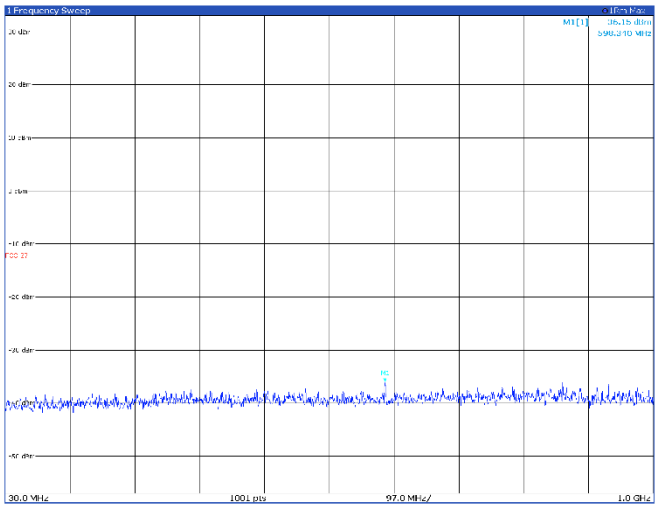
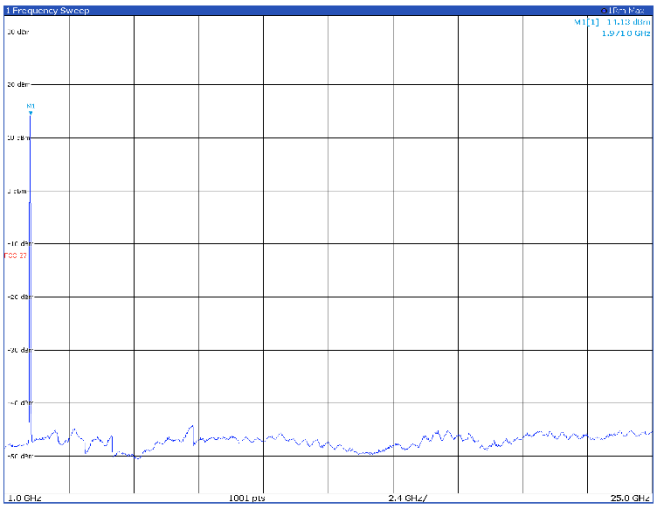
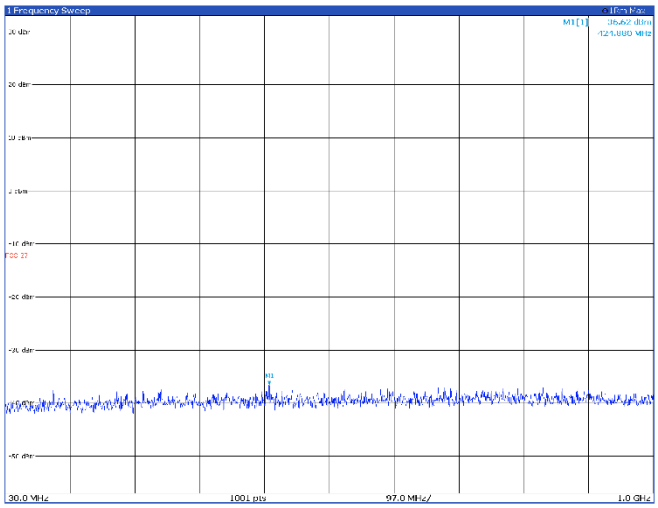
TM3p3, 15 MHz, mid channel

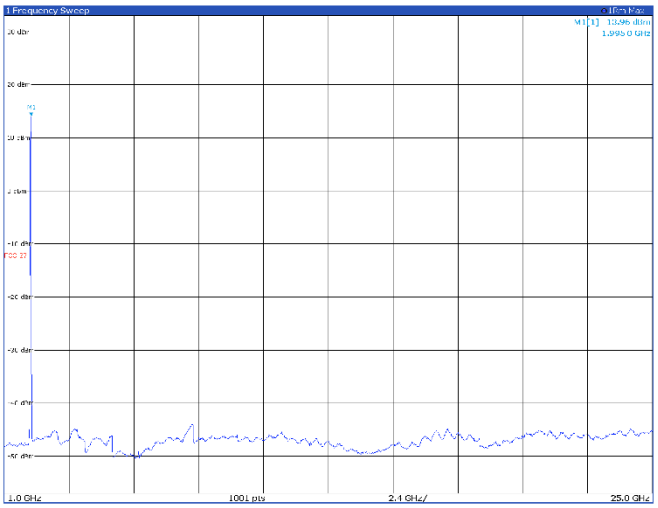




Limit exceeded by the carrier

TM3p3, 15 MHz, high channel

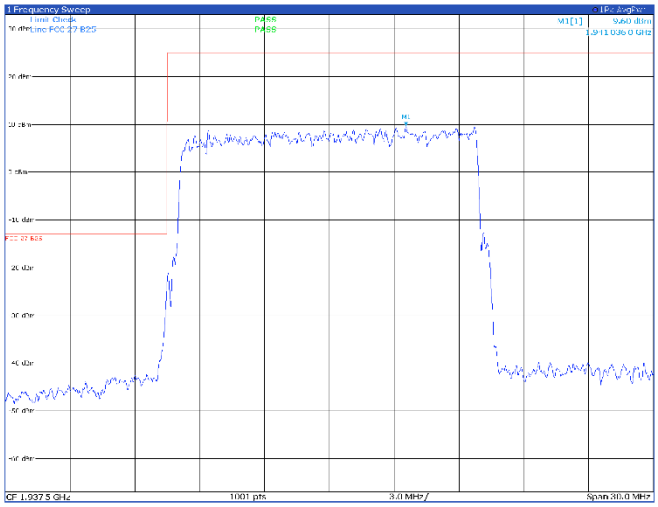




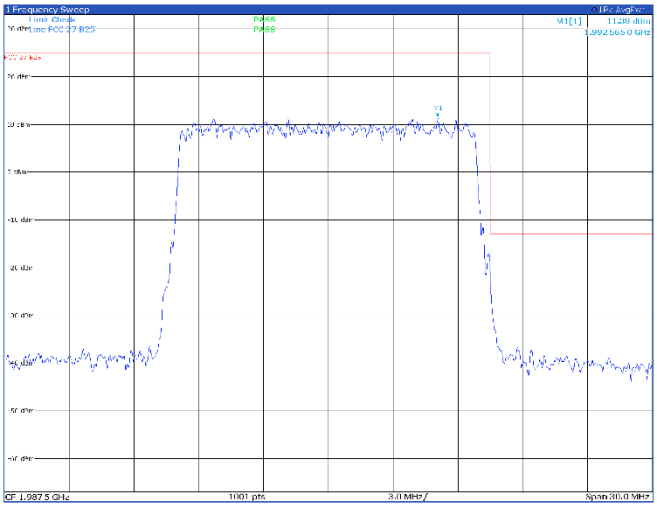
Limit exceeded by the carrier

Band n25 – band edge Antenna port 1 **15 MHz**

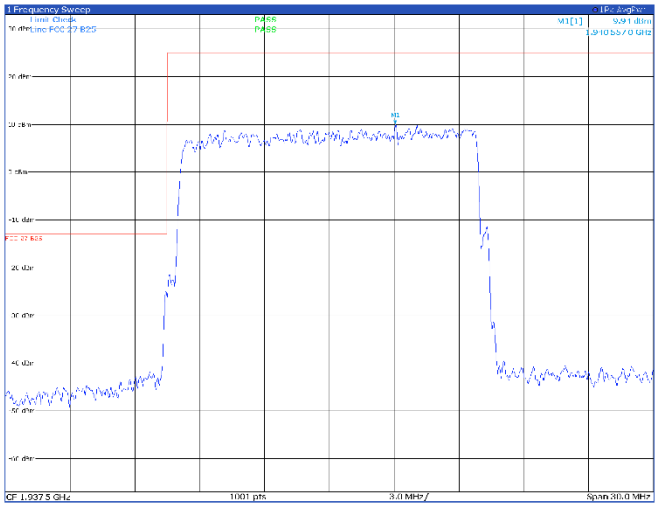
TM1.1, 15 MHz, low channel



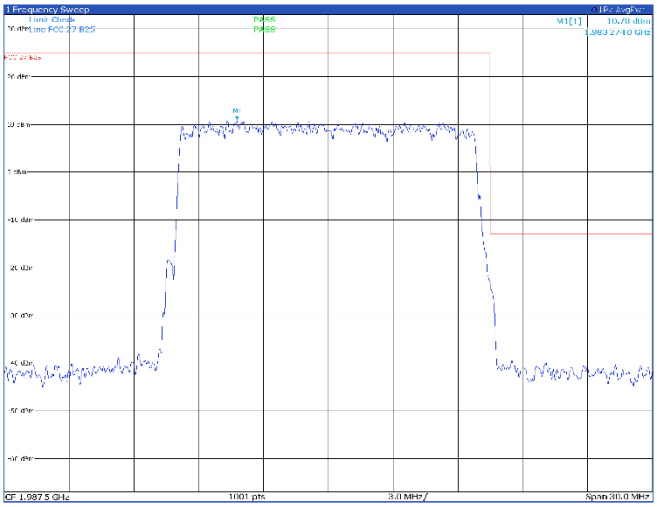
TM1.1, 15 MHz, high channel



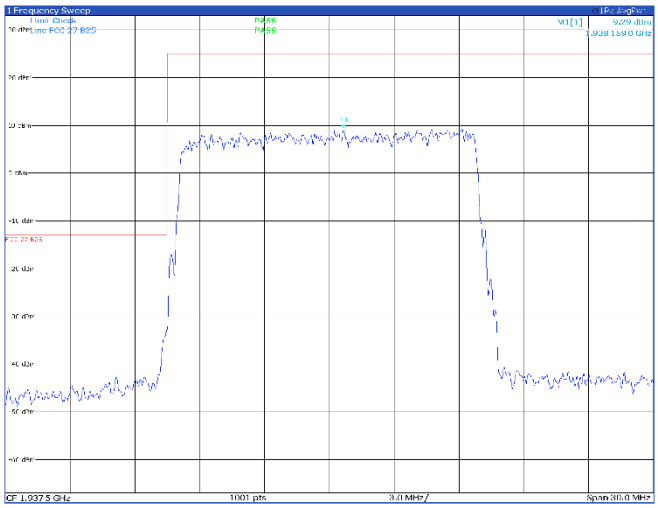
TM3p1, 15 MHz, low channel



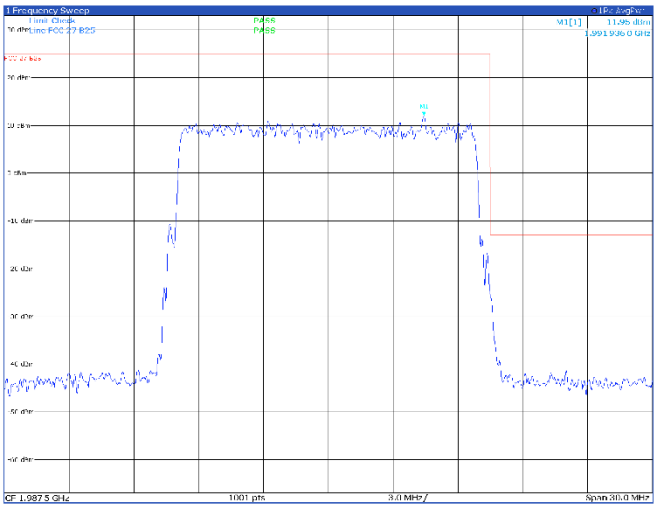
TM3p1, 15 MHz, high channel



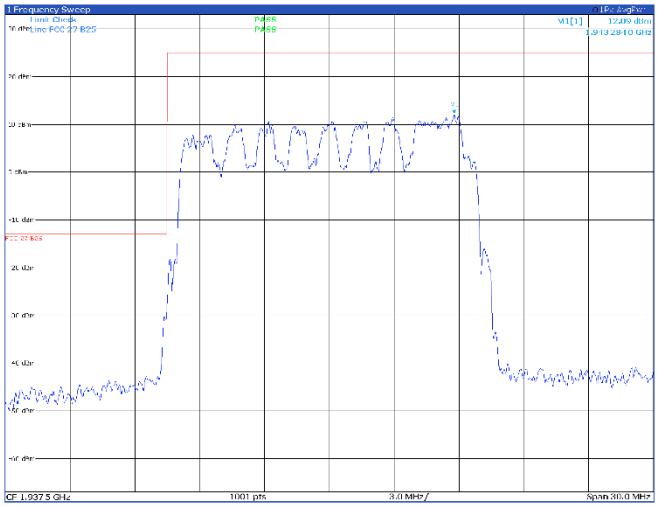
TM3p1a, 15 MHz, low channel



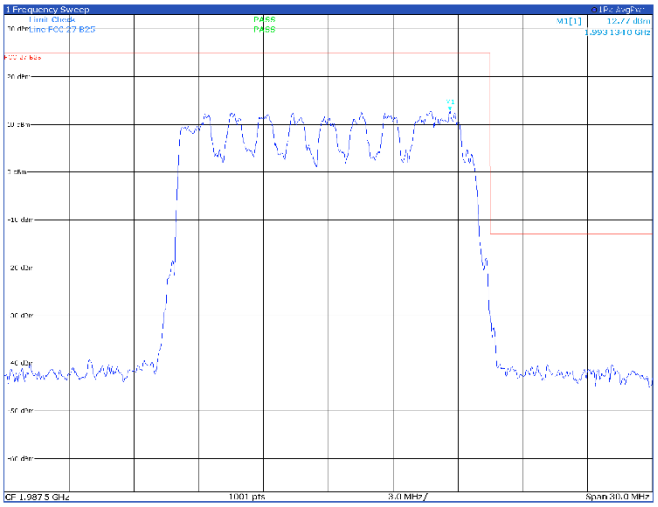
TM3p1a, 15 MHz, high channel



TM3p3, 15 MHz, low channel

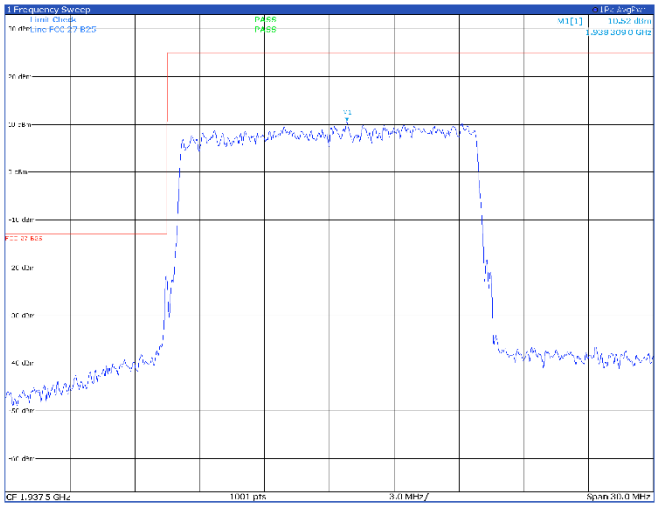


TM3p3, 15 MHz, high channel

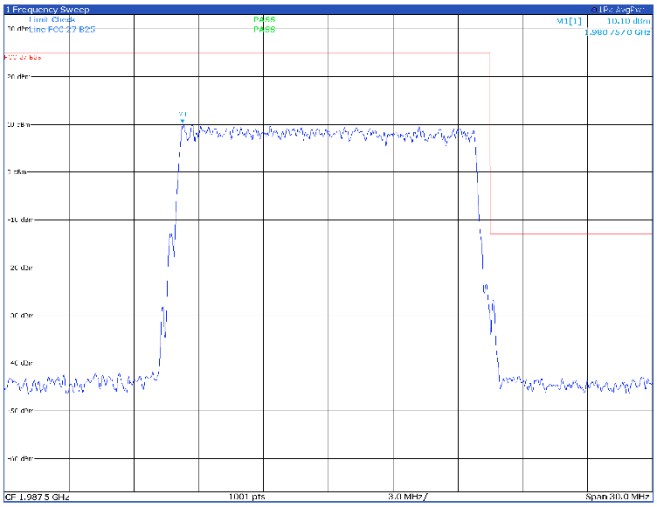


Band n25 – band edge Antenna port 2 **15 MHz**

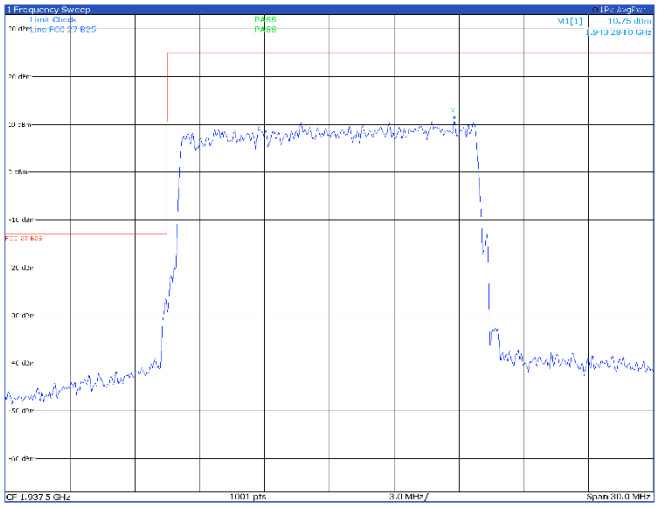
TM1.1, 15 MHz, low channel



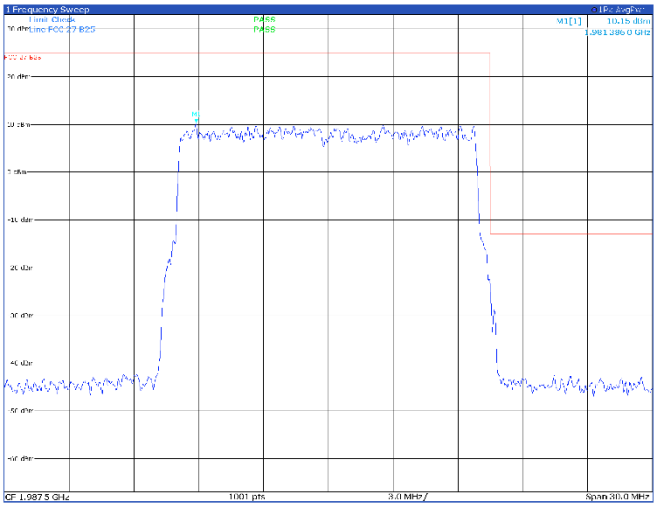
TM1.1, 15 MHz, high channel



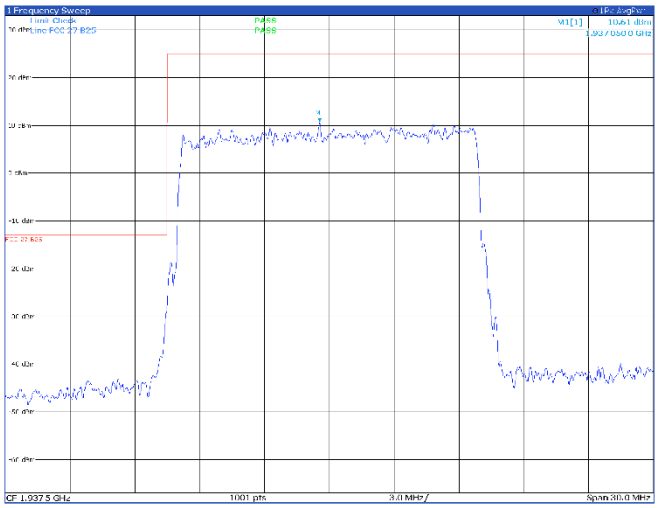
TM3p1, 15 MHz, low channel



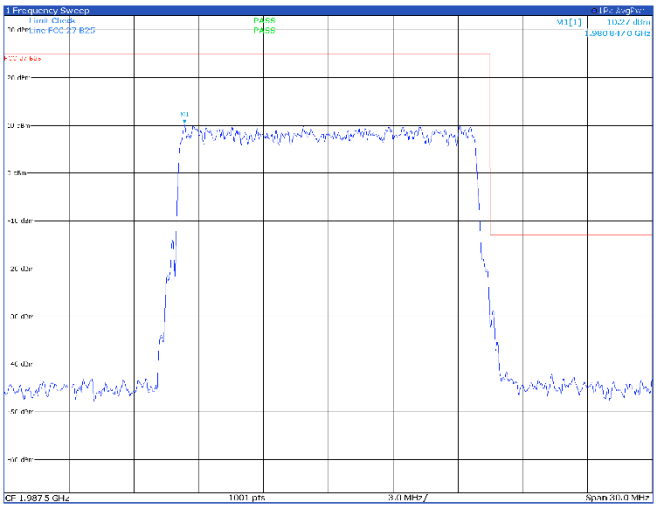
TM3p1, 15 MHz, high channel



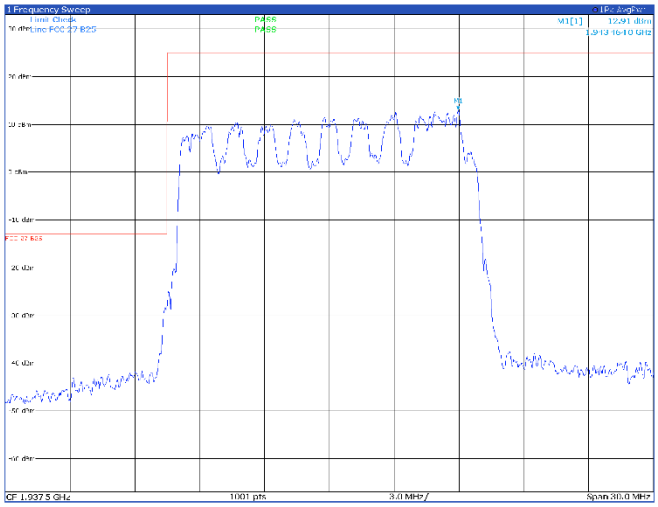
TM3p1a, 15 MHz, low channel



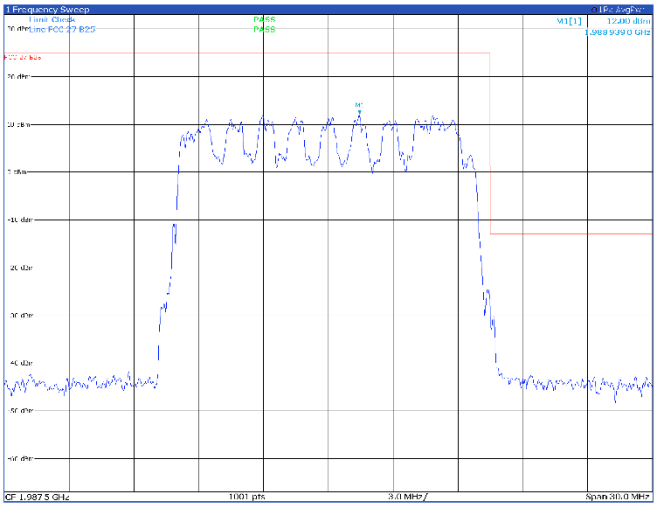
TM3p1a, 15 MHz, high channel



TM3p3, 15 MHz, low channel

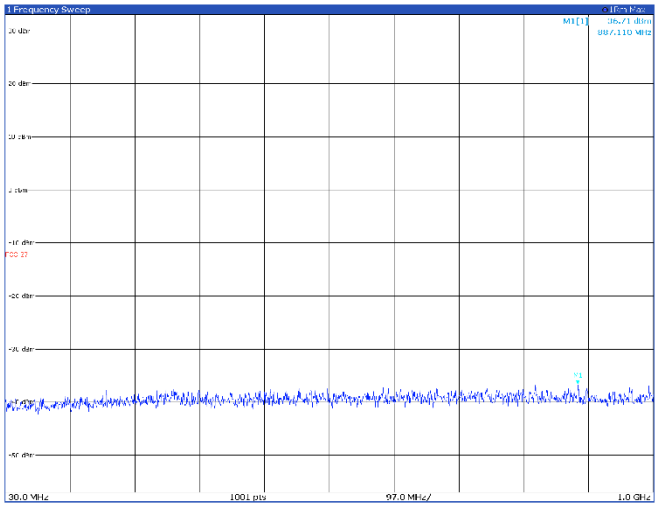


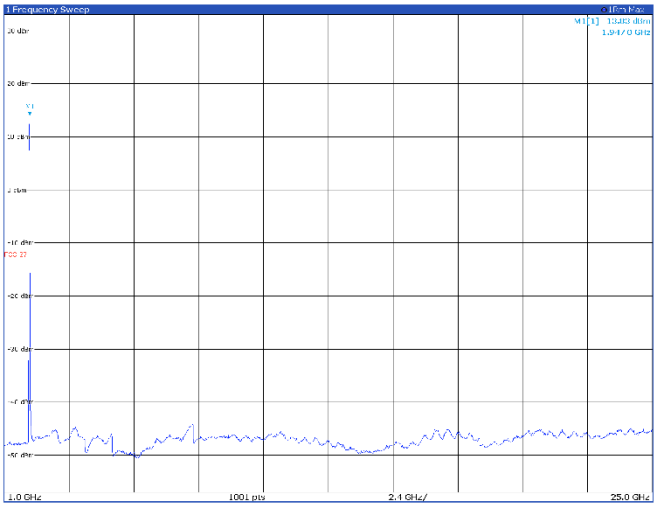
TM3p3, 15 MHz, high channel



Band n25 – conducted emissions Antenna port 1 **20 MHz**

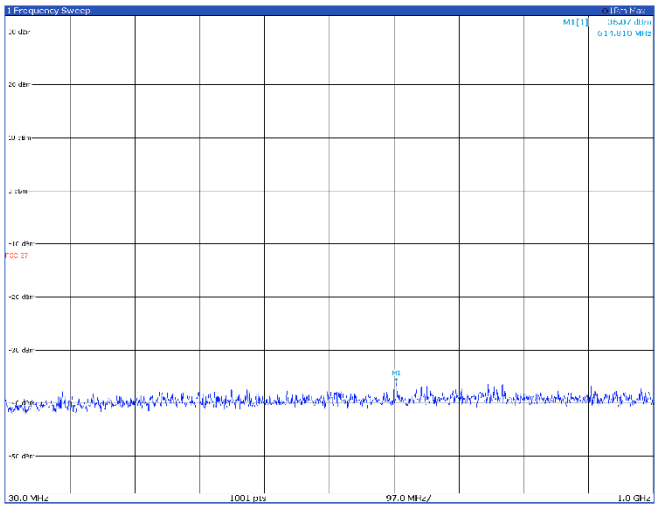
TM1.1, 20 MHz, low channel

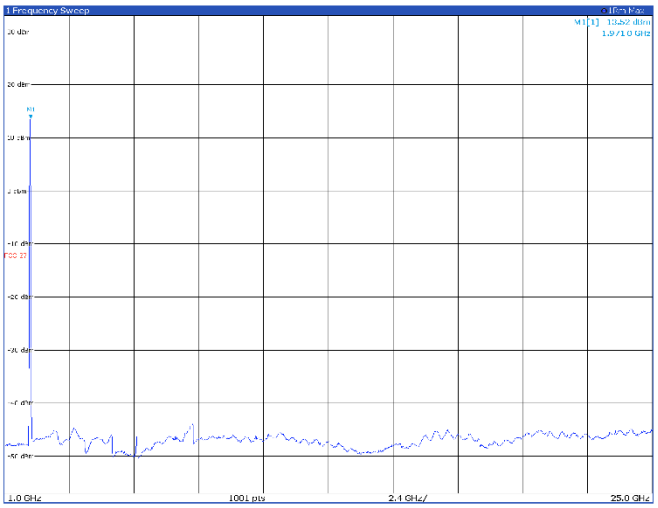




Limit exceeded by the carrier

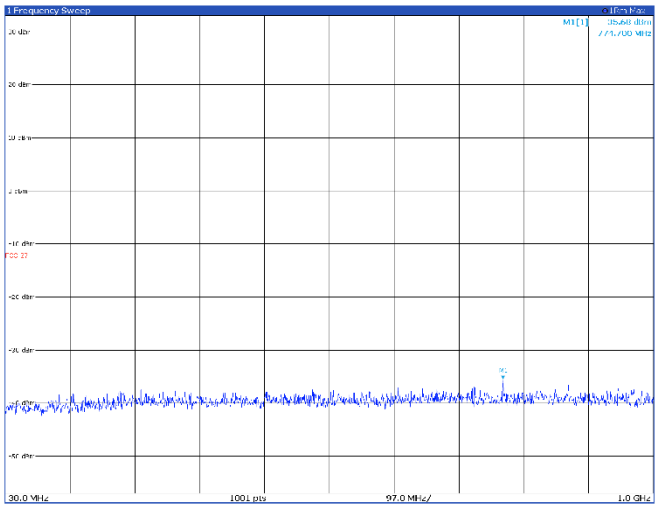
TM1.1, 20 MHz, mid channel

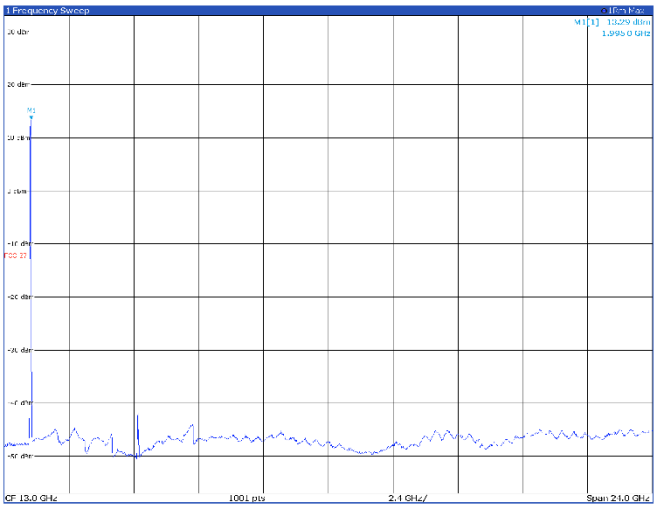




Limit exceeded by the carrier

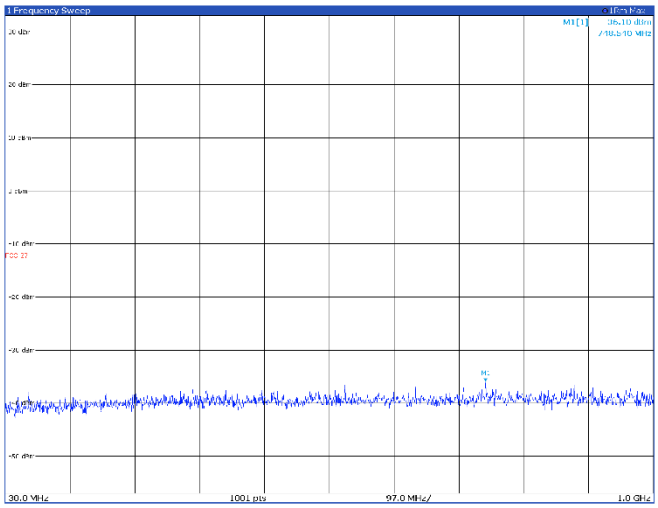
TM1.1, 20 MHz, high channel

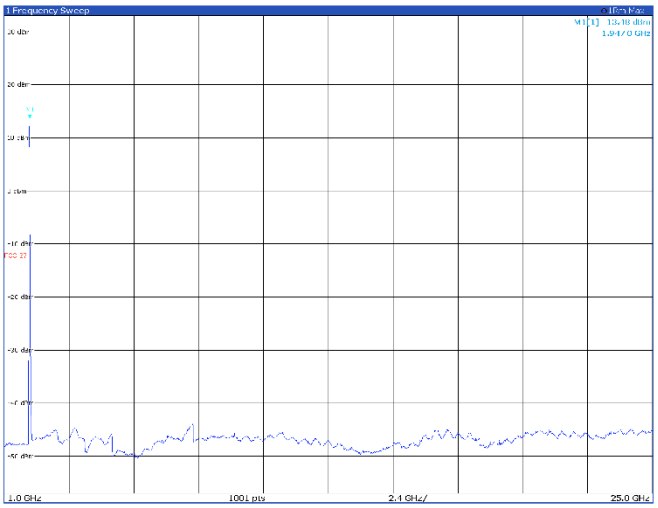




Limit exceeded by the carrier

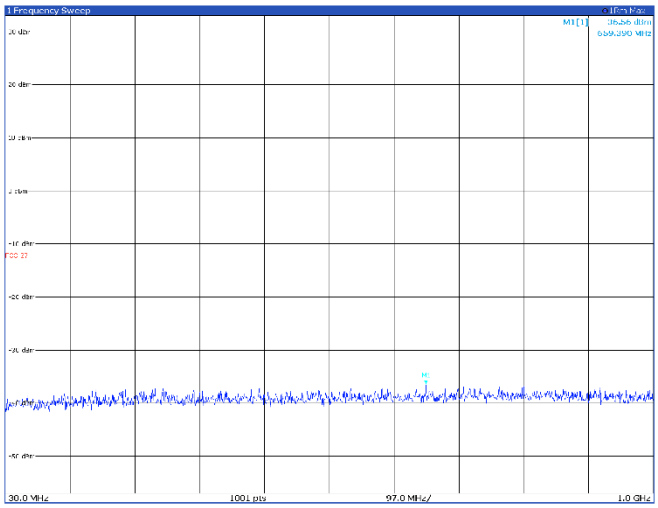
TM3p1, 20 MHz, low channel

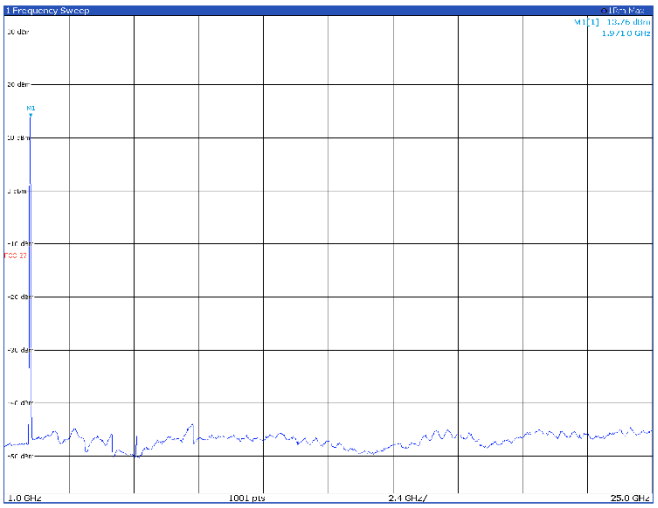




Limit exceeded by the carrier

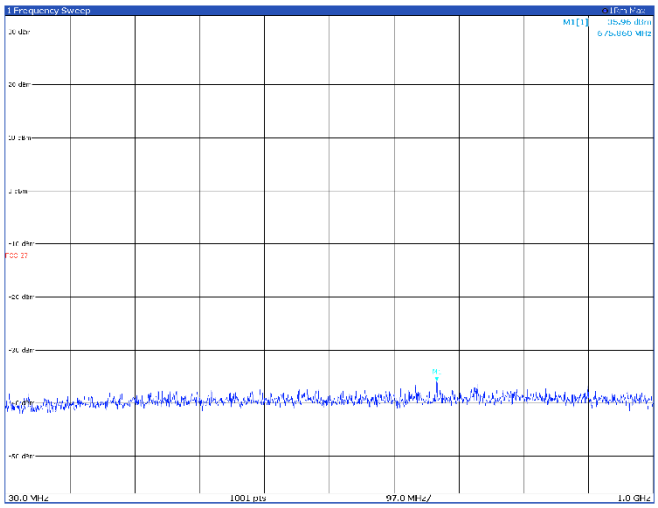
TM3p1, 20 MHz, mid channel

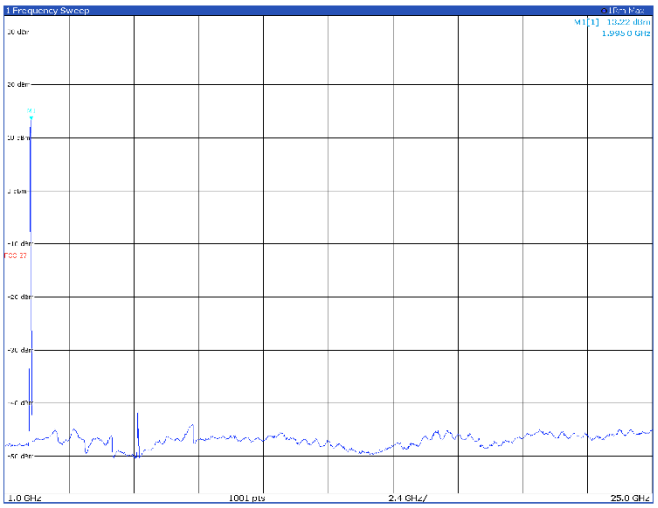




Limit exceeded by the carrier

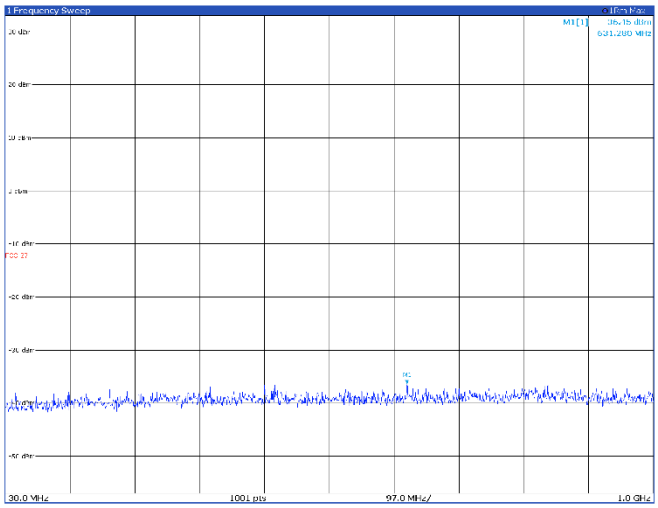
TM3p1, 20 MHz, high channel

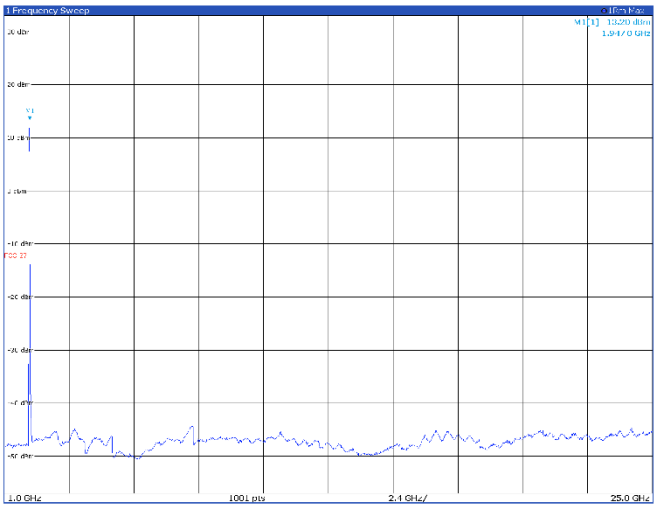




Limit exceeded by the carrier

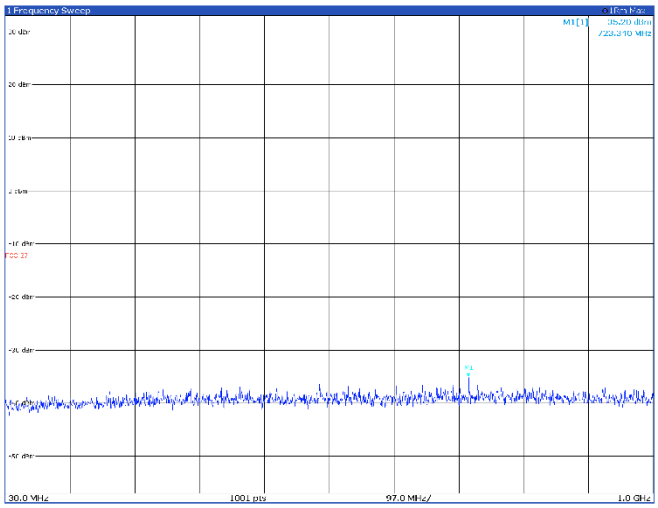
TM3p1a, 20 MHz, low channel

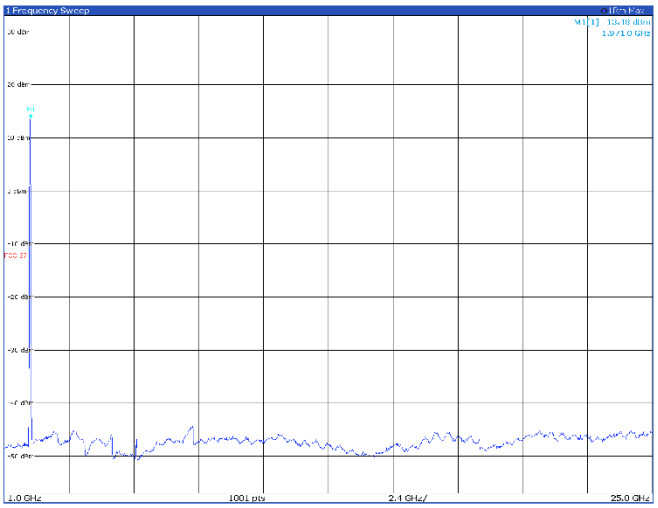




Limit exceeded by the carrier

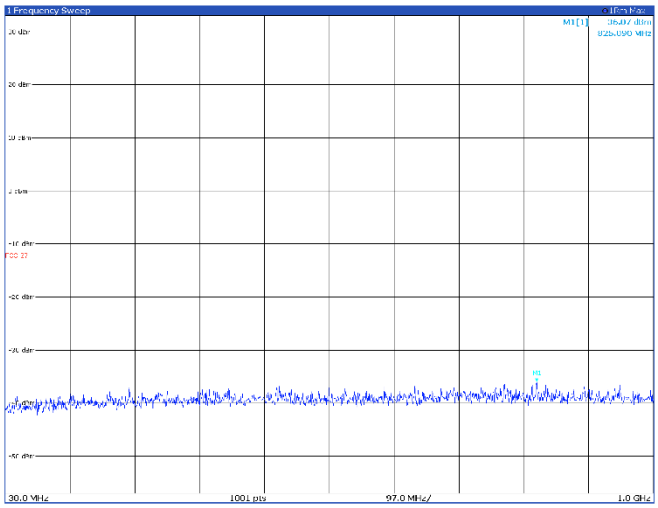
TM3p1a, 20 MHz, mid channel

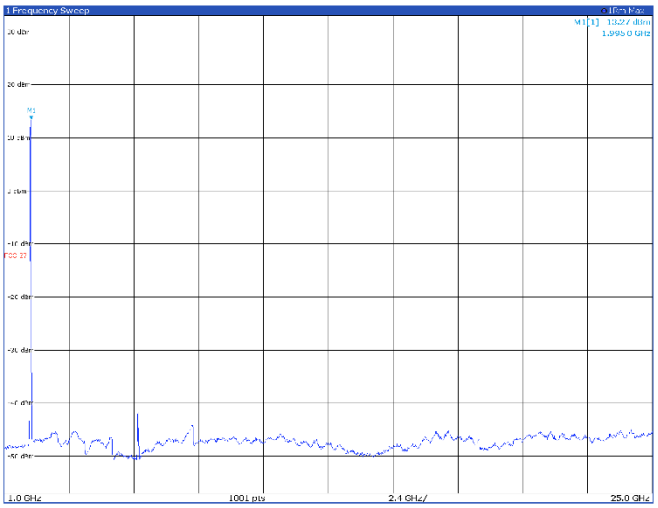




Limit exceeded by the carrier

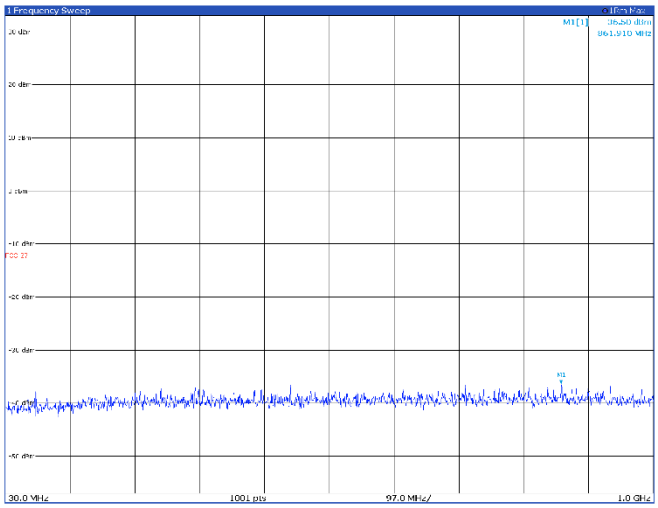
TM3p1a, 20 MHz, high channel

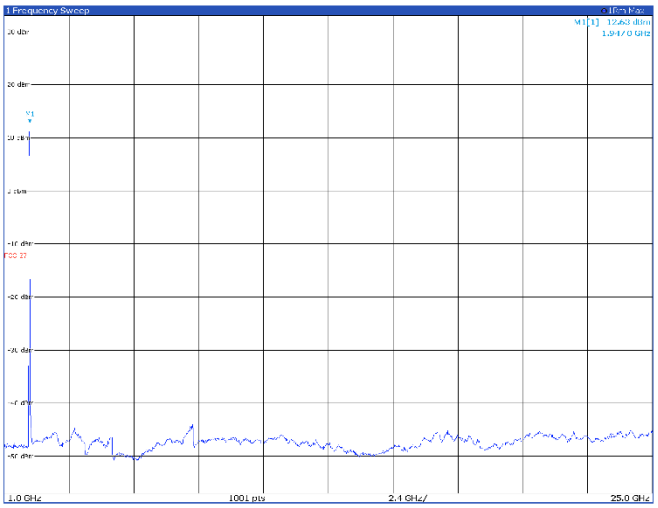




Limit exceeded by the carrier

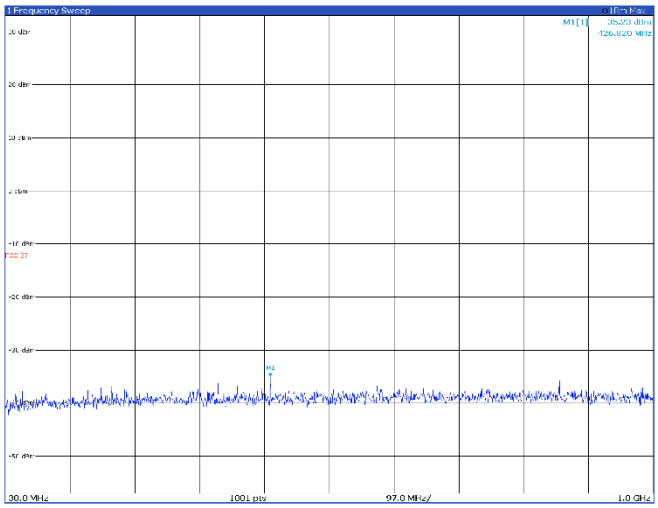
TM3p3, 20 MHz, low channel

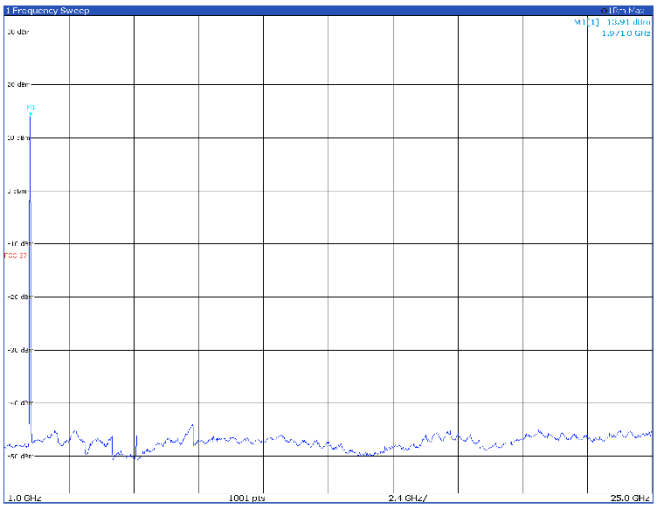




Limit exceeded by the carrier

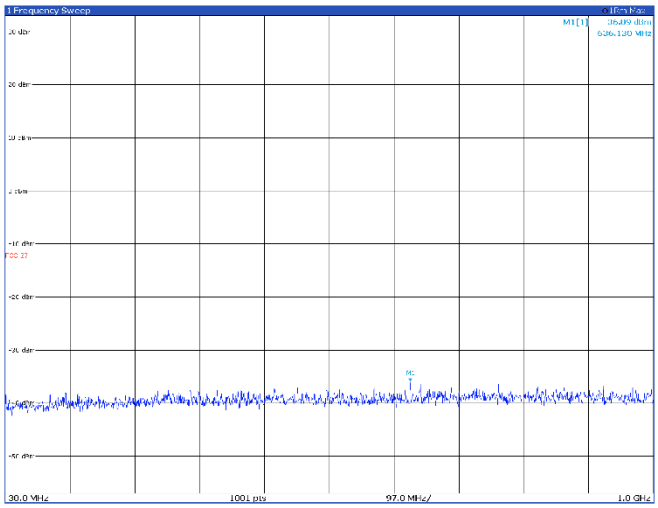
TM3p3, 20 MHz, mid channel

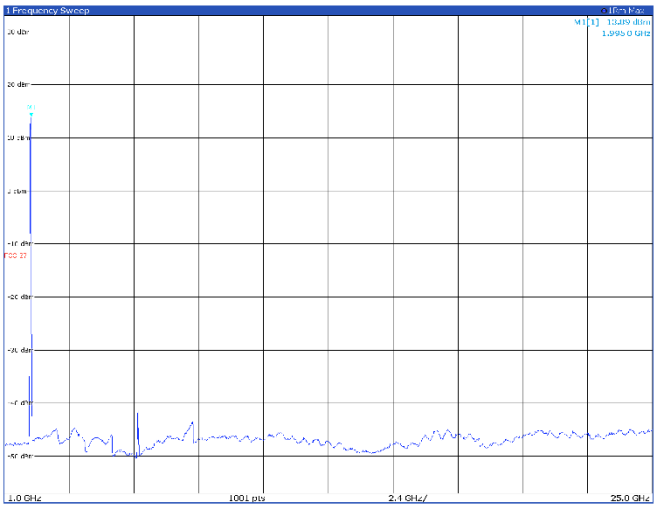




Limit exceeded by the carrier

TM3p3, 20 MHz, high channel

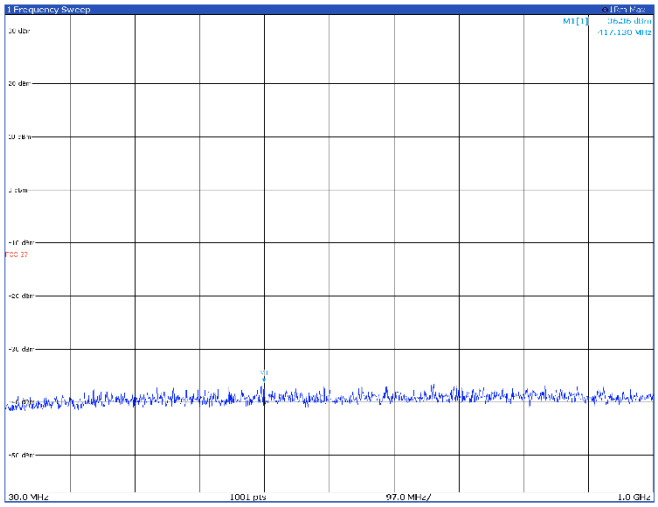


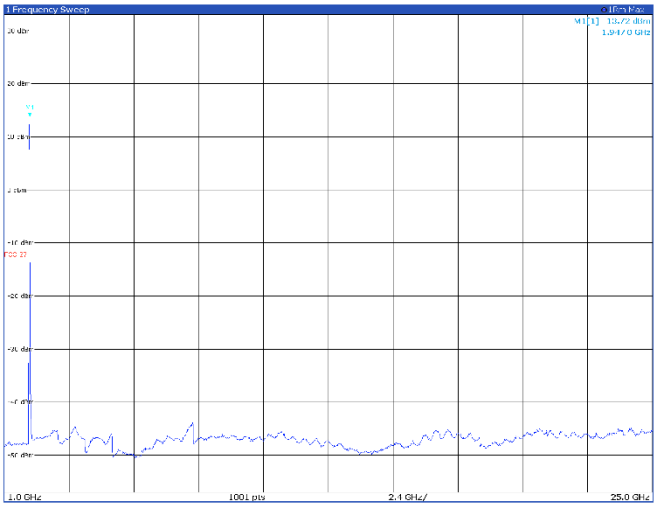


Limit exceeded by the carrier

Band n25 – conducted emissions Antenna port 2 **20 MHz**

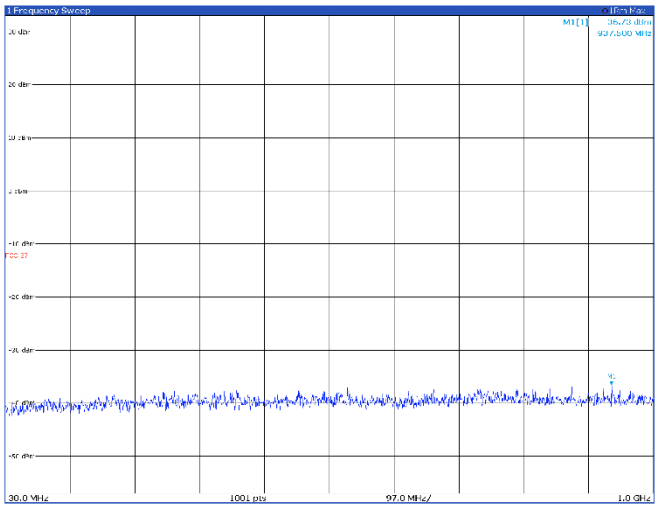
TM1.1, 20 MHz, low channel

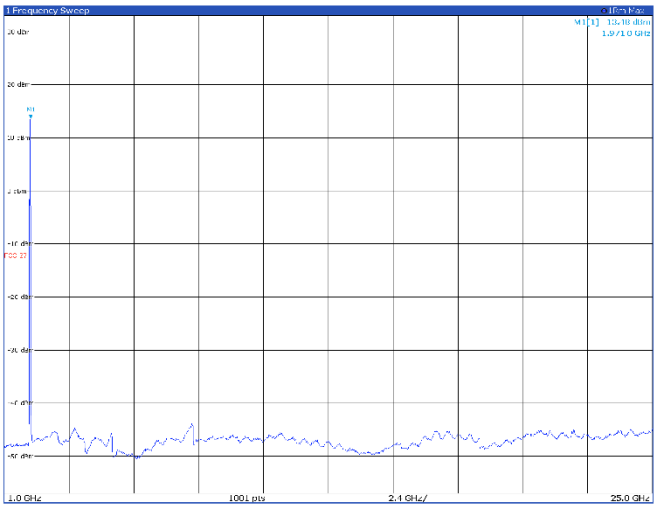




Limit exceeded by the carrier

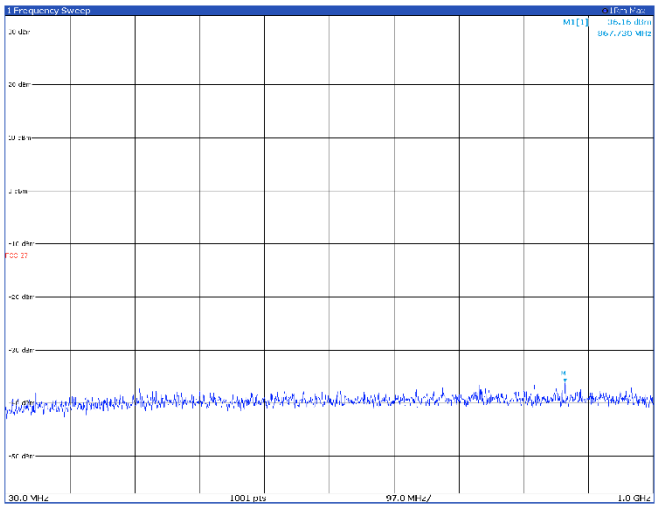
TM1.1, 20 MHz, mid channel

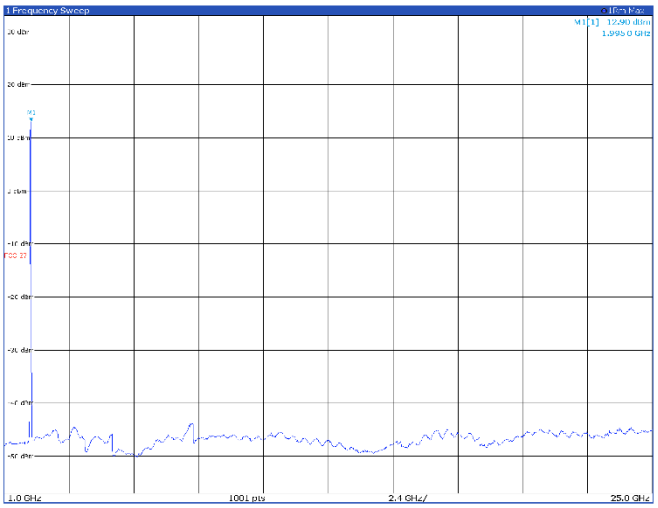




Limit exceeded by the carrier

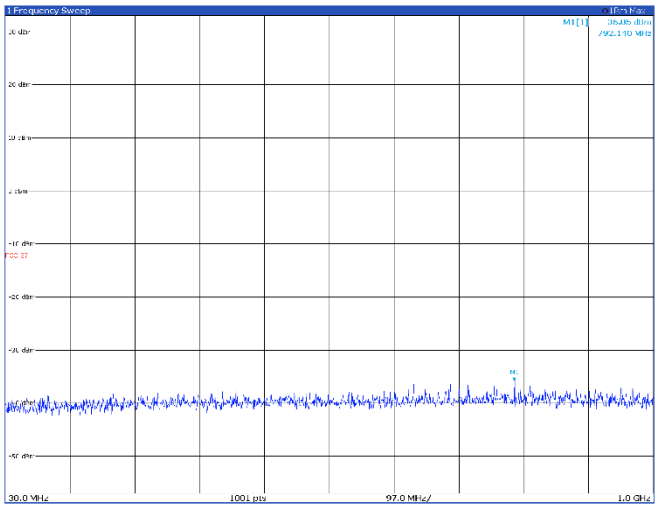
TM1.1, 20 MHz, high channel

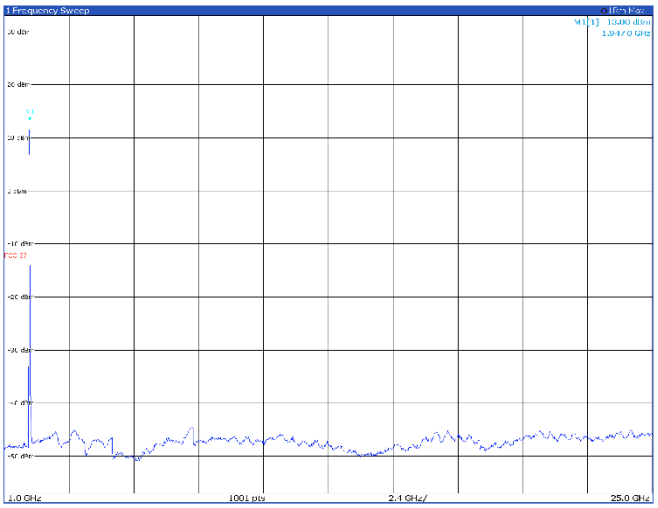




Limit exceeded by the carrier

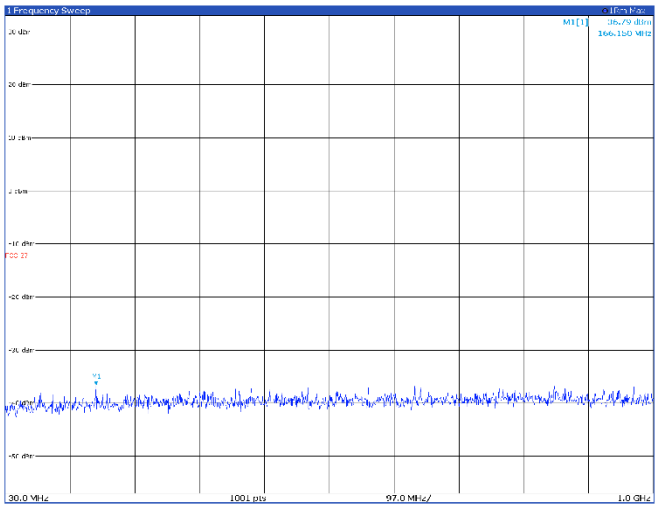
TM3p1, 20 MHz, low channel

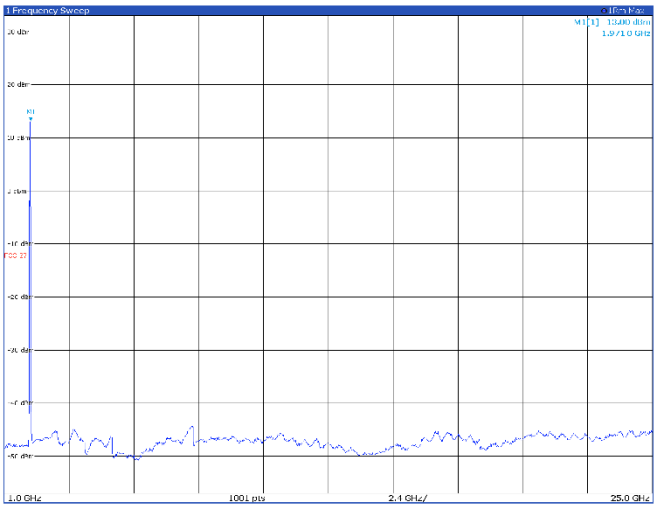




Limit exceeded by the carrier

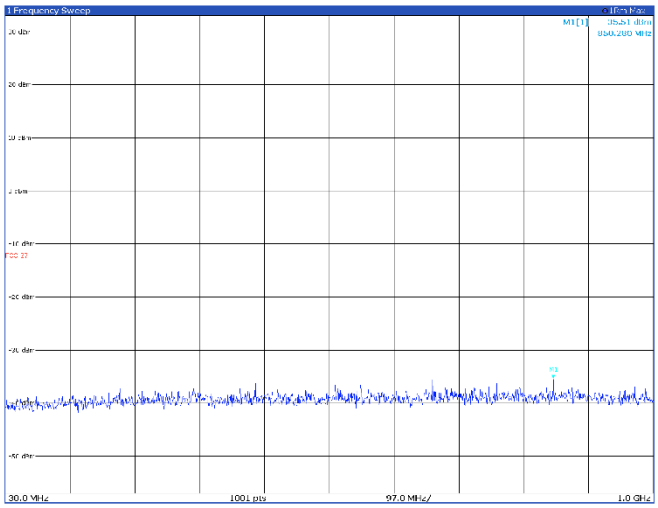
TM3p1, 20 MHz, mid channel

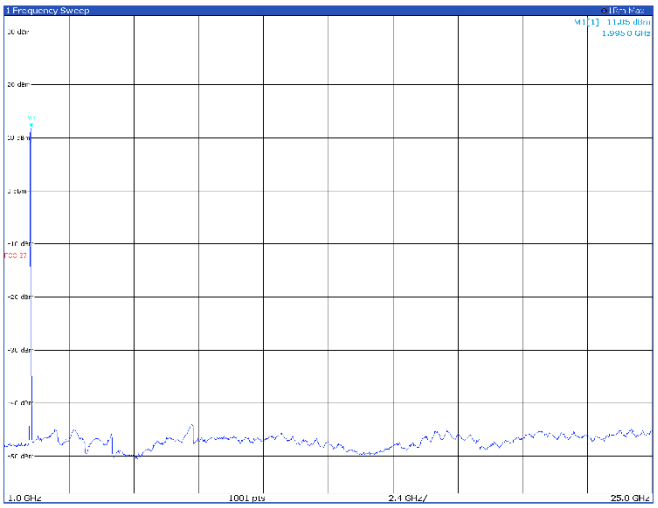




Limit exceeded by the carrier

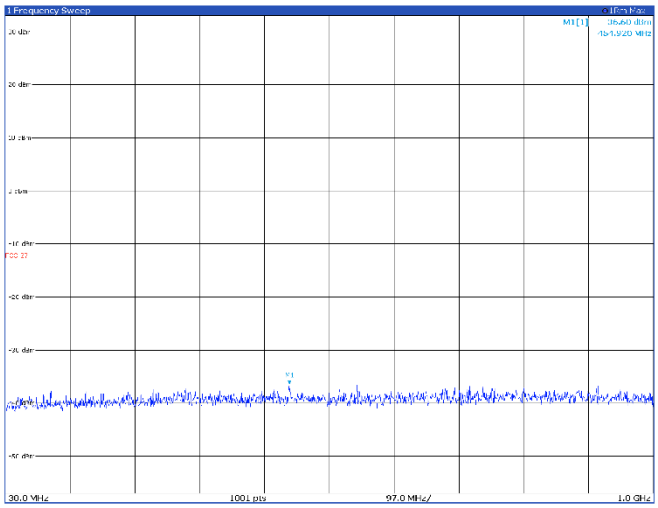
TM3p1, 20 MHz, high channel

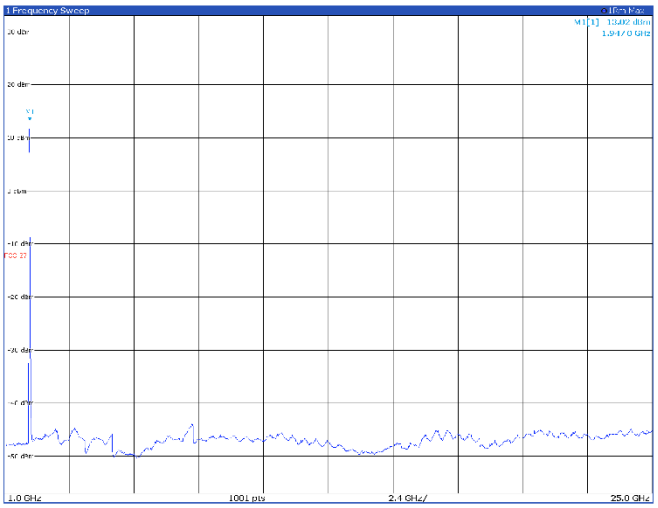




Limit exceeded by the carrier

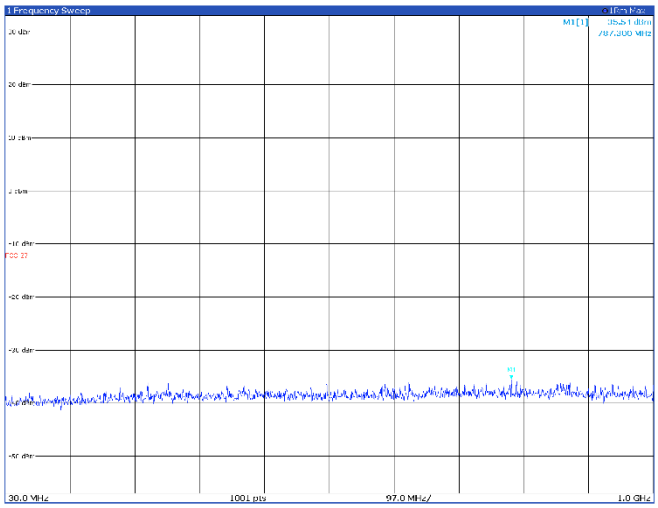
TM3p1a, 20 MHz, low channel

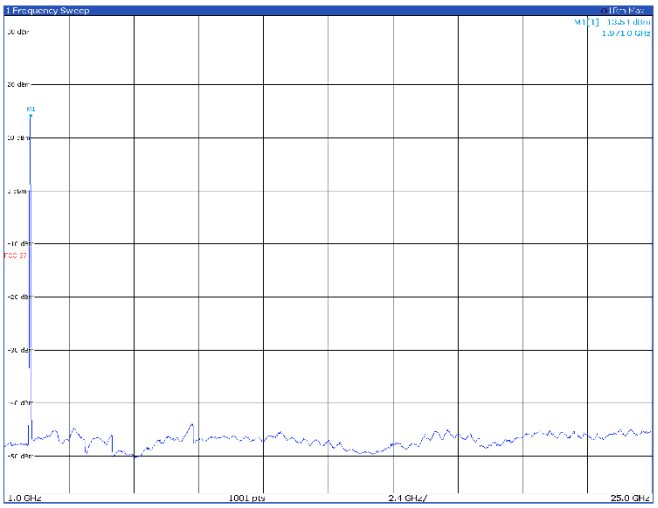




Limit exceeded by the carrier

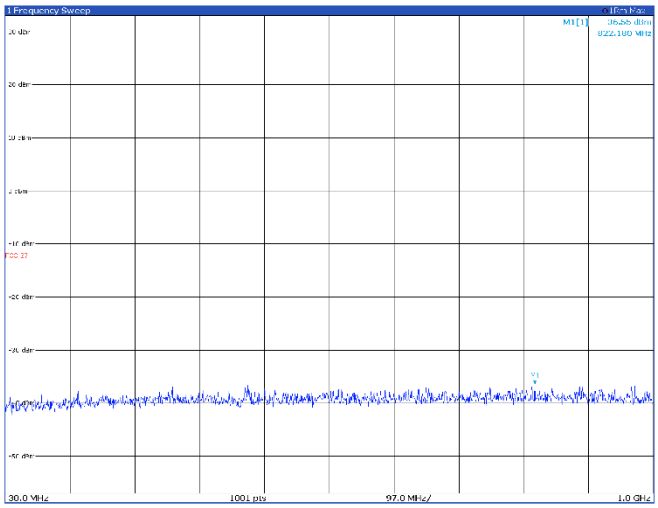
TM3p1a, 20 MHz, mid channel

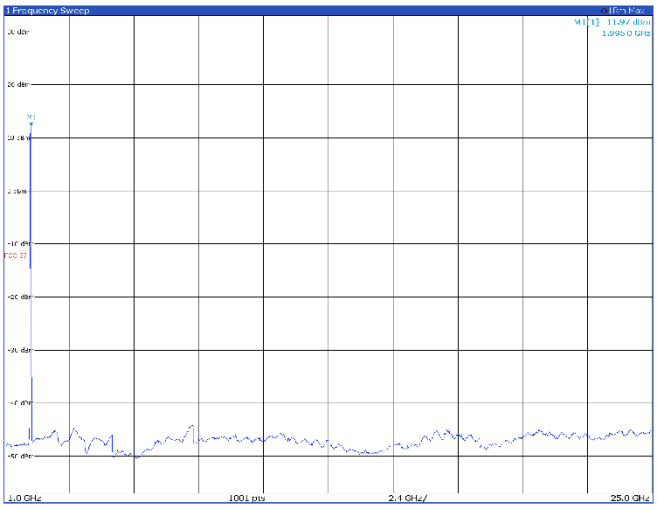




Limit exceeded by the carrier

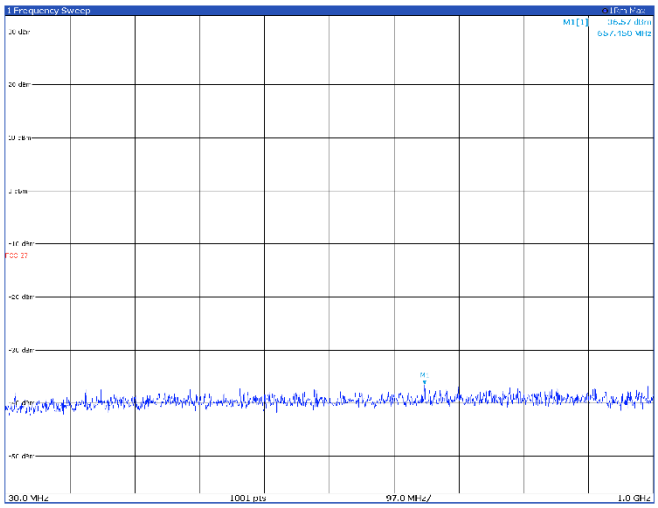
TM3p1a, 20 MHz, high channel

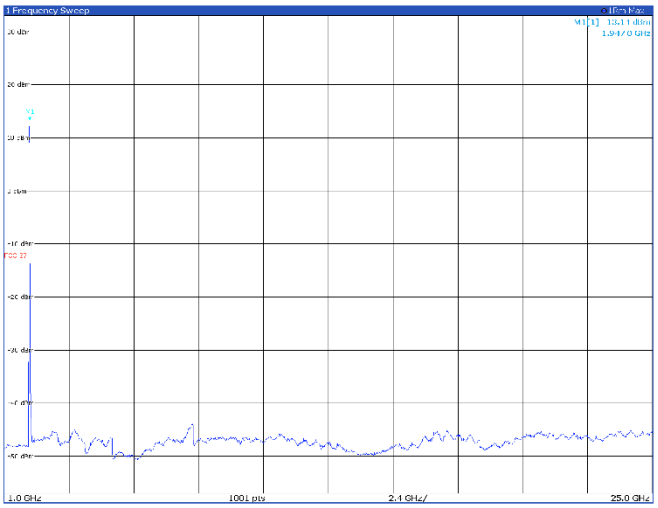




Limit exceeded by the carrier

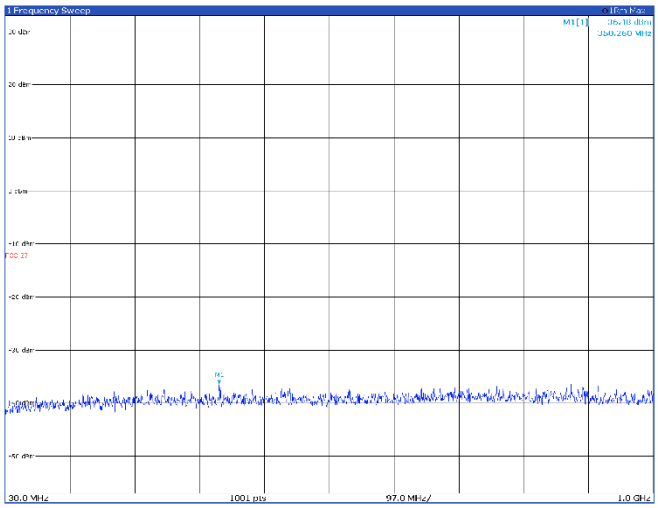
TM3p3, 20 MHz, low channel

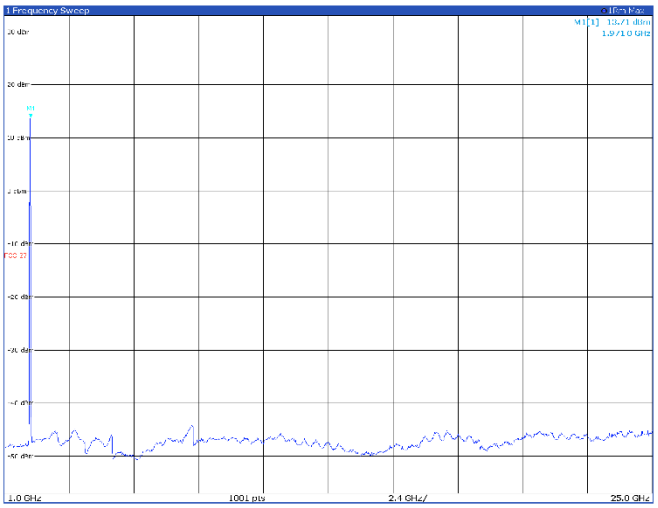




Limit exceeded by the carrier

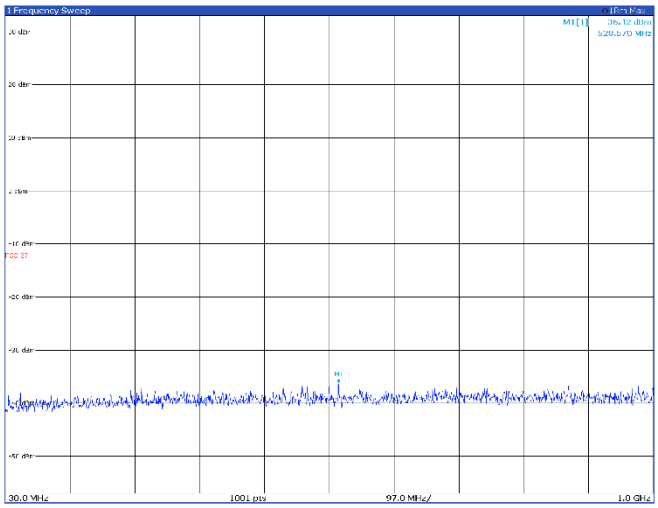
TM3p3, 20 MHz, mid channel

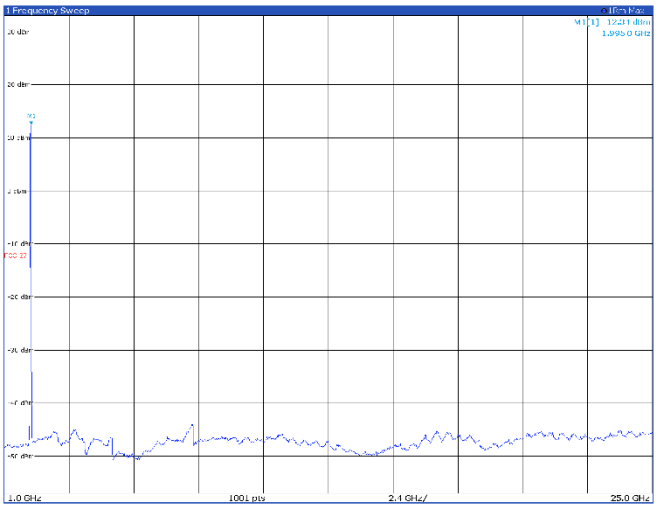




Limit exceeded by the carrier

TM3p3, 20 MHz, high channel

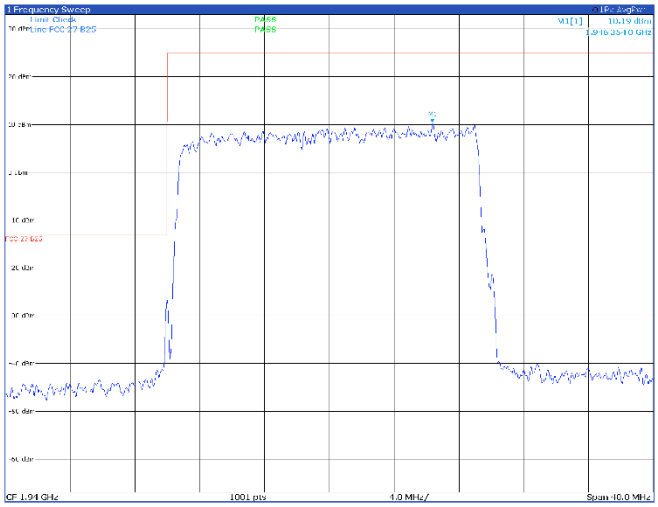




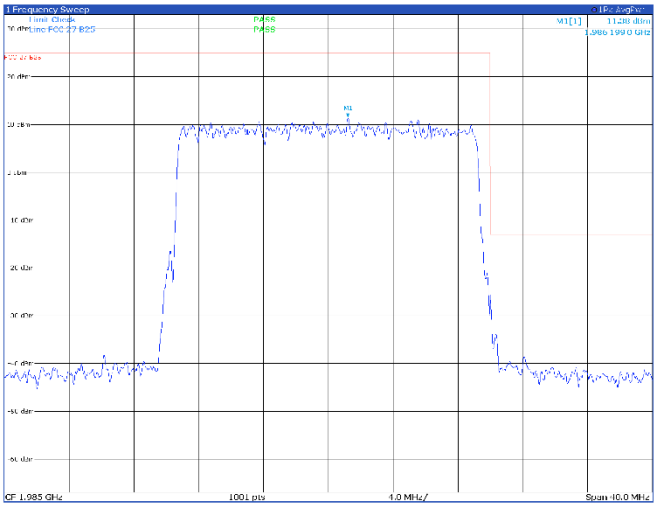
Limit exceeded by the carrier

Band n25 – band edge Antenna port 1 **20 MHz**

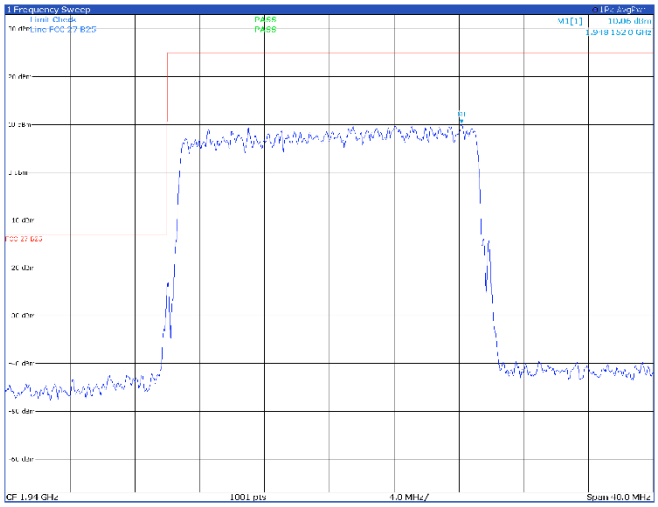
TM1.1, 20 MHz, low channel



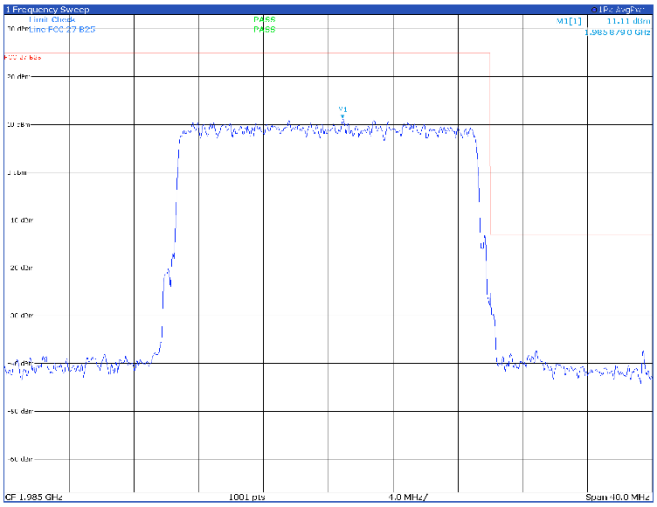
TM1.1, 20 MHz, high channel



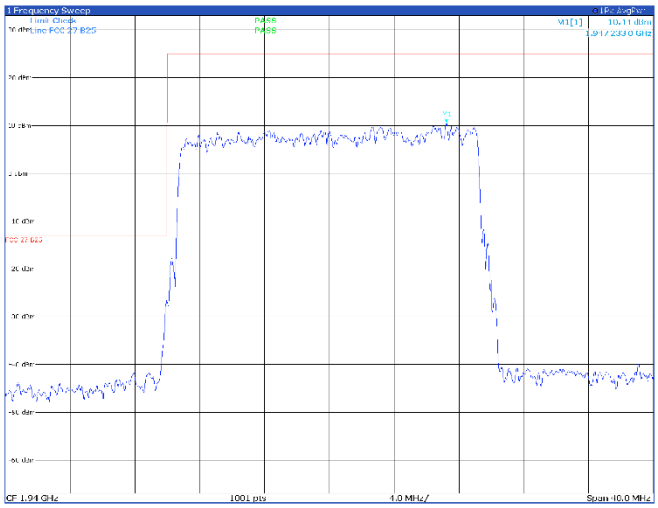
TM3p1, 20 MHz, low channel



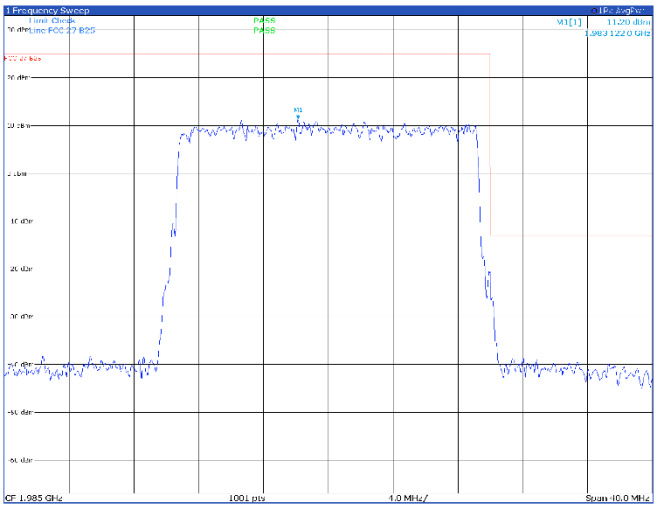
TM3p1, 20 MHz, high channel



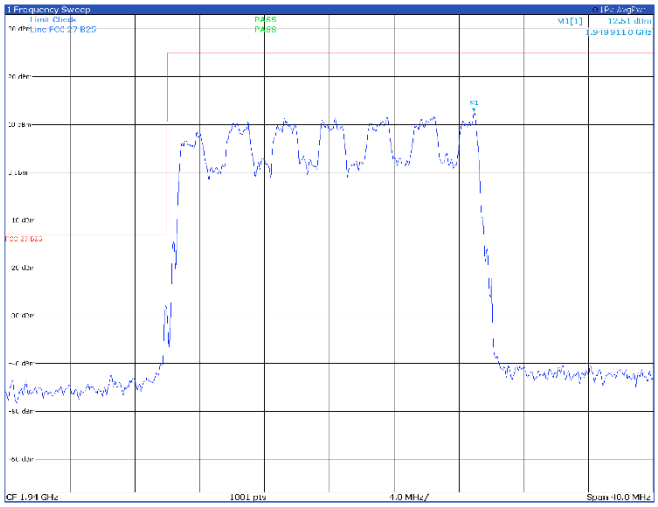
TM3p1a, 20 MHz, low channel



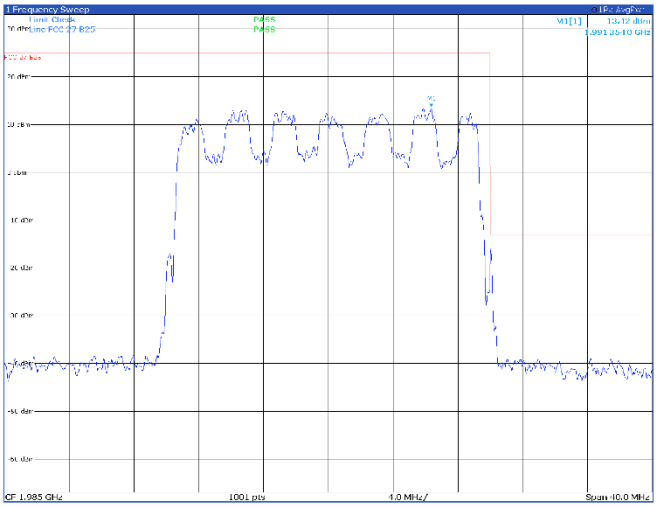
TM3p1a, 20 MHz, high channel



TM3p3, 20 MHz, low channel

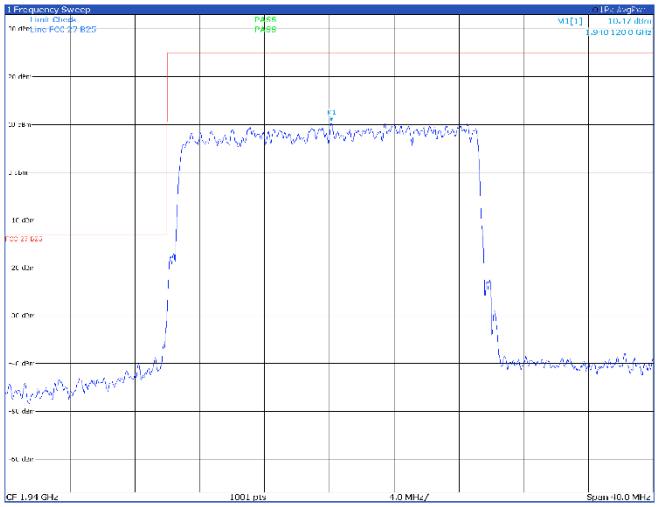


TM3p3, 20 MHz, high channel

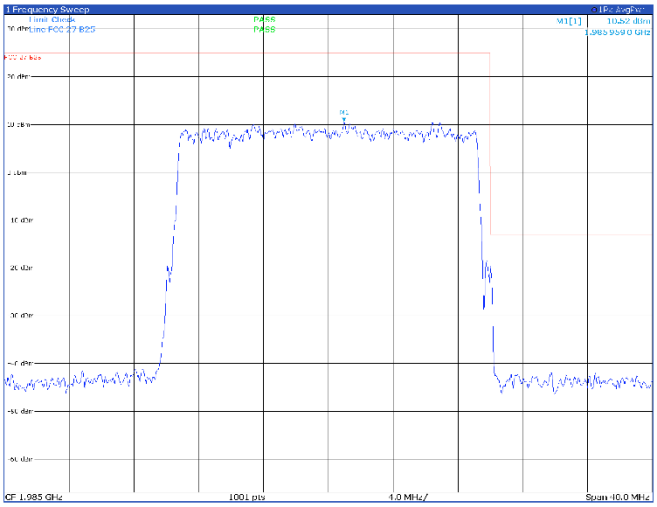


Band n25 – band edge Antenna port 2 **20 MHz**

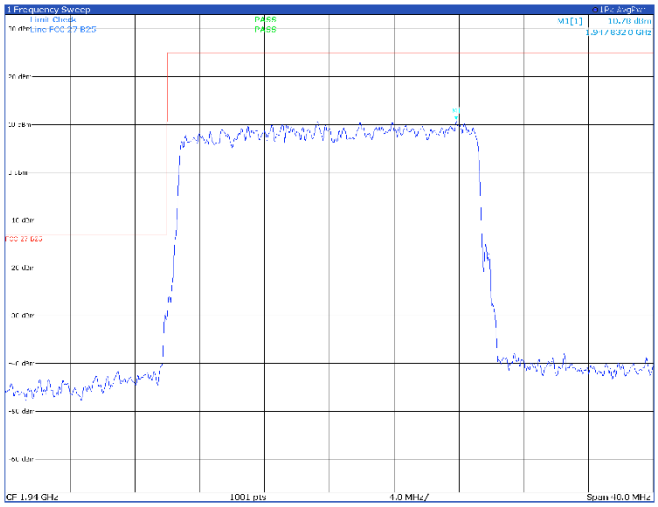
TM1.1, 20 MHz, low channel



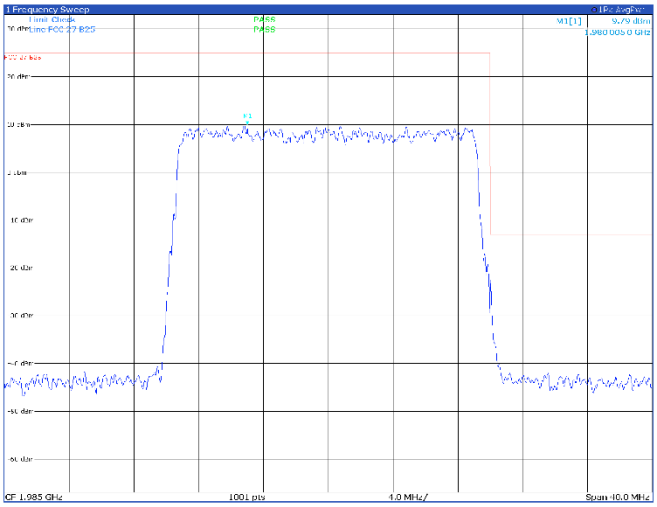
TM1.1, 20 MHz, high channel



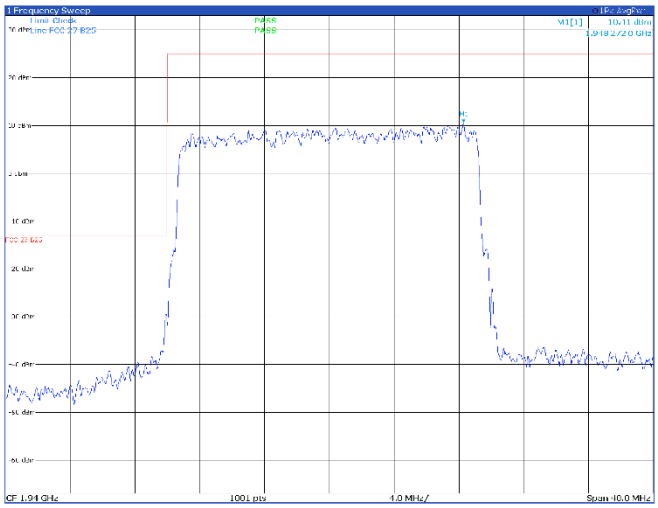
TM3p1, 20 MHz, low channel



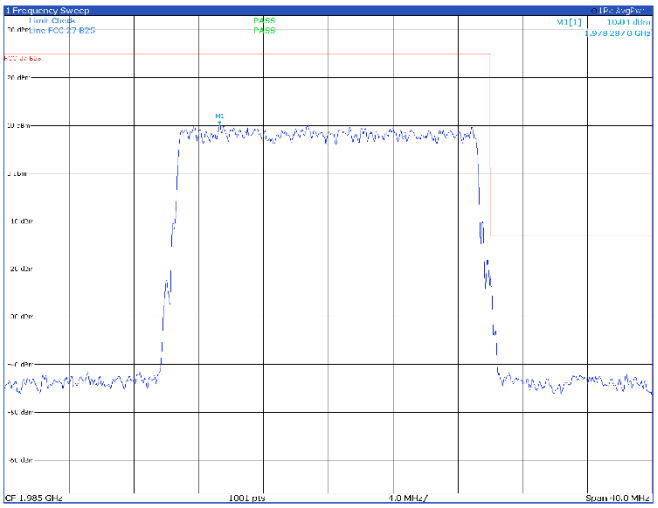
TM3p1, 20 MHz, high channel



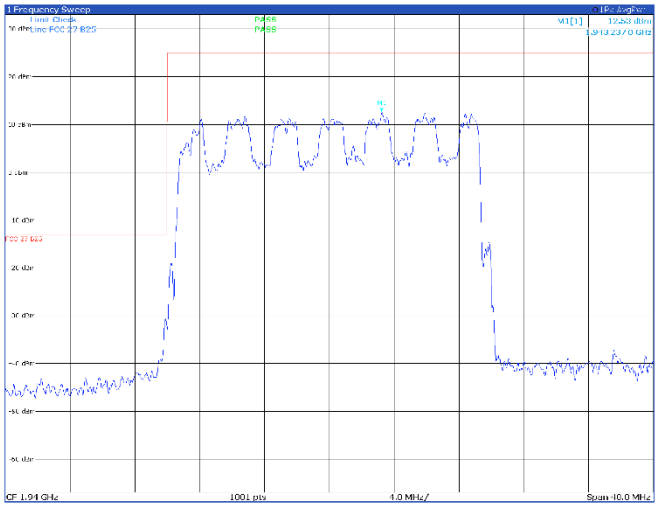
TM3p1a, 20 MHz, low channel



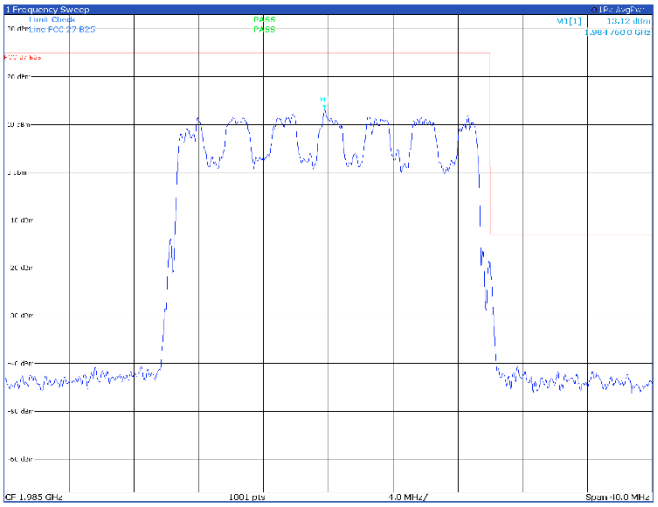
TM3p1a, 20 MHz, high channel

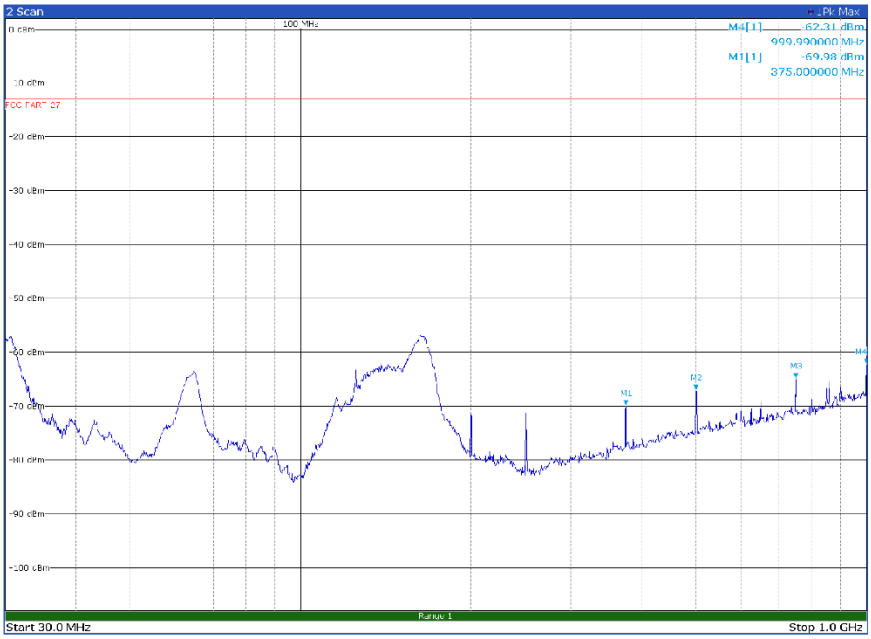


TM3p3, 20 MHz, low channel



TM3p3, 20 MHz, high channel

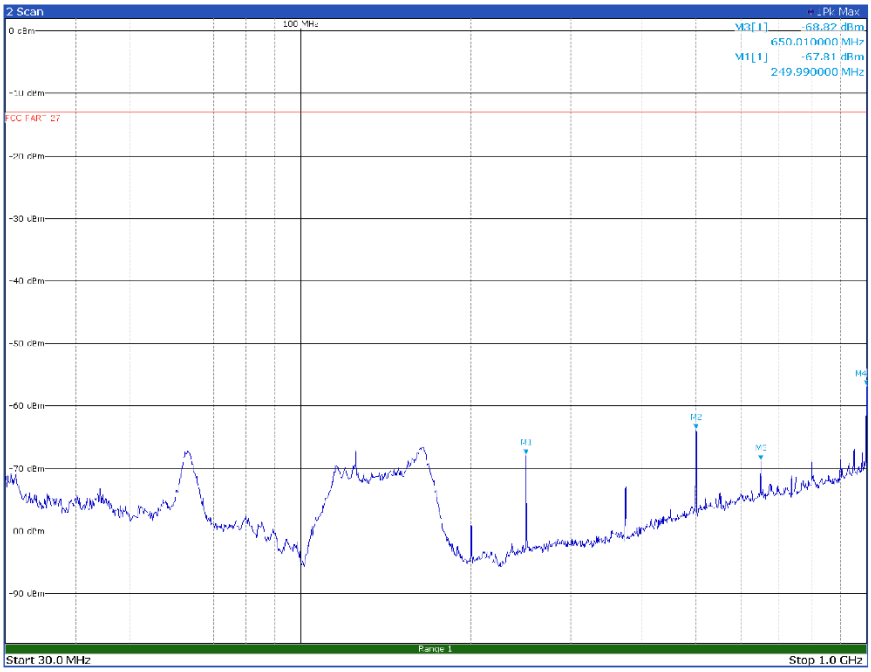




3 Marker Table

Wnd	Type	Ref	Trc	X-value	Y-value
Scan	M1		1	375.0 MHz	-69.98 dBm
Scan	M2		1	500.01 MHz	-67.16 dBm
Scan	M3		1	750.0 MHz	-64.93 dBm
Scan	M4		1	999.99 MHz	-62.31 dBm

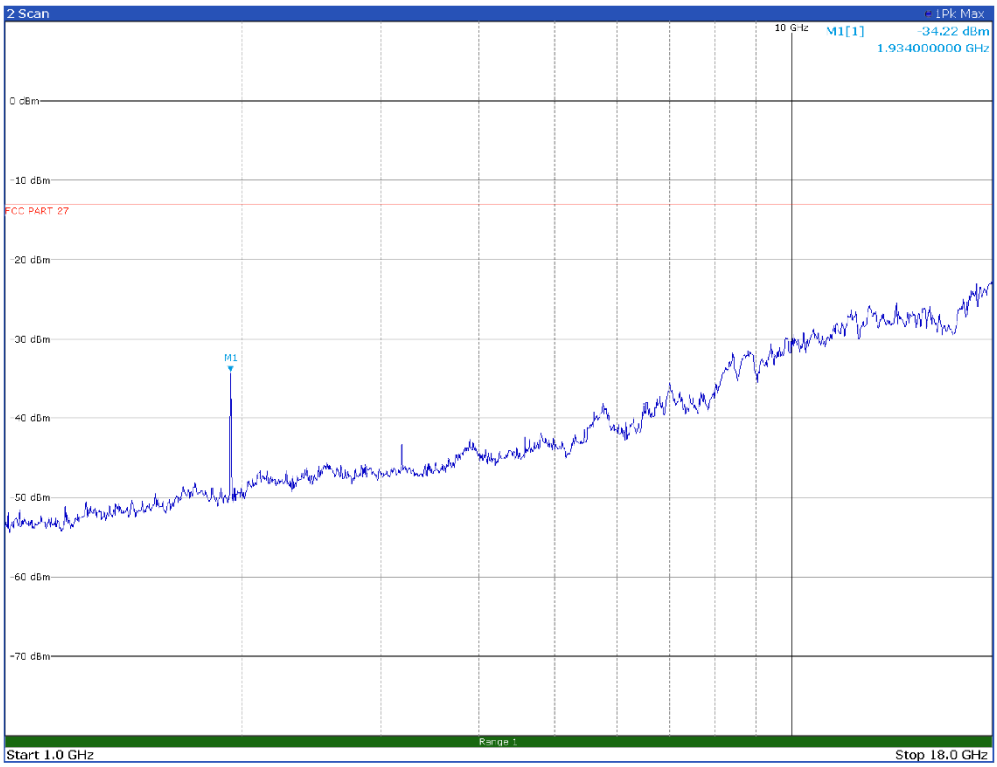
Radiated emissions spectral plot (30 MHz - 1 GHz), vertical polarization, low channel, TM3p3 modulation



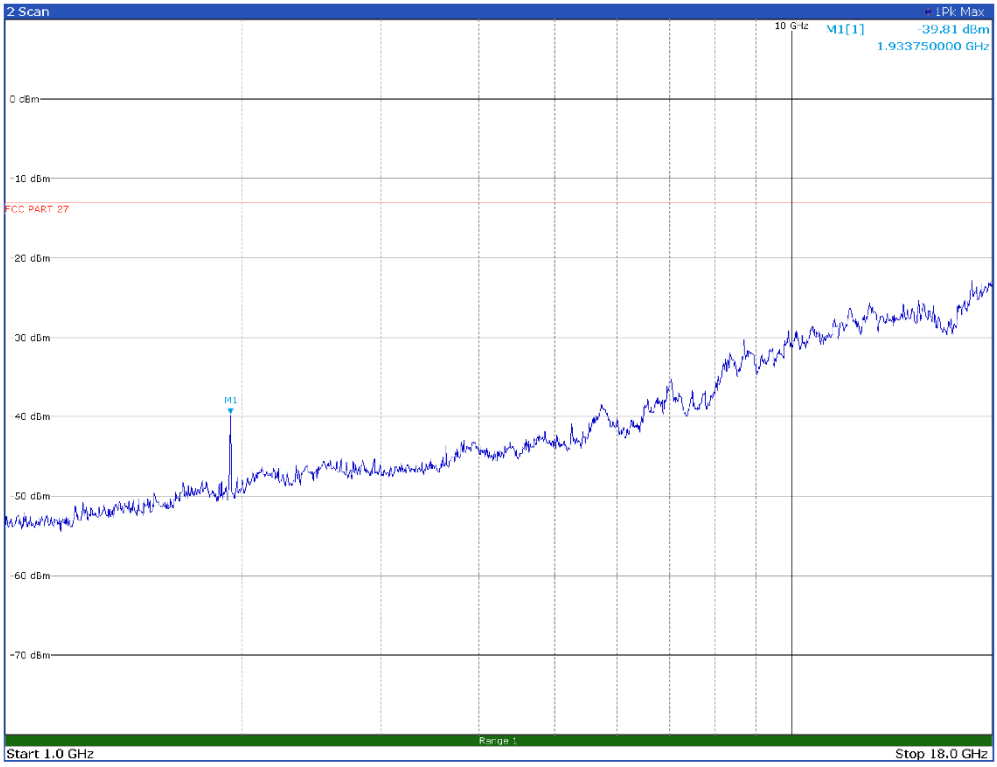
1 Marker Table

Wnd	Type	Ref	Trc	X-value	Y-value
Scan	M1		1	249.99 MHz	-67.81 dBm
Scan	M2		1	500.01 MHz	-63.82 dBm
Scan	M3		1	650.01 MHz	-68.82 dBm
Scan	M4		1	999.99 MHz	-56.83 dBm

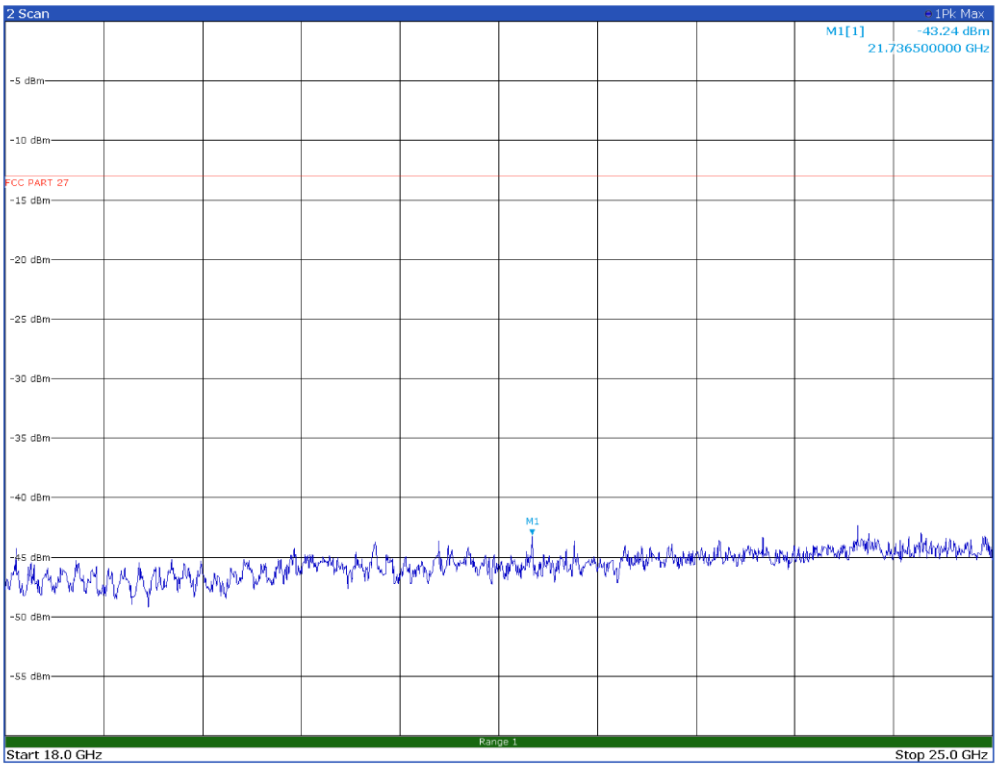
Radiated emissions spectral plot (30 MHz - 1 GHz), horizontal polarization, low channel, TM3p3 modulation



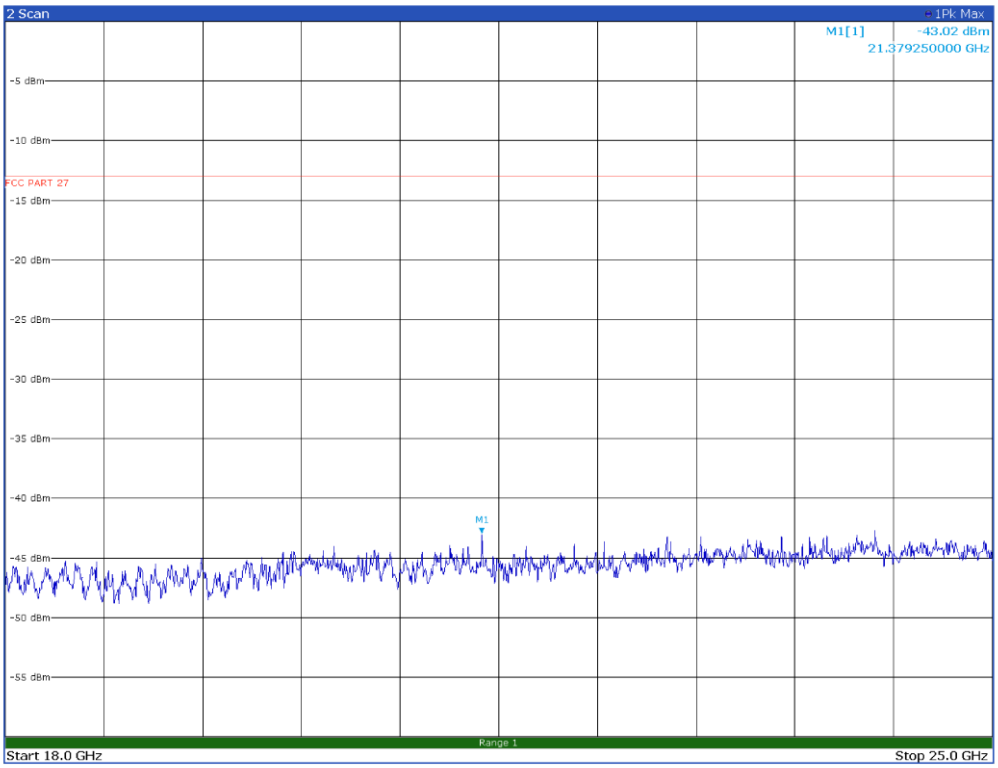
Radiated emissions spectral plot (1 GHz - 18 GHz), vertical polarization, low channel, TM3p3 modulation



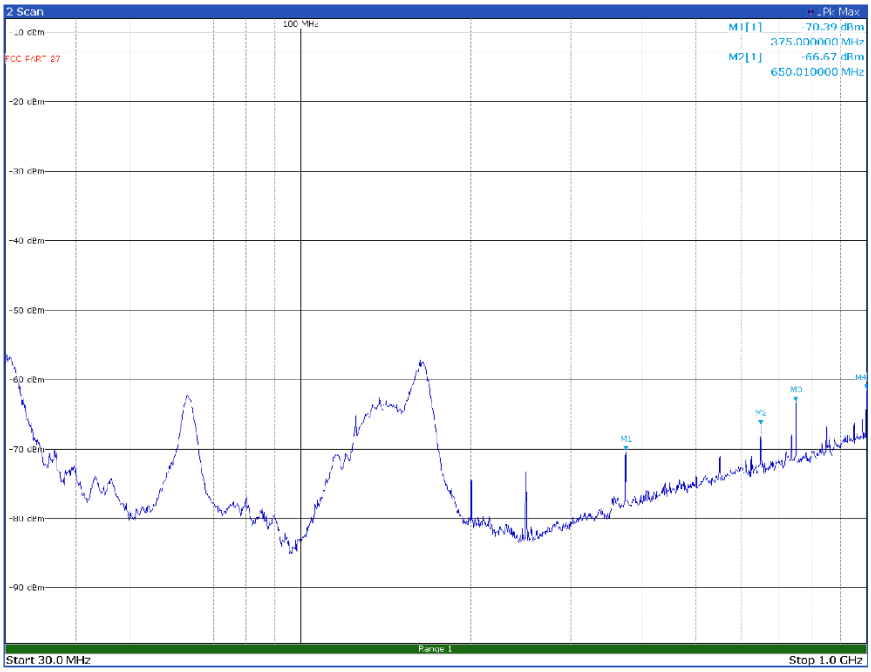
Radiated emissions spectral plot (1 GHz - 18 GHz), horizontal polarization, low channel, TM3p3 modulation



Radiated emissions spectral plot (18 GHz - 25 GHz), vertical polarization, low channel, TM3p3 modulation



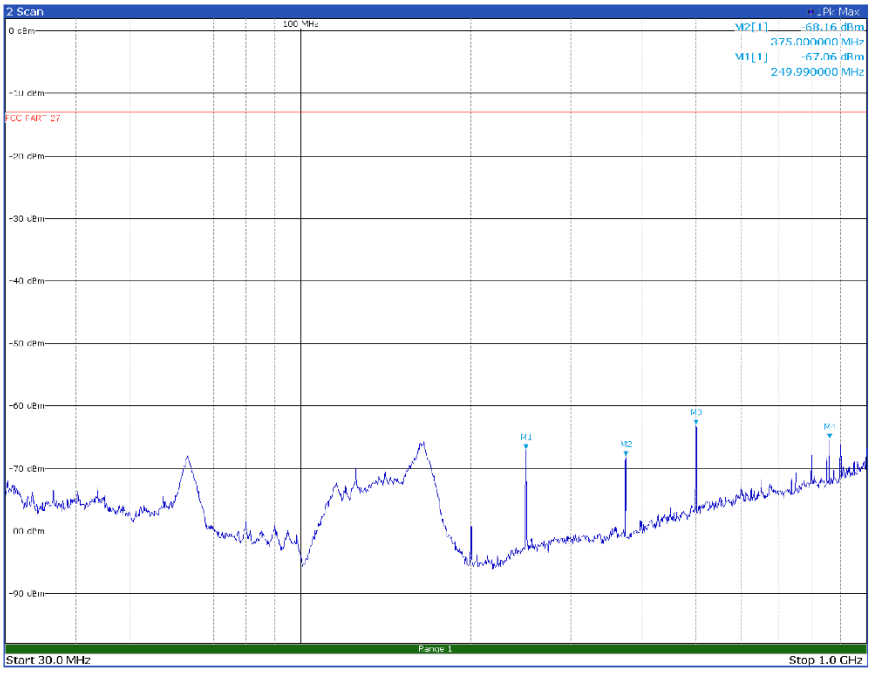
Radiated emissions spectral plot (18 GHz - 25 GHz), horizontal polarization, low channel, TM3p3 modulation



3 Marker Table

Wnd	Type	Ref	Trc	X-value	Y-value
Scan	M1		1	375.0 MHz	-70.39 dBm
Scan	M2		1	650.01 MHz	-66.67 dBm
Scan	M3		1	750.0 MHz	-63.28 dBm
Scan	M4		1	999.99 MHz	-61.55 dBm

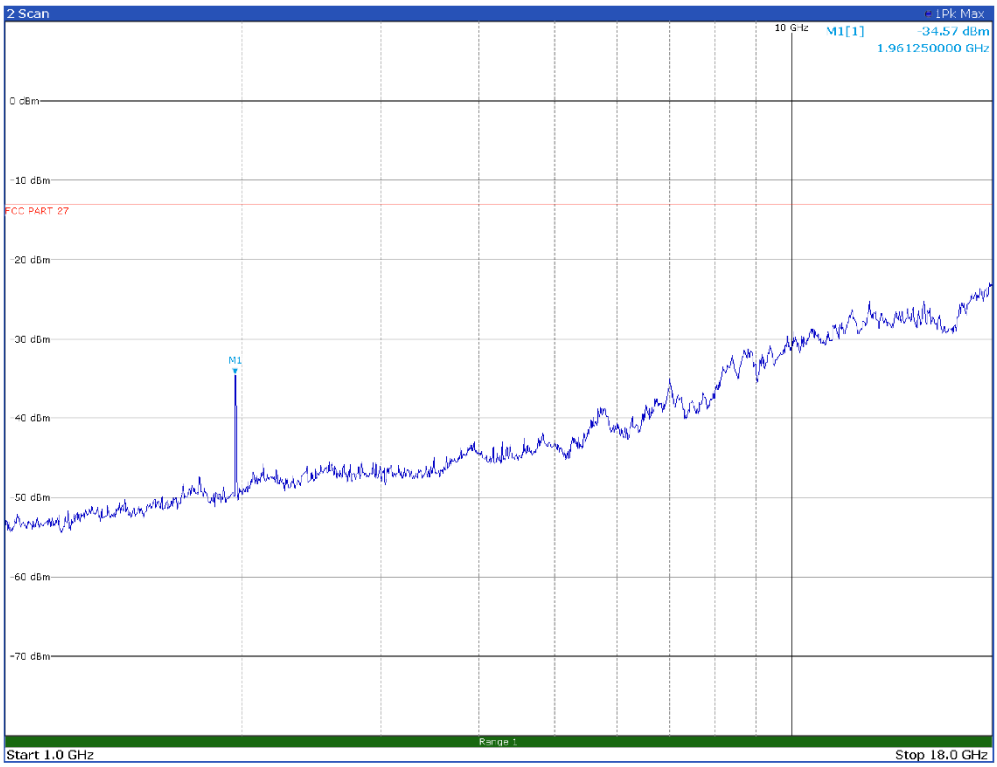
Radiated emissions spectral plot (30 MHz - 1 GHz), vertical polarization, mid channel, TM3p3 modulation



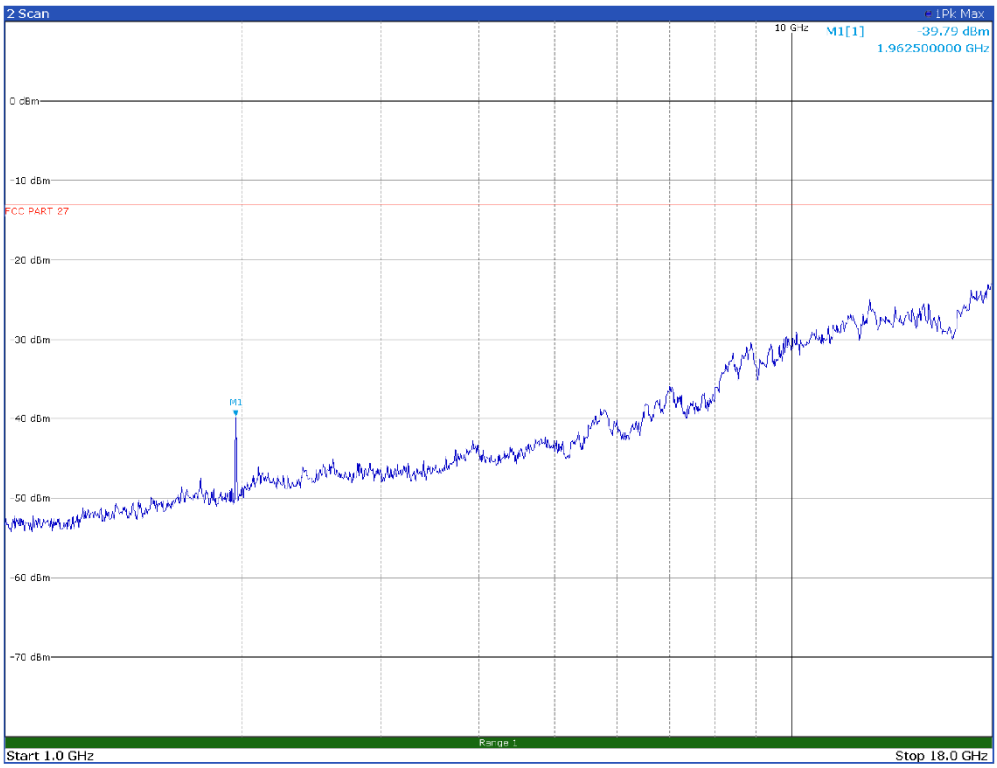
1 Marker Table

Wnd	Type	Ref	Trc	X-value	Y-value
Scan	M1		1	249.99 MHz	-67.06 dBm
Scan	M2		1	375.0 MHz	-68.16 dBm
Scan	M3		1	500.01 MHz	-63.06 dBm
Scan	M4		1	860.16 MHz	-65.33 dBm

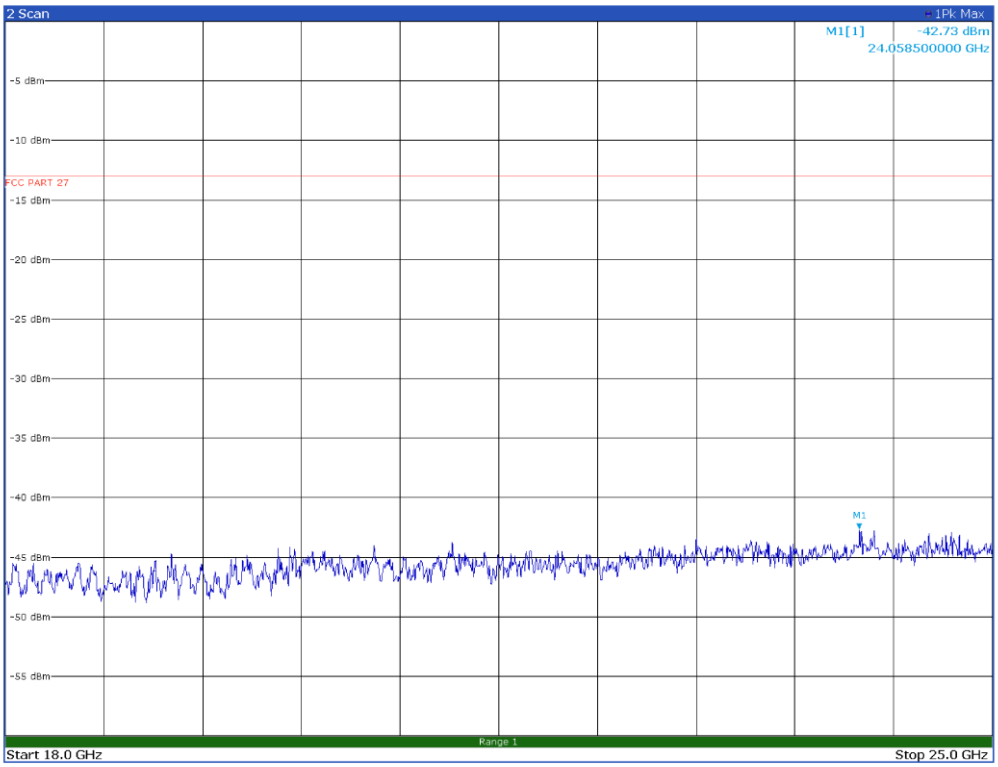
Radiated emissions spectral plot (30 MHz - 1 GHz), horizontal polarization, mid channel, TM3p3 modulation



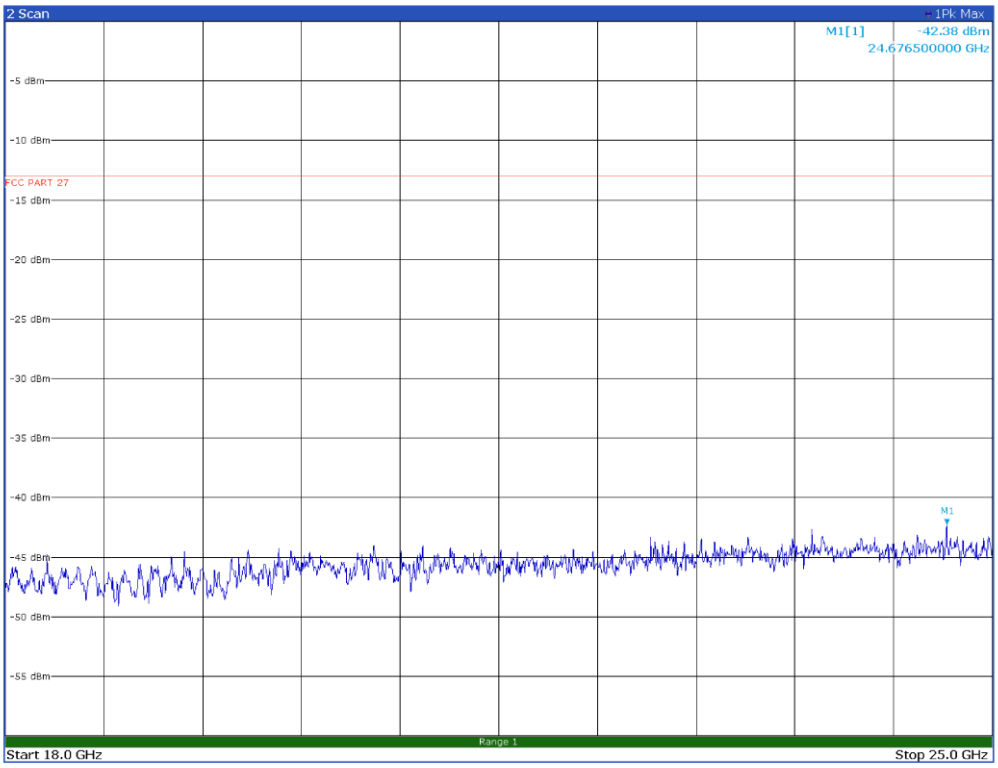
Radiated emissions spectral plot (1 GHz - 18 GHz), vertical polarization, mid channel, TM3p3 modulation



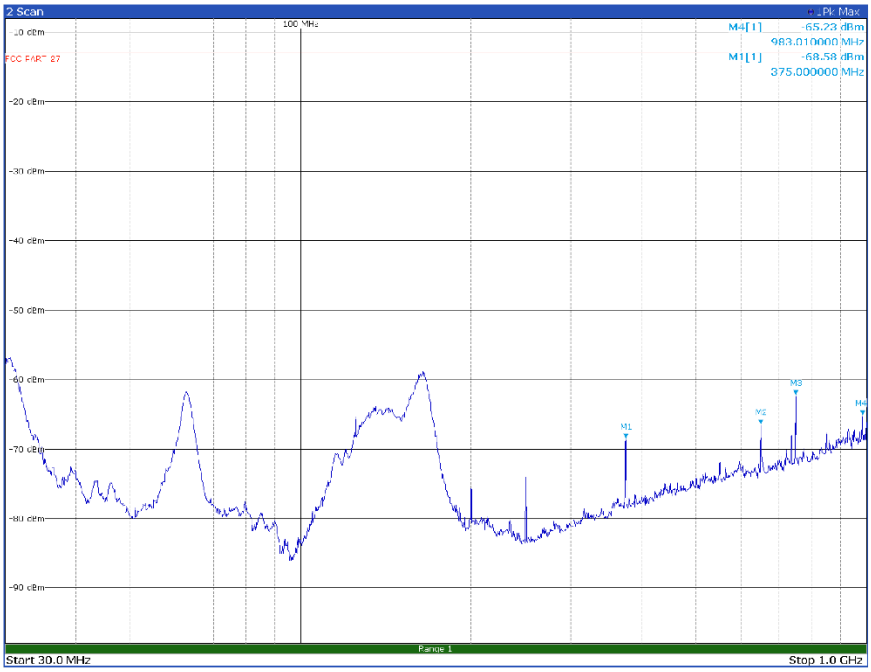
Radiated emissions spectral plot (1 GHz - 18 GHz), horizontal polarization, mid channel, TM3p3 modulation



Radiated emissions spectral plot (18 GHz - 25 GHz), vertical polarization, mid channel, TM3p3 modulation



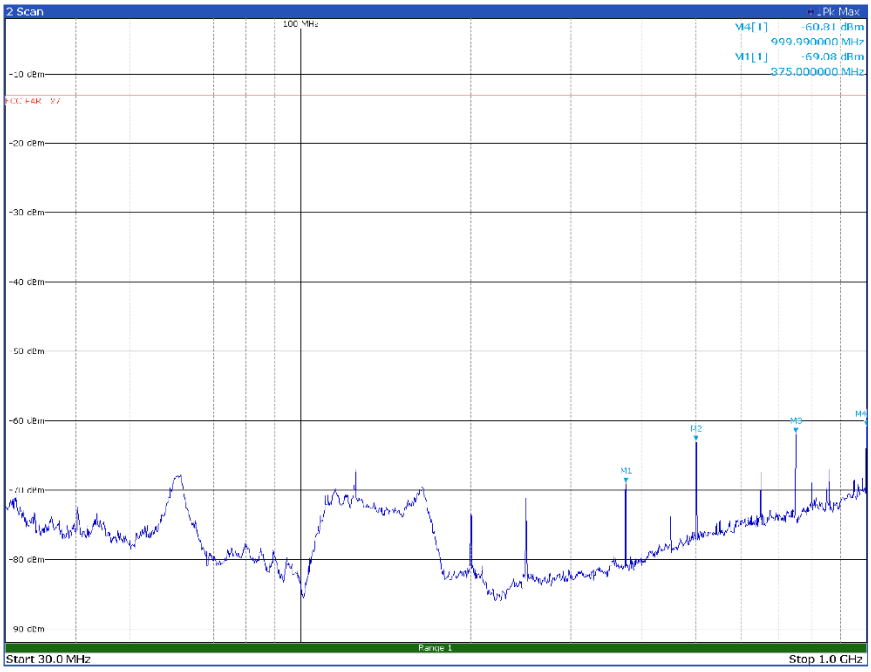
Radiated emissions spectral plot (18 GHz - 25 GHz), horizontal polarization, mid channel, TM3p3 modulation



3 Marker Table

Wnd	Type	Ref	Trc	X-value	Y-value
Scan	M1		1	375.0 MHz	-68.58 dBm
Scan	M2		1	650.01 MHz	-66.61 dBm
Scan	M3		1	750.0 MHz	-62.37 dBm
Scan	M4		1	983.01 MHz	-65.23 dBm

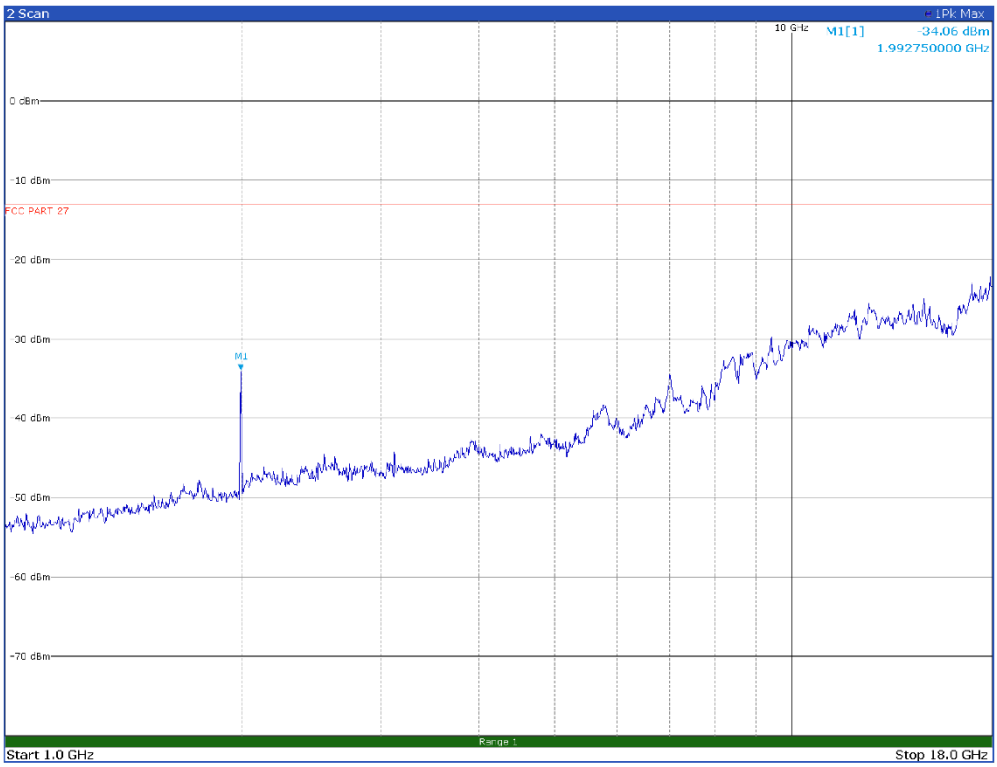
Radiated emissions spectral plot (30 MHz - 1GHz), vertical polarization, high channel, TM3p3 modulation



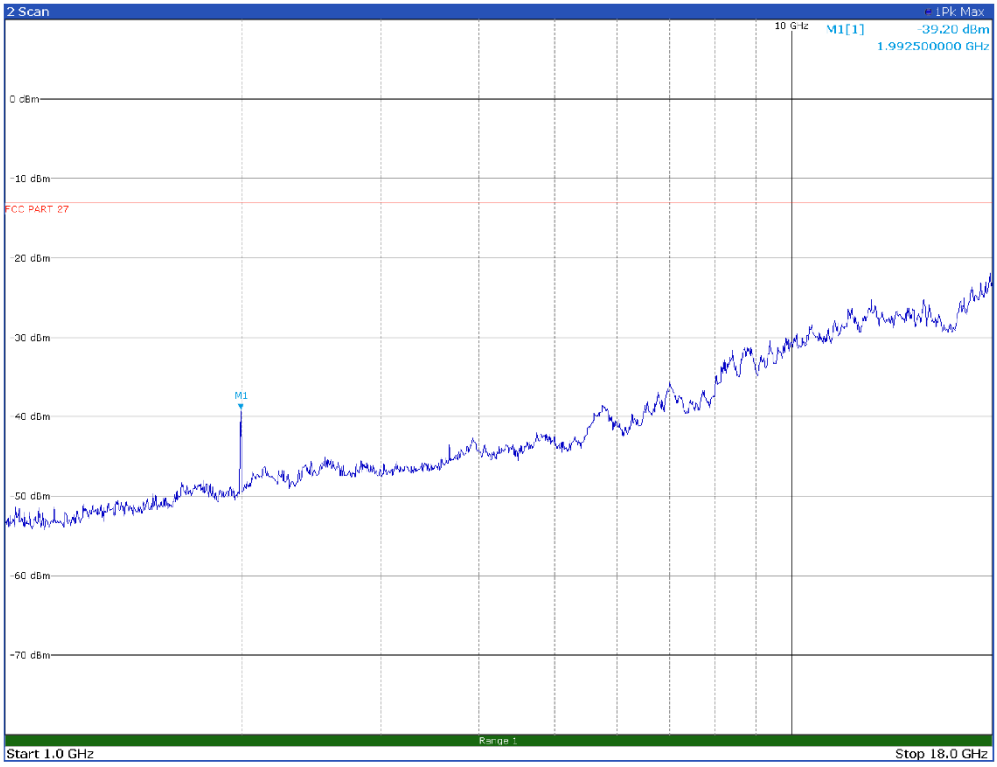
1 Marker Table

Wnd	Type	Ref	Trc	X-value	Y-value
Scan	M1		1	375.0 MHz	-69.08 dBm
Scan	M2		1	500.01 MHz	-62.98 dBm
Scan	M3		1	750.0 MHz	-61.87 dBm
Scan	M4		1	999.99 MHz	-60.81 dBm

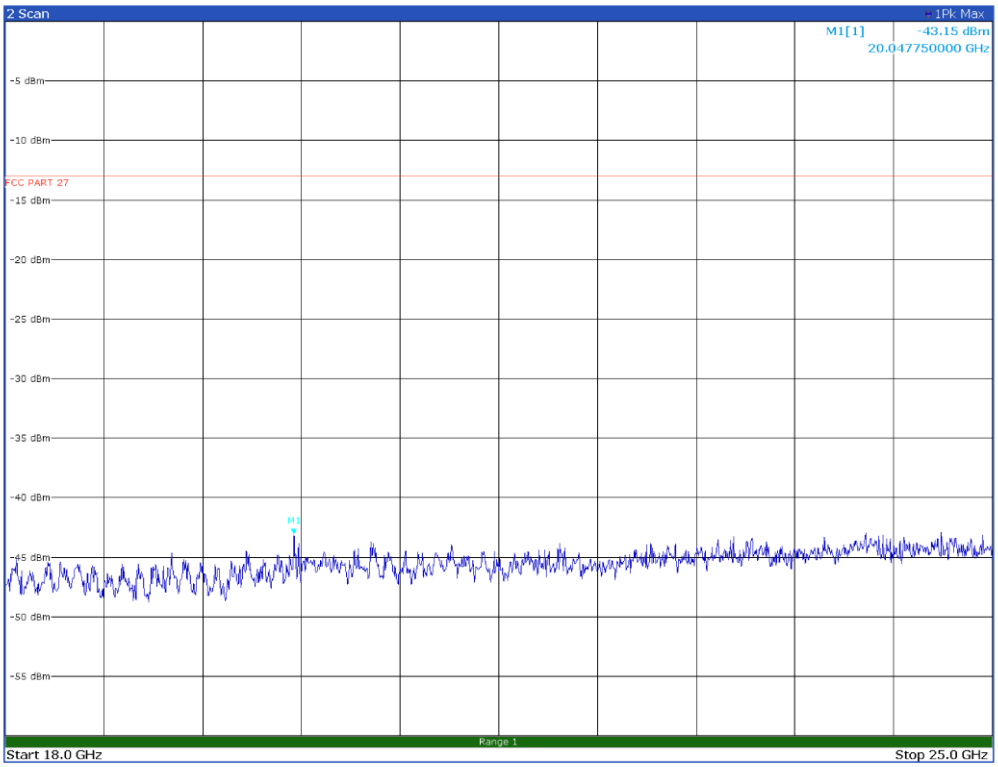
Radiated emissions spectral plot (30 MHz - 1GHz), horizontal polarization, high channel, TM3p3 modulation



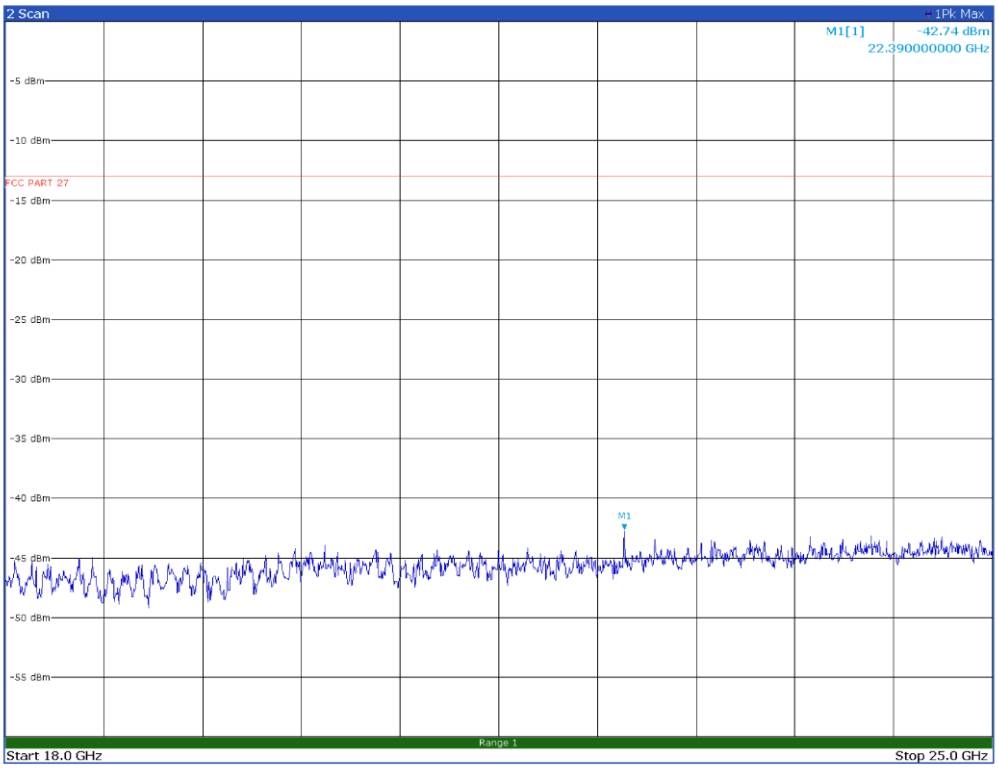
Radiated emissions spectral plot (1 GHz - 18 GHz), vertical polarization, high channel, TM3p3 modulation



Radiated emissions spectral plot (1 GHz - 18 GHz), horizontal polarization, high channel, TM3p3 modulation



Radiated emissions spectral plot (18 GHz – 25 GHz), vertical polarization, high channel, TM3p3 modulation



Radiated emissions spectral plot (18 GHz – 25 GHz), horizontal polarization, high channel, TM3p3 modulation

8.7 FCC 24.235 Frequency Stability

8.7.1 Definitions and limits

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

8.7.2 Test summary

Test date	September 26, 2024	Temperature	21 °C
Test engineer	O. Frau	Air pressure	1005 mbar
Verdict	Pass	Relative humidity	64%

8.7.3 Observations, settings and special notes

The EUT was configured to continuously transmit an un-modulated continuous wave signal. The frequency measurement was performed using the marker-signal count functionality of the spectrum analyzer. The only requirement from Part 24 is that the carrier stays within the allocated band.

8.7.4 Test data

Band n25:

Table 1: Frequency stability results, band n25

Test conditions	Frequency, Hz	Drift, Hz	Drift, ppm
+50 °C, Nominal	1962501918.0	1920.0	0.98
+40 °C, Nominal	1962501718.0	1720.0	0.88
+30 °C, Nominal	1962500298.0	300.0	0.15
+20 °C, +15%	1962500038.0	40.0	0.02
+20 °C, Nominal	1962499998.0	Reference	Reference
+20 °C, -15%	1962499958.0	-40.0	-0.02
+10 °C, Nominal	1962500078.0	80.0	0.04
0 °C, Nominal	1962499958.0	-40.0	-0.02
-10 °C, Nominal	1962501718.0	1720.0	0.88
-20 °C, Nominal	1962501438.0	1440.0	0.73
-30 °C, Nominal	1962501678.0	1680.0	0.86

Section 9. Block diagrams of test setups

9.1 Conducted emissions set-up

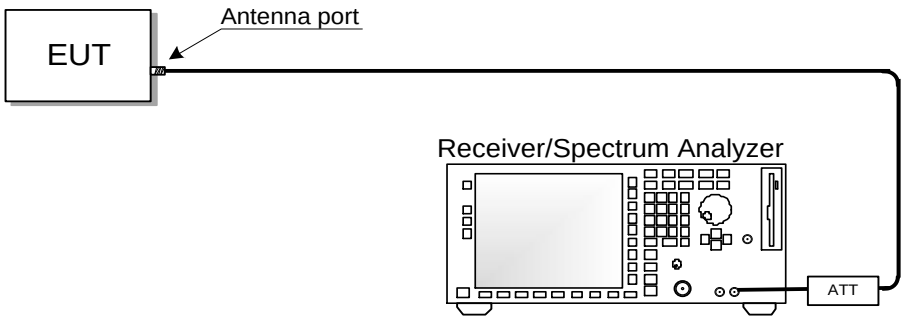


Figure 9.1-1: Conducted setup

9.2 Radiated emissions set-up

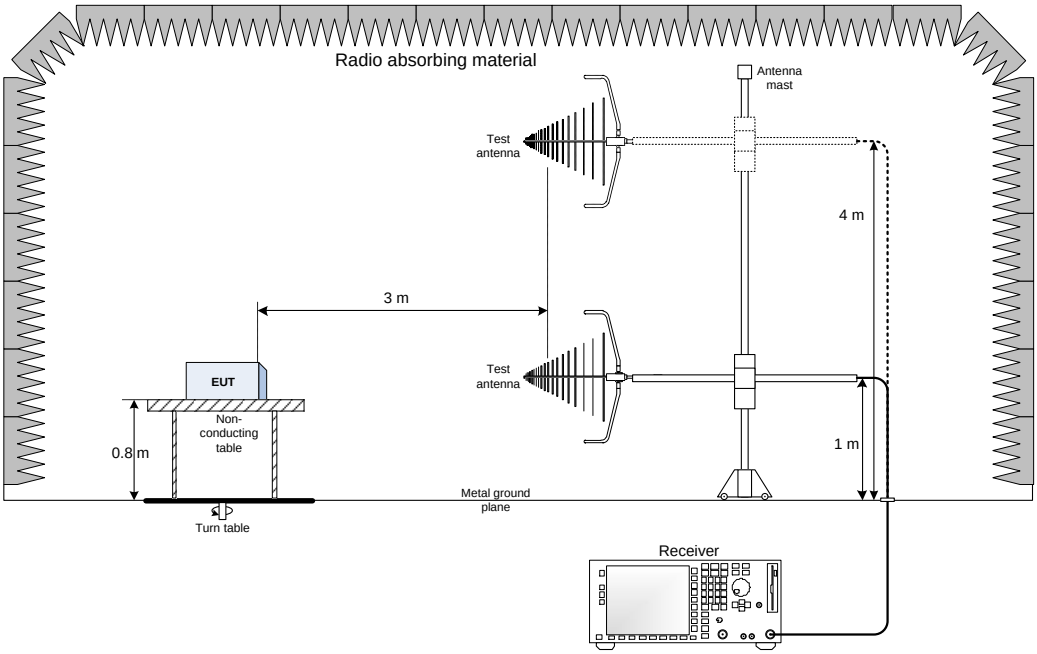


Figure 9.2-1: Below 1 GHz setup

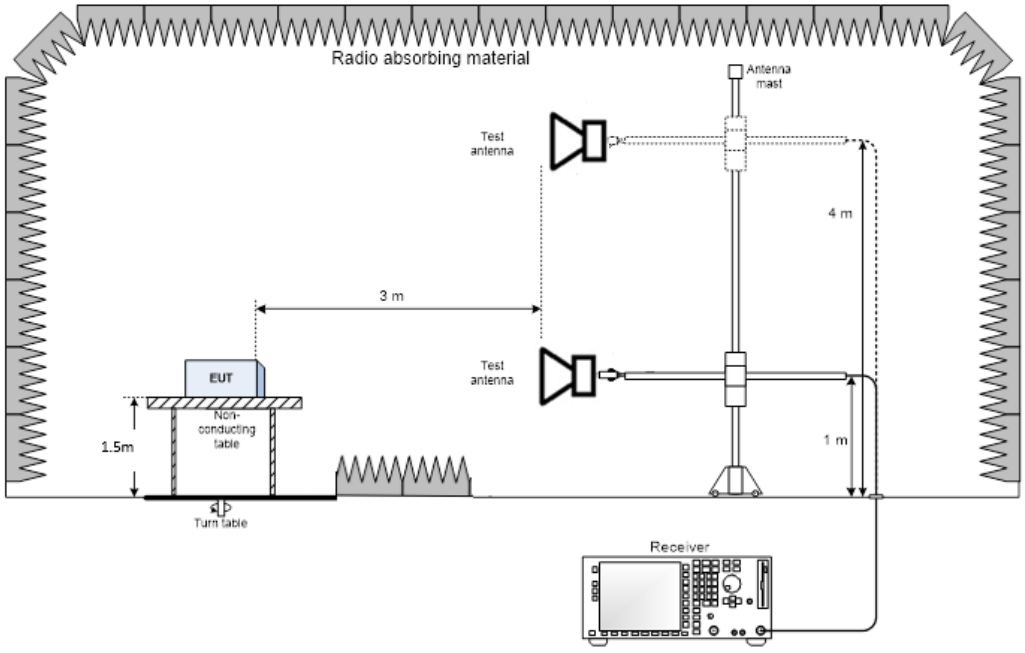


Figure 9.2-2: Above 1GHz setup

End of Report