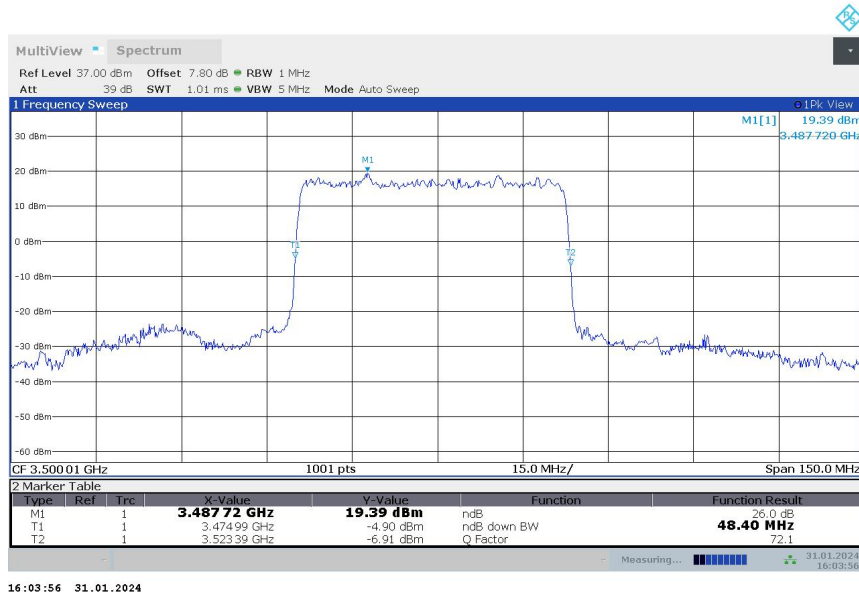


n77L

n77L,50MHz(-26dBc)

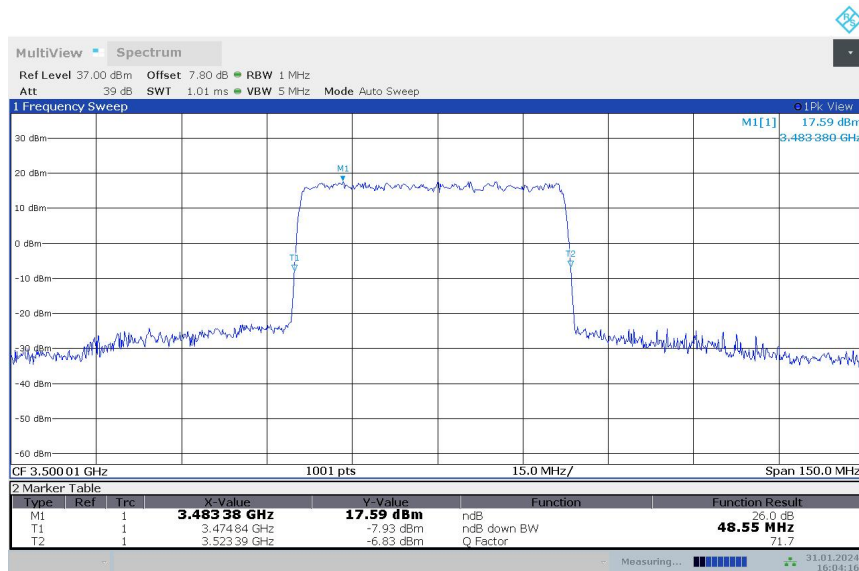
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3500.01         | 48.400                            | 48.550     |

n77L,50MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:03:56 31.01.2024

n77L,50MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



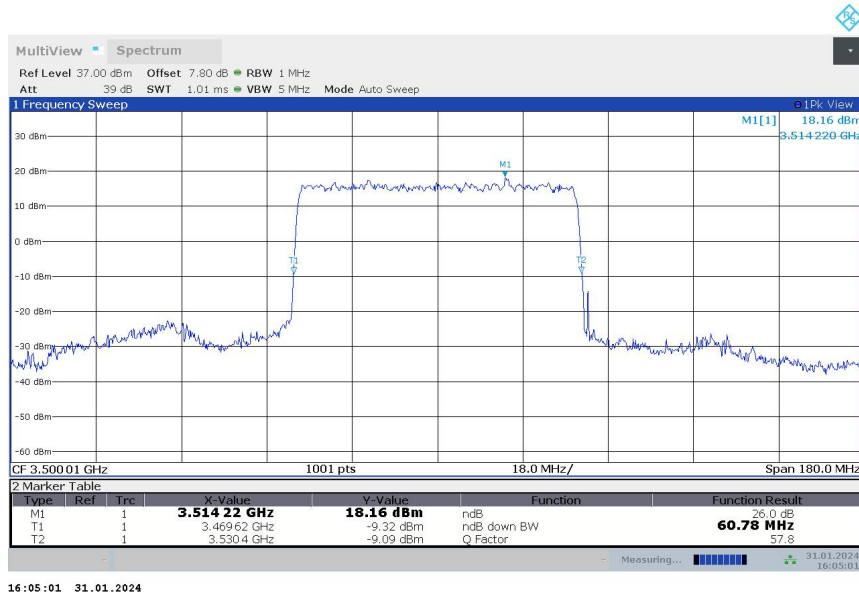
16:04:16 31.01.2024

n77L

n77L,60MHz(-26dBc)

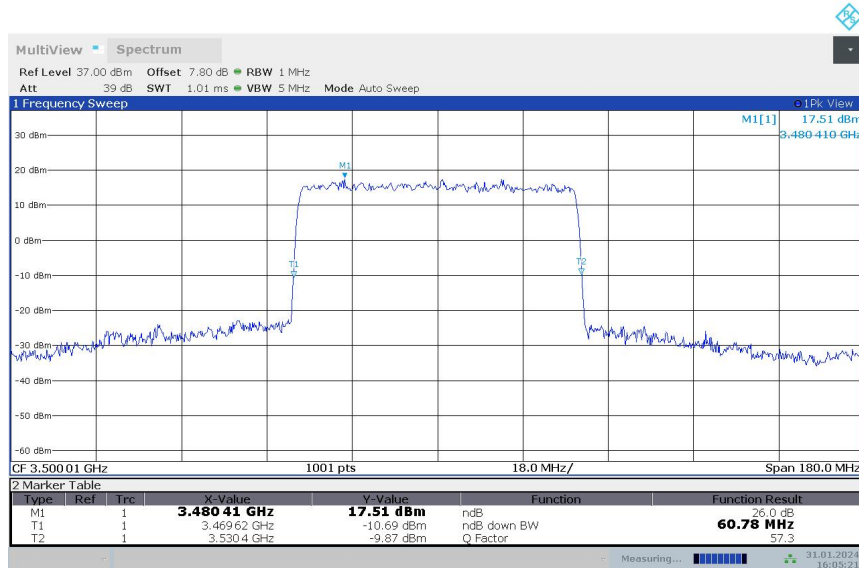
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3500.01         | 60.780                            | 60.780     |

n77L,60MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:05:01 31.01.2024

n77L,60MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



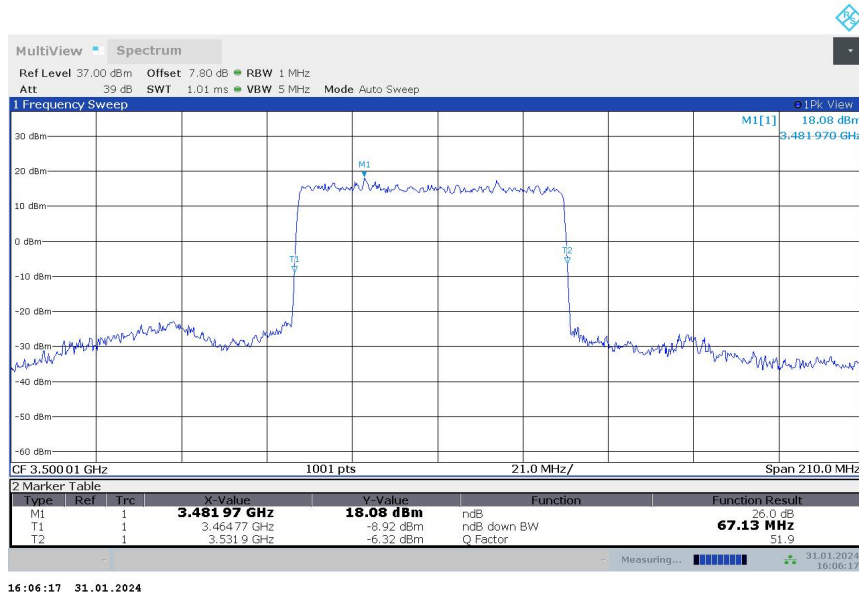
16:05:22 31.01.2024

n77L

n77L,70MHz(-26dBc)

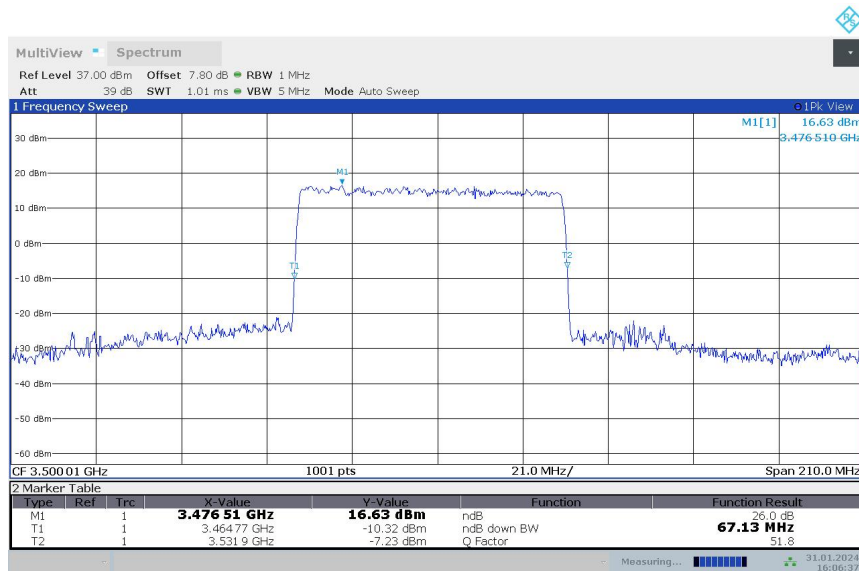
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3500.01         | 67.130                            | 67.130     |

n77L,70MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:06:17 31.01.2024

n77L,70MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



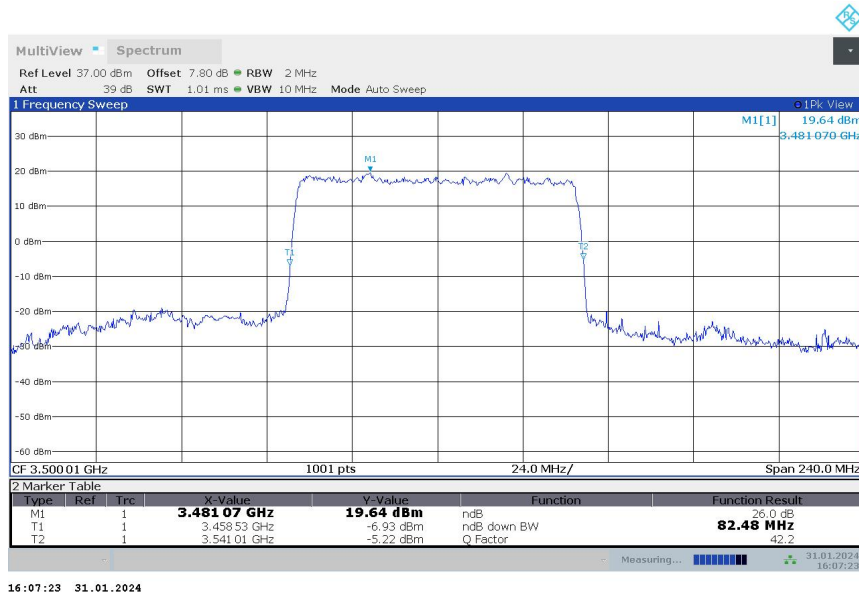
16:06:37 31.01.2024

n77L

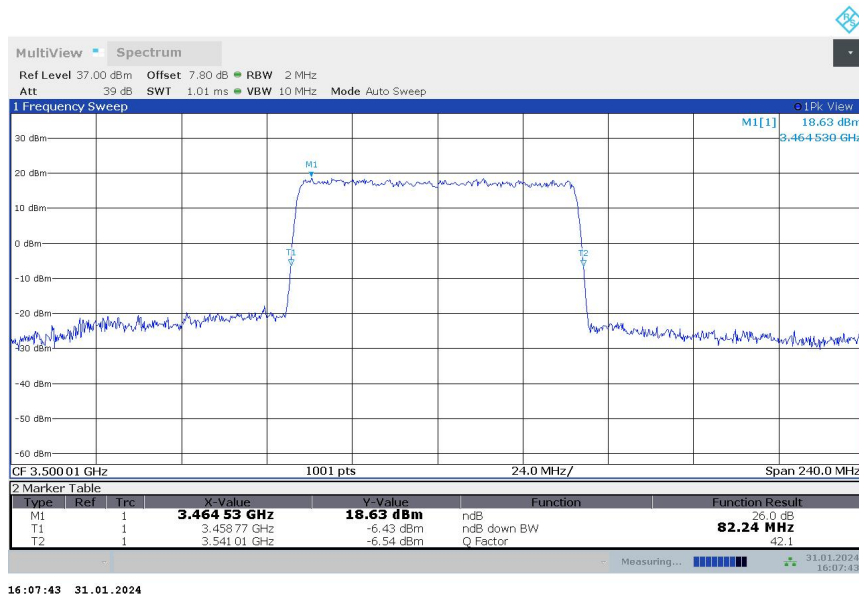
n77L,80MHz(-26dBc)

| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3500.01         | 82.480                            | 82.240     |

n77L,80MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n77L,80MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

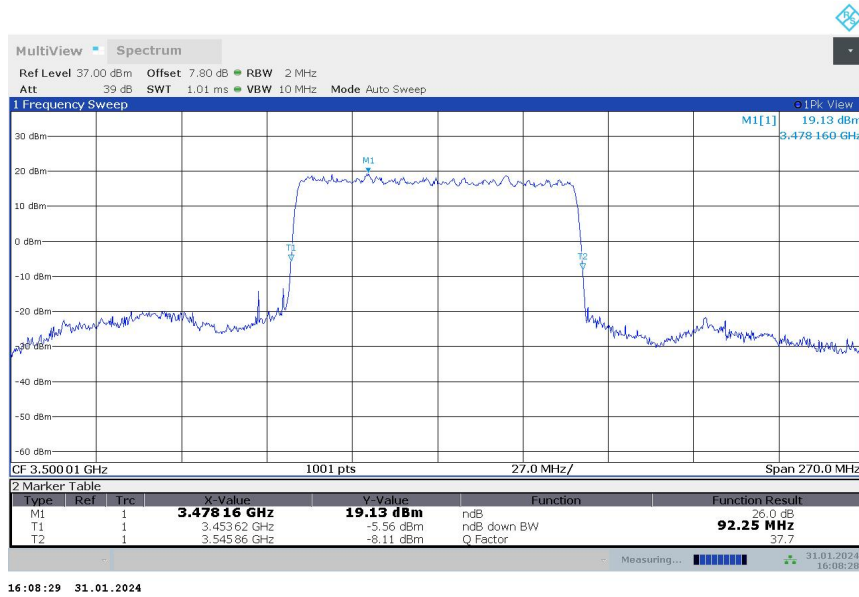


n77L

n77L,90MHz(-26dBc)

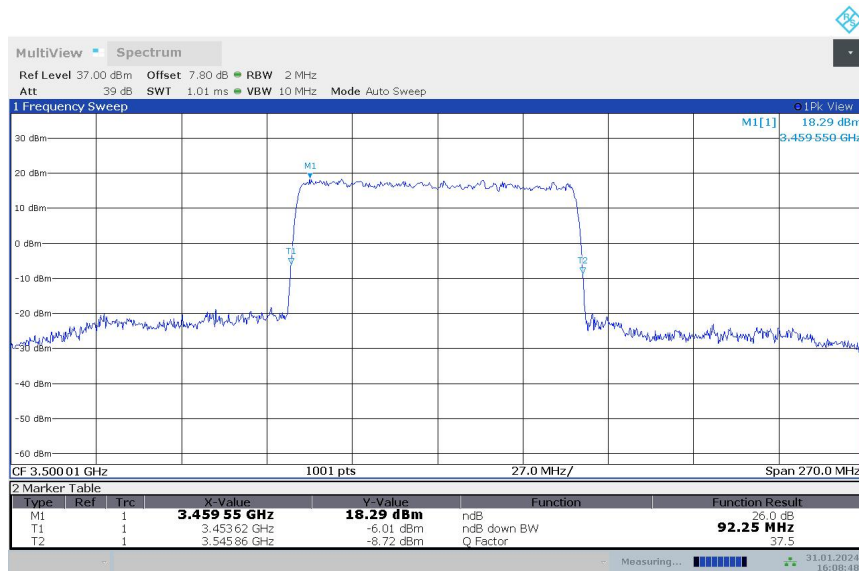
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3500.01         | 92.250                            | 92.250     |

n77L,90MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:08:29 31.01.2024

n77L,90MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



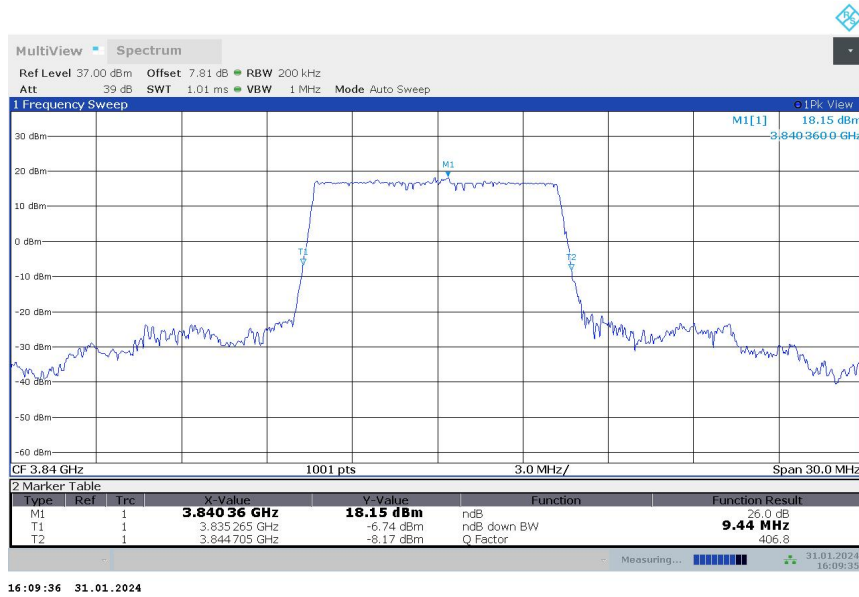
16:08:49 31.01.2024

n77H

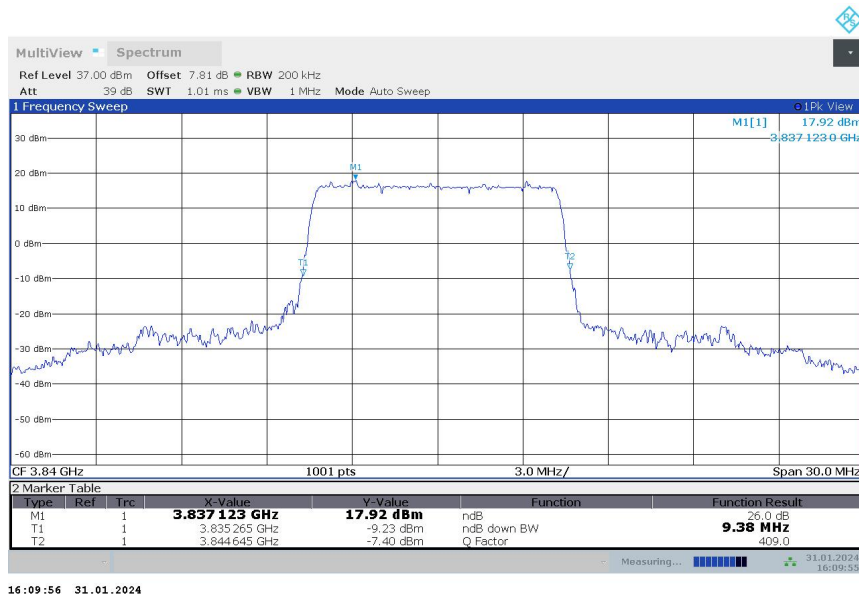
n77H,10MHz(-26dBc)

| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 9.441                             | 9.381      |

n77H,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n77H,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

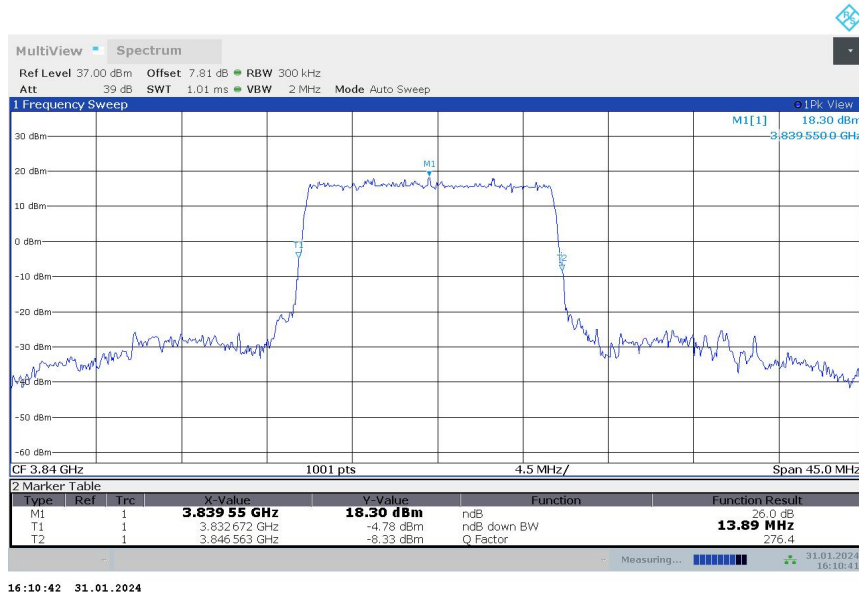


n77H

n77H,15MHz(-26dBc)

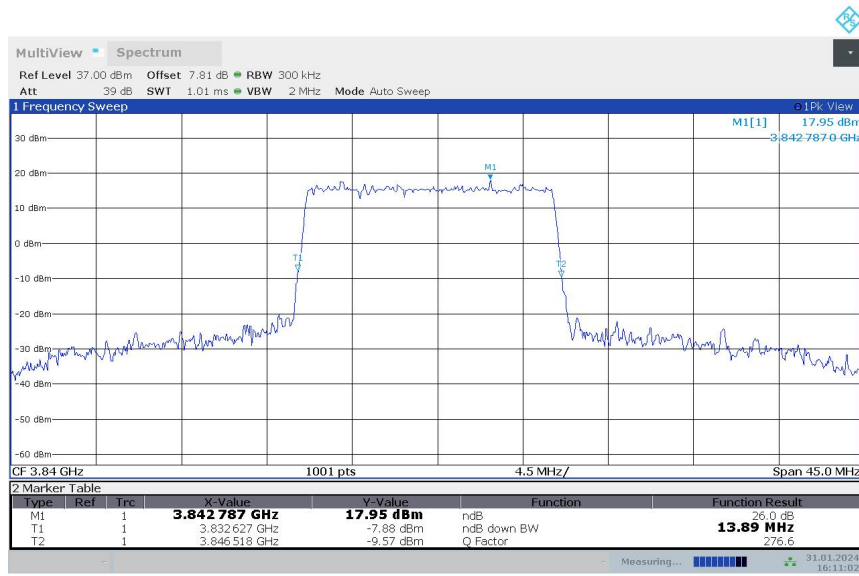
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 13.891                            | 13.891     |

n77H,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:10:42 31.01.2024

n77H,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

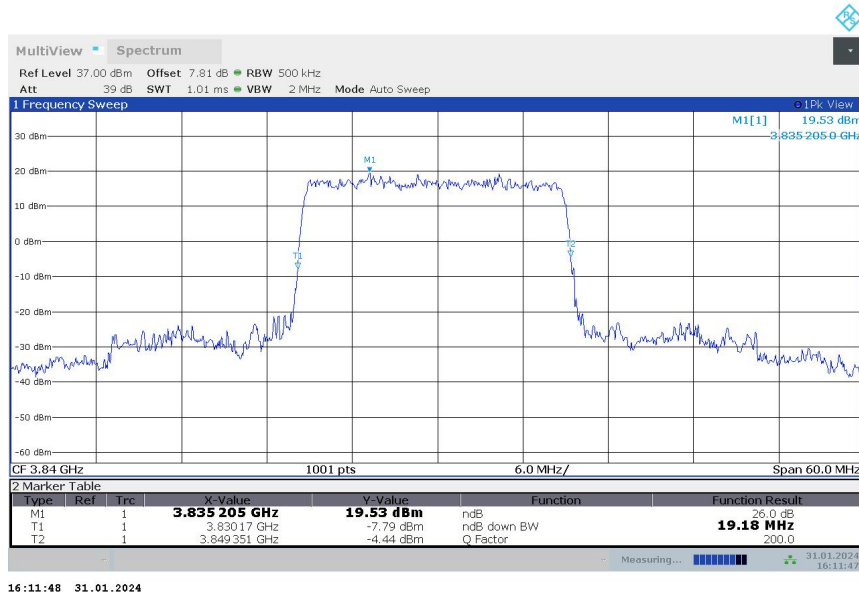


16:11:02 31.01.2024

n77H  
n77H,20MHz(-26dBc)

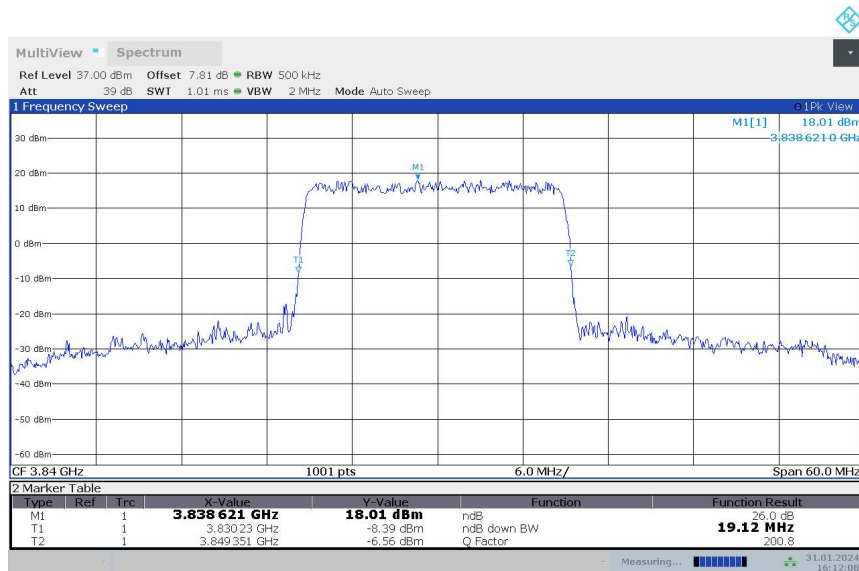
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 19.181                            | 19.121     |

n77H,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:11:48 31.01.2024

n77H,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



16:12:09 31.01.2024

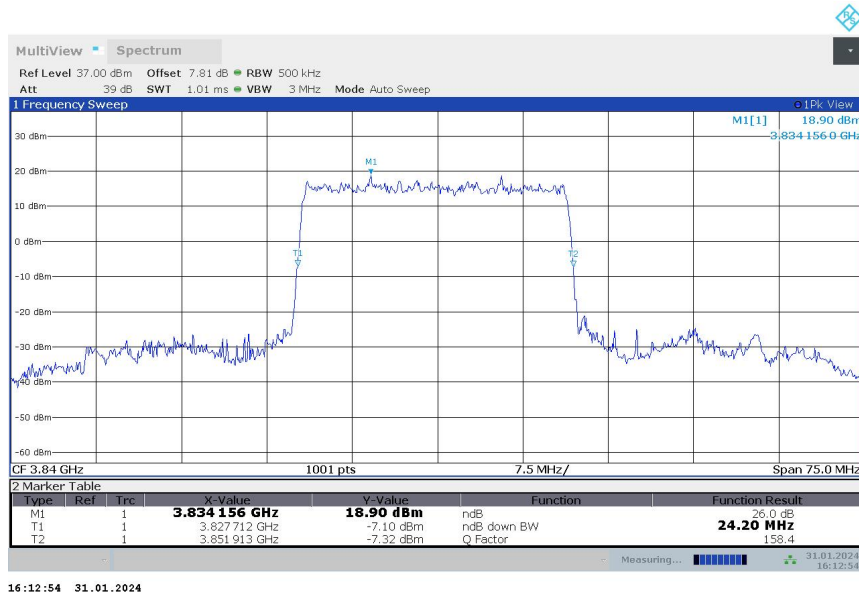


n77H

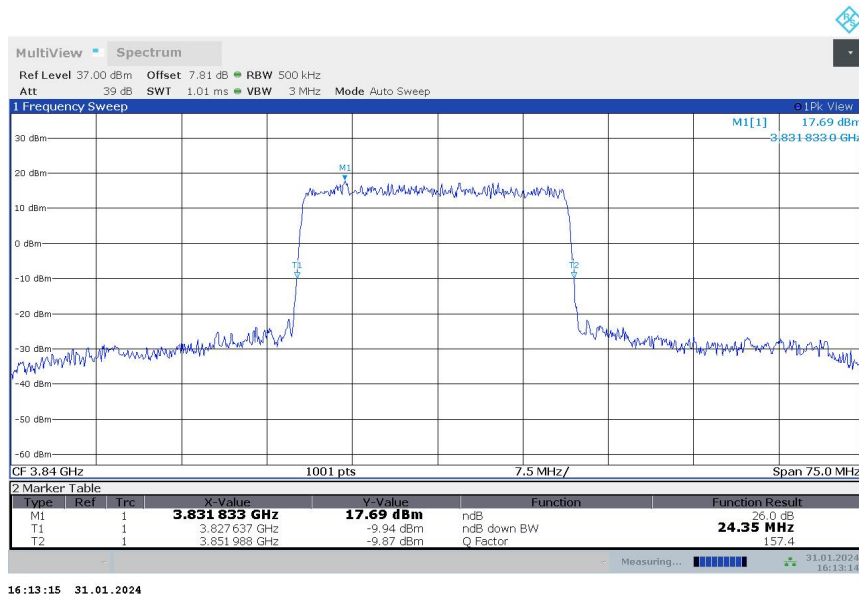
n77H,25MHz(-26dBc)

| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 24.201                            | 24.351     |

n77H,25MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n77H,25MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

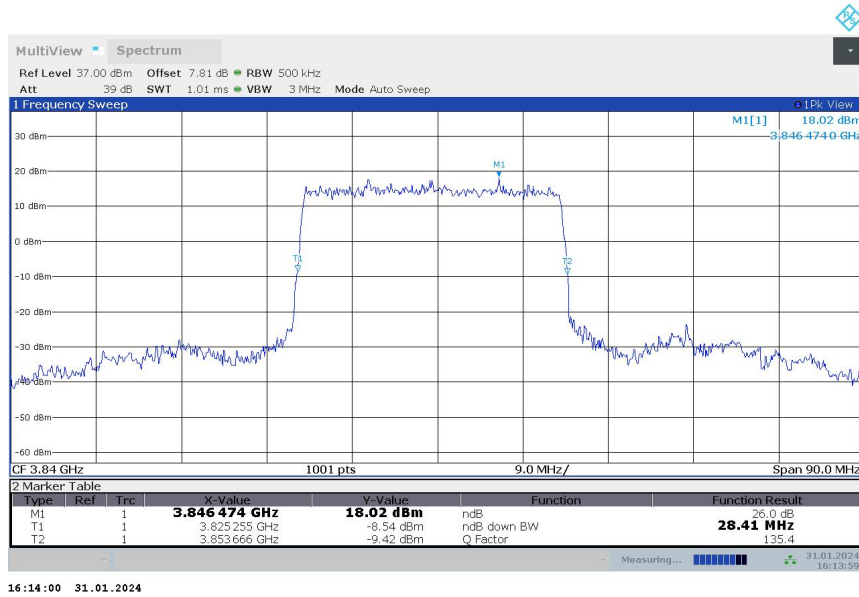


n77H

n77H,30MHz(-26dBc)

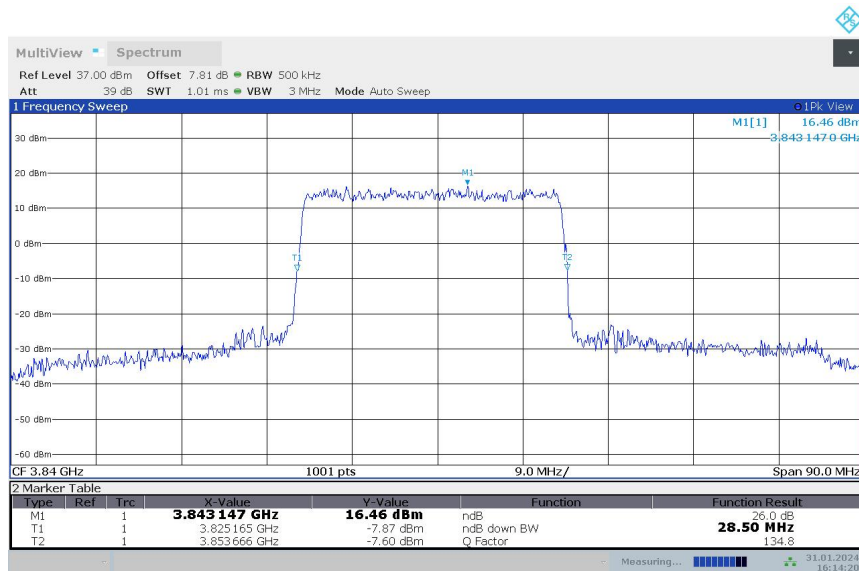
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 28.412                            | 28.501     |

n77H,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:14:00 31.01.2024

n77H,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



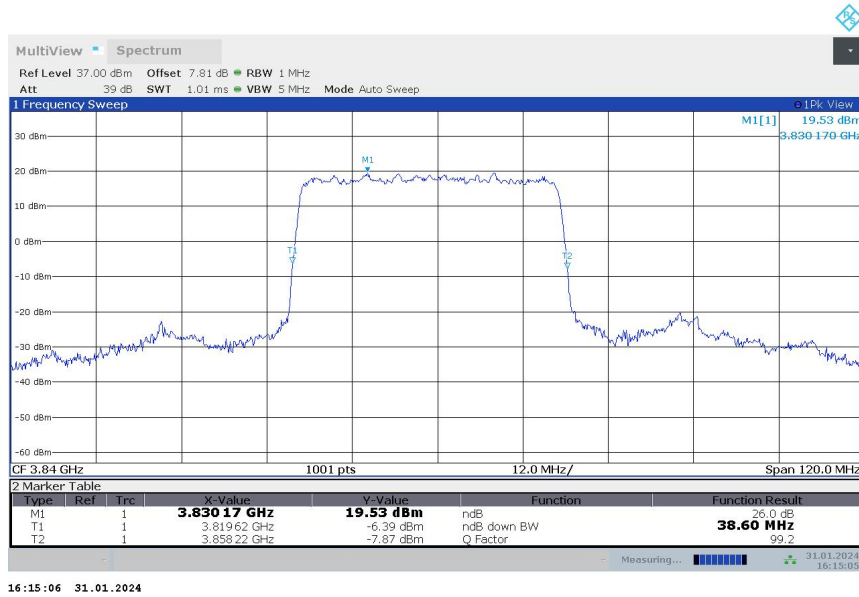
16:14:20 31.01.2024

n77H

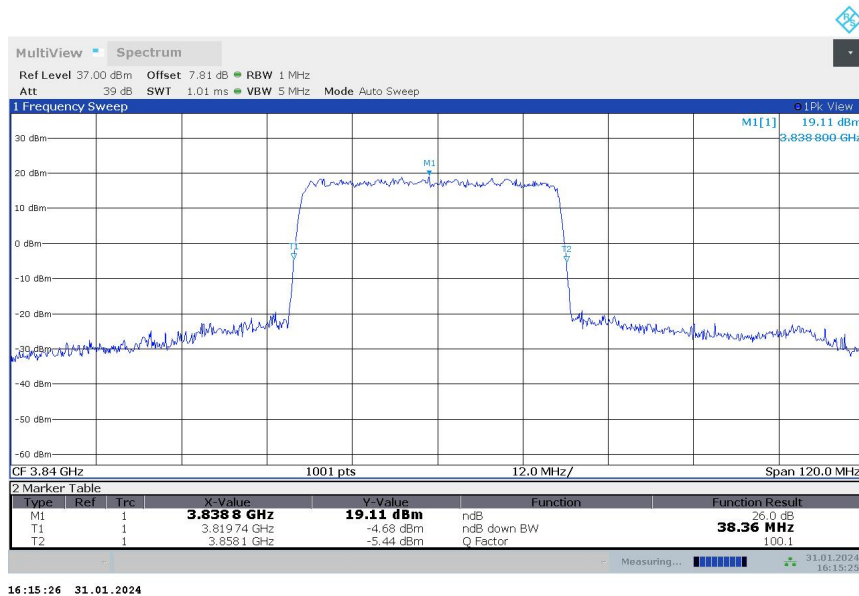
n77H,40MHz(-26dBc)

| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 38.600                            | 38.360     |

n77H,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n77H,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

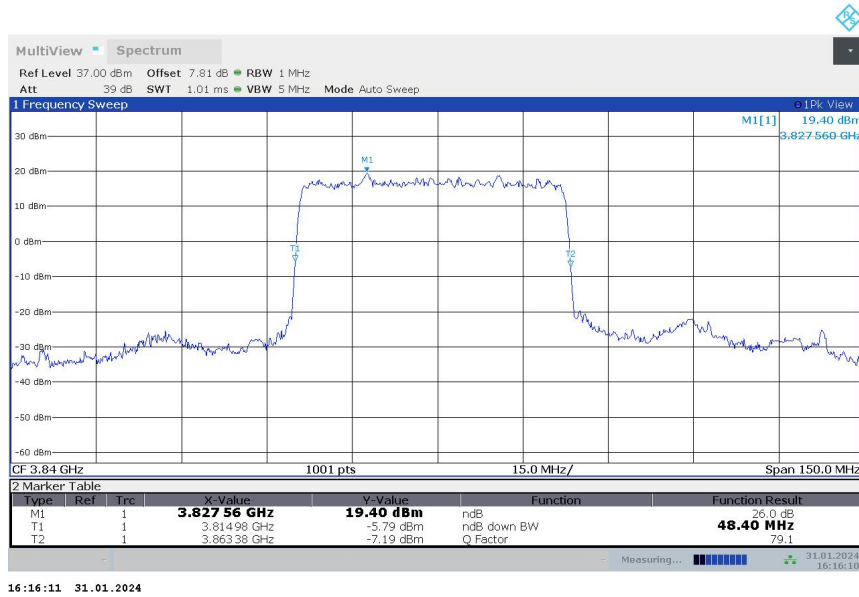


n77H

n77H,50MHz(-26dBc)

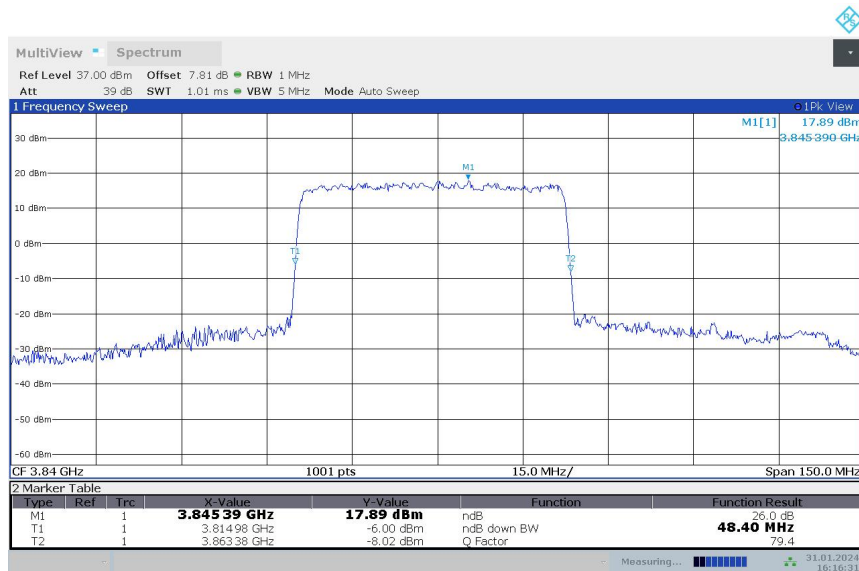
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 48.400                            | 48.400     |

n77H,50MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:16:11 31.01.2024

n77H,50MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



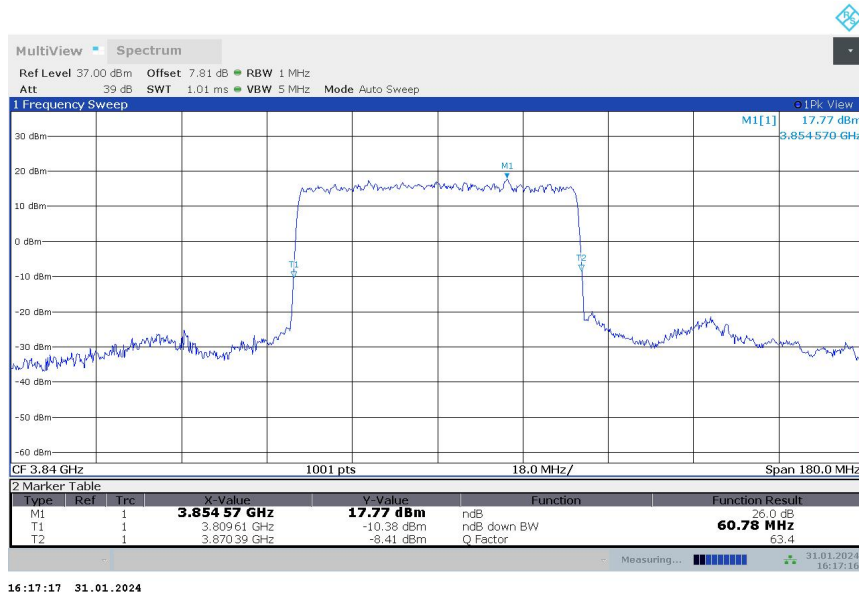
16:16:31 31.01.2024

n77H

n77H,60MHz(-26dBc)

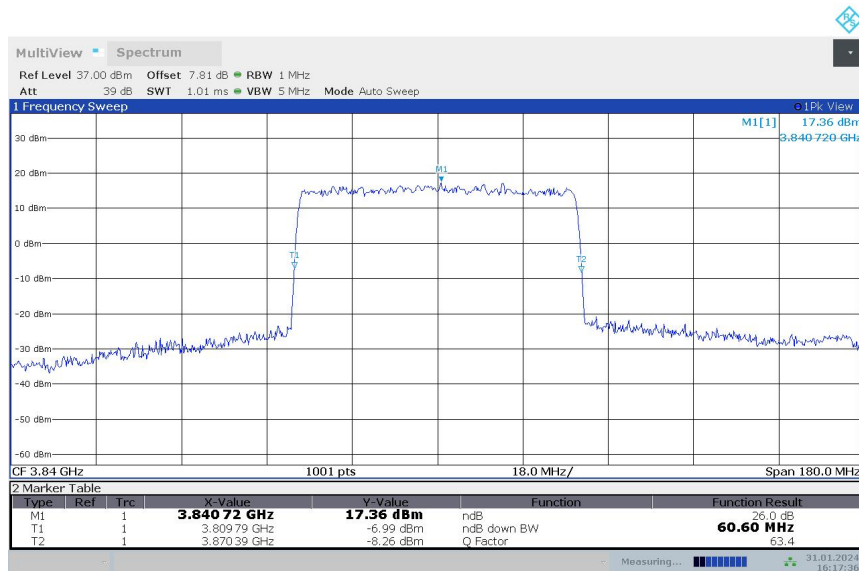
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 60.780                            | 60.600     |

n77H,60MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:17:17 31.01.2024

n77H,60MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



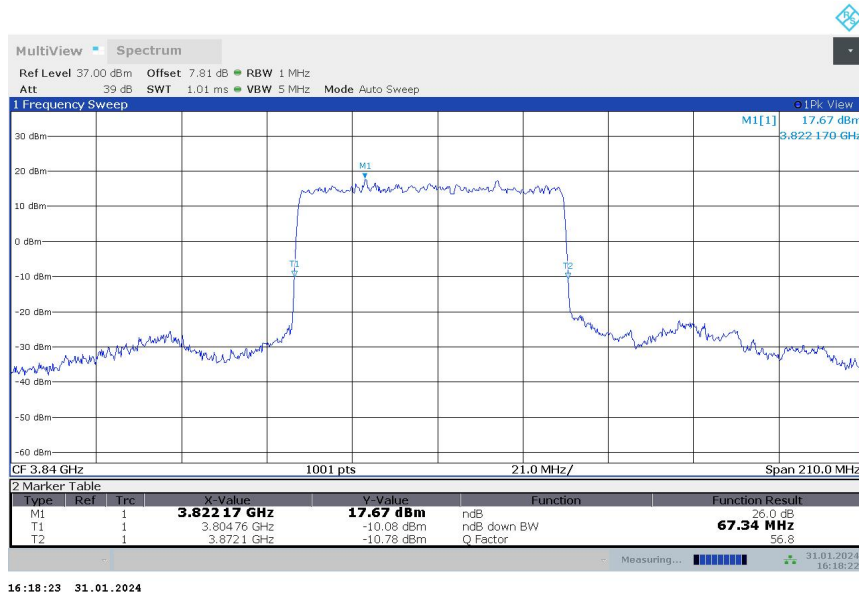
16:17:37 31.01.2024

n77H

n77H,70MHz(-26dBc)

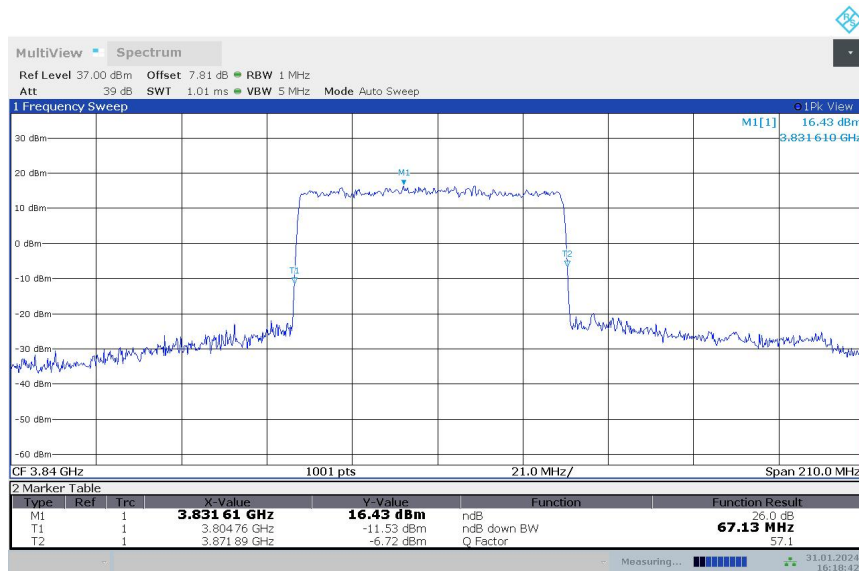
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 67.340                            | 67.130     |

n77H,70MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:18:23 31.01.2024

n77H,70MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



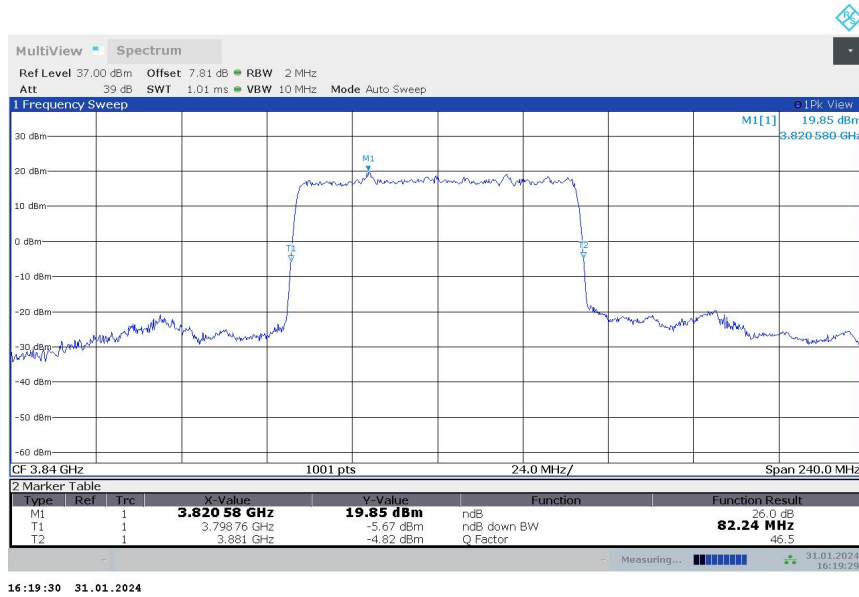
16:18:43 31.01.2024

n77H

n77H,80MHz(-26dBc)

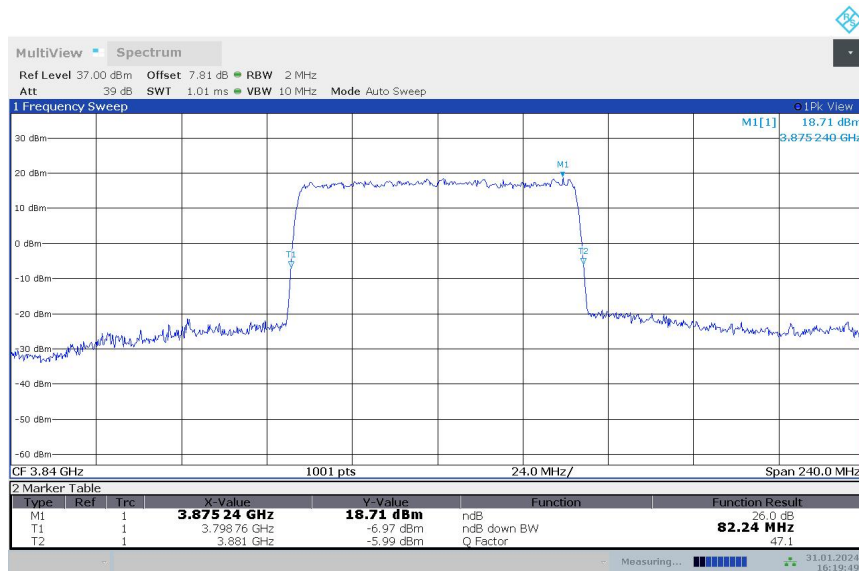
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 82.240                            | 82.240     |

n77H,80MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



16:19:30 31.01.2024

n77H,80MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



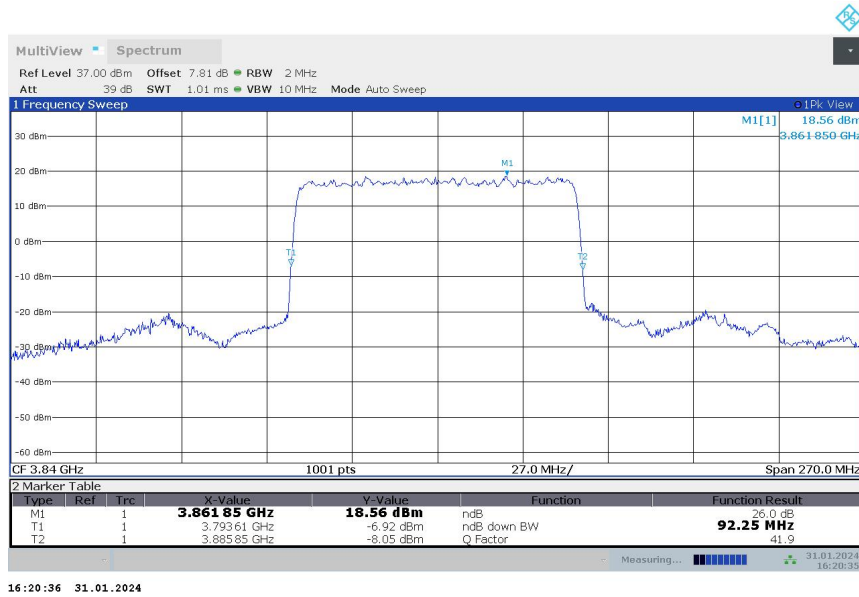
16:19:50 31.01.2024

n77H

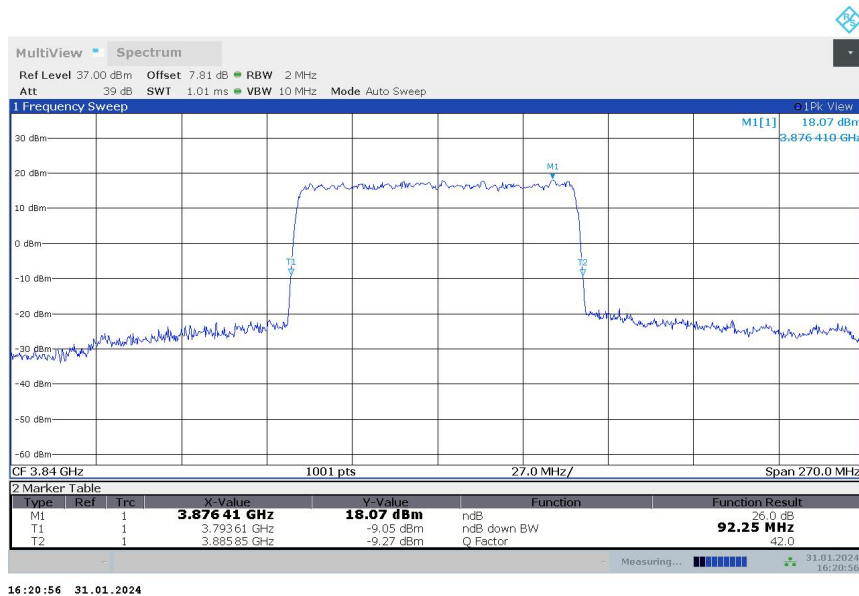
n77H,90MHz(-26dBc)

| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 92.250                            | 92.250     |

n77H,90MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



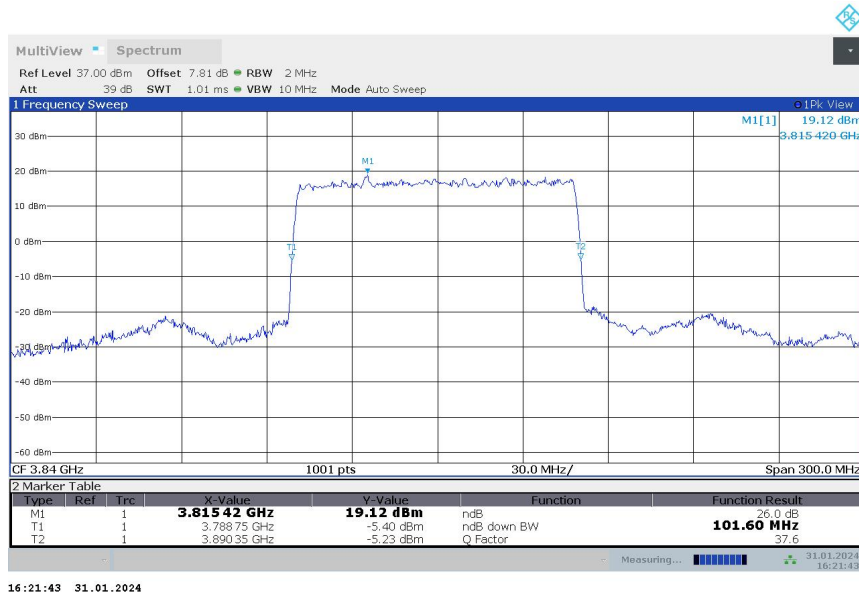
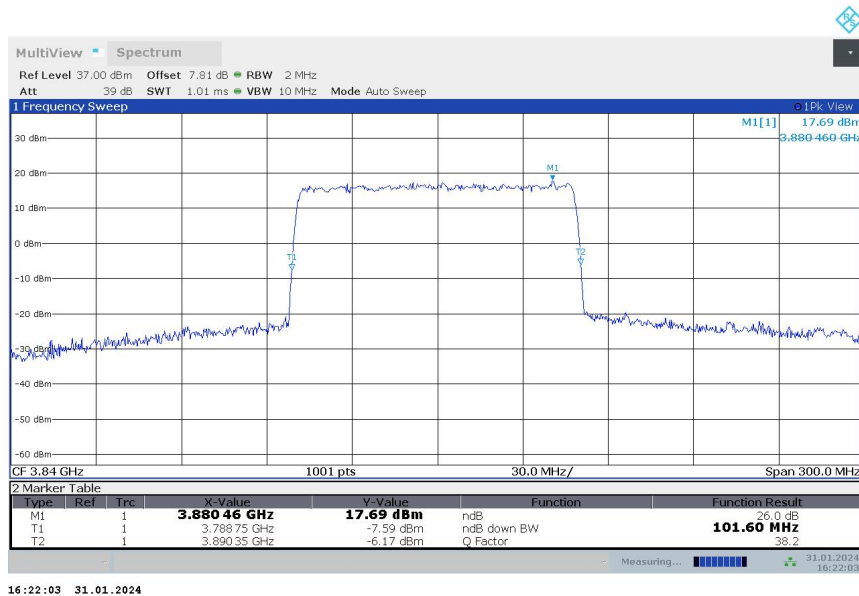
n77H,90MHz Bandwidth,DFT-s-QPSK (-26dBc BW)





**n77H**
**n77H,100MHz(-26dBc)**

| Frequency (MHz) | Occupied Bandwidth (-26dBc) (MHz) |            |
|-----------------|-----------------------------------|------------|
|                 | DFT-s-pi/2 BPSK                   | DFT-s-QPSK |
| 3840            | 101.600                           | 101.600    |

**n77H,100MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)**

**n77H,100MHz Bandwidth,DFT-s-QPSK (-26dBc BW)**


Note: The maximum value of expanded measurement uncertainty for this test item is  $U = 0.626$  kHz,  $k = 2$ .

## **A.6 Band Edge Compliance**

### **A.6.1 Measurement limit**

Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Part 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 27.53(n) states for mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed  $-13$  dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Part 27.53(l) states for mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed  $-13$  dBm/MHz.

Compliance with this paragraph (l)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all

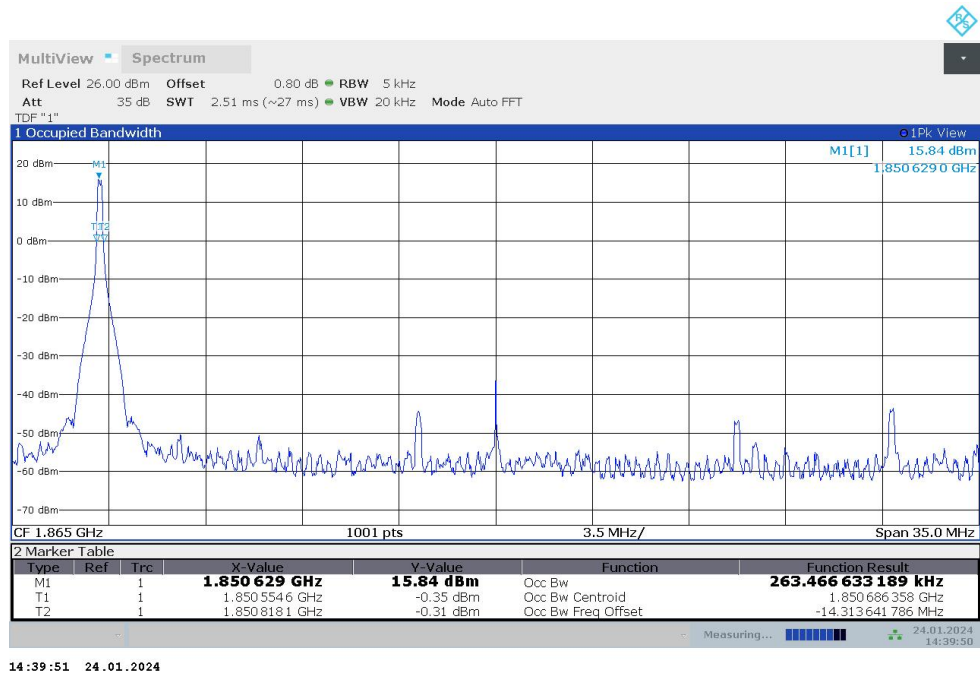


emissions are attenuated at least 26 dB below the transmitter power.  
The spectrum analyzer readings are corrected by  $[10 \log (1/\text{duty cycle})]$  for the non-continuous transmitting scenario.

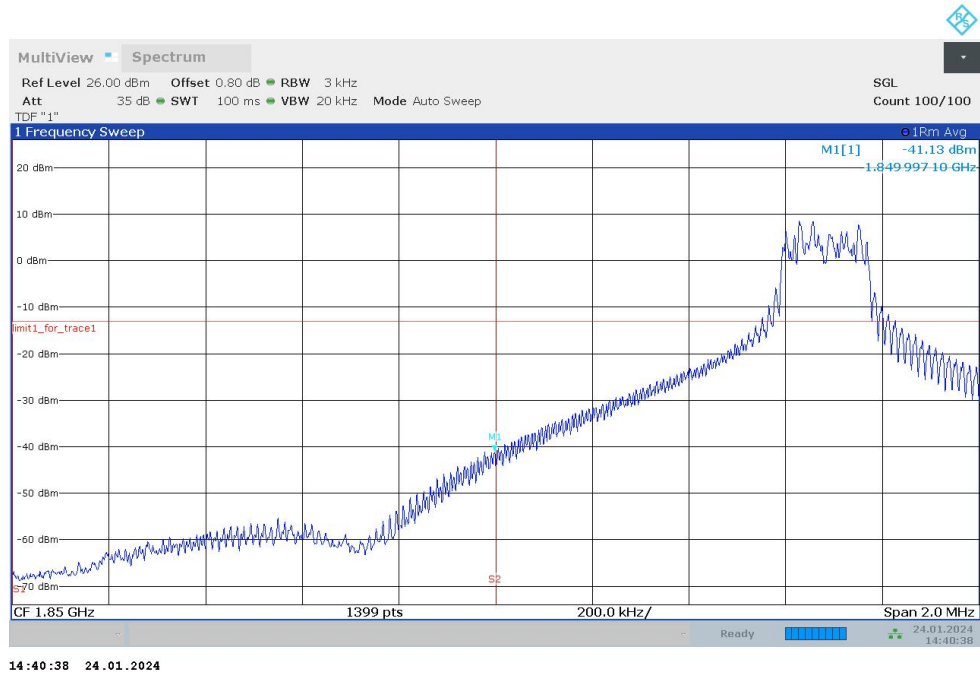
## A.6.2 Measurement result

NR n25

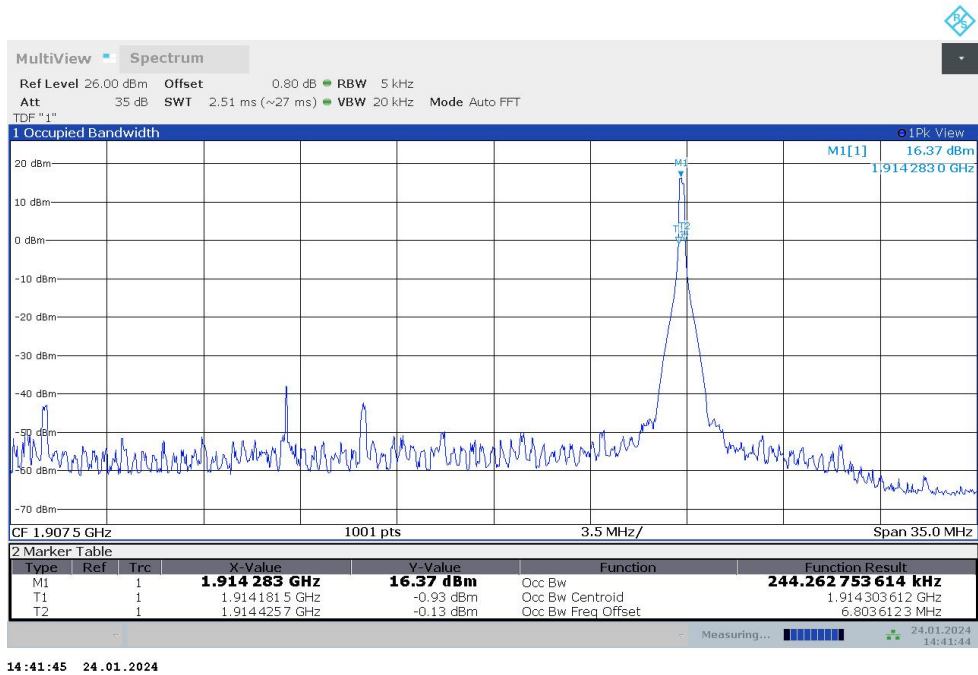
OBW: 1RB-LOW\_offset



## LOW BAND EDGE BLOCK-1RB-LOW\_offset



### OBW: 1RB-HIGH\_offset



### HIGH BAND EDGE BLOCK-1RB-HIGH\_offset

