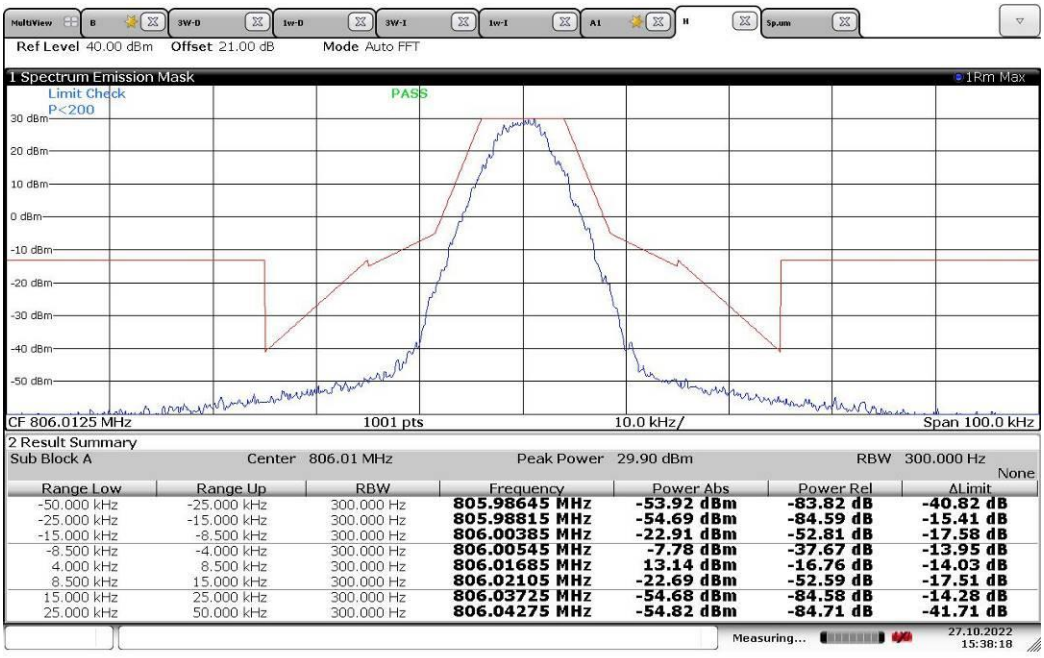
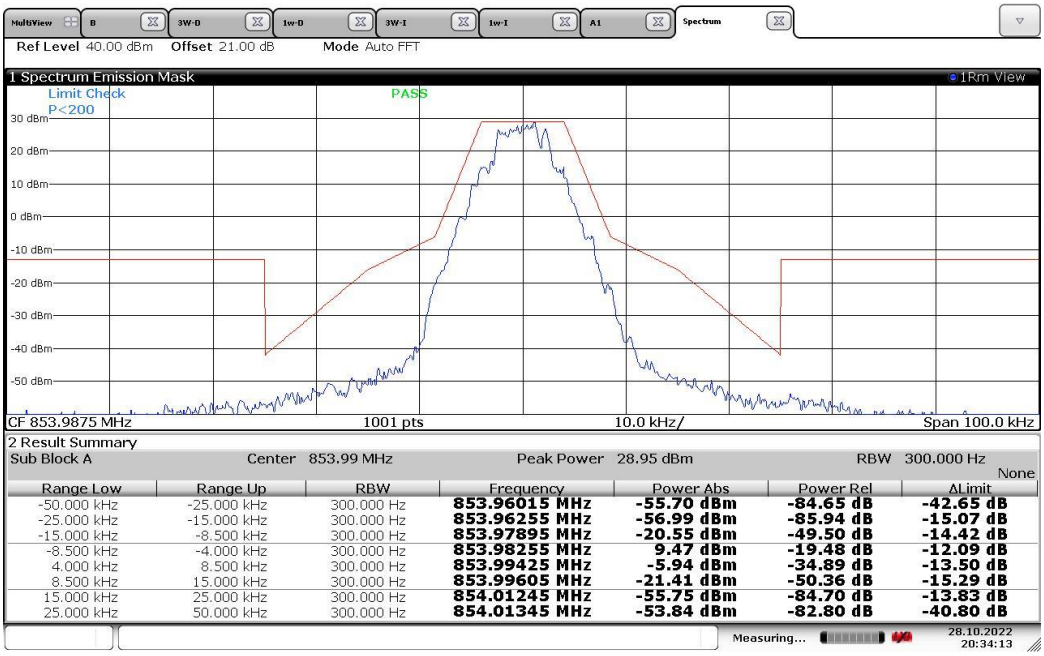
Mask H



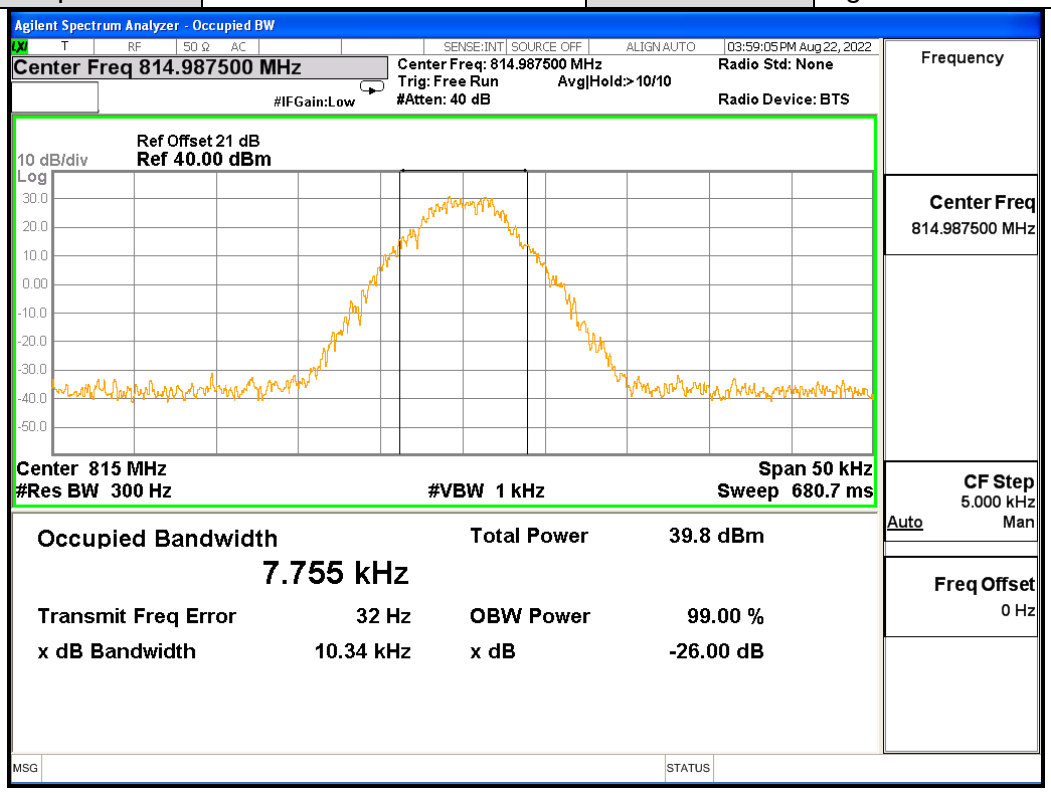
15:38:18 27.10.2022

Measurement Method	Conducted	Test Channel	853.9875 MHz
Channel Separation	12.5 kHz	Modulation	Digital

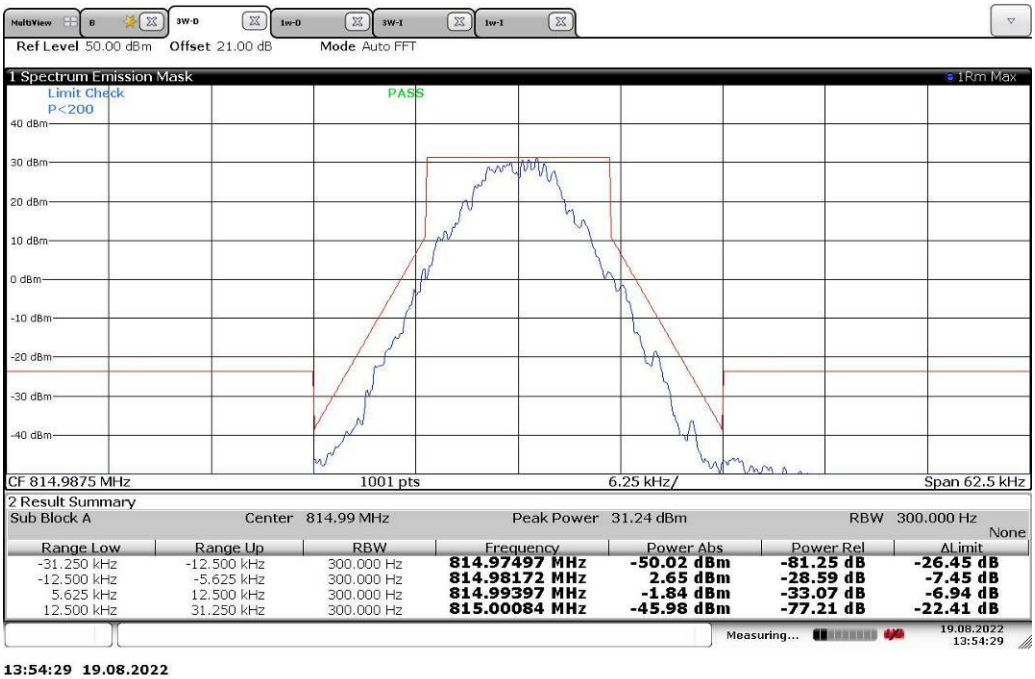
Mask H



Measurement Method	Conducted	Test Channel	814.9875 MHz
Channel Separation	12.5 kHz	Modulation	Digital

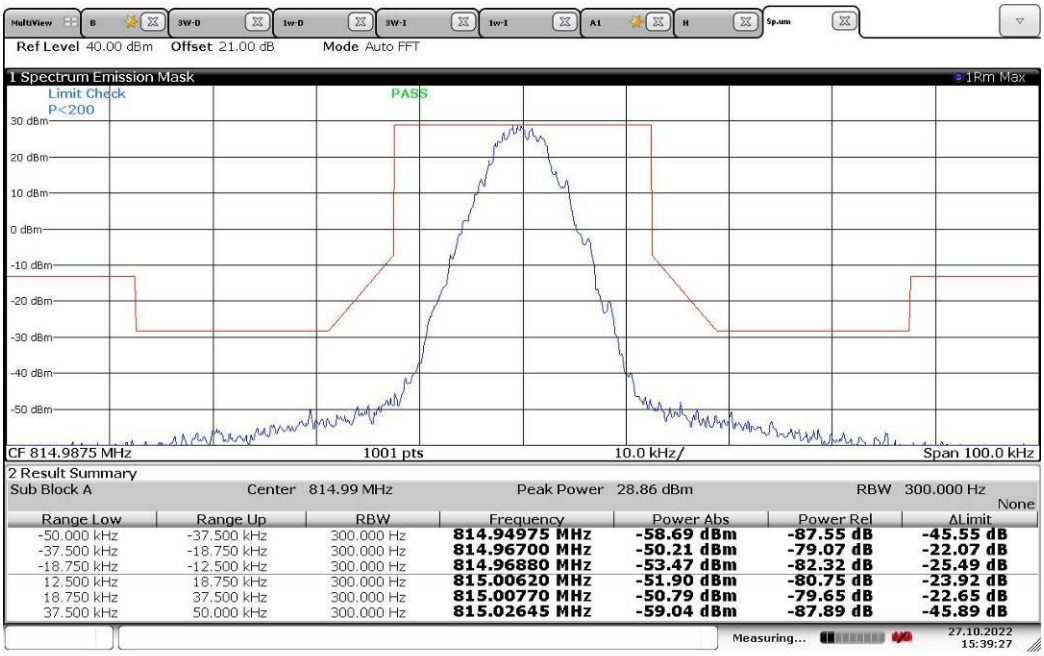


Mask D



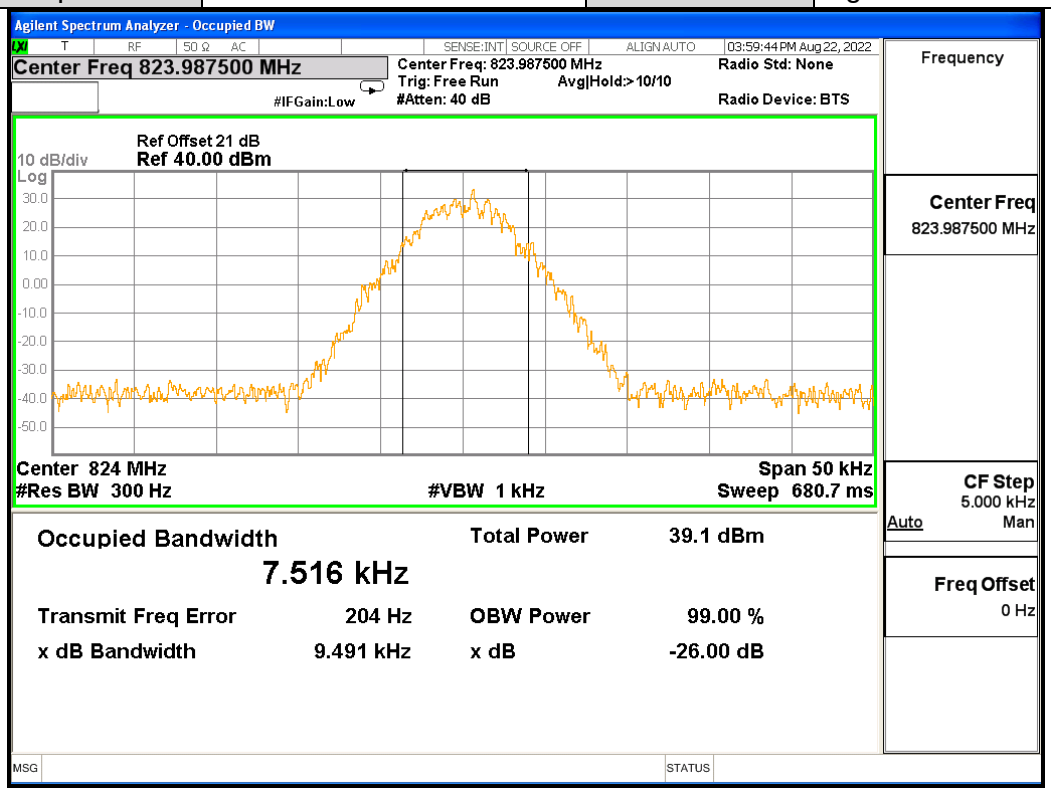
13:54:29 19.08.2022

Mask 90.691

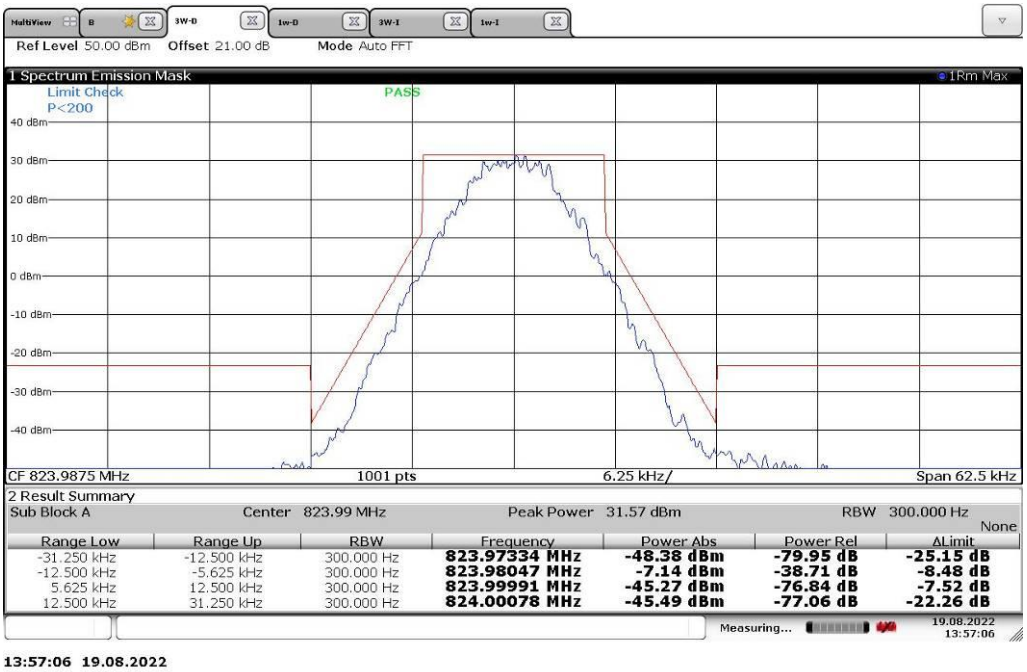


15:39:28 27.10.2022

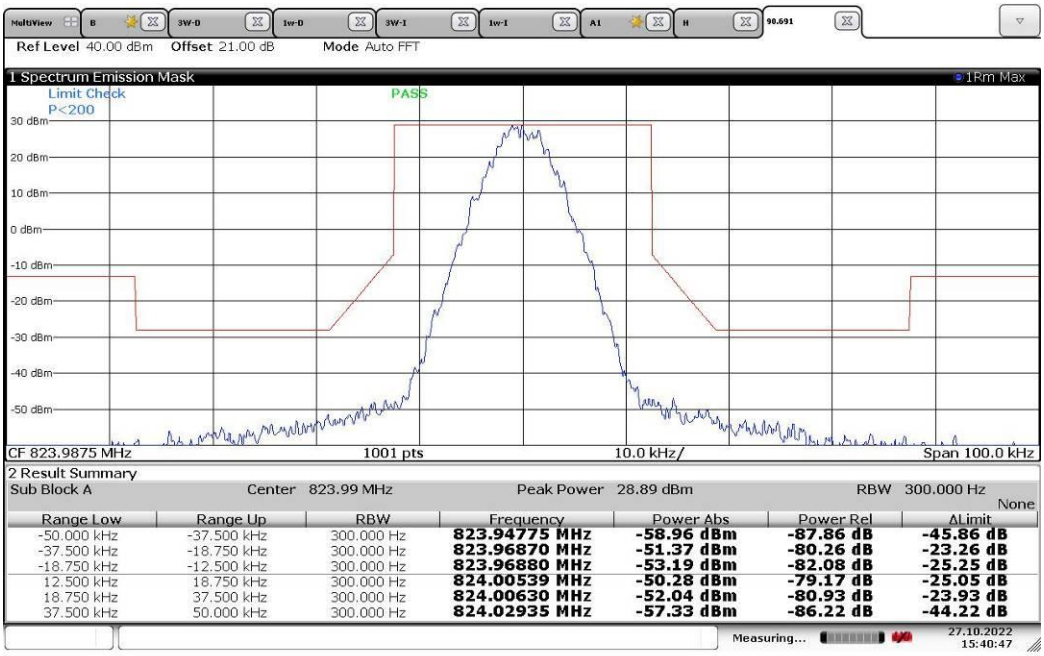
Measurement Method	Conducted	Test Channel	823.9875 MHz
Channel Separation	12.5 kHz	Modulation	Digital



Mask D

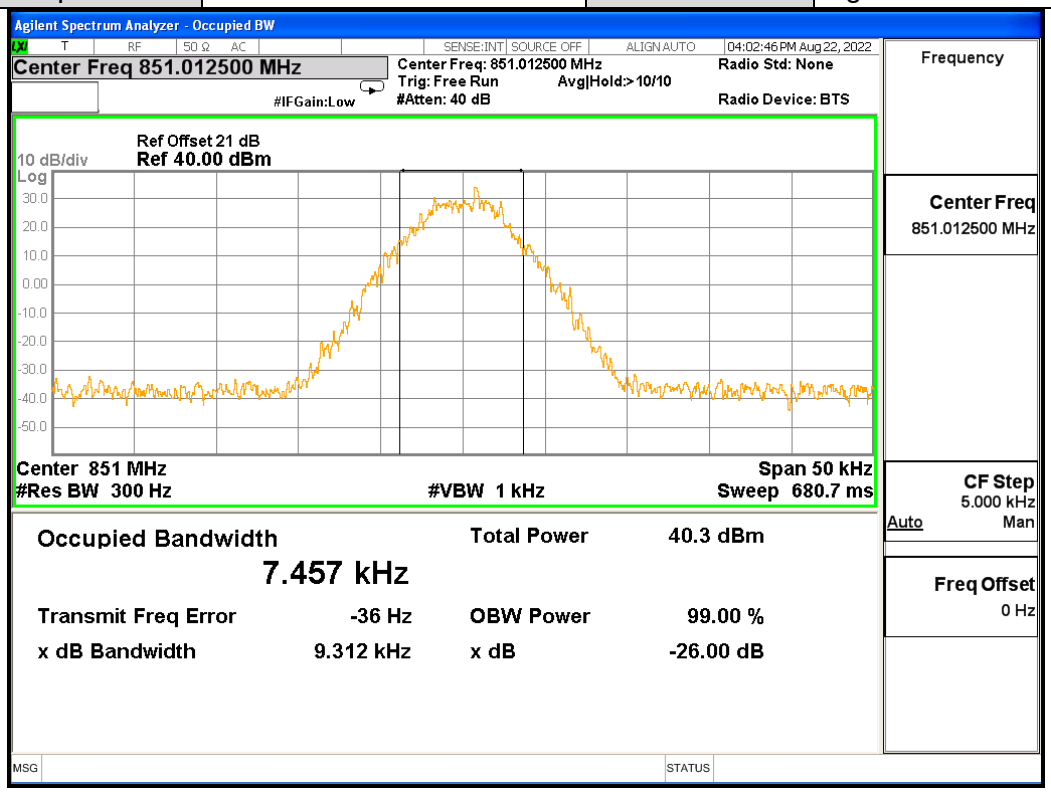


Mask §90.691

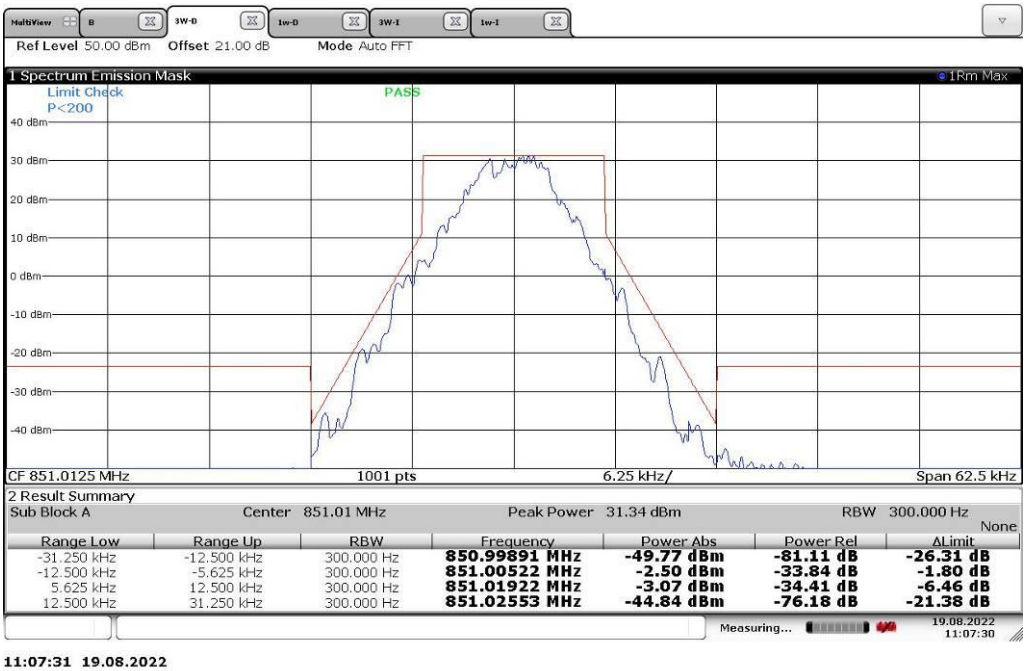


15:40:48 27.10.2022

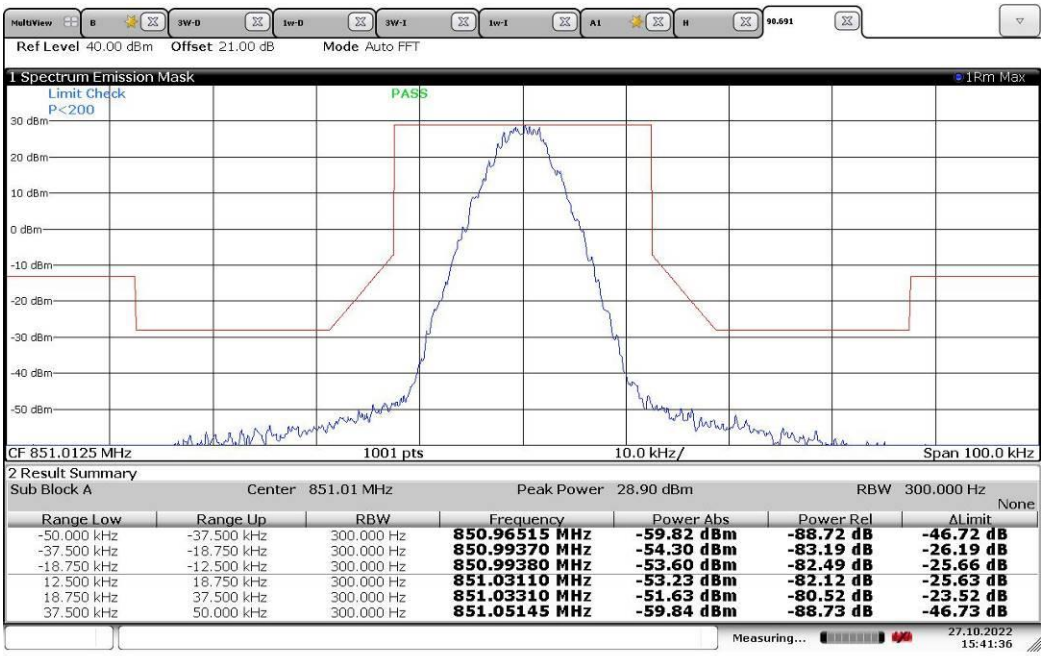
Measurement Method	Conducted	Test Channel	851.0125 MHz
Channel Separation	12.5 kHz	Modulation	Digital



Mask D

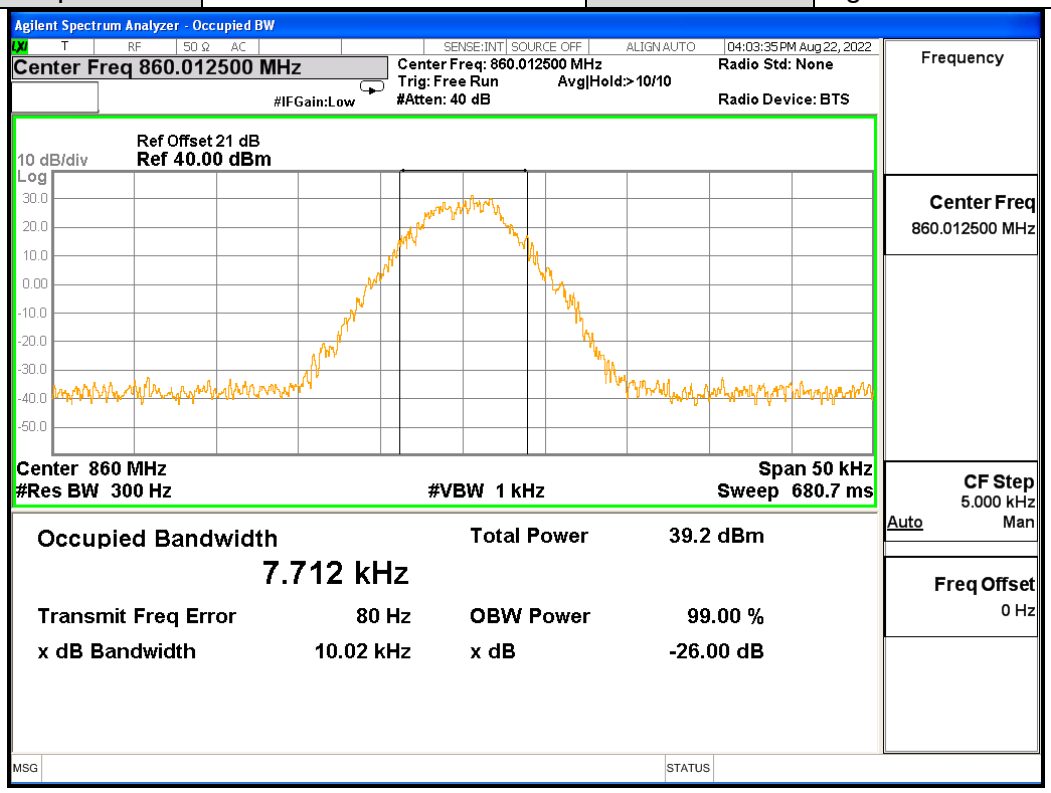


Mask §90.691



15:41:37 27.10.2022

Measurement Method	Conducted	Test Channel	860.0125 MHz
Channel Separation	12.5 kHz	Modulation	Digital



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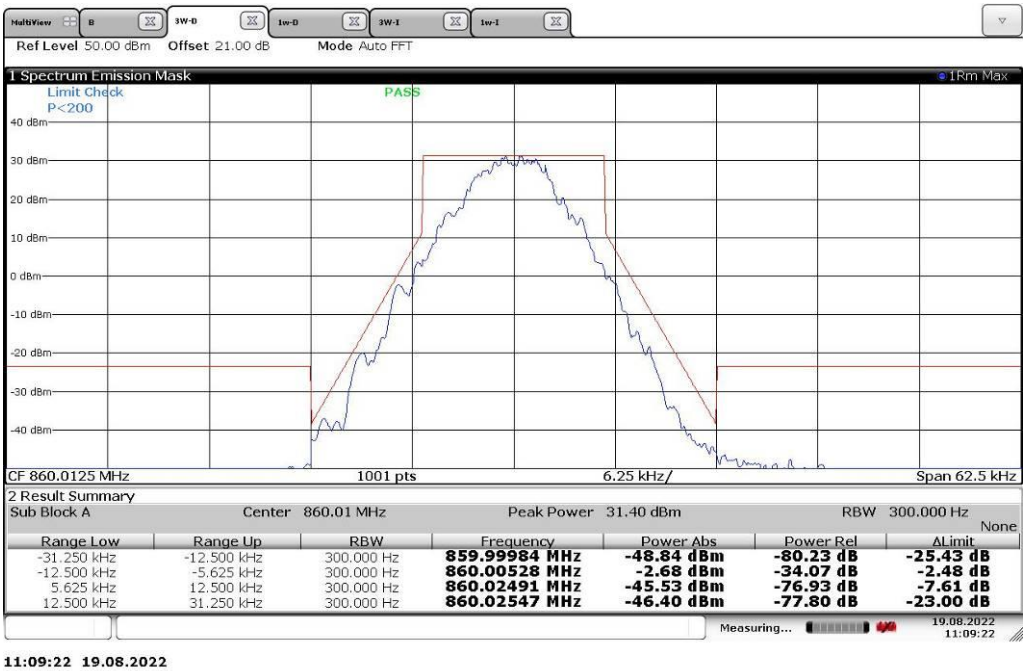
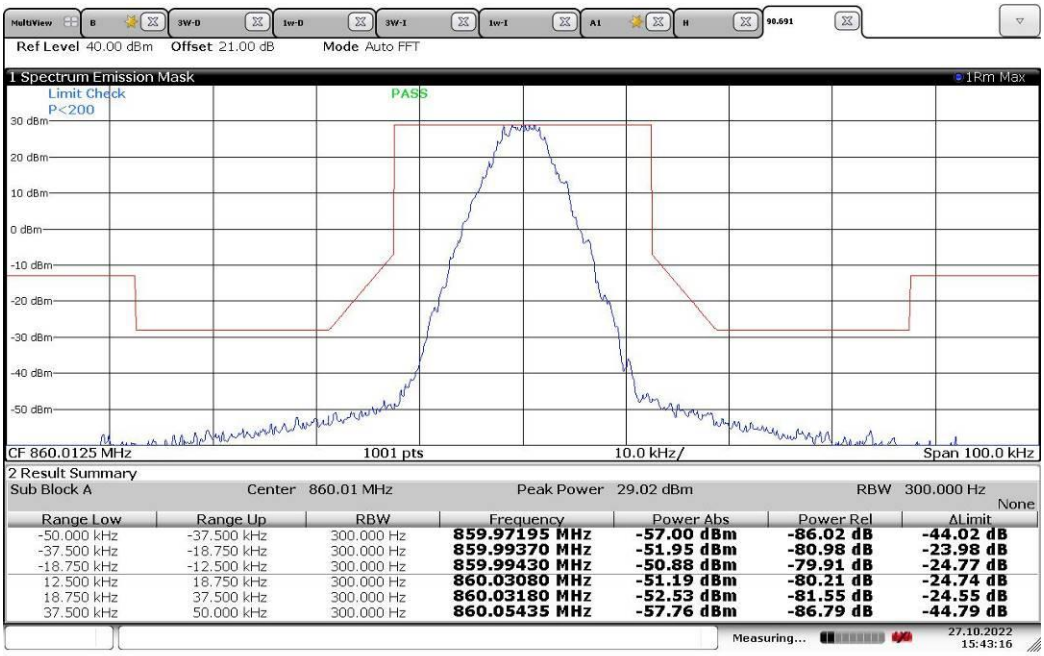
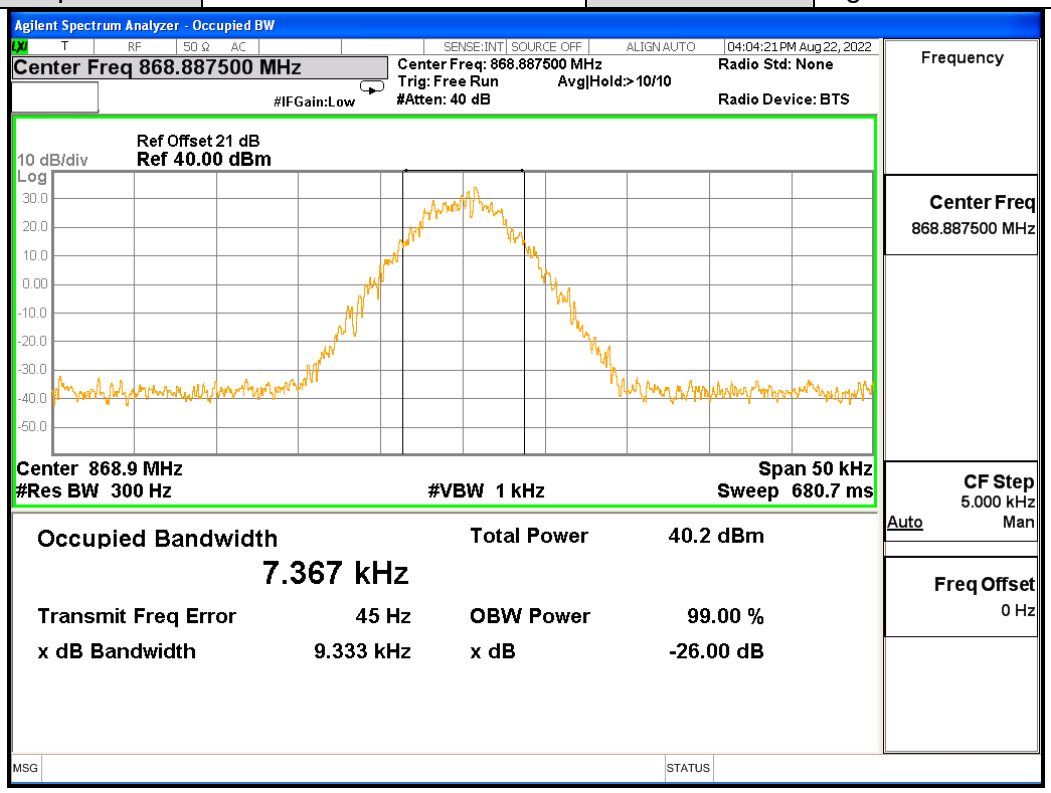


11:09:22 19.08.2022

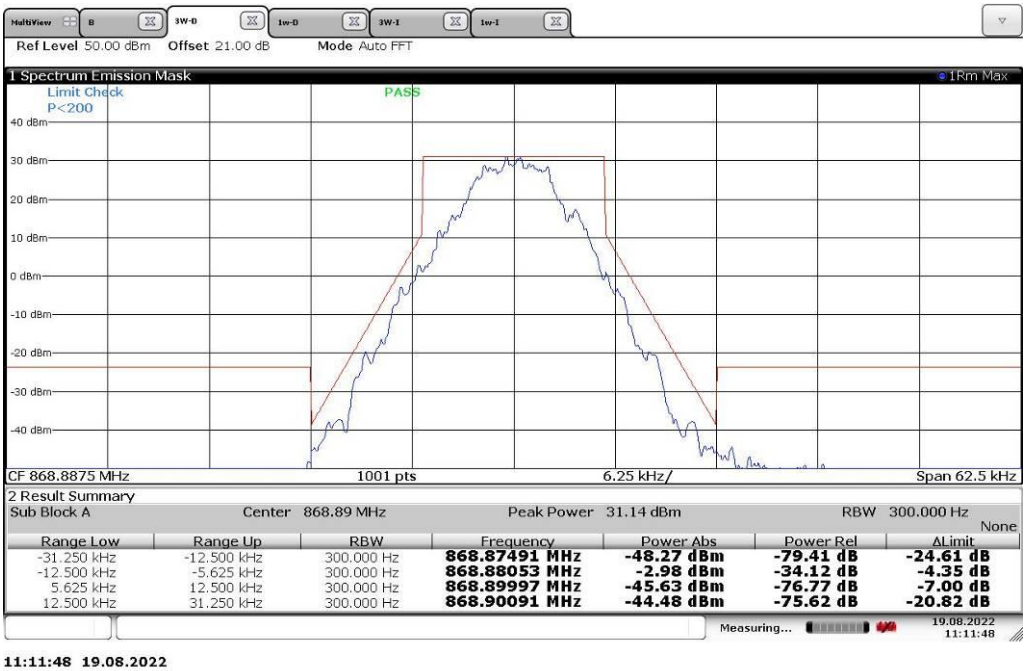
Mask §90.691



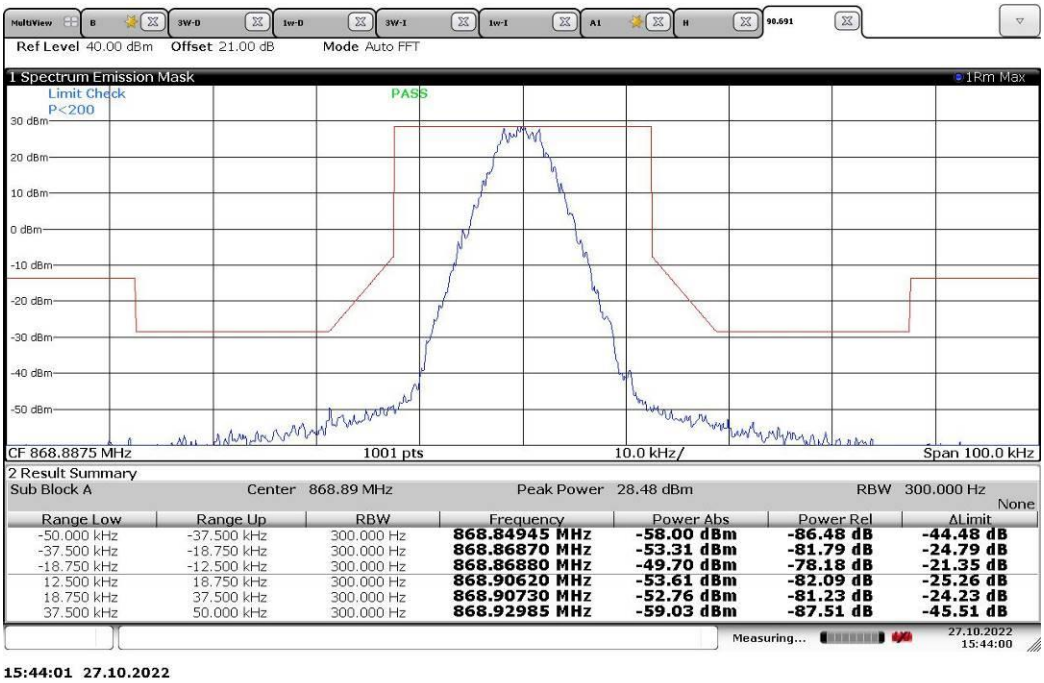
Measurement Method	Conducted	Test Channel	868.8875 MHz
Channel Separation	12.5 kHz	Modulation	Digital



Mask D

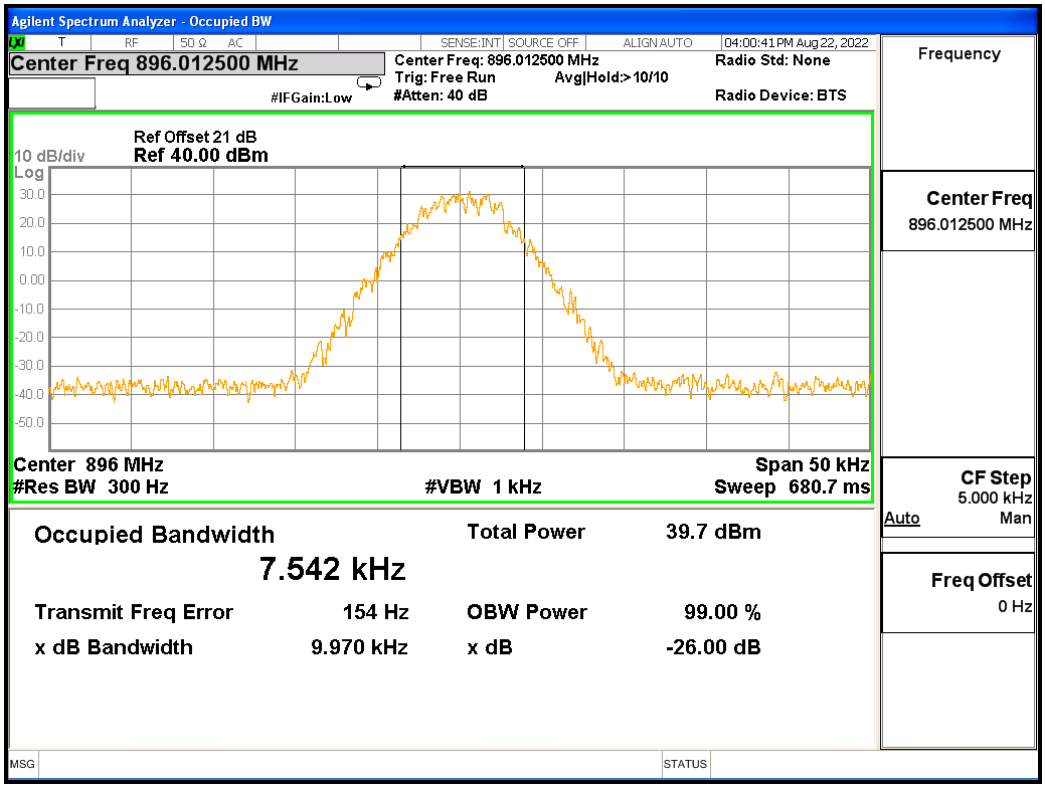


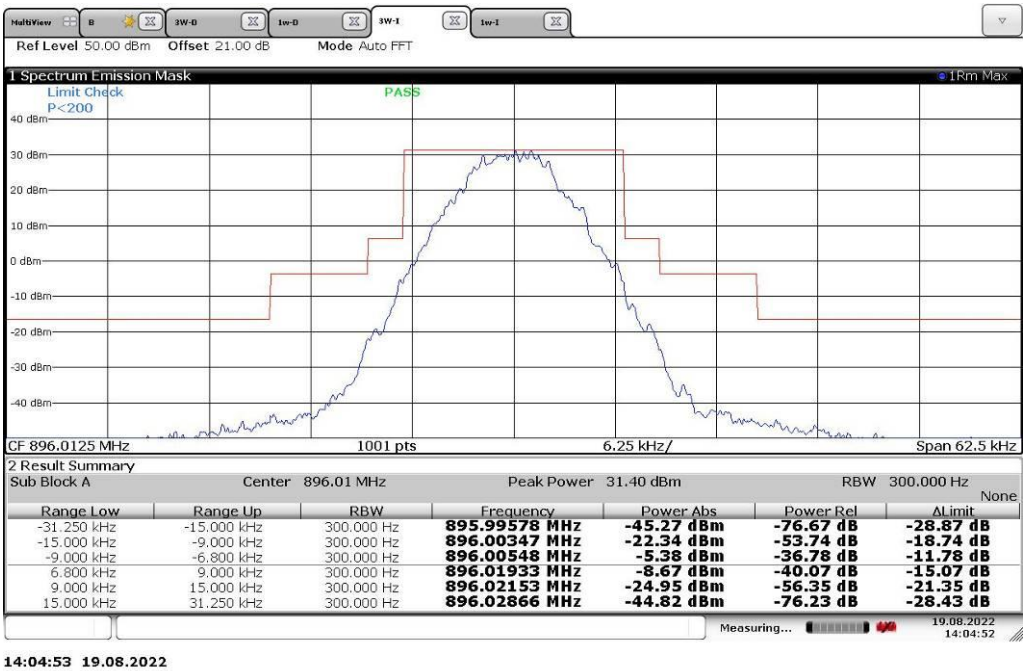
Mask §90.691



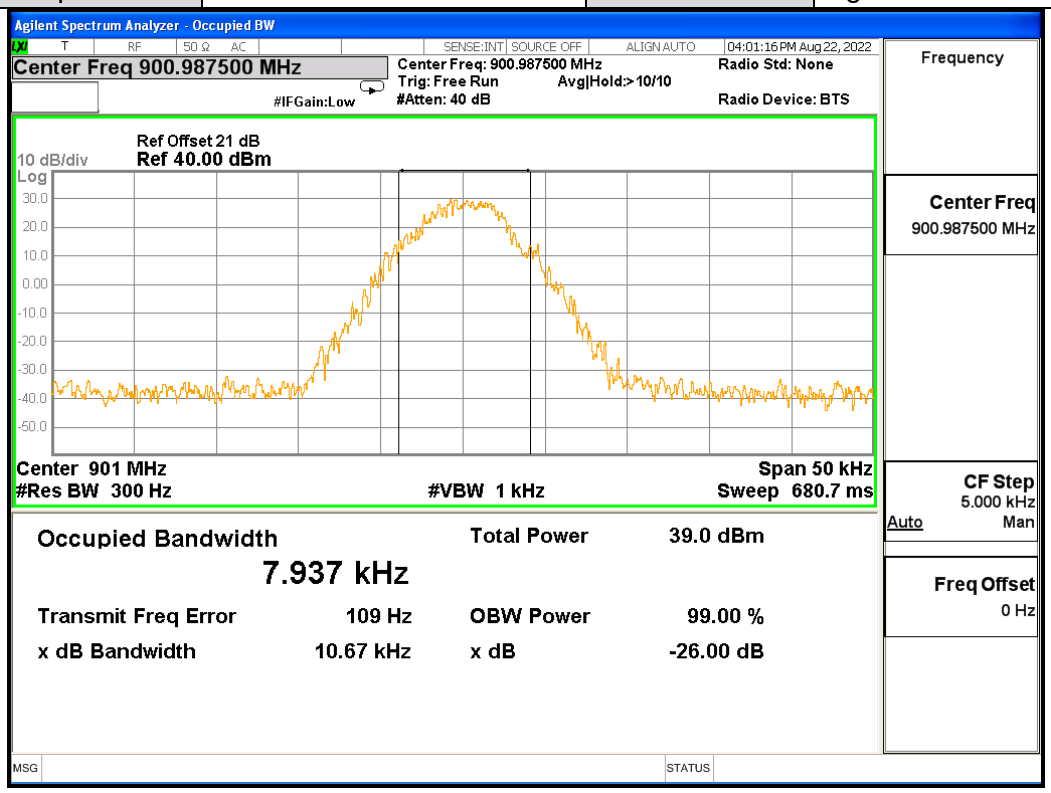
15:44:01 27.10.2022

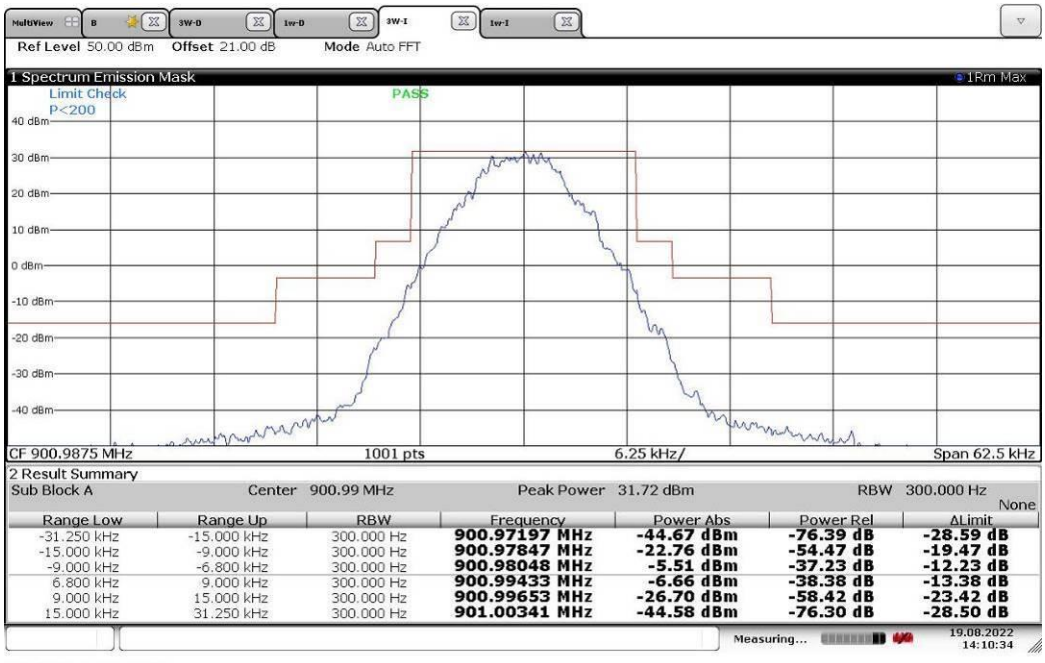
Measurement Method	Conducted	Test Channel	896.0125 MHz
Channel Separation	12.5 kHz	Modulation	Digital





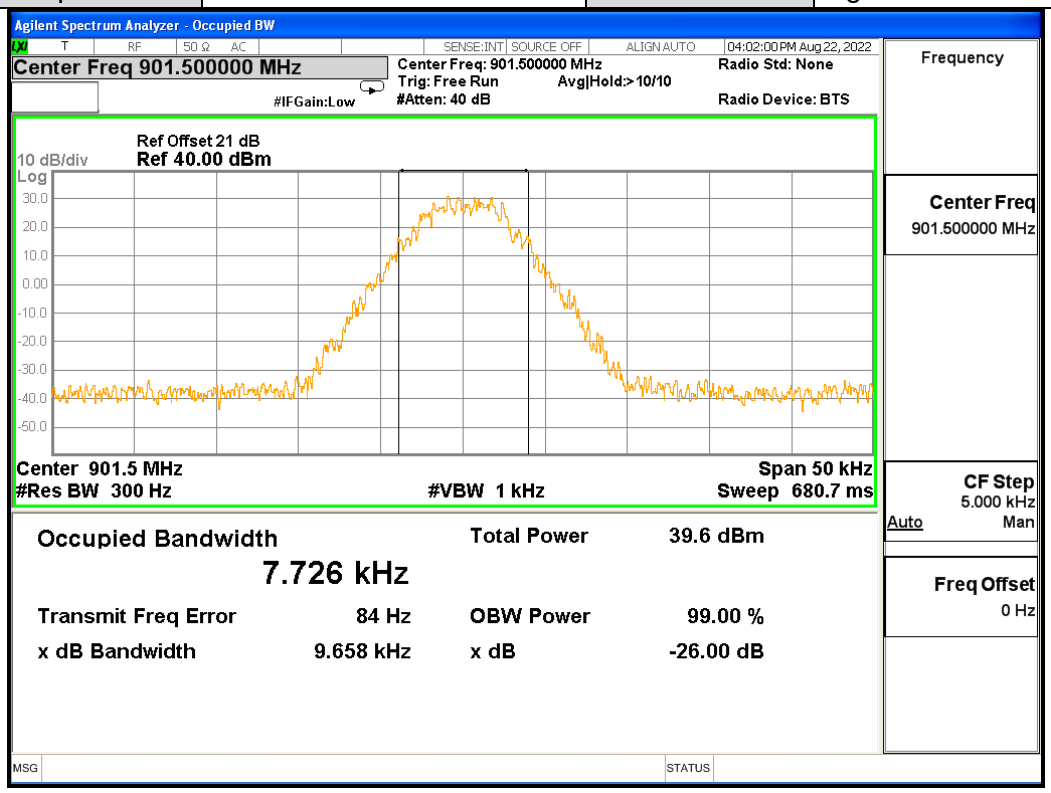
Measurement Method	Conducted	Test Channel	900.9875MHz
Channel Separation	12.5 kHz	Modulation	Digital

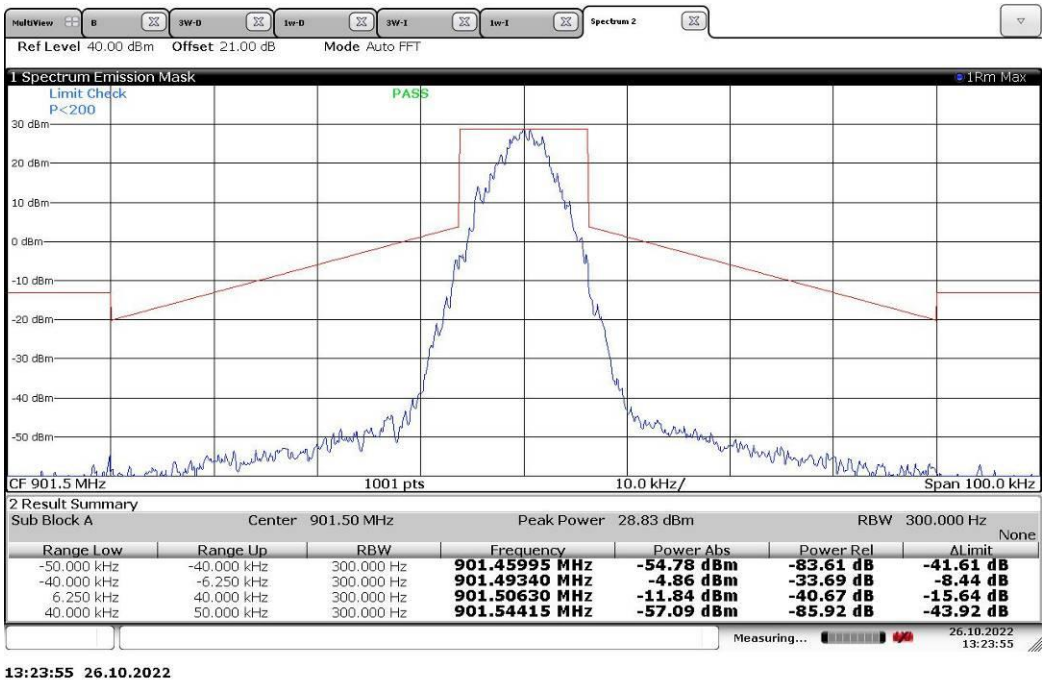




14:10:35 19.08.2022

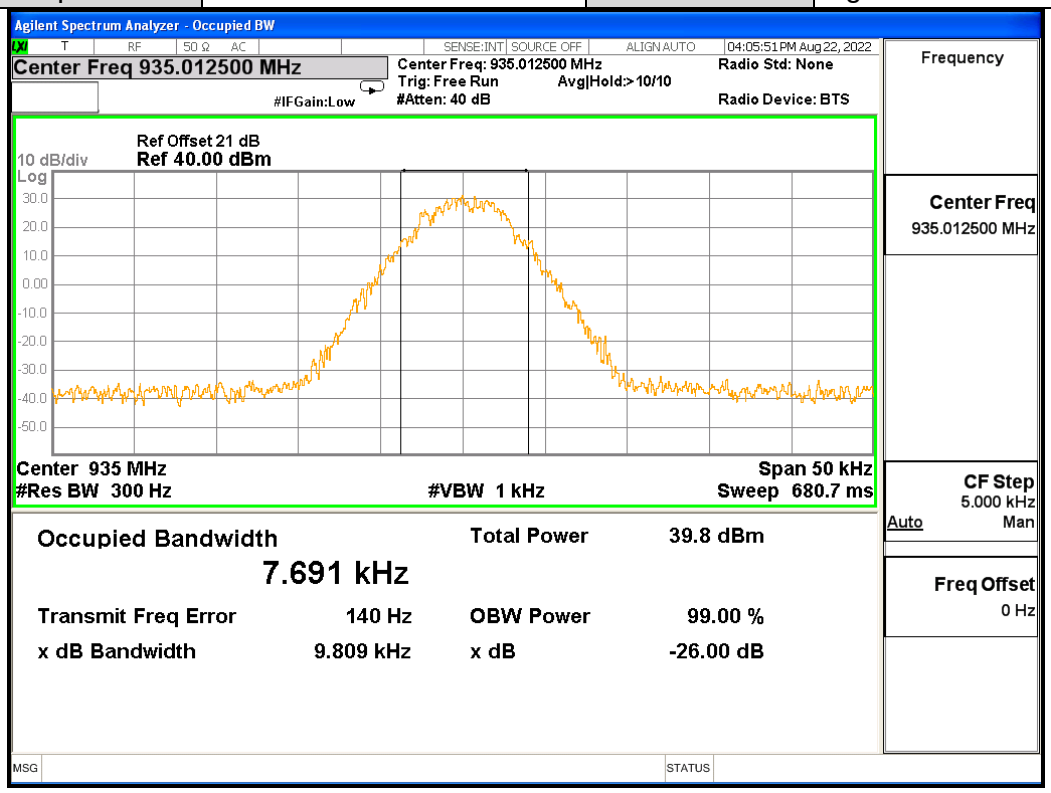
Measurement Method	Conducted	Test Channel	901.5 MHz
Channel Separation	12.5 kHz	Modulation	Digital

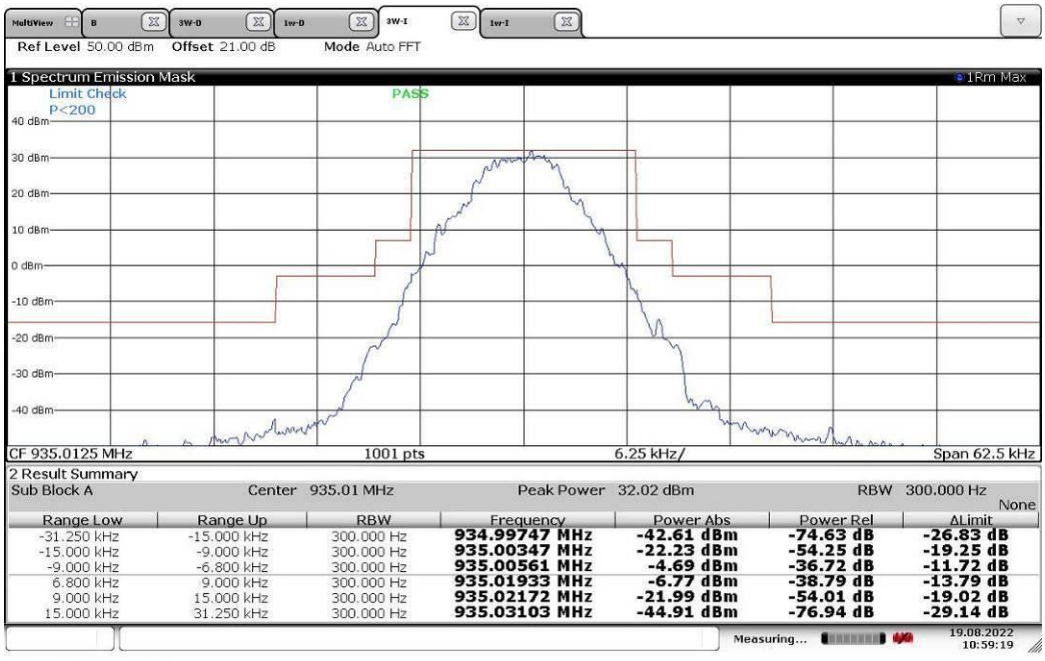




13:23:55 26.10.2022

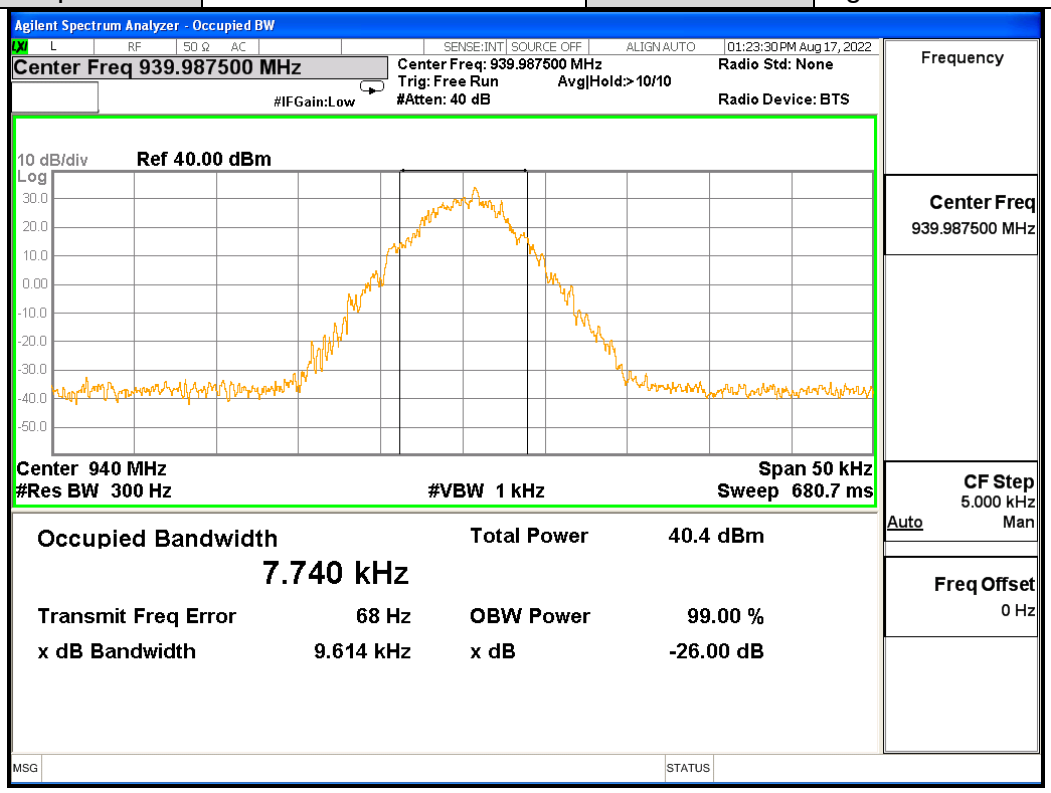
Measurement Method	Conducted	Test Channel	935.0125 MHz
Channel Separation	12.5 kHz	Modulation	Digital

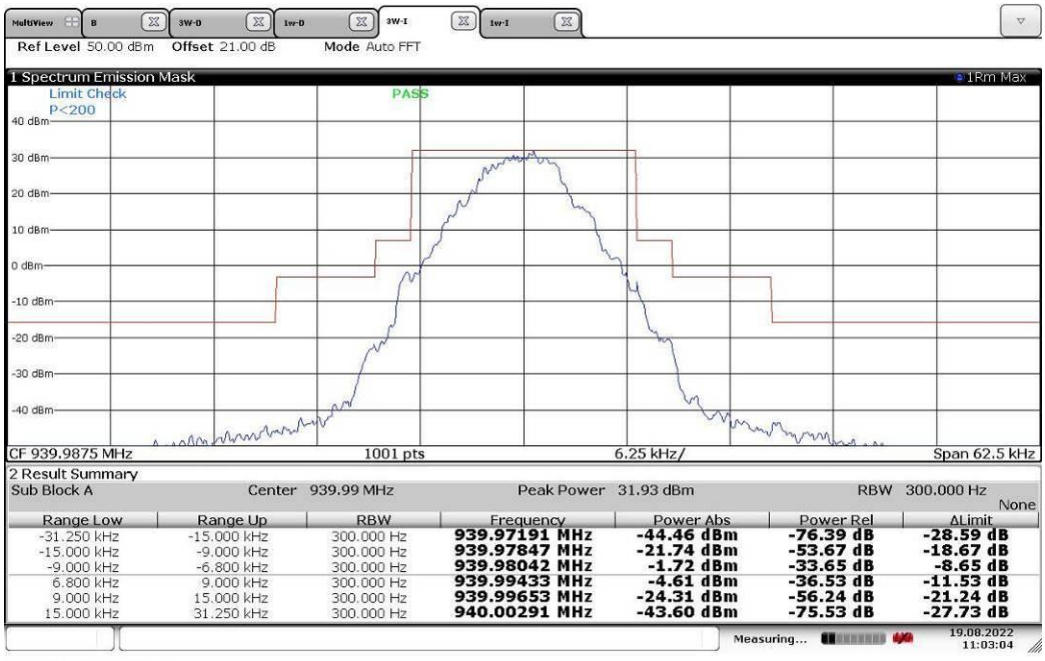




10:59:20 19.08.2022

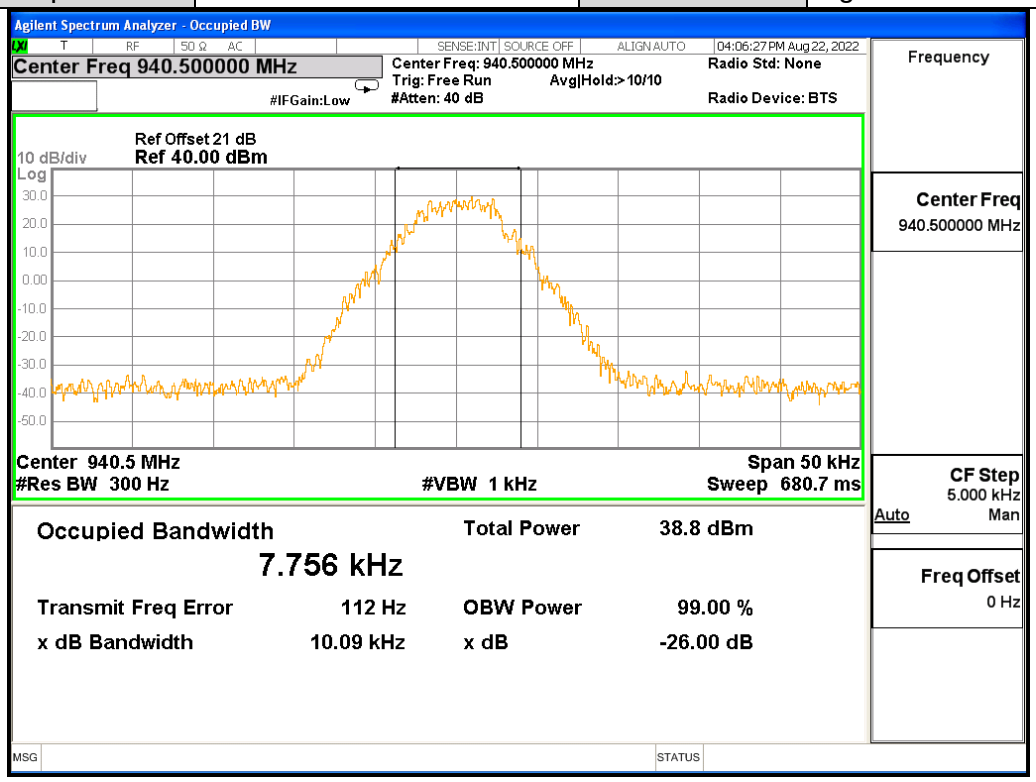
Measurement Method	Conducted	Test Channel	939.9875 MHz
Channel Separation	12.5 kHz	Modulation	Digital

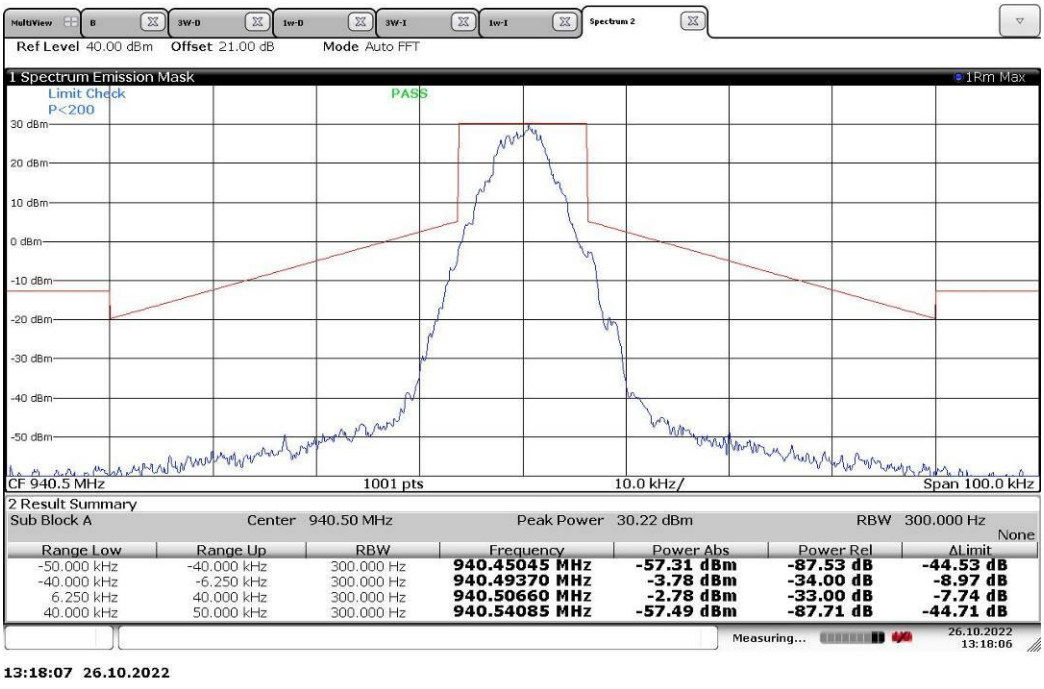




11:03:04 19.08.2022

Measurement Method	Conducted	Test Channel	940.5 MHz
Channel Separation	12.5 kHz	Modulation	Digital





Note: All the modes had been tested, but only the worst data recorded in the report.

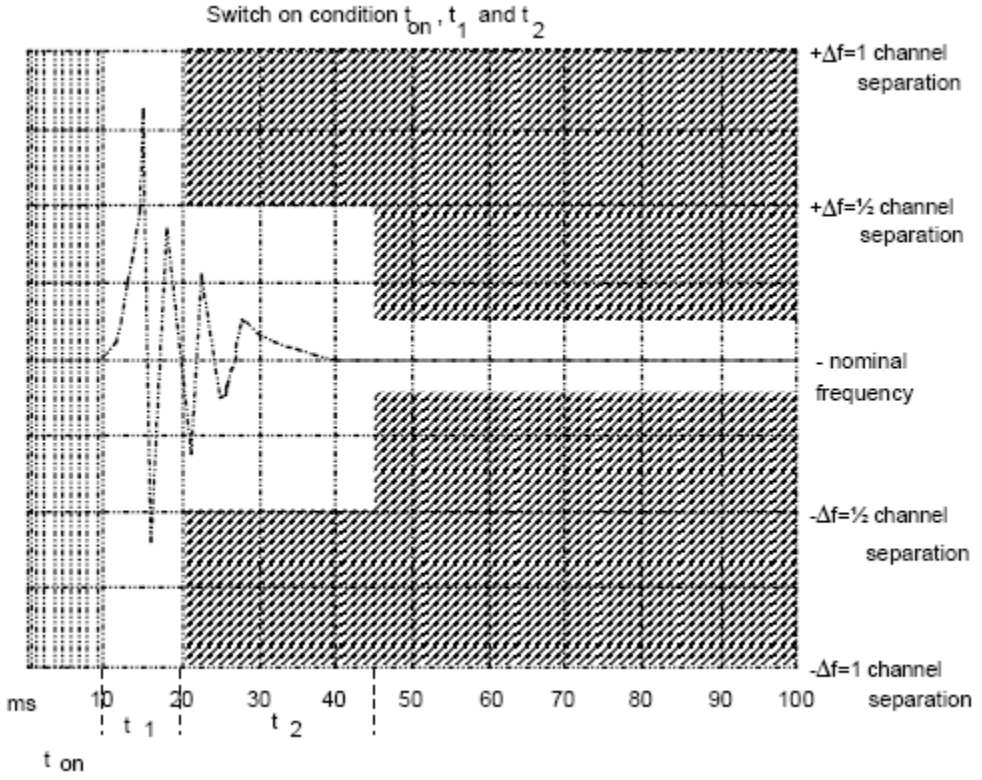
6.10. TRANSMITTER FREQUENCY BEHAVIOR

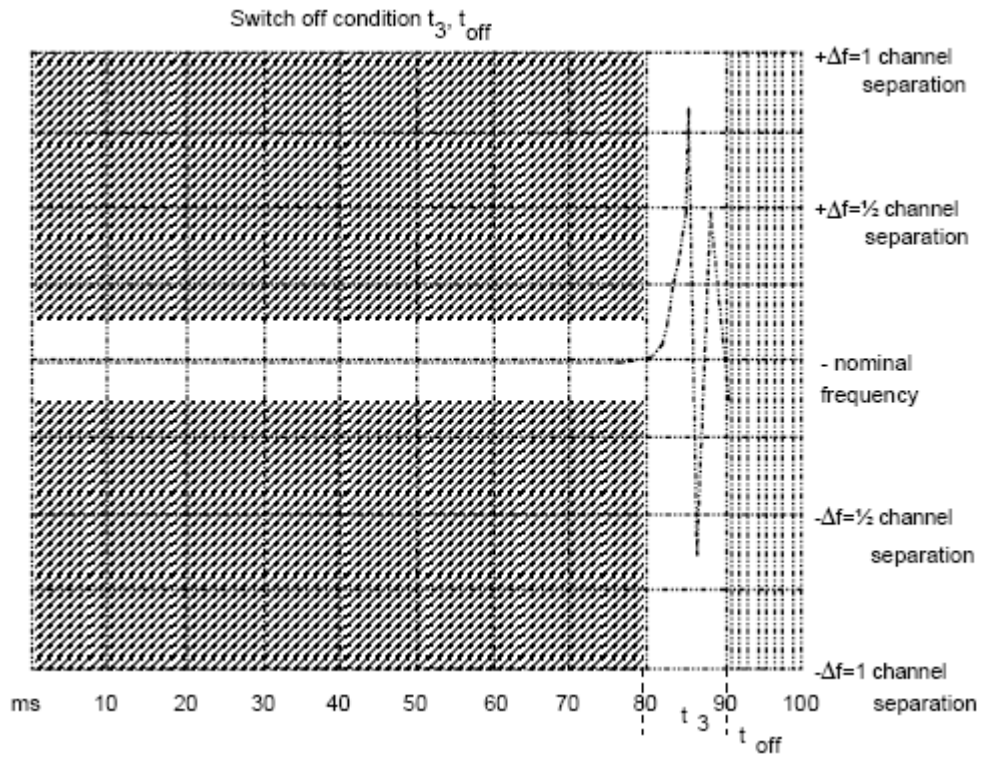
LIMITS

Time intervals [1, 2]	Maximum frequency difference [3]	All equipment	
		150 to 174 MHz	421 to 512 MHz
Transient Frequency Behavior for Equipment Designed to Operate on 25 kHz Channels			
t_1 [4]	± 25.0 kHz	5.0 ms	10.0 ms
t_2	± 12.5 kHz	20.0 ms	25.0 ms
t_3 [4]	± 25.0 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 12.5 kHz Channels			
t_1 [4]	± 12.5 kHz	5.0 ms	10.0 ms
t_2	± 6.25 kHz	20.0 ms	25.0 ms
t_3 [4]	± 12.5 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 6.25 kHz Channels			
t_1 [4]	± 6.25 kHz	5.0 ms	10.0 ms
t_2	± 3.125 kHz	20.0 ms	25.0 ms
t_3 [4]	± 6.25 kHz	5.0 ms	10.0 ms

[1] t_{on} is the instant when a 1 kHz test signal is completely suppressed, including any capture time due to phasing.
t_1 is the time period immediately following t_{on}.
t_2 is the time period immediately following t_1.
t_3 is the time period from the instant when the transmitter is turned off until t_{off}.
t_{off} is the instant when the 1 kHz test signal starts to rise.
[2] During the time from the end of t_2 to the beginning of t_3, the frequency difference must not exceed the limits specified in § 90.213.
[3] Difference between the actual transmitter frequency and the assigned transmitter frequency.
[4] If the transmitter carrier output power rating is 6 watts or less, the frequency difference during this time period may exceed the maximum frequency difference for this time period.

ton: The switch-on instant ton of a transmitter is defined by the condition when the output power, measured at the antenna terminal, exceeds 0,1 % of the full output power (-30 dBc).
t1: period of time starting at ton and finishing according to above 11.1
t2: period of time starting at the end of t1 and finishing according to above 11.1
toff: switch-off instant defined by the condition when the output power falls below 0,1 % of the full output power (-30 dBc).
t3: period of time that finishing at off and starting according to above 11.1





TEST PROCEDURE

1) Set on Signal Generator with the assigned center frequency, internal 1 kHz FM tone.
FM Deviation: Analog 25 kHz Channel Spacing = 25 kHz
Analog 12.5 kHz Channel Spacing = 12.5 kHz

2) Turn on 50 kHz high pass filter and 15 kHz low pass filter on modulation analyzer.

3) Supply sufficient attenuation ATT to provide the output power of ≤ -11dBm into power meter when UUT is keying up.

4) Note the power level on power meter and dekey the UUT.

5) Adjust the amplitude of the signal generator to the level power meter, maintained the amplitude throughout the rest of the measurement.

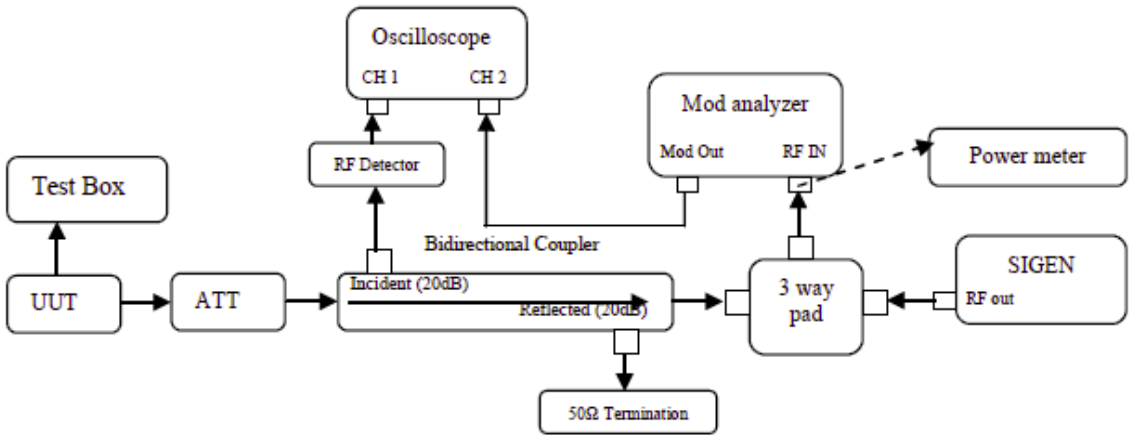
6) Connect the output to modulation analyzer.

7) Set the horizontal sweep rate on the storage oscilloscope to 10 milliseconds per division and adjust the display to continuously view the 1000 Hz. Adjust the vertical amplitude control of the oscilloscope to display the 1000 Hz at 4 divisions vertically centered on the display.

8) Reduce 30dB attenuation and transmit the radio to get the trigger line.

9) Capture the screen shot for key-up (rising edge) and de-key (falling edge) mode.

TEST SETUP

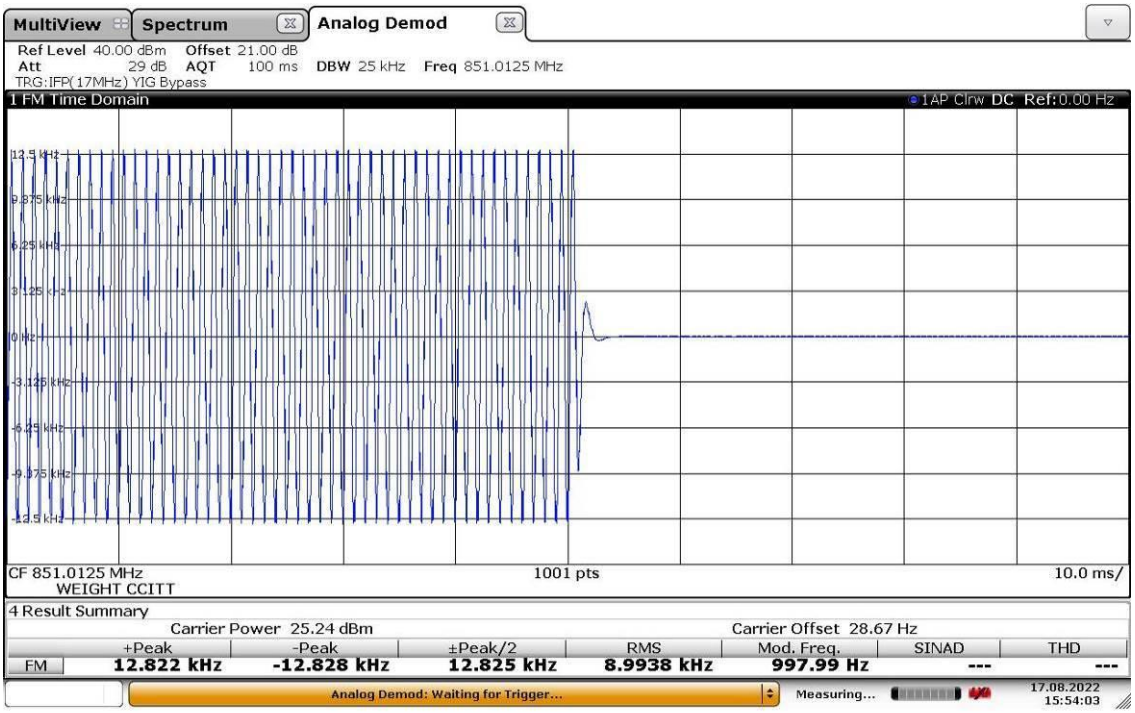


TEST ENVIRONMENT

Temperature	25.3 °C	Relative Humidity	66 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 4.5 V

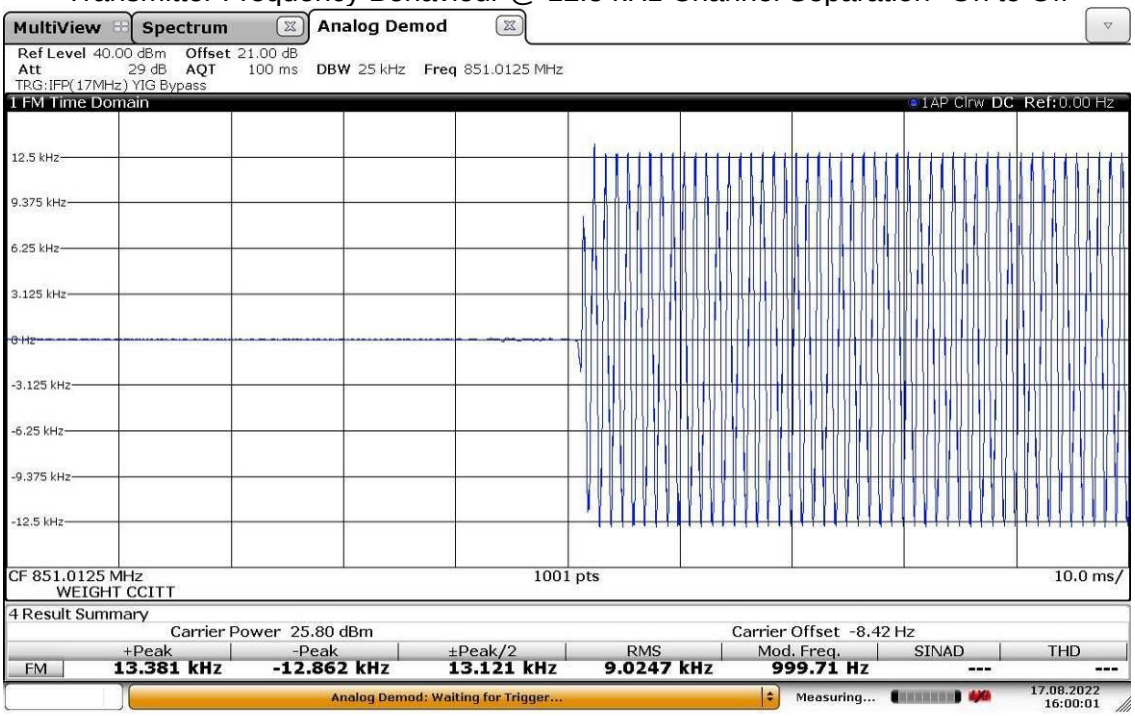
RESULTS

Transmitter Frequency Behavior @ 12.5 kHz Channel Separation--Off to On



15:54:04 17.08.2022

Transmitter Frequency Behaviour @ 12.5 kHz Channel Separation--On to Off



16:00:01 17.08.2022

END OF REPORT