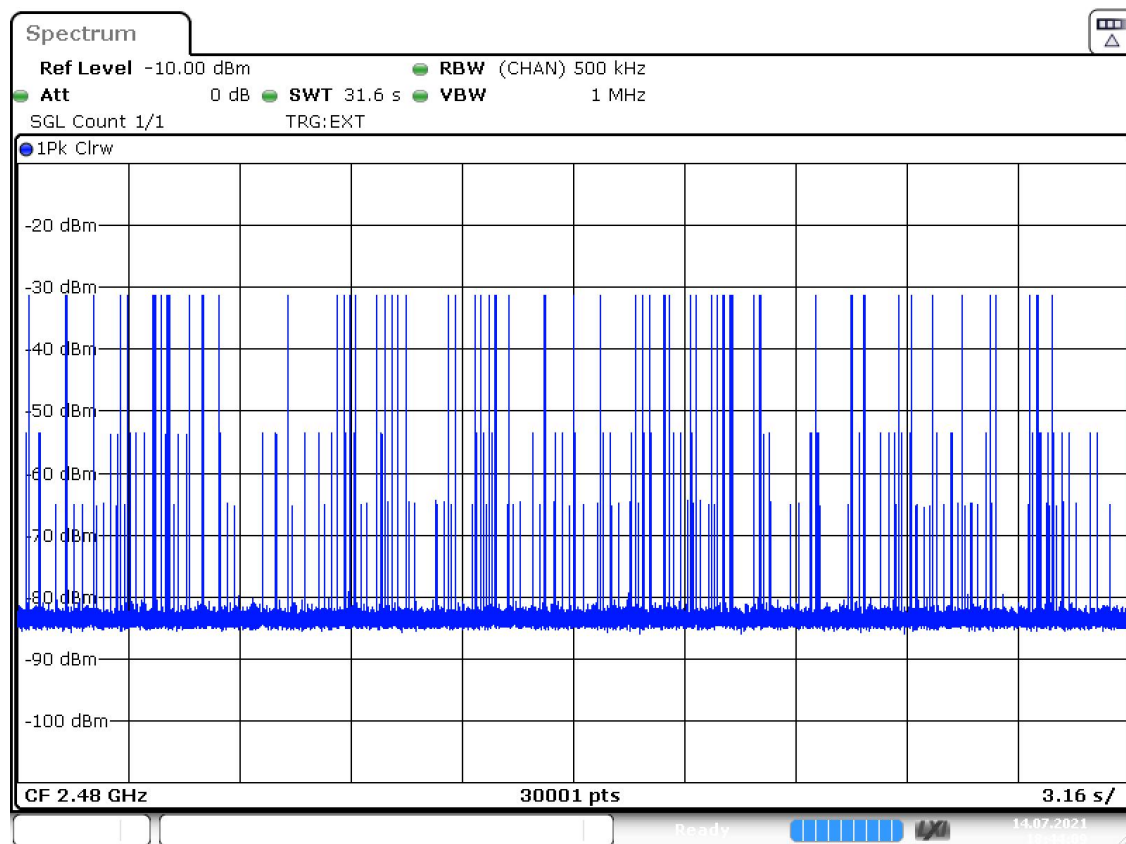




Date: 14.JUL.2021 18:44:09

## Measurement

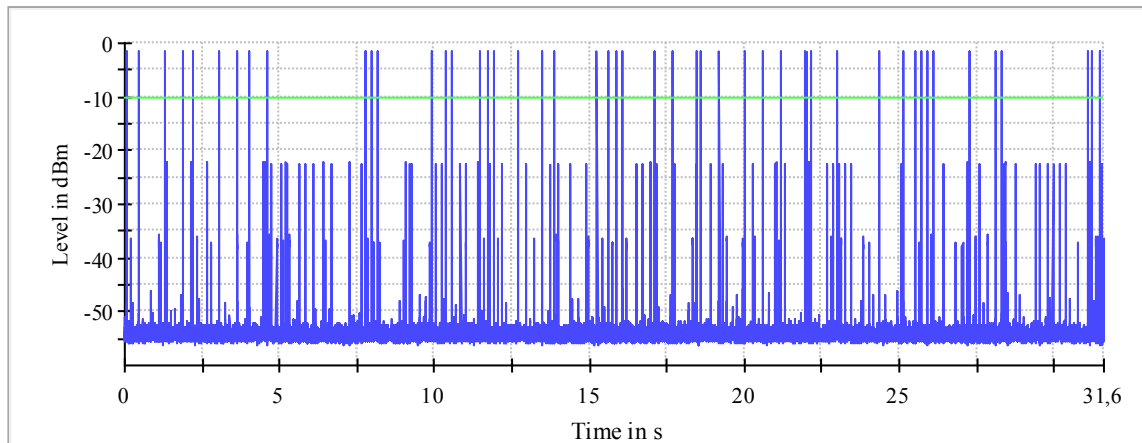
| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Center Frequency | 2.48000 GHz      | 2.48000 GHz   |
| Span             | ZeroSpan         | ZeroSpan      |
| RBW              | 500.000 kHz      | ~ 500.000 kHz |
| VBW              | 1.000 MHz        | ~ 1.500 MHz   |
| SweepPoints      | 30001            | ~ 30001       |
| SweepTime        | 31.600 s         | 31.600 s      |
| Reference Level  | -10.000 dBm      | -10.000 dBm   |
| Attenuation      | 0.000 dB         | 0.000 dB      |
| Detector         | MaxPeak          | MaxPeak       |
| SweepCount       | 1                | 1             |
| Filter           | Channel          | Channel       |
| Trace Mode       | Clear Write      | Clear Write   |
| SweepType        | Sweep            | AUTO          |
| Preamplifier     | off              | off           |
| Trigger          | External         | External      |
| Trigger Offset   | 0.000 s          | 0.000 s       |

## OSP

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 31.600 s         | 31.600 s      |
| Tracepoints      | 31600000         | 31600000      |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

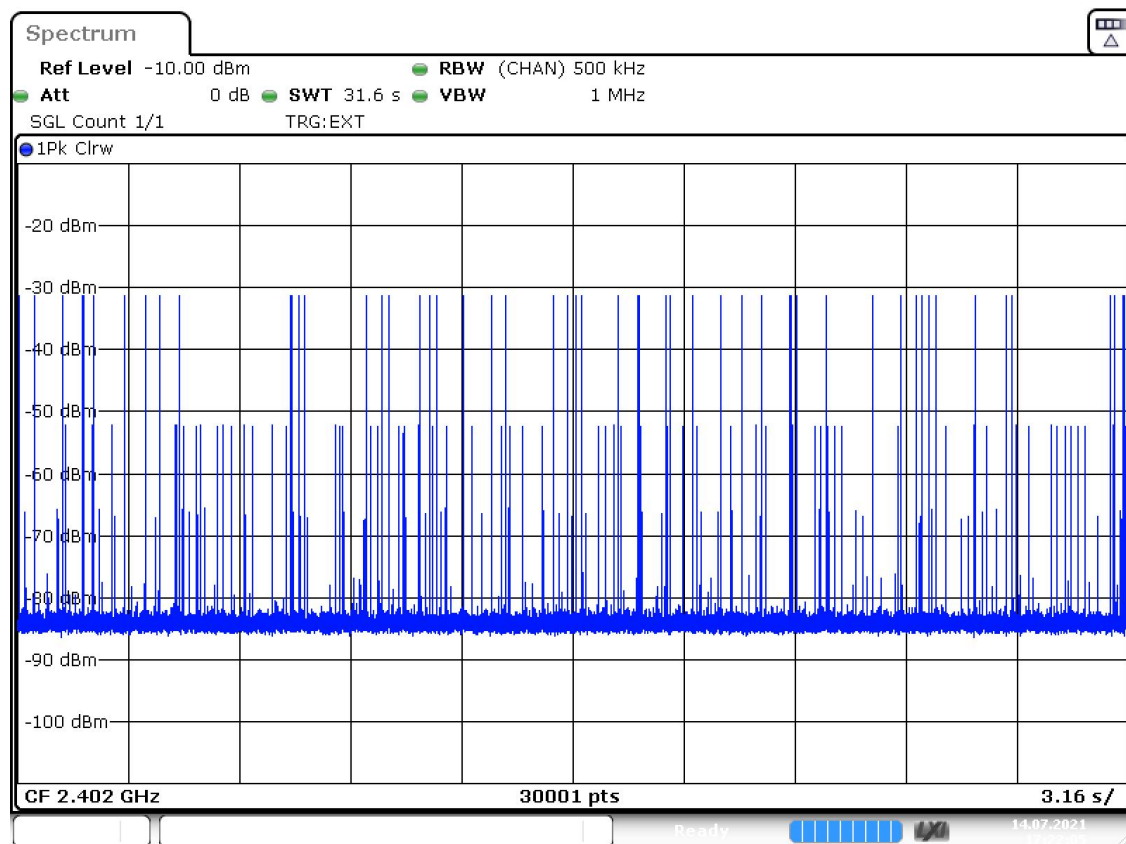
Plot 16: Mode 2, Time of Channel Occupancy, low channel

Time of Channel Occupancy



— Trace      — Threshold

| DUT Frequency (MHz) | Result | Number of Hops | Average time of occupancy (ms) | Threshold (dBm) |
|---------------------|--------|----------------|--------------------------------|-----------------|
| 2402.000000         | PASS   | 50             | 130.460                        | -10.0           |



Date: 14.JUL.2021 17:22:06

## Measurement

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Center Frequency | 2.40200 GHz      | 2.40200 GHz   |
| Span             | ZeroSpan         | ZeroSpan      |
| RBW              | 500.000 kHz      | ~ 500.000 kHz |
| VBW              | 1.000 MHz        | ~ 1.500 MHz   |
| SweepPoints      | 30001            | ~ 30001       |
| Sweptime         | 31.600 s         | 31.600 s      |
| Reference Level  | -10.000 dBm      | -10.000 dBm   |
| Attenuation      | 0.000 dB         | 0.000 dB      |
| Detector         | MaxPeak          | MaxPeak       |
| SweepCount       | 1                | 1             |
| Filter           | Channel          | Channel       |
| Trace Mode       | Clear Write      | Clear Write   |
| SweepType        | Sweep            | AUTO          |
| Preamp           | off              | off           |
| Trigger          | External         | External      |
| Trigger Offset   | 0.000 s          | 0.000 s       |

## OSP

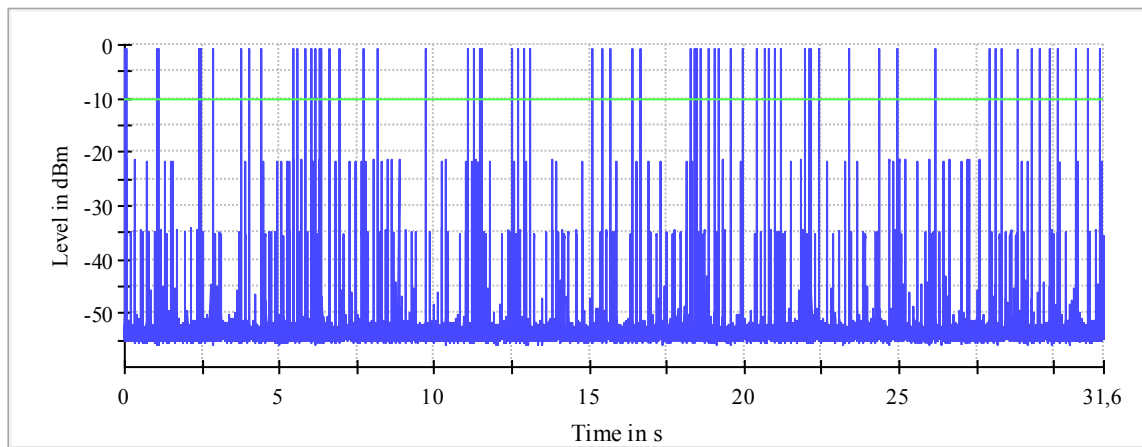
| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 31.600 s         | 31.600 s      |
| Tracepoints      | 31600000         | 31600000      |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

TR no.: **21065784-20819-1**

**2021-09-03**

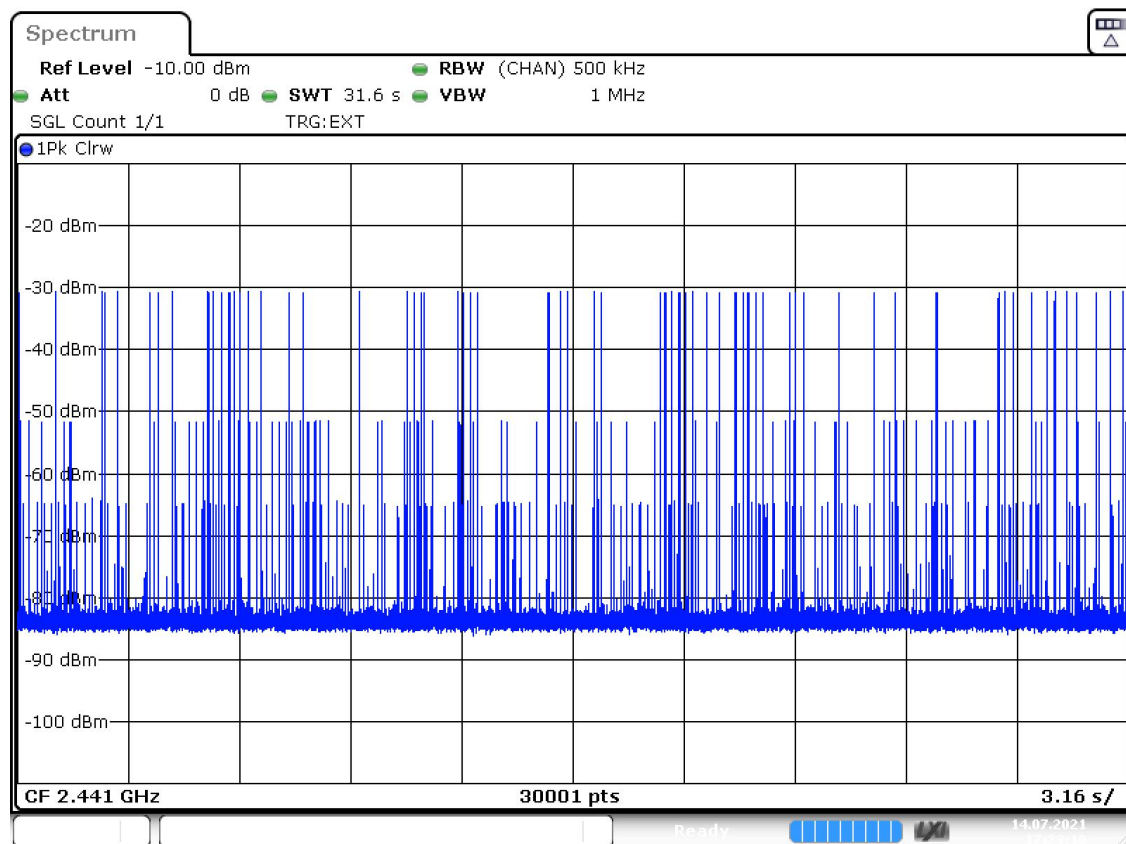
Plot 17: Mode 2, Time of Channel Occupancy, mid channel

Time of Channel Occupancy



— Trace      — Threshold

| DUT Frequency (MHz) | Result | Number of Hops | Average time of occupancy (ms) | Threshold (dBm) |
|---------------------|--------|----------------|--------------------------------|-----------------|
| 2441.000000         | PASS   | 64             | 173.350                        | -10.0           |



Date: 14.JUL.2021 17:23:10

## Measurement

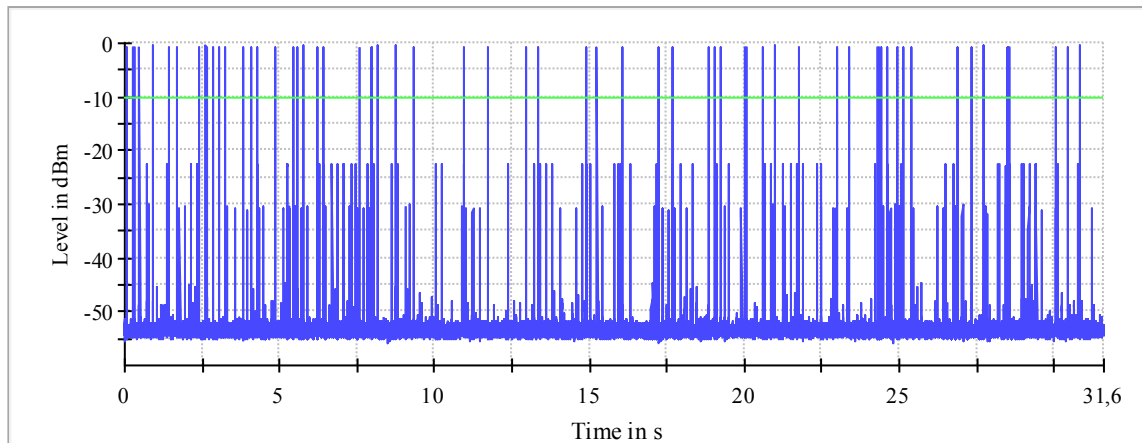
| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Center Frequency | 2.44100 GHz      | 2.44100 GHz   |
| Span             | ZeroSpan         | ZeroSpan      |
| RBW              | 500.000 kHz      | ~ 500.000 kHz |
| VBW              | 1.000 MHz        | ~ 1.500 MHz   |
| SweepPoints      | 30001            | ~ 30001       |
| Sweptime         | 31.600 s         | 31.600 s      |
| Reference Level  | -10.000 dBm      | -10.000 dBm   |
| Attenuation      | 0.000 dB         | 0.000 dB      |
| Detector         | MaxPeak          | MaxPeak       |
| SweepCount       | 1                | 1             |
| Filter           | Channel          | Channel       |
| Trace Mode       | Clear Write      | Clear Write   |
| SweepType        | Sweep            | AUTO          |
| Preamp           | off              | off           |
| Trigger          | External         | External      |
| Trigger Offset   | 0.000 s          | 0.000 s       |

## OSP

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 31.600 s         | 31.600 s      |
| Tracepoints      | 31600000         | 31600000      |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

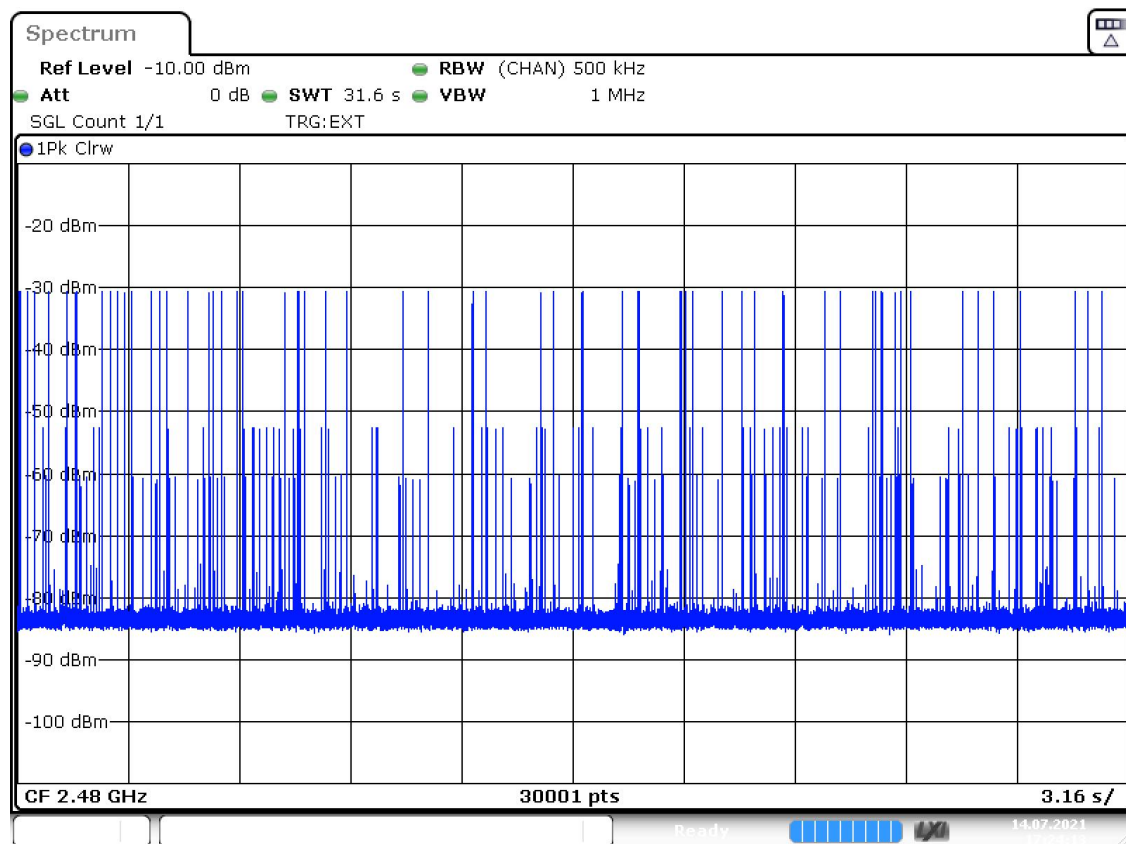
Plot 18: Mode 2, Time of Channel Occupancy, high channel

Time of Channel Occupancy



— Trace      — Threshold

| DUT Frequency (MHz) | Result | Number of Hops | Average time of occupancy (ms) | Threshold (dBm) |
|---------------------|--------|----------------|--------------------------------|-----------------|
| 2480.000000         | PASS   | 57             | 156.210                        | -10.0           |



Date: 14.JUL.2021 17:24:14

## Measurement

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Center Frequency | 2.48000 GHz      | 2.48000 GHz   |
| Span             | ZeroSpan         | ZeroSpan      |
| RBW              | 500.000 kHz      | ~ 500.000 kHz |
| VBW              | 1.000 MHz        | ~ 1.500 MHz   |
| SweepPoints      | 30001            | ~ 30001       |
| Sweptime         | 31.600 s         | 31.600 s      |
| Reference Level  | -10.000 dBm      | -10.000 dBm   |
| Attenuation      | 0.000 dB         | 0.000 dB      |
| Detector         | MaxPeak          | MaxPeak       |
| SweepCount       | 1                | 1             |
| Filter           | Channel          | Channel       |
| Trace Mode       | Clear Write      | Clear Write   |
| SweepType        | Sweep            | AUTO          |
| Preamp           | off              | off           |
| Trigger          | External         | External      |
| Trigger Offset   | 0.000 s          | 0.000 s       |

## OSP

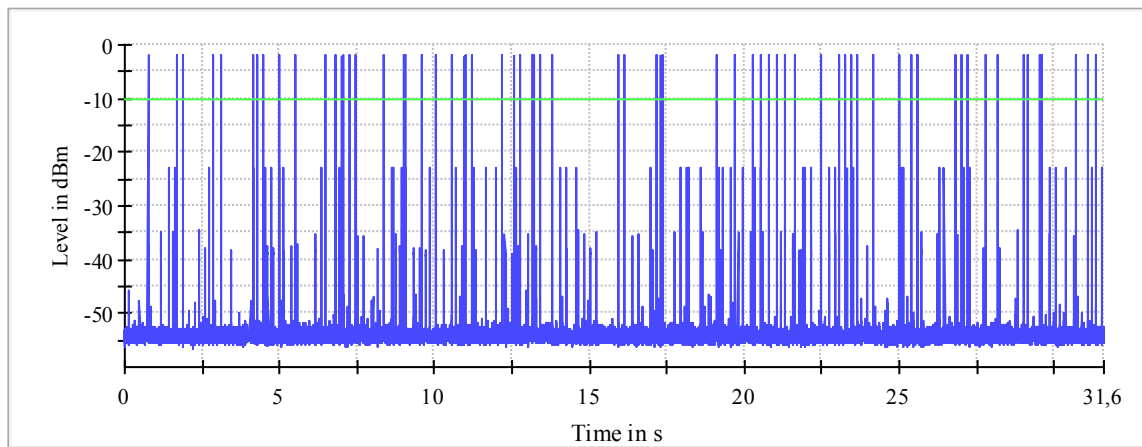
| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 31.600 s         | 31.600 s      |
| Tracepoints      | 31600000         | 31600000      |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

TR no.: **21065784-20819-1**

**2021-09-03**

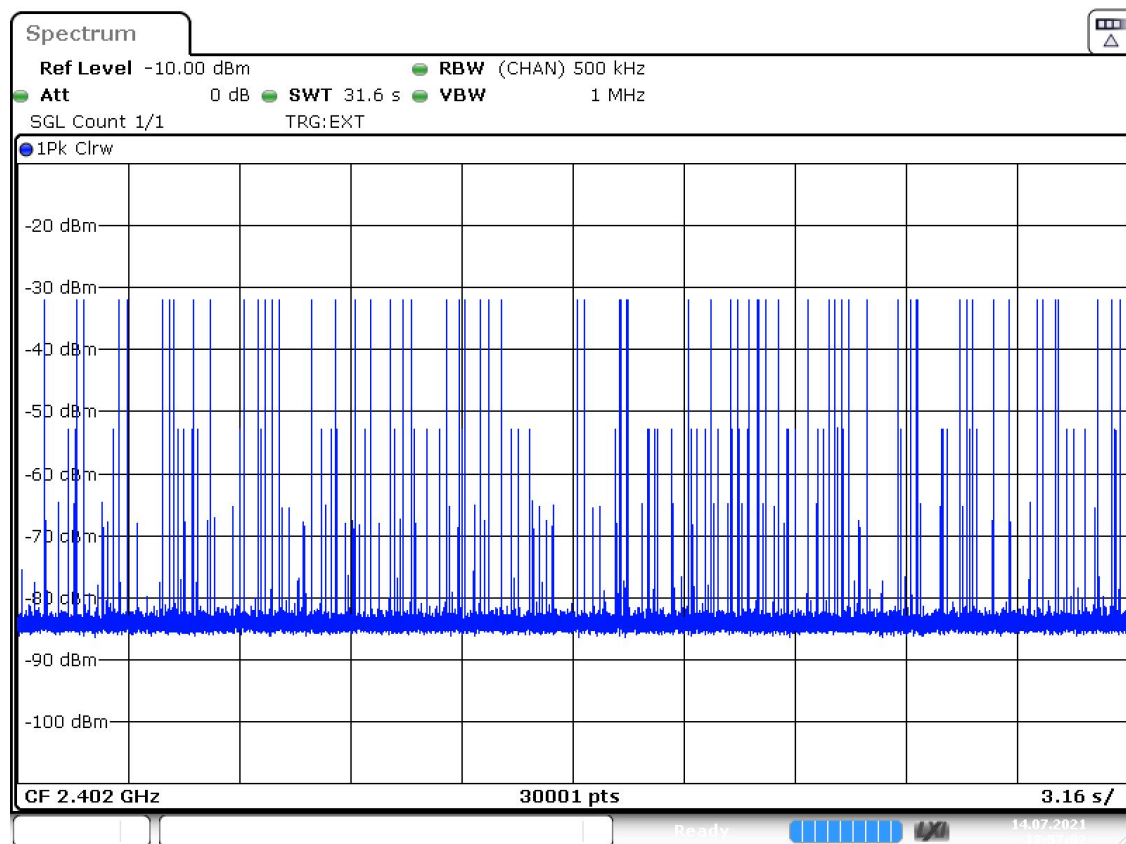
Plot 19: Mode 3, Time of Channel Occupancy, low channel

Time of Channel Occupancy



— Trace      — Threshold

| DUT Frequency (MHz) | Result | Number of Hops | Average time of occupancy (ms) | Threshold (dBm) |
|---------------------|--------|----------------|--------------------------------|-----------------|
| 2402.000000         | PASS   | 63             | 160.720                        | -10.0           |



Date: 14.JUL.2021 18:57:03

## Measurement

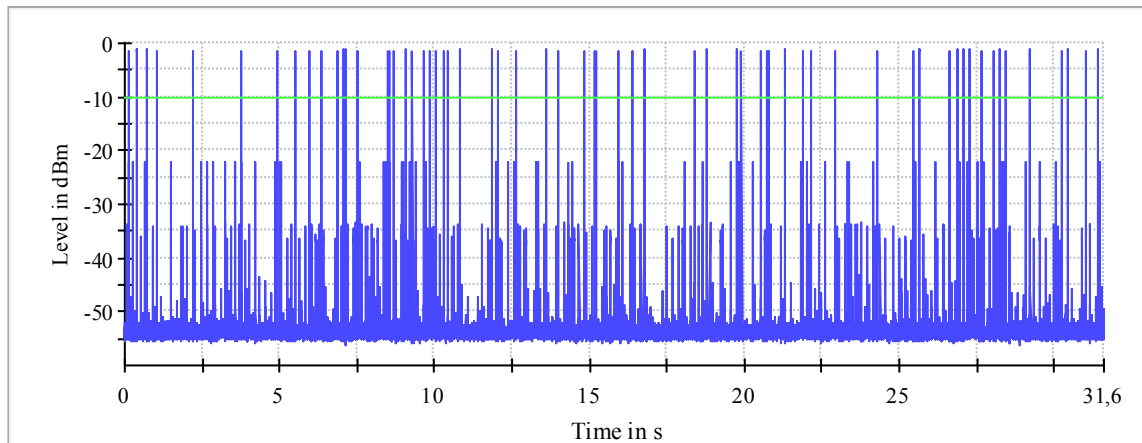
| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Center Frequency | 2.40200 GHz      | 2.40200 GHz   |
| Span             | ZeroSpan         | ZeroSpan      |
| RBW              | 500.000 kHz      | ~ 500.000 kHz |
| VBW              | 1.000 MHz        | ~ 1.500 MHz   |
| SweepPoints      | 30001            | ~ 30001       |
| Sweptime         | 31.600 s         | 31.600 s      |
| Reference Level  | -10.000 dBm      | -10.000 dBm   |
| Attenuation      | 0.000 dB         | 0.000 dB      |
| Detector         | MaxPeak          | MaxPeak       |
| SweepCount       | 1                | 1             |
| Filter           | Channel          | Channel       |
| Trace Mode       | Clear Write      | Clear Write   |
| SweepType        | Sweep            | AUTO          |
| Preamp           | off              | off           |
| Trigger          | External         | External      |
| Trigger Offset   | 0.000 s          | 0.000 s       |

## OSP

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 31.600 s         | 31.600 s      |
| Tracepoints      | 31600000         | 31600000      |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

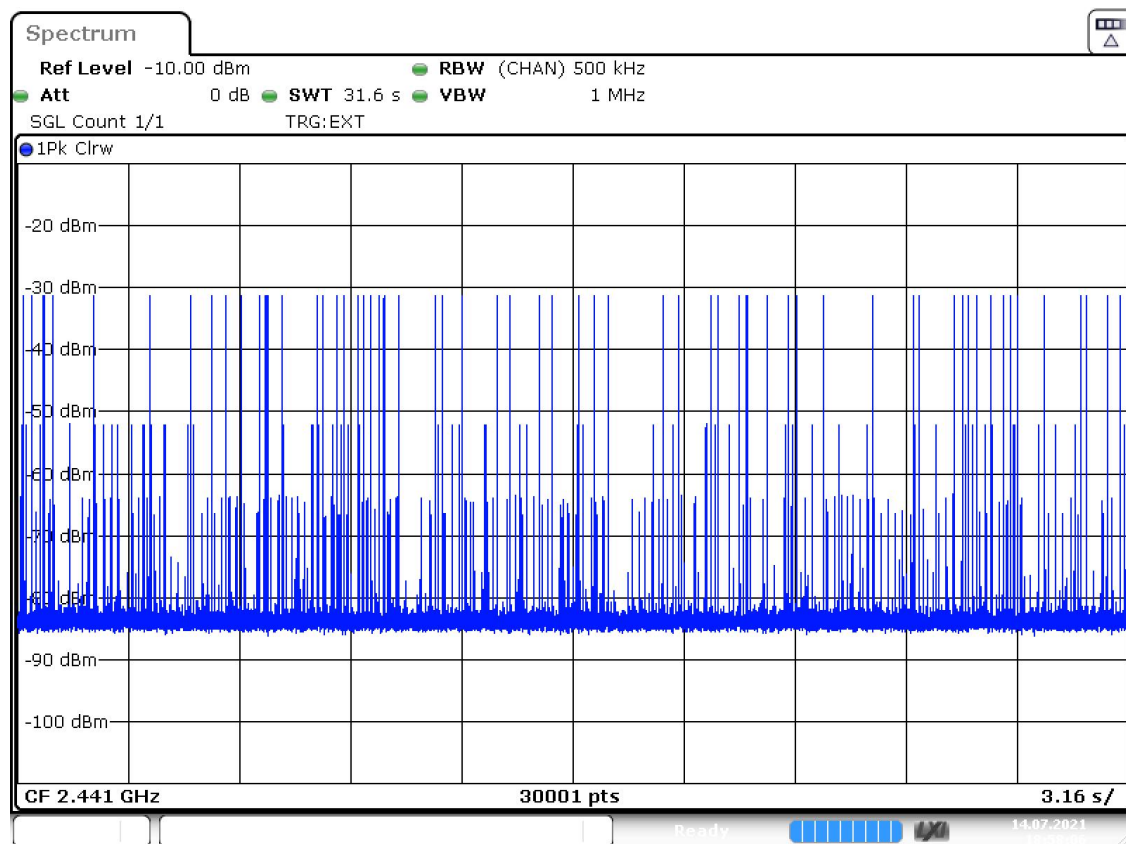
Plot 20: Mode 3, Time of Channel Occupancy, mid channel

Time of Channel Occupancy



— Trace      — Threshold

| DUT Frequency (MHz) | Result | Number of Hops | Average time of occupancy (ms) | Threshold (dBm) |
|---------------------|--------|----------------|--------------------------------|-----------------|
| 2441.000000         | PASS   | 60             | 158.740                        | -10.0           |



Date: 14.JUL.2021 18:58:07

## Measurement

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Center Frequency | 2.44100 GHz      | 2.44100 GHz   |
| Span             | ZeroSpan         | ZeroSpan      |
| RBW              | 500.000 kHz      | ~ 500.000 kHz |
| VBW              | 1.000 MHz        | ~ 1.500 MHz   |
| SweepPoints      | 30001            | ~ 30001       |
| Sweptime         | 31.600 s         | 31.600 s      |
| Reference Level  | -10.000 dBm      | -10.000 dBm   |
| Attenuation      | 0.000 dB         | 0.000 dB      |
| Detector         | MaxPeak          | MaxPeak       |
| SweepCount       | 1                | 1             |
| Filter           | Channel          | Channel       |
| Trace Mode       | Clear Write      | Clear Write   |
| SweepType        | Sweep            | AUTO          |
| Preamp           | off              | off           |
| Trigger          | External         | External      |
| Trigger Offset   | 0.000 s          | 0.000 s       |

## OSP

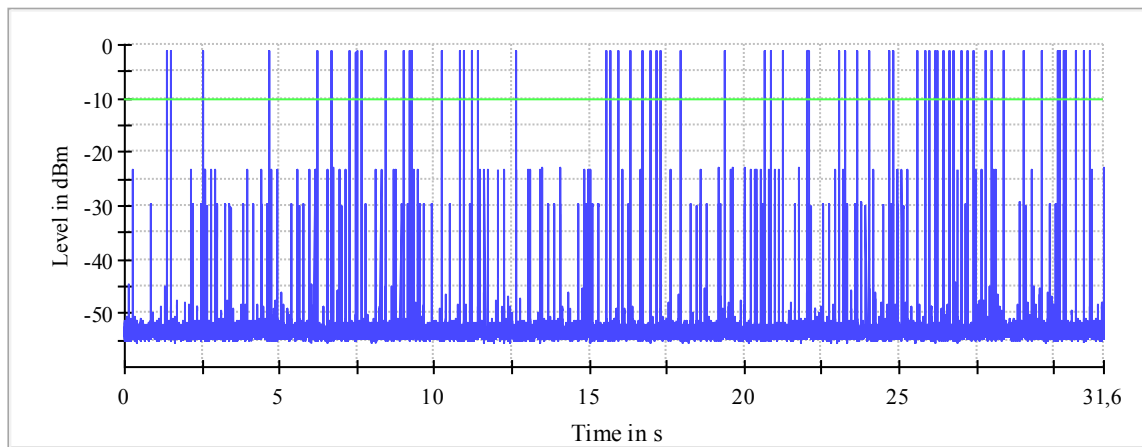
| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 31.600 s         | 31.600 s      |
| Tracepoints      | 31600000         | 31600000      |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

TR no.: **21065784-20819-1**

**2021-09-03**

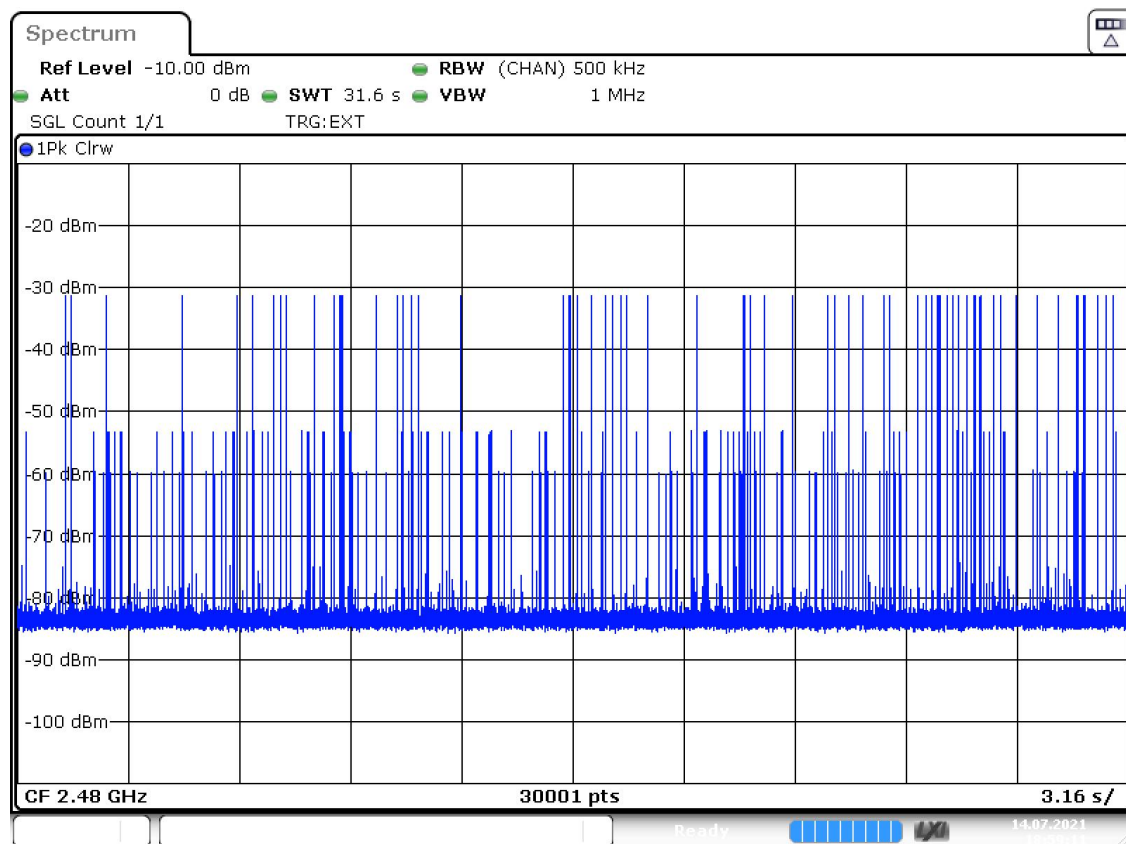
Plot 21: Mode 3, Time of Channel Occupancy, high channel

Time of Channel Occupancy



— Trace — Threshold

| DUT Frequency (MHz) | Result | Number of Hops | Average time of occupancy (ms) | Threshold (dBm) |
|---------------------|--------|----------------|--------------------------------|-----------------|
| 2480.000000         | PASS   | 62             | 164.490                        | -10.0           |



Date: 14.JUL.2021 18:59:11

## Measurement

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Center Frequency | 2.48000 GHz      | 2.48000 GHz   |
| Span             | ZeroSpan         | ZeroSpan      |
| RBW              | 500.000 kHz      | ~ 500.000 kHz |
| VBW              | 1.000 MHz        | ~ 1.500 MHz   |
| SweepPoints      | 30001            | ~ 30001       |
| Sweptime         | 31.600 s         | 31.600 s      |
| Reference Level  | -10.000 dBm      | -10.000 dBm   |
| Attenuation      | 0.000 dB         | 0.000 dB      |
| Detector         | MaxPeak          | MaxPeak       |
| SweepCount       | 1                | 1             |
| Filter           | Channel          | Channel       |
| Trace Mode       | Clear Write      | Clear Write   |
| SweepType        | Sweep            | AUTO          |
| Preamp           | off              | off           |
| Trigger          | External         | External      |
| Trigger Offset   | 0.000 s          | 0.000 s       |

## OSP

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 31.600 s         | 31.600 s      |
| Tracepoints      | 31600000         | 31600000      |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

#### 7.4 Minimum emission bandwidth 6 dB, emission bandwidth 20 dB

##### Applicability

This requirement applies to all types of FHS equipment operating in the 2400 – 2483.5 MHz band.

##### Description

The 6 dB / 20 dB Emission Bandwidth is defined as the frequency width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB / 20 dB relative to the maximum level measured in the fundamental emission.

##### Limit

No limit defined

##### Test procedure

ANSI C63.10, 7.8

The steps are as follows:

- Set RBW = 100 kHz (6 dB bandwidth measurement) or 10 kHz (20 dB bandwidth measurement)
  - Set the VBW  $\geq [3 \times \text{RBW}]$ .
  - Detector = peak.
  - Trace mode = max hold.
  - Sweep = auto couple.
  - Allow the trace to stabilize.
  - Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB / 20 dB relative to the maximum level measured in the fundamental emission.
- The automatic bandwidth measurement capability of an instrument may be employed using the 6 dB / 20 dB bandwidth mode.

**Test setup:** 8.4 with conducted test sample (see section 5.2)

##### Test Results

| EUT Mode | Minimum emission bandwidth 6 dB |                   |                    | Limit [kHz] |
|----------|---------------------------------|-------------------|--------------------|-------------|
|          | low channel [kHz]               | mid channel [kHz] | high channel [kHz] |             |
| Mode 1   | 475.248                         | 495.05            | 495.05             | --          |
| Mode 2   | 495.05                          | 1069.0            | 1030.0             | --          |
| Mode 3   | 495.05                          | 1069.3            | 1069.3             | --          |

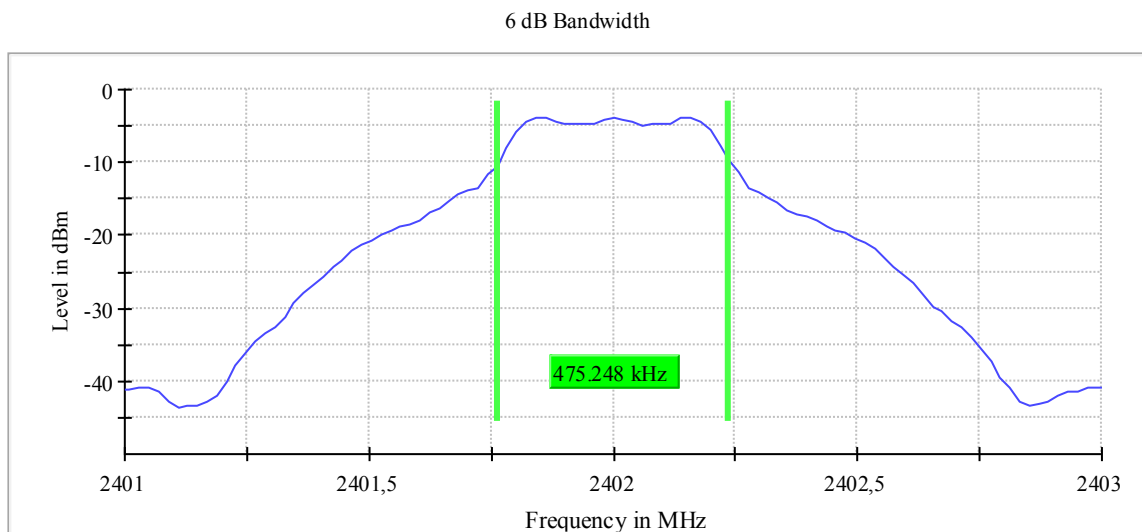
| EUT Mode | Emission bandwidth 20 dB |                   |                    | Limit [kHz] |
|----------|--------------------------|-------------------|--------------------|-------------|
|          | low channel [kHz]        | mid channel [kHz] | high channel [kHz] |             |
| Mode 1   | 920.0                    | 930.0             | 930.0              | --          |
| Mode 2   | 920.0                    | 1315.0            | 1315.0             | --          |
| Mode 3   | 920.0                    | 1270.0            | 1270.0             | --          |

**Comment:**

---

|                |                 |                       |
|----------------|-----------------|-----------------------|
| <b>Verdict</b> | <b>- PASS -</b> | <i>see next plots</i> |
|----------------|-----------------|-----------------------|

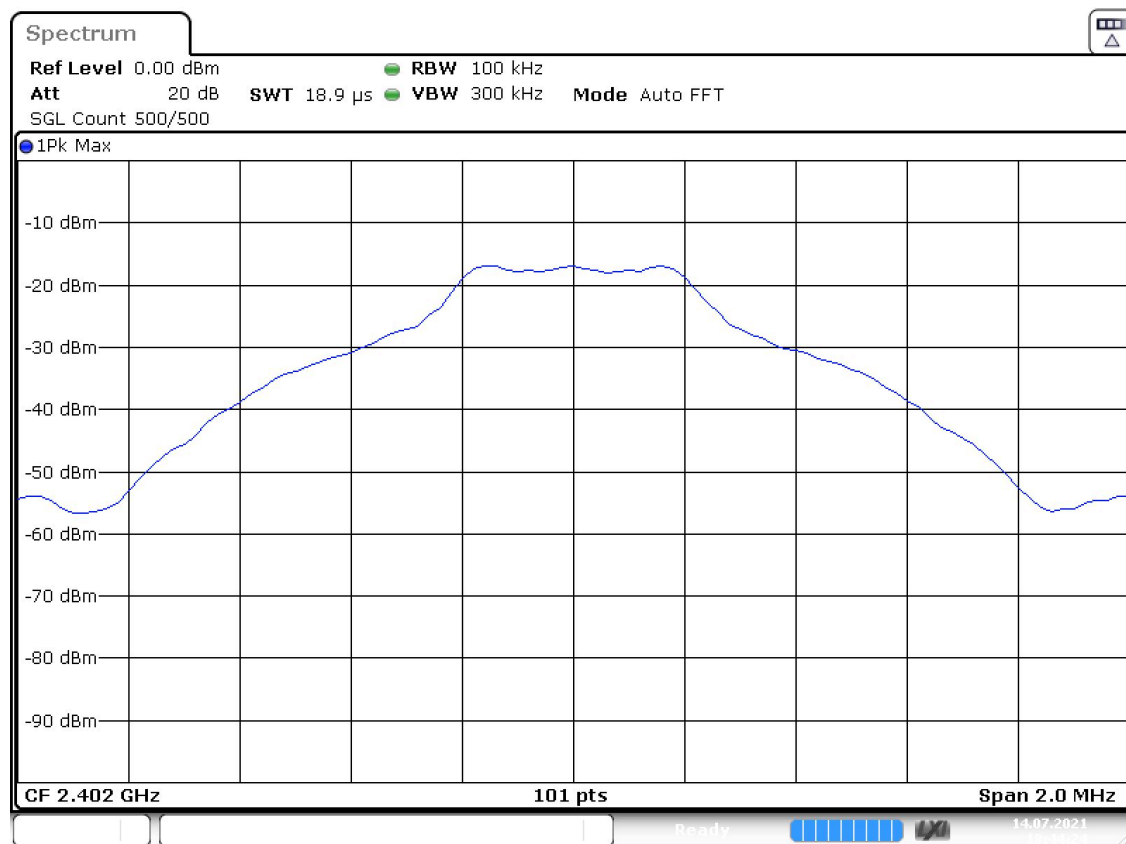
Plot 22: Mode 1, Minimum Emission Bandwidth 6 dB, low channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2402.000000         | 0.475248        | ---             | ---             | 2401.762376          | 2402.237624           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2402.000000         | -3.8            | PASS   |

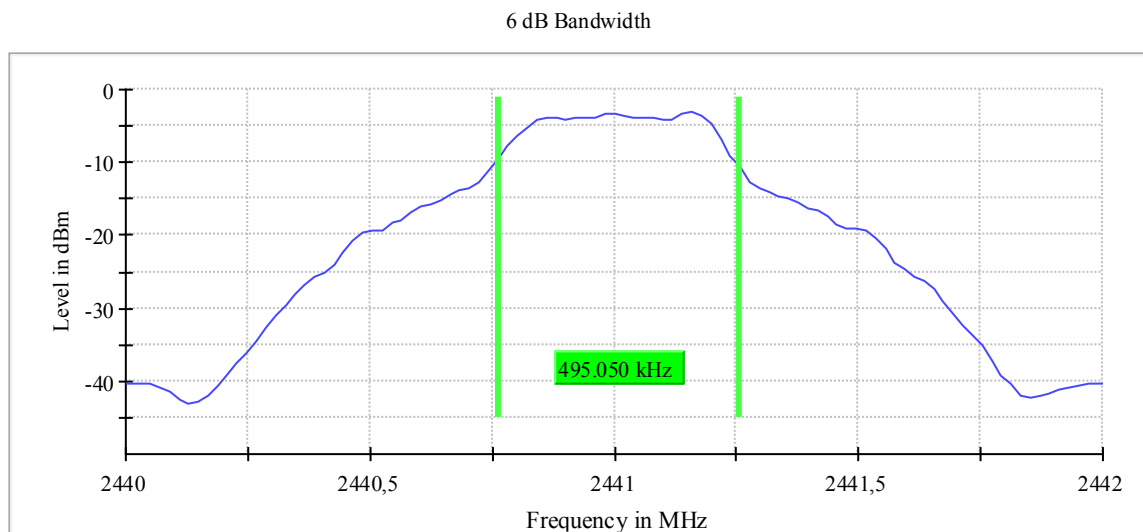


Date: 14.JUL.2021 18:44:24

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.40100 GHz      | 2.40100 GHz   |
| Stop Frequency        | 2.40300 GHz      | 2.40300 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 100.000 kHz      | ~ 100.000 kHz |
| VBW                   | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints           | 101              | ~ 40          |
| SweepTime             | 18.938 $\mu$ s   | AUTO          |
| Reference Level       | 0.000 dBm        | 0.000 dBm     |
| Attenuation           | 20.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 500              | 500           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| SweepType             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 6 / max. 150     | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.03 dB          | 0.50 dB       |

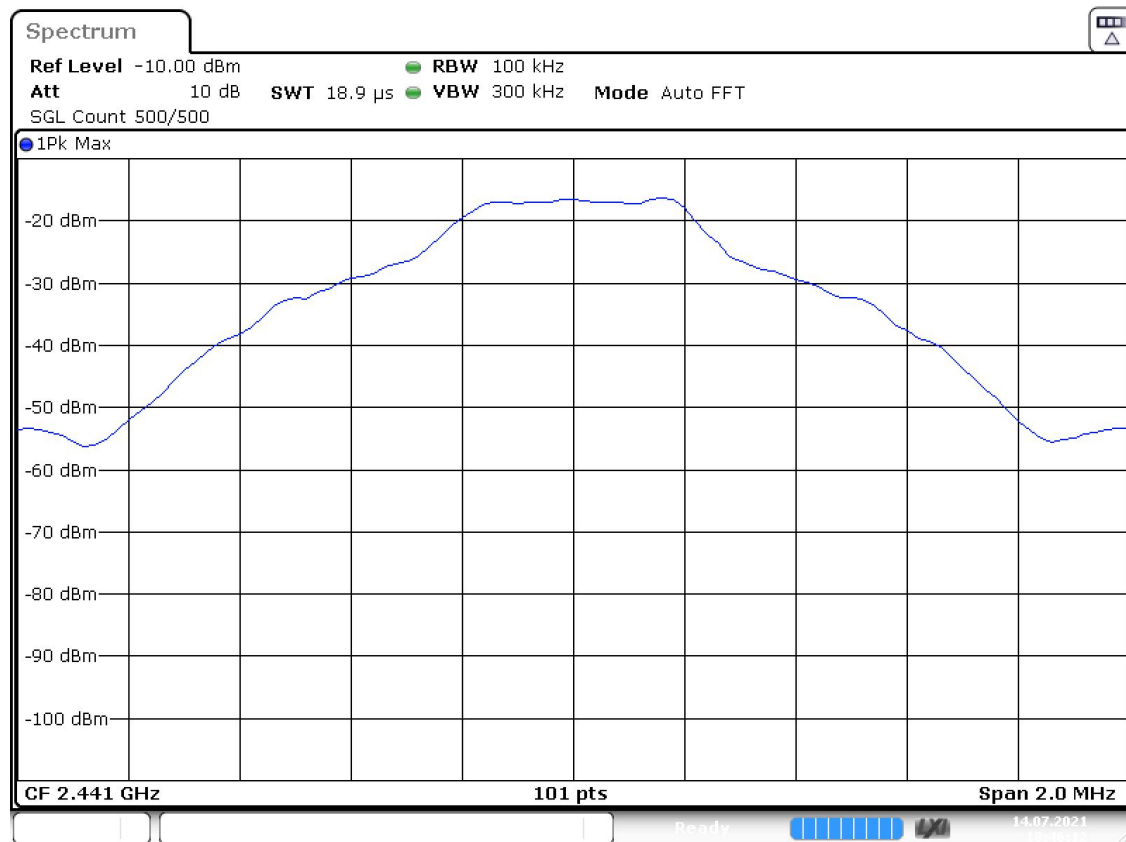
Plot 23: Mode 1, Minimum Emission Bandwidth 6 dB, mid channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2441.000000         | 0.495050        | ---             | ---             | 2440.762376          | 2441.257426           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2441.000000         | -3.2            | PASS   |

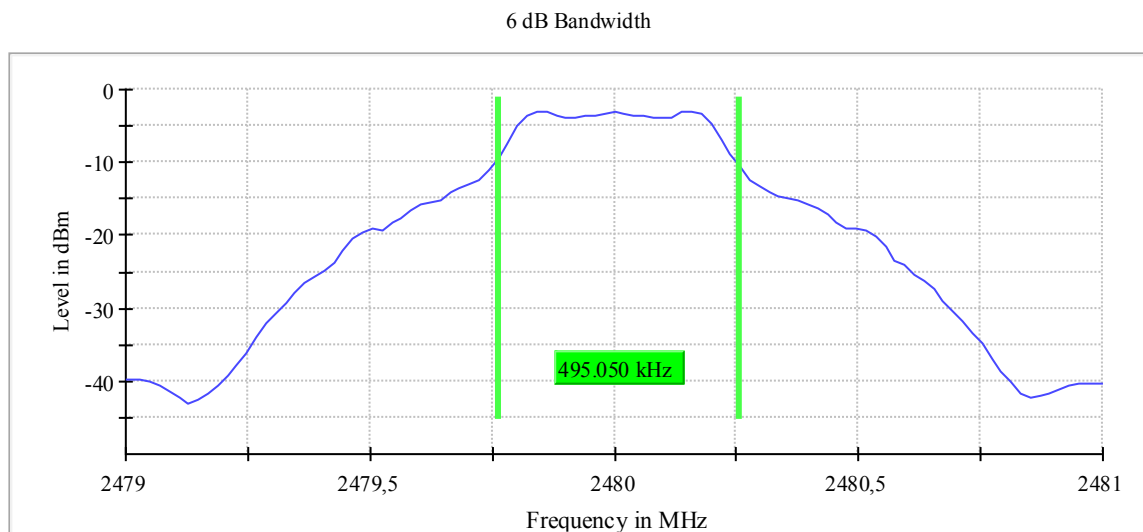


Date: 14.JUL.2021 18:46:13

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.44000 GHz      | 2.44000 GHz   |
| Stop Frequency        | 2.44200 GHz      | 2.44200 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 100.000 kHz      | ~ 100.000 kHz |
| VBW                   | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints           | 101              | ~ 40          |
| SweepTime             | 18.938 $\mu$ s   | AUTO          |
| Reference Level       | -10.000 dBm      | -10.000 dBm   |
| Attenuation           | 10.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 500              | 500           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| SweepType             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 7 / max. 150     | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.00 dB          | 0.50 dB       |

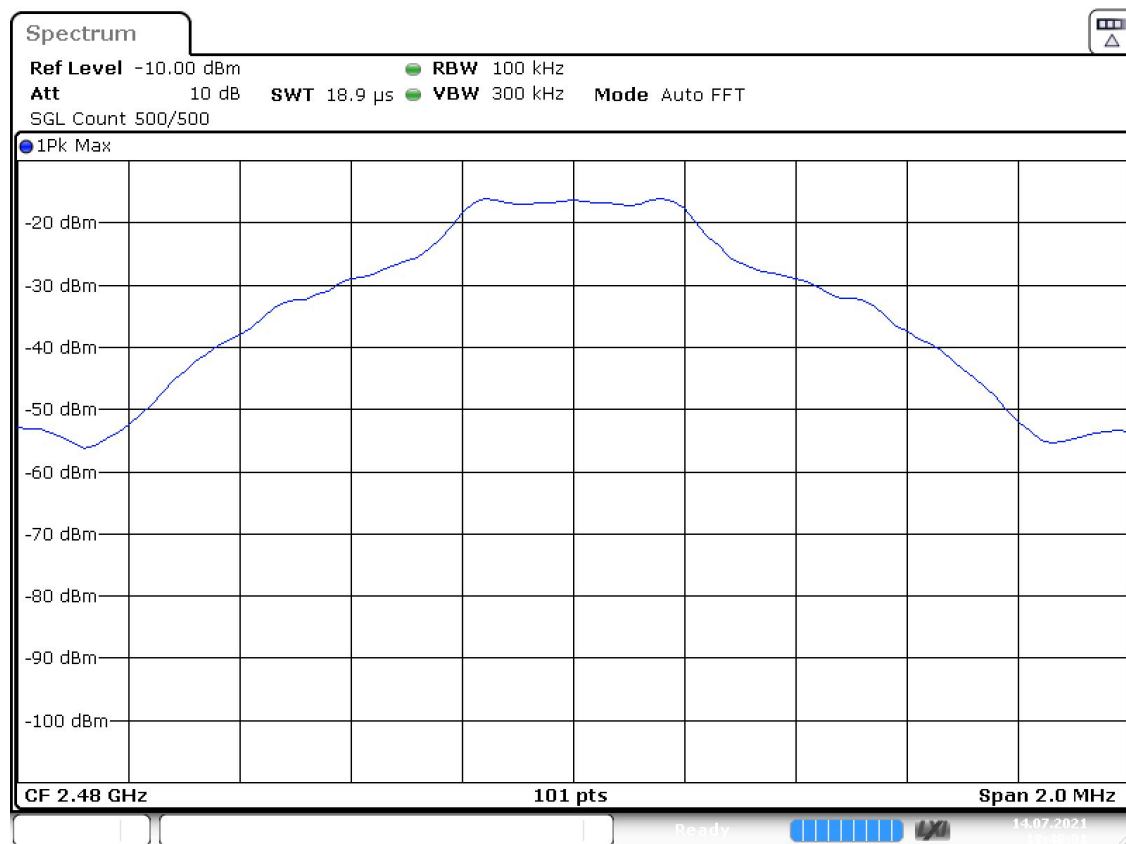
Plot 24: Mode 1, Minimum Emission Bandwidth 6 dB, high channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2480.000000         | 0.495050        | ---             | ---             | 2479.762376          | 2480.257426           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2480.000000         | -3.0            | PASS   |

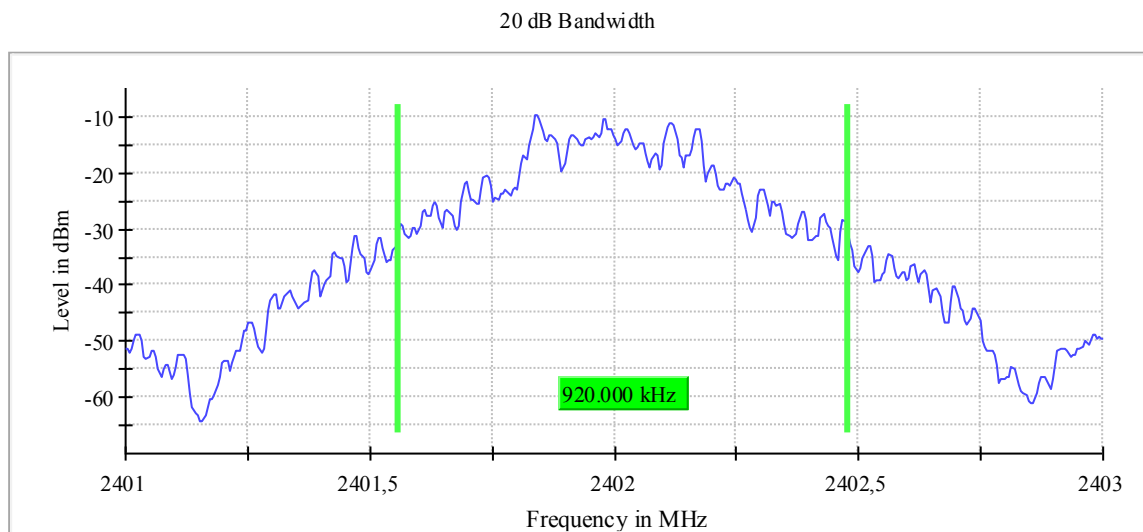


Date: 14.JUL.2021 18:48:02

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.47900 GHz      | 2.47900 GHz   |
| Stop Frequency        | 2.48100 GHz      | 2.48100 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 100.000 kHz      | ~ 100.000 kHz |
| VBW                   | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints           | 101              | ~ 40          |
| SweepTime             | 18.938 $\mu$ s   | AUTO          |
| Reference Level       | -10.000 dBm      | -10.000 dBm   |
| Attenuation           | 10.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 500              | 500           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| SweepType             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 8 / max. 150     | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.05 dB          | 0.50 dB       |

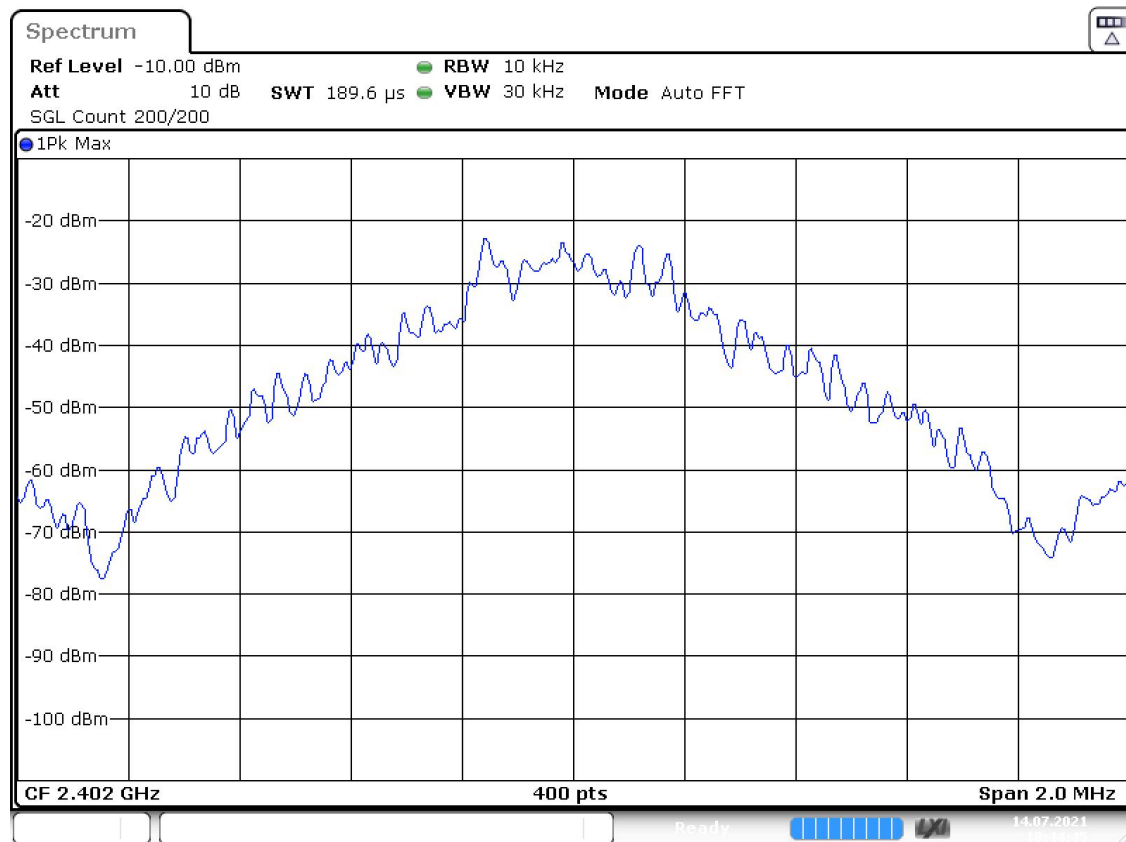
Plot 25: Mode 1, Emission Bandwidth 20 dB, low channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2402.000000         | 0.920000        | ---             | ---             | 2401.557500          | 2402.477500           |

(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2402.000000         | -9.7            | PASS   |



Date: 14.JUL.2021 18:44:46

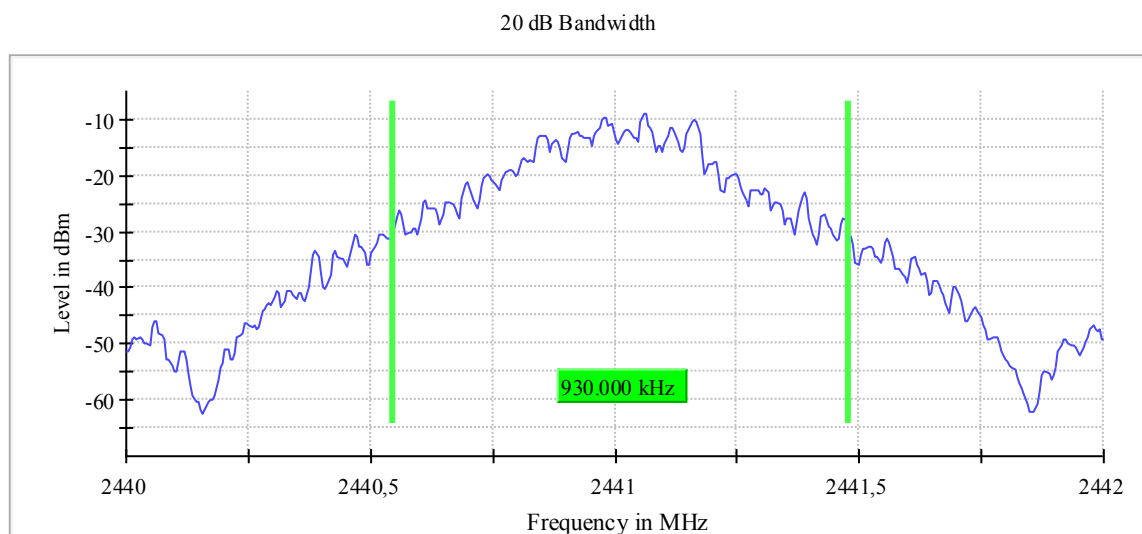
## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.40100 GHz      | 2.40100 GHz   |
| Stop Frequency        | 2.40300 GHz      | 2.40300 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 10.000 kHz       | >= 10.000 kHz |
| VBW                   | 30.000 kHz       | >= 30.000 kHz |
| SweepPoints           | 400              | ~ 400         |
| SweepTime             | 189.648 $\mu$ s  | AUTO          |
| Reference Level       | -10.000 dBm      | -10.000 dBm   |
| Attenuation           | 10.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 200              | 200           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| SweepType             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 7 / max. 150     | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.08 dB          | 0.50 dB       |

TR no.: 21065784-20819-1

2021-09-03

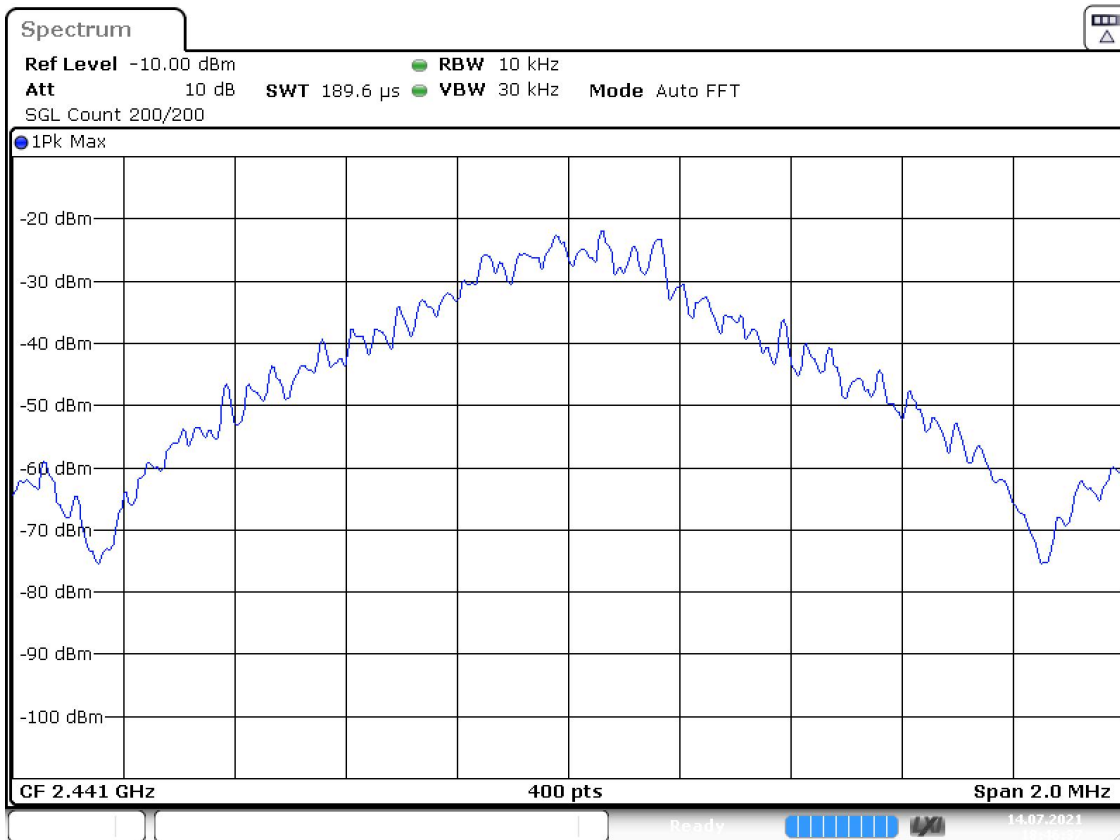
Plot 26: Mode 1, Emission Bandwidth 20 dB, mid channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2441.000000         | 0.930000        | ---             | ---             | 2440.547500          | 2441.477500           |

(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2441.000000         | -8.8            | PASS   |

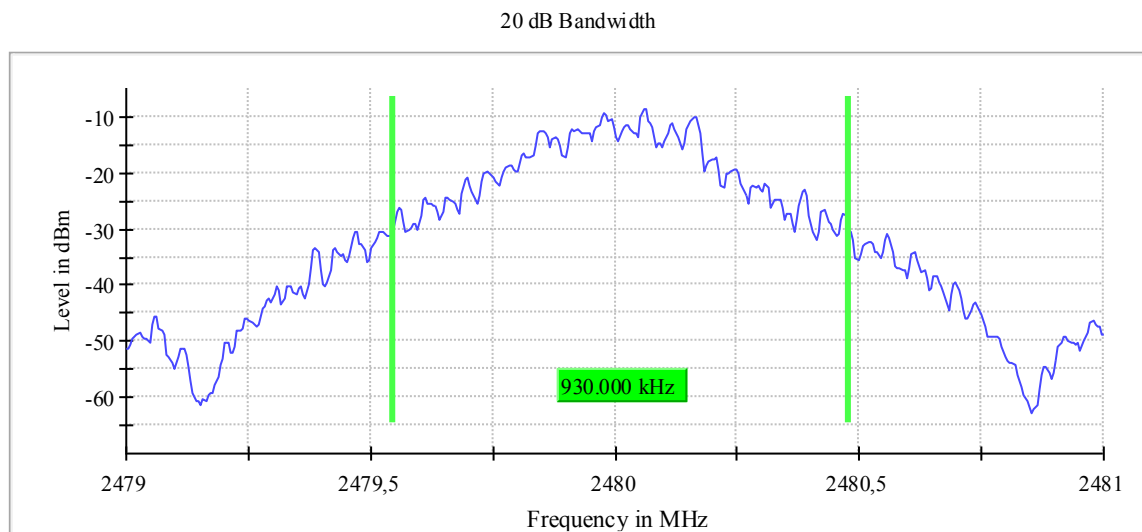


Date: 14.JUL.2021 18:46:37

## Measurement

| Setting               | Instrument Value | Target Value      |
|-----------------------|------------------|-------------------|
| Start Frequency       | 2.44000 GHz      | 2.44000 GHz       |
| Stop Frequency        | 2.44200 GHz      | 2.44200 GHz       |
| Span                  | 2.000 MHz        | 2.000 MHz         |
| RBW                   | 10.000 kHz       | $\geq 10.000$ kHz |
| VBW                   | 30.000 kHz       | $\geq 30.000$ kHz |
| SweepPoints           | 400              | $\sim 400$        |
| SweepTime             | 189.648 $\mu$ s  | AUTO              |
| Reference Level       | -10.000 dBm      | -10.000 dBm       |
| Attenuation           | 10.000 dB        | AUTO              |
| Detector              | MaxPeak          | MaxPeak           |
| SweepCount            | 200              | 200               |
| Filter                | 3 dB             | 3 dB              |
| Trace Mode            | Max Hold         | Max Hold          |
| SweepType             | FFT              | AUTO              |
| Preamp                | off              | off               |
| Stablemode            | Trace            | Trace             |
| Stablevalue           | 0.50 dB          | 0.50 dB           |
| Run                   | 14 / max. 150    | max. 150          |
| Stable                | 5 / 5            | 5                 |
| Max Stable Difference | 0.06 dB          | 0.50 dB           |

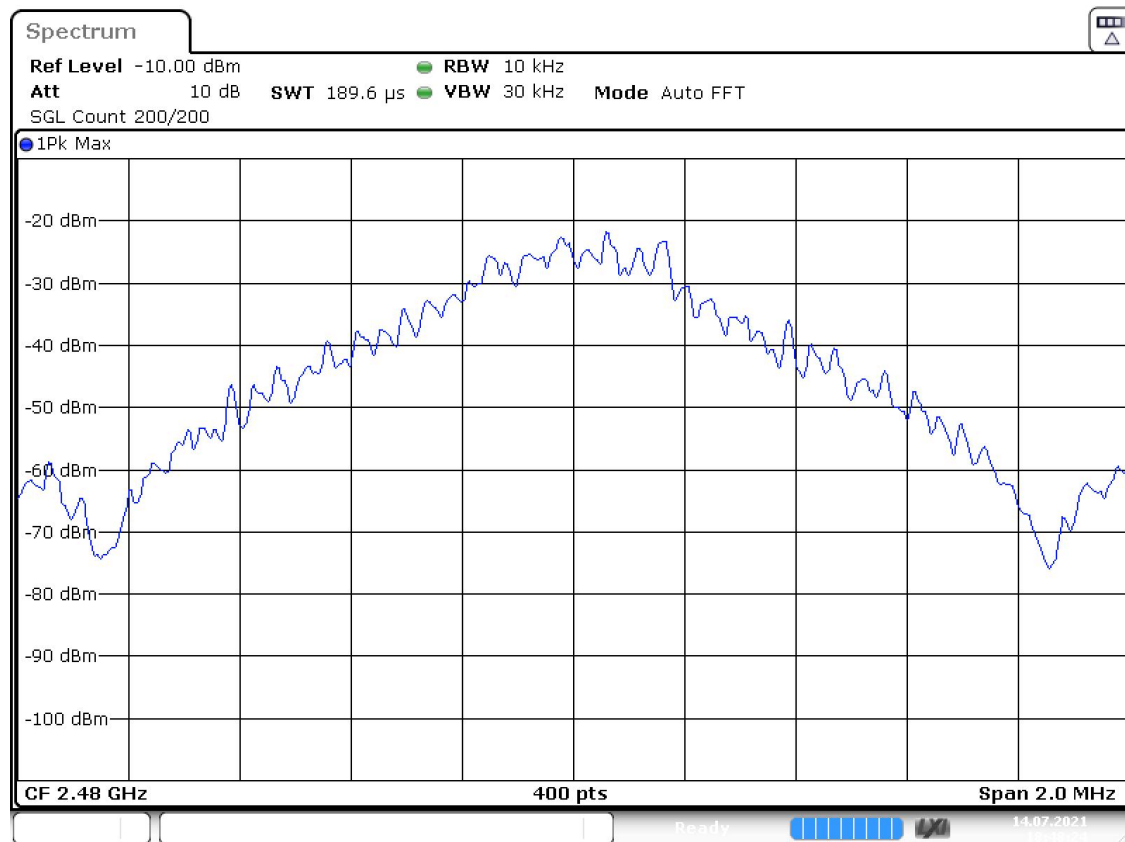
Plot 27: Mode 1, Emission Bandwidth 20 dB, high channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2480.000000         | 0.930000        | ---             | ---             | 2479.547500          | 2480.477500           |

(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2480.000000         | -8.6            | PASS   |



Date: 14.JUL.2021 18:48:24

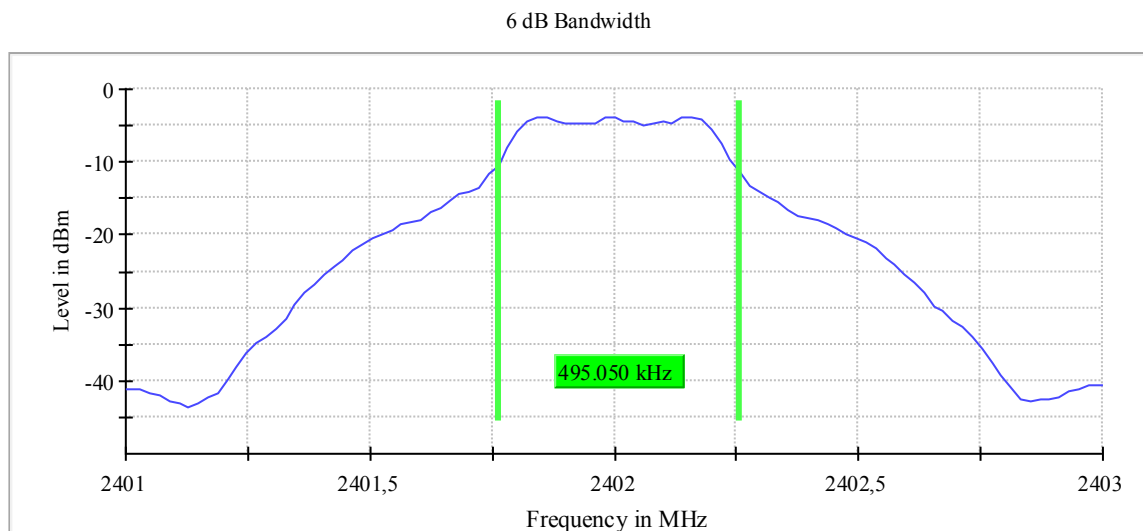
## Measurement

| Setting               | Instrument Value | Target Value      |
|-----------------------|------------------|-------------------|
| Start Frequency       | 2.47900 GHz      | 2.47900 GHz       |
| Stop Frequency        | 2.48100 GHz      | 2.48100 GHz       |
| Span                  | 2.000 MHz        | 2.000 MHz         |
| RBW                   | 10.000 kHz       | $\geq 10.000$ kHz |
| VBW                   | 30.000 kHz       | $\geq 30.000$ kHz |
| SweepPoints           | 400              | $\sim 400$        |
| SweepTime             | 189.648 $\mu$ s  | AUTO              |
| Reference Level       | -10.000 dBm      | -10.000 dBm       |
| Attenuation           | 10.000 dB        | AUTO              |
| Detector              | MaxPeak          | MaxPeak           |
| SweepCount            | 200              | 200               |
| Filter                | 3 dB             | 3 dB              |
| Trace Mode            | Max Hold         | Max Hold          |
| SweepType             | FFT              | AUTO              |
| Preamp                | off              | off               |
| Stablemode            | Trace            | Trace             |
| Stablevalue           | 0.50 dB          | 0.50 dB           |
| Run                   | 10 / max. 150    | max. 150          |
| Stable                | 5 / 5            | 5                 |
| Max Stable Difference | 0.05 dB          | 0.50 dB           |

TR no.: 21065784-20819-1

2021-09-03

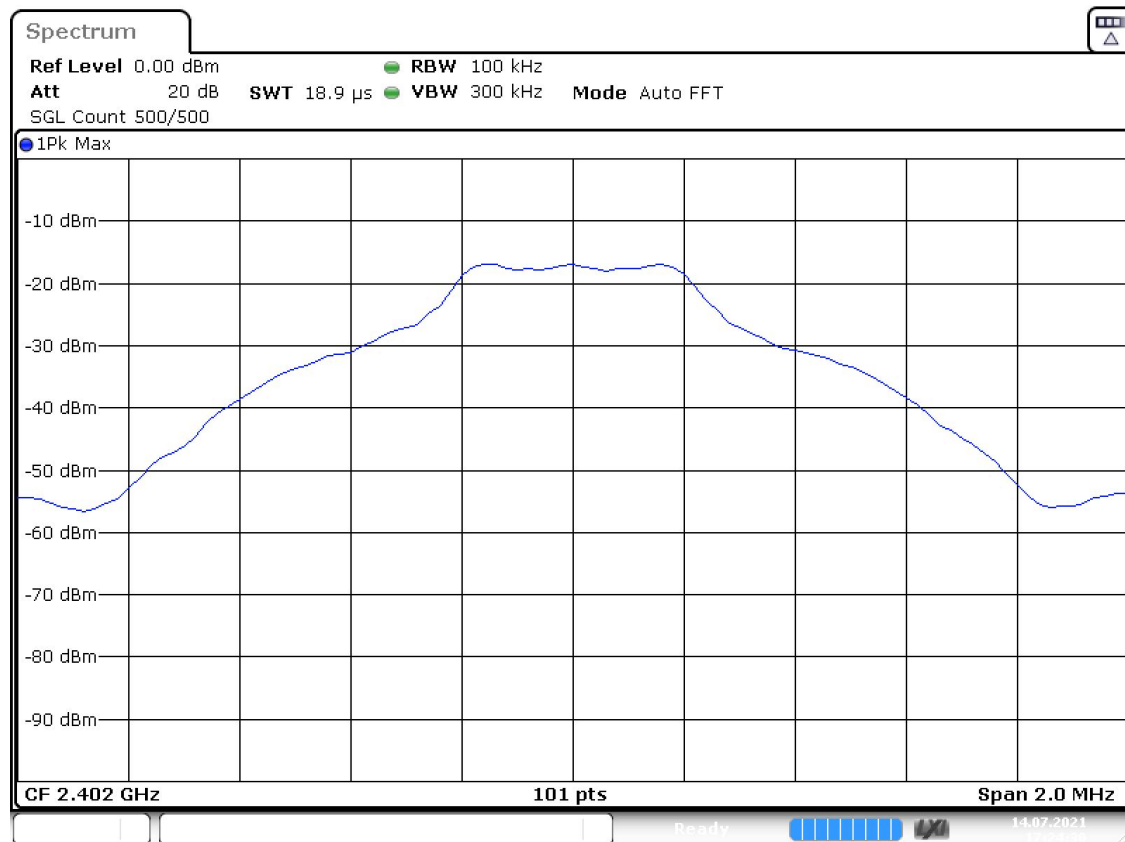
Plot 28: Mode 2, Minimum Emission Bandwidth 6 dB, low channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2402.000000         | 0.495050        | ---             | ---             | 2401.762376          | 2402.257426           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2402.000000         | -3.8            | PASS   |

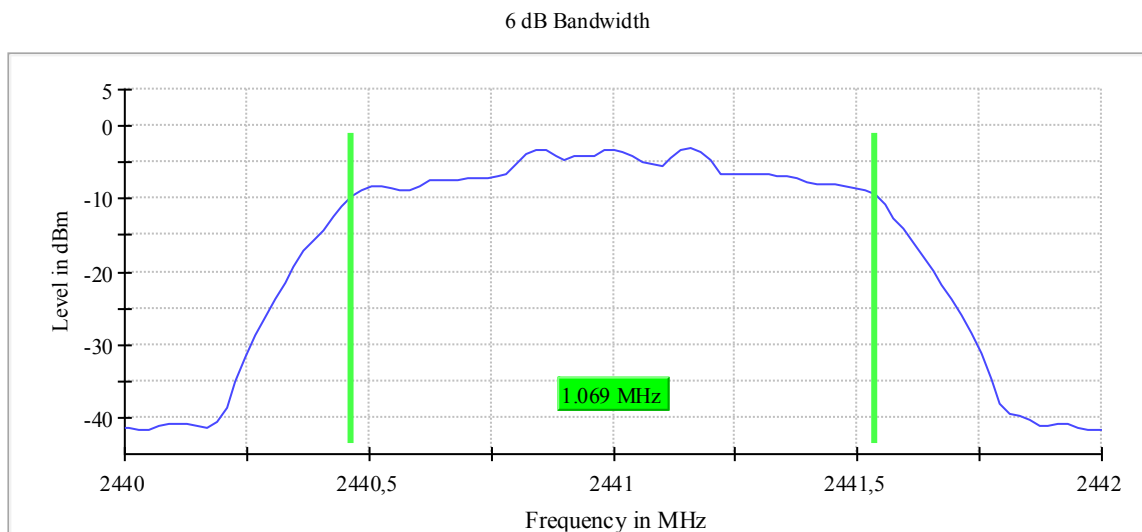


Date: 14.JUL.2021 17:24:30

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.40100 GHz      | 2.40100 GHz   |
| Stop Frequency        | 2.40300 GHz      | 2.40300 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 100.000 kHz      | ~ 100.000 kHz |
| VBW                   | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints           | 101              | ~ 40          |
| SweepTime             | 18.938 $\mu$ s   | AUTO          |
| Reference Level       | 0.000 dBm        | 0.000 dBm     |
| Attenuation           | 20.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 500              | 500           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| SweepType             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 7 / max. 150     | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.01 dB          | 0.50 dB       |

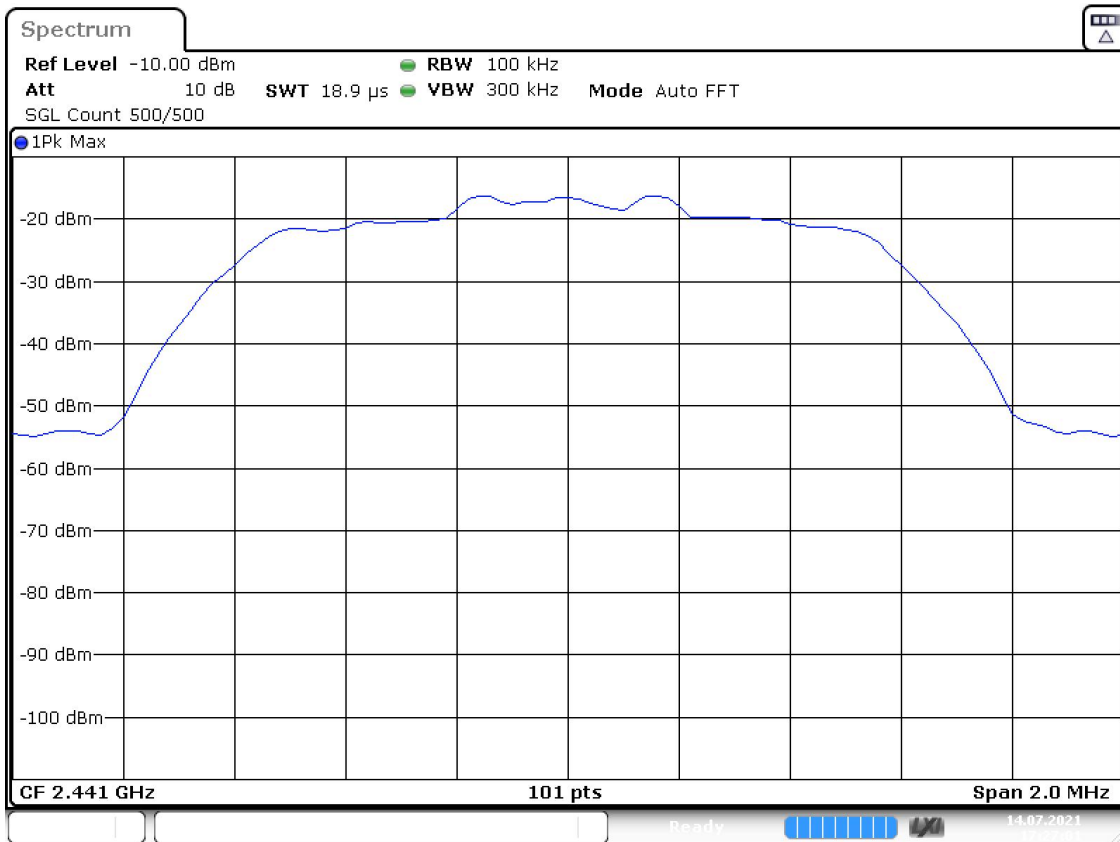
Plot 29: Mode 2, Minimum Emission Bandwidth 6 dB, mid channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2441.000000         | 1.069306        | ---             | ---             | 2440.465347          | 2441.534653           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2441.000000         | -3.1            | PASS   |

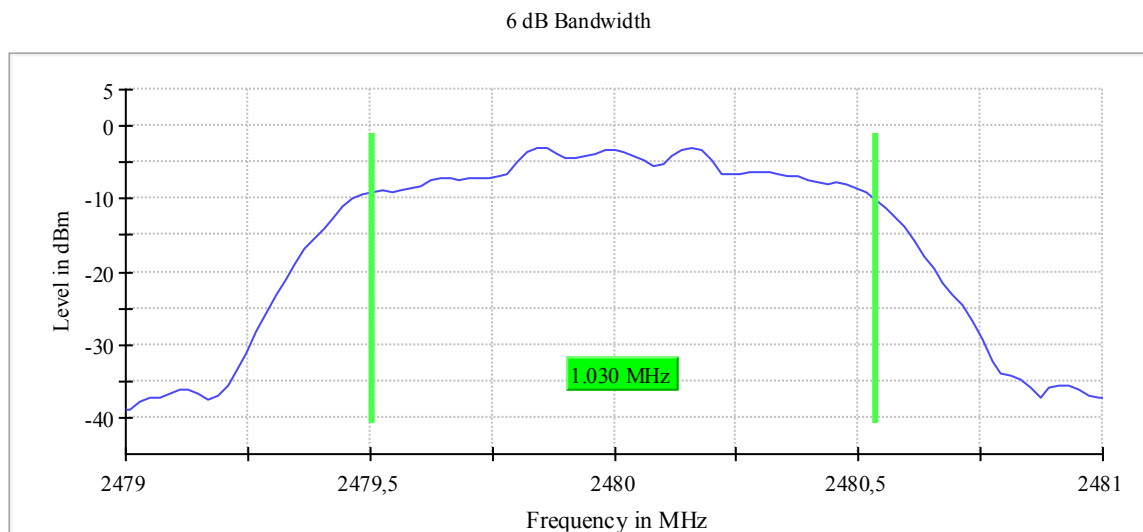


Date: 14.JUL.2021 17:27:01

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.44000 GHz      | 2.44000 GHz   |
| Stop Frequency        | 2.44200 GHz      | 2.44200 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 100.000 kHz      | ~ 100.000 kHz |
| VBW                   | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints           | 101              | ~ 40          |
| SweepTime             | 18.938 $\mu$ s   | AUTO          |
| Reference Level       | -10.000 dBm      | -10.000 dBm   |
| Attenuation           | 10.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 500              | 500           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| Sweeptype             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 13 / max. 150    | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.00 dB          | 0.50 dB       |

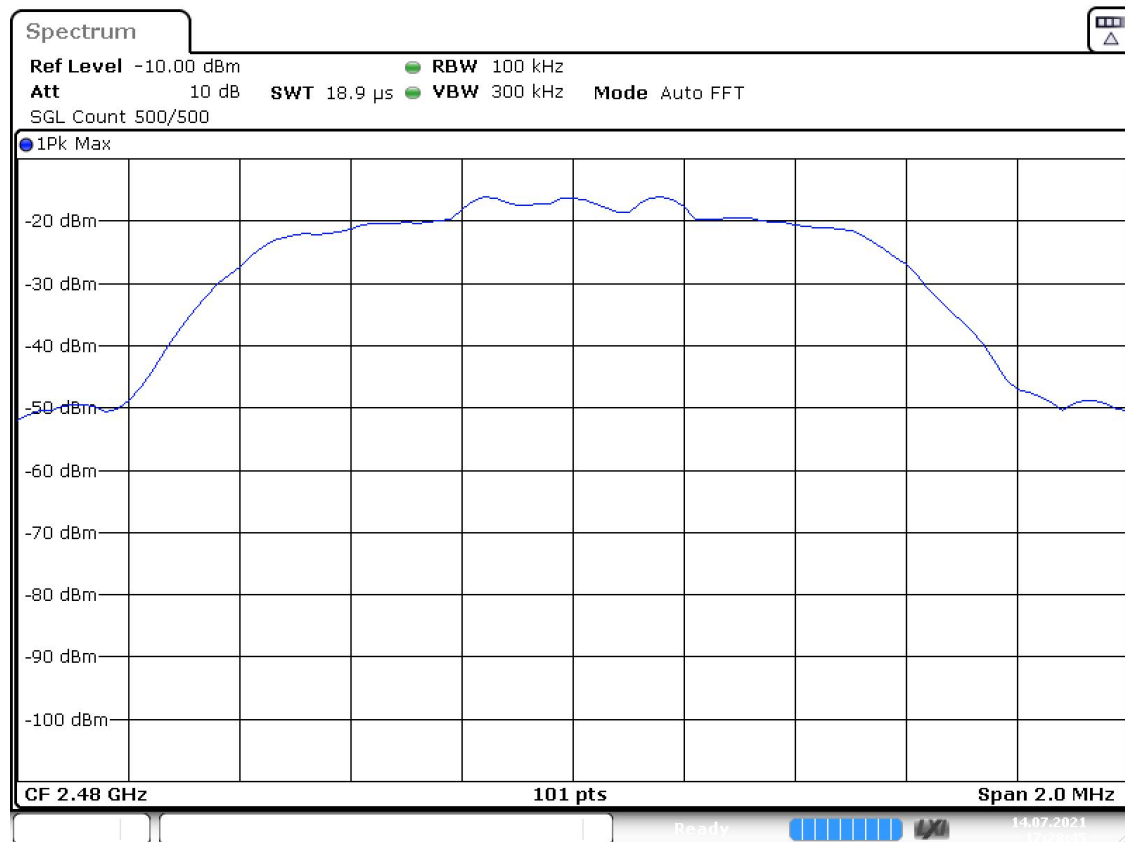
Plot 30: Mode 2, Minimum Emission Bandwidth 6 dB, high channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2480.000000         | 1.029703        | ---             | ---             | 2479.504950          | 2480.534653           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2480.000000         | -3.0            | PASS   |

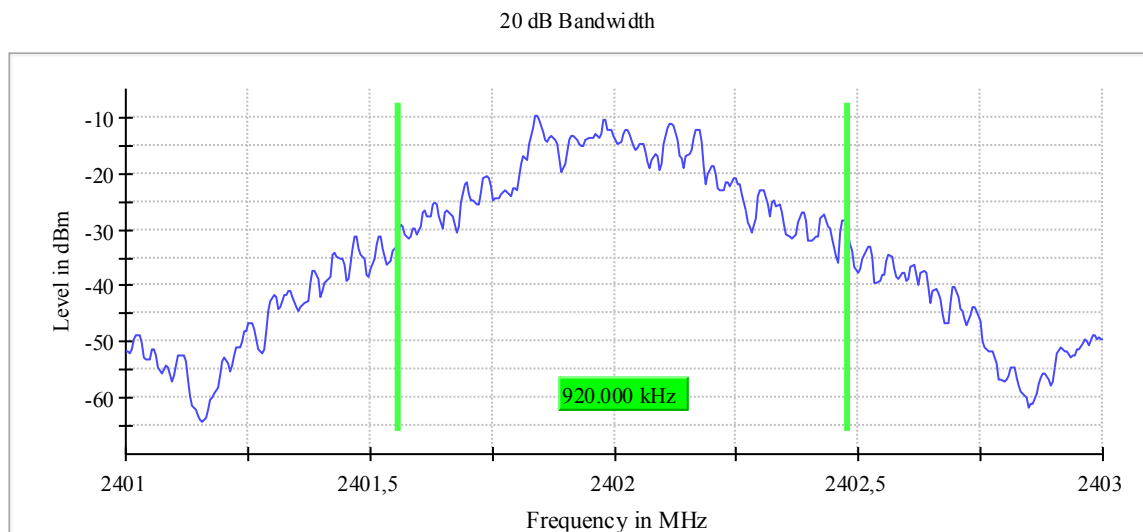


Date: 14.JUL.2021 17:28:46

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.47900 GHz      | 2.47900 GHz   |
| Stop Frequency        | 2.48100 GHz      | 2.48100 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 100.000 kHz      | ~ 100.000 kHz |
| VBW                   | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints           | 101              | ~ 40          |
| SweepTime             | 18.938 $\mu$ s   | AUTO          |
| Reference Level       | -10.000 dBm      | -10.000 dBm   |
| Attenuation           | 10.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 500              | 500           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| Sweeptype             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 13 / max. 150    | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.01 dB          | 0.50 dB       |

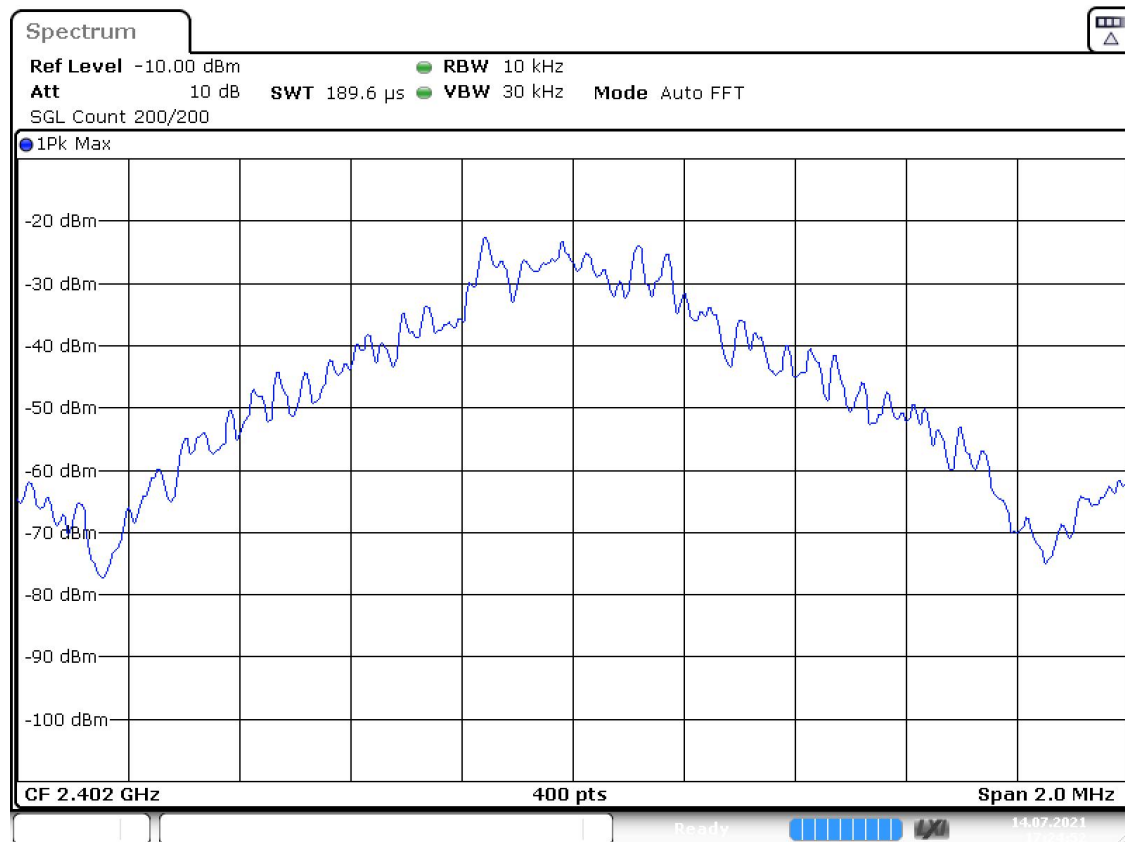
Plot 31: Mode 2, Emission Bandwidth 20 dB, low channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2402.000000         | 0.920000        | ---             | ---             | 2401.557500          | 2402.477500           |

(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2402.000000         | -9.7            | PASS   |

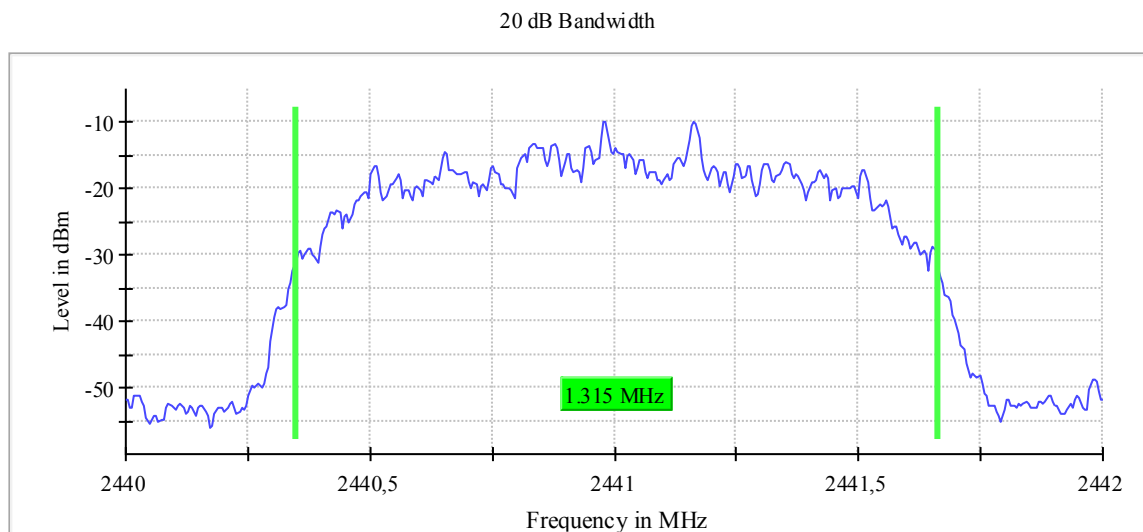


Date: 14.JUL.2021 17:24:53

## Measurement

| Setting               | Instrument Value | Target Value      |
|-----------------------|------------------|-------------------|
| Start Frequency       | 2.40100 GHz      | 2.40100 GHz       |
| Stop Frequency        | 2.40300 GHz      | 2.40300 GHz       |
| Span                  | 2.000 MHz        | 2.000 MHz         |
| RBW                   | 10.000 kHz       | $\geq 10.000$ kHz |
| VBW                   | 30.000 kHz       | $\geq 30.000$ kHz |
| SweepPoints           | 400              | $\sim 400$        |
| SweepTime             | 189.648 $\mu$ s  | AUTO              |
| Reference Level       | -10.000 dBm      | -10.000 dBm       |
| Attenuation           | 10.000 dB        | AUTO              |
| Detector              | MaxPeak          | MaxPeak           |
| SweepCount            | 200              | 200               |
| Filter                | 3 dB             | 3 dB              |
| Trace Mode            | Max Hold         | Max Hold          |
| SweepType             | FFT              | AUTO              |
| Preamp                | off              | off               |
| Stablemode            | Trace            | Trace             |
| Stablevalue           | 0.50 dB          | 0.50 dB           |
| Run                   | 7 / max. 150     | max. 150          |
| Stable                | 5 / 5            | 5                 |
| Max Stable Difference | 0.14 dB          | 0.50 dB           |

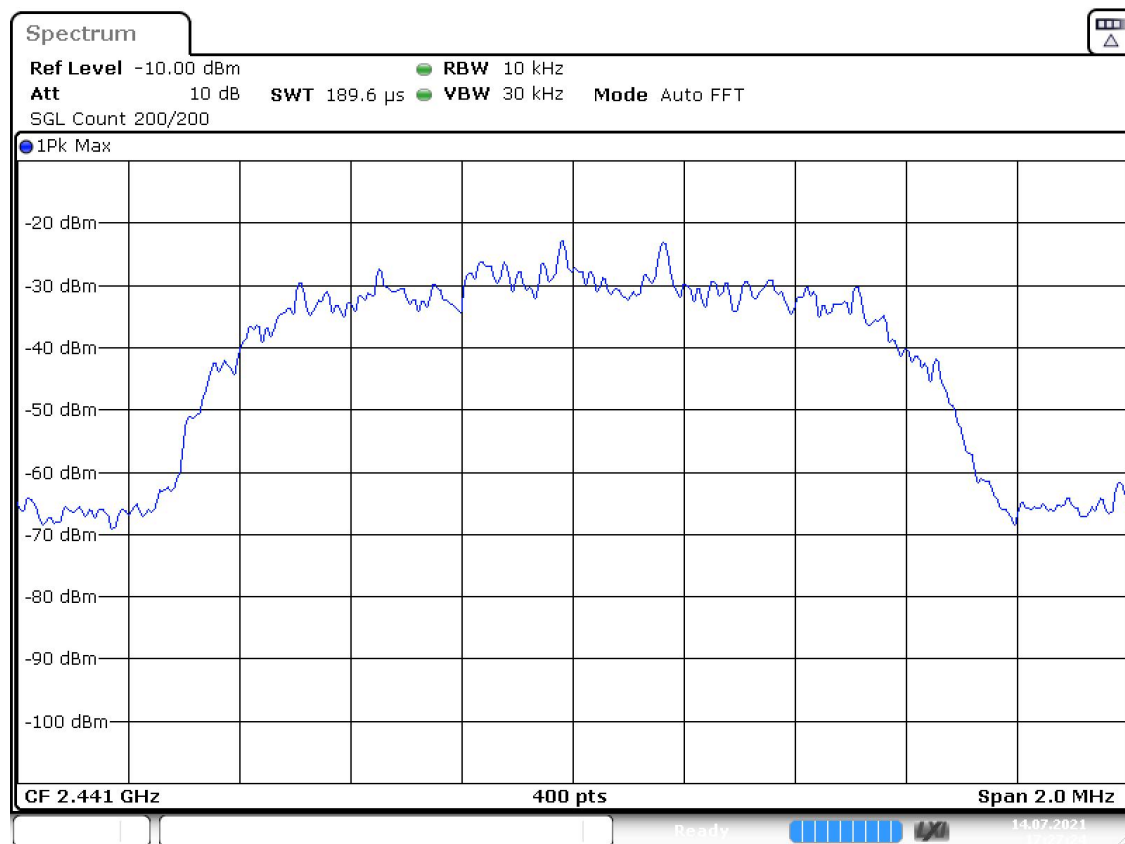
Plot 32: Mode 2, Emission Bandwidth 20 dB, mid channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2441.000000         | 1.315000        | ---             | ---             | 2440.347500          | 2441.662500           |

(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2441.000000         | -9.8            | PASS   |

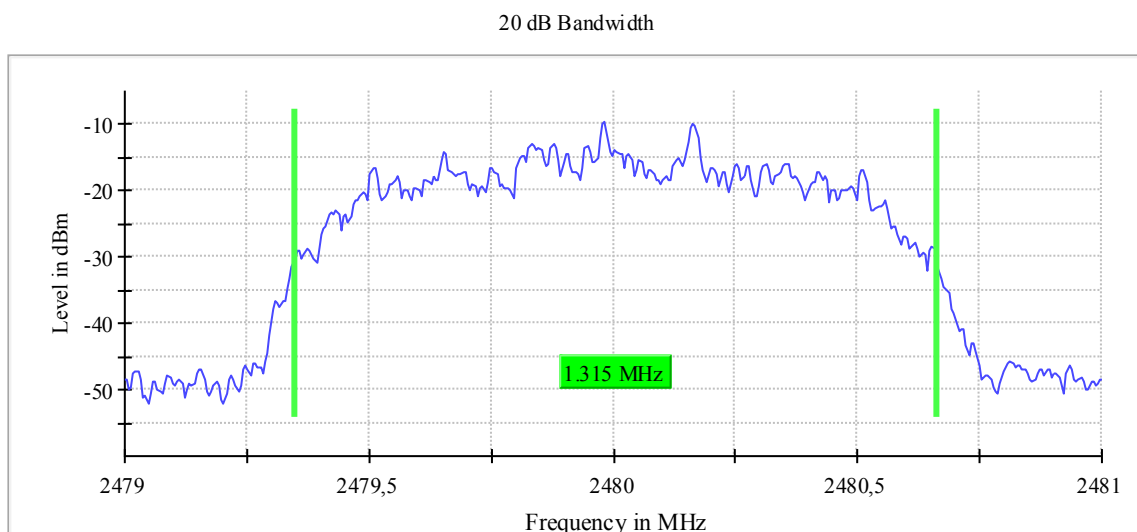


Date: 14.JUL.2021 17:27:25

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.44000 GHz      | 2.44000 GHz   |
| Stop Frequency        | 2.44200 GHz      | 2.44200 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 10.000 kHz       | >= 10.000 kHz |
| VBW                   | 30.000 kHz       | >= 30.000 kHz |
| SweepPoints           | 400              | ~ 400         |
| SweepTime             | 189.648 $\mu$ s  | AUTO          |
| Reference Level       | -10.000 dBm      | -10.000 dBm   |
| Attenuation           | 10.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 200              | 200           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| Sweeptype             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 13 / max. 150    | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.11 dB          | 0.50 dB       |

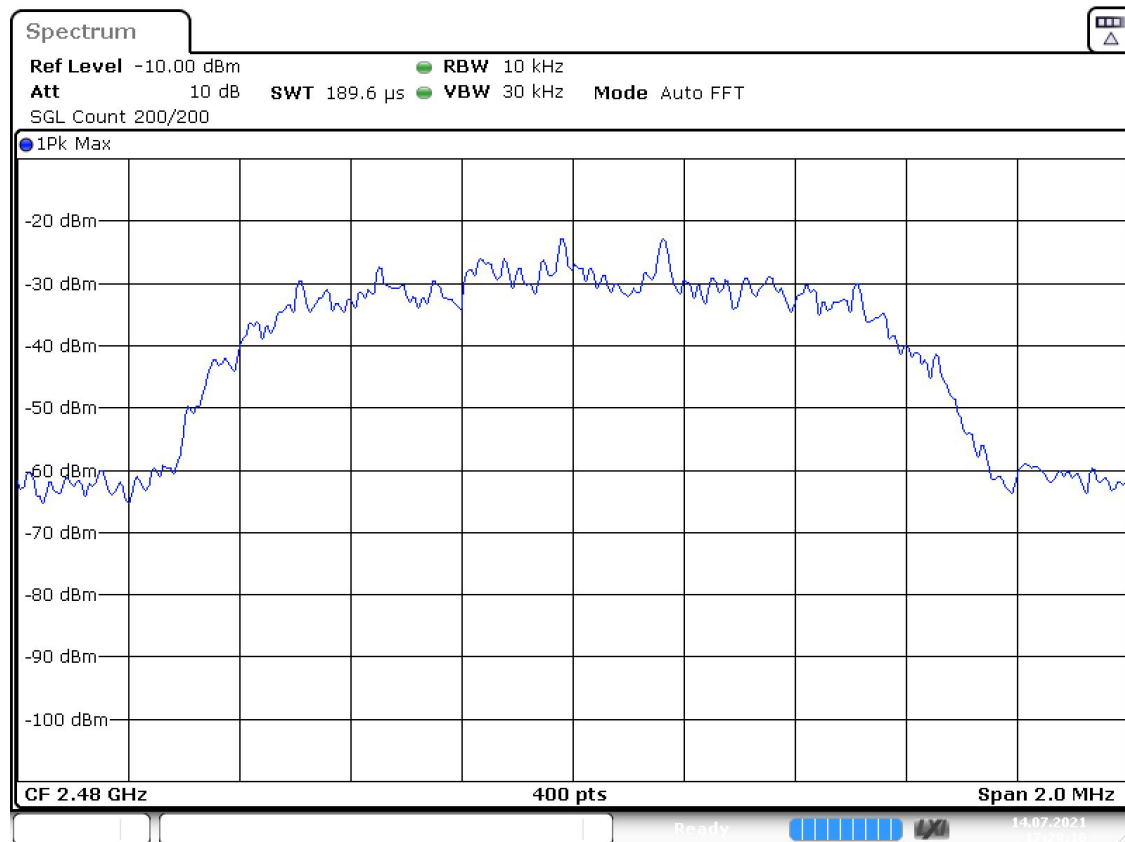
Plot 33: Mode 2, Emission Bandwidth 20 dB, high channel



| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2480.000000         | 1.315000        | ---             | ---             | 2479.347500          | 2480.662500           |

(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2480.000000         | -9.7            | PASS   |

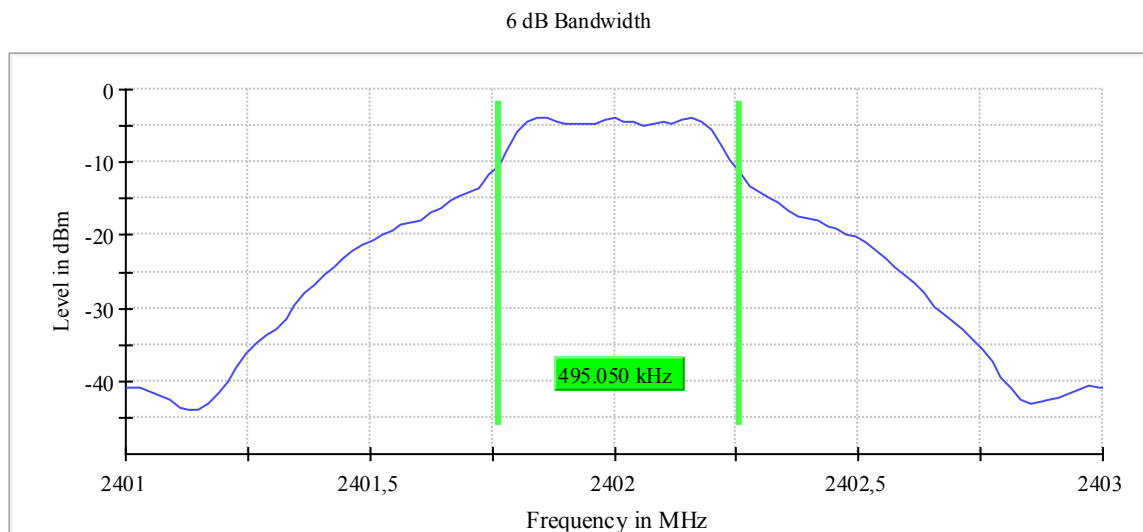


Date: 14.JUL.2021 17:29:09

## Measurement

| Setting               | Instrument Value | Target Value      |
|-----------------------|------------------|-------------------|
| Start Frequency       | 2.47900 GHz      | 2.47900 GHz       |
| Stop Frequency        | 2.48100 GHz      | 2.48100 GHz       |
| Span                  | 2.000 MHz        | 2.000 MHz         |
| RBW                   | 10.000 kHz       | $\geq 10.000$ kHz |
| VBW                   | 30.000 kHz       | $\geq 30.000$ kHz |
| SweepPoints           | 400              | ~ 400             |
| SweepTime             | 189.648 $\mu$ s  | AUTO              |
| Reference Level       | -10.000 dBm      | -10.000 dBm       |
| Attenuation           | 10.000 dB        | AUTO              |
| Detector              | MaxPeak          | MaxPeak           |
| SweepCount            | 200              | 200               |
| Filter                | 3 dB             | 3 dB              |
| Trace Mode            | Max Hold         | Max Hold          |
| Sweeptype             | FFT              | AUTO              |
| Preamp                | off              | off               |
| Stablemode            | Trace            | Trace             |
| Stablevalue           | 0.50 dB          | 0.50 dB           |
| Run                   | 15 / max. 150    | max. 150          |
| Stable                | 5 / 5            | 5                 |
| Max Stable Difference | 0.12 dB          | 0.50 dB           |

Plot 34: Mode 3, Minimum Emission Bandwidth 6 dB, low channel



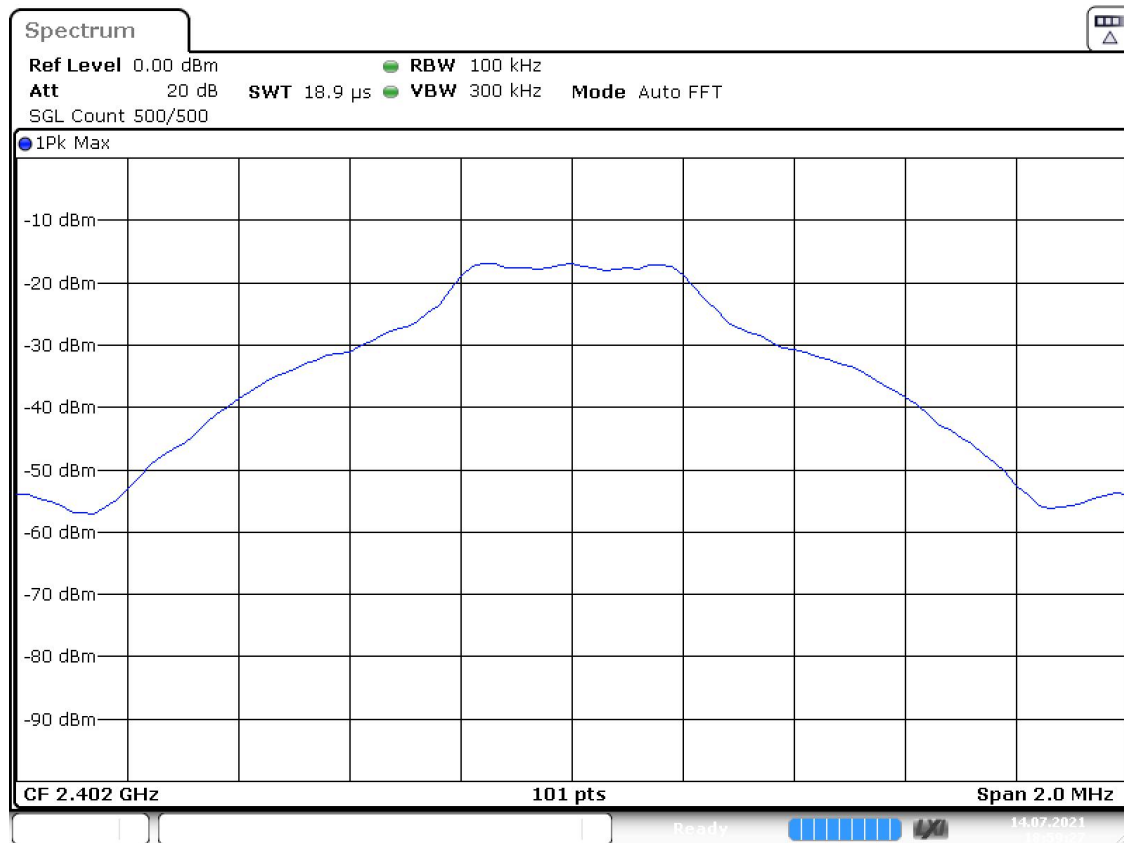
| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2402.000000         | 0.495050        | ---             | ---             | 2401.762376          | 2402.257426           |

(continuation of the "6 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2402.000000         | -3.8            | PASS   |

TR no.: 21065784-20819-1

2021-09-03



Date: 14.JUL.2021 18:59:27

## Measurement

| Setting               | Instrument Value | Target Value  |
|-----------------------|------------------|---------------|
| Start Frequency       | 2.40100 GHz      | 2.40100 GHz   |
| Stop Frequency        | 2.40300 GHz      | 2.40300 GHz   |
| Span                  | 2.000 MHz        | 2.000 MHz     |
| RBW                   | 100.000 kHz      | ~ 100.000 kHz |
| VBW                   | 300.000 kHz      | ~ 300.000 kHz |
| SweepPoints           | 101              | ~ 40          |
| SweepTime             | 18.938 $\mu$ s   | AUTO          |
| Reference Level       | 0.000 dBm        | 0.000 dBm     |
| Attenuation           | 20.000 dB        | AUTO          |
| Detector              | MaxPeak          | MaxPeak       |
| SweepCount            | 500              | 500           |
| Filter                | 3 dB             | 3 dB          |
| Trace Mode            | Max Hold         | Max Hold      |
| SweepType             | FFT              | AUTO          |
| Preamp                | off              | off           |
| Stablemode            | Trace            | Trace         |
| Stablevalue           | 0.50 dB          | 0.50 dB       |
| Run                   | 6 / max. 150     | max. 150      |
| Stable                | 5 / 5            | 5             |
| Max Stable Difference | 0.05 dB          | 0.50 dB       |