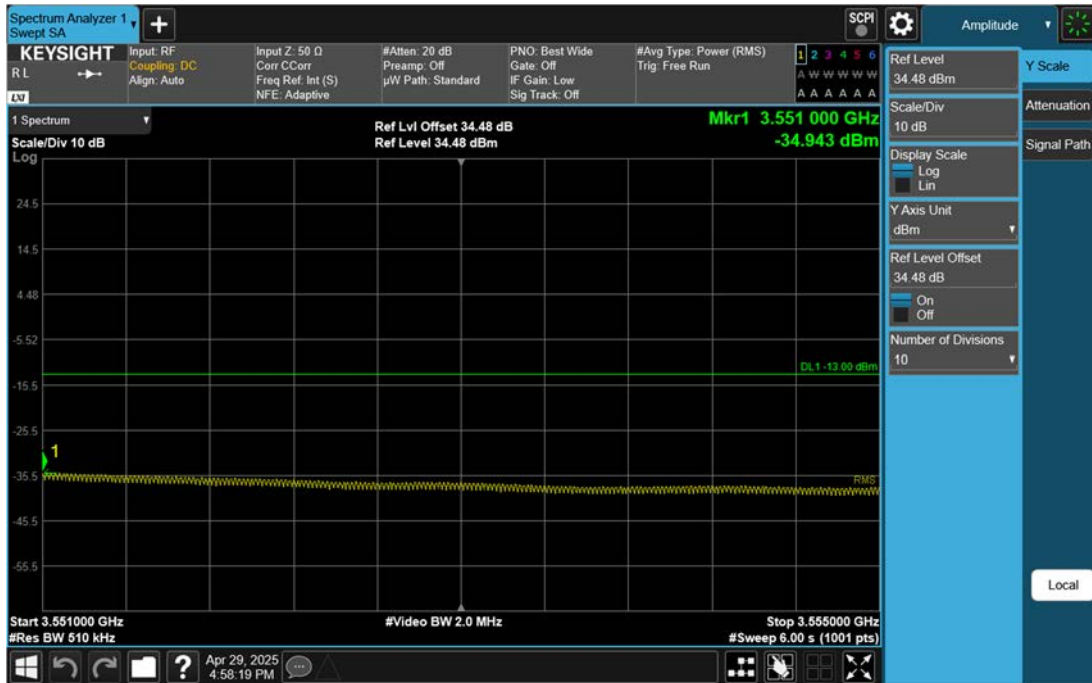
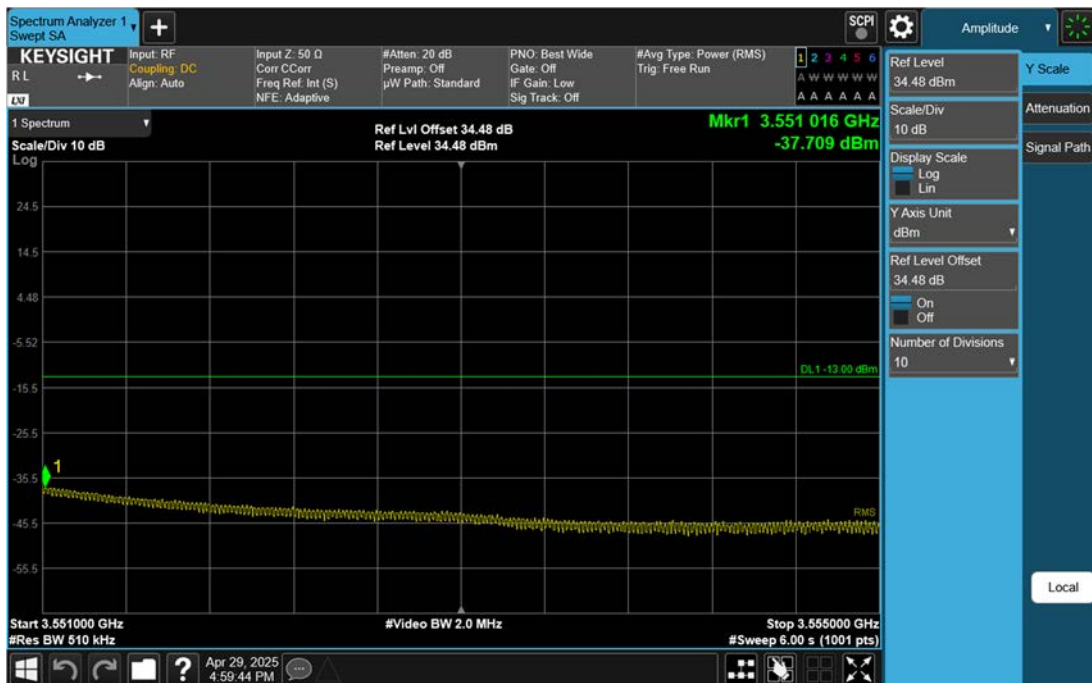


n77(3450~3550 MHz)_100 M_Band Edge_High_BPSK_FullRB(2)



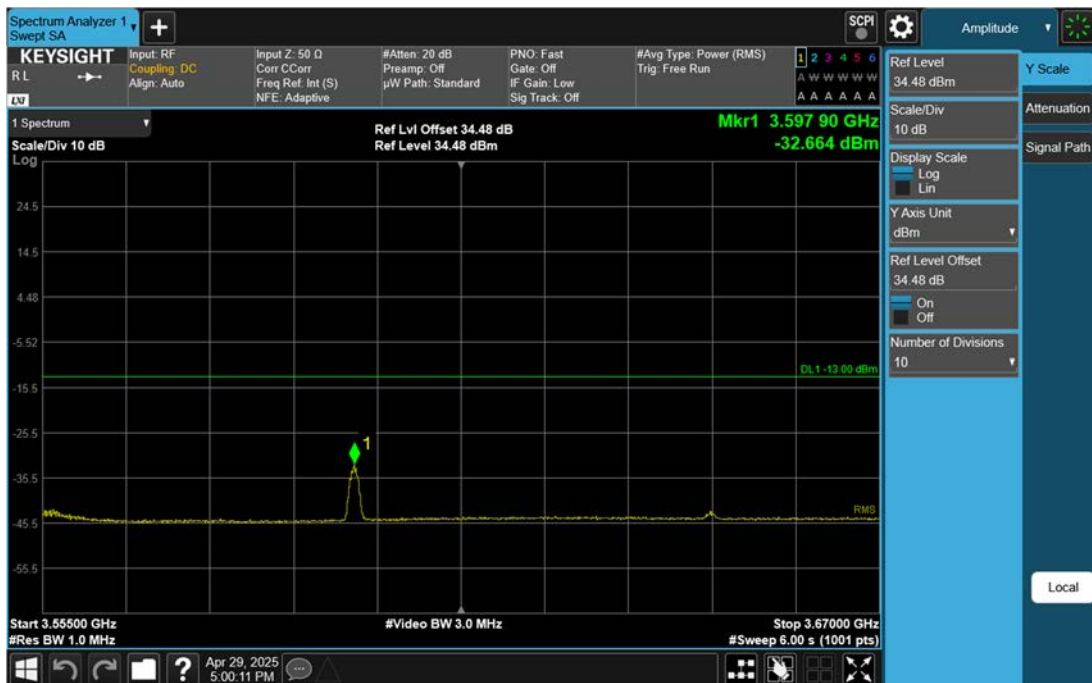
n77(3450~3550 MHz)_100 M_Band Edge_High_BPSK_1RB(2)



n77(3450~3550 MHz)_100 M_Band Edge_High_BPSK_FullRB(3)



n77(3450~3550 MHz)_100 M_Band Edge_High_BPSK_1RB(3)



3700 MHz - 3980 MHz

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data	
					(dB)	(MHz)
100 MHz	3840.000	BPSK	Full RB	0	4.25	96.862
100 MHz (Ori.)	3840.000	BPSK	Full RB	0	4.53	96.984

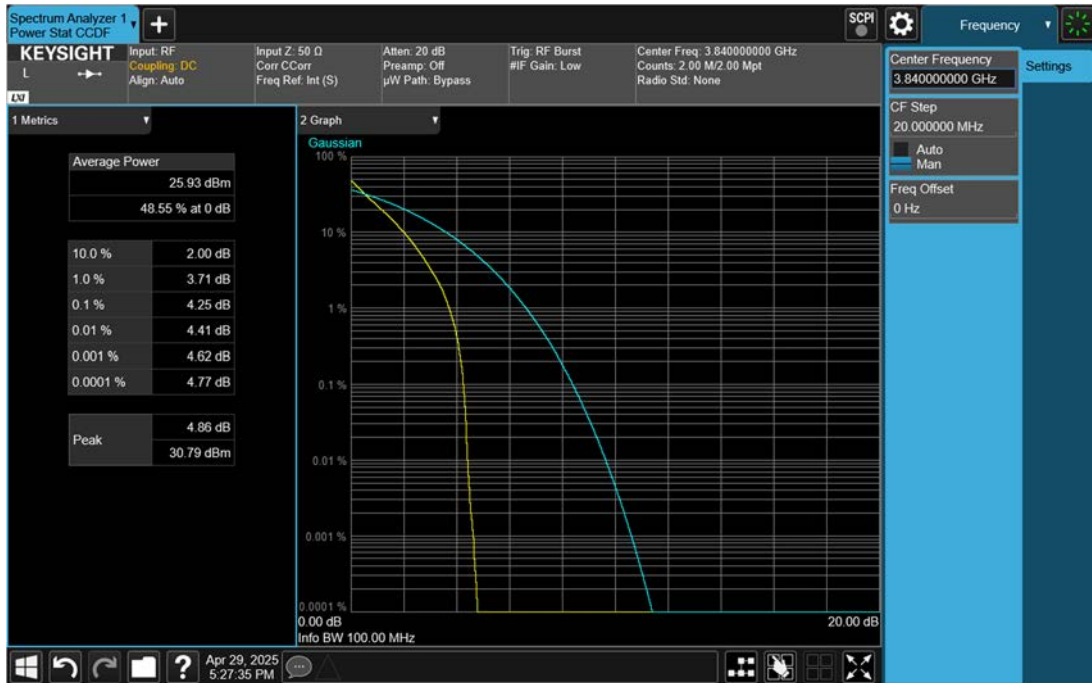
Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Gap (dB)
100	3840.000	4.9951	29.722	-63.120	-33.398	0.71
	3840.000 (Ori.)	4.8056	29.722	-63.826	-34.104	

Band Width (MHz)	Test Frequency (MHz)	Frequency Range (MHz)	Modulation	RB Size	RB Offset	Result [dBm]	Result [dBm] Ori.	Gap (dB)
100	3750.00	Frequency Block ~ (-1MHz)	BPSK	Full RB	Lowest	-24.296	-25.690	1.39
			BPSK	1	Lowest	-40.361	-41.592	1.23
		(-1MHz) ~ (-5MHz)	BPSK	Full RB	Lowest	-25.435	-27.534	2.10
			BPSK	1	Lowest	-36.548	-37.492	0.94
		Below (-5MHz)	BPSK	Full RB	Lowest	-29.576	-30.895	1.32
			BPSK	1	Lowest	-34.386	-34.801	0.41
	3930.00	Frequency Block ~ (1MHz)	BPSK	Full RB	Highest	-34.714	-35.294	0.58
			BPSK	1	Highest	-41.673	-42.690	1.02
		(+1MHz) ~ (+5MHz)	BPSK	Full RB	Highest	-36.711	-36.477	0.23
			BPSK	1	Highest	-37.568	-38.522	0.95
		Above (+5MHz)	BPSK	Full RB	Highest	-39.184	-37.112	2.07
			BPSK	1	Highest	-32.438	-36.209	3.77

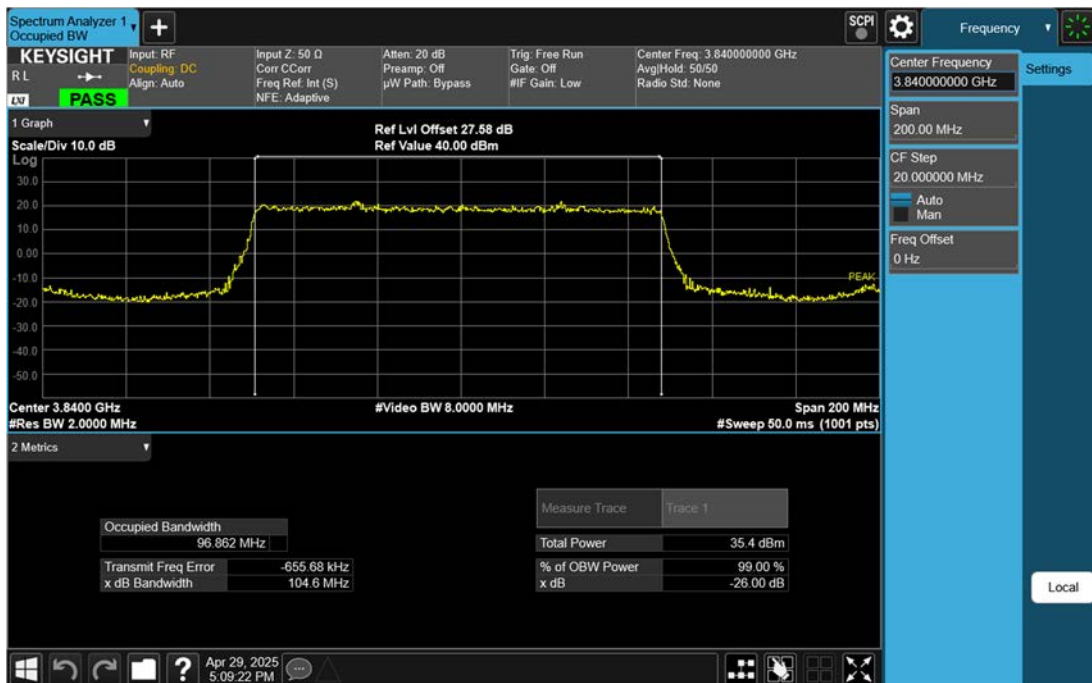
- ☐ BandWidth: 100 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ Deviation Limit: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3750.000	100 %	+20(Ref)	3749 999 994	0.0	0.000 000	0.000
	100 %	-30	3749 999 983	-11.4	0.000 000	-0.003
	100 %	-20	3749 999 978	-15.9	0.000 000	-0.004
	100 %	-10	3749 999 981	-12.6	0.000 000	-0.003
	100 %	0	3749 999 985	-8.7	0.000 000	-0.002
	100 %	+10	3749 999 979	-14.9	0.000 000	-0.004
	100 %	+30	3749 999 982	-11.4	0.000 000	-0.003
	100 %	+40	3749 999 981	-13.1	0.000 000	-0.003
	100 %	+50	3749 999 987	-6.6	0.000 000	-0.002
	Batt. Endpoint	+20	3749 999 979	-14.6	0.000 000	-0.004
3930.000	100 %	+20(Ref)	3929 999 995	0.0	0.000 000	0.000
	100 %	-30	3929 999 991	-3.9	0.000 000	-0.001
	100 %	-20	3929 999 987	-7.7	0.000 000	-0.002
	100 %	-10	3930 000 001	6.3	0.000 000	0.002
	100 %	0	3929 999 994	-1.1	0.000 000	0.000
	100 %	+10	3929 999 988	-6.8	0.000 000	-0.002
	100 %	+30	3929 999 997	1.3	0.000 000	0.000
	100 %	+40	3929 999 987	-8.4	0.000 000	-0.002
	100 %	+50	3929 999 991	-4.0	0.000 000	-0.001
	Batt. Endpoint	+20	3929 999 990	-5.3	0.000 000	-0.001

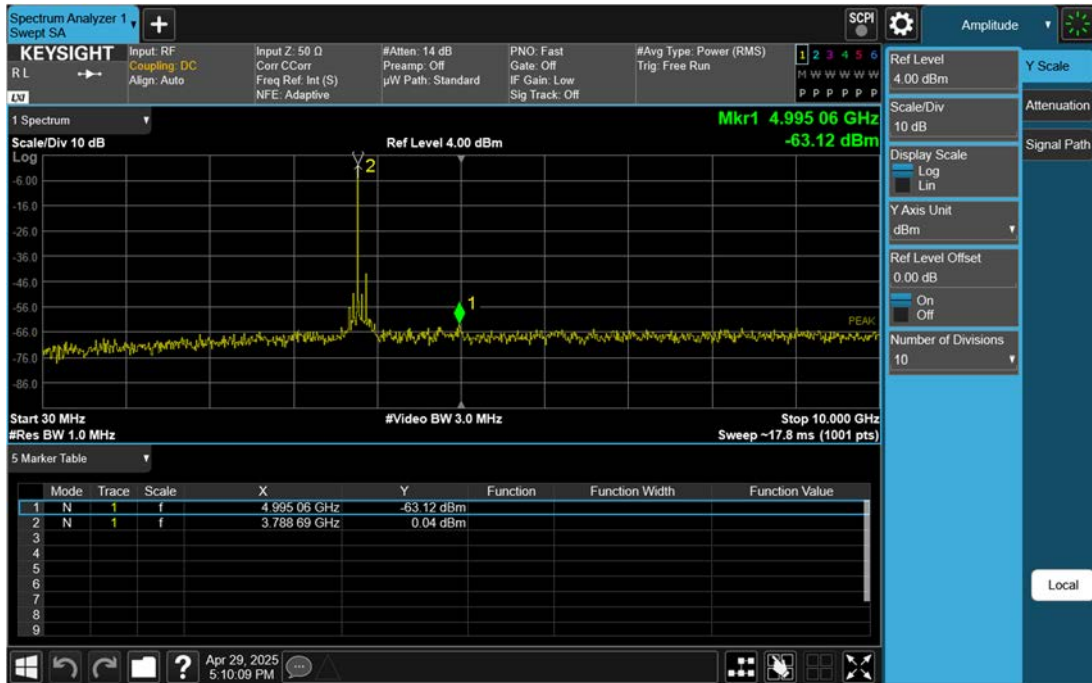
n77(3700~3980 MHz)_100 M_PAR_Mid_BPSK_FullRB



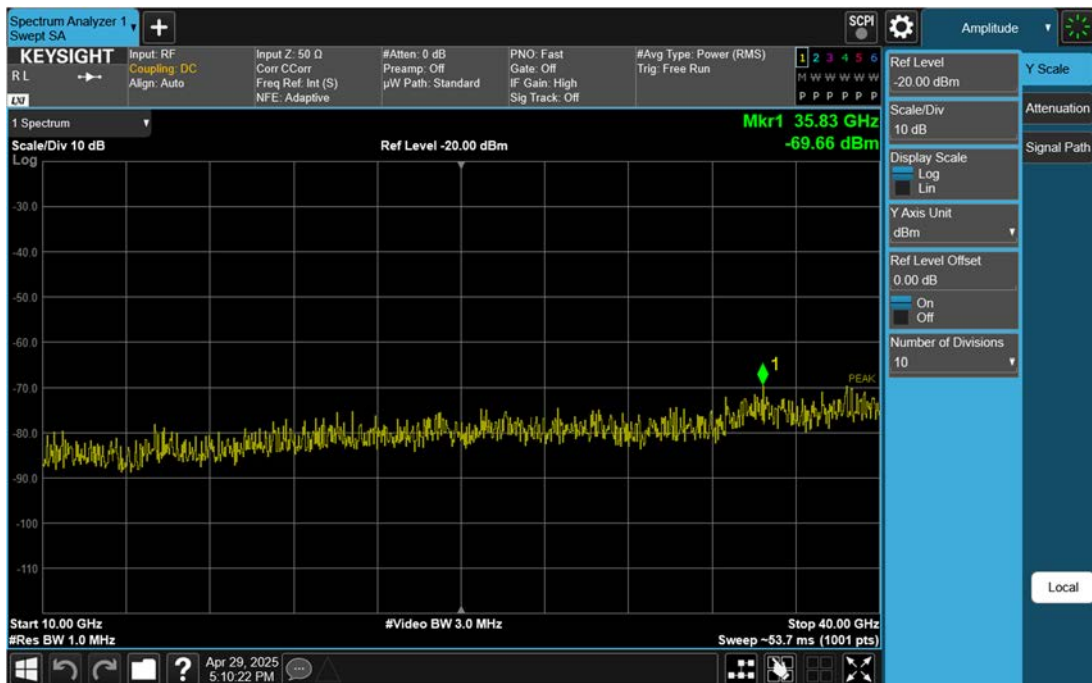
n77(3700~3980 MHz)_100 M_OBW_Mid_BPSK_FullRB



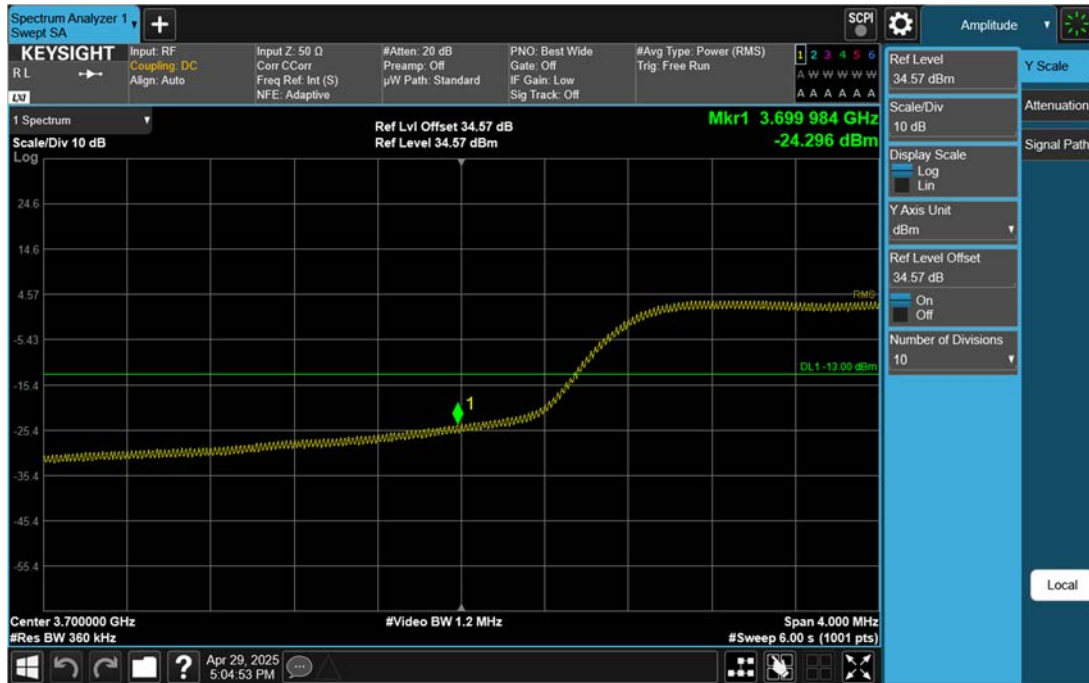
n77(3700~3980 MHz)_100 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB



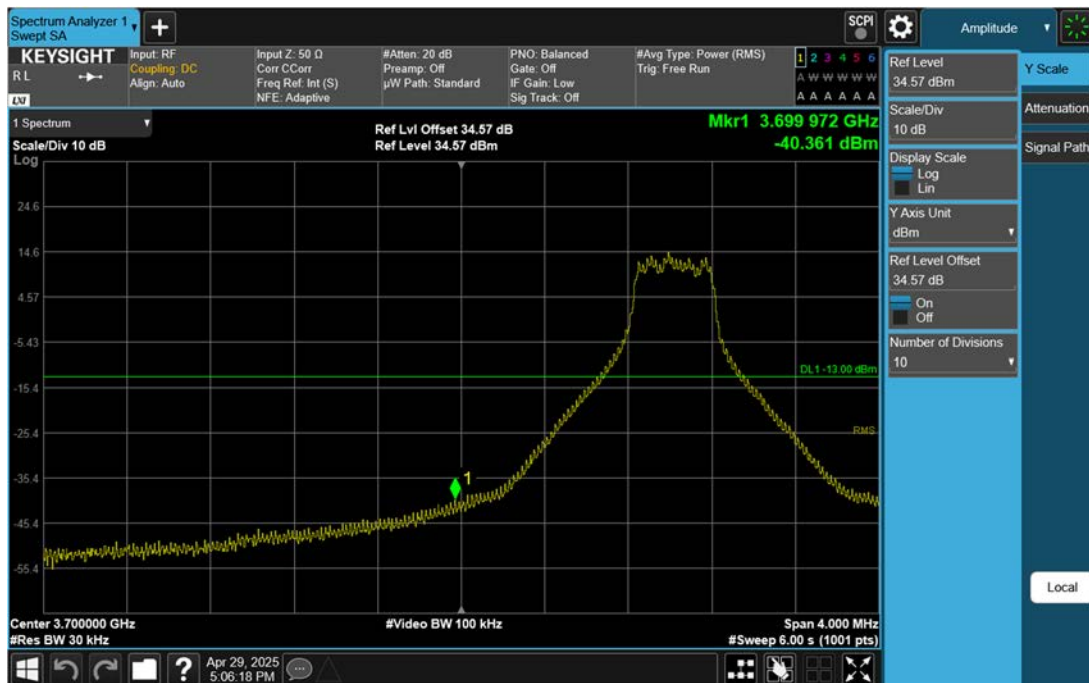
n77(3700~3980 MHz)_100 M_Conducted Spurious(Above10 G)_Mid_BPSK_1RB



n77(3700~3980 MHz)_100 M_Band Edge_Low_BPSK_FullRB(1)



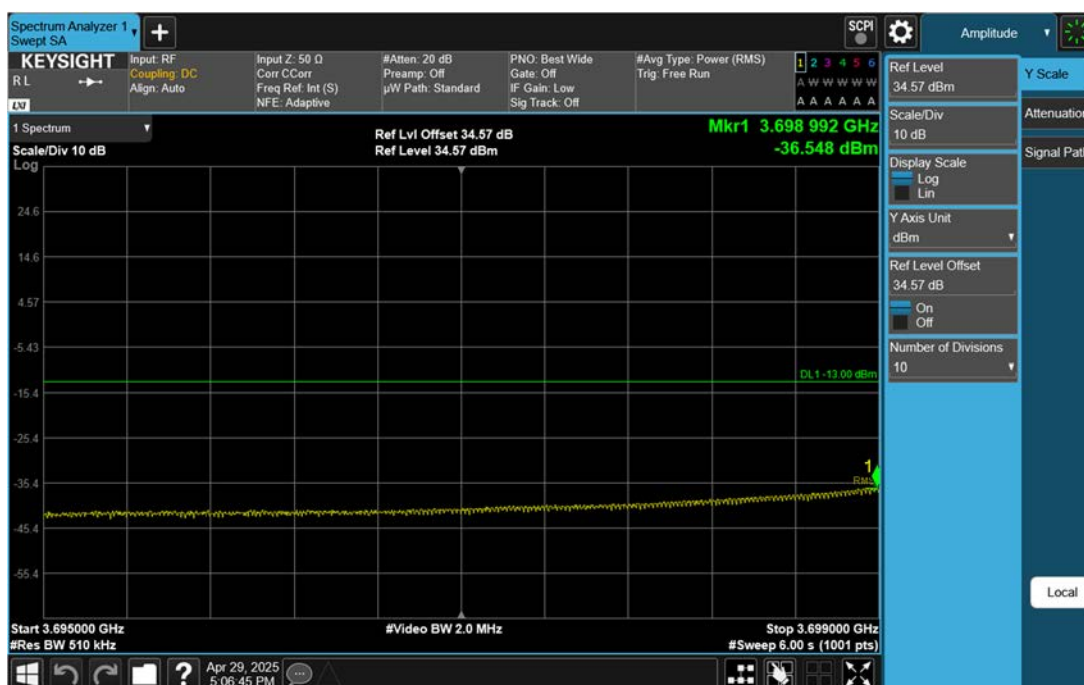
n77(3700~3980 MHz)_100 M_Band Edge_Low_BPSK_1RB(1)



n77(3700~3980 MHz)_100 M_Band Edge_Low_BPSK_FullRB(2)



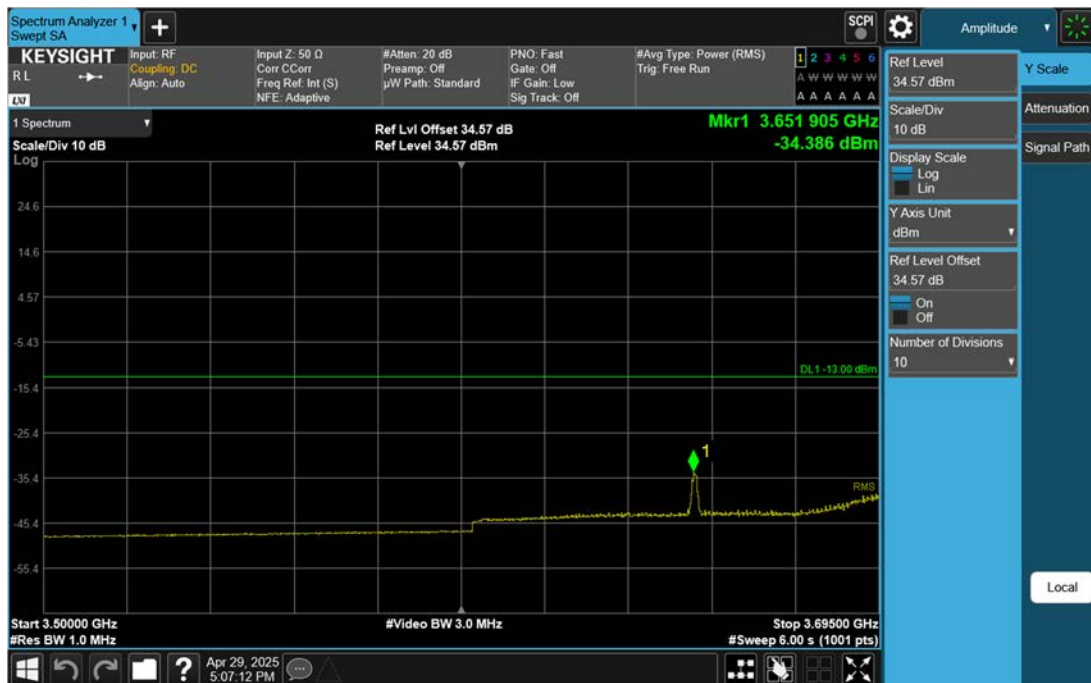
n77(3700~3980 MHz)_100 M_Band Edge_Low_BPSK_1RB(2)



n77(3700~3980 MHz)_100 M_Band Edge_Low_BPSK_FullRB(3)



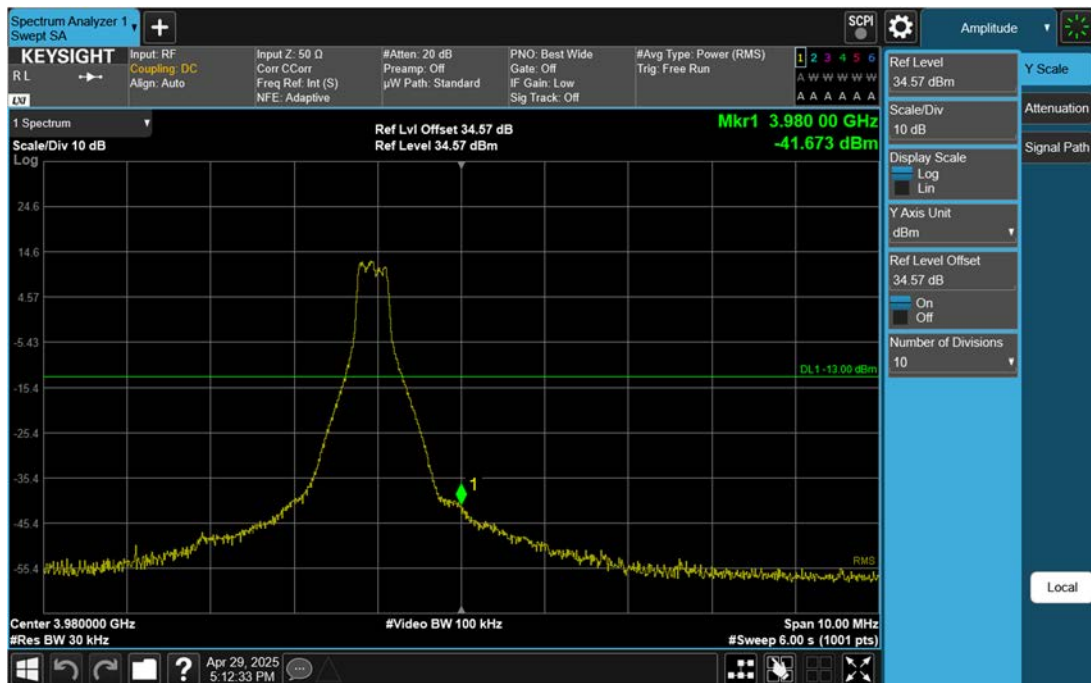
n77(3700~3980 MHz)_100 M_Band Edge_Low_BPSK_1RB(3)



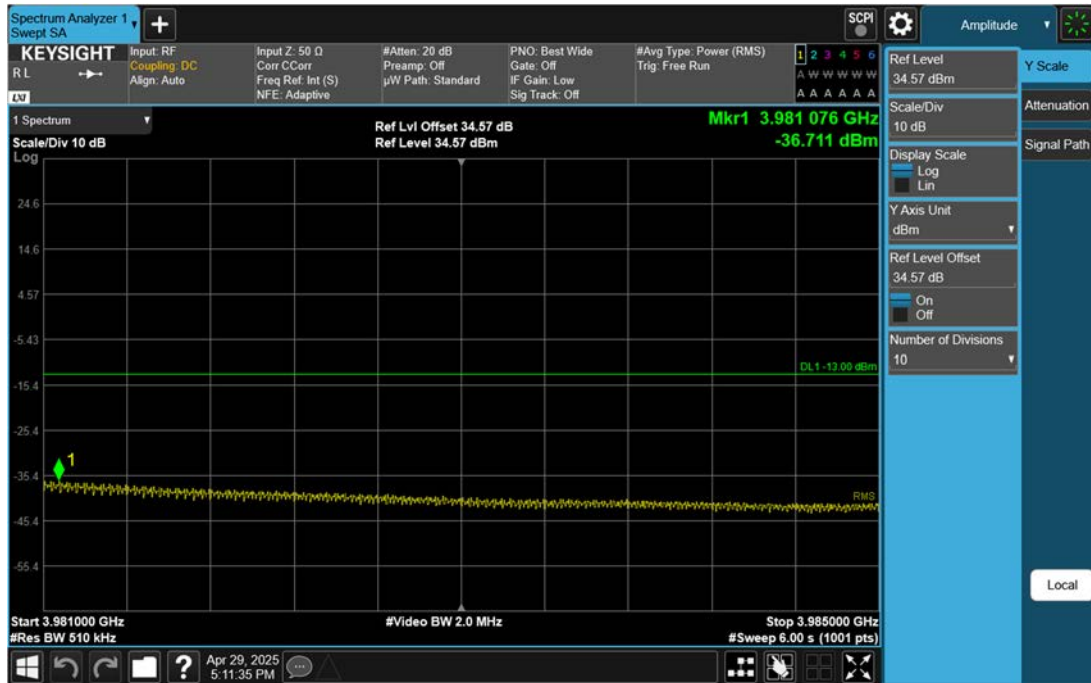
n77(3700~3980 MHz)_100 M_Band Edge_High_BPSK_FullRB(1)



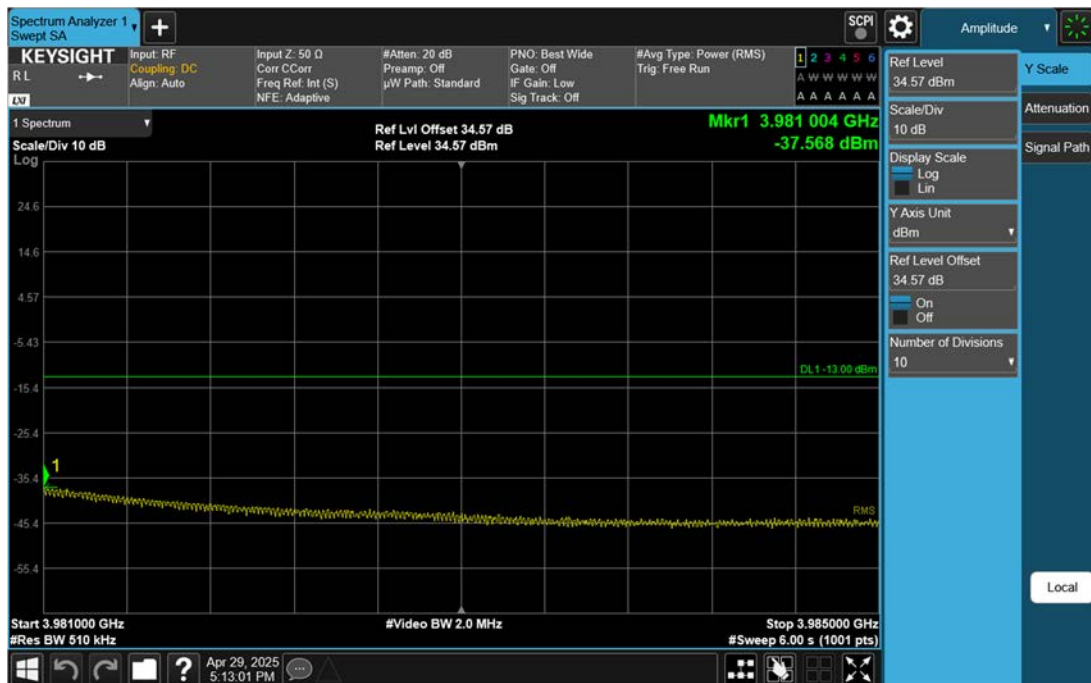
n77(3700~3980 MHz)_100 M_Band Edge_High_BPSK_1RB(1)



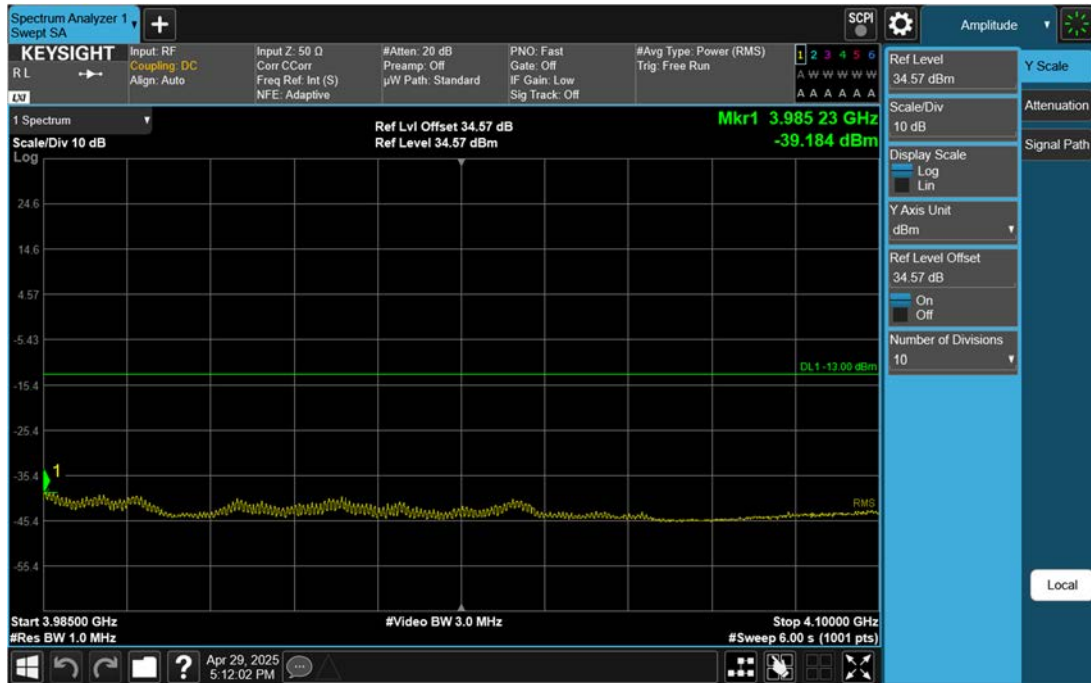
n77(3700~3980 MHz)_100 M_Band Edge_High_BPSK_FullRB(2)



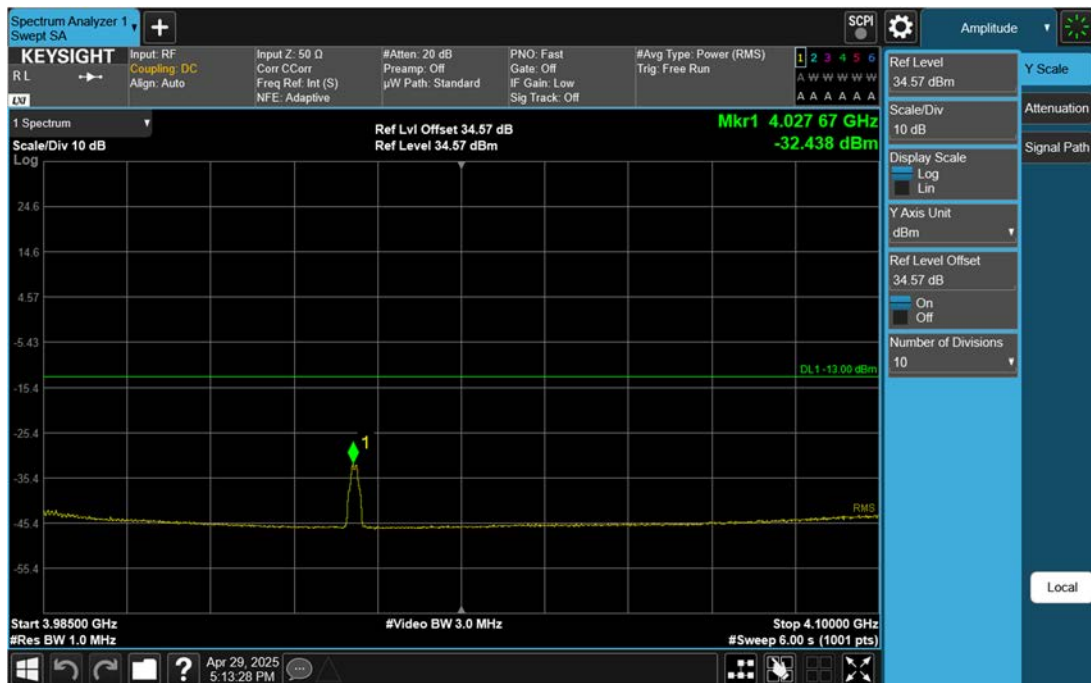
n77(3700~3980 MHz)_100 M_Band Edge_High_BPSK_1RB(2)



n77(3700~3980 MHz)_100 M_Band Edge_High_BPSK_FullRB(3)



n77(3700~3980 MHz)_100 M_Band Edge_High_BPSK_1RB(3)



3. Summary of the spot check for Unlicensed EMC

3.1 Radiated Spot Check Result

Report	Test Item	Mode/Channel	Measured Frequency [MHz]	A3LSMF761U Result [dBμV/m]		A3LSMF761B Result [dBμV/m]		Deviation (dB)	
				Peak	Average	Peak	Average	Peak	Average
BT	Band Edge (ANT2)	2-DH5/Ch.78	2483.5 MHz~2500 MHz	70.11	45.38	67.56	42.83	-2.55	-2.55
	RSE (Dual)	DH5/Ch.39	7323 MHz	56.08	31.34	53.12	28.38	-2.96	-2.96
DTS	Band Edge (ANT ALL)	802.11n(20M) MCS0/ch.1	#2310 MHz~2390 MHz	61.37	50.87	61.31	50.75	-0.06	-0.12
	RSE (ANT ALL)	802.11b 1 Mbps/ch. 6	4874 MHz (2rd Harmonic)	51.38	45.17	51.39	45.71	0.01	0.54
DTS(ax)	Band Edge (ANT ALL)	802.11ax(HE20)_SU_MCS0/ch. 1	#2310 MHz~2390 MHz	62.27	51.16	61.18	50.30	-1.09	-0.86
	RSE (ANT ALL)	802.11ax(HE20)_26T RU4 MCS0/ch. 1	7236 MHz (3rd Harmonic)	51.95	39.55	51.46	39.13	-0.49	-0.44
BT(LE)	Band Edge (ANT1)	1M255byte/Ch.39	2483.5 MHz~2500 MHz	60.26	40.84	60.64	39.91	0.38	-0.93
	RSE (Dual)	1M37byte/Ch.39	7440 MHz	52.98	40.86	52.00	39.92	-0.98	-0.94
UNII	Band Edge (ANT ALL)_Pk	802.11a 6Mbps/ch.100	#5460 MHz ~ 5470 MHz	62.91	-	60.92	-	-1.99	-
	Band Edge (ANT ALL)_Avg	802.11ac(80M) MCS0/ch.106	5350MHz ~5460 MHz	59.89	47.94	58.28	47.23	-1.61	-0.71
	RSE (ANT ALL)	802.11a 6Mbps/ch.36	10360 MHz	54.85	-	52.87	-	-1.98	-
UNII(ax)	Band Edge (ANT ALL)	802.11ax(HE160_80L)_996T MCS0/ch.114	#5460 MHz ~ 5470 MHz	65.93	-	65.78	-	-0.15	-
	RSE (ANT ALL)	802.11ax(HE20)_SU MCS0/ch.177	17655 MHz	58.45	-	58.06	-	-0.39	-
UNII 6G(ax)	Band Edge (ANT ALL)	[SP/LPI] 802.11ax HE20(26T_RU0)_MCS0/Ch. 2	#5924.5 MHz	78.15	65.74	78.59	65.81	0.44	0.07
	RSE (ANT ALL)	[SP/LPI] 802.11ax HE40(26T_RU9)_MCS0/Ch. 43	12330 MHz (2nd Harmonic)	58.14	43.83	57.18	43.04	-0.96	-0.79
WPT	Field Strength	Power Sharing	110 - 148 kHz	-3.49		-4.60		-1.11	
	RSE		490 kHz - 1.705 MHz	8.47		7.21		-1.26	
NFC	Field Strength	Type A, 106 kbps	13.56 MHz	18.26		18.01		-0.25	
	RSE		30 MHz - 1 GHz	30.69		30.70		0.01	
##AC Power Line Conducted Emissions			150 kHz ~ 30 MHz	44.15		46.38		2.23	

: DTS integration method Used (ANSI C63.10 Section11.13.3), UNII integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

: All Modes of operation were spot-checked and the worst result are reported.

Report	Test Item	Mode/Channel	Measured Frequency	A3LSMF761U [Result]	A3LSMF761B [Result]
NFC	20 dB Bandwidth	Type A, 106 kbps	13.56 MHz	452.5 kHz	456.2 kHz
WPT	Emission bandwidth(20 dB BW)	Power Sharing	112.30 kHz	818.2 Hz	833.2 Hz
	Emission bandwidth(99% BW)			771.7 Hz	728.27 Hz

3.2 Conducted Spot Check Result

Report	Test Item	Mode/Channel	Measured Frequency [MHz]	A3LSMF761U Result [dBm]		A3LSMF761B Result [dBm]		Deviation (dB)	
				Peak	Average	Peak	Average	Peak	Average
BT	Conducted Output Power	DH5 / Ch.39 (ANT1)	2441 MHz	19.773	-	18.900	-	-0.87	-
BT(LE)		1M 37Byte / Ch.19 (ANT1)	2440 MHz	-	17.33	-	16.49	-	-0.84
DTS		802.11g 6 Mbps / Ch.6	2437 MHz	-	19.09	-	19.21	-	0.12
DTS(ax)		802.11ax(HE20) SU MCS0 / Ch.6	2437 MHz	-	18.25	-	18.41	-	0.17
UNII		802.11ac(VHT160) MCS0 / ch.114	5570 MHz	-	14.88	-	15.33	-	0.46
UNII(ax)		802.11ax(HE160) SU MCS0 / ch.114	5570 MHz	-	14.57	-	14.77	-	0.20
UNII 6e(ax)		802.11ax(HE160) SU MCS0 / ch.47	6185 MHz	-	11.94	-	11.61	-	-0.33

4. TEST RESULT

[BT]

Conducted Test

PEAK POWER

Mode/Channel	Measured Frequency	Peak Output Power		Limit [mW]
		[dBm]	[mW]	
Ant1/DH5/Ch.39	2441 MHz	18.900	77.62	125

■ Test Plot

Output Peak Power

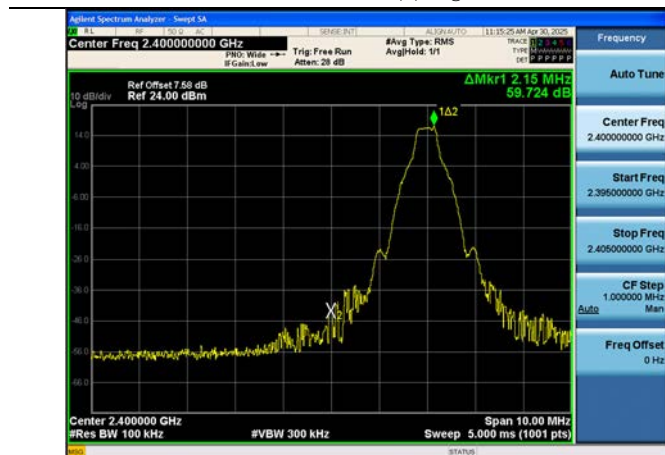


BAND EDGE (Out of Band Emissions)

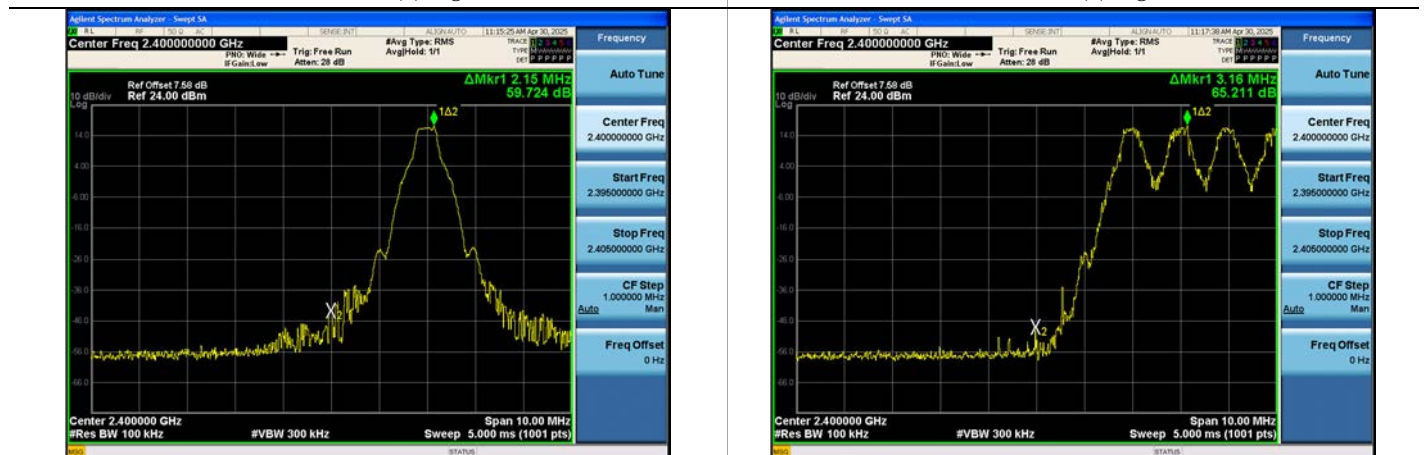
Mode/Channel	Measured Position	Band Edges [dB]		Limit [dBc]
		without hopping	with hopping	
Ant1/DH5/Ch.0	Lowest Bandedge	59.724	65.211	20

■ Test Plot

without hopping



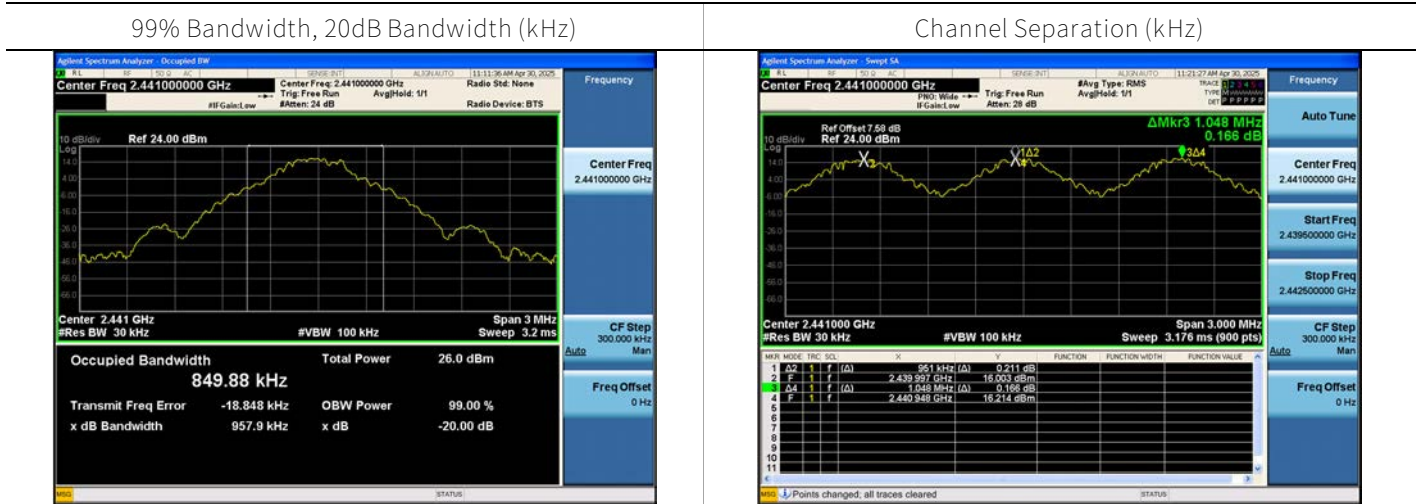
with hopping



FREQUENCY SEPARATION / BANDWIDTH (20dB, 99 % Occupied)

Mode/Channel	Measured Frequency	99% Bandwidth [kHz]	20dB Bandwidth [kHz]	Channel Separation [kHz]	Limit [kHz]
Ant1/DH5/Ch.39	2441 MHz	849.88	957.9	951	>25 kHz or >2/3 of the 20 dB BW

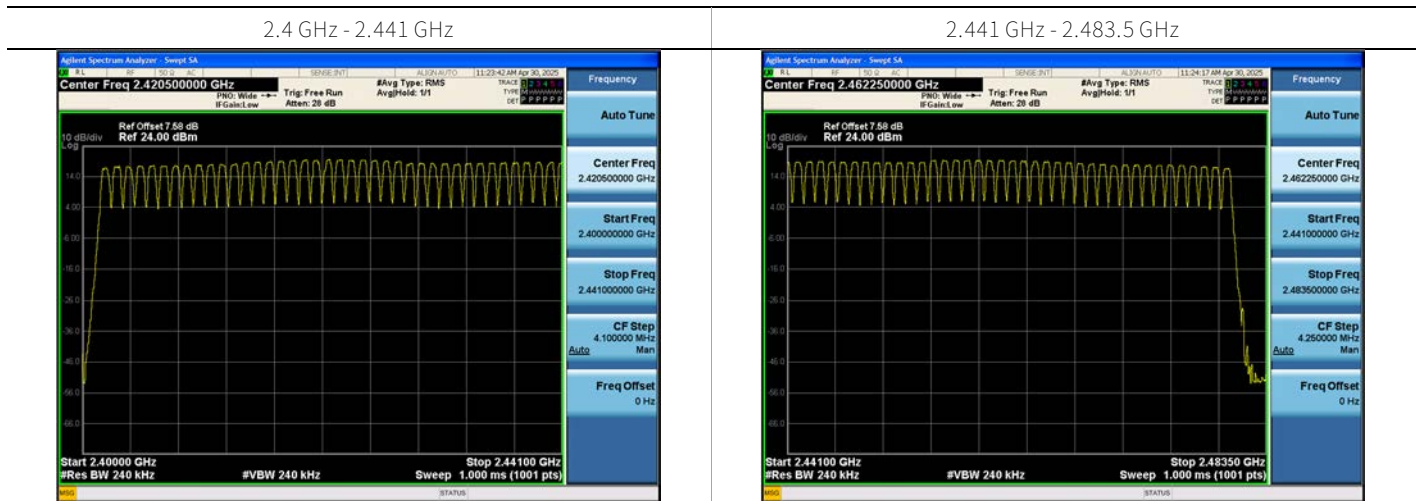
Test Plot



NUMBER OF HOPPING FREQUENCY

Result (No. of CH)	Limit
GFASK	
79	>15

Test Plot



TIME OF OCCUPANCY (DWELL TIME)

Mode/Channel	Measured Frequency	Pulse Time (ms)
Ant1/DH5/Ch.39	2441 MHz	2.885

Test Plot

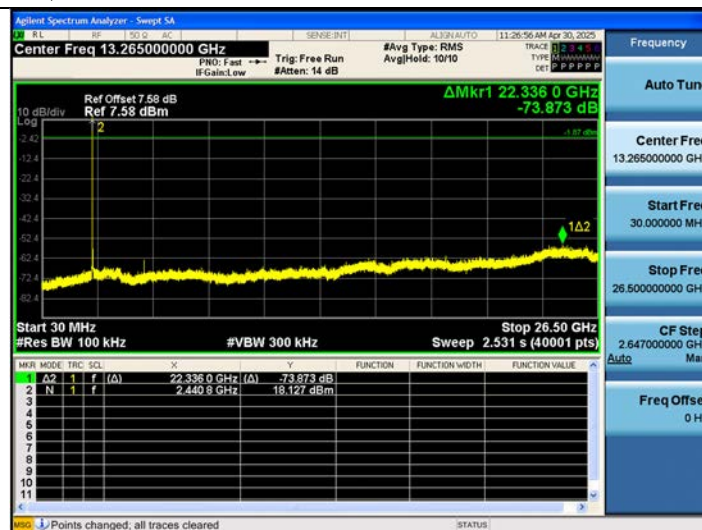
DWELL TIME



CONDUCTED SPURIOUS EMISSIONS

Mode/Channel	Measured Frequency	CSE [dB]	Limit [dBc]
Ant1/DH5/Ch.39	30 M – 26.5 GHz	73.873	30

Spurious Emission (30 MHz - 26.5 GHz) Ant.1, GFSK Ch. 39



#Limit Line(dBm): -1.87

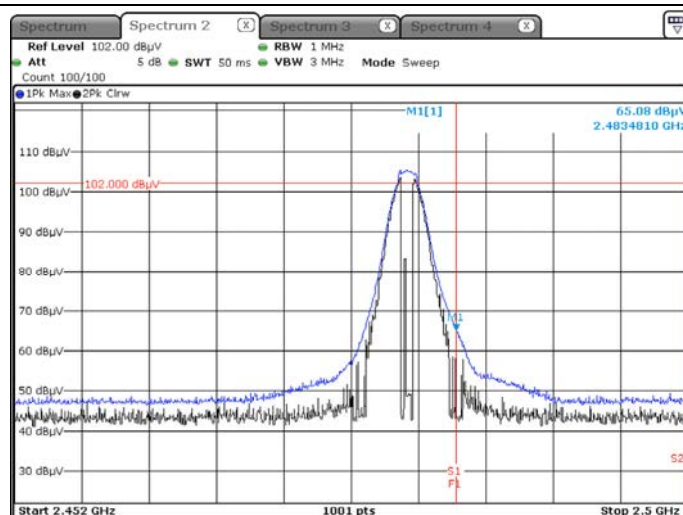
Radiated Test

BT Band Edge (ANT2, 2-DH5/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]	[H/V]	[dB]	[dBμV/m]	[dBμV/m]	[dB]	
2483.5	65.08	2.48	H	0	67.56	73.98	6.42	PK
2483.5	65.08	2.48	H	-24.73	42.83	53.98	11.15	AV

Test Plot

[Peak & Average Result]

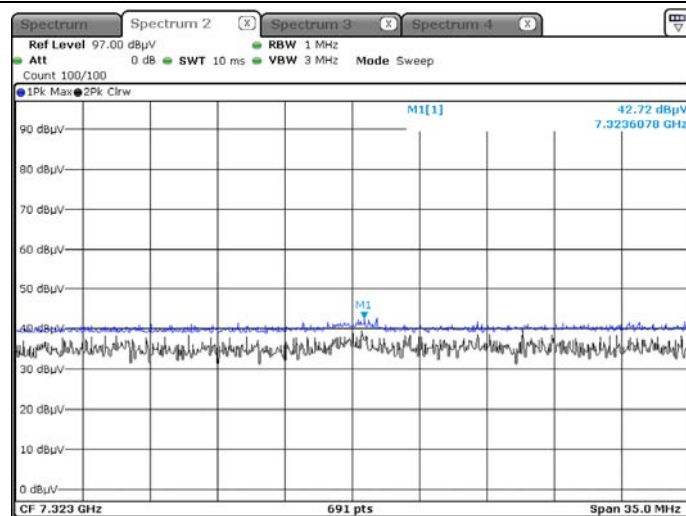


BT R.S.E Harmonic(Dual, DH5/Ch.39)

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	45.39	2.70	V	0.00	48.09	73.98	25.89	PK
4882	45.39	2.70	V	-24.73	23.36	53.98	30.62	AV
7323	42.72	10.40	V	0.00	53.12	73.98	20.86	PK
7323	42.72	10.40	V	-24.73	28.38	53.98	25.60	AV
4882	45.05	2.70	H	0.00	47.75	73.98	26.23	PK
4882	45.05	2.70	H	-24.73	23.02	53.98	30.96	AV
7323	42.55	10.40	H	0.00	52.95	73.98	21.03	PK
7323	42.55	10.40	H	-24.73	28.21	53.98	25.77	AV

Test Plot

[Peak & Average Result]



[BLE]

Conducted Test

6 dB BANDWIDTH

Mode/Channel	Measured Frequency	6 dB Bandwidth [kHz]	Minimum Bandwidth [kHz]
Ant1/1M 37Byte/Ch.17	2440 MHz	679.0	> 500

Test Plots

6 dB Bandwidth



OUTPUT POWER

Peak Power

Mode/Channel	Measured Frequency	Conducted Peak Power [dBm]	Limit [dBm]
Ant1/1M 37Byte/Ch.17	2440 MHz	17.03	30

Average Power

Mode/Channel	Measured Frequency	Conducted Average Power [dBm]	Limit [dBm]
Ant1/1M 37Byte/Ch.17	2440 MHz	16.49	30

Average Power = Measured Power + Duty Cycle Factor

POWER SPECTRAL DENSITY

Mode/Channel	Measured Frequency	Power Spectral Density[dBm]	Limit
Ant1/1M 37Byte/Ch.17	2440 MHz	6.179	8 dBm/3kHz

Power Spectral Density = Measured PSD + Duty Cycle Factor

■ Test Plots

Power Spectral Density

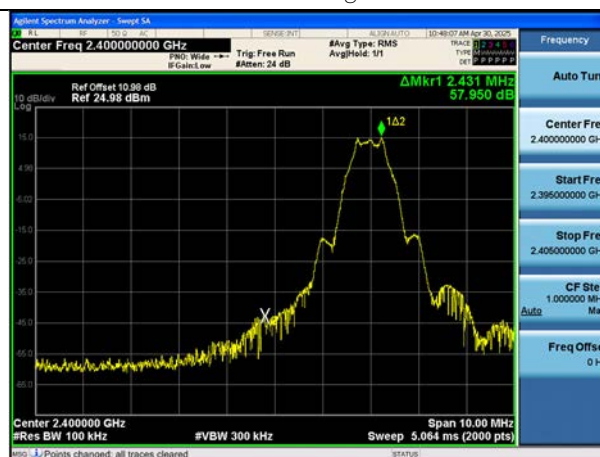


BAND EDGE

Mode/Channel	Measured Position	Band edge [dB]	Limit [dBc]
Ant1/1M 37Byte/Ch.37	Lowest Bandedge	57.950	30

■ Test Plots

Band edge

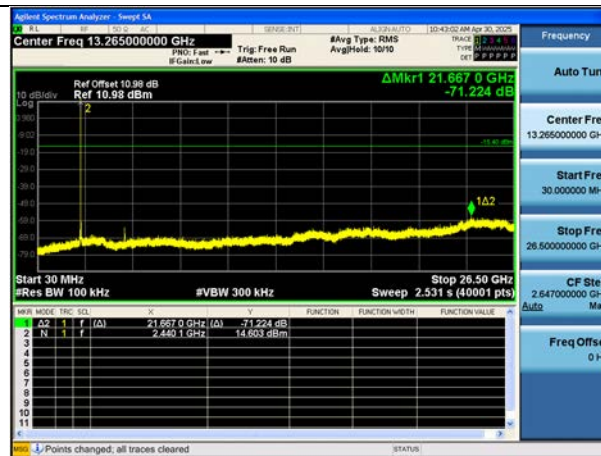


CONDUCTED SPURIOUS EMISSIONS

Mode/Channel	Measured Frequency	CSE [dB]	Limit [dBc]
Ant1/1M 37Byte/Ch.17	30 M – 26.5 GHz	71.224	30

■ Test Plots

Conducted Spurious Emission (30 MHz – 26.5 GHz)



#Limit Line(dBm): -15.40

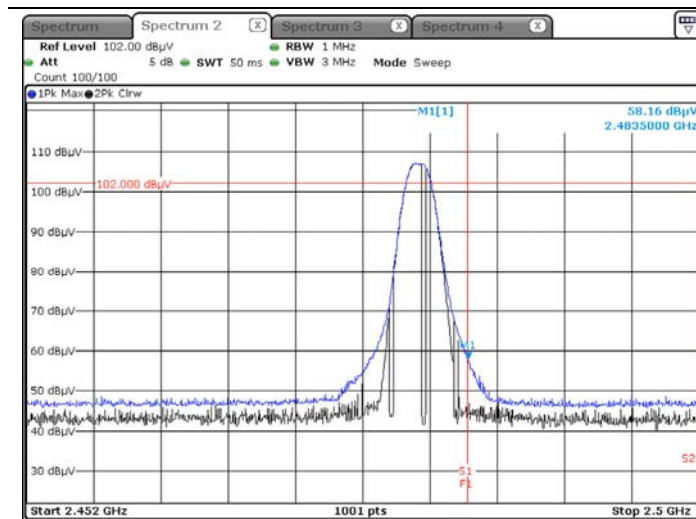
Radiated Test

BT LE Band Edge (Ant1, 1M255byte/Ch.39)

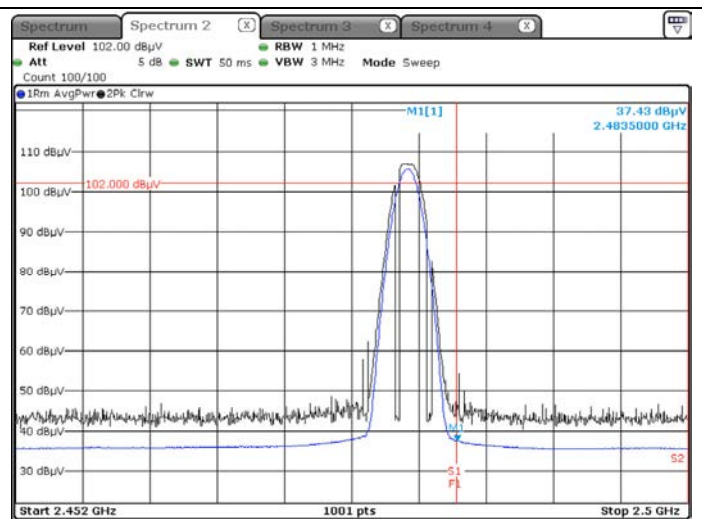
Frequency	Measured Value	A.F+C.L-A.G +ATT+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
2483.5	58.16	2.48	H	60.64	73.98	13.34	PK
2483.5	37.43	2.48	H	39.91	53.98	14.07	AV

Test Plot

[Peak Result]



[Average Result]

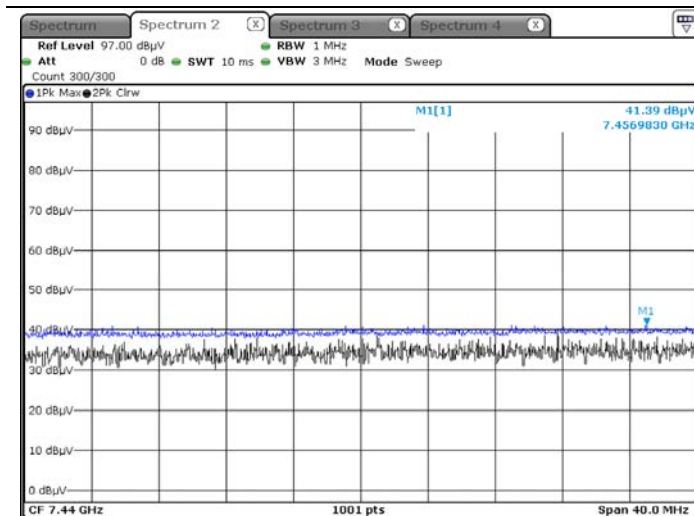


BT LE R.S.E Harmonic(Dual, 1M37byte/Ch.39)

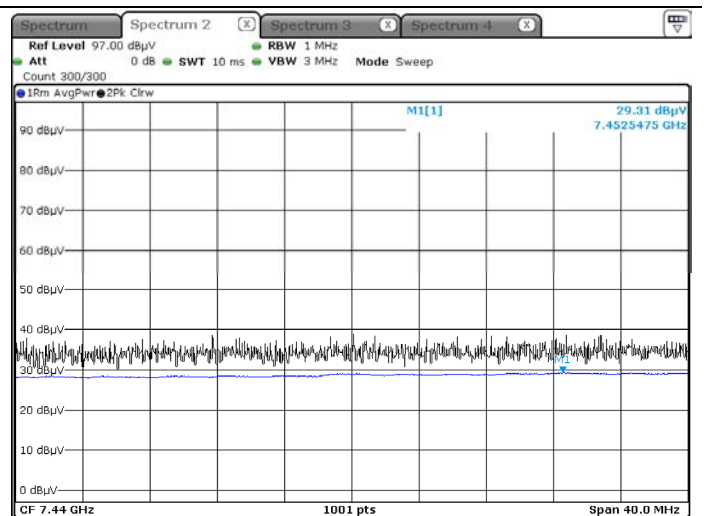
Frequency	Measured Value	A.F+C.L -A.G+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
4960	44.51	3.93	V	48.44	73.98	25.54	PK
4960	32.51	3.93	V	36.44	53.98	17.54	AV
7440	41.15	10.61	V	51.76	73.98	22.22	PK
7440	29.30	10.61	V	39.91	53.98	14.07	AV
4960	44.82	3.93	H	48.75	73.98	25.23	PK
4960	32.68	3.93	H	36.61	53.98	17.37	AV
7440	41.39	10.61	H	52.00	73.98	21.98	PK
7440	29.31	10.61	H	39.92	53.98	14.06	AV

Test Plot

[Peak Result]



[Average Result]



[DTS]

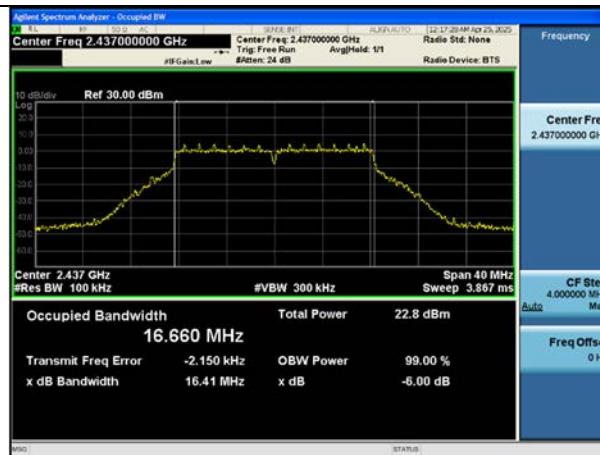
Conducted Test

6 dB BANDWIDTH

Mode/Channel	Measured Frequency	6 dB Bandwidth [MHz]	Minimum Bandwidth [MHz]
Ant2/802.11g 6 Mbps / Ch.6	2437 MHz	16.41	> 0.5

Test Plots

6 dB Bandwidth



OUTPUT POWER

Mode/Channel	Measured Frequency	Conducted Average Power [dBm]			Limit [dBm]
802.11g 6 Mbps / Ch.6	2437 MHz	ANT1	ANT2	MIMO	30
		16.84	15.46	19.21	

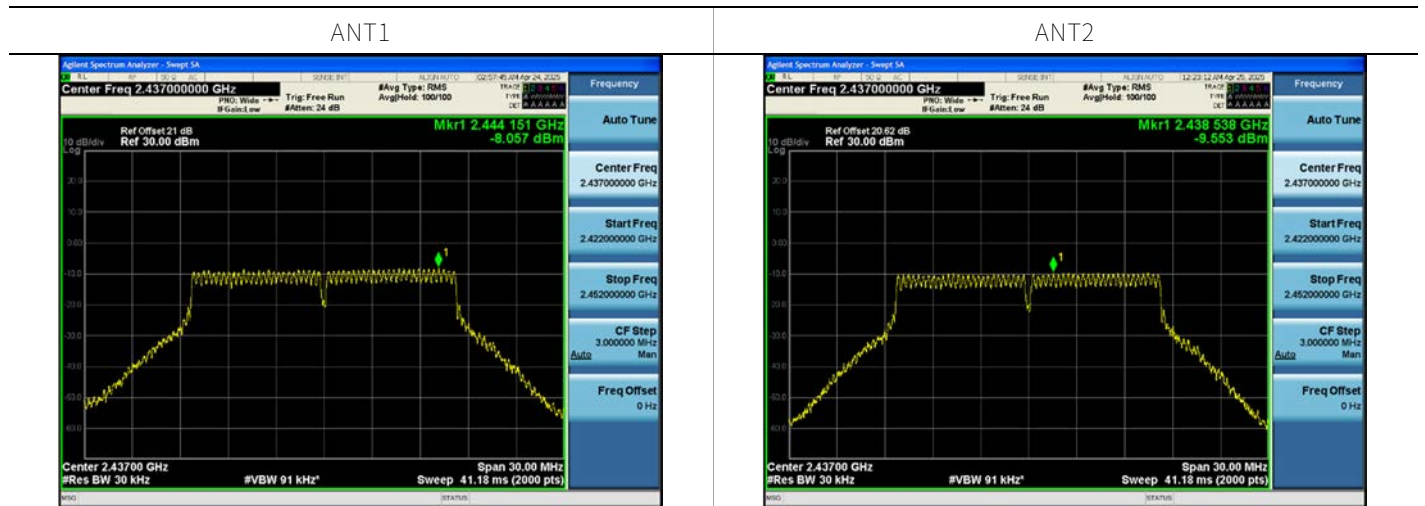
Average Power = Measured Power + Duty Cycle Factor

POWER SPECTRAL DENSITY

Mode/Channel	Measured Frequency	Power Spectral Density [dBm]			Limit
802.11g 6 Mbps / Ch.6	2437 MHz	ANT1	ANT2	MIMO	8 dBm / 3 kHz
		-7.748	-9.244	-5.421	

#Power Spectral Density = Measured PSD + Duty Cycle Factor

Test Plots

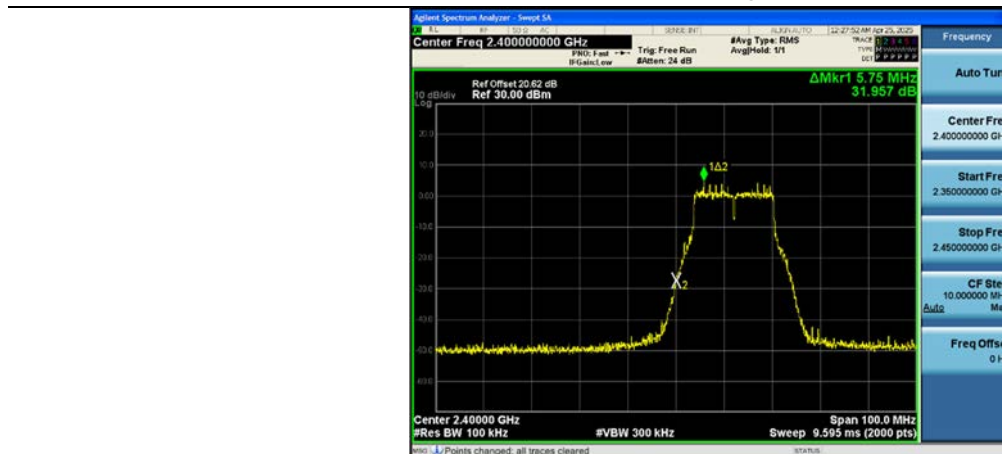


BAND EDGE

Mode/Channel	Measured Position	Band edge [dB]	Limit [dBc]
Ant2/802.11g 6 Mbps / Ch.1	Lowest Bandedge	31.957	30

Test Plots

Band edge

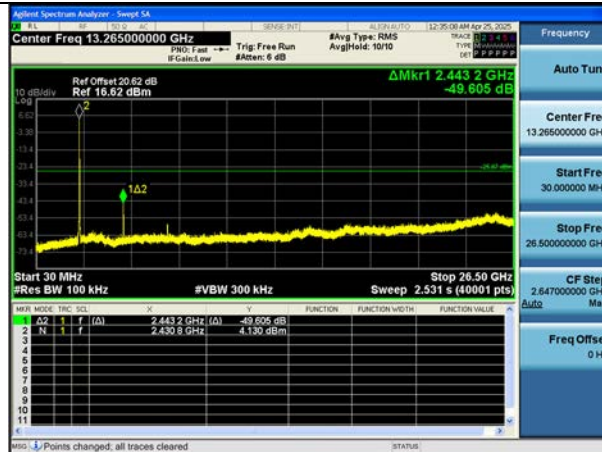


CONDUCTED SPURIOUS EMISSIONS

Mode/Channel	Measured Frequency	CSE [dB]	Limit [dBc]
Ant2/802.11g 6 Mbps / Ch.6	30 M – 26.5 GHz	49.605	30

■ Test Plots

Conducted Spurious Emission (30 MHz – 26.5 GHz)



#Limit Line(dBm) : -25.87

Radiated Test

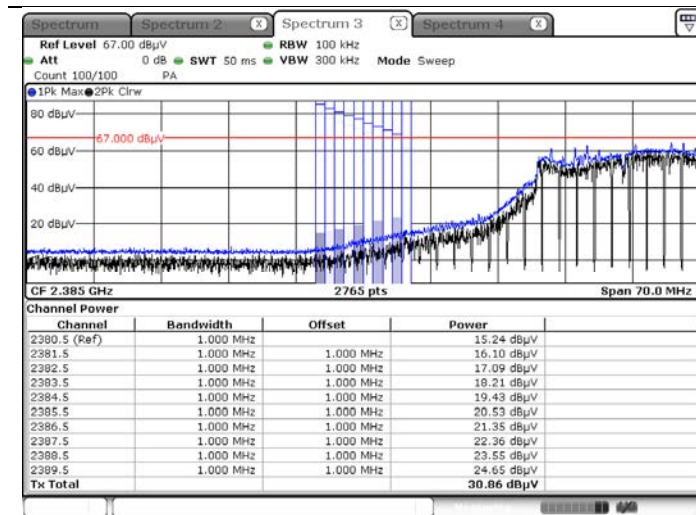
DTS Band Edge (ANT ALL) (MIMO, 802.11n(20M) MCS0/ch.1)

Frequency	Measured Value	Duty Cycle Factor	A.F.+C.L+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
# 2390	24.65	0.00	36.66	H	61.31	73.98	12.67	PK
# 2390	13.73	0.36	36.66	H	50.75	53.98	3.23	AV

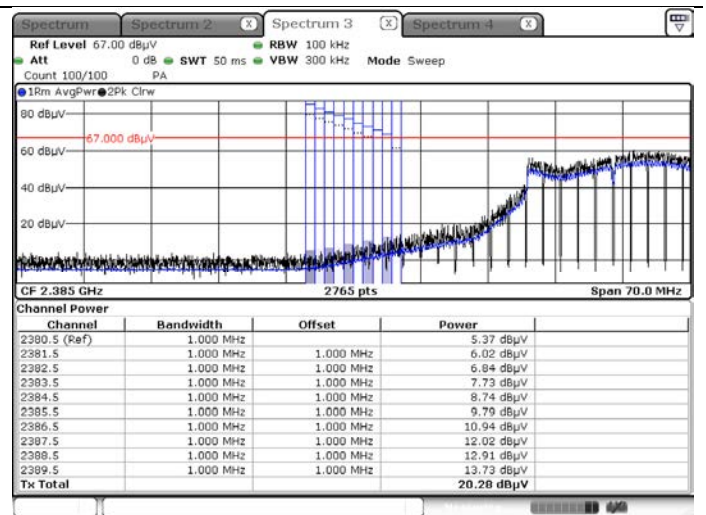
Note : integration method Used (ANSI C63.10 Section11.13.3)

Test Plot

[Peak Result]



[Average Result]

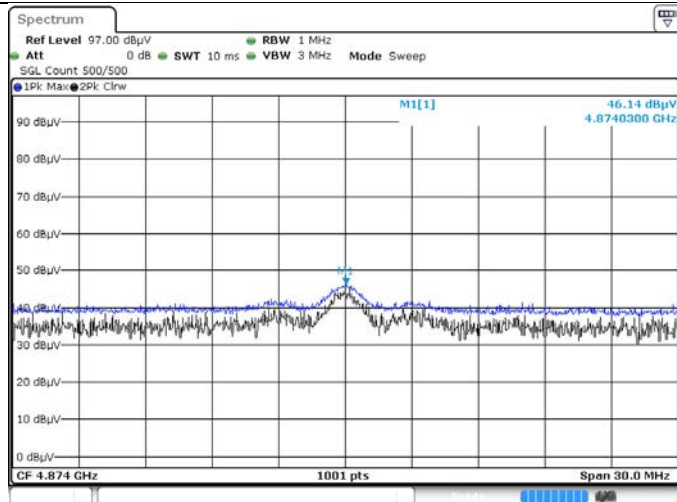


DTS R.S.E Harmonic (ANT ALL) (MIMO, 802.11b 1 Mbps/ch. 6)

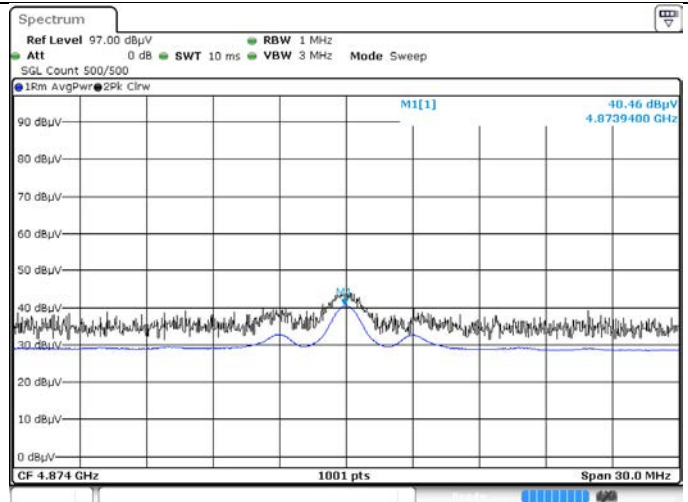
Band : DTS			Operation Mode : 802.11b					
CH.6 2437 MHz			Transfer Rate : 1M					
Frequency [MHz]	Measured value [dBμV]	D.C.F [dB]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
4874	44.32	0.00	5.25	V	49.57	73.98	24.41	PK
4874	36.82	0.00	5.25	V	42.07	53.98	11.91	AV
7311	38.44	0.00	12.82	V	51.26	73.98	22.72	PK
7311	26.45	0.00	12.82	V	39.27	53.98	14.71	AV
4874	46.14	0.00	5.25	H	51.39	73.98	22.59	PK
4874	40.46	0.00	5.25	H	45.71	53.98	8.27	AV
7311	38.72	0.00	12.82	H	51.54	73.98	22.44	PK
7311	26.57	0.00	12.82	H	39.39	53.98	14.59	AV

Test Plot

[Peak Result]



[Average Result]



[DTS ax]

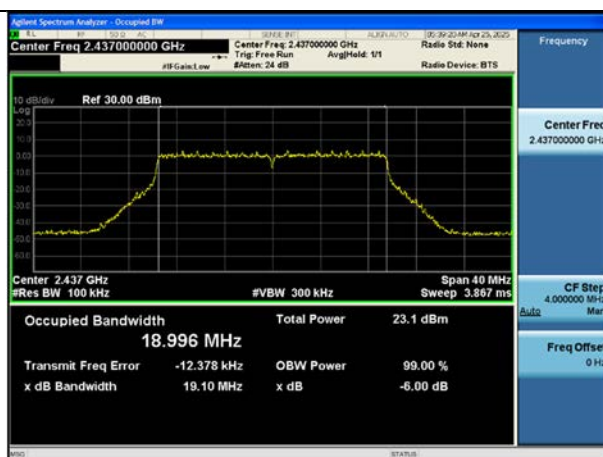
Conducted Test

6 dB BANDWIDTH

Mode/Channel	Measured Frequency	6 dB Bandwidth [MHz]	Minimum Bandwidth [MHz]
Ant2/802.11ax(HE20) SU MCS0 / Ch.6	2437 MHz	19.10	> 0.5

Test Plots

6 dB Bandwidth



OUTPUT POWER

Mode/Channel	Measured Frequency	Conducted Average Power [dBm]			Limit [dBm]
802.11ax(HE20) SU MCS0 / Ch.6	2437 MHz	ANT1	ANT2	MIMO	30
		16.02	14.68	18.41	

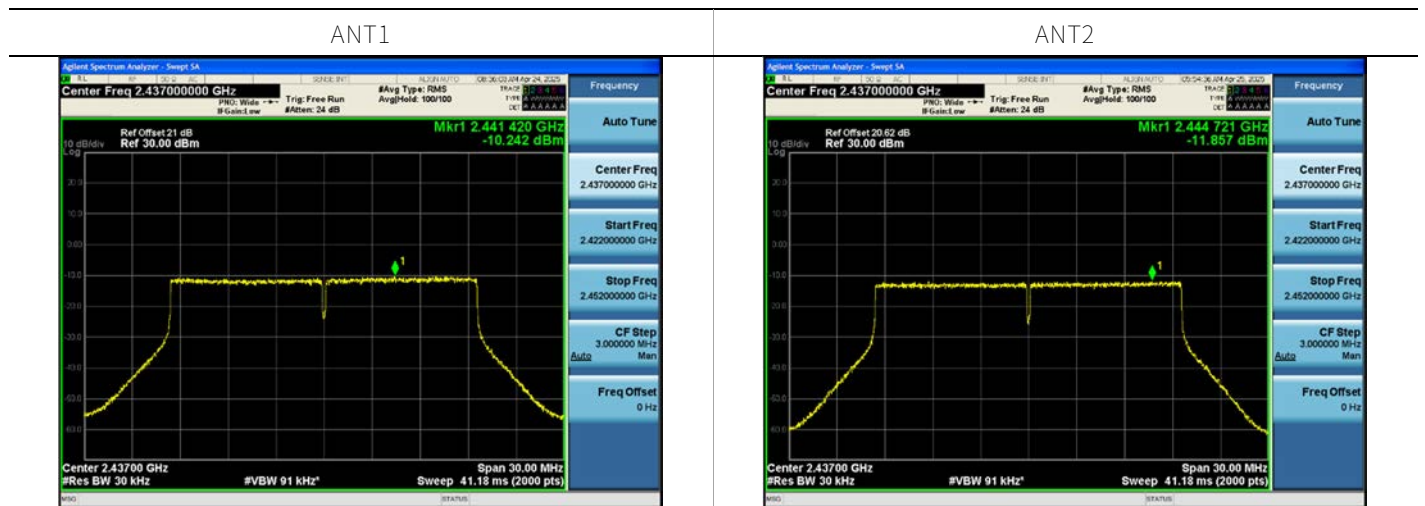
Average Power = Measured Power + Duty Cycle Factor

POWER SPECTRAL DENSITY

Mode/Channel	Measured Frequency	Power Spectral Density [dBm]			Limit
802.11ax(HE20) SU MCS0 / Ch.6	2437 MHz	ANT1	ANT2	MIMO	8 dBm / 3 kHz
		-10.229	-11.844	-7.952	

Power Spectral Density = Measured PSD + Duty Cycle Factor

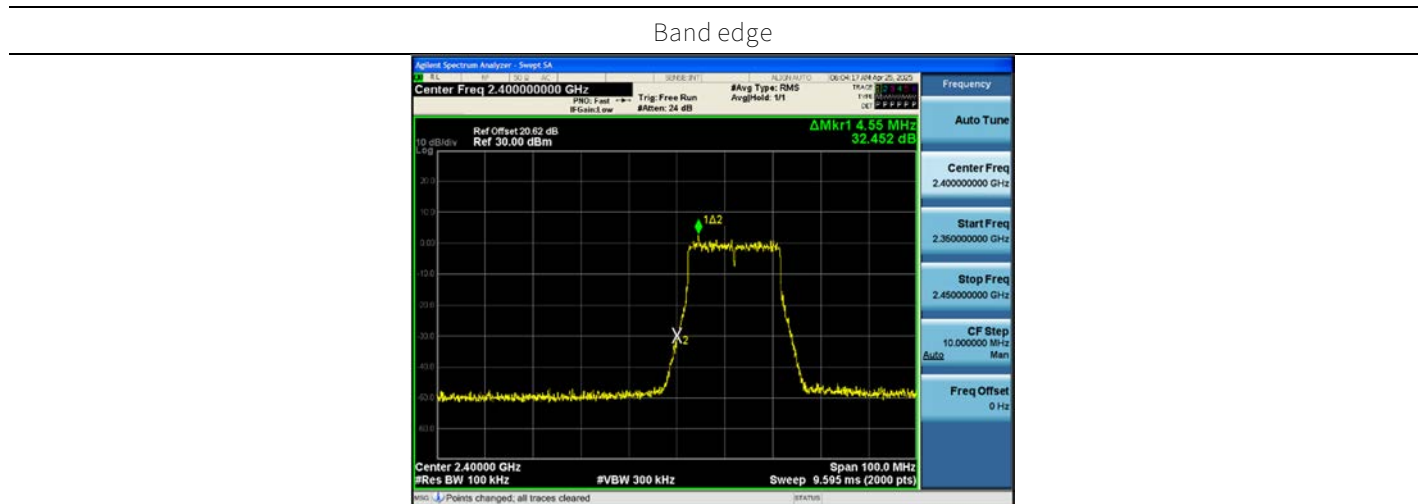
Test Plots



BAND EDGE

Mode/Channel	Measured Position	Band edge [dB]	Limit [dBc]
Ant2/802.11ax(HE20) SU MCS0 / Ch.1	Lowest Bandedge	32.452	30

Test Plots

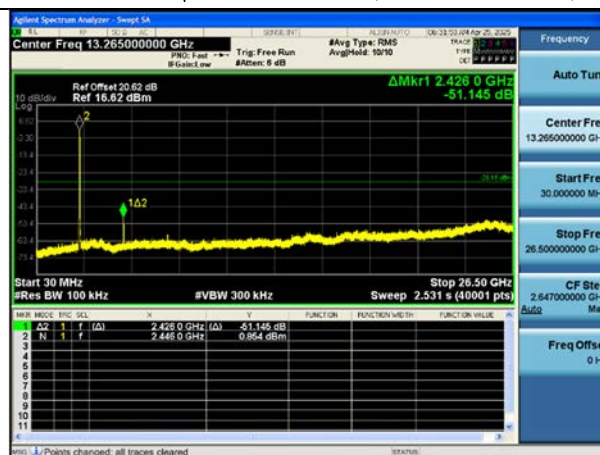


CONDUCTED SPURIOUS EMISSIONS

Mode/Channel	Measured Frequency	CSE [dB]	Limit [dBc]
Ant2/802.11ax(HE20) SU MCS0 /Ch.6	30 M – 26.5 GHz	51.145	30

Test Plots

Conducted Spurious Emission (30 MHz – 26.5 GHz)



#Limit Line(dBm) : -29.15

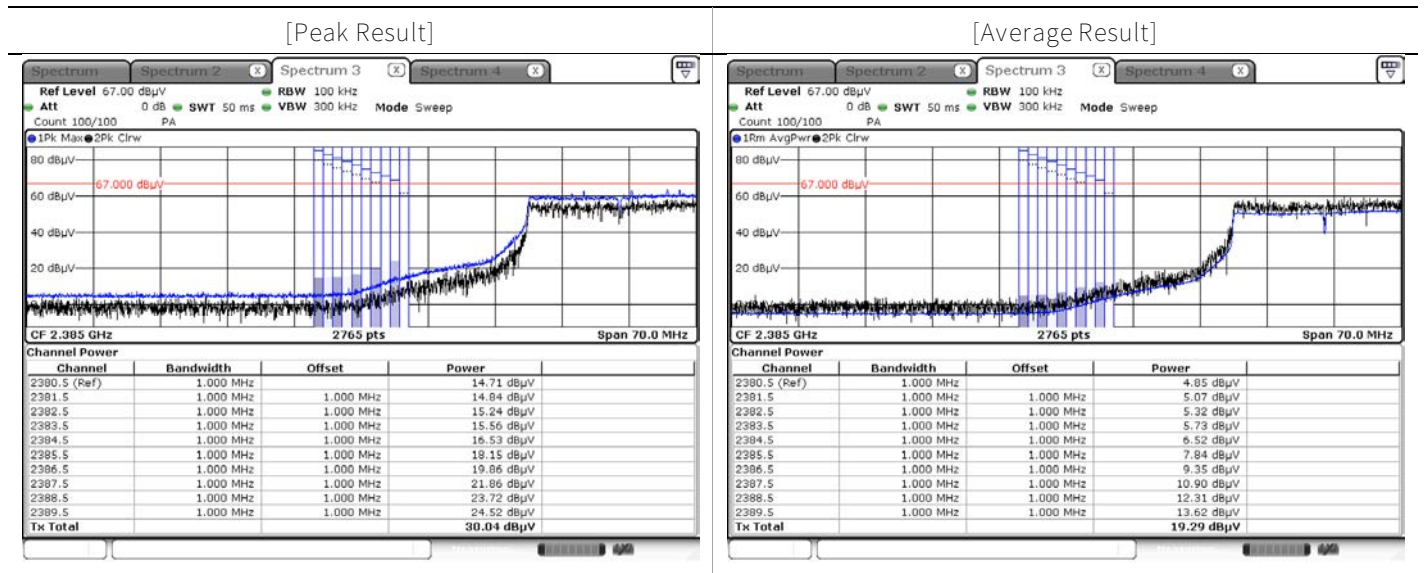
Radiated Test

DTS ax Band Edge (ANT ALL) (MIMO, 802.11ax(HE20)_SU_MCS0/ch. 1)

Frequency	Measured Value	Duty Cycle Factor	A.F.+C.L+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
# 2390	24.52	0.00	36.66	H	61.18	73.98	12.80	PK
# 2390	13.62	0.02	36.66	H	50.30	53.98	3.68	AV

Note : integration method Used (ANSI C63.10 Section11.13.3)

Test Plot

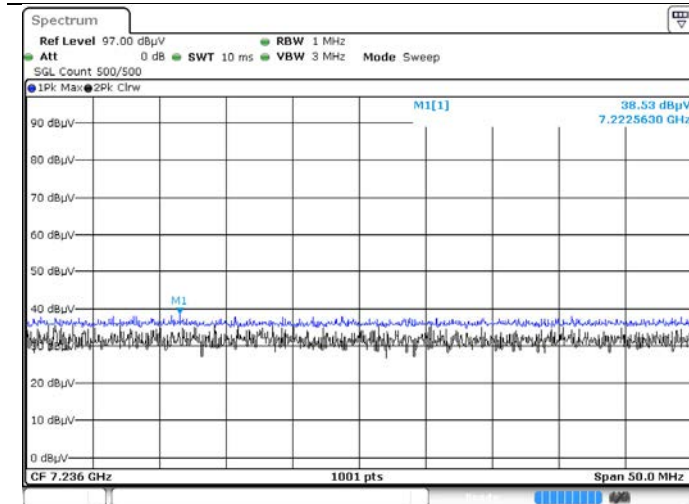


DTS ax R.S.E Harmonic (ANT ALL) (MIMO, 802.11ax(HE20)_26T RU4 MCS0/ch. 1)

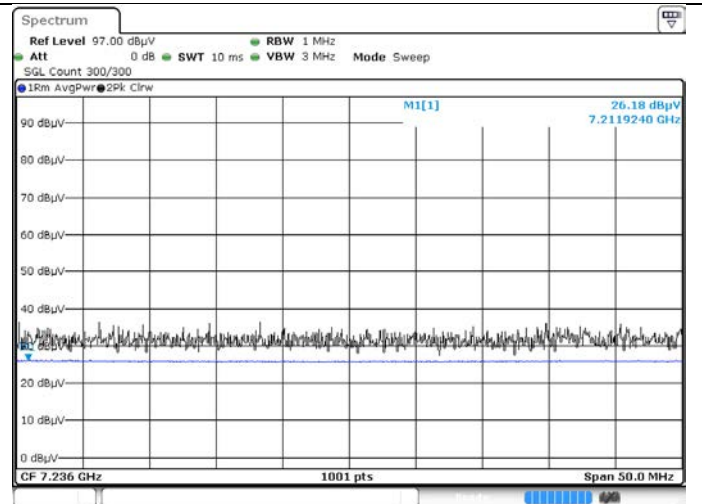
Band : DTS			Operation Mode :		802.11ax_HE20 MCS0 26T RU4			
CH.1 2412 MHz			Transfer Rate :		MCS0			
Frequency [MHz]	Measured value [dBμV]	D.C.F [dB]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
4824	41.89	0.00	4.99	V	46.88	73.98	27.10	PK
4824	29.41	0.02	4.99	V	34.42	53.98	19.56	AV
7236	38.49	0.00	12.93	V	51.42	73.98	22.56	PK
7236	26.18	0.02	12.93	V	39.13	53.98	14.85	AV
4824	42.73	0.00	4.99	H	47.72	73.98	26.26	PK
4824	29.88	0.02	4.99	H	34.89	53.98	19.09	AV
7236	38.53	0.00	12.93	H	51.46	73.98	22.52	PK
7236	26.12	0.02	12.93	H	39.07	53.98	14.91	AV

Test Plot

[Peak Result]



[Average Result]



[UNII]

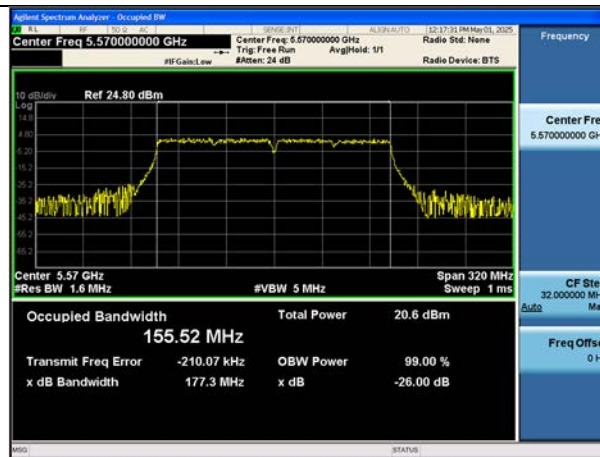
Conducted Test

26 dB Bandwidth

Mode/Channel	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
Ant2 / 802.11ac(VHT160) MCS0 / ch.114	177.3	155.52

Test Plots

Bandwidth

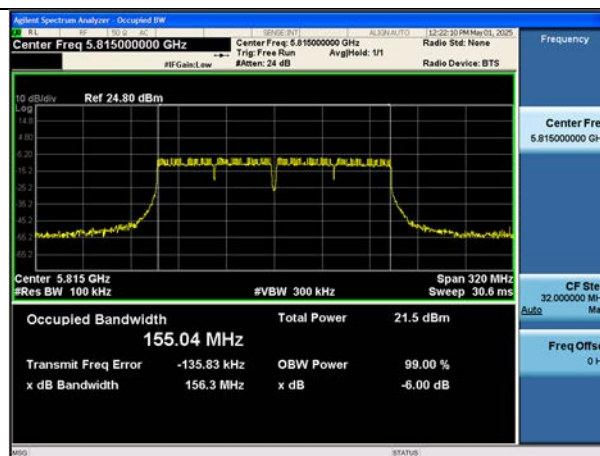


6 dB BANDWIDTH

Mode/Channel	6 dB Bandwidth [MHz]	Limit [MHz]
Ant2 / 802.11ac(VHT160) MCS0 / ch.163	156.3	> 0.5

Test Plots

6 dB Bandwidth



OUTPUT POWER

Limit

Band	Limit
UNII 1	- Master : Not exceed 1 W(=30 dBm) - Slave : Not exceed 250 mW(=23.98 dBm)
UNII 2A, 2C	Not exceed the lesser of 250 mW or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)
UNII 3	Not exceed 1 W(=30 dBm)
UNII 4	EIRP 30 dBm

Mode/Channel	Measured Frequency	Conducted Average Power [dBm]		
802.11ac(VHT160) MCS0 / ch.114	5570 MHz	ANT1	ANT2	MIMO
		12.04	12.59	15.33

Average Power = Measured Power + Duty Cycle Factor

POWER SPECTRAL DENSITY

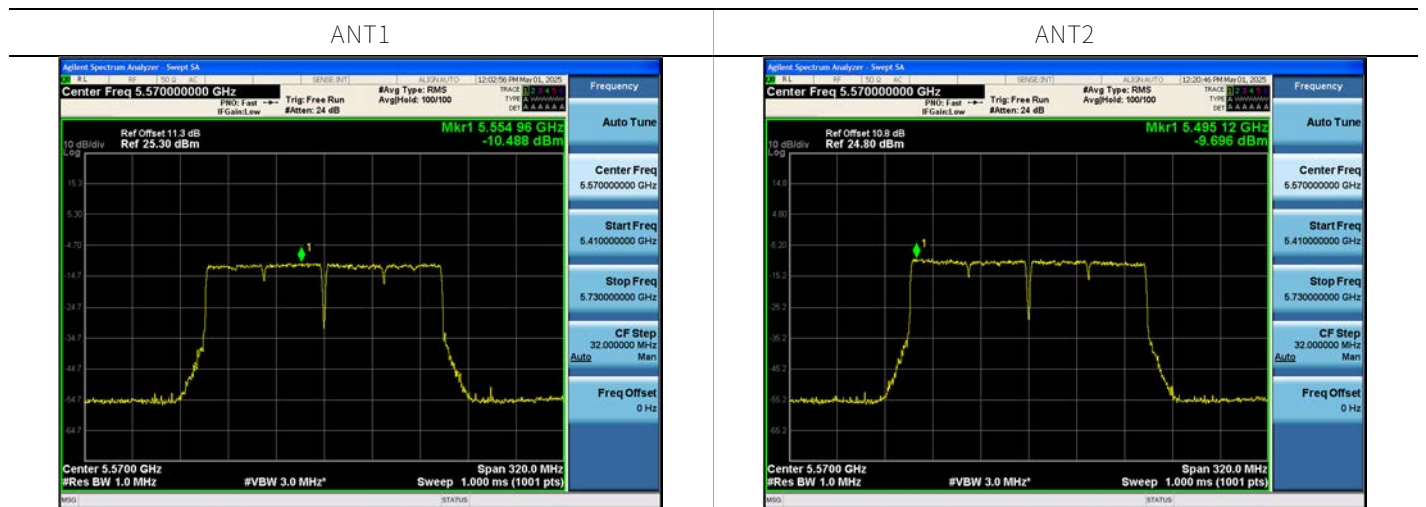
Limit

Band	Limit
UNII 1	11 dBm/MHz
UNII 2A, 2C	11 dBm/MHz
UNII 3	30 dBm/500 kHz
UNII 4	EIRP 14 dBm/MHz

Mode/Channel	Measured Frequency	Power Spectral Density [dBm]		
802.11ac(VHT160) MCS0 / ch.114	5570 MHz	ANT1	ANT2	MIMO
		-9.084	-8.292	-5.660

Power Spectral Density = Measured PSD + Duty Cycle Factor

Test Plots



FREQUENCY STABILITY

OPERATING BAND:			UNII Band 2C	
OPERATING FREQUENCY:			5,570,000,000 Hz	
CHANNEL:			114	
Voltage	Power	Temp.	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)
100%	3.88	+20(Ref)	5570036.71	36.71
100%		-30	5570018.94	18.94
100%		-20	5570022.48	22.48
100%		-10	5570023.80	23.80
100%		0	5570028.99	28.99
100%		+10	5570031.87	31.87
100%		+30	5570036.29	36.29
100%		+40	5570038.07	38.07
100%		+50	5570042.61	42.61
High	4.45	+20	5570032.16	32.16
End Point	3.30	+20	5570033.13	33.13

Radiated Test

UNII Band Edge (ANT ALL) (MIMO, 802.11a 6Mbps/ch.100) - Peak Result

Frequency	Measured Value	CL+AF+DF-AG+ATT	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5460	45.13	14.14	H	59.27	73.98	14.71	PK
5460	31.68	14.14	H	45.82	53.98	8.16	AV
#5460~5470	46.77	14.15	H	60.92	68.20	7.28	PK

#Note : integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

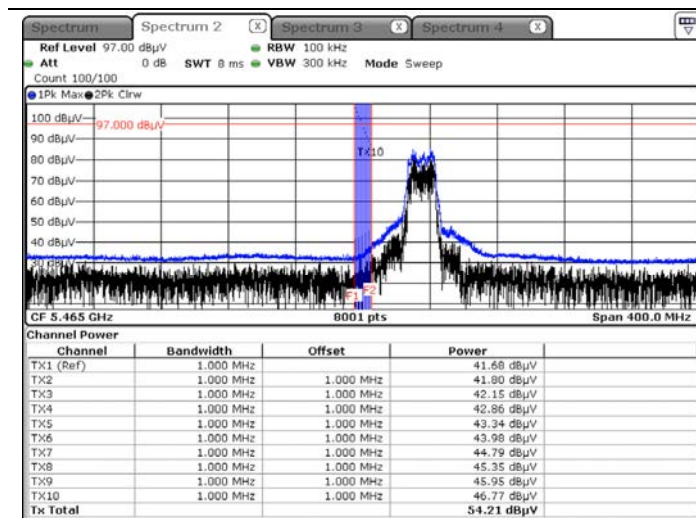
UNII Band Edge (ANT ALL) (MIMO, 802.11ac(80M) MCS0/ch.106) - Average Result

Frequency	Measured Value	CL+AF+DF-AG+ATT	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5460	44.14	14.14	H	58.28	73.98	15.70	PK
5460	33.09	14.14	H	47.23	53.98	6.75	AV
#5460~5470	43.44	14.15	H	57.59	68.20	10.61	PK

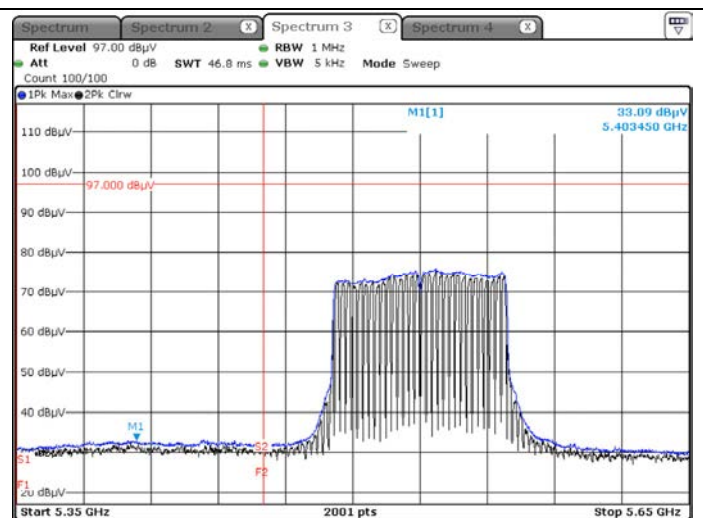
#Note : integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

Test Plot

[Peak Result]



[Average Result]

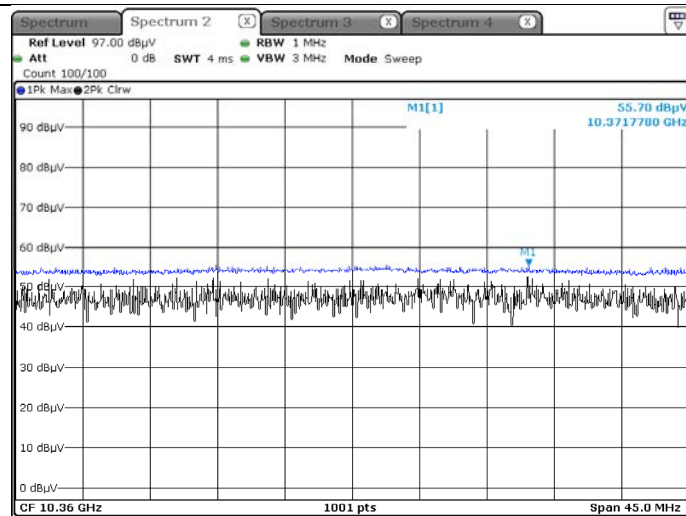


UNII R.S.E Harmonic (ANT ALL) (MIMO, 802.11a 6Mbps/ch.36)

Band :	UNII 1		Operation Mode :		802.11a		
CH.36	5180	MHz	Transfer Rate :		6Mbps		
Frequency	Measured value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
10360	55.70	-2.83	V	52.87	68.20	15.33	PK
15540	53.35	-0.82	V	52.53	73.98	21.45	PK
15540	40.15	-0.82	V	39.33	53.98	14.65	AV
10360	55.62	-2.83	H	52.79	68.20	15.41	PK
15540	53.88	-0.82	H	53.06	73.98	20.92	PK
15540	40.23	-0.82	H	39.41	53.98	14.57	AV

Test Plot

[Peak Result]



[UNII ax]

Conducted Test

26 dB Bandwidth

Mode/Channel	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
Ant1/802.11ax(HE160) SU MCS0 / ch.114	173.3	157.34

Test Plots

Bandwidth



6 dB BANDWIDTH

Mode/Channel	6 dB Bandwidth [MHz]	Limit [MHz]
Ant2/802.11ax(HE160) SU MCS0 / ch.163	158.2	> 0.5

Test Plots

6 dB Bandwidth



OUTPUT POWER

Limit

Band	Limit
UNII 1	- Master : Not exceed 1 W(=30 dBm) - Slave : Not exceed 250 mW(=23.98 dBm)
UNII 2A, 2C	Not exceed the lesser of 250 mW or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)
UNII 3	Not exceed 1 W(=30 dBm)
UNII 4	EIRP 30 dBm

Mode/Channel	Measured Frequency	Conducted Average Power [dBm]		
802.11ax(HE160) SU MCS0 / ch.114	5570 MHz	ANT1	ANT2	MIMO
		11.61	11.91	14.77

Average Power = Measured Power + Duty Cycle Factor

POWER SPECTRAL DENSITY

Limit

Band	Limit
UNII 1	11 dBm/MHz
UNII 2A, 2C	11 dBm/MHz
UNII 3	30 dBm/500 kHz
UNII 4	EIRP 14 dBm/MHz

Mode/Channel	Measured Frequency	Power Spectral Density [dBm]		
802.11ax(HE160) SU MCS0 / ch.114	5570 MHz	ANT1	ANT2	MIMO
		-9.486	-8.825	-6.132

Power Spectral Density = Measured PSD + Duty Cycle Factor

Test Plots



[DFS]

Channel Move Time & Channel Closing Transmission Time



Note:

1. Test BW : 802.11ax(HE160)
2. Test Channel : 114 Channel
3. Channel Move Time : 0.775953 s (Limit : 10 s)
4. Channel Closing Transmission Time, Aggregate Time After 200 ms : 0.003534 s (Limit : 60 ms)

Radiated Test

UNII ax Band Edge (ANT ALL) (MIMO, 802.11ax(HE160_80L)_996T MCS0/ch.114)

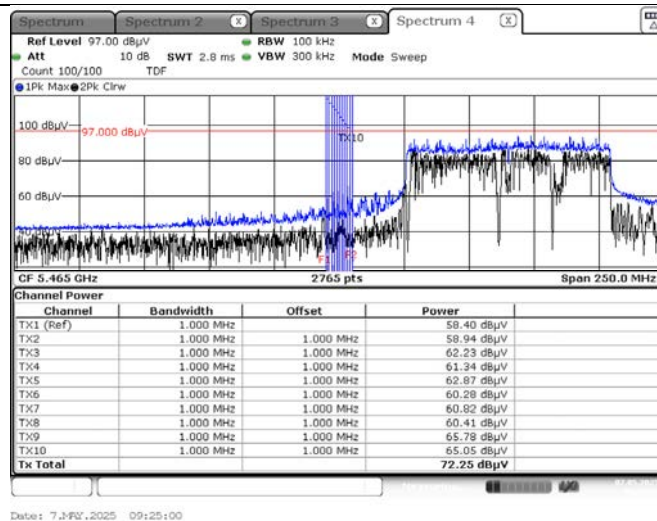
Frequency	Measured Value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5460	63.28	0.00	V	63.28	73.98	10.70	PK
5460	45.72	0.00	V	45.72	53.98	8.26	AV
#5470	65.78	0.00	V	65.78	68.20	2.42	PK

- The offset = Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)– Amp. Gain(A.G)

Note : # Integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

Test Plot

[Peak Result]

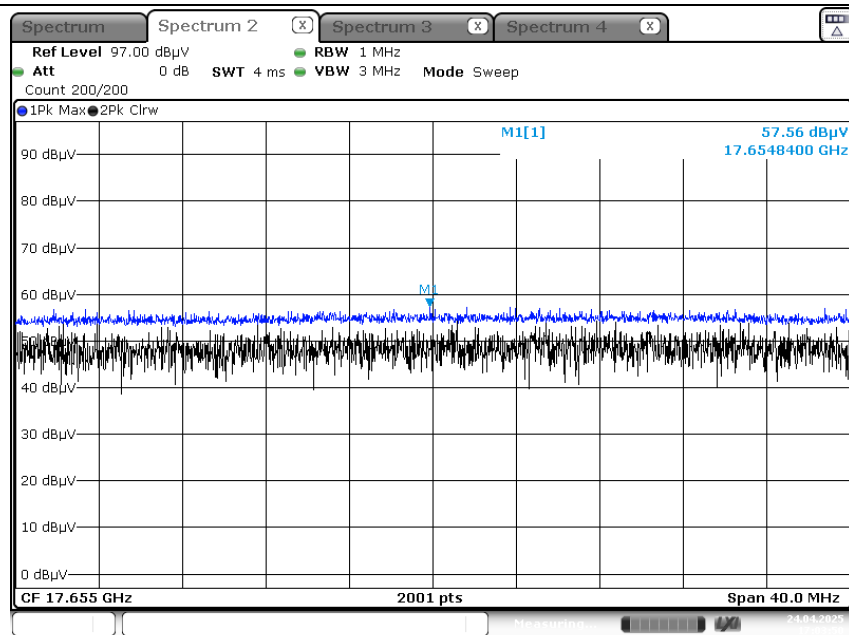


UNII ax R.S.E Harmonic (ANT ALL) (MIMO, 802.11ax(HE20)_SU MCS0/ch.177)

Band :	UNII 4		Operation Modee : 802.11ax(HE20)				
CH.177	5885	MHz	Transfer Rate : MCS0				
Frequency	Measured value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Detect
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
11770	53.88	-2.98	V	50.90	73.98	23.08	PK
11770	40.99	-2.98	V	38.01	53.98	15.97	AV
17655	57.56	0.50	V	58.06	68.20	10.14	PK
11770	53.53	-2.98	H	50.55	73.98	23.43	PK
11770	40.92	-2.98	H	37.94	53.98	16.04	AV
17655	57.27	0.50	H	57.77	68.20	10.43	PK

Test Plot

[Peak Result]



Date: 24.APR.2025 17:03:50

[UNII 6G]

Conducted Test

26 dB Bandwidth

Mode/Channel	Measured Frequency	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
[SP/LPI/VLP] Ant1/802.11ax(HE160) SU MCS0 / ch.47	6185 MHz	173.0	157.34

Test Plots

Bandwidth



OUTPUT POWER

Mode/Channel	Measured Frequency	Conducted Average Power [dBm]			Directional gain	e.i.r.p	Limit
[SP/LPI/VLP] /802.11ax(HE160) SU MCS0 / ch.47	6185 MHz	ANT1	ANT2	MIMO	[dBi]	[dBm]	[dBm]
		8.65	8.54	11.61	-6.76	4.85	14

Average Power = Measured Power + Duty Cycle Factor

#E.I.R.P Limit(VLP) : 14 dBm

POWER SPECTRAL DENSITY

Mod/Channel	Measured Frequency	Power Spectral Density [dBm]			Directional gain	e.i.r.p	Limit
		ANT1	ANT2	MIMO	[dBi]	[dBm]	[dBm]
[SP/LPI/VLP] / 802.11ax(HE160) SU MCS0 / ch.47	6185 MHz	-12.013	-11.816	-8.903	-6.76	-15.663	-5
[SP/LPI/VLP] / 802.11ax(HE40) 9RU MCS0 / ch.147	6685 MHz	-1.424	-0.827	1.895	-7.25	-5.355	-5

Power Spectral Density = Measured PSD + Duty Cycle Factor

#E.I.R.P Limit(VLP) : -5 dBm/MHz

Test Plots

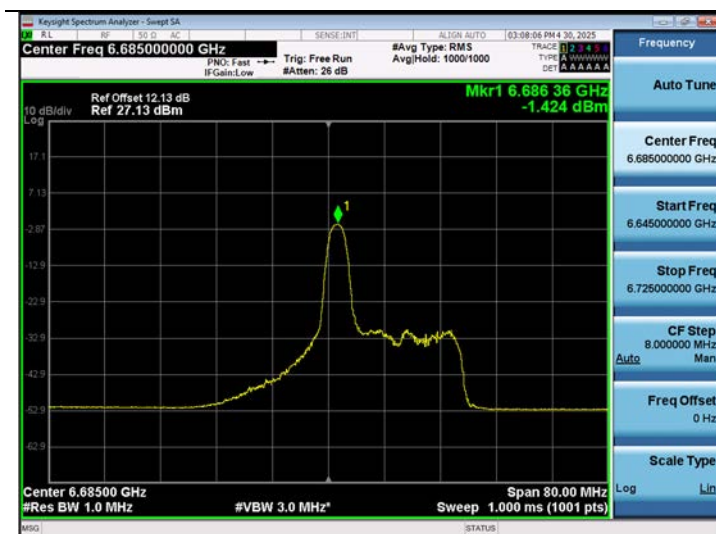
ANT1



ANT2



ANT1



ANT2



In-Band Emission

Mode/Channel : [SP/LPI/VLP] / 802.11ax(HE160) SU MCS0 / ch.47

Test Plots



FREQUENCY STABILITY

OPERATING BAND:			UNII Band 5	
OPERATING FREQUENCY:			6,025,000,000 Hz	
CHANNEL:			15	
Voltage	Power	Temp.	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)
100%	3.88	+20(Ref)	6025041.38	41.38
100%		-30	6025041.84	41.84
100%		-20	6025044.78	44.78
100%		-10	6025069.51	69.51
100%		0	6025063.49	63.49
100%		+10	6025068.95	68.95
100%		+30	6025063.99	63.99
100%		+40	6025052.87	52.87
100%		+50	6025063.55	63.55
High	4.45	+20	6025069.81	69.81
End Point	3.30	+20	6025072.68	72.68

Contention Based Protocol

Band	BW	Channel No.	Incumbent Freq (MHz)	injected Power [dBm]	Antenna Gain [dBi]	Adjusted Power [dBm]	Detection Limit [dBm]	Margin [dB]	EUT TX Status
UNII 6	HE160	111	6505	-77.07	-11.18	-65.89	-62.00	3.89	Ceased
				-78.21	-11.18	-67.03	-62.00	5.03	Minimal
				-79.13	-11.18	-67.95	-62.00	5.95	Normal

Detection probability evaluation table Result

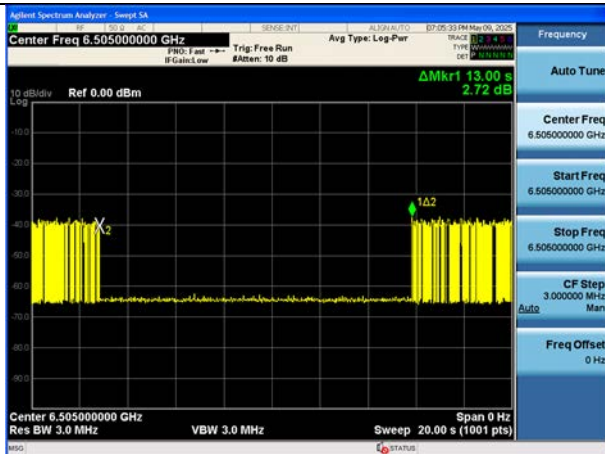
Band	BW	Channel No.	Center Frequency (MHz)	Incumbent Frequency (MHz)	Adjusted Power [dBm]	1	2	3	4	5	6	7	8	9	10	AWGN Detection Probability (%)	Limit Probability (%)
UNII 6	HE160	111	6505	6505	-77.07	o	o	o	o	o	o	o	o	o	o	100	90

Test Plots(Contention Based Protocol)

Incumbent Detection Result

UNII 6

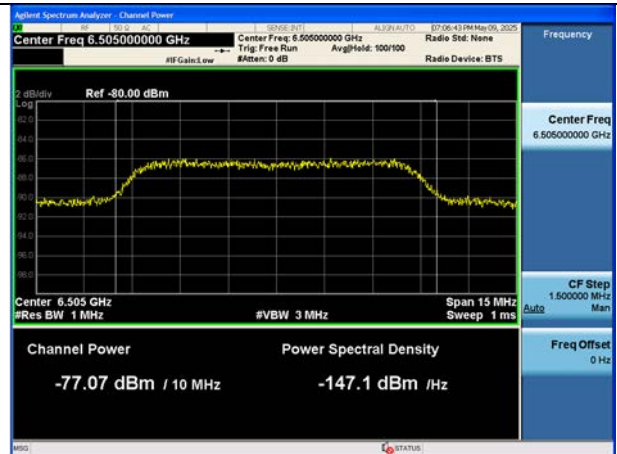
802.11ax HE160 Ch.111(6505 MHz) Incumbent signal (Ceased)



Marker 2 : AWGN Signal On

Marker 1Δ2 : AWGN signal Off (limit > 10s)

802.11ax HE160 Ch.111(6505 MHz) Detection Level



Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP

Ch.5 5975 MHz

Authorized EIRP for AP [dBm]	ANT1 [dBm]	ANT2 [dBm]	ANT1 gain [dBi]	ANT2 gain [dBi]	Summed MIMO Power (Duty Adjusted) [dBm]	Directional Antenna Gain [dBi]	Dual Client MIMO EIRP [dBm]	Limit [dBm]	Margin [dB]
30(SP)	10.60	10.62	-10.25	-10.29	13.96	-7.26	6.70	30	23.30
24(LPI)	10.53	10.55	-10.25	-10.29	13.89	-7.26	6.63	24	17.37

Duty Cyle Factor: 0.34 dB

Test Plots

LPI AP Client Conducted Power (EIRP Authorization Power = 24 dBm)

ANT. 1



ANT. 2



Proper Power Adjustment, Client Devices Connected to a Standard Power Access Point

Ch.47 6185 MHz

Authorized EIRP for AP [dBm]	ANT1 [dBm]	ANT2 [dBm]	ANT1 gain [dBi]	ANT2 gain [dBi]	Summed MIMO Power (Duty Adjusted) [dBm]	Directional Antenna Gain [dBi]	Client MIMO EIRP [dBm]	Limit [dBm]	Margin [dB]
36	9.43	9.60	-10.05	-9.5	12.83	-6.76	6.07	30	23.93
24	9.38	9.59	-10.05	-9.5	12.80	-6.76	6.04	18	11.96
12	9.26	9.51	-10.05	-9.5	12.70	-6.76	5.94	6	0.06

Duty Cycle Factor: 0.30 dB

Test Plots

Client Conducted Power (EIRP Authorization Power = 12 dBm)

ANT. 1



ANT. 2



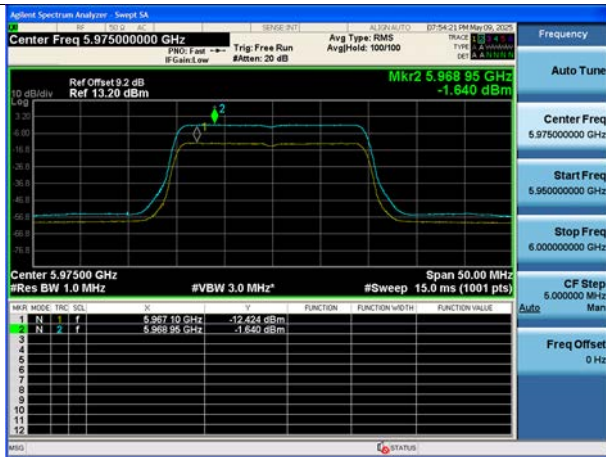
Transmit Power Control, Very Low Power Devices

Frequency [MHz]	RSSI Sensitivity Variation	ANT1 PSD [dBm/MHz]	ANT2 PSD [dBm/MHz]	ANT1 Antenna gain [dBi]	ANT2 Antenna gain [dBi]	Summed MIMO PSD (Duty Adjusted) [dBm/MHz]	Directional Antenna Gain [dBi]	MIMO EIRP [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
5975	Low	-1.640	-2.55	-10.25	-10.29	1.31	-7.26	-5.95	-5	0.95
	High	-12.42	-12.53	-10.25	-10.29	-9.09	-7.26	-16.35	-11	5.35

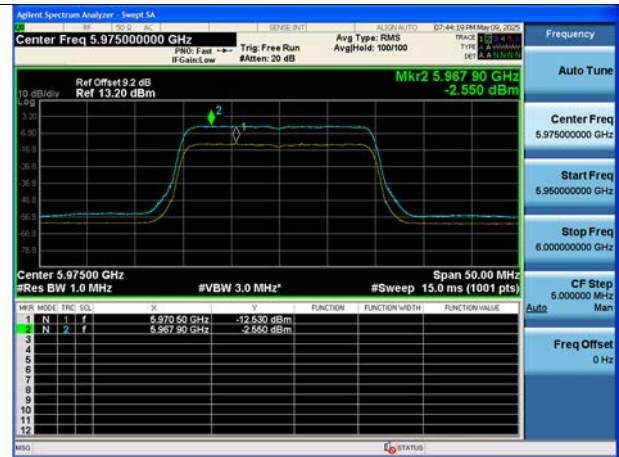
Duty Cycle Factor: 0.37 dB

RSSI Sensitivity Variation (Low, High)

ANT. 1



ANT. 2



Radiated Test

UNII 6G[SP/LPI] Band Edge (ANT ALL) (MIMO, 802.11ax(HE20)_26T RU 0_MCS 0/ch. 2)

Frequency	Measured Value	Duty Cycle Factor	A.F+C.L+D.F- A.G+ATT	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
#5924.5	78.59	0.00	0.00	H	78.59	88.23	9.64	PK
#5924.5	65.81	0.00	0.00	H	65.81	68.23	2.42	AV
#5923.5	68.60	0.00	0.00	H	68.60	88.23	19.63	PK
#5923.5	55.81	0.00	0.00	H	55.81	68.23	12.42	AV
5460 - 5923	75.61	0.00	0.00	H	75.61	88.23	12.62	PK
5460 - 5923	52.48	0.00	0.00	H	52.48	68.23	15.75	AV
5350 - 5460	56.34	0.00	0.00	H	56.34	73.98	17.64	PK
5350 - 5460	44.50	0.00	0.00	H	44.50	53.98	9.48	AV

Note

1. # integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

2. (1)Measurement(Peak)

= Measured Value(Peak)

(2)Measurement(Avg)

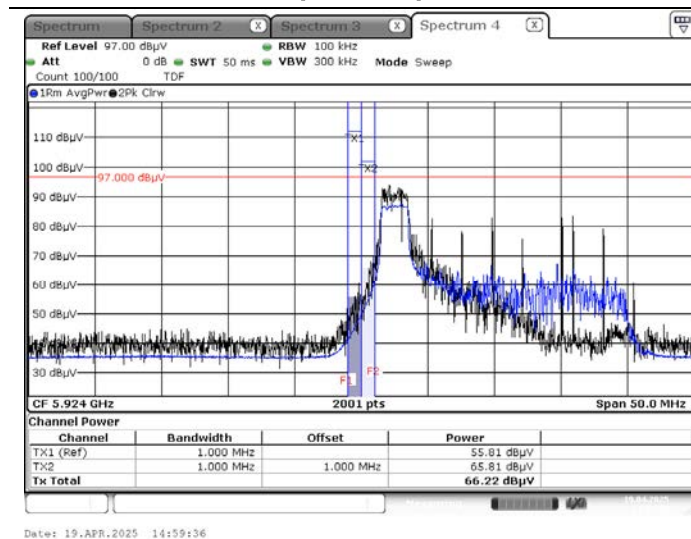
= Measured Value (Avg) + Duty Cycle Factor

- We apply to the offset in the range 1 GHz - 18 GHz.

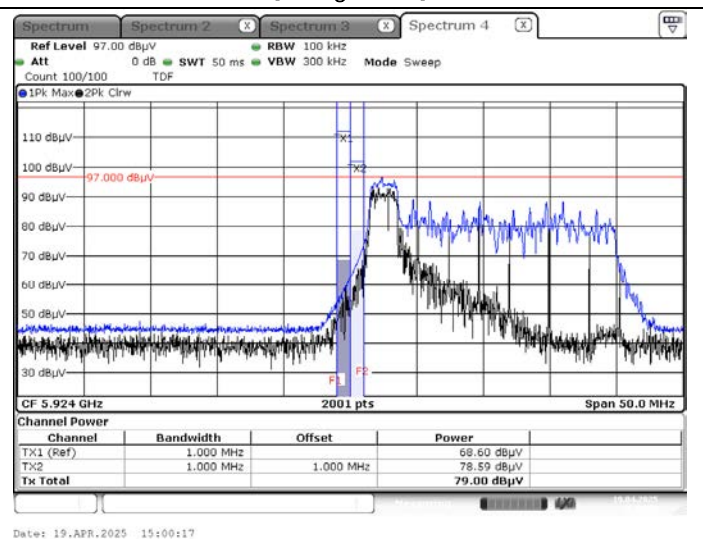
- The offset = Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)– Amp. Gain(A.G) + Attenuator (ATT)

Test Plot

[Peak Result]



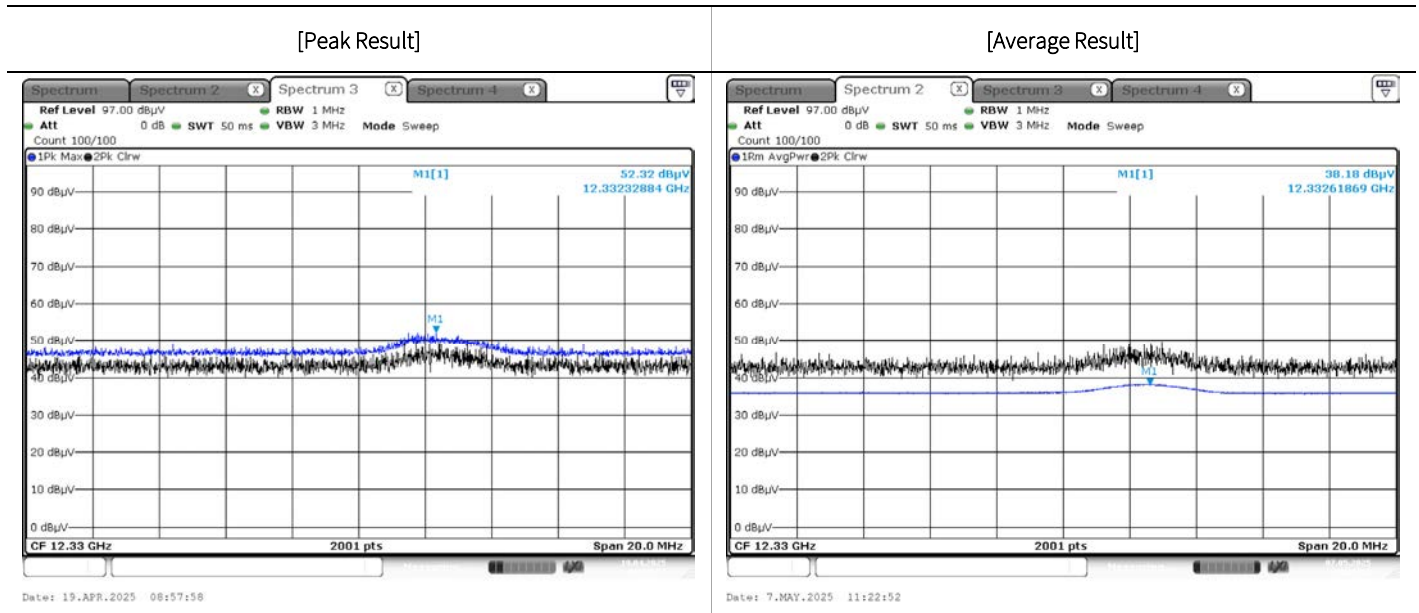
[Average Result]



UNII 6G [SP/LPI] R.S.E Harmonic (ANT ALL) (MIMO, 802.11ax HE40(26T_RU9)_MCS0/Ch. 43)

Band : UNII 5				Operation Mode : 802.11ax_HE40 MCS0 26T RU9				
CH.43 6165 MHz				Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	D.C.F [dB]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
12330	52.32	0.00	4.86	V	57.18	73.98	16.80	PK
12330	38.18	0.00	4.86	V	43.04	53.98	10.94	AV
18495	53.72	0.00	-0.61	V	53.11	73.98	20.87	PK
18495	41.31	0.00	-0.61	V	40.70	53.98	13.28	AV
12330	52.15	0.00	4.86	H	57.01	73.98	16.97	PK
12330	38.09	0.00	4.86	H	42.95	53.98	11.03	AV
18495	53.28	0.00	-0.61	H	52.67	73.98	21.31	PK
18495	41.19	0.00	-0.61	H	40.58	53.98	13.40	AV

Test Plot



WPT Fundamental(Power Sharing)

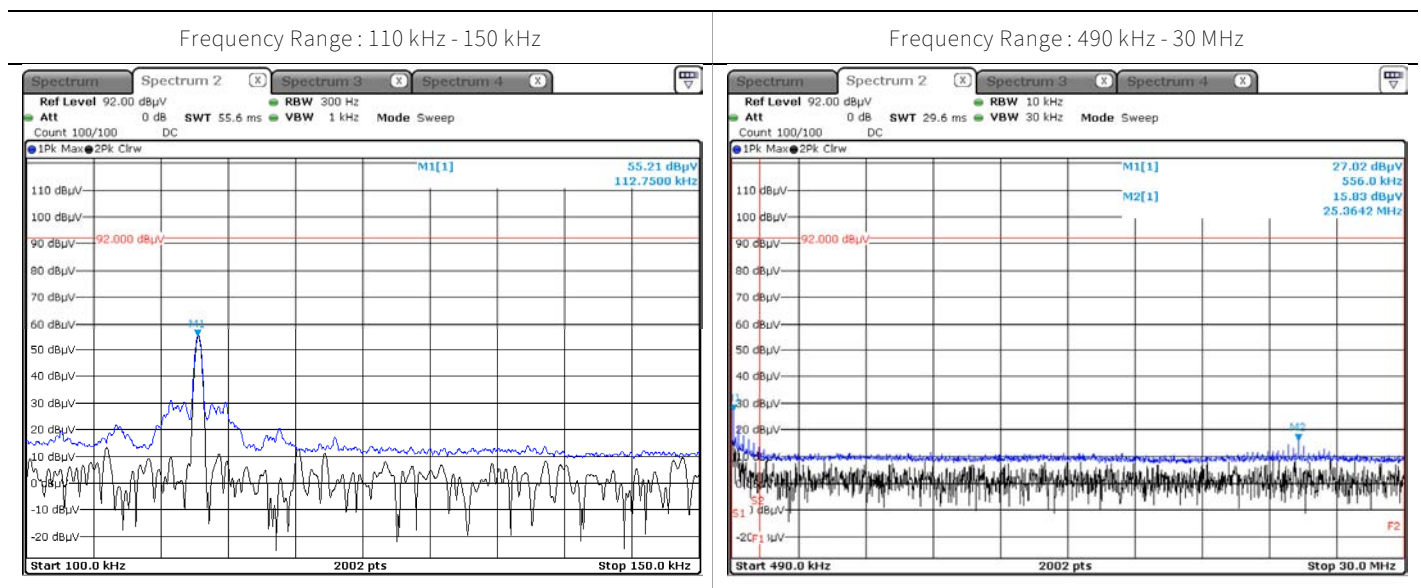
Fundamental

Frequency	Measured Value	Ant.Factor	Cable Loss	Distance Correction	ANT. Pol	Total Value	Limit	Margin
(kHz)	(dBμV/m)@3m	(dB/m)	(dB)	(dB)	(H/V)	(dBμV/m)	(dBμV/m)	(dB)
#112.75	55.21	19.90	0.29	-80.00	H	-4.60	26.56	31.16
556.00	27.02	19.90	0.29	-40.00	H	7.21	32.70	25.49
25364.20	15.83	19.90	0.29	-40.00	H	-3.98	29.54	33.52

Note :

1. “#” Fundamental Frequency
2. EUT State : Cross(Position of client device) - Charging from EUT(Charging from TA) to Client device
3. 30 MHz - 1 GHz : No Critical peaks found

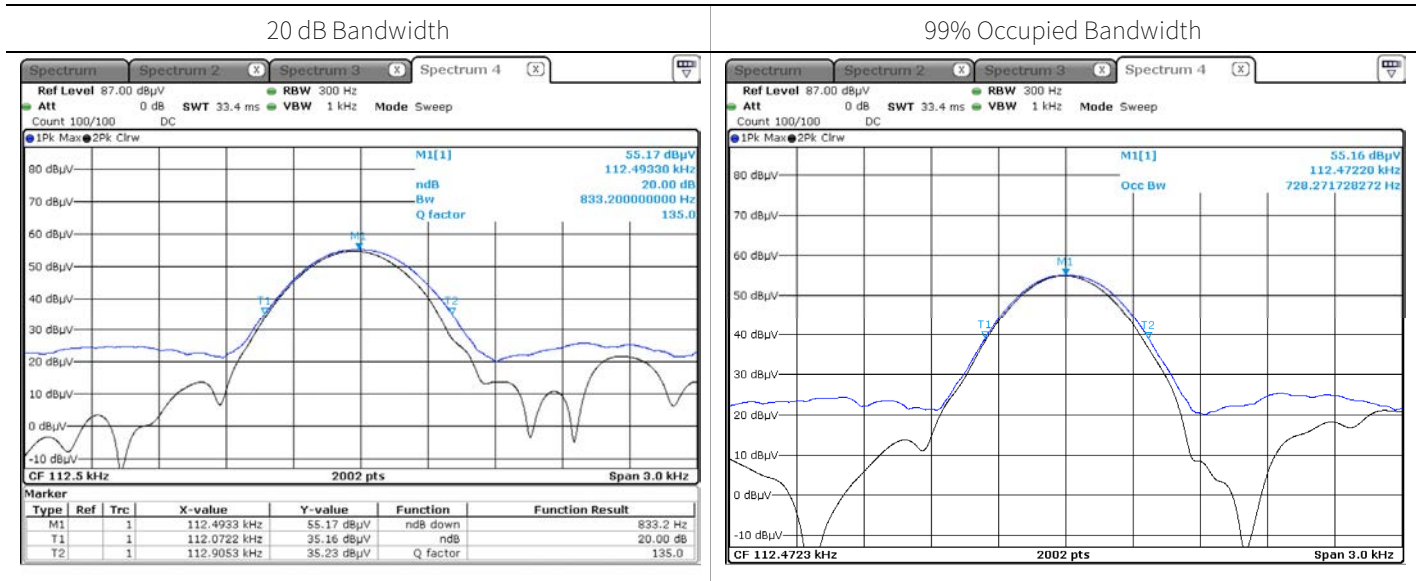
Test Plot



■ Emission bandwidth Test Result

Mode	Test Frequency (kHz)	20 dB Bandwidth (Hz)	99% Occupied Bandwidth (Hz)
WPT	112.50	833.2	728.27

■ Test Plot



NFC fund (Type A, 106 kbps)

Frequency	Measured Value	Ant.Factor + Cable Loss	Distance Correction	Ant. POL	Result Value	Limit	Margin
[MHz]	[dBμV]@3m	[dB/m]	[dB]	[H/V]	[dBμV/m]@30m	[dBμV/m]@30m	(dB)
13.5604	37.82	20.19	-40.00	H	18.01	84.00	65.99

RSE

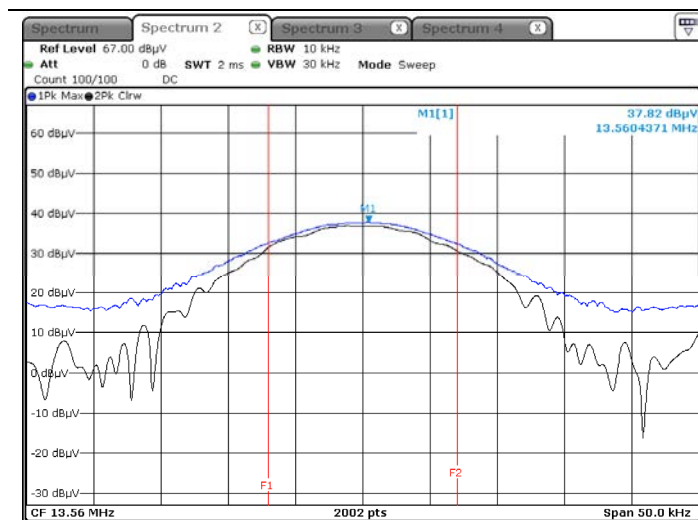
Frequency	Measured Value	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
[MHz]	[dBμV]	[dB/m]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]
49.8410	30.70	-	-	V	30.70	40.00	9.30

Note:

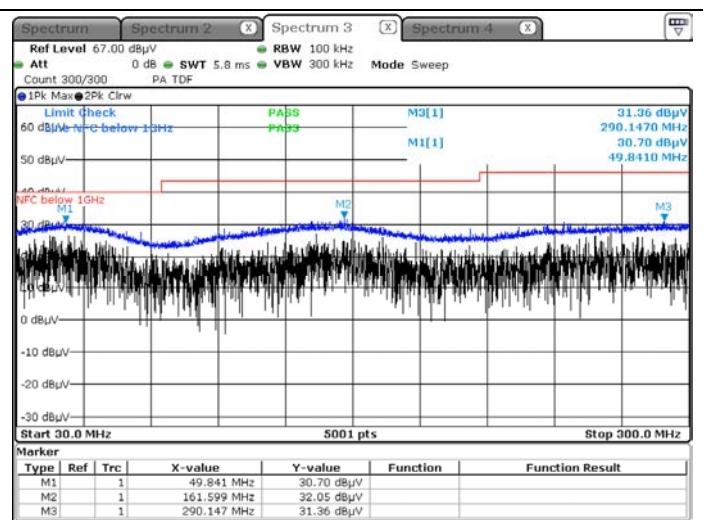
- We apply to the offset in range 30 MHz - 1 GHz
- The offset = Antenna Factor(A.F) + Cable Loss(C.L)

Test Plot

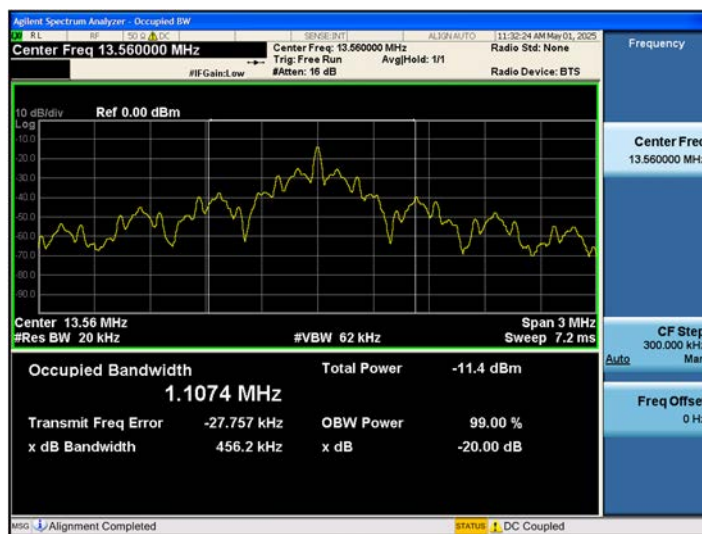
[Fund plot] 13.56 MHz



[Radiated Spurious Emissions plot] 30 MHz - 1 GHz



■ NFC 20dB Bandwidth Test Plot



FREQUENCY STABILITY

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (MHz)	Frequency Dev. (Hz)	Frequency Dev (%)
100%	3.88	-20	13.560027	27	0.0001991
100%		-10	13.560013	13	0.0000959
100%		0	13.560058	58	0.0004277
100%		+10	13.560050	50	0.0003687
100%		+20(Ref.)	13.560036	36	0.0002655
100%		+30	13.560010	10	0.0000737
100%		+40	13.560041	41	0.0003024
100%		+50	13.560016	16	0.0001180
High	4.45	+20	13.560031	31	0.0002286
End Point	3.30	+20	13.560033	33	0.0002434

AC Power Line

Test

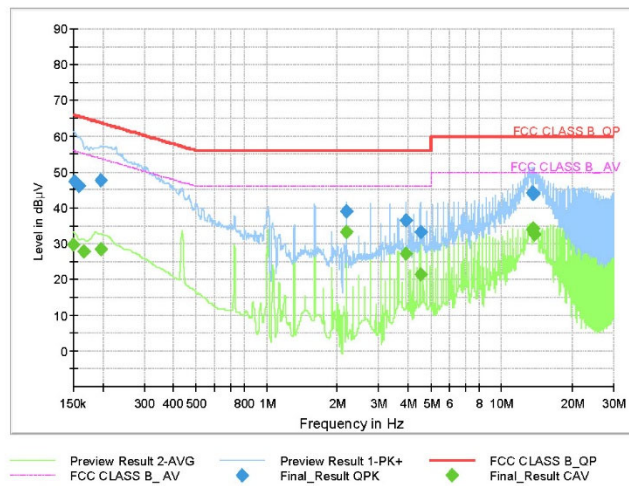
1 / 1

Test Report

Common Information

EUT : SM-F761B
Operating Conditions : WPT Align Mode
Comment :

Full Spectrum



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1523	47.28	65.88	18.59	9.000	N	9.6
0.1590	46.16	65.52	19.35	9.000	N	9.6
0.1973	47.85	63.73	15.88	9.000	N	9.6
2.1830	39.13	56.00	16.87	9.000	L1	9.7
3.9290	36.40	56.00	19.60	9.000	L1	9.8
4.5118	33.34	56.00	22.66	9.000	L1	9.8
13.5478	44.27	60.00	15.73	9.000	L1	10.2
13.6130	44.30	60.00	15.70	9.000	L1	10.2
13.6198	43.96	60.00	16.04	9.000	L1	10.2

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1500	29.70	56.00	26.30	9.000	N	9.6
0.1658	27.90	55.17	27.27	9.000	N	9.6
0.1973	28.59	53.73	25.14	9.000	N	9.6
2.1830	33.28	46.00	12.72	9.000	L1	9.7
3.9290	27.34	46.00	18.66	9.000	L1	9.8
4.5118	21.46	46.00	24.54	9.000	L1	9.8
13.5478	34.06	50.00	15.94	9.000	L1	10.2
13.6108	34.37	50.00	15.63	9.000	L1	10.2
13.8245	32.69	50.00	17.31	9.000	L1	10.2

2025-04-17

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Test

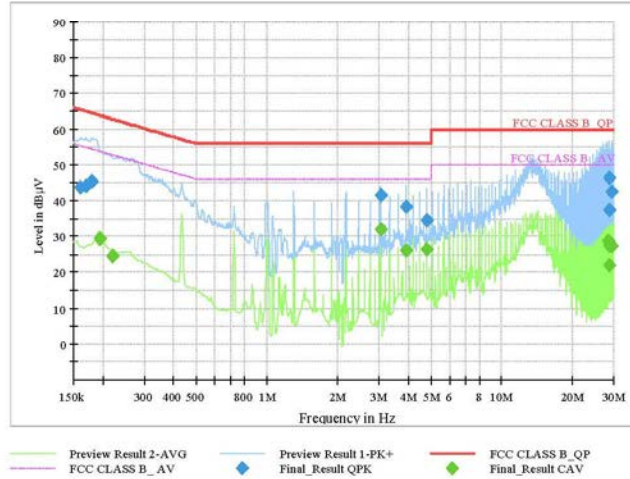
1 / 1

Test Report

Common Information

EUT : SM-F761B
Operating Conditions : WPT Cross Mode
Comment :

Full Spectrum



Final Result QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1613	43.71	65.40	21.69	9.000	L1	9.6
0.1703	44.30	64.95	20.65	9.000	L1	9.6
0.1793	45.36	64.52	19.16	9.000	L1	9.6
3.0425	41.53	56.00	14.47	9.000	L1	9.8
3.9110	38.48	56.00	17.52	9.000	L1	9.8
4.7818	34.43	56.00	21.57	9.000	L1	9.8
28.5350	46.38	60.00	13.62	9.000	L1	10.6
28.5418	37.51	60.00	22.49	9.000	L1	10.6
29.4058	42.71	60.00	17.29	9.000	L1	10.7

Final Result CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.1950	29.56	53.82	24.27	9.000	N	9.6
0.2198	24.59	52.83	28.24	9.000	N	9.6
3.0425	32.04	46.00	13.96	9.000	L1	9.8
3.9110	26.10	46.00	19.90	9.000	L1	9.8
4.7818	26.55	46.00	19.45	9.000	L1	9.8
28.2493	28.67	50.00	21.33	9.000	L1	10.6
28.5395	27.45	50.00	22.55	9.000	L1	10.6
28.8298	21.92	50.00	28.08	9.000	L1	10.7
29.4080	27.63	50.00	22.37	9.000	L1	10.7

2025-05-01

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5. List of test equipment

5.1 licensed

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
RF Switching System	Switch box(1 G HPF+LNA)	HCT CO., LTD.,	F2L2	12/12/2025	Annual
RF Switching System	Switch box(3 G HPF+LNA)	HCT CO., LTD.,	F2L3	12/12/2025	Annual
RF Switching System	Switch box(LNA)	HCT CO., LTD.,	F2L5	12/12/2025	Annual
RF Switching System	Switch box(6 G HPF+LNA)	HCT CO., LTD.,	F2L14	12/12/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/10/2026	Annual
DC Power Supply	E3632A	Agilent	MY40010147	08/06/2025	Annual
Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Dipole Antenna	UHAP	Schwarzbeck	01288	08/07/2026	Biennial
Chamber	SU-642	ESPEC	93008124	02/11/2026	Annual
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03197	11/28/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03201	11/28/2025	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Signal Analyzer(10 Hz ~ 26.5 GHz)	N9020A	Agilent	MY52090906	04/14/2026	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/10/2026	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	ROHDE & SCHWARZ	101733	09/19/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Loop Antenna(9 kHz ~ 30 MHz)	FMZB1513	Schwarzbeck	1513-333	03/07/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	08/28/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	08/19/2026	Biennial
Radio Communication Test Station	MT8000A	Anritsu Corp.	6272613402	08/28/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
Signal Analyzer(2 Hz ~ 50.0 GHz)	N9040B	KEYSIGHT	US55230216	12/09/2025	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/23/2025	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
RF Switching System	Switch box(1.2 G HPF+LNA)	HCT CO., LTD.	F1L1	11/11/2025	Annual
RF Switching System	Switch box(3.3 G HPF+LNA)	HCT CO., LTD.	F1L2	11/11/2025	Annual
RF Switching System	Switch box(LNA)	HCT CO., LTD.	F1L4	11/11/2025	Annual
RF Switching System	Switch box(6 G HPF+LNA)	HCT CO., LTD.	F1L7	11/11/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/10/2026	Annual
DC Power Supply	E3632A	Agilent	MY40010147	08/06/2025	Annual
Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Dipole Antenna	UHAP	Schwarzbeck	01288	08/07/2026	Biennial
Chamber	SU-642	ESPEC	93008124	02/11/2026	Annual
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	147	08/17/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1298	09/11/2025	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Signal Analyzer(10 Hz ~ 26.5 GHz)	N9020A	Agilent	MY52090906	04/14/2026	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/10/2026	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	REOHDE & SCHWARZ	100931	08/06/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Loop Antenna(9 kHz ~ 30 MHz)	FMZB1513	Schwarzbeck	1513-333	03/07/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	08/28/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	08/19/2026	Biennial
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262094331	11/13/2025	Annual
Radio Communication Test Station	MT8000A	Anritsu Corp.	6272613402	08/28/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/23/2025	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.	-	-	-

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/10/2026	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	02/14/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/17/2027	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	01/06/2027	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/05/2027	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/17/2027	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/08/2026	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/08/2026	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/08/2026	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/08/2026	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/22/2025	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	02/04/2026	Annual
Chamber	SU-642	ESPEC	93008124	02/11/2026	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	03/21/2026	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/10/2026	Annual
Spectrum Analyzer (10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/04/2026	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/23/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262094331	11/13/2025	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/08/2026	Annual
UXM 5G Wireless Test Platform	E7515B	KEYSIGHT	MY60101126	02/10/2026	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/14/2026	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/10/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

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

5.2 Unlicensed

5.2.1 BT, BLE, UNII

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	02/11/2026	Annual
Signal Analyzer	N9030A	Agilent	MY49431210	12/12/2025	Annual
Signal Analyzer	N9030A	Agilent	MY52350879	03/25/2026	Annual
Power Measurement Set	OSP 120	Rohde & Schwarz	101231	10/17/2025	Annual
Power Meter	N1911A	Agilent	MY45100523	02/21/2026	Annual
Power Sensor	N1921A	Agilent	MY57820067	02/04/2026	Annual
Directional Coupler	87300B	Agilent	3116A03621	10/21/2025	Annual
Power Splitter	11667B	Hewlett Packard	05001	04/10/2026	Annual
DC Power Supply	E3632A	H.P	KR75303243	04/16/2026	Annual
Attenuator(10 dB)	8493C	Hewlett Packard	07560	06/05/2025	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	100808	02/27/2026	Annual
Radio Communication Tester	CMX500	Rohde & Schwarz	100325	10/14/2025	Annual
Attenuator(3 dB)	18B-03	Api tech.	1	04/21/2026	Annual
Step Attenuator	8495B	Agilent	MY42141593	03/11/2026	Annual
4 WAY POWER DIVIDER	4456-4	Narda	01640	04/28/2026	Annual
Wireless AP	GT-AXE11000	ASUS	M6IAJF201782 (FCC ID : MSQ-RTAXJF00)	N/A	N/A
BE19000 Tri-Band Wi-Fi 7 Router	Archer BE800	Tp-Link	Y2350N50000581 (FCC ID : 2AX-J4BE800)	N/A	N/A

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(Antenna mast)	CO3000	Innco system	CO3000-4p	N/A	N/A
Antenna Position Tower	MA4640/800-XP-EP	Innco system	N/A	N/A	N/A
Controller	EM1000	Audix	060520	N/A	N/A
Turn Table	N/A	Audix	N/A	N/A	N/A
Loop Antenna	FMZB 1513	Schwarzbeck	1513-175	01/06/2027	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-1135	08/19/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02299	01/29/2026	Biennial
Horn Antenna (15GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Spectrum Analyzer	FSV40	Rohde & Schwarz	100901	02/21/2026	Annual
Signal Analyzer	N9030A	Agilent	MY52350879	03/25/2026	Annual
Attenuator(3 dB)	18B-03	Api tech.	1	04/21/2026	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
Band Reject Filter	WRCJV2400/2483.5-2370/2520-60/12SS	Wainwright Instruments	2	12/26/2025	Annual
Band Reject Filter	WRCJV5100/5850-40/50-8EEK	Wainwright Instruments	1	01/09/2026	Annual
RF Switching System	FMSR-04B (3G HPF+LNA)	T&M SYSTEM	S2L1	12/23/2025	Annual
RF Switching System	FMSR-04B (10dB ATT+LNA)	T&M SYSTEM	S2L2	12/23/2025	Annual
RF Switching System	FMSR-04B (3dB ATT+LNA)	T&M SYSTEM	S2L3	12/23/2025	Annual
RF Switching System	FMSR-04B (LNA)	T&M SYSTEM	S2L4	12/23/2025	Annual
RF Switching System	FMSR-04B (7G HPF+LNA)	T&M SYSTEM	S2L5	12/23/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	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).

5.2.2 DTS ax, DTS

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	08/27/2025	Annual
Temperature Chamber	SU-642	ESPEC	0093008124	02/11/2026	Annual
Signal Analyzer	N9030A	Agilent	MY49432108	02/18/2026	Annual
Power Measurement Set	OSP 120	Rohde & Schwarz	100935	08/01/2025	Annual
Power Meter	N1911A	Agilent	MY45100523	02/21/2026	Annual
Power Sensor	N1921A	Agilent	MY57820067	02/04/2026	Annual
Directional Coupler	87300B	Agilent	3116A03621	10/21/2025	Annual
Power Splitter	11667B	Hewlett Packard	10545	01/23/2026	Annual
DC Power Supply	E3632A	Agilent	KR75303243	04/16/2026	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	02/18/2026	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	12/27/2025	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	1513-175	01/06/2027	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	12/26/2025	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	02/21/2026	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
Bluetooth Tester	TC-3000C	TESCOM	3000C000175	03/12/2026	Annual
RF Switching System	FMSR-05B (HPF(3~18GHz) + LNA1(1~18GHz))	T&M system	S1L1	12/23/2025	Annual
RF Switching System	FMSR-05B (ATT(10dB) + LNA1(1~18GHz))	T&M system	S1L2	12/23/2025	Annual
RF Switching System	FMSR-05B (ATT(3dB) + LNA1(1~18GHz))	T&M system	S1L3	12/23/2025	Annual
RF Switching System	FMSR-05B (LNA1(1~18GHz))	T&M system	S1L4	12/23/2025	Annual
RF Switching System	FMSR-05B (HPF(7~18GHz) + LNA2(6~18GHz))	T&M system	S1L5	12/23/2025	Annual
RF Switching System	FMSR-05B (Thru(30MHz ~ 18GHz))	T&M system	S1L6	12/23/2025	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).

5.2.3 UNII 6G

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	93022487	06/27/2025	Annual
Signal Analyzer	N9030A	Keysight	MY55410508	08/23/2025	Annual
Power Measurement Set	OSP 120	Rohde & Schwarz	100935	08/01/2025	Annual
Power Meter	N1911A	Agilent	MY45100523	02/21/2026	Annual
Power Sensor	N1921A	Agilent	MY57820067	02/04/2026	Annual
Directional Coupler	87300B	Agilent	3116A03621	10/21/2025	Annual
Power Splitter	11667B	Hewlett Packard	10545	01/23/2026	Annual
DC Power Supply	E3632A	Agilent	KR75305528	12/24/2025	Annual
Attenuator(10 dB)(DC-26.5 GHz)	8493C-010	Agilent	08285	05/28/2025	Annual
Attenuator(20 dB)	18N-20dB	Rohde & Schwarz	8	02/18/2026	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	12/27/2025	Annual
Radio Communication Tester	CMX500	Rohde&Schwarz	100325	10/14/2025	Annual
Step Attenuator	8310-202-F	Aeroflex/Weinschel	1070	03/27/2026	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(Antenna mast)	CO3000	Innco system	CO3000-4p	N/A	N/A
Antenna Position Tower	MA4640/800-XP-EP	Innco system	S3AM	07/30/2025	Annual
Controller	EM2090	Emco	060520	N/A	N/A
Turn Table	N/A	Ets	N/A	N/A	N/A
Amp & Filter Bank Switch Controller	FBSM-01A	TNM system	0	N/A	N/A
Loop Antenna	FMZB 1513	Rohde & Schwarz	1513-333	03/07/2026	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	08/28/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1191	11/07/2025	Biennial
Horn Antenna(15 GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170124	03/23/2026	Biennial
Band Reject Filter	WRCJV2400/2483.5-2370/2520-60/12SS	Wainwright Instruments	2	12/26/2025	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
Band Reject Filter	WRCJV5100/5850-40/50-8EEK	Wainwright Instruments	1	01/09/2026	Annual
RF Switching System	FBSR-03A (3G HPF+LNA)	T&M SYSTEM	S3L1	10/31/2025	Annual
RF Switching System	FBSR-03A (10dB ATT+LNA)	T&M SYSTEM	S3L2	10/31/2025	Annual
RF Switching System	FBSR-03A (7G HPF+LNA)	T&M SYSTEM	S3L3	10/31/2025	Annual
RF Switching System	FBSR-03A (3dB ATT+LNA)	T&M SYSTEM	S3L4	10/31/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
Bluetooth Tester	TC-3000C	TESCOM	3000C000175	03/12/2026	Annual
Spectrum Analyzer	FSV40 (9 kHz ~ 40 GHz)	Rohde & Schwarz	100900	08/27/2025	Annual
Attenuator(3 dB)	18B-03	Api tech.	1	04/21/2026	Annual
4 WAY POWER DIVIDER	4456-4	Narda	01640	04/28/2026	Annual
Wireless AP	GT-AXE11000	ASUS	M6IAJF201782 (FCC ID : MSQ-RTAXJF00)	N/A	N/A
BE19000 Tri-Band Wi-Fi 7 Router	Archer BE800	Tp-Link	Y2350N50000581 (FCC ID : 2AX-J4BE800)	N/A	N/A

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).

5.2.4 UNII ax

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	93008124	02/11/2026	Annual
Signal Analyzer	N9030A	Keysight	MY55410508	08/23/2025	Annual
Signal Analyzer	N9030B	Keysight	MY56320554	02/03/2026	Annual
Power Meter	N1911A	Agilent	MY45100523	02/21/2026	Annual
Power Sensor	N1921A	Agilent	MY57820067	02/04/2026	Annual
Directional Coupler	87300B	Agilent	3116A03621	10/21/2025	Annual
Power Splitter	11667B	Hewlett Packard	10545	01/23/2026	Annual
DC Power Supply	E3632A	Agilent	MY50360067	02/11/2026	Annual
Attenuator(10 dB)(DC-26.5 GHz)	8493C-010	Agilent	08285	05/28/2025	Annual
Attenuator(20 dB)	18N-20dB	Rohde & Schwarz	8	02/18/2026	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	100808	02/27/2026	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 (Antenna mast & Turn Table)	CO3000	Innco system	CO3000/ 15421/57580623/G	N/A	N/A
Antenna Position Tower	MA4640	Innco system	9320422	04/03/2026	Annual
Turn Table	N/A	Innco system	5930623	N/A	N/A
Loop Antenna	FMZB 1513	Schwarzbeck	1513-175	01/06/2027	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-1135	08/19/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1151	07/14/2025	Biennial
Horn Antenna (15 GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Amp & Filter Bank Switch Controller	FBSM-01B	T&M system	TM2009001	N/A	N/A
Band Reject Filter	WRCJV2400/2483.5- 2370/2520-60/12SS	Wainwright Instruments	2	12/26/2025	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
Band Reject Filter	WRCJV5100/5850-40/50- 8EEK	Wainwright Instruments	1	01/09/2026	Annual
RF Switching System	FMSR-05B (HPF(3~18GHz) + LNA1(1~18GHz))	T&M system	S5L1	03/11/2026	Annual
RF Switching System	FMSR -05B (ATT(10dB) + LNA1(1~18GHz))	T&M system	S5L2	03/11/2026	Annual
RF Switching System	FMSR -05B (ATT(3dB) + LNA1(1~18GHz))	T&M system	S5L3	03/11/2026	Annual
RF Switching System	FMSR -05B (LNA1(1~18GHz))	T&M system	S5L4	03/11/2026	Annual
RF Switching System	FMSR -05B (HPF(7~18GHz) + LNA2(6~18GHz))	T&M system	S5L5	03/11/2026	Annual
RF Switching System	FMSR -05B (Thru(30MHz ~ 18GHz))	T&M system	S5L6	03/11/2026	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
Bluetooth Tester	TC-3000C	TESCOM	3000C000175	03/12/2026	Annual
Spectrum Analyzer	FSW (2 Hz ~ 67 GHz)	Rohde & Schwarz	101736	05/23/2025	Annual
Spectrum Analyzer	FSV40 (9 kHz ~ 40 GHz)	Rohde & Schwarz	101510	09/24/2025	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).

5.2.5 NFC

Radiated Test

Equipment	Modeel	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Controller(Antenna mast)	CO3000	Innco system	CO3000-4p	N/A	N/A
Antenna Position Tower	MA4640/800-XP-EP	Innco system	N/A	N/A	N/A
Turn Table	N/A	Audix	N/A	N/A	N/A
Loop Antenna	FMZB 1513	Schwarzbeck	1513-175	01/06/2027	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-1135	08/19/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02299	01/29/2026	Biennial
Spectrum Analyzer	FSV40	Rohde & Schwarz	100901	02/21/2026	Annual
Signal Analyzer	N9030A	Agilent	MY49431210	12/12/2025	Annual
Power Amplifier	310N	SONOMA INSTRUMENT	186169	02/05/2026	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual

4.2.6 WPT

Radiated Test

Equipment	Modeel	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Controller (Antenna mast & Turn Table)	CO3000	Innco system	CO3000/ 15421/57580623/G	N/A	N/A
Antenna Position Tower	MA4640	Innco system	9320422	04/03/2026	Annual
Turn Table	N/A	Innco system	5930623	N/A	N/A
LISN	ENV216	Rohde & Schwarz	102245	07/17/2025	Annual
EMI Test Receiver	ESR	Rohde & Schwarz	101910	07/02/2025	Annual
Loop Antenna	FMZB 1513	Schwarzbeck	1513-175	01/06/2027	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-1135	08/19/2026	Biennial
Power Amplifier	310N	SONOMA INSTRUMENT	186169	02/05/2026	Annual
Spectrum Analyzer	FSV40 (9 kHz ~ 40 GHz)	Rohde & Schwarz	101510	09/24/2025	Annual

5.2.7 DFS

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Wireless AP	GT-AXE11000	ASUS	M6IAJF201782 (FCC ID : MSQ-RTAXJF00)	N/A	N/A
DFS Measurement System(S/G)	PXI	ADLINK	302581/735	02/05/2026	Annual
DFS Measurement System(S/A)	PXI	ADLINK	303582/113	02/05/2026	Annual
4 Way Power Divider	4456-4	NARDA	01640	04/28/2026	Annual
Step Attenuator(70 dB)	8495B	Agilent	MY41110293	08/01/2025	Annual
Step Attenuator(11 dB)	8494B	HP	2812A19007	08/01/2025	Annual
Signal Analyzer	N9030A	Keysight	MY55410508	08/23/2025	Annual