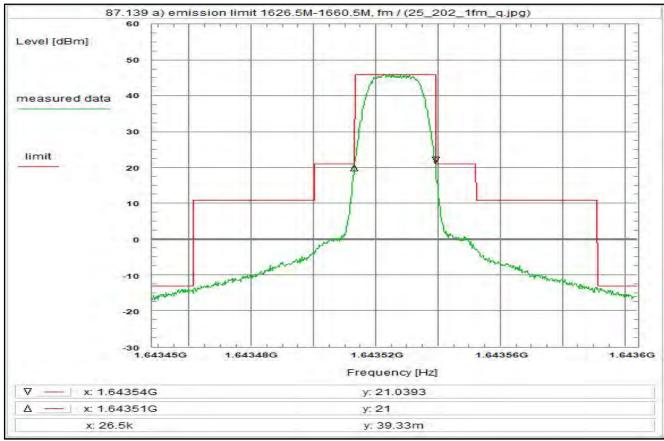


Plot No. 169



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -33dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T05QD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

Remark:

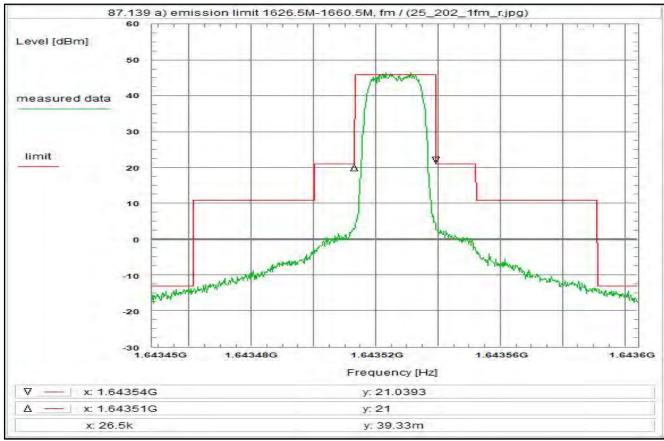
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 15:09:49 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643448 GHz Stop frequency: GHz GHz kHz Center frequency: 1.643526 Frequency span: 156 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 170



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T05QD

Test setup:
see test report chapter 7.2: setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

Remark:

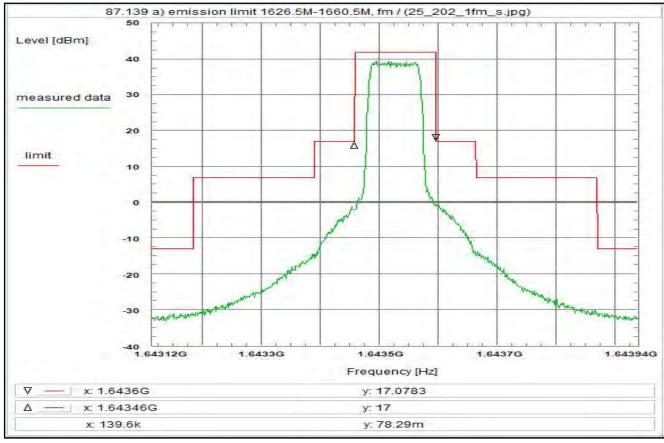
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 15:11:28 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: 1.643448 GHz Start frequency: Stop frequency: GHz GHz kHz Center frequency: 1.643526 Frequency span: 156 Resolution-BW: kHz Video-RW 3 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi Test antenna 0.0 dB BW correction factor (1k -> 4k) 6.0 dB Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 54.8 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 171

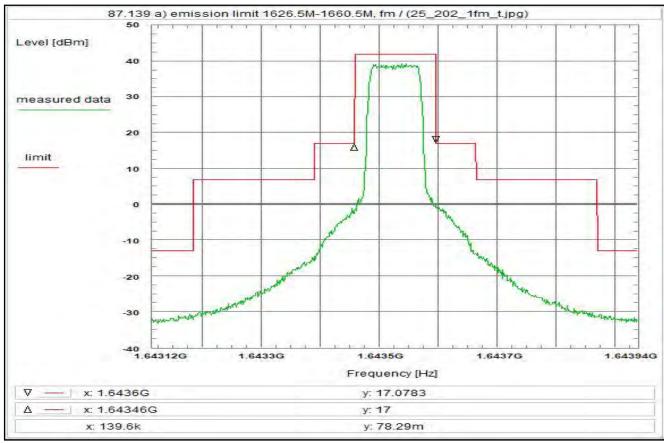


Environment condition: Date & Time: Tue 30/Jun/2020 15:16:50 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643115 GHz Stop frequency: GHz 1.643526 822 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 172



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T2.5X32

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

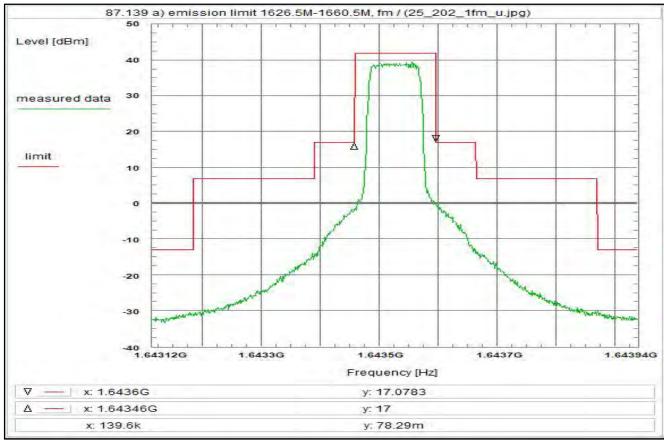
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 15:19:41 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643115 GHz Stop frequency: GHz 1.643526 822 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 173



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T2.5X64

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

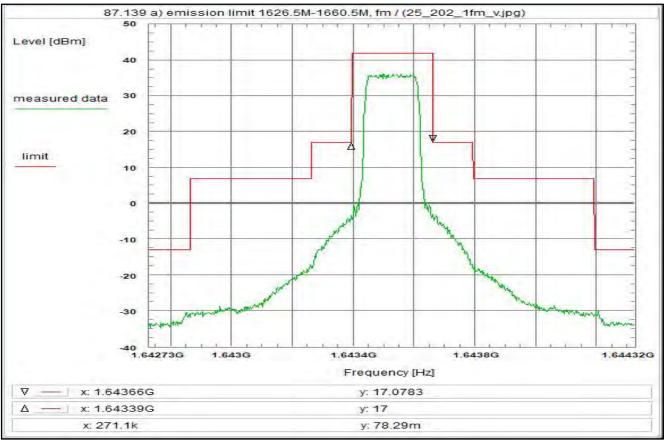
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 15:21:21 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643115 GHz Stop frequency: GHz 1.643526 822 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 174



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -35dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T5X16

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

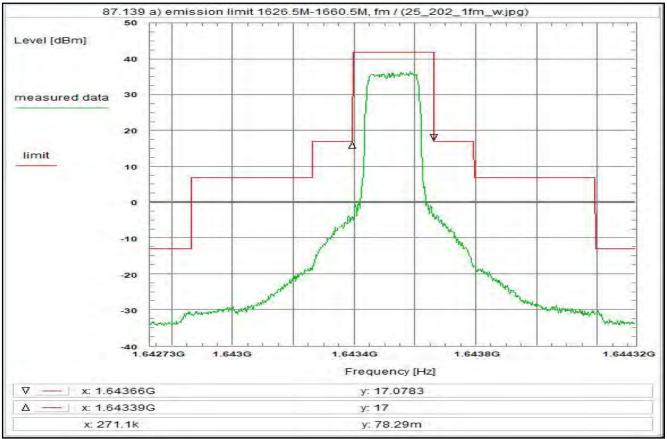
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 15:29:07 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.642728 GHz 1.644324 Stop frequency: GHz GHz MHz Center frequency: 1.643526 Frequency span: 1.596 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 175



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T5X32

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

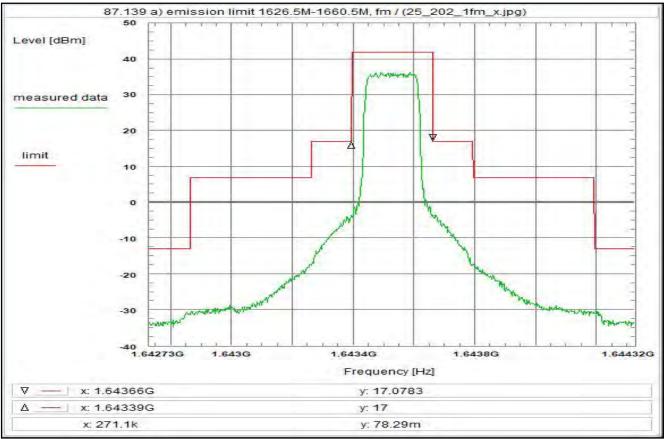
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 15:30:42 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.642728 GHz 1.644324 Stop frequency: GHz GHz MHz Center frequency: 1.643526 Frequency span: 1.596 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhom 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 176



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T5X64

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

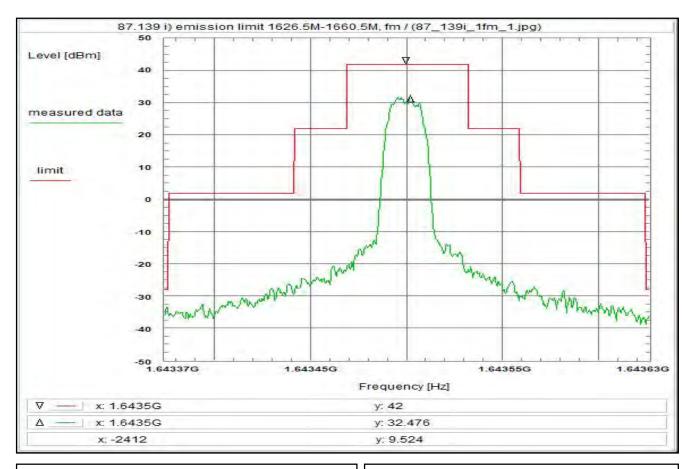
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 15:31:26 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.642728 GHz 1.644324 Stop frequency: GHz GHz MHz Center frequency: 1.643526 Frequency span: 1.596 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier in the middle of the band (fm) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 177



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)

Limit:

Limit according to 87.139(i)(1)

The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T0.5QD, 16.8 ksym/s, QPSK

<u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj

Test equipment: see test report chapter 7.2: C220, R001, U312, U311

Remark:

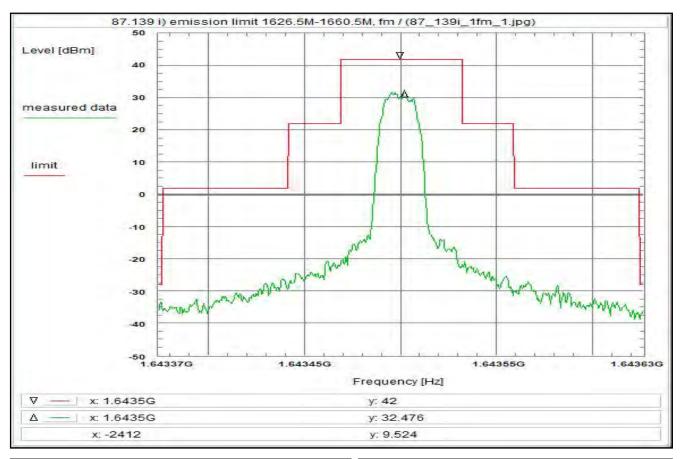
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:11:54 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643374 GHz Stop frequency: GHz 1.6435 252 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 178



Subclause:

87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139(i)(1)
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
Class 6 ACD, R20T0.5QD, 16.8 ksym/s, QPSK

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U311, U312

Remark:

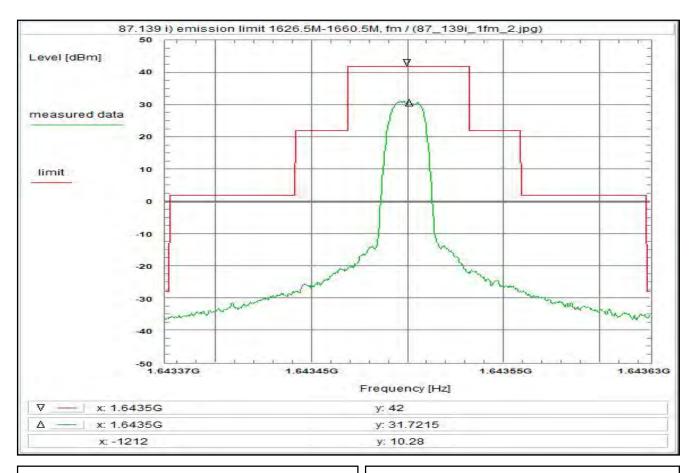
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:11:54 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643374 GHz Stop frequency: GHz 1.6435 252 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 179



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T0.5QD, 16.8 ksym/s, QPSK

<u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj

<u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312

Remark:

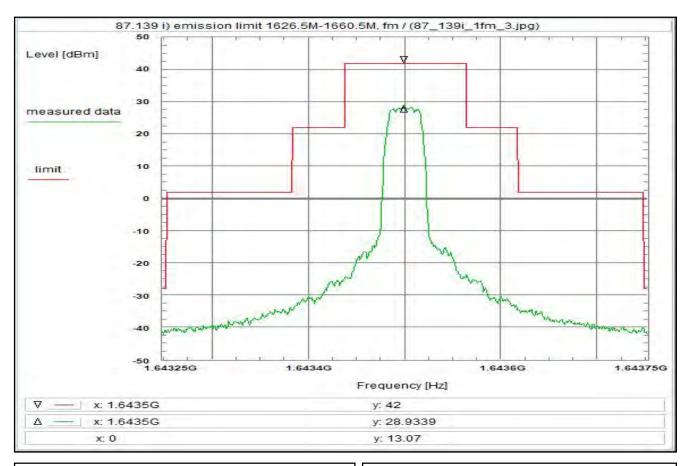
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:15:50 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643374 GHz Stop frequency: GHz 1.6435 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 45 dB Average Detector-Mode: Sample Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks:
Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 180



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1)

The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R5T1XD/R20T1QD, 33.6 ksym/s, 16QAM

<u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj

<u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312

Remark:

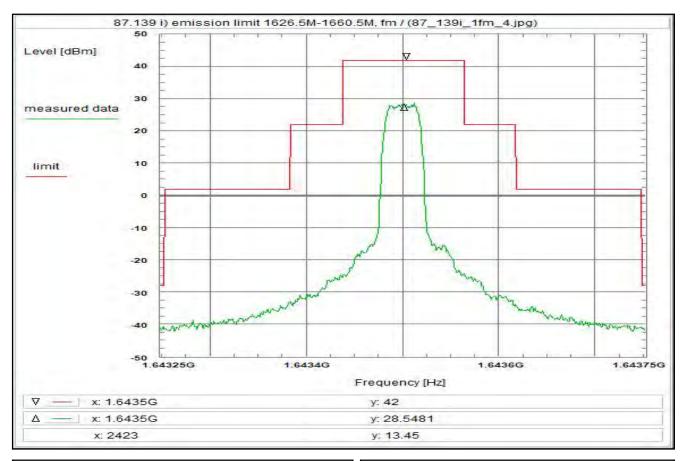
Test result: Test passed

Environment condition: Date & Time: Thu 28/May/2020 15:19:14 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.643248 GHz Stop frequency: GHz GHz kHz Center frequency: 1.6435 Frequency span: 504 Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 181



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T1XD/R20T1QD, 33.6 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark:

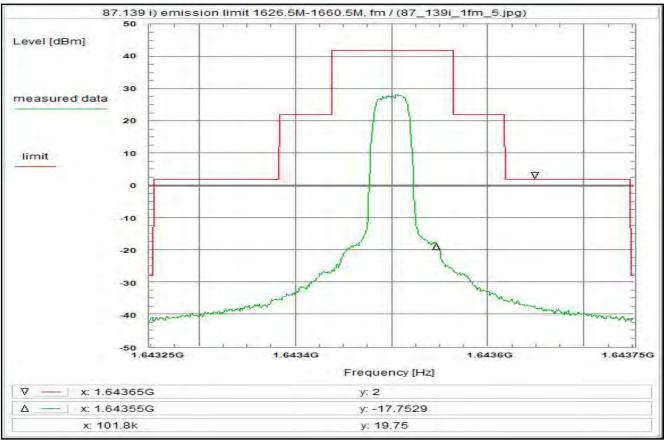
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:25:02 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.643248 GHz Stop frequency: GHz GHz kHz Center frequency: 1.6435 Frequency span: 504 Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 182



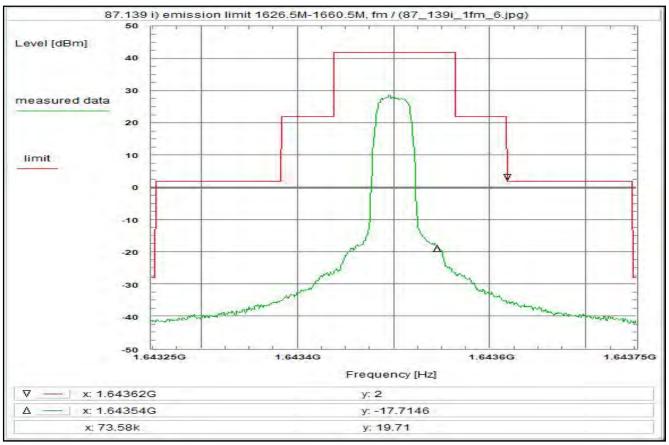
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T1QD/R80T1Q, 33.6 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:28:09 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.643248 GHz Stop frequency: GHz GHz kHz Center frequency: 1.6435 Frequency span: 504 Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks:
Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 183



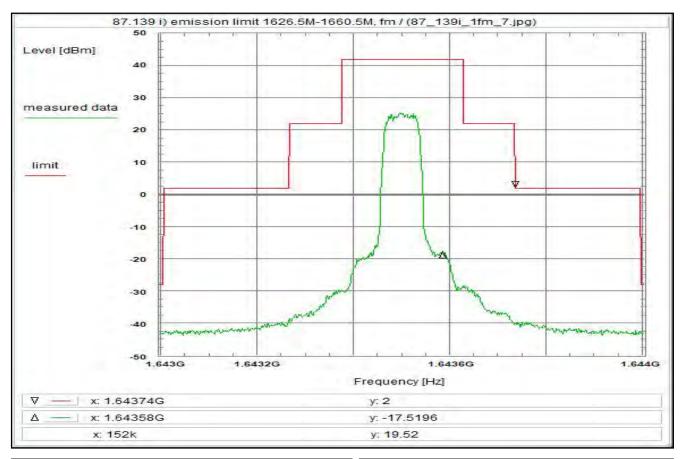
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T1QD/R80T1Q, 33.6 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:31:01 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.643248 GHz Stop frequency: GHz GHz kHz Center frequency: 1.6435 Frequency span: 504 Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 184



Subclause:

87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139(i)(1)
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
Class 6 HDR PIESD, RST2XD/R20T2XD, 67.2 ksym/s, 16QAM

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U311, U312

Remark:

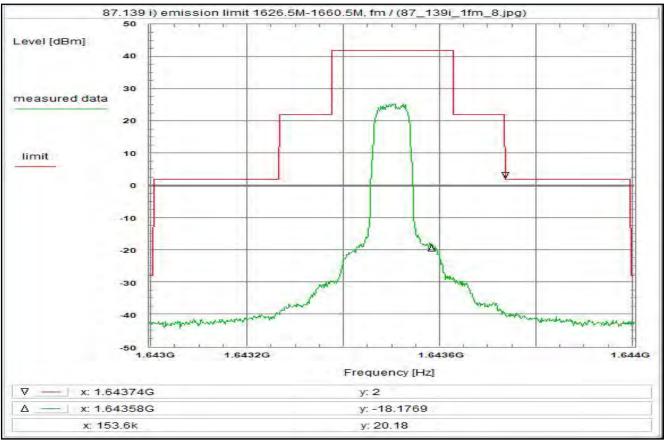
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:35:48 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642996 GHz 1.644004 Stop frequency: GHz 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 185



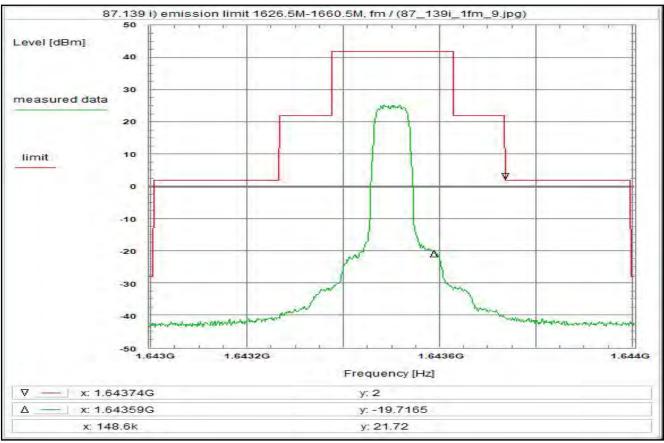
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T2XD/R20T2XD, 67.2 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:39:02 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642996 GHz Stop frequency: GHz 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 186



Subclause:

87.139 i) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fm)

Limit:
Limit according to 87.139(i)(1)
The mean power of emissions shall be attenuated
below the mean output power of the transmitter
in accordance with 87.139(i)(1).

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
Class 6 ACD, R5T2QD/R20T2QD, 67.2 ksym/s, QPSK

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U311, U312

Environment condition:
Date & Time: Thu 28/May/2020 15:49:22 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642996 GHz Stop frequency: GHz 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

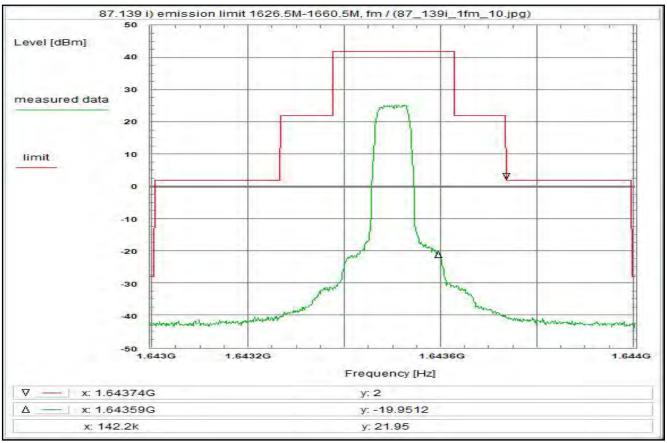
Test result: Test passed

Remark:

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Plot No. 187



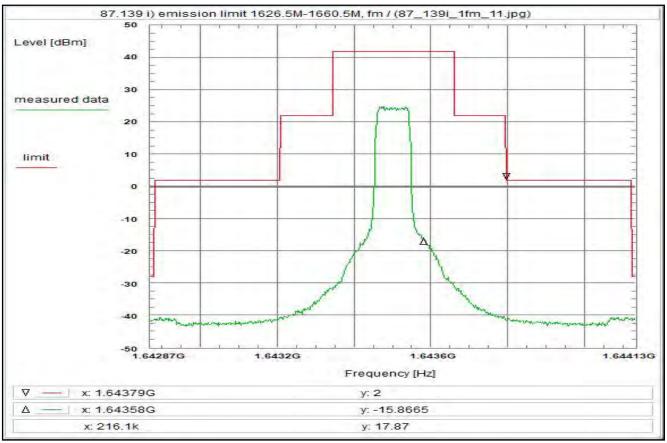
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4
Class 6 HDR PIESD, R5T2QD/R20T2QD, 67.2 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:52:43 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642996 GHz 1.644004 GHz Stop frequency: 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 188



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T2.5X16, 84 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark:

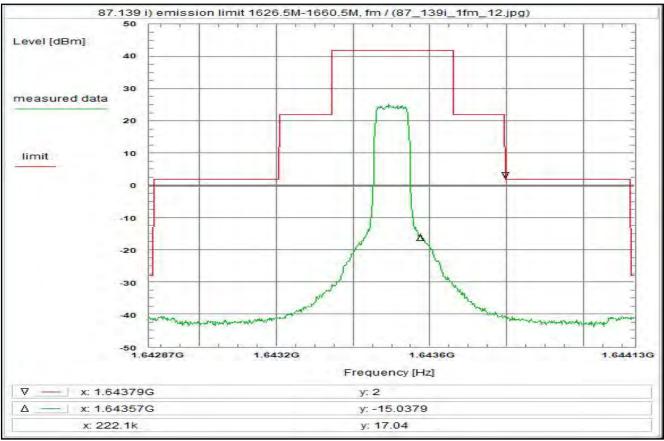
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:58:07 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.64287 GHz Stop frequency: 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 189



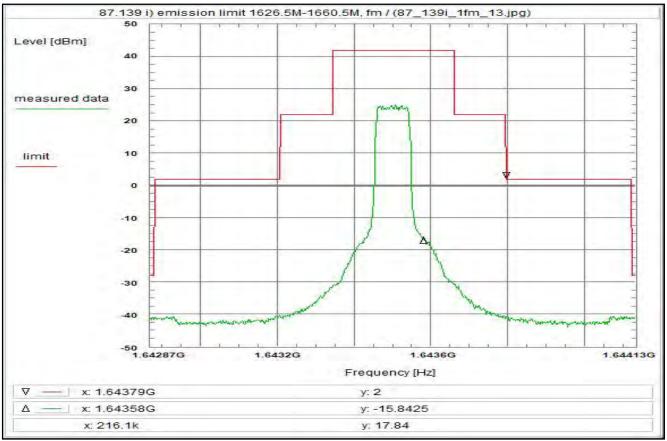
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T2.5X32, 84 ksym/s, 32QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:01:01 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.64287 GHz Stop frequency: 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 190



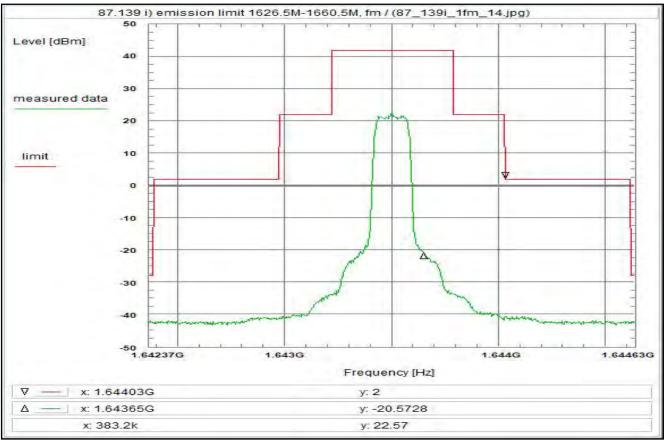
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T2.5X64, 84 ksym/s, 64QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:04:27 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.64287 GHz Stop frequency: 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 191



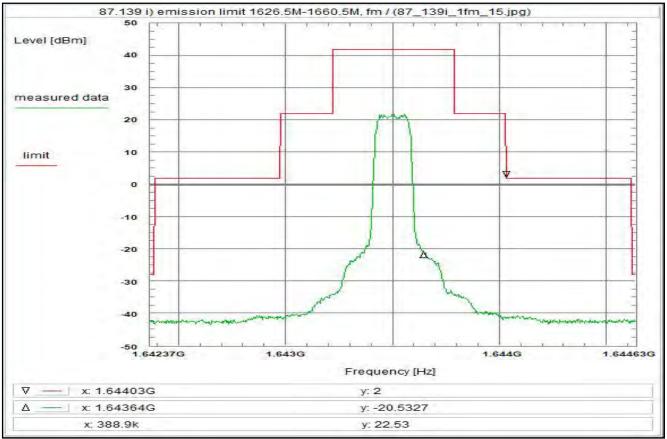
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R5T4.5XD/R20T4.5XD, 151.2 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition: Date & Time: Thu 28/May/2020 16:08:56 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642366 GHz 1.644634 GHz Stop frequency: 1.6435 2.268 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 192



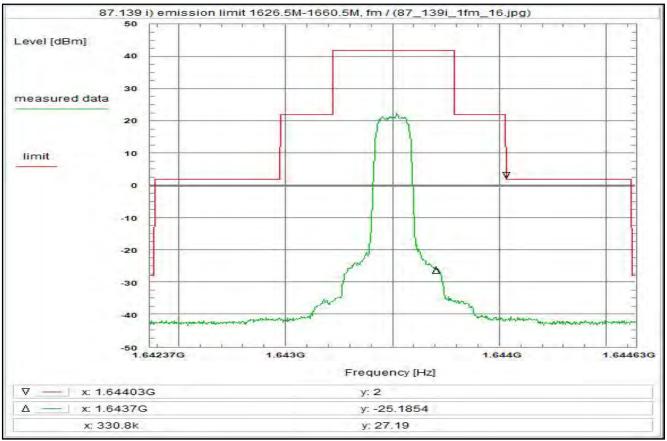
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T4.5XD/R20T4.5XD, 151.2 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:12:37 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642366 GHz 1.644634 Stop frequency: GHz 1.6435 2.268 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 193



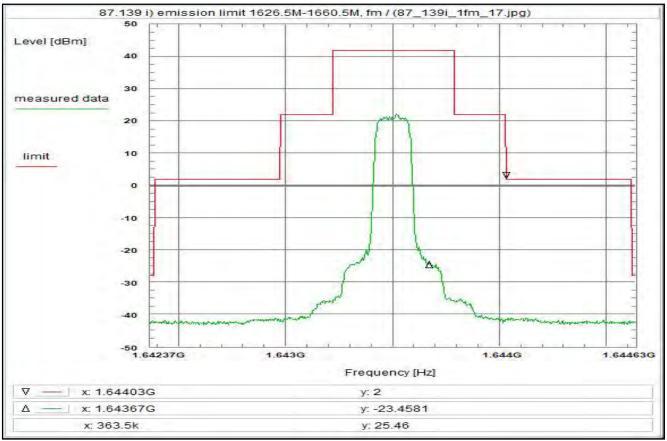
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T4.5QD/R20T4.5QD, 151.2 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:17:02 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642366 GHz 1.644634 GHz Stop frequency: 1.6435 2.268 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 194



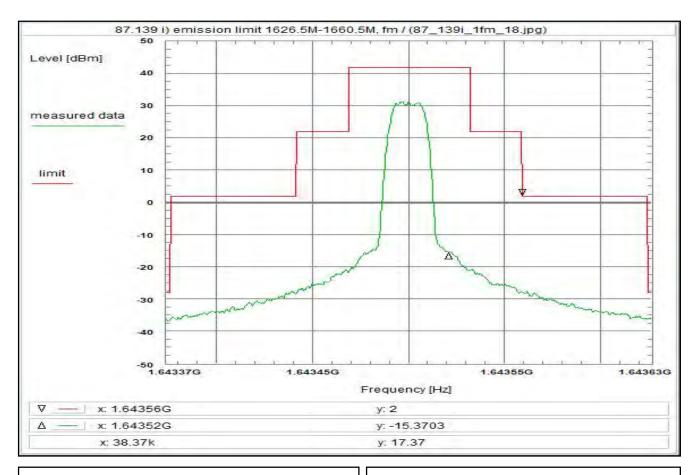
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R5T4.5QD/R20T4.5QD, 151.2 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:20:55 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.642366 GHz 1.644634 GHz Stop frequency: 1.6435 2.268 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 195



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter

in accordance with 87.139(i)(1).

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T0.5QD, 16.8 ksym/s, QPSK

<u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj

<u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312

Remark:

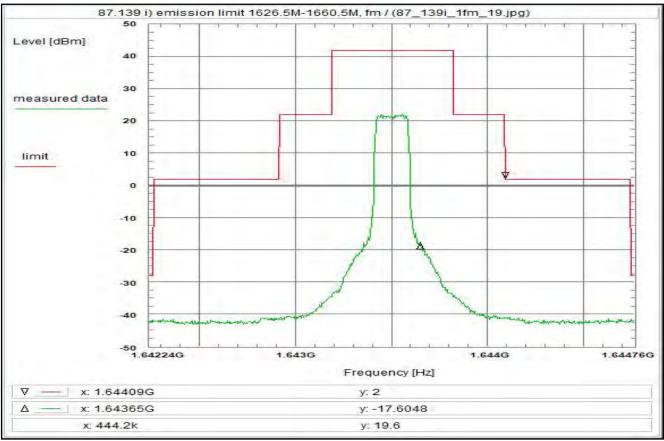
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:27:40 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.643374 GHz GHz Stop frequency: 1.6435 252 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 196



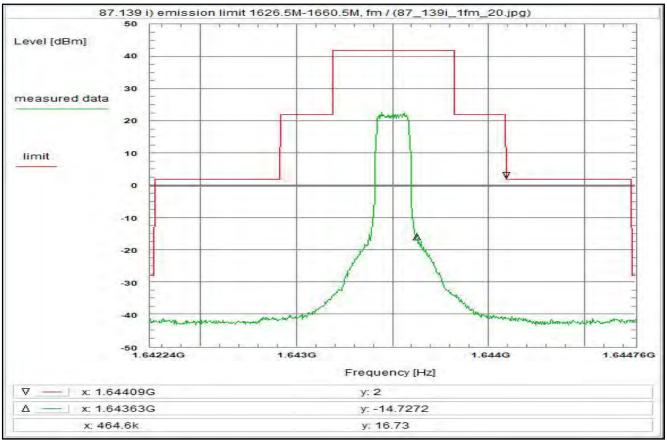
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T5X16, 168 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:31:54 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.64224 GHz GHz Stop frequency: 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 197



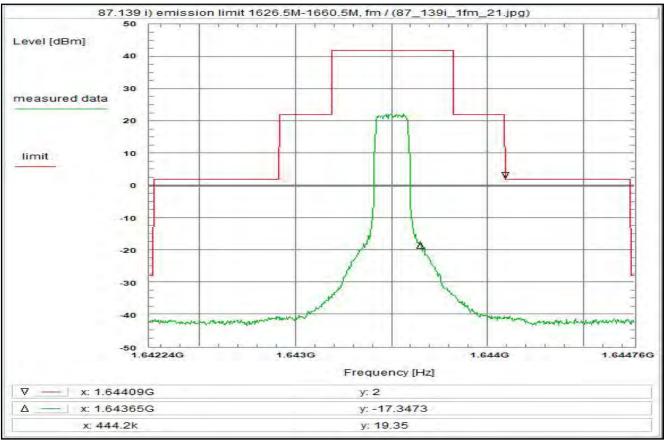
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T5X32, 168 ksym/s, 32QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:35:05 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.64224 GHz GHz Stop frequency: 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks: Carrier on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 198



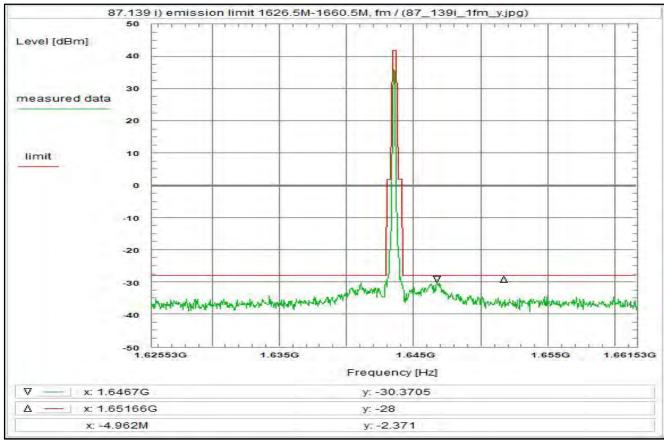
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T5X64, 168 ksym/s, 64QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:38:00 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.64224 GHz GHz Stop frequency: 1.6435 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB Remarks:
Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 199



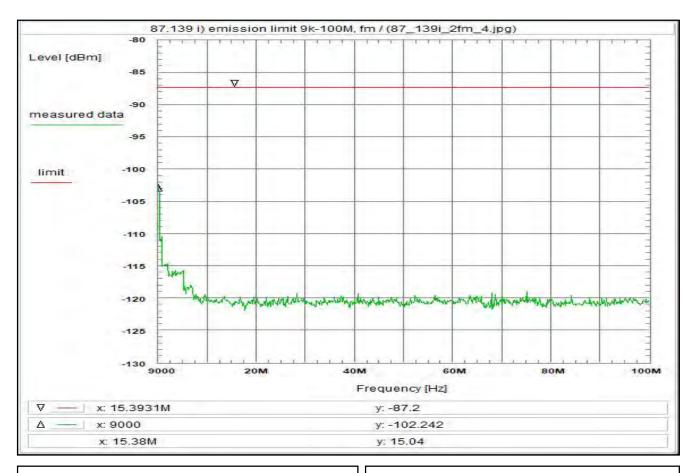
X. 4.002m
Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)
Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).
Test results: see plot (an explicit table was not generated)
Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S worst case modulation, whole band
Test setup: test report chapter 7.2 setup 1.1hgj
Test equipment: see test report chapter 7.2: C220, R001, U312, U311, Power Splitter
Remark:
Test result: Test passed

Environment condition: Date & Time: Location: Temperature: Humidity: Voltage: Thu 09/Jul/2020 CTC advanced of the condition: 155 Voltage: T15	GmbH, Laboratory RC-SYS °C %		
Resolution-BW: 3	GHz GHz MHz kHz kHz		
Correction: Directional coupler	0.9 dB 12.0 dBi 0.0 dB 1.2 dB 0.0 dB 19.5 dB 9.7 dB 6.7 dB		
Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain			

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Plot No. 200



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT: operating condition 1, see test report chapter 5.4 CLASS 6 ACD, R20T4.5XD

<u>Test setup:</u> see test report chapter 7.2 setup 1.1higj

<u>Test equipment:</u> see test report chapter 7.2: BNCo, C220, R001

Remark:

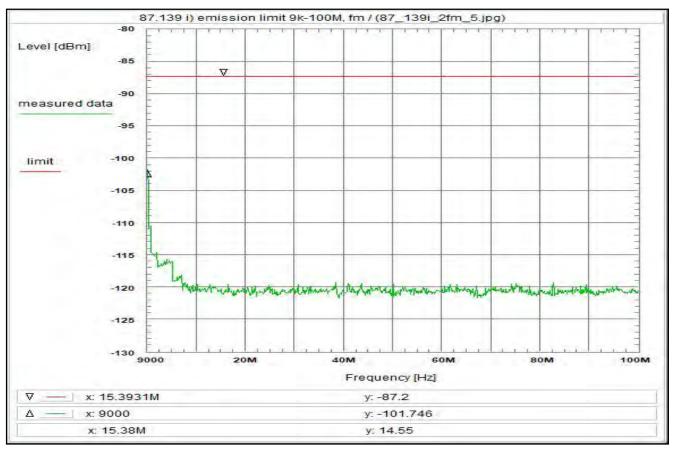
Test result: Test passed

Environment condition:
Date & Time: Fri 29/May/2020 10:16:06 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 9 kHz 100 MHz Stop frequency: 50.0045 MHz 99.991 MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 0 dB Trace-Mode: Clear Write Detector-Mode: Pos Peak Correction: Directional coupler + 0.0 dB Coaxial cable (C220) 0.2 dB BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 7.8 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 201



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 CLASS 6 HDR PIESD, R20T4.5XD

<u>Test setup:</u> see test report chapter 7.2 setup 1.1higj

<u>Test equipment:</u> see test report chapter 7.2: BNCo, C220, R001

Remark:

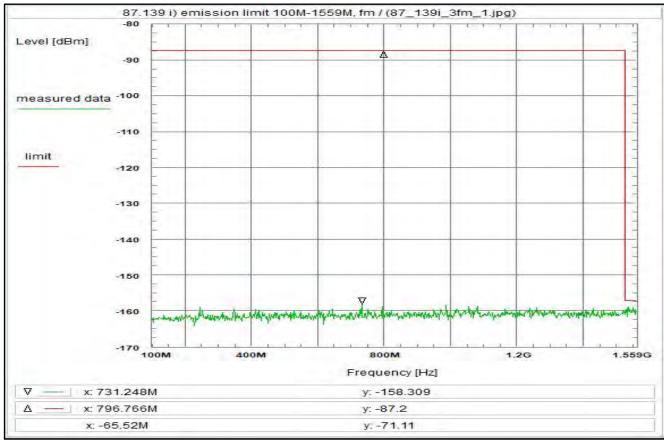
Test result: Test passed

Environment condition:
Date & Time: Fri 29/May/2020 10:16:55 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 9 kHz 100 MHz Stop frequency: 50.0045 MHz 99.991 MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 0 dB Trace-Mode: Clear Write Detector-Mode: Pos Peak Correction: Directional coupler + 0.0 dB Coaxial cable (C220) + 0.2 dB BW correction factor (3k -> 4k) Atten. between HPA and feedhorn - 0.0 dB 7.8 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 202



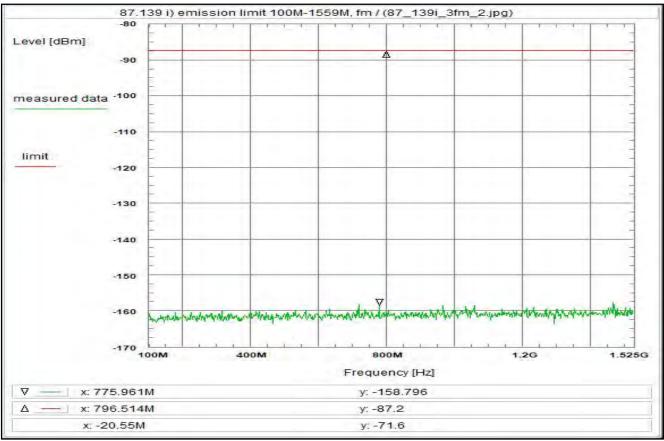
19 4-35900
Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)
Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).
Test results: see plot (an explicit table was not generated)
Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T4.5XD
Test setup: see test report chapter 7.2 setup 1.1higj
Test equipment: see test report chapter 7.2: BNCo, C220, R001
Remark:
Test result: Test passed

Environment condition: Thu 04/Jun/2020 16:52:31 Location: CTC advanced GmbH, Laboratory RC-SYS Temperature: 22 °C Humidity: 55 % Voltage: 115 Vac / 400 Hz		
Setup of measurement equipment: Start frequency: Stop frequency: 1.559 GHz Center frequency: 829.5 HHz Frequency span: 1.459 GHz Resolution-BW: 3 KHz Video-BW: 10 Liput attenuation: 0 Trace-Mode: Clear Write Detector-Mode: Normal		
Correction: - 80.0 dB Coaxial cable (C220) + 0.6 dB DUT-Antenna + 0.0 dBi Test antenna + 0.0 dB BW correction factor (3k → 4k) + 1.2 dB Atten. between HPA and feedhorn additional attenuation + 0.0 dB (BNCo) + 10.1 dB TOTAL CORRECTION: - -68.1 dB		
Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain		

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Plot No. 203



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T4.5XD <u>Test setup:</u> see test report chapter 7.2 setup 1.1higj <u>Test equipment:</u> see test report chapter 7.2: BNCo, C220, R001 Remark: Test result: Test passed

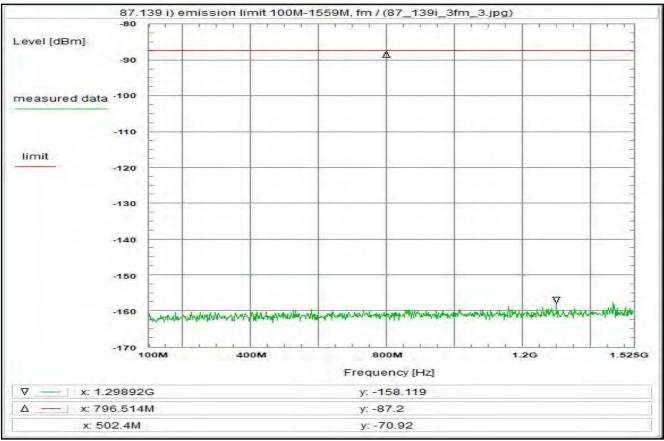
Environment condition:
Date & Time: Thu 04/Jun/2020 16:55:51 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 100 MHz 1.524999 Stop frequency: 812.4995 1.424999 MHz GHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 0 dB Trace-Mode: Clear Write Detector-Mode: Normal Correction: Directional coupler (DPLX) - 80.0 dB Coaxial cable (C220) + 0.6 dB DUT-Antenna 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 0.0 dB additional attenuation (BNCo) 10.1 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 204



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T4.5XD <u>Test setup:</u> see test report chapter 7.2 setup 1.1higj <u>Test equipment:</u> see test report chapter 7.2 BNCo, C220, R001 Remark: Test result: Test passed

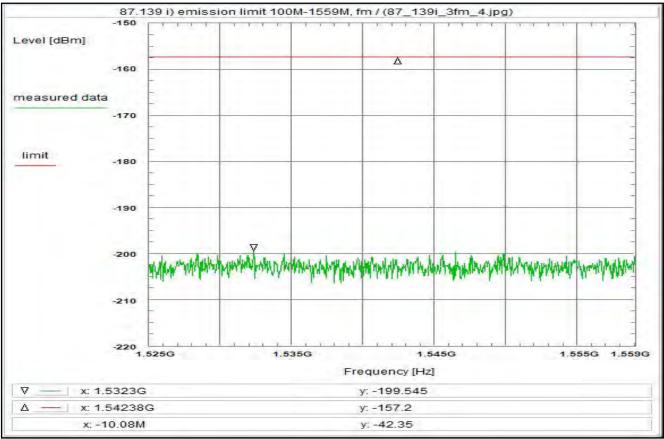
Environment condition:
Date & Time: Thu 04/Jun/2020 16:58:07 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 100 MHz 1.524999 Stop frequency: 812.4995 1.424999 Center frequency: MHz GHz Frequency span: Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 0 dB Trace-Mode: Clear Write Detector-Mode: Normal Correction: Directional coupler (DPLX) - 80.0 dB Coaxial cable (C220) + 0.6 dB DUT-Antenna 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 0.0 dB additional attenuation (BNCo) 10.1 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 205



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T4.5XD <u>Test setup:</u> see test report chapter 7.2 setup 1.1higj <u>Test equipment:</u> see test report chapter 7.2 BNCo, C220, R001 Remark: Test result: Test passed

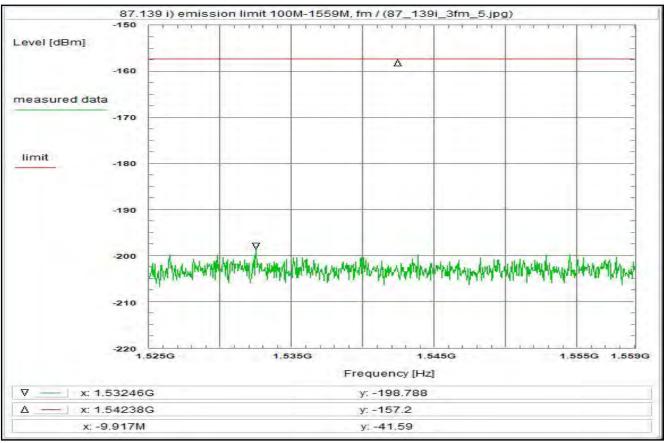
Environment condition: Date & Time: Thu 04/Jun/2020 16:59:24 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: 55 % Humidity: 115 Vac / 400 Hz Voltage: Setup of measurement equipment: 1.525 GHz Start frequency: Stop frequency: 1.542 GHz 34 MHz Center frequency: Frequency span: Resolution-BW: 3 kHz Video-BW: 10 kHz Input attenuation: 0 dB Trace-Mode: Clear Write Detector-Mode: Normal Correction: Directional coupler (DPLX) - 120.0 dB + 0.9 dB + 0.0 dBi Coaxial cable (C220) DUT-Antenna + 0.0 dB + 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB additional attenuation + 0.0 dB 10.2 dB (BNCo) TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 206



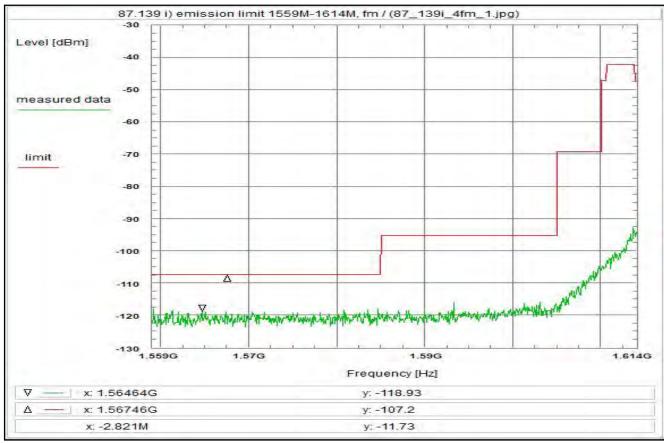
Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)
Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).
Test results: see plot (an explicit table was not generated)
Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T4.5XD
Test setup: see test report chapter 7.2 setup 1.1higj
Test equipment: see test report chapter 7.2 BNCo, C220, R001
Remark:
Test result: Test passed

Environment condition:				
Date & Time: Thu 04/Jun/2020 16:59:50				
Location:	CTC advanced (GmbH,	Laborat	tory RC-SYS
Temperature:		°C		
Humidity:	55	%		
Voltage:	115	Vac /	400 Hz	
Setup of measurement equ				
Start frequency:	1.525			
Stop frequency:	1.559			
Center frequency:	1.542			
Frequency span:		MHz		
Resolution-BW:	-	kHz		
Video-BW:		kHz		
Input attenuation:	0	dB		
Trace-Mode:	Clear Write			
Detector-Mode:	Normal			
Correction:				
Directional coupler (DPLX)	-	120.0		
Coaxial cable (C220)	+			
DUT-Antenna	+			
Test antenna	+	0.0		
BW correction factor (3k ->		1.2		
Atten. between HPA and fe		0.0		
additional attenuation		0.0		
(BNCo)	+	10.2		
TOTAL CORRECTION:	-	-107.	.7	dB
Remarks:	0		(f)	
Carrier-on state / Carrier in	the middle of the	e band	(tm)	
For EIRP calculation:				
'worst-case' = maximum a	ntenna gain			

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Plot No. 207



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T4.5XD <u>Test setup:</u> see test report chapter 7.2 setup 1.1higj <u>Test equipment:</u> see test report chapter 7.2 BNCo, C220, R001 Remark: Test result: Test passed

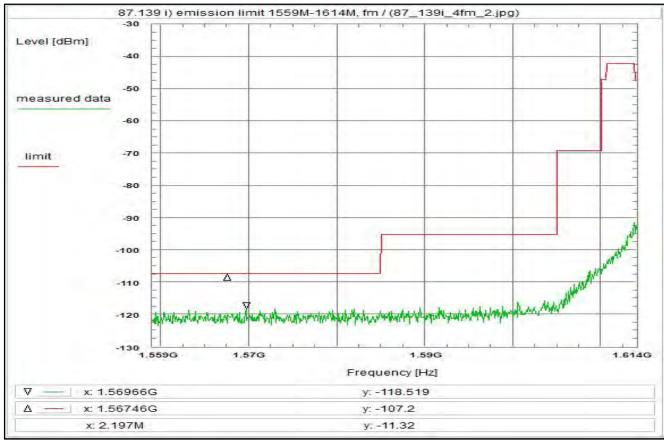
Environment condition:
Date & Time: Thu 04/Jun/2020 16:45:03 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.559 GHz 1.614 Stop frequency: GHz MHz Center frequency: 1.5865 Frequency span: 55 Resolution-BW: kHz Video-RW 3 kHz Input attenuation: 0 dB Clear Write Detector-Mode: Normal Correction: - 62.0 dB Directional coupler (DPLX) Coaxial cable (C220) 0.9 dB DUT-Antenna Test antenna 0.0 dB BW correction factor (1k -> 1M) 30.0 dB Atten. between HPA and feedhorn 0.0 dB 0.0 dB additional attenuation (BNCo) 12.6 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 208



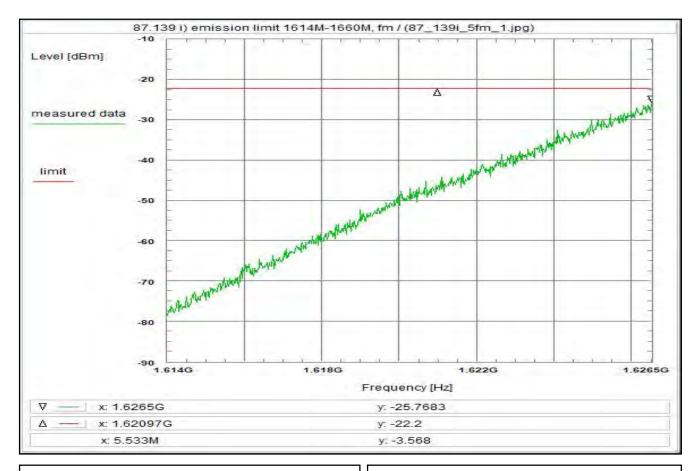
X. 2. 137 W
Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)
Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).
Test results: see plot (an explicit table was not generated)
Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T4.5XD
Test setup: see test report chapter 7.2 setup 1.1higj
Test equipment: see test report chapter 7.2 BNCo, C220, R001
Remark:
Test result: Test passed

Temperature: 22	0 16:46:57 GmbH, Laboratory RC-SYS °C %
Humidity: 55 Voltage: 115	% Vac / 400 Hz
voltage.	Vac / 400 112
Setup of measurement equipment:	911
Start frequency: 1.559	GHz GHz
Stop frequency: 1.614 Center frequency: 1.5865	
Frequency span: 1.3863	
	kHz
Video-BW: 3	
Input attenuation: 0	dB
Trace-Mode: Clear Write	ub
Detector-Mode: Normal	
Correction:	
Directional coupler (DPLX) -	62.0 dB
Coaxial cable (C220) +	0.9 dB
DUT-Antenna +	0.0 dBi
Test antenna +	0.0 dB
	30.0 dB
Atten. between HPA and feedhorn -	0.0 05
additional attenuation +	0.0 dB
(BNCo) +	12.0 45
TOTAL CORRECTION: -	-18.5 dB
Remarks: Carrier-on state / Carrier in the middle of the For EIRP calculation: 'worst-case' = maximum antenna gain	e band (fm)

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Plot No. 209



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)

Limit:

Limit according to 87.139(i)(1)

The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T4.5XD

Test setup: see test report chapter 7.2 setup 1.1higj

<u>Test equipment:</u> see test report chapter 7.2 BNCo, C220, R001

Remark:

Test result: Test passed

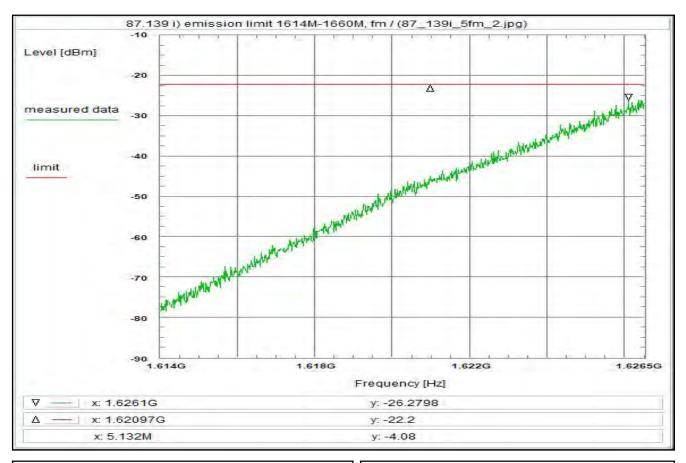
Environment condition:
Date & Time: Thu 04/Jun/2020 15:35:40 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.614 GHz Stop frequency: 1.6265 GHz GHz MHz Center frequency: 1.62025 Frequency span: 12.5 Resolution-BW: 500 Hz 2 kHz 0 dB Video-RW Input attenuation: Trace-Mode: Clear Write Detector-Mode: Normal Correction: Directional coupler + 0.0 dB + 0.9 dB Coaxial cable (C220) DUT-Antenna 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB additional attenuation 0.0 dB (BNCo) 64.9 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 210



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T4.5XD Test setup: see test report chapter 7.2 setup 1.1higj <u>Test equipment:</u> see test report chapter 7.2 BNCo, C220, R001 Remark:

Test result: Test passed

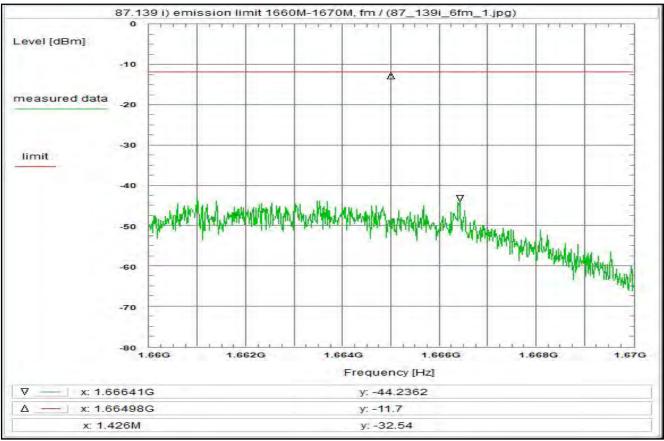
Environment condition: Date & Time: Thu 04/Jun/2020 15:36:35 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.614 GHz Stop frequency: 1.6265 GHz GHz MHz Center frequency: 1.62025 Frequency span: 12.5 Resolution-BW: 500 Hz 2 kHz 0 dB Video-RW Input attenuation: Trace-Mode: Clear Write Detector-Mode: Normal Correction: Directional coupler + 0.0 dB + 0.9 dB Coaxial cable (C220) DUT-Antenna 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB additional attenuation 0.0 dB (BNCo) 64.9 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 211



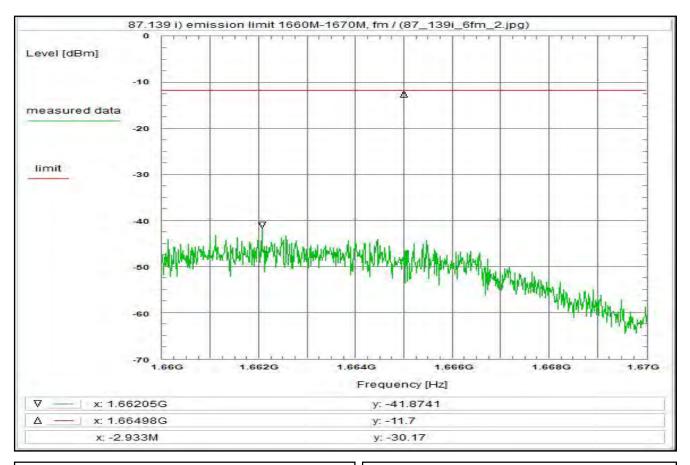
Emission li	es, frequency tolerance and emission limitations mitations rf-carrier in the middle of the band (fm)
Limit: Limit according to 87.139(i)(1) The mean power of emissions shall below the mean output power of the trin accordance with 87.139(i)(1).	
Test results: see plot (an explicit table was not gen	erated)
Operating condition of DUT: operating condition 1, see test report Class 6 HDR PIESD, R20T4.5XD	chapter 5.4
Test setup: see test report chapter 7.2 setup 1.1h	igj
Test equipment: see test report chapter 7.2 BNCo, C2:	20, R001
Remark:	
Test result: Test passed	
1	

Environment condition: Date & Time: Thu 04/Jun/2020 14:49:32 Location: CTC advanced GmbH, Laboratory RC-SYS Temperature: 22 °C Humidity: 55 % Voltage: 115 Vac / 400 Hz				
Setup of measurement equipment: Start frequency: 1.66 GHz Stop frequency: 1.67 GHz Center frequency: 1.665 GHz Frequency span: 10 MHz Resolution-BW: 3 kHz Video-BW: 10 kHz Input attenuation: 10 dB Trace-Mode: Clear Write Detector-Mode: Normal				
Correction: Directional coupler + 0.0 dB Coaxial cable (C220) + 0.9 dB DUT-Antenna + 0.0 dBi Test antenna + 0.0 dB BW correction factor (3k → 20k) + 8.2 dB Atten. between HPA and feedhorn additional attenuation + 0.0 dB (BNCo) + 26.8 dB TOTAL CORRECTION: + 35.9 dB				
Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain				

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Plot No. 212



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results:

Operating condition of DUT:

operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T4.5XD

see plot (an explicit table was not generated)

Test setup: see test report chapter 7.2 setup 1.1higj

<u>Test equipment:</u> see test report chapter 7.2 BNCo, C220, R001

Remark:

Test result: Test passed

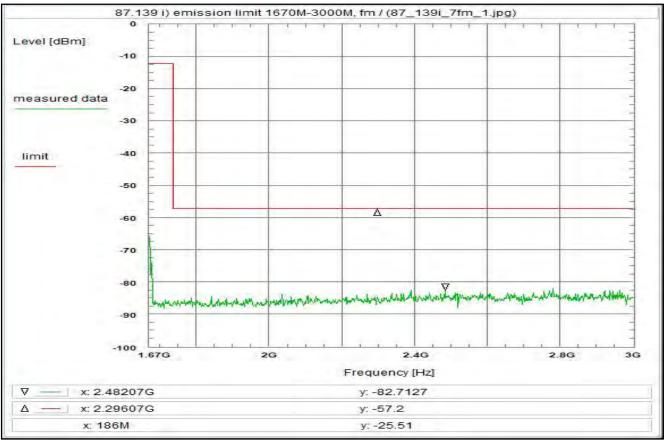
Environment condition:
Date & Time: Thu 04/Jun/2020 14:50:33 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: 55 % Humidity: 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.66 GHz Stop frequency: 1.665 GHz 10 MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW· 10 kHz Input attenuation: 10 dB Trace-Mode: Clear Write Detector-Mode: Normal Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) DUT-Antenna 0.0 dB 8.2 dB Test antenna BW correction factor (3k -> 20k) Atten. between HPA and feedhorn 0.0 dB additional attenuation + 0.0 dB (BNCo) 26.8 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 213



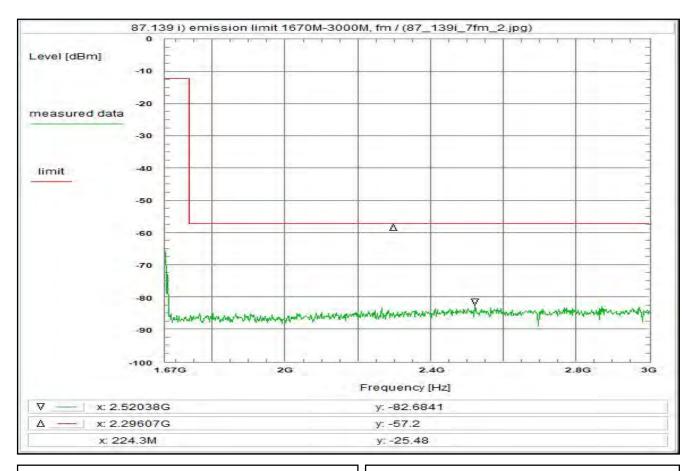
ı	
•	
	<u>Subclause:</u> 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)
	Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).
	<u>Test results:</u> see plot (an explicit table was not generated)
	Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T4.5XD
	Test setup: see test report chapter 7.2 setup 1.1higj
	Test equipment: see test report chapter 7.2: BNCo, C220, R001
	Remark:
	<u>Test result:</u> Test passed

Environment condition:				
Date & Time: Thu 04/Jun/2020 14:44:15				
Location: CTC advanced GmbH, Laboratory RC-SYS				
Temperature:	22			
Humidity:	55			
Voltage:	115	Vac	400 Hz	
Setup of measurement eq				
Start frequency:	1.67			
Stop frequency:	3			
Center frequency:		GHz		
Frequency span:		GHz		
Resolution-BW:	3	kHz		
Video-BW:	10	kHz		
Input attenuation:	10	dB		
Trace-Mode:	Clear Write			
Detector-Mode:	Normal			
Correction:				
Directional coupler	+	0.0	dB	
Coaxial cable (C220)	+	1.1	dB	
DUT-Antenna	+	0.0	dBi	
Test antenna	+			
BW correction factor (3k -		1.2	dB	
Atten. between HPA and f	feedhorn -	0.0	dB	
additional attenuation	+	0.0	dB	
(BNCo)	+			
TOTAL CORRECTION:	+	12.5	dB	
Remarks:				
Carrier-on state / Carrier in	n the middle of th	e band	(fm)	
For EIRP calculation:				
'worst-case' = maximum a	antenna gain			

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Plot No. 214



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit:

Limit according to 87.139(i)(1)

The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

Test results:

see plot (an explicit table was not generated)

Operating condition of DUT:

operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T4.5XD

<u>Test setup:</u> see test report chapter 7.2 setup 1.1higj

<u>Test equipment:</u> see test report chapter 7.2: BNCo, C220, R001

Remark:

Test result: Test passed

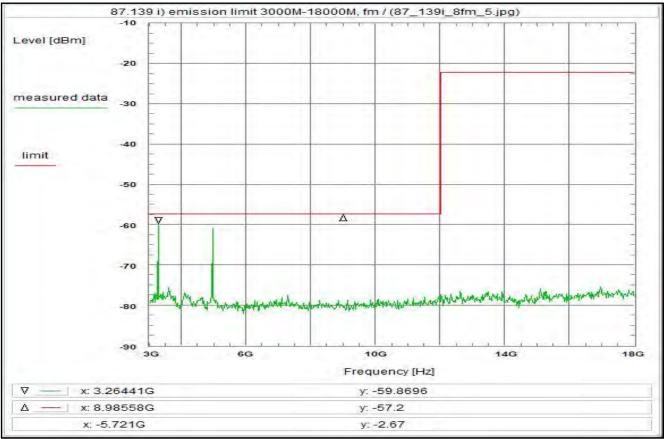
Environment condition:
Date & Time: Thu 04/Jun/2020 14:46:51 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.67 GHz Stop frequency: 2.335 GHz 1.33 GHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 10 dB Trace-Mode: Clear Write Detector-Mode: Normal Correction: Directional coupler + 0.0 dB Coaxial cable (C220) 1.1 DUT-Antenna 0.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB additional attenuation 0.0 dB (BNCo) 10.2 dB TOTAL CORRECTION: Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation:

'worst-case' = maximum antenna gain

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Plot No. 215



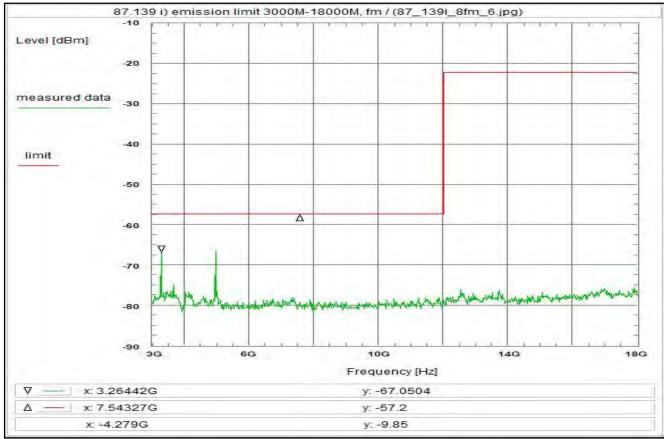
Subclause: 87.139 a)Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm)
Limit: Limit according to 87.139 a): 50-100% of assigned bw: -25dBc/4kHz 100-250% of assigned bw: -35dBc/4kHz > 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.
Test results: see plot (an explicit table was not generated)
Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T4.5XD
<u>Test setup:</u> see test report chapter 7.2 setup 1.1higj
<u>Test equipment:</u> see test report chapter 7.2: C220, R001, U312, HPF
Remark:
<u>Test result:</u> Test passed

Environment condition:			
Date & Time: Mon 29/Jun/2020 15:36:32			
Location: CTC advanced GmbH, Laboratory RC-SYS			
Temperature:	22	°C	
Humidity:	55	%	
Voltage:	115	Vac /	/ 400 Hz
Setup of measurement equipment:	2	GHz	
Start frequency: Stop frequency:	18		
Center frequency:		GHz	
Frequency span:		GHZ	
Resolution-BW:		kHz	
Video-BW:		kHz	
Input attenuation:	5		
	r Write	ub	
	s Peak		
Detector-wode.	o i can		
Correction:			
Directional coupler	+	0.0	dB
Coaxial cable (C220)	+		
DUT-Antenna	+	0.0	
Test antenna	+		
BW correction factor (10k -> 4k)		4.0	
Atten. between HPA and feedhorn		0.0	
(HPF)		20.6	
TOTAL CORRECTION:	+	18.9	dB
Remarks:			
Carrier-on state / Carrier in the midd	tle of the	e hand	(fm)
For EIRP calculation:			(,
'worst-case' = maximum antenna q	ain		

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Plot No. 216



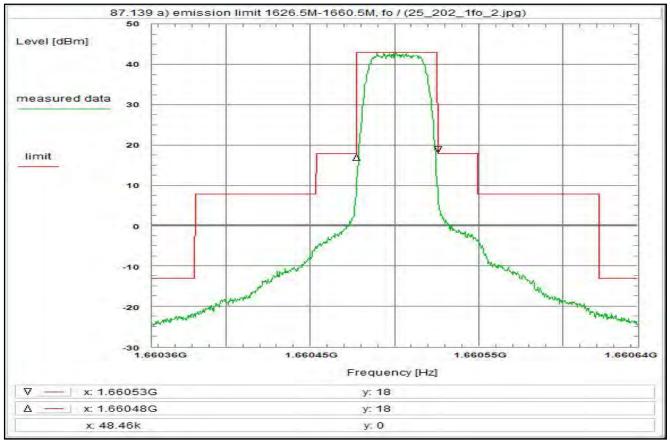
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fm) Limit: Limit according to 87.139 a): 50-100% of assigned bw: -25dBc/4kHz 100-250% of assigned bw: -35dBc/4kHz > 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T4.5XD <u>Test setup:</u> see test report chapter 7.2 setup 1.1higj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U312, HPF Remark: Test result: Test passed

Environment condition:
Date & Time: Mon 29/Jun/2020 15:42:23 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 3 GHz Stop frequency: 10.5 GHz 15 GHz Center frequency: Frequency span: Resolution-BW: 10 kHz Video-RW 30 kHz Input attenuation: dB Max-Hold Detector-Mode: Pos Peak Correction: Directional coupler + 0.0 dB 2.3 dB Coaxial cable (C220) DUT-Antenna 0.0 dBi Test antenna 0.0 dB BW correction factor (10k -> 4k) 4.0 dB Atten. between HPA and feedhorn 0.0 dB 20.6 dB (HPF) TOTAL CORRECTION: 18.9 dB Remarks: Carrier-on state / Carrier in the middle of the band (fm) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 217



Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T1XD Test setup: see test report chapter 7.2 setup 1.1hgj

<u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

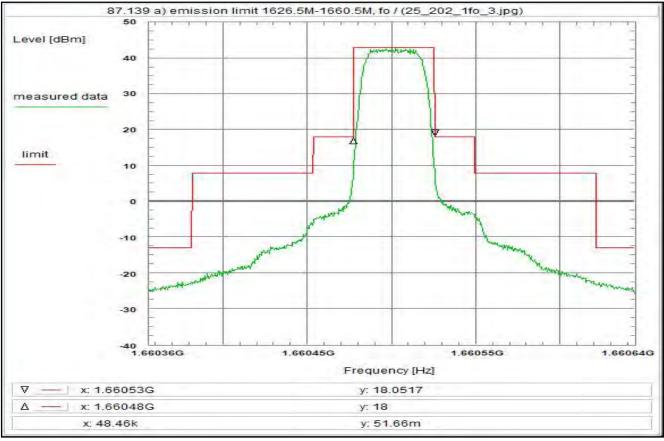
Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:31:20 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: 55 % 115 Vac / 400 Hz Humidity: Voltage: Setup of measurement equipment: Start frequency: 1. 1.660356 GHz 1.660644 Stop frequency: GHz GHz kHz Center frequency: Frequency span: 288 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 218



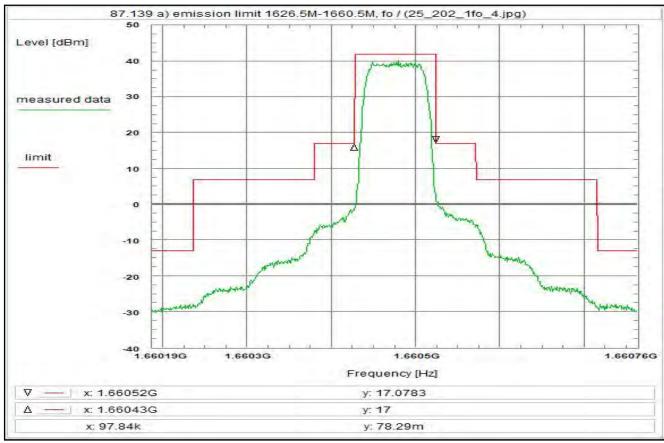
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T1QD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312 Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:32:54 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660356 GHz 1.660644 Stop frequency: GHz GHz kHz Center frequency: 1.6605 Frequency span: 288 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 219



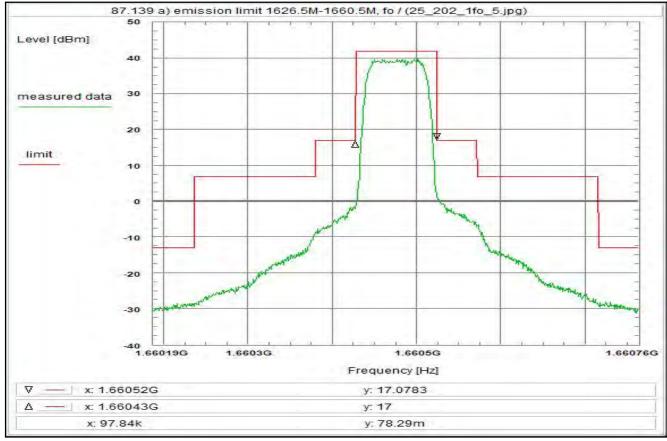
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R5T2XD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U312, U311, Power Splitter Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:34:59 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660187 GHz 1.660763 Stop frequency: GHz GHz kHz Center frequency: 1.660475 Frequency span: 576 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 220



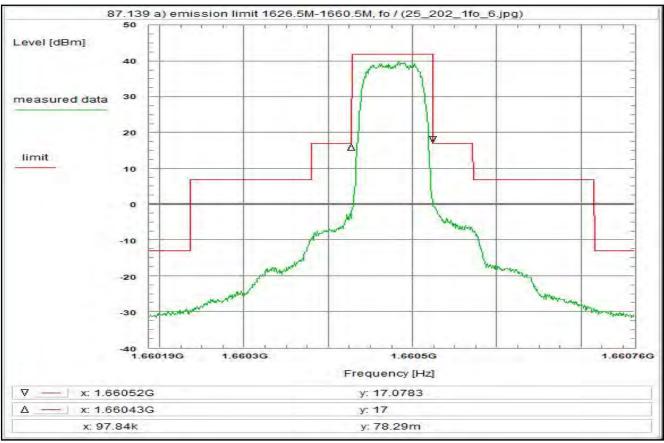
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo)	
Limit. Limit according to 87.139 a): 50-100% of assigned bw: -25dBc/4kHz 100-250% of assigned bw: -35dBc/4kHz > 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.	
Test results: see plot (an explicit table was not generated)	
Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T2XD	
Test setup: see test report chapter 7.2 setup 1.1hgj	
Test equipment: see test report chapter 7.2: C220, Power Splitter, R001, U311, U312	
Remark:	
Test result: Test passed	

Environment condition:			
Date & Time: Tue 30/Jun/2	2020	11:36	:07
Location: CTC advanced GmbH, Laboratory RC-SYS			
Temperature:	22	°C	
Humidity:	55	%	
Voltage: 1	15	Vac /	400 Hz
Setup of measurement equipment:			
Start frequency: 1.6601	87	GHz	
Stop frequency: 1.6607	63	GHz	
Center frequency: 1.6604	75	GHz	
Frequency span: 5	76	kHz	
Resolution-BW:	3	kHz	
Video-BW:	10	kHz	
Input attenuation:	30	dB	
Trace-Mode: Clear Wr	rite		
Detector-Mode: A\	/G		
Correction:			
Directional coupler	+	0.0	dB
Coaxial cable (C220)	+	0.9	dB
DUT-Antenna	+	12.0	dBi
Test antenna	+	0.0	dB
BW correction factor (3k -> 4k)	+	1.2	dB
Atten. between HPA and feedhorn	-	0.0	dB
Attenuation (U312)	+	19.5	dB
Attenuation (U311)	+	9.7	dB
Power Splitter	+	6.7	dB
TOTAL CORRECTION:	+	50.0	dB
Remarks:			
Carrier-on state / Carrier at the upper ed			
Reference of limit = 42 dBm, spectrum i	mas	k refer	enced to necessary bandwidth
l			

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Plot No. 221



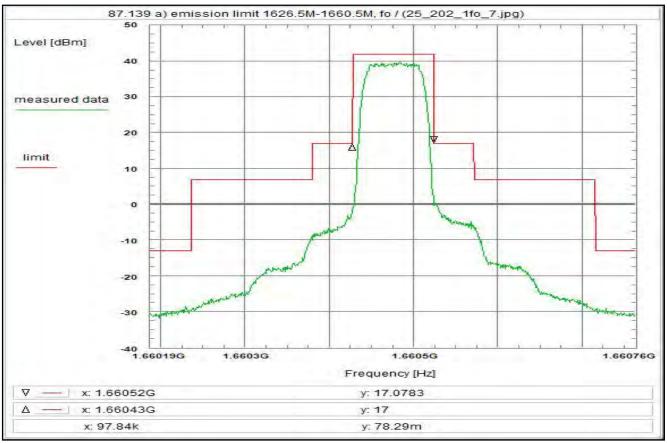
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R5T2QD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312 Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:39:30 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660187 GHz 1.660763 Stop frequency: GHz kHz Center frequency: 1.660475 Frequency span: 576 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 222



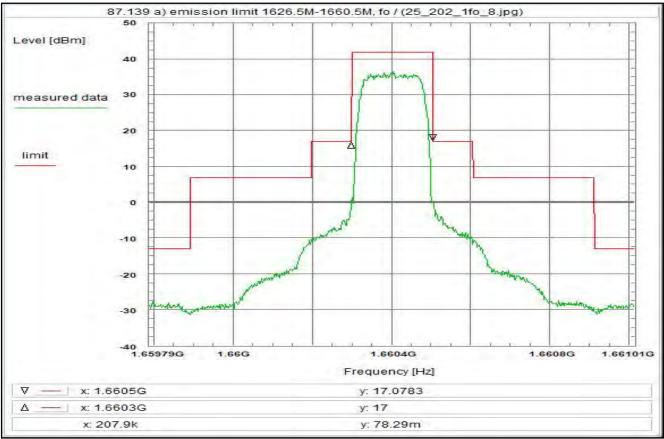
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T2QD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312 Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:41:07 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660187 GHz 1.660763 Stop frequency: GHz kHz Center frequency: 1.660475 Frequency span: 576 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhom 0.0 dB 19.5 dB Attenuation (U312) Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 223



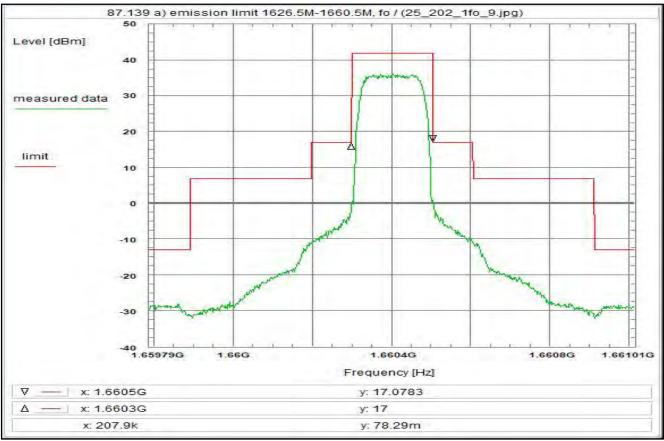
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R5T4.5XD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U312, U311, Power Splitter Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:44:35 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 224



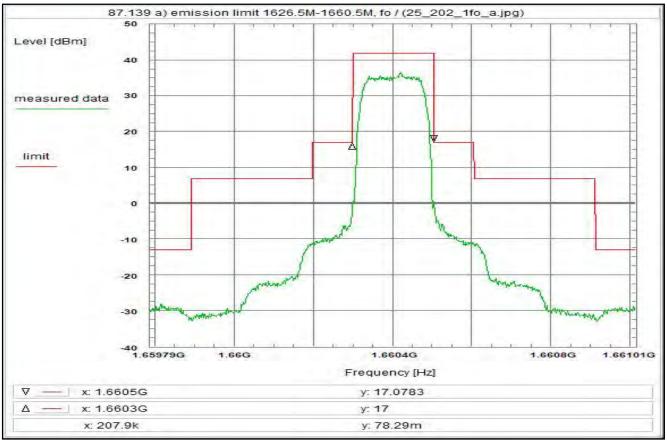
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T4.5XD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312 Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:46:59 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 225



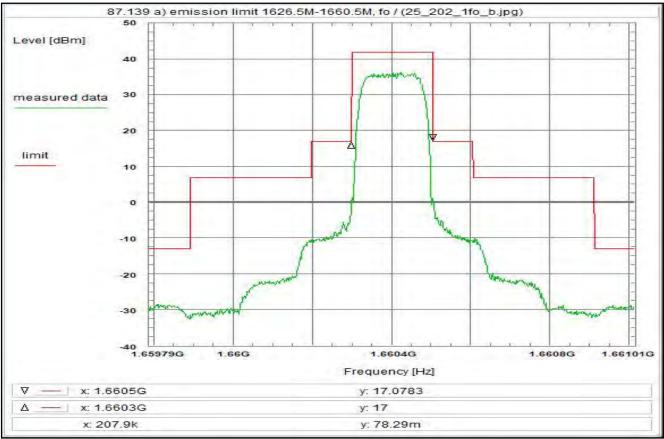
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R5T4.5XQD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312 Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:48:29 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 19.5 dB Attenuation (U312) Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 226



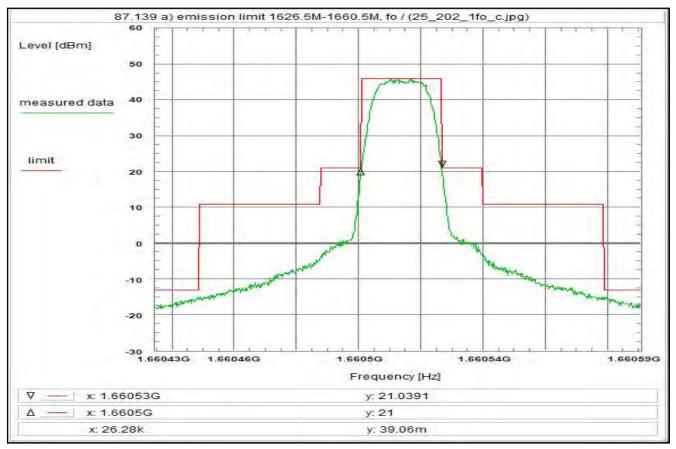
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T4.5QD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312 Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:50:09 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 227



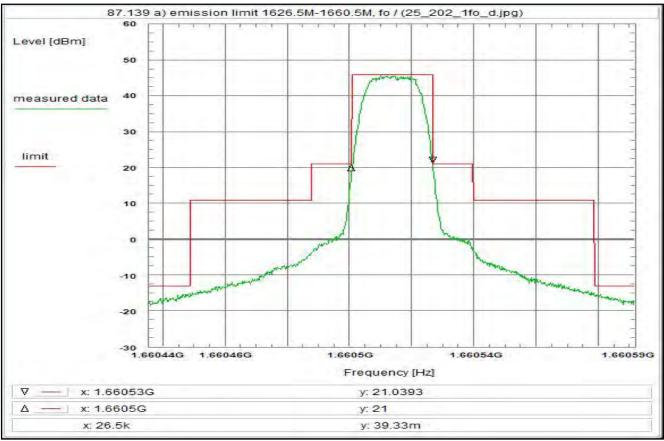
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T405QD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U312, U311, Power Splitter Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:52:03 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: 55 % 115 Vac / 400 Hz Humidity: Voltage: Start frequency: 1.6604345 GHz 1.6605905 Stop frequency: GHz GHz kHz Center frequency: 1.6605125 Frequency span: 156 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 228



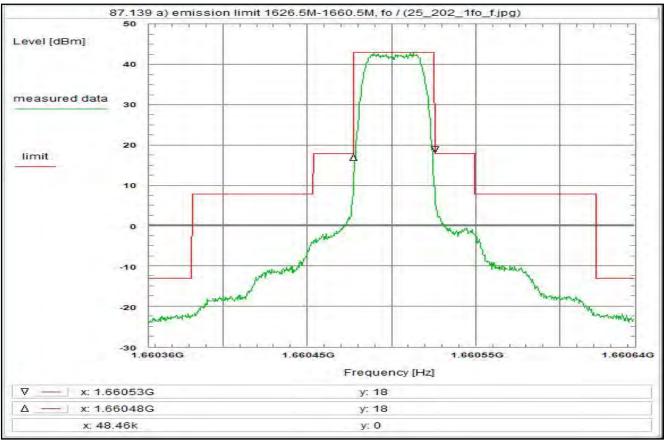
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule. Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 ACD, R20T405QD Test setup: see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U312, U311, Power Splitter Test result: Test passed

Environment condition: Date & Time: Tue 30/Jun/2020 11:54:23 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.6604355 GHz 1.6605915 Stop frequency: GHz kHz Center frequency: 1.6605135 Frequency span: 156 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 229



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R5T1XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

Remark:

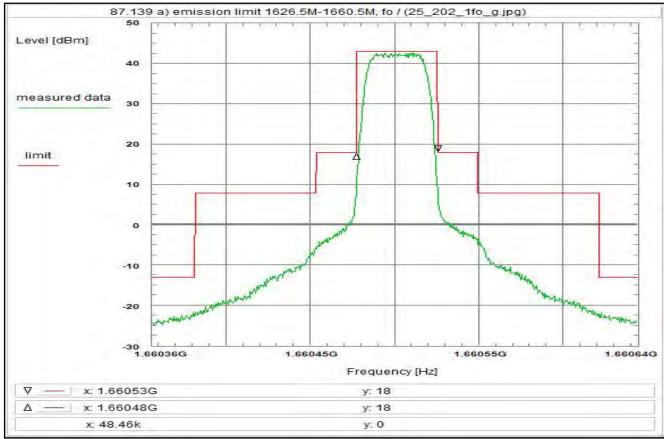
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:05:46 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: 55 % 115 Vac / 400 Hz Humidity: Voltage: Setup of measurement equipment: Start frequency: 1. 1.660356 GHz 1.660644 Stop frequency: GHz GHz kHz Center frequency: 1.6605 Frequency span: 288 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler 0.0 dB Coaxial cable (C220) 0.9 dB DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 230



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -250Bc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T1XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

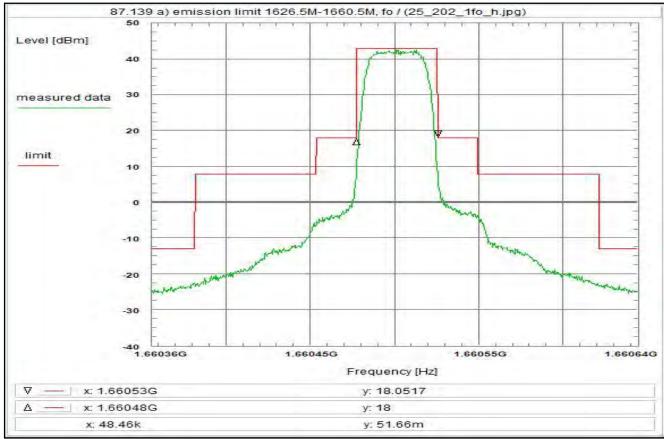
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:06:38 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660356 GHz 1.660644 Stop frequency: GHz GHz kHz Center frequency: Frequency span: 288 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 231



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -250Bc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated
below the mean output power of the transmitter
in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T1QD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

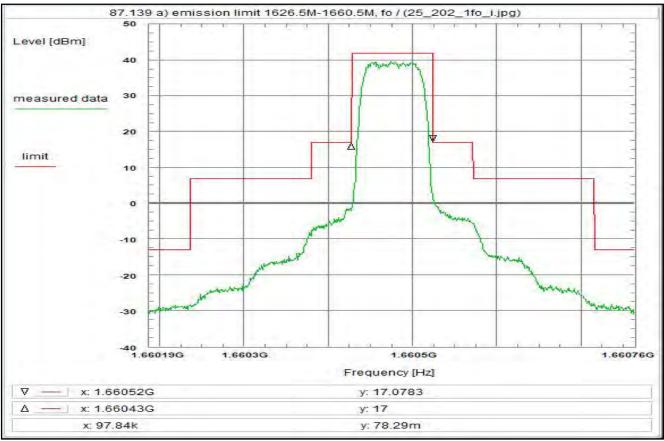
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:07:23 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660356 GHz 1.660644 Stop frequency: GHz GHz kHz Center frequency: 1.6605 Frequency span: 288 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 19.5 dB Attenuation (U312) Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 232



Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit.
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R5T2XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

Remark:

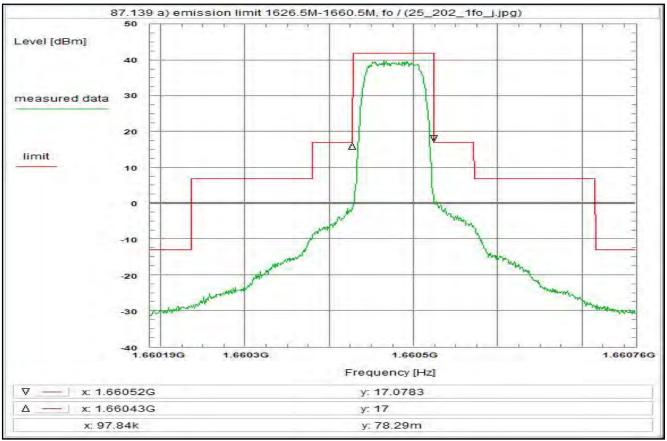
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:13:14 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660187 GHz 1.660763 Stop frequency: GHz GHz kHz Center frequency: 1.660475 Frequency span: 576 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 233



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T2XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

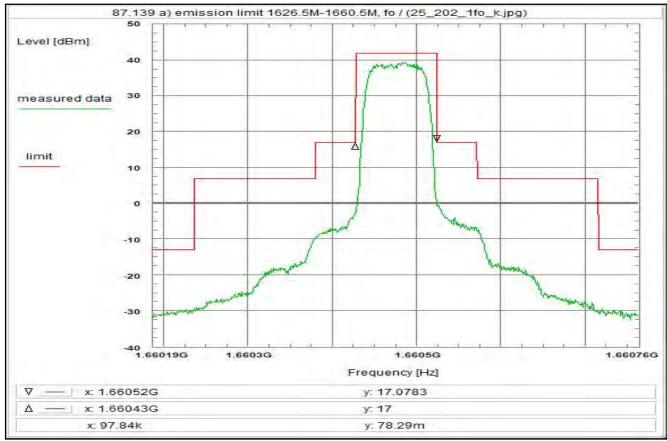
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:14:46 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660187 GHz 1.660763 Stop frequency: GHz GHz kHz Center frequency: 1.660475 Frequency span: 576 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 234



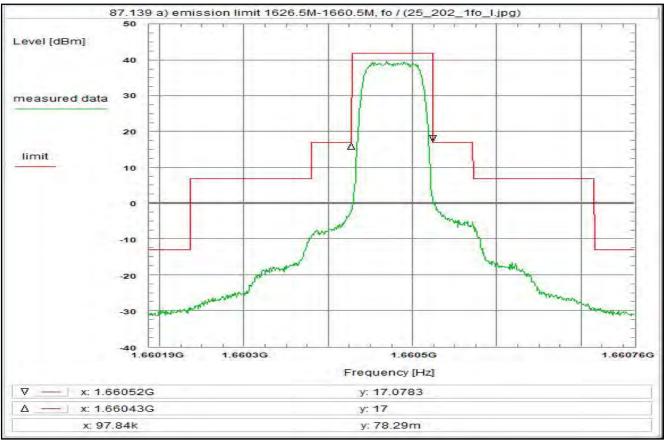
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo)
Limit: Limit according to 87.139 a): 50-100% of assigned bw: -25dBc/4kHz 100-250% of assigned bw: -35dBc/4kHz > 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.
Test results: see plot (an explicit table was not generated)
Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 HDR PIESD, R5T2QD
Test setup: see test report chapter 7.2 setup 1.1hgj
Test equipment: see test report chapter 7.2: C220, Power Splitter, R001, U311, U312
Remark:
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:21:21 Location: CTC advanced GmbH, Laboratory RC-SYS Temperature: 22 °C					
Humidity: 55	%				
	Vac / 400 Hz				
Voltage.	V dC / 400 112				
Setup of measurement equipment:					
Start frequency: 1.660187	GHz				
Stop frequency: 1.660763					
Center frequency: 1.660475					
	kHz				
	kHz				
	kHz				
Input attenuation: 30	dB				
Trace-Mode: Clear Write					
Detector-Mode: AVG					
Correction: Directional coupler +	0.0 dB				
Coaxial cable (C220) +	0.9 dB				
DUT-Antenna +	12.0 dBi				
Test antenna +	0.0 dB				
BW correction factor (3k -> 4k) +					
	0.0 dB				
Attenuation (U312) +					
Attenuation (U311) +					
Power Splitter +					
TOTAL CORRECTION: +					
TOTAL CONTRECTION.	00.0 db				
Remarks: Carrier-on state / Carrier at the upper edge Reference of limit = 42 dBm, spectrum mas					

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Plot No. 235



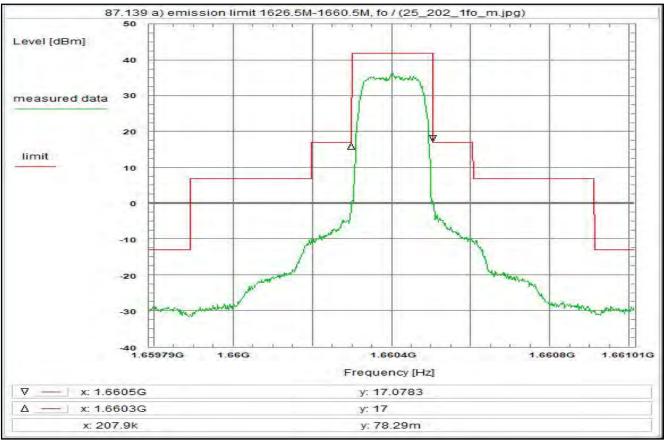
Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo)
Limit: Limit according to 87.139 a); 50-100% of assigned bw: -25dBc/4kHz 100-250% of assigned bw: -35dBc/4kHz > 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.
Test results: see plot (an explicit table was not generated)
Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 HDR PIESD, R20T2QD
Test setup: see test report chapter 7.2 setup 1.1hgj
Test equipment: see test report chapter 7.2: C220, Power Splitter, R001, U311, U312
Remark:
Test result: Test passed

Environment condition:			
Date & Time:	Wed 01/Jul/2020	10:22	:27
Location:			Laboratory RC-SYS
Temperature:	22		2000,000,000
Humidity:	55		
Voltage:			400 Hz
voltage.	110	v ac i	400112
Setup of measurement ed	uinment:		
Start frequency:	1.660187	GHz	
Stop frequency:	1.660763		
Center frequency:	1.660475		
Frequency span:		kHz	
Resolution-BW:		kHz	
Video-BW:		kHz	
Input attenuation:	30		
Trace-Mode:	Clear Write	uD	
	Clear Write AVG		
Detector-Mode:	AVG		
Correction:			
Directional coupler	+	0.0	dB
Coaxial cable (C220)	+		dB
DUT-Antenna	+		
Test antenna	+		
BW correction factor (3k -			dB
Atten, between HPA and	feedhorn -	0.0	
Attenuation (U312)	+		
Attenuation (U311)	+		
Power Splitter	+		
TOTAL CORRECTION:	+		
Remarks:	at the upper edge.	of the l	and (fa)
Carrier-on state / Carrier a			
Reference of limit = 42 db	ım, spectrum mas	k reter	enced to necessary bandwidth

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Plot No. 236



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit.
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R5T4.5XD

Test setup:
see test report chapter 7.2: setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

Remark:

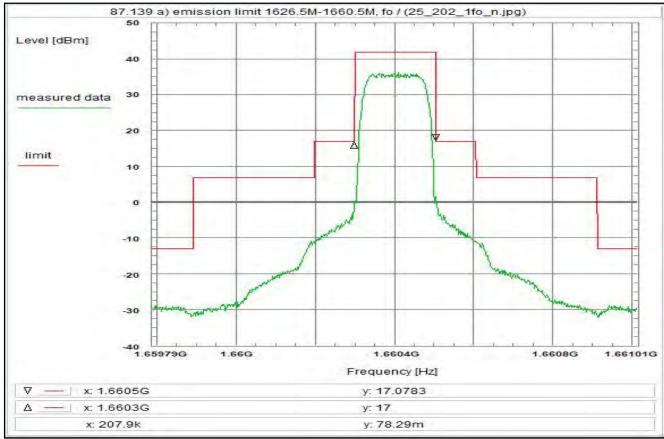
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:25:16 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 237



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T4.5XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

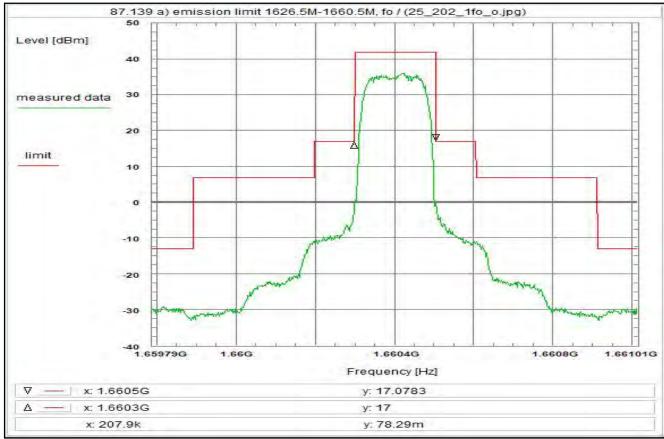
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:27:52 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 19.5 dB Attenuation (U312) Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 238



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R5T4.5XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

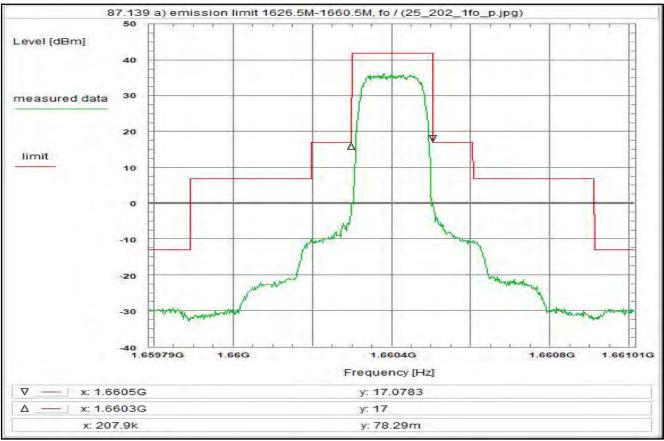
Remark:

Environment condition: Date & Time: Wed 01/Jul/2020 10:29:39 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 239



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
2 520% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T4.5XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

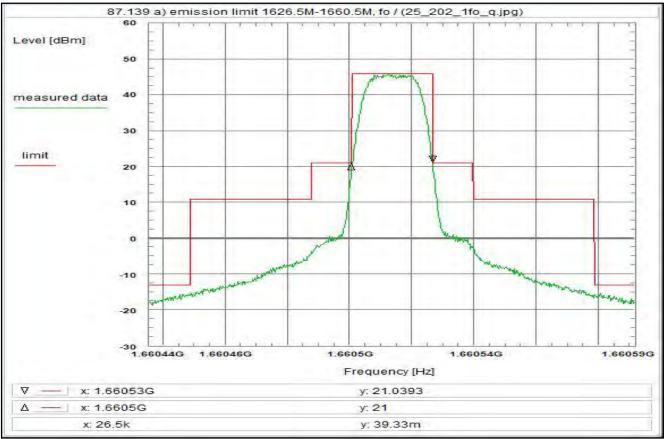
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:31:40 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659788 GHz Stop frequency: 1.661012 GHz 1.6604 1.224 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB 9.7 dB Attenuation (U311) Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 240



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T05XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

Remark:

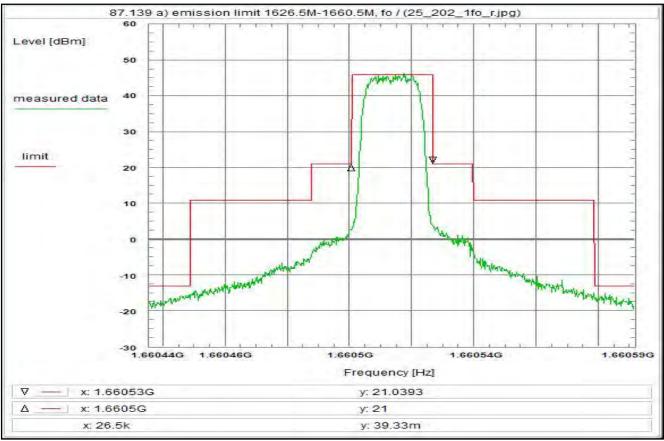
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:35:14 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Start frequency: 1.6604355 GHz 1.6605915 Stop frequency: GHz GHz kHz Center frequency: 1.6605135 Frequency span: 156 Resolution-BW: kHz Video-RW: 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 241



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, R20T05XD

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

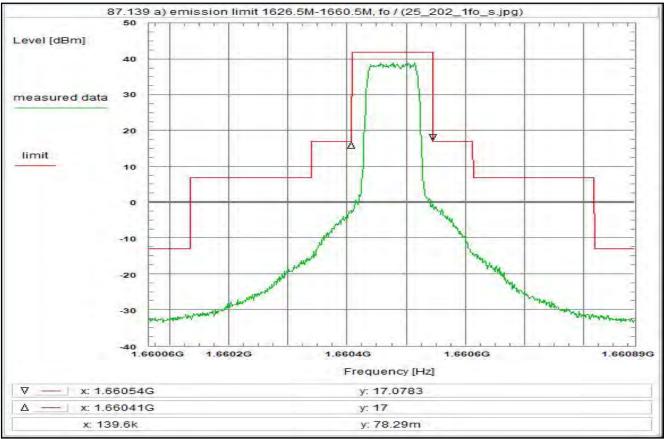
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:36:47 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.6604355 GHz Start frequency: 1.6605915 Stop frequency: GHz GHz kHz Center frequency: 1.6605135 Frequency span: 156 Resolution-BW: kHz Video-RW 3 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB Coaxial cable (C220) 0.9 dB DUT-Antenna 12.0 dBi Test antenna 0.0 dB 6.0 BW correction factor (1k -> 4k) dB Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 54.8 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 242



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T2.5X16

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

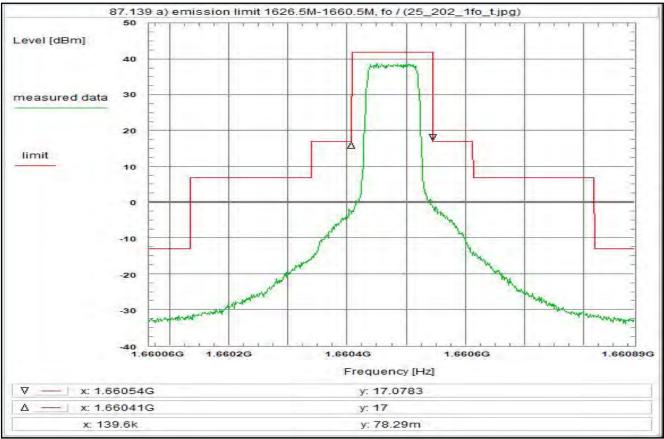
Remark:

Environment condition: Date & Time: Wed 01/Jul/2020 10:38:56 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660064 GHz 1.660886 Stop frequency: GHz 1.660475 822 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 243



Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated
below the mean output power of the transmitter
in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T2.5X32

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

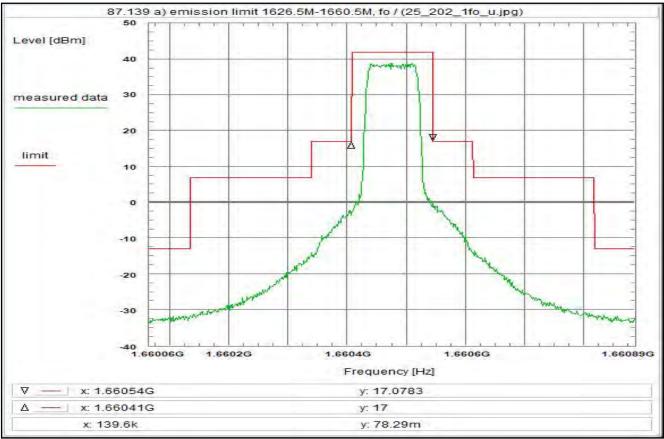
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:39:50 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660064 GHz 1.660886 Stop frequency: GHz 1.660475 822 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 244



Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T2.5X64

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

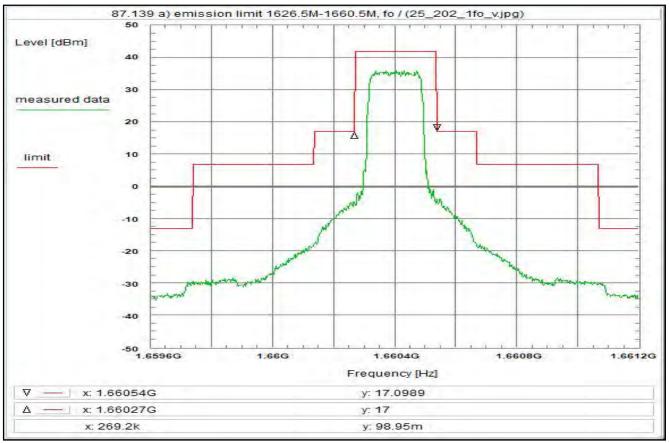
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:42:05 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660064 GHz 1.660886 Stop frequency: GHz 1.660475 822 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 245



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T5X16

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, R001, U312, U311, Power Splitter

Remark:

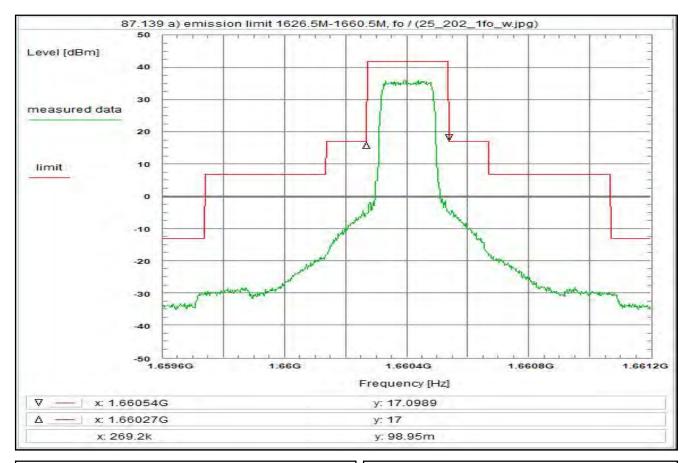
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:45:16 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659602 GHz Stop frequency: 1.661198 GHz GHz MHz Center frequency: 1.6604 Frequency span: 1.596 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 19.5 dB Attenuation (U312) Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 246



Subclause: 87.139 a) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier in the middle of the band (fo) Limit: Limit according to 87.139 a):
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW The mean power of emissions shall be attenuated below the mean output power of the transmitter

Test results:

see plot (an explicit table was not generated)

in accordance with the above schedule.

Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S Class 6 HDR PIESD, FR80T5X32

Test setup:

see test report chapter 7.2 setup 1.1hgj

<u>Test equipment:</u> see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

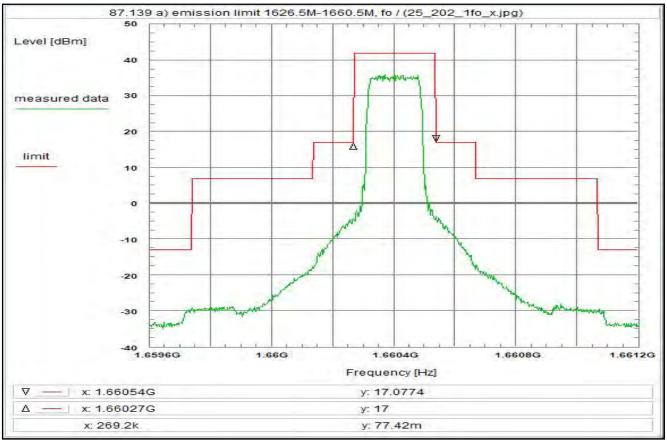
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:46:04 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659602 GHz Stop frequency: 1.661198 GHz GHz MHz Center frequency: 1.6604 Frequency span: 1.596 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB 19.5 dB Attenuation (U312) Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 247



Subclause:

87.139 a) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier in the middle of the band (fo)

Limit:
Limit according to 87.139 a):
50-100% of assigned bw: -25dBc/4kHz
100-250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -35dBc/4kHz
> 250% of assigned bw: -43+10log(Pmax)dBc/4kHz = -43 dBW
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the above schedule.

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
A700S Class 6 HDR PIESD, FR80T5X64

Test setup:
see test report chapter 7.2 setup 1.1hgj

Test equipment:
see test report chapter 7.2: C220, Power Splitter, R001, U311, U312

Remark:

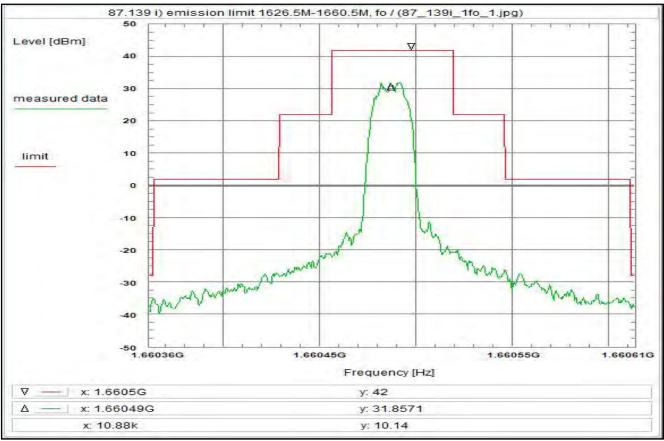
Test result: Test passed

Environment condition: Date & Time: Wed 01/Jul/2020 10:49:13 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659602 GHz Stop frequency: 1.661198 GHz GHz MHz Center frequency: 1.6604 Frequency span: 1.596 Resolution-BW: kHz Video-RW 10 kHz Input attenuation: 30 dB Clear Write Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) DUT-Antenna 12.0 dBi 0.0 dB 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) Reference of limit = 42 dBm, spectrum mask referenced to necessary bandwidth

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Plot No. 248



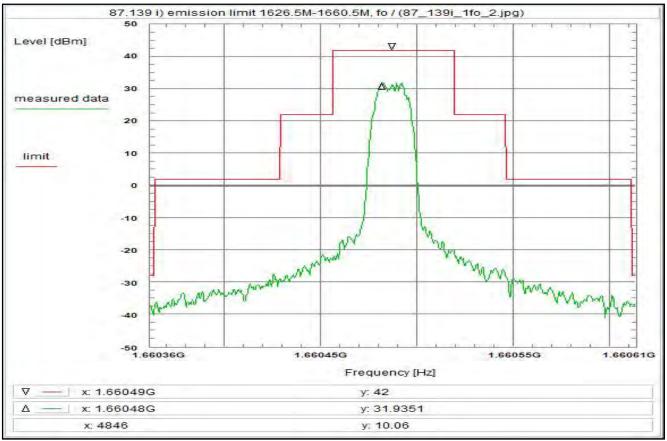
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T0.5QD, 16.8 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:13:33 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.6603615 GHz 1.6606135 Stop frequency: GHz 1.6604875 252 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz 45 Input attenuation: dB Detector-Mode: AVG Correction: Directional coupler + 0.0 dB 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\label{eq:Remarks:} \underline{\text{Remarks:}}$ Carrier-on state / Carrier at the upper edge of the band (fo) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 249



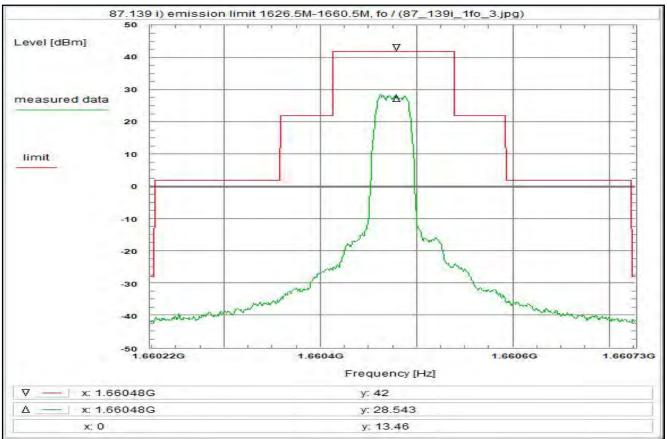
Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T0.5QD, 16.8 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:14:41 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.6603615 GHz 1.6606135 Stop frequency: 1.6604875 252 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: Directional coupler + 0.0 dB + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\label{eq:Remarks:} \underline{\text{Remarks:}}$ Carrier-on state / Carrier at the upper edge of the band (fo) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 250



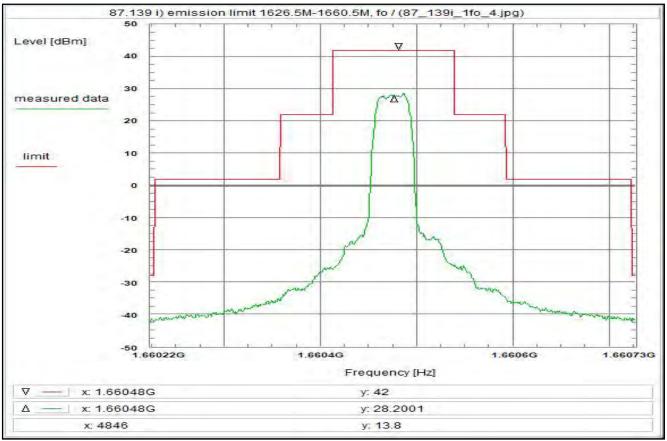
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R5T1XD/R20T1XD, 33.6 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition: Date & Time: Thu 28/May/2020 15:20:17 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660223 GHz 1.660727 Stop frequency: GHz 1.660475 GHz 504 kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\label{eq:Remarks:} \underline{\text{Remarks:}}$ Carrier-on state / Carrier at the upper edge of the band (fo) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 251



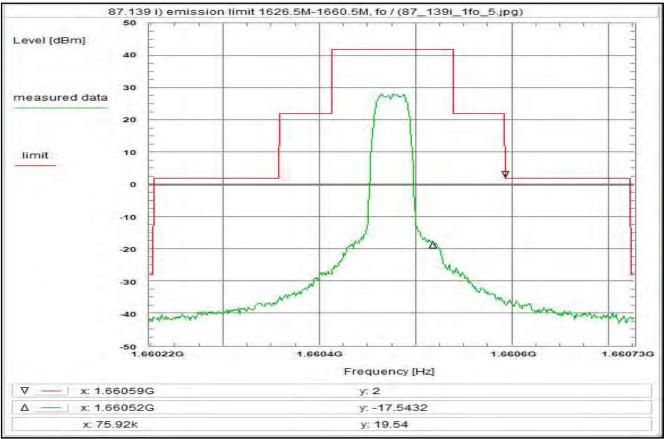
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T1XD/R20T1XD, 33.6 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:24:26 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660223 GHz 1.660727 Stop frequency: GHz 1.660475 GHz 504 kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 252



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R20T1QD/R80T1Q, 33.6 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark:

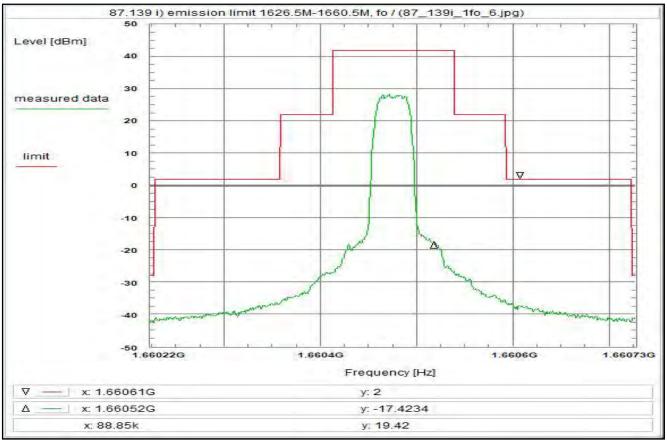
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:28:37 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.660223 GHz 1.660727 Stop frequency: GHz 1.660475 GHz 504 kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 253



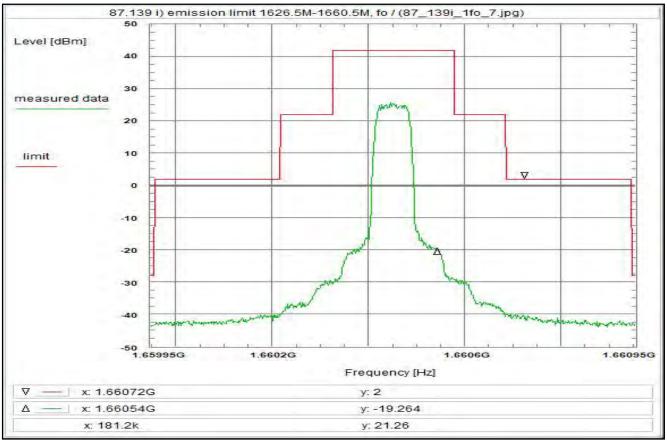
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T1QD/R80T1Q, 33.6 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:30:22 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.6 1.660223 GHz 1.660727 Stop frequency: GHz 1.660475 GHz 504 kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 254



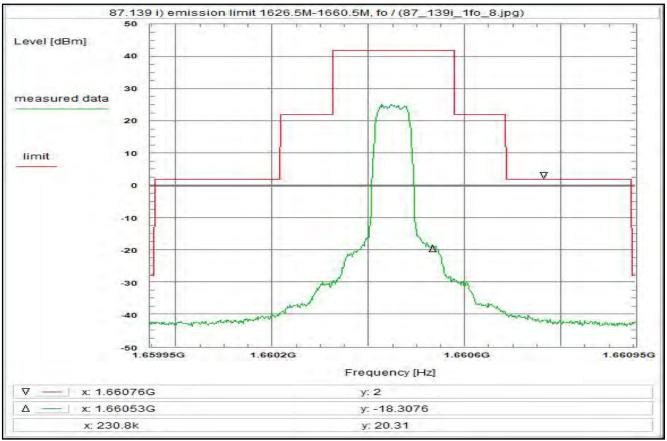
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R5T2XD/R20T2XD, 67.2 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:36:33 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659946 GHz 1.660954 Stop frequency: GHz 1.66045 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 255



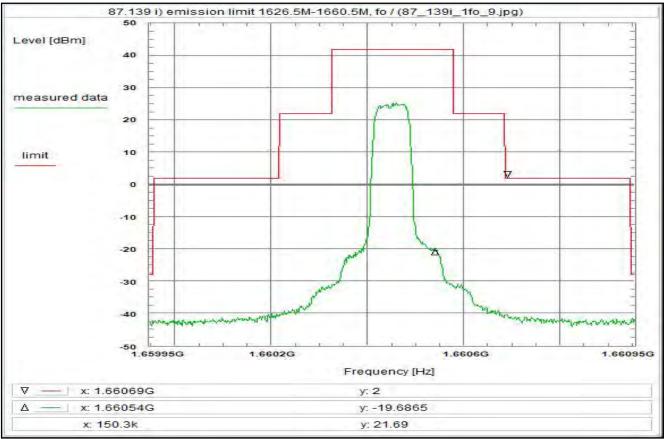
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T2XD/R20T2XD, 67.2 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:38:13 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.6 1.659946 GHz 1.660954 Stop frequency: GHz 1.66045 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 256



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T2QD/R20T2XQD, 67.2 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark:

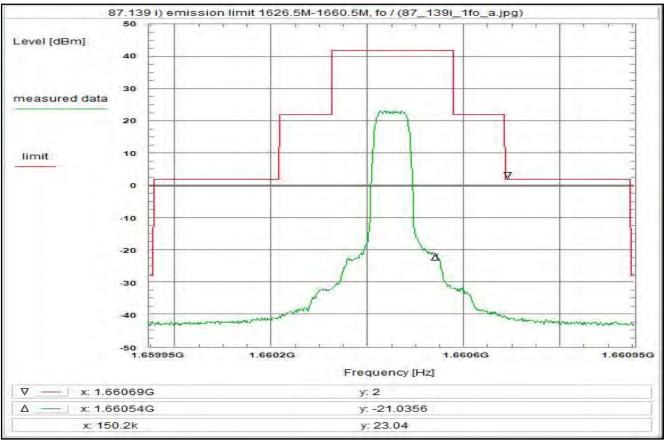
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:49:56 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659946 GHz 1.660954 Stop frequency: GHz 1.66045 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 257



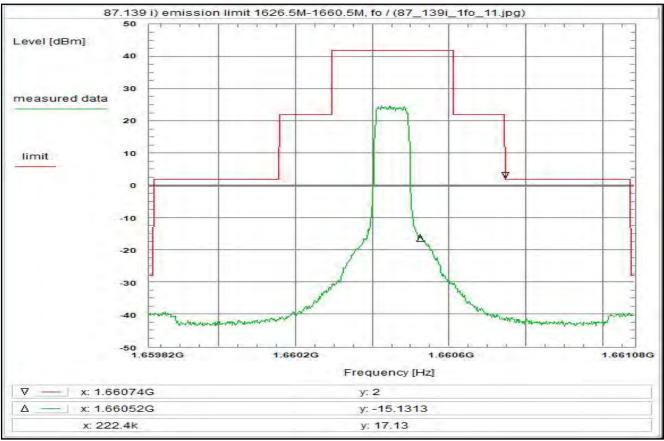
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4
Class 6 HDR PIESD, R5T2QD/R20T2QD, 67.2 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:52:05 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.6 1.659946 GHz 1.660954 Stop frequency: 1.66045 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\label{eq:Remarks:} \underline{\text{Remarks:}}$ Carrier-on state / Carrier at the upper edge of the band (fo) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 258



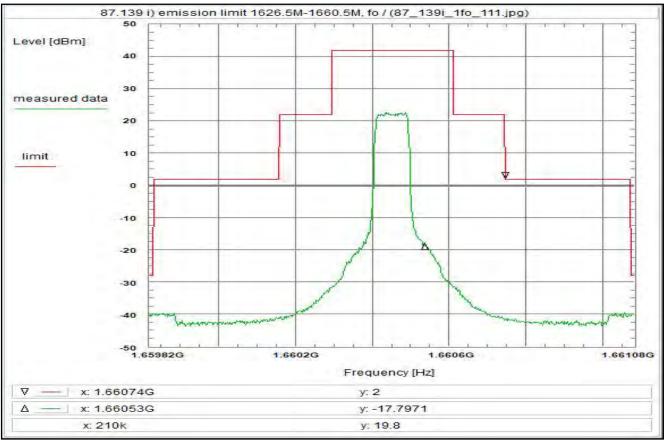
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T2.5X16, 84 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 15:59:07 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.65982 GHz Stop frequency: 1.66045 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 259



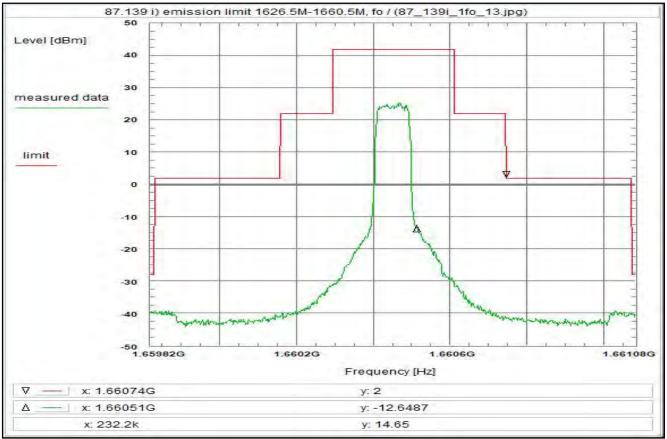
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T2.5X32, 84 ksym/s, 32QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:00:11 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.65982 GHz Stop frequency: 1.66045 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 260



Subclause:

87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier at the upper edge of the band (fo)

Limit:
Limit according to 87.139(i)(1)
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1).

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

Operating condition of DUT:
operating condition 1, see test report chapter 5.4
Class 6 HDR PIESD, FR80T2.5X64, 84 ksym/s, 64QAM

Test setup:
see test report chapter 7.2 setup 1.1hgj

see test report chapter 7.2 setup 1.1hg
Test equipment:

Test equipment: see test report chapter 7.2: C220, R001, U311, U312

Remark:

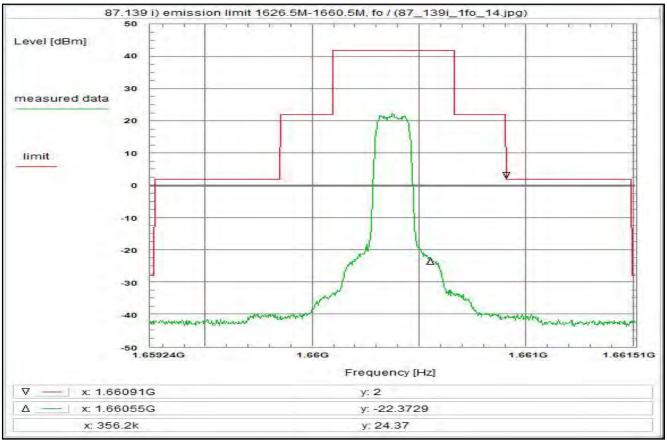
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:05:16 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.65982 GHz Stop frequency: 1.66045 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 261



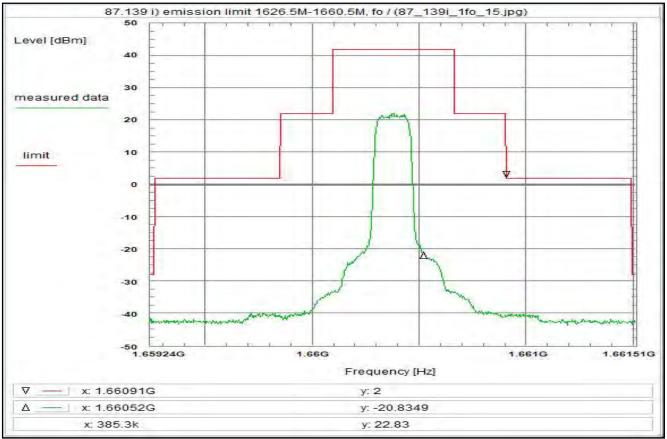
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R5T4.5XD/R20T4.5XD, 151.2 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:07:43 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659241 GHz 1.661509 Stop frequency: GHz GHz MHz Center frequency: 1.660375 Frequency span: 2.268 Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 262



87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T4.5XD/R20T4.5XD, 151.2 ksym/s, 16QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark:

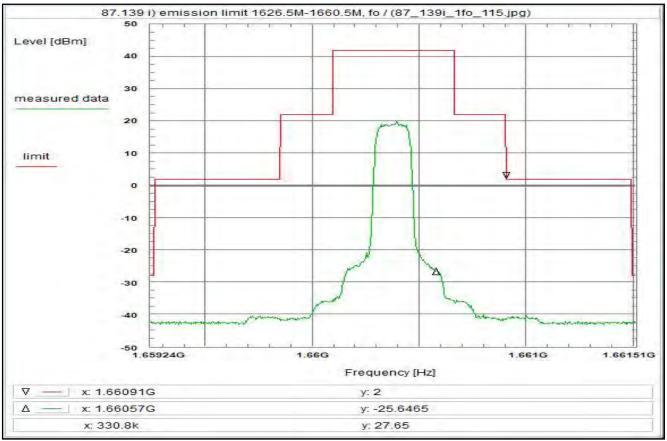
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:13:29 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659241 GHz 1.661509 Stop frequency: GHz GHz MHz Center frequency: 1.660375 Frequency span: 2.268 Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\label{eq:Remarks:} \underline{\text{Remarks:}}$ Carrier-on state / Carrier at the upper edge of the band (fo) For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 263



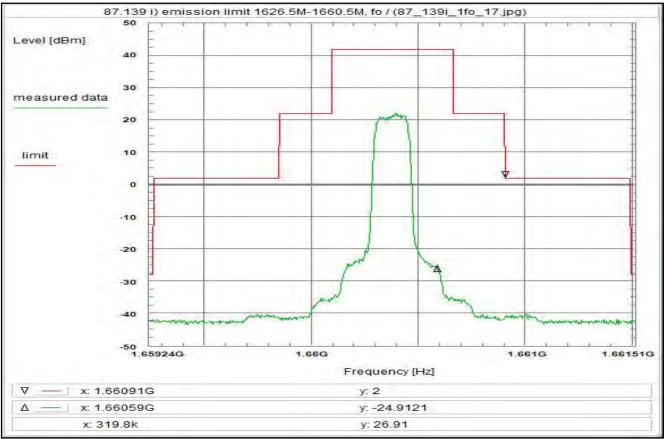
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 ACD, R5T4.5QD/R20T4.5QD, 151.2 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:15:49 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.6 1.659241 GHz 1.661509 Stop frequency: GHz GHz MHz Center frequency: 1.660375 Frequency span: 2.268 Resolution-BW: kHz Video-RW 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 264



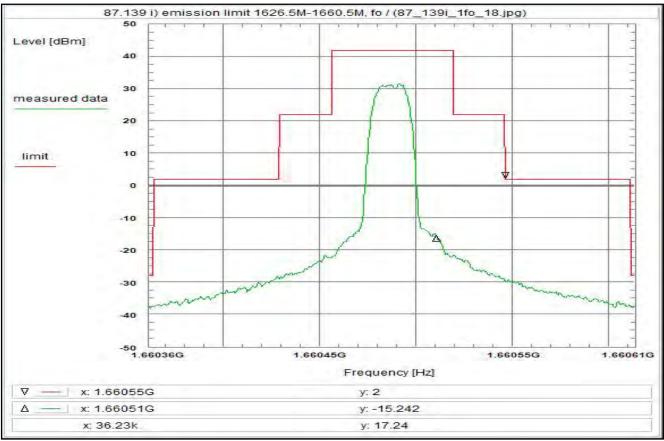
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R5T4.5QD/R20T4.5QD, 151.2 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:22:01 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659241 GHz 1.661509 Stop frequency: GHz GHz MHz Center frequency: 1.660375 Frequency span: 2.268 Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 265



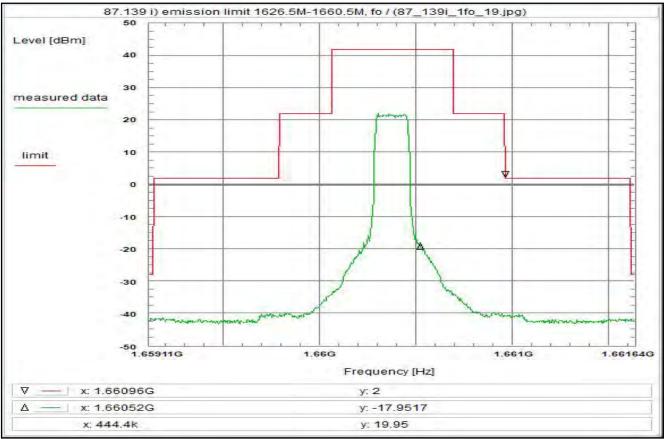
87.139 i) Frequencies, frequency tolerance and emission limitations Subclause: Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, R20T0.5QD, 16.8 ksym/s, QPSK <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark: Test result: Test passed

Environment condition: Date & Time: Thu 28/May/2020 16:26:59 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment:
Start frequency: 1.6603615 GHz 1.6606135 GHz Stop frequency: 1.6604875 252 GHz kHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 266



Subclause:

87.139 i) Frequencies, frequency tolerance and emission limitations
Emission limitations
Modulated rf-carrier at the upper edge of the band (fo)

Limit:
Limit according to 87.139(i)(1)
The mean power of emissions shall be attenuated
below the mean output power of the transmitter
in accordance with 87.139(i)(1).

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

Operating condition of DUT:
operating condition of DUT:
operating condition 1, see test report chapter 5.4
Class 6 HDR PIESD, FR80T5X16, 168 ksym/s, 16QAM

Test setup: see test report chapter 7.2 setup 1.1hgj

<u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312

Remark:

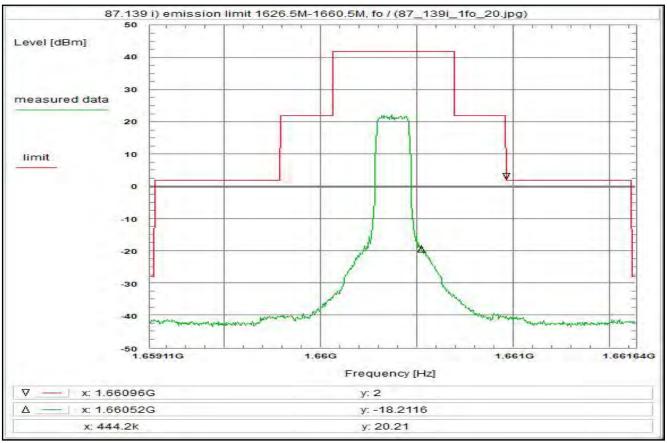
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:33:03 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659115 GHz 1.661635 GHz Stop frequency: 1.660375 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 267



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T5X32, 168 ksym/s, 32QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark:

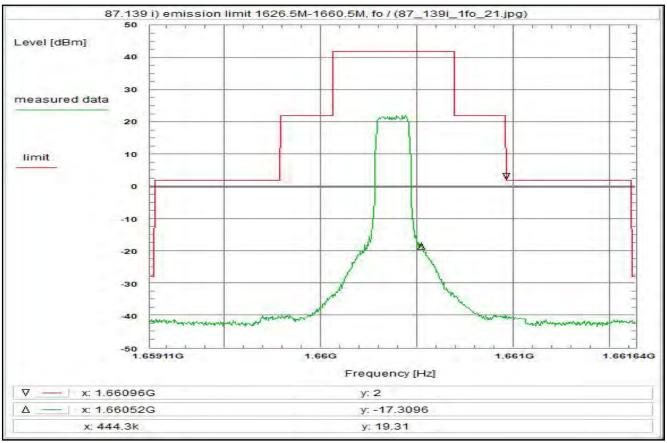
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:34:14 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659115 GHz 1.661635 GHz Stop frequency: 1.660375 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 268



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 Class 6 HDR PIESD, FR80T5X64, 168 ksym/s, 64QAM <u>Test setup:</u> see test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U311, U312 Remark:

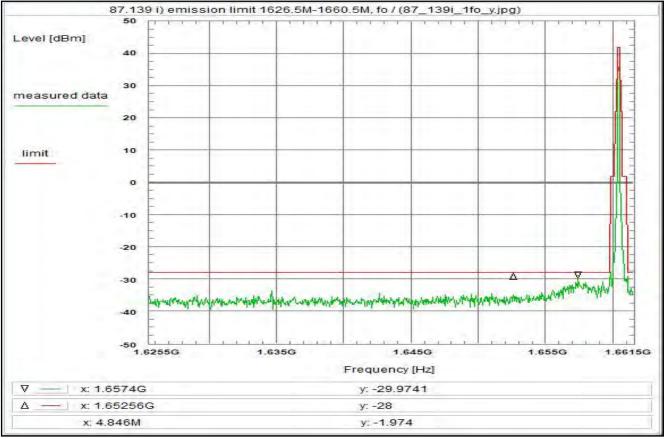
Test result: Test passed

Environment condition:
Date & Time: Thu 28/May/2020 16:38:44 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1. 1.659115 GHz 1.661635 GHz Stop frequency: 1.660375 GHz MHz Center frequency: Frequency span: Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 45 dB Detector-Mode: AVG Correction: + 0.0 dB Directional coupler + 0.9 dB Coaxial cable (C220) U311+U312 29.3 dB TOTAL CORRECTION: 30.2 dB $\frac{Remarks:}{\text{Carrier-on state / Carrier at the upper edge of the band (fo)}}$ For EIRP calculation: 'worst-case' = maximum antenna gain

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Plot No. 269



Subclause: 87.139 i) Frequencies, frequency tolerance and emission limitations Emission limitations Modulated rf-carrier at the upper edge of the band (fo) Limit: Limit according to 87.139(i)(1) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with 87.139(i)(1). Test results: see plot (an explicit table was not generated) Operating condition of DUT: operating condition 1, see test report chapter 5.4 A700S worst case modulation, whole band <u>Test setup:</u> test report chapter 7.2 setup 1.1hgj <u>Test equipment:</u> see test report chapter 7.2: C220, R001, U312, U311, Power Splitter Remark: Test result: Test passed

Environment condition:
Date & Time: Thu 09/Jul/2020 11:29:44 CTC advanced GmbH, Laboratory RC-SYS Location: Temperature: Humidity: 55 % 115 Vac / 400 Hz Voltage: Setup of measurement equipment: Start frequency: 1.6255 GHz Stop frequency: 1.6615 GHz MHz Center frequency: 1.6435 Frequency span: 36 Resolution-BW: kHz Video-RW: 30 kHz Input attenuation: 30 dB Trace-Mode: Clear Write Detector-Mode: AVG Correction: + 0.0 dB Directional coupler Coaxial cable (C220) + 0.9 dB DUT-Antenna 12.0 dBi + 0.0 dB + 1.2 dB Test antenna BW correction factor (3k -> 4k) Atten. between HPA and feedhorn 0.0 dB Attenuation (U312) 19.5 dB Attenuation (U311) 9.7 dB Power Splitter
TOTAL CORRECTION: 50.0 dB Carrier-on state / Carrier at the upper edge of the band (fo) For EIRP calculation: 'worst-case' = maximum antenna gain

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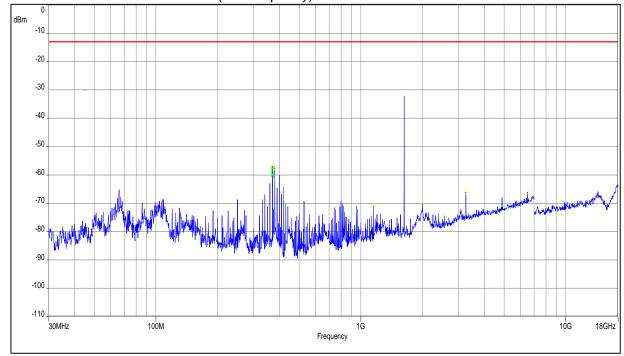
3 Measurement results, Spurious emissions 30MHz - 18 GHz

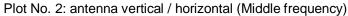
This Chapter 3 consists of 3 pages including this page.

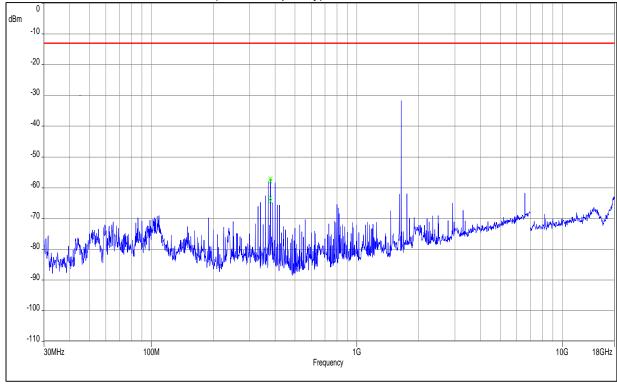
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Plot No. 1: antenna vertical / horizontal (Low frequency)



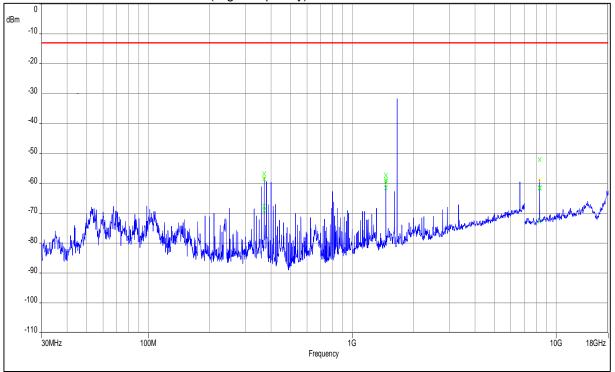




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Plot No. 3: antenna vertical / horizontal (High frequency)



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4 Measurement results, FCC Part 15B

This Chapter 4 consists of 1 pages including this page.

Refer to test report 1-9547_19-02-03.pdf

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5 Document history

Version	Applied changes	Date of release
	Initial release - DRAFT	2020-06-26
	Draft version 2	2020-07-03
	final release	2021-04-29

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