



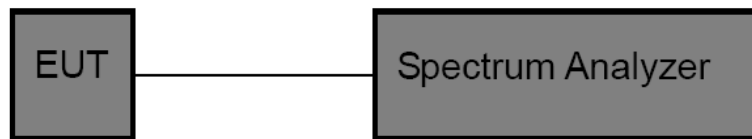
3.8. Dwell Time

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(iii) / RSS-247 5.1 d

Section	Test Item	Limit
15.247 (a)(iii) RSS-247 5.1 d	Average Time of Occupancy	0.4 sec

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. Spectrum Setting:
 - (1) Spectrum Setting: RBW=1MHz, VBW $\geq$ RBW.
 - (2) Use video trigger with the trigger level set to enable triggering only on full pulses.
 - (3) Sweep Time is more than once pulse time.
 - (4) Set the center frequency on any frequency would be measure and set the frequency span to zero.
 - (5) Measure the maximum time duration of one single pulse.
 - (6) Set the EUT for packet transmitting.

Test Mode

Please refer to the clause 2.4.

**Test Result**

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.370	320	0.118	≤0.4	PASS
DH3	Ant1	Hop	1.619	160	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.858	80	0.229	≤0.4	PASS
2DH1	Ant1	Hop	0.376	330	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.620	140	0.227	≤0.4	PASS
2DH5	Ant1	Hop	2.860	100	0.286	≤0.4	PASS
3DH1	Ant1	Hop	0.376	330	0.124	≤0.4	PASS
3DH3	Ant1	Hop	1.618	170	0.275	≤0.4	PASS
3DH5	Ant1	Hop	2.863	70	0.2	≤0.4	PASS

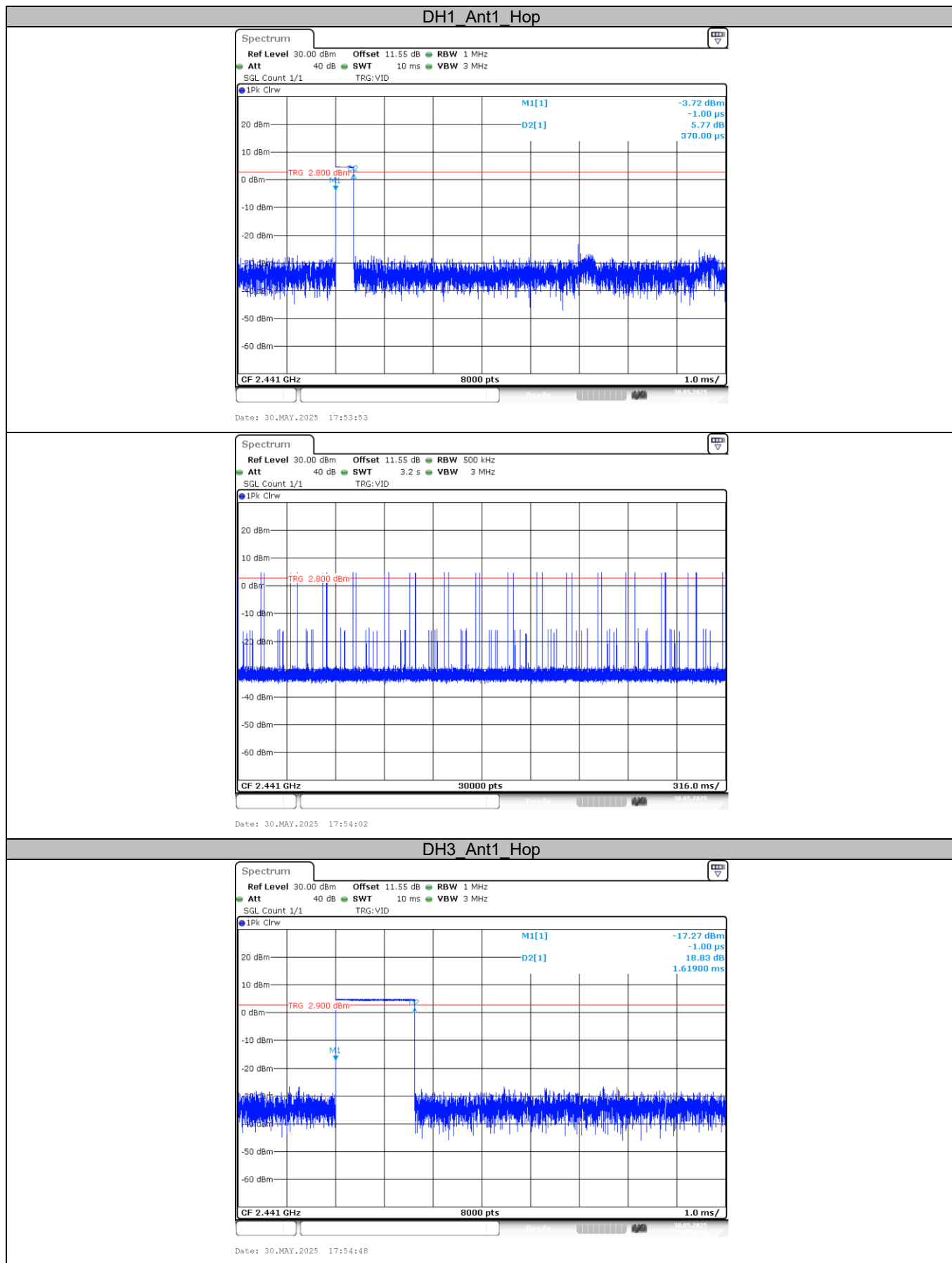
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Test plot as follows:

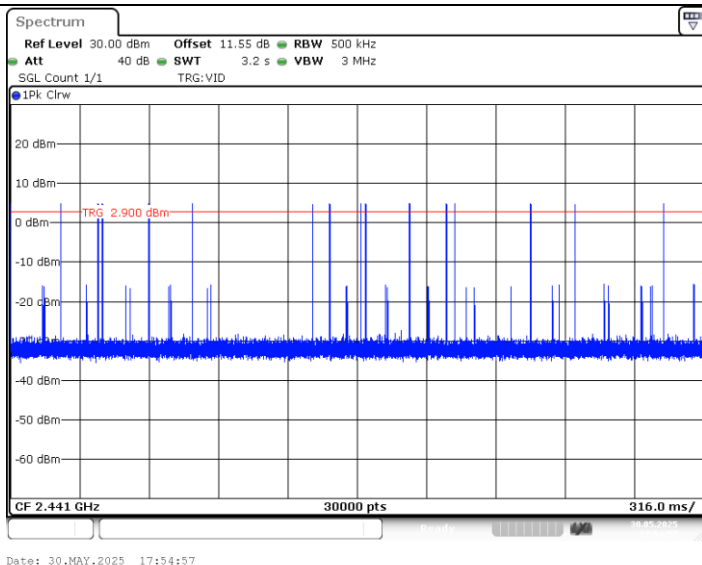


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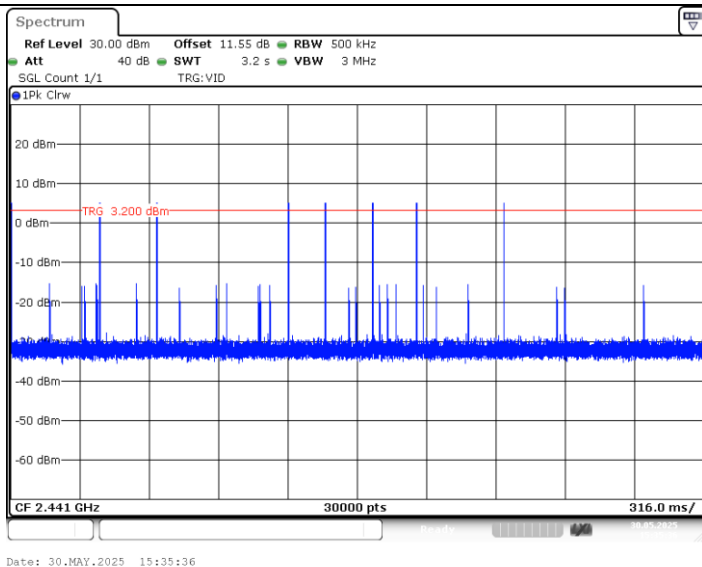
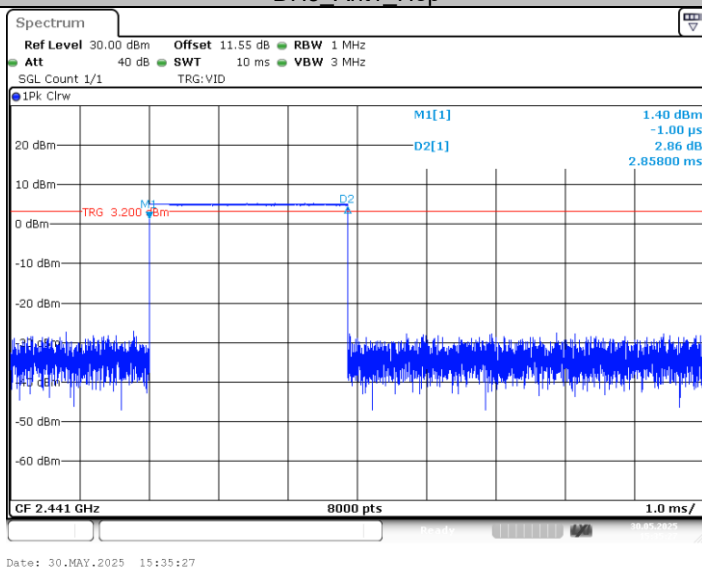
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DH5_Ant1_Hop



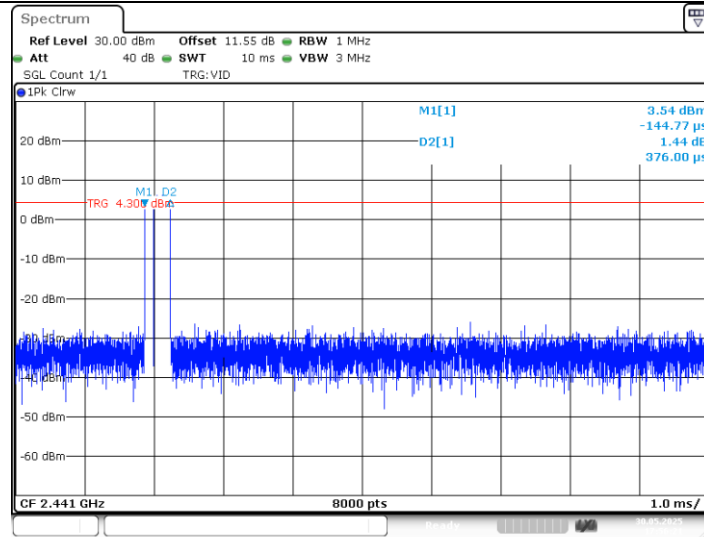
2DH1_Ant1_Hop

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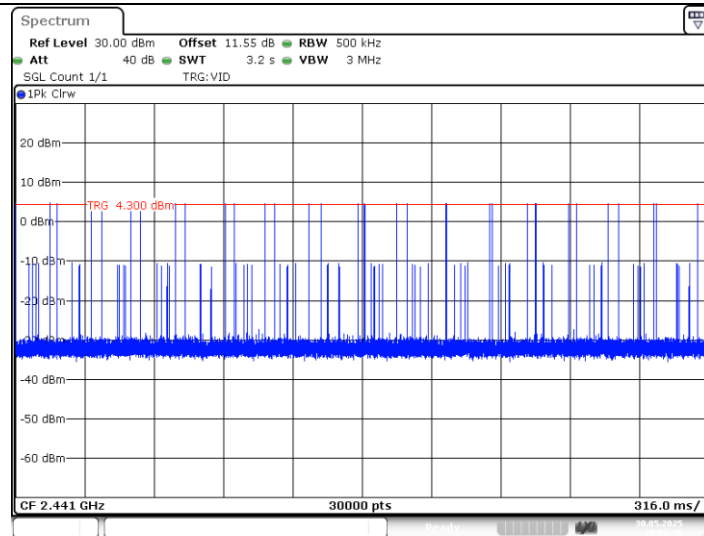
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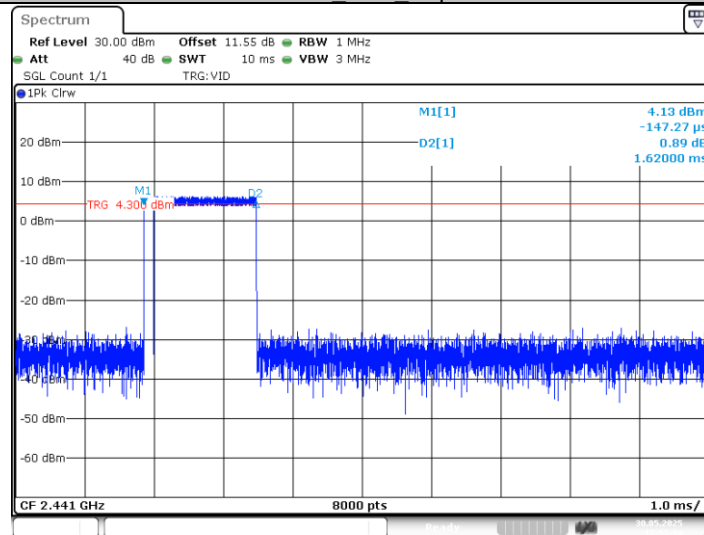


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Date: 30.MAY.2025 17:56:30

2DH3 Ant1 Hop



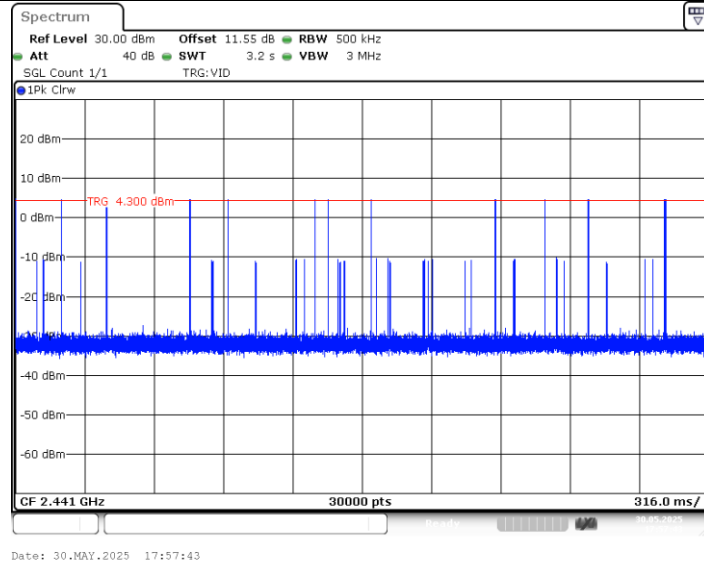
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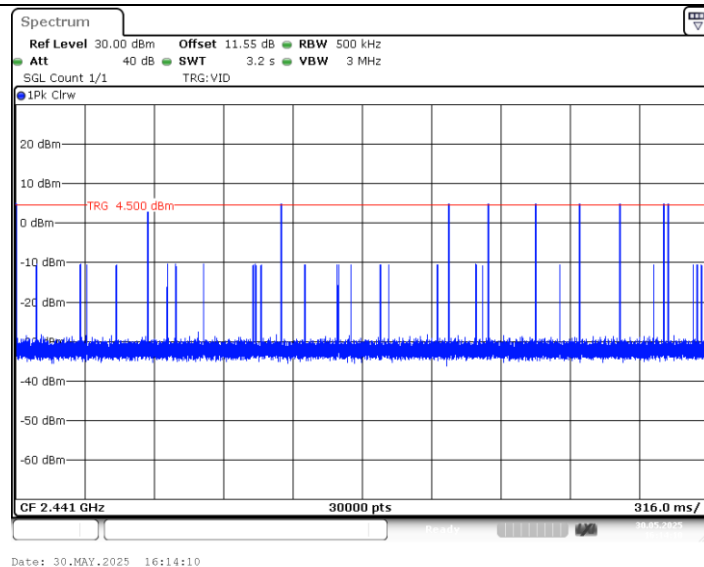
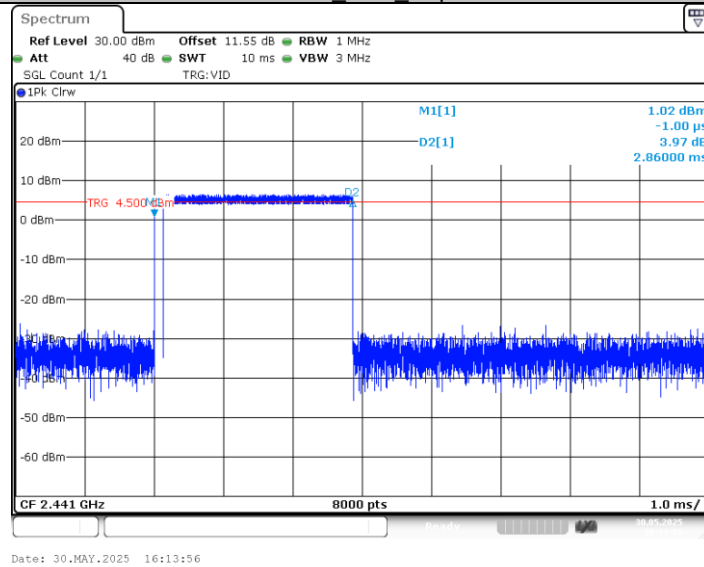
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2DH5_Ant1_Hop



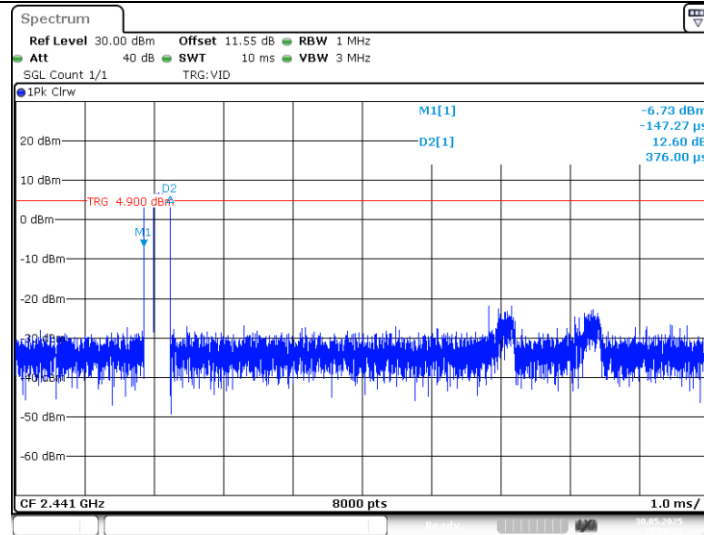
3DH1_Ant1_Hop

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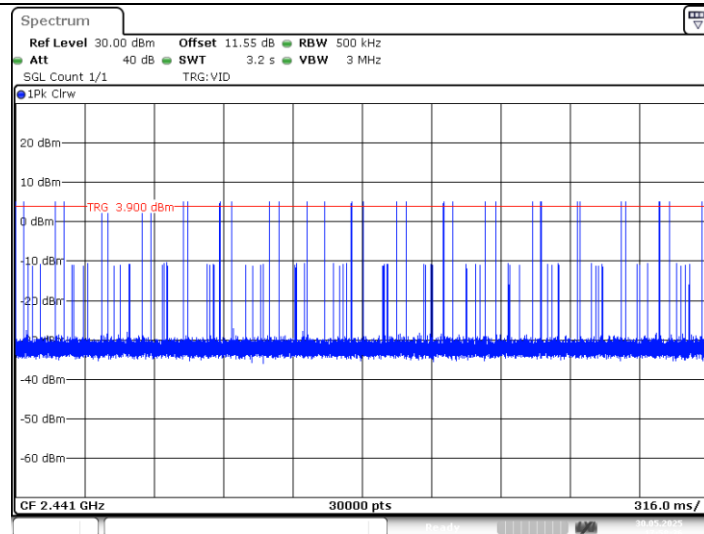
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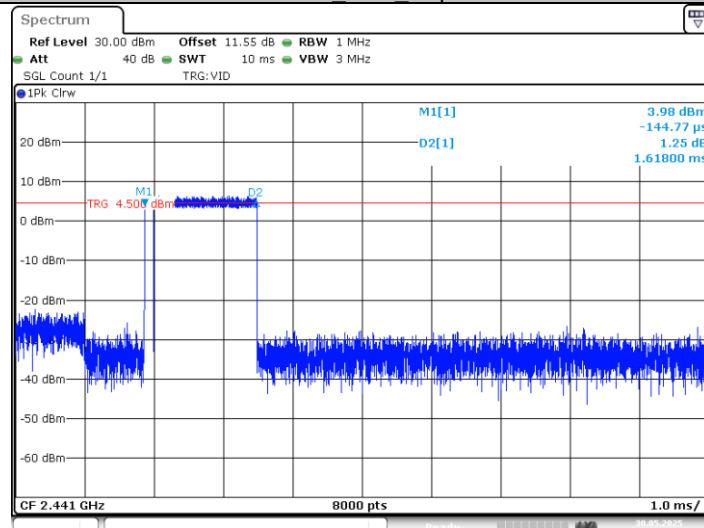


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Date: 30.MAY.2025 17:58:36

3DH3 Ant1 Hop



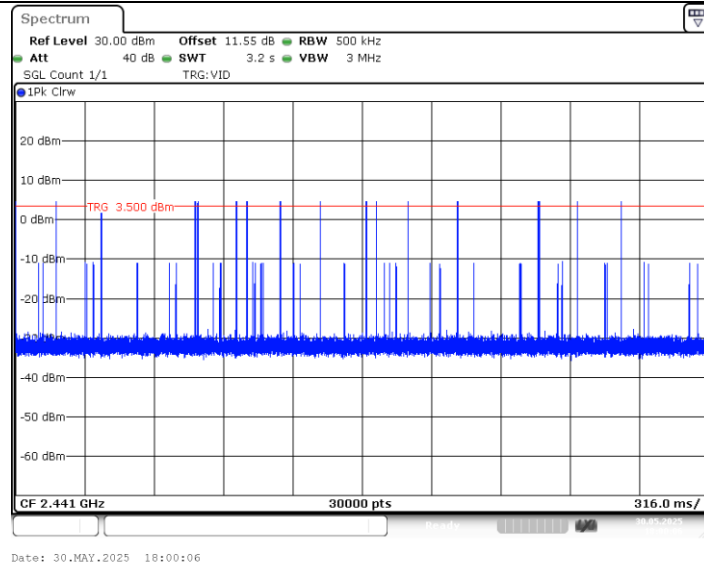
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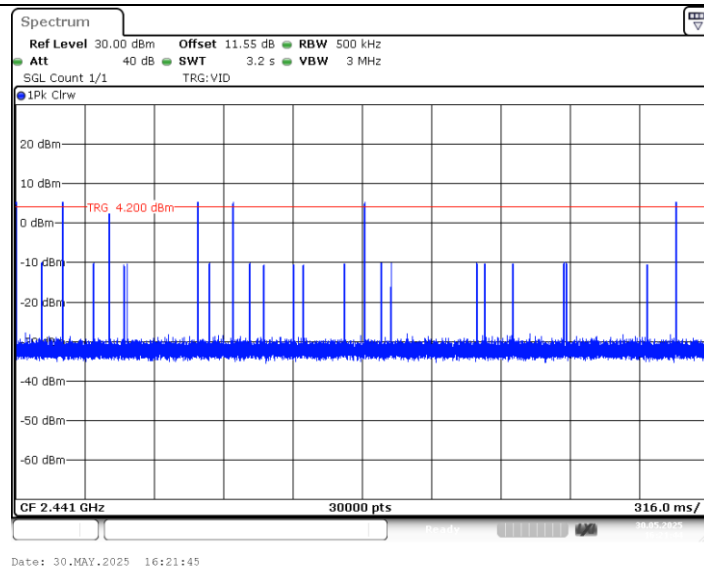
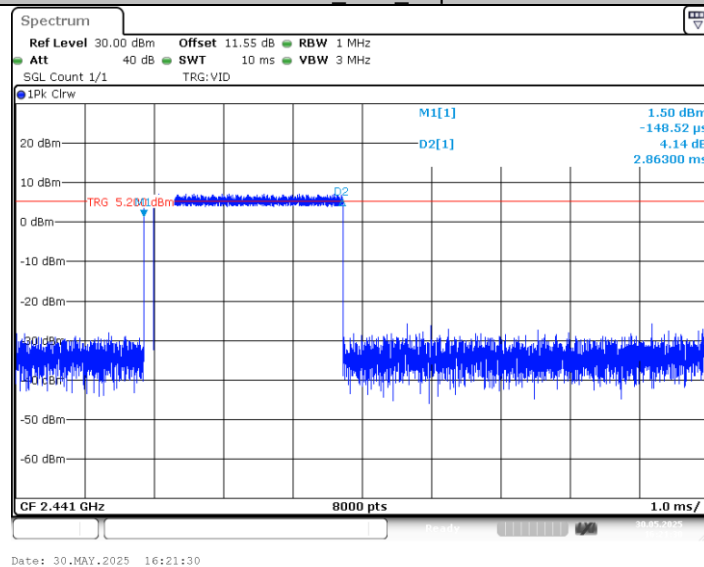
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3DH5_Ant1_Hop



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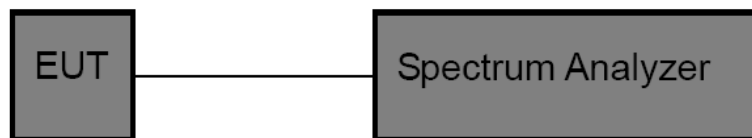
3.9. Peak Output Power

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(1) / RSS-247 5.4 b

Section	Test Item	Limit	Frequency Range (MHz)
FCC CFR 47 Part 15.247 (b)(1)	Maximum Conducted Output Power	Hopping Channels ≥ 75 , Power $< 1\text{W}$ (30dBm); Others $< 125\text{mW}$ (21dBm)	2400~2483.5
ISED RSS-247 5.4 d	Maximum Conducted Output Power	1 Watt or 30dBm	2400~2483.5
	EIRP	4 Watt or 36dBm	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. Spectrum Setting:
 - (1) Set RBW $> 20\text{dB}$ Bandwidth.
 - (2) Set VBW $\geq$ RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.
 - (6) Span = Approximately five times the 20dB bandwidth, centered on a hopping channel.

Test Mode

Please refer to the clause 2.4.

**Test Result**

Test Mode	Antenna	Freq (MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	5.54	≤30	PASS
		2441	5.29	≤30	PASS
		2480	4.67	≤30	PASS
2DH5	Ant1	2402	7.08	≤30	PASS
		2441	6.82	≤30	PASS
		2480	6.05	≤30	PASS
3DH5	Ant1	2402	7.50	≤30	PASS
		2441	7.13	≤30	PASS
		2480	6.31	≤30	PASS

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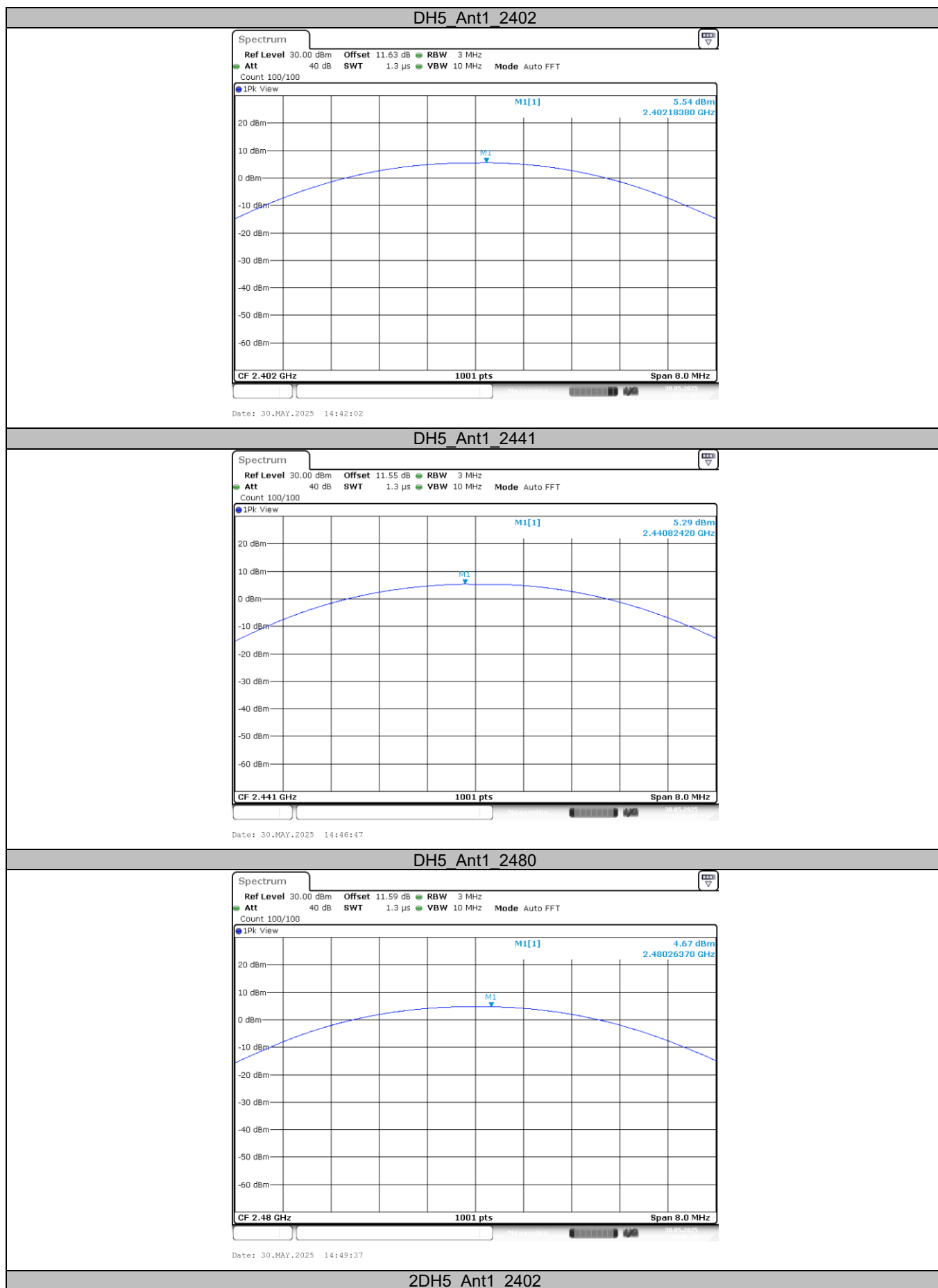
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Test plot as follows:

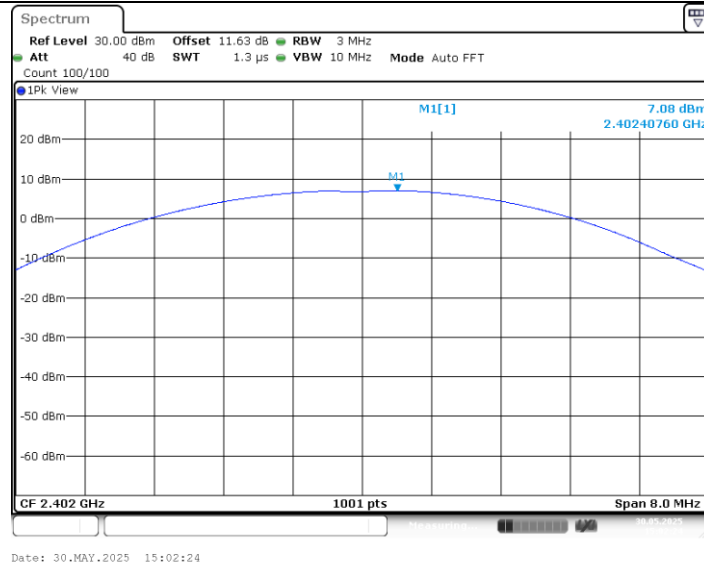


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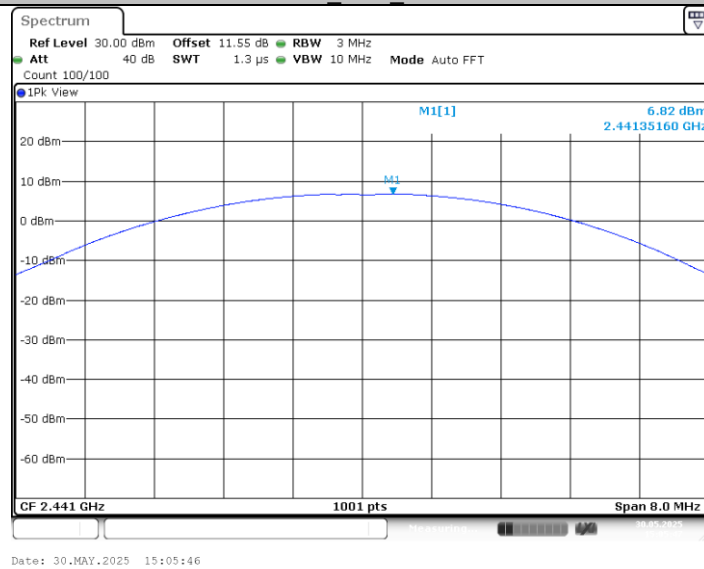
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TRF No: CTC-TR-059_A2

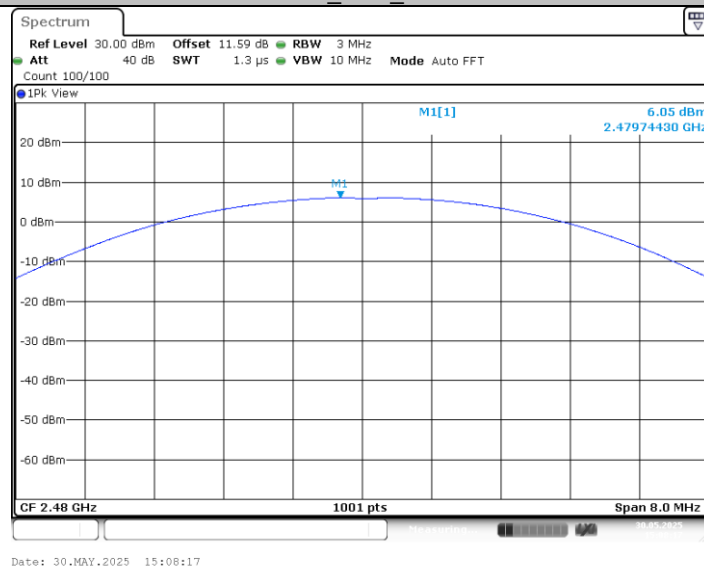
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2DH5_Ant1_2441



2DH5_Ant1_2480



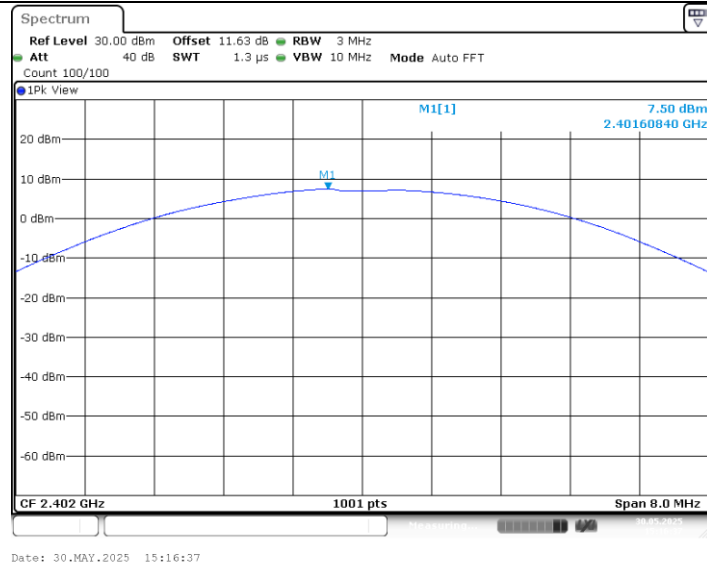
3DH5_Ant1_2402

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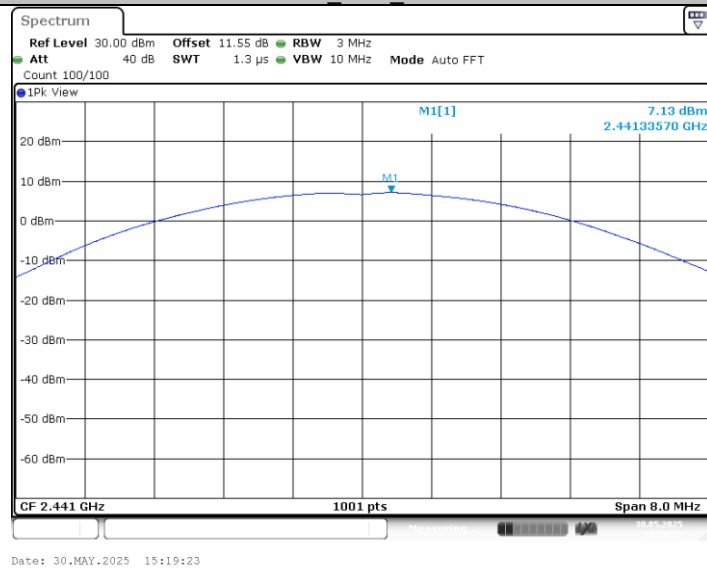
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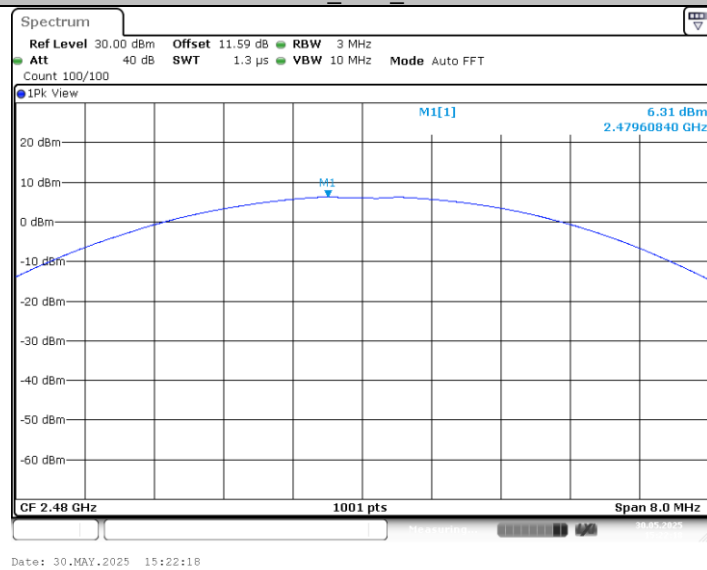
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3DH5_Ant1_2441



3DH5_Ant1_2480



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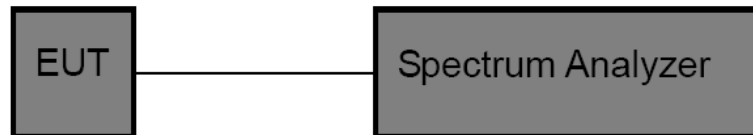


3.10. Duty Cycle

Limit

None, for report purposes only.

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
3. Spectrum Setting:
Set analyzer center frequency to test channel center frequency.
Set the span to 0Hz.
Set the RBW to 10MHz.
Set the VBW to 10MHz.
Detector: Peak.
Sweep time: Auto.
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

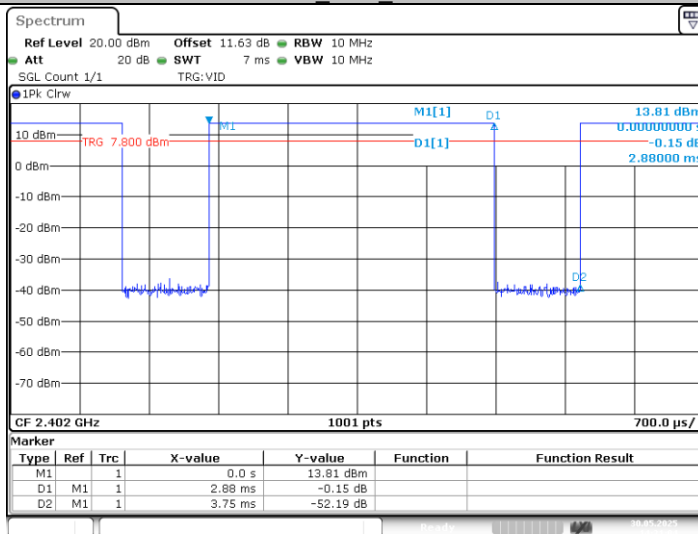
Please refer to the clause 2.4.

Test Result

Test Mode	Frequency (MHz)	Transmission Duration (ms)	Transmission Period (ms)	Duty Cycle (%)	1/T Minimum VBW (kHz)	Final Setting for VBW (kHz)
GFSK	2402	2.88	3.75	76.80	0.35	1
	2441	2.89	3.75	77.07	0.35	1
	2480	2.88	3.75	76.80	0.35	1
$\pi/4$ -DQPSK	2402	2.88	3.75	76.80	0.35	1
	2441	2.87	3.74	76.74	0.35	1
	2480	2.88	3.75	76.80	0.35	1
8-DPSK	2402	2.89	3.75	77.07	0.35	1
	2441	2.89	3.75	77.07	0.35	1
	2480	2.89	3.75	77.07	0.35	1

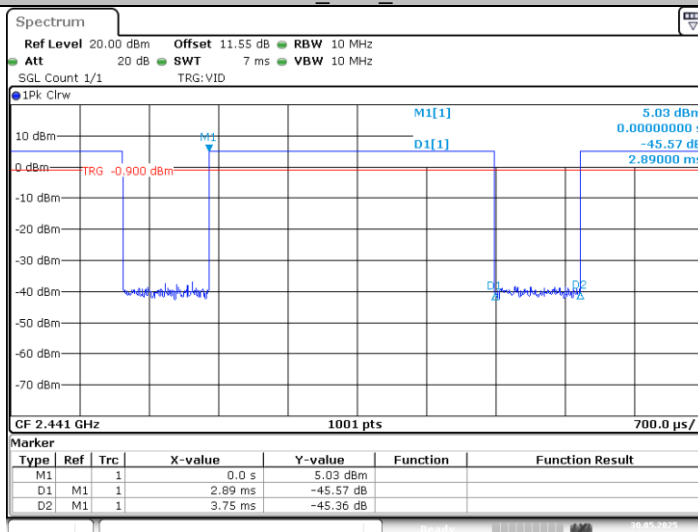


DH5_Ant1_2402



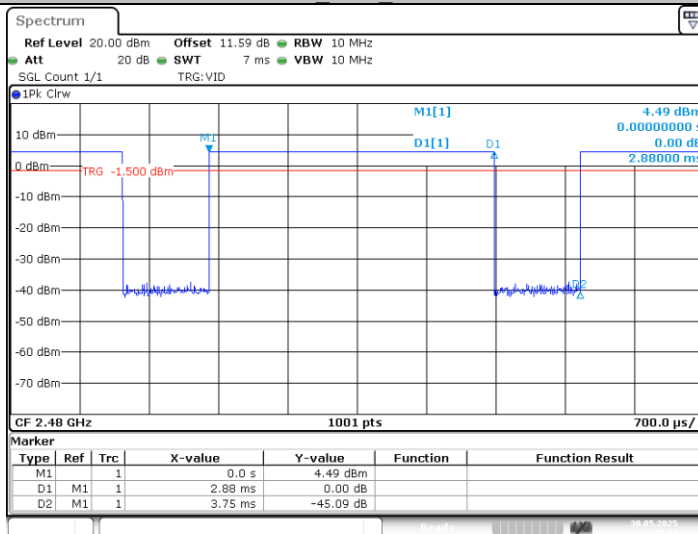
Date: 30.MAY.2025 14:31:04

DH5_Ant1_2441



Date: 30.MAY.2025 14:45:14

DH5_Ant1_2480



Date: 30.MAY.2025 14:47:54

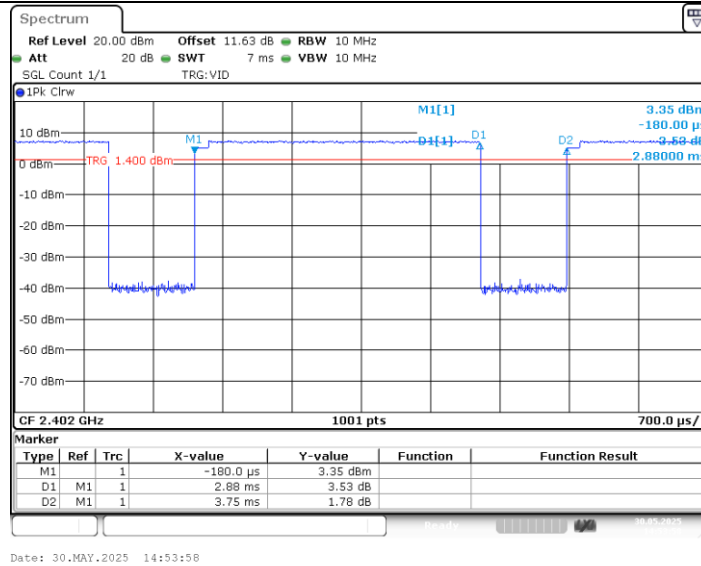
2DH5_Ant1_2402

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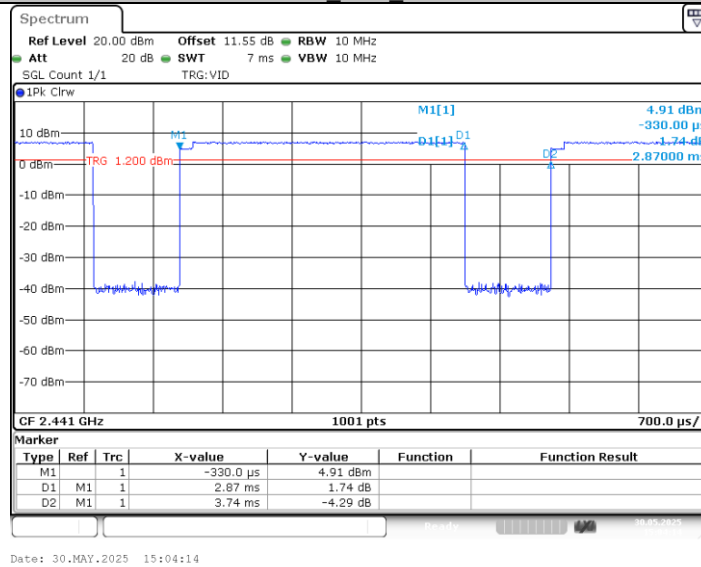
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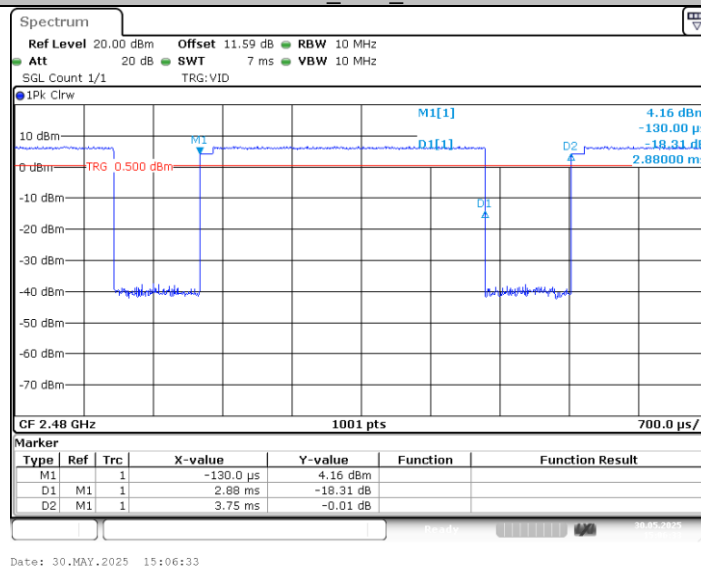
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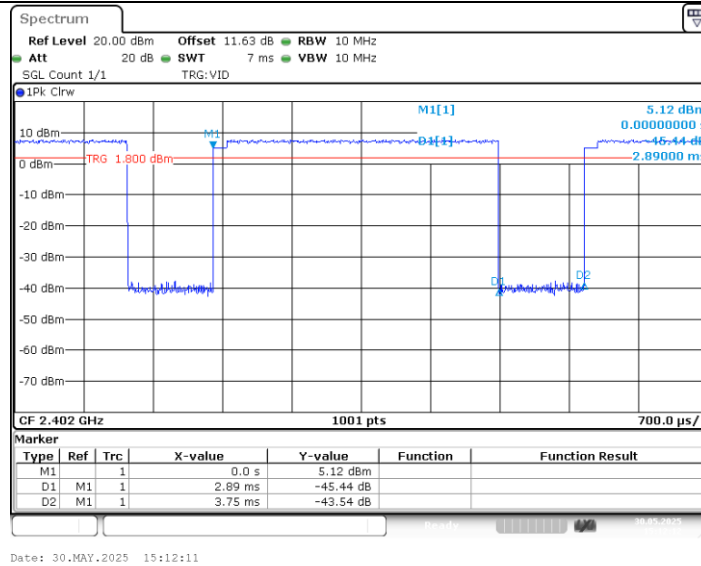
2DH5_Ant1_2441



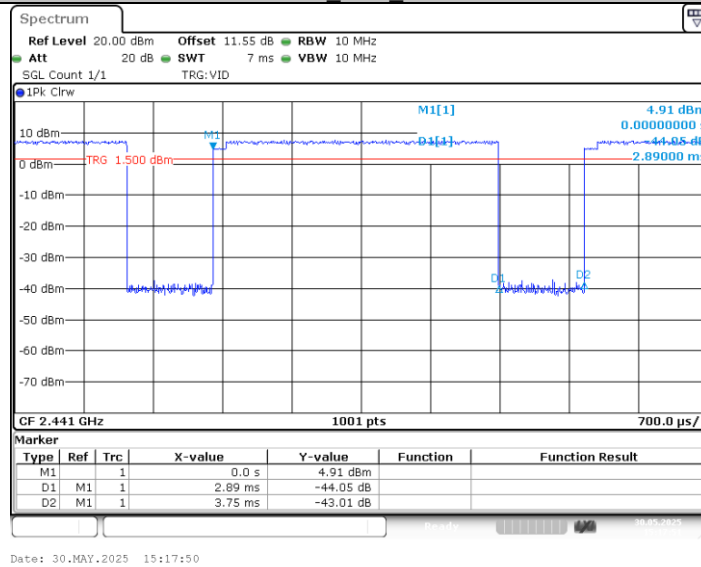
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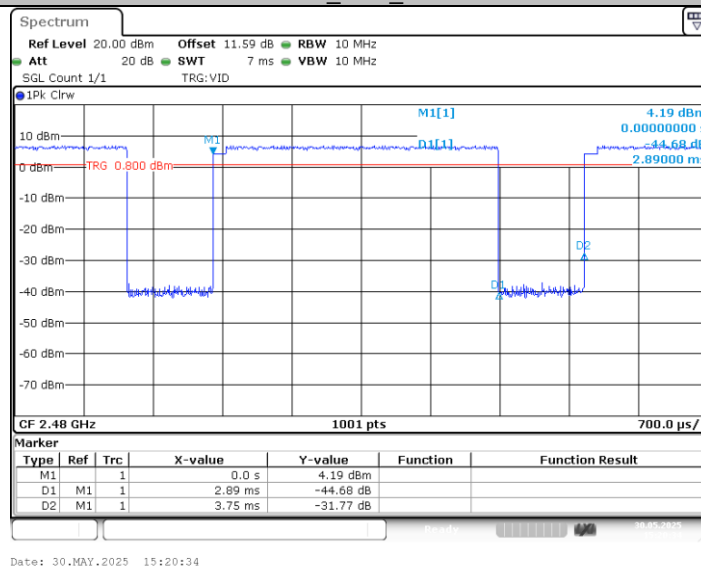
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



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3.11. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(b) (4)

(4)The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Result

Pass.

*****THE END OF REPORT*****