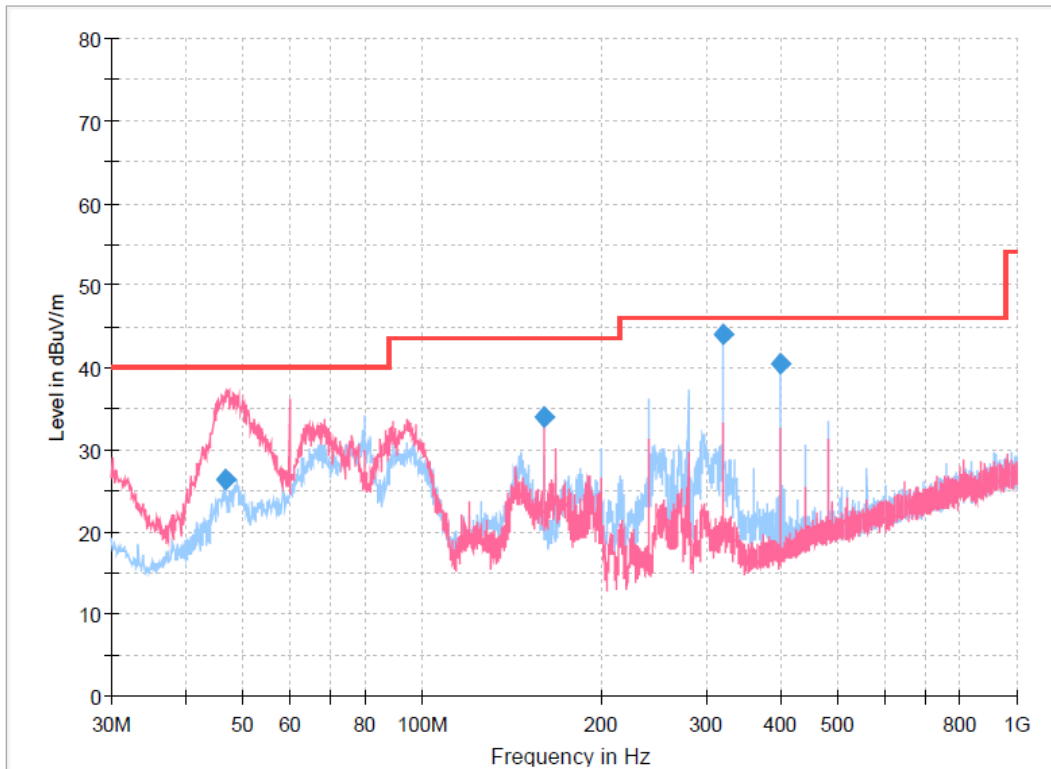
-. Mode 9



**Final Result**

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
47.079	28.90	40.00	11.10	3000	120	100.0	V	25.0	-17.3
160.000	30.08	43.50	13.42	3000	120	104.0	V	161.0	-12.1
320.010	44.86	46.00	1.14	3000	120	106.0	H	114.0	-9.2
400.034	40.13	46.00	5.87	3000	120	104.0	H	121.0	-7.4

-. Mode 10



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.796	26.27	40.00	13.73	3000	120	105.0	V	337.0	-17.2
160.000	34.03	43.50	9.47	3000	120	105.0	V	230.0	-12.1
320.010	44.03	46.00	1.97	3000	120	100.0	H	123.0	-9.2
400.034	40.49	46.00	5.51	3000	120	100.0	H	124.0	-7.4

### 7.8 Test data for Standby Mode [DC 9 V]

#### 7.8.1 Spurious Radiated Emission Below 30 MHz

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 11

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.016	PK	43.40	19.00	0.10	62.50	-17.50	43.52	61.02
0.034	PK	44.30	19.00	0.10	63.40	-16.60	36.97	53.57
*0.128	PK	57.30	19.00	0.10	76.40	-3.60	25.46	29.06
*0.145	PK	50.90	19.00	0.10	70.00	-10.00	24.37	34.37
0.240	PK	42.10	19.00	0.10	61.20	-18.80	20.00	38.80

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	30.70	18.90	0.20	49.80	9.80	29.46	19.66

-. “\*” Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
Below 30 MHz

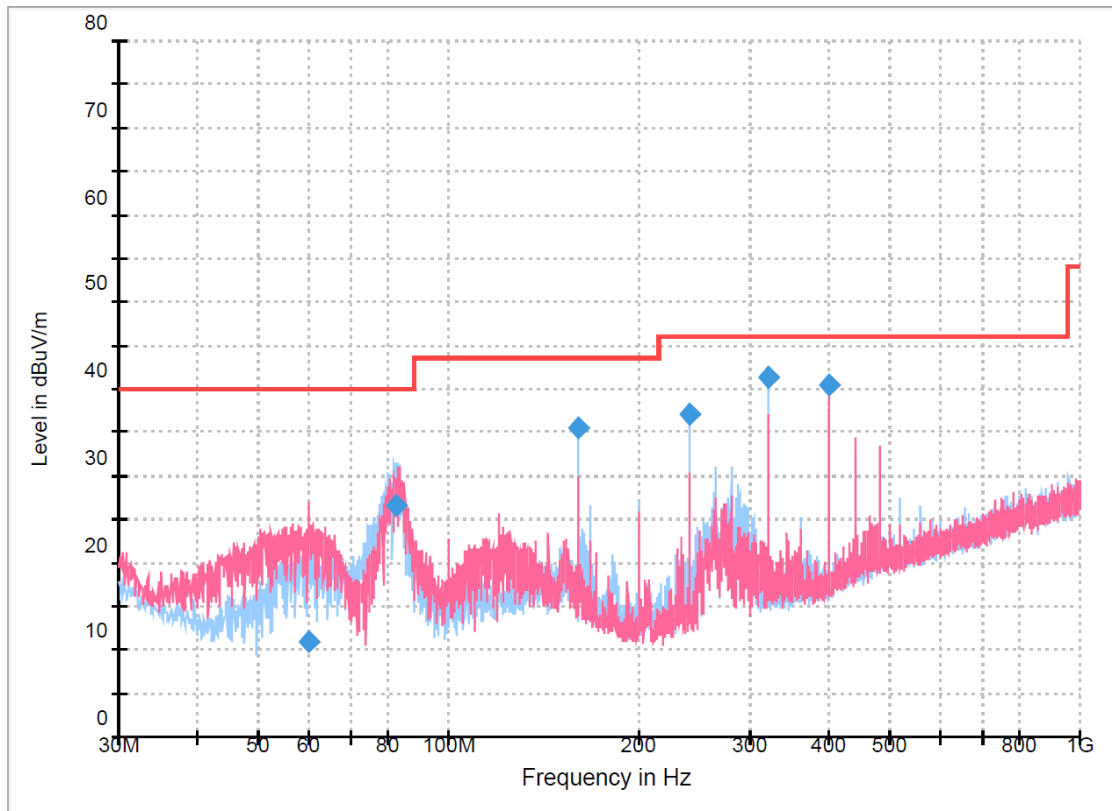


### 7.8.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C  
 Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209  
 Frequency range : 30 MHz ~ 1 000 MHz  
 Result : PASSED

EUT : HANDS3 PRO DUAL  
 Operating Condition : Transmitting Mode & Charging Mode  
 -. Mode 11



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
60.129	11.01	40.00	28.99	3000	120	109.0	V	198.0	-18.8
82.723	26.69	40.00	13.31	3000	120	379.0	H	240.0	-17.6
160.000	35.58	43.50	7.92	3000	120	200.0	H	260.0	-12.1
240.025	37.13	46.00	8.87	3000	120	125.0	H	116.0	-12.9
320.010	41.40	46.00	4.60	3000	120	107.0	H	125.0	-9.2
400.035	40.37	46.00	5.63	3000	120	100.0	V	176.0	-7.4

**7.9 Test data for Antenna 1 [DC 9 V]**

**7.9.1 Spurious Radiated Emission Below 30 MHz**

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 12

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	43.90	19.00	0.10	63.00	-17.00	44.08	61.08
0.034	PK	44.30	19.00	0.10	63.40	-16.60	36.97	53.57
*0.147	PK	53.40	19.00	0.10	72.50	-7.50	24.25	31.75
0.240	PK	42.30	19.00	0.10	61.40	-18.60	20.00	38.60

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.568	PK	30.90	18.90	0.10	49.90	9.90	32.51	22.61
0.807	PK	30.30	18.90	0.20	49.40	9.40	29.46	20.06

-. “\*” Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
Below 30 MHz

-. Mode 13

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 300m (dB $\mu$ V/m)	Limit at 300m (dB $\mu$ V/m)	Margin (dB)
0.015	PK	44.50	19.00	0.10	63.60	-16.40	44.08	60.48
0.034	PK	44.30	19.00	0.10	63.40	-16.60	36.97	53.57
*0.147	PK	54.10	19.00	0.10	73.20	-6.80	24.25	31.05
0.240	PK	42.10	19.00	0.10	61.20	-18.80	20.00	38.80
0.419	PK	34.20	18.90	0.10	53.20	-26.80	15.16	41.96

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 30m (dB $\mu$ V/m)	Limit at 30m (dB $\mu$ V/m)	Margin (dB)
0.807	PK	30.40	18.90	0.20	49.50	9.50	29.46	19.96

-. “\*” Means Fundamental frequency

-. Emission Level at 3m [dB $\mu$ V/m] = Reading [dB $\mu$ V] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dB $\mu$ V/m] – Limit at 300m [dB $\mu$ V/m]

= Emission Level at 300m [dB $\mu$ V/m] – Limit at 30m [dB $\mu$ V/m]

-. Emission Level at 300m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (30/3), 40 dB for above 0.49 MHz,

Below 30 MHz

-. Mode 14

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.016	PK	43.90	19.00	0.10	63.00	-17.00	43.52	60.52
0.034	PK	45.50	19.00	0.10	64.60	-15.40	36.97	52.37
*0.128	PK	58.10	19.00	0.10	77.20	-2.80	25.46	28.26
0.240	PK	43.70	19.00	0.10	62.80	-17.20	20.00	37.20
0.359	PK	39.40	19.00	0.10	58.50	-21.50	16.50	38.00

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
24.269	PK	10.10	20.00	0.90	31.00	-9.00	29.54	38.54

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz

### 7.9.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

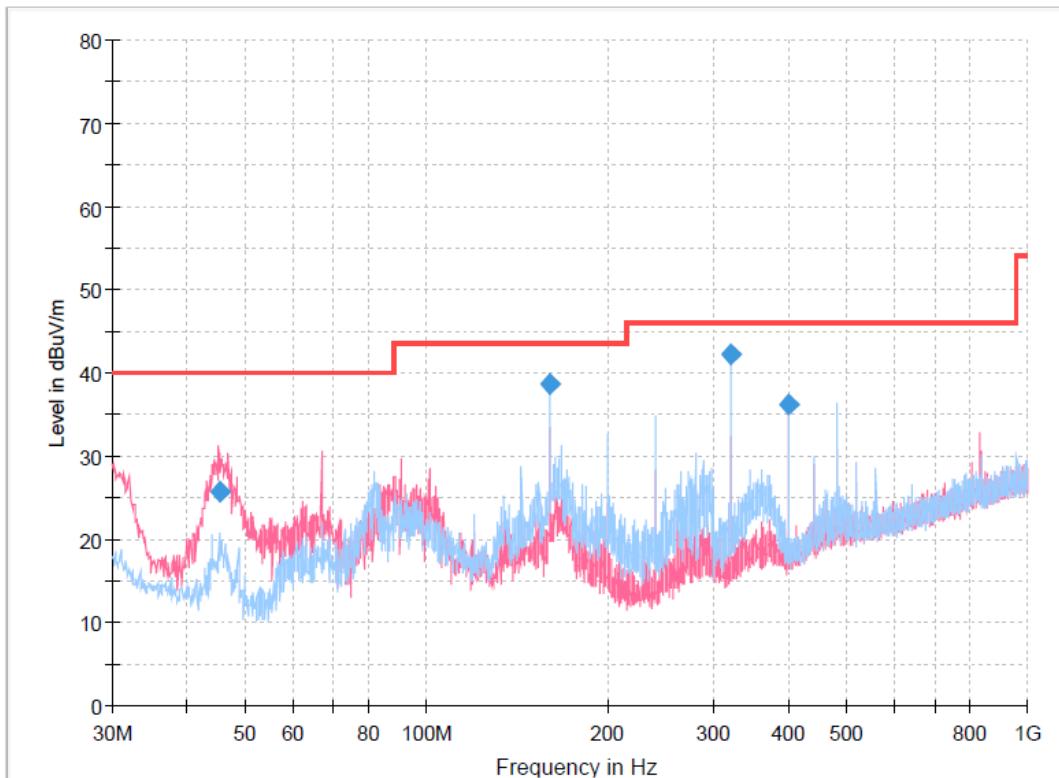
Frequency range : 30 MHz ~ 1 000 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

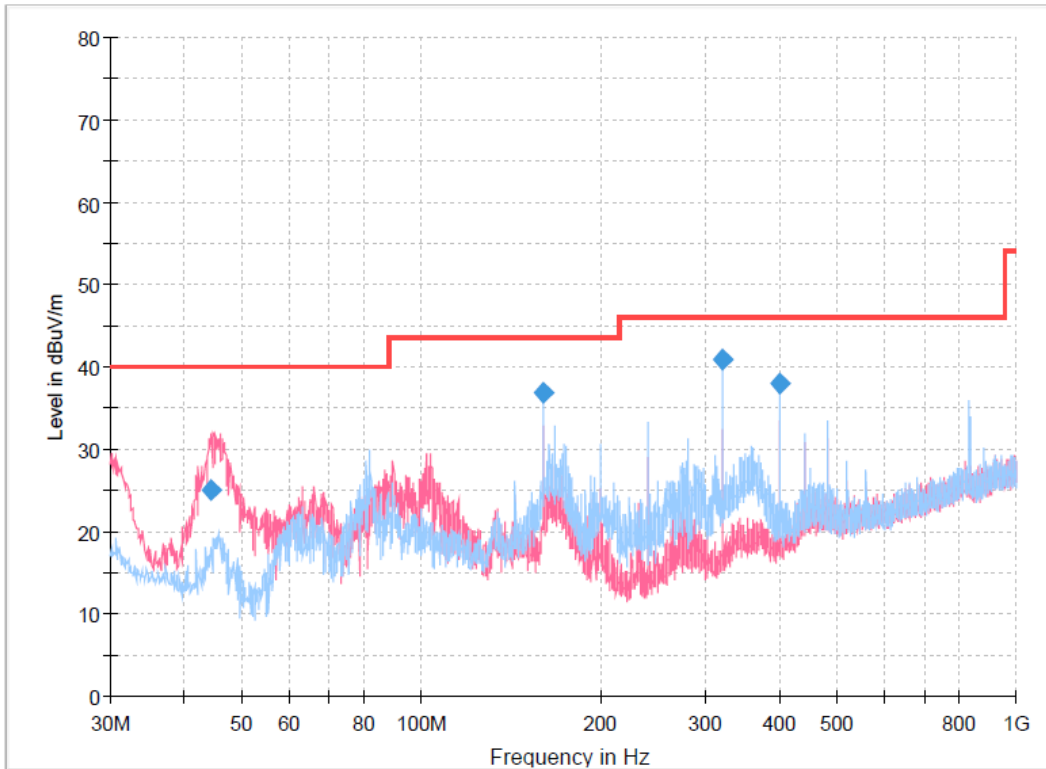
-. Mode 12



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.416	25.80	40.00	14.20	5000	120	181.0	V	325.0	-16.6
160.000	38.57	43.50	4.93	5000	120	206.0	H	73.0	-12.1
320.010	42.31	46.00	3.69	5000	120	106.0	H	104.0	-9.2
400.035	36.28	46.00	9.72	5000	120	104.0	H	113.0	-7.4

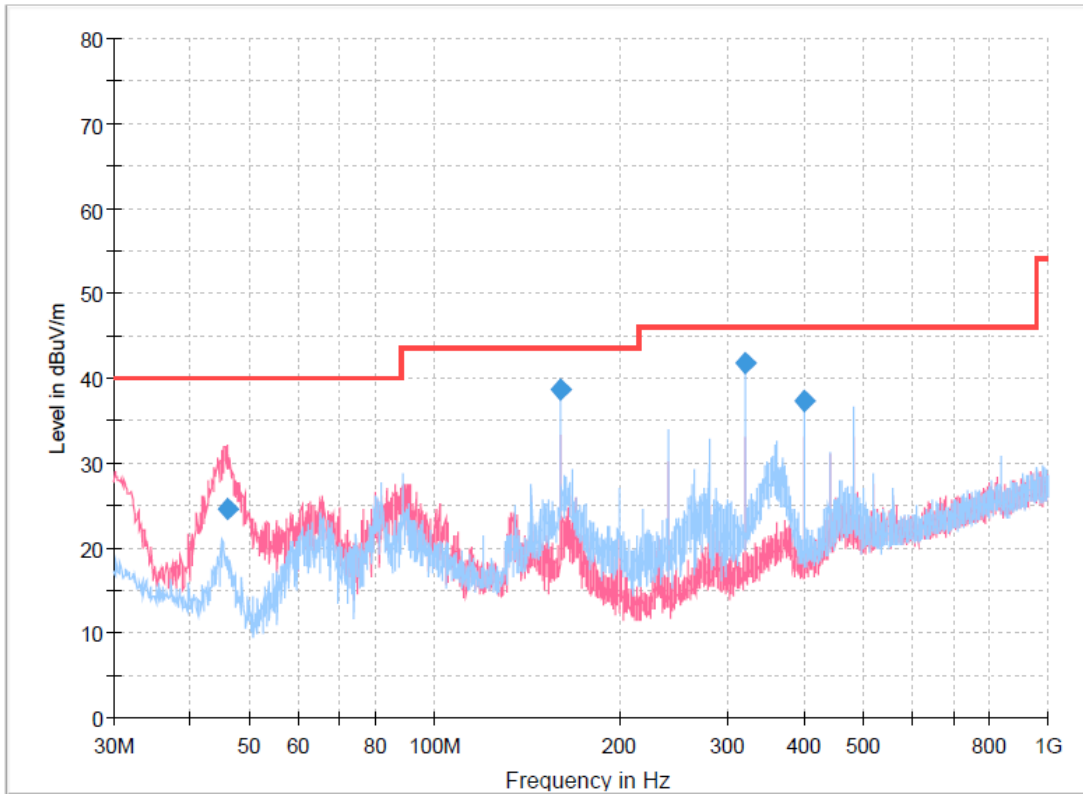
-. Mode 13



**Final Result**

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
44.329	25.07	40.00	14.93	5000	120	113.0	V	10.0	-16.2
160.000	36.79	43.50	6.71	5000	120	202.0	H	272.0	-12.1
320.010	40.98	46.00	5.02	5000	120	106.0	H	192.0	-9.2
400.035	37.91	46.00	8.09	5000	120	100.0	H	110.0	-7.4

-. Mode 14



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.105	24.60	40.00	15.40	5000	120	125.0	V	210.0	-16.9
160.000	38.60	43.50	4.90	5000	120	222.0	H	245.0	-12.1
320.010	41.84	46.00	4.16	5000	120	100.0	H	101.0	-9.2
399.995	37.40	46.00	8.60	5000	120	100.0	H	280.0	-7.4

**7.10 Test data for Antenna 2 [DC 9 V]**

**7.10.1 Spurious Radiated Emission Below 30 MHz**

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 15

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.40	19.00	0.10	63.50	-16.50	44.08	60.58
0.034	PK	44.40	19.00	0.10	63.50	-16.50	36.97	53.47
*0.113	PK	57.10	19.00	0.10	76.20	-3.80	26.54	30.34
0.329	PK	41.20	19.00	0.10	60.30	-19.70	17.26	36.96

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.538	PK	31.90	18.90	0.10	50.90	10.90	32.98	22.08
21.164	PK	14.30	19.70	0.90	34.90	-5.10	29.54	34.64

-. “\*” Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz, Below 30 MHz



-. Mode 16

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 300m (dB $\mu$ V/m)	Limit at 300m (dB $\mu$ V/m)	Margin (dB)
0.016	PK	43.80	19.00	0.10	62.90	-17.10	43.52	60.62
0.034	PK	44.10	19.00	0.10	63.20	-16.80	36.97	53.77
*0.113	PK	54.60	19.00	0.10	73.70	-6.30	26.54	32.84
0.329	PK	41.50	19.00	0.10	60.60	-19.40	17.26	36.66

Frequency (MHz)	Detector	Reading (dB $\mu$ V)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dB $\mu$ V/m)	Emission Level at 30m (dB $\mu$ V/m)	Limit at 30m (dB $\mu$ V/m)	Margin (dB)
0.538	PK	31.70	18.90	0.10	50.70	10.70	32.98	22.28
22.597	PK	15.00	19.90	0.90	35.80	-4.20	29.54	33.74

-. “\*” Means Fundamental frequency

-. Emission Level at 3m [dB $\mu$ V/m] = Reading [dB $\mu$ V] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dB $\mu$ V/m] – Limit at 300m [dB $\mu$ V/m]

= Emission Level at 300m [dB $\mu$ V/m] – Limit at 30m [dB $\mu$ V/m]

-. Emission Level at 300m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dB $\mu$ V/m] = Emission Level at 3m [dB $\mu$ V/m] - 40log (30/3), 40 dB for above 0.49 MHz,

Below 30 MHz

-. Mode 17

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.016	PK	44.50	19.00	0.10	63.60	-16.40	43.52	59.92
0.034	PK	43.70	19.00	0.10	62.80	-17.20	36.97	54.17
*0.116	PK	50.70	19.00	0.10	69.80	-10.20	26.31	36.51
0.269	PK	40.00	19.00	0.10	59.10	-20.90	19.00	39.90

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
0.807	PK	31.30	18.90	0.20	50.40	10.40	29.46	19.06
24.493	PK	19.50	20.10	1.00	40.60	0.60	29.54	28.94

-. “\*” Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz

### 7.10.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

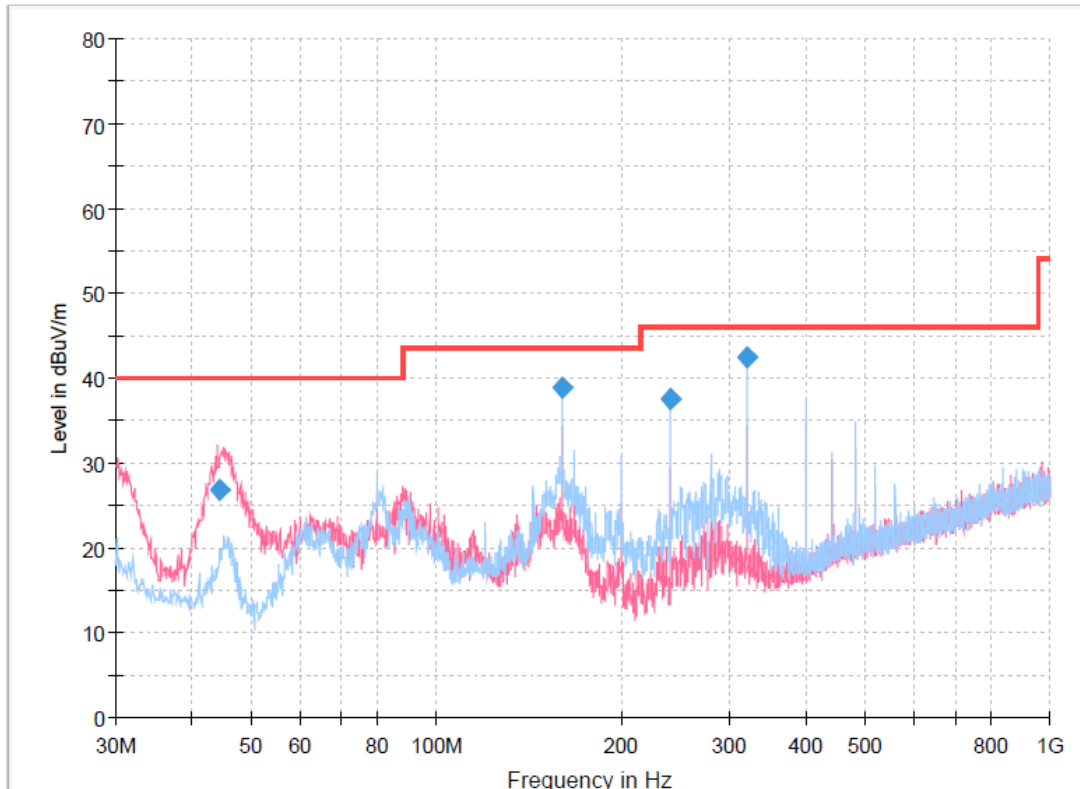
Frequency range : 30 MHz ~ 1 000 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

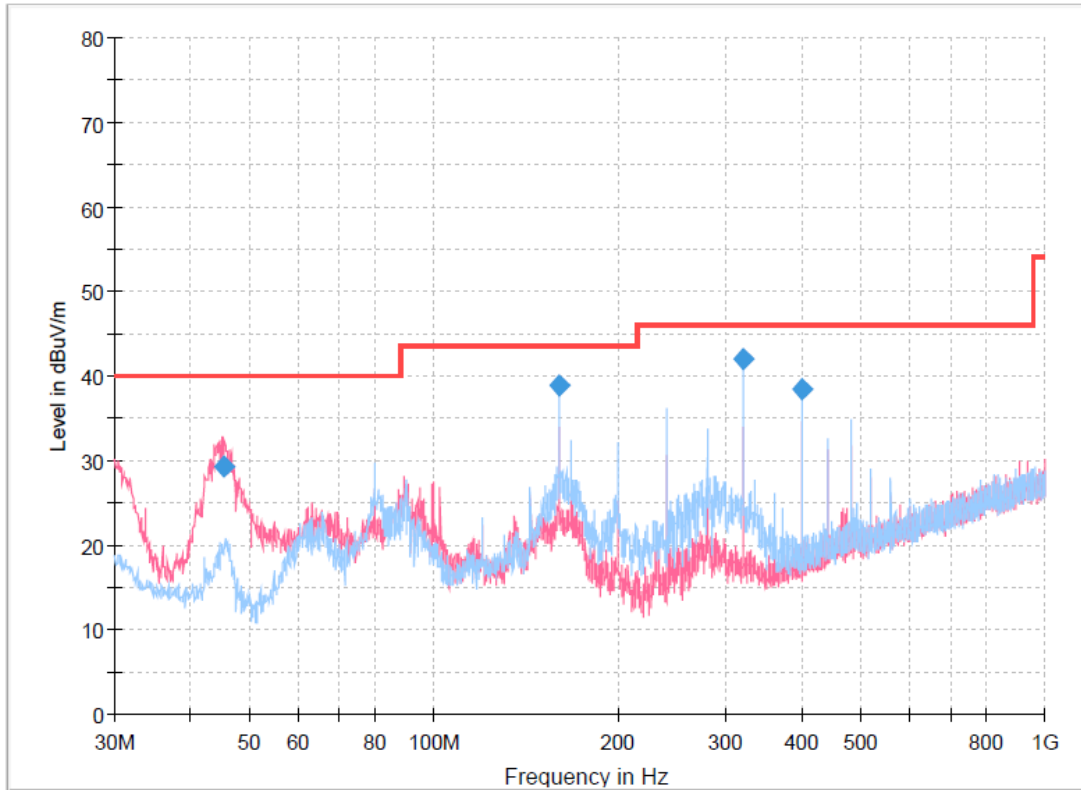
-. Mode 15



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
44.285	26.90	40.00	13.10	5000	120	112.0	V	-3.0	-16.2
160.000	38.96	43.50	4.54	5000	120	205.0	H	60.0	-12.1
240.025	37.53	46.00	8.47	5000	120	125.0	H	106.0	-12.9
320.010	42.37	46.00	3.63	5000	120	106.0	H	103.0	-9.2

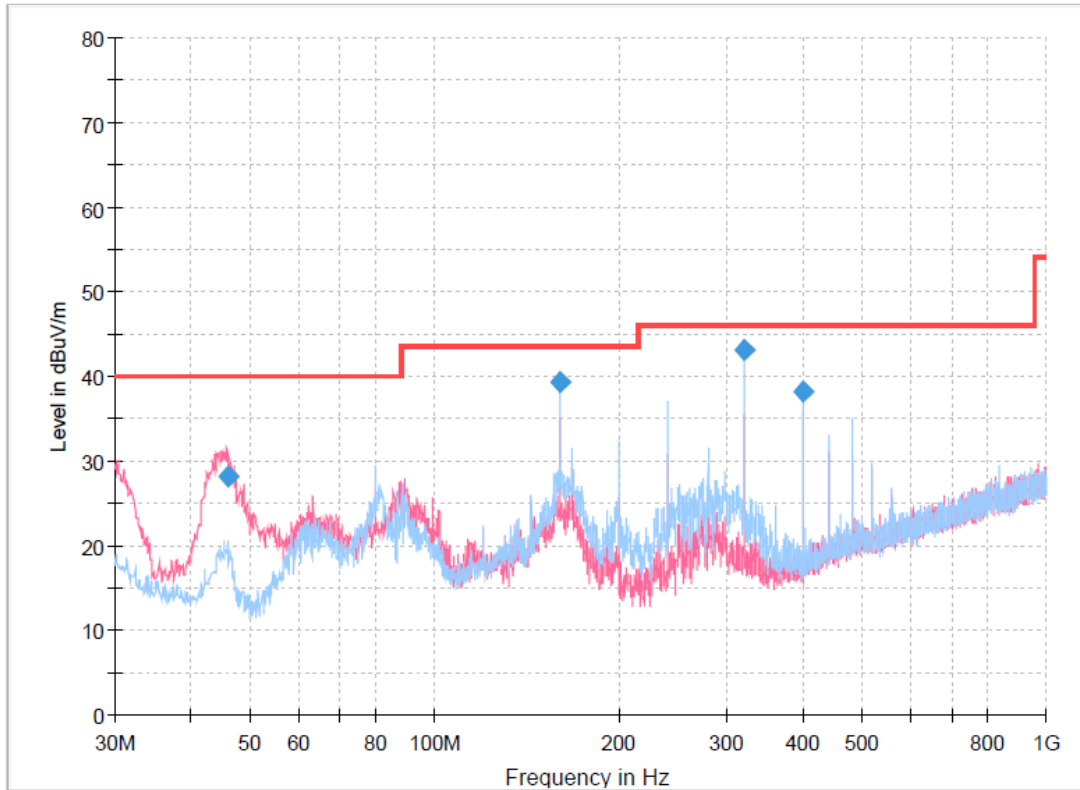
-. Mode 16



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.255	29.33	40.00	10.67	5000	120	108.0	V	2.0	-16.6
160.000	38.93	43.50	4.57	5000	120	175.0	H	81.0	-12.1
320.010	42.04	46.00	3.96	5000	120	105.0	H	109.0	-9.2
400.034	38.37	46.00	7.63	5000	120	104.0	H	124.0	-7.4

-. Mode 17



**Final Result**

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.943	28.22	40.00	11.78	5000	120	100.0	V	86.0	-16.8
160.000	39.28	43.50	4.22	5000	120	225.0	H	262.0	-12.1
320.010	43.09	46.00	2.91	5000	120	100.0	H	104.0	-9.2
399.995	38.26	46.00	7.74	5000	120	104.0	H	112.0	-7.4

**7.11 Test data for Antenna 1 + Antenna 2 [DC 9 V]**

**7.11.1 Spurious Radiated Emission Below 30 MHz**

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

Frequency Range : 9 kHz ~ 30 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

-. Mode 18

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	44.70	19.00	0.10	63.80	-16.20	44.08	60.28
0.034	PK	44.30	19.00	0.10	63.40	-16.60	36.97	53.57
*0.113	PK	57.10	19.00	0.10	76.20	-3.80	26.54	30.34
*0.147	PK	53.10	19.00	0.10	72.20	-7.80	24.25	32.05
0.269	PK	41.90	19.00	0.10	61.00	-19.00	19.00	38.00

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
25.463	PK	17.50	20.10	0.10	37.70	-2.30	29.54	31.84

-. “\*” Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]

= Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
Below 30 MHz

-. Mode 19

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	43.90	19.00	0.10	63.00	-17.00	44.08	61.08
0.034	PK	44.30	19.00	0.10	63.40	-16.60	36.97	53.57
*0.113	PK	54.60	19.00	0.10	73.70	-6.30	26.54	32.84
*0.147	PK	52.00	19.00	0.10	71.10	-8.90	24.25	33.15
0.329	PK	41.50	19.00	0.10	60.60	-19.40	17.26	36.66

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
22.358	PK	16.10	19.80	0.90	36.80	-3.20	29.54	32.74

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz

-. Mode 20

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 300m (dBμV/m)	Limit at 300m (dBμV/m)	Margin (dB)
0.015	PK	43.50	19.00	0.10	62.60	-17.40	44.08	61.48
0.034	PK	43.80	19.00	0.10	62.90	-17.10	36.97	54.07
*0.116	PK	50.50	19.00	0.10	69.60	-10.40	26.31	36.71
*0.147	PK	51.60	19.00	0.10	70.70	-9.30	24.25	33.55
0.015	PK	43.50	19.00	0.10	62.60	-17.40	44.08	61.48

Frequency (MHz)	Detector	Reading (dBμV)	Ant. Factor (dB/m)	Cable Loss	Emission Level at 3m (dBμV/m)	Emission Level at 30m (dBμV/m)	Limit at 30m (dBμV/m)	Margin (dB)
21.523	PK	15.40	19.80	0.90	36.10	-3.90	29.54	33.44

-. "\*" Means Fundamental frequency

-. Emission Level at 3m [dBμV/m] = Reading [dBμV] + Ant. Factor [dB/m] + Cable Loss [dB]

-. Margin [dB] = Emission Level at 300m [dBμV/m] – Limit at 300m [dBμV/m]  
 = Emission Level at 300m [dBμV/m] – Limit at 30m [dBμV/m]

-. Emission Level at 300m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (300/3), 80 dB for up to 0.49 MHz

-. Emission Level at 30m [dBμV/m] = Emission Level at 3m [dBμV/m] - 40log (30/3), 40 dB for above 0.49 MHz,  
 Below 30 MHz



### 7.10.2 Spurious Radiated Emission below 1 GHz

The following table shows the highest levels of radiated emissions on both polarizations of horizontal and vertical.

Humidity Level : 53.2 % R.H. Temperature: 22.7 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.209

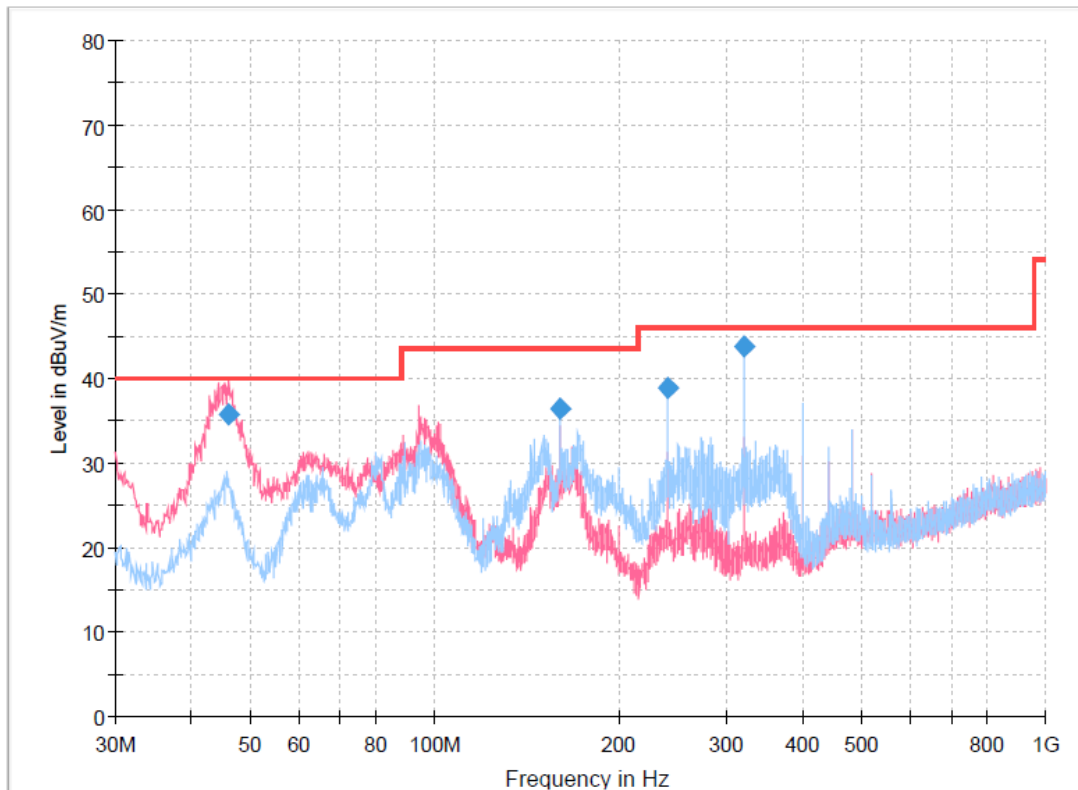
Frequency range : 30 MHz ~ 1 000 MHz

Result : PASSED

EUT : HANDS3 PRO DUAL

Operating Condition : Transmitting Mode & Charging Mode

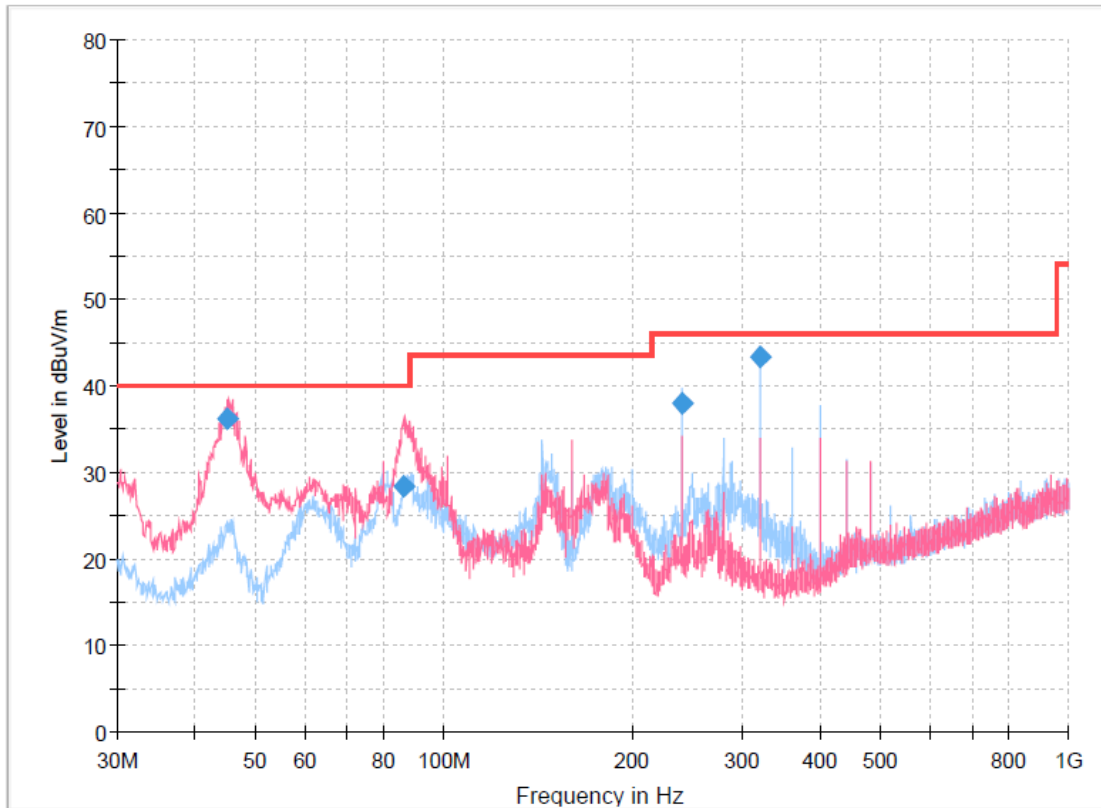
-. Mode 18



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.186	35.84	40.00	4.16	5000	120	112.0	V	2.0	-16.9
160.000	36.46	43.50	7.04	5000	120	225.0	H	53.0	-12.1
239.985	38.90	46.00	7.10	5000	120	125.0	H	105.0	-12.9
320.010	43.84	46.00	2.16	5000	120	106.0	H	118.0	-9.2

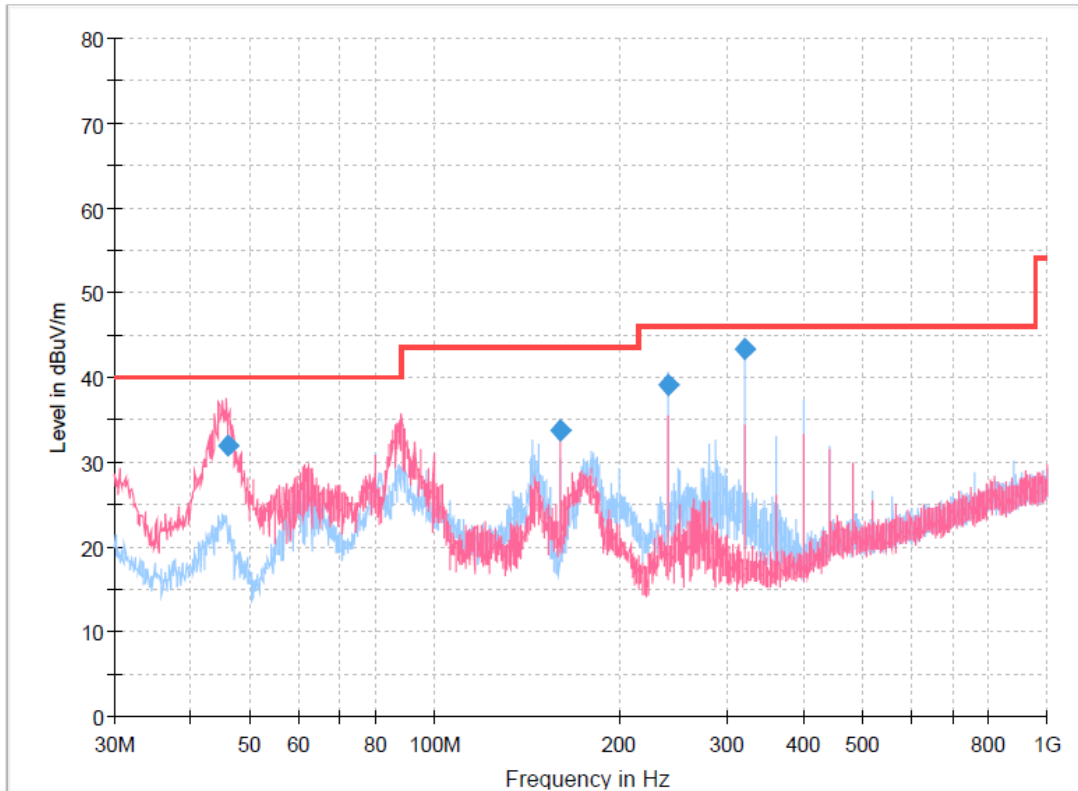
-. Mode 19



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.136	36.11	40.00	3.89	3000	120	100.0	V	297.0	-16.5
86.078	28.36	40.00	11.64	3000	120	104.0	V	211.0	-17.4
240.025	37.90	46.00	8.10	3000	120	125.0	H	106.0	-12.9
320.010	43.46	46.00	2.54	3000	120	106.0	H	106.0	-9.2

-. Mode 20



### Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.023	31.93	40.00	8.07	3000	120	100.0	V	320.0	-16.9
160.000	33.81	43.50	9.69	3000	120	106.0	V	255.0	-12.1
239.985	39.18	46.00	6.82	3000	120	125.0	H	125.0	-12.9
320.010	43.26	46.00	2.74	3000	120	100.0	H	104.0	-9.2

## 8. CONDUCTED EMISSION TEST

### 8.1 Operating environment

Temperature : 22.7 °C  
Relative humidity : 53.2 % R.H

### 8.2 Test set-up

The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a 50  $\Omega$  / 50  $\mu$ H + 5  $\Omega$  Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

### 8.3 Test equipment used

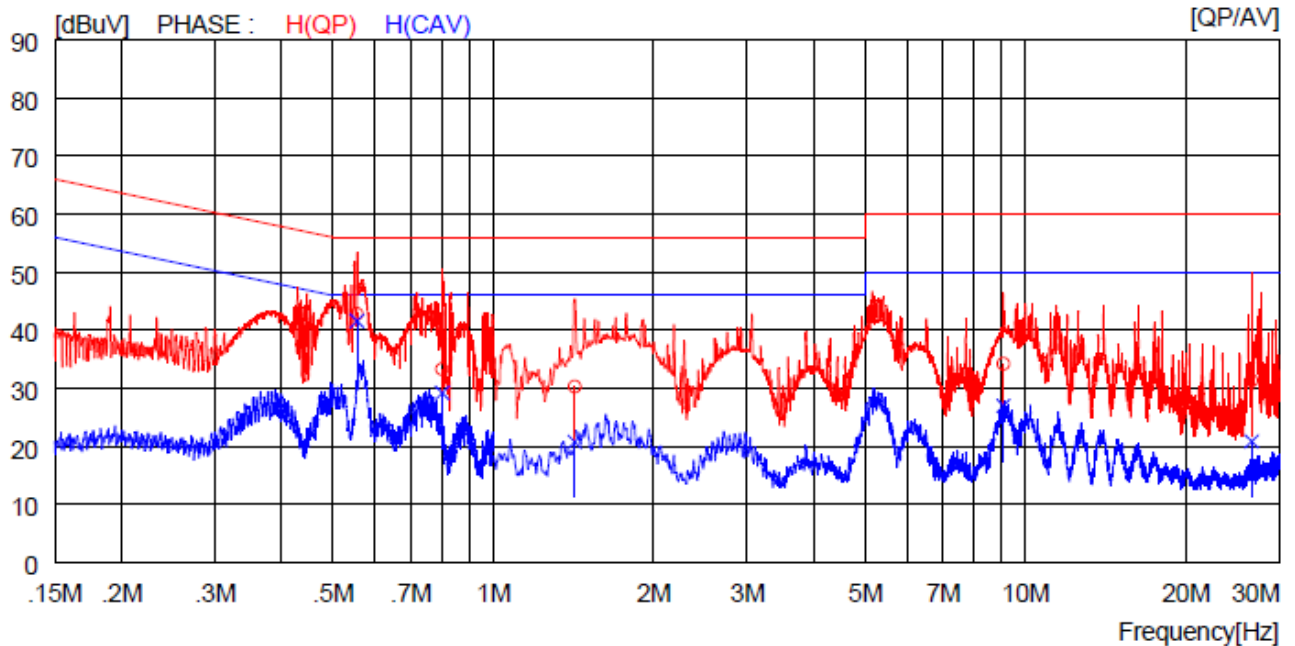
All test equipment used is calibrated on a regular basis.

### 8.4 Test date

June 16, 2023 ~ June 27, 2023

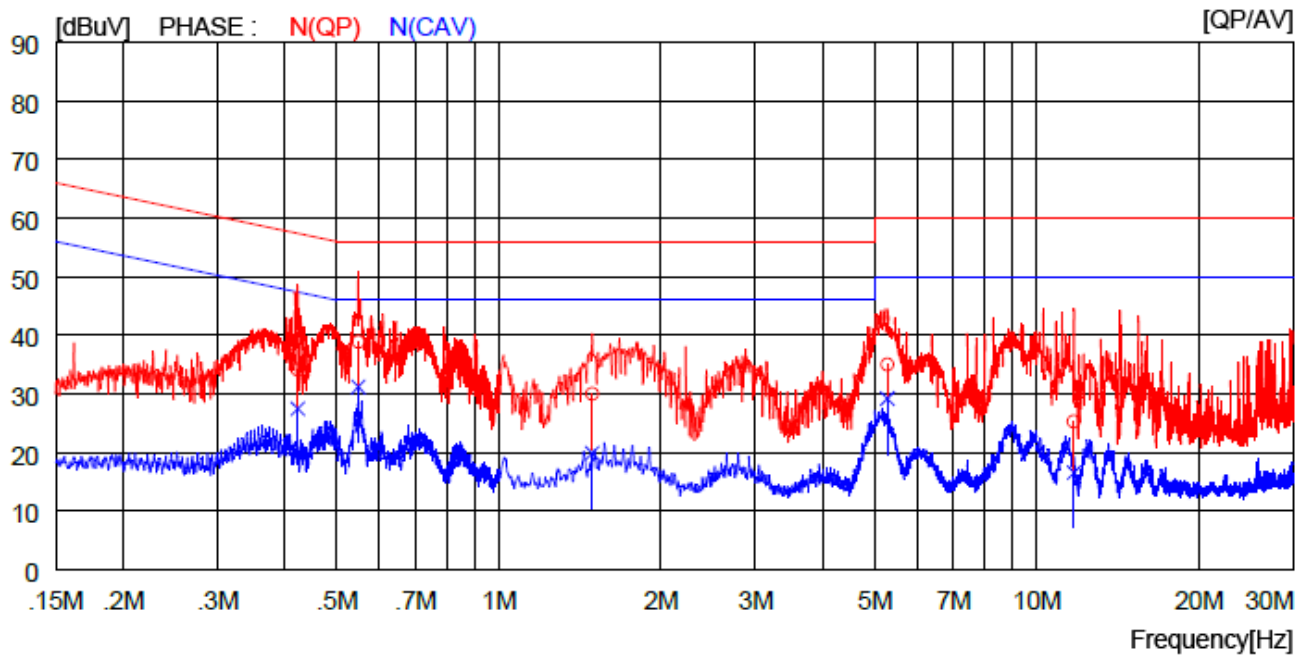
### 8.5 Test data for Standby Mode [DC 5 V]

- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.55500	32.7	----	10.1	42.8	----	56.0	----	13.2	----	H(QP)
2	0.80200	23.2	----	10.1	33.3	----	56.0	----	22.7	----	H(QP)
3	1.42400	20.2	----	10.1	30.3	----	56.0	----	25.7	----	H(QP)
4	9.09000	23.7	----	10.5	34.2	----	60.0	----	25.8	----	H(QP)
5	26.60000	20.6	----	10.7	31.3	----	60.0	----	28.7	----	H(QP)
6	0.55500	----	31.5	10.1	----	41.6	----	46.0	----	4.4	H(CAV)
7	0.80200	----	19.1	10.1	----	29.2	----	46.0	----	16.8	H(CAV)
8	1.42400	----	10.7	10.1	----	20.8	----	46.0	----	25.2	H(CAV)
9	9.09000	----	16.5	10.5	----	27.0	----	50.0	----	23.0	H(CAV)
10	26.60000	----	10.2	10.7	----	20.9	----	50.0	----	29.1	H(CAV)

-. Tested Line : NEUTRAL LINE



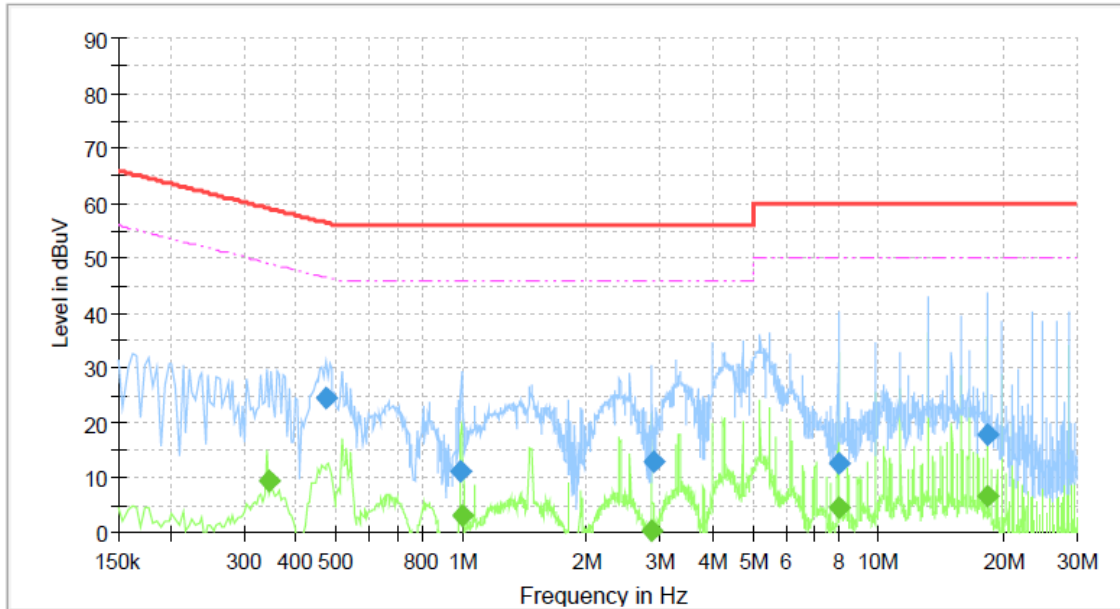
NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.42300	24.0	----	10.1	34.1	----	57.4	----	23.3	----	N (QP)
2	0.54800	28.8	----	10.1	38.9	----	56.0	----	17.1	----	N (QP)
3	1.49200	19.9	----	10.1	30.0	----	56.0	----	26.0	----	N (QP)
4	5.28000	24.7	----	10.3	35.0	----	60.0	----	25.0	----	N (QP)
5	11.73000	14.8	----	10.5	25.3	----	60.0	----	34.7	----	N (QP)
6	0.42300	----	17.4	10.1	----	27.5	----	47.4	----	19.9	N (CAV)
7	0.54800	----	21.1	10.1	----	31.2	----	46.0	----	14.8	N (CAV)
8	1.49200	----	9.8	10.1	----	19.9	----	46.0	----	26.1	N (CAV)
9	5.28000	----	18.9	10.3	----	29.2	----	50.0	----	20.8	N (CAV)
10	11.73000	----	6.1	10.5	----	16.6	----	50.0	----	33.4	N (CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

### 8.6 Test data for Antenna 1 [DC 5 V]

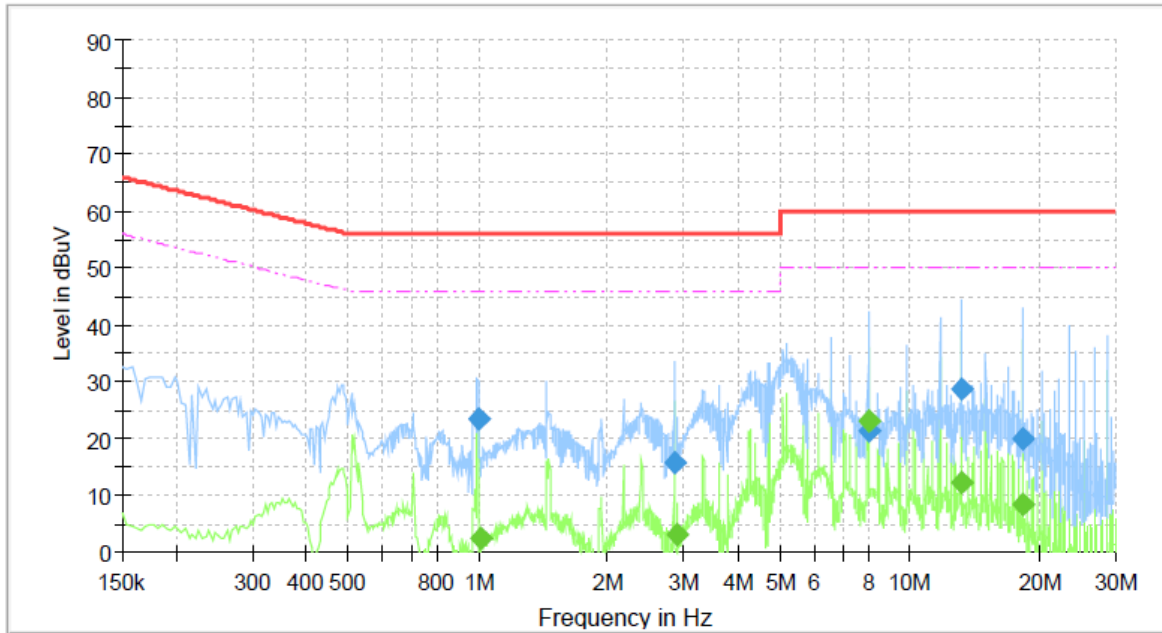
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.992	11.31	---	56.00	44.69	5000.0	9.0	L1	0.16
8.046	12.75	---	60.00	47.25	5000.0	9.0	L1	0.51
2.885	13.07	---	56.00	42.93	5000.0	9.0	L1	0.23
18.347	17.81	---	60.00	42.19	5000.0	9.0	L1	0.94
0.475	24.56	---	56.43	31.87	5000.0	9.0	L1	0.12
1.008	---	3.00	46.00	43.00	5000.0	9.0	L1	0.16
2.873	---	0.39	46.00	45.61	5000.0	9.0	L1	0.23
0.345	---	9.35	49.07	39.72	5000.0	9.0	L1	0.11
18.207	---	6.62	50.00	43.38	5000.0	9.0	L1	0.93
8.042	---	4.68	50.00	45.32	5000.0	9.0	L1	0.51

-. Tested Line : NEUTRAL LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
2.849	15.60	---	56.00	40.40	5000.0	9.0	N	0.23
18.247	19.85	---	60.00	40.15	5000.0	9.0	N	0.96
8.058	21.29	---	60.00	38.71	5000.0	9.0	N	0.53
1.000	23.37	---	56.00	32.63	5000.0	9.0	N	0.16
13.150	28.88	---	60.00	31.12	5000.0	9.0	N	0.77
18.223	---	8.32	50.00	41.68	5000.0	9.0	N	0.96
13.142	---	12.22	50.00	37.78	5000.0	9.0	N	0.77
1.012	---	2.44	46.00	43.56	5000.0	9.0	N	0.16
2.887	---	3.32	46.00	42.68	5000.0	9.0	N	0.23
8.006	---	23.13	50.00	26.87	5000.0	9.0	N	0.52

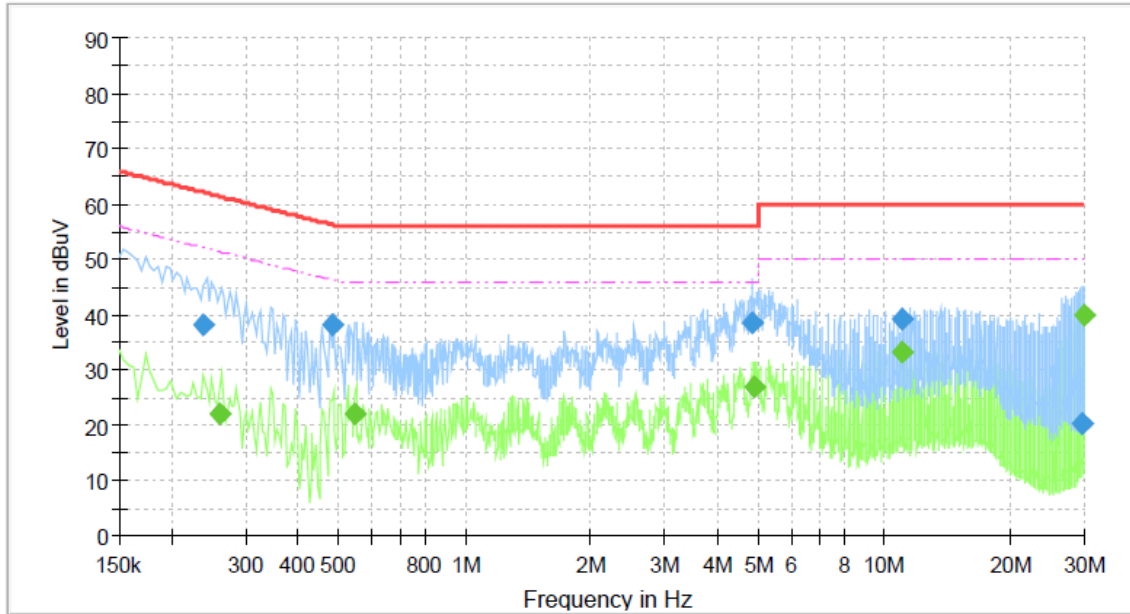
Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.



### 8.7 Test data for Antenna 2 [DC 5V]

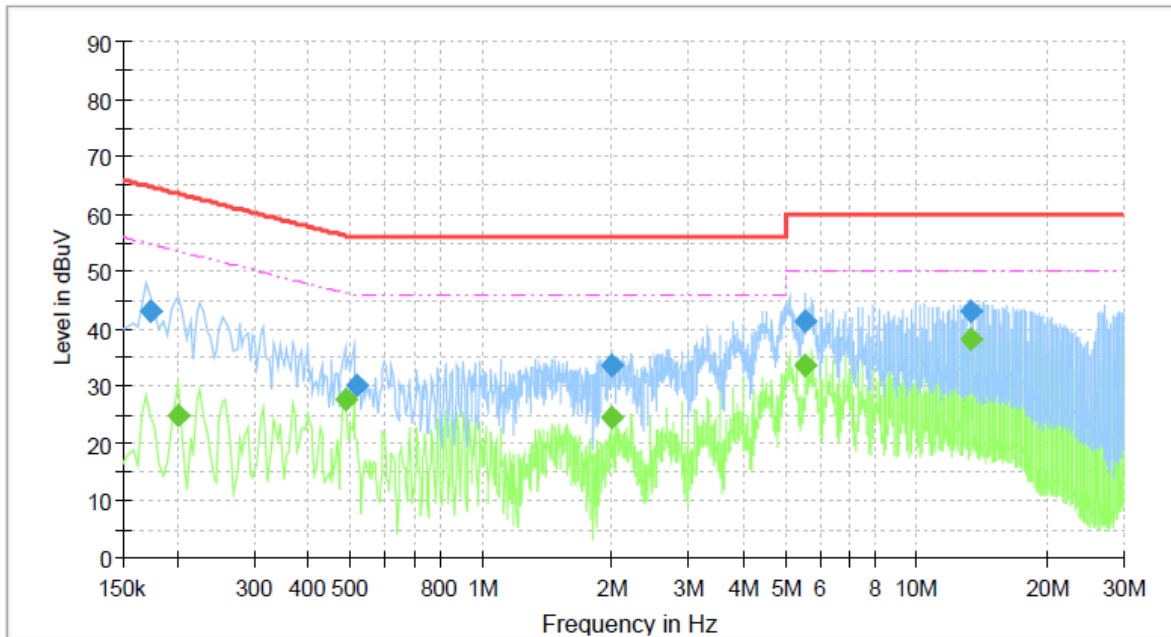
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
29.673	20.46	---	60.00	39.54	5000.0	9.0	L1	1.24
0.238	38.15	---	62.18	24.03	5000.0	9.0	L1	0.11
0.481	38.28	---	56.32	18.04	5000.0	9.0	L1	0.12
4.854	38.46	---	56.00	17.54	5000.0	9.0	L1	0.29
11.024	39.23	---	60.00	20.77	5000.0	9.0	L1	0.67
0.262	---	22.22	51.38	29.16	5000.0	9.0	L1	0.11
29.957	---	39.77	50.00	10.23	5000.0	9.0	L1	1.25
11.084	---	33.36	50.00	16.64	5000.0	9.0	L1	0.67
4.882	---	26.82	46.00	19.18	5000.0	9.0	L1	0.30
0.549	---	22.17	46.00	23.83	5000.0	9.0	L1	0.13

-. Tested Line : NEUTRAL LINE



### Final Result

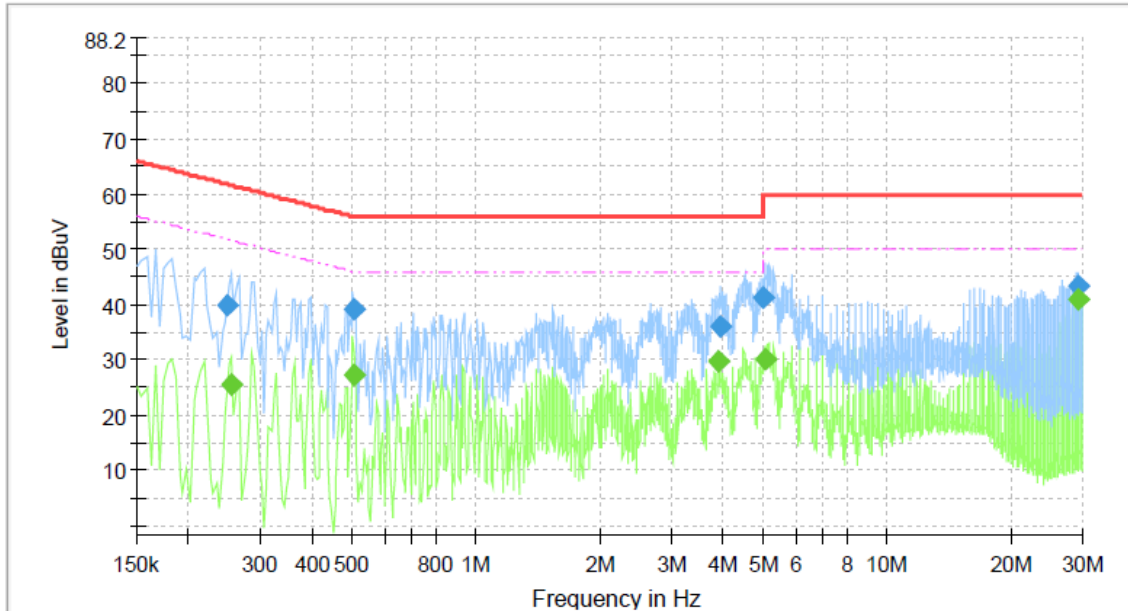
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.515	30.21	---	56.00	25.79	5000.0	9.0	N	0.12
1.998	33.64	---	56.00	22.36	5000.0	9.0	N	0.19
5.547	41.36	---	60.00	18.64	5000.0	9.0	N	0.35
13.313	43.10	---	60.00	16.90	5000.0	9.0	N	0.78
0.174	43.17	---	64.79	21.62	5000.0	9.0	N	0.15
13.313	---	38.31	50.00	11.69	5000.0	9.0	N	0.78
5.547	---	33.73	50.00	16.27	5000.0	9.0	N	0.35
0.489	---	27.52	46.18	18.66	5000.0	9.0	N	0.12
0.202	---	24.87	53.55	28.68	5000.0	9.0	N	0.14
1.998	---	24.42	46.00	21.58	5000.0	9.0	N	0.19

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

### 8.8 Test data for Antenna 1 + Antenna 2 [DC 5 V]

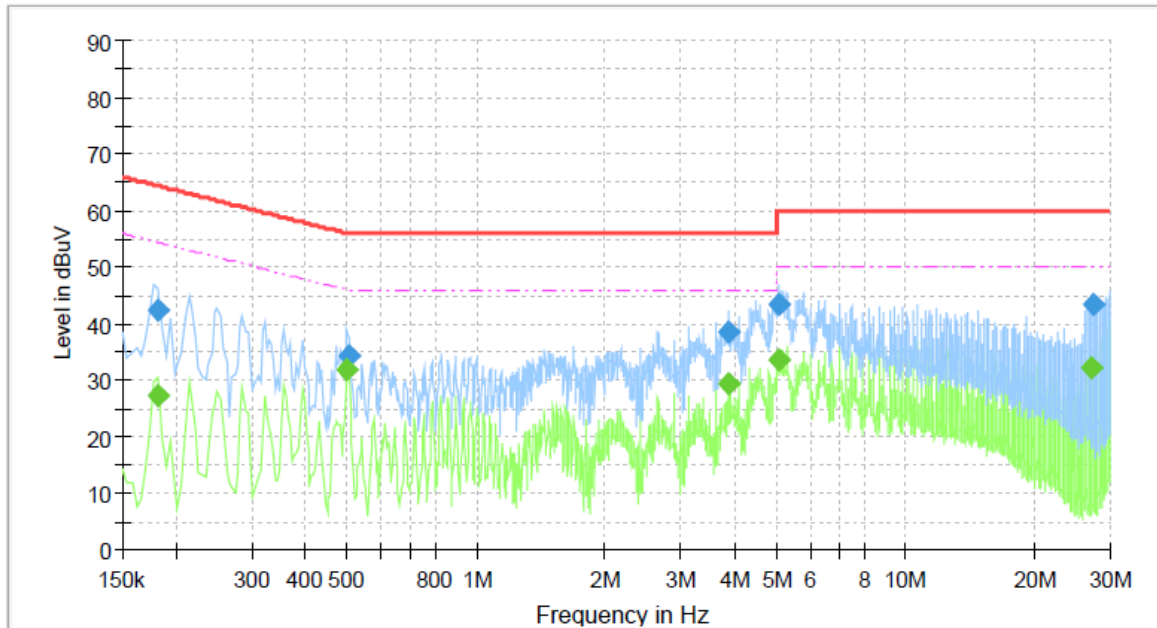
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
3.935	36.10	---	56.00	19.90	5000.0	9.0	L1	0.25
0.505	39.12	---	56.00	16.88	5000.0	9.0	L1	0.12
0.250	39.94	---	61.77	21.83	5000.0	9.0	L1	0.11
5.031	41.35	---	60.00	18.65	5000.0	9.0	L1	0.30
29.359	43.32	---	60.00	16.68	5000.0	9.0	L1	1.24
29.275	---	40.87	50.00	9.13	5000.0	9.0	L1	1.23
5.067	---	30.14	50.00	19.86	5000.0	9.0	L1	0.31
0.255	---	25.54	51.61	26.07	5000.0	9.0	L1	0.11
0.505	---	27.40	46.00	18.60	5000.0	9.0	L1	0.12
3.911	---	29.55	46.00	16.45	5000.0	9.0	L1	0.25

-. Tested Line : NEUTRAL LINE



### Final Result

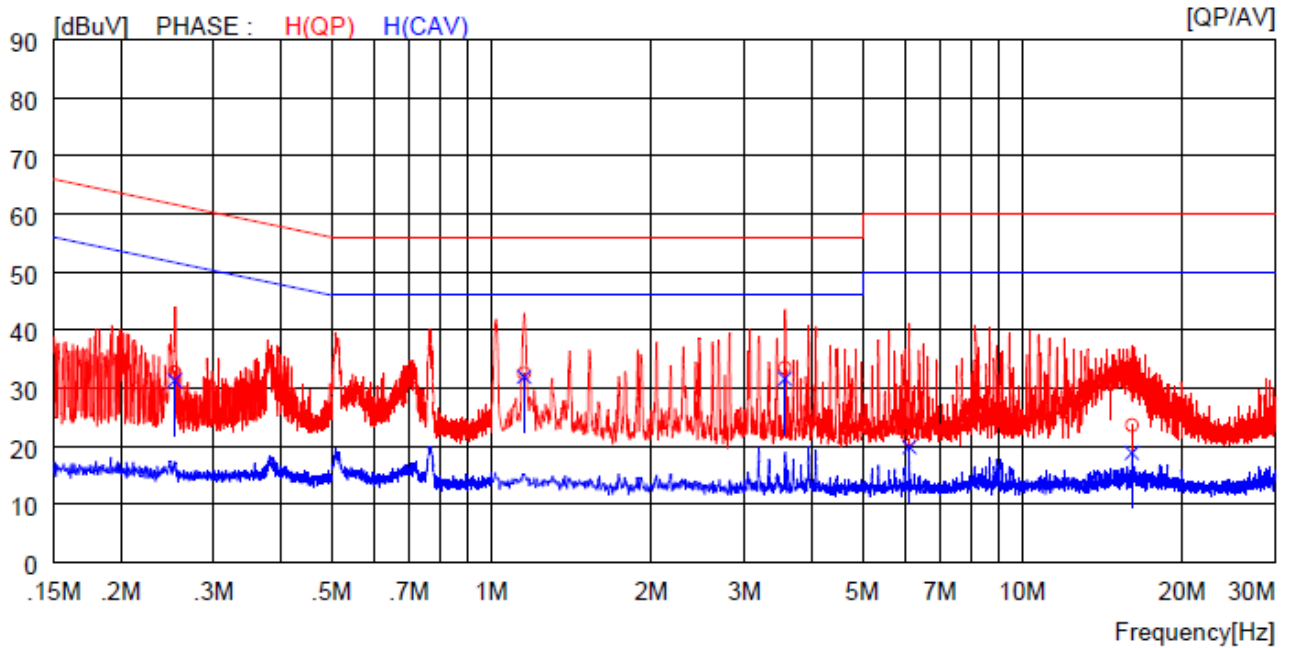
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.507	34.43	---	56.00	21.57	5000.0	9.0	N	0.12
3.863	38.68	---	56.00	17.32	5000.0	9.0	N	0.25
0.183	42.31	---	64.37	22.06	5000.0	9.0	N	0.15
5.075	43.40	---	60.00	16.60	5000.0	9.0	N	0.32
27.303	43.42	---	60.00	16.58	5000.0	9.0	N	1.13
27.063	---	32.28	50.00	17.72	5000.0	9.0	N	1.12
5.071	---	33.74	50.00	16.26	5000.0	9.0	N	0.32
0.501	---	31.73	46.00	14.27	5000.0	9.0	N	0.12
0.182	---	27.41	54.42	27.01	5000.0	9.0	N	0.15
3.863	---	29.39	46.00	16.61	5000.0	9.0	N	0.25

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

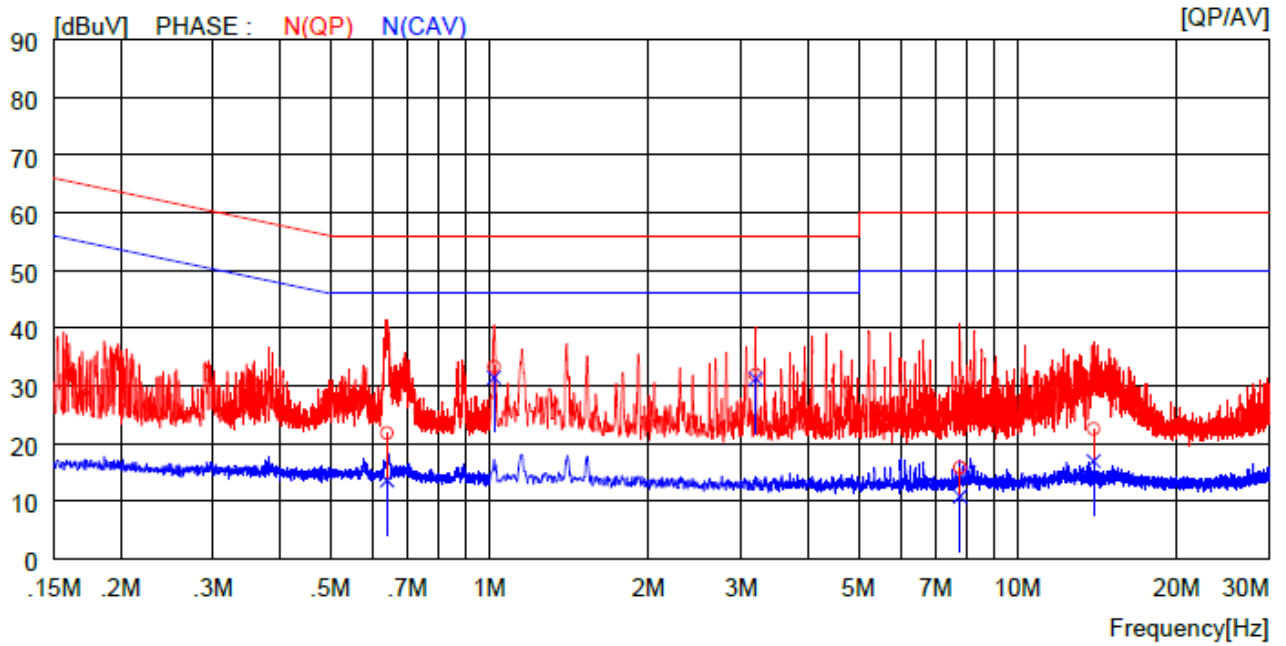
### 8.9 Test data for Standby Mode [DC 9 V]

- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.25300	22.6	----	10.1	32.7	----	61.7	----	29.0	----	H (QP)
2	1.15200	22.4	----	10.1	32.5	----	56.0	----	23.5	----	H (QP)
3	3.57200	23.2	----	10.3	33.5	----	56.0	----	22.5	----	H (QP)
4	6.12500	10.9	----	10.3	21.2	----	60.0	----	38.8	----	H (QP)
5	16.09000	13.1	----	10.5	23.6	----	60.0	----	36.4	----	H (QP)
6	0.25300	----	21.2	10.1	----	31.3	----	51.7	----	20.4	H (CAV)
7	1.15200	----	21.8	10.1	----	31.9	----	46.0	----	14.1	H (CAV)
8	3.57200	----	21.3	10.3	----	31.6	----	46.0	----	14.4	H (CAV)
9	6.12500	----	9.5	10.3	----	19.8	----	50.0	----	30.2	H (CAV)
10	16.09000	----	8.3	10.5	----	18.8	----	50.0	----	31.2	H (CAV)

-. Tested Line : NEUTRAL LINE



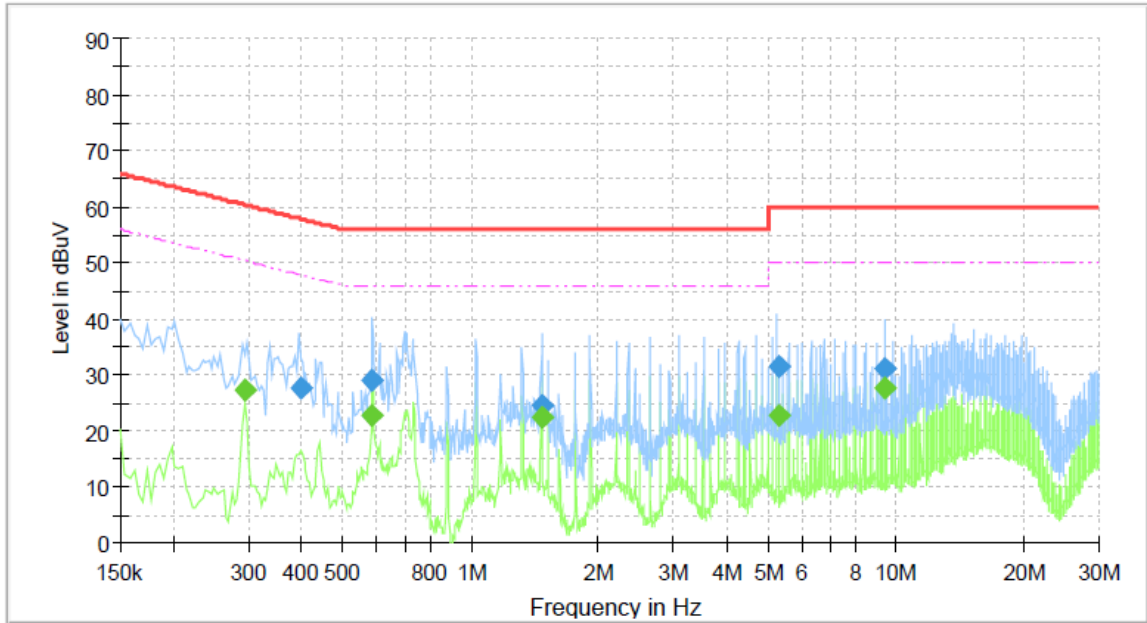
NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.64000	11.7	----	10.1	21.8	----	56.0	----	34.2	----	N (QP)
2	1.02000	23.2	----	10.1	33.3	----	56.0	----	22.7	----	N (QP)
3	3.19200	21.6	----	10.3	31.9	----	56.0	----	24.1	----	N (QP)
4	7.78500	5.4	----	10.4	15.8	----	60.0	----	44.2	----	N (QP)
5	13.94000	12.0	----	10.5	22.5	----	60.0	----	37.5	----	N (QP)
6	0.64000	----	3.5	10.1	----	13.6	----	46.0	----	32.4	N (CAV)
7	1.02000	----	21.3	10.1	----	31.4	----	46.0	----	14.6	N (CAV)
8	3.19200	----	20.9	10.3	----	31.2	----	46.0	----	14.8	N (CAV)
9	7.78500	----	0.4	10.4	----	10.8	----	50.0	----	39.2	N (CAV)
10	13.94000	----	6.4	10.5	----	16.9	----	50.0	----	33.1	N (CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

### 8.10 Test data for Antenna 1 [DC 9 V]

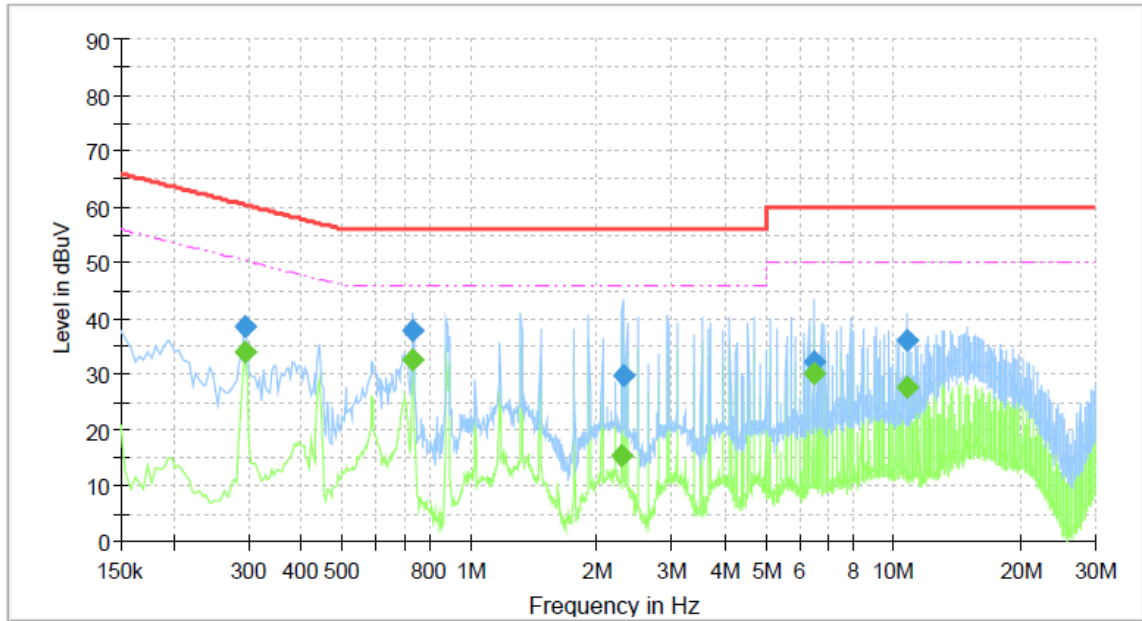
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
1.471	24.47	---	56.00	31.53	5000.0	9.0	L1	0.19
0.398	27.53	---	57.91	30.37	5000.0	9.0	L1	0.12
0.584	29.15	---	56.00	26.85	5000.0	9.0	L1	0.13
9.408	31.15	---	60.00	28.85	5000.0	9.0	L1	0.60
5.286	31.37	---	60.00	28.63	5000.0	9.0	L1	0.32
9.404	---	27.63	50.00	22.37	5000.0	9.0	L1	0.60
5.290	---	22.92	50.00	27.08	5000.0	9.0	L1	0.32
0.294	---	27.44	50.43	22.99	5000.0	9.0	L1	0.11
0.588	---	22.86	46.00	23.14	5000.0	9.0	L1	0.13
1.467	---	22.49	46.00	23.51	5000.0	9.0	L1	0.19

-. Tested Line : NEUTRAL LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
2.303	29.76	---	56.00	26.24	5000.0	9.0	N	0.21
6.465	32.05	---	60.00	27.95	5000.0	9.0	N	0.42
10.727	36.12	---	60.00	23.88	5000.0	9.0	N	0.68
0.735	37.99	---	56.00	18.01	5000.0	9.0	N	0.14
0.294	38.63	---	60.43	21.79	5000.0	9.0	N	0.11
10.723	---	27.72	50.00	22.28	5000.0	9.0	N	0.68
6.465	---	30.13	50.00	19.87	5000.0	9.0	N	0.42
0.294	---	33.99	50.43	16.43	5000.0	9.0	N	0.11
0.735	---	32.69	46.00	13.31	5000.0	9.0	N	0.14
2.291	---	15.41	46.00	30.59	5000.0	9.0	N	0.21

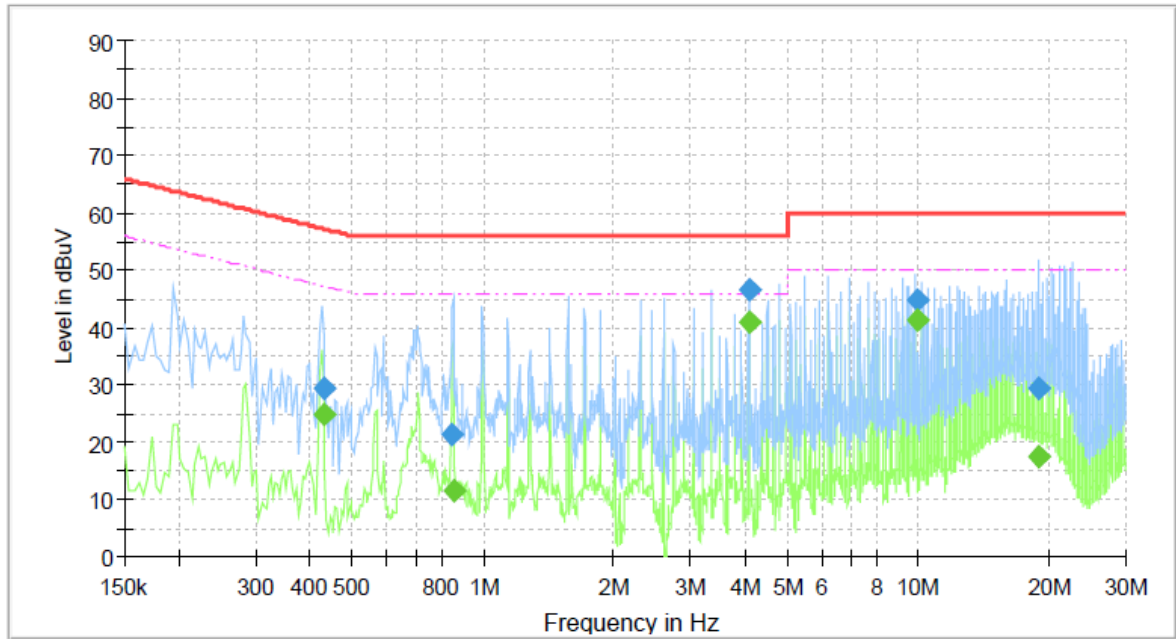
Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.



### 8.11 Test data for Antenna 2 [DC 9 V]

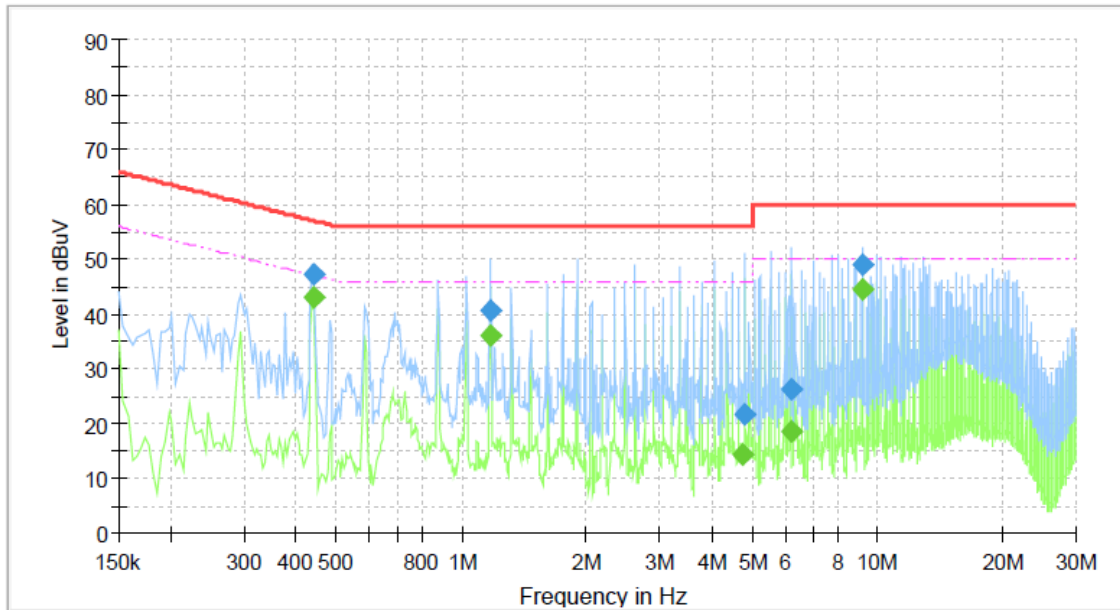
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.849	21.45	---	56.00	34.55	5000.0	9.0	L1	0.15
18.968	29.27	---	60.00	30.73	5000.0	9.0	L1	0.96
0.431	29.35	---	57.24	27.89	5000.0	9.0	L1	0.12
9.981	44.84	---	60.00	15.16	5000.0	9.0	L1	0.63
4.113	46.48	---	56.00	9.52	5000.0	9.0	L1	0.26
18.872	---	17.39	50.00	32.61	5000.0	9.0	L1	0.96
9.943	---	41.32	50.00	8.68	5000.0	9.0	L1	0.63
0.431	---	24.81	47.24	22.43	5000.0	9.0	L1	0.12
0.861	---	11.61	46.00	34.39	5000.0	9.0	L1	0.15
4.101	---	41.08	46.00	4.92	5000.0	9.0	L1	0.26

-. Tested Line : NEUTRAL LINE



### Final Result

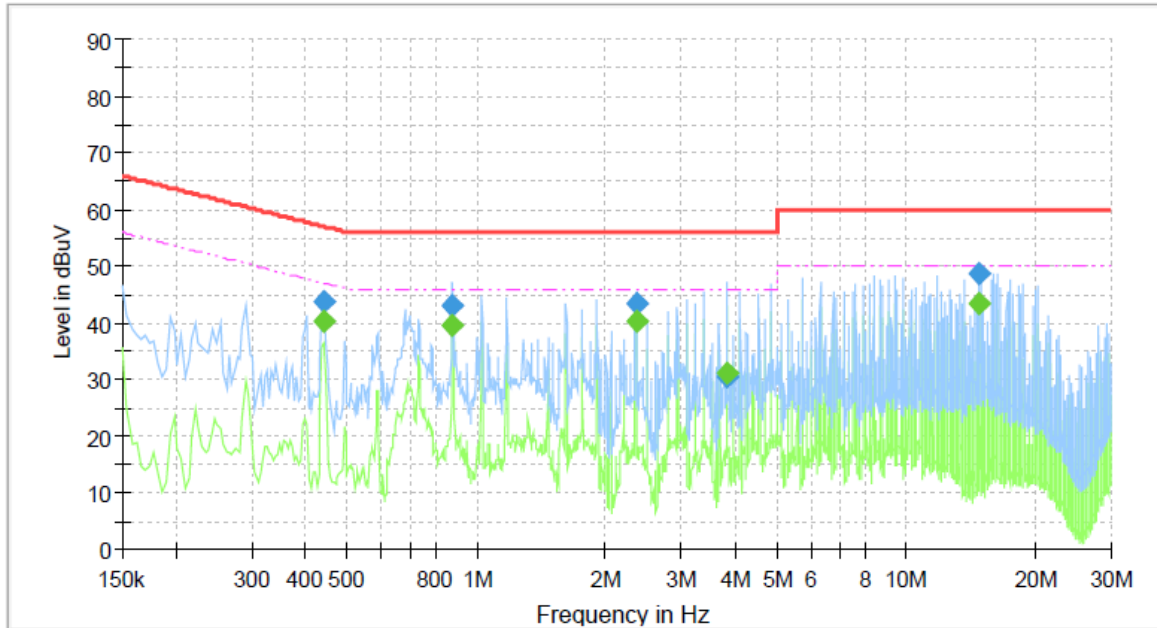
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
4.774	21.55	---	56.00	34.45	5000.0	9.0	N	0.30
6.180	26.18	---	60.00	33.82	5000.0	9.0	N	0.40
1.174	40.47	---	56.00	15.53	5000.0	9.0	N	0.17
0.441	47.43	---	57.03	9.60	5000.0	9.0	N	0.12
9.258	48.92	---	60.00	11.08	5000.0	9.0	N	0.61
9.258	---	44.32	50.00	5.68	5000.0	9.0	N	0.61
6.180	---	18.61	50.00	31.39	5000.0	9.0	N	0.40
0.441	---	42.95	47.03	4.08	5000.0	9.0	N	0.12
1.174	---	36.24	46.00	9.76	5000.0	9.0	N	0.17
4.734	---	14.52	46.00	31.48	5000.0	9.0	N	0.30

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

### 8.12 Test data for Antenna 1 + Antenna 2 [DC 9 V]

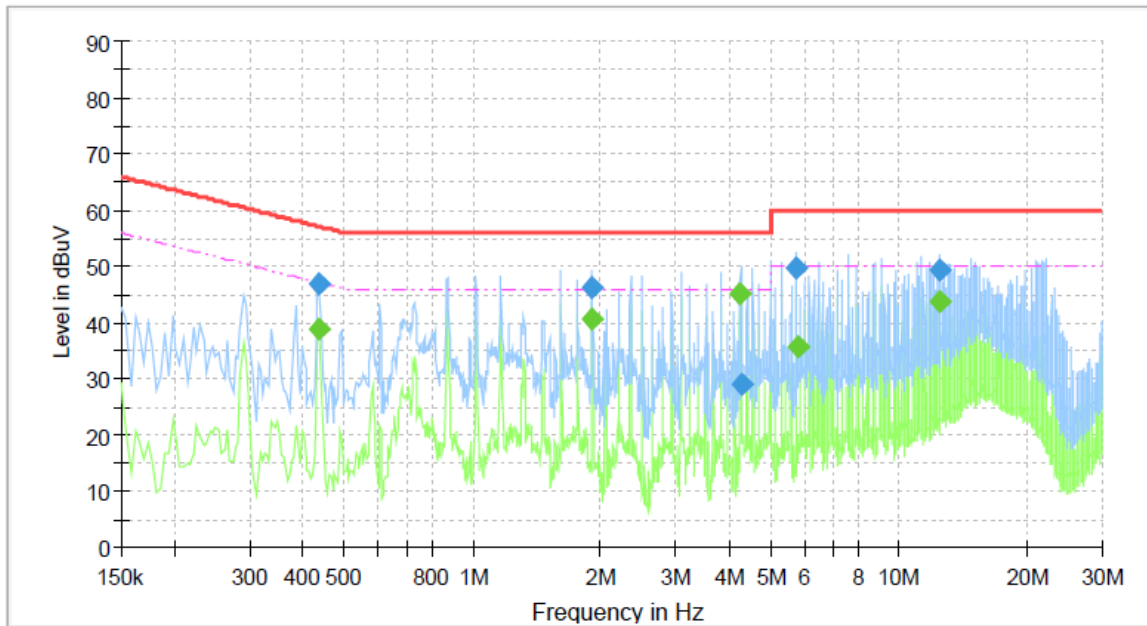
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
3.824	30.43	---	56.00	25.57	5000.0	9.0	L1	0.25
0.881	43.03	---	56.00	12.97	5000.0	9.0	L1	0.15
2.351	43.52	---	56.00	12.48	5000.0	9.0	L1	0.22
0.442	43.82	---	57.03	13.22	5000.0	9.0	L1	0.12
14.842	48.69	---	60.00	11.31	5000.0	9.0	L1	0.80
0.442	---	40.18	47.03	6.85	5000.0	9.0	L1	0.12
14.694	---	43.34	50.00	6.66	5000.0	9.0	L1	0.79
0.881	---	39.64	46.00	6.36	5000.0	9.0	L1	0.15
2.351	---	40.14	46.00	5.86	5000.0	9.0	L1	0.22
3.820	---	31.24	46.00	14.76	5000.0	9.0	L1	0.25

-. Tested Line : NEUTRAL LINE



### Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
4.303	29.07	---	56.00	26.93	5000.0	9.0	N	0.27
1.911	46.31	---	56.00	9.69	5000.0	9.0	N	0.19
0.439	46.83	---	57.09	10.26	5000.0	9.0	N	0.12
12.489	49.26	---	60.00	10.74	5000.0	9.0	N	0.75
5.733	49.81	---	60.00	10.19	5000.0	9.0	N	0.37
12.489	---	43.78	50.00	6.22	5000.0	9.0	N	0.75
5.787	---	35.69	50.00	14.31	5000.0	9.0	N	0.37
0.439	---	38.72	47.09	8.37	5000.0	9.0	N	0.12
1.911	---	40.63	46.00	5.37	5000.0	9.0	N	0.19
4.259	---	45.08	46.00	0.92	5000.0	9.0	N	0.27

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

**9. LIST OF TEST EQUIPMENT**

<b>Model Number</b>	<b>Manufacturer</b>	<b>Description</b>	<b>Serial Number</b>	<b>Last Cal.(Interval)</b>
ESR	R/S	EMI TEST RECEIVER	101470	Jun. 16, 2023 (1Y)
ESCI	R/S	Test Receiver	101013	Mar. 14, 2023 (1Y)
ESR 3	R/S	EMI TEST RECEIVER	102602	Mar. 15, 2023 (1Y)
310N	Sonoma Instrument	Amplifier	312544	Mar. 14, 2023 (1Y)
HLP-2008	TDK	Hybrid Antenna	131313	Apr. 05, 2023 (2Y)
CO3000	Innco Systems GmbH	Controller	CO3000/904	N/A
DT3000	Innco System	Turn Table	DT3000/093	N/A
NSLK8126	Schwarzbeck	V - LISN ( 4*32/50A)	8126404	Mar. 15, 2023 (1Y)
MA4000-EP	Innco System	Tilt Antenna Master	MA4000/509	N/A
FMZB 1513	Schwarzbeck	Loop Antenna	1513-235	Mar. 24, 2022 (2Y)