4.5.3. TEST PROCEDURE

4.1.3.1 Sequence of testing radiated spurious 9 KHz to 30 MHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer
- If the EUT is a tabletop system, 1.5 m height is used.
- If the EUT is a floor standing device, it is placed directly on the turn table.
- The EUT's RF port were terminated by the 50 ohm load.
- The EUT was testing using both modulations and at the low, middle and high channels if supported.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measuremet distance is 3m (see ANSI C63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0 degree to 360 degree.
- The antenna height is 1m.
- Set RBW = 200 Hz / VBW = 1 KHz, sweep time: Auto
- At each turntable position the anzlyer sweeps with position-peak detector to find the maximum of all emissions.

Final measurement

- Identified emissions during the premeaurement are maximized by the software by rotating the turntable from 0 degree to 360 degree.
- The final measurement is done in the position (turntable and elevation) causing the highest emissions with quasi-peak (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, conrrection factor, margin to the limit and limit will be recorded. A plot with the graph of the measurement and the limit is stored.

4.1.3.2 Sequence of testing radiated spurious 30 MHz to 1 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer
- If the EUT is a tabletop system, 0.8 m height is used, which is placed on the ground plance.
- If the EUT is a floor standing device, it is placed directly on the ground plane.
- The EUT's RF port were terminated by the 50 ohm load.
- The EUT was testing using both modulations and at the low, middle and high channels if supported.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measuremet distance is 3m (see ANSI C63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0 degree to 360 degree.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1m to 4m.
- Set RBW = 120 KHz / VBW = 1 MHz, sweep time: Auto
- At each turntable position the anzlyer sweeps with position-peak detector to find the maximum of all emissions.

Final measurement

- The final neasurement is perormed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximize the peaks by changing turntable and antenna height between 1 and 4 m.
- The final measurement is done with quasi-peak detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, conrrection factor, margin to the limit and limit will be recorded. A plot with the graph of the measurement and the limit is stored.

4.1.3.3 Sequence of testing radiated spurious 1 GHz to 18 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer
- If the EUT is a tabletop system, 1.5 m height is used.
- If the EUT is a floor standing device, it is placed directly on the turntable.
- The EUT's RF port were terminated by the 50 ohm load.
- The EUT was testing using both modulations and at the low, middle and high channels if supported.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measuremet distance is 3m (see ANSI C63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0 degree to 360 degree.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1m to 4m.
- Set RBW = 1 MHz / VBW = 3 MHz, sweep time: Auto, detector: Peak for Peak, RBW = 1 MHz / VBW = 3 MHz, sweep time: Auto, detector: Average for Average.
- At each turntable position the anzlyer sweeps with position-peak detector to find the maximum of all emissions.

Final measurement

- The final neasurement us perormed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximize the peaks by changing turntable and antenna height between 1 and 4 m.
- The final measurement is done in the position (turntable, EUT-table and antenna polarization) causing the height emissions with Peak and Average detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, conrrection factor, margin to the limit and limit will be recorded. A plot with the graph of the measurement and the limit is stored.

4.1.3.4 Sequence of testing radiated spurious 18 GHz – 42 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer
- If the EUT is a tabletop system, 1.5 m height is used.
- If the EUT is a floor standing device, it is placed directly on the turntable.
- The EUT's RF port were terminated by the 50 ohm load.
- The EUT was testing using both modulations and at the low, middle and high channels if supported.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measuremet distance is 1m (see ANSI C63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0 degree to 360 degree.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1m to 4m.
- Set RBW = 1 MHz / VBW = 3 MHz, sweep time: Auto, detector: Peak for Peak, RBW = 1 MHz / VBW = 3 MHz, sweep time: Auto, detector: Average for Average.
- At each turntable position the anzlyer sweeps with position-peak detector to find the maximum of all emissions.

Final measurement

- The final neasurement is perormed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximize the peaks by changing turntable and antenna height between 1 and 4 m.

- The final measurement is done in the position (turntable, EUT-table and antenna polarization) causing the height emissions with Peak and RMS detector (as described in ANSI C 63.4).
- All final levels should consider distance conversion factor as format: Final values (3 m) = Measurement values (1 m) + Distance conversion factor
  Distance conversion factor = 20 x Log_{10} (d/3), where d = measurement distance in m
  - Distance conversion factor = 20 x Log_{10} (1/3) = -9.54 [dB]
- Final levels, frequency, measuring time, bandwidth, turntable position, conrrection factor, margin to the limit and limit will be recorded. A plot with the graph of the measurement and the limit is stored.

4.1.3.5 Sequence of testing radiated spurious above 42 GHz with external mixers

Setup
- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer
- If the EUT is a tabletop system, 1.5 m height is used.
- If the EUT is a floor standing device, it is placed directly on the turntable.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measuremet distance is 1m (see ANSI C63.4) – see test details.
- EUT is set into operation.

Premeasurement
- The turntable rotates from 0 degree to 360 degree.
- The antenna with external mixer is polarized vertical and horizontal.
- The antenna height changes from 1m to 4m.
- Set RBW = 1 MHz / VBW = 3 MHz, sweep time: Auto, detector: Peak for Peak, RBW = 1 MHz / VBW = 3 MHz, sweep time: Auto, detector: Average for Average.
- At each turntable position the anzlyer sweeps with position-peak detector to find the maximum of all emissions.

Final measurement
- The final neasurement is perormed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximize the peaks by changing turntable and antenna height between 1 and 4 m.
- The final measurement is done in the position (turntable, EUT-table and antenna polarization) causing the height emissions with Peak and RMS detector (as described in ANSI C 63.4).
- All final levels should consider distance conversion factor as format: Final values (3 m) = Measurement values (1 m) + Distance conversion factor
  Distance conversion factor = 20 x Log_{10} (d/3), where d = measurement distance in m
  - Distance conversion factor = 20 x Log_{10} (1/3) = -9.54 [dB]
- Final levels, frequency, measuring time, bandwidth, turntable position, conrrection factor, margin to the limit and limit will be recorded. A plot with the graph of the measurement and the limit is stored.

4.5.4. FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS (dBuV/m) = RA (dBuV) + AF (dB/m) + CL (dB) – AG (dB)

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

4.5.5. TEST RESULTS

EIRP measurements were ensured to be taken in the Far-Field test distance are shown in Section 2.15.
According to ANSI C63.26-2015 Clause 5.2.5.5 Determining ERP and/or EIRP from conducted RF output power measurements;
In many cases, RF output power limits are specified in terms of the ERP or the EIRP. Typically, ERP is specified when the operating frequency is less than or equal to 1 GHz and EIRP is specified when the operating frequency is greater than 1 GHz. Both are defined as the product of the power supplied to the antenna and its gain (relative to a dipole antenna in the case of ERP, and relative to an isotropic antenna in

the case of EIRP); however, when working in decibels (i.e., logarithmic scale), the ERP and EIRP represent the sum of the transmit antenna gain (in dBd or dBi, respectively) and the conducted RF output power (expressed in dB relative to watts or milliwatts).
The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:
ERP or EIRP = $P_{meas} + G_T$
Where
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas} , e.g., dBm or dBW)
P_{mea} measured transmitter output power or PSD, in dBm or dBW
G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)
For devices utilizing multiple antennas, see 6.4 for guidance with respect to determining the effective array transmit antenna gain term to be used in the above equation.
The following equations demonstrate the mathematical relationship between ERP and EIRP:

a) ERP = EIRP -2.15, where ERP and EIRP are expressed in consistent units.
b) EIRP = ERP + 2.15, where ERP and EIRP are expressed in consistent units.

According to ANSI C63.26-2015 Clause 5.2.7 Radiated power measurements;
When performing radiated measurements, it is sometimes more convenient to perform a field strength measurement and then mathematically convert the measured field strength level to an equivalent power level for comparison to the applicable limit. Alternatively, power limit values can be mathematically converted to an equivalent field strength limit; however some regulatory agencies discourage this practice, preferring instead that the measured power levels be compared to the actual limit numerical values and units as shown in the applicable regulation. The following relationships can be used to facilitate using such radiated measurement data to demonstrate compliance to the relevant conducted output power limits:

a) E (dBμV/m) = Measured amplitude level (dBμV) + Cable Loss (dB) + Antenna Factor (dB/m)
b) E (dBμV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m).
c) E (dBμV/m) = EIRP (dBm) − 20log(D) + 104.8; where D is the measurement distance (in the far field region) in m.
d) EIRP (dBm) = E (dBμV/m) + 20log(D) − 104.8; where D is the measurement distance (in the far field region) in m.

SAMPLE CALCULATIONS

Calculating Field Strength from substitution power:

$$\mathbf{E(dBuV/m) = 126.8 - 20\log(\lambda) + P - G}$$

Where;
E is the field strength of the emission at the measurement distance, in dBuV/m
P is the power measured at the output of the test antenna, in dBm; where P includes all applicable instrument correction factors up to the connections to the test antenna.
λ is the wavelength of the emission under investigation [300 / f_{MHz}], in m.
G is the gain of the test antenna, in dBi.

Calculating EIRP from Field Strength;

$$\mathbf{EIRP_{[dBm]} = E_{measurement} + 20\log(D_{measured}) - 104.8}$$

Where;
EIRP is the equivalent isotropic radiated power in dBm
$E_{measured}$ is the field strength of the emission at the measurement distance, in dBuV/m
$D_{measured}$ is the measurement distance in meters.

According to §25.202(f) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 250 percent of the authorized bandwidth: An amount equal to 43 dB plus 10 times the logarithm (to the base 10) (-13 dBm) of the transmitter power in watts;

-13.00 dBm (3m) = E (dBuV/m, 3m) + 20 log 10 (3) - 104.8 => E (dBuV/m, 3) = 82.26 dBuV/m (3m)

Table 8: Field Strength of Spurious Radiation

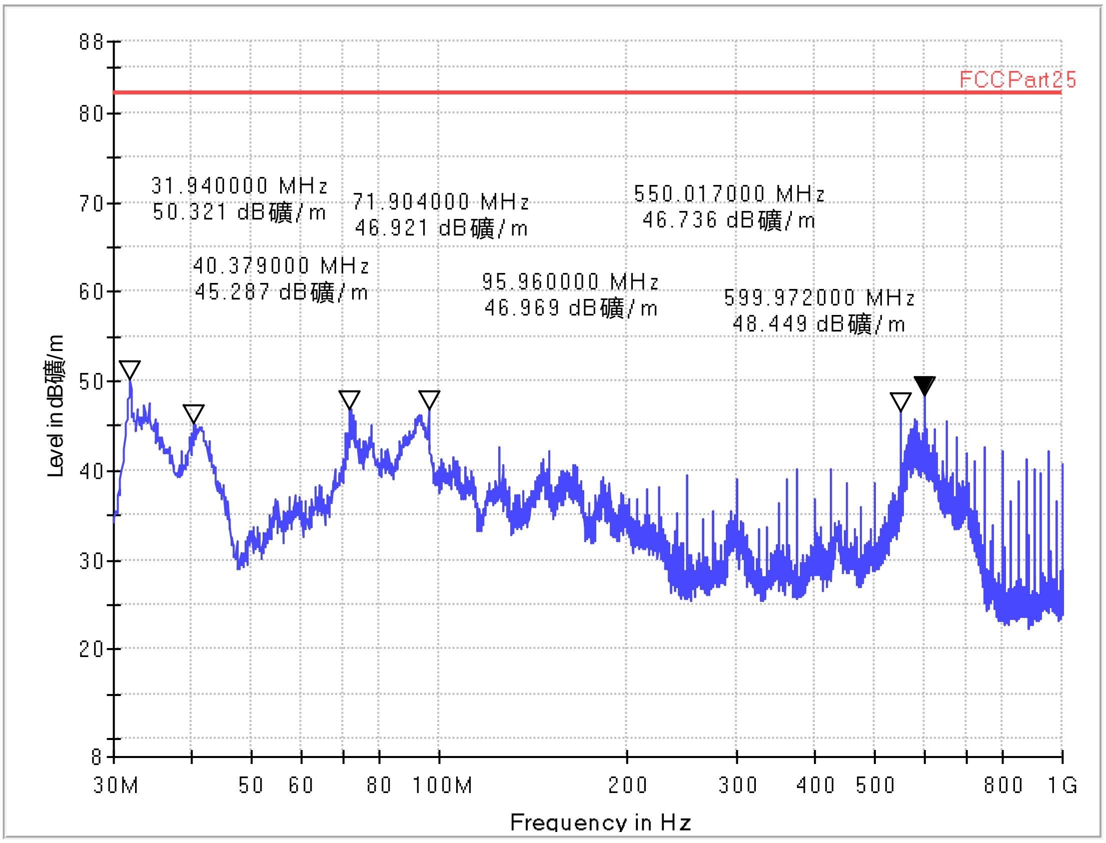
Modulation	Carrier	Frequency [GHz]	Frequency Range	Polarization	Conducted Measurement Results	Limits	Results
QPSK	Single	14.0525	9 KHz – 30 GHz	0/90	See Note 2	See Note 2	PASS
			30 MHz – 1 GHz	V/H	See Plots 28	See Plots 28	PASS
			1 GHz – 18 GHz	V/H	See Plots 29	See Plots 29	PASS
			18 GHz -26.5 GHz	V/H	See Plots 30	See Plots 30	PASS
			26.5 GHz – 40 GHz	V/H	See Plots 31	See Plots 31	PASS
			40 GHz – 60 GHz	V/H	See Plots 32	See Plots 32	PASS
			60 GHz – 75 GHz	V/H	See Note 2	See Note 2	PASS
8PSK	Single	14.0525	9 KHz – 30 GHz	0/90	See Plots	See Plots	PASS
			30 MHz – 1 GHz	V/H	See Plots 33	See Plots 33	PASS
			1 GHz – 18 GHz	V/H	See Plots 34	See Plots 34	PASS
			18 GHz -26.5 GHz	V/H	See Plots 35	See Plots 35	PASS
			26.5 GHz – 40 GHz	V/H	See Plots 36	See Plots 36	PASS
			40 GHz – 60 GHz	V/H	See Plots 37	See Plots 37	PASS
			60 GHz – 75 GHz	V/H	See Plots 38	See Plots 38	PASS
16QAM	Single	14.0525	9 KHz – 30 GHz	0/90	See Plots	See Plots	PASS
			30 MHz – 1 GHz	V/H	See Plots 39	See Plots 39	PASS
			1 GHz – 18 GHz	V/H	See Plots 40	See Plots 40	PASS
			18 GHz -26.5 GHz	V/H	See Plots 41	See Plots 41	PASS
			26.5 GHz – 40 GHz	V/H	See Plots 42	See Plots 42	PASS
			40 GHz – 60 GHz	V/H	See Plots 43	See Plots 43	PASS
			60 GHz – 75 GHz	V/H	See Plots 44	See Plots 44	PASS

Note 1: The peak detector was used with the appropriate measurement bandwidth (RBW) as following table; for final measurements, any emissions found in the preliminary measurements were further examined by using the RMS detector with RBW = 3 kHz and corrected to the reference bandwidth of 4 kHz.

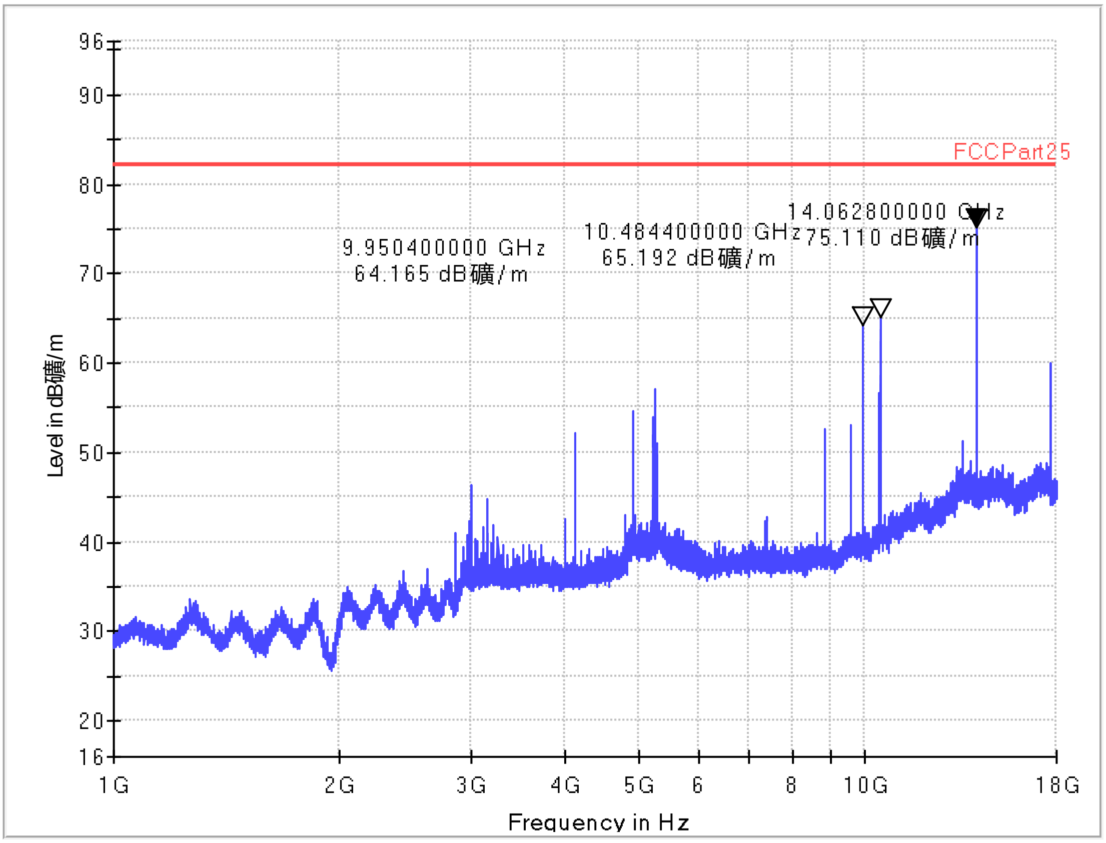
Frequency Range	RBW
9 KHz – 150 KHz	1 KHz
150 KHz – 30 MHz	10 KHz
150 MHz – 1 GHz	100 KHz
1 GHz – 40 GHz	1 MHz
40 GHz – 60 GHz	1 MHz
60 GHz – 75 GHz	1 MHz

Note 2: Not recorded values after pre-test below 30 MHz (9 KHz – 30 MHz), values at least 20 dB below limit.
Note 3: V/H: Vertical / Horizontal Polarization
Note 4: EIRP = FS +20log(D) – 104.8; i.e. EIRP (-13 dBm, 3m) is corresponding to FS (82.26 dBuV/m, 3m)
Note 5: Not records values if test plots margin at least 20 dB
Note 6: The EUT’s RF port were terminated by the 50 ohm load
Note 7: The measure EIRP in the following plots were obtained from preliminary measurement (peak data) by using the peak detector with RBW in above table. The final measurement (RMS detector with RBW 3kHz, and adding the bandwidth correction factor) were not performed because the emissions were very low againt the limit.

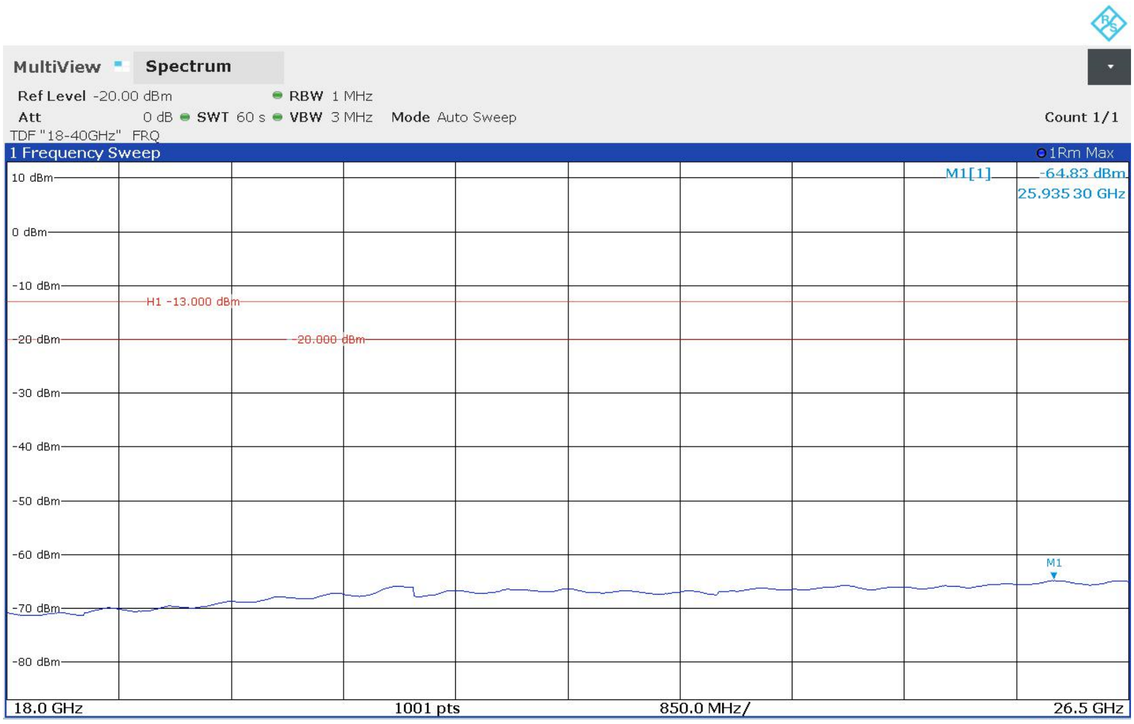
Plots No. 28: Radiated Emission, 30 MHz to 1 GHz, Horizontal / Vertical Polarization, QPSK



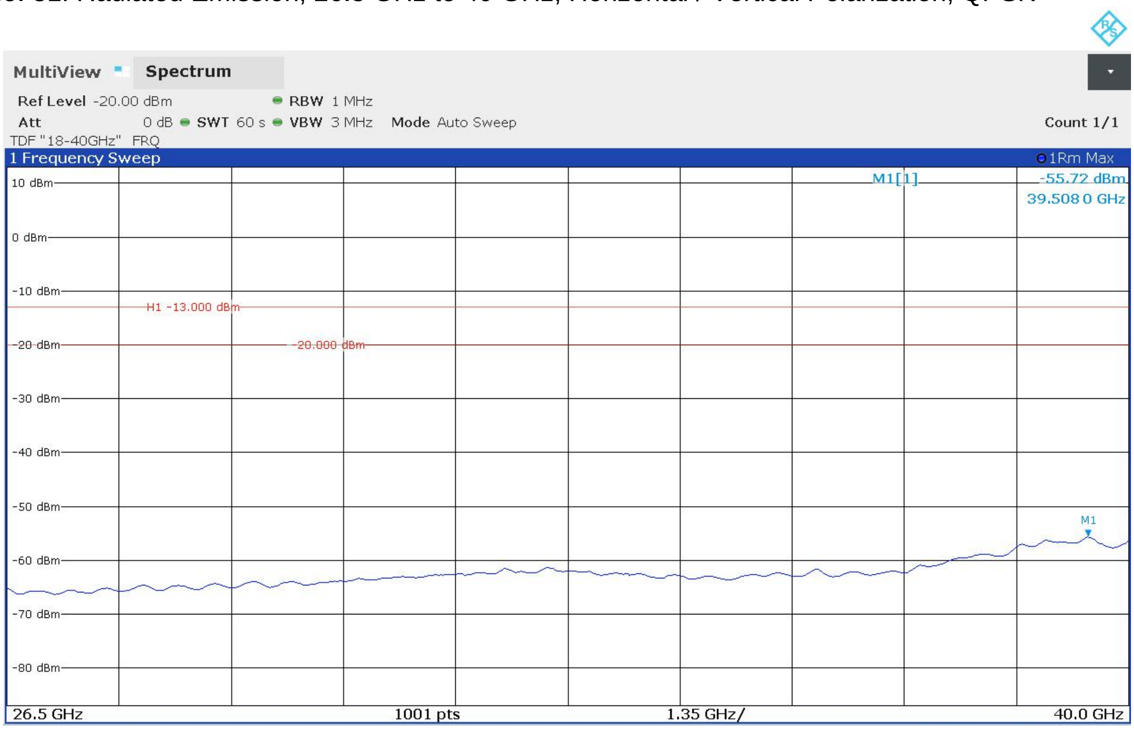
Plots No. 29: Radiated Emission, 1 GHz to 18 GHz, Horizontal / Vertical Polarization, QPSK



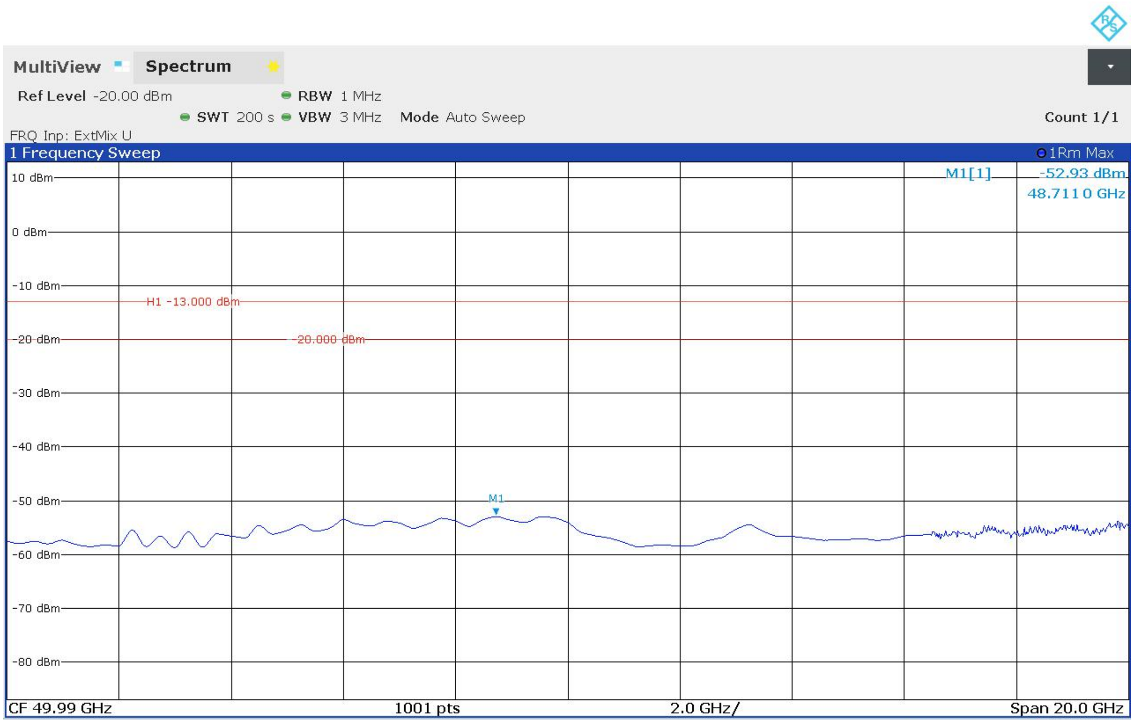
Plots No. 30: Radiated Emission, 18 GHz to 26.5 GHz, Horizontal / Vertical Polarization, QPSK



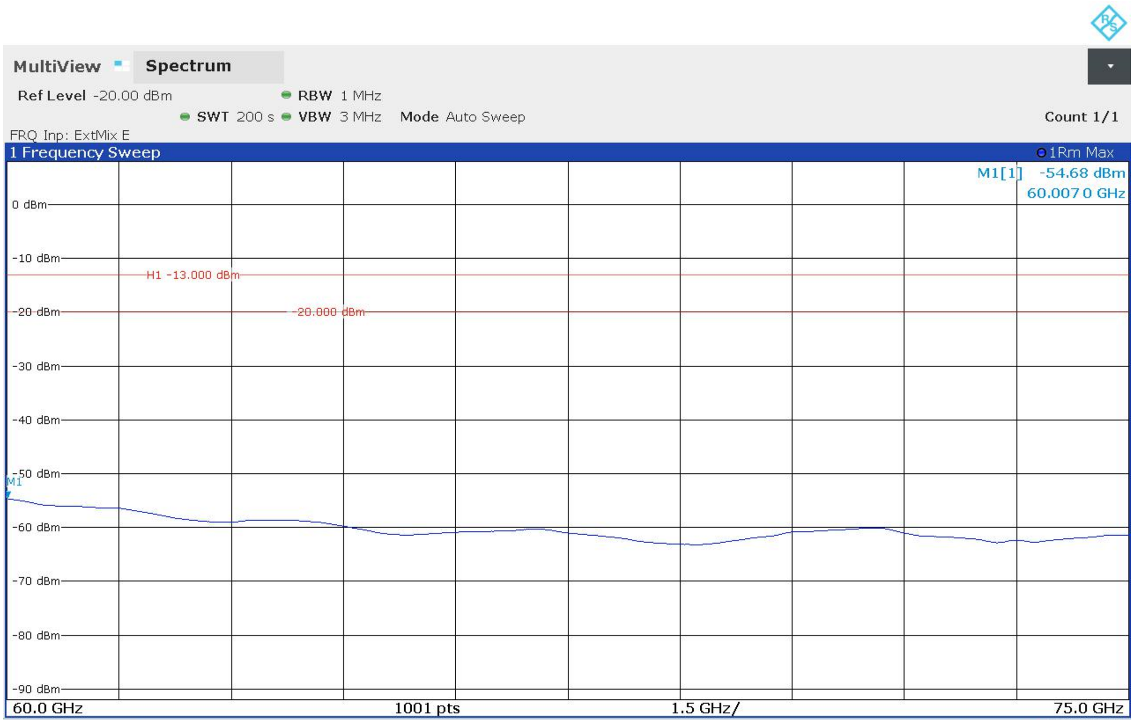
Plots No. 31: Radiated Emission, 26.5 GHz to 40 GHz, Horizontal / Vertical Polarization, QPSK



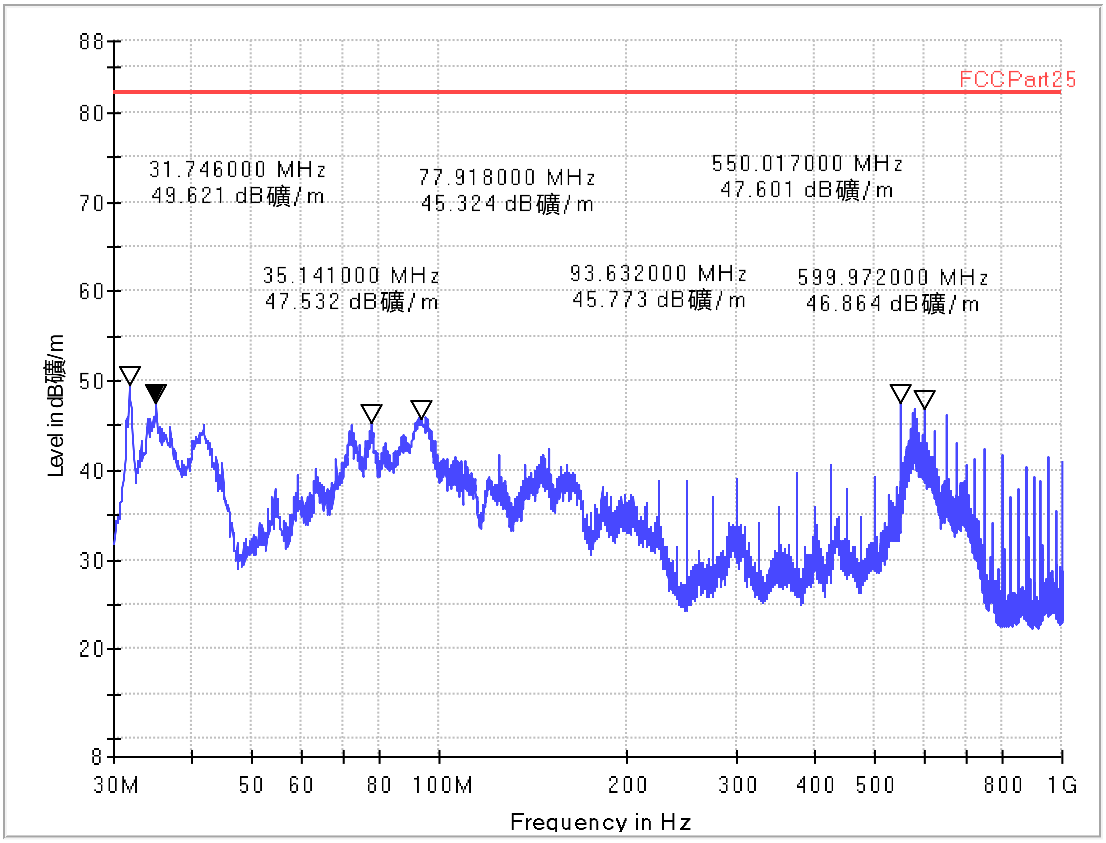
Plots No. 32: Radiated Emission, 40 GHz to 60 GHz, Horizontal / Vertical Polarization, QPSK



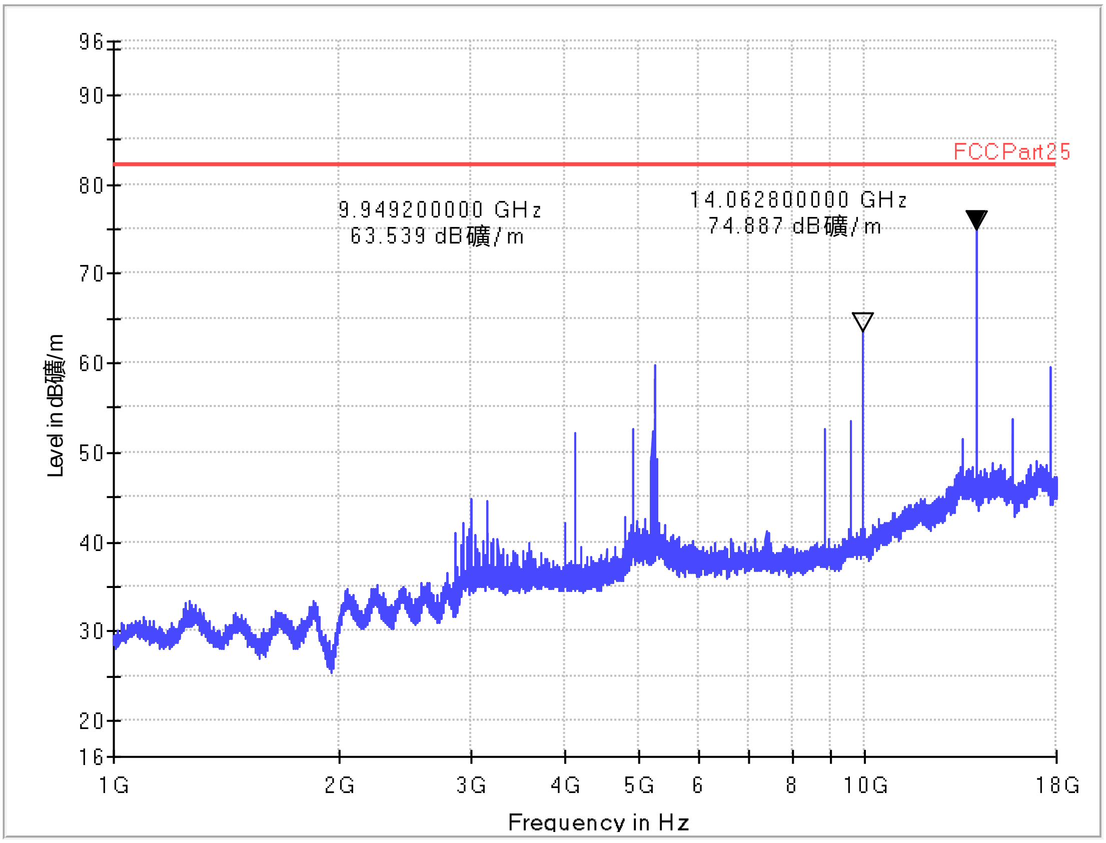
Plots No. 32: Radiated Emission, 40 GHz to 75 GHz, Horizontal / Vertical Polarization, QPSK



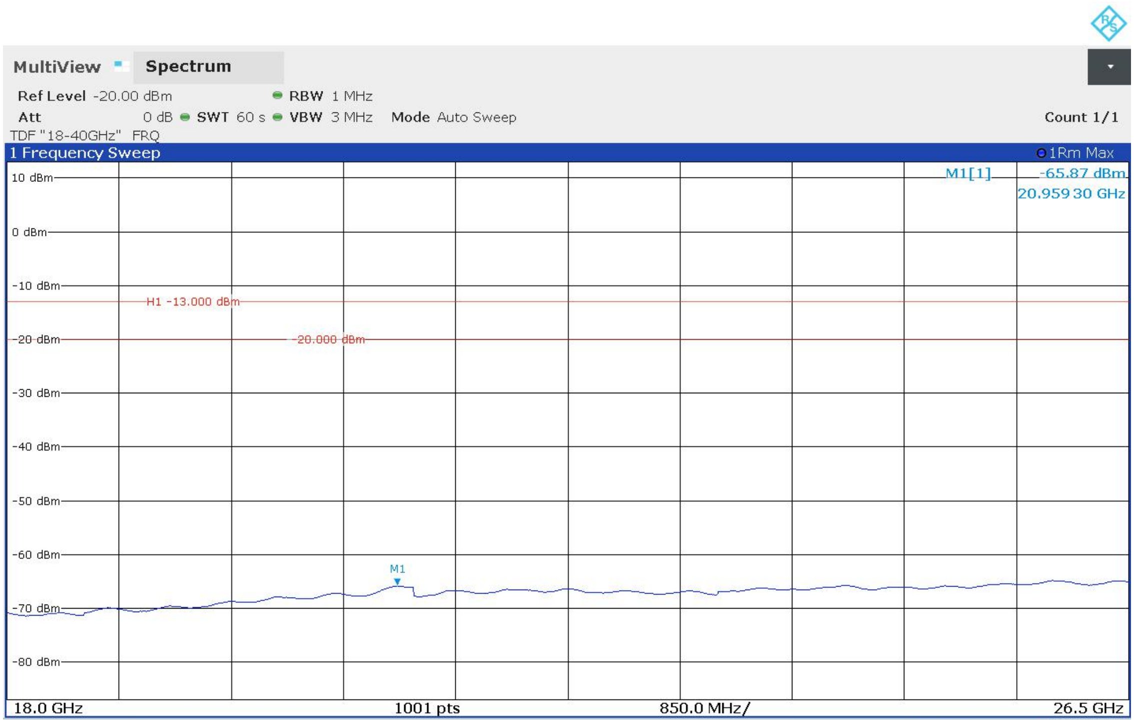
Plots No. 33: Radiated Emission, 30 MHz to 1 GHz, Horizontal / Vertical Polarization, 8PSK



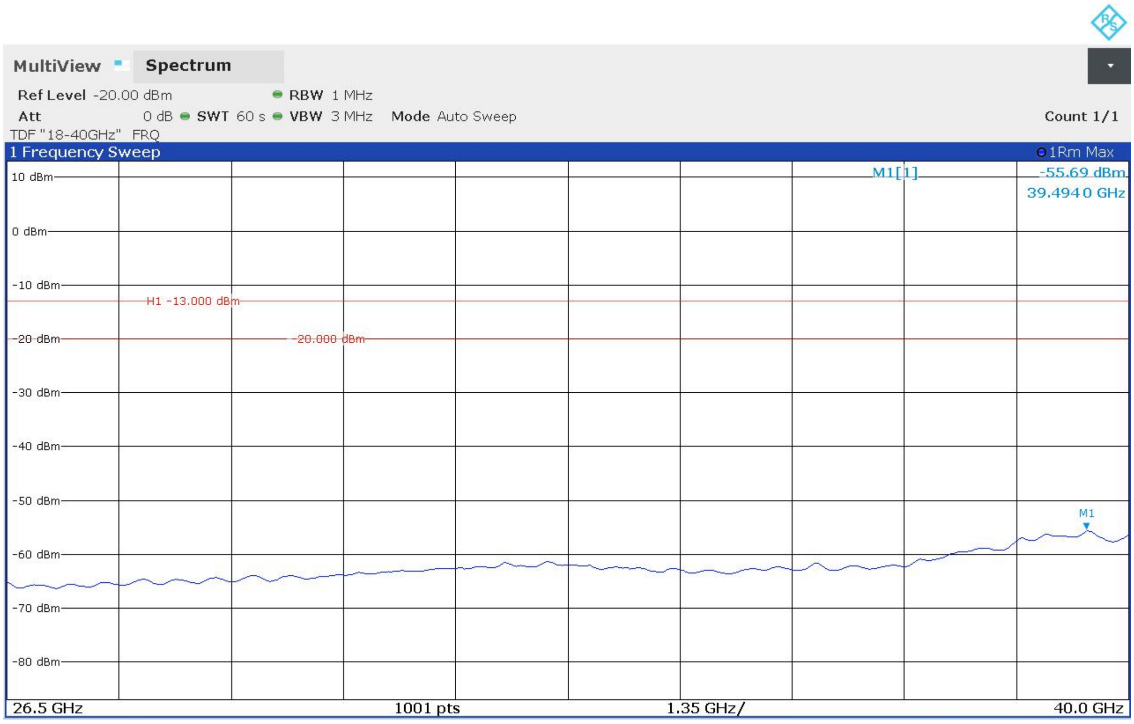
Plots No. 34: Radiated Emission, 1 GHz to 18 GHz, Horizontal / Vertical Polarization, 8PSK



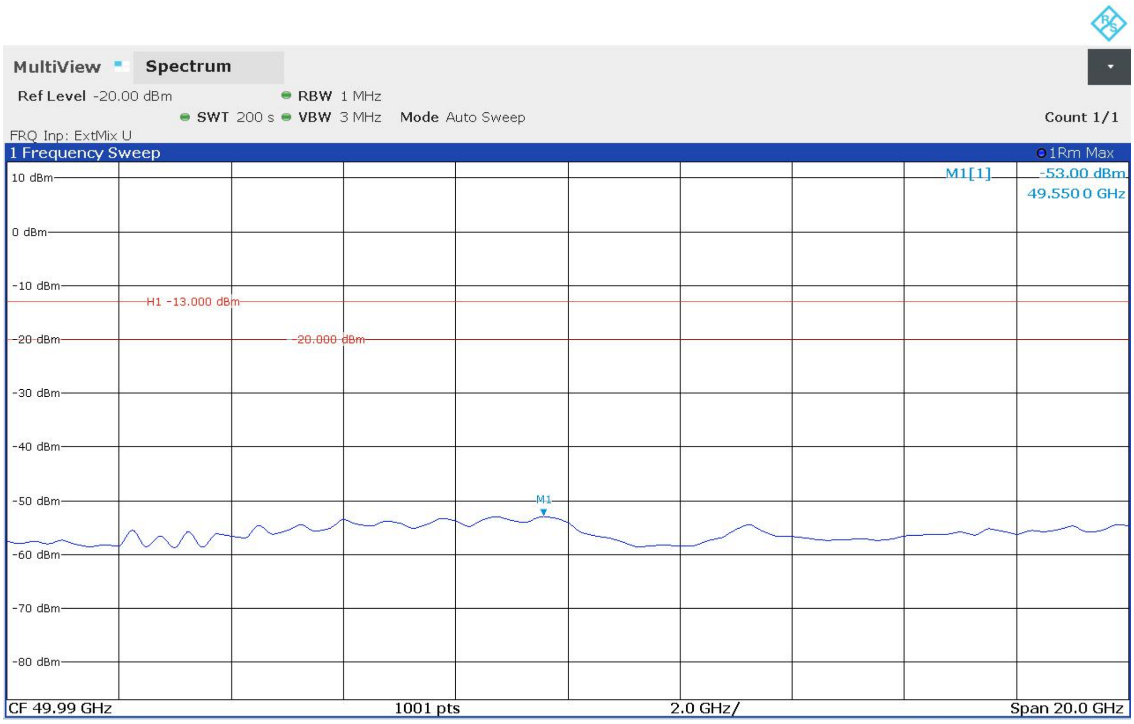
Plots No. 35: Radiated Emission, 18 GHz to 26.5 GHz, Horizontal / Vertical Polarization, 8PSK



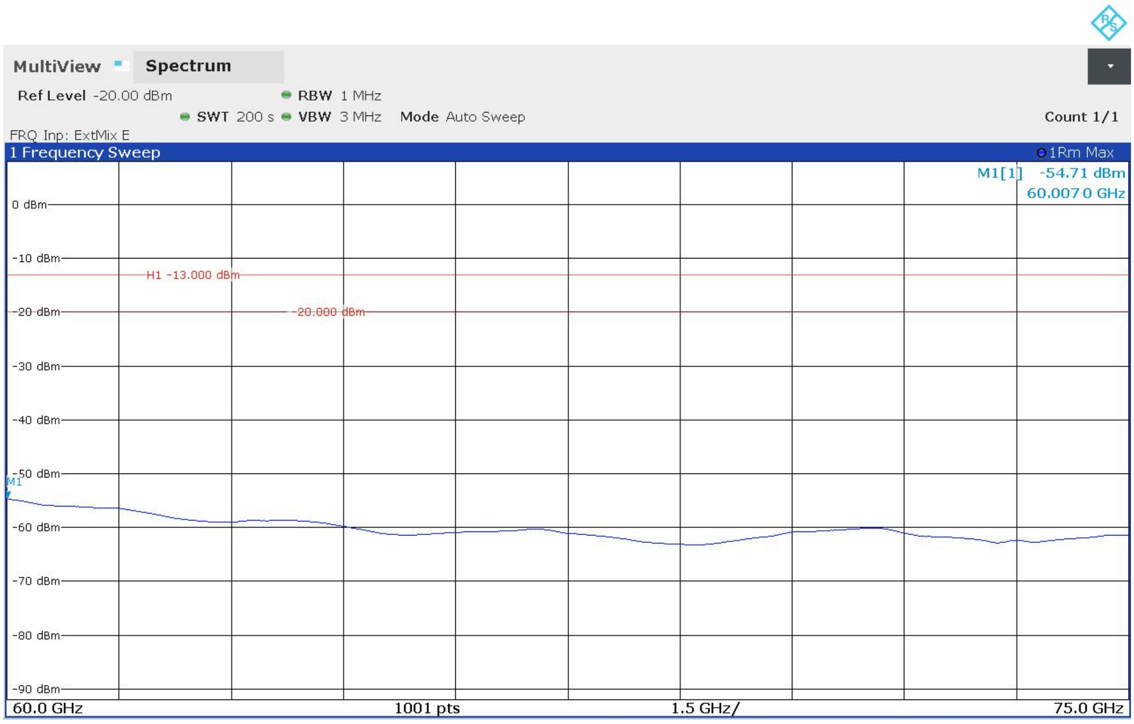
Plots No. 36: Radiated Emission, 26.5 GHz to 40 GHz, Horizontal / Vertical Polarization, 8PSK



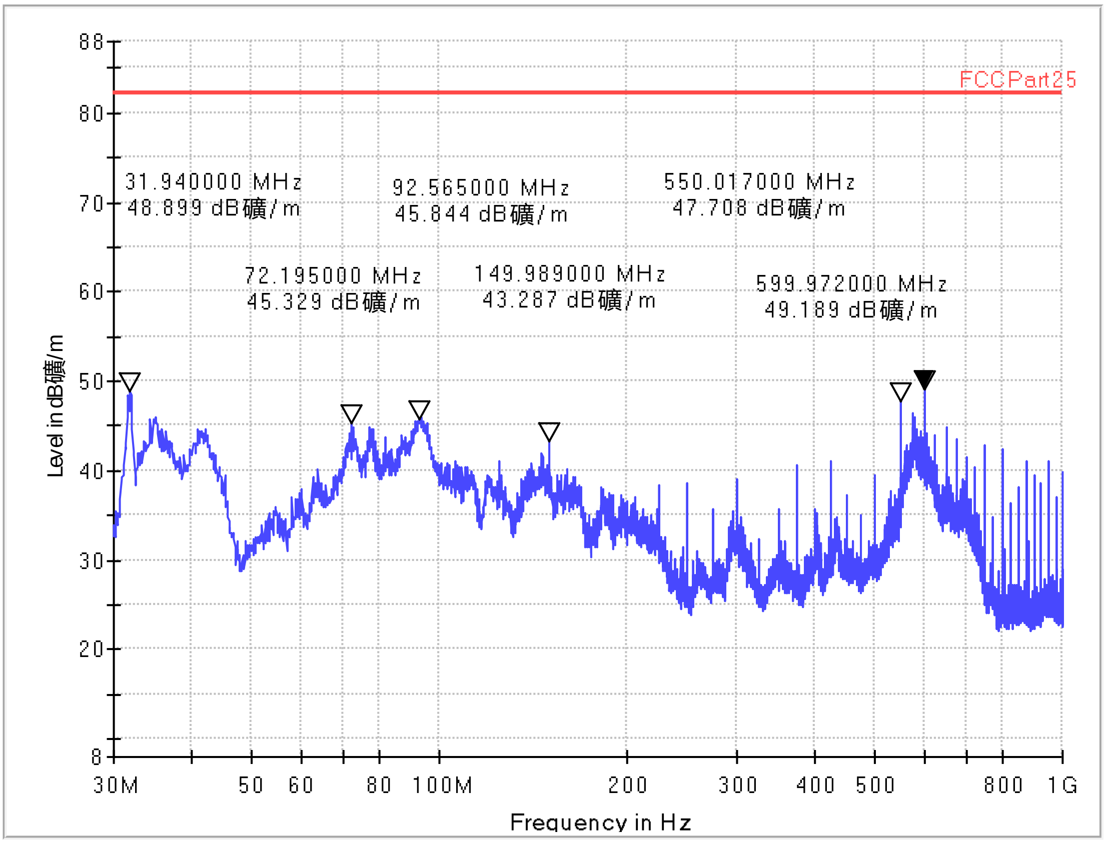
Plots No. 37: Radiated Emission, 40 GHz to 60 GHz, Horizontal / Vertical Polarization, 8PSK



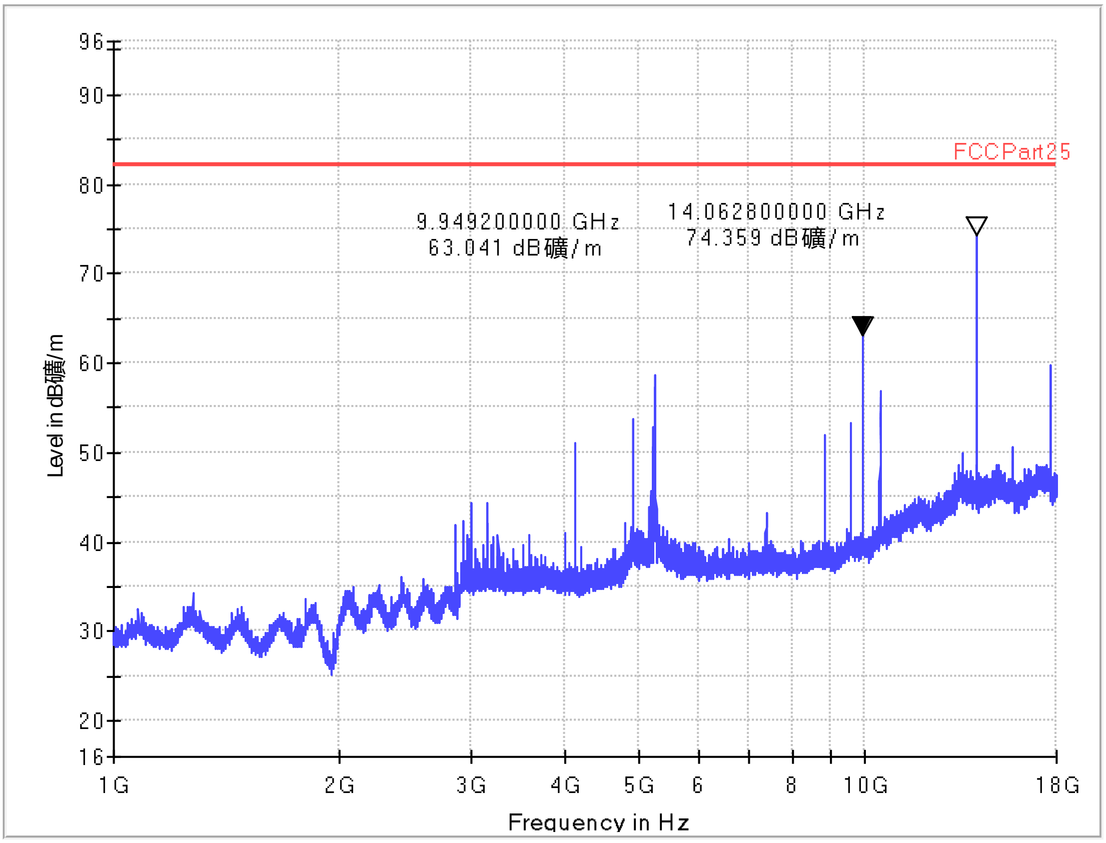
Plots No. 38: Radiated Emission, 40 GHz to 75 GHz, Horizontal / Vertical Polarization, 8PSK



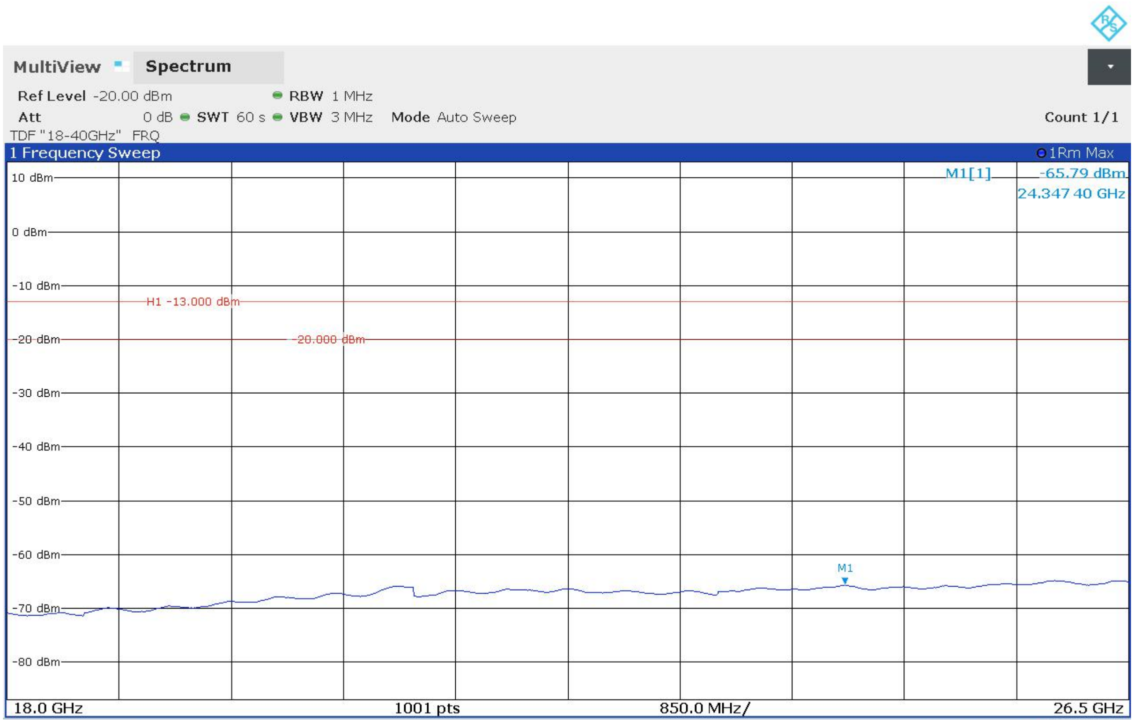
Plots No. 39: Radiated Emission, 30 MHz to 1 GHz, Horizontal / Vertical Polarization, 16QAM



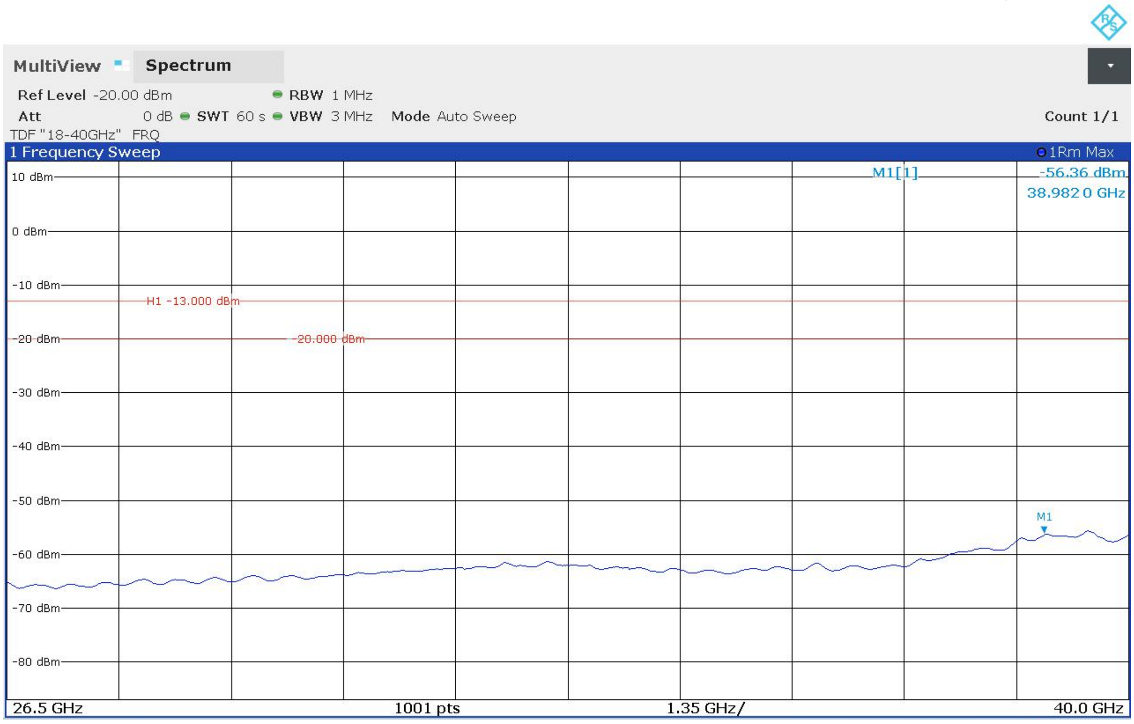
Plots No. 40: Radiated Emission, 1 GHz to 18 GHz, Horizontal / Vertical Polarization, 16QAM



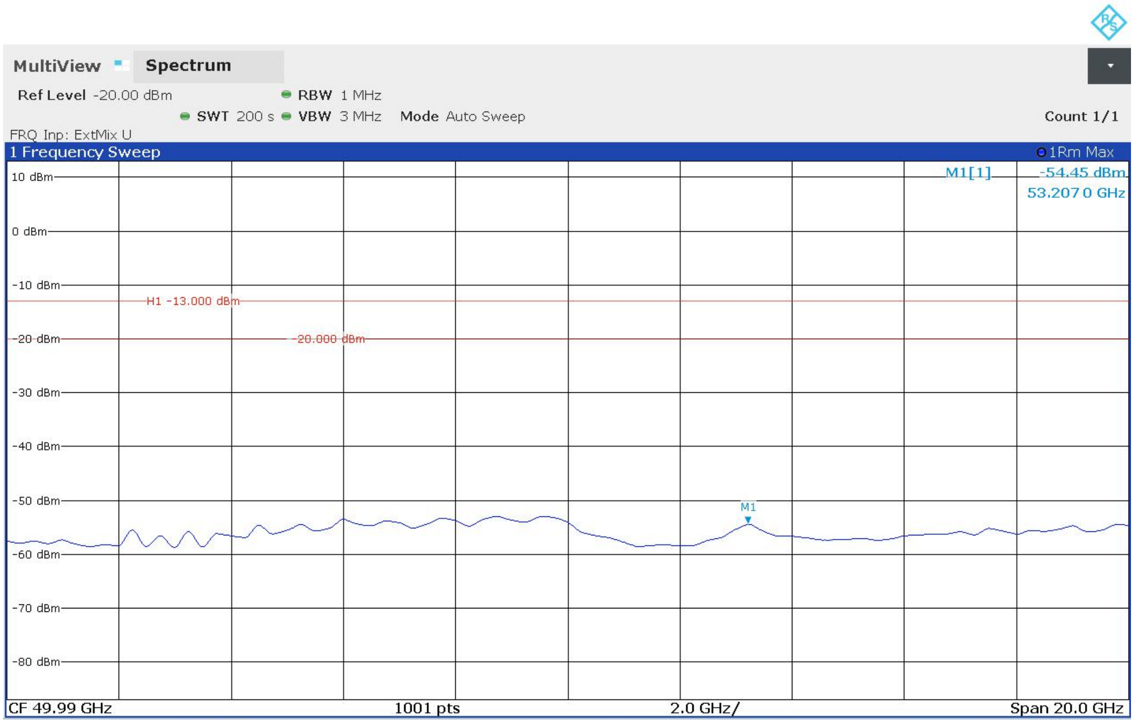
Plots No. 41: Radiated Emission, 18 GHz to 26.5 GHz, Horizontal / Vertical Polarization, 16QAM



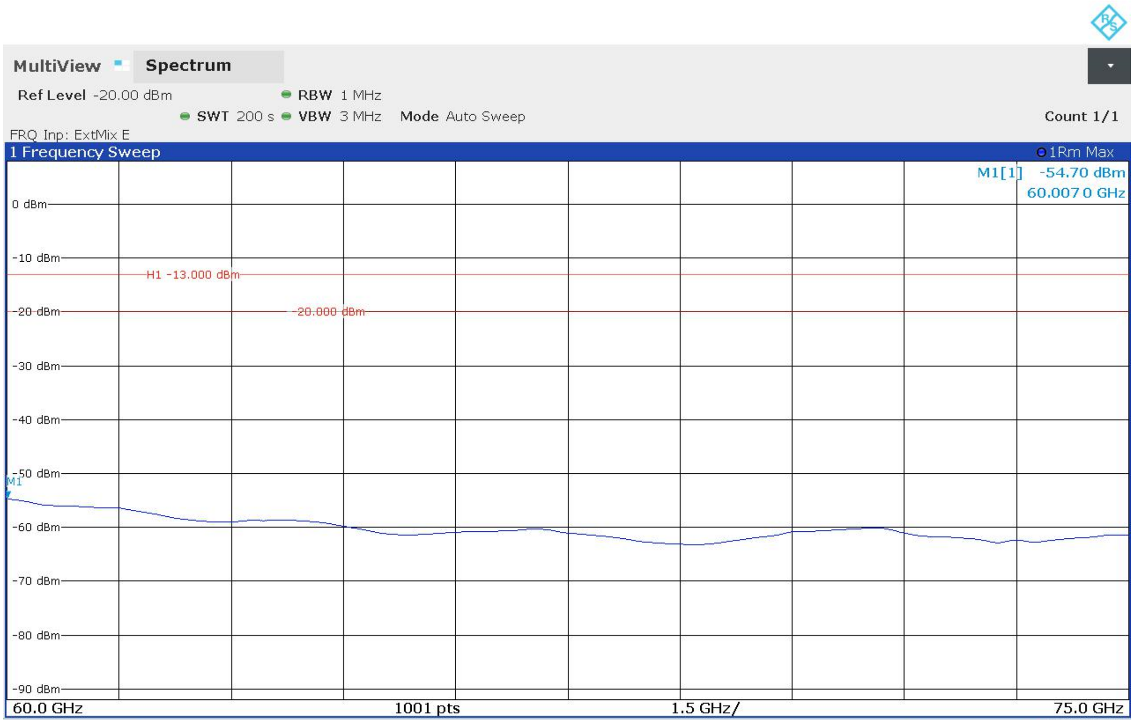
Plots No. 42: Radiated Emission, 26.5 GHz to 40 GHz, Horizontal / Vertical Polarization, 16QAM



Plots No. 43: Radiated Emission, 40 GHz to 60 GHz, Horizontal / Vertical Polarization, 16QAM



Plots No. 44: Radiated Emission, 40 GHz to 75 GHz, Horizontal / Vertical Polarization, 16QAM



4.6. Frequency Stability [§2.1055 & §25.202]

4.6.1. LIMITS

According to § 95.3379 76 – 81 GHz Band Radar Service unwanted emission limits.

(a) Fundamental emissions must be contained within the frequency bands specified in this section during all conditions of operation. Equipment is presumed to operate over the temperature range −20 to +50 degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

According to § 2.1055 Measurement required: Frequency Stability.

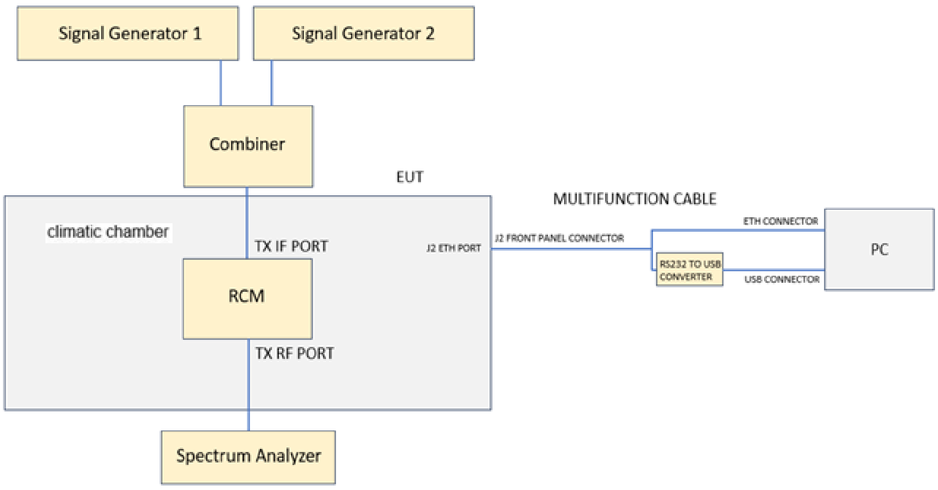
(a) The frequency stability shall be measured with variation of ambient temperature as follows:
   (1) From −30° to + 50° centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.
   (2) From −20° to + 50° centigrade for equipment to be licensed for use in the Maritime Services under part 80 of this chapter, except for Class A, B, and S Emergency Position Indicating Radiobeacons (EPIRBS), and equipment to be licensed for use above 952 MHz at operational fixed stations in all services, stations in the Local Television Transmission Service and Point-to-Point Microwave Radio Service under part 21 of this chapter, equipment licensed for use aboard aircraft in the Aviation Services under part 87 of this chapter, and equipment authorized for use in the Family Radio Service under part 95 of this chapter.
   (3) From 0° to + 50° centigrade for equipment to be licensed for use in the Radio Broadcast Services under part 73 of this chapter.

(b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range. A period of time sufficient to stabilize all of the components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. The short term transient effects on the frequency of the transmitter due to keying (except for broadcast transmitters) and any heating element cycling normally occurring at each ambient temperature level also shall be shown. Only the portion or portions of the transmitter containing the frequency determining and stabilizing circuitry need be subjected to the temperature variation test.

(c) The frequency stability shall be measured with variation of primary supply voltage as follows:
   (1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.
   (2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.
   (3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.

According to § 25.202(d) Frequency tolerance, Earth stations. The carrier frequency of each earth station transmitter authorized in these services shall be maintained within 0.001 percent of the reference frequency.

4.6.2. TEST CONFIGURATION



[Remark: if measurement frequency range over spectrum analyzer covered, using external Harmonic Mixer to extend frequency range]

4.6.3. TEST PROCEDURE

According to ANSI C63.26:2015 section 5.6.3
Frequency stability versus environmental temperature:
(a) Supply the EUT wth nominal voltage.
(b) Tunrn on the EUT and tune it to the center frequency the operating band.
(c) Turn on the EUT off and place it inside an environmental temperature chamber. For devices that are normally operated continuoustly, the EUT may be energized while inside the test chamber. For devices that have oscillator heaters, energize only the heater circuit while the EUT was insde the chamber.
(d) RF output was connected to the frequency counter or spectrum analyzer vis feed through attenuators.
(e) Set the temperature control on the chamber to the highest specified EUT operating temperature and allow the temperature inside the chamber to stabilize at the set temperature before starting frequency measurements.
(f) While maintaining a constant temperature inside the environmental chamber, turn on the EUT and record the operating frequency after EUT was energized.
(g) After all measurements have been made at the highest specified temerature turn the EUT off.
(h) Repeated the above measurement process for the EUT with the test chamber set at the appropriate temperature.
When the frequency stability limit is stated asbeing sufficient such that the fundamental emissions stay within the authorized bands of operation, a reference point should be established at the applicable unwanted emission limit using a RBW equal to the RBW required by the unwanted emissions specificaton of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shuld be identified as f_L and f_H respectively. The worst-case frequency offset determined in the above methods should be added or subtracted from the values of f_L and f_H and the resulting frequencies must remain within the band.

Frequency stability versus Input Voltage:
(a) These tests should be made at room temperature (20 ± 5)℃ supply the EUT with norminal voltage.
(b) Couple RF output to the frequency counter or spectrum analyzer.
(c) Tune the EUT to the center frequency of the operating band and measue the frequency after EUT was energized.
(d) Supply it with 85% of the nominal voltage and repeat the above procedure.
(e) Supply it with 115% of the nominal voltage and repeat the above procedure.
(f) Reprat the frequency measurement at the low and high channel of operating band if support.

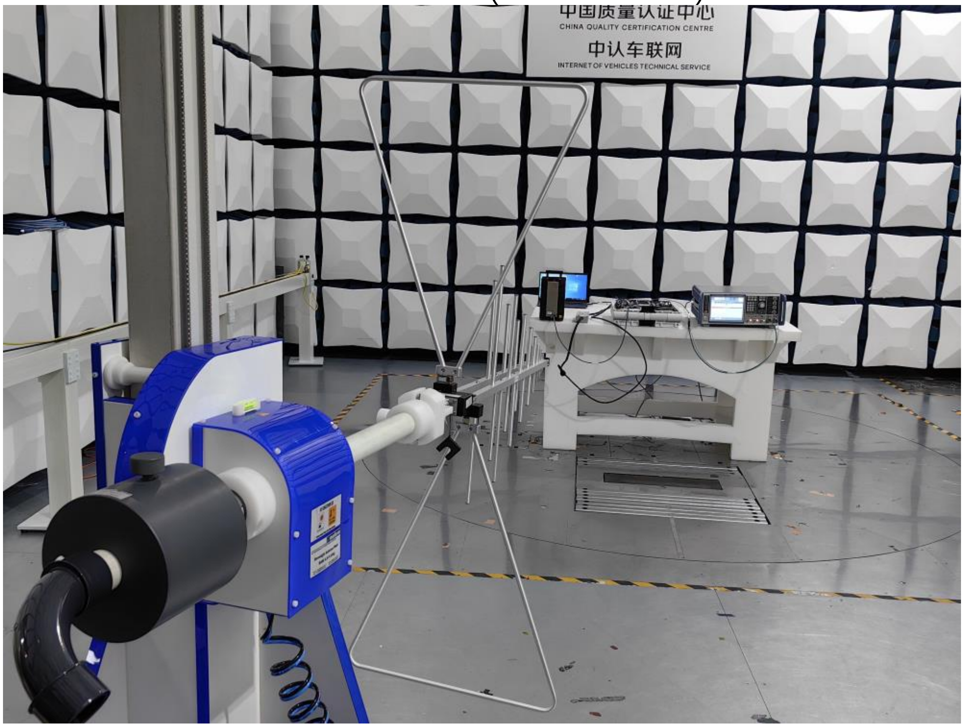
4.6.4. TEST RESULTS

Temperature [℃]	Voltage [V AC]	Reference Frequency [MHz]	Measured Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Limits
-30	120	14052.500000	14052.501856	1856	0.1321	10.00
-20	120	14052.500000	14052.501851	1851	0.1317	10.00
-10	120	14052.500000	14052.501849	1849	0.1316	10.00
0	120	14052.500000	14052.501846	1857	0.1314	10.00
10	120	14052.500000	14052.501857	1857	0.1321	10.00
20	120	14052.500000	14052.501851	1851	0.1317	10.00
20	132	14052.500000	14052.501851	1851	0.1317	10.00
20	108	14052.500000	14052.501850	1850	0.1316	10.00
30	120	14052.500000	14052.501859	1859	0.1323	10.00
40	120	14052.500000	14052.501855	1855	0.1320	10.00
50	120	14052.500000	14052.501842	1842	0.1311	10.00
55	120	14052.500000	14052.501847	1847	0.1314	10.00

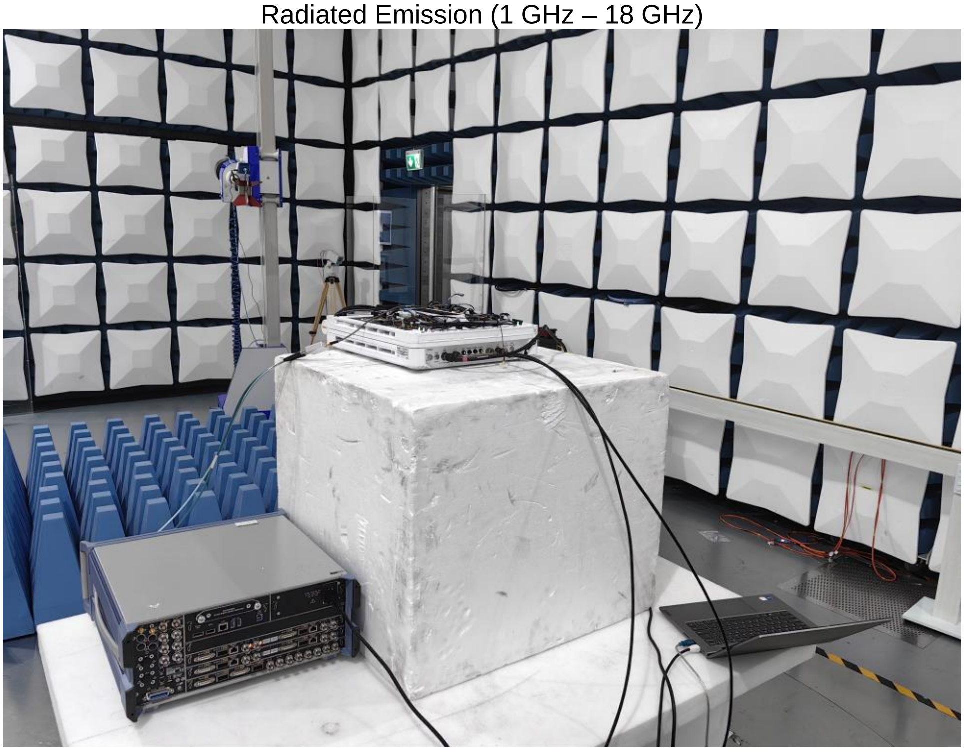
Note 1: Error [Hz] = 10^6 x (measured frequency [MHz] – reference frequency [MHz])
Note 2: Error [ppm] = 10^6 x (measured frequency [MHz] – reference frequency [MHz]) / reference frequency [MHz]
Note 3: For testing purpose, EUT's modulation was deactivated, and the CW carrier was activated.

5. Test Set-up Photos of the EUT

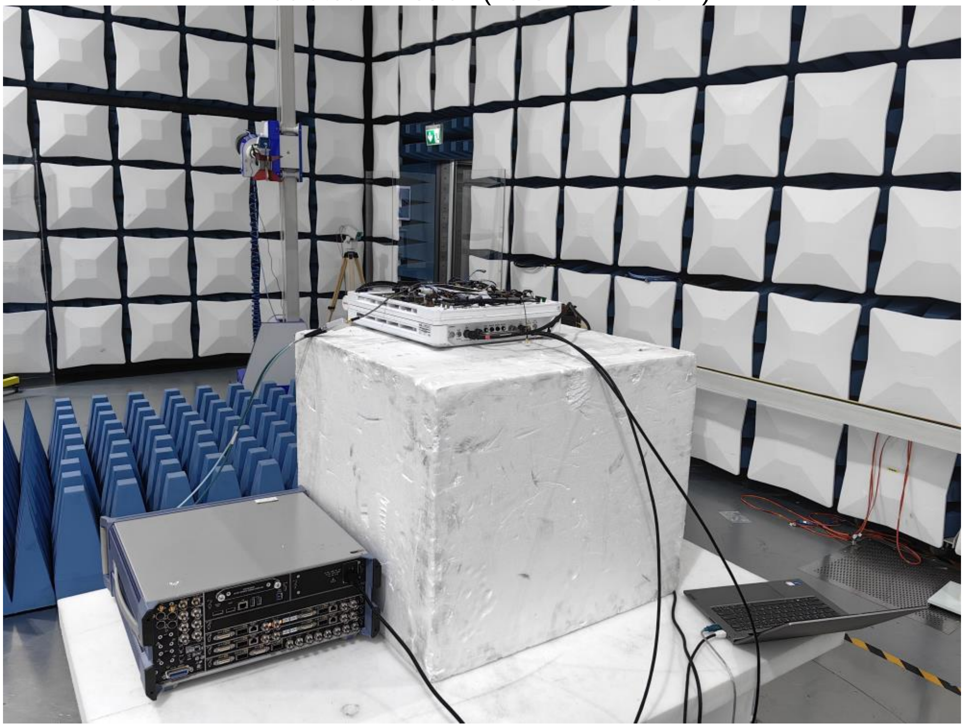
Radiated Emission (30 MHz – 1 GHz)



Radiated Emission (1 GHz – 18 GHz)



Radiated Emission (18 GHz – 40 GHz)



Radiated Emission (Above 40 GHz)