


<b>Prüfbericht-Nr.:</b> <i>Test report no.:</i>	<b>IN2276CW 001</b> <b>ULR-TC568822300000096F</b>	<b>Auftrags-Nr.:</b> <i>Order no.:</i>	<b>146689654 0010</b>	Seite 1 von 25 Page 1 of 25	
<b>Kunden-Referenz-Nr.:</b> <i>Client reference no.:</i>	<b>2273364</b>	<b>Auftragsdatum:</b> <i>Order date:</i>	<b>2022.06.10</b>		
<b>Auftraggeber:</b> <i>Client:</i>	Matica Technologies group SA Chamerstrasse 79, Zug, Canton of Zug, 6300, Switzerland				
<b>Prüfgegenstand:</b> <i>Test item:</i>	Direct to card printer				
<b>Bezeichnung</b> <i>Identification</i>	S3110	<b>Serien -Nr.:</b> <i>Serial no.:</i>	Engineering Sample		
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Testing and Issue of Test report With Grant certificate				
<b>Prüfgrundlage:</b> <i>Test specification:</i>	FCC Part15 subpartc -15.225 RSS 210 Issue 10 & RSS Gen Issue 5				
<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	2022.06.15				
<b>Prüfmuster-Nr.:</b> <i>Test sample no.:</i>	A003280978-001				
<b>Prüfzeitraum:</b> <i>Testing period:</i>	2022.06.15 - 2022.10.26				
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	Wireless laboratory, Bangalore				
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (India) Pvt. Ltd. 27/B, 2nd Cross Road, Electronic City Phase 1, Bengaluru-560100, India				
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass				
<b>Datum:</b> <i>Date:</i>	2022-10-27	<b>Ausstellatum:</b> <i>Issue date:</i>	2022-11-30		
<b>Stellung / Position:</b>	<b>M.V.Naveen Kumar</b> Engineer	<b>Stellung / Position:</b>	<b>Madhu K.N</b> Senior Engineer		
<b>Sonstiges / Other:</b>	FCC ID: 2AT78-MC310 IC: 25413-MC310				
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>				
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet	5 = mangelhaft
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested	5 = poor
<p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b>  <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>					

v05

## TEST SUMMARY

Test Item	FCC Clause	ISED Clause	Test results	Remarks
Occupied Channel bandwidth	-	RSS Gen Issue 5 Section 6.5	*N/T	-
Frequency tolerance	FCC part 15 Subpart C Section 15.225 (e)	RSS 210 Issue 10 Annex B.6	*N/T	-
Field Strength Measurement within the band 13.110-14.010 MHz	FCC part 15 Subpart C Section 15.225 (a,b,c,d) / (15.209)	RSS 210 Issue 10 Annex B.6	Pass	-
Radiated spurious emissions	FCC 15.209/15.205	RSS-Gen Issue 5,Section 8.9 /8.10	Pass	-

**\*Note:**

1. Product S3110 Direct card printer has 2 RFID transmitter namely Matica RFID module and the HID RFID module.
2. This product is already certified, for conducted parameters please refer the test report (report no: **ULR-TC568820300000036F**) issued by TÜV Rheinland (India) Private Limited.
3. all Radiated tests are performed by transmitting both the RFID transmitters as required by product end application.

N/A → Not Applicable

\*N/T → Not Tested

Discipline: Electronics Testing

Group: EMC Test Facility

**Prüfbericht - Nr.:**  
*Test Report No.:*

**ULR-TC56882230000096F**

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## REVISION HISTORY OF THIS REPORT

Report Number	Version	Description	Issue date
ULR-TC56882230000096F	01	Initial Issue of Test report	2022-11-29

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# 1 GENERAL REMARKS

## 1.1 Complimentary Materials

All attachments are integral part of this test report. This applies especially to the following items.

1. TEST SETUP PHOTOS
- 2: EUT EXTERNAL PHOTOS
- 3: EUT INTERNAL PHOTOS
- 4: FCC LABEL AND LABEL LOCATION
- 5: BLOCK DIAGRAM
- 6: SPECIFICATION OF EUT
- 7: SCHEMATIC DIAGRAM
- 8: BILL OF MATERIAL
- 9: USER MANUAL

## 2 TEST SITES

### 2.1 Testing Facilities

- |  |   |
|--|---|
| <p>1. TÜV Rheinland (India) Pvt.Ltd.,<br/>27/B, 2nd Cross,<br/>ElectronicCityPhase1<br/>Bangalore – 560 100,<br/>India</p> | <p>2. TUV Rheinland (India) Pvt.Ltd.,<br/>108 , Beside ISBR Business School,<br/>Electronic city Phase I<br/>Bangalore - 560 100,<br/>India</p> |
|--|---|

### 2.2 List of Test and Measurement Instruments

Table 1: List of test and measurement instruments

Equipment	Manufacturer	Model Name	Serial Number	Firmware Versions	Calibration Due Date	Periodicity	Test Items used
EMI Receiver	Rohde & Schwarz	ESW 44	101732	4.73.SP5	04-08-2023	Yearly	Radiated Spurious Emission
Active loop antenna	Frankonia	LAX-10	LAX-10-800	-	31-01-2023	Yearly	
Baloon and Biconical Antenna	Schwarzbeck Mess-Elektronik	VHBB-9124 / BBA-9106	1028	-	03-02-2023	Yearly	
Log - Periodical Antenna	Schwarzbeck Mess-Elektronik	VUSLP 9111B	9111B-111	-	04-02-2023	Yearly	
3m Semi Anechoic Chamber	Frankonia	-	-	-	-	-	
EMI Receiver	Rohde & Schwarz	ESR7	101133	3.48 SP3	22-07-2023	Yearly	Conducted AC Power line Test
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100811	-	12-07-2023	Yearly	
Two Line V-Network (LISN)	Rohde & Schwarz	ENV216	100022	-	11-10-2023	Yearly	

Table 2: Instrument application Software versions

SI. No	Test Type	Application software	Version
1	Radiated spurious emission measurement- 3 meter Semi Anechoic Chamber	BAT EMC	3.20.0.17

### 3 GENERAL PRODUCT INFORMATION

#### 3.1 Product Function and Intended Use

"The MC310 is a thermal transfer technology direct-to-card printer for high quality card delivery. Designed for rigorous use, MC310 is extremely robust and provides high security card issuance. It is ideal for card issuance in medium and large quantities. Its main features are:

1. Printing module using color dye sublimation and resin monochrome retransfer 300 dpi print head (11.8 dots/mm)
2. A flip-over module which allows dual-sided printing
3. Magnetic stripe encoder ISO 7811 which enables ISO 1, 2 and 3 magnetic encoding
4. Dual contact and contactless smart card encoder
5. Automatic ribbon recognition by means of 13,56 MHz RFID unit
6. -Connectivity interface via an USB and Ethernet"

#### 3.2 Ratings and System Details of Equipment Under Test

Table 3: Ratings and System Details as declared by the client\*

Operating Frequency Range	13.110 – 14.010 MHz
No. of Channel	Single frequency @ 13.56 MHz
Radio Protocol	RFID
Measured transmitted Field strength (dB $\mu$ V/m)	70.90dB $\mu$ V/m
Supporting Data Rates	424 Kbit/s (supports up to 848 Kbit/s)
Modulation	ASK
Number of antennas	2 (Matica Main Board: 1 and Chip Encoder (HID): 1)
Antenna Gain & Type	NA & Integrated PCB trace loop antenna
Supply Voltage to Product	24VDC (from 110VAC, 60Hz Power Adapter)
Environmental conditions	Min/max storage temperature: -5° / +70 °C (23° / 158 °F) Min/max operating temperature: 15° / 30
Dimensions ( H X W X L)	253 x 200 x 395 mm

**\*Disclaimer:**

The information/data is supplied by the client and the same is considered to arrive at the final value. Any changes made apart from the specified specification, can directly impact on the tests results. Refer the products user manual for more details.

### 3.3 Measurement Uncertainty:

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$

**Table 4: Measurement Uncertainty**

Parameter	Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1.5 dB
Power Spectral Density, conducted	±3 dB
Unwanted Emissions, conducted	±3 dB
All emissions, radiated	±6 dB
Temperature	±3 °C
Supply Voltages	±3 %
Time	±5 %

**Note:** The Listed Measurement Uncertainties are the worst-case uncertainty, for the respective test cases. Above Table is for reporting purpose only and not used in determining Final Pass/Fail verdict.



## 4 TEST SET-UP AND OPERATION MODE

### 4.1 Principle of Configuration Selection

Transmission was enabled with highest possible duty cycle 13.56 MHz channel.

### 4.2 Operation and Software of the EUT

Hardware Name : MC310

PMN: MC310, MC315, MC320, MC325, MC330, MC335, MC340, MC345, MC350, MC355, MC360, MC365, MC370, MC375, MC380, MC385, MC390, MC395, MC310s, S3110, K310, MC110, MC210

Hardware Version of MC310 printer (HVIN): MC310

Software name: Printer Native driver MC310 and RD-Dcp2 test software

Software Version(FVIN): NA

### 4.3 Test modes – data rates and modulations

EUT has two RFID transmitters(Matica RFID & HID RFID Transmitter), test modes as defined in below table is used in testing.

Test Modes	Test cases	EUT configuration setting
a	1. Frequency tolerance 2. Occupied channel bandwidth & 20 dB bandwidth	Refer the Test report (report No: <b>ULR-TC568820300000036F</b> )
b	1.Frequency tolerance 2. Occupied channel bandwidth & 20 dB bandwidth	Refer the Test report (report No: <b>ULR-TC568820300000036F</b> )
C	1.Field Strength Measurement within the band 13.110-14.010 MHz 2. Radiated spurious emissions	Measurements were made by simultaneously operating both transmitter from the antenna as required for EUT end application

### 4.4 Special Accessories and Auxiliary Equipment

- 110 VAC to 24VDC certified adaptor & Test laptop to configure the EUT.

### 4.5 Countermeasures to achieve EMC Compliance

- None

**Note:**

TUV Sample Identification number : A003280978-001 -Radiated test sample

## 5 Operational Description

1. Blank cards are placed into the card feeder cartridge.
2. Printing commands are issued from a PC through USB or LAN port.
3. The print data will be saved on RAM memory of the printer (up to 5 panel data : Y, M, C, K, Uv)
4. The card will be taken from feeder (via the flip-over or encoding station)
5. A new yellow panel of the ink ribbon will be detected and moved to its starting point.
6. A new panel of film will be detected and moved to the printable location and the thermal head will be positioned to print location.
7. Yellow data of memory will be printed to the card by heating the yellow panel of film by the thermal head.
8. After printing yellow panel, the thermal head will be moved.
9. Magenta panel will be moved to the starting point.
10. The printed film will be repositioned to the printable location and the thermal head will be moved down.
11. Magenta data of RAM memory will be printed to the card using thermal head.
12. After printing magenta panel, the thermal head will be moved up.
13. Cyan panel will be adjusted to the starting point.
14. The film will be repositioned to the printable location and the thermal head will be down.
15. Cyan data of RAM memory will be printed to the card using thermal head.
16. After printing cyan panel, the thermal head will be moved up.
17. Black panel will be moved to the starting point.
18. The film will be repositioned to the printable location and the thermal head will be moved down.
19. Black data of RAM memory will be printed to the card using thermal head.
20. After printing black panel, the thermal head will be moved up.
21. The card will be taken from feeder (via the flip-over or encoding station) and then laminated together with the printed retransfer film by means of heating rollers.
22. At the end the card will is then exited.

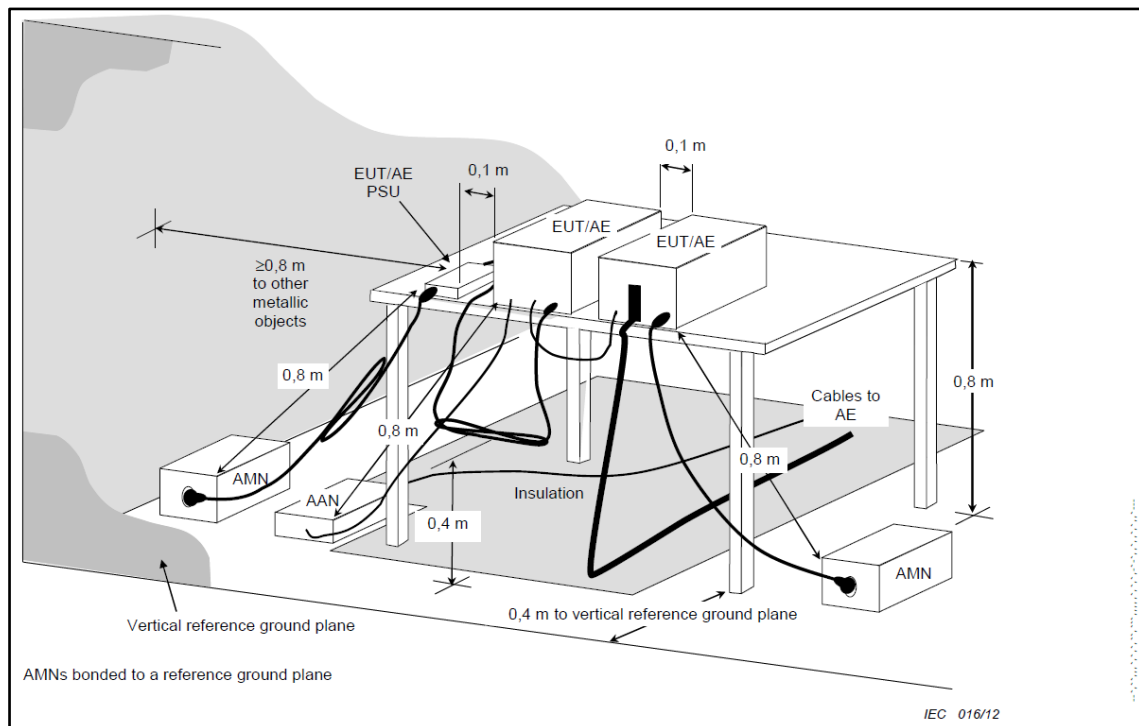
## 6 TEST METHODOLOGY

### 6.1 Conducted Spurious Emission Test on AC Power Line

Measured levels of ac power-line conducted emission across the 50Ω LISN port (to which the EUT is connected). All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer.

The device is placed on the test table, raised 80cm above the reference ground plane. The vertical conducting plane is located 40cm to the rear of the device. AC Conducted emission measurement is made over frequency range from 150kHz to 30MHz, this measurement was performed with EUT powered by 2 methods and both method are tested individually, one with an AC adaptor with 110V AC 60Hz supply and second with Wireless charger with supply 110V AC 60Hz.

#### 6.1.1 Test Setup Configuration



## 6.2 Radiated Emission Test

The radiated emission measurement was performed according to the procedures in ANSI C63.10-2013. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable for below 1 GHz & 1.5 m height for above 1 GHz measurement, and the EUT is 3 meters far from the measuring antenna. The turntable was rotated 360° for obtaining the maximum emission. The height of the measuring antennas was scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000 MHz was performed by horn antenna, The measurement below 30 MHz was performed by loop antenna, Measurement from 30 MHz to 200 MHz was performed by Baloon and Biconical Antenna, and measurement from 200 MHz to 1 GHz was performed by Log-Periodic Antenna.

The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded

**Note:** Measured Emissions (dBµV/m) = Received Emissions(dBµV) + Antenna Factor(dB/m)+ Cable Loss(dB) – Pre-amplifier Gain(dBi)

### 6.2.1 Test Setup Configuration

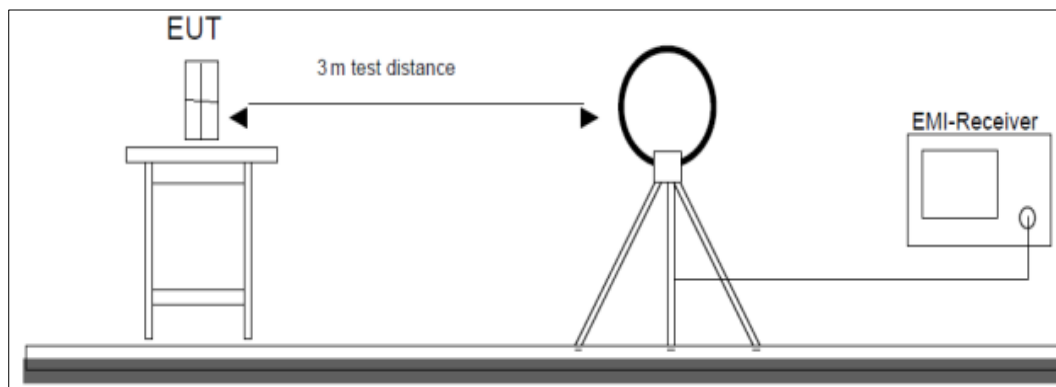


Figure 1: Frequency Range 9 kHz- 30 MHz

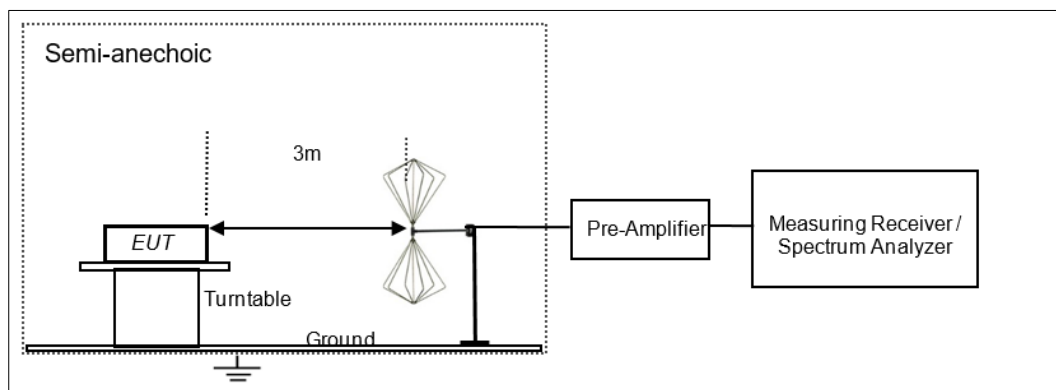


Figure 2: Frequency Range 30 MHz – 200 MHz

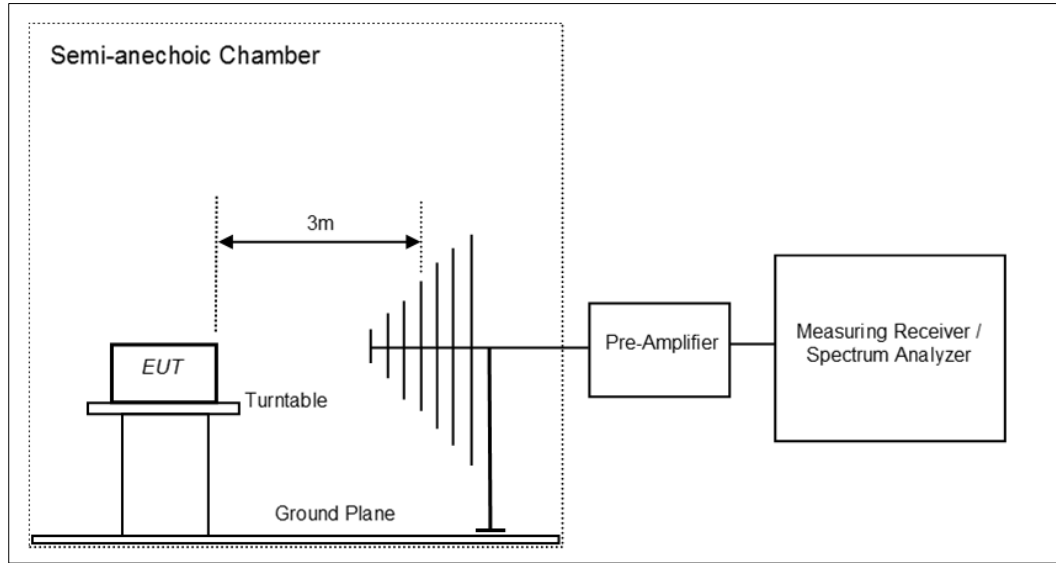


Figure 3: Frequency Range 200 MHz - 1GHz

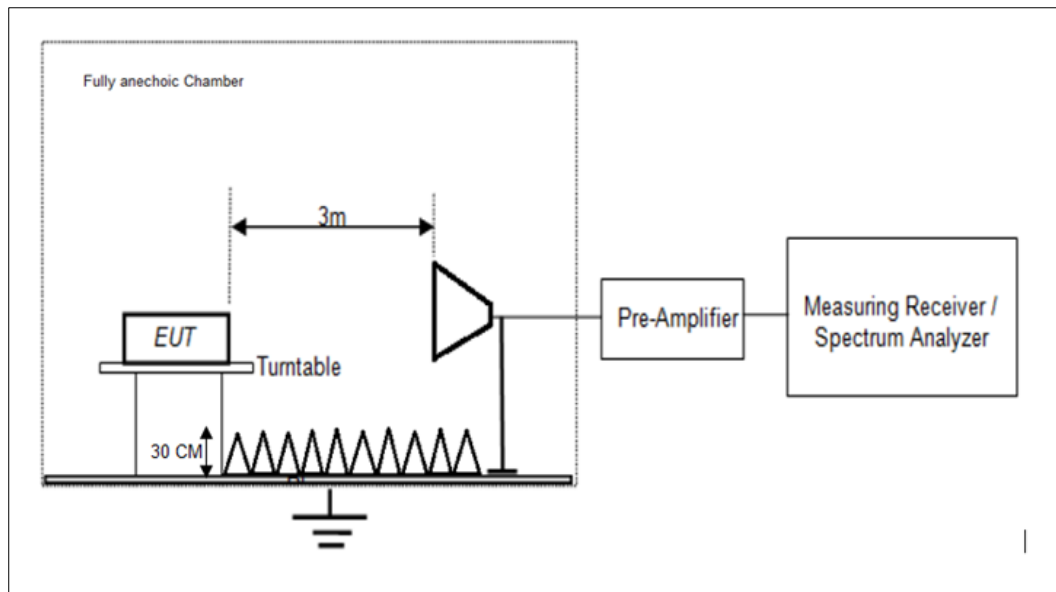


Figure 4: Frequency Range above 1 GHz

## 7 TEST RESULTS

### 7.1 Field Strength Measurement within the band 13.110-14.010 MHz

**Result**

**Pass**

Test Specification	FCC part 15 Subpart C Section 15.225 (a,b,c,d) / RSS 210 Issue 10 Section B.6
Test Method	ANSI C 63.10 – 2013
Measurement Location	Semi Anechoic Chamber
Measuring Distance	3 m
Detector	QP for frequency below 1 GHz
Requirement	As mentioned in the below Table 5: Field strength limits in 13.110-14.010 MHz operation
Test setup	Refer Radiated Emission Test

**Table 5: Field strength limits in 13.110-14.010 MHz operation**

Frequency (MHz)	Field strength ( $\mu\text{V/m}$ )	Field strength limit for 30 meter distance ( $\text{dB}\mu\text{V/m}$ )	Field strength limit for 3 meter distance ( $\text{dB}\mu\text{V/m}$ )
13.553 -13.567	15848	83.99	123.99
13.410-13.553 and 13.567 -13.710	334	50.47	90.47
13.110 -13.410 and 13.710-14.010	106	40.5	80.5

**Note:** As per the 15.31 Section f(2) , distance correction factor of 40dB/decade is used to convert Field strength limit from 30 meter to 3 meter measurement antenna distance.

**Test Conditions:**

Temperature: +24.8 °C    Supply Voltage: 24VDC (from 110VAC, 60Hz Power Adapter)    RH: 61.76 %

**Test results:**

**Table 6: Field Strength Measurement within the band 13.110-14.010 MHz**

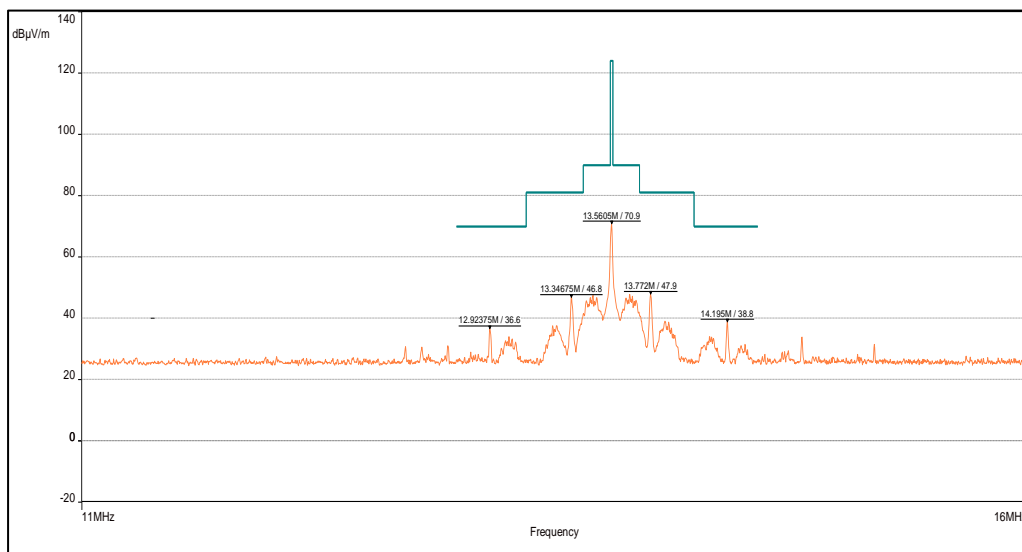
Printer is in Transmitting mode of operation

Antenna Polarization	Frequency range (MHz)	Field Strength (dBµV//m)	Limit (dBµV//m)	Margin (dB)
Parallel	12.923	36.60	69.54	-32.94
	13.346	46.80	80.50	-33.7
	13.560	70.90	123.99	-53.09
	13.772	47.90	80.50	-32.6
	14.19	38.80	69.54	-30.74
Perpendicular	12.968	36.50	69.54	-33.04
	13.468	34.60	90.47	-55.87
	13.560	67.50	123.99	-56.49
	13.666	33.30	90.47	-57.17

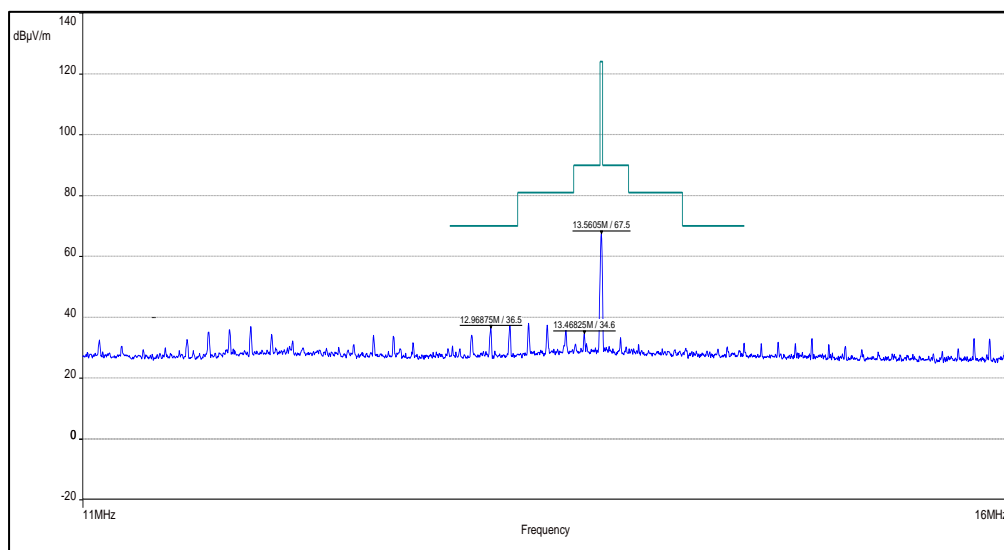
**Note:**

- Above reported test results are measured during printer normal mode operation ( i.e. Both Matica RFID & HID RFID are transmitting).
- Field strength limits are converted to 3mts measurement distance .

**Test plots 1: Spectrum Emission mask in the frequency range 13.110 MHz to 14.010 MHz**



**Antenna Polarization: Parallel**



**Antenna Polarization: Perpendicular**



## 7.2 Spurious Radiated Emissions

### Result

### Pass

Test Specification	FCC part 15 Subpart C 15.247 (d) / (15.209 & 15.205) / IC RSS-GEN, Section 8.9 and 8.10
Test Method	ANSI C63.10
Measurement Location	Semi anechoic chamber
Measurement Bandwidth	100 kHz for frequency range < 1GHz 1 MHz for Frequency range >1GHz
Detector	Refer remarks below
Measuring Distance	3 m
Requirement	As per the limits mentioned in the below table
Test setup	Refer TEST METHODOLOGY

**Table 7: Transmitter limits for Radiated emission**

Frequency (MHz)	Field strength ( $\mu\text{V/m}$ )	Field strength ( $\text{dB}\mu\text{V/m}$ )	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: \* The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 3 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54  $\text{dB}\mu\text{V/m}$  at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

### Test Conditions:

Temperature: +24.8 °C      Supply Voltage: 24VDC (from 110VAC, 60Hz Power Adapter)      RH: 61.76 %

**Test results:**

**Note:** All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

**Test results for frequency range 30MHz to 200MHz**

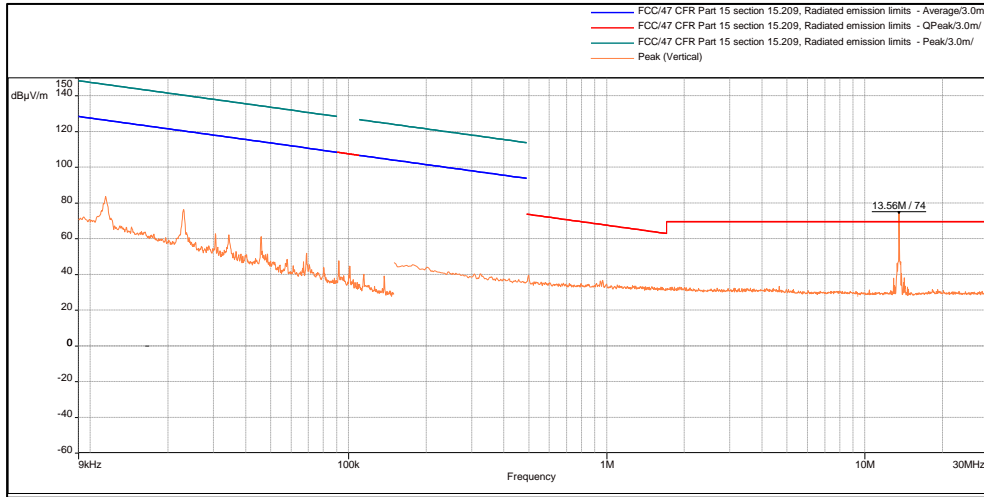
Antenna Polarization	Measured Frequency (MHz)	Measured Spurious emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	40.68(QP)	36.44	40.00	-3.56
	69.01(QP)	18.62	40.00	-21.38
	77.42(QP)	32.32	40.00	-7.68
	108.80(QP)	29.73	43.50	-13.77
	165.55(QP)	8.57	43.50	-34.93
Horizontal	77.58(QP)	32.81	40.00	-7.19
	143.38(QP)	31.10	43.50	-12.40
	154.58(QP)	20.48	43.50	-23.02
	182.33(QP)	12.13	43.50	-31.37
	191.71(QP)	28.28	43.50	-15.22

**Test Results for the frequency range 200MHz to 1GHz**

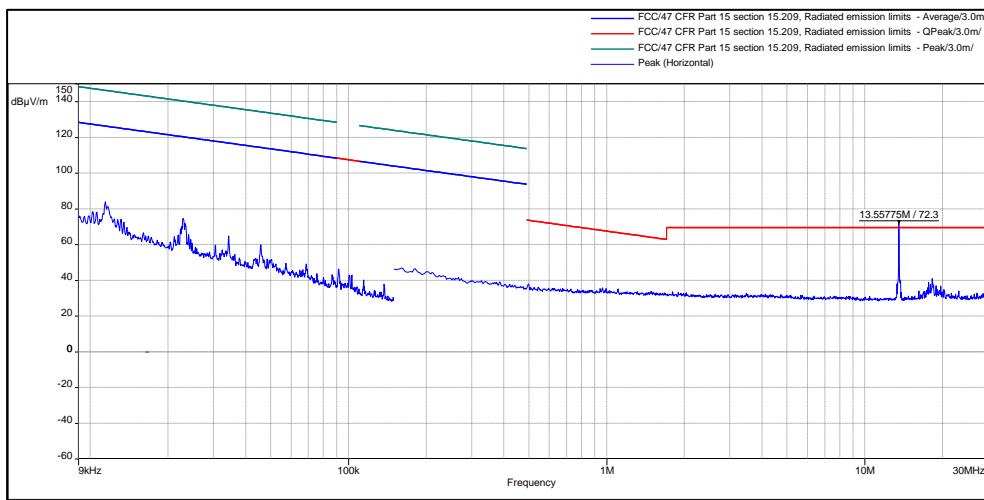
Antenna Polarization	Measured Frequency (MHz)	Measured Spurious emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	214.77(QP)	26.16	43.50	-17.34
	250.00(QP)	42.68	46.00	-3.32
	311.89(QP)	26.95	46.00	-19.05
	356.57(QP)	14.19	46.00	-31.81
	364.12(QP)	35.42	46.00	-10.58
	375.40(QP)	29.42	46.00	-16.58
	426.72(QP)	14.17	46.00	-31.83
	457.86(QP)	24.83	46.00	-21.17
	476.03(QP)	26.16	46.00	-19.84
	512.02(QP)	33.31	46.00	-12.69
	812.75(QP)	14.03	46.00	-31.97
	884.70(QP)	14.73	46.00	-31.27
Horizontal	937.92(QP)	29.92	46.00	-16.08
	250.00(QP)	45.35	46.00	-0.65
	311.89(QP)	22.95	46.00	-23.05
	375.12(QP)	38.97	46.00	-7.03
	409.87(QP)	26.28	46.00	-19.72
	438.96(QP)	12.18	46.00	-33.82
	499.96(QP)	42.78	46.00	-3.22
	825.92(QP)	25.80	46.00	-20.20
833.94(QP)	14.76	46.00	-31.24	
	937.51(QP)	15.66	46.00	-30.34

**Test plots 2:** spurious emissions in 9KHz to 1GHz measurement range.

**Frequency range: 9kHz to 30MHz**

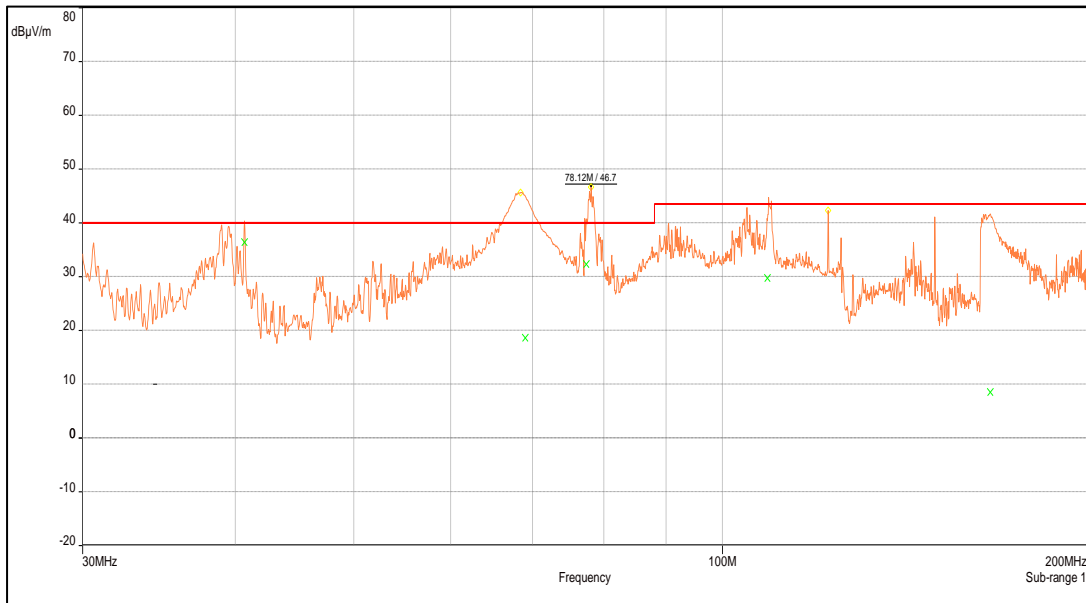


**Antenna polarization: Parallel**

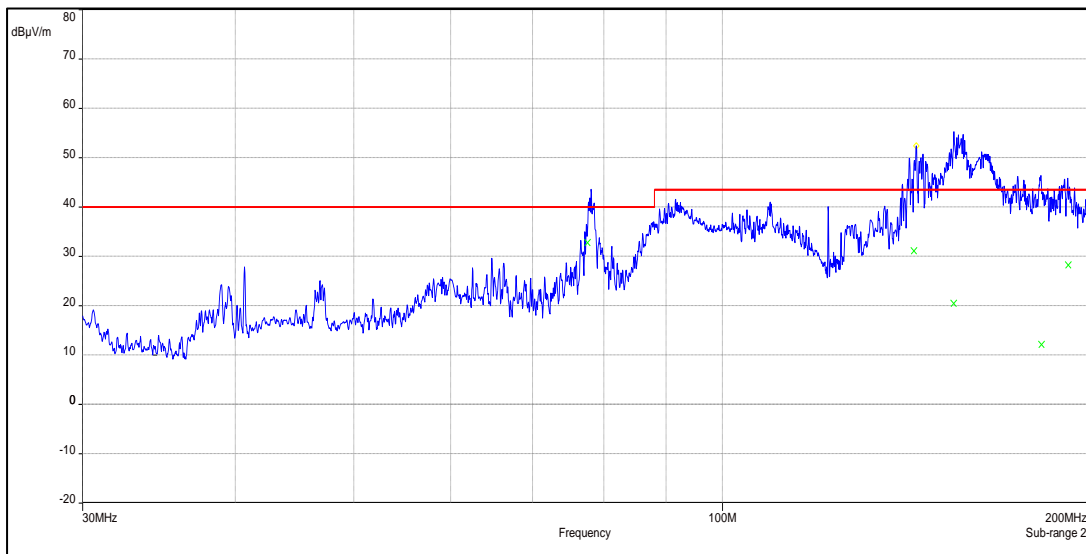


**Antenna polarization: Perpendicular**

**Frequency range: 30MHz to 200MHz**

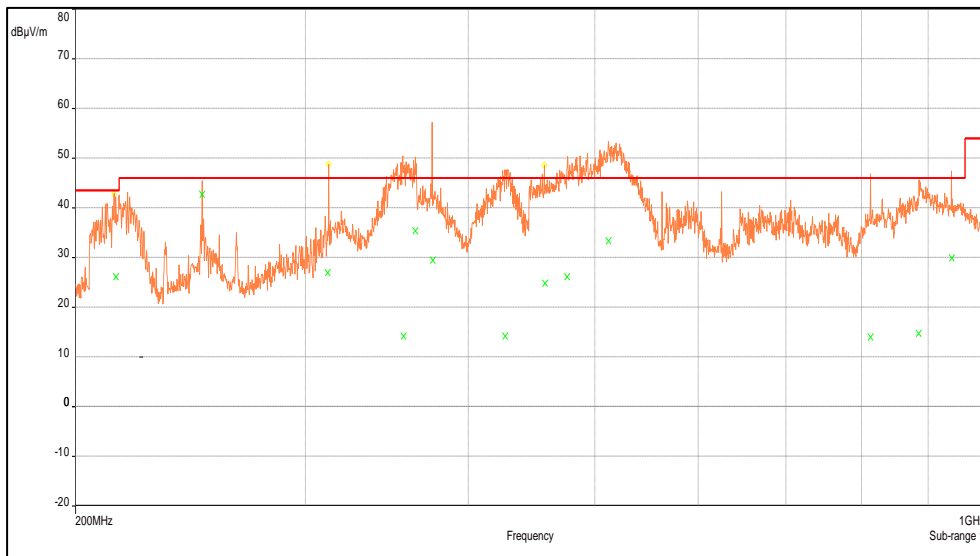


**Antenna polarization: Vertical**

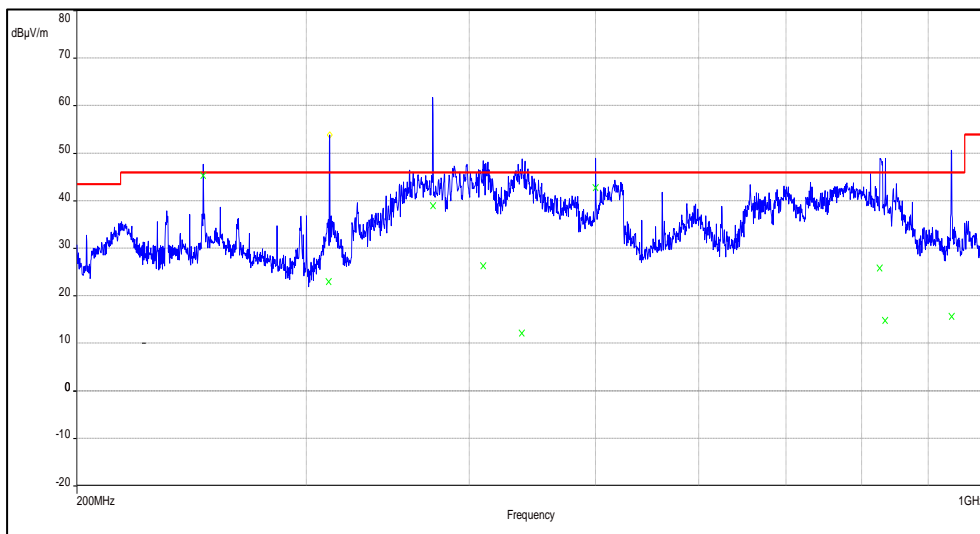


**Antenna polarization: Horizontal**

**Frequency range: 200MHz to 1GHz**



**Antenna Polarization: Vertical**



**Antenna Polarization: Horizontal**

### 7.3 Conducted Spurious Emission Test on AC Power Line

**Result**

**Pass**

Test Specification : FCC Part 15 Section 15.207 / RSS Gen Issue 5 Section 8.8  
 Test Method : ANSI C 63.10-2013  
 Testing Location : Screened room  
 Measurement Bandwidth : 9kHz  
 Frequency Range : 150kHz – 30MHz  
 Supply Voltage : 110VAC,60Hz  
 Test Method : Refer TEST METHODOLOGY

**Limits of section 15.207**

Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak (dBµV)	Average (dBµV)
0.15-0.5	66-56*	56-46*
0.5-5	56	46
5-30	60	50

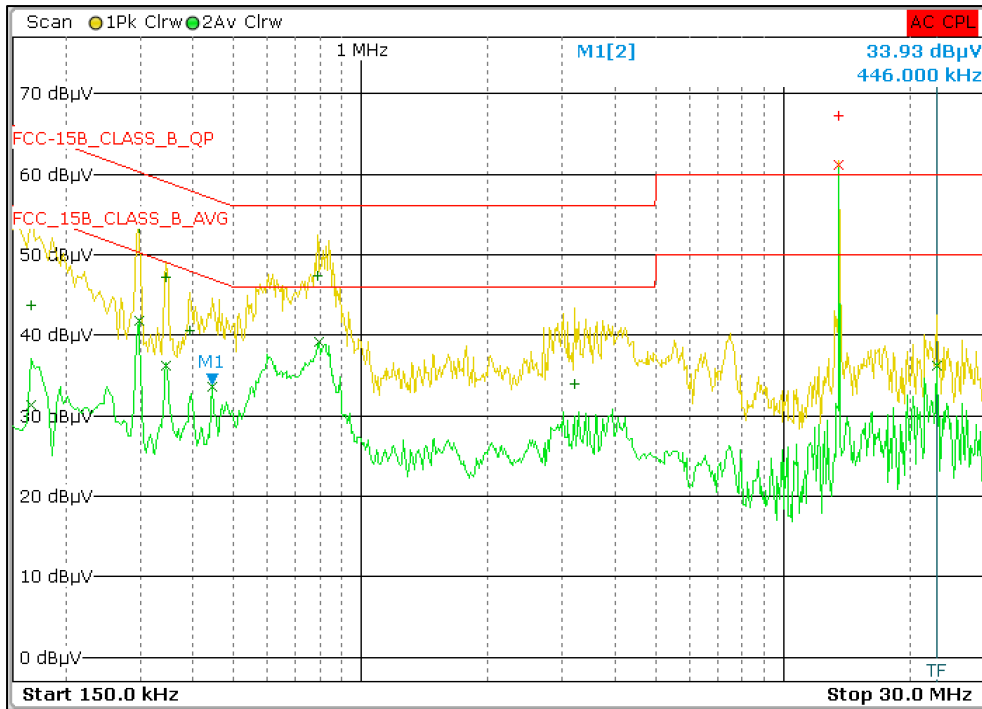
\* Decreases with the logarithm of the frequency

**Test Conditions:**

Normal Temperature = +24°C Voltage (V norm) = 24VDC (from 110VAC, 60Hz Power Adapter) RH = 64 %

Test result:

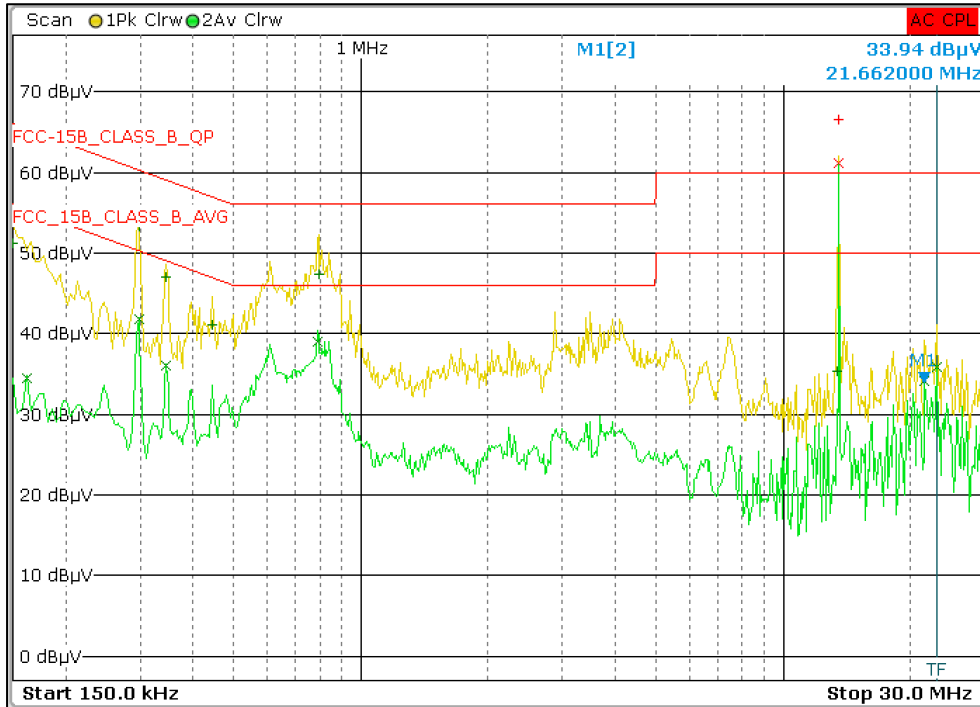
Power: 110VAC\_ 60Hz\_LINE



Graph: Line

Trace	Frequency	Level (dBµV)	Phase	Detector	Delta Limit/dB
1	166.00000000 kHz	43.77		Quasi Peak	-21.39
2	166.00000000 kHz	31.37		Average	-23.79
1	298.00000000 kHz	53.36		Quasi Peak	-6.94
2	298.00000000 kHz	41.86		Average	-8.44
1	346.00000000 kHz	47.12		Quasi Peak	-11.94
2	346.00000000 kHz	36.25		Average	-12.81
1	394.00000000 kHz	40.59		Quasi Peak	-17.39
2	446.00000000 kHz	33.57		Average	-13.38
1	790.00000000 kHz	47.37		Quasi Peak	-8.63
2	794.00000000 kHz	39.13		Average	-6.87
1	3.21000000 MHz	33.95		Quasi Peak	-22.05
1	13.56200000 MHz	67.32		Quasi Peak	7.32
2	13.56200000 MHz	61.08		Average	11.08
2	23.13000000 MHz	36.25		Average	-13.75

Power: 110VAC\_60Hz\_NEUTRAL



Graph: Neutral

Trace	Frequency	Level (dBµV)	Phase	Detector	Delta Limit/dB
1	150.00000000 kHz	51.28		Quasi Peak	-14.72
2	162.00000000 kHz	34.43		Average	-20.93
1	298.00000000 kHz	53.33		Quasi Peak	-6.97
2	298.00000000 kHz	41.77		Average	-8.53
1	346.00000000 kHz	47.10		Quasi Peak	-11.96
2	346.00000000 kHz	36.10		Average	-12.96
1	446.00000000 kHz	41.09		Quasi Peak	-15.86
2	790.00000000 kHz	38.95		Average	-7.05
1	794.00000000 kHz	47.39		Quasi Peak	-8.61
1	13.43000000 MHz	35.41		Quasi Peak	-24.59
1	13.56200000 MHz	66.56		Quasi Peak	6.56
2	13.56200000 MHz	61.19		Average	11.19
2	21.66200000 MHz	34.13		Average	-15.87
2	23.13000000 MHz	35.94		Average	-14.06



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\*\*\*\*\* END OF TEST REPORT\*\*\*\*\*