

## RAPPORTO DI PROVA

### TEST REPORT

Rif. / Ref. n.	<b>FCCTR_180160A-1</b>	Data Emissione / Issue Date:	<b>03/05/2022</b>	Pagine / Pages:	<b>31</b>
Scopo delle prove Test object	Prove di tipo in accordo alla Norme Type test according to Standards <b>FCC Cfr 47 part 15 - Subpart C - §15.209 (a) and 15.249 (a), (d) &amp; (e)</b>				
Richiedente Applicant	<b>DATALOGIC S.r.l.</b> Via S. Vitalino 13 - 40012 Lippo Di Calderara Di Reno - Bologna - Italy Phone. +39 051 3147196 Fax +39 051 3147561				
Marchio commerciale Trade mark					
Fabbricante Manufacturer	DATALOGIC S.r.l.				
Prodotto Product	Radio module				
Modello testato Testing model	<b>MIZAR RADIO MODULE 915MHZ</b>				
Identificativo FCC FCC ID	<b>U4F0022</b>				
Data ricevimento campioni Date of test samples receipt	08/07/2021				
Campioni verificati No. of tested samples	1 – Sampled by the manufacturer				
Data verifiche Testing date	From 12/11/2021 to 18/11/2021				
Sito di prova Testing site	PRSLAB S.r.l. Unipersonale - Via Campagna 92 - 22020 Faloppio - Como - Italy				
Identificativo FCC del sito di prova FCC designation number	IT0012				
Esito delle valutazioni Assessment results	<b>CONFORME / COMPLIANT</b>				
Verifiche effettuate da Verifications carried out by	<b>Daniele AOSANI</b> Tecnico Laboratorio Laboratory Engineer				
Approvato Approved by	<b>Riccardo PFEIFFER</b> Responsabile Laboratorio Laboratory Manager				

I risultati delle prove riportati nel presente rapporto di prova si riferiscono solo ai campioni esaminati.

The test results reported in this test report shall refer only to the samples tested.

Il campione è stato fornito dal cliente ed i risultati si riferiscono al campione così come ricevuto

The sample has been provided by the customer and the results apply to the sample as received

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## 0. RELEASE CONTROL RECORD

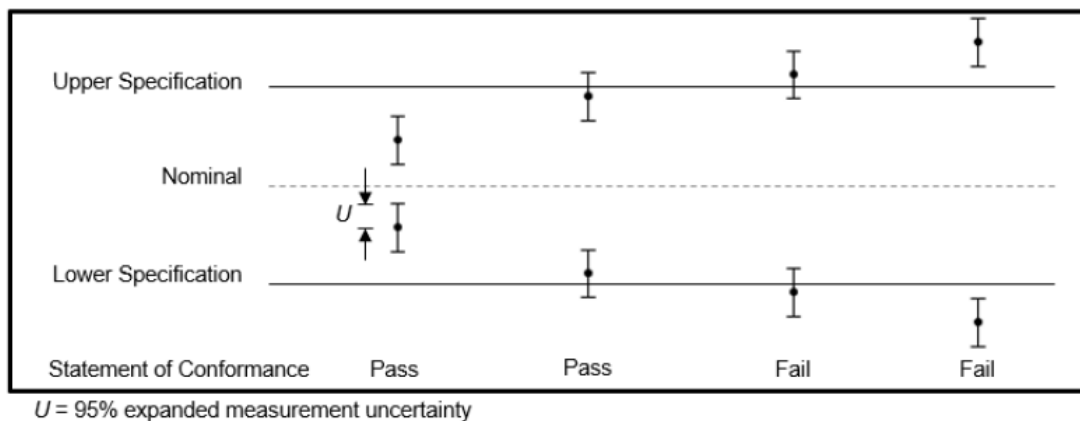
TEST REPORT NUMBER	REASON OF CHANGE	DATE OF ISSUE
FCCTR_180160A-0	Original release	14/03/2022
FCCTR_180160A-1	Editorial Change at pag.4	03/05/2022

This document is valid in last revision that deletes and replaces the previous one

## 1. DECISION RULE

PRSLAB specifies that, if the decision rules of conformity of the test results are not indicated in detail in the standard/s object of tests, it takes as a decision rule for the declaration of conformity the simple binary system ( $w = 0$ ) stated in the ILAC-G8-09:2019 document.

The decision rule is applicable for all parts of standard



Statements of conformity are reported as:

- Pass: the measured value is below the acceptance limit,  $AL=TL$ .
- Fail: the measured value is above the acceptance limit,  $AL=TL$ .

Definitions

- Guard Band ( $w$ ): interval between a tolerance limit and a corresponding acceptance limit where length  $w=|TL-AL|$ .
- Tolerance Limit (TL) (Specification Limit): specified upper or lower bound of permissible values of a property.
- Acceptance Limit (AL): specified upper or lower bound of permissible measured quantity values.

## 2. INFORMATION PROVIDED BY CUSTOMER

- The tested module can be used with two different (same type) antennas:

1.Wire Antenna (Model: Helical) → Max Gain declared 0.5dBd (2.65dBi)

2.Wire Antenna (Model: Folded) → Max Gain declared -5dBd (-2.85dBi)

The ratings and measurements shown in this report take into consideration the antenna with the highest gain.


### 3. GENERAL REMARKS

In order to qualify for a Class 2 permissive change it must be established that the RF output power (DSS and DTS equipment class) and the field strength of the fundamental emission (DXX equipment class) are not +3dB higher than the levels for which the original Grants have been issued.

Original Grant Values	New values
DXX – Max measured power: 93,35dBuV/m	DXX – Max measured power: 94,4dBuV/m

## 4. TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

### 4.1 EUT Identification

<b>DESCRIPTION</b>	Radio module
<b>MODEL NAME</b>	MIZAR MODULE 915MHZ
<b>FCC ID</b>	U4F0022
<b>S/N</b>	G19LBGEL000C59C0
<b>PRSLAB INTERNAL REFERENCE</b>	BC 239/2021
<b>TRADEMARK</b>	
<b>MANUFACTURER</b>	DATALOGIC S.r.l.
<b>COUNTRY OF MANUFACTURER</b>	Italy
<b>SINGLE UNIT OR SYSTEM</b>	Single
<b>POWER SOURCE</b>	DC power from board
<b>POWER SUPPLY NOMINAL VOLTAGE</b>	3.3Vdc
<b>OPERATING TEMPERATURE</b>	-20°C ÷ +55°C
<b>DIMENSIONS</b>	See photography documentation
<b>EUT STANDING</b>	Table, wall or portable system

## 4.2 Radio module technical data

<b>TYPE OF RADIO DEVICE</b>	Transceiver		
<b>MODULATION</b>	Manchester RZ		
<b>DATA RATE</b>	36.846 kbps		
<b>TRANSMITTER FREQUENCY RANGE</b>	From 902MHz to 928MHz		
<b>TRANSMITTER CHANNELS TESTED for DXF</b>	<b>Channel ID</b>	<b>Channel number</b>	<b>Channel Frequency (MHz)</b>
	Lowest	1	903,6490
	Default	4	910,0000
	Highest	12	926,9360
<b>RECEIVER FREQUENCY RANGE</b>	From 902MHz to 928MHz		
<b>RECEIVER CHANNELS TESTED</b>	<b>Channel ID</b>	<b>Channel number</b>	<b>Channel Frequency (MHz)</b>
	Default	8	910,0000
<b>TESTED ANTENNA TYPE</b>	Wire Antenna		
<b>MAXIMUM ANTENNA GAIN</b>	0.5dBd (2.65dBi)		
<b>TESTED ANTENNA MODEL</b>	Helical		

### 4.3 Ports identification

	PORT	DESCRIPTION	CONNECTION	NOTES
<input type="checkbox"/>	Enclosure	Electronic board	Screws	---
<input type="checkbox"/>	AC Power input	Port not present	---	---
<input checked="" type="checkbox"/>	DC Power input	3.3Vdc	---	---
<input type="checkbox"/>	Signal/Control port	Port not present	---	---
<input checked="" type="checkbox"/>	Antenna	External	UFL	---

**Note:**

During the tests all cables must be what provided the manufacturer or the same that used in the real employment of the EUT.

### 4.4 Modifications incorporated in E.U.T.

The following items are the modifications introduced in the equipment under test:

- None

### 4.5 Auxiliary equipment

- Laboratory laptop used to set radio channels.
- RJ485 to USB cable to provide power supply and communicate to the auxiliary PC.
- Electronic board.

## 5. REFERENCE STANDARDS

CODE OF FEDERAL REGULATIONS	DESCRIPTION
<b>Title 47 Part 15 Subpart B § 15.209</b>	Radio Frequency Devices – Intentional Radiators Radiated emission limits; general requirements
<b>Title 47 Part 15 Subpart B § 15.249</b>	Radio Frequency Devices – Intentional Radiators Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz
<b>ANSI C63.10:2013</b>	American National Standard for Testing Unlicensed Wireless Devices

## 6. OPERATING TEST MODES AND TEST CONDITIONS

In the following table there are the operating conditions adopted during tests identified by an indicator (#) at which has been referred the item "Operating condition of the equipment under test"

OPERATING CONDITION	DESCRIPTION
<b>#1</b>	Continuous transmission, modulated carrier



## 7. SUMMARY OF TEST RESULTS

SUMMARY OF TEST RESULTS				
Port	Test	Reference Standard	Operating Condition	Results
Antenna	Transmitter Radiated Emissions <b>DXX Technology</b>	FCC Part 15 § 15.249 (a)(d)(e) - §15.209 (a)	#1	Within the limits
	Transmitter Band-Edge <b>DXX Technology</b>	FCC Part 15 § 15.249 (d) - §15.209	#1	Within the limits

## 8. UNITS OF MEASUREMENTS

Conducted EMI Data is in dB $\mu$ V; dB referenced to one microvolt

Radiated EMI Data is in dB $\mu$ V/m; dB/m referenced to one microvolt per meter

Sample Calculation:

RFS = Radiated Field Strength,

FSM = Field Strength Measured,

A.F. = Receive antenna factor,

Gain = amplification gains and/or cable losses.

$$\text{RFS (dB}\mu\text{V/m @ 3m)} = \text{FSM (dB}\mu\text{V)} + \text{A.F. (dB/m)} - \text{Gain (dB)}$$

## 9. TEST RESULTS

<b>TRANSMITTER RADIATED EMISSIONS &lt; 1GHz .....</b>	<b>10</b>
<b>TRANSMITTER RADIATED EMISSIONS &gt; 1GHz .....</b>	<b>21</b>
<b>BAND-EDGE .....</b>	<b>29</b>

## TEST 1.

### TRANSMITTER RADIATED EMISSIONS < 1GHZ

#### REFERENCE DOCUMENT

According to § 15.249 (a) & § 15.209 (a)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 Db below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 Db instead of 20 Db. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

• TEST LOCATION	Semi-Anechoic Chamber					
• DISTANCE OF MEASUREMENT	3m					
• TYPE OF MEASUREMENT	Radiated					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	MXE Emi Receiver	Keysight	N9038A	MY57290150	07/2021	07/2022
	Semi-Anechoic Chamber	Siemens	B83117-D6019-T232	003-005-134/94C	02/2021	02/2022
	Loop antenna	Rohde & Schwarz	HFH 2-Z2	841801/012	03/2020	03/2023
	Bi-log antenna	Chase	CBL6111C	2717	03/2019	03/2022
	Software EMC	Rohde & Schwarz	EMC32-E	V 8.40.0	N.A.	
• TESTED PORT	Antenna					
• TEST METHOD	ANSI C63.10:2013 section 6.4					
• FREQUENCY RANGE	9kHz – 1GHz					
• LIMITS	Acc. To ref. Std.					
• UNCERTAINTY OF MEASURE	Level of confidence = 95% (k=2) Expanded uncertainty 9kHz – 30MHz = 4,24 dB Expanded uncertainty 30MHz – 1GHz = 5,72 dB					

TEST CONDITIONS	REQUIRED	MEASURED
Ambient temperature	23°C ± 5°C	24 °C
Ambient humidity	25 - 75%rH	45%
Pressure	85 - 106kPa (860mbar - 1060mbar)	960 mbar
Voltage		3.3Vdc from board

OPERATING CONDITION: #1

RESULT: **WITHIN THE LIMITS**

MEASUREMENT PARAMETER		
Frequency Range:	9kHz – 30MHz	30MHz – 1GHz
Resolution bandwidth:	200Hz	100kHz
Video bandwidth:	1kHz	300kHz
Span:	See plots below	See plots below
Sweep time	Auto couple	Auto couple
Detector:	Peak	Peak
Trace-Mode:	Max. hold	Max. hold

### TEST DESCRIPTION

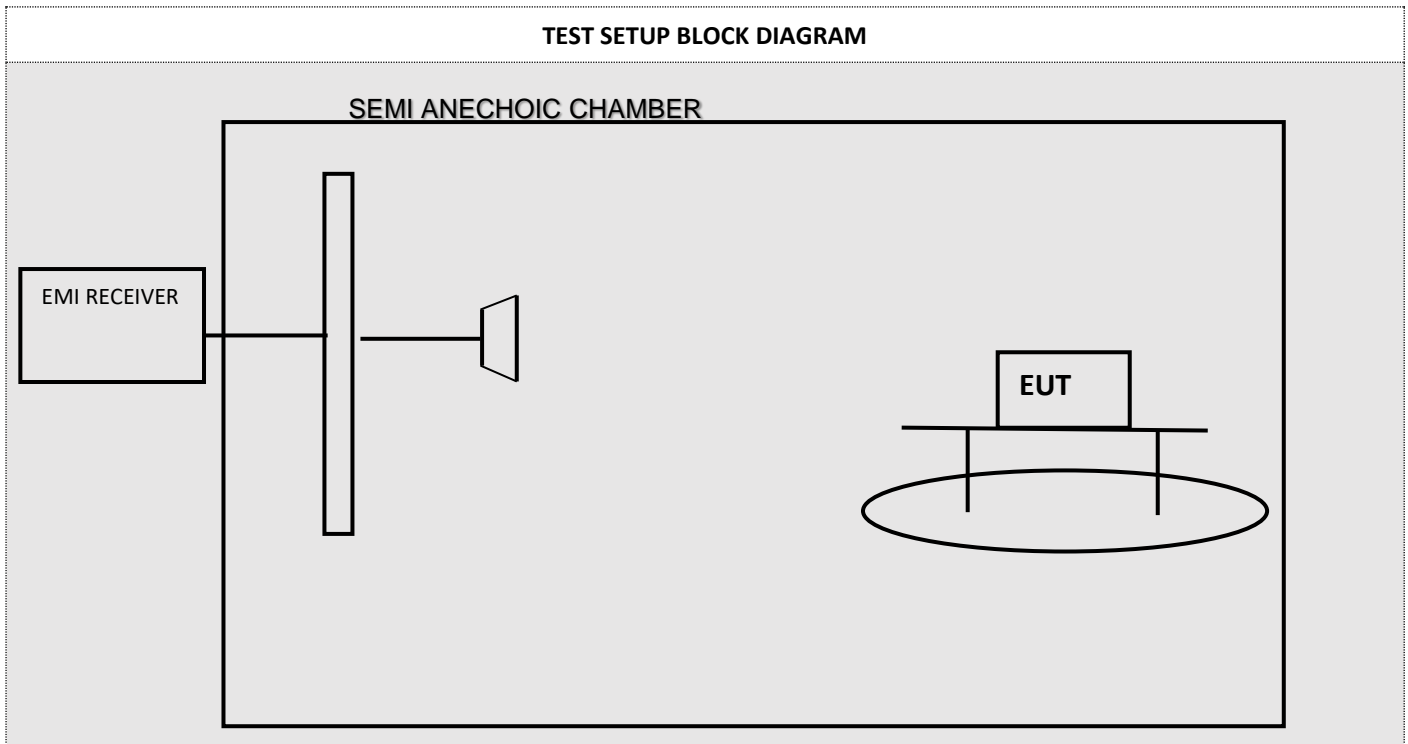
Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously - rotating, remotely - controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency.

The EUT is placed at test table height is 80 cm above the reference ground plane.

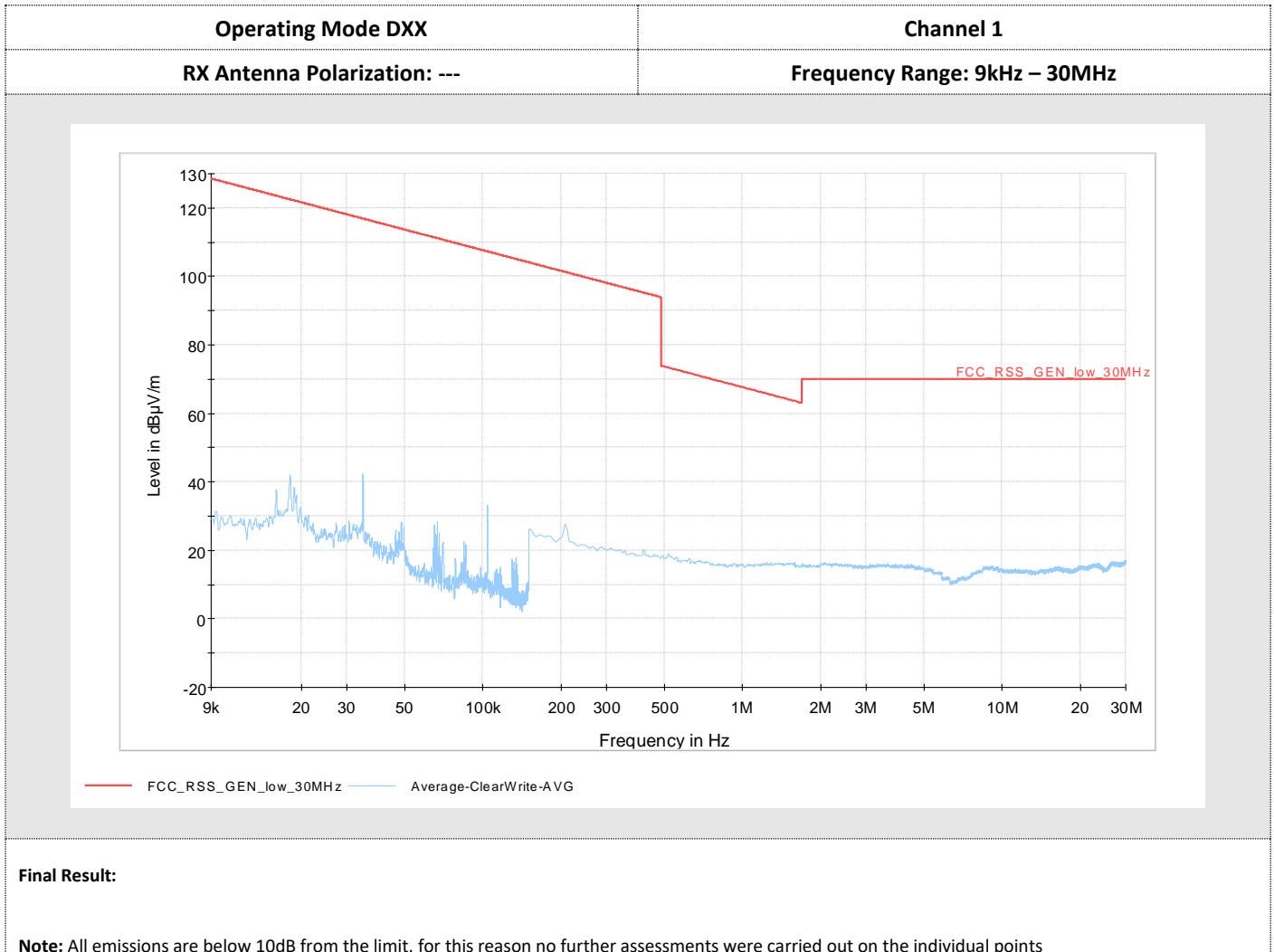
Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m~4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3m.

This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

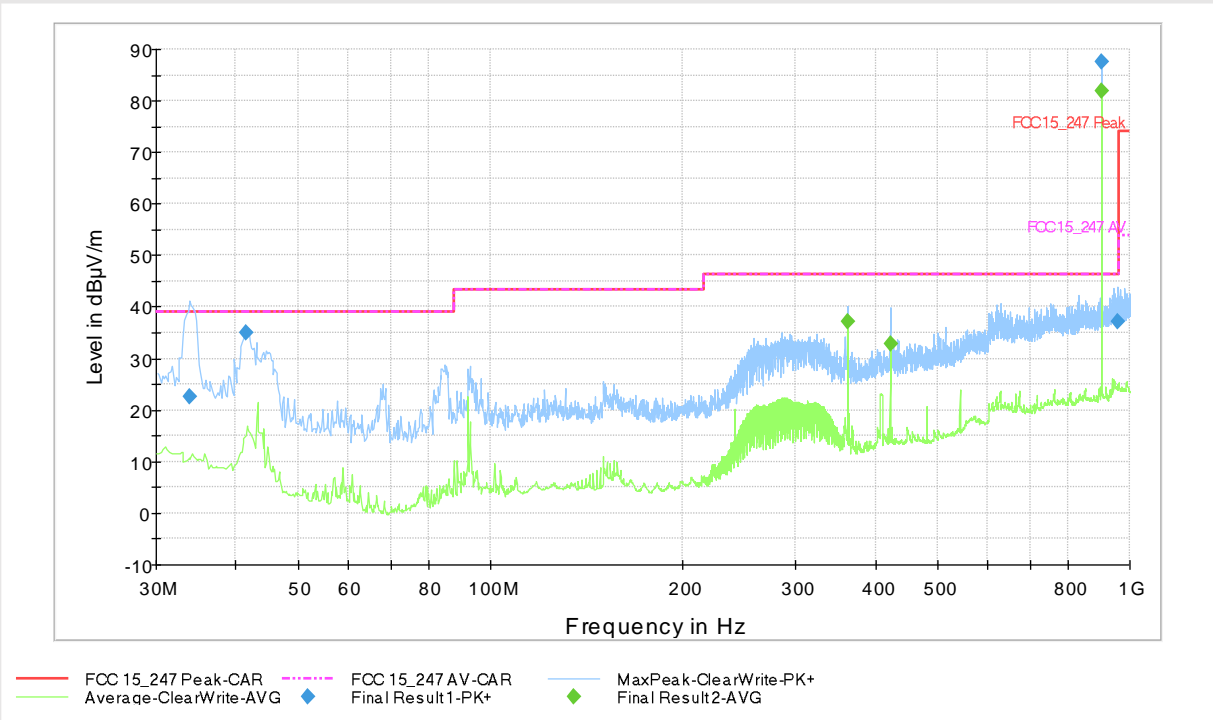
### TEST SETUP BLOCK DIAGRAM



**TEST RESULTS**



<b>Operating Mode DXX</b>	<b>Channel 1</b>
<b>RX Antenna Polarization: Vertical</b>	<b>Frequency Range: 30MHz – 1GHz</b>



**Final Result Quasi Peak:**

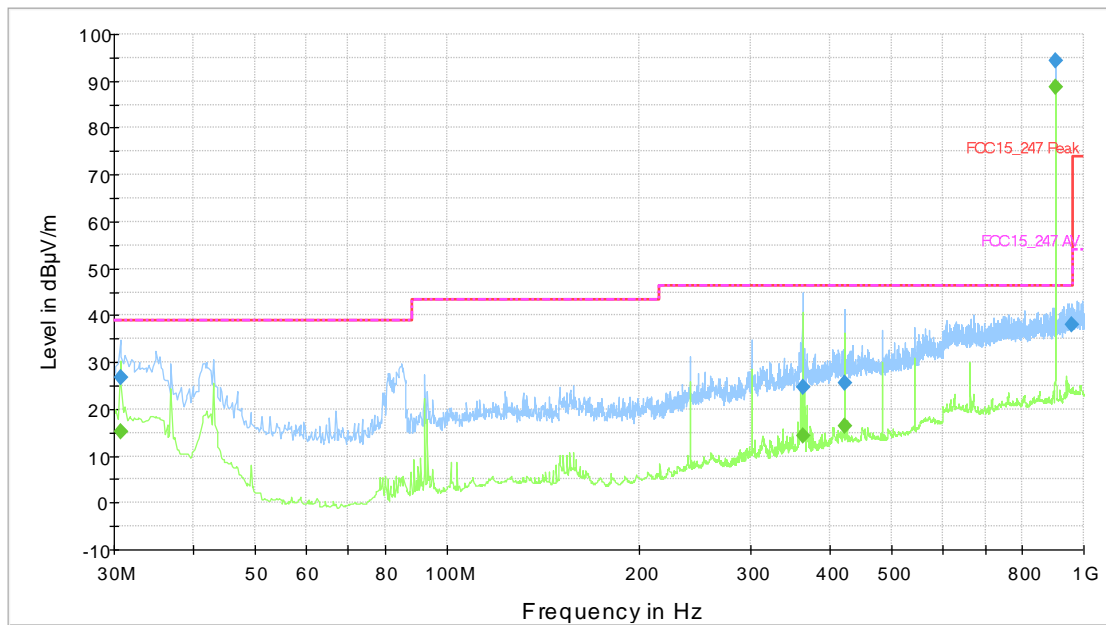
Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
33.930000	22.5	330.2	-3.0	16.50	39.00
41.580000	35.0	179.7	187.0	4.00	39.00
902.730000	87.5	99.8	187.0	-41.10	46.40
959.460000	37.2	179.8	187.0	9.20	46.40

**Final Result Average:**

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
361.650000	22.5	123.7	262.0	9.20	46.40
421.950000	35.0	99.8	181.0	13.40	46.40
902.880000	87.5	99.8	187.0	-35.60	46.40

NOTE: Peak out of limits is due to Radio carrier.

<b>Operating Mode DXX</b>	<b>Channel 1</b>
<b>RX Antenna Polarization: Horizontal</b>	<b>Frequency Range: 30MHz – 1GHz</b>



— FCC 15\_247 Peak-CAR   
 - - - FCC 15\_247 AV-CAR   
 — MaxPeak-ClearWrite-PK+  
— Average-ClearWrite-AVG   
 ◆ Final Result1-PK+   
 ◆ Final Result2-AVG

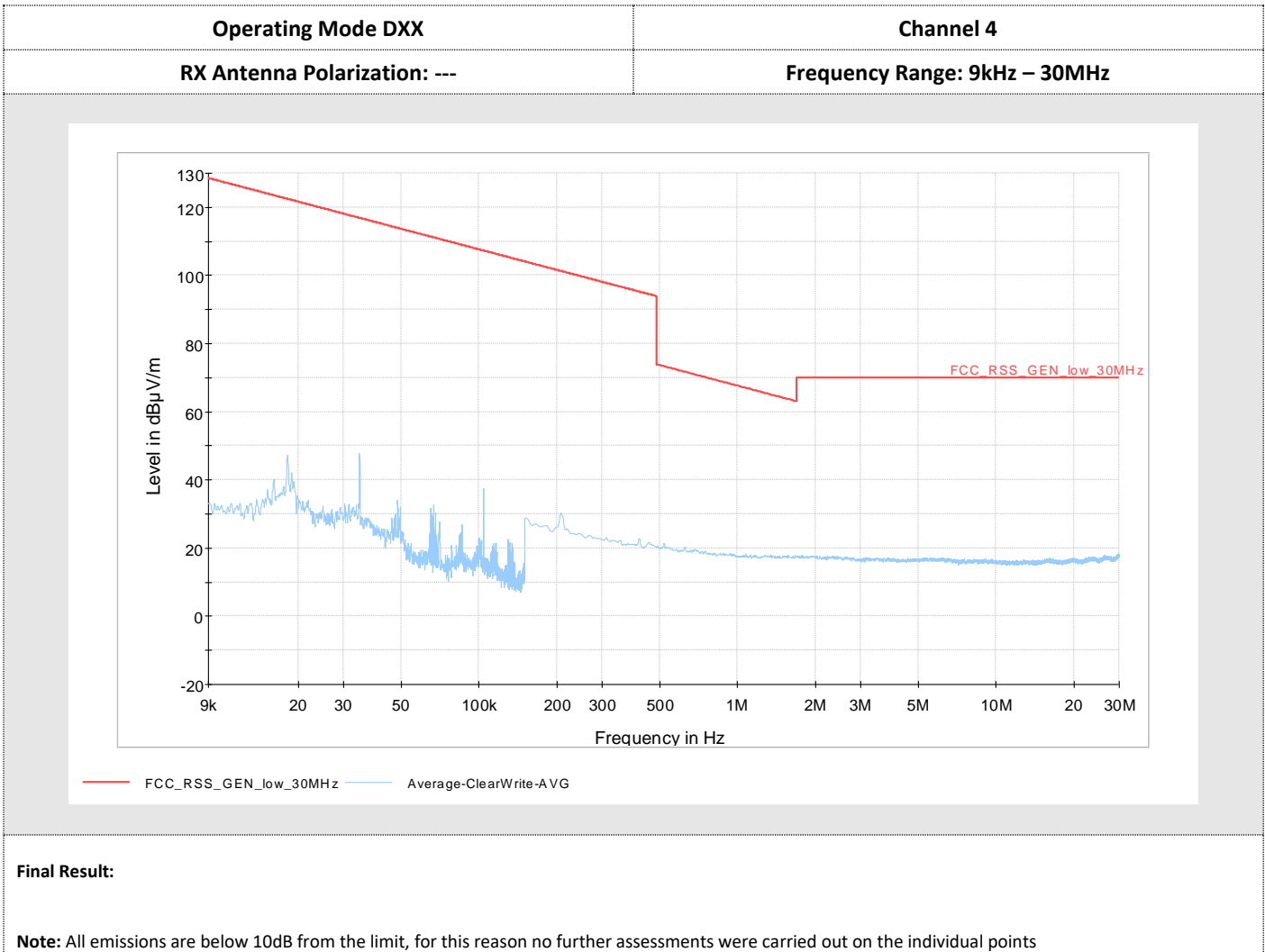
**Final Result Quasi Peak:**

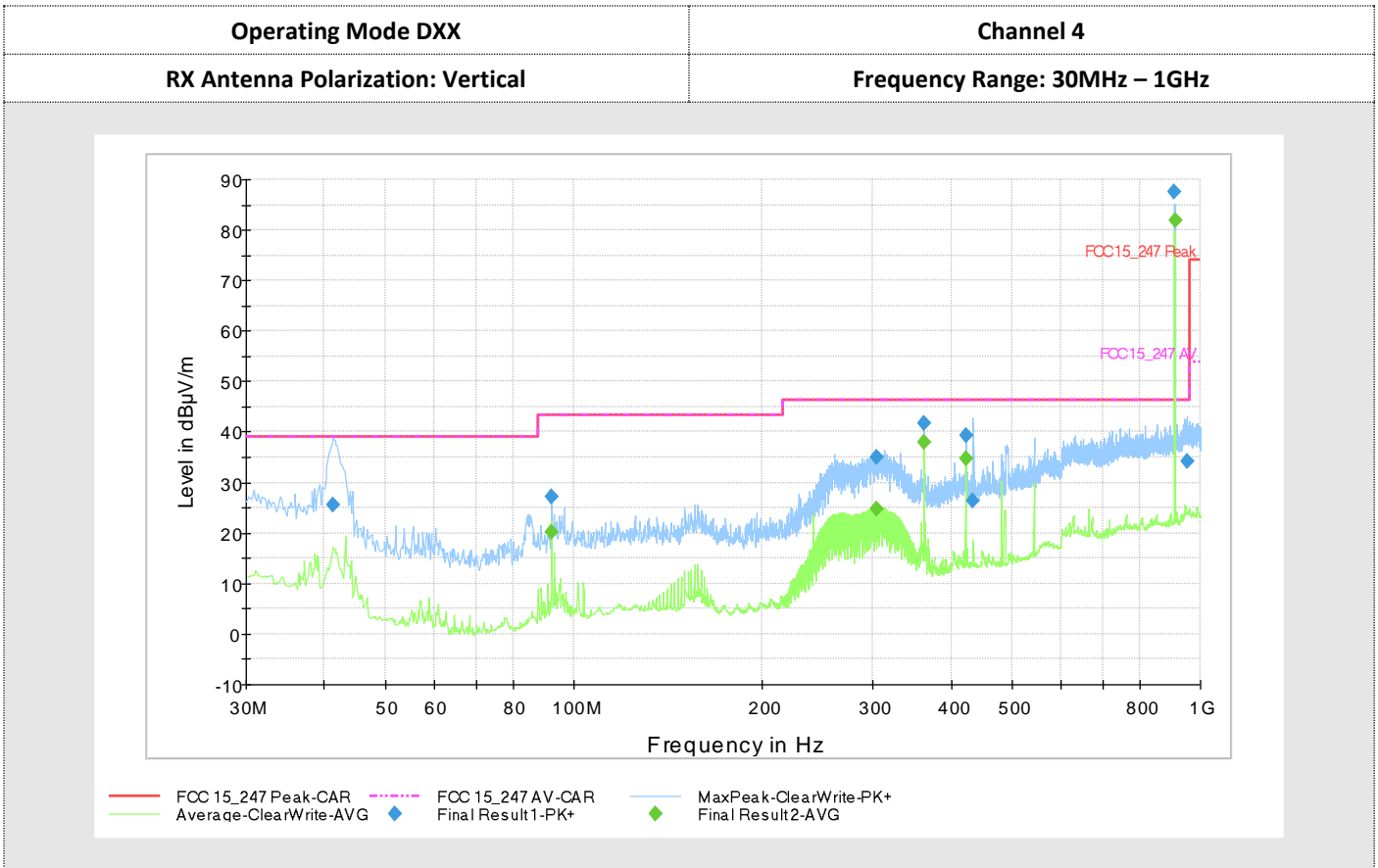
Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
30.720000	26.8	299.7	86.0	12.20	39.00
361.680000	24.6	97.4	187.0	21.80	46.40
421.980000	25.7	272.6	187.0	20.70	46.40
902.730000	94.4	97.3	7.0	-48.00	46.40
955.230000	38.0	97.3	7.0	8.40	46.40

**Final Result Average:**

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
30.720000	15.1	271.5	85.0	23.90	39.00
361.680000	14.2	162.5	176.0	32.20	46.40
421.980000	16.5	179.5	187.0	29.90	46.40
902.880000	88.8	97.4	7.0	-42.40	46.40

NOTE: Peak out of limits is due to Radio carrier.





**Final Result Quasi Peak:**

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
41.280000	25.6	139.7	187.0	13.40	39.00
92.190000	27.1	292.7	180.0	16.40	43.50
304.200000	35.1	104.8	187.0	11.30	46.40
361.770000	41.9	97.3	180.0	4.50	46.40
422.010000	39.3	97.3	174.0	7.10	46.40
433.680000	26.3	117.8	277.0	20.10	46.40
909.930000	87.5	116.7	84.0	-41.10	46.40
950.520000	34.3	227.6	265.0	12.10	46.40

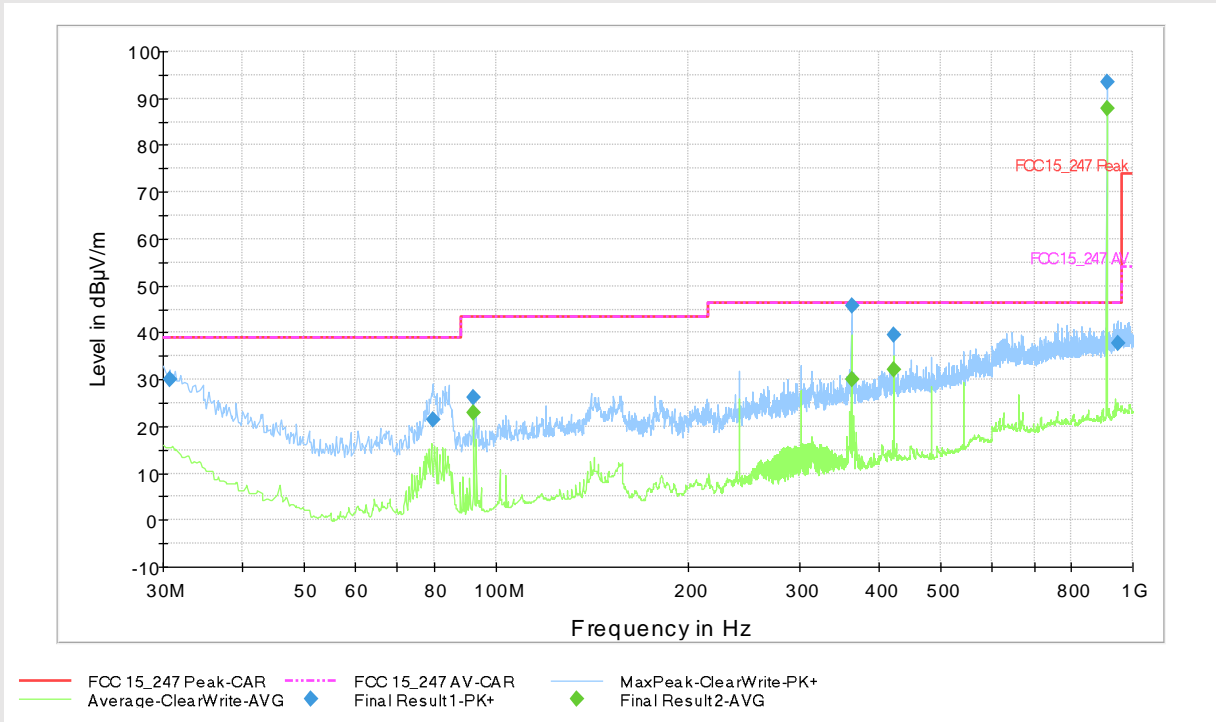
**Final Result Average:**

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
92.190000	20.3	179.5	187.0	23.20	43.50
304.140000	24.8	104.7	174.0	21.60	46.40
361.710000	38.0	104.7	180.0	8.40	46.40
421.980000	34.7	104.7	175.0	11.70	46.40
910.080000	81.9	114.6	86.0	-35.50	46.40

NOTE: Peak out of limits is due to Radio carrier.



<b>Operating Mode DXX</b>	<b>Channel 4</b>
<b>RX Antenna Polarization: Horizontal</b>	<b>Frequency Range: 30MHz – 1GHz</b>



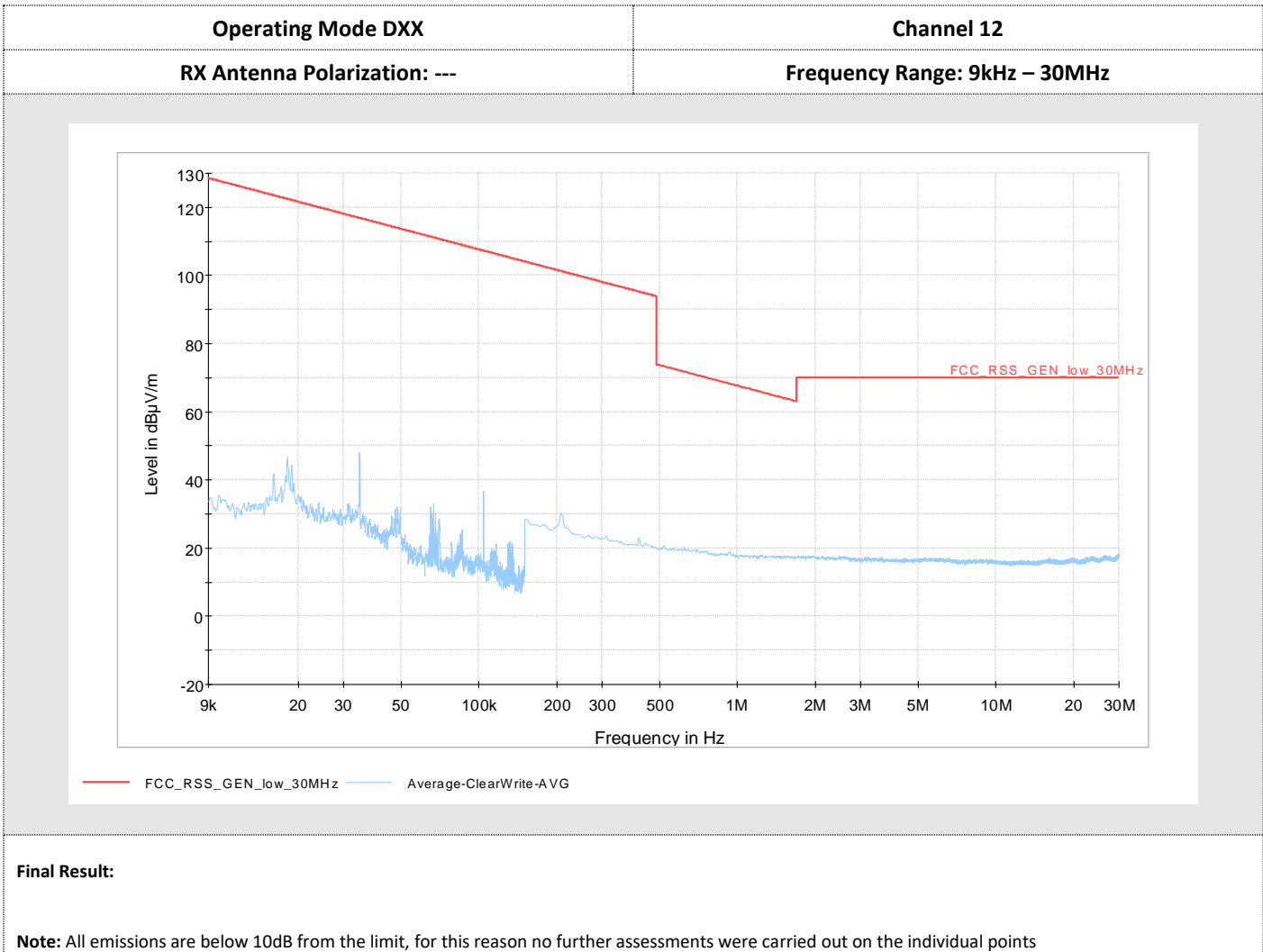
**Final Result Quasi Peak:**

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
30.720000	30.0	222.6	97.0	9.00	39.00
79.590000	21.3	278.7	277.0	17.70	39.00
92.160000	26.1	179.6	97.0	17.40	43.50
361.710000	45.8	97.4	187.0	0.60	46.40
421.890000	39.4	97.6	262.0	7.00	46.40
909.930000	93.5	97.4	7.0	-47.10	46.40
947.550000	37.8	202.5	93.0	8.60	46.40

**Final Result Average:**

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
92.190000	23.0	117.6	176.0	20.50	43.50
361.590000	30.0	97.4	187.0	16.40	46.40
421.890000	32.1	97.5	277.0	14.30	46.40
910.080000	87.9	97.4	7.0	-41.50	46.40

NOTE: Peak out of limits is due to Radio carrier.

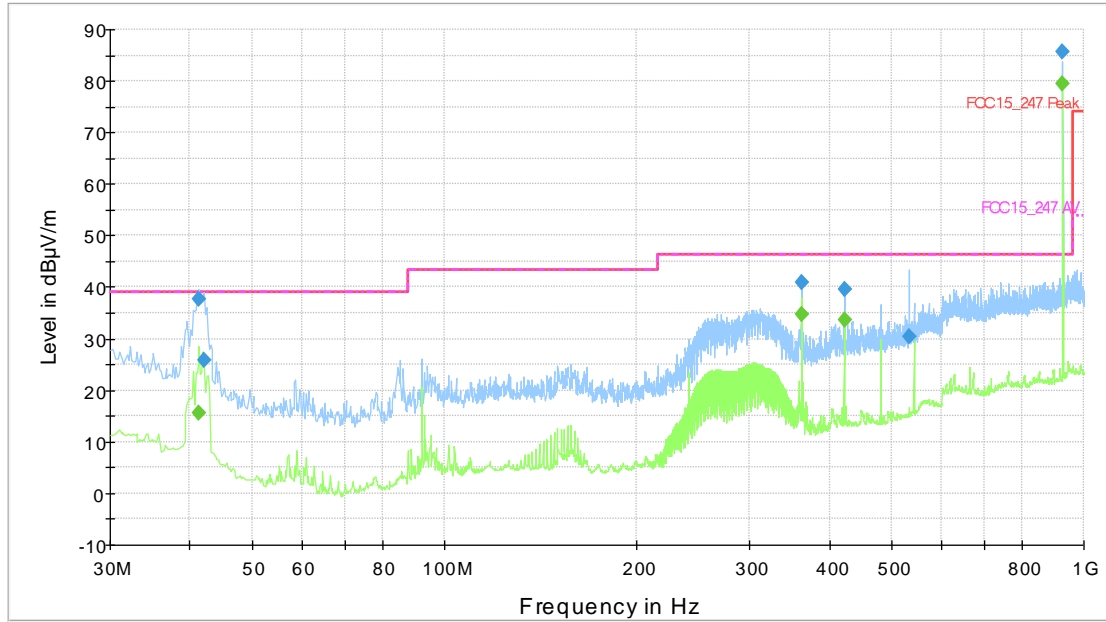


Operating Mode DXX

Channel 12

RX Antenna Polarization: Vertical

Frequency Range: 30MHz – 1GHz



— FCC 15\_247 Peak-CAR    - - - FCC 15\_247 AV-CAR    — MaxPeak-ClearWrite-PK+  
— Average-ClearWrite-AVG    ◆ Final Result 1-PK+    ◆ Final Result 2-AVG

**Final Result Quasi Peak:**

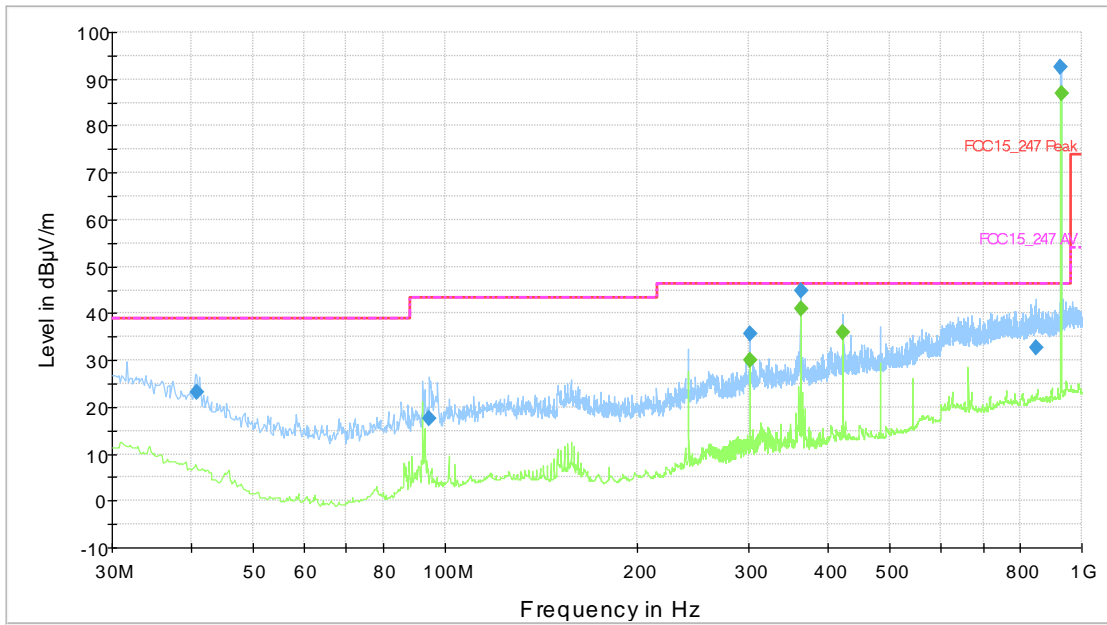
Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
41.280000	37.7	97.4	187.0	1.30	39.00
42.150000	26.0	165.5	187.0	13.00	39.00
361.710000	41.1	97.7	175.0	5.30	46.40
421.920000	39.5	97.3	182.0	6.90	46.40
532.830000	30.3	97.6	277.0	16.10	46.40
927.390000	85.6	115.6	86.0	-39.20	46.40

**Final Result Average:**

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
41.310000	15.5	104.7	187.0	23.50	39.00
361.710000	34.9	97.6	187.0	11.50	46.40
421.920000	33.6	97.6	177.0	12.80	46.40
927.570000	79.6	115.6	84.0	-33.20	46.40

NOTE: Peak out of limits is due to Radio carrier.

<b>Operating Mode DXX</b>	<b>Channel 12</b>
<b>RX Antenna Polarization: Horizontal</b>	<b>Frequency Range: 30MHz – 1GHz</b>



— FCC 15\_247 Peak-CAR    - - - FCC 15\_247 AV-CAR    — MaxPeak-ClearWrite-PK+  
— Average-ClearWrite-AVG    ◆ Final Result 1-PK+    ◆ Final Result 2-AVG

**Final Result Quasi Peak:**

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
40.830000	23.2	179.6	92.0	15.80	39.00
94.560000	17.6	270.5	277.0	25.90	43.50
301.380000	35.5	97.3	277.0	10.90	46.40
361.620000	44.8	97.3	277.0	1.60	46.40
846.870000	32.7	115.7	7.0	13.70	46.40
927.390000	92.6	97.3	7.0	-46.20	46.40

**Final Result Average:**

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
301.410000	30.1	97.4	277.0	16.30	46.40
361.680000	41.1	104.7	277.0	5.30	46.40
422.010000	35.9	97.4	187.0	10.50	46.40
927.570000	87.0	97.3	7.0	-40.60	46.40

NOTE: Peak out of limits is due to Radio carrier.

## TEST 2.

### TRANSMITTER RADIATED EMISSIONS > 1GHZ

#### REFERENCE DOCUMENT

According to § 15.249 (a) & § 15.209 (a)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 Db below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 Db instead of 20 Db. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

• TEST SETUP	Acc. To ref. Std.					
• TEST LOCATION	Semi-Anechoic Chamber					
• DISTANCE OF MEASUREMENT	3m					
• TYPE OF MEASUREMENT	Radiated					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	MXE Emi Receiver	Keysight	N9038A	MY57290150	07/2021	07/2022
	Semi-Anechoic Chamber	Siemens	B83117-D6019-T232	003-005-134/94C	02/2021	02/2022
	Horn antenna	Electro Metrics	EM-6961	100437	10/2020	10/2023
	High pass filter	Wainwright	WHK 1,3/15G	9	10/2021	10/2023
	Software EMC	Rohde & Schwarz	EMC32-E	V 8.40.0	N.A.	
• TESTED PORT	Antenna					
• TEST METHOD	ANSI C63.10:2013 section 6.6					
• FREQUENCY RANGE	1GHz – 10GHz					
• LIMITS	Acc. To ref. Std.					
• UNCERTAINTY OF MEASURE	Level of confidence = 95% (k=2) Expanded uncertainty 1GHz – 10GHz = 5,15 dB					

TEST CONDITIONS	REQUIRED	MEASURED
Ambient temperature	23°C ± 5°C	24 °C
Ambient humidity	25 - 75%rH	45%
Pressure	85 - 106kPa (860mbar - 1060mbar)	960 mbar
Voltage		3.3Vdc from board

OPERATING CONDITION: #1

RESULT: **WITHIN THE LIMITS**

### MEASUREMENT PARAMETER 1GHz - 10GHz

<b>Resolution bandwidth:</b>	1MHz
<b>Video bandwidth:</b>	3MHz
<b>Span:</b>	See plots below
<b>Sweep time</b>	Auto couple
<b>Detector:</b>	Peak
<b>Trace-Mode:</b>	Max. hold

### TEST DESCRIPTION

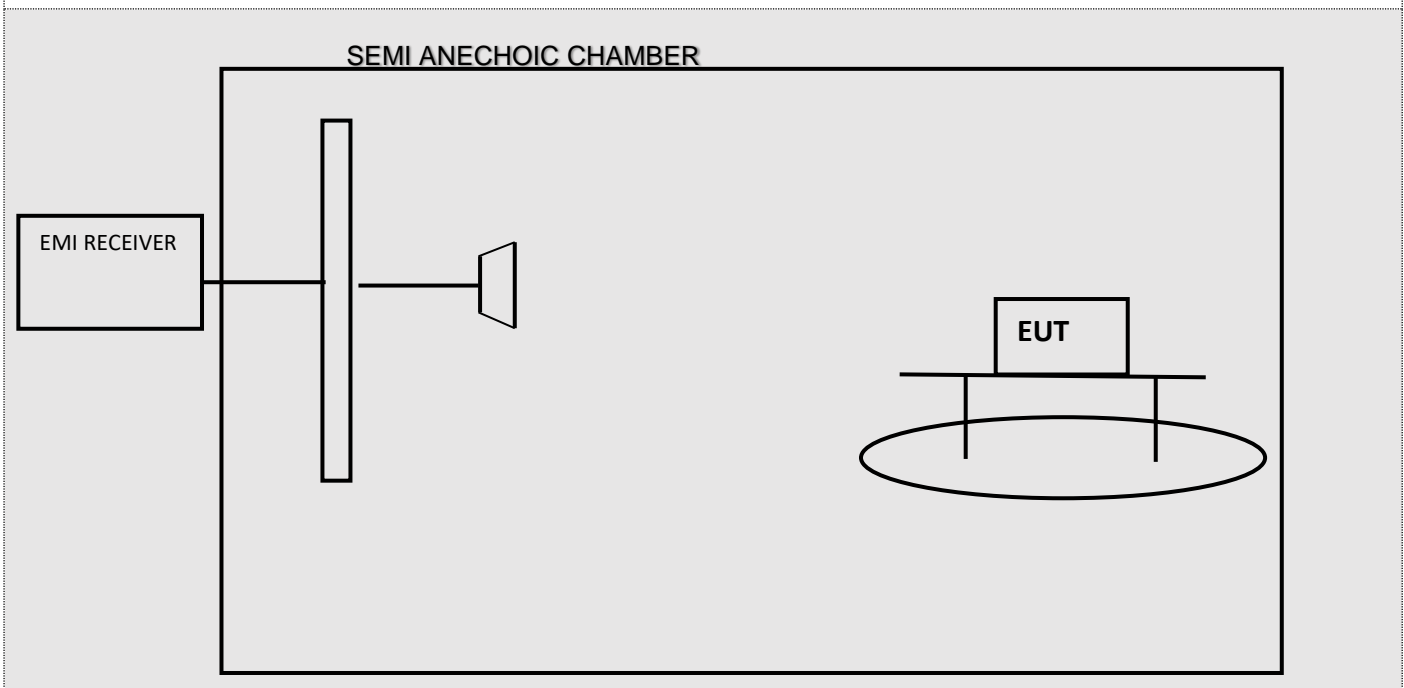
Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously - rotating, remotely - controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency.

The EUT is placed at test table height is 1.5 m

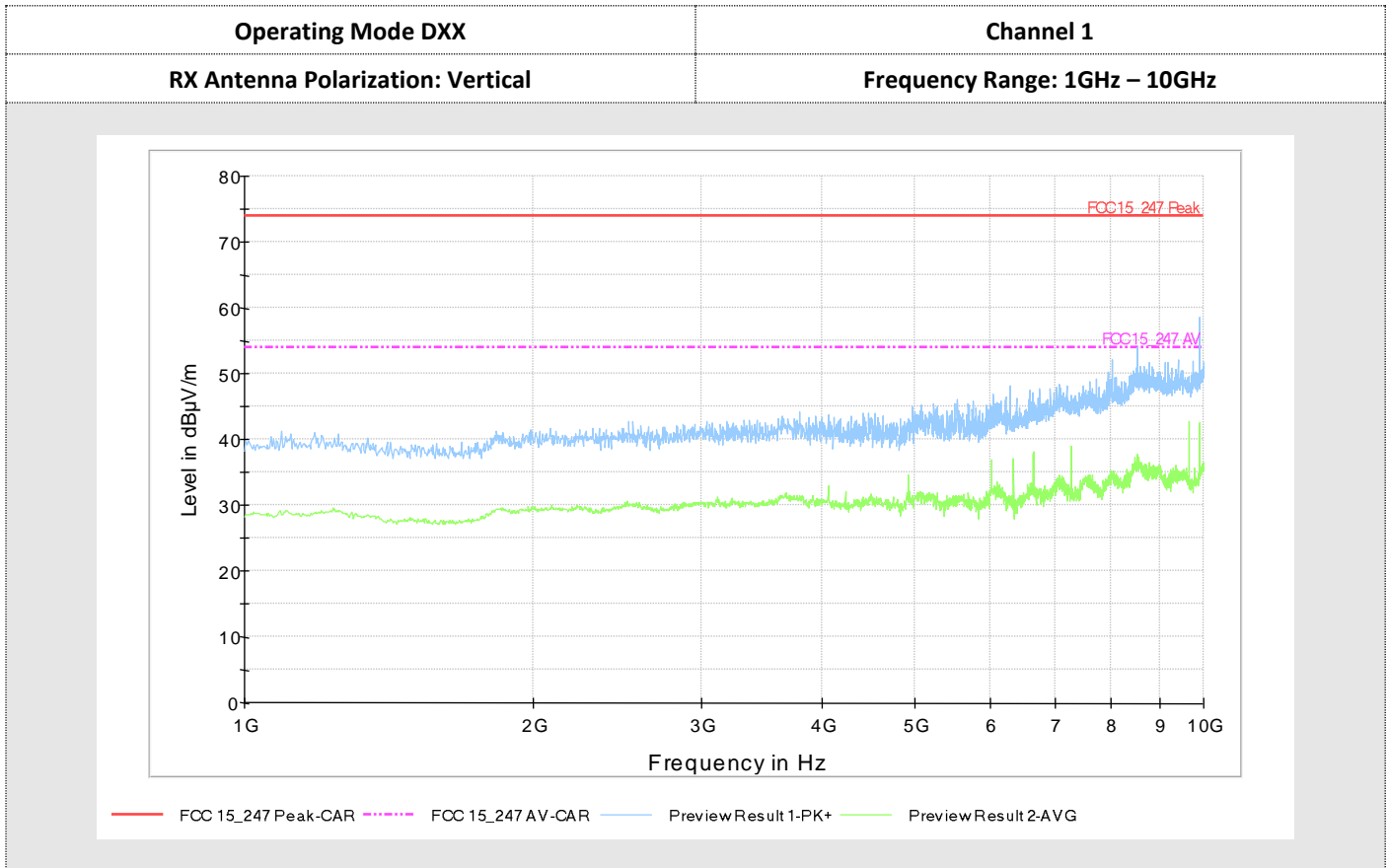
Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m~4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3m.

This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

### TEST SETUP BLOCK DIAGRAM

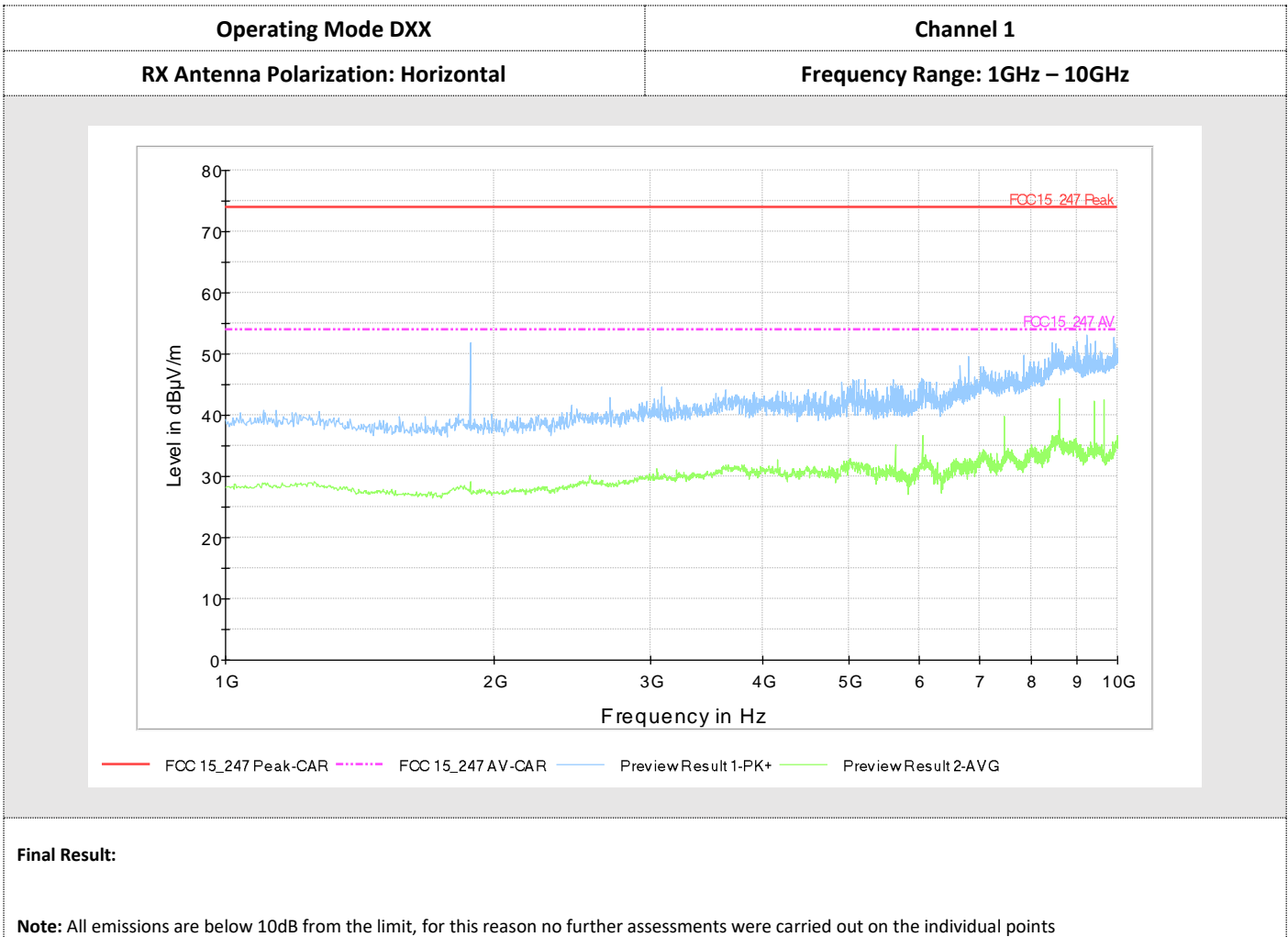


**TEST RESULTS**

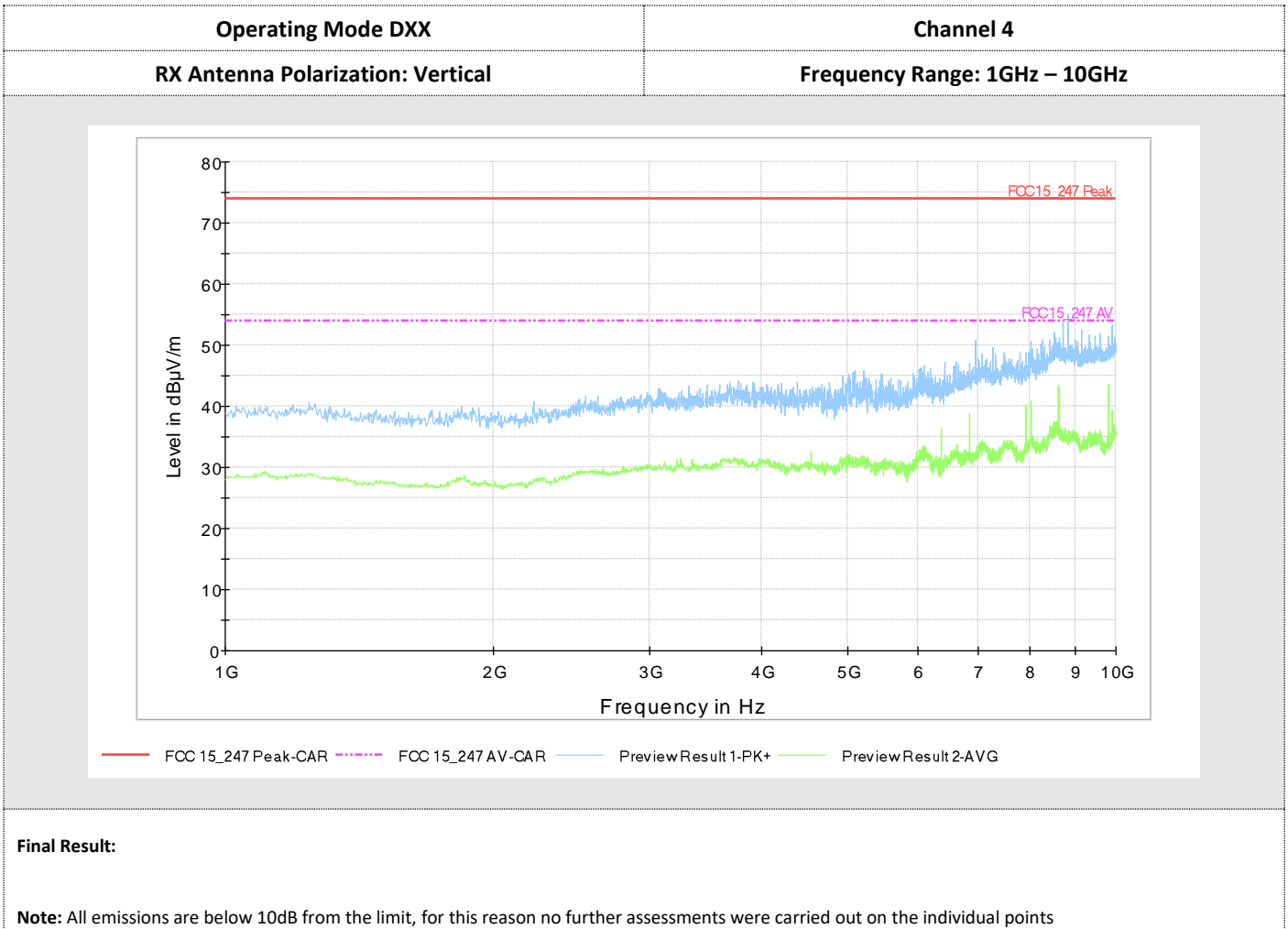


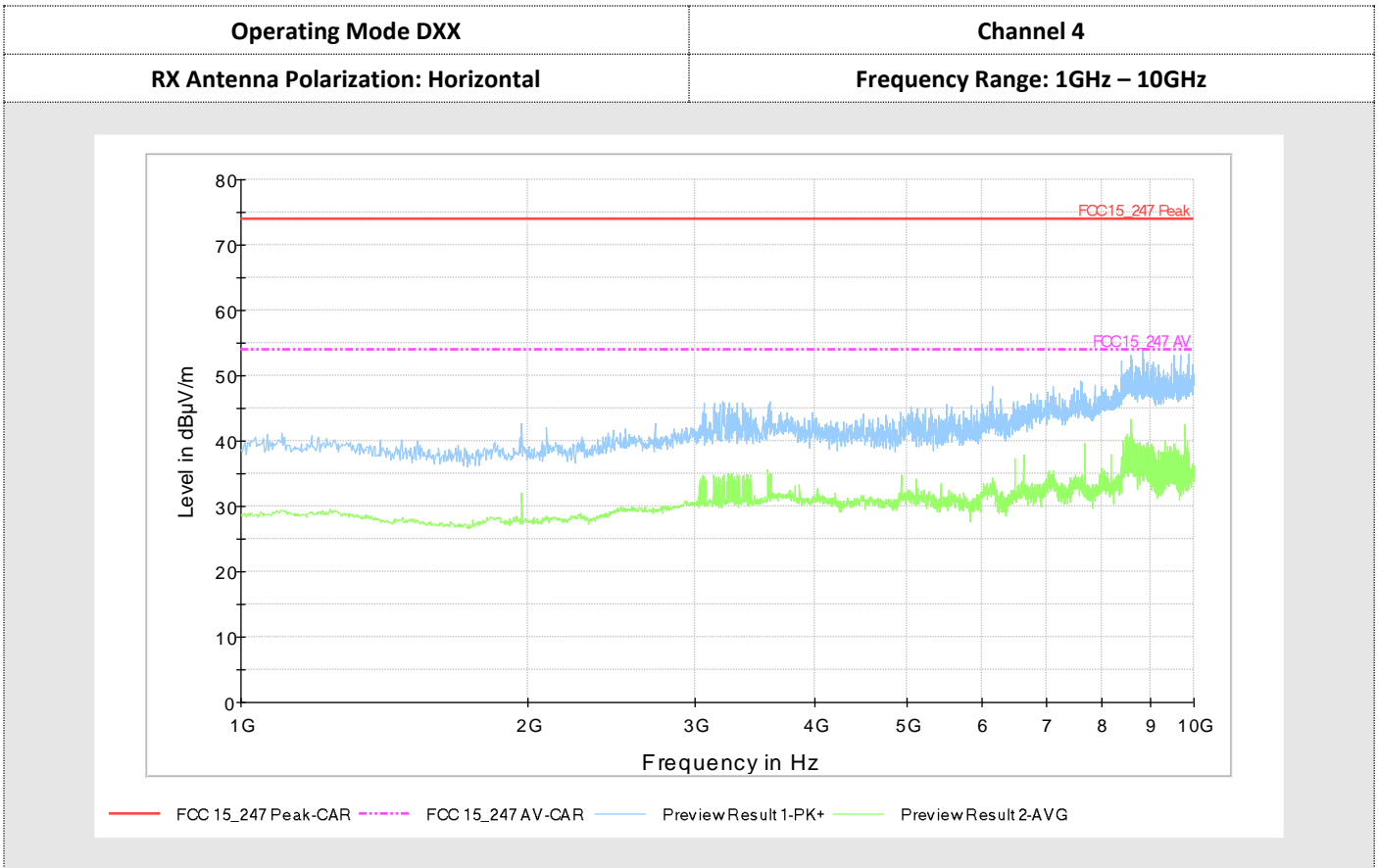
**Final Result:**

**Note:** All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points





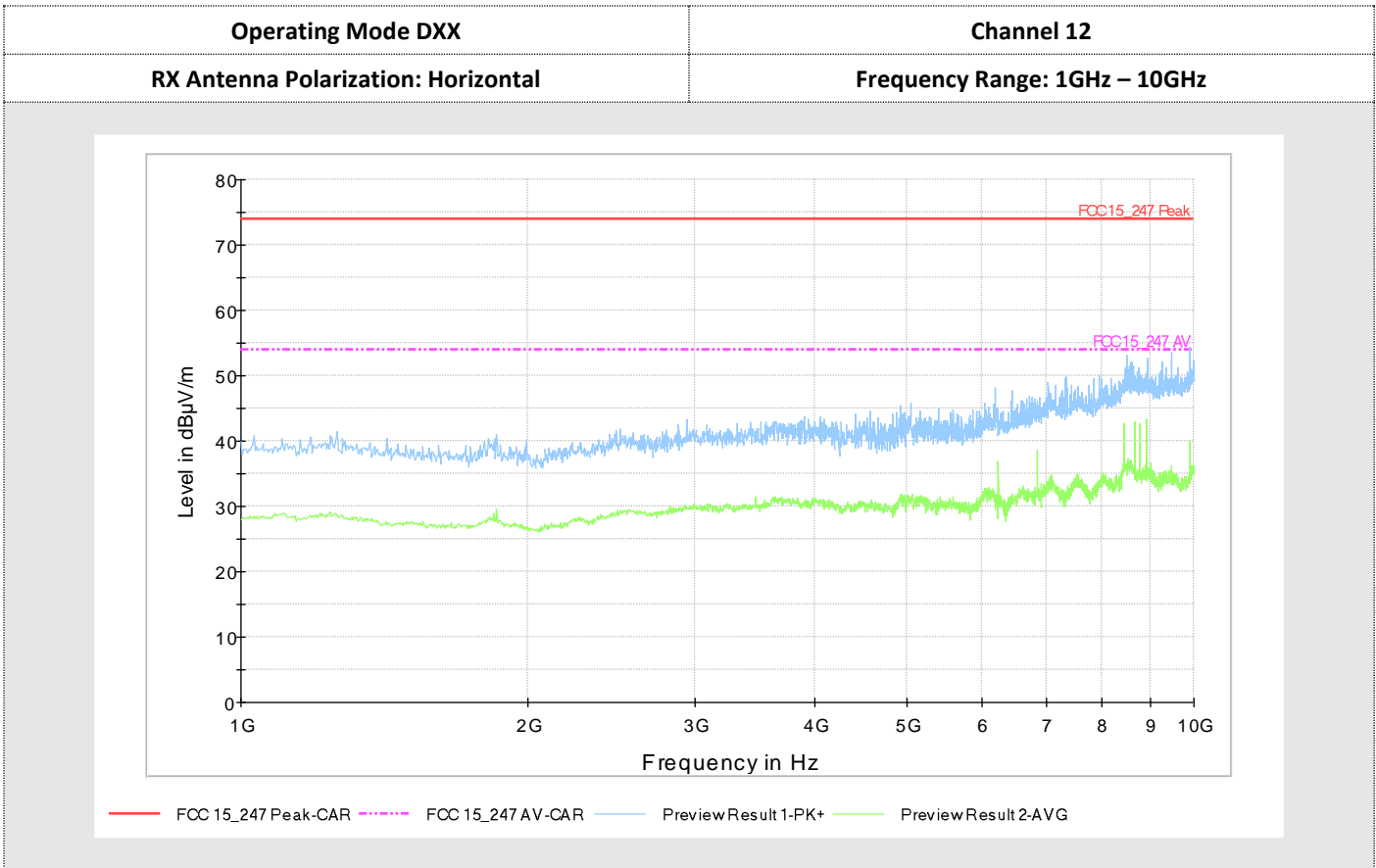




**Final Result:**

**Note:** All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

Operating Mode DXX	Channel 12
RX Antenna Polarization: Vertical	Frequency Range: 1GHz – 10GHz
<p>Legend:</p> <ul style="list-style-type: none"> <li>FCC 15_247 Peak-CAR (Red solid line)</li> <li>FCC 15_247 AV-CAR (Magenta dashed line)</li> <li>PreviewResult 1-PK+ (Blue solid line)</li> <li>PreviewResult 2-AVG (Green solid line)</li> </ul>	
<p><b>Final Result:</b></p> <p><b>Note:</b> All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points</p>	



**Final Result:**

**Note:** All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

<b>TEST 3.</b>	<b>BAND-EDGE</b>
REFERENCE DOCUMENT	According to § 15.247 (d) and § 15.209 (a) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

• TEST SETUP	Acc. to reference document					
• TEST LOCATION	Radio test area					
• TYPE OF MEASUREMENT	Radiated					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	MXE Emi Receiver	Keysight	N9038A	MY57290150	07/2021	07/2022
* TESTED PORT	Antenna					
* TEST METHOD	ANSI C63.10:2013 section 6.10					

TEST CONDITIONS	REQUIRED	MEASURED
Ambient temperature	23°C ± 5°C	24 °C
Ambient humidity	25 - 75%rH	45%
Pressure	85 - 106kPa (860mbar - 1060mbar)	960 mbar

OPERATING CONDITION: #1

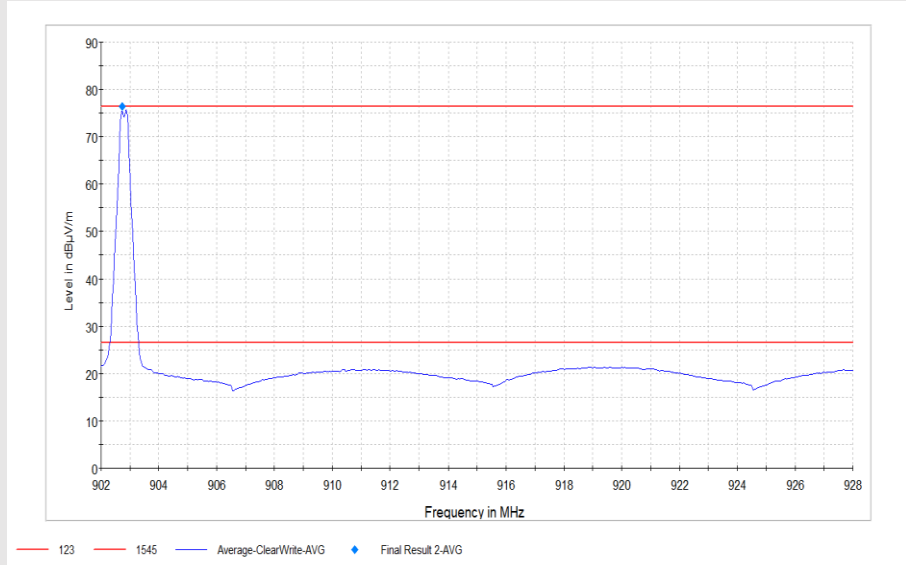
RESULT: **WITHIN THE LIMITS**

MEASUREMENT PARAMETER	
Resolution bandwidth	100kHz
Video bandwidth	300kHz
Span	50MHz
Sweep time	Auto couple
Detector	Peak
Trace-Mode	Max. hold

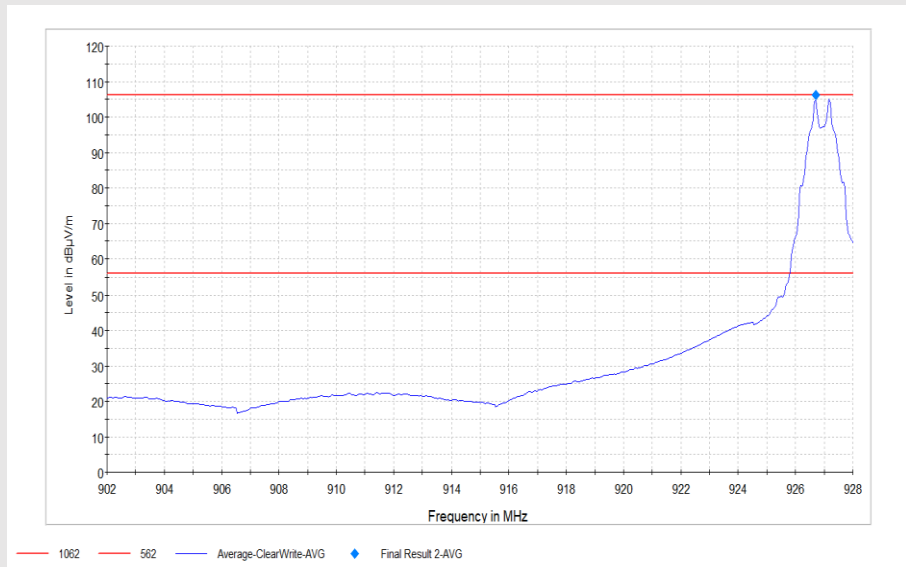
**MEASUREMENT RESULT**

**Operating Mode DXX**

**LOWER BAND-EDGE  
CH 1**



**UPPER BAND-EDGE  
CH 12**



**END OF TEST REPORT**