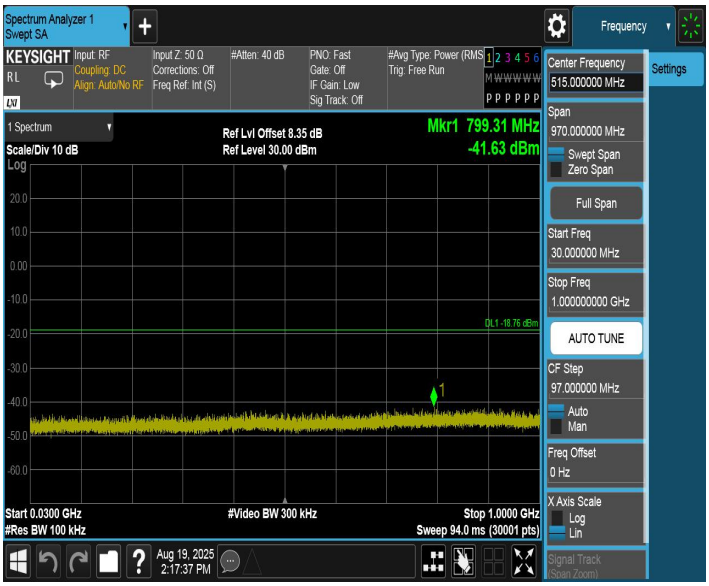
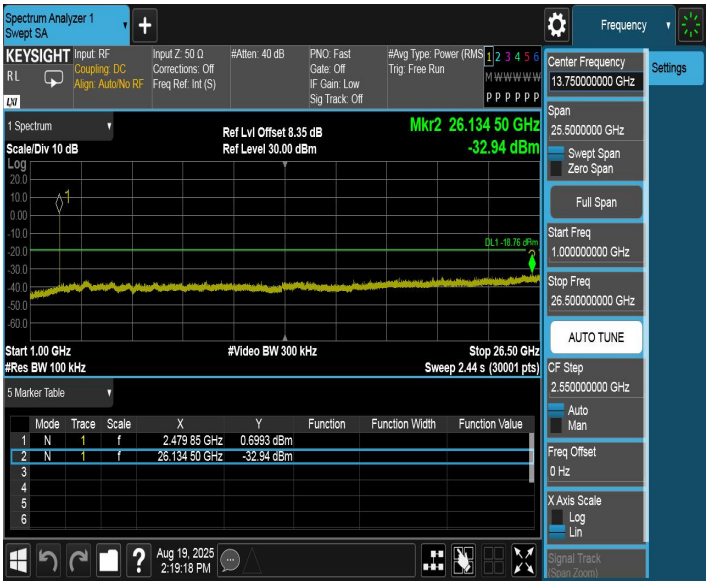
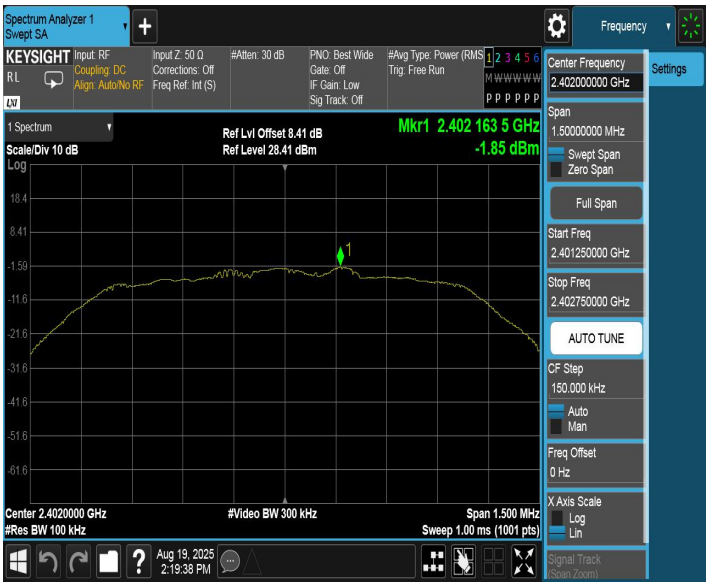

DH5_Ant1_2480_30~1000



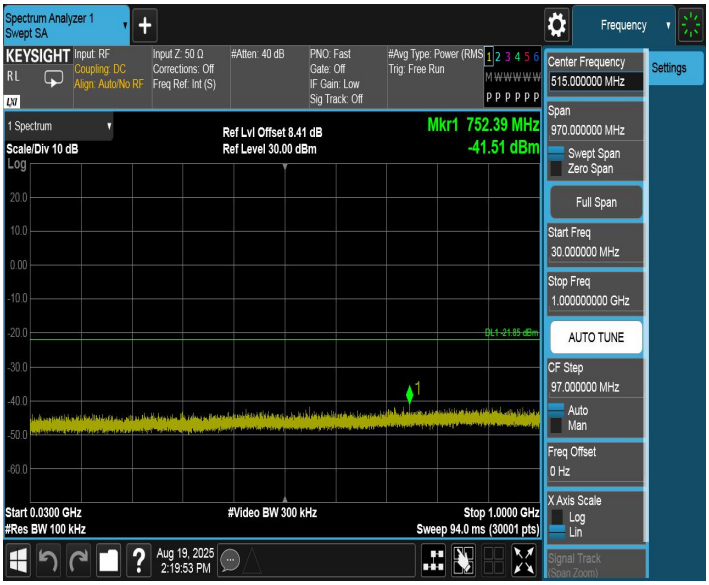

DH5_Ant1_2480_1000~26500



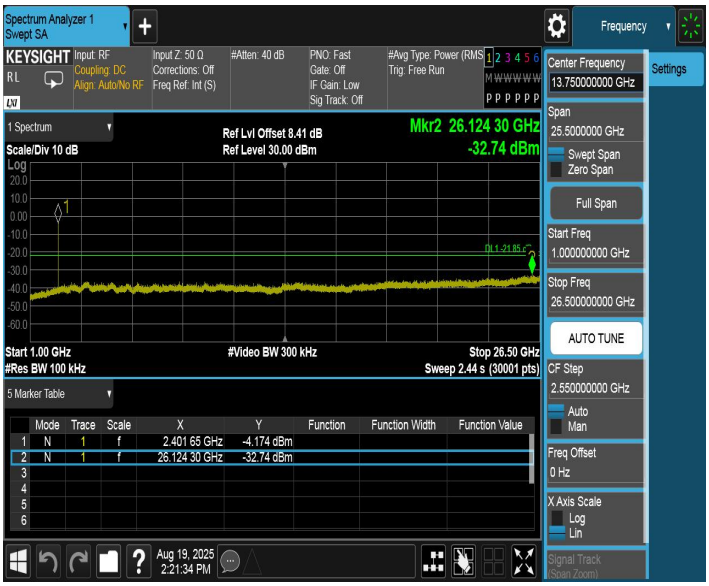

2DH5_Ant1_2402_0~Reference




2DH5_Ant1_2402_30~1000

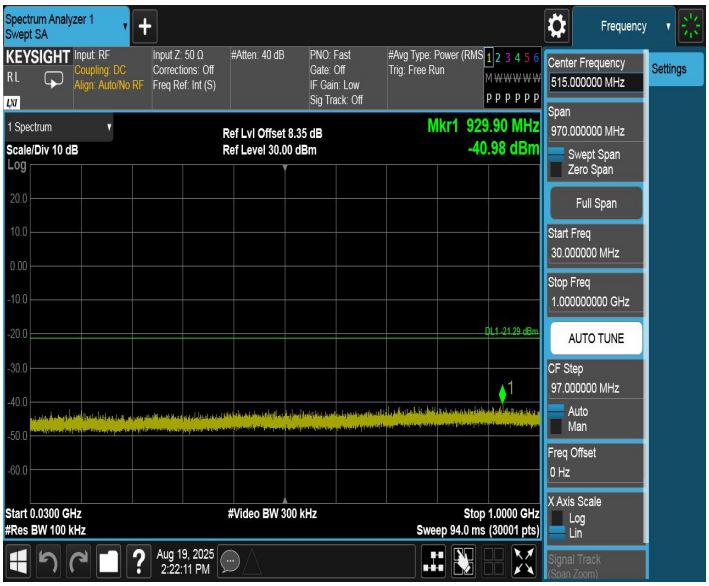



2DH5_Ant1_2402_1000~26500

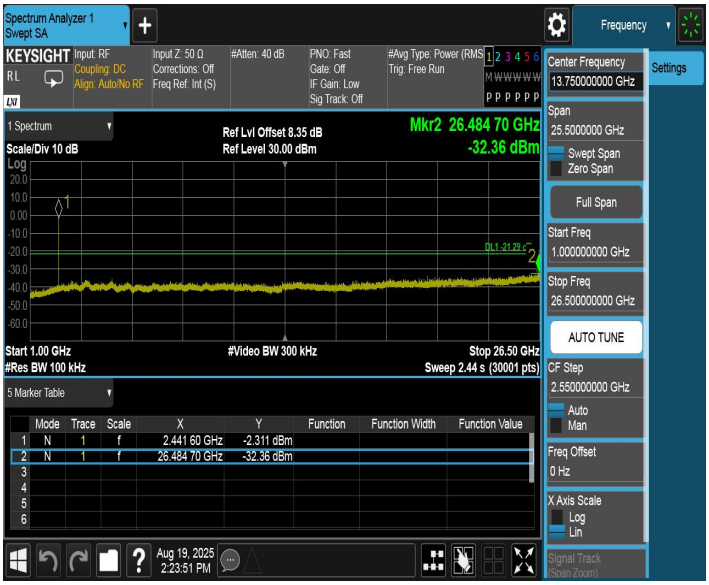



2DH5_Ant1_2441_0~Reference


2DH5_Ant1_2441_30~1000

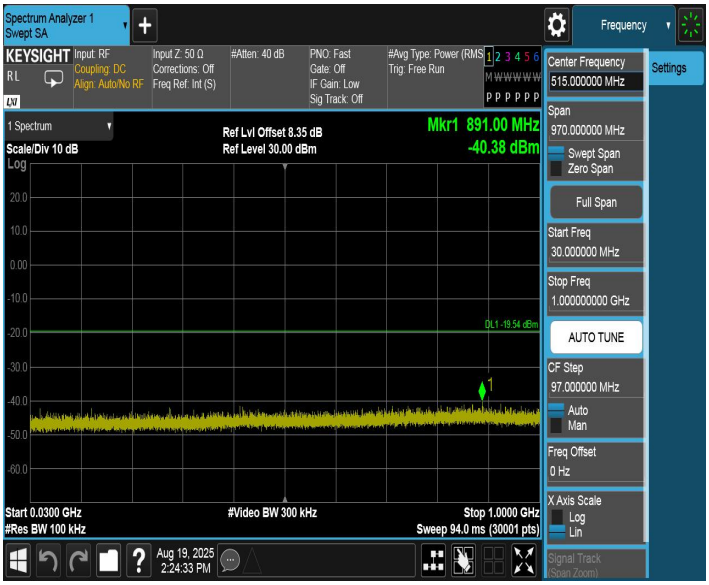



2DH5_Ant1_2441_1000~26500

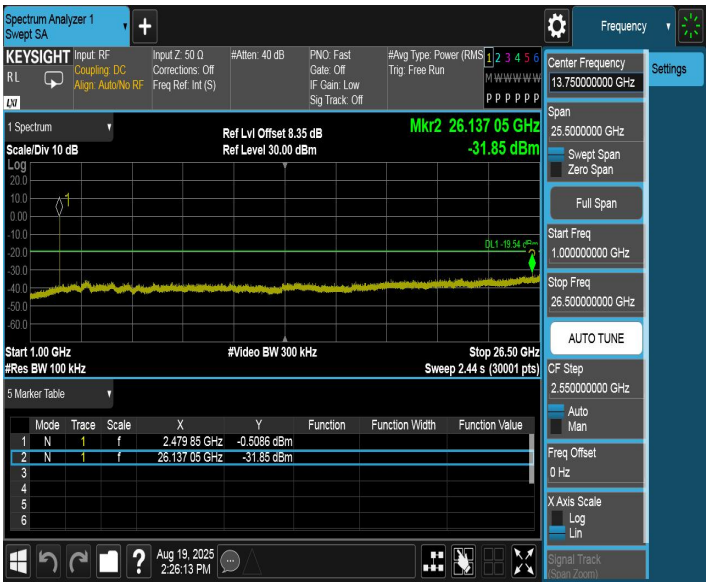



2DH5_Ant1_2480_0~Reference


2DH5_Ant1_2480_30~1000

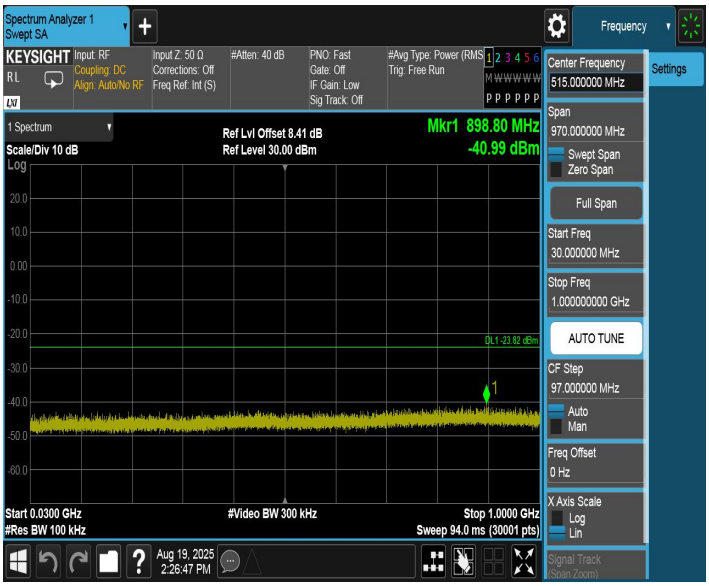



2DH5_Ant1_2480_1000~26500

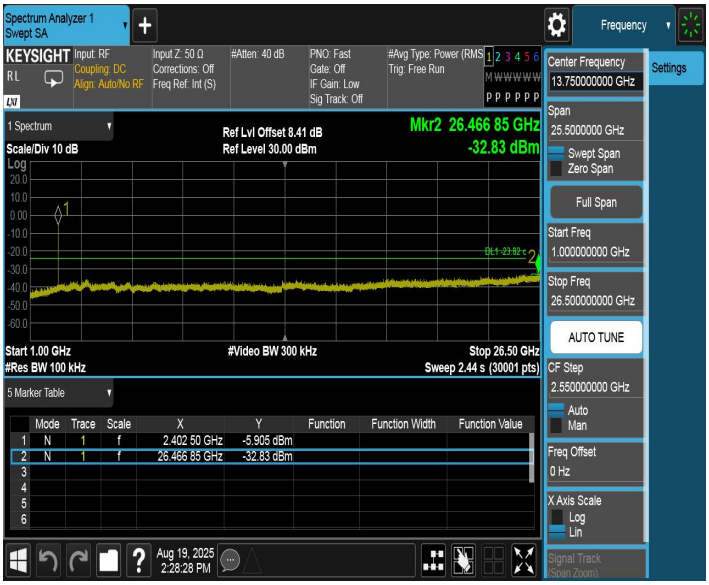



3DH5_Ant1_2402_0~Reference


3DH5_Ant1_2402_30~1000

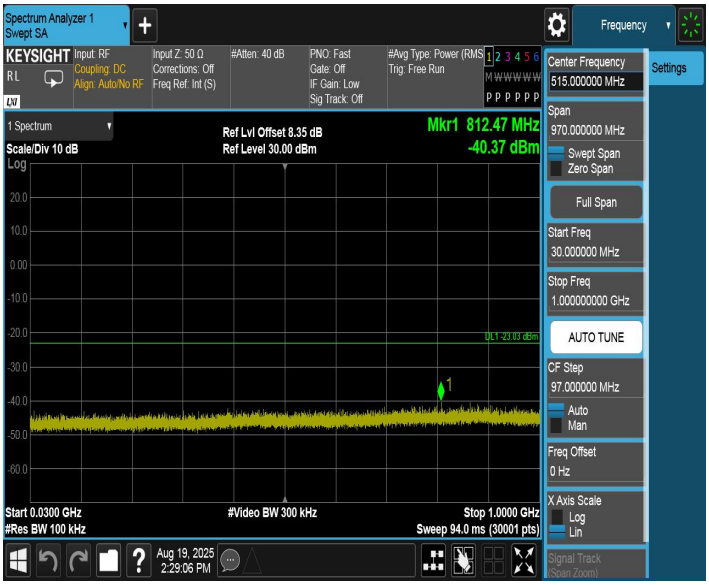



3DH5_Ant1_2402_1000~26500




3DH5_Ant1_2441_0~Reference

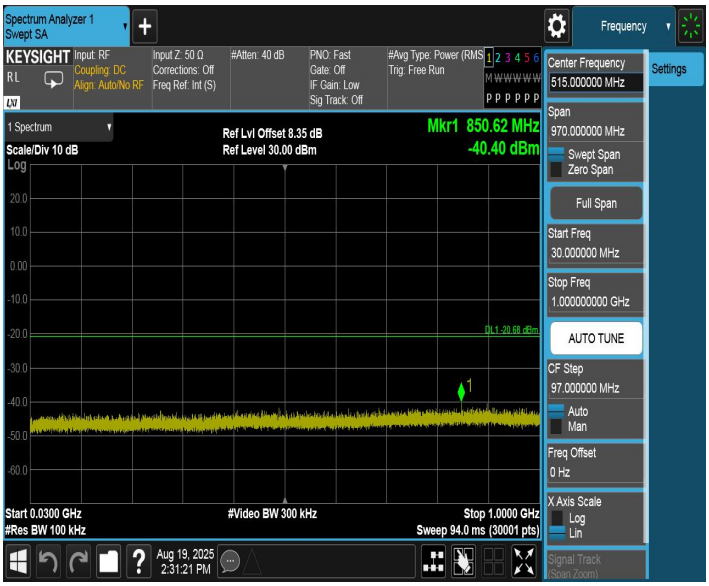

3DH5_Ant1_2441_30~1000



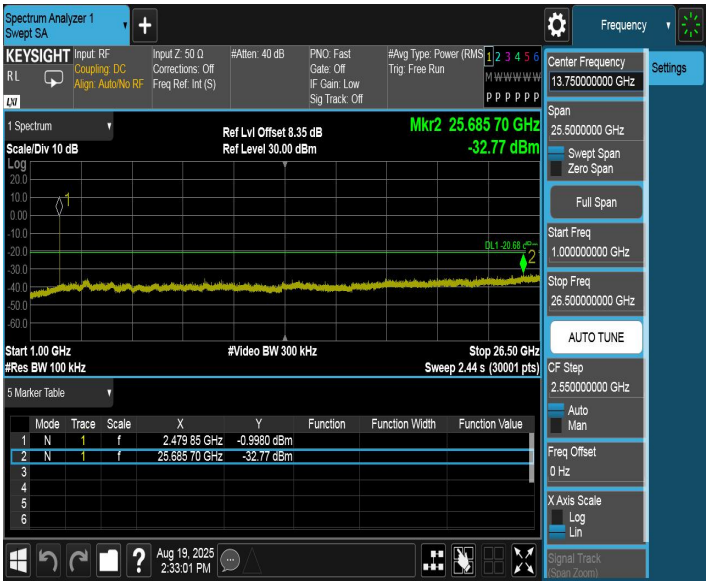

3DH5_Ant1_2441_1000~26500


3DH5_Ant1_2480_0~Reference


3DH5_Ant1_2480_30~1000




3DH5_Ant1_2480_1000~26500


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
#Atten: 40 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Trig: Free Run
Frequency
Settings
Center Frequency
13.750000000 GHz
Span
25.5000000 GHz
Swept Span
Zero Span
Full Span
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
AUTO TUNE
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
1 Spectrum
Ref Lvl Offset 8.35 dB
Ref Level 30.00 dBm
Mkr2 25.685 70 GHz
-32.77 dBm
Scale/Div 10 dB
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
DL1 -20.68
Start 1.00 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Stop 26.50 GHz
Sweep 2.44 s (30001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.479 85 GHz -0.9980 dBm
2 N 1 f 25.685 70 GHz -32.77 dBm
3
4
5
6
Aug 19, 2025
2:33:01 PM

## 7.9. Radiated Spurious Emission Measurement

### 7.9.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

| FCC Part 15 Subpart C Paragraph 15.209 | | |
|---|---|---|
| Frequency [MHz] | Field Strength [uV/m] | Measured Distance [Meters] |
| 0.009 - 0.490 | 2400/F (kHz) | 300 |
| 0.490 - 1.705 | 24000/F (kHz) | 30 |
| 1.705 - 30 | 30 | 30 |
| 30 - 88 | 100 | 3 |
| 88 - 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

### 7.9.2. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

### 7.9.3. Test Setting

**Quasi-Peak Measurements below 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

**Table 1 - RBW as a function of frequency**

| Frequency | RBW |
|---|---|
| 9 ~ 150 kHz | 200 ~ 300 Hz |
| 0.15 ~ 30 MHz | 9 ~ 10 kHz |
| 30 ~ 1000 MHz | 100 ~ 120 kHz |
| > 1000 MHz | 1 MHz |

**Peak Measurements above 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

**Average Measurements above 1GHz (Method VB)**

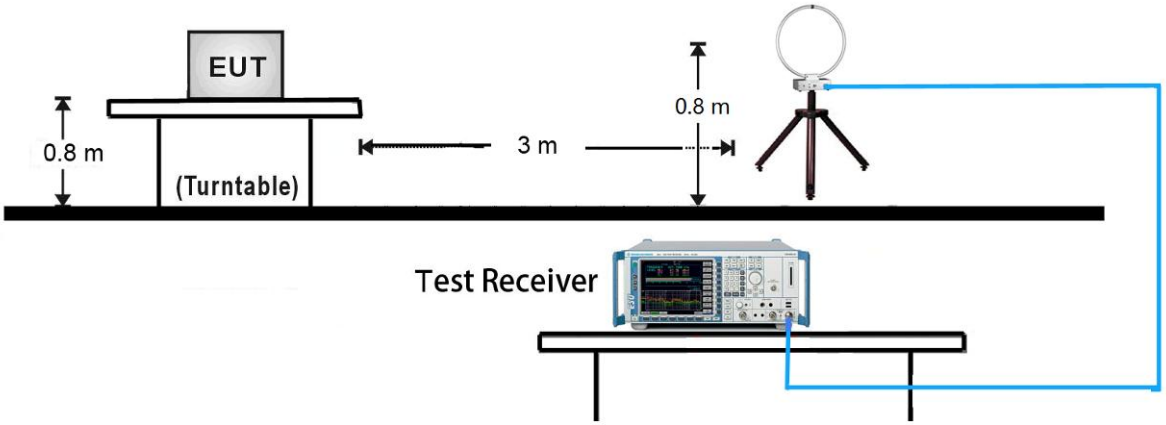
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz.
   If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto

6. Trace mode = max hold

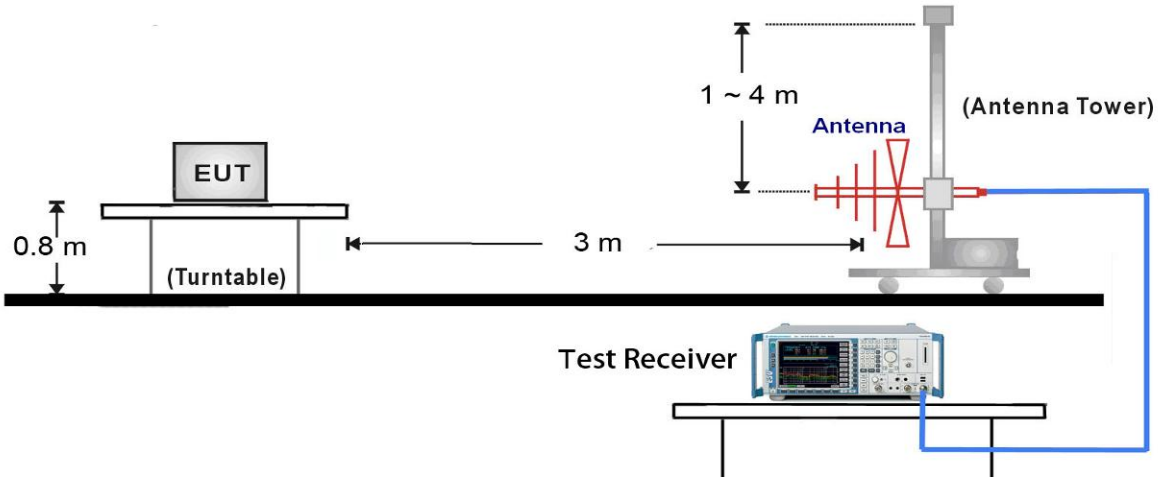
7. Trace was allowed to stabilize

### 7.9.4. Test Setup

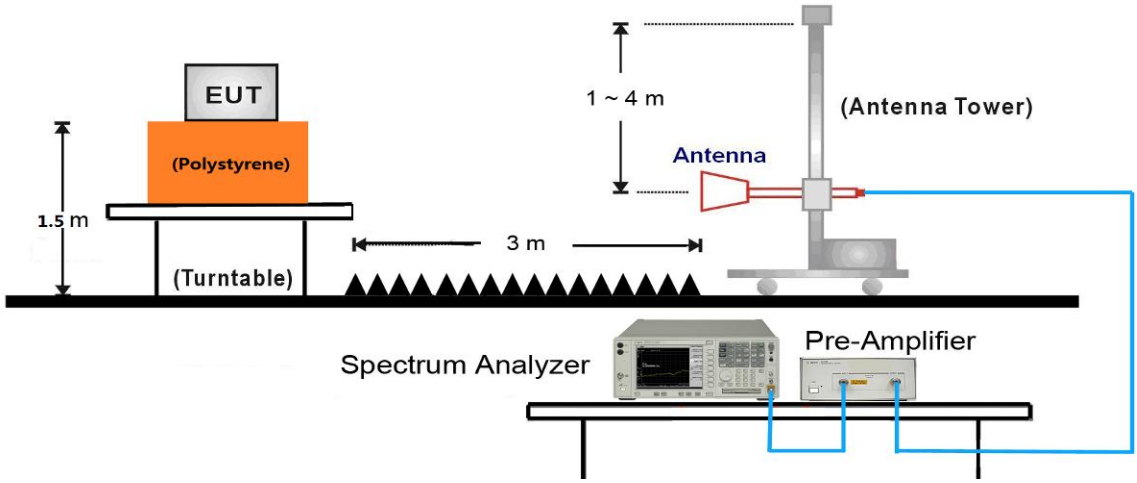
9kHz ~ 30MHz Test Setup:




30MHz ~ 1GHz Test Setup:




1GHz ~ 25GHz Test Setup:



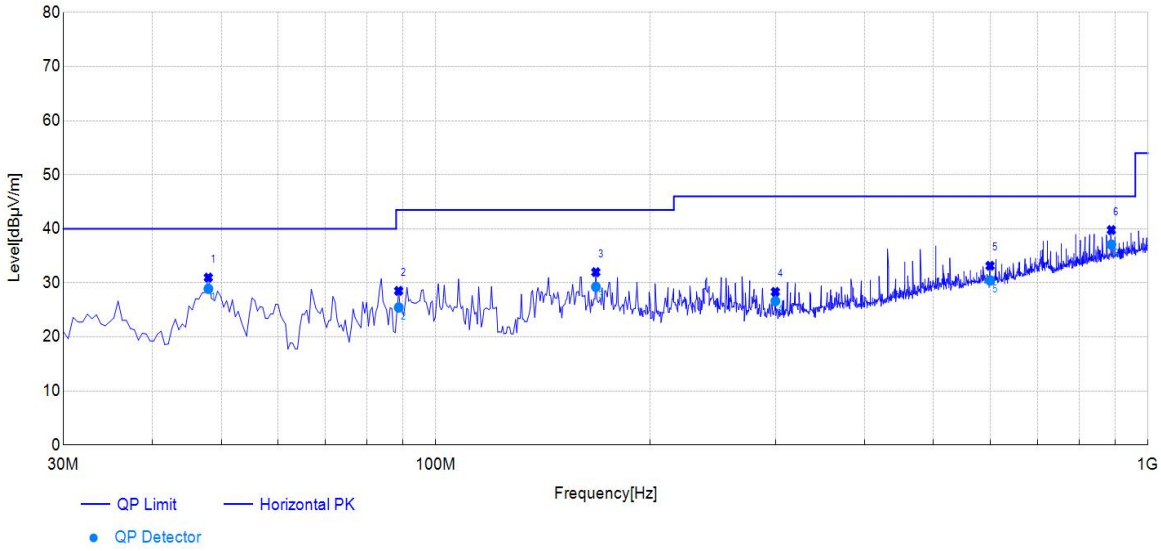
### 7.9.1. Test Result

## The worst case of Radiated Emission below 1GHz:

**30MHz – 1GHz Test Data**

| EUT: | RDS AV RECEIVER | Polarity: | Horizontal |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 00 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**

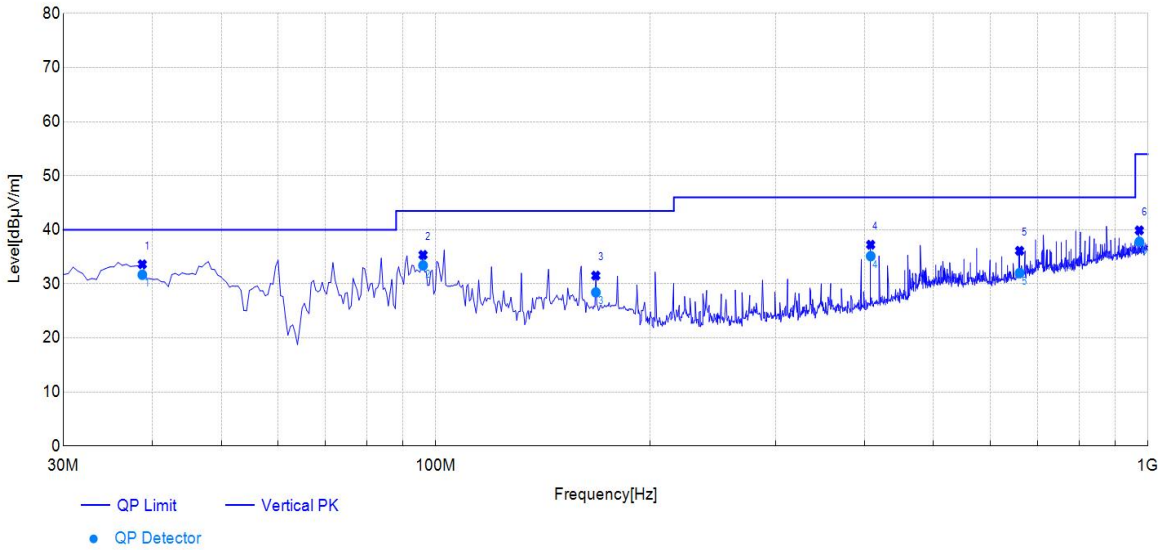



| Final Data List | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Factor [dB/m] | QP Reading [dBµV] | QP Value [dBµV/m] | QP Limit [dBµV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1 | 47.95 | 13.28 | 15.63 | 28.91 | 40.00 | 11.09 | 150 | 146 | Horizontal | PASS |
| 2 | 88.71 | 11.05 | 14.4 | 25.45 | 43.50 | 18.05 | 150 | 99 | Horizontal | PASS |
| 3 | 167.81 | 17.65 | 11.62 | 29.27 | 43.50 | 14.23 | 150 | 67 | Horizontal | PASS |
| 4 | 299.79 | 16.70 | 9.93 | 26.63 | 46.00 | 19.37 | 150 | 324 | Horizontal | PASS |
| 5 | 600.16 | 23.24 | 7.21 | 30.45 | 46.00 | 15.55 | 150 | 344 | Horizontal | PASS |
| 6 | 888.39 | 28.20 | 8.87 | 37.07 | 46.00 | 8.93 | 100 | 125 | Horizontal | PASS |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

| EUT: | RDS AV RECEIVER | Polarity: | Vertical |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 00 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**

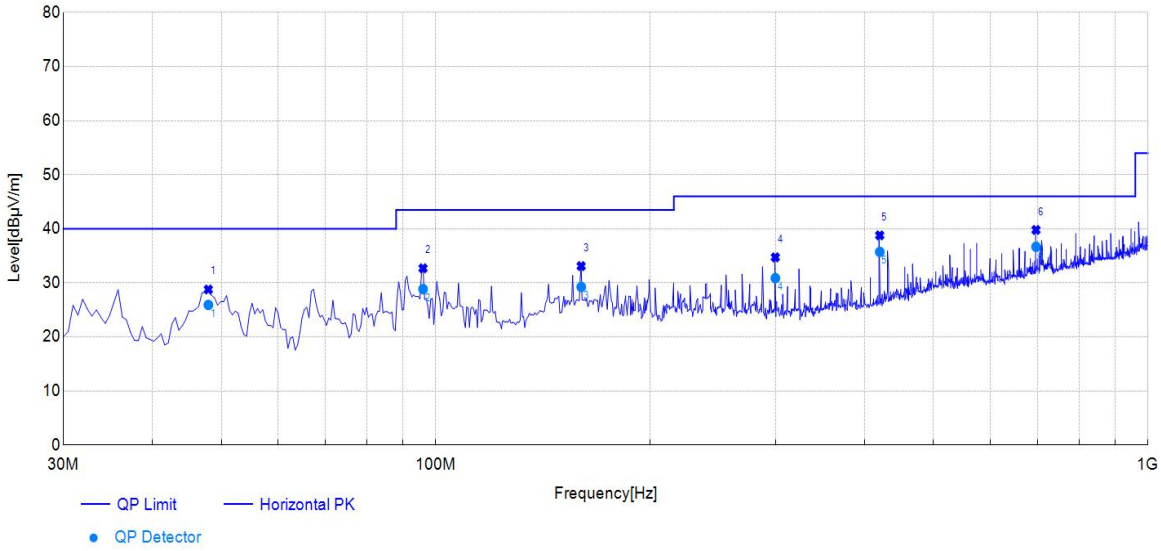



| Final Data List | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Factor [dB/m] | QP Reading [dBµV] | QP Value [dBµV/m] | QP Limit [dBµV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1 | 38.73 | 13.03 | 18.65 | 31.68 | 40.00 | 8.32 | 100 | 331 | Vertical | PASS |
| 2 | 95.99 | 11.81 | 21.61 | 33.42 | 43.50 | 10.08 | 100 | 62 | Vertical | PASS |
| 3 | 167.81 | 17.65 | 10.77 | 28.42 | 43.50 | 15.08 | 100 | 0 | Vertical | PASS |
| 4 | 408.00 | 19.39 | 15.74 | 35.13 | 46.00 | 10.87 | 100 | 62 | Vertical | PASS |
| 5 | 660.33 | 24.20 | 7.81 | 32.01 | 46.00 | 13.99 | 100 | 75 | Vertical | PASS |
| 6 | 972.34 | 28.95 | 8.84 | 37.79 | 54.00 | 16.21 | 100 | 134 | Vertical | PASS |

**30MHz – 1GHz Test Data**

| EUT: | RDS AV RECEIVER | Polarity: | Horizontal |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 39 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**

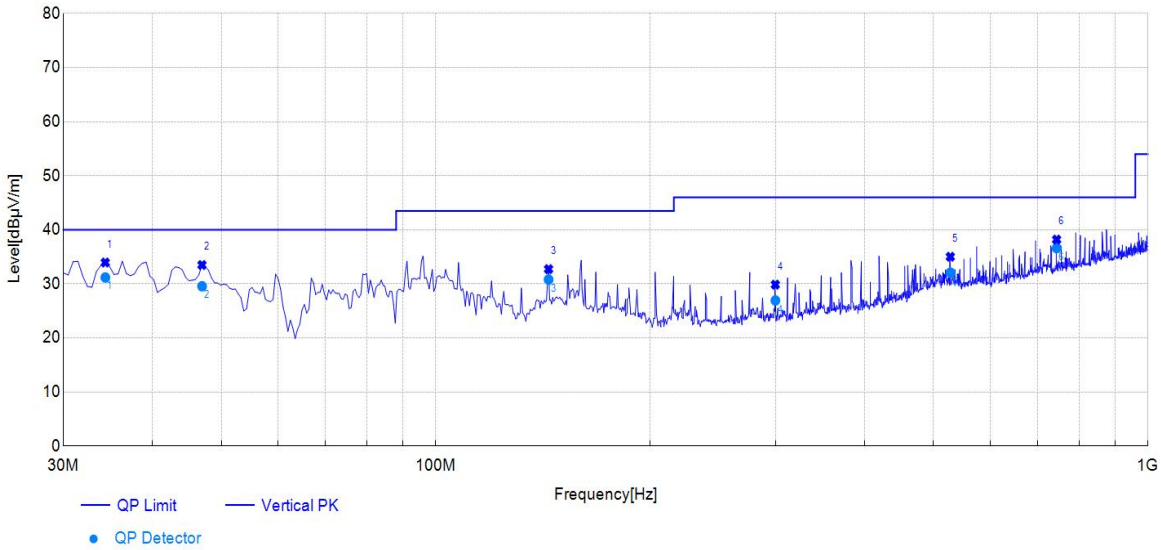



| Final Data List | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Factor [dB/m] | QP Reading [dBµV] | QP Value [dBµV/m] | QP Limit [dBµV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1 | 47.95 | 13.28 | 12.65 | 25.93 | 40.00 | 14.07 | 150 | 51 | Horizontal | PASS |
| 2 | 95.99 | 11.81 | 17.04 | 28.85 | 43.50 | 14.65 | 150 | 28 | Horizontal | PASS |
| 3 | 160.05 | 17.87 | 11.39 | 29.26 | 43.50 | 14.24 | 100 | 163 | Horizontal | PASS |
| 4 | 299.79 | 16.70 | 14.18 | 30.88 | 46.00 | 15.12 | 150 | 321 | Horizontal | PASS |
| 5 | 420.14 | 19.92 | 15.81 | 35.73 | 46.00 | 10.27 | 100 | 297 | Horizontal | PASS |
| 6 | 696.24 | 24.89 | 11.79 | 36.68 | 46.00 | 9.32 | 100 | 117 | Horizontal | PASS |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

| EUT: | RDS AV RECEIVER | Polarity: | Vertical |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 39 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**



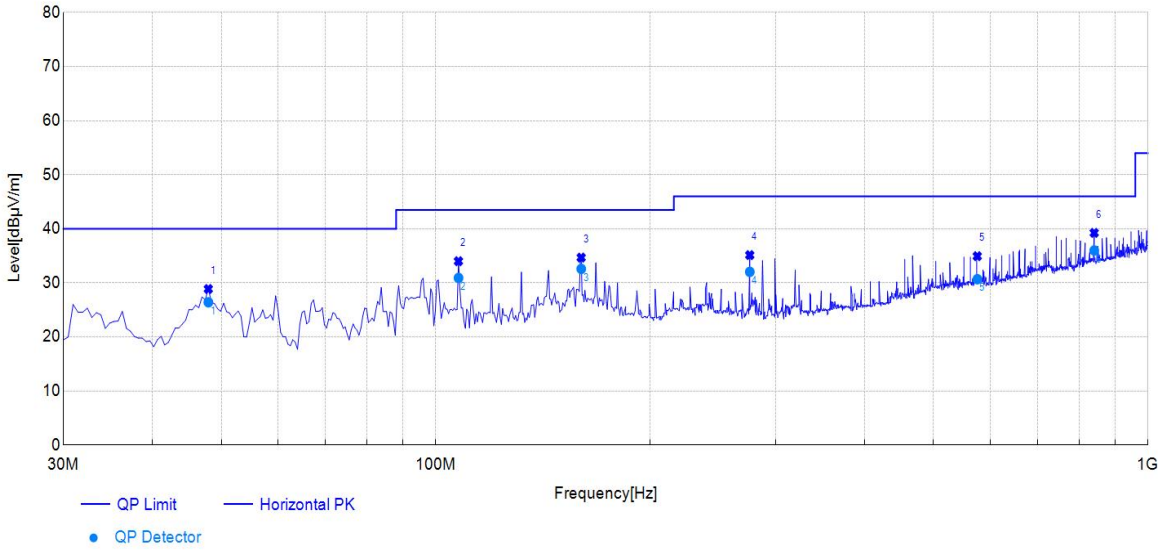

| Final Data List | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Factor [dB/m] | QP Reading [dBµV] | QP Value [dBµV/m] | QP Limit [dBµV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1 | 34.37 | 13.20 | 17.98 | 31.18 | 40.00 | 8.82 | 100 | 28 | Vertical | PASS |
| 2 | 46.98 | 13.25 | 16.31 | 29.56 | 40.00 | 10.44 | 100 | 92 | Vertical | PASS |
| 3 | 144.03 | 16.71 | 14.09 | 30.80 | 43.50 | 12.70 | 150 | 116 | Vertical | PASS |
| 4 | 299.79 | 16.70 | 10.23 | 26.93 | 46.00 | 19.07 | 150 | 56 | Vertical | PASS |
| 5 | 527.86 | 22.51 | 9.58 | 32.09 | 46.00 | 13.91 | 100 | 45 | Vertical | PASS |
| 6 | 744.28 | 25.68 | 10.93 | 36.61 | 46.00 | 9.39 | 100 | 22 | Vertical | PASS |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

**30MHz – 1GHz Test Data**

| EUT: | RDS AV RECEIVER | Polarity: | Horizontal |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 78 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**

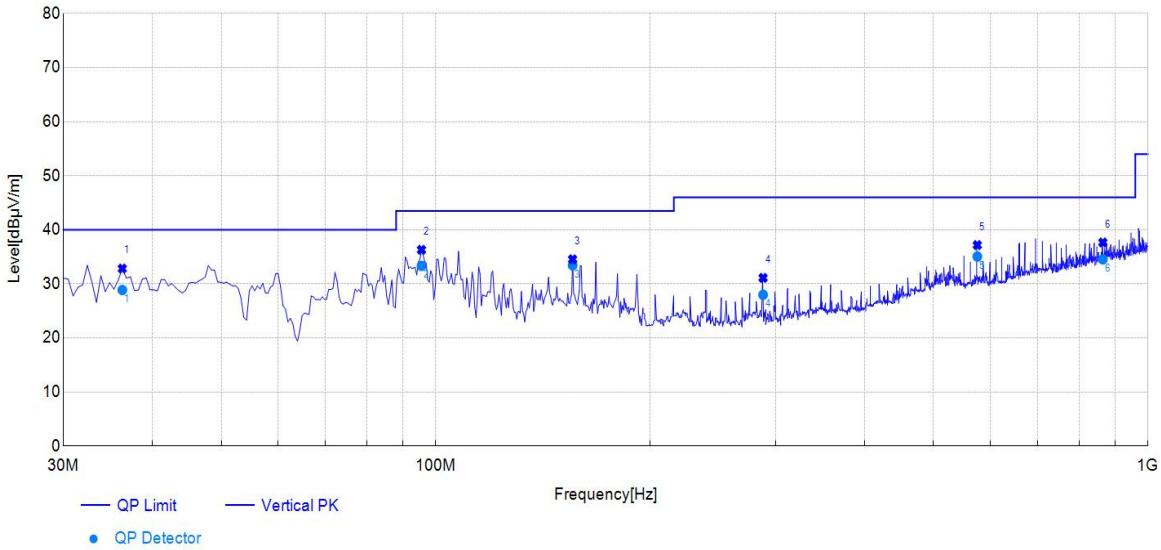



| Final Data List | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Factor [dB/m] | QP Reading [dBµV] | QP Value [dBµV/m] | QP Limit [dBµV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1 | 47.95 | 13.28 | 13.14 | 26.42 | 40.00 | 13.58 | 150 | 142 | Horizontal | PASS |
| 2 | 107.64 | 12.75 | 18.17 | 30.92 | 43.50 | 12.58 | 150 | 44 | Horizontal | PASS |
| 3 | 160.05 | 17.87 | 14.72 | 32.59 | 43.50 | 10.91 | 150 | 165 | Horizontal | PASS |
| 4 | 276.02 | 16.33 | 15.72 | 32.05 | 46.00 | 13.95 | 150 | 146 | Horizontal | PASS |
| 5 | 575.90 | 23.15 | 7.54 | 30.69 | 46.00 | 15.31 | 150 | 19 | Horizontal | PASS |
| 6 | 840.36 | 27.30 | 8.7 | 36.00 | 46.00 | 10.00 | 100 | 334 | Horizontal | PASS |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

| EUT: | RDS AV RECEIVER | Polarity: | Vertical |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 78 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**




| Final Data List | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Factor [dB/m] | QP Reading [dBµV] | QP Value [dBµV/m] | QP Limit [dBµV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1 | 36.31 | 13.13 | 15.74 | 28.87 | 40.00 | 11.13 | 150 | 186 | Vertical | PASS |
| 2 | 95.51 | 11.74 | 21.6 | 33.34 | 43.50 | 10.16 | 150 | 23 | Vertical | PASS |
| 3 | 155.68 | 17.55 | 15.88 | 33.43 | 43.50 | 10.07 | 100 | 147 | Vertical | PASS |
| 4 | 288.15 | 16.47 | 11.52 | 27.99 | 46.00 | 18.01 | 100 | 176 | Vertical | PASS |
| 5 | 575.90 | 23.15 | 11.91 | 35.06 | 46.00 | 10.94 | 100 | 147 | Vertical | PASS |
| 6 | 864.13 | 27.59 | 6.95 | 34.54 | 46.00 | 11.46 | 150 | 202 | Vertical | PASS |

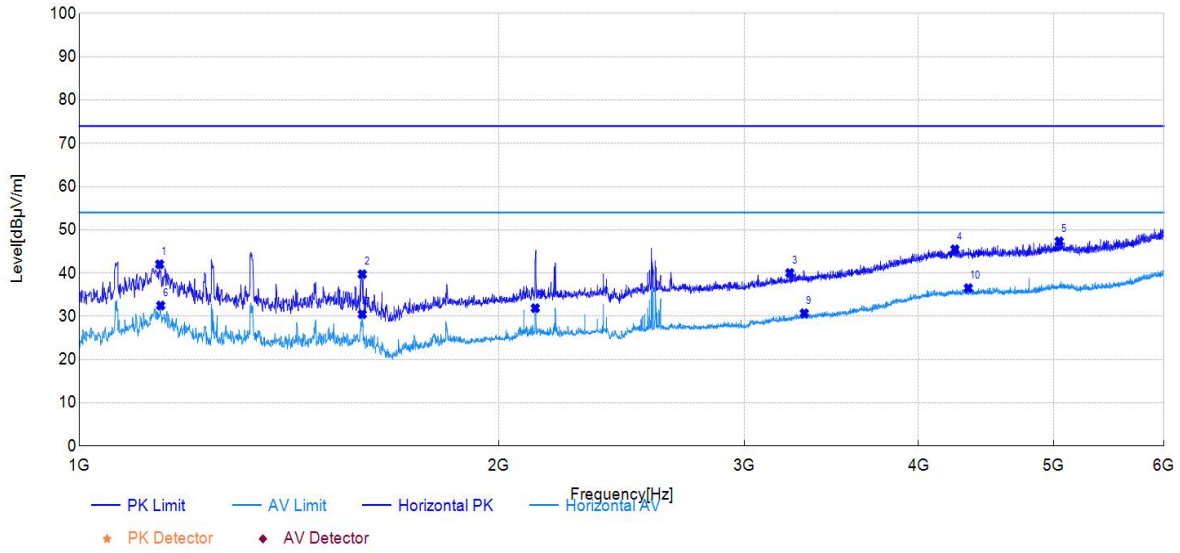
Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

## The worst case of Radiated Emission above 1GHz:

**1GHz – 6GHz Test Data**

| EUT: | RDS AV RECEIVER | Polarity: | Horizontal |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 00 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**

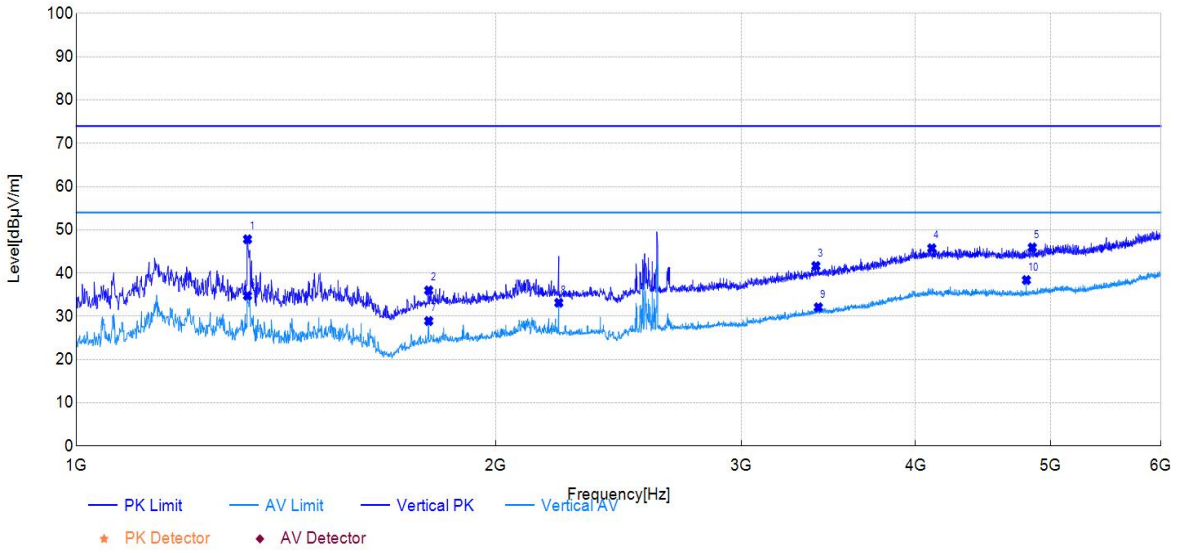



| Suspected Data List | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Reading [dBµV] | Level [dBµV/m] | Factor [dB/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Det | Polarity | Verdict |
| 1 | 1142.00 | 65.71 | 42.03 | -23.68 | 74.00 | 31.97 | 100 | 92 | PK | Horizontal | PASS |
| 2 | 1596.00 | 60.84 | 39.73 | -21.11 | 74.00 | 34.27 | 100 | 47 | PK | Horizontal | PASS |
| 3 | 3234.00 | 53.44 | 40.00 | -13.44 | 74.00 | 34.00 | 150 | 86 | PK | Horizontal | PASS |
| 4 | 4248.00 | 53.31 | 45.50 | -7.81 | 74.00 | 28.50 | 100 | 274 | PK | Horizontal | PASS |
| 5 | 5046.00 | 53.36 | 47.32 | -6.04 | 74.00 | 26.68 | 150 | 291 | PK | Horizontal | PASS |
| 6 | 1144.00 | 56.16 | 32.49 | -23.67 | 54.00 | 21.51 | 100 | 78 | AV | Horizontal | PASS |
| 7 | 1596.00 | 51.59 | 30.48 | -21.11 | 54.00 | 23.52 | 100 | 47 | AV | Horizontal | PASS |
| 8 | 2124.00 | 49.42 | 31.88 | -17.54 | 54.00 | 22.12 | 100 | 100 | AV | Horizontal | PASS |
| 9 | 3312.00 | 43.77 | 30.69 | -13.08 | 54.00 | 23.31 | 150 | 51 | AV | Horizontal | PASS |
| 10 | 4343.00 | 44.08 | 36.51 | -7.57 | 54.00 | 17.49 | 100 | 195 | AV | Horizontal | PASS |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

| EUT: | RDS AV RECEIVER | Polarity: | Vertical |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 00 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**



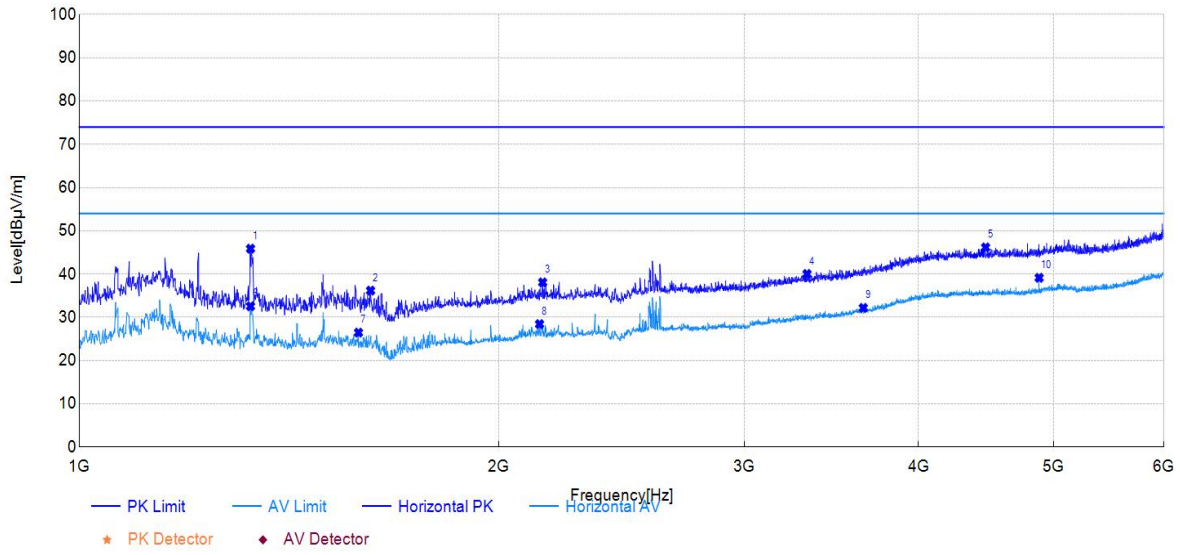

| Suspected Data List | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Reading [dBµV] | Level [dBµV/m] | Factor [dB/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Det | Polarity | Verdict |
| 1 | 1327.00 | 69.61 | 47.81 | -21.80 | 74.00 | 26.19 | 100 | 119 | PK | Vertical | PASS |
| 2 | 1790.00 | 54.99 | 35.99 | -19.00 | 74.00 | 38.01 | 100 | 163 | PK | Vertical | PASS |
| 3 | 3393.00 | 53.77 | 41.63 | -12.14 | 74.00 | 32.37 | 100 | 70 | PK | Vertical | PASS |
| 4 | 4109.00 | 53.65 | 45.74 | -7.91 | 74.00 | 28.26 | 150 | 100 | PK | Vertical | PASS |
| 5 | 4851.00 | 53.14 | 45.92 | -7.22 | 74.00 | 28.08 | 100 | 345 | PK | Vertical | PASS |
| 6 | 1327.00 | 56.56 | 34.76 | -21.80 | 54.00 | 19.24 | 100 | 116 | AV | Vertical | PASS |
| 7 | 1790.00 | 47.91 | 28.91 | -19.00 | 54.00 | 25.09 | 100 | 163 | AV | Vertical | PASS |
| 8 | 2219.00 | 50.17 | 33.12 | -17.05 | 54.00 | 20.88 | 100 | 63 | AV | Vertical | PASS |
| 9 | 3407.00 | 44.15 | 32.09 | -12.06 | 54.00 | 21.91 | 100 | 82 | AV | Vertical | PASS |
| 10 | 4804.00 | 45.70 | 38.38 | -7.32 | 54.00 | 15.62 | 100 | 286 | AV | Vertical | PASS |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

**1GHz – 6GHz Test Data**

| EUT: | RDS AV RECEIVER | Polarity: | Horizontal |
|---|---|---|---|
| Model: | DMH-470EX | Test Engineer: | Chuang Li |
| Mode: | Transmit at DH5 Channel 39 | Voltage: | DC 14.4V |
| Environment: | Temp: 22.1℃; Humi: 55% | Test Date: | 2025-09-05 |

**Test Graph**




| Suspected Data List | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Frequency [MHz] | Reading [dBµV] | Level [dBµV/m] | Factor [dB/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Det | Polarity | Verdict |
| 1 | 1327.00 | 68.58 | 45.87 | -22.71 | 74.00 | 28.13 | 100 | 9 | PK | Horizontal | PASS |
| 2 | 1618.00 | 57.12 | 36.17 | -20.95 | 74.00 | 37.83 | 100 | 96 | PK | Horizontal | PASS |
| 3 | 2150.00 | 55.50 | 38.07 | -17.43 | 74.00 | 35.93 | 100 | 92 | PK | Horizontal | PASS |
| 4 | 3327.00 | 53.05 | 40.02 | -13.03 | 74.00 | 33.98 | 150 | 22 | PK | Horizontal | PASS |
| 5 | 4469.00 | 53.51 | 46.16 | -7.35 | 74.00 | 27.84 | 100 | 226 | PK | Horizontal | PASS |
| 6 | 1327.00 | 55.27 | 32.56 | -22.71 | 54.00 | 21.44 | 100 | 39 | AV | Horizontal | PASS |
| 7 | 1586.00 | 47.64 | 26.46 | -21.18 | 54.00 | 27.54 | 150 | 51 | AV | Horizontal | PASS |
| 8 | 2139.00 | 45.90 | 28.42 | -17.48 | 54.00 | 25.58 | 100 | 80 | AV | Horizontal | PASS |
| 9 | 3651.00 | 43.44 | 32.17 | -11.27 | 54.00 | 21.83 | 100 | 185 | AV | Horizontal | PASS |
| 10 | 4882.00 | 45.70 | 39.14 | -6.56 | 54.00 | 14.86 | 150 | 315 | AV | Horizontal | PASS |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.