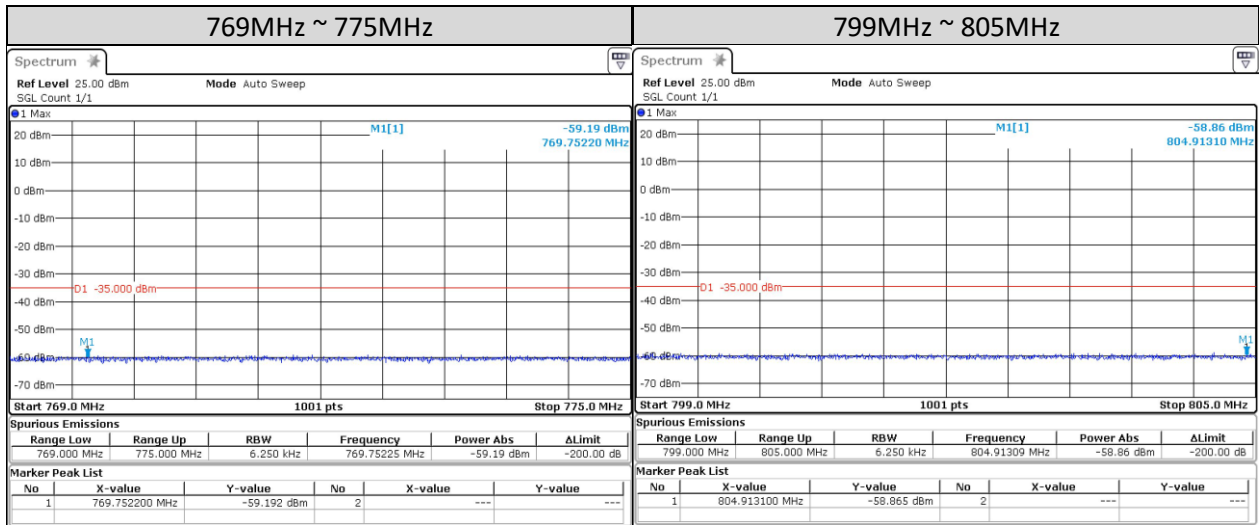
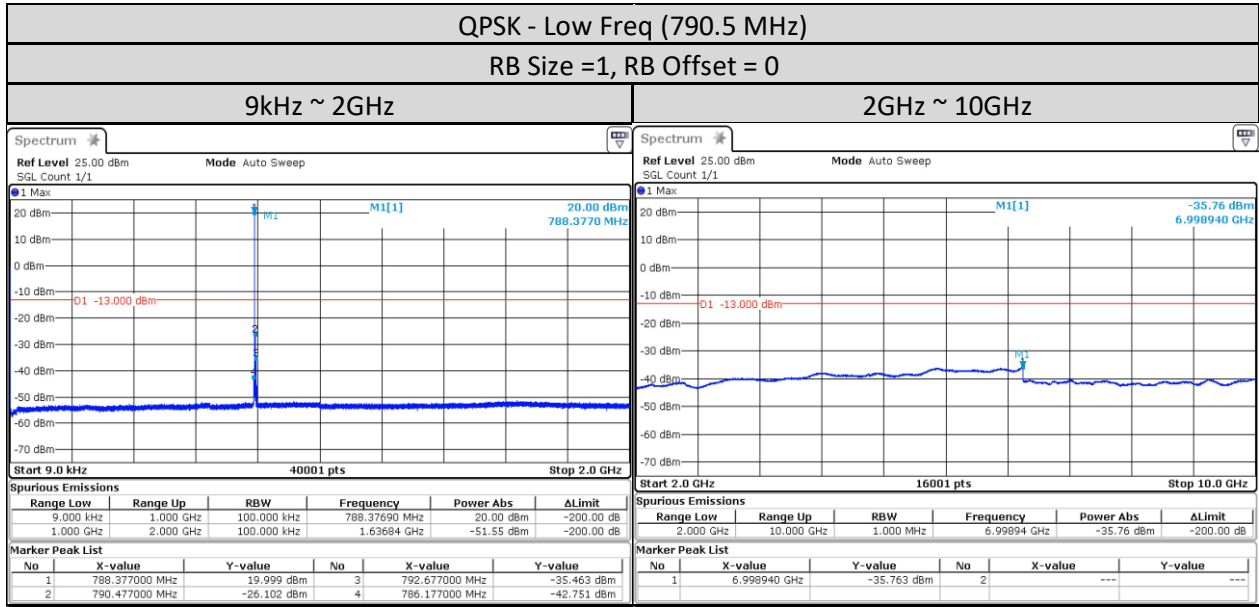
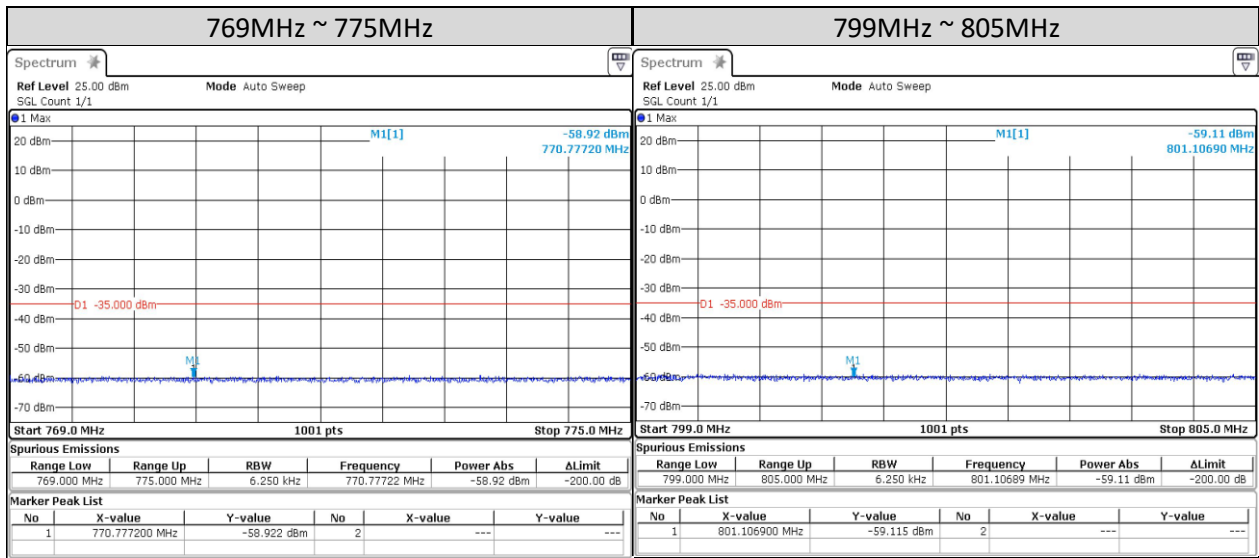
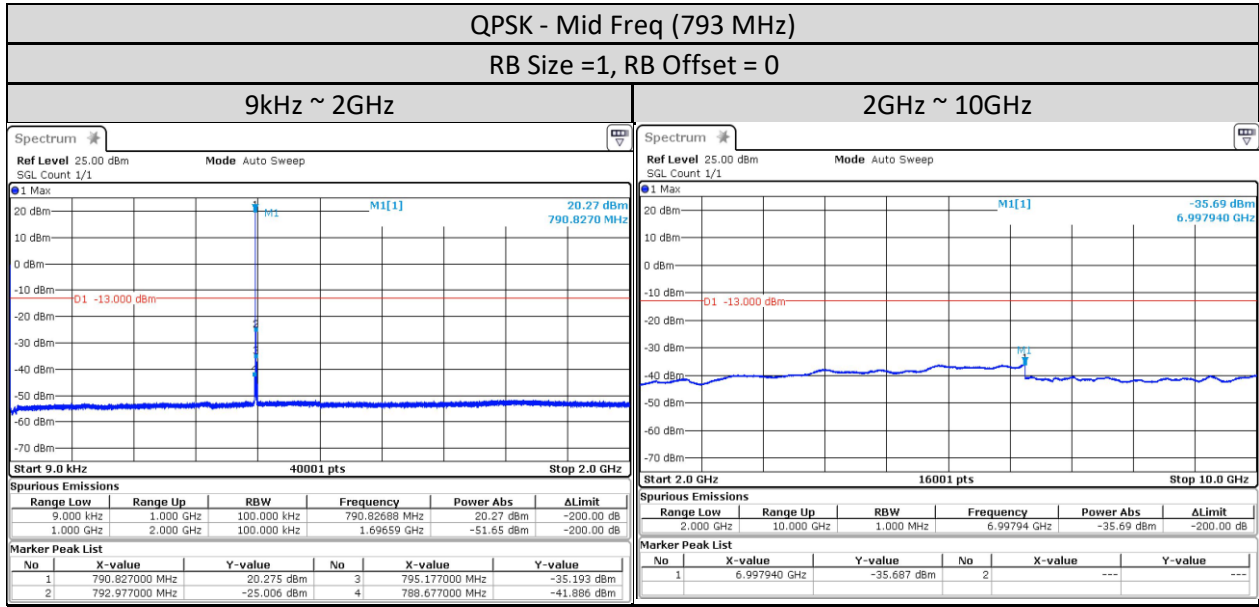
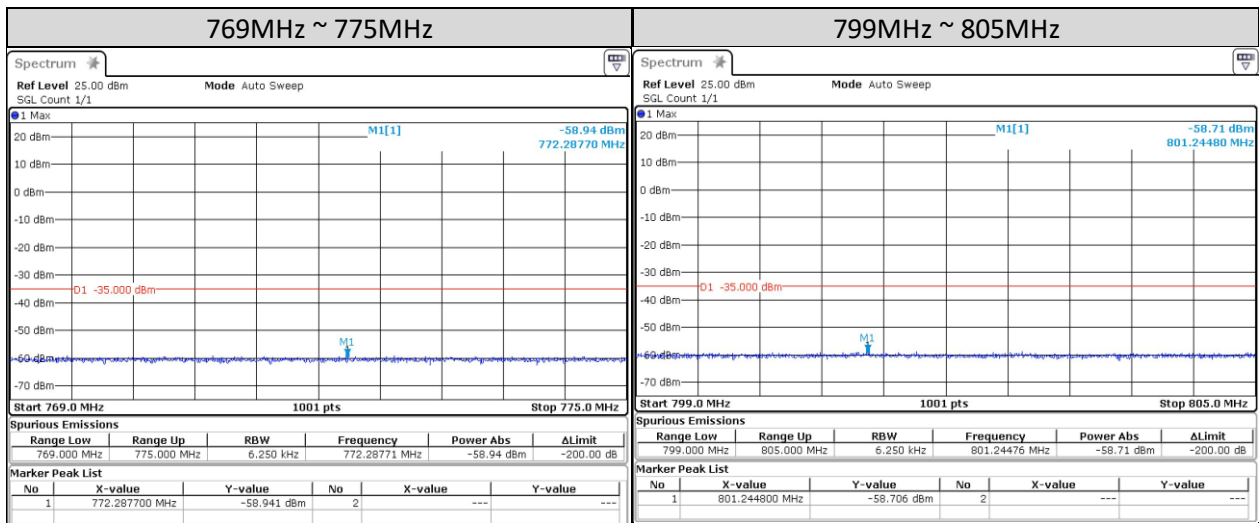
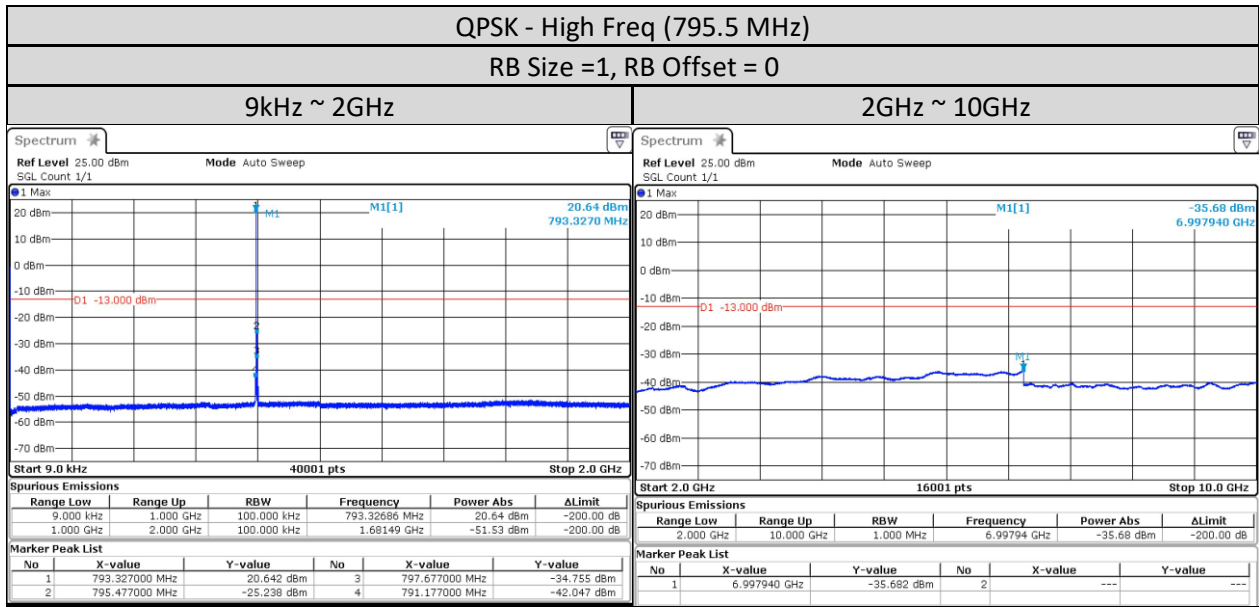


1.11.3. Conducted Spurious Emission - LTE Band 14 (788-798MHz)

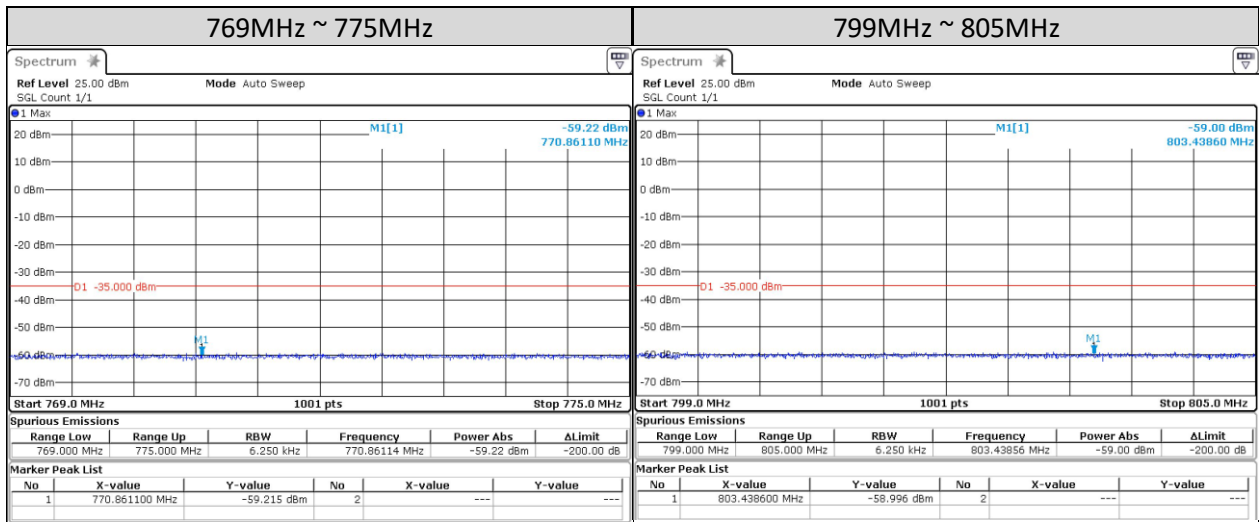
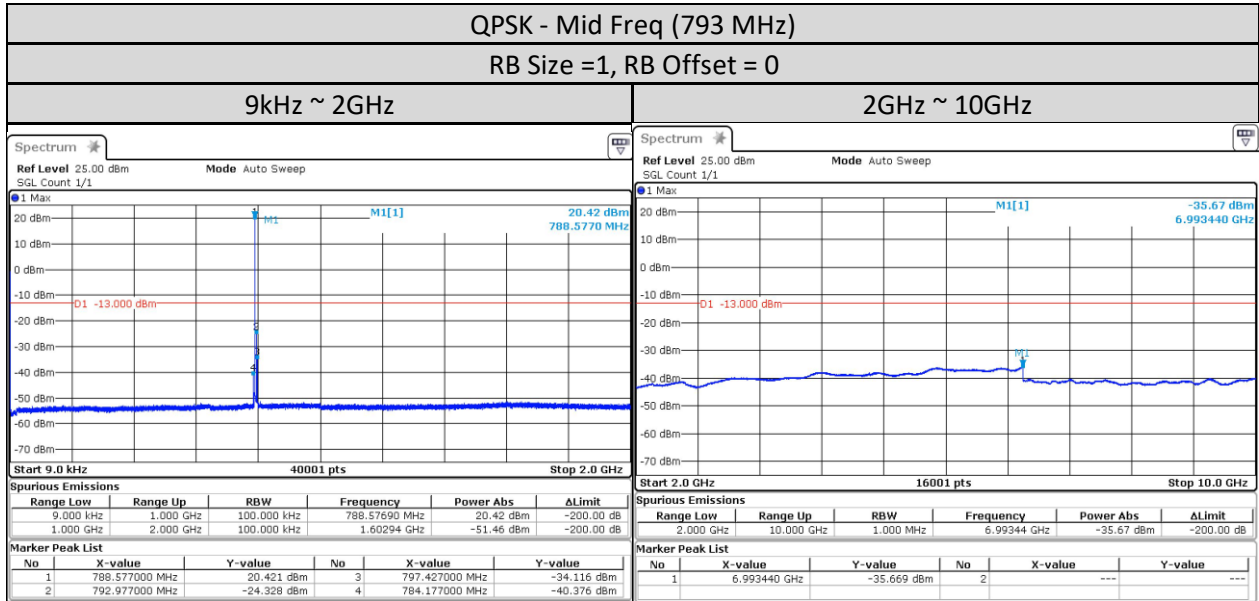
5MHz





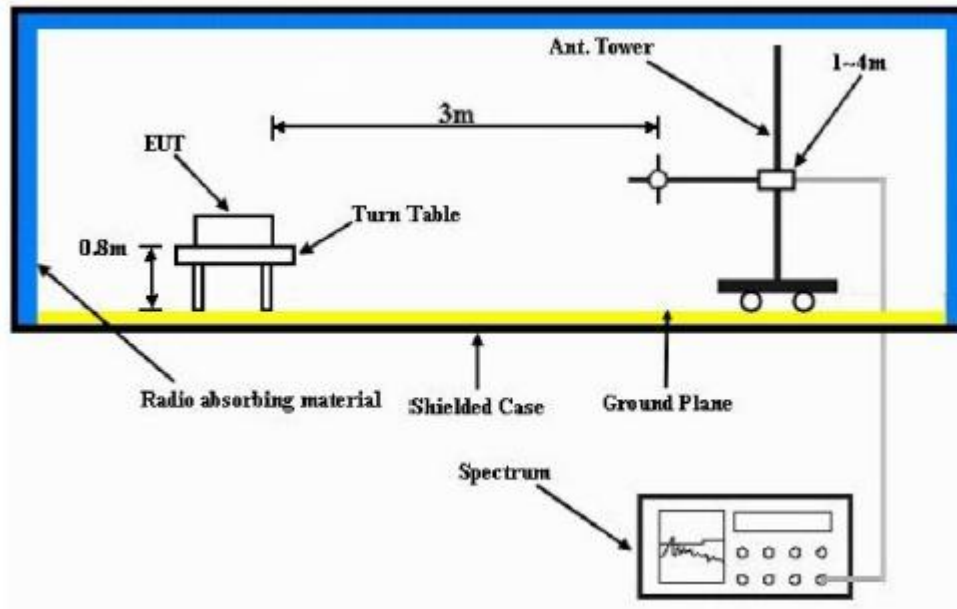


10MHz



1.12. Radiated Spurious Emission

1.12.1. Test Setup



- 1) The spectrum setting for scanning Radiated Emission below 1 GHz is RBW = 100 kHz, VBW = 300 kHz and above 1 GHz is RBW = 1MHz, VBW = 3MHz. Detector mode is positive peak.
- 2) In the semi-anechoic chamber, setup as illustrated above the EUT placed on the Turn Table at 0.8m height for below 1GHz measurement and at 1.5m height for above 1GHz measurement, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- 3) The substitution antenna is substituted for EUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.
- 4) Final Radiated Spurious Emission = “Read Value” + Measured substitution value.

1.12.2. Test Limit

FCC:

(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations.

(2) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.

(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log (P)$ dB.

(4) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(5) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

ISED:

The power of any unwanted emission outside the bands 758-768 MHz and 788-798 MHz shall be attenuated below the transmitter output power P in dBW as follows, where p is the transmitter output power in watts:

For any frequency between 769-775 MHz and 799-806 MHz:

$76 + 10 \log (p)$, dB in a 6.25 kHz band for fixed and base station equipment

$65 + 10 \log (p)$, dB in a 6.25 kHz band for mobile and portable/hand-held equipment

For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: $43 + 10 \log (p)$, dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

1.12.3. Radiated Spurious Emission – LTE Band 14 (788-798MHz)

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H

S/N: 022TAF1521

SR:30468-EMC-00052

Battery Part No: PMNN4818A

Accy Part No: AN000414A01

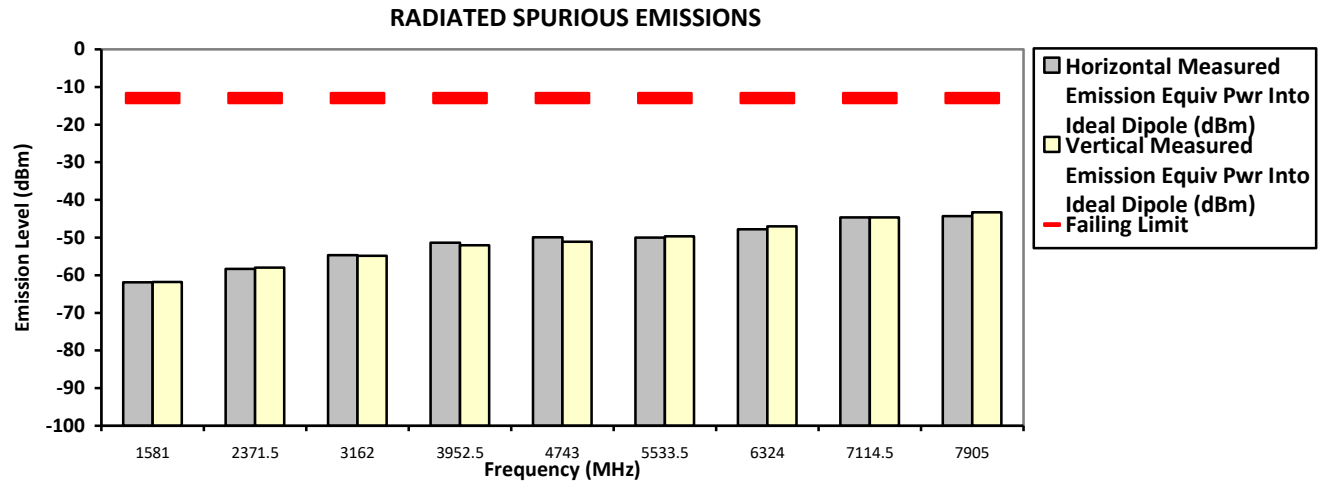
Test Mode: TX LTE (Band 14) X-Plane

790.500000 MHz (Low)

Bandwidth 5MHz

0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1581.0000	-13.0000	-61.9129 **	-61.7747 **
2371.5000	-13.0000	-58.2897 **	-57.9572 **
3162.0000	-13.0000	-54.6947 **	-54.8005 **
3952.5000	-13.0000	-51.3706 **	-52.0724 **
4743.0000	-13.0000	-49.9214 **	-51.1459 **
5533.5000	-13.0000	-49.9885 **	-49.6660 **
6324.0000	-13.0000	-47.8053 **	-47.0437 **
7114.5000	-13.0000	-44.6545 **	-44.6642 **
7905.0000	-13.0000	-44.3061 **	-43.2799 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

System MU: 4.03 dB

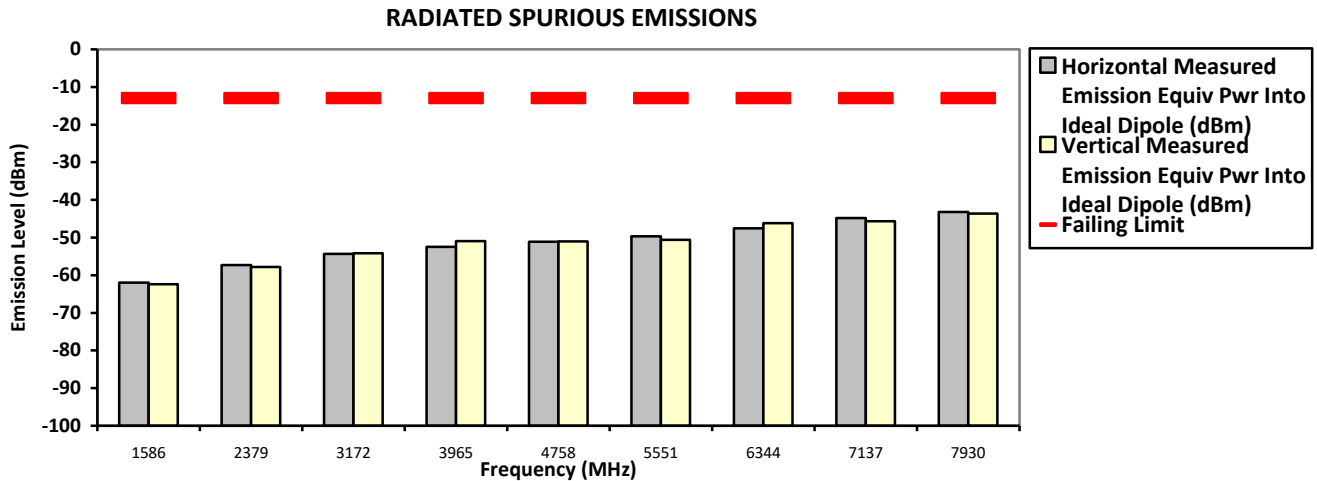
Remarks:

Passed Results	Marginal Results	Failed Results
----------------	------------------	----------------

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) X-Plane
 793.000000 MHz (Mid) Bandwidth 10MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1586.0000	-13.0000	-61.9771 **	-62.4139 **
2379.0000	-13.0000	-57.3241 **	-57.7813 **
3172.0000	-13.0000	-54.3321 **	-54.1469 **
3965.0000	-13.0000	-52.4869 **	-50.9098 **
4758.0000	-13.0000	-51.1111 **	-50.9930 **
5551.0000	-13.0000	-49.6736 **	-50.5846 **
6344.0000	-13.0000	-47.5290 **	-46.2128 **
7137.0000	-13.0000	-44.8238 **	-45.6531 **
7930.0000	-13.0000	-43.2260 **	-43.6543 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

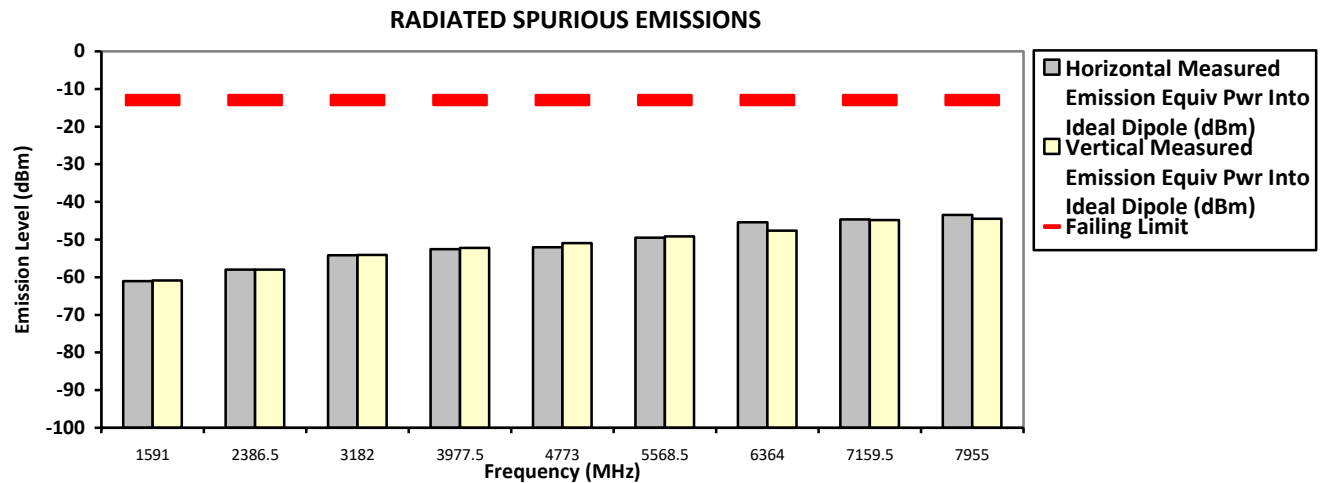
System MU: 4.03 dB

Remarks: Passed Results Marginal Results Failed Results

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) X-Plane
 795.500000 MHz (High) Bandwidth 5MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1591.0000	-13.0000	-61.0327 **	-60.8873 **
2386.5000	-13.0000	-57.9449 **	-57.9554 **
3182.0000	-13.0000	-54.1751 **	-54.0769 **
3977.5000	-13.0000	-52.5573 **	-52.2450 **
4773.0000	-13.0000	-52.0726 **	-50.9362 **
5568.5000	-13.0000	-49.5103 **	-49.1474 **
6364.0000	-13.0000	-45.4541 **	-47.5827 **
7159.5000	-13.0000	-44.6841 **	-44.8432 **
7955.0000	-13.0000	-43.4831 **	-44.5067 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

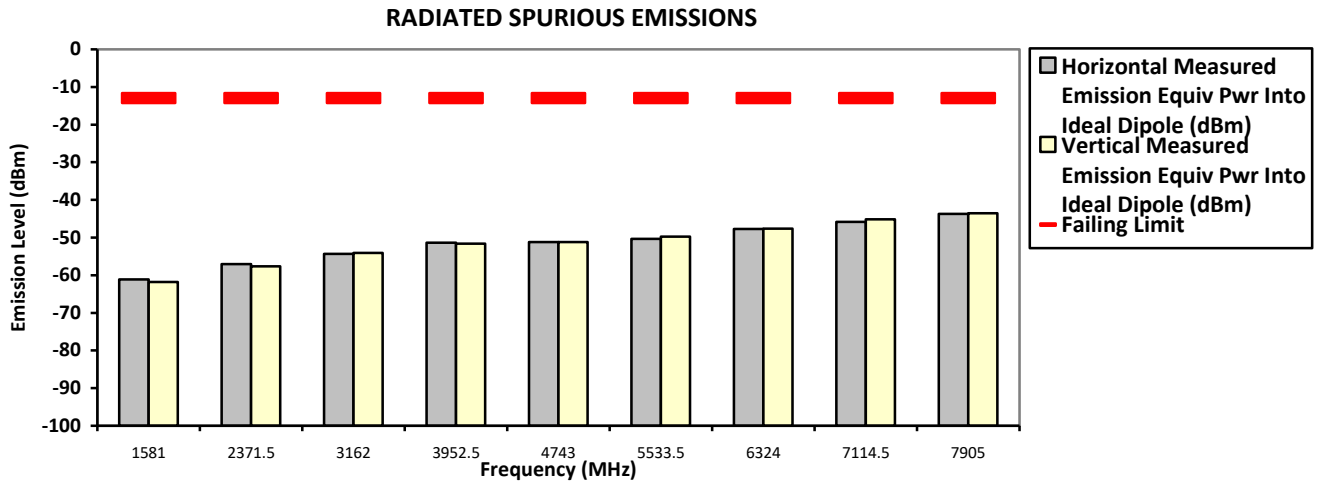
System MU: 4.03 dB

Remarks: Passed Results Marginal Results Failed Results

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) Y-Plane
 790.500000 MHz (Low) Bandwidth 5MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1581.0000	-13.0000	-61.1104 **	-61.7859 **
2371.5000	-13.0000	-57.0494 **	-57.6397 **
3162.0000	-13.0000	-54.3144 **	-54.0496 **
3952.5000	-13.0000	-51.3891 **	-51.5913 **
4743.0000	-13.0000	-51.1908 **	-51.1735 **
5533.5000	-13.0000	-50.3216 **	-49.7782 **
6324.0000	-13.0000	-47.6710 **	-47.5812 **
7114.5000	-13.0000	-45.8755 **	-45.1359 **
7905.0000	-13.0000	-43.7235 **	-43.5179 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

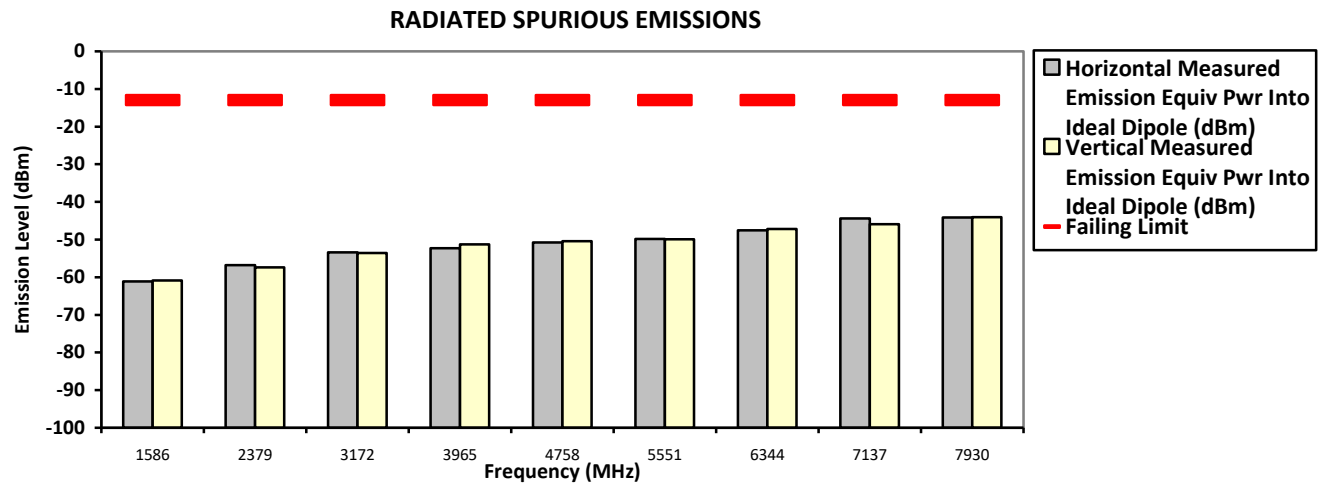
System MU: 4.03 dB

Remarks: Passed Results Marginal Results Failed Results

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) Y-Plane
 793.000000 MHz (Mid) Bandwidth 10MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1586.0000	-13.0000	-61.1351 **	-60.8607 **
2379.0000	-13.0000	-56.8267 **	-57.3764 **
3172.0000	-13.0000	-53.4209 **	-53.5708 **
3965.0000	-13.0000	-52.2945 **	-51.3026 **
4758.0000	-13.0000	-50.7462 **	-50.3888 **
5551.0000	-13.0000	-49.7934 **	-49.9023 **
6344.0000	-13.0000	-47.5385 **	-47.2021 **
7137.0000	-13.0000	-44.3924 **	-45.9426 **
7930.0000	-13.0000	-44.1103 **	-44.0876 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

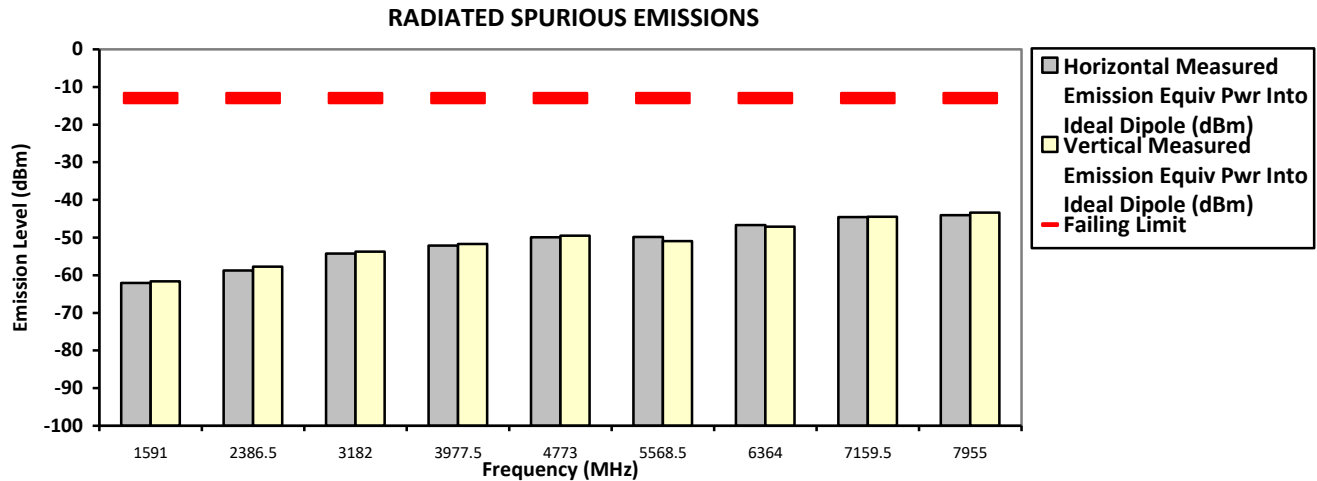
System MU: 4.03 dB

Remarks: Passed Results Marginal Results Failed Results

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) Y-Plane
 795.500000 MHz (High) Bandwidth 5MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1591.0000	-13.0000	-62.0138 **	-61.6560 **
2386.5000	-13.0000	-58.7584 **	-57.6910 **
3182.0000	-13.0000	-54.2080 **	-53.7467 **
3977.5000	-13.0000	-52.1211 **	-51.6922 **
4773.0000	-13.0000	-49.9228 **	-49.4559 **
5568.5000	-13.0000	-49.8099 **	-50.9313 **
6364.0000	-13.0000	-46.6670 **	-47.0810 **
7159.5000	-13.0000	-44.5499 **	-44.5124 **
7955.0000	-13.0000	-44.0580 **	-43.4163 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

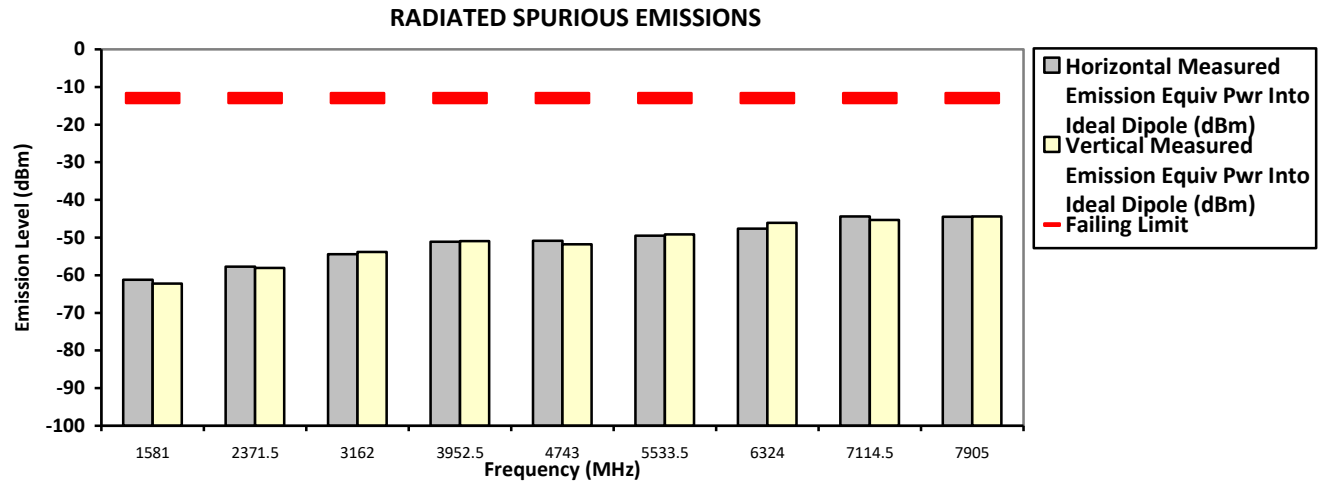
System MU: 4.03 dB

Remarks: Passed Results Marginal Results Failed Results

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) Z-Plane
 790.500000 MHz (Low) Bandwidth 5MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1581.0000	-13.0000	-61.2117 **	-62.2589 **
2371.5000	-13.0000	-57.6879 **	-58.0447 **
3162.0000	-13.0000	-54.3847 **	-53.8596 **
3952.5000	-13.0000	-51.1092 **	-50.9169 **
4743.0000	-13.0000	-50.8633 **	-51.7593 **
5533.5000	-13.0000	-49.5136 **	-49.1761 **
6324.0000	-13.0000	-47.6214 **	-46.1324 **
7114.5000	-13.0000	-44.4310 **	-45.3154 **
7905.0000	-13.0000	-44.4439 **	-44.4037 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

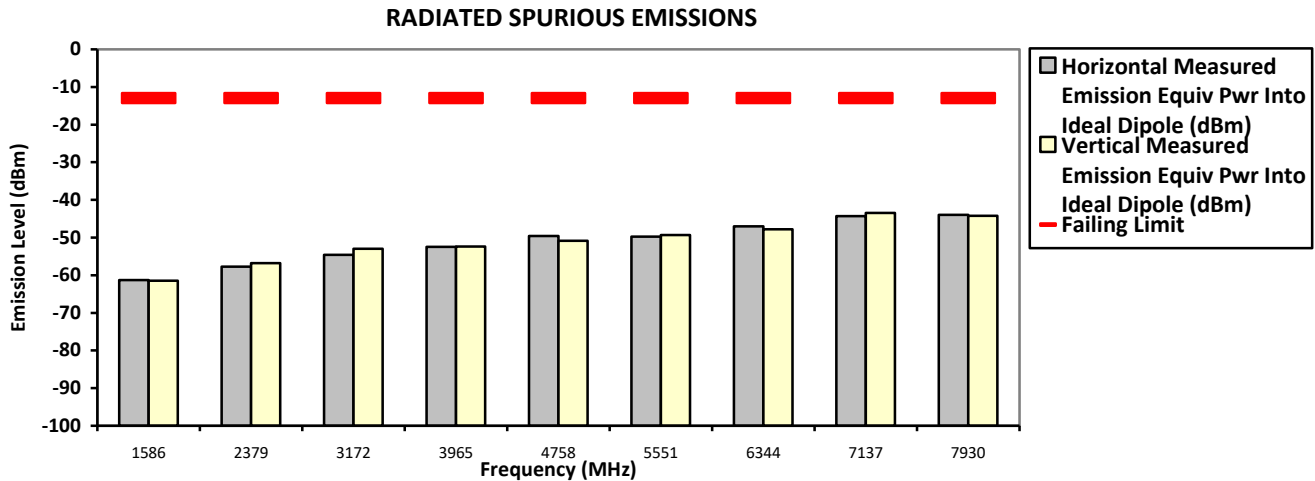
System MU: 4.03 dB

Remarks: Passed Results Marginal Results Failed Results

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) Z-Plane
 793.000000 MHz (Mid) Bandwidth 10MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1586.0000	-13.0000	-61.3294 **	-61.4306 **
2379.0000	-13.0000	-57.7354 **	-56.7725 **
3172.0000	-13.0000	-54.5645 **	-52.9462 **
3965.0000	-13.0000	-52.4906 **	-52.3395 **
4758.0000	-13.0000	-49.5886 **	-50.8160 **
5551.0000	-13.0000	-49.7736 **	-49.3544 **
6344.0000	-13.0000	-47.0507 **	-47.7740 **
7137.0000	-13.0000	-44.2981 **	-43.4243 **
7930.0000	-13.0000	-43.9934 **	-44.1988 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

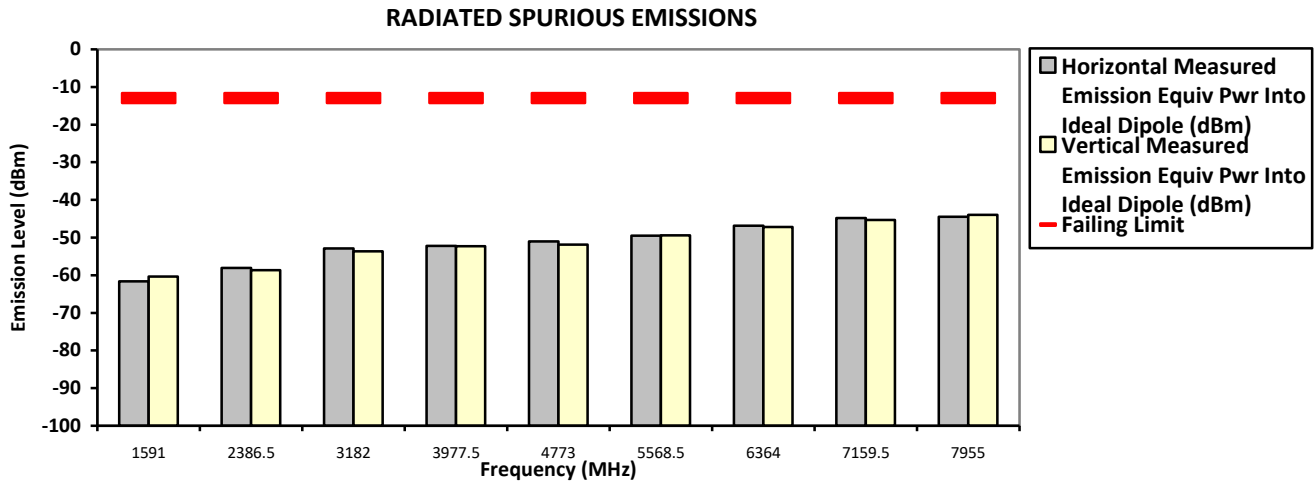
System MU: 4.03 dB

Remarks: Passed Results Marginal Results Failed Results

SAC Transmitter Radiated Emission:

Model Number: H35KET9PW8AN-H S/N: 022TAF1521 SR:30468-EMC-00052
 Battery Part No: PMNN4818A Accy Part No: AN000414A01
 Test Mode: TX LTE (Band 14) Z-Plane
 795.500000 MHz (High) Bandwidth 5MHz 0.252 Watt(s) /Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1591.0000	-13.0000	-61.6398 **	-60.3514 **
2386.5000	-13.0000	-58.1005 **	-58.6306 **
3182.0000	-13.0000	-52.9267 **	-53.6719 **
3977.5000	-13.0000	-52.1772 **	-52.2653 **
4773.0000	-13.0000	-51.0127 **	-51.8827 **
5568.5000	-13.0000	-49.4550 **	-49.3786 **
6364.0000	-13.0000	-46.8186 **	-47.1916 **
7159.5000	-13.0000	-44.8396 **	-45.3221 **
7955.0000	-13.0000	-44.5226 **	-43.9517 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
 Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Sun, 26 May, 2024

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
 *Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
 Temp(Deg): 23.7 Hum(%RH): 68.2

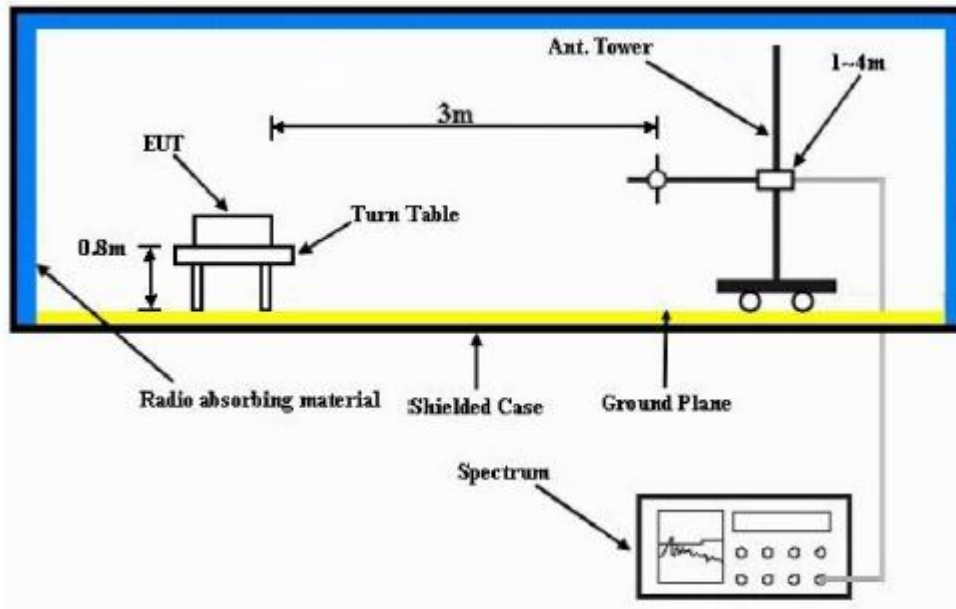
System MU: 4.03 dB

Remarks:

Passed Results	Marginal Results	Failed Results
----------------	------------------	----------------

1.13. Effective Radiated Power (ERP)

1.13.1. Test Setup



- 1) The spectrum setting for scanning Radiated Emission below 1 GHz is RBW = 100 kHz, VBW = 300 kHz and above 1 GHz is RBW = 1MHz, VBW = 3MHz. Detector mode is RMS.
- 2) In the semi-anechoic chamber, setup as illustrated above the EUT placed on the Turn Table at 0.8m height for below 1GHz measurement and at 1.5m height for above 1GHz measurement, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- 3) The substitution antenna is substituted for EUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.
- 4) ERP = “Read Value” + Measured substitution value.

1.13.2. Test Limit

FCC: Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

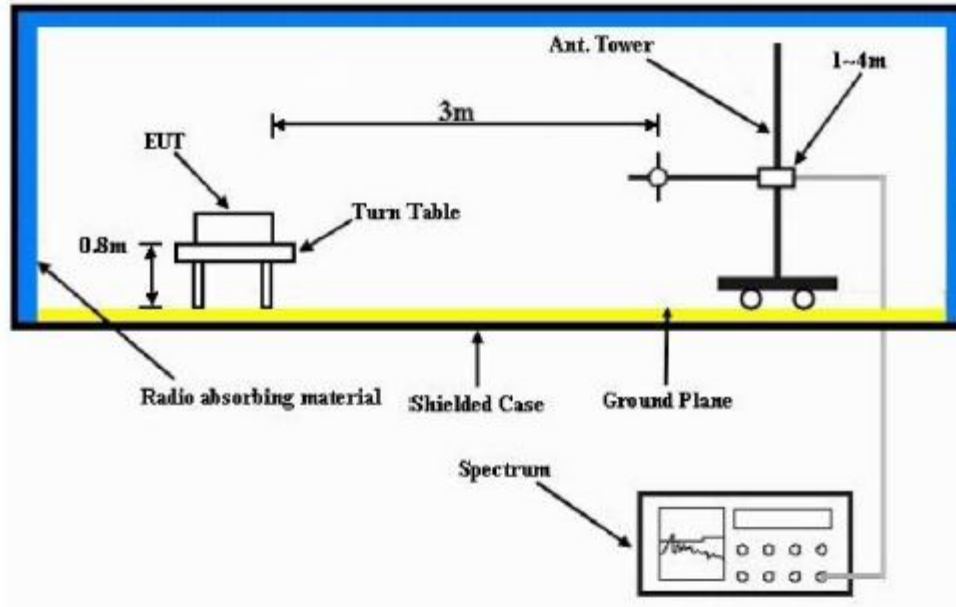
ISED: The e.r.p. for portable equipment including handheld devices shall not exceed 3 W.

1.13.3. Effective Radiated Power (ERP) - LTE Band 14 (788-798MHz)

[Refer to 1.6.4 / Not Performed.](#)

1.14. GNSS (EIRP for 1599 – 1610MHz) – LTE Band 14 (788-798MHz)

1.14.1. Test Setup



- 1) The Resolution Bandwidth for Equivalent Isotropically Radiated Power (EIRP) below 1 GHz is 100 kHz with Video Bandwidth = 300 kHz and Resolution Bandwidth for EIRP above 1 GHz is 1 MHz with Video Bandwidth = 3 MHz. Detector Mode is RMS.
- 2) In the semi-anechoic chamber, setup as illustrated above the DUT placed on the 0.8m height of Turn Table, rotated the table 45 degree each interval to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power for each degree interval. The “Read Value” is the spectrum reading of maximum power value.
- 3) The substitution antenna is substituted for DUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the Measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.
- 4) $EIRP = \text{“Read Value”} + \text{Measured substitution value} + 2.15.$

1.14.2. Test Limit

FCC: For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

ISED: The equivalent isotropically radiated power (e.i.r.p.) of all emissions, including harmonics in the band 1559-1610 MHz, shall not exceed -70 dBW/MHz for wideband emissions, and -80 dBW/kHz for discrete emissions of less than 700 Hz bandwidth.

1.14.3. GNSS (EIRP for 1599 - 1610MHz) - LTE Band 14 (788-798MHz)

EiRP in RNSS band (1.581GHz)
S/N: 022TAF1521
Channel BW: 5 MHz
Accessory: AN000414A01
Battery: PMNN4818A

Tx Power: 0.252 Watts
Modulation: QPSK

Frequency Channel: 790.5000 MHz (LTE Band 14)

Antenna Polarization	2Fc (MHz)	EIRP (dBm)	Limit (dBm)
Horizontal	1581.0000	-69.01	-40
Vertical	1581.0000	-68.97	-40

EiRP in RNSS band (1.591GHz)

S/N: 022TAF1521

Channel BW: 5 MHz

Accessory: AN000414A01

Battery: PMNN4818A

Tx Power: 0.252 Watts

Modulation: QPSK

Frequency Channel: 795.5000 MHz (LTE Band 14)

Antenna Polarization	2Fc (MHz)	EIRP (dBm)	Limit (dBm)
Horizontal	1591.0000	-69.20	-40
Vertical	1591.0000	-69.02	-40

--End of Test Report--