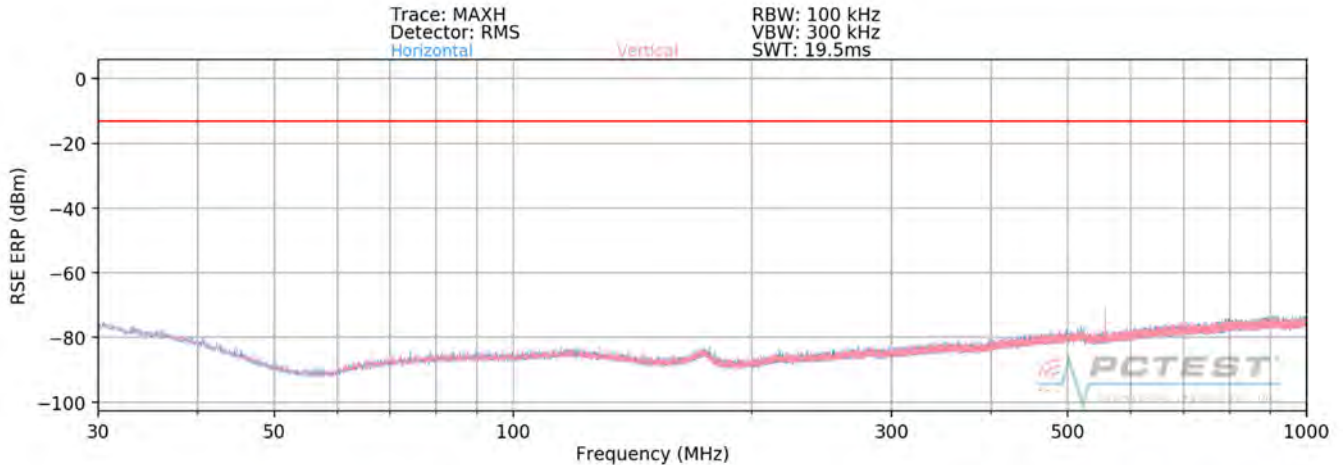
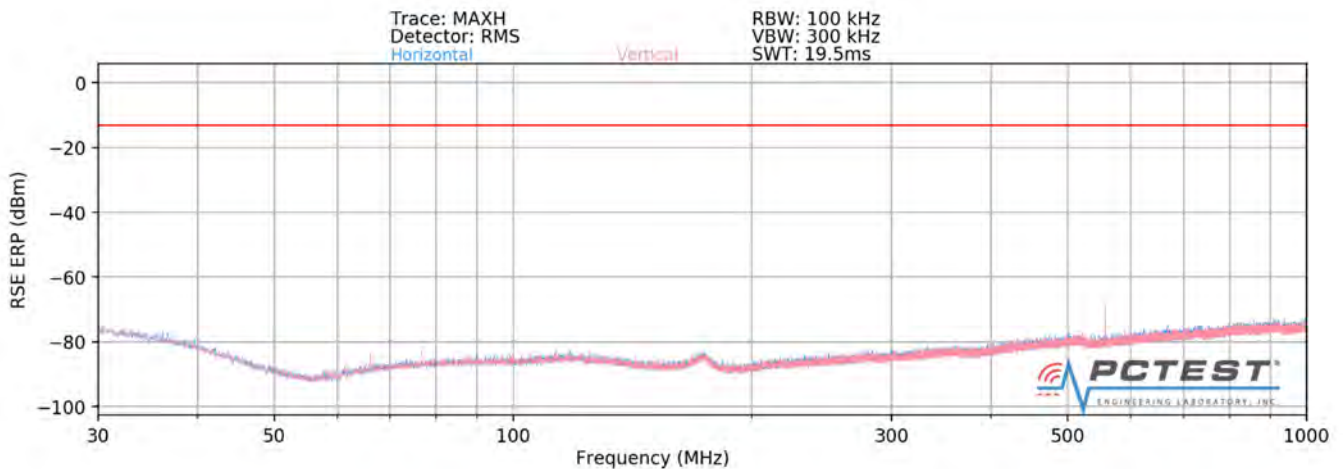


K Patch Radiated Spurious Emissions(n261)

30MHz – 1GHz(n261)



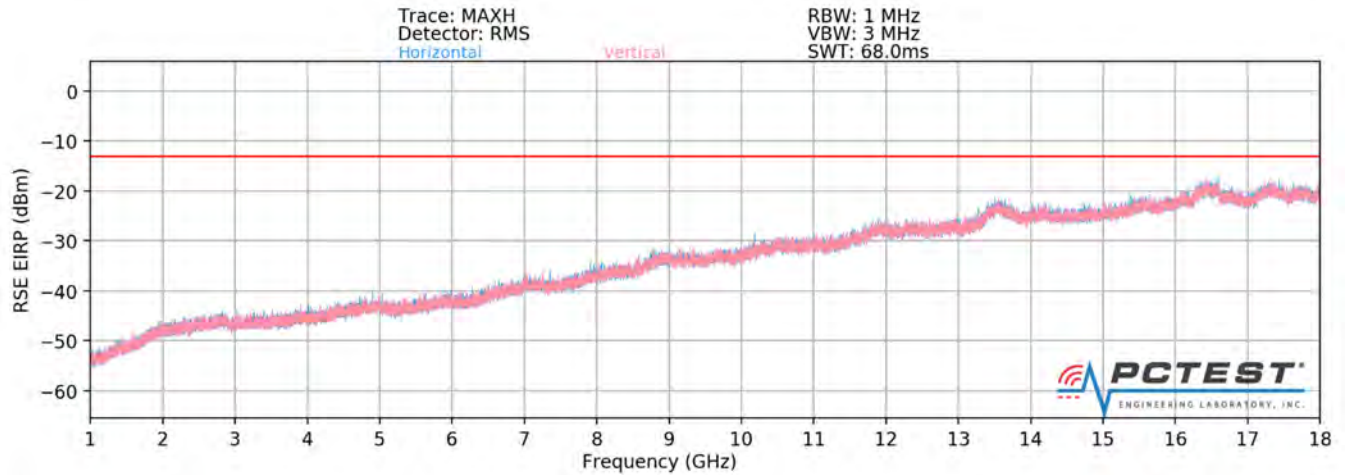
Plot 7-165. K Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel H Beam – n261)



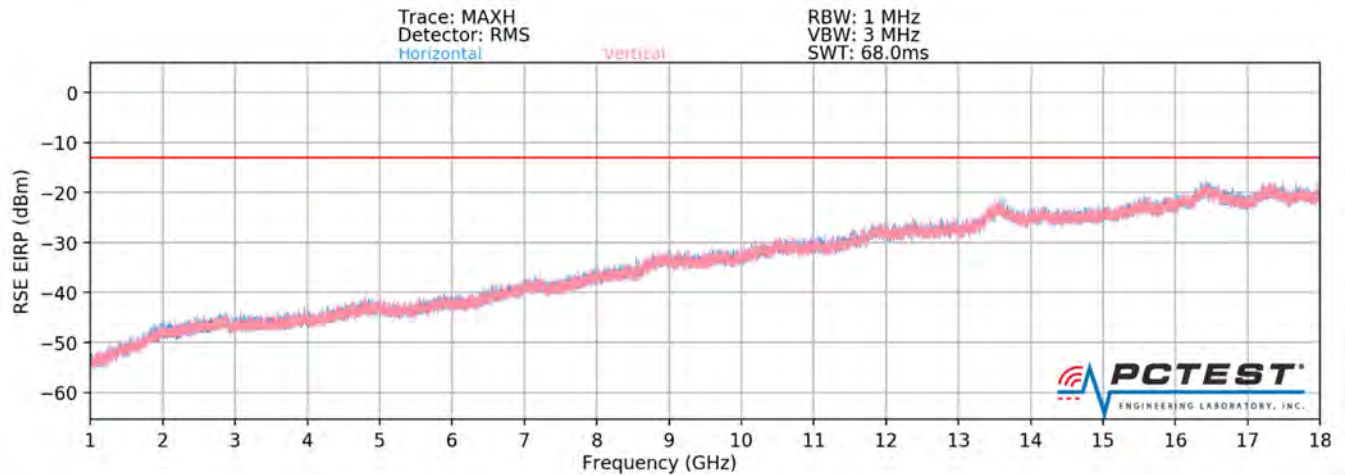
Plot 7-166. K Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel V Beam – n261)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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1 – 18GHz



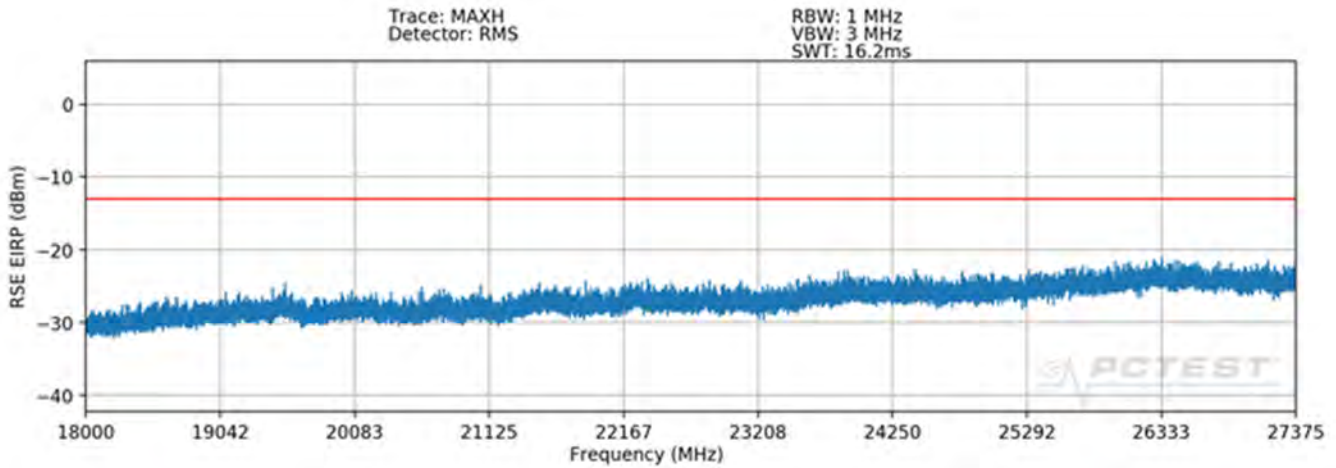
Plot 7-167. K Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel H Beam – n261)



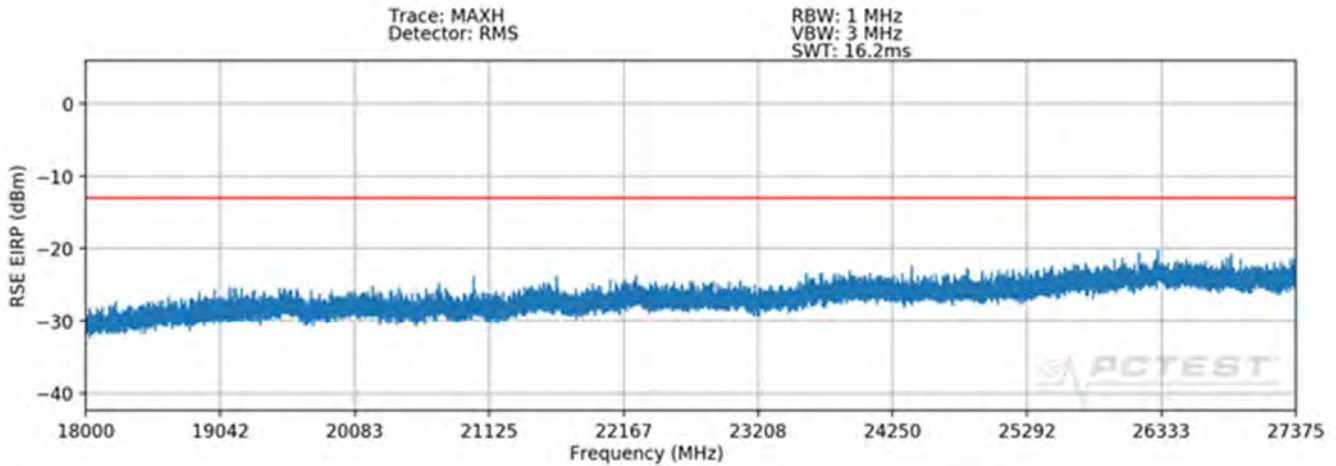
Plot 7-168. K Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel V Beam – n261)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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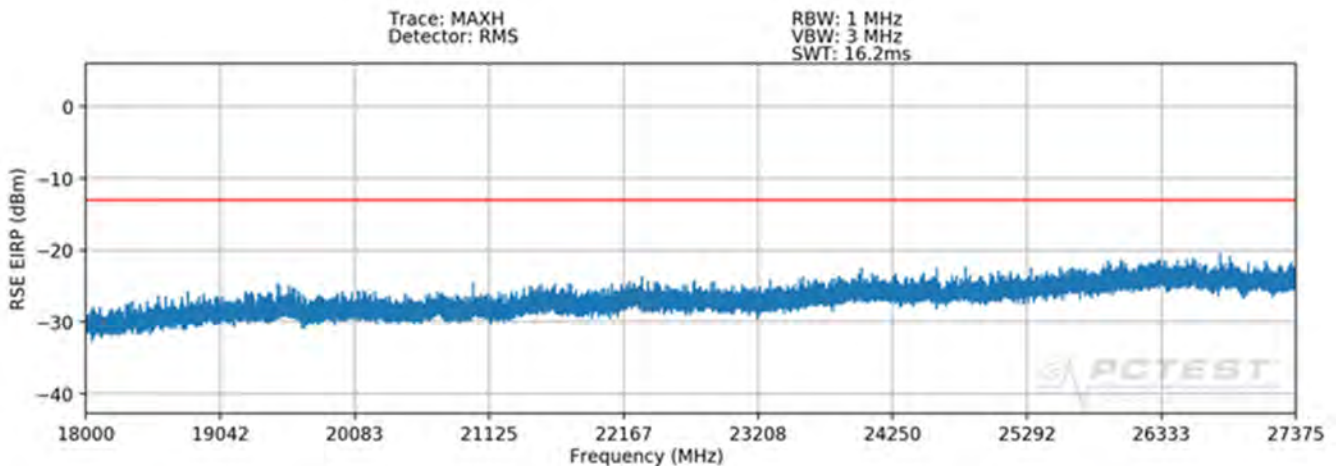
18 – 27.375GHz



Plot 7-169. K Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Low Channel H Beam – n261)

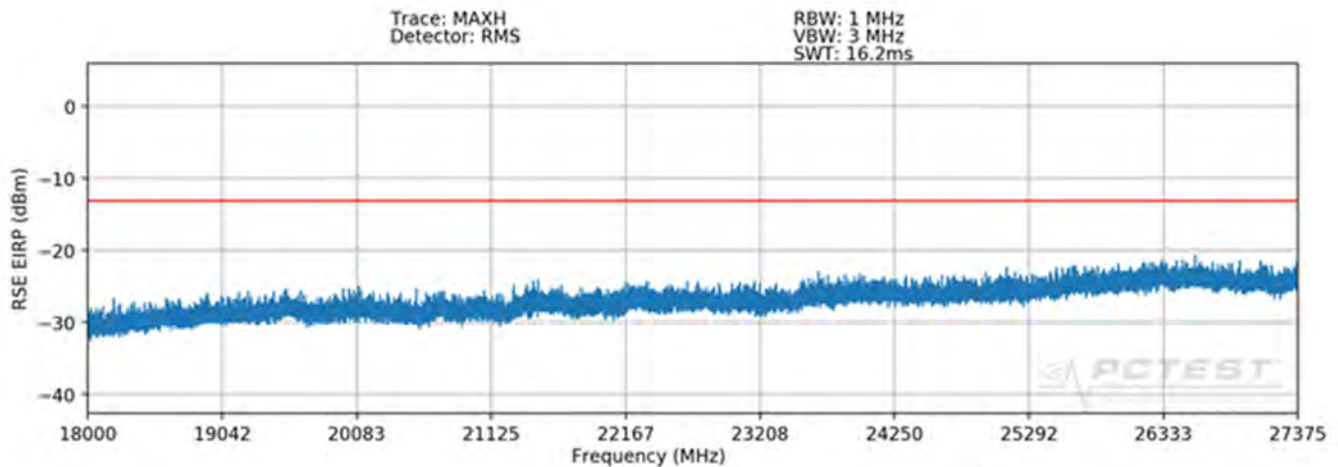


Plot 7-170. K Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Mid Channel H Beam – n261)

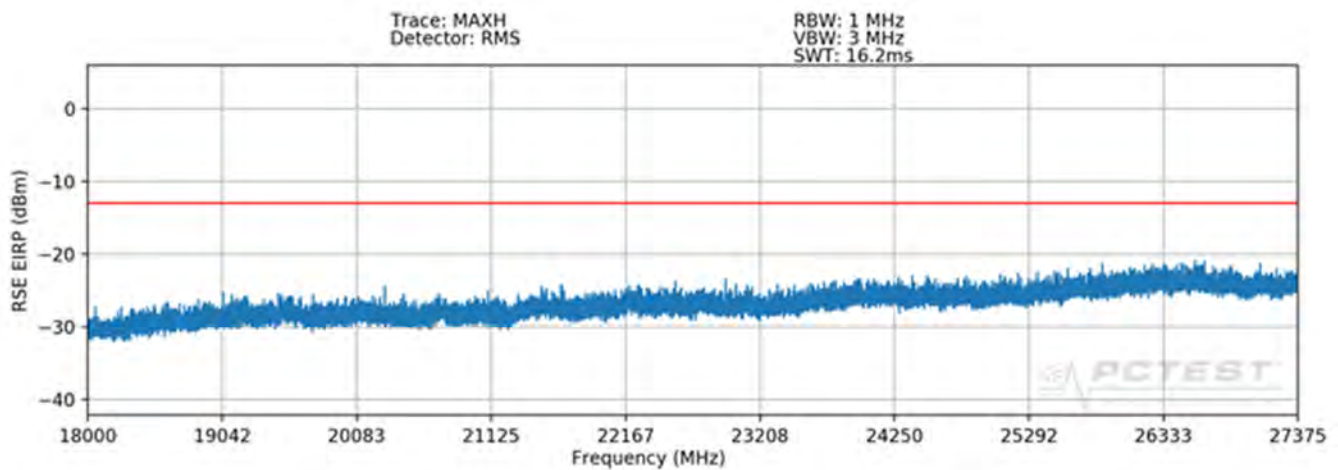


Plot 7-171. K Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK High Channel H Beam – n261)

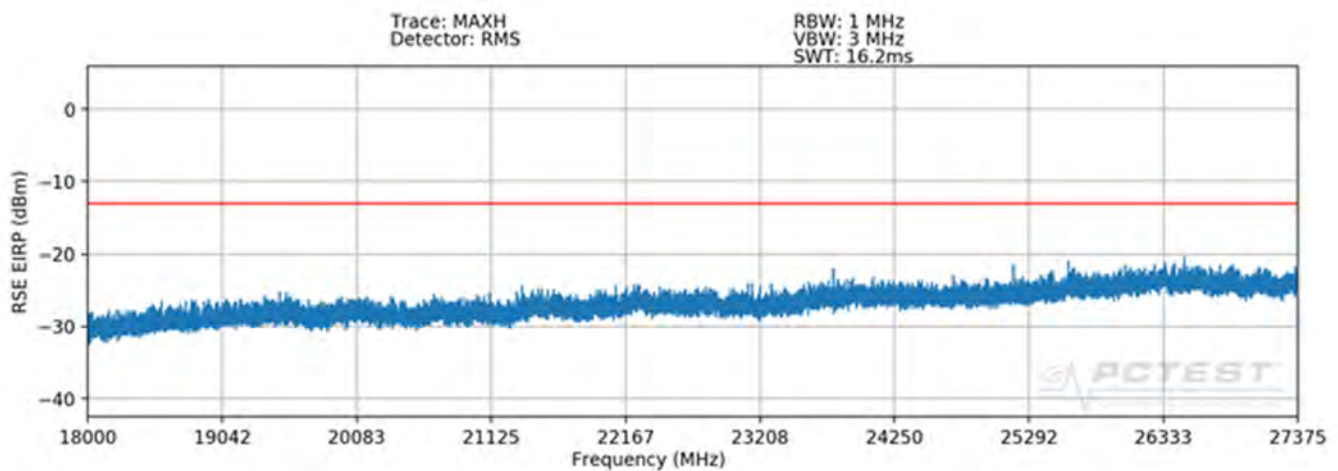
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-172. K Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-173. K Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-174. K Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK High Channel V Beam – n261)

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Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
25674.80	RMS/Avg	Low	50	QPSK	H	H	-	-	-35.98	-13.00	-22.98
25645.80	RMS/Avg	Mid	50	QPSK	H	H	-	-	-36.21	-13.00	-23.21
25693.60	RMS/Avg	High	50	QPSK	H	H	-	-	-36.26	-13.00	-23.26
26266.40	RMS/Avg	Low	50	QPSK	V	V	-	-	-36.45	-13.00	-23.45
26125.30	RMS/Avg	Mid	50	QPSK	V	V	-	-	-36.98	-13.00	-23.98
25675.80	RMS/Avg	High	50	QPSK	V	V	-	-	-36.80	-13.00	-23.80

Table 7-37. K Patch Spurious Emissions Table (18-27.375GHz – n261)

Notes

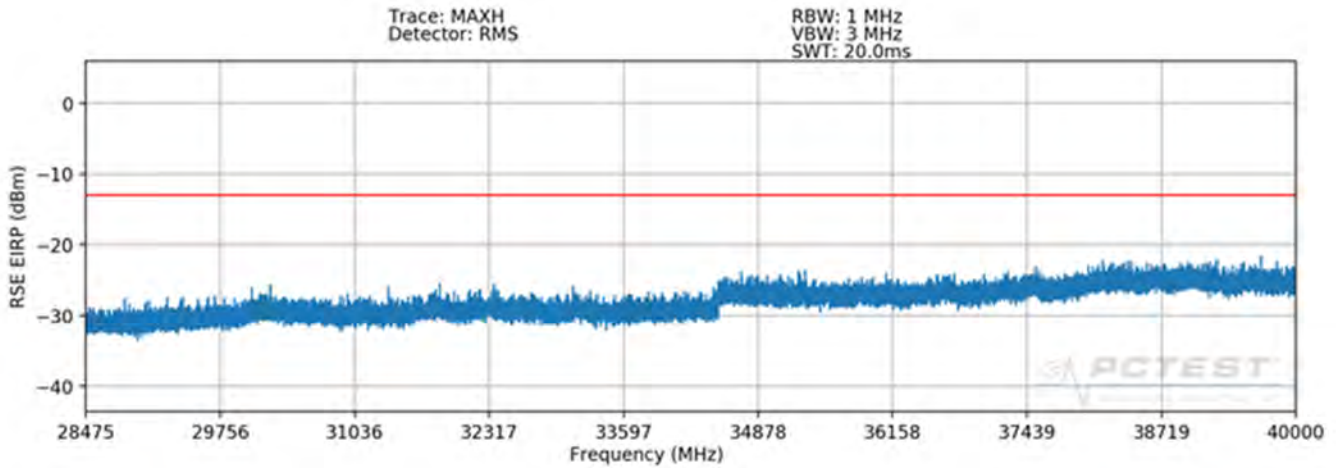
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

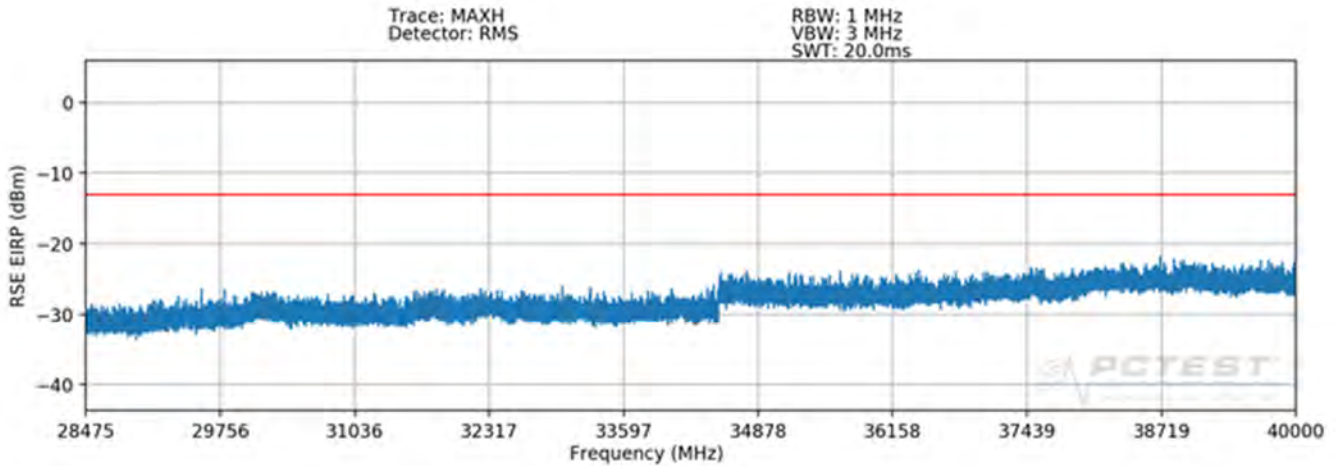
$$(-35.98 \text{ dBm} + -36.45 \text{ dBm}) = (252.35 \text{ nW} + 226.73 \text{ nW}) = (479.07 \text{ nW}) = -33.20 \text{ dBm}$$

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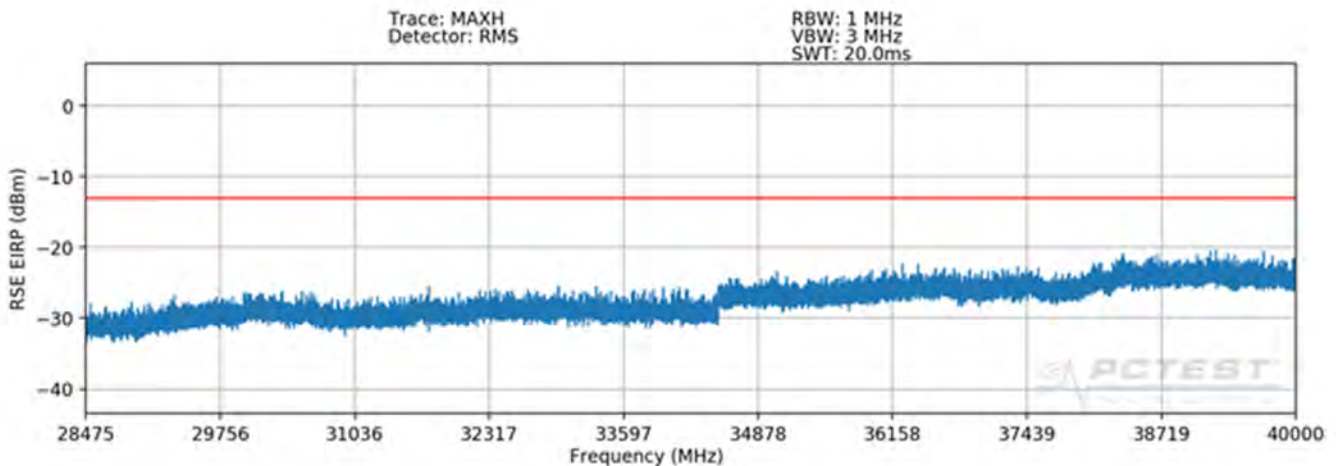
28.475 – 40GHz(n261)



Plot 7-175. K Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Low Channel H Beam – n261)

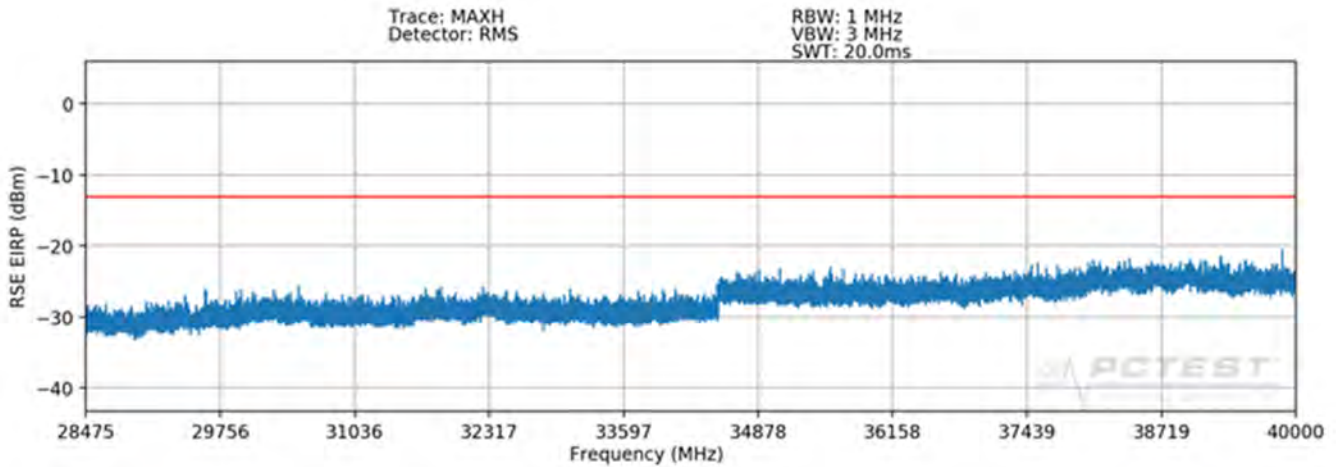


Plot 7-176. K Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Mid Channel H Beam – n261)

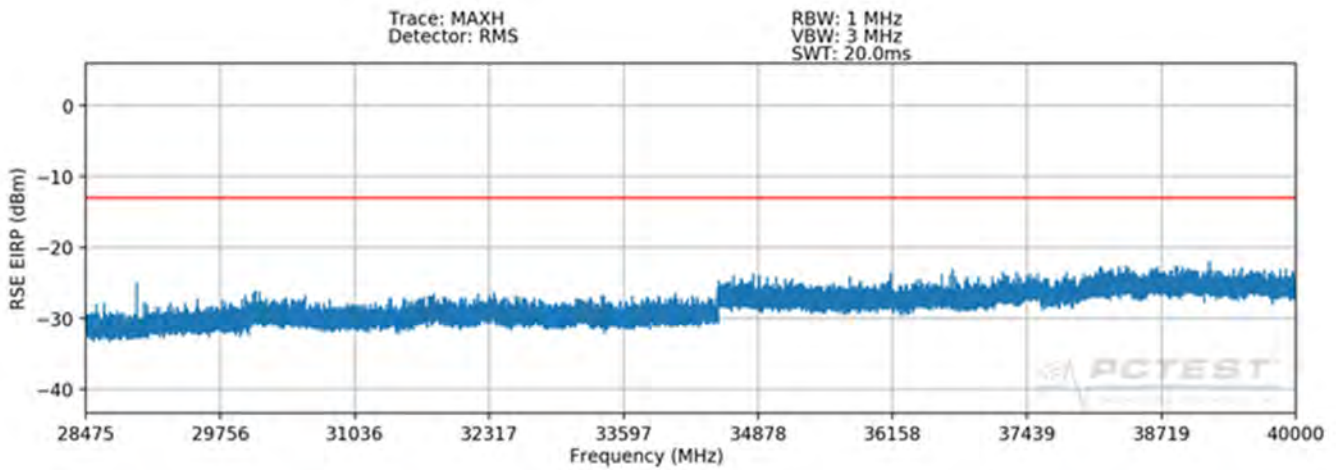


Plot 7-177. K Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK High Channel H Beam – n261)

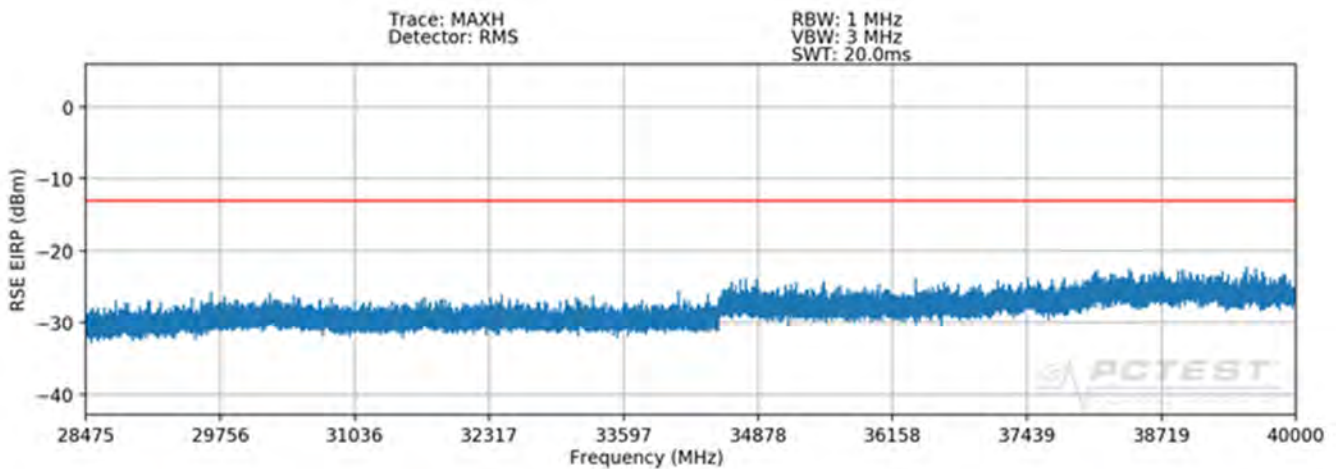
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-178. K Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-179. K Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-180. K Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK High Channel V Beam – n261)

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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
38945.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-29.56	-13.00	-16.56
38979.60	RMS/Avg	Mid	50	QPSK	H	H	-	-	-29.51	-13.00	-16.51
39053.00	RMS/Avg	High	50	QPSK	H	H	-	-	-29.60	-13.00	-16.60
28761.50	RMS/Avg	Low	50	QPSK	V	V	340	3	-28.36	-13.00	-15.36
28959.50	RMS/Avg	Mid	50	QPSK	V	V	33	357	-28.20	-13.00	-15.20
38928.20	RMS/Avg	High	50	QPSK	V	V	-	-	-30.92	-13.00	-17.92

Table 7-38. K Patch Spurious Emissions Table (28.475-40 GHz – n261)

Notes

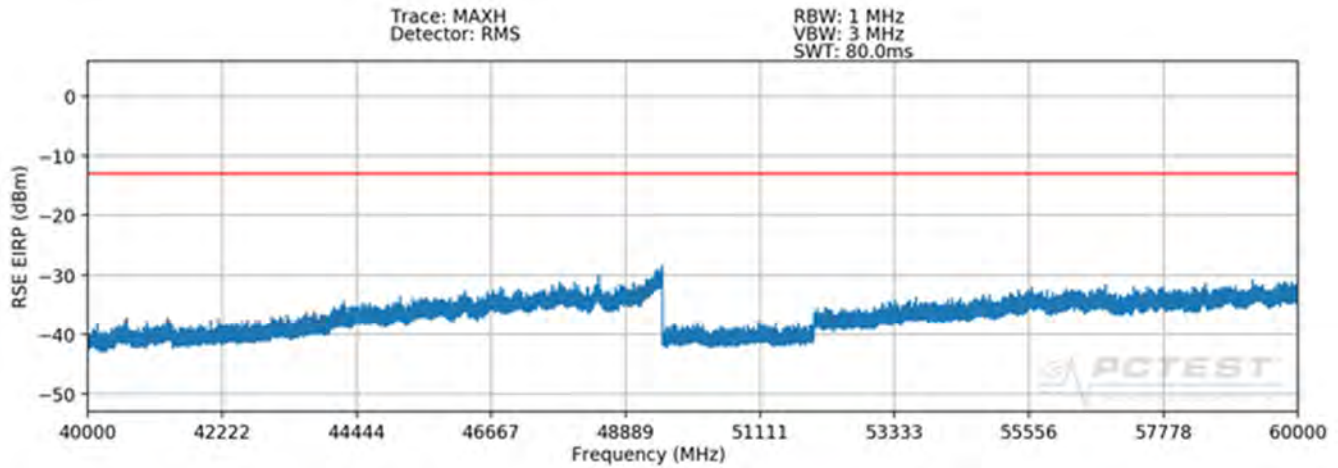
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

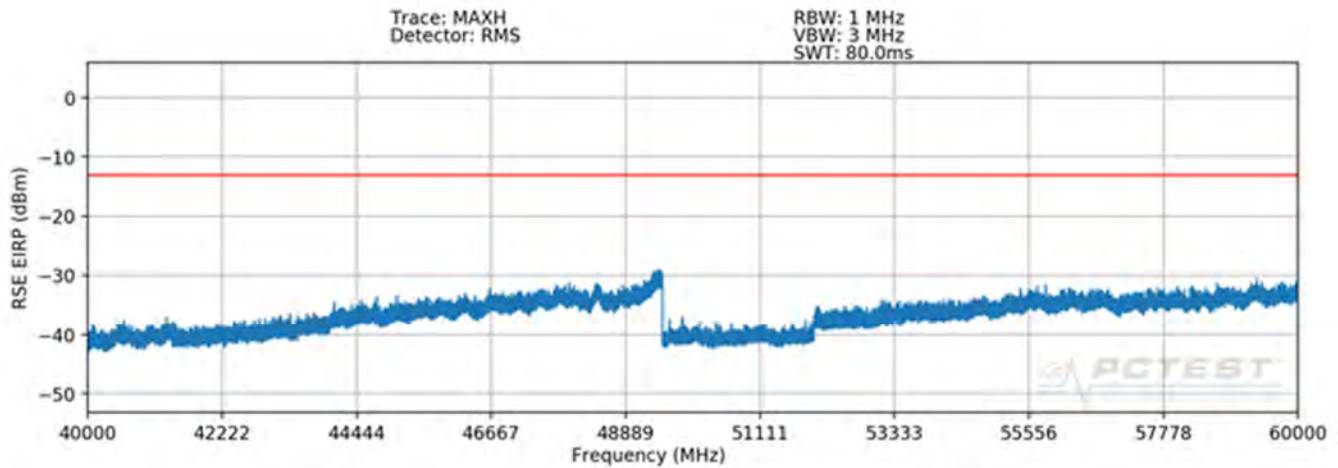
$$(-29.51 \text{ dBm} + -28.20 \text{ dBm}) = (1120.73 \text{ nW} + 1514.61 \text{ nW}) = (2635.34 \text{ nW}) = -25.79 \text{ dBm}$$

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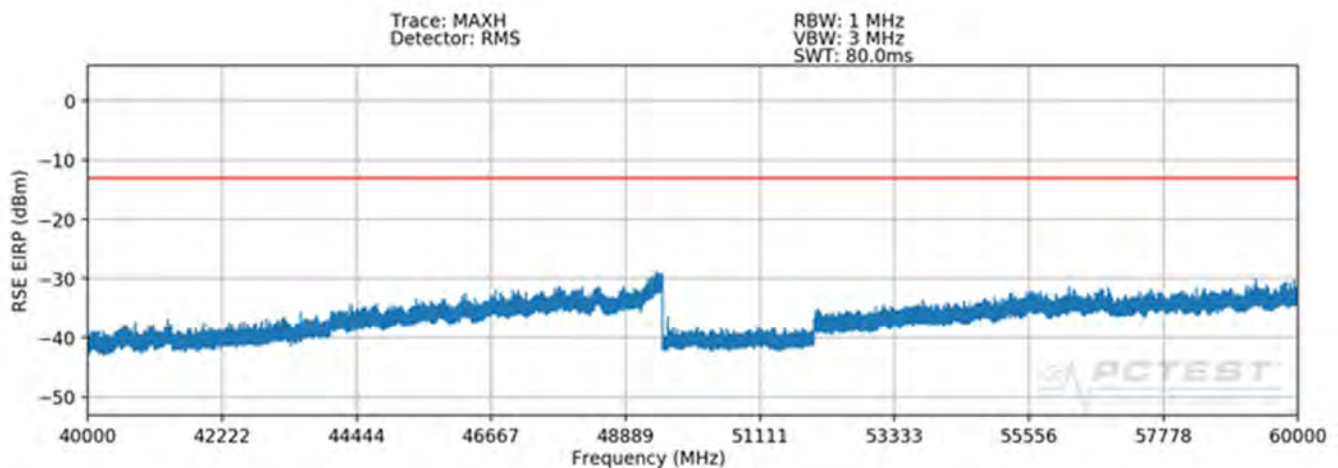
40 – 60GHz(n261)



Plot 7-181. K Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Channel H Beam – n261)

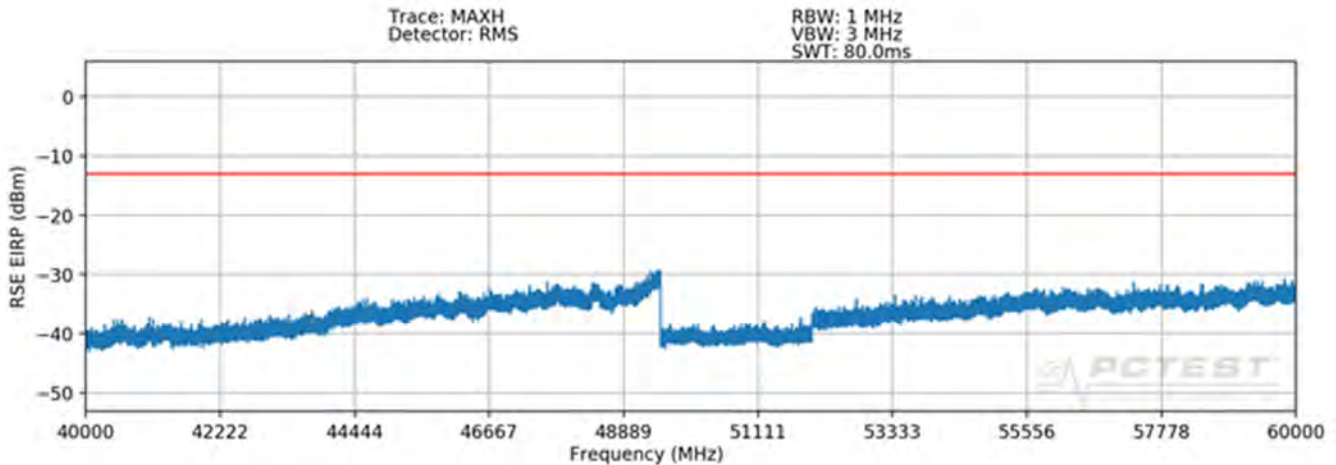


Plot 7-182. K Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Channel H Beam – n261)

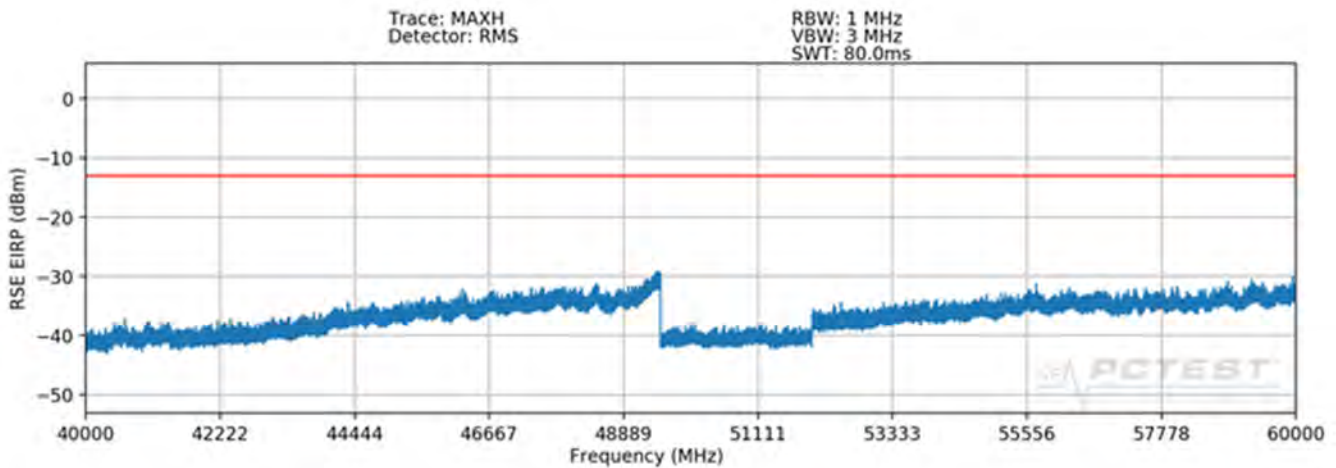


Plot 7-183. K Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK High Channel H Beam – n261)

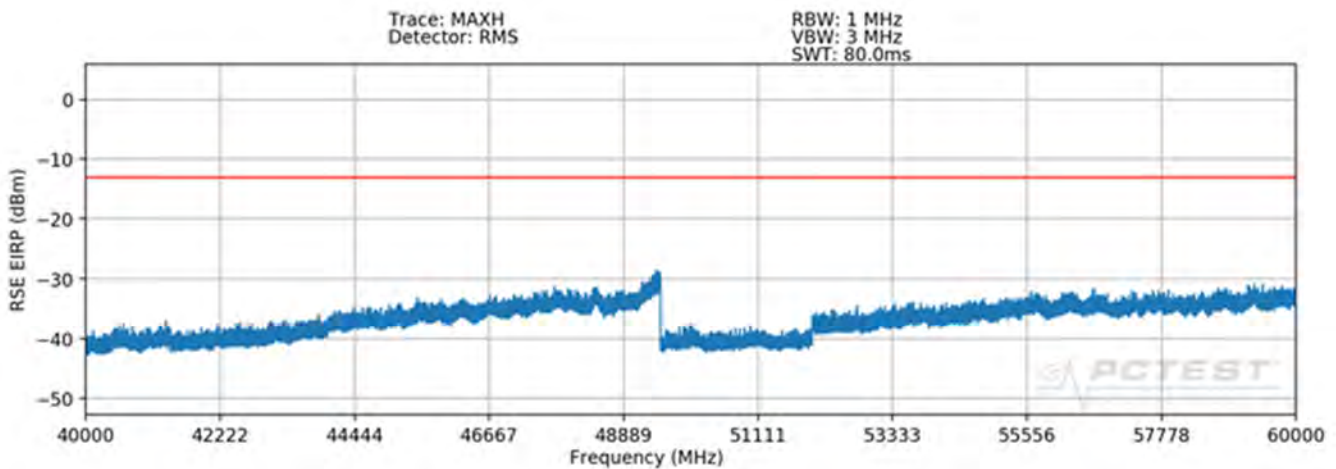
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-184. K Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-185. K Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-186. K Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK High Channel V Beam – n261)

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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
49492.75	RMS/Avg	Low	50	QPSK	H	H	-	-	-37.72	-13.00	-24.72
49498.75	RMS/Avg	Mid	50	QPSK	H	H	-	-	-37.40	-13.00	-24.40
49498.75	RMS/Avg	High	50	QPSK	H	H	-	-	-37.49	-13.00	-24.49
49498.95	RMS/Avg	Low	50	QPSK	V	H	-	-	-37.50	-13.00	-24.50
49493.75	RMS/Avg	Mid	50	QPSK	V	H	-	-	-37.57	-13.00	-24.57
49497.95	RMS/Avg	High	50	QPSK	V	H	-	-	-37.70	-13.00	-24.70

Table 7-39. K Patch Spurious Emissions Table (40 - 60GHz – n261)

Notes

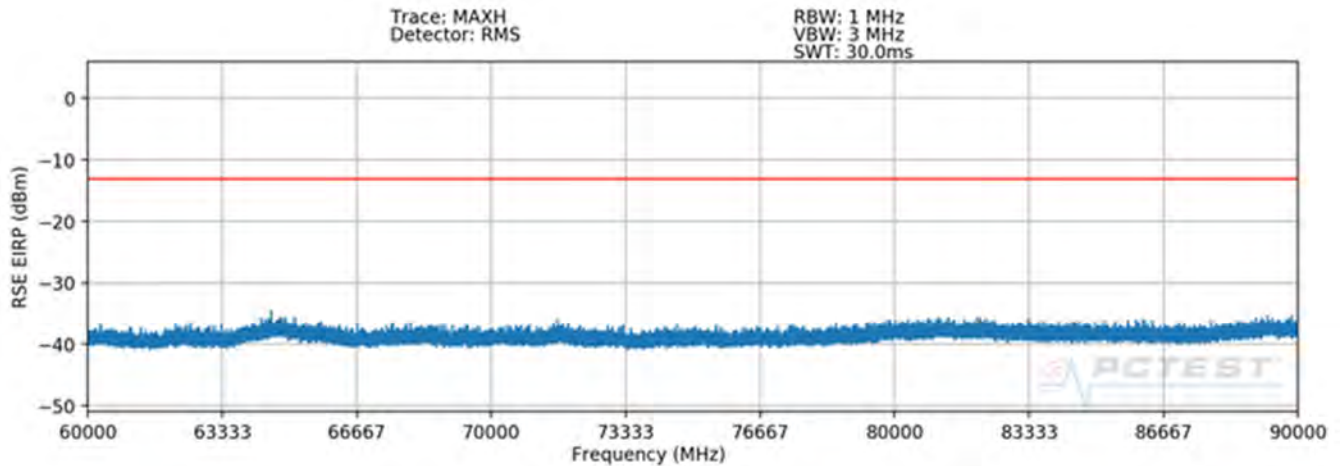
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

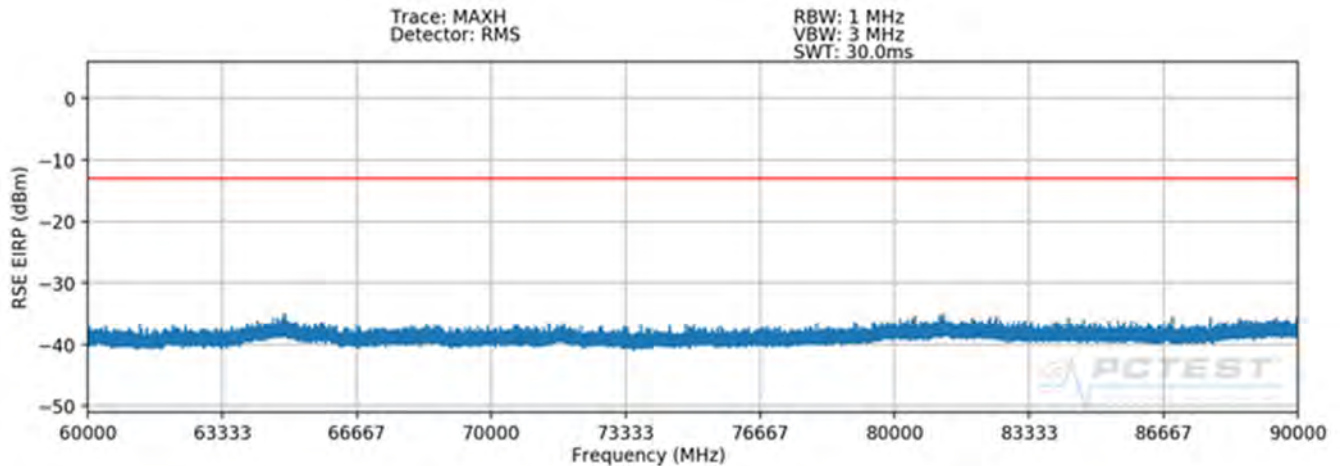
$$(-37.40 \text{ dBm} + -37.57 \text{ dBm}) = (181.97 \text{ nW} + 174.98 \text{ nW}) = (356.95 \text{ nW}) = -34.47 \text{ dBm}$$

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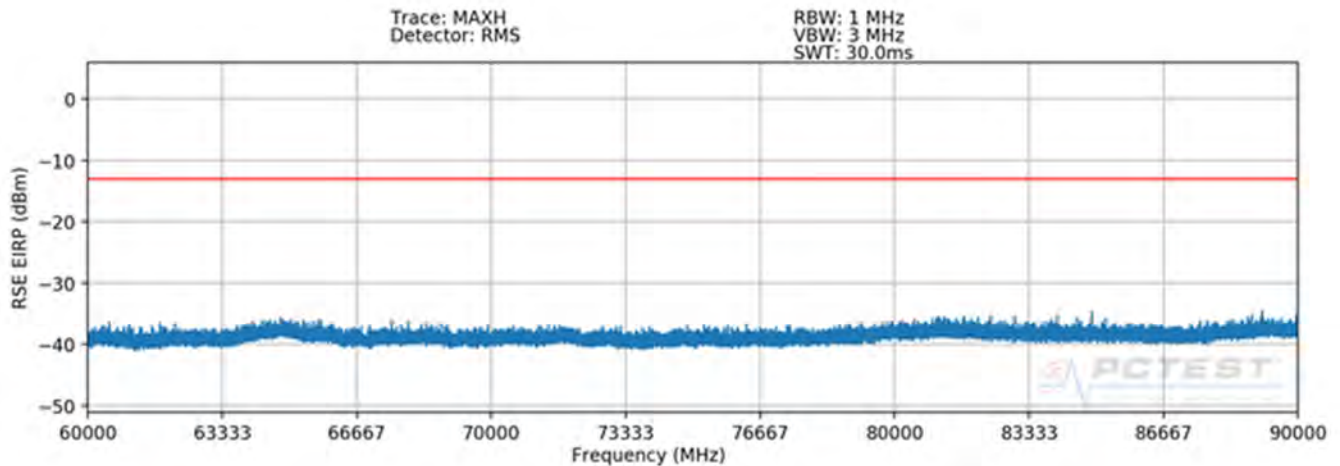
60 – 90GHz(n261)



Plot 7-187. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel H Beam – n261)

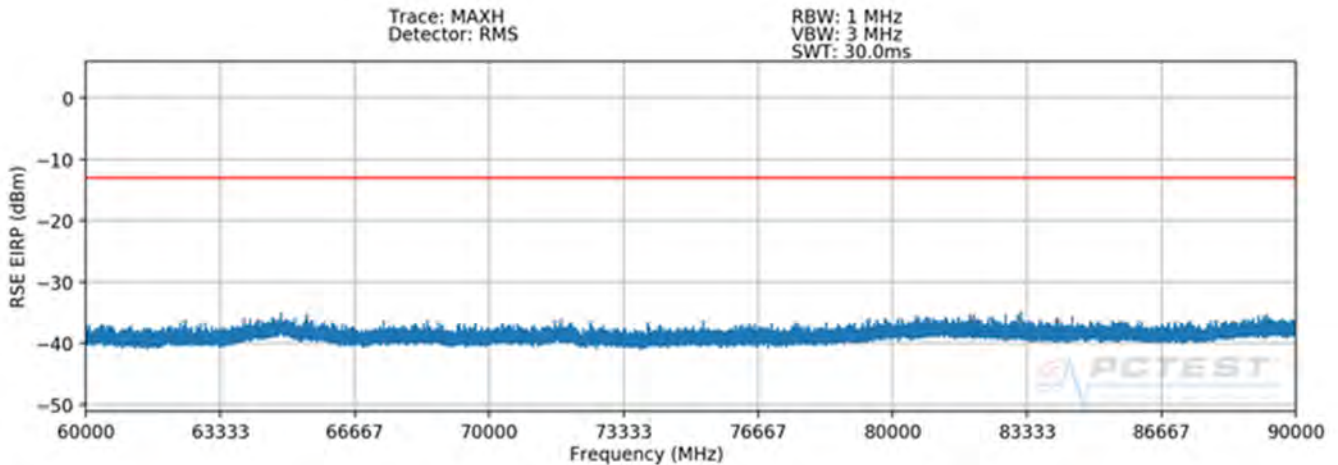


Plot 7-188. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel H Beam – n261)

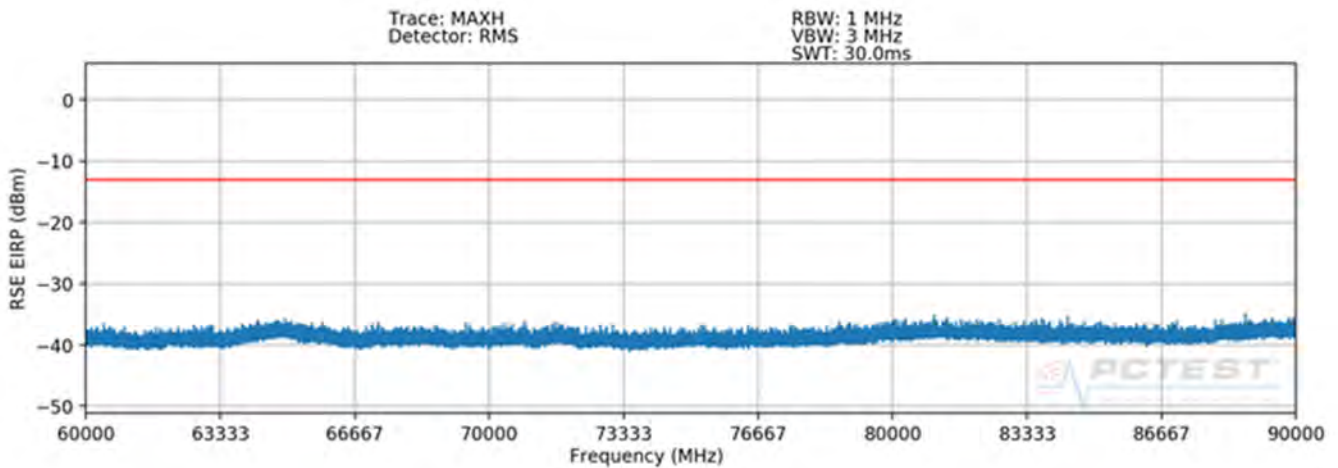


Plot 7-189. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel H Beam – n261)

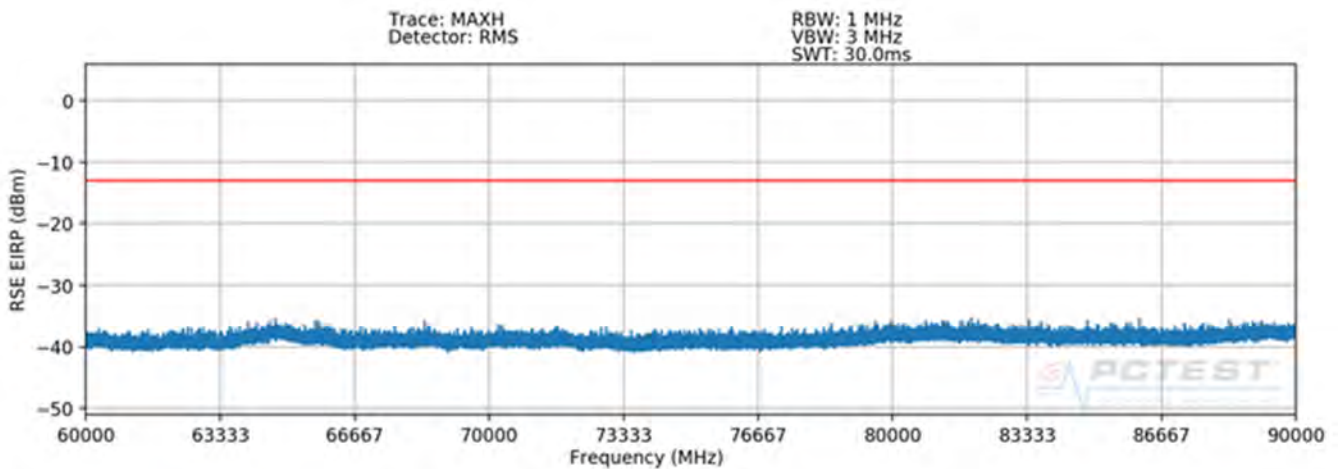
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-190. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-191. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-192. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel V Beam – n261)

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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
82539.00	RMS/Avg	Low	50	QPSK	H	H	105	306	-41.06	-13.00	-28.06
83701.50	RMS/Avg	Mid	50	QPSK	H	H	102	311	-42.57	-13.00	-29.57
85538.00	RMS/Avg	High	50	QPSK	H	H	105	304	-43.81	-13.00	-30.81
82539.50	RMS/Avg	Low	50	QPSK	V	V	355	355	-41.07	-13.00	-28.07
84345.00	RMS/Avg	Mid	50	QPSK	V	V	360	353	-40.18	-13.00	-27.18
84893.50	RMS/Avg	High	50	QPSK	V	V	359	355	-41.98	-13.00	-28.98

Table 7-40. K Patch Spurious Emissions Table (60-90GHz – n261)

Notes

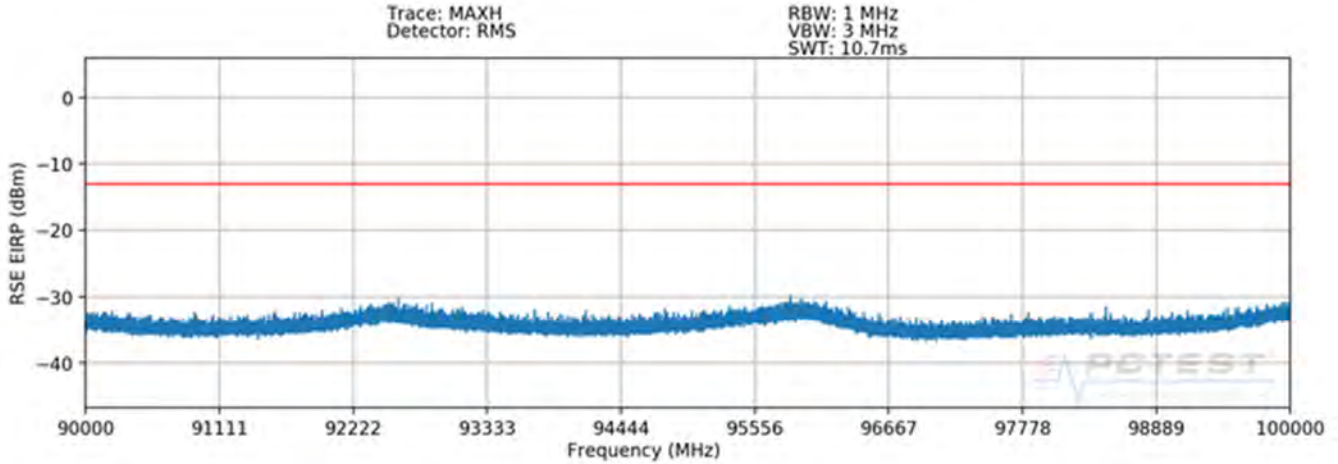
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

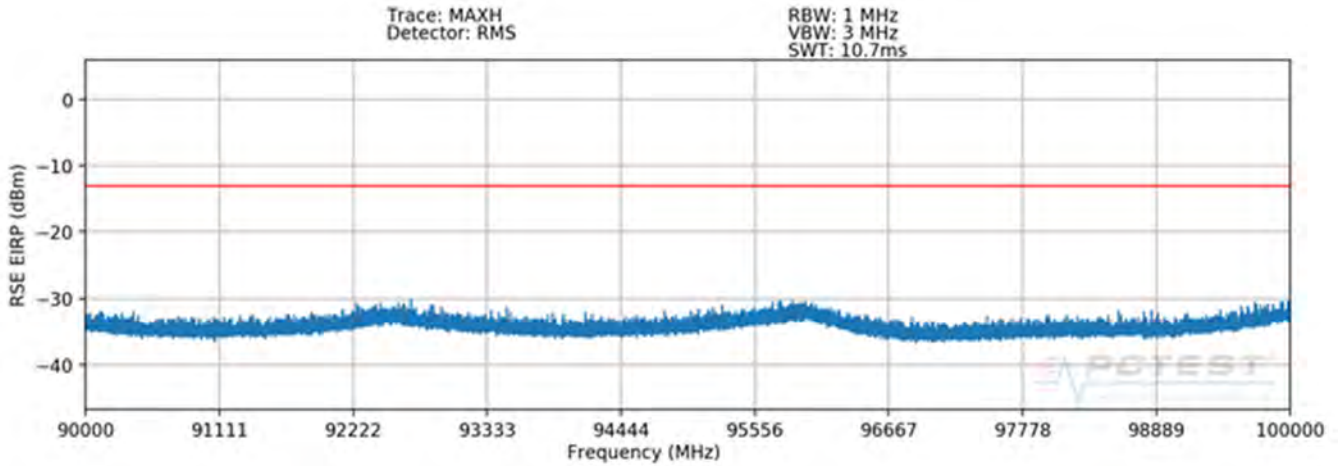
$$(-41.06 \text{ dBm} + -41.07 \text{ dBm}) = (78.36 \text{ nW} + 78.11 \text{ nW}) = (156.47 \text{ nW}) = -38.06 \text{ dBm}$$

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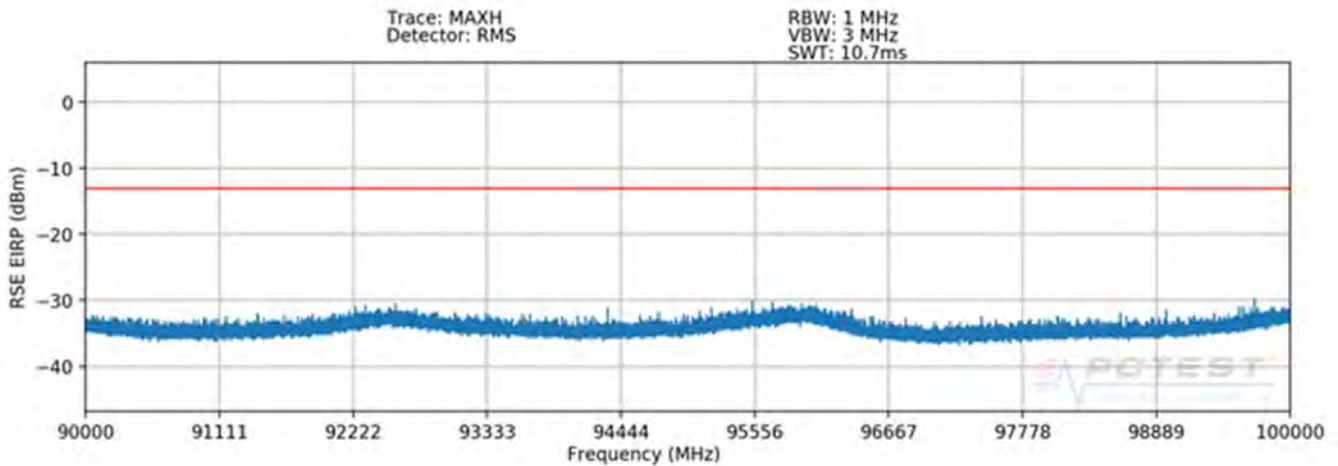
90 – 100GHz(n261)



Plot 7-193. K Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Low Channel H Beam – n261)

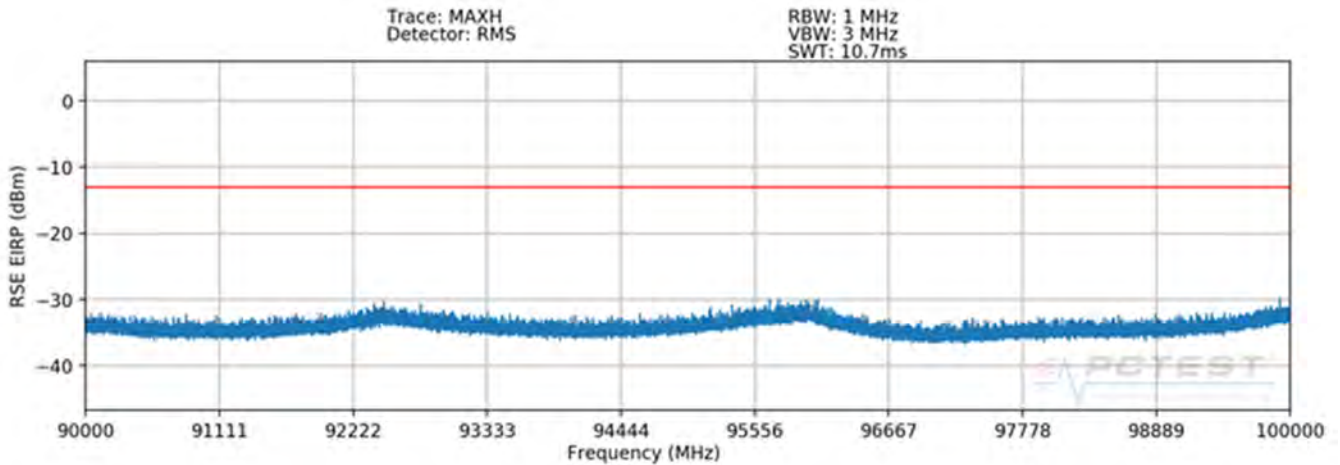


Plot 7-194. K Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Mid Channel H Beam – n261)

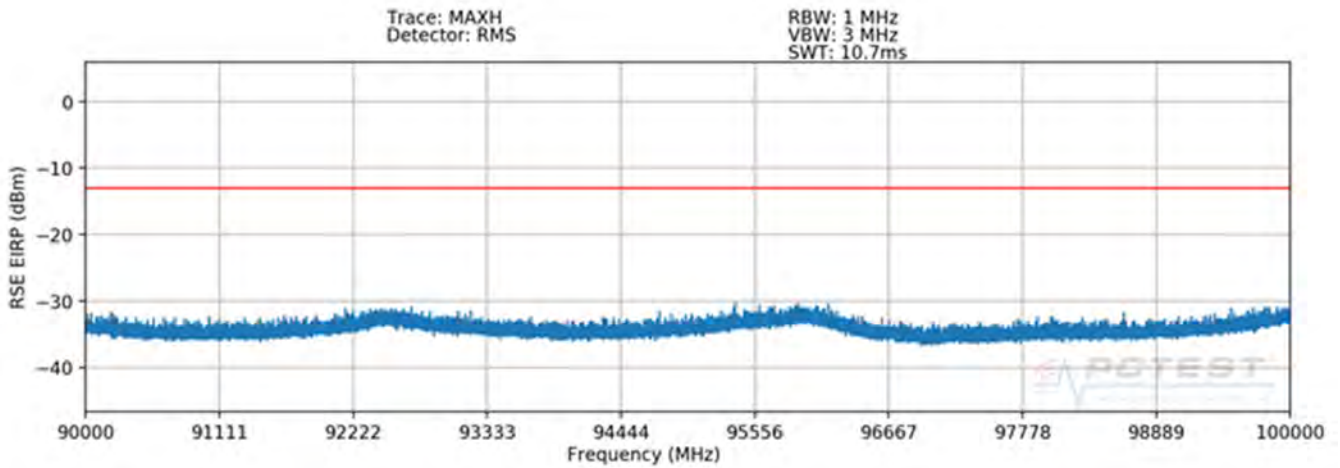


Plot 7-195. K Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK High Channel H Beam – n261)

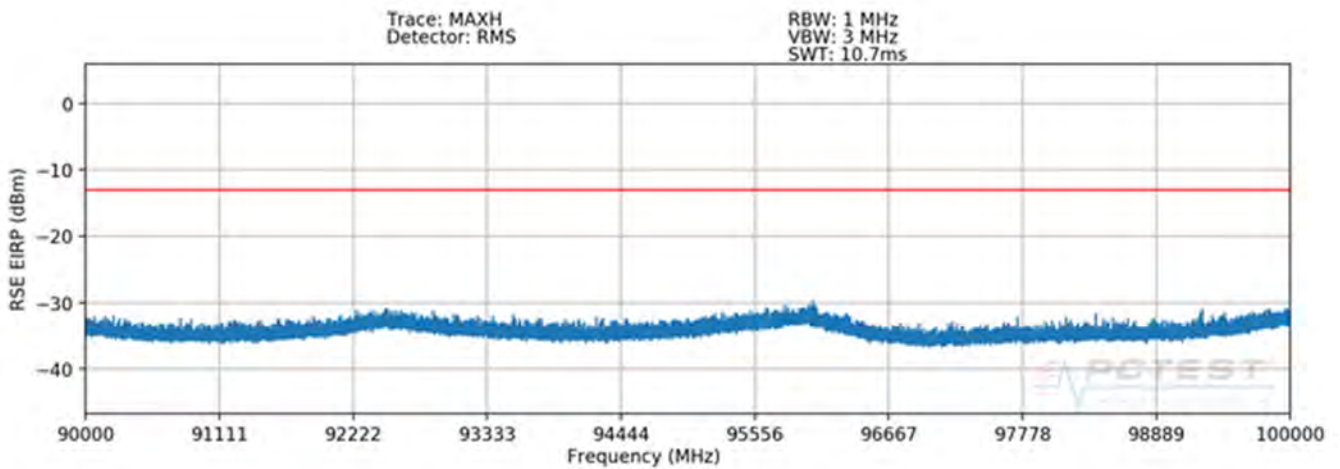
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-196. K Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-197. K Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-198. K Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK High Channel V Beam – n261)

FCC ID: A3LSMN976V	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
96019.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-39.73	-13.00	-26.73
96000.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-39.61	-13.00	-26.61
95989.00	RMS/Avg	High	50	QPSK	H	H	-	-	-40.11	-13.00	-27.11
95915.00	RMS/Avg	Low	50	QPSK	V	V	-	-	-39.82	-13.00	-26.82
95960.00	RMS/Avg	Mid	50	QPSK	V	V	-	-	-39.89	-13.00	-26.89
95843.50	RMS/Avg	High	50	QPSK	V	V	-	-	-39.89	-13.00	-26.89

Table 7-41. K Patch Spurious Emissions Table (90-100GHz – n261)

Notes

1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

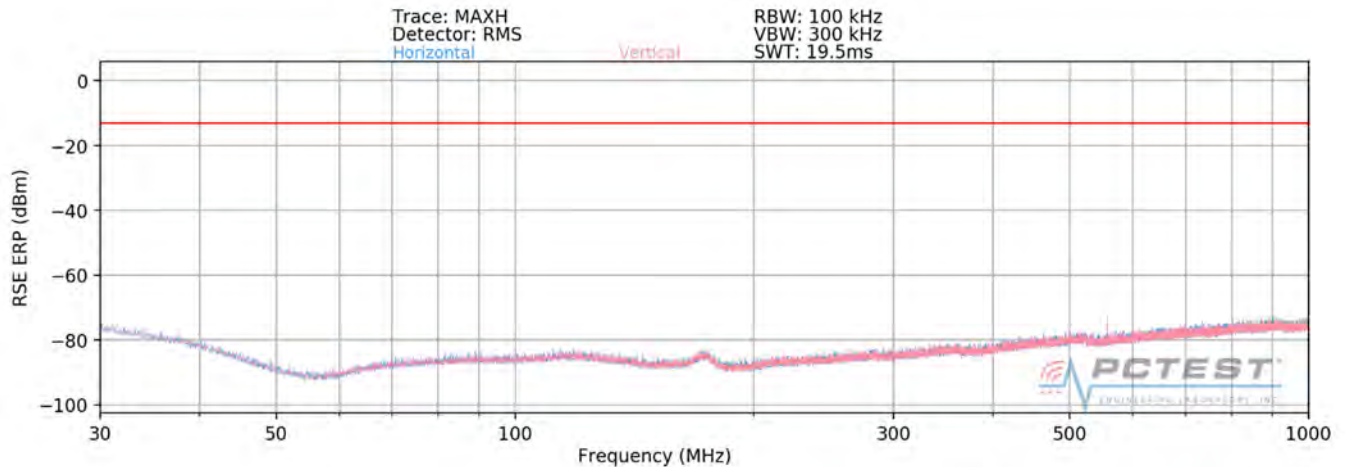
$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

$$(-39.61 \text{ dBm} + -39.89 \text{ dBm}) = (109.32 \text{ nW} + 102.66 \text{ nW}) = (211.98 \text{ nW}) = -36.74 \text{ dBm}$$

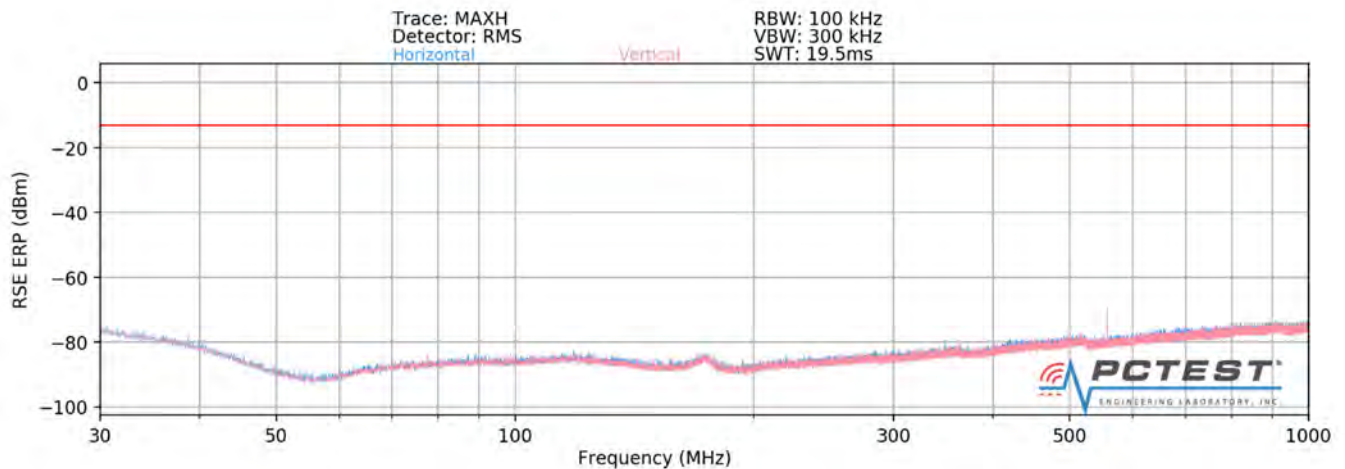
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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L Patch Radiated Spurious Emissions(n261)

30MHz – 1GHz(n261)



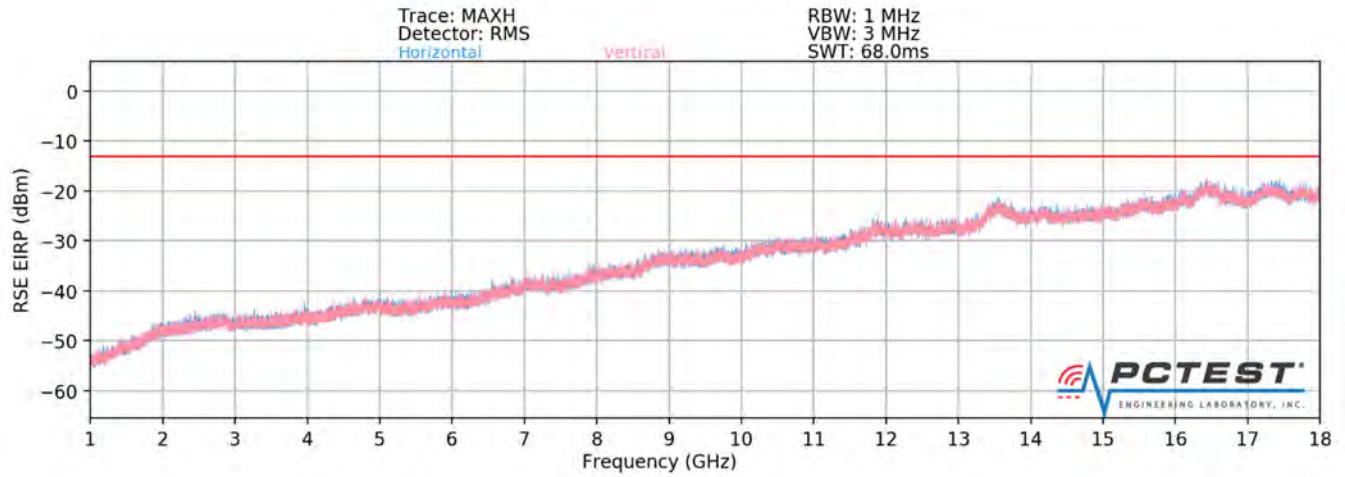
Plot 7-199. L Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel H Beam – n261)



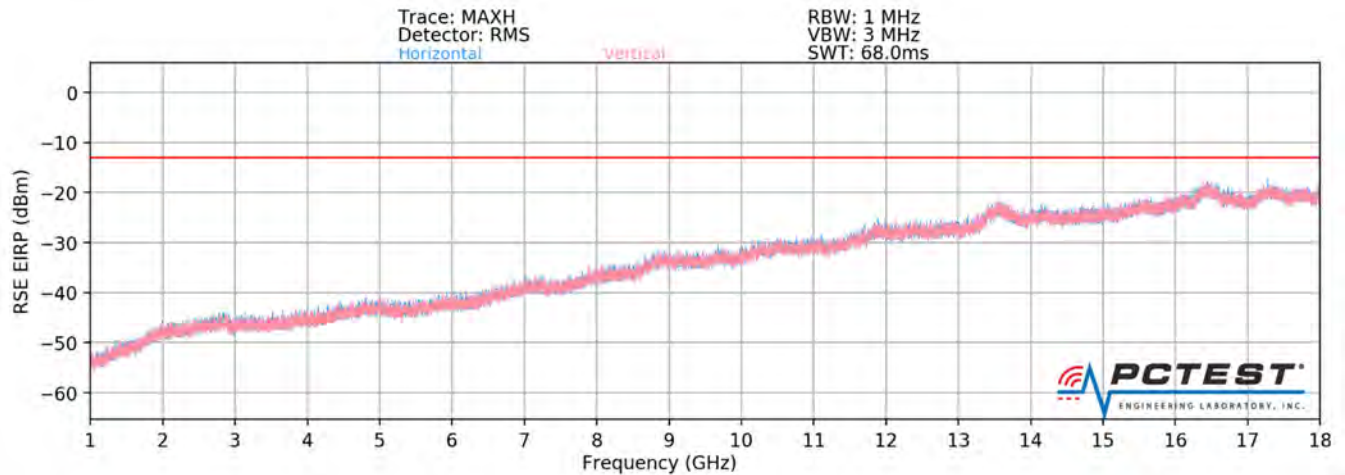
Plot 7-200. L Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel V Beam – n261)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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1 – 18GHz



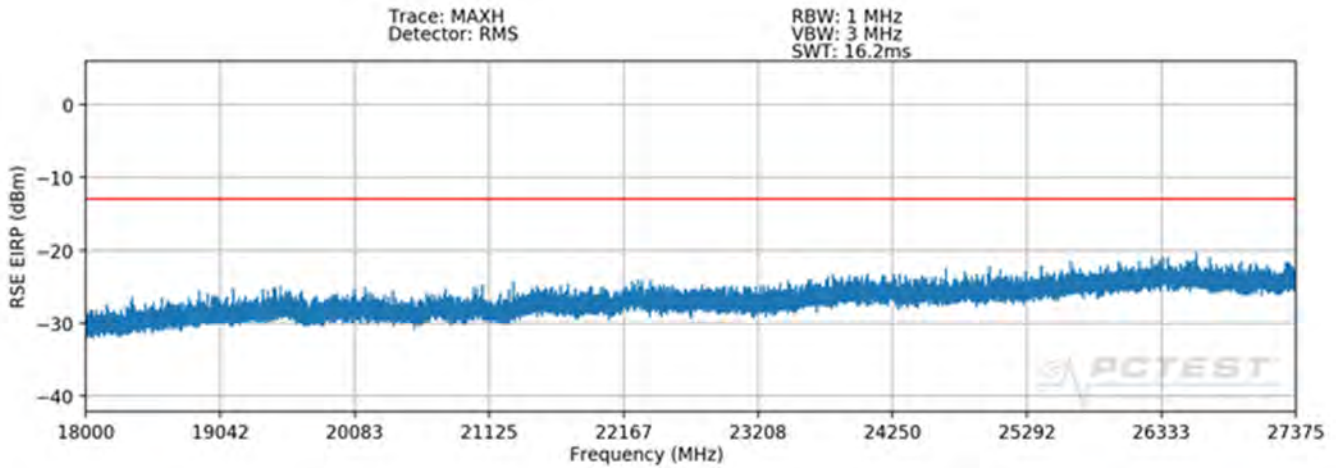
Plot 7-201. L Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel H Beam – n261)



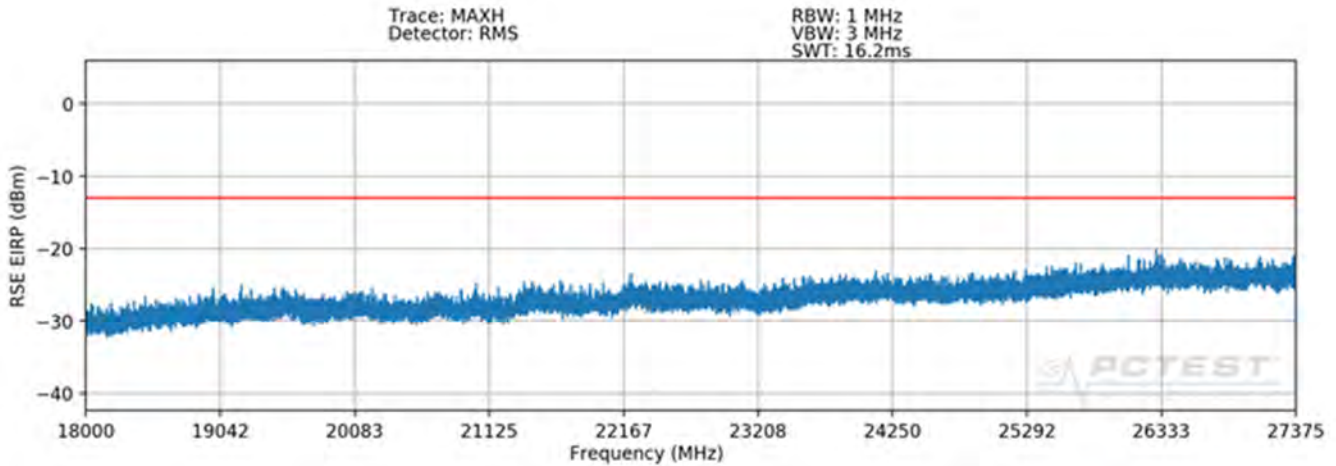
Plot 7-202. L Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel V Beam – n261)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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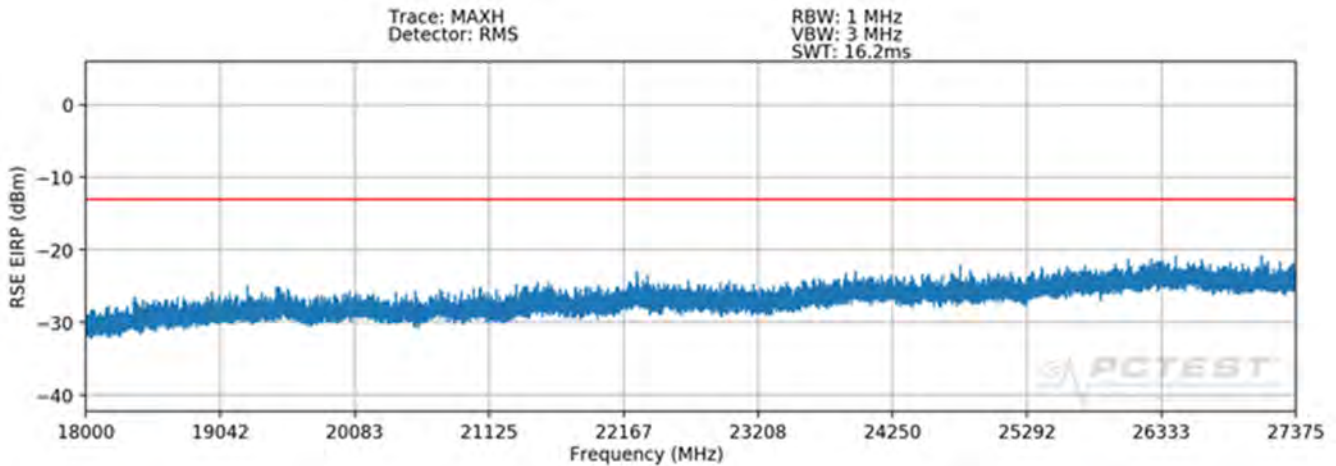
18 – 27.375GHz



Plot 7-203. L Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Low Channel H Beam – n261)

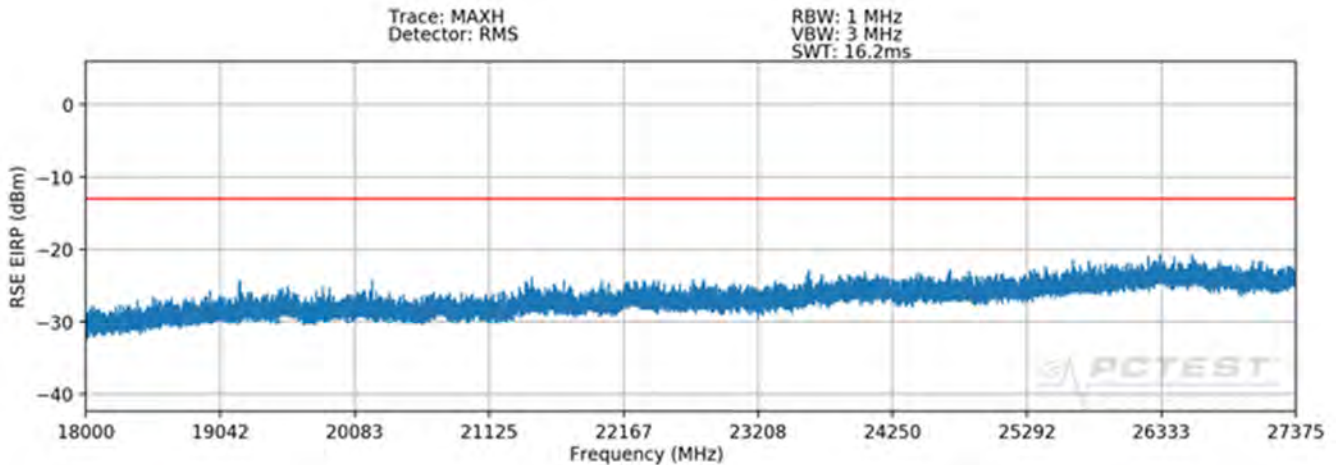


Plot 7-204. L Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Mid Channel H Beam – n261)

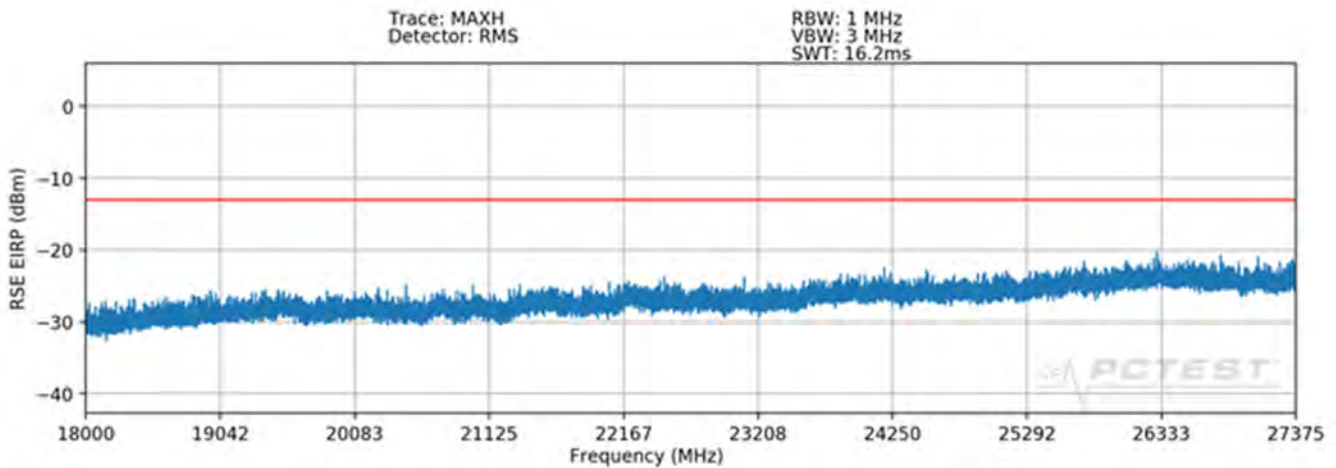


Plot 7-205. L Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK High Channel H Beam – n261)

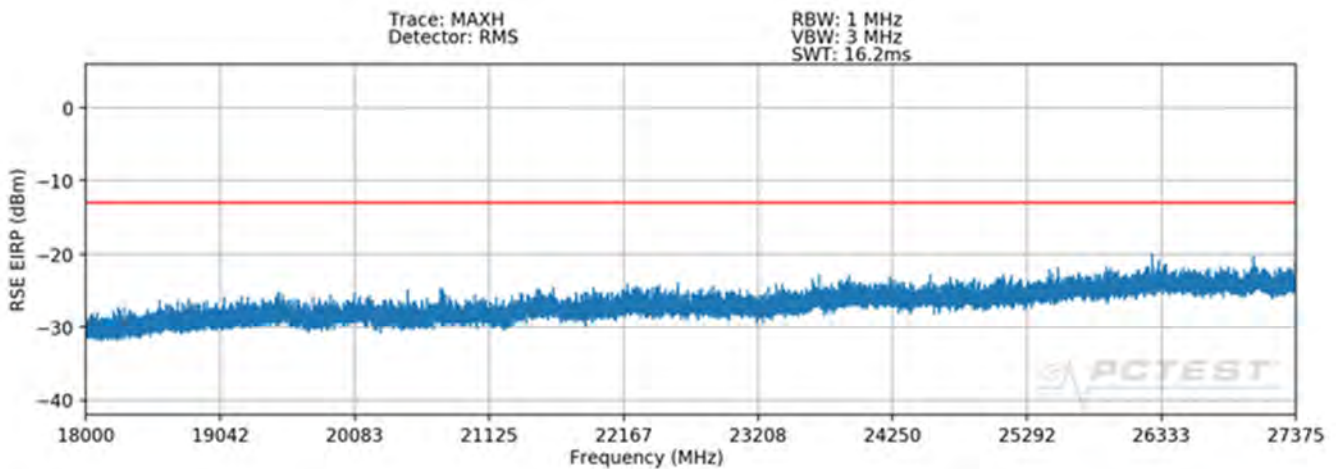
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-206. L Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-207. L Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-208. L Patch Radiated Spurious Plot 18-27.375 GHz (1CC QPSK High Channel V Beam – n261)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 138 of 371

Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
26961.60	RMS/Avg	Low	50	QPSK	H	H	235	334	-35.65	-13.00	-22.65
27343.10	RMS/Avg	Mid	50	QPSK	H	H	233	314	-35.06	-13.00	-22.06
25601.60	RMS/Avg	High	50	QPSK	H	H	311	324	-36.13	-13.00	-23.13
25663.10	RMS/Avg	Low	50	QPSK	V	V	280	353	-35.94	-13.00	-22.94
26765.20	RMS/Avg	Mid	50	QPSK	V	V	277	350	-36.77	-13.00	-23.77
27190.80	RMS/Avg	High	50	QPSK	V	V	277	2	-35.15	-13.00	-22.15

Table 7-42. L Patch Spurious Emissions Table (18-27.375GHz – n261)

Notes

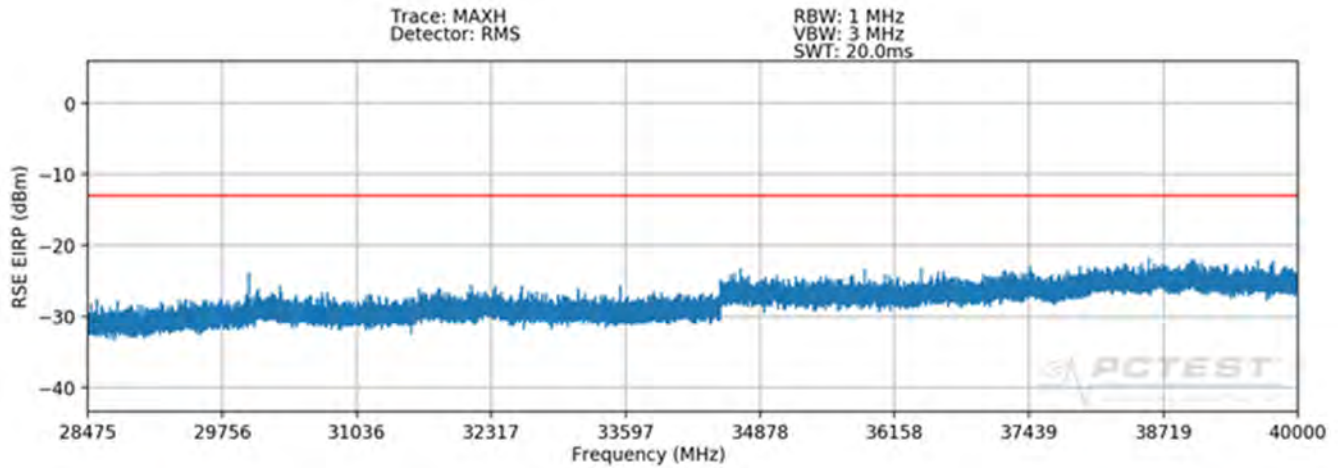
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

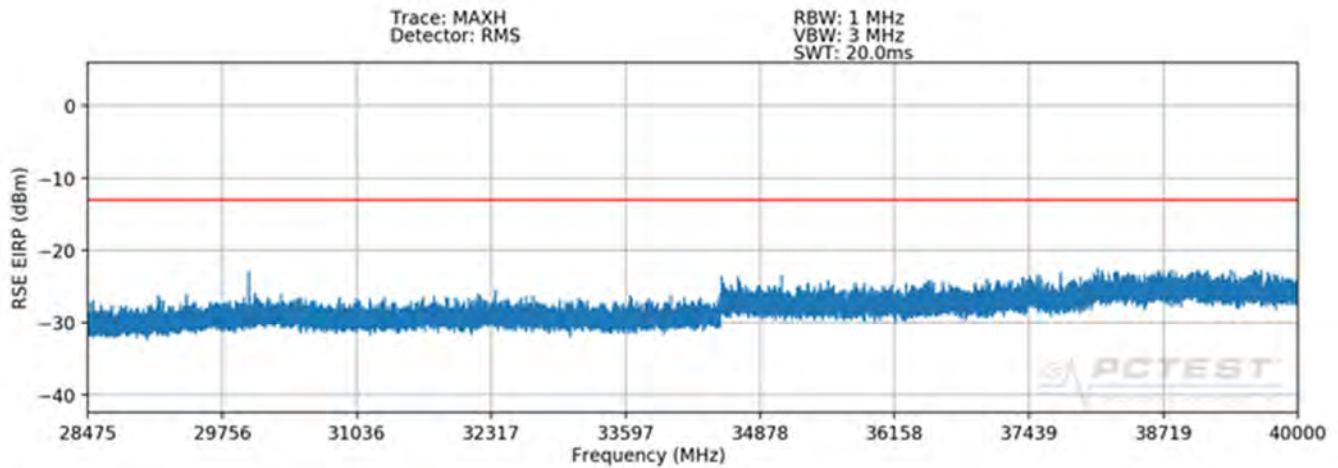
$$(-36.13 \text{ dBm} + -35.15 \text{ dBm}) = (243.67 \text{ nW} + 305.70 \text{ nW}) = (549.37 \text{ nW}) = -32.60 \text{ dBm}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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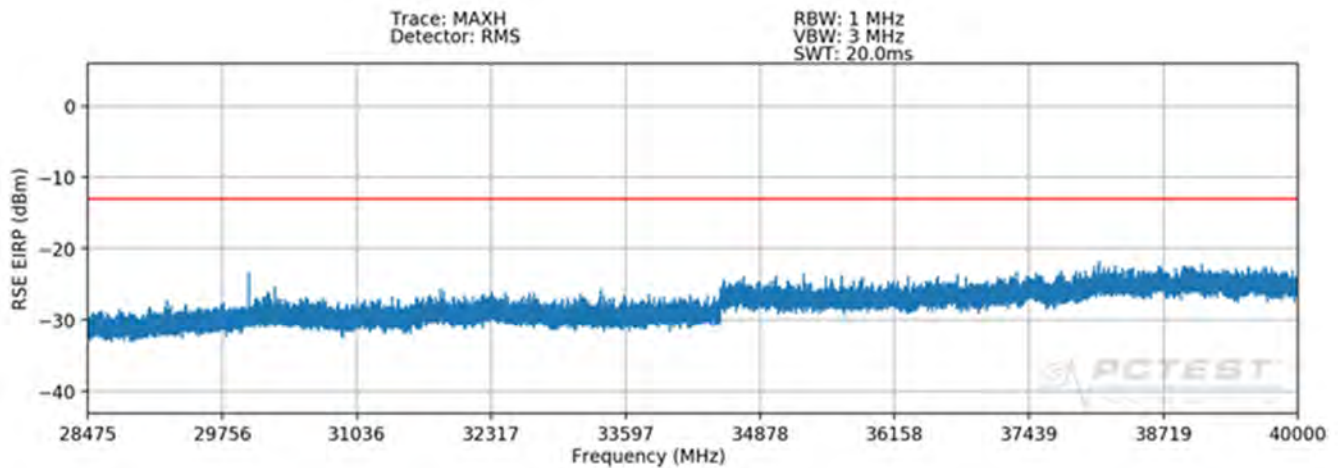
28.475 – 40GHz(n261)



Plot 7-209. L Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Low Channel H Beam – n261)

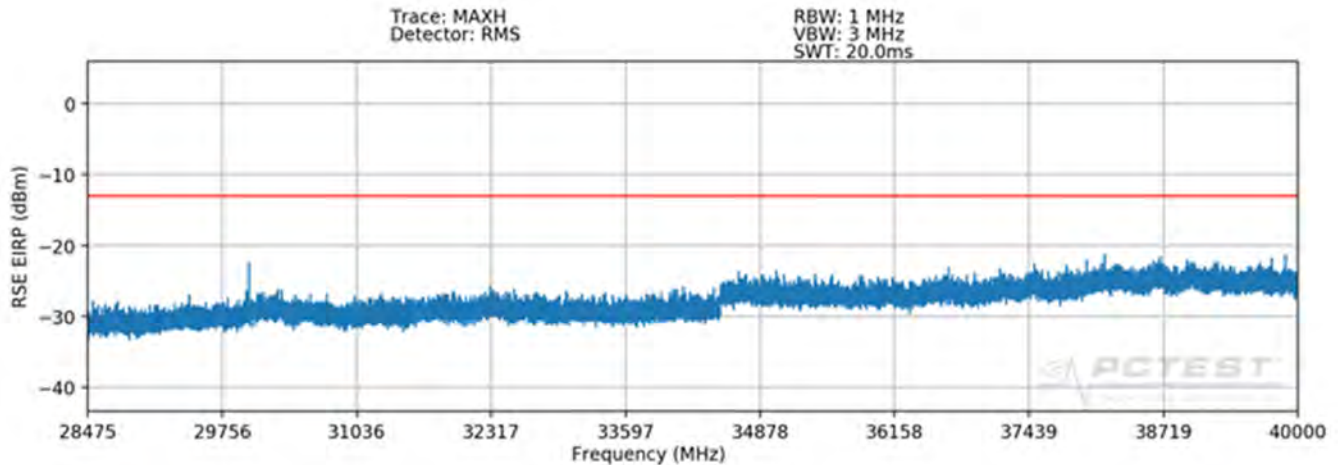


Plot 7-210. L Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Mid Channel H Beam – n261)

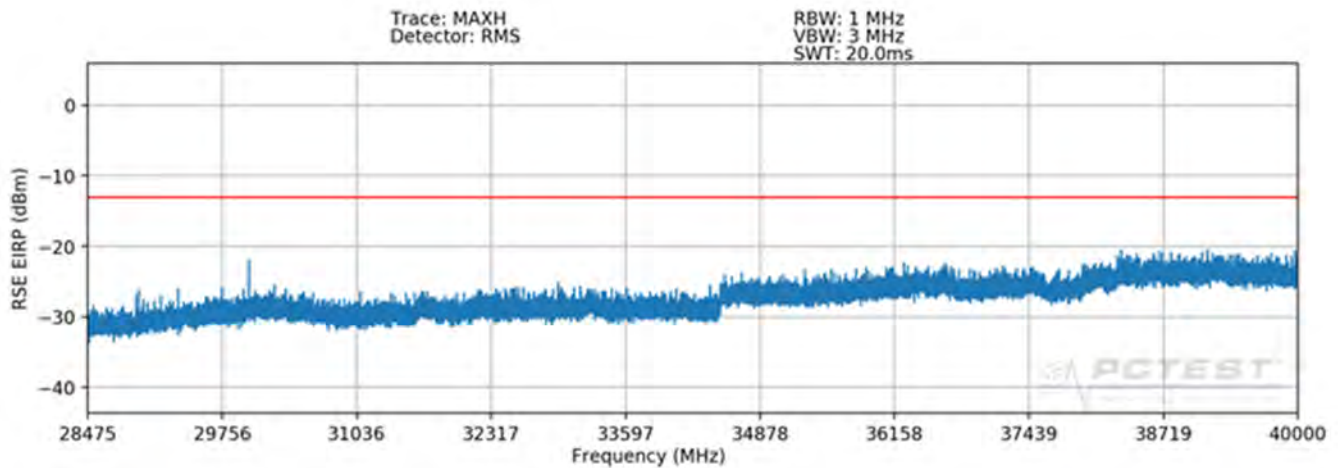


Plot 7-211. L Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK High Channel H Beam – n261)

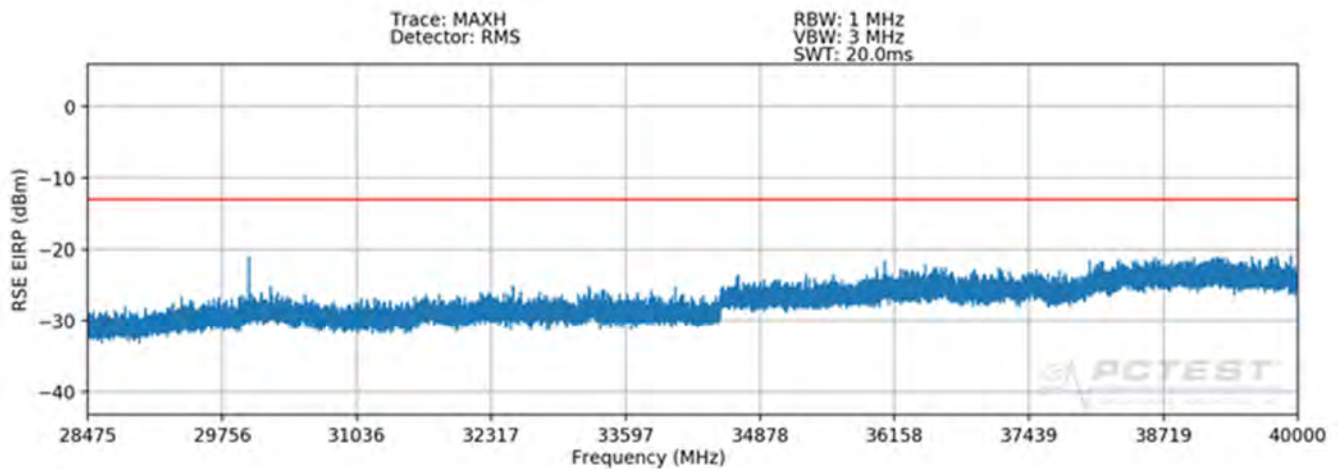
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 140 of 371



Plot 7-212. L Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-213. L Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-214. L Patch Radiated Spurious Plot 28.475-40 GHz (1CC QPSK High Channel V Beam – n261)

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/ Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
28761.70	RMS/Avg	Low	50	QPSK	H	H	238	336	-31.29	-13.00	-18.29
28959.82	RMS/Avg	Mid	50	QPSK	H	H	236	314	-31.82	-13.00	-18.82
29372.65	RMS/Avg	High	50	QPSK	H	H	308	324	-31.58	-13.00	-18.58
28761.00	RMS/Avg	Low	50	QPSK	V	V	282	353	-29.71	-13.00	-16.71
28959.50	RMS/Avg	Mid	50	QPSK	V	V	279	355	-30.84	-13.00	-17.84
29373.50	RMS/Avg	High	50	QPSK	V	V	276	5	-30.61	-13.00	-17.61

Table 7-43. L Patch Spurious Emissions Table (28.475-40 GHz – n261)

Notes

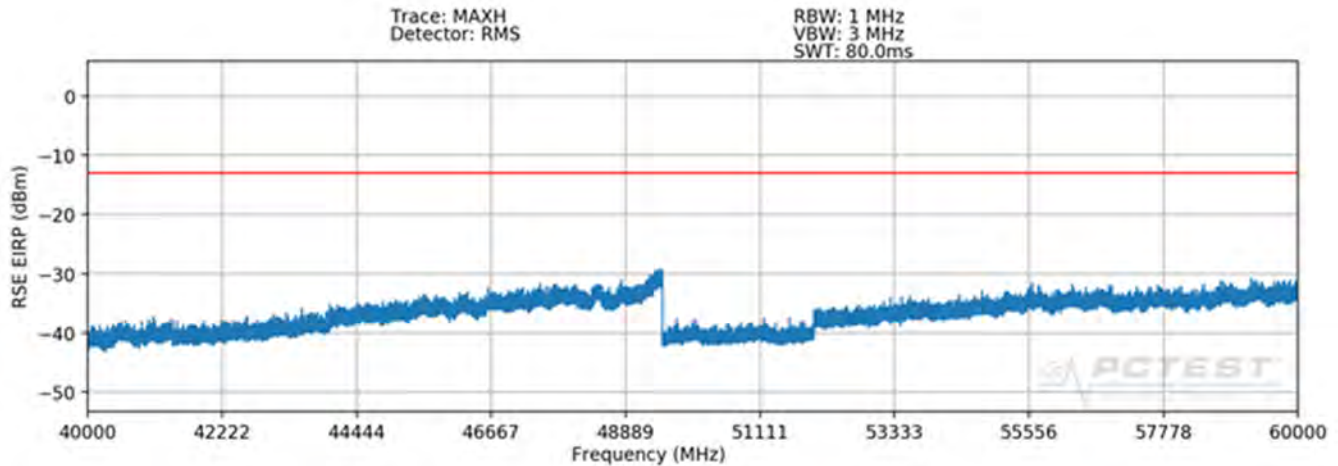
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

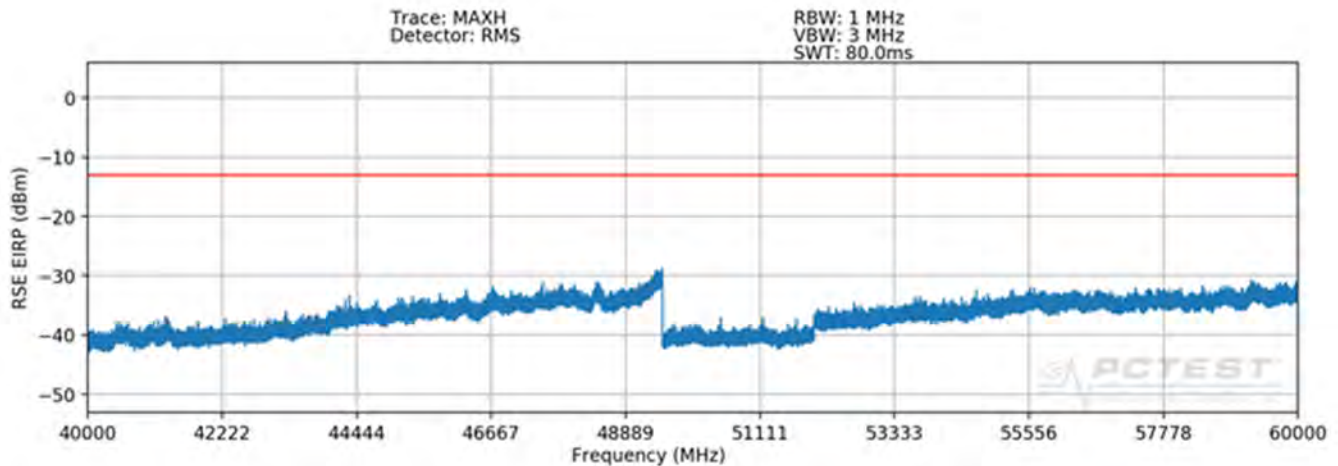
$$(-31.29 \text{ dBm} + -29.71 \text{ dBm}) = (743.02 \text{ nW} + 1069.06 \text{ nW}) = (1812.07 \text{ nW}) = -27.42 \text{ dBm}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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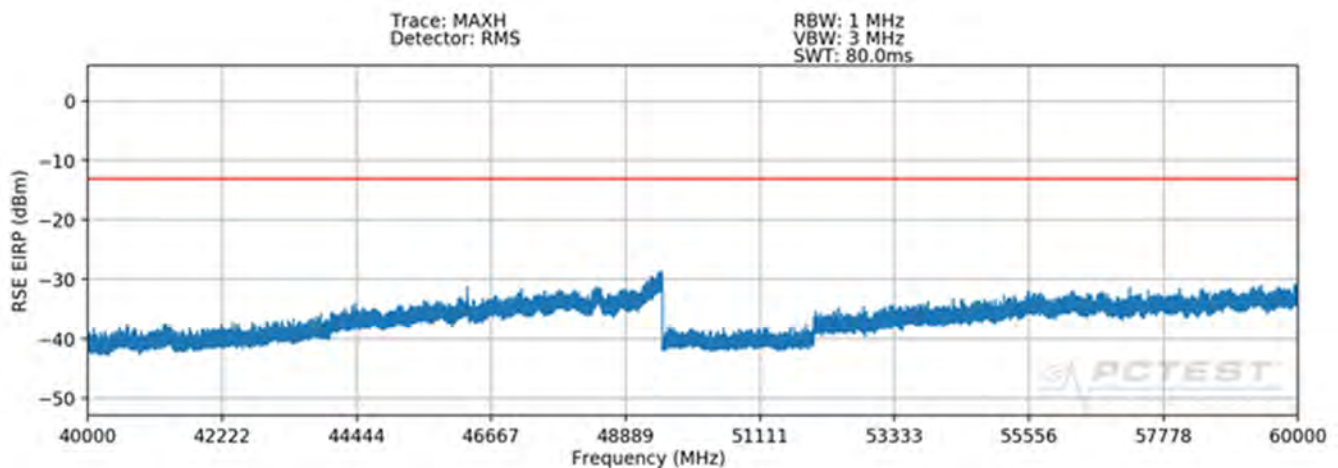
40 – 60GHz(n261)



Plot 7-215. L Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Channel H Beam – n261)

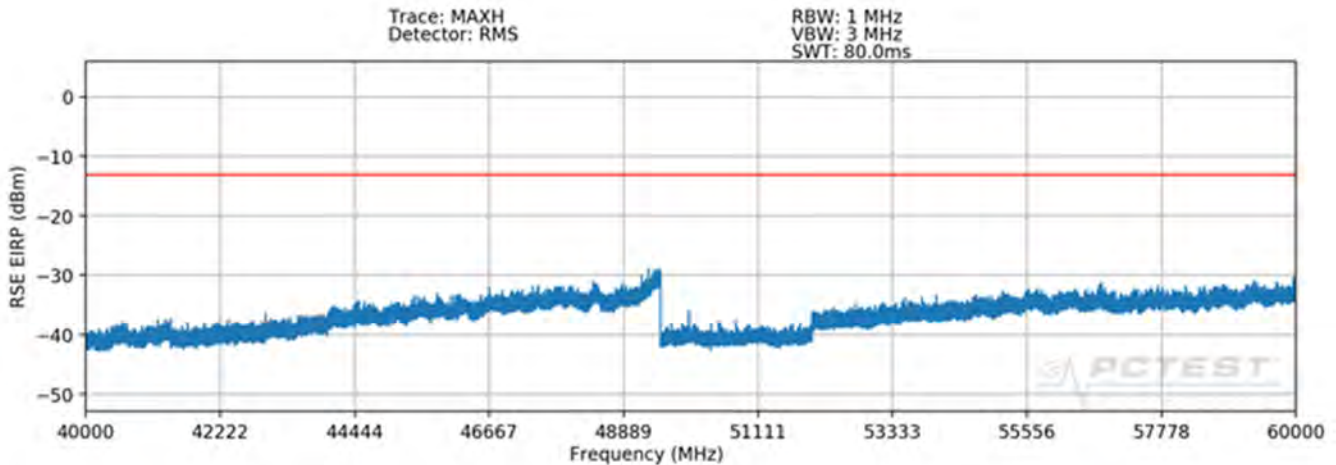


Plot 7-216. L Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Channel H Beam – n261)

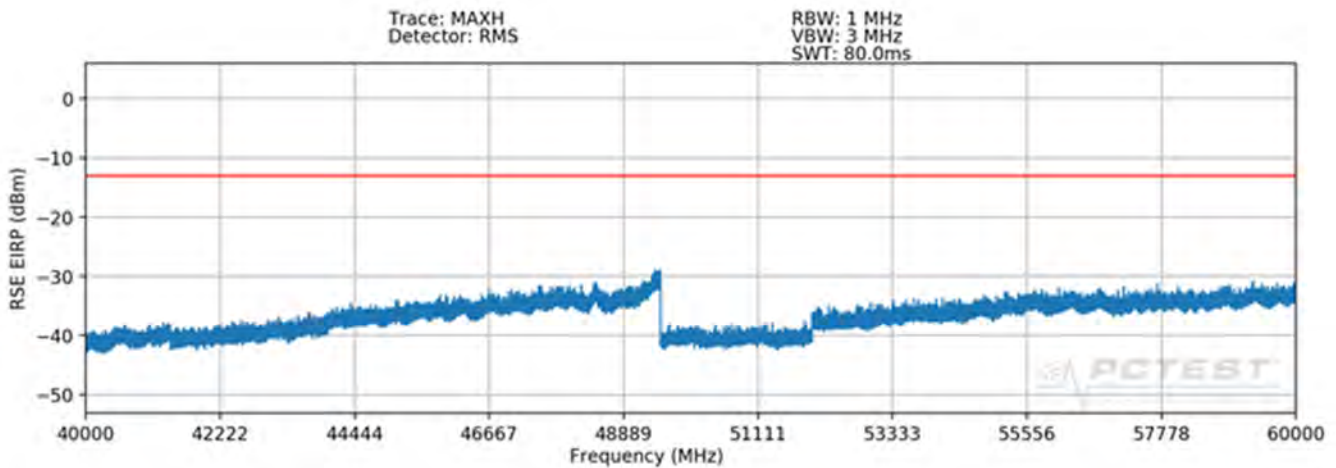


Plot 7-217. L Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK High Channel H Beam – n261)

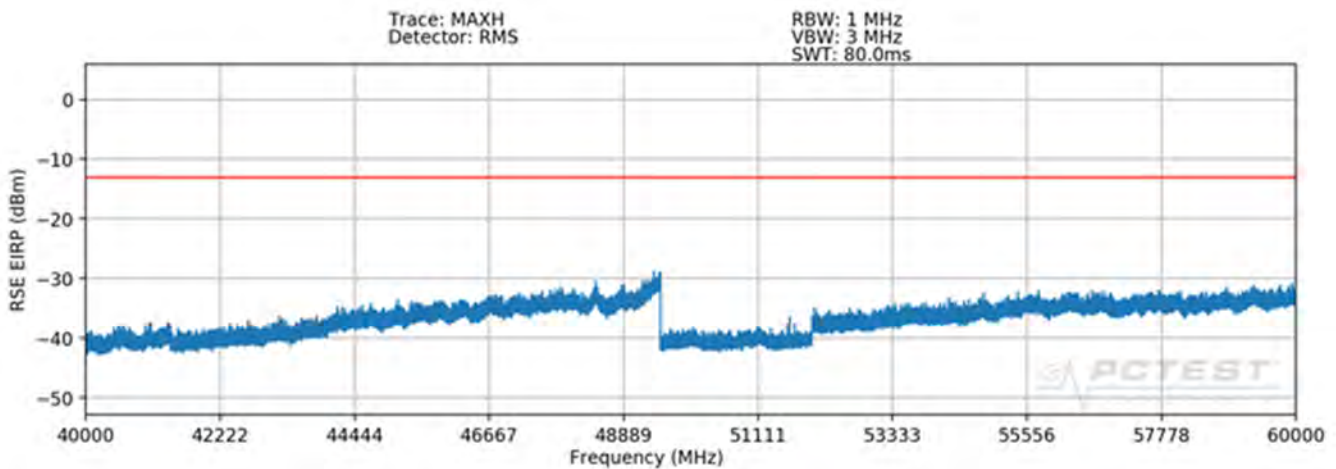
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-218. L Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-219. L Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-220. L Patch Radiated Spurious Plot 40-60 GHz (1CC QPSK High Channel V Beam – n261)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
49487.75	RMS/Avg	Low	50	QPSK	H	H	-	-	-37.58	-13.00	-24.58
49498.65	RMS/Avg	Mid	50	QPSK	H	H	-	-	-37.49	-13.00	-24.49
49494.55	RMS/Avg	High	50	QPSK	H	H	-	-	-37.53	-13.00	-24.53
49491.25	RMS/Avg	Low	50	QPSK	V	H	-	-	-37.77	-13.00	-24.77
49499.75	RMS/Avg	Mid	50	QPSK	V	H	-	-	-37.55	-13.00	-24.55
49490.55	RMS/Avg	High	50	QPSK	V	H	-	-	-37.51	-13.00	-24.51

Table 7-44. L Patch Spurious Emissions Table (40 - 60GHz – n261)

Notes

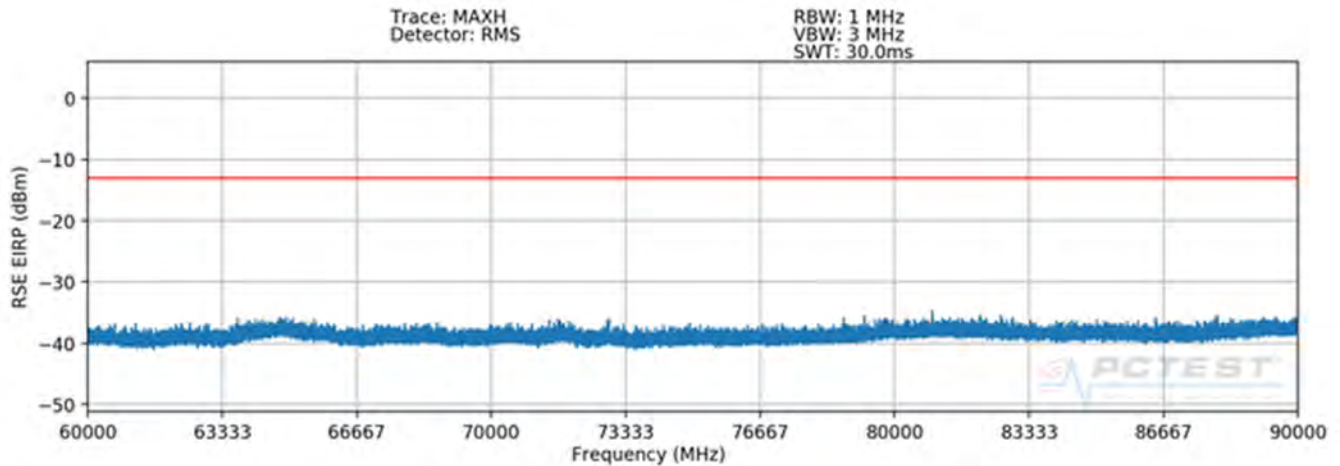
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

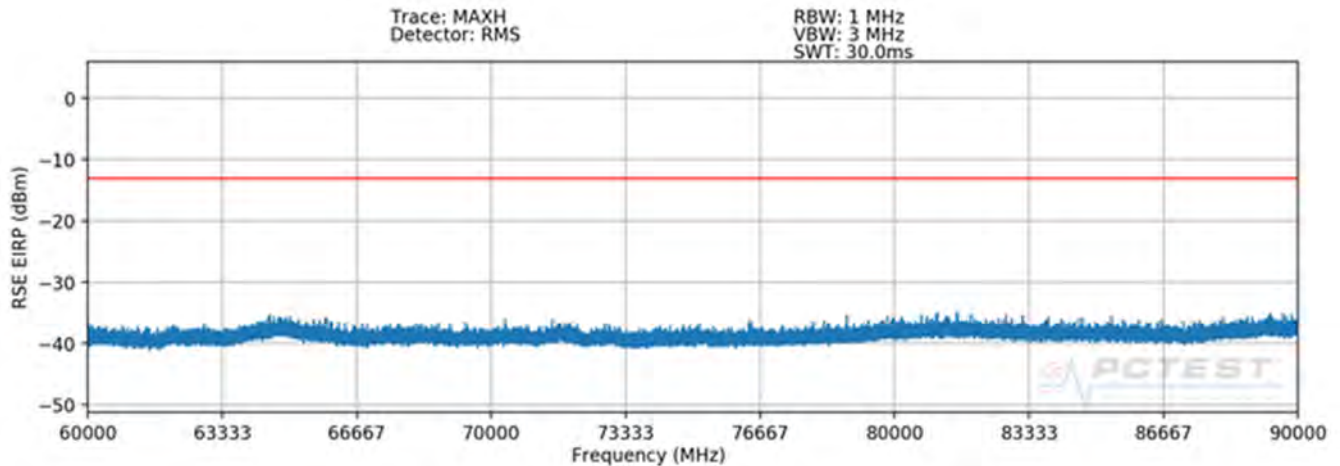
$$(-37.49 \text{ dBm} + -37.55 \text{ dBm}) = (178.24 \text{ nW} + 175.79 \text{ nW}) = (354.03 \text{ nW}) = -34.51 \text{ dBm}$$

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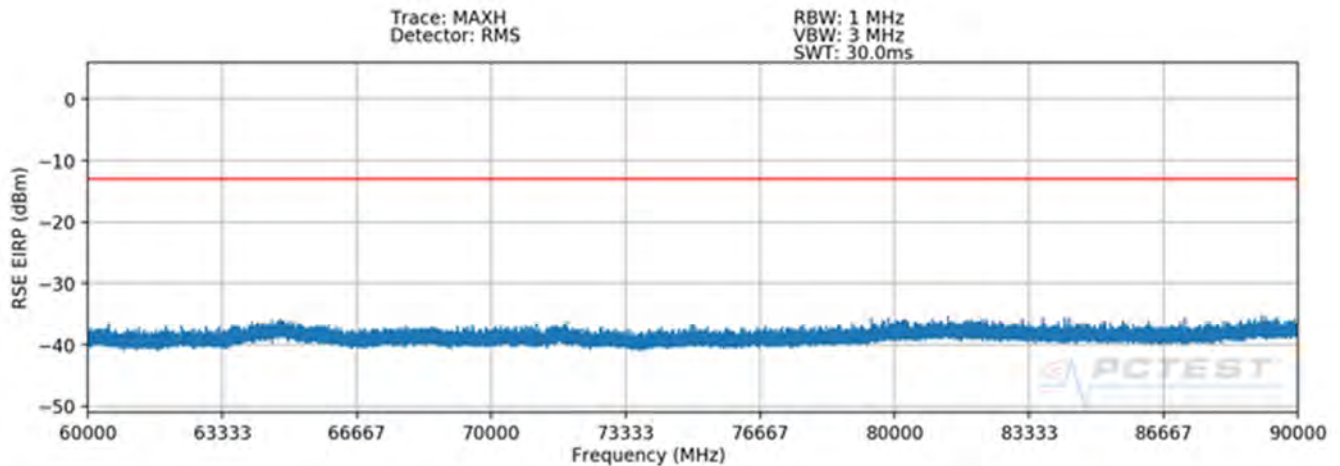
60 – 90GHz(n261)



Plot 7-221. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel H Beam – n261)

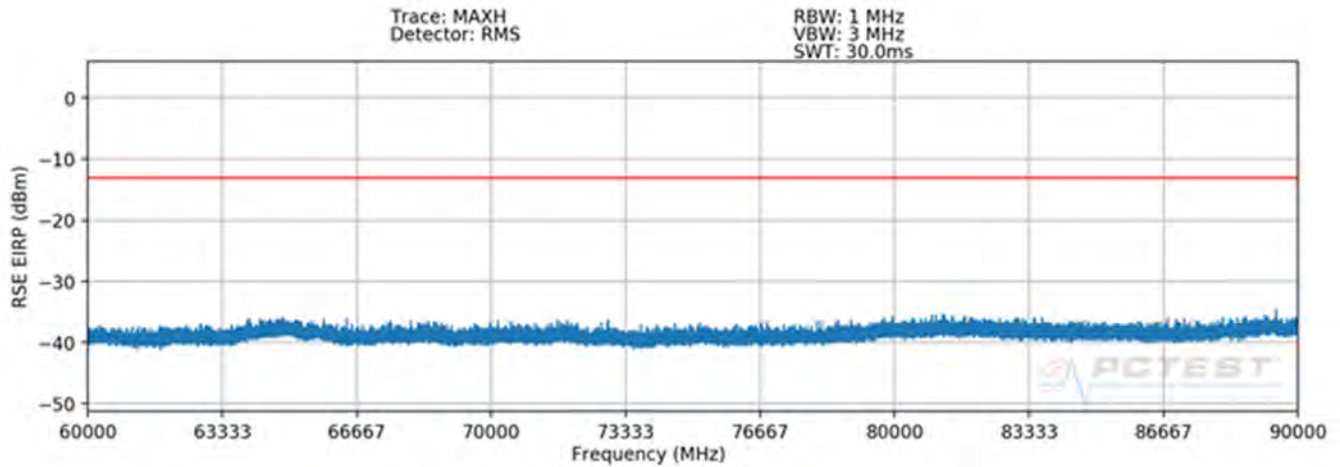


Plot 7-222. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel H Beam – n261)

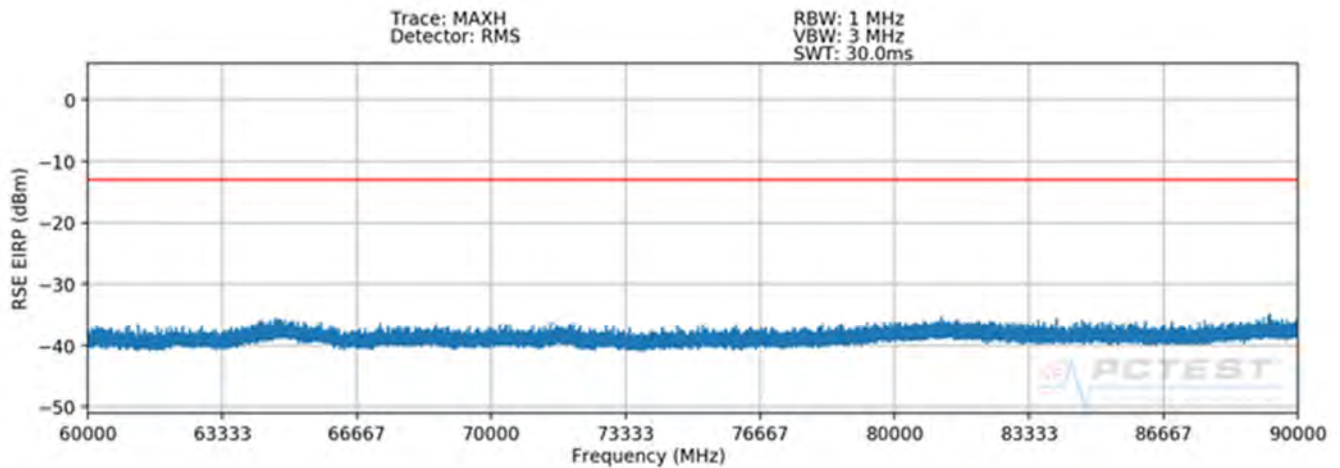


Plot 7-223. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel H Beam – n261)

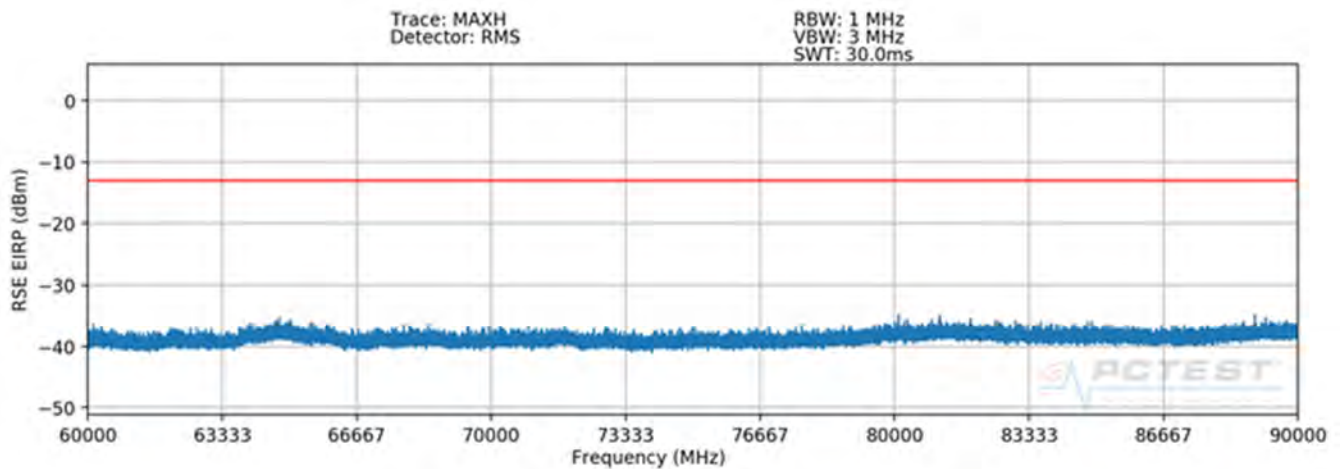
FCC ID: A3LSMN976V	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Plot 7-224. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-225. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-226. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel V Beam – n261)

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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
82539.00	RMS/Avg	Low	50	QPSK	H	H	235	307	-43.36	-13.00	-30.36
84346.00	RMS/Avg	Mid	50	QPSK	H	H	236	319	-43.70	-13.00	-30.70
84893.50	RMS/Avg	High	50	QPSK	H	H	250	319	-43.56	-13.00	-30.56
82539.00	RMS/Avg	Low	50	QPSK	V	V	237	20	-40.90	-13.00	-27.90
83701.50	RMS/Avg	Mid	50	QPSK	V	V	250	33	-43.39	-13.00	-30.39
84893.50	RMS/Avg	High	50	QPSK	V	V	289	28	-43.19	-13.00	-30.19

Table 7-45. L Patch Spurious Emissions Table (60-90GHz – n261)

Notes

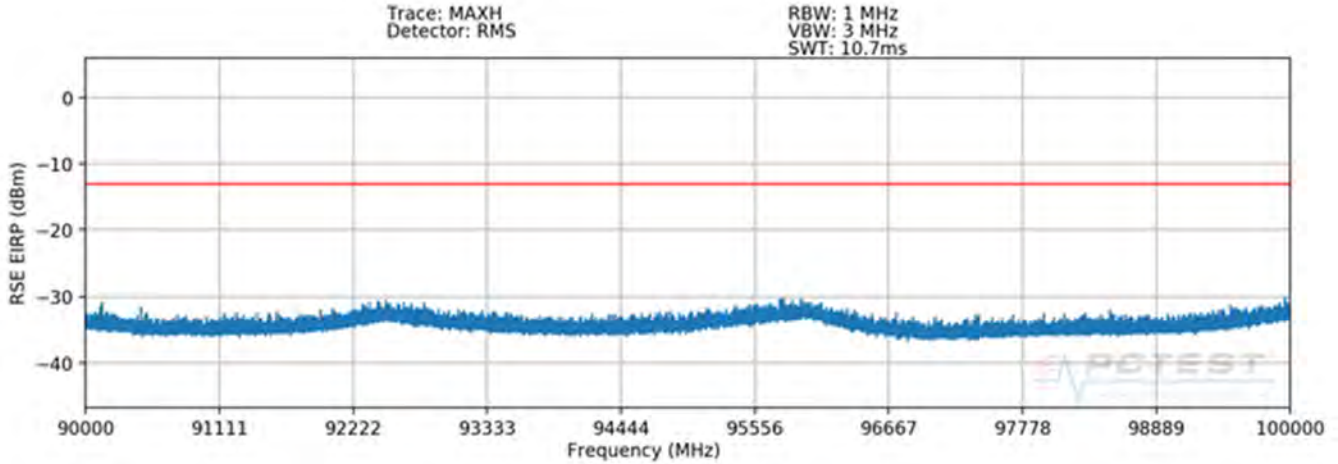
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

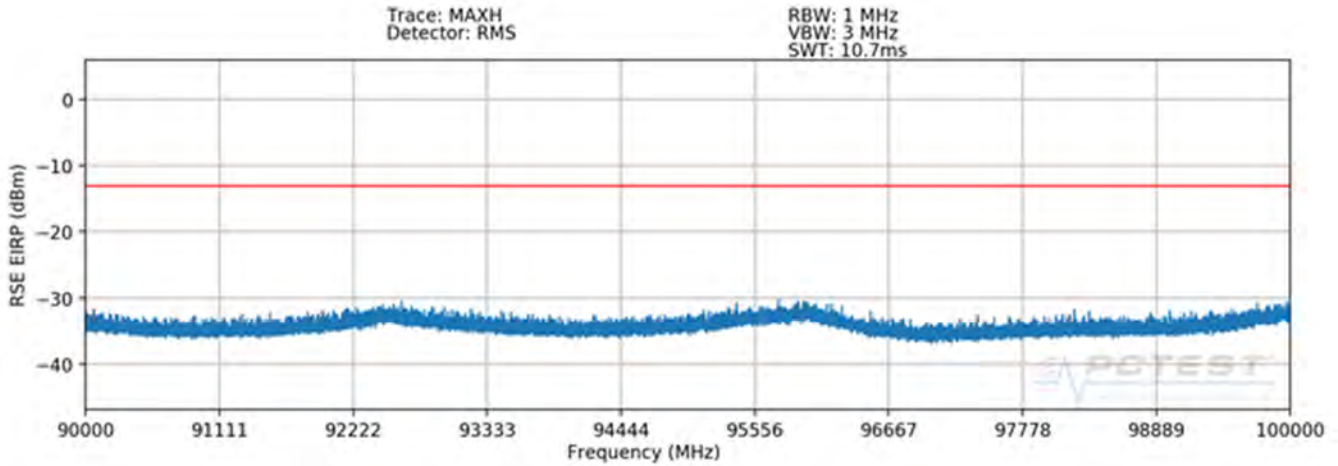
$$(-43.36 \text{ dBm} + -40.90 \text{ dBm}) = (46.10 \text{ nW} + 81.38 \text{ nW}) = (127.48 \text{ nW}) = -38.95 \text{ dBm}$$

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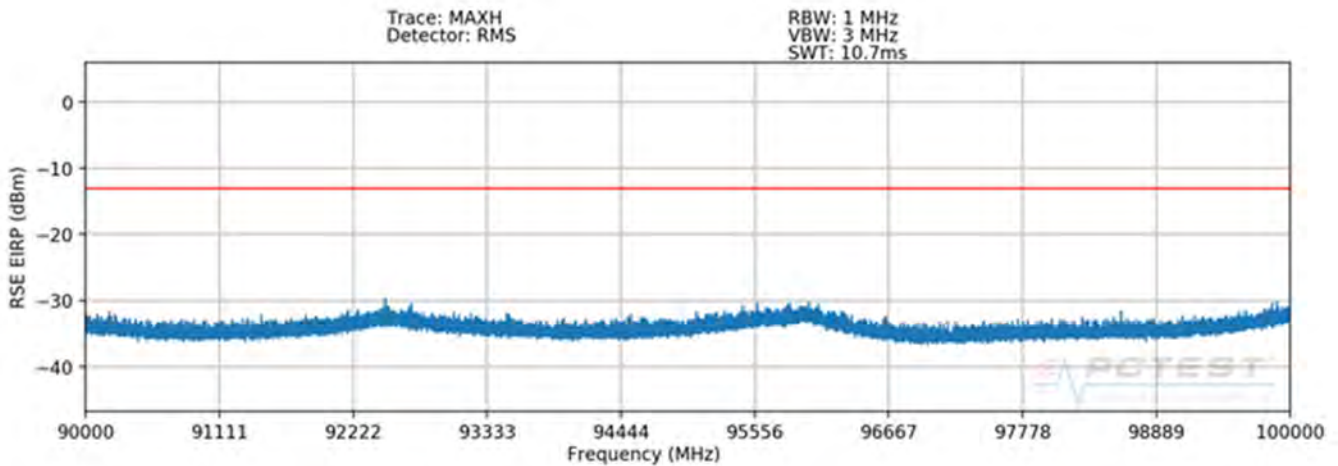
90 – 100GHz(n261)



Plot 7-227. L Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Low Channel H Beam – n261)

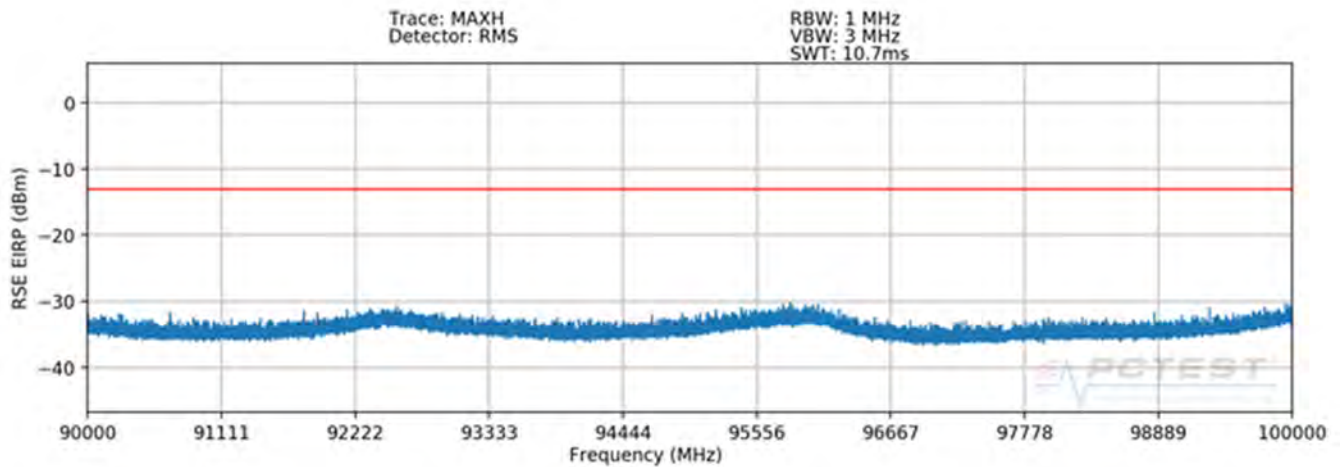


Plot 7-228. L Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Mid Channel H Beam – n261)

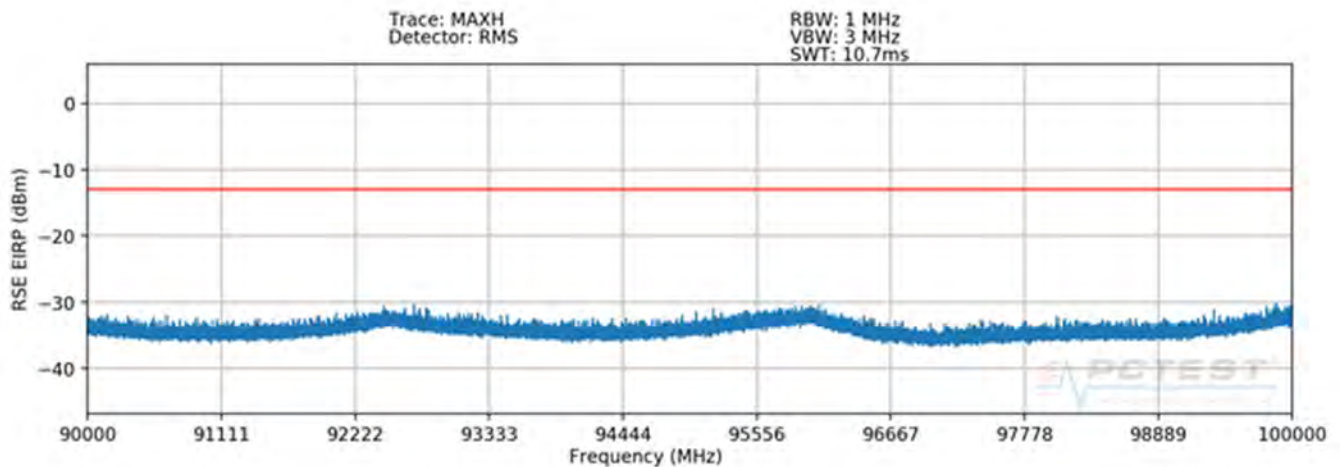


Plot 7-229. L Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK High Channel H Beam – n261)

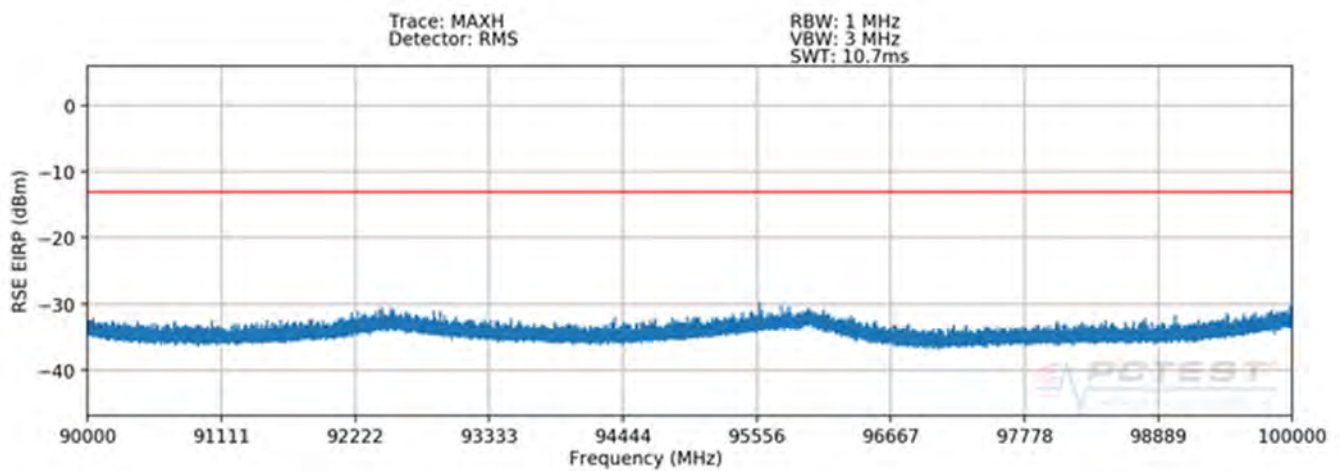
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Plot 7-230. L Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Low Channel V Beam – n261)



Plot 7-231. L Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK Mid Channel V Beam – n261)



Plot 7-232. L Patch Radiated Spurious Plot 90-100 GHz (1CC QPSK High Channel V Beam – n261)

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Spurious Emissions EIRP Sample Calculation(n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	Beam Polarization	Ant. Pos [H/V]	Turntable Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
95986.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-39.90	-13.00	-26.90
95882.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-39.85	-13.00	-26.85
95976.00	RMS/Avg	High	50	QPSK	H	H	-	-	-39.99	-13.00	-26.99
95908.00	RMS/Avg	Low	50	QPSK	V	V	-	-	-39.62	-13.00	-26.62
99906.50	RMS/Avg	Mid	50	QPSK	V	V	-	-	-39.90	-13.00	-26.90
99994.50	RMS/Avg	High	50	QPSK	V	V	-	-	-39.93	-13.00	-26.93

Table 7-46. L Patch Spurious Emissions Table (90-100GHz – n261)

Notes

1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

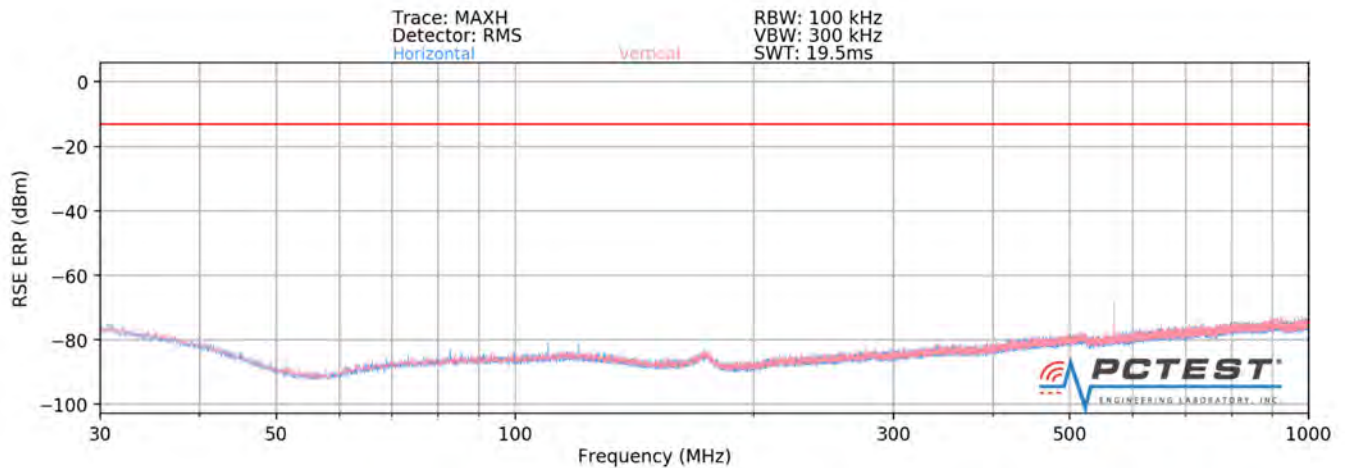
$$(-39.90 \text{ dBm} + -39.62 \text{ dBm}) = (102.33 \text{ nW} + 109.09 \text{ nW}) = (211.42 \text{ nW}) = -36.75 \text{ dBm}$$

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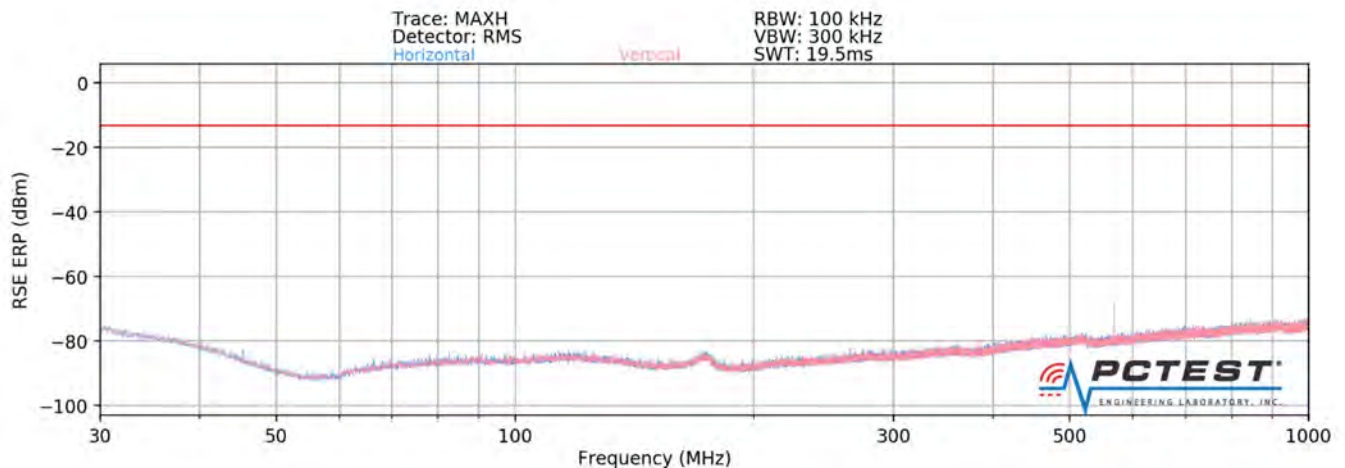
7.4.2 n260 Radiated Spurious Emissions

J Dipole Radiated Spurious Emissions(n260)

30MHz – 1GHz(n260)



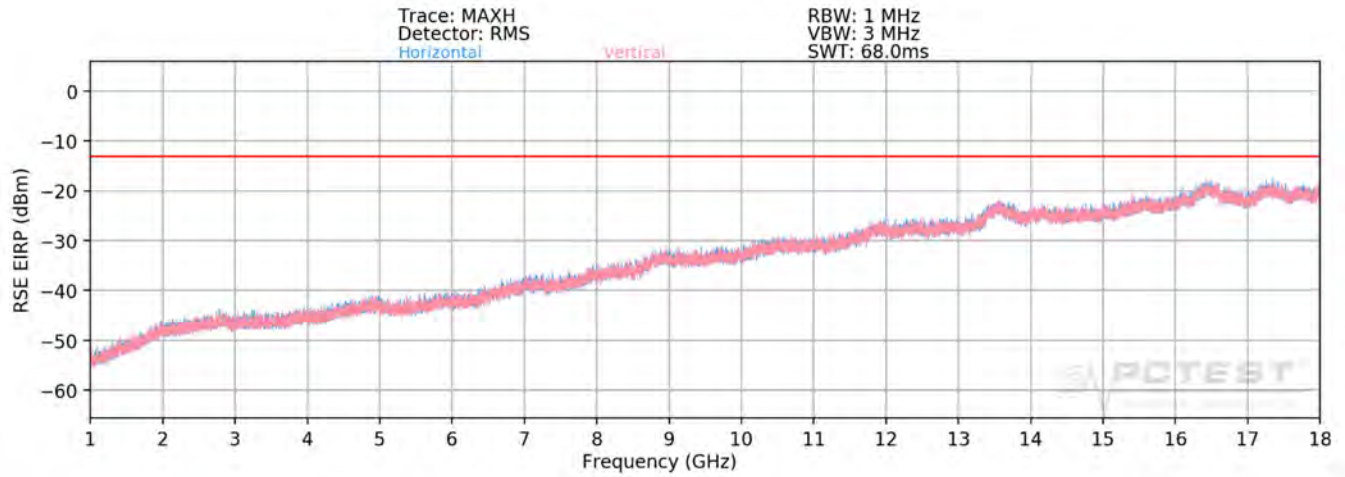
Plot 7-233. J Dipole Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel H Beam – n260)



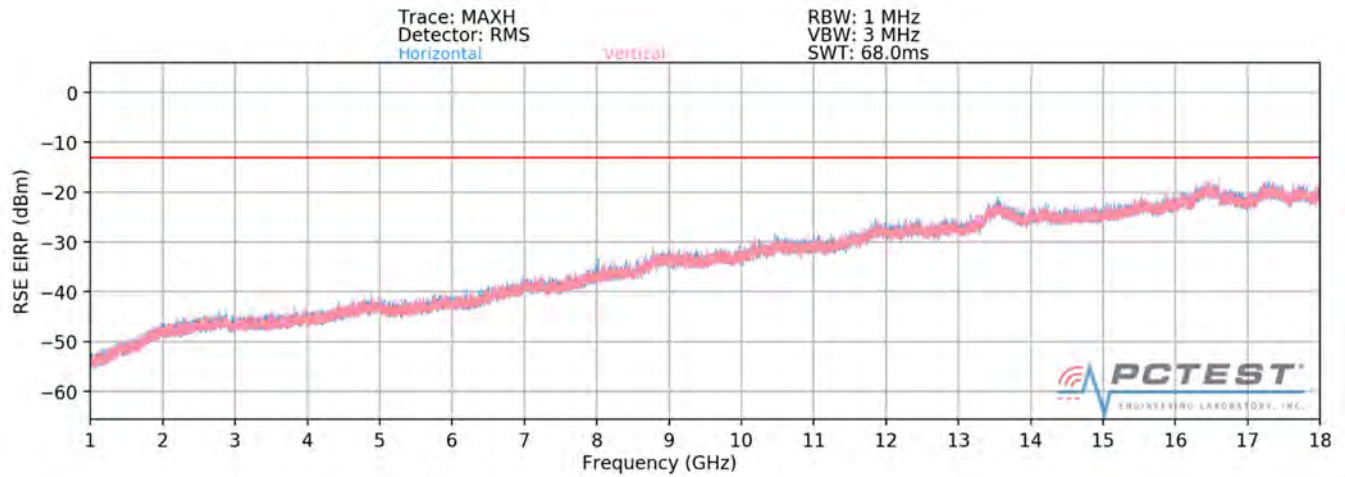
Plot 7-234. J Dipole Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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1 – 18GHz(n260)



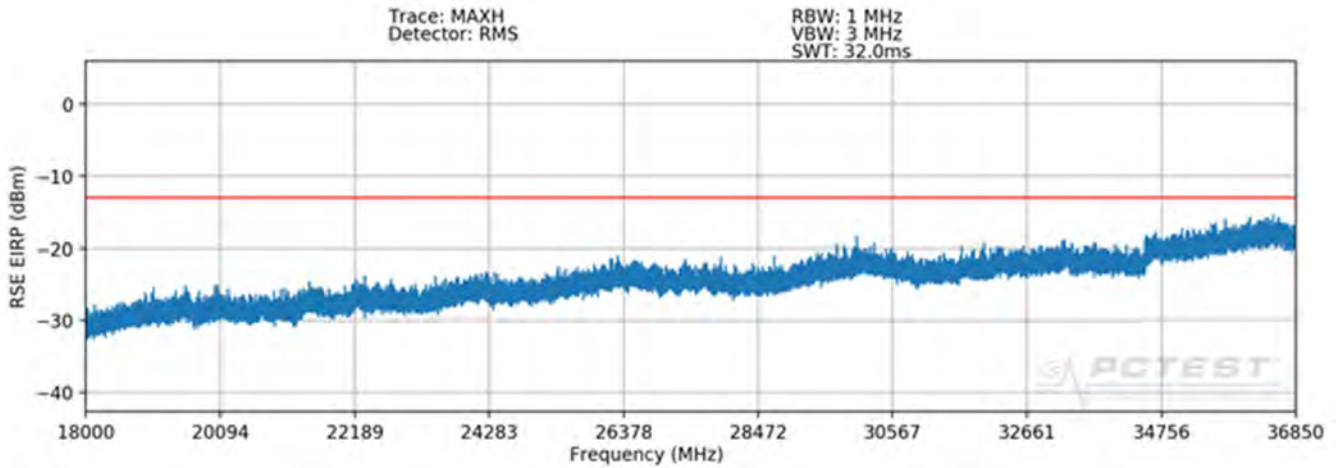
Plot 7-235. J Dipole Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel H Beam – n260)



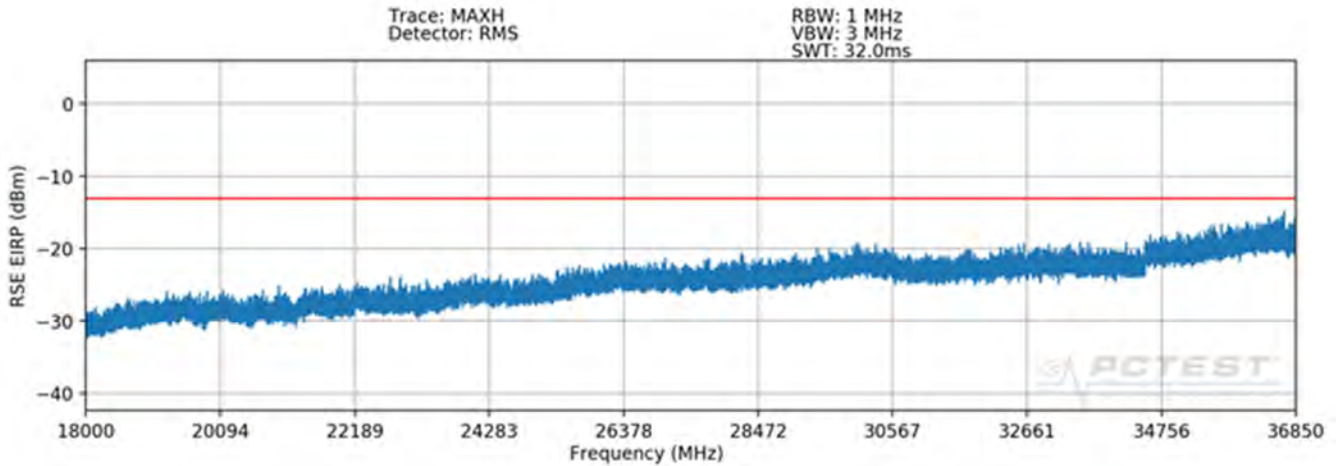
Plot 7-236. J Dipole Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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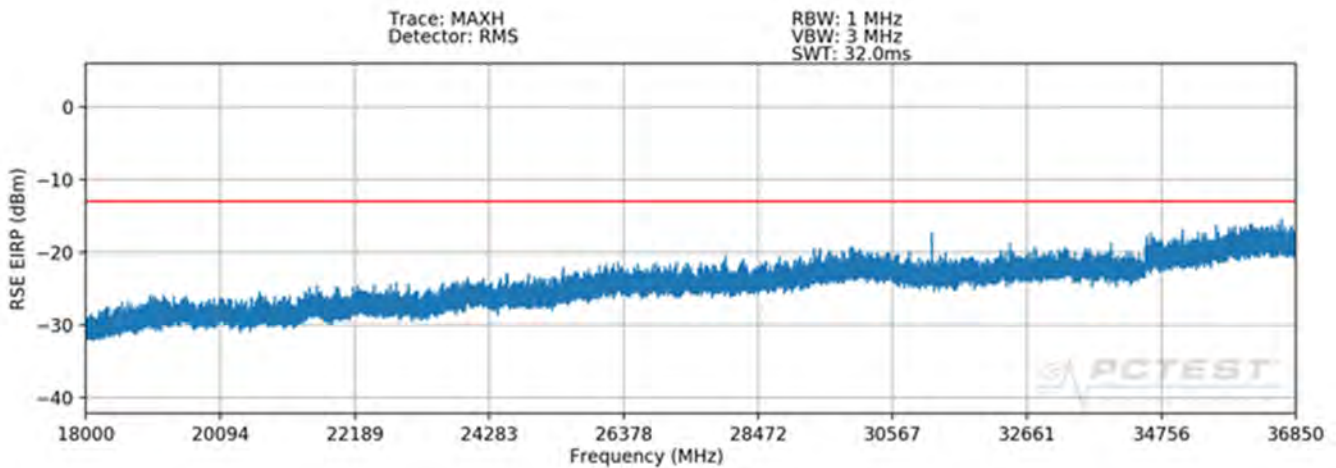
18 – 36.85GHz(n260)



Plot 7-237. J Dipole Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel H Beam – n260)

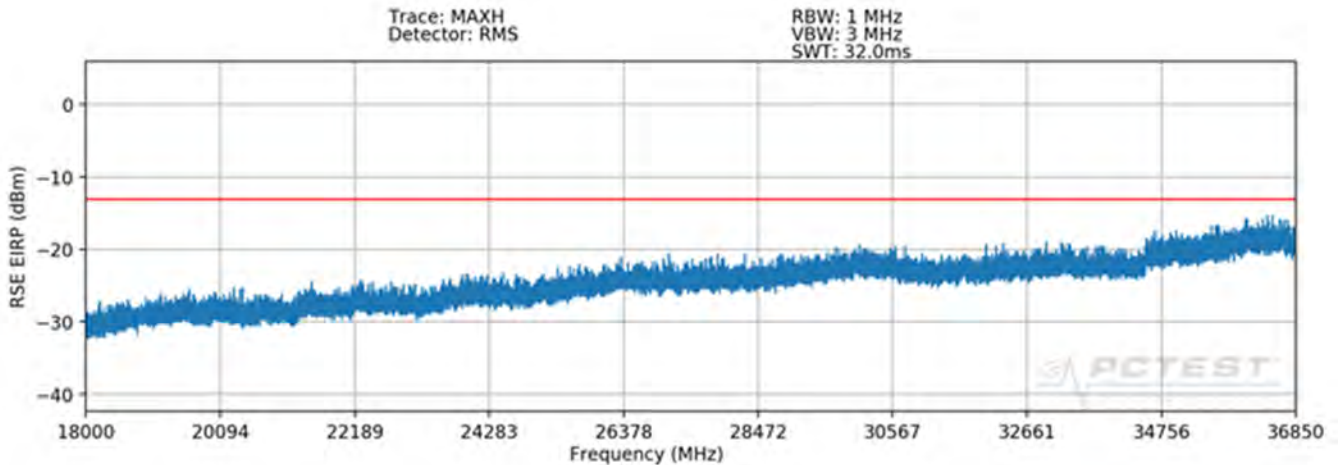


Plot 7-238. J Dipole Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel H Beam – n260)

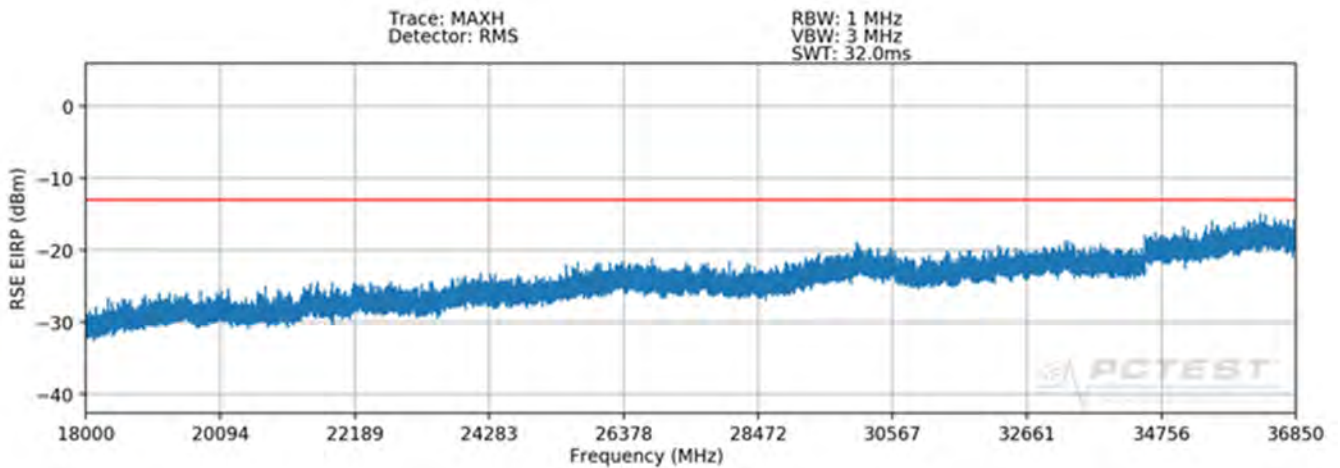


Plot 7-239. J Dipole Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel H Beam – n260)

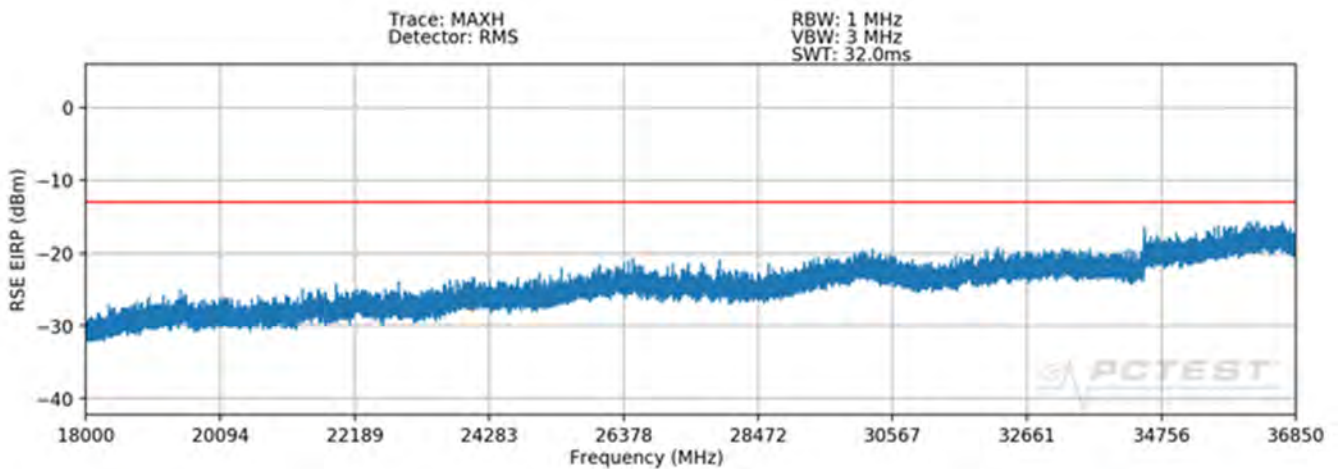
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-240. J Dipole Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-241. J Dipole Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-242. J Dipole Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
28454.00	RMS/Avg	Low	50	QPSK	H	H	258	278	-33.16	-13.00	-20.16
29577.50	RMS/Avg	Mid	50	QPSK	H	H	265	280	-29.50	-13.00	-16.50
31180.50	RMS/Avg	High	50	QPSK	H	H	285	278	-17.54	-13.00	-4.54
36661.00	RMS/Avg	Low	50	QPSK	V	H	312	98	-32.27	-13.00	-19.27
29577.50	RMS/Avg	Mid	50	QPSK	V	H	312	107	-34.75	-13.00	-21.75
31180.50	RMS/Avg	High	50	QPSK	V	H	270	97	-22.89	-13.00	-9.89

Table 7-47. J Dipole Spurious Emissions Table (18-36.85GHz – n260)

Notes

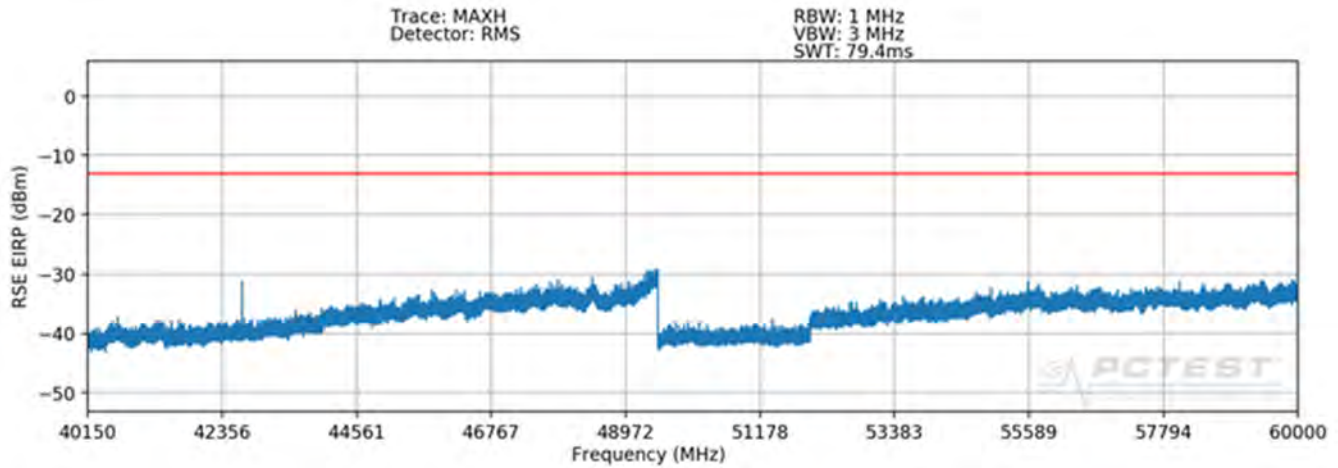
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

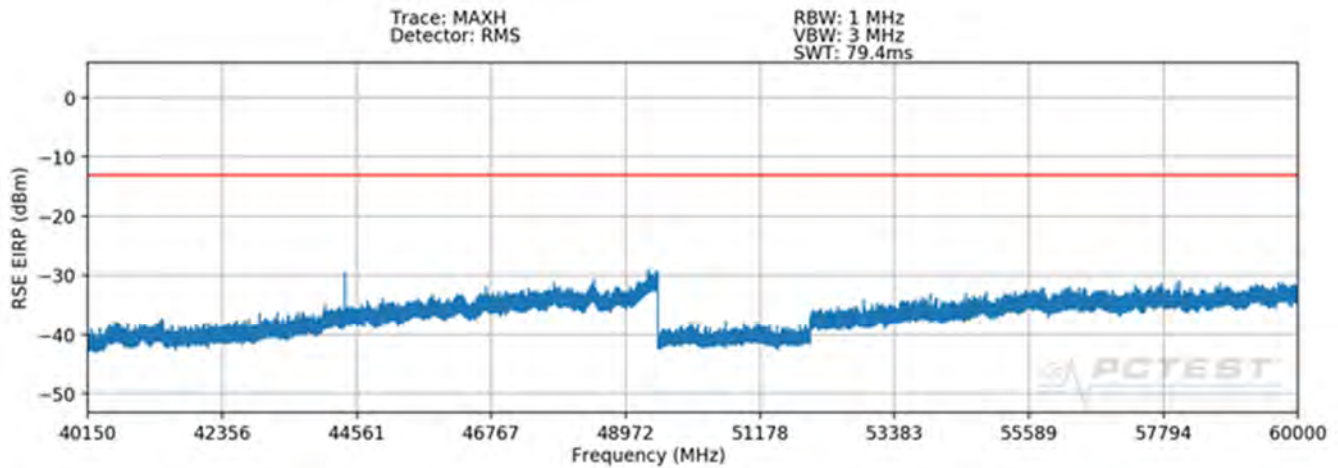
$$(-17.54 \text{ dBm} + -22.89 \text{ dBm}) = (17.62 \text{ } \mu\text{W} + 5.14 \text{ } \mu\text{W}) = (22.78 \text{ } \mu\text{W}) = -16.43 \text{ dBm}$$

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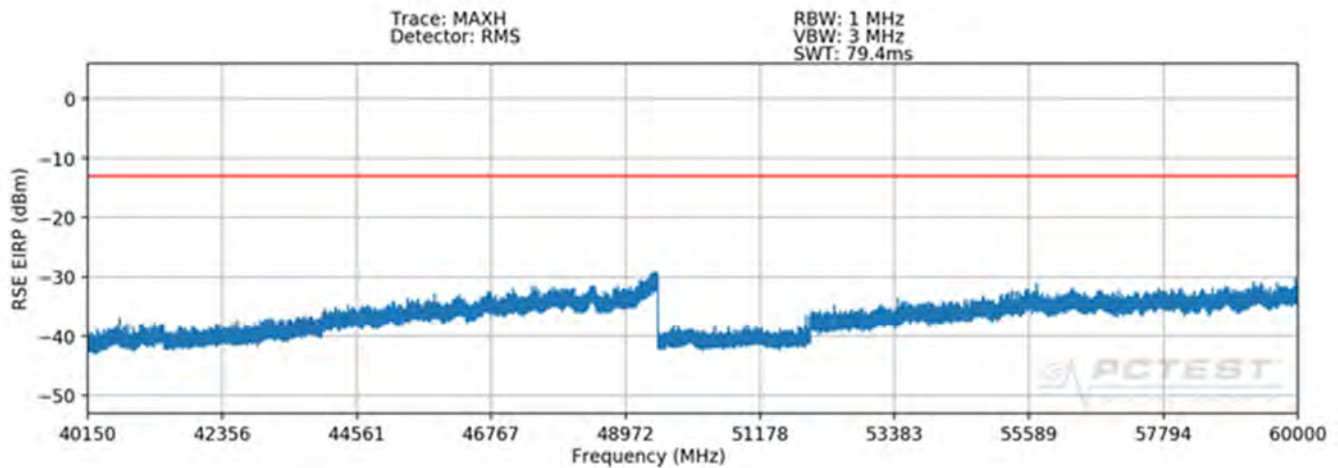
40.15 – 60GHz(n260)



Plot 7-243. J Dipole Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel H Beam – n260)

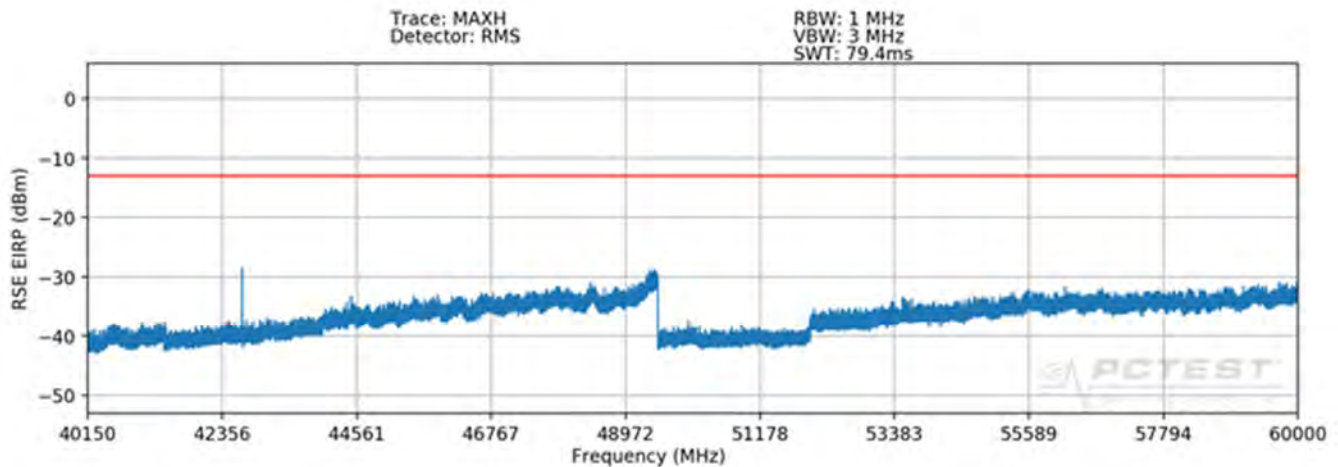


Plot 7-244. J Dipole Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel H Beam – n260)

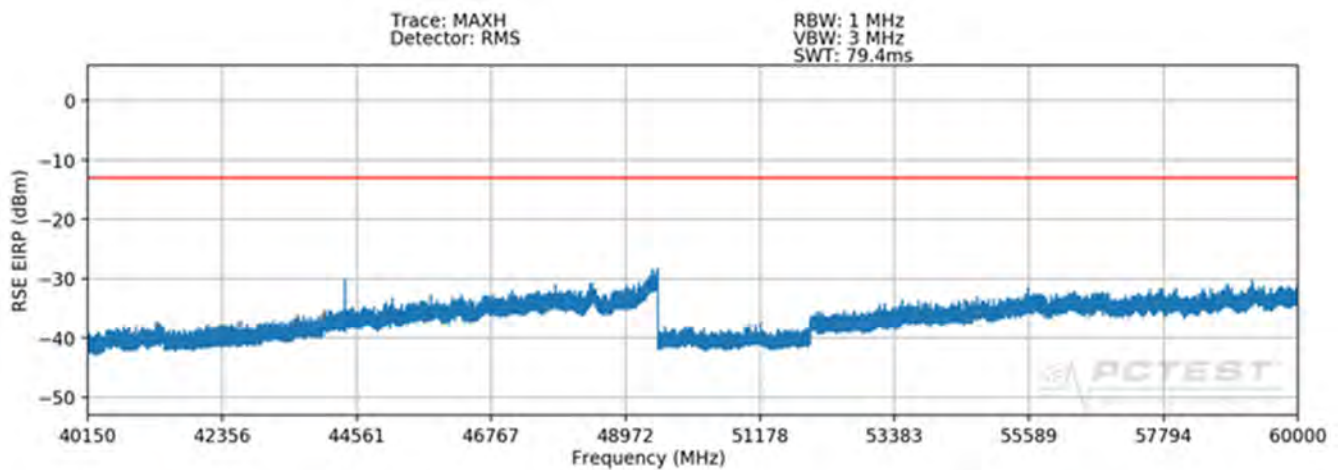


Plot 7-245. J Dipole Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel H Beam – n260)

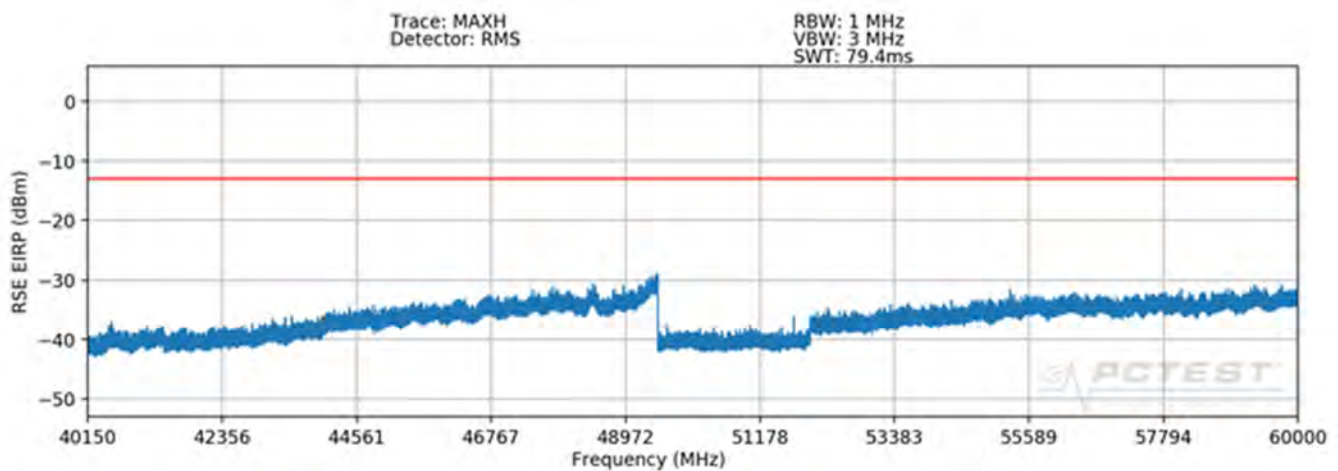
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-246. J Dipole Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-247. J Dipole Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-248. J Dipole Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
42681.45	RMS/Avg	Low	50	QPSK	H	H	280	312	-30.94	-13.00	-17.94
44366.34	RMS/Avg	Mid	50	QPSK	H	H	235	305	-30.06	-13.00	-17.06
46771.05	RMS/Avg	High	50	QPSK	H	H	242	303	-37.76	-13.00	-24.76
42681.47	RMS/Avg	Low	50	QPSK	V	H	307	110	-26.05	-13.00	-13.05
44366.26	RMS/Avg	Mid	50	QPSK	V	H	306	109	-28.17	-13.00	-15.17
46771.24	RMS/Avg	High	50	QPSK	V	H	310	112	-36.19	-13.00	-23.19

Table 7-48. J Dipole Spurious Emissions Table (40.15-60 GHz – n260)

Notes

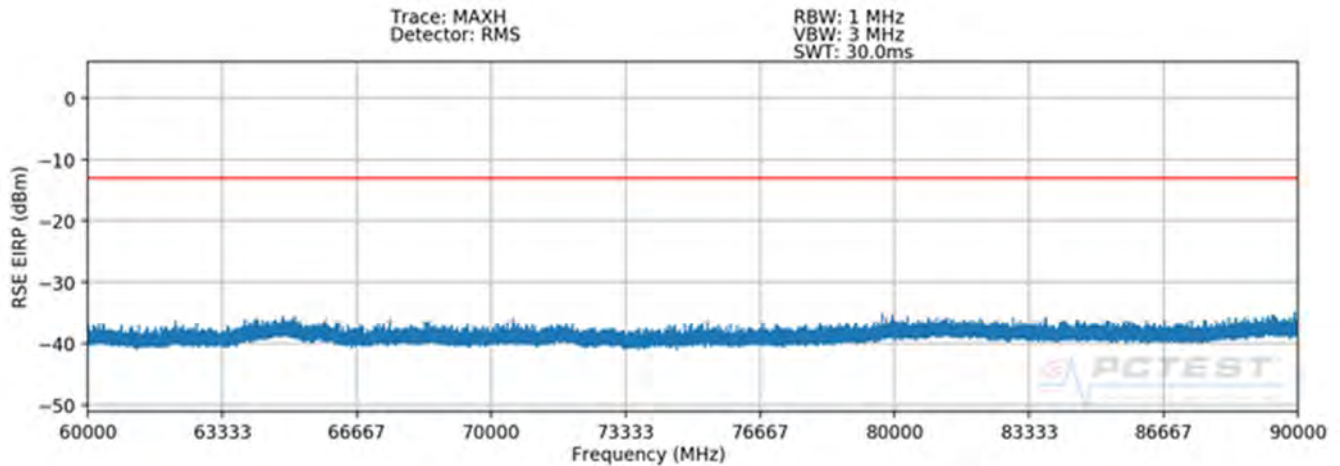
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

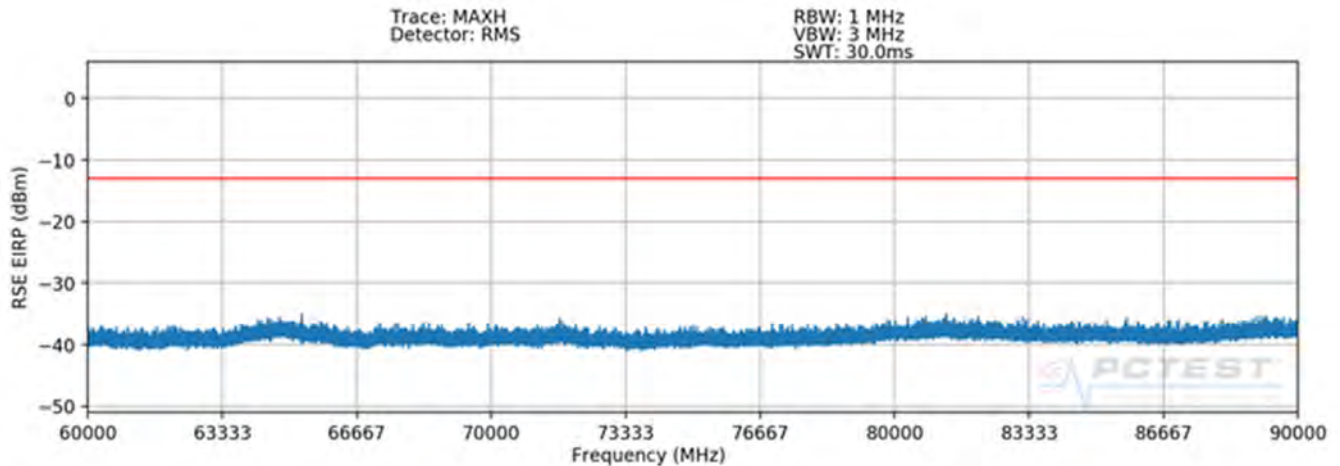
$$(-30.94 \text{ dBm} + -26.05 \text{ dBm}) = (805.38 \text{ nW} + 2483.13 \text{ nW}) = (3288.51 \text{ nW}) = -24.83 \text{ dBm}$$

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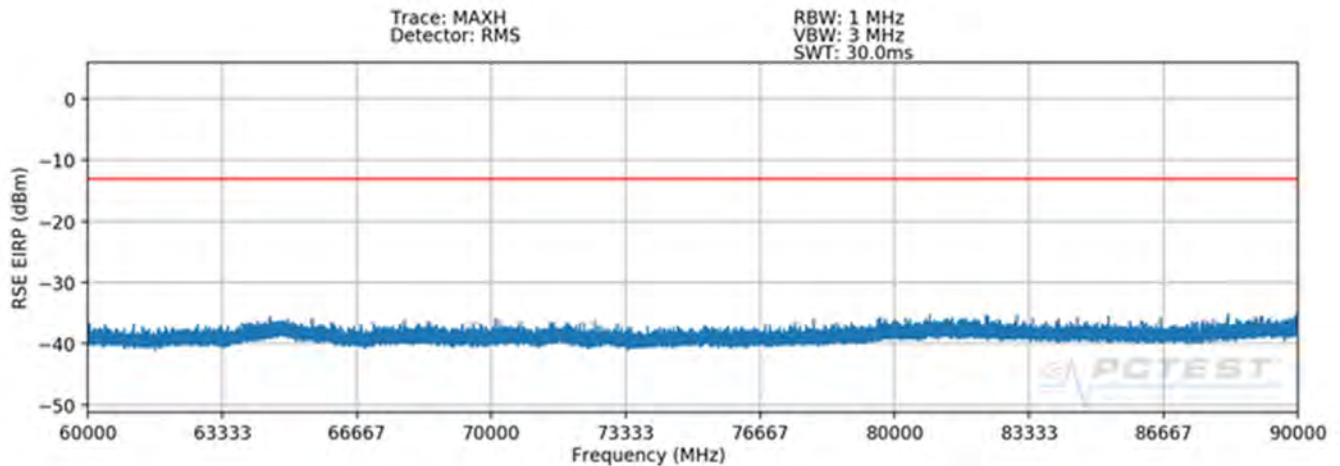
60 – 90GHz(n260)



Plot 7-249. J Dipole Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel H Beam – n260)

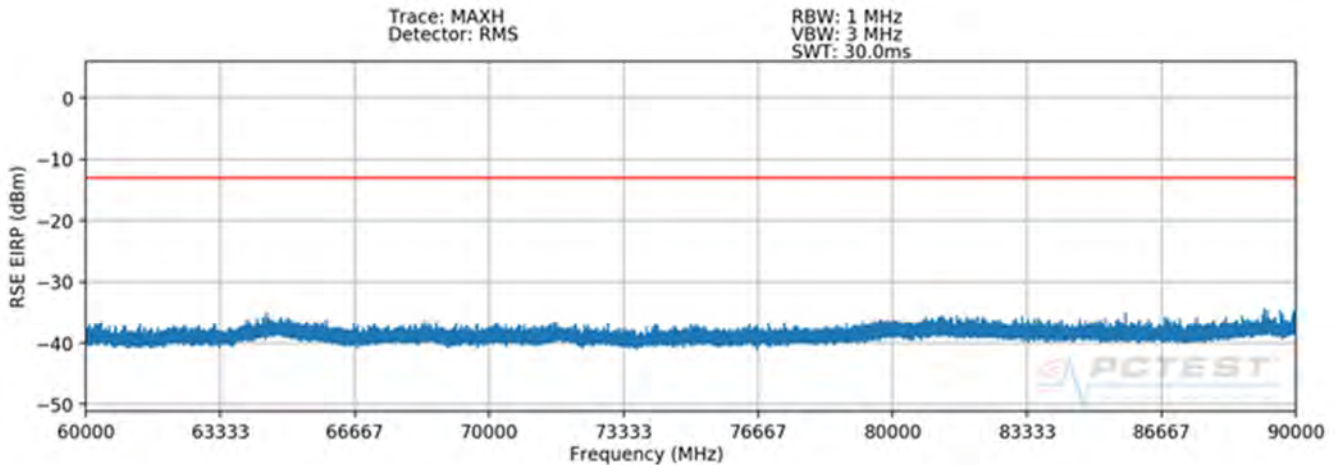


Plot 7-250. J Dipole Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel H Beam – n260)

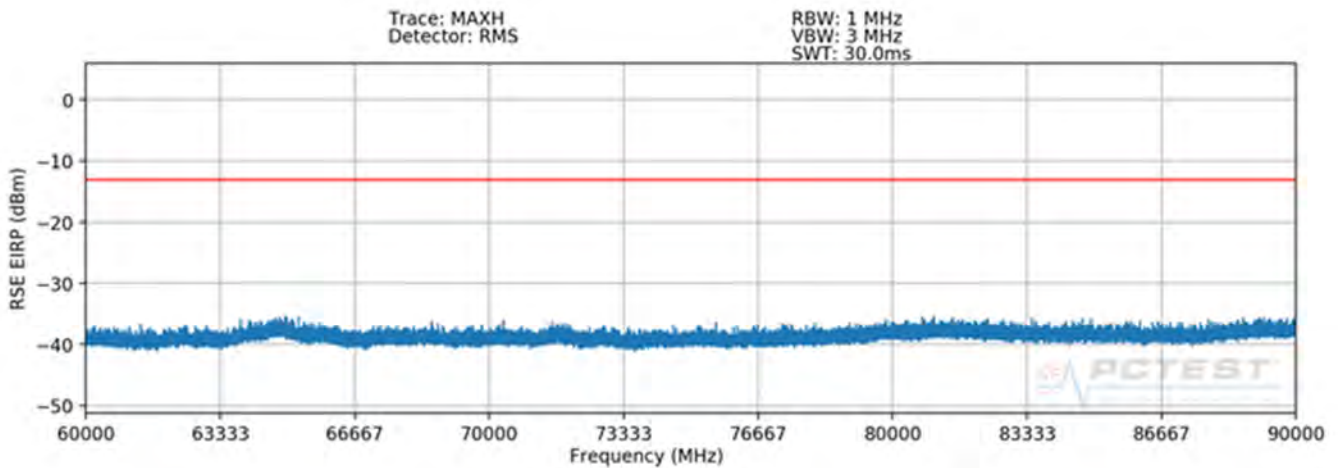


Plot 7-251. J Dipole Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel H Beam – n260)

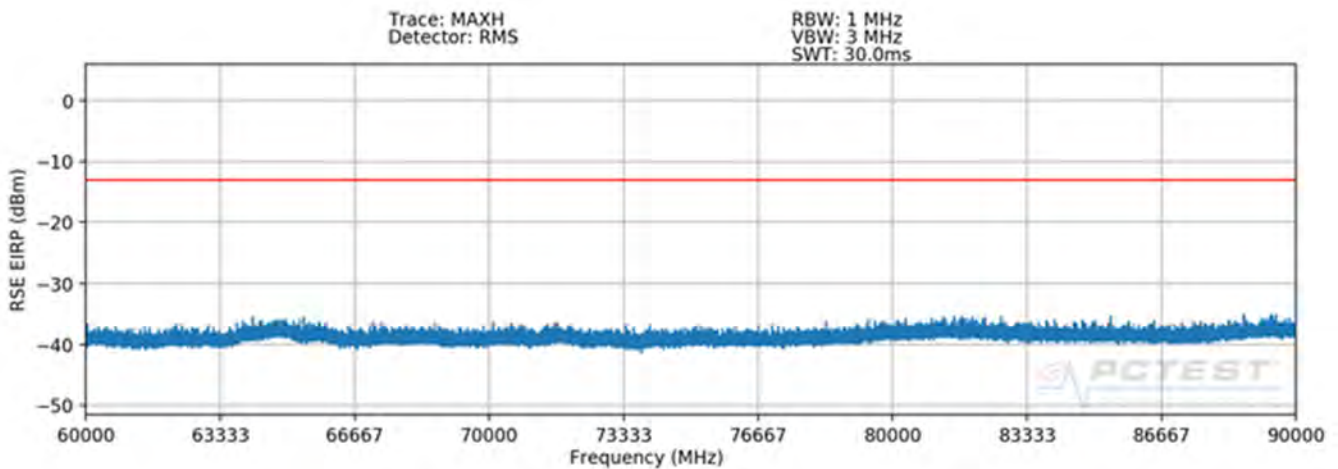
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-252. J Dipole Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-253. J Dipole Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-254. J Dipole Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
74006.00	RMS/Avg	Low	50	QPSK	H	H	256	314	-43.87	-13.00	-30.87
77591.50	RMS/Avg	Mid	50	QPSK	H	H	291	314	-43.68	-13.00	-30.68
79884.00	RMS/Avg	High	50	QPSK	H	H	254	314	-41.56	-13.00	-28.56
74006.50	RMS/Avg	Low	50	QPSK	V	H	294	100	-43.21	-13.00	-30.21
77591.50	RMS/Avg	Mid	50	QPSK	V	H	296	114	-41.06	-13.00	-28.06
79883.50	RMS/Avg	High	50	QPSK	V	H	296	109	-41.88	-13.00	-28.88

Table 7-49. J Dipole Spurious Emissions Table (60-90GHz – n260)

Notes

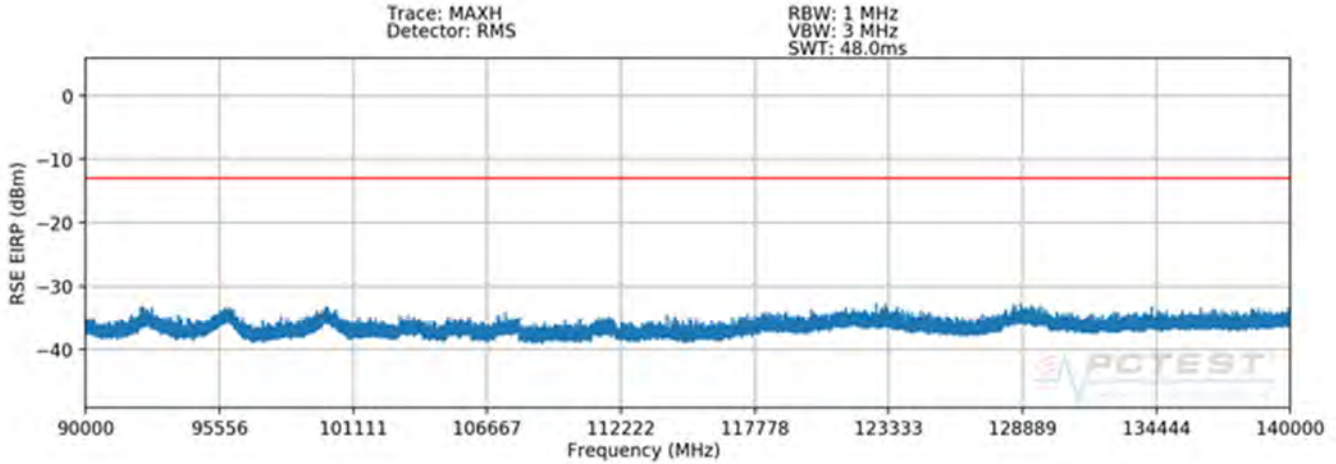
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

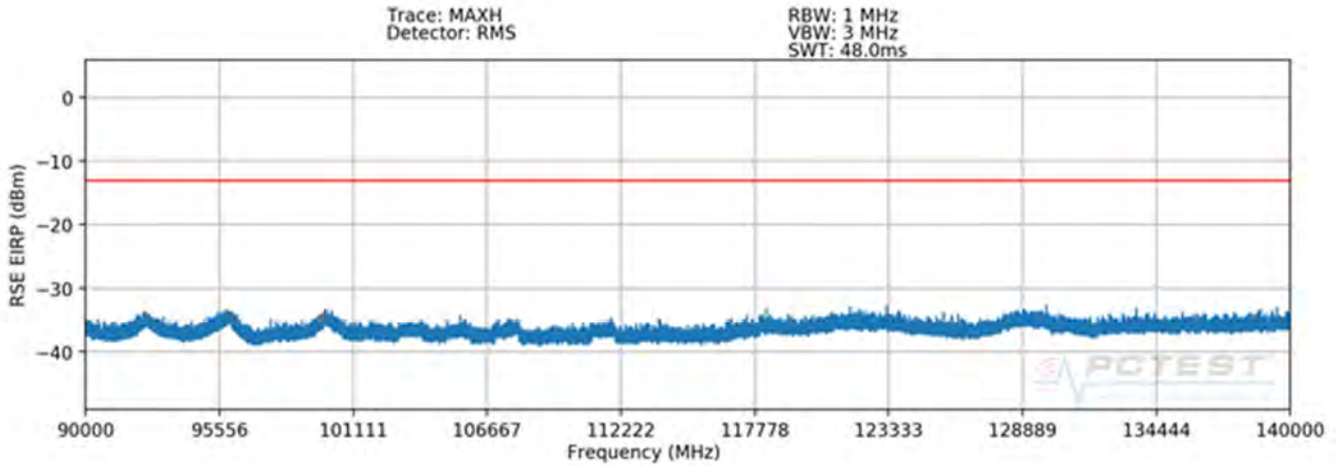
$$(-41.56 \text{ dBm} + -41.88 \text{ dBm}) = (69.79 \text{ nW} + 64.88 \text{ nW}) = (134.67 \text{ nW}) = -38.71 \text{ dBm}$$

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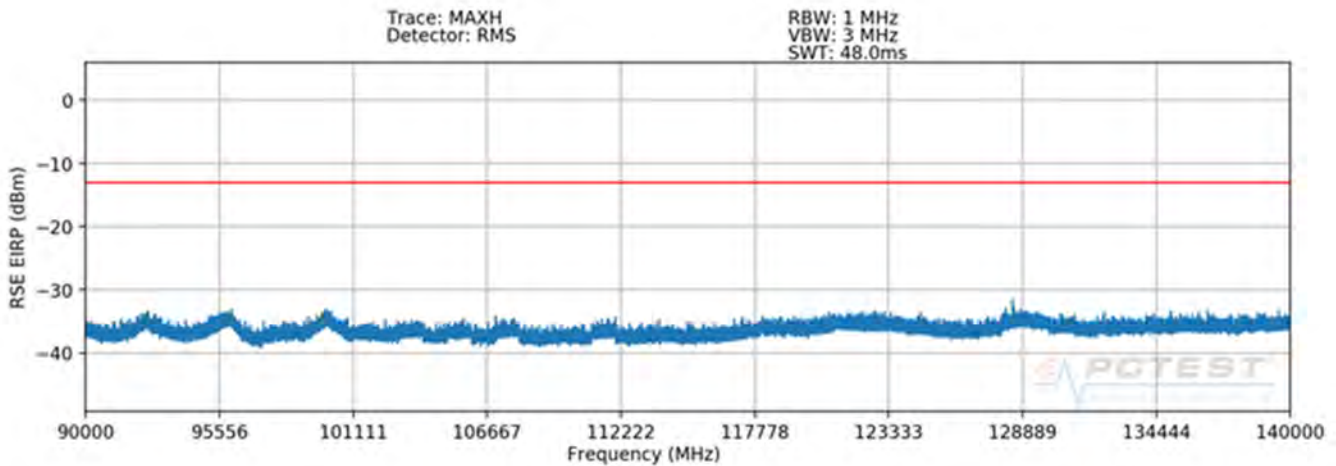
90 – 140GHz(n260)



Plot 7-255. J Dipole Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel H Beam – n260)

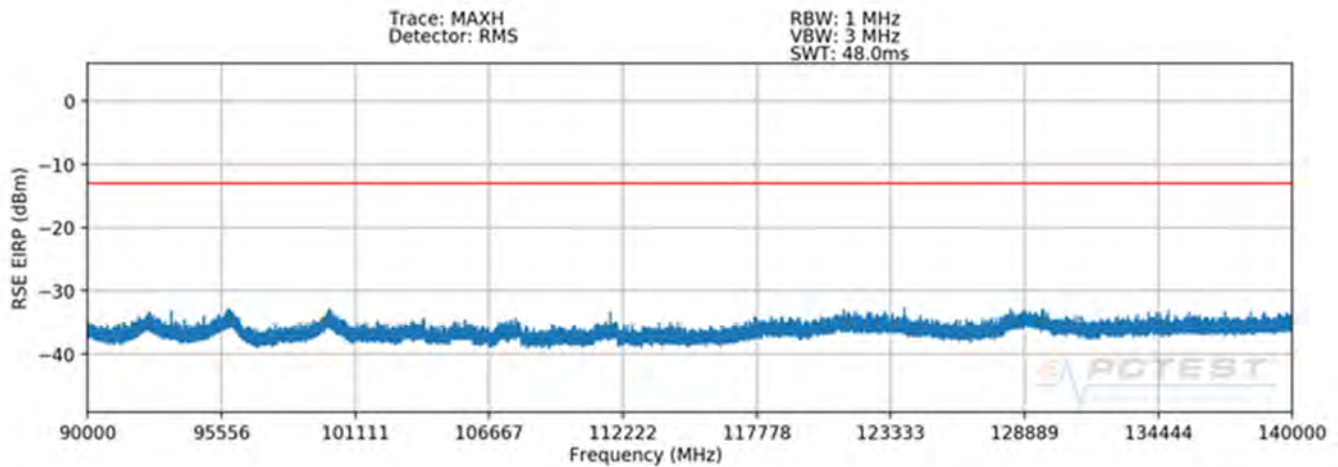


Plot 7-256. J Dipole Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel H Beam – n260)

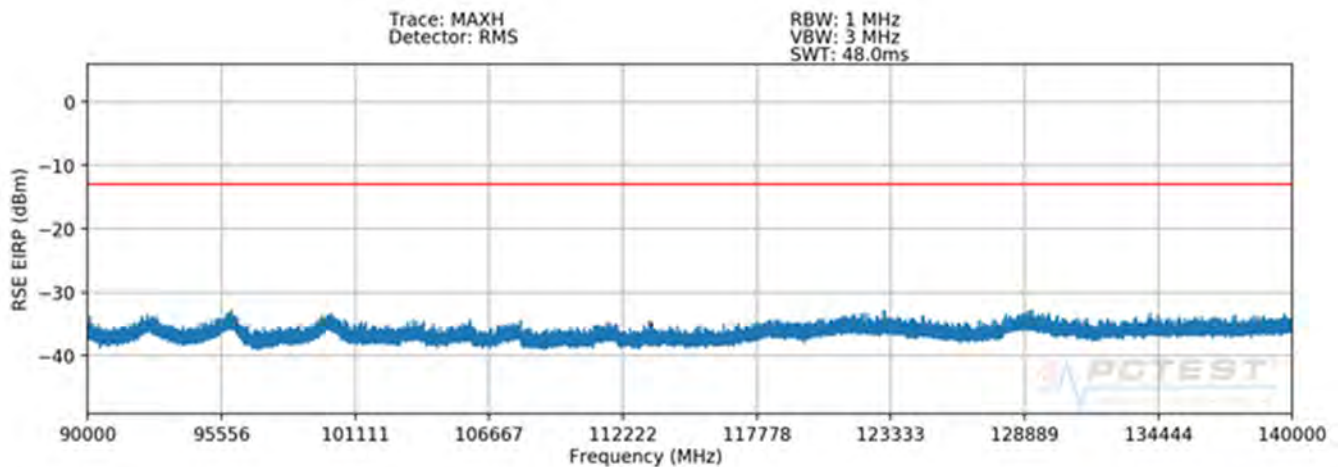


Plot 7-257. J Dipole Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel H Beam – n260)

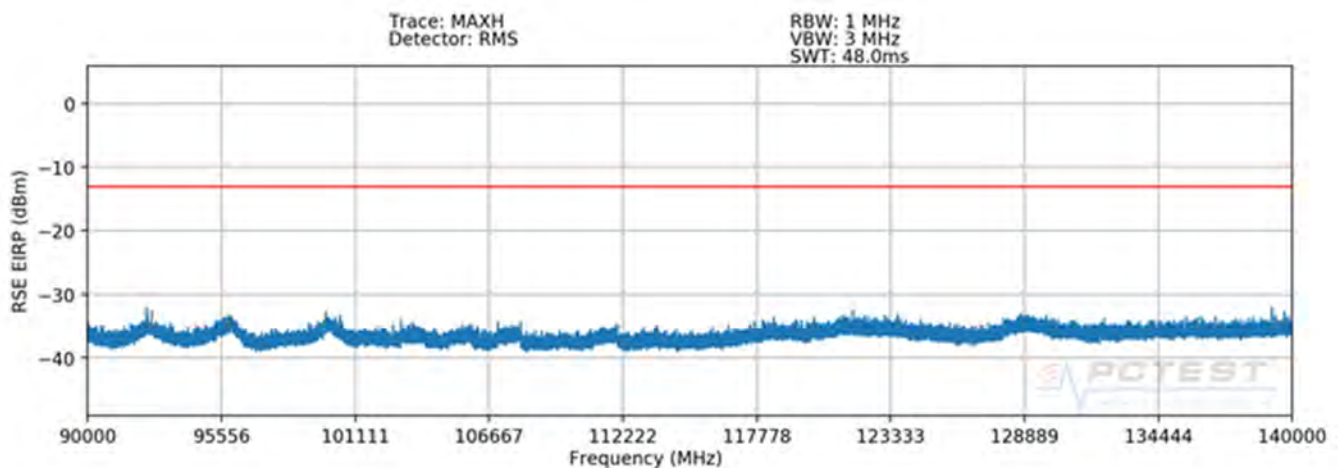
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-258. J Dipole Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-259. J Dipole Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-260. J Dipole Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
100001.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-41.11	-13.00	-28.11
95999.00	RMS/Avg	Mid	50	QPSK	H	H	-	-	-39.73	-13.00	-26.73
128533.50	RMS/Avg	High	50	QPSK	H	H	-	-	-39.58	-13.00	-26.58
100026.50	RMS/Avg	Low	50	QPSK	V	H	-	-	-40.09	-13.00	-27.09
128536.50	RMS/Avg	Mid	50	QPSK	V	H	-	-	-39.94	-13.00	-26.94
96089.50	RMS/Avg	High	50	QPSK	V	H	-	-	-40.06	-13.00	-27.06

Table 7-50. J Dipole Spurious Emissions Table (90-140GHz – n260)

Notes

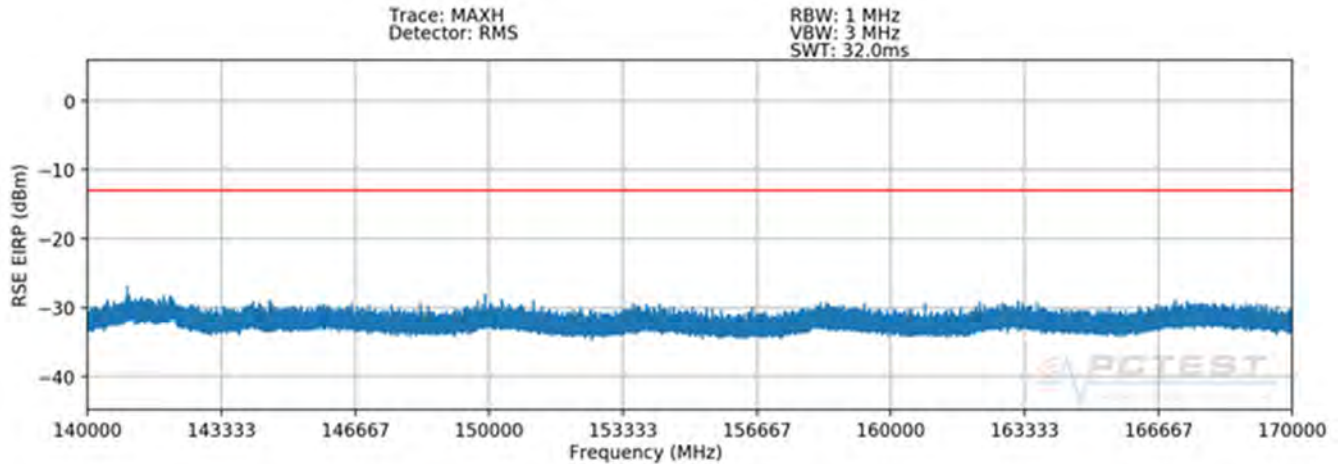
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

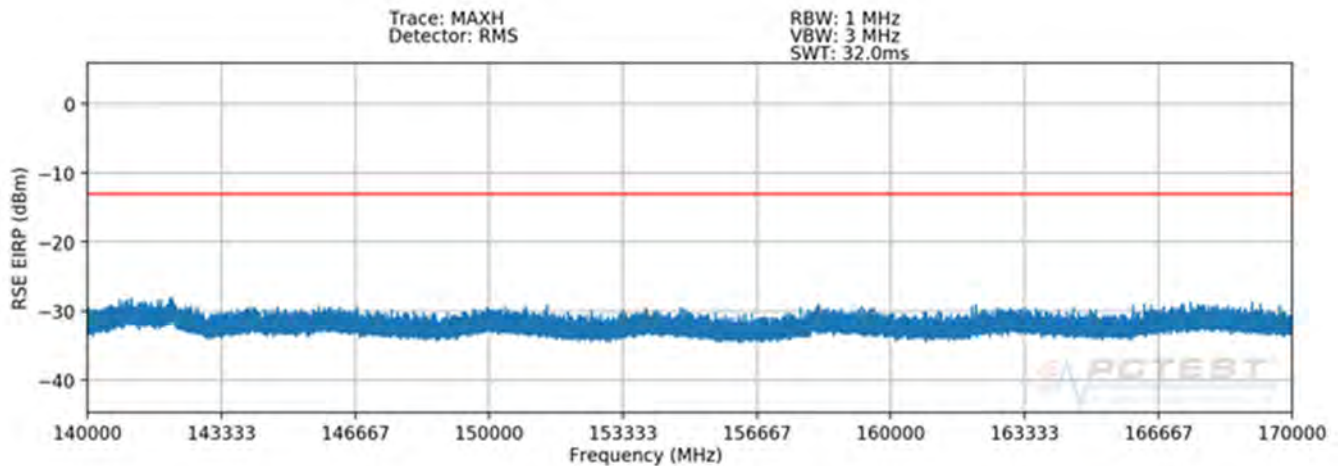
$$(-39.58 \text{ dBm} + -40.06 \text{ dBm}) = (110.20 \text{ nW} + 98.74 \text{ nW}) = (208.95 \text{ nW}) = -36.80 \text{ dBm}$$

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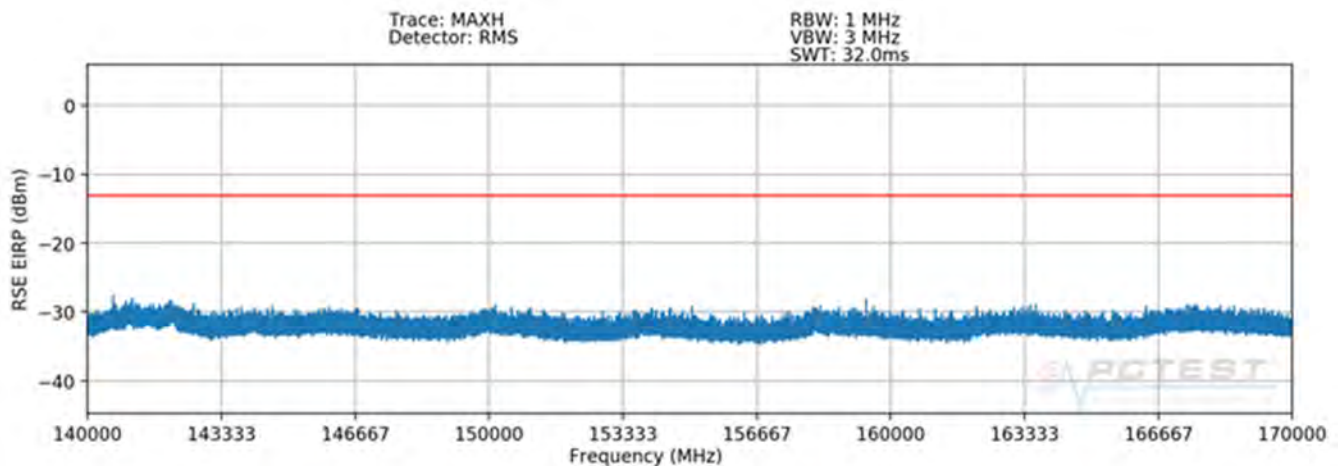
140 – 170GHz(n260)



Plot 7-261. J Dipole Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel H Beam – n260)

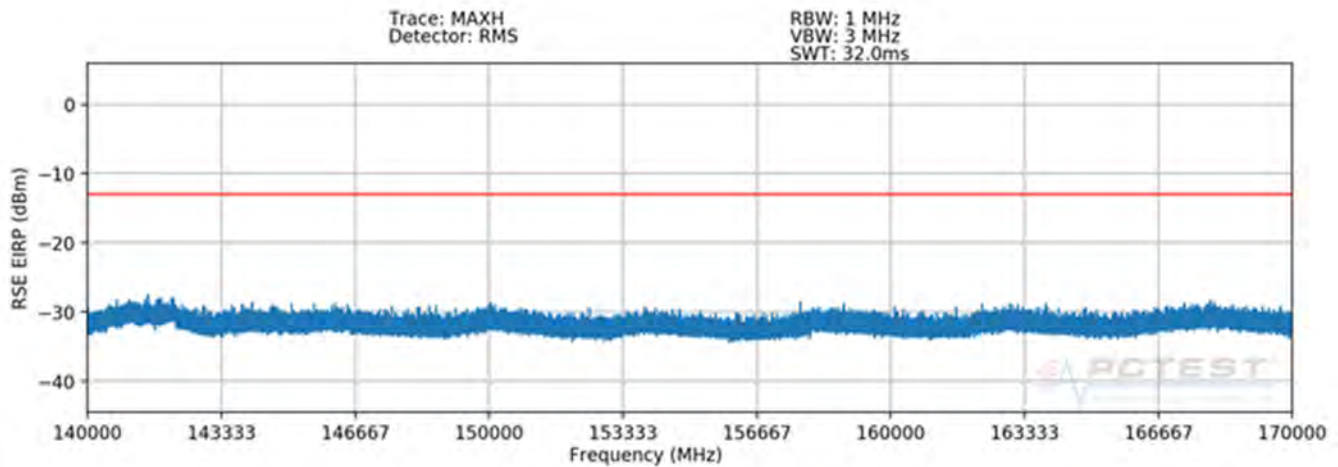


Plot 7-262. J Dipole Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel H Beam – n260)

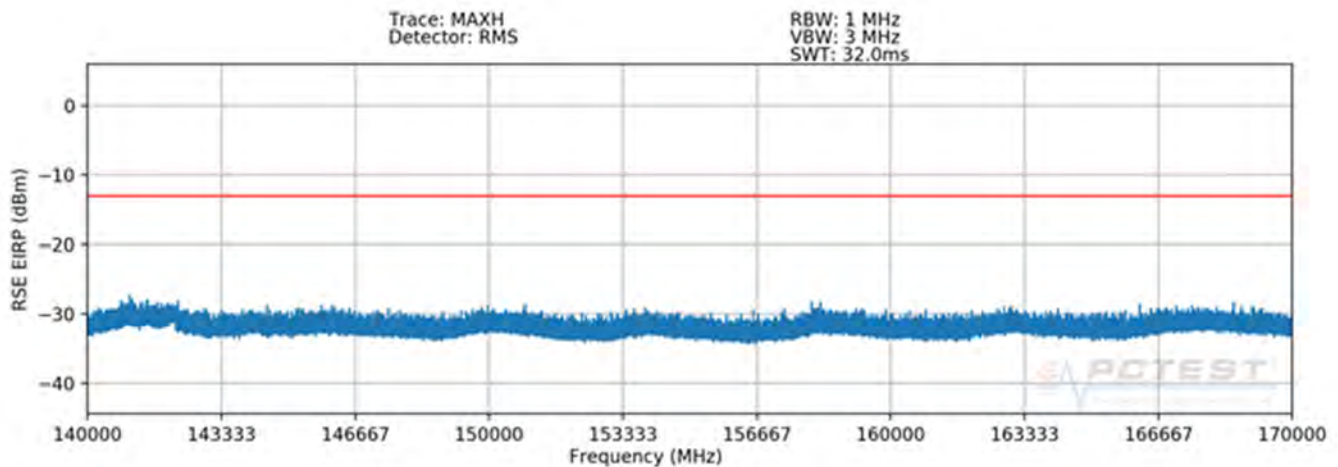


Plot 7-263. J Dipole Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel H Beam – n260)

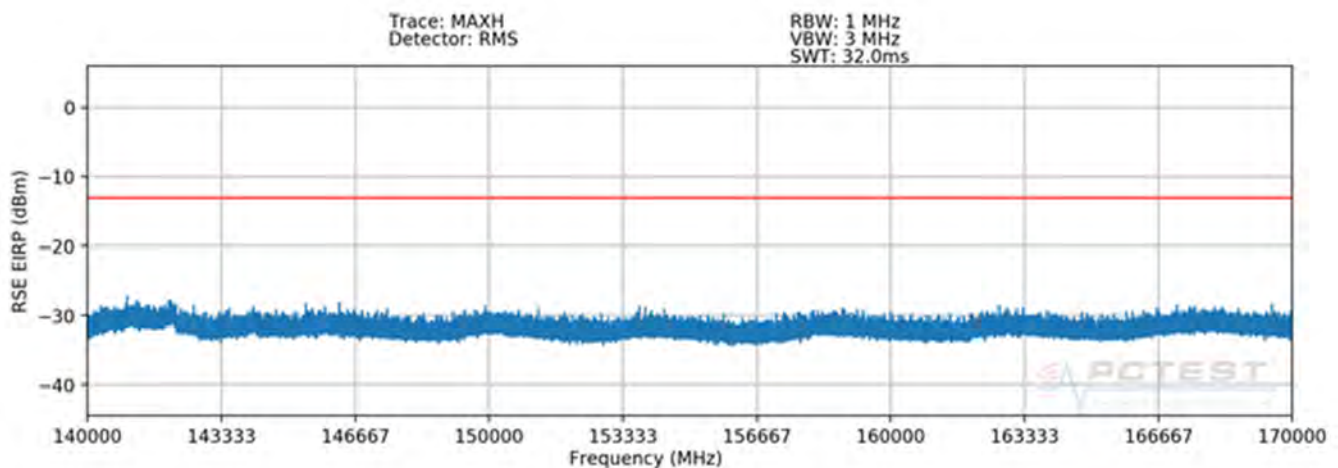
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-264. J Dipole Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-265. J Dipole Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-266. J Dipole Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
142116.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-35.53	-13.00	-22.53
142103.00	RMS/Avg	Mid	50	QPSK	H	H	-	-	-34.73	-13.00	-21.73
142122.00	RMS/Avg	High	50	QPSK	H	H	-	-	-34.78	-13.00	-21.78
142085.00	RMS/Avg	Low	50	QPSK	V	H	-	-	-34.97	-13.00	-21.97
142149.00	RMS/Avg	Mid	50	QPSK	V	H	-	-	-34.72	-13.00	-21.72
142071.00	RMS/Avg	High	50	QPSK	V	H	-	-	-34.69	-13.00	-21.69

Table 7-51. J Dipole Spurious Emissions Table (140-170GHz – n260)

Notes

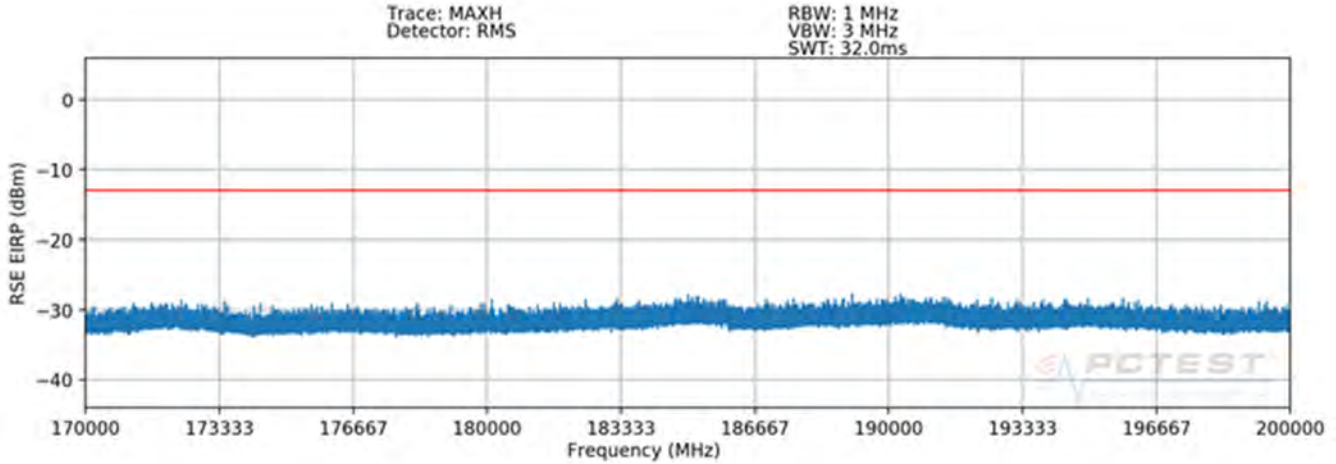
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

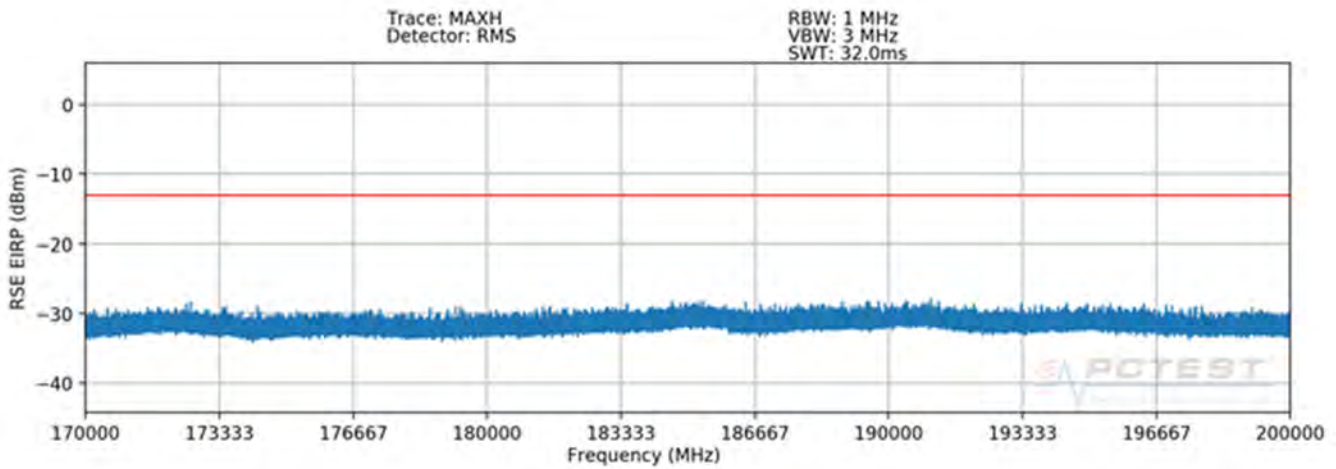
$$(-34.73 \text{ dBm} + -34.72 \text{ dBm}) = (336.90 \text{ nW} + 337.21 \text{ nW}) = (674.11 \text{ nW}) = -31.71 \text{ dBm}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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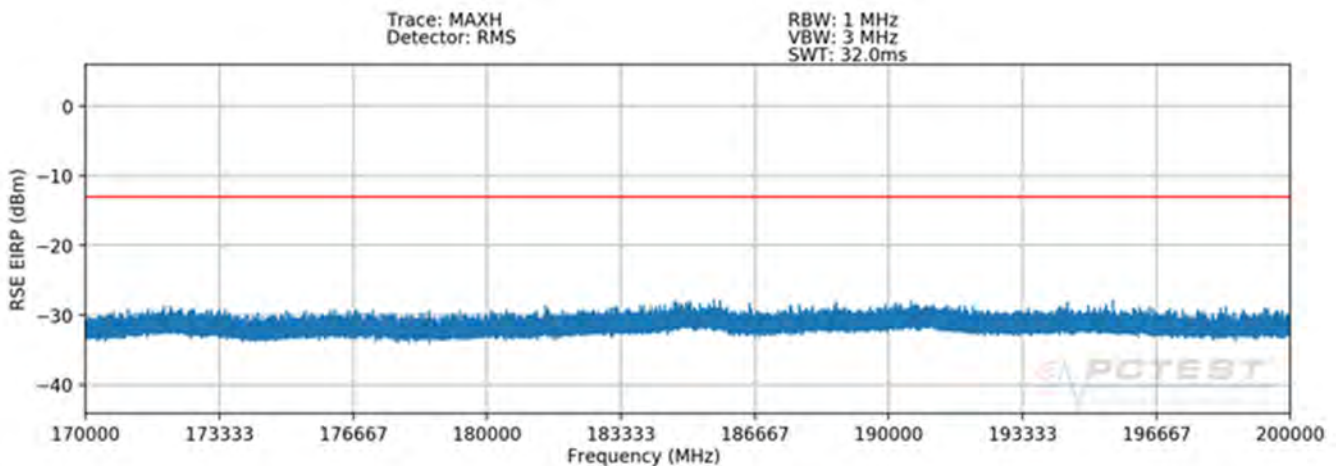
170 – 200GHz(n260)



Plot 7-267. J Dipole Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel H Beam – n260)

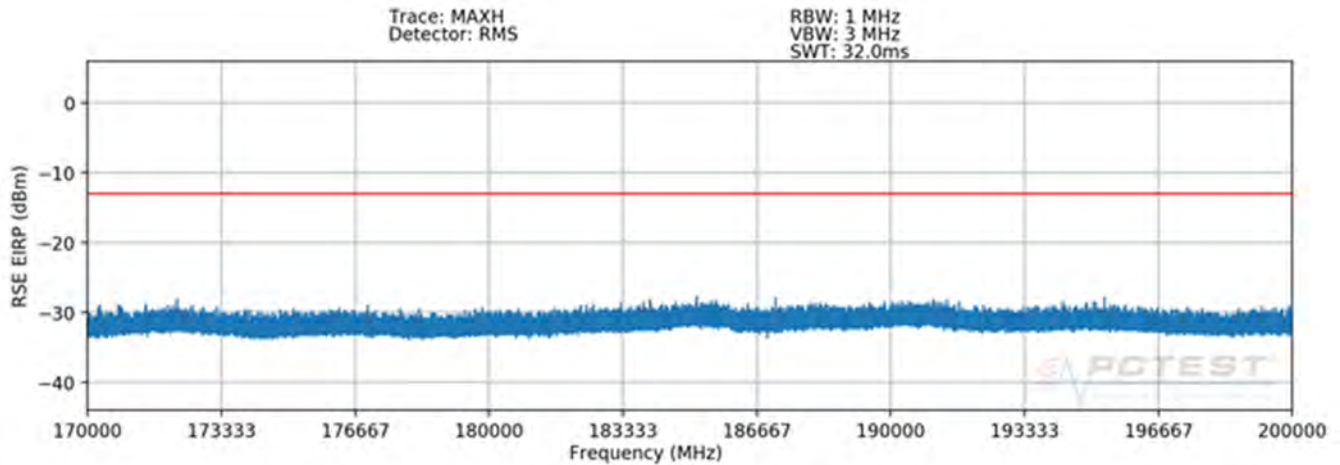


Plot 7-268. J Dipole Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel H Beam – n260)

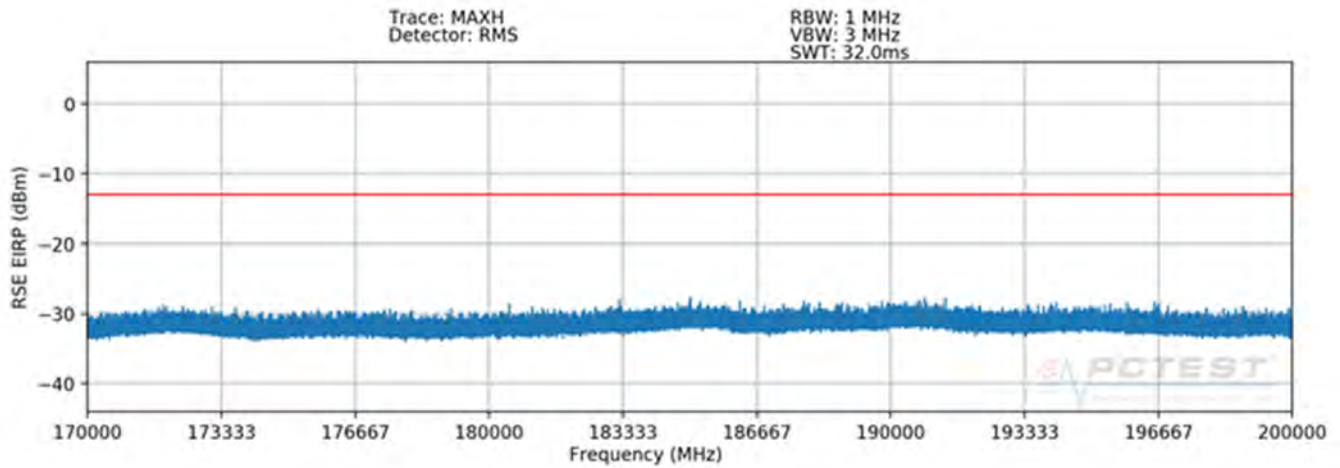


Plot 7-269. J Dipole Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel H Beam – n260)

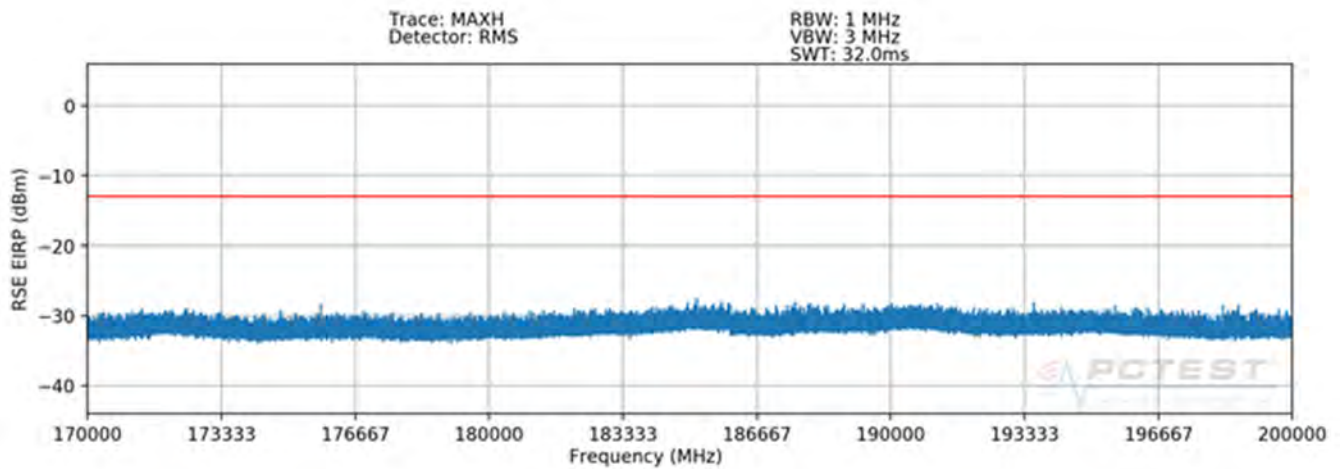
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-270. J Dipole Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-271. J Dipole Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-272. J Dipole Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
191052.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-36.00	-13.00	-23.00
190293.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-35.31	-13.00	-22.31
191121.00	RMS/Avg	High	50	QPSK	H	H	-	-	-35.20	-13.00	-22.20
190357.50	RMS/Avg	Low	50	QPSK	V	H	-	-	-35.46	-13.00	-22.46
191213.00	RMS/Avg	Mid	50	QPSK	V	H	-	-	-35.11	-13.00	-22.11
190822.00	RMS/Avg	High	50	QPSK	V	H	-	-	-35.34	-13.00	-22.34

Table 7-52. J Dipole Spurious Emissions Table (170-200GHz – n260)

Notes

1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

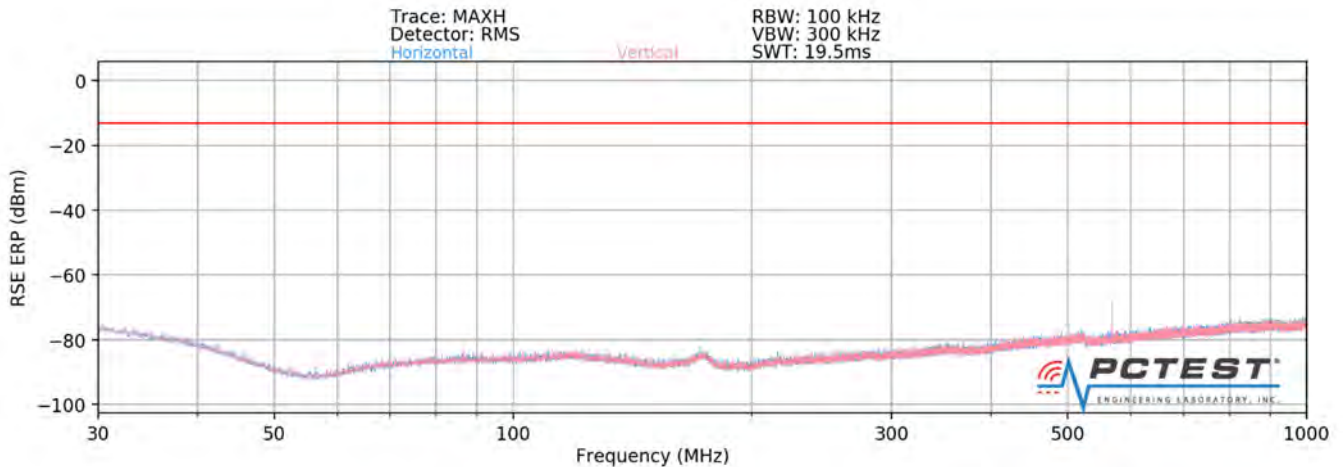
$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

$$(-35.31 \text{ dBm} + -35.11 \text{ dBm}) = (294.17 \text{ nW} + 308.60 \text{ nW}) = (602.77 \text{ nW}) = -32.20 \text{ dBm}$$

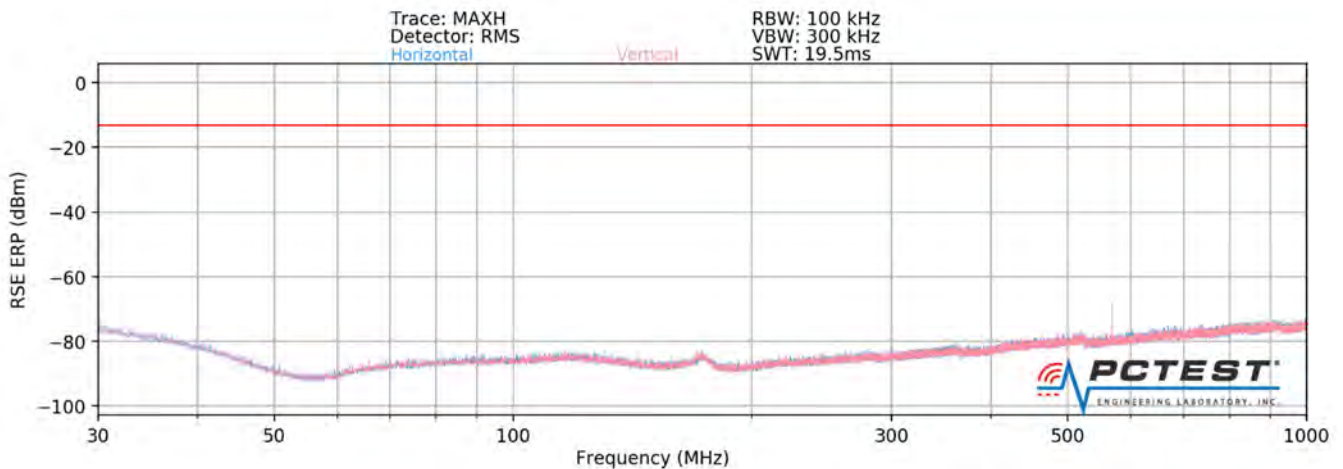
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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J Patch Radiated Spurious Emissions(n260)

30MHz – 1GHz(n260)



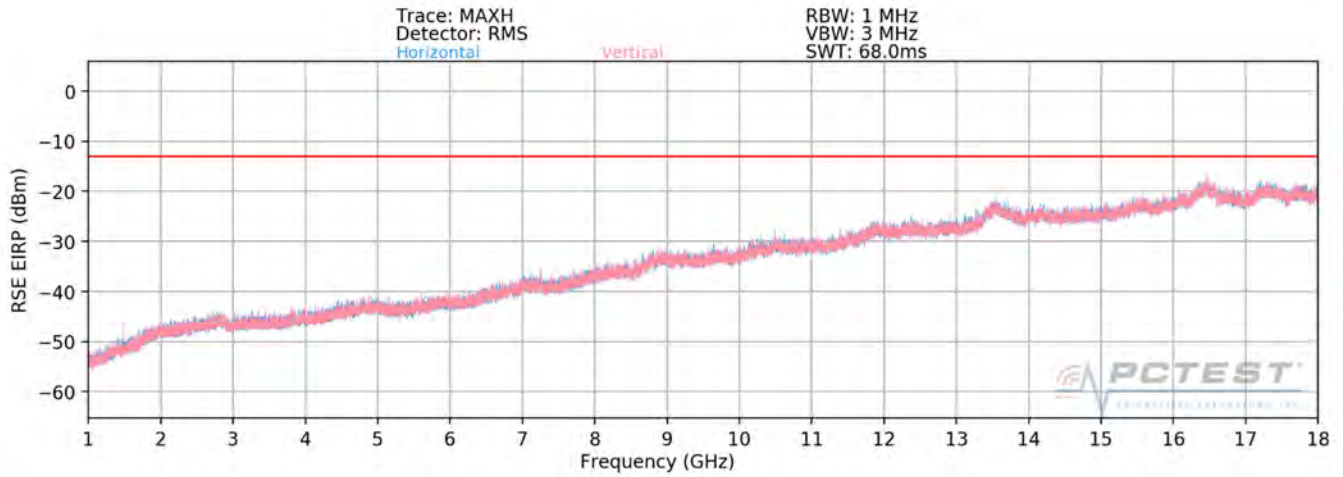
Plot 7-273. J Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel H Beam – n260)



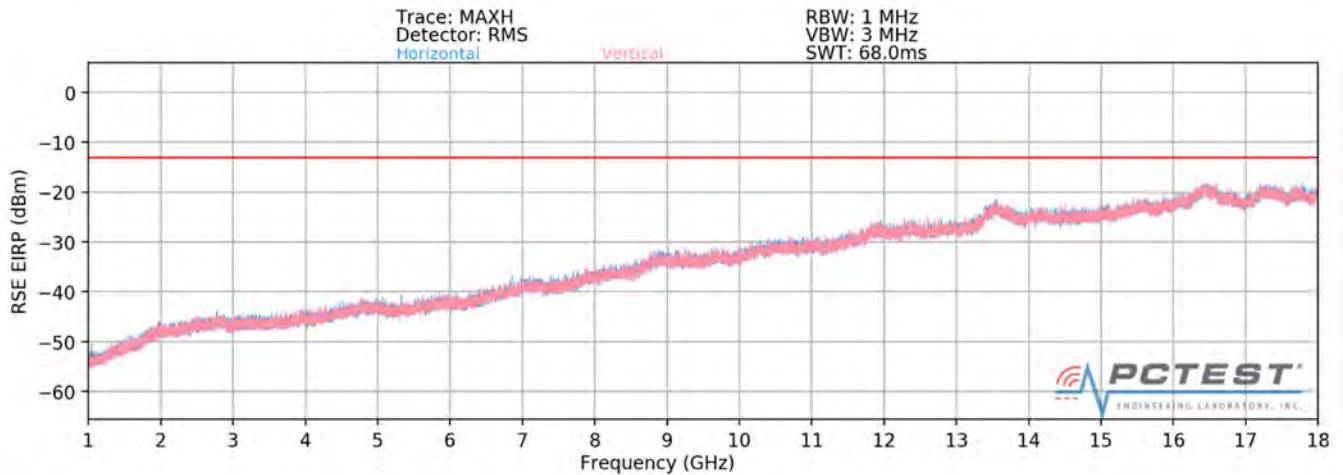
Plot 7-274. J Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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1 – 18GHz(n260)



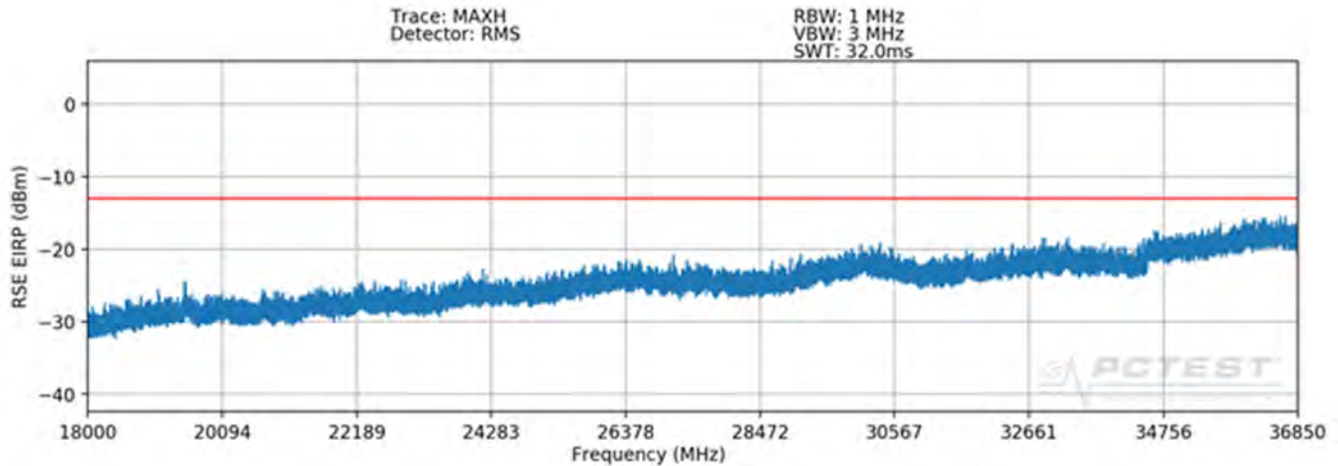
Plot 7-275. J Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel H Beam – n260)



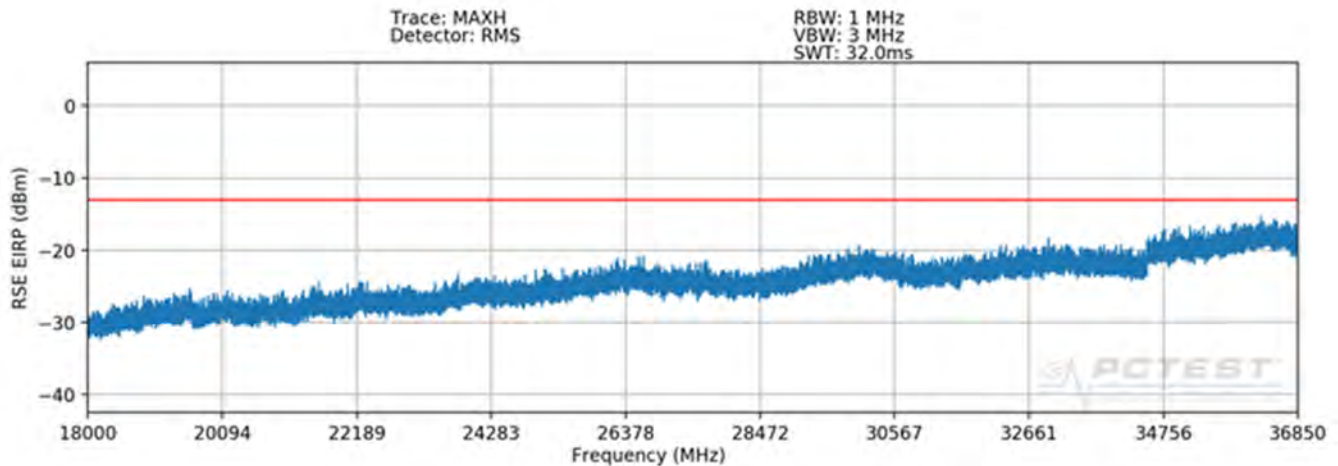
Plot 7-276. J Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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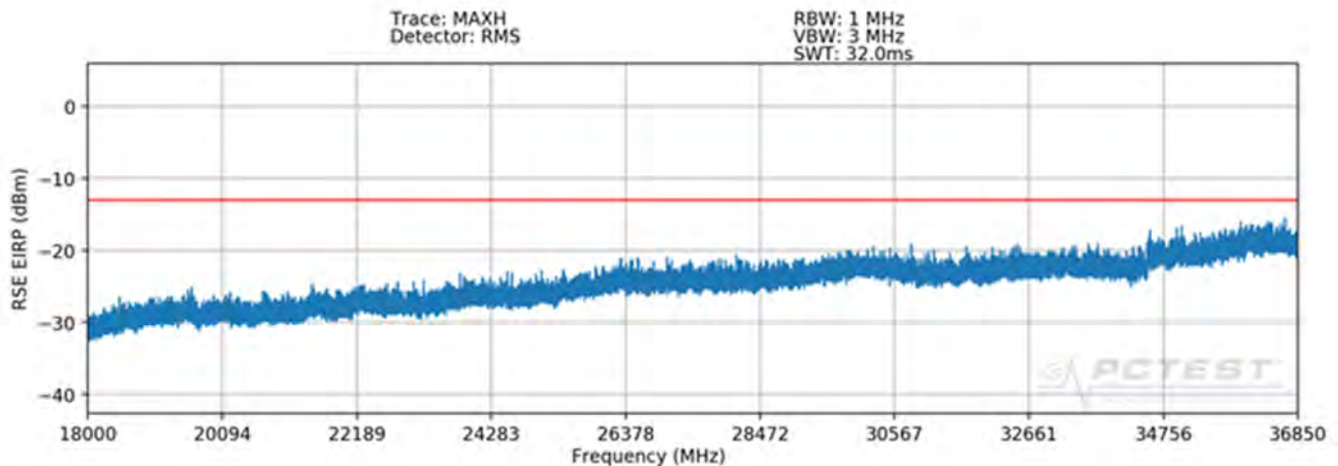
18 – 36.85GHz(n260)



Plot 7-277. J Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel H Beam – n260)

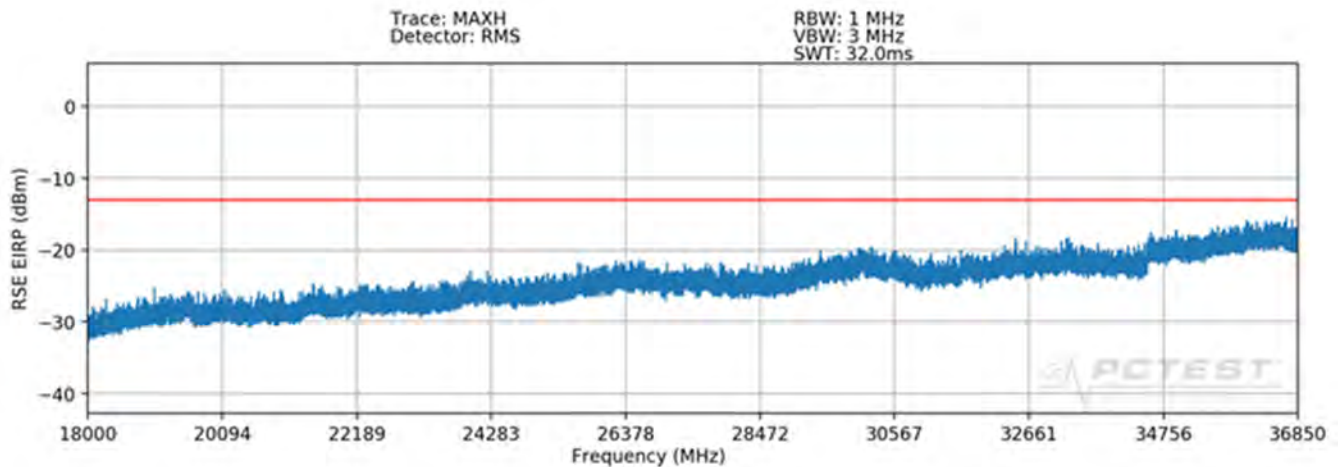


Plot 7-278. J Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel H Beam – n260)

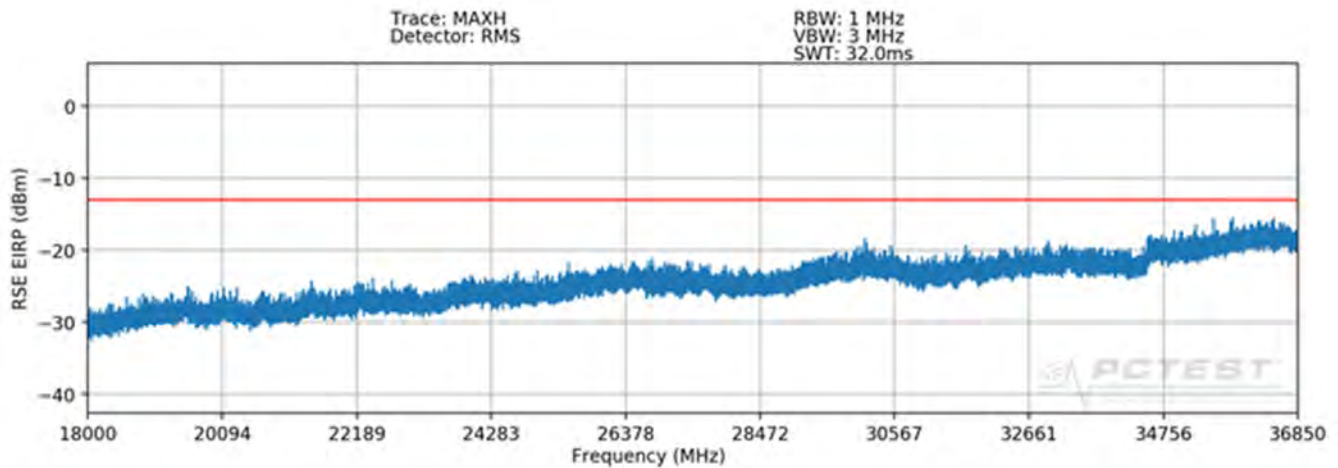


Plot 7-279. J Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel H Beam – n260)

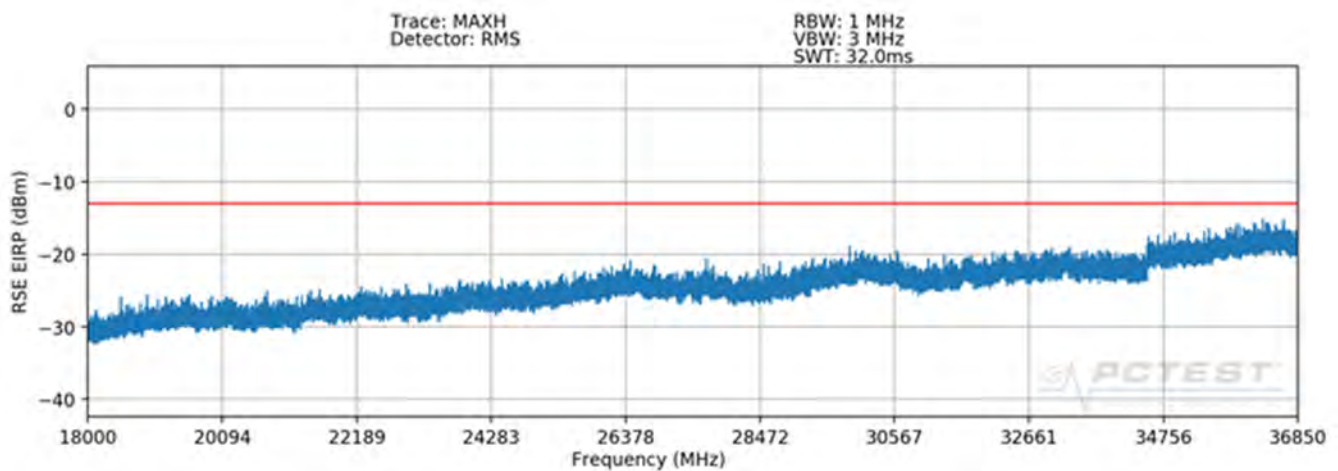
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-280. J Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-281. J Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-282. J Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
28454.00	RMS/Avg	Low	50	QPSK	H	H	133	96	-33.92	-13.00	-20.92
29577.50	RMS/Avg	Mid	50	QPSK	H	H	94	94	-30.56	-13.00	-17.56
31180.50	RMS/Avg	High	50	QPSK	H	H	87	94	-22.68	-13.00	-9.68
28454.00	RMS/Avg	Low	50	QPSK	V	V	78	251	-31.38	-13.00	-18.38
29577.50	RMS/Avg	Mid	50	QPSK	V	V	79	279	-25.46	-13.00	-12.46
31180.50	RMS/Avg	High	50	QPSK	V	V	80	277	-18.76	-13.00	-5.76

Table 7-53. J Patch Spurious Emissions Table (18-36.85GHz – n260)

Notes

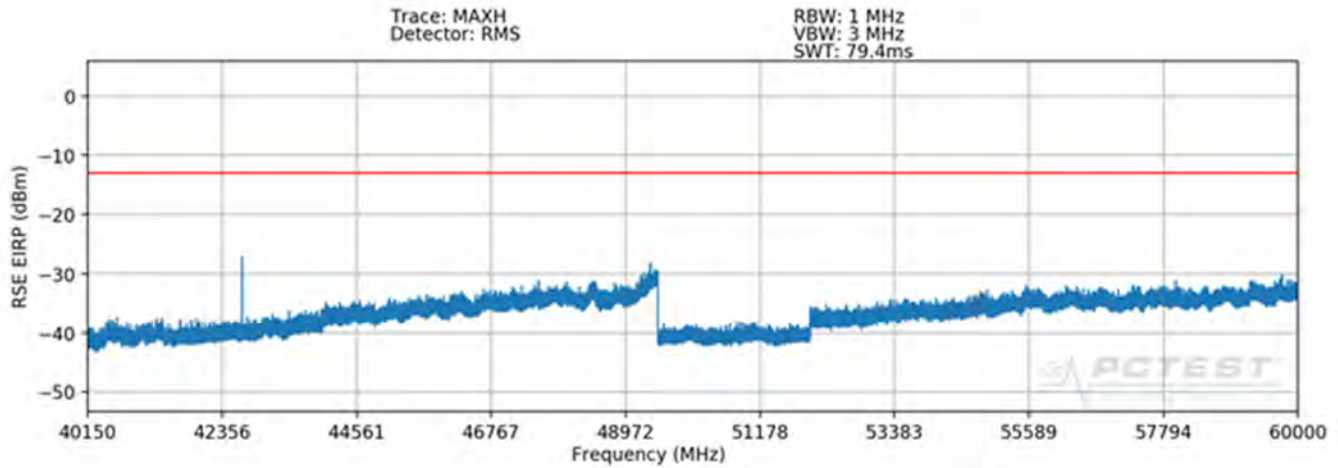
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

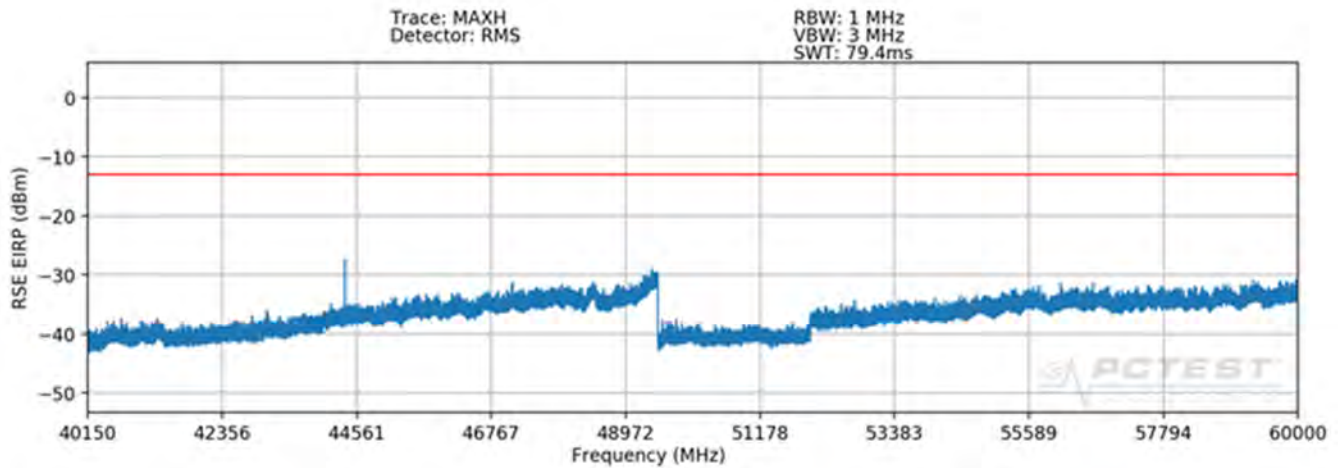
$$(-22.68 \text{ dBm} + -18.76 \text{ dBm}) = (5.40 \text{ μW} + 13.31 \text{ μW}) = (18.71 \text{ μW}) = -17.28 \text{ dBm}$$

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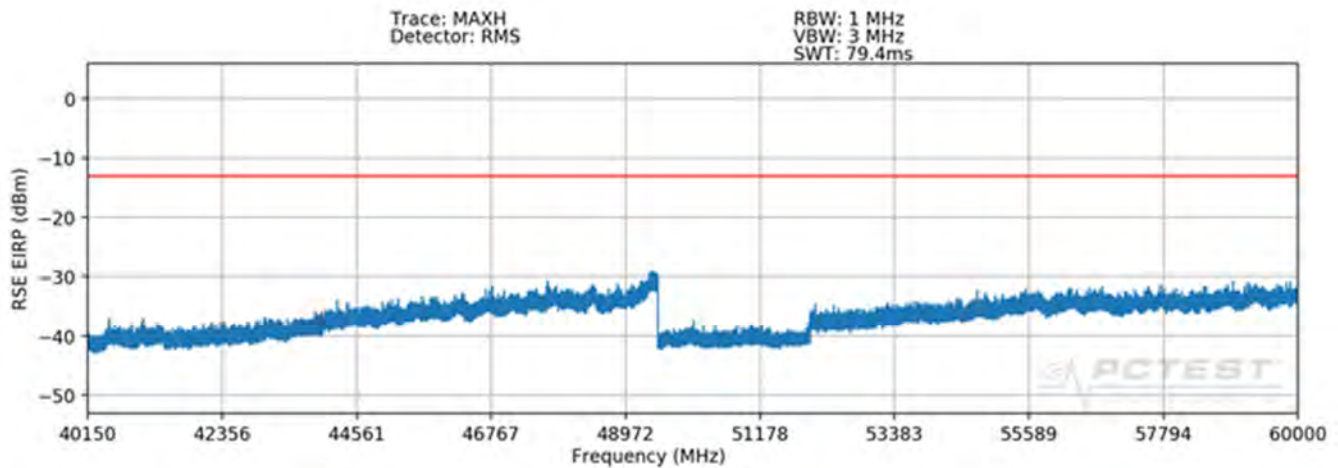
40.15 – 60GHz(n260)



Plot 7-283. J Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel H Beam – n260)

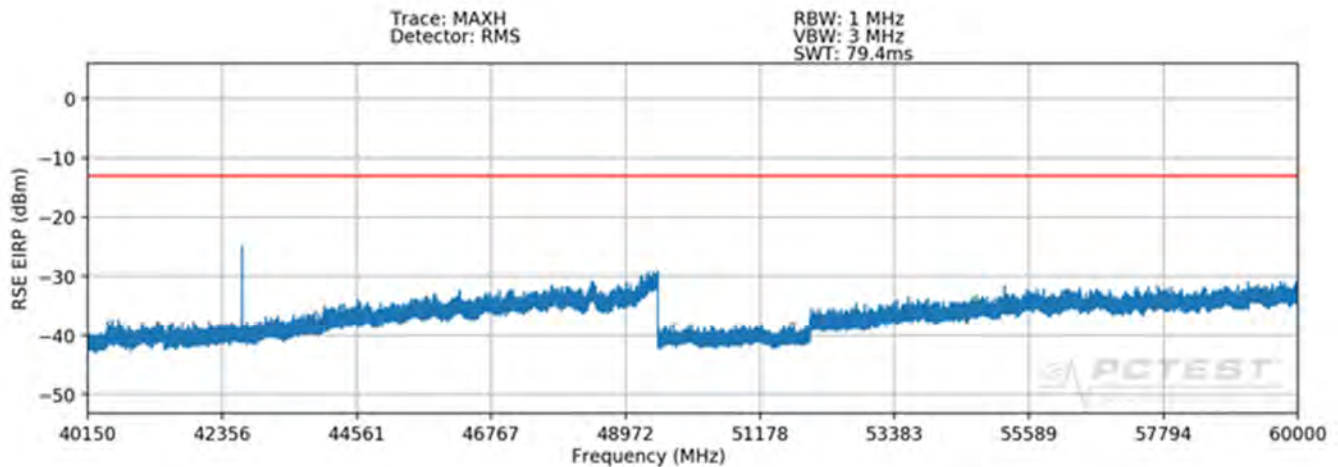


Plot 7-284. J Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel H Beam – n260)

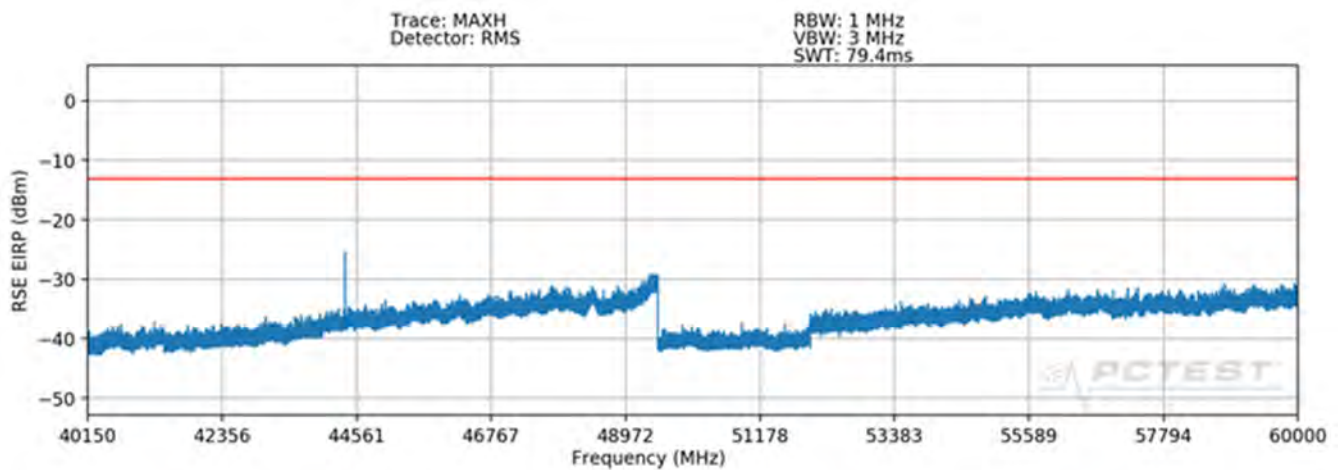


Plot 7-285. J Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel H Beam – n260)

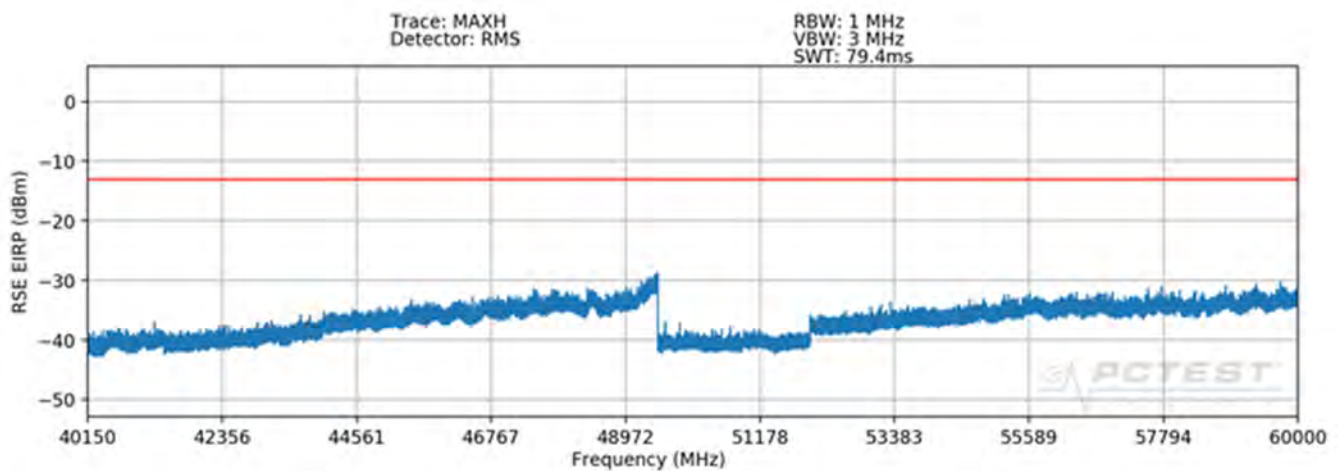
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-286. J Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-287. J Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-288. J Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
42681.15	RMS/Avg	Low	50	QPSK	H	H	228	290	-31.54	-13.00	-18.54
44366.28	RMS/Avg	Mid	50	QPSK	H	H	301	300	-32.35	-13.00	-19.35
46771.12	RMS/Avg	High	50	QPSK	H	H	300	274	-39.53	-13.00	-26.53
42681.47	RMS/Avg	Low	50	QPSK	V	V	82	279	-24.75	-13.00	-11.75
44366.28	RMS/Avg	Mid	50	QPSK	V	V	57	281	-30.79	-13.00	-17.79
46771.12	RMS/Avg	High	50	QPSK	V	V	54	283	-38.22	-13.00	-25.22

Table 7-54. J Patch Spurious Emissions Table (40.15-60 GHz – n260)

Notes

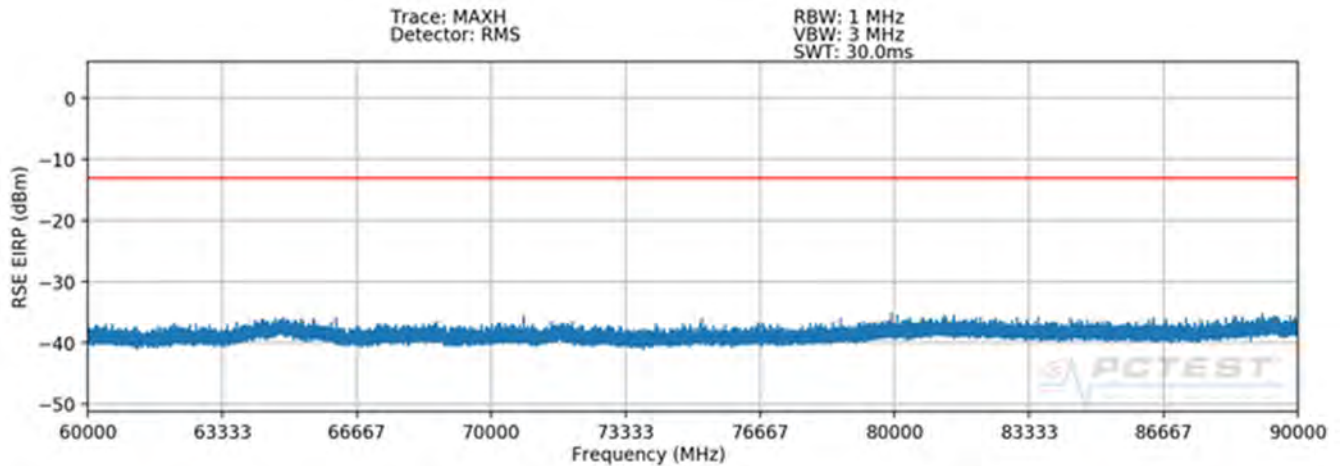
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

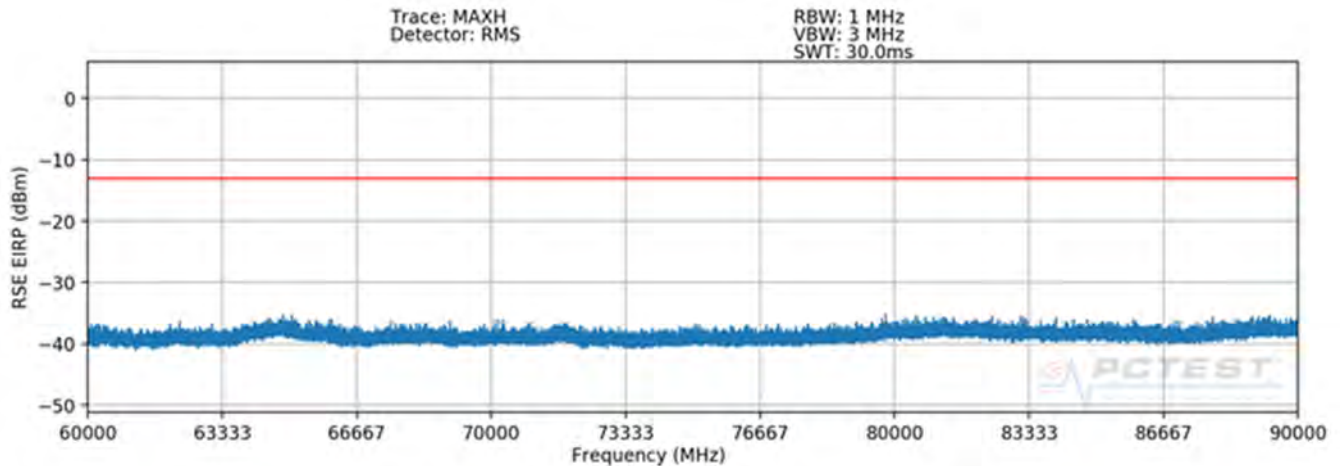
$$(-31.54 \text{ dBm} + -24.75 \text{ dBm}) = (701.46 \text{ nW} + 3349.65 \text{ nW}) = (4051.11 \text{ nW}) = -23.92 \text{ dBm}$$

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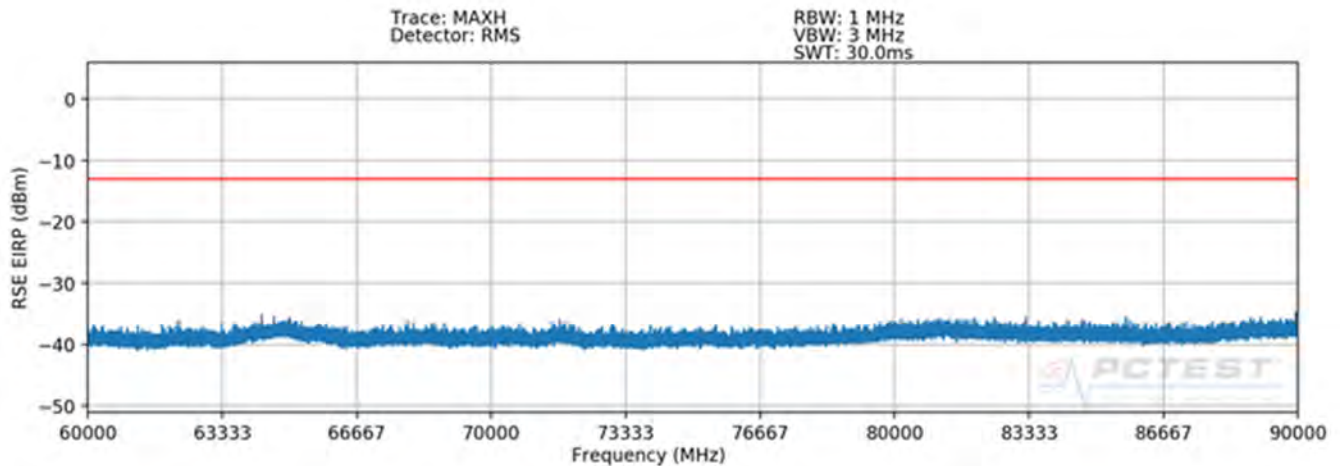
60 – 90GHz(n260)



Plot 7-289. J Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel H Beam – n260)

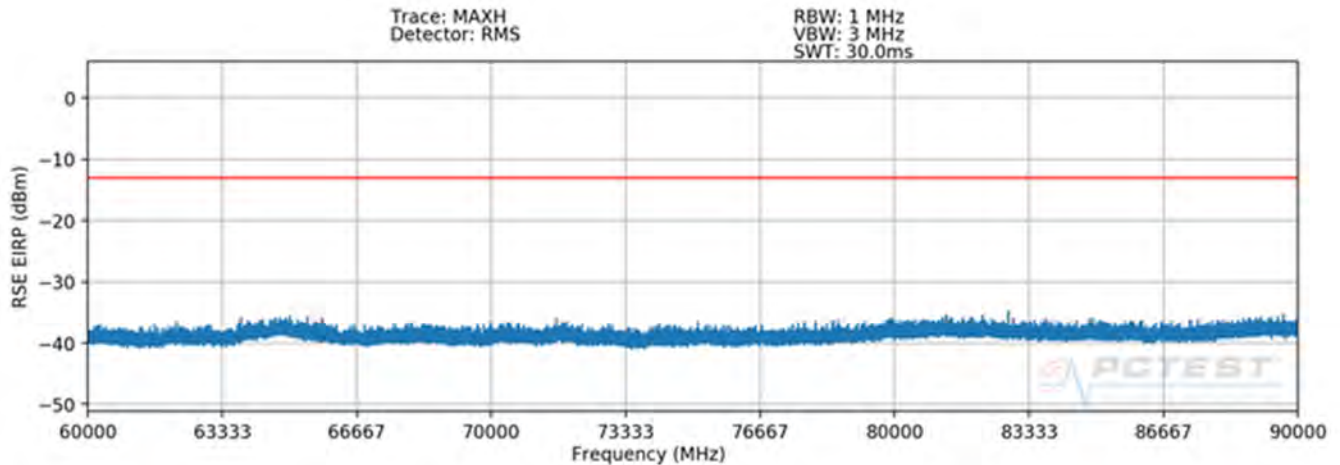


Plot 7-290. J Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel H Beam – n260)

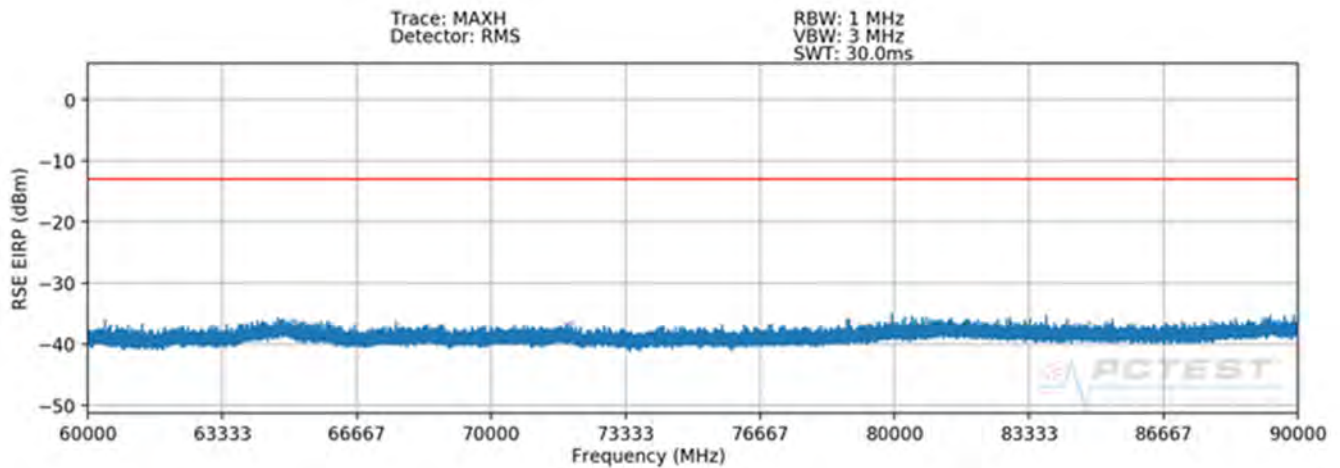


Plot 7-291. J Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel H Beam – n260)

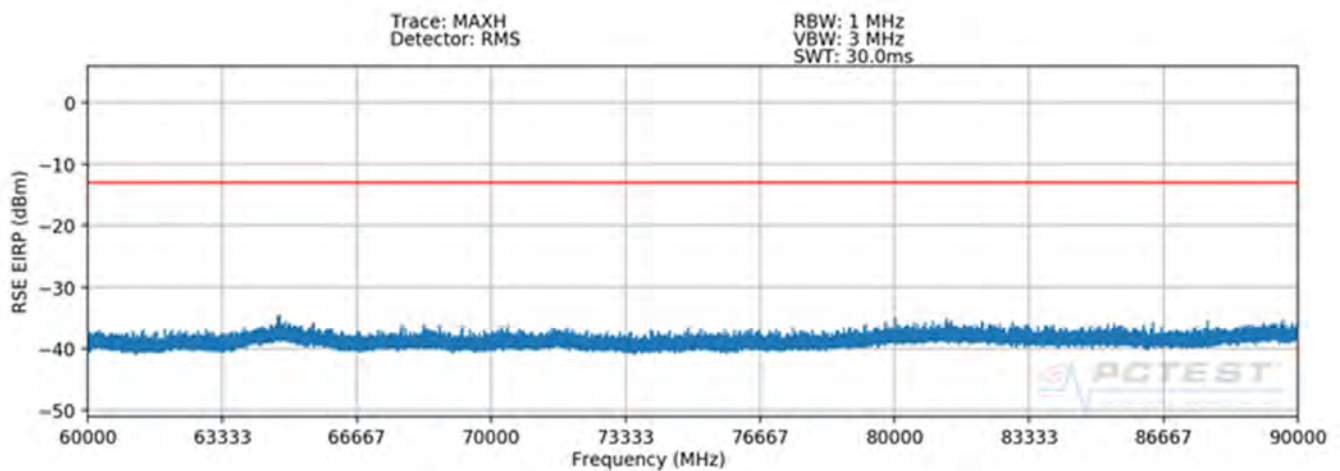
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-292. J Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-293. J Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-294. J Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
89170.50	RMS/Avg	Low	50	QPSK	H	H	-	-	-44.82	-13.00	-31.82
81378.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-44.62	-13.00	-31.62
89419.00	RMS/Avg	High	50	QPSK	H	H	-	-	-44.52	-13.00	-31.52
89465.50	RMS/Avg	Low	50	QPSK	V	V	-	-	-44.80	-13.00	-31.80
64743.00	RMS/Avg	Mid	50	QPSK	V	V	-	-	-44.74	-13.00	-31.74
81158.50	RMS/Avg	High	50	QPSK	V	V	-	-	-44.98	-13.00	-31.98

Table 7-55. J Patch Spurious Emissions Table (60-90GHz – n260)

Notes

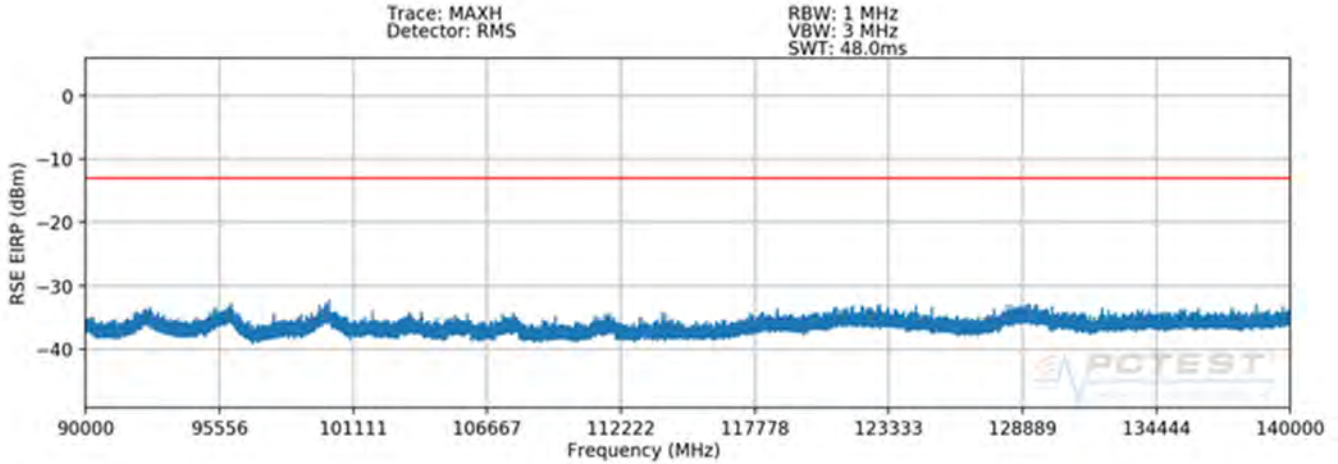
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

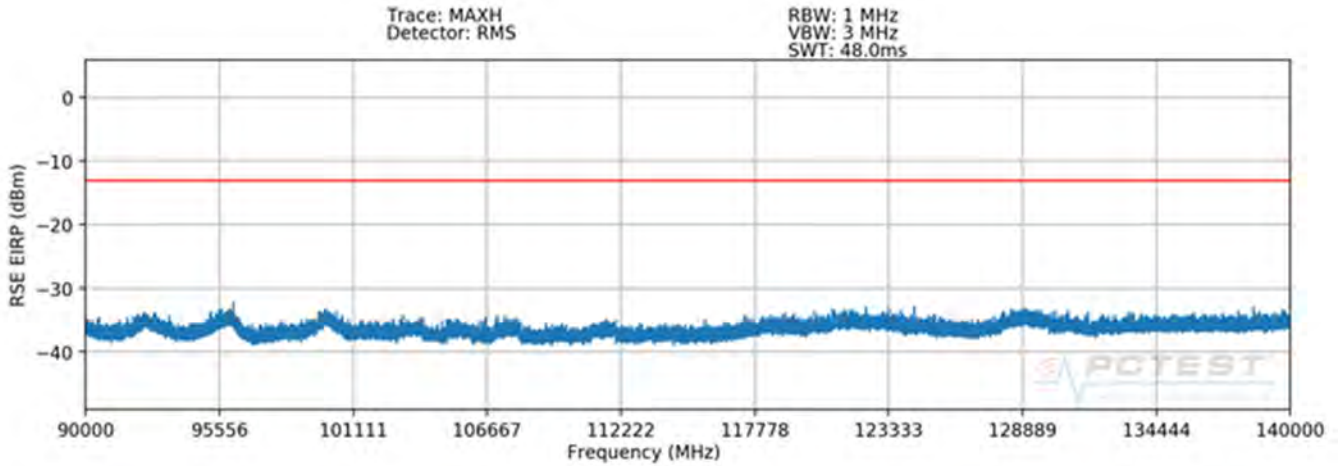
$$(-44.62 \text{ dBm} + -44.74 \text{ dBm}) = (34.53 \text{ nW} + 33.60 \text{ nW}) = (68.13 \text{ nW}) = -41.67 \text{ dBm}$$

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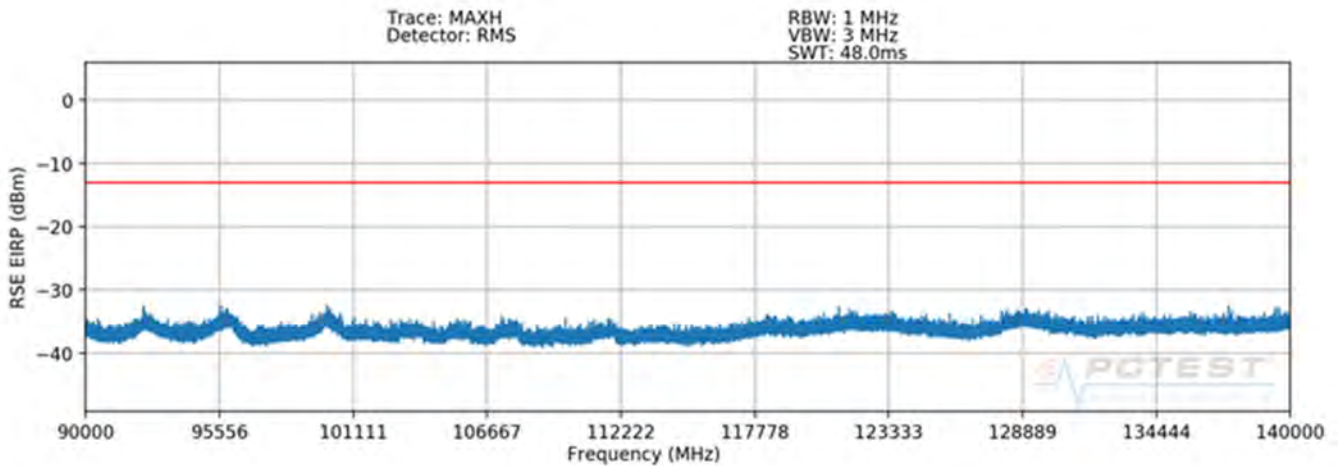
90 – 140GHz(n260)



Plot 7-295. J Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel H Beam – n260)

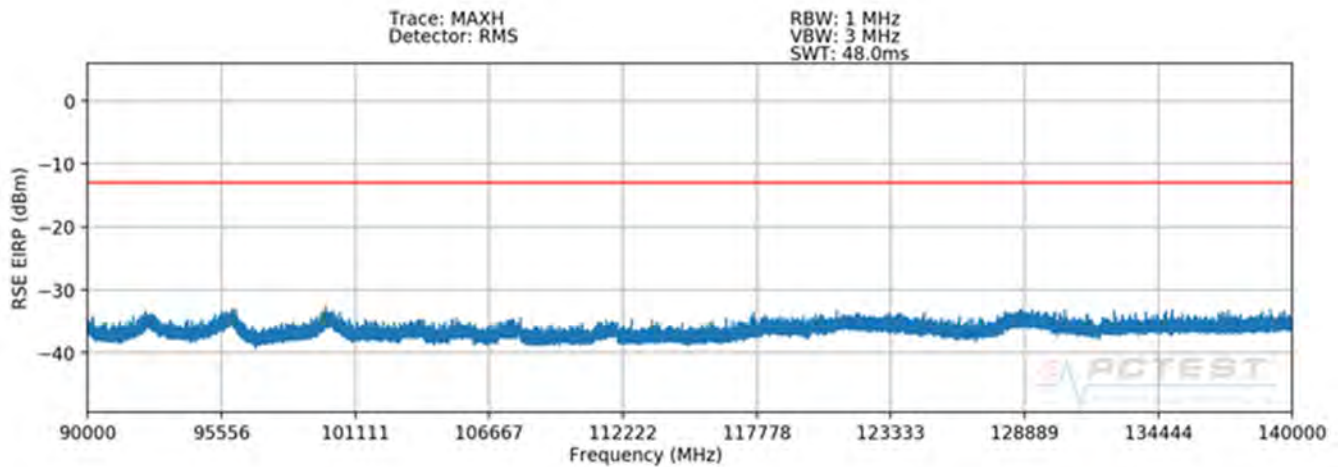


Plot 7-296. J Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel H Beam – n260)

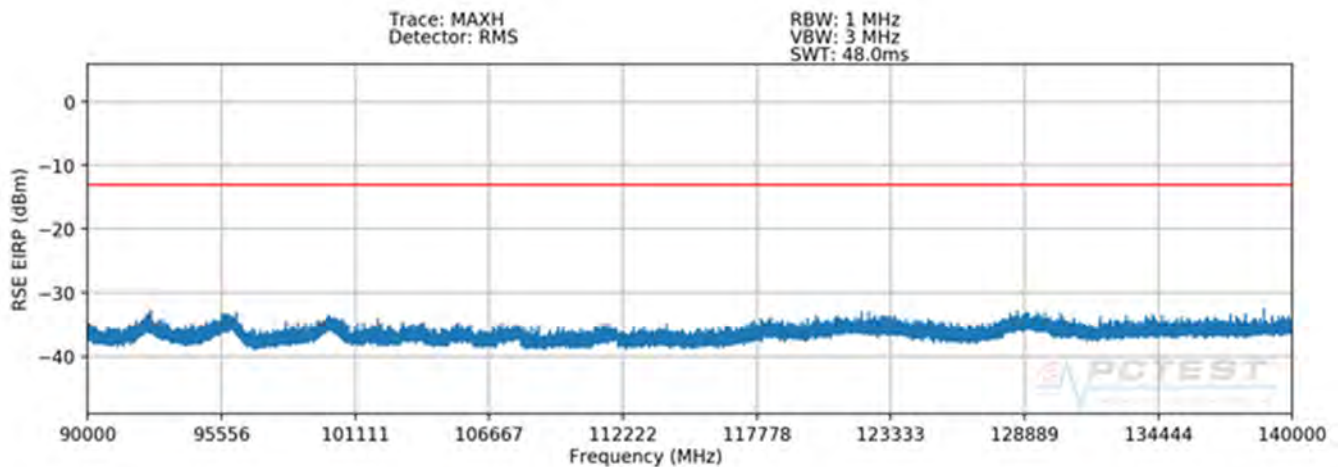


Plot 7-297. J Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel H Beam – n260)

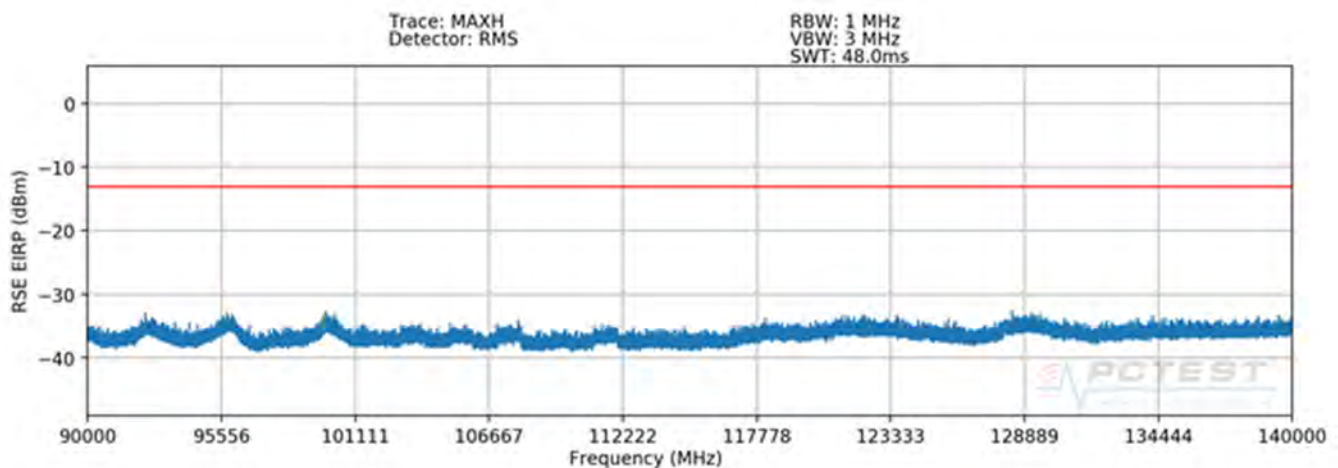
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-298. J Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-299. J Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-300. J Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
95868.50	RMS/Avg	Low	50	QPSK	H	H	-	-	-40.02	-13.00	-27.02
128495.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-39.64	-13.00	-26.64
128823.50	RMS/Avg	High	50	QPSK	H	H	-	-	-39.72	-13.00	-26.72
95981.50	RMS/Avg	Low	50	QPSK	V	V	-	-	-39.92	-13.00	-26.92
128655.50	RMS/Avg	Mid	50	QPSK	V	V	-	-	-39.69	-13.00	-26.69
95897.00	RMS/Avg	High	50	QPSK	V	V	-	-	-39.68	-13.00	-26.68

Table 7-56. J Patch Spurious Emissions Table (90-140GHz – n260)

Notes

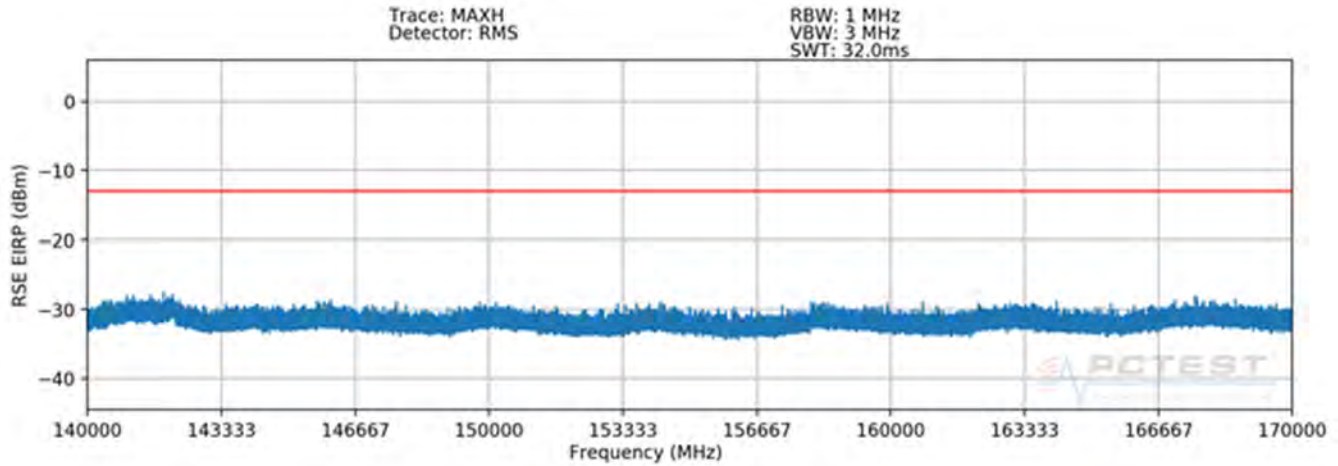
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

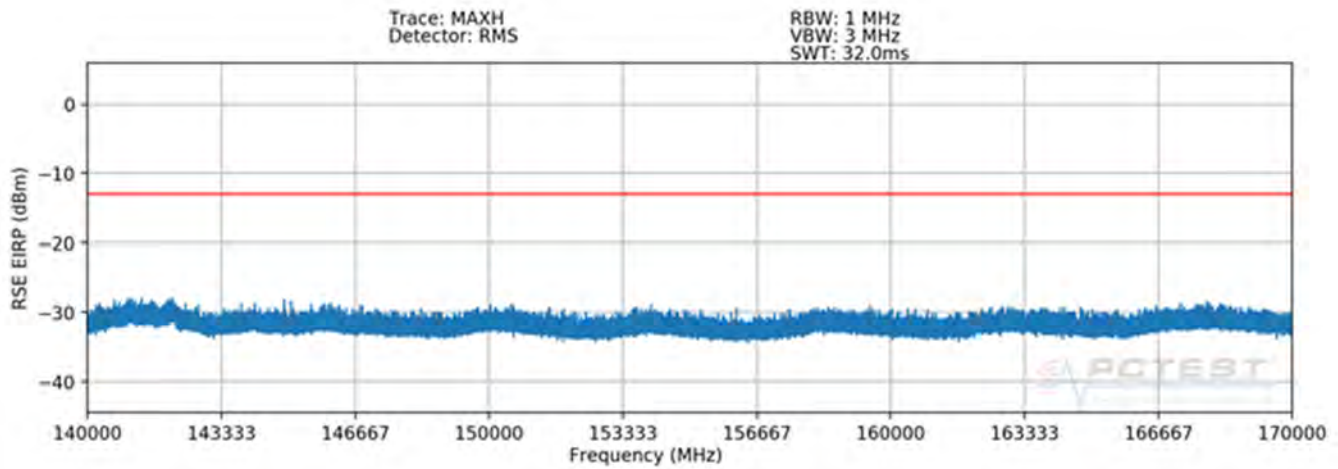
$$(-39.64 \text{ dBm} + -39.69 \text{ dBm}) = (108.64 \text{ nW} + 107.37 \text{ nW}) = (216.02 \text{ nW}) = -36.66 \text{ dBm}$$

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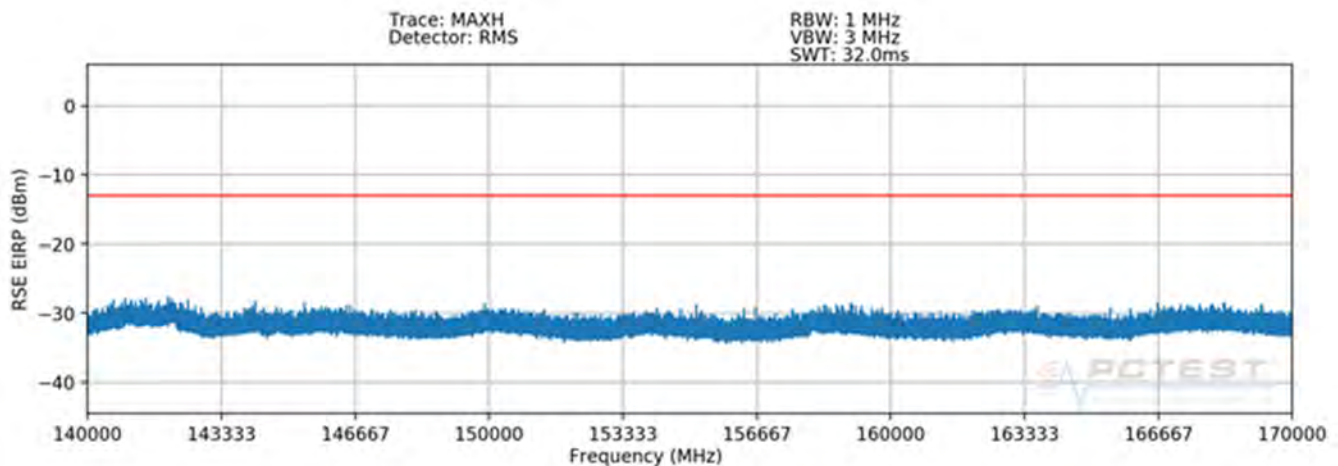
140 – 170GHz(n260)



Plot 7-301. J Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel H Beam – n260)

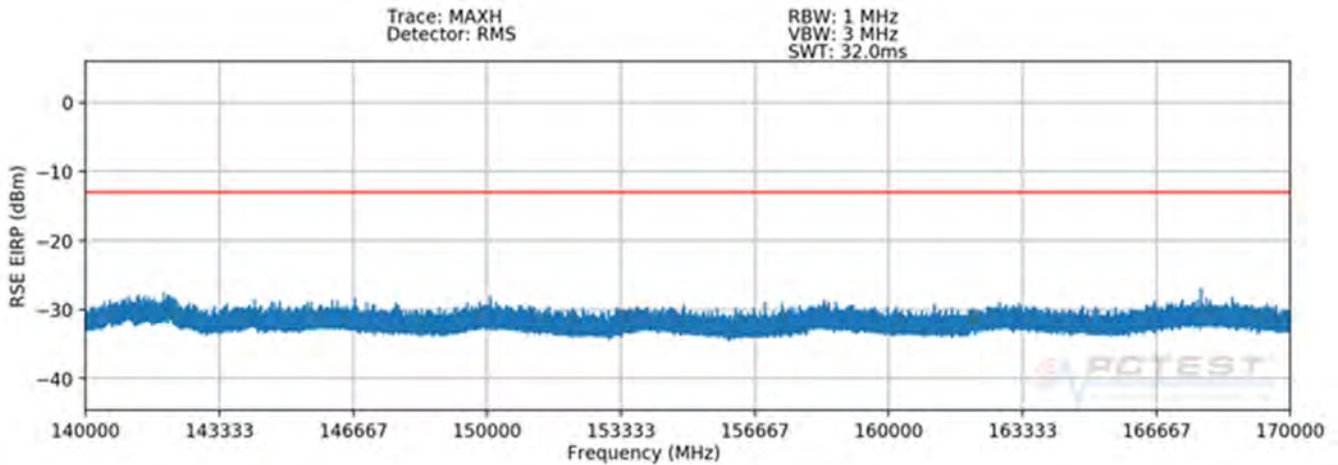


Plot 7-302. J Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel H Beam – n260)

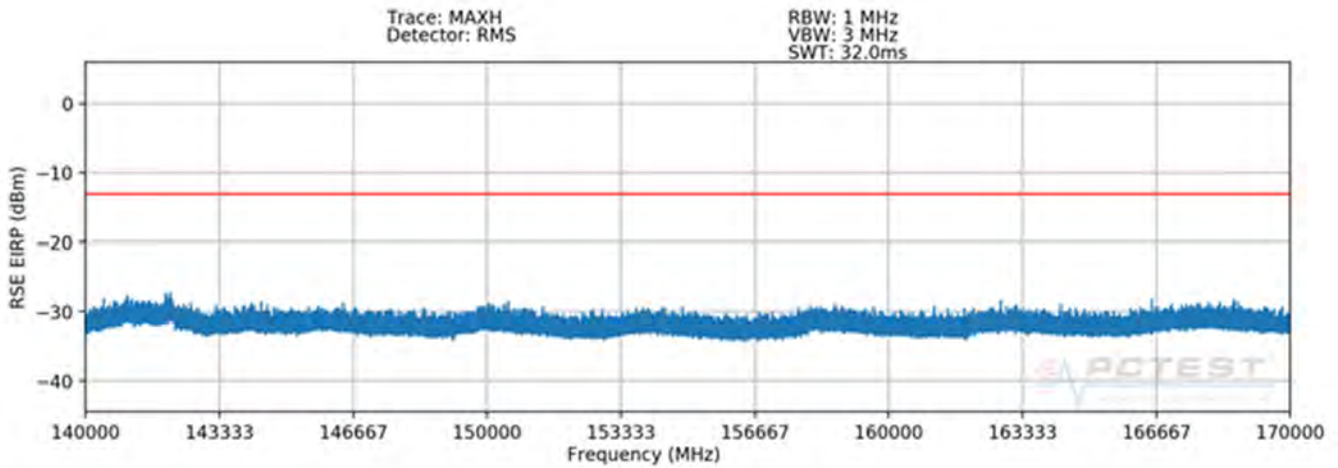


Plot 7-303. J Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel H Beam – n260)

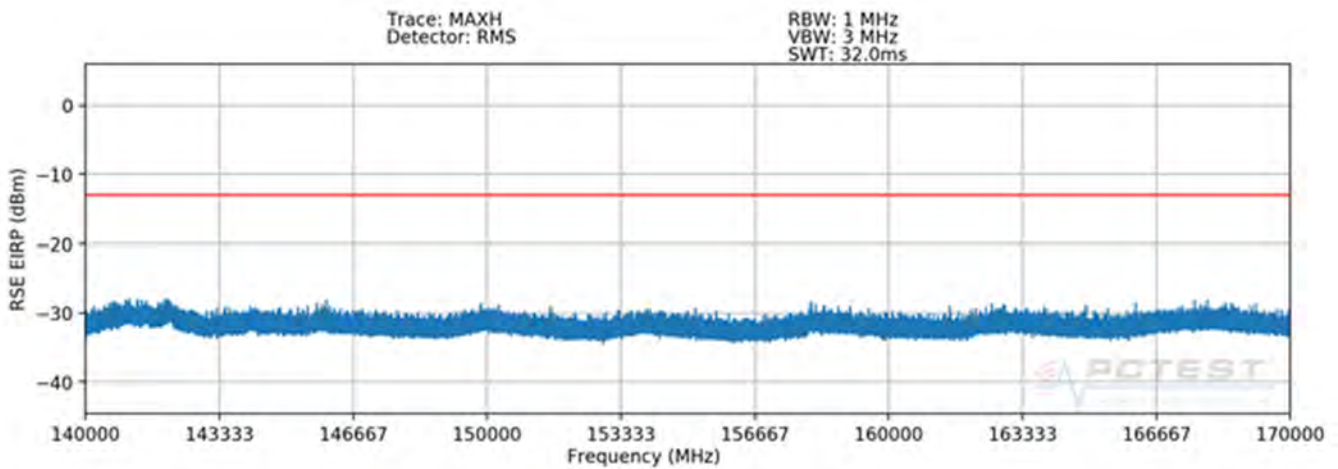
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-304. J Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-305. J Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-306. J Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
142093.50	RMS/Avg	Low	50	QPSK	H	H	-	-	-34.83	-13.00	-21.83
142146.00	RMS/Avg	Mid	50	QPSK	H	H	-	-	-35.00	-13.00	-22.00
142107.00	RMS/Avg	High	50	QPSK	H	H	-	-	-34.81	-13.00	-21.81
142152.50	RMS/Avg	Low	50	QPSK	V	V	-	-	-34.62	-13.00	-21.62
142098.50	RMS/Avg	Mid	50	QPSK	V	V	-	-	-34.87	-13.00	-21.87
142130.50	RMS/Avg	High	50	QPSK	V	V	-	-	-34.84	-13.00	-21.84

Table 7-57. J Patch Spurious Emissions Table (140-170GHz – n260)

Notes

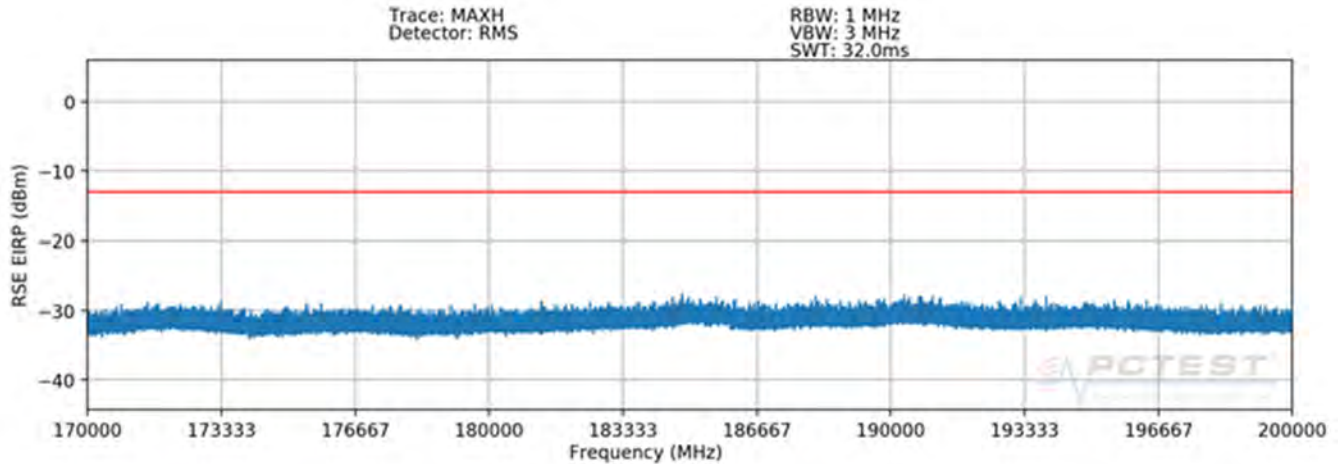
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

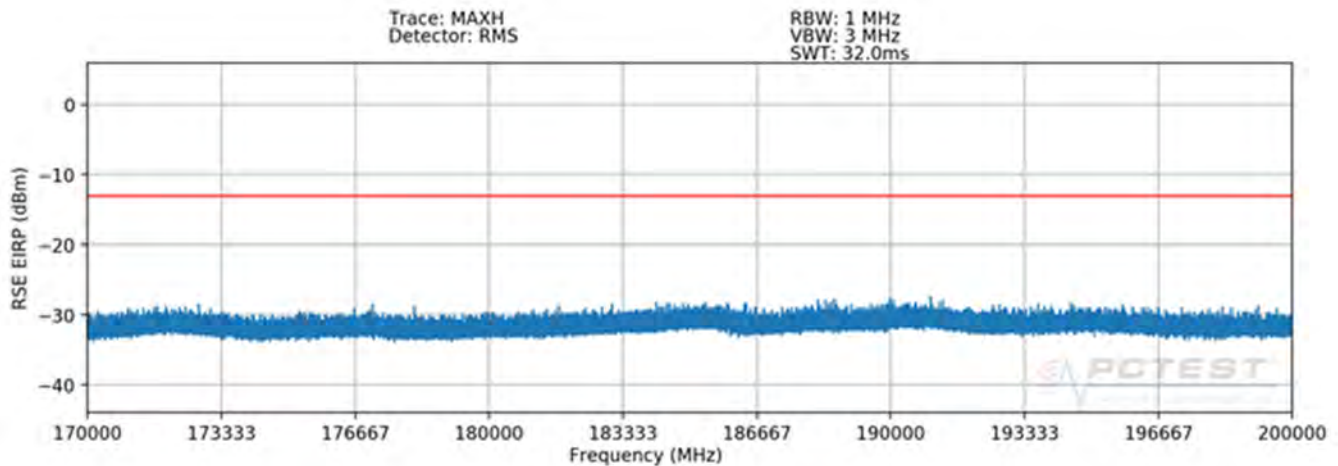
$$(-34.83 \text{ dBm} + -34.62 \text{ dBm}) = (328.93 \text{ nW} + 345.38 \text{ nW}) = (674.31 \text{ nW}) = -31.71 \text{ dBm}$$

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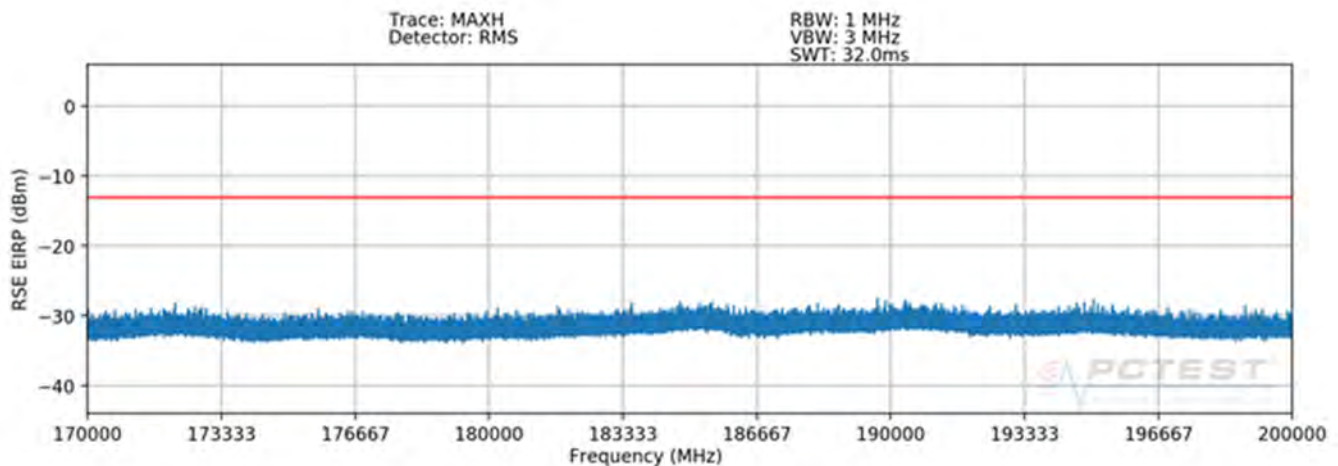
170 – 200GHz(n260)



Plot 7-307. J Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel H Beam – n260)

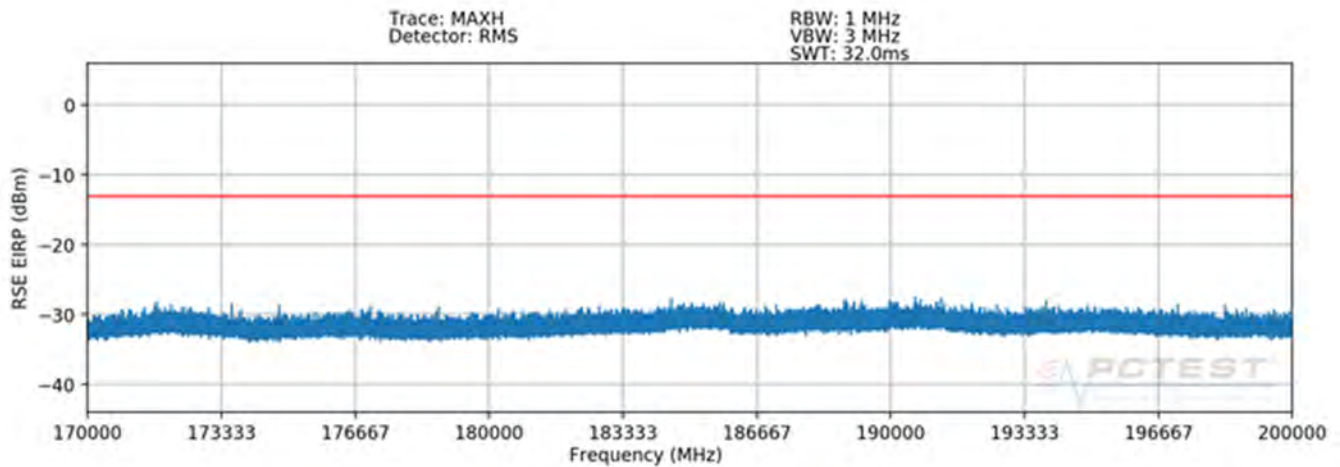


Plot 7-308. J Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel H Beam – n260)

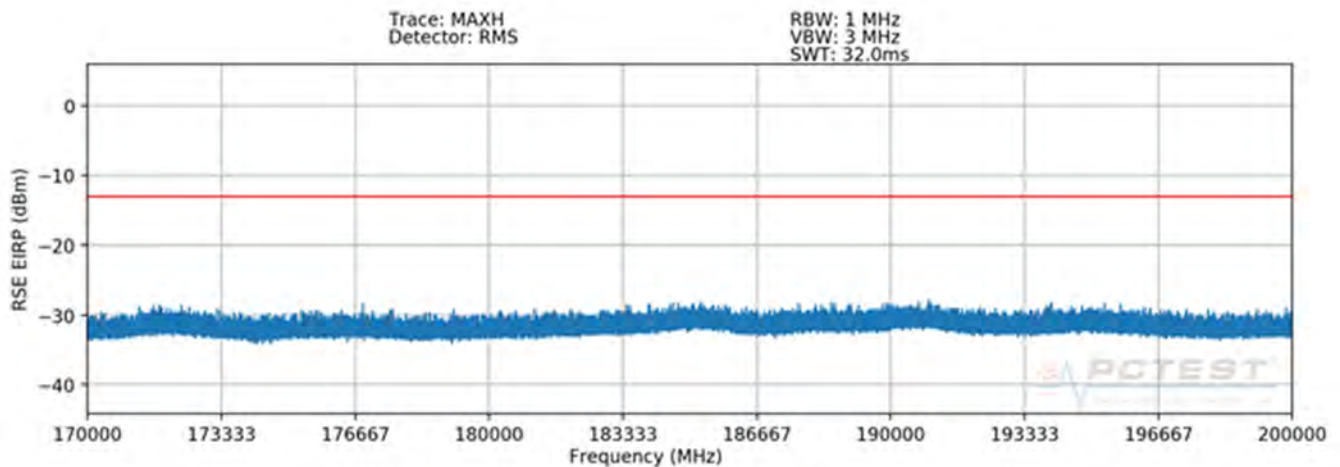


Plot 7-309. J Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel H Beam – n260)

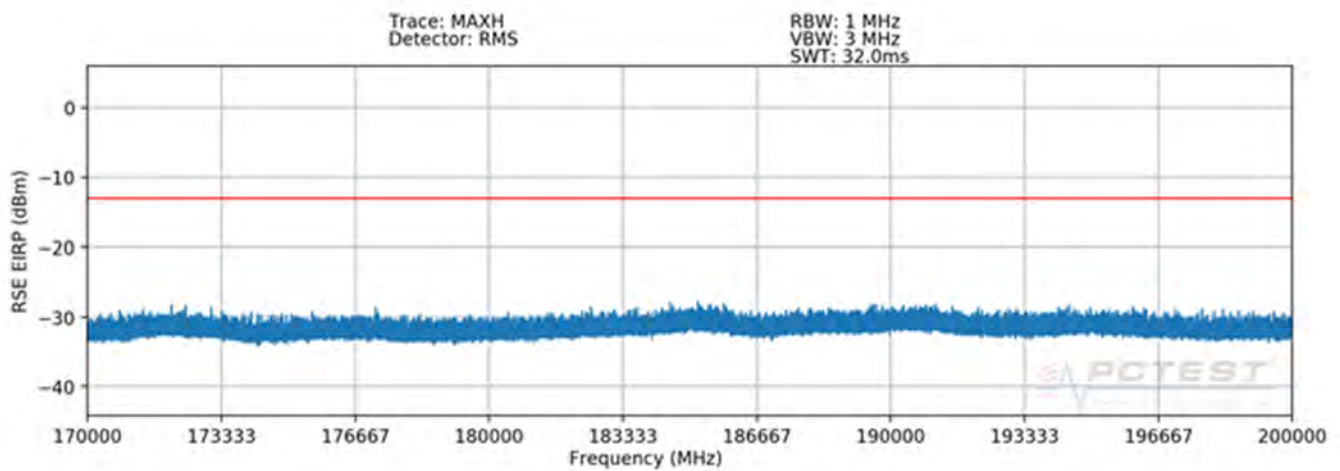
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-310. J Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-311. J Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-312. J Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
190813.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-35.18	-13.00	-22.18
190922.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-35.05	-13.00	-22.05
190464.50	RMS/Avg	High	50	QPSK	H	H	-	-	-35.27	-13.00	-22.27
184950.50	RMS/Avg	Low	50	QPSK	V	V	-	-	-35.16	-13.00	-22.16
191083.50	RMS/Avg	Mid	50	QPSK	V	V	-	-	-35.24	-13.00	-22.24
190901.00	RMS/Avg	High	50	QPSK	V	V	-	-	-35.55	-13.00	-22.55

Table 7-58. J Patch Spurious Emissions Table (170-200GHz – n260)

Notes

1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

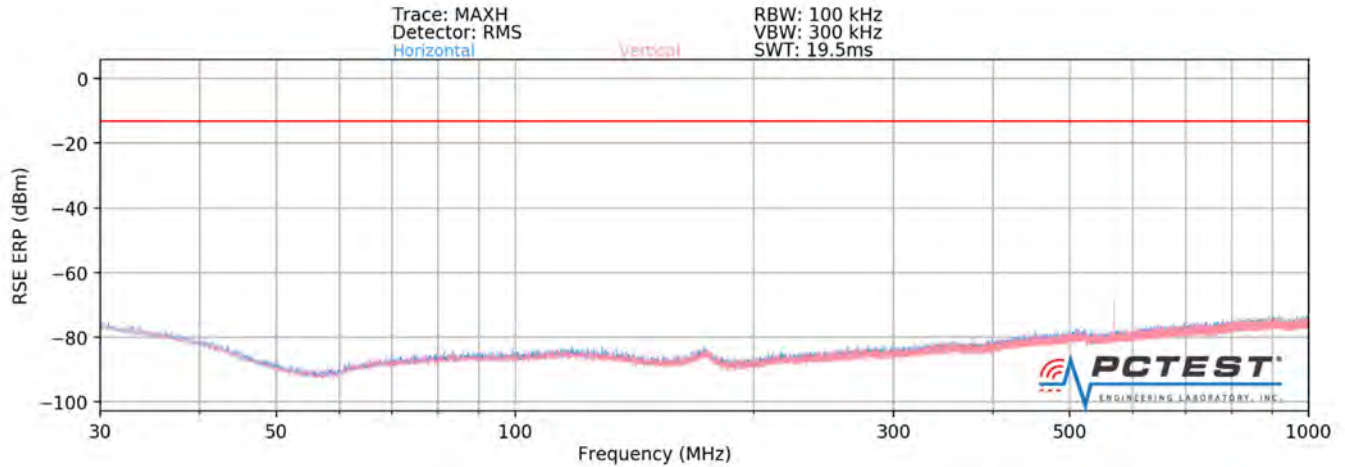
$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

$$(-35.05 \text{ dBm} + -35.24 \text{ dBm}) = (312.68 \text{ nW} + 299.43 \text{ nW}) = (612.11 \text{ nW}) = -32.13 \text{ dBm}$$

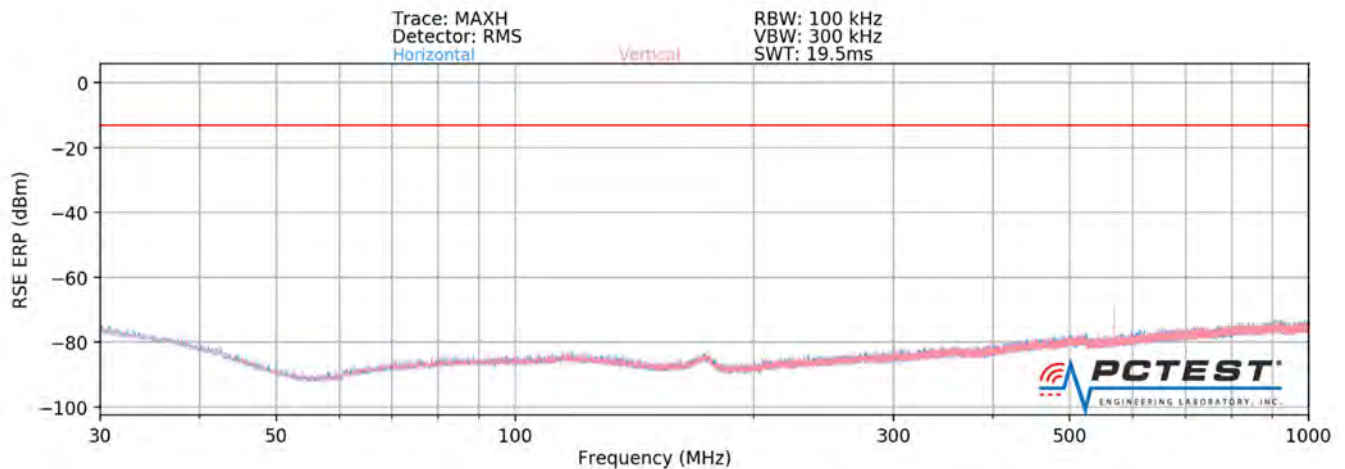
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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K Patch Radiated Spurious Emissions(n260)

30MHz – 1GHz(n260)



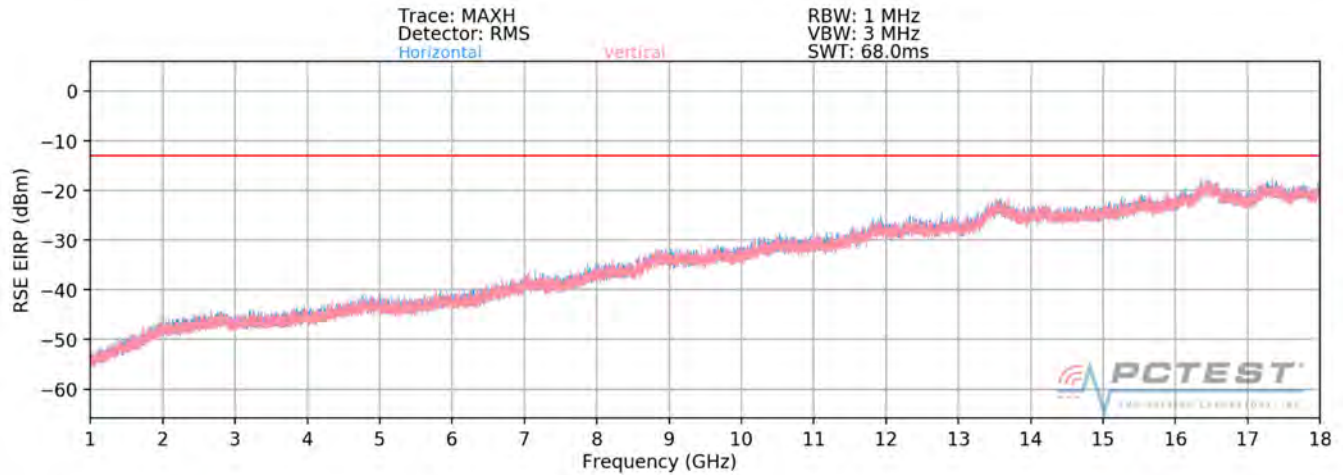
Plot 7-313. K Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel H Beam – n260)



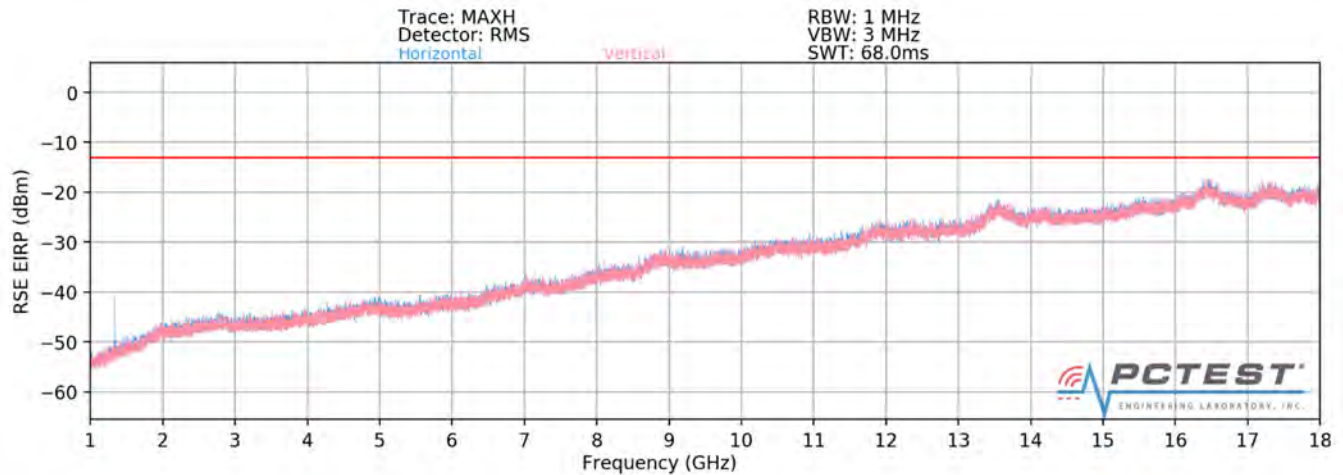
Plot 7-314. K Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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1 – 18GHz(n260)



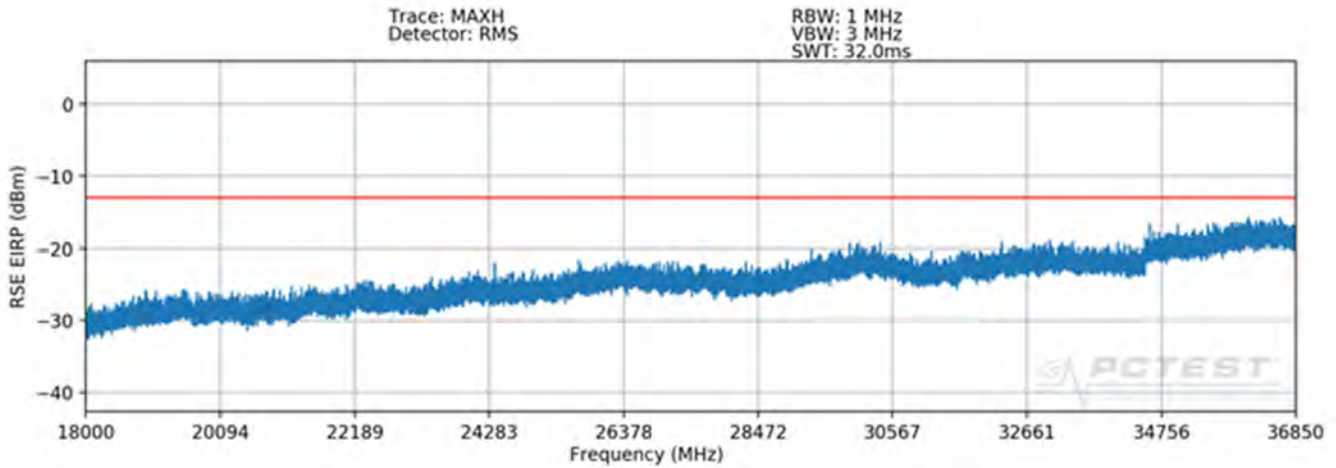
Plot 7-315. K Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel H Beam – n260)



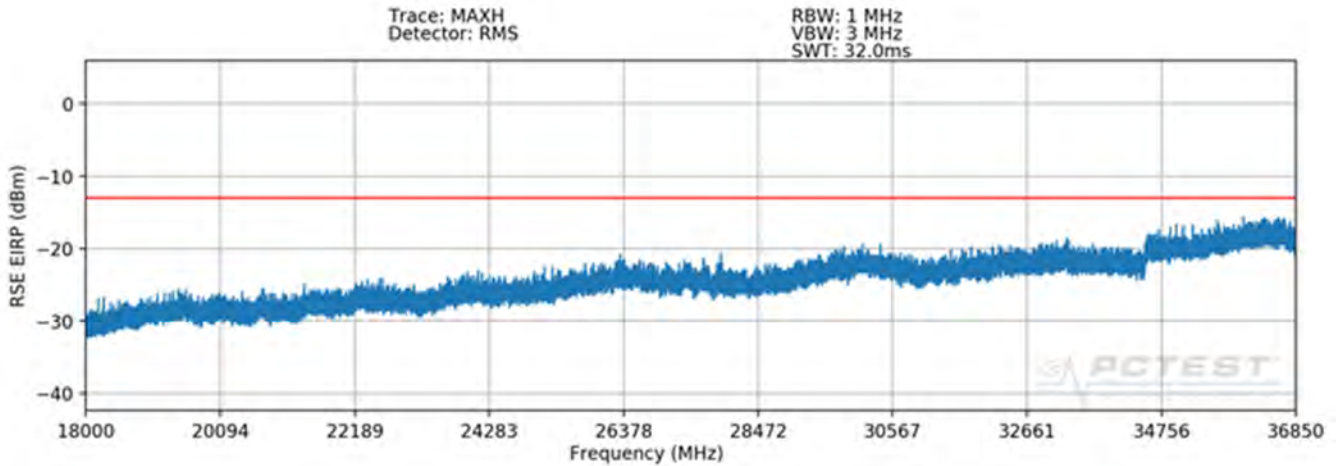
Plot 7-316. K Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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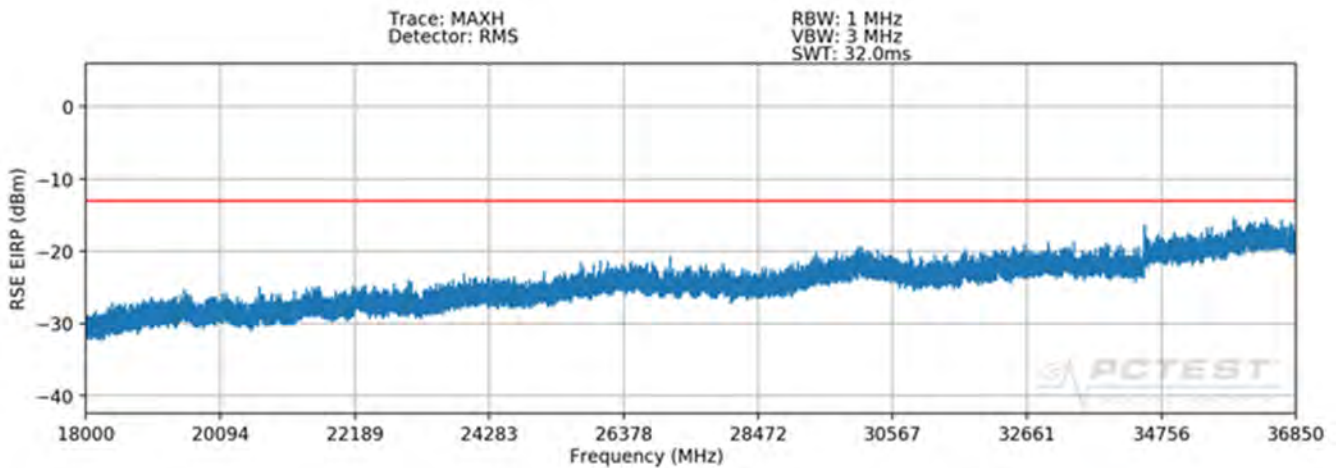
18 – 36.85GHz(n260)



Plot 7-317. K Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel H Beam – n260)

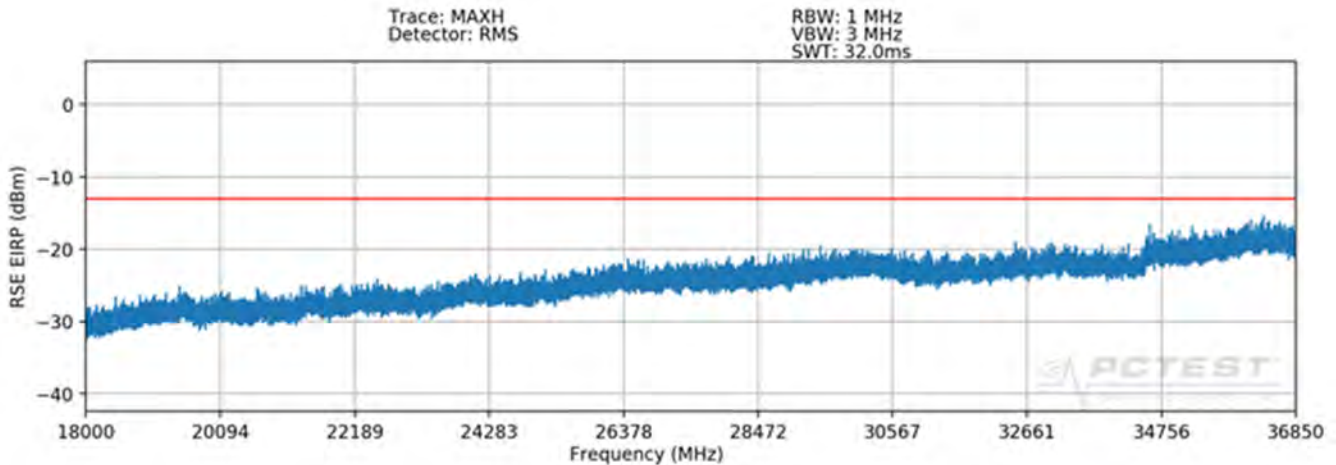


Plot 7-318. K Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel H Beam – n260)

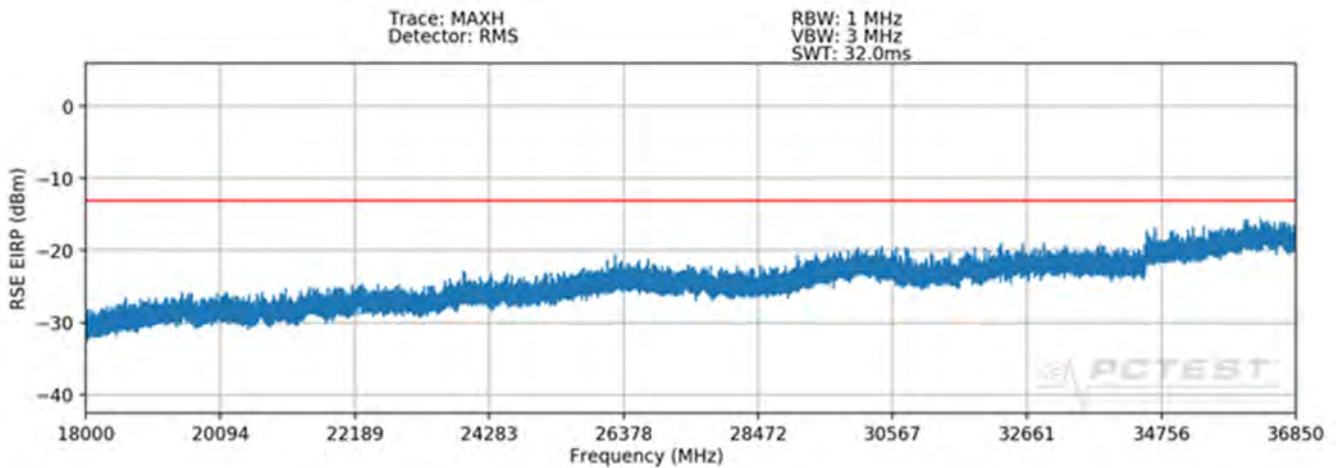


Plot 7-319. K Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel H Beam – n260)

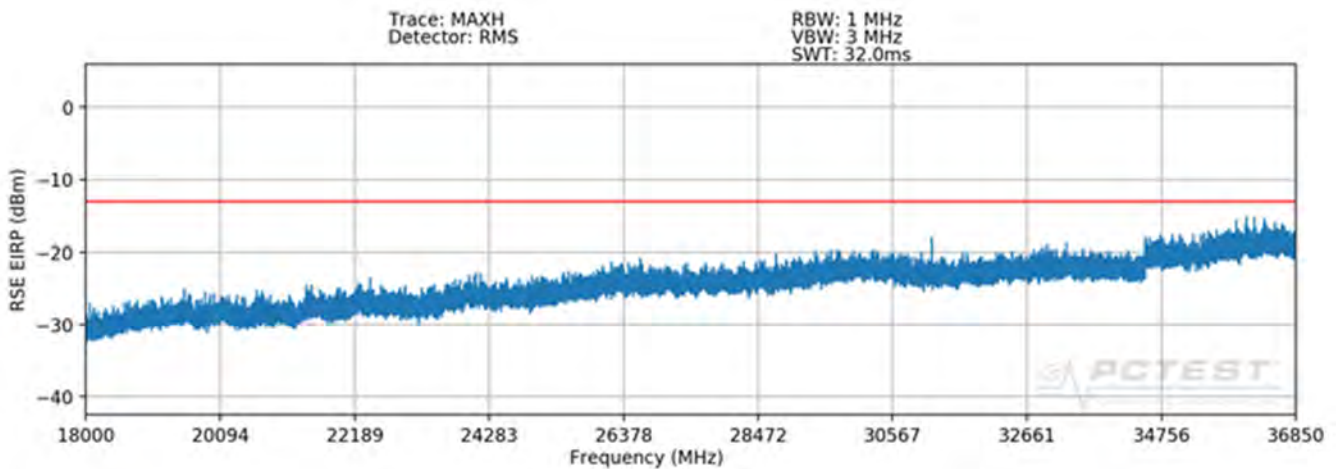
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 194 of 371



Plot 7-320. K Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-321. K Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-322. K Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel V Beam – n260)

FCC ID: A3LSMN976V	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
34517.50	RMS/Avg	Low	50	QPSK	H	H	138	326	-32.53	-13.00	-19.53
34762.00	RMS/Avg	Mid	50	QPSK	H	H	129	338	-32.28	-13.00	-19.28
31180.50	RMS/Avg	High	50	QPSK	H	H	89	350	-30.56	-13.00	-17.56
36763.00	RMS/Avg	Low	50	QPSK	V	V	349	3	-32.85	-13.00	-19.85
29577.50	RMS/Avg	Mid	50	QPSK	V	V	351	355	-30.60	-13.00	-17.60
31180.50	RMS/Avg	High	50	QPSK	V	V	350	1	-20.04	-13.00	-7.04

Table 7-59. K Patch Spurious Emissions Table (18-36.85GHz – n260)

Notes

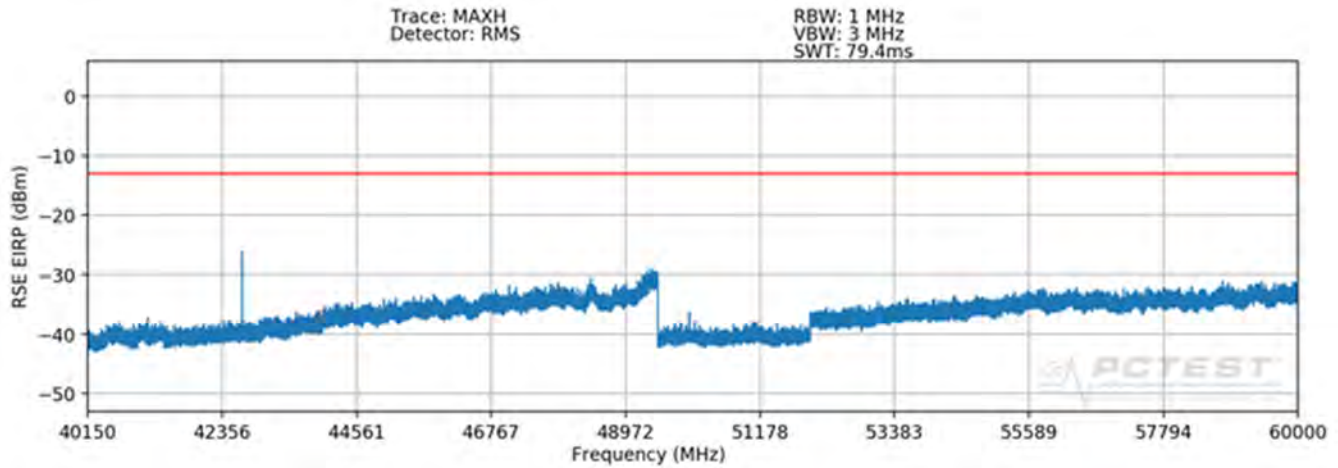
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

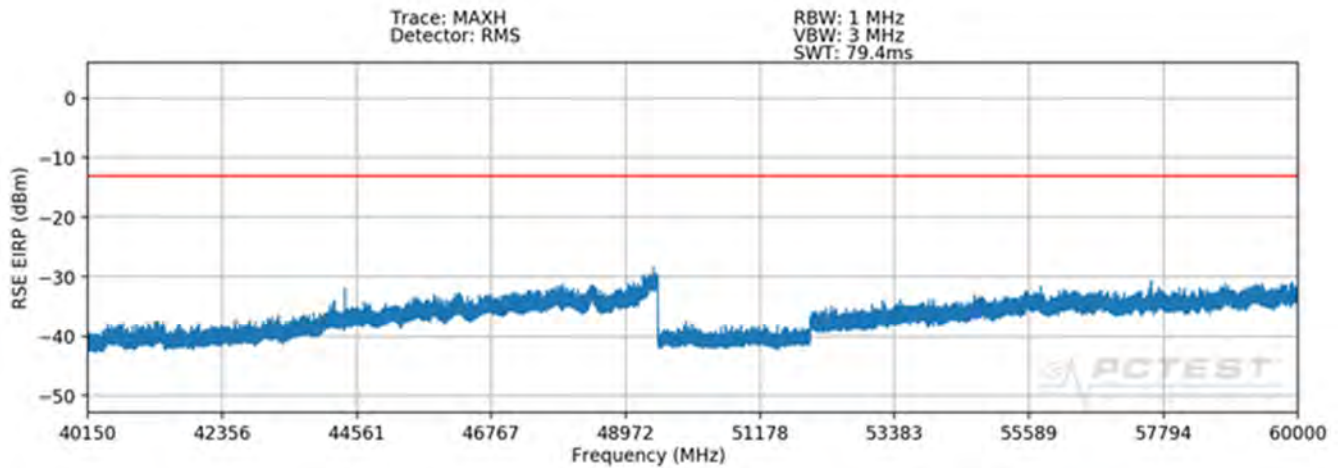
$$(-30.56 \text{ dBm} + -20.04 \text{ dBm}) = (0.88 \text{ } \mu\text{W} + 9.92 \text{ } \mu\text{W}) = (10.80 \text{ } \mu\text{W}) = -19.67 \text{ dBm}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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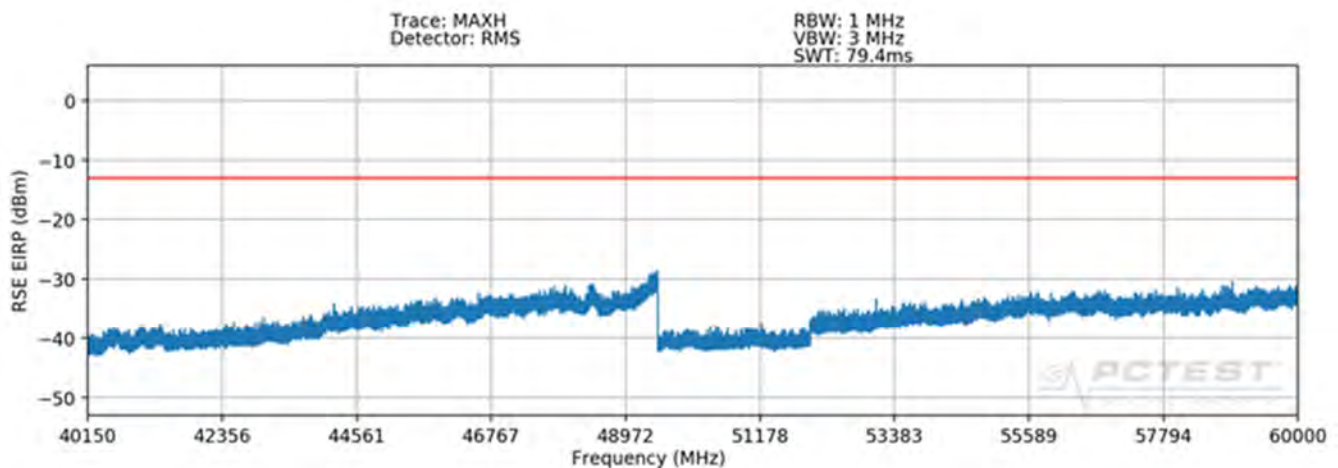
40.15 – 60GHz(n260)



Plot 7-323. K Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel H Beam – n260)

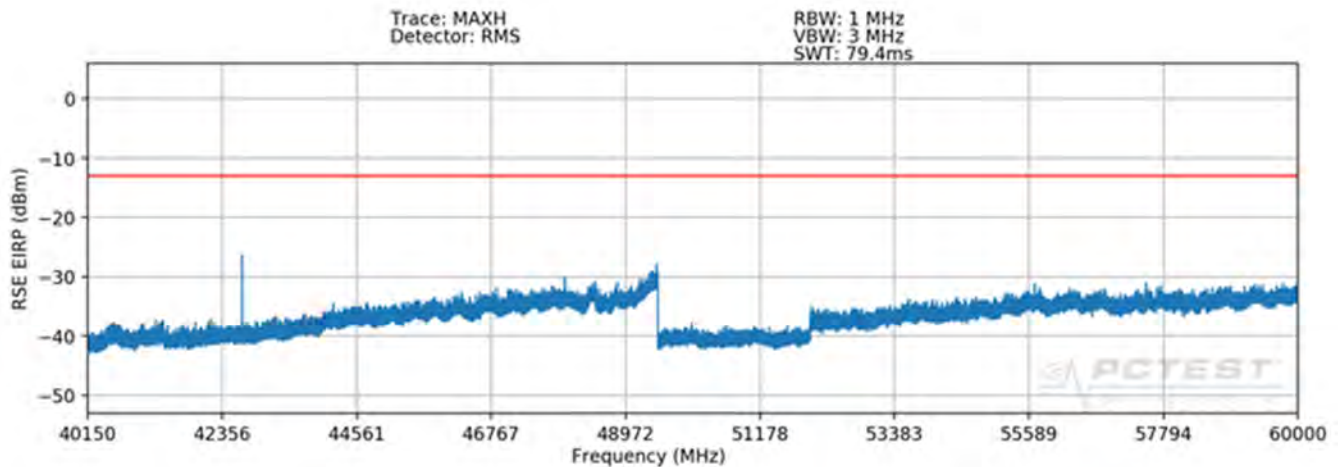


Plot 7-324. K Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel H Beam – n260)

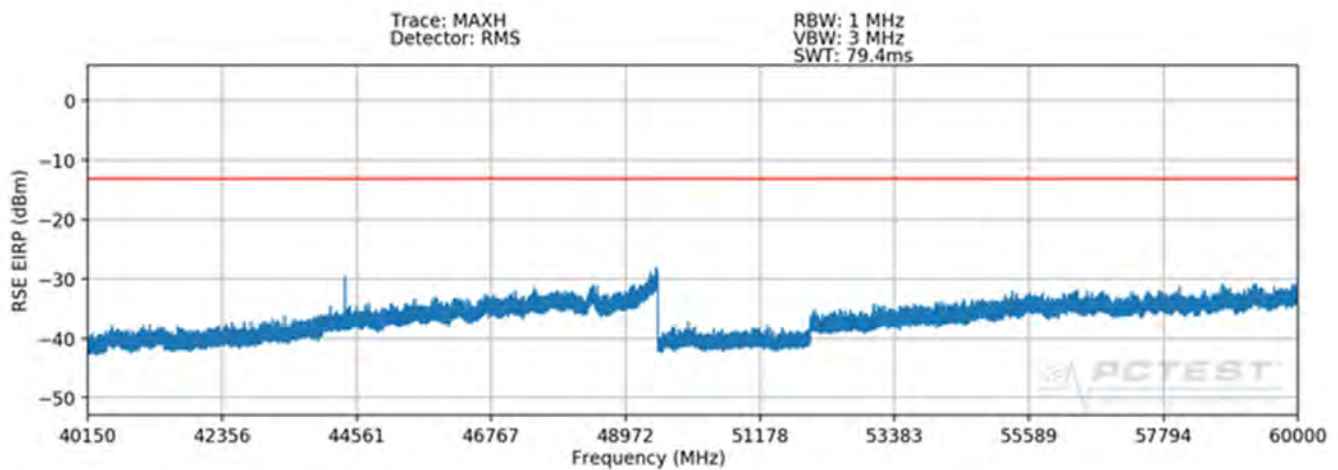


Plot 7-325. K Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel H Beam – n260)

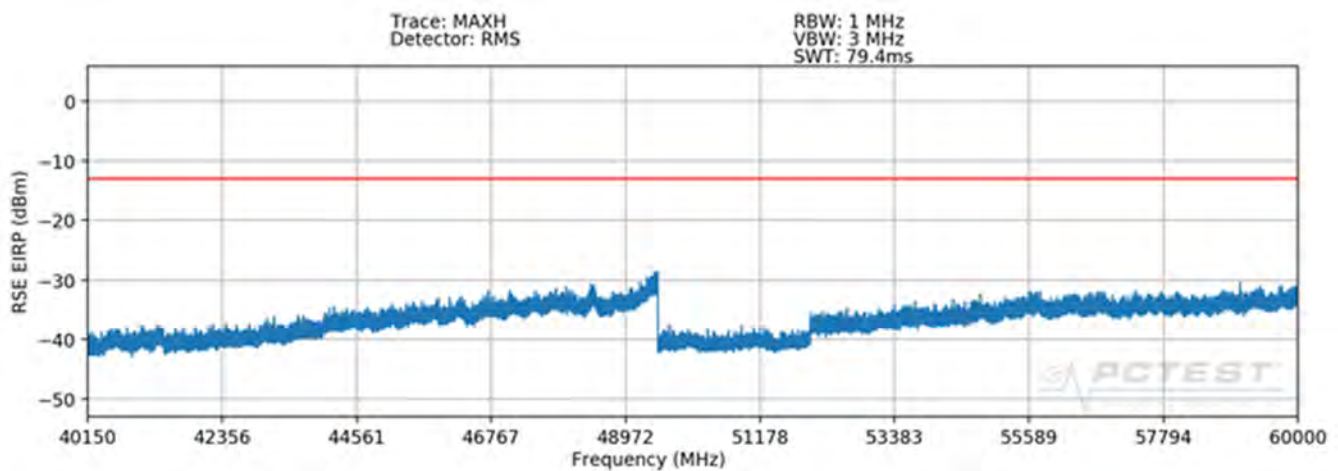
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 197 of 371



Plot 7-326. K Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-327. K Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-328. K Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
42681.45	RMS/Avg	Low	50	QPSK	H	H	86	346	-26.73	-13.00	-13.73
44366.32	RMS/Avg	Mid	50	QPSK	H	H	80	327	-33.01	-13.00	-20.01
46771.12	RMS/Avg	High	50	QPSK	H	H	134	312	-40.05	-13.00	-27.05
42681.47	RMS/Avg	Low	50	QPSK	V	V	20	15	-26.96	-13.00	-13.96
44366.46	RMS/Avg	Mid	50	QPSK	V	V	14	338	-33.83	-13.00	-20.83
46771.08	RMS/Avg	High	50	QPSK	V	V	24	355	-37.40	-13.00	-24.40

Table 7-60. K Patch Spurious Emissions Table (40.15-60 GHz – n260)

Notes

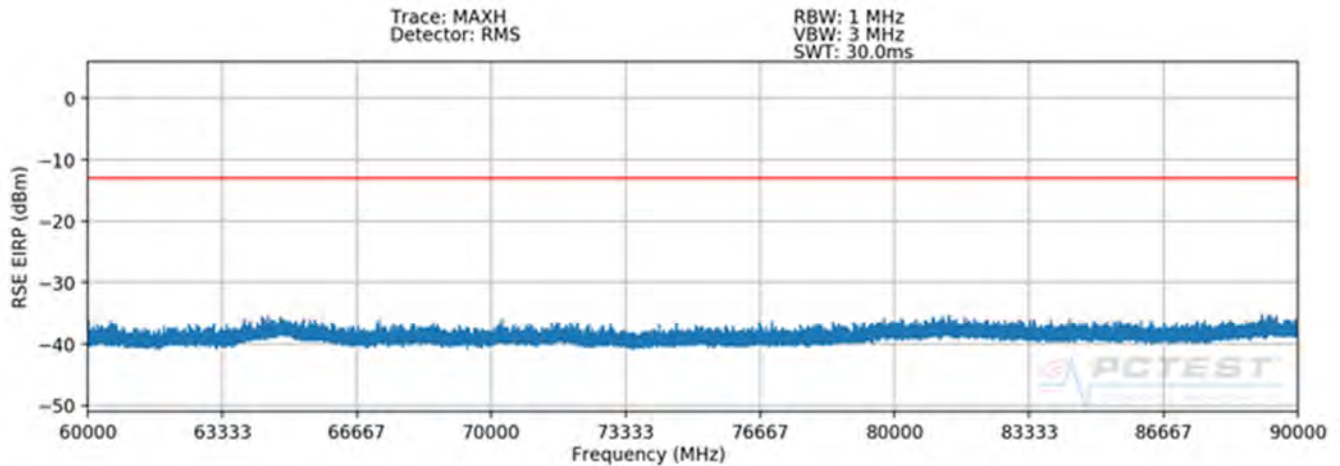
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

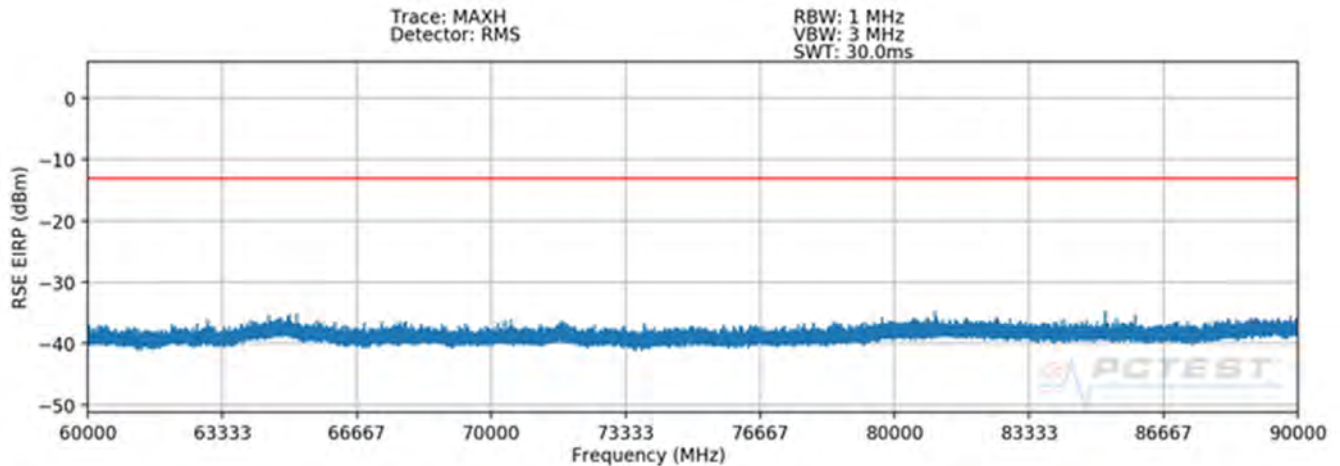
$$(-26.73 \text{ dBm} + -26.96 \text{ dBm}) = (2.12 \text{ } \mu\text{W} + 2.01 \text{ } \mu\text{W}) = (4.13 \text{ } \mu\text{W}) = -23.83 \text{ dBm}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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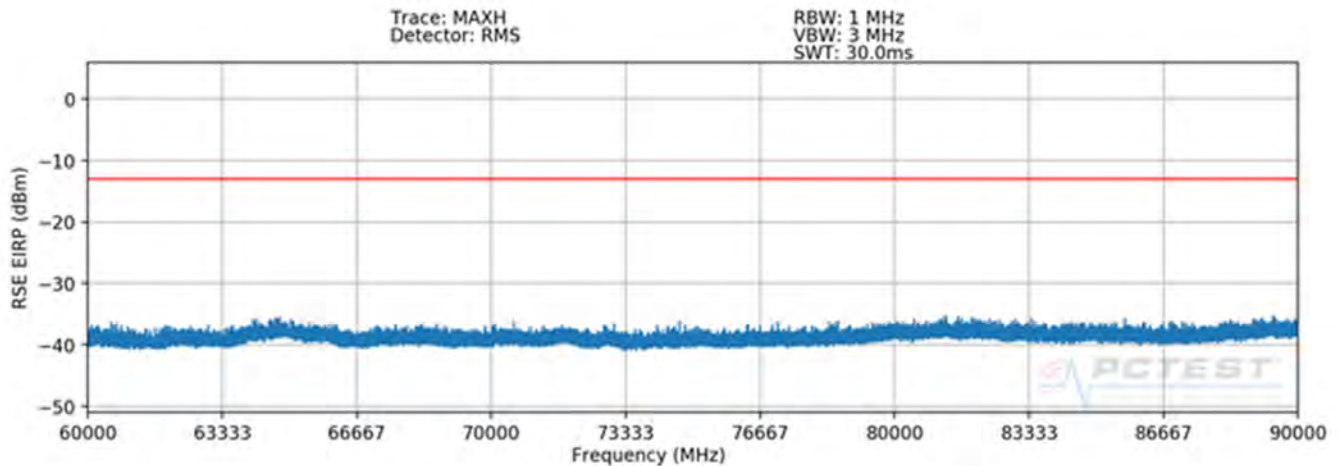
60 – 90GHz(n260)



Plot 7-329. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel H Beam – n260)

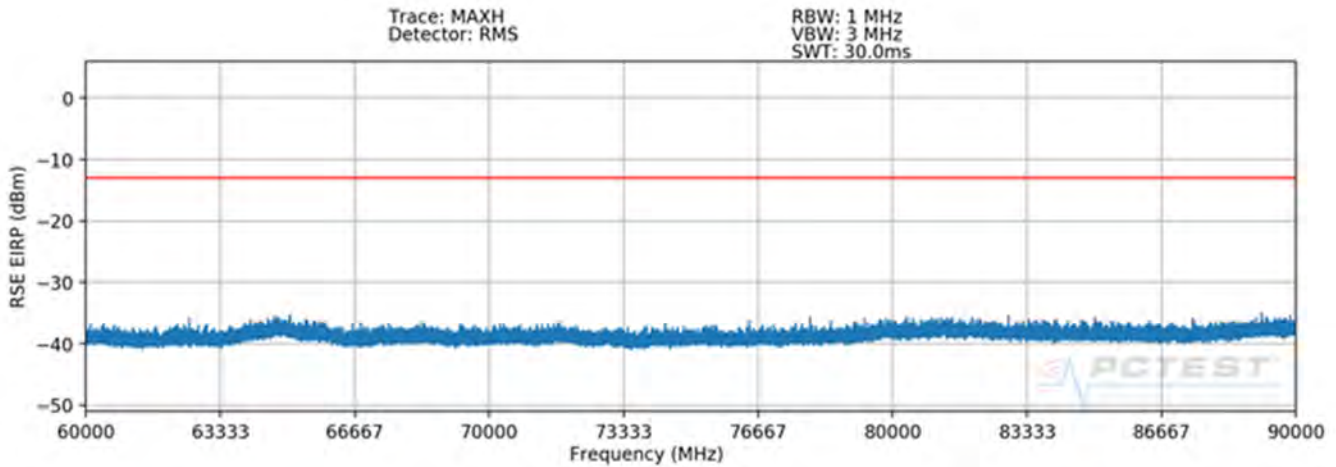


Plot 7-330. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel H Beam – n260)

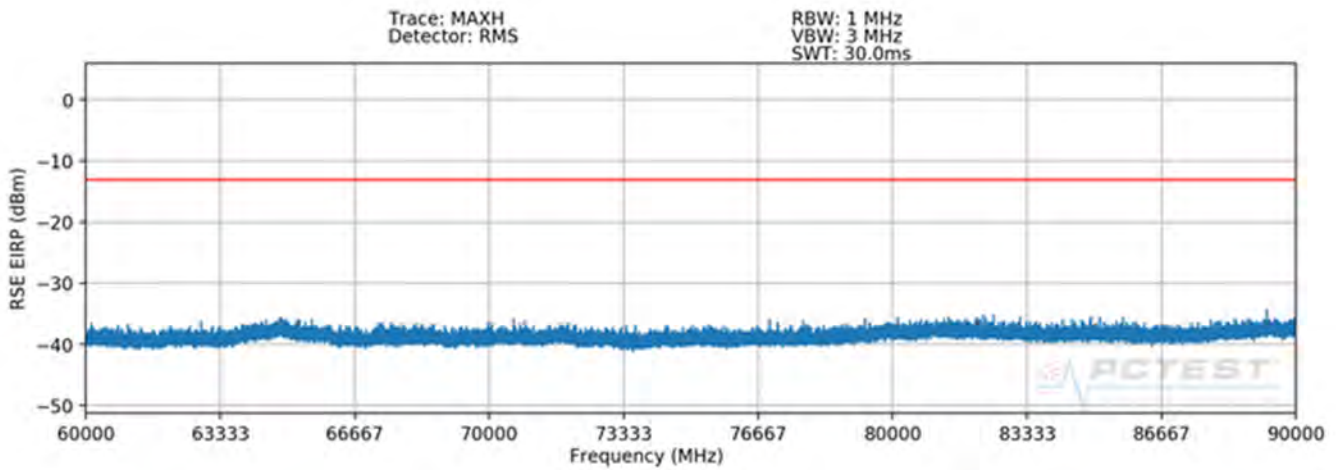


Plot 7-331. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel H Beam – n260)

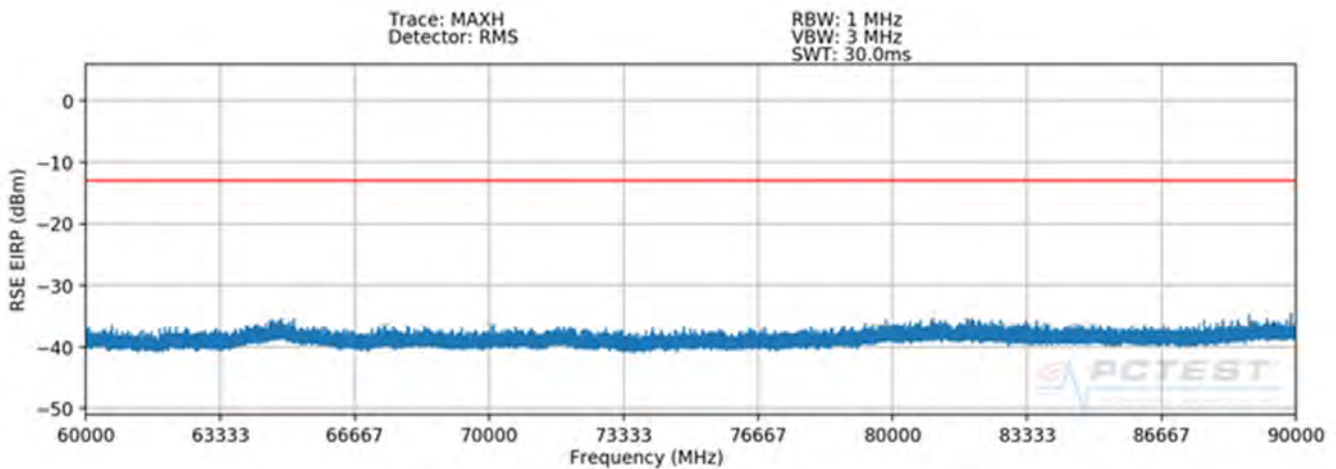
FCC ID: A3LSMN976V	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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Plot 7-332. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-333. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-334. K Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
74006.50	RMS/Avg	Low	50	QPSK	H	H	118	318	-43.54	-13.00	-30.54
77591.50	RMS/Avg	Mid	50	QPSK	H	H	110	311	-42.09	-13.00	-29.09
79884.00	RMS/Avg	High	50	QPSK	H	H	128	326	-43.22	-13.00	-30.22
74006.00	RMS/Avg	Low	50	QPSK	V	V	32	350	-41.22	-13.00	-28.22
77591.50	RMS/Avg	Mid	50	QPSK	V	V	33	342	-40.93	-13.00	-27.93
79884.00	RMS/Avg	High	50	QPSK	V	V	37	355	-41.50	-13.00	-28.50

Table 7-61. K Patch Spurious Emissions Table (60-90GHz – n260)

Notes

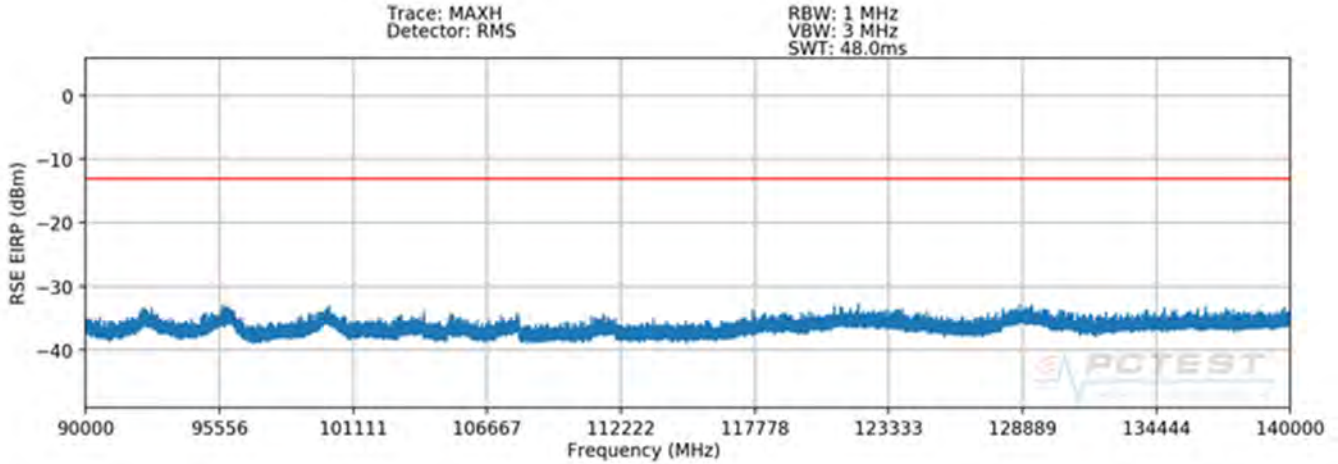
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

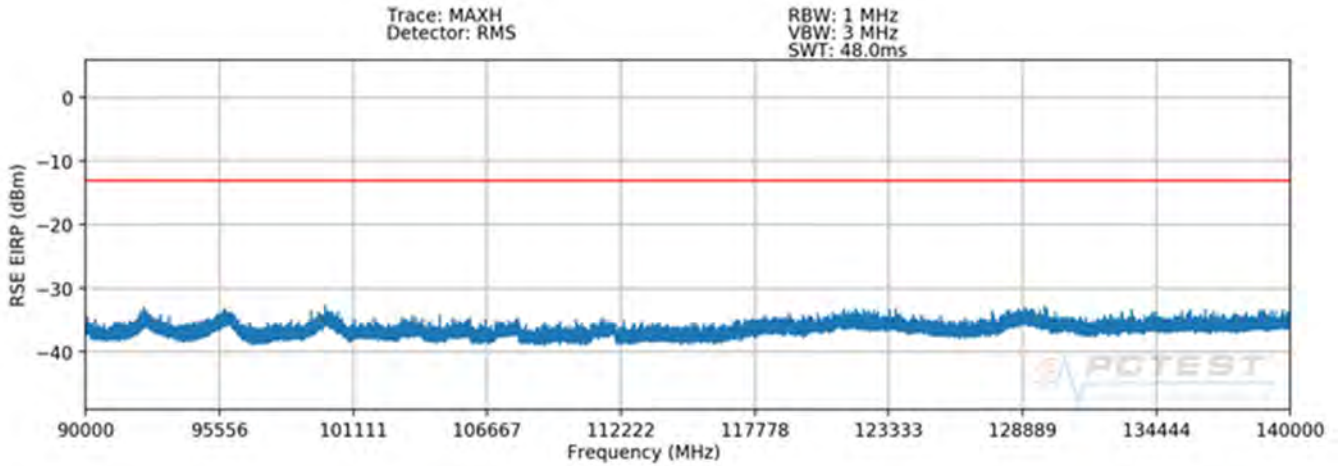
$$(-42.09 \text{ dBm} + -40.93 \text{ dBm}) = (61.83 \text{ nW} + 80.74 \text{ nW}) = (142.57 \text{ nW}) = -38.46 \text{ dBm}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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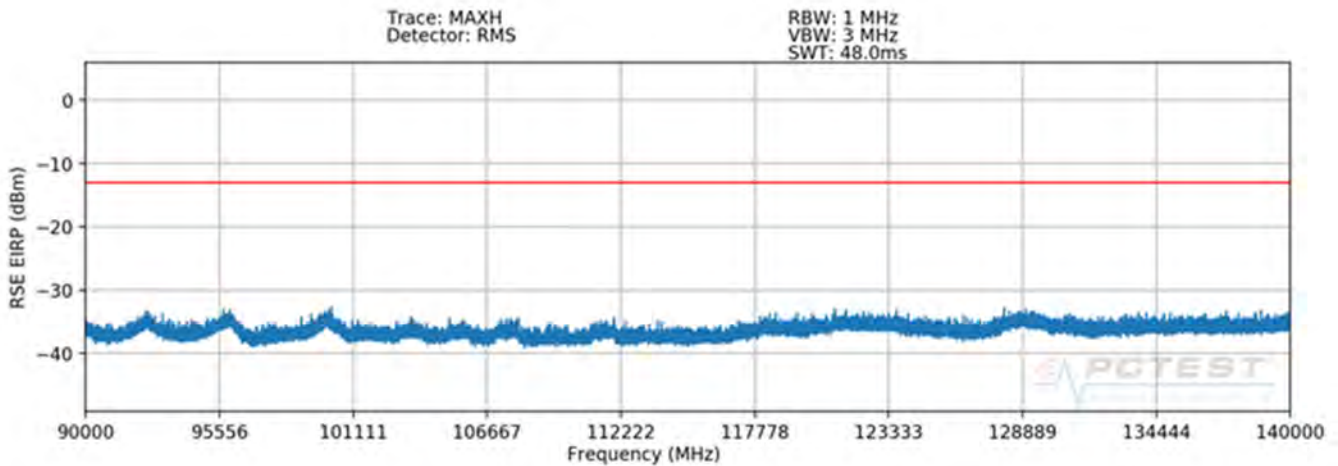
90 – 140GHz(n260)



Plot 7-335. K Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel H Beam – n260)

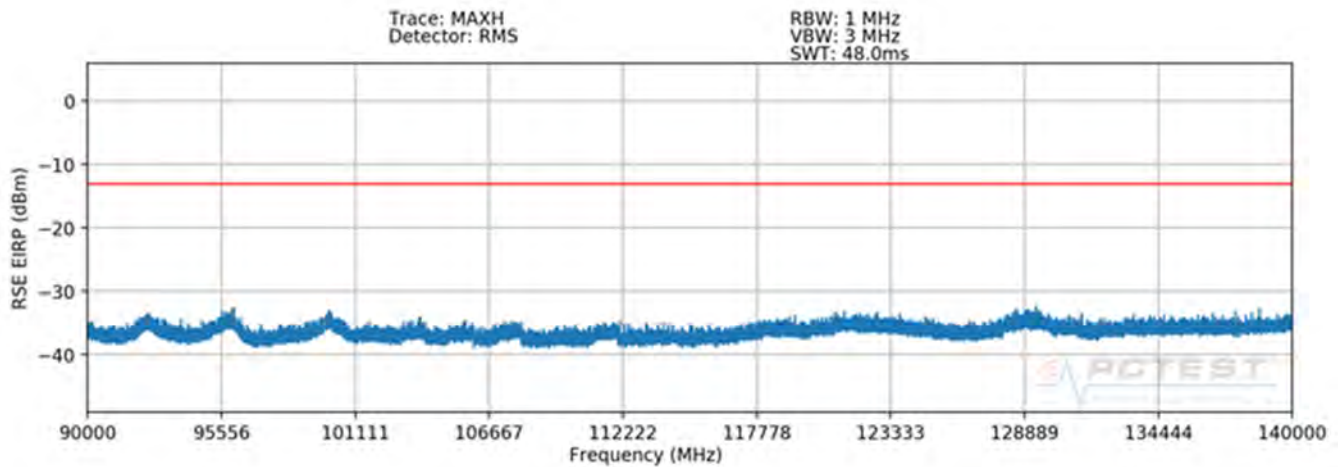


Plot 7-336. K Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel H Beam – n260)

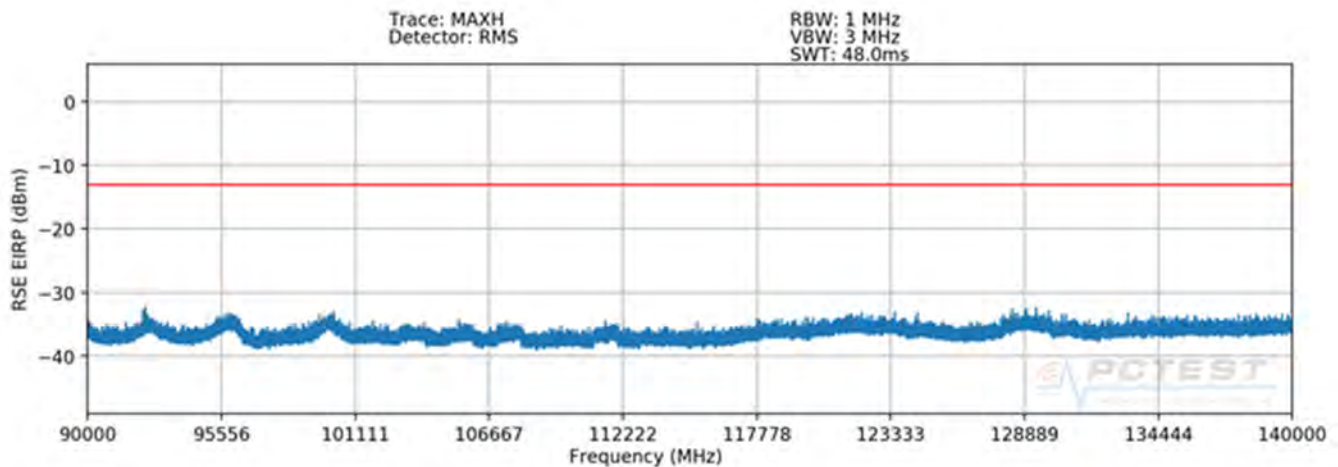


Plot 7-337. K Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel H Beam – n260)

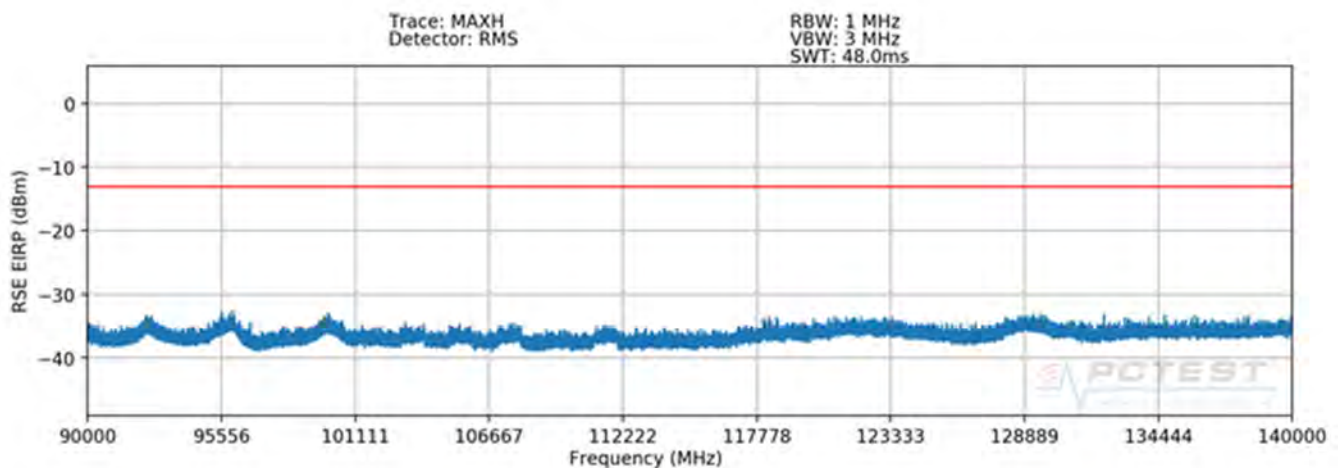
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-338. K Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-339. K Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-340. K Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
128618.50	RMS/Avg	Low	50	QPSK	H	H	-	-	-39.61	-13.00	-26.61
95994.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-39.67	-13.00	-26.67
128583.00	RMS/Avg	High	50	QPSK	H	H	-	-	-39.93	-13.00	-26.93
96004.00	RMS/Avg	Low	50	QPSK	V	V	-	-	-39.83	-13.00	-26.83
128743.00	RMS/Avg	Mid	50	QPSK	V	V	-	-	-39.83	-13.00	-26.83
95995.50	RMS/Avg	High	50	QPSK	V	V	-	-	-39.67	-13.00	-26.67

Table 7-62. K Patch Spurious Emissions Table (90-140GHz – n260)

Notes

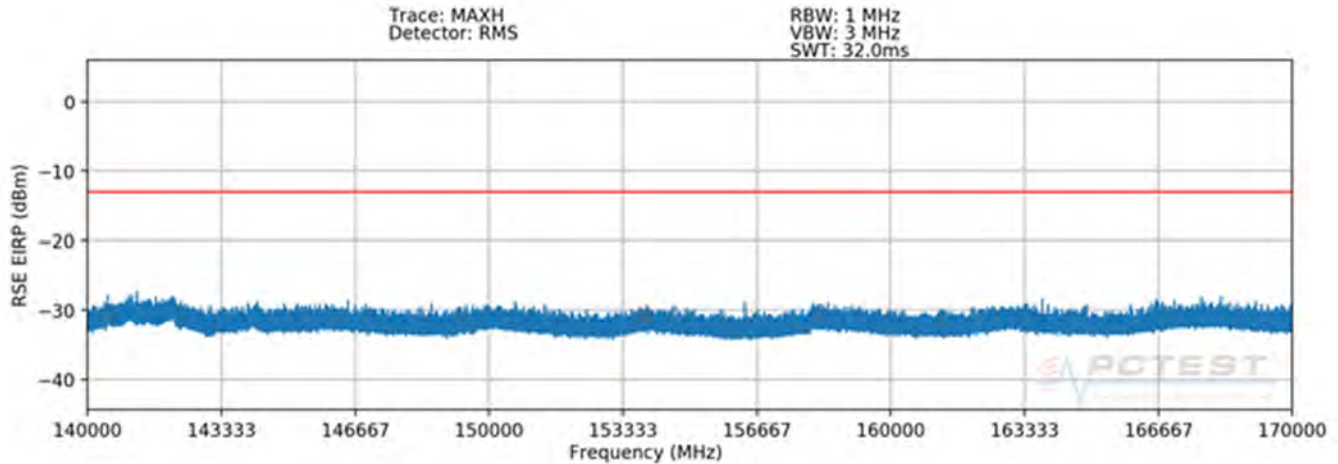
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

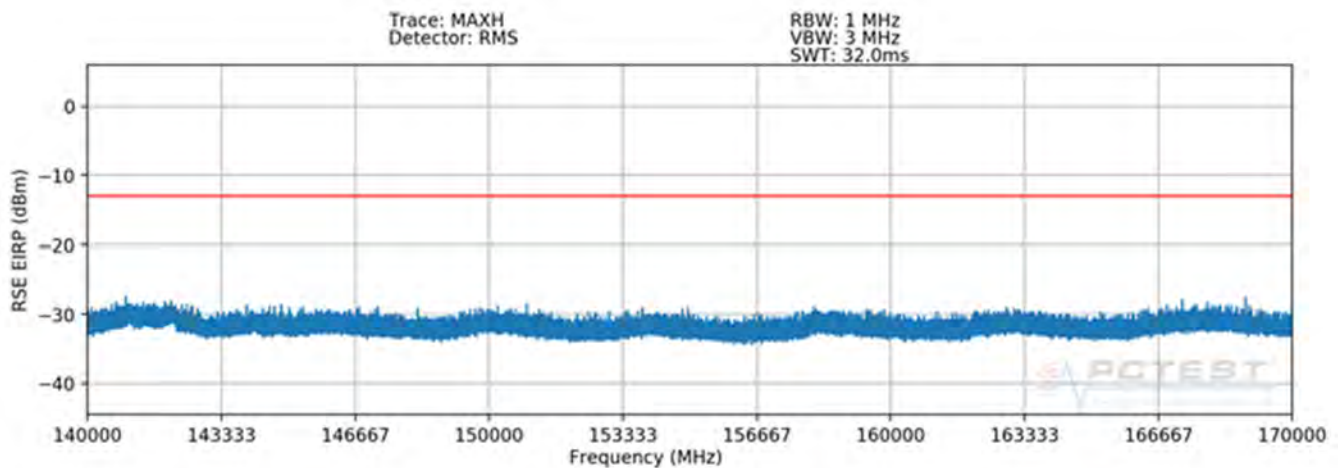
$$(-39.61 \text{ dBm} + -39.83 \text{ dBm}) = (109.40 \text{ nW} + 104.06 \text{ nW}) = (213.46 \text{ nW}) = -36.71 \text{ dBm}$$

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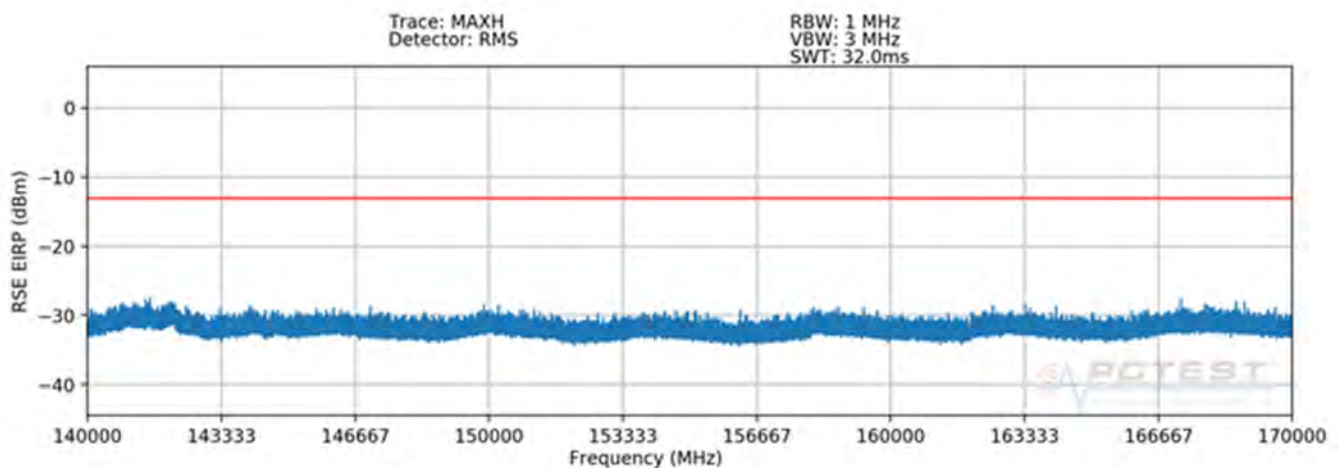
140 – 170GHz(n260)



Plot 7-341. K Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel H Beam – n260)

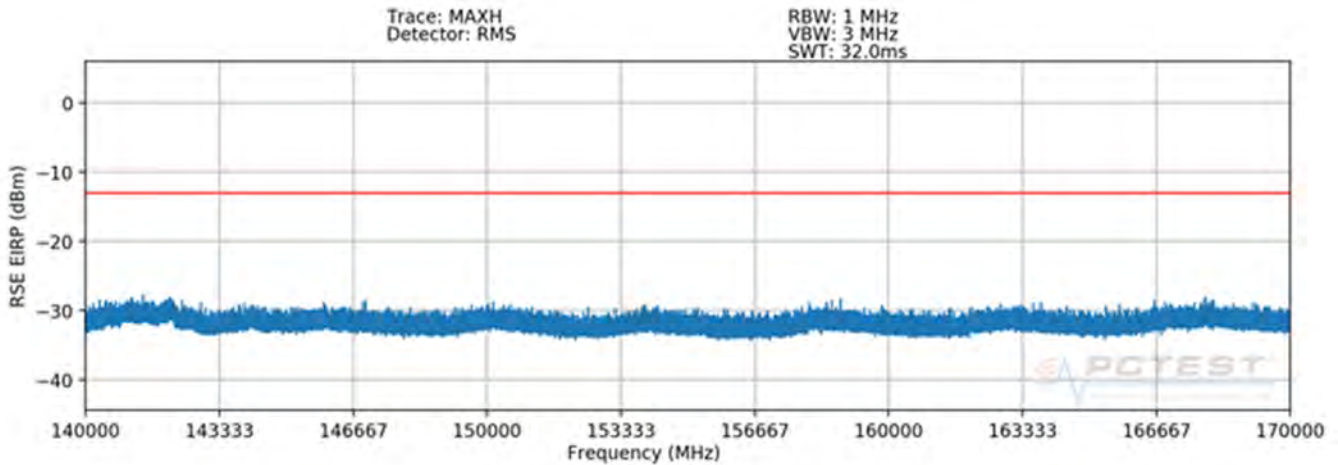


Plot 7-342. K Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel H Beam – n260)

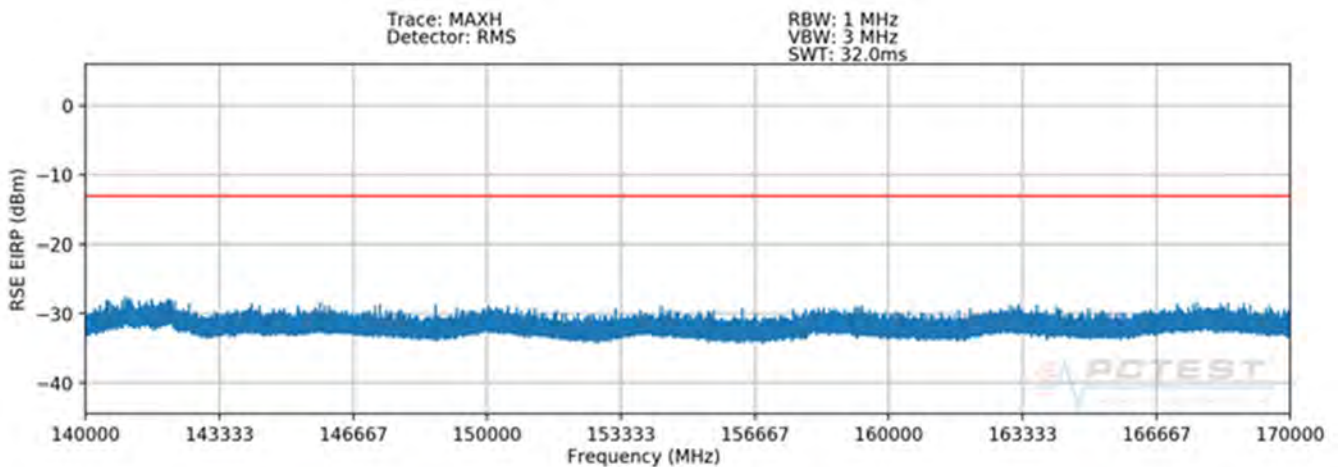


Plot 7-343. K Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel H Beam – n260)

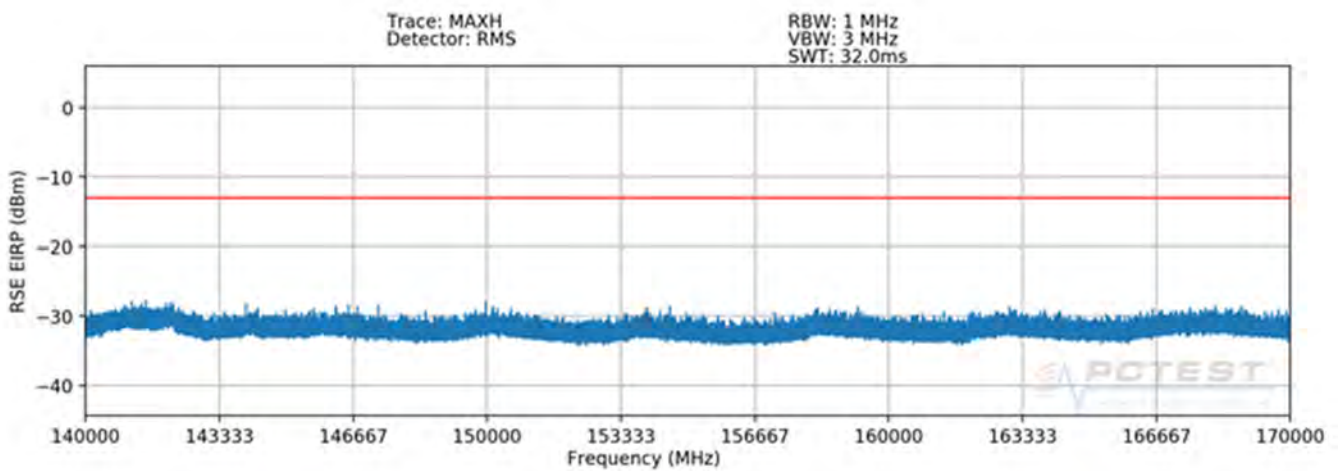
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-344. K Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-345. K Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-346. K Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
142095.50	RMS/Avg	Low	50	QPSK	H	H	-	-	-34.73	-13.00	-21.73
142113.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-34.86	-13.00	-21.86
142091.00	RMS/Avg	High	50	QPSK	H	H	-	-	-34.95	-13.00	-21.95
142104.50	RMS/Avg	Low	50	QPSK	V	V	-	-	-34.33	-13.00	-21.33
142114.00	RMS/Avg	Mid	50	QPSK	V	V	-	-	-34.81	-13.00	-21.81
142142.50	RMS/Avg	High	50	QPSK	V	V	-	-	-34.68	-13.00	-21.68

Table 7-63. K Patch Spurious Emissions Table (140-170GHz – n260)

Notes

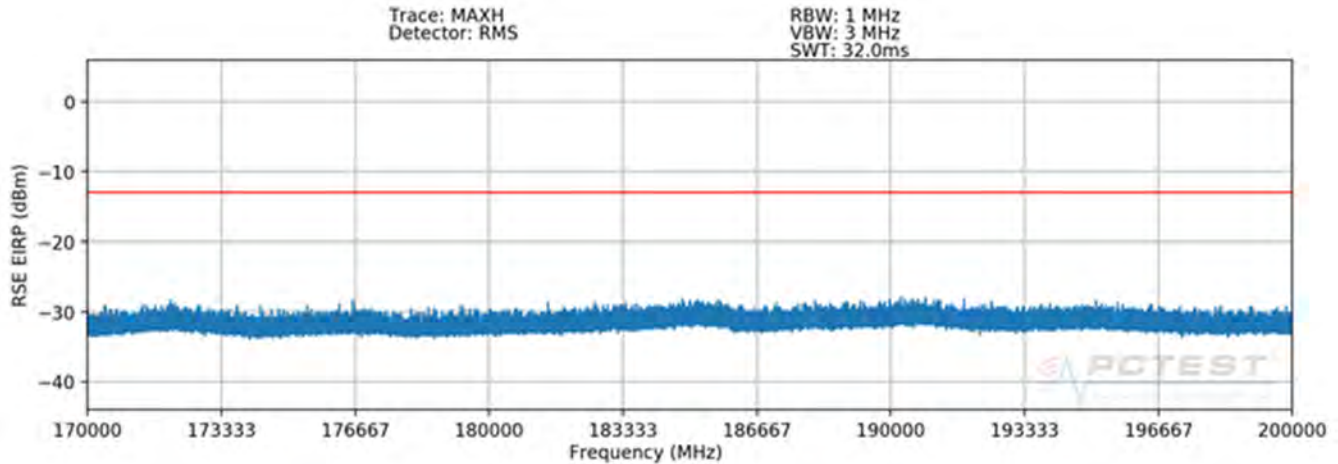
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

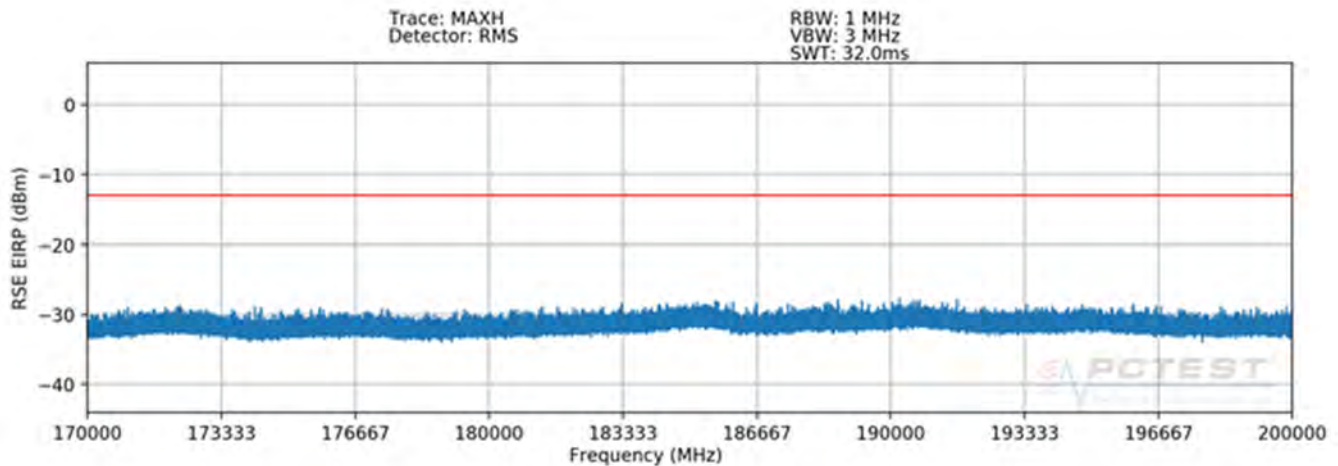
$$(-34.73 \text{ dBm} + -34.33 \text{ dBm}) = (336.90 \text{ nW} + 369.06 \text{ nW}) = (705.96 \text{ nW}) = -31.51 \text{ dBm}$$

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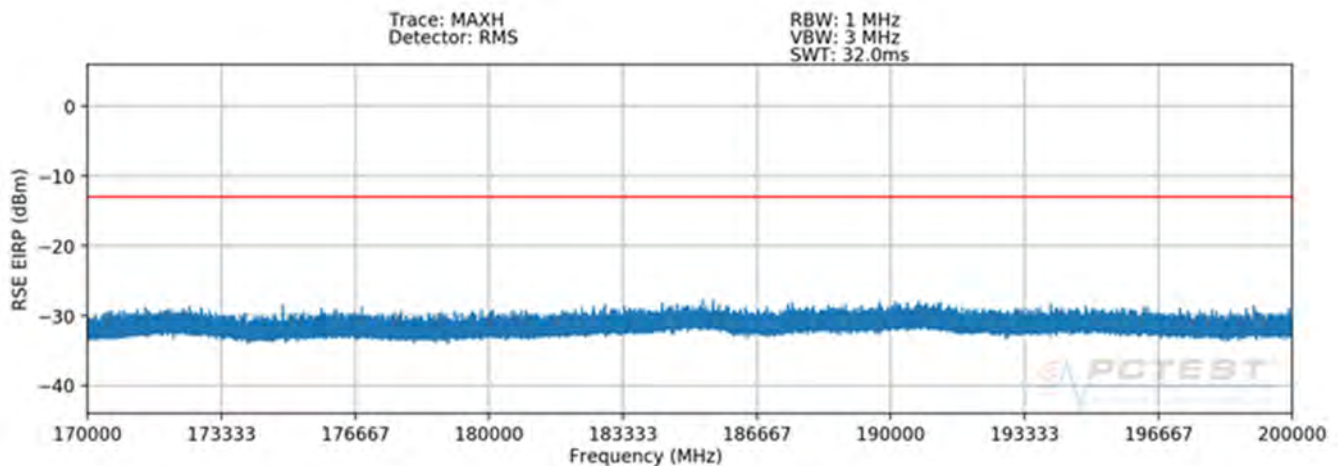
170 – 200GHz(n260)



Plot 7-347. K Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel H Beam – n260)

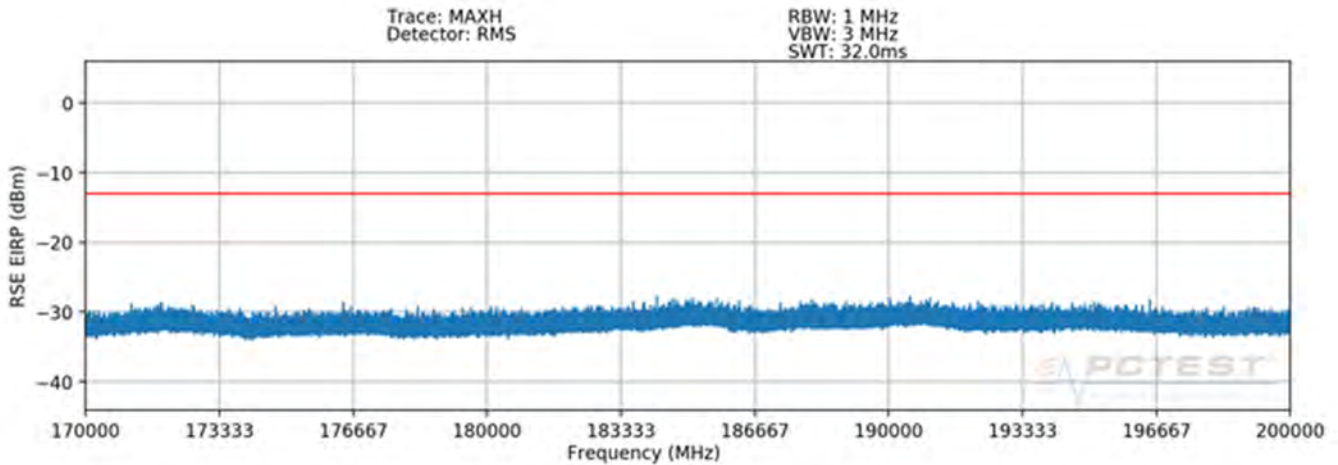


Plot 7-348. K Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel H Beam – n260)

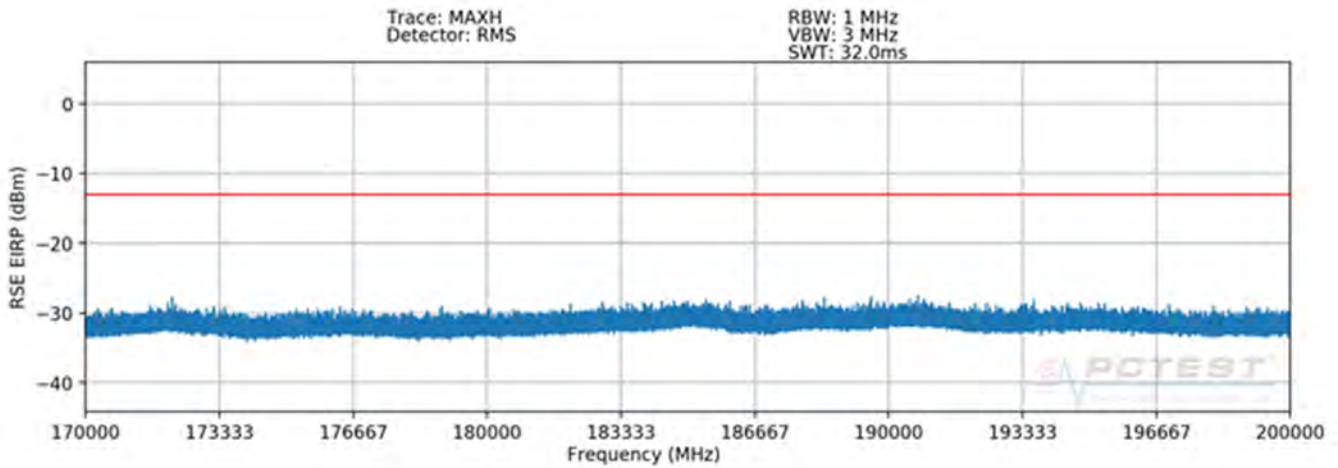


Plot 7-349. K Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel H Beam – n260)

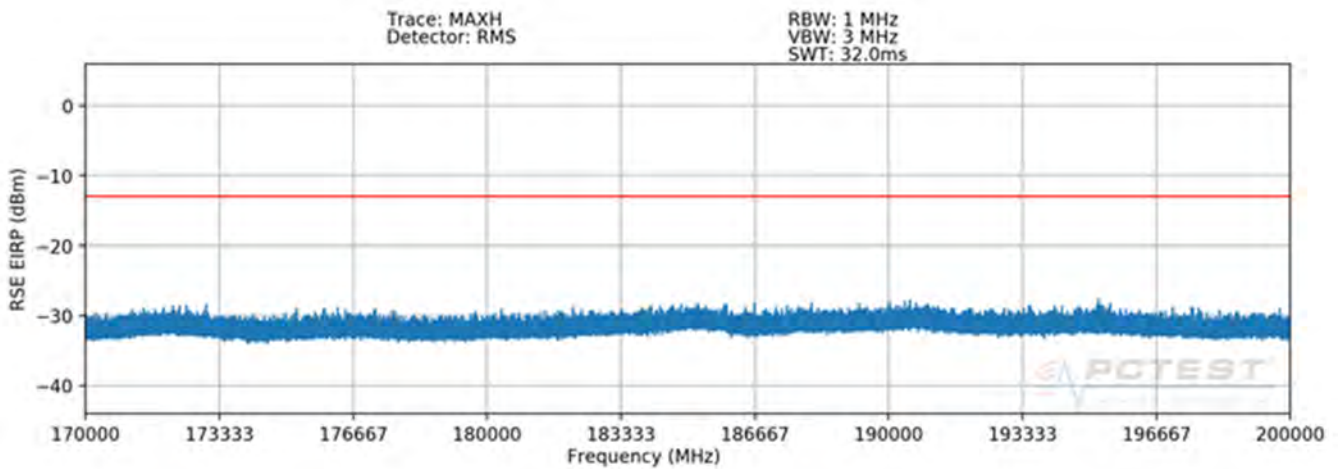
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-350. K Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-351. K Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-352. K Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
190400.50	RMS/Avg	Low	50	QPSK	H	H	-	-	-35.35	-13.00	-22.35
190090.00	RMS/Avg	Mid	50	QPSK	H	H	-	-	-35.47	-13.00	-22.47
190572.50	RMS/Avg	High	50	QPSK	H	H	-	-	-35.20	-13.00	-22.20
190431.00	RMS/Avg	Low	50	QPSK	V	V	-	-	-35.09	-13.00	-22.09
190363.50	RMS/Avg	Mid	50	QPSK	V	V	-	-	-35.27	-13.00	-22.27
185025.50	RMS/Avg	High	50	QPSK	V	V	-	-	-35.17	-13.00	-22.17

Table 7-64. K Patch Spurious Emissions Table (170-200GHz – n260)

Notes

1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

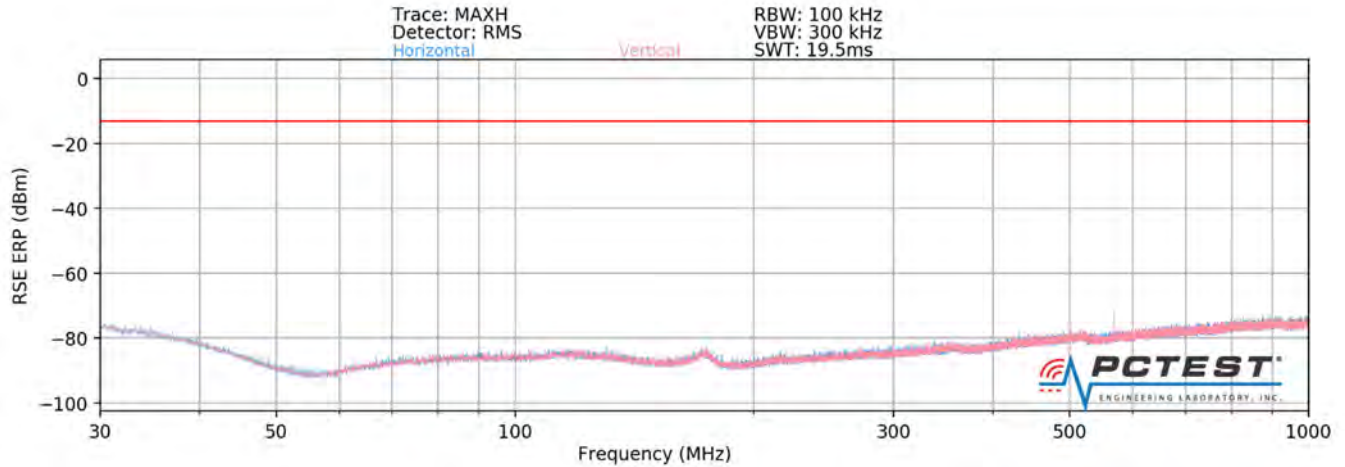
$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

$$(-35.20 \text{ dBm} + -35.17 \text{ dBm}) = (302.13 \text{ nW} + 303.81 \text{ nW}) = (605.94 \text{ nW}) = -32.18 \text{ dBm}$$

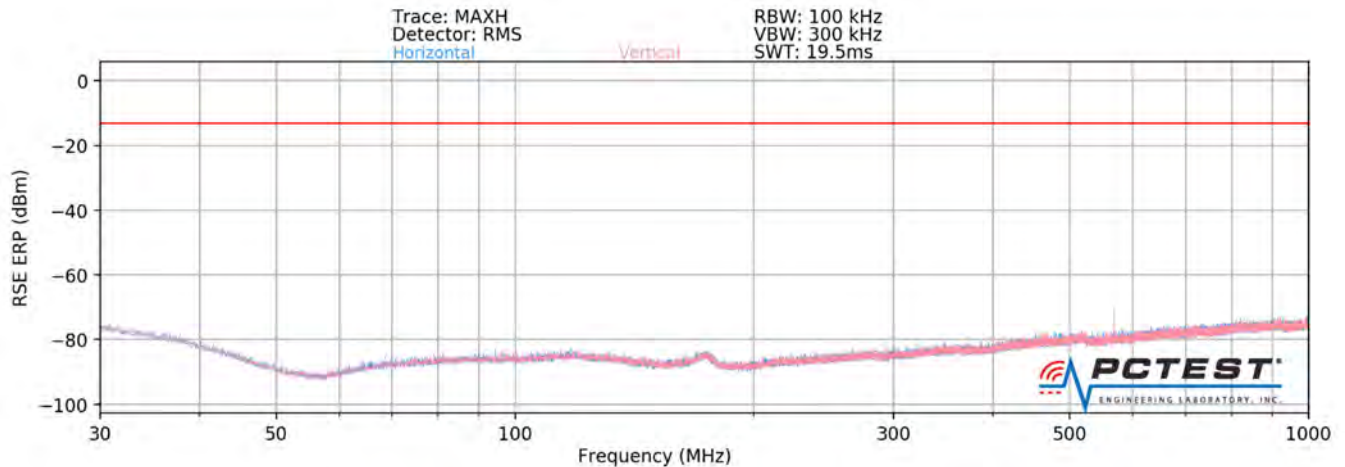
FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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L Patch Radiated Spurious Emissions(n260)

30MHz – 1GHz(n260)



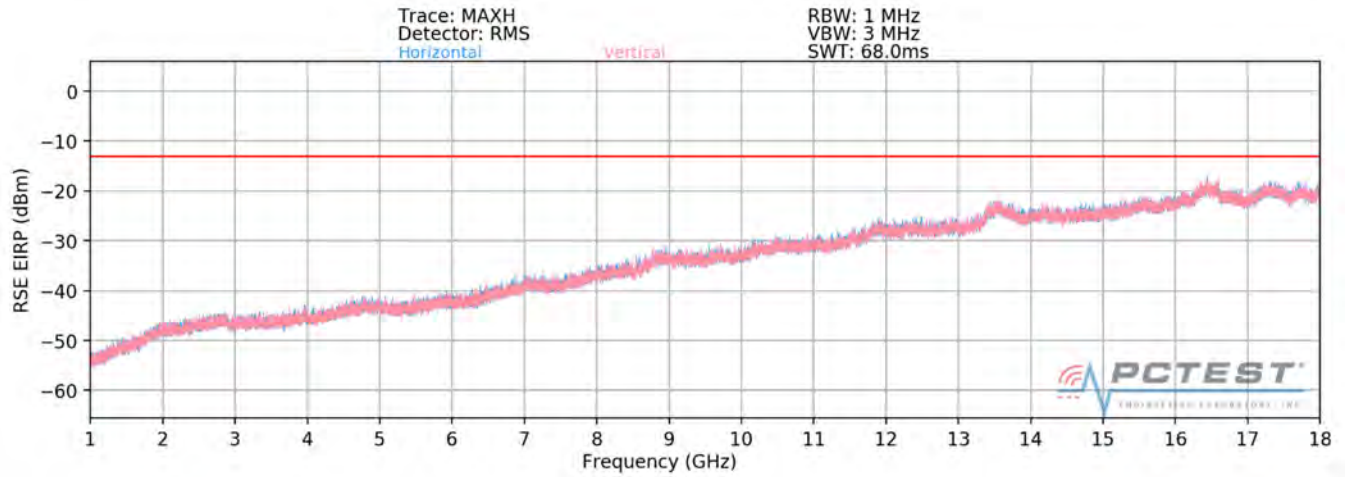
Plot 7-353. L Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel H Beam – n260)



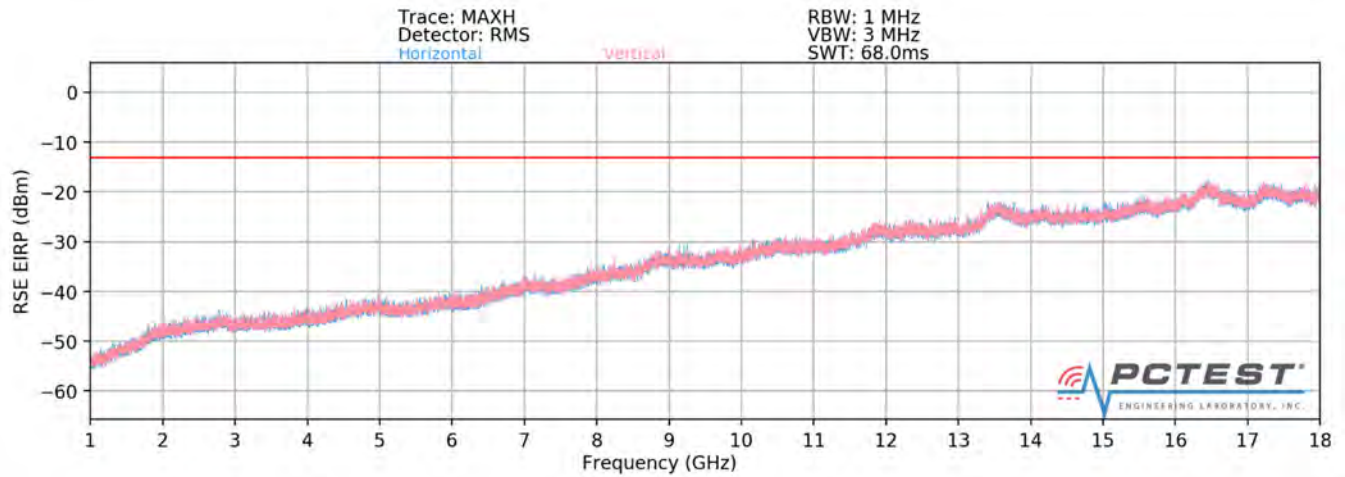
Plot 7-354. L Patch Radiated Spurious Plot 30 MHz - 1 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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1 – 18GHz(n260)



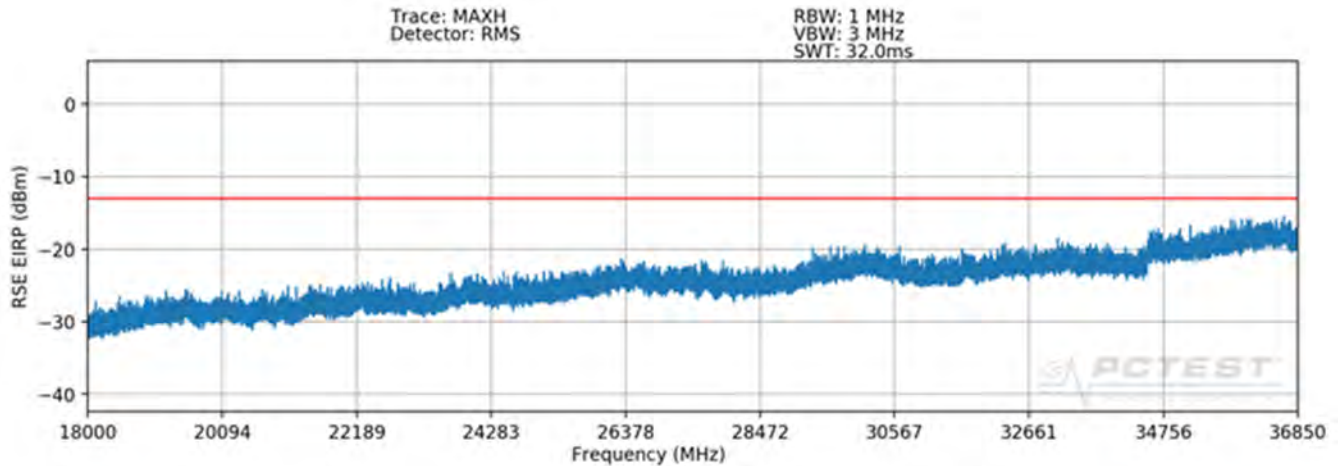
Plot 7-355. L Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel H Beam – n260)



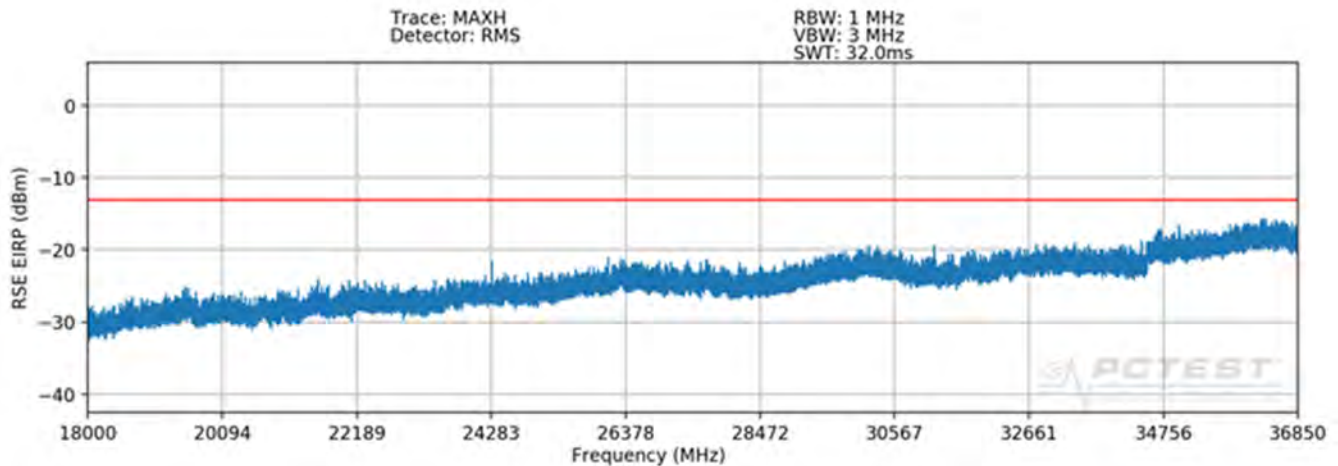
Plot 7-356. L Patch Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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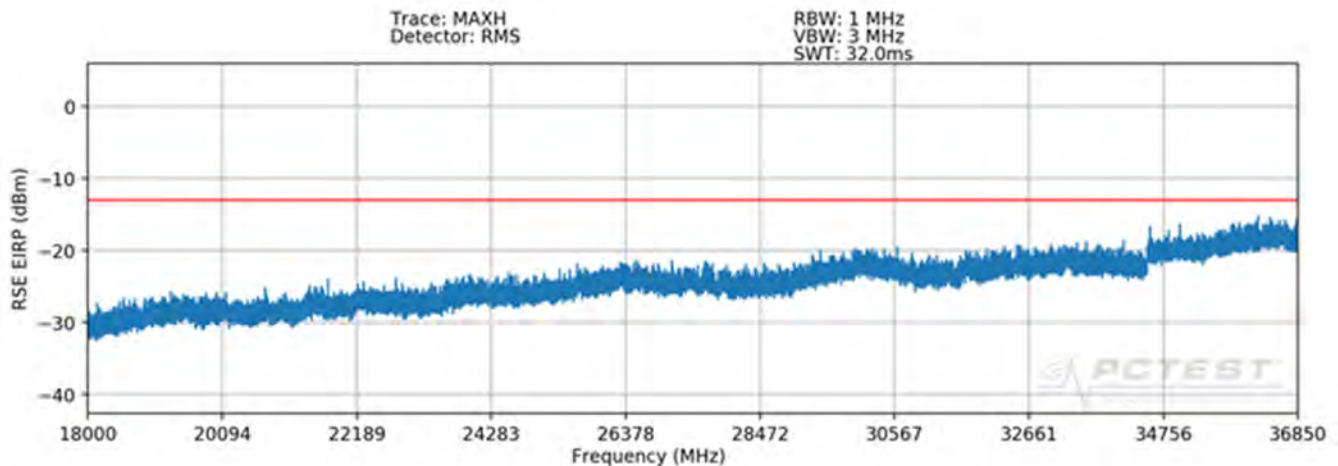
18 – 36.85GHz(n260)



Plot 7-357. L Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel H Beam – n260)

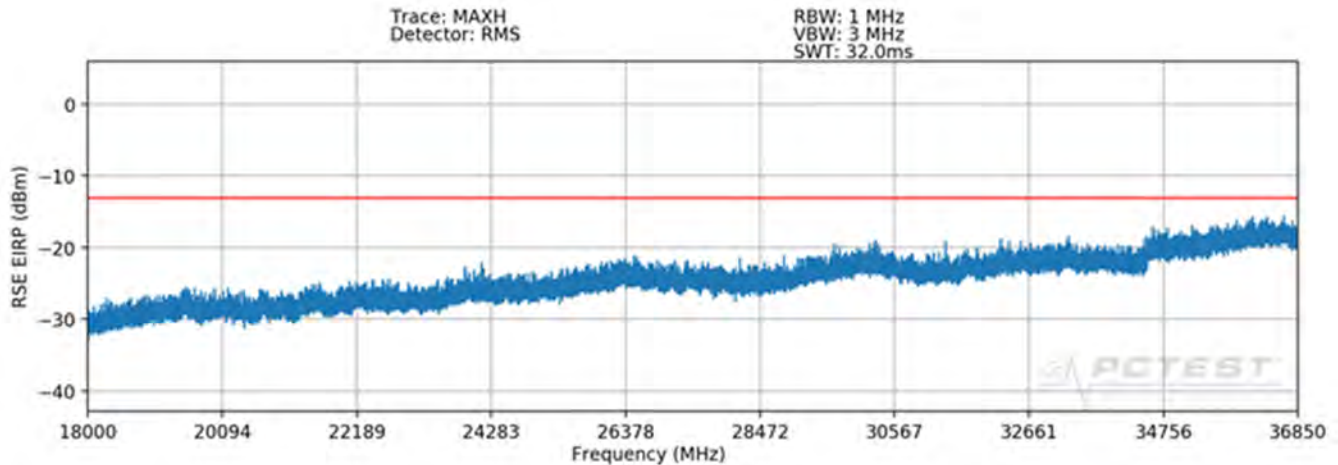


Plot 7-358. L Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel H Beam – n260)

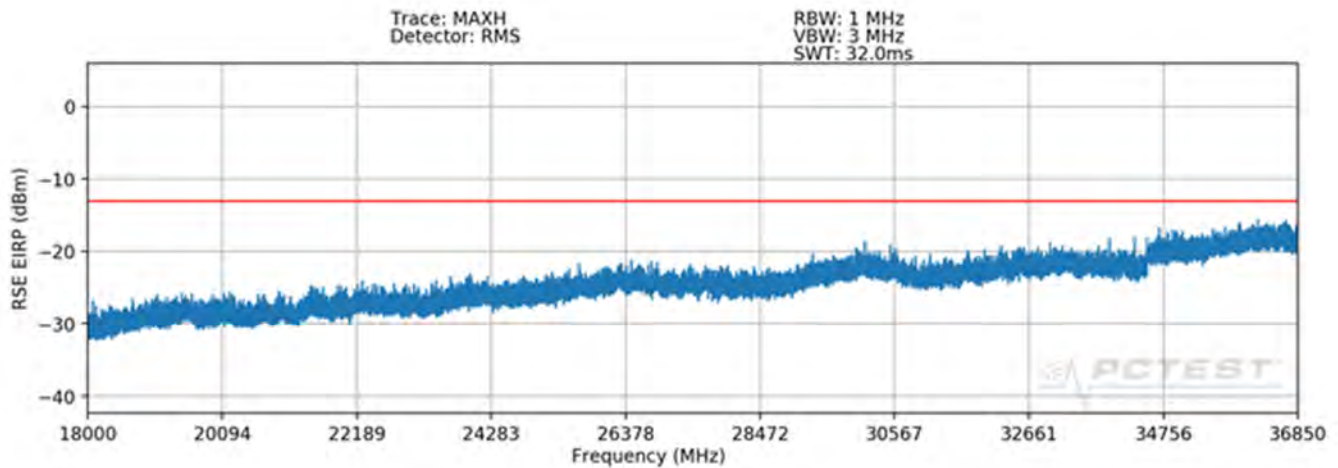


Plot 7-359. L Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel H Beam – n260)

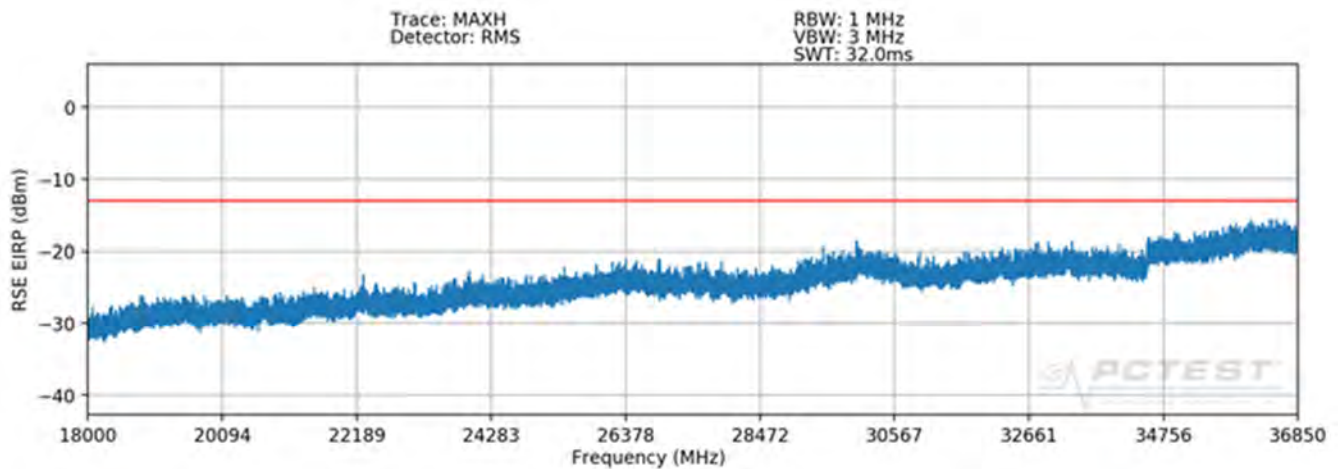
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-360. L Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-361. L Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-362. L Patch Radiated Spurious Plot 18-36.85 GHz (1CC QPSK High Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 215 of 371

Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
34618.00	RMS/Avg	Low	50	QPSK	H	H	263	22	-32.02	-13.00	-19.02
34671.50	RMS/Avg	Mid	50	QPSK	H	H	221	24	-32.16	-13.00	-19.16
31181.00	RMS/Avg	High	50	QPSK	H	H	258	44	-27.67	-13.00	-14.67
36623.00	RMS/Avg	Low	50	QPSK	V	V	297	7	-32.07	-13.00	-19.07
34926.00	RMS/Avg	Mid	50	QPSK	V	V	253	10	-32.68	-13.00	-19.68
31180.50	RMS/Avg	High	50	QPSK	V	V	258	353	-25.60	-13.00	-12.60

Table 7-65. L Patch Spurious Emissions Table (18-36.85GHz – n260)

Notes

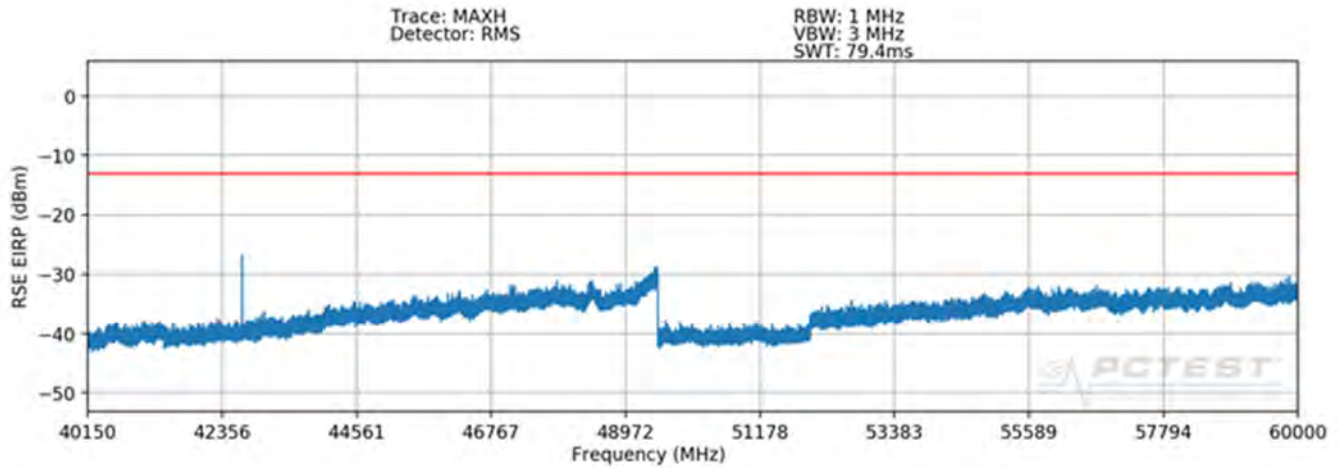
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

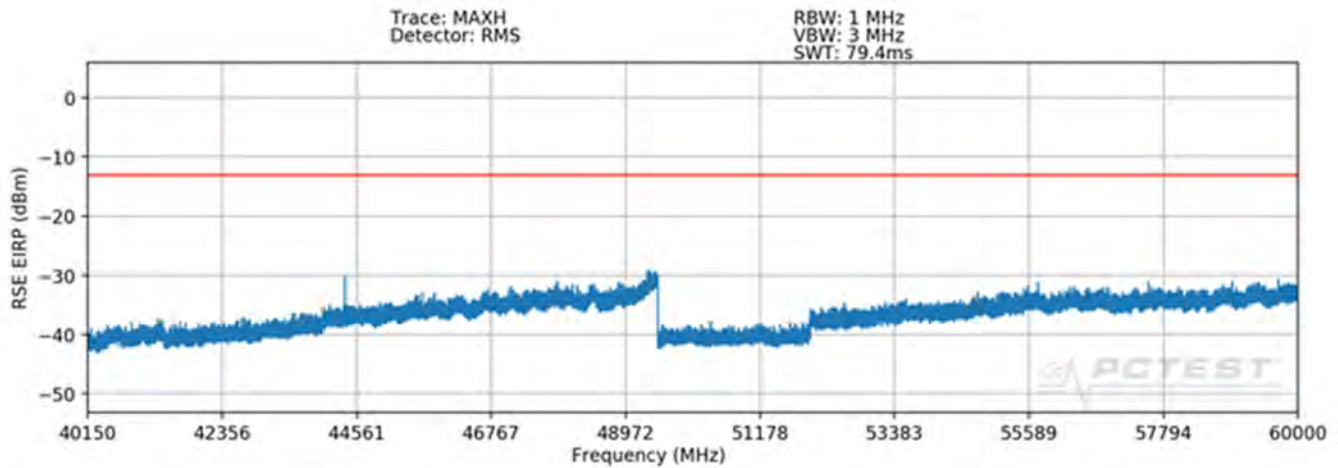
$$(-27.67 \text{ dBm} + -25.60 \text{ dBm}) = (1.71 \text{ } \mu\text{W} + 2.75 \text{ } \mu\text{W}) = (4.46 \text{ } \mu\text{W}) = -23.50 \text{ dBm}$$

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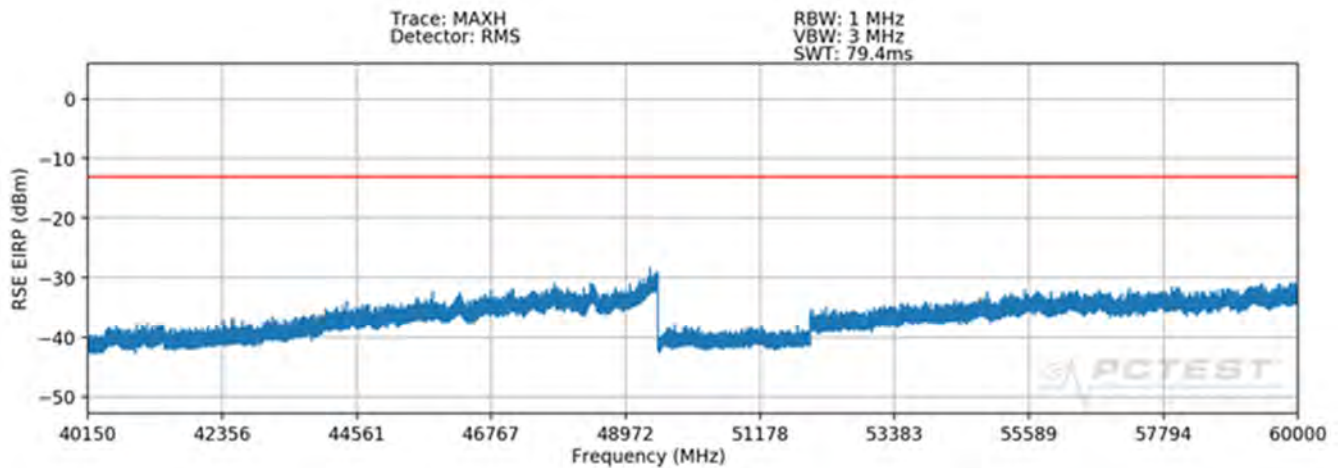
40.15 – 60GHz(n260)



Plot 7-363. L Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel H Beam – n260)

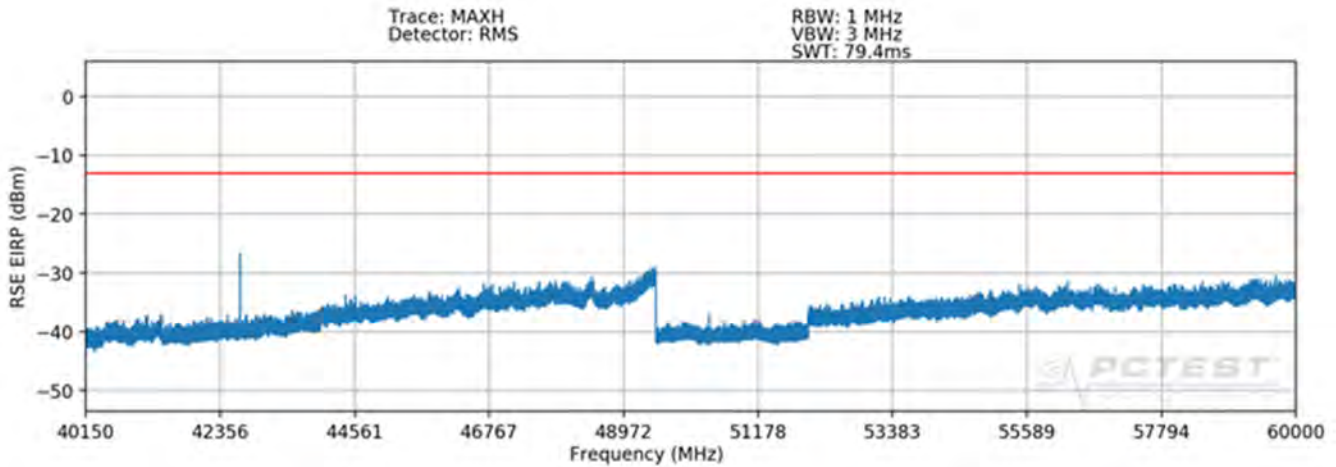


Plot 7-364. L Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel H Beam – n260)

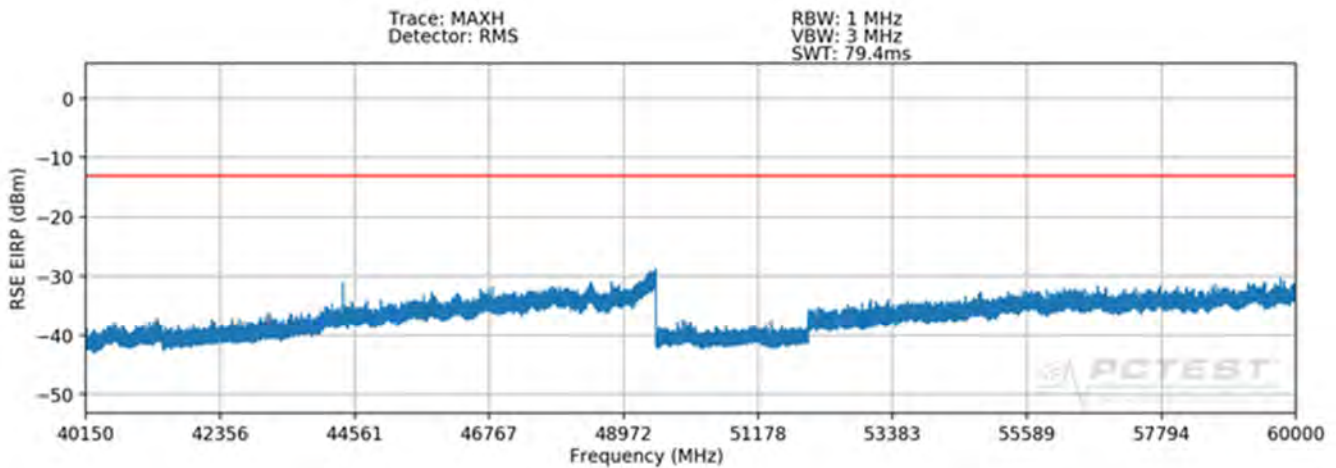


Plot 7-365. L Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel H Beam – n260)

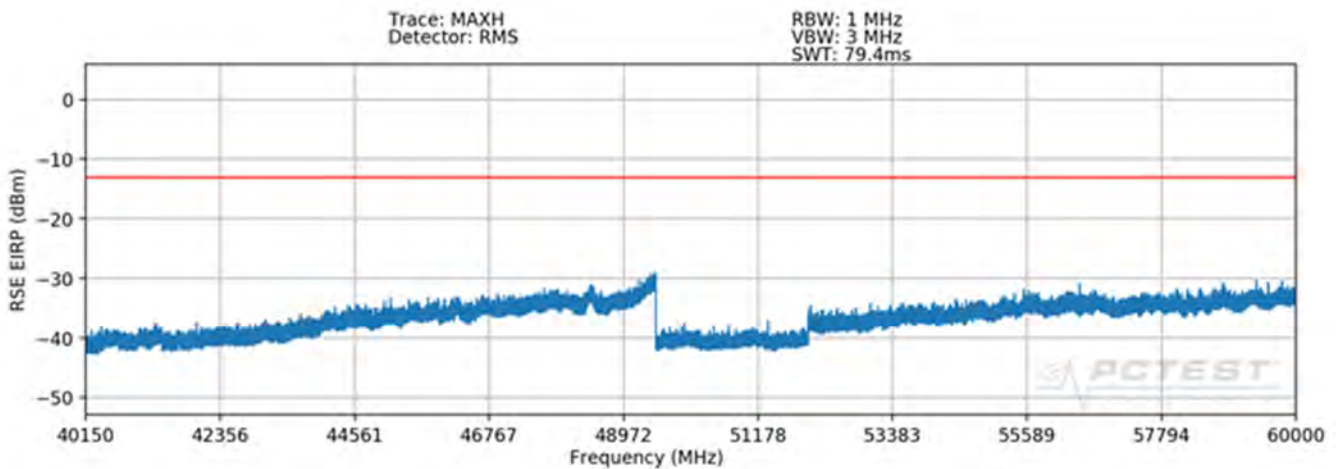
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-366. L Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-367. L Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-368. L Patch Radiated Spurious Plot 40.15-60 GHz (1CC QPSK High Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
42681.47	RMS/Avg	Low	50	QPSK	H	H	274	14	-27.40	-13.00	-14.40
44366.40	RMS/Avg	Mid	50	QPSK	H	H	338	66	-30.57	-13.00	-17.57
46771.00	RMS/Avg	High	50	QPSK	H	H	329	35	-38.45	-13.00	-25.45
42681.45	RMS/Avg	Low	50	QPSK	V	V	286	255	-28.48	-13.00	-15.48
44366.32	RMS/Avg	Mid	50	QPSK	V	V	319	246	-31.02	-13.00	-18.02
46771.06	RMS/Avg	High	50	QPSK	V	V	283	346	-37.06	-13.00	-24.06

Table 7-66. L Patch Spurious Emissions Table (40.15-60 GHz – n260)

Notes

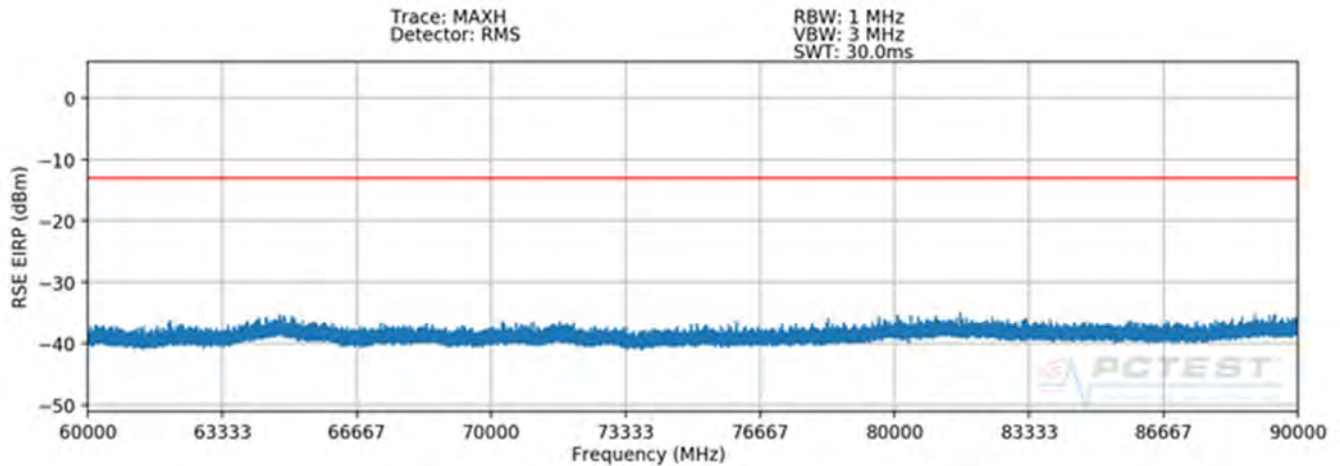
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

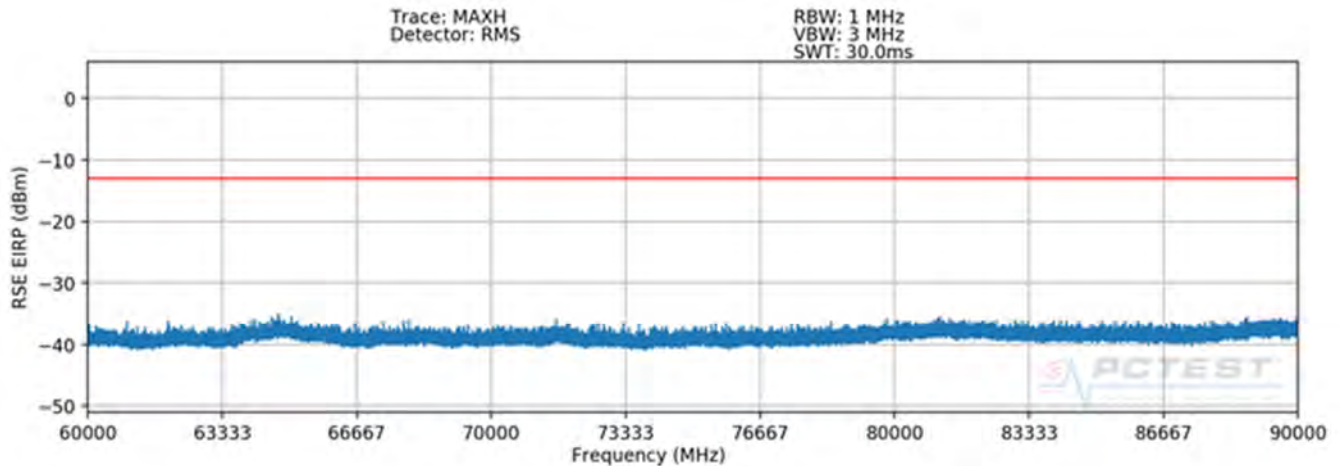
$$(-27.40 \text{ dBm} + -28.48 \text{ dBm}) = (1.82 \text{ } \mu\text{W} + 1.42 \text{ } \mu\text{W}) = (3.24 \text{ } \mu\text{W}) = -24.90 \text{ dBm}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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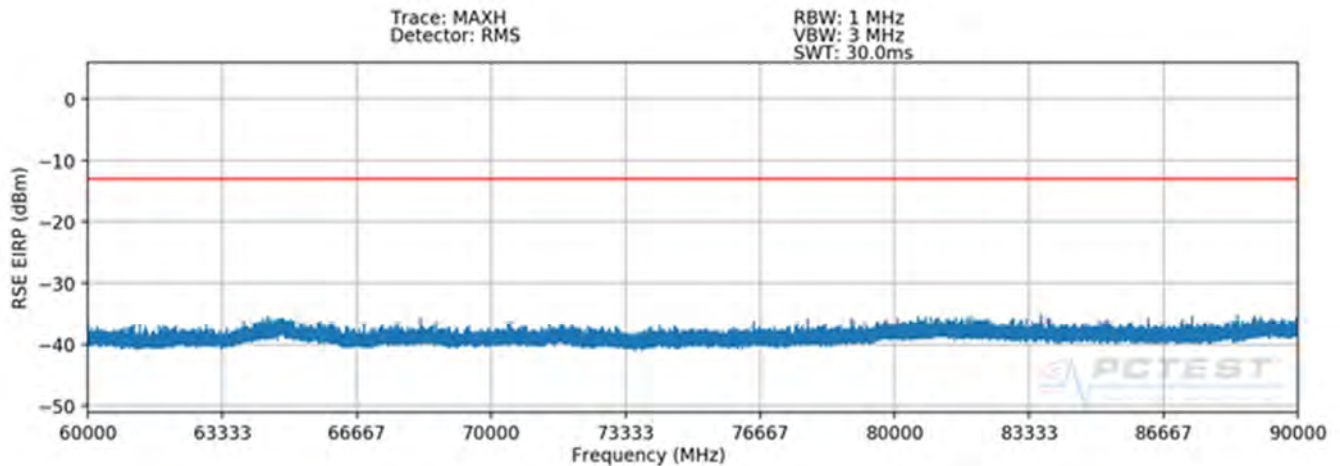
60 – 90GHz(n260)



Plot 7-369. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel H Beam – n260)

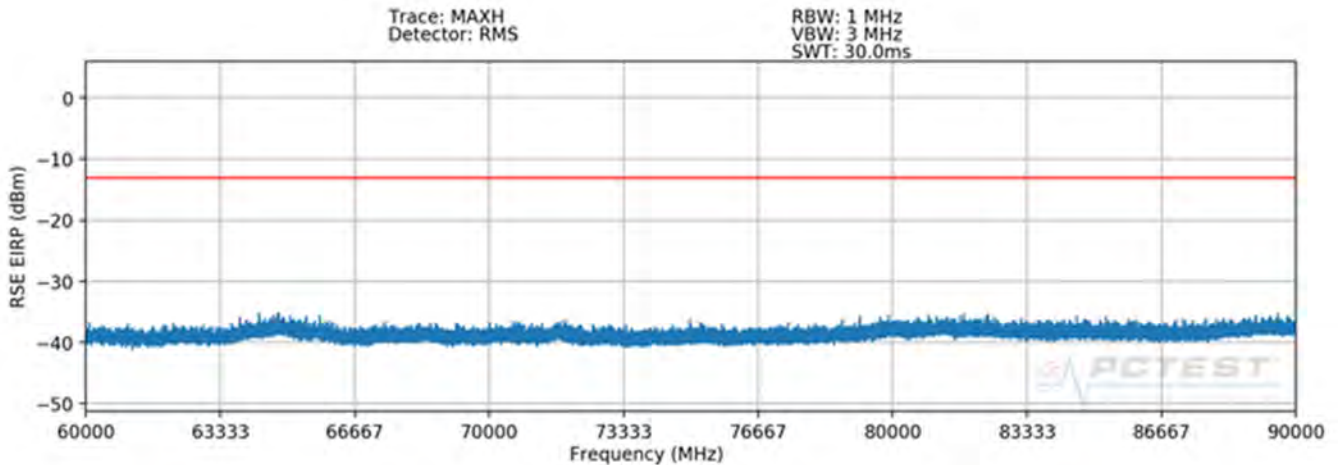


Plot 7-370. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel H Beam – n260)

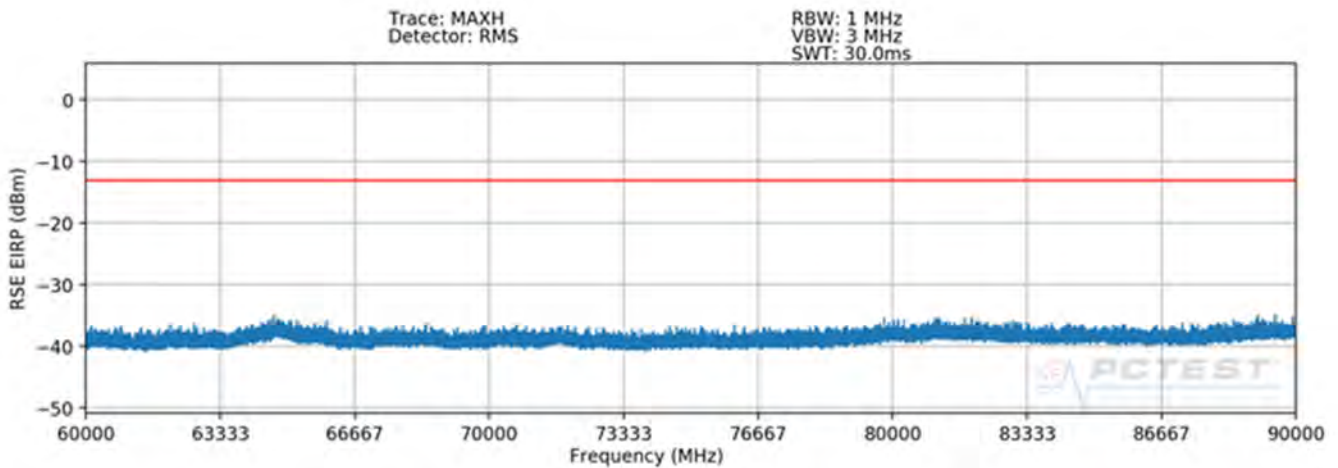


Plot 7-371. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel H Beam – n260)

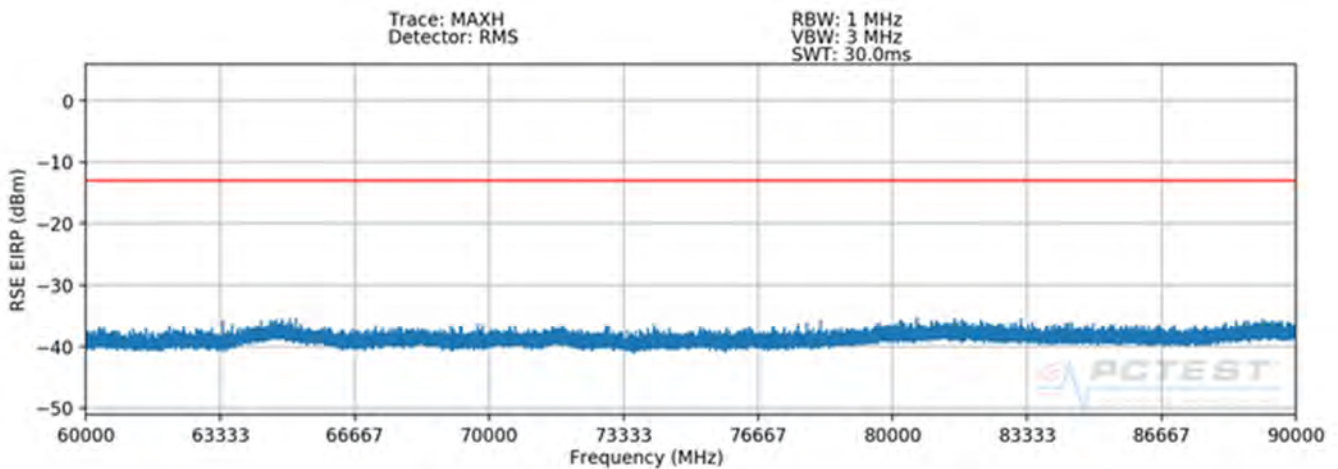
FCC ID: A3LSMN976V	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Plot 7-372. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-373. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-374. L Patch Radiated Spurious Plot 60-90 GHz (1CC QPSK High Channel V Beam – n260)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL [dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
74006.00	RMS/Avg	Low	50	QPSK	H	H	288	23	-43.52	-13.00	-30.52
77591.50	RMS/Avg	Mid	50	QPSK	H	H	320	53	-42.65	-13.00	-29.65
79884.00	RMS/Avg	High	50	QPSK	H	H	269	22	-43.21	-13.00	-30.21
74006.00	RMS/Avg	Low	50	QPSK	V	V	242	31	-43.11	-13.00	-30.11
77591.50	RMS/Avg	Mid	50	QPSK	V	V	244	33	-39.82	-13.00	-26.82
79884.00	RMS/Avg	High	50	QPSK	V	V	278	7	-43.48	-13.00	-30.48

Table 7-67. L Patch Spurious Emissions Table (60-90GHz – n260)

Notes

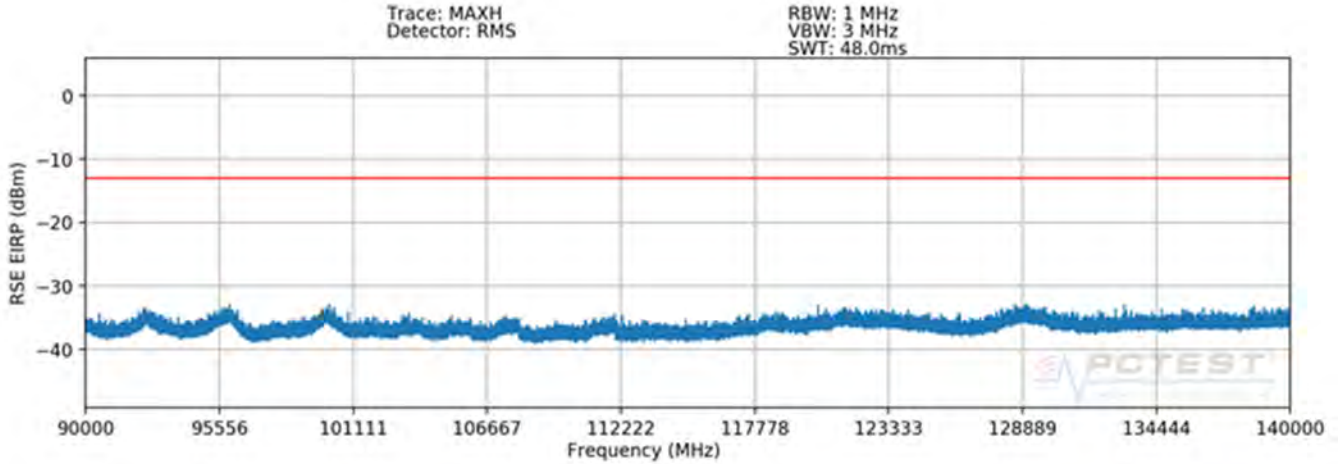
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

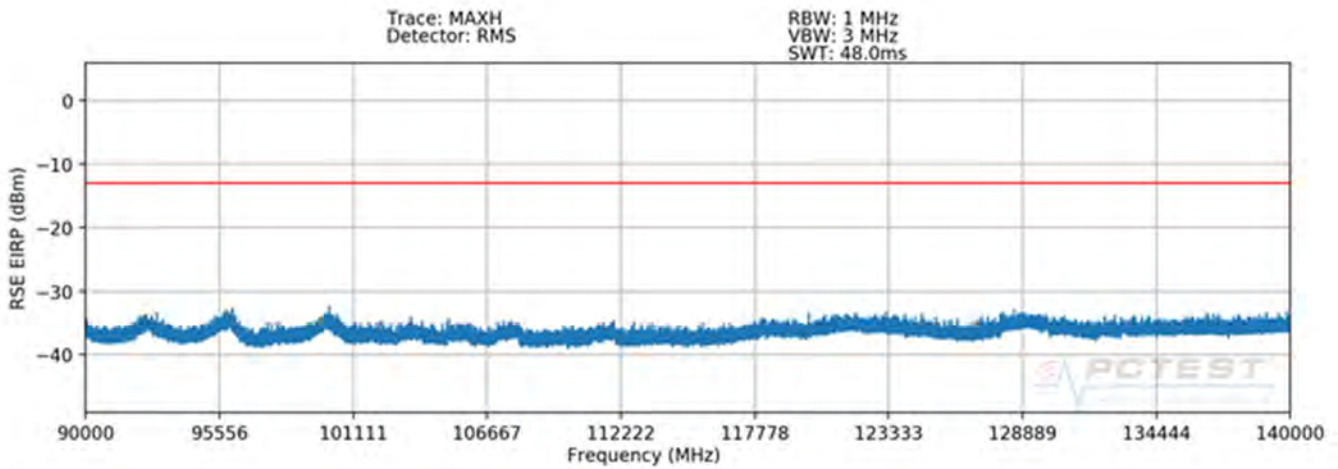
$$(-42.65 \text{ dBm} + -39.82 \text{ dBm}) = (54.33 \text{ nW} + 104.30 \text{ nW}) = (158.63 \text{ nW}) = -38.00 \text{ dBm}$$

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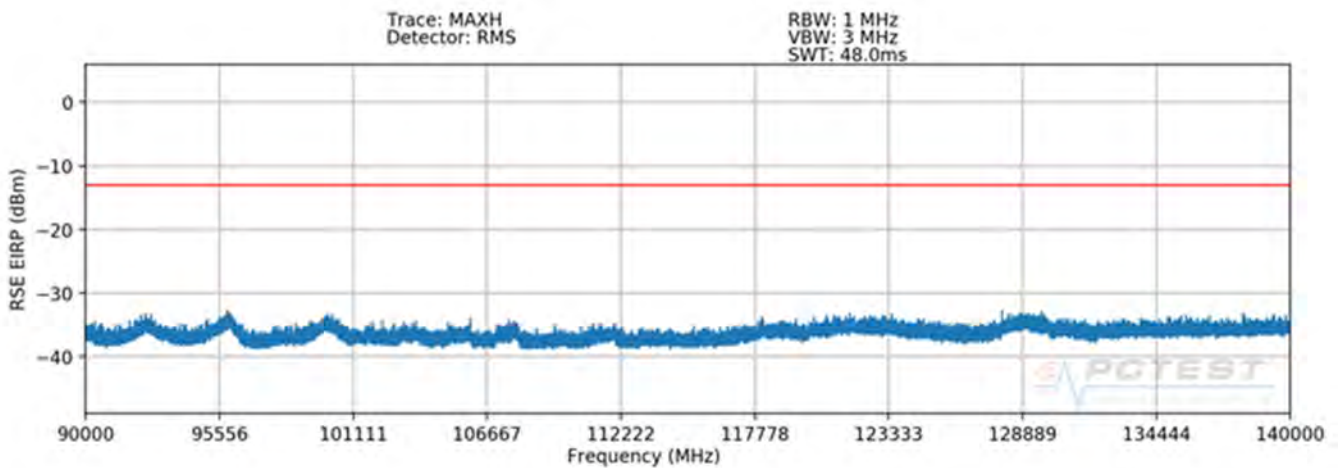
90 – 140GHz(n260)



Plot 7-375. L Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel H Beam – n260)

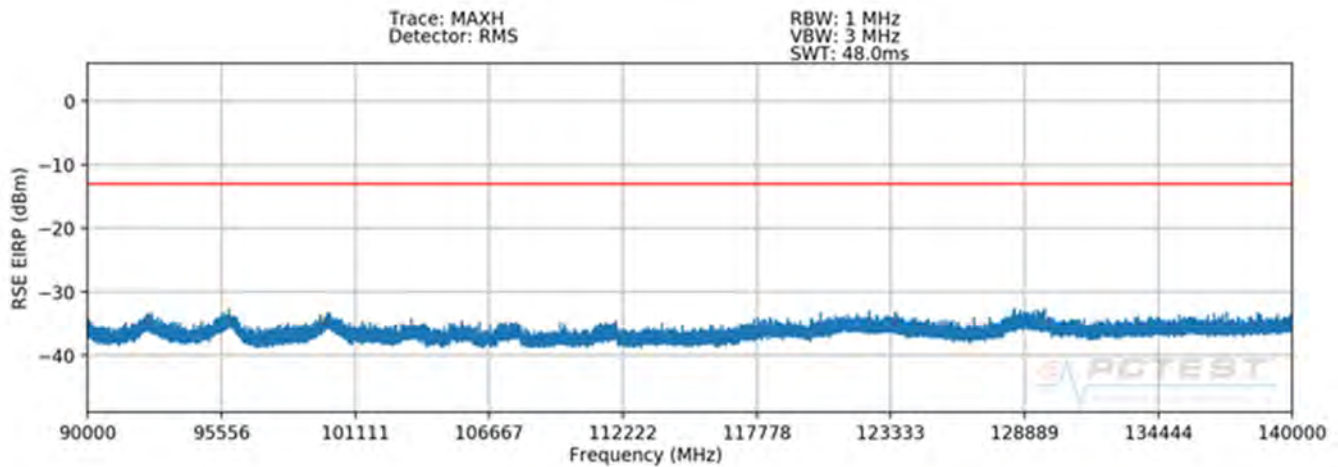


Plot 7-376. L Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel H Beam – n260)

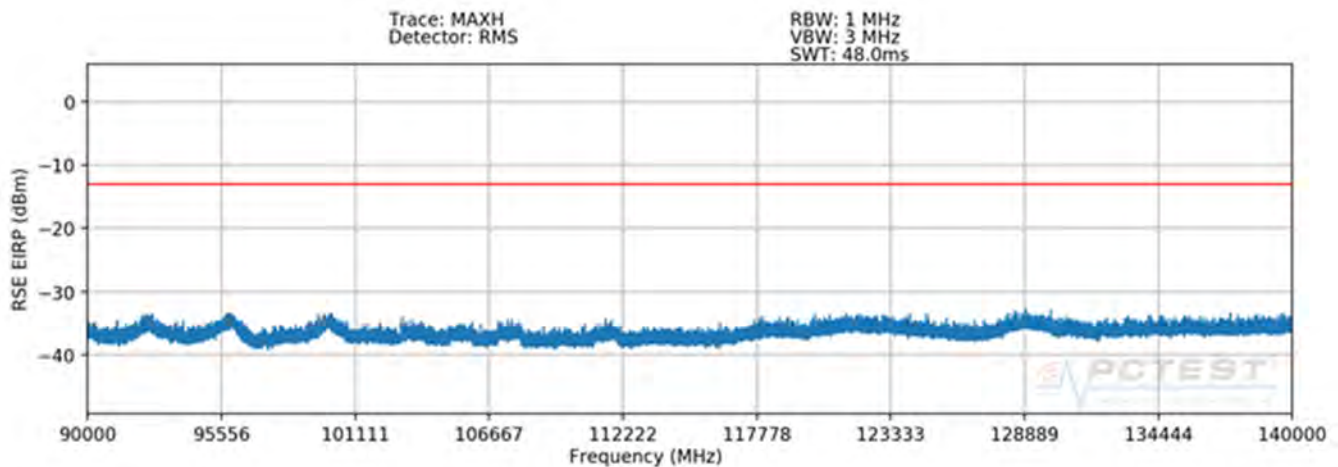


Plot 7-377. L Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel H Beam – n260)

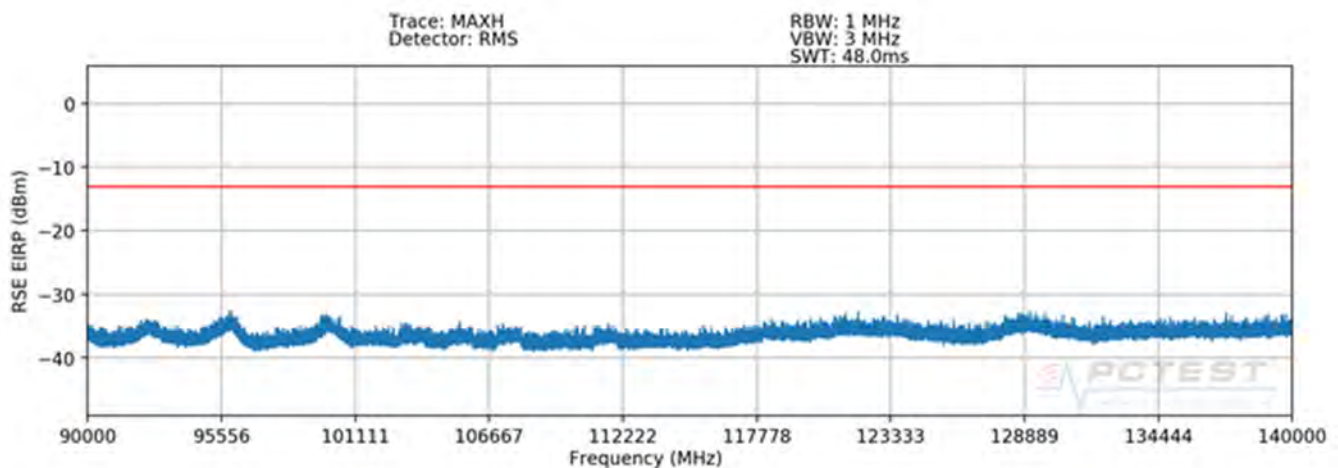
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-378. L Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-379. L Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-380. L Patch Radiated Spurious Plot 90-140 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
99919.50	RMS/Avg	Low	50	QPSK	H	H	-	-	-39.63	-13.00	-26.63
99992.00	RMS/Avg	Mid	50	QPSK	H	H	-	-	-39.59	-13.00	-26.59
128890.50	RMS/Avg	High	50	QPSK	H	H	-	-	-39.63	-13.00	-26.63
99965.00	RMS/Avg	Low	50	QPSK	V	V	-	-	-39.64	-13.00	-26.64
99871.00	RMS/Avg	Mid	50	QPSK	V	V	-	-	-39.82	-13.00	-26.82
95947.00	RMS/Avg	High	50	QPSK	V	V	-	-	-39.69	-13.00	-26.69

Table 7-68. L Patch Spurious Emissions Table (90-140GHz – n260)

Notes

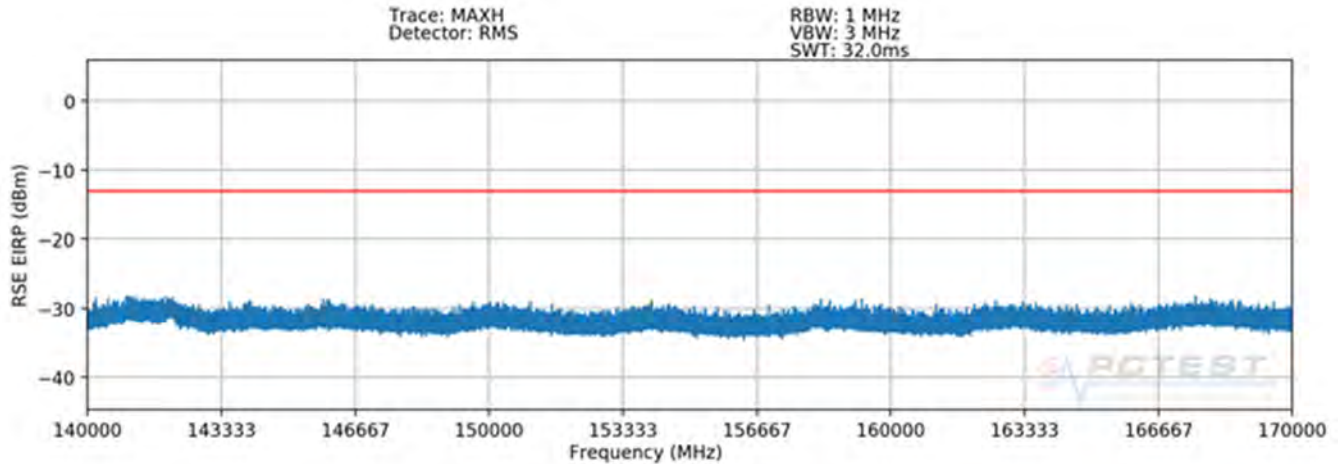
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

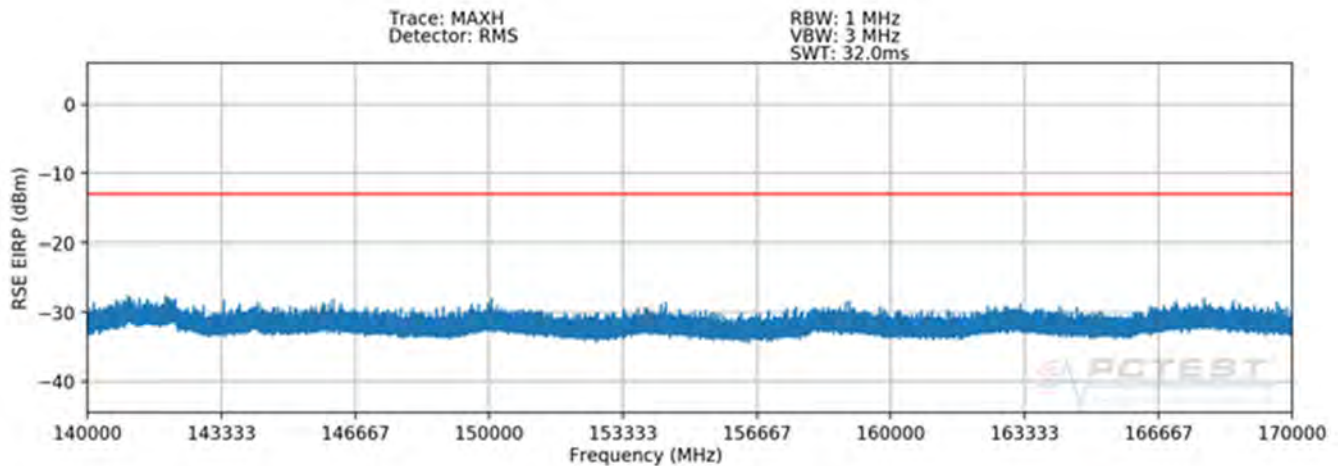
$$(-39.63 \text{ dBm} + -39.64 \text{ dBm}) = (108.94 \text{ nW} + 108.64 \text{ nW}) = (215.59 \text{ nW}) = -36.62 \text{ dBm}$$

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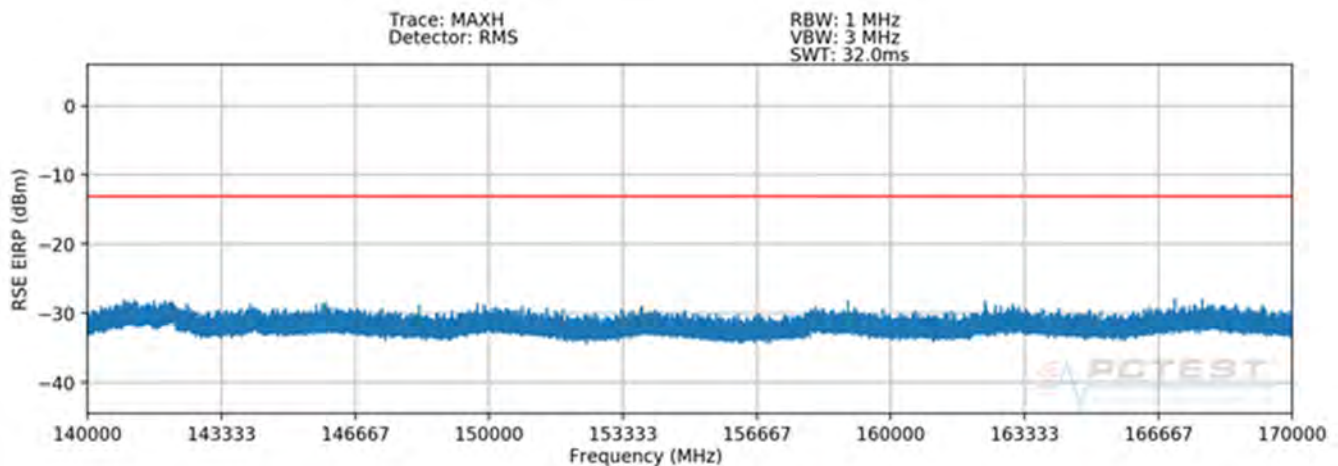
140 – 170GHz(n260)



Plot 7-381. L Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel H Beam – n260)

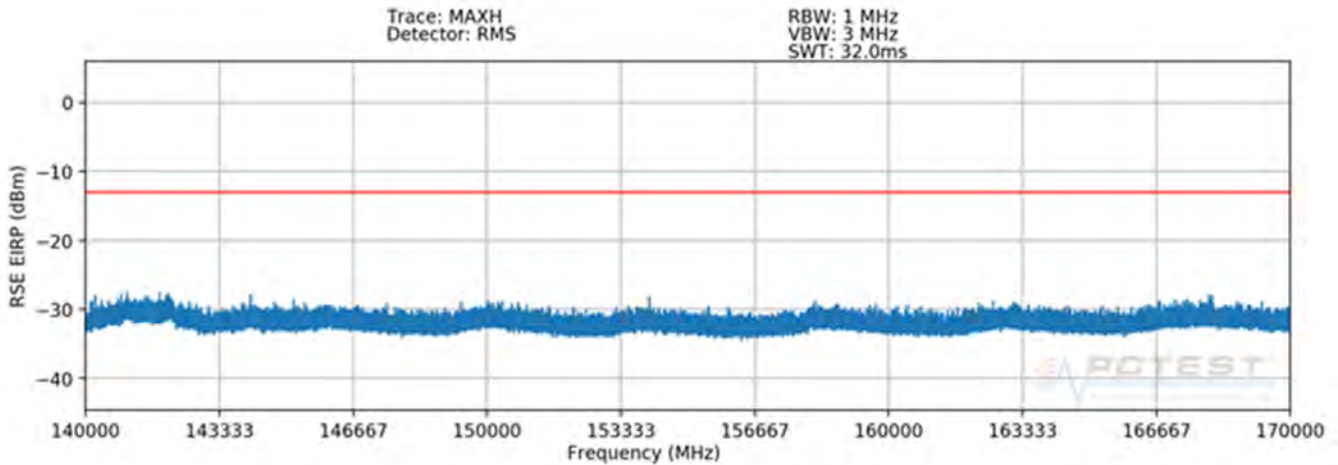


Plot 7-382. L Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel H Beam – n260)

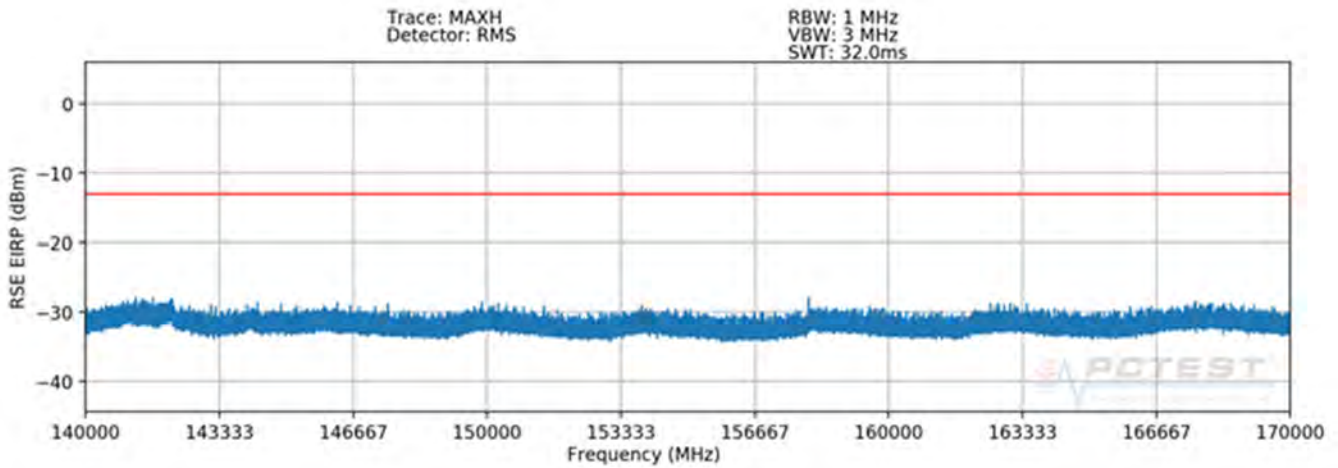


Plot 7-383. L Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel H Beam – n260)

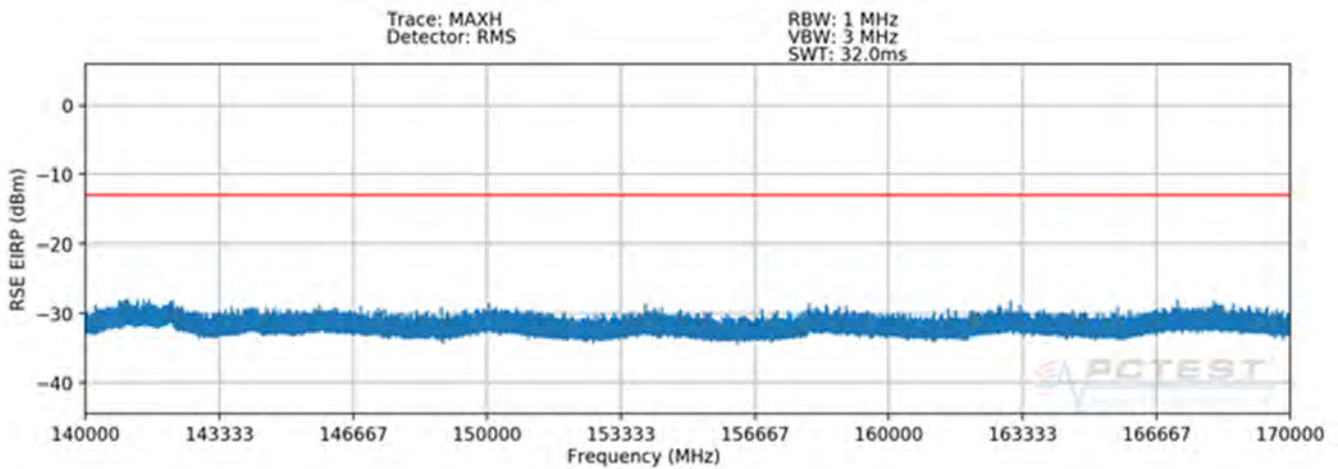
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-384. L Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-385. L Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-386. L Patch Radiated Spurious Plot 140-170 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
142145.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-34.79	-13.00	-21.79
142108.00	RMS/Avg	Mid	50	QPSK	H	H	-	-	-34.66	-13.00	-21.66
142111.00	RMS/Avg	High	50	QPSK	H	H	-	-	-34.77	-13.00	-21.77
142079.00	RMS/Avg	Low	50	QPSK	V	V	-	-	-34.68	-13.00	-21.68
142133.50	RMS/Avg	Mid	50	QPSK	V	V	-	-	-34.79	-13.00	-21.79
142097.50	RMS/Avg	High	50	QPSK	V	V	-	-	-34.88	-13.00	-21.88

Table 7-69. L Patch Spurious Emissions Table (140-170GHz – n260)

Notes

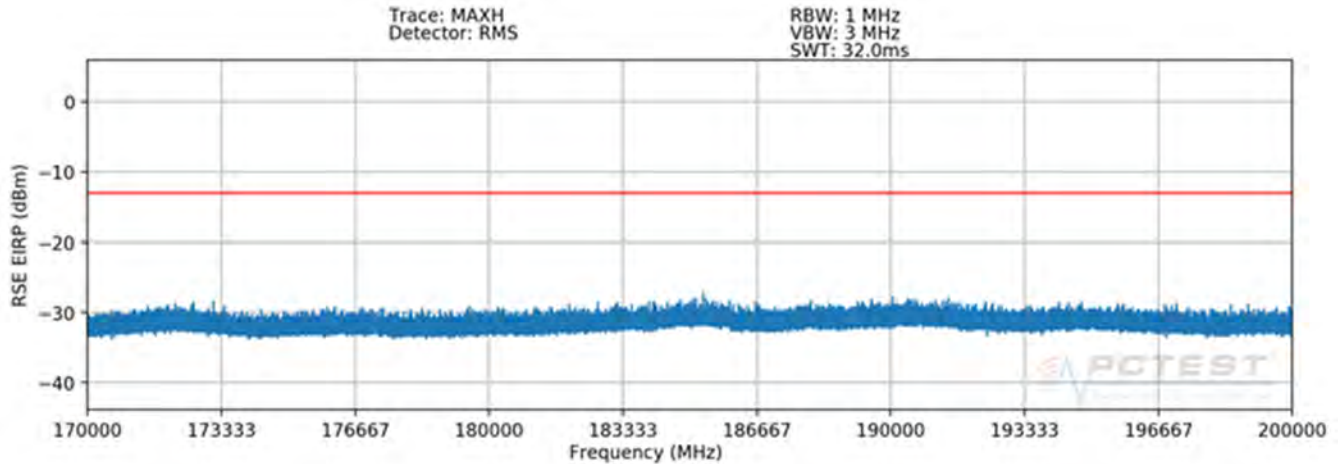
1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

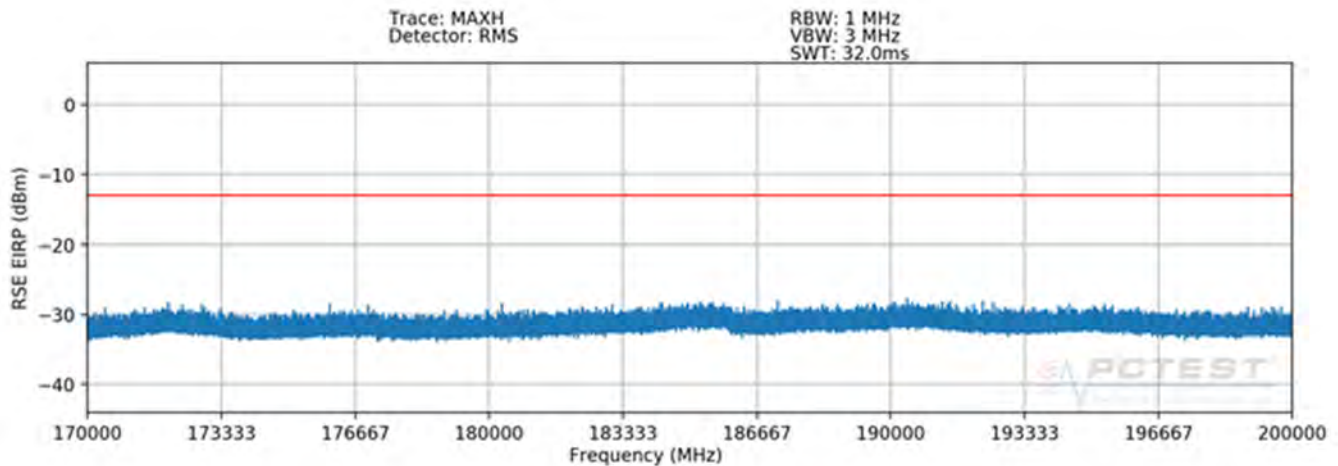
$$(-34.66 \text{ dBm} + -34.79 \text{ dBm}) = (341.98 \text{ nW} + 331.67 \text{ nW}) = (673.64 \text{ nW}) = -31.72 \text{ dBm}$$

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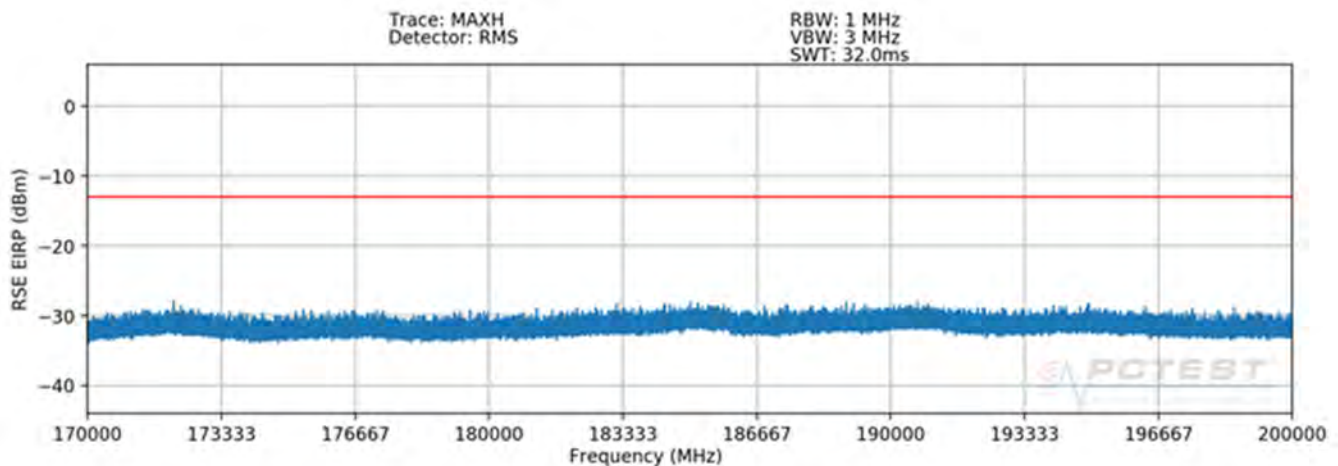
170 – 200GHz(n260)



Plot 7-387. L Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel H Beam – n260)

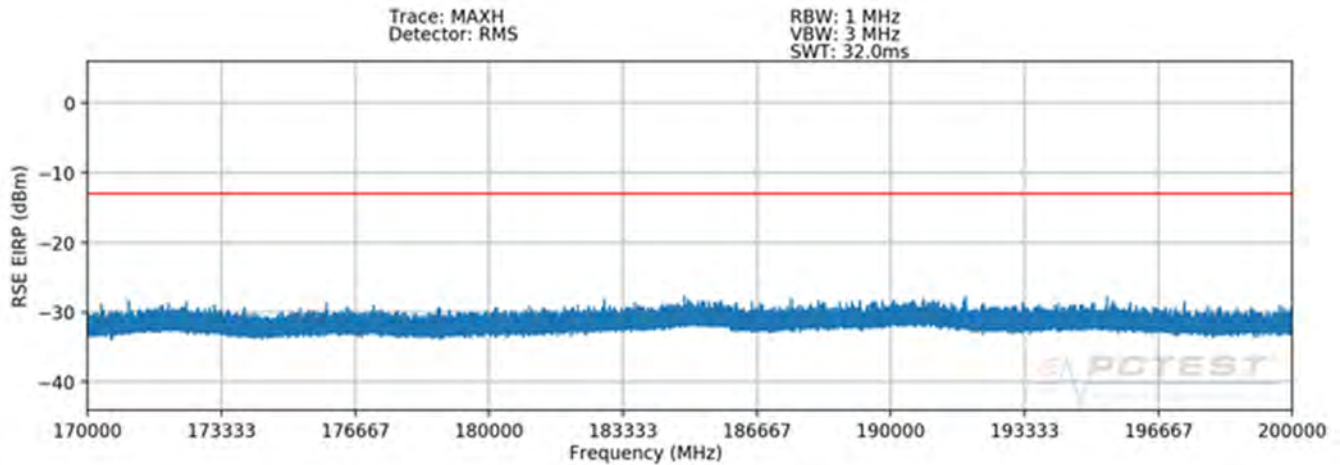


Plot 7-388. L Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel H Beam – n260)

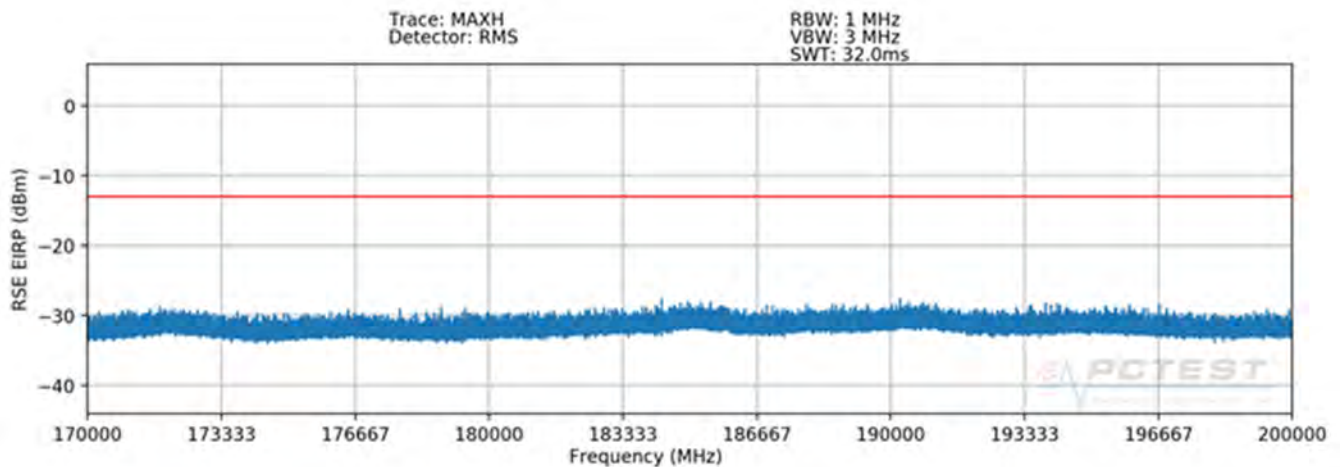


Plot 7-389. L Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel H Beam – n260)

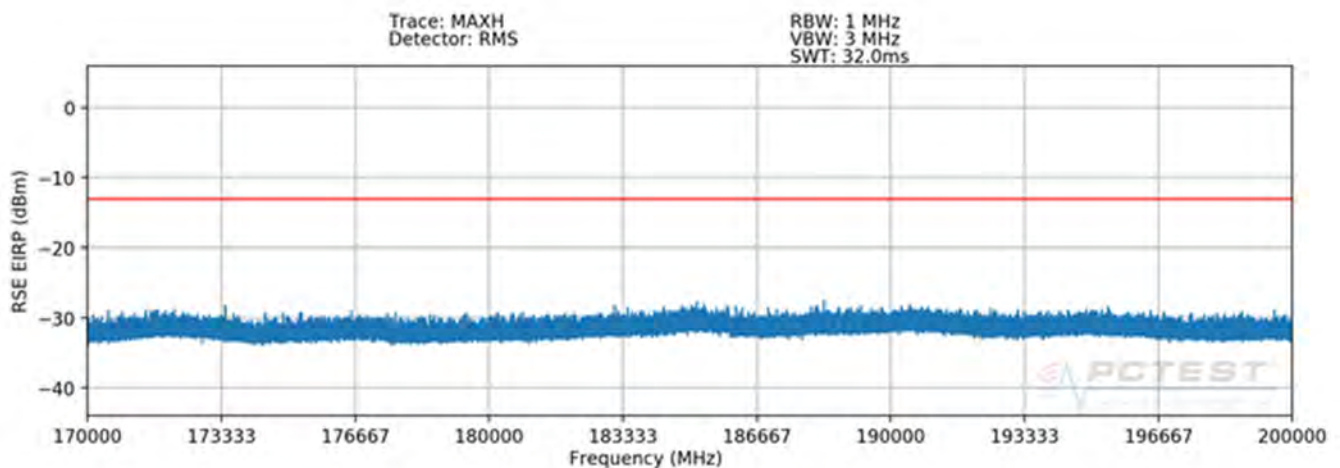
FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-390. L Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Channel V Beam – n260)



Plot 7-391. L Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Channel V Beam – n260)



Plot 7-392. L Patch Radiated Spurious Plot 170-200 GHz (1CC QPSK High Channel V Beam – n260)

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Spurious Emissions EIRP Sample Calculation(n260)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + 107 + \text{AFCL[dB/m]} + 20\text{Log(Dm)} + \text{Harmonic Mixer Loss (dB)} - 104.8$$

Frequency [MHz]	Detector/Trace	Chan.	Bandwidth (MHz)	Mod.	EUT Beam Polarization	Ant. Pos [H/V]	Turn Table Azimuth [degree]	Positioner Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
190527.00	RMS/Avg	Low	50	QPSK	H	H	-	-	-35.20	-13.00	-22.20
191112.50	RMS/Avg	Mid	50	QPSK	H	H	-	-	-35.24	-13.00	-22.24
190984.50	RMS/Avg	High	50	QPSK	H	H	-	-	-35.28	-13.00	-22.28
190706.50	RMS/Avg	Low	50	QPSK	V	V	-	-	-34.91	-13.00	-21.91
191218.00	RMS/Avg	Mid	50	QPSK	V	V	-	-	-35.09	-13.00	-22.09
190528.50	RMS/Avg	High	50	QPSK	V	V	-	-	-35.52	-13.00	-22.52

Table 7-70. L Patch Spurious Emissions Table (170-200GHz – n260)

Notes

1. The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1 meter.
2. To address compliance of MIMO RSE per KDB 662911 D01, the MIMO RSE EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm:

$$\text{EIRP(H Beam)} + \text{EIRP(V Beam)} = \text{EIRP(MIMO)}$$

$$(-35.20 \text{ dBm} + -34.91 \text{ dBm}) = (301.79 \text{ nW} + 322.78 \text{ nW}) = (624.56 \text{ nW}) = -32.04 \text{ dBm}$$

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7.5 Band Edge Emissions

\$2.1051, \$30.203

Test Overview

All out of band emissions are measured in a radiated setup while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All modulations were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is -13dBm/1MHz. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be -5 dBm/MHz or lower.

Test Procedure Used

ANSI C63.26-2015 Section 5 and ANSI C63.26-2015 Section 6.4
KDB 842590 D01 v01 Section 4.4.2.5

Test Settings

1. Start and stop frequency were set such that both upper and lower band edges are measured.
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW = 1MHz
4. VBW $\geq 3 \times$ RBW
5. Detector = RMS
6. Number of sweep points $\geq 2 \times$ Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning.
- 2) Band Edge measurements in this section are shown as equivalent conductive powers for direct comparison to the 30.203 limit. The conductive power at the band edge is calculated by subtracting the gain of the EUT's antenna from the measured EIRP level. Antenna Gain information is shown on the following page.
- 3) Band Edge emissions were measured at a 1 meter distance.
- 4) The spectrum analyzer for each measurement shows an offset value that was determined using the measurement antenna factor, cable loss, far field measurement distance, and EUT antenna gain. A sample calculation is shown on the following page.
- 5) MIMO Band Edge plots shown below are mathematically summed conductive powers between spectrum analyzer measurements on H Beam and V Beam. This MIMO bandedge plot was produced by summing the following two spectrum analyzer traces: (1) the first trace is maximized while the EUT is transmitting in H-beam and (2) the second trace is maximized while the EUT is transmitting in V-beam.
- 6) The MIMO Band Edges were calculated by using the "measure and sum the spectra across the outputs" technique specified in Section 6.4.3.2.2 of ANSI C63.26-2015. The spectra were summed linearly and converted to dBm for comparison with the limit.

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7.5.1 Antenna Gain Information at the Band Edge

The following antenna gain information is provided to demonstrate the antenna performance of the 27.5 – 28.35GHz and 37 – 40GHz band. These antenna gains were subtracted from the measured EIRP levels at the lower and upper band edge frequencies to determine an equivalent conductive power that was compared directly with the §30.203 limits.

Antenna	Channel	Beam Polarization	Beam ID	Gain (dBi)
J Dipole	Low	H	5	6.60
		V	133	6.88
	High	H	16	6.16
		V	133	6.93
J Patch	Low	H	25	10.94
		V	154	10.31
	High	H	25	10.34
		V	168	10.72
K Patch	Low	H	44	8.64
		V	173	10.15
	High	H	30	9.40
		V	160	9.04
L Patch	Low	H	48	8.86
		V	163	10.53
	High	H	48	9.79
		V	176	9.38

Table 7-71. Antenna Gains at the Band Edges(n261)

Antenna	Channel	Beam Polarization	Beam ID	Gain (dBi)
J Dipole	Low	H	5	7.95
		V	145	8.07
	High	H	5	7.99
		V	145	8.94
J Patch	Low	H	26	10.62
		V	168	11.87
	High	H	26	10.06
		V	168	11.20
K Patch	Low	H	30	11.60
		V	172	9.57
	High	H	31	10.49
		V	172	9.40
L Patch	Low	H	35	11.26
		V	176	10.01
	High	H	35	10.89
		V	176	10.84

Table 7-72. Antenna Gains at the Band Edges(n260)

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Sample Analyzer Offset Calculation (at 27.5GHz)

Measurement Antenna Factor = 40.70dB/m

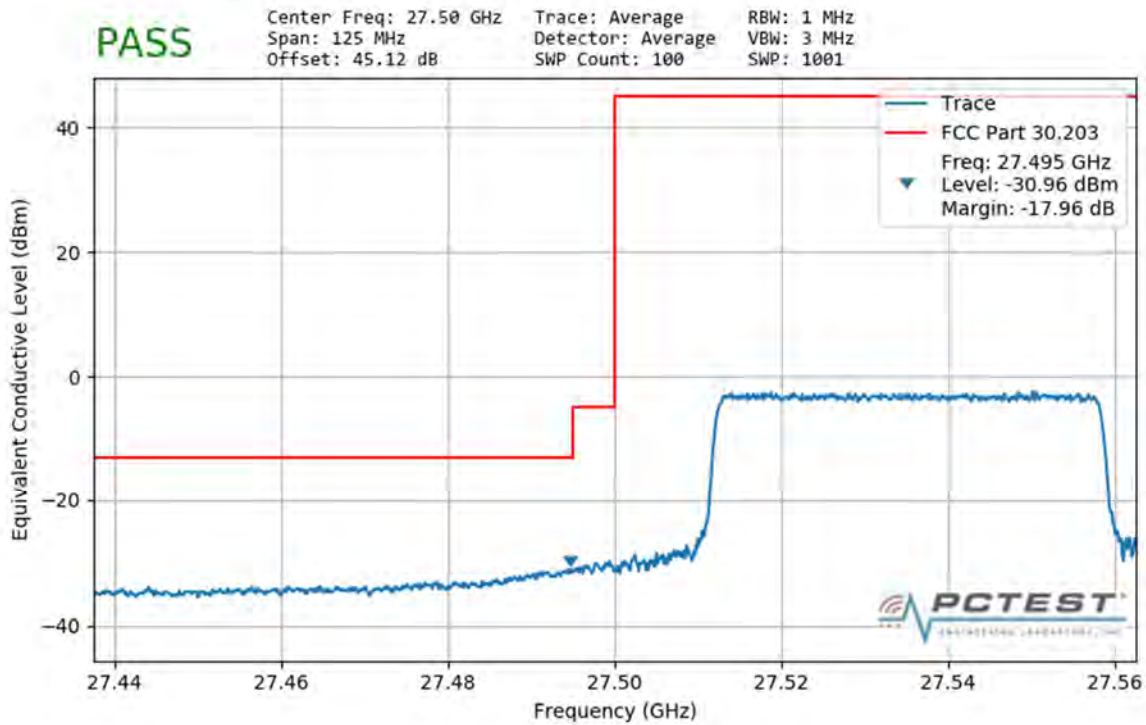
Cable Loss = 8.82dB

EUT Antenna Gain = 6.60dBi

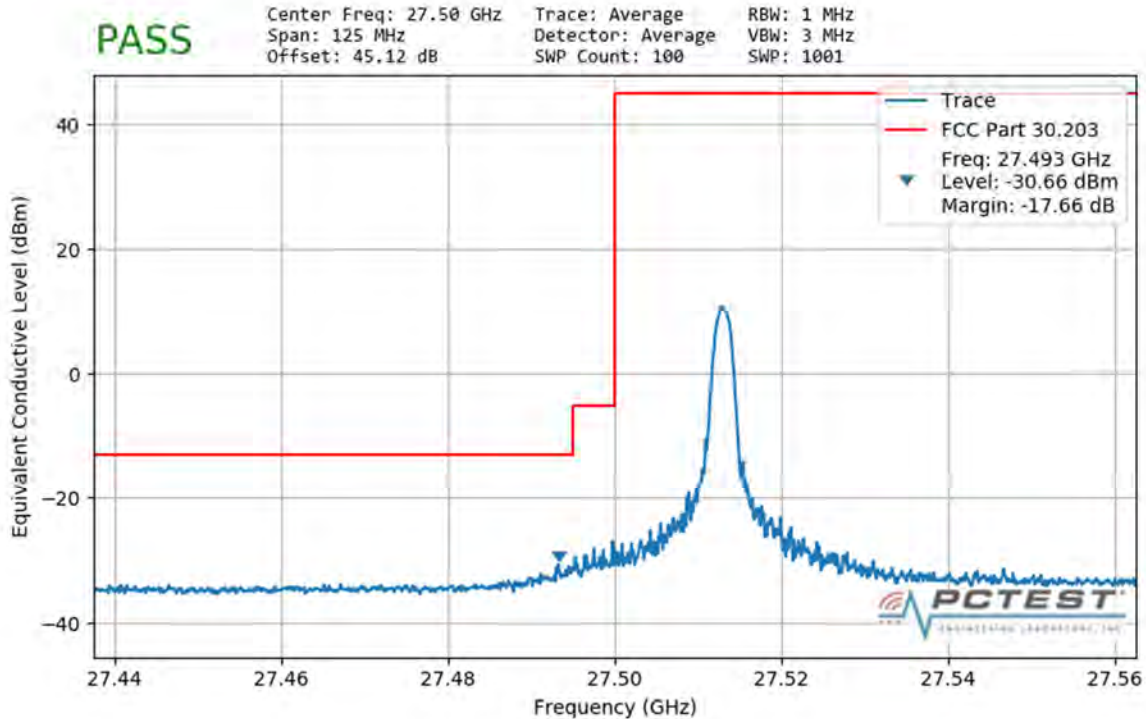
$$\begin{aligned}
 \text{Analyzer Offset (dB)} &= \text{AF (dB/m)} + \text{CL (dB)} + 107 + 20\log_{10}(D) - 104.8\text{dB} - \text{Gain (dBi)}, \text{ where } D = 1\text{m} \\
 &= 40.70\text{dB/m} + 8.82\text{dB} + 107 + 20\log_{10}(1\text{m}) - 104.8\text{dB} - 6.60\text{dBi} \\
 &= 45.12\text{dB}
 \end{aligned}$$

FCC ID: A3LSMN976V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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7.5.2 n261 Band Edge J Dipole MIMO(n261)

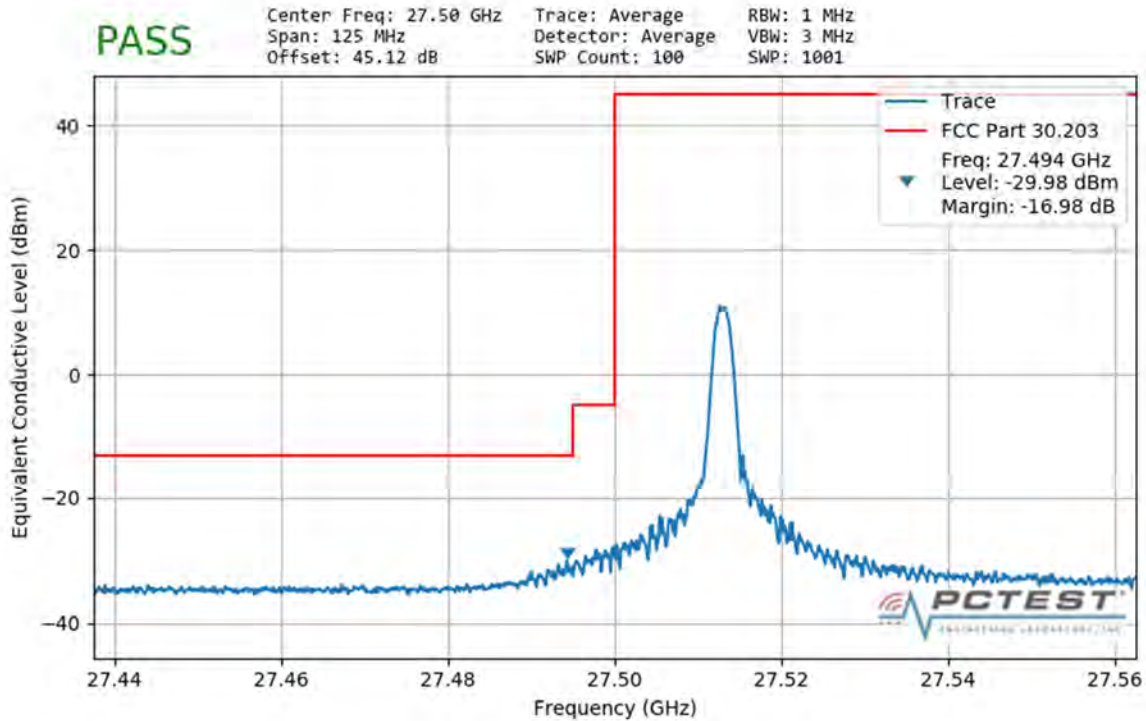


Plot 7-393. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

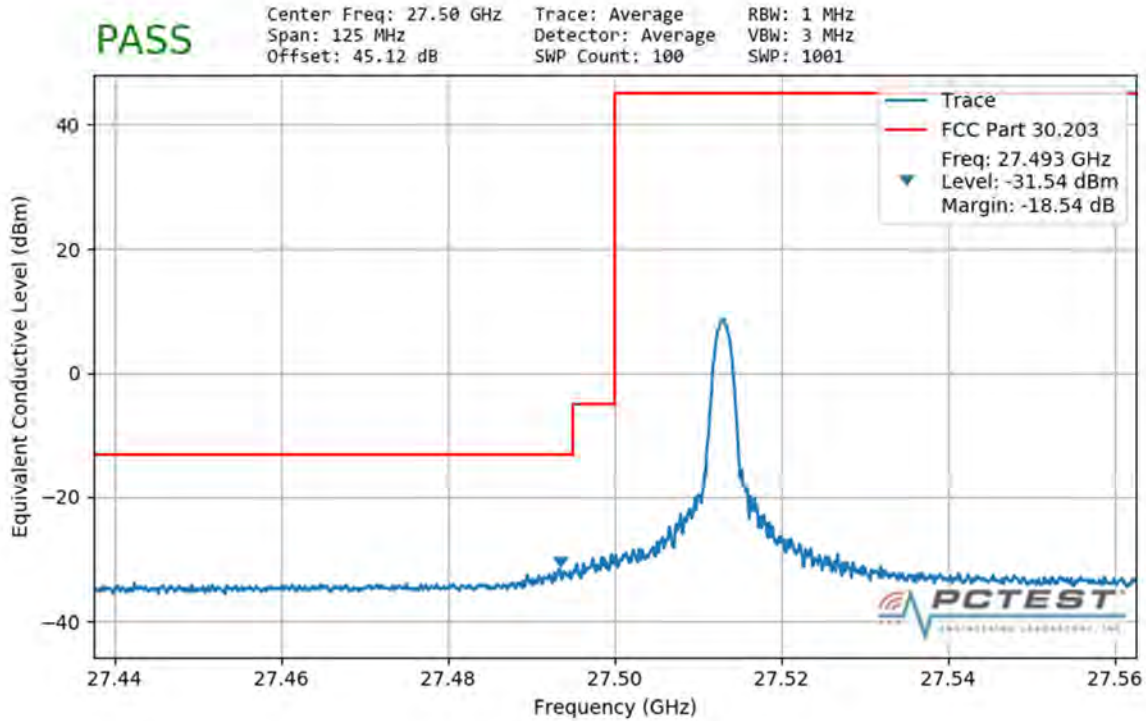


Plot 7-394. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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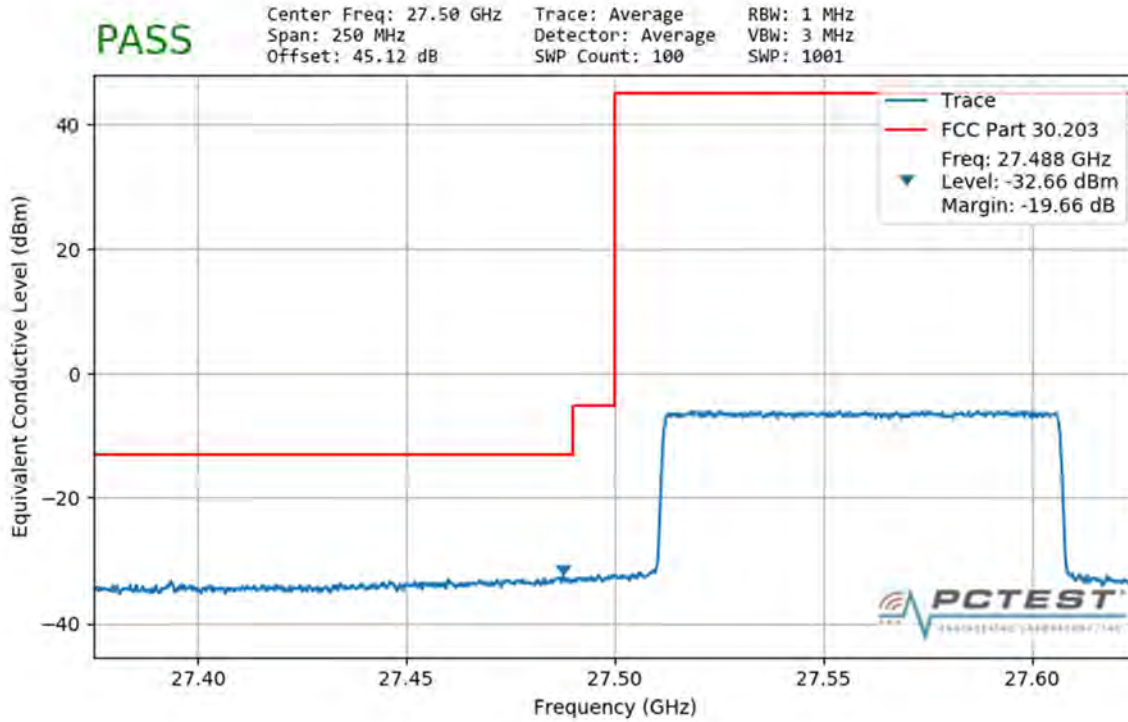


Plot 7-395. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

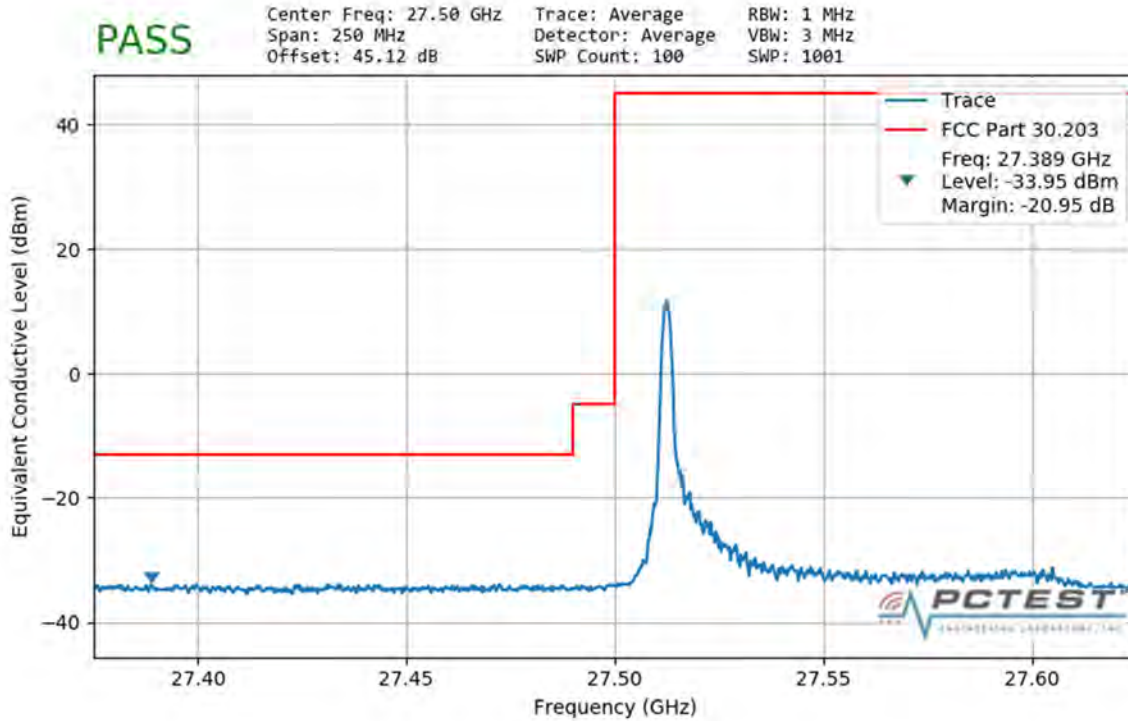


Plot 7-396. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		SAMSUNG	Approved by: Quality Manager
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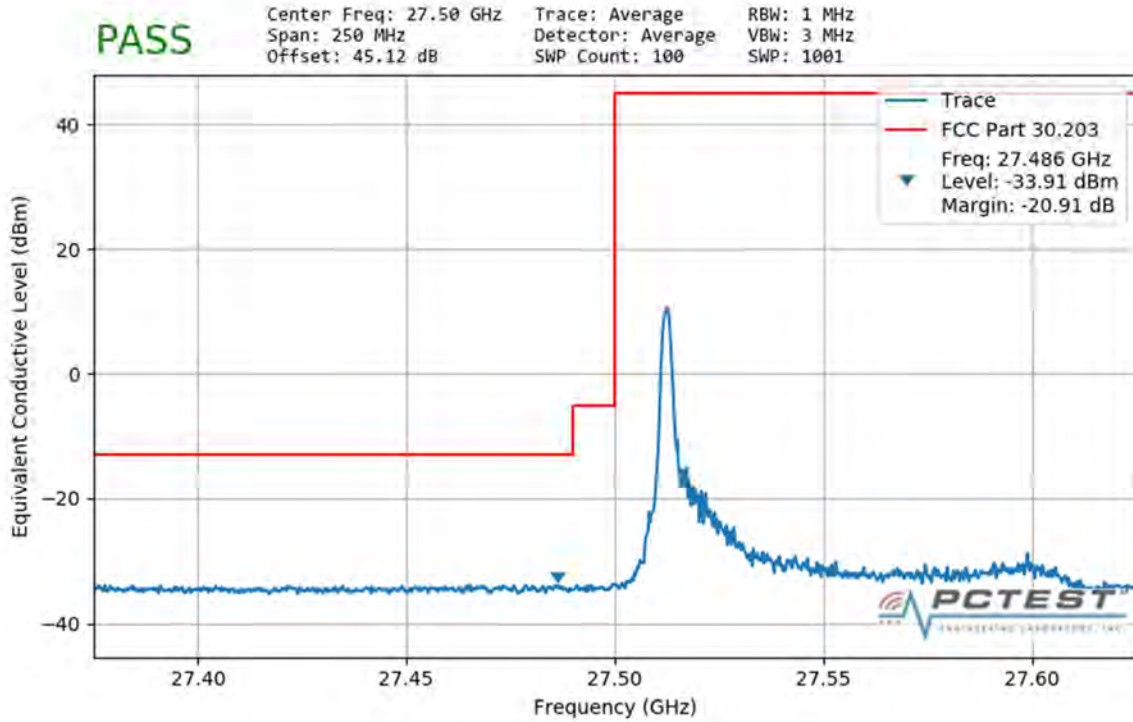


Plot 7-397. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

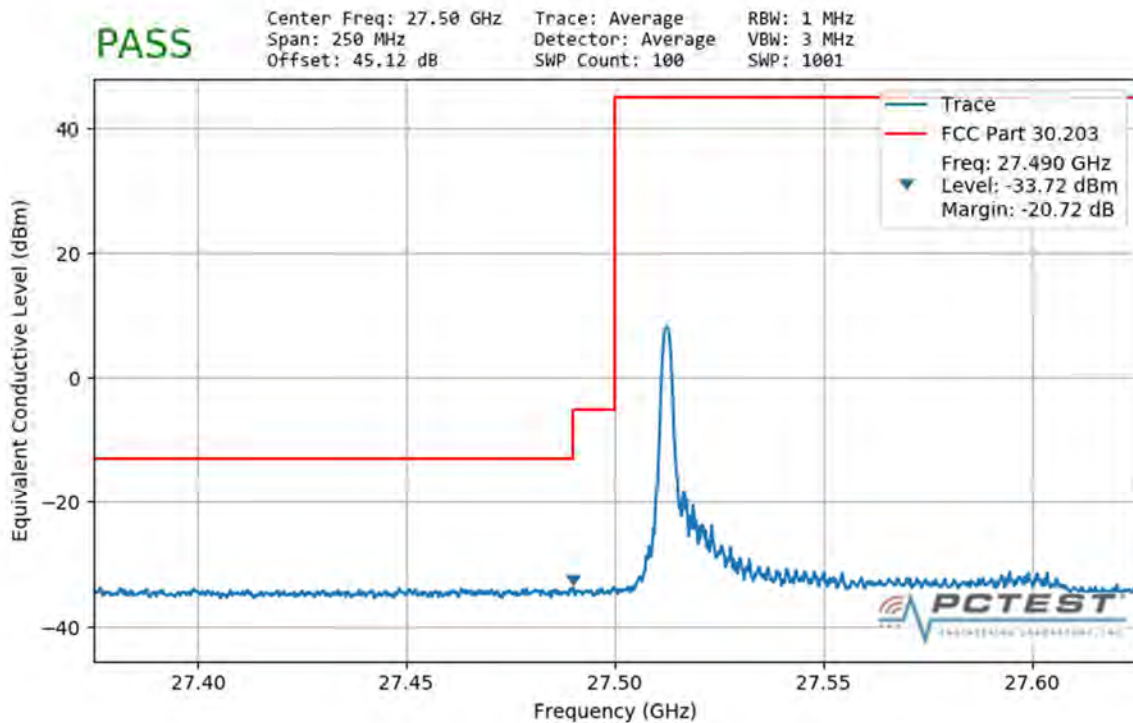


Plot 7-398. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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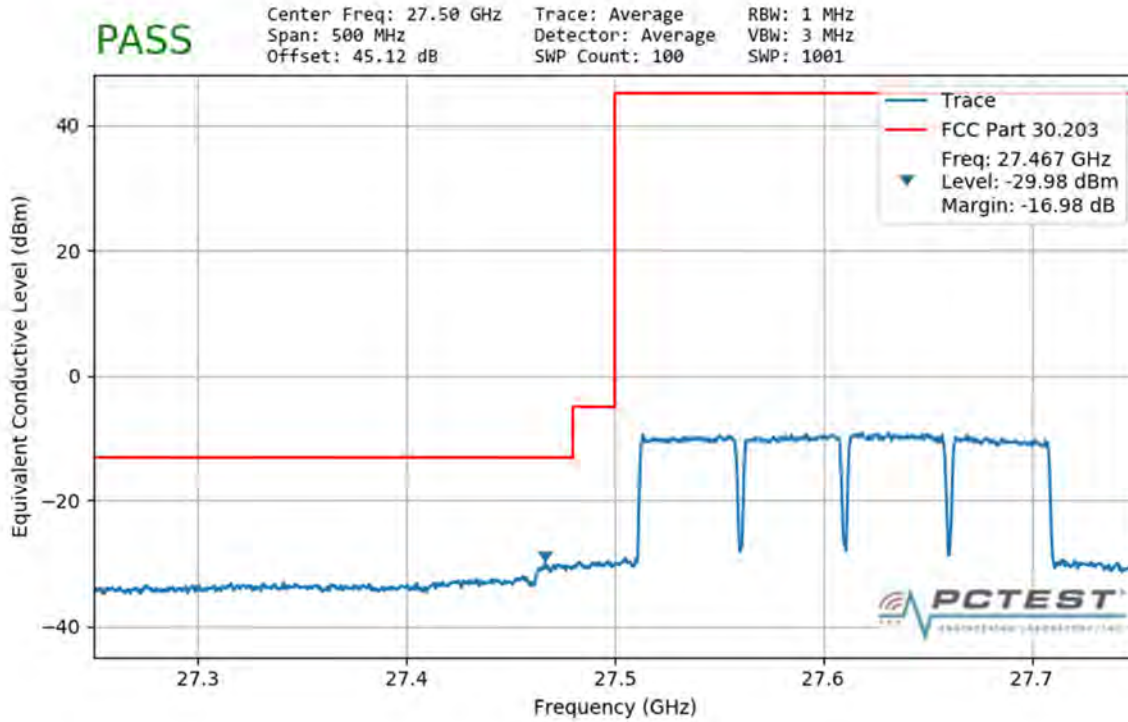


Plot 7-399. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

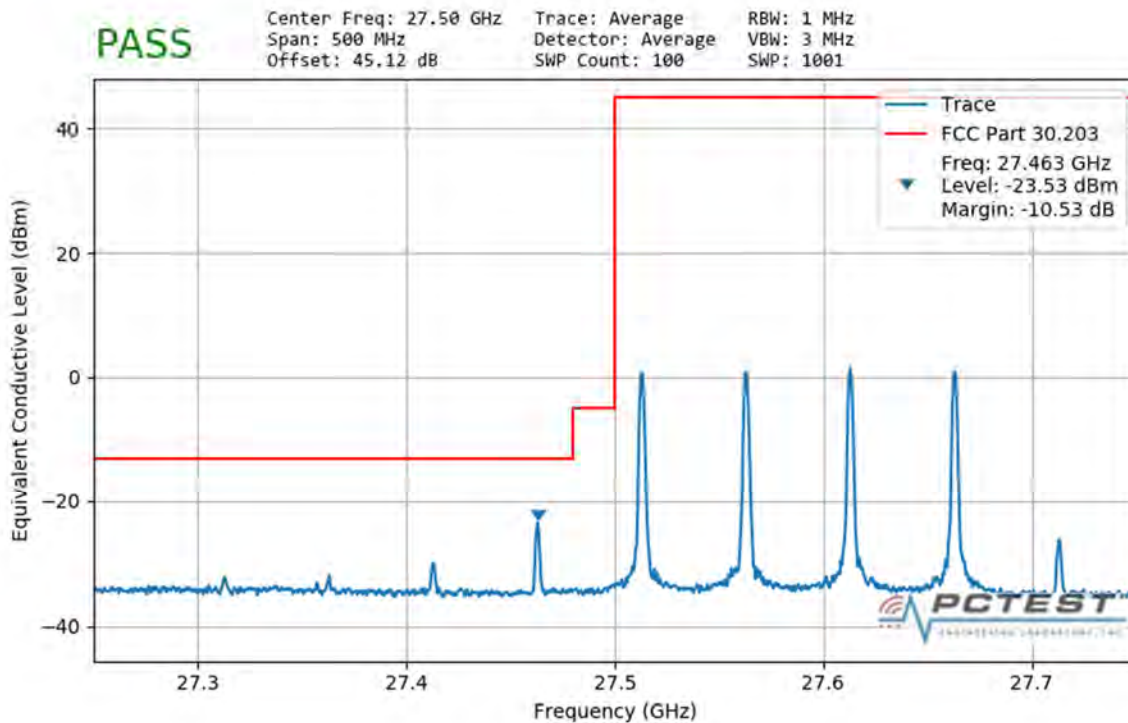


Plot 7-400. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 238 of 371

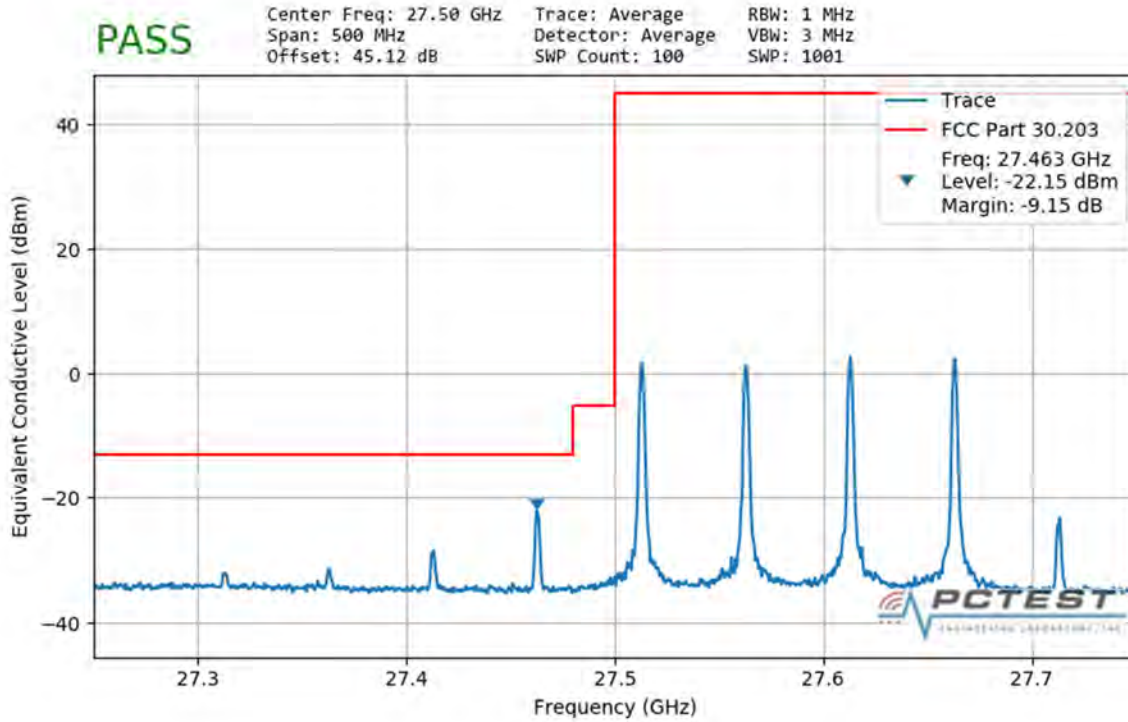


Plot 7-401. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

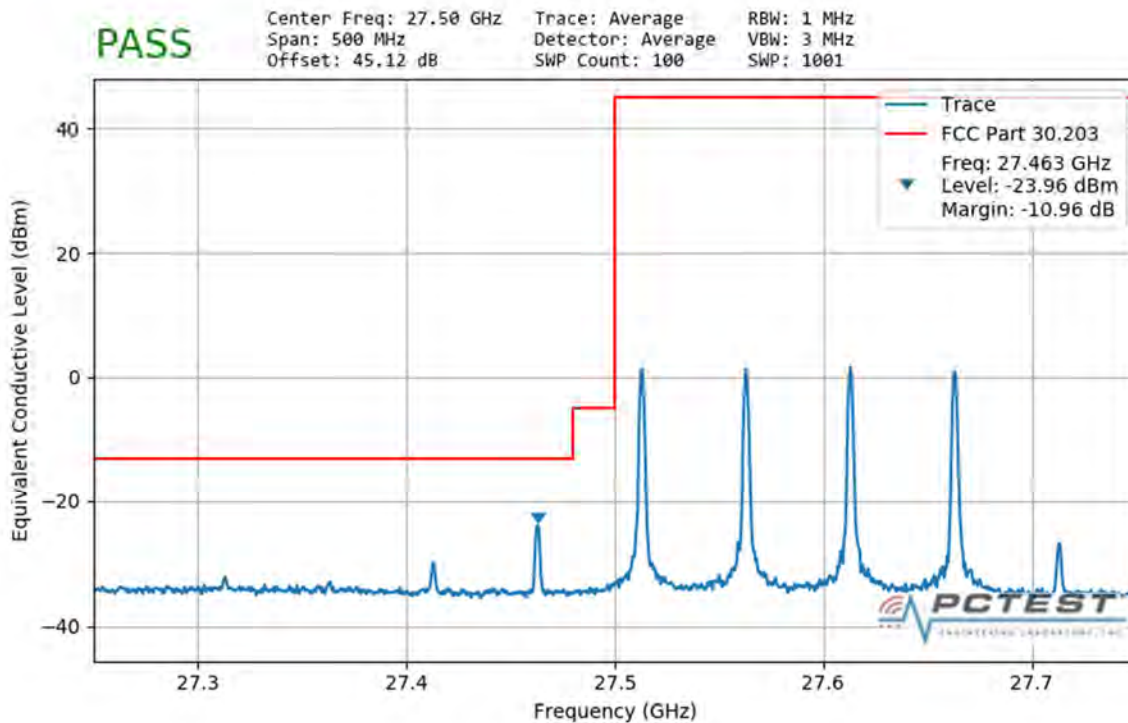


Plot 7-402. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 239 of 371

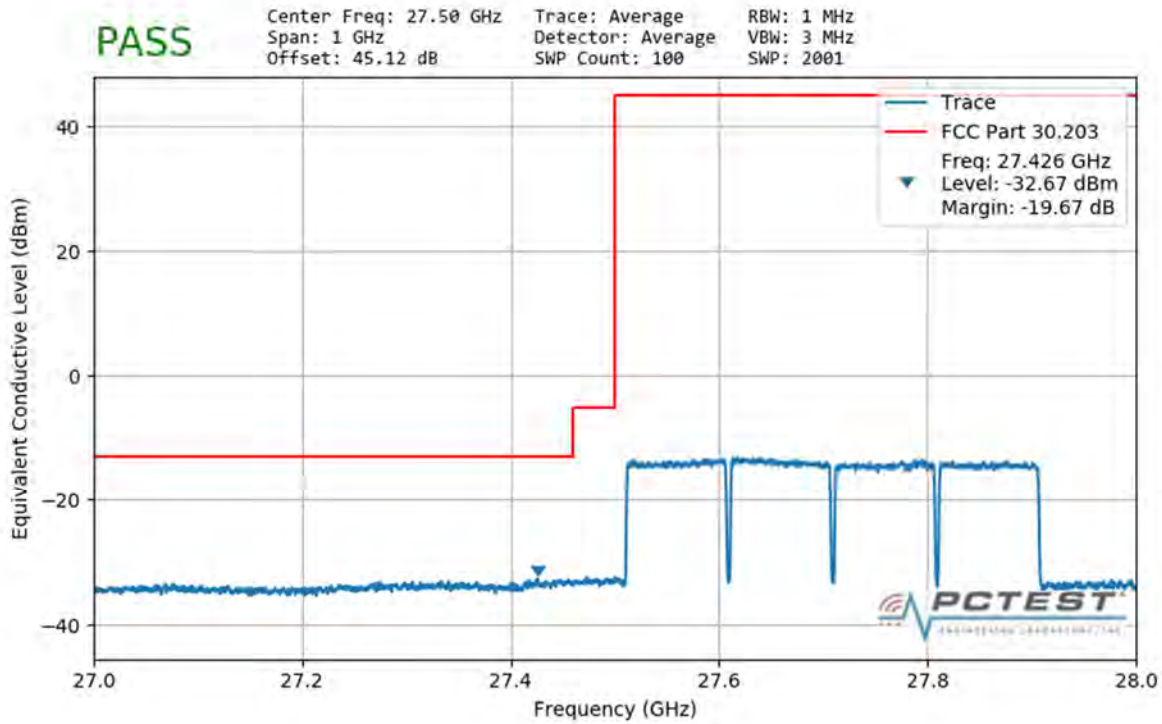


Plot 7-403. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

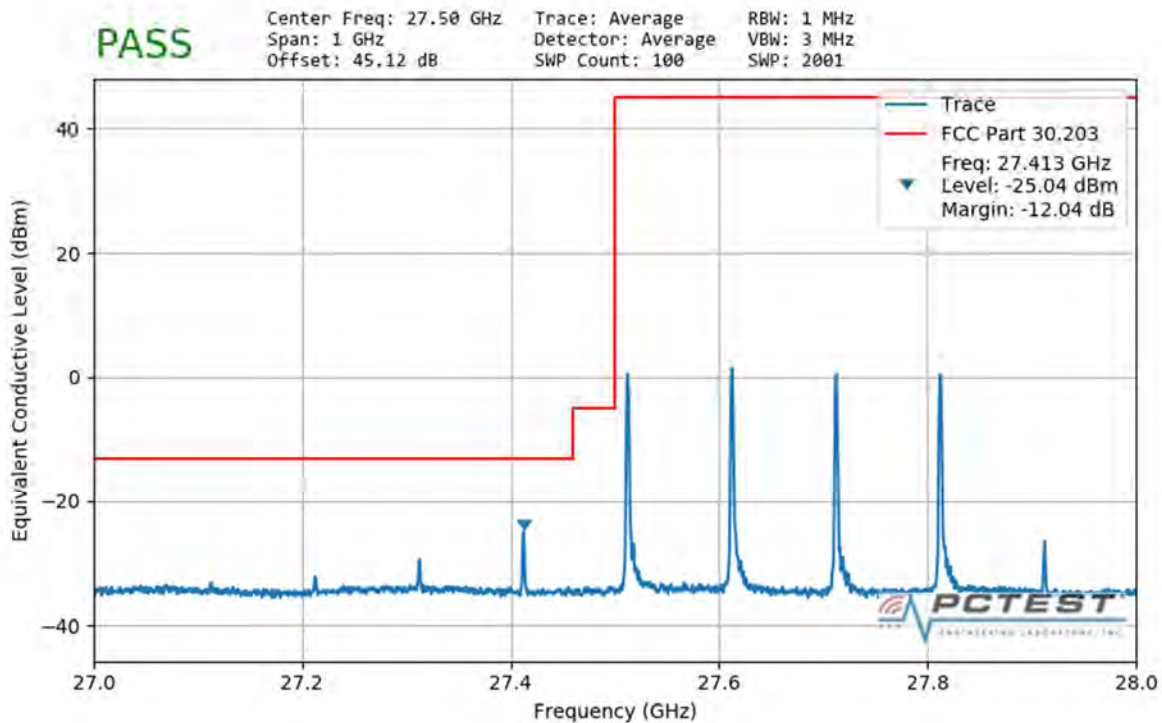


Plot 7-404. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 240 of 371

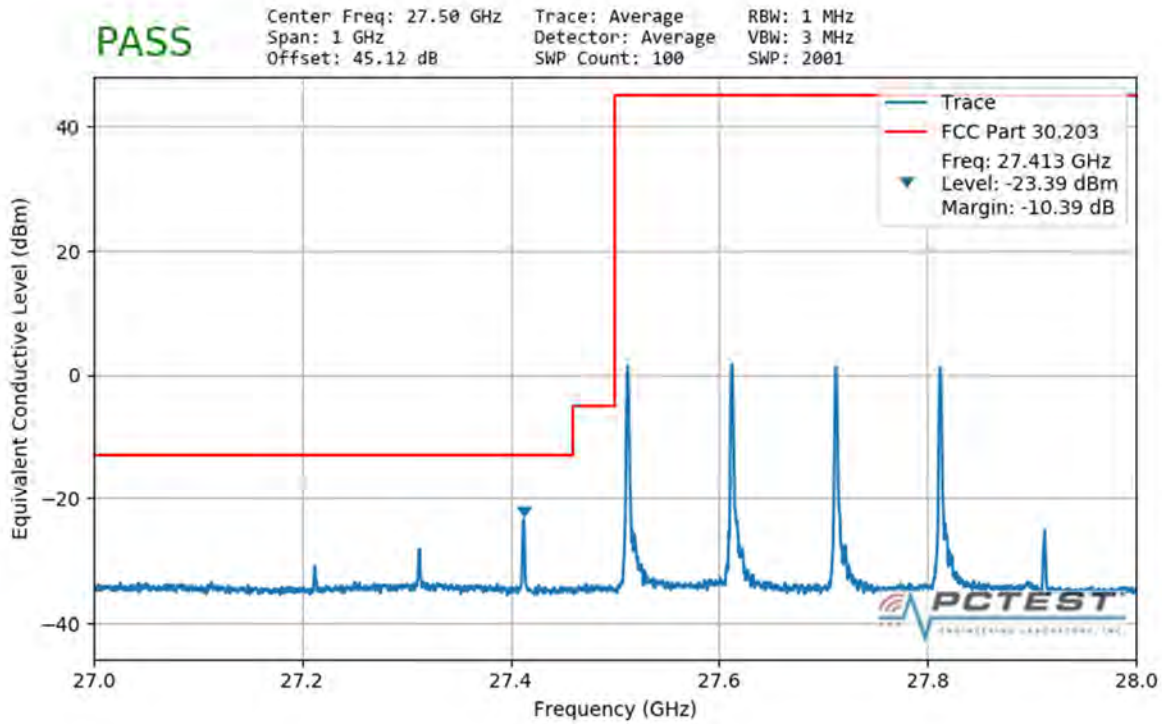


Plot 7-405. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

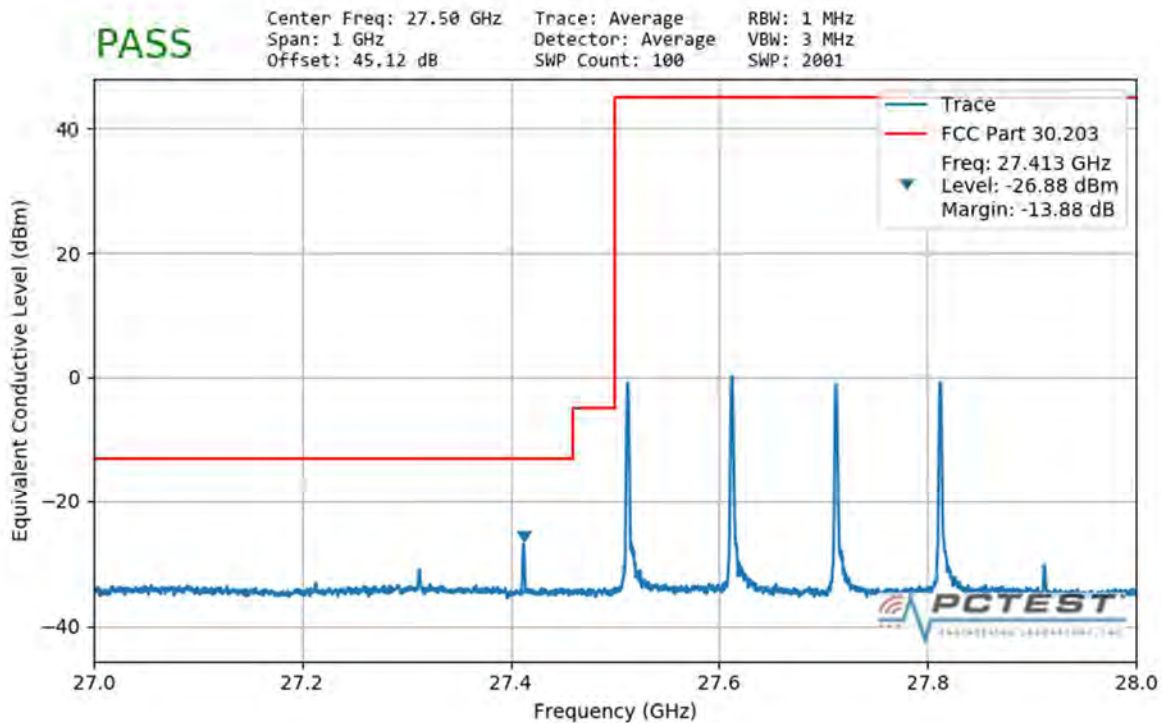


Plot 7-406. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 241 of 371

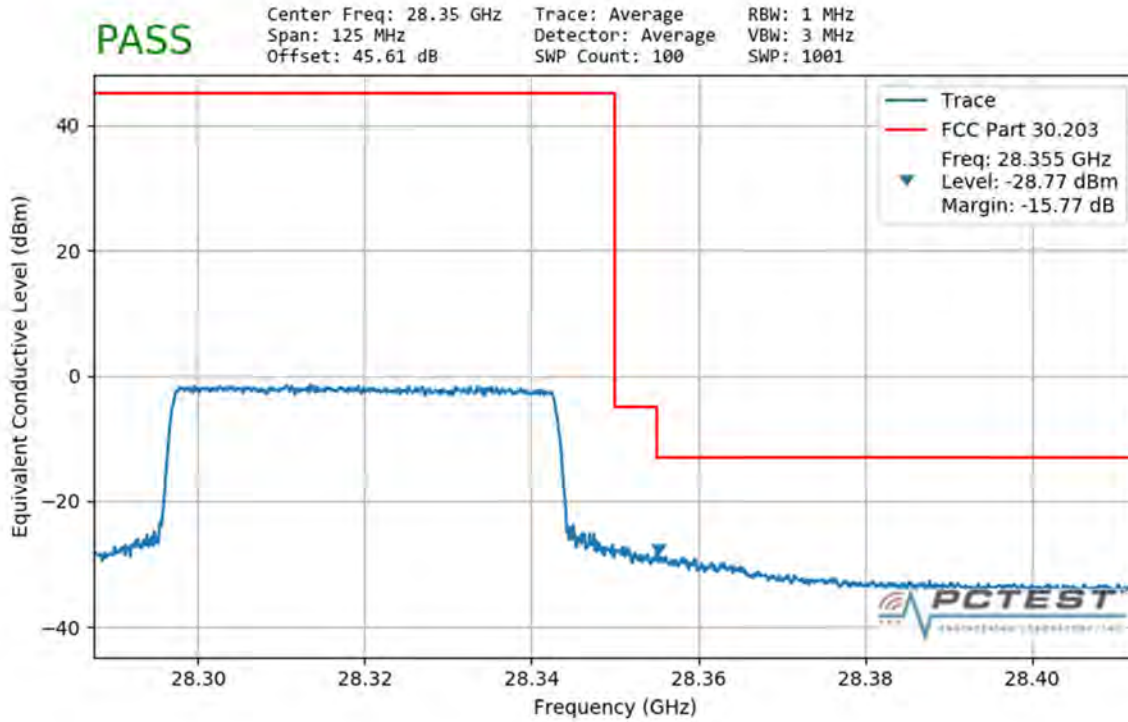


Plot 7-407. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

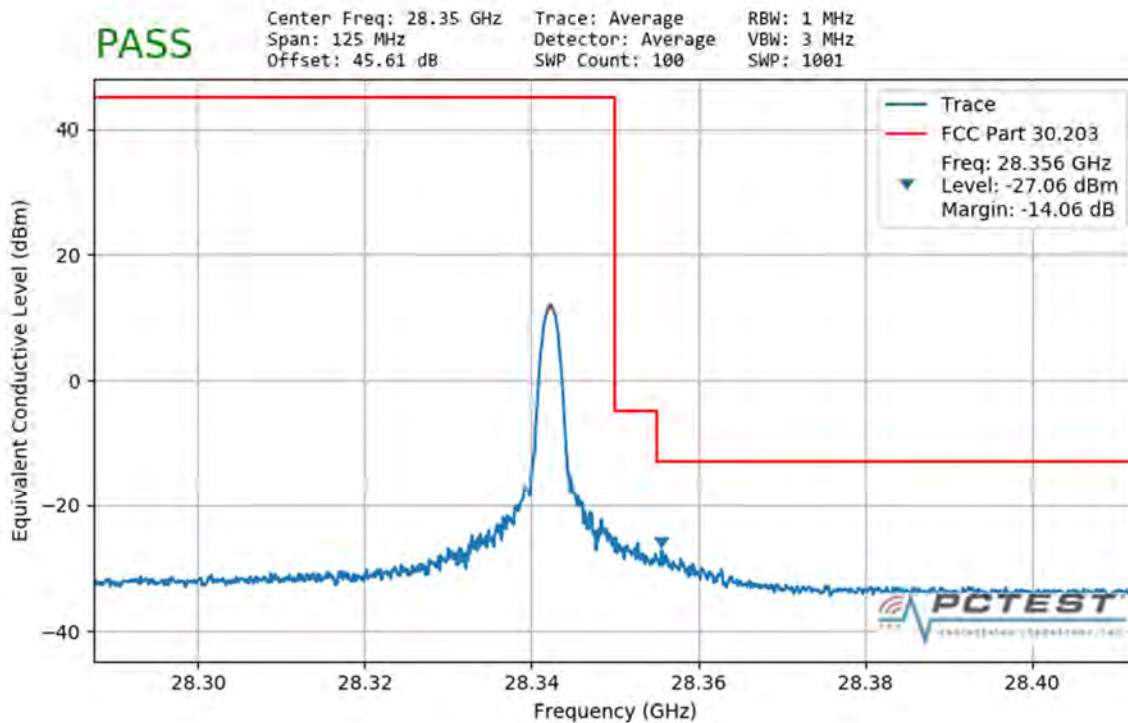


Plot 7-408. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 242 of 371

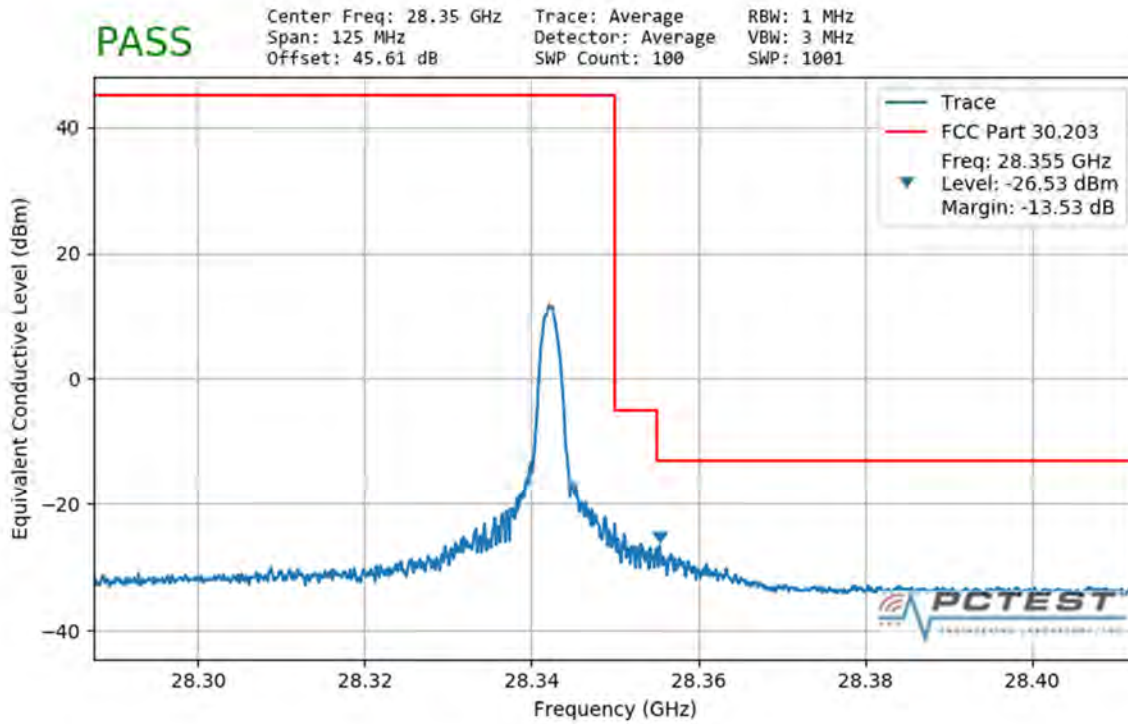


Plot 7-409. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

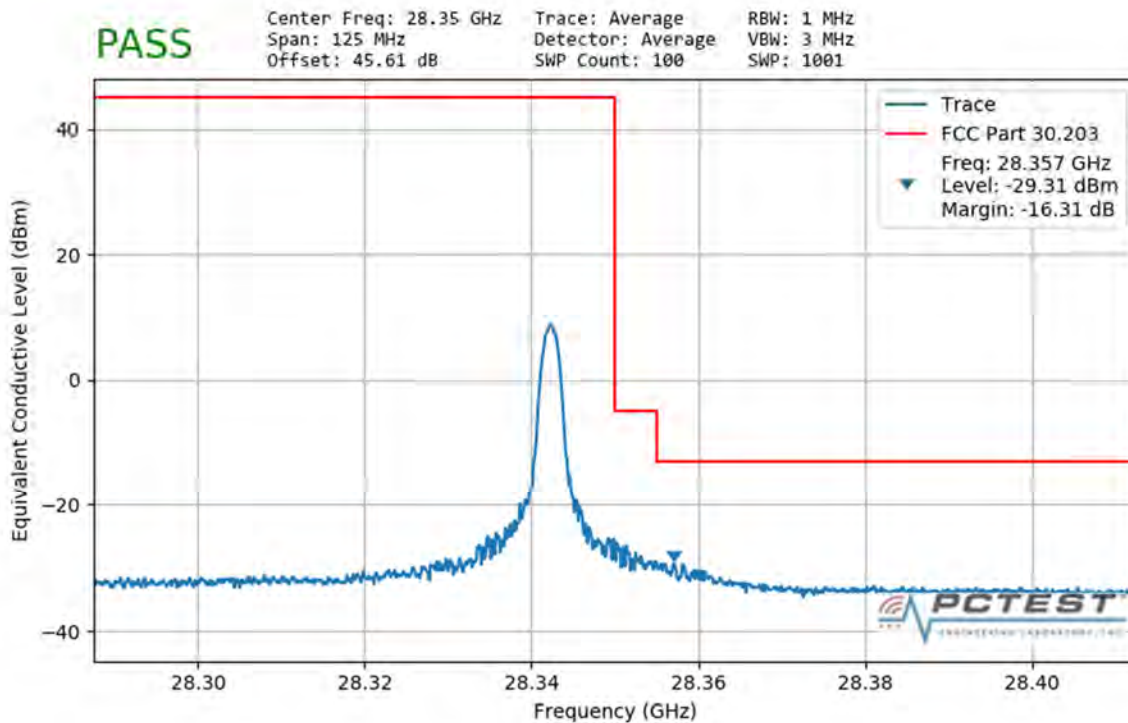


Plot 7-410. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 243 of 371

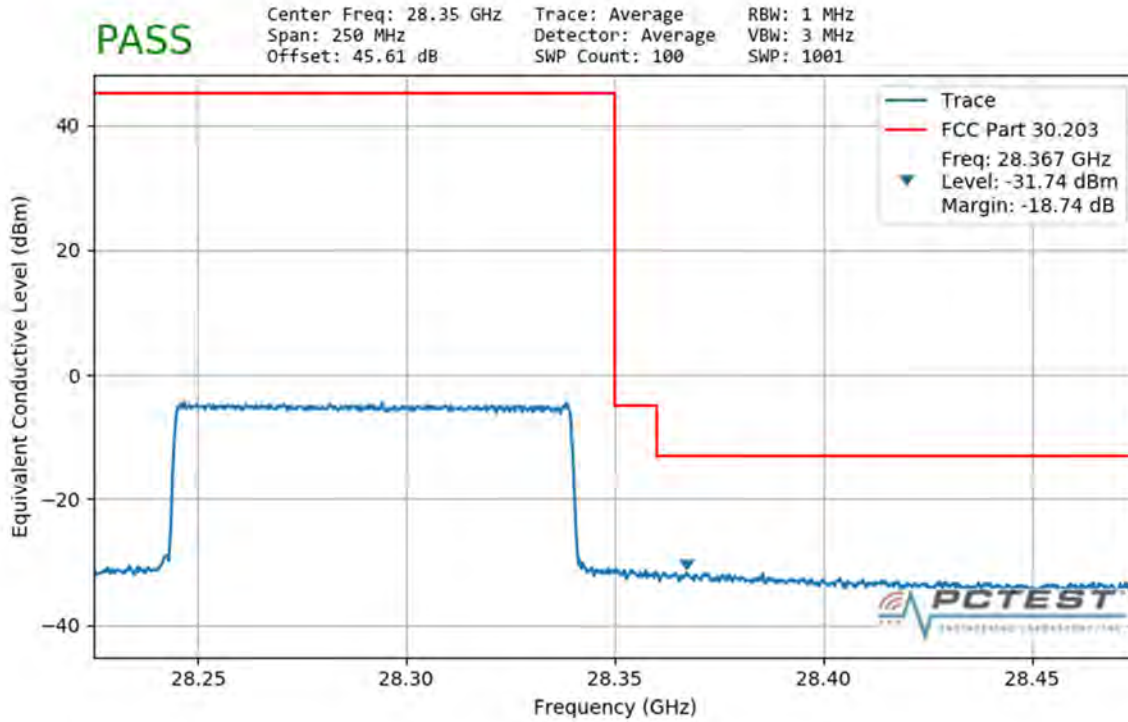


Plot 7-411. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

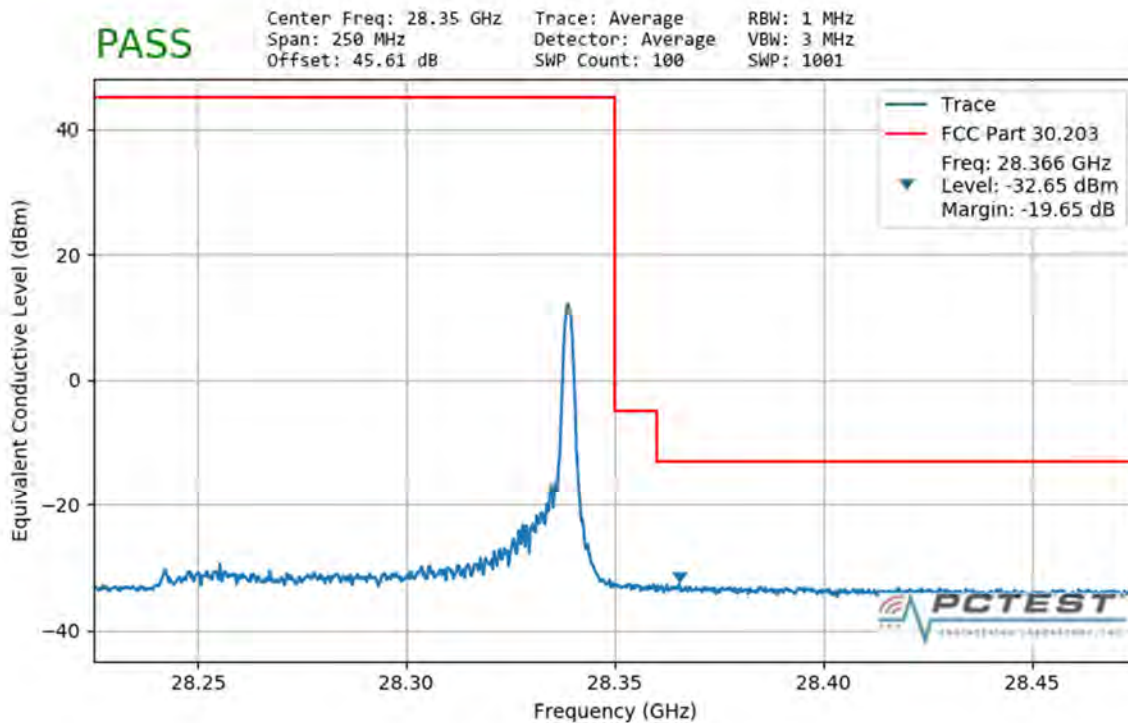


Plot 7-412. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 244 of 371

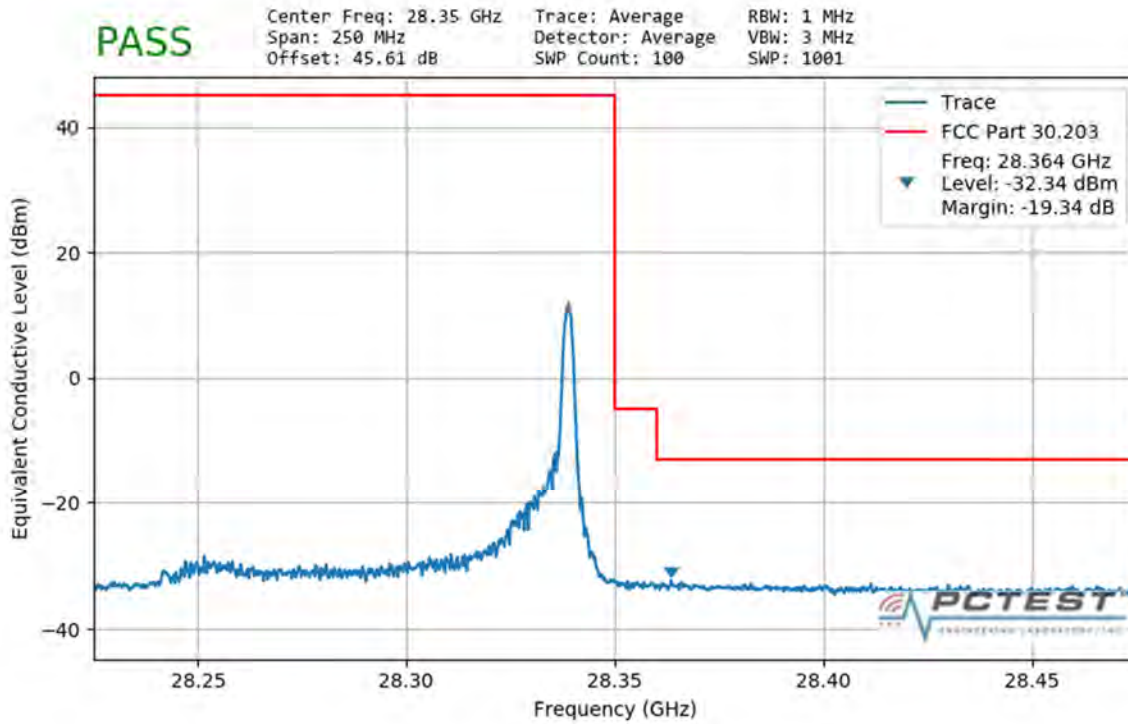


Plot 7-413. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

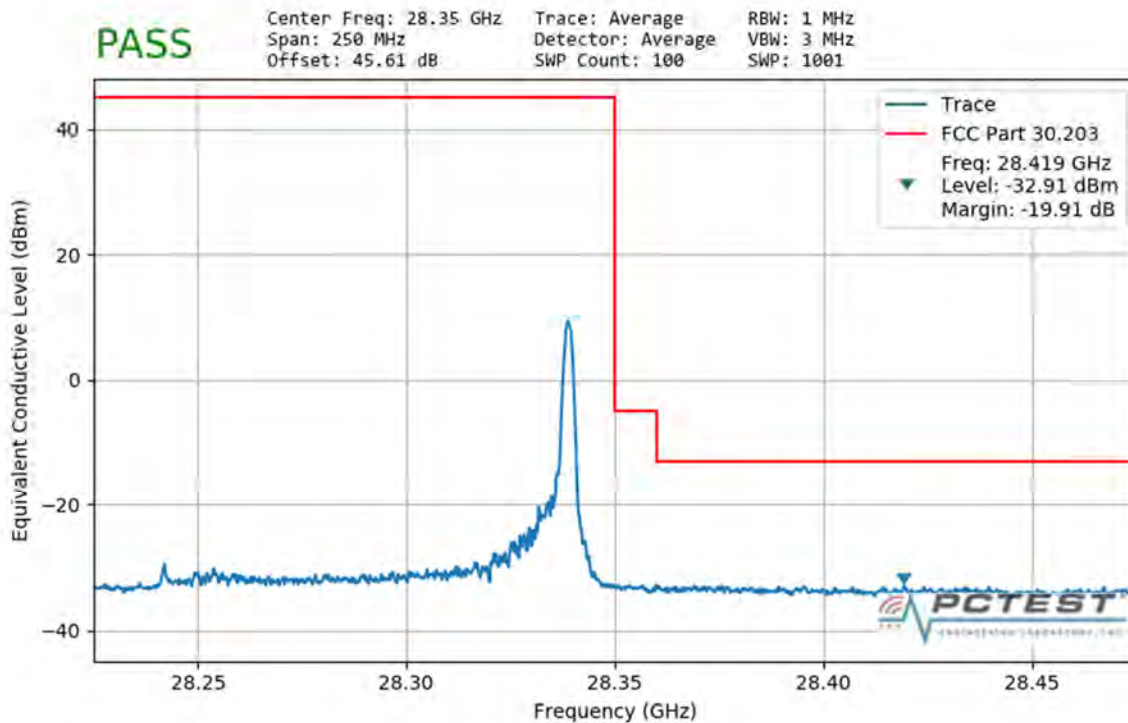


Plot 7-414. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 245 of 371

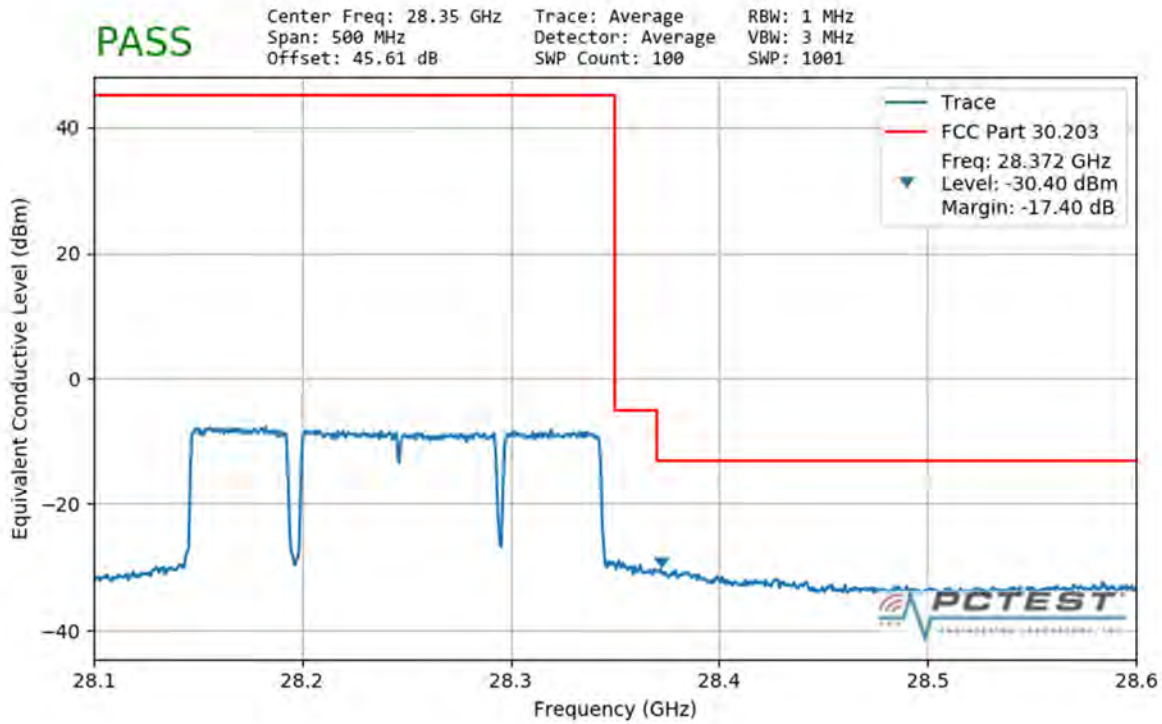


Plot 7-415. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)

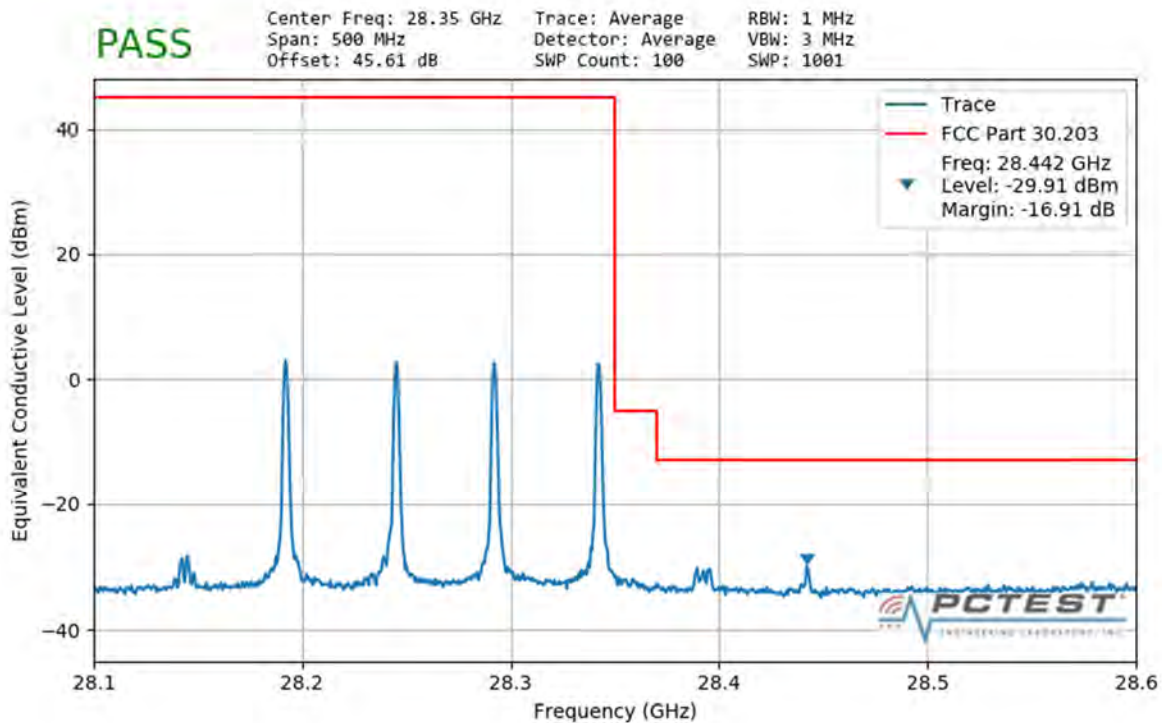


Plot 7-416. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 246 of 371

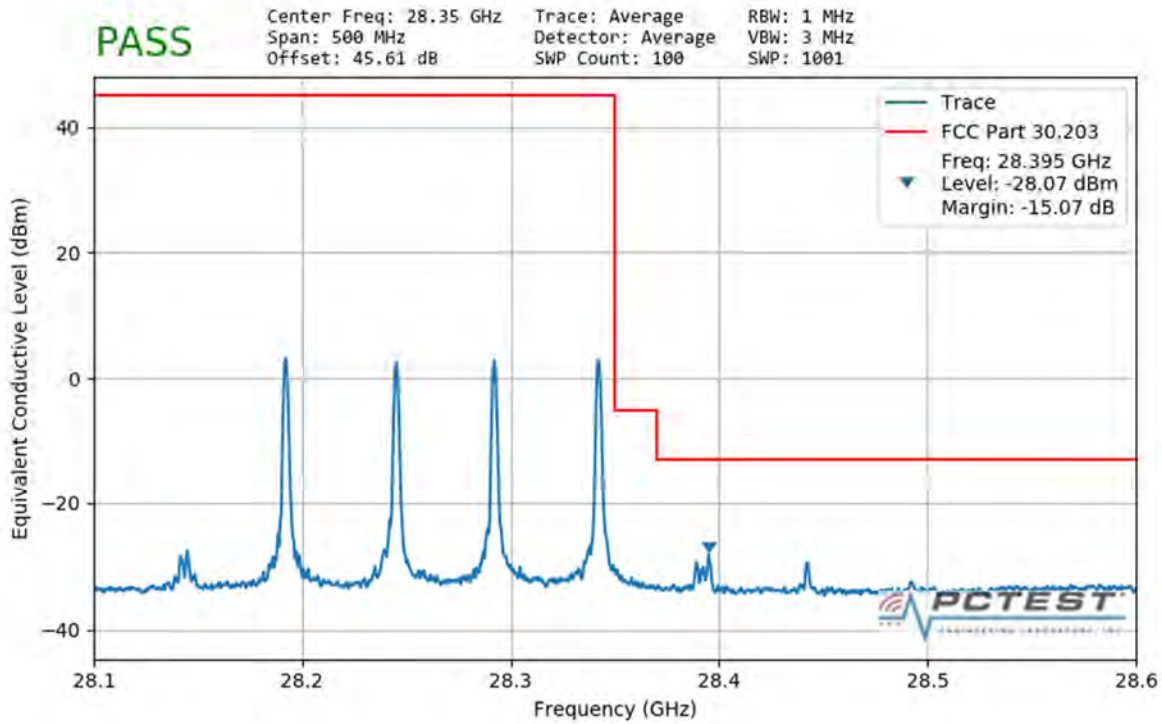


Plot 7-417. Upper Band Edge Plot (4CC 200MHz QPSK Full RB)

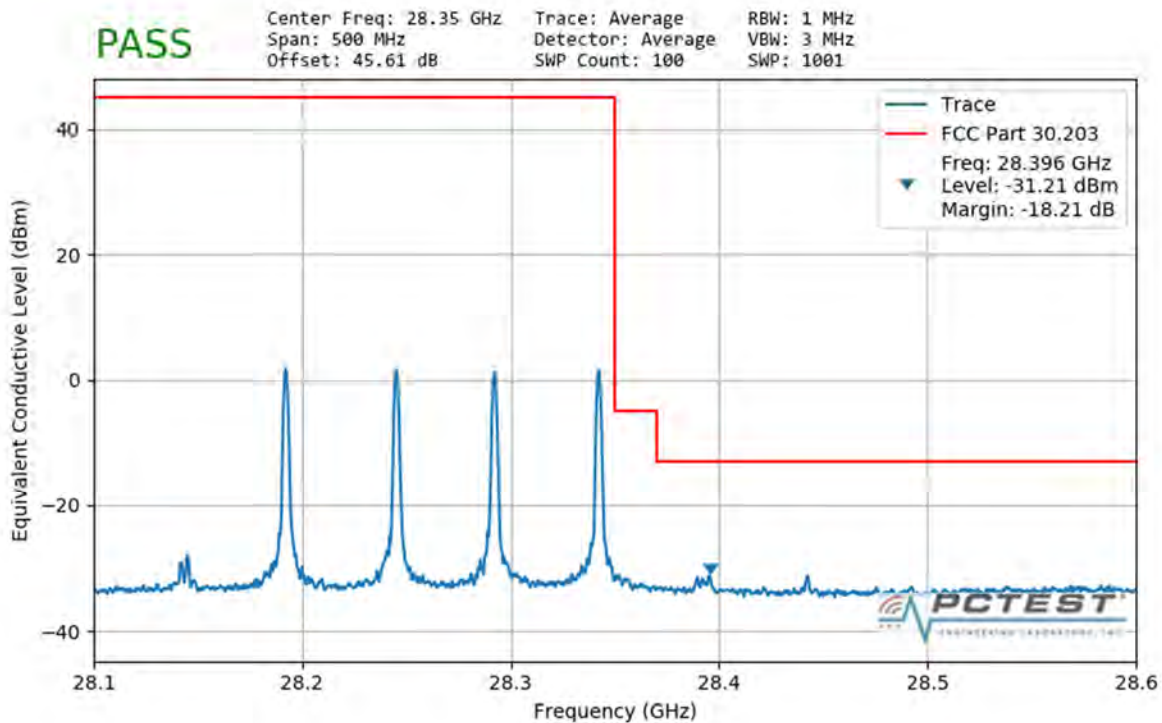


Plot 7-418. Upper Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 247 of 371

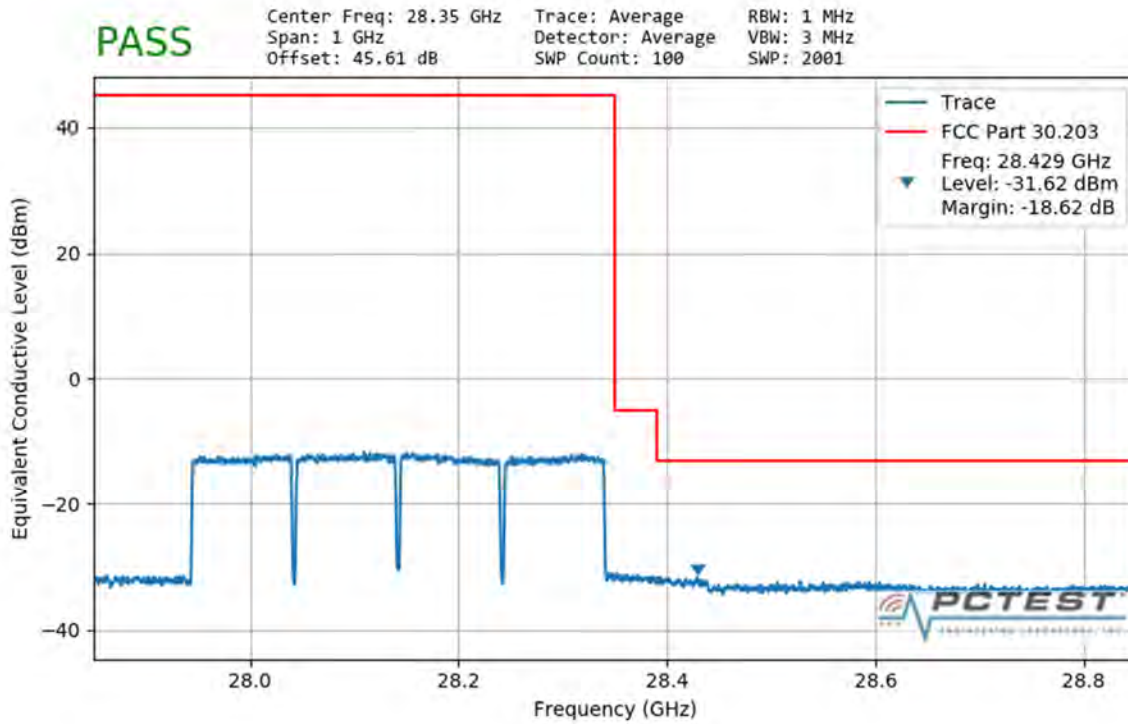


Plot 7-419. Upper Band Edge Plot (4CC 200MHz 16QAM 1 RB)

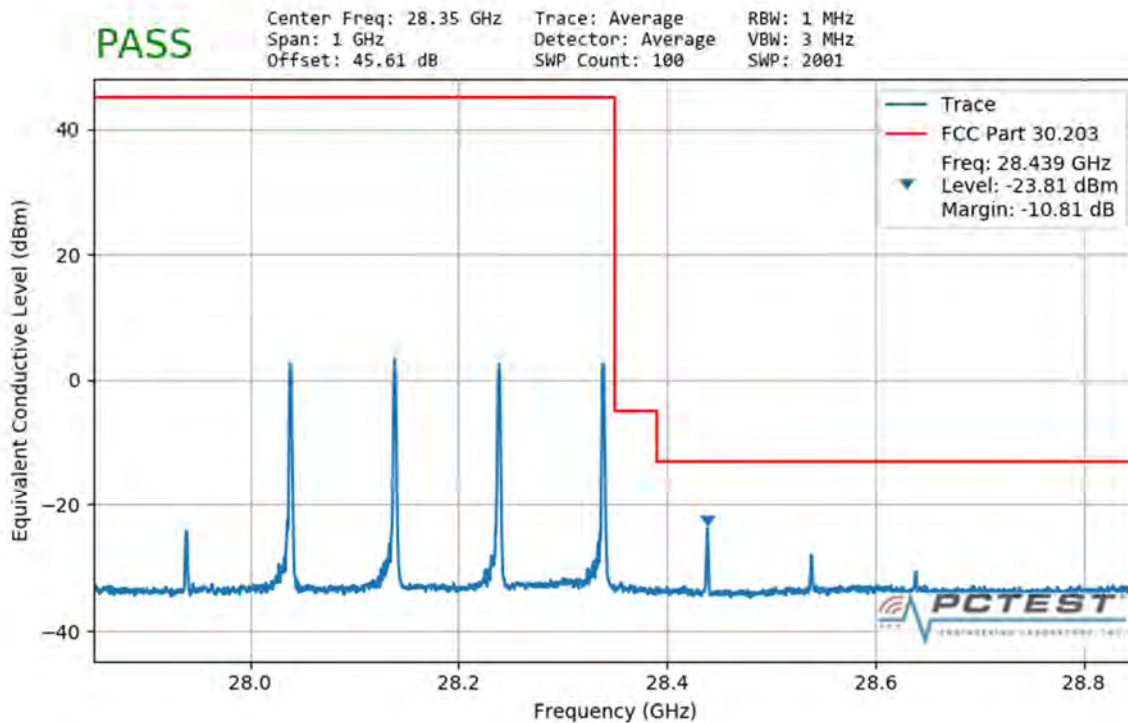


Plot 7-420. Upper Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 248 of 371

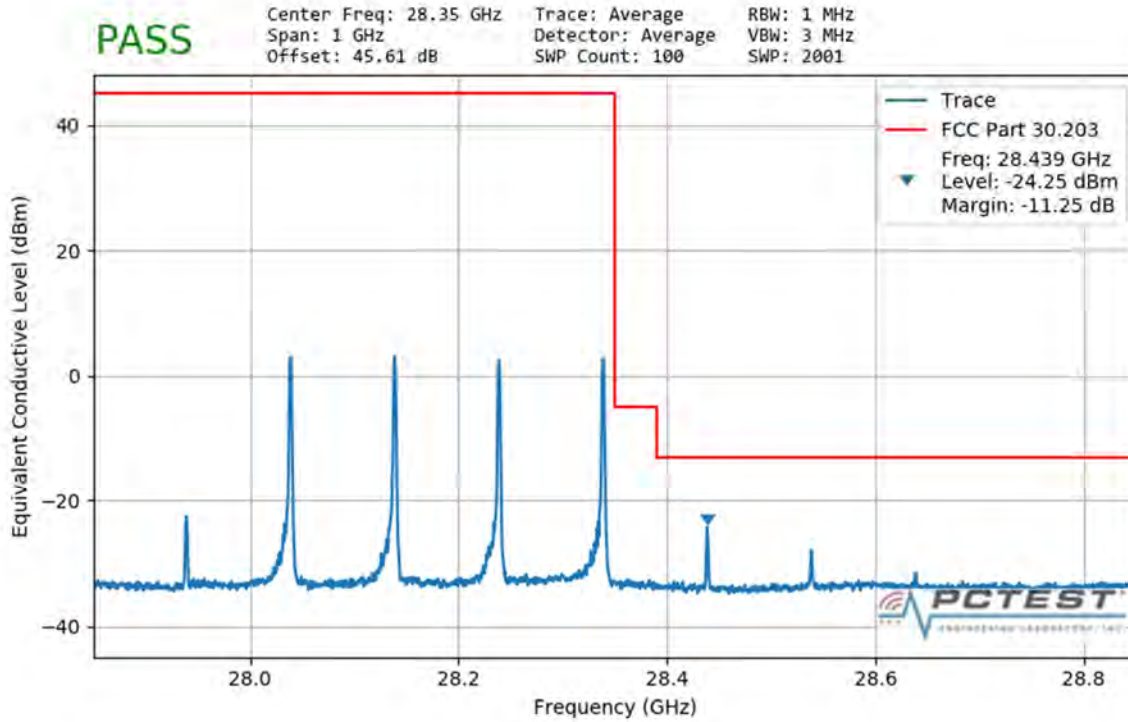


Plot 7-421. Upper Band Edge Plot (4CC 400MHz QPSK Full RB)

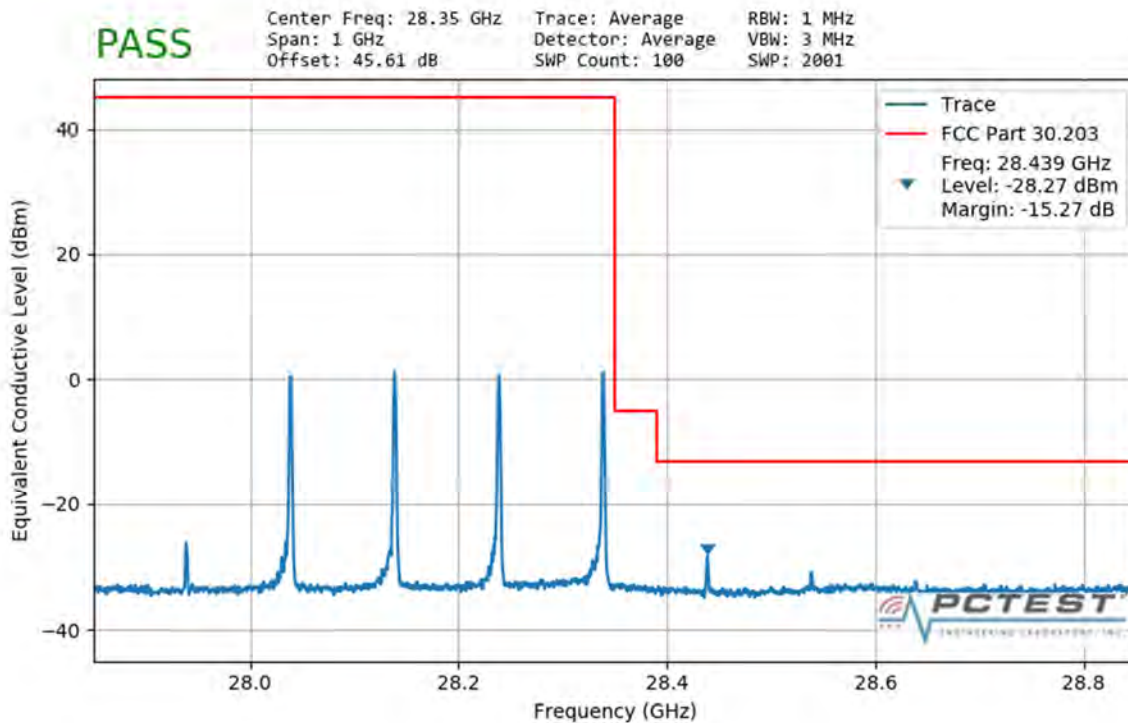


Plot 7-422. Upper Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 249 of 371



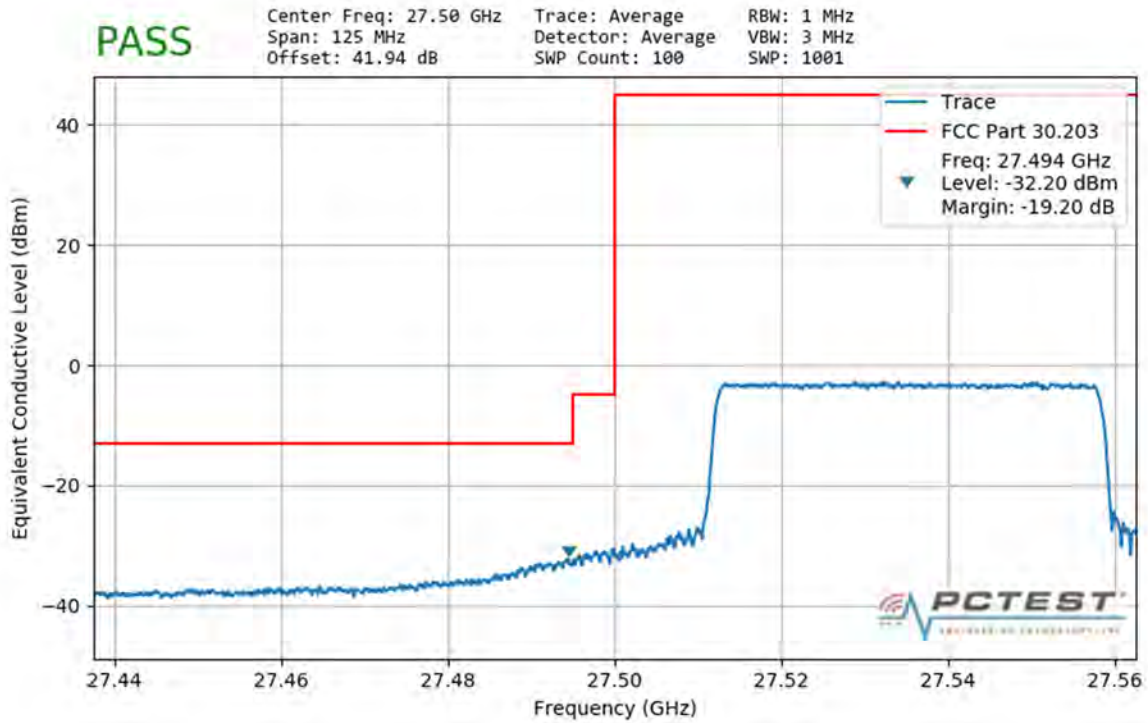
Plot 7-423. Upper Band Edge Plot (4CC 400MHz 16QAM 1 RB)



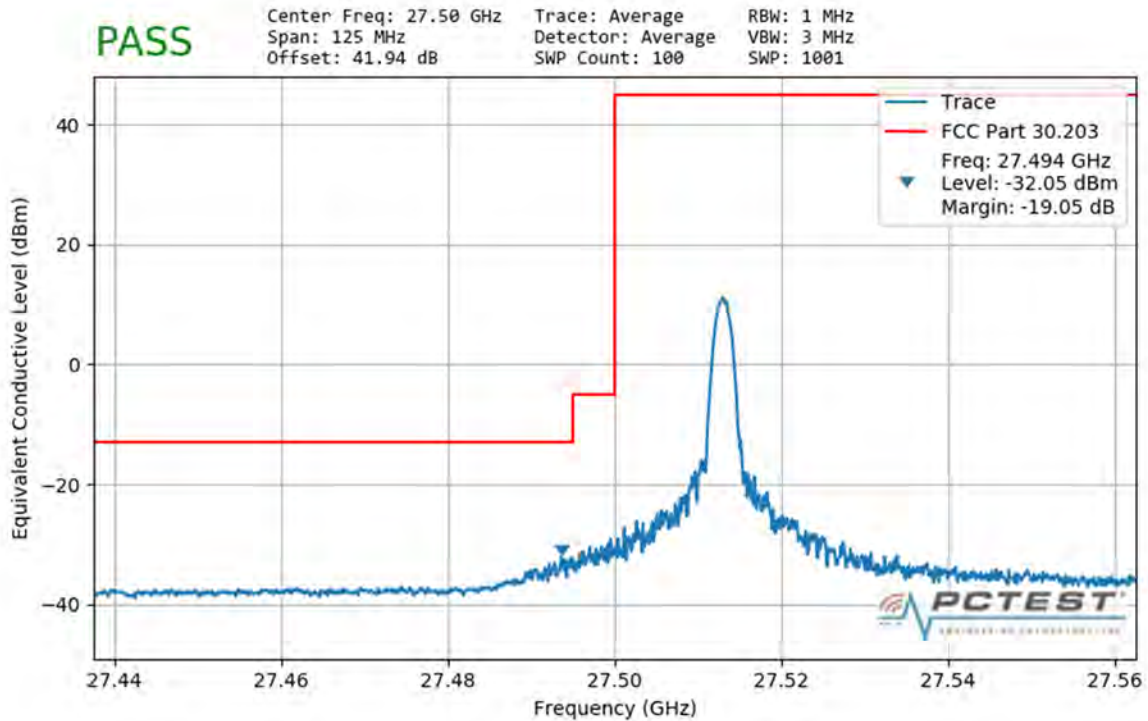
Plot 7-424. Upper Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 250 of 371

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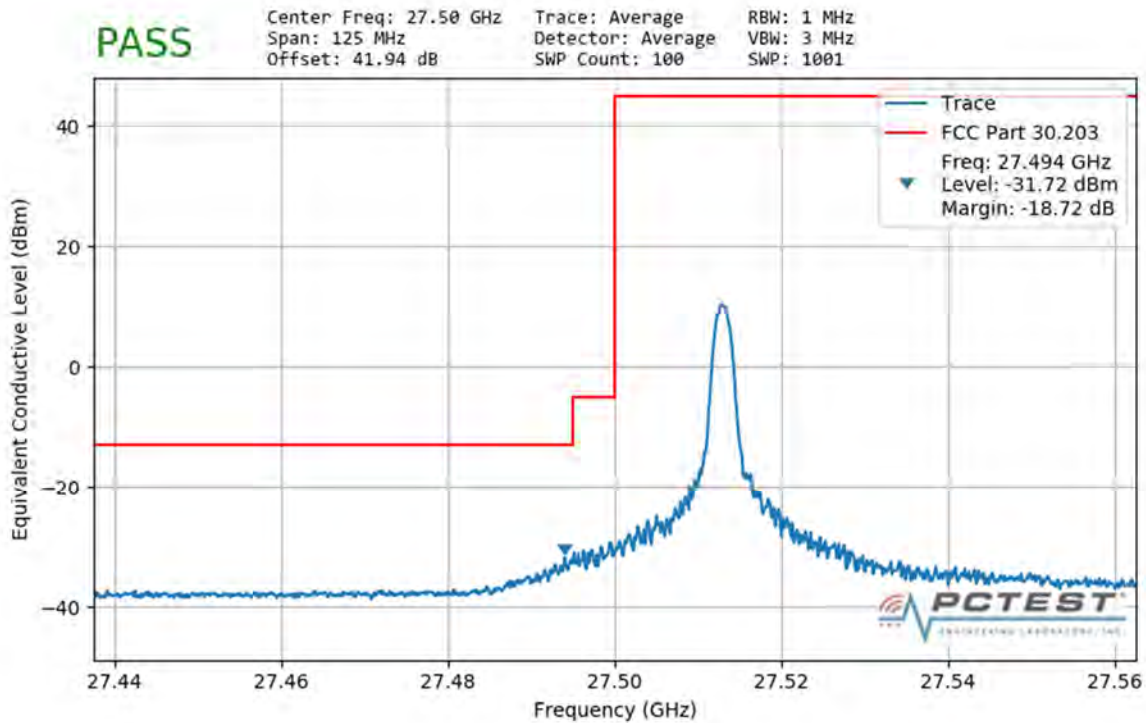


Plot 7-425. Lower Band Edge Plot (1CC 50MHz QPSK Full RB)

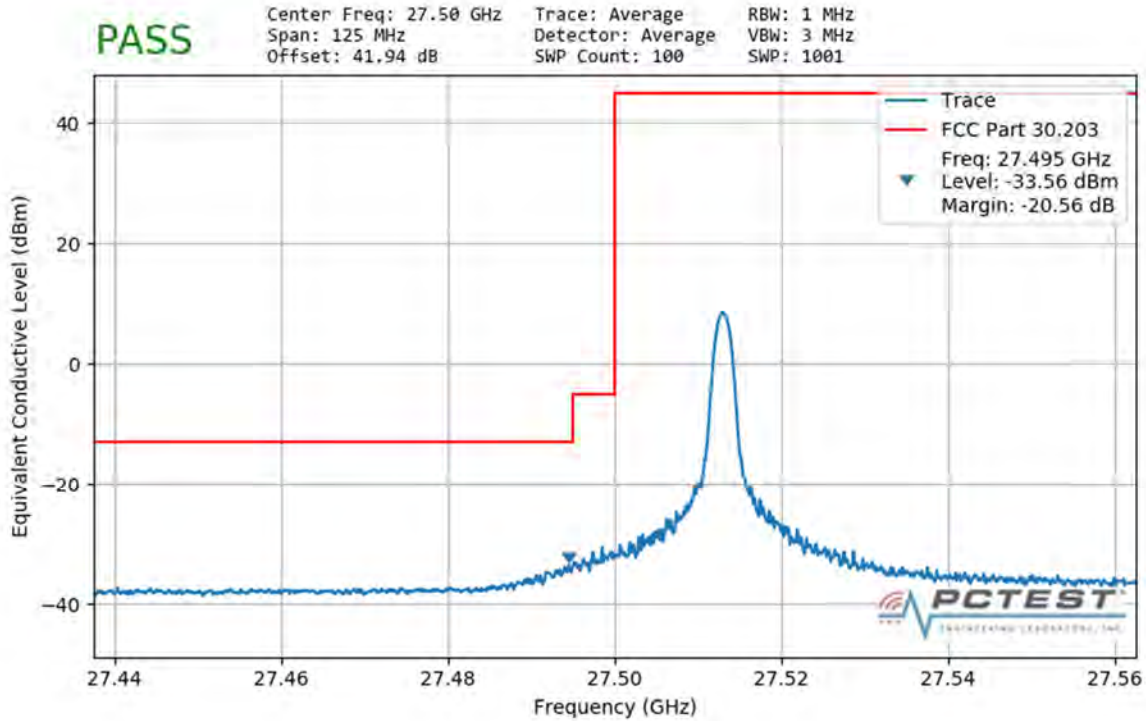


Plot 7-426. Lower Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMN976V	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset	Page 251 of 371

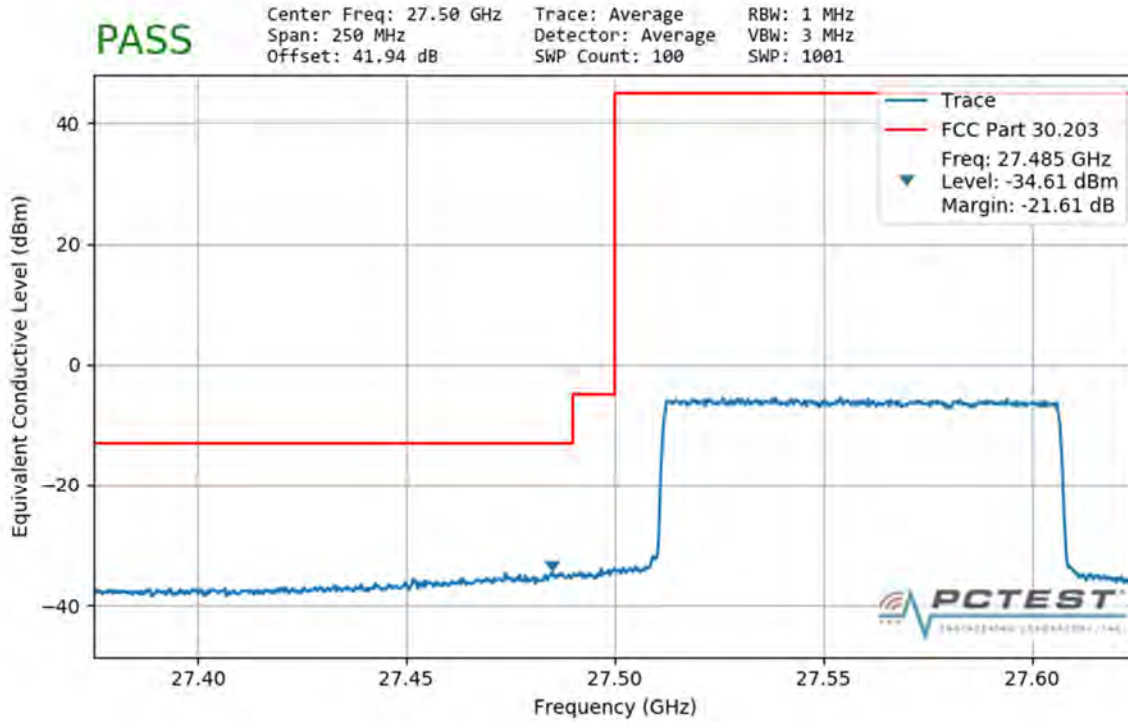


Plot 7-427. Lower Band Edge Plot (1CC 50MHz 16QAM 1 RB)

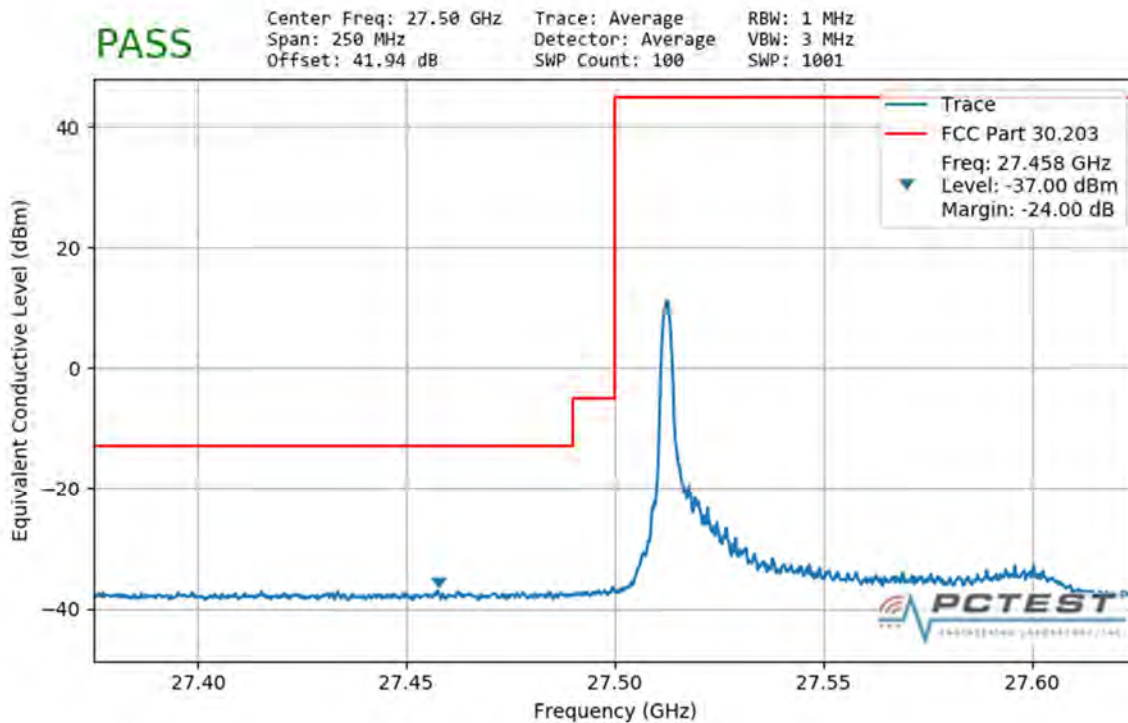


Plot 7-428. Lower Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 252 of 371

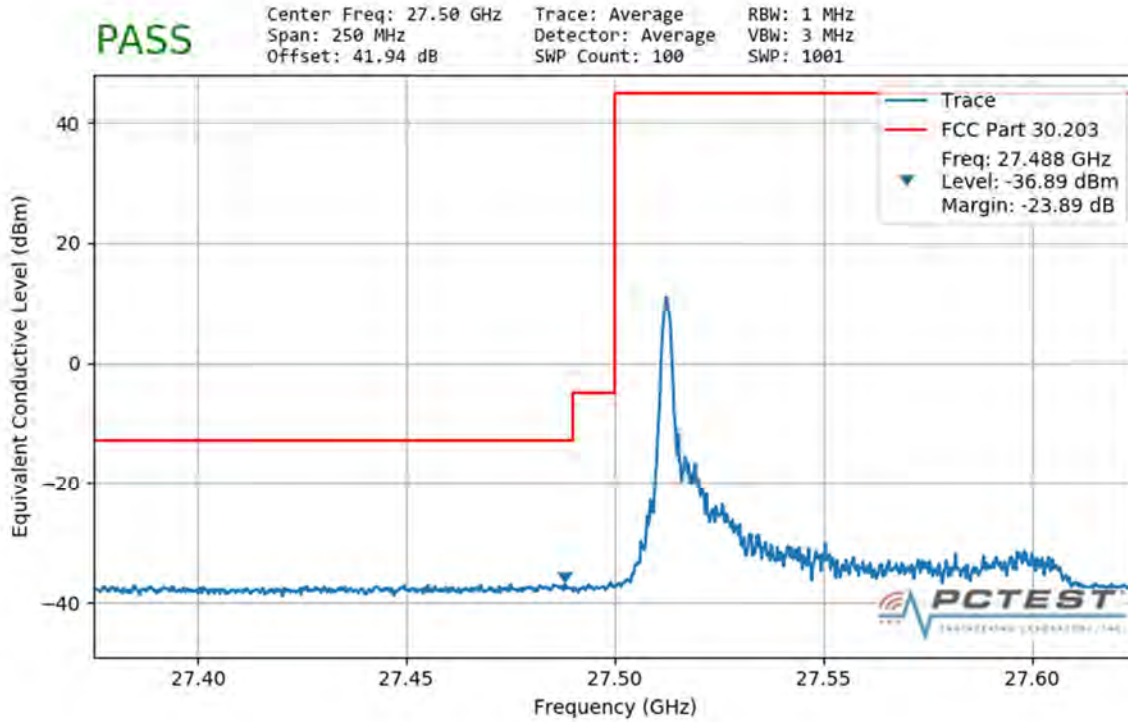


Plot 7-429. Lower Band Edge Plot (1CC 100MHz QPSK Full RB)

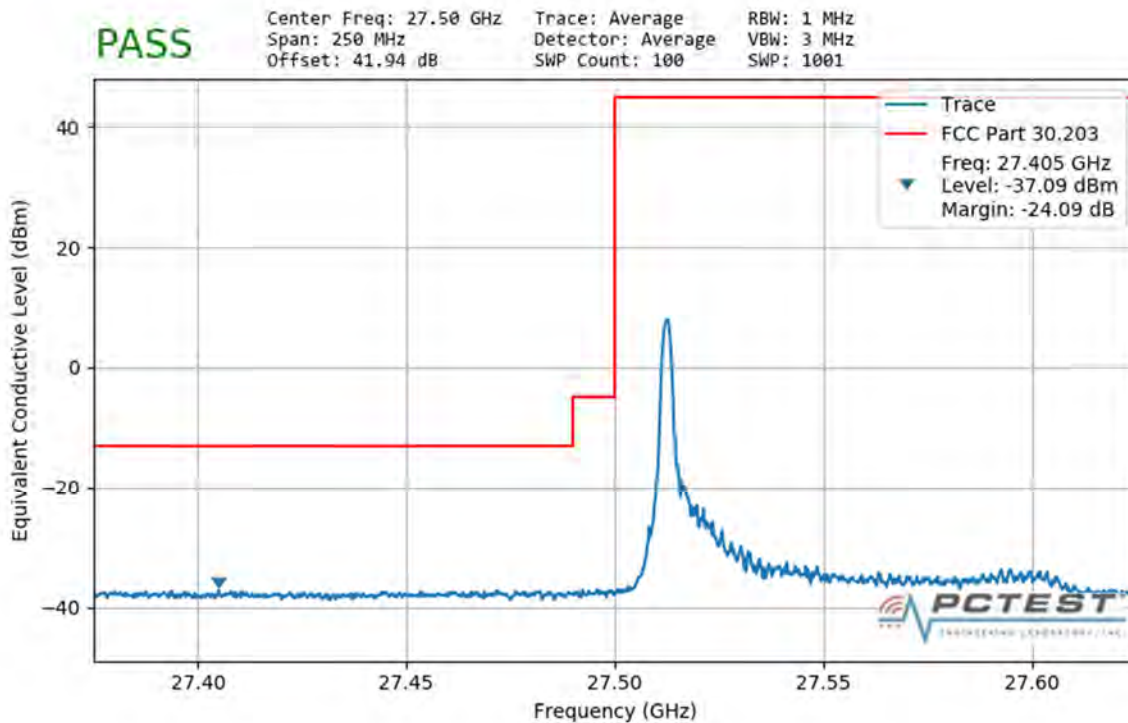


Plot 7-430. Lower Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 253 of 371

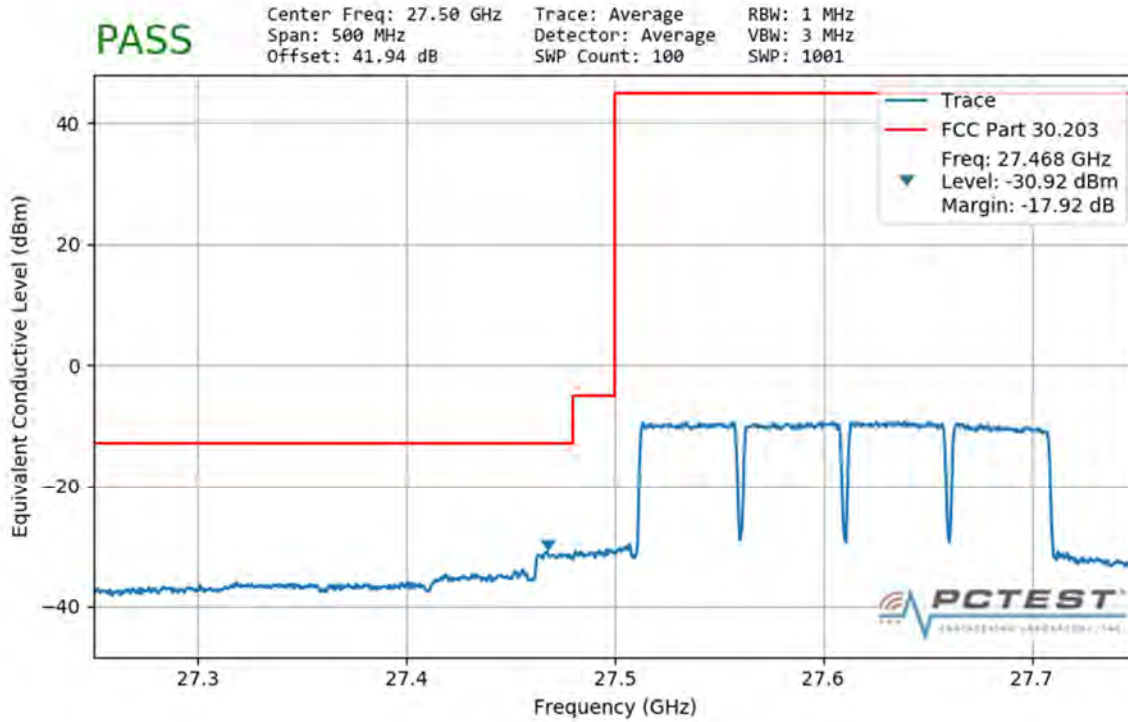


Plot 7-431. Lower Band Edge Plot (1CC 100MHz 16QAM 1 RB)

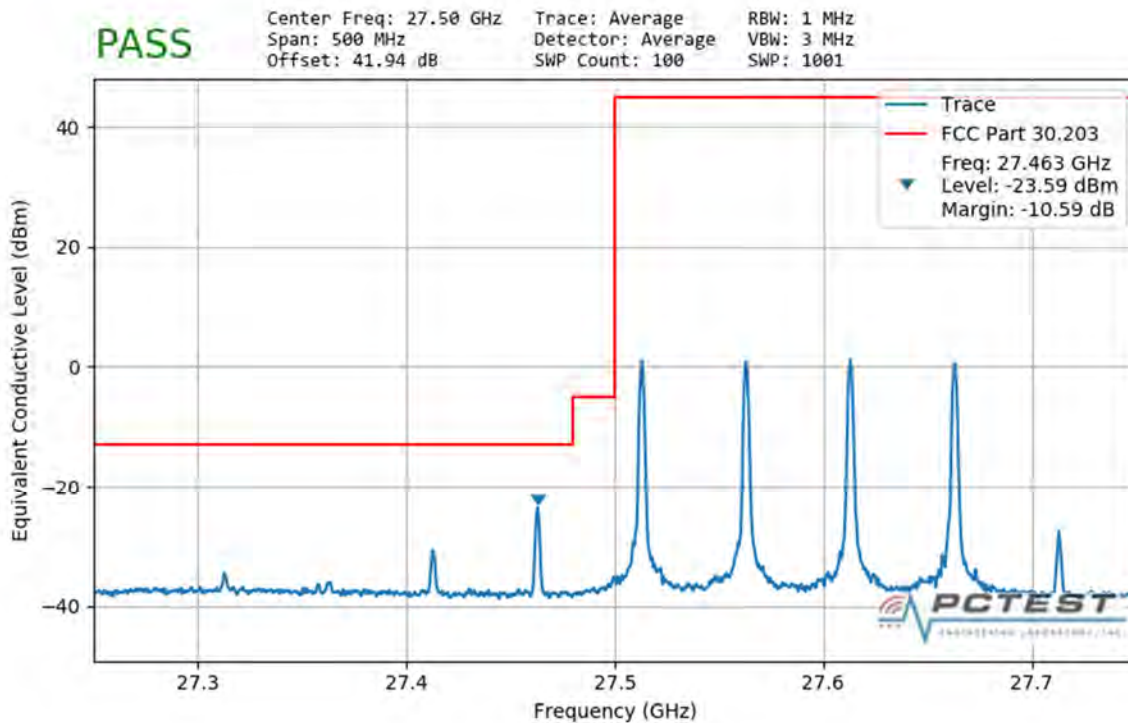


Plot 7-432. Lower Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 254 of 371

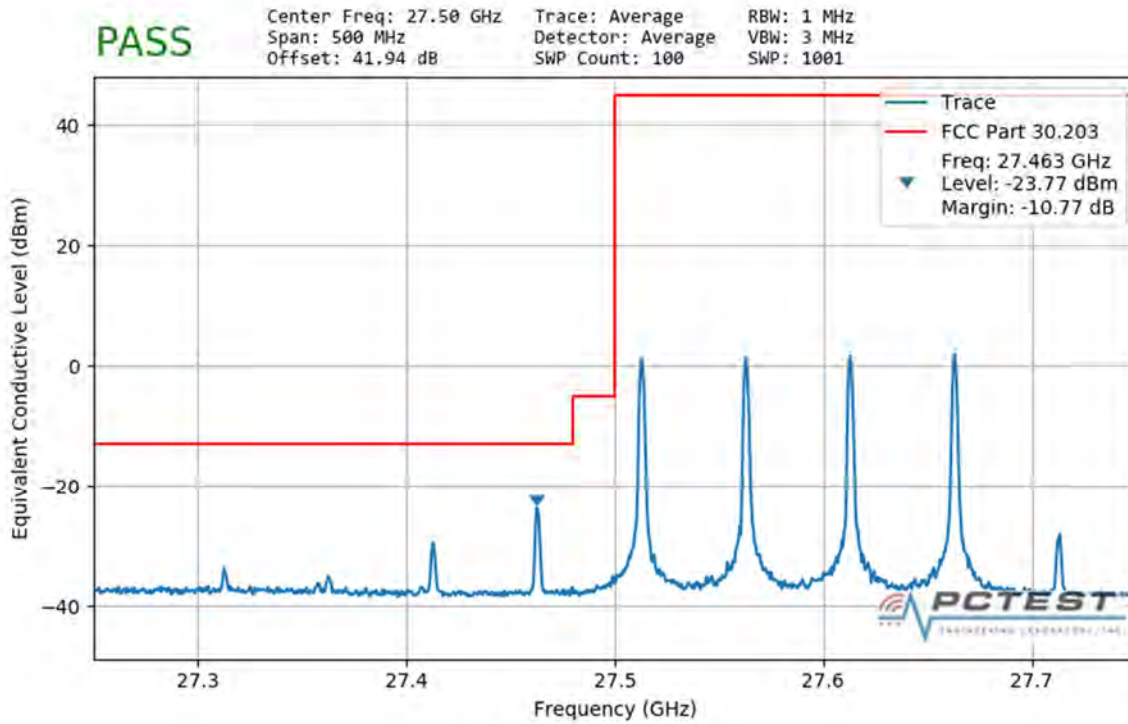


Plot 7-433. Lower Band Edge Plot (4CC 200MHz QPSK Full RB)

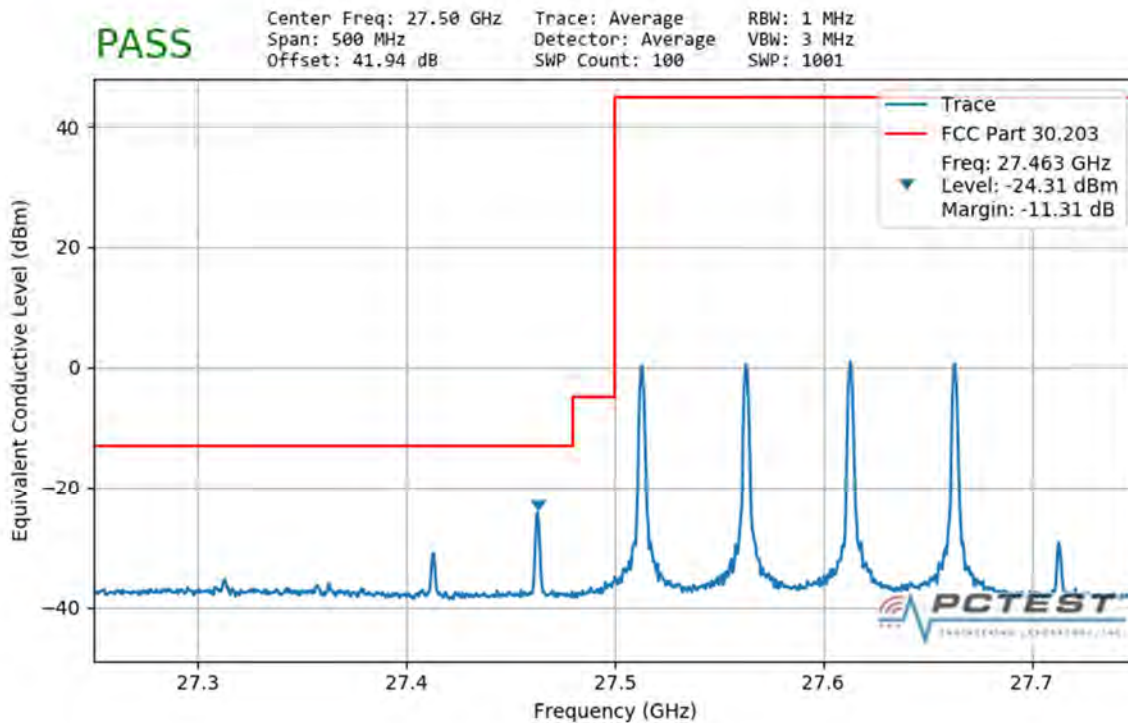


Plot 7-434. Lower Band Edge Plot (4CC 200MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 255 of 371

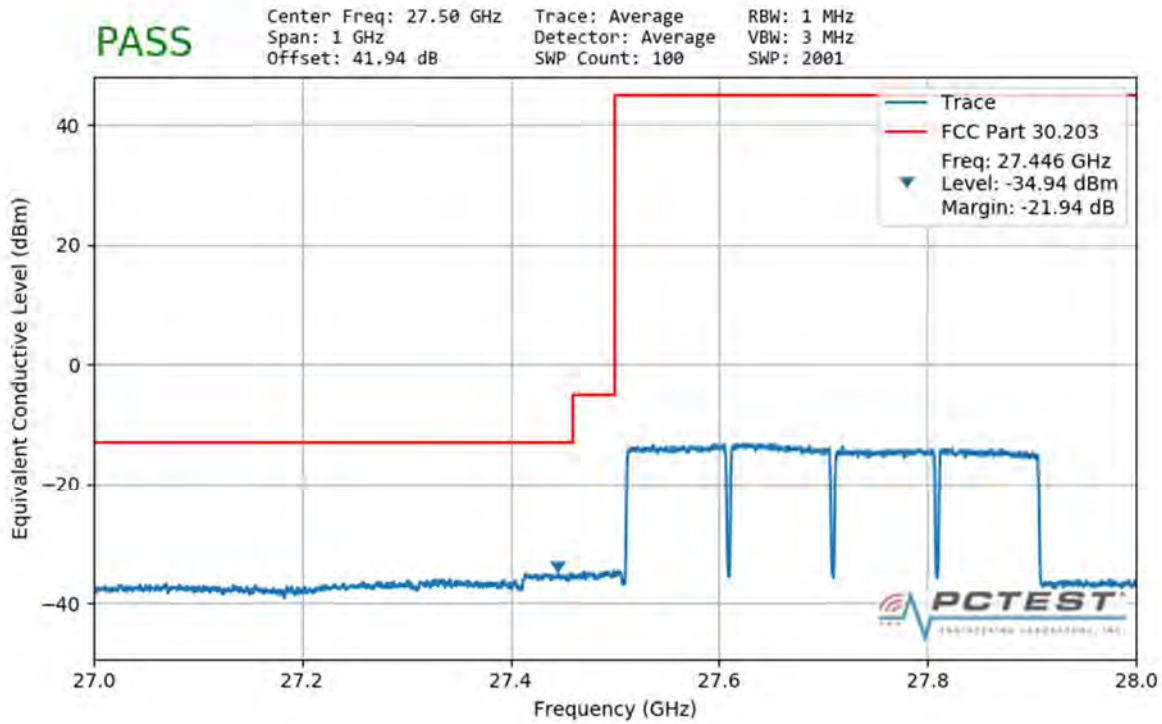


Plot 7-435. Lower Band Edge Plot (4CC 200MHz 16QAM 1 RB)

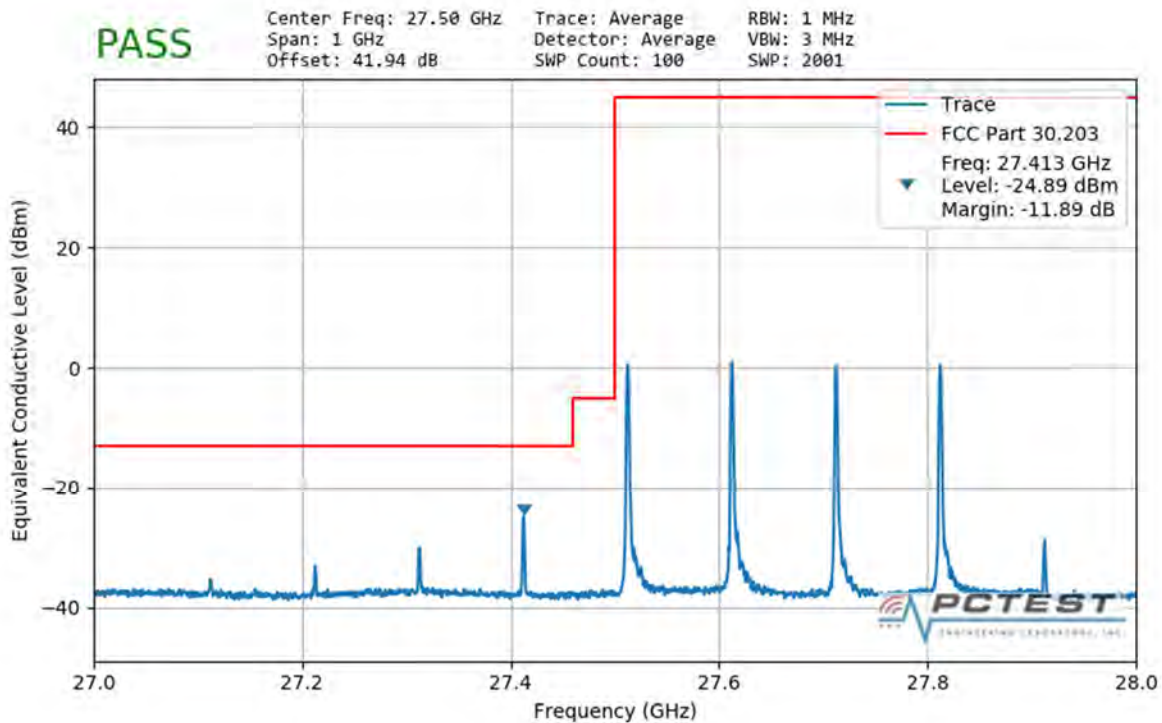


Plot 7-436. Lower Band Edge Plot (4CC 200MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 256 of 371

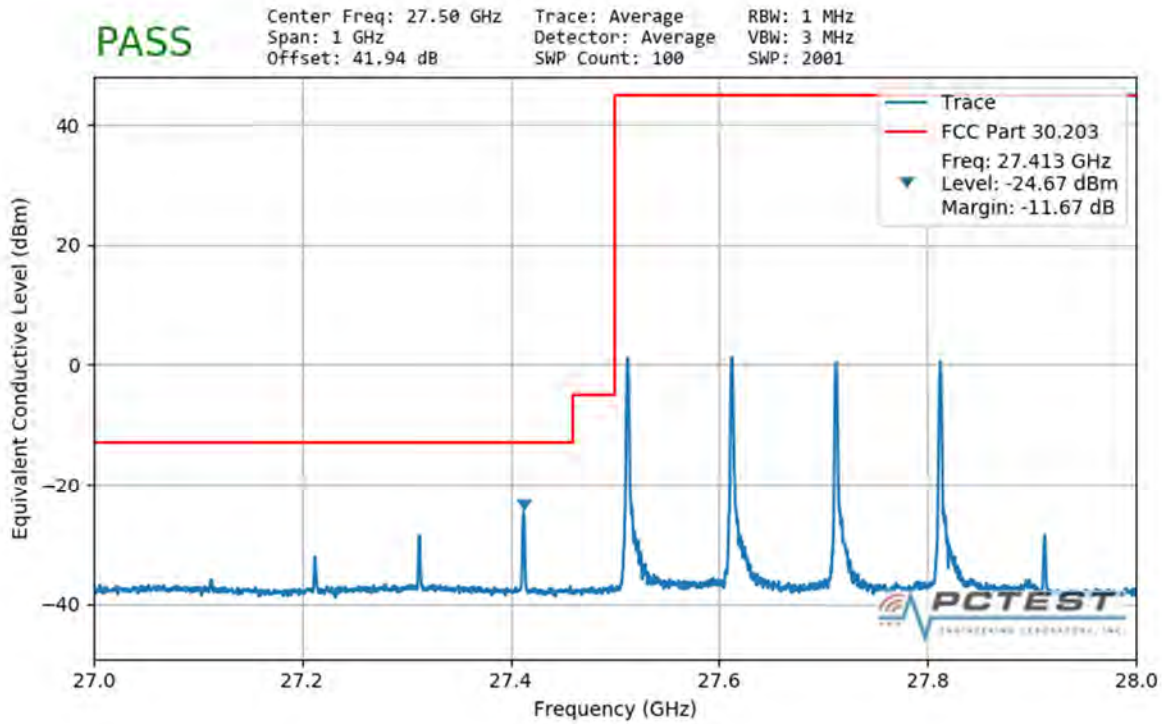


Plot 7-437. Lower Band Edge Plot (4CC 400MHz QPSK Full RB)

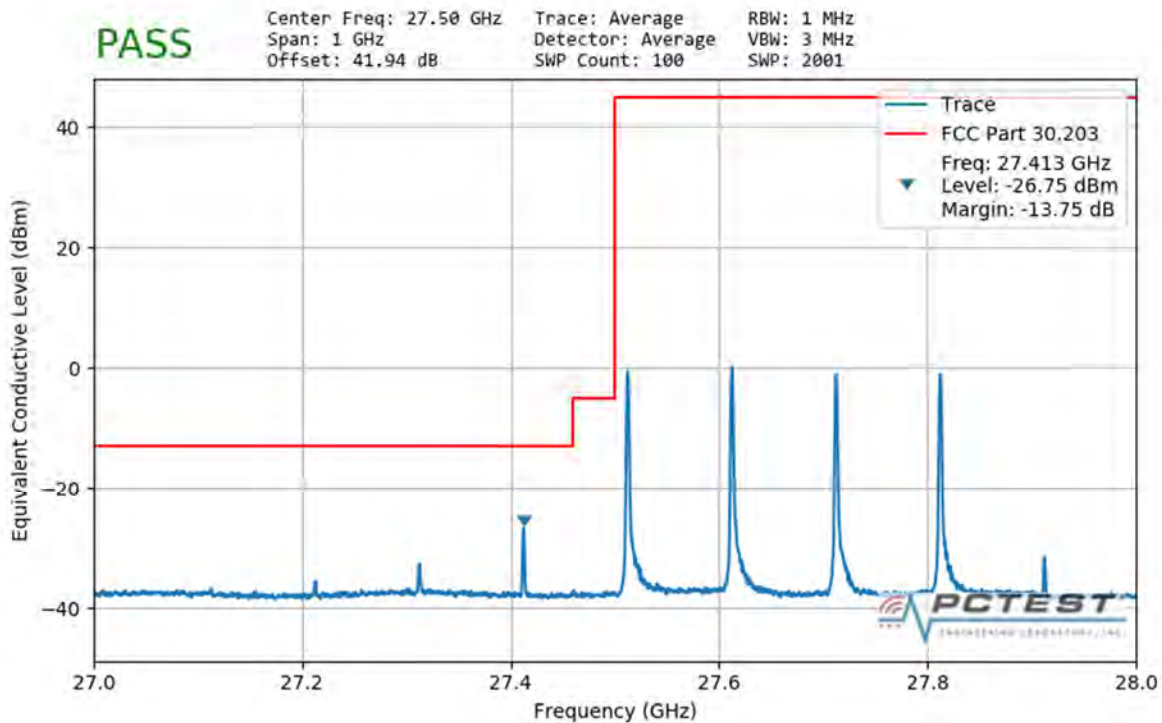


Plot 7-438. Lower Band Edge Plot (4CC 400MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 257 of 371

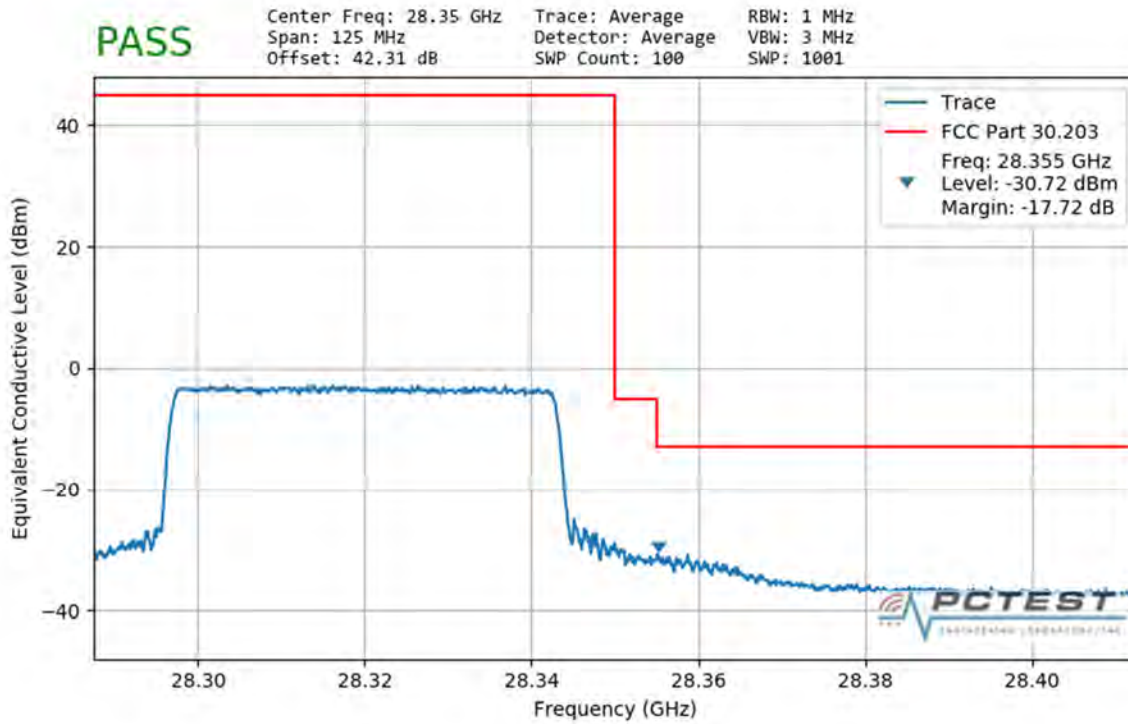


Plot 7-439. Lower Band Edge Plot (4CC 400MHz 16QAM 1 RB)

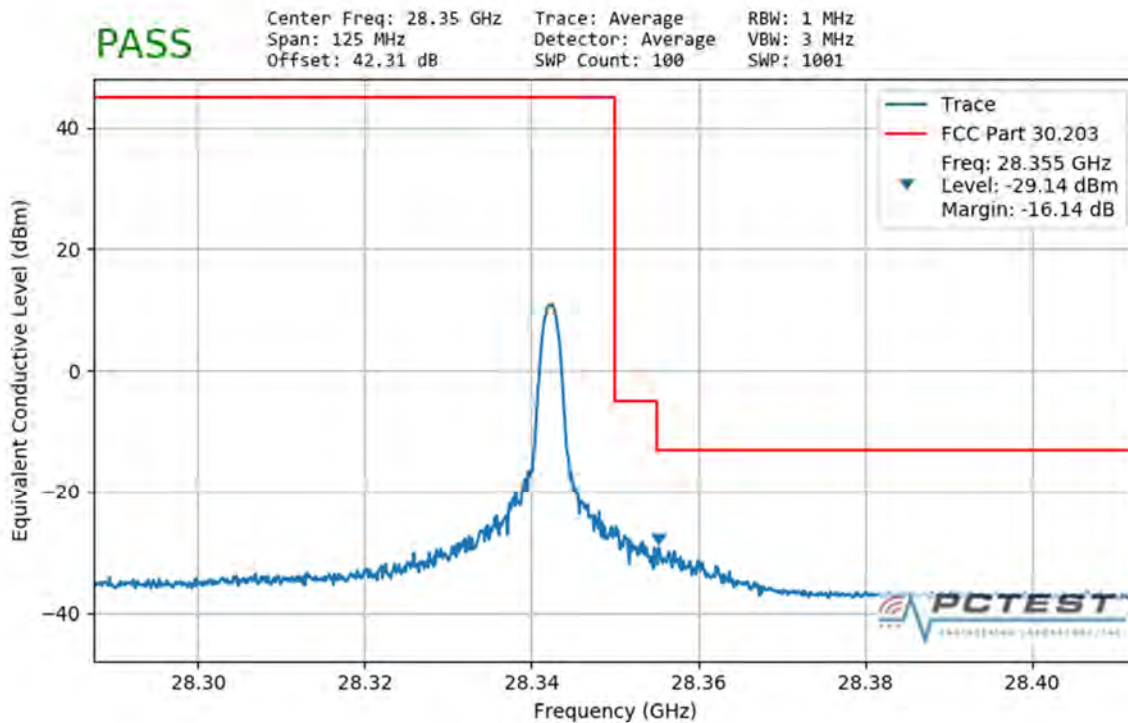


Plot 7-440. Lower Band Edge Plot (4CC 400MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 258 of 371

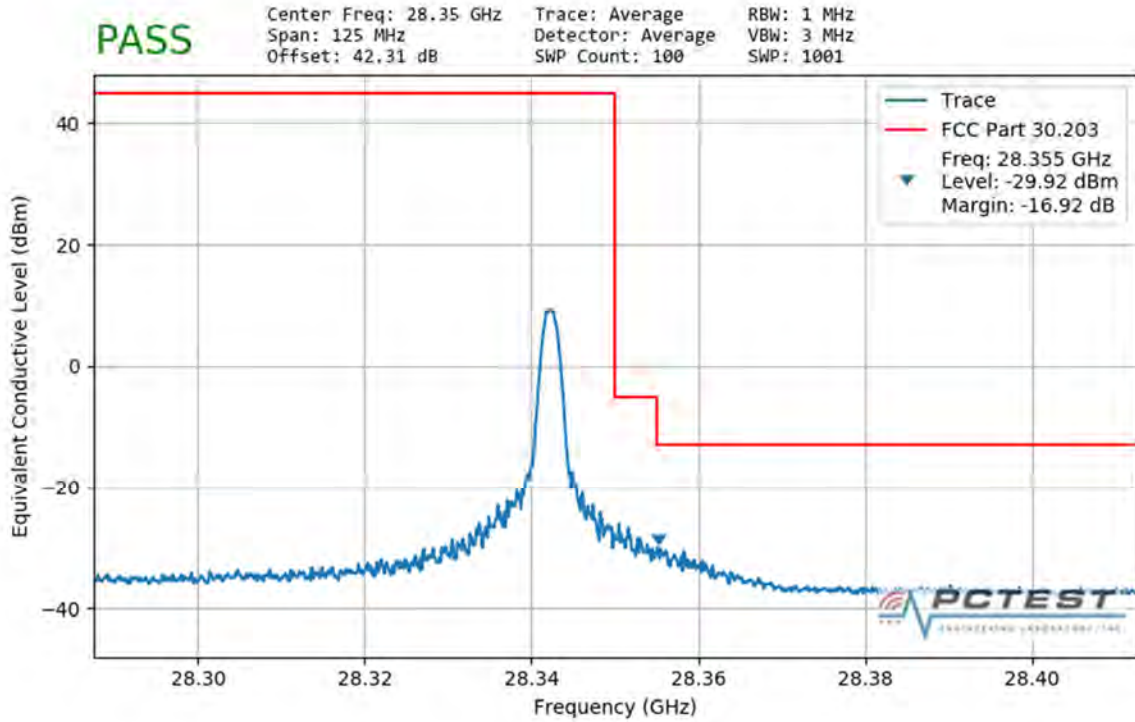


Plot 7-441. Upper Band Edge Plot (1CC 50MHz QPSK Full RB)

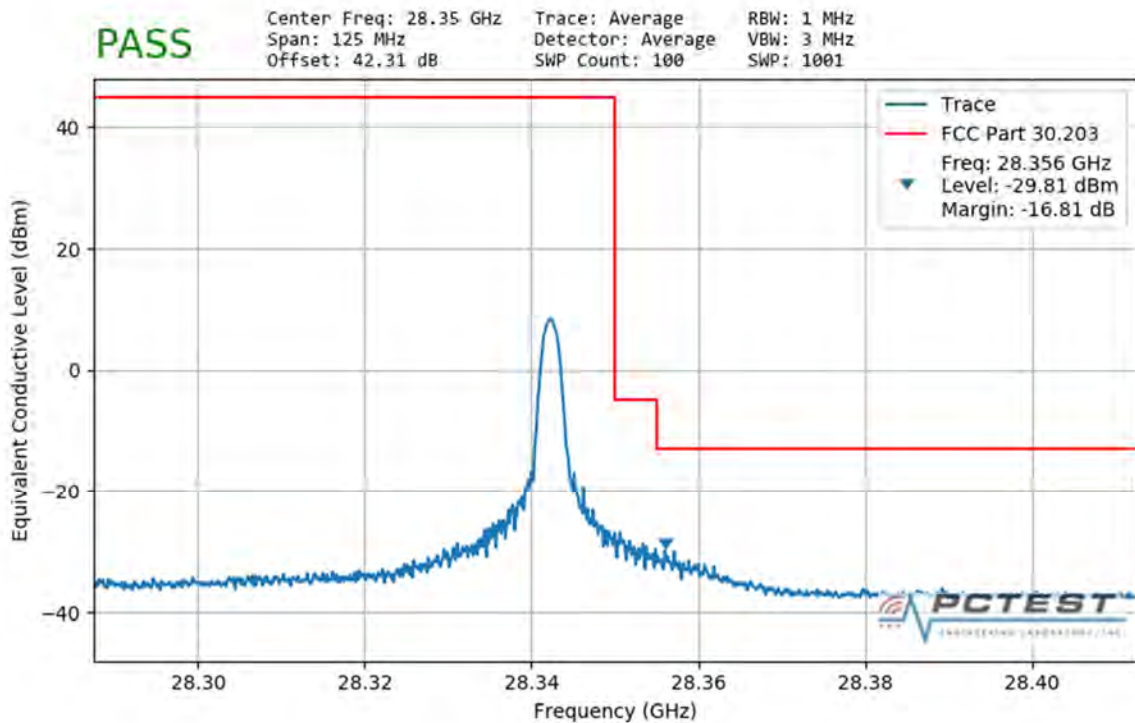


Plot 7-442. Upper Band Edge Plot (1CC 50MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 259 of 371

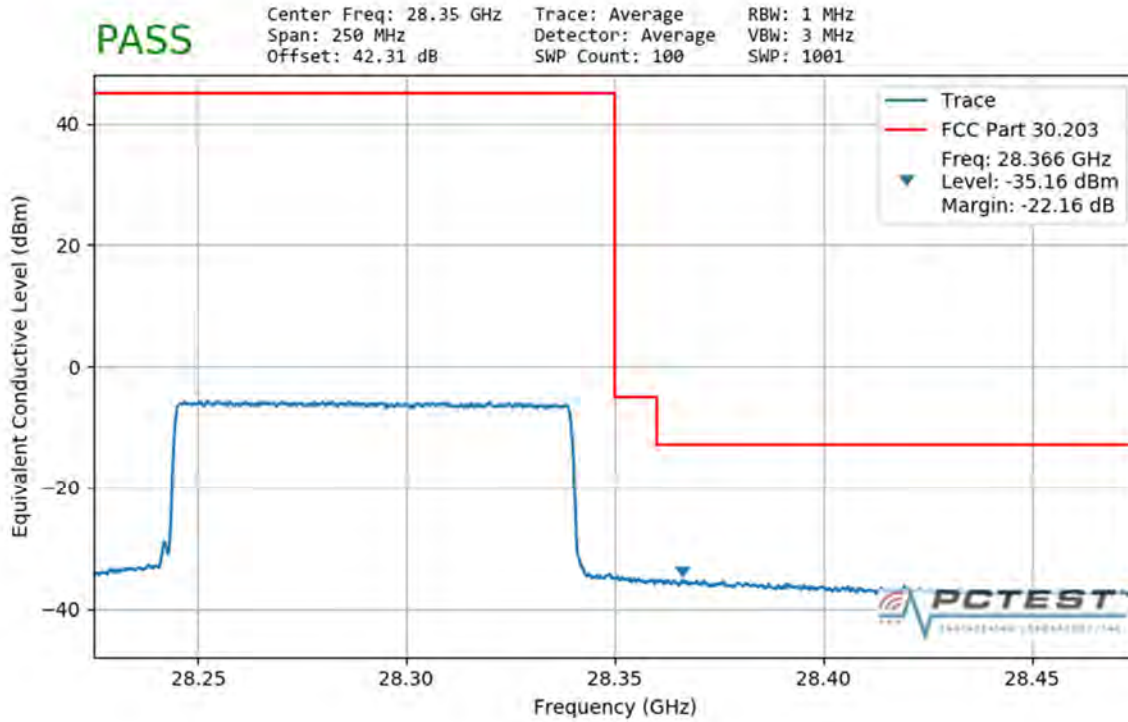


Plot 7-443. Upper Band Edge Plot (1CC 50MHz 16QAM 1 RB)

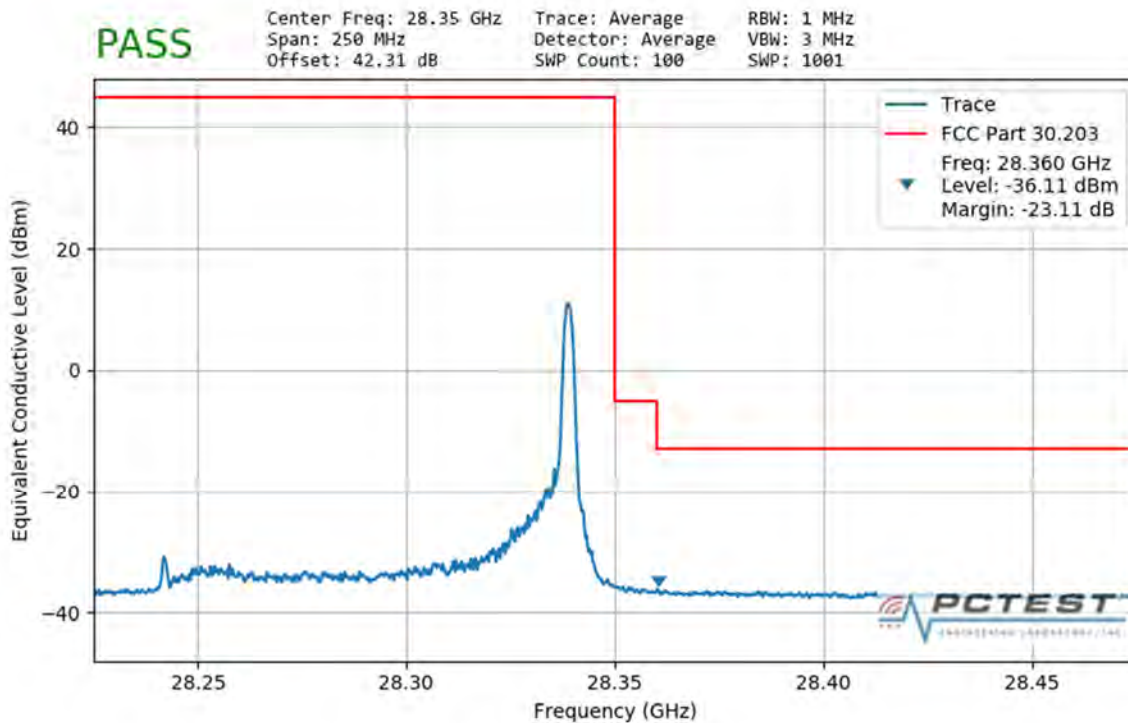


Plot 7-444. Upper Band Edge Plot (1CC 50MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 260 of 371

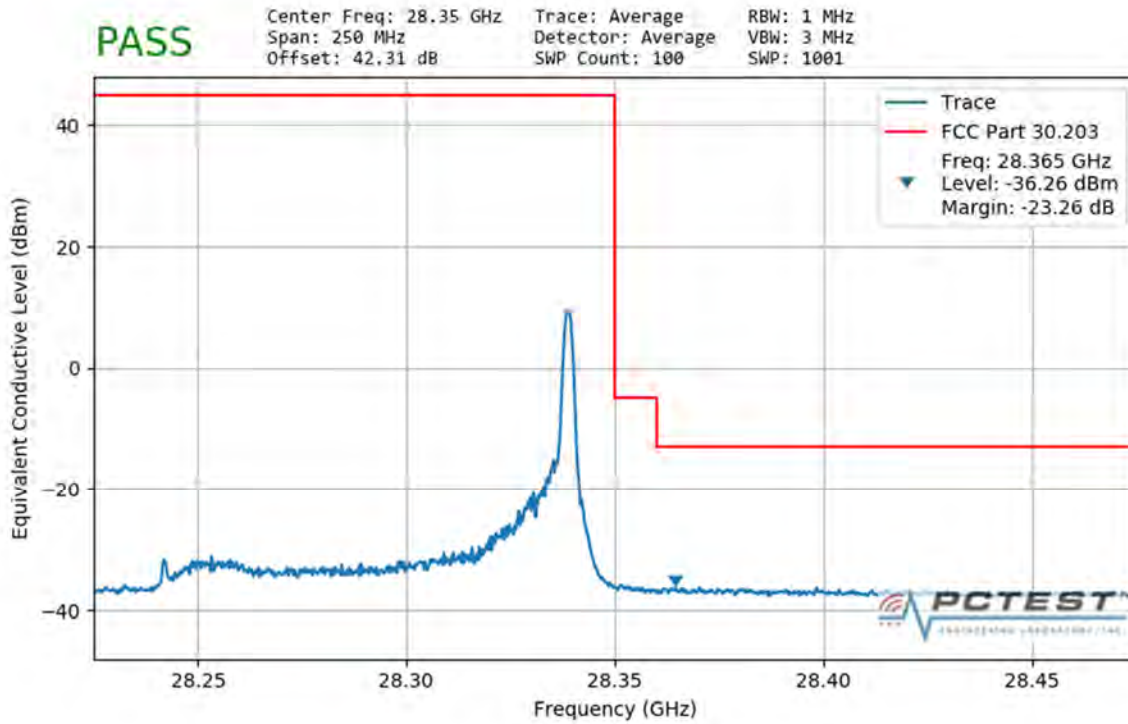


Plot 7-445. Upper Band Edge Plot (1CC 100MHz QPSK Full RB)

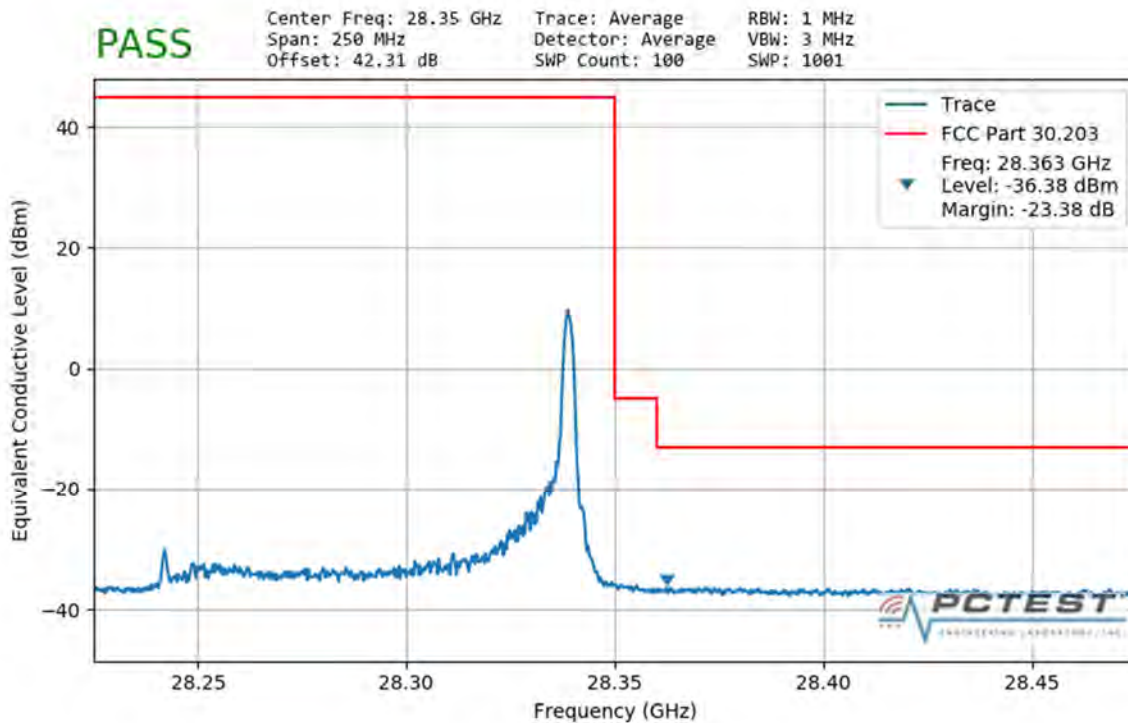


Plot 7-446. Upper Band Edge Plot (1CC 100MHz QPSK 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 261 of 371



Plot 7-447. Upper Band Edge Plot (1CC 100MHz 16QAM 1 RB)



Plot 7-448. Upper Band Edge Plot (1CC 100MHz 64QAM 1 RB)

FCC ID: A3LSMN976V	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1905130071-06-R1.A3L	Test Dates: 05/14 - 07/12/2019	EUT Type: Portable Handset		Page 262 of 371