



6.5. Spurious Radiated Emissions above 960 MHz (15.519 (c), 15.521 (d))

Requirement: The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

The RMS average measurement is based on the use of a spectrum analyzer with a resolution bandwidth of 1 MHz, an RMS detector, and a 1 millisecond or less averaging time.

The EIRP in terms of dBm, can be converted to a field strength, in dB μ V/m at 3 Meters by adding 95.2.

Frequency	EIRP	EIRP at 3 Meters
(MHz)	(dBm)	(dBµV/m)
960 - 1610	-75.3	19.9
1610 - 1990	-63.3	31.9
1990 - 3100	-61.3	33.9
3100 - 10600	-41.3	53.9
Above 10600	-61.3	33.9

Frequency Range:	960 MHz to 40 GHz
Measurement Distance:	1 Meter and 0.3 Meter
EMI Receiver IF Bandwidth:	1 MHz
EMI Receiver Avg Bandwidth	10 MHz
Detector Function:	RMS 1 mS Average as defined in 15.521(d)

Notes: Measurements made from 960 MHz to 18 GHz were made in a semianechoic chamber at 1 Meter using a -9.54 dB distance offset was programmed into the spectrum analyzer.

Measurements made from 6.4 to 18 GHz and 8 to 18 GHz were done with the aid of a High Pass Filter before the low noise amplifier.

Measurements made from 18 to 40 GHz were done at 0.3 meters and a - 20.00 dB distance offset was programmed into the spectrum analyzer.

Sample Calculation: Final Result $(dB\mu V/m)$ = Measurement Value $(dB\mu V)$ + Antenna Factor (dB/m) + Cable Loss (dB) – Pre-amplifier Gain (dB) Internal or External.

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.





6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.1. 960 MHz to 6.4 GHz Horizontal at 1 Meter, X Axis CH2 16M



6.5.2. 960 MHz to 6.4 GHz Vertical at 1 Meter, X Axis CH2 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.3. 960 MHz to 6.4 GHz Horizontal at 1 Meter, Y Axis CH2 16M



6.5.4. 960 MHz to 6.4 GHz Vertical at 1 Meter, Y Axis CH2 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.5. 960 MHz to 6.4 GHz Horizontal at 1 Meter, Z Axis CH2 16M



6.5.6. 960 MHz to 6.4 GHz Vertical at 1 Meter, Z Axis CH2 16M







6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.7. 960 MHz to 6.4 GHz Horizontal at 1 Meter, X Axis CH4 16M



6.5.8. 960 MHz to 6.4 GHz Vertical at 1 Meter, X Axis CH4 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.9. 960 MHz to 6.4 GHz Horizontal at 1 Meter, Y Axis CH4 16M



6.5.10. 960 MHz to 6.4 GHz Vertical at 1 Meter, Y Axis CH4 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.11. 960 MHz to 6.4 GHz Horizontal at 1 Meter, Z Axis CH4 16M



6.5.12. 960 MHz to 6.4 GHz Vertical at 1 Meter, Z Axis CH4 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.13. 960 MHz to 8 GHz Horizontal at 1 Meter, X Axis CH5 16M



6.5.14. 960 MHz to 8 GHz Vertical at 1 Meter, X Axis CH5 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.15. 960 MHz to 8 GHz Horizontal at 1 Meter, Y Axis CH5 16M



6.5.16. 960 MHz to 8 GHz Vertical at 1 Meter, Y Axis CH5 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.17. 960 MHz to 8 GHz Horizontal at 1 Meter, Z Axis CH5 16M



6.5.18. 960 MHz to 8 GHz Vertical at 1 Meter, Z Axis CH5 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.19. 6.4 to 18 GHz Horizontal at 1 Meter, X Axis CH2 16M



6.5.20. 6.4 to 18 GHz Vertical at 1 Meter, X Axis CH2 16M







6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.21. 6.4 to 18 GHz Horizontal at 1 Meter, Y Axis CH2 16M



6.5.22. 6.4 to 18 GHz Vertical at 1 Meter, Y Axis CH2 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.23. 6.4 to 18 GHz Horizontal at 1 Meter, Z Axis CH2 16M



6.5.24. 6.4 to 18 GHz Vertical at 1 Meter, Z Axis CH2 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.25. 6.4 to 18 GHz Horizontal at 1 Meter, X Axis CH4 16M



6.5.26. 6.4 to 18 GHz Vertical at 1 Meter, X Axis CH4 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.27. 6.4 to 18 GHz Horizontal at 1 Meter, Y Axis CH4 16M



6.5.28. 6.4 to 18 GHz Vertical at 1 Meter, Y Axis CH4 16M







6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.29. 6.4 to 18 GHz Horizontal at 1 Meter, Z Axis CH4 16M



6.5.30. 6.4 to 18 GHz Vertical at 1 Meter, Z Axis CH4 16M







6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.31. 8 to 18 GHz Horizontal at 1 Meter, X Axis CH5 16M



6.5.32. 8 to 18 GHz Vertical at 1 Meter, X Axis CH5 16M







6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.33. 8 to 18 GHz Horizontal at 1 Meter, Y Axis CH5 16M



6.5.34. 8 to 18 GHz Vertical at 1 Meter, Y Axis CH5 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.35. 8 to 18 GHz Horizontal at 1 Meter, Z Axis CH5 16M



6.5.36. 8 to 18 GHz Vertical at 1 Meter, Z Axis CH5 16M







6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.37. 18 to 40 GHz Horizontal at 0.3 Meter, X Axis CH2 16M



6.5.38. 18 to 40 GHz Vertical at 0.3 Meter, X Axis CH2 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.39. 18 to 40 GHz Horizontal at 0.3 Meter, Y Axis CH2 16M



6.5.40. 18 to 40 GHz Vertical at 0.3 Meter, Y Axis CH2 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.41. 18 to 40 GHz Horizontal at 0.3 Meter, Z Axis CH2 16M



6.5.42. 18 to 40 GHz Vertical at 0.3 Meter, Z Axis CH2 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.43. 18 to 40 GHz Horizontal at 0.3 Meter, X Axis CH4 16M



6.5.44. 18 to 40 GHz Vertical at 0.3 Meter, X Axis CH4 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.45. 18 to 40 GHz Horizontal at 0.3 Meter, Y Axis CH4 16M



6.5.46. 18 to 40 GHz Vertical at 0.3 Meter, Y Axis CH4 16M



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6.5. Spurious Radiated Emissions (15.519 (c) continued)

6.5.47. 18 to 40 GHz Horizontal at 0.3 Meter, Z Axis CH4 16M



6.5.48. 18 to 40 GHz Vertical at 0.3 Meter, Z Axis CH4 16M



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6.5. Spurious Radiated Emissions (RSS-220 5.3.1 (d) continued)

Requirement: The radiated emissions at or below 960 MHz from a device shall not exceed the limits in Section 3.4. The radiated emissions above 960 MHz from a device shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

The RMS average measurement is based on the use of a spectrum analyzer with a resolution bandwidth of 1 MHz, an RMS detector, and a 1 millisecond or less averaging time.

The EIRP in terms of dBm, can be converted to a field strength, in $dB\mu V/m$ at 3 Meters by adding 95.2.

Frequency	EIRP	EIRP at 3 Meters
(MHz)	(dBm)	(dBµV/m)
960 - 1610	-75.3	19.9
1610 – 4750	-70.0	25.2
4750 - 10,600	-41.3	53.9
Above 10,600	-61.3	33.9

Frequency Range:	960 MHz to 8 GHz
Measurement Distance:	1 Meter
EMI Receiver IF Bandwidth:	1 MHz
EMI Receiver Avg Bandwidth	10 MHz
Detector Function:	RMS 1 mS Average as defined in Annex Section 4(b)

Notes: Measurements made from 960 MHz to 8 GHz were made in a semianechoic chamber at 1 Meter using a -9.54 dB distance offset was programmed into the spectrum analyzer.

Measurement data above 8 GHz for Channel 5 is provided in plots 6.5.9 to 6.5.12 on the previous pages.

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.





6.5. Spurious Radiated Emissions (RSS-220 5.3.1 (d)) continued)

6.5.49. 960 MHz to 8 GHz Horizontal at 1 Meter, X Axis CH5 16M



6.5.50. 960 MHz to 8 GHz Vertical at 1 Meter, X Axis CH5 16M







6.5. Spurious Radiated Emissions (RSS-220 5.3.1 (d)) continued)

6.5.51. 960 MHz to 8 GHz Horizontal at 1 Meter, Y Axis CH5 16M



6.5.52. 960 MHz to 8 GHz Vertical at 1 Meter, Y Axis CH5 16M



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Stop 8.0 GHz

2.08.2022

6. Measurement Data (continued)

6.5. Spurious Radiated Emissions (RSS-220 5.3.1 (d)) continued)

6.5.53. 960 MHz to 8 GHz Horizontal at 1 Meter, Z Axis CH5 16M Spectrum Ref Level 60.00 dBµV/m Offset -9.54 dB 🖷 RBW 1 MHz Att 9 dB . SWT 7 s 🔳 VBW 10 MHz Mode Sweep Input DC TDF 42-22 Wiser Handheld UWB Tag New Design 📦1Rm View 47.68 dBµV/m 6.502700 GHz M1[1] 55 dBµV/n 50 dBuV/n 45 dBµV/m 40 dBuV/r 35 dBµV/r 30 dBµV/m 25 dBµV/r 1D RMS NUED TIN

7041 pts

Measuring...

Date: 22.AUG.2022 15:16:12

15 dB

Start 960.0 MHz

6.5.54. 960 MHz to 8 GHz Vertical at 1 Meter, Z Axis CH5 16M



Date: 22.AUG.2022 16:20:49

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d))

Requirement: In addition to the radiated emission limits specified in the table in paragraph (d) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

Frequency (MHz)	EIRP (dBm)	EIRP at 3 Meters (dBµV/m)
1164 - 1240	-85.3	9.9
1559 - 1610	-85.3	9.9

6.6.1. Measurement & Equipment Setup

EMI Receiver IF Bandwidth:	1 kHz
EMI Receiver Avg Bandwidth:	10 kHz
Detector Functions:	RMS Average, 1mS / point

6.6.2. 1164 to 1240 MHz & 1559 to 1610 MHz

There were no broadband emissions related to the UWB transmitter. Measured signals were narrowband and related to the microprocessor / clocks and do not fall under the requirements of this section. Measurements were made at 1.0 Meter with a -9.54 dB distance correction factor. The -85.3 dBm limit was converted to a field strength limit of 9.9 dBuV/m using a factor of 95.2.

Sample Calculation: Final Result $(dB\mu V/m)$ = Measurement Value $(dB\mu V)$ + Antenna Factor (dB/m) + Cable Loss (dB) – Pre-amplifier Gain (dB) Internal or External.

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.





6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.1 Horizontal Measurement Polarity 1164 to 1240 MHz, X Axis CH2 16M

dВµ∀/1 200 GH
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iy home

6.6.3.2 Vertical Measurement Polarity 1164 to 1240 MHz, X Axis CH2 16M



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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.3 Horizontal Measurement Polarity 1164 to 1240 MHz, Y Axis CH2 16M

42-22 Wiser Han	dheid UWB Tag N	ew Design 😑	Rm View	M1[1] -5.25 dt				14/
30 dBµV/m		-			-	1	1.232278600	GH
:5 dBµV/m-								_
0 dBµV/m	-		-		-			_
5 dBµV/m	_							_
0 dBuV/m D1 9.	900 dBuV/m-				-			_
dBµV/m-			-					_
dBµV/m				-	-			-
5 dBµV/m	_				-		MI	
A Land Block plathe	the production of the	ang an bal pu	mulliphilit	ANN/ ANN AN	an plut di	and sheet poor of these	dat protochildres de	4
			7600	1 nts			Stop 1 24	GH

6.6.3.4 Vertical Measurement Polarity 1164 to 1240 MHz, Y Axis CH2 16M

42-22 Wiser Handheld UWB Ta	ig New Design 💿1Rm Yiew	14	
224 124 125		M1[1]	-4.63 dBµV 1.229232600 C
30 dBµV/m			
25 dBµV/m	-		
20 dBµV/m-		· · · · · · · · · · · · · · · · · · ·	
15 dBµV/m			
10 dBpV/m-01 9 900 depV/m-			
5 dBµV/m-			
) dBµV/m			
-5 dBµV/m			M1
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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.5 Horizontal Measurement Polarity 1164 to 1240 MHz, Z Axis CH2 16M

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a parana kacambana mana mana mana mana mana mana man
///

6.6.3.6 Vertical Measurement Polarity 1164 to 1240 MHz, Z Axis CH2 16M

242-22 Wiser Handheld UWB Ta	g New Design 91Rr	n View	MILII		-4 05 dBut//
a design of the second s	_		MITTI		1.223820700 GH
30 dBµV/m					
25 dBµV/m		-	-		
20 dBµV/m-	_				
15 dBµV/m-	_				_
t0 dBµV/m 1 01 9,900 dBµV/m-	_		_		_
i dBµV/m					
) dBµV/m	_			0	
5 dBuV/m	-			M1	
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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.7 Horizontal Measurement Polarity 1164 to 1240 MHz, X Axis CH4 16M

		ew Design 😝	LRM VIEW	M1[1] -4.98 d				8 dBµY/i
30 dBuV/m	_		_		4	1	1.2128	22900 GH
5 dBµV/m					-			
0 dBµV/m-				(-
5 dBµV/m								
0 d6µV/m 01 9.	900 dBµV/m							
dBµV/m	_				-	-		
dBuV/m-			1					
E dB(A)/m			-		MI			
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addin a fin de mentle le fre	e nativitie e cina le dai	lonal, atta taarid	int adda an	Counters of the s	an an an Al Broadin	development of the second	Interesting Logi	and the state

6.6.3.8 Vertical Measurement Polarity 1164 to 1240 MHz, X Axis CH4 16M

		M1[1] -4.86 dBµV					
		1	1	1.200004900 G			
_		_					
_							
_		-					
-							
a sur se de acces	11	M1		A construction of the set			
and Phaliplin by		and a line shall not	INDERES OF A	Leveller Wardshotsho			

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.9 Horizontal Measurement Polarity 1164 to 1240 MHz, Y Axis CH4 16M

		ew Design 🛛 1	Rm View	M1[1] -5.26 dBµV,					
) dBµV/m					_		1.230228	OUU GH	
5 dBµV/m	_	_	-				-		
D dBµV/m	-								
5 dBµV/m									
0 dBµV/m 01 9	aa depy/m							_	
dBµV/m	_								
dBµV/m-			_						
dBµV/m							M1		
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6.6.3.10 Vertical Measurement Polarity 1164 to 1240 MHz, Y Axis CH4 16M

42-22 Wiser Handh	eld UWB Tag N	ew Design 🧿	1Rm View	M	1[1]		5	52 dBuV/n
Sec. 1		1			1[1]	1.2168	337800 GH	
30 dBµV/m-								
25 dBµV/m	-							-
20 dBµV/m								
15 dBµV/m								
10 dBµV/m (D1 9,90	iā dBu¥/m				141			
5 dBµV/m	-							
0 dBµV/m	_							
-5 dBµV/m			1.1	1		-	-	day of these
	water Wilder	and the state	All di kanta		al fam failth at h	A HARLAND	daugh file in	HUTAN
			7600	1 atc			Stor	n 1 24 CHz

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.11 Horizontal Measurement Polarity 1164 to 1240 MHz, Z Axis CH4 16M

			100	M1[1] -4.79 dBµV/				
30 dBµV/m			_	-	1	1.21730	1800 GH	
25 dBµV/m		-	_	-			-	
20 dBµV/m	-				-		_	
.5 dBµV/m		-	-	_	-	-		
0 dBµV/m D1 9,900 i	18LIV/m				_		-	
i dBµV/m		_	_	_	_			
I dBµV/m						_		
5 dBµV/m		11		11	NI			
Marchael (11 prop 1947) procession	Manage March 19	mhanishijis	(Artipuli) (habite	pulled body	White building	100 pp all particular	1 ph link	

6.6.3.12 Vertical Measurement Polarity 1164 to 1240 MHz, Z Axis CH4 16M

42-22 Wiser Hand	held UWB Tag Ne	w Design 🤤	1Rm View					
1000	C 1211			M	1[1]		-5.	04 dBµV/n 971600 GH
30 dBµV/m-						1		
25 dBµV/m	_							
20 dBµV/m								
15 dBµV/m				-				
10 dBµV/m D1 9.9	oo depy/m			_				-
5 dBµV/m	-							
) dBµV/m	_						-	-
-5 dBuV/m-		-					1.2.1	MI
المسجيا فبالمتعاقلات ألا	tel na Altraditional	J. Hutte Hutte	Libalumille	alata land	MANU ALL	while the other	Aller Marth	Alex Ada d
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and the second			7600	1			Q4 cu	n 1 24 CU

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.13 Horizontal Measurement Polarity 1164 to 1240 MHz, X Axis CH5 16M

	u ovvo ragive	w Design 🗧	rkw view	N	11[1]		-4.81	3 dBµY/n
30 dBµV/m					-		1.21867	6800 GH:
25 dBµV/m								_
20 dBµV/m	-							-
15 dBµV/m		-						_
10 dBµV/m-01 9.900	dBµV/m	_						_
5 dBµV/m-		-		-				_
) dBµV/m								_
-5 dBµV/m		100			Alleret	MI	1.1.2.1.5	us fai
adjud block respectite	A Property and	n hay by the fille	et for tability		1. United and the	and the state of t	Harala and the	index and index

6.6.3.14 Vertical Measurement Polarity 1164 to 1240 MHz, X Axis CH5 16M

10001110111		boolight o share a	1011	M1[1]		-5.16 dBµ∀/
0 dBµV/m				-	1	1.231298600 G
5 dBµV/m						
0 dBµV/m-						
5 dBµV/m	<u> </u>			-		
0 dBµV/m D1 9,900 dt	λµV/m		_	_		
dBµV/m						
dBµV/m			_	_		
5 d8µV/m-				_		M1
الدورية بالإرارية فيعار ورغال	different of the	how, with which the stand	ala, Ile to ale la	datable to be to	And the Bart of the	aldust for the shorts have

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.15 Horizontal Measurement Polarity 1164 to 1240 MHz, Y Axis CH5 16M



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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.17 Horizontal Measurement Polarity 1164 to 1240 MHz, Z Axis CH5 16M

42-22 Wiser Ha	ndheld UWB Ta	g New Design 🧯	1Rm View					
1200		1	11.10	M	1111		1.2064	23 dBµV/n 55900 GH
30 dBµV/m		-						
25. dBµV/m		-						
20 dBµV/m-				()				
15 dBµV/m		_						
10 dbµV/m D1 s	.900 depv/m-							
i dBμV/m		-						
) dBµV/m		-			-			
5 dBuV/m		_		M1				
alifus History	droplant willas	. A management	din para	Adamillada	phill Alter	(million) (million)	aphydenille	hadapeter
Start 1,164 GH	2		7600	1 pts			Stor	1.24 GHz

6.6.3.18 Vertical Measurement Polarity 1164 to 1240 MHz, Z Axis CH5 16M

30 dBuV/m	.233372600 G
25 dBµV/m	
20 dBµV/m	
15 dBµV/m	_
10-dBuV/m-01-9.000 dBuV/m	
dBµV/m	_
i dBµV/m	
5 d8µV/m	MI
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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.19 Horizontal Measurement Polarity 1559 to 1610 MHz, X Axis CH2 16M

		git e tkin view	M1[1]	-4.4	8 dBµV/n
80 dBµV/m-		_	1-	1.60418	37600 GH
25 dBµV/m		-			-
20 dBµV/m					
.5 dBµV/m		-			_
.0 dBµV/m 01 9.900	dBuV/m				
i dBµV/m		-			
) dBµV/m					
5 dBµV/m		10 1 1 1 1	6.1	M1	
and the state of the second	Handra da Paranas		water Hulling and	the physical parts of the	Land Pa

6.6.3.20 Vertical Measurement Polarity 1559 to 1610 MHz, X Axis CH2 16M

A 19 1 1 1 1 1 1			M1[1] -5.25				
IQ dBµV/m				1.60	2057700 GF		
5 dBµV/m					-		
:0 dBµV/m							
5 dBµV/m			-		-		
0 dBuV/m D1 9,90	J dauv/m		-	-			
i dBµV/m							
I dBµV/m					-		
5 dBµV/m	-			CM1			
lite is a product white and a	L. D. Date by Labor	dal production to the	walter patricely days (Wile) a	and provide the state of the st	nishi manan han		

e: 23.306.2022 10:05:31

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.21 Horizontal Measurement Polarity 1559 to 1610 MHz, Y Axis CH2 16M

	leid OWD Tag Ne	w Design G IRn	1 View	M1[1]		-4.17 dBµV/
D dBµV/m				1		1.608885500 GH
5 dBµV/m						
D dBµV/m·	-					
5 dBµV/m	_			_		
0 d6uV/m-01 9.90	0 dBuV/m			_		
dBµV/m	-		_			
dBµV/m				-		
dBµV/m						
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6.6.3.22 Vertical Measurement Polarity 1559 to 1610 MHz, Y Axis CH2 16M

		Design		M	1[1]		-5.2	23 dBµV/i
30 dBµV/m							1.3692	07900 GR
25 dBµV/m								
0 dBµV/m								
15 dBµV/m				-				-
.0 dBµV/m 01 9,900 d	lBųŲ/m							
i dBµV/m								
I dBµV/m							,	
5 dBµV/m		Incores	data k	M		ي الله م	di ni	Local to
nd al canada da mandal.	na ng mga ng Ng mga ng mga	a telenku ka ka k	Andrews Pitron	Meterskin t	nan ta bala	hundleter a deal	and three we	o tre l'anna t
a de line e concentration	e ant is be defendent.		5100	- Provinces	an a	historia dan	Ston	1.61.0

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.23 Horizontal Measurement Polarity 1559 to 1610 MHz, Z Axis CH2 16M



6.6.3.24 Vertical Measurement Polarity 1559 to 1610 MHz, Z Axis CH2 16M



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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.25 Horizontal Measurement Polarity 1559 to 1610 MHz, X Axis CH4 16M

42-22 Wiser Handheld UWB Tag Ne	w Design 0 1Rm View			
		M1[1]		-4.77 dBµV/n 1.592380800 GH
30 dBµV/m				
25 dBµV/m				_
20 dBµV/m-				
15 dBµV/m				-
10 dBuV/m 01 9,900 dBuV/m				_
5 dBµV/m				
) dBµV/m				
-5 dBµV/m		M1		
Whish planad is demail if and his face due the	nd illight public dation	unter a the second states	andre all Marina	APGODA KIRANA
Start 1.559 GHz	5100	11 pts		Stop 1.61 GHz

6.6.3.26 Vertical Measurement Polarity 1559 to 1610 MHz, X Axis CH4 16M

				M1[1]	v = v	-5.22 dBµV/r 1.580970100 GH
30 dBµV/m					1 1	
25 dBµV/m			_		-	
20 dBµV/m			_			
15 dBµV/m		_	-		16	
10 dBµV/m D1 9.90	0 dBuV/m				-	
5 dBµV/m-			_			
0 dBµV/m			_			
-5 dBµV/m	- 4 x	1	A1	1		
strite whether the district of	All al and address	handa da b	14 Hours and	Trails and defaul	alutrobilister dolo	Last the Month stable. New







6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.27 Horizontal Measurement Polarity 1559 to 1610 MHz, Y Axis CH4 16M

2-22 Wiser Handheli	UWB Tag Ne	w Design 😐	1Rm View				1000	
	3.23		11.1	M	11[1]	-	-5.3	38 dBµV/n 51900 GH
0 dBµV/m			1					
5 dBµV/m	-				-			
0 dBµV/m	-			-				
5 dBµV/m	-				-		-	
0 dBµV/m 01 9 900	dBµV/m							
dBµV/m-								
dBµV/m-								
5 dBµV/m		-		M1				
here the barrent de marche	id an	ap the production of	MINA MINA	hall a production	WeyWollad	e d'alphaei	n ^b illion of the	Whatla

6.6.3.28 Vertical Measurement Polarity 1559 to 1610 MHz, Y Axis CH4 16M

	BIL OWB TAG NEW DE	asign orkm view	M1[1]		-5.12 dBµV/r
D dBµV/m		_	1	1-1-	1.566039400 GH
5 dBµV/m	_				
D dBµV/m					
5 dBµV/m	-			· · · ·	
0 dbµV/m p1 9 90	a denv/m				_
dBµV/m-		_			_
dBµV/m-					
5 dBµV/m					
ne dal di barte di	La Contlath, and La	1 . And a state file A	Laboration and that is the	and have black	a de al este a la materia de

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.29 Horizontal Measurement Polarity 1559 to 1610 MHz, Z Axis CH4 16M

	IN ONE TAG NO	w besign 🖕	TKW AIGM	M	1[1]		-5.8	2 dBµV/n
30 dBµV/m	-				-		1.55941	18500 GH
25 dBµV/m								_
20 dBµV/m	-							
L5 dBµV/m	-	_		-				_
10 dBµV/m D1 9,900	dBuV/m-							_
5 dBµV/m								
) dBµV/m								
δ dBµV/m		1	li nori				1. 1. 1. 1.	
MARCAL MIRING ADVANCE PART	Wellington	the male of the	h Martin	Haplatich	disord/st, Arth	unititaldu	and the latest	Helmiter

6.6.3.30 Vertical Measurement Polarity 1559 to 1610 MHz, Z Axis CH4 16M

		-a. +o uBuV/
		1,606995600 GH
		_
		-
		-
		M1
distant data data data data data data data	addition and a state of the	a to make the statutor of a solution.
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	A providence for a figure of the set of the	

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.31 Horizontal Measurement Polarity 1559 to 1610 MHz, X Axis CH5 16M

			MI	[1]	-4	.32 dBµV/n
30 dBµV/m		-	1	-	1.574	1459200 GH
25 dBµV/m						
20 dBµV/m-						
15 dBµV/m						-
0 d8µV/m D1 9.900 d	BuV/m				_	-
i dBμV/m			-			-
i dBµV/m						-
5 dBµV/m	M1	والمعرفة والمراجع	Con dat	illucit dana	and Containe	i del cerció
dahisha dialan dankala kale	and the second	eal Marian Mandhail	COMPANY INTERNATIONAL	and the second second	editivitati bash su si	de la contra

6.6.3.32 Vertical Measurement Polarity 1559 to 1610 MHz, X Axis CH5 16M

-				M1[1]		-5.17 dBµV/r 1.568783300 GH
30 dBµV/m						
25 dBµV/m					-	
20 dBµV/m					-	
15 dBµV/m					-	
10 dBµV/m D1 9	900 dBµV/m	-			-	
5 dBµV/m	_					
) dBµV/m			_		-	
-5 dBµV/m	MI					
to de la la const	a the month of the	Terri Talla alla	el tato a star la	a. dhild ballen	a da la su tabail à	a traffil data a ta

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.33 Horizontal Measurement Polarity 1559 to 1610 MHz, Y Axis CH5 16M

+2-22 Wiser Hand	held UWB Tag Ne	ew Design 💿 1Rm	View	M1[1]		-5.18 dBµV/
0 dBµV/m			-		Î Î	1.582527000 G
5 dBµV/m						
0 dBµV/m						
5 dBµV/m						
0 dBµV/m D1 9.0	00 dBµV/m		-			
dBµV/m-			-		· · ·	
dBµV/m	_		-			
5 dBµV/m	ب برجو ال الآن	Lav. Lat.	M1	The second	Loren Di	alize meno
with a hard a sh	and an a state	di analah Kalada Ang	udanhanka	een er de	alah ne april	We and the participant of the second

6.6.3.34 Vertical Measurement Polarity 1559 to 1610 MHz, Y Axis CH5 16M

F2-22 Wiser Handheld	1 UWB Tag New	Design 01F	am View	MILI	1		-4.77 dBuy/
27. J. H. H.		1.271		milli		1	.605535600 GH
0 dBµV/m					-		
5 dBµV/m		_					_
0 dBµV/m						_	
5 dBµV/m				_			
0 dBµV/m 01 9/900 (lBuV/m			_	_	_	_
dBµV/m							_
dBµV/m-					-	_	
5 dBub//m	=						M1
and hand manufally all is to a	land in the	with the world it will	data hita a a	litherates	dell browling the	Lake the shill and the	a dread land the
a design of the test line	a la Nas Innikana	a conditati fi Antoni	and tells with	and other data to the	a is when which is th	a se ana havai	adella. Elmon esse de
nen produce i Mae Welper	i minipini	ality of the	daha ju pitaka ja	Withouther	millionillioth	hi Milal Jay Al	ut ditti fillantish

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6.6. Spurious Radiated Emissions in GPS Bands (15.519 (d) continued)

6.6.3.35 Horizontal Measurement Polarity 1559 to 1610 MHz, Z Axis CH5 16M

42-22 Wiser Handh	eld UWB Tag Ne	w Design 91Rm View	MILLI		-5 22 dBuy/n
and the second second	1.		milij	· · · · · ·	.583376000 GH
30 dBµV/m					
25 dBµV/m					_
20 dBµV/m	-			_	
L5 dBµV/m	-				
10 dBµV/m 01 9,90	D dBµV/m				_
5 dBµV/m	_		-	-	_
) dBµV/m			_		
-5 dBµV/m	-	N	11.		
altaliana anti habita	And Walks Wels	ton in placific photology	a pil data and the ball of the ball of	and the world and the parts	والافتراق باللعاقي أطلا
Pt art 1 550 CHa		51	001 pts		Stop 1 61 CHz

6.6.3.36 Vertical Measurement Polarity 1559 to 1610 MHz, Z Axis CH5 16M

	NO OWB TAG NEW	Design OIRm Viev	M1[1]		-4.23 dBµV/
30 dBµV/m	1			1 1	1.607415600 GH
8 - 1 - 1 II					
25 dBµV/m					
20 dBµV/m					
.5 dBµV/m		_			-
10 dBµV/m D1 9,900	I dBuV/m-		-		_
i dBµV/m					
I dBµV/m	-				-
5 dBuV/m					M1
an hall dit a Waar tille	nation . Beautita, dans	معيدالها ويتوسيعارا وا	dillight in the state of the light of the	a has deliterated at the	and and maked of
5 dBµV/m	nalas, Hendres Par	helpingana deitaan	abili dita inpendence de judite de	a Jone to Milline at your Med. I	IN LIN MIL

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6.7. Radiated Emissions of UWB Transmission (15.519 (c), 15.521 (d))

Requirement: The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz: The RMS average measurement is based on the use of a spectrum

analyzer with a resolution bandwidth of 1 MHz, an RMS detector, and a 1 millisecond or less averaging time.

The EIRP in terms of dBm, can be converted to a field strength, in $dB\mu V/m$ at 3 Meters by adding 95.2.

Frequency	EIRP	EIRP at 3 Meters
(MHz)	(dBm)	(dBµV/m)
3100 - 10600	-41.3	53.9

Frequency Range:	3.5 to 4.5 GHz, 3 to 5 GHz, 6 to 7 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	1 MHz
EMI Receiver Avg Bandwidth	10 MHz
Detector Function:	RMS 1 mS Average as defined in 15.521(d)





6.7. Spurious Radiated Emissions (15.519 (c), 15.521(d))

6.7.1. Plot of RMS Power at 3 Meters (CH2, 6.8 Mbps, 16M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
3.8462	50.53	53.90	-3.37	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	EIRP	EIRP	(dB)	H/V	cm	Deg	
3.8462	-44.67	-41.30	-3.37	V	142	0	Compliant



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6.7. Spurious Radiated Emissions (15.519 (c), 15.521(d)) continued

6.7.2. Plot of RMS Power at 3 Meters (CH2, 6.8 Mbps, 64M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
3.8442	53.40	53.90	-0.50	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0.1.2)	EIRP	EIRP	(dB)	H/V	cm	Deg	
3.8442	-41.80	-41.30	-0.50	V	142	0	Compliant



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6.7. Spurious Radiated Emissions (15.519 (c), 15.521(d))

6.7.3. Plot of RMS Power at 3 Meters (CH4, 6.8 Mbps, 16M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0.12)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
4.2719	47.83	53.90	-6.07	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	EIRP	EIRP	(dB)	H/V	cm	Deg	
4.2719	-47.37	-41.30	-6.07	V	142	0	Compliant



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6.7. Spurious Radiated Emissions (15.519 (c), 15.521(d)) continued

6.7.4. Plot of RMS Power at 3 Meters (CH4, 6.8 Mbps, 64M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
3.8461	53.54	53.90	-0.46	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	EIRP	EIRP	(dB)	H/V	cm	Deg	
3.8461	-41.76	-41.30	-0.46	V	142	0	Compliant



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6.7. Spurious Radiated Emissions (15.519 (c), 15.521(d))

6.7.5. Plot of RMS Power at 3 Meters (CH5, 6.8 Mbps, 16M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
6.503	50.22	53.90	-0.68	V	194	49	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	EIRP	EIRP	(dB)	H/V	cm	Deg	
6.503	-41.98	-41.30	-0.68	V	194	49	Compliant



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6.7. Spurious Radiated Emissions (15.519 (c), 15.521(d)) continued

6.7.6. Plot of RMS Power at 3 Meters (CH5, 6.8 Mbps, 64M PRF)

	Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
	(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
ĺ	6.5669	52.99	53.90	-0.91	V	194	49	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	EIRP	EIRP	(dB)	H/V	cm	Deg	
6.5669	-42.21	-41.30	-0.91	V	194	49	Compliant







6.8. Peak Emissions in a 50 MHz Bandwidth (15.519 (e), 15.521 (g))

Requirement: There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, f_M . That limit is 0 dBm EIRP.

The EIRP in terms of dBm, can be converted to a field strength, in $dB\mu V/m$ at 3 Meters by adding 95.2. As used in this subpart, EIRP refers to the highest signal strength measured in any direction and at any frequency from the UWB device.

Frequency (MHz)	EIRP (dBm)	EIRP at 3 Meters (dBuV/m)
(******	(abiii)	(abµt/m)
3100 - 10600	0	95.2

Frequency Range: Measurement Distance: EMI Receiver IF Bandwidth: EMI Receiver Avg Bandwidth Detector Function: 3.5 to 4.5 GHz, 3 to 5 GHz, 6 to 7 GHz3 Meters50 MHz80 MHzPeak, Max Held





6.8. Peak Emissions in a 50 MHz Bandwidth (15.519 (e), 15.521 (g) continued)

6.8.1 Plot of Peak Power at 3 Meters (CH2, 6.8 Mbps, 16M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
4.2398	94.77	95.20	-0.43	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	EIRP	EIRP	(dB)	H/V	cm	Deg	
4.2398	-0.43	0.00	-0.43	V	142	0	Compliant



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6.8. Peak Emissions in a 50 MHz Bandwidth (15.519 (e), 15.521 (g) continued)

6.8.2 Plot of Peak Power at 3 Meters (CH2, 6.8 Mbps, 64M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0.1.2)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
4.2438	94.19	95.20	-1.01	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	EIRP	EIRP	(dB)	H/V	cm	Deg	
4.2438	-1.01	0.00	-1.01	V	142	0	Compliant







6.8. Peak Emissions in a 50 MHz Bandwidth (15.519 (e), 15.521 (g) continued)

6.8.3 Plot of Peak Power at 3 Meters (CH4, 6.8 Mbps, 16M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
4.2829	92.91	95.20	-2.29	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0.1.2)	EIRP	EIRP	(dB)	H/V	cm	Deg	
4.2829	-2.29	0.00	-2.29	V	142	0	Compliant



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6.8. Peak Emissions in a 50 MHz Bandwidth (15.519 (e), 15.521 (g) continued)

6.8.4 Plot of Peak Power at 3 Meters (CH4, 6.8 Mbps, 64M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
4.2429	94.95	95.20	-0.25	V	142	0	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Freq	uency	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0		EIRP	EIRP	(dB)	H/V	cm	Deg	
4.2	2429	-0.25	0.00	-0.25	V	142	0	Compliant



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6.8. Peak Emissions in a 50 MHz Bandwidth (15.519 (e), 15.521 (g) continued)

6.8.5 Plot of Peak Power at 3 Meters (CH5, 6.8 Mbps, 16M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
6.499	94.87	95.20	-0.33	V	194	49	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0.1_)	EIRP	EIRP	(dB)	H/V	cm	Deg	
6.499	-0.33	0.00	-0.33	V	194	49	Compliant



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6.8. Peak Emissions in a 50 MHz Bandwidth (15.519 (e), 15.521 (g) continued)

6.8.6 Plot of Peak Power at 3 Meters (CH5, 6.8 Mbps, 64M PRF)

Frequency (GHz)	Amplitude ¹	Limit	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0112)	(dBµV/m)	(dBµV/m)	(dB)	H/V	cm	Deg	
6.495	94.71	95.20	-0.49	V	194	49	Compliant

Notes: ¹ Antenna Factor (AF), Cable Factor (CF) and External Preamplifier Gain (PAG) have been entered into the analyzer as transducer factors.

Equation (22) from ANSI C63.10-2013, EIRP = E_{meas} + 20 log (d_{meas}) – 104.7; d_{meas} = 3 EIRP (dBm) = E_{meas} (dB μ V/m) – 95.2

Frequency (GHz)	Amplitude ¹ (dBm)	Limit (dBm)	Margin	Ant Polarity	Ant Height	Turntable Azimuth	Result
(0.1.2)	EIRP	EIRP	(dB)	H/V	cm	Deg	
6.495	-0.49	0.00	-0.49	V	194	49	Compliant



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6.9 Conducted Emissions Test Setup

6.9.1. Regulatory Limit: FCC Part 15, Class B, IC RSS-GEN

Frequency Range	Limits (dBµV)			
(11112)	Quasi-Peak	Average		
0.15 to 0.50	66 to 56*	56 to 46*		
0.50 to 5.0	56	46		
5.0 to 30.0	60	50		
* Decreases with the logarithm of the frequency.				

6.9.2 Measurement Equipment and Software Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due
EMI Receiver	Rohde & Schwarz	ESR7	101156	10/25/2024
LISN	EMCO	3825/2	9109-1860	1/4/2023
Manufacturer	Software Description		Title/Model #	Rev.
Compliance Worldwide	Test Report Generation Software		Test Report Generator	1.0

6.9.3. Measurement & Equipment Setup

Test Date:	N/A
Test Engineer:	N/A
Site Temperature (°C):	N/A
Relative Humidity (%RH):	N/A
Frequency Range:	0.15 MHz to 30 MHz
EMI Receiver IF Bandwidth:	9 kHz
EMI Receiver Avg Bandwidth:	≥ 3 * RBW or IF(BW)
Detector Functions:	Peak, Quasi-Peak & CISPR Average

6.9.4. Test Procedure

Test measurements were made in accordance with ANSI C63.4-2014, Standard Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronics Equipment in the Range of 9 kHz to 40 GHz.

Sample Calculation: Final Result $(dB\mu V)$ = Measurement Value $(dB\mu V)$ + LISN Factor (dB) + Cable Loss (dB).

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.

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6.10. 99% Emission Bandwidth (RSS-GEN 6.7)

- Requirement: The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs RSS-Gen, Section 6.7.
- Test Note: The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.

6.10.1 Plot of 99% Emission Bandwidth (CH2, 6.8 Mbps, 16M PRF)



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6.10. 99% Emission Bandwidth (RSS-GEN 6.7)

6.10.2 Plot of 99% Emission Bandwidth (CH2, 6.8 Mbps, 64M PRF)



6.10.3 Plot of 99% Emission Bandwidth (CH4, 6.8 Mbps, 16M PRF)



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6.10. 99% Emission Bandwidth (RSS-GEN 6.7)

6.10.4 Plot of 99% Emission Bandwidth (CH4, 6.8 Mbps, 64M PRF)



6.10.5 Plot of 99% Emission Bandwidth (CH5, 6.8 Mbps, 16M PRF)



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6.10. 99% Emission Bandwidth (RSS-GEN 6.7)

6.10.6 Plot of 99% Emission Bandwidth (CH5, 6.8 Mbps, 64M PRF)



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7. Test Site Description

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with the Federal Communications Commission (FCC) and Industry Canada standards. Through our American Association for Laboratory Accreditation (A2LA) ISO Guide 17025 Accreditation our test sites are designated with the FCC (designation number **US1091**), Industry Canada (file number **IC 3023A-1)** and VCCI (Member number 3168) under registration number A-0274.

Compliance Worldwide is also designated as a Phase 1 CAB under APEC-MRA (US0132) for Australia/New Zealand AS/NZS CISPR 32, Chinese-Taipei (Taiwan) BSMI CNS 13438 and Korea (RRA) KN 11, KN 13, KN 14-1, KN 22, KN 32, KN 61000-6-3, KN 61000-6-4.

The radiated emissions test site is a 3 and 10 meter enclosed open area test site (OATS). Personnel, support equipment and test equipment are located in the basement beneath the OATS ground plane.

The conducted emissions site is part of a 16' x 20' x 12' ferrite tile chamber and uses one of the walls for the vertical ground plane. A second conducted emissions site is also located in the basement of the OATS site with a 2.3 x 2.5 meter ground plane and a 2.4 x 2.4 meter vertical wall.

The radiated emissions test site for measurements above 1GHz is a 3 Meter open area test site (OATS) with a 3.6 by 3.6 meter anechoic absorber floor patch to achieve a quasi-free space measurement environment per ANSI C63.4/C63.10 and CISPR 16-1-4 standards.

The sites are designed to test products or systems 1.5 meters W x 1.5 meters L x 2.0 meters H, floor standing or table top.





8.1. Spurious and Harmonic Emissions – 30 kHz to 30 MHz Front



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8.2. Spurious and Harmonic Emissions – 30 kHz to 30 MHz Rear



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8.3. Spurious and Harmonic Emissions – 30 MHz to 1 GHz Rear



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8.4. Spurious and Harmonic Emissions – 1 to 18 GHz Front



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8. Test Images

8.5. Spurious and Harmonic Emissions – 1 to 18 GHz Rear



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8. Test Images

8.6. Spurious and Harmonic Emissions – 18 to 40 GHz Side View



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