

FCC Pretest Report

Report No.: RF190916C08

FCC ID: K7SF7U101

Test Model: F7U101

Received Date: Sep. 16, 2019

Test Date: Oct. 07 ~ Oct. 08, 2019

Issued Date: Oct. 16, 2019

Applicant: Belkin International, Inc.

Address: 12045 East Waterfront Drive, Playa Vista, CA 90094

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City
33383, TAIWAN

FCC Registration / 788550 / TW0003
Designation Number:



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results	5
2.1 Measurement Uncertainty	5
2.2 Modification Record	5
3 General Information	6
3.1 General Description of EUT	6
3.2 Description of Test Modes	6
3.2.1 Test Mode Applicability and Tested Channel Detail	7
3.3 Description of Support Units	8
3.3.1 Configuration of System under Test	8
3.4 General Description of Applied Standards	8
4 Test Types and Results	9
4.1 Radiated Emission and Bandedge Measurement	9
4.1.1 Limits of Radiated Emission and Bandedge Measurement	9
4.1.2 Test Instruments	10
4.1.3 Test Procedures	11
4.1.4 Deviation from Test Standard	11
4.1.5 Test Set Up	12
4.1.6 EUT Operating Conditions	12
4.1.7 Test Results	13
4.2 Conducted Emission Measurement	33
4.2.1 Limits of Conducted Emission Measurement	33
4.2.2 Test Instruments	33
4.2.3 Test Procedures	34
4.2.4 Deviation from Test Standard	34
4.2.5 Test Setup	34
4.2.6 EUT Operating Conditions	34
4.2.7 Test Results	35
5 Pictures of Test Arrangements	43
Appendix – Information of the Testing Laboratories	44

Release Control Record

Issue No.	Description	Date Issued
RF190916C08	Original release	Oct. 16, 2019

1 Certificate of Conformity

Product: Wireless Charging Pad 10W Signature Edition

Brand: belkin

Test Model: F7U101

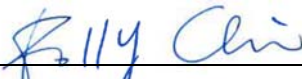
Sample Status: Engineering sample

Applicant: Belkin International, Inc.

Test Date: Oct. 07 ~ Oct. 08, 2019

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.209)
ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : , **Date:** Oct. 16, 2019
Polly Chien / Specialist

Approved by : , **Date:** Oct. 16, 2019
Bruce Chen / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.209)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -14.12dB at 2.81175MHz.
15.209	Radiated Emission Test	Pass	Meet the requirement of limit. Minimum passing margin is -3.9dB at 52.50MHz

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.86 dB
	200MHz ~ 1000MHz	3.87 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Wireless Charging Pad 10W Signature Edition
Test Model	F7U101
Sample Status	Engineering sample
Rating	Refer to note
Modulation Type	FSK
Operating Frequency	127.8 kHz
Antenna Type	Coil antenna
Field Strength	87.4dBuV/m
Dimension of coil	15.205cm ² (diameter = 44mm)
Accessory Device	Adapter
Data Cable Supplied	1.18m shielded USB to Type C cable without core
Maximum Power Output for Load charging coil	10W

Note:

1. The EUT uses following adapter.

Brand	belkin
Model	DSA-18QFB FUS A
Input Power	100-240Vac, 50/60Hz, 0.8A
Output Power	+3.6-6Vdc, 2A +6-9Vdc, 2A +9-12Vdc, 1.5A

2. The following samples are provided by client and used for testing.

Sample No.
009-007
006-001

3. The EUT has WPC (Wireless Power Consortium) technology.

3.2 Description of Test Modes

1 channel is provided to this EUT

Channel	Freq. (kHz)
1	127.8

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO		DESCRIPTION
	RE<1G	PLC	
A	√	√	Charging Mode (Sample No.:009-007)
B	√	√	Standby Mode (Sample No.: 009-007)
C	√	√	Charging Mode (Sample No.: 006-001)
D	√	√	Standby Mode (Sample No.: 006-001)

Where **RE<1G**: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

Note:

1. The EUT is designed to be positioned on the **X-plane** only.
2. “-” means no effect.

Radiated Emission Test (Below 1GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel
A, B, C, D	1	1

Power Line Conducted Emission Test:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel
A, B, C, D	1	1

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE<1G	23 deg. C, 68% RH	120Vac, 60Hz	Adair Peng
PLC	23 deg. C, 66% RH	120Vac, 60Hz	Titan Hsu

3.3 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.

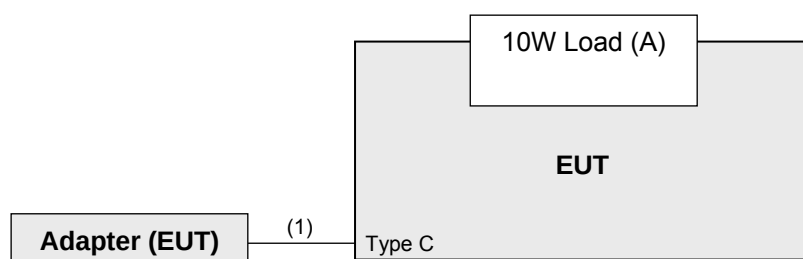
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	10W Load	NA	NA	NA	NA	Provided by client

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB to Type C cable	1	1.18	Y	0	Accessory of EUT

3.3.1 Configuration of System under Test

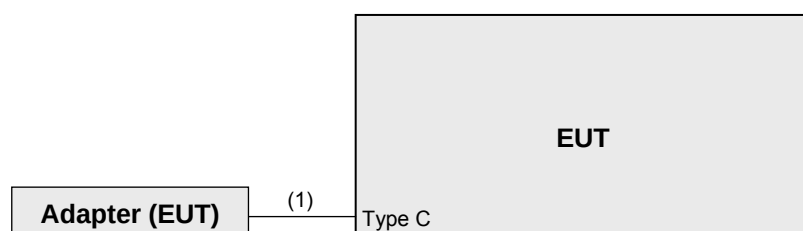
Charging Mode:

Test Mode A, C



Standby Mode:

Test Mode B, D



3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.209)

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

FOR FREQUENCY BELOW 30MHz

Frequency (MHz)	Field Strength (dBuV/m)		Measurement Distance (meters)
	uV/m	dBuV/m	
0.009 – 0.490	2400 / F (kHz)	48.52-13.80	300
0.490 – 1.705	24000 / F (kHz)	33.80-22.97	30
1.705 – 30.0	30	29.54	30

FOR FREQUENCY BETWEEN 30-1000MHz

Frequency (MHz)	Class A (at 10m)		Class B (at 3m)	
	uV/m	dBuV/m	uV/m	dBuV/m
30-88	90	39.1	100	40.0
88-216	150	43.5	150	43.5
216-960	210	46.4	200	46.0
Above 960	300	49.5	500	54.0

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 30, 2019	May 29, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Nov. 22, 2018	Nov. 21, 2019
HORN Antenna SCHWARZBECK	9120D	209	Nov. 25, 2018	Nov. 24, 2019
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 25, 2018	Nov. 24, 2019
Loop Antenna TESEQ	HLA 6121	45745	Jul. 01, 2019	Jun. 30, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 20, 2019	Aug. 19, 2020
Preamplifier Agilent (Above 1GHz)	8449B	3008A02465	Mar. 27, 2019	Mar. 26, 2020
RF Coaxial Cable WORKEN With 5dB PAD	8D-FB	Cable-CH3-01	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM-S M-8000	Cable-CH3-03 (309224+170907)	Aug. 20, 2019	Aug. 19, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.

4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

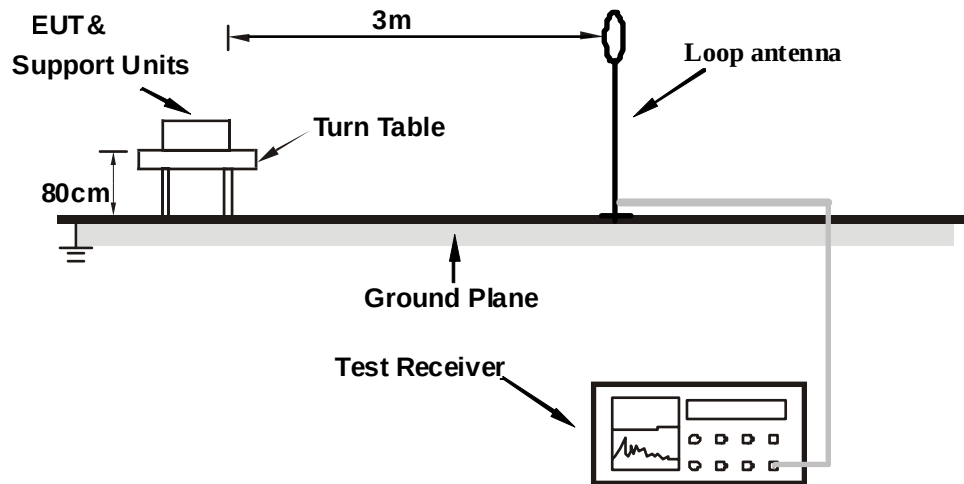
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

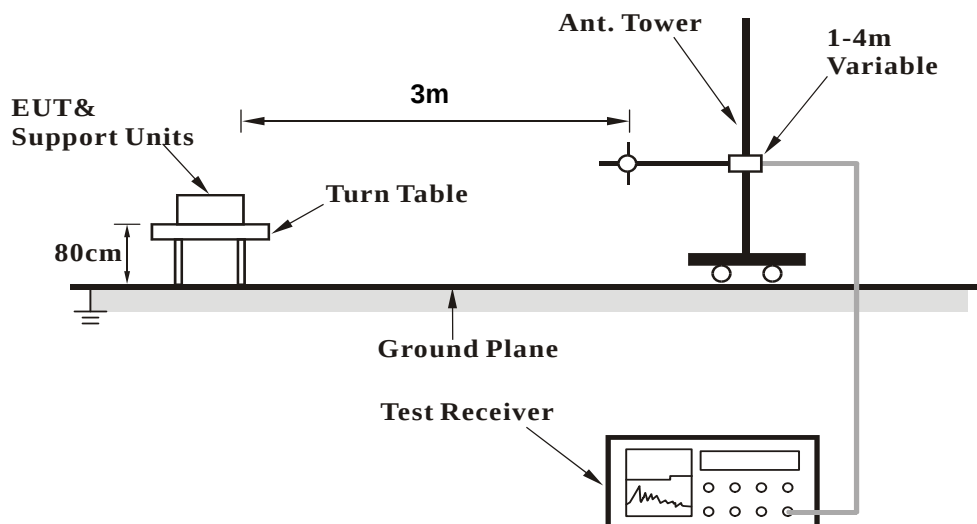
No deviation.

4.1.5 Test Set Up

For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

Charging Mode:

Test Mode A, C

- The EUT powered by adapter.
- The receiver load was charging via EUT.

Standby Mode:

Test Mode B, D

- The EUT powered by adapter.

4.1.7 Test Results

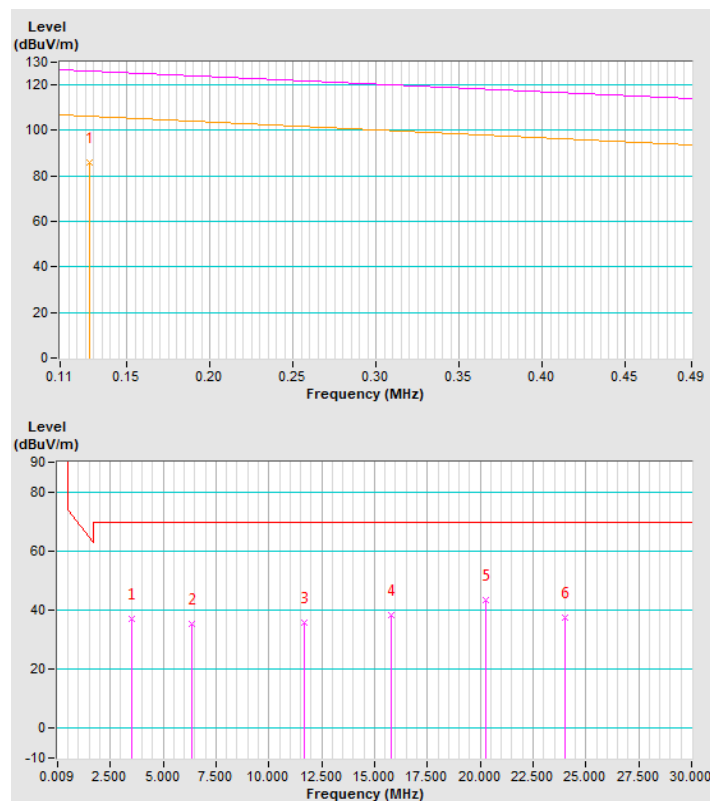
Below 30MHz Data: Charging Mode

Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	A (EUT sample No.:009-007)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	85.9 AV	105.5	-19.6	1.00	10	66.8	19.1
2	3.52	36.9 QP	69.5	-32.6	1.00	99	16.9	20.0
3	6.35	35.2 QP	69.5	-34.3	1.00	16	14.7	20.5
4	11.69	35.9 QP	69.5	-33.6	1.00	186	14.2	21.7
5	15.77	38.3 QP	69.5	-31.2	1.00	299	16.4	21.9
6	20.29	43.4 QP	69.5	-26.1	1.00	216	21.3	22.1
7	24.04	37.3 QP	69.5	-32.2	1.00	146	15.2	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40

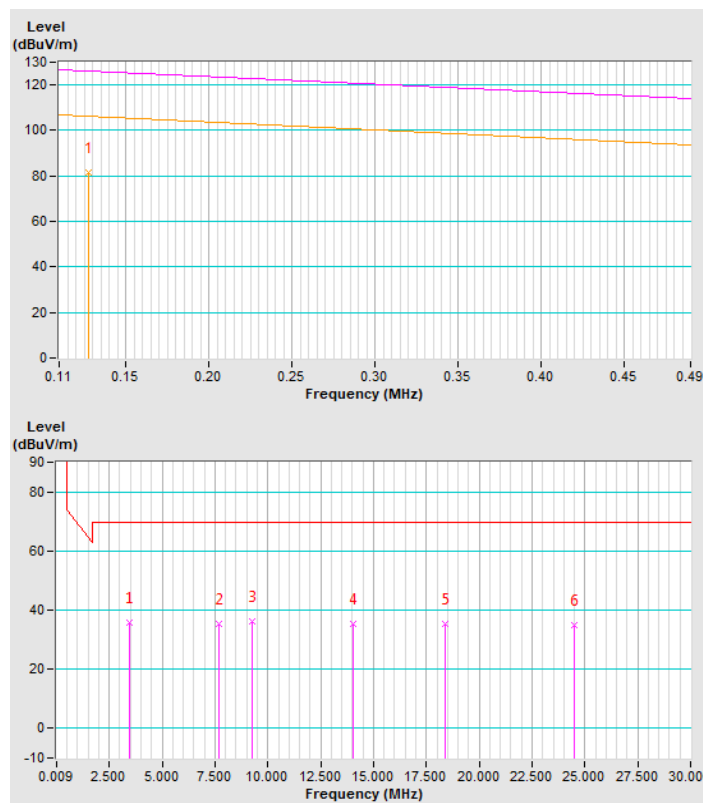


Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	A (EUT sample No.:009-007)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	81.4 AV	105.5	-24.1	1.00	220	62.3	19.1
2	3.47	35.6 QP	69.5	-33.9	1.00	225	15.6	20.0
3	7.70	35.5 QP	69.5	-34.0	1.00	198	14.6	20.9
4	9.24	36.0 QP	69.5	-33.5	1.00	19	14.6	21.4
5	14.04	35.2 QP	69.5	-34.3	1.00	5	13.4	21.8
6	18.42	35.3 QP	69.5	-34.2	1.00	292	13.3	22.0
7	24.52	35.1 QP	69.5	-34.4	1.00	156	13.0	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40



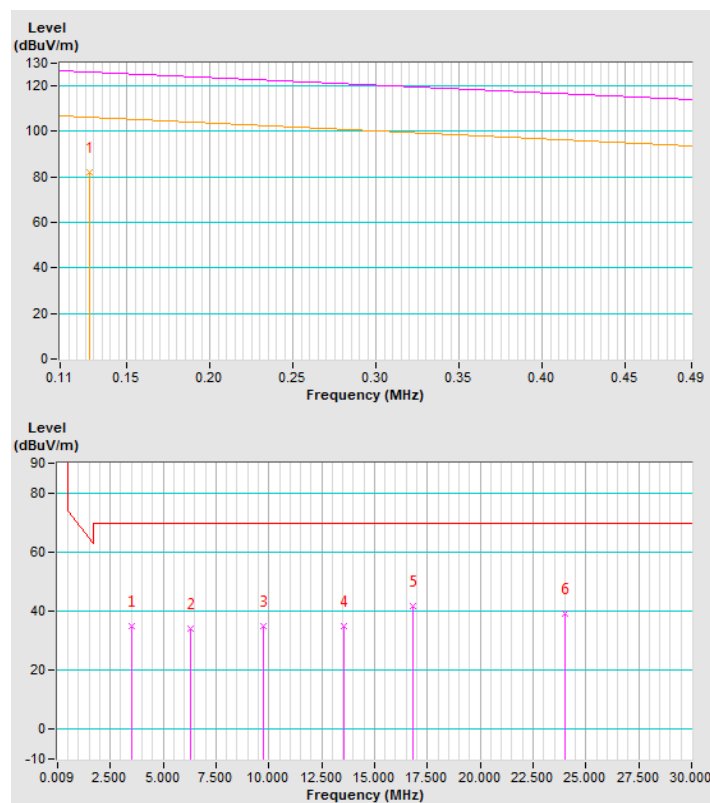
Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	A (EUT sample No.:009-007)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	82.2 AV	105.5	-23.3	1.00	303	63.1	19.1
2	3.52	35.1 QP	69.5	-34.4	1.00	7	15.1	20.0
3	6.31	34.2 QP	69.5	-35.3	1.00	32	13.7	20.5
4	9.72	35.1 QP	69.5	-34.4	1.00	116	13.5	21.6
5	13.56	35.0 QP	69.5	-34.5	1.00	100	13.2	21.8
6	16.83	41.7 QP	69.5	-27.8	1.00	65	19.7	22.0
7	24.04	39.0 QP	69.5	-30.5	1.00	49	16.9	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40

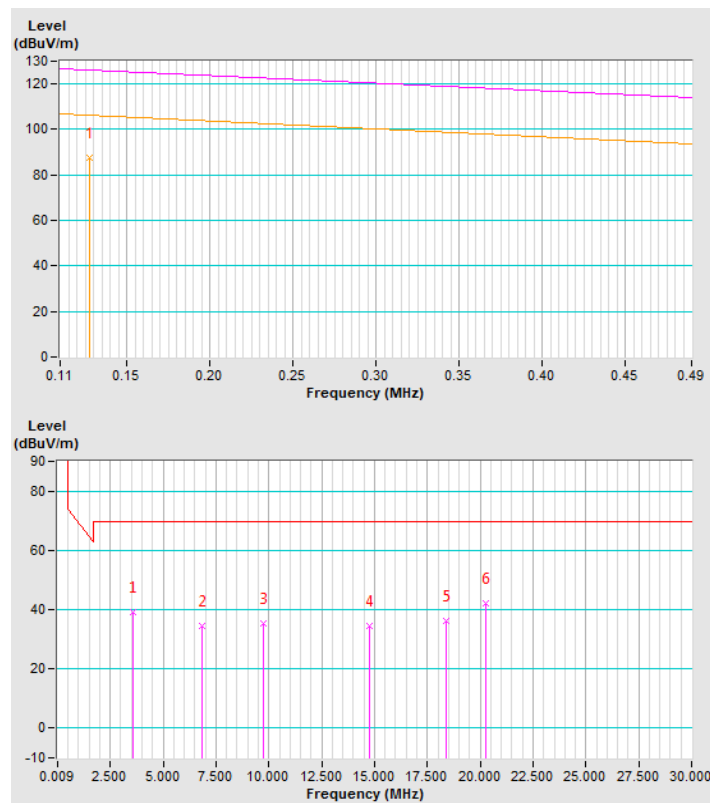


Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	C (EUT sample No.:006-001)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	87.4 AV	105.5	-18.1	1.00	9	68.3	19.1
2	3.57	39.1 QP	69.5	-30.4	1.00	325	19.1	20.0
3	6.83	34.7 QP	69.5	-34.8	1.00	119	14.0	20.7
4	9.72	35.4 QP	69.5	-34.1	1.00	248	13.8	21.6
5	14.76	34.6 QP	69.5	-34.9	1.00	328	12.7	21.9
6	18.42	36.3 QP	69.5	-33.2	1.00	30	14.3	22.0
7	20.29	42.3 QP	69.5	-27.2	1.00	12	20.2	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40

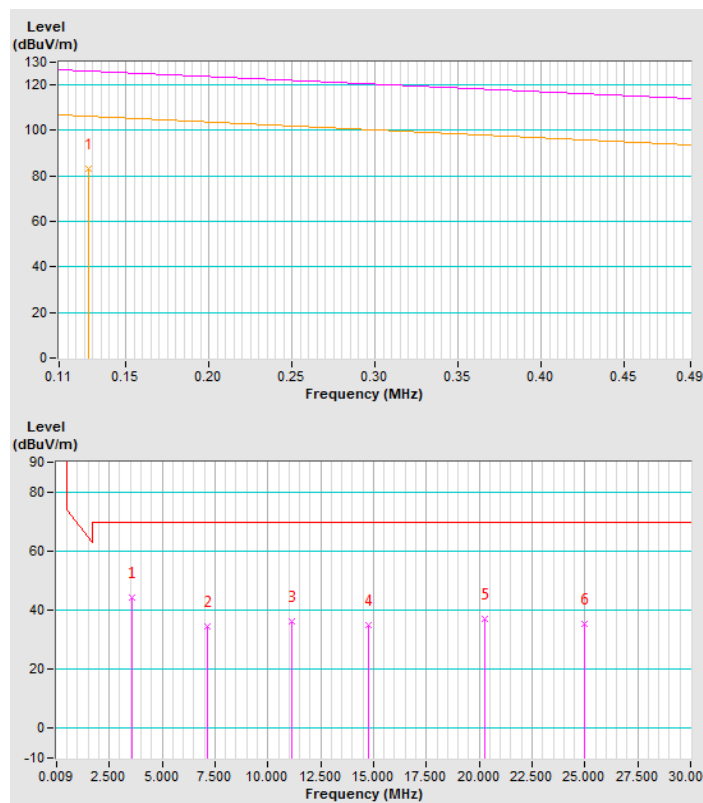


Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	C (EUT sample No.:006-001)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	83.1 AV	105.5	-22.4	1.00	215	64.0	19.1
2	3.57	44.4 QP	69.5	-25.1	1.00	93	24.4	20.0
3	7.12	34.6 QP	69.5	-34.9	1.00	22	13.8	20.8
4	11.11	36.0 QP	69.5	-33.5	1.00	128	14.3	21.7
5	14.76	34.8 QP	69.5	-34.7	1.00	87	12.9	21.9
6	20.29	37.2 QP	69.5	-32.3	1.00	338	15.1	22.1
7	25.00	35.3 QP	69.5	-34.2	1.00	275	13.2	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40



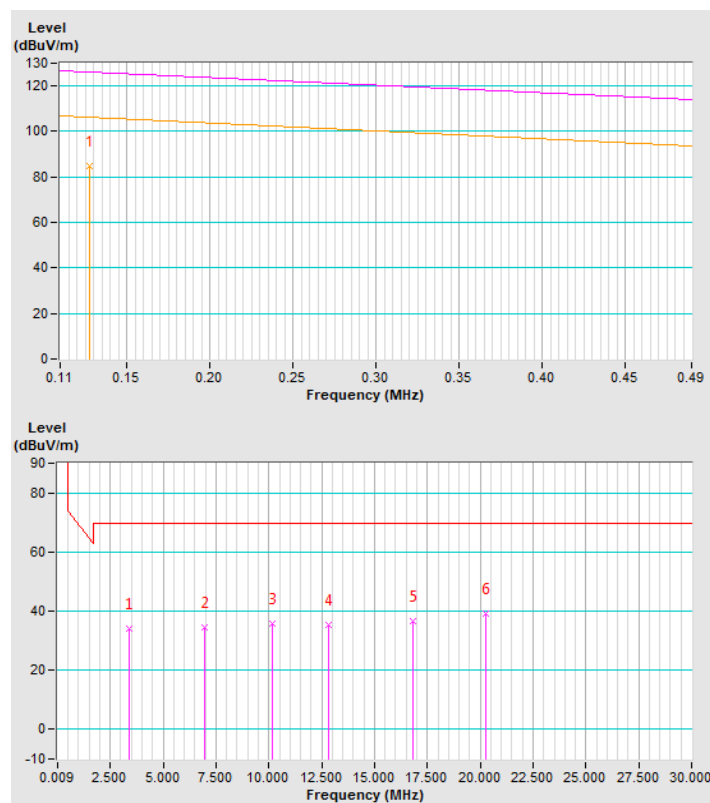
Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	C (EUT sample No.:006-001)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	85.1 AV	105.5	-20.4	1.00	331	66.0	19.1
2	3.42	34.2 QP	69.5	-35.3	1.00	14	14.2	20.0
3	6.98	34.5 QP	69.5	-35.0	1.00	292	13.8	20.7
4	10.15	35.6 QP	69.5	-33.9	1.00	31	13.9	21.7
5	12.84	35.2 QP	69.5	-34.3	1.00	13	13.4	21.8
6	16.83	36.5 QP	69.5	-33.0	1.00	255	14.5	22.0
7	20.29	39.1 QP	69.5	-30.4	1.00	286	17.0	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40



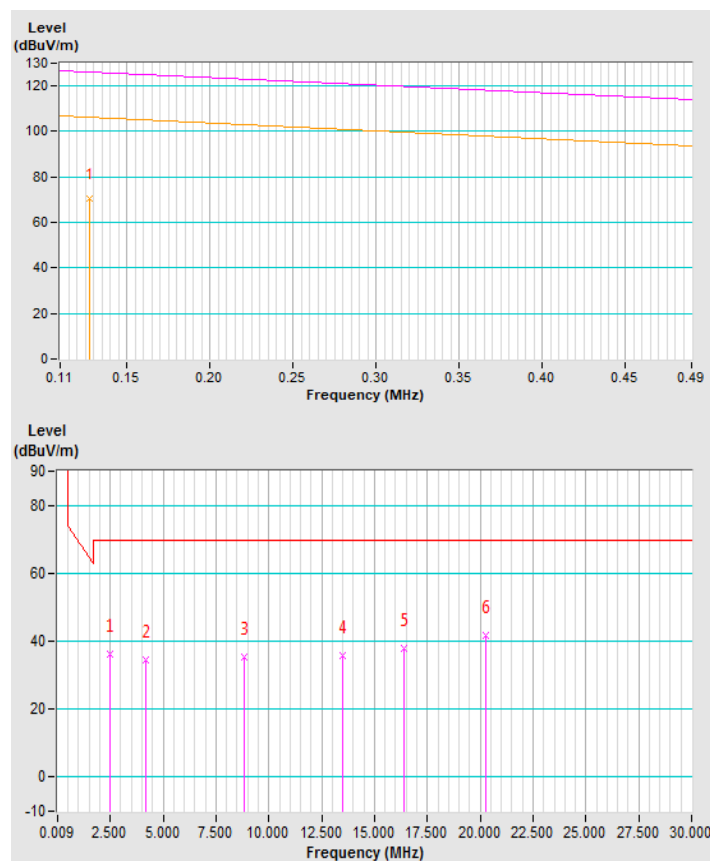
Standby Mode

Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	B (EUT sample No.:009-007)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	70.7 AV	105.5	-34.8	1.00	111	51.6	19.1
2	2.51	36.1 QP	69.5	-33.4	1.00	264	16.2	19.9
3	4.19	34.5 QP	69.5	-35.0	1.00	112	14.5	20.0
4	8.85	35.3 QP	69.5	-34.2	1.00	280	14.0	21.3
5	13.51	35.8 QP	69.5	-33.7	1.00	124	14.0	21.8
6	16.40	38.0 QP	69.5	-31.5	1.00	270	16.1	21.9
7	20.29	41.9 QP	69.5	-27.6	1.00	244	19.8	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40

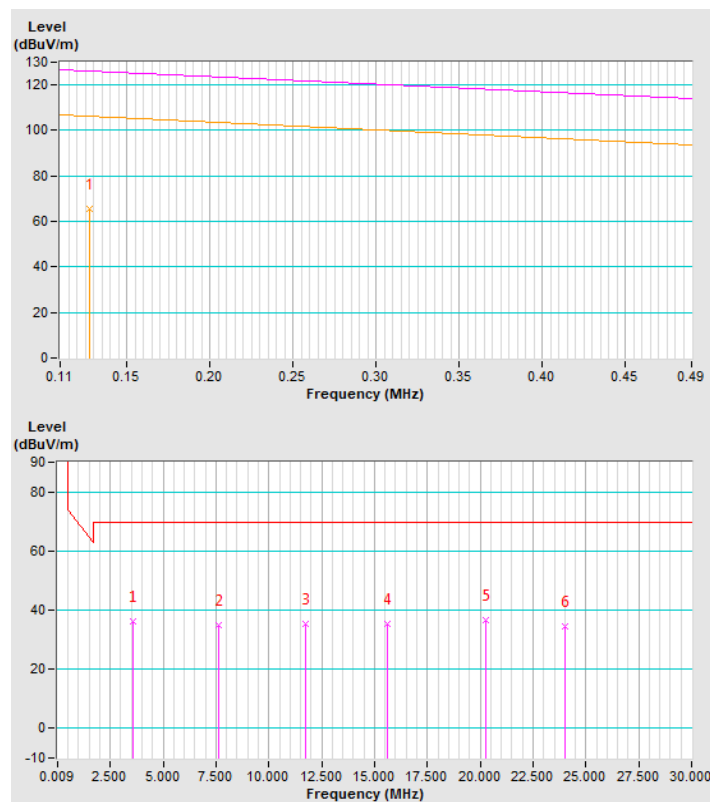


Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	B (EUT sample No.:009-007)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	65.3 AV	105.5	-40.2	1.00	209	191	19.1
2	3.57	36.1 QP	69.5	-33.4	1.00	73	16.1	20.0
3	7.60	35.1 QP	69.5	-34.4	1.00	340	14.2	20.9
4	11.74	35.4 QP	69.5	-34.1	1.00	62	13.7	21.7
5	15.63	35.4 QP	69.5	-34.1	1.00	180	13.5	21.9
6	20.29	36.6 QP	69.5	-32.9	1.00	34	14.5	22.1
7	23.99	34.5 QP	69.5	-35.0	1.00	285	12.4	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40



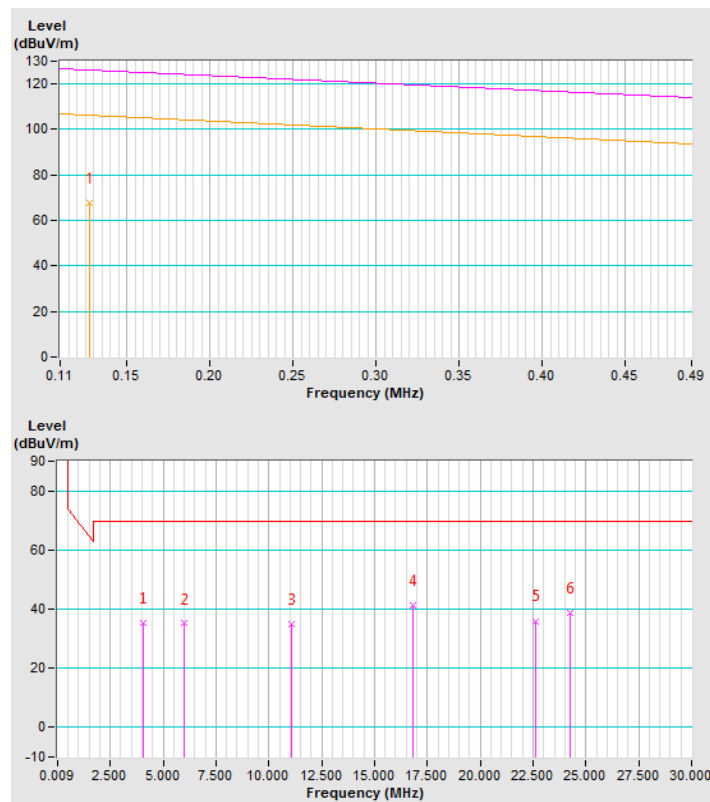
Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	B (EUT sample No.:009-007)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	67.5 AV	105.5	-38.0	1.00	319	48.4	19.1
2	4.05	35.4 QP	69.5	-34.10	1.00	319	15.4	20.0
3	5.97	35.1 QP	69.5	-34.40	1.00	20	14.7	20.4
4	11.06	34.9 QP	69.5	-34.60	1.00	81	13.2	21.7
5	16.83	41.1 QP	69.5	-28.40	1.00	204	19.1	22.0
6	22.60	36.0 QP	69.5	-33.50	1.00	98	13.9	22.1
7	24.23	38.9 QP	69.5	-30.60	1.00	338	16.8	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40

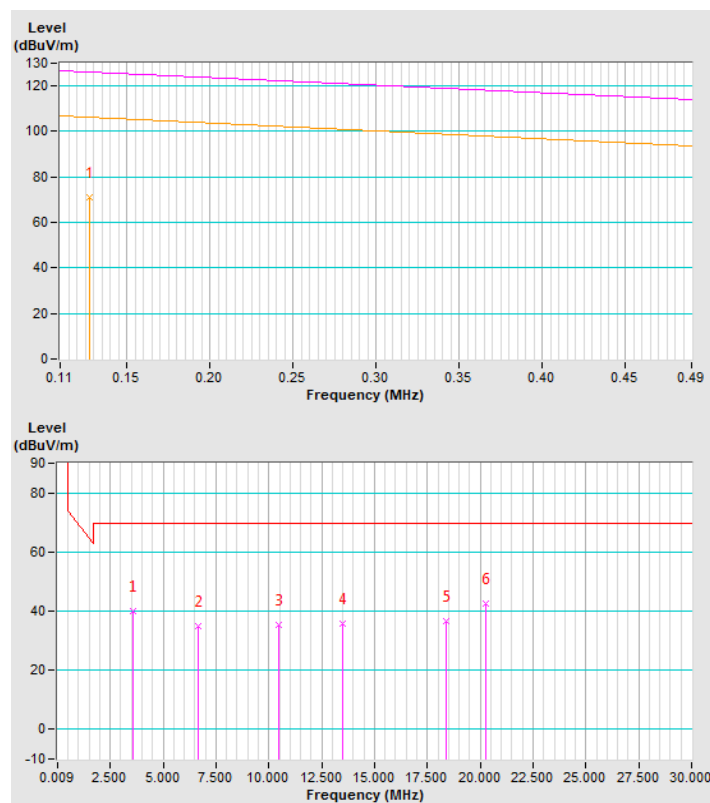


Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	D (EUT sample No.:006-001)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	71.3 AV	105.5	-34.2	1.00	354	52.2	19.1
2	3.57	40.1 QP	69.5	-29.4	1.00	18	20.1	20.0
3	6.64	35.0 QP	69.5	-34.5	1.00	138	14.4	20.6
4	10.49	35.4 QP	69.5	-34.1	1.00	254	13.7	21.7
5	13.51	35.7 QP	69.5	-33.8	1.00	120	13.9	21.8
6	18.37	36.4 QP	69.5	-33.1	1.00	342	14.4	22.0
7	20.29	42.5 QP	69.5	-27.0	1.00	37	20.4	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40

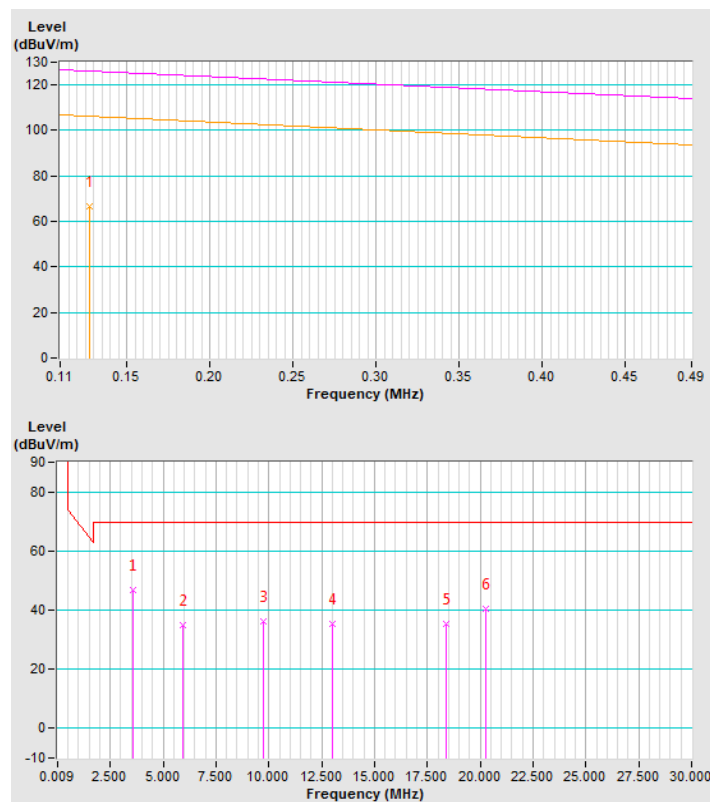


Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	D (EUT sample No.:006-001)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	66.6 AV	105.5	-38.9	1.00	251	47.5	19.1
2	3.57	46.7 QP	69.5	-22.8	1.00	185	26.7	20.0
3	5.92	34.9 QP	69.5	-34.6	1.00	242	14.5	20.4
4	9.72	36.2 QP	69.5	-33.3	1.00	38	14.6	21.6
5	12.99	35.4 QP	69.5	-34.1	1.00	259	13.6	21.8
6	18.42	35.5 QP	69.5	-34.0	1.00	96	13.5	22.0
7	20.29	40.4 QP	69.5	-29.1	1.00	255	18.3	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40



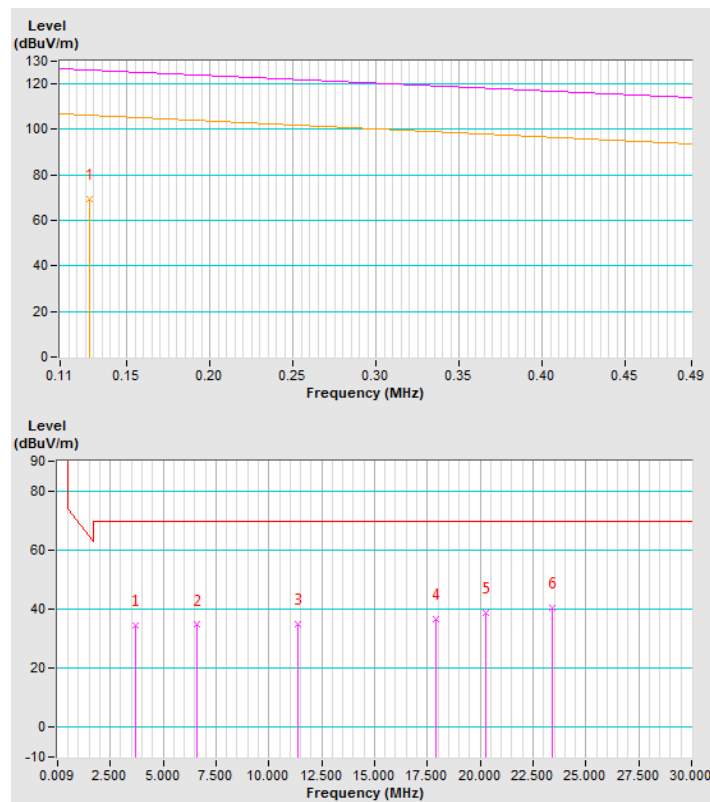
Channel	TX Channel 1	Detector Function	Average (AV) Quasi-Peak (QP)
Frequency Range	9 kHz ~ 30 MHz		
Test Mode	D (EUT sample No.:006-001)		

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*0.1278	69.3 AV	105.5	-36.2	1.00	261	50.2	19.1
2	3.71	34.3 QP	69.5	-35.2	1.00	306	14.3	20.0
3	6.59	34.7 QP	69.5	-34.8	1.00	20	14.1	20.6
4	11.35	35.0 QP	69.5	-34.5	1.00	276	13.3	21.7
5	17.89	36.5 QP	69.5	-33.0	1.00	323	14.5	22.0
6	20.29	38.7 QP	69.5	-30.8	1.00	342	16.6	22.1
7	23.42	40.6 QP	69.5	-28.9	1.00	19	18.5	22.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * ”: Fundamental frequency.
6. Loop antenna was used for all radiated emission below 30MHz.
7. Limit @3m=Limit@300m+40log(300 / 3)=Limit@300m+80
8. Limit @3m=Limit@30m+40log(30 / 3)=Limit@30m+40



Below 1GHz Data:

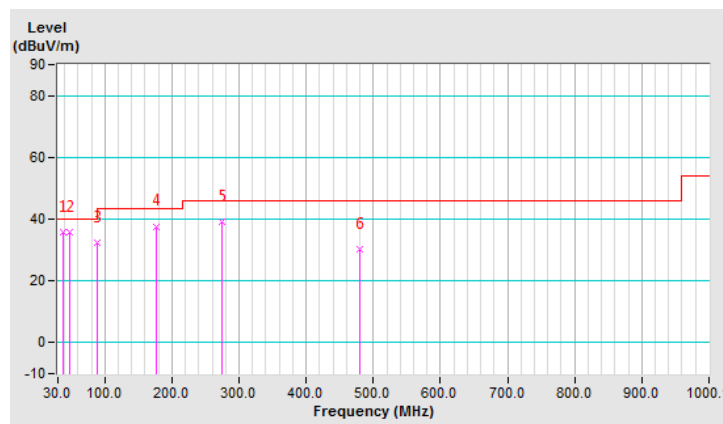
Charging Mode

Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	A (EUT sample No.:009-007)		

Antenna Polarity & Test Distance: Horizontal At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.03	35.8 QP	40.0	-4.2	1.51 H	68	45.9	-10.1
2	48.28	35.7 QP	40.0	-4.3	1.51 H	62	44.6	-8.9
3	89.05	32.5 QP	43.5	-11.0	2.00 H	149	46.4	-13.9
4	176.22	37.7 QP	43.5	-5.8	1.51 H	73	47.1	-9.4
5	274.63	39.1 QP	46.0	-6.9	1.00 H	103	47.2	-8.1
6	479.90	30.2 QP	46.0	-15.8	2.00 H	123	32.3	-2.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

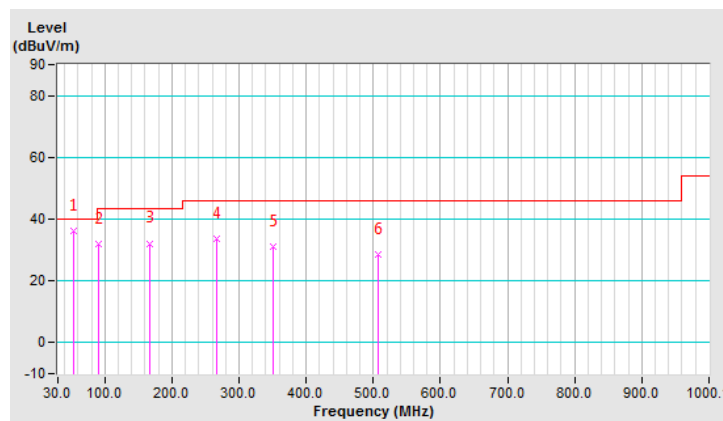


Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	A (EUT sample No.:009-007)		

Antenna Polarity & Test Distance: Vertical At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	52.50	36.1 QP	40.0	-3.9	1.49 V	16	45.1	-9.0
2	90.46	31.9 QP	43.5	-11.6	1.00 V	145	45.9	-14.0
3	166.38	32.2 QP	43.5	-11.3	1.00 V	304	40.9	-8.7
4	266.20	33.6 QP	46.0	-12.4	1.99 V	127	42.2	-8.6
5	350.55	31.2 QP	46.0	-14.8	1.00 V	164	37.5	-6.3
6	506.61	28.6 QP	46.0	-17.4	1.49 V	321	29.9	-1.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

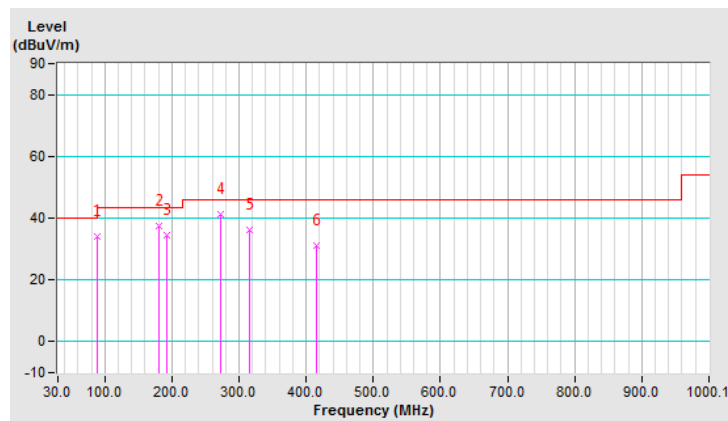


Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	C (EUT sample No.:006-001)		

Antenna Polarity & Test Distance: Horizontal At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	89.05	34.0 QP	43.5	-9.5	1.99 H	131	47.9	-13.9
2	180.44	37.5 QP	43.5	-6.0	1.49 H	60	47.4	-9.9
3	193.09	34.6 QP	43.5	-8.9	1.49 H	93	45.5	-10.9
4	273.23	41.2 QP	46.0	-4.8	1.00 H	243	49.4	-8.2
5	315.41	36.0 QP	46.0	-10.0	1.00 H	97	42.9	-6.9
6	415.23	31.1 QP	46.0	-14.9	1.00 H	215	34.9	-3.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

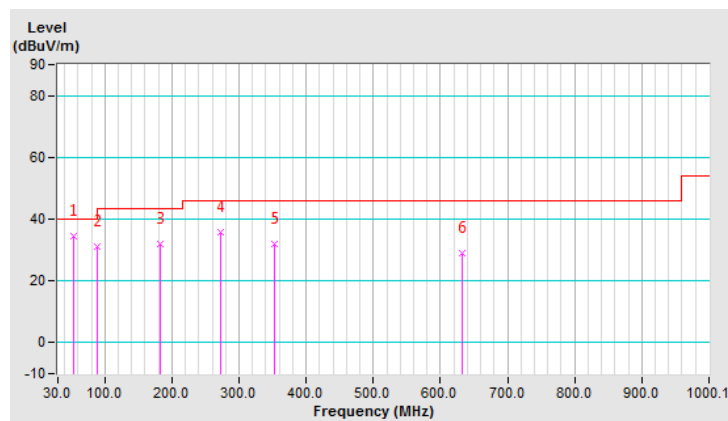


Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	C (EUT sample No.:006-001)		

Antenna Polarity & Test Distance: Vertical At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	52.50	34.6 QP	40.0	-5.4	1.51 V	5	43.6	-9.0
2	89.05	30.9 QP	43.5	-12.6	1.51 V	133	44.8	-13.9
3	181.84	31.9 QP	43.5	-11.6	1.00 V	160	41.9	-10.0
4	273.23	35.8 QP	46.0	-10.2	2.00 V	153	44.0	-8.2
5	351.96	32.1 QP	46.0	-13.9	1.00 V	166	38.3	-6.2
6	633.15	29.1 QP	46.0	-16.9	1.00 V	49	27.6	1.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



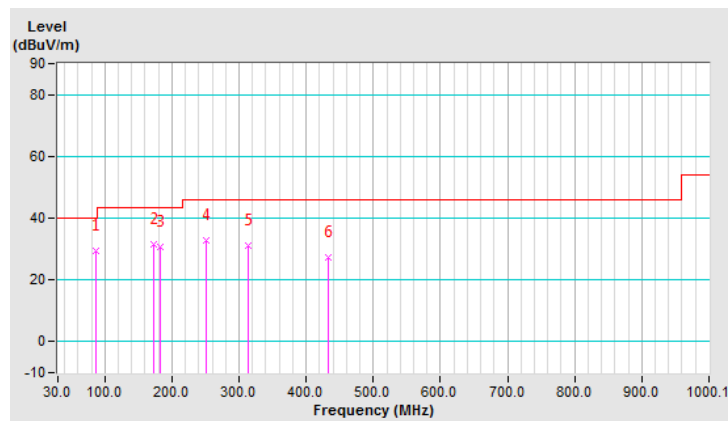
Standby Mode

Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	B (EUT sample No.:009-007)		

Antenna Polarity & Test Distance: Horizontal At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	87.64	29.4 QP	40.0	-10.6	1.99 H	132	43.3	-13.9
2	172.00	31.4 QP	43.5	-12.1	1.99 H	295	40.5	-9.1
3	183.25	30.7 QP	43.5	-12.8	1.49 H	102	40.8	-10.1
4	250.73	32.7 QP	46.0	-13.3	1.00 H	265	41.9	-9.2
5	314.00	31.0 QP	46.0	-15.0	1.00 H	93	37.9	-6.9
6	433.51	27.3 QP	46.0	-18.7	1.99 H	134	30.3	-3.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

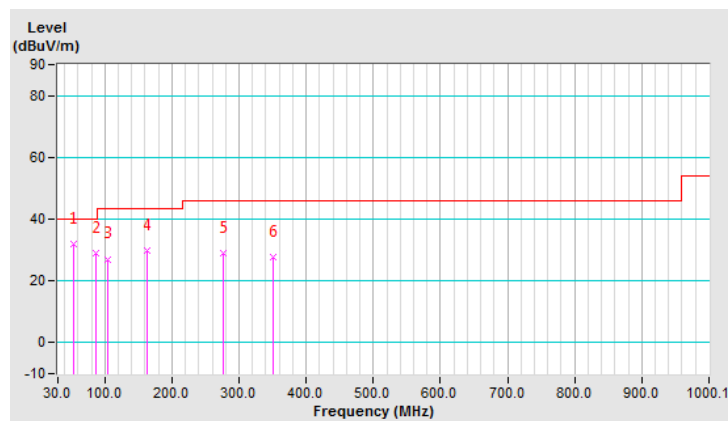


Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	B (EUT sample No.:009-007)		

Antenna Polarity & Test Distance: Vertical At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	52.50	31.8 QP	40.0	-8.2	1.00 V	289	40.8	-9.0
2	87.64	28.9 QP	40.0	-11.1	1.00 V	147	42.8	-13.9
3	104.51	27.1 QP	43.5	-16.4	1.00 V	100	39.5	-12.4
4	163.56	29.7 QP	43.5	-13.8	1.00 V	285	38.5	-8.8
5	276.04	29.0 QP	46.0	-17.0	1.51 V	167	37.1	-8.1
6	350.55	27.8 QP	46.0	-18.2	1.00 V	187	34.1	-6.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

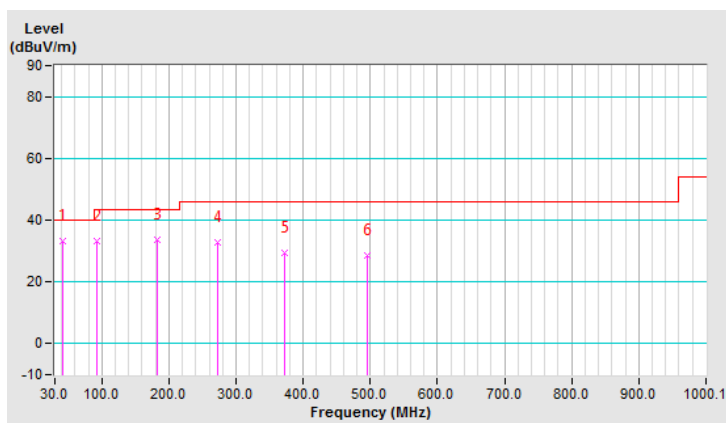


Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	D (EUT sample No.:006-001)		

Antenna Polarity & Test Distance: Horizontal At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	41.25	33.1 QP	40.0	-6.9	1.01 H	277	42.5	-9.4
2	93.27	33.1 QP	43.5	-10.4	2.00 H	131	46.9	-13.8
3	183.25	33.8 QP	43.5	-9.7	1.01 H	71	43.9	-10.1
4	271.82	33.0 QP	46.0	-13.0	1.01 H	243	41.2	-8.2
5	371.64	29.3 QP	46.0	-16.7	1.01 H	60	34.7	-5.4
6	495.37	28.4 QP	46.0	-17.6	1.51 H	122	30.0	-1.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

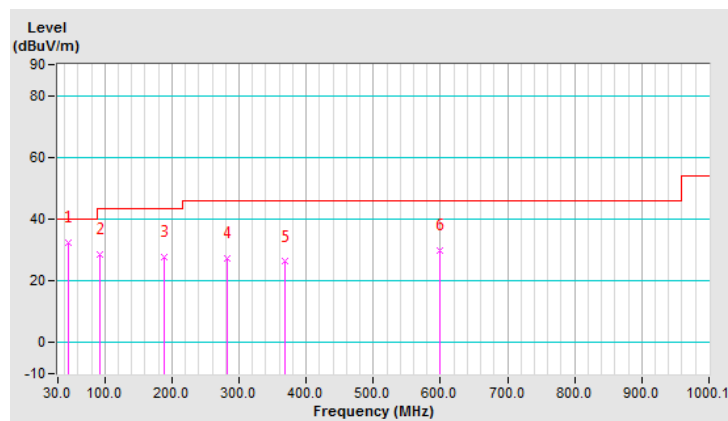


Channel	TX Channel 1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		
Test Mode	D (EUT sample No.:006-001)		

Antenna Polarity & Test Distance: Vertical At 3m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	45.47	32.2 QP	40.0	-7.8	1.49 V	127	41.3	-9.1
2	93.27	28.7 QP	43.5	-14.8	1.99 V	131	42.5	-13.8
3	188.87	27.6 QP	43.5	-15.9	1.00 V	211	38.2	-10.6
4	283.07	27.1 QP	46.0	-18.9	1.49 V	150	35.0	-7.9
5	367.43	26.2 QP	46.0	-19.8	1.00 V	154	31.7	-5.5
6	599.41	29.7 QP	46.0	-16.3	1.99 V	171	28.8	0.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102412	Feb. 14, 2019	Feb. 13, 2020
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 05, 2019	Sep. 04, 2020
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Jan. 30, 2019	Jan. 29, 2020
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Aug. 13, 2019	Aug. 12, 2020
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-12047.

4.2.3 Test Procedures

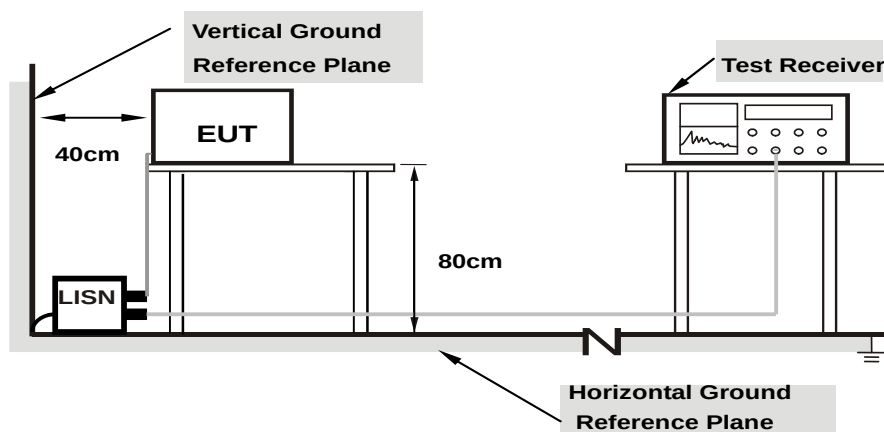
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

NOTE: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

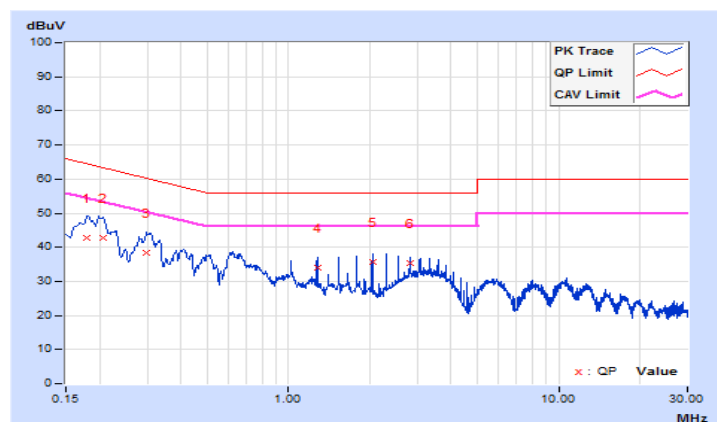
Charging Mode

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A (EUT sample No.:009-007)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
	[MHz]		[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17933	10.19	32.51	14.51	42.70	24.70	64.52	54.52	-21.82	-29.82
2	0.20572	10.22	32.59	16.14	42.81	26.36	63.38	53.38	-20.57	-27.02
3	0.29850	10.25	28.10	12.23	38.35	22.48	60.28	50.28	-21.93	-27.80
4	1.27725	10.40	23.53	19.00	33.93	29.40	56.00	46.00	-22.07	-16.60
5	2.04450	10.44	25.22	21.17	35.66	31.61	56.00	46.00	-20.34	-14.39
6	2.81175	10.49	25.01	21.39	35.50	31.88	56.00	46.00	-20.50	-14.12

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

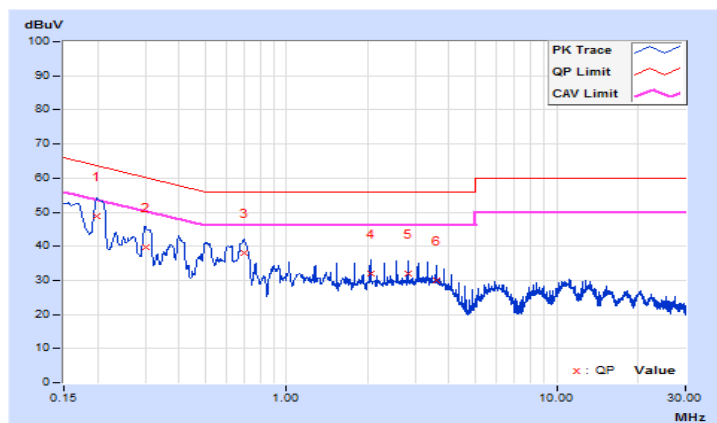


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A (EUT sample No.:009-007)		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19878	10.30	38.40	19.65	48.70	29.95	63.66	53.66	-14.96	-23.71
2	0.30075	10.32	29.40	12.08	39.72	22.40	60.22	50.22	-20.50	-27.82
3	0.69670	10.40	27.72	13.72	38.12	24.12	56.00	46.00	-17.88	-21.88
4	2.04450	10.51	21.34	17.12	31.85	27.63	56.00	46.00	-24.15	-18.37
5	2.81175	10.57	21.56	17.57	32.13	28.14	56.00	46.00	-23.87	-17.86
6	3.57900	10.62	19.20	15.83	29.82	26.45	56.00	46.00	-26.18	-19.55

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

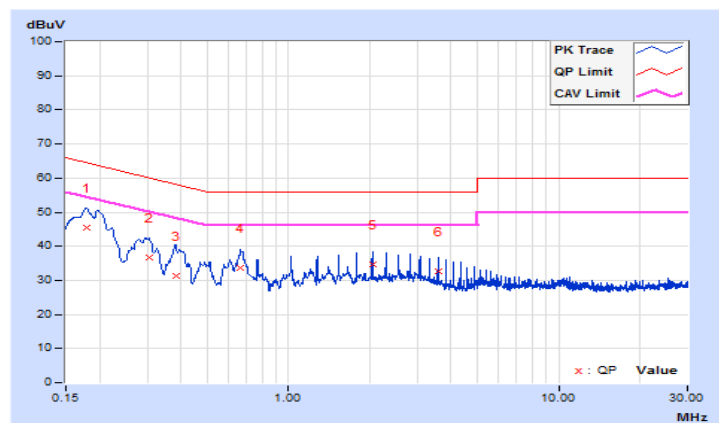


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	C (EUT sample No.:006-001)		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17925	10.19	35.21	17.28	45.40	27.47	64.52	54.52	-19.12	-27.05
2	0.30525	10.25	26.41	12.71	36.66	22.96	60.10	50.10	-23.44	-27.14
3	0.38175	10.27	21.06	9.79	31.33	20.06	58.24	48.24	-26.91	-28.18
4	0.66750	10.32	23.30	15.07	33.62	25.39	56.00	46.00	-22.38	-20.61
5	2.04450	10.44	24.23	20.00	34.67	30.44	56.00	46.00	-21.33	-15.56
6	3.57900	10.53	22.12	18.70	32.65	29.23	56.00	46.00	-23.35	-16.77

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

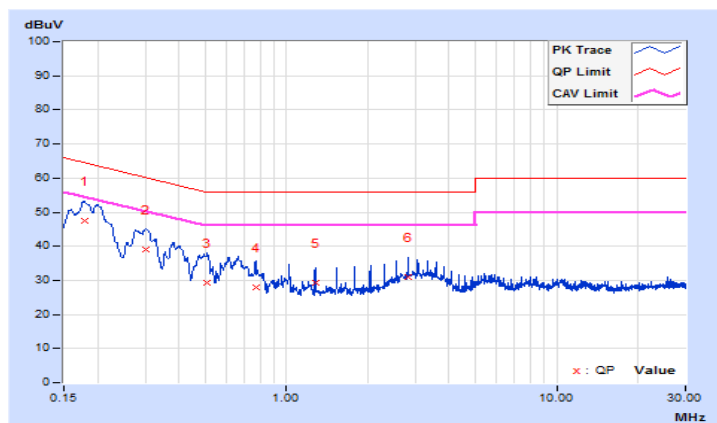


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	C (EUT sample No.:006-001)		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17925	10.26	37.31	18.89	47.57	29.15	64.52	54.52	-16.95	-25.37
2	0.30009	10.32	28.89	12.68	39.21	23.00	60.24	50.24	-21.03	-27.24
3	0.51000	10.36	18.93	9.50	29.29	19.86	56.00	46.00	-26.71	-26.14
4	0.76820	10.41	17.70	11.64	28.11	22.05	56.00	46.00	-27.89	-23.95
5	1.27725	10.47	18.95	14.98	29.42	25.45	56.00	46.00	-26.58	-20.55
6	2.81175	10.57	20.53	17.35	31.10	27.92	56.00	46.00	-24.90	-18.08

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



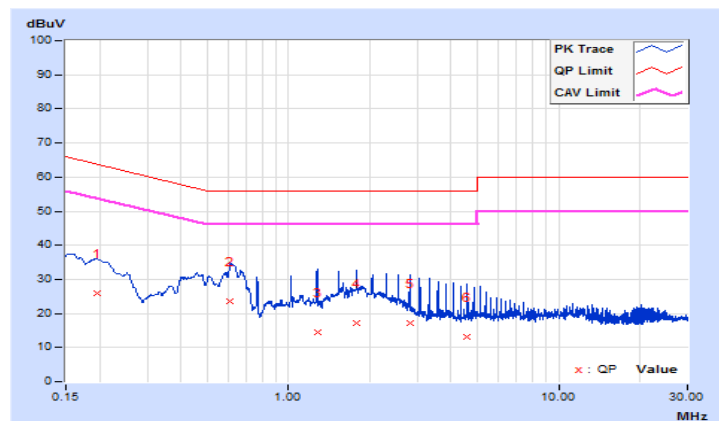
Standby Mode

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B (EUT sample No.:009-007)		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19500	10.21	15.83	4.52	26.04	14.73	63.82	53.82	-37.78	-39.09
2	0.60893	10.31	13.26	1.60	23.57	11.91	56.00	46.00	-32.43	-34.09
3	1.27725	10.40	4.22	1.86	14.62	12.26	56.00	46.00	-41.38	-33.74
4	1.78800	10.43	6.76	3.76	17.19	14.19	56.00	46.00	-38.81	-31.81
5	2.80950	10.49	6.60	1.85	17.09	12.34	56.00	46.00	-38.91	-33.66
6	4.59825	10.57	2.62	1.02	13.19	11.59	56.00	46.00	-42.81	-34.41

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

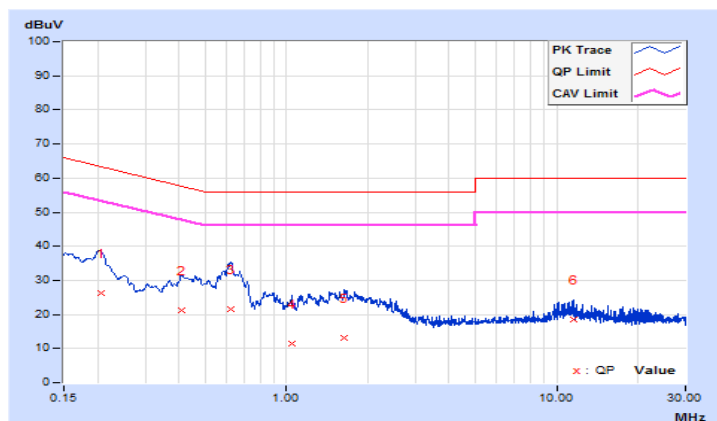


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B (EUT sample No.:009-007)		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20625	10.30	16.09	1.23	26.39	11.53	63.35	53.35	-36.96	-41.82
2	0.40979	10.34	10.84	2.70	21.18	13.04	57.65	47.65	-36.47	-34.61
3	0.61865	10.38	11.29	2.13	21.67	12.51	56.00	46.00	-34.33	-33.49
4	1.04775	10.46	0.88	0.26	11.34	10.72	56.00	46.00	-44.66	-35.28
5	1.64175	10.49	2.51	1.09	13.00	11.58	56.00	46.00	-43.00	-34.42
6	11.50328	10.85	7.56	3.19	18.41	14.04	60.00	50.00	-41.59	-35.96

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

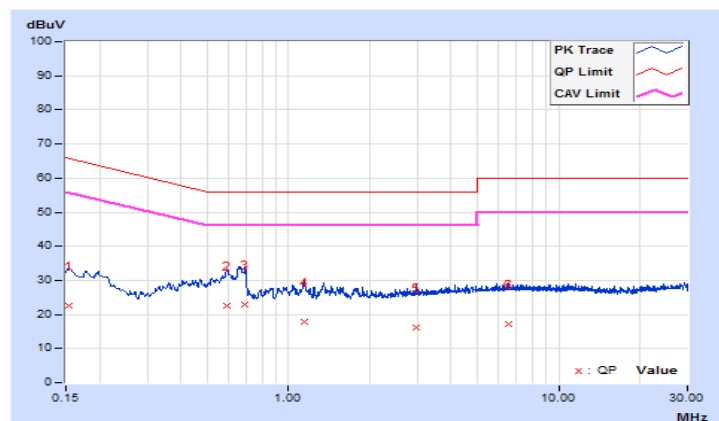


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	D (EUT sample No.:006-001)		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15427	10.16	12.44	7.15	22.60	17.31	65.77	55.77	-43.17	-38.46
2	0.59100	10.31	12.34	5.63	22.65	15.94	56.00	46.00	-33.35	-30.06
3	0.69120	10.33	12.58	5.83	22.91	16.16	56.00	46.00	-33.09	-29.84
4	1.14225	10.39	7.49	3.93	17.88	14.32	56.00	46.00	-38.12	-31.68
5	2.95575	10.50	5.75	4.10	16.25	14.60	56.00	46.00	-39.75	-31.40
6	6.54900	10.61	6.73	5.13	17.34	15.74	60.00	50.00	-42.66	-34.26

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

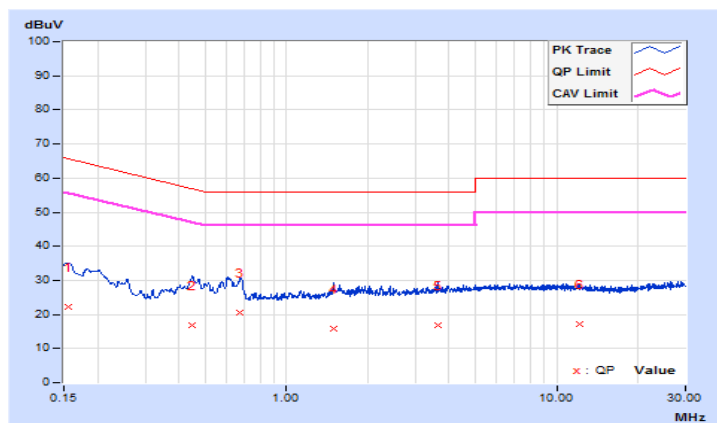


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	D (EUT sample No.:006-001)		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15509	10.21	12.10	7.22	22.31	17.43	65.72	55.72	-43.41	-38.29
2	0.44700	10.35	6.48	3.44	16.83	13.79	56.93	46.93	-40.10	-33.14
3	0.67425	10.39	10.20	4.53	20.59	14.92	56.00	46.00	-35.41	-31.08
4	1.48875	10.48	5.19	3.23	15.67	13.71	56.00	46.00	-40.33	-32.29
5	3.62625	10.62	6.19	4.56	16.81	15.18	56.00	46.00	-39.19	-30.82
6	12.21000	10.88	6.13	4.49	17.01	15.37	60.00	50.00	-42.99	-34.63

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

--- END ---