



Report No.: WSCT-ANAB-R&E240900045A-BT

W5 CT

#### 6.7. **Dwell Time**

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671 Test	Specification
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X	Test Requirement:	FCC Part15 C Section 15.247 (a)(1)	
WSET	Test Method:	ANSI C63.10:2014 W5 [T] W5 [T]	
	Limit:	The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.	WSET
X	Test Setup:	Spectrum Analyzer EUT	
WSET	Test Mode:	Hopping mode W5 [T] W5 [T]	
WSCT	Test Procedure:	<ol> <li>The testing follows ANSI C63.10:2014 Measurement Guidelines.</li> <li>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.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Enable the EUT hopping function.</li> <li>Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW shall be ≤ channel spacing and where possible RBW should be set &gt;&gt; 1 / T, where T is the expected dwell time per channel; VBW≥RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold.</li> <li>Measure and record the results in the test report.</li> </ol>	WSCT
	Test Result:	PASS	Water
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400

Pass

### 6.7.2. Test Data

1-DH5

2480

Frequency (MHz) **Total Dwell Time** Limit Verdict Mode **Pulse Time** Burst **Period Time** (ms) (ms) Count (ms) (ms) Pass 1-DH1 2402 0.375 119.25 318 31600 400 1-DH1 2441 0.375 119.25 318 31600 400 Pass 1-DH1 2480 318 31600 400 Pass 0.373 118.614 1-DH3 2402 1.63 254.28 156 31600 400 **Pass** 1-DH3 2441 1.629 276.93 170 31600 400 Pass 1-DH3 2480 1.629 250.866 154 31600 400 **Pass** 1-DH5 2402 2.879 310.932 108 31600 400 Pass Pass 1-DH5 2441 2.878 365.506 127 31600 400

276.192

Note: 1. In normal mode, hopping rate is 1600 hops/s with 6 slots in 79 hopping channels.

2.877

For DH1, With channel hopping rate (1600 / 2 / 79) in Occupancy Time Limit (0.4 x 79) (s), Hops Over Occupancy Time comes to  $(1600 / 2 / 79) \times (0.4 \times 79) = 320$  hops

For DH3, With channel hopping rate (1600 / 4 / 79) in Occupancy Time Limit (0.4 x 79) (s), Hops Over Occupancy Time comes to  $(1600 / 4 / 79) \times (0.4 \times 79) = 160$  hops

For DH5, With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4 x 79) (s), Hops Over Occupancy Time comes to  $(1600 / 6 / 79) \times (0.4 \times 79) = 106.67$  hops

2. Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer Time

Test plots as follows:

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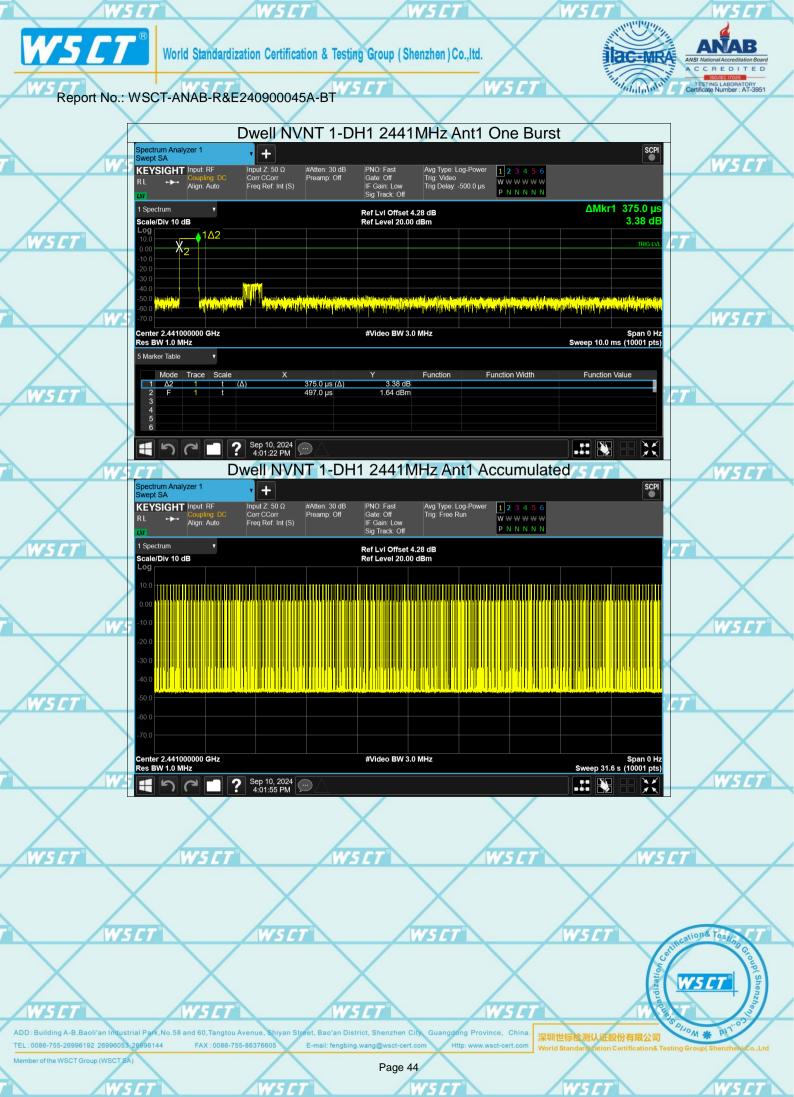
tion& Test

Mahahaha World Standardization Certification & Testing Group (Shenzhen) Co., ltd. **ac-MRA** Mahalalaha W5 CT Report No.: WSCT-ANAB-R&E240900045A-BT Test Graphs Dwell NVNT 1-DH1 2402MHz Ant1 One Burst SCPI + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) #Atten: 30 dB Preamp: Off Avg Type: Log-Power Trig: Video Trig Delay: -500.0 μs KEYSIGHT Input: RF ΔMkr1 375.0 μs Ref LvI Offset 4.26 dB Ref Level 20.00 dBm 1.26 dB Scale/Div 10 dB Center 2.402000000 GHz Res BW 1.0 MHz Span 0 Hz Sweep 10.0 ms (10001 pts) #Video BW 3.0 MHz Function Value 375.0 μs (Δ) 497.0 μs ? Sep 10, 2024 .... 3:58:27 PM \*\* Dwell NVNT 1-DH1 2402MHz Ant1 Accumulated Spectrum Analyzer 1 Swept SA SCPI **+** Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) KEYSIGHT Input: RF #Atten: 30 dB Preamp: Off Avg Type: Log-Power Trig: Free Run 1 2 3 4 5 6 1 Spectrum Ref LvI Offset 4.26 dB Ref Level 20.00 dBm Scale/Div 10 dB #Video BW 3.0 MHz Span 0 Hz Sweep 31.6 s (10001 pts) Sep 10, 2024 3:59:00 PM 

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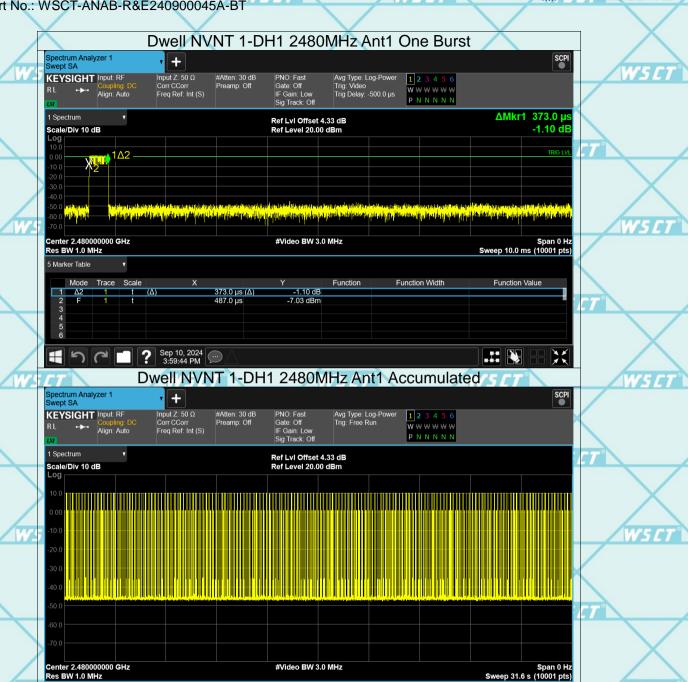
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? Sep 10, 2024 ....

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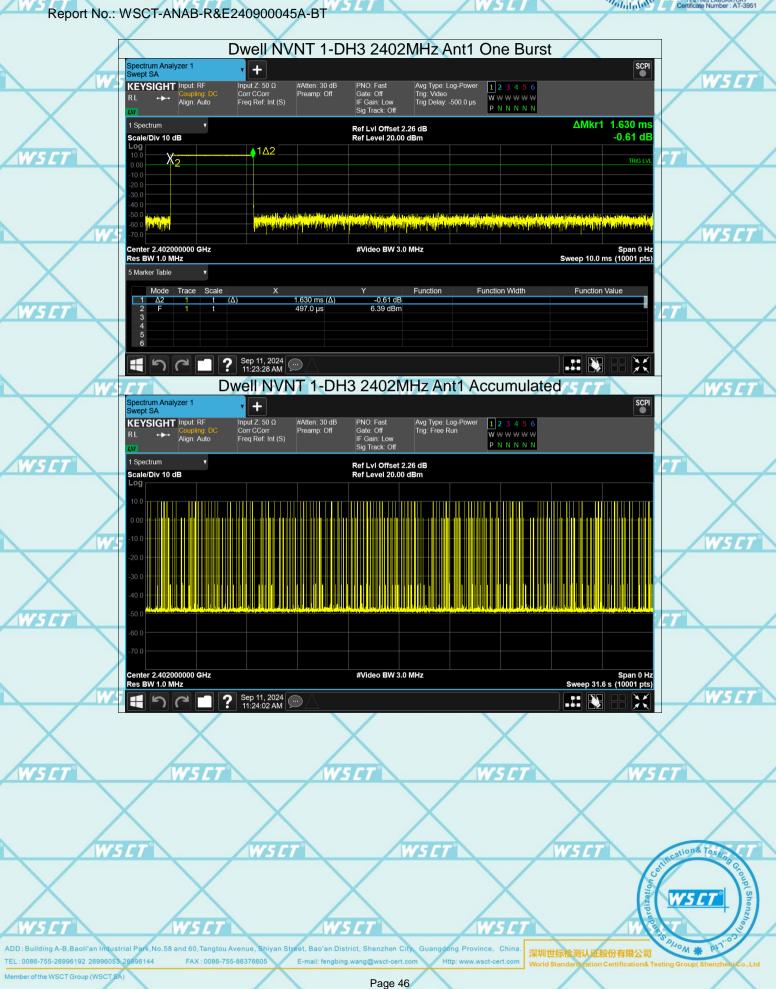




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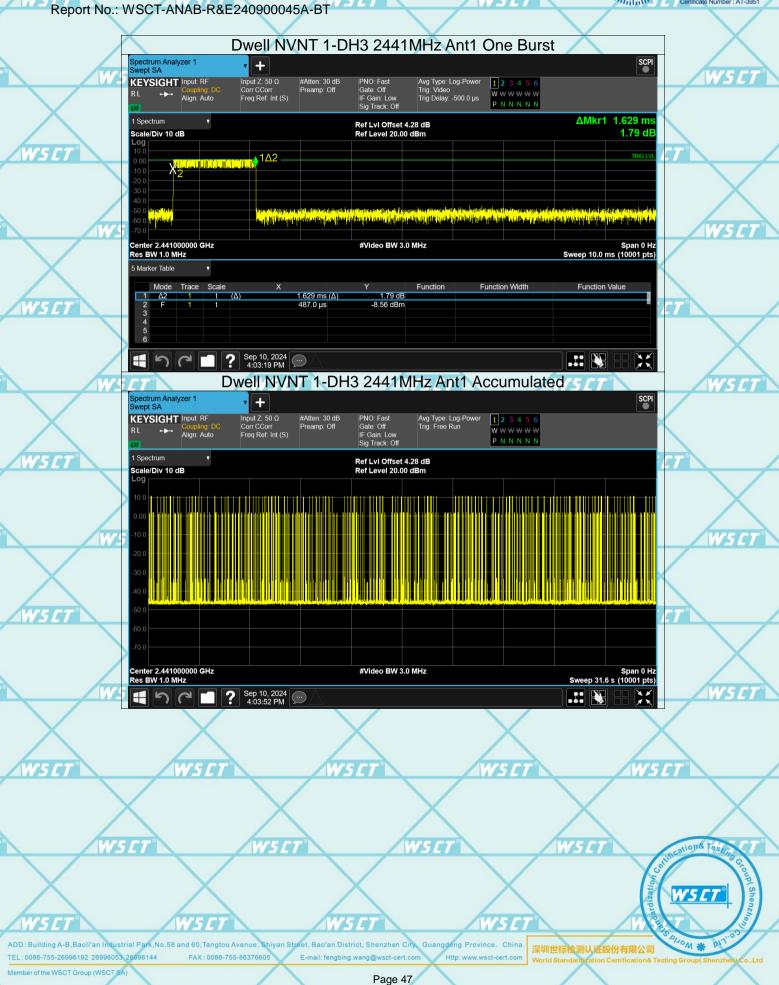
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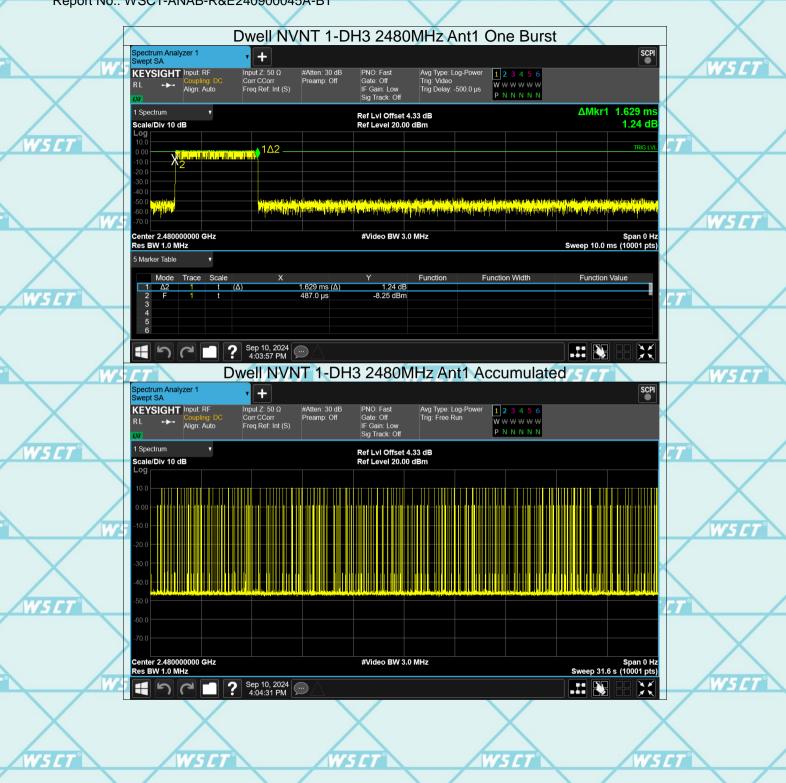




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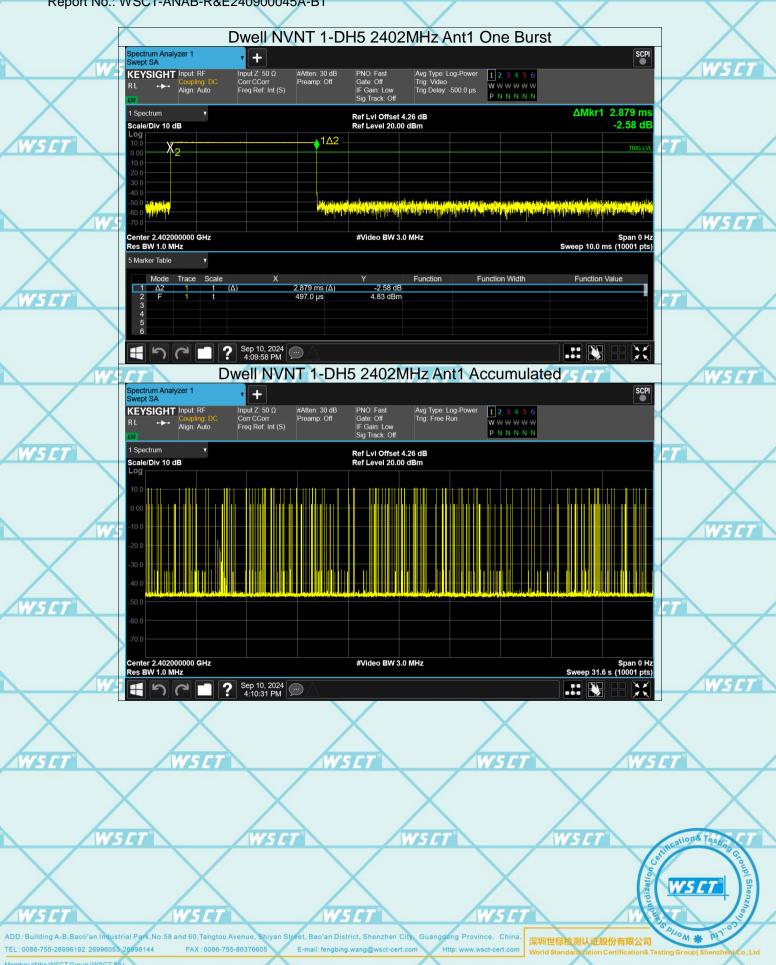
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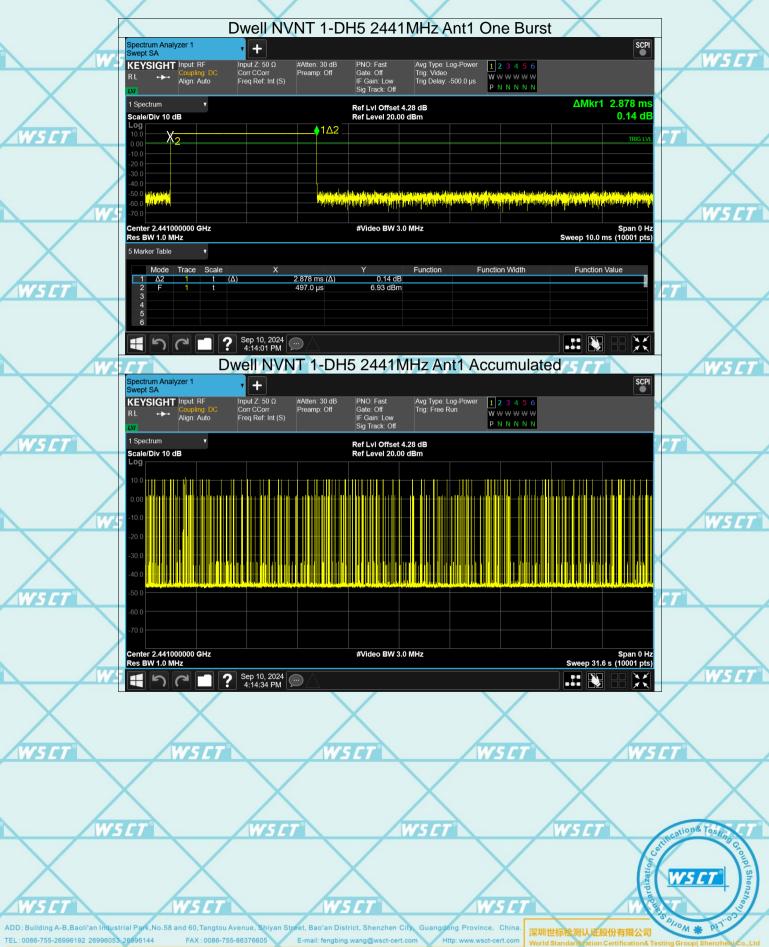




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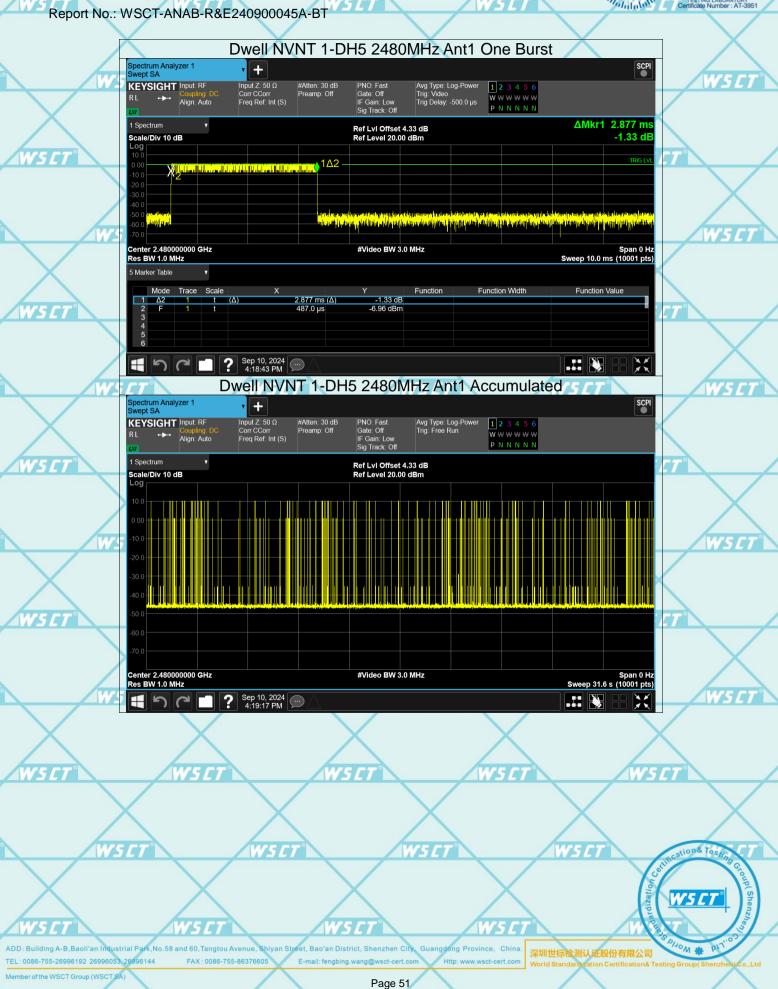
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## 6.8. Pseudorandom Frequency Hopping Sequence

Test Requirement: FCC Part15 C Section 15.247 (a)(1) requirement:

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

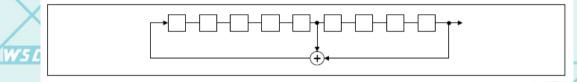
Alternatively. Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a Pseudorandom ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

### **EUT Pseudorandom Frequency Hopping Sequence**

The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first one of 9 consecutive ones; i.e. the shift register is initialized with nine ones.

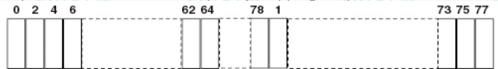
- Number of shift register stages: 9
- Length of pseudo-random sequence: 29-1 = 511 bits
- Longest sequence of zeros: 8 (non-inverted signal)

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Linear Feedback Shift Register for Generation of the PRBS sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:



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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SET WSC

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#### **Conducted Band Edge Measurement** 6.9.

6.9.1.	Test :	Speci	ficat	ion
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$\times$	Test Mode:  Transmitting mode with modulation  1. The testing follows the guidelines in Band-edge Compliance of RF Conducted Emissions of ANSI C63.10:2014 Measurement Guidelines.  2. Set to the maximum power setting and enable the EUT transmit continuously.  3. Set RBW = 100 kHz (≥1% span=10MHz), VBW = 300 kHz (≥RBW). Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.			
<u>r</u>	Test Method:	ANSI C63.10:2014 W5 [T] W5 [T]		
	Limit:	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	W5 CT	
CT°	Test Setup:			
ET T	Took Mode:	Spectrum Analyzer		
	rest wode:	THE CT.	WELT	
Z	Test Procedure:	<ul> <li>Compliance of RF Conducted Emissions of ANSI C63.10:2014 Measurement Guidelines.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Set RBW = 100 kHz (≥1% span=10MHz), VBW = 300 kHz (≥RBW). Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.</li> <li>Enable hopping function of the EUT and then repeat step 2 and 3.</li> </ul>	WSET	
	Test Result:	PASS	Weer	
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Test Result:

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## 6.10. Conducted Spurious Emission Measurement

6.10.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (d)						
Test Method: ANSI C63.10:2014							
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.						

**Test Setup:** Spectrum Analyzei Transmitting mode with modulation Test Mode: The testing follows the guidelines in Spurious RF Conducted Emissions of ANSI C63.10:2014 Measurement Guidelines 2. 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. 3. Set to the maximum power setting and enable the **Test Procedure:** EUT transmit continuously. 4. 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. 5. 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.

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W5C	7°	W5 ET	WSET	WSET	W5 CT	
					/	

**PASS** 

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Mahahaha World Standardization Certification & Testing Group (Shenzhen) Co., ltd. **ac-MRA** Mahalalaha W5 CT Report No.: WSCT-ANAB-R&E240900045A-BT Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) KEYSIGHT Input: RF PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Powe Avg|Hold: 100/100 Trig: Free Run Mkr1 2.440 985 0 GHz 1 Spectrum Ref LvI Offset 4.28 dB Ref Level 14.28 dBm 9.95 dBm Scale/Div 10 dB #Video BW 300 kHz Center 2.4410000 GHz #Res BW 100 kHz Span 1.500 MHz Sweep 1.00 ms (1001 pts) Sep 10, 2024 .... 150 Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission Spectrum Analyzer 1 Swept SA + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) KEYSIGHT Input: RF PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Power Avg|Hold: 10/10 Trig: Free Run #Atten: 20 dB Preamp: Off PNNNNN Mkr1 2.441 4 GHz Ref LvI Offset 4.28 dB Ref Level 14.28 dBm 9.39 dBm Scale/Div 10 dB Start 30 MHz #Res BW 100 kHz Stop 26.50 GHz Sweep ~2.53 s (30001 pts) #Video BW 300 kHz Function Value Function Width 2.441 4 GHz 25.829 4 GHz 5.047 8 GHz 7.334 8 GHz 9.918 3 GHz 9.39 dBm -57.85 dBm -61.42 dBm -62.70 dBm -62.60 dBm Sep 10, 2024 4:53:42 PM ation& Testi ADD: Building A-B, Baoli'an Industrial Park, No. 58 and 60, Tangtou Avenue, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China. 深圳世标检测认证股份有限公司 FAX: 0086-755-86376605

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Mahahaha World Standardization Certification & Testing Group (Shenzhen) Co., ltd. **ac-MRA** Mahalalak W5 CT Report No.: WSCT-ANAB-R&E240900045A-BT Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) KEYSIGHT Input: RF PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Powe Avg|Hold: 100/100 Trig: Free Run Mkr1 2.479 998 5 GHz 1 Spectrum Ref LvI Offset 4.33 dB Ref Level 14.33 dBm 9.85 dBm Scale/Div 10 dB #Video BW 300 kHz Center 2.4800000 GHz #Res BW 100 kHz Span 1.500 MHz Sweep 1.00 ms (1001 pts) Sep 10, 2024 .... 1 5 6 Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission Spectrum Analyzer 1 Swept SA + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) KEYSIGHT Input: RF PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Power Avg|Hold: 10/10 Trig: Free Run #Atten: 20 dB Preamp: Off PNNNNN Mkr1 2.480 2 GHz Ref LvI Offset 4.33 dB Ref Level 14.33 dBm 9.52 dBm Scale/Div 10 dB <mark>⊘</mark>2 Start 30 MHz #Res BW 100 kHz Stop 26.50 GHz Sweep ~2.53 s (30001 pts) #Video BW 300 kHz Function Value Function Width 9.52 dBm -56.47 dBm -58.25 dBm -61.87 dBm -61.79 dBm 4.959 6 GHz 7.247 5 GHz 9.889 2 GHz Sep 10, 2024 4:55:14 PM ation& Testi Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China. ADD: Building A-B, Baoli'an Industrial Park, No. 58 and 60, Tangtou Avenue, 深圳世标检测认证股份有限公司 FAX: 0086-755-86376605

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#### **Radiated Spurious Emission Measurement** 6.11.

## 6.11.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209
Test Method:	ANSI C63.10:2014
Frequency Range:	9 kHz to 25 GHz
Measurement Distance:	3 m
Antenna Polarization: W5 []	Horizontal & Vertical W5 [7]
	Frequency Detector RBW VBW Remark

Receiver Setup:

Detector	KDVV	VDVV	Remark
Quasi-peak	200Hz	1kHz	Quasi-peak Value
Quasi-peak	9kHz	30kHz	Quasi-peak Value
	WSCT		WSCT
Quasi-peak	100KHz	300KHz	Quasi-peak Value
Peak	1MHz	3MHz	Peak Value
Peak	1MHz	10Hz	Average Value
	Quasi-peak Quasi-peak Quasi-peak Peak	Quasi-peak 200Hz Quasi-peak 9kHz  Quasi-peak 100KHz Peak 1MHz	Quasi-peak200Hz1kHzQuasi-peak9kHz30kHzQuasi-peak100KHz300KHzPeak1MHz3MHz

Frequency V5 C1	Field Strength	Measurement
Frequency	(microvolts/meter)	Distance (meters)
0.009-0.490	2400/F(KHz)	300
0.490-1.705	24000/F(KHz)	30
1.705-30	30	30
30-88	100	/43 <i>5 L T</i>
88-216	150	3
216-960	200	3
Above 960	500	3

Limit:

Frequency	Field Strength (microvolts/meter)	Measurement Distance (meters)	Detector
Abaya 4CU-	500	3	Average
Frequency Above 1GHz	5000/5/7	3	Peak

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For radiated emissions below 30MHz

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Distance = 3m Computer Pre -Amplifier EUT Receiver Ground Plane

Test setup:

30MHz to 1GHz

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W5C1





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Coaxial cable (1m) Above 1GHz Receiver-Pre-amplifier« Coaxial cable (1m) **Test Mode:** Transmitting mode with modulation The testing follows the guidelines in Spurious Radiated Emissions of ANSI C63.10:2014 Measurement Guidelines. For the radiated emission test below 1GHz: The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum

Test Procedure:

For the radiated emission test above 1GHz:

Place the measurement antenna on a turntable with 1.5 meter above ground, which is away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for

receiving the maximum signal. The final

reading. A pre-amp and a high PASS filter are used

for the test in order to get better signal level.

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Test results:

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measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

- Set to the maximum power setting and enable the EUT transmit continuously.
- 4. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz; VBW≥RBW;
    Sweep = auto; Detector function = peak; Trace = max hold for peak
  - (3) For average measurement: use duty cycle correction factor method per
     15.35(c). Duty cycle = On time/100 milliseconds
     On time =N1\*L1+N2\*L2+...+Nn-1\*LNn-1+Nn\*Ln
     Where N1 is number of type 1 pulses, L1 is length of type 1 pulses, etc.
     Average Emission Level = Peak Emission Level + 20\*log(Duty cycle)
  - Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

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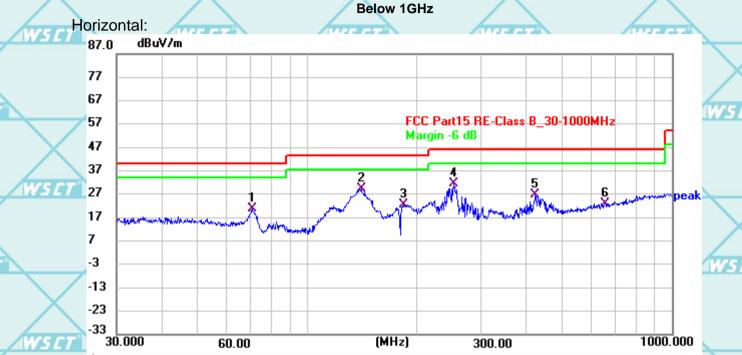
## 6.11.2. Test Data(worst case)

Please refer to following diagram for individual

The worst mode is GFSK

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	
1	70.7695	42.94	-22.36	20.58	40.00	-19.42	QP	
2 *	140.9585	49.47	-19.97	29.50	43.50	-14.00	QP	
3	184.0053	45.11	-22.58	22.53	43.50	-20.97	QP	
4	253.5031	53.20	-21.65	31.55	46.00	-14.45	QP	
5	423.1691	44.02	-17.10	26.92	46.00	-19.08	QP	
6	657.1058	35.95	-12.82	23.13	46.00	-22.87	QP	

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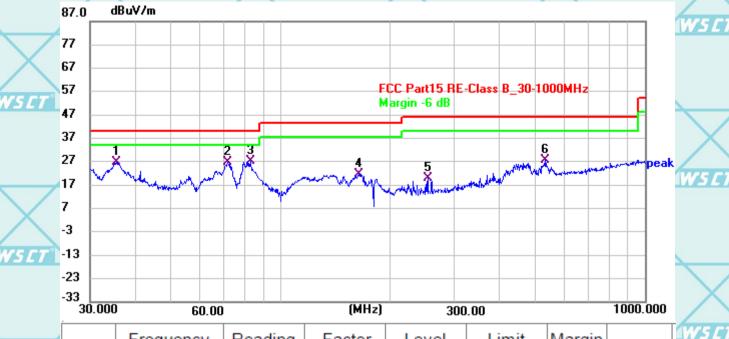






Report No.: WSCT-ANAB-R&E240900045A-BT Vertical:

**W5**CT°



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	
1	35.4526	46.41	-19.46	26.95	40.00	-13.05	QP	Ī
2	71.8320	49.53	-22.55	26.98	40.00	-13.02	QP	
3 *	82.8658	51.27	-23.99	27.28	40.00	-12.72	QP	Ī
4	164.5465	41.85	-20.02	21.83	43.50	-21.67	QP	
5	253.8367	41.40	-21.64	19.76	46.00	-26.24	QP	Ī
6	532.4300	42.50	-14.93	27.57	46.00	-18.43	QP	Ī

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Note1:

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Freq. = Emission frequency in MHz

Reading level (dBµV) = Receiver reading

Corr. Factor (dB) = Antenna factor + Cable loss - Amplifier factor.

Measurement  $(dB\mu V)$  = Reading level  $(dB\mu V)$  + Corr. Factor (dB)

Limit (dBµV) = Limit stated in standard

Margin (dB) = Measurement (dB $\mu$ V) – Limits (dB $\mu$ V)

e 150 kHz to 30MHz.

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W5C7

### **Above 1GHz**

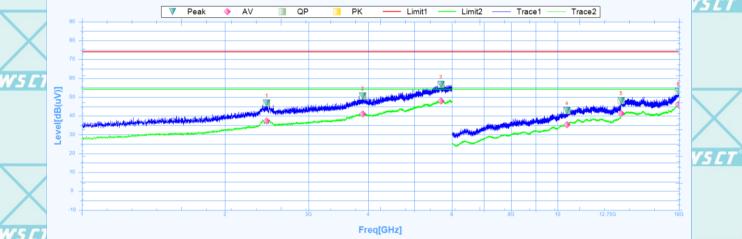
Note 1: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental 15 L signal.

Note 2: The spurious above 18G is noise only, do not show on the report.

**GFSK** 

Low channel: 2402MHz

Horizontal:



	Suspu	ited Data Lis	st									
	NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict	
	1	2447.5000	46.75	27.42	19.33	74	-27.25	34	Horizontal	PK	Pass	7
	1	2447.5000	37.21	27.42	9.79	54	-16.79	34	Horizontal	AV	Pass	
/	2	3895.6250	50.53	29.45	21.08	74	-23.47	219.3	Horizontal	PK	Pass	
\	2	3895.6250	41.03	29.45	11.58	54	-12.97	219.3	Horizontal	AV	Pass	
	3	5686.8750	56.71	32.3	24.41	74	-17.29	75.8	Horizontal	PK	Pass	
9	3	5686.8750	47.88	32.3	15.58	54	-6.12	75.8	Horizontal	AV	Pass	
	4	10473.0000	42.72	13.83	28.89	74	-31.28	-0.1	Horizontal	PK	Pass	
	4	10473.0000	35.38	13.83	21.55	54	-18.62	-0.1	Horizontal	AV	Pass	
	5	13608.0000	48.07	17.99	30.08	74	-25.93	2.9	Horizontal	PK	Pass	
	5	13608.0000	41.2	17.99	23.21	54	-12.8	2.9	Horizontal	AV	Pass	7
	6	17946.0000	52.88	23.55	29.33	74	-21.12	75	Horizontal	PK	Pass	
/	6	17946.0000	46.08	23.55	22.53	54	-7.92	75	Horizontal	AV	Pass	

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W5 CT



Vertical:

▼ Peak AV QP Limit1 Limit2 Trace1 Trace2

WSCI	Suspu	ited Data Lis	st		<u> </u>							
	NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict	X
	1	2481.8750	45.89	27.54	18.35	74	-28.11	188.2	Vertical	PK	Pass	
	1	2481.8750	37.86	27.54	10.32	54	-16.14	188.2	Vertical	AV	Pass	15 C I
	2	3884.3750	50.01	29.42	20.59	74	-23.99	4.5	Vertical	PK	Pass	
X	2	3884.3750	41.09	29.42	11.67	54	-12.91	4.5	Vertical	AV	Pass	
	3	5640.6250	56.75	32.22	24.53	74	-17.25	360.2	Vertical	PK	Pass	
WELL	3	5640.6250	47.41	32.22	15.19	54	-6.59	360.2	Vertical	AV	Pass	

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-34.52

-23.2

-27.79

-16.39

-20.49

-7.88

243.6

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22.5

22.5

359.5

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Vertical

Vertical

Vertical

Vertical

Vertical

Vertical

PK

ΑV

PK

ΑV

PΚ

ΑV

Pass

Pass

Pass

Pass

Pass

Pass

Freq[GHz]

WE CT	WELT	WEET	WELT	WELT

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21.13

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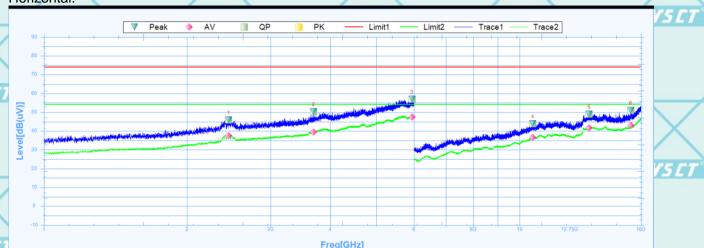




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Middle channel: 2441MHz

Horizontal:



W5 CT

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	Suspu	ted Data Lis	t									
	NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict	
	1	2446.2500	45.94	27.42	18.52	74	-28.06	359	Horizontal	PK	Pass	7
	1	2446.2500	37.57	27.42	10.15	54	-16.43	359	Horizontal	AV	Pass	
X	2	3691.8750	50.34	28.96	21.38	74	-23.66	358.7	Horizontal	PK	Pass	
	2	3691.8750	39.43	28.96	10.47	54	-14.57	358.7	Horizontal	AV	Pass	
W5 E1	3	5941.8750	56.97	32.71	24.26	74	-17.03	49.8	Horizontal	PK	Pass	
WELS.	3	5941.8750	47.5	32.71	14.79	54	-6.5	49.8	Horizontal	AV	Pass	
	4	10666.5000	43.82	14.54	29.28	74	-30.18	351.1	Horizontal	PK	Pass	
	4	10666.5000	36.66	14.54	22.12	54	-17.34	351.1	Horizontal	AV	Pass	
	5	14011.5000	49	19.12	29.88	74	-25	1.1	Horizontal	PK	Pass	
	5	14011.5000	41.76	19.12	22.64	54	-12.24	1.1	Horizontal	AV	Pass	7
\	6	17142.0000	50.92	20	30.92	74	-23.08	288.6	Horizontal	PK	Pass	
X	6	17142.0000	43	20	23	54	-11	288.6	Horizontal	AV	Pass	
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WSCT V



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W5 CT





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W5 CT

Vertical: ▼ Peak Limit1 Limit2 Trace1 Trace2

Freq[GHz]

W5CT

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Ц	Suspu	ited Data Lis	st								
	NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict
	1	2455.6250	45.87	27.45	18.42	74	-28.13	179	Vertical	PK	Pass
	1	2455.6250	36.96	27.45	9.51	54	-17.04	179	Vertical	AV	Pass
/	2	4325.6250	50.7	30.29	20.41	74	-23.3	53.4	Vertical	PK	Pass
	2	4325.6250	41.82	30.29	11.53	54	-12.18	53.4	Vertical	AV	Pass
•	3	5968.7500	57.02	32.75	24.27	74	-16.98	57	Vertical	PK	Pass
7	3	5968.7500	47.43	32.75	14.68	54	-6.57	57	Vertical	AV	Pass
	4	11074.5000	44.88	15.85	29.03	74	-29.12	343.5	Vertical	PK	Pass
	4	11074.5000	37.51	15.85	21.66	54	-16.49	343.5	Vertical	AV	Pass
	5	14461.5000	49.37	18.66	30.71	74	-24.63	360.1	Vertical	PK	Pass
	5	14461.5000	41.87	18.66	23.21	54	-12.13	360.1	Vertical	AV	Pass
	6	17905.5000	53.37	23.3	30.07	74	-20.63	286.2	Vertical	PK	Pass
J	6	17905.5000	45.88	23.3	22.58	54	-8.12	286.2	Vertical	AV	Pass

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W5 CT

W5C1 WS ET WS CT W5 E1

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W5 CT

W5C1

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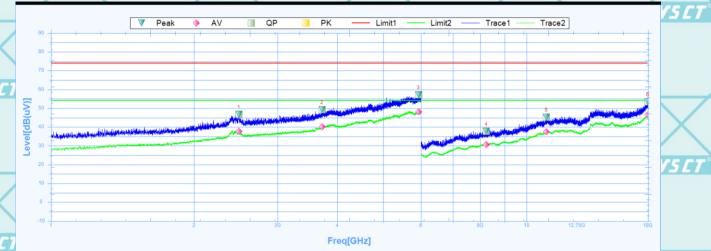




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High channel: 2480MHz

### Horizontal:



W5 CT

	Suspu	ited Data Lis	st									
	NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict	X
	1	2484.3750	46.82	27.55	19.27	74	-27.18	3.1	Horizontal	PK	Pass	VS CI
	1	2484.3750	37.75	27.55	10.2	54	-16.25	3.1	Horizontal	AV	Pass	
	2	3715.0000	49.27	29.02	20.25	74	-24.73	220.4	Horizontal	PK	Pass	
	2	3715.0000	40.17	29.02	11.15	54	-13.83	220.4	Horizontal	AV	Pass	
C I	3	5930.0000	57.1	32.69	24.41	74	-16.9	280.2	Horizontal	PK	Pass	
	3	5930.0000	48.16	32.69	15.47	54	-5.84	280.2	Horizontal	AV	Pass	
	4	8235.0000	37.71	8.84	28.87	74	-36.29	247.2	Horizontal	PK	Pass	/
	4	8235.0000	30.75	8.84	21.91	54	-23.25	247.2	Horizontal	AV	Pass	
	5	11005.5000	45.23	15.64	29.59	74	-28.77	271	Horizontal	PK	Pass	
	5	11005.5000	37.59	15.64	21.95	54	-16.41	271	Horizontal	AV	Pass	VS CT
	6	17988.0000	53.46	23.84	29.62	74	-20.54	357.8	Horizontal	PK	Pass	
	6	17988.0000	46.47	23.84	22.63	54	-7.53	357.8	Horizontal	AV	Pass	
					/ \							

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Vertical:



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NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict	
1	2402.5000	46.33	27.27	19.06	74	-27.67	342.4	Vertical	PK	Pass	
1	2402.5000	37.58	27.27	10.31	54	-16.42	342.4	Vertical	AV	Pass	2
2	3297.5000	47.61	28.38	19.23	74	-26.39	2.2	Vertical	PK	Pass	
2	3297.5000	37.46	28.38	9.08	54	-16.54	2.2	Vertical	AV	Pass	
3	5983.1250	57.3	32.77	24.53	74	-16.7	312.6	Vertical	PK	Pass	
3	5983.1250	47.65	32.77	14.88	54	-6.35	312.6	Vertical	AV	Pass	
4	11391.0000	44.71	15.83	28.88	74	-29.29	-0.1	Vertical	PK	Pass	
4	11391.0000	37.37	15.83	21.54	54	-16.63	-0.1	Vertical	AV	Pass	
5	14232.0000	49.75	18.89	30.86	74	-24.25	136	Vertical	PK	Pass	
5	14232.0000	41.65	18.89	22.76	54	-12.35	136	Vertical	AV	Pass	
6	17953.5000	54.88	23.6	31.28	74	-19.12	4.8	Vertical	PK	Pass	2
6	17953.5000	46.11	23.6	22.51	54	-7.89	4.8	Vertical	AV	Pass	

#### Note:

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

2. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.

3. 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.

4. Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (GFSK) was submitted only.

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W5 CI

# 8 Test Setup Photographs

Please refer to Annex "Set Up Photos-15C" for test setup photos \*\*\*\*\*END OF REPORT\*\*\*\*

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