

9.6 CONDUCTED SUPRIIOUS EMISSION

9.6.1 Applicable Standard

According to FCC Part 15.247(d) and KDB 558074 D01 15.247 MEAS GUIDANCE v05r02

9.6.2 Conformance Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted, provided the transmitter demonstrates compliance with the peak conducted power limits.

9.6.3 Test Configuration

Test according to clause 7.1 radio frequency test setup 1

9.6.4 Test Procedure

The transmitter output (antenna port) was connected to the spectrum analyzer

■ Reference level measurement

Establish a reference level by using the following procedure:

Set instrument center frequency to DSS channel center frequency.

Set Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel.

Set the RBW = 100 kHz. Set the VBW $\geq 3 \times$ RBW.

Set Detector = peak. Set Sweep time = auto couple.

Set Trace mode = max hold. Allow trace to fully stabilize.

Use the peak marker function to determine the maximum Maximumconducetedlevel.

Note that the channel found to contain the maximum conduceted level can be used to establish the reference level.

■ Band-edge measurement

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the emission operating on the channel closest to the band-edge, as well as any modulation products which fall outside of the authorized band of operation

Set RBW $\geq 1\%$ of the span=100kHzSet VBW $\geq 3 \times$ RBW

Set Sweep = autoSet Detector function = peakSet Trace = max hold

Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section.

Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize.

Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit.

■ Emission level measurement

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic.(30MHz to 25GHz).Set RBW = 100 kHzSet VBW $\geq$ RBW

Set Sweep = autoSet Detector function = peakSet Trace = max hold

Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded. The level displayed must comply with the limit specified in this Section.

9.6.5 Test Results

Temperature:	25°C
Relative Humidity:	63%
ATM Pressure:	1011 mbar

- Right-side device
- Reference level measurement

Test Mode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2402.00	-1.33
DH5	Ant1	2441	2440.99	-1.25
DH5	Ant1	2480	2480.03	-2.21
2DH5	Ant1	2402	2402.15	-1.37
2DH5	Ant1	2441	2440.88	-3.36
2DH5	Ant1	2480	2480.00	-1.77
3DH5	Ant1	2402	2402.09	-2.04
3DH5	Ant1	2441	2441.16	-1.16
3DH5	Ant1	2480	2479.88	-3.81

- Band-edge measurement

Test Mode	Antenna	Ch Name	Frequency[MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.33	-48.7	≤-21.33	PASS
DH5	Ant1	High	2480	-2.21	-48.79	≤-22.21	PASS
DH5	Ant1	Low	Hop_2402	-5.51	-47.44	≤-25.51	PASS
DH5	Ant1	High	Hop_2480	-2.20	-47.53	≤-22.2	PASS
2DH5	Ant1	Low	2402	-1.37	-49.06	≤-21.37	PASS
2DH5	Ant1	High	2480	-1.77	-49.04	≤-21.77	PASS
2DH5	Ant1	Low	Hop_2402	-9.18	-48.8	≤-29.18	PASS
2DH5	Ant1	High	Hop_2480	-5.12	-48.54	≤-25.12	PASS
3DH5	Ant1	Low	2402	-2.04	-48.95	≤-22.04	PASS
3DH5	Ant1	High	2480	-3.81	-48.65	≤-23.81	PASS
3DH5	Ant1	Low	Hop_2402	-6.97	-49.22	≤-26.97	PASS
3DH5	Ant1	High	Hop_2480	-5.73	-48.22	≤-25.73	PASS

- Emission level measurement

Test Mode	Antenna	Frequency[MHz]	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	-1.33	-61.7	≤-21.33	PASS
DH5	Ant1	2402	1000~26500	-1.33	-48.41	≤-21.33	PASS
DH5	Ant1	2441	30~1000	-1.25	-61.67	≤-21.25	PASS
DH5	Ant1	2441	1000~26500	-1.25	-49	≤-21.25	PASS
DH5	Ant1	2480	30~1000	-2.21	-61.89	≤-22.21	PASS
DH5	Ant1	2480	1000~26500	-2.21	-48.49	≤-22.21	PASS
2DH5	Ant1	2402	30~1000	-1.37	-61.87	≤-21.37	PASS
2DH5	Ant1	2402	1000~26500	-1.37	-48.08	≤-21.37	PASS
2DH5	Ant1	2441	30~1000	-3.36	-61.66	≤-23.36	PASS
2DH5	Ant1	2441	1000~26500	-3.36	-48.56	≤-23.36	PASS
2DH5	Ant1	2480	30~1000	-1.77	-61.51	≤-21.77	PASS
2DH5	Ant1	2480	1000~26500	-1.77	-48.35	≤-21.77	PASS
3DH5	Ant1	2402	30~1000	-2.04	-61.63	≤-22.04	PASS
3DH5	Ant1	2402	1000~26500	-2.04	-48.35	≤-22.04	PASS
3DH5	Ant1	2441	30~1000	-1.16	-62.16	≤-21.16	PASS
3DH5	Ant1	2441	1000~26500	-1.16	-48.38	≤-21.16	PASS
3DH5	Ant1	2480	30~1000	-3.81	-61.95	≤-23.81	PASS
3DH5	Ant1	2480	1000~26500	-3.81	-48.7	≤-23.81	PASS

- Left-side device
- Reference level measurement

Test Mode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2401.99	-1.70
DH5	Ant1	2441	2441.16	-1.11
DH5	Ant1	2480	2480.14	-1.72
2DH5	Ant1	2402	2402.00	-1.29
2DH5	Ant1	2441	2441.00	-1.17
2DH5	Ant1	2480	2480.16	-1.85
3DH5	Ant1	2402	2402.00	-1.30
3DH5	Ant1	2441	2441.16	-1.10
3DH5	Ant1	2480	2480.00	-1.75

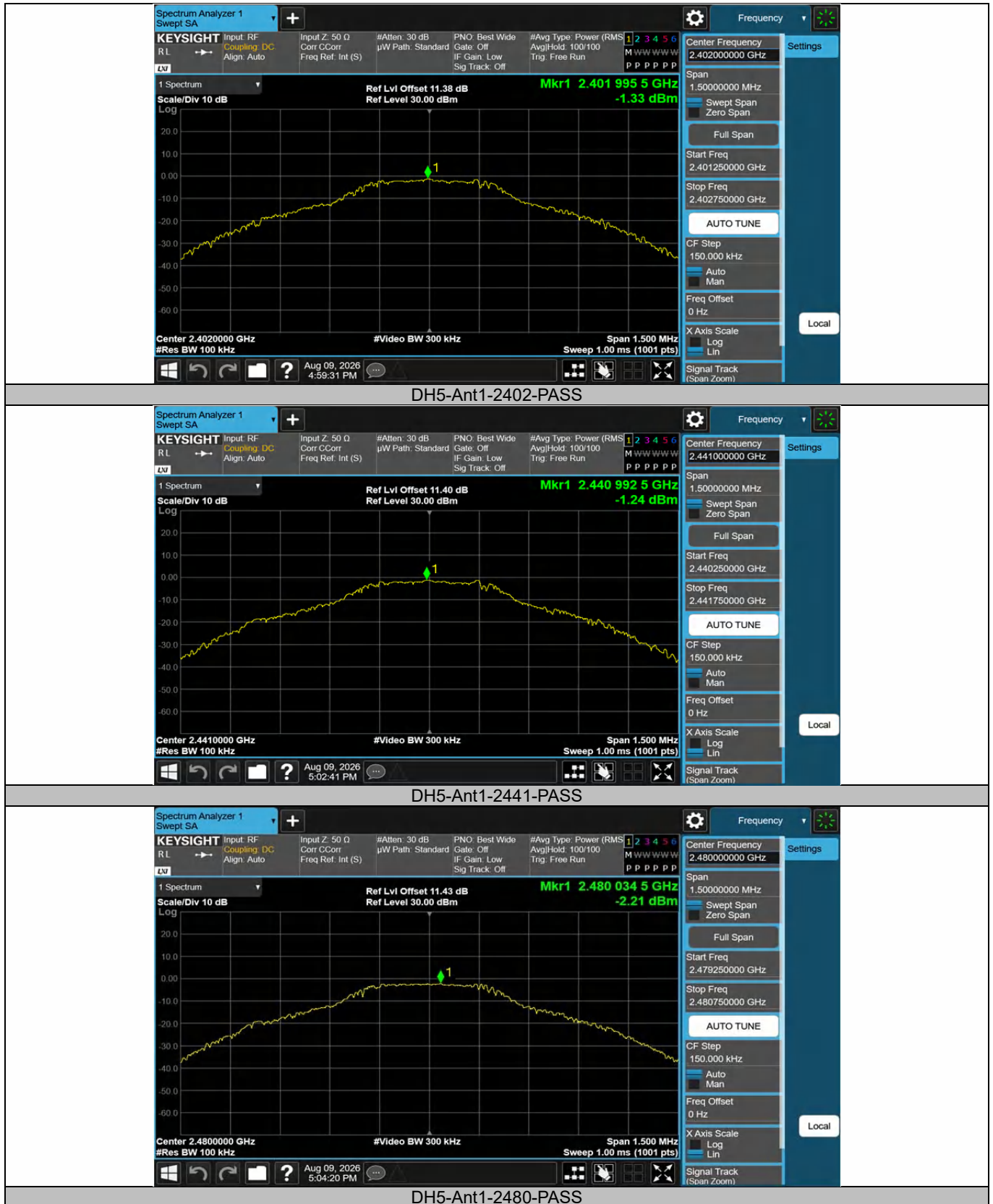
- Band-edge measurement

Test Mode	Antenna	Ch Name	Frequency[MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.70	-47.11	≤-21.7	PASS
DH5	Ant1	High	2480	-1.72	-48.78	≤-21.72	PASS
DH5	Ant1	Low	Hop_2402	-2.01	-48.4	≤-22.01	PASS
DH5	Ant1	High	Hop_2480	-2.64	-47.94	≤-22.64	PASS
2DH5	Ant1	Low	2402	-1.29	-48.95	≤-21.29	PASS
2DH5	Ant1	High	2480	-1.85	-48.36	≤-21.85	PASS
2DH5	Ant1	Low	Hop_2402	-7.87	-48.84	≤-27.87	PASS
2DH5	Ant1	High	Hop_2480	-3.99	-48.04	≤-23.99	PASS
3DH5	Ant1	Low	2402	-1.30	-48.47	≤-21.3	PASS
3DH5	Ant1	High	2480	-1.75	-48.15	≤-21.75	PASS
3DH5	Ant1	Low	Hop_2402	-5.01	-48.46	≤-25.01	PASS
3DH5	Ant1	High	Hop_2480	-6.38	-47.7	≤-26.38	PASS

- Emission level measurement

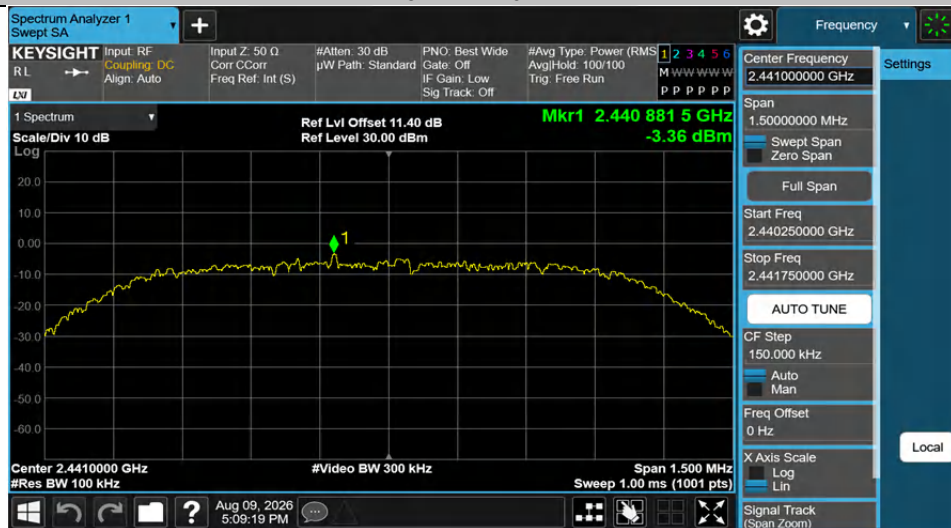
Test Mode	Antenna	Frequency[MHz]	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	-1.70	-60.87	≤-21.7	PASS
DH5	Ant1	2402	1000~26500	-1.70	-48.1	≤-21.7	PASS
DH5	Ant1	2441	30~1000	-1.11	-62.15	≤-21.11	PASS
DH5	Ant1	2441	1000~26500	-1.11	-47.73	≤-21.11	PASS
DH5	Ant1	2480	30~1000	-1.72	-61.39	≤-21.72	PASS
DH5	Ant1	2480	1000~26500	-1.72	-48.45	≤-21.72	PASS
2DH5	Ant1	2402	30~1000	-1.29	-61.68	≤-21.29	PASS
2DH5	Ant1	2402	1000~26500	-1.29	-48.7	≤-21.29	PASS
2DH5	Ant1	2441	30~1000	-1.17	-61.69	≤-21.17	PASS
2DH5	Ant1	2441	1000~26500	-1.17	-47.31	≤-21.17	PASS
2DH5	Ant1	2480	30~1000	-1.85	-62.21	≤-21.85	PASS
2DH5	Ant1	2480	1000~26500	-1.85	-48.68	≤-21.85	PASS
3DH5	Ant1	2402	30~1000	-1.30	-61.36	≤-21.3	PASS
3DH5	Ant1	2402	1000~26500	-1.30	-48.6	≤-21.3	PASS
3DH5	Ant1	2441	30~1000	-1.10	-61.85	≤-21.1	PASS
3DH5	Ant1	2441	1000~26500	-1.10	-48.84	≤-21.1	PASS
3DH5	Ant1	2480	30~1000	-1.75	-62.27	≤-21.75	PASS
3DH5	Ant1	2480	1000~26500	-1.75	-47.73	≤-21.75	PASS

- Right-side device
- Reference level measurement





2DH5-Ant1-2402-PASS



2DH5-Ant1-2441-PASS



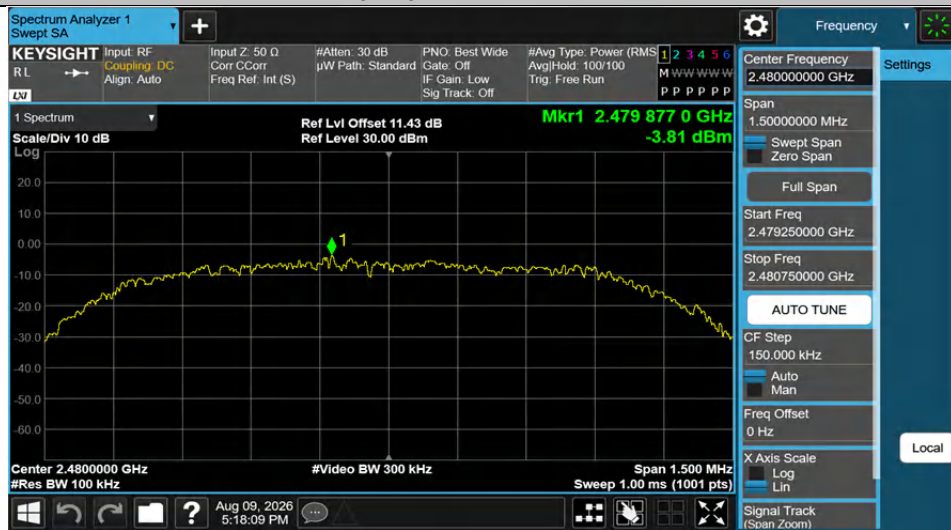
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3DH5-Ant1-2402-PASS

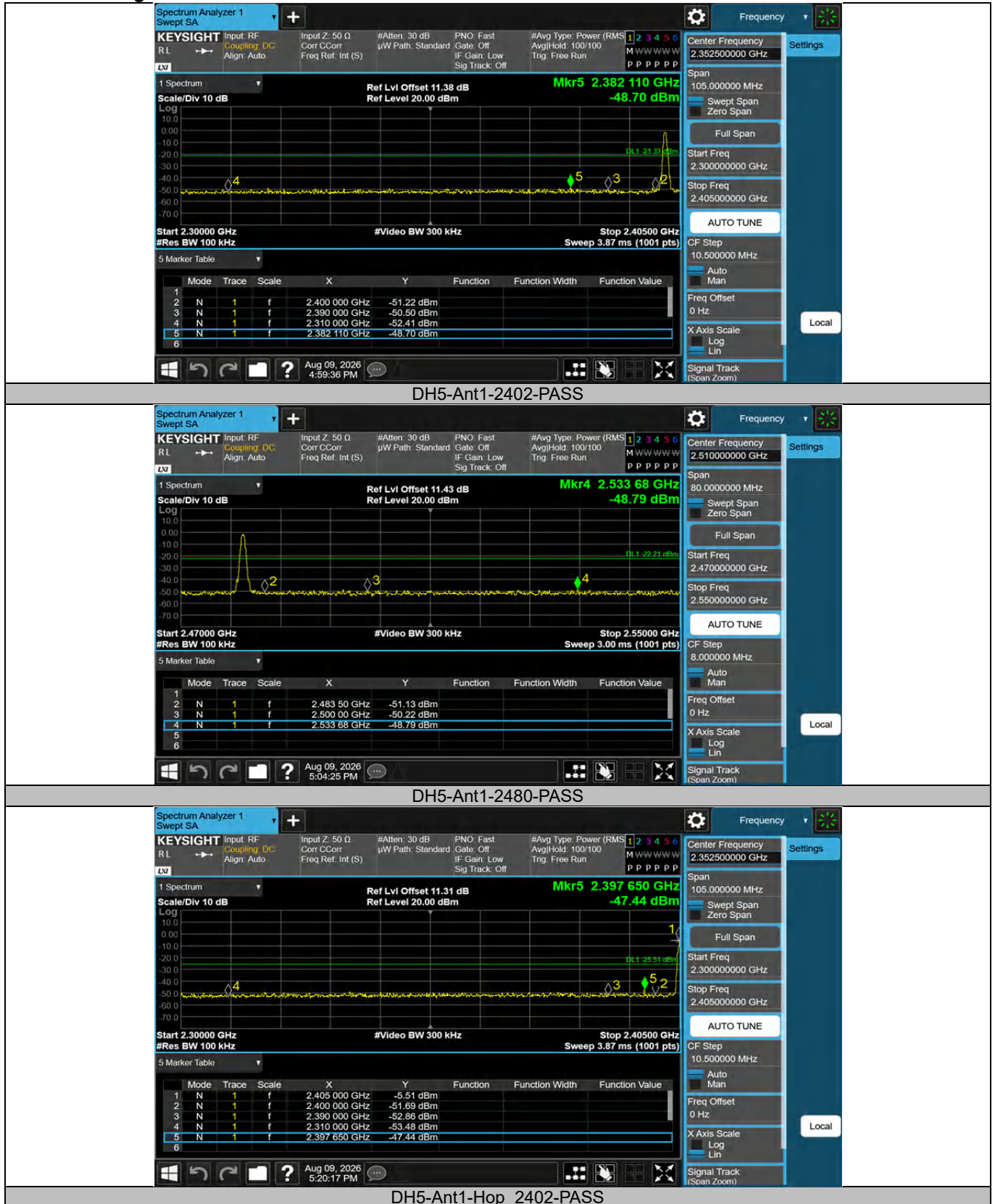


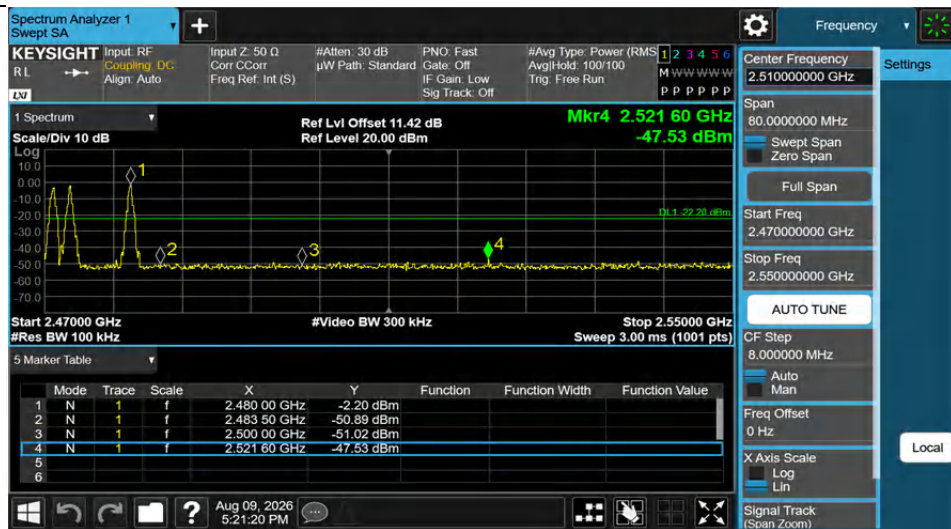
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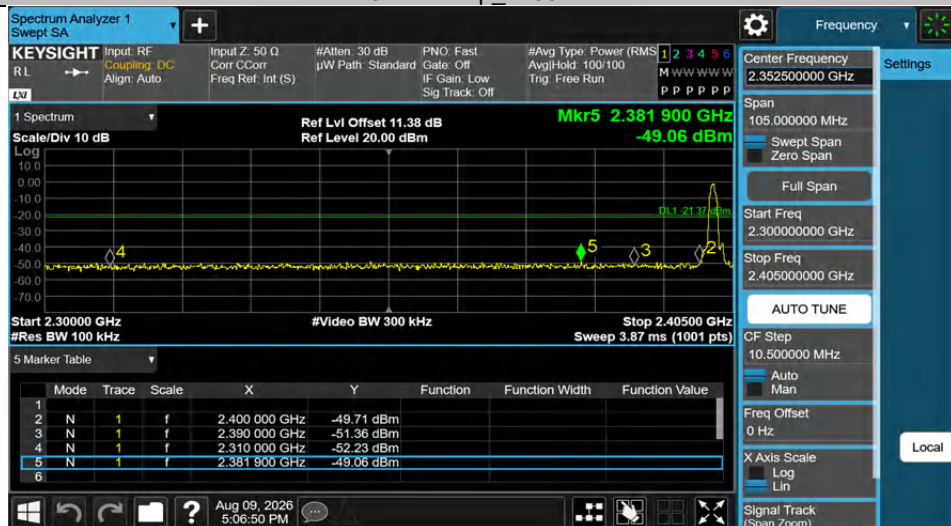
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■ Band-edge measurement

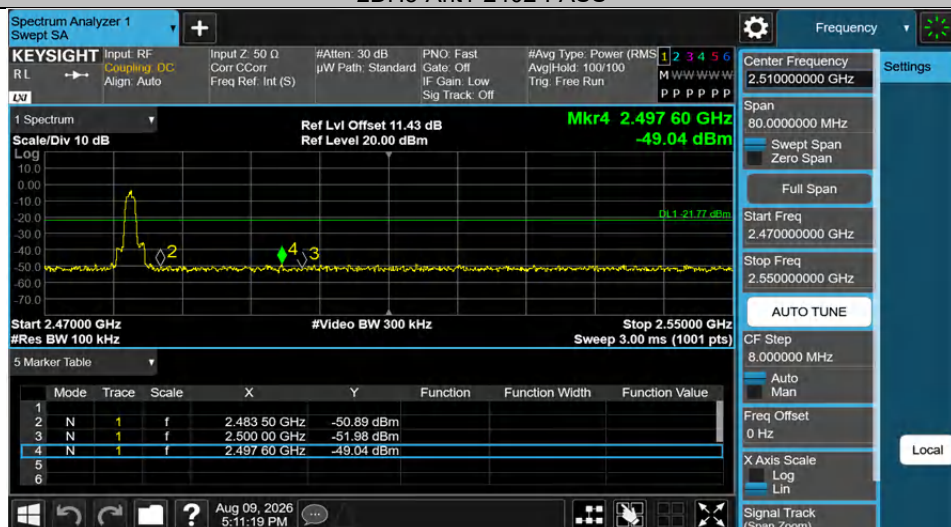




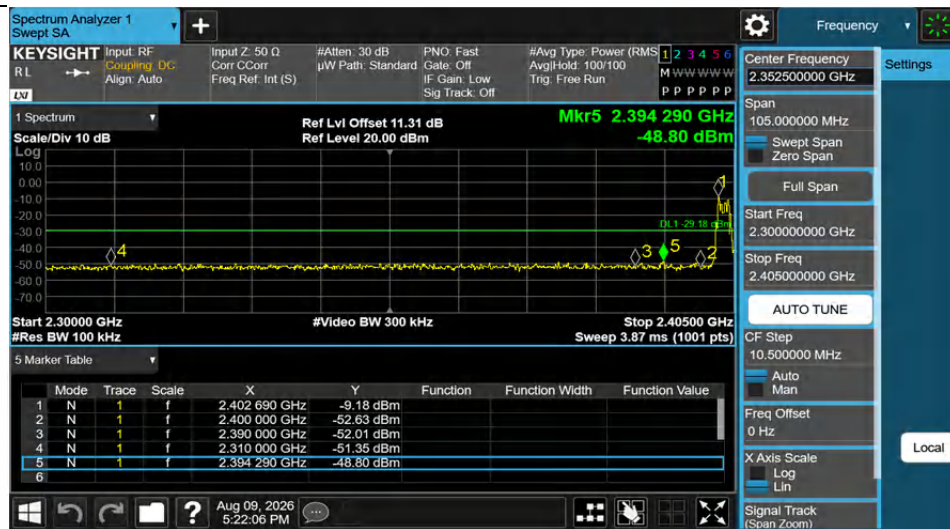
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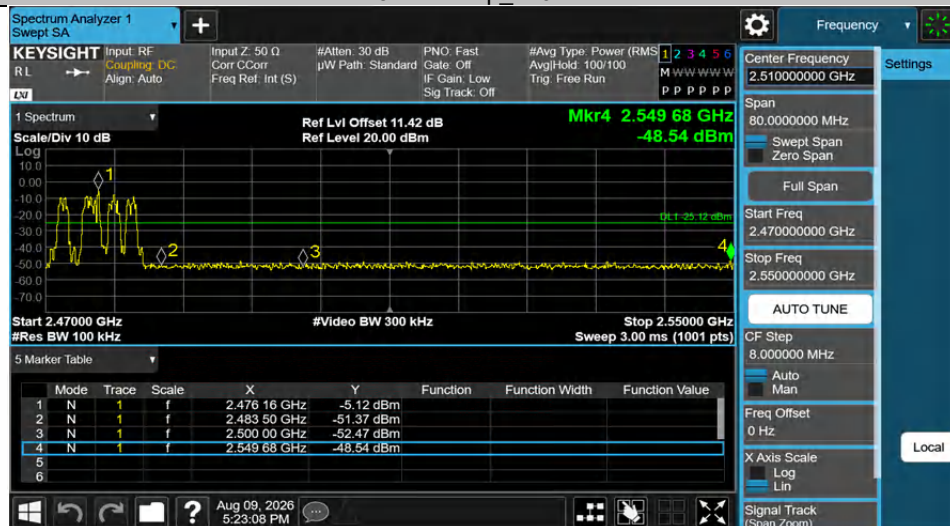
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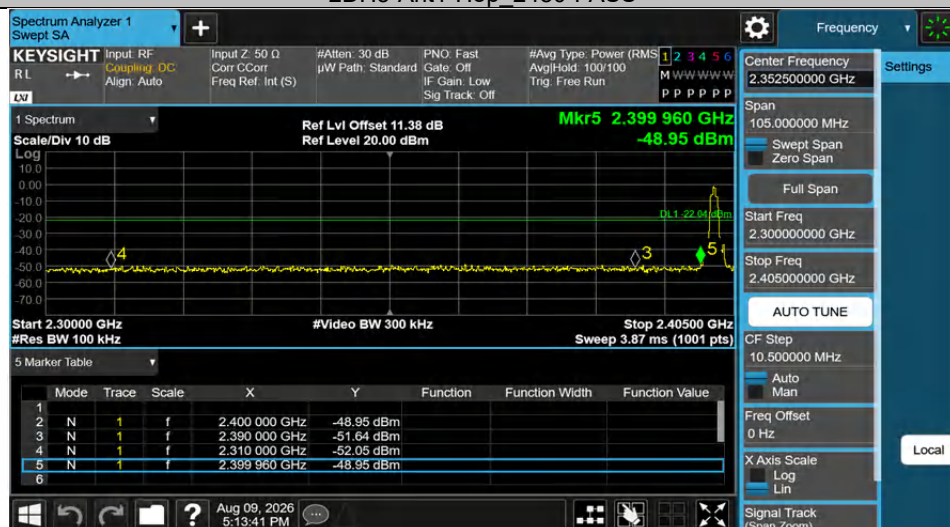
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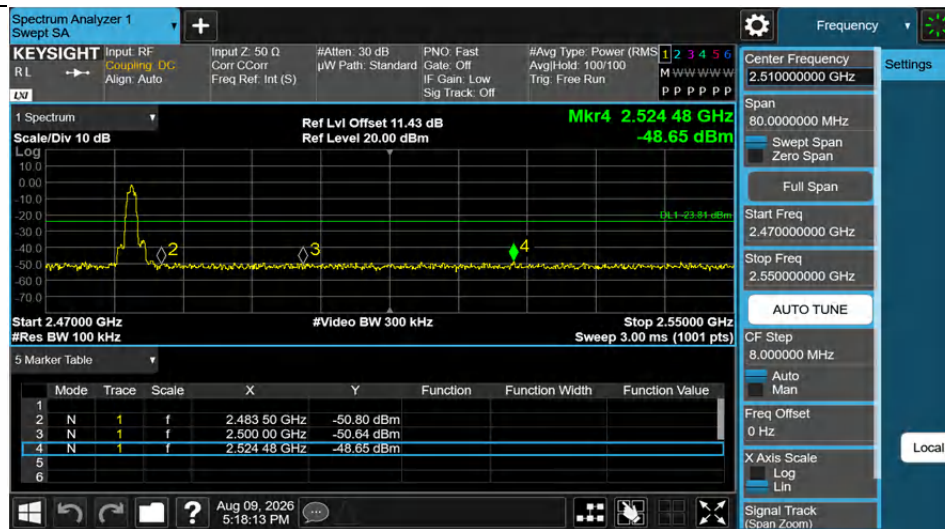
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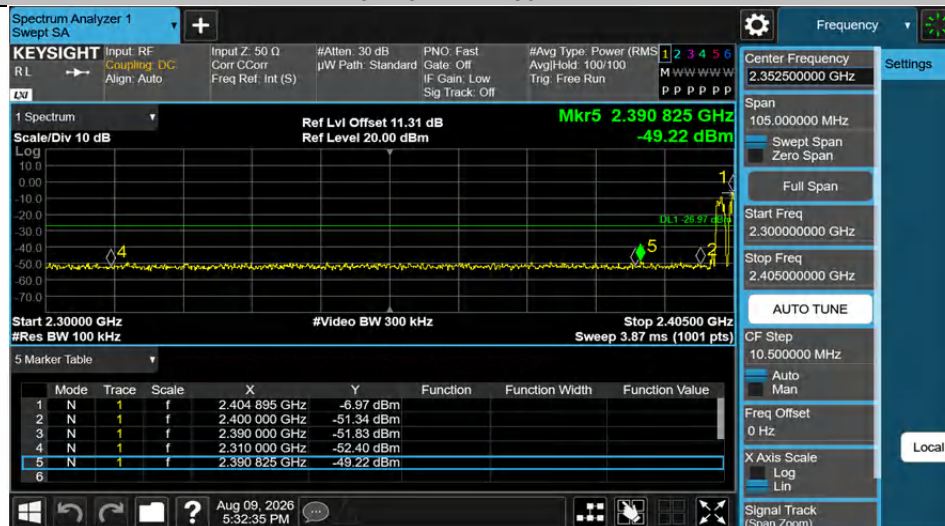
2DH5-Ant1-Hop_2480-PASS



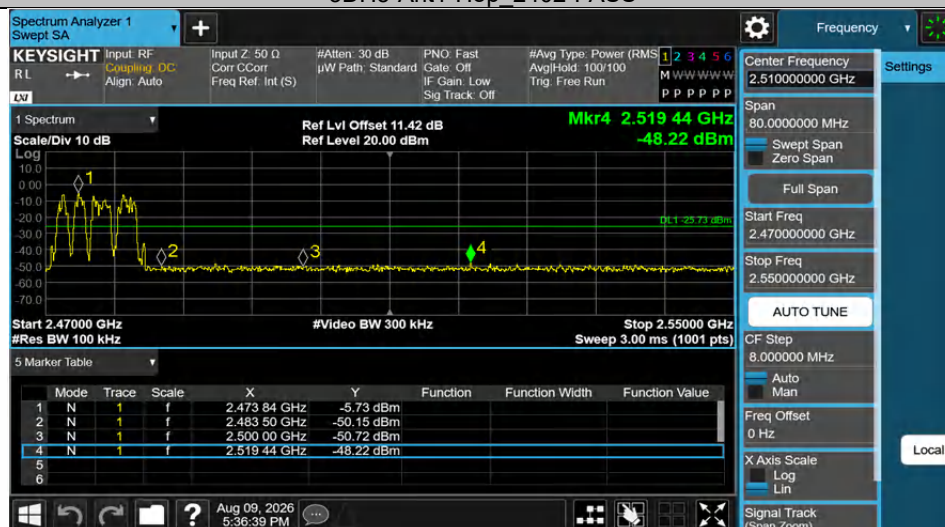
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS

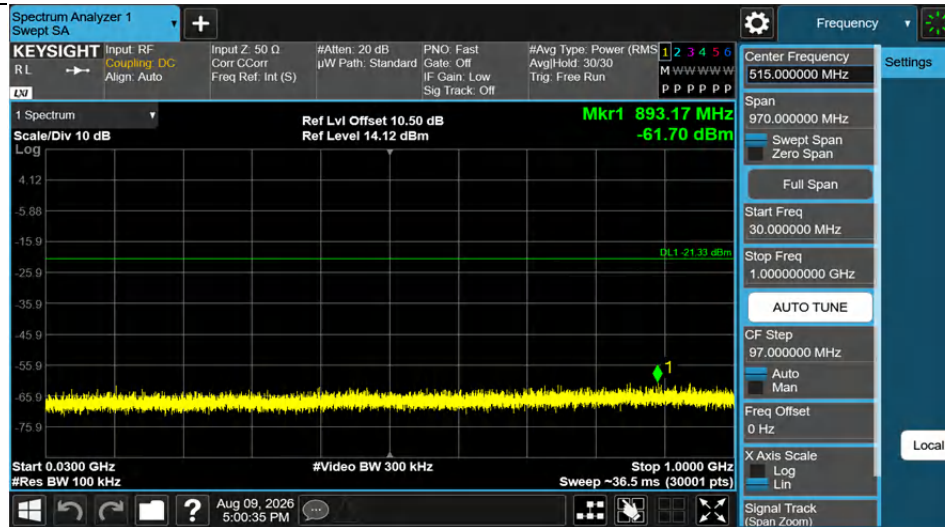


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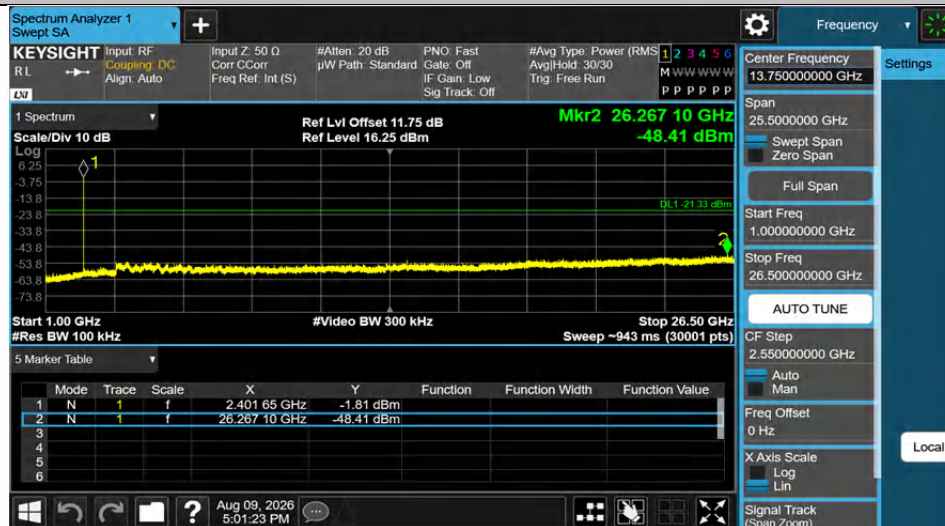


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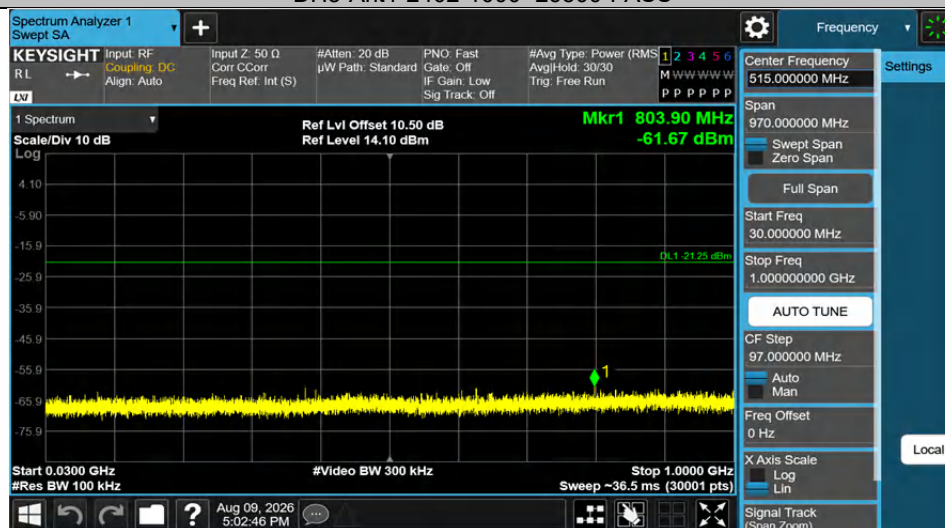
■ Emission level measurement



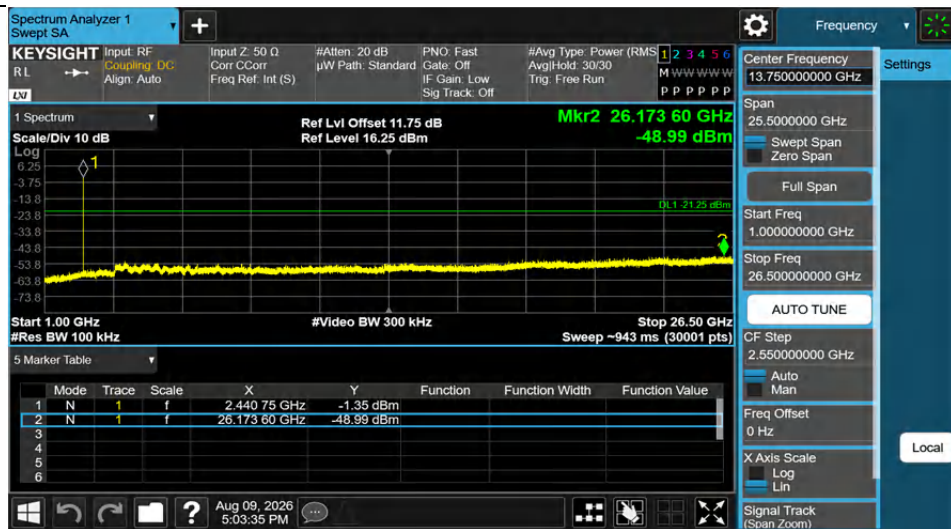
DH5-Ant1-2402-30~1000-PASS



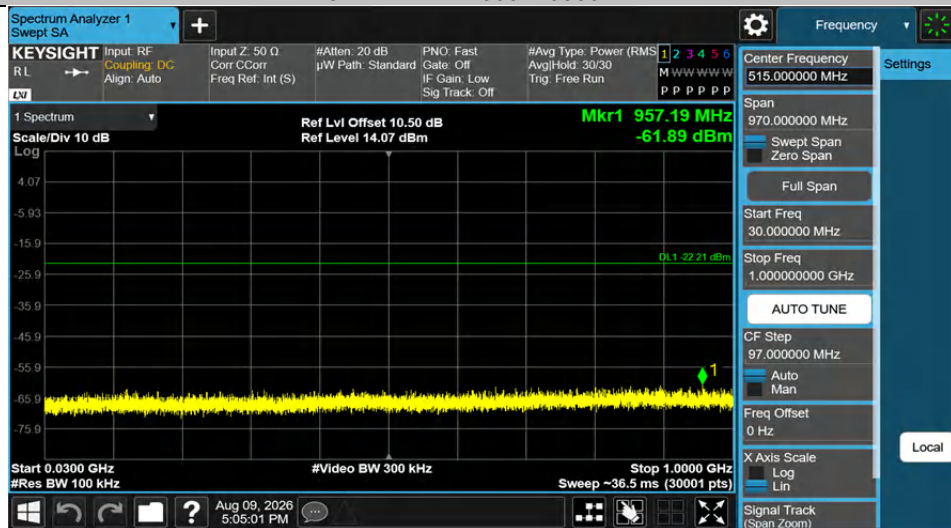
DH5-Ant1-2402-1000~26500-PASS



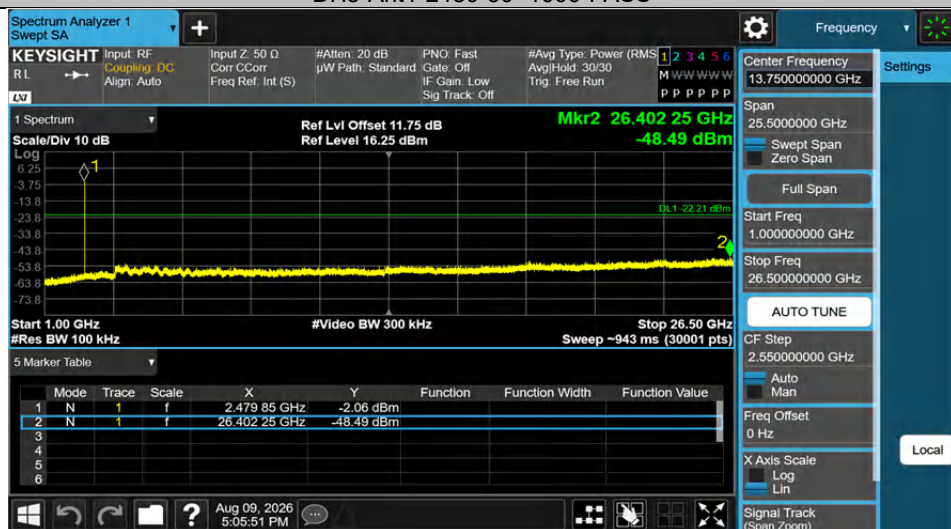
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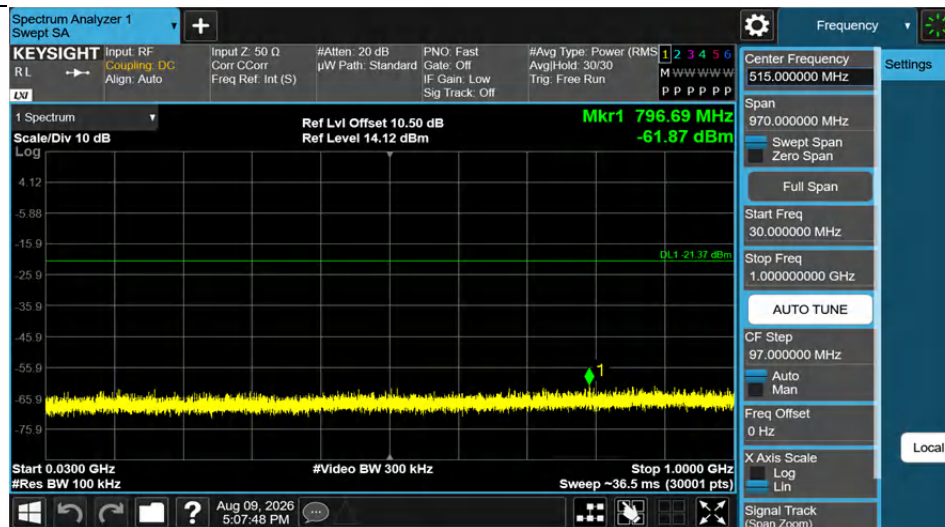
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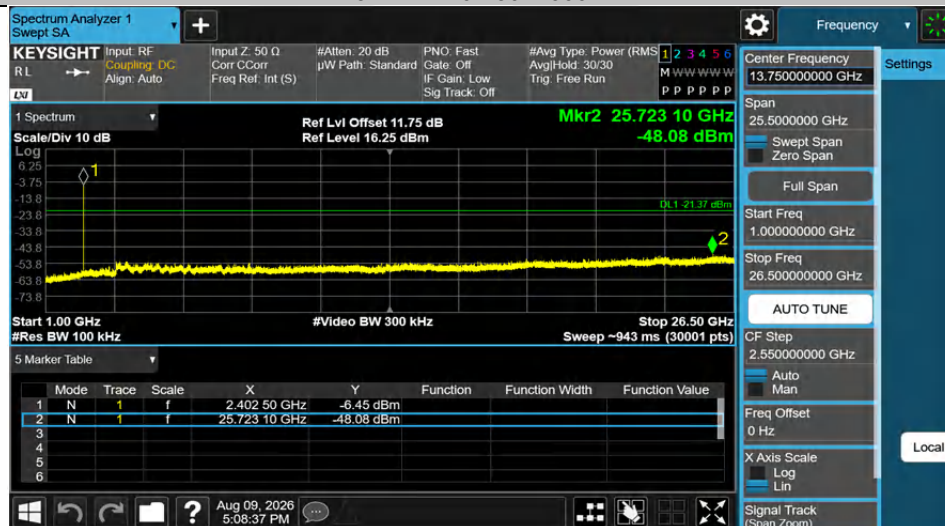
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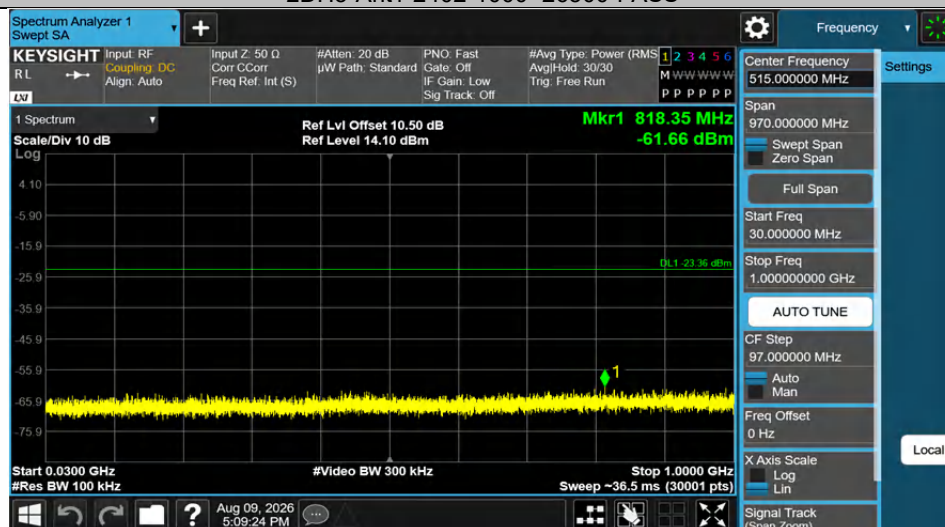
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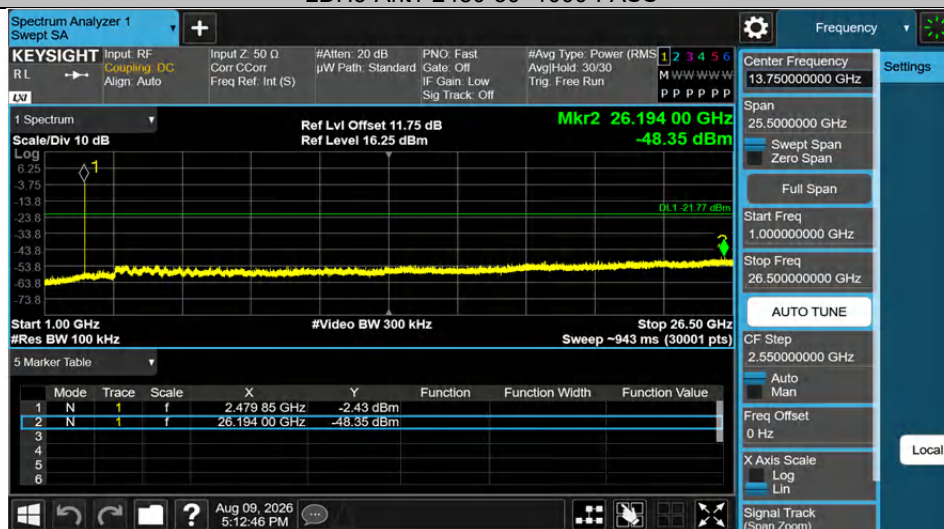
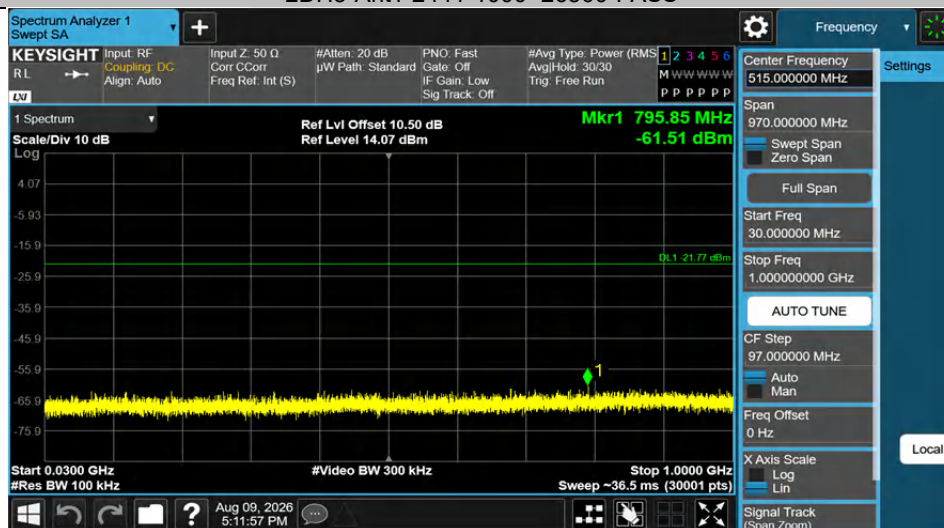
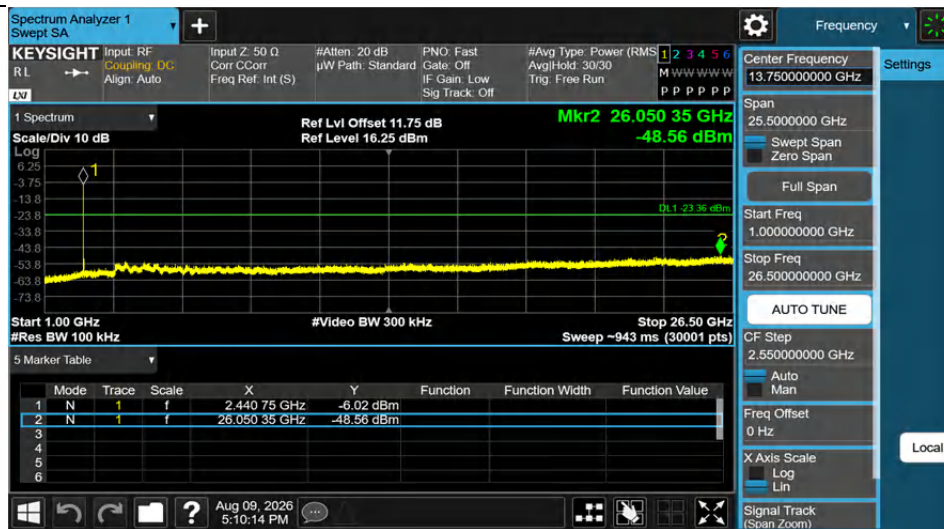
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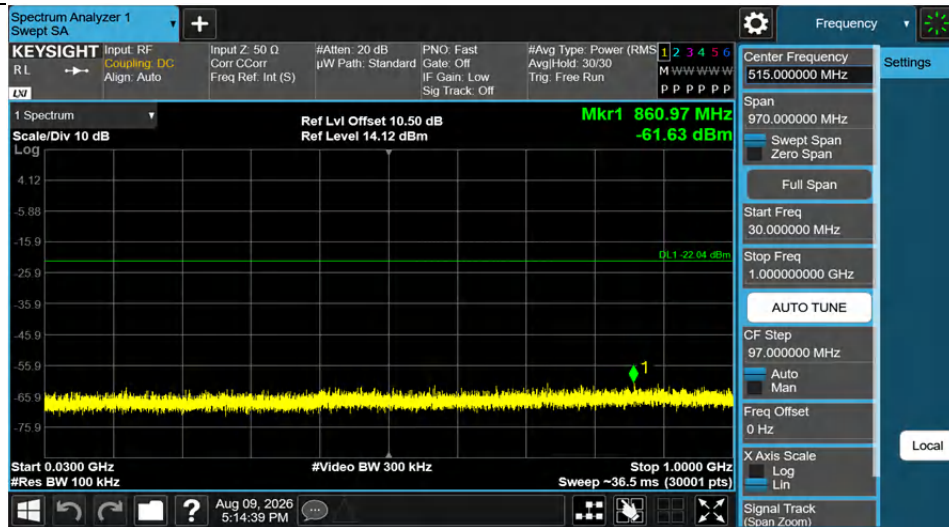


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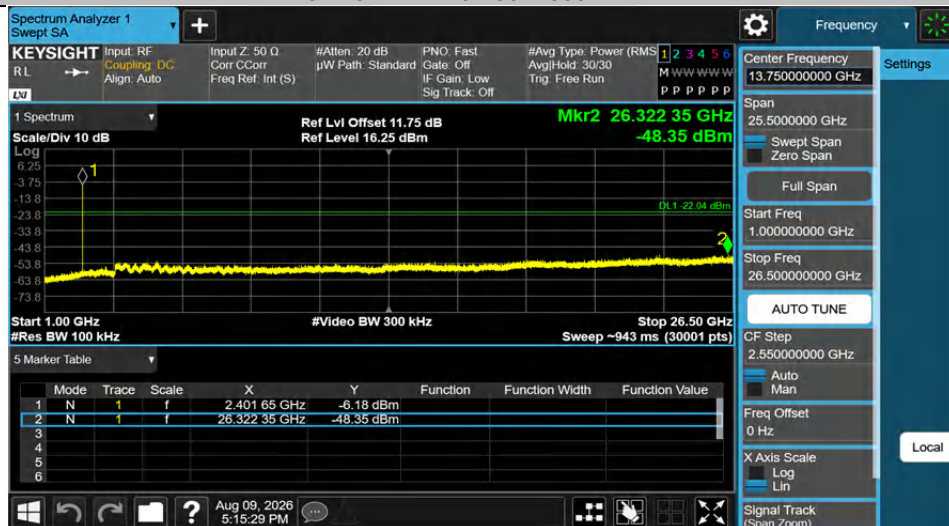


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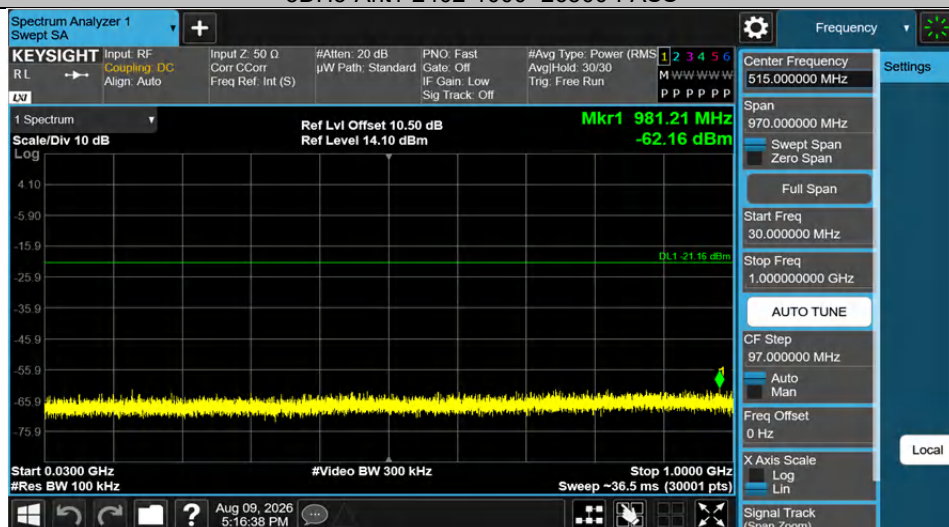




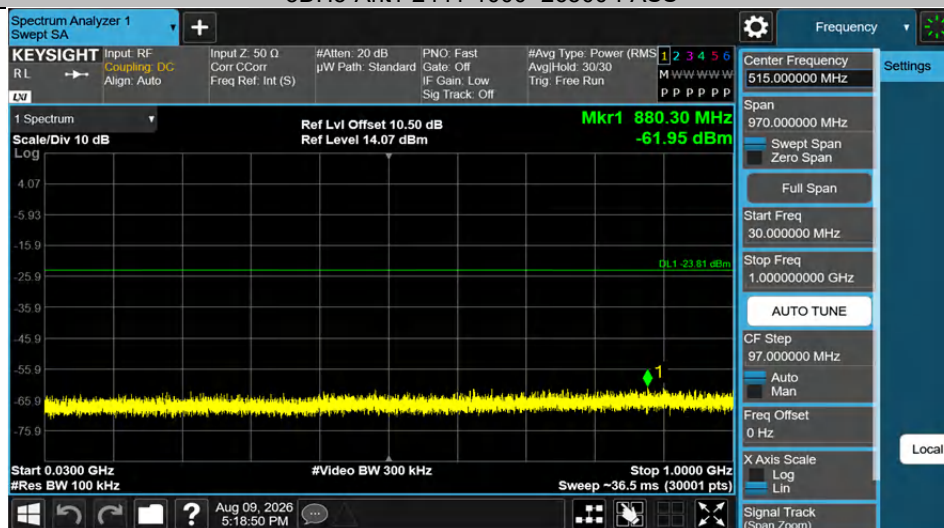
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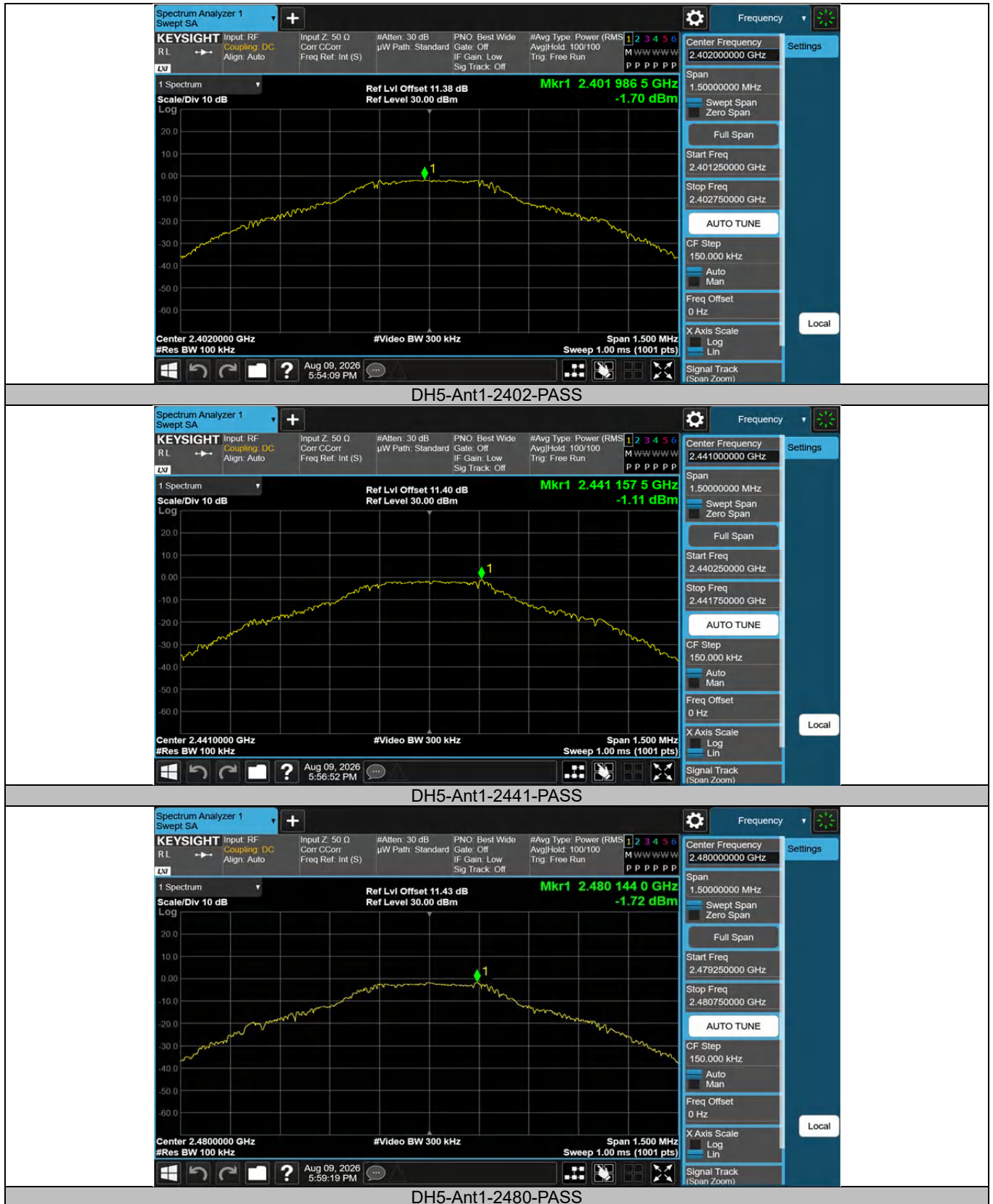
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3DH5-Ant1-2441-30~1000-PASS

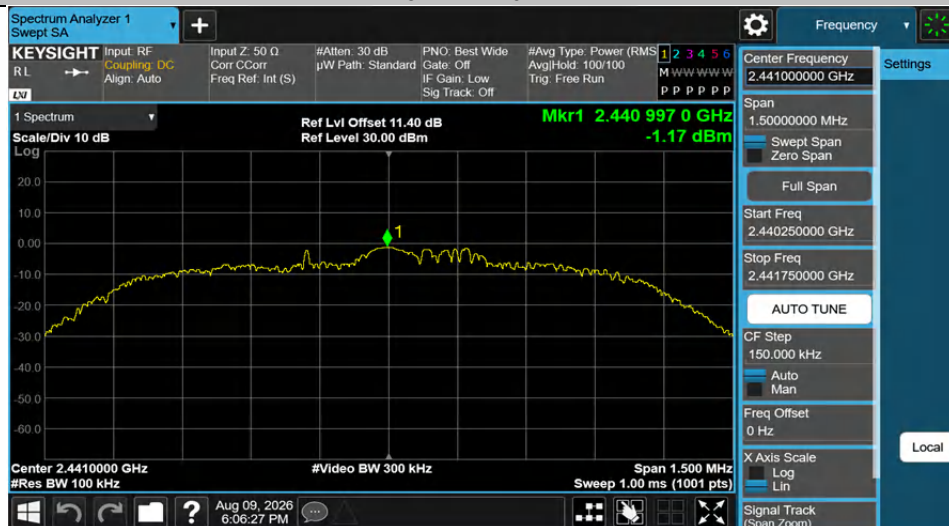


- Left-side device
- Reference level measurement





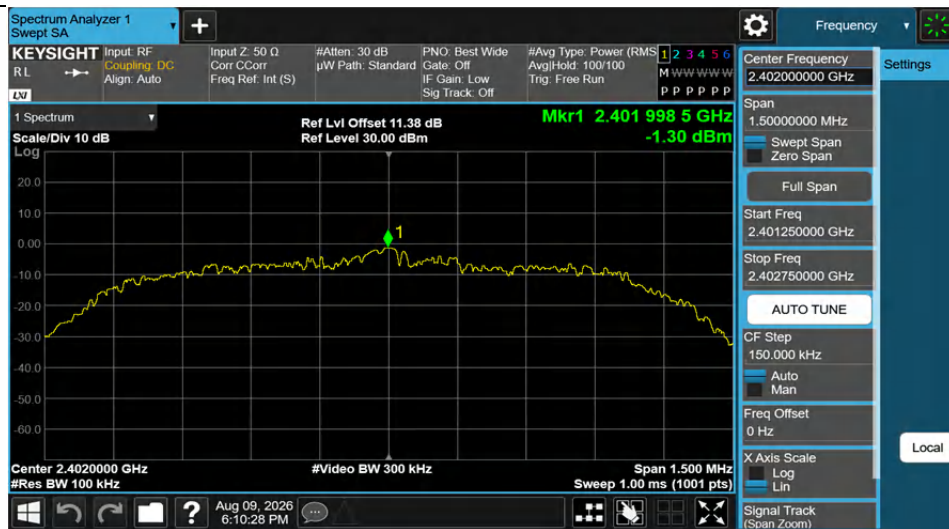
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2DH5-Ant1-2441-PASS



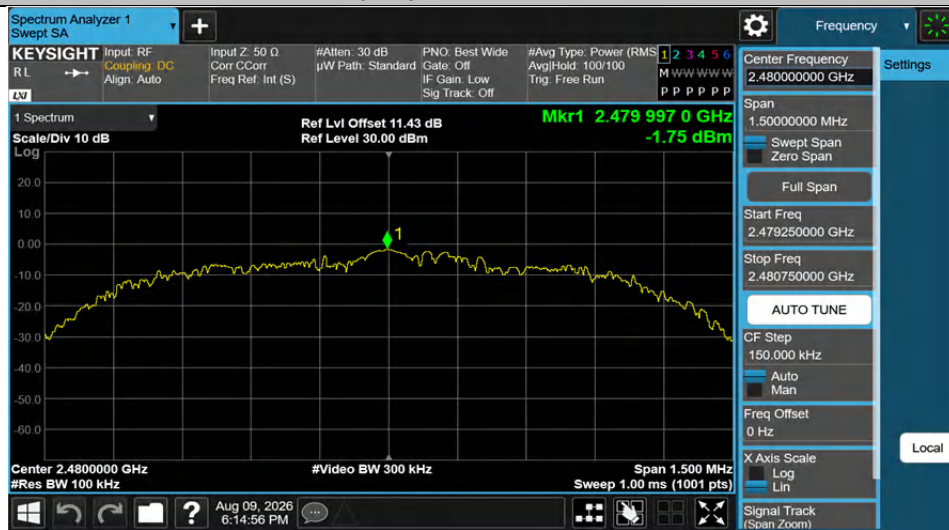
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3DH5-Ant1-2402-PASS

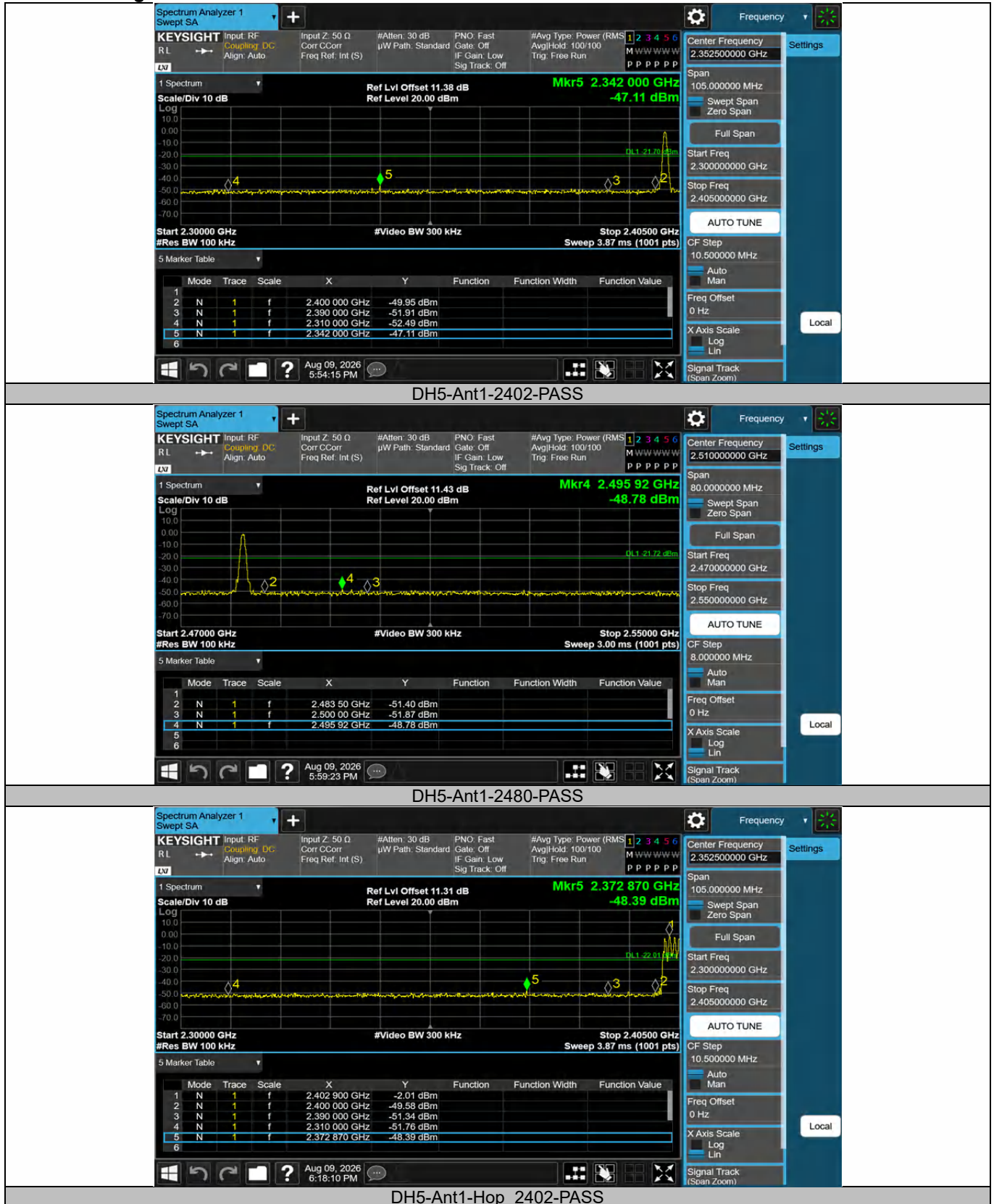


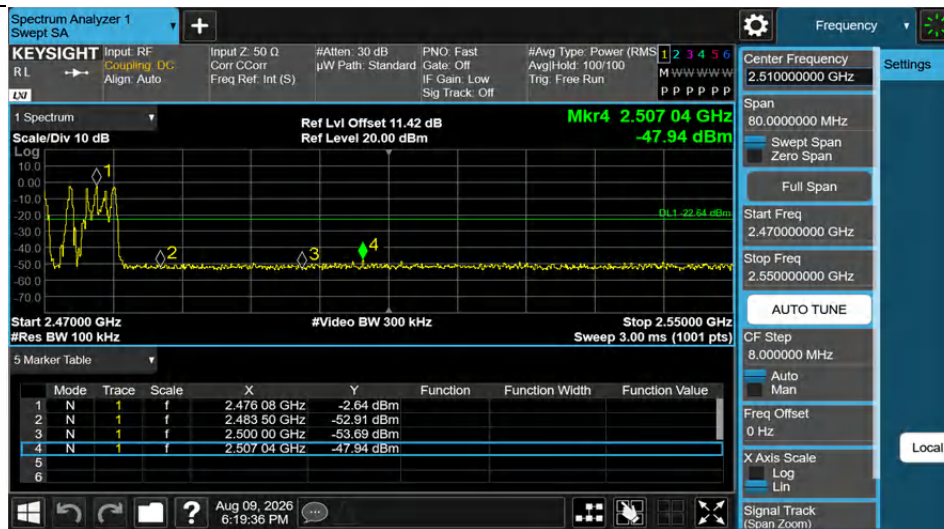
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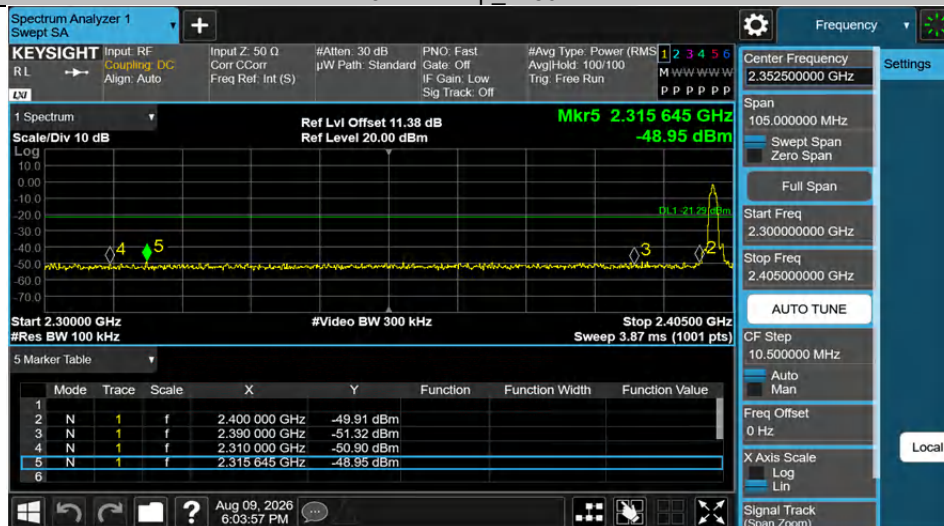
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■ Band-edge measurement

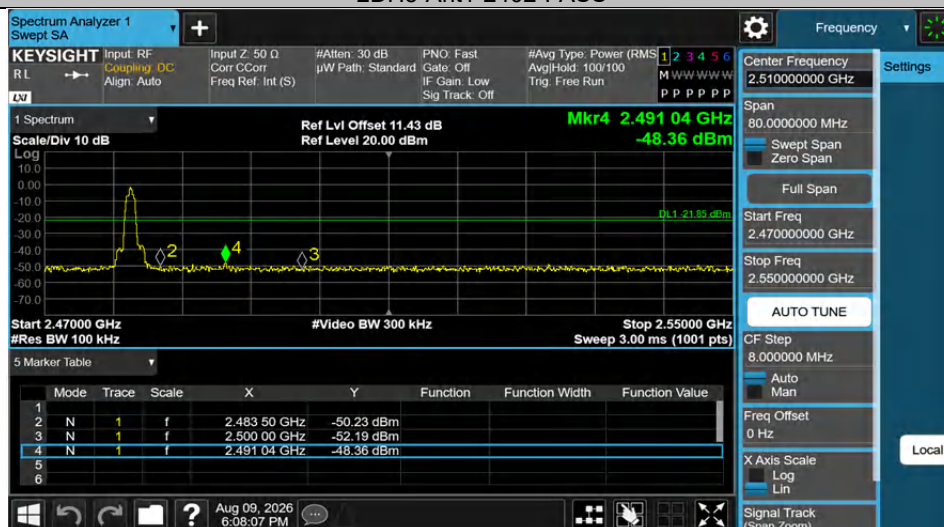




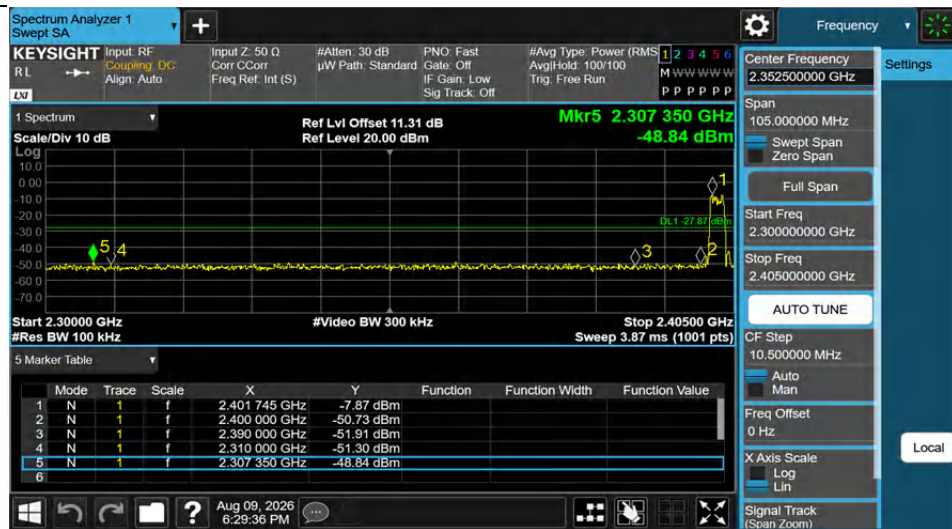
DH5-Ant1-Hop_2480-PASS



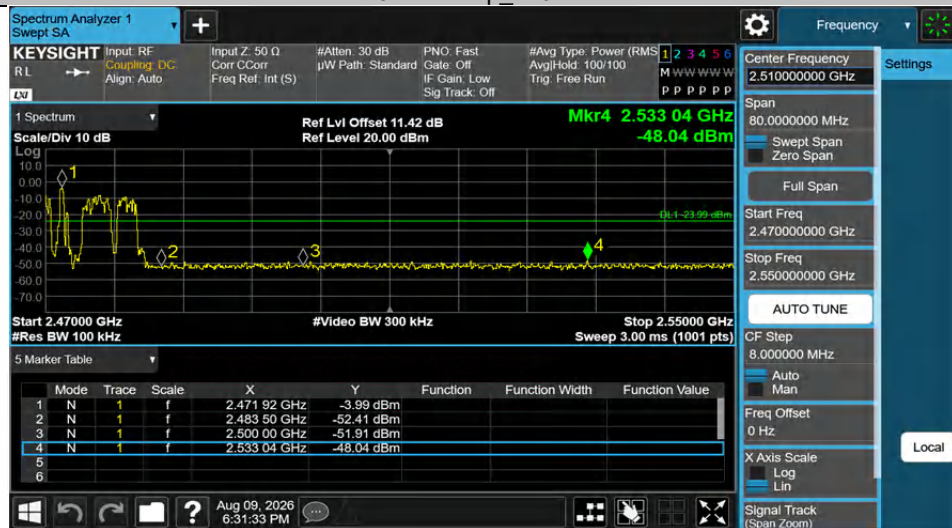
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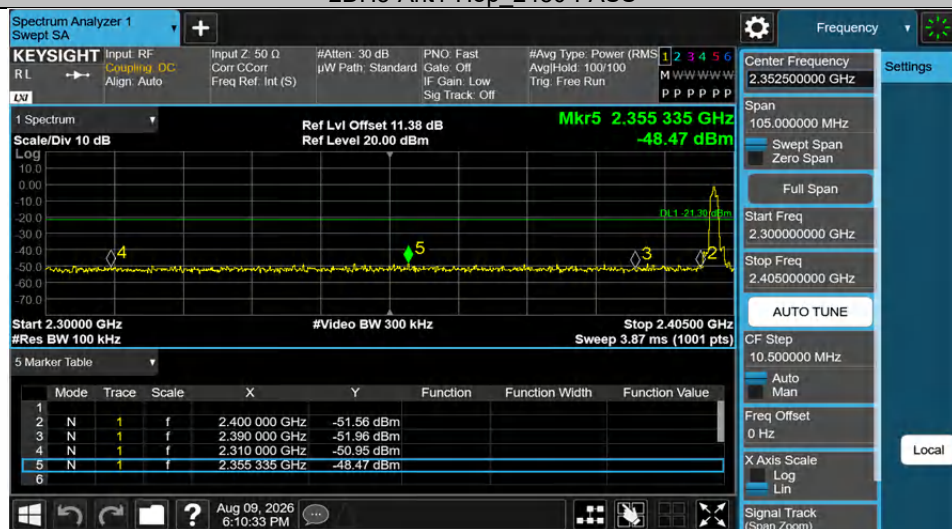
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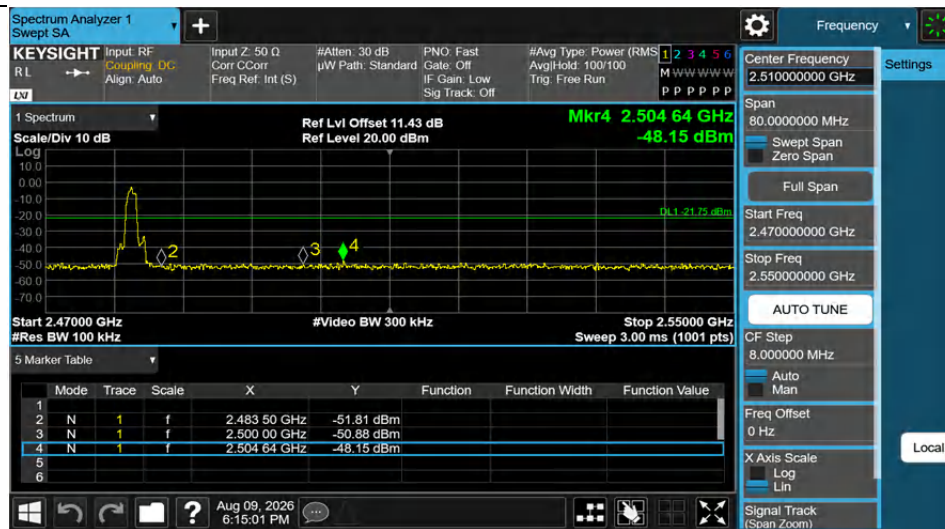
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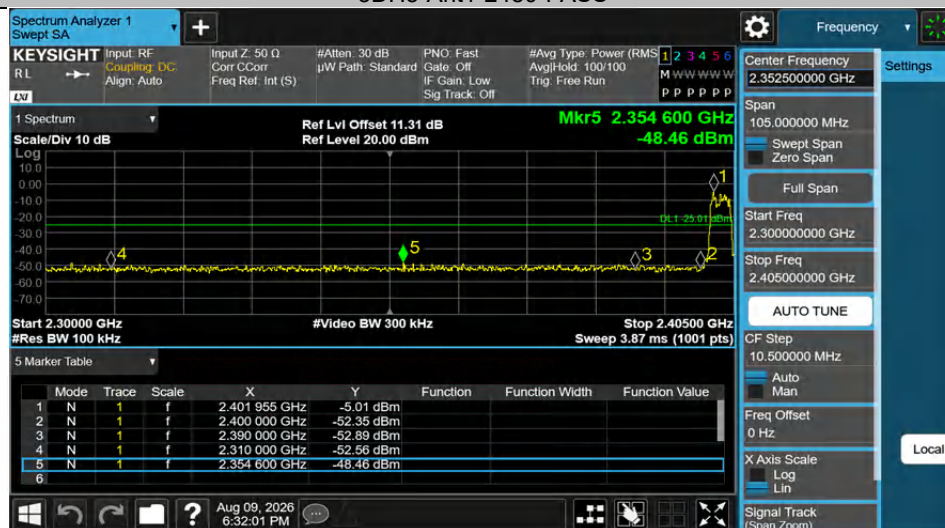
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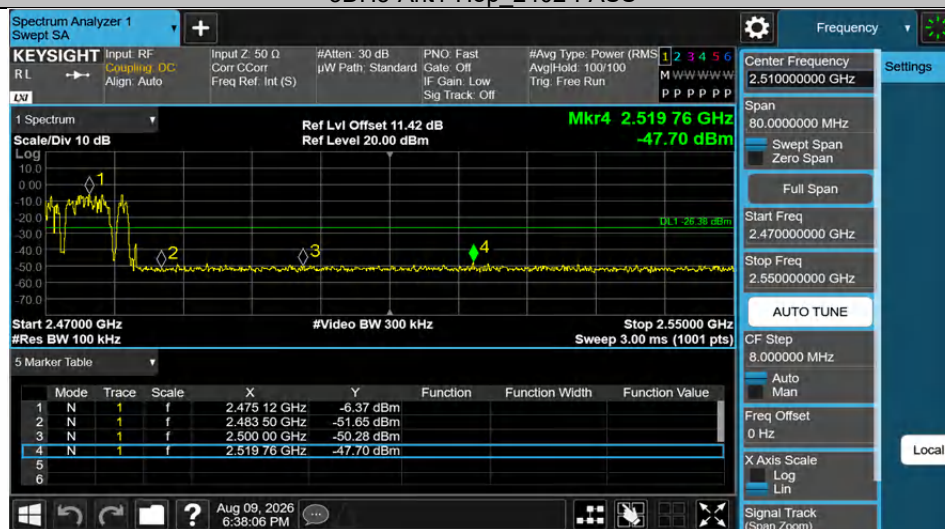
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3DH5-Ant1-2480-PASS

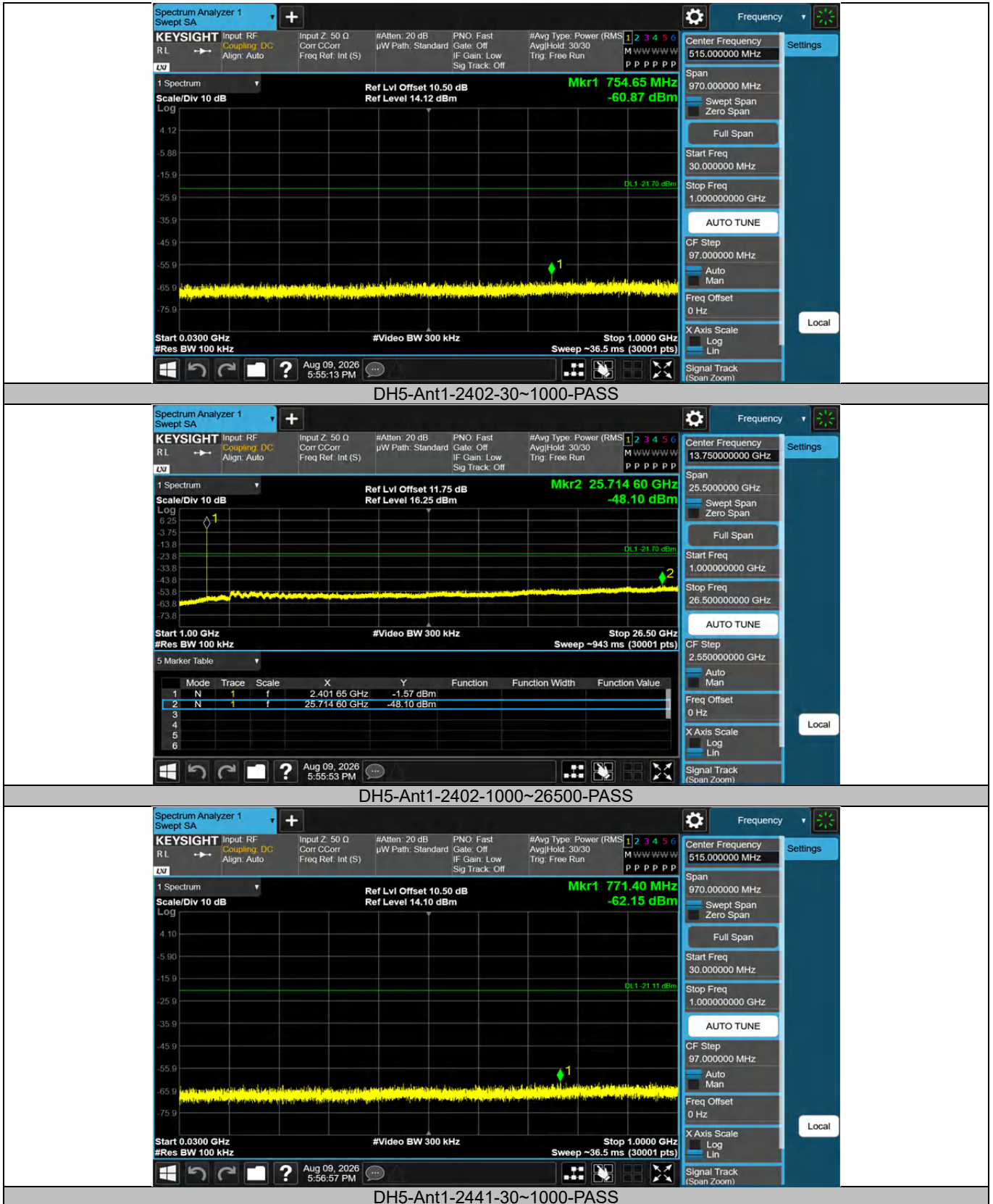


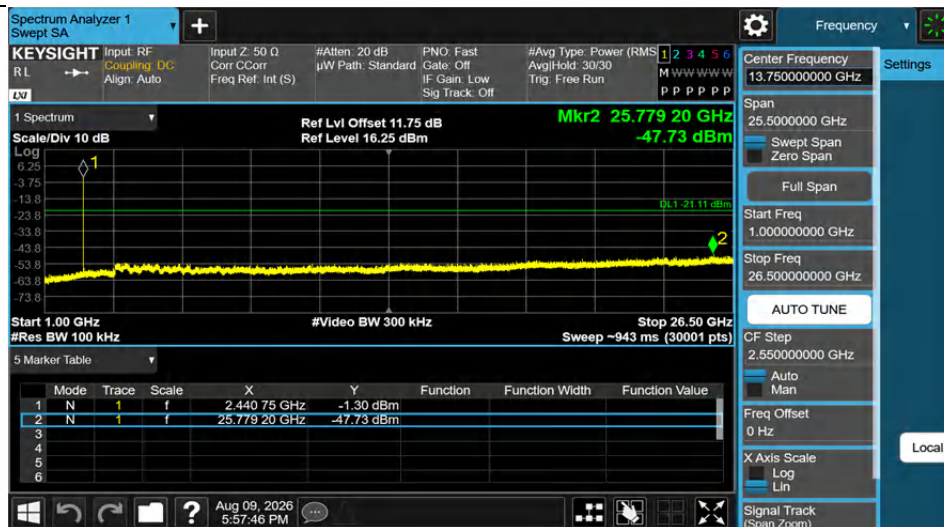
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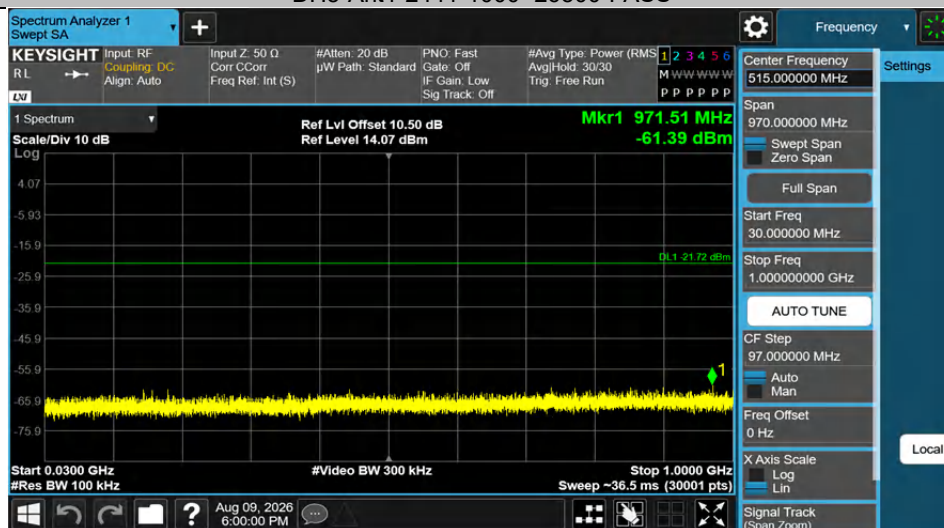
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■ Emission level measurement





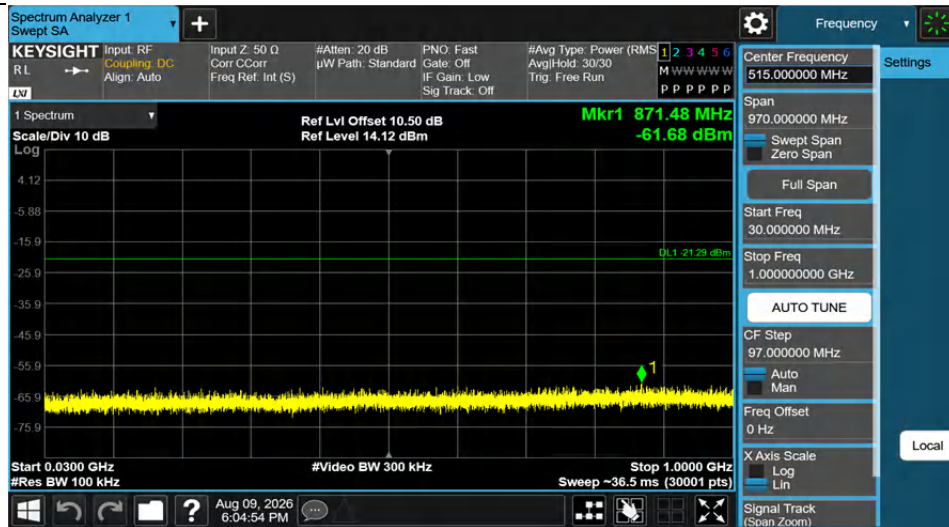
DH5-Ant1-2441-1000~26500-PASS



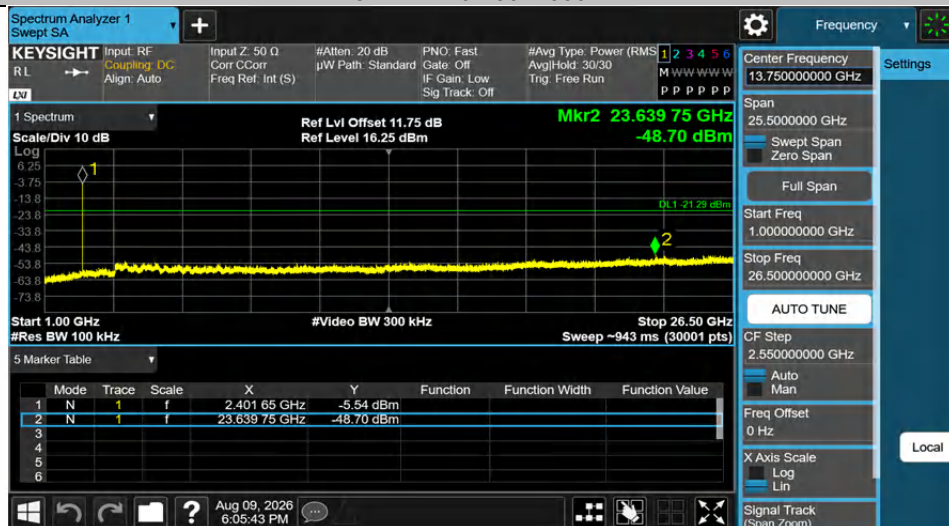
DH5-Ant1-2480-30~1000-PASS



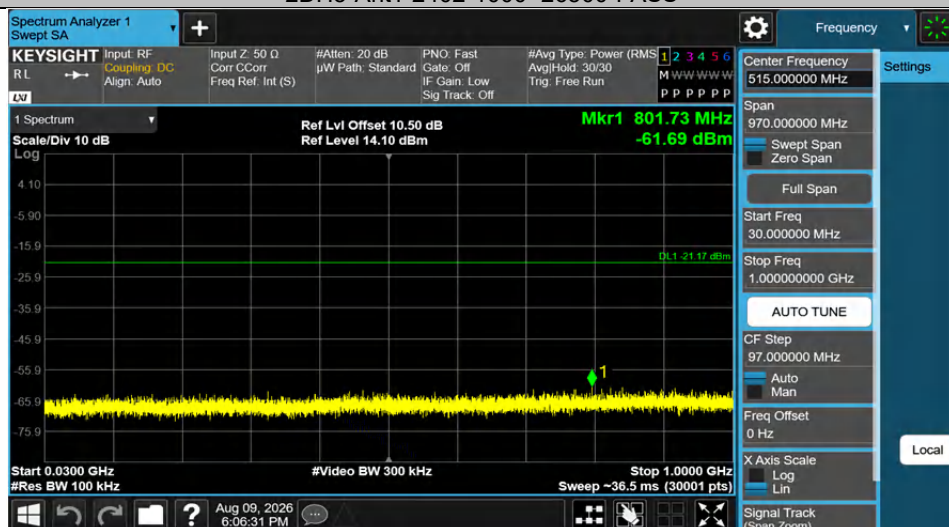
DH5-Ant1-2480-1000~26500-PASS



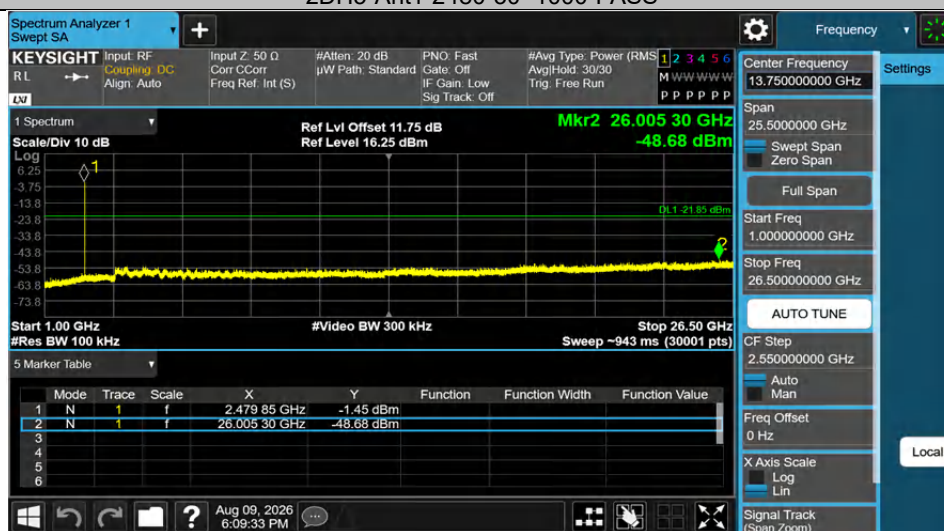
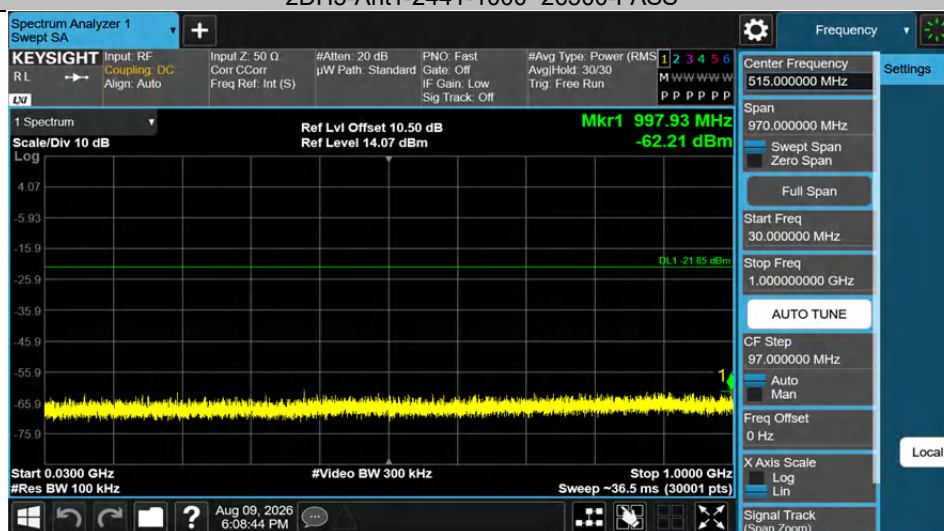
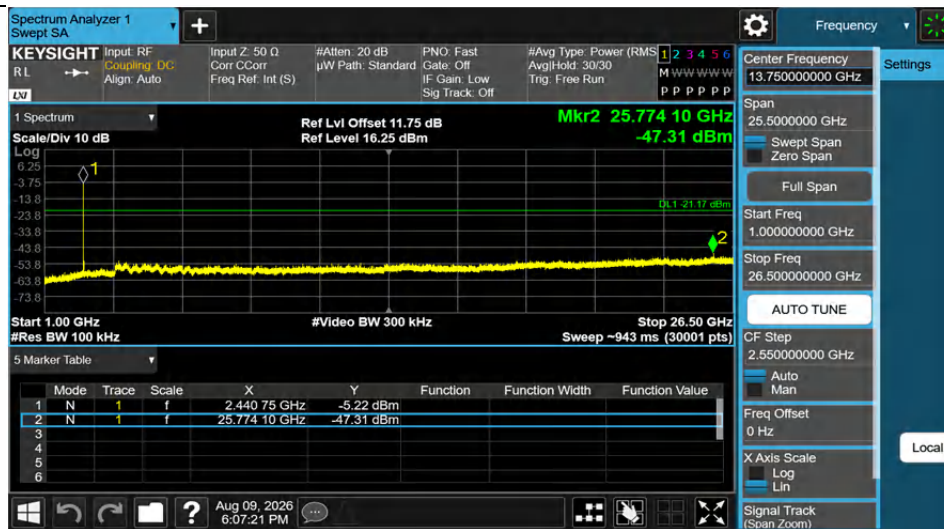
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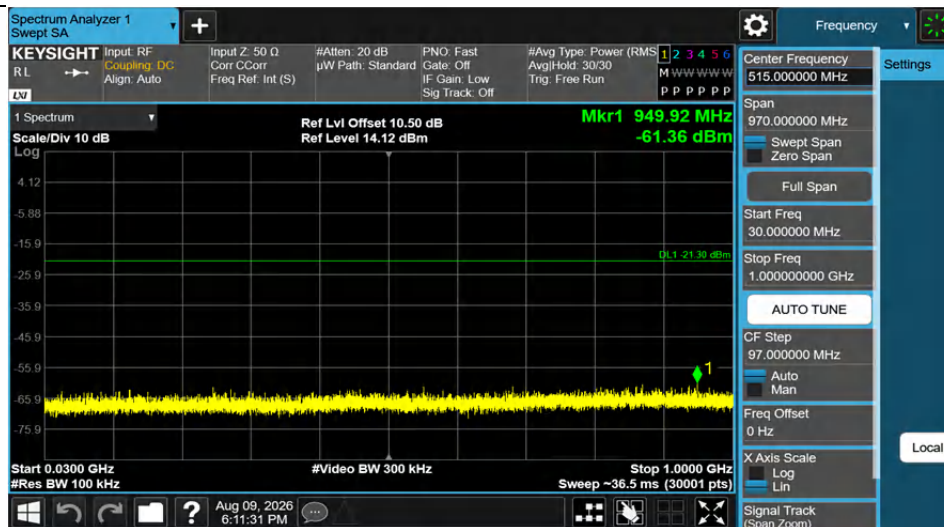


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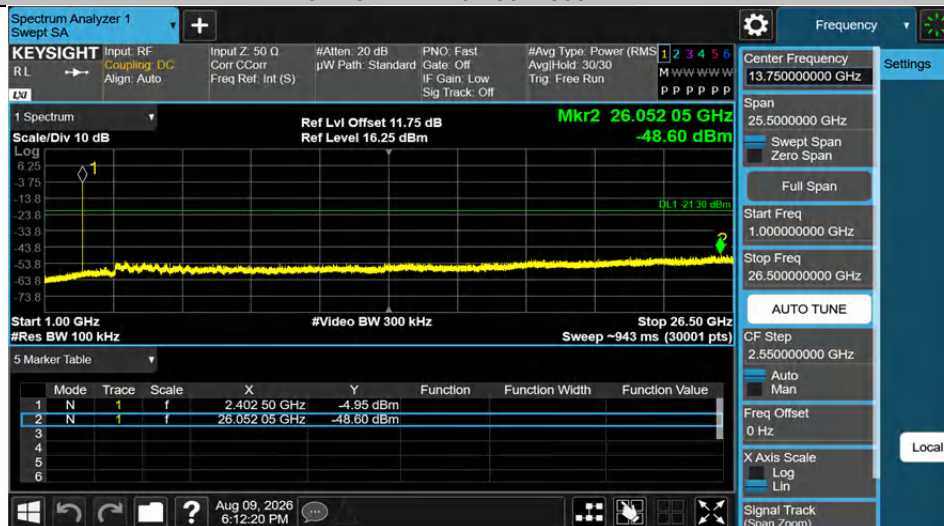


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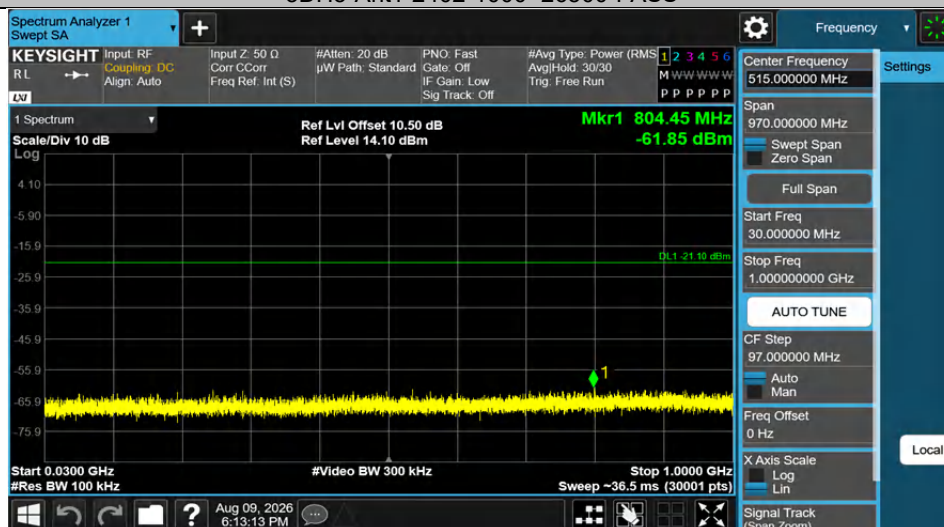




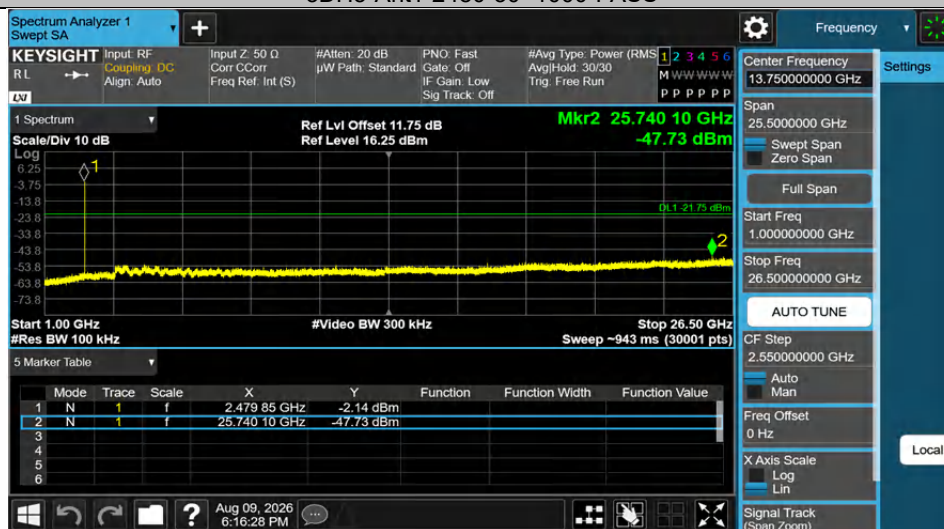
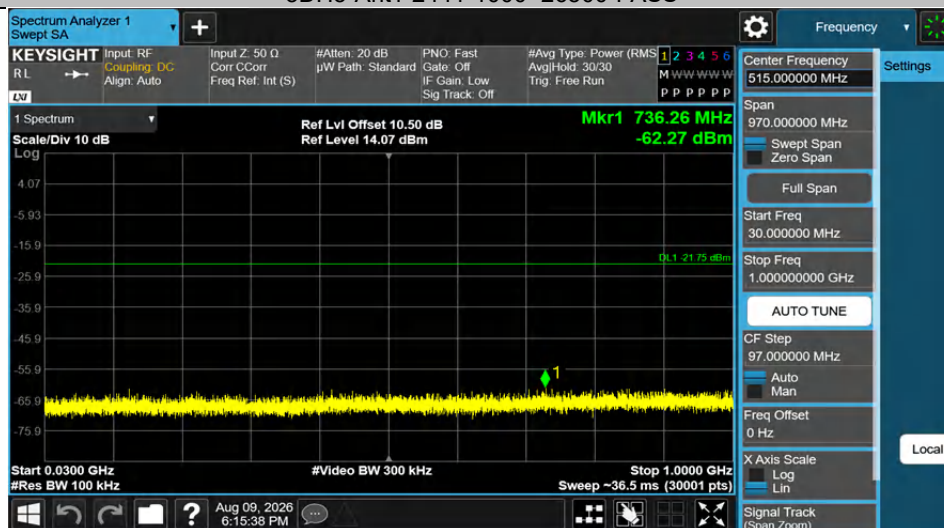
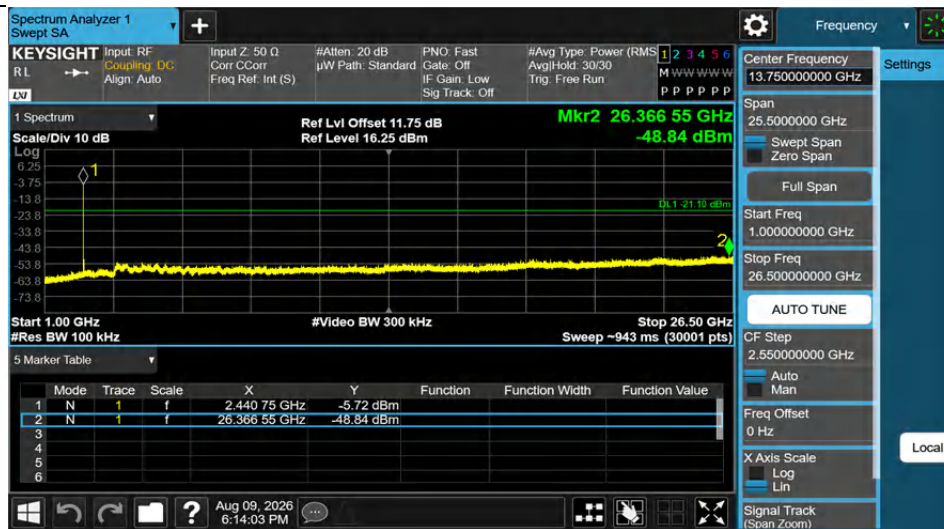
3DH5-Ant1-2402-30~1000-PASS



3DH5-Ant1-2402-1000~26500-PASS



3DH5-Ant1-2441-30~1000-PASS



9.7 RADIATED SPURIOUS EMISSION

9.7.1 Applicable Standard

According to FCC Part 15.247(d), 15.205, 15.209 and KDB 558074 D01 15.247 MEAS GUIDANCE v05r02

9.7.2 Conformance Limit

According to FCC Part 15.247(d): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

According to FCC Part 15.205, Restricted bands

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

According to FCC Part 15.205, the level of any transmitter spurious emission in Restricted bands shall not exceed the level of the emission specified in the following table

Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log (uV/m)	300
0.490-1.705	24000/F(KHz)	20 log (uV/m)	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

9.7.3 Test Configuration

Test according to clause 7.2 radio frequency test setup 2

9.7.4 Test Procedure

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

For Above 1GHz:

The EUT was placed on a turn table which is 1.5m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz

VBW ≥ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For Below 1GHz:

The EUT was placed on a turn table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 100 kHz for

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For Below 30MHz:

The EUT was placed on a turn table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 9kHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For Below 150KHz:

The EUT was placed on a turn table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 200Hz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Follow the guidelines in ANSI C63.10-2020 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b). Submit this data.

Now set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from $20\log(\text{dwell time}/100\text{ms})$, in an effort to demonstrate compliance with the 15.209 limit. Submit this data.

Repeat above procedures until all frequency measured was complete.

9.7.5 Test Results

■ Spurious Emission below 30MHz(9KHz to 30MHz)

Temperature:	25° C
Relative Humidity:	63%
ATM Pressure:	1011 mbar

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
--	--	--	--	--	--	--	--

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

Distance extrapolation factor = $40\log(\text{Specific distance}/\text{test distance})$ (dB);

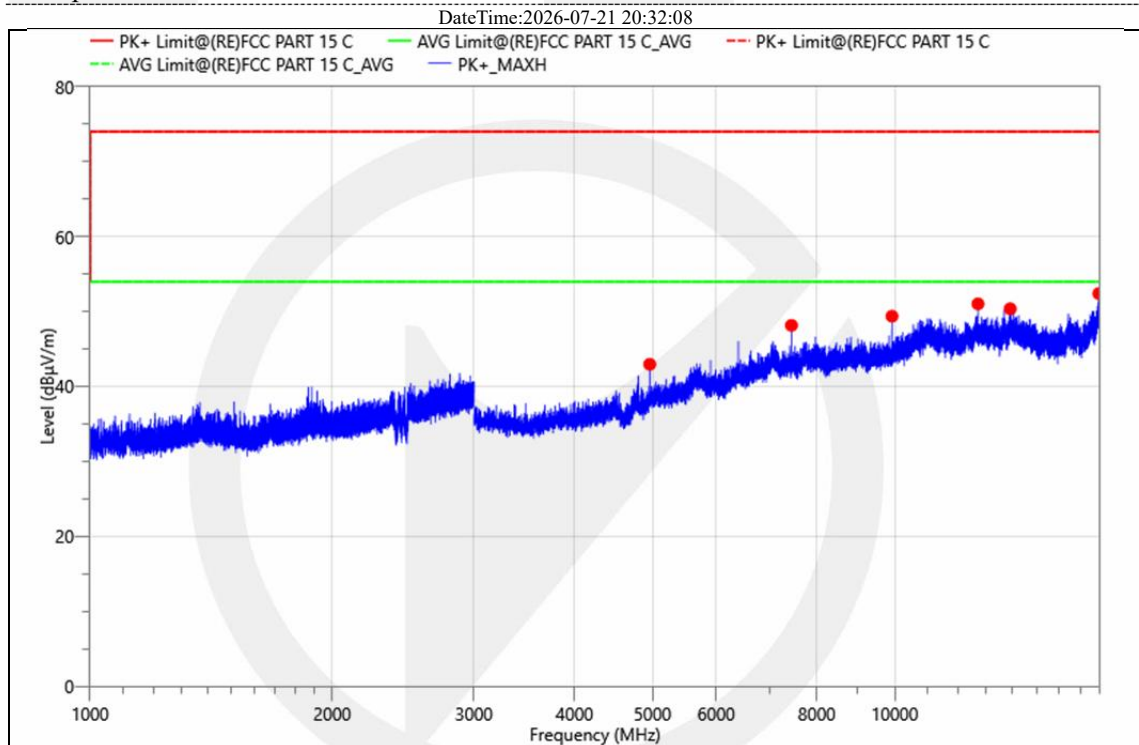
Limit line = Specific limits(dBuV) + distance extrapolation factor

■ Spurious Emission Above 1GHz(1GHz to 25GHz)

● **Right-side device**

All the antenna(Antenna 1) and modes(GFSK, $\pi/4$ -DQPSK, 8DPSK) mode have been tested, and the worst(Antenna 1,GFSK) result recorded was report as below:

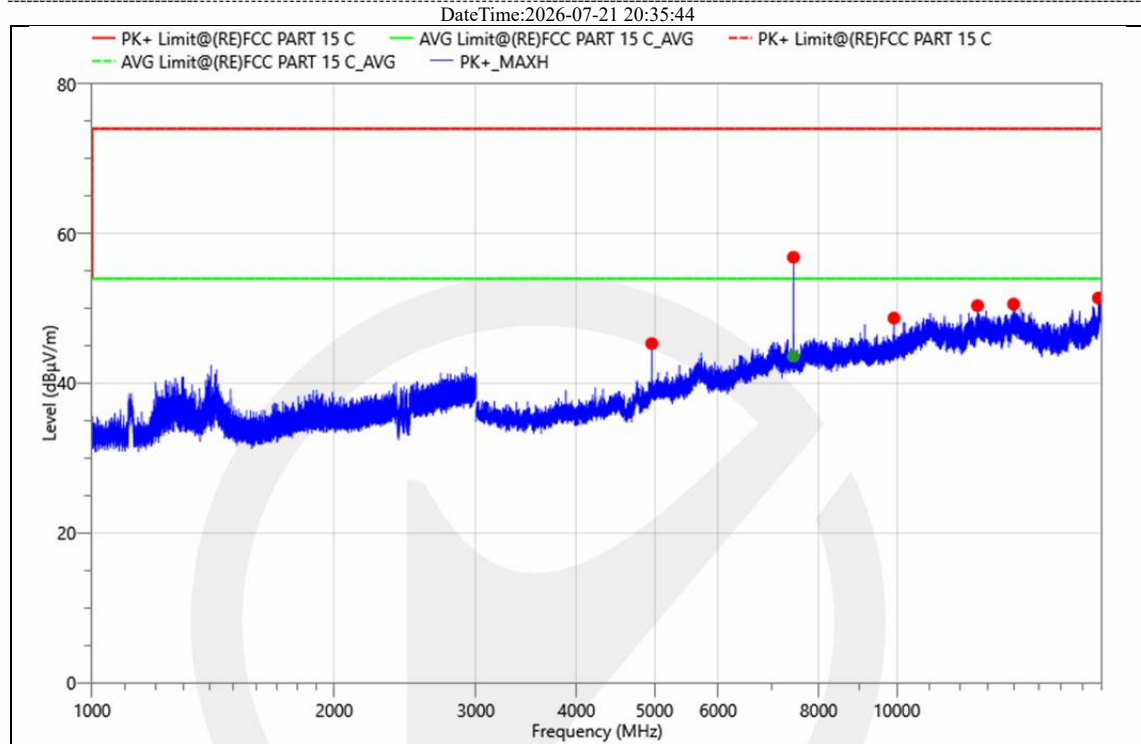
Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



Final Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	4960.000	50.37	-7.41	42.96	74.00	31.04	PK+	V	PASS
2	7440.000	48.28	-0.13	48.15	74.00	25.85	PK+	V	PASS
3	9920.000	45.88	3.5	49.38	74.00	24.62	PK+	V	PASS
4	12688.000	44.04	6.99	51.03	74.00	22.97	PK+	V	PASS
5	13912.500	40.91	9.46	50.37	74.00	23.63	PK+	V	PASS
6	17929.000	39.60	12.8	52.40	74.00	21.60	PK+	V	PASS

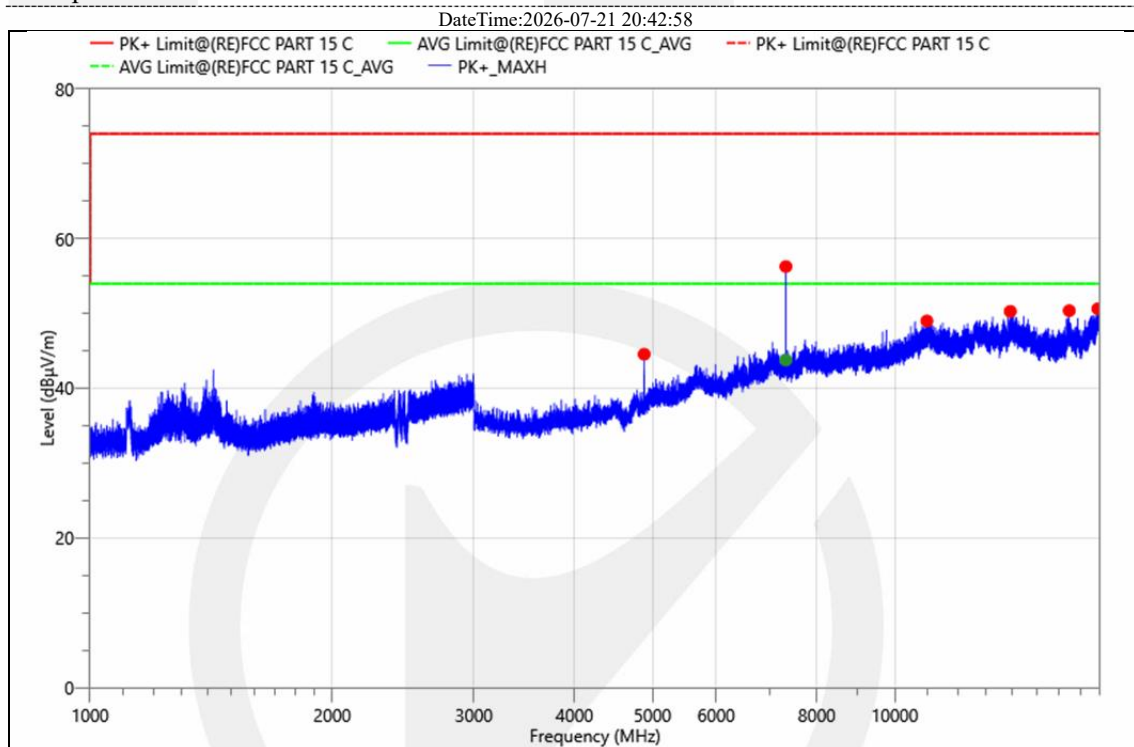
Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



Final_Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	4960.000	52.72	-7.41	45.31	74.00	28.69	PK+	H	PASS
2	7439.500	56.98	-0.14	56.84	74.00	17.16	PK+	H	PASS
3	7439.500	43.76	-0.14	43.62	54.00	10.38	AVG	H	PASS
4	9920.000	45.21	3.5	48.71	74.00	25.29	PK+	H	PASS
5	12600.500	42.79	7.59	50.38	74.00	23.62	PK+	H	PASS
6	13970.000	41.45	9.13	50.58	74.00	23.42	PK+	H	PASS
7	17809.500	39.56	11.83	51.39	74.00	22.61	PK+	H	PASS

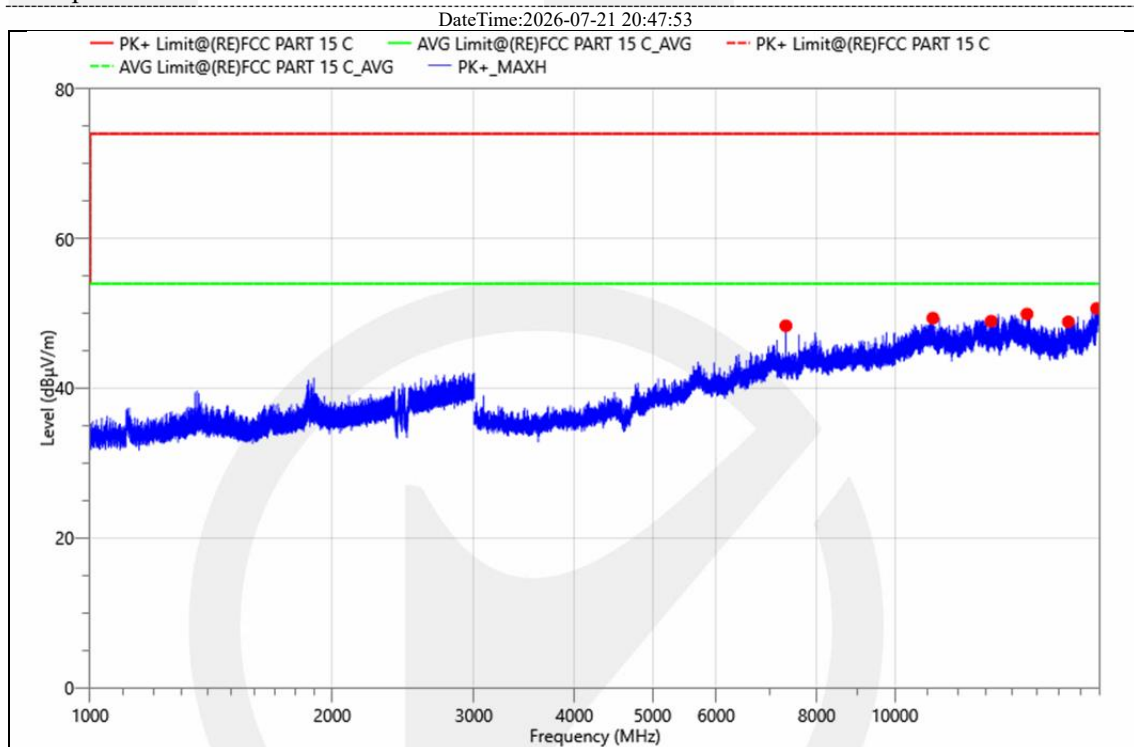
Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2441MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



Final_Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	4881.500	52.76	-8.21	44.55	74.00	29.45	PK+	H	PASS
2	7323.000	56.64	-0.37	56.27	74.00	17.73	PK+	H	PASS
3	7323.000	44.14	-0.37	43.77	54.00	10.23	AVG	H	PASS
4	10962.000	42.74	6.26	49.00	74.00	25.00	PK+	H	PASS
5	13916.500	40.84	9.44	50.28	74.00	23.72	PK+	H	PASS
6	16473.500	40.34	10.04	50.38	74.00	23.62	PK+	H	PASS
7	17883.000	38.29	12.33	50.62	74.00	23.38	PK+	H	PASS

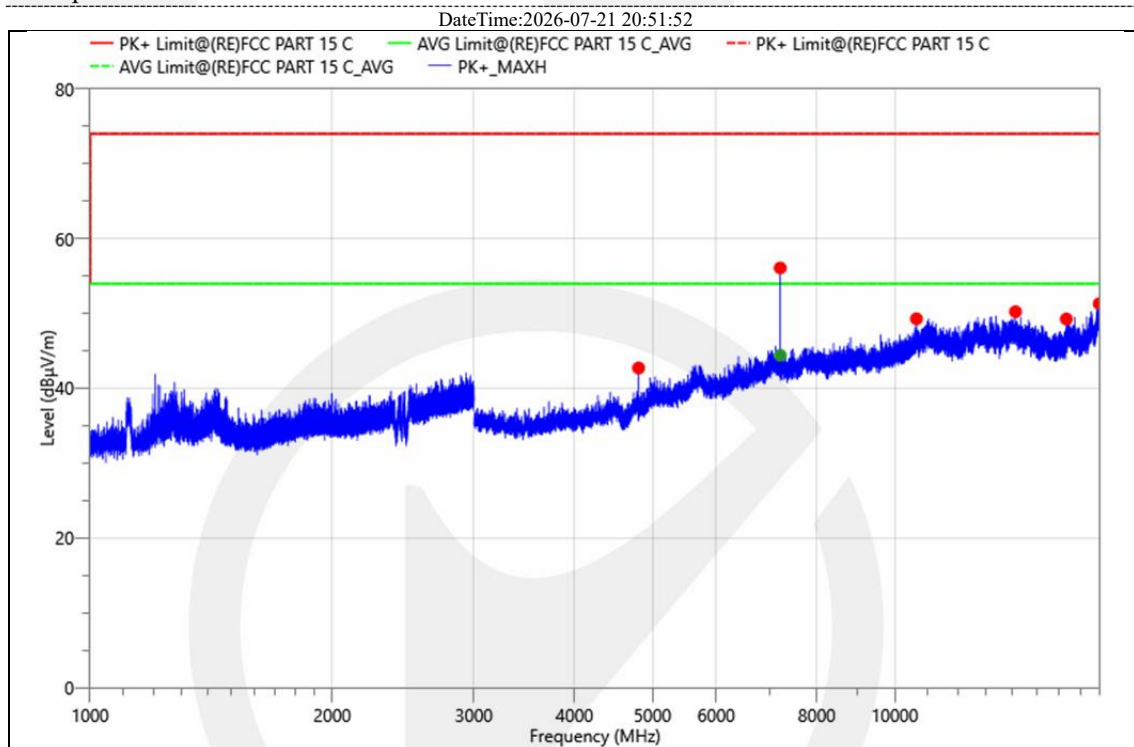
Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2441MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



Final_Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7322.500	48.72	-0.37	48.35	74.00	25.65	PK+	V	PASS
2	11150.500	43.36	6.01	49.37	74.00	24.63	PK+	V	PASS
3	13175.500	40.83	8.14	48.97	74.00	25.03	PK+	V	PASS
4	14600.500	40.76	9.16	49.92	74.00	24.08	PK+	V	PASS
5	16434.000	38.94	9.94	48.88	74.00	25.12	PK+	V	PASS
6	17825.500	38.74	11.94	50.68	74.00	23.32	PK+	V	PASS

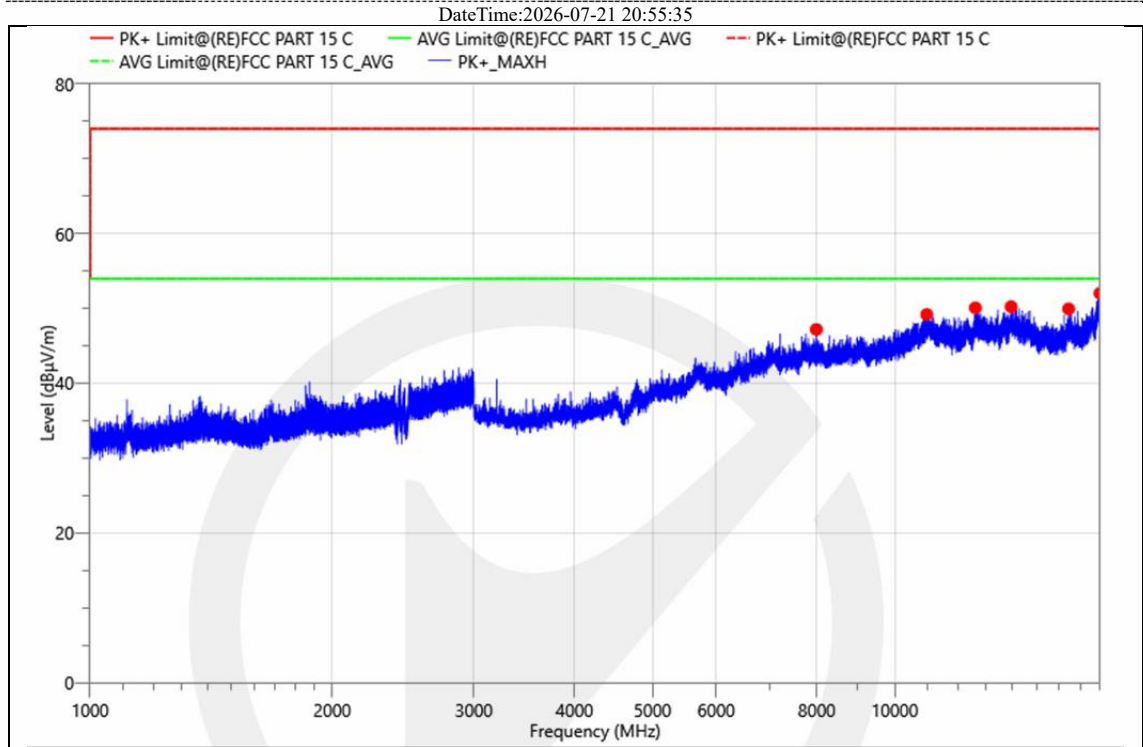
Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



Final_Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	4804.000	51.51	-8.8	42.71	74.00	31.29	PK+	H	PASS
2	7205.500	56.64	-0.56	56.08	74.00	17.92	PK+	H	PASS
3	7205.500	44.97	-0.56	44.41	54.00	9.59	AVG	H	PASS
4	10640.000	44.15	5.14	49.29	74.00	24.71	PK+	H	PASS
5	14125.500	41.15	9.08	50.23	74.00	23.77	PK+	H	PASS
6	16340.000	40.40	8.86	49.26	74.00	24.74	PK+	H	PASS
7	17947.500	38.29	13.02	51.31	74.00	22.69	PK+	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



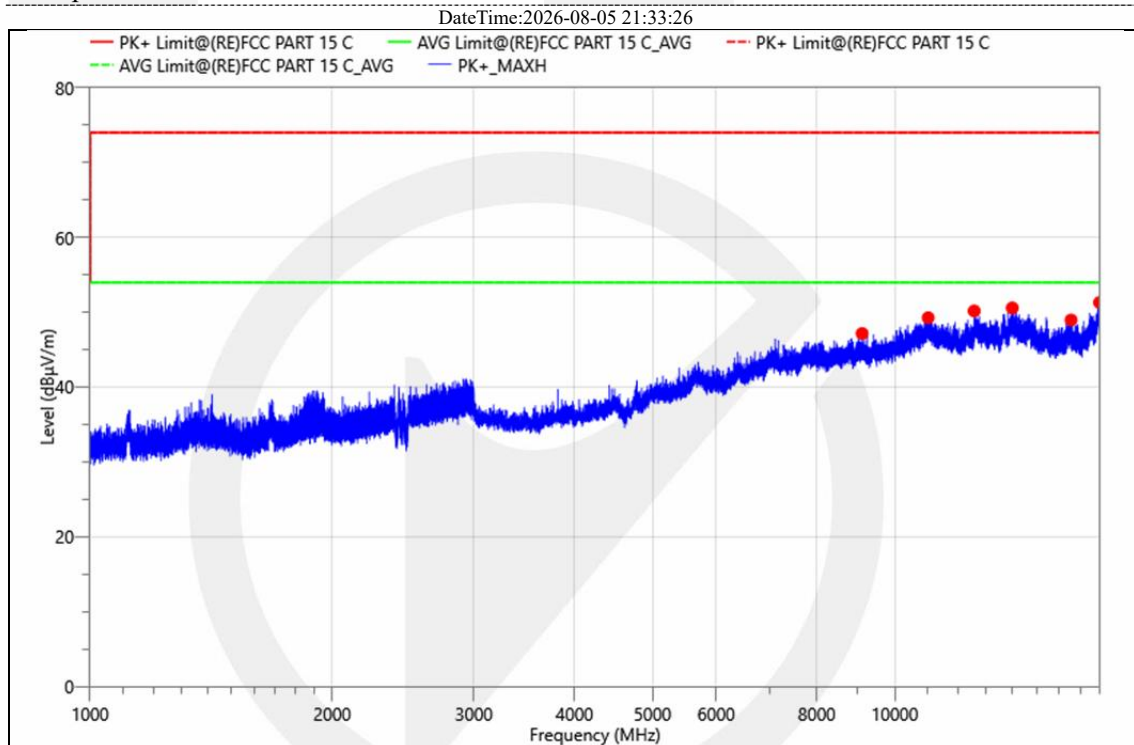
Final_Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7990.000	46.28	0.91	47.19	74.00	26.81	PK+	V	PASS
2	10959.000	42.98	6.22	49.20	74.00	24.80	PK+	V	PASS
3	12592.500	42.55	7.53	50.08	74.00	23.92	PK+	V	PASS
4	13949.500	40.98	9.25	50.23	74.00	23.77	PK+	V	PASS
5	16442.500	39.99	9.96	49.95	74.00	24.05	PK+	V	PASS
6	17988.000	38.52	13.51	52.03	74.00	21.97	PK+	V	PASS

● **Left-side device**

All the antenna(Antenna 1) and modes(GFSK, $\pi/4$ -DQPSK, 8DPSK) mode have been tested, and the worst(Antenna 1,GFSK) result recorded was report as below:

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

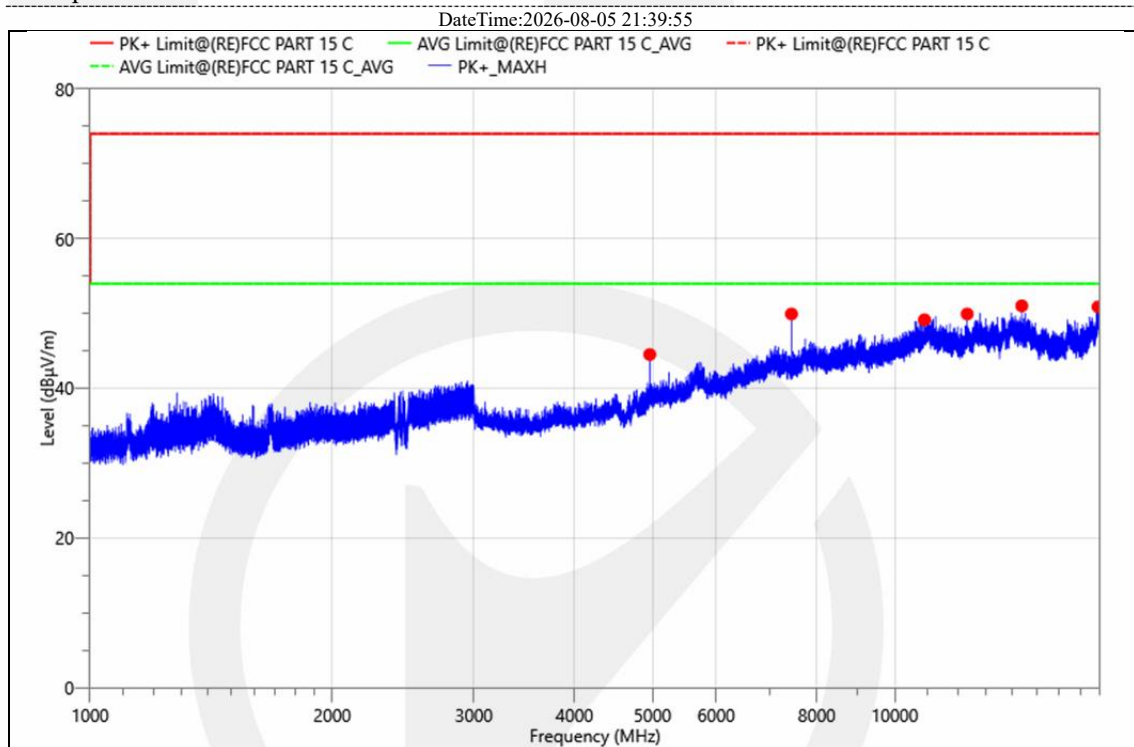


Final_Result

(Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	9107.500	45.24	1.92	47.16	74.00	26.84	PK+	V	PASS
2	11002.500	42.55	6.72	49.27	74.00	24.73	PK+	V	PASS
3	12549.500	42.99	7.19	50.18	74.00	23.82	PK+	V	PASS
4	13996.000	41.60	8.98	50.58	74.00	23.42	PK+	V	PASS
5	16560.500	39.10	9.87	48.97	74.00	25.03	PK+	V	PASS
6	17967.000	38.05	13.26	51.31	74.00	22.69	PK+	V	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

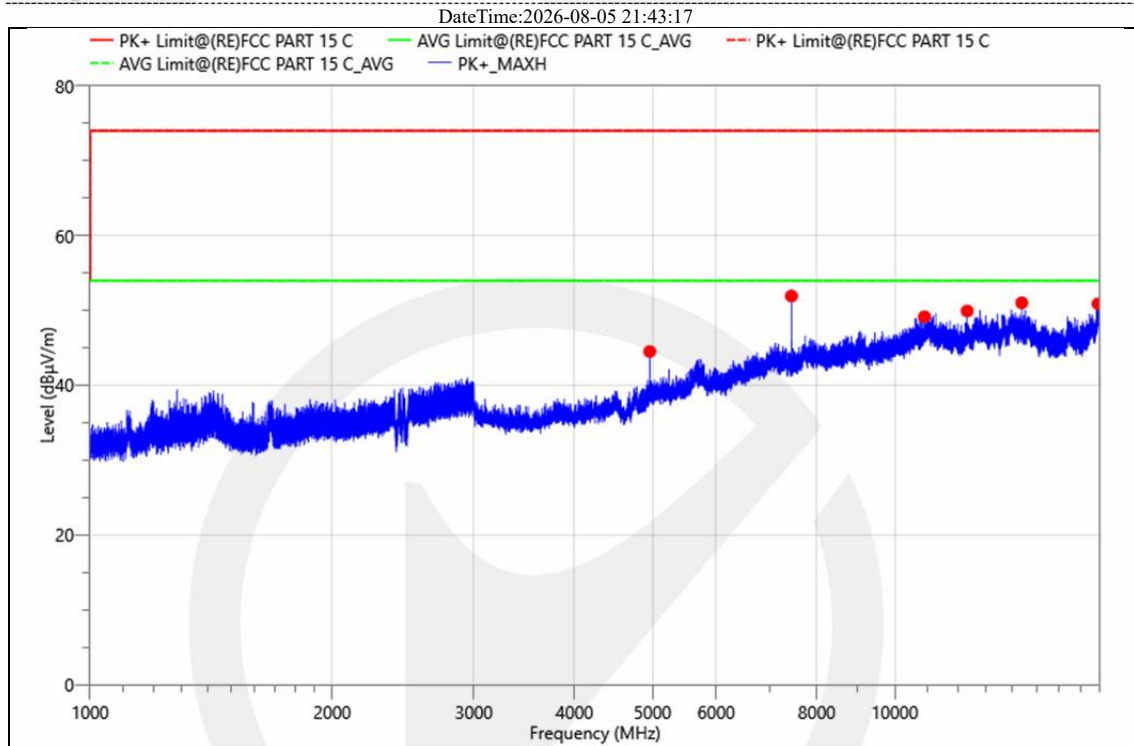


Final_Result

(Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	4960.000	51.92	-7.41	44.51	74.00	29.49	PK+	H	PASS
2	7440.000	50.06	-0.13	49.93	74.00	24.07	PK+	H	PASS
3	10888.000	43.63	5.53	49.16	74.00	24.84	PK+	H	PASS
4	12303.000	43.34	6.59	49.93	74.00	24.07	PK+	H	PASS
5	14382.000	42.26	8.76	51.02	74.00	22.98	PK+	H	PASS
6	17891.500	38.50	12.39	50.89	74.00	23.11	PK+	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

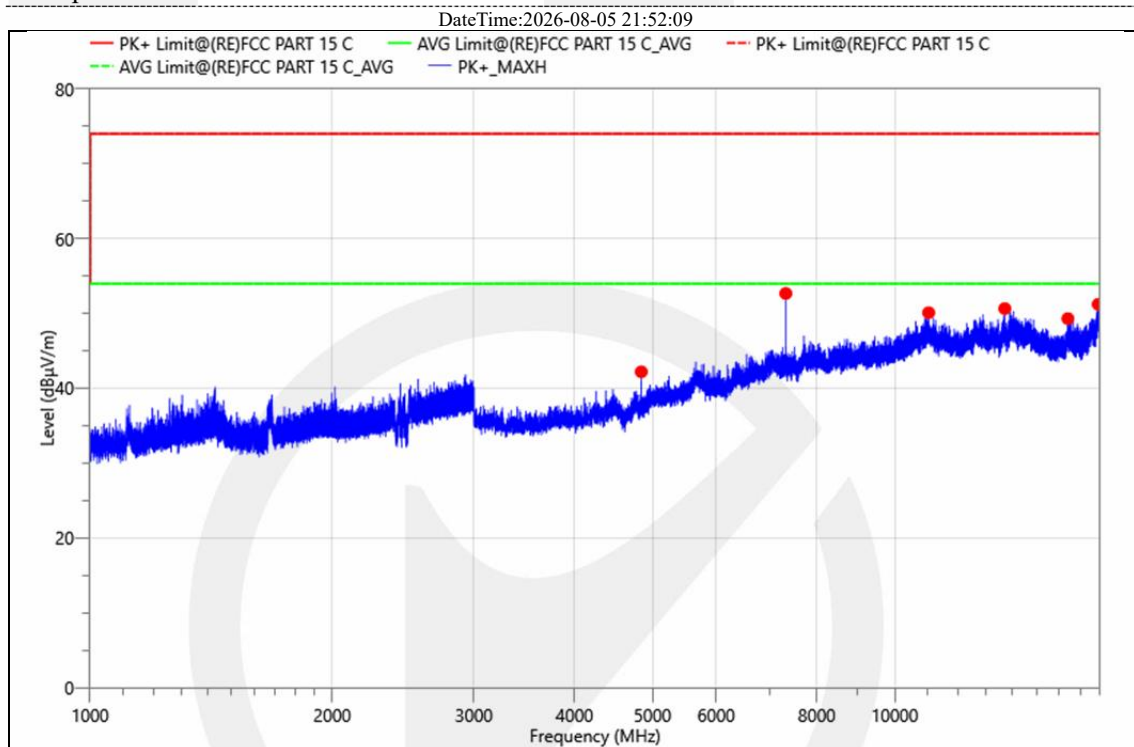


Final_Result

(Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	4960.000	51.92	-7.41	44.51	74.00	29.49	PK+	H	PASS
2	7440.000	52.06	-0.13	51.93	74.00	22.07	PK+	H	PASS
3	10888.000	43.63	5.53	49.16	74.00	24.84	PK+	H	PASS
4	12303.000	43.34	6.59	49.93	74.00	24.07	PK+	H	PASS
5	14382.000	42.26	8.76	51.02	74.00	22.98	PK+	H	PASS
6	17891.500	38.50	12.39	50.89	74.00	23.11	PK+	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2441MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

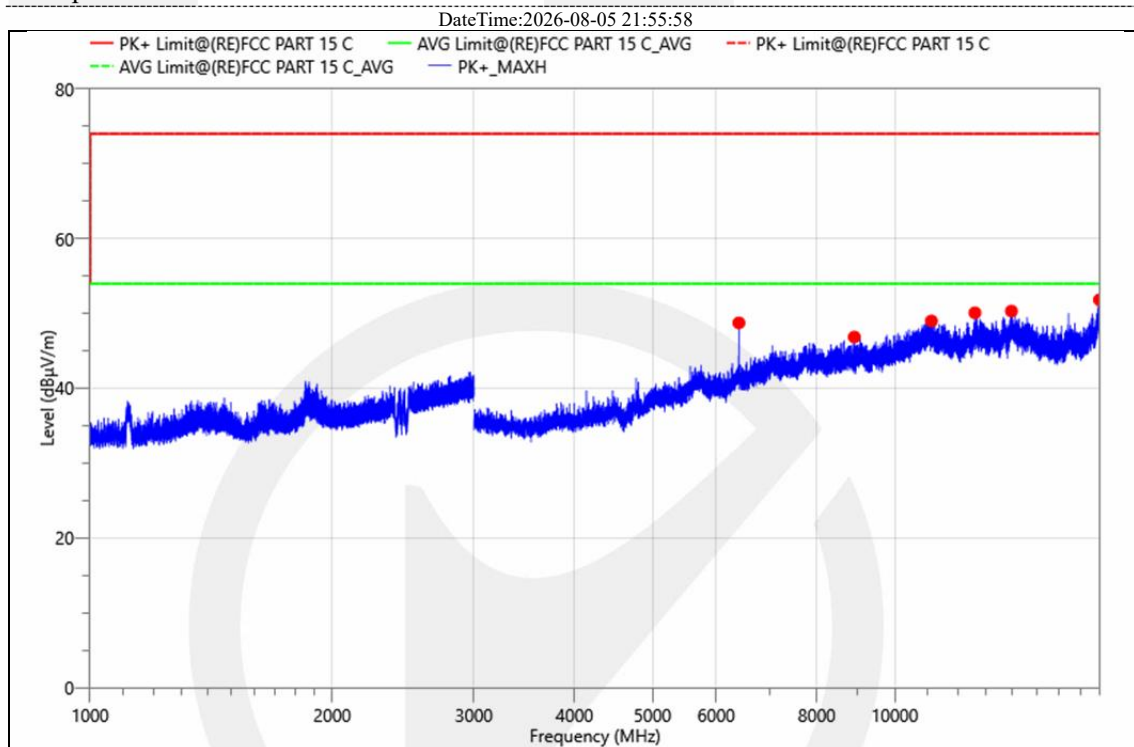


Final_Result

(Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	4841.500	50.71	-8.51	42.20	74.00	31.80	PK+	H	PASS
2	7320.500	53.06	-0.38	52.68	74.00	21.32	PK+	H	PASS
3	11018.500	43.48	6.62	50.10	74.00	23.90	PK+	H	PASS
4	13698.500	42.13	8.52	50.65	74.00	23.35	PK+	H	PASS
5	16410.500	39.43	9.88	49.31	74.00	24.69	PK+	H	PASS
6	17901.500	38.76	12.46	51.22	74.00	22.78	PK+	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2441MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

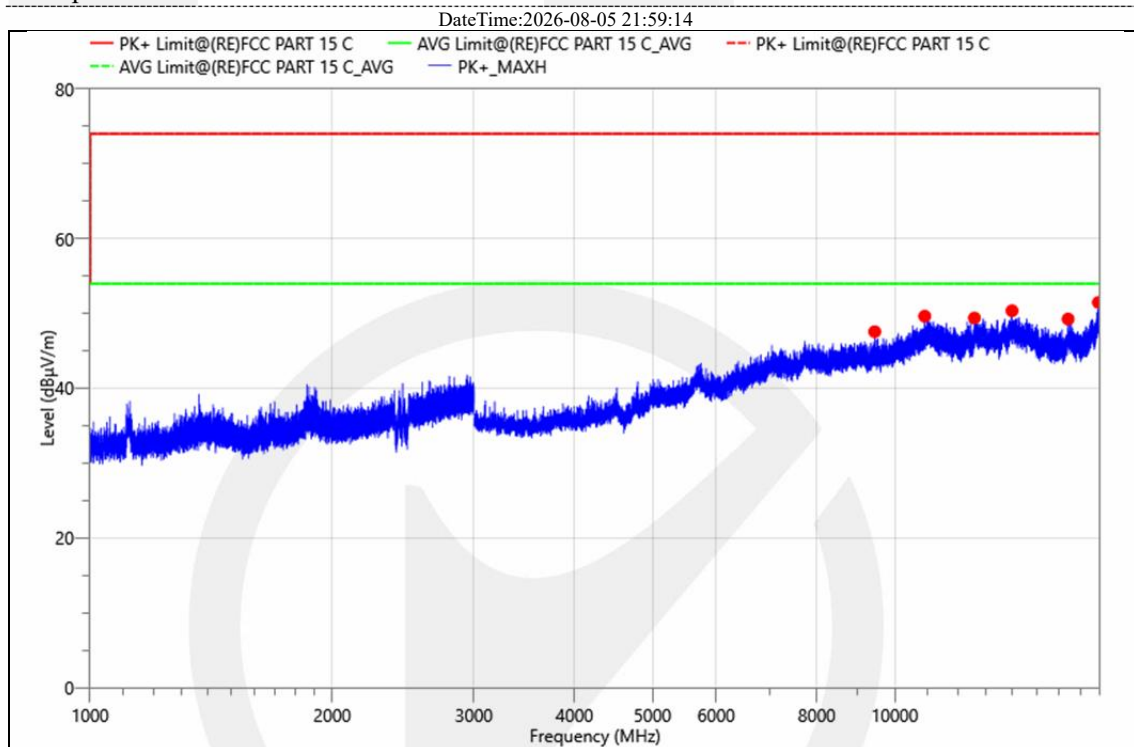


Final_Result

(Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	6401.500	51.29	-2.55	48.74	74.00	25.26	PK+	V	PASS
2	8907.000	45.42	1.43	46.85	74.00	27.15	PK+	V	PASS
3	11103.000	42.90	6.1	49.00	74.00	25.00	PK+	V	PASS
4	12577.500	42.68	7.41	50.09	74.00	23.91	PK+	V	PASS
5	13962.000	41.14	9.18	50.32	74.00	23.68	PK+	V	PASS
6	17965.000	38.60	13.23	51.83	74.00	22.17	PK+	V	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

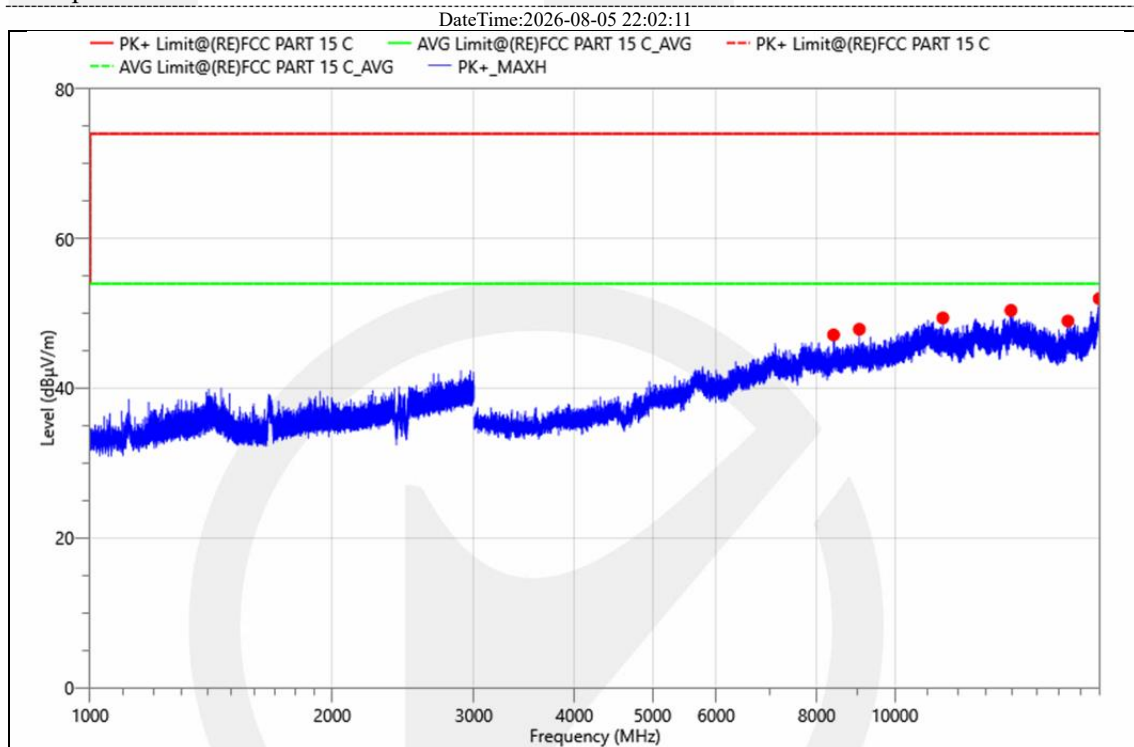


Final_Result

(Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	9442.500	45.22	2.34	47.56	74.00	26.44	PK+	V	PASS
2	10893.500	44.13	5.5	49.63	74.00	24.37	PK+	V	PASS
3	12560.000	42.12	7.27	49.39	74.00	24.61	PK+	V	PASS
4	13986.500	41.33	9.04	50.37	74.00	23.63	PK+	V	PASS
5	16419.500	39.36	9.9	49.26	74.00	24.74	PK+	V	PASS
6	17910.000	38.90	12.57	51.47	74.00	22.53	PK+	V	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



Final_Result

(Margin=Limit-Meas.(Reading + Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	8393.000	46.31	0.83	47.14	74.00	26.86	PK+	H	PASS
2	9035.500	46.08	1.81	47.89	74.00	26.11	PK+	H	PASS
3	11474.500	43.62	5.78	49.40	74.00	24.60	PK+	H	PASS
4	13943.500	41.14	9.28	50.42	74.00	23.58	PK+	H	PASS
5	16413.000	39.12	9.88	49.00	74.00	25.00	PK+	H	PASS
6	17948.000	38.95	13.03	51.98	74.00	22.02	PK+	H	PASS

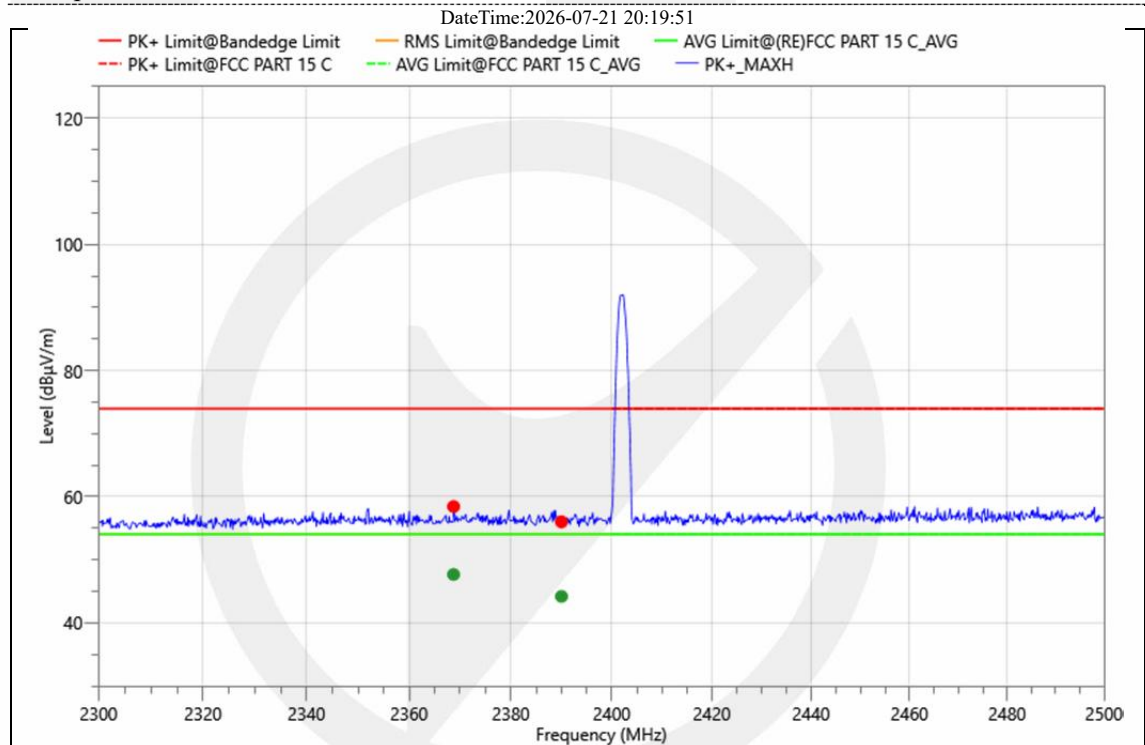
- Note:**
- (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=1kHz).
 - (2) Emission Level= Reading Level+Correct Factor.
 - (3) Correct Factor= Ant_F + Cab_L - Preamp
 - (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
 - (5) The test frequency range, 18GHz~25GHz test result on peak is lower than average limit, all is the noise base, therefore no data appear in the report.

■ Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz

● **Right-side device**

All the antenna(Antenna 1) and modes(GFSK, $\pi/4$ -DQPSK, 8DPSK, Hopping) mode have been tested, and the worst(8DPSK) result recorded was report as below:

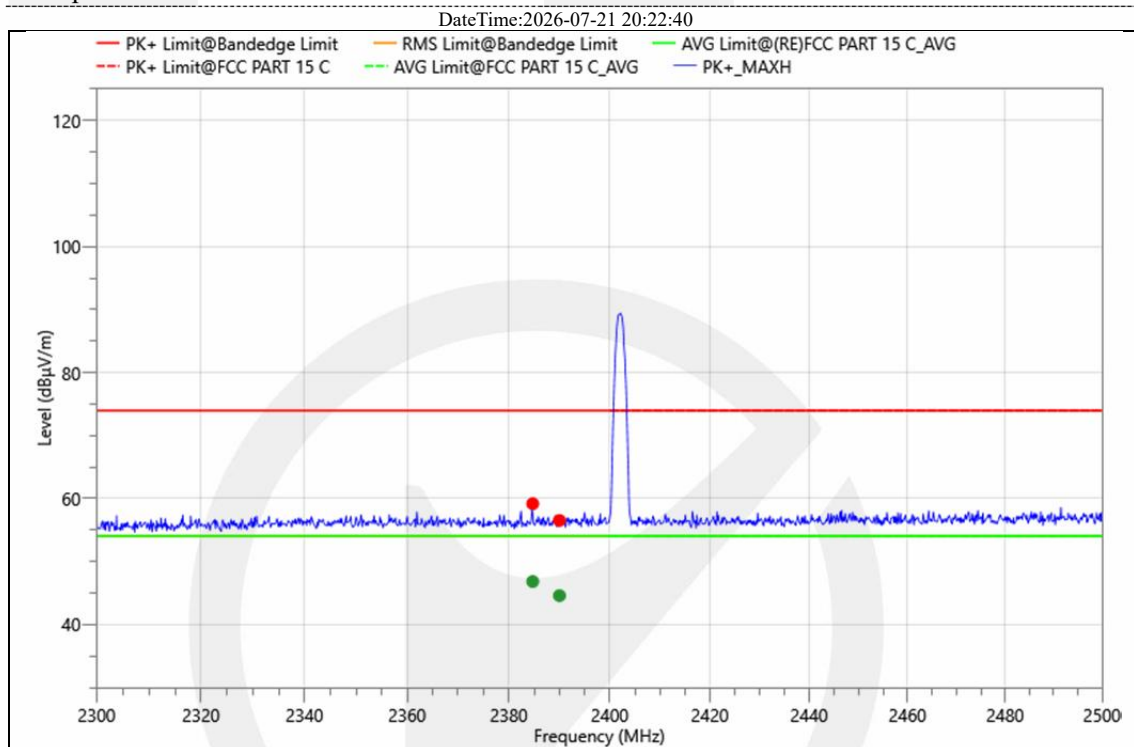
Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%



Final Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2368.700	28.42	30.03	58.45	74.00	15.55	PK+	H	PASS
2	2368.700	17.65	30.03	47.68	54.00	6.32	AVG	H	PASS
3	2390.000	25.96	30.06	56.02	74.00	17.98	PK+	H	PASS
4	2390.000	14.15	30.06	44.21	54.00	9.79	AVG	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

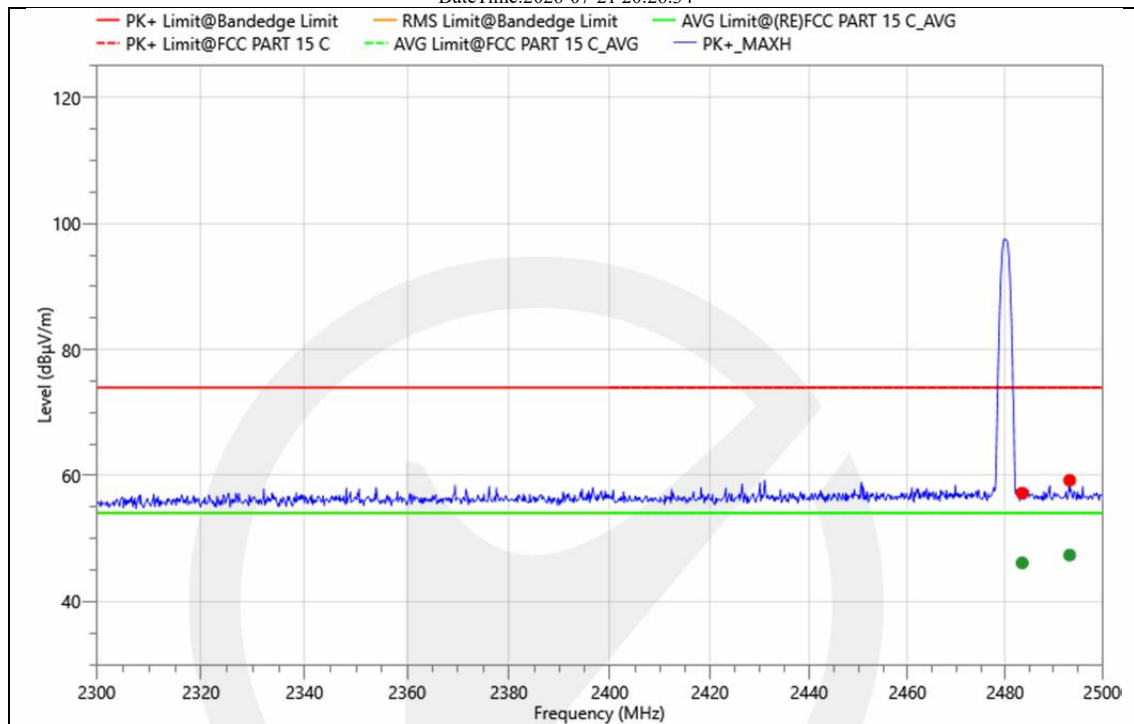


Final_Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2384.700	29.13	30.05	59.18	74.00	14.82	PK+	V	PASS
2	2384.700	16.78	30.05	46.83	54.00	7.17	AVG	V	PASS
3	2390.000	26.46	30.06	56.52	74.00	17.48	PK+	V	PASS
4	2390.000	14.53	30.06	44.59	54.00	9.41	AVG	V	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

DateTime:2026-07-21 20:26:34

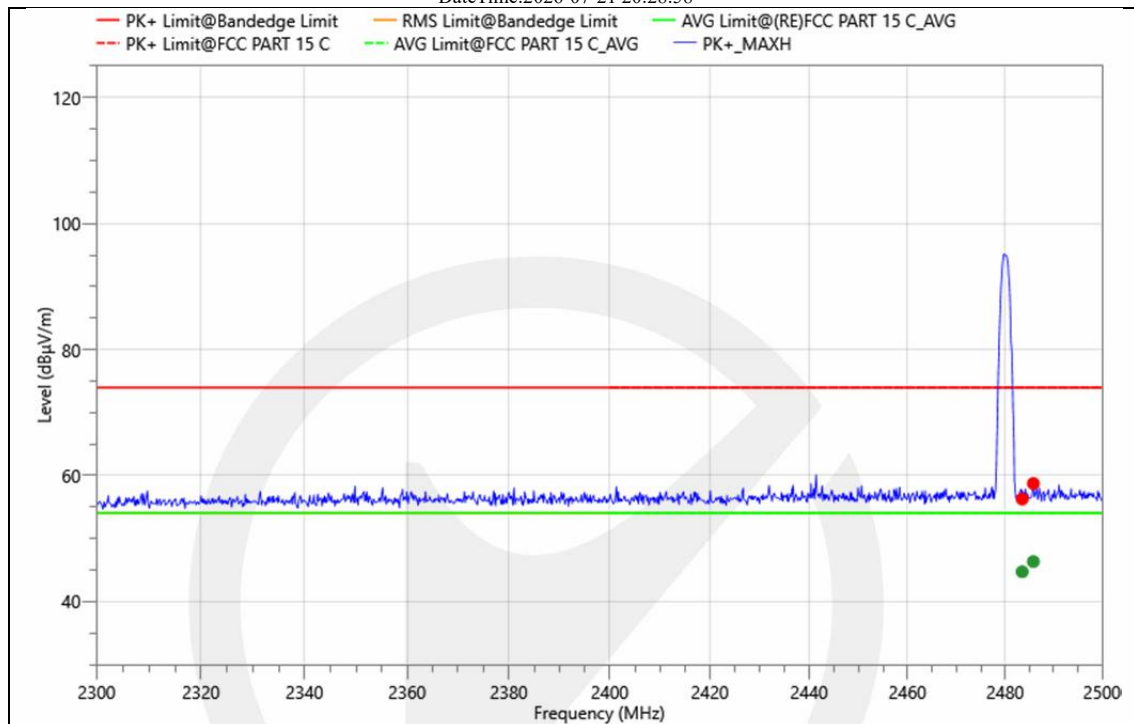


Final_Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2483.500	26.87	30.34	57.21	74.00	16.79	PK+	H	PASS
2	2483.500	15.80	30.34	46.14	54.00	7.86	AVG	H	PASS
3	2493.300	28.88	30.37	59.25	74.00	14.75	PK+	H	PASS
4	2493.300	17.01	30.37	47.38	54.00	6.62	AVG	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

DateTime:2026-07-21 20:28:58



Final_Result (Margin=Limit-Meas.(Reading +Corr.))

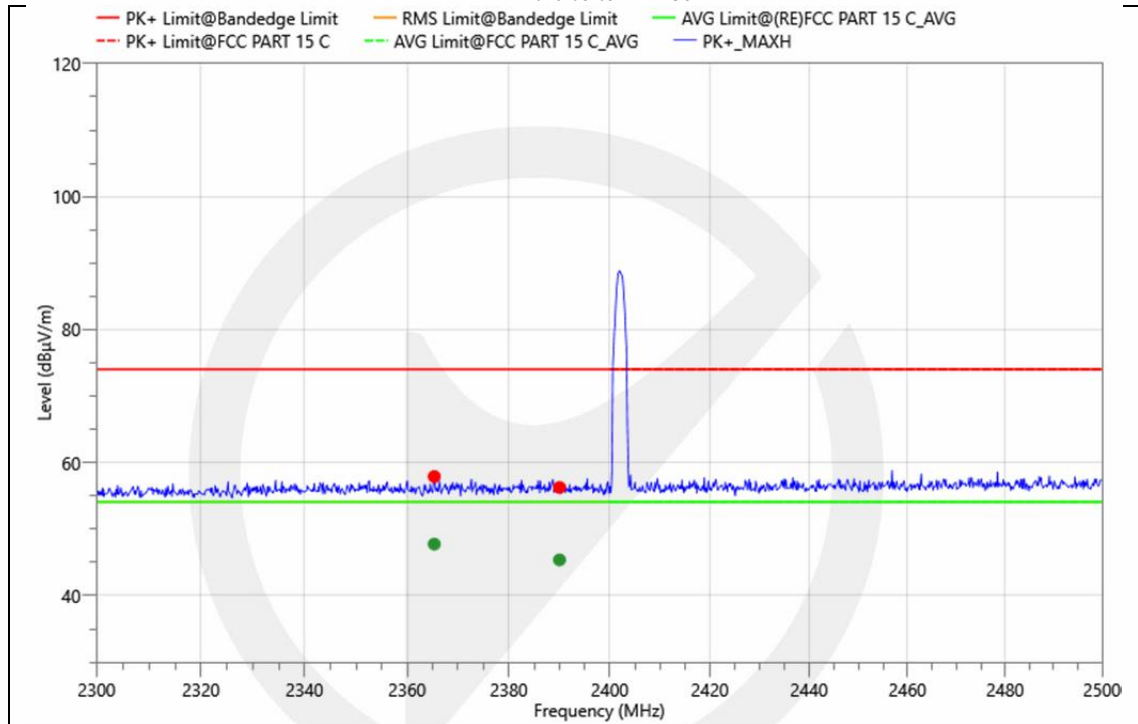
No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2483.500	25.93	30.34	56.27	74.00	17.73	PK+	V	PASS
2	2483.500	14.39	30.34	44.73	54.00	9.27	AVG	V	PASS
3	2485.800	28.38	30.35	58.73	74.00	15.27	PK+	V	PASS
4	2485.800	15.99	30.35	46.34	54.00	7.66	AVG	V	PASS

● **Left-side device**

All the antenna(Antenna 1) and modes(GFSK, $\pi/4$ -DQPSK, 8DPSK, Hopping) mode have been tested, and the worst(8DPSK) result recorded was report as below:

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

DateTime:2026-08-05 21:11:38



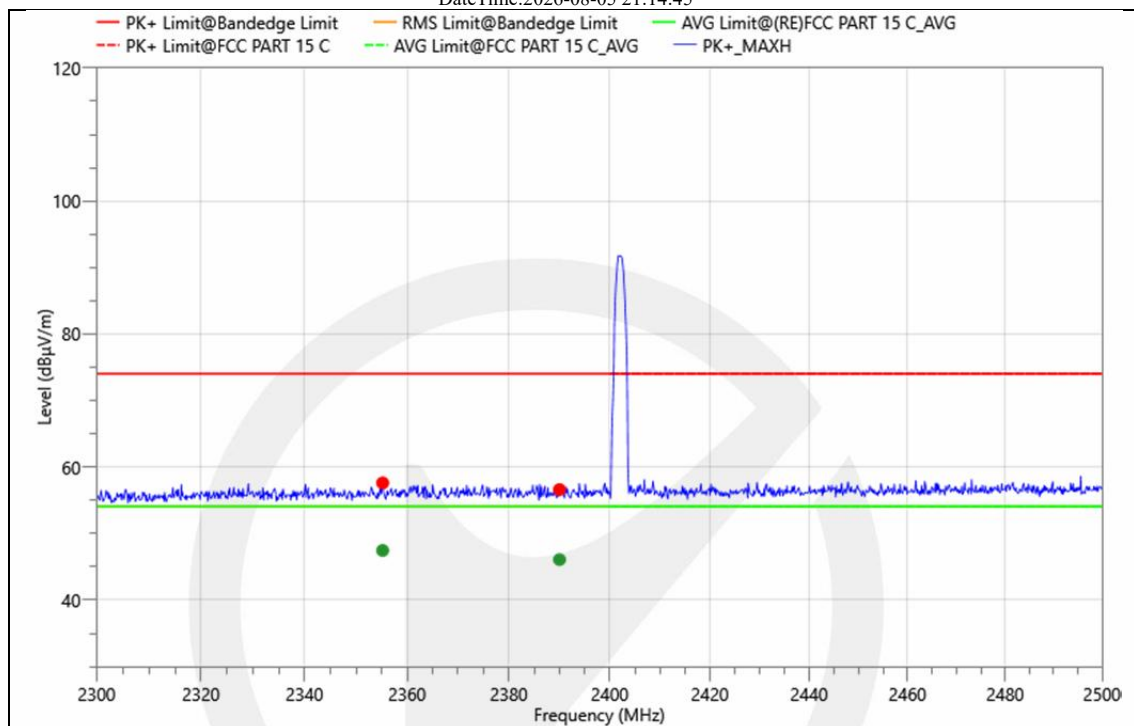
Final_Result

(Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2365.300	27.89	30.02	57.91	74.00	16.09	PK+	V	PASS
2	2365.300	17.73	30.02	47.75	54.00	6.25	AVG	V	PASS
3	2390.000	26.21	30.06	56.27	74.00	17.73	PK+	V	PASS
4	2390.000	15.32	30.06	45.38	54.00	8.62	AVG	V	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2402MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

DateTime:2026-08-05 21:14:45



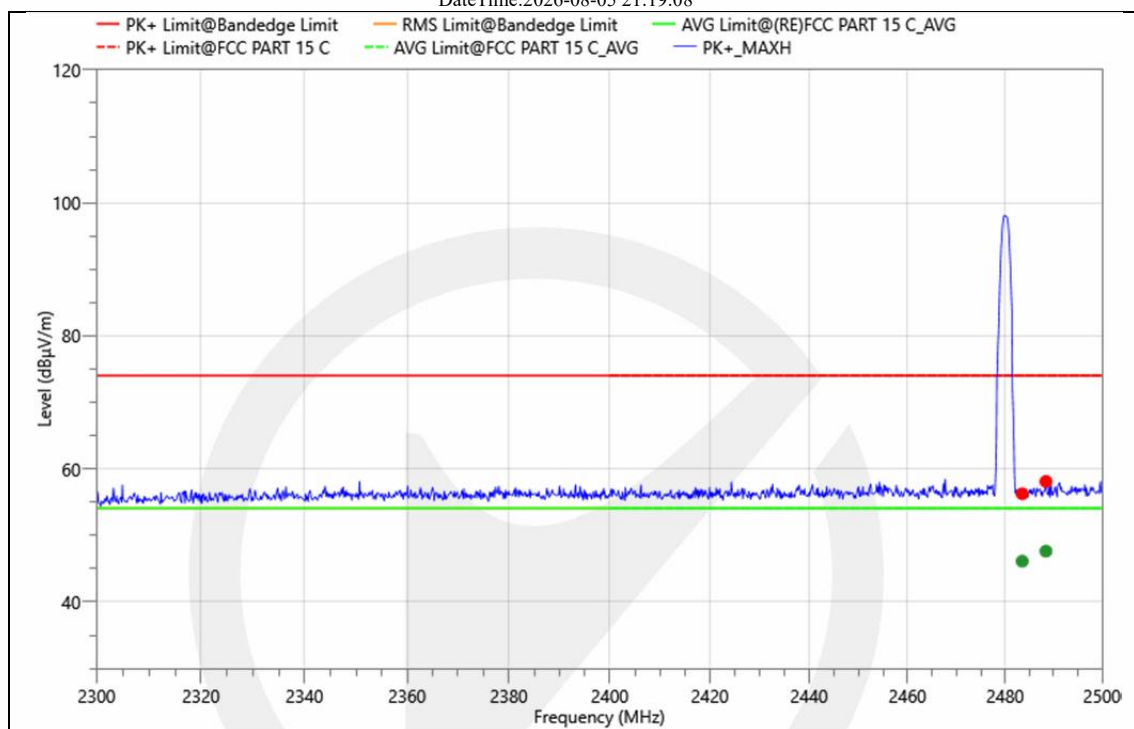
Final_Result

(Margin=Limit-Meas.(Reading + Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2355.200	27.62	29.99	57.61	74.00	16.39	PK+	H	PASS
2	2355.200	17.47	29.99	47.46	54.00	6.54	AVG	H	PASS
3	2390.000	26.55	30.06	56.61	74.00	17.39	PK+	H	PASS
4	2390.000	16.03	30.06	46.09	54.00	7.91	AVG	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

DateTime:2026-08-05 21:19:08



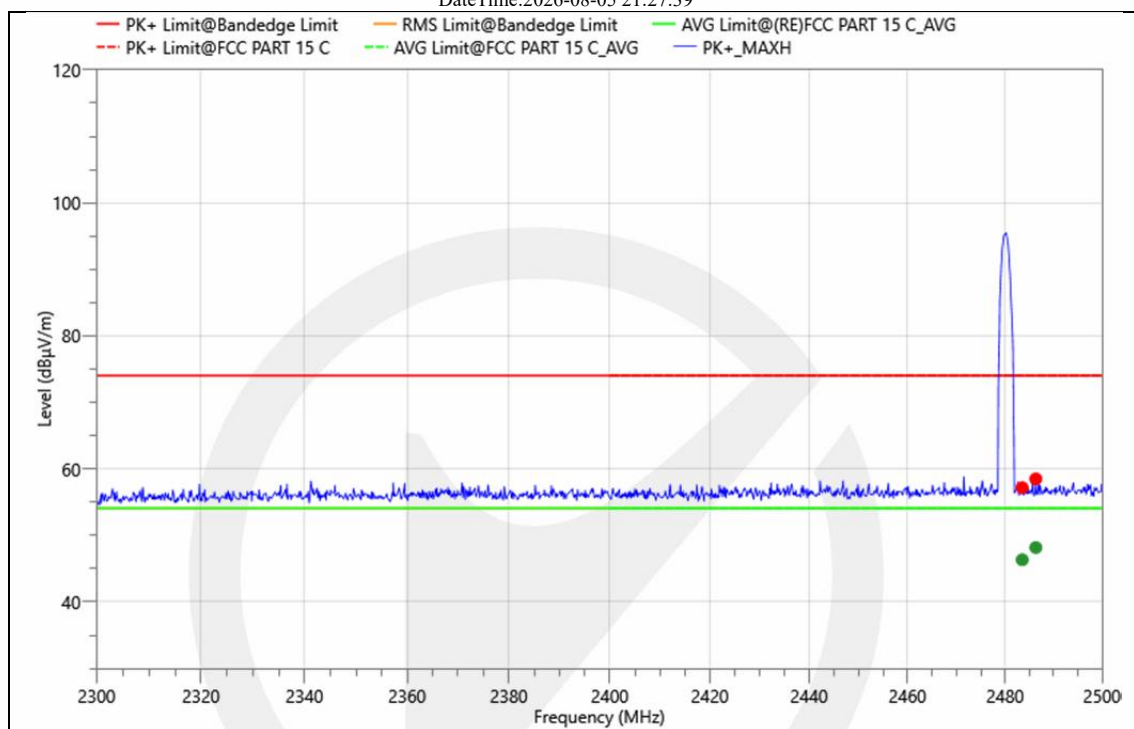
Final_Result

(Margin=Limit-Meas.(Reading + Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2483.500	25.92	30.34	56.26	74.00	17.74	PK+	H	PASS
2	2483.500	15.78	30.34	46.12	54.00	7.88	AVG	H	PASS
3	2488.400	27.75	30.36	58.11	74.00	15.89	PK+	H	PASS
4	2488.400	17.27	30.36	47.63	54.00	6.37	AVG	H	PASS

Project No. :	ENB2607150027W001	Customer :	Axil and Associated Brands
Sample No. :	ENB2607150027W001-1-1	EUT :	Electronic Hearing Protection and Bluetooth Earbuds
Model :	XCOR PRO II	Mode :	Transmit 2480MHz by DH5
Voltage :	DC 3.7V	Engineer :	WK Luo
Temp. :	23°C	Humi. :	65%

DateTime:2026-08-05 21:27:39



Final_Result

(Margin=Limit-Meas.(Reading + Corr.))

No.	Freq. (MHz)	Reading (dBμV)	Corr. (dB)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.	Pol.	Verdict
1	2483.500	26.84	30.34	57.18	74.00	16.82	PK+	V	PASS
2	2483.500	16.00	30.34	46.34	54.00	7.66	AVG	V	PASS
3	2486.300	28.15	30.35	58.50	74.00	15.50	PK+	V	PASS
4	2486.300	17.82	30.35	48.17	54.00	5.83	AVG	V	PASS

Note:

- (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=1kHz).
- (2) Emission Level= Reading Level+Correct Factor.
- (3) Correct Factor= Ant_F + Cab_L - Preamp
- (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

■ Spurious Emission below 1GHz(30MHz to 1GHz)

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
--	--	--	--	--	--	--	--

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.



9.8 CONDUCTED EMISSION TEST

9.8.1 Applicable Standard

According to FCC Part 15.207

9.8.2 Conformance Limit

Conducted Emission Limit		
Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50
Note: 1. The lower limit shall apply at the transition frequencies 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.		

9.8.3 Test Configuration

Test according to clause 7.3 conducted emission test setup

9.8.4 Test Procedure

The EUT was placed on a table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Repeat above procedures until all frequency measured were complete.

9.8.5 Test Results

N/A

Note: This device is only compatible with a dedicated charging case for power supply.

9.9 ANTENNA APPLICATION

9.9.1 Antenna Requirement

Standard	Requirement
FCC CRF Part15.203	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 an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. 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 47 CFR Part 15.247 (b)	If transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

9.9.2 Result

PASS.

- Note:
- ☒ Antenna use a permanently attached antenna which is not replaceable.
 - ☐ Not using a standard antenna jack or electrical connector for antenna replacement
 - ☐ The antenna has to be professionally installed (please provide method of installation)

Please refer to the attached document Internal Photos to show the antenna connector.

*** End of Report ***