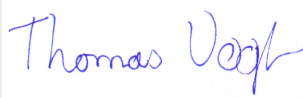


Annex TR1-A201



This test report annex is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Test report annex authorized:



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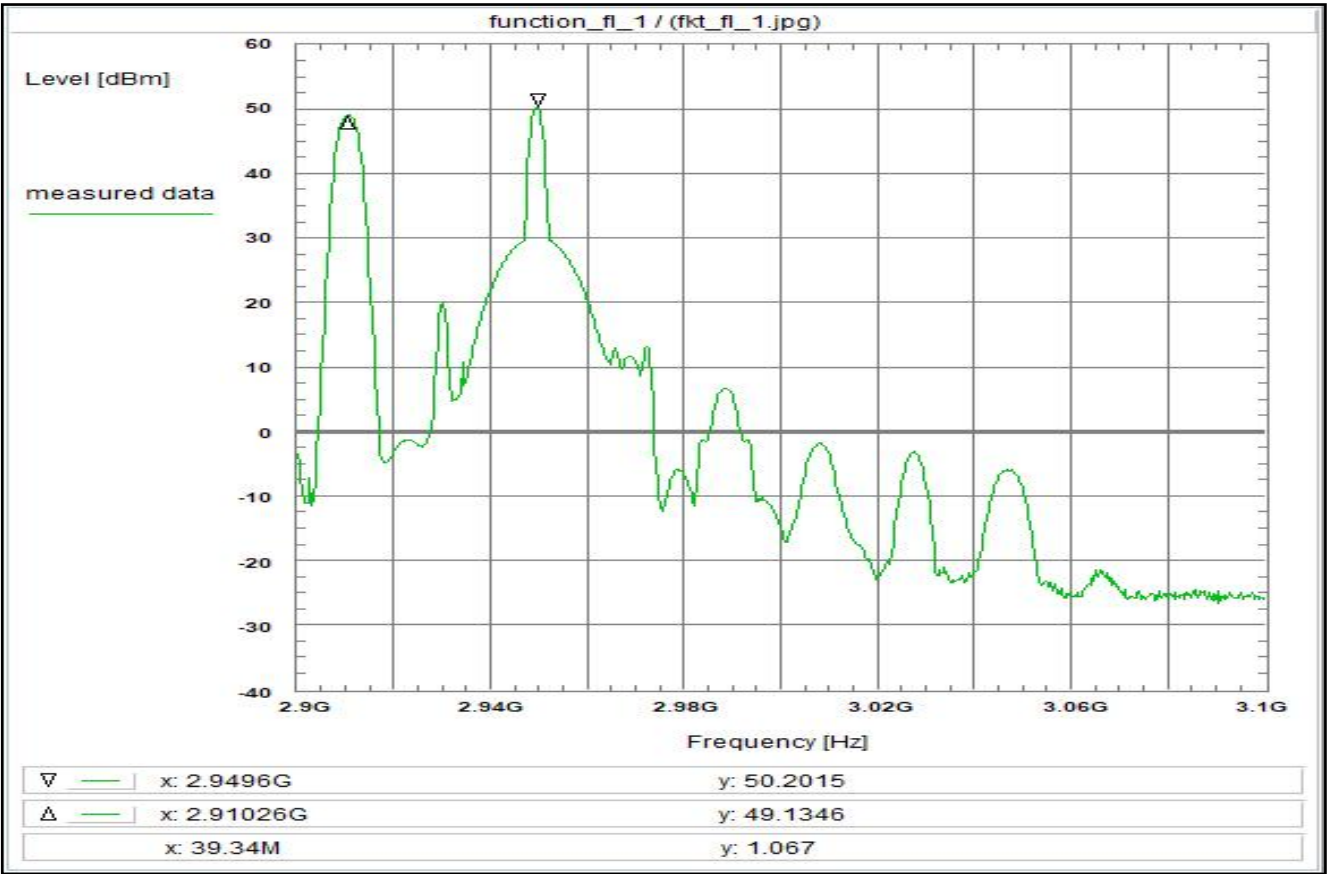
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2 Measurement results, FCC Part 80

This chapter consists of 42 pages including this page.

Plot No. 1



Subclause: -/- Function test, frequency and power
Short / medium / long pulse, carrier at the lower edge of the band
Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:
no limits defined

This test serves to verify the general function of the EUT and to orientate regarding to the spurious emissions which are expected within the band, furthermore for comparison of the measured power with the rated value.

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: measurement for orientation

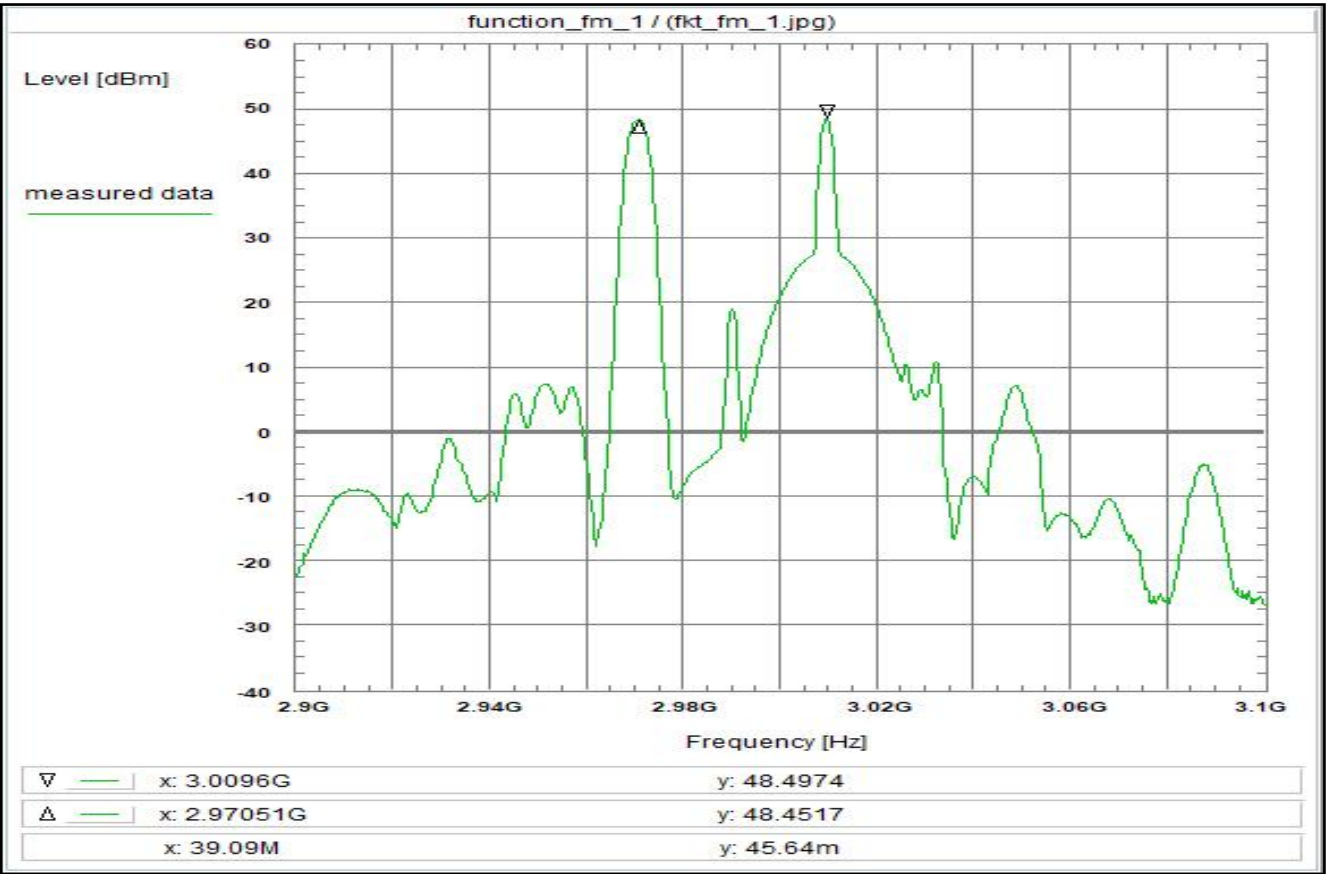
Environment condition:
Date & Time: Thu 18/Sep/2025 16:32:27
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Test of general function of the EUT and measurement for orientation

Plot No. 2



Subclause: -/- Function test, frequency and power
Short / medium / long pulse, carrier in the middle of the band
Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:
no limits defined

This test serves to verify the general function of the EUT and to orientate regarding to the spurious emissions which are expected within the band, furthermore for comparison of the measured power with the rated value.

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315

Remark:

Test result: measurement for orientation

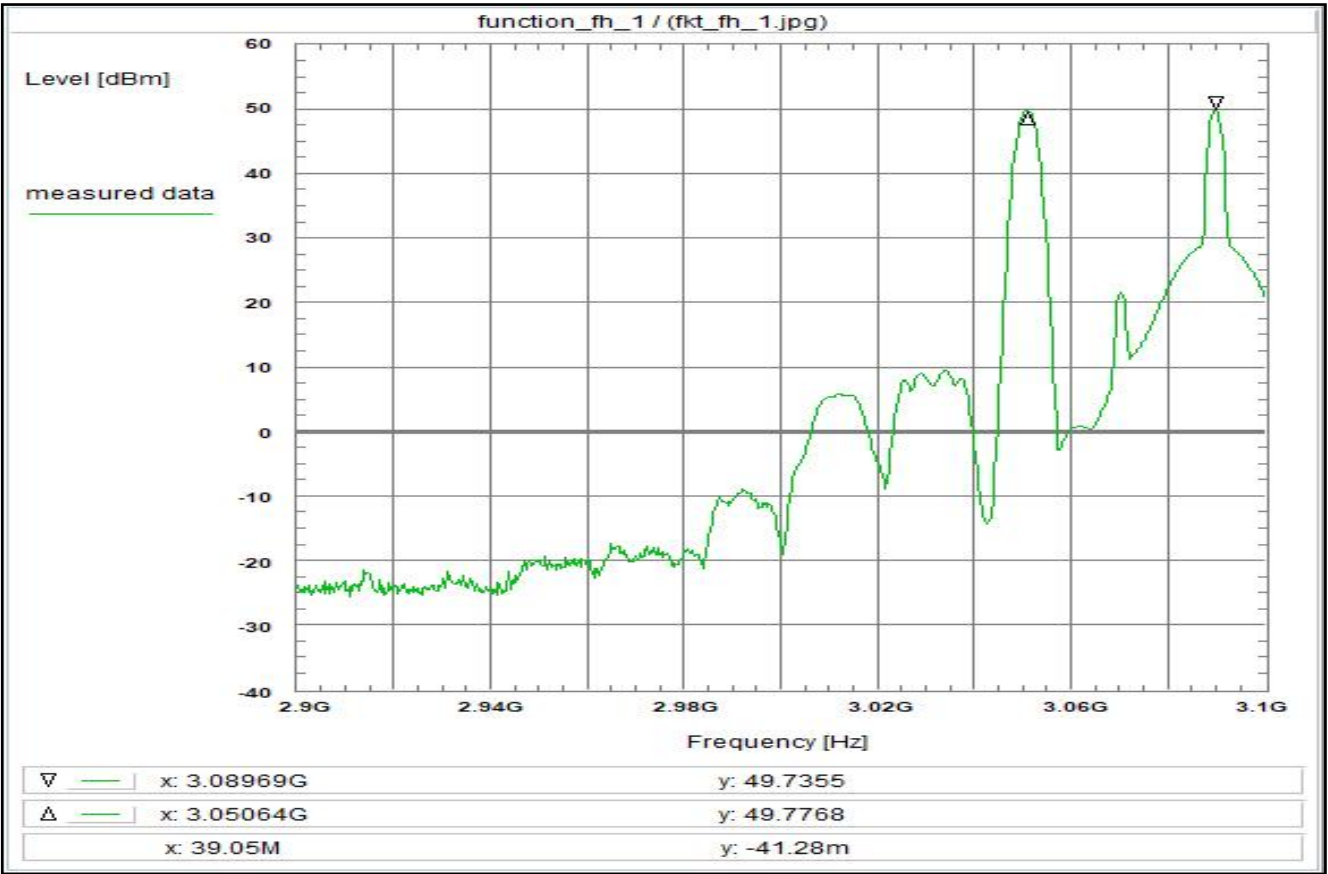
Environment condition:
Date & Time: Thu 18/Sep/2025 16:33:24
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Test of general function of the EUT and measurement for orientation

Plot No. 3



Subclause: -/- Function test, frequency and power
Short / medium / long pulse, carrier at the higher edge of the band
Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:
no limits defined

This test serves to verify the general function of the EUT and to orientate regarding to the spurious emissions which are expected within the band, furthermore for comparison of the measured power with the rated value.

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: measurement for orientation

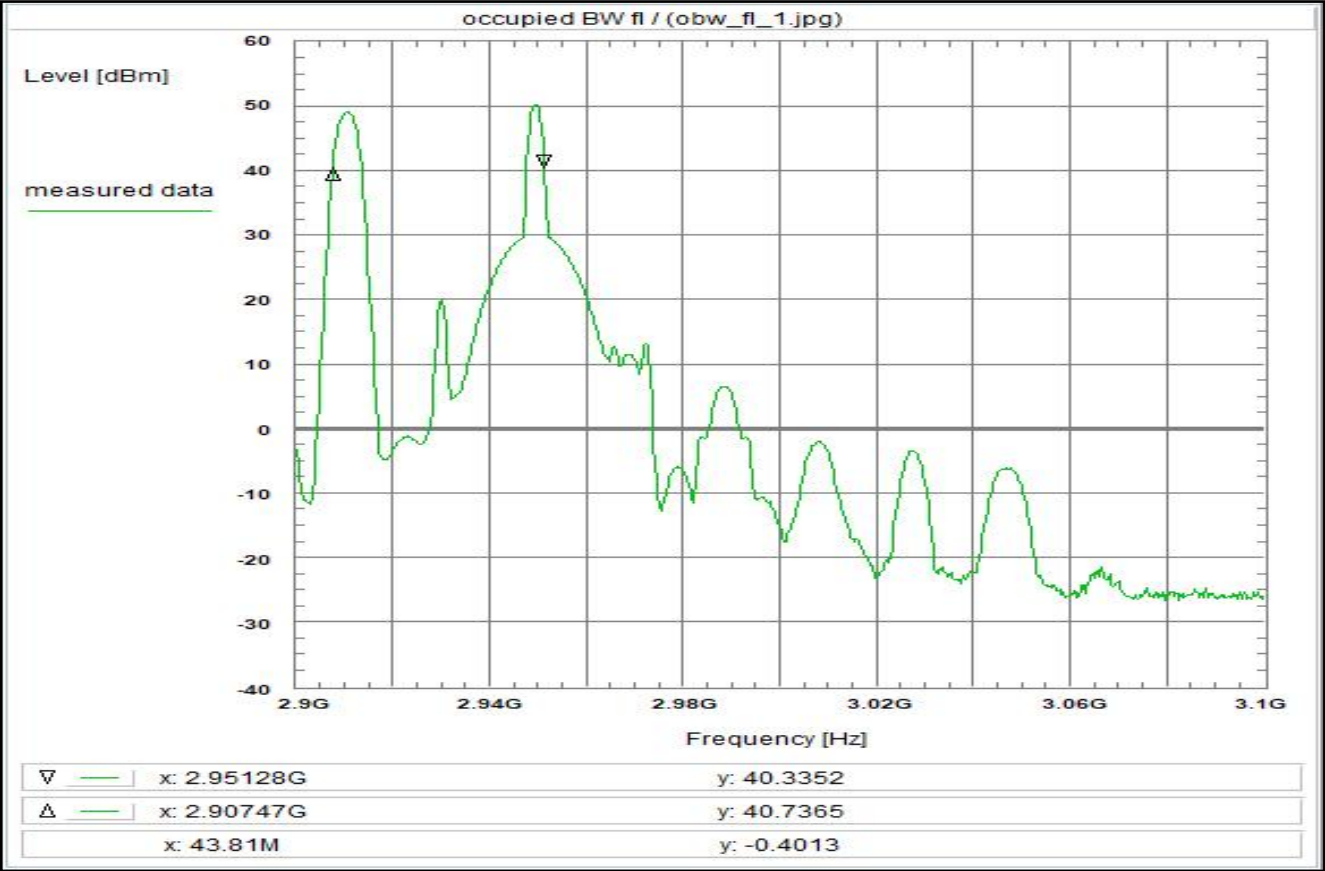
Environment condition:
Date & Time: Thu 18/Sep/2025 16:35:10
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Test of general function of the EUT and measurement for orientation

Plot No. 4



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier at the lower edge of the band

Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:

The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 6.4
Ch0, 12NM

Test setup:

see test report chapter 7.3: hgj

Test equipment:

see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: determination of the occupied bandwidth

Environment condition:

Date & Time: Thu 18/Sep/2025 17:01:39
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:

Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

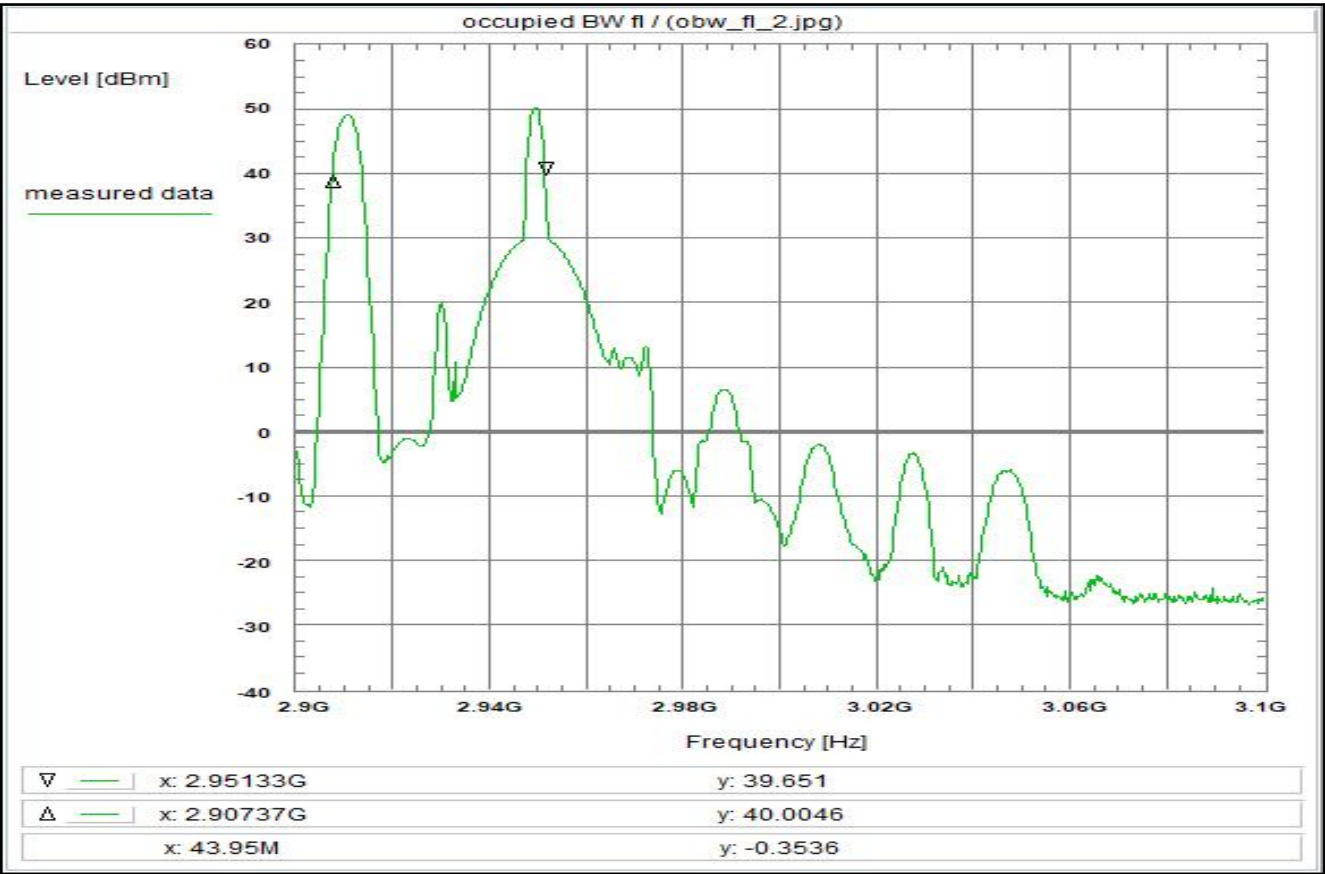
Correction:

Directional coupler	+ 0.0 dB
Coaxial cable (C107)	+ 1.8 dB
DUT-Antenna	+ 0.0 dBi
Test antenna	+ 0.0 dB
BW correction factor	+ 0.0 dB
Atten. between HPA and feedhorn	- 0.0 dB
Attenuation (U315)	+ 19.6 dB
Attenuation (U314)	+ 20.3 dB
TOTAL CORRECTION:	+ 41.7 dB

Remarks:

The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth). The measured value is about 43.8 MHz (delta marker).

Plot No. 5



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier at the lower edge of the band

Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:

The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 6.4
Ch0, 24NM

Test setup:

see test report chapter 7.3: hgj

Test equipment:

see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: determination of the occupied bandwidth

Environment condition:

Date & Time: Thu 18/Sep/2025 17:03:14
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:

Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

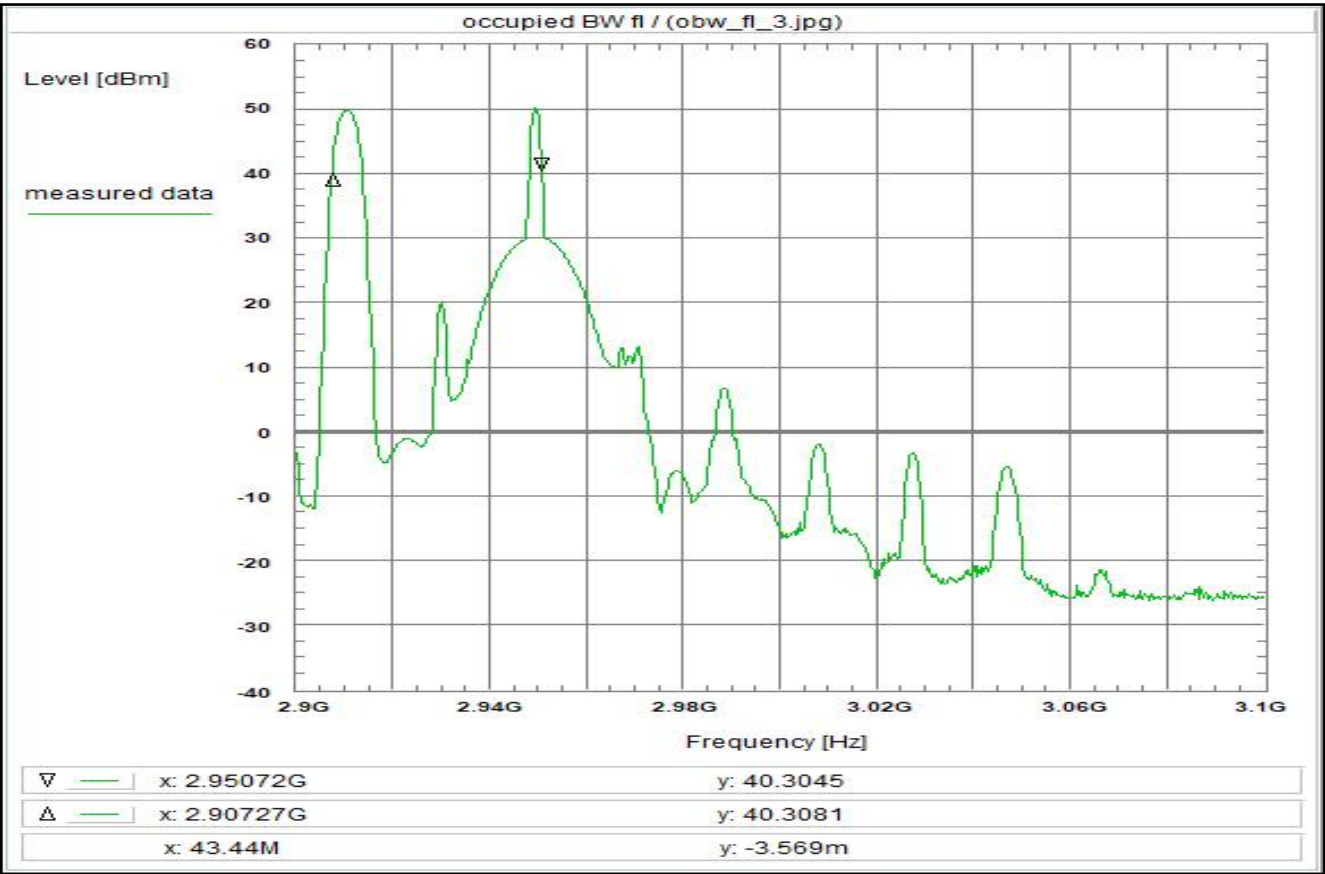
Correction:

Directional coupler	+ 0.0 dB
Coaxial cable (C107)	+ 1.8 dB
DUT-Antenna	+ 0.0 dBi
Test antenna	+ 0.0 dB
BW correction factor	+ 0.0 dB
Atten. between HPA and feedhorn	- 0.0 dB
Attenuation (U315)	+ 19.6 dB
Attenuation (U314)	+ 20.3 dB
TOTAL CORRECTION:	+ 41.7 dB

Remarks:

The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth).
The measured value is about 43.9 MHz (delta marker).

Plot No. 6



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier at the lower edge of the band

Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:

The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 6.4
Ch0, 48NM

Test setup:

see test report chapter 7.3: hgj

Test equipment:

see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: determination of the occupied bandwidth

Environment condition:

Date & Time: Thu 18/Sep/2025 17:06:37
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:

Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

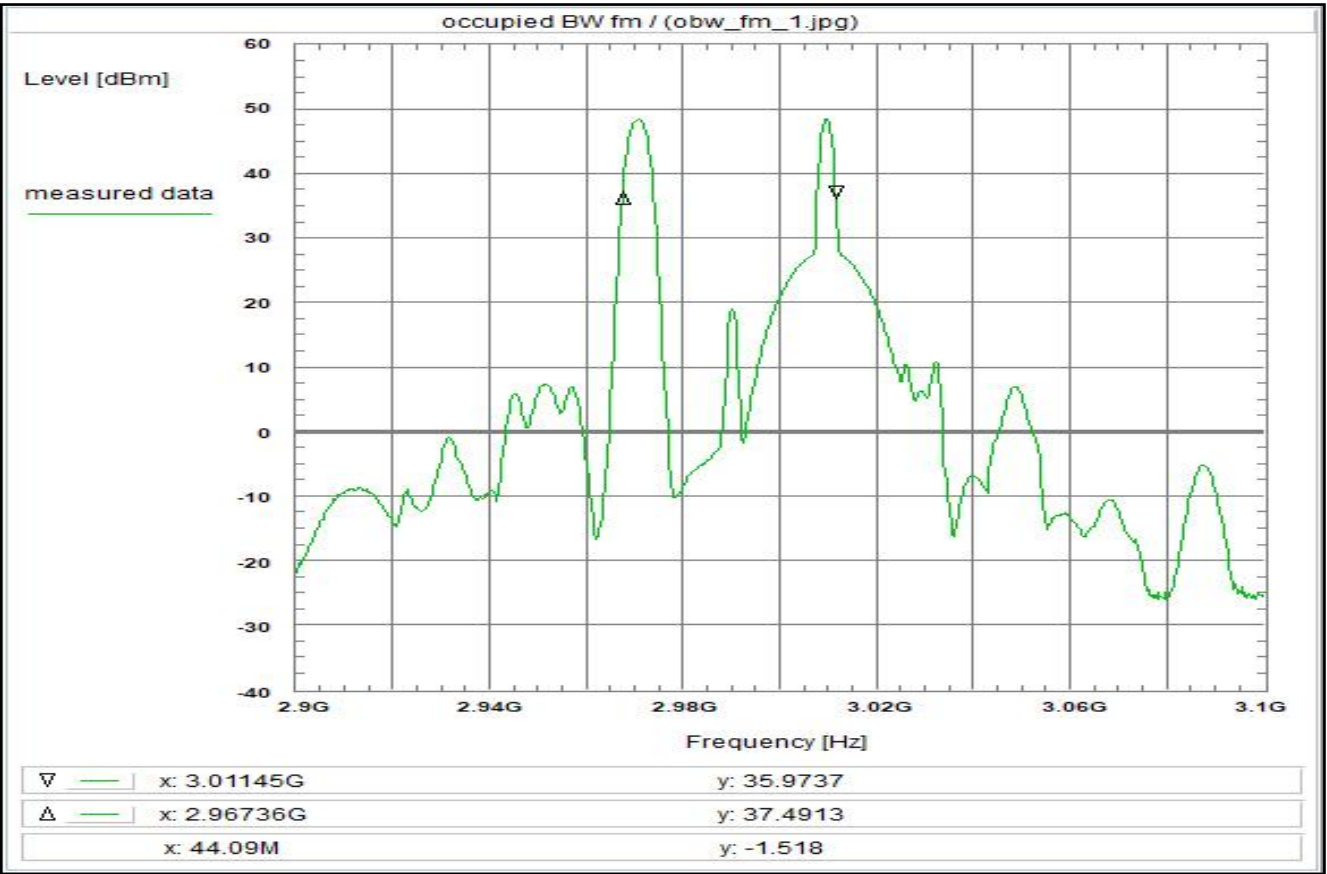
Correction:

Directional coupler	+ 0.0 dB
Coaxial cable (C107)	+ 1.8 dB
DUT-Antenna	+ 0.0 dBi
Test antenna	+ 0.0 dB
BW correction factor	+ 0.0 dB
Atten. between HPA and feedhorn	- 0.0 dB
Attenuation (U315)	+ 19.6 dB
Attenuation (U314)	+ 20.3 dB
TOTAL CORRECTION:	+ 41.7 dB

Remarks:

The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth). The measured value is about 43.4 MHz (delta marker).

Plot No. 7



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier in the middle of the band
Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:
The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: determination of the occupied bandwidth

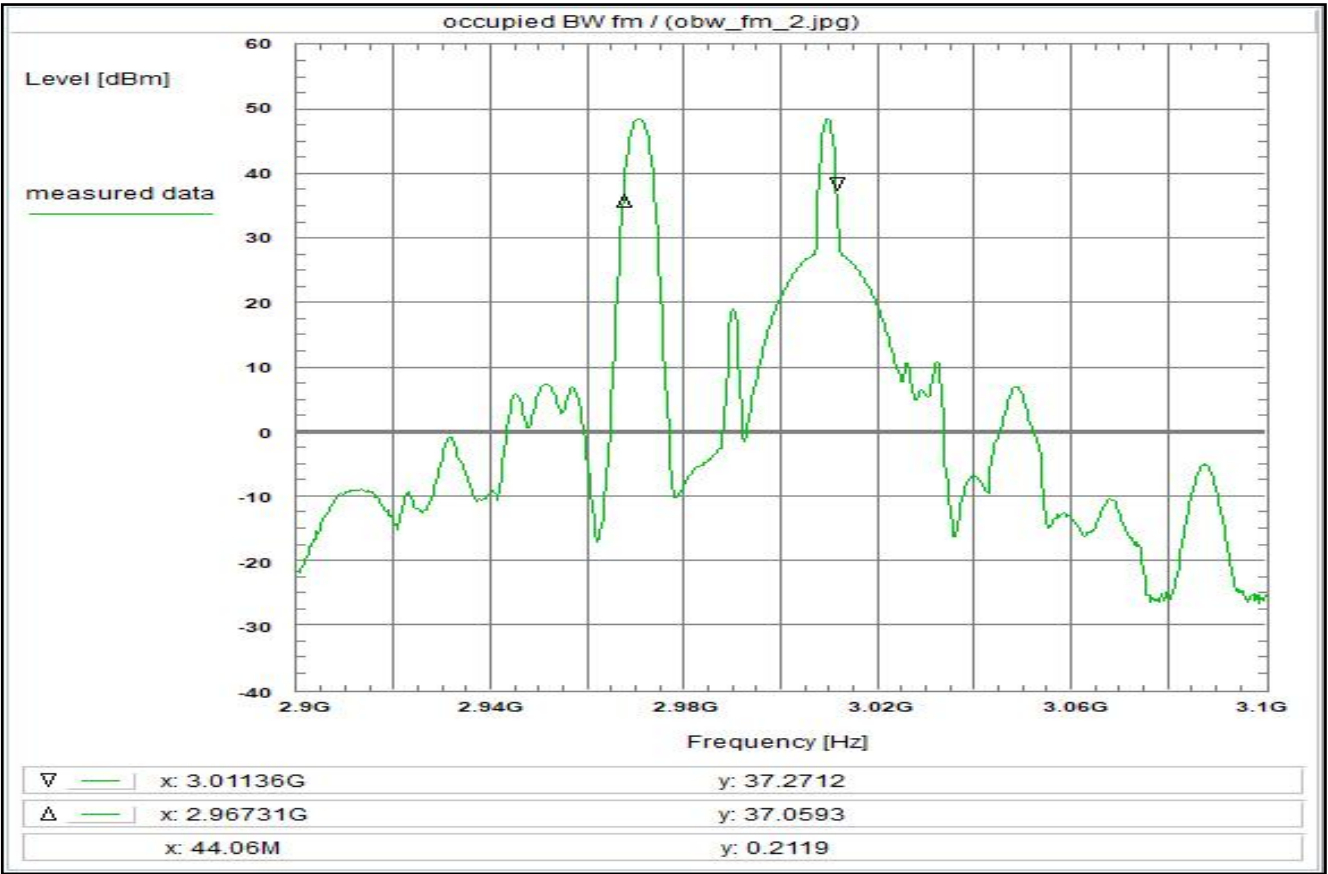
Environment condition:
Date & Time: Thu 18/Sep/2025 16:54:30
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth).
The measured value is about 44.1 MHz (delta marker).

Plot No. 8



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier in the middle of the band
Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:
The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, 24NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: determination of the occupied bandwidth

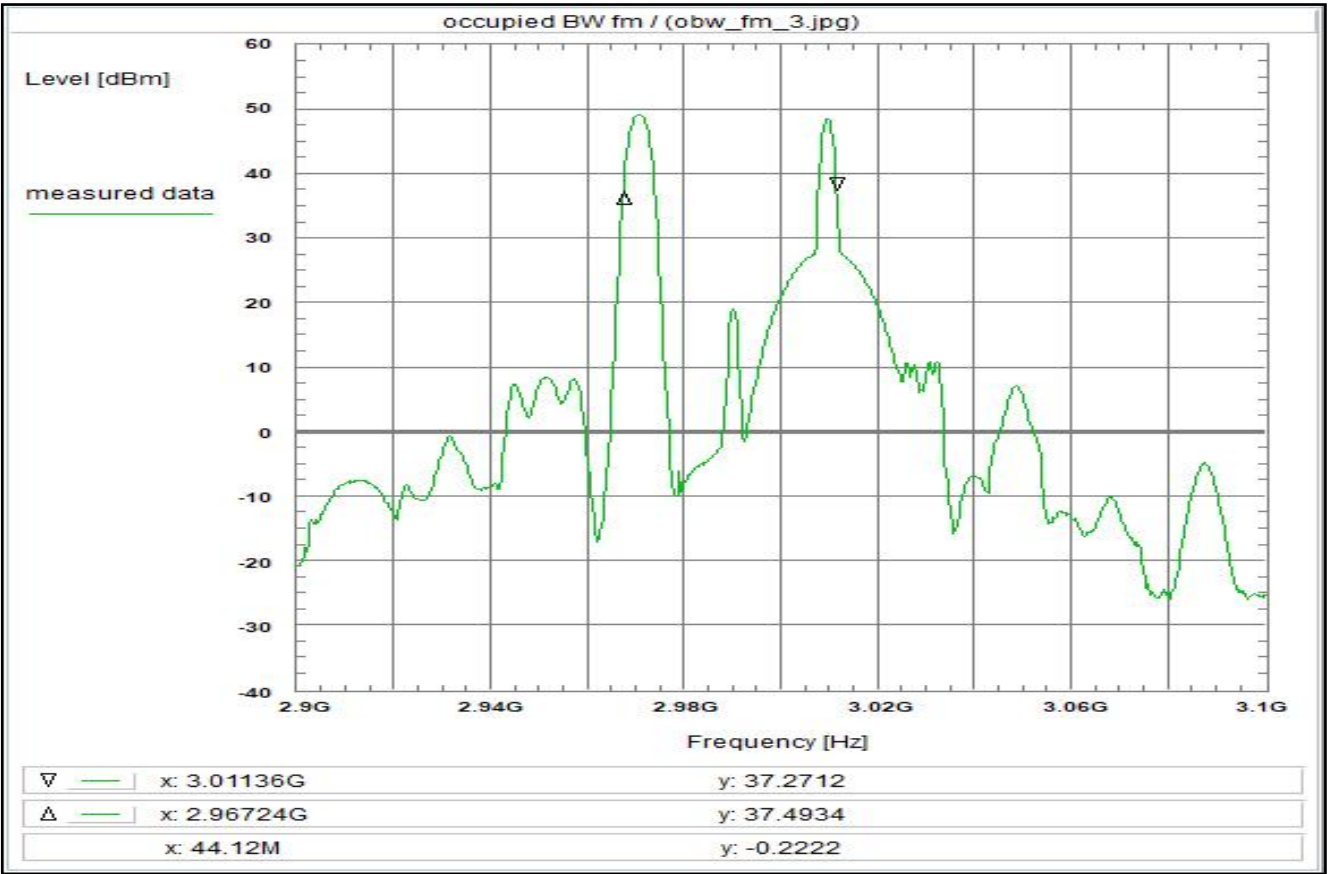
Environment condition:
Date & Time: Thu 18/Sep/2025 16:55:50
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth).
The measured value is about 44.1 MHz (delta marker).

Plot No. 9



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier in the middle of the band
Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:
The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, 48NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: determination of the occupied bandwidth

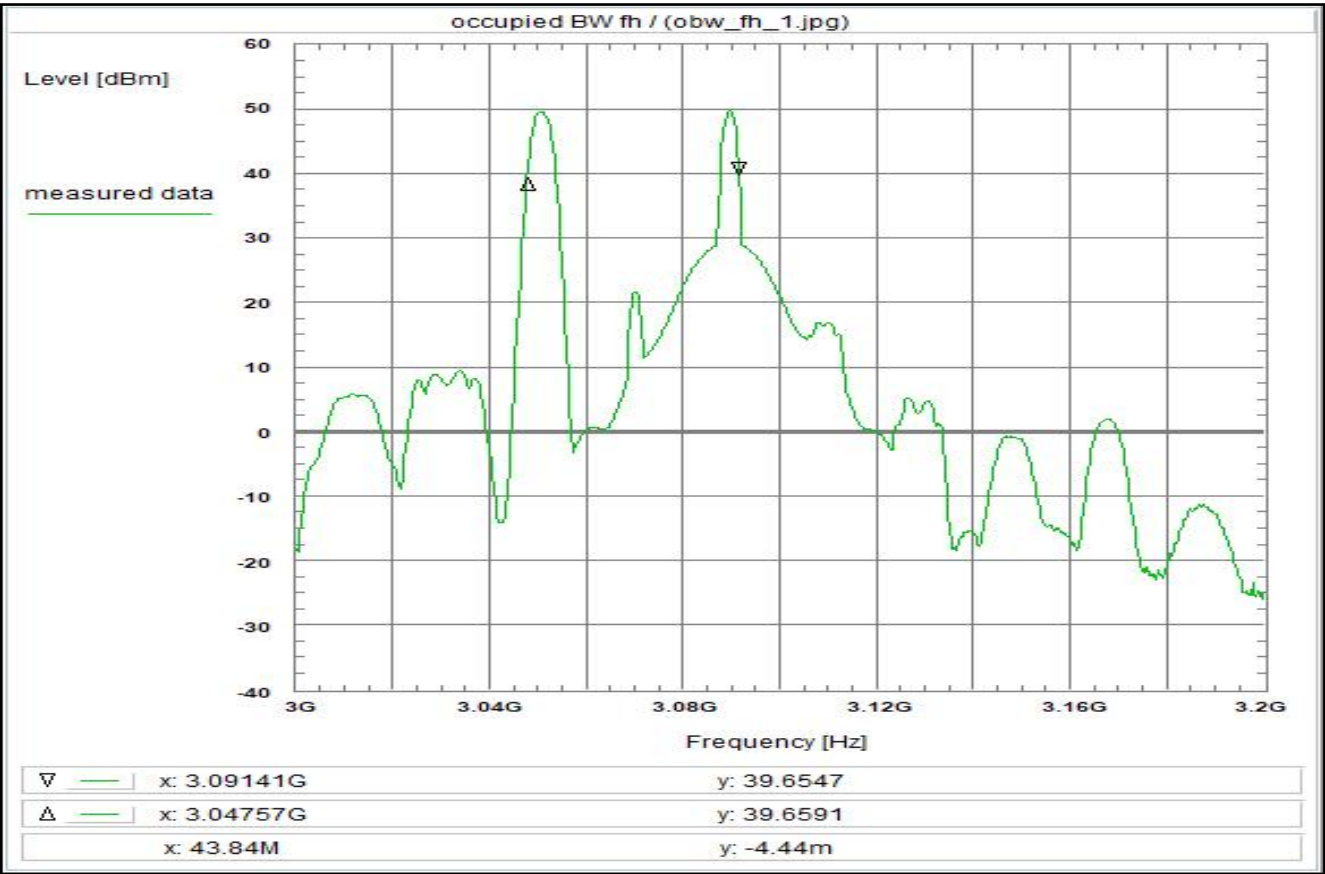
Environment condition:
Date & Time: Thu 18/Sep/2025 16:58:10
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.9 GHz
Stop frequency: 3.1 GHz
Center frequency: 3 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth).
The measured value is about 44.0 MHz (delta marker).

Plot No. 10



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier at the higher edge of the band
Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:
The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U314, U315

Remark:

Test result: determination of the occupied bandwidth

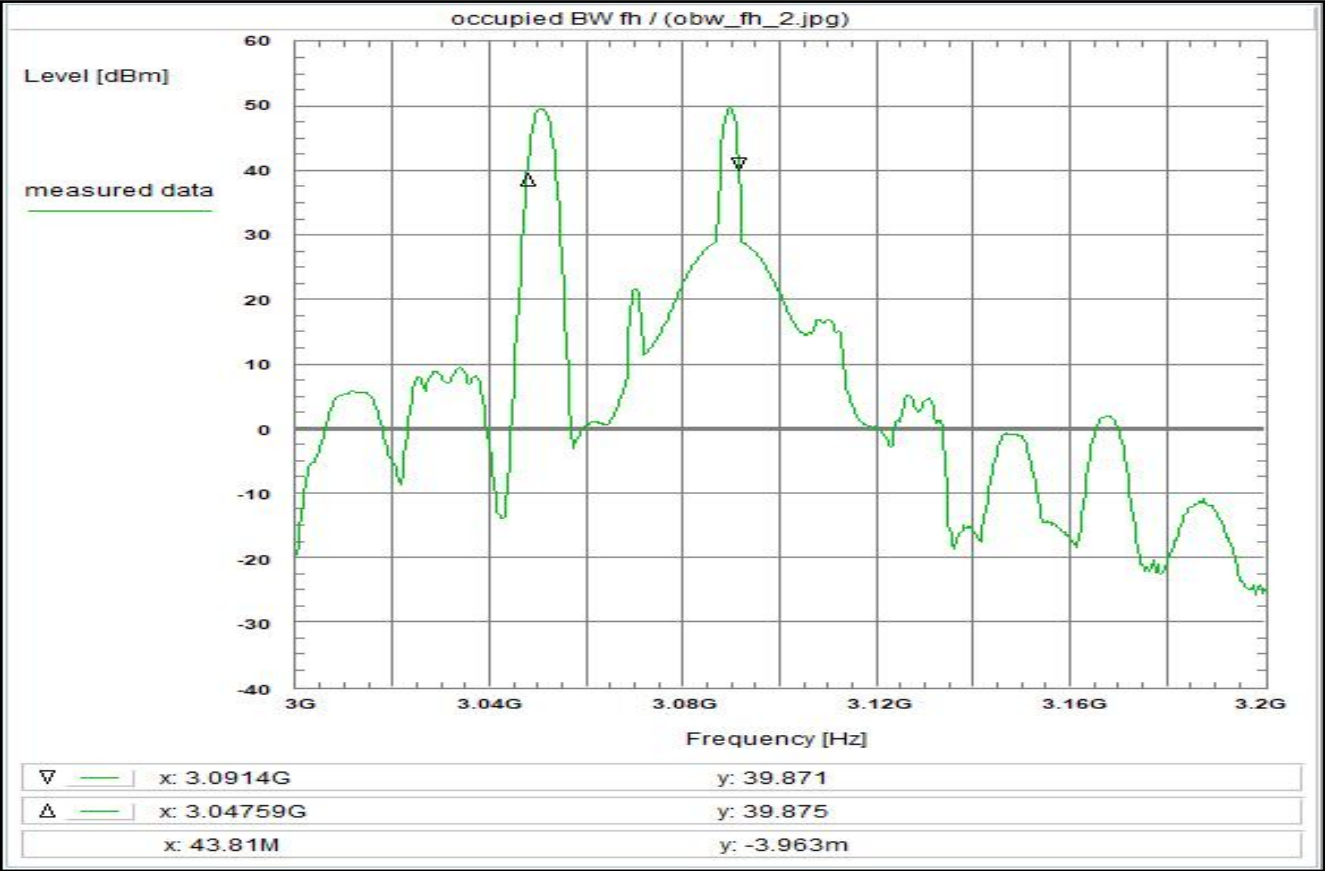
Environment condition:
Date & Time: Thu 18/Sep/2025 16:49:43
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 3 GHz
Stop frequency: 3.2 GHz
Center frequency: 3.1 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.9 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.8 dB

Remarks:
The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth). The measured value is about 43.8 MHz (delta marker).

Plot No. 11



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier at the higher edge of the band

Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:

The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 6.4
Ch7, 24NM

Test setup:

see test report chapter 7.3: hgj

Test equipment:

see test report chapter 7.3: C107, R001, U314, U315

Remark:

Test result: determination of the occupied bandwidth

Environment condition:

Date & Time: Thu 18/Sep/2025 16:47:24
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:

Start frequency: 3 GHz
Stop frequency: 3.2 GHz
Center frequency: 3.1 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

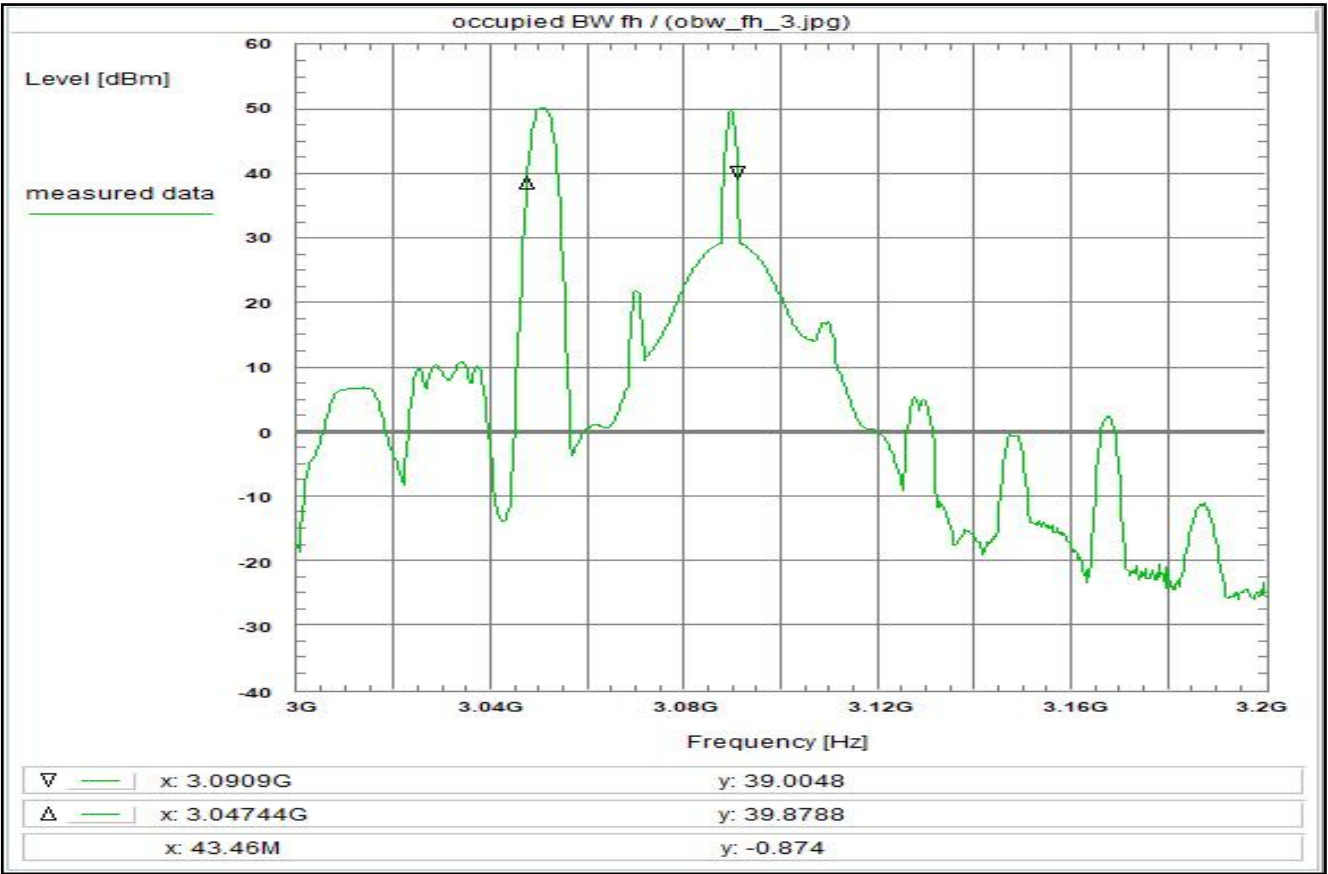
Correction:

Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.9 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.8 dB

Remarks:

The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth). The measured value is about 43.7 MHz (delta marker).

Plot No. 12



Subclause: Verification of the occupied bandwidth (99% bandwidth)
Short pulse / medium pulse / long pulse, carrier at the higher edge of the band

Measurement within the allocated band: 2.9 - 3.1 GHz

Limit:

The occupied bandwidth is defined as the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5% of the emitted power. This is also known as the 99% emission bandwidth.

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 6.4
Ch7, 48NM

Test setup:

see test report chapter 7.3: hgj

Test equipment:

see test report chapter 7.3: C107, R001, U314, U315

Remark:

Test result: determination of the occupied bandwidth

Environment condition:

Date & Time: Thu 18/Sep/2025 16:52:27
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:

Start frequency: 3 GHz
Stop frequency: 3.2 GHz
Center frequency: 3.1 GHz
Frequency span: 200 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

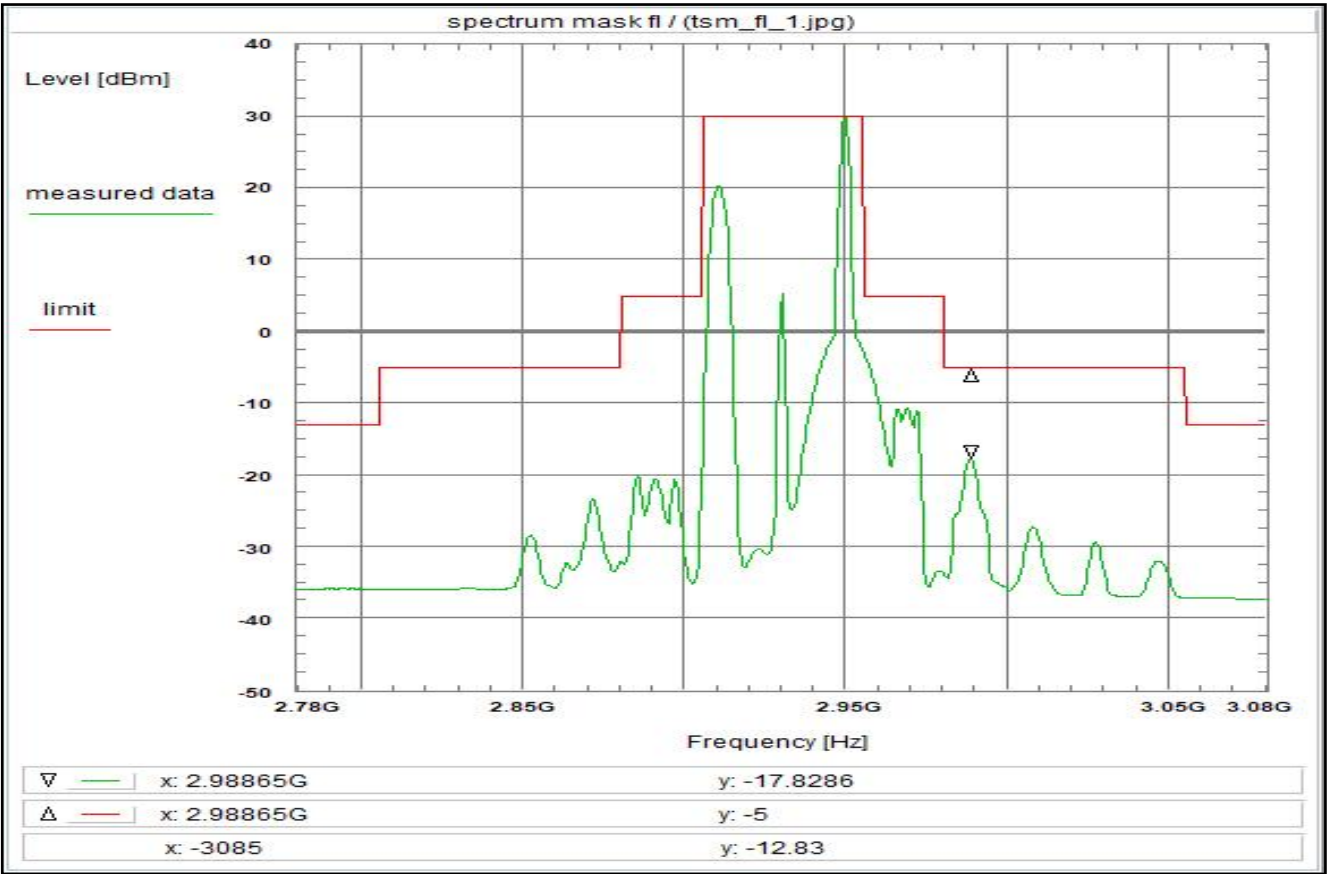
Correction:

Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.9 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.8 dB

Remarks:

The internal function of the spectrum analyzer was used to measure the occupied bandwidth (99% bandwidth). The measured value is about 43.3 MHz (delta marker).

Plot No. 13



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

Environment condition:

Date & Time: Thu 18/Sep/2025 17:33:54
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:

Start frequency: 2.78 GHz
Stop frequency: 3.08 GHz
Center frequency: 2.93 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

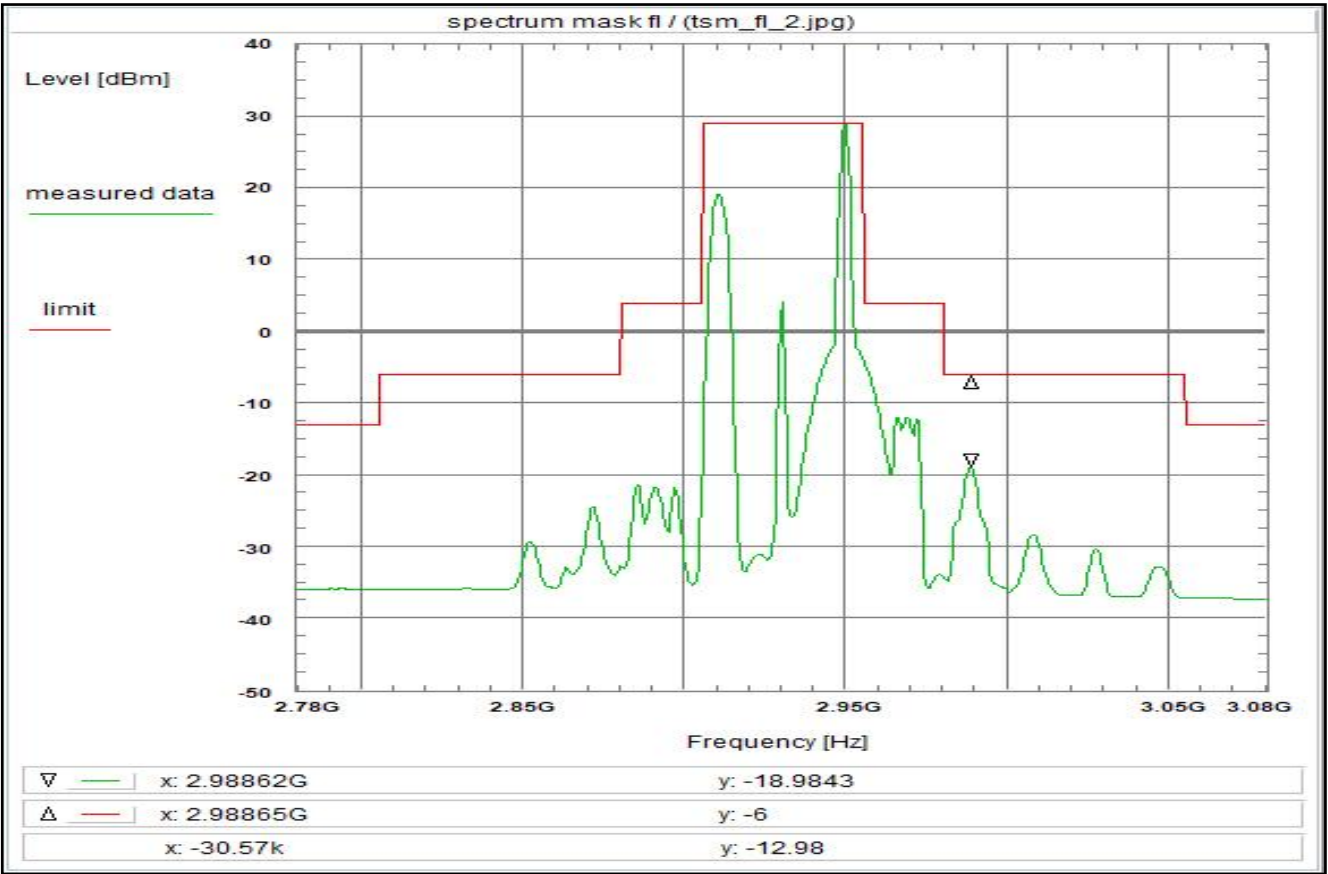
Correction:

Directional coupler	+ 0.0 dB
Coaxial cable (C107)	+ 1.8 dB
DUT-Antenna	+ 0.0 dBi
Test antenna	+ 0.0 dB
BW correction factor	+ 0.0 dB
Atten. between HPA and feedhorn	- 0.0 dB
Attenuation (U315)	+ 19.6 dB
Attenuation (U314)	+ 20.3 dB
TOTAL CORRECTION:	+ 41.7 dB

Remarks:

Max-Hold Mode

Plot No. 14



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, 24NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

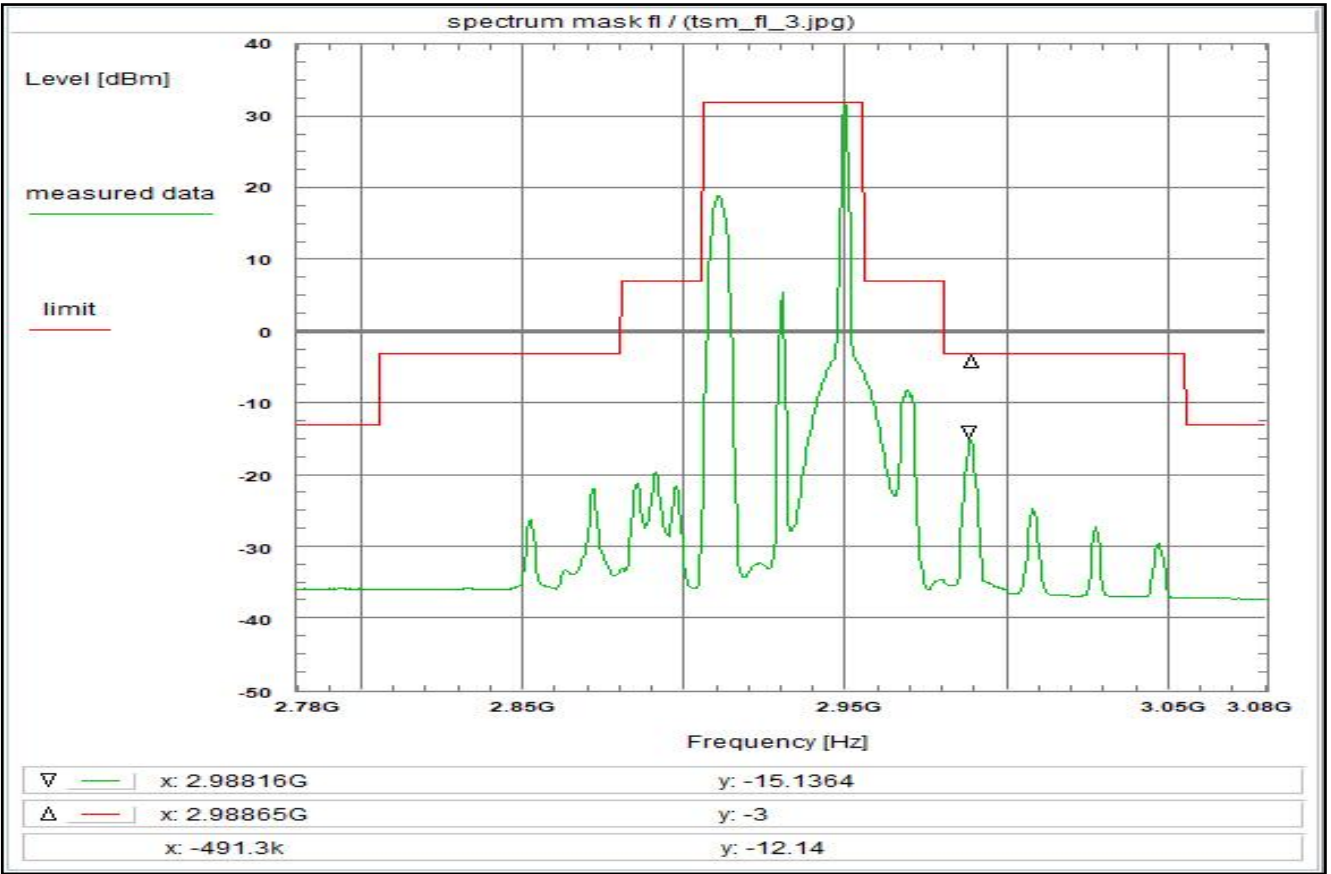
Environment condition:
Date & Time: Thu 18/Sep/2025 17:31:37
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.78 GHz
Stop frequency: 3.08 GHz
Center frequency: 2.93 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Max-Hold Mode

Plot No. 15



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, 48NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

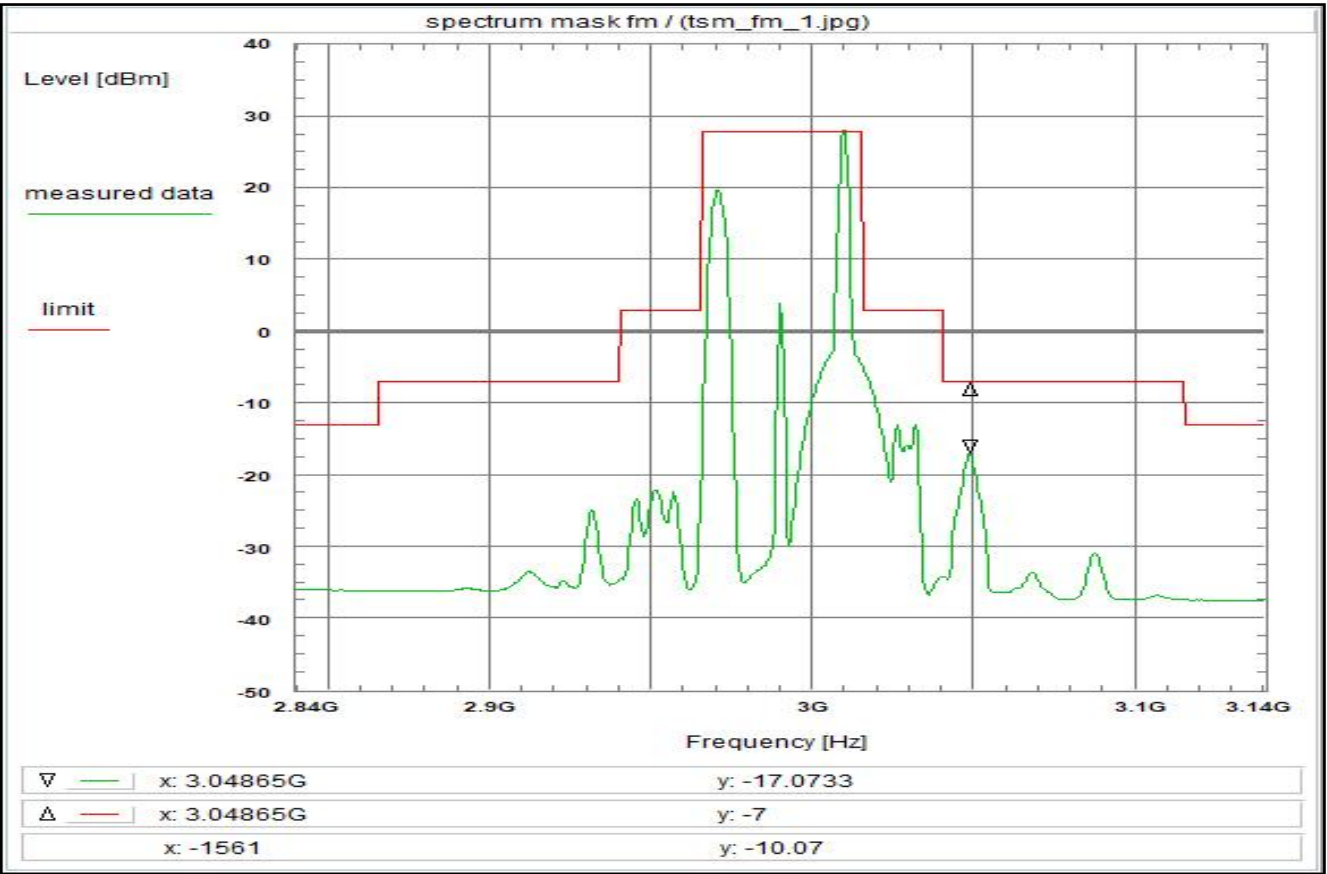
Environment condition:
Date & Time: Thu 18/Sep/2025 17:36:23
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.78 GHz
Stop frequency: 3.08 GHz
Center frequency: 2.93 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Max-Hold Mode

Plot No. 16



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

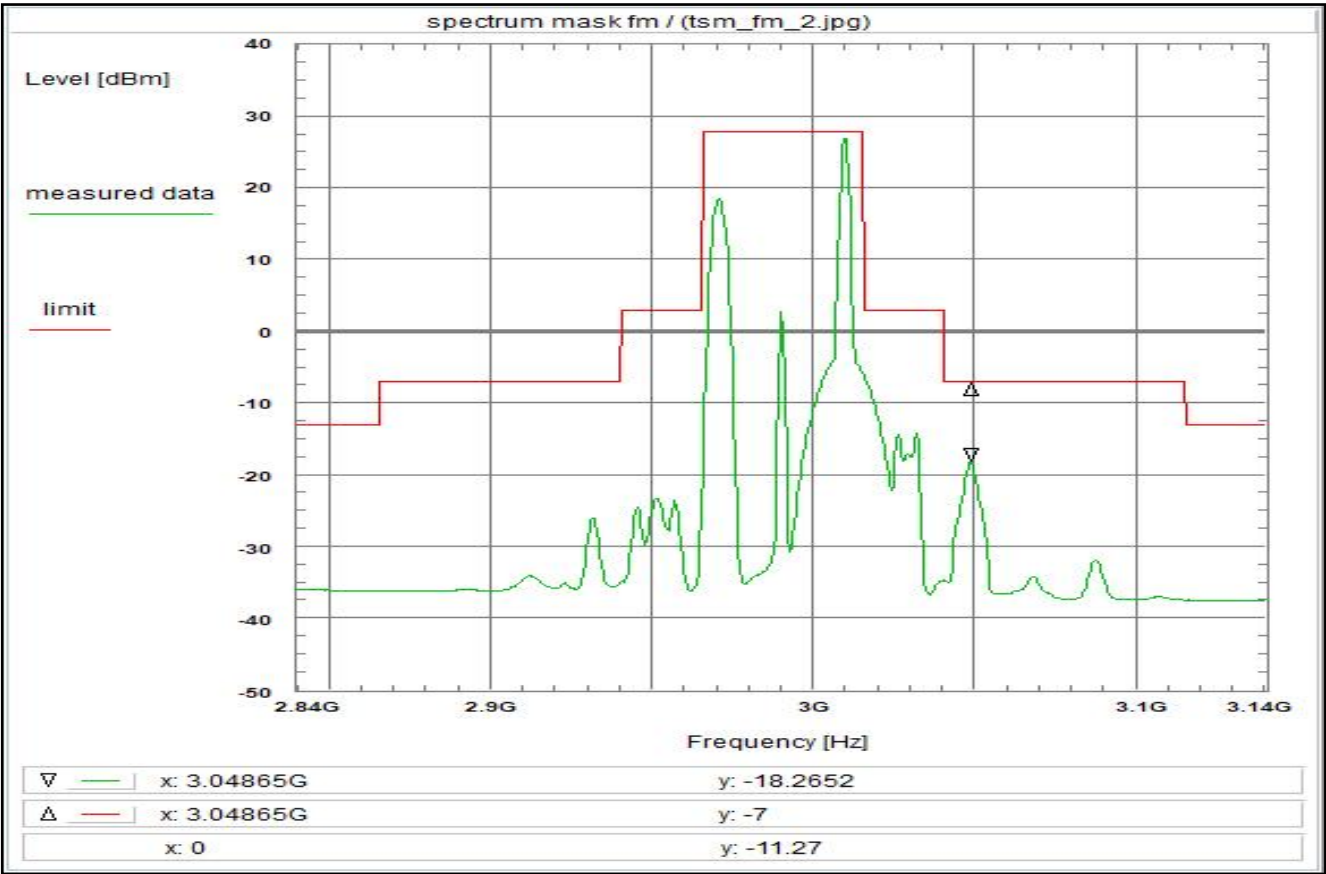
Environment condition:
Date & Time: Thu 18/Sep/2025 17:43:03
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.84 GHz
Stop frequency: 3.14 GHz
Center frequency: 2.99 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Max-Hold Mode

Plot No. 17



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, 24NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

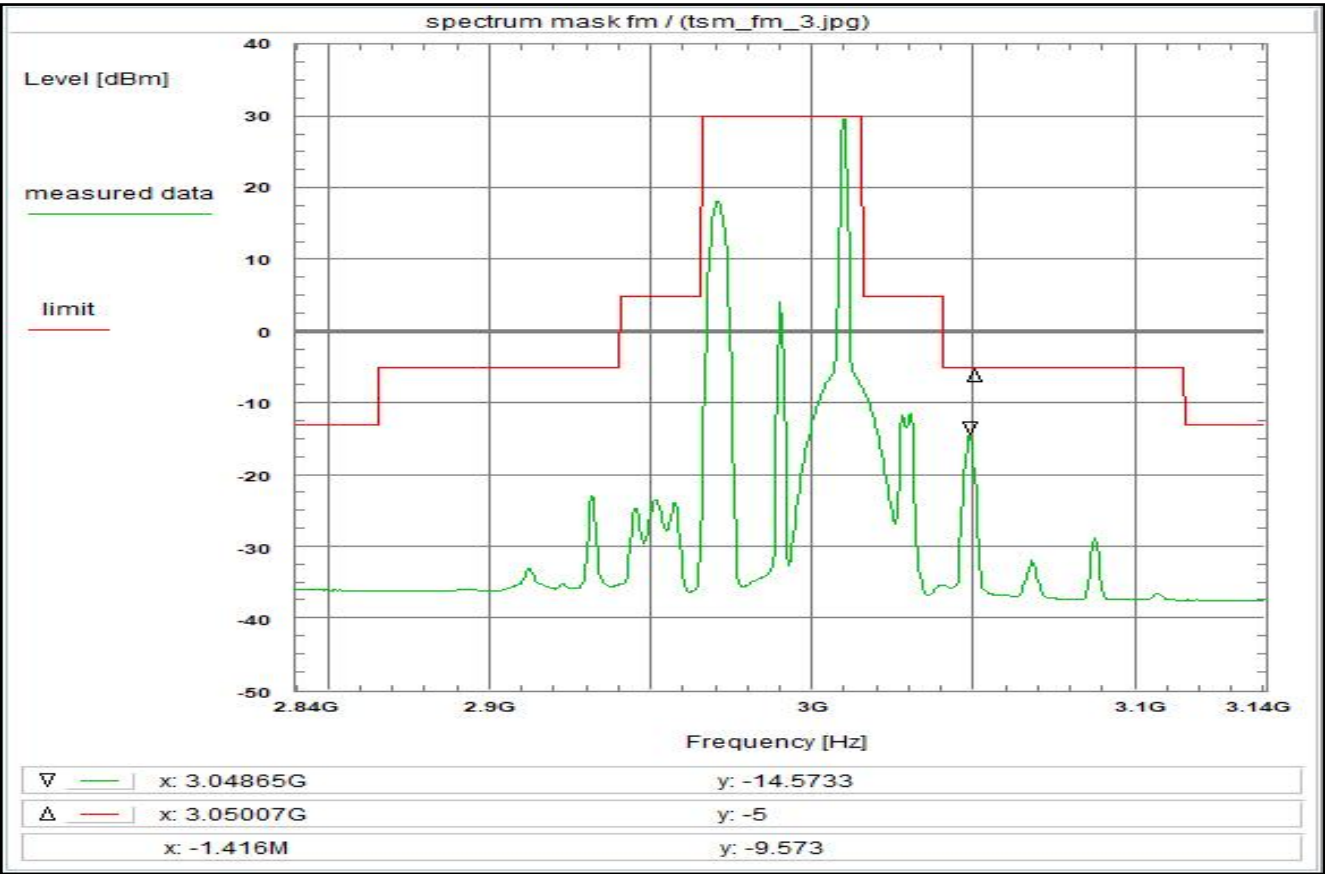
Environment condition:
Date & Time: Thu 18/Sep/2025 17:46:21
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.84 GHz
Stop frequency: 3.14 GHz
Center frequency: 2.99 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Max-Hold Mode

Plot No. 18



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, 48NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

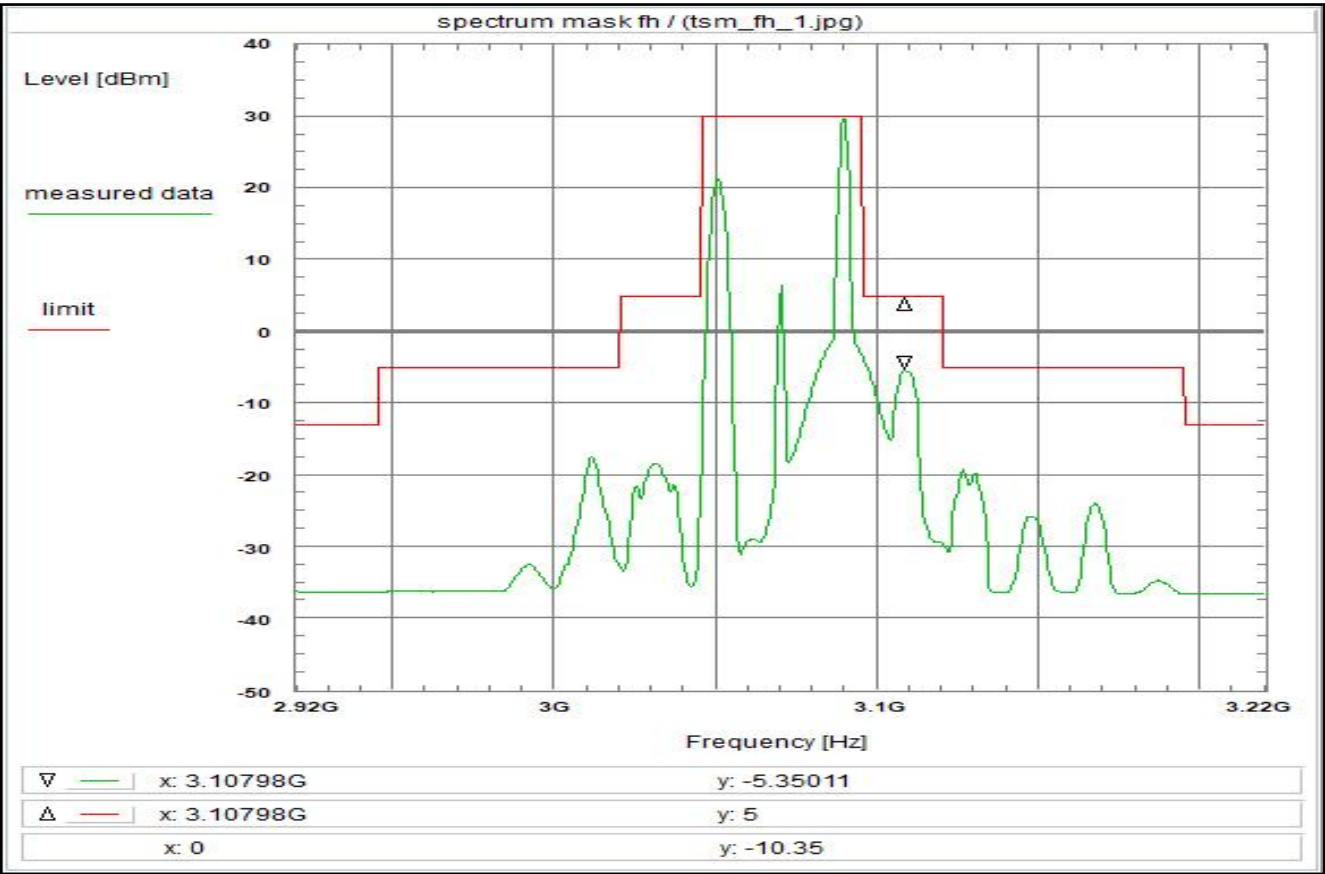
Environment condition:
Date & Time: Thu 18/Sep/2025 17:48:49
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.84 GHz
Stop frequency: 3.14 GHz
Center frequency: 2.99 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.8 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.7 dB

Remarks:
Max-Hold Mode

Plot No. 19



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, 12NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

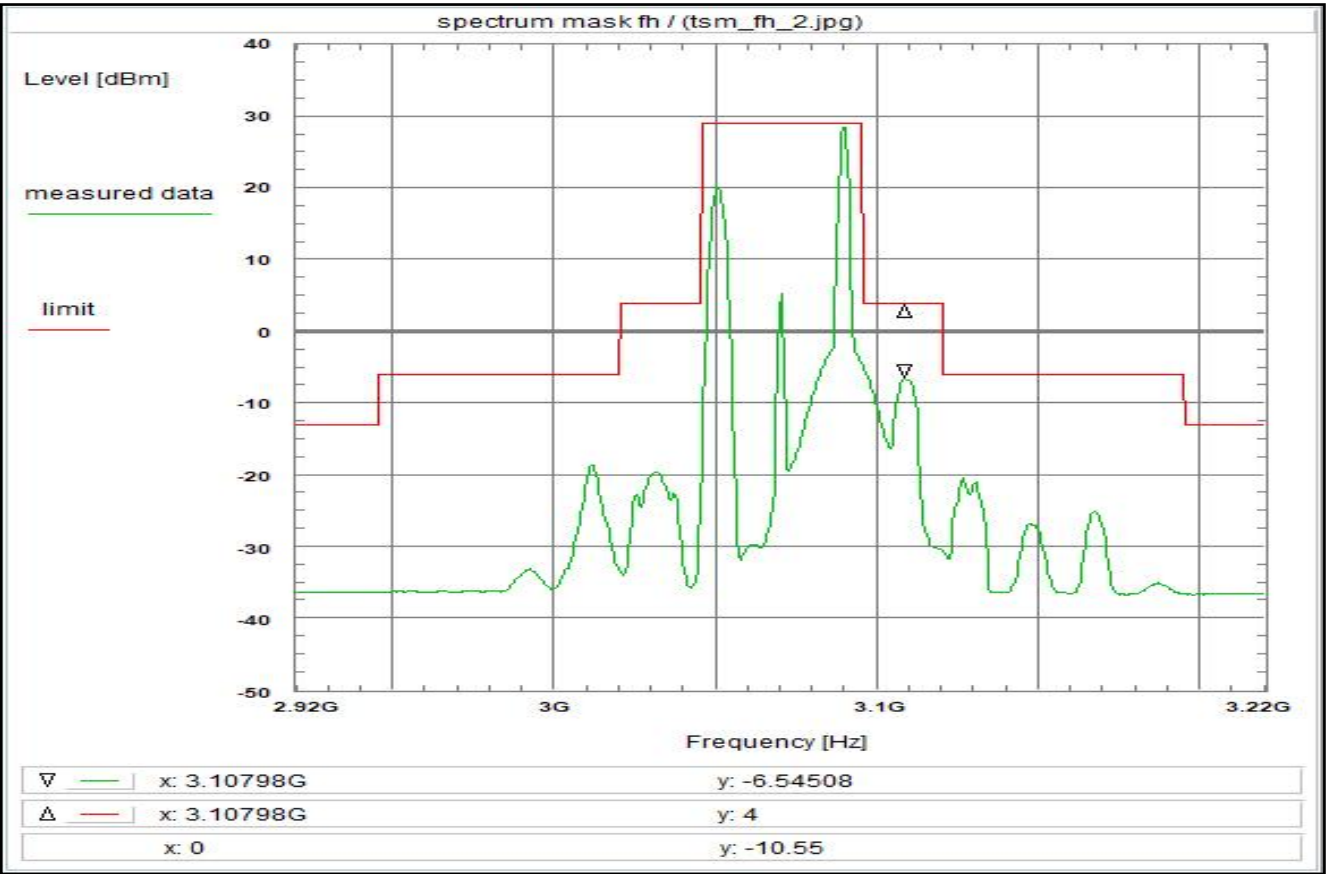
Environment condition:
Date & Time: Thu 18/Sep/2025 17:53:16
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.92 GHz
Stop frequency: 3.22 GHz
Center frequency: 3.07 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.9 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.8 dB

Remarks:
Max-Hold Mode

Plot No. 20



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, 24NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U314, U315

Remark:

Test result: Test passed

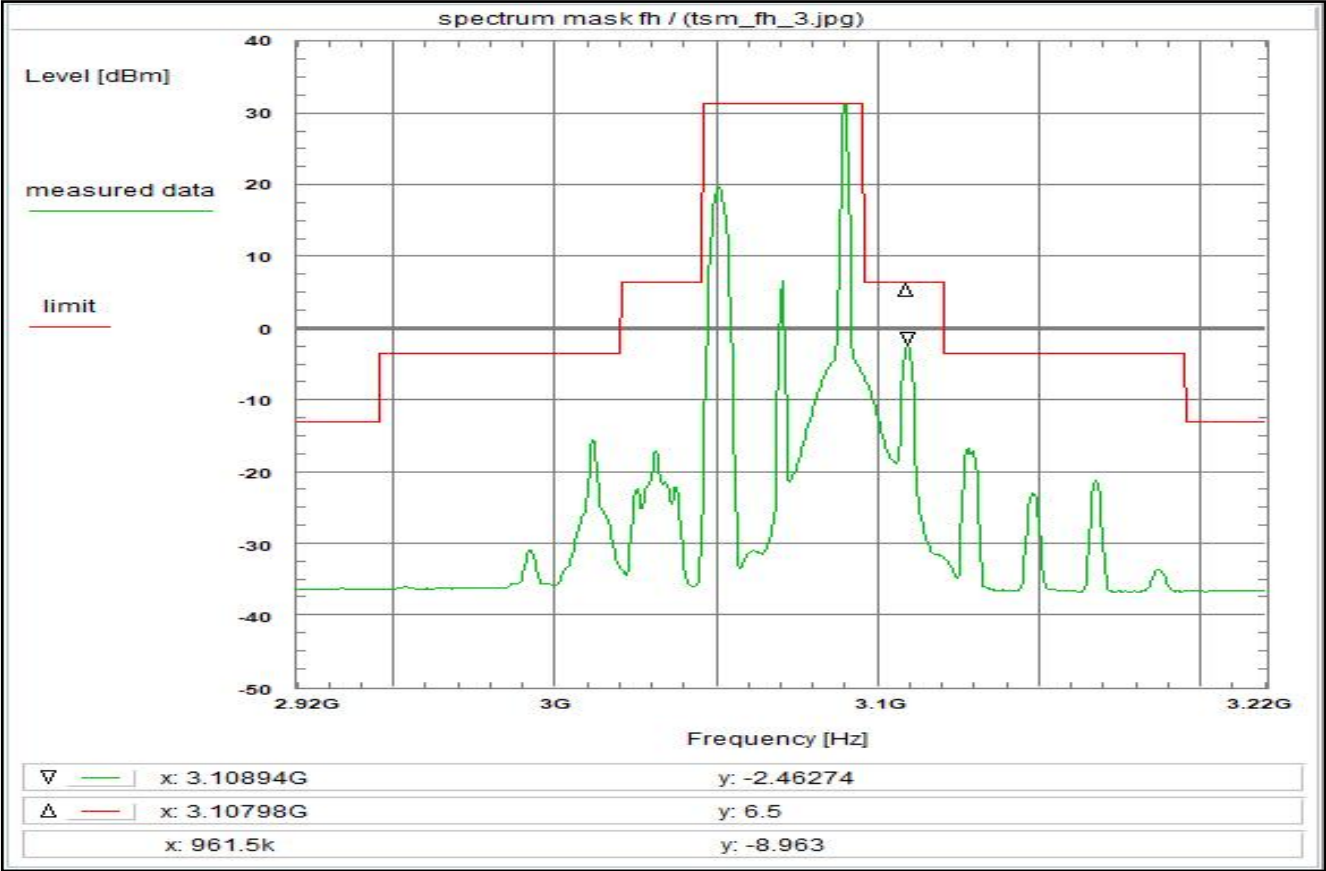
Environment condition:
Date & Time: Thu 18/Sep/2025 17:56:52
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.92 GHz
Stop frequency: 3.22 GHz
Center frequency: 3.07 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.9 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.8 dB

Remarks:
Max-Hold Mode

Plot No. 21



Subclause: 80.211(f) Spectrum Mask
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Transmitter spectrum Mask

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, 48NM

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

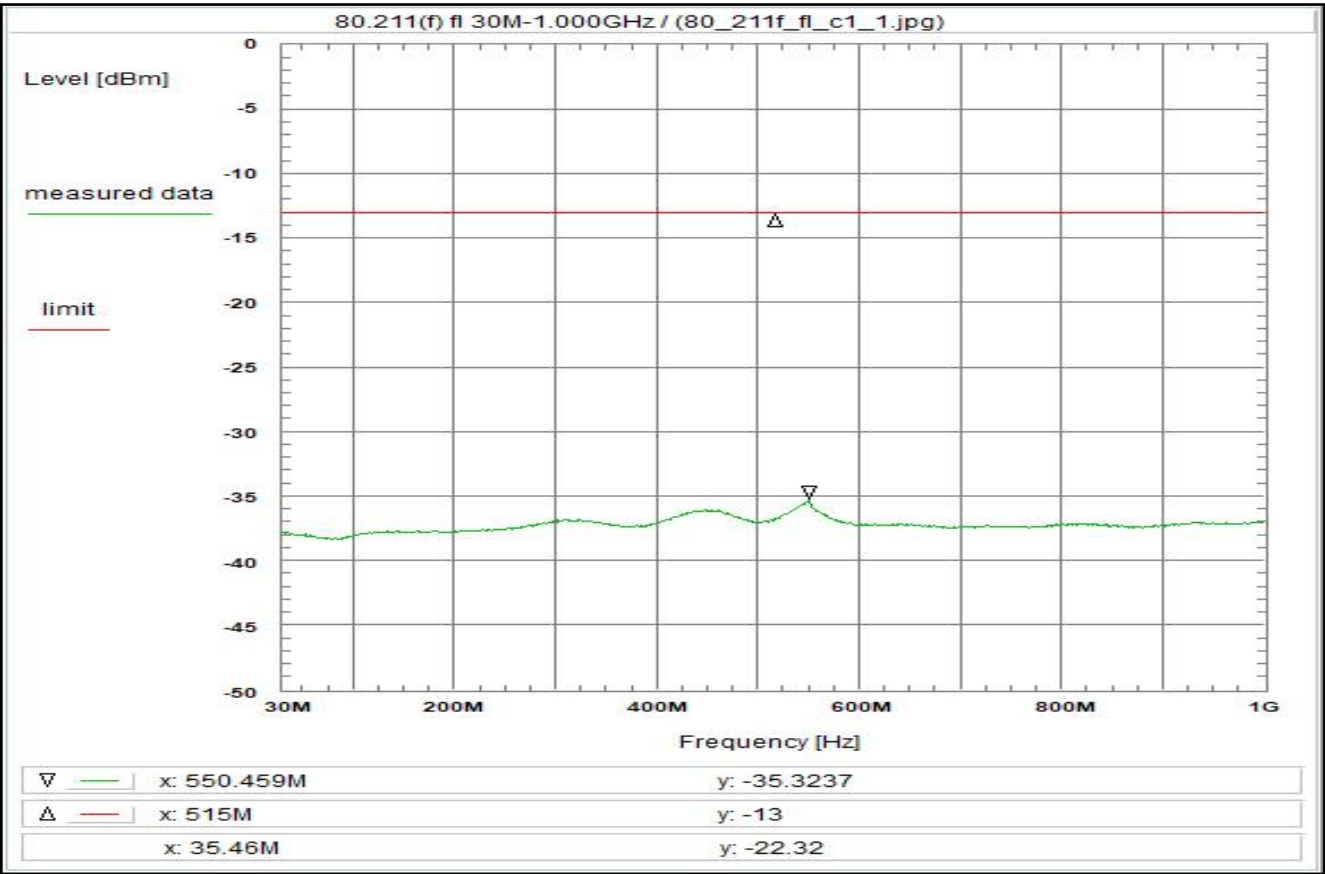
Environment condition:
Date & Time: Thu 18/Sep/2025 17:59:17
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 2.92 GHz
Stop frequency: 3.22 GHz
Center frequency: 3.07 GHz
Frequency span: 300 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.9 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.6 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.8 dB

Remarks:
Max-Hold Mode

Plot No. 22



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Examination of the frequency range 30 MHz - 1.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

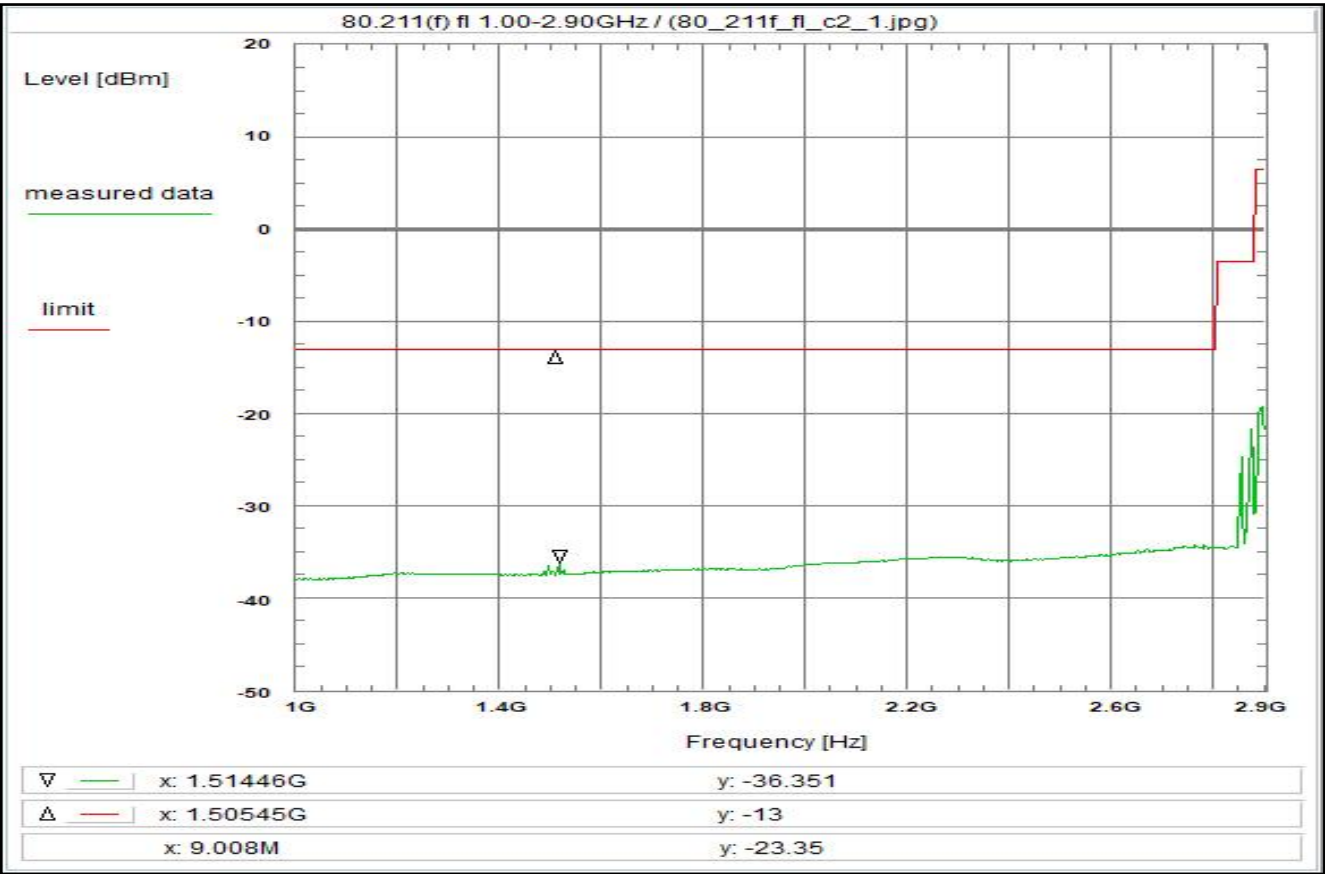
Environment condition:
Date & Time: Fri 19/Sep/2025 09:25:06
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 30 MHz
Stop frequency: 1 GHz
Center frequency: 515 MHz
Frequency span: 970 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 0.7 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 20.0 dB
Attenuation (U314) + 20.1 dB
TOTAL CORRECTION: + 40.8 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 23



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Examination of the frequency range 1.0 – 2.9 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

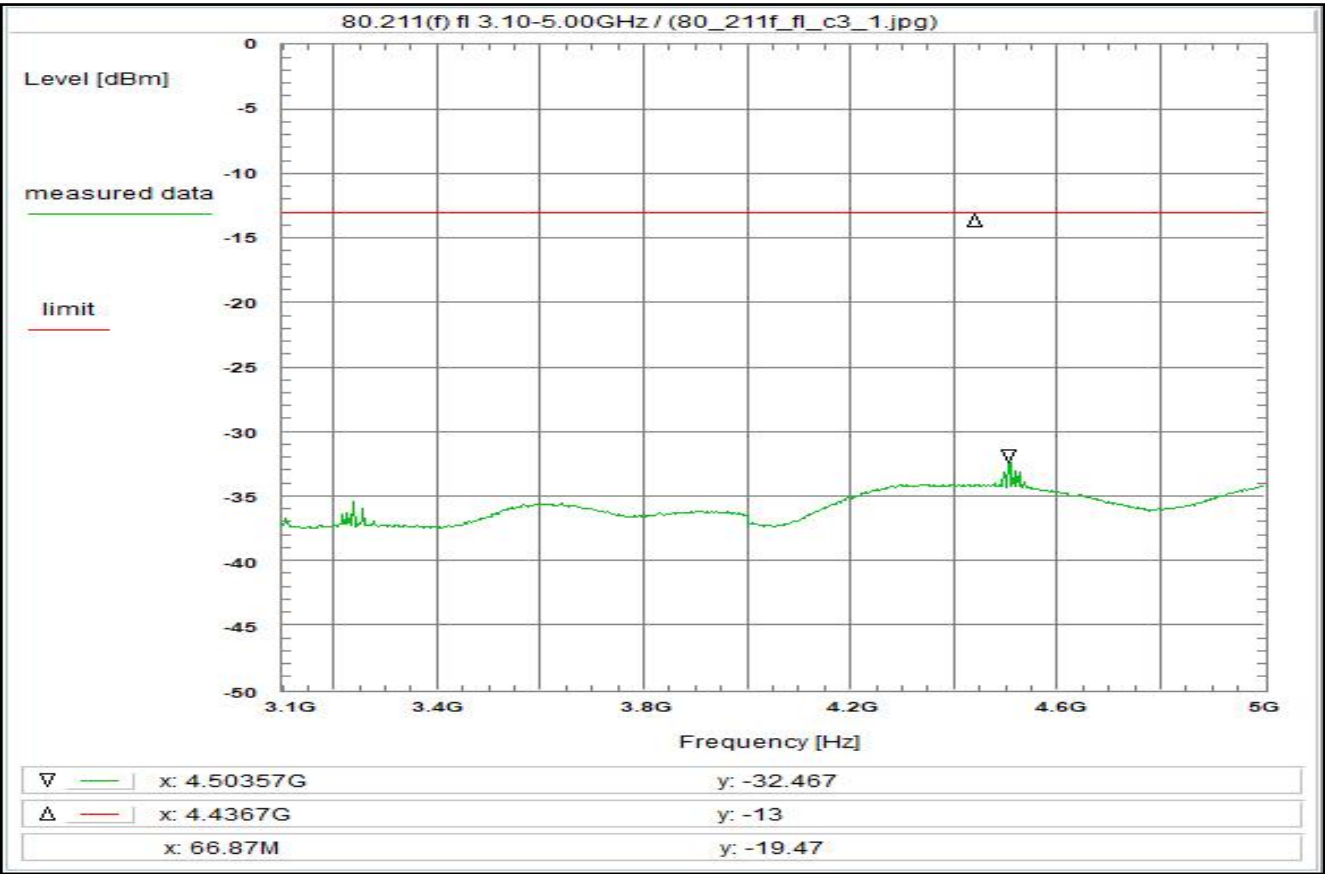
Environment condition:
Date & Time: Fri 19/Sep/2025 09:12:26
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 1 GHz
Stop frequency: 2.9 GHz
Center frequency: 1.95 GHz
Frequency span: 1.9 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.5 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.7 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.5 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 24



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Examination of the frequency range 3.1 - 5.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

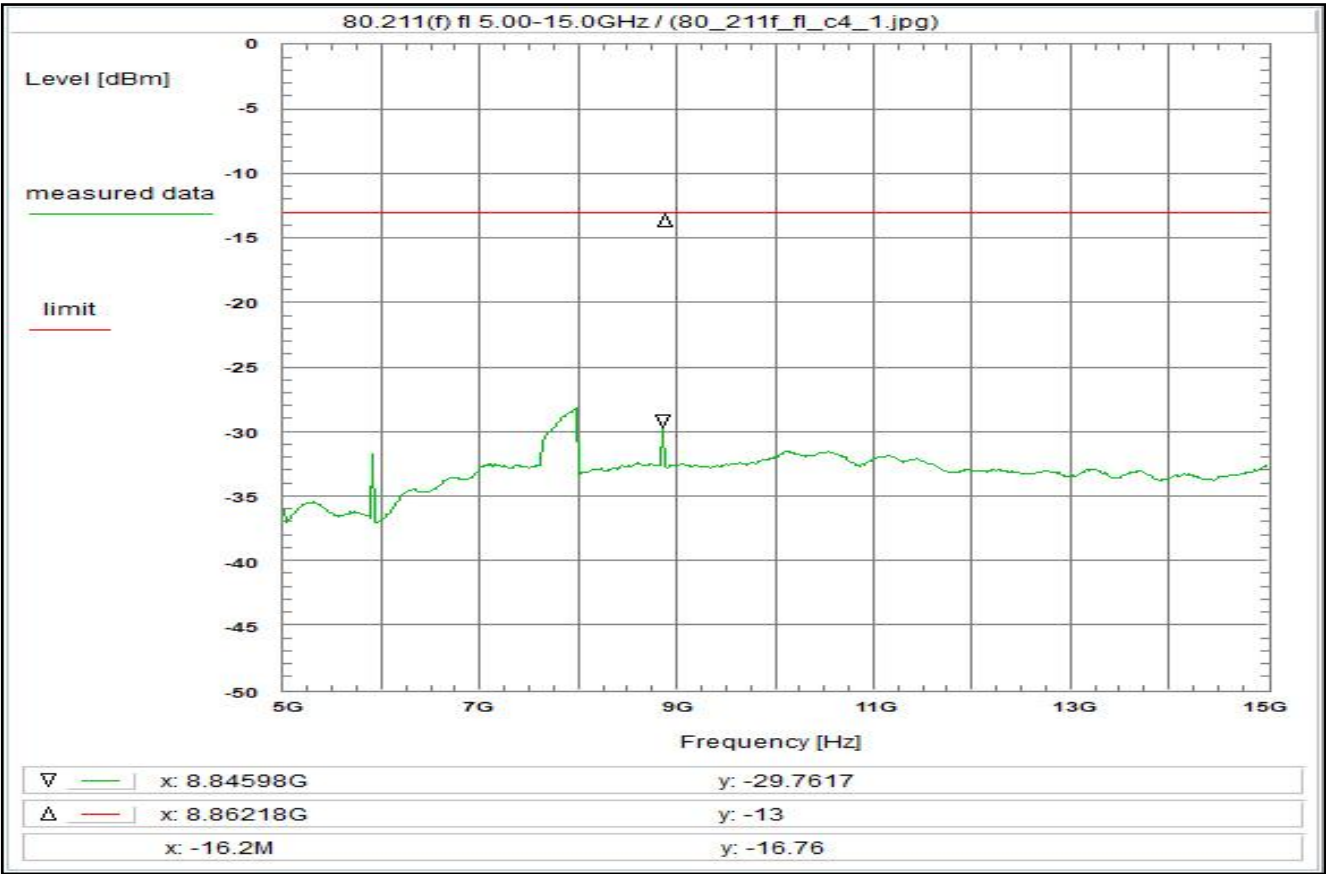
Environment condition:
Date & Time: Fri 19/Sep/2025 09:21:56
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 3.1 GHz
Stop frequency: 5 GHz
Center frequency: 4.05 GHz
Frequency span: 1.9 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 2.1 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.7 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 42.1 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 25



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Examination of the frequency range 5.0 - 15.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

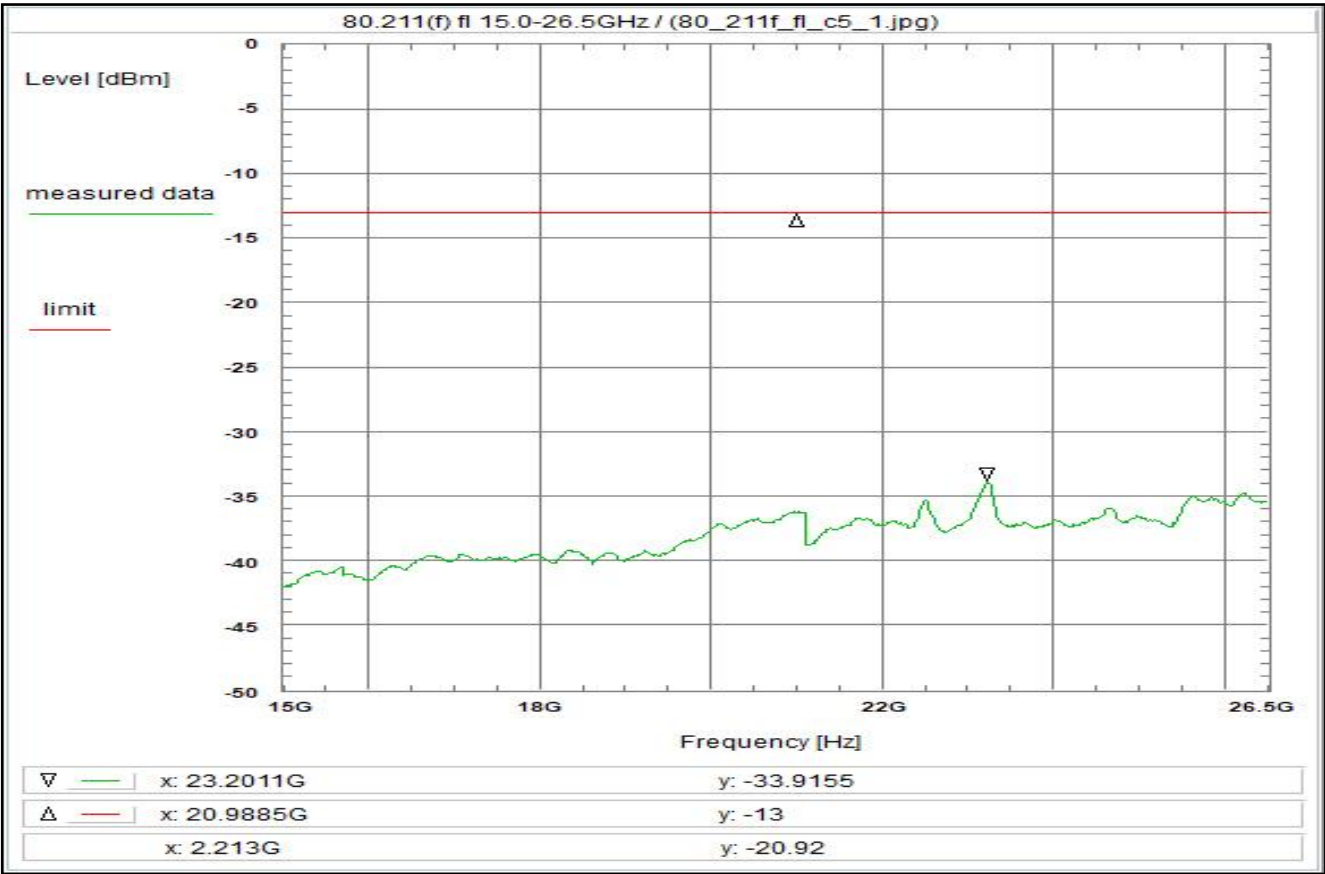
Environment condition:
Date & Time: Fri 19/Sep/2025 09:58:47
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 5 GHz
Stop frequency: 15 GHz
Center frequency: 10 GHz
Frequency span: 10 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 3.4 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 10.0 dB
Attenuation (U313+U314) + 30.4 dB
TOTAL CORRECTION: + 43.8 dB

Remarks:
Max-Hold Mode

Plot No. 26



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Examination of the frequency range 15.0 - 26.5 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, worst case all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

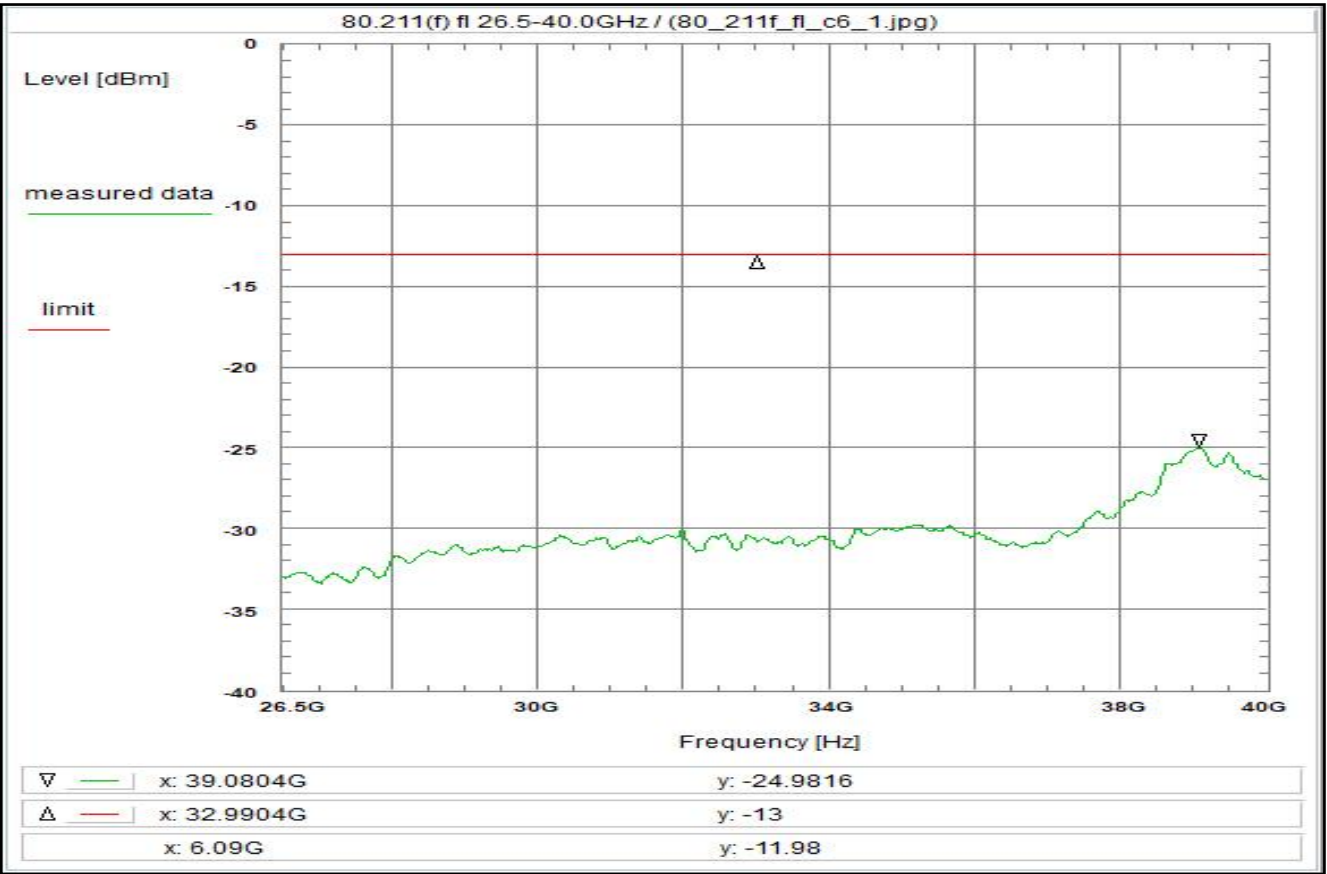
Environment condition:
Date & Time: Fri 19/Sep/2025 10:29:48
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 15 GHz
Stop frequency: 26.5 GHz
Center frequency: 20.75 GHz
Frequency span: 11.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 5.5 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 11.1 dB
Attenuation (U313+U314) + 31.5 dB
TOTAL CORRECTION: + 48.1 dB

Remarks:
Max-Hold Mode

Plot No. 27



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fl
Examination of the frequency range 26.5 - 40.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch0, worst case all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

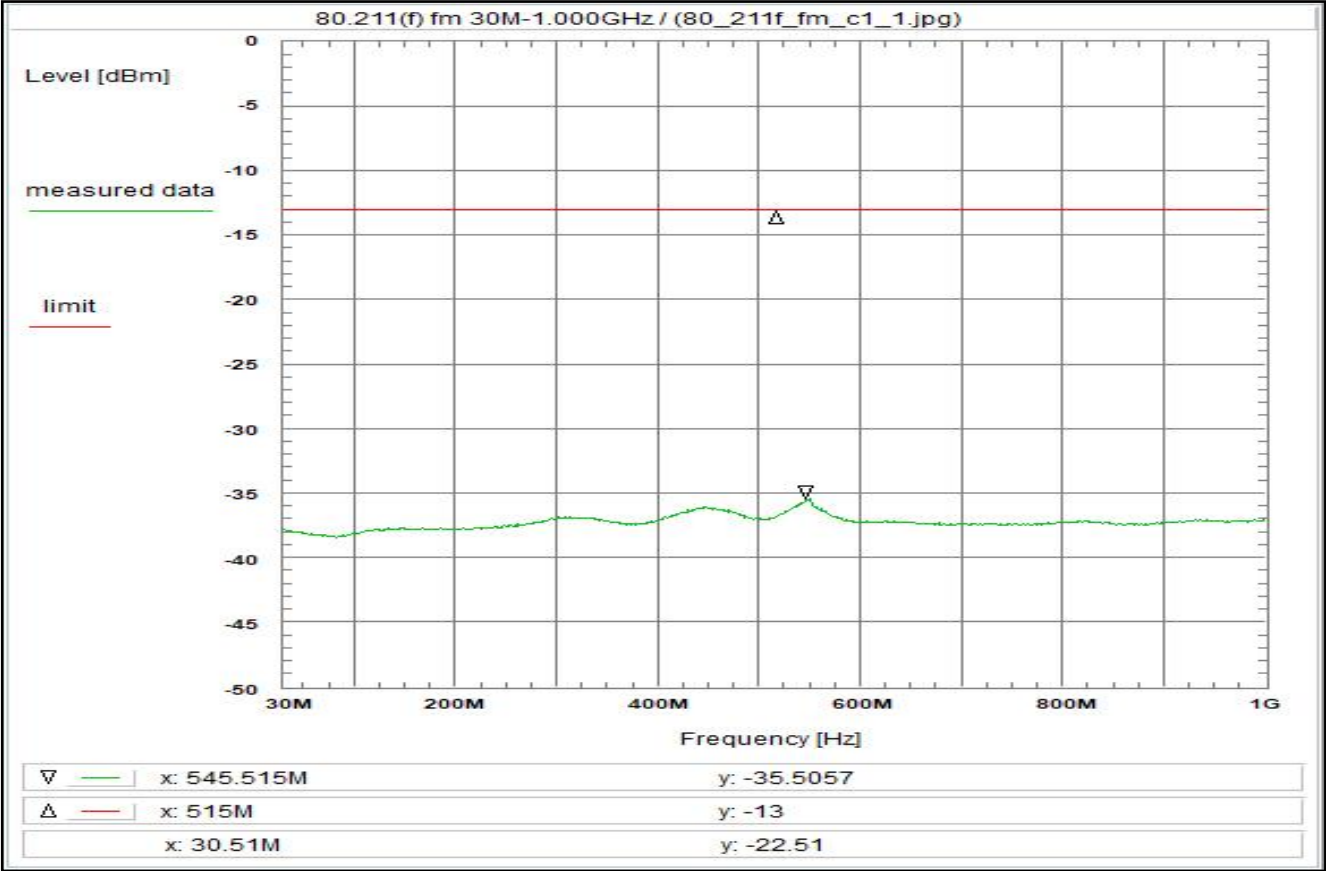
Environment condition:
Date & Time: Fri 19/Sep/2025 10:32:43
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 26.5 GHz
Stop frequency: 40 GHz
Center frequency: 33.25 GHz
Frequency span: 13.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 7.3 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 12.5 dB
Attenuation (U313+U314) + 33.6 dB
TOTAL CORRECTION: + 53.4 dB

Remarks:
Max-Hold Mode

Plot No. 28



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Examination of the frequency range 30 MHz - 1.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

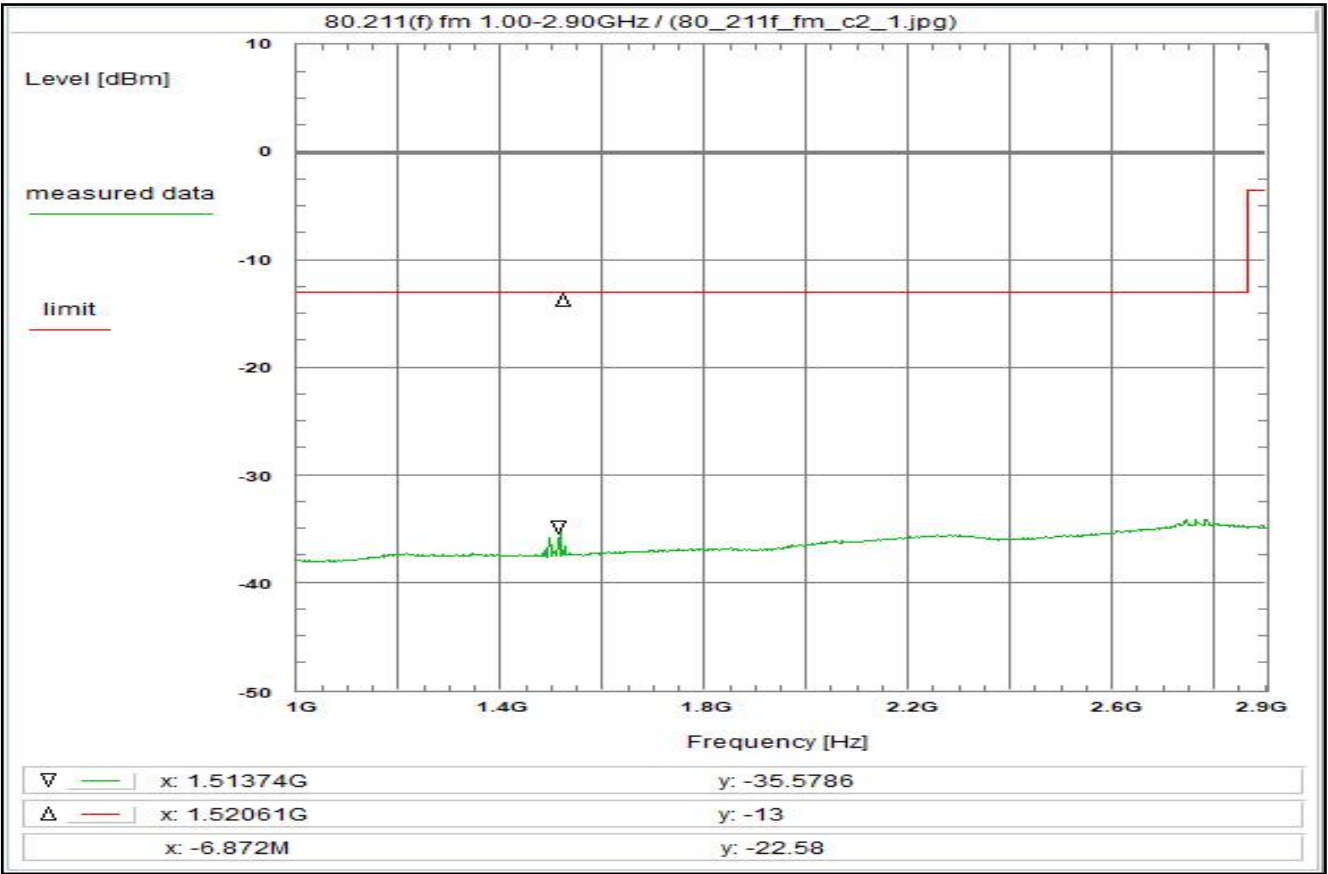
Environment condition:
Date & Time: Fri 19/Sep/2025 09:27:11
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 30 MHz
Stop frequency: 1 GHz
Center frequency: 515 MHz
Frequency span: 970 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 0.7 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 20.0 dB
Attenuation (U314) + 20.1 dB
TOTAL CORRECTION: + 40.8 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 29



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Examination of the frequency range 1.0 – 2.9 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

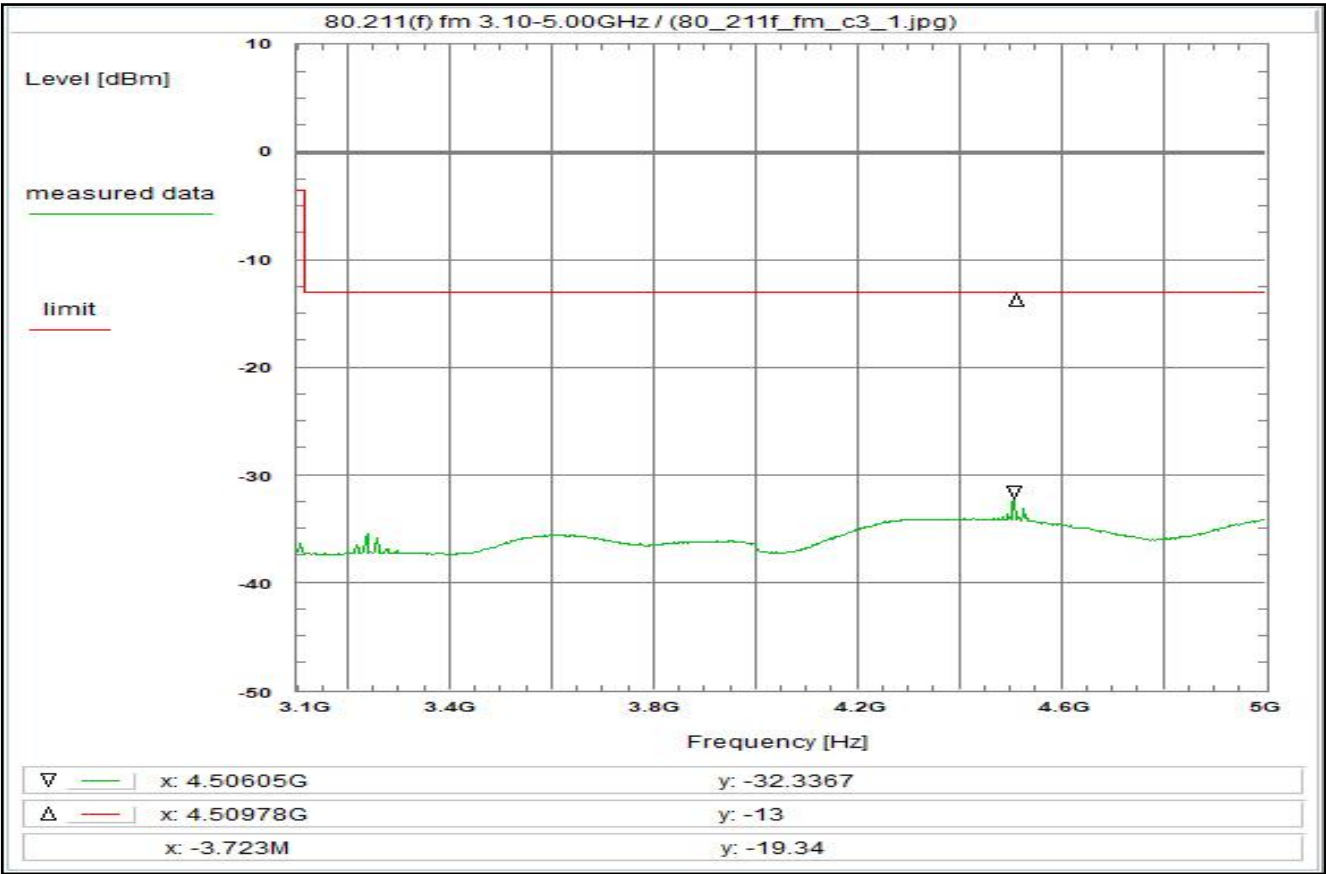
Environment condition:
Date & Time: Fri 19/Sep/2025 09:13:33
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 1 GHz
Stop frequency: 2.9 GHz
Center frequency: 1.95 GHz
Frequency span: 1.9 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.5 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.7 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.5 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 30



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Examination of the frequency range 3.1 - 5.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

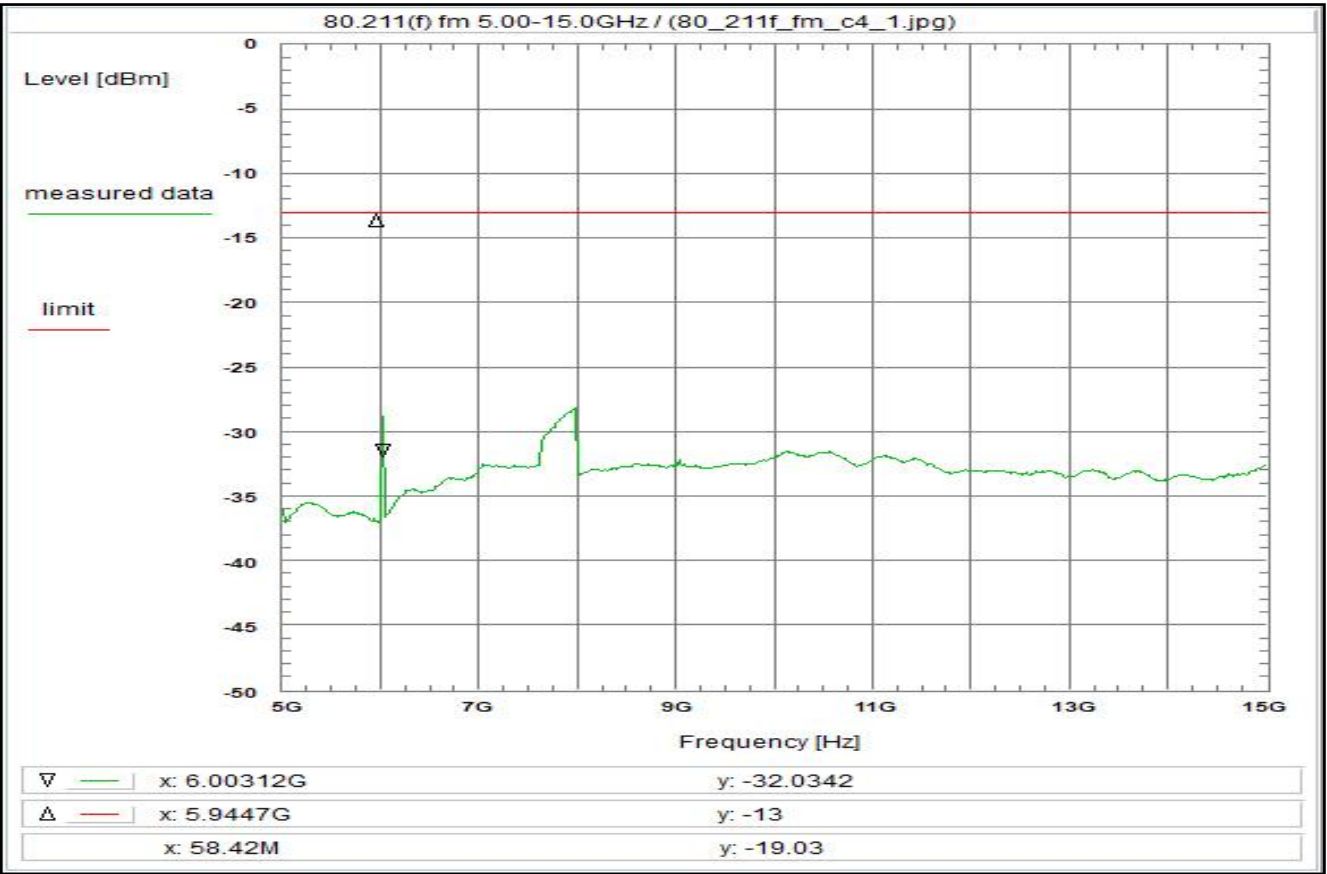
Environment condition:
Date & Time: Fri 19/Sep/2025 09:20:12
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 3.1 GHz
Stop frequency: 5 GHz
Center frequency: 4.05 GHz
Frequency span: 1.9 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 2.1 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.7 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 42.1 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 31



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Examination of the frequency range 5.0 - 15.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

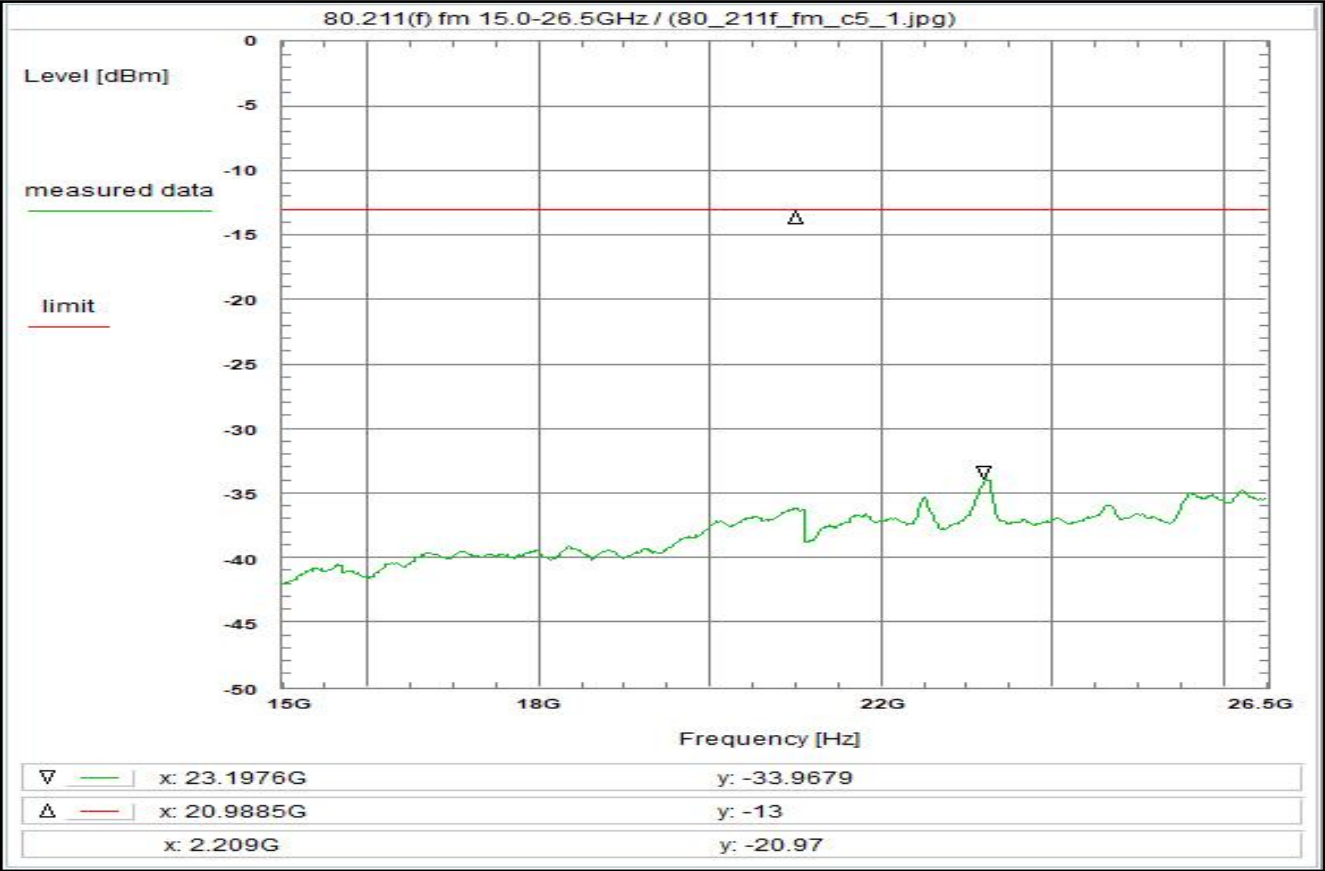
Environment condition:
Date & Time: Fri 19/Sep/2025 10:17:30
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 5 GHz
Stop frequency: 15 GHz
Center frequency: 10 GHz
Frequency span: 10 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 3.4 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 10.0 dB
Attenuation (U313+U314) + 30.4 dB
TOTAL CORRECTION: + 43.8 dB

Remarks:
Max-Hold Mode

Plot No. 32



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Examination of the frequency range 15.0 - 26.5 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, worst case all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U3141

Remark:

Test result: Test passed

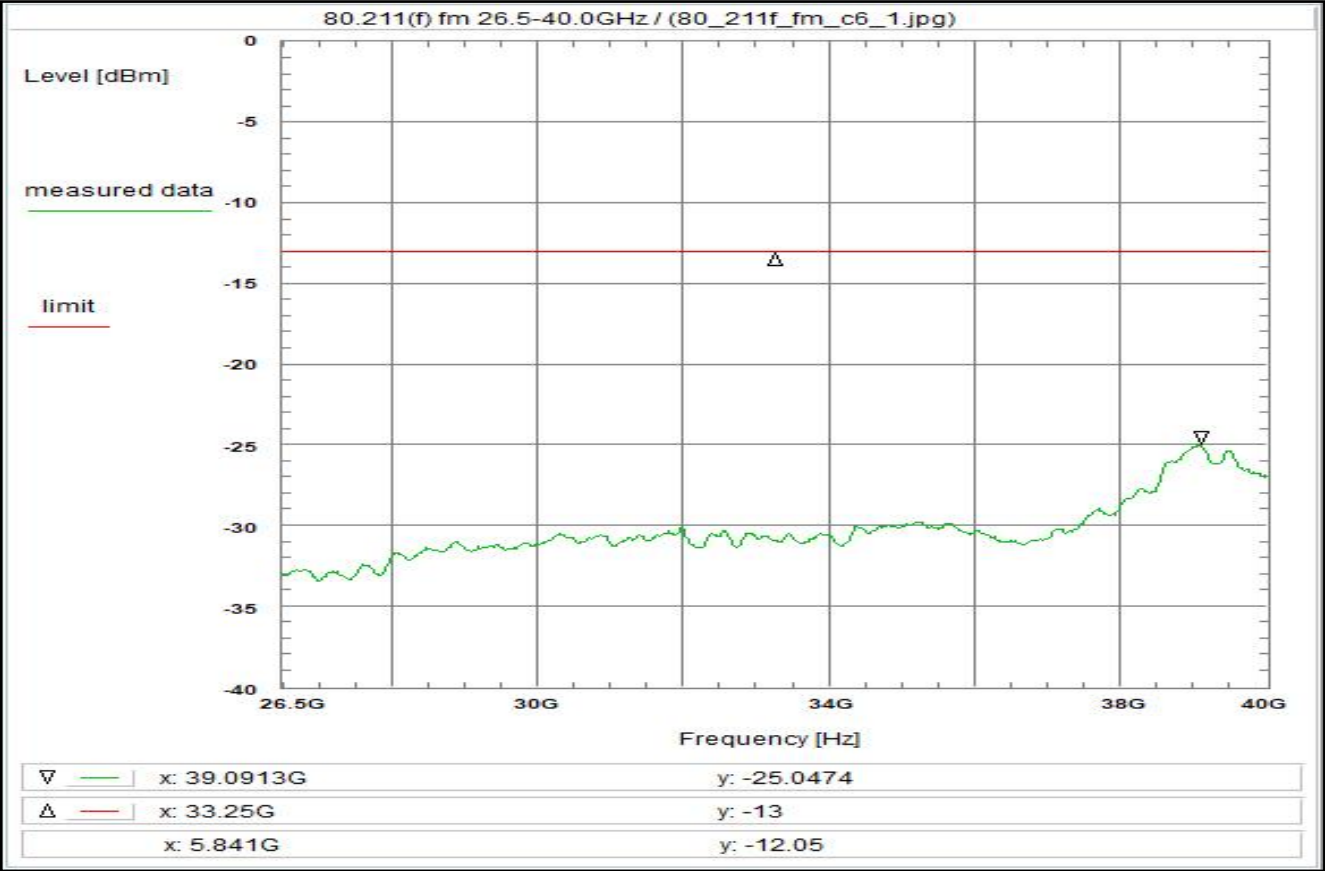
Environment condition:
Date & Time: Fri 19/Sep/2025 10:27:25
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 15 GHz
Stop frequency: 26.5 GHz
Center frequency: 20.75 GHz
Frequency span: 11.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 5.5 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 11.1 dB
Attenuation (U313+U314) + 31.5 dB
TOTAL CORRECTION: + 48.1 dB

Remarks:
Max-Hold Mode

Plot No. 33



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fm
Examination of the frequency range 26.5 - 40.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch3, worst case all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

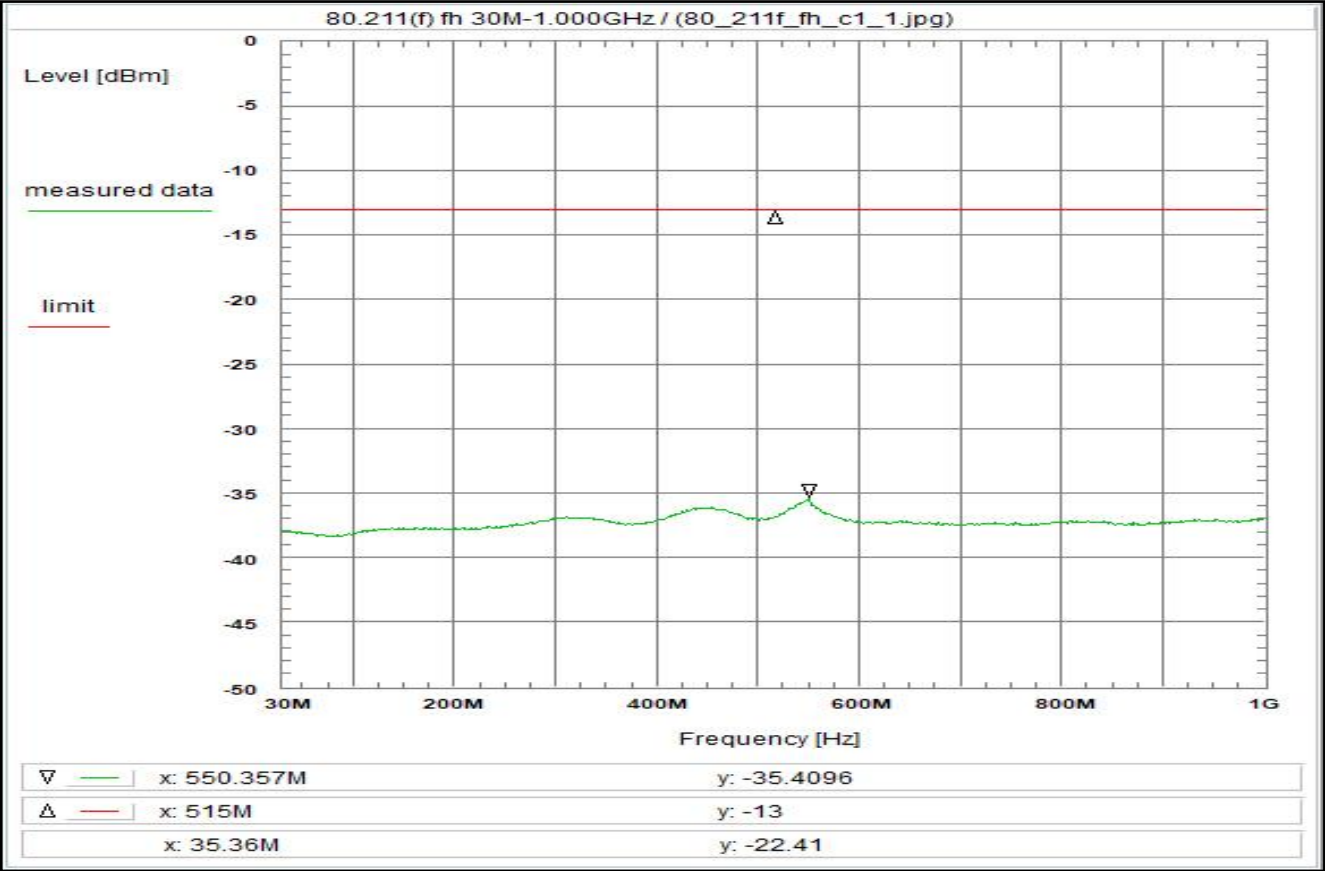
Environment condition:
Date & Time: Fri 19/Sep/2025 10:33:43
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 26.5 GHz
Stop frequency: 40 GHz
Center frequency: 33.25 GHz
Frequency span: 13.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 7.3 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 12.5 dB
Attenuation (U313+U314) + 33.6 dB
TOTAL CORRECTION: + 53.4 dB

Remarks:
Max-Hold Mode

Plot No. 34



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Examination of the frequency range 30 MHz - 1.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

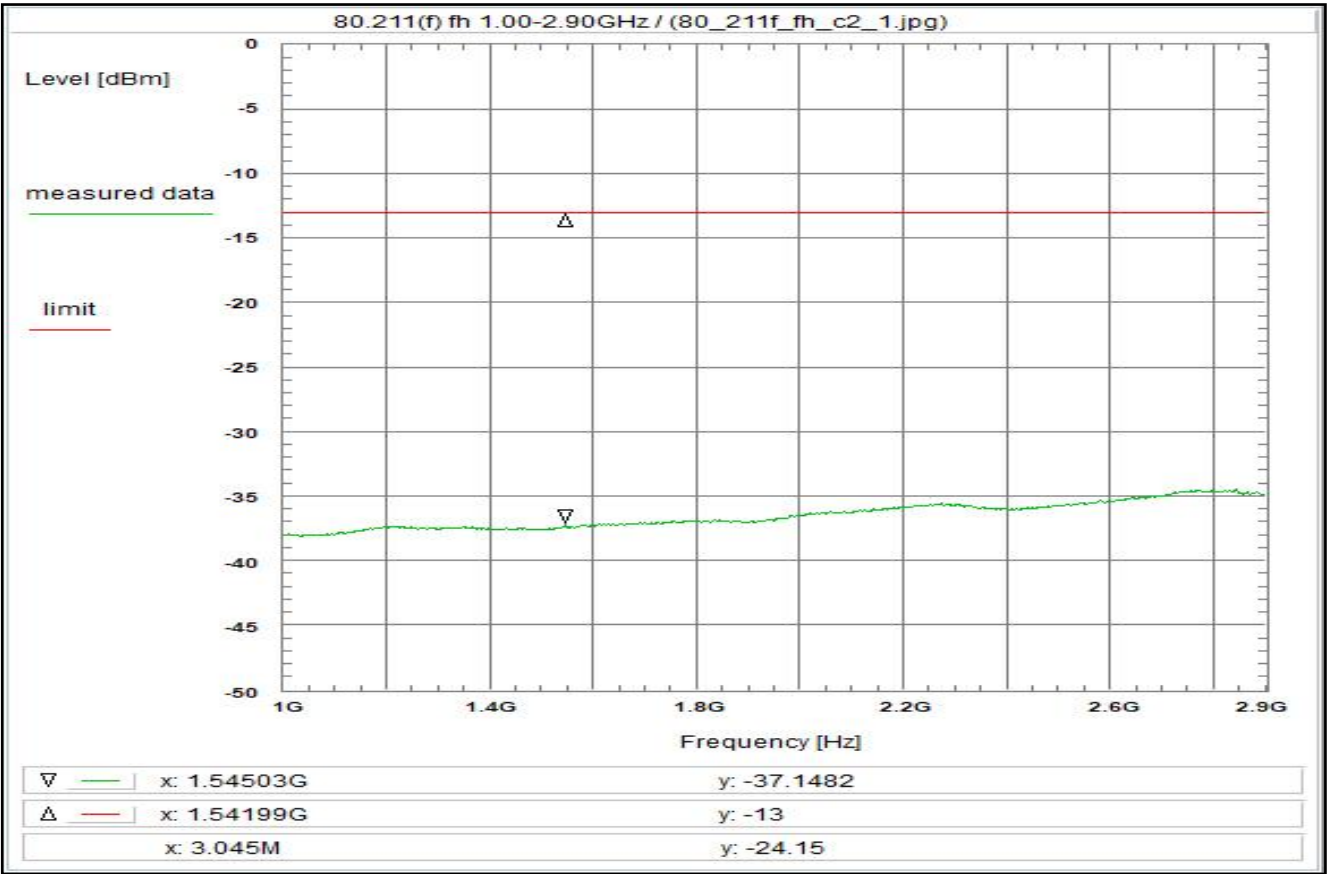
Environment condition:
Date & Time: Fri 19/Sep/2025 09:28:33
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 30 MHz
Stop frequency: 1 GHz
Center frequency: 515 MHz
Frequency span: 970 MHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 0.7 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 20.0 dB
Attenuation (U314) + 20.1 dB
TOTAL CORRECTION: + 40.8 dB

Remarks:
Max-Hold Mode

Plot No. 35



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Examination of the frequency range 1.0 – 2.9 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

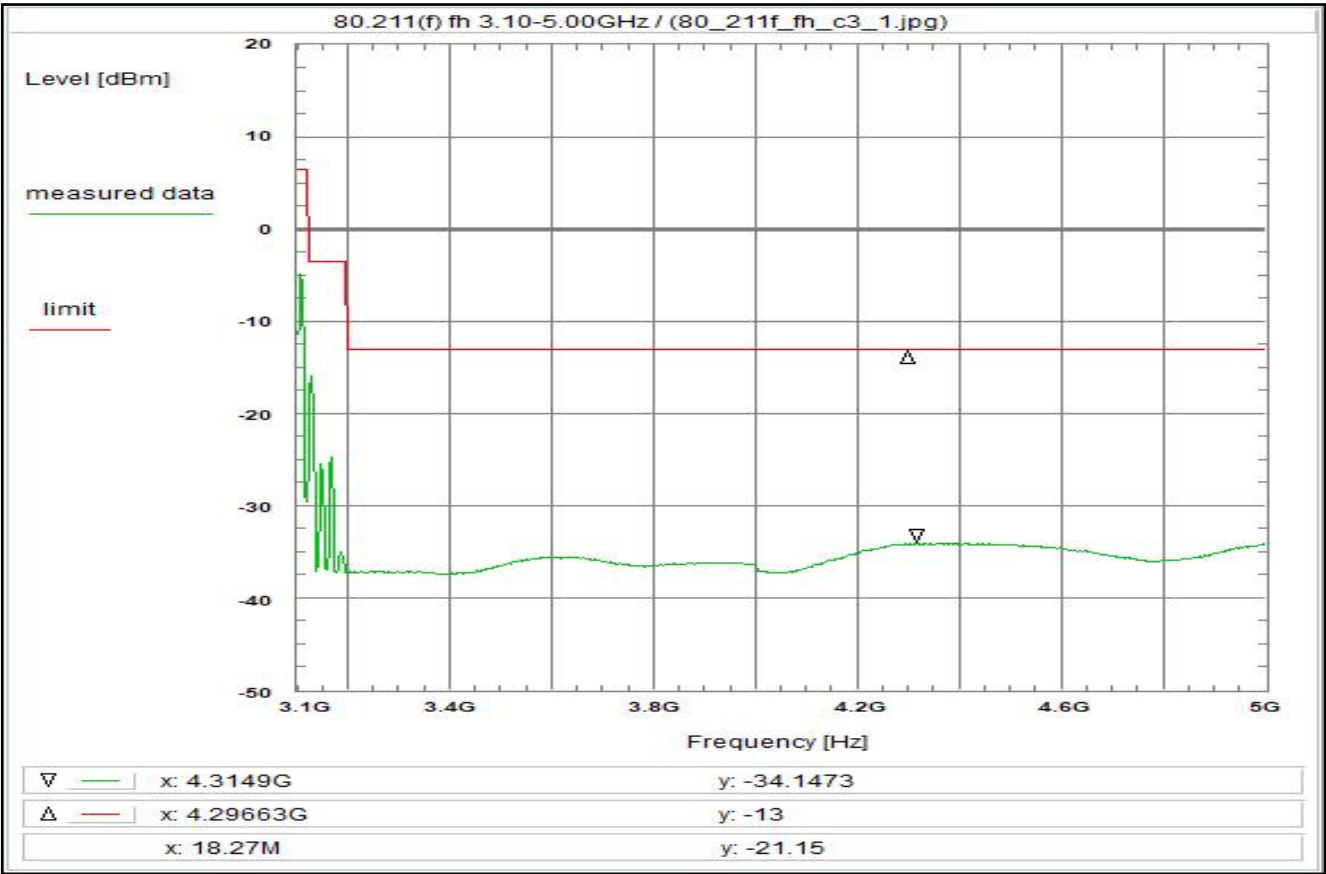
Environment condition:
Date & Time: Fri 19/Sep/2025 09:16:17
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 1 GHz
Stop frequency: 2.9 GHz
Center frequency: 1.95 GHz
Frequency span: 1.9 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 1.5 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.7 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 41.5 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 36



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Examination of the frequency range 3.1 - 5.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U315, U314

Remark:

Test result: Test passed

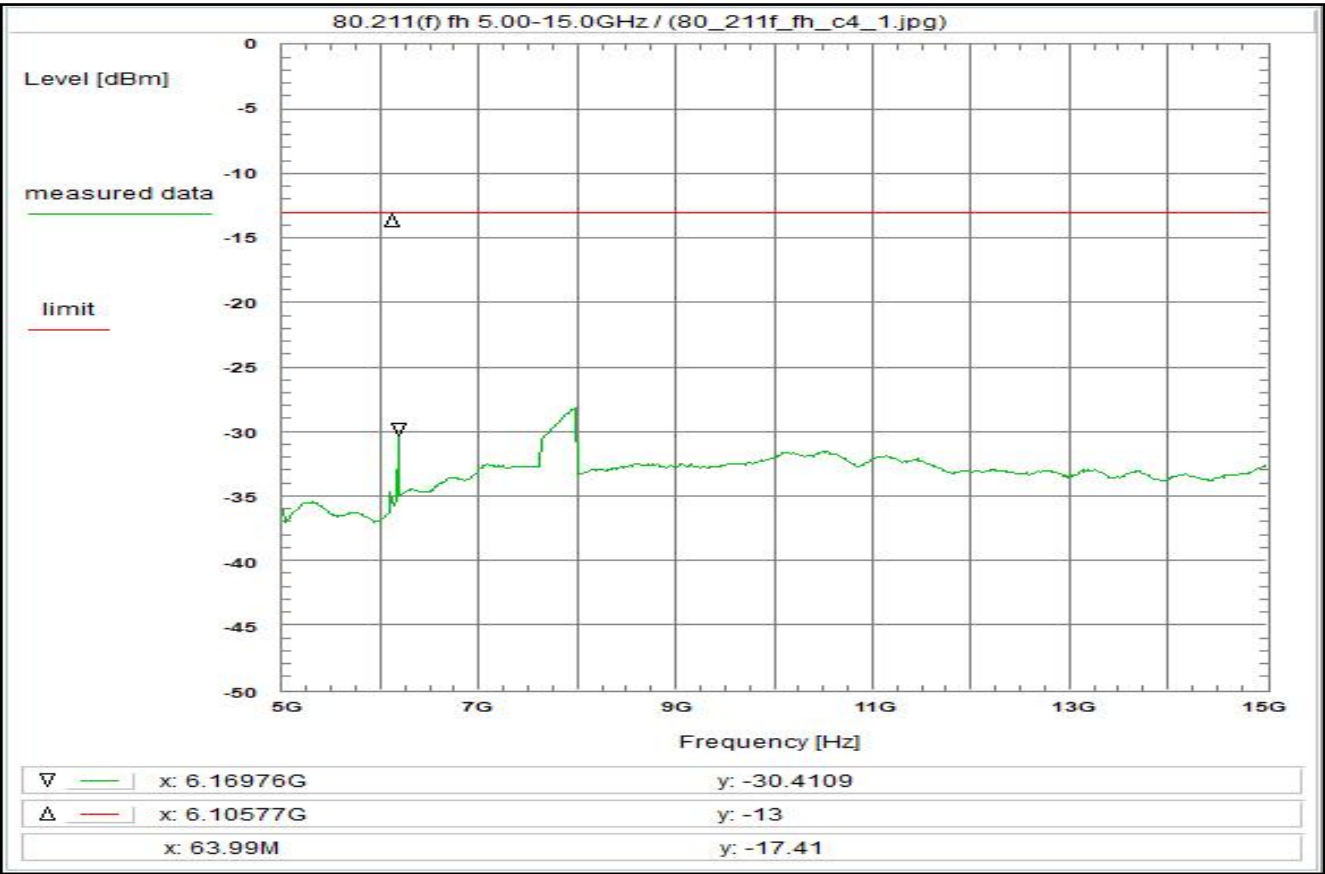
Environment condition:
Date & Time: Fri 19/Sep/2025 09:17:53
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 3.1 GHz
Stop frequency: 5 GHz
Center frequency: 4.05 GHz
Frequency span: 1.9 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 2.1 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U315) + 19.7 dB
Attenuation (U314) + 20.3 dB
TOTAL CORRECTION: + 42.1 dB

Remarks:
Max-Hold Mode
Test setup with stub tuner if necessary.

Plot No. 37



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Examination of the frequency range 5.0 - 15.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, worst case all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

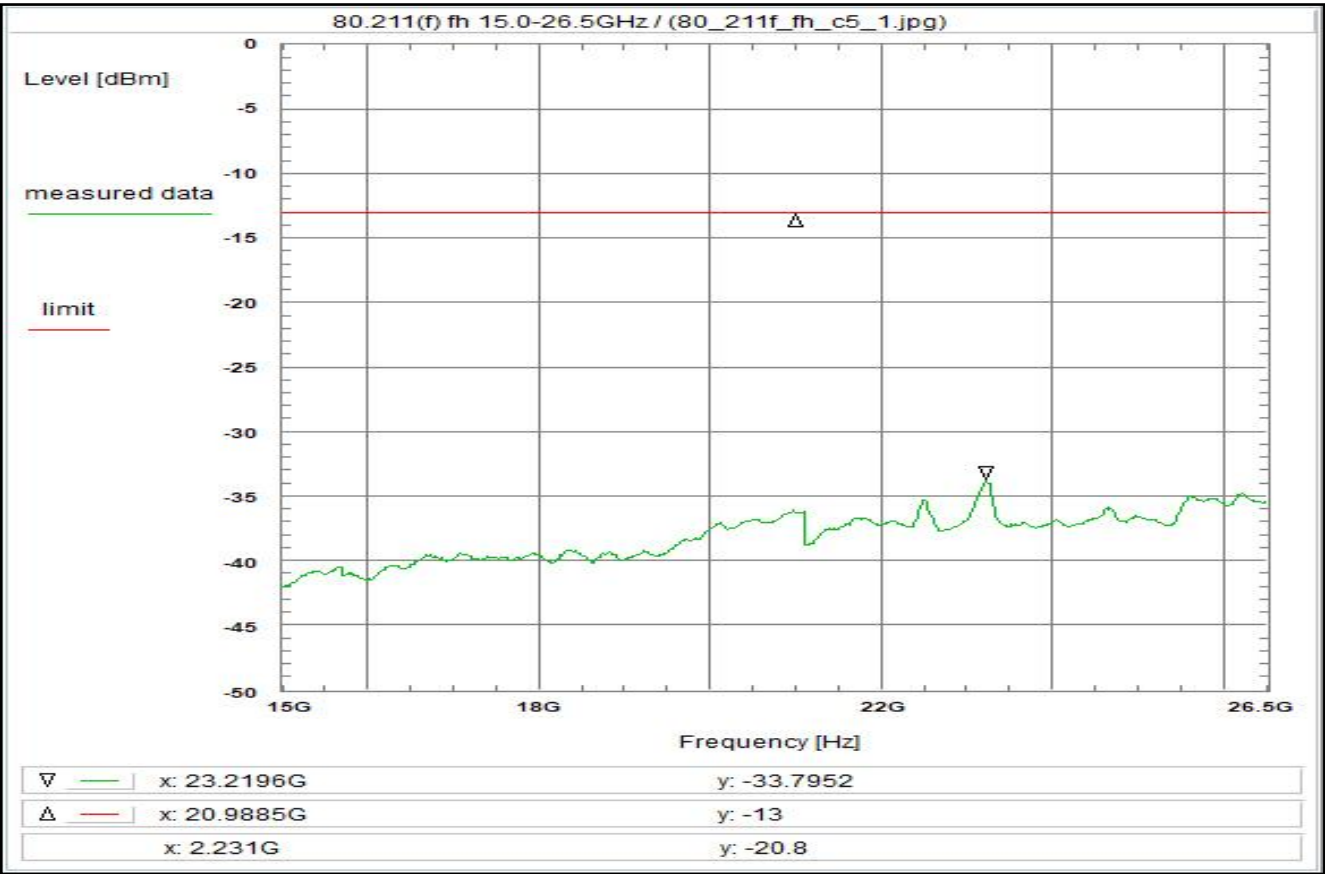
Environment condition:
Date & Time: Fri 19/Sep/2025 10:19:31
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 5 GHz
Stop frequency: 15 GHz
Center frequency: 10 GHz
Frequency span: 10 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 10 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 3.4 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 10.0 dB
Attenuation (U313+U314) + 30.4 dB
TOTAL CORRECTION: + 43.8 dB

Remarks:
Max-Hold Mode

Plot No. 38



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Examination of the frequency range 15.0 - 26.5 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, worst case all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

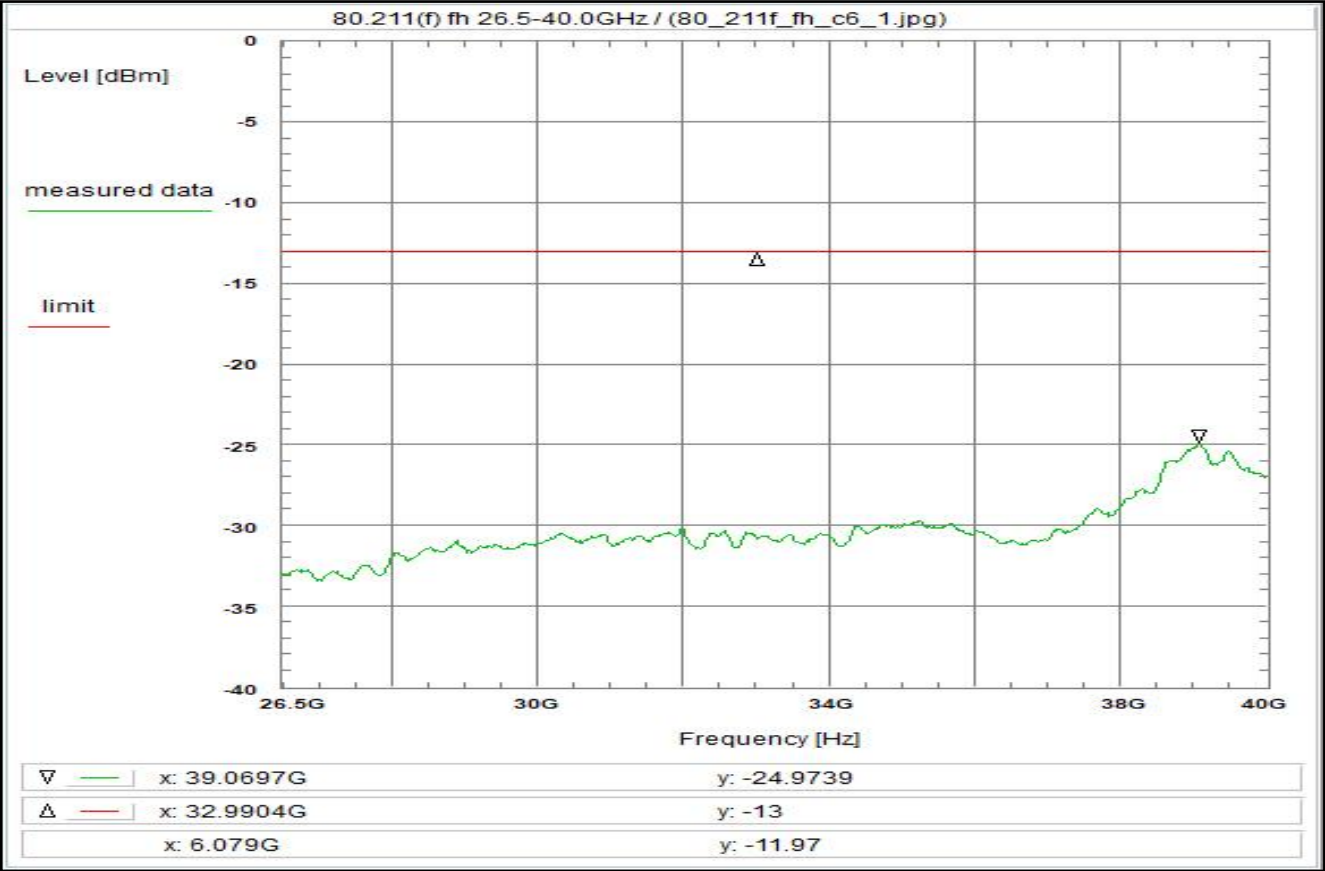
Environment condition:
Date & Time: Fri 19/Sep/2025 10:26:29
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 15 GHz
Stop frequency: 26.5 GHz
Center frequency: 20.75 GHz
Frequency span: 11.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 5.5 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 11.1 dB
Attenuation (U313+U314) + 31.5 dB
TOTAL CORRECTION: + 48.1 dB

Remarks:
Max-Hold Mode

Plot No. 39



Subclause: 80.211(f) Conducted Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz, fh
Examination of the frequency range 26.5 - 40.0 GHz

Limit:
Limit acc. to FCC 47 CFR §80.211(f)

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
Ch7, worst case all 3 modes

Test setup:
see test report chapter 7.3: hgj

Test equipment:
see test report chapter 7.3: C107, R001, U311, U313, U314

Remark:

Test result: Test passed

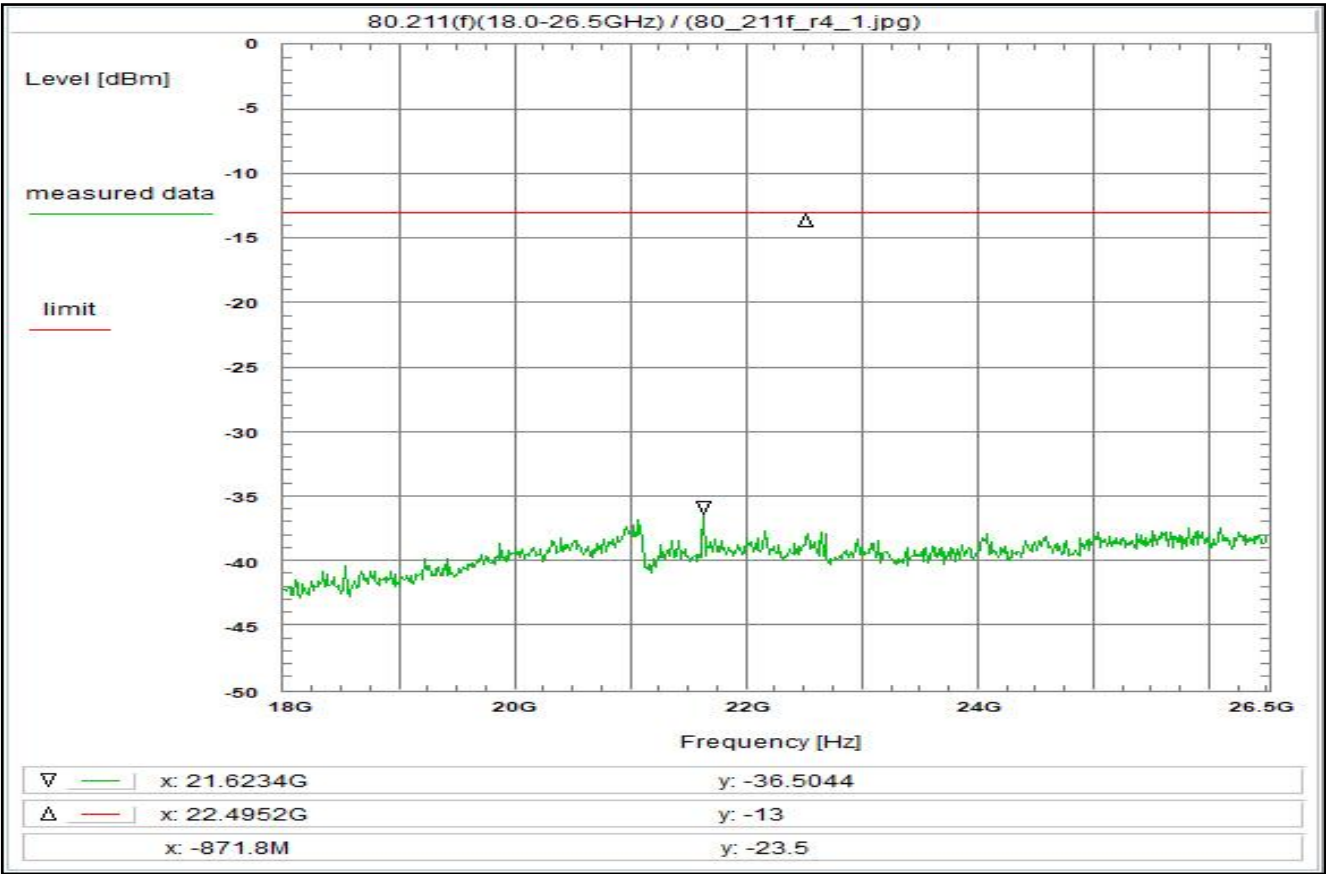
Environment condition:
Date & Time: Fri 19/Sep/2025 10:34:48
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 26.5 GHz
Stop frequency: 40 GHz
Center frequency: 33.25 GHz
Frequency span: 13.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: RMS

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 7.3 dB
DUT-Antenna + 0.0 dBi
Test antenna + 0.0 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Attenuation (U311) + 12.5 dB
Attenuation (U313+U314) + 33.6 dB
TOTAL CORRECTION: + 53.4 dB

Remarks:
Max-Hold Mode

Plot No. 40



Subclause: 80.211(f) Radiated Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz
Examination of the frequency range 18.0 - 26.5 GHz

Limit:
Limit acc. to 80.211(f): -13 dBm

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
worst case of all modes and channels

Test setup:
see test report chapter 7.5

Test equipment:
see test report chapter 7.5: A019, C107, R001

Remark:

Test result: Test passed

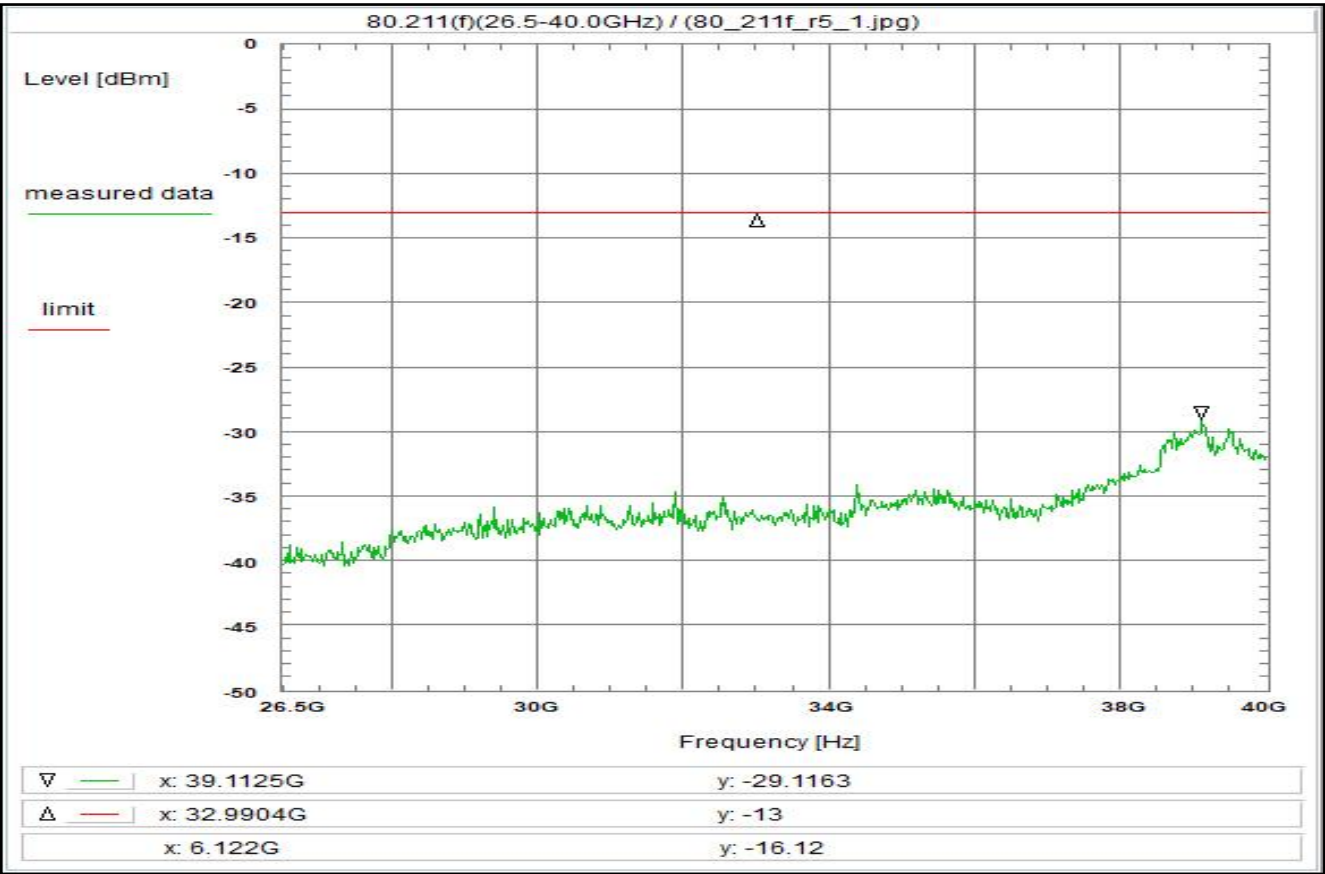
Environment condition:
Date & Time: Fri 19/Sep/2025 14:46:02
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 18 GHz
Stop frequency: 26.5 GHz
Center frequency: 22.25 GHz
Frequency span: 8.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 5.7 dB
DUT-Antenna + 0.0 dBi
Test antenna (A019) - 19.3 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Freefield attenuation (22.25GHz, 0.3m) + 48.9 dB
TOTAL CORRECTION: + 35.3 dB

Remarks:
Max-Hold Mode

Plot No. 41



Subclause: 80.211(f) Radiated Spurious Emissions
Pulsed rf-carrier in frequency range 2.9 - 3.1 GHz
Examination of the frequency range 26.5 - 40.0 GHz

Limit:
Limit acc. to 80.211(f): -13 dBm

Test results:
see plot (an explicit table was not generated)

Operating condition of DUT:
operating condition 1, see test report chapter 6.4
worst case of all modes and channels

Test setup:
see test report chapter 7.5

Test equipment:
see test report chapter 7.5: A021, C107, R001

Remark:

Test result: Test passed

Environment condition:
Date & Time: Fri 19/Sep/2025 14:50:36
Location: cetecom advanced GmbH, Laboratory RC8G
Temperature: 22 °C
Humidity: 55 %
Voltage: 115 Vac

Setup of measurement equipment:
Start frequency: 26.5 GHz
Stop frequency: 40 GHz
Center frequency: 33.25 GHz
Frequency span: 13.5 GHz
Resolution-BW: 1 MHz
Video-BW: 3 MHz
Input attenuation: 0 dB
Trace-Mode: Max-Hold
Detector-Mode: Pos Peak

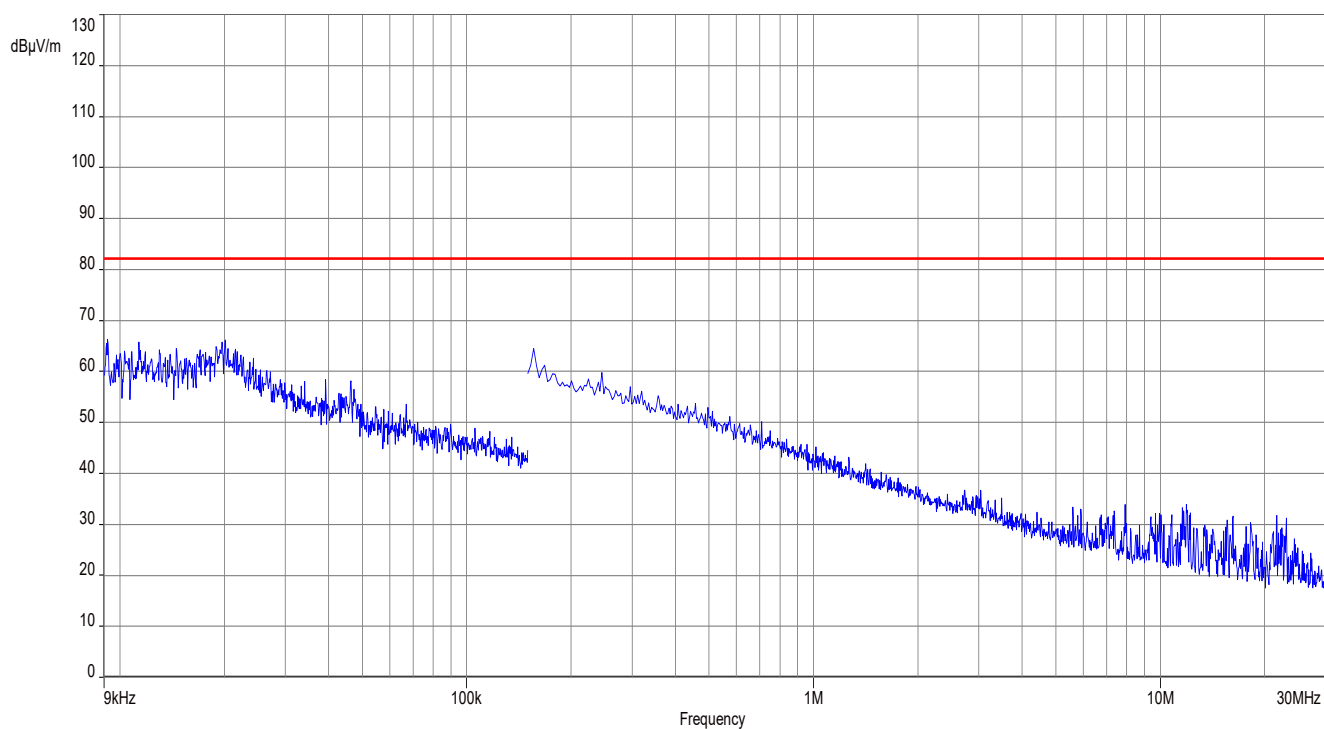
Correction:
Directional coupler + 0.0 dB
Coaxial cable (C107) + 7.3 dB
DUT-Antenna + 0.0 dBi
Test antenna (A021) - 19.6 dB
BW correction factor + 0.0 dB
Atten. between HPA and feedhorn - 0.0 dB
Freefield attenuation (33.25GHz, 0.2m) + 48.9 dB
TOTAL CORRECTION: + 36.6 dB

Remarks:
Max-Hold Mode

3 Measurement results, Spurious emissions 30MHz - 18 GHz

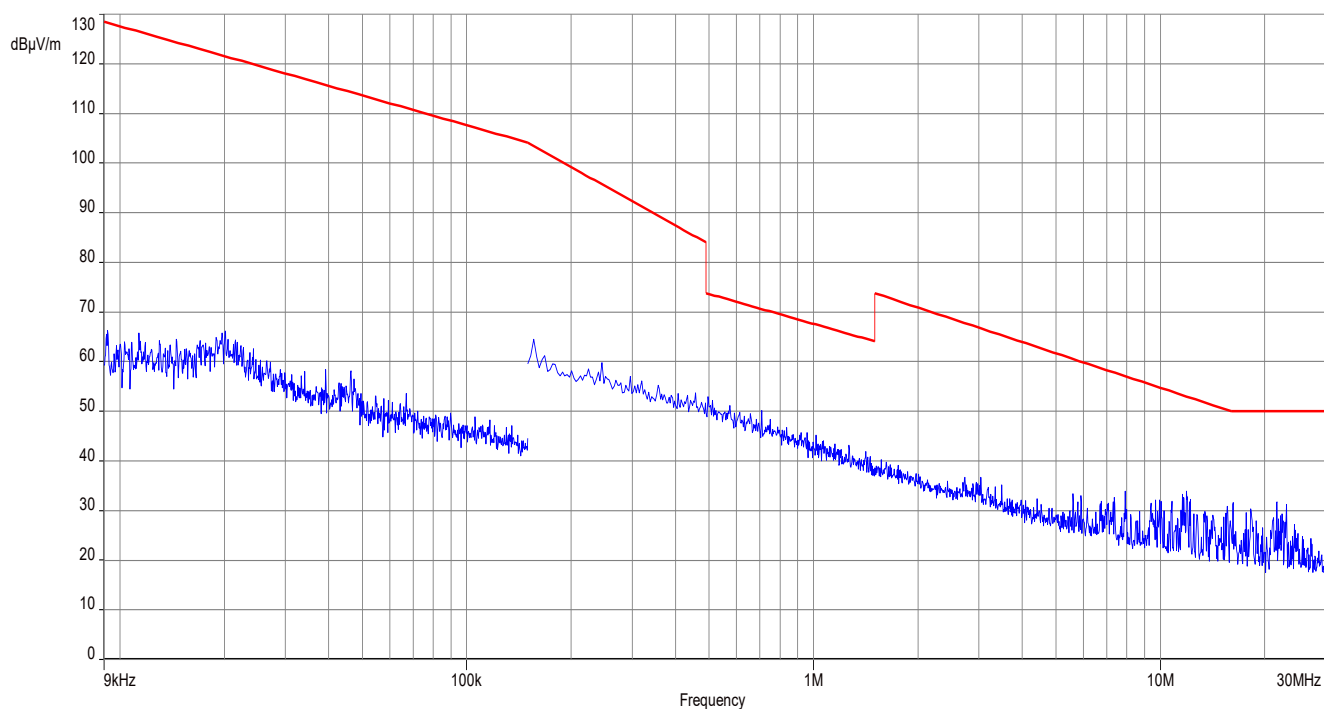
This Chapter 3 consists of 5 pages including this page.

Plot No. 1: 9 kHz – 30 MHz, antenna vertical / horizontal Tx

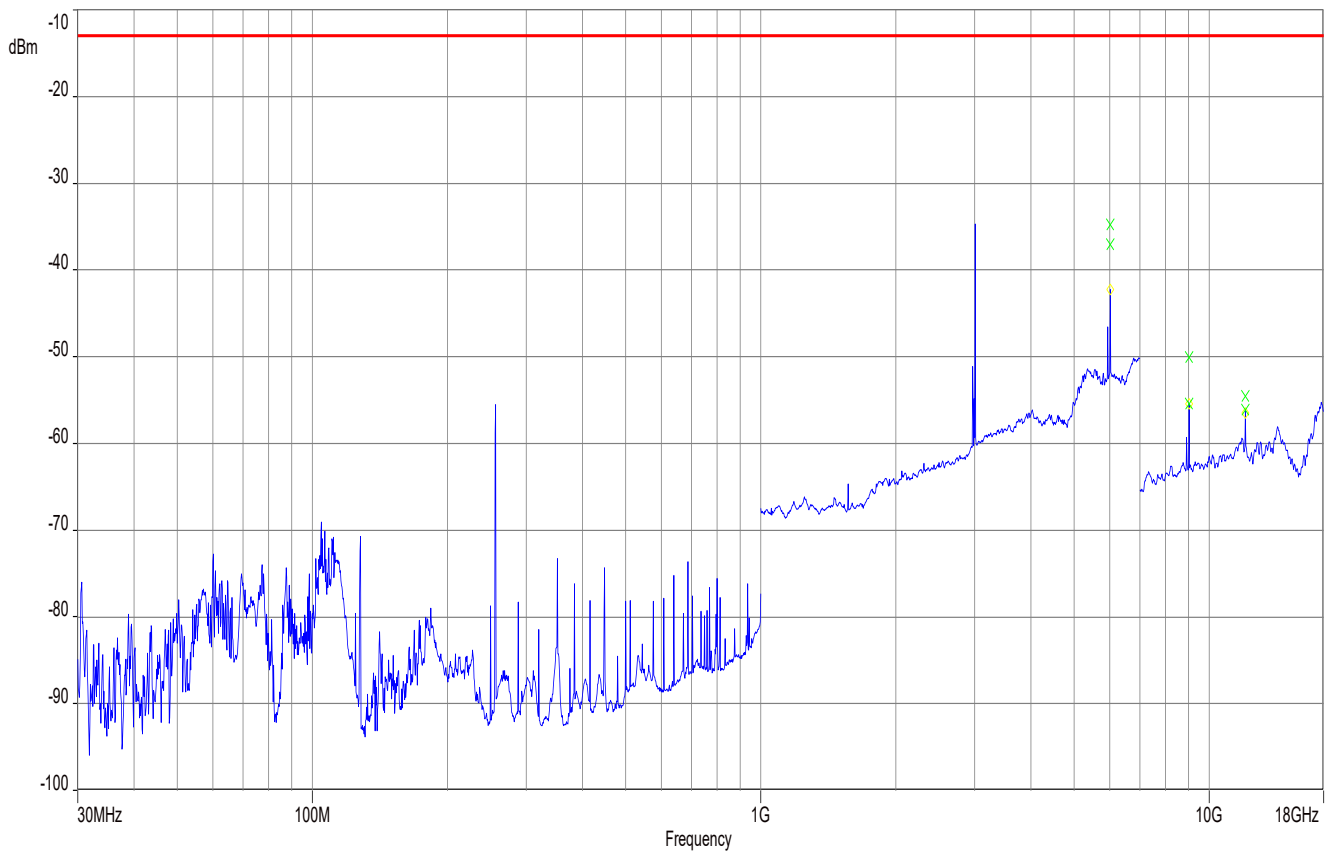


Note: the shown limit of 82.2 dBμV/m at 3m measurement distance corresponds to the spurious limit of -13 dBm

Plot No. 2: 9 kHz – 30 MHz, antenna vertical / horizontal Tx Rx (FCC Part 15)

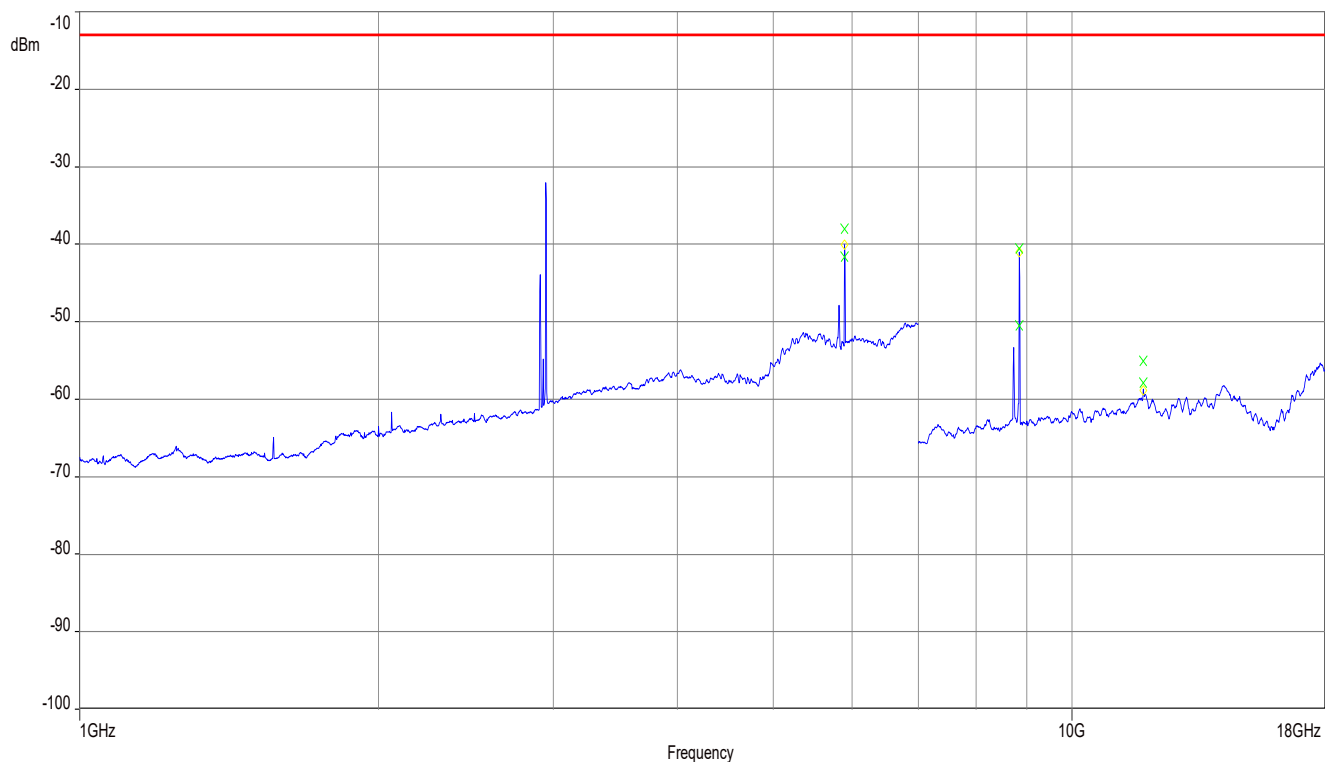


Plot No. 3: 30 MHz – 18 GHz, antenna vertical / horizontal Tx, mid channel



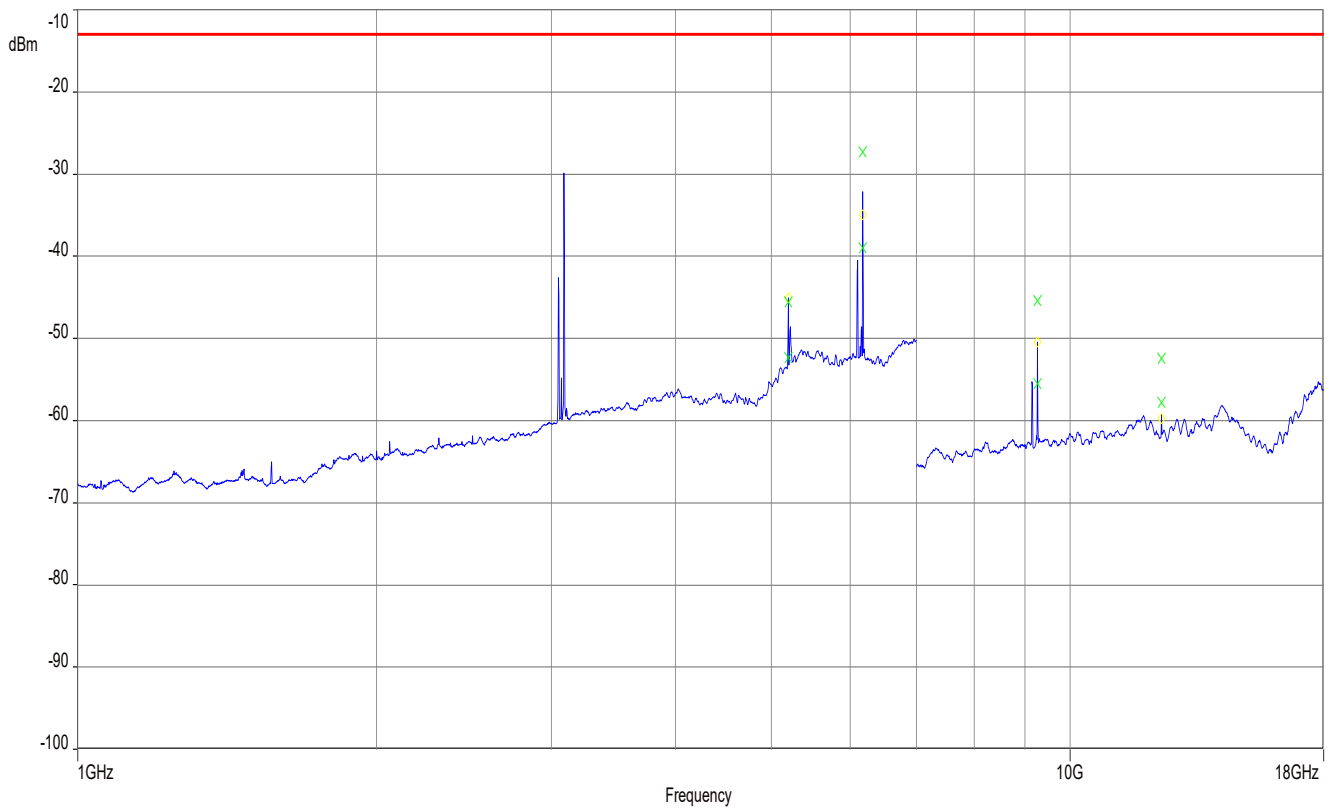
Note: Carrier visible on plot

Plot No. 4: 30 MHz – 18 GHz, antenna vertical / horizontal Tx, low channel



Note: Carrier visible on plot

Plot No. 5: 30 MHz – 18 GHz, antenna vertical / horizontal Tx, high channel

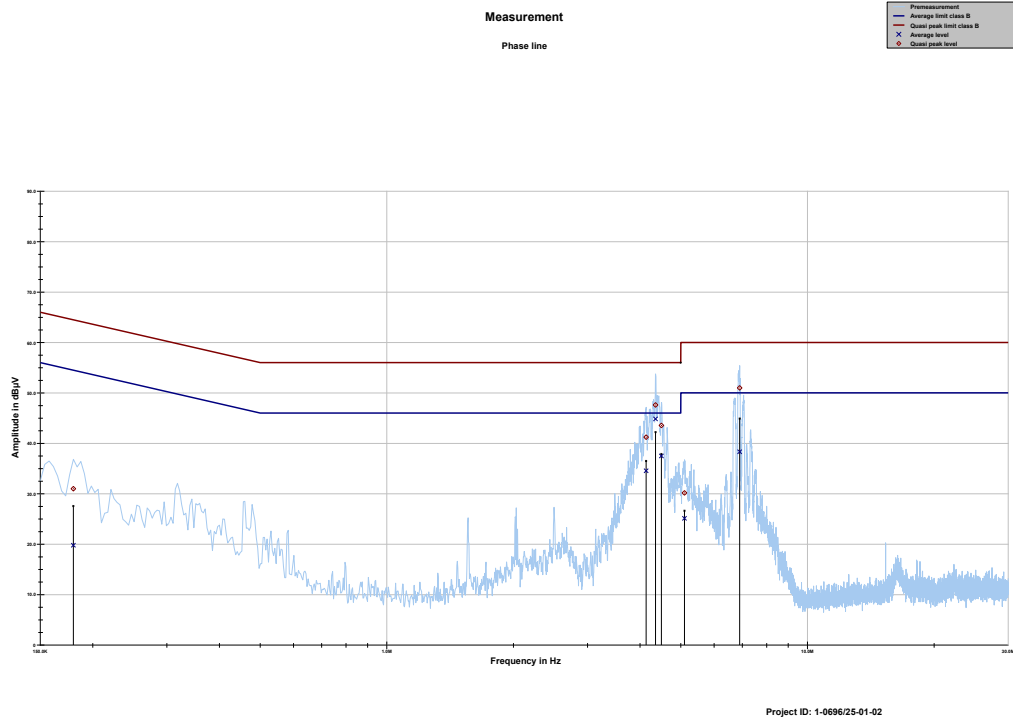


Note: Carrier visible on plot

4 Measurement results, AC Power Line Conducted Emission Limits

This Chapter 3 consists of 3 pages including this page.

Plot No. 1



Phase line tbl

Project ID: 1-0696/25-01-02

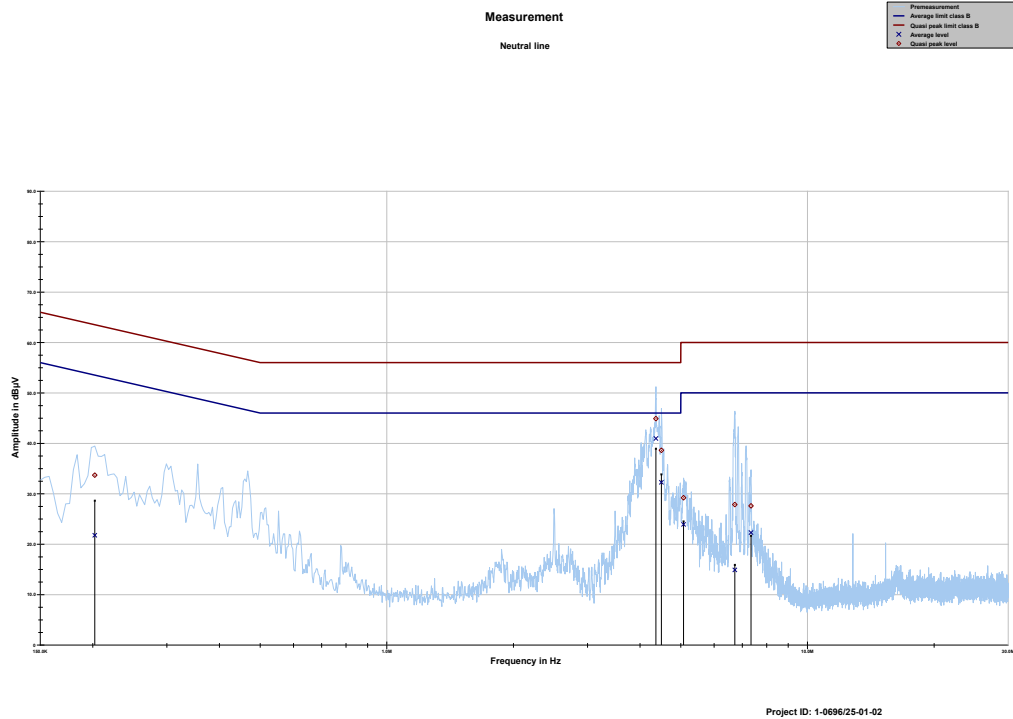
Frequency	Quasi peak level	Margin quasi peak	Limit QP	Average level	Margin average	Limit AV
MHz	dBµV	dB	dBµV	dBµV	dB	dBµV
0.179850	30.98	33.51	64.493	19.78	35.37	55.147
4.134975	41.22	14.78	56.000	34.55	11.45	46.000
4.355119	47.60	8.40	56.000	44.84	1.16	46.000
4.496906	43.54	12.46	56.000	37.49	8.51	46.000
5.101369	30.15	29.85	60.000	25.13	24.87	50.000
6.899831	50.99	9.01	60.000	38.33	11.67	50.000

Project ID - 1-0696/25-01-02

EUT - Anschütz SST (S-Band)

Operating mode - tx

Plot No. 2



Neutral line tbl
Project ID: 1-0696/25-01-02

Frequency	Quasi peak level	Margin quasi peak	Limit QP	Average level	Margin Average	Limit AV
MHz	dBµV	dB	dBµV	dBµV	dB	dBµV
0.202237	33.68	29.84	63.518	21.75	32.76	54.508
4.362581	44.89	11.11	56.000	40.96	5.04	46.000
4.496906	38.62	17.38	56.000	32.27	13.73	46.000
5.075250	29.19	30.81	60.000	23.92	26.08	50.000
6.720731	27.86	32.14	60.000	14.88	35.12	50.000
7.343850	27.60	32.40	60.000	22.28	27.72	50.000

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EUT - Anschütz SST (S-Band)
Operating mode - tx

5 Document history

Version	Applied changes	Date of release
R01-D1	Initial release - DRAFT	2025-10-10
R01	Initial release	2026-04-14