Test Report Serial Number:	**45461783 R2.0**
Test Report Date:	**23 February 2023**
Project Number:	**1601**

EMC Test Report - New Filing

Applicant:

THEDETECTIONGROUP®
Wireless Water Leak Detection

The Detection Group
440 N. Wolfe Rd. E126
Sunnyvale, CA, 94085
USA

The Detection Group
440 N. Wolfe Rd. E211
Sunnyvale, CA, 94085
USA

FCC ID: **2AK4V-DT-552**

IC Registration Number: **22517-DT552**

Product Model Number / HVIN: **DT-552**

Product Name / PMN: **Wireless Sensor**

In Accordance With:

FCC 47 CFR §15.247, Part 15 Subpart B

Intentional Radiators - Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Unintentional Radiators

RSS-GEN, RSS-247, ICES-003

Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

Approved By:

Ben Hewson, President
Celltech Labs Inc.
21-364 Lougheed Rd.
Kelowna, BC, V1X 7R8
Canada

Test Lab Certificate: 2470.01

IC Registration 3874A

FCC Registration: CA3874

Table of Contents

Table of Figures

Table of Plots

Table of Tables

1.0 REVISION HISTORY

Revision History					
Samples Tested By:	Art Voss, P.Eng.		**Date(s) of Evaluation:**	1 - 5 November 2022	
Report Prepared By:	Art Voss, P.Eng.		**Report Reviewed By:**	Ben Hewson	
Report Revision	**Description of Revision**		**Revised Section**	**Revised By**	**Revision Date**
1.0	Initial Release		n/a	Art Voss	20 December 2022
2.0	revise PMN		n/a	Ben Hewson	23 February 2023

2.0 CLIENT AND DUT INFORMATION

Client Information		
Applicant Name (FCC)	**The Detection Group**	
Applicant Address (FCC)	440 Wolfe Rd. E126	
	Sunnyvale, CA, 94085	
	USA	
Applicant Name (ISED)	**The Detection Group**	
Applicant Address (ISED)	440 Wolfe Rd. E211	
	Sunnyvale, CA, 94085	
	USA	
DUT Information		
Device Identifier(s):	**FCC ID:**	**2AK4V-DT-552**
	IC ID:	**22517-DT552**
Device Type:	Industrial Digital Transceiver	
Device Model(s) / HVIN:	DT-552	
Device Marketing Name / PMN:	Wireless Sensor	
Firmware Version ID Number / FVIN:	-	
Host Marketing Name / HMN:	-	
Test Sample Serial No.:	31129776 (Conducted), 31129794 (OTA)	
Equipment Class (FCC):	Digital Transmission System (DTS)	
Equipment Class (ISED):	Other	
Transmit Frequency Range:	906 - 924MHz	
Test Channels:	3 Channel	
Manuf. Max. Rated Output Power:	26dBm	
Manuf. Max. Rated BW/Data Rate:	n/a	
Antenna Make and Model:	Chip	
Antenna Type and Gain:	1.59dBi	
Modulation:	BPSK-40	
Mode:	Simplex	
Emission Designator:	See Section 8.0	
DUT Power Source:	6VDC Primary Lithium (non-rechargeable)	
DUT Dimensions [LxWxD]	95mm x 90mm x 30mm	
Deviation(s) from standard/procedure:	None	
Modification of DUT:	None	

3.0 SCOPE

Preface:

This Certification Report was prepared on behalf of:

The Detection Group

,(the '*Applicant*"), in accordance with the applicable Federal Communications Commission (FCC) CFR 47 and Innovation, Scientific and Economic Development (ISED) Canada rules parts and regulations (the '*Rules*'). The scope of this investigation was limited to only the equipment, devices and accessories (the '*Equipment*') supplied by the *Applicant*. The tests and measurements performed on this *Equipment* were only those set forth in the applicable *Rules* and/or the Test and Measurement Standards they reference. The *Rules* applied and the Test and Measurement Standards used during this evaluation appear in the Normative References section of this report. The limits set forth in the technical requirements of the applicable *Rules* were applied to the measurement results obtained during this evaluation and ,unless otherwise noted, these limits were used as the Pass/Fail criteria. The Pass/Fail statements made in this report apply to only the tests and measurements performed on only the *Equipment* tested during this evaluation. Where applicable and permissible, information including test and measurement data and/or results from previous evaluations of same or similar equipment, devices and/or accessories may be cited in this report.

Device Description:

The HVIN: DT-552, PMN: Trident Water Sensor is a Class A Industrial remote water sensing controller with a low power 912MHz Transceiver. It is not made available to the general public and requires professional installation.

Application:

This is an application for a New Certification, Single.

Regulatory Requirement:

As per FCC 47 CFR 2 Subpart I and the Radiocommunication Regulations of Canada, Equipment Authorization is require for this *Equipment* by means of Certification in accordance with FCC 47 CFR §15.249 and ISED RSS-210.

Scope of Work:

The scope of this investigation is limited only to the evaluation of the DT-552 to determine compliance to the *Rules* identified herein.

RF Exposure:

As per FCC 47 CFR §2.1091 and Canada Health Safety Code 6, an RF Exposure (MPE) evaluation is required for this *Equipment* and the results of the RF Exposure (MPE) evaluation appear in a separate report.

4.0 TEST SUMMARY

TEST SUMMARY						
Section	**Description of Test**	**Procedure Reference**	**Applicable Rule Part(s) FCC**	**Applicable Rule Part(s) ISED**	**Test Date**	**Result**
7.0	Occupied Bandwidth	ANSI C63.10-2013 KDB 558074 D01v05	§2.1049	RSS-Gen (6.7)	5 Nov 2022	Pass
8.0	DTS Bandwidth	ANSI C63.10-2013 KDB 558074 D01v05	§15.247(a)(2)	RSS-Gen (6.7) RSS-247 (5.2)(a)	5 Nov 2022	Pass
9.0	Conducted Power (Fundamental)	ANSI C63.10-2013 KDB 558074 D01v05	§2.1046 §15.247(b)(3)	RSS-Gen (6.12) RSS-247 (5.4)(d)	5 Nov 2022	Pass
10.0	Power Spectral Density	ANSI C63.10-2013 KDB 558074 D01v05	§15.247(e)	RSS-247 (5.2)(b)	5 Nov 2022	Pass
11.0	Conducted Tx Spurious Emissions Band Edge	ANSI C63.10-2013 KDB 558074 D01v05	§2.1051 §15.247(d)	RSS-Gen (6.13) RSS-247 (5.5)	5 Nov 2022	Pass
12.0	Conducted Tx Spurious Emissions	ANSI C63.10-2013 KDB 558074 D01v05	§2.1051 §15.247(d)	RSS-Gen (6.13) RSS-247 (5.5)	5 Nov 2022	Pass
13.0	Radiated Tx Spurious Emissions And Restricted Band	ANSI C63.4-2014 KDB 558074 D01v05	§15.109 §15.247(d)	RSS-Gen (6.13)	2-3 Nov 2022	Pass
14.0	Radiated Rx Spurious Emissions	ANSI C63.4-2014 KDB 558074 D01v05	§15.109	RSS-Gen (7.4) ICES-003(6.2)	2-3 Nov 2022	Pass

Test Station Day Log					
Date	Ambient Temp (°C)	Relative Humidity (%)	Barometric Pressure (kPa)	Test Station	Tests Performed Section(s)
2 Nov 2022	0.0	87	101.5	**OATS**	**13, 14**
3 Nov 2022	-2.0	80	102.4	**OATS**	**13, 14**
5 Nov 2022	21.6	17	101.8	**EMC**	**7,8,9,10,11,12**

EMC - EMC Test Bench
OATS - Open Area Test Site
LISN - LISN Test Area
IMM - Immunity Test Area
SAC - Semi-Anechoic Chamber
TC - Temperature Chamber
ESD - ESD Test Bench
RI - Radiated Immunity Chamber

I attest that the data reported herein is true and accurate within the tolerance of the Measurement Instrument Uncertainty; that all tests and measurements were performed in accordance with accepted practices or procedures; and that all tests and measurements were performed by me or by trained personnel under my direct supervision. The results of this investigation are based solely on the test sample(s) provided by the client which were not adjusted, modified or altered in any manner whatsoever, except as required to carry out specific tests or measurements. This test report has been completed in accordance with ISO/IEC 17025.

Art Voss, P.Eng.
Technical Manager
Celltech Labs Inc.

20 December 2022
Date

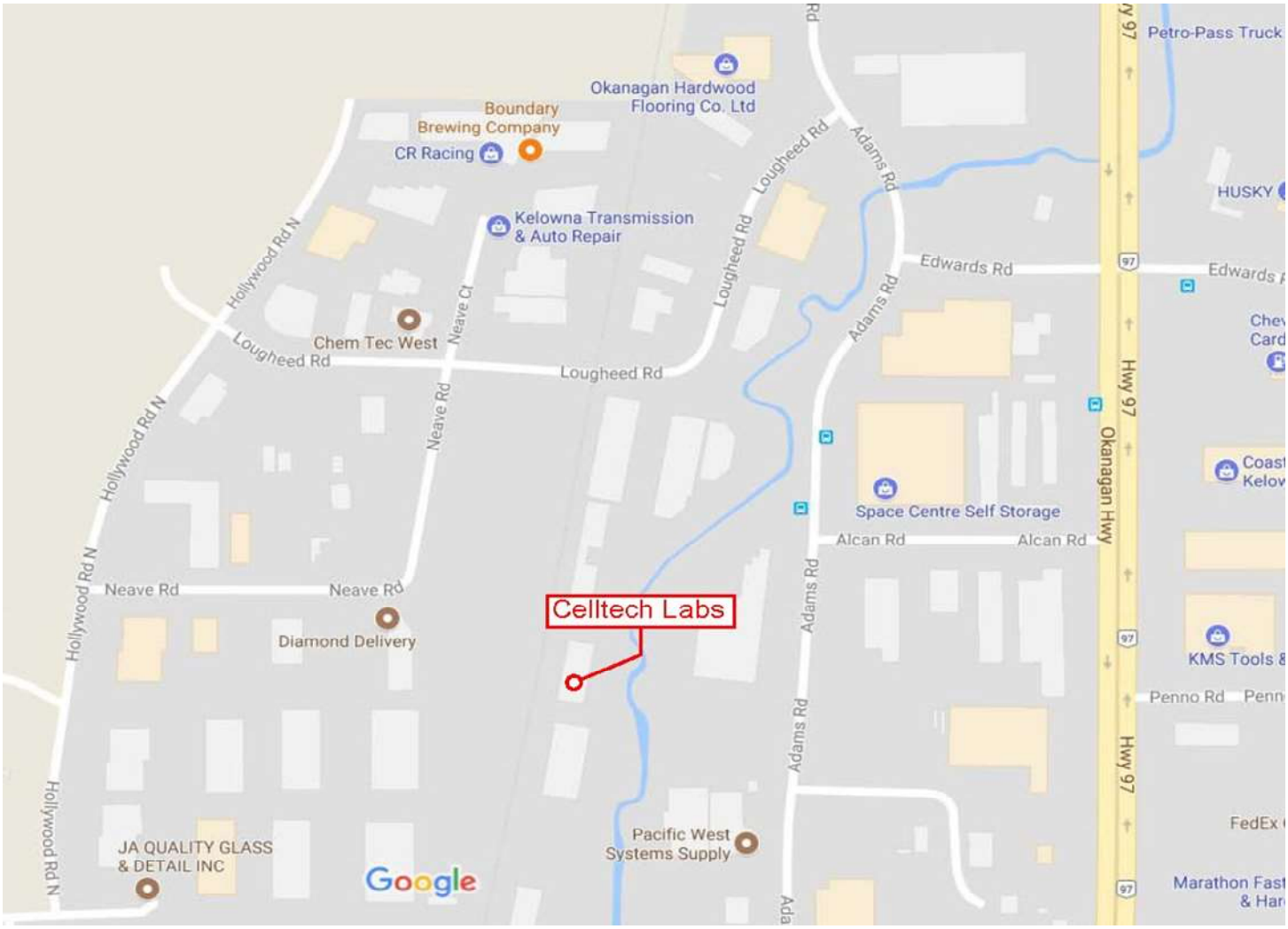
5.0 NORMATIVE REFERENCES

Normative References	
ISO/IEC 17025:2017	General requirements for the competence of testing and calibration laboratories
ANSI C63.4-2014	American National Standard of Procedures for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electric and Electronic Equipment in the Range of 9kHz to 40GHz
ANSI C63.10-2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
CFR Title 47: Part 2:	Code of Federal Regulations Telecommunication Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
CFR Title 47: Part 15: Subpart B:	Code of Federal Regulations Telecommunication Radio Frequency Devices Unintentional Radiators
CFR Title 47: Part 15: Sub Part C (15.247)	Code of Federal Regulations Telecommunication Radio Frequency Devices Intentional Radiators
ISED RSS-Gen Issue 5A1: March 2019	Innovation, Science and Economic Development Canada Spectrum Management and Telecommunications Radio Standards Specification General Requirements and Information for the Certification of Radiocommunication Equipment
ISED ICES-003 Issue 6: Jan 2016	Innovation, Science and Economic Development Canada Spectrum Management and Telecommunications Radio Standards Specification Information Technology Equipment (Including Digital Apparatus) — Limits and Methods of Measurement
ISED RSS-247 Issue 2: February 2017	Innovation, Science and Economic Development Canada Spectrum Management and Telecommunications Radio Standards Specification Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licensed-Exempt Local Area Network (LE_LAN) Devices
FCC KDB 558074 D01v05r02	OET Major Guidance Publications, Knowledge Data Base Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under Section 15.247

6.0 FACILITIES AND ACCREDITATIONS

Facility and Accreditation:

The facilities used to evaluate this device outlined in this report are located at 21-364 Lougheed Road, Kelowna, British Columbia, Canada V1X 7R8. The radiated emissions site (OATS) conforms to the requirements set forth in ANSI C63.4 and is filed and listed with the FCC under Test Firm Registration Number CA3874 and Innovation, Science and Economic Development Canada under Test Site File Number ISED 3874A. Celltech is accredited to ISO 17025, through accrediting body A2LA and with certificate 2470.01.



7.0 OCCUPIED BANDWIDTH

Test Procedure	
Normative Reference	FCC 47 CFR §2.1046, §15.247(b)(3), RSS-Gen (6.1.2), RSS-247 (5.4)(d),
	KDB 558074 (8.3.2.1), ANSI C63.10 (6.9.3)

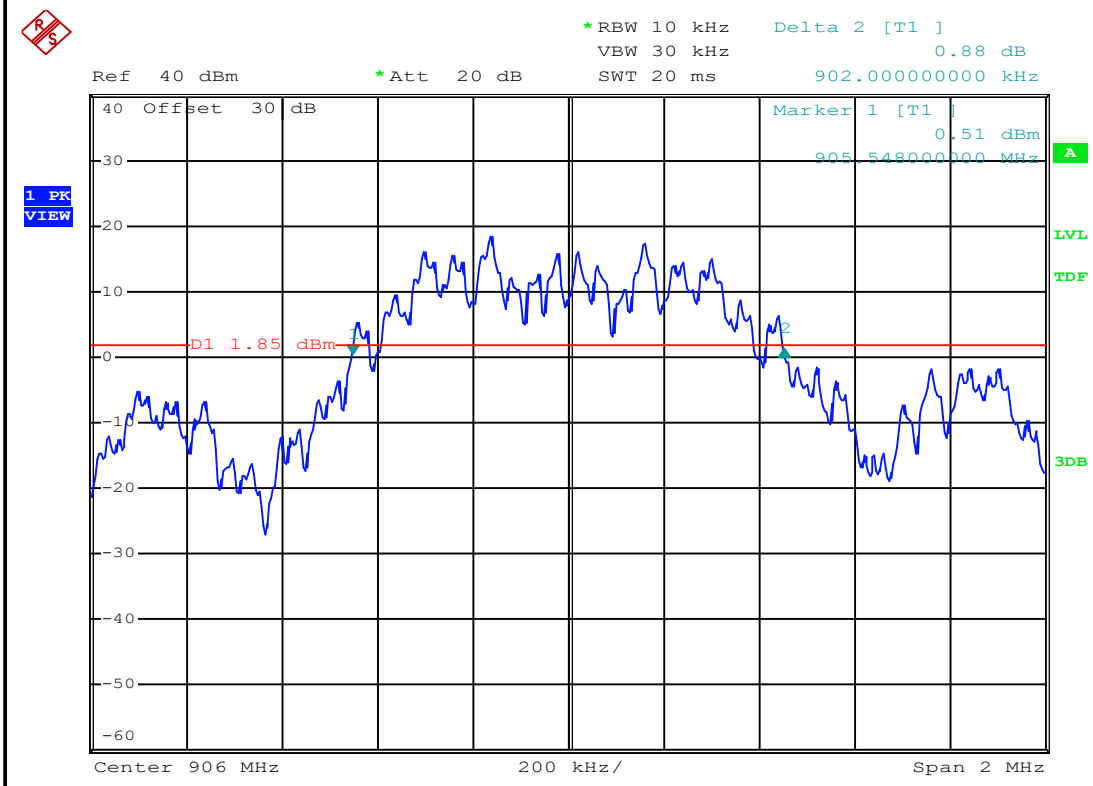
General Procedure	
KDB 558074 (8.3.2.1)	**8.3.2.1 General** Section 15.247 permits the maximum conducted (average) output power to be measured as an alternative to the maximum peak conducted output power for demonstrating compliance to the limit. When this option is exercised, the measured power is to be referenced to the OBW rather than the DTS bandwidth.
C63.10 (6.9.3)	**6.9.3 Occupied bandwidth—power bandwidth (99%) measurement procedure** The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth: a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2. d) Step a) through step c) might require iteration to adjust within the specified range. e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

Test Setup	Appendix A - Figure A.1

Measurement Procedure
The DUT was connected to a Spectrum Analyzer (SA) via a 30dB attenuator connected to the DUT's antenna port. The SA was configured as described above using the 99% Occupied Bandwidth function. The output power of the DUT was set to the manufacturer's highest output power setting at the Low, Mid and High frequency channels as permitted by the device. The DUT was set to transmit at its maximum Duty Cycle. The 99% Occupied Bandwidth was measured and recorded and used for the basis for measuring the Conducted Output Power.

Plot 7.1 – Occupied Bandwidth, 906MHz

Occupied Bandwidth:

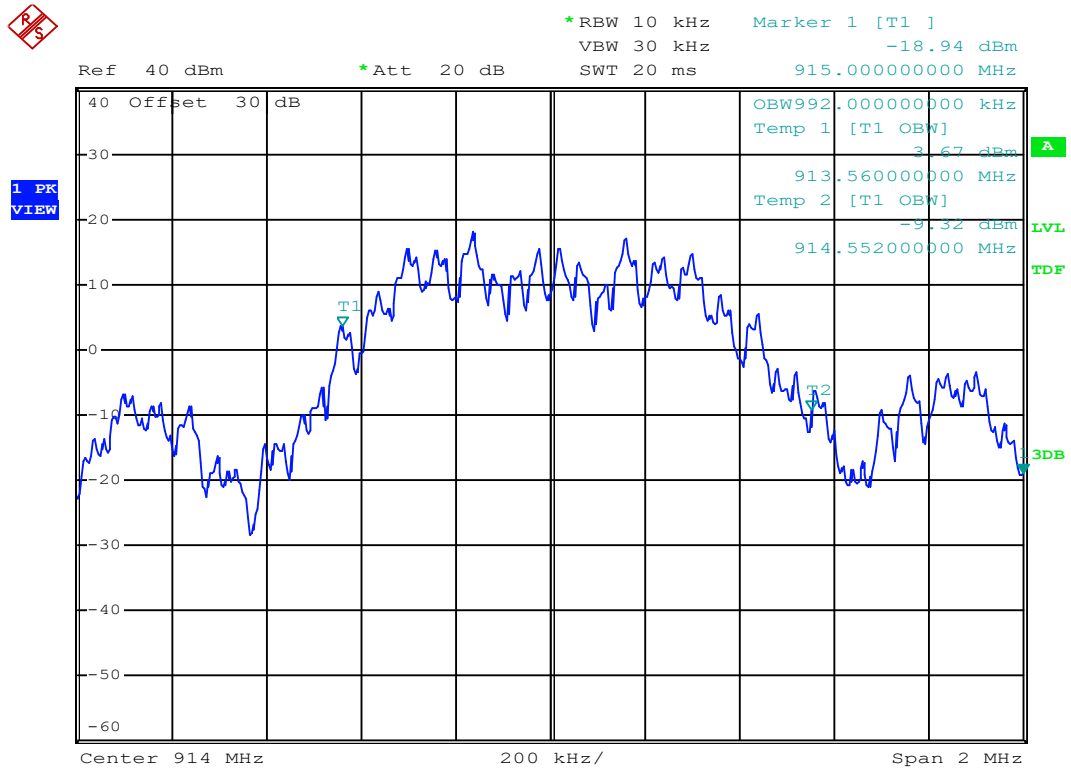


Date: 5.NOV.2022 11:07:41

Channel Frequency (MHz)	DUT Modulation	Occupied Bandwidth (kHz)
906	BPSK-40	902.0

Plot 7.2 – Occupied Bandwidth, 914MHz

Occupied Bandwidth:

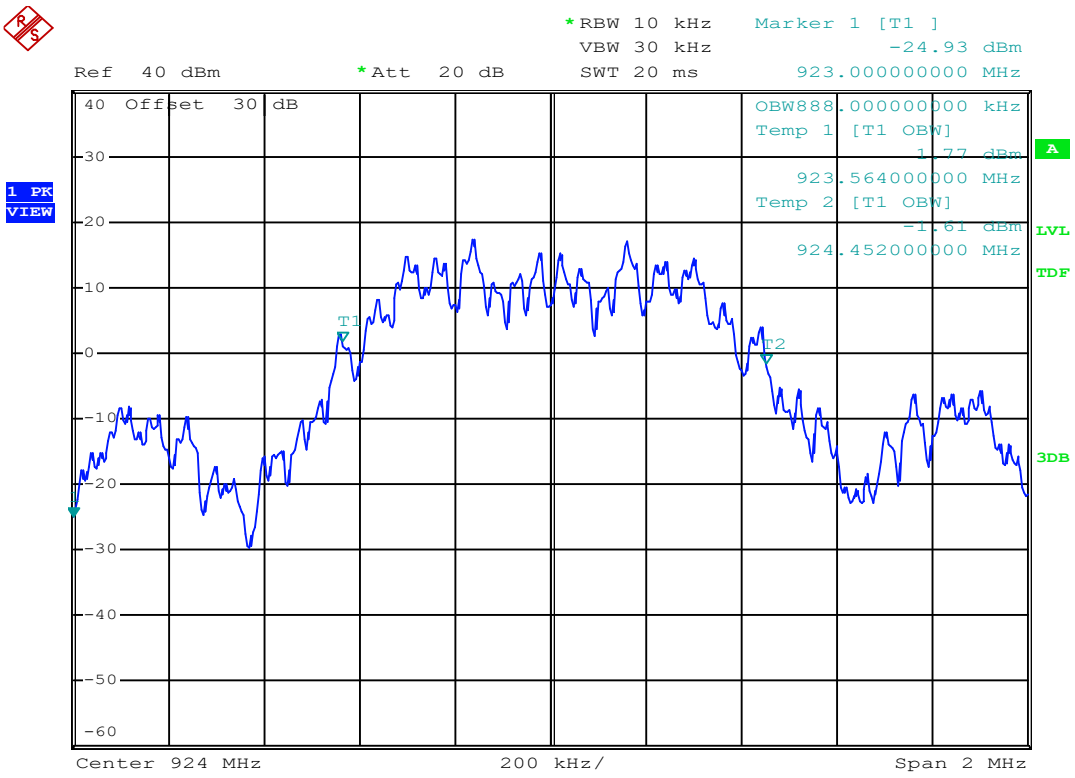


Date: 5.NOV.2022 11:03:35

Channel Frequency (MHz)	DUT Modulation	Occupied Bandwidth (kHz)
914	BPSK-40	992.0

Plot 7.3 – Occupied Bandwidth, 924MHz

Occupied Bandwidth:



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Channel Frequency *(MHz)*	DUT Modulation	Occupied Bandwidth *(kHz)*
924	BPSK-40	888.0

Table 7.1 – Summary of Occupied Bandwidth Measurements

Occupied Bandwidth Results:			
Channel Frequency (MHz)	Modulation	Measured Occupied Bandwidth (kHz)	Emission Designator
906.0	BPSK-40	902.0	902KG1D
914.0		992.0	992KG1D
924.0		888.0	888KG1D
			Complies

8.0 DTS BANDWIDTH

Test Procedure	
Normative Reference	FCC 47 CFR §2.1049, §15.247(a)(2), RSS-Gen (6.7), RSS-247 (5.2)(a), KDB 558074 (8.2), ANSI C63.10 (11.8.2)

Limits	
47 CFR §15.247(a)(2)	(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions: (2) Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.
RSS-247 (5.2)(a)	**5.2 Digital transmission systems** DTSs include systems that employ digital modulation techniques resulting in spectral characteristics similar to direct sequence systems. The following applies to the bands 902-928 MHz and 2400 - 2483.5 MHz: a) The minimum 6 dB bandwidth shall be 500 kHz.

General Procedure	
KDB 558074 (8.2) C63.10 (11.8.2)	**11.8.2 Option 2** The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW ≥ 3 X RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

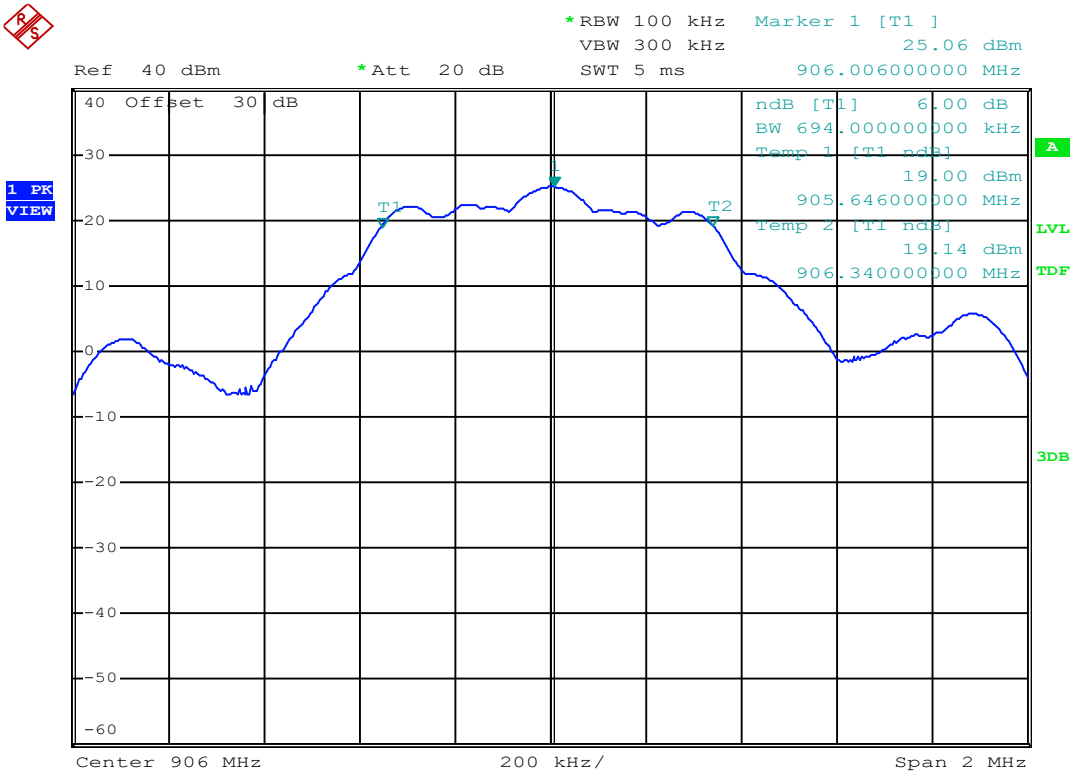
Test Setup	Appendix A - Figure A.1

Measurement Procedure

The DUT was connected to a Spectrum Analyzer (SA) via a 30dB attenuator connected to the DUT's antenna port. The SA was configured as above using the Automatic 6dB Cursor Bandwidth measurement. The output power of the DUT was set to the manufacturer's highest output power setting at the Low, Mid and High frequency channels as permitted by the device. The DUT was set to transmit at its maximum Duty Cycle.

Plot 8.1 – DTS Bandwidth, 906MHz

6dB (DTS) Bandwidth

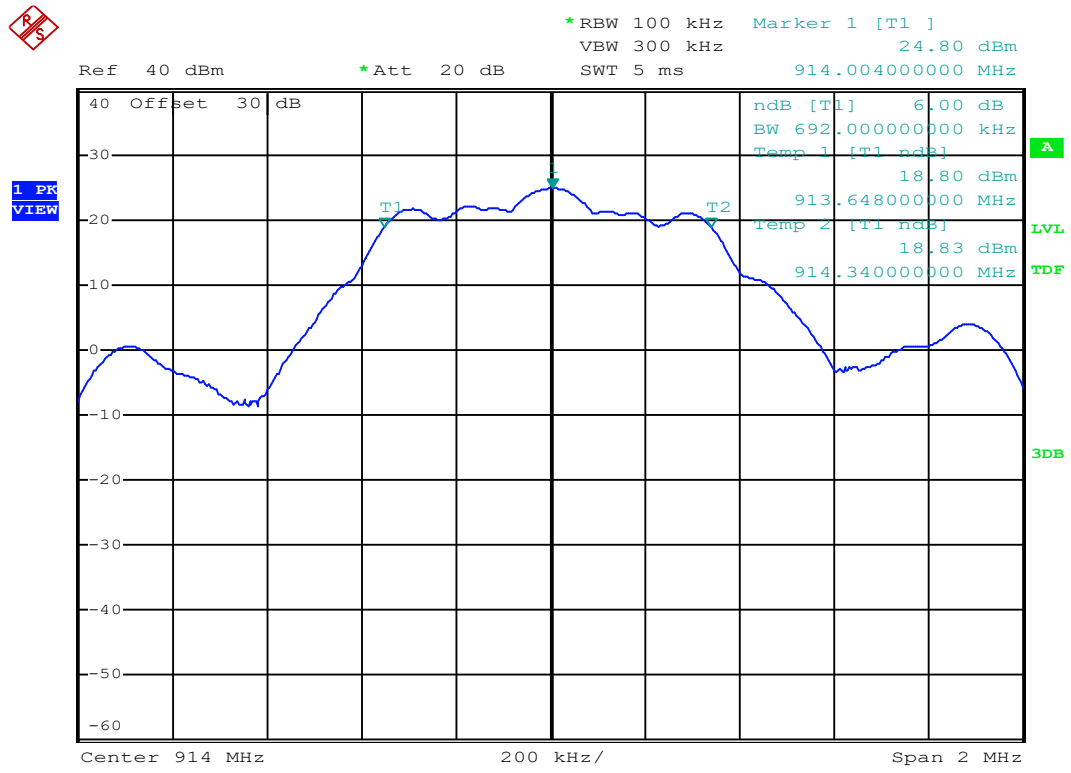


Date: 5.NOV.2022 11:13:32

Channel Frequency *(MHz)*	DUT Modulation	DTS Bandwidth *(kHz)*
906	BPSK-40	694.0

Plot 8.2 – DTS Bandwidth, 914MHz

6dB (DTS) Bandwidth

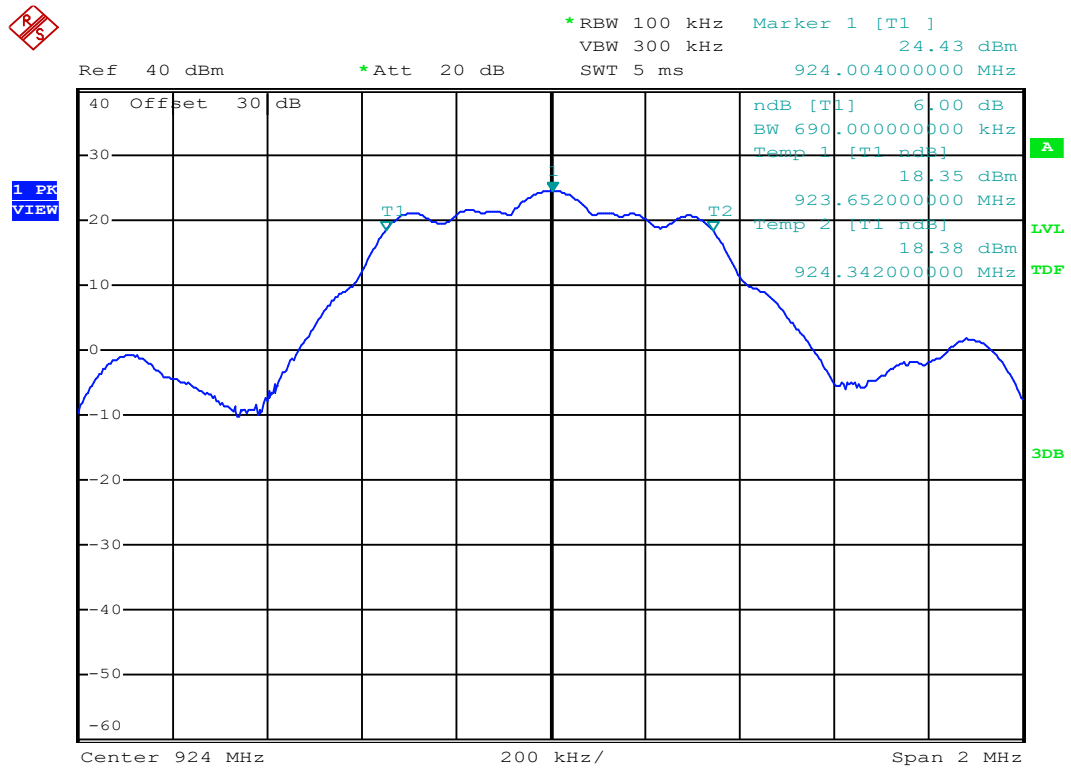


Date: 5.NOV.2022 11:12:05

Channel Frequency *(MHz)*	DUT Modulation	DTS Bandwidth *(kHz)*
914	BPSK-40	692.0

Plot 8.3 – DTS Bandwidth, 924MHz

6dB (DTS) Bandwidth



Date: 5.NOV.2022 11:12:45

Channel Frequency *(MHz)*	DUT Modulation	DTS Bandwidth *(kHz)*
924	BPSK-40	690.0

Table 8.1 – Summary of DTS Bandwidth Measurements

DTS Bandwidth Results:				
Channel Frequency (MHz)	Modulation	Measured DTS Bandwidth (kHz)	Minimun Limit (kHz)	Margin (Hz)
906.0	BPSK-40	694.0	500.0	49.0
914.0		692.0		42.0
924.0		690.0		45.0
				Complies

9.0 CONDUCTED CHANNEL POWER

Test Procedure	
Normative Reference	FCC 47 CFR §2.1046, §15.247(b)(3), RSS-Gen (6.1.2), RSS-247 (5.4)(d), KDB 558074 (8.3.2), ANSI C63.10 (11.9.2.2.2)

Limits	
47 CFR §15.247(b)(3)	(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following: (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power.
RSS-247 (5.4)(d)	**5.4 Transmitter output power and equivalent isotropically radiated power (e.i.r.p.)** Devices shall comply with the following requirements, where applicable: d) For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e). As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power.

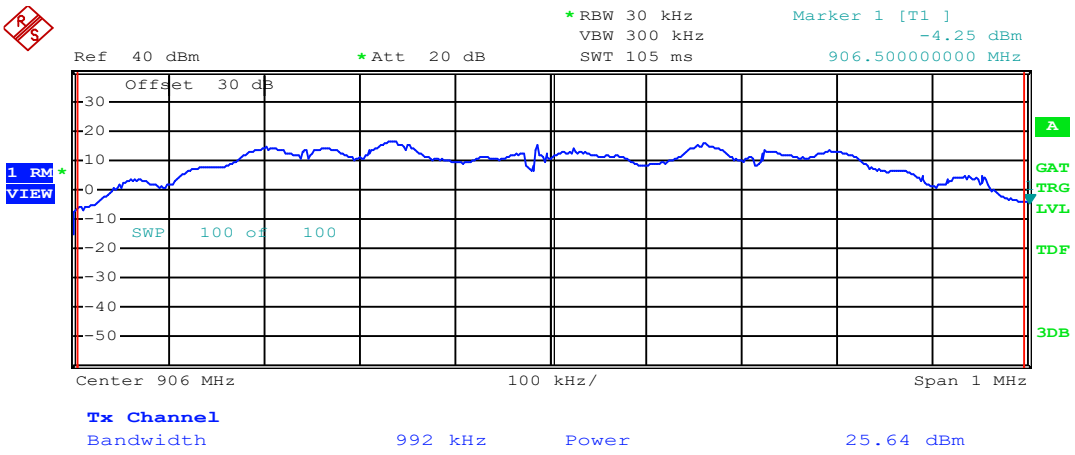
General Procedure	
KDB 558074 (8.3.2.1)	**8.3.2.1 General** Section 15.247 permits the maximum conducted (average) output power to be measured as an alternative to the maximum peak conducted output power for demonstrating compliance to the limit. When this option is exercised, the measured power is to be referenced to the OBW rather than the DTS bandwidth.
C63.10 (11.9.2.2.2)	**Method AVGSA-1** (trace averaging with the EUT transmitting at full power throughout each a) Set span to at least 1.5 X OBW. b) Set RBW = 1 % to 5 % of the OBW, not to exceed 1 MHz. c) Set VBW ≥ 3 X RBW. d) Number of points in sweep ≥ 2 X span / RBW. e) Sweep time = auto. f) Detector = RMS g) If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run”. h) Trace average at least 100 traces in power averaging i) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the OBW band edges.

Test Setup	Appendix A - Figure A.1

Measurement Procedure
The DUT was connected to a Spectrum Analyzer (SA) via a 30dB attenuator connected to the DUT’s antenna port. The SA was configured as described above. Number of Sweep Points ≥ 2 X Span / RBW = 2 X (1.2MHz / 3kHz) = 800, the SA was configured for 1001 Points. The output power of the DUT was set to the manufacturer’s highest output power setting at the Low, Mid and High frequency channels as permitted by the device. The DUT was set to transmit at 100% Duty Cycle. The Channel Bandwidth was set to the measured 99% Occupied Bandwidth (See Section 9.0). The Band Channel Power was measured and recorded.

Plot 9.1 – Conducted Channel Power, 906 MHz

Conducted Channel Power:



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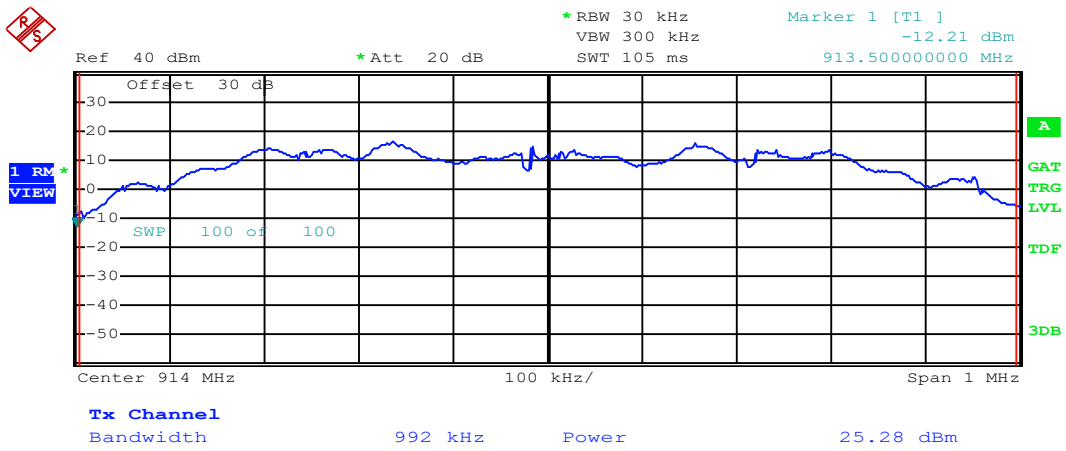
Channel Frequency (MHz)	Modulation	Channel Power (dBm)
906	BPSK-40	25.64

Plot 9.2 – Conducted Channel Power, 914 MHz

Conducted Channel Power:

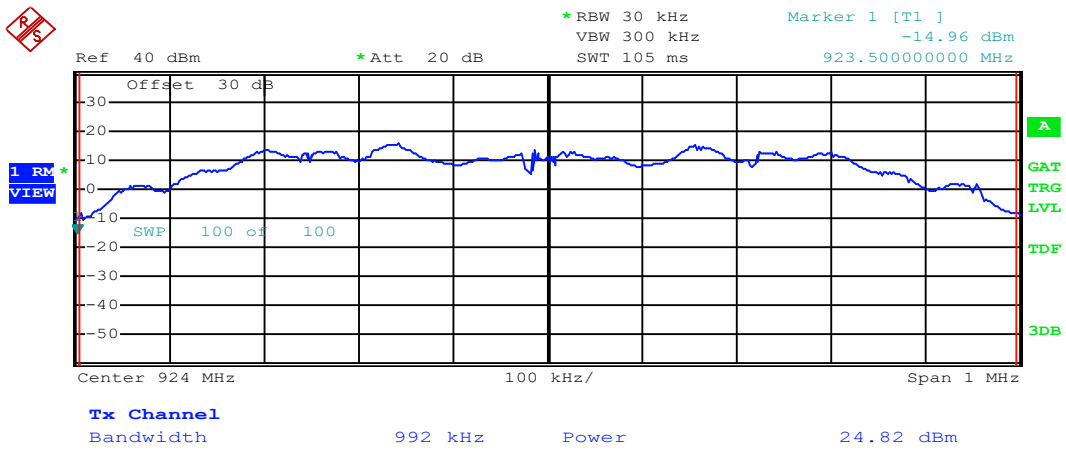


Date: 5.NOV.2022 11:21:47

Channel Frequency (MHz)	Modulation	Channel Power (dBm)
914	BPSK-40	25.28

Plot 9.3 – Conducted Channel Power, 924 MHz

Conducted Channel Power:



Date: 5.NOV.2022 11:19:30

Channel Frequency (MHz)	Modulation	Channel Power (dBm)
924	BPSK-40	24.82

Table 9.1 – Summary of Conducted Channel Power Measurements

§15.247(b)(3), RSS-247 (5.4)(d) Channel Output Power (RMS)							
Frequency (MHz)	BW (kHz)	Modulation	Power Setting[1] (dBm)	Measured Power [E_{Meas}] (dBm)	Measured Power [E_{Meas}] (W)	Limit (W)	Margin (dB)
906.0	549	BPSK-40	Max	25.64	0.37	1.0	**4.4**
914.0				25.28	0.34		**4.7**
924.0				24.82	0.30		**5.2**
						Results:	**Complies**

(1) The output power is factory set to maximum
Margin = 10*Log(Limit / E_{meas})

RSS-247 (5.4)(d) Channel EIRP (RMS)										
Frequency (MHz)	BW (kHz)	Modulation	Power Setting[1] (dBm)	Measured Power [E_{Meas}] (dBm)	Antenna Gain[2] [G_T] (dBi)	Cable Loss [L_C] (dB)	EIRP (dBm)	EIRP (W)	Limit (W)	Margin (dB)
906.0	549	BPSK-40	Max	25.64	1.59	0.5	27.73	0.59	4.0	**8.3**
914.0				25.28			27.37	0.55		**8.7**
924.0				24.82			26.91	0.49		**9.1**
								Results:		**Complies**

EIRP (dBm) = E_{Meas} + G_T + L_C
Margin = Limit - EIRP in dB
(1) The output power is factory set to maximum
(2) Maximum permissible gain

10.0 POWER SPECTRAL DENSITY

Test Procedure	
Normative Reference	FCC 47 CFR §15.247(e), RSS-247 (5.2)(b), KDB 558074 (8.4), ANSI C63.10 (11.10.3)

Limits	
47 CFR §15.247(e)	(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.
RSS-247 (5.2)(b)	b) The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 5.4(d), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

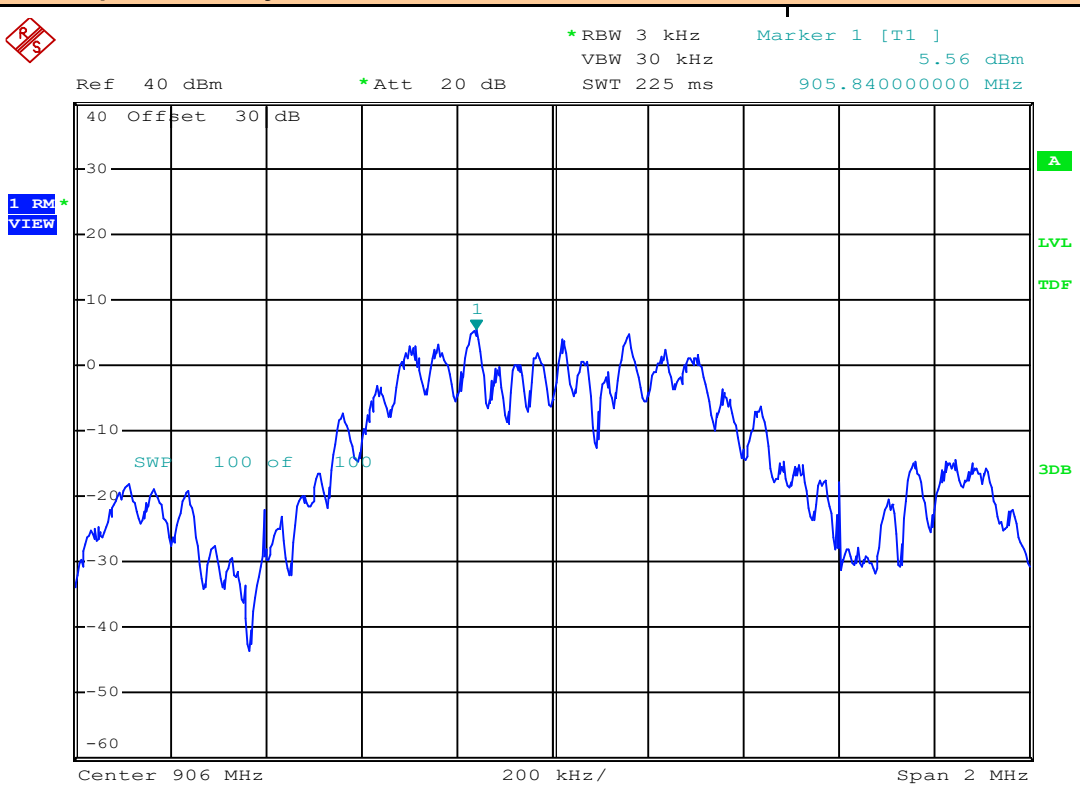
General Procedure	
C63.10 (11.10.3)	**Method AVGPSD-1** (trace averaging with EUT transmitting at full power throughout each This procedure may be used when the maximum (average) conducted output power was used to demonstrate compliance to the output power limit. This is the baseline method for determining the maximum (average) conducted PSD level. If the instrument has an RMS power averaging detector, it must be used; otherwise, use the sample detector. The EUT must be configured to transmit continuously (duty cycle ≥ 98 %); otherwise sweep triggering/signal gating must be implemented to ensure that measurements are made only when the EUT is transmitting at its maximum power control level (no transmitter off time is to be considered). a) Set instrument center frequency to DTS channel center frequency. b) Set span to at least 1.5 X OBW. c) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz. d) Set VBW ≥ 3 X RBW. e) Detector = RMS f) Ensure that the number of measurement points in the sweep ≥ 2 X span/RBW. g) Sweep time = auto couple. h) Employ trace averaging (RMS) mode over a minimum of 100 traces. i) Use the peak marker function to determine the maximum amplitude level. j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span in order to meet the minimum measurement point requirement as the RBW is reduced).

Test Setup	Appendix A - Figure A.1

Measurement Procedure
The DUT was connected to a Spectrum Analyzer (SA) via a 30dB attenuator connected to the DUT's antenna port. The SA was configured as described above. Number of Sweep Points ≥ 2 X Span / RBW = 2 X (1.5MHz / 3kHz) = 1000, the SA was configured for 1001 Points. The output power of the DUT was set to the manufacturer's highest output power setting at the Low, Mid and High frequency channels as permitted by the device. The DUT was set to transmit at 100% Duty Cycle. The Power Spectral Density was measured and recorded.

Plot 10.1 – Power Spectral Density, 906MHz

Power Spectal Density:

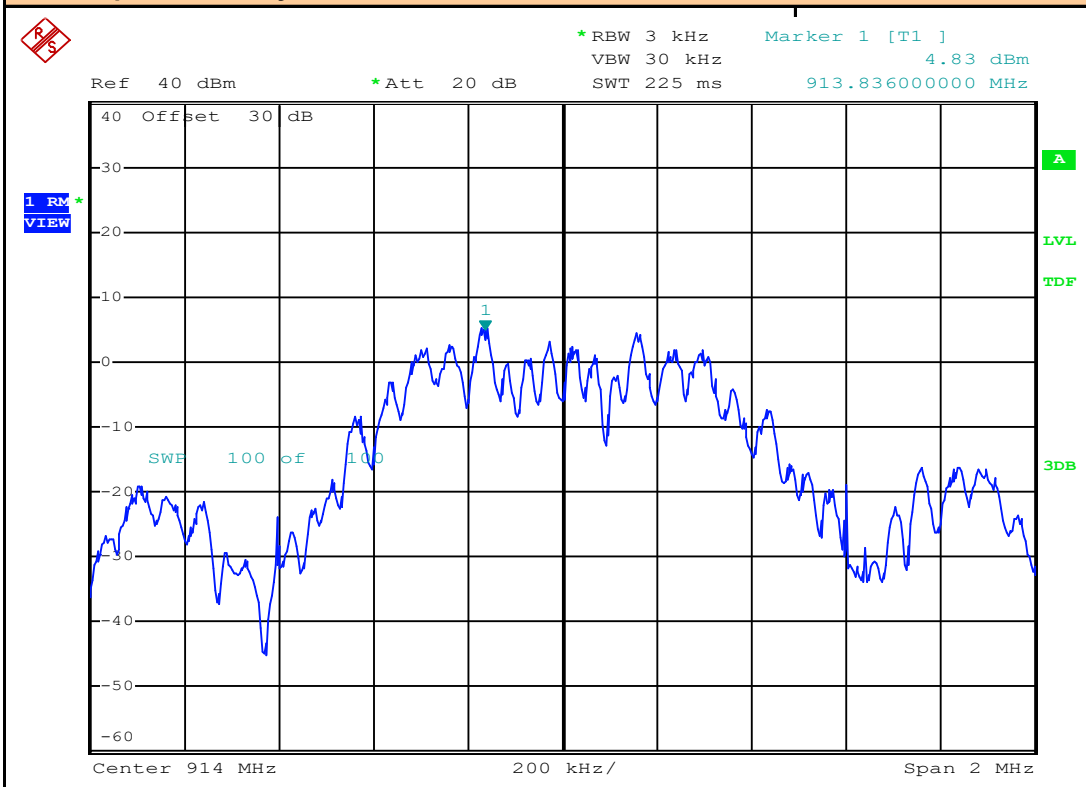


Date: 5.NOV.2022 11:27:39

Channel Frequency *(MHz)*	Modulation	Measured PSD *(dBm)*
906	BPSK-40	5.56

Plot 10.2 – Power Spectral Density, 914MHz

Power Spectal Density:

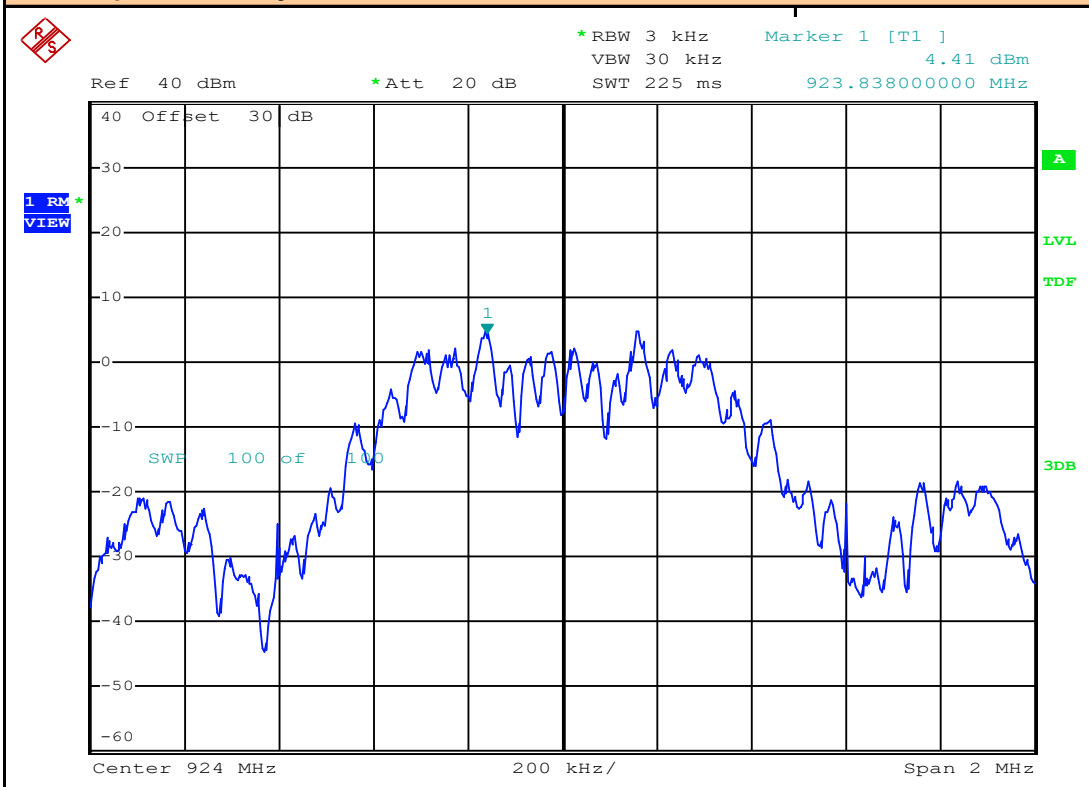


Date: 5.NOV.2022 11:25:06

Channel Frequency *(MHz)*	Modulation	Measured PSD *(dBm)*
914	BPSK-40	4.83

Plot 10.3 – Power Spectral Density, 924MHz

Power Spectal Density:



Date: 5.NOV.2022 11:26:30

Channel Frequency (MHz)	Modulation	Measured PSD (dBm)
924	BPSK-40	4.41

Table 10.1 – Summary of Power Spectral Density Measurements

Power Spectral Density Measurement Results: DTS				
Frequency (MHz)	Modulation	Measured PSD [P_{Meas}] (dBm)	PSD Limit [P_{Lim}] (dBm)	Conducted Margin (dB)
906.0	BPSK-40	5.56	8	2.4
914.0		4.83	8	3.2
924.0		4.41	8	3.6
		Result:	Complies	

Margin = PSD Limit [P_{Limit}] - Measured PSD [P_{Meas}]

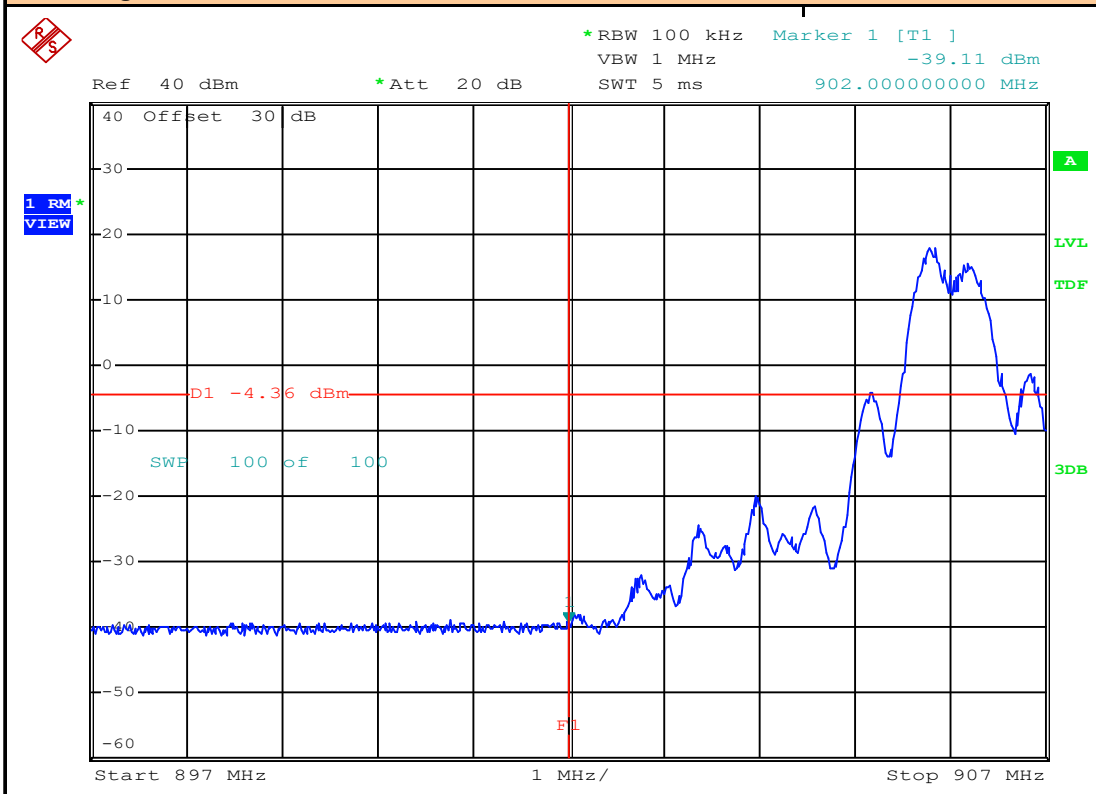
11.0 CONDUCTED SPURIOUS EMISSIONS – BAND EDGE

Test Procedure	
Normative Reference	FCC 47 CFR §2.1051, §15.247(d), RSS-Gen (6.13), RSS-247 (5.5), KDB 558074 (8.7), ANSI C63.10 (11.13.3.3)

Limits	
47 CFR §15.247(d)	(d) 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.
RSS-247 (5.5)	**5.5 Unwanted emissions** In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required. d) For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e). As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power.

Plot 11.1 – Spurious Emission Measurement, Lower Band Edge

Band Edge: Lower

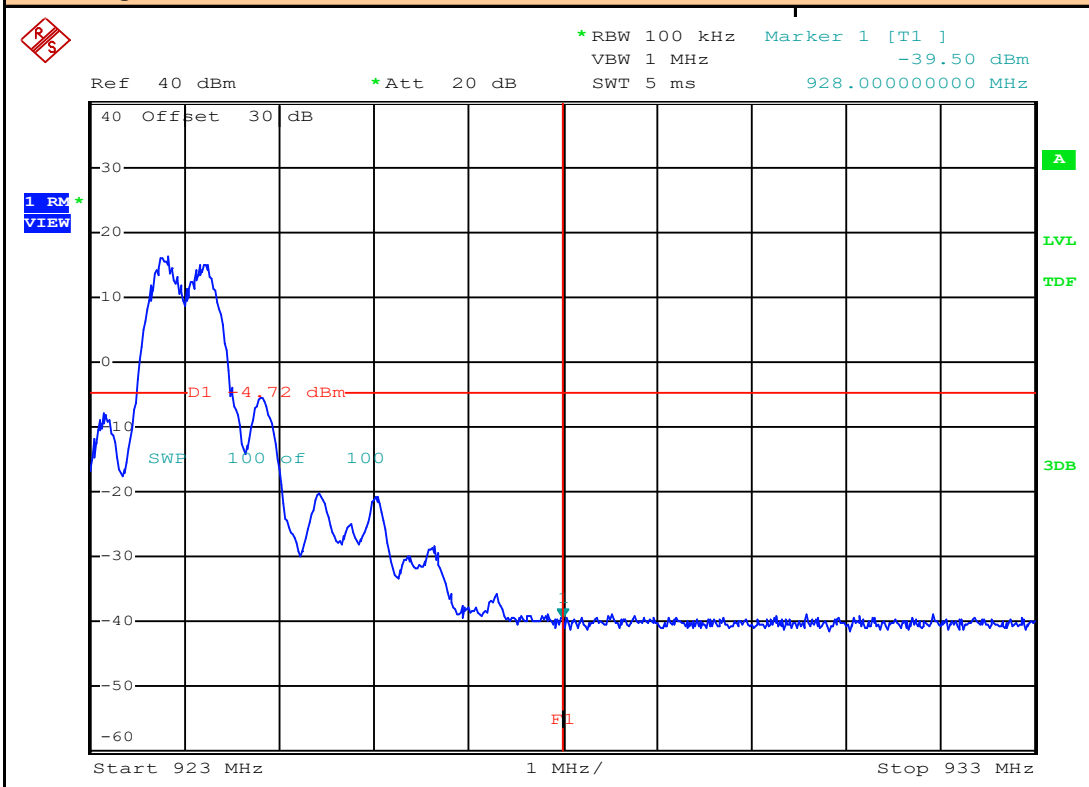


Date: 5.NOV.2022 11:48:34

Channel Frequency (MHz)	Modulation	Fund. Power (dBm)	Emission Frequency (MHz)	Measured Emission (dBm)
906	BPSK-40	23.56	902.00	-39.11

Plot 11.2 – Spurious Emission Measurement, Upper Band Edge

Band Edge: Lower



Date: 5.NOV.2022 11:50:03

Channel Frequency (MHz)	Modulation	Fund. Power (dBm)	Emission Frequency (MHz)	Measured Emission (dBm)
924	BOSK-40	23.99	928.00	-39.50

Table 11.1 – Summary of Conducted Spurious Emissions (Band Edge) Measurements

Unwanted Emissons Measurement Results: Band Edge							
Frequency (MHz)	Modulation	Fundamental Power [P_{Fund}] (dBm)	Emission Frequency (MHz)	Measured Emission [P_{Meas}] (dBm)	Attenuation [Att] (dBm)	Limit (dB)	Margin (dB)
906.0	BPSK-40	25.64	902.0	-39.11	64.75	30.0	34.8
924.0		24.82	928.0	-39.50	64.32		34.3
						Result:	Complies

Attenuation [A_{tt}] = Fundamental Power [P_{Fund}] - Measured Emission [P_{Meas}]

Margin = Attenuation [A_{tt}] - Limit

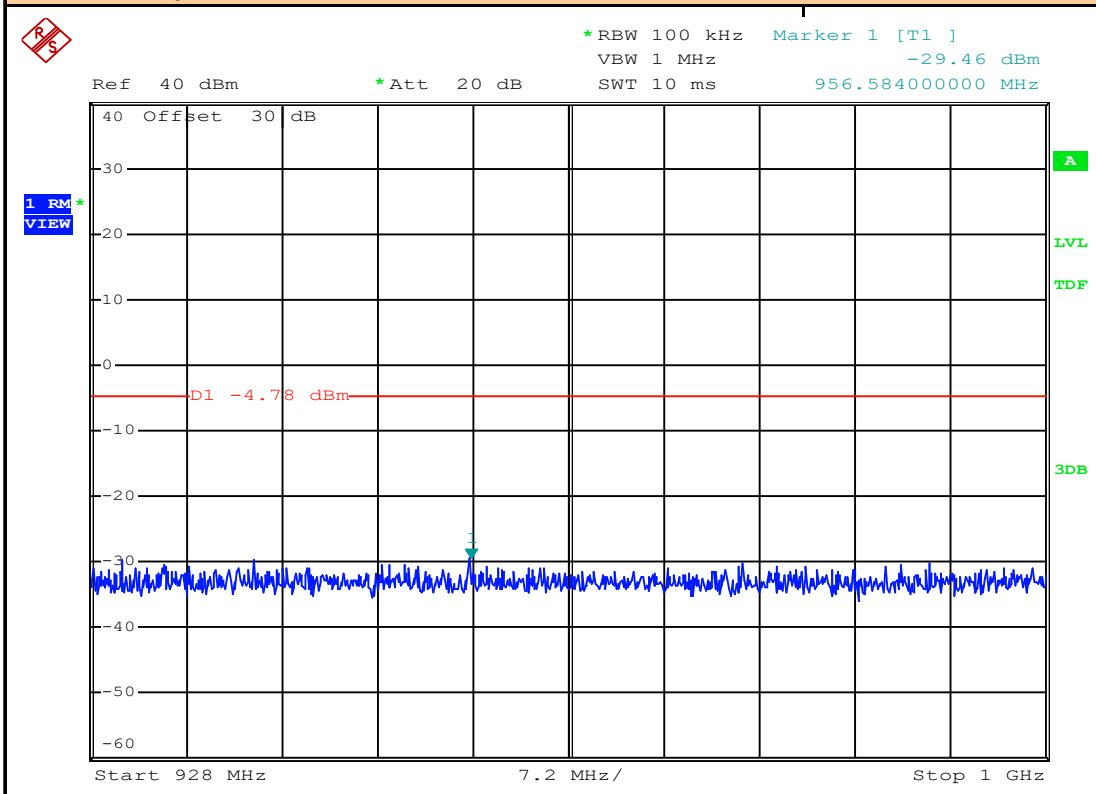
12.0 CONDUCTED SPURIOUS EMISSIONS

Test Procedure	
Normative Reference	FCC 47 CFR §2.1051, §15.247(d), RSS-Gen (6.13), RSS-247 (5.5),
	KDB 558074 (8.7), ANSI C63.10 (11.13.3.3)

Limits	
47 CFR §15.247(d)	(d) 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.
RSS-247 (5.5)	**5.5 Unwanted emissions** In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required. d) For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e). As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power.

Plot 12.1 – Conducted Spurious Emissions, 928 – 1000MHz

Conducted Spurious Emissions:

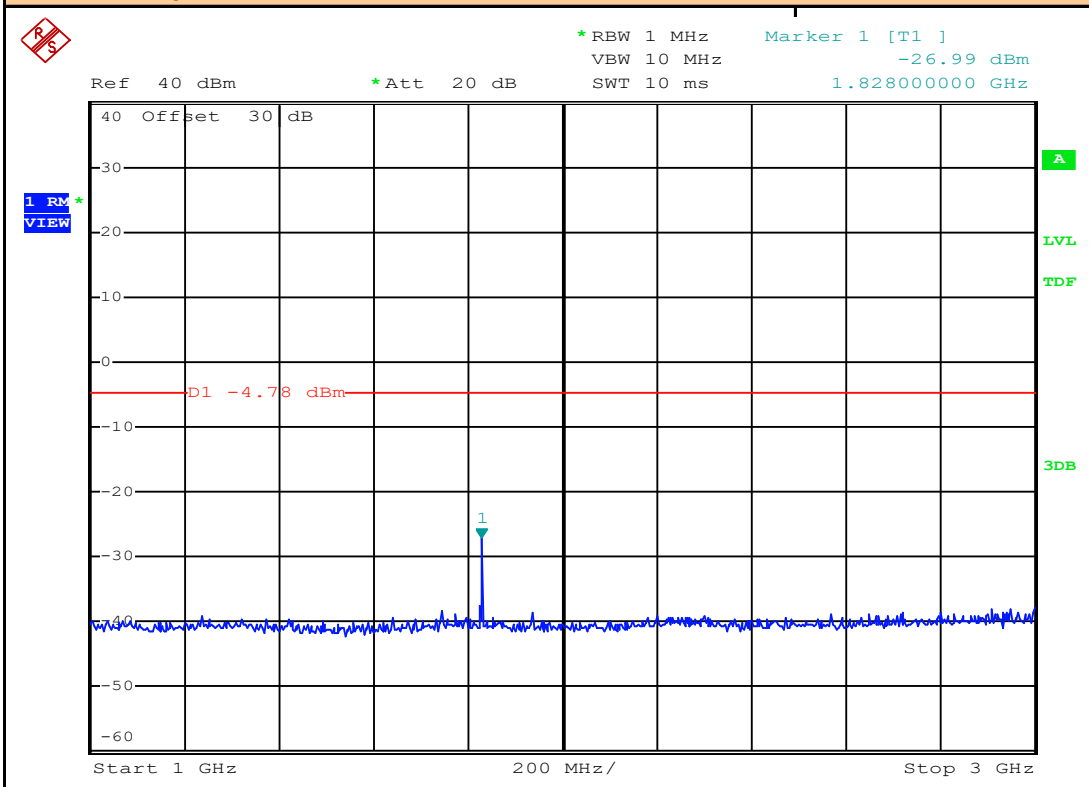


Date: 5.NOV.2022 11:53:49

Channel Frequency (MHz)	Emission Frequency (MHz)	Measured Emission (dBm)
914	956.00	-29.46

Plot 12.2 – Conducted Spurious Emissions, 1000 – 3000MHz

Conducted Spurious Emissions:

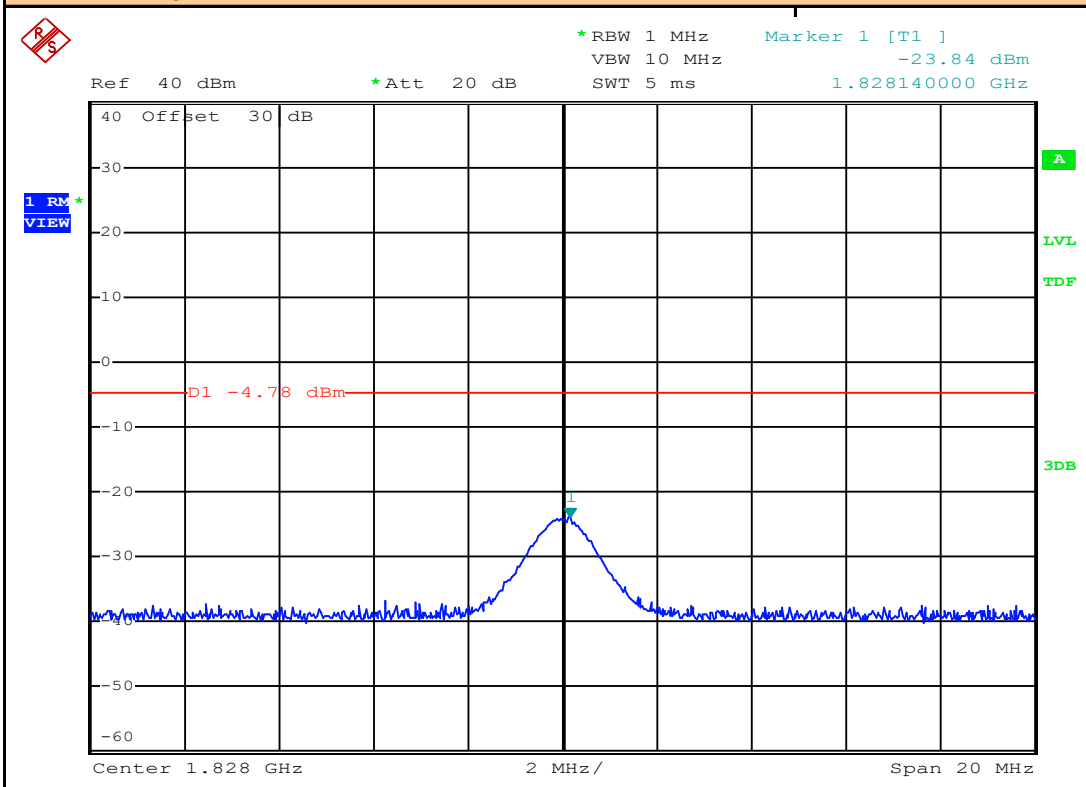


Date: 5.NOV.2022 11:54:21

Channel Frequency (MHz)	Emission Frequency (MHz)	Measured Emission (dBm)
914	1828.00	-

Plot 12.3 – Conducted Spurious Emissions, 1848MHz

Conducted Spurious Emissions:

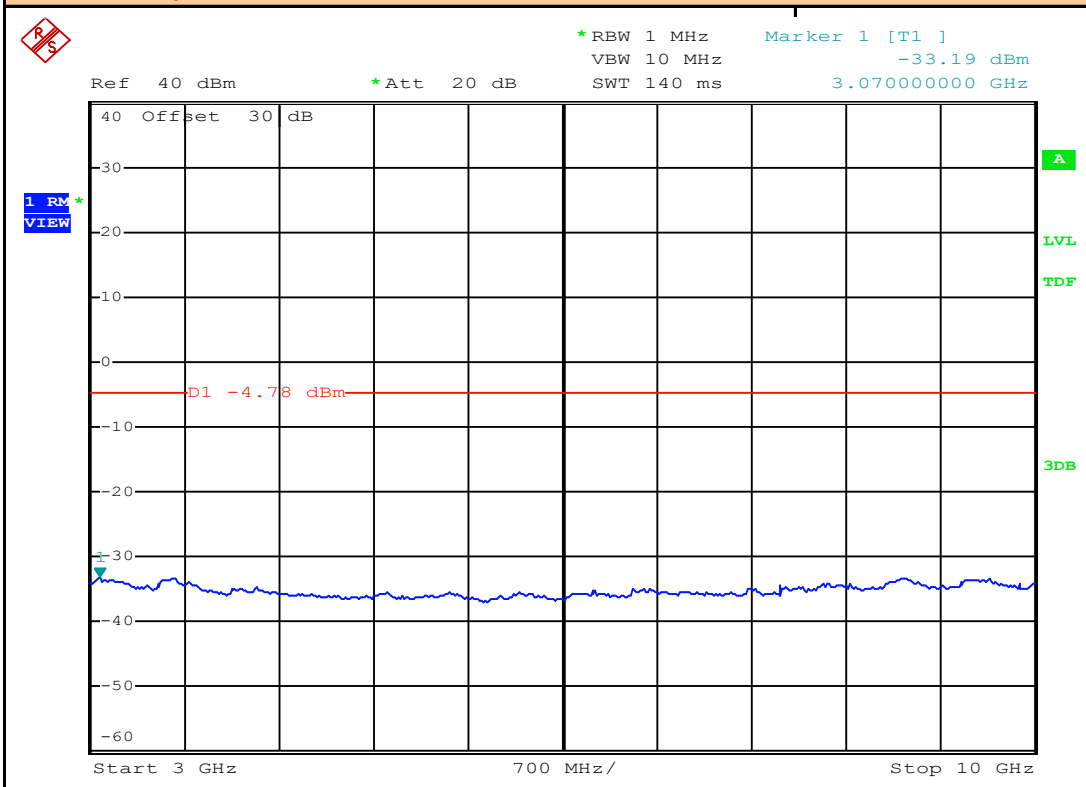


Date: 5.NOV.2022 11:54:46

Channel Frequency (MHz)	Emission Frequency (MHz)	Measured Emission (dBm)
914	1828.00	-23.84

Plot 12.4 – Conducted Spurious Emissions, 3 – 10GHz

Conducted Spurious Emissions:



Date: 5.NOV.2022 11:55:06

Channel Frequency (MHz)	Emission Frequency (MHz)	Measured Emission (dBm)
914	3070.00	-33.19

Table 12.1 – Summary of Conducted Spurious Emissions Measurements

Conducted Spurious Emissons Measurement Results:						
Fundamental Frequency (MHz)	**Fundamental Power [P_{Fund}] (dBm)**	**Emission Frequency (MHz)**	**Measured Emission [P_{Meas}] (dBm)**	**Attenuation [A_{tt}] (dBm)**	**Limit (dB)**	**Margin (dB)**
914.0	25.28	956.0	-29.46	54.74	30.0	24.7
		1828.0	-23.84	49.12		19.1
		3070.0	-33.19	58.47		28.5
						Complies

Attenuation [A_{tt}] = Fundamental Power [P_{Fund}] - Measured Emission [P_{Meas}]

Margin = Attenuation [A_{tt}] - Limit

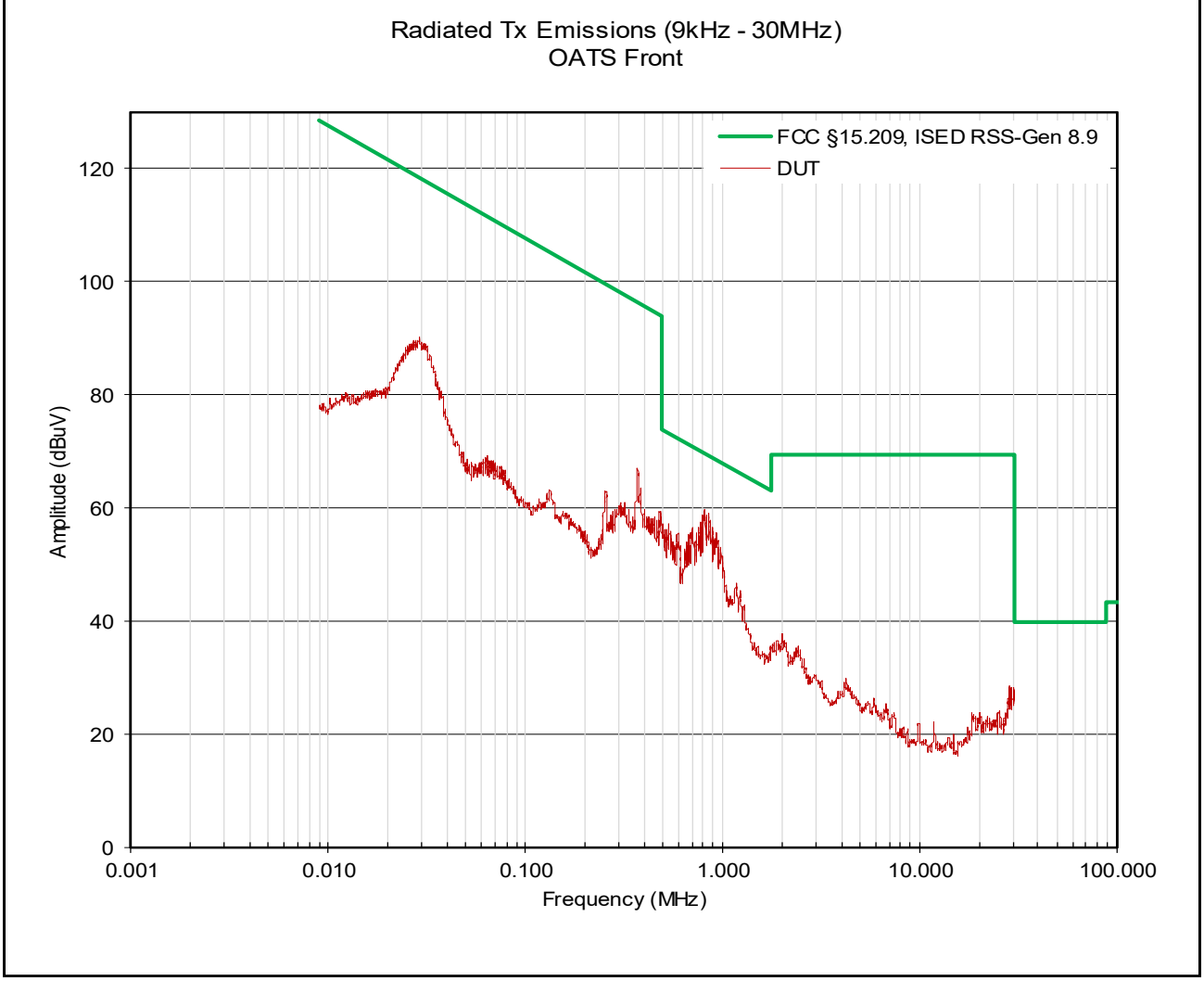
13.0 RADIATED TX EMISSIONS – RESTRICTED BAND

Test Procedure	
Normative Reference	FCC 47 CFR §2.1051, §15.247(d), §15.205(a), §15.205(c), §15.209(a)
	KDB 558074 (8.6), ANSI C63.10 (11.12)

Limits		
47 CFR §15.247(d)	(d) 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)).	
47 CFR §15.209(a)	**§15.209 Radiated emission limits; general requirements.** (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:	
	Frequency (MHz)	**Field Strength (microvolts/meter)**
	0.009 - 0.490	2400/F (kHz) @300m
	0.490 - 1.705	24000/F (kHz) @30m
	1.705 - 30	30 @ 30m
	30 - 88	100 @3m
	88 - 216	150 @3m
	216 - 960	200 @3m
	Above 960	500 @3m

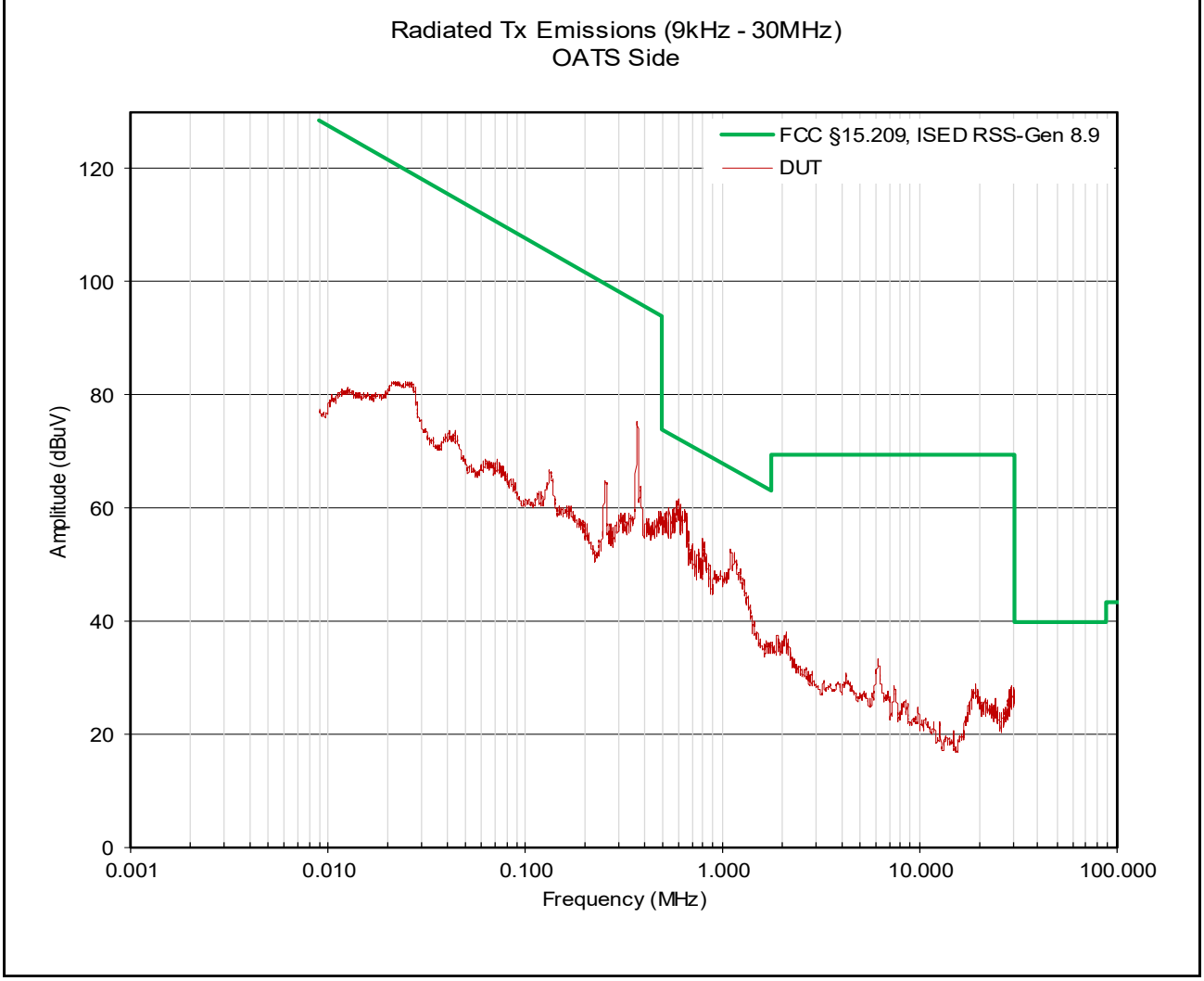
Plot 13.1 – Radiated Tx Emissions, 9kHz to 30MHz, Front

Radiated Tx Emissions:



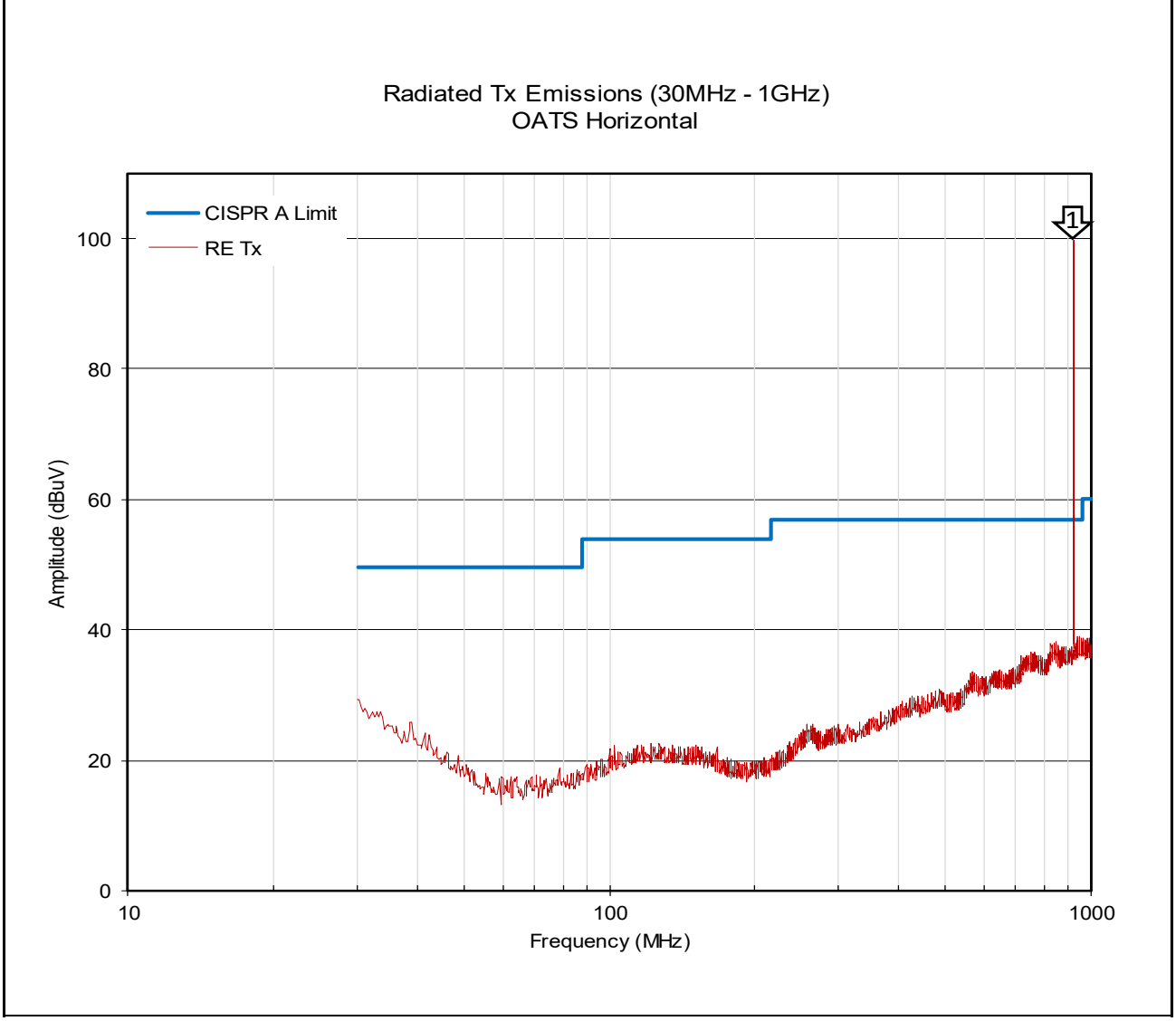
Plot 13.2 – Radiated Tx Emissions, 9kHz to 30MHz, Side

Radiated Tx Emissions:



Plot 13.3 – Radiated Tx Emissions, 30 to 1000MHz, Horizontal

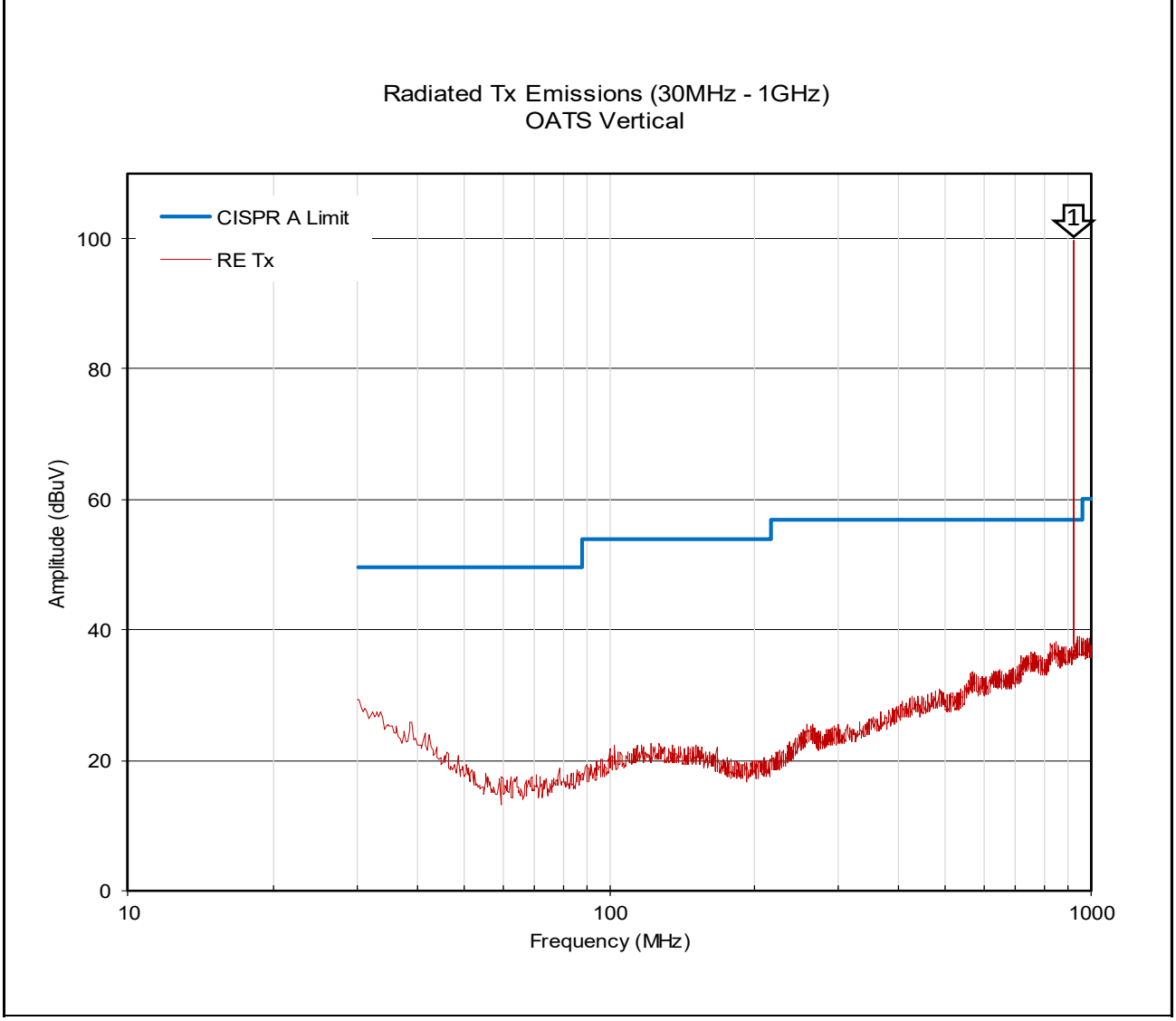
Radiated Tx Emissions:



Marker 1 = Fundamental

Plot 13.4 – Radiated Tx Emissions, 30 to 1000MHz, Vertical

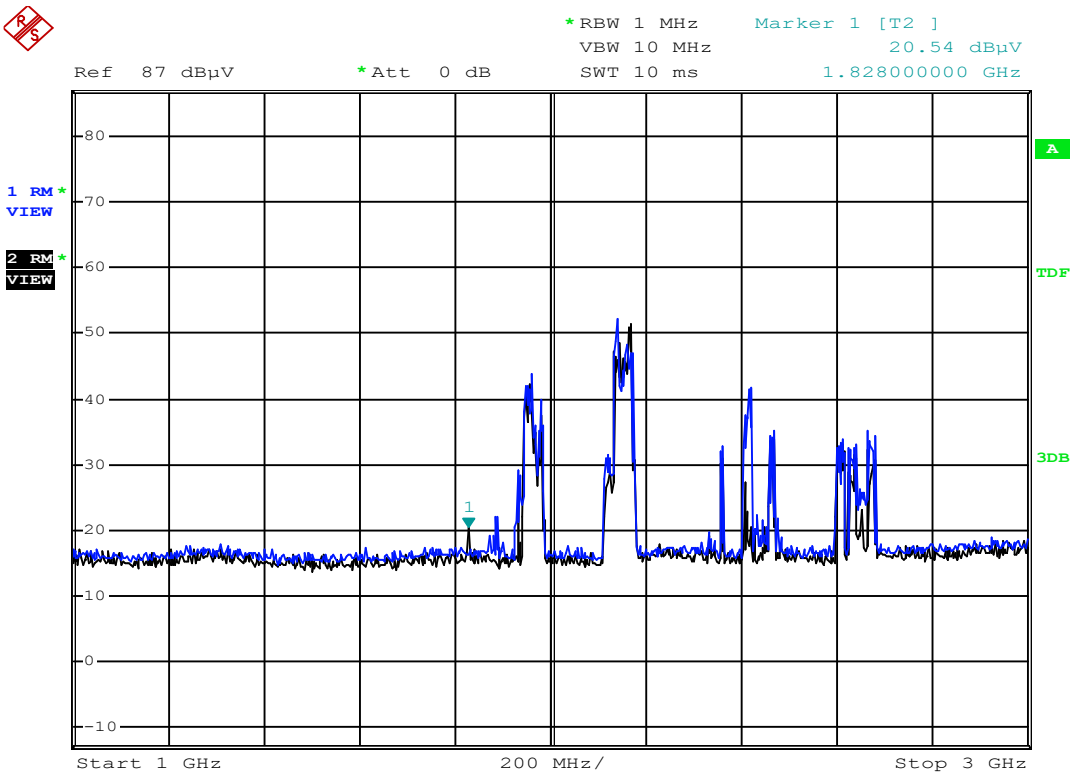
Radiated Tx Emissions:



Marker 1 = Fundamental

Plot 13.5 – Radiated Tx Emissions, 1 to 3GHz, Horizontal

Radiated Tx Emissions:



Date: 3.NOV.2022 14:35:42

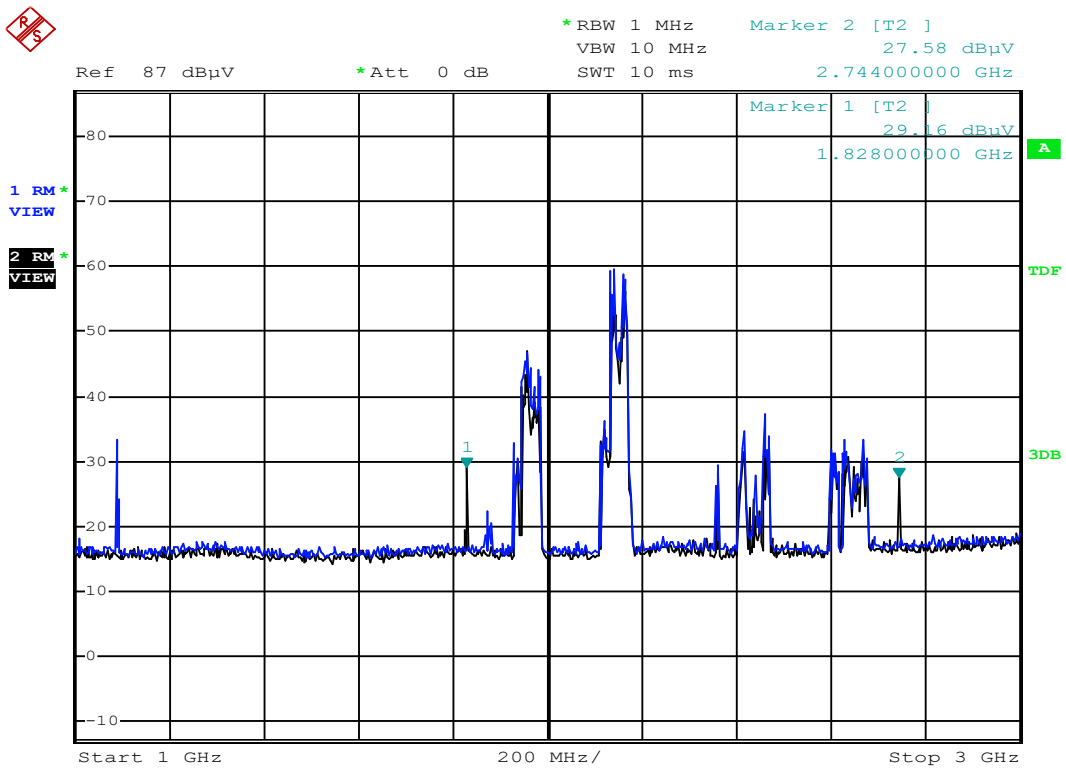
Polarity: Horizontal

Trace 1: Ambient

Trace 2: Ambient + DUT

Plot 13.6 – Radiated Tx Emissions, 1 to 3GHz, Vertical

Radiated Tx Emissions:



Date: 3.NOV.2022 14:42:30

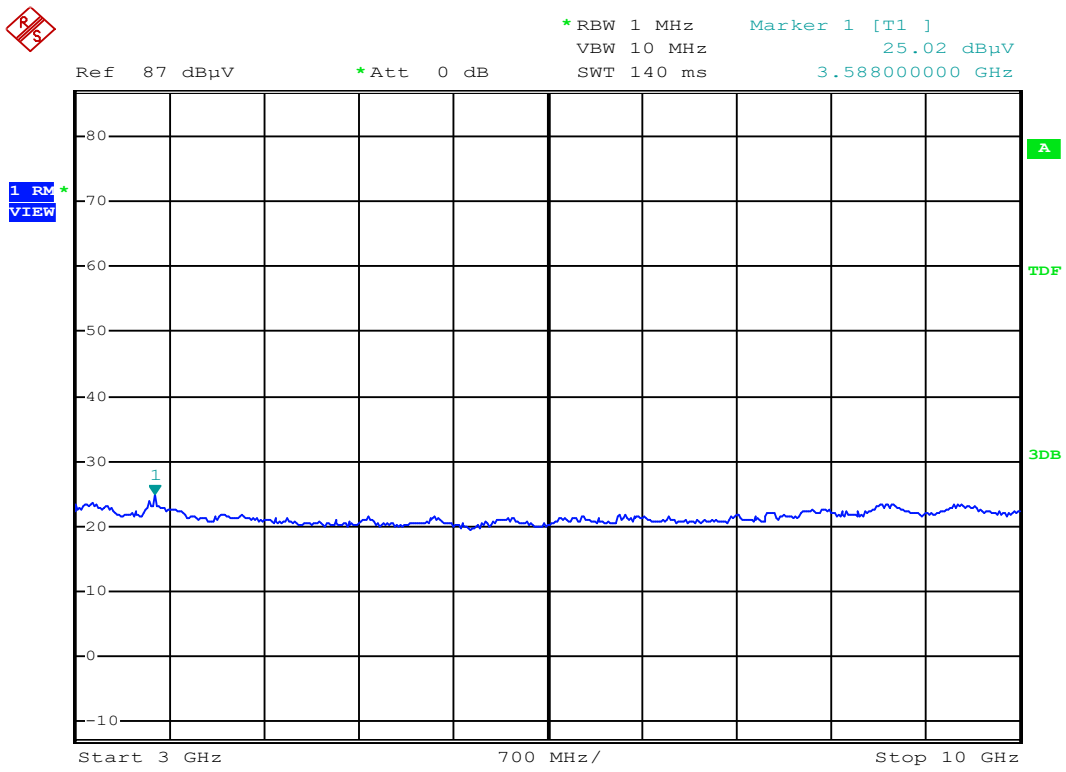
Polarity: Vertical

Trace 1: Ambient

Trace 2: Ambient + DUT

Plot 13.7 – Radiated Tx Emissions, 3 to 10GHz, Horizontal

Radiated Tx Emissions:

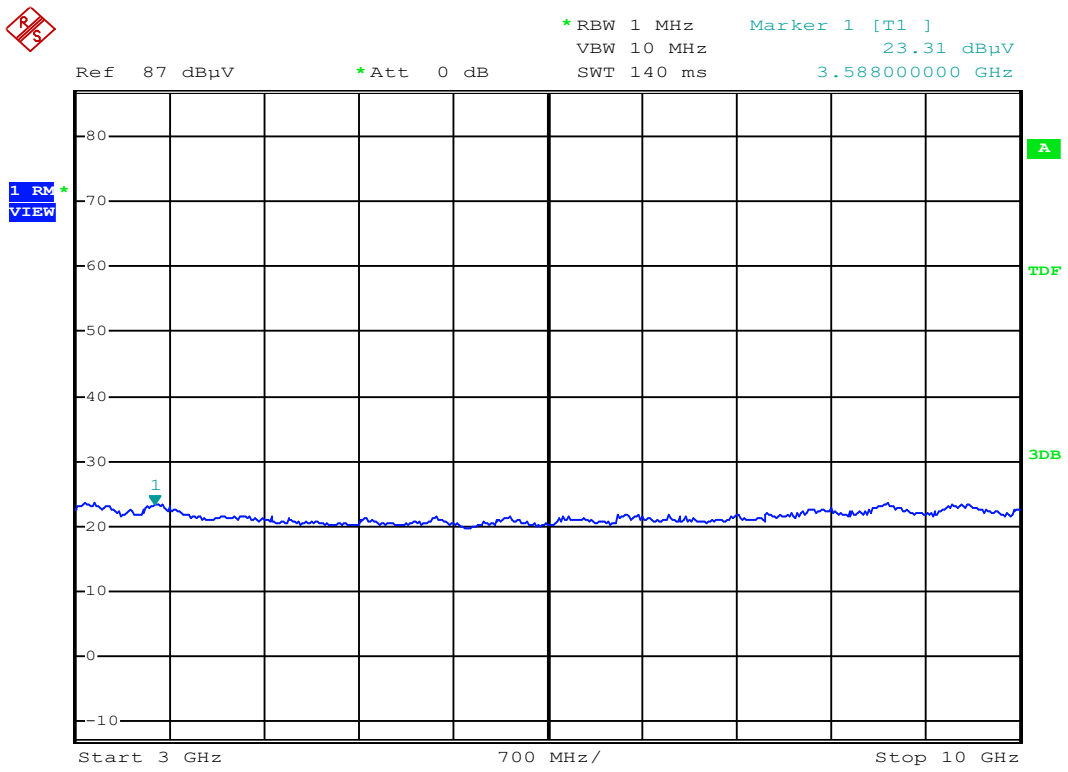


Date: 3.NOV.2022 14:36:43

Polarity: Horizontal

Plot 13.8 – Radiated Tx Emissions, 3 to 10GHz, Vertical

Radiated Tx Emissions:

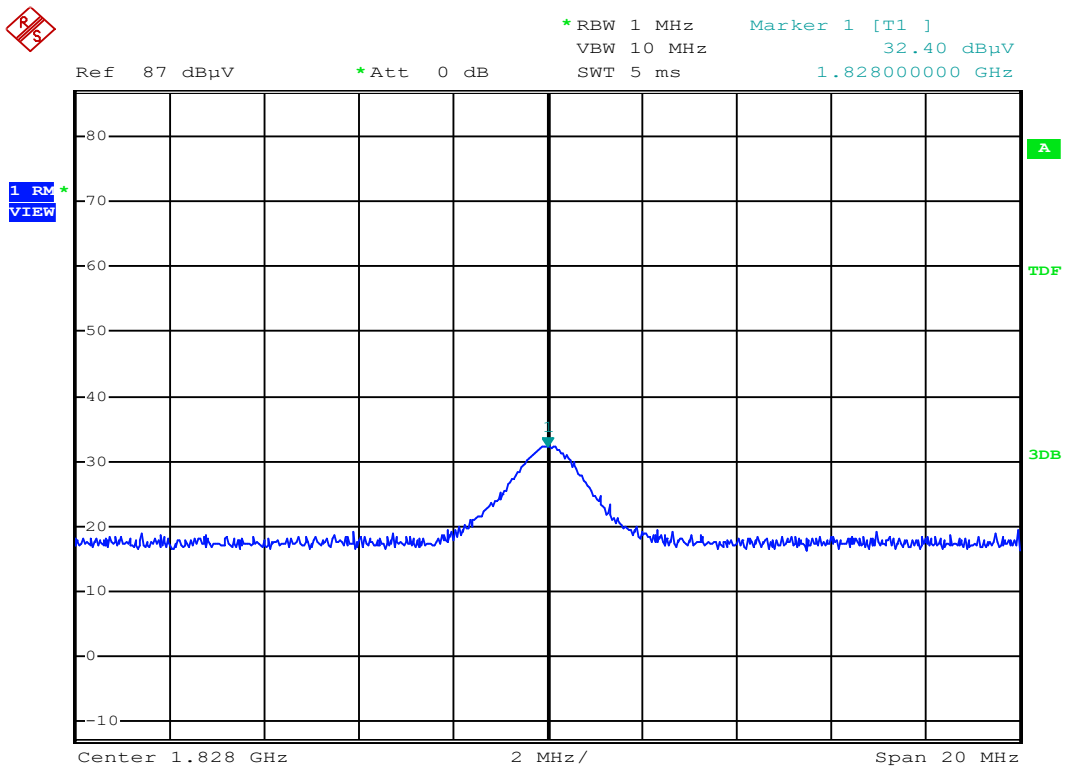


Date: 3.NOV.2022 14:38:28

Polarity: Vertical

Plot 13.9 – Radiated Tx Emissions, 2nd Harmonic Vertical

Radiated Tx Emissions:

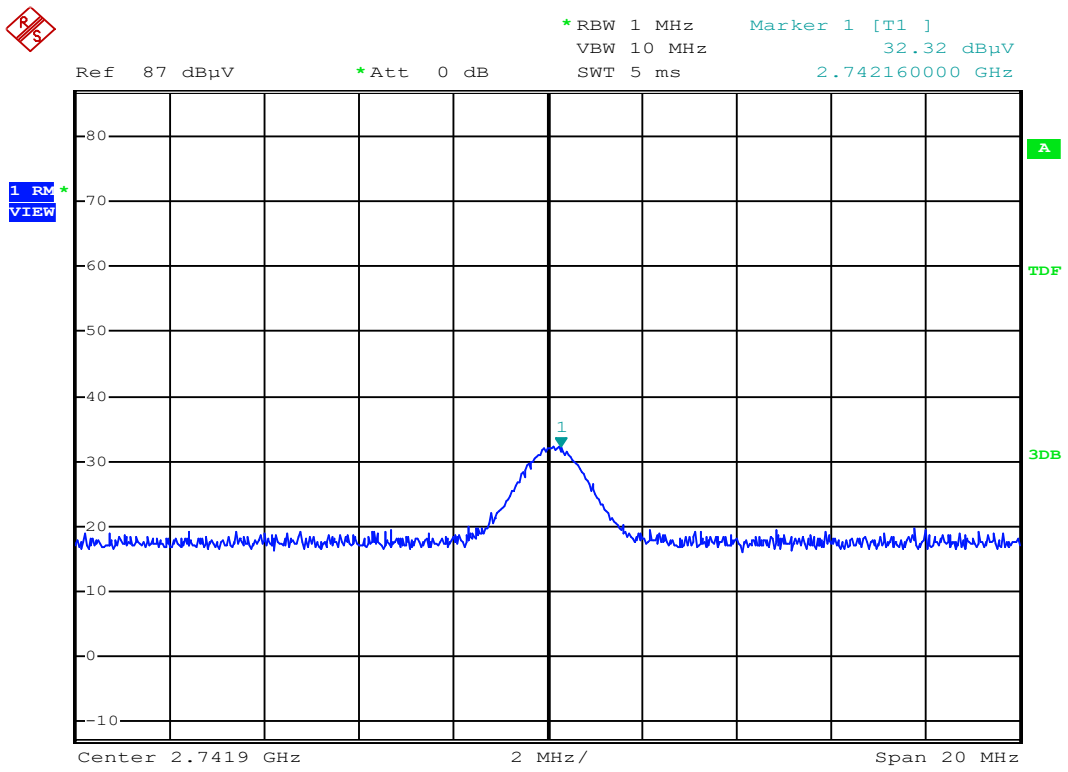


Date: 3.NOV.2022 14:44:41

Polarity: Vertical

Plot 13.10 – Radiated Tx Emissions, 3rd Harmonic Vertical

Radiated Tx Emissions:



Date: 3.NOV.2022 14:45:18

Polarity: Vertical

Table 13.1 – Summary of Radiated Tx Measurements

Summary of Radiated Tx Emissions										
Measured Frequency Range (MHz)	Channel Frequency (MHz)	Antenna Polarization	Emission Frequency	Measured Emission [E_{Meas}] (dBuV)	Antenna ACF [ACF] (dB)	Cable Loss [L_C] (dB)	Amplifier Gain [G_A] (dB)	Corrected Emission [E_{Corr}] (dBuV/m)	Limit (dBuV)	Margin (dB)
9kHz - 30MHz	912.000	Front	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
9kHz - 30MHz		Side	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
30-1000MHz		Horizontal	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
30-1000MHz		Vertical	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
1-3GHz		Horizontal	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
1-3GHz		Vertical	1828 MHz	3.48	26.72	2.20	0.00 (3)	32.4 (2)	60.0	**27.6**
1-3GHz		Vertical	2742 MHz	1.16	28.66	2.50	0.00 (3)	32.3 (2)	60.0	**27.7**
3-10GHz		Horizontal	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
3-10GHz		Vertical	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
								Results:	**Complies**	

(1) No Emissions Detected (ND) above ambient or within 20dB of the limit
(2) Antenna ACF, Cable Loss and Amplifier Gain corrected in Spectrum Analyzer Transducer Factor
(3) External Amplier not used

$E_{Corr} = E_{Meas} + ACF^E + L_C - G_A$

Where ACF^E is the Electric Antenna Correction Factor

14.0 RADIATED RX EMISSIONS

Test Procedure	
Normative Reference	FCC 47 CFR §15.109, ICES-003(6.2) ANSI C63.4-2014

Limits		
47 CFR §15.109	(b) The field strength of radiated emissions from a Class A digital device, as determined at a distance of 10 meters, shall not exceed the following:	
	30-88MHz: 39.1dBuV/m	30-88MHz: 49.6dBuV/m @ 3m
	88-216MHz: 43.5dBuV/m	88-216MHz: 54.0dBuV/m @ 3m
	216-960MHz: 46.4dBuV/m	216-960MHz: 56.9dBuV/m @ 3m
	> 960MHz: 49.5dBuV/m	> 960MHz: 60.0dBuV/m @ 3m
ICES-003(6.2.1)	6.2.1 - Radiated Emissions Limits Below 1 GHz Class A: ITE that meets the conditions for Class A operation defined in Section 2.2 shall comply with the Class A radiated limits set out in Table 4 determined at a distance of 10 metres.	
	30-88MHz: 39.1dBuV/m	30-88MHz: 49.6dBuV/m @ 3m
	88-216MHz: 43.5dBuV/m	88-216MHz: 54.0dBuV/m @ 3m
	216-960MHz: 46.4dBuV/m	216-960MHz: 56.9dBuV/m @ 3m
	> 960MHz: 49.5dBuV/m	> 960MHz: 60.0dBuV/m @ 3m

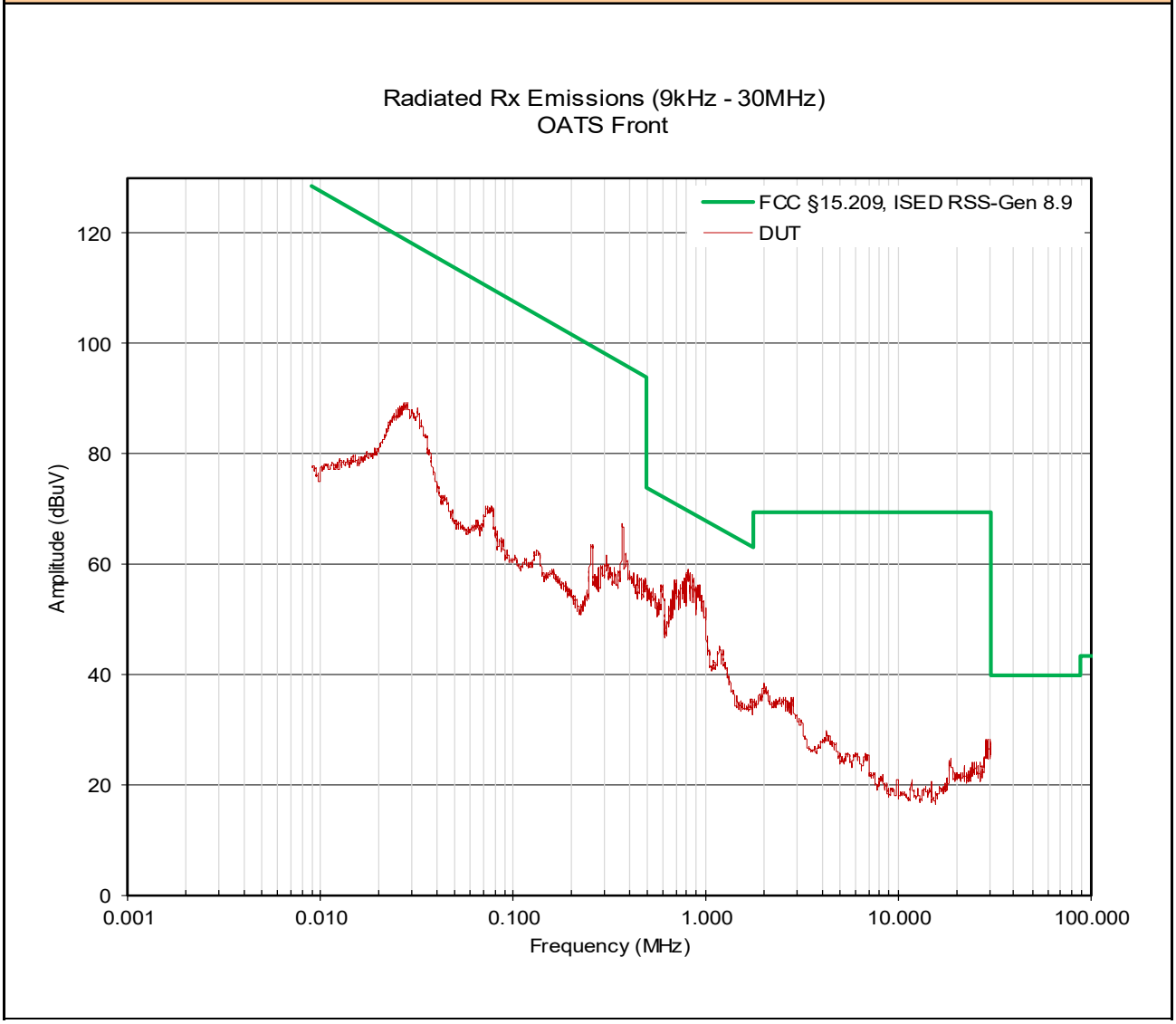
Test Setup	Appendix A	Figure A.1

Measurement Procedure

The DUT was set up as per ANSI C63.4:2014. Emissions were scanned between 30MHz and 1000MHz. The turntable was rotated 360 degrees and the antenna was elevated to 4m to optimize the measured emissions.

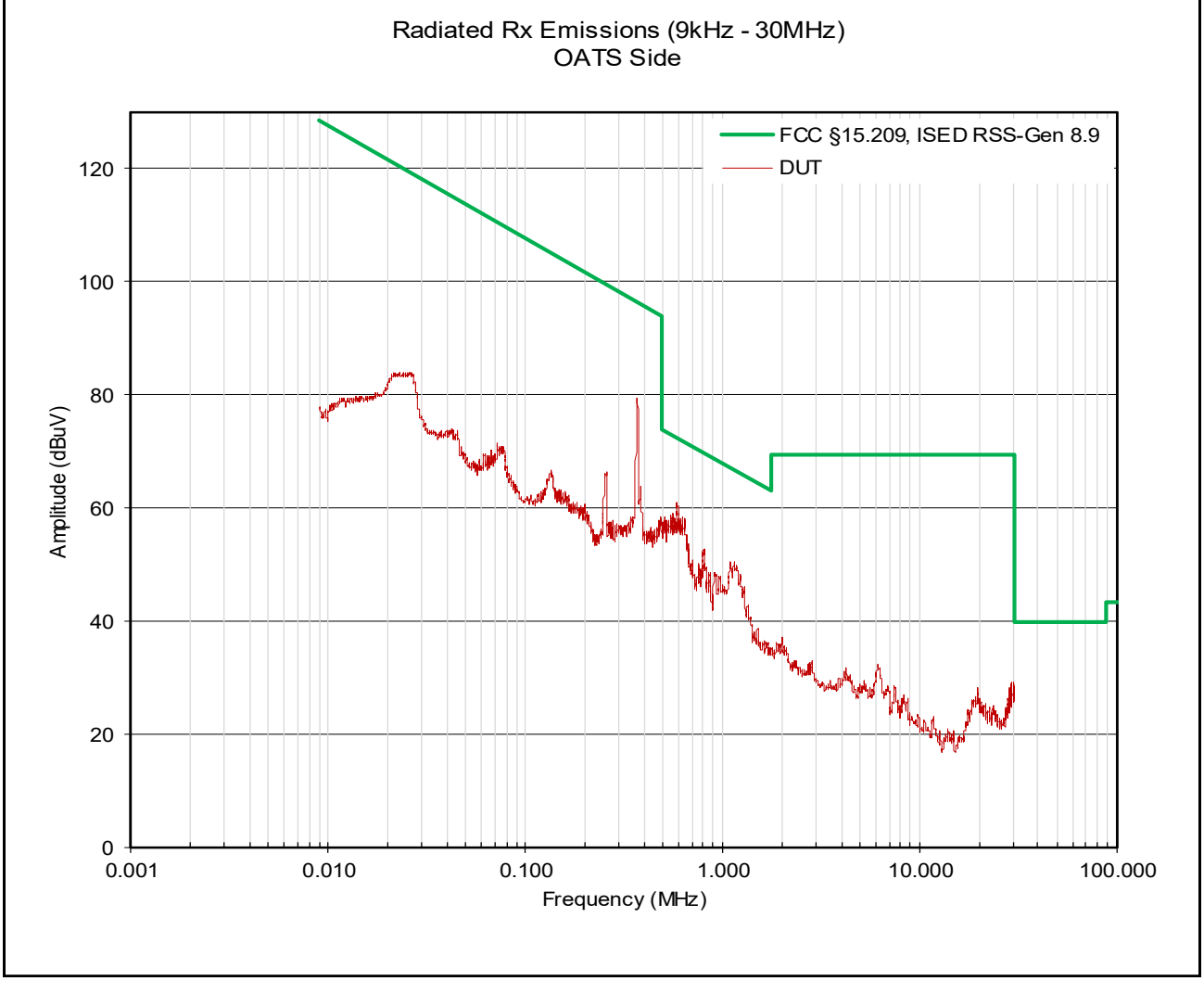
Plot 14.1 – Radiated Rx Emissions, 9kHz to 30MHz, Front

Radiated Rx Emissions:



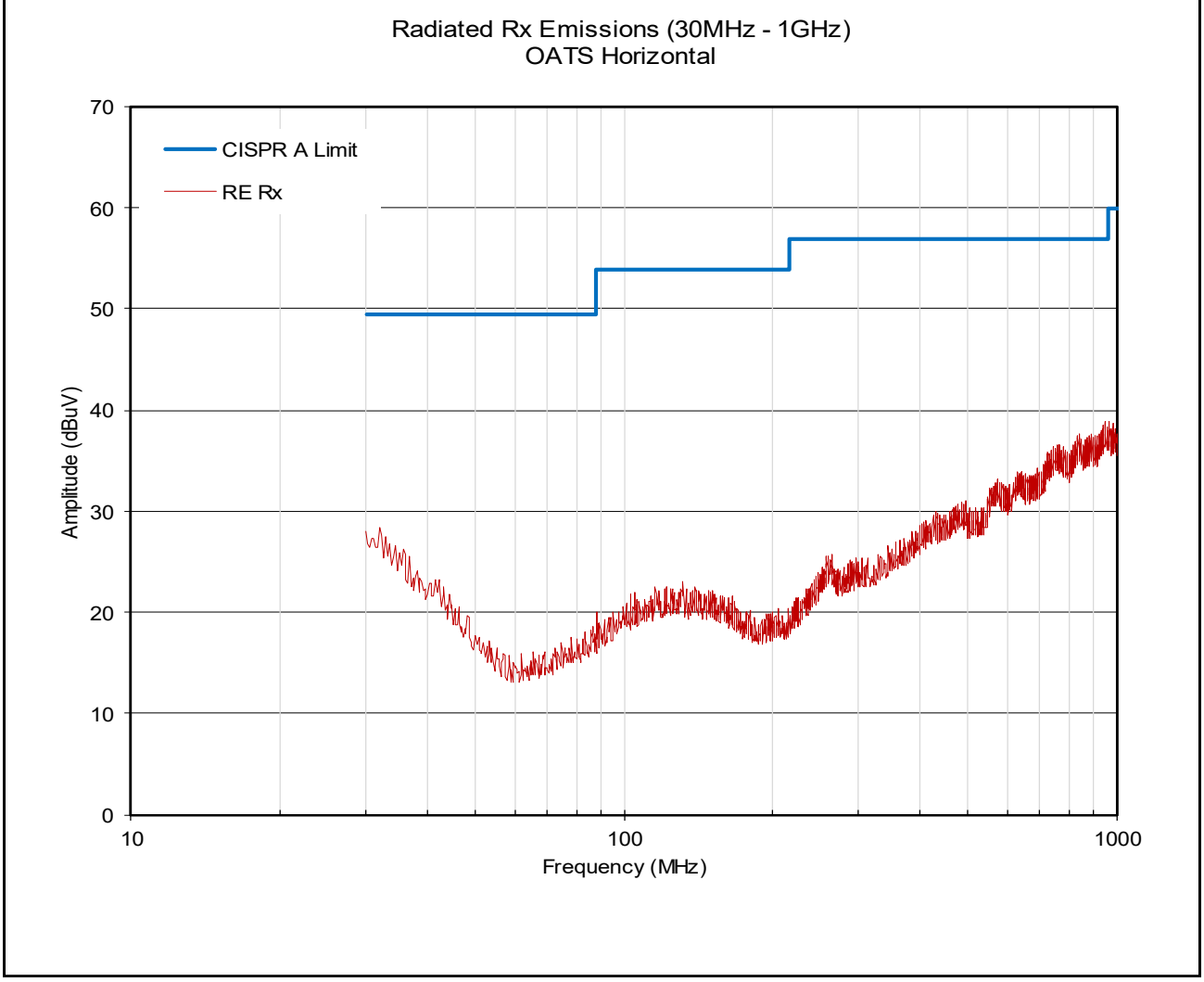
Plot 14.2 – Radiated Rx Emissions, 9kHz to 30MHz, Side

Radiated Rx Emissions:



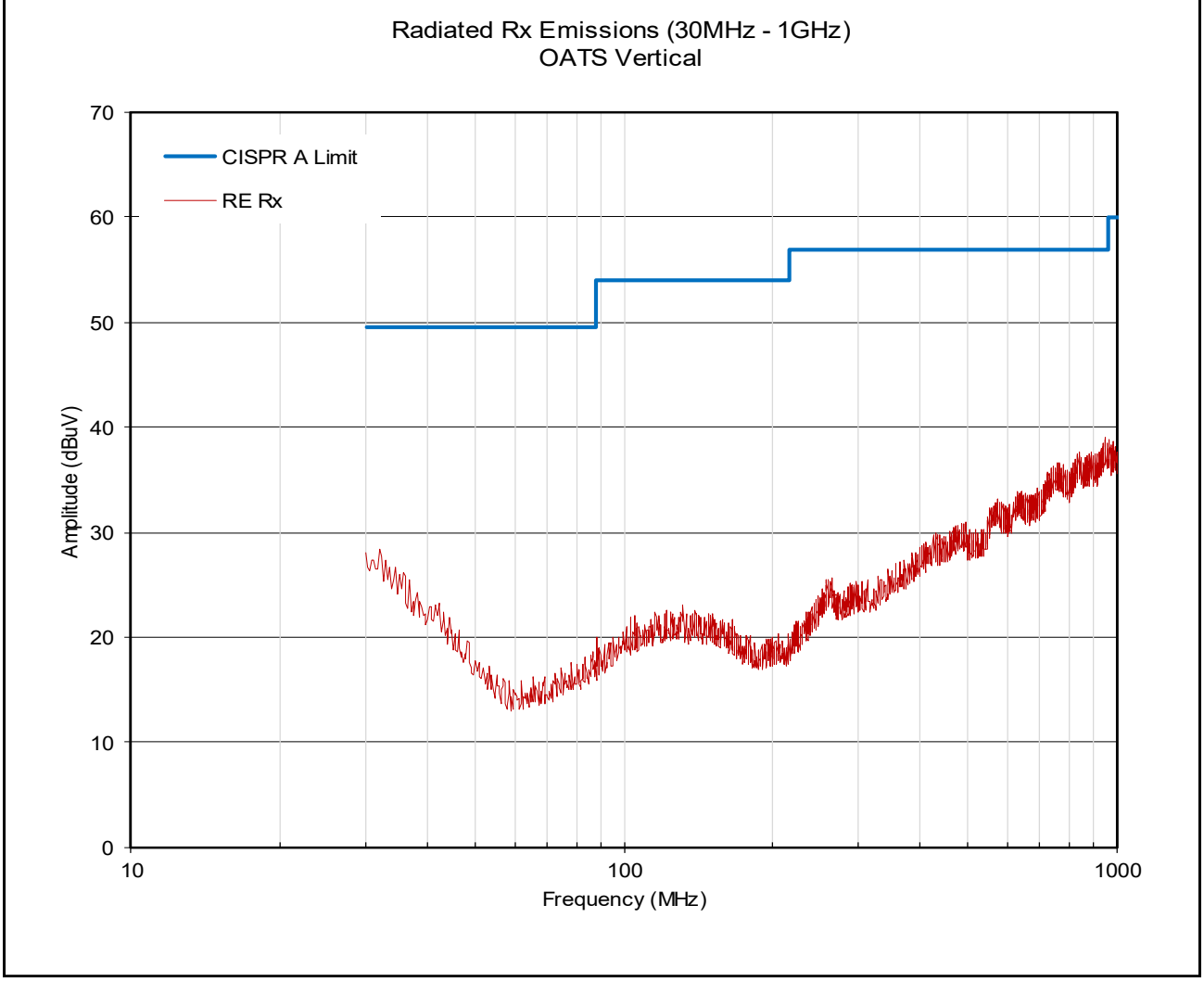
Plot 14.3 – Radiated Rx Emissions, 30 to 1000MHz, Horizontal

Radiated Rx Emissions:



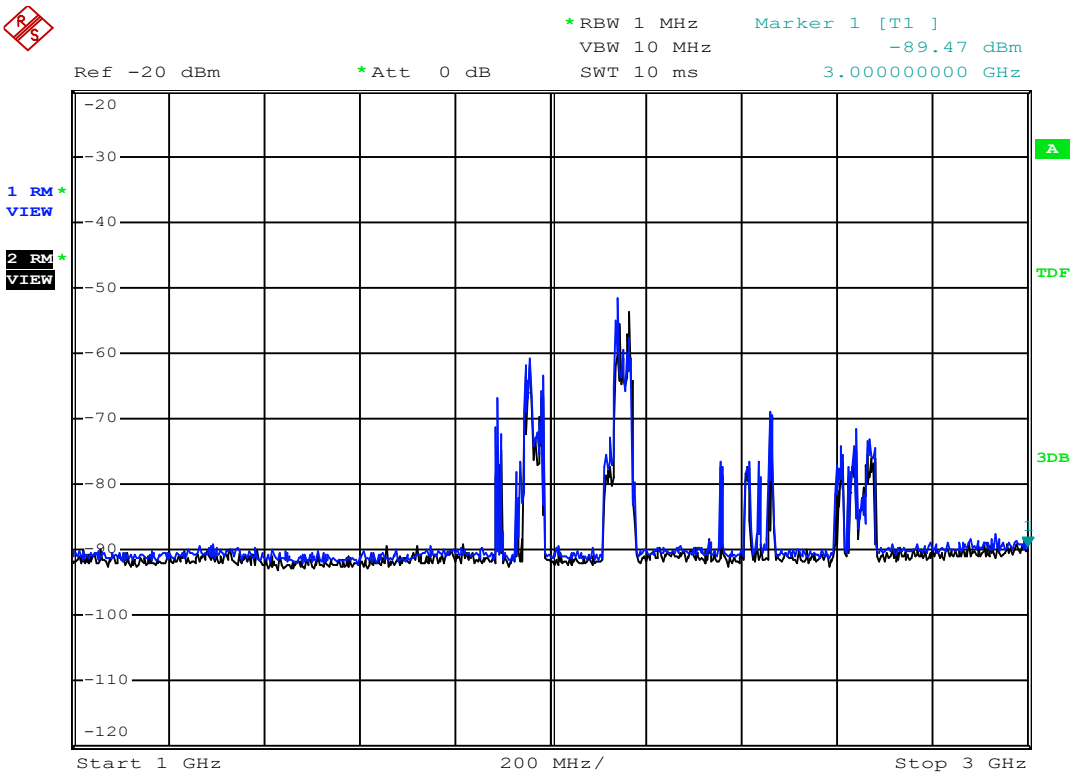
Plot 14.4 – Radiated Rx Emissions, 30 to 1000MHz, Vertical

Radiated Rx Emissions:



Plot 14.5 – Radiated Rx Emissions, 1 to 3GHz, Horizontal

Radiated Rx Emissions:



Date: 3.NOV.2022 14:26:22

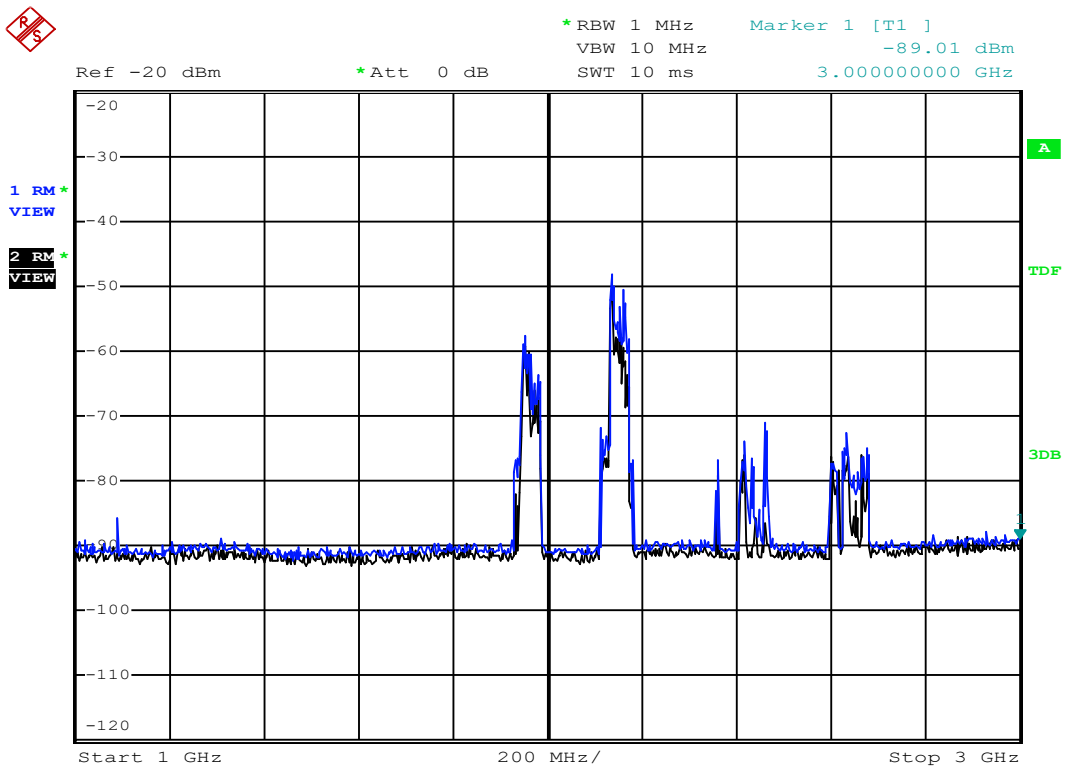
Polarity: Horizontal

Trace 1: Ambient

Trace 2: Ambient + DUT

Plot 14.6 – Radiated Rx Emissions, 1 to 3GHz, Vertical

Radiated Rx Emissions:



Date: 3.NOV.2022 14:19:13

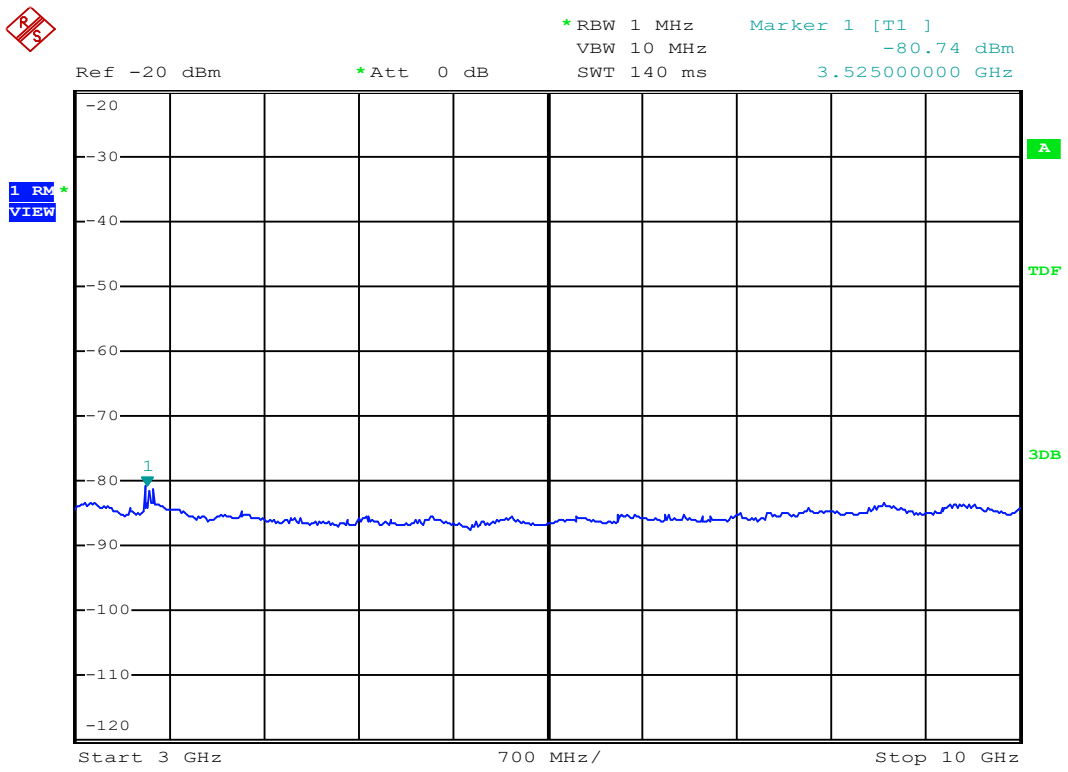
Polarity: Vertical

Trace 1: Ambient

Trace 2: Ambient + DUT

Plot 14.7 – Radiated Rx Emissions, 3 to 10GHz, Horizontal

Radiated Rx Emissions:

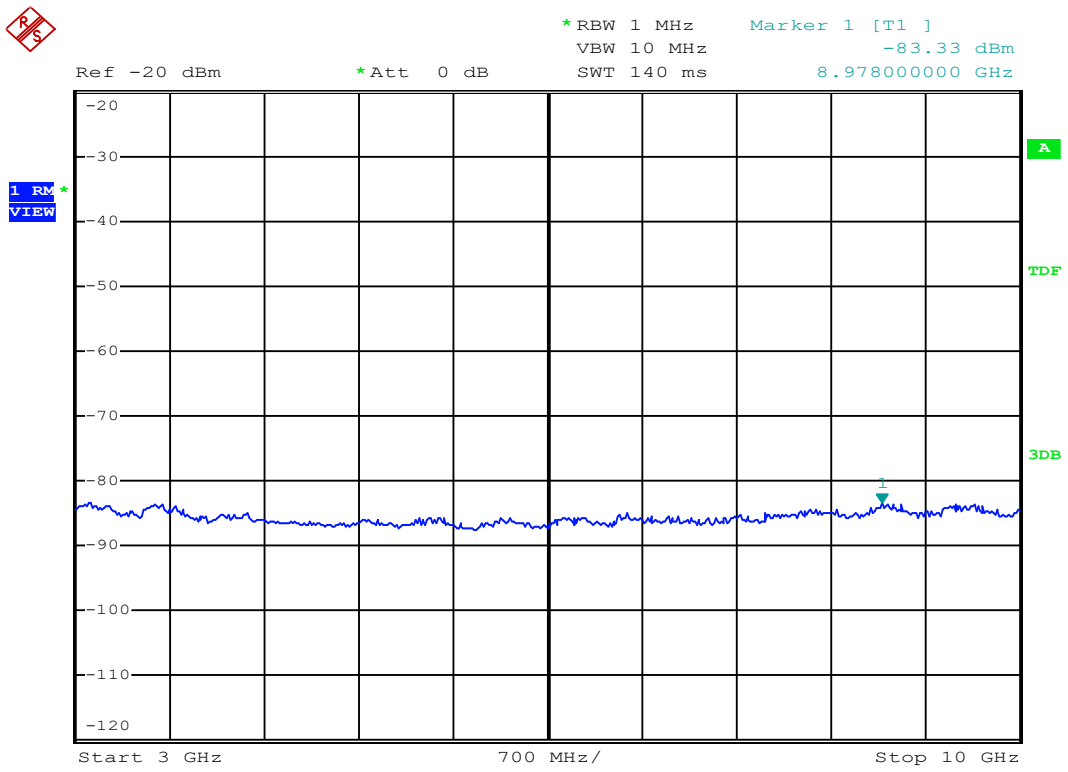


Date: 3.NOV.2022 14:25:42

Polarity: Horizontal

Plot 14.8 – Radiated Rx Emissions, 3 to 10GHz, Vertical

Radiated Rx Emissions:



Date: 3.NOV.2022 14:19:33

Polarity: Vertical

Table 14.1 – Summary of Radiated Rx Measurements

Summary of Radiated Rx Emissions										
Measured Frequency Range (MHz)	**Channel Frequency (MHz)**	**Antenna Polarization**	**Emission Frequency**	**Measured Emission [E_{Meas}] (dBuV)**	**Antenna ACF [ACF] (dB)**	**Cable Loss [L_C] (dB)**	**Amplifier Gain [G_A] (dB)**	**Corrected Emission [E_{Corr}] (dBuV/m)**	**Limit (dBuV)**	**Margin (dB)**
9kHz - 30MHz	-	Front	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
9kHz - 30MHz	-	Side	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
30-1000MHz	-	Horizontal	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
30-1000MHz	-	Vertical	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
1-3GHz	-	Horizontal	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
1-3GHz	-	Vertical	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
3-10GHz	-	Horizontal	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
3-10GHz	-	Vertical	ND	ND (1)	0.00	0.00	0.00 (3)	ND (2)	n/a	**n/a**
								Results:	**Complies**	

(1) No Emissions Detected (ND) above ambient or within 20dB of the limit

(2) Antenna ACF, Cable Loss and Amplifier Gain corrected in Spectrum Analyzer Transducer Factor

(3) External Amplier not used

$E_{Corr} = E_{Meas} + ACF^E + L_C - G_A$

Where ACF^E is the Electric Antenna Correction Factor

APPENDIX A – TEST SETUP DRAWINGS

Table A.1 – Conducted Measurement Setup

Equipment List			
Asset Number	**Manufacturer**	**Model Number**	**Description**
00241	R&S	FSU40	Spectrum Analyzer

Figure A.1 – Test Setup – Conducted Measurements

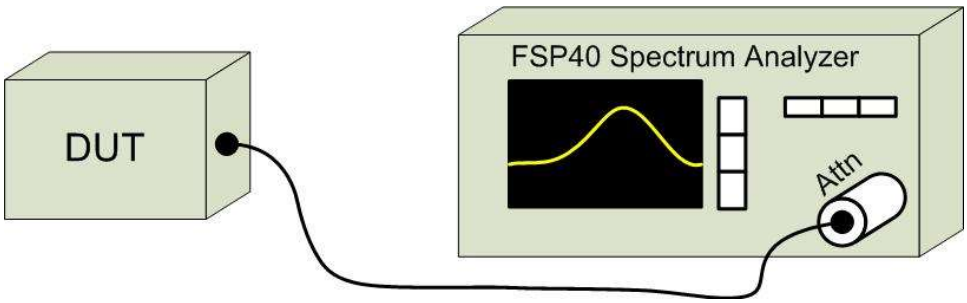


Table A.2 – Radiated Emissions Measurement Equipment

Equipment List			
Asset Number	**Manufacturer**	**Model Number**	**Description**
00051	HP	8566B	Spectrum Analyzer
00049	HP	85650A	Quasi-peak Adapter
00047	HP	85685A	RF Preselector
00072	EMCO	2075	Mini-mast
00073	EMCO	2080	Turn Table
00071	EMCO	2090	Multi-Device Controller
00265	Miteq	JS32-00104000-58-5P	Microwave L/N Amplifier
00241	R&S	FSU40	Spectrum Analyzer
00050	Chase	CBL-6111A	Bilog Antenna
00275	Coaxis	LMR400	25m Cable
00276	Coaxis	LMR400	4m Cable
00278	TILE	34G3	TILE Test Software
00034	ETS	3115	Double Ridged Guide Horn
00085	EMCO	6502	Loop Antenna

Figure A.2 – Test Setup Radiated Measurements 9kHzMHz – 30MHz

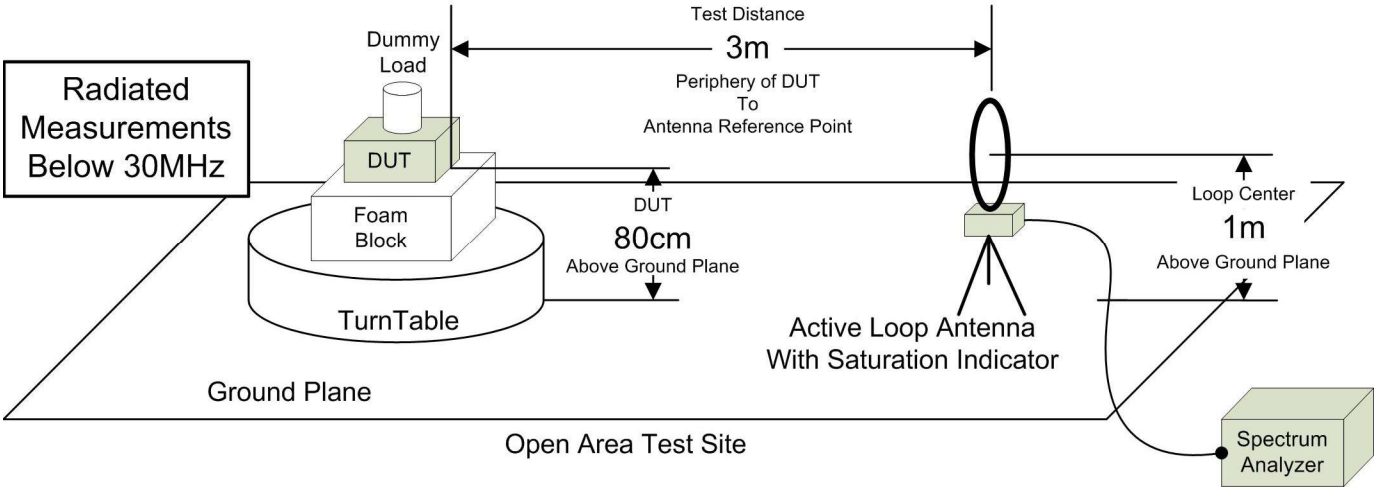


Figure A.3 – Test Setup Radiated Measurements 30MHz – 1GHz

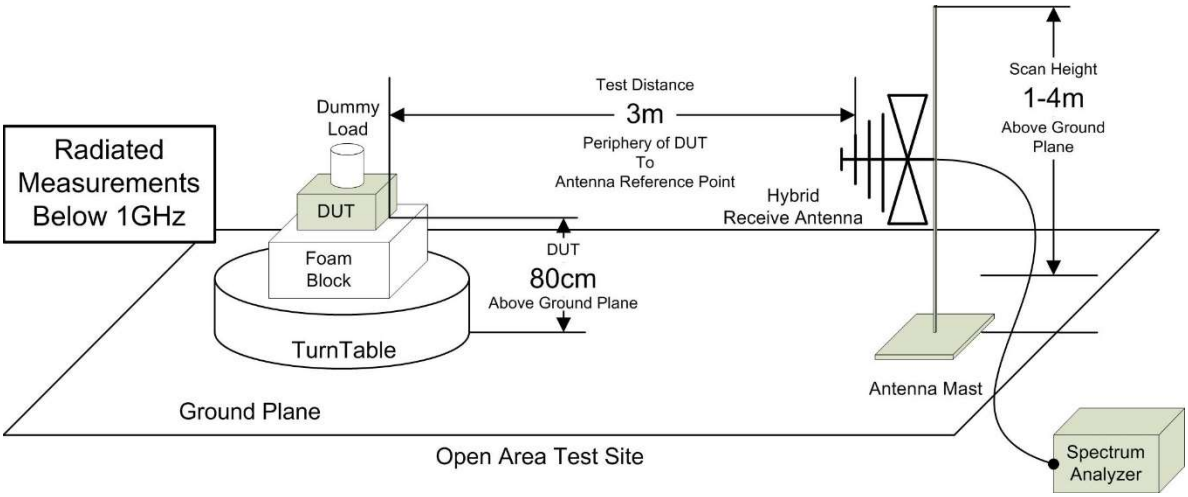


Figure A.4 – Test Setup Radiated Measurements 30MHz – 1GHz, Signal Substitution

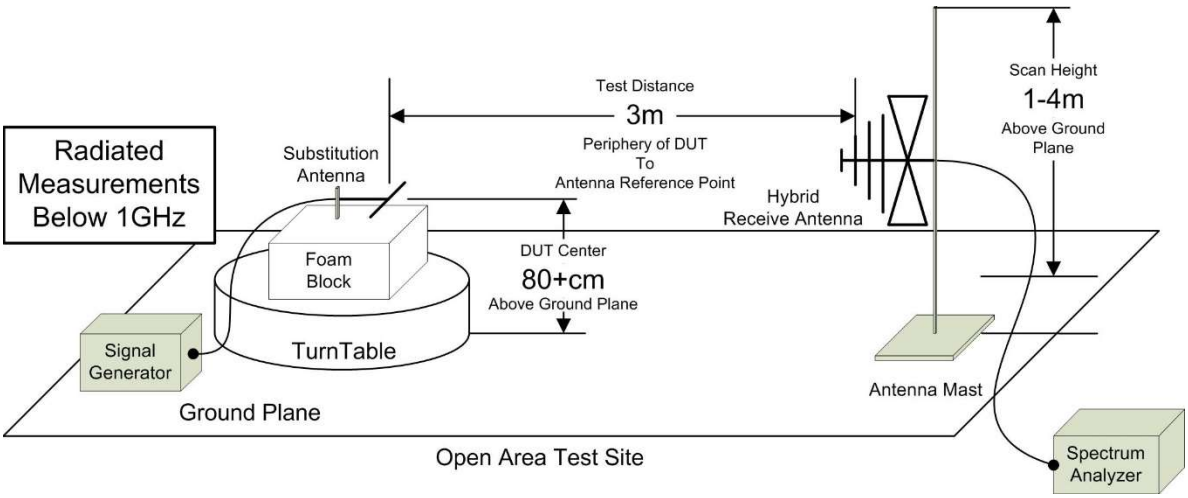
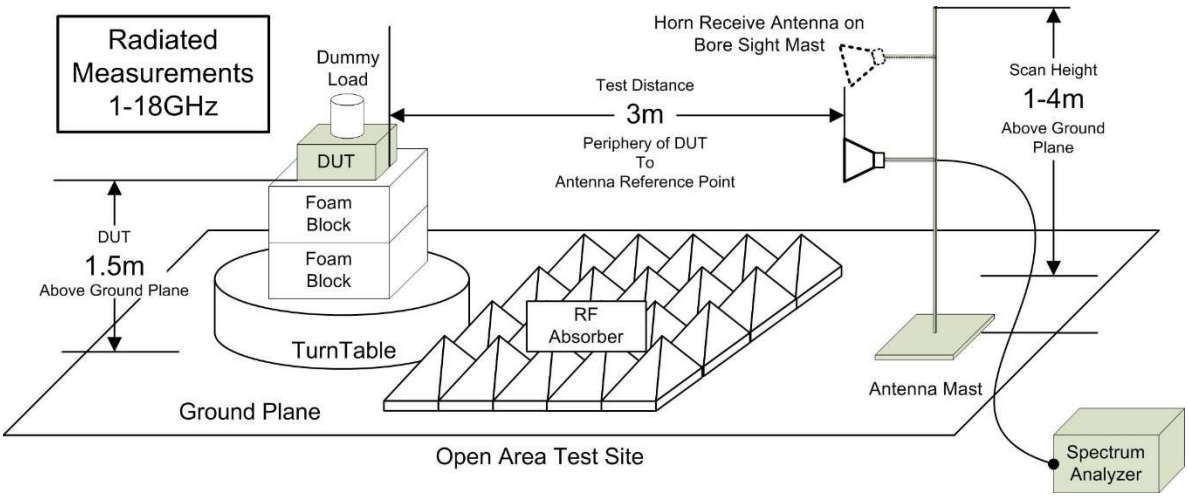


Figure A.5 – Test Setup Radiated Measurements 1 – 18GHz



APPENDIX B – EQUIPMENT LIST AND CALIBRATION

Equipment List							
Asset Number	Manufacturer	Model Number	Serial Number	Description	Last Calibrated	Calibration Interval	Calibration Due
00050	Chase	CBL-6111A	1607	Bilog Antenna	16 Nov 2020	Triennial	16 Nov 2023
00035	ETS	3115	6276	Double Ridged Guide Horn	4 Mar 2022	Triennial	4 Mar 2025
00085	EMCO	6502	9203-2724	Loop Antenna	6 Sep 2022	Triennial	6 Sep 2025
00333	HP	85685A	3010A01095	RF Preselector	23 Jun 2020	Triennial	30 Jun 2023
00049	HP	85650A	2043A00162	Quasi-peak Adapter	23 Jun 2020	Triennial	23 Jun 2023
00051	HP	8566B	2747A05510	Spectrum Analyzer	23 Jun 2020	Triennial	23 Jun 2023
00241	R&S	FSU40	100500	Spectrum Analyzer	10 Aug 2021	Triennial	10 Aug 2024
00005	HP	8648D	3847A00611	Signal Generator	23 Jun 2020	Triennial	23 Jun 2023
00072	EMCO	2075	0001-2277	Mini-mast	n/a	n/a	n/a
00073	EMCO	2080	0002-1002	Turn Table	n/a	n/a	n/a
00263	Koaxis	KP10-1.00M-TD	263	1m Armoured Cable	COU	n/a	COU
00263B	Koaxis	KP10-1.00M-TD	263B	1m Armoured Cable	COU	n/a	COU
00275	TMS	LMR400	n/a	25m Cable	COU	n/a	COU
00278	TILE	34G3	n/a	TILE Test Software	NCR	n/a	NCR

NCR: No Calibration Required
COU: Calibrate On Use

APPENDIX C – MEASUREMENT INSTRUMENT UNCERTAINTY

CISPR 16-4 Measurement Uncertainty (U_{LAB})	
This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence interval using a coverage factor of k=2	
Radiated Emissions 30MHz - 200MHz	
U_{LAB} = 5.14dB U_{CISPR} = 6.3dB	
Radiated Emissions 200MHz - 1000MHz	
U_{LAB} = 5.90dB U_{CISPR} = 6.3dB	
Radiated Emissions 1GHz - 6GHz	
U_{LAB} = 4.80dB U_{CISPR} = 5.2dB	
Radiated Emissions 6GHz - 18GHz	
U_{LAB} = 5.1dB U_{CISPR} = 5.5dB	
Power Line Conducted Emissions 9kHz to 150kHz	
U_{LAB} = 2.96dB U_{CISPR} = 3.8dB	
Power Line Conducted Emissions 150kHz to 30MHz	
U_{LAB} = 3.12dB U_{CISPR} = 3.4dB	
If the calculated uncertainty U_{lab} is **less** than U_{CISPR} then:	
1	Compliance is deemed to occur if **NO** measured disturbance exceeds the disturbance limit
2	Non-Compliance is deemed to occur if **ANY** measured disturbance **EXCEEDS** the disturbance limit
If the calculated uncertainty U_{lab} is **greater** than U_{CISPR} then:	
3	Compliance is deemed to occur if **NO** measured disturbance, increased by (U_{lab} - U_{CISPR}), exceeds the disturbance limit
4	Non-Compliance is deemed to occur if **ANY** measured disturbance, increased by (U_{lab} - U_{CISPR}), **EXCEEDS** the disturbance limit

Other Measurement Uncertainties (U_{LAB})
RF Conducted Emissions 9kHz - 40GHz
U_{LAB} = 1.0dB U_{CISPR} = n/a
Frequency/Bandwidth 9kHz - 40GHz
U_{LAB} = 0.1ppm U_{CISPR} = n/a
Temperature
U_{LAB} = 1^{O}C U_{CISPR} = n/a

END OF REPORT

