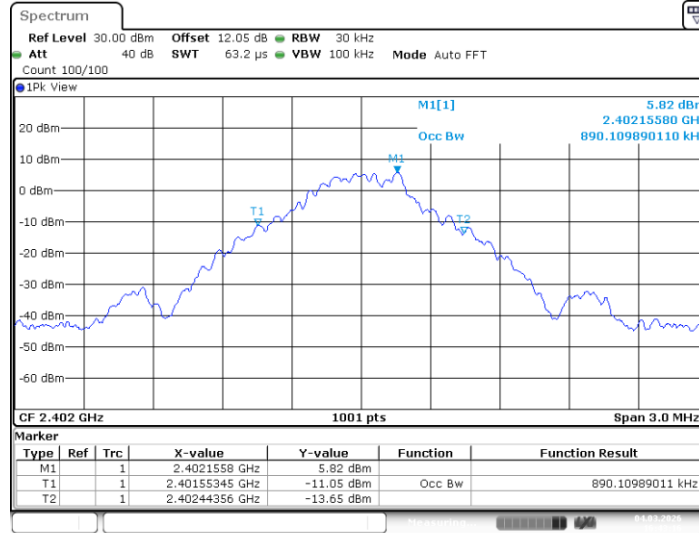




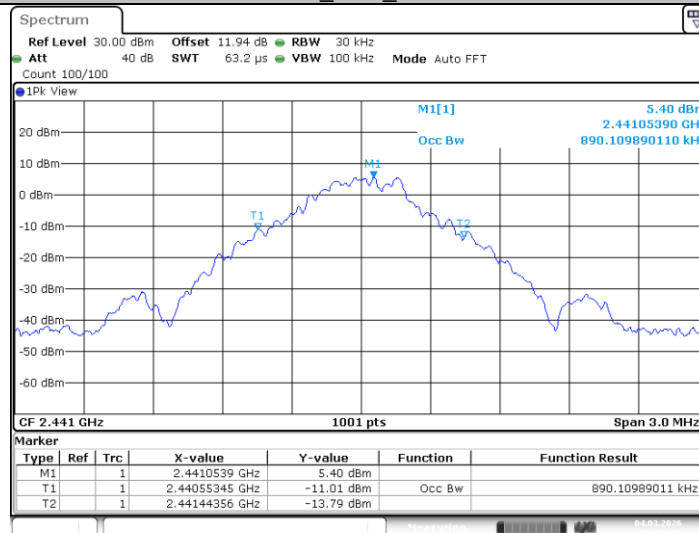
99% Bandwidth:

DH5_Ant1_2402



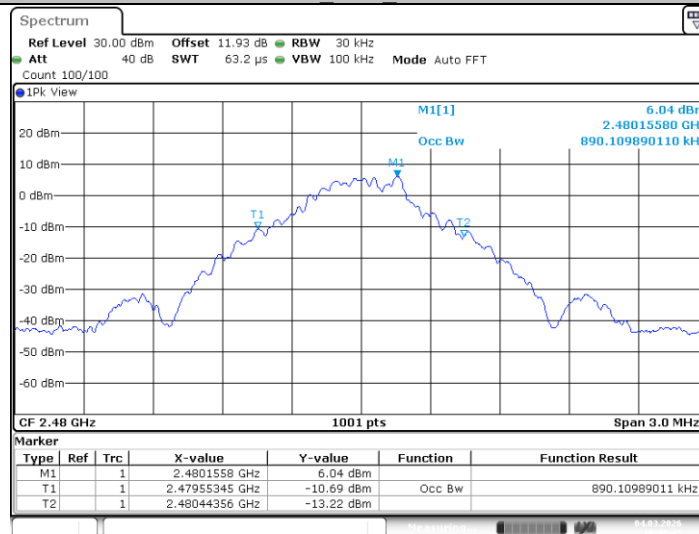
Date: 4.MAR.2026 16:43:16

DH5_Ant1_2441



Date: 4.MAR.2026 16:45:46

DH5_Ant1_2480



Date: 4.MAR.2026 16:49:42

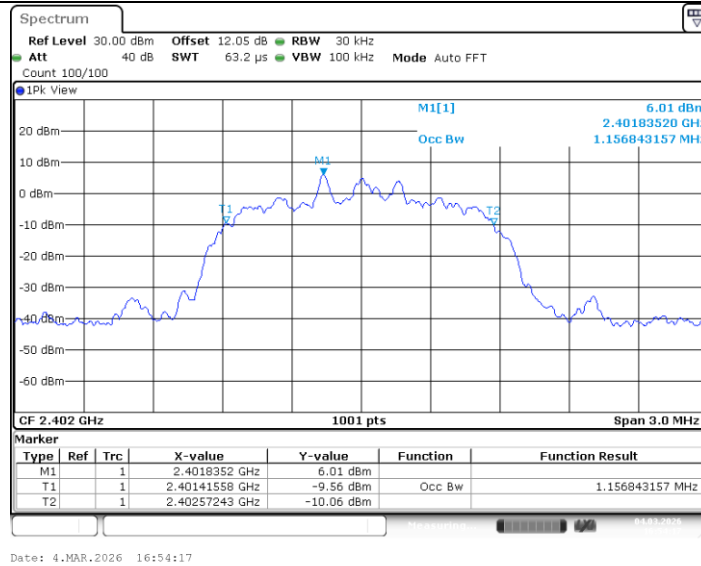
2DH5_Ant1_2402

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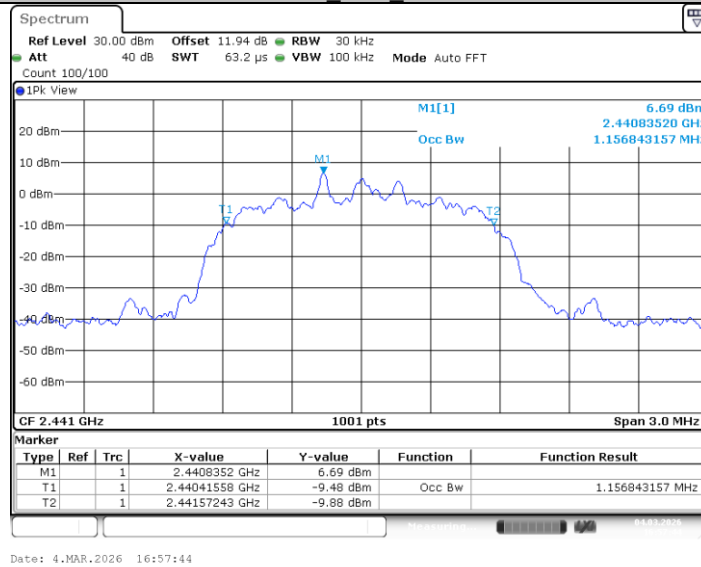
Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhua Community, Guanhu Subdistrict,
Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-059_A3

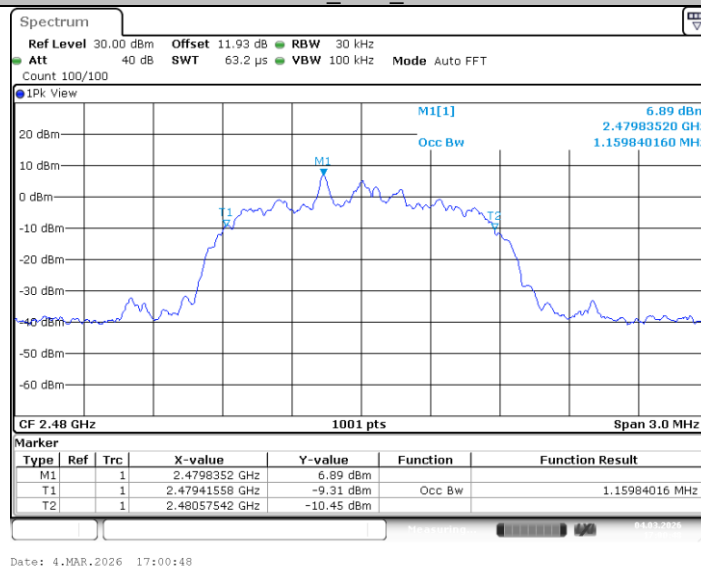
Master TRF : Dated 2026-01-01



2DH5_Ant1_2441



2DH5_Ant1_2480



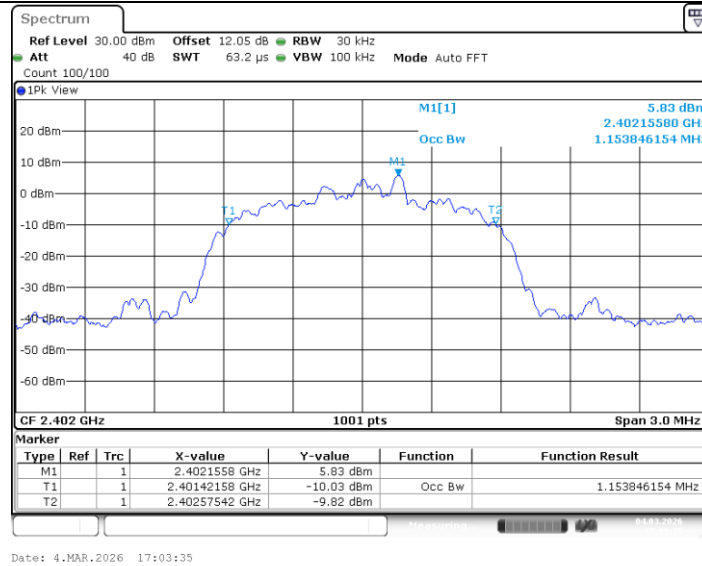
3DH5_Ant1_2402

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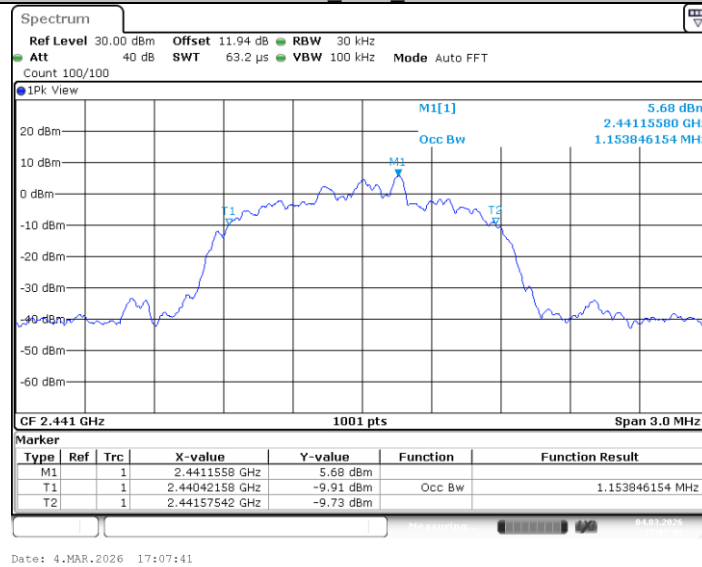
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TRF No: CTC-TR-059_A3

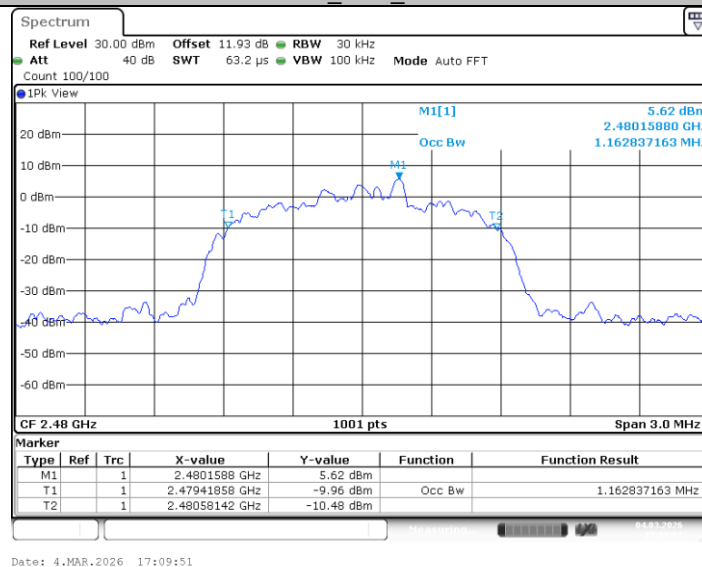
Master TRF : Dated 2026-01-01



3DH5_Ant1_2441



3DH5_Ant1_2480



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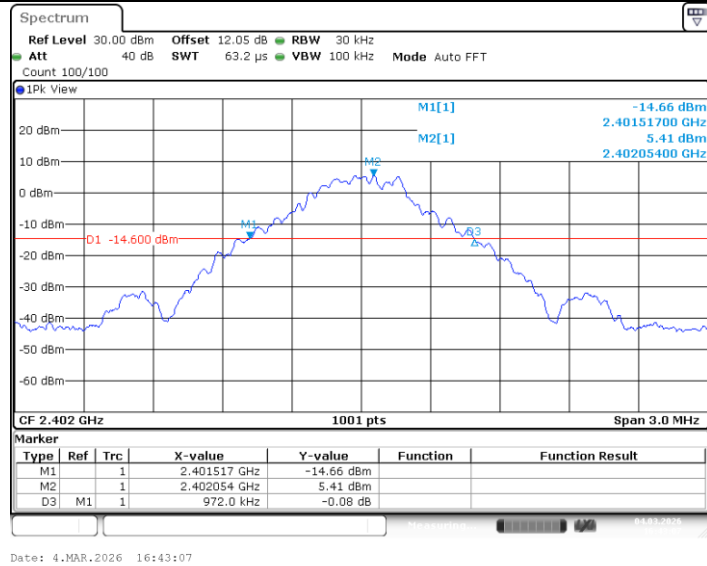
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Master TRF : Dated 2026-01-01

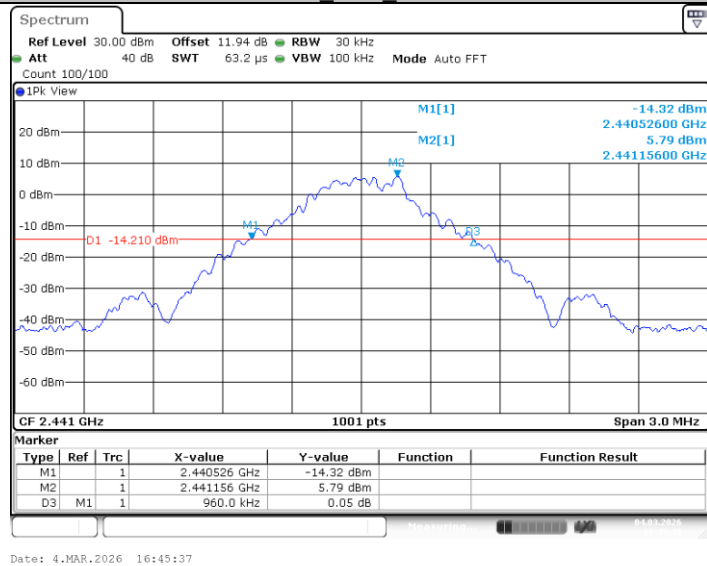


20dB Bandwidth:

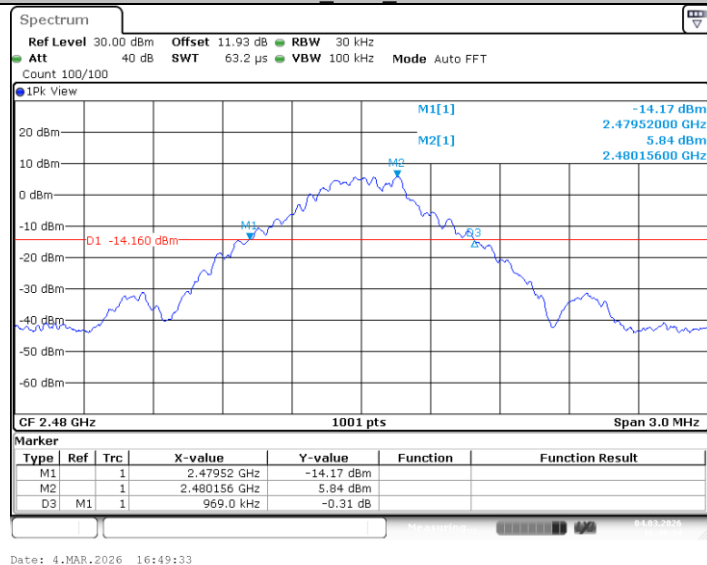
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



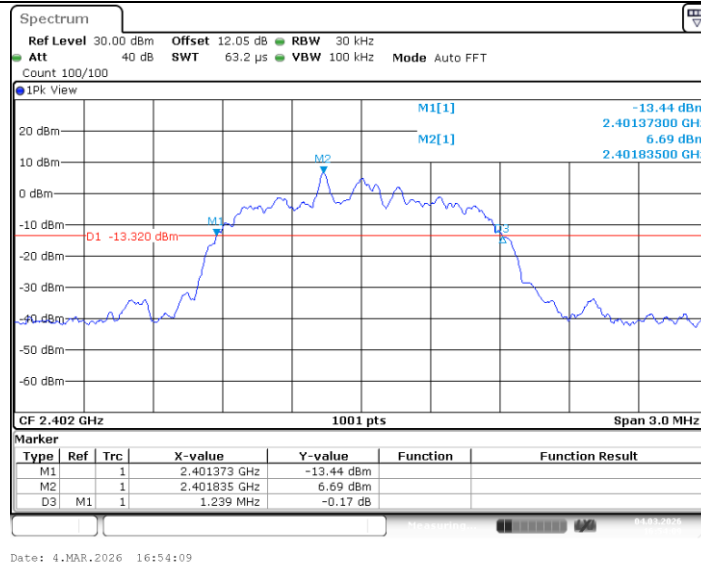
2DH5_Ant1_2402

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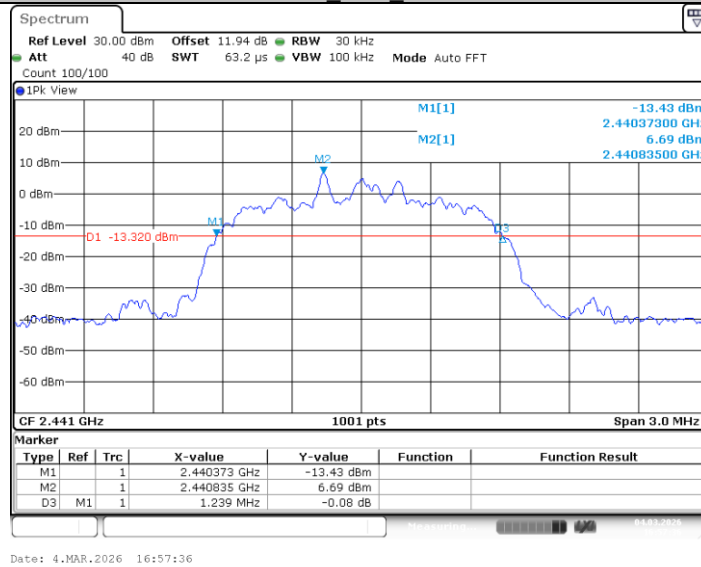
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TRF No: CTC-TR-059_A3

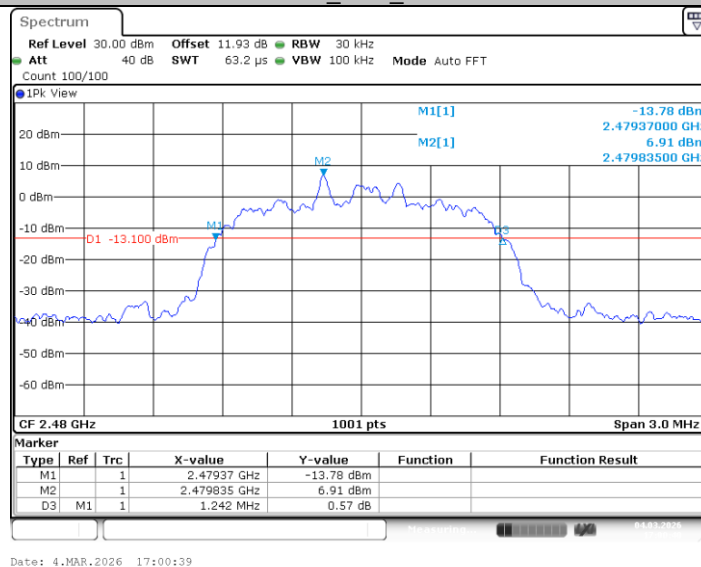
Master TRF : Dated 2026-01-01



2DH5_Ant1_2441



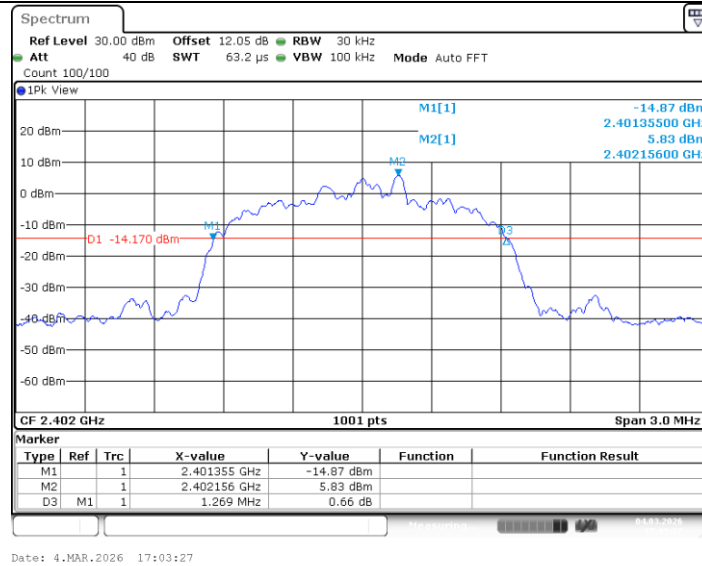
2DH5_Ant1_2480



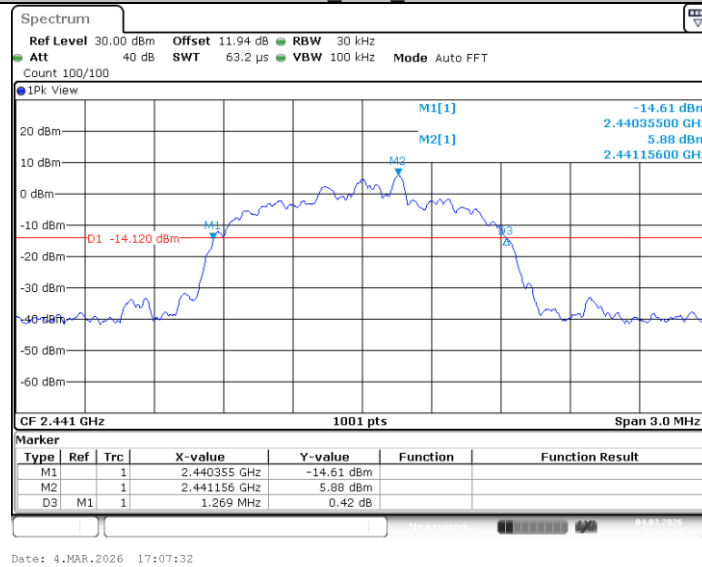
3DH5_Ant1_2402

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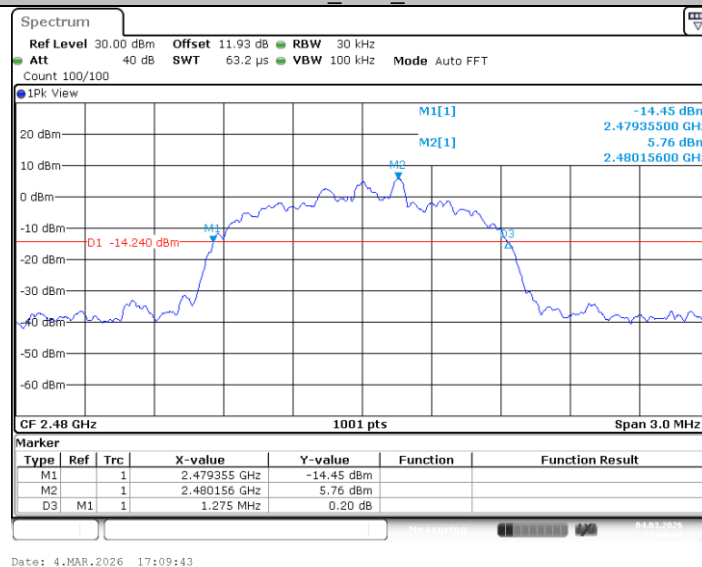
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3DH5_Ant1_2441



3DH5_Ant1_2480



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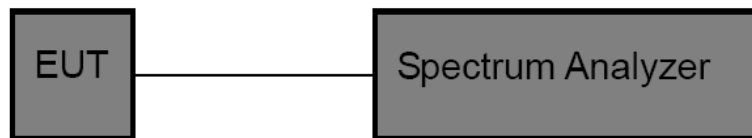
3.6. Channel Separation

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(1) / RSS-247 6.2.3.1 (a)

Test Item	Limit	Frequency Range (MHz)
Channel Separation	>25kHz or >two-thirds of the 20 dB bandwidth Which is greater	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 = 100 kHz.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.

Test Mode

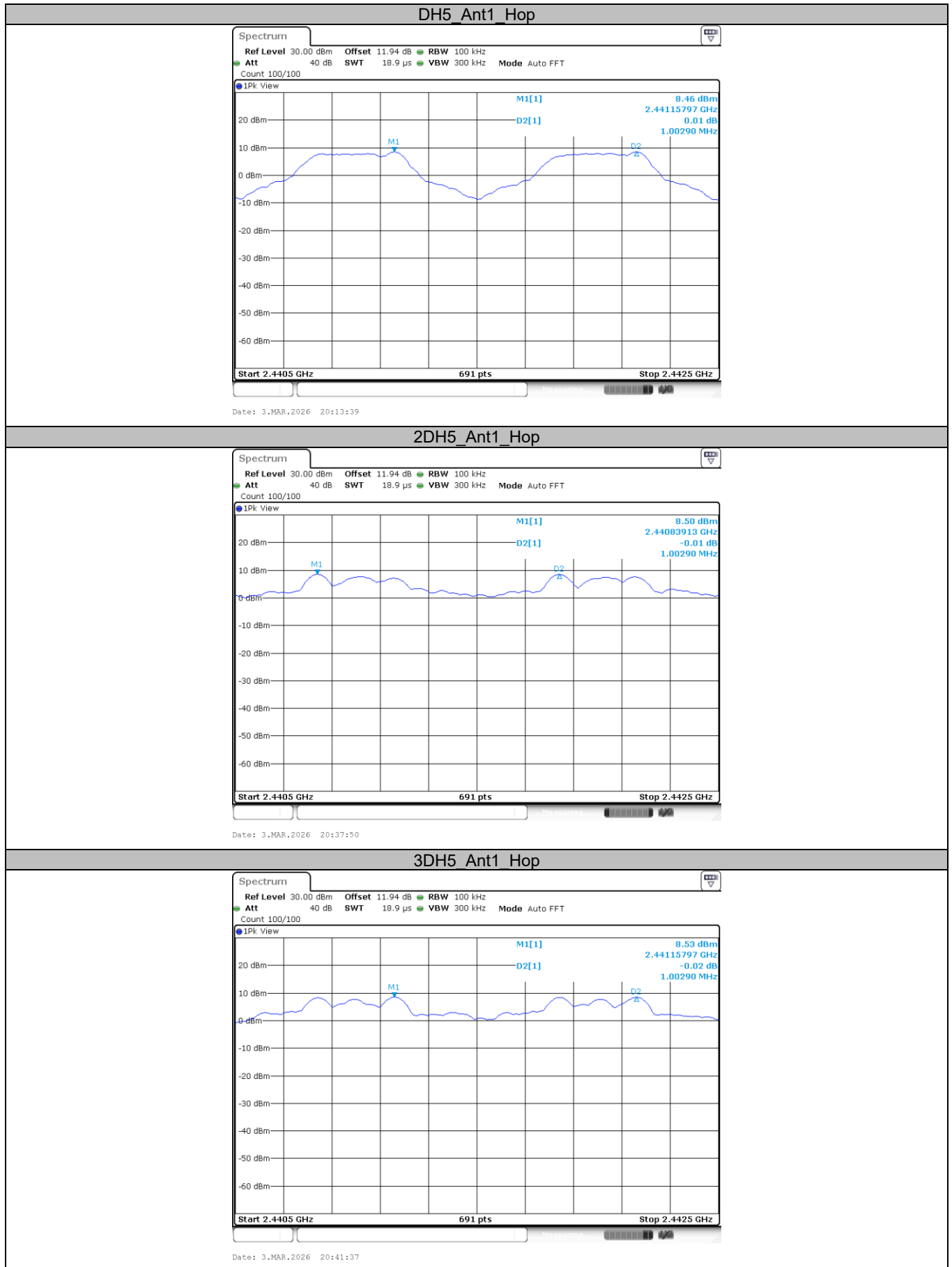
Please refer to the clause 2.4.

Test Result

Test Mode	Frequency (MHz)	Carrier Frequencies Separation (MHz)	Limit (MHz)	Verdict
GFSK	Hop_2441	1.003	>0.647	Pass
$\pi/4$ -DQPSK	Hop_2441	1.003	>0.827	Pass
8-DPSK	Hop_2441	1.003	>0.847	Pass



Test plot as follows:



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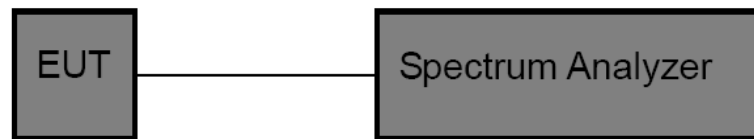
3.7. Number of Hopping Channel

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(iii) / RSS-247 6.2.3.1(b)

Section	Test Item	Limit
15.247 (a)(iii) RSS-247 5.1 d	Number of Hopping Channel	≥ 15

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) Peak Detector: RBW=100 kHz, VBW $\geq$ RBW, Sweep time= Auto.

Test Mode

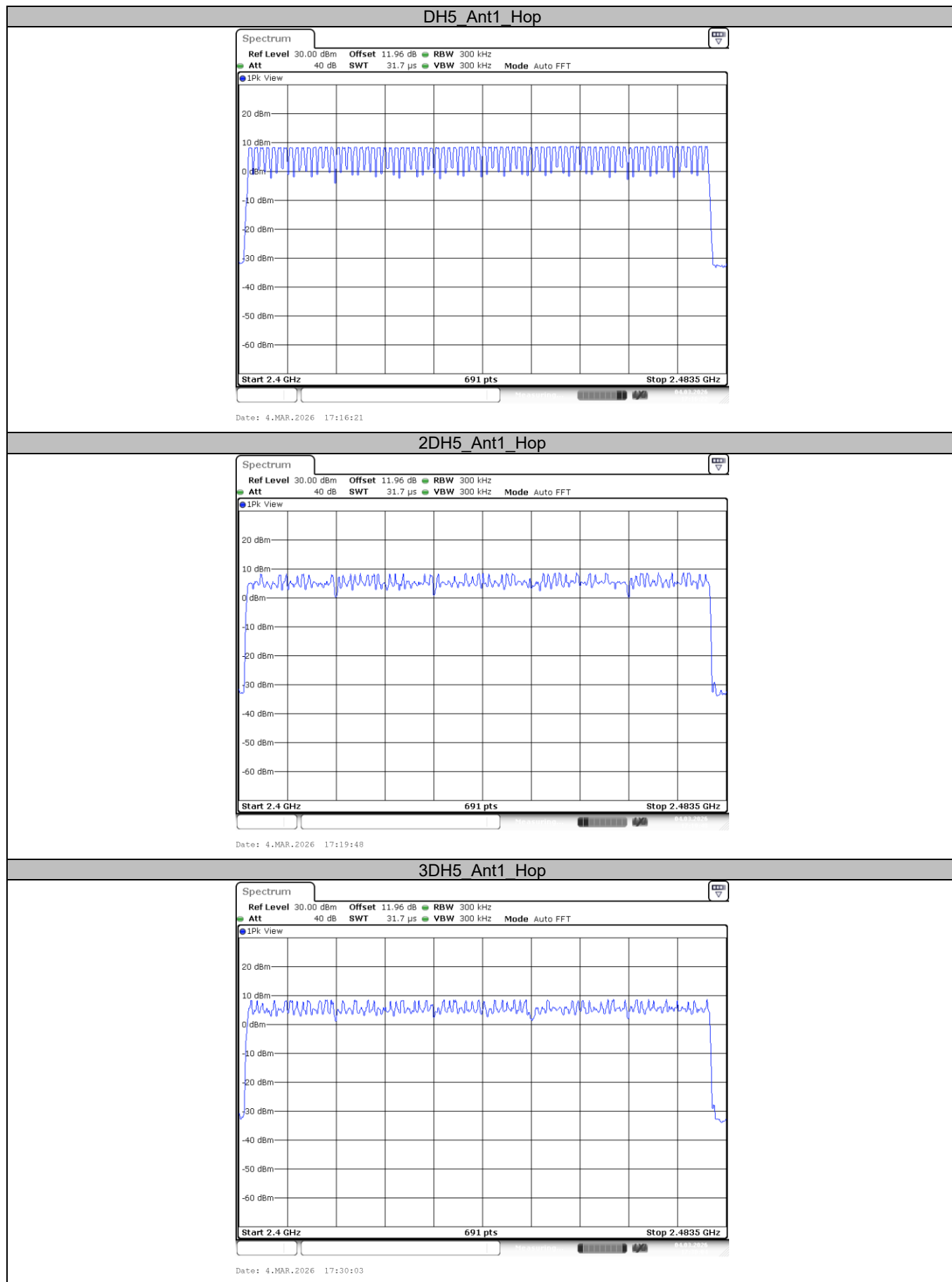
Please refer to the clause 2.4.

Test Result

Test Mode	Channel Number	Limit	Verdict
GFSK	79	≥ 15	Pass
$\pi/4$ -DQPSK	79	≥ 15	Pass
8-DPSK	79	≥ 15	Pass



Test plot as follows:



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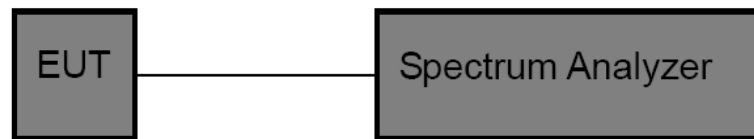
3.8. Dwell Time

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(iii) / RSS-247 6.2.3.1(b)

Section	Test Item	Limit
15.247 (a)(iii) RSS-247 6.2.3.1(b)	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.

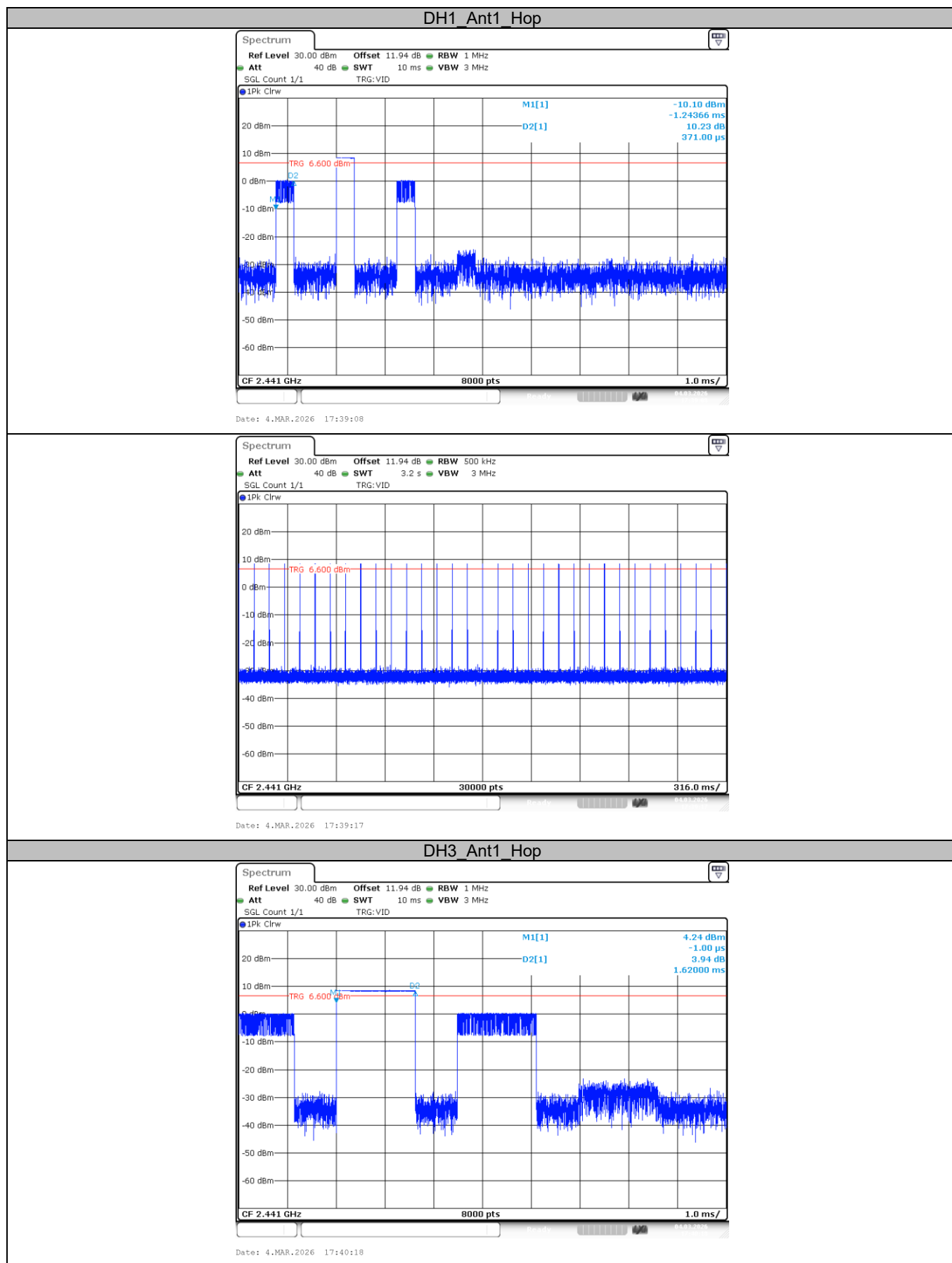
Test Mode

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	0.371	320	0.119	≤0.4	PASS
DH3	Ant1	Hop	1.620	160	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.860	110	0.315	≤0.4	PASS
2DH1	Ant1	Hop	0.376	320	0.12	≤0.4	PASS
2DH3	Ant1	Hop	1.623	160	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.862	110	0.315	≤0.4	PASS
3DH1	Ant1	Hop	0.376	320	0.12	≤0.4	PASS
3DH3	Ant1	Hop	1.620	160	0.259	≤0.4	PASS
3DH5	Ant1	Hop	2.864	110	0.315	≤0.4	PASS

Test plot as follows:

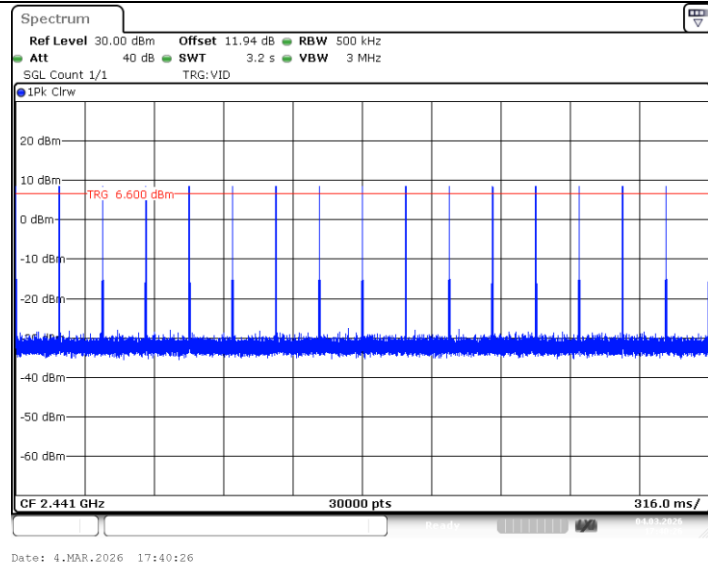


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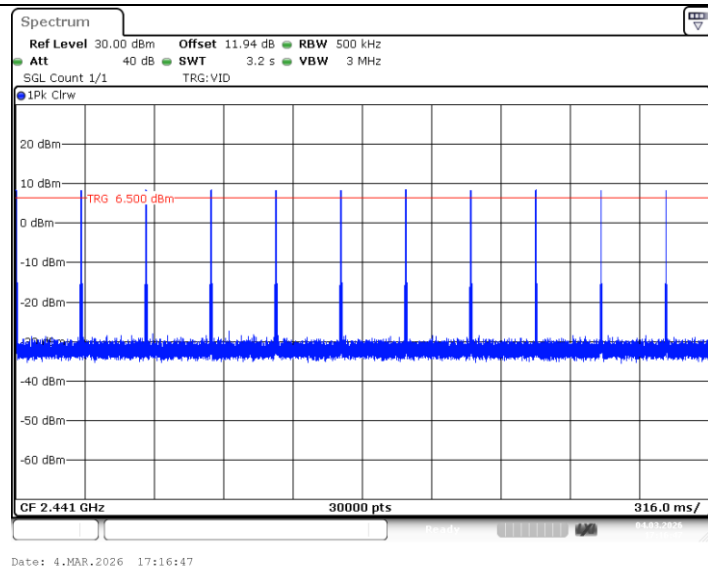
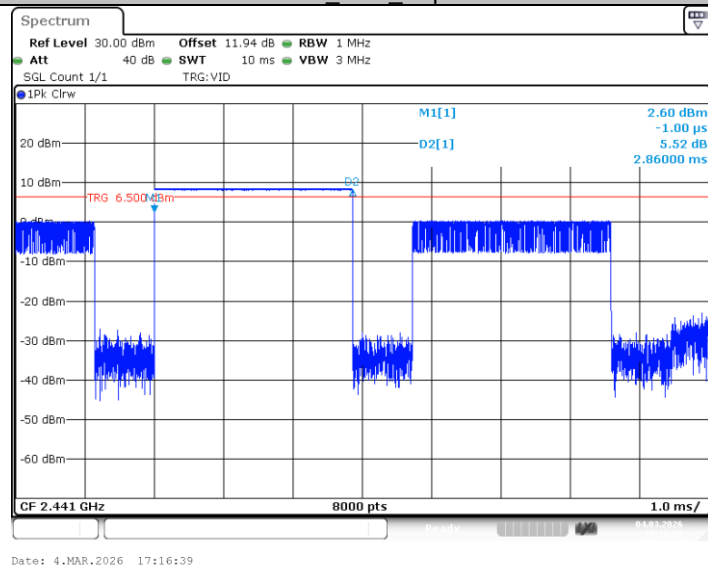
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DH5_Ant1_Hop



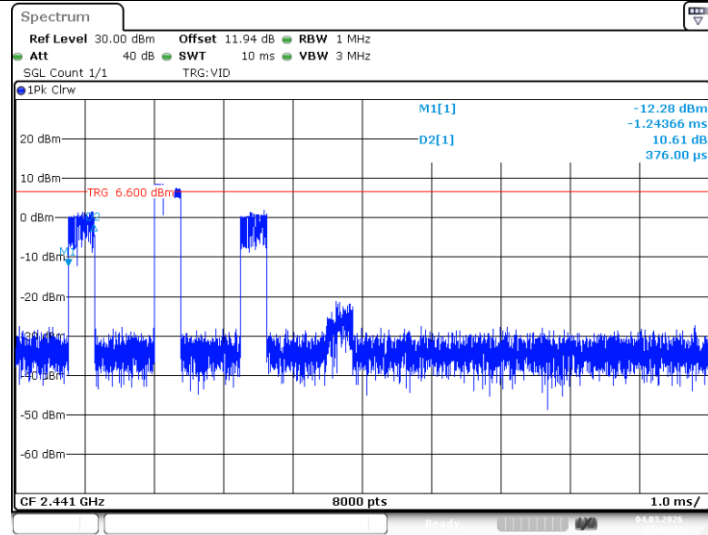
2DH1_Ant1_Hop

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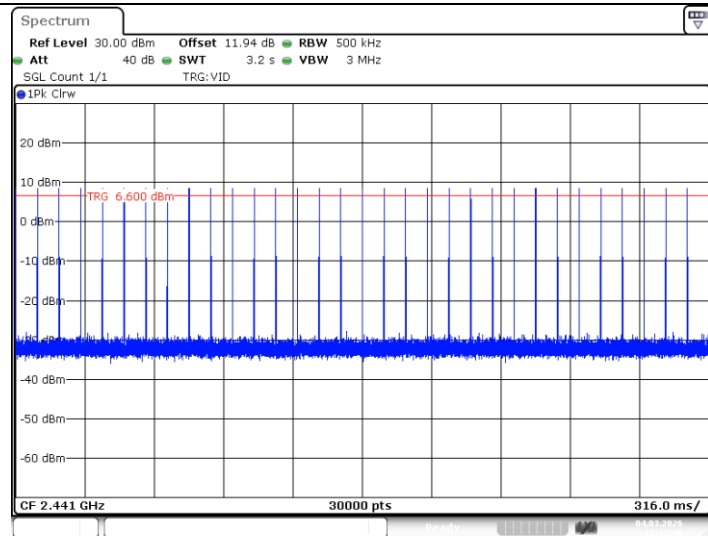
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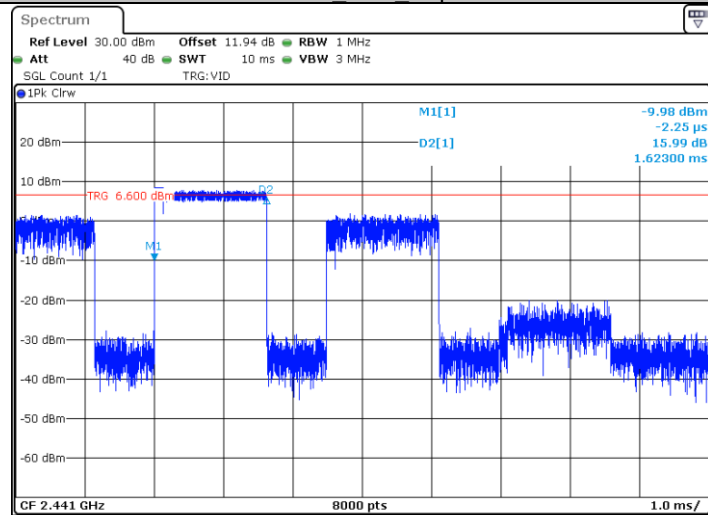


Date: 4.MAR.2026 17:41:32



Date: 4.MAR.2026 17:41:41

2DH3 Ant1 Hop



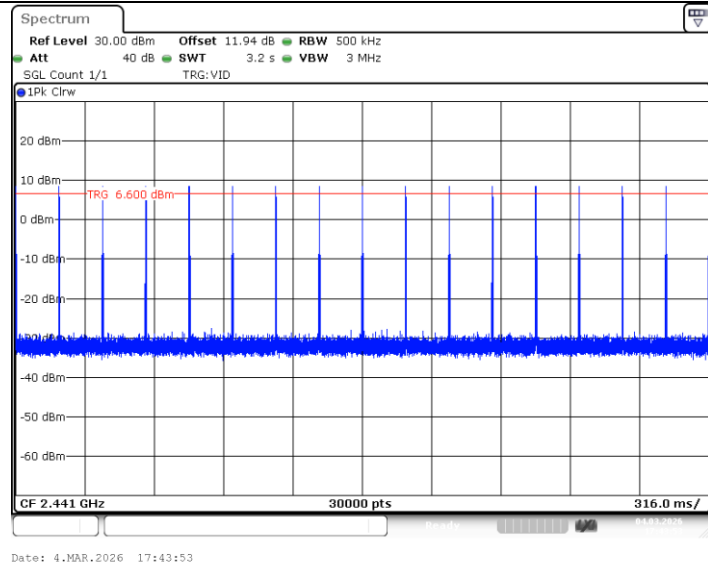
Date: 4.MAR.2026 17:43:45

CTC Laboratories, Inc.

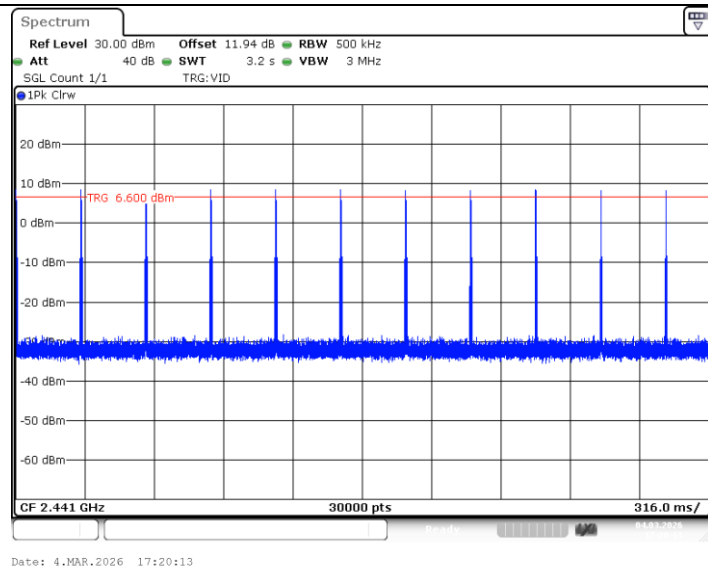
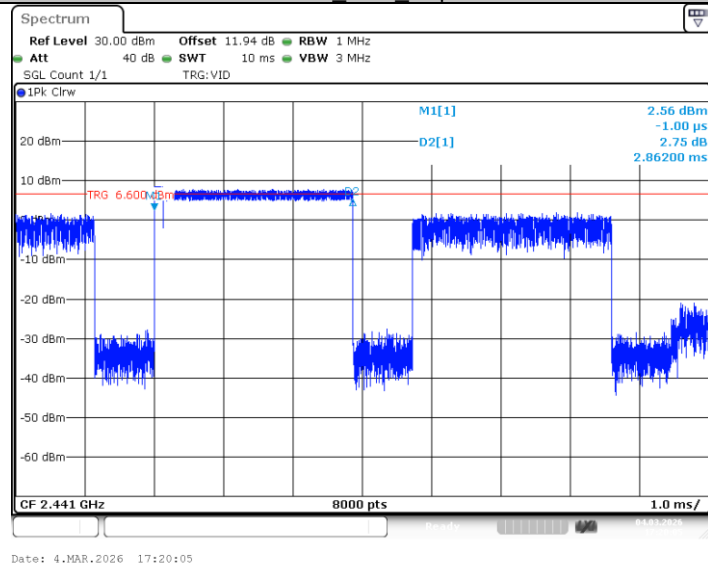
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2DH5_Ant1_Hop



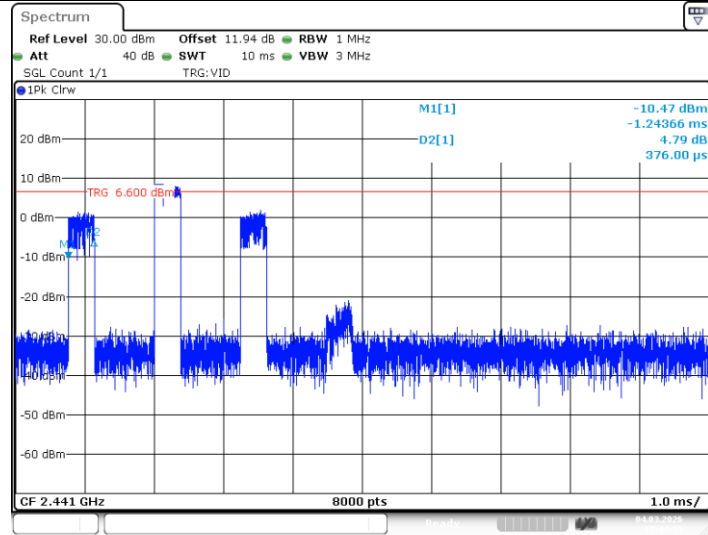
3DH1_Ant1_Hop

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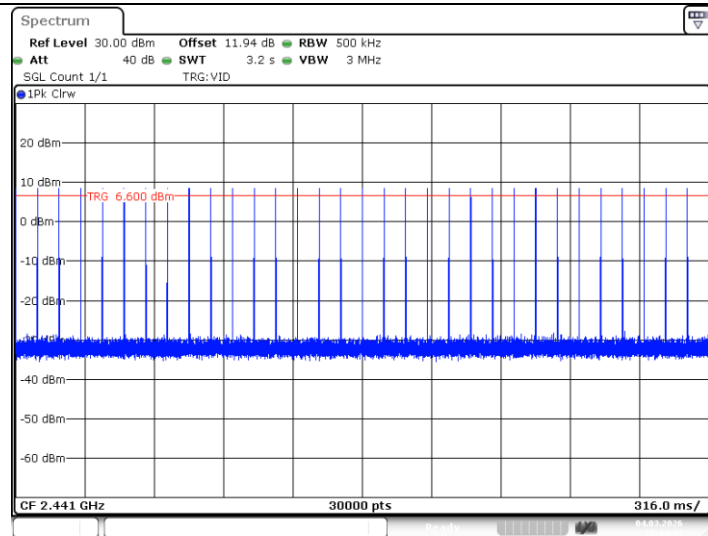
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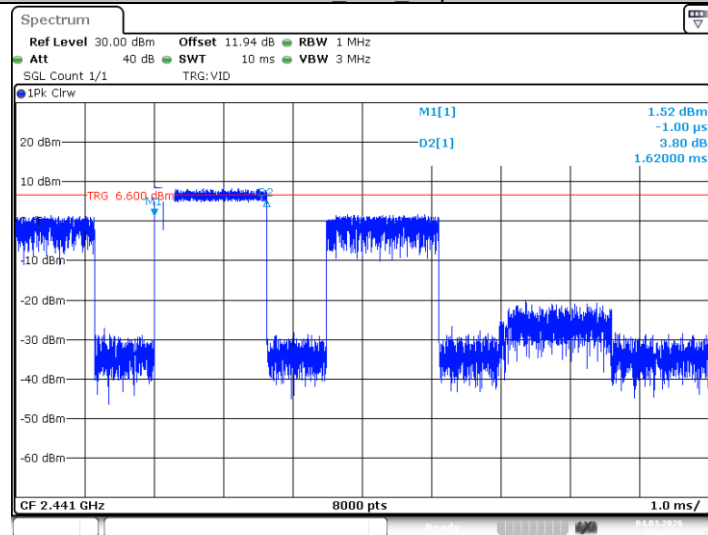


Date: 4.MAR.2026 17:44:32



Date: 4.MAR.2026 17:44:41

3DH3 Ant1 Hop



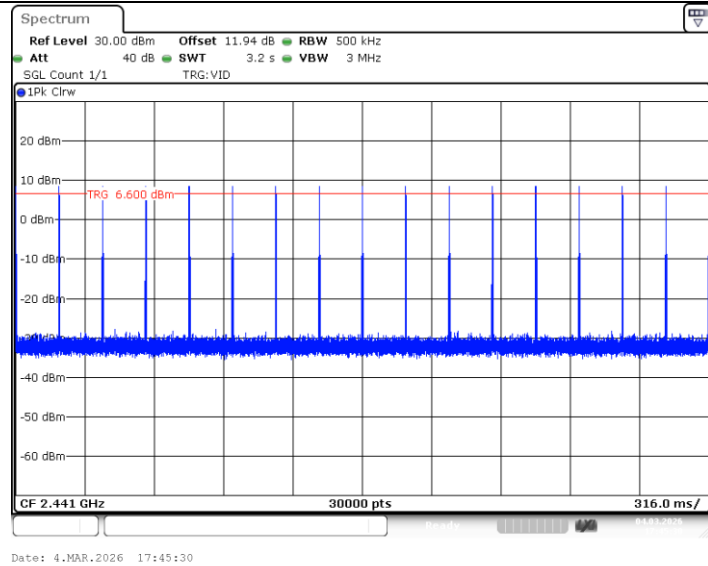
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CTC Laboratories, Inc.

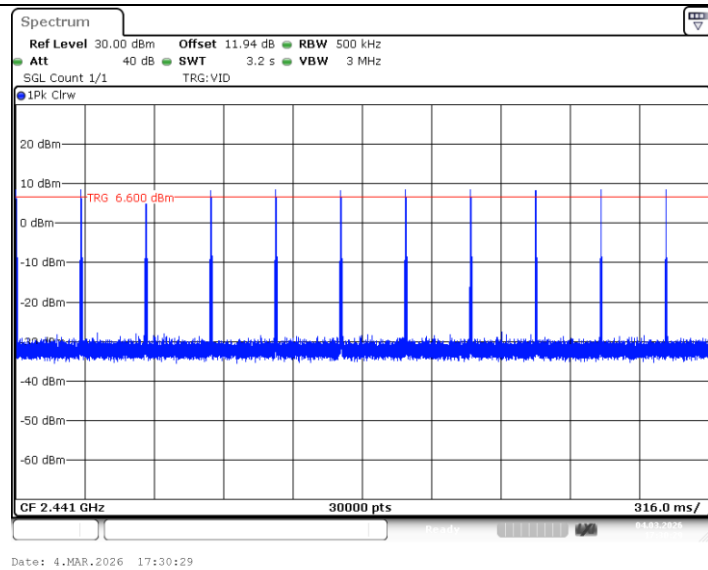
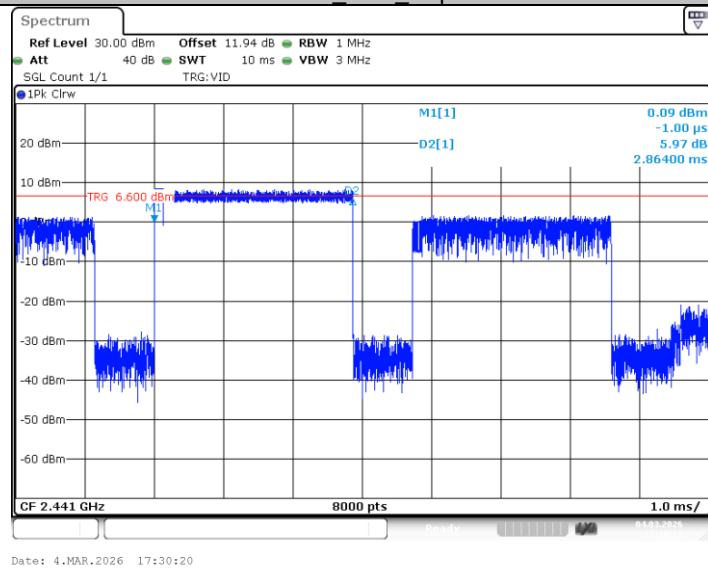
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3DH5_Ant1_Hop



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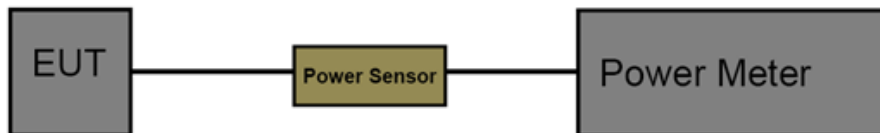
3.9. Output Power

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(1) / RSS-247 6.2.3.2

Section	Test Item	Limit	Frequency Range (MHz)
FCC CFR 47 Part 15.247 (b)(1)	Maximum Conducted Output Power	Hopping Channels ≥ 75 , Power $< 1\text{W}(30\text{dBm})$; Others $< 125\text{mW}(21\text{dBm})$	2400~2483.5
ISED RSS-247 6.2.3.2	Maximum Conducted Output Power	Hopping Channels ≥ 75 , Power $< 1\text{W}(30\text{dBm})$; Others $< 125\text{mW}(21\text{dBm})$	2400~2483.5
	EIRP	4 Watt or 36dBm	2400~2483.5

Test Configuration



Test Procedure

1. The maximum conducted output power may be measured using a broadband RF power meter.
2. Power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor.
3. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.
4. Record the measurement data.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Mode	Frequency (MHz)	Conducted Output Power (dBm)	FCC Limit (dBm)	EIRP [dBm]	EIRP Limit [dBm]	Verdict
GFSK	2402	7.76	≤ 30	6.94	≤ 36	Pass
	2441	7.87	≤ 30	7.05	≤ 36	Pass
	2480	8.20	≤ 30	7.38	≤ 36	Pass
$\pi/4$ -DQPSK	2402	5.35	≤ 30	4.53	≤ 36	Pass
	2441	5.43	≤ 30	4.61	≤ 36	Pass
	2480	5.94	≤ 30	5.12	≤ 36	Pass
8-DPSK	2402	5.35	≤ 30	4.53	≤ 36	Pass
	2441	5.44	≤ 30	4.62	≤ 36	Pass
	2480	5.93	≤ 30	5.11	≤ 36	Pass

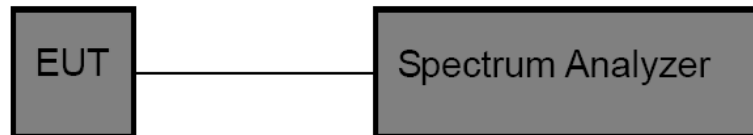


3.10. Duty Cycle

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

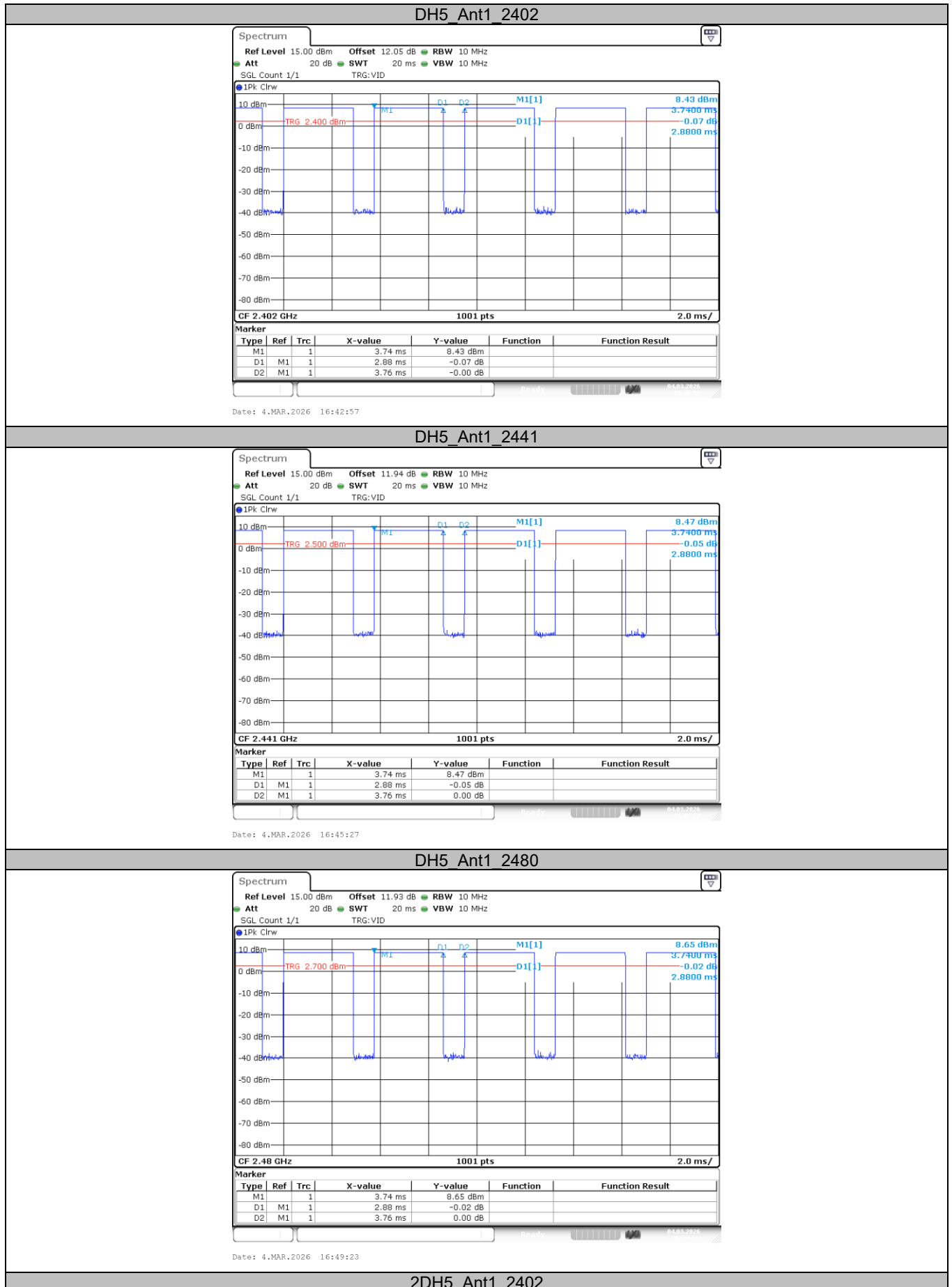
Please refer to the clause 2.4.

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	3.76	76.60	0.35	1
	2441	2.88	3.76	76.60	0.35	1
	2480	2.88	3.76	76.60	0.35	1
$\pi/4$ -DQPSK	2402	2.88	3.76	76.60	0.35	1
	2441	2.88	3.76	76.60	0.35	1
	2480	2.88	3.76	76.60	0.35	1
8-DPSK	2402	2.88	3.76	76.60	0.35	1
	2441	2.88	3.76	76.60	0.35	1
	2480	2.88	3.76	76.60	0.35	1



Test plot as follows:



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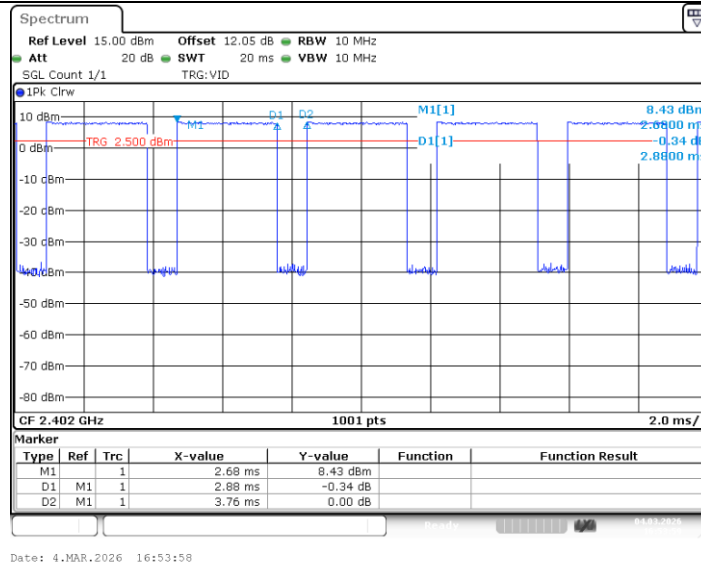
Tel.: (86)755-27521059

Fax: (86)755-27521011

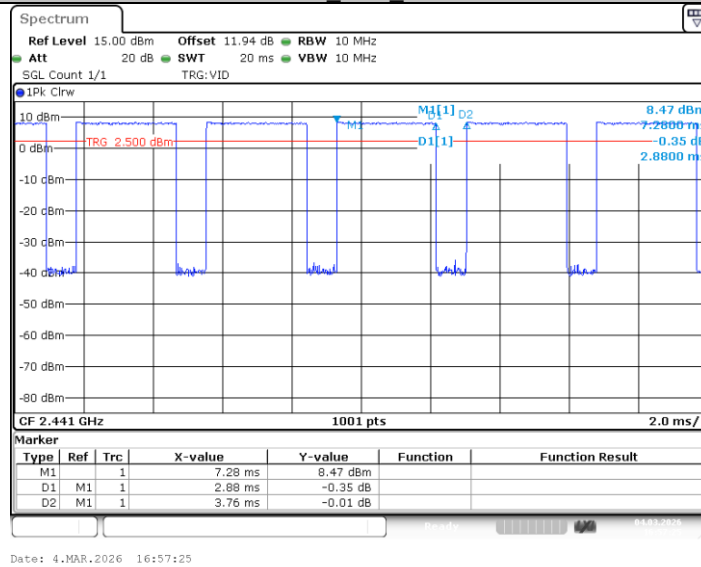
Http://www.sz-ctc.org.cn

TRF No: CTC-TR-059_A3

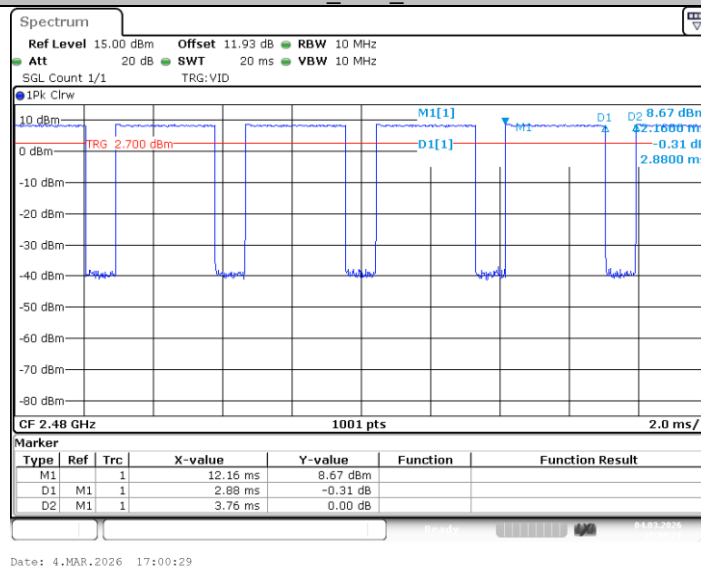
Master TRF : Dated 2026-01-01



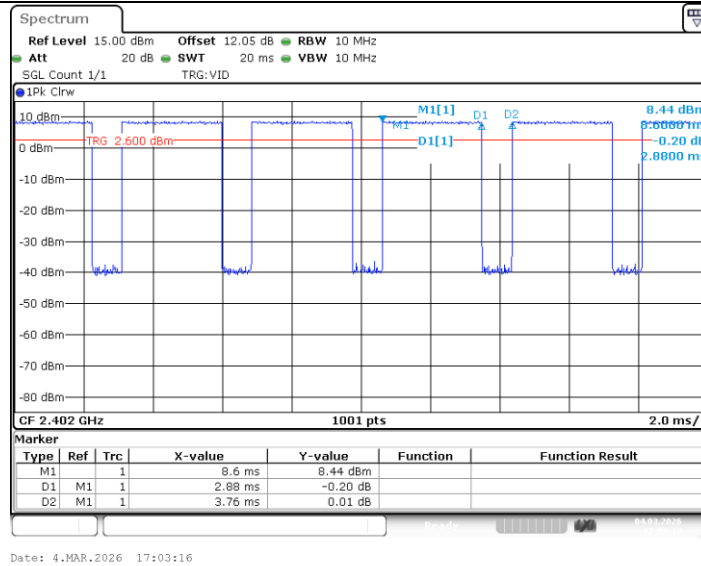
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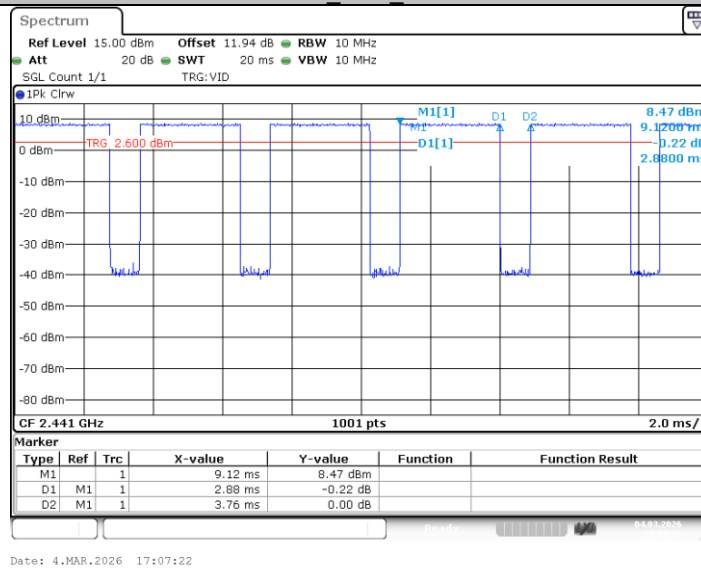
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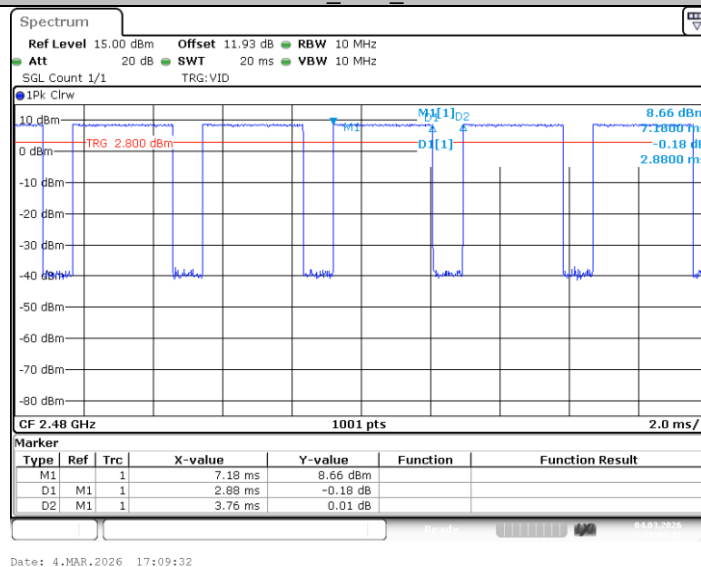
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3DH5_Ant1_2441



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.

RSS-Gen Issue 5 Section 6.8

The applicant for equipment certification, as per RSP-100, must provide a list of all antenna types that may be used with the licence-exempt transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. Licence-exempt transmitters that have received equipment certification may operate with different types of antennas. However, it is not permissible to exceed the maximum equivalent isotropically radiated power(e.i.r.p.) limits specified in the applicable standard (RSS) for licence-exempt apparatus.

Test Result

The directional gain of the antenna is less than 6dBi, please refer to the EUT internal photographs antenna photo.

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