EMC TEST REPORT

No. 2204406STO-101

Electromagnetic disturbances

EQUIPMENT UNDER TEST

Equipment:	Radio Unit
Type/Model:	AIR3268 B48
Product number:	KRD 901 254/3
Additional product number*:	KRD 901 254/1 KRD 901 254/11 KRD 901 254/31
Product configuration:	NR & LTE
Manufacturer:	Ericsson AB
Tested by request of:	Ericsson AB

*See opinions and interpretations clause 2.6

SUMMARY

Referring to the emission limits, and the operating mode during the tests specified in this report, the equipment complies with the radiated spurious emission requirements according to the following standards:

47 CFR Part 2 Subpart J
47 CFR Part 96 Subpart E

For details, see clause 2 – 4.

Date of issue: November 14, 2022

Issued by: Martin Erwe

Approved by: Per Larsson

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Revision History

Test report number	Date	Description	Changes
2204406STO-101	November 14, 2022	First release	

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1. CLIENT INFORMATION

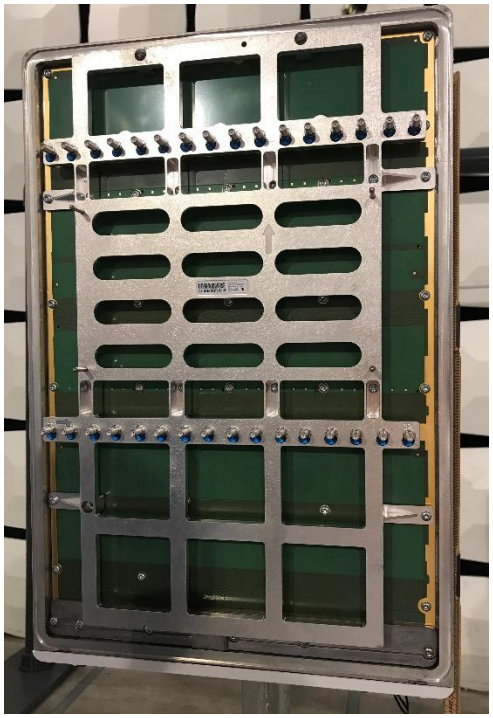
The EUT has been tested by request of

Company:	Ericsson AB 164 80 Stockholm Sweden
Name of contact:	Lennart Blixt BNEW DNEW RA RPSE1 IVC EMC verification Phone +46706731973
Client observer:	Per Sjöberg & Tomas Johansson

2. EQUIPMENT UNDER TEST (EUT)

2.1 Identification of the EUT

Equipment	Radio Unit
Type/Model	AIR 3268 B48
Product number:	KRD 901 254/3
Additional product number:	KRD 901 254/1 KRD 901 254/11 KRD 901 254/31
Product configuration:	NR & LTE
Brand name	Ericsson
Manufacturer	Ericsson AB
Rating	-48VDC
Class	III
Highest clock frequency	CPRI 25,78 GHz

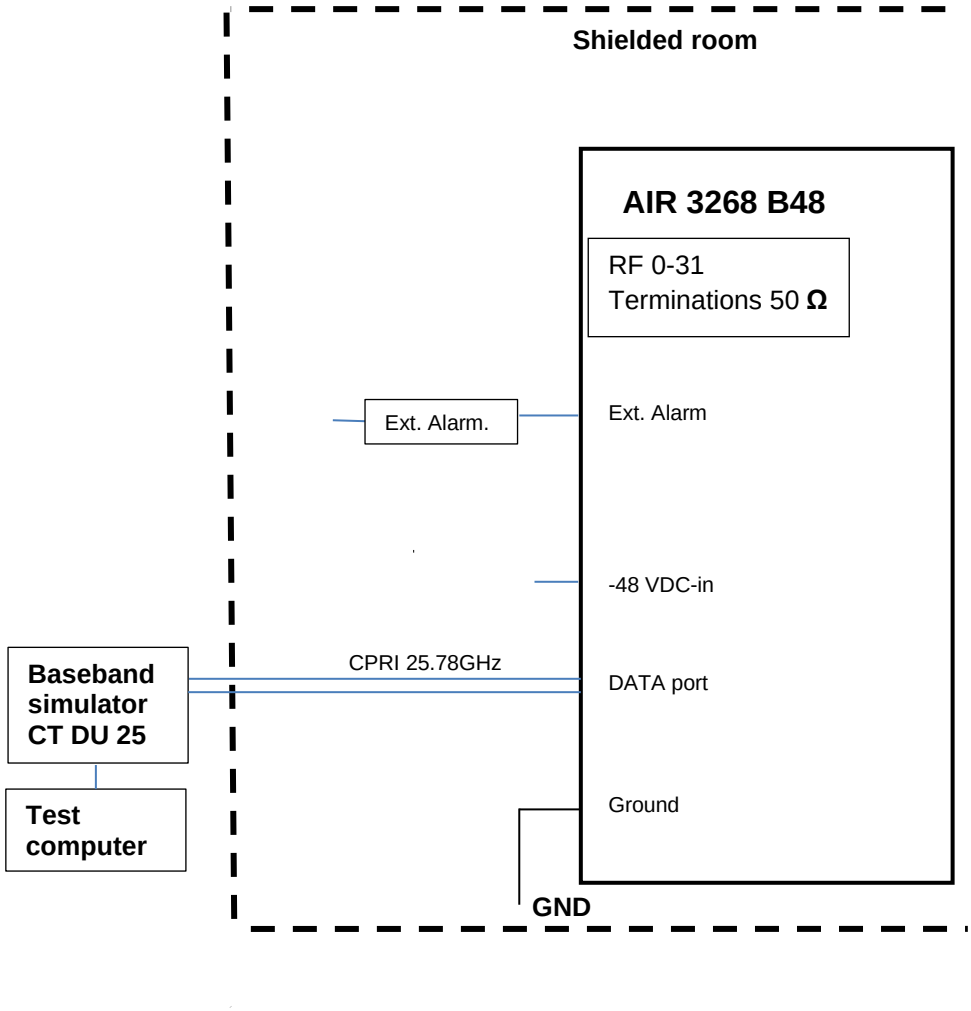


Photos of marking and EUT

2.2 Description of the EUT

The test object is an Antenna Integrated Radio AIR 3268. It is designed to provide mobile users data access in the CBSD (Citizens Broadband Radio Service) band 48: 3550 – 3700 MHz.

2.3 Test setup- block diagram



Block diagram of EUT during the tests

2.4 External cables connected to the EUT

Port	Type	Length [m]	Specifications
DC in	DC power	5.0	Two-core
Earth	Ground	2.0	Single wire, 35mm^2
External alarm	Signal cable	5.0	RPM 513 2350/1
Data 1 & Data 2	RPM 253 1890/10M	10.0	Optical fibre cable

2.5 Auxiliary equipment (AE)

Auxiliary equipment is equipment needed for correct operation of the EUT, but not included as part of the testing and evaluation of the EUT.

Equipment	Type / Model	Manufacturer	Serial no.
Computer	MacBook Pro	Apple	BAMS1002046451
PSU	LP2X700	PA Emilsson	BAMS1017033682
Baseband simulator CT-DU25	LPC 102 500/1	Ericsson	BAMS10170281 79
SFP module	RDH 102 75/3 R1A	Ericsson	EA61XL0B88
SFP module	RDH 102 75/3 R1A	Ericsson	EA61XL099A
Power supply (for EUT)	SGA 60/250	Sorensen	BAMS-1000234866

2.6 Opinions and interpretations

The difference as compared to the tested type is (according to the manufacturer):
KRD 901 254/1 With Antenna, Security Unlocked.
KRD 901 254/11 With Antenna, Security Locked
KRD 901 254/31 CAB unit, Security Locked

The difference is considered not to affect EMC-characteristics when compared to the tested type. Therefore, the tests performed is also considered to cover the additional types.

2.7 Decision rule

The statements of conformity are reported as:
Passed – When the measured values are within the specified limits.
Failed – When one or more measures values are outside the specified limits.

3. TEST SPECIFICATIONS

3.1 Standards

Requirements:

FCC 47 CFR Part 2 Subpart J
FCC 47 CFR Part 96 Subpart E

Test methods:

KDB971168 D01 Power Meas License Digital Systems v03r01
ANSI C63.26: 2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
KDB940660 D01 Part 96 CBRS Eqpt v03: Certification and test procedures for citizens broadband radio service devices authorized under part 96.
KDB662911 D01 Multiple Transmitter Output v02r01: Emissions Testing of Transmitters with Multiple Outputs in the Same Band

3.2 Additions, deviations and exclusions from standards and accreditation

The following deviation from standards and accreditation was made: only the radiated spurious emission performed according to manufacturer's request.

No other additions, deviations or exclusions have been made from standards and accreditation.

3.3 Test site

Measurements were performed at:

Intertek Semko AB.
Torshamnsgatan 43,
P.O. Box 1103
SE-164 22 Kista

Intertek Semko AB is a FCC listed test site with site registration number 90913
Intertek Semko AB is a FCC accredited conformity assessment body with designation number SE0002
Intertek Semko AB is an Industry Canada listed test facility with IC assigned code 2042G
Intertek Semko AB is an Innovation, Science and Economic Development Canada recognized wireless device testing laboratory with CAB identifier SE0003

Measurement chambers

Measurement Chamber	Type of chamber	IC Site filing #
5 m CHAMBER	Semi-anechoic 5 m	2042G-3

3.4 Mode of operation during the test

The EUT was tested with - 53 V DC.

Transmission band B48: 3550 – 3700 MHz.

Radio Configuration

LTE:
The test object was activated for maximum transmit power. E-TM1.1 as defined in ETSI TS 136 141/ 3GPP TS 36.141 was used in all cells.

NR:
The test object was transmitting test model FR1-TM1.1 as defined in ETSI TS 138 141/ 3GPP TS 38.141-1.

All the RF ports are activated for maximum transmit power. See table below for detailed radio configurations.

Radio configuration emission (LTE + NR)

Configura-tion No.	Type & No. of Carriers	Channel BW (MHz)	Power/carrier/ TAB connector (dBm)	Test Model	Carrier Frequency (DL)
					MHz
1	LTE1	20	22,3	E-TM1.1	3560
2	LTE1	20	22,3	E-TM1.1	3625
3	LTE1	20	22,3	E-TM1.1	3690
4	LTE2	20	2x22,27	E-TM1.1	3560 3690
5	LTE5	20	5x22,27	E-TM1.1	3560 3580 3600 3670 3690
6	NR1	40	25,80	FR1-TM1.1	3570
7	NR1	40	25,80	FR1-TM1.1	3625
8	NR1	40	25,80	FR1-TM1.1	3680
9	NR2	40	2x25,80	FR1-TM1.1	3570 3679.98
10	LTE1	20	22,27	E-TM1.1	3560
	NR1	40	25,80	FR1-TM1.1	3679.98
11	LTE3	20	3x22,27	E-TM1.1	3560 3580 3600
	NR2	20	2x25,80	FR1-TM1.1	3670 3690

3.5 Compliance

The EUT shall comply with the emission limits as listed below

RF power output
CFR47 §2.1046, §96.41(b)

Peak to average power ratio shall not exceed 13 dB for more than 0.1% of the time

EIRP and PSD limits for CBRS equipment

Device	Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a
Category A CBSD	30	20
Category B CBSD	47	37

Modulation characteristics
CFR47 §2.1047

The devices may employ any type of modulation techniques. The type of modulation used must be reported.

Occupied bandwidth
CFR47 §2.1049, §96.41(e)(3)

Spurious emission at antenna terminals
CFR47 §2.1051, §96.41(e)(1), §96.41(e)(1)(2)

Within 0 MHz to 10 MHz above and below the assigned channel shall not exceed −13 dBm/MHz.
Greater than 10 MHz above and below the assigned channel shall not exceed -25 dBm/MHz.
Any emission below 3530 MHz and above 3720 MHz shall not exceed -40 dBm/MHz.

Field strength of spurious emissions
CFR47 §2.1051, §96.41(e)(1)(2)

Within 0 MHz to 10 MHz above and below the assigned channel shall not exceed −13 dBm/MHz.
Greater than 10 MHz above and below the assigned channel shall not exceed -25 dBm/MHz.
Any emission below 3530 MHz and above 3720 MHz shall not exceed -40 dBm/MHz.

Frequency stability
CFR47 §2.1055,

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

4. TEST SUMMARY

The results in this report apply only to sample tested:

Standard	Description	Result
	Emission	
ANSI C63.26 5.2.4	**RF output power and peak to average power ratio**	**Not tested**
ANSI C63.26 5.4	**Occupied bandwidth**	**Not tested**
ANSI C63.26 5.2.4.5	**Max PSD**	**Not tested**
ANSI C63.26 5.7	**Spurious emissions, at antenna terminals**	**Not tested**
ANSI C63.26 5.5	**Field strength of spurious radiation**	**PASS**
	The EUT complies with the limits.	
ANSI C63.26 5.6	**Frequency stability**	**Not tested**

Not tested = Not tested by client's request.

5. RADIATED RF EMISSION IN THE FREQUENCY-RANGE 30 MHZ– 1 – 18 – 26.5 – 40 GHZ

Date of test:	Temperature [°C]	Relative Humidity [%]	Tested by:
October 21, 2022	22	31	Anna Karin Cedergren
October 24, 2022	21	37	Anna Karin Cedergren
October 25, 2022	21	51	Anna Karin Cedergren
October 26, 2022	21	46	Anna Karin Cedergren
October 27, 2022	21	45	Anna Karin Cedergren
October 28, 2022	21	52	Anna Karin Cedergren
October 31, 2022	20	41	Martin Erwe
November 1, 2022	21	43	Martin Erwe
November 2, 2022	22	47	Martin Erwe
November 3, 2022	21	39	Martin Erwe
November 4, 2022	21	42	Martin Erwe

5.1 Test set-up and test procedure

The test method is in accordance with ANSI C63.26.

The EUT was set up in order to emit maximum disturbances.
EUT was placed on turntable which is part of the reference ground plane. EUT was insulated from RGP with 15 cm thick support.
Absorbers were placed on the floor between the EUT and measurement antenna.

Overview sweeps were performed with the measurement receiver in max-hold mode and the peak and average detectors activated in the frequency-range
The EUT is continuously rotated 360º

Test set-up:	**30 MHz – 40 GHz**		
Test receiver set-up:			
Preview test:	Peak	RBW 1 MHz,	VBW 3 MHz
	Average	RBW 1 MHz,	VBW 3 MHz
Final test:	RMS,	RBW 1 MHz,	VBW 3 MHz
Measuring distance:	3 m		
Measuring angle:	0 – 359°		
EUT height above ground plane:	0.8 m		1.5 m
Antenna	30 – 1000 MHz		1 – 40 GHz
Type:	Bilog		Horn
Antenna tilt:	Not Activated		Activated
Height above ground plane:	1 – 4 m		
Polarisation:	Vertical and Horizontal		

E[dBµV/m] = Analyser reading [dBµV] + Antenna factor [1/m] - Amplifier gain [dB] + Cable loss [dB]

EIRP [dBm] = E[dBµV/m] +20log[3] – 104.8
Where [3] is the measuring distance.

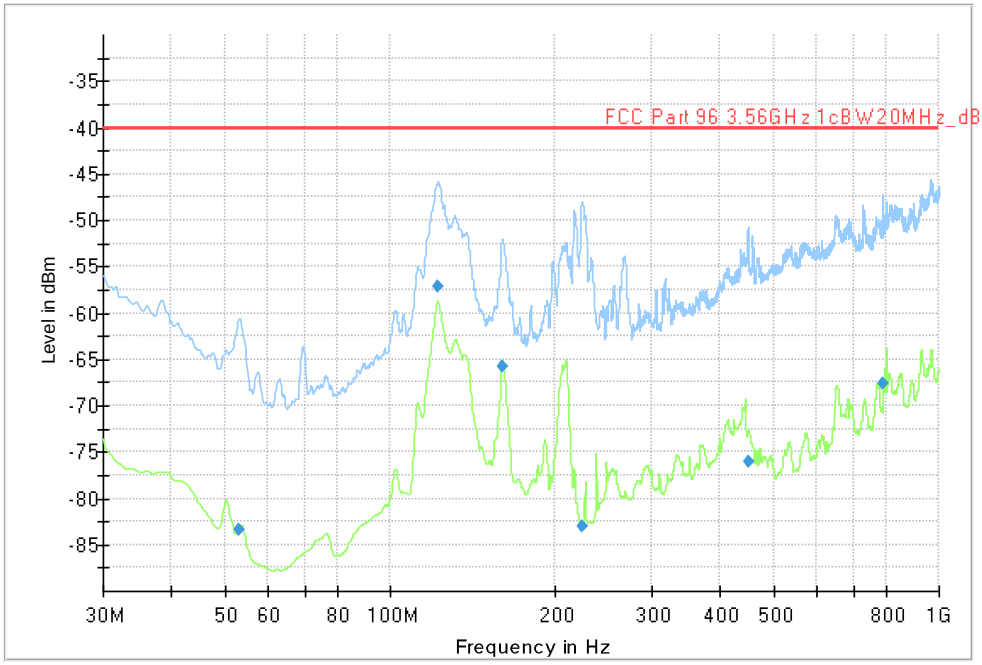
5.2 Measurement uncertainty

Measurement uncertainty for radiated disturbance

Uncertainty for the frequency range 30 to 1000 MHz at 3 m	± 5.1 dB
Uncertainty for the frequency range 30 to 1000 MHz at 10 m	± 5.0 dB
Uncertainty for the frequency range 1.0 to 18 GHz at 3 m	± 4.5 dB
Uncertainty for the frequency range 18 to 26 GHz at 3 m	± 4.8 dB
Uncertainty for the frequency range 26 to 40 GHz at 3 m	± 5.7 dB

Measurement uncertainty is calculated in accordance with CISPR 16-4-2: 2011.
The measurement uncertainty is given with a confidence of 95 %.

5.3 Test results, 30 – 1000 MHz, Configuration 1: LTE Bottom



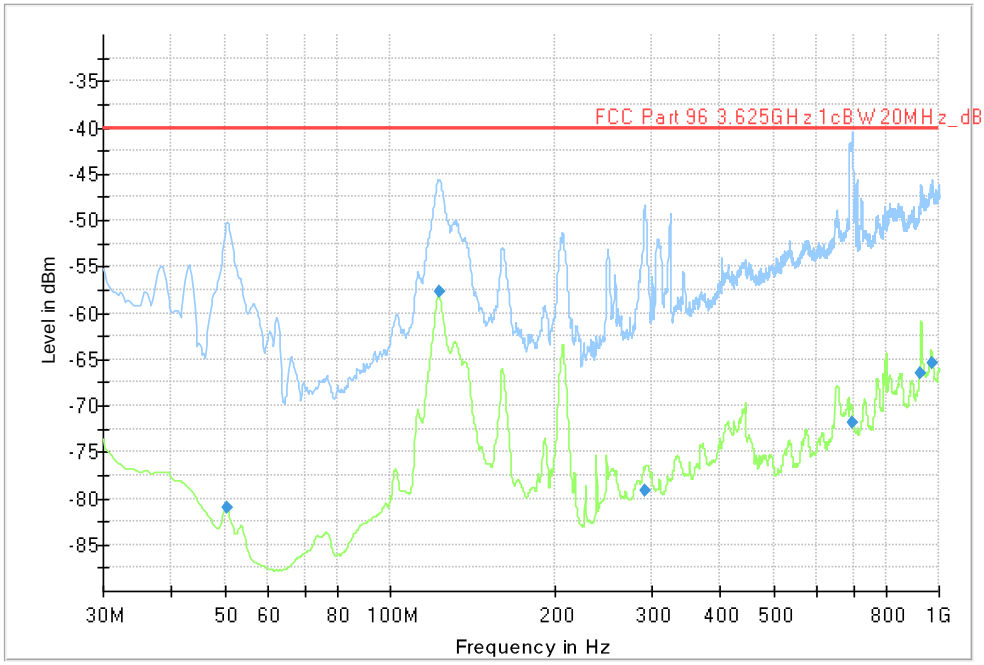
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
122.250000	-57.14	-40.00	17.14	V

All other measured disturbances have a margin of more than 20 dB to the limit.

5.4 Test results, 30 – 1000 MHz, Configuration 2: LTE Middle



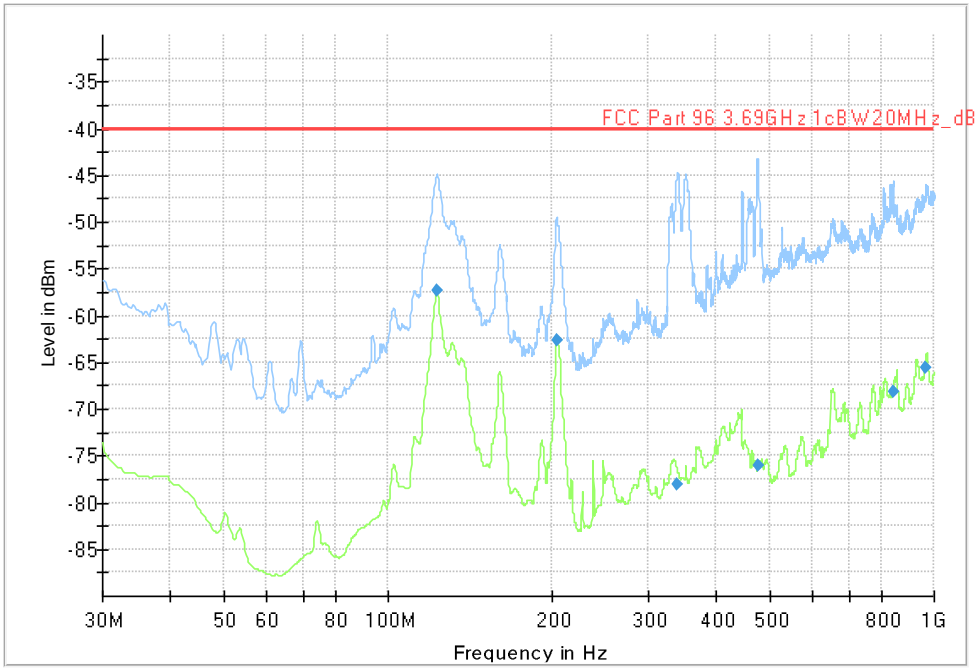
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
123.000000	-57.69	-40.00	17.69	H

All other measured disturbances have a margin of more than 20 dB to the limit.

5.5 Test results, 30 – 1000 MHz, Configuration 3: LTE Top



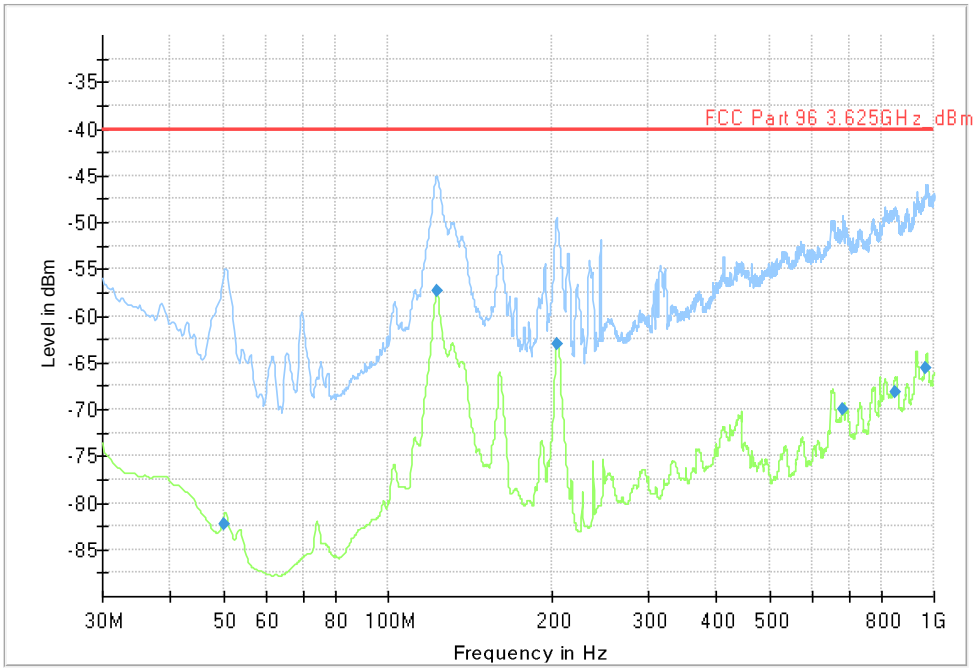
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
123.000000	-57.32	-40.00	17.32	H

All other measured disturbances have a margin of more than 20 dB to the limit.

5.6 Test results, 30 – 1000 MHz, Configuration 4: LTE 2 Carriers



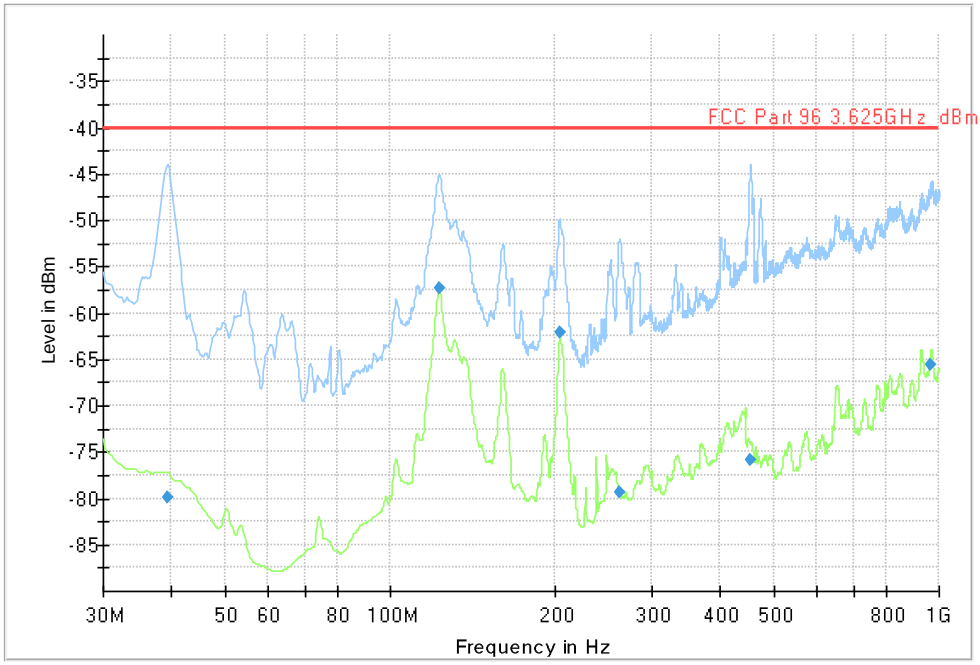
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
123.000000	-57.37	-40.00	17.37	H

All other measured disturbances have a margin of more than 20 dB to the limit.

5.7 Test results, 30 – 1000 MHz, Configuration 5: LTE 5 Carriers



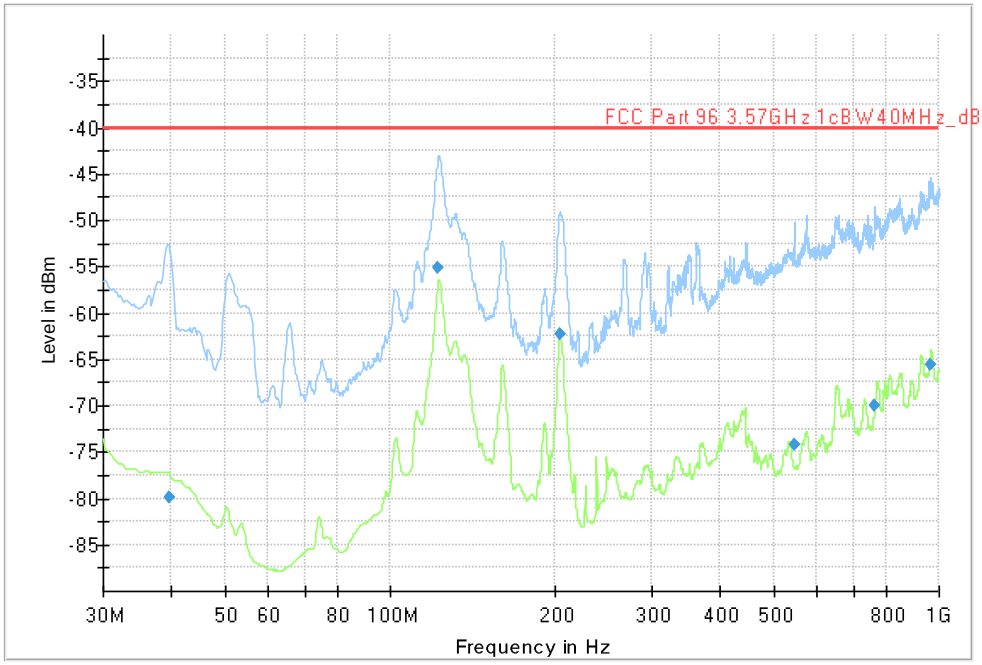
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
123.000000	-57.40	-40.00	17.40	H

All other measured disturbances have a margin of more than 20 dB to the limit.

5.8 Test results, 30 – 1000 MHz, Configuration 6: NR Bottom



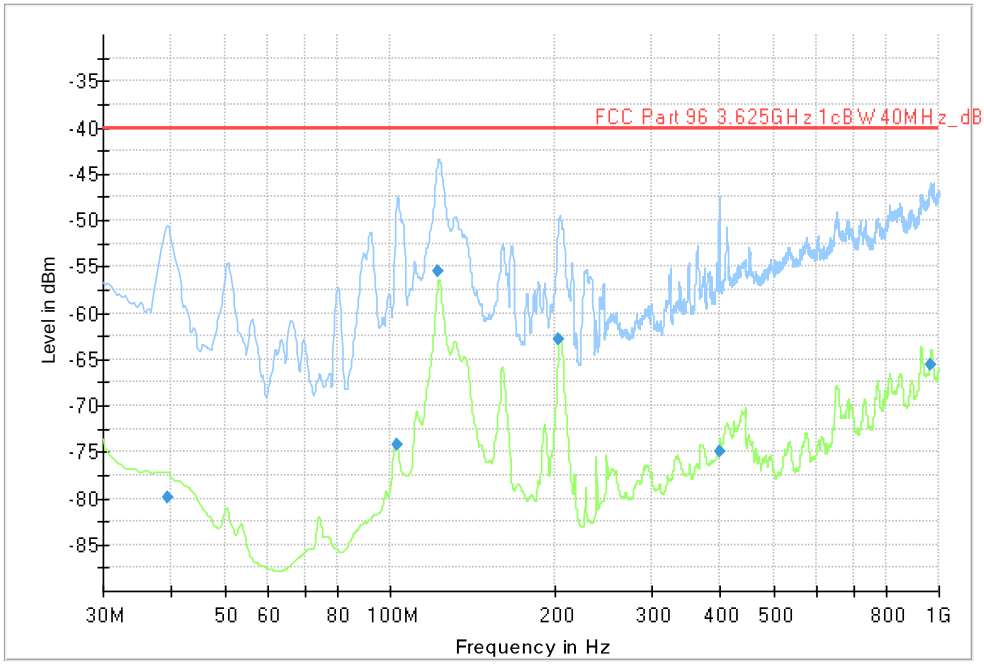
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
122.500000	-55.14	-40.00	15.14	V

All other measured disturbances have a margin of more than 20 dB to the limit.

5.9 Test results, 30 – 1000 MHz, Configuration 7: NR Middle



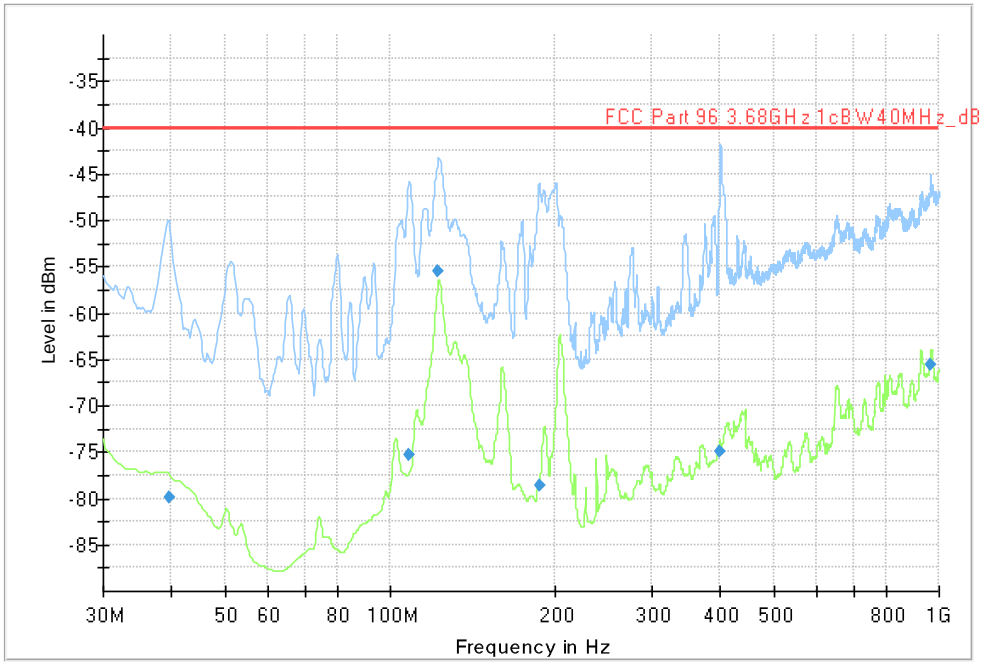
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
122.500000	-55.45	-40.00	15.45	V

All other measured disturbances have a margin of more than 20 dB to the limit.

5.10 Test results, 30 – 1000 MHz, Configuration 8: NR Top



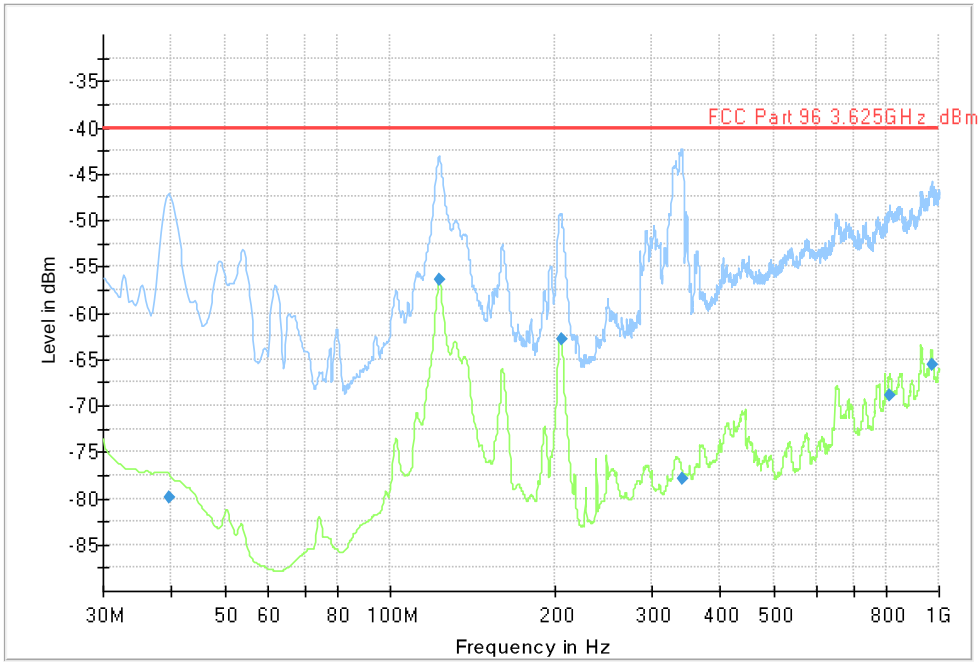
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
122.500000	-55.51	-40.00	15.51	V

All other measured disturbances have a margin of more than 20 dB to the limit.

5.11 Test results, 30 – 1000 MHz, Configuration 9: NR 2 Carriers



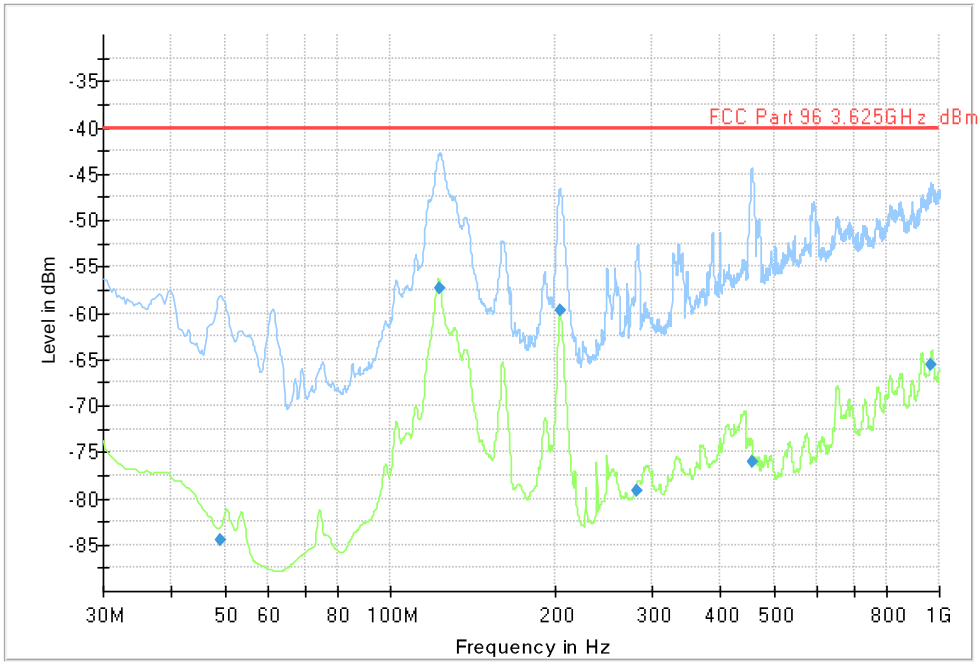
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
122.750000	-56.47	-40.00	16.47	H

All other measured disturbances have a margin of more than 20 dB to the limit.

5.12 Test results, 30 – 1000 MHz, Configuration 10: NR + LTE 2 Carriers



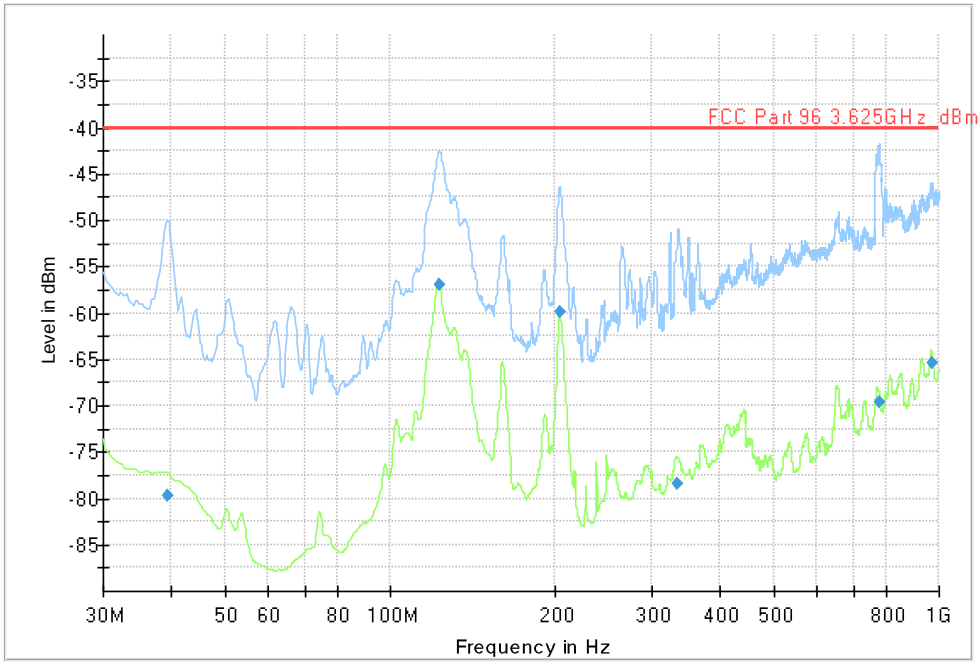
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
123.250000	-57.31	-40.00	17.31	H
203.750000	-59.73	-40.00	19.73	V

All other measured disturbances have a margin of more than 20 dB to the limit.

5.13 Test results, 30 – 1000 MHz, Configuration 11: NR + LTE 5 Carriers



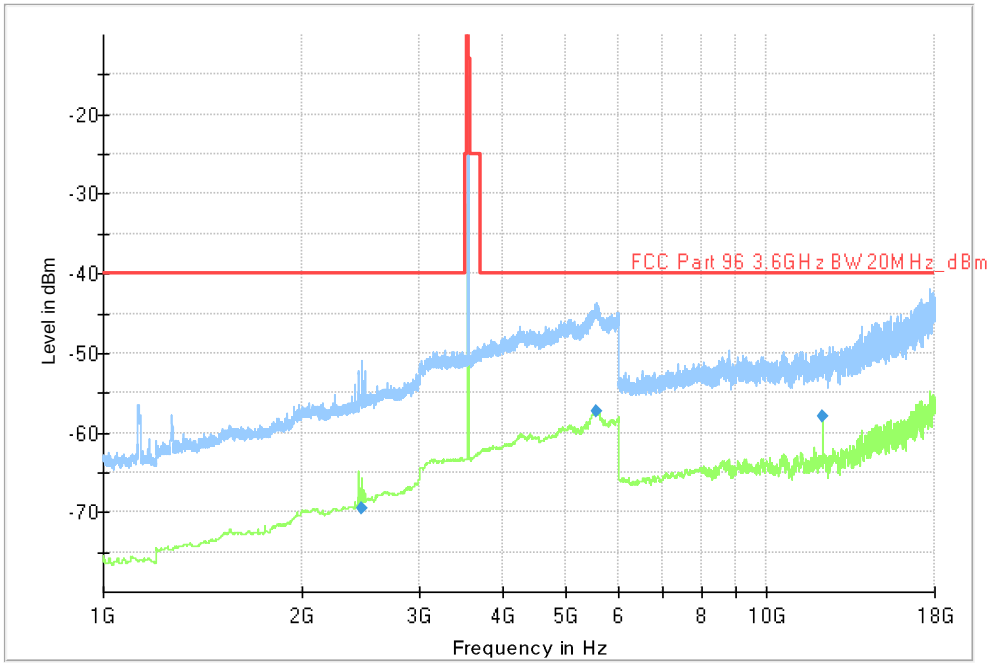
Diagram, Peak overview sweep, 30 – 1000 MHz at 3 m distance

Measurement results

Frequency [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarization H/V
123.000000	-57.00	-40.00	17.00	H
203.750000	-59.91	-40.00	19.91	V

All other measured disturbances have a margin of more than 20 dB to the limit.

5.14 Test results, 1 – 18 GHz configuration 1: LTE Bottom

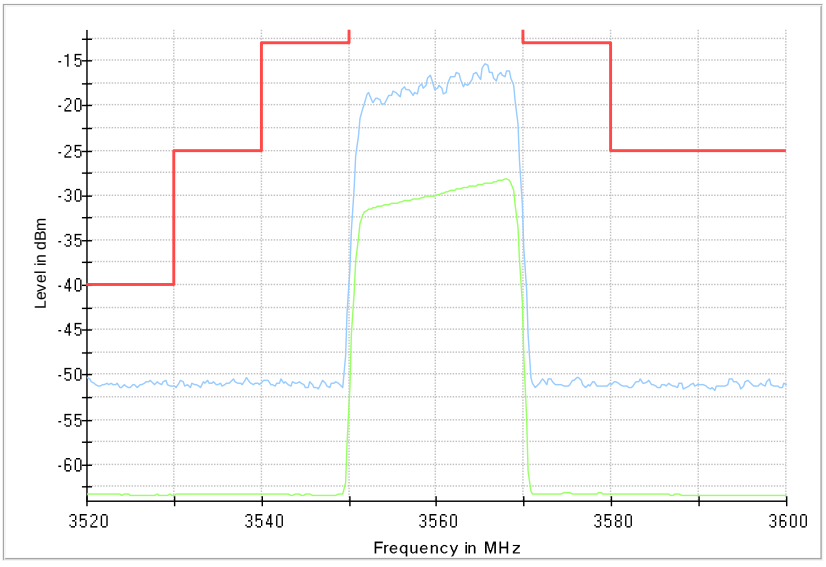


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. LTE Bottom BW:20MHz Disturber at 3560MHz belongs to the carrier and should be ignored

Measurement results, RMS

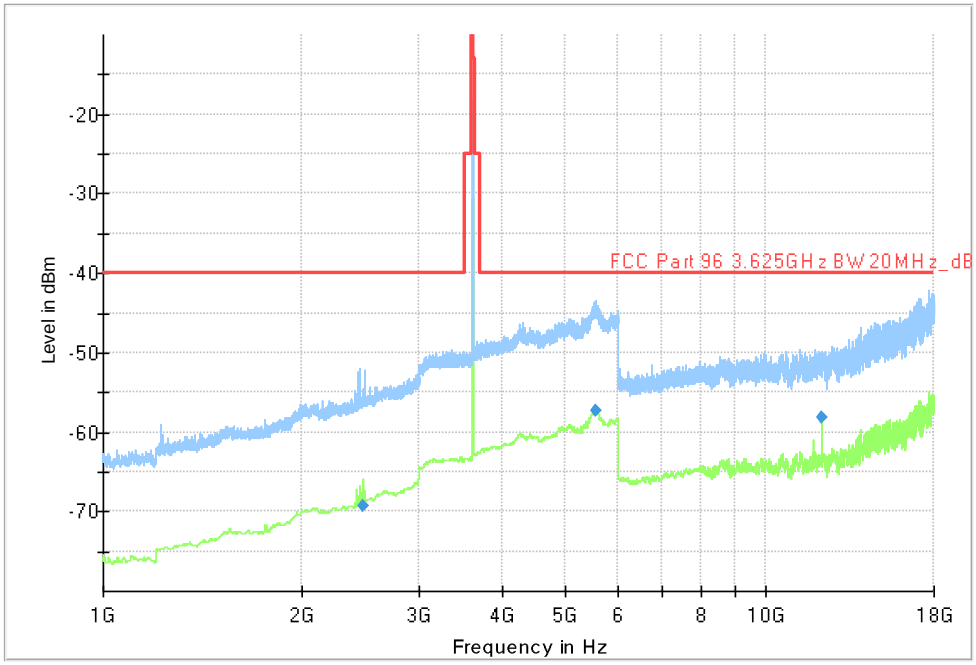
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
5550.250000	-57.27	-40.00	V	17.27
12165.250000	-57.97	-40.00	V	17.97

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.15 Test results, 1 – 18 GHz configuration 2: LTE Middle

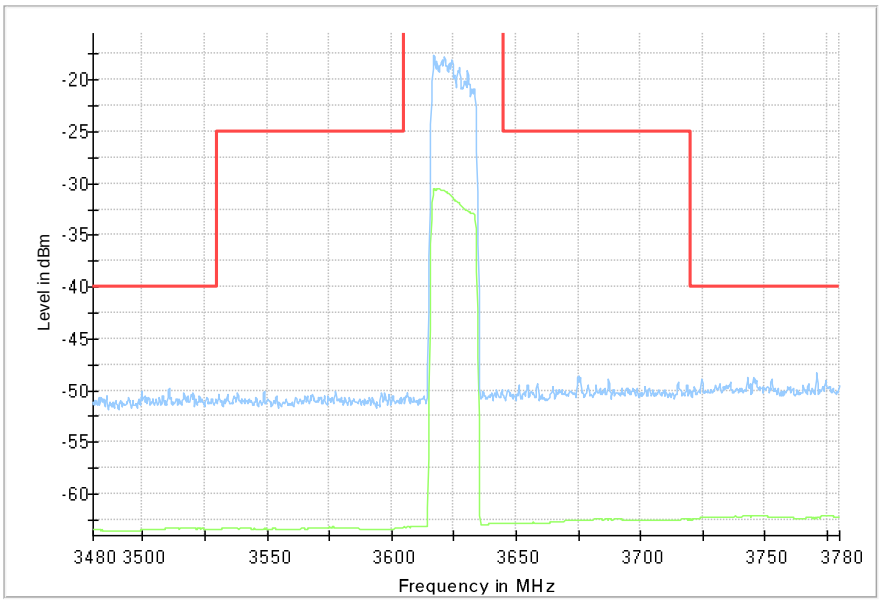


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. LTE Middle BW:20MHz Disturber at 3625MHz belongs to the carrier and should be ignored

Measurement results, RMS

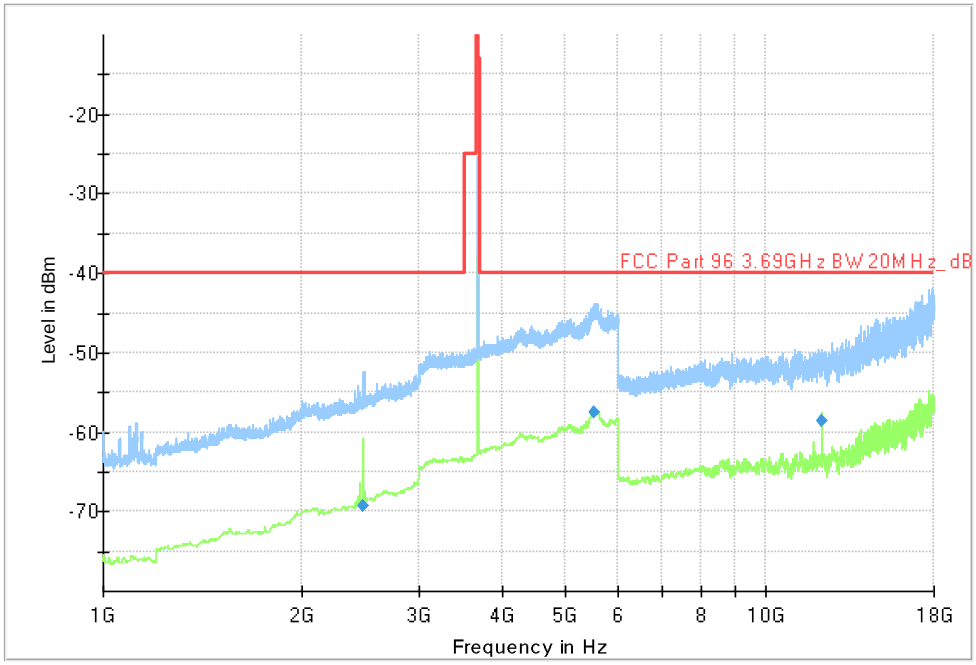
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
5535.750000	-57.37	-40.00	H	17.37
12165.250000	-58.13	-40.00	V	18.13

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.16 Test results, 1 – 18 GHz configuration 3: LTE Top

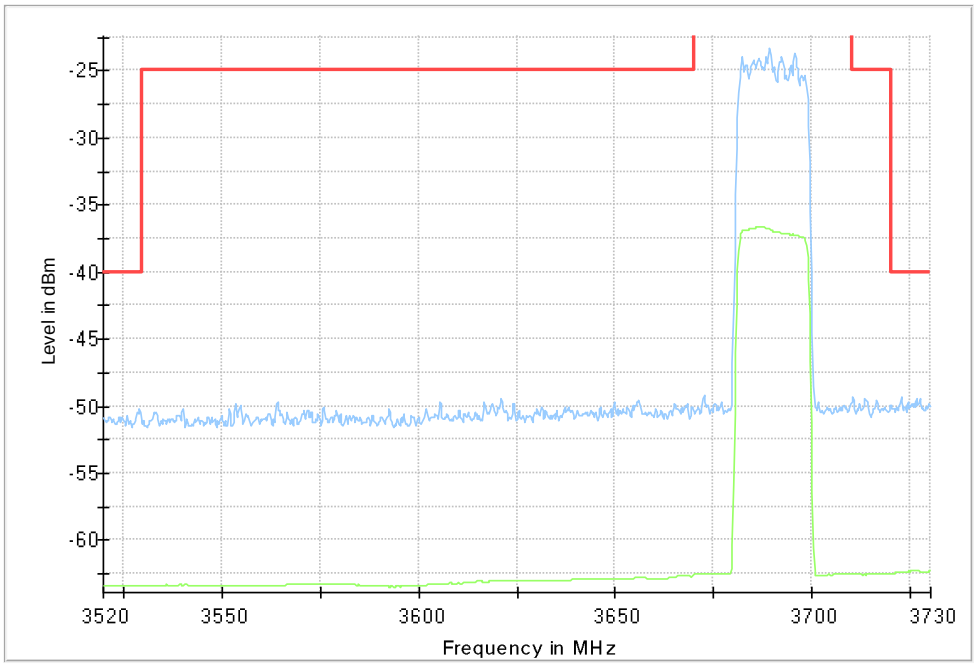


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. LTE Top BW:20MHz Disturber at 3690MHz belongs to the carrier and should be ignored

Measurement results, RMS

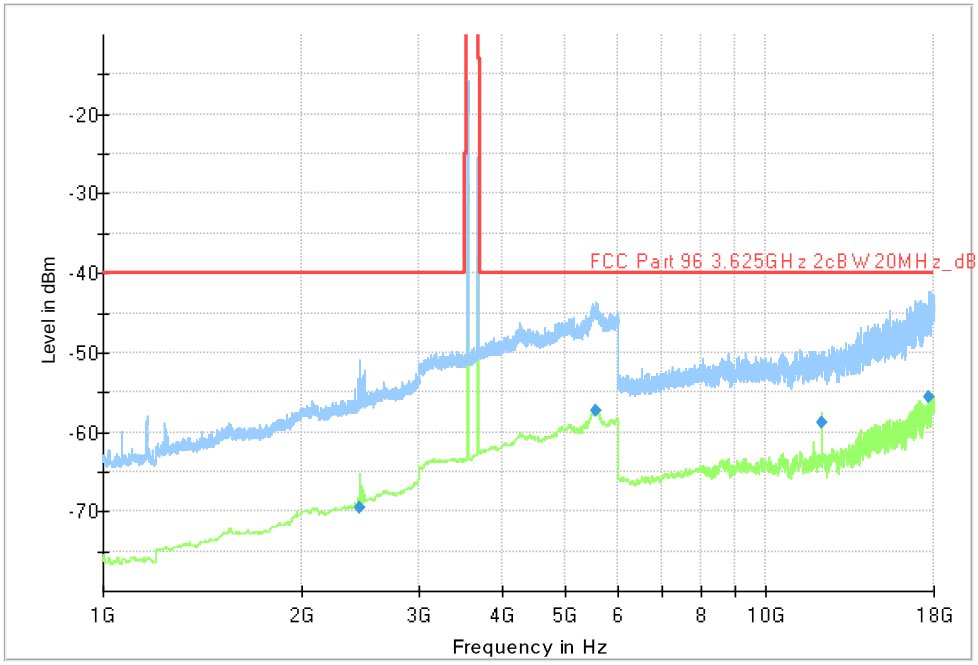
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
5516.750000	-57.45	-40.00	H	17.45
12165.250000	-58.58	-40.00	V	18.58

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.17 Test results, 1 – 18 GHz configuration 4: LTE 2 Carriers

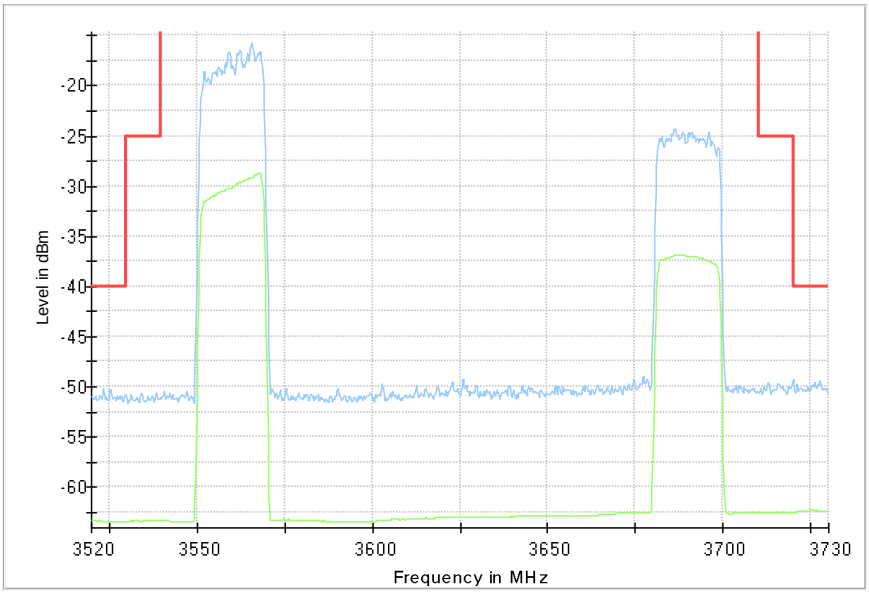


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. BW:20MHz Disturber at 3560 to 3690MHz belongs to the carrier and should be ignored

Measurement results, RMS

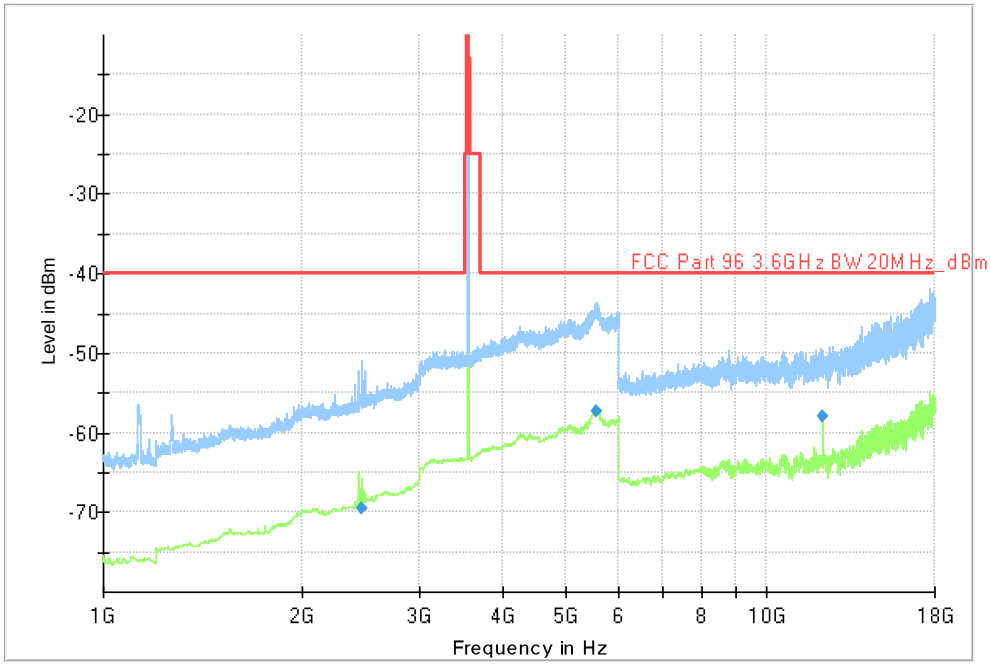
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
5547.000000	-57.34	-40.00	H	17.34
12164.750000	-58.82	-40.00	V	18.82
17694.000000	-55.61	-40.00	V	15.61

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.18 Test results, 1 – 18 GHz configuration 5: LTE 5 Carriers

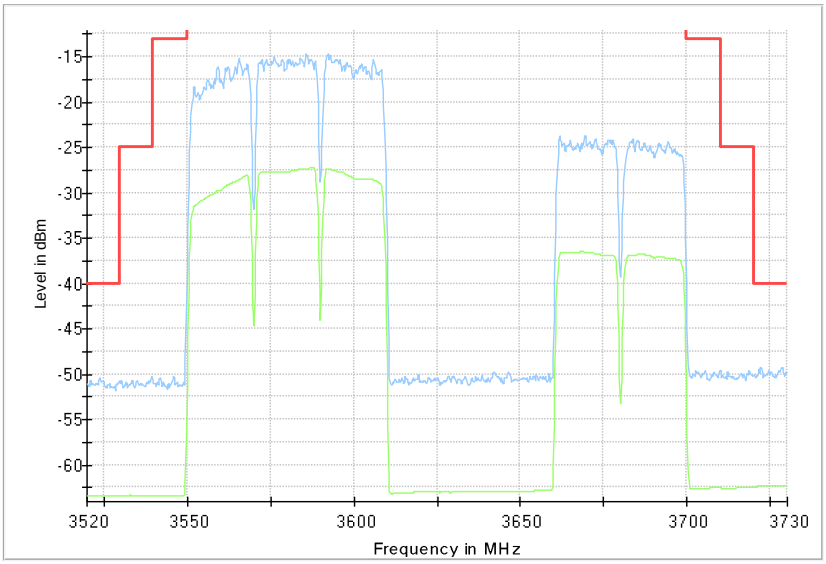


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. LTE Bottom BW:20MHz Disturber at 3560 to 3690MHz belongs to the carrier and should be ignored

Measurement results, RMS

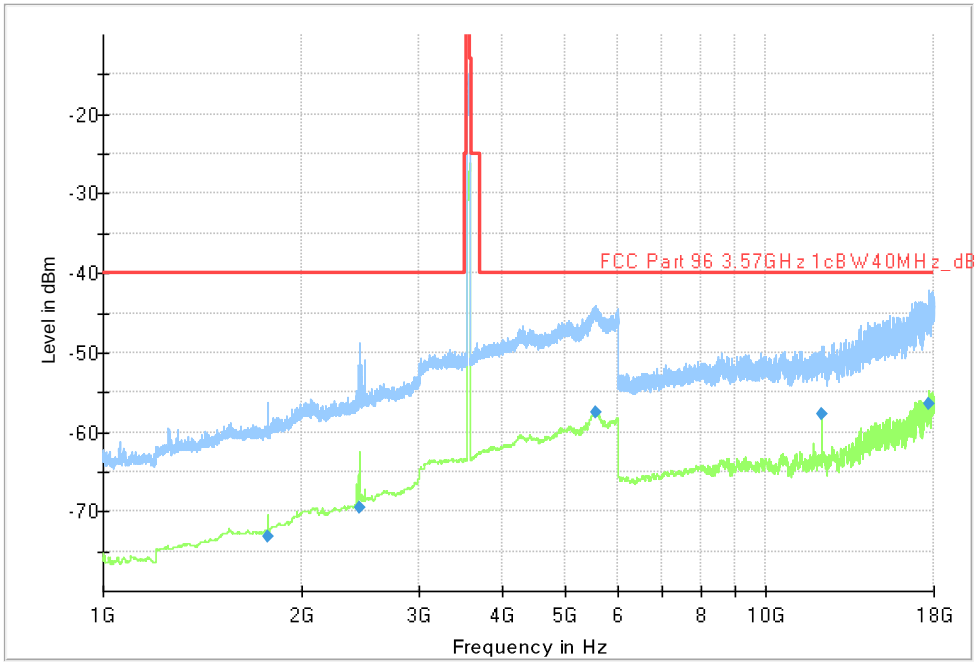
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
5522.500000	-57.35	-40.00	V	17.35
12165.250000	-56.65	-40.00	V	16.65
17695.000000	-56.04	-40.00	H	16.04

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.19 Test results, 1 – 18 GHz configuration 6: NR Bottom

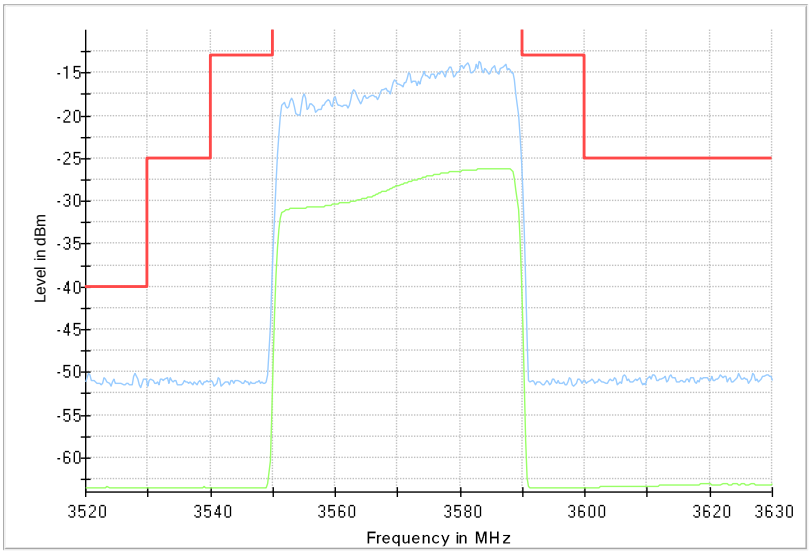


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. NR Bottom BW:40MHz Disturber at 3570 MHz belongs to the carrier and should be ignored

Measurement results, RMS

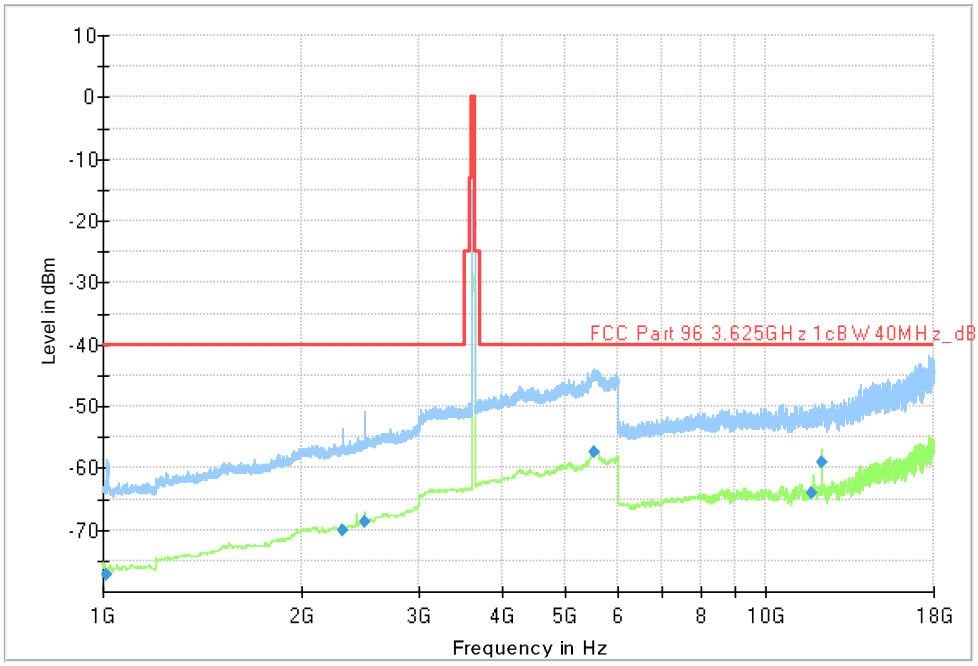
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
5548.000000	-57.55	-40.00	H	17.55
12165.000000	-57.79	-40.00	V	17.79
17697.750000	-56.41	-40.00	V	16.41

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.20 Test results, 1 – 18 GHz configuration 7: NR Middle

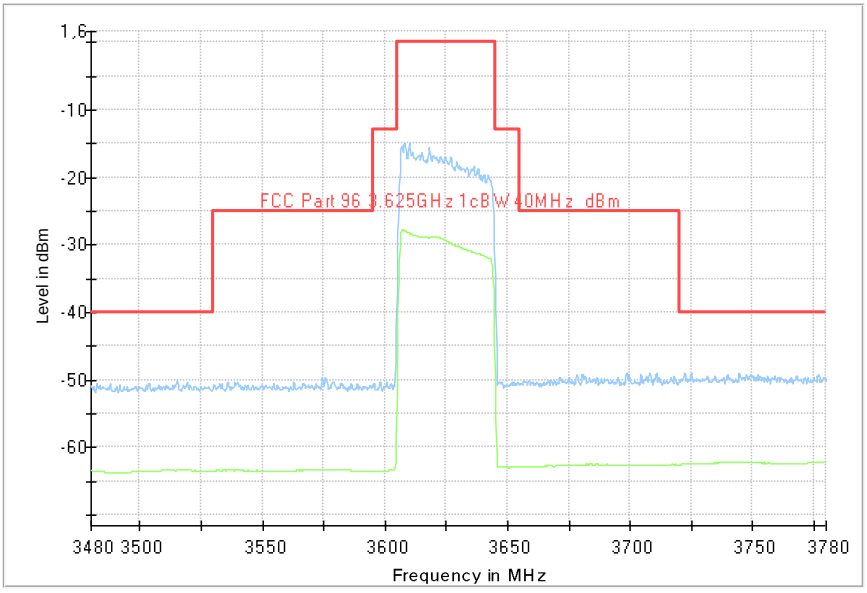


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. NR Middle BW:40MHz Disturber at 3625 MHz belongs to the carrier and should be ignored

Measurement results, RMS

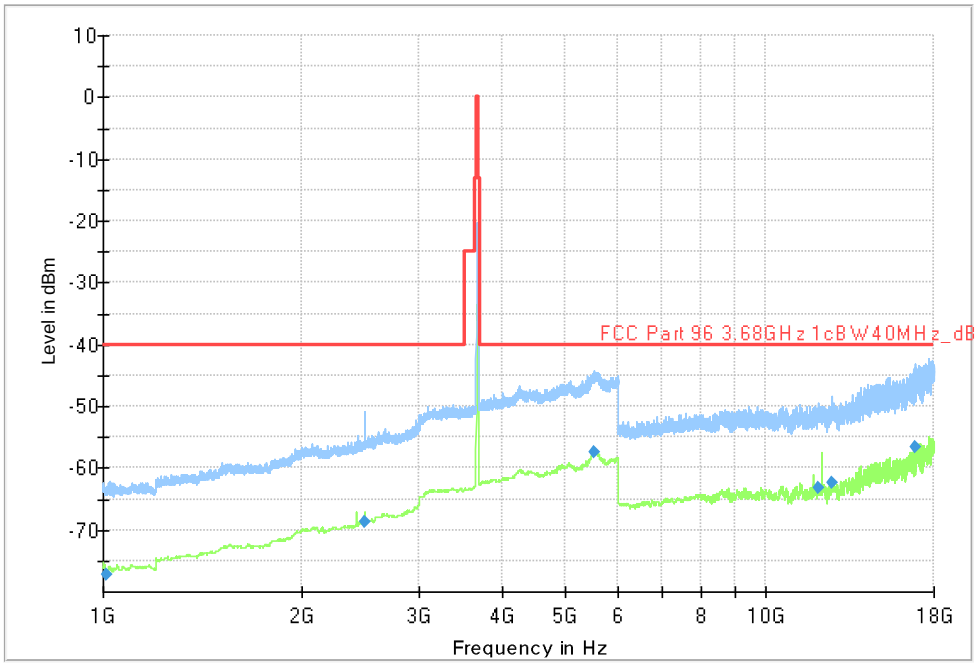
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
5524.000000	-57.49	-40.00	H	17.49
12165.250000	-59.06	-40.00	V	19.06

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.21 Test results, 1 – 18 GHz configuration 8: NR Top

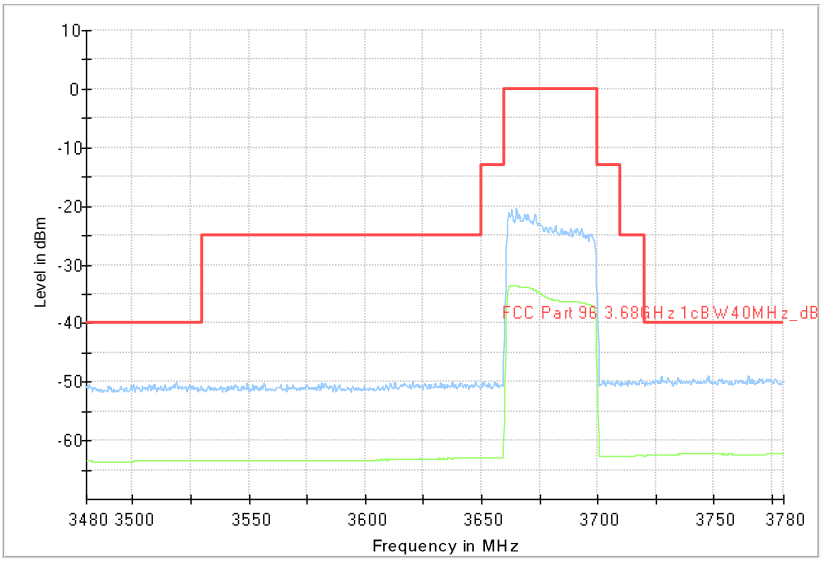


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. NR Bottom BW:40MHz Disturber at 3680 MHz belongs to the carrier and should be ignored

Measurement results, RMS

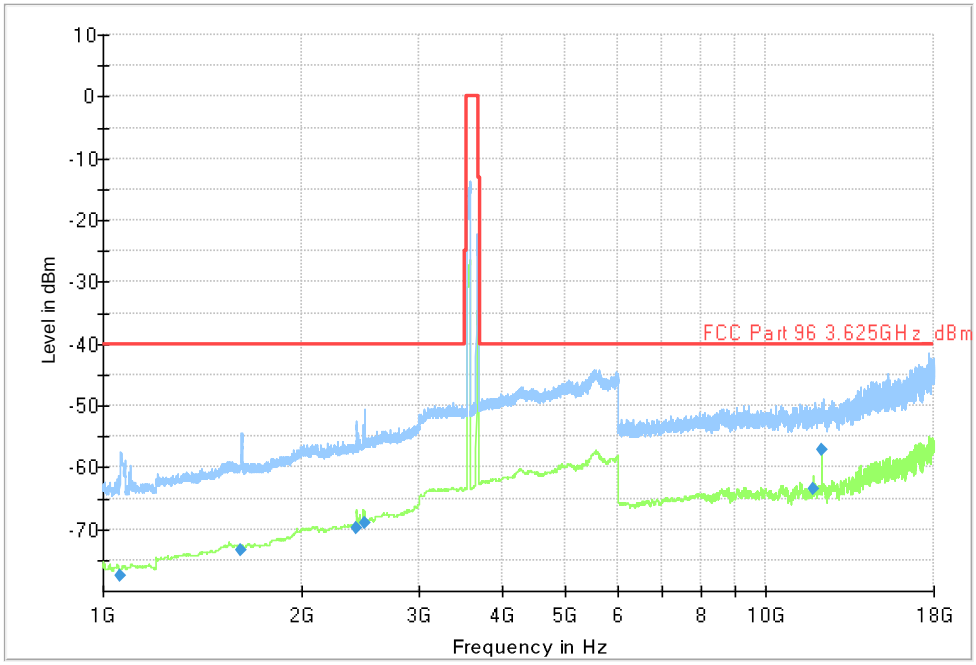
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
5531.500000	-57.50	-40.00	V	17.50
16896.250000	-56.69	-40.00	V	16.69

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.22 Test results, 1 – 18 GHz configuration 9: NR 2 Carriers

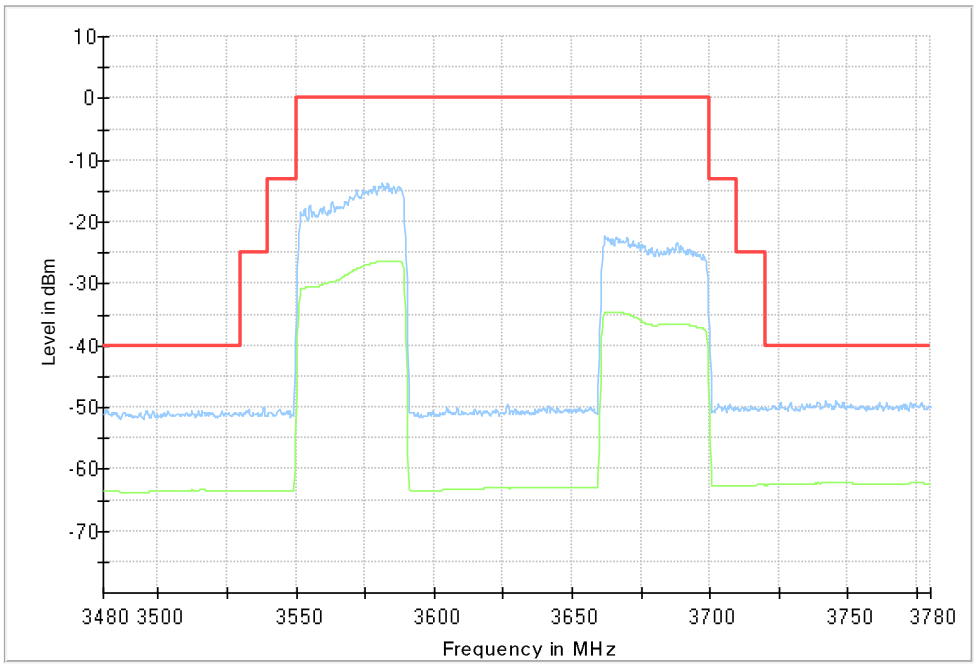


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. NR 2 Carriers BW:40MHz Disturber at 3570 and 3680 belongs to the carrier and should be ignored

Measurement results, RMS

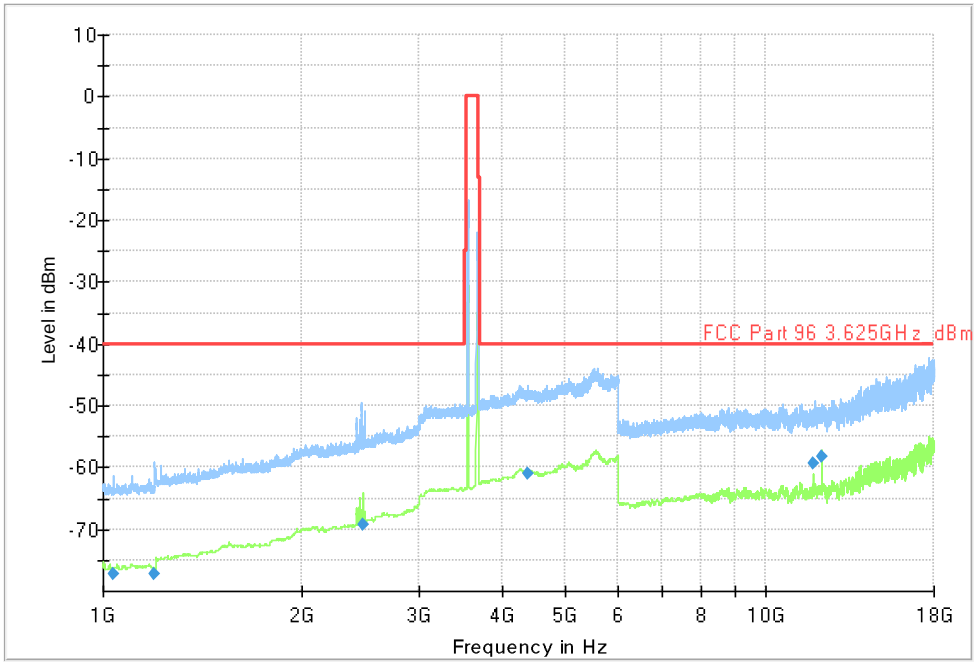
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
12165.250000	-57.18	-40.00	V	17.18

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.23 Test results, 1 – 18 GHz configuration 10: NR + LTE 2 Carriers

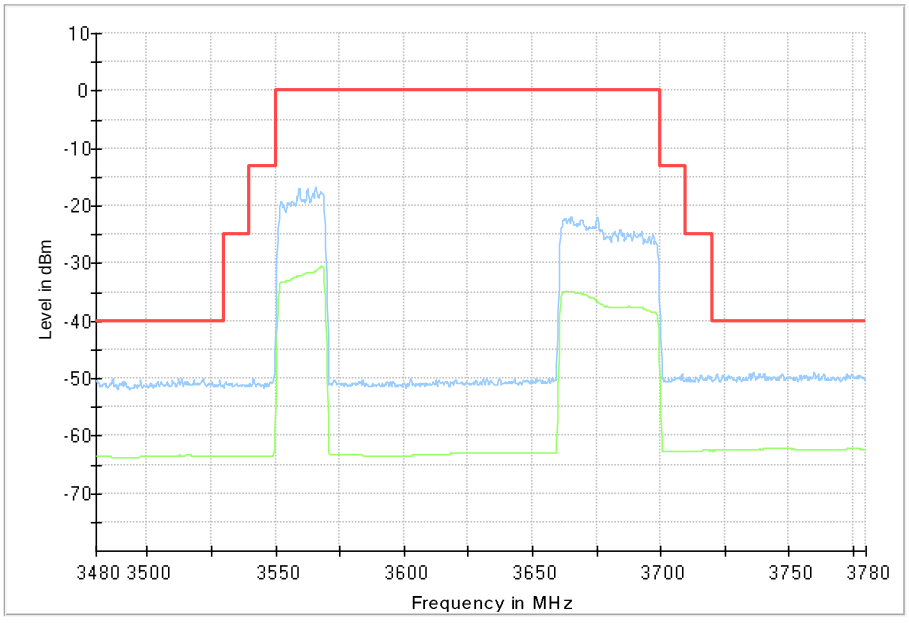


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. LTE BW: 20MHz + NR BW:40MHz Disturber at 3560 and 3680 MHz belongs to the carrier and should be ignored

Measurement results, RMS

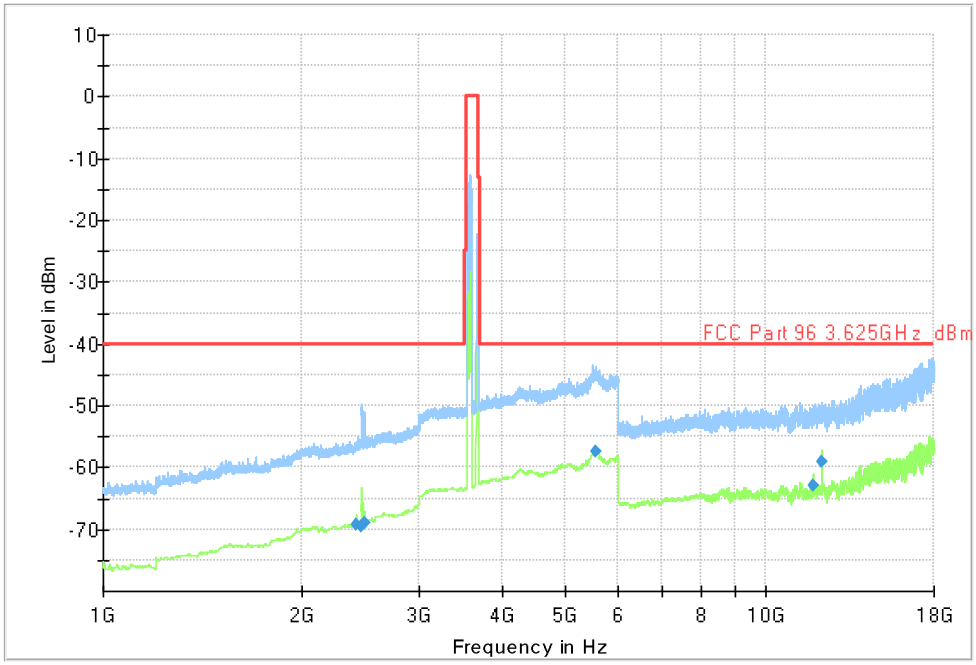
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
11796.500000	-59.48	-40.00	V	19.48
12165.250000	-58.14	-40.00	V	18.14

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.24 Test results, 1 – 18 GHz configuration 11: NR + LTE 5 Carriers

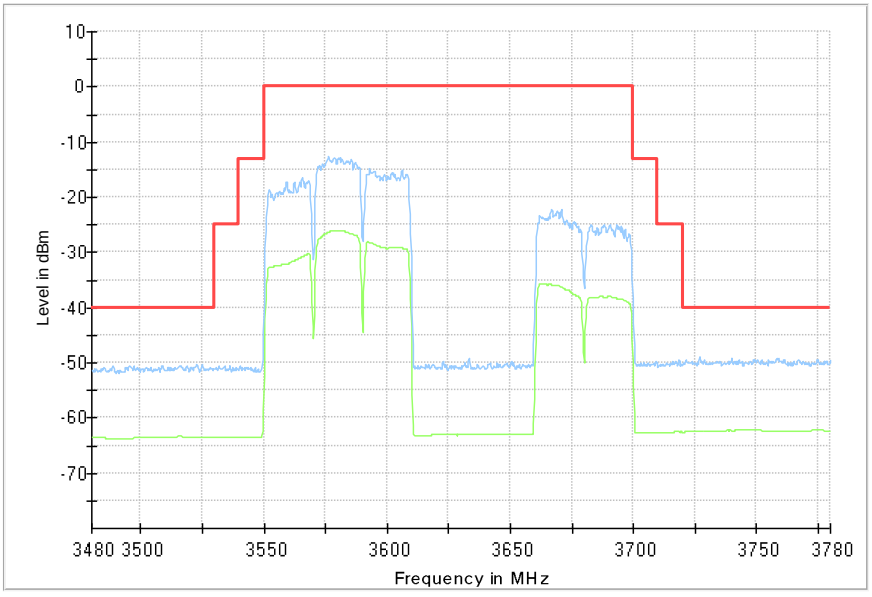


Diagram, Peak and average overview sweep, 1 – 18 GHz at 3 m distance. Disturber at LTE: 3560 + 3580 + 3600 MHz BW:20MHz and NR:3670+3690 MHz BW:20MHz belongs to the carrier and should be ignored

Measurement results, RMS

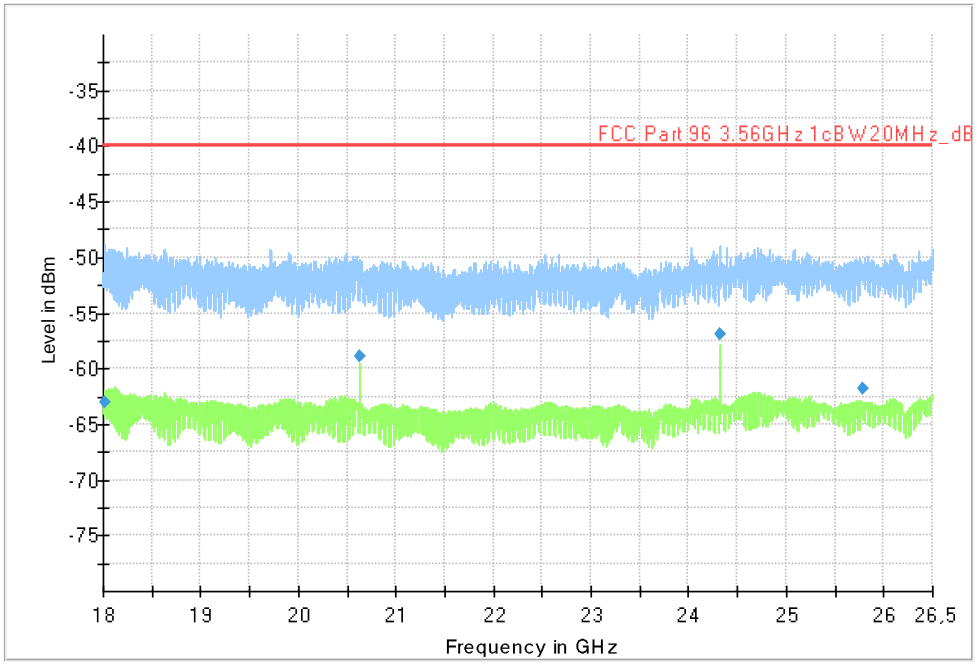
Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB/m]
5549.250000	-57.46	-40.00	V	17.46
12165.000000	-59.05	-40.00	V	19.05

All other measured disturbances have a margin of more than 20 dB to the limit.



Diagram, Zoom of carrier in diagram above

5.25 Test results, 18 – 26.5 GHz, configuration 1: LTE Bottom



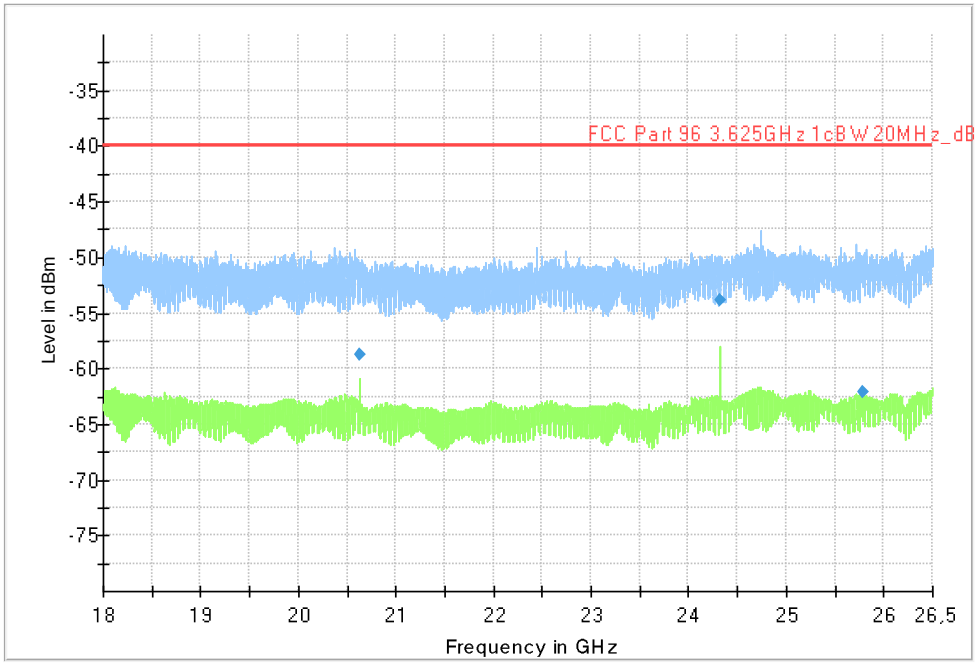
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
20625.000000	-58.86	-40.00	V	18.86
24330.250000	-56.96	-40.00	H	16.96

All other measured disturbances have a margin of more than 20 dB to the limit.

5.26 Test results, 18 – 26.5 GHz, configuration 2: LTE Middle



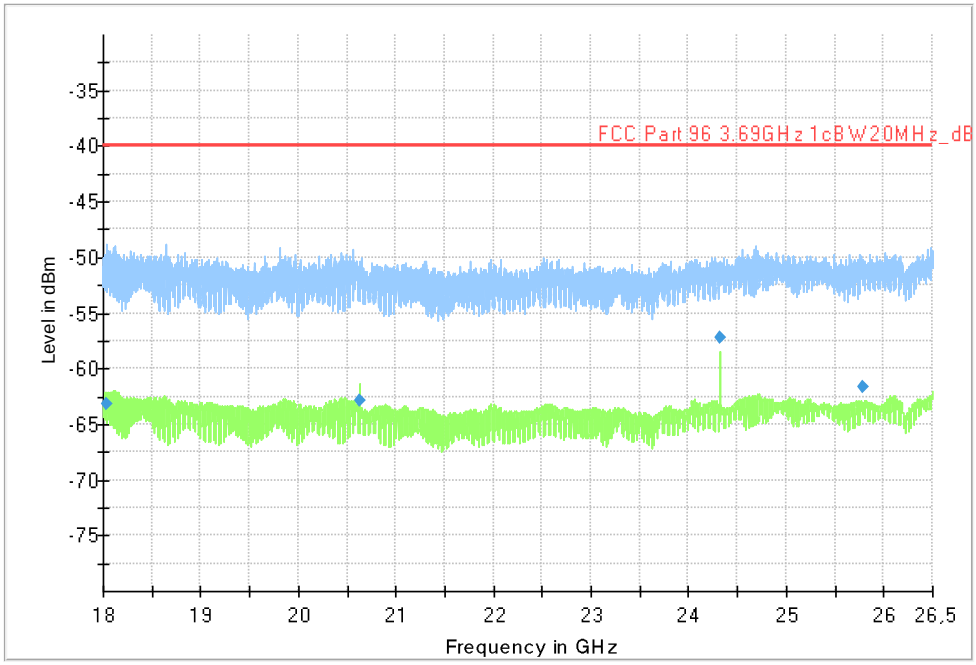
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
20625.000000	-58.73	-40.00	V	18.73
24330.250000	-53.86	-40.00	V	13.86

All other measured disturbances have a margin of more than 20 dB to the limit.

5.27 Test results, 18 – 26.5 GHz, configuration 3: LTE Top



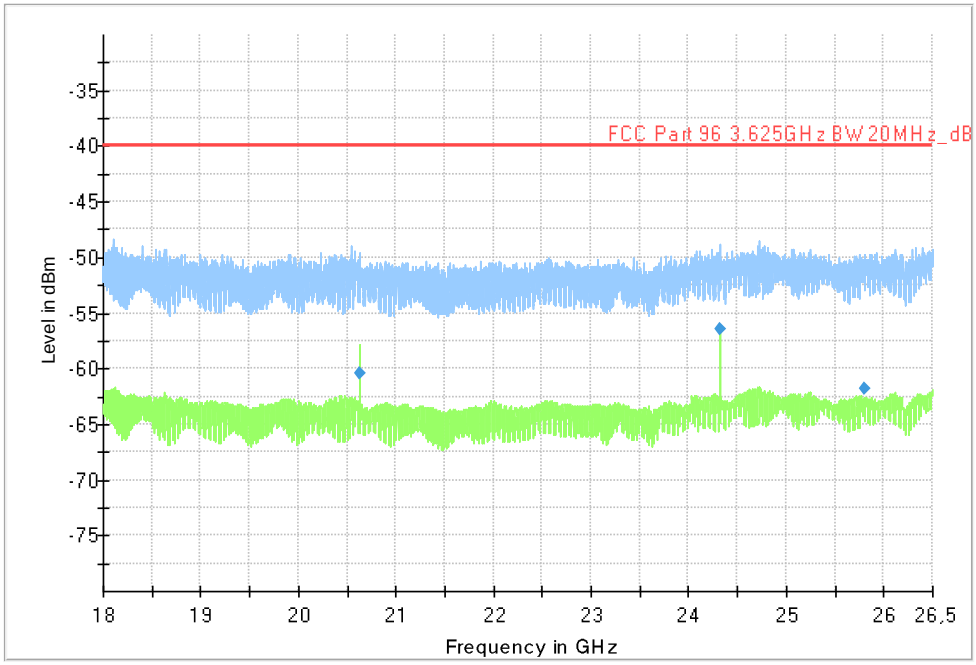
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
24330.250000	-57.27	-40.00	V	17.27

All other measured disturbances have a margin of more than 20 dB to the limit.

5.28 Test results, 18 – 26.5 GHz, configuration 4: LTE 2 Carriers



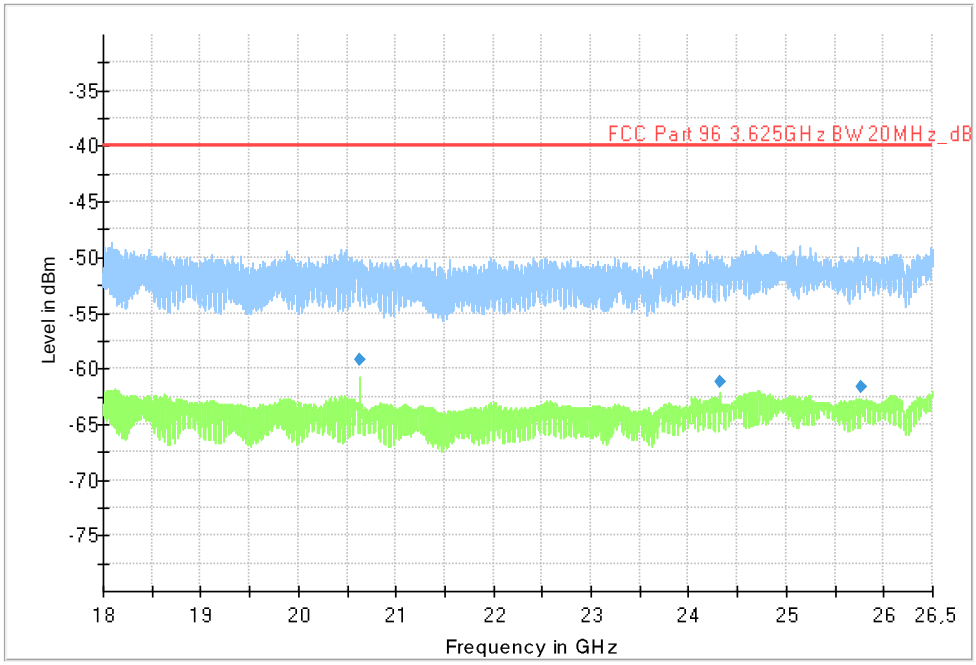
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
24330.500000	-56.51	-40.00	V	16.51

All other measured disturbances have a margin of more than 20 dB to the limit.

5.29 Test results, 18 – 26.5 GHz, configuration 5: LTE 5 Carriers



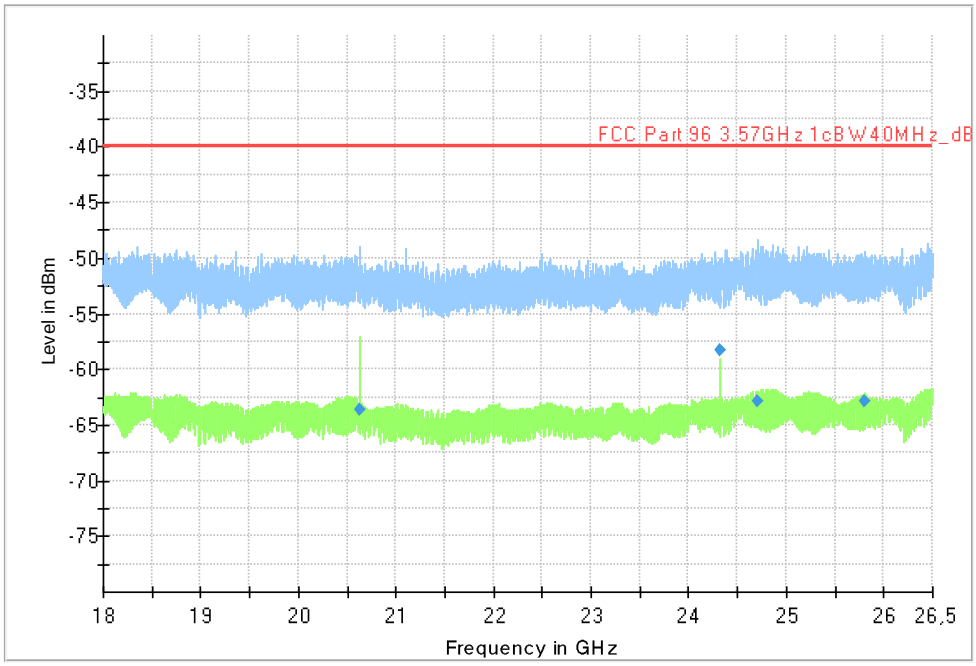
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
20624.750000	-59.26	-40.00	V	19.26

All other measured disturbances have a margin of more than 20 dB to the limit.

5.30 Test results, 18 – 26.5 GHz, configuration 6: NR Bottom



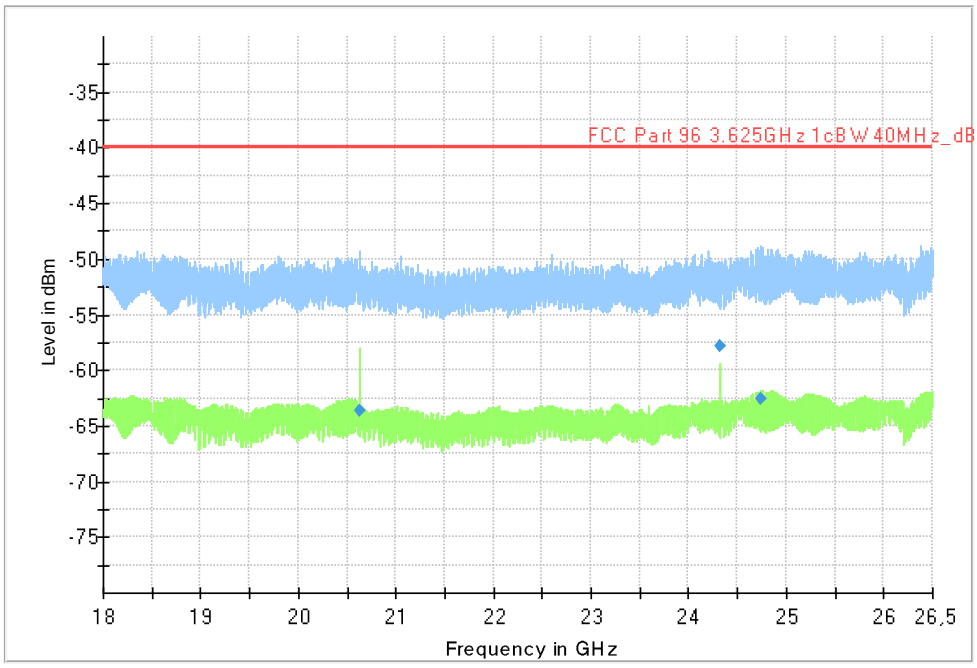
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
24330.250000	-58.34	-40.00	H	18.34

All other measured disturbances have a margin of more than 20 dB to the limit.

5.31 Test results, 18 – 26.5 GHz, configuration 7: NR Middle



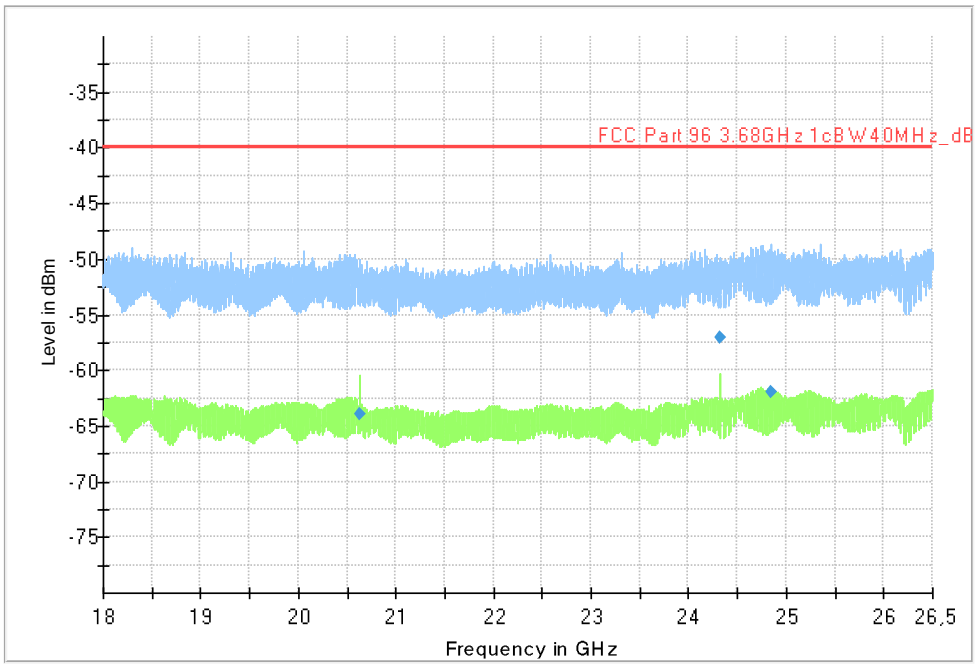
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
24330.500000	-57.76	-40.00	V	17.76

All other measured disturbances have a margin of more than 20 dB to the limit.

5.32 Test results, 18 – 26.5 GHz, configuration 8: NR Top



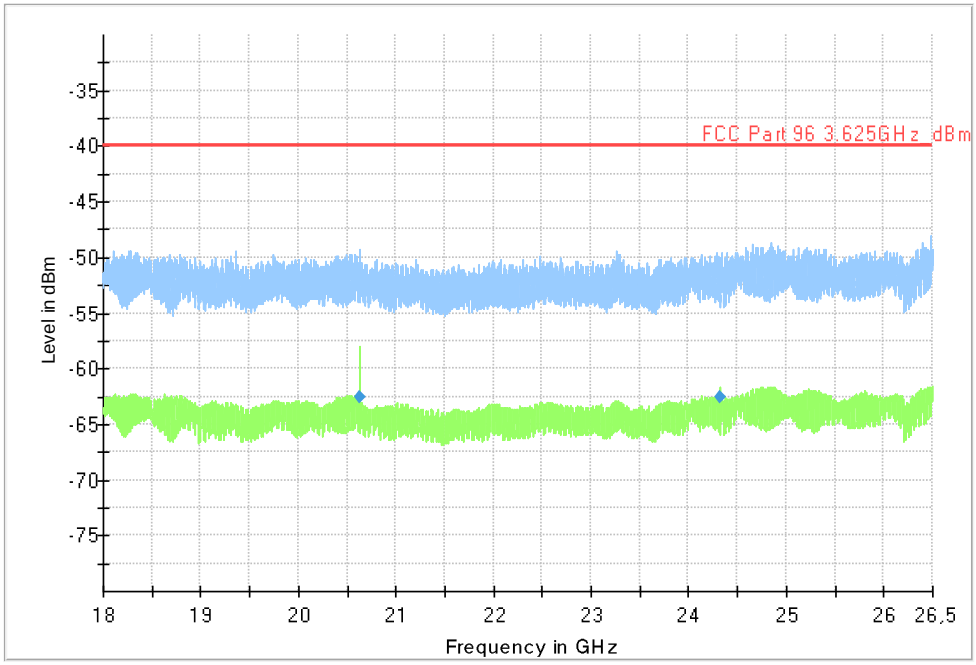
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
24330.000000	-57.11	-40.00	V	17.11

All other measured disturbances have a margin of more than 20 dB to the limit.

5.33 Test results, 18 – 26.5 GHz, configuration 9: NR 2 Carries

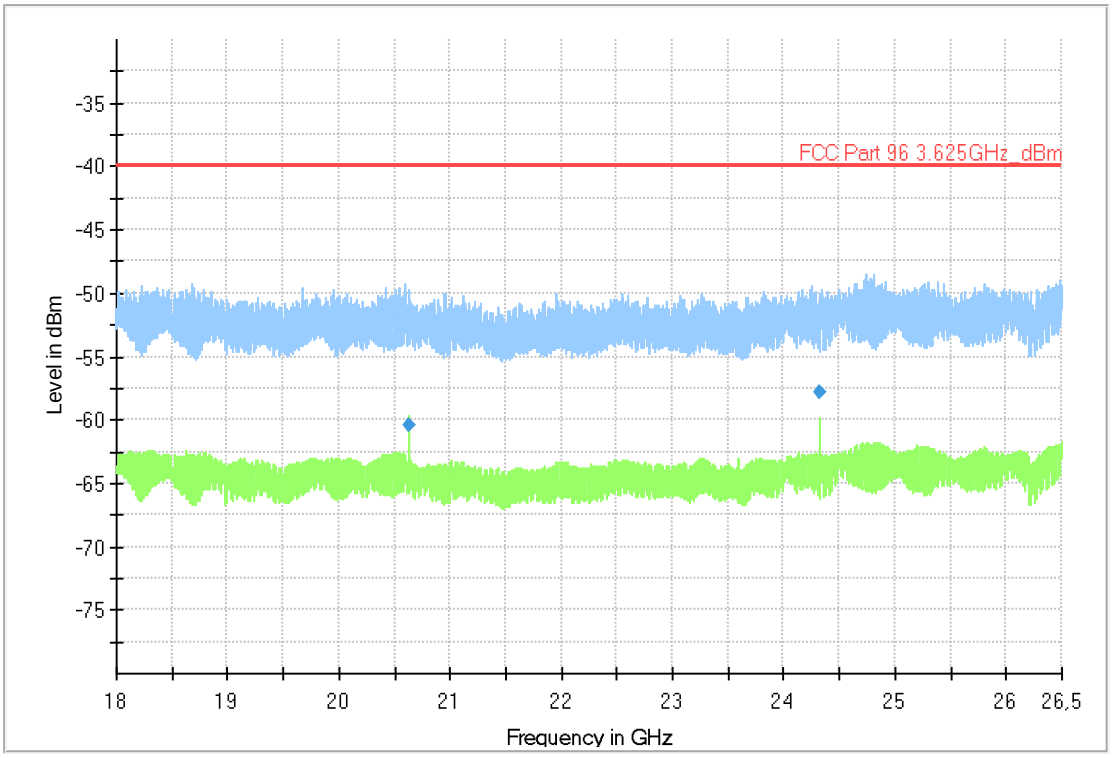


Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

All measured disturbances have a margin of more than 20 dB to the limit.

5.34 Test results, 18 – 26.5 GHz, configuration 10: NR + LTE 2 carriers



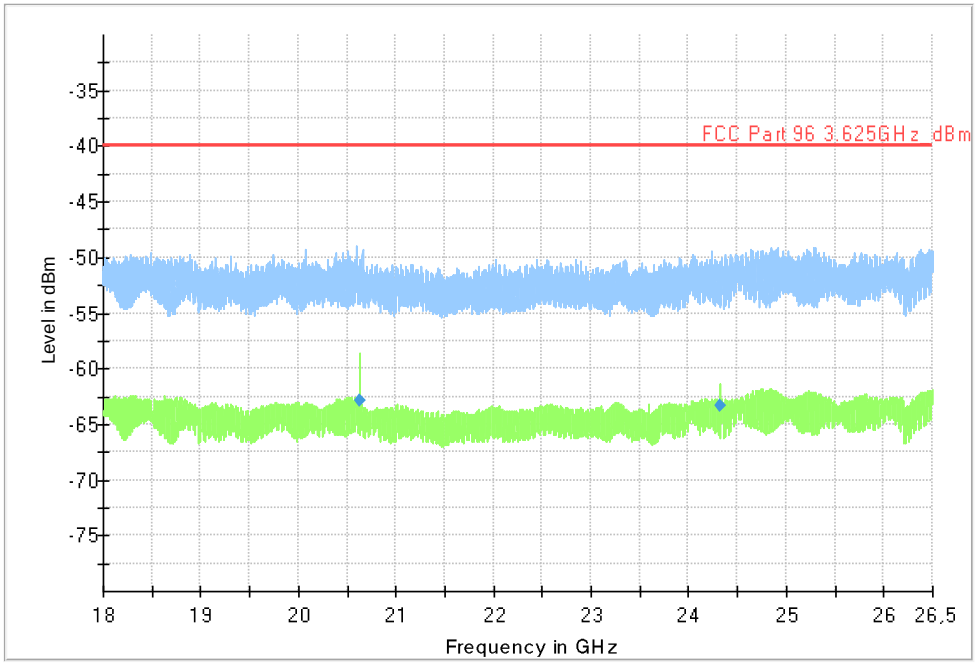
Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
24330.250000	-57.81	-40.00	V	17.81

All other measured disturbances have a margin of more than 20 dB to the limit.

5.35 Test results, 18 – 26.5 GHz, configuration 11: NR + LTE 5 carriers

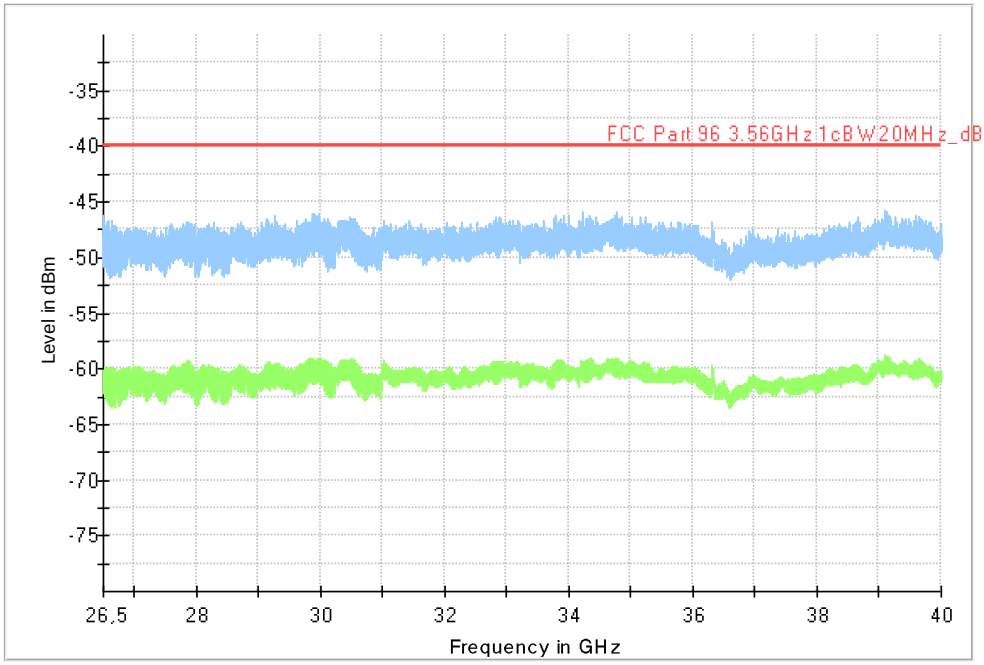


Diagram, Peak and average overview sweep, 18 – 26.5 GHz at 3 m distance

Measurement results, RMS

All measured disturbances have a margin of more than 20 dB to the limit.

5.36 Test results, 26.5 – 40 GHz, Configuration 1: LTE Bottom

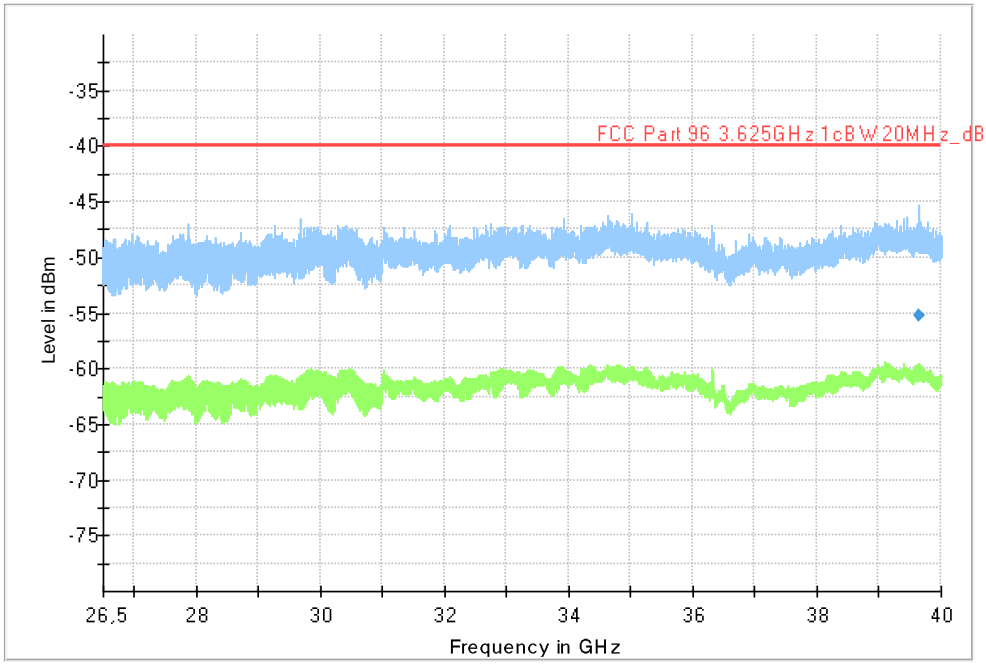


Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

All measured disturbances have a margin of more than 20 dB to the limit.

5.37 Test results, 26.5 – 40 GHz, Configuration 2: LTE Middle



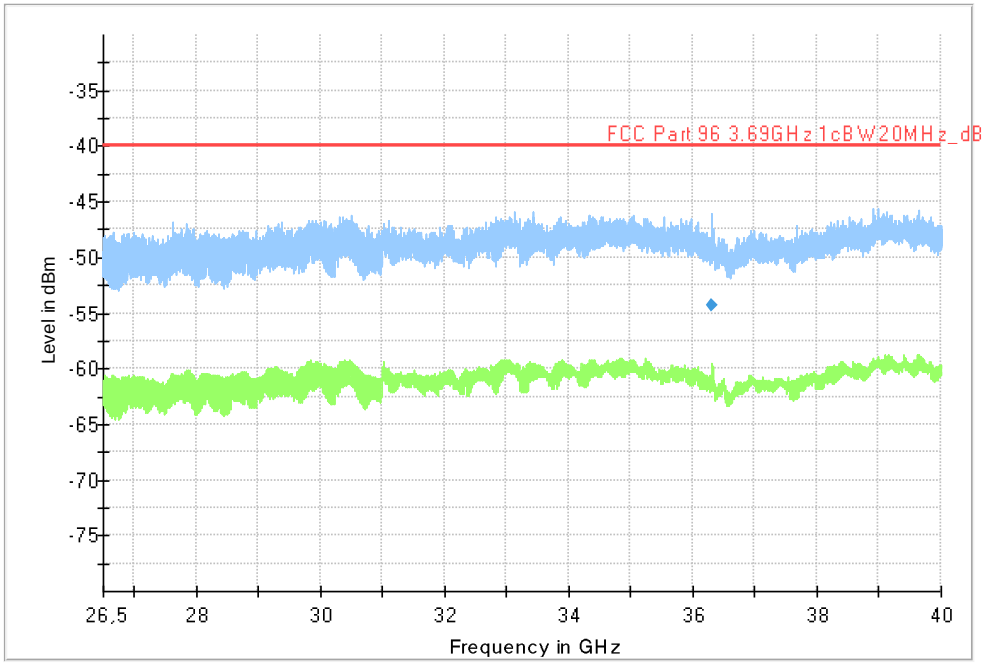
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
39637.000000	-55.18	-40.00	V	15.18

All other measured disturbances have a margin of more than 20 dB to the limit.

5.38 Test results, 26.5 – 40 GHz, Configuration 3: LTE Top



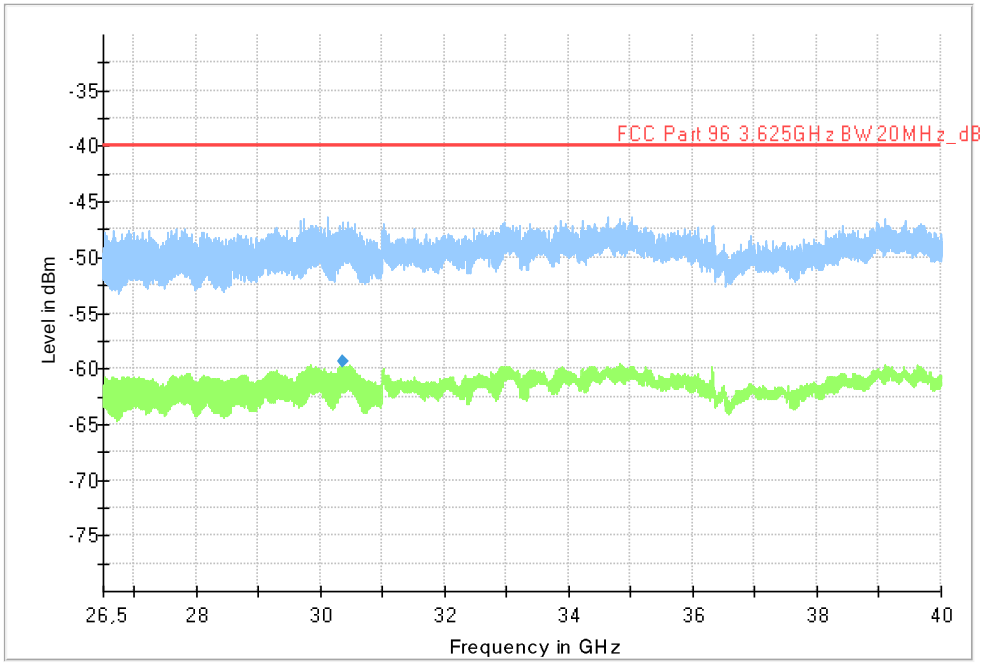
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
36310.750000	-54.30	-40.00	H	14.30

All other measured disturbances have a margin of more than 20 dB to the limit.

5.39 Test results, 26.5 – 40 GHz, Configuration 4: LTE 2 Carries



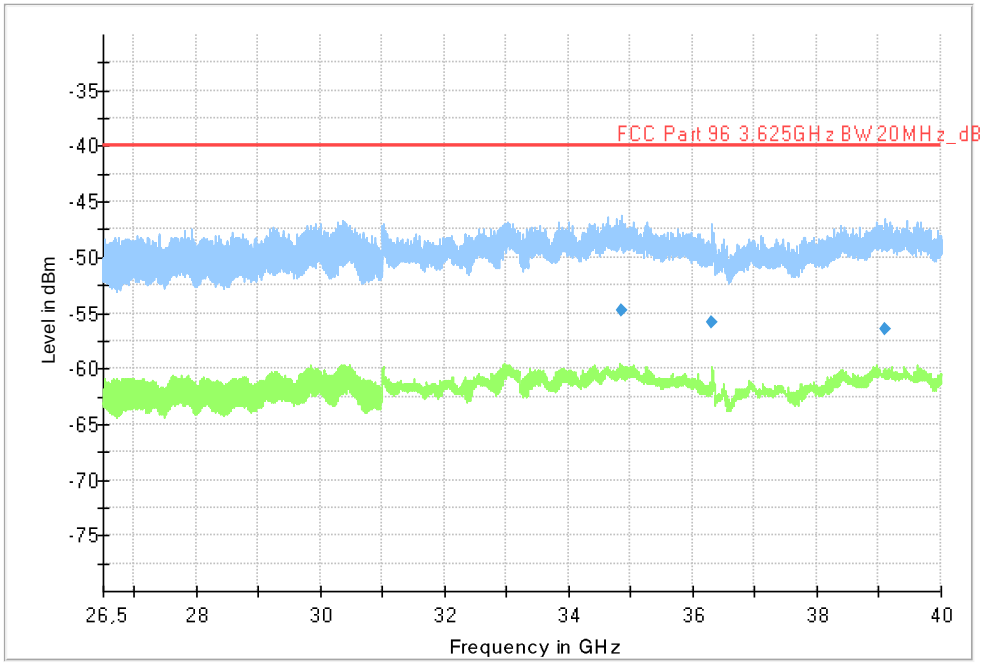
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
30366.000000	-59.39	-40.00	H	19.39

All other measured disturbances have a margin of more than 20 dB to the limit.

5.40 Test results, 26.5 – 40 GHz, Configuration 5: LTE 5 Carries



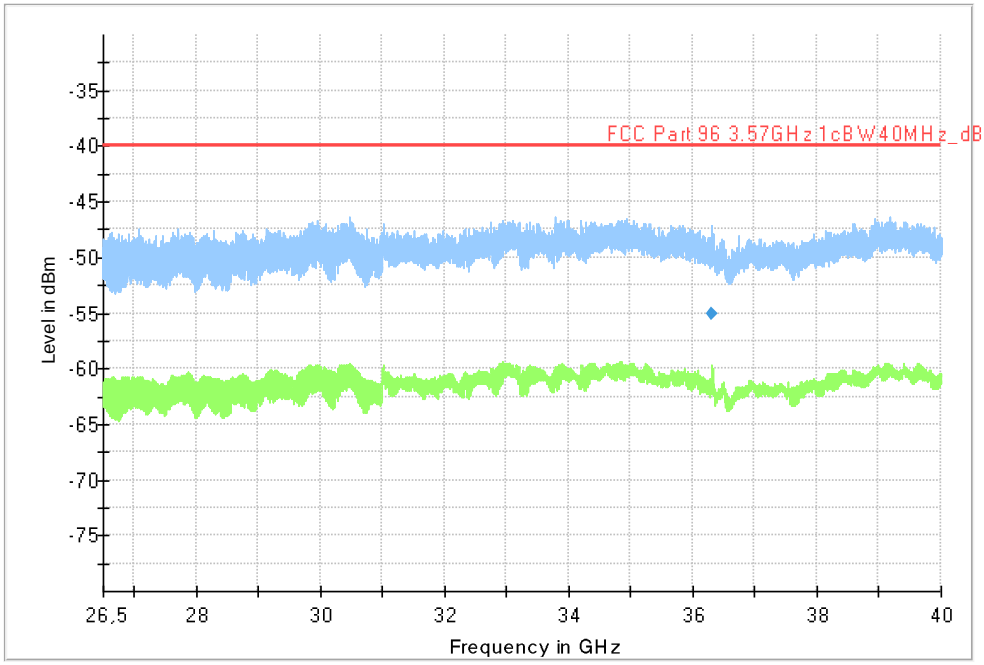
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
34862.250000	-54.75	-40.00	H	14.75
36306.000000	-55.78	-40.00	V	15.78
39105.000000	-56.38	-40.00	V	16.38

All other measured disturbances have a margin of more than 20 dB to the limit.

5.41 Test results, 26.5 – 40 GHz, Configuration 6: NR Bottom



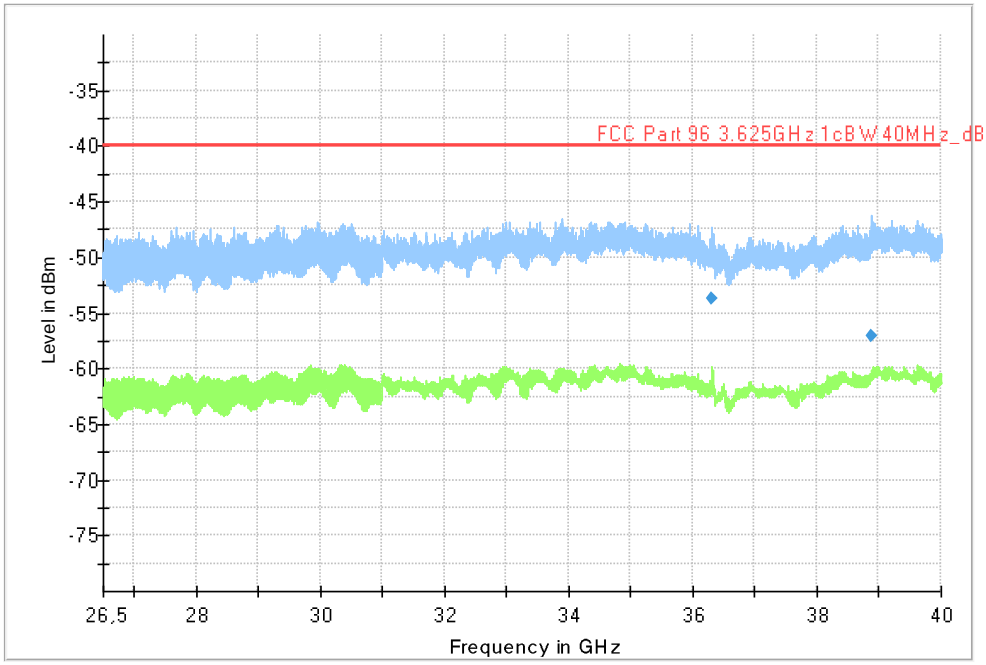
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
36303.750000	-55.04	-40.00	V	15.04

All other measured disturbances have a margin of more than 20 dB to the limit.

5.42 Test results, 26.5 – 40 GHz, Configuration 7: NR Middle



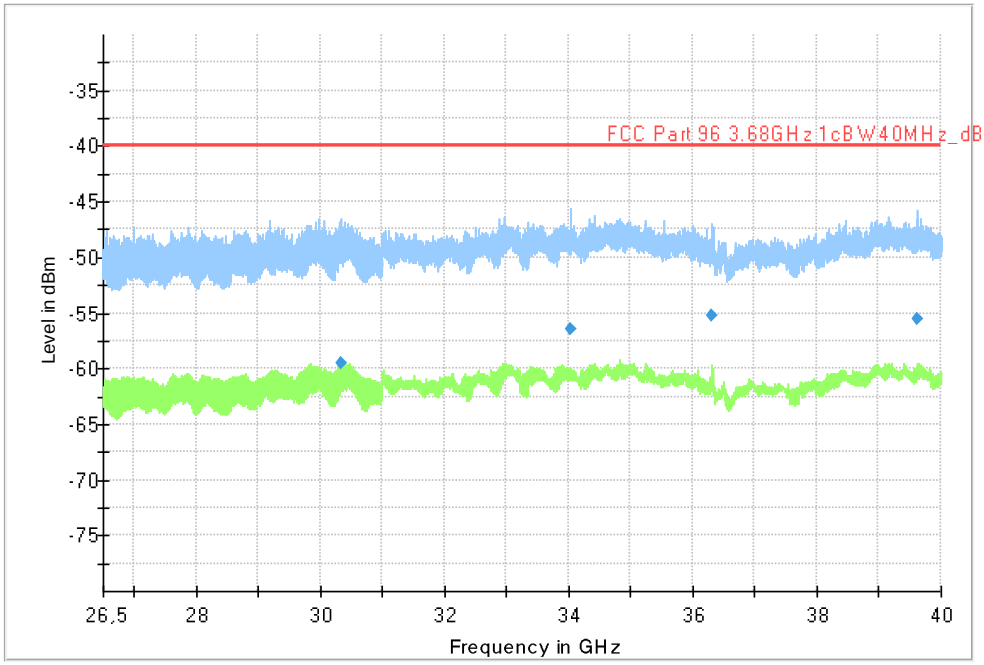
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
36313.250000	-53.72	-40.00	H	13.72
38882.500000	-57.14	-40.00	H	17.14

All other measured disturbances have a margin of more than 20 dB to the limit.

5.43 Test results, 26.5 – 40 GHz, Configuration 8: NR Top



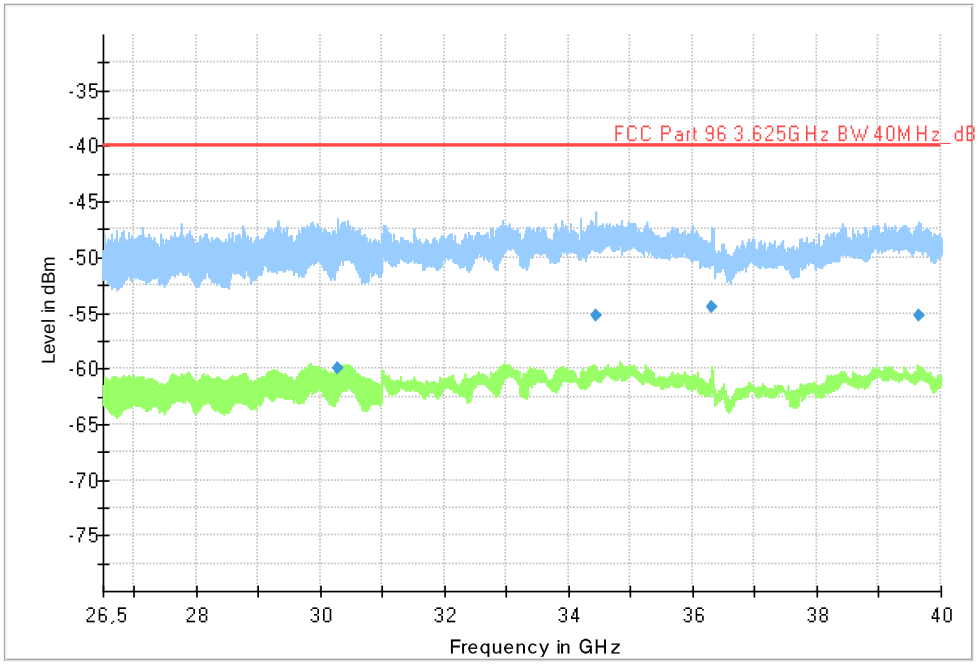
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
30339.750000	-59.53	-40.00	H	19.53
34024.500000	-56.42	-40.00	H	16.42
36306.000000	-55.26	-40.00	V	15.26
39611.000000	-55.46	-40.00	H	15.46

All other measured disturbances have a margin of more than 20 dB to the limit.

5.44 Test results, 26.5 – 40 GHz, Configuration 9: NR 2 Carriers



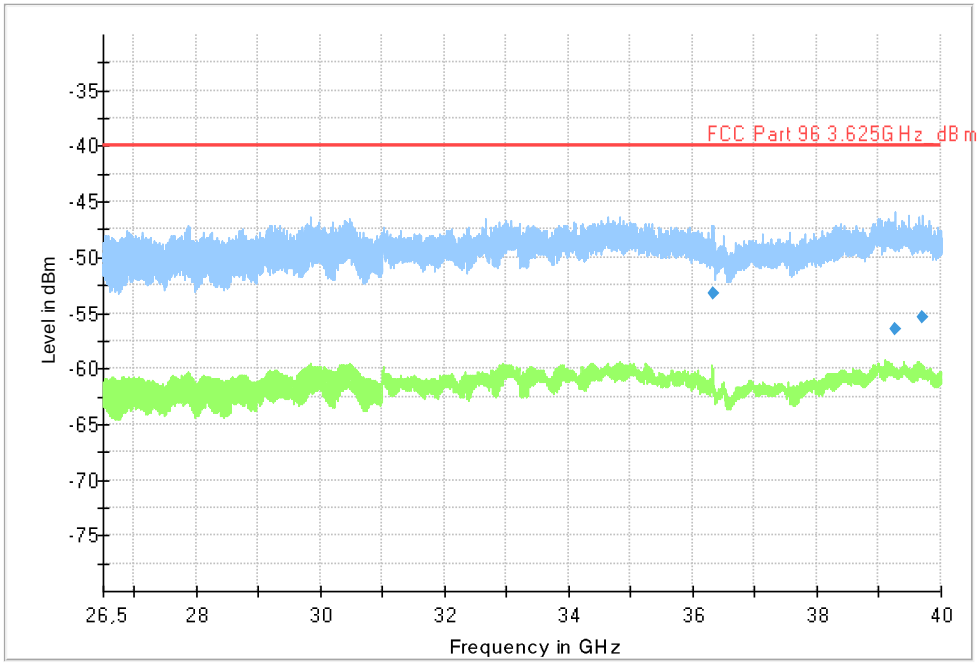
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
30292.250000	-59.99	-40.00	H	19.99
34442.000000	-55.20	-40.00	H	15.20
36310.000000	-54.46	-40.00	H	14.46
39639.000000	-55.25	-40.00	H	15.25

All other measured disturbances have a margin of more than 20 dB to the limit.

5.45 Test results, 26.5 – 40 GHz, Configuration 10: 2 carriers NR + LTE



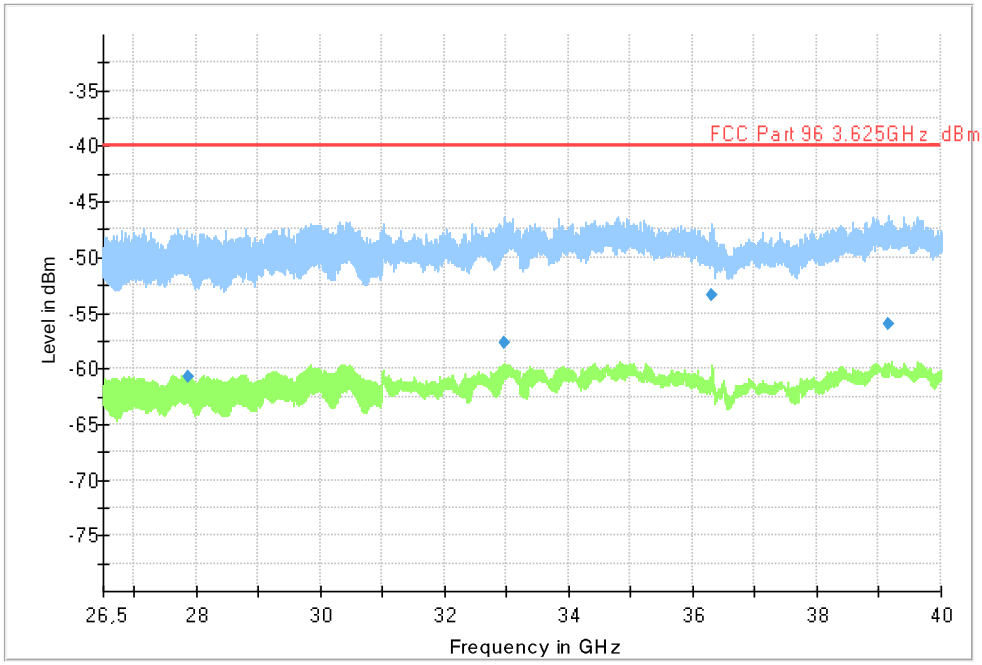
Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
36317.500000	-53.22	-40.00	V	13.22
39248.750000	-56.44	-40.00	V	16.44
39689.250000	-55.41	-40.00	V	15.41

All other measured disturbances have a margin of more than 20 dB to the limit.

5.46 Test results, 26.5 – 40 GHz, Configuration 11: 5 carriers NR + LTE



Diagram, Peak and average overview sweep, 26.5 – 40 GHz at 3 m distance

Measurement results, RMS

Frequency [MHz]	Level [dBm]	Limit [dBm]	Polarization H/V	Margin [dB]
32957.750000	-57.74	-40.00	H	17.74
36314.250000	-53.36	-40.00	V	13.36
39152.000000	-55.98	-40.00	H	15.98

All other measured disturbances have a margin of more than 20 dB to the limit.

5.47 Test equipment

Equipment type	Manufacturer	Model	Inv. No.	Last Cal. date	Next Cal. date
Measurement software	Rohde & Schwarz	EMC32 – 11.30.00	--	--	--
Measurement receiver	Rohde & Schwarz	ESW44	33950	July 27, 2022	1 year
Coaxial cable	Schuner	SUCOFLEX 104	39003	November 4, 2022	1 year
Antenna ultralog	Rohde & Schwarz	HL562	32310	June 13, 2022	3 years
Coaxial cable	Rosenberger	UFB311A	39053	August 25, 2022	1 year
Coaxial cable	Rosenberger	JFB293C	39141	April 5, 2022	1 year
Coaxial cable	Rosenberger	JFB293C	39142	April 5, 2022	1 year
Horn antenna	Rohde & Schwarz	HF907	32550	July 25, 2022	3 years
Horn antenna	Bonn	BLMA 1826-5A	31247	August 26, 2020	3 years
Horn antenna	Bonn	BLMA 2640-5A	31248	August 27, 2020	3 years
Coaxial cable	Megaphase	GC12-K1K1-315	39128	July 8, 2022	1 year
Temp & RH meter	Vaisala	HM41	32403	November 8, 2022	1 year

7. EUT SOFTWARE

Software Radio: CXP2030039/7 R35A89

8. EUT HARDWARE LIST

Product	Product No,	R-State	Serial Number
AIR 3268 B48	KRD 901 254/3	R1B	E23E29459
SFP module Ericsson	RDH 102 75/3	R1A	EA619L0550
SFP module Ericsson	RDH 102 75/3	R1A	EA61XL0321