FCC Test Report

Equipment	:	**WhereNet RTLS Badge Tag**
Brand Name	:	**Zebra**
Model No.	:	**TFF-5100**
FCC ID	:	**XWX-TFF5100**
Standard	:	**47 CFR FCC Part 15.247**
Operating Band	:	**2400 MHz – 2483.5 MHz**
Function	:	**☒ Point-to-multipoint; ☐ Point-to-point**
Applicant / Manufacturer	:	**Zebra Technologies Corporation 3 Overlook Point Lincolnshire IL 60069 USA**

The product sample received on Jul. 06, 2017 and completely tested on Sep. 28, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Phoenix Chen / Assistant Manager
SPORTON INTERNATIONAL INC.

Testing Laboratory
1190

Table of Contents

Summary of Test Result

Conformance Test Specifications				
Report Clause	**Ref. Std. Clause**	**Description**	**Limit**	**Result**
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	NA
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Maximum Conducted Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 30 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied

Revision History

Report No.	Version	Description	Issued Date
FR770616AC	Rev. 01	Initial issue of report	Nov. 07, 2017
FR770616AC	Rev. 02	Revise Typo	Mar. 29, 2018

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Ch. Frequency (MHz)	Channel Number	Channel Spacing (MHz)	Modulation
2400-2483.5	2442	1	NA	BPSK
2400-2483.5	2446	1	NA	OOK

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BPSK	60	1TX
2.4-2.4835GHz	OOK	20	1TX

Note:
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	-	-	printed	mini Murata	1.92

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From DC source			
Beamforming Function	☐	With beamforming	☒	Without beamforming

Type of EUT		
☒	Stand-alone	
☐	Combined (EUT where the radio part is fully integrated within another device)	
	Combined Equipment - Brand Name / Model No.:	…
☐	Plug-in radio (EUT intended for a variety of host systems)	
	Host System - Brand Name / Model No.:	…
☐	Other:	

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
OOK	0.941	0.264	19.999m	100
BPSK	0.886	0.526	20.001m	100

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- KDB 558074 D01 v04

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Lisa Chen	23.9°C / 63.2%	28/Sep/2017
Radiated	03CH03-HY	Ryan Yao	23.9°C / 61%	26/Jul/2017

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	2.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	2.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	2.9 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	3V

2.2 Test Channel Mode

Test Software Version	Copyright Zebra 2014

Mode	Power Setting
OOK_Nss1_1TX	-
2446MHz	15
BPSK_Nss1_1TX	-
2442MHz	4

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	BPSK_DC source Mode		
2	OOK_DC source Mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT			V

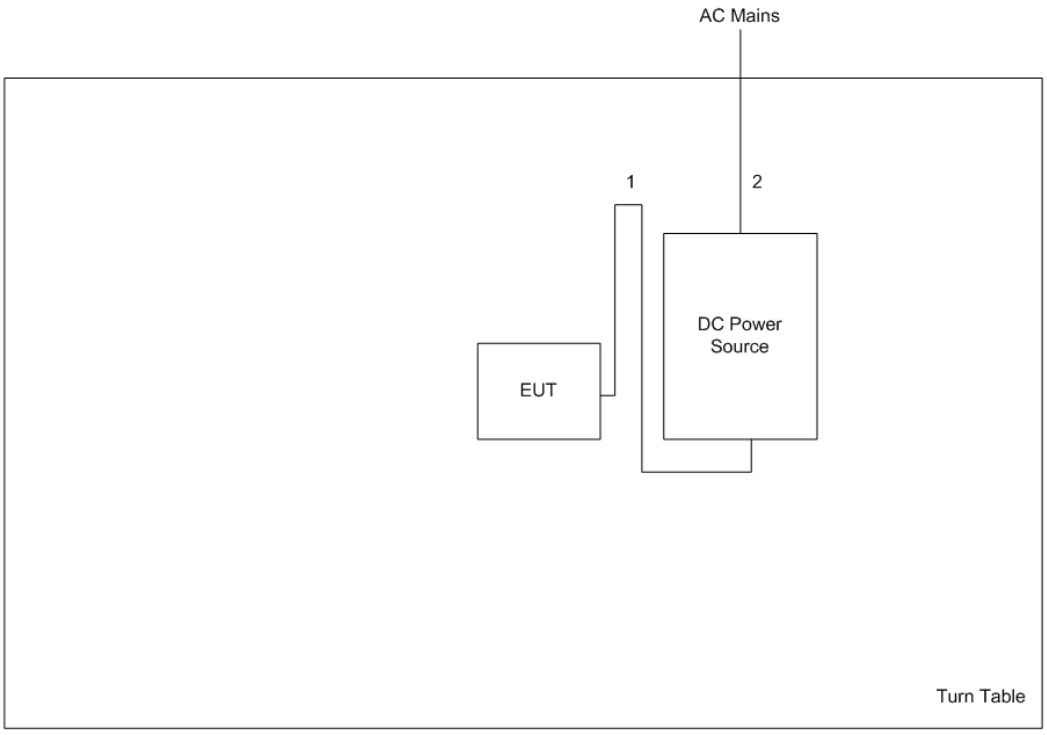
2.4 Support Equipment

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	DOC
2	Adapter for Notebook	DELL	HA65NM130	DOC
3	DC Source	GW	GPS-3030DD	-

Support Equipment - Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	DC source	G.W.	GPS-3030DD	-

2.5 Test Setup Diagram

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	DC power line	No	0.7m
2	AC power line	No	2.0m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

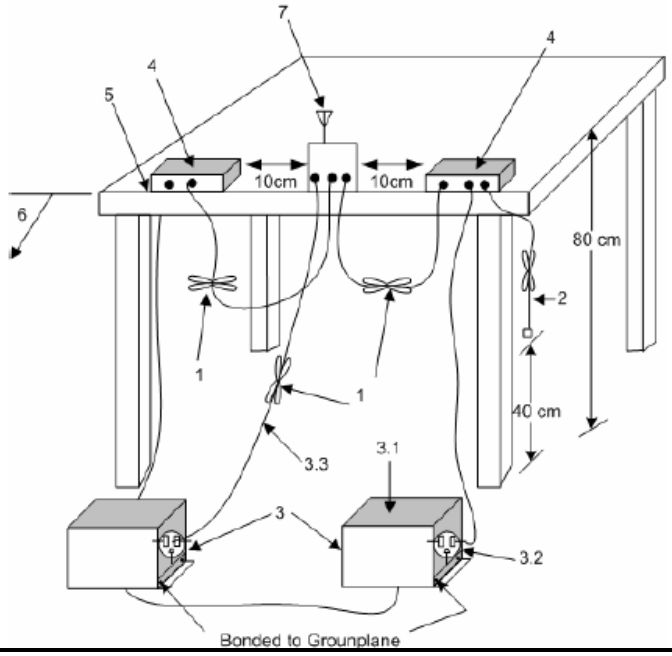
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Please refer to FCC 15.207 which states, “Measurements to demonstrate compliance with the conducted limits are not required for devices employ DC power source for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines”.
Therefore, for this device, AC Power Line Conducted Emissions investigation is not required.

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

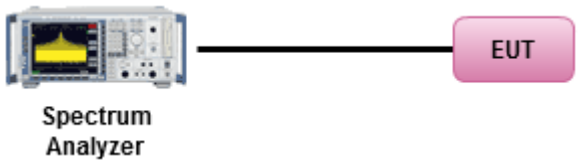
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
	☐ Refer as KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.6 for for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit			
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)		
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm		
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm		
	▪ Smart antenna system (SAS):		
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
		- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm	
e.i.r.p. Power Limit:			
▪ 2400-2483.5 MHz Band			
	▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)		
	▪ Point-to-point systems (P2P): $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX}])$ dBm		
	▪ Smart antenna system (SAS)		
		- Single beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm	
		- Overlap beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm	
		- Aggregate power on all beams: $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX} + 8])$ dBm	
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.			

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	
	☐ Refer as KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
	☐ Refer as KDB 558074, clause 9.1.2 Option 2 (integrated band power method)
	☐ Refer as KDB 558074, clause 9.1.3 Option 3 (peak power meter for VBW ≥ DTS BW)
▪ Maximum Average Conducted Output Power	
	Duty cycle ≥ 98%
	☐ Refer as KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
	Duty cycle < 98%
	☐ Refer as KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
	RF power meter and average over on/off periods with duty factor or gated trigger
	☒ Refer as KDB 558074, clause 9.2.3.1 Method AVGPM (using an RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

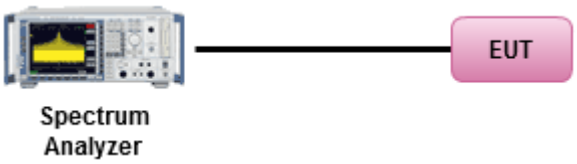
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak).	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		▪ Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix C

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dB)**
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

3.5.2 Measuring Instruments

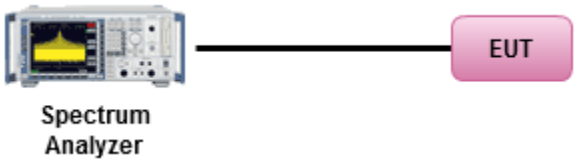
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
▪ Refer as KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

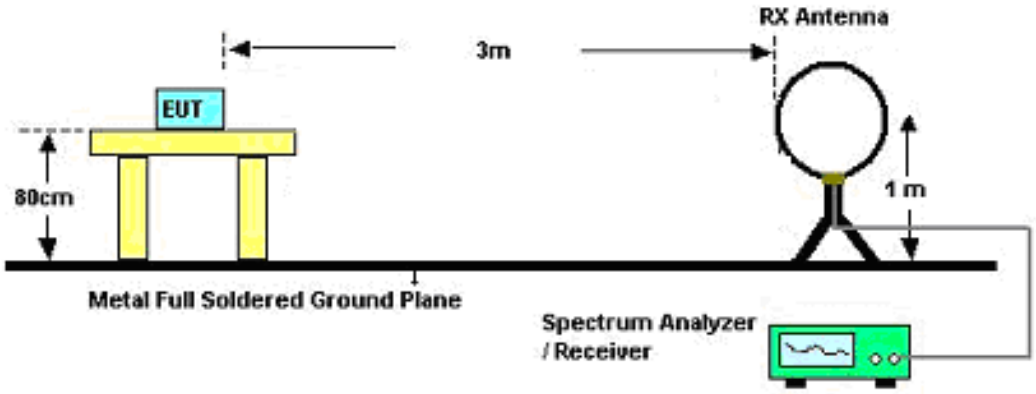
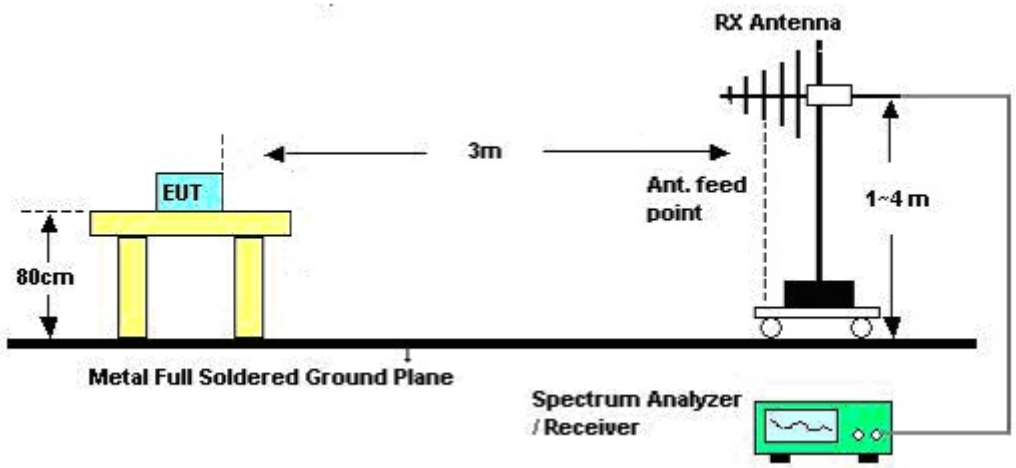
3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

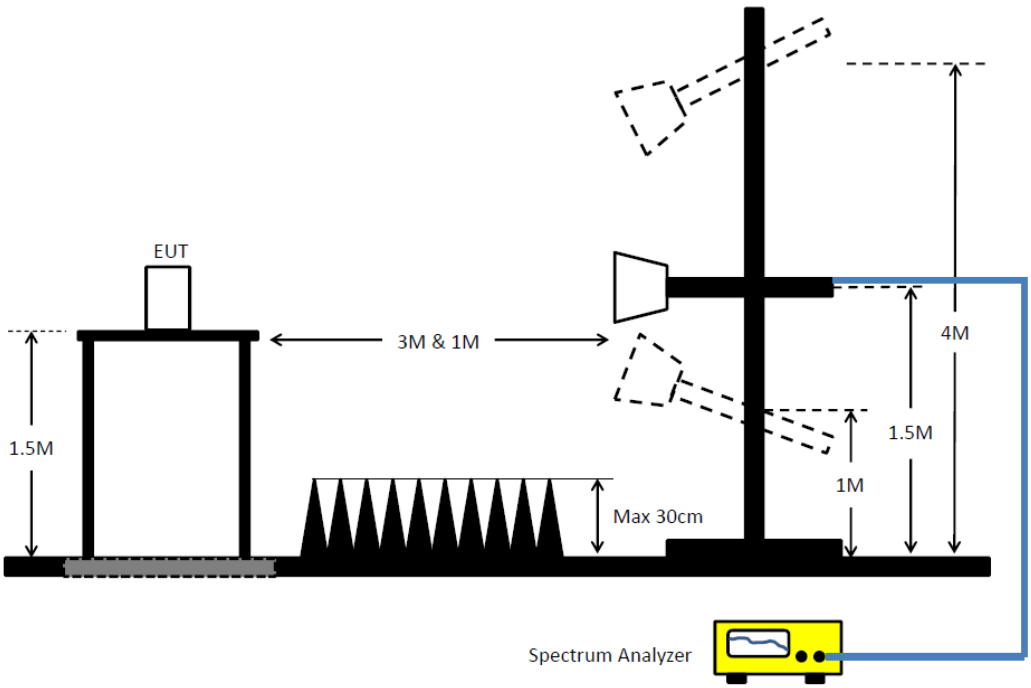
3.6.3 Test Procedures

Test Method
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪ For the transmitter unwanted emissions shall be measured using following options below:
▪ Refer as KDB 558074, clause 12 for unwanted emissions into restricted bands.
☒ Refer as KDB 558074, clause 12.2.5.3 (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW≥1/T.
☒ Refer as KDB 558074, clause 12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:
▪ Refer as KDB 558074 clause 13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
▪ Refer as KDB 558074, clause 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
▪ Refer as KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
▪ For conducted and cabinet radiation measurement, refer as KDB 558074, clause 12.2.2.
▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
▪ For KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported. All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz	28/Nov/2016	27/Nov/2017
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz	16/Dec/2016	15/Dec/2017
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	19/Apr/2017	18/Apr/2018
Amplifier	KEYSIGHT	83017A	MY53270197	1GHz ~ 26.5GHz	29/Aug/2016	28/Aug/2017
Spectrum	R&S	FSV40	101515	9kHz ~ 40GHz	28/Nov/2016	27/Nov/2017
Bilog Antenna	SCHAFFNER	CBL 6112D	2723	30MHz ~ 1GHz	01/Oct/2016	30/Sep/2017
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA 9120D 1531	1GHz ~ 18GHz	25/Apr/2017	24/Apr/2018
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
Amplifier	EMC&PE	EMC184045B&P E7005-6	980192	18GHz ~ 40GHz	24/Aug/2016	23/Aug/2017
Loop Antenna	TESEQ	HLA 6120	24155	9 kHz~30 MHz	02/Mar/2017	01/Mar/2018
RF-Cable-high	SUHNER	SUHNER	CB222	1GHz ~ 40GHz	28/Oct/2016	27/Oct/2017
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	27/Oct/2016	26/Oct/2017
DC Power Source	G.W.	GPS-3030DD	GEN865896	0~30V,0~3A	14/Jan/2017	13/Jan/2018
Receiver	R&S	ESU-26	100422/026	20Hz ~ 26.5GHz	21/Sep/2016	20/Sep/2017

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	30/Dec/2016	29/Dec/2017
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz~26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz~26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz~26.5GHz	02/Oct/2016	01/Oct/2017

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
OOK_Nss1_1TX	-	-	-	-	-
2.4-2.4835GHz	1.15M	12.894M	12M9A1D	1.15M	12.894M
BPSK_Nss1_1TX	-	-	-	-	-
2.4-2.4835GHz	33.04M	53.093M	53M1G1D	33.04M	53.093M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

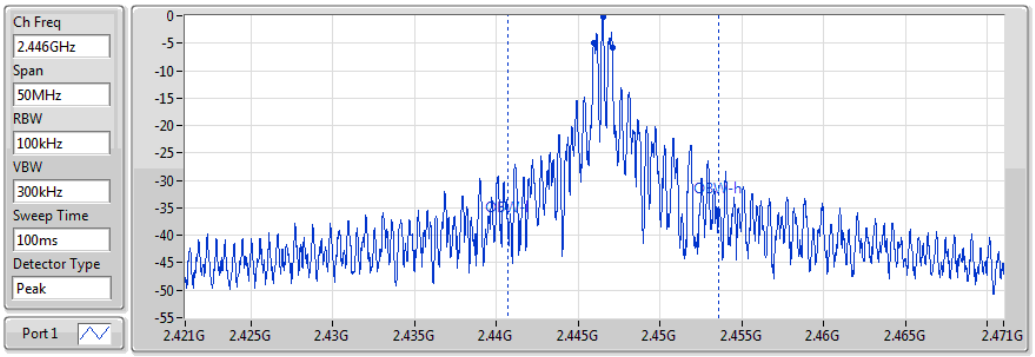
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
OOK_Nss1_1TX	-	-	-	-
2446MHz	Pass	500k	1.15M	12.894M
BPSK_Nss1_1TX	-	-	-	-
2442MHz	Pass	500k	33.04M	53.093M

Port X-N dB = Port **X** 6dB down bandwidth; **Port X-OBW** = Port **X** 99% occupied bandwidth;

OOK_Nss1_1TX **EBW**

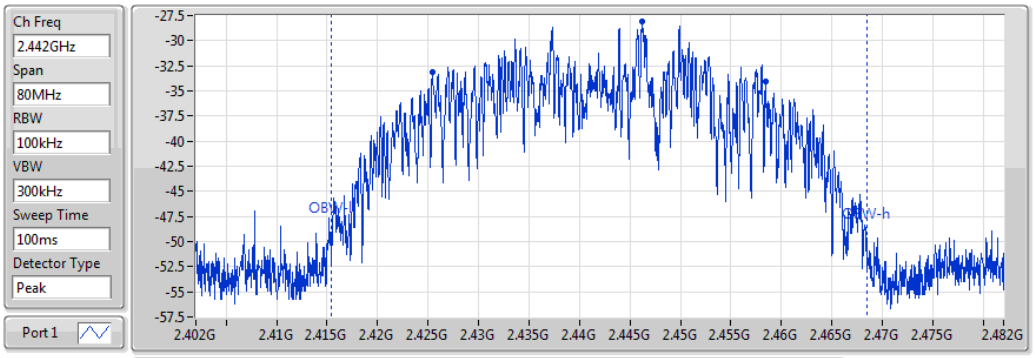
2446MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.15M	2.44595G	2.4471G	12.894M	2.440728G	2.453621G	500k	1

BPSK_Nss1_1TX **EBW**

2442MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.04M	2.4254G	2.45844G	53.093M	2.415373G	2.468467G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
OOK_Nss1_1TX	-	-
2.4-2.4835GHz	4.45	0.00277
BPSK_Nss1_1TX	-	-
2.4-2.4835GHz	3.44	0.00221

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
OOK_Nss1_1TX	-	-	-	-	-
2446MHz	Pass	1.92	4.45	4.45	30.00
BPSK_Nss1_1TX	-	-	-	-	-
2442MHz	Pass	1.92	3.44	3.44	30.00

DG = Directional Gain; **Port X** = Port X output power

Summary

Mode	Total Power (dBm)	Total Power (W)
OOK_Nss1_1TX	-	-
2.4-2.4835GHz	1.00	0.00126
BPSK_Nss1_1TX	-	-
2.4-2.4835GHz	1.85	0.00153

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
OOK_Nss1_1TX	-	-	-	-	-
2446MHz	Pass	1.92	1.00	1.00	30.00
BPSK_Nss1_1TX	-	-	-	-	-
2442MHz	Pass	1.92	1.85	1.85	30.00

DG = Directional Gain; **Port X** = Port X output power

Summary

Mode	PD (dBm/RBW)
OOK_Nss1_1TX	-
2.4-2.4835GHz	-14.07
BPSK_Nss1_1TX	-
2.4-2.4835GHz	-28.05

RBW=3kHz.

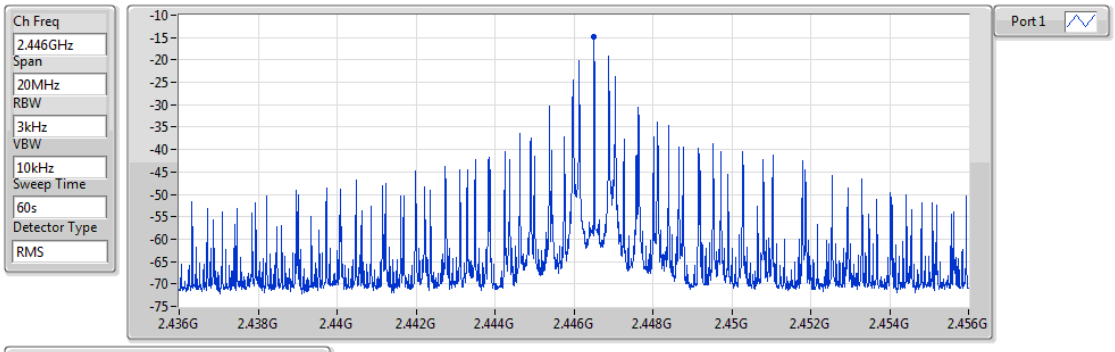
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
OOK_Nss1_1TX	-	-	-	-	-
2446MHz	Pass	1.92	-14.07	-14.07	8.00
BPSK_Nss1_1TX	-	-	-	-	-
2442MHz	Pass	1.92	-28.05	-28.05	8.00

DG = Directional Gain; RBW=3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

OOK_Nss1_1TX **PSD**

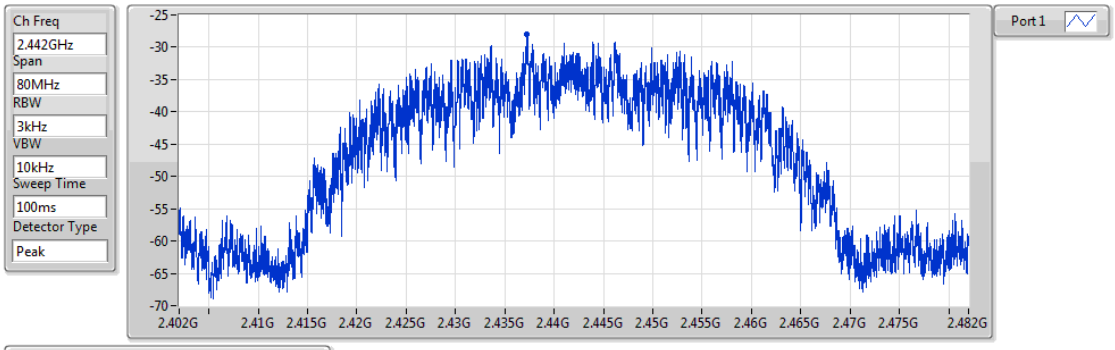
2446MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.07	-14.07	-14.07

BPSK_Nss1_1TX **PSD**

2442MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-28.05	-28.05	-28.05

Summary

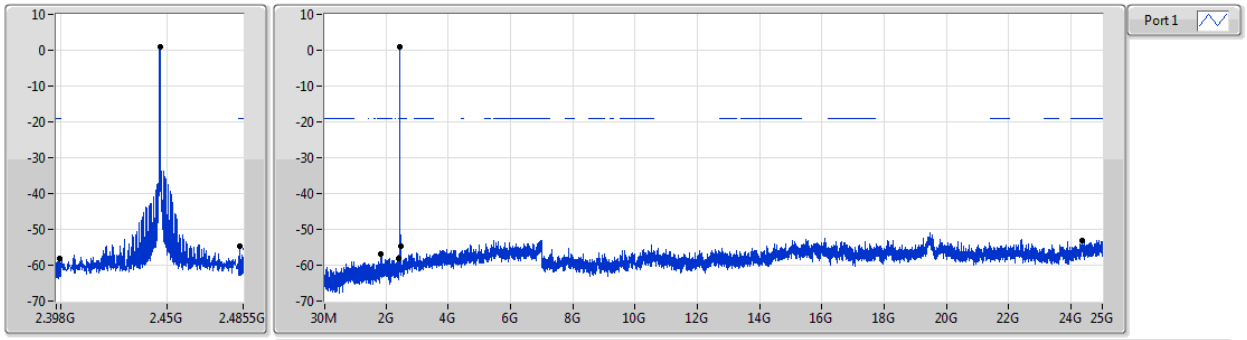
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
OOK_Nss1_1TX													
2.4-2.4835GHz	Pass	2.446593G	0.99	-19.01	1.839152G	-56.91	2.399344G	-58.16	2.483964G	-54.81	24.352708G	-52.99	1
BPSK_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.446259G	-17.08	-37.08	2.398G	-44.41	2.399076G	-46.06	2.484436G	-48.54	2.4855G	-48.51	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
OOK_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2446MHz	Pass	2.446593G	0.99	-19.01	1.839152G	-56.91	2.399344G	-58.16	2.483964G	-54.81	24.352708G	-52.99	1
BPSK_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2442MHz	Pass	2.446259G	-17.08	-37.08	2.398G	-44.41	2.399076G	-46.06	2.484436G	-48.54	2.4855G	-48.51	1

OOK_Nss1_1TX **CSE NdB**

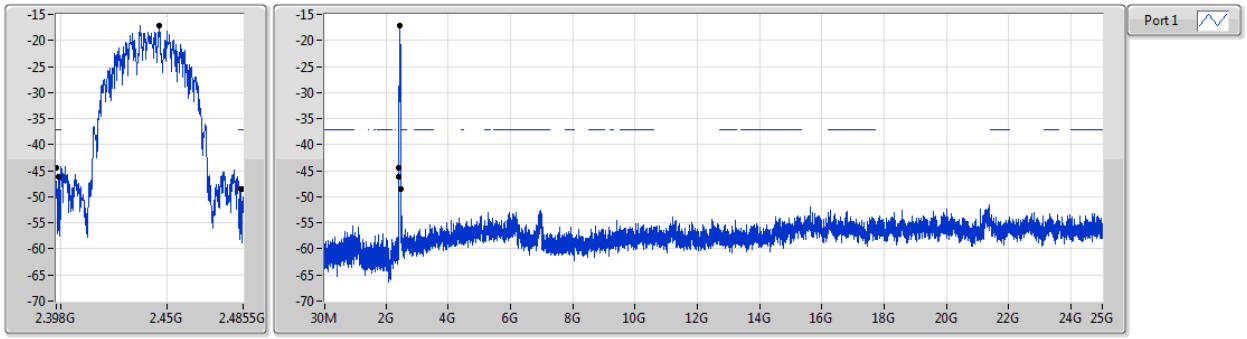
2446MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.446593G	0.99	-19.01	1.839152G	-56.91	2.399344G	-58.16	2.483964G	-54.81	24.352708G	-52.99	1

BPSK_Nss1_1TX **CSE NdB**

2442MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.446259G	-17.08	-37.08	2.398G	-44.41	2.399076G	-46.06	2.484436G	-48.54	2.4855G	-48.51	1

Summary

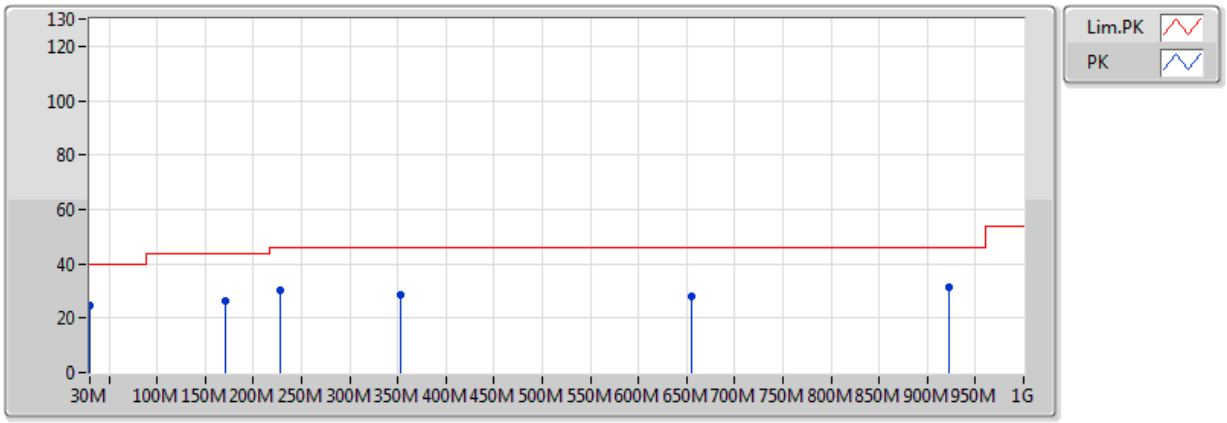
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BPSK_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	PK	229.82M	40.24	46.00	-5.76	-9.05	3	Horizontal	360	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
OOK_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2446MHz	Pass	PK	30M	25.08	40.00	-14.92	-2.62	3	Horizontal	360	1.00	-
2446MHz	Pass	PK	171.62M	36.14	43.50	-7.36	-9.84	3	Horizontal	360	1.00	-
2446MHz	Pass	PK	227.88M	38.18	46.00	-7.82	-9.23	3	Horizontal	360	1.00	-
2446MHz	Pass	PK	464.56M	31.37	46.00	-14.63	-1.77	3	Horizontal	360	1.00	-
2446MHz	Pass	PK	679.9M	28.36	46.00	-17.64	0.25	3	Horizontal	360	1.00	-
2446MHz	Pass	PK	949.56M	31.10	46.00	-14.90	3.56	3	Horizontal	360	1.00	-
2446MHz	Pass	PK	30M	24.78	40.00	-15.22	-2.62	3	Vertical	0	1.00	-
2446MHz	Pass	PK	171.62M	26.58	43.50	-16.92	-9.84	3	Vertical	0	1.00	-
2446MHz	Pass	PK	227.88M	30.41	46.00	-15.59	-9.23	3	Vertical	0	1.00	-
2446MHz	Pass	PK	352.04M	28.60	46.00	-17.40	-4.27	3	Vertical	0	1.00	-
2446MHz	Pass	PK	654.68M	28.17	46.00	-17.83	0.21	3	Vertical	0	1.00	-
2446MHz	Pass	PK	922.4M	31.14	46.00	-14.86	3.03	3	Vertical	0	1.00	-
BPSK_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2442MHz	Pass	PK	30M	24.85	40.00	-15.15	-2.62	3	Horizontal	360	1.00	-
2442MHz	Pass	PK	173.56M	36.40	43.50	-7.10	-9.97	3	Horizontal	360	1.00	-
2442MHz	Pass	PK	229.82M	40.24	46.00	-5.76	-9.05	3	Horizontal	360	1.00	-
2442MHz	Pass	PK	363.68M	37.30	46.00	-8.70	-3.93	3	Horizontal	360	1.00	-
2442MHz	Pass	PK	534.4M	29.86	46.00	-16.14	-0.76	3	Horizontal	360	1.00	-
2442MHz	Pass	PK	893.3M	30.89	46.00	-15.11	2.73	3	Horizontal	360	1.00	-
2442MHz	Pass	PK	31.94M	25.20	40.00	-14.80	-3.58	3	Vertical	0	1.00	-
2442MHz	Pass	PK	171.62M	25.44	43.50	-18.06	-9.84	3	Vertical	0	1.00	-
2442MHz	Pass	PK	251.16M	28.72	46.00	-17.28	-6.41	3	Vertical	0	1.00	-
2442MHz	Pass	PK	483.96M	28.77	46.00	-17.23	-1.63	3	Vertical	0	1.00	-
2442MHz	Pass	PK	542.16M	29.04	46.00	-16.96	-0.30	3	Vertical	0	1.00	-
2442MHz	Pass	PK	856.44M	30.02	46.00	-15.98	2.40	3	Vertical	0	1.00	-

OOK_Nss1,(1Mbps)_1TX

2446MHz_DC Mode

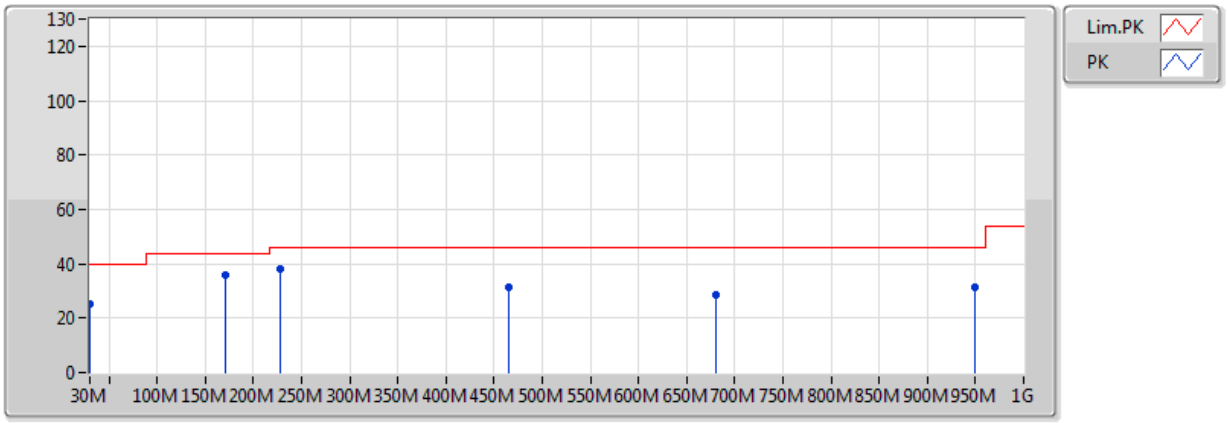


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	30M	24.78	40.00	-15.22	-2.62	3	Vertical	0	1.00	-	27.40	23.22	1.71	27.55
PK	227.88M	30.41	46.00	-15.59	-9.23	3	Vertical	0	1.00	-	39.64	15.11	2.52	26.86
PK	352.04M	28.60	46.00	-17.40	-4.27	3	Vertical	0	1.00	-	32.87	19.45	2.97	26.70
PK	171.62M	26.58	43.50	-16.92	-9.84	3	Vertical	0	1.00	-	36.42	14.70	2.52	27.05
PK	922.4M	31.14	46.00	-14.86	3.03	3	Vertical	0	1.00	-	28.11	25.62	4.87	27.46
PK	654.68M	28.17	46.00	-17.83	0.21	3	Vertical	0	1.00	-	27.96	24.01	4.18	27.98

OOK_Nss1,(1Mbps)_1TX

2446MHz_DC Mode

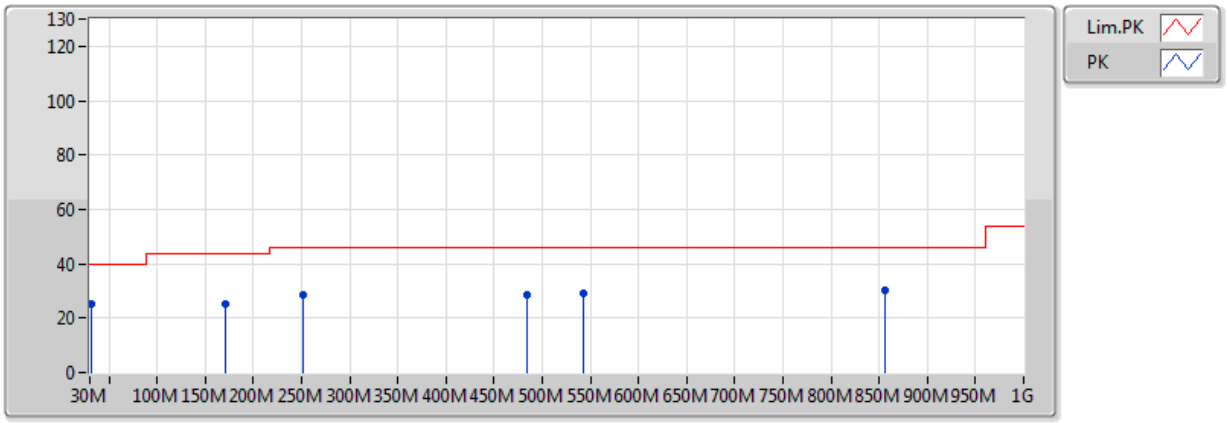


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	227.88M	38.18	46.00	-7.82	-9.23	3	Horizontal	360	1.00	-	47.41	15.11	2.52	26.86
PK	171.62M	36.14	43.50	-7.36	-9.84	3	Horizontal	360	1.00	-	45.98	14.70	2.52	27.05
PK	30M	25.08	40.00	-14.92	-2.62	3	Horizontal	360	1.00	-	27.70	23.22	1.71	27.55
PK	464.56M	31.37	46.00	-14.63	-1.77	3	Horizontal	360	1.00	-	33.14	22.18	3.46	27.41
PK	949.56M	31.10	46.00	-14.90	3.56	3	Horizontal	360	1.00	-	27.54	25.98	4.98	27.39
PK	679.9M	28.36	46.00	-17.64	0.25	3	Horizontal	360	1.00	-	28.11	24.06	4.14	27.95

BPSK_Nss1,(1Mbps)_1TX

2442MHz_DC Mode

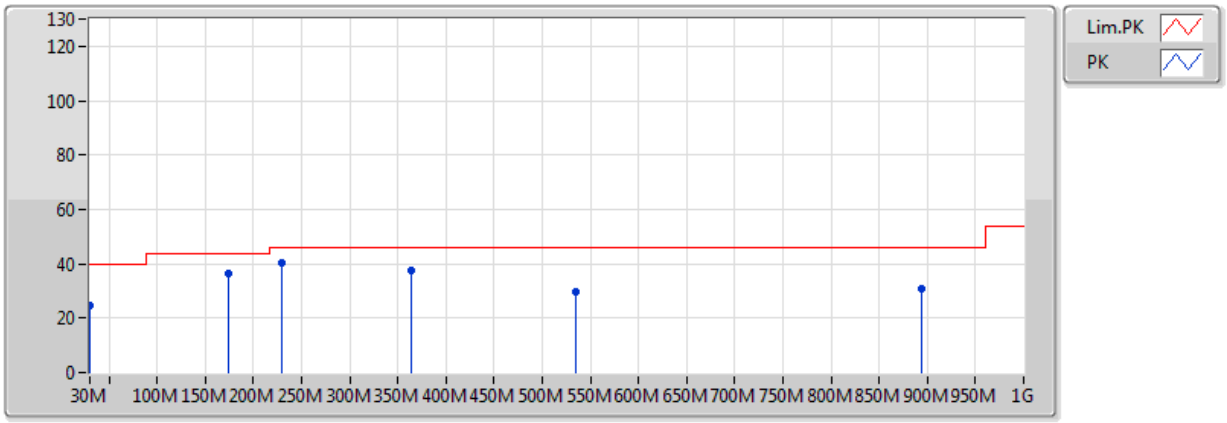


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	31.94M	25.20	40.00	-14.80	-3.58	3	Vertical	0	1.00	-	28.78	22.23	1.74	27.55
PK	171.62M	25.44	43.50	-18.06	-9.84	3	Vertical	0	1.00	-	35.28	14.70	2.52	27.05
PK	251.16M	28.72	46.00	-17.28	-6.41	3	Vertical	0	1.00	-	35.13	17.88	2.51	26.81
PK	483.96M	28.77	46.00	-17.23	-1.63	3	Vertical	0	1.00	-	30.40	22.48	3.51	27.62
PK	542.16M	29.04	46.00	-16.96	-0.30	3	Vertical	0	1.00	-	29.34	23.95	3.64	27.89
PK	856.44M	30.02	46.00	-15.98	2.40	3	Vertical	0	1.00	-	27.62	25.40	4.63	27.63

BPSK_Nss1,(1Mbps)_1TX

2442MHz_DC Mode



EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	30M	24.85	40.00	-15.15	-2.62	3	Horizontal	360	1.00	-	27.47	23.22	1.71	27.55
PK	173.56M	36.40	43.50	-7.10	-9.97	3	Horizontal	360	1.00	-	46.37	14.62	2.45	27.04
PK	229.82M	40.24	46.00	-5.76	-9.05	3	Horizontal	360	1.00	-	49.29	15.29	2.51	26.85
PK	363.68M	37.30	46.00	-8.70	-3.93	3	Horizontal	360	1.00	-	41.23	19.78	3.00	26.70
PK	534.4M	29.86	46.00	-16.14	-0.76	3	Horizontal	360	1.00	-	30.62	23.50	3.62	27.88
PK	893.3M	30.89	46.00	-15.11	2.73	3	Horizontal	360	1.00	-	28.16	25.51	4.75	27.54

Summary

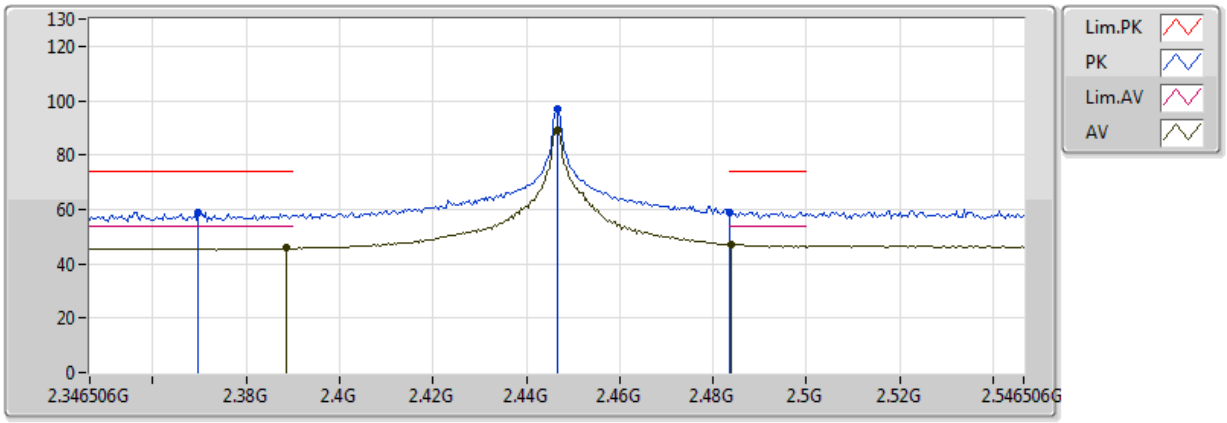
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
OOK_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	2.483706G	53.11	54.00	-0.89	31.78	3	Horizontal	62	1.03	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
OOK_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2446MHz	Pass	AV	2.389998G	48.27	54.00	-5.73	31.44	3	Horizontal	62	1.03	-
2446MHz	Pass	AV	2.446506G	98.66	Inf	-Inf	31.65	3	Horizontal	62	1.03	-
2446MHz	Pass	AV	2.483706G	53.11	54.00	-0.89	31.78	3	Horizontal	62	1.03	-
2446MHz	Pass	PK	2.389998G	60.76	74.00	-13.24	31.44	3	Horizontal	62	1.03	-
2446MHz	Pass	PK	2.446506G	106.20	Inf	-Inf	31.65	3	Horizontal	62	1.03	-
2446MHz	Pass	PK	2.483706G	64.10	74.00	-9.90	31.78	3	Horizontal	62	1.03	-
2446MHz	Pass	AV	2.388506G	45.69	54.00	-8.31	31.44	3	Vertical	195	3.56	-
2446MHz	Pass	AV	2.446506G	89.09	Inf	-Inf	31.65	3	Vertical	195	3.56	-
2446MHz	Pass	AV	2.483706G	47.07	54.00	-6.93	31.78	3	Vertical	195	3.56	-
2446MHz	Pass	PK	2.369706G	59.05	74.00	-14.95	31.37	3	Vertical	195	3.56	-
2446MHz	Pass	PK	2.446506G	96.70	Inf	-Inf	31.65	3	Vertical	195	3.56	-
2446MHz	Pass	PK	2.483502G	59.04	74.00	-14.96	31.78	3	Vertical	195	3.56	-
2446MHz	Pass	AV	4.892G	32.40	54.00	-21.60	6.65	3	Horizontal	360	1.50	-
2446MHz	Pass	PK	4.892G	46.51	74.00	-27.49	6.65	3	Horizontal	360	1.50	
2446MHz	Pass	AV	4.892G	32.00	54.00	-22.00	6.65	3	Vertical	0	1.50	-
2446MHz	Pass	PK	4.892G	45.31	74.00	-28.69	6.65	3	Vertical	0	1.50	-
BPSK_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2442MHz	Pass	AV	2.39G	53.07	54.00	-0.93	31.45	3	Horizontal	61	1.03	-
2442MHz	Pass	AV	2.4372G	85.53	Inf	-Inf	31.61	3	Horizontal	61	1.03	-
2442MHz	Pass	AV	2.4836G	53.01	54.00	-0.99	31.78	3	Horizontal	61	1.03	-
2442MHz	Pass	PK	2.39G	62.36	74.00	-11.64	31.45	3	Horizontal	61	1.03	-
2442MHz	Pass	PK	2.442G	94.70	Inf	-Inf	31.63	3	Horizontal	61	1.03	-
2442MHz	Pass	PK	2.4836G	64.17	74.00	-9.83	31.78	3	Horizontal	61	1.03	-
2442MHz	Pass	AV	2.3896G	46.74	54.00	-7.26	31.44	3	Vertical	195	3.57	-
2442MHz	Pass	AV	2.4464G	77.99	Inf	-Inf	31.65	3	Vertical	195	3.57	-
2442MHz	Pass	AV	2.4836G	47.59	54.00	-6.41	31.78	3	Vertical	195	3.57	-
2442MHz	Pass	PK	2.3884G	58.29	74.00	-15.71	31.44	3	Vertical	195	3.57	-
2442MHz	Pass	PK	2.442G	87.02	Inf	-Inf	31.63	3	Vertical	195	3.57	-
2442MHz	Pass	PK	2.4852G	59.62	74.00	-14.38	31.79	3	Vertical	195	3.57	-
2442MHz	Pass	AV	4.884G	32.55	54.00	-21.45	6.63	3	Horizontal	360	1.50	-
2442MHz	Pass	PK	4.884G	46.77	74.00	-27.23	6.63	3	Horizontal	360	1.50	-
2442MHz	Pass	AV	4.884G	32.29	54.00	-21.71	6.63	3	Vertical	0	1.50	-
2442MHz	Pass	PK	4.884G	45.64	74.00	-28.36	6.63	3	Vertical	0	1.50	-

OOK_Nss1,(1Mbps)_1TX

2446MHz_TX

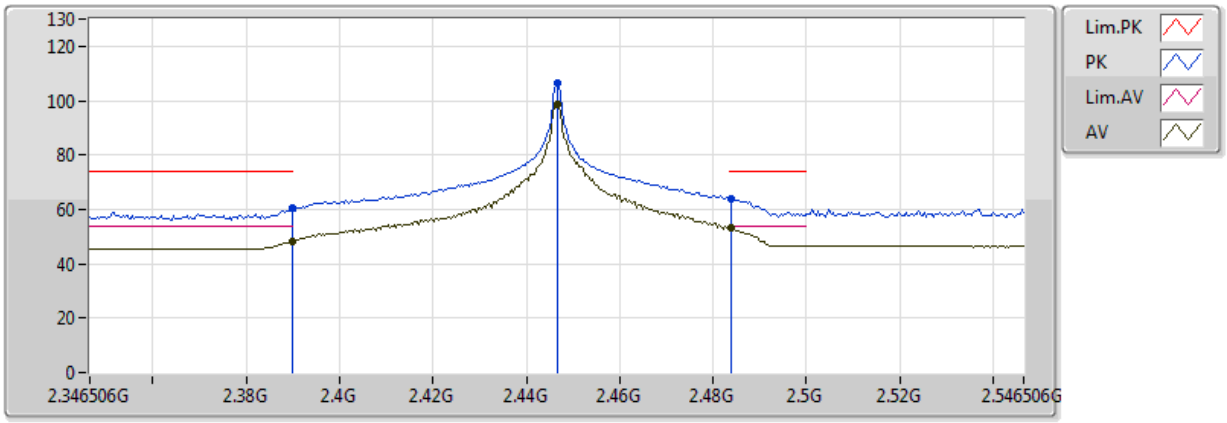


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.388506G	45.69	54.00	-8.31	31.44	3	Vertical	195	3.56	-	14.25	27.21	4.23	-
AV	2.446506G	89.09	Inf	-Inf	31.65	3	Vertical	195	3.56	-	57.44	27.36	4.29	-
AV	2.483706G	47.07	54.00	-6.93	31.78	3	Vertical	195	3.56	-	15.29	27.46	4.32	-
PK	2.369706G	59.05	74.00	-14.95	31.37	3	Vertical	195	3.56	-	27.68	27.16	4.21	-
PK	2.446506G	96.70	Inf	-Inf	31.65	3	Vertical	195	3.56	-	65.05	27.36	4.29	-
PK	2.483502G	59.04	74.00	-14.96	31.78	3	Vertical	195	3.56	-	27.26	27.46	4.32	-

OOK_Nss1,(1Mbps)_1TX

2446MHz_TX

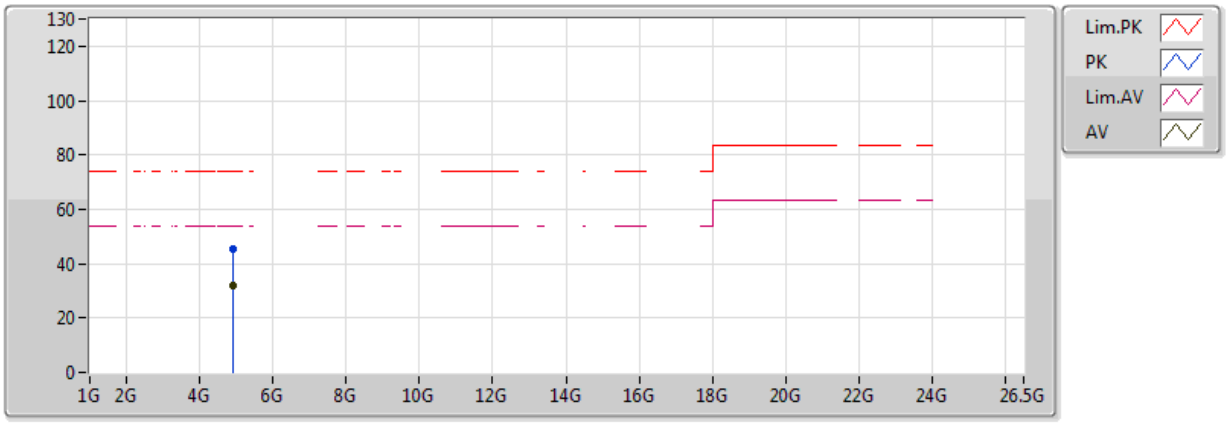


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.389998G	48.27	54.00	-5.73	31.44	3	Horizontal	62	1.03	-	16.82	27.21	4.23	-
AV	2.446506G	98.66	Inf	-Inf	31.65	3	Horizontal	62	1.03	-	67.01	27.36	4.29	-
AV	2.483706G	53.11	54.00	-0.89	31.78	3	Horizontal	62	1.03	-	21.33	27.46	4.32	-
PK	2.389998G	60.76	74.00	-13.24	31.44	3	Horizontal	62	1.03	-	29.31	27.21	4.23	-
PK	2.446506G	106.20	Inf	-Inf	31.65	3	Horizontal	62	1.03	-	74.56	27.36	4.29	-
PK	2.483706G	64.10	74.00	-9.90	31.78	3	Horizontal	62	1.03	-	32.32	27.46	4.32	-

OOK_Nss1,(1Mbps)_1TX

2446MHz_TX

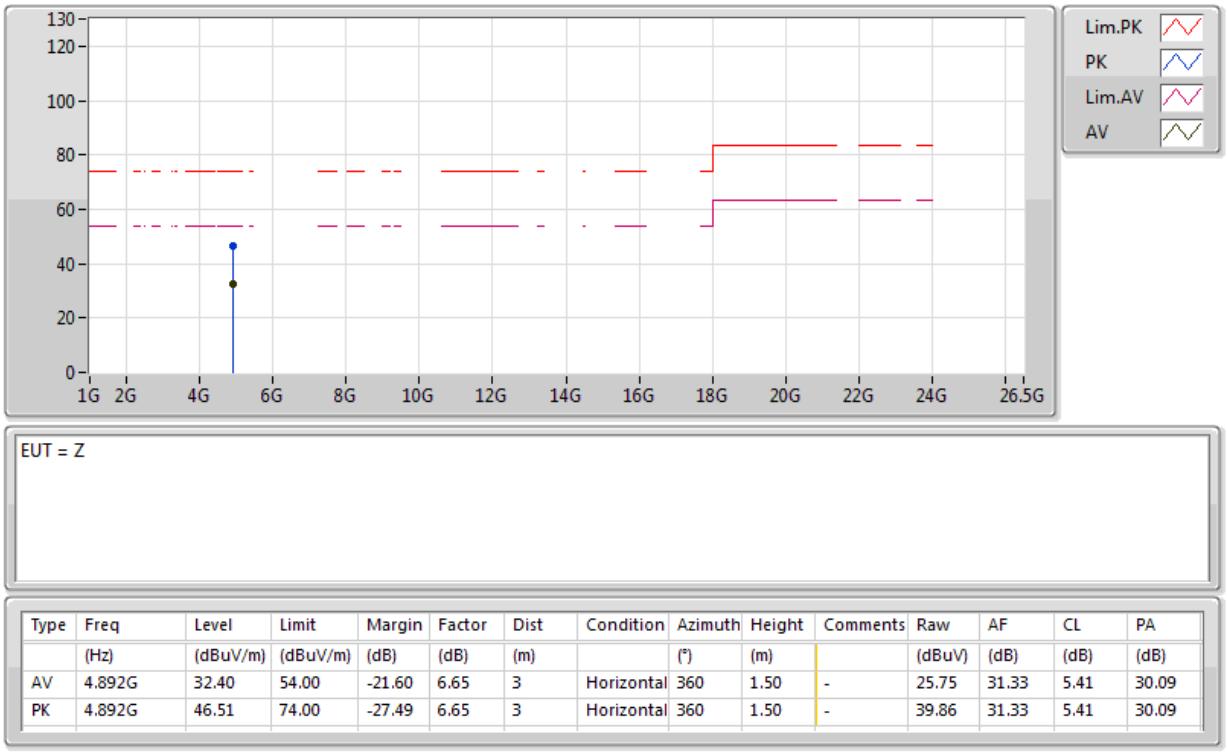


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.892G	32.00	54.00	-22.00	6.65	3	Vertical	0	1.50	-	25.35	31.33	5.41	30.09
PK	4.892G	45.31	74.00	-28.69	6.65	3	Vertical	0	1.50	-	38.66	31.33	5.41	30.09

OOK_Nss1,(1Mbps)_1TX

2446MHz_TX

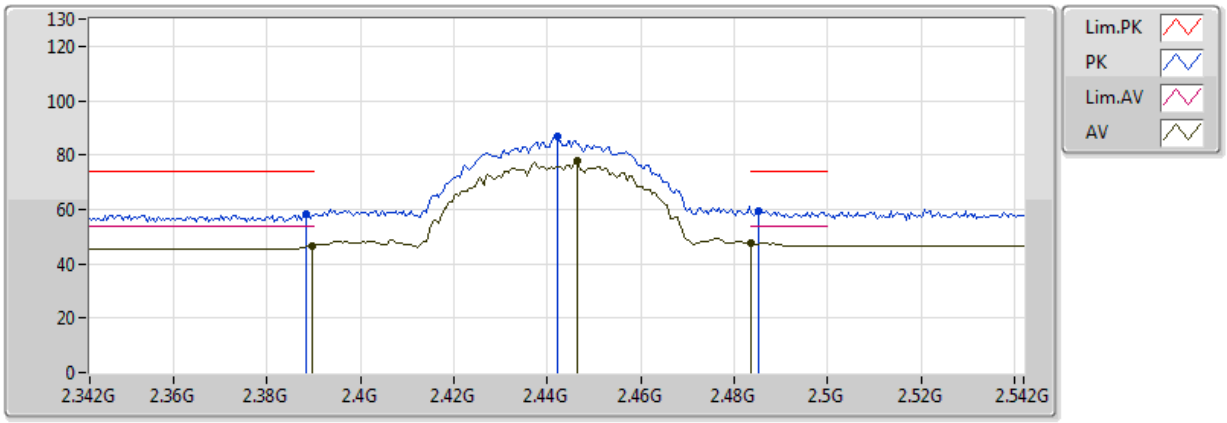


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.892G	32.40	54.00	-21.60	6.65	3	Horizontal	360	1.50	-	25.75	31.33	5.41	30.09
PK	4.892G	46.51	74.00	-27.49	6.65	3	Horizontal	360	1.50	-	39.86	31.33	5.41	30.09

BPSK_Nss1,(1Mbps)_1TX

2442MHz_TX

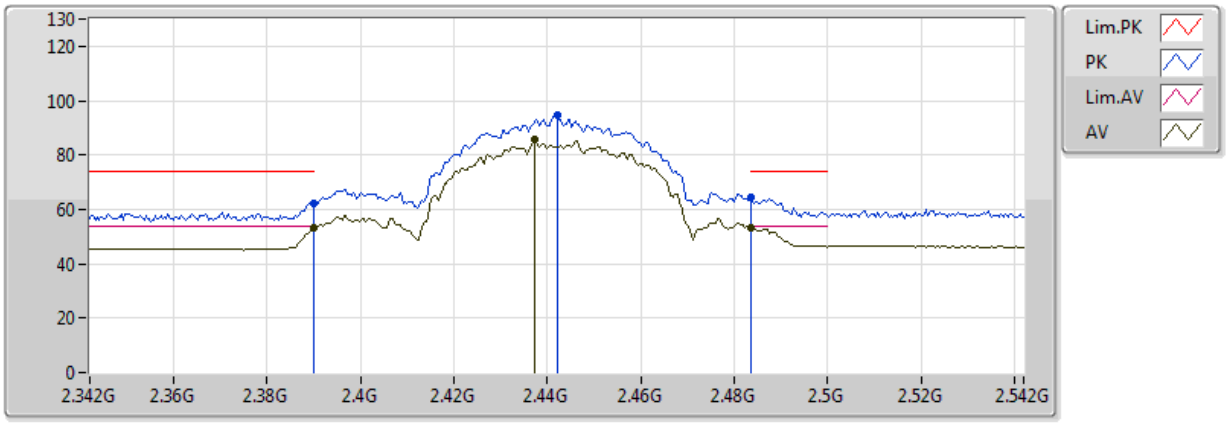


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3896G	46.74	54.00	-7.26	31.44	3	Vertical	195	3.57	-	15.29	27.21	4.23	-
AV	2.4464G	77.99	Inf	-Inf	31.65	3	Vertical	195	3.57	-	46.35	27.36	4.29	-
AV	2.4836G	47.59	54.00	-6.41	31.78	3	Vertical	195	3.57	-	15.81	27.46	4.32	-
PK	2.3884G	58.29	74.00	-15.71	31.44	3	Vertical	195	3.57	-	26.85	27.21	4.23	-
PK	2.442G	87.02	Inf	-Inf	31.63	3	Vertical	195	3.57	-	55.39	27.35	4.28	-
PK	2.4852G	59.62	74.00	-14.38	31.79	3	Vertical	195	3.57	-	27.83	27.46	4.33	-

BPSK_Nss1,(1Mbps)_1TX

2442MHz_TX

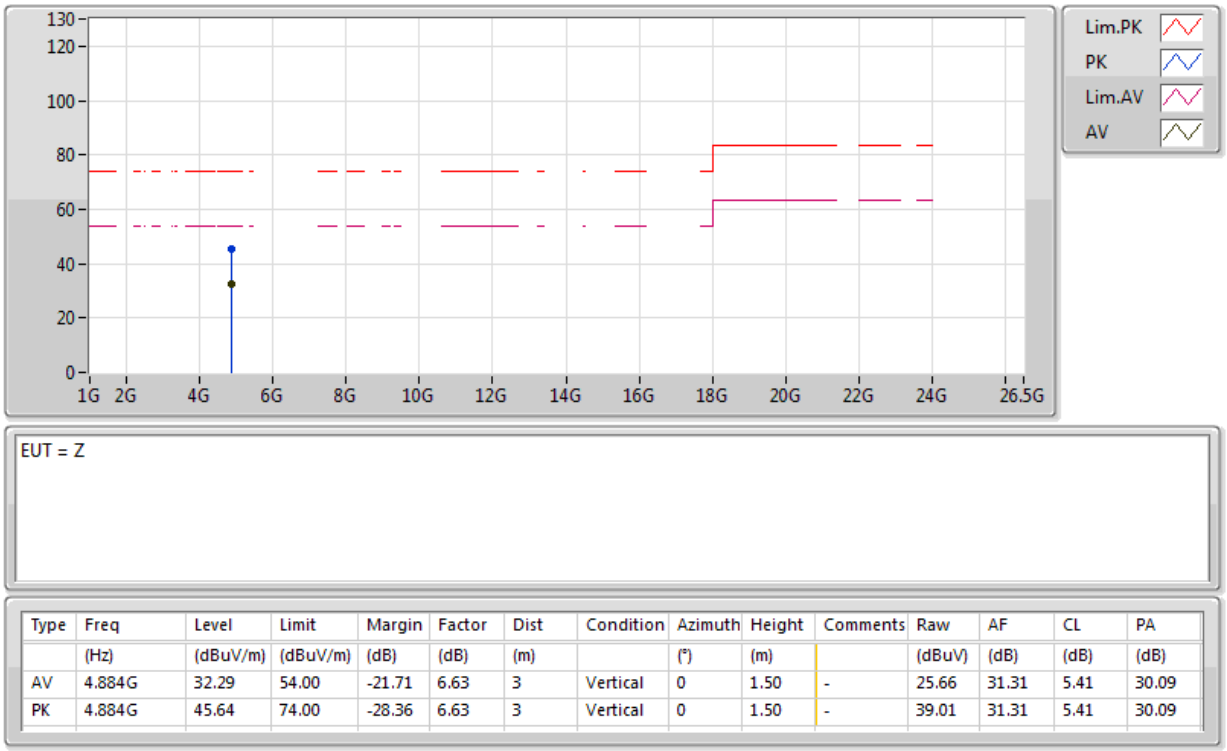


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.39G	53.07	54.00	-0.93	31.45	3	Horizontal	61	1.03	-	21.62	27.21	4.23	-
AV	2.4372G	85.53	Inf	-Inf	31.61	3	Horizontal	61	1.03	-	53.91	27.34	4.28	-
AV	2.4836G	53.01	54.00	-0.99	31.78	3	Horizontal	61	1.03	-	21.23	27.46	4.32	-
PK	2.39G	62.36	74.00	-11.64	31.45	3	Horizontal	61	1.03	-	30.91	27.21	4.23	-
PK	2.442G	94.70	Inf	-Inf	31.63	3	Horizontal	61	1.03	-	63.07	27.35	4.28	-
PK	2.4836G	64.17	74.00	-9.83	31.78	3	Horizontal	61	1.03	-	32.39	27.46	4.32	-

BPSK_Nss1,(1Mbps)_1TX

2442MHz_TX

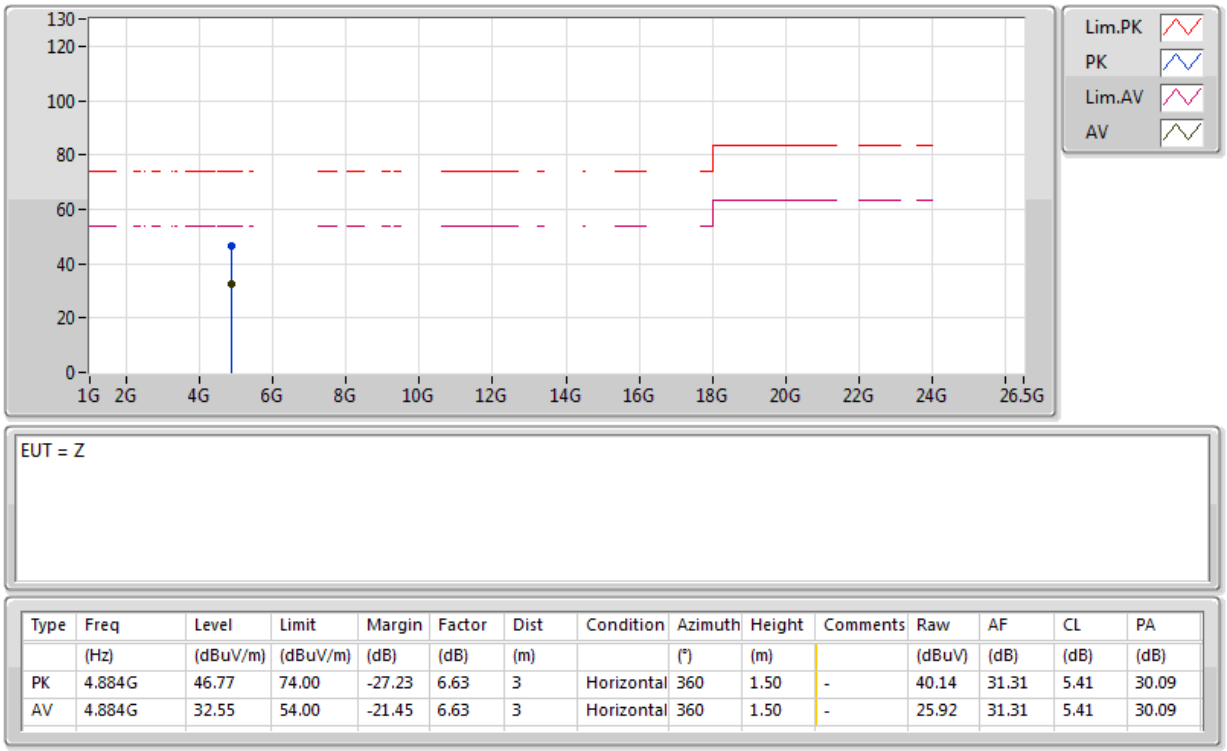


EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.884G	32.29	54.00	-21.71	6.63	3	Vertical	0	1.50	-	25.66	31.31	5.41	30.09
PK	4.884G	45.64	74.00	-28.36	6.63	3	Vertical	0	1.50	-	39.01	31.31	5.41	30.09

BPSK_Nss1,(1Mbps)_1TX

2442MHz_TX



EUT = Z

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	4.884G	46.77	74.00	-27.23	6.63	3	Horizontal	360	1.50	-	40.14	31.31	5.41	30.09
AV	4.884G	32.55	54.00	-21.45	6.63	3	Horizontal	360	1.50	-	25.92	31.31	5.41	30.09