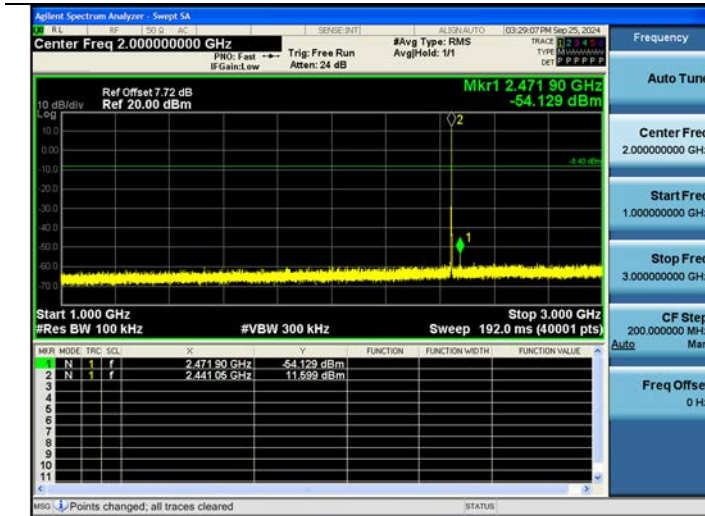
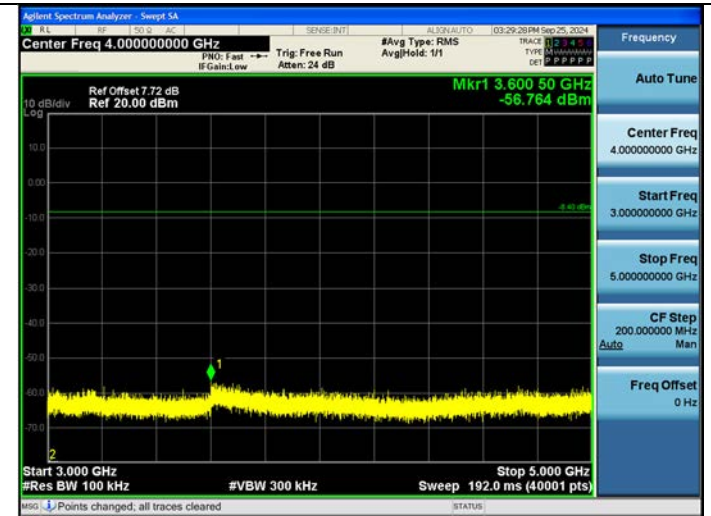


[Dual Ant. 2]_GFSK(2 441 MHz)

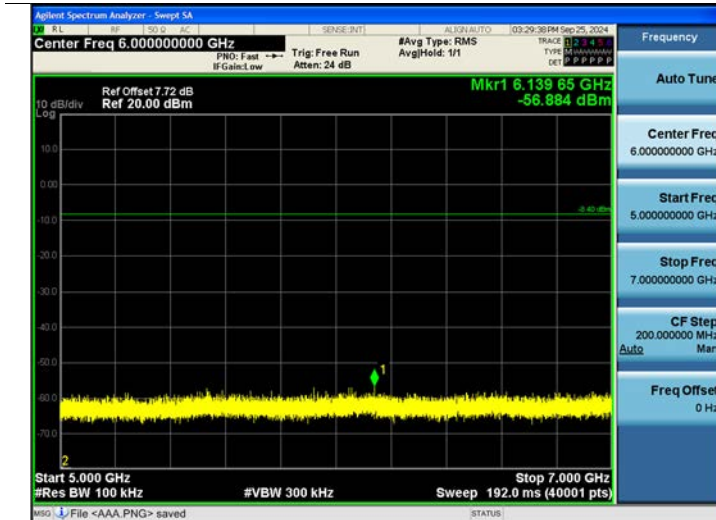
1 GHz ~ 3 GHz



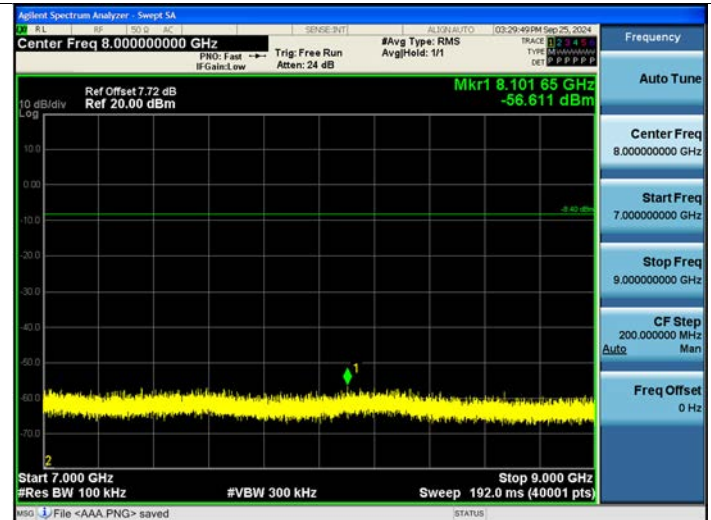
3 GHz ~ 5 GHz



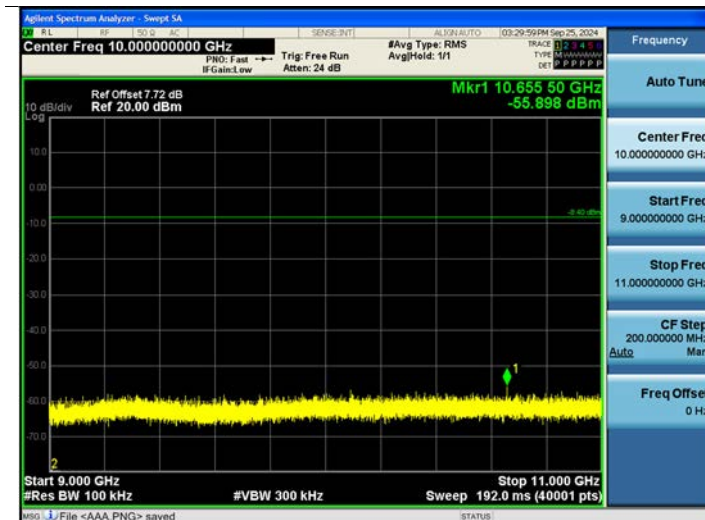
5 GHz ~ 7 GHz



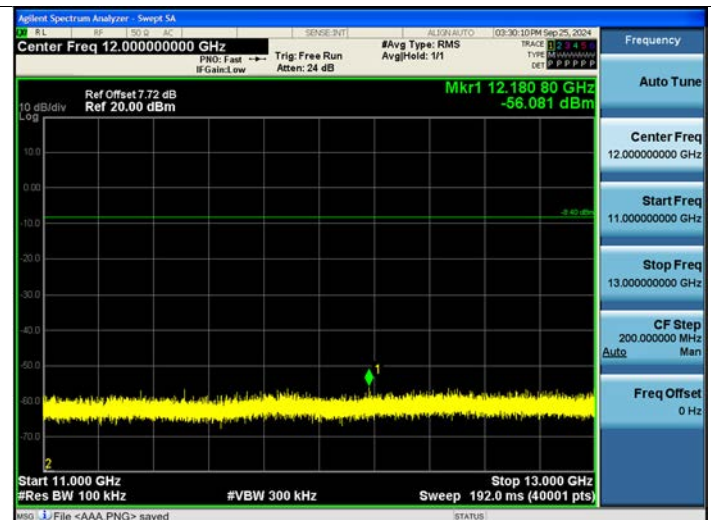
7 GHz ~ 9 GHz



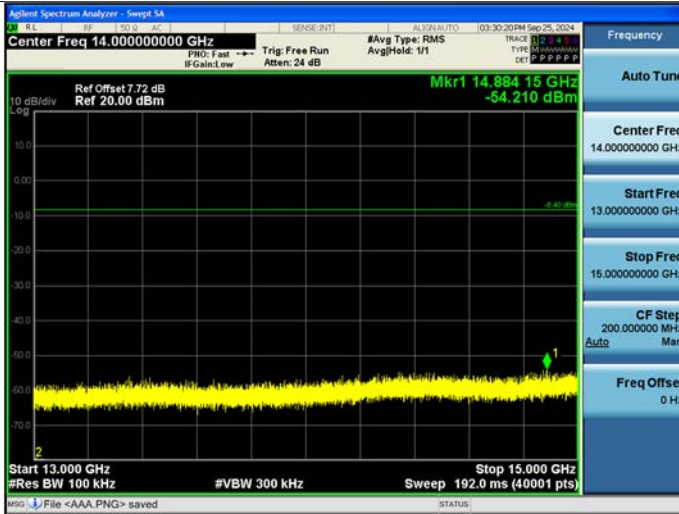
9 GHz ~ 11 GHz



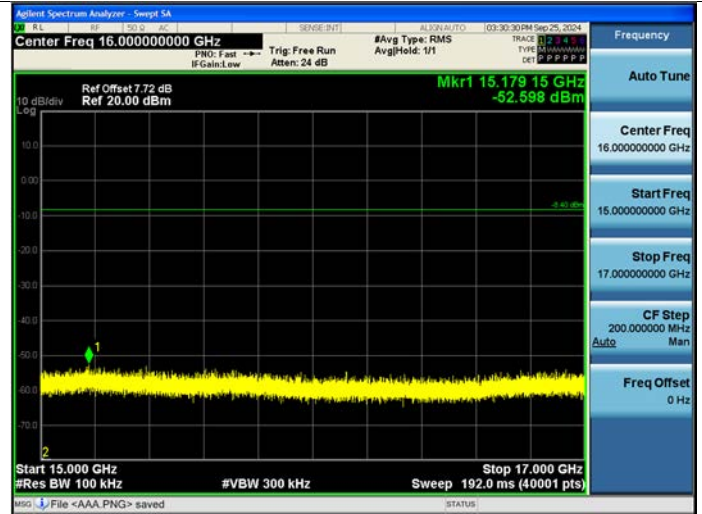
11 GHz ~ 13 GHz



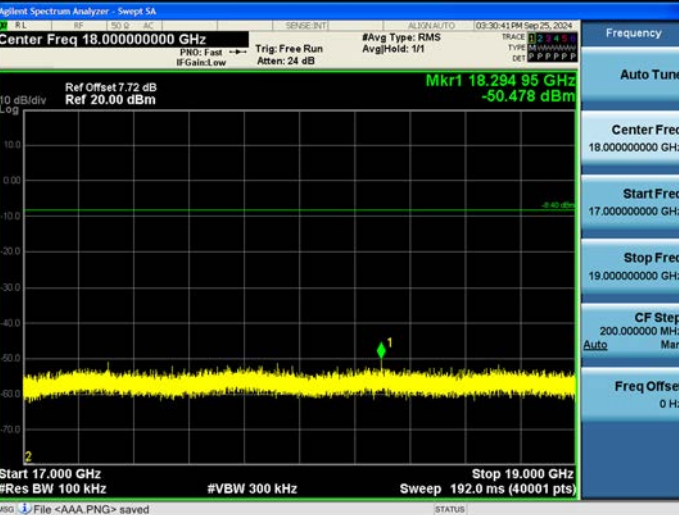
13 GHz ~ 15 GHz



15 GHz ~ 17 GHz



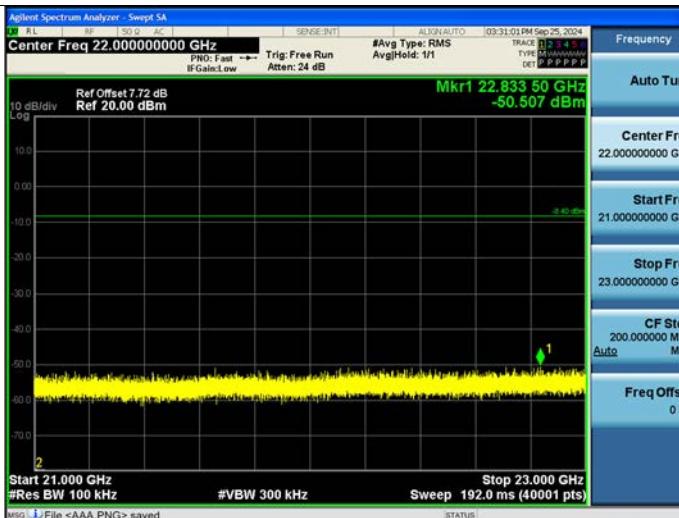
17 GHz ~ 19 GHz



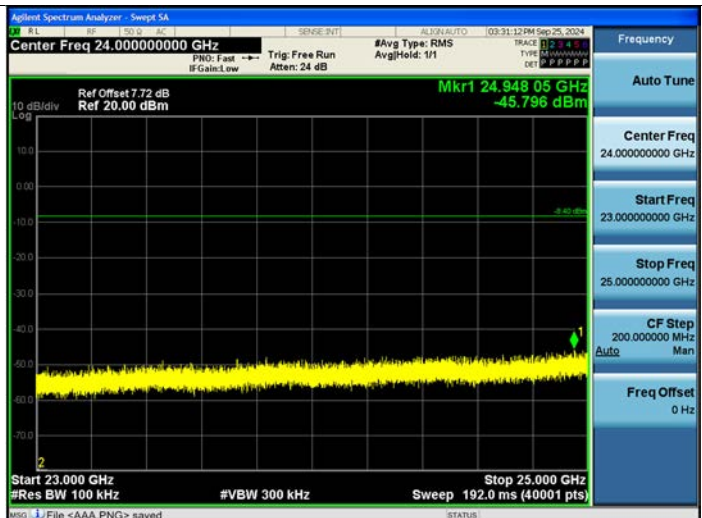
19 GHz ~ 21 GHz



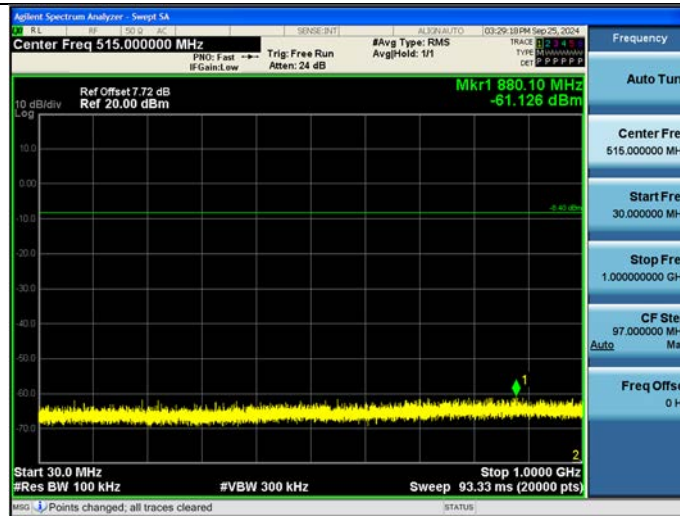
21 GHz ~ 23 GHz



23 GHz ~ 25 GHz



30 MHz ~ 1 GHz



Note

1. Limit (dBm): -8.40

10.6.2 RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30 MHz

Frequency	Measured Value	A.F+C.L+D.F	POL	Total	Limit	Margin
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]

No Critical peaks found

Note:

1. The Measured of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor = $40\log$ (specific distance / test distance) (dB)
3. Limit line = specific Limits (dBμV) + Distance extrapolation factor
4. Radiated test is performed with hopping off.

Frequency Range : Below 1 GHz

Frequency	Measured Value	A.F+C.L	POL	Total	Limit	Margin
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]

No Critical peaks found

Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
2. Radiated test is performed with hopping off.

Frequency Range : Above 1 GHz

[Ant.1]

Operation Mode	Normal(GFSK)
Operating Frequency	2402 MHz
Channel No	CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4804	42.53	4.82	V	0.00	47.35	73.98	26.63	PK
4804	42.53	4.82	V	-24.73	22.62	53.98	31.36	AV
7206	39.05	12.62	V	0.00	51.67	73.98	22.31	PK
7206	39.05	12.62	V	-24.73	26.94	53.98	27.04	AV
4804	42.85	4.82	H	0.00	47.67	73.98	26.31	PK
4804	42.85	4.82	H	-24.73	22.94	53.98	31.04	AV
7206	39.18	12.62	H	0.00	51.80	73.98	22.18	PK
7206	39.18	12.62	H	-24.73	27.07	53.98	26.91	AV

Operation Mode	Normal(GFSK)
Operating Frequency	2441 MHz
Channel No	CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4882	41.26	5.31	V	0.00	46.57	73.98	27.41	PK
4882	41.26	5.31	V	-24.73	21.84	53.98	32.14	AV
7323	38.91	12.68	V	0.00	51.59	73.98	22.39	PK
7323	38.91	12.68	V	-24.73	26.86	53.98	27.12	AV
4882	41.52	5.31	H	0.00	46.83	73.98	27.15	PK
4882	41.52	5.31	H	-24.73	22.10	53.98	31.88	AV
7323	38.99	12.68	H	0.00	51.67	73.98	22.31	PK
7323	38.99	12.68	H	-24.73	26.94	53.98	27.04	AV

Operation Mode	Normal(GFSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	42.36	5.79	V	0.00	48.15	73.98	25.83	PK
4960	42.36	5.79	V	-24.73	23.42	53.98	30.56	AV
7440	39.22	12.54	V	0.00	51.76	73.98	22.22	PK
7440	39.22	12.54	V	-24.73	27.03	53.98	26.95	AV
4960	42.78	5.79	H	0.00	48.57	73.98	25.41	PK
4960	42.78	5.79	H	-24.73	23.84	53.98	30.14	AV
7440	39.43	12.54	H	0.00	51.97	73.98	22.01	PK
7440	39.43	12.54	H	-24.73	27.24	53.98	26.74	AV

Operation Mode Normal(π /4DQPSK)

Operating Frequency 2402 MHz

Channel No CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4804	41.86	4.82	V	0.00	46.68	73.98	27.30	PK
4804	41.86	4.82	V	-24.73	21.95	53.98	32.03	AV
7206	38.49	12.62	V	0.00	51.11	73.98	22.87	PK
7206	38.49	12.62	V	-24.73	26.38	53.98	27.60	AV
4804	42.03	4.82	H	0.00	46.85	73.98	27.13	PK
4804	42.03	4.82	H	-24.73	22.12	53.98	31.86	AV
7206	38.91	12.62	H	0.00	51.53	73.98	22.45	PK
7206	38.91	12.62	H	-24.73	26.80	53.98	27.18	AV

Operation Mode Normal(π /4DQPSK)

Operating Frequency 2441 MHz

Channel No CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4882	41.25	5.31	V	0.00	46.56	73.98	27.42	PK
4882	41.25	5.31	V	-24.73	21.83	53.98	32.15	AV
7323	38.16	12.68	V	0.00	50.84	73.98	23.14	PK
7323	38.16	12.68	V	-24.73	26.11	53.98	27.87	AV
4882	41.39	5.31	H	0.00	46.70	73.98	27.28	PK
4882	41.39	5.31	H	-24.73	21.97	53.98	32.01	AV
7323	38.78	12.68	H	0.00	51.46	73.98	22.52	PK
7323	38.78	12.68	H	-24.73	26.73	53.98	27.25	AV

Operation Mode	Normal($\pi/4$ DQPSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4960	42.51	5.79	V	0.00	48.30	73.98	25.68	PK
4960	42.51	5.79	V	-24.73	23.57	53.98	30.41	AV
7440	39.06	12.54	V	0.00	51.60	73.98	22.38	PK
7440	39.06	12.54	V	-24.73	26.87	53.98	27.11	AV
4960	42.59	5.79	H	0.00	48.38	73.98	25.60	PK
4960	42.59	5.79	H	-24.73	23.65	53.98	30.33	AV
7440	39.22	12.54	H	0.00	51.76	73.98	22.22	PK
7440	39.22	12.54	H	-24.73	27.03	53.98	26.95	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2402 MHz
Channel No	CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4804	41.93	4.82	V	0.00	46.75	73.98	27.23	PK
4804	41.93	4.82	V	-24.73	22.02	53.98	31.96	AV
7206	38.35	12.62	V	0.00	50.97	73.98	23.01	PK
7206	38.35	12.62	V	-24.73	26.24	53.98	27.74	AV
4804	42.01	4.82	H	0.00	46.83	73.98	27.15	PK
4804	42.01	4.82	H	-24.73	22.10	53.98	31.88	AV
7206	38.89	12.62	H	0.00	51.51	73.98	22.47	PK
7206	38.89	12.62	H	-24.73	26.78	53.98	27.20	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2441 MHz
Channel No	CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4882	41.26	5.31	V	0.00	46.57	73.98	27.41	PK
4882	41.26	5.31	V	-24.73	21.84	53.98	32.14	AV
7323	38.18	12.68	V	0.00	50.86	73.98	23.12	PK
7323	38.18	12.68	V	-24.73	26.13	53.98	27.85	AV
4882	41.41	5.31	H	0.00	46.72	73.98	27.26	PK
4882	41.41	5.31	H	-24.73	21.99	53.98	31.99	AV
7323	38.75	12.68	H	0.00	51.43	73.98	22.55	PK
7323	38.75	12.68	H	-24.73	26.70	53.98	27.28	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	42.53	5.79	V	0.00	48.32	73.98	25.66	PK
4960	42.53	5.79	V	-24.73	23.59	53.98	30.39	AV
7440	39.03	12.54	V	0.00	51.57	73.98	22.41	PK
7440	39.03	12.54	V	-24.73	26.84	53.98	27.14	AV
4960	42.62	5.79	H	0.00	48.41	73.98	25.57	PK
4960	42.62	5.79	H	-24.73	23.68	53.98	30.30	AV
7440	39.18	12.54	H	0.00	51.72	73.98	22.26	PK
7440	39.18	12.54	H	-24.73	26.99	53.98	26.99	AV

[Ant.2]

Operation Mode	Normal(GFSK)
Operating Frequency	2402 MHz
Channel No	CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4804	42.59	4.82	V	0.00	47.41	73.98	26.57	PK
4804	42.59	4.82	V	-24.73	22.68	53.98	31.30	AV
7206	38.78	12.62	V	0.00	51.40	73.98	22.58	PK
7206	38.78	12.62	V	-24.73	26.67	53.98	27.31	AV
4804	42.16	4.82	H	0.00	46.98	73.98	27.00	PK
4804	42.16	4.82	H	-24.73	22.25	53.98	31.73	AV
7206	38.55	12.62	H	0.00	51.17	73.98	22.81	PK
7206	38.55	12.62	H	-24.73	26.44	53.98	27.54	AV

Operation Mode	Normal(GFSK)
Operating Frequency	2441 MHz
Channel No	CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4882	41.54	5.31	V	0.00	46.85	73.98	27.13	PK
4882	41.54	5.31	V	-24.73	22.12	53.98	31.86	AV
7323	38.74	12.68	V	0.00	51.42	73.98	22.56	PK
7323	38.74	12.68	V	-24.73	26.69	53.98	27.29	AV
4882	41.84	5.31	H	0.00	47.15	73.98	26.83	PK
4882	41.84	5.31	H	-24.73	22.42	53.98	31.56	AV
7323	38.29	12.68	H	0.00	50.97	73.98	23.01	PK
7323	38.29	12.68	H	-24.73	26.24	53.98	27.74	AV

Operation Mode	Normal(GFSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	43.56	5.79	V	0.00	49.35	73.98	24.63	PK
4960	43.56	5.79	V	-24.73	24.62	53.98	29.36	AV
7440	39.28	12.54	V	0.00	51.82	73.98	22.16	PK
7440	39.28	12.54	V	-24.73	27.09	53.98	26.89	AV
4960	43.19	5.79	H	0.00	48.98	73.98	25.00	PK
4960	43.19	5.79	H	-24.73	24.25	53.98	29.73	AV
7440	38.87	12.54	H	0.00	51.41	73.98	22.57	PK
7440	38.87	12.54	H	-24.73	26.68	53.98	27.30	AV

Operation Mode Normal($\pi/4$ DQPSK)

Operating Frequency 2402 MHz

Channel No CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4804	42.32	4.82	V	0.00	47.14	73.98	26.84	PK
4804	42.32	4.82	V	-24.73	22.41	53.98	31.57	AV
7206	38.69	12.62	V	0.00	51.31	73.98	22.67	PK
7206	38.69	12.62	V	-24.73	26.58	53.98	27.40	AV
4804	42.06	4.82	H	0.00	46.88	73.98	27.10	PK
4804	42.06	4.82	H	-24.73	22.15	53.98	31.83	AV
7206	38.14	12.62	H	0.00	50.76	73.98	23.22	PK
7206	38.14	12.62	H	-24.73	26.03	53.98	27.95	AV

Operation Mode Normal($\pi/4$ DQPSK)

Operating Frequency 2441 MHz

Channel No CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4882	41.01	5.31	V	0.00	46.32	73.98	27.66	PK
4882	41.01	5.31	V	-24.73	21.59	53.98	32.39	AV
7323	38.67	12.68	V	0.00	51.35	73.98	22.63	PK
7323	38.67	12.68	V	-24.73	26.62	53.98	27.36	AV
4882	41.32	5.31	H	0.00	46.63	73.98	27.35	PK
4882	41.32	5.31	H	-24.73	21.90	53.98	32.08	AV
7323	38.25	12.68	H	0.00	50.93	73.98	23.05	PK
7323	38.25	12.68	H	-24.73	26.20	53.98	27.78	AV

Operation Mode	Normal($\pi/4$ DQPSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4960	42.35	5.79	V	0.00	48.14	73.98	25.84	PK
4960	42.35	5.79	V	-24.73	23.41	53.98	30.57	AV
7440	39.23	12.54	V	0.00	51.77	73.98	22.21	PK
7440	39.23	12.54	V	-24.73	27.04	53.98	26.94	AV
4960	41.98	5.79	H	0.00	47.77	73.98	26.21	PK
4960	41.98	5.79	H	-24.73	23.04	53.98	30.94	AV
7440	38.86	12.54	H	0.00	51.40	73.98	22.58	PK
7440	38.86	12.54	H	-24.73	26.67	53.98	27.31	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2402 MHz
Channel No	CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4804	42.29	4.82	V	0.00	47.11	73.98	26.87	PK
4804	42.29	4.82	V	-24.73	22.38	53.98	31.60	AV
7206	38.66	12.62	V	0.00	51.28	73.98	22.70	PK
7206	38.66	12.62	V	-24.73	26.55	53.98	27.43	AV
4804	42.03	4.82	H	0.00	46.85	73.98	27.13	PK
4804	42.03	4.82	H	-24.73	22.12	53.98	31.86	AV
7206	38.19	12.62	H	0.00	50.81	73.98	23.17	PK
7206	38.19	12.62	H	-24.73	26.08	53.98	27.90	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2441 MHz
Channel No	CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4882	41.00	5.31	V	0.00	46.31	73.98	27.67	PK
4882	41.00	5.31	V	-24.73	21.58	53.98	32.40	AV
7323	38.66	12.68	V	0.00	51.34	73.98	22.64	PK
7323	38.66	12.68	V	-24.73	26.61	53.98	27.37	AV
4882	41.35	5.31	H	0.00	46.66	73.98	27.32	PK
4882	41.35	5.31	H	-24.73	21.93	53.98	32.05	AV
7323	38.51	12.68	H	0.00	51.19	73.98	22.79	PK
7323	38.51	12.68	H	-24.73	26.46	53.98	27.52	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	42.28	5.79	V	0.00	48.07	73.98	25.91	PK
4960	42.28	5.79	V	-24.73	23.34	53.98	30.64	AV
7440	39.21	12.54	V	0.00	51.75	73.98	22.23	PK
7440	39.21	12.54	V	-24.73	27.02	53.98	26.96	AV
4960	42.11	5.79	H	0.00	47.90	73.98	26.08	PK
4960	42.11	5.79	H	-24.73	23.17	53.98	30.81	AV
7440	38.79	12.54	H	0.00	51.33	73.98	22.65	PK
7440	38.79	12.54	H	-24.73	26.60	53.98	27.38	AV

[Dual Ant.1+ Ant.2]

Operation Mode	Normal(GFSK)
Operating Frequency	2402 MHz
Channel No	CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4804	41.81	4.82	V	0.00	46.63	73.98	27.35	PK
4804	41.81	4.82	V	-24.73	21.90	53.98	32.08	AV
7206	39.18	12.62	V	0.00	51.80	73.98	22.18	PK
7206	39.18	12.62	V	-24.73	27.07	53.98	26.91	AV
4804	41.55	4.82	H	0.00	46.37	73.98	27.61	PK
4804	41.55	4.82	H	-24.73	21.64	53.98	32.34	AV
7206	39.32	12.62	H	0.00	51.94	73.98	22.04	PK
7206	39.32	12.62	H	-24.73	27.21	53.98	26.77	AV

Operation Mode	Normal(GFSK)
Operating Frequency	2441 MHz
Channel No	CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4882	41.38	5.31	V	0.00	46.69	73.98	27.29	PK
4882	41.38	5.31	V	-24.73	21.96	53.98	32.02	AV
7323	39.16	12.68	V	0.00	51.84	73.98	22.14	PK
7323	39.16	12.68	V	-24.73	27.11	53.98	26.87	AV
4882	41.24	5.31	H	0.00	46.55	73.98	27.43	PK
4882	41.24	5.31	H	-24.73	21.82	53.98	32.16	AV
7323	39.51	12.68	H	0.00	52.19	73.98	21.79	PK
7323	39.51	12.68	H	-24.73	27.46	53.98	26.52	AV

Operation Mode	Normal(GFSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	41.47	5.79	V	0.00	47.26	73.98	26.72	PK
4960	41.47	5.79	V	-24.73	22.53	53.98	31.45	AV
7440	39.58	12.54	V	0.00	52.12	73.98	21.86	PK
7440	39.58	12.54	V	-24.73	27.39	53.98	26.59	AV
4960	41.26	5.79	H	0.00	47.05	73.98	26.93	PK
4960	41.26	5.79	H	-24.73	22.32	53.98	31.66	AV
7440	39.88	12.54	H	0.00	52.42	73.98	21.56	PK
7440	39.88	12.54	H	-24.73	27.69	53.98	26.29	AV

Operation Mode Normal(π /4DQPSK)

Operating Frequency 2402 MHz

Channel No CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4804	41.79	4.82	V	0.00	46.61	73.98	27.37	PK
4804	41.79	4.82	V	-24.73	21.88	53.98	32.10	AV
7206	38.19	12.62	V	0.00	50.81	73.98	23.17	PK
7206	38.19	12.62	V	-24.73	26.08	53.98	27.90	AV
4804	41.53	4.82	H	0.00	46.35	73.98	27.63	PK
4804	41.53	4.82	H	-24.73	21.62	53.98	32.36	AV
7206	38.44	12.62	H	0.00	51.06	73.98	22.92	PK
7206	38.44	12.62	H	-24.73	26.33	53.98	27.65	AV

Operation Mode Normal(π /4DQPSK)

Operating Frequency 2441 MHz

Channel No CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4882	41.22	5.31	V	0.00	46.53	73.98	27.45	PK
4882	41.22	5.31	V	-24.73	21.80	53.98	32.18	AV
7323	39.05	12.68	V	0.00	51.73	73.98	22.25	PK
7323	39.05	12.68	V	-24.73	27.00	53.98	26.98	AV
4882	41.01	5.31	H	0.00	46.32	73.98	27.66	PK
4882	41.01	5.31	H	-24.73	21.59	53.98	32.39	AV
7323	39.36	12.68	H	0.00	52.04	73.98	21.94	PK
7323	39.36	12.68	H	-24.73	27.31	53.98	26.67	AV

Operation Mode	Normal($\pi/4$ DQPSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB]	[dB μ V/m]	[dB μ V/m]	[dB]	
4960	41.61	5.79	V	0.00	47.40	73.98	26.58	PK
4960	41.61	5.79	V	-24.73	22.67	53.98	31.31	AV
7440	38.52	12.54	V	0.00	51.06	73.98	22.92	PK
7440	38.52	12.54	V	-24.73	26.33	53.98	27.65	AV
4960	41.13	5.79	H	0.00	46.92	73.98	27.06	PK
4960	41.13	5.79	H	-24.73	22.19	53.98	31.79	AV
7440	38.88	12.54	H	0.00	51.42	73.98	22.56	PK
7440	38.88	12.54	H	-24.73	26.69	53.98	27.29	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2402 MHz
Channel No	CH. 0

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4804	41.80	4.82	V	0.00	46.62	73.98	27.36	PK
4804	41.80	4.82	V	-24.73	21.89	53.98	32.09	AV
7206	38.13	12.62	V	0.00	50.75	73.98	23.23	PK
7206	38.13	12.62	V	-24.73	26.02	53.98	27.96	AV
4804	41.49	4.82	H	0.00	46.31	73.98	27.67	PK
4804	41.49	4.82	H	-24.73	21.58	53.98	32.40	AV
7206	38.34	12.62	H	0.00	50.96	73.98	23.02	PK
7206	38.34	12.62	H	-24.73	26.23	53.98	27.75	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2441 MHz
Channel No	CH. 39

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4882	41.35	5.31	V	0.00	46.66	73.98	27.32	PK
4882	41.35	5.31	V	-24.73	21.93	53.98	32.05	AV
7323	39.09	12.68	V	0.00	51.77	73.98	22.21	PK
7323	39.09	12.68	V	-24.73	27.04	53.98	26.94	AV
4882	41.11	5.31	H	0.00	46.42	73.98	27.56	PK
4882	41.11	5.31	H	-24.73	21.69	53.98	32.29	AV
7323	39.36	12.68	H	0.00	52.04	73.98	21.94	PK
7323	39.36	12.68	H	-24.73	27.31	53.98	26.67	AV

Operation Mode	Normal(8DPSK)
Operating Frequency	2480 MHz
Channel No	CH. 78

Frequency	Measured Value	A.F+C.L- A.G+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	41.55	5.79	V	0.00	47.34	73.98	26.64	PK
4960	41.55	5.79	V	-24.73	22.61	53.98	31.37	AV
7440	38.77	12.54	V	0.00	51.31	73.98	22.67	PK
7440	38.77	12.54	V	-24.73	26.58	53.98	27.40	AV
4960	41.21	5.79	H	0.00	47.00	73.98	26.98	PK
4960	41.21	5.79	H	-24.73	22.27	53.98	31.71	AV
7440	38.95	12.54	H	0.00	51.49	73.98	22.49	PK
7440	38.95	12.54	H	-24.73	26.76	53.98	27.22	AV

[RSDB]

Scenario 2

BT Ant1_ ANT1_8DPSK_ch.78 + ANT2_2.4 GHz 802.11b_1 Mbps Ch.1

+ ANT2_5 GHz 802.11be(EHT40)_MCS0 Ch. 38 26T 9RU

Frequency	Measured Value	A.F+C.L- A.G+D.F	Pol.	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	58.12	5.79	V	0.00	63.91	73.98	10.07	PK
4960	58.12	5.79	V	-24.73	39.18	53.98	14.80	AV
7440	38.89	12.54	V	0.00	51.43	73.98	22.55	PK
7440	38.89	12.54	V	-24.73	26.70	53.98	27.28	AV
4960	60.50	5.79	H	0.00	66.29	73.98	7.69	PK
4960	60.50	5.79	H	-24.73	41.56	53.98	12.42	AV
7440	39.29	12.54	H	0.00	51.83	73.98	22.15	PK
7440	39.29	12.54	H	-24.73	27.10	53.98	26.88	AV

Scenario 3

BT Ant1_ ANT1_8DPSK_ch.78 + ANT2_2.4 GHz 802.11b_1 Mbps Ch.1

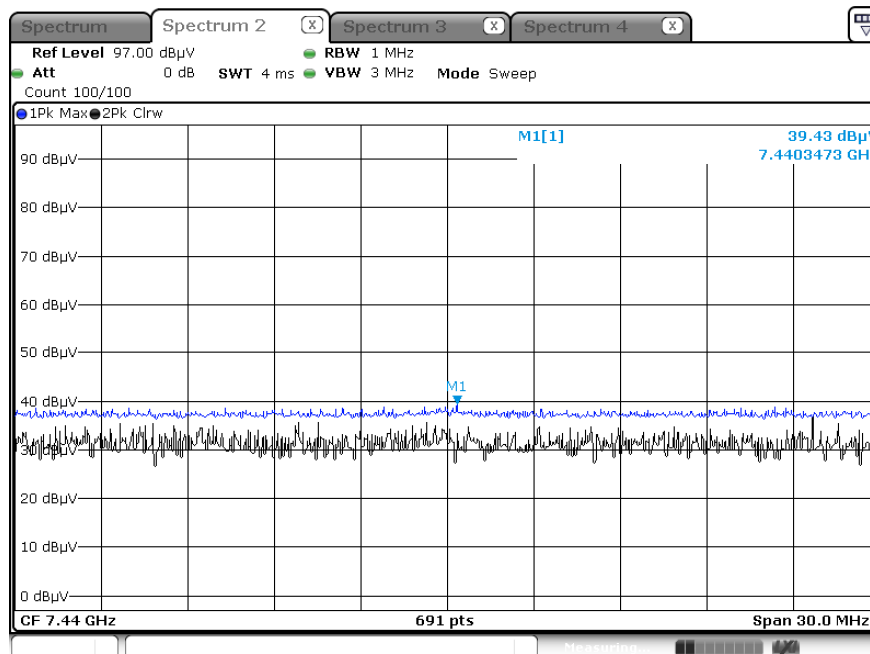
+ Ant All(MIMO) 5 GHz 802.11be(EHT40)_MCS0 Ch. 38 26T 9RU

Frequency	Measured Value	A.F+C.L- A.G+D.F	Pol.	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
4960	61.62	5.79	V	0.00	67.41	73.98	6.57	PK
4960	61.62	5.79	V	-24.73	42.68	53.98	11.30	AV
7440	42.12	12.54	V	0.00	54.66	73.98	19.32	PK
7440	42.12	12.54	V	-24.73	29.93	53.98	24.05	AV
4960	63.72	5.79	H	0.00	69.51	73.98	4.47	PK
4960	63.72	5.79	H	-24.73	44.78	53.98	9.20	AV
7440	42.96	12.54	H	0.00	55.50	73.98	18.48	PK
7440	42.96	12.54	H	-24.73	30.77	53.98	23.21	AV

RESULT PLOTS

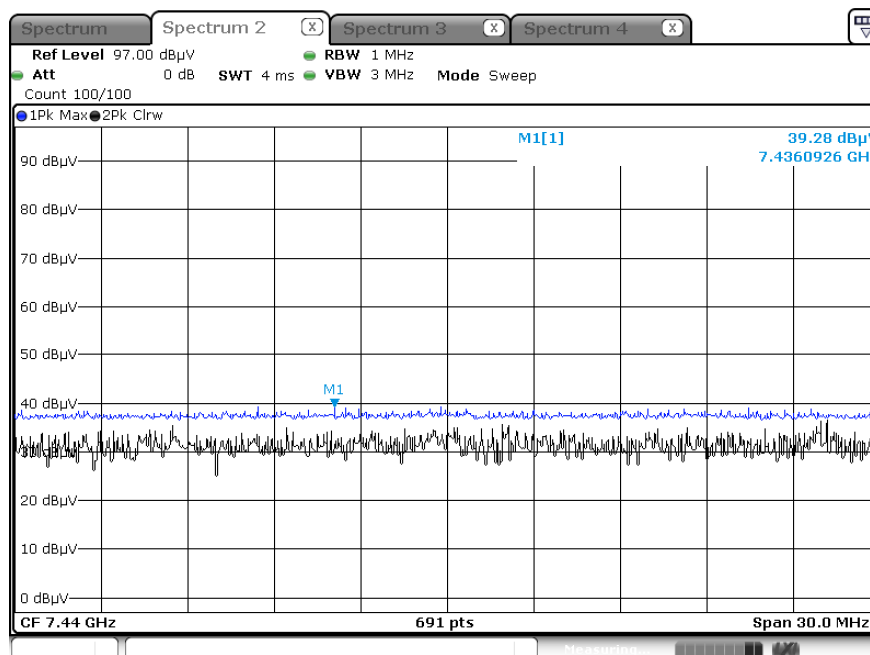
[Ant.1]

Radiated Spurious Emissions plot – Peak & Average Result (GFSK, Ch. 78 3rd Harmonic, Y-H)



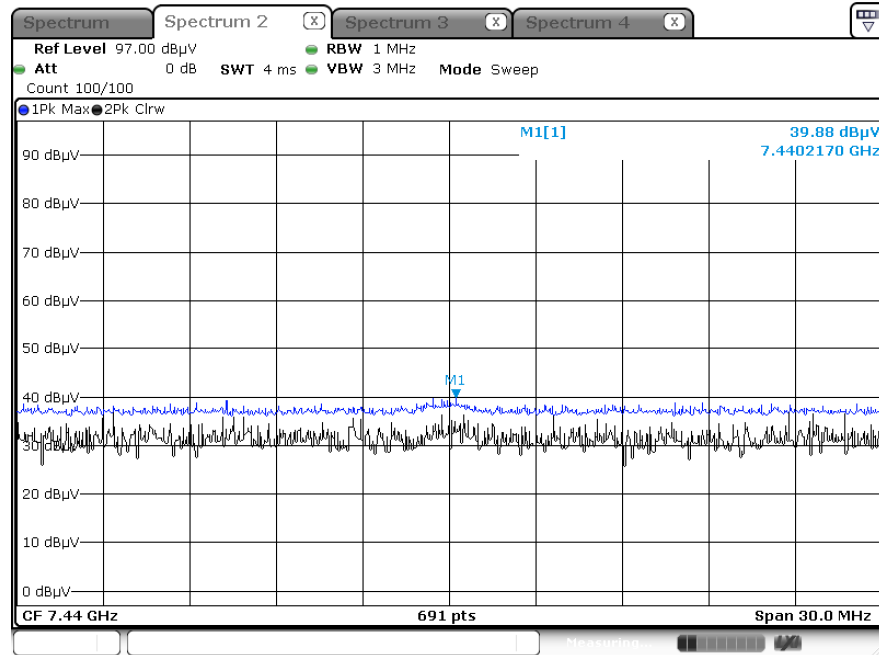
[Ant.2]

Radiated Spurious Emissions plot – Peak & Average Result (GFSK, Ch. 78 3rd Harmonic, X-V)



[Dual Ant.1+ Ant.2]

Radiated Spurious Emissions plot – Peak & Average Result (GFSK, Ch. 78 3rd Harmonic, Y-H)



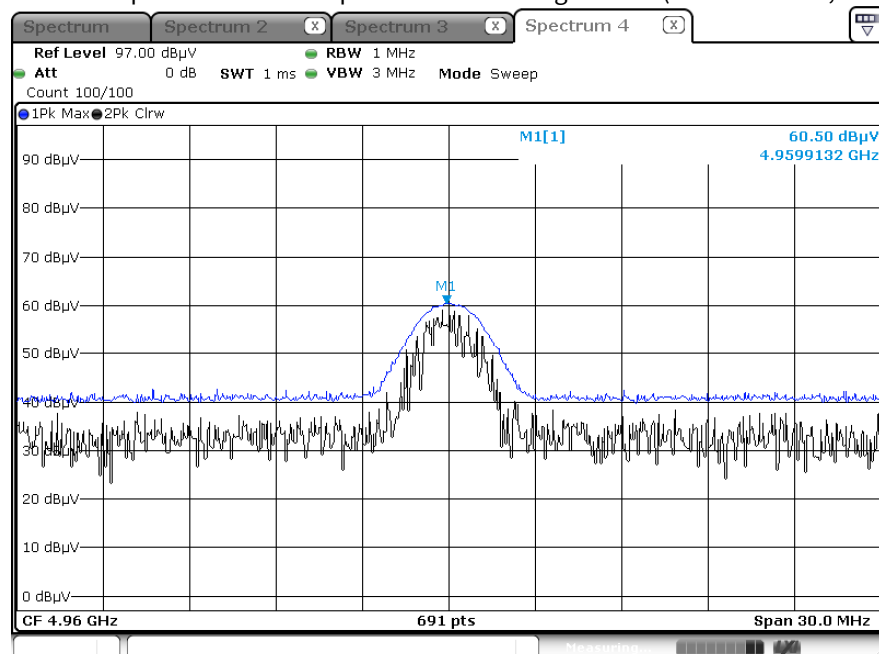
[RSDB]

Scenario 2

BT Ant1_ ANT1_8DPSK_ch.78 + ANT2_2.4 GHz 802.11b_1 Mbps Ch.1

+ ANT2_5 GHz 802.11be(EHT40)_MCS0 Ch. 38 26T 9RU

Radiated Spurious Emissions plot – Peak & Average Result (2nd Harmonic, Z-H)

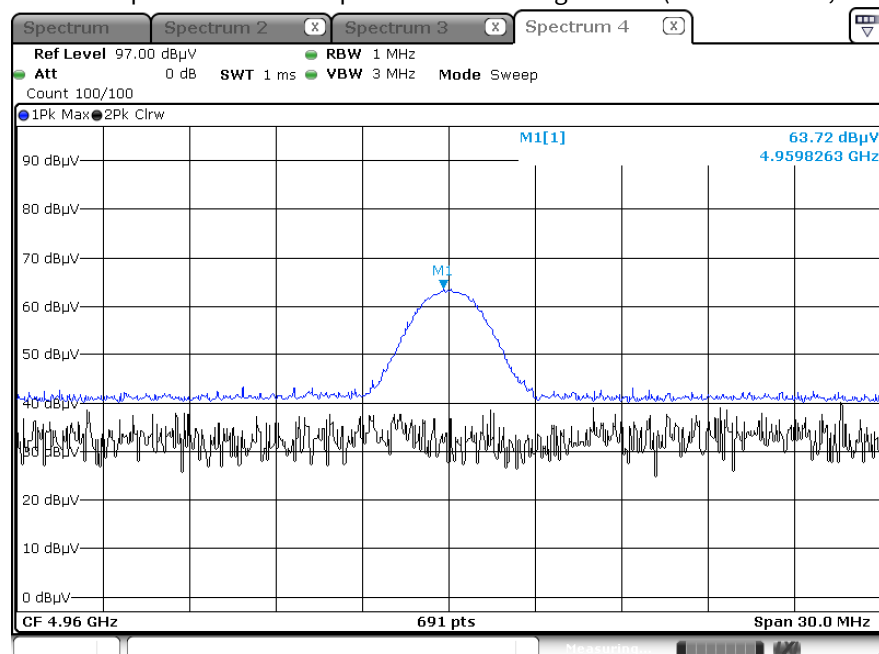


Scenario 3

BT Ant1_ ANT1_8DPSK_ch.78 + ANT2_2.4 GHz 802.11b_1 Mbps Ch.1

+ Ant All(MIMO) 5 GHz 802.11be(EHT40)_MCS0 Ch. 38 26T 9RU

Radiated Spurious Emissions plot – Peak & Average Result (2nd Harmonic, Z-H)



Note: Plots of worst case are only reported.

10.6.3 RADIATED RESTRICTED BAND EDGES

[Ant.1]

Operation Mode	Normal(GFSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.46	2.47	H	0.00	49.93	73.98	24.05	PK
2390	47.46	2.47	H	-24.73	25.20	53.98	28.78	AV
2483.5	56.16	3.45	H	0.00	59.61	73.98	14.37	PK
2483.5	56.16	3.45	H	-24.73	34.88	53.98	19.10	AV

Operation Mode	EDR(π /4DQPSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.53	2.47	H	0.00	50.00	73.98	23.98	PK
2390	47.53	2.47	H	-24.73	25.27	53.98	28.71	AV
2483.5	63.97	3.45	H	0.00	67.42	73.98	6.56	PK
2483.5	63.97	3.45	H	-24.73	42.69	53.98	11.29	AV

Operation Mode	EDR(8DPSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.44	2.47	H	0.00	49.91	73.98	24.07	PK
2390	47.44	2.47	H	-24.73	25.18	53.98	28.80	AV
2483.5	63.34	3.45	H	0.00	66.79	73.98	7.19	PK
2483.5	63.34	3.45	H	-24.73	42.06	53.98	11.92	AV

[Ant.2]

Operation Mode	Normal(GFSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.35	2.47	H	0.00	49.82	73.98	24.16	PK
2390	47.35	2.47	H	-24.73	25.09	53.98	28.89	AV
2483.5	57.39	3.45	H	0.00	60.84	73.98	13.14	PK
2483.5	57.39	3.45	H	-24.73	36.11	53.98	17.87	AV

Operation Mode	EDR($\pi/4$ DQPSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.41	2.47	H	0.00	49.88	73.98	24.10	PK
2390	47.41	2.47	H	-24.73	25.15	53.98	28.83	AV
2483.5	62.51	3.45	H	0.00	65.96	73.98	8.02	PK
2483.5	62.51	3.45	H	-24.73	41.23	53.98	12.75	AV

Operation Mode	EDR(8DPSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.45	2.47	H	0.00	49.92	73.98	24.06	PK
2390	47.45	2.47	H	-24.73	25.19	53.98	28.79	AV
2483.5	61.06	3.45	H	0.00	64.51	73.98	9.47	PK
2483.5	61.06	3.45	H	-24.73	39.78	53.98	14.20	AV

[Dual Ant.1+ Ant.2]

Operation Mode	Normal(GFSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.62	2.47	H	0.00	50.09	73.98	23.89	PK
2390	47.62	2.47	H	-24.73	25.36	53.98	28.62	AV
2483.5	55.85	3.45	H	0.00	59.30	73.98	14.68	PK
2483.5	55.85	3.45	H	-24.73	34.57	53.98	19.41	AV

Operation Mode	EDR($\pi/4$ DQPSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.68	2.47	H	0.00	50.15	73.98	23.83	PK
2390	47.68	2.47	H	-24.73	25.42	53.98	28.56	AV
2483.5	68.07	3.45	H	0.00	71.52	73.98	2.46	PK
2483.5	68.07	3.45	H	-24.73	46.79	53.98	7.19	AV

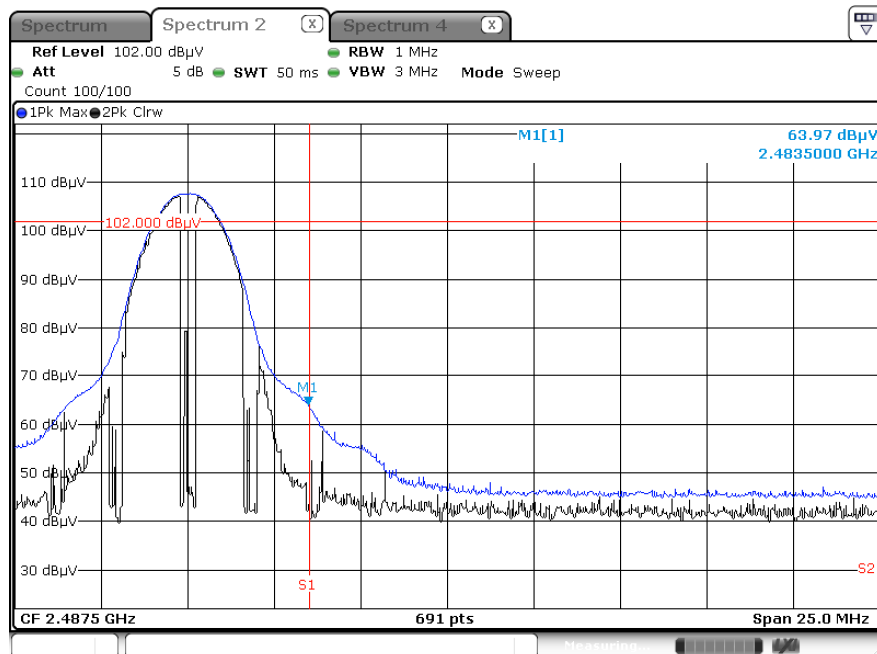
Operation Mode	EDR(8DPSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH. 0, CH. 78

Frequency	Measured Value	A.F+C.L- A.G+ATT+D.F	ANT. POL	Duty Cycle Correction	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2390	47.65	2.47	H	0.00	50.12	73.98	23.86	PK
2390	47.65	2.47	H	-24.73	25.39	53.98	28.59	AV
2483.5	68.43	3.45	H	0.00	71.88	73.98	2.10	PK
2483.5	68.43	3.45	H	-24.73	47.15	53.98	6.83	AV

RESULT PLOTS

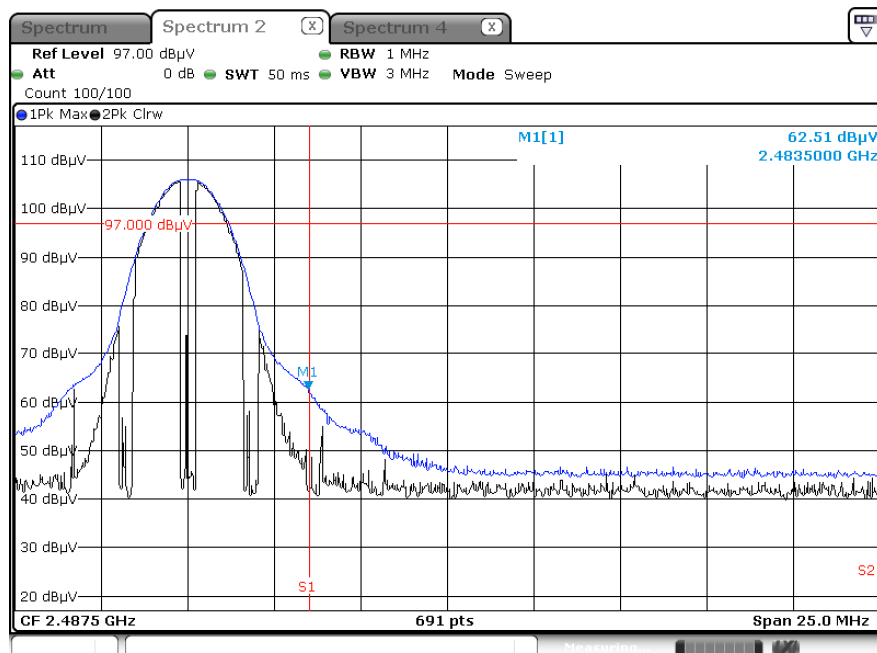
[Ant.1]

Radiated Restricted Band Edges plot – Average & Peak Result ($\pi/4$ DQPSK, Ch. 78, X-H)



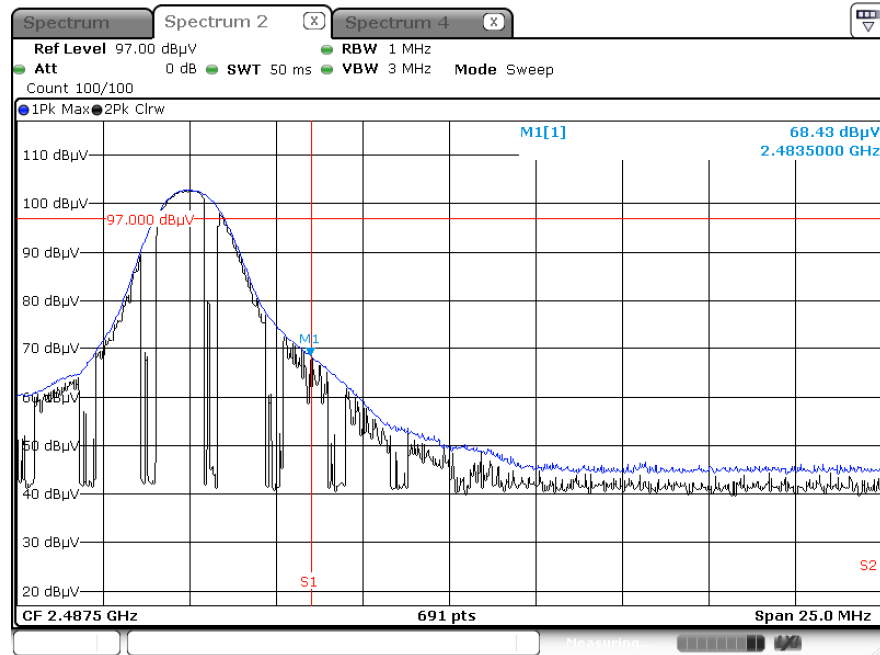
[Ant.2]

Radiated Restricted Band Edges plot – Average & Peak Result ($\pi/4$ DQPSK, Ch. 78, Y-H)



[Dual Ant.1+ Ant.2]

Radiated Restricted Band Edges plot – Average & Peak Result (8DPSK, Ch. 78, Y-H)



Note:

Plots of worst case are only reported.

10.7 POWERLINE CONDUCTED EMISSIONS

Conducted Emissions

Test

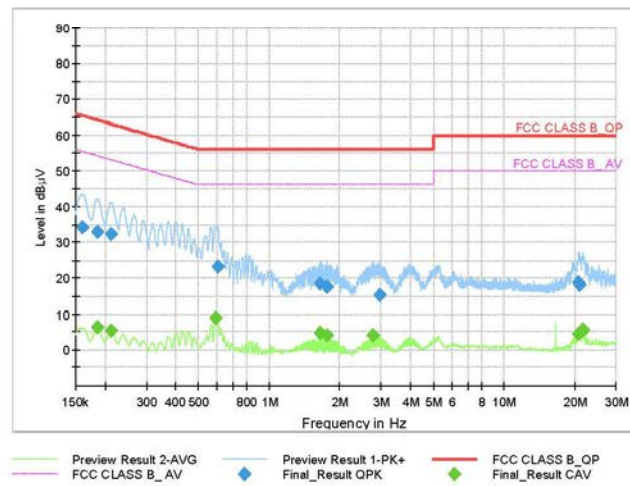
1 / 1

Test Report

Common Information

EUT : SM-S931B/DS
Operating Conditions : BT Mode
Comment :

Full Spectrum



Final Result QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1613	34.30	65.40	31.10	9.000	L1	9.6
0.1860	32.99	64.21	31.22	9.000	L1	9.6
0.2130	32.15	63.09	30.93	9.000	L1	9.6
0.6058	23.37	56.00	32.63	9.000	L1	9.7
1.6520	18.38	56.00	37.62	9.000	N	9.7
1.7578	17.52	56.00	38.48	9.000	N	9.7
2.9638	15.28	56.00	40.72	9.000	N	9.8
20.8018	18.96	60.00	41.04	9.000	N	10.6
20.8445	18.17	60.00	41.83	9.000	N	10.6

Final Result CAV

Frequency (MHz)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1860	6.44	54.21	47.77	9.000	N	9.6
0.2130	5.38	53.09	47.71	9.000	N	9.6
0.5945	8.92	46.00	37.08	9.000	N	9.6
1.6520	4.73	46.00	41.27	9.000	N	9.7
1.7600	4.08	46.00	41.92	9.000	N	9.7
2.7725	4.25	46.00	41.75	9.000	N	9.8
20.6758	4.45	50.00	45.55	9.000	N	10.6
21.6005	5.64	50.00	44.36	9.000	N	10.6
21.6815	5.27	50.00	44.73	9.000	N	10.6

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11. LIST OF TEST EQUIPMENT

Conducted Test

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
LISN	ENV216	Rohde & Schwarz	102245	07/17/2025	Annual
EMI Test Receiver	ESR	Rohde & Schwarz	101910	07/02/2025	Annual
Temperature Chamber	SU-642	ESPEC	0093008124	02/19/2025	Annual
Signal Analyzer	N9030A	Agilent	MY49432108	02/20/2025	Annual
Power Measurement Set	OSP 120	Rohde & Schwarz	100935	08/01/2025	Annual
Power Meter	N1911A	Agilent	MY45100523	02/28/2025	Annual
Power Sensor	N1921A	Agilent	MY57820067	02/22/2025	Annual
Directional Coupler	87300B	Agilent	3116A03621	10/21/2025	Annual
Power Splitter	11667B	Hewlett Packard	10545	02/06/2025	Annual
DC Power Supply	E3632A	Agilent	KR75303243	04/19/2025	Annual
Attenuator(10 dB)(DC-26.5 GHz)	8493C	HP	07560	06/05/2025	Annual
Attenuator(10 dB)(DC-26.5 GHz)	8493C	HP	08285	05/28/2025	Annual
Attenuator(20 dB)	18N-20dB	Rohde & Schwarz	8	02/20/2025	Annual
Software	EMC32	Rohde & Schwarz	N/A	N/A	N/A
FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	HCT CO., LTD.	N/A	N/A	N/A
Bluetooth Tester	CBT	Rohde & Schwarz	100752	01/03/2025	Annual

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

Radiated Test

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Controller	CO3000	Innco system	CO3000-4p	N/A	N/A
Antenna Position Tower	MA4640/800-XP-EP	Innco system	S1AM	07/30/2025	Annual
Turn Table	DS2000-S-1t	Innco system	DS2000/572/54610422/P	N/A	N/A
Amp & Filter Bank Switch Controller	FBSM-01B	T&M system	TM19050002	N/A	N/A
Loop Antenna	1513	Schwarzbeck	1513-333	03/07/2026	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	08/28/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1300	01/03/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-2296	05/16/2026	Biennial
Horn Antenna(15 GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Spectrum Analyzer	FSV(10 Hz ~ 40 GHz)	Rohde & Schwarz	101055	05/09/2025	Annual
Band Reject Filter	WRCJV2400/2483.5-2370/2520-60/12SS	Wainwright Instruments	2	01/02/2025	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	5	06/04/2025	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	6	06/04/2025	Annual
High Pass Filter(7 GHz ~ 18 GHz)	WHKX10-7150-8000-18000-50SS	Wainwright Instruments	1	02/28/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/17/2024	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
Bluetooth Tester	TC-3000C	TESCOM	3000C000175	03/19/2025	Annual
RF Switching System	FMSR-05B (HPF(3~18GHz) + LNA1(1~18GHz))	T&M system	S1L1	01/02/2025	Annual
RF Switching System	FMSR-05B (ATT(10dB) + LNA1(1~18GHz))	T&M system	S1L2	01/02/2025	Annual
RF Switching System	FMSR-05B (ATT(3dB) + LNA1(1~18GHz))	T&M system	S1L3	01/02/2025	Annual
RF Switching System	FMSR-05B (LNA1(1~18GHz))	T&M system	S1L4	01/02/2025	Annual
RF Switching System	FMSR-05B (HPF(7~18GHz) + LNA2(6~18GHz))	T&M system	S1L5	01/02/2025	Annual
RF Switching System	FMSR-05B (Thru(30MHz ~ 18GHz))	T&M system	S1L6	01/02/2025	Annual

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
3. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5(Version : 2017).

12. ANNEX A_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2410-FC067-P