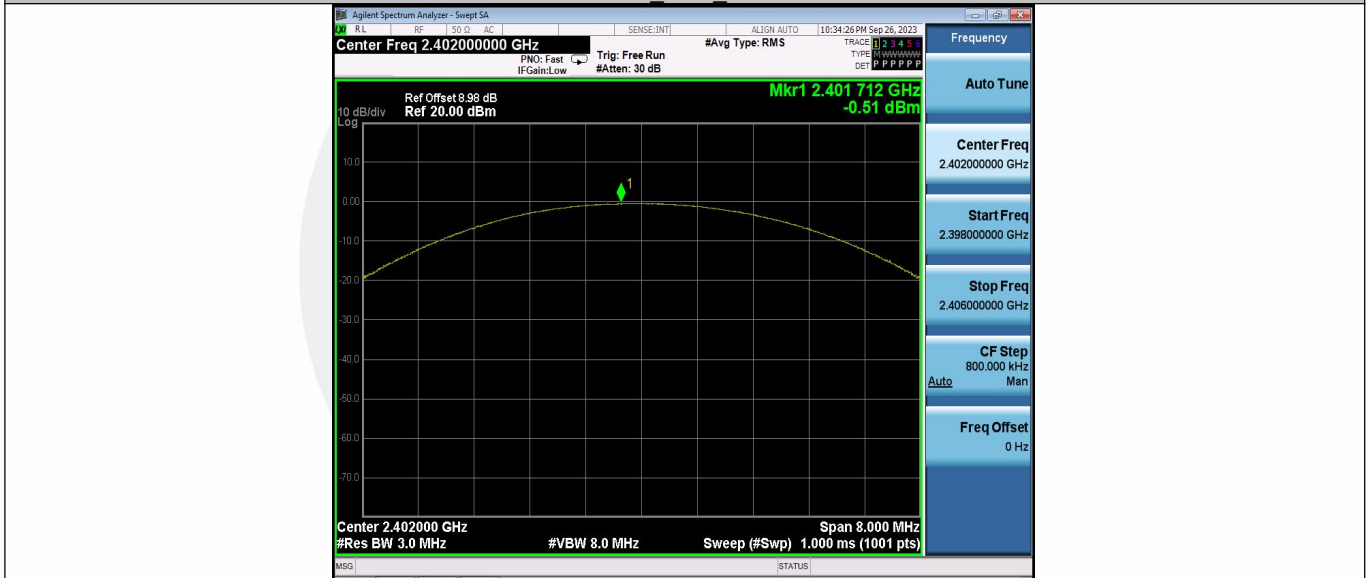
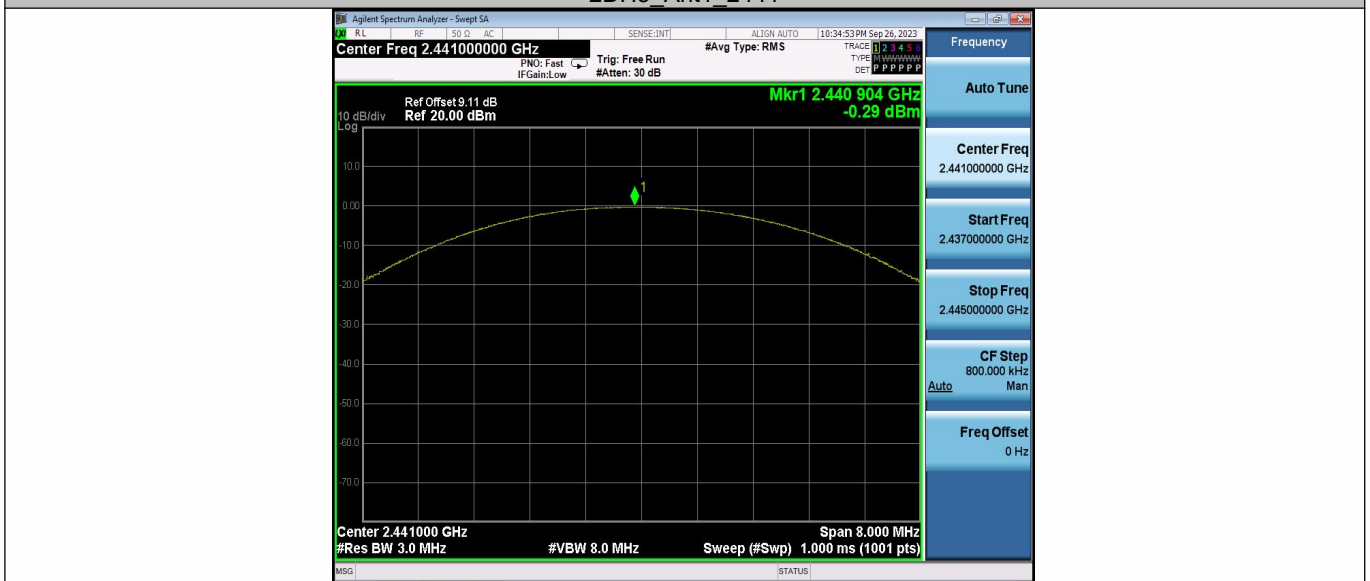


2DH5_Ant1_2402



2DH5_Ant1_2441



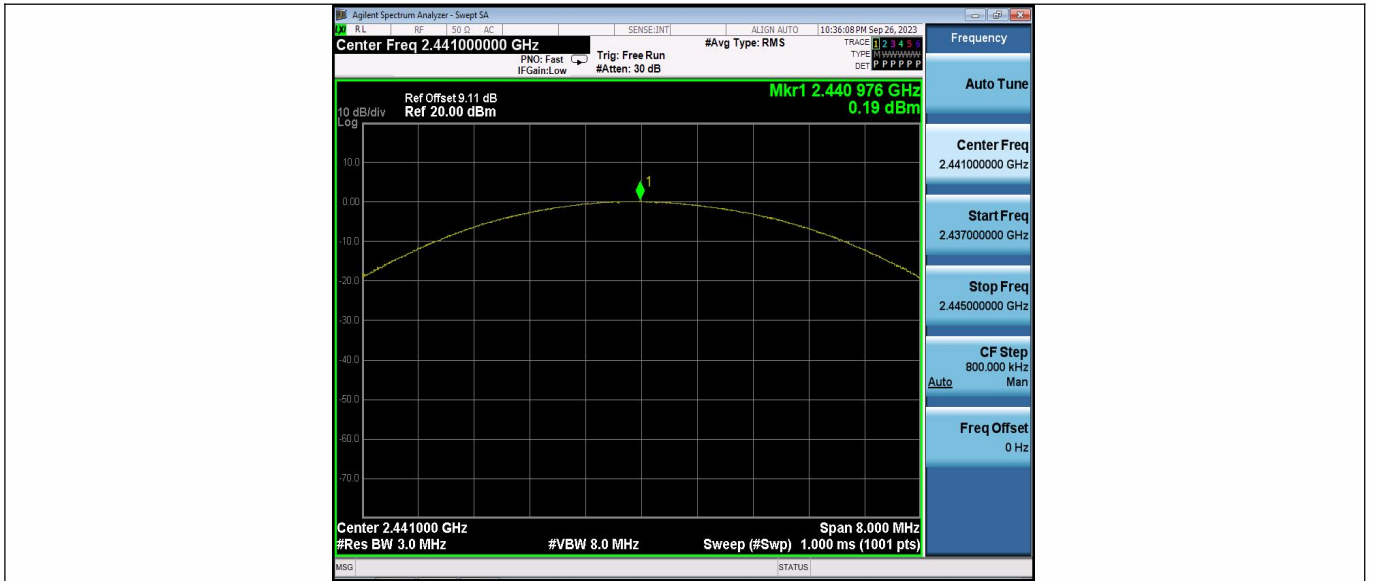
2DH5 Ant1 2480



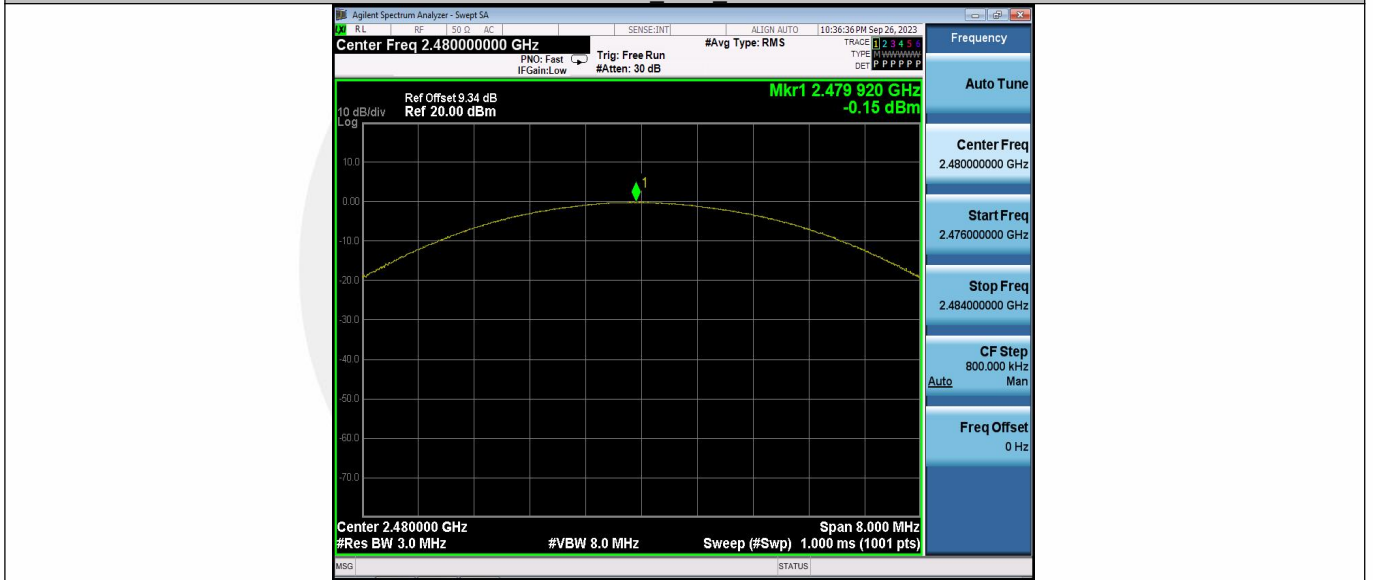
3DH5 Ant1 2402



3DH5 Ant1 2441



3DH5 Ant1 2480



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
According to IC RSS-247.5.5

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 Maximumconducedtedlevel.

Note that the channel found to contain the maximum conducedted 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:	45%
ATM Pressure:	1011 mbar

Note: N/A

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

Reference level measurement

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2401.84	-1.54
		2441	2440.84	-1.40
		2480	2479.84	-1.79
2DH5	Ant1	2402	2402.16	-1.46
		2441	2441.16	-1.36
		2480	2480.16	-1.81
3DH5	Ant1	2402	2401.84	-1.43
		2441	2440.84	-1.34
		2480	2479.84	-1.77

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5 Ant1 2402



2DH5 Ant1 2441



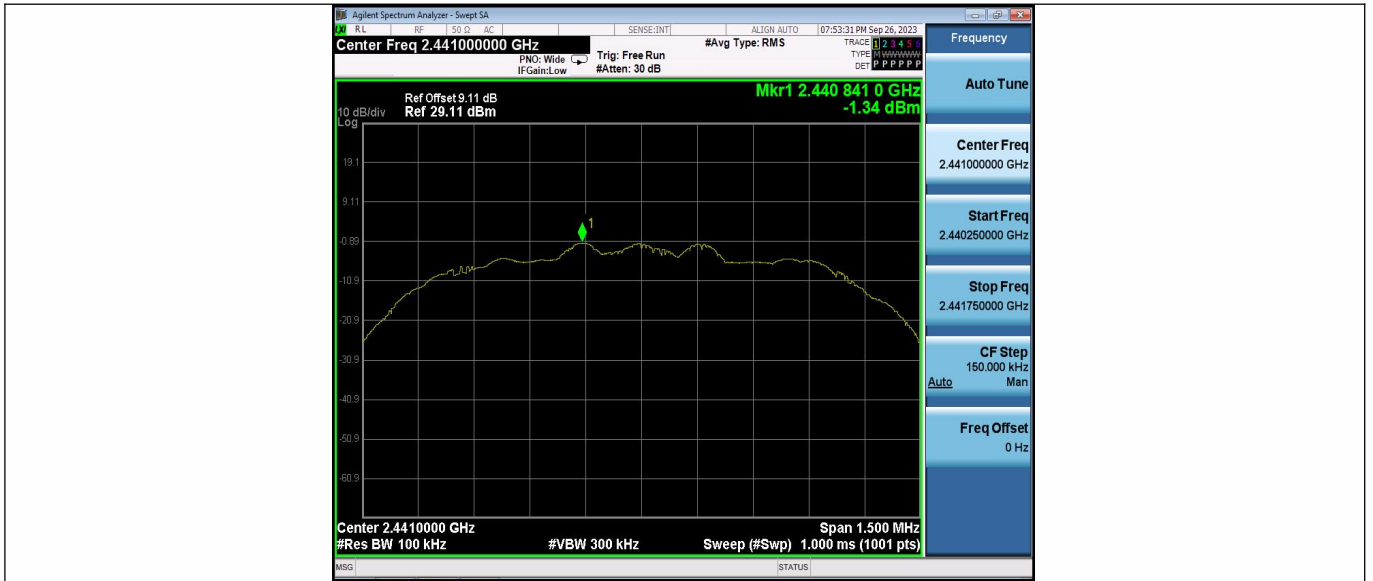
2DH5 Ant1 2480



3DH5 Ant1 2402



3DH5 Ant1 2441



3DH5 Ant1 2480

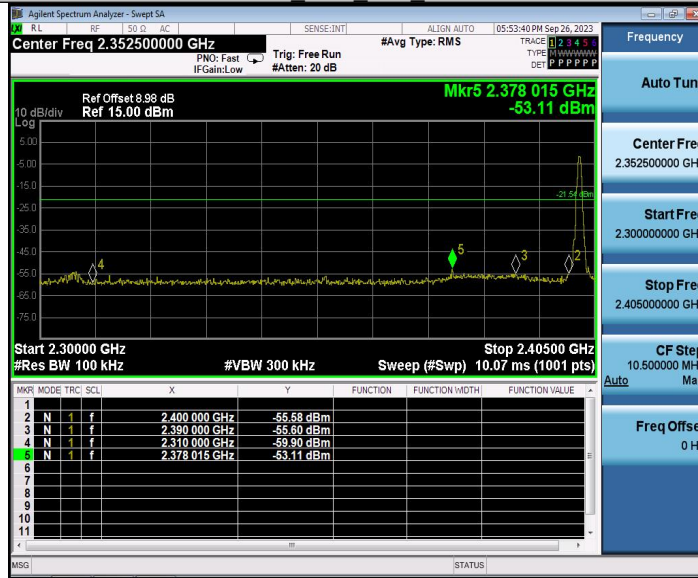


Band edge measurements

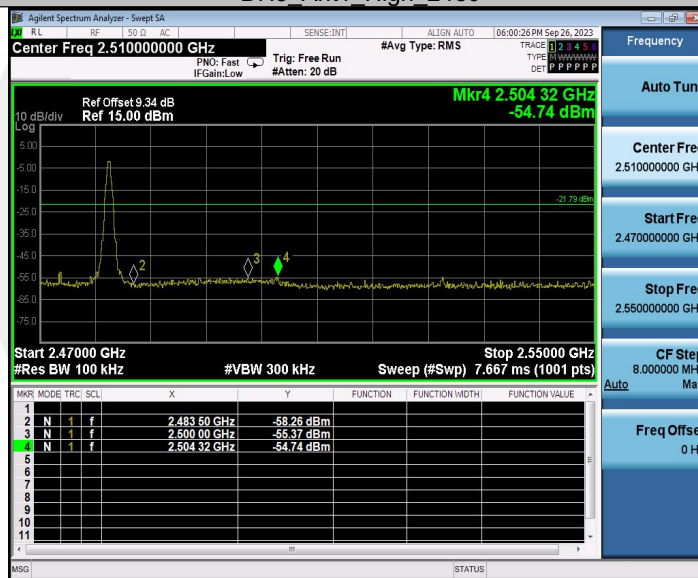
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.54	-53.11	≤-21.54	PASS
		High	2480	-1.79	-54.74	≤-21.79	PASS
		Low	Hop_2402	-2.65	-50.32	≤-22.65	PASS
		High	Hop_2480	-2.01	-49	≤-22.01	PASS
2DH5	Ant1	Low	2402	-1.46	-51.45	≤-21.46	PASS
		High	2480	-1.81	-54.45	≤-21.81	PASS
3DH5	Ant1	Low	2402	-1.43	-53.72	≤-21.43	PASS
		High	2480	-1.77	-40.22	≤-21.77	PASS



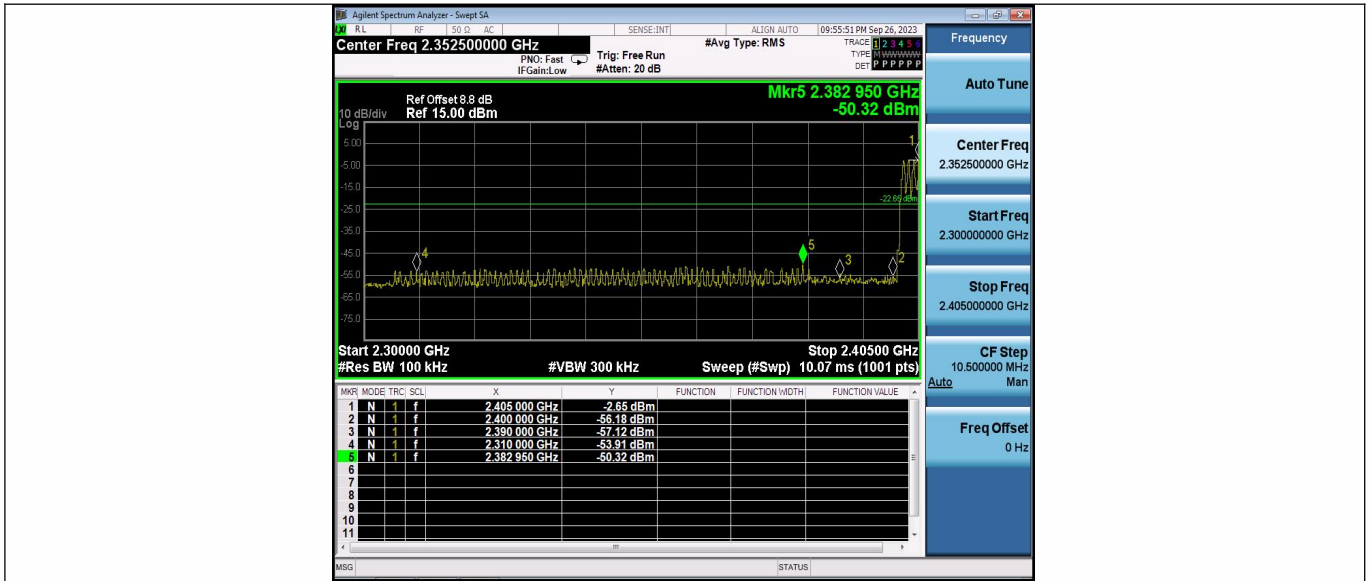
DH5 Ant1 Low 2402



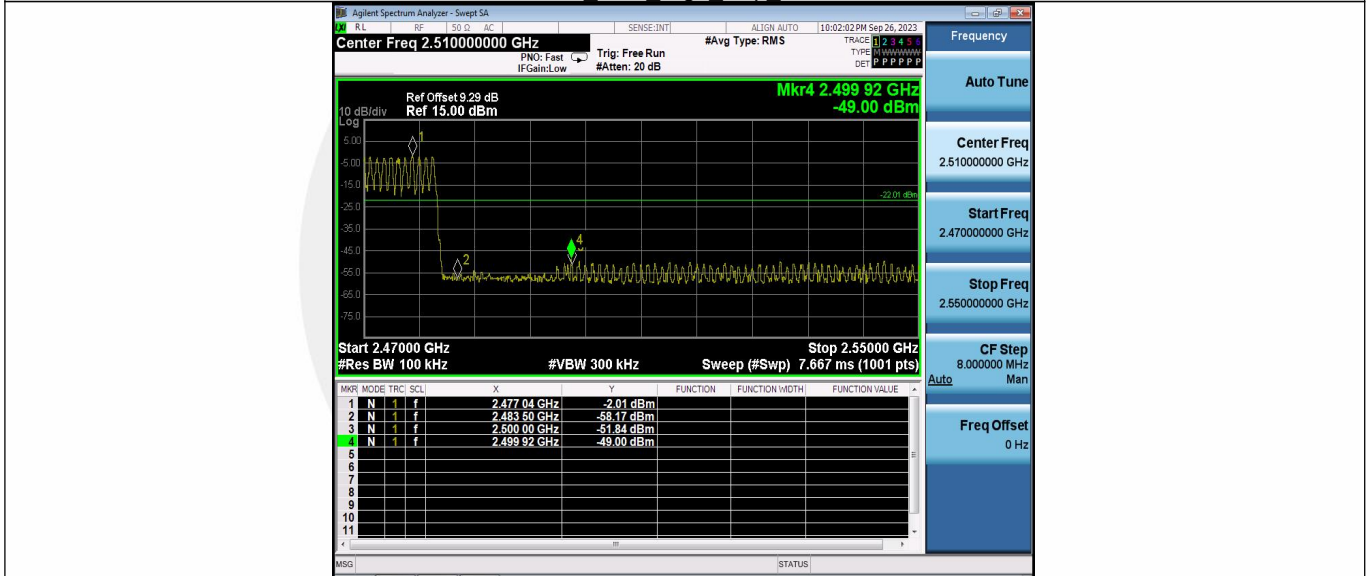
DH5 Ant1 High 2480



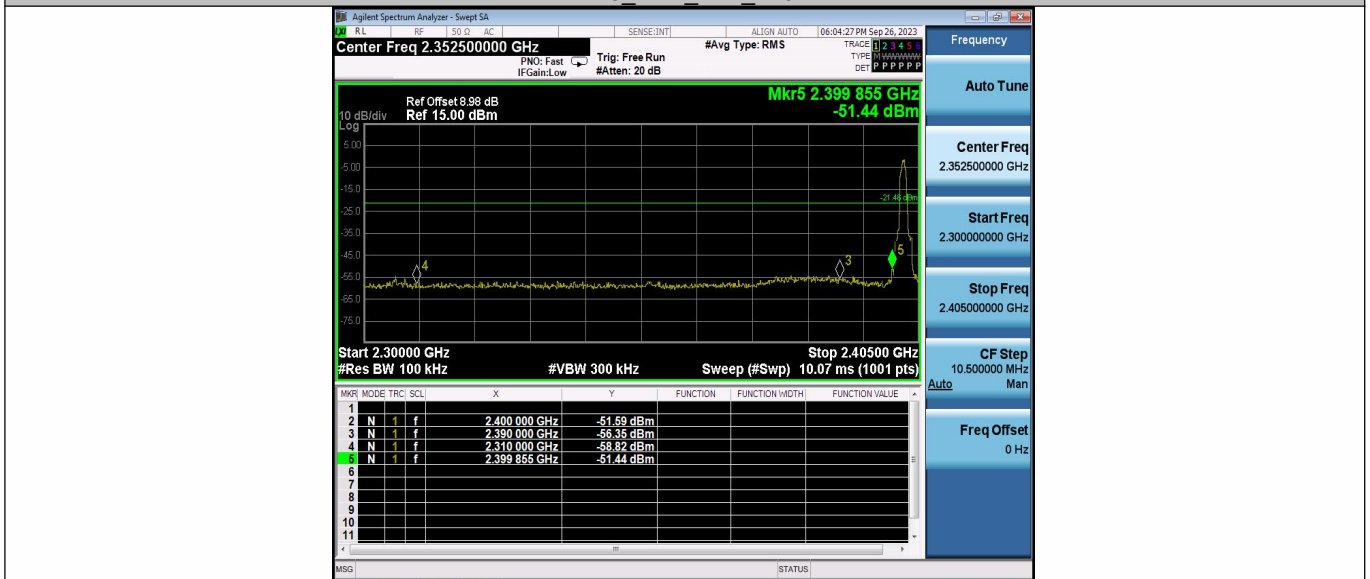
DH5 Ant1 Low Hop 2402



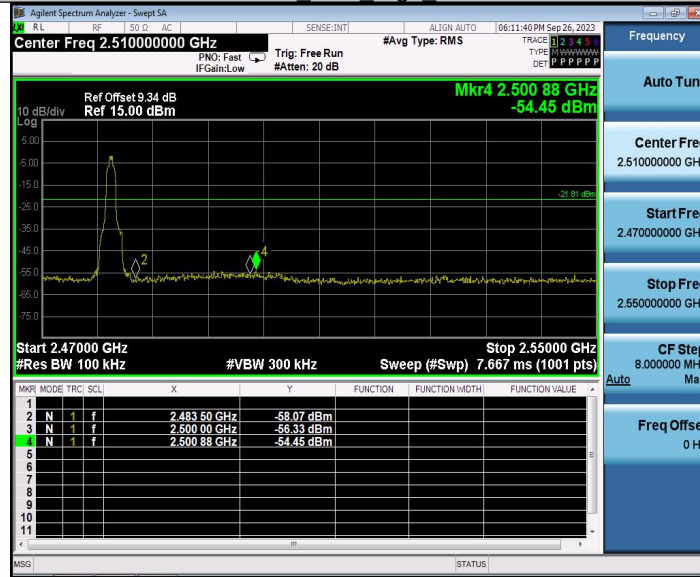
DH5 Ant1 High Hop 2480



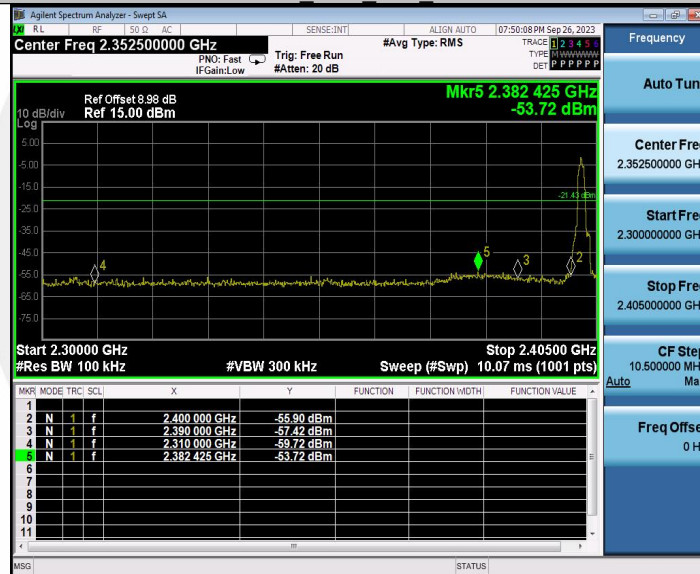
2DH5 Ant1 Low 2402



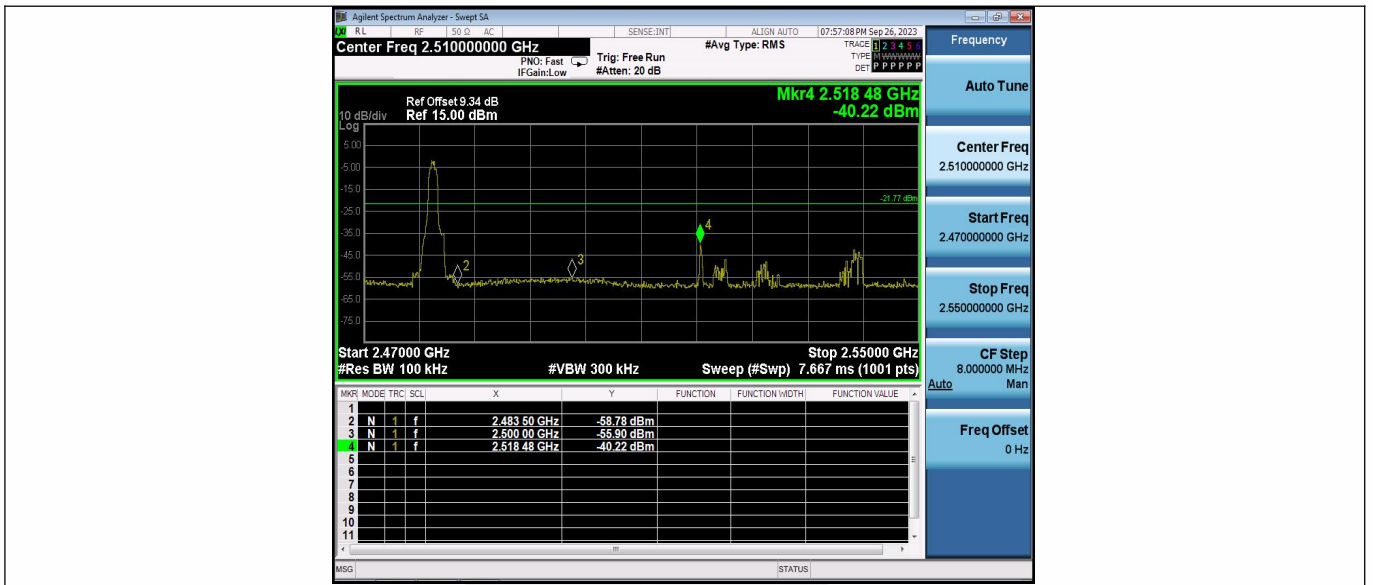
2DH5 Ant1 High 2480



3DH5 Ant1 Low 2402

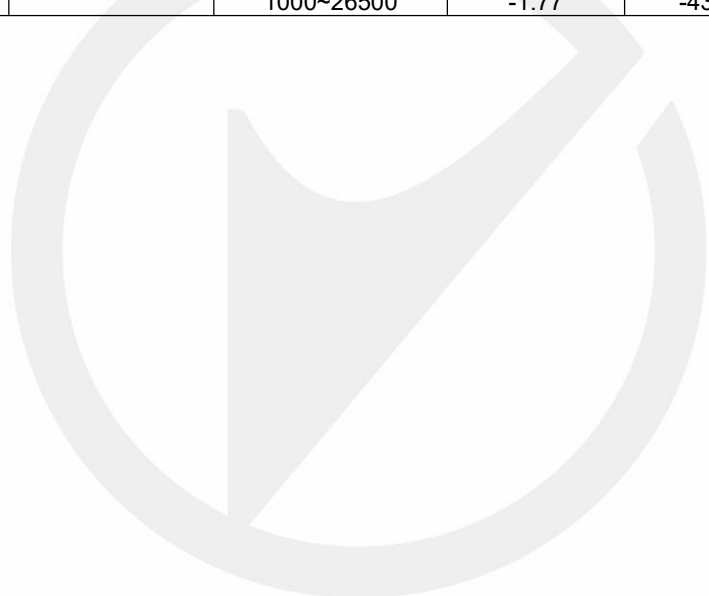


3DH5 Ant1 High 2480

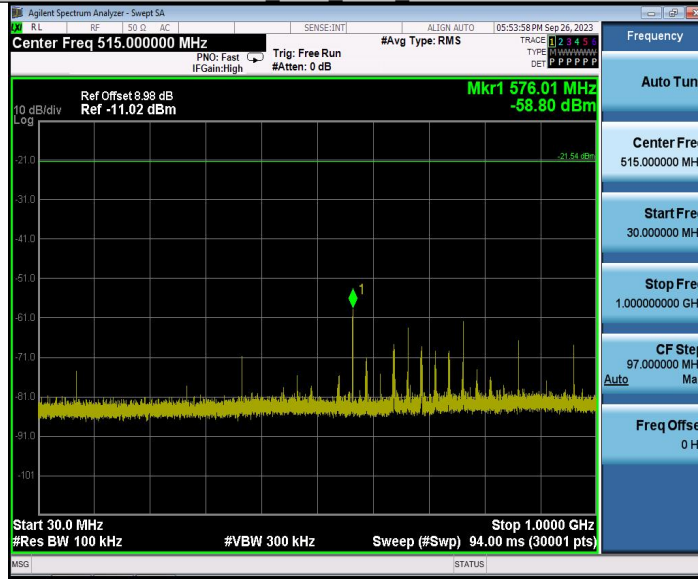


Conducted Spurious Emission

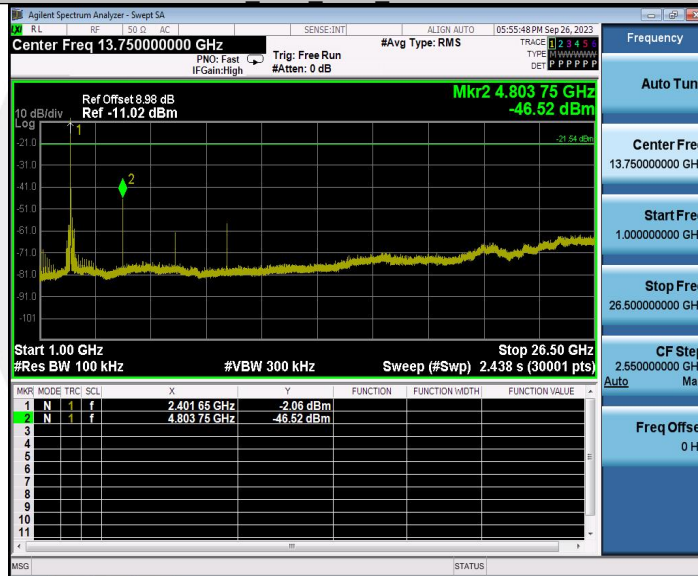
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	-1.54	-58.8	≤-21.54	PASS
			1000~26500	-1.54	-46.53	≤-21.54	PASS
		2441	30~1000	-1.40	-59.88	≤-21.4	PASS
			1000~26500	-1.40	-45.45	≤-21.4	PASS
		2480	30~1000	-1.79	-58.94	≤-21.79	PASS
			1000~26500	-1.79	-42.98	≤-21.79	PASS
2DH5	Ant1	2402	30~1000	-1.46	-59.97	≤-21.46	PASS
			1000~26500	-1.46	-39.83	≤-21.46	PASS
		2441	30~1000	-1.36	-62.24	≤-21.36	PASS
			1000~26500	-1.36	-37.11	≤-21.36	PASS
		2480	30~1000	-1.81	-59.42	≤-21.81	PASS
			1000~26500	-1.81	-46.78	≤-21.81	PASS
3DH5	Ant1	2402	30~1000	-1.43	-60.06	≤-21.43	PASS
			1000~26500	-1.43	-49.72	≤-21.43	PASS
		2441	30~1000	-1.34	-59.79	≤-21.34	PASS
			1000~26500	-1.34	-47.68	≤-21.34	PASS
		2480	30~1000	-1.77	-59.49	≤-21.77	PASS
			1000~26500	-1.77	-43.36	≤-21.77	PASS



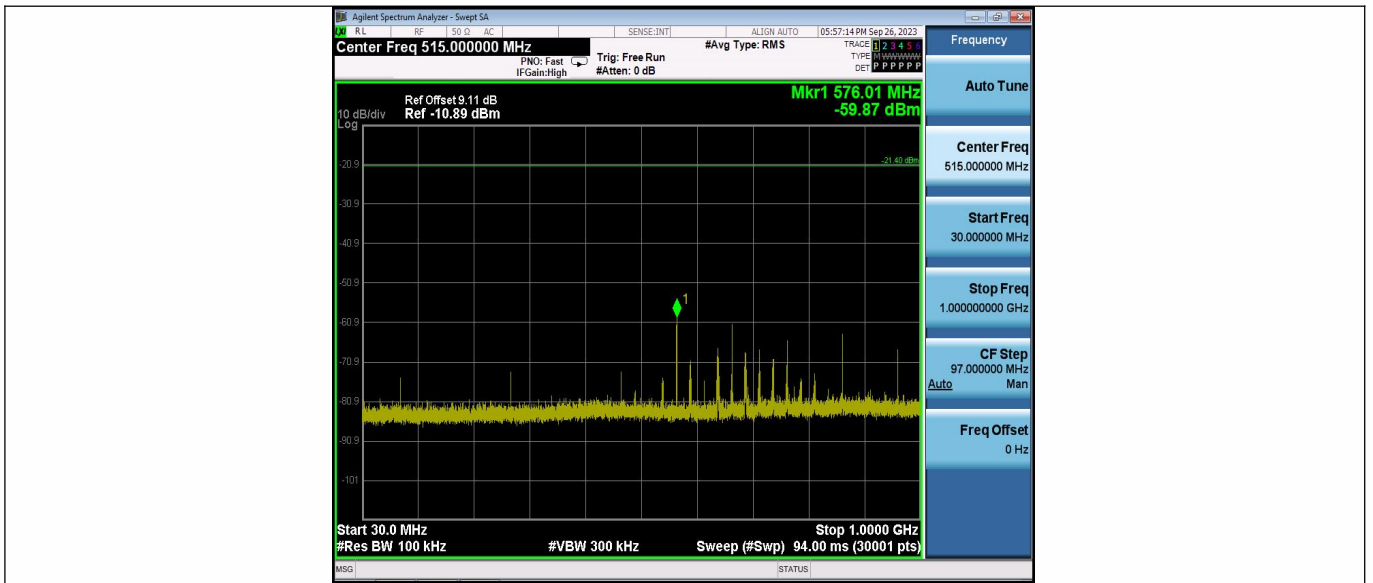
DH5_Ant1_2402_30~1000



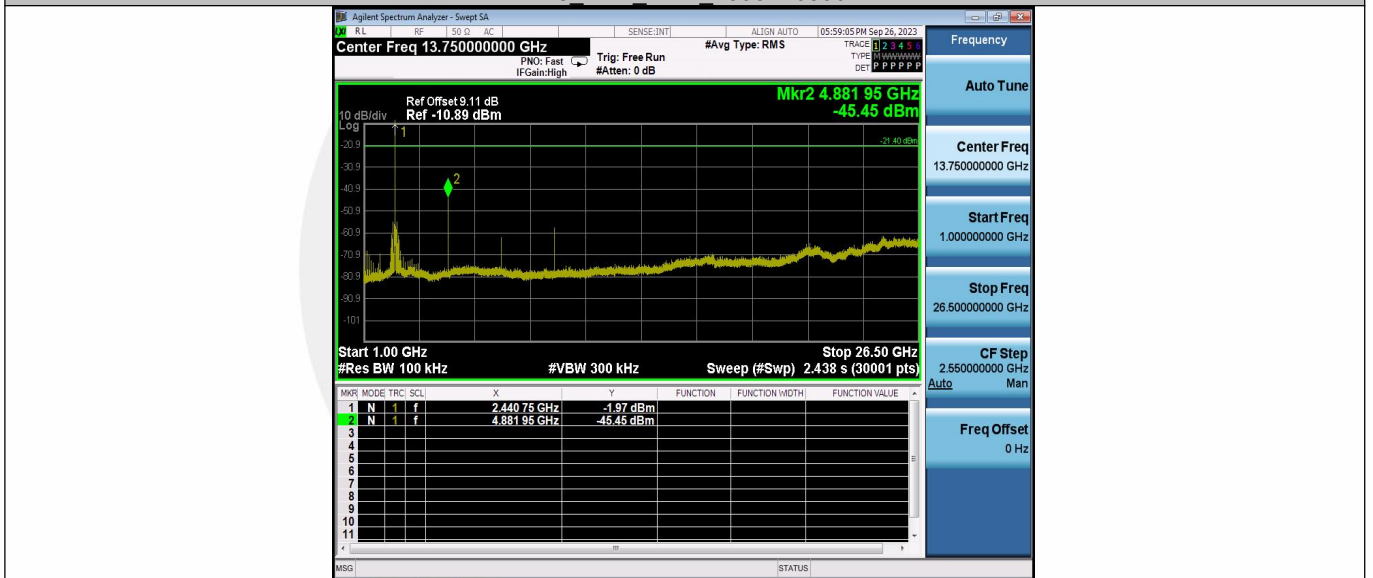
DH5_Ant1_2402_1000~26500



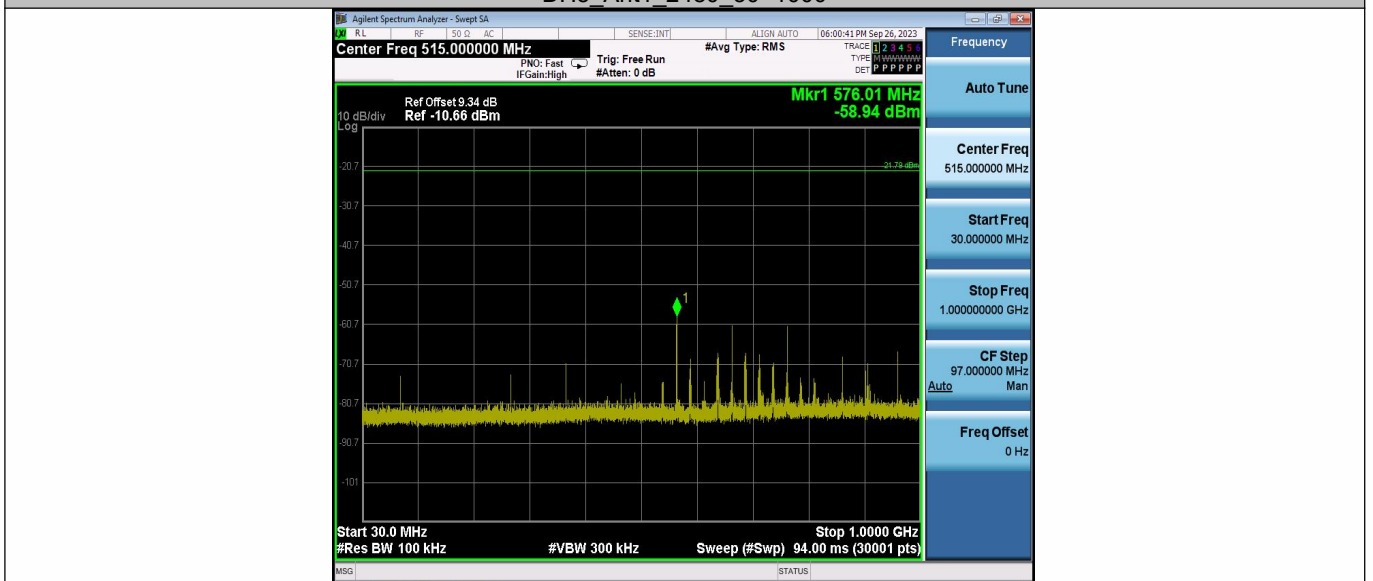
DH5_Ant1_2441_30~1000



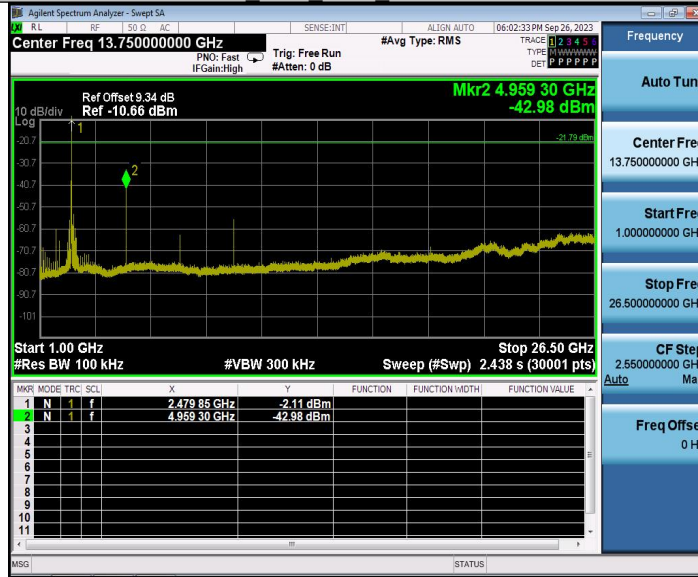
DH5 Ant1 2441 1000~26500



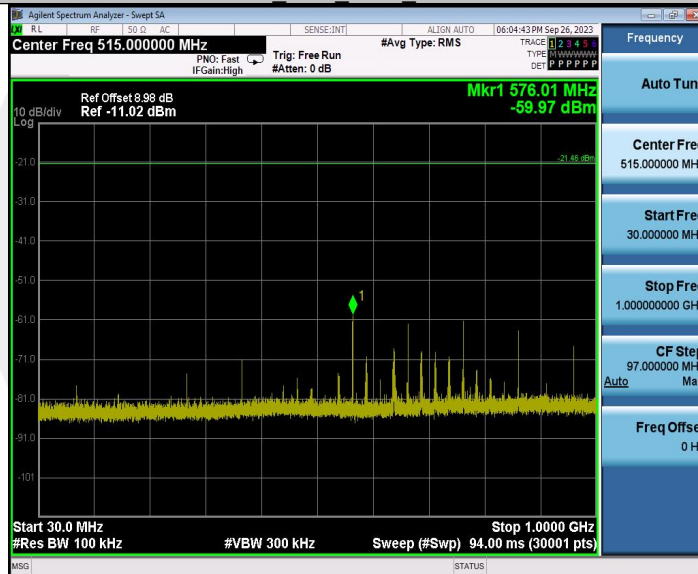
DH5 Ant1 2480 30~1000



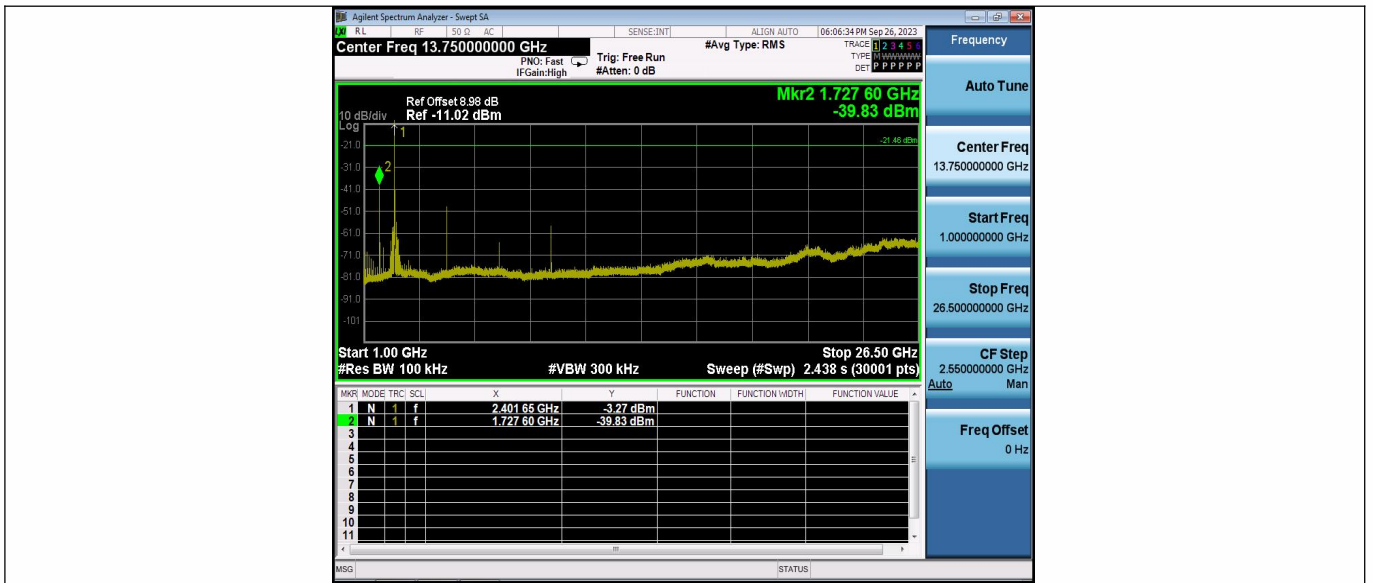
DH5 Ant1 2480 1000~26500



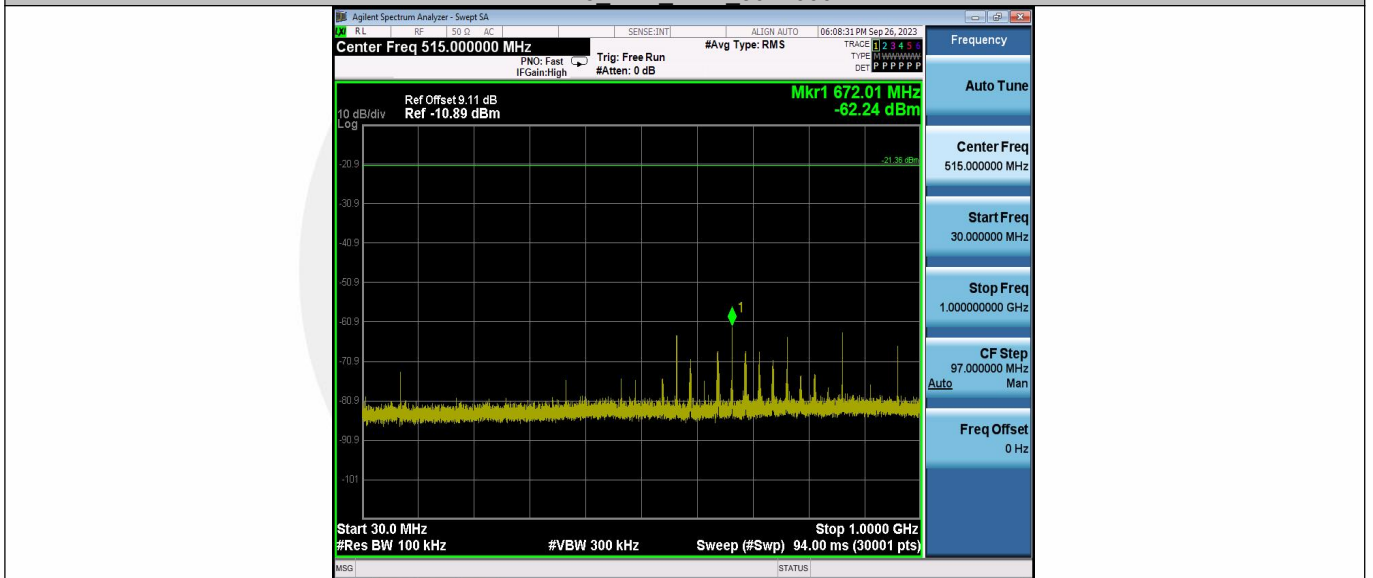
2DH5 Ant1 2402 30~1000



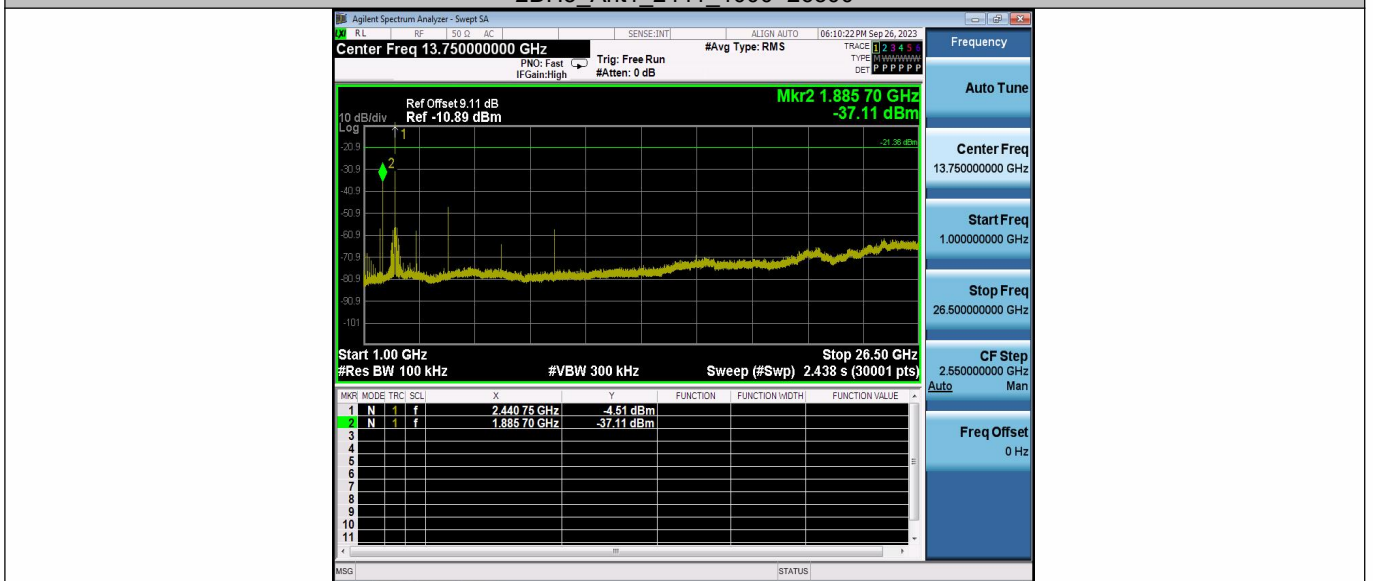
2DH5_Ant1_2402_1000~26500



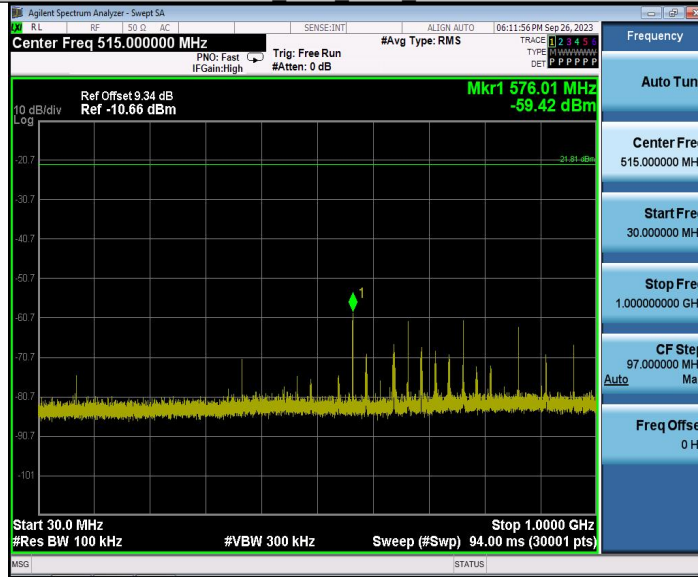
2DH5 Ant1 2441 30~1000



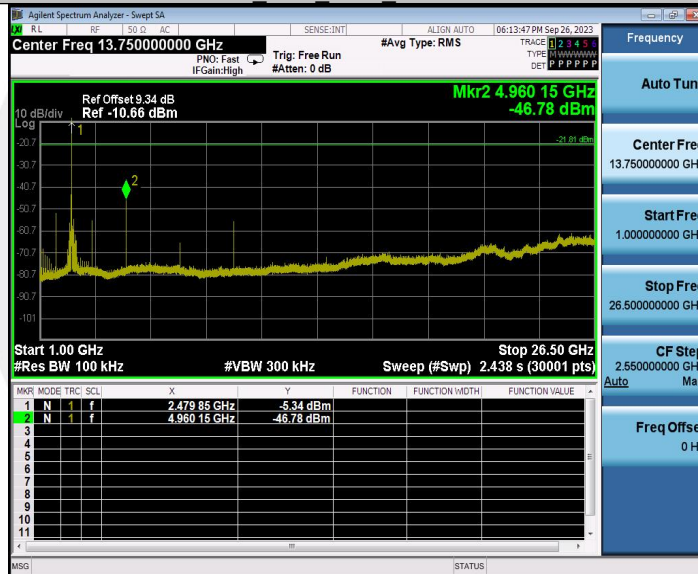
2DH5 Ant1 2441 1000~26500



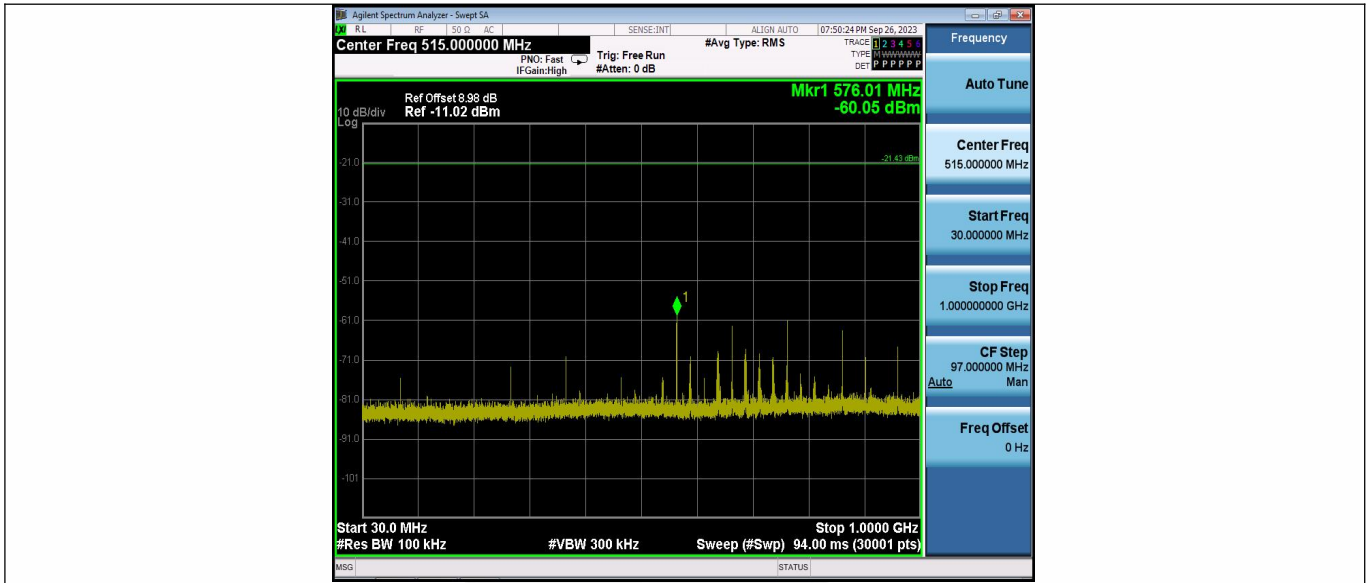
2DH5 Ant1 2480 30~1000



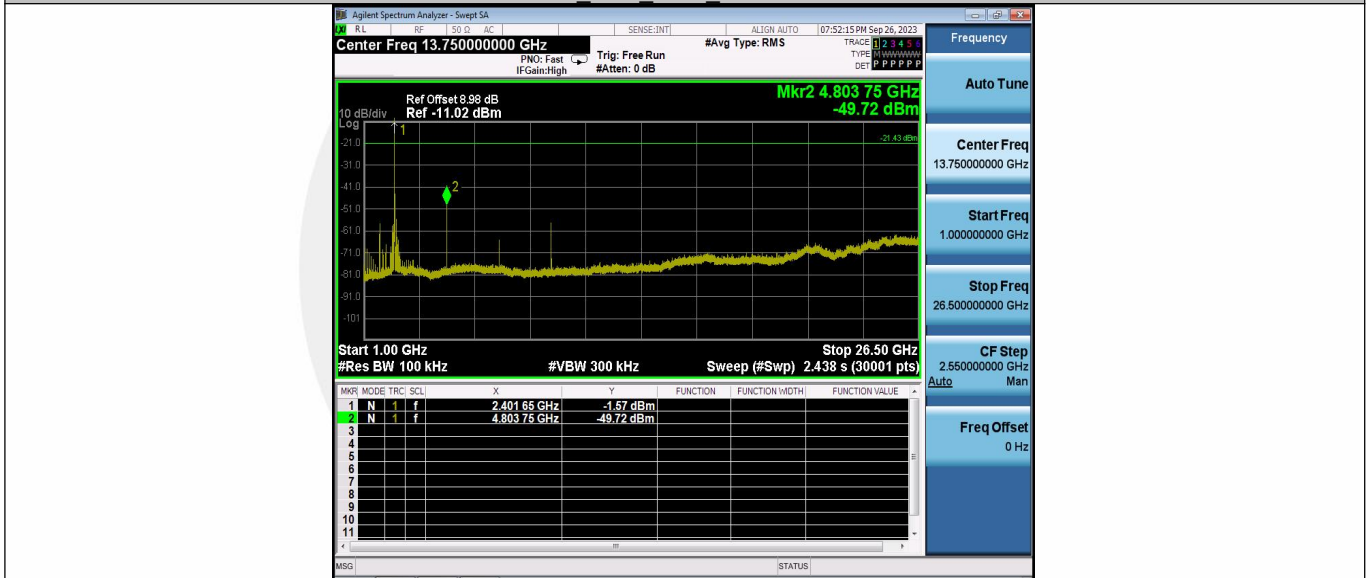
2DH5 Ant1 2480 1000~26500



3DH5 Ant1 2402 30~1000



3DH5 Ant1 2402 1000~26500



3DH5 Ant1 2441 30~1000

