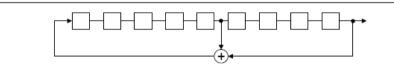


Number of shift register stages: 9

• Length of pseudo-random sequence: $2^9 - 1 = 511$ bits Longest sequence of zeros: 8 (non-inverted signal)



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Linear Feedback Shift Register for Generation of the PRBS sequence

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An example of Pseudorandom Frequency Hopping Sequence as follow:

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Each frequency used equally on the average by each transmitter. The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.

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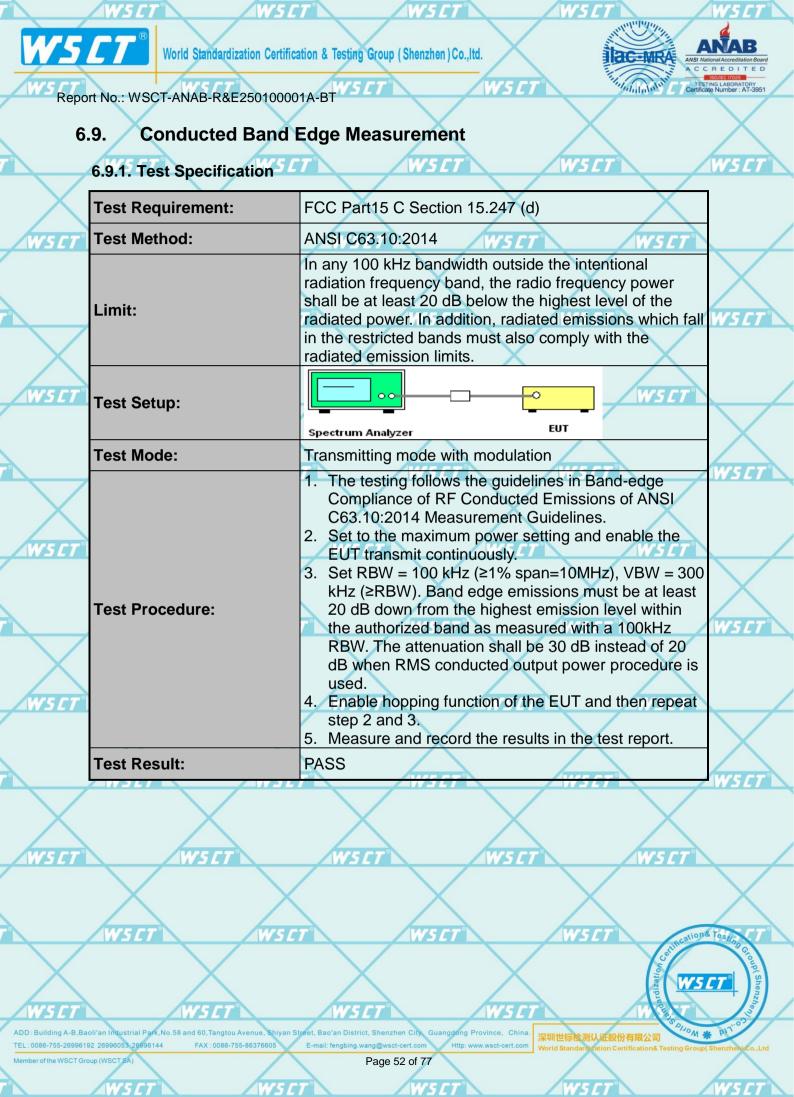
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6.10. Conducted Spurious Emission Measurement

6.10.1. Test Specification

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$\langle \rangle$	Test Requirement:	FCC Part15 C Section 15.247 (d)
77	Test Method:	ANSI C63.10:2014
7	Limit:	In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.
7	Test Setup:	Spectrum Analyzer EUT
	Test Mode:	Transmitting mode with modulation
7	Test Procedure:	 The testing follows the guidelines in Spurious RF Conducted Emissions of ANSI C63.10:2014 Measurement Guidelines The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Set RBW = 100 kHz, VBW = 300kHz, scan up through 10th harmonic. All harmonics / spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. Measure and record the results in the test report. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
	Test Result:	PASS

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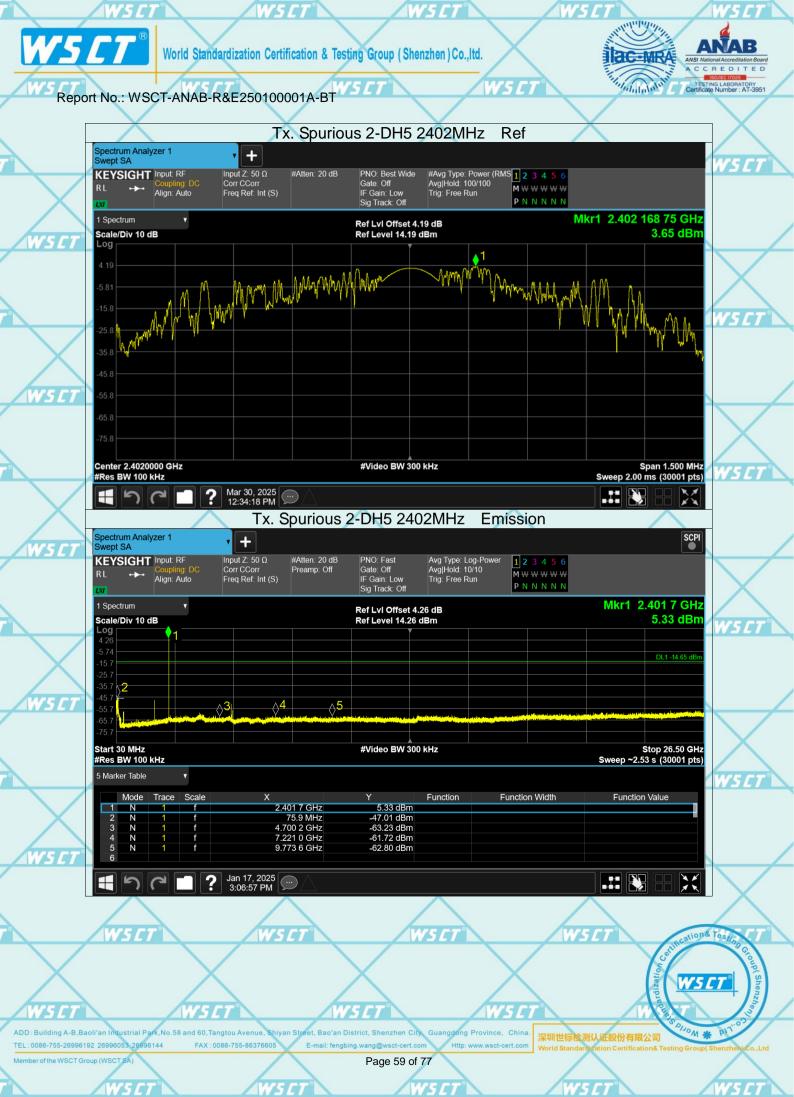
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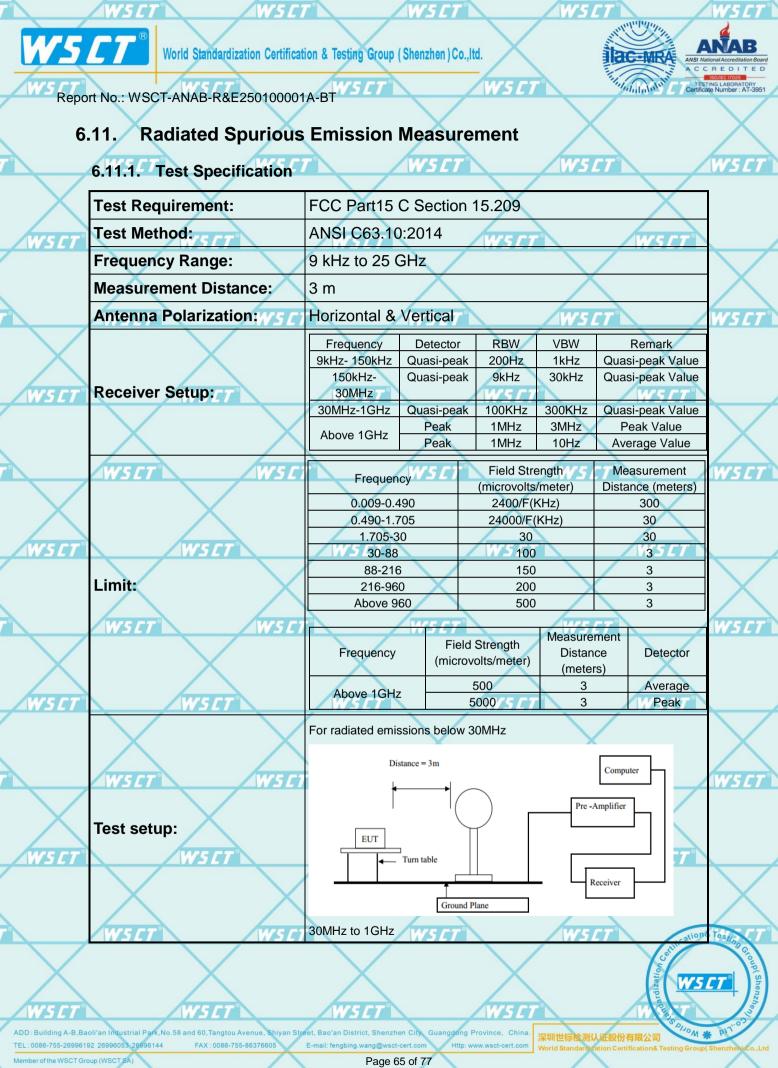
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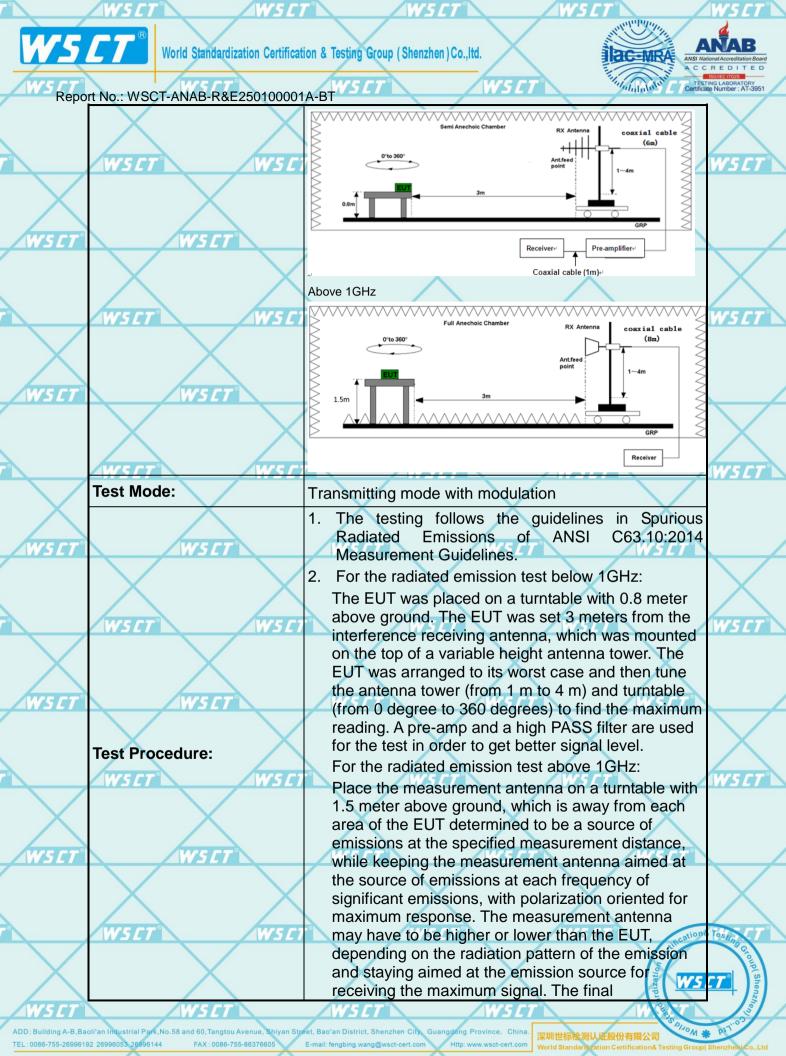
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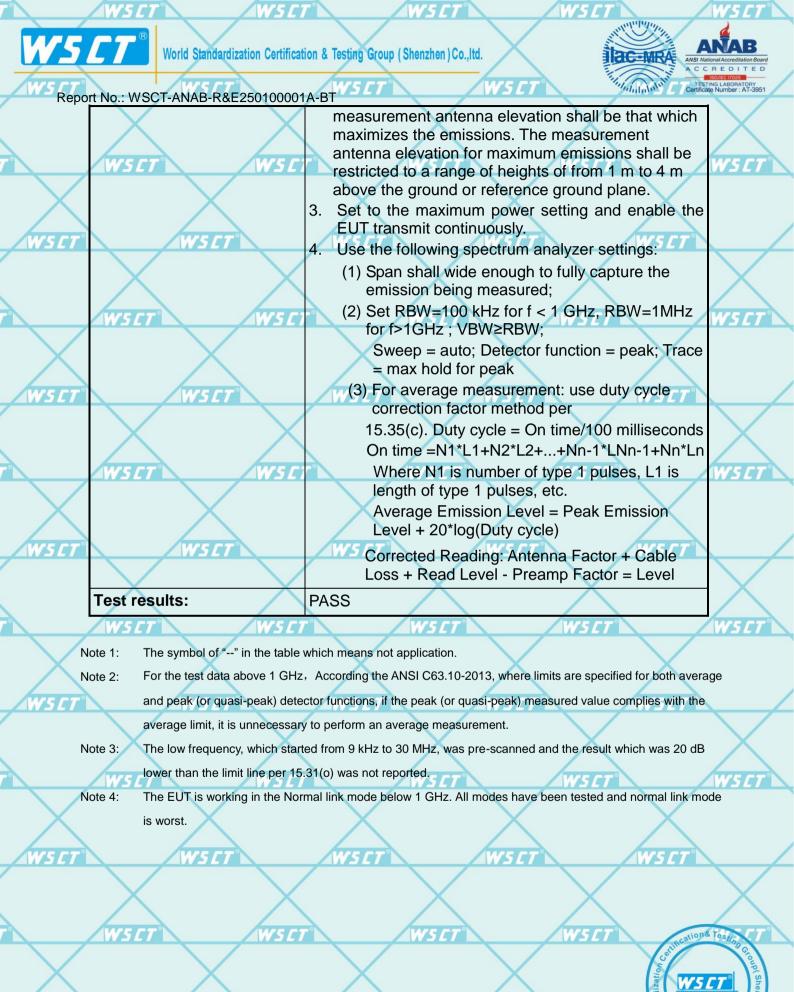
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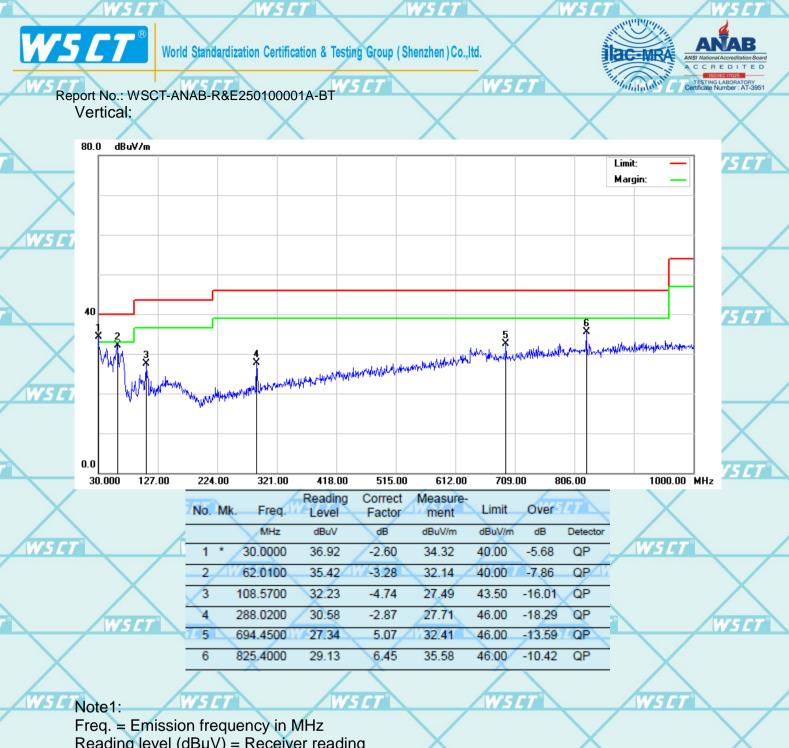


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Freq. = Emission frequency in MHz Reading level $(dB\mu V)$ = Receiver reading Corr. Factor (dB) = Antenna factor + Cable loss - Amplifier factor. Measurement $(dB\mu V)$ = Reading level $(dB\mu V)$ + Corr. Factor (dB)Limit $(dB\mu V)$ = Limit stated in standard Margin (dB) = Measurement $(dB\mu V)$ – Limits $(dB\mu V)$

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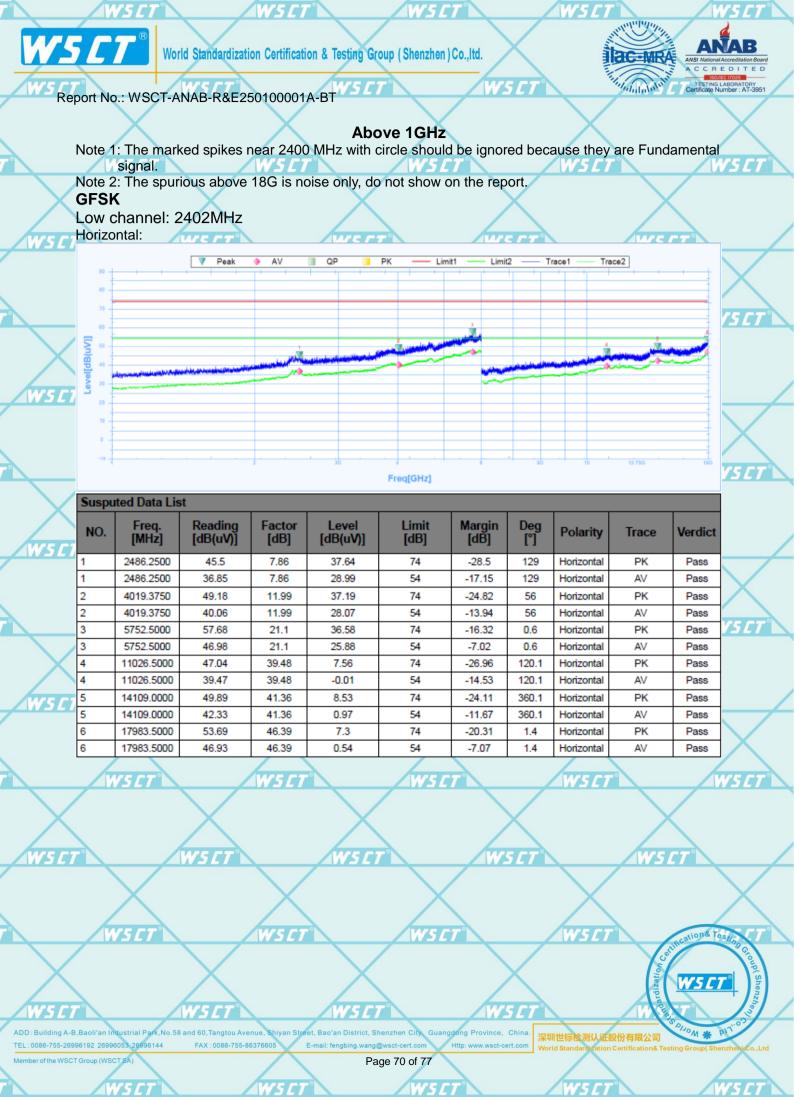
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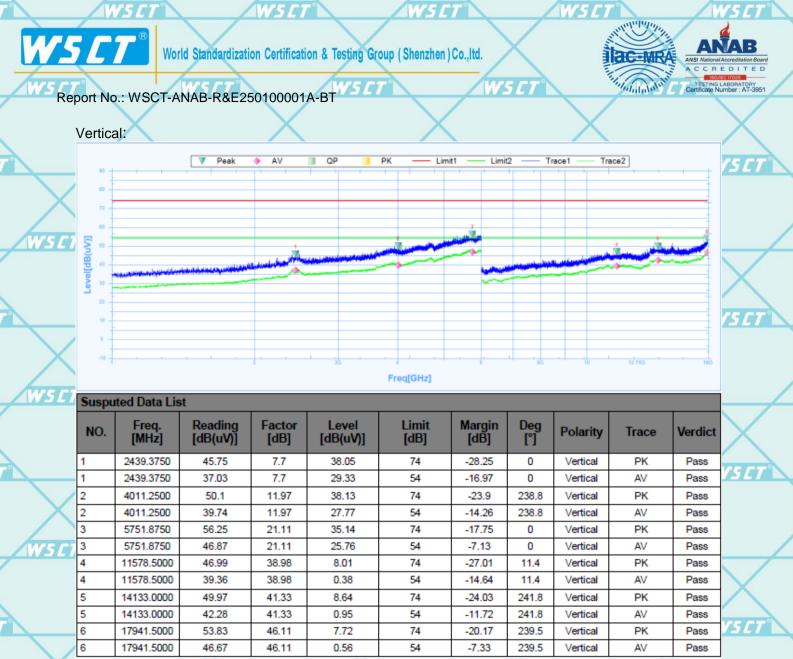
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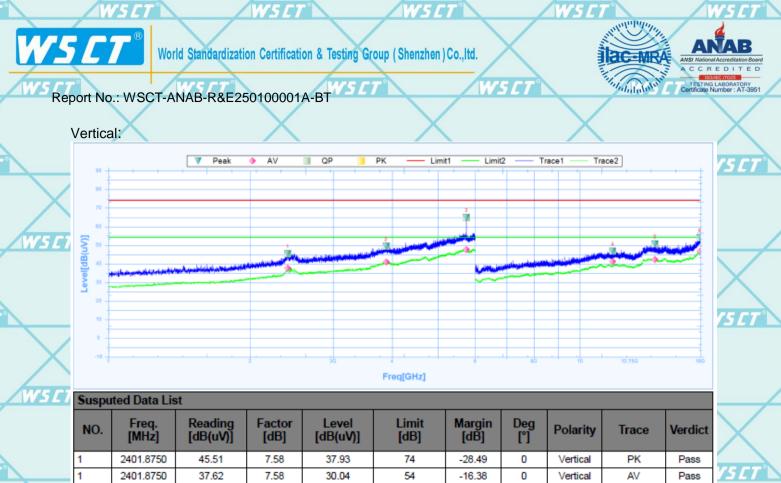
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2 3884.3750 49.35 11.6 37.75 74 -24.65 4.2 Vertical 3884.3750 41.11 11.6 29.51 54 -12.89 4.2 Vertical 3 5750.0000 64.96 21.12 43.84 74 -9.04 53.5 Vertical 5750.0000 47.64 26.52 54 -6.36 53.5 3 21.12 Vertical 4 11745.0000 46.8 38.83 7.97 74 -27.2 3.4 Vertical 4 41.25 54 -12.75 11745.0000 38.83 2.42 3.4 Vertical 5 14436.0000 50.72 40.93 9.79 74 -23.28 360 Vertical 5 14436.0000 42.42 40.93 1.49 54 -11.58 360 Vertical 6 17974.5000 7.65 -20.02 53.98 46.33 74 310.1 Vertical 6 17974.5000 46.76 46.33 0.43 54 -7.24 310.1 Vertical

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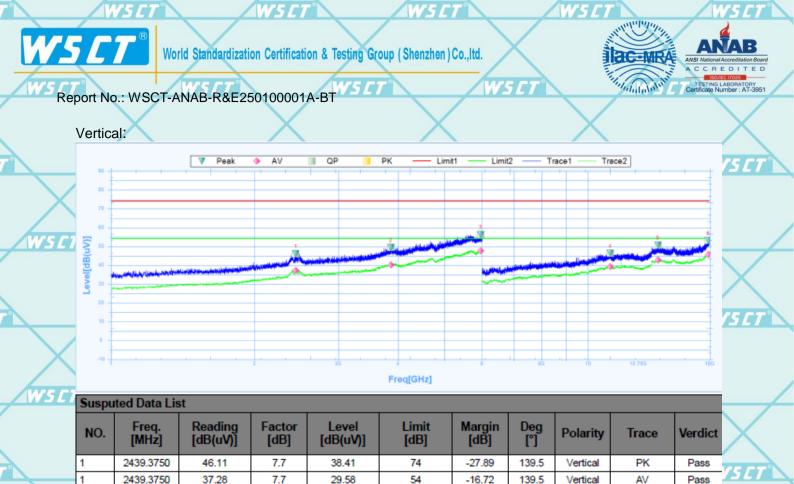
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1. The emission levels of other frequencies are very lower than the limit and not show in test report.

38.12

28.87

34.38

25.74

7.04

-0.19

9.28

1.3

7.55

0.05

- 2. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.
- Data of measurement shown "---"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.
 Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode
- Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (GFSK) was submitted only.
- 5. EUT has been tested in unfolded states, and the report only reflects data in the unfolded state (worst-case scenario)

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6.11.3. Restricted Bands Requirements

Bluetooth (GFSK, Pi/4-DQPSK, 8DPSK)mode have been tested, and the worst result GFSK model was report as below

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	as below								
$^{\times}$	Frequency	Reading	Correct Factor	Emission Level	Limit	Margin	Polar	Detector	5
/5 <i>C1</i>	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V		L
				Low Cha	nnel			/	
	2387	63.21	-8.76	54.45	74	19.55	н	PK	
	2387	56.94	-8.76	48.18	54	5.82	H	AV	
	2387	60.34	-8.73	51.61	74	22.39	V	PK	
X	2387	54.62	-8.73	45.89	54	8.11	V	AV	<
	2390	63.35	-8.76	54.59	74	19.41	Н	PK	
/S []	2390	53.12	-8.76	44.36	54	9.64	Н	AV# 5	1
	2390	62.23	-8.73	53.50	74	20.50	V	PK	
	2390	54.84	-8.73	46.11	54	7.89	V	AV	
	WSET		WSET	High Cha	nnel w 5 C 1		W5	7	
\times	2483.5	60.31	-8.76	51.55	74	22.45	Н	PK	
	2483.5	54.10	-8.76	45.34	54	8.66	Н	AV	<
	2483.5	63.96	-8.73	55.23	74	18.77	V	PK	
/SC1	2483.5	56.22	-8.73	47.49	54	6.51	V	AV	1
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Note: Freq. = Emission frequency in MHz Reading level (dB μ V) = Receiver reading Corr. Factor (dB) = Attenuation factor + Cable loss Level (dB μ V) = Reading level (dB μ V) + Corr. Factor (dB) Limit (dB μ V) = Limit stated in standard Margin (dB) = Level (dB μ V) – Limits (dB μ V)

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