## Test Report for FCC & IC

| | | | | |
|---|---|---|---|---|
| Report Number | | ESTRGC2309-003 | | |
| Applicant | Company name | Suprema Inc | | |
| | Address | 17F-5, Parkview office tower, 248, Jeongjail-ro Bundang-gu, Seongnam-si, Gyeonggi-do South Korea | | |
| | Telephone | +82-031-240-4333 | | |
| Product | Product name | Biostation 2a | | |
| | Model No. | BS2A-OAPWB | Manufacturer | Suprema Inc |
| | Serial No. | NONE | Country of origin | KOREA |
| Test date | 13-Sep-23 ~ 22-Sep-23 | | Date of issue | 27-Sep-23 |
| Testing location | 140-16, Eongmalli-ro, Majang-myeon, Icheon-si, Gyeonggi-do, Rep. of Korea | | | |
| FCC ID | TKWBS2A-OAPWB | | | |
| ISED ID | 23080-BS2AOAPWB | | | |
| FCC Rule Part(s) | Part 15.225, Part 15.209, Part 15.207 | | | |
| ISED Rule Part(s) | RSS-210 Issue 10 (April 2020) | | | |
| Test result | | | | Complied |
| Measurement facility registration number | 659627 | | | |
| MRA Registration number | KR0019 | | | |
| Tested by | Engineer H.G. Lee | | | (Signature) |
| Reviewed by | Engineering Manager I.K. Hong | | | (Signature) |
| Abbreviation | OK, Pass = Complied, Fail = Failed, N/A = not applicable | | | |

* Note
- This test report is not permitted to copy partly without our permission
- This test result is dependent on only equipment to be used
- This test report is not related to KOLAS accreditation
- Additional models name: BS2A-ODPB(Delete wifi module)

# Contents

# 1. Laboratory Information

## 1.1 General

This EUT (Equipment Under Test) has been shown to be capable of compliance with the applicable technical standards and is tested in accordance with the measurement procedures as indicated in this report.ESTECH Lab attests to accuracy of test data. All measurement reported herein were performed by ESTECH Co., Ltd.
ESTECH Lab assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

## 1.2 Test Lab.

Corporation Name : ESTECH Co., Ltd.

Head Office : Suite 1015 World Meridian II, 123 Gasan Digital 2-ro, Geumcheon-gu, Seoul 153-759, R. O. Korea

EMC/Telecom/Safety Test Lab : 140-16, Eongmalli-ro, Majang-myeon, Icheon-si, Gyeonggi-do, Rep. of Korea

## 1.3 Official Qualification(s)

MSIP : Granted Accreditation from Ministry of Information & Communication for EMC, Safety and Telecommunication

KOLAS : Accredited Lab By Korea Laboratory Accreditation Schema base on CENELEC

FCC : Filed Laboratory at Federal Communications Commission

VCCI : Granted Accreditation from Voluntary Control Council for Interference from ITE

ISED : Accredited Lab By Canada Laboratory Accreditation

# 2. Description of EUT

2.1 Summary of Equipment Under Test
Product : Biostation 2a
Model Number : BS2A-OAPBW
Serial Number : NONE
Manufacturer : Suprema Inc
Transfer Rate : 127 kHz, 13.56 MHz
Power Rating : INPUT: AC(100 - 240) V, (50-60)Hz, 1.7 A
OUTPUT: DC 24 V, 2.5 A
Receipt Date : 2023-Aug-28

X-tal list(s) or Frequencies generated : 13.56 MHz

Software version:V01
Hardware version:V1.0.0

2.2 General descriptions of EUT

| | | |
|---|---|---|
| General Characteristics | Dimensions | 78mm/3.07inch(W) x 112mm/4.41inch(H) x 30mm/1.18inch(D) |
| | Weight | 164g |
| | Communication | C Type USB Host : USB2.0 High Speed / 18PIN (USB Client/Host) |
| DATA CAPTURE | Fingerprint Reader | IB DANNO FAP 30 TFT PIV Certified<br>Sensor Type : Light-emitting sensor (LES) TFT camera<br>Resolution : 500 ppi<br>Gray Scale : 256 grayscale dynamic range<br>Image Size : 400W x 500H pixels<br>Supported Image Formats : RAW, JPEG2000, BMP, PNG, WSQ<br>FBI Certification / Image Certifications : PIV 071006, FIPS 201, FAP 30<br>Speed : Minimum frame rate > 10FPS<br>Capture Types : Single-finger flat |
| | HID RFID Reader | HID OMNYKEY 5127CK-MINI 13.56 HF / 125K LF RFID<br>ISO14443A/B ISO15693, FeliCa™ (IDm), CEPAS (CSN)<br>Broad Credential Support NFC support for Mobile devices Dual frequency allowingsimultaneous support f<br>or HF and LF credentials HID Prox, Indala® and EM Prox,iCLASS, iCLASS SE®, iCLASS Seos®, MIFARE<br>Classic®, MIFARE DESFire EV1®iCLASS SE Processor Provides support for processing of PACS data and<br>secure keystorage and communication |
| User Environment | Operating Temp | -0ºC ~ 50ºC (-32ºF ~ 122ºF) |
| | Storage Temp | -20ºC ~ 60ºC (-4ºF ~ 140ºF) |
| | Humidity | Non-condensing, 93% |
| | Drop | 1.5m (5ft.) |
| Compatible Device | | RP1500, RP1600, RP1600X |

# 3. Test Standards

**Test Standard : FCC PART 15**
This Standard sets out the regulations under which an intentional, unintentional, or incidental radiator may be operated without an individual license. It also contains the technical specifications, administrative requirements and other conditions relating to the marketing of Part 15 devices.

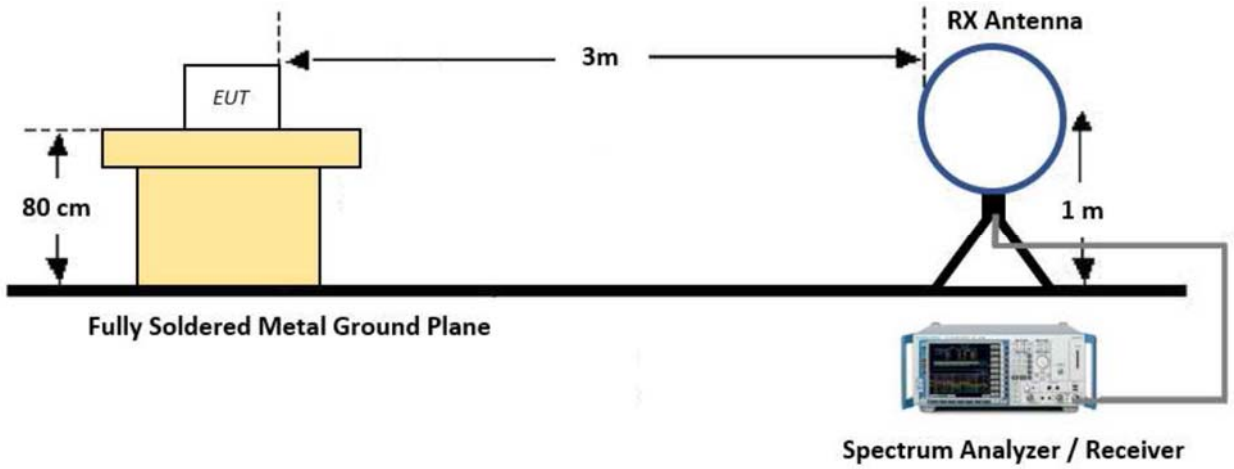
**Test Standard : RSS-Gen**
RSS-Gen must be used in conjunction with other RSSs, as applicable to the specific type of radio apparatus, for assessing its compliance with ISED requirements.

**Test Method : ANSI C 63.10 (2013)**
This standard sets forth uniform methods of measurement of radio-frequency (RF) signals and noise emitted from both unintentional and intentional emitters of RF energy in the frequency range 9 kHz to 40 GHz. Methods for the measurement of radiated and AC power-line conducted radio noise are covered and may be applied to any such equipment unless otherwise specified by individual equipment requirements. These methods cover measurement of certain decides that deliberately radiate energy, such as intentional emitters, but does not cover licensed transmitters. This standard is not intended for certification/approval of avionic equipment or for industrial, scientific, and medical (ISM) equipment These method apply to the measurement of individual units or systems comprised of multiple units

| Test Description | FCC Part Section(s) | ISED Part Section(s) | Test Limit | Test Condition | Test Result |
|---|---|---|---|---|---|
| Occupied Bandwidth | - | Section 6.7 RSS-GEN | N/A | Radiated | PASS |
| 20 dB Bandwidth | §15.215 (c) | - | N/A | | PASS |
| Radiated E-Field Emissions 13.553 MHz - 13.567 MHz | §15.225 (a) | Annex B.6 (a)(i) RSS-210 | cf. Section 7.3 | | N/A 1) |
| Radiated E-Field Emissions 13.410 MHz ≤ f ≤ 13.553 MHz 13.567 MHz ≤ f ≤ 13.710 MHz | §15.225 (b) | Annex B.6 (a)(ii) RSS-210 | cf. Section 7.3 | | N/A 1) |
| Radiated E-Field Emissions 13.110 MHz ≤ f ≤ 13.410 MHz 13.710 MHz ≤ f ≤ 14.010 MHz | §15.225 (c) | Annex B.6(a)(iii) RSS-210 | cf. Section 7.3 | | N/A 1) |
| Radiated Spurious Emissions | 15.209 | Section 8.9 RSS-GEN | cf. Section 7.3 | | PASS |
| Frequency Stability | §15.225 (e) | RSS-210, B.6 | cf. Section 7.2 | | PASS |
| AC Power line Conducted Emissions | §15.207 | RSS-GEN, 8.8 | cf. Section 7.4 | Conducted | PASS |

**Notes:**
1. No tests were applied because the fundamental level did not exceed the spurious limit per part 15.209.

**Test Configuration**
**Below 30 MHz**

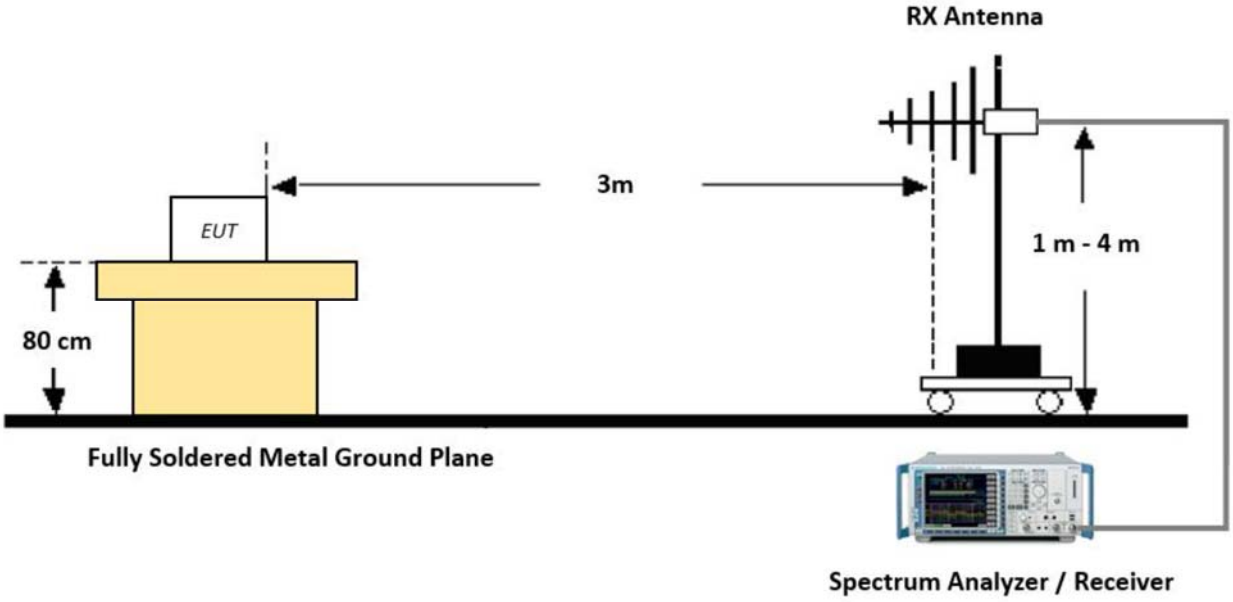



**Test Procedure of Radiated spurious emissions (Below 30 MHz)**

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The loop antenna was placed at a location 3m from the EUT
3. The EUT is placed on a turntable, which is 0.8m above ground plane.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Distance Correction Factor (0.009 MHz – 0.490 MHz) = 40*log(3 m/300 m) = - 80 dB
Measurement Distance: 3 m
7. Distance Correction Factor (0.490 MHz – 30 MHz) = 40*log(3 m/30 m) = - 40 dB
Measurement Distance: 3 m
8. Spectrum Setting
- Frequency Range = 9 kHz ~ 30 MHz
- Detector = Peak
- Trace = Max hold
- RBW = 9 kHz
- VBW ≥ 3*RBW

9. Total = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L) + Distance Factor (D.F)
Adequate comparison measurements were confirmed against an open field site since the test was performed at alternative site (3m SAC) other than the open area test site. Sufficient test was made to demonstrate that the alternative site produces result that correlate with the one of test made at the open field site based on KDB 414788.

**30 MHz - 1 GHz**




**Test Procedure of Radiated spurious emissions (Below 1GHz)**

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The EUT is placed on a turntable, which is 0.8m above ground plane.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
5. Spectrum Setting

(1) Measurement Type (Peak):

- Measured Frequency Range: 30 MHz – 1 GHz
- Detector = Peak
- Trace = Max hold
- RBW = 100 kHz
- VBW ≥ 3*RBW

(2) Measurement Type(Quasi-peak):

- Measured Frequency Range: 30 MHz – 1 GHz
- Detector = Quasi-Peak
- RBW = 120 kHz

In general, the method (1) is mainly used

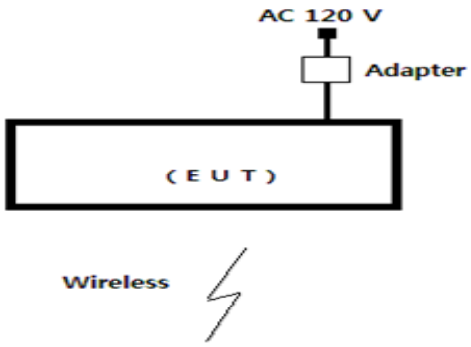
6. Total = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L)

# 4. Measurement Condition

4.1 EUT Operation.

'The EUT was tested, under transmission / receiving
1. Normal communication with RF OUT Frequeny13.56 MHz(HF),125 kHz(LF).
2. Monitoring the operation status of frequency by using RF CARD.

4.2 Configuration and Peripherals




4.3 EUT and Support equipment

| Equipment Name | Model Name | S/N | Manufacturer | Remark |
|---|---|---|---|---|
| Biostation 2a | BS2A-OAPBW | NONE | Suprema Inc | EUT |
| Adapter | KPL-060M-VI | NONE | Channel Well technology (Guangzhou)Co.,Ltd. | |
| | | | | |
| | | | | |

4.4 Measurement equipments (Conducted)

| Description | Model | Serial Number | Cal. Due Date |
|---|---|---|---|
| Spectrum Analyzer | E440A | US42041291 | 28-Nov-23 |
| Spectrum Analyzer | FSV40 | 100939 | 28-Nov-23 |
| RF Cable | Length: 100 cm | - | |

4.5 Measurement equipments (**Radiated**)

| Equipment Name | Type | Manufacturer | Serial No. | Next Calibration date |
|---|---|---|---|---|
| TEST Receiver | ESCI7 | ROHDE & SCHWARZ | 100916 | 28-Jun-24 |
| LOOP Antenna | HFH2-Z2 | ROHDE & SCHWARZ | 100188 | 29-Aug-24 |
| Logbicon Antenna | VULB 9168 | SCHWARZBECK | 193 | 9-Dec-23 |
| Turn Table | DT3000-2t | Innco System GmbH | N/A | - |
| Antenna Mast | MA4000-EP | Innco System GmbH | N/A | - |
| PREAMPLIFIER | 8449B | HP | 3008A00581 | 28-Jun-24 |
| Horn Antenna | LB-42-15-C-SF | A-INFOMF | J2020079000055 | 11-Nov-23 |
| Horn Antenna | BBHA9120D | SCHWARZBECK | 469 | 08-Nov-23 |
| TEST Receiver | ESU | ROHDE & SCHWARZ | 100529 | 28-Jun-24 |
| Turn Table | DT1500-S | Innco System GmbH | N/A | - |
| Antenna Mast | MA4000-EP | Innco System GmbH | N/A | - |
| Antenna Master & Turn table controller | CO2000-P | Innco System GmbH | CO2000/642 /28051111/L | - |

4.6 AC Power line Conducted Emissions Measurement equipments

| **Equipment Name** | **Type** | **Manufacturer** | **Serial No.** | **Next Calibration date** |
|---|---|---|---|---|
| TEST Receiver | ESHS 30 | Rohde & Schwarz | 828765/002 | 28-Jun-24 |
| LISN | ESH2-Z5 | Rohde & Schwarz | 836679/025 | 28-Jun-24 |
| Pulse Limiter | ESH3-Z2 | Rohde & Schwarz | NONE | 28-Jun-24 |

## 5. 20dB Bandwidth / 99% Bandwidth

5.1 Test settings

The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
• The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
• The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

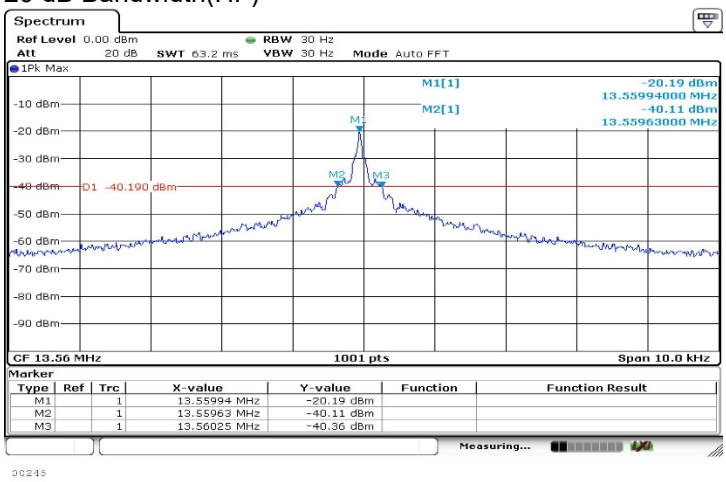
5.2 Test results

| HF | | | | |
|---|---|---|---|---|
| Frequency(MHz) | Modulation | 20dB Bandwidth(kHz) | 99% Bandwidth (kHz) | Limit |
| 13.56 | ASK | 0.62 | 2.917 | N/A |

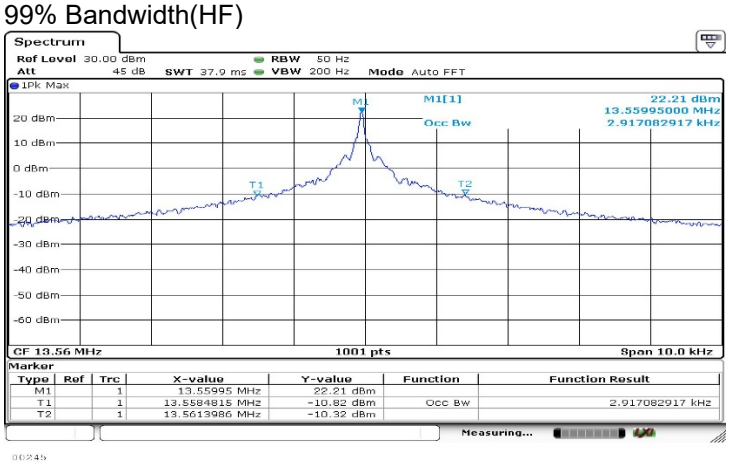
| LF | | | |
|---|---|---|---|
| Frequency(MHz) | Modulation | 99% Bandwidth (kHz) | Limit |
| 0.1267 | ASK | 4.795 | N/A |

5.3 Test Plots

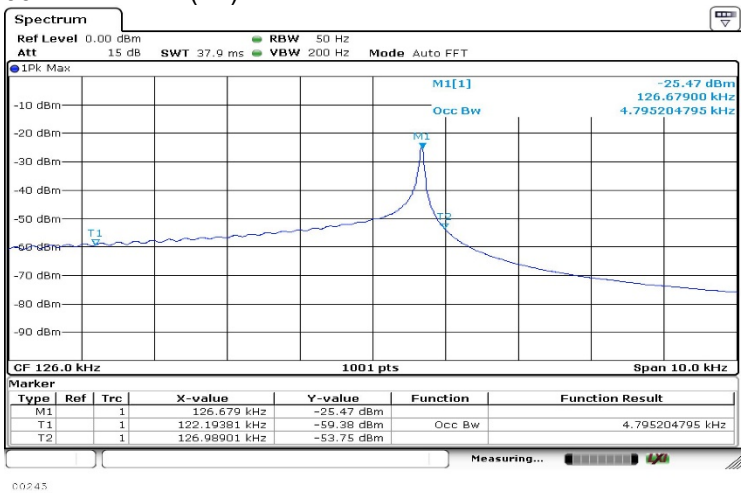
20 dB Bandwidth(HF)




99% Bandwidth(HF)




99% Bandwidth(LF)



# 6. Frequency Tolerance

6.1 Frequency stability Data (Adapter)

| | | |
|---|---|---|
| Operting Frequency : | 13,560,000 | Hz |
| Reference Voltage : | 24.0 | Vd.c. |
| Deviatin Limit : | ± 0.01 | % |

| Voltage (%) | Power (Vdc) | Temperature (℃) | Frequency (Hz) | Deviation (%) |
|---|---|---|---|---|
| 100 | 24.0 | +20 ℃(Ref) | 13,560,108 | 0.000796 |
| 100 | | -20 | 13,560,016 | 0.000118 |
| 100 | | -10 | 13,560,124 | 0.000914 |
| 100 | | **0** | 13,560,090 | 0.000664 |
| 100 | | 10 | 13,559,951 | -0.000361 |
| 100 | | 20 | 13,559,969 | -0.000229 |
| 100 | | 30 | 13,559,919 | -0.000597 |
| 100 | | 40 | 13,559,926 | -0.000546 |
| 100 | | 50 | 13,559,583 | -0.003075 |
| 85 | 20.4 | 20 | 13,560,229 | 0.001689 |
| 115 | 27.6 | 20 | 13,560,177 | 0.001305 |

## 7. Measurement of radiated disturbance

7.1 Radiated emission limits, general requirements

| FCC : 47 CFR § 15.209 | | |
|---|---|---|
| Frequency (MHz) | Distance(Meters) | Field strength (uV/m) |
| 0.009 to 0.490 | 300 | 2400/F(kHz) |
| 0.490 to 1.705 | 30 | 24000/F(kHz) |
| 1.705 to 30 | 30 | 30 |
| 30 to 88 | 3 | 100 |
| 88 to 216 | 3 | 150 |
| 216 to 960 | 3 | 200 |
| > 960 | 3 | 500 |

| ISED : RSS-GEN Section 8.9 | | |
|---|---|---|
| Frequency (MHz) | Distance(Meters) | Field strength (uA/m) |
| 0.009 to 0.490 | 300 | 6.37/F(kHz) |
| 0.490 to 1.705 | 30 | 63.7/F(kHz) |
| 1.705 to 30 | 30 | 0.08 |
| 30 to 88 | 3 | 100 |
| 88 to 216 | 3 | 150 |
| 216 to 960 | 3 | 200 |
| > 960 | 3 | 500 |

Operation within the band 13.110 MHz – 14.010 MHz

| FCC : 47 CFR § 15.225 (a), (b), (c), (d) / ISED : RSS-210 ANNEX B.6 | | |
|---|---|---|
| Frequency (MHz) | Distance(Meters) | Field strength (uV/m) |
| 13.553 – 13.567 | 30 | 15,848 |
| 13.410 ≤ f ≤ 13.553<br>13.567 ≤ f ≤ 13.71 | 30 | 334 |
| 13.110 ≤ f ≤ 13.410<br>13.710 ≤ f ≤ 14.010 | 30 | 106 |

7.2 13.56 MHz(HF)Test data(9 kHz ~ 30 MHz)

| Frequency (MHz) | Reading (dB $\mu V$) | Vertical Position [Angle] | EUT Position | Height (m) | Correction Factor | | Result Value(Quasi-Peak) | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ant Factor (dB) | Cable (dB) | Limit (dB $\mu V$/m) | Result (dB $\mu V$/m) | Margin (dB) |
| Below 13.110 MHz | | | | | | | | | |
| Noise Floor | - | - | - | - | 19.48 | 0.5 | 69.5 | - | - |
| 13.110 MHz to 13.410 MHz | | | | | | | | | |
| Noise Floor | - | - | - | - | 19.46 | 0.5 | 80.5 | - | - |
| 13.410 MHz to 13.552 MHz | | | | | | | | | |
| Noise Floor | - | - | - | - | 19.46 | 0.5 | 90.5 | - | - |
| 13.553 MHz to 13.567 MHz | | | | | | | | | |
| 13.5600 | 56.44 | 13.0 | X | 0.8 | 19.56 | 0.5 | 124.0 | 76.51 | -47.49 |
| 13.567 MHz to 13.710 MHz | | | | | | | | | |
| Noise Floor | - | - | - | - | 19.45 | 0.5 | 90.5 | - | - |
| 13.710 MHz to 14.010 MHz | | | | | | | | | |
| Noise Floor | - | - | - | - | 19.44 | 0.6 | 80.5 | - | - |
| 14.010 MHz to 30 MHz | | | | | | | | | |
| Noise Floor | - | - | - | - | 19.44 | 0.6 | 69.5 | - | - |
| | | | | | | | | | |
| | | | | | | | | | |
| Remark | *The 30 m limit was converted to 3 m Limit using square factor(x) as it was found by measurements as follows;<br>*3 m Limit(dBuV/m) = 20log(X)+40log(30/3)= 20log(15848)+40log(30/3) = 124 dBuV<br>*3 m Limit(dBuV/m) = 20log(X)+40log(30/3)= 20log(30)+40log(30/3) = 69.5 dBuV<br><br>* The EUT was measured for the worst case by rotating of antenna angle.<br>* The EUT performed at X,Y,Z and recorded the worst data in the report. | | | | | | | | |

7.3 125 kHz(LF)Test data(9 kHz ~ 30 MHz)

| Frequency (kHz) | Reading (dB ㎶) | Horizontal Position [Angle] | Height (m) | Correction Factor | | Result Value(Qeas-Peak) | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Ant Factor (dB) | Cable (dB) | Limit (dB ㎶/m) | Result (dB ㎶/m) | Margin (dB) |
| 127.00 | 55.22 | 0.0 | 0.8 | 19.80 | 0.03 | 105.67 | 75.05 | -30.62 |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| Remark | H : Horizontal, V : Vertical<br>There did not measure any radiated spurious emission in the range 9 kHz to 30 MHz<br>*There is no found Restricted bands.<br>*The 300 m limit was converted to 3 m Limit using square factor(x) as it was found by measurements as follows;<br>3 m Limit(dBuV/m) = 20log(2400/F(KHz))+40log(300/10)= 20log(2400/125.0)+40log(300/3) | | | | | | | |

7.4 13.56 MHz(HF)Test data(30 MHz ~ 1 000 MHz)

| Frequency (MHz) | Reading (dB ㎶) | Position (V/H) | Height (m) | Correction Factor | | Result Value(Quasi-peak) | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Ant Factor (dB) | Cable (dB) | Limit (dB ㎶/m) | Result (dB ㎶/m) | Margin (dB) |
| 150.00 | 21.85 | V | 1.0 | 11.80 | 2.33 | 43.50 | 35.98 | 7.52 |
| 312.00 | 19.78 | H | 1.4 | 13.57 | 2.63 | 46.00 | 35.98 | 10.02 |
| 650.00 | 14.95 | H | 1.3 | 17.90 | 3.54 | 46.00 | 36.39 | 9.61 |
| 720.00 | 13.35 | H | 1.1 | 20.35 | 3.96 | 46.00 | 37.66 | 8.34 |
| 750.00 | 10.09 | H | 1.0 | 23.10 | 4.70 | 46.00 | 37.89 | 8.11 |
| 800.00 | 10.15 | H | 1.0 | 24.20 | 5.08 | 46.00 | 39.43 | 6.57 |
| Remark | H : Horizontal, V : Vertical<br>*Result Value = Reading + Antenna + Cable loss<br>*Correction Factor = Ant Factor + Cable<br>*The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection | | | | | | | |

7.5 125 kHz(LF)Test data(30 MHz ~ 1 000 MHz)

| Frequency (MHz) | Reading (dB ㎶) | Position (V/H) | Height (m) | Correction Factor | | Result Value(Quasi-peak) | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Ant Factor (dB) | Cable (dB) | Limit (dB ㎶/m) | Result (dB ㎶/m) | Margin (dB) |
| 150.00 | 21.78 | V | 1.0 | 11.80 | 2.33 | 43.50 | 35.91 | 7.59 |
| 720.00 | 22.08 | H | 1.0 | 13.57 | 2.63 | 46.00 | 38.28 | 7.72 |
| 750.00 | 17.00 | H | 1.0 | 17.90 | 3.54 | 46.00 | 38.44 | 7.56 |
| 800.00 | 13.70 | H | 1.0 | 20.35 | 3.96 | 46.00 | 38.01 | 7.99 |
| 850.00 | 8.33 | H | 1.0 | 23.10 | 4.70 | 46.00 | 36.13 | 9.87 |
| 950.00 | 7.09 | H | 1.0 | 24.20 | 5.08 | 46.00 | 36.37 | 9.63 |
| Remark | H : Horizontal, V : Vertical<br>*Result Value = Reading + Antenna + Cable loss<br>*Correction Factor = Ant Factor + Cable<br>*The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection | | | | | | | |

## 8. Measurement of conducted disturbance

According to RSS-Gen(8.8), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 ㎑ to 30 ㎒, shall not exceed the limits in the following table, as measured using a 50uH/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

8.1 Test data (13.56 MHz HF)

| Frequency (MHz) | Correction Factor | | Line (H/N) | Quasi-peak Value | | | Average Value | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lisn (dB) | Cable (dB) | | Limit (dB ㎶) | Reading (dB ㎶) | Result (dB ㎶) | Limit (dB ㎶) | Reading (dB ㎶) | Result (dB) |
| 0.15 | 0.06 | 0.15 | H | 59.83 | 40.83 | 41.04 | 49.83 | 25.81 | 26.02 |
| 0.16 | 0.06 | 0.15 | H | 58.93 | 38.24 | 38.45 | 48.93 | 24.32 | 24.53 |
| 0.17 | 0.06 | 0.15 | N | 58.00 | 37.49 | 37.69 | 48.00 | 24.92 | 25.12 |
| 0.19 | 0.05 | 0.14 | N | 57.93 | 34.68 | 34.87 | 47.93 | 25.16 | 25.35 |
| 0.42 | 0.05 | 0.14 | H | 56.81 | 43.33 | 43.52 | 46.81 | 36.00 | 36.19 |
| 24.00 | 0.05 | 0.14 | N | 56.76 | 40.60 | 40.79 | 46.76 | 39.51 | 39.70 |
| Remark | H : Hot Line, N : Neutral Line<br>*Correction Factor = Lisn + Cable<br>*Result = Correction Factor + Reading | | | | | | | | |

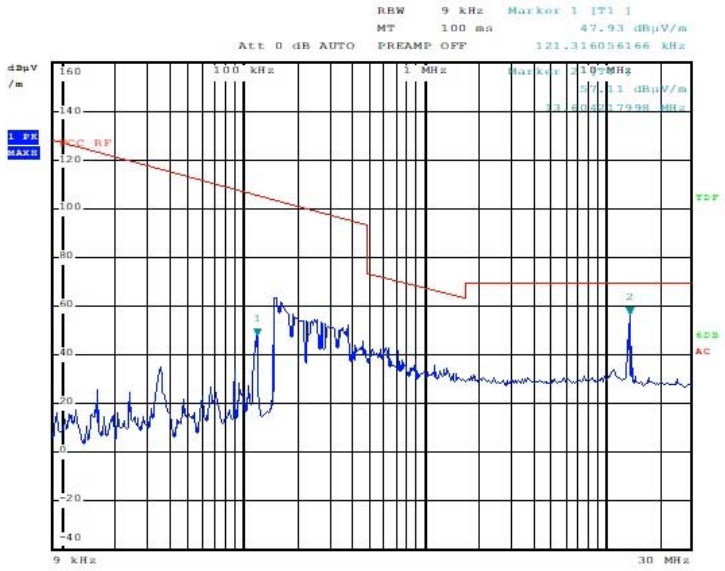
**(125 kHz LF)**

| Frequency (MHz) | Correction Factor | | Line (H/N) | Quasi-peak Value | | | Average Value | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lisn (dB) | Cable (dB) | | Limit (dB μV) | Reading (dB μV) | Result (dB μV) | Limit (dB μV) | Reading (dB μV) | Result (dB) |
| 0.16 | 0.06 | 0.15 | H | 59.83 | 38.43 | 38.64 | 49.83 | 24.13 | 24.34 |
| 0.17 | 0.06 | 0.15 | H | 58.93 | 37.68 | 37.89 | 48.93 | 25.42 | 25.63 |
| 0.21 | 0.06 | 0.15 | N | 58.00 | 31.47 | 31.67 | 48.00 | 20.35 | 20.55 |
| 0.42 | 0.05 | 0.14 | H | 57.93 | 44.18 | 44.37 | 47.93 | 36.43 | 36.62 |
| 22.11 | 0.05 | 0.14 | N | 56.81 | 32.49 | 32.68 | 46.81 | 30.08 | 30.27 |
| 24.01 | 0.05 | 0.14 | N | 56.76 | 39.97 | 40.16 | 46.76 | 38.78 | 38.97 |
| | | | | | | | | | |
| Remark | H : Hot Line, N : Neutral Line<br>*Correction Factor = Lisn + Cable<br>*Result = Correction Factor + Reading | | | | | | | | |

TEST PLOT

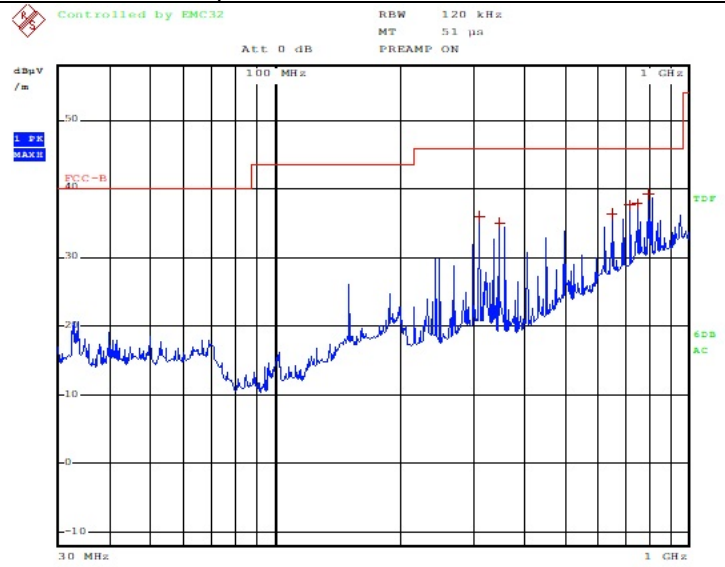
*** Horizontal**

| Radiated Spurious Emission 9 kHz – 30 MHz : HF ASK |
|---|




ESTR_23_00245

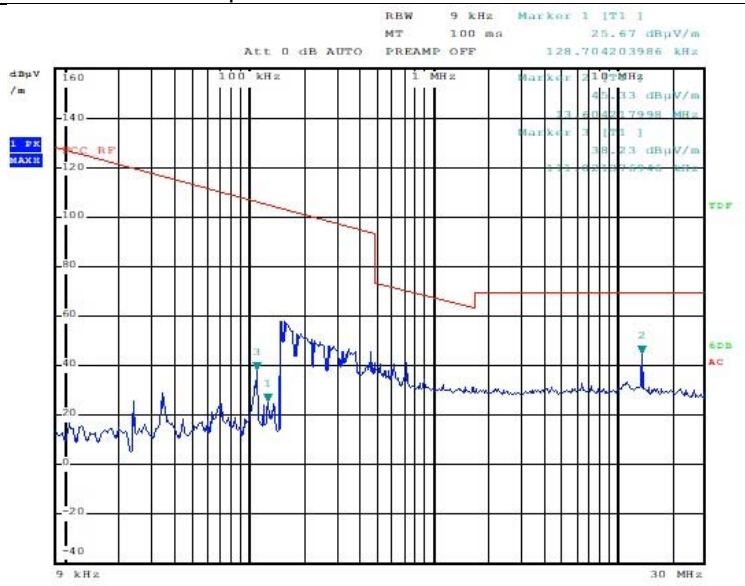
| Radiated Spurious Emission 30 MHz – 1 GHz : HF ASK |
|---|




ESTR-23-00245

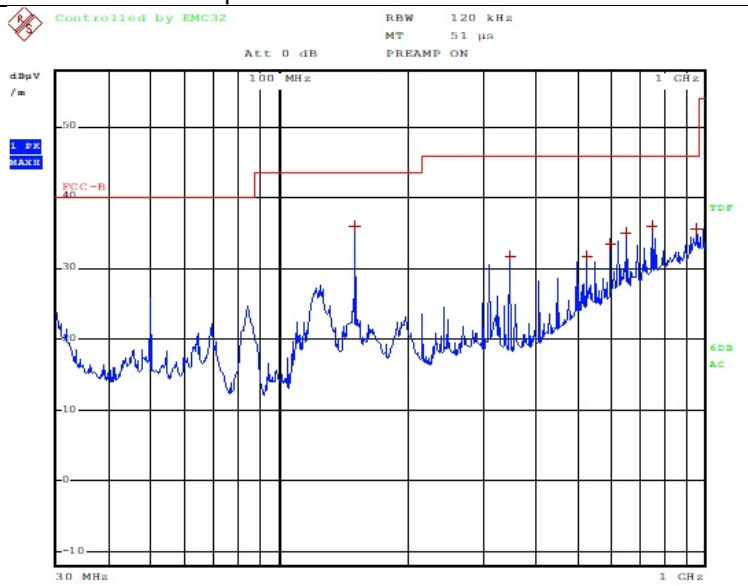
*** Vertical**

Radiated Spurious Emission 9 kHz – 30 MHz : HF ASK



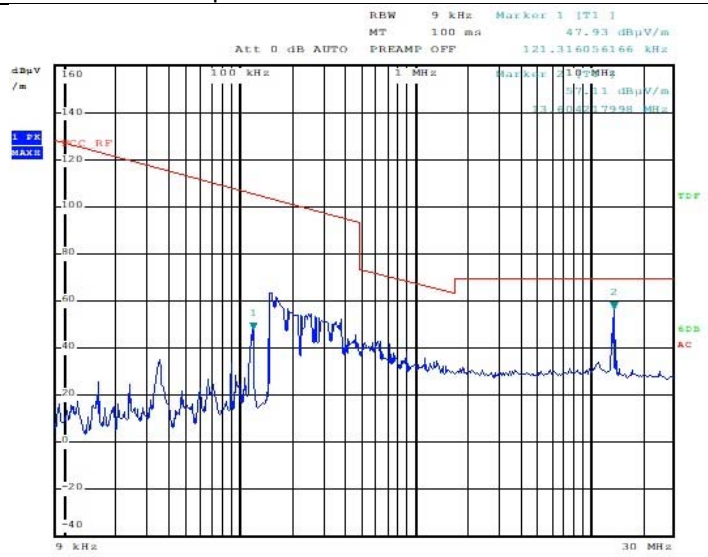

ESTR_23_00245

Radiated Spurious Emission 30 MHz – 1 GHz : HF ASK



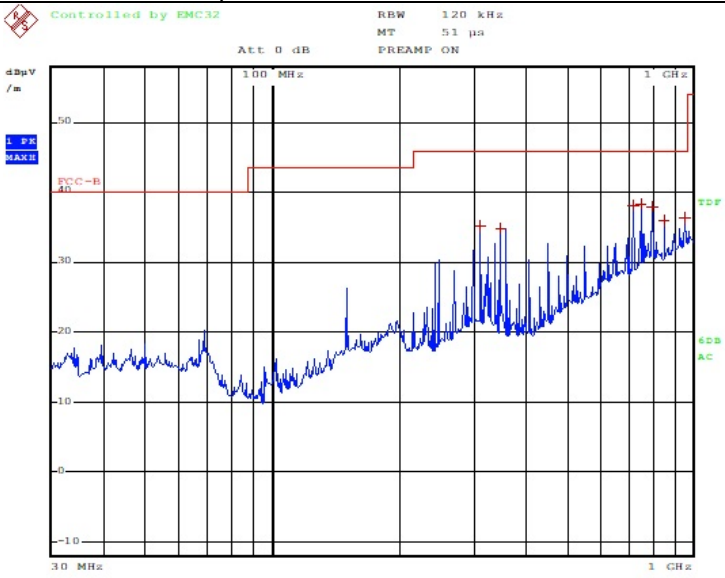

ESTR-23-00245

*** Horizontal**

| Radiated Spurious Emission 9 kHz – 30 MHz : LF ASK |
|---|
|  |



ESTR_23_00245

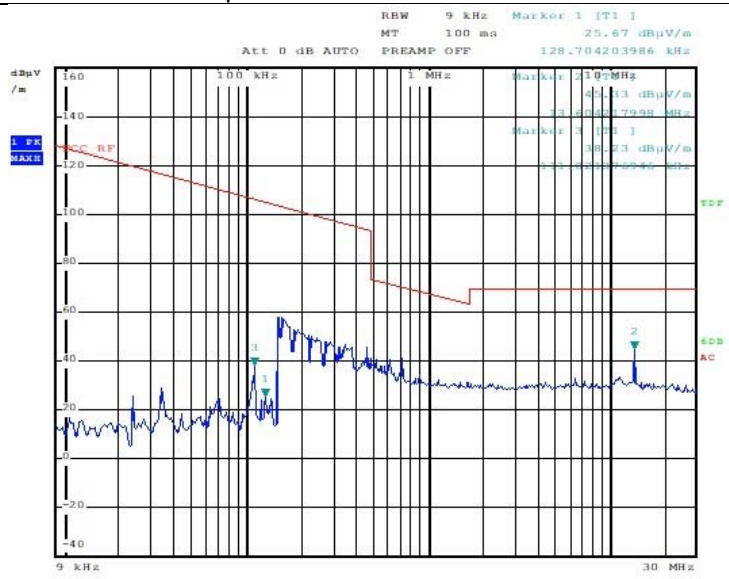
| Radiated Spurious Emission 30 MHz – 1 GHz : LF ASK |
|---|
|  |



ESTR-23-00245

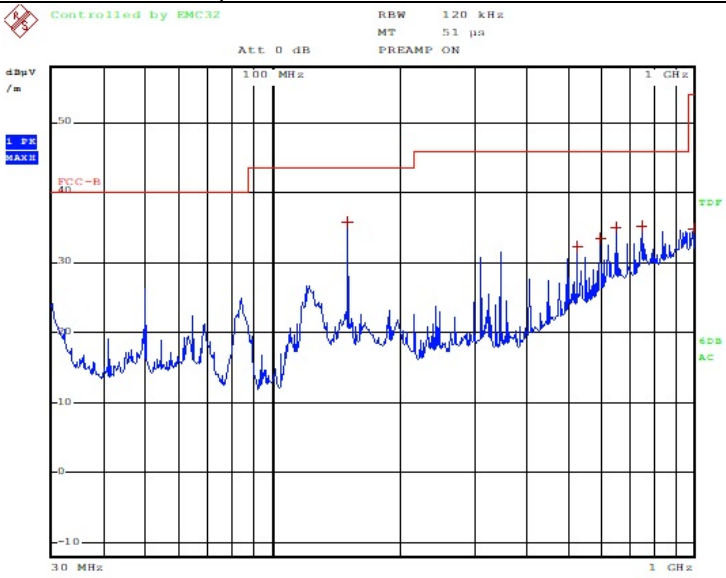
*** Vertical**

Radiated Spurious Emission 9 kHz – 30 MHz : LF ASK




ESTR_23_00245

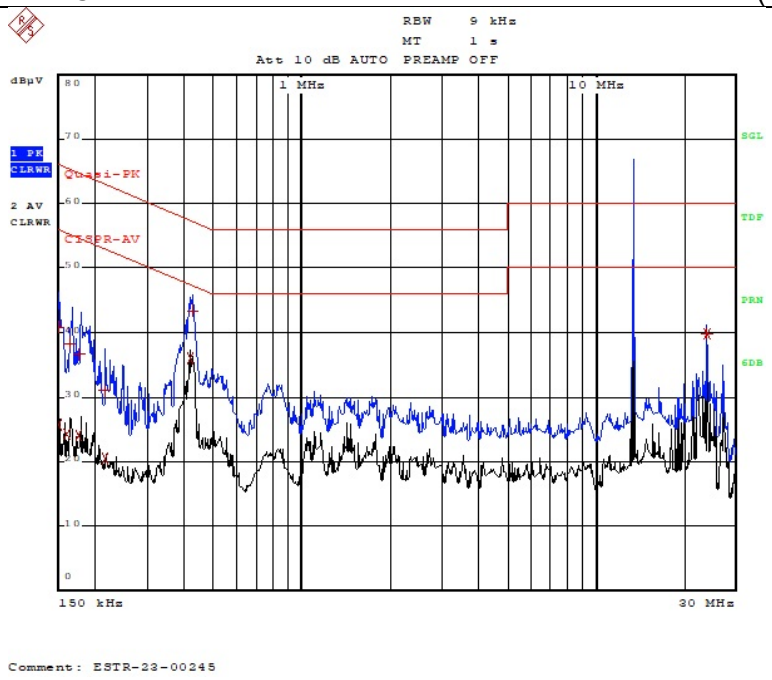
Radiated Spurious Emission 30 MHz – 1 GHz : LF ASK




ESTR-23-00245

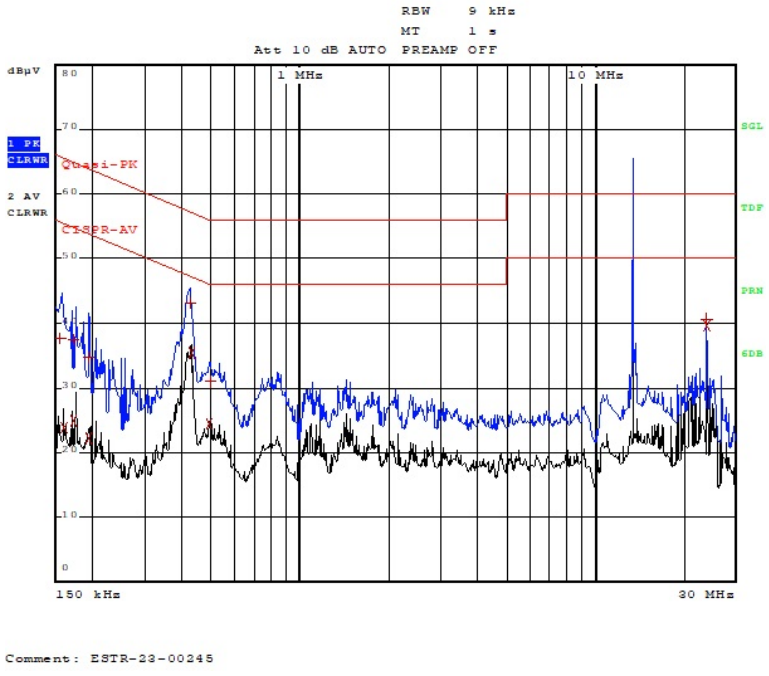
*** HOT LINE**

AC Line Conducted Emission Device with antenna connected(HF)



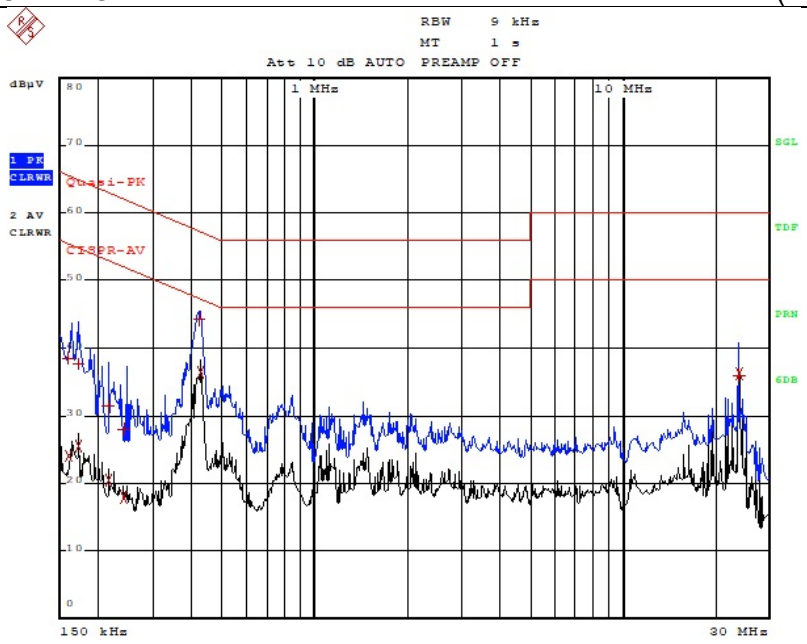

*** NEUTRAL LINE**

AC Line Conducted Emission Device with antenna connected(HF)



*** HOT LINE**

AC Line Conducted Emission Device with antenna connected(LF)




*** NEUTRAL LINE**

AC Line Conducted Emission Device with antenna connected(LF)