

Annex 1: Measurement diagrams 21-1-0178701T025a-C02-A1

Number of pages:	94	Date of Report:	2023-Jun-06
Testing company:	cetecom advanced GmbH Im Teelbruch 116 45219 Essen Germany Tel. + 49 (0) 20 54 / 95 19-0 Fax: + 49 (0) 20 54 / 95 19-150	Applicant:	Actia Nordic AB
Product:	Telematic Device		
Model:	104760201		
FCC ID:	2AGKK104760201	IC:	20839-104760201

Testing has been carried out in accordance with:

FCC Regulations
Title 47 CFR, Chapter I, Subchapter A
 Part 15, Subpart C Intentional Radiators; § 15.209 Radiated emission limits; general requirements
Title 47 CFR, Chapter I, Subchapter B
 Part 22, Subpart H Cellular Radiotelephone Service
 Part 24, Subpart E Paging and Radiotelephone Service
 Part 27, Subpart C Miscellaneous Wireless Communications Services
Title 47 CFR, Chapter I, Subchapter D
 Part 90, Subpart I, General technical standards; Subpart S Private Land Mobile Radio Services

ISED-Regulations, Radio Standards Specification
RSS-Gen, Issue 5
 General Requirements for Compliance of Radio Apparatus
RSS-130, Issue 2
 Equipment Operating in the Frequency Bands 617-652 MHz, 663-698 MHz, 698-756 MHz and 777-787 MHz
RSS-132, Issue 4
 Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz
RSS-133, Issue 6, Amendment 1
 2 GHz Personal Communications Services
RSS-139, Issue 4
 Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1780 MHz and 2110-2180 MHz
RSS-199, Issue 3
 Broadband Radio Service (BRS) Equipment Operating in the Band 2500–2690 MHz

Table of Contents

1	Measurement diagrams.....	3
1.1	Band-Edge on LTE Band 2	34
1.2	Band-Edge on LTE Band 4	42
1.3	Band-Edge on LTE Band 5	50
1.4	Band-Edge on LTE Band 7	58
1.5	Band-Edge on LTE Band 12	64
1.6	Band-Edge on LTE Band 13	72
1.7	Band-Edge on LTE Band 26	80
1.8	Band-Edge on LTE Band 38	84
1.9	Band-Edge on LTE Band 66	87

1 Measurement diagrams

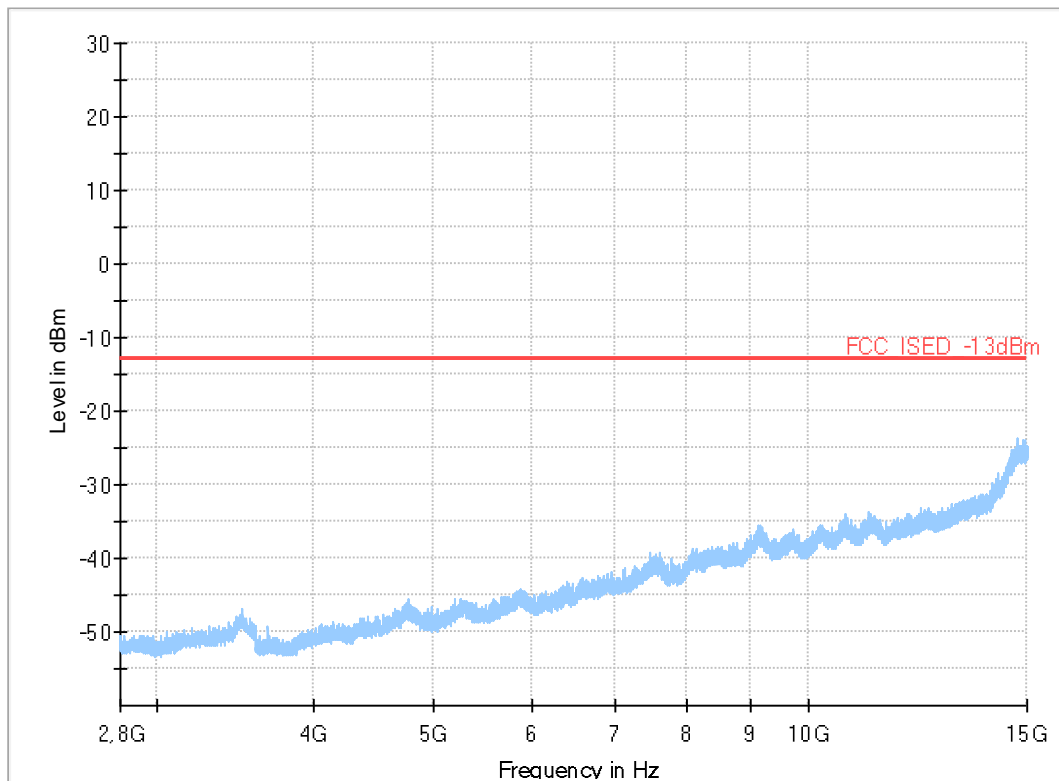
8.01a_Harmonics_Traffic_mode_LTE_FDD_ B02_CH_18700_laying

Common Information

Test Description:	Radiated emission
Test Site:	Fully-Anechoic Chamber
Test Standard:	FCC Part 24/RSS-133
Antenna polarisation:	vertical / horizontal
Measurement software version	EMC32 V10.60.20
Operating Mode:	LTE B02 20MHz QPSK ch18700 1RB@high, internal antenna, laying
Operator:	SOz
Comment:	--
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



8.01b_Harmonics_Traffic_mode_LTE_FDD_B02_CH_18700_standing

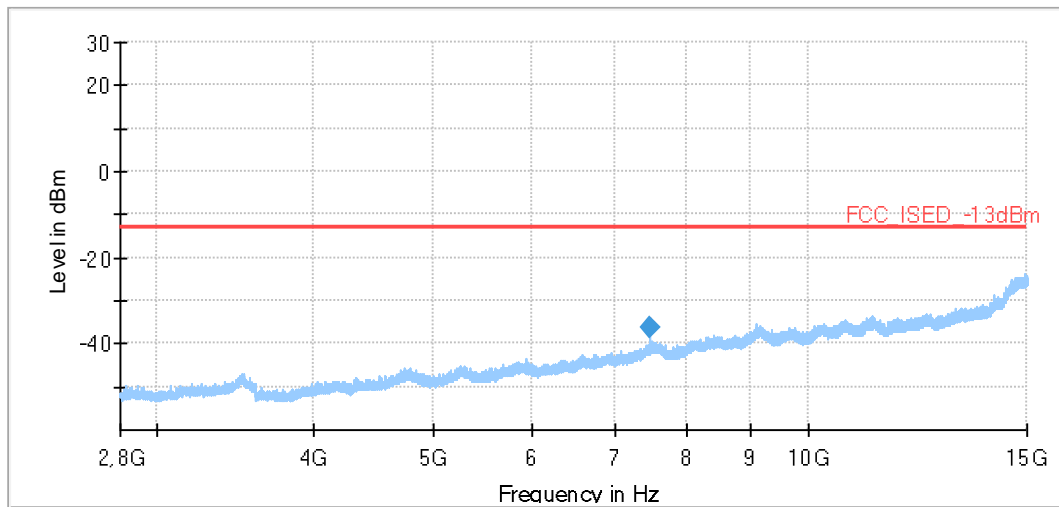
Common Information

Test Description: Radiated emissions
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 24.238 / RSS-133
 Antenna polarisation: vertical / horizontal
 Operating Mode: TX FDD Ch18700/BW20/1RB high/QPSK
 Environmental Conditions: Humidity: 34% rH; Temperature: 20.3 °C
 Operator: Lor
 Comment: Internal antenna
 Environmental Conditions: Tnom, vnom
 EUT Setup: 1 / standing EUT
 Verdict: Passed

EUT Information

PMT Sample Nr: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)
7475.461666	-36.32	-13.00	23.32	100.0	1000.000	155.0	H	-3.0	-75	-20	0

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)	Comment
7475.461666	-55	39	11:07:44 - 04.01.2023

8.01c_Harmonics_Traffic_mode_LTE_FDD_ B02_CH_18700_laying

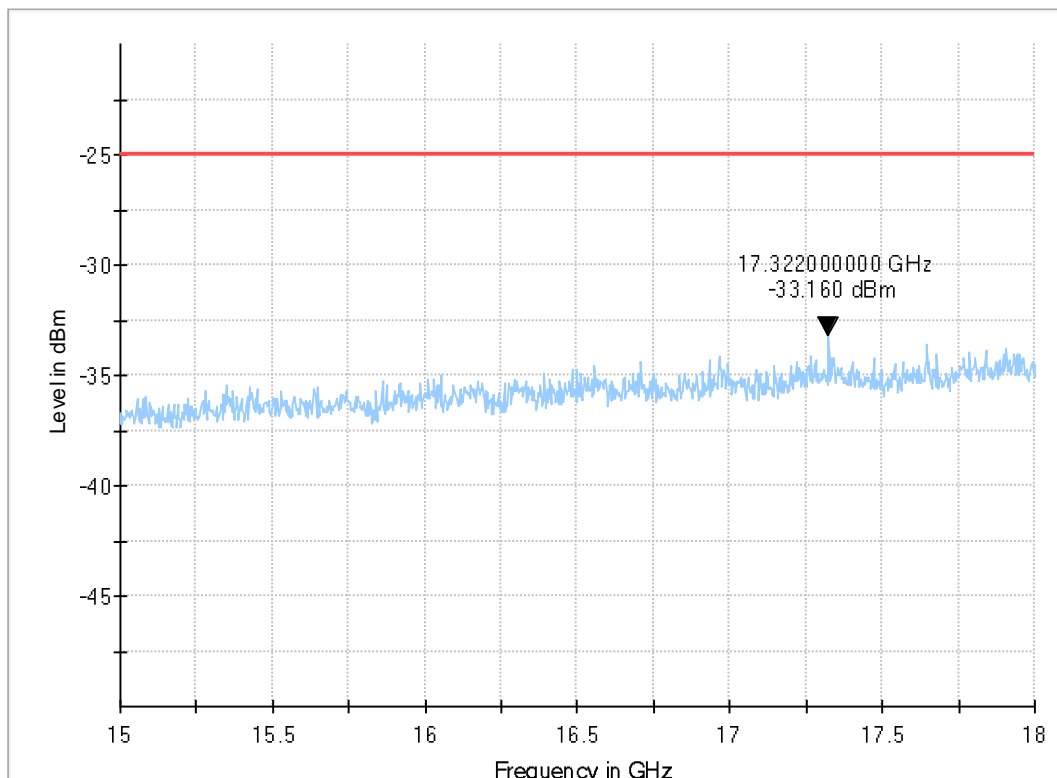
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 2
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24.238 / RSS-133
Comm. Link:	LTE Band2
Operating Mode:	Ch18700/ 1RB high / BW:20MHz / QPSK
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
EUT Setup:	1 / Set-up laying / Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



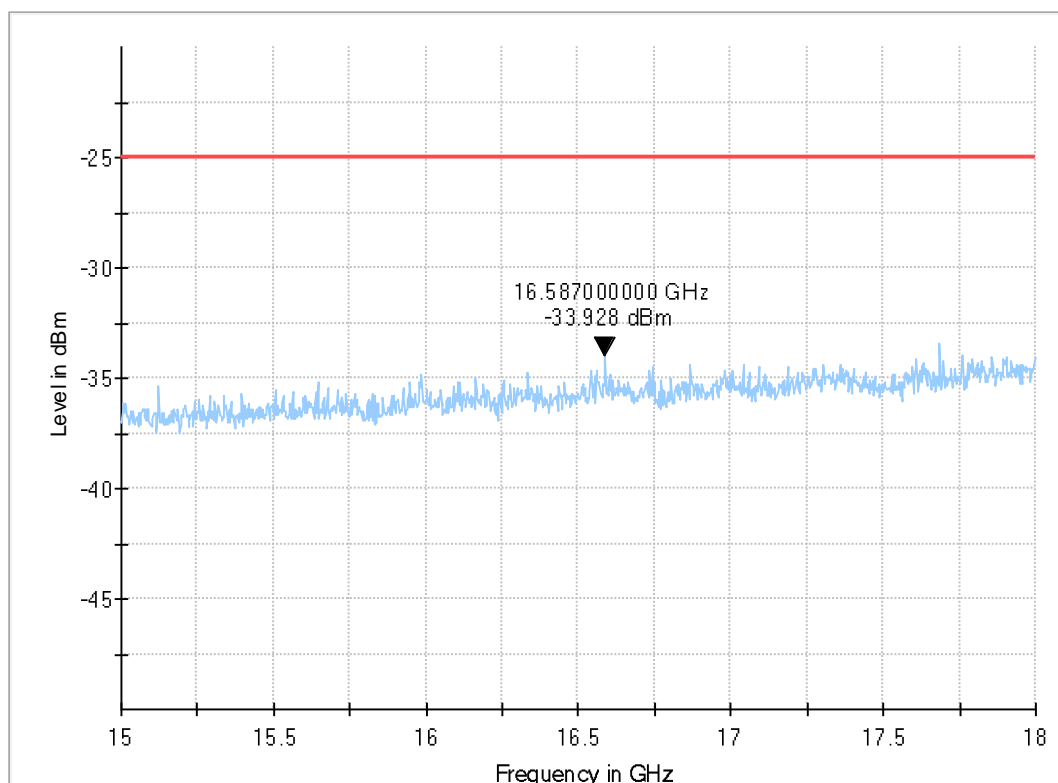
8.01d_Harmonics_Traffic_mode_LTE_FDD_ B02_CH_18700_standing

Common Information

Test Description:	Radiated Spurious Emissions LTE Band 2
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24.238 / RSS-133
Comm. Link:	LTE Band2
Operating Mode:	Ch18700/ 1RB high / BW:20MHz / QPSK
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
EUT Setup:	1 / Set-up standing/ Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr.	21-1-01787S50_C01
	Full Spectrum



8.01e_Harmonics_Traffic_mode_LTE_FDD_ B02_CH_18700_laying

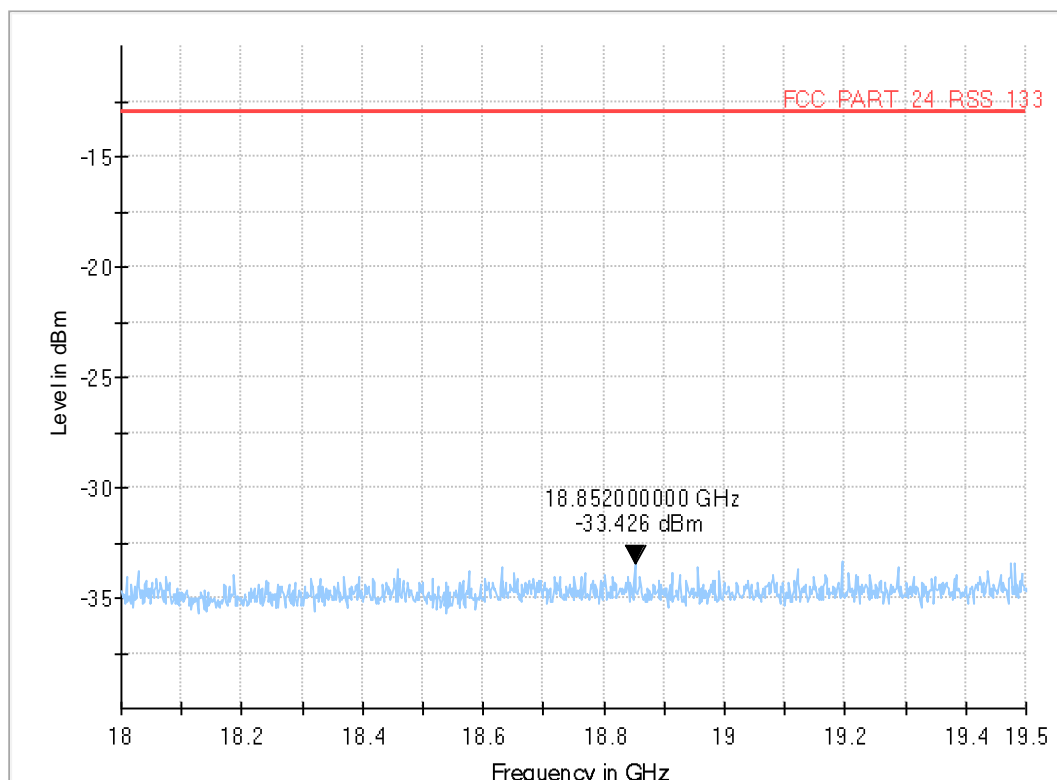
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 2
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24.238 / RSS-133
Comm. Link:	LTE Band2
Operating Mode:	Ch18700/ 1RB high / BW:20MHz / QPSK
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
EUT Setup:	1 / Set-up laying / Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



8.01f_Harmonics_Traffic_mode_LTE_FDD_B02_CH_18700_standing

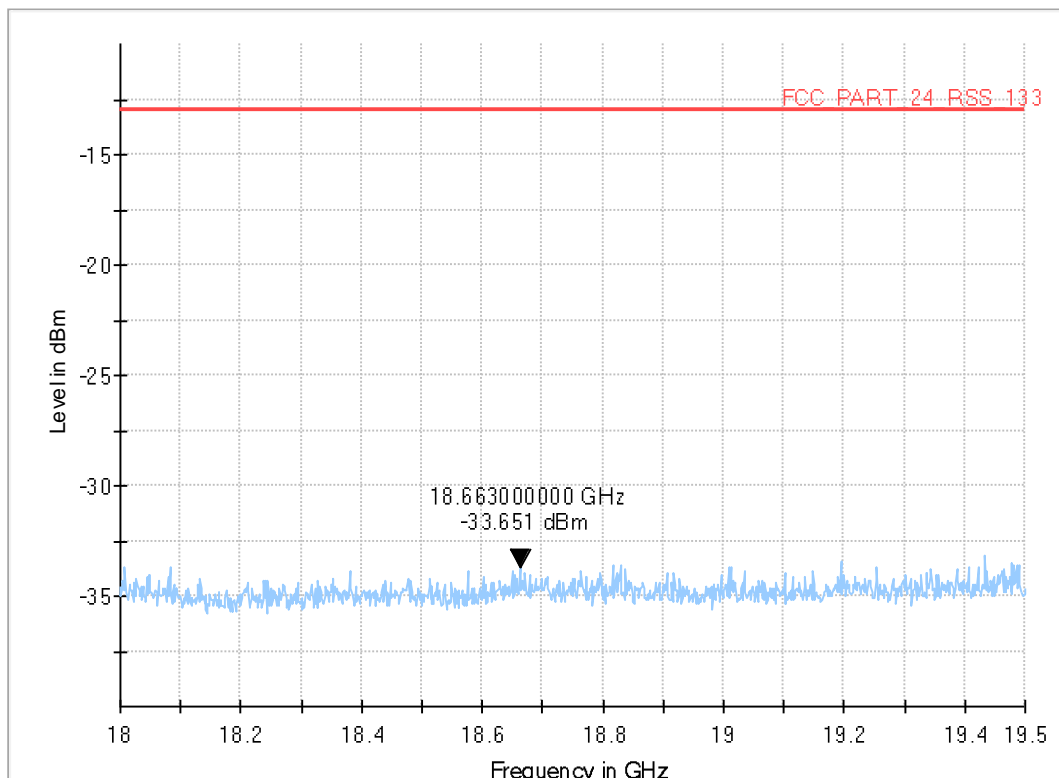
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 2
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24.238 / RSS-133
Comm. Link:	LTE B02
Operating Mode:	Ch18700/ 1RB high / BW:20MHz / QPSK
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
EUT Setup:	1 / Set-up laying / Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr.	21-1-01787S50_C01
----------------	-------------------

Full Spectrum



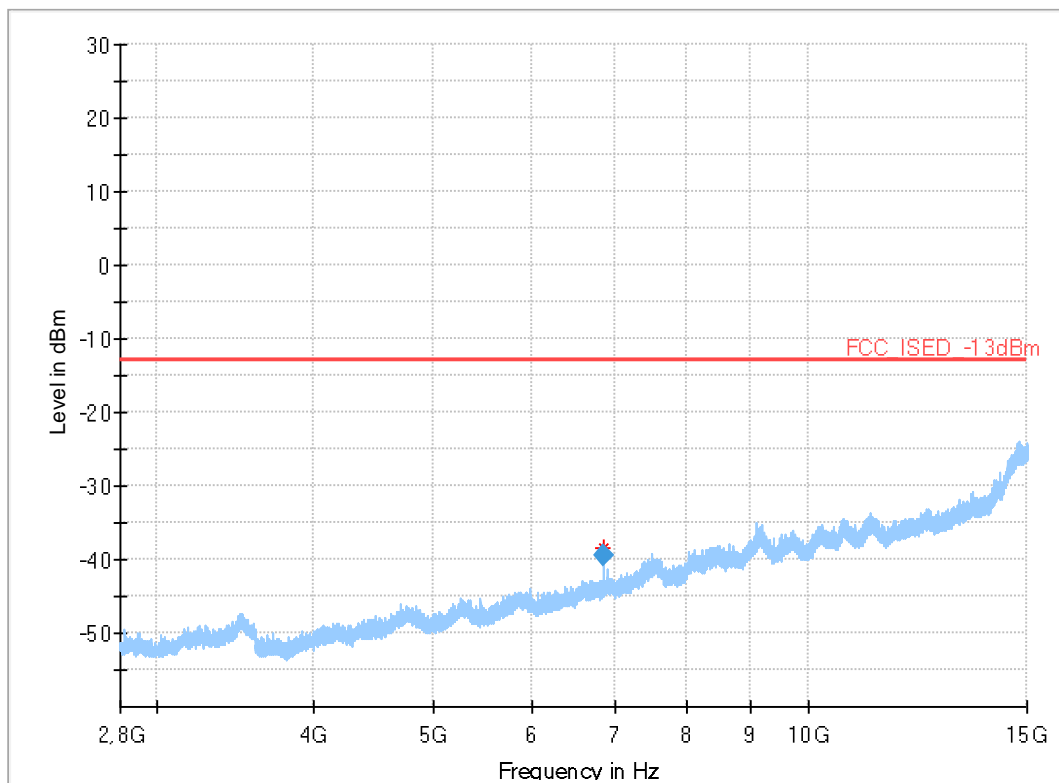
8.02a_Harmonics_Traffic_mode_LTE_FDD_ B04_CH_19957_laying

Common Information

Test Description:	Radiated emission
Test Site:	Fully-Anechoic Chamber
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Antenna polarisation:	vertical / horizontal
Measurement software version	EMC32 V10.60.20
Operating Mode:	LTE B04 1.4MHz QPSK ch19957 1RB@low, internal antenna, laying
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	SOz
Comment:	--
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01
Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
6840.848334	-39.43	-13.00	26.43	100.0	1000.000	155.0	H	158.0	0.0	-78

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Comment
6840.848334	00:00:39 - 04.01.2023

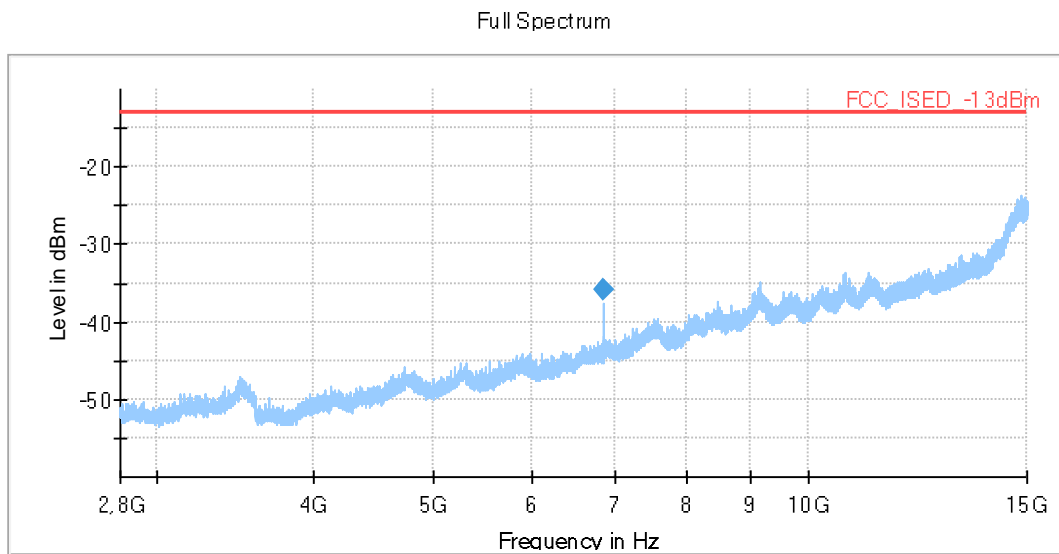
8.02b_Harmonics_Traffic_mode_LTE_FDD_ B04_CH_19957_standing

Common Information

Test Description:	Radiated emission
Test Site:	Fully-Anechoic Chamber
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Antenna polarisation:	vertical / horizontal
Measurement software version	EMC32 V10.60.20
Operating Mode:	LTE B04 1.4MHz QPSK ch19957 1RB@low, internal antenna, standing
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.2 °C
Operator:	Lor
Comment:	standing / internal antenna
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)
6840.980000	-35.89	-13.00	22.89	100.0	1000.000	155.0	V	296.0	-78	-22	0

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)	Comment
6840.980000	-57	42	12:11:18 - 04.01.2023

8.02c_Harmonics_Traffic_mode_LTE_FDD_ B04_CH_19957_laying

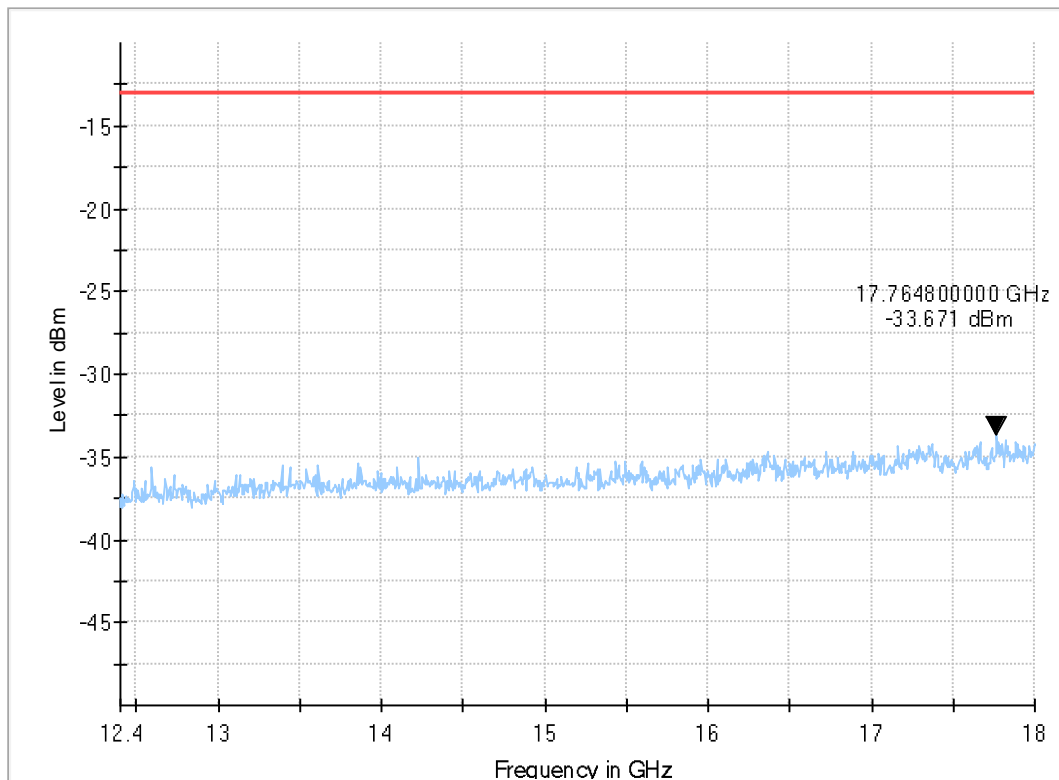
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 4
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Comm. Link:	LTE Band 4/BW=1.4/1RBlow/QPSK
Operating Mode:	MS allocated channel 19957
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.2 °C
Operator:	npe
Set-up:	EUT laying
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



8.02d_Harmonics_Traffic_mode_LTE_FDD_ B04_CH_19957_standing

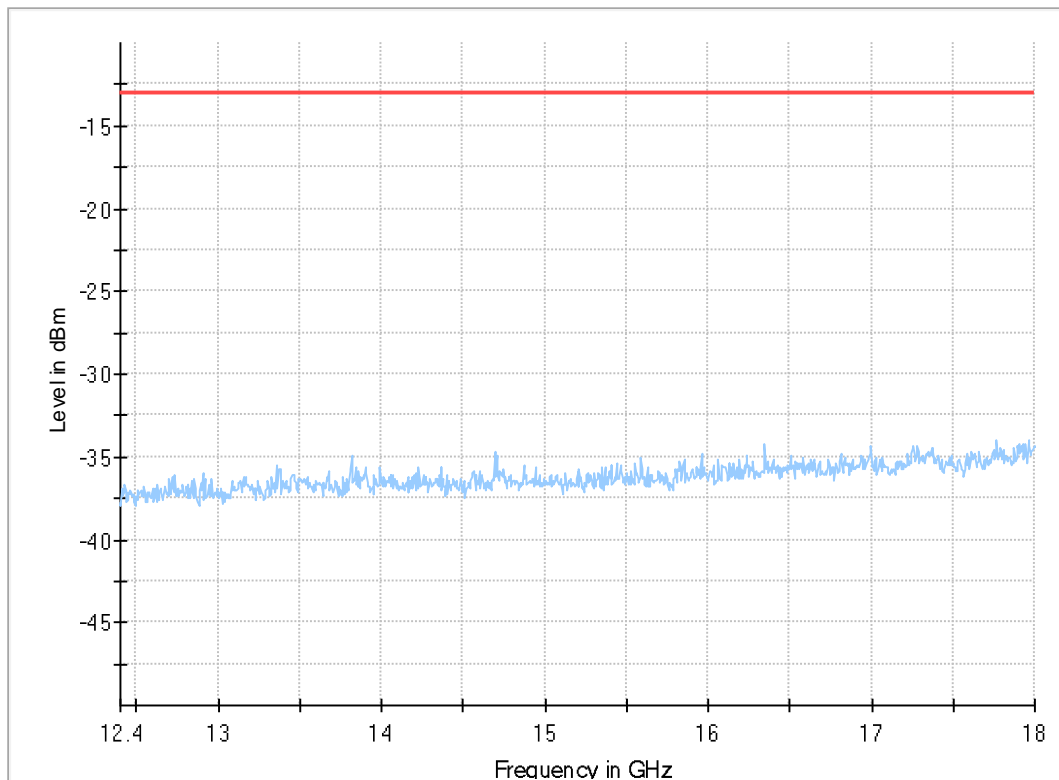
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 4
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Comm. Link:	LTE Band 4/BW=1.4/1RBlow/QPSK
Operating Mode:	MS allocated channel 19957
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.2 °C
Operator:	npe
Set-up:	EUTstanding
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



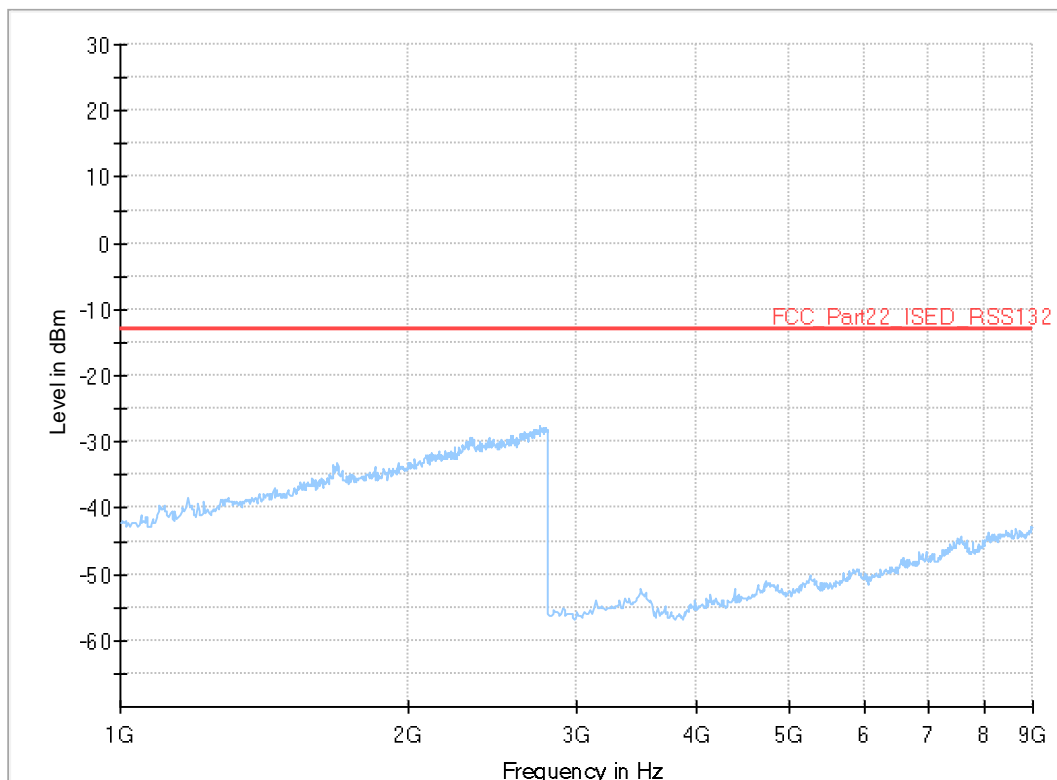
8.03a_Harmonics_Traffic_mode_LTE_FDD_ B05_CH_20600_laying

Common Information

Test Description:	Radiated emission related to 3m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §22.917 / RSS-132
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B05 10MHz QPSK ch20600 1RB@low, internal antenna, laying
Operator:	SOz
Comment:	--
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



8.03b_Harmonics_Traffic_mode_LTE_FDD_ B05_CH_20600_standing

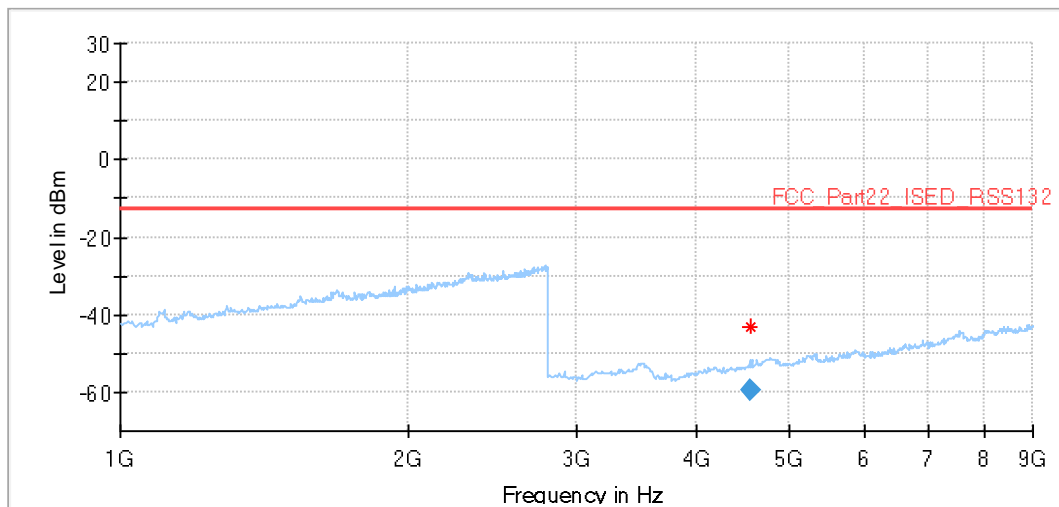
Common Information

Test Description:	Radiated emission
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §22.917 / RSS-132
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B05 10MHz QPSK ch20600 1RB@low, internal antenna, standing
Operator:	Lor
Comment:	Internal antenna / Standing
Environmental Conditions::	Humidity : 55% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)
4553.566667	-59.76	-13.00	46.76	100.0	100.000	155.0	H	59.0	-86	-26	0

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
4553.566667	-60	26	12:42:27 - 04.01.2023

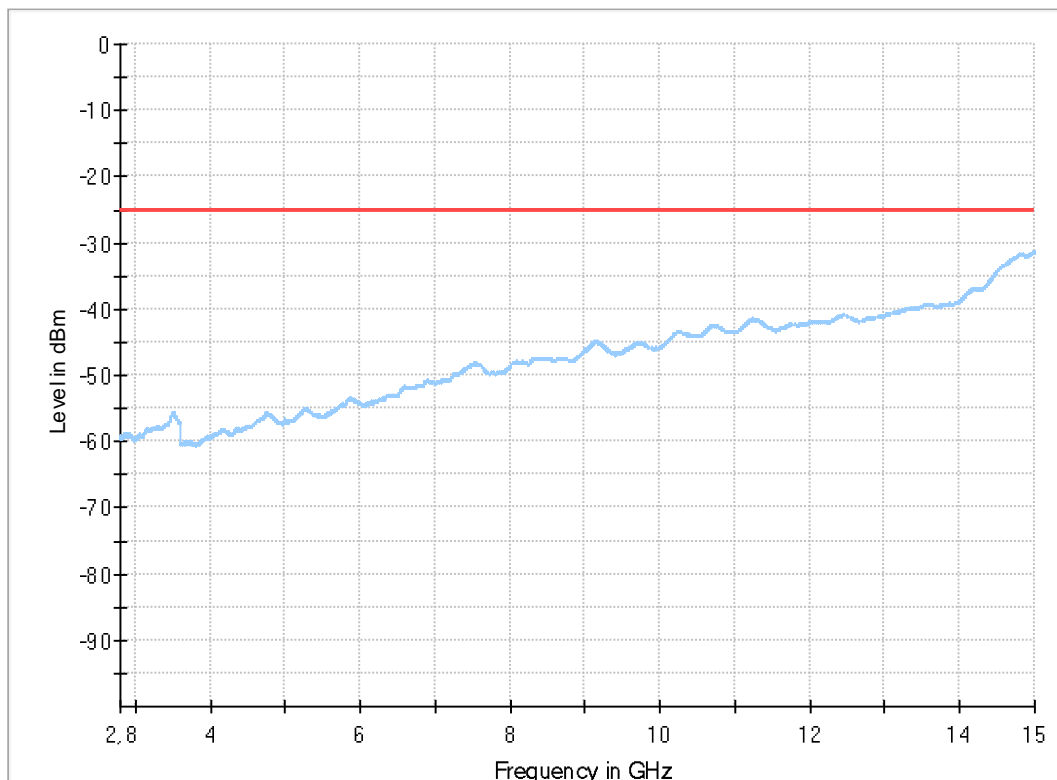
8.04a_Harmonics_Traffic_mode_LTE_FDD_ B07_CH_20775_laying

Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part27.53 /RSS-199
Test Case:	-
Operating Mode:	LTE B07 5MHz QPSK ch20775 1RB@low, internal antenna, laying
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed
Comment:	--

EUT Information

PMT number:	21-1-01787S50_C01 Full Spectrum
-------------	------------------------------------



8.04b_Harmonics_Traffic_mode_LTE_FDD_B07_ CH_20775_standing

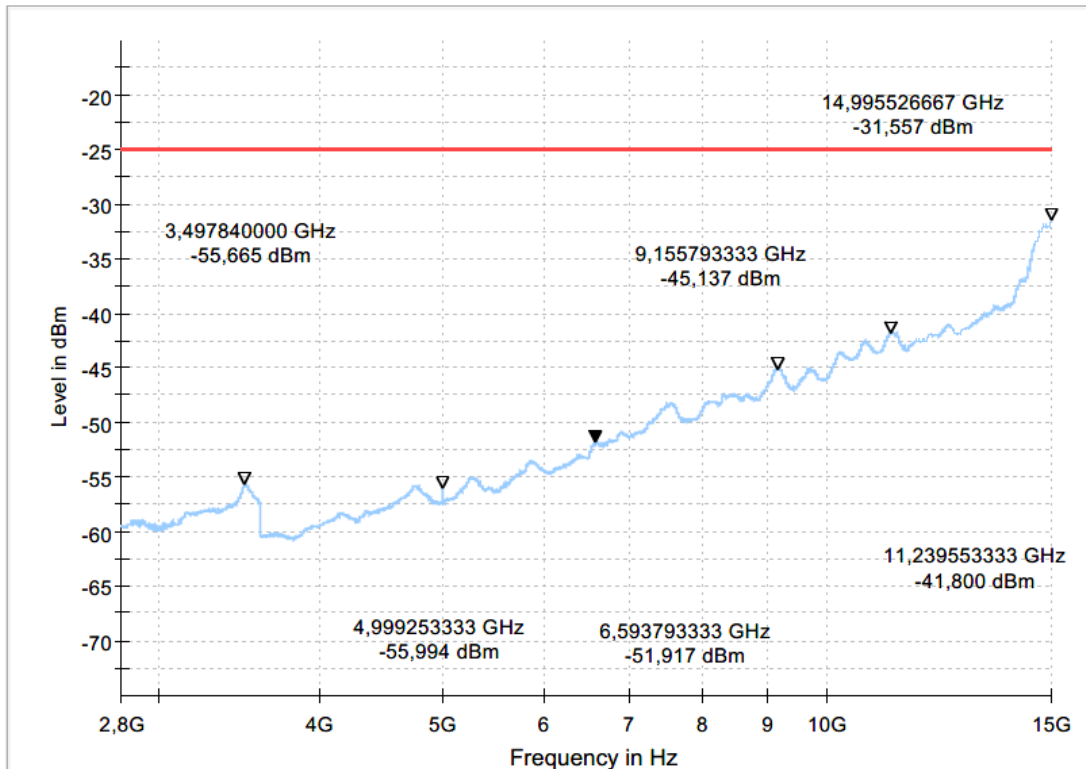
Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part27.53 /RSS-199
Test Case:	-
Operating Mode:	LTE B07 5MHz QPSK ch20775 1RB@low, internal antenna, laying
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed
Comment:	--

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



8.04c_Harmonics_Traffic_mode_LTE_FDD_ B07_CH_20775_laying

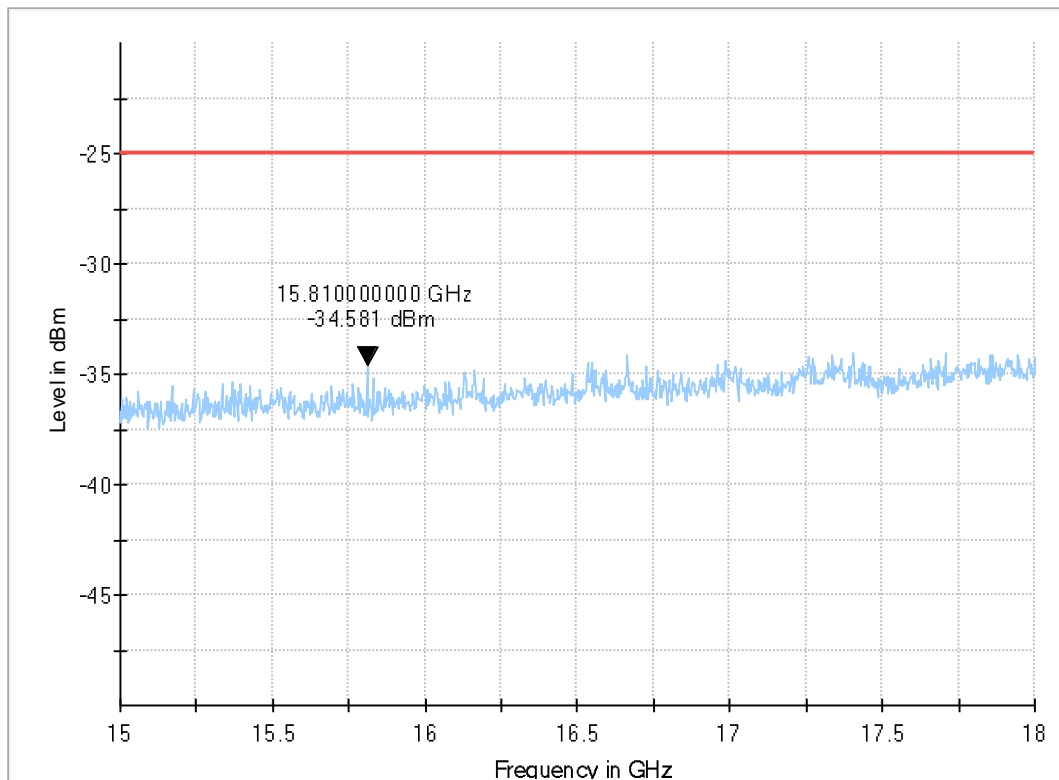
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 7
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53 (m)(4)/ RSS-199
Comm. Link:	LTE Band 7
Operating Mode:	Ch20775/ 1RB low / BW:5MHz / QPSK
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
Set-up:	1 / Set-up laying / Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



8.04d_Harmonics_Traffic_mode_LTE_FDD_ B07_CH_20775_standing

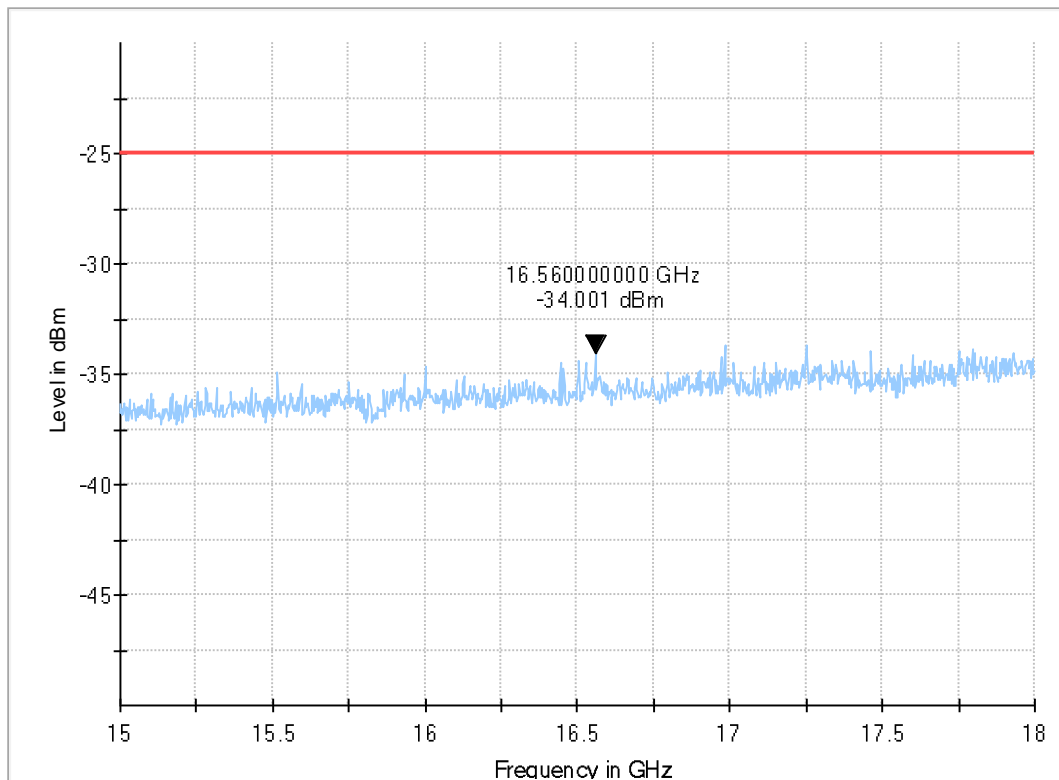
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 7
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53 (m)(4)/ RSS-199
Comm. Link:	LTE Band 7
Operating Mode:	Ch20775/ 1RB low / BW:5MHz / QPSK
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
Set-up:	1 / Set-up laying / Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



8.04e_Harmonics_Traffic_mode_LTE_FDD_ B07_CH_20775_laying

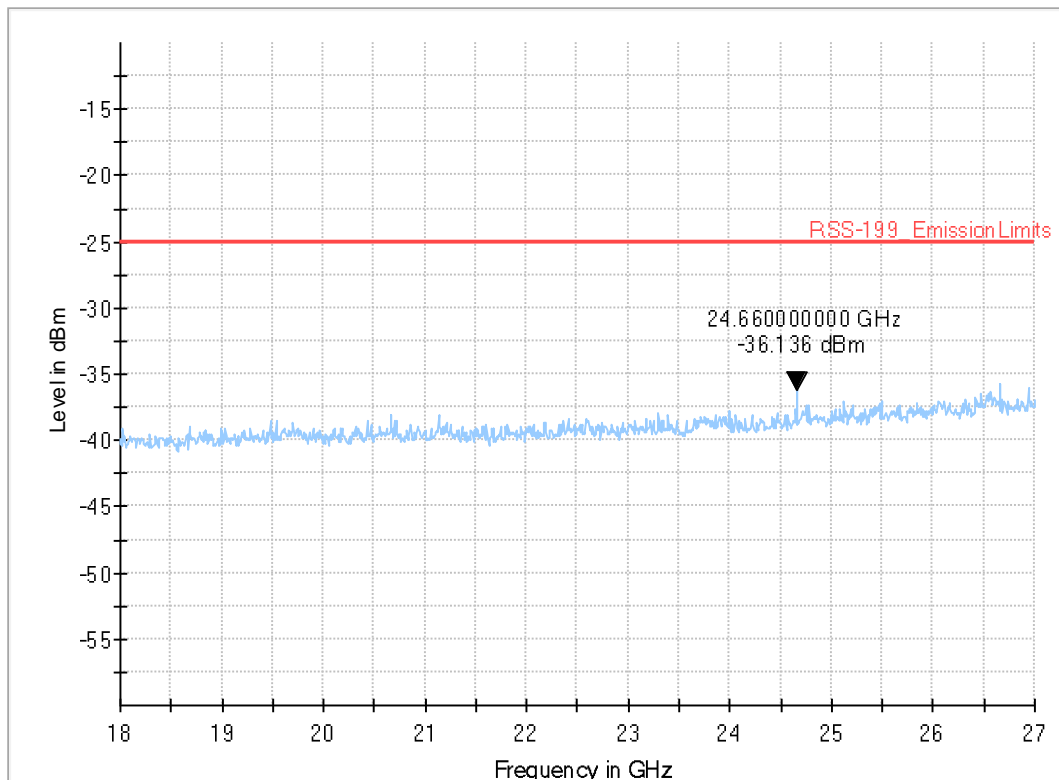
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 7
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53 (m)(4)/ RSS-199
Comm. Link:	LTE Band 7
Operating Mode:	Ch20775/ 1RB low / BW:5MHz / QPSK
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
Set-up:	1 / Set-up laying / Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



8.04f_Harmonics_Traffic_mode_LTE_FDD_ B07_CH_20775 _standing

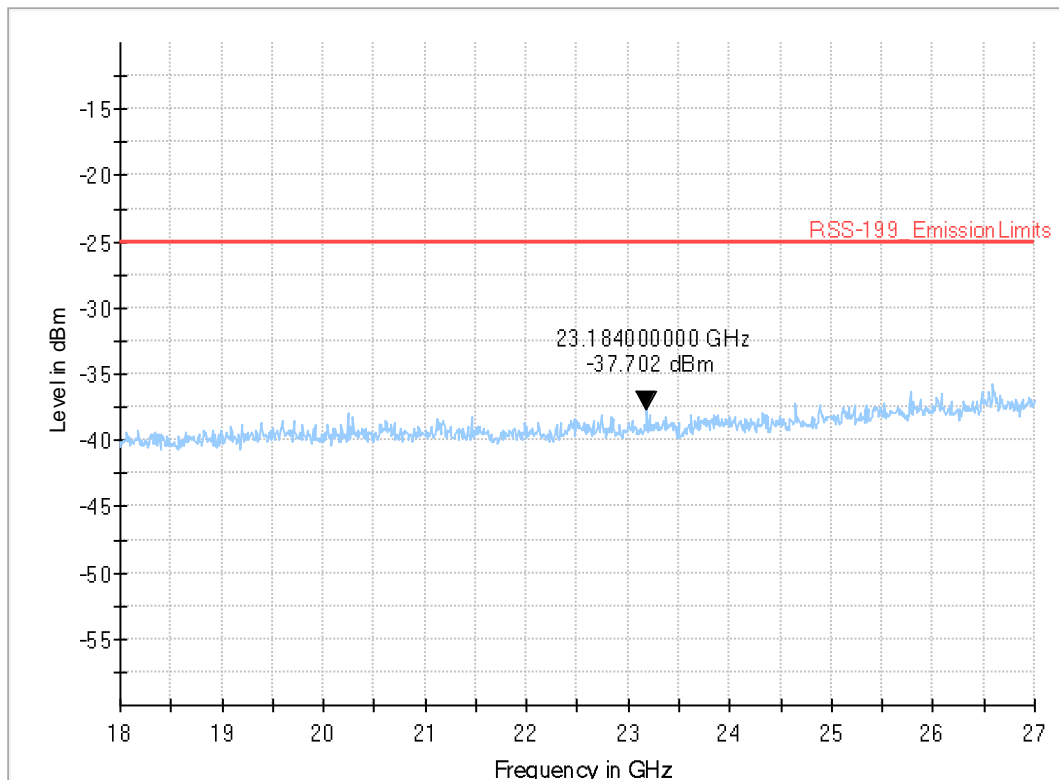
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 7
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53 (m)(4)/ RSS-199
Comm. Link:	LTE Band 7
Operating Mode:	Ch20775/ 1RB low / BW:5MHz / QPSK
Environmental Conditions:	Humidity: 34% rH; Temperature: 20.3 °C
Operator:	Lor
Set-up:	1 / Set-up laying / Internal antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



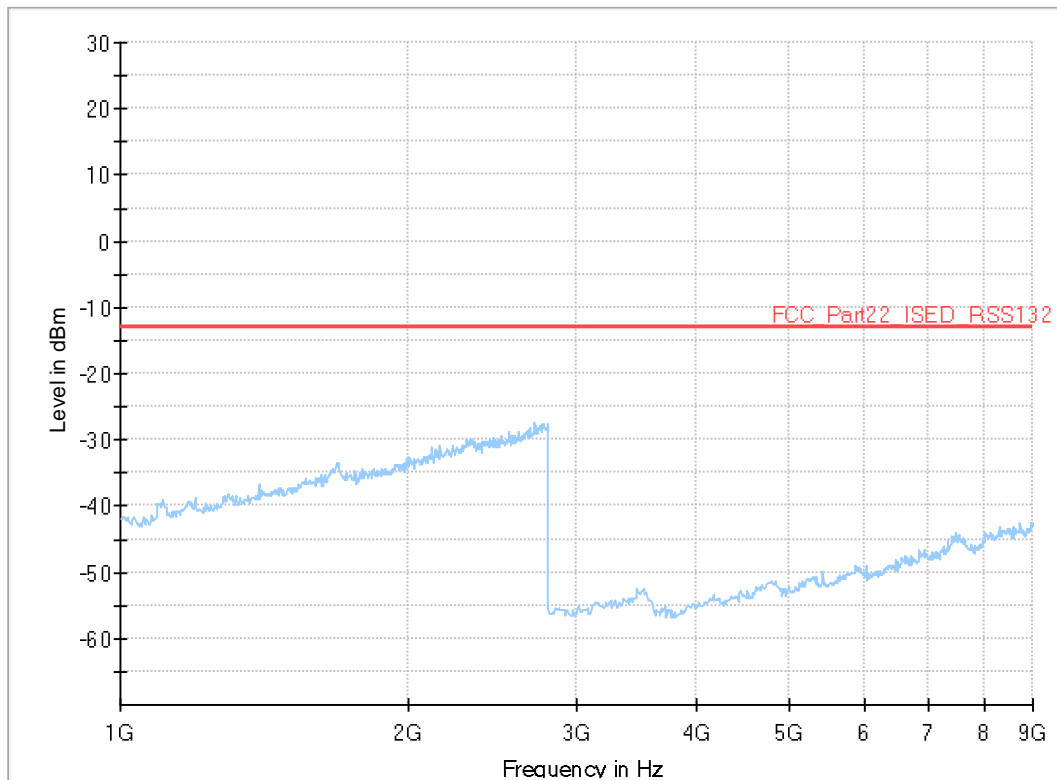
8.05a_Harmonics_Traffic_mode_LTE_FDD_ B12_CH_23017_laying

Common Information

Test Description:	Radiated emission related to 3m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part27.53g/ RSS-130, Issue2
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B12 1,4MHz QPSK ch23017 1RB@low, internal antenna, laying
Operator:	SOz
Comment:	--
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



8.05b_Harmonics_Traffic_mode_LTE_FDD_ B12_CH_23017_standing

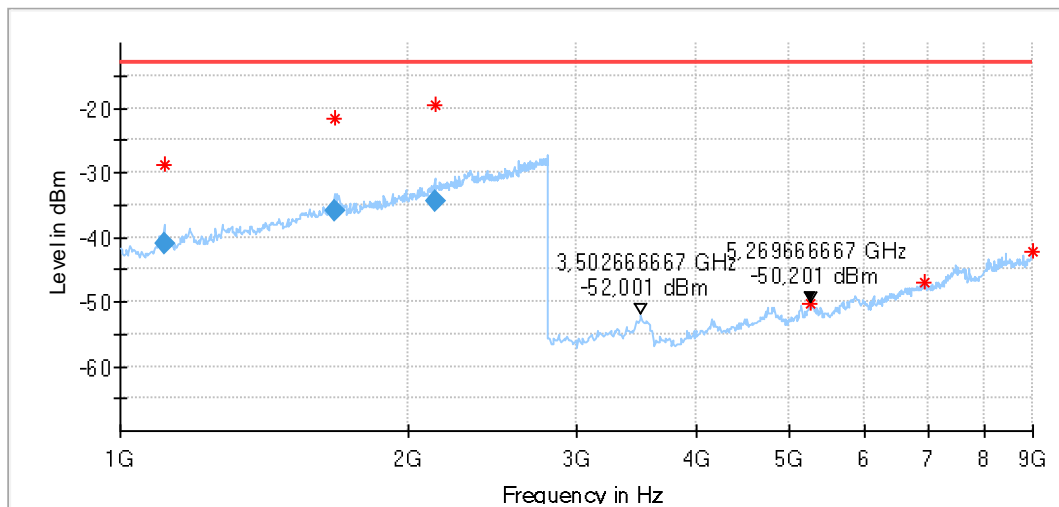
Common Information

Test Description:	Radiated emissions
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part27.53g/ RSS-130, Issue2
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B05 10MHz QPSK ch20600 1RB@low, internal antenna, standing
Operator:	Lor
Comment:	internal antenna/ standing
Environmental Conditions::	Humidity : 55% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)
2132.600000	-34.37	-13.00	21.37	100.0	100.000	155.0	H	278.0	-60	7	0
1680.400000	-35.97	-13.00	22.97	100.0	100.000	155.0	H	312.0	-60	6	0
1110.825000	-41.19	-13.00	28.19	100.0	100.000	155.0	V	268.0	-66	5	0

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
2132.600000	-66	25	13:05:49 - 04.01.2023
1680.400000	-66	24	13:07:47 - 04.01.2023
1110.825000	-71	25	13:10:04 - 04.01.2023

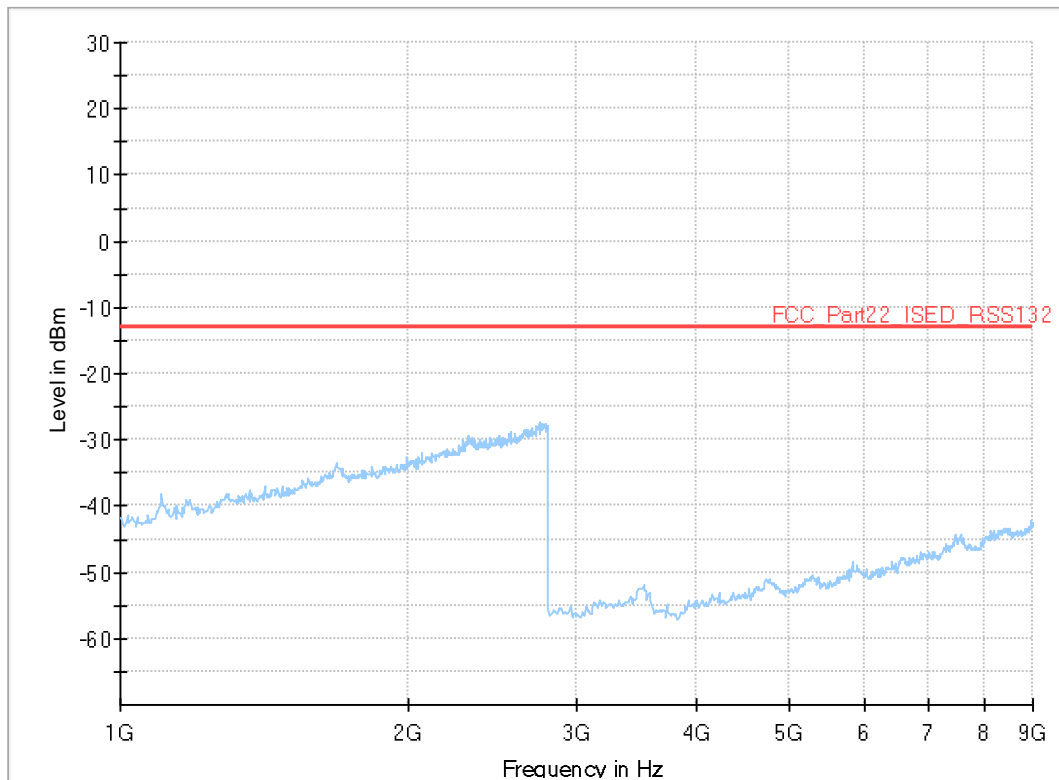
8.06a_Harmonics_Traffic_mode_LTE_FDD_ B13_CH_23230_laying

Common Information

Test Description:	Radiated emission related to 3m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part27.53g/ RSS-130, Issue2
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B13 10MHz QPSK ch23230 1RB@mid, internal antenna, laying
Operator:	SOz
Comment:	--
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



8.06b_Harmonics_Traffic_mode_LTE_FDD_ B13_CH_23230_standing

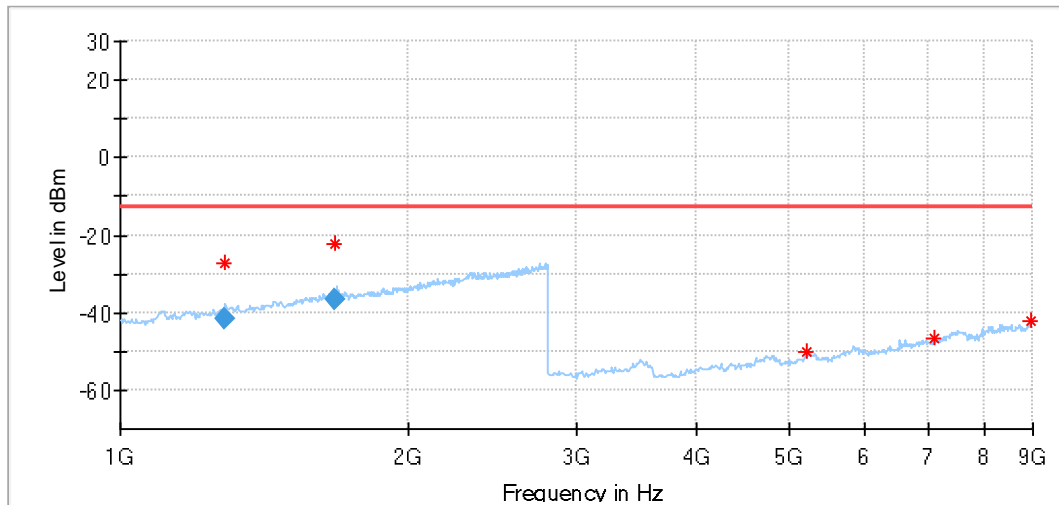
Common Information

Test Description:	Radiated emissions
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part27.53g/ RSS-130, Issue2
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B13 10MHz QPSK ch23230 1RB@mid, internal antenna, standing
Operator:	Lor
Comment:	internal antenna / standing
Environmental Conditions::	Humidity : 55% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)
1285.350000	-41.68	-13.00	28.68	100.0	100.000	155.0	V	81.0	-65	5	0
1675.350000	-36.83	-13.00	23.83	100.0	100.000	155.0	H	16.0	-61	6	0

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)	Comment
1285.350000	-70	23	13:44:12 - 04.01.2023
1675.350000	-67	24	13:42:01 - 04.01.2023

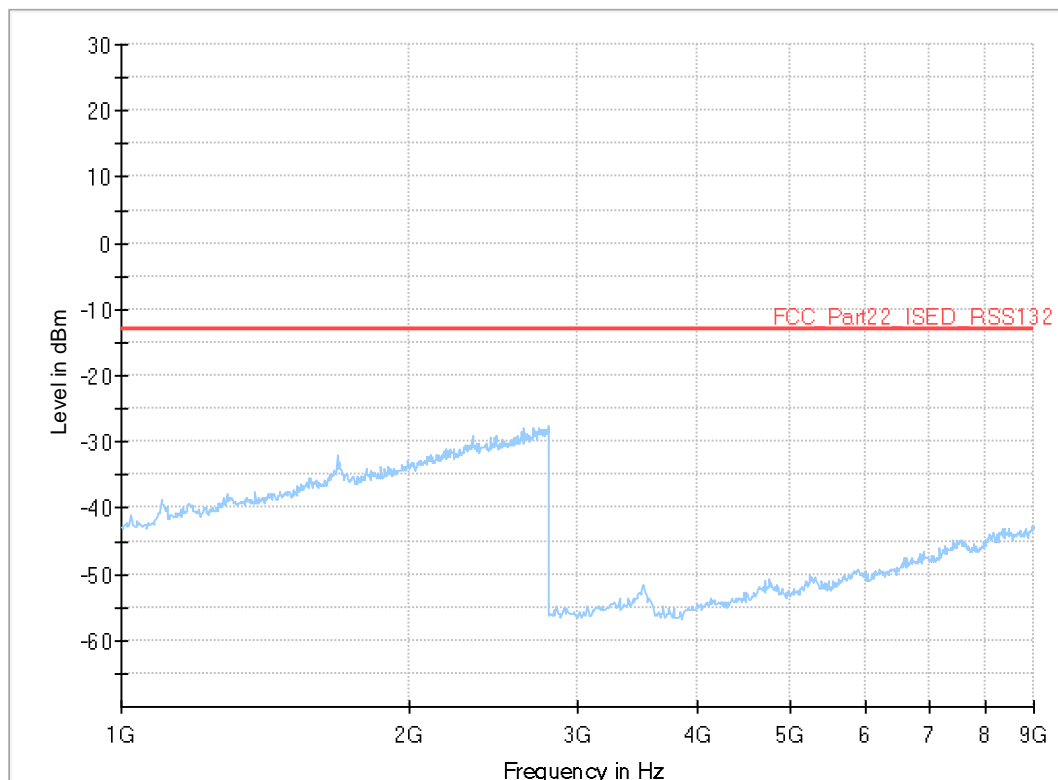
8.07a_Harmonics_Traffic_mode_LTE_FDD_ B26_CH_26865_laying

Common Information

Test Description:	Radiated emission related to 3m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §22.917(a)(b)/RSS-132, Issue 4
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B26 15MHz QPSK ch26865 1RB@mid, internal antenna, laying
Operator:	SOz
Comment:	--
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



8.07b_Harmonics_Traffic_mode_LTE_FDD_ B26_CH_26865_standing

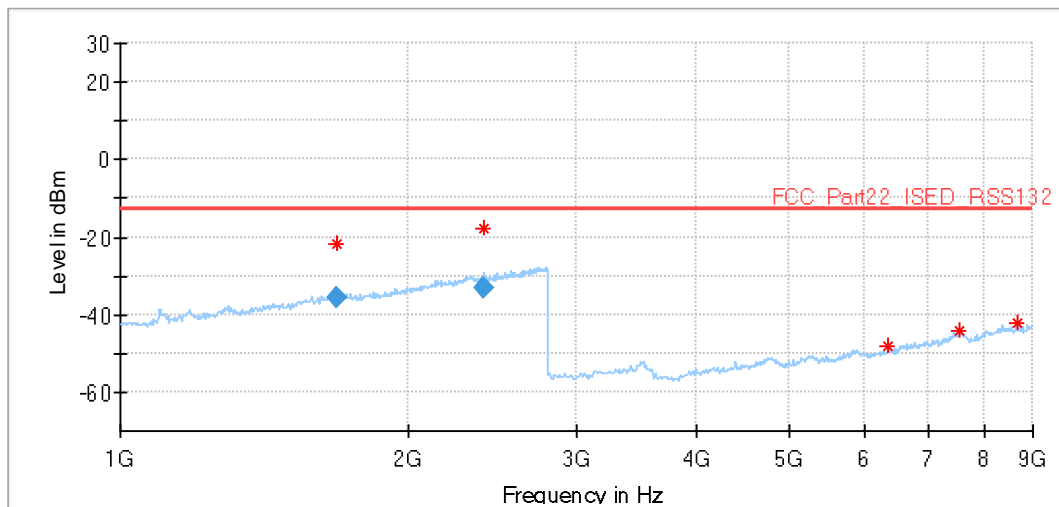
Common Information

Test Description:	Radiated emissions
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §22.917(a)(b)/RSS-132, Issue 4
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE B26 15MHz QPSK ch26865 1RB@mid, internal antenna, standing
Operator:	Lor
Comment:	standing/ internal antenna
Environmental Conditions::	Humidity : 55% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)
1686.725000	-35.53	-13.00	22.53	100.0	100.000	155.0	H	136.0	-60	6	0
2395.100000	-33.40	-13.00	20.40	100.0	100.000	155.0	H	325.0	-58	7	0

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)	Comment
1686.725000	-66	25	14:31:57 - 04.01.2023
2395.100000	-65	25	14:34:07 - 04.01.2023

8.39b_Traffic_mode_LTE_TDD_B38_CH_38000_Internal_Antenna

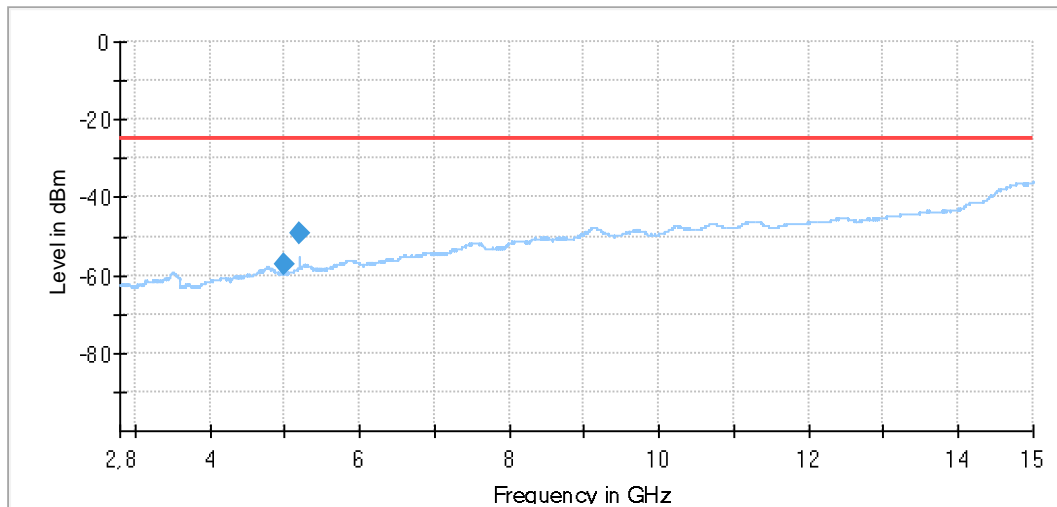
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band 38
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53(l)(4) / RSS-130 Mobile stations limits
Operating Mode:	UE allocated channel 38000/ BW: 20MHz/ RB: 1/ Position: 50
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Operator:	HLa
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT Sample Nr:	21-1-01787S50_C01
Power Supply:	14 V DC

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
4999.385880	-57.17	-25.00	32.17	1000.0	1000.000	H	87.0	90.0	-86
5190.220000	-49.07	-25.00	24.07	1000.0	1000.000	V	322.0	90.0	-84

8.39c_Traffic_mode_LTE_TDD_B38_CH_38000_I nternal_Antenna

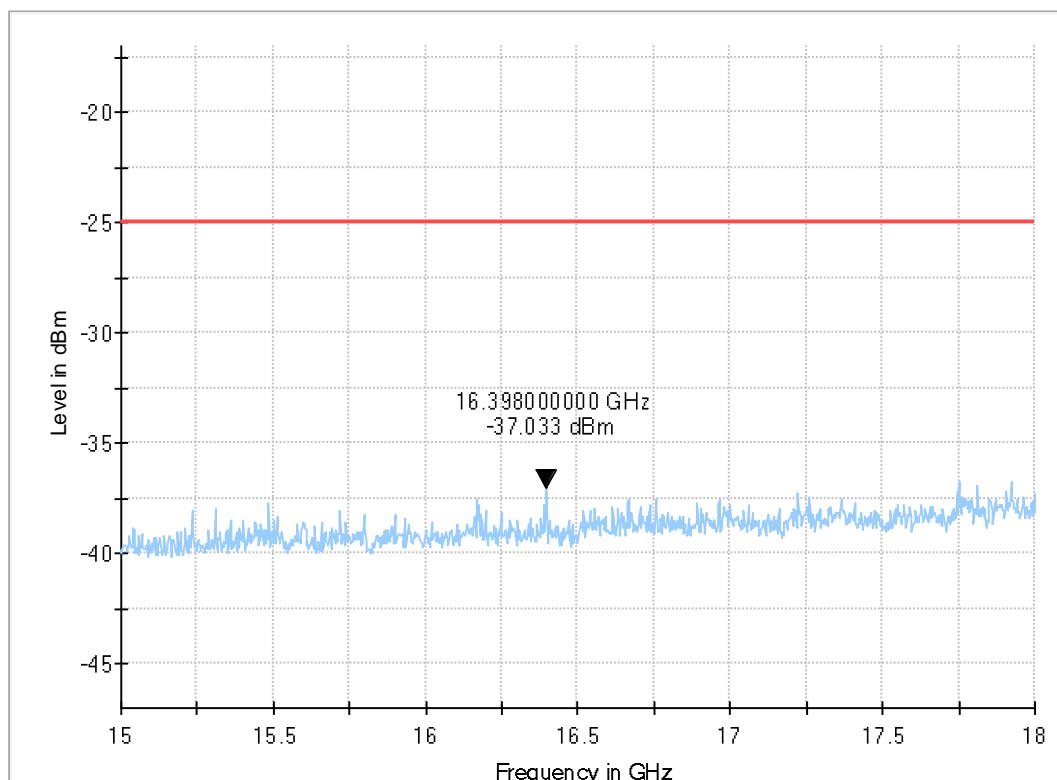
Common Information

Test Description:	Radiated Spurious Emissions
Operating mode:	LTE Band 38
Operator Name:	AHo
Test Site:	FAC2

EUT Information

PMT Sample Nr.	21-1-01787S50_C01
Set-up:	1

Full Spectrum



8.39d_Traffic_mode_LTE_TDD_B38_CH_38000_Internal_Antenna

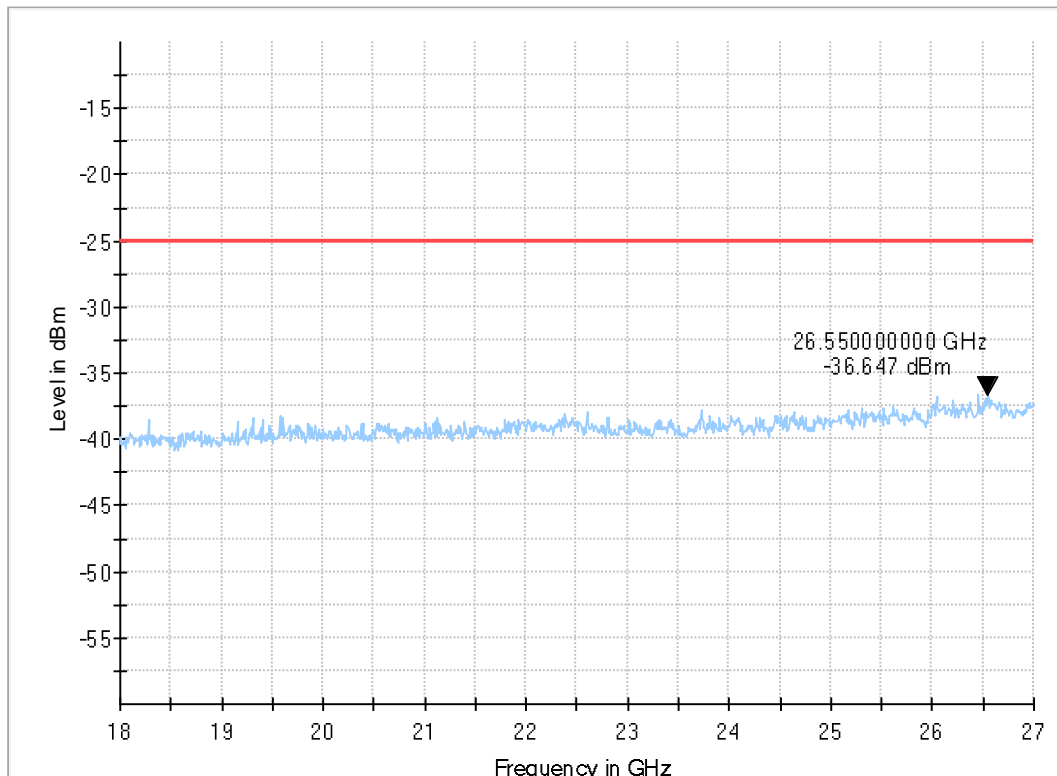
Common Information

Test Description:	Radiated Spurious Emissions
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27, RSS-199
Comm. Link:	LTE Band 38
Operating Mode:	MS allocated channel 38000 / BW:20MHz / 1RB mid / 16QAM
Environmental Conditions:	Humidity: 40%rH; Temperature: 19.8°C
Operator:	AHo
Set-up:	1
Verdict:	Passed

EUT Information

PMT Sample Nr.	21-1-01787S50_C01
Set-up:	1

Full Spectrum



a

8.09a_Harmonics_Traffic_mode_LTE_FDD_ B66_CH_132022_laying

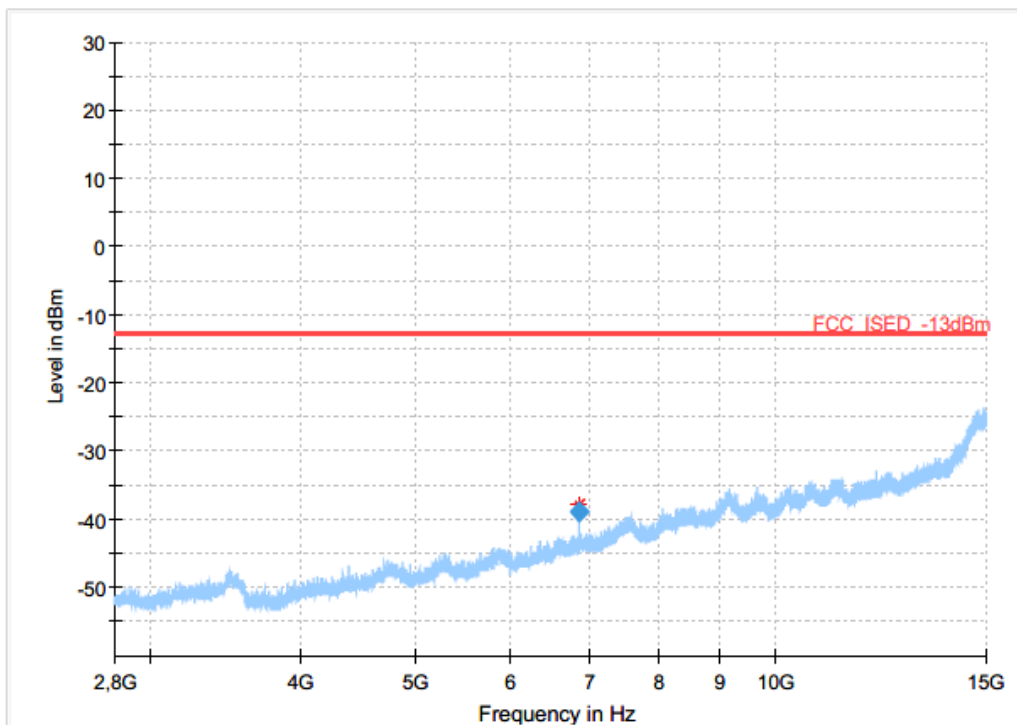
Common Information

Test Description:	Radiated emission
Test Site:	Fully-Anechoic Chamber
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Antenna polarisation:	vertical / horizontal
Measurement software version	EMC32 V10.60.20
Operating Mode:	LTE B66 10MHz QPSK ch132022 1RB@low, internal antenna, laying
Environmental Conditions::	Humidity : 55% rH; Temperature: 20 °C
Operator:	SOz
Comment:	--
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
6842.361667	-39.01	-13.00	26.01	100.0	1000.000	155.0	H	165.0	0.0	-78

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Comment
6842.361667	04:35:45 - 04.01.2023

8.09b_Harmonics_Traffic_mode_LTE_TDD_ B66_CH_132022_standing

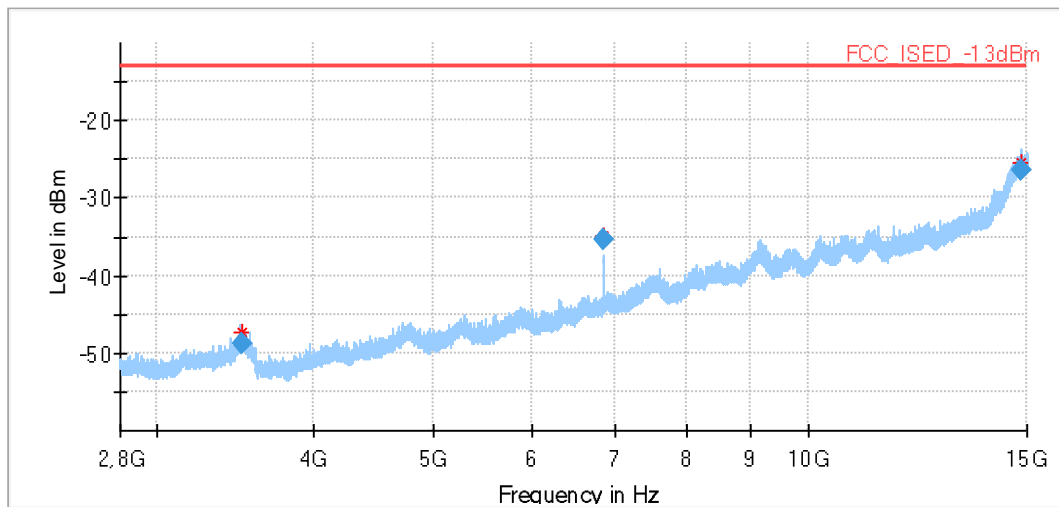
Common Information

Test Description:	Radiated emission
Test Site:	Fully-Anechoic Chamber
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Antenna polarisation:	vertical / horizontal
Measurement software version	EMC32 V10.60.20
Operating Mode:	LTE B66 10MHz QPSK ch132022 1RB@low, internal antenna, standing
Environmental Conditions::	Humidity : 55% rH; Temperature: 20 °C
Operator:	Lor
Comment:	internal antenna / standing
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)
3508.813333	-48.73	-13.00	35.73	100.0	1000.000	155.0	H	252.0	-87	-27	0
6842.393333	-35.45	-13.00	22.45	100.0	1000.000	155.0	V	301.0	-78	-21	0
14854.700000	-26.38	-13.00	13.38	100.0	1000.000	155.0	V	306.0	-60	-10	0

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)	Comment
3508.813333	-60	38	15:05:14 - 04.01.2023
6842.393333	-57	43	15:07:58 - 04.01.2023
14854.700000	-50	33	15:10:21 - 04.01.2023

8.09c_Harmonics_Traffic_mode_LTE_FDD_ B66_CH_132022_laying

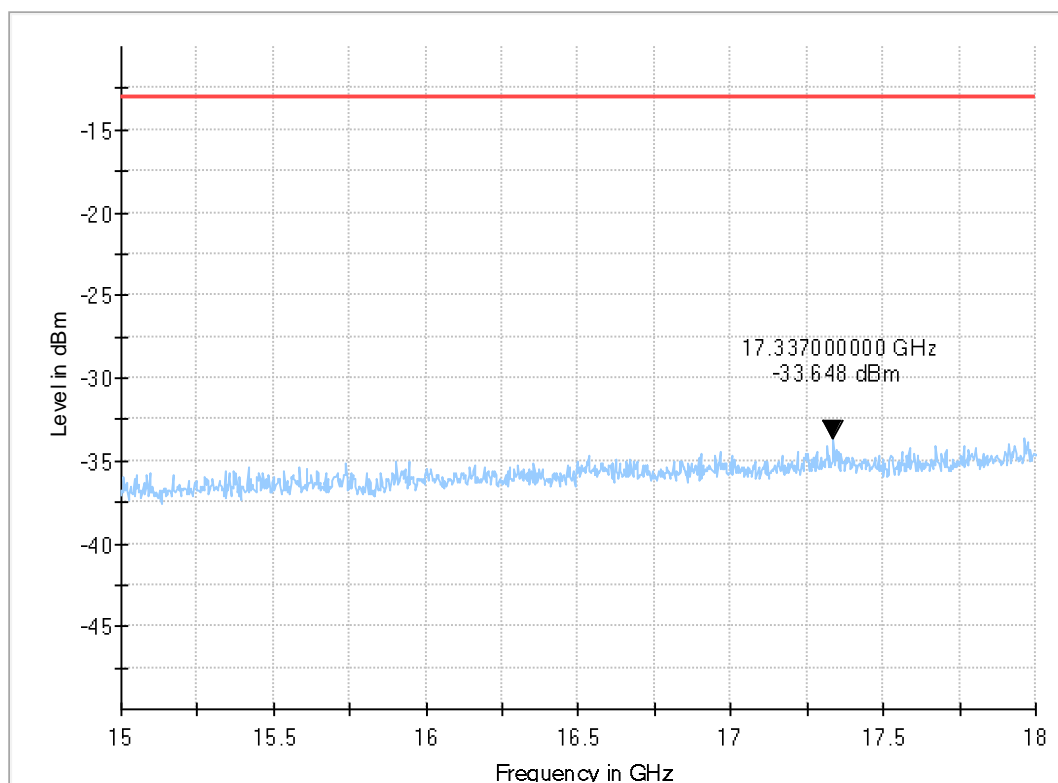
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 66
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Comm. Link:	LTE Band 66
Operating Mode:	MS allocated channel 132022 / BW:10MHz / 1RB low / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.6 °C
Operator:	npe
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787550_C01

Full Spectrum



8.09d_Harmonics_Traffic_mode_LTE_TDD_ B66_CH_132022 _standing

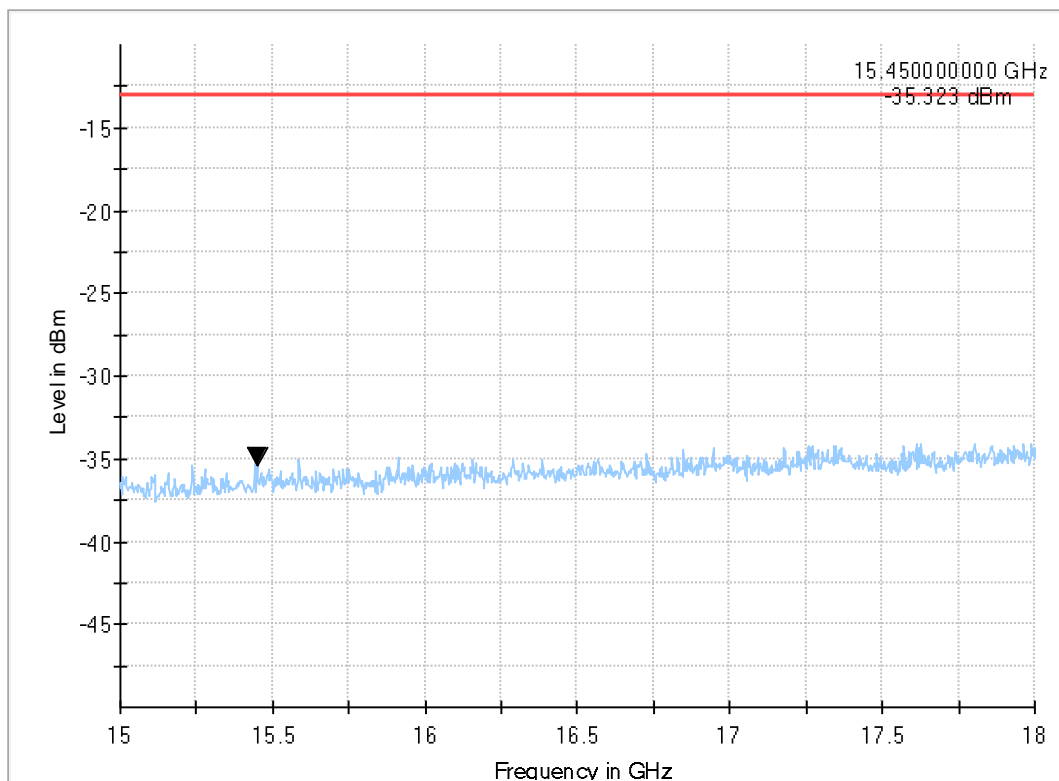
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 66
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53(h) AWS emission limits / RSS-139, Issue 3
Comm. Link:	LTE Band 66
Operating Mode:	MS allocated channel 132022 / BW:10MHz / 1RB low / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.6 °C
Operator:	npe
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787550_C01

Full Spectrum



1.1 Band-Edge on LTE Band 2

9.07a_BE_Ch18607_QPSK_BW1.4_1RB_low_ IntAnt_EUT_laying

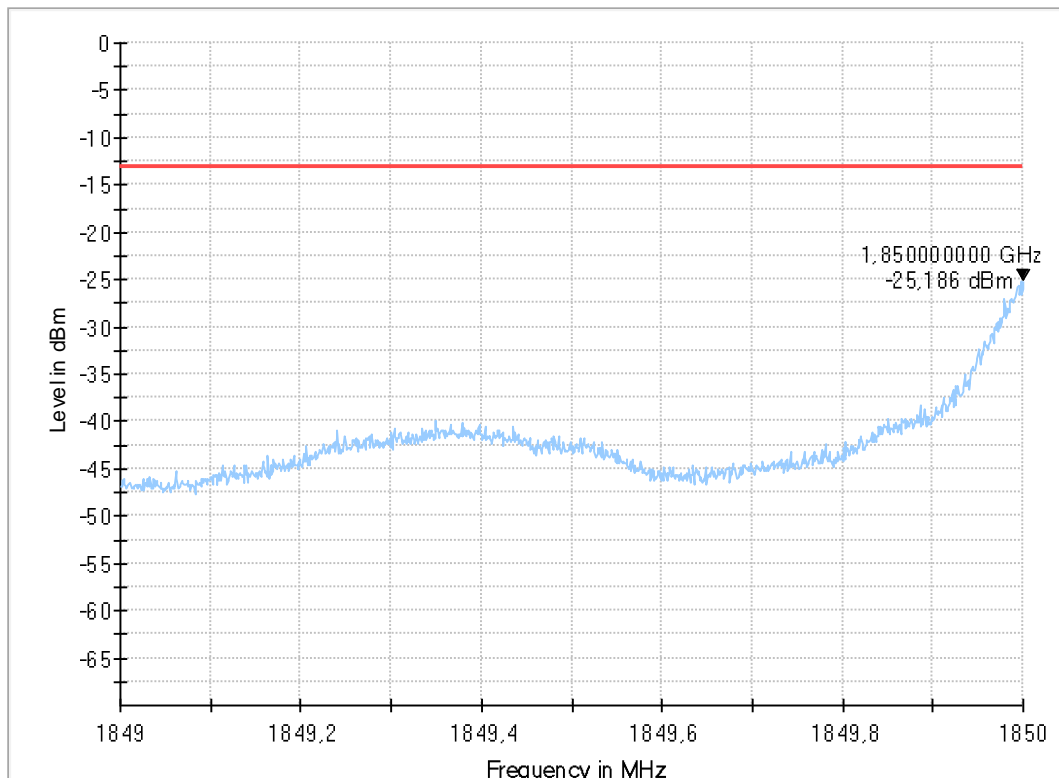
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	Ch18607_QPSK_BW1.4_1RB_low_IntAnt_EUT_laying
Environmental Conditions::	Humidity : 43% rH; Temperature: 19 °C
Operator:	KTe
EUT Setup:	1
Verdict:	Passed
Comment:	--

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



9.07b_BE_Ch18607_QPSK_BW1.4_1RB_low_ IntAnt_EUT_standing

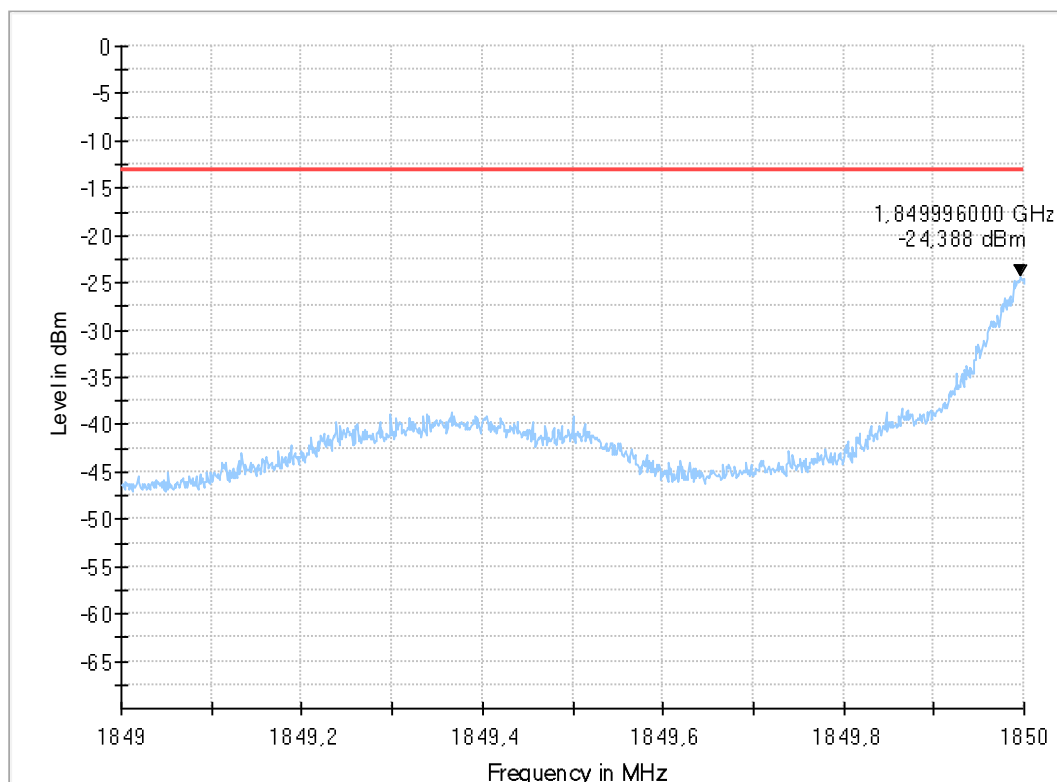
Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	BE_Ch18607_QPSK_BW1.4_1RB_low_IntAnt_EUT_standing
Environmental Conditions:	Humidity : 43% rH; Temperature: 19 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



9.07c_BE_Ch18607_QPSK_BW1.4_FullRB_ IntAnt_EUT_laying

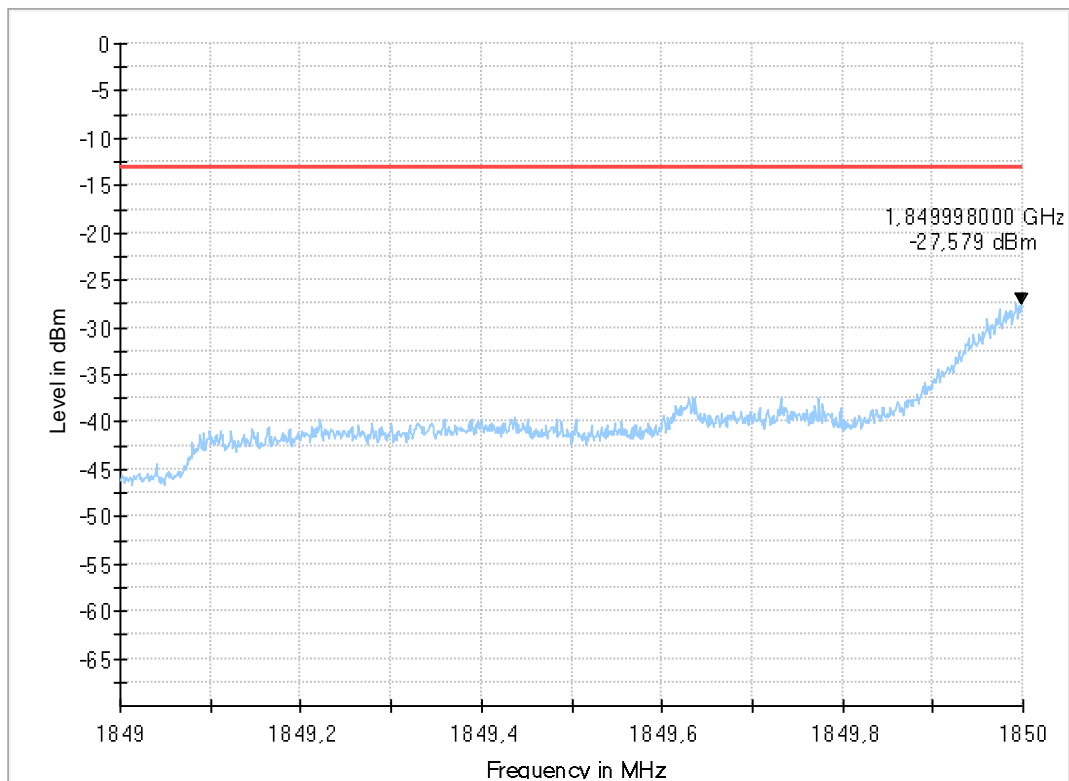
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	BE_Ch18607_QPSK_BW1.4_FullRB_IntAnt_EUT_laying
Environmental Conditions::	Humidity : 43% rH; Temperature: 19 °C
Operator:	KTe
EUT Setup:	1
Verdict:	Passed
Comment:	--

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



9.07d_BE_Ch18607_QPSK_BW1.4_FullRB_ IntAnt_EUT_standing

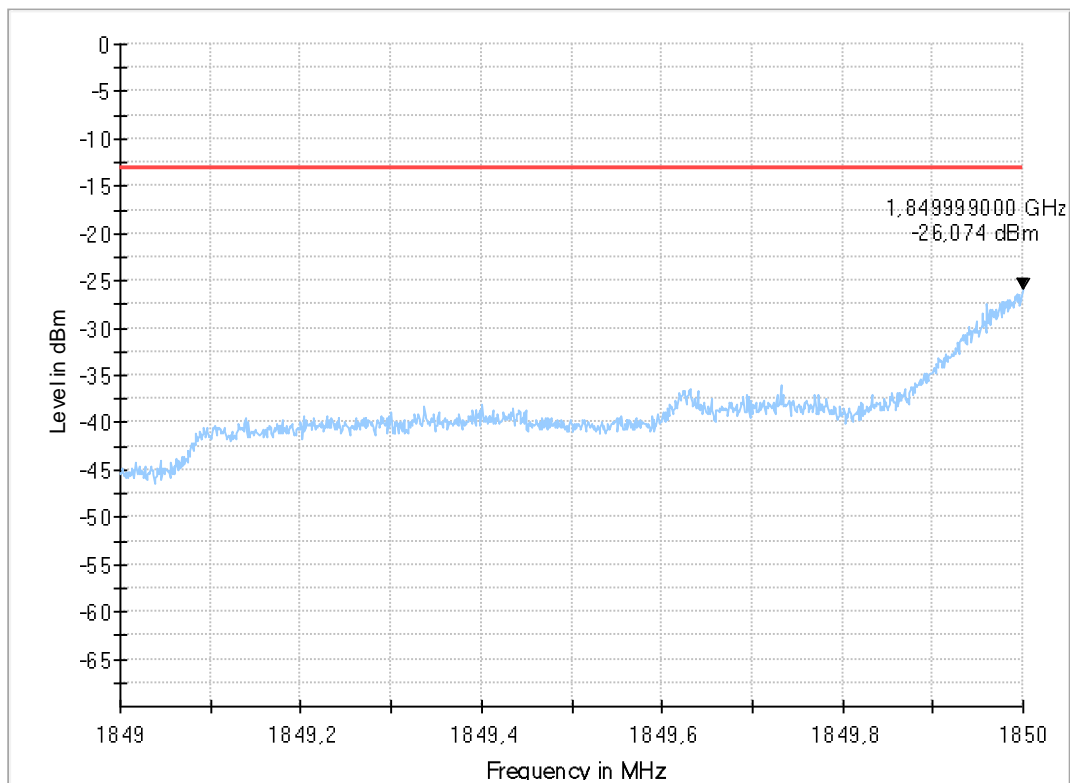
Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	BE_Ch18607_QPSK_BW1.4_1RB_low_IntAnt_EUT_standing
Environmental Conditions:	Humidity : 43% rH; Temperature: 19 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



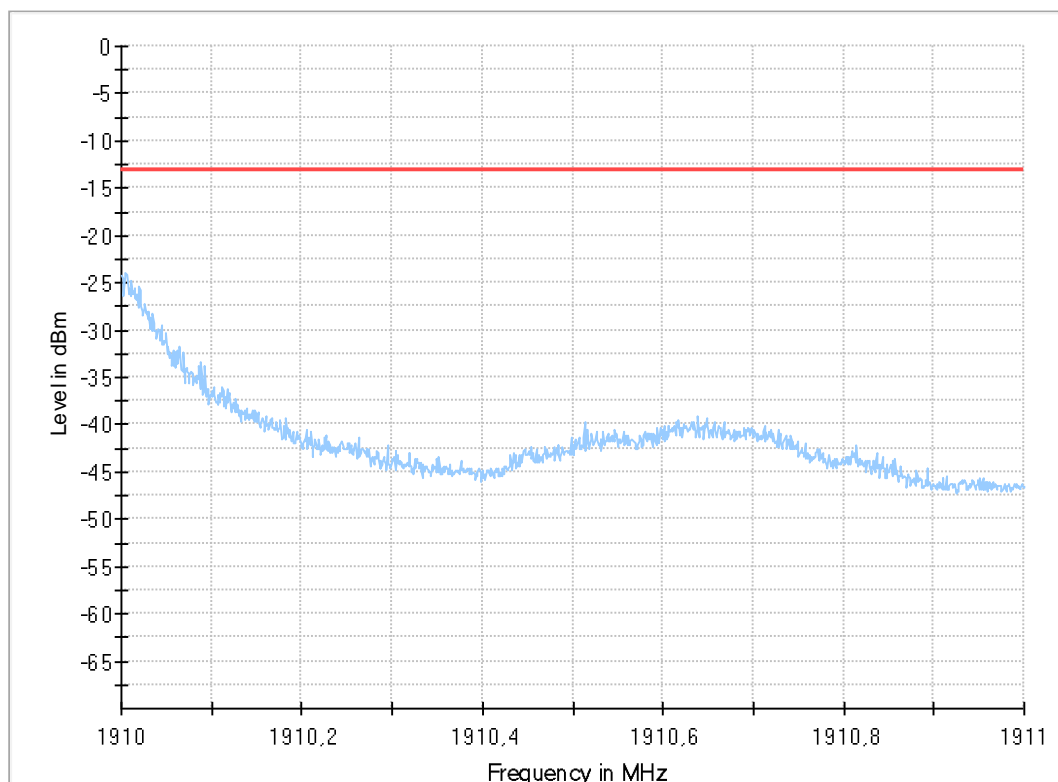
9.203a_Bandedge_high_LTE_FDD_B02_CH_high_RB_1_high_laying

Common Information

Test Description:	Band-Edge high - Radiated Spurious Emissions
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	Bandedge_high_LTE_FDD_B02_CH_high_RB_1_high_laying
Environmental Conditions::	Humidity : 43% rH; Temperature: 19 °C
Operator:	KTe
EUT Setup:	1
Verdict:	Passed
Comment:	--

EUT Information

PMT number: 21-1-01787S50_C01
Full Spectrum

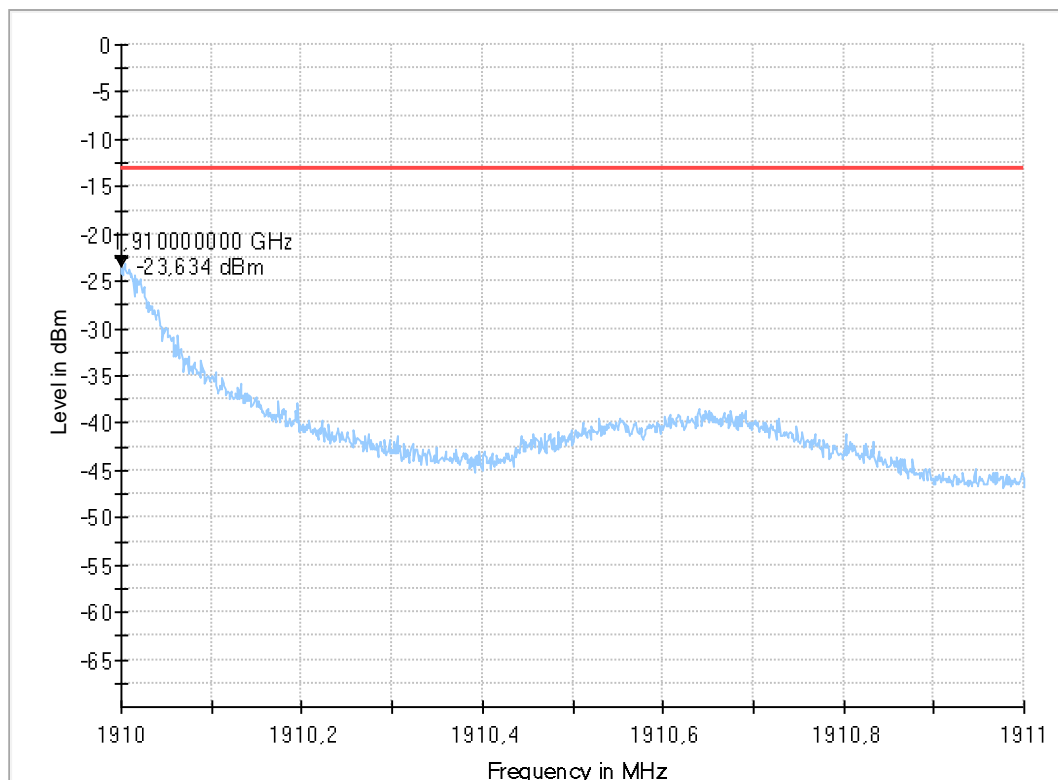


9.203b_Bandedge_high_LTE_FDD_B02_CH_high_RB_1_high_standing

Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	Bandedge_high_LTE_FDD_B02_CH_high_RB_1_high_standing
Environmental Conditions:	Humidity : 43% rH; Temperature: 19 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed

Full Spectrum



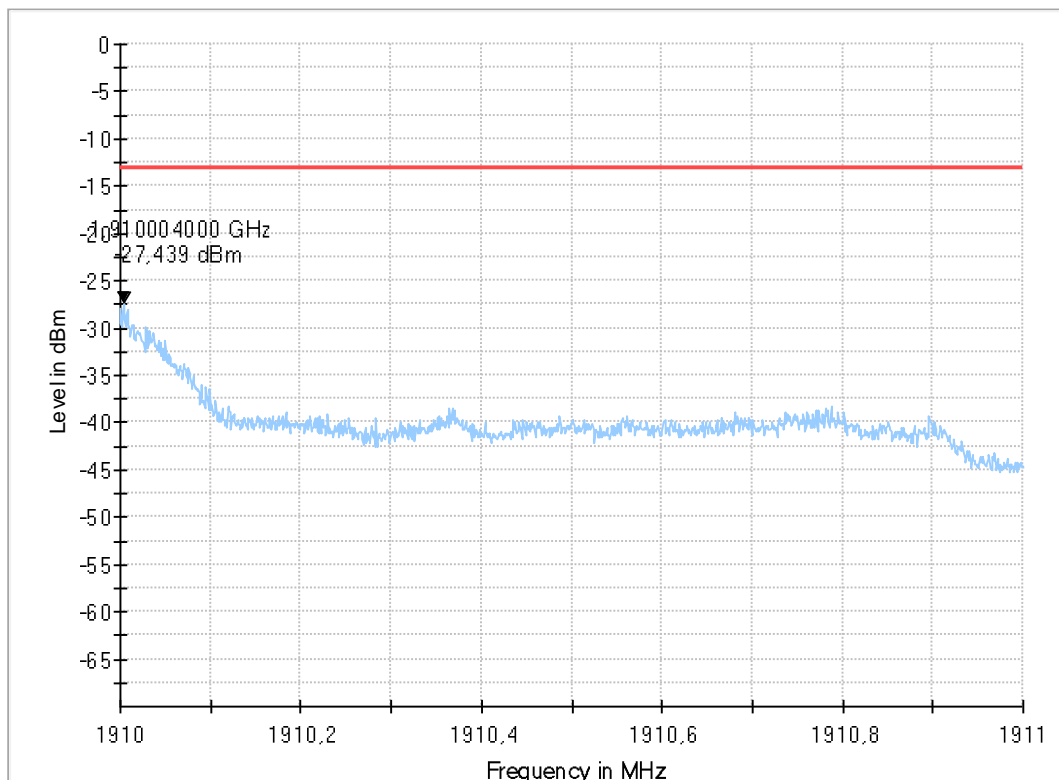
9.204a_Bandedge_high_LTE_FDD_B02_CH_high_RB_Full_laying

Common Information

Test Description:	Band-Edge high - Radiated Spurious Emissions
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	Bandedge_high_LTE_FDD_B02_CH_high_RB_Full_laying
Environmental Conditions::	Humidity : 43% rH; Temperature: 19 °C
Operator:	KTe
EUT Setup:	1
Verdict:	Passed
Comment:	--

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum

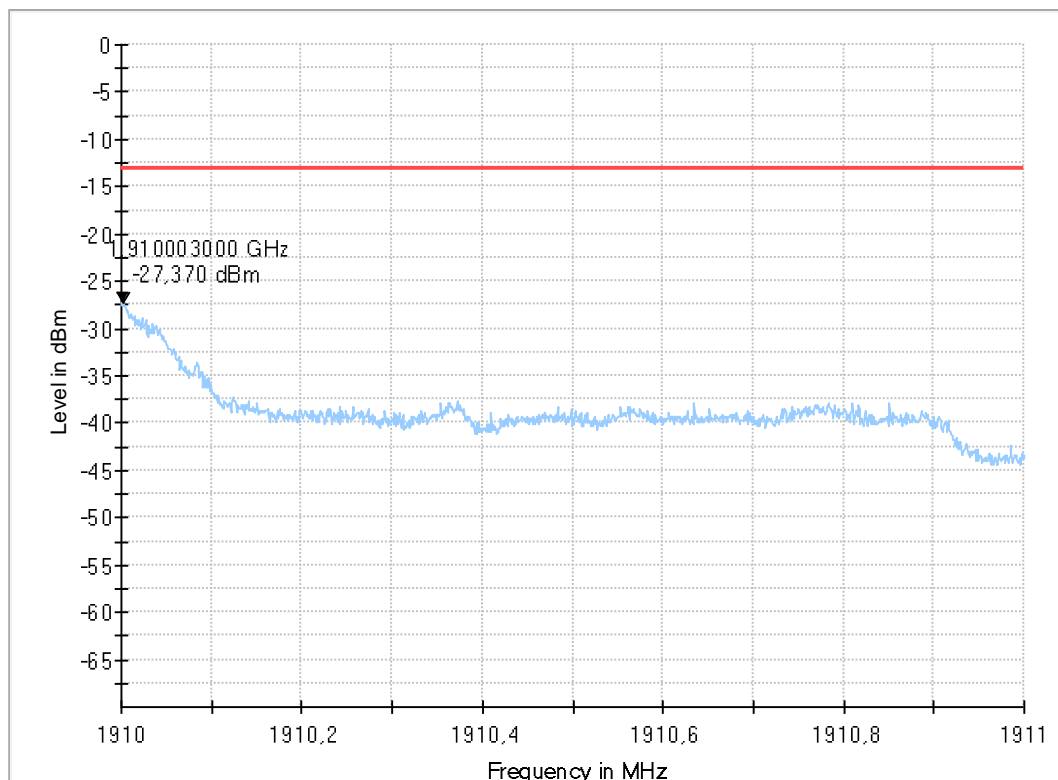


9.204b_Bandedge_high_LTE_FDD_B02_CH_high_RB_Full_standing

Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §24.238 / RSS-133
Test Case:	Band-Edge
Operating Mode:	Bandedge_high_LTE_FDD_B02_CH_high_RB_Full_laying
Environmental Conditions:	Humidity : 43% rH; Temperature: 19 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed

Full Spectrum



1.2 Band-Edge on LTE Band 4

9.401a_Bandedge_low_LTE_FDD_B04_CH_low_RB_1_low_standing

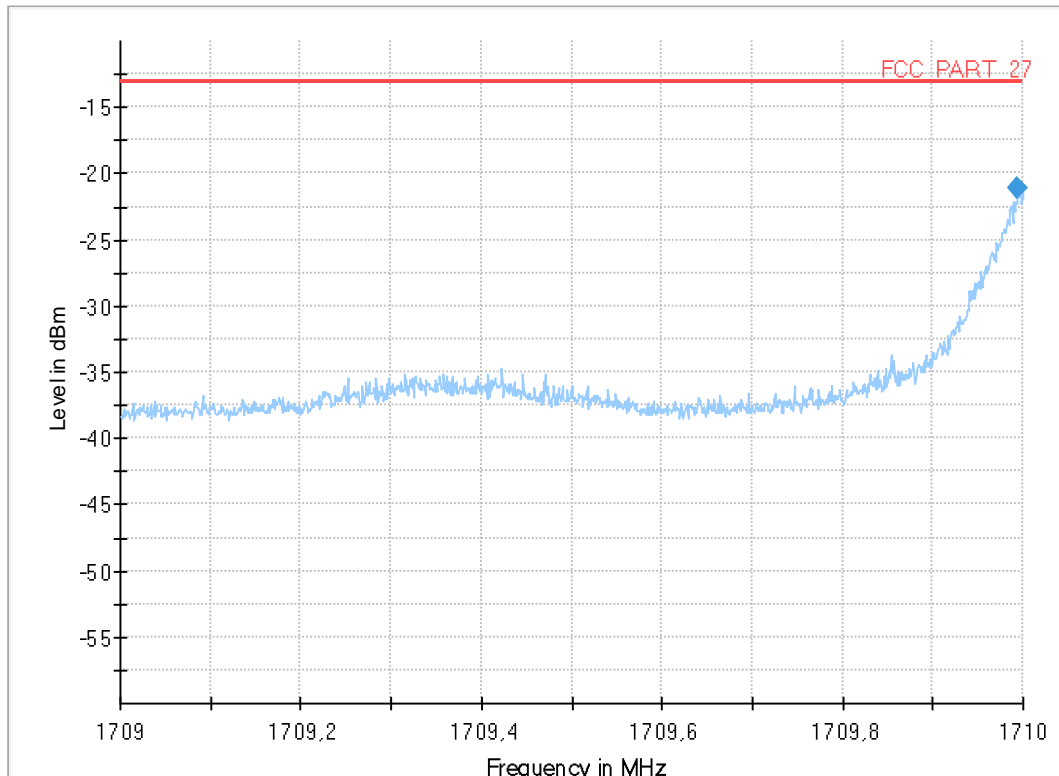
Common Information

Test Description: -
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_low_LTE_FDD_B04_CH_low_RB_1_low_standing
 Environmental Conditions: Humidity : 43% rH; Temperature: 19 °C
 Operator: SOz
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1709.994000	-21.09	-13.00	8.09	700.0	20.000	V	6.0	90.0	-62

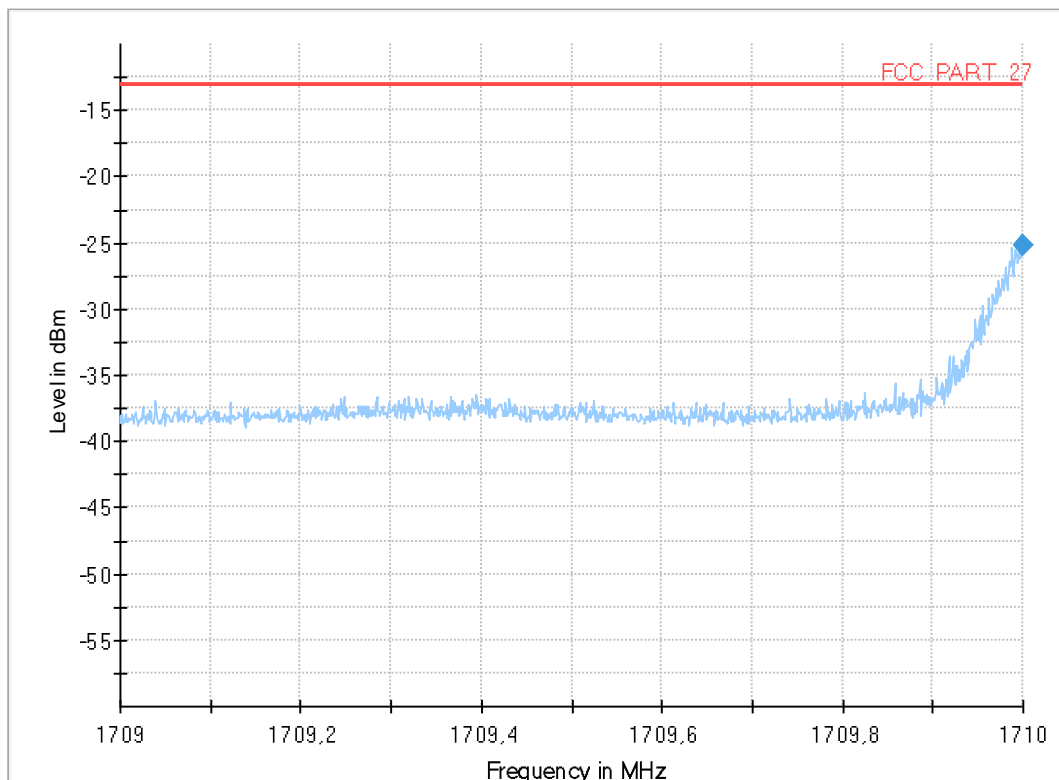
9.401b_Bandedge_low_LTE_FDD_B04_CH_low_RB_1_low_laying

Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_low_LTE_FDD_B04_CH_low_RB_1_low_laying
 Environmental Conditions: Humidity : 43% rH; Temperature: 19 °C
 Operator: KTe
 EUT Setup: 1
 Verdict: Passed
 Comment: --

EUT Information

PMT number: 21-1-01787550_C01
 Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1710.000000	-25.19	-13.00	12.19	700.0	20.000	V	282.0	0.0	-62

9.402a_Bandedge_low_LTE_FDD_B04_CH_low_RB_Full_standing

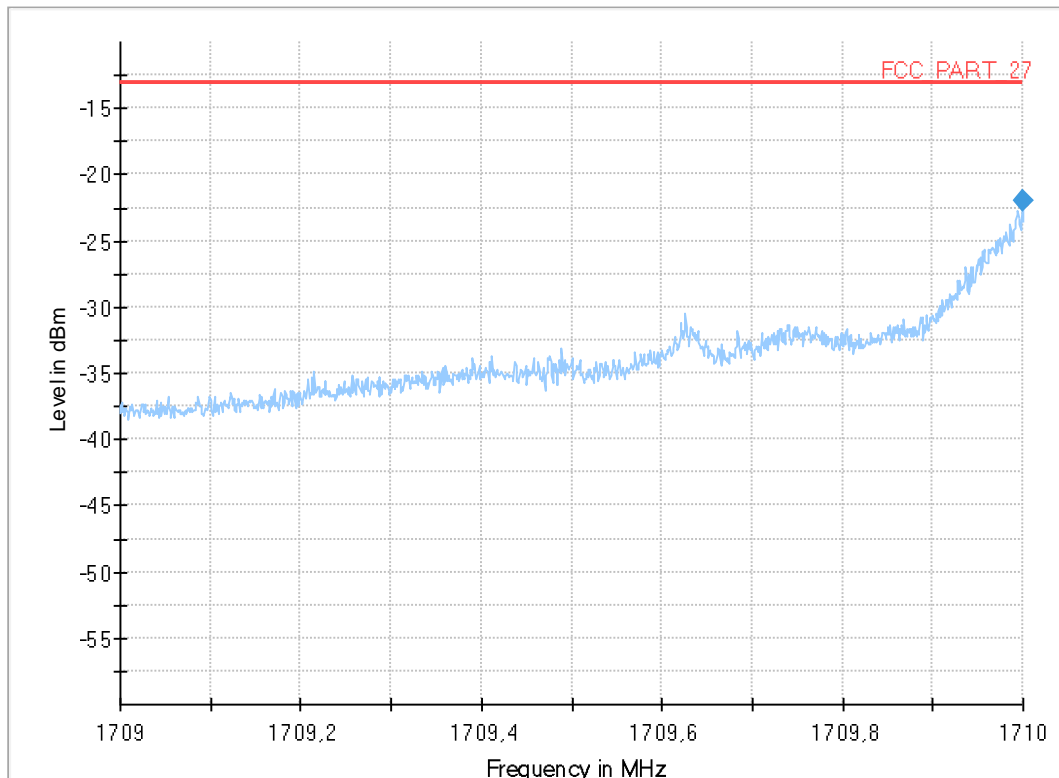
Common Information

Test Description: -
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_low_LTE_FDD_B04_CH_low_RB_Full_standing
 Environmental Conditions: Humidity : 43% rH; Temperature: 19 °C
 Operator: SOz
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1709.999000	-22.00	-13.00	9.00	700.0	20.000	V	0.0	90.0	-62

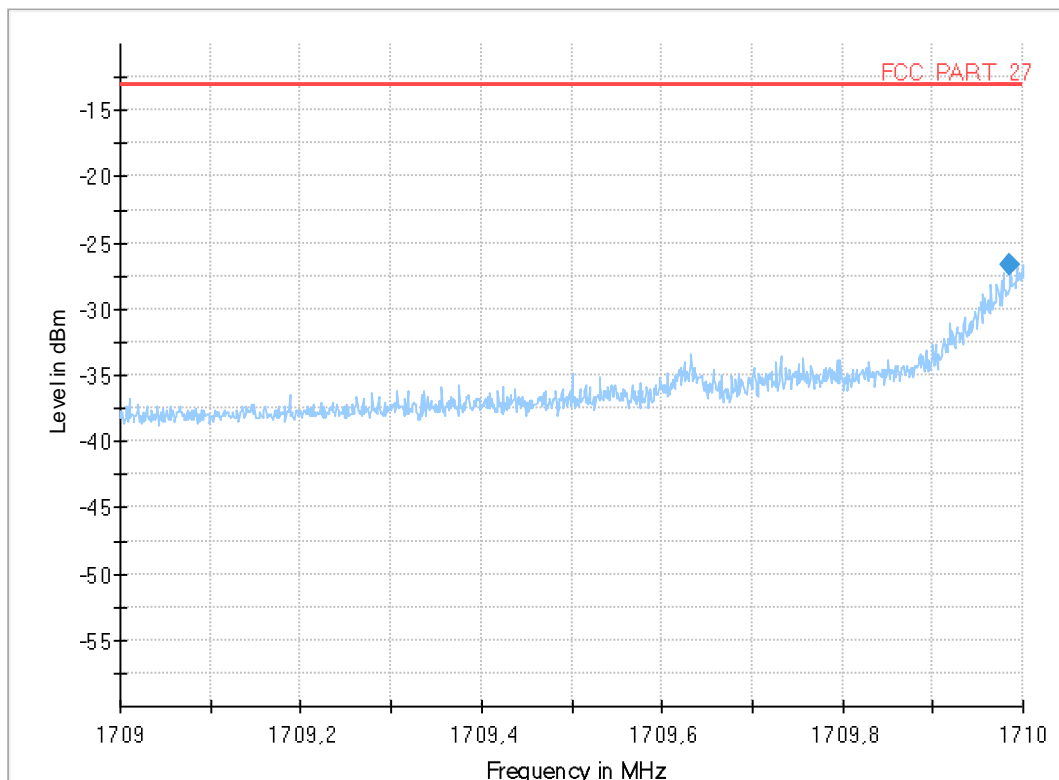
9.402b_Bandedge_low_LTE_FDD_B04_CH_low_RB_Full_laying

Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_low_LTE_FDD_B04_CH_low_RB_Full_laying
 Environmental Conditions: Humidity : 43% rH; Temperature: 19 °C
 Operator: KTe
 EUT Setup: 1
 Verdict: Passed
 Comment: --

EUT Information

PMT number: 21-1-01787550_C01
 Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1709.986000	-26.60	-13.00	13.60	700.0	20.000	V	282.0	0.0	-62

9.403a_Bandedge_high_LTE_FDD_B04_CH_high_RB_1_high_standing

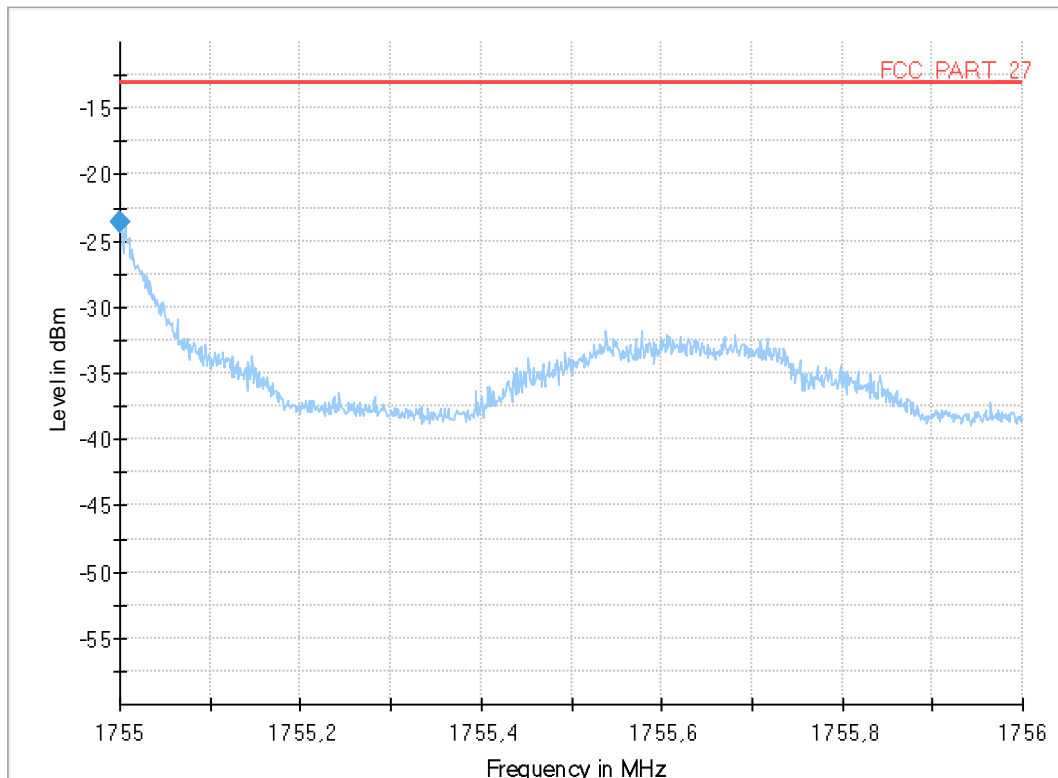
Common Information

Test Description: -
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_high_LTE_FDD_B04_CH_high_RB_1_high_standing
 Environmental Conditions: Humidity : 43% rH; Temperature: 19 °C
 Operator: SOz
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT Sample Nr: 21-1-01787S50_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1755.000000	-23.54	-13.00	10.54	700.0	20.000	V	356.0	90.0	-62

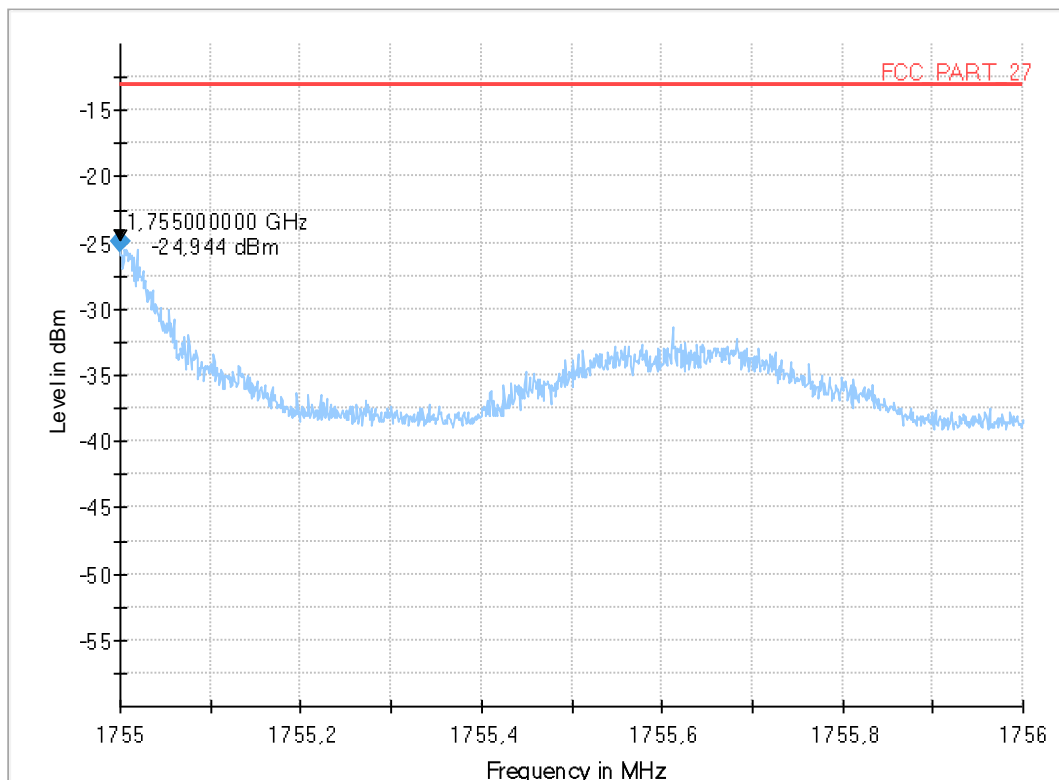
9.403b_Bandedge_high_LTE_FDD_B04_CH_high_RB_1_high_laying

Common Information

Test Description: -
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_high_LTE_FDD_B04_CH_high_RB_1_high_laying
 Environmental Conditions:: Humidity : 46% rH; Temperature: 19 °C
 Operator: KTe
 EUT Setup: 1
 Verdict: Passed
 Comment: --

EUT Information

PMT number: 21-1-01787550_C01
 Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1755.000000	-24.94	-13.00	11.94	700.0	20.000	V	342.0	0.0	-62

9.404a_Bandedge_high_LTE_FDD_B04_CH_high_RB_Full_standing

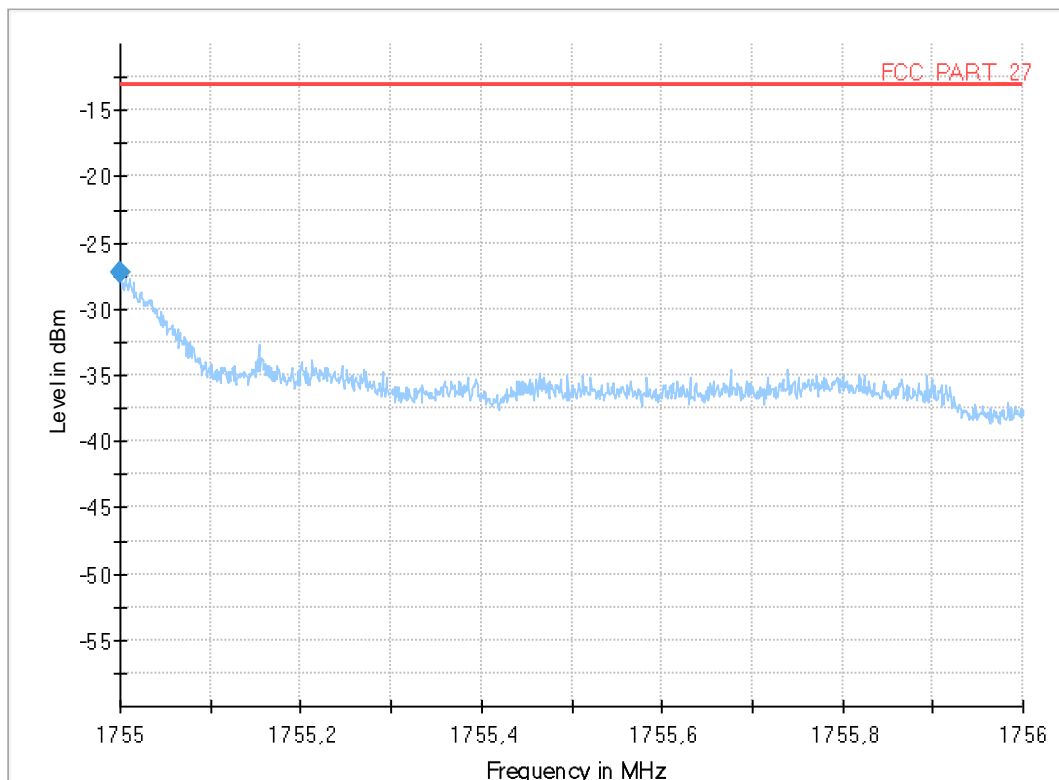
Common Information

Test Description: -
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_high_LTE_FDD_B04_CH_high_RB_Full_standing
 Environmental Conditions: Humidity : 43% rH; Temperature: 19 °C
 Operator: SOz
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1755.001000	-27.32	-13.00	14.32	700.0	20.000	V	0.0	0.0	-62

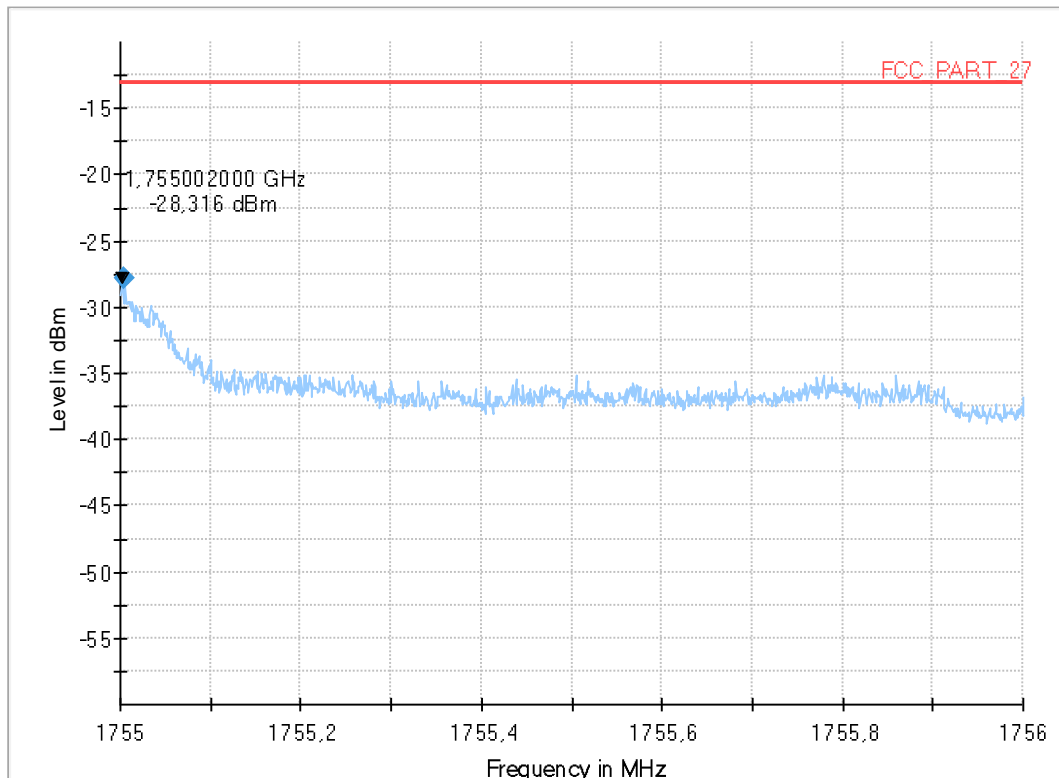
9.404b_Bandedge_high_LTE_FDD_B04_CH_high_RB_Full_laying

Common Information

Test Description: -
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-139
 Test Case: Band-Edge
 Operating Mode: Bandedge_high_LTE_FDD_B04_CH_high_RB_Full_laying
 Environmental Conditions:: Humidity : 50% rH; Temperature: 20 °C
 Operator: SOz
 EUT Setup: 1
 Verdict: Passed
 Comment: --

EUT Information

PMT number: 21-1-01787550_C01
 Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1755.005000	-27.86	-13.00	14.86	700.0	20.000	V	278.0	0.0	-62

1.3 Band-Edge on LTE Band 5

9.501a_Bandedge_low_LTE_FDD_B05_CH_low_RB_1_low_standing

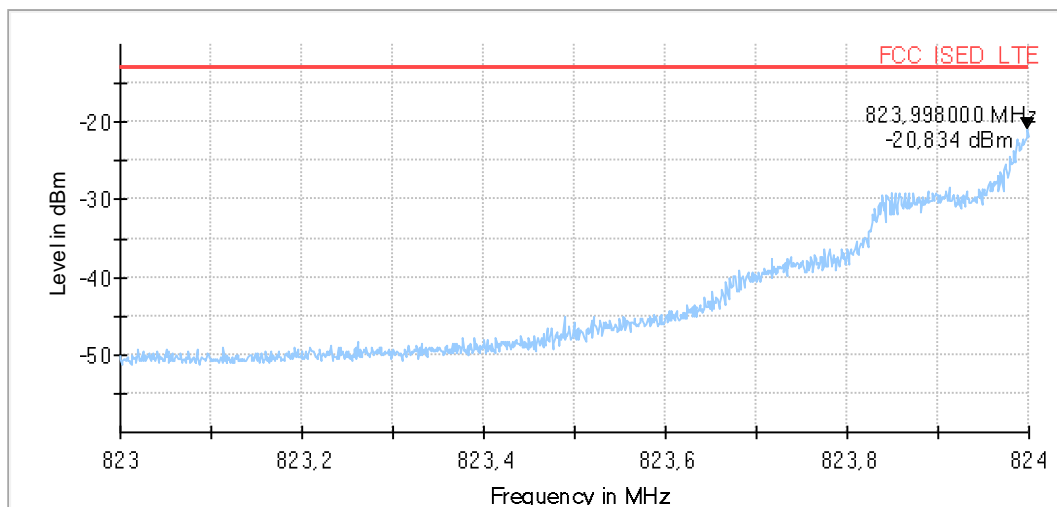
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	UE allocated channel 20407
Environmental Conditions:	Humidity: 39% rH; Temperature: _19_ °C
Test SW Version:	EMC32 V10.60.20
Operator:	asa_MAB
Remarks:	--
EUT Setup:	standing
Verdict:	Passed

EUT Information

PMT Sample Nr:	21-1-01787550_C01
----------------	-------------------

Full Spectrum



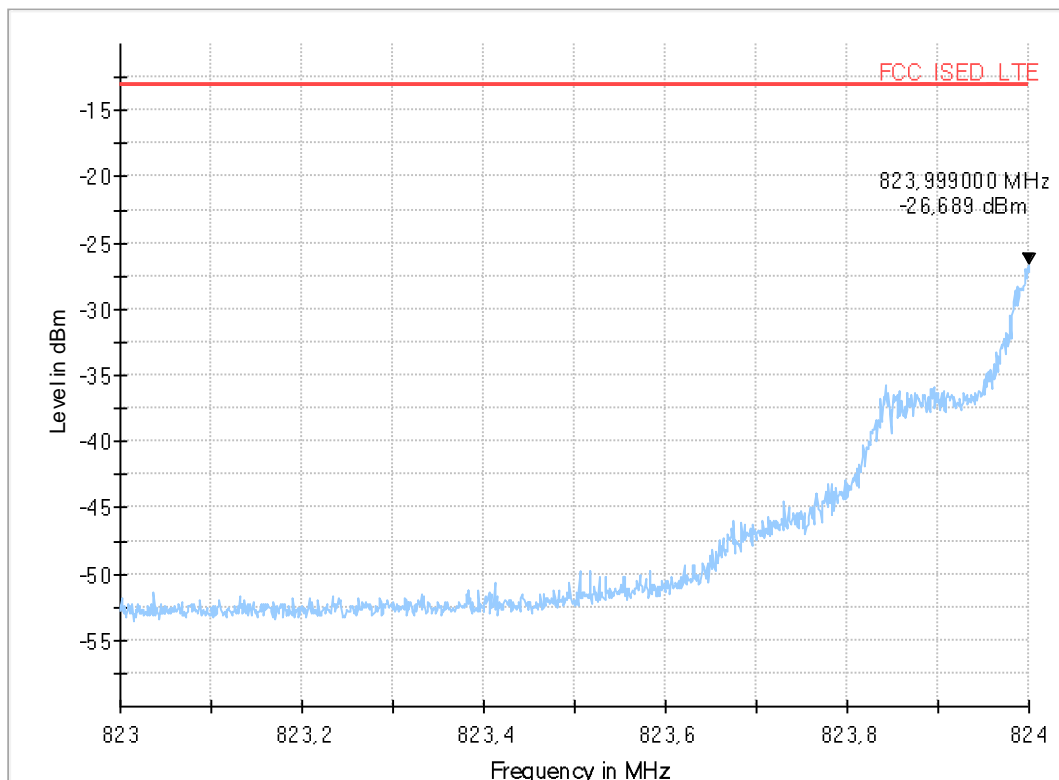
9.501b_Bandedge_low_LTE_FDD_B05_CH_low_RB_1_low_laying

Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	Bandedge_low_LTE_FDD_B05_CH_low_RB_1_low_laying
Environmental Conditions:	Humidity : 50% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	SOz
Remarks:	EUT - laying position
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
	Full Spectrum



9.502a_Bandedge_low_LTE_FDD_B05_CH_low_RB_Full_standing

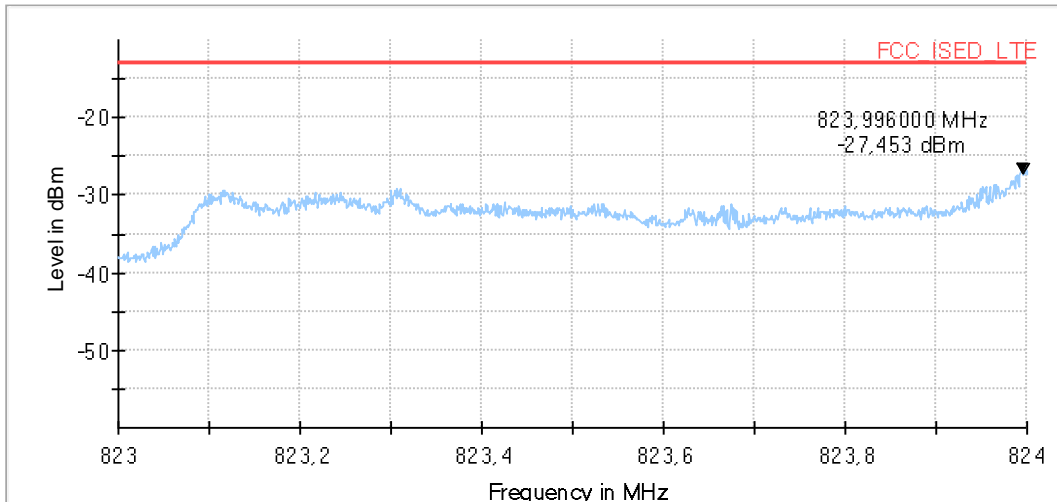
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	UE allocated channel 20407
Environmental Conditions:	Humidity: 39% rH; Temperature: _19_ °C
Test SW Version:	EMC32 V10.60.20
Operator:	asa_MAB
Remarks:	--
EUT Setup:	standing
Verdict:	Passed

EUT Information

PMT Sample Nr: 21-1-01787550_C01

Full Spectrum



9.502b_Bandedge_low_LTE_FDD_B05_CH_low_RB_Full_laying

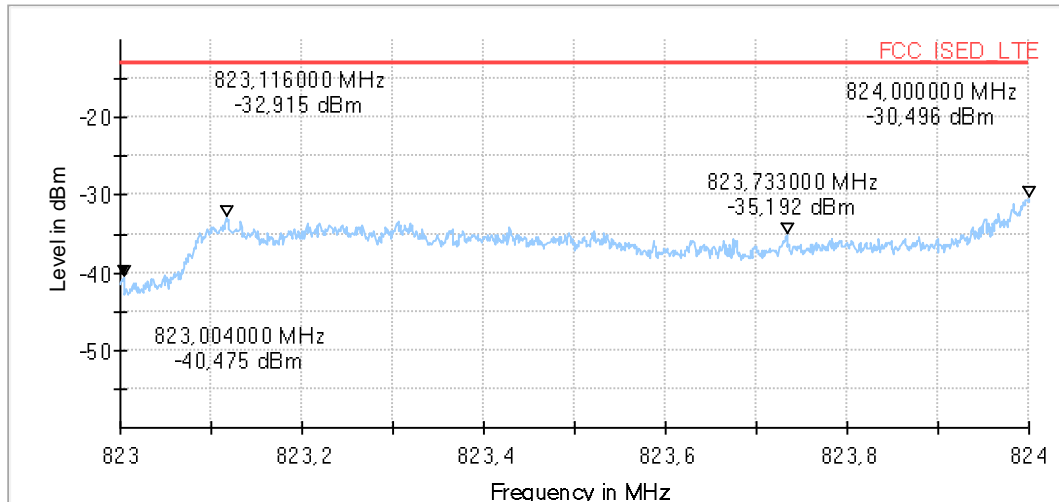
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	Bandedge_low_LTE_FDD_B05_CH_low_RB_Full_laying
Environmental Conditions::	Humidity : 50% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	SOz
Remarks:	EUT - laying position
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



9.503a_Bandedge_high_LTE_FDD_B05_CH_high_RB_1_high_standing

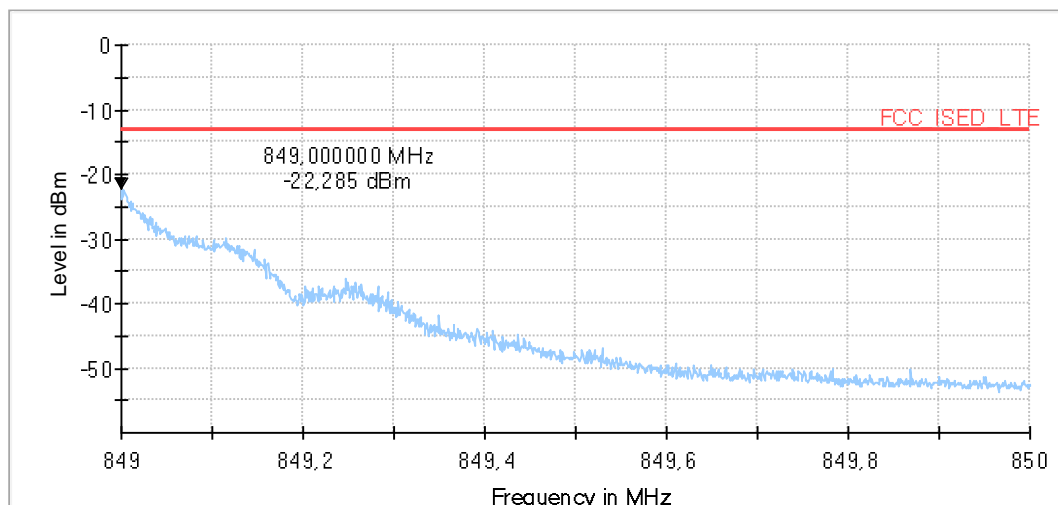
Common Information

Test Description:	Band-Edge high - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	UE allocated channel xxx
Environmental Conditions:	Humidity: 39% rH; Temperature: 19 °C
Test SW Version:	EMC32 V10.60.20
Operator:	asa- mab
Remarks:	--
EUT Setup:	standing
Verdict:	Passed

EUT Information

PMT Sample Nr: 21-1-01787550_C01

Full Spectrum



9.503b_Bandedge_high_LTE_FDD_B05_CH_high_RB_1_high_laying

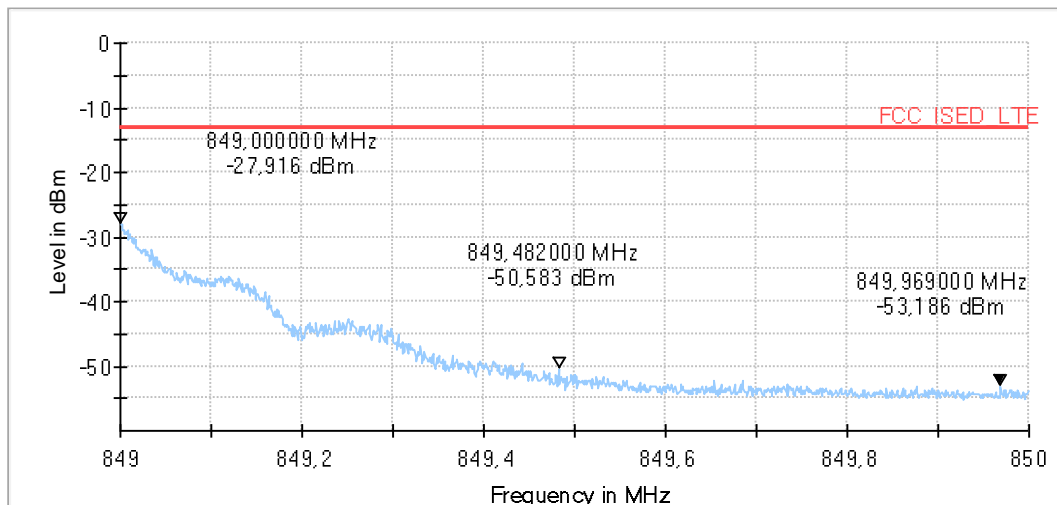
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	Bandedge_low_LTE_FDD_B05_CH_high_RB_Full_laying
Environmental Conditions:	Humidity : 44% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	TFra
Remarks:	EUT - laying
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
-------------	-------------------

Full Spectrum



9.504a_Bandedge_high_LTE_FDD_B05_CH_high_RB_Full_standing

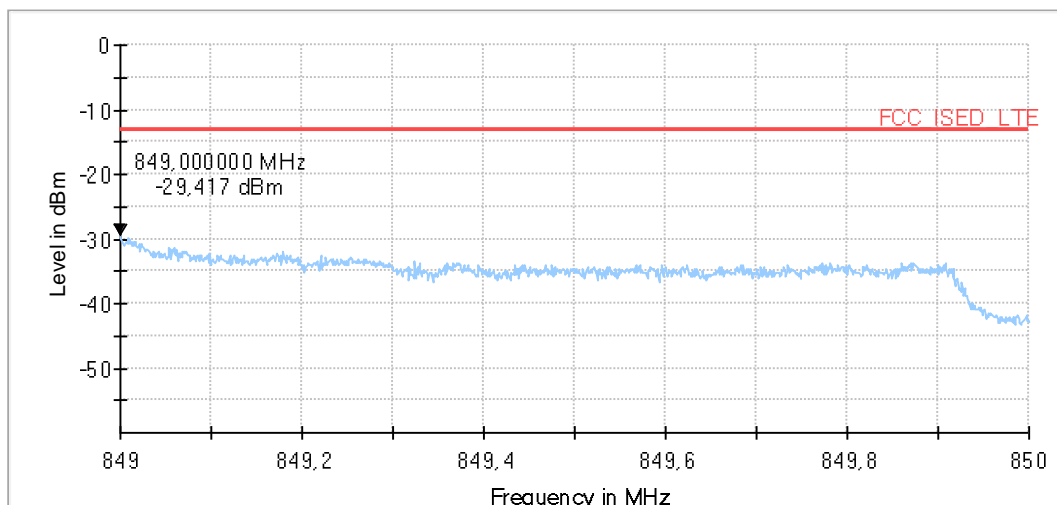
Common Information

Test Description:	Band-Edge high - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	UE allocated channel highest
Environmental Conditions:	Humidity: 39% rH; Temperature: 19 °C
Test SW Version:	EMC32 V10.60.20
Operator:	asa- mab
Remarks:	--
EUT Setup:	standing
Verdict:	Passed

EUT Information

PMT Sample Nr: 21-1-01787550_C01

Full Spectrum



9.504b_Bandedge_high_LTE_FDD_B05_CH_high_RB_Full_laying

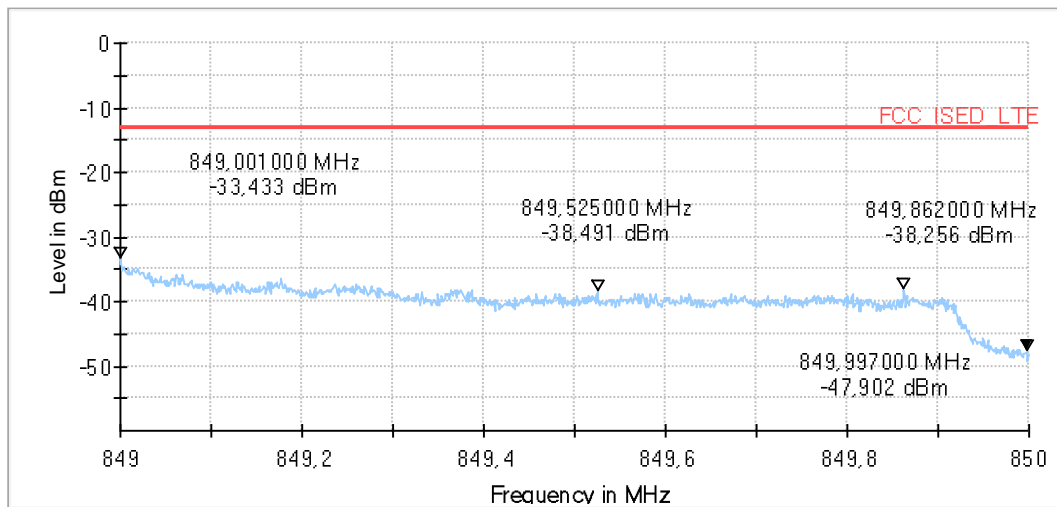
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 22.917(a) / RSS-132
Operating Mode:	Bandedge_low_LTE_FDD_B05_CH_high_RB_Full_laying
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	TFra
Remarks:	EUT - laying
EUT Setup:	1
Verdict:	Passed

EUT Information

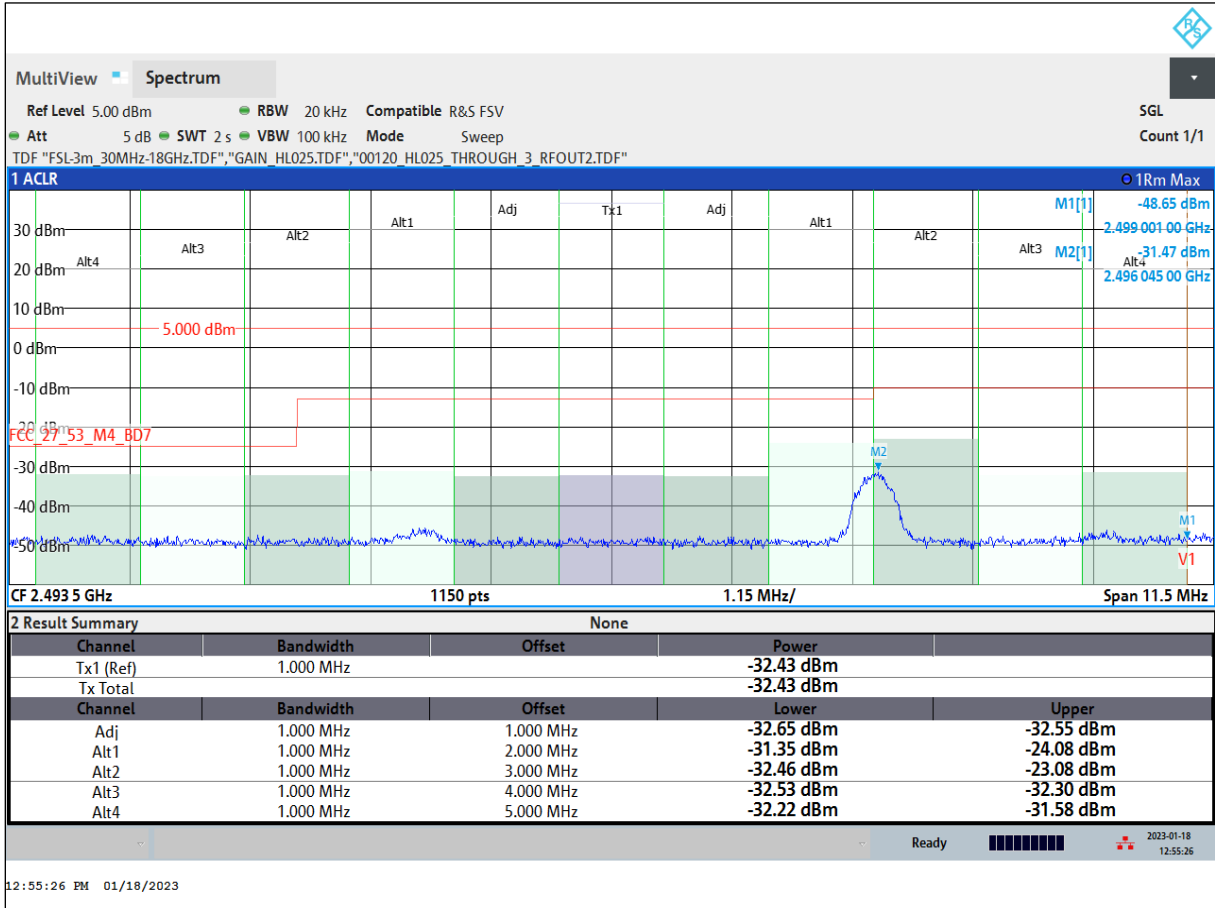
PMT number: 21-1-01787550_C01

Full Spectrum

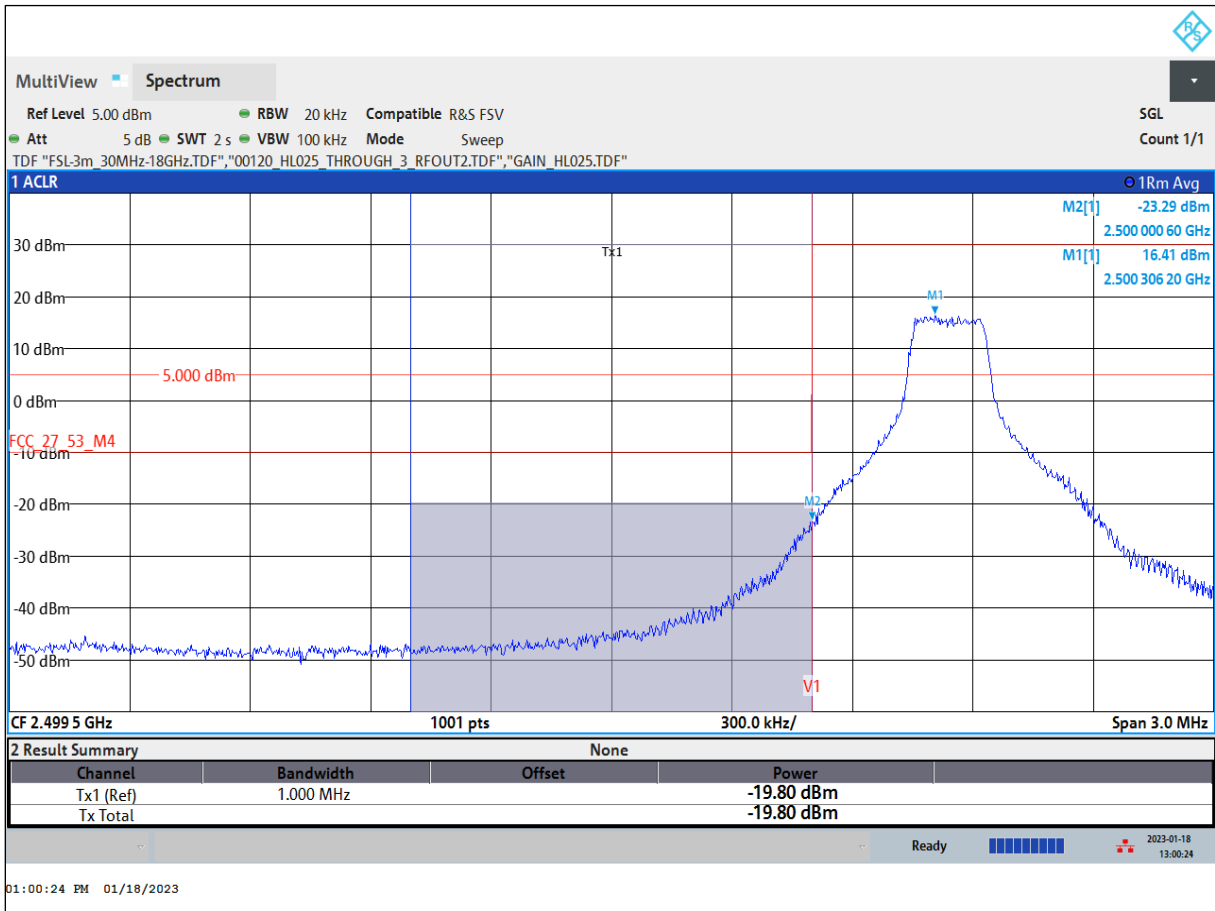


1.4 Band-Edge on LTE Band 7

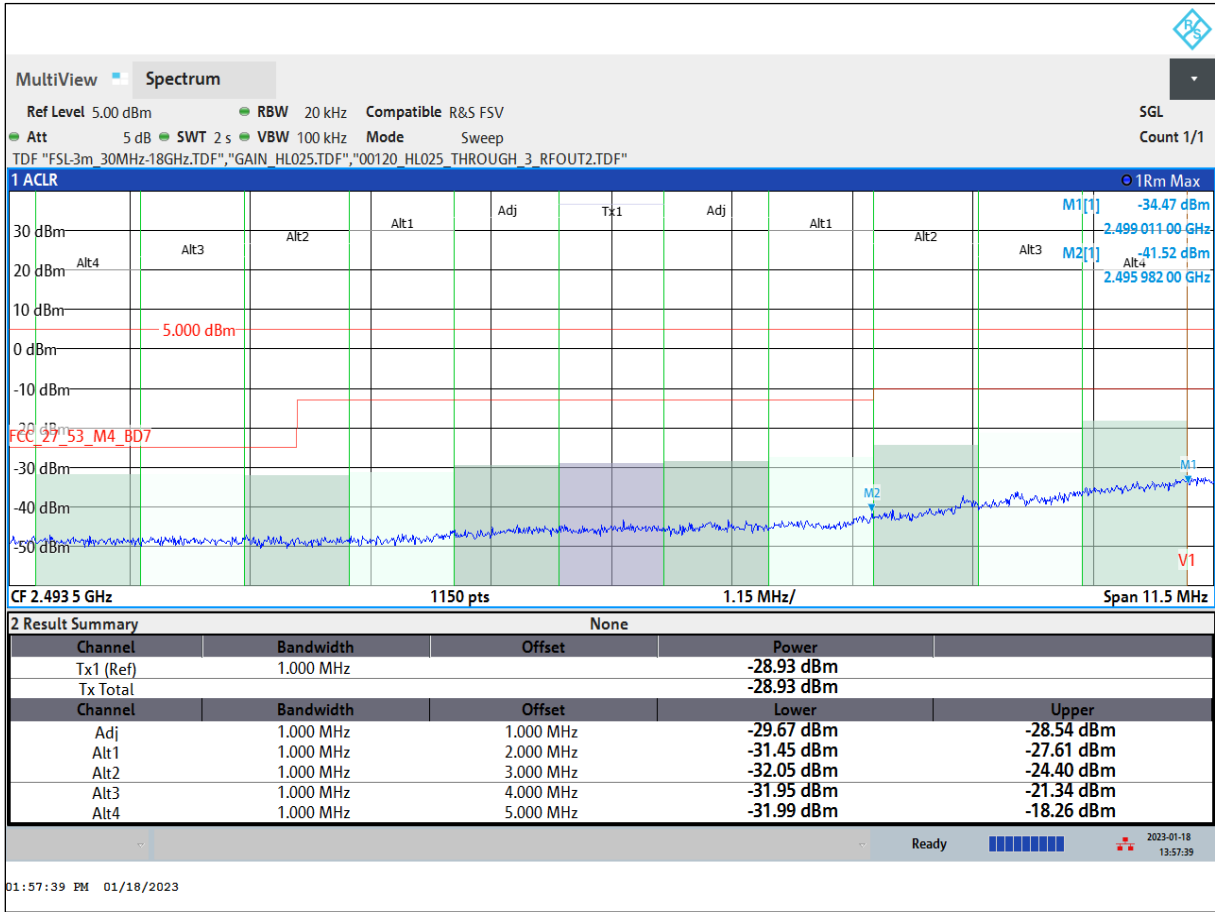
9.701_Bandedge_low_LTE_FDD_B07_CH_low_RB_1_low_sweep_1_internal_Ant



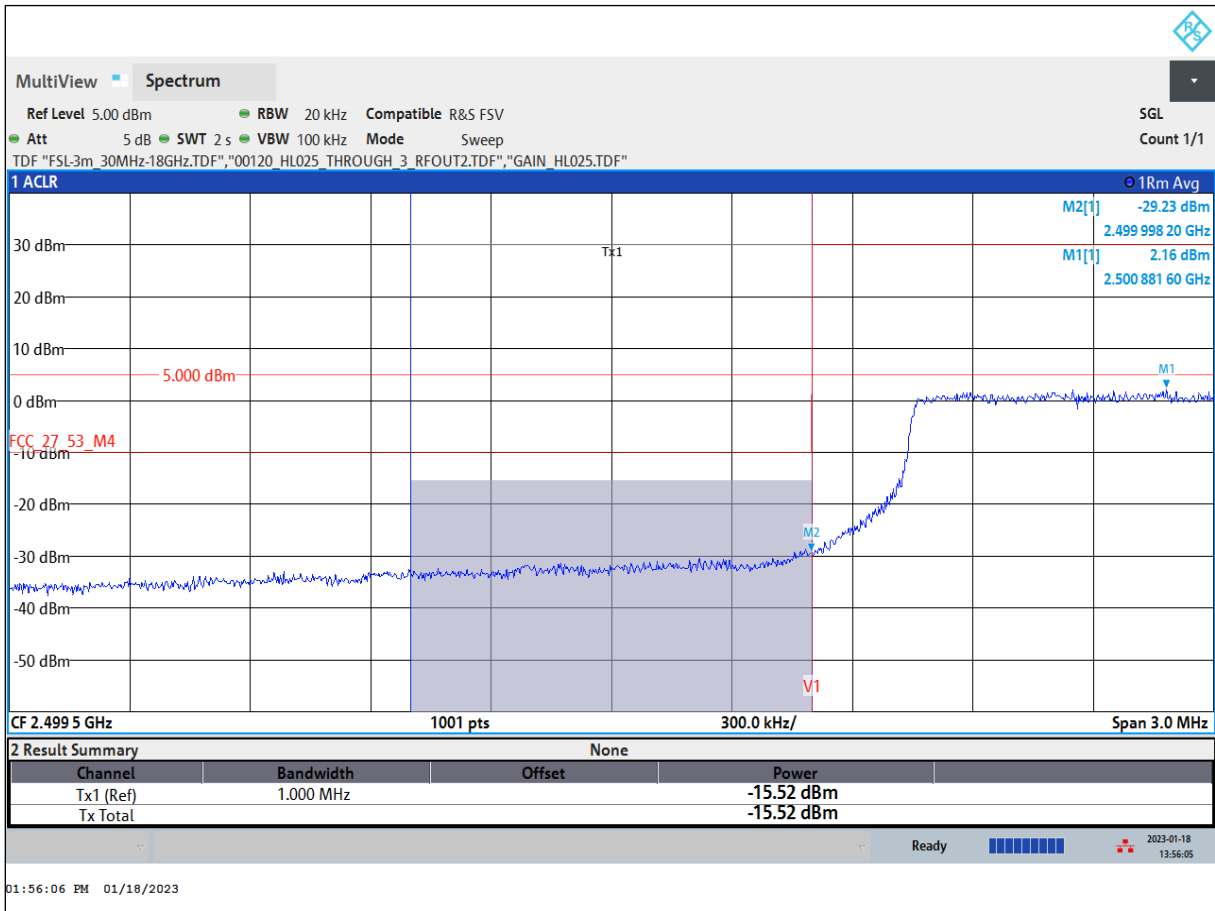
9.702_Bandedge_low_LTE_FDD_B07_CH_low_RB_1_low_sweep_2_internal_Ant



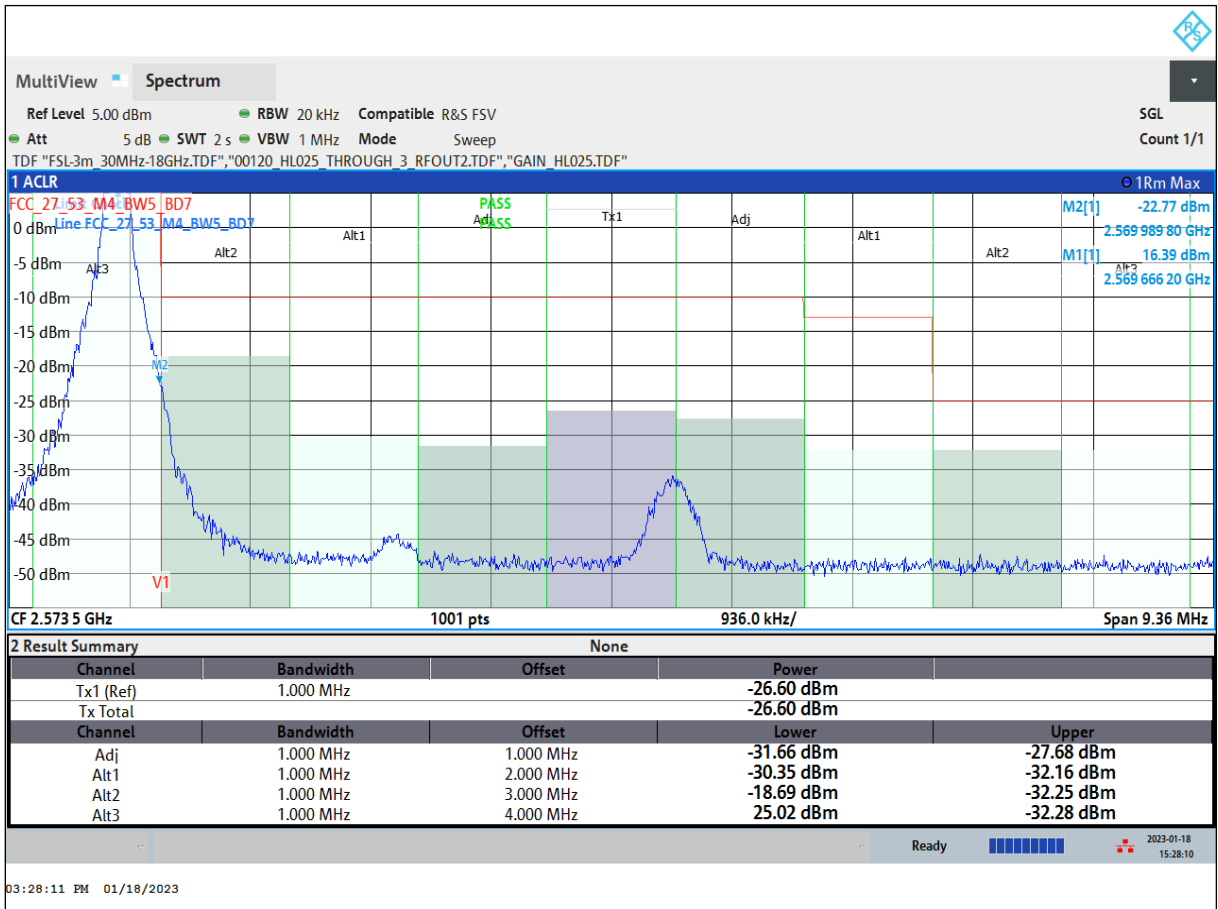
9.703_Bandedge_low_LTE_FDD_B07_CH_low_RB_25_sweep_1_internal_Ant



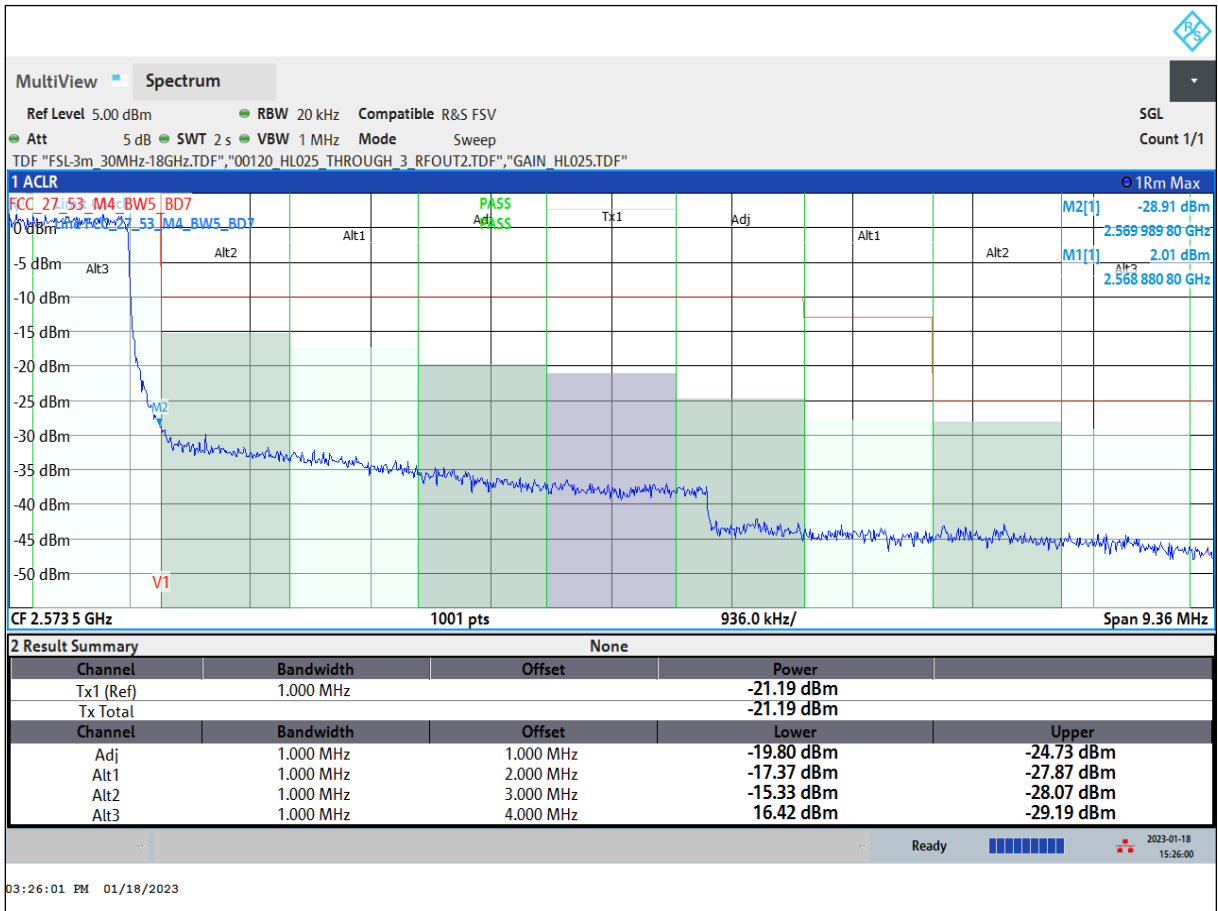
9.704_Bandedge_low_LTE_FDD_B07_CH_low_RB_25_sweep_2_internal_Ant



9.705_Bandedge_high_LTE_FDD_B07_CH_high_RB_1_high_sweep_1_internal_Ant



9.706_Bandedge_high_LTE_FDD_B07_CH_high_RB_25_sweep_1_internal_Ant



1.5 Band-Edge on LTE Band 12

9.1201a_Bandedge_low_LTE_FDD_B12_CH_low_RB_1_low_lying

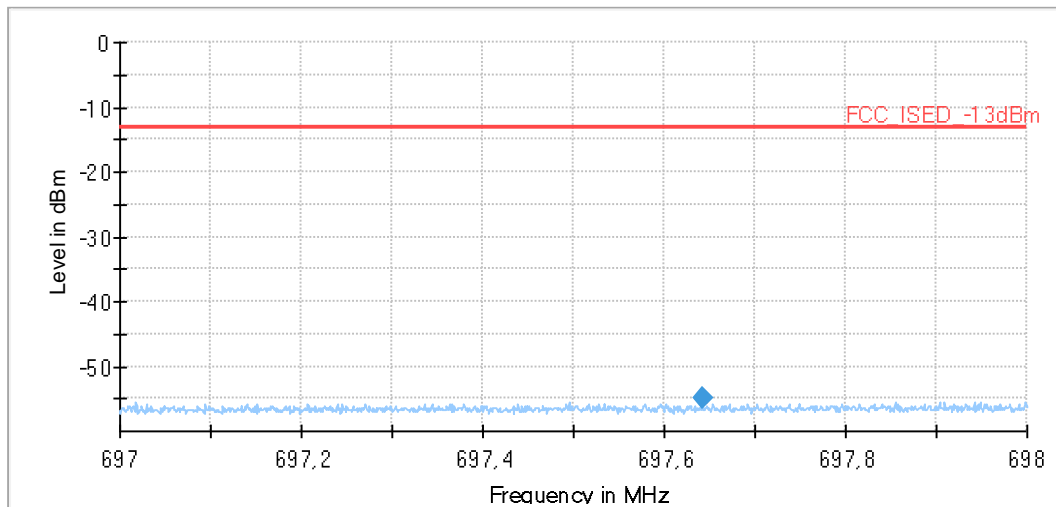
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B12_CH_low_RB_1_low_lying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
697.642000	-54.96	-13.00	41.96	700.0	20.000	V	307.0	0.0	-78

9.1201b_Bandedge_low_LTE_FDD_B12_CH_low_RB_1_low_standing

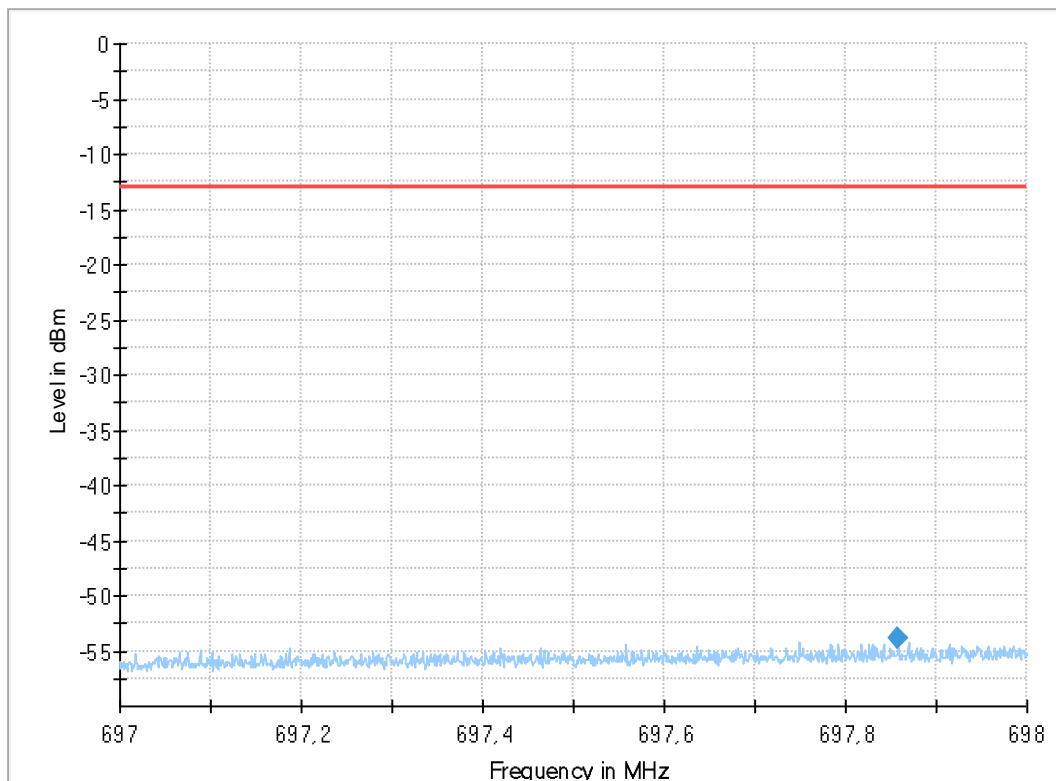
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: UE allocated channel xxx
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: --
 Remarks: EUT - standing position
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT Sample Nr: 21-1-01787550_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
697.858000	-53.79	-13.00	40.79	700.0	20.000	H	30.0	0.0	-78

9.1202a_Bandedge_low_LTE_FDD_B12_CH_low_RB_Full_lying

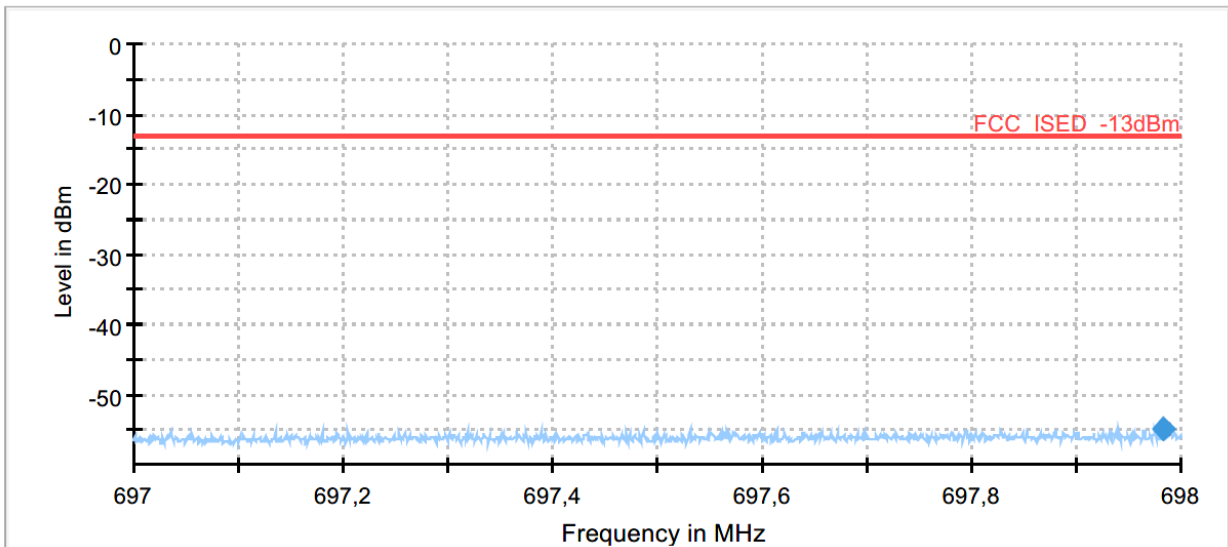
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B12_CH_low_RB_Full_lying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying position
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
697.984000	-54.93	-13.00	41.93	700.0	20.000	V	310.0	0.0	-78

9.1202b_Bandedge_low_LTE_FDD_B12_CH_low_RB_Full_standing

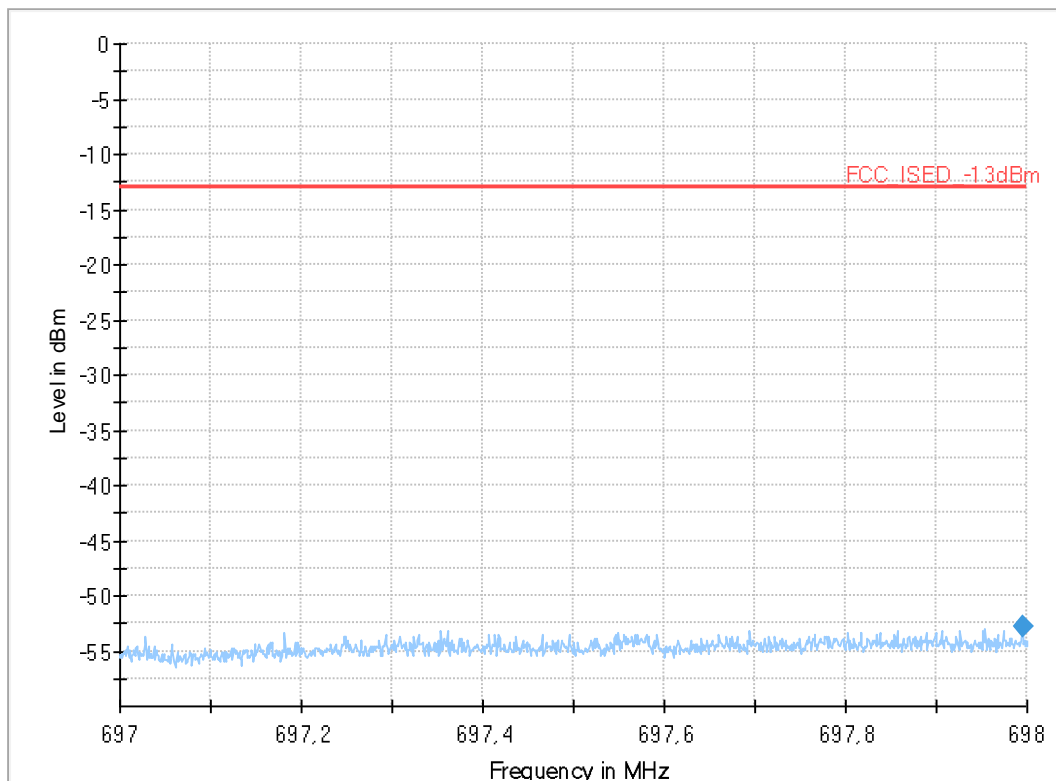
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: UE allocated channel xxx
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: --
 Remarks: EUT - standing position
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT Sample Nr: 21-1-01787S50_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
697.995000	-52.89	-13.00	39.89	700.0	20.000	H	31.0	0.0	-78

9.1203a_Bandedge_high_LTE_FDD_B12_CH_high_RB_1_high_lying

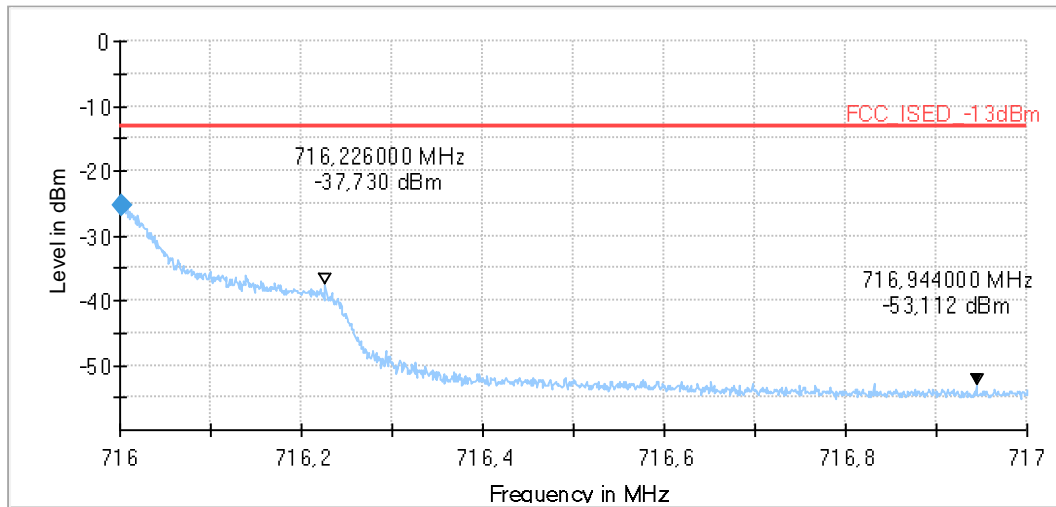
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B12_CH_high_RB_1_high_lying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final Result

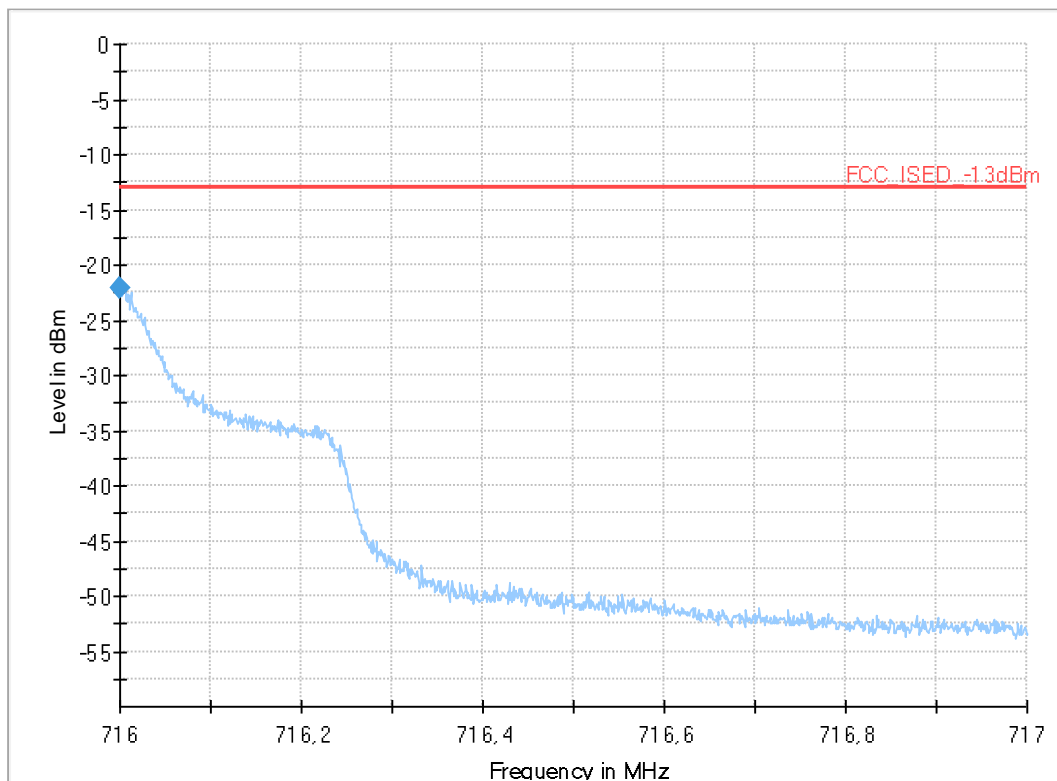
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
716.002000	-25.40	-13.00	12.40	700.0	30.000	V	297.0	0.0	-78

9.1203b_Bandedge_high_LTE_FDD_B12_CH_high_RB_1_high_standing

Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions LTE Band 12
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53 / RSS-130
Operating Mode:	Bandedge_high_LTE_FDD_B12_CH_high_RB_1_high_standing
Environmental Conditions:	Humidity: 39% rH; Temperature: 19 °C
Test SW Version:	EMC32 V10.60.20
Operator:	SOz
Remarks:	EUT - standing position
EUT Setup:	1
Verdict:	Passed

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
716.001000	-22.14	-13.00	9.14	700.0	30.000	H	30.0	90.0	-78

9.1204a_Bandedge_high_LTE_FDD_B12_CH_high_RB_Full_lying

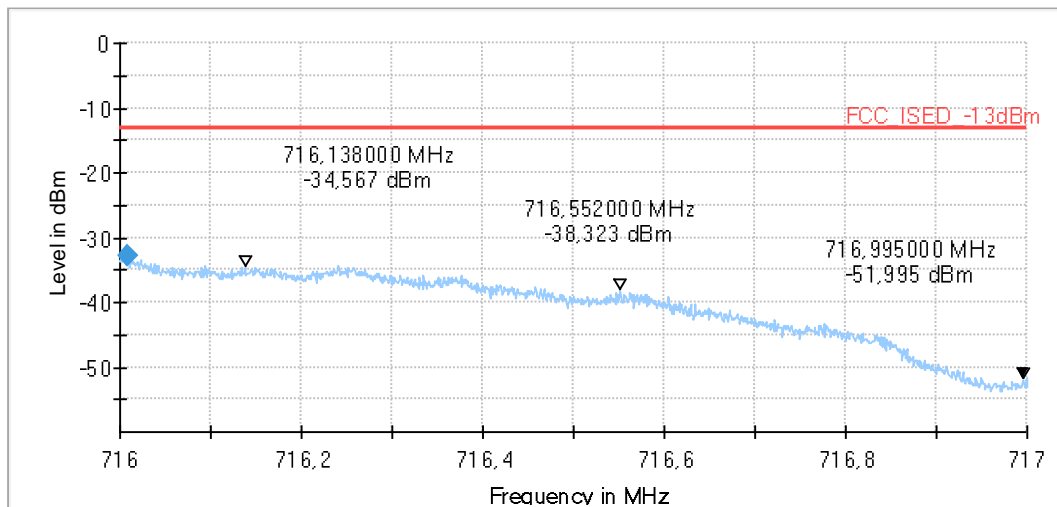
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B12_CH_high_RB_full_high_lying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
716.009000	-32.86	-13.00	19.86	700.0	30.000	V	307.0	0.0	-78

9.1204b_Bandedge_high_LTE_FDD_B12_CH_high_RB_Full_standing

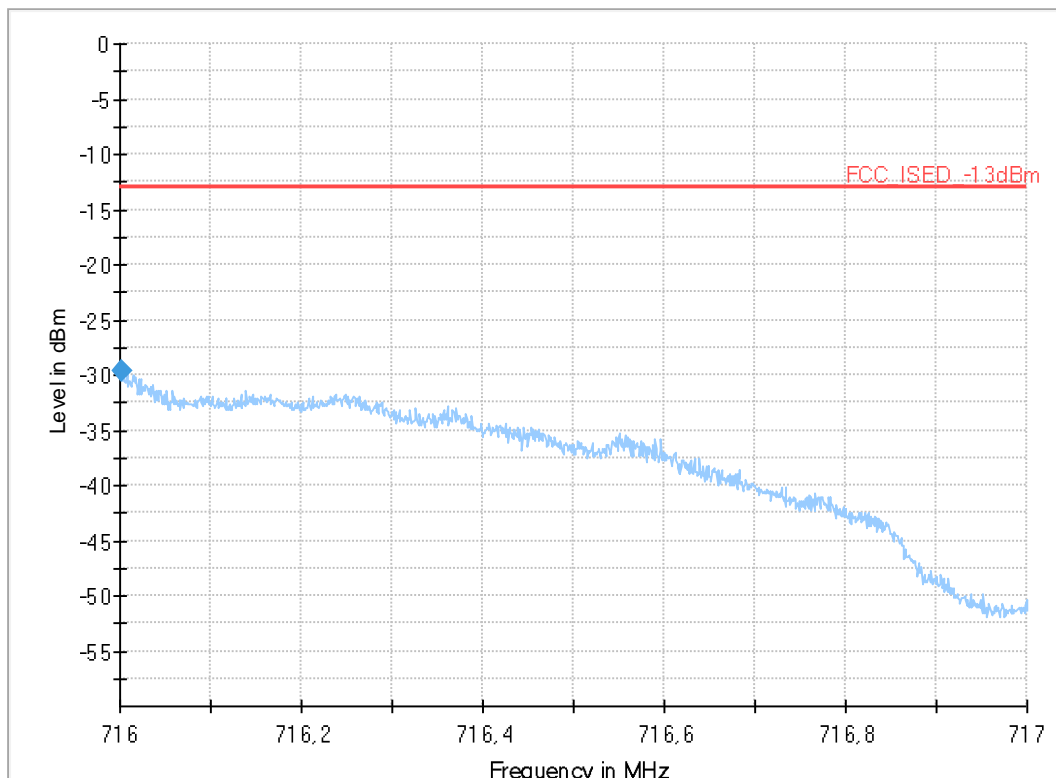
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band 12
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_high_LTE_FDD_B12_CH_high_RB_1_high_standing
 Environmental Conditions: Humidity: 39% rH; Temperature: 19 °C
 Test SW Version: EMC32 V10.60.20
 Operator: SOz
 Remarks: EUT - standing position
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
716.003000	-29.74	-13.00	16.74	700.0	30.000	H	25.0	0.0	-78

1.6 Band-Edge on LTE Band 13

9.1301a_Bandedge_low_LTE_FDD_B13_CH_low_RB_1_low_standing

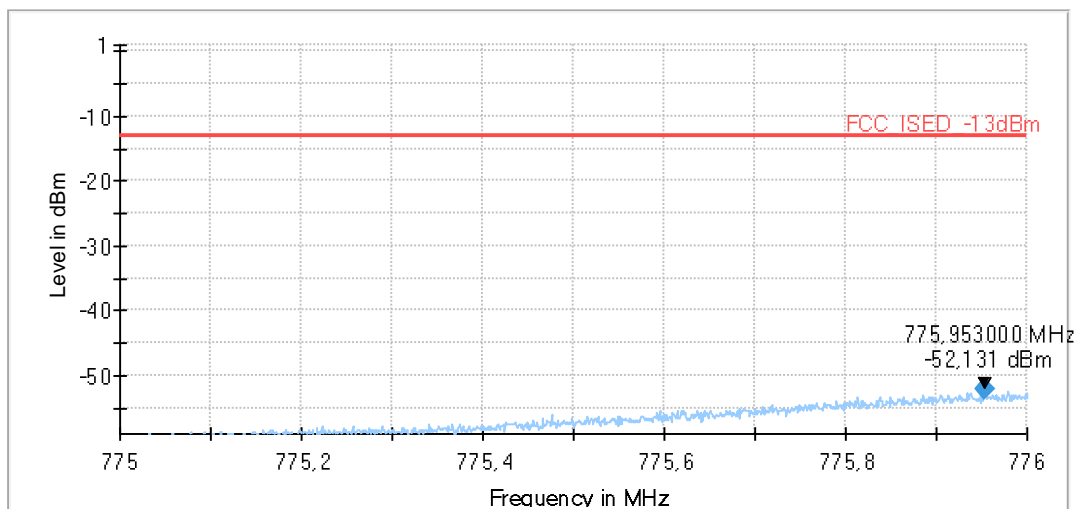
Common Information

Test Description:	Radiated Spurious Emissions LTE Band 13
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53 / RSS-130
Comm. Link:	LTE Band 13
Operating Mode:	MS allocated channel xxx (UL = 782MHz)
Exclusionband:	Uplink: 776-787MHz Downlink: -31MHz Offset
Environmental Conditions:	Humidity: 39% rH; Temperature: 19 °C
Operator:	--
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT Sample Nr: 21-1-01787S50_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
775.953000	-52.13	-13.00	39.13	700.0	50.000	H	24.0	-77	2

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
775.953000	-79	25

9.1301b_Bandedge_low_LTE_FDD_B13_CH_low_RB_1_low_laying

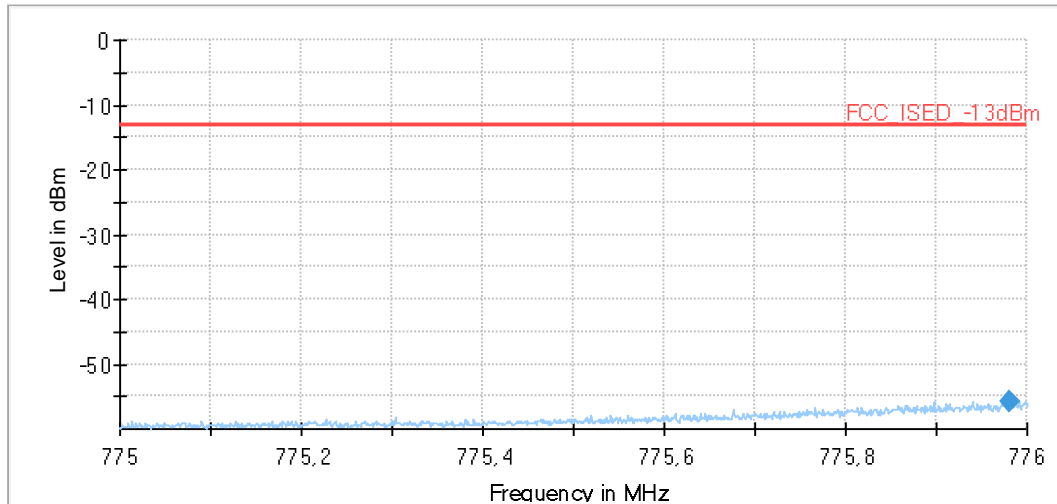
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B13_CH_low_RB_1_low_laying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
775.980000	-55.83	-13.00	42.83	700.0	50.000	V	270.0	0.0	-77

9.1302a_Bandedge_low_LTE_FDD_B13_CH_low_RB_full_standing

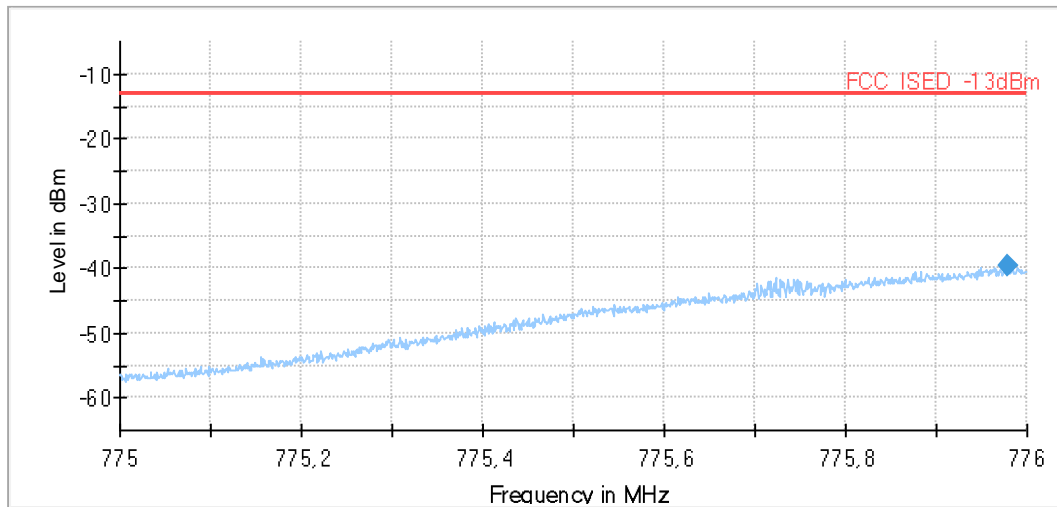
Common Information

Test Description: Radiated Spurious Emissions LTE Band 13
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Comm. Link: LTE Band 13
 Operating Mode: Bandedge_low_LTE_FDD_B13_CH_low_RB_1_low_standing
 Environmental Conditions:: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - standing
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT Sample Nr: 21-1-01787550_C01
 Power Supply: Battery

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
775.978000	-39.58	-13.00	26.58	700.0	50.000	H	16.0	-77	2

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
775.978000	-79	38

9.1302b_Bandedge_low_LTE_FDD_B13_CH_low_RB_full_lying

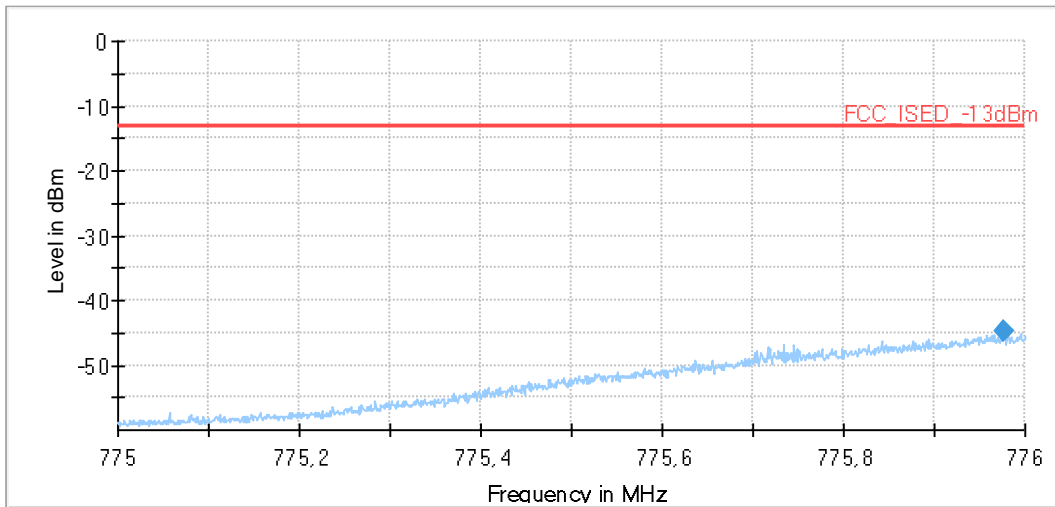
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B13_CH_high_RB_full_high_laying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying position
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
775.977000	-44.85	-13.00	31.85	700.0	50.000	V	279.0	0.0	-77

9.1303a_Bandedge_high_LTE_FDD_B13_CH_high_RB_1_high_standing

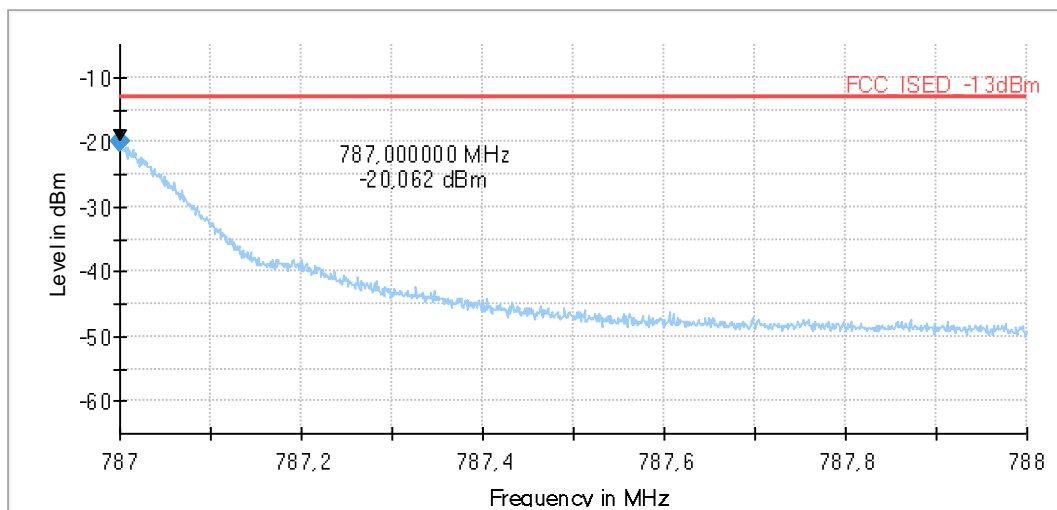
Common Information

Test Description:	Band-Edge High- Radiated Spurious Emissions LTE Band 13
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53 / RSS-130
Operating Mode:	Ch23205 BW5 1RBlow EUT_standing
Environmental Conditions:	Humidity: 39% rH; Temperature: 19 °C
Test SW Version:	EMC32 V10.60.20
Operator:	--
Remarks:	--
EUT Setup:	standing
Verdict:	Passed

EUT Information

PMT Sample Nr:	21-1-01787550_C01
Power Supply:	Battery

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
787.000000	-20.06	-13.00	7.06	700.0	50.000	H	20.0	-77	2

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
787.000000	-79	57

9.1303b_Bandedge_high_LTE_FDD_B13_CH_high_RB_1_high_lying

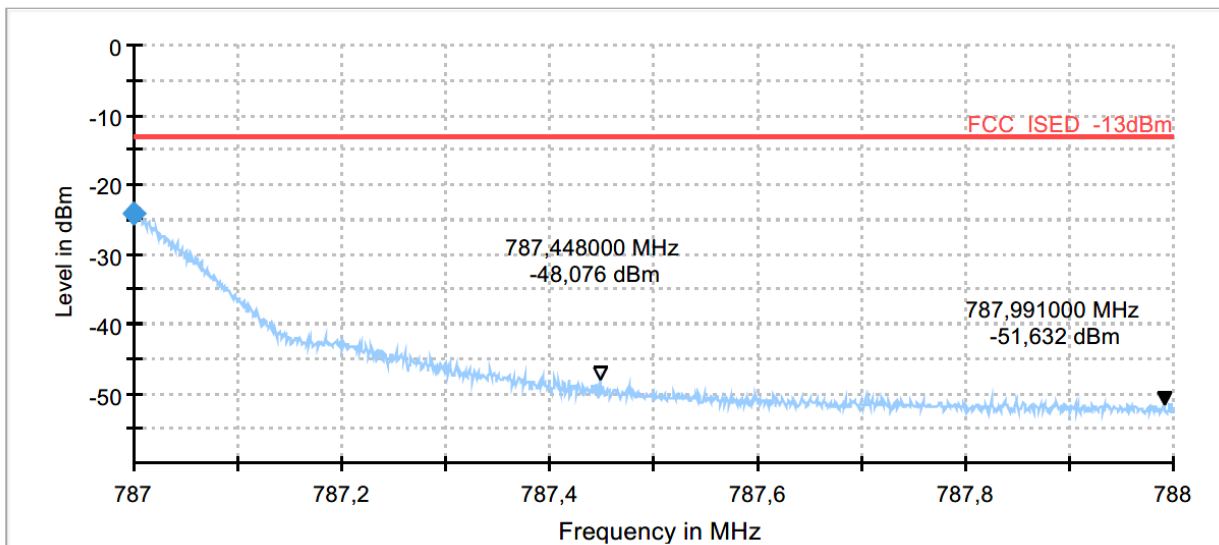
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B13_CH_high_RB_1_high_lying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
787.000000	-24.22	-13.00	11.22	700.0	50.000	V	79.0	0.0	-77

9.1304a_Bandedge_high_LTE_FDD_B13_CH_high_RB_Full_standing

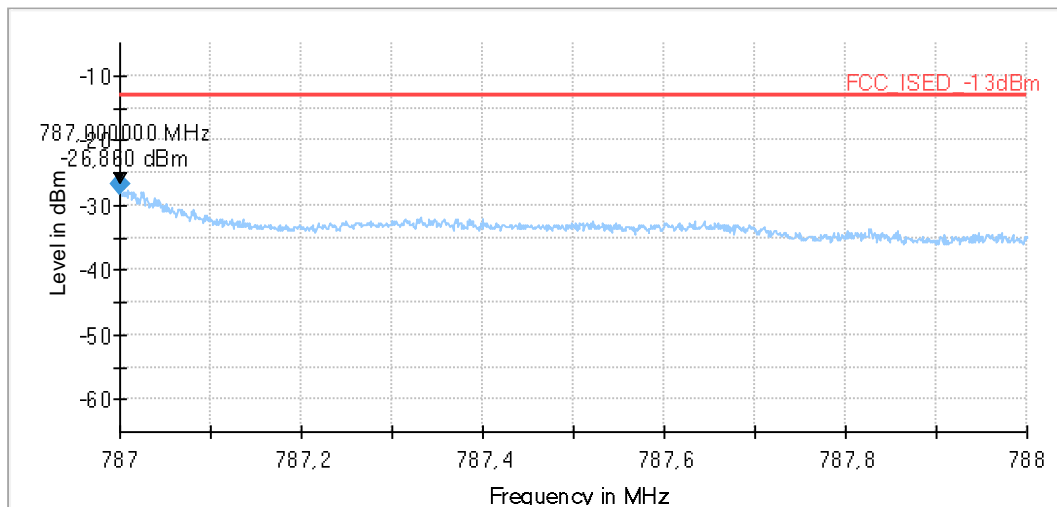
Common Information

Test Description: Band-Edge High- Radiated Spurious Emissions LTE Band 13
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: UE allocated channel 13
 Environmental Conditions: Humidity: 39% rH; Temperature: 19 °C
 Test SW Version: EMC32 V10.60.20
 Operator: --
 Remarks: --
 EUT Setup: standing
 Verdict: Passed

EUT Information

PMT Sample Nr: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
787.000000	-26.86	-13.00	13.86	700.0	50.000	H	16.0	-77	2

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
787.000000	-79	50

9.1304b_Bandedge_high_LTE_FDD_B13_CH_high_RB_Full_lying

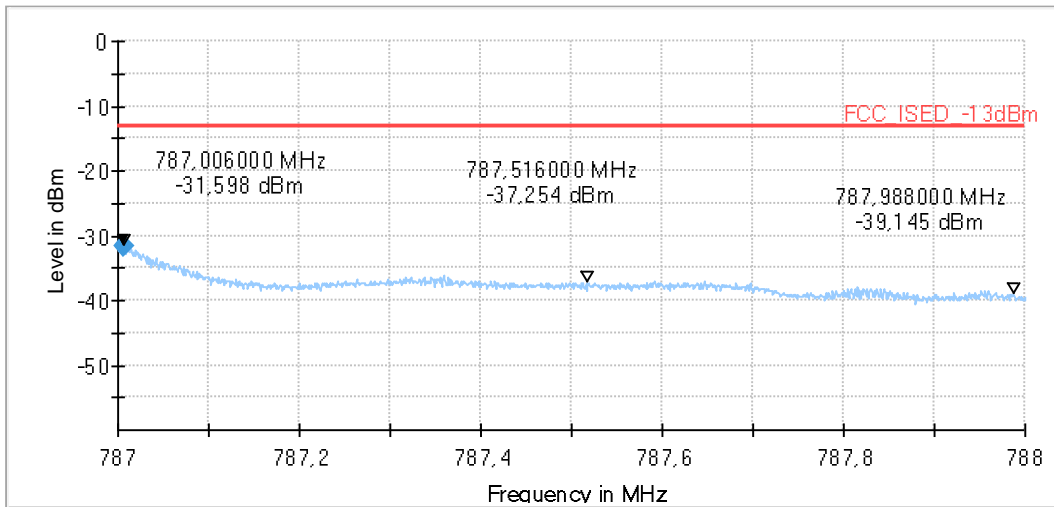
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band V
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-130
 Operating Mode: Bandedge_low_LTE_FDD_B13_CH_high_RB_Full_high_lying
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum

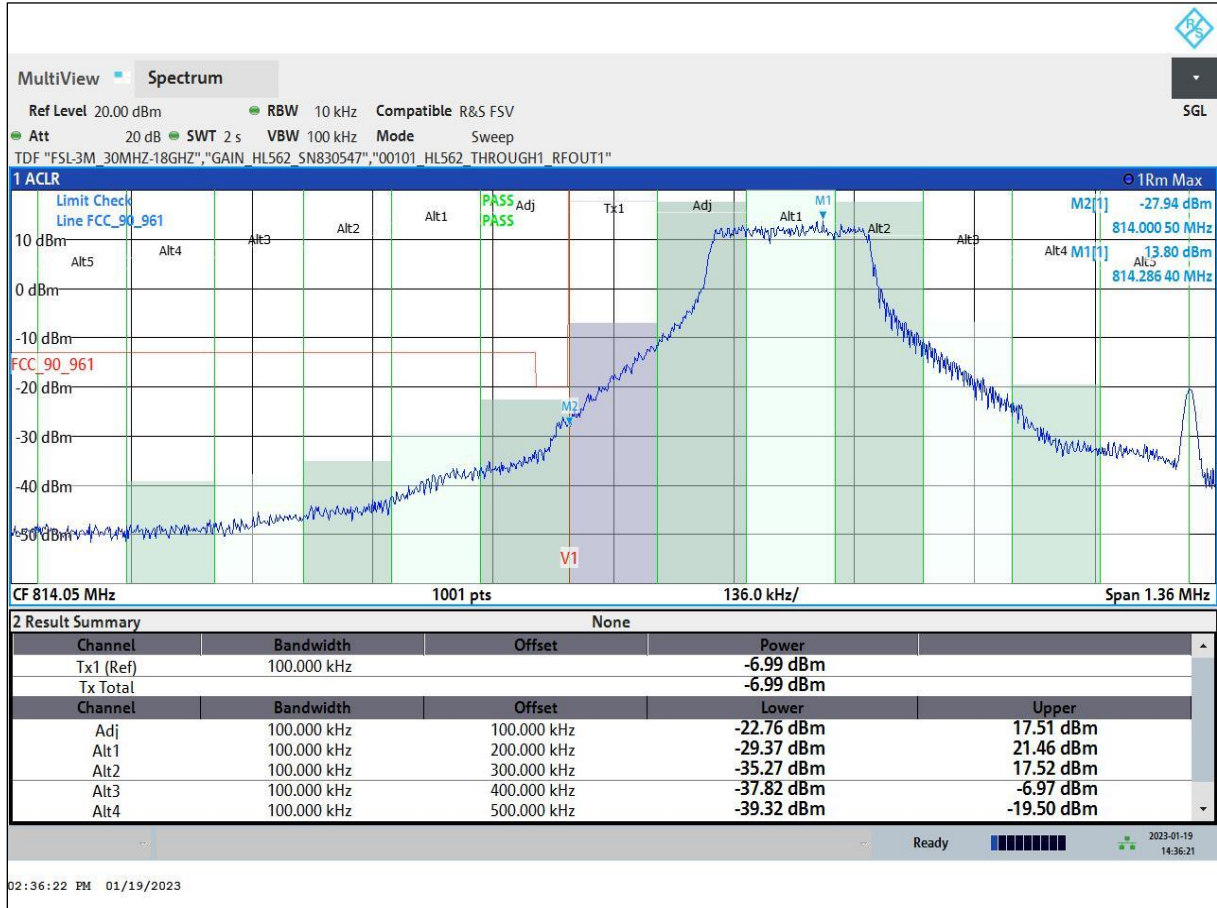


Final_Result

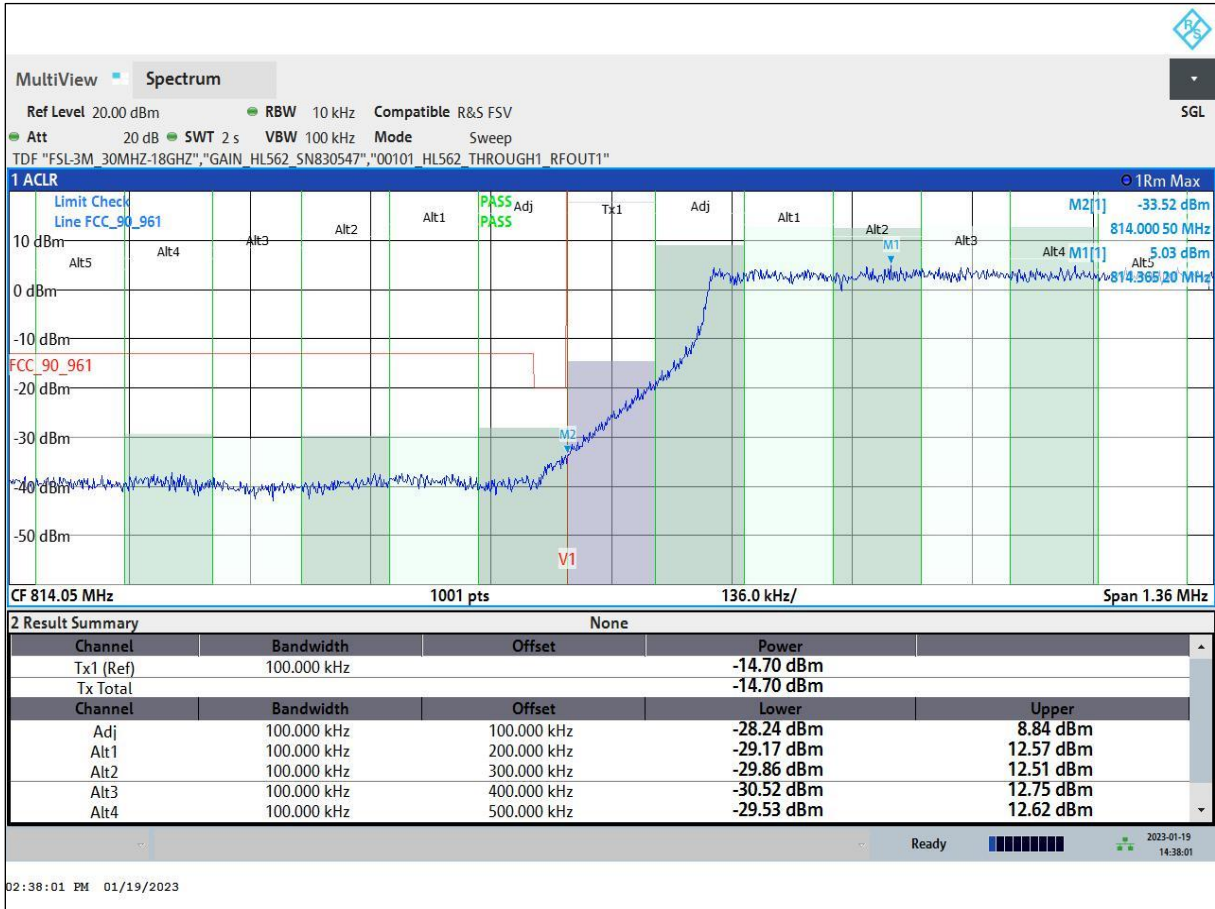
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
787.006000	-31.60	-13.00	18.60	700.0	50.000	V	282.0	0.0	-77

1.7 Band-Edge on LTE Band 26

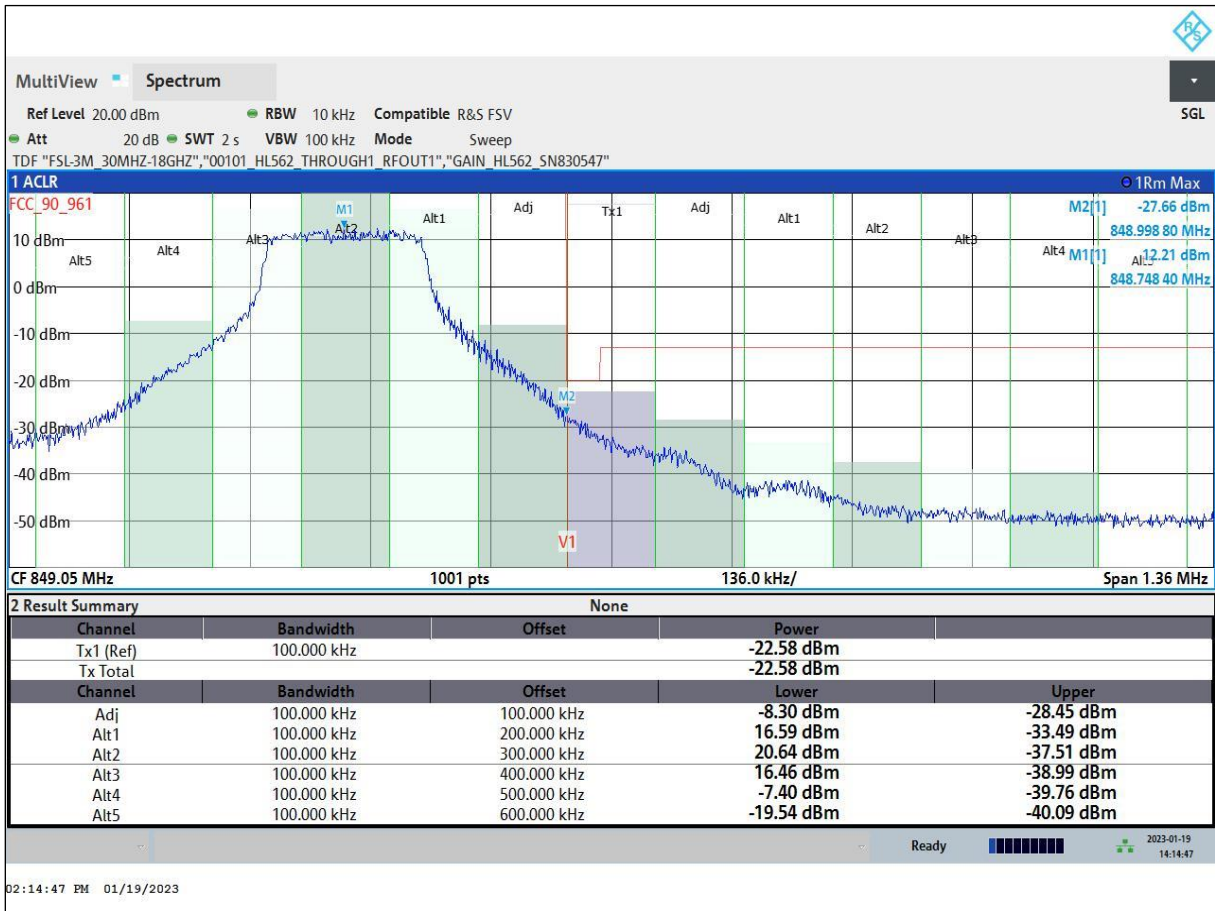
9.2601_Bandedge_low_LTE_FDD_B26_CH_low_1RB_low_int_ant_sweep_1



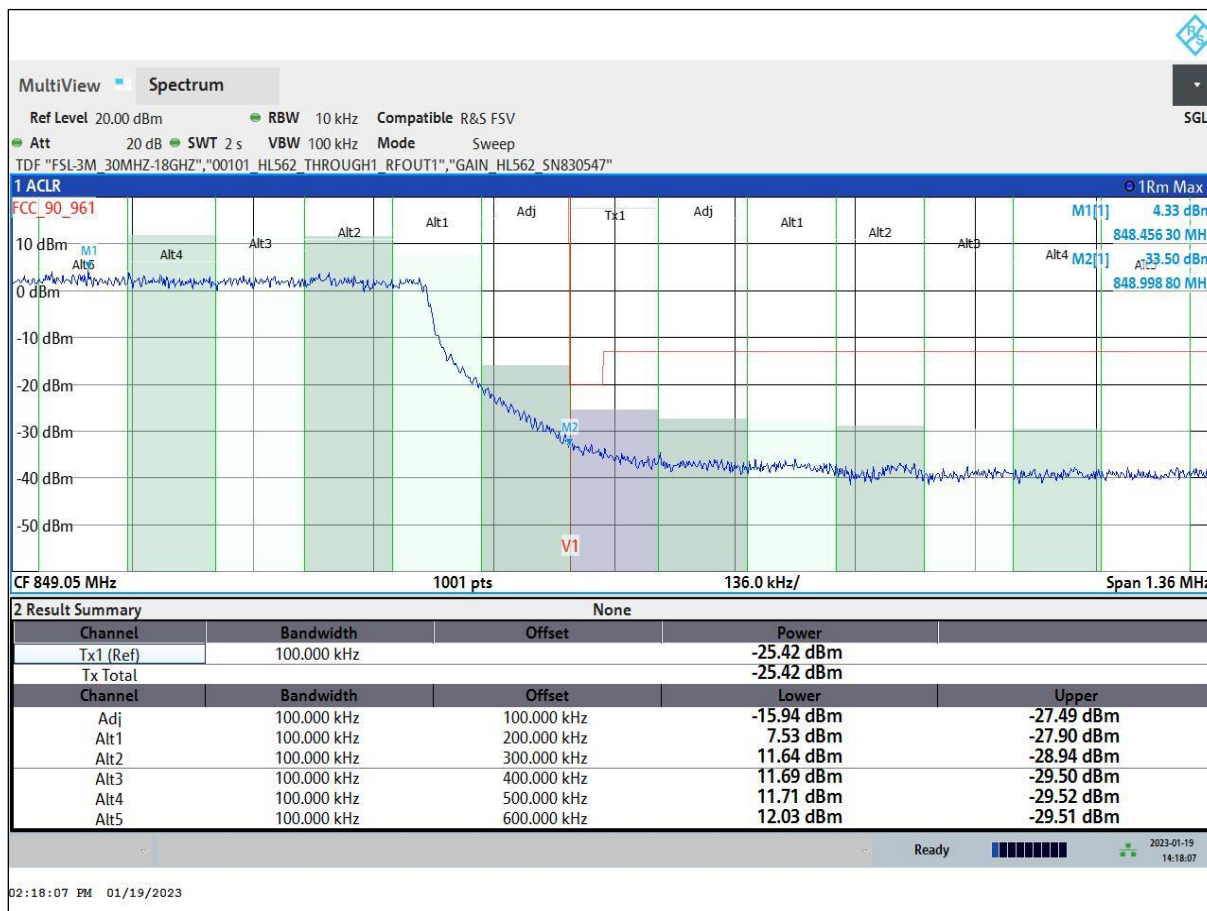
9.2602_Bandedge_low_LTE_FDD_B26_CH_low_RB_full_int_ant_sweep_1



9.2603_Bandedge_high_LTE_FDD_B26_CH_high_1_RB_high_int_ant_sweep_1

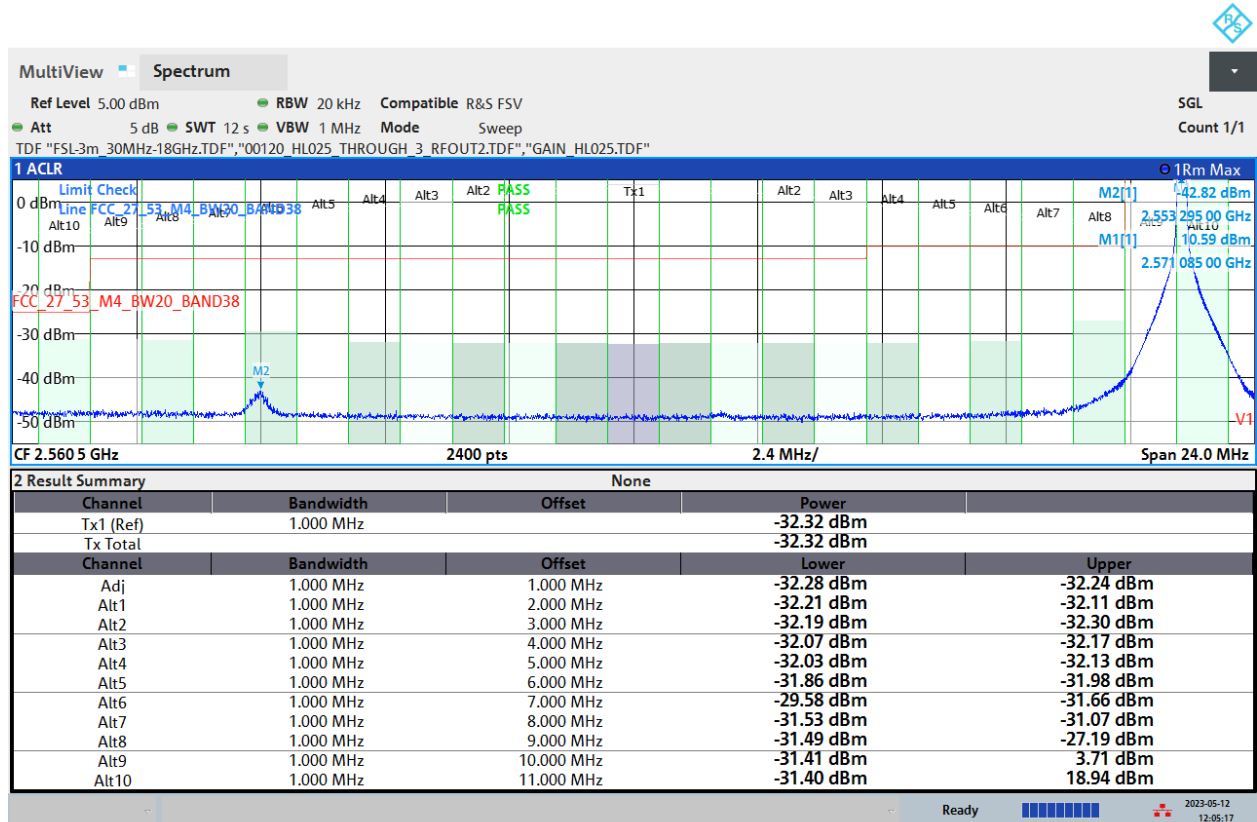


9.2604_Bandedge_high_LTE_FDD_B26_CH_high_RB_Full_int_ant_sweep_1



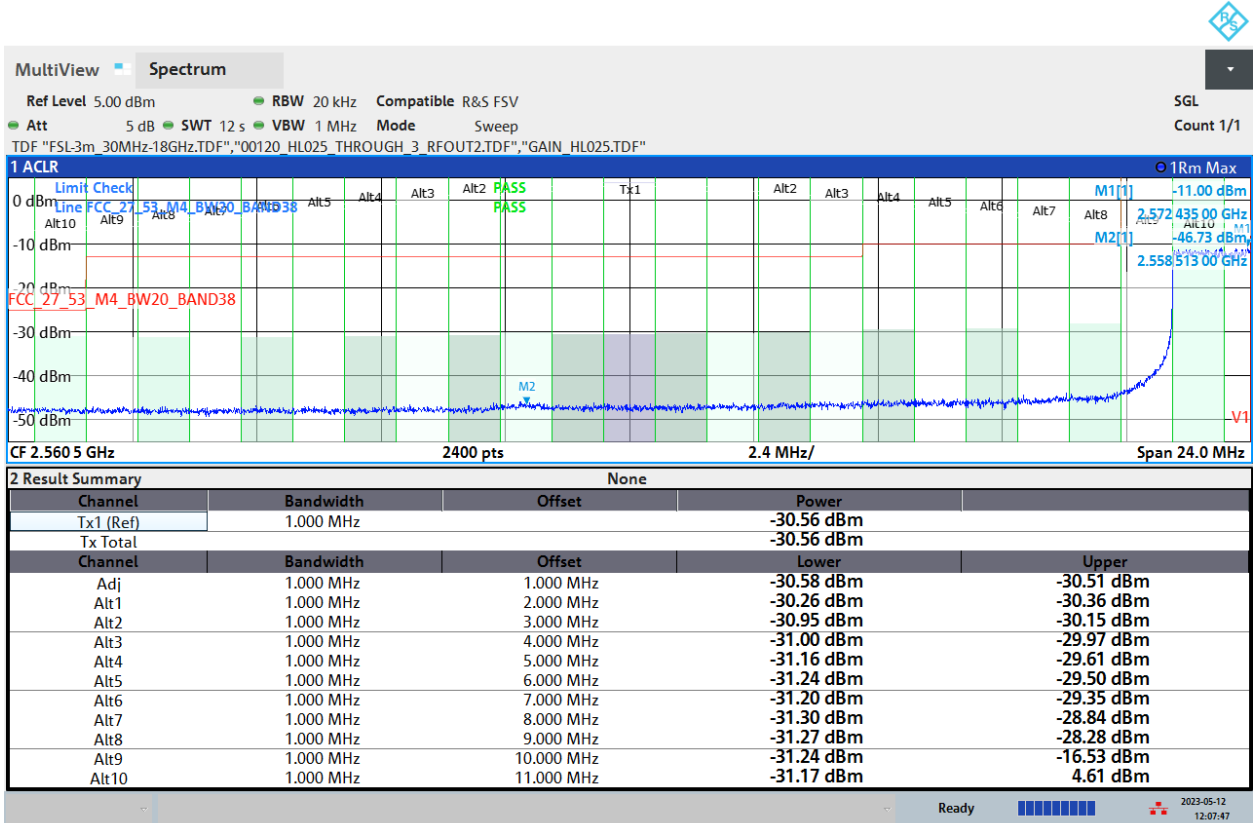
1.8 Band-Edge on LTE Band 38

9.3901_Bandedge_low_LTE_TDD_B38_CH_low_RB_1_low_Internal_Antenna



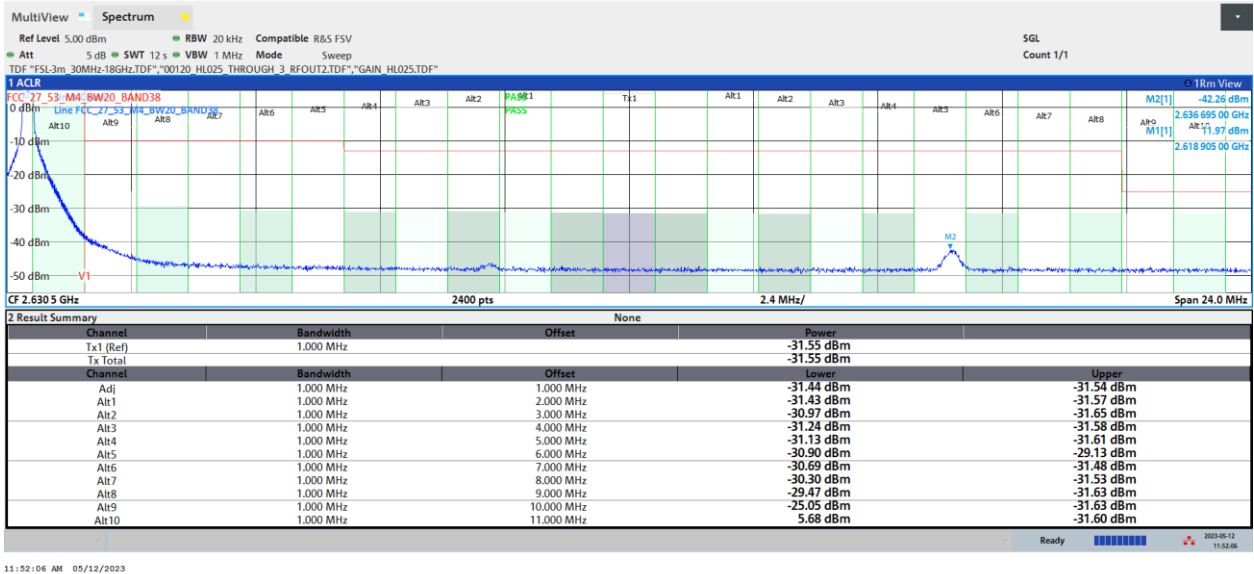
12:05:18 PM 05/12/2023

9.3902_Bandedge_low_LTE_TDD_B38_CH_low_RB_Full_Internal_Antenna

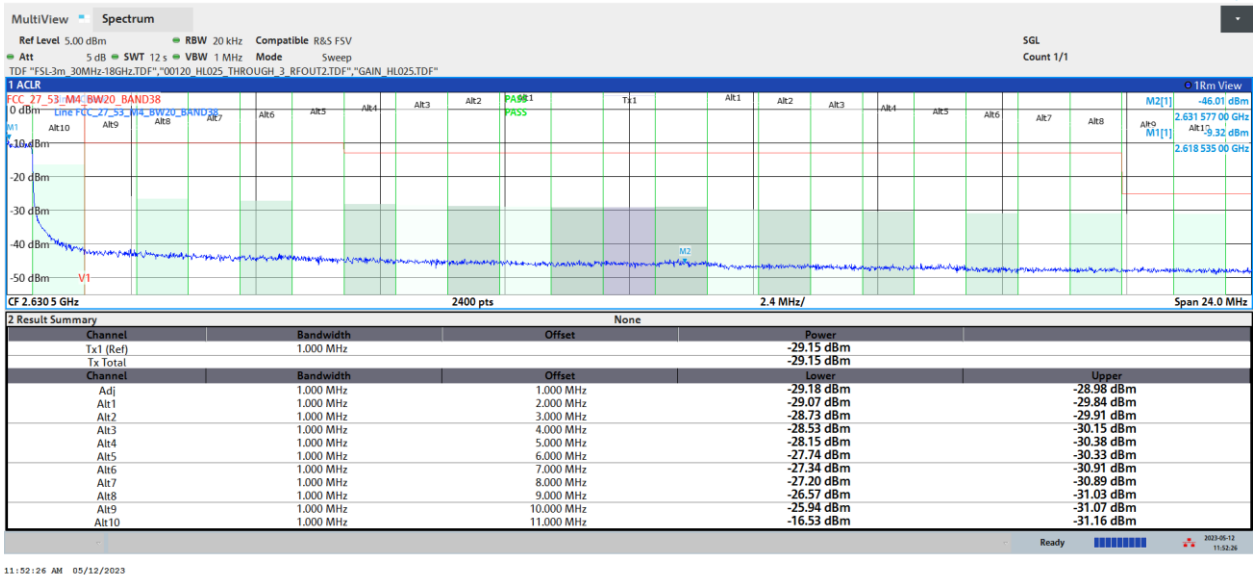


12:07:48 PM 05/12/2023

9.3903_Bandedge_high_LTE_TDD_B38_CH_high_RB_1_high_Internal_Antenna



9.3904_Bandedge_high_LTE_TDD_B38_CH_high_RB_Full_Internal_Antenna



1.9 Band-Edge on LTE Band 66

9.6601a_Bandedge_low_LTE_FDD_B66_CH_low_RB_1_low_standing

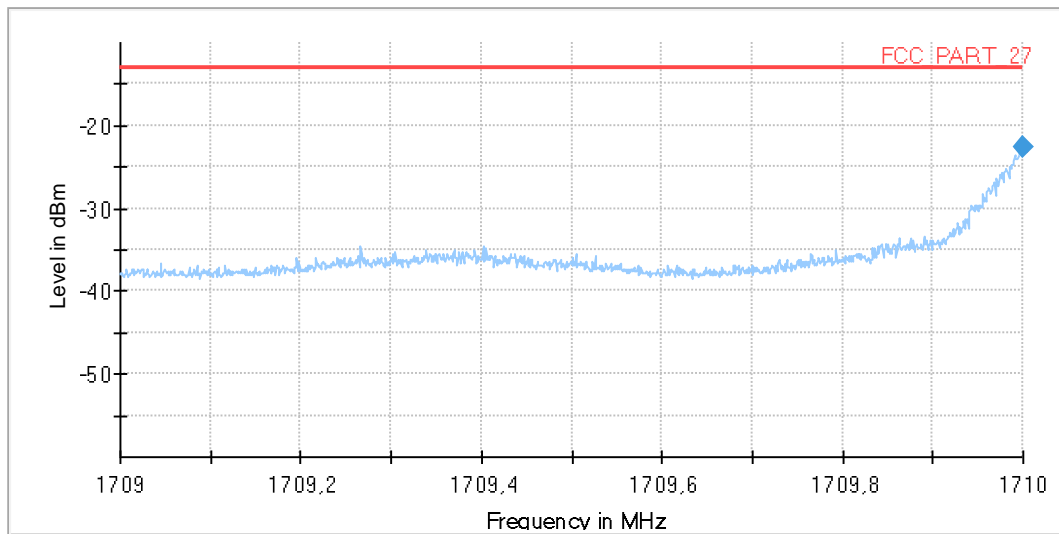
Common Information

Test Description:	Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53 / RSS-139
Comm. Link:	LTE Band 66 (1710-1780MHz)
Operating Mode:	Bandedge_low_LTE_FDD_B66_CH_low_RB_1_low_standing
Exclusionband:	--
Environmental Conditions:	Humidity : 44% rH; Temperature: 20 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787S50_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1709.999000	-22.50	-13.00	9.50	700.0	20.000	V	5.0	0.0	-62

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Pream p	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1709.999000	0	-68	39	01:33:16 - 17.01.2023

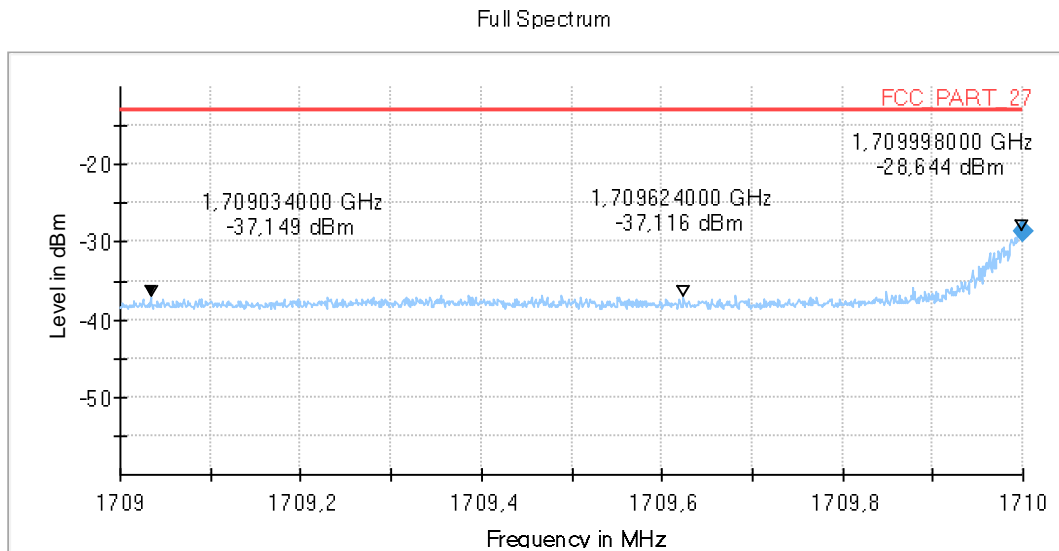
9.6601b_Bandedge_low_LTE_FDD_B66_CH_low_RB_1_low_lying

Common Information

Test Description: Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-139
 Comm. Link: LTE Band 66 (1710-1780MHz)
 Operating Mode: Bandedge_low_LTE_FDD_B66_CH_low_RB_1_low_lying
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: TFra
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1710.000000	-28.54	-13.00	15.54	700.0	20.000	V	332.0	0.0	-62

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Pream p	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1710.000000	0	-68	33	04:18:10 - 14.01.2023

9.6602a_Bandedge_low_LTE_FDD_B66_CH_low_RB_Full_standing

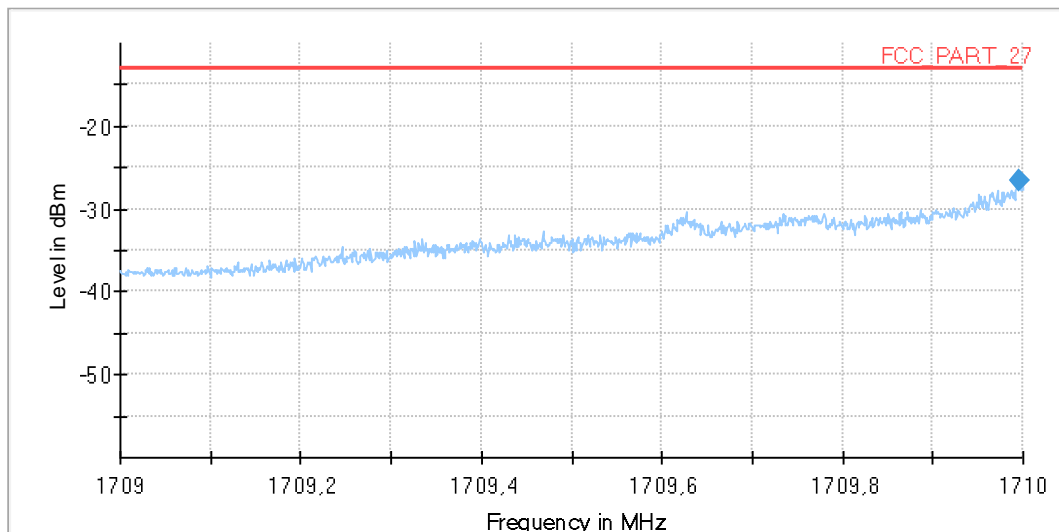
Common Information

Test Description:	Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53 / RSS-139
Comm. Link:	LTE Band 66 (1710-1780MHz)
Operating Mode:	Bandedge_low_LTE_FDD_B66_CH_low_RB_1_low_standing
Exclusionband:	--
Environmental Conditions:	Humidity : 44% rH; Temperature: 20 °C
Operator:	SOz
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1709.996000	-26.68	-13.00	13.68	700.0	20.000	V	4.0	0.0	-62

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Preamp (dB)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1709.996000	0	-68	35	02:58:27 - 17.01.2023

9.6602b_Bandedge_low_LTE_FDD_B66_CH_low_RB_Full_lying

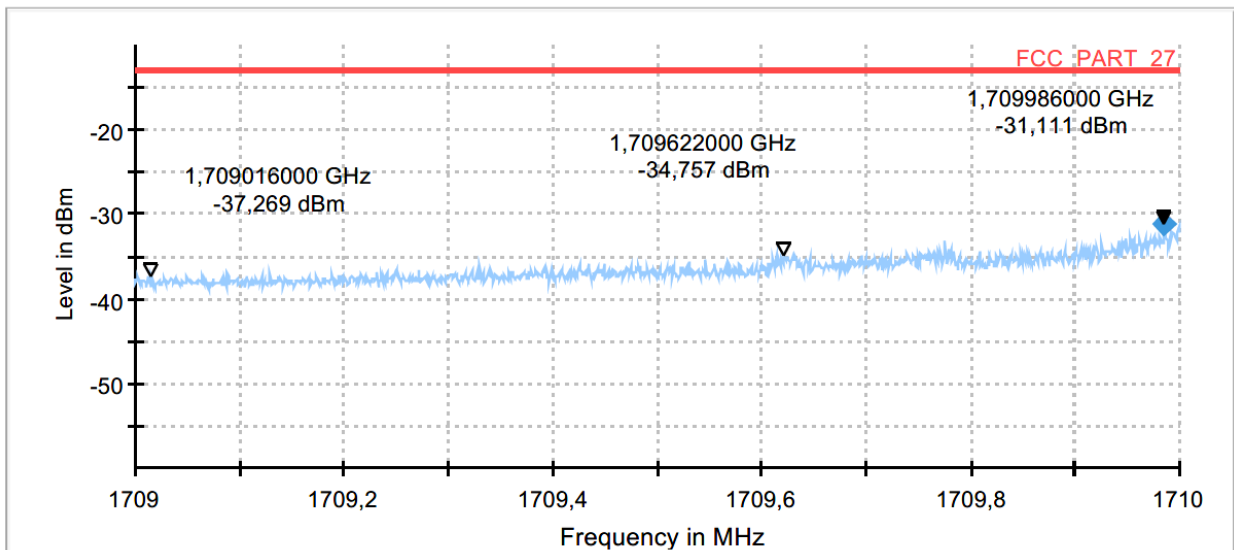
Common Information

Test Description:	Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53 / RSS-139
Comm. Link:	LTE Band 66 (1710-1780MHz)
Operating Mode:	Bandedge_low_LTE_FDD_B66_CH_low_RB_Full_low_lying
Exclusionband:	--
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Operator:	TFra
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1709.986000	-31.11	-13.00	18.11	700.0	20.000	V	295.0	0.0	-62

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Preamp (dB)	Trd Corr. (dB)	Raw Rec (dBμV)	Comment
1709.986000	0	-68	31	03:55:45 - 14.01.2023

9.6603a_Bandedge_high_LTE_FDD_B66_CH_high_RB_1_high_standing

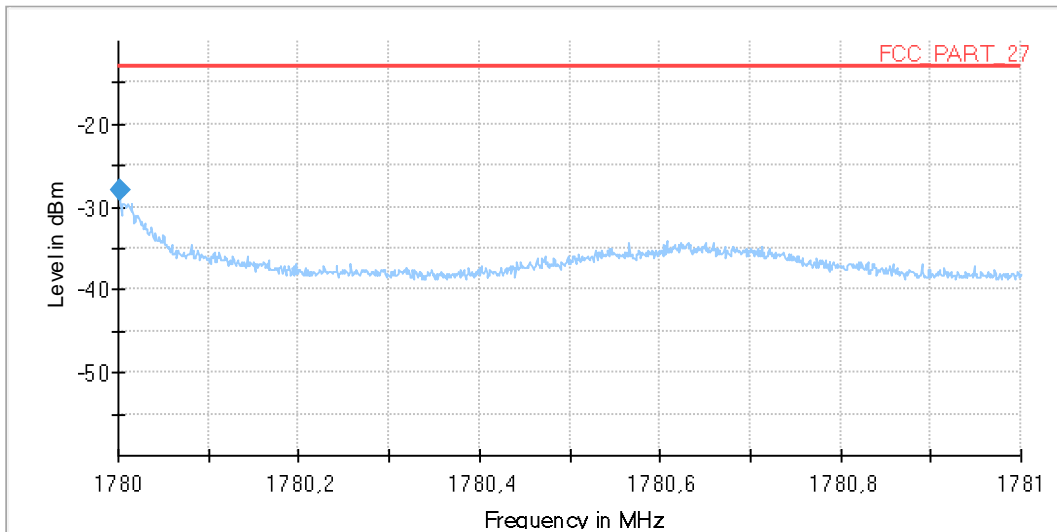
Common Information

Test Description: Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-139
 Comm. Link: LTE Band 66 (1710-1780MHz)
 Operating Mode: Bandedge_high_LTE_FDD_B66_CH_high_RB_1_high_standing
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: SOz
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1780.002000	-28.07	-13.00	15.07	700.0	20.000	H	263.0	0.0	-62

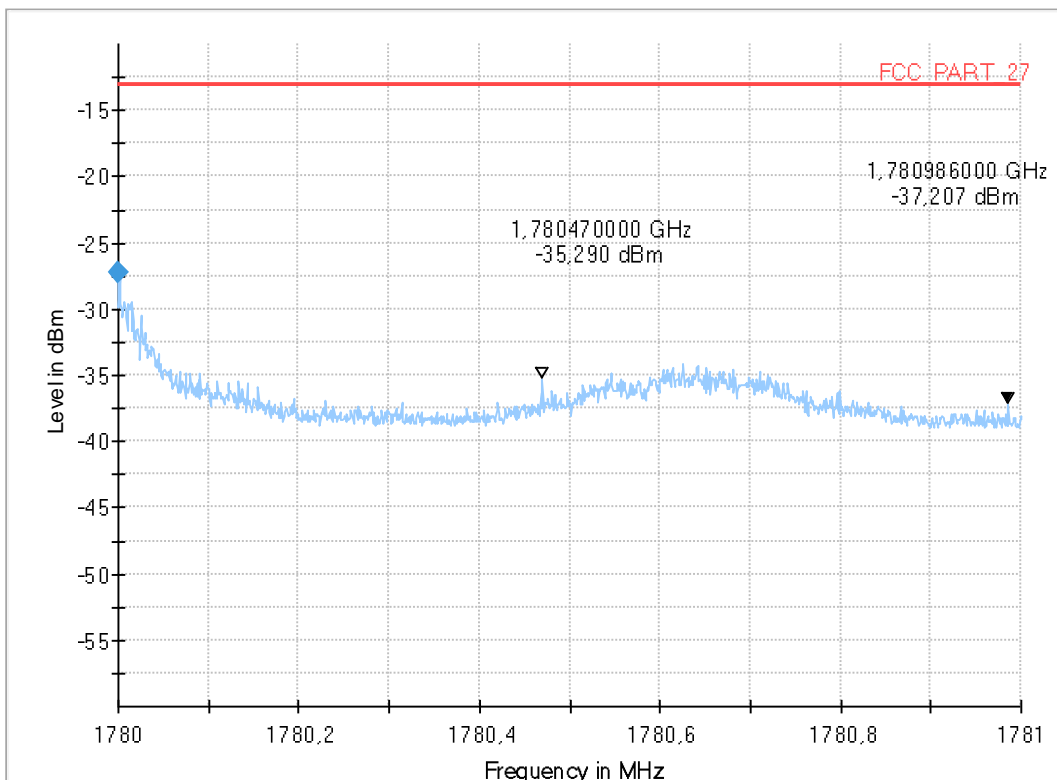
9.6603b_Bandedge_high_LTE_FDD_B66_CH_high_RB_1_high_lying

Common Information

Test Description: Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-139
 Comm. Link: LTE Band 66 (1710-1780MHz)
 Operating Mode: Bandedge_low_LTE_FDD_B66_CH_high_RB_1_high_lying
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: TFra
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01
 Full Spectrum



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1780.000000	-27.28	-13.00	14.28	700.0	20.000	V	293.0	0.0	-62

9.6604a_Bandedge_high_LTE_FDD_B66_CH_high_RB_Full_standing

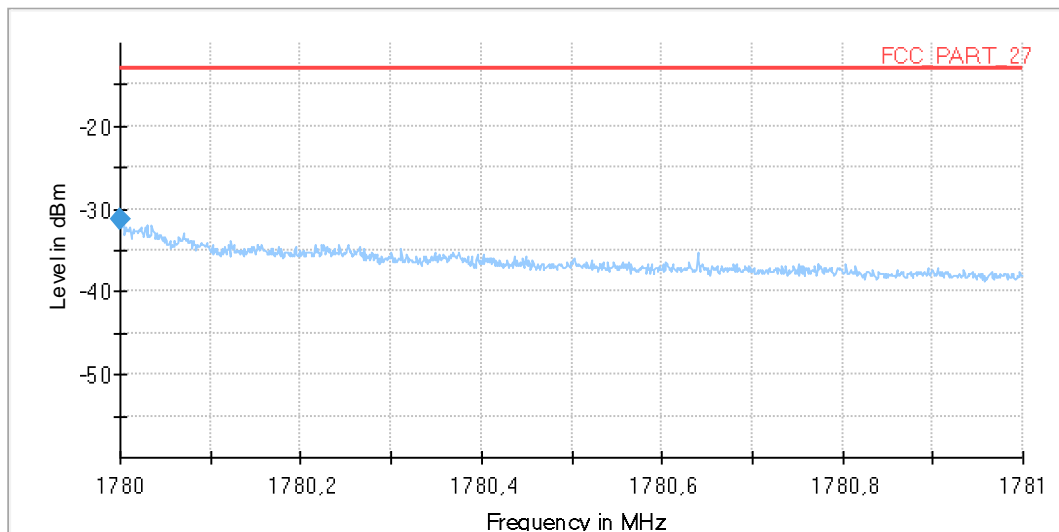
Common Information

Test Description: Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-139
 Comm. Link: LTE Band 66 (1710-1780MHz)
 Operating Mode: Bandedge_high_LTE_FDD_B66_CH_high_RB_Full_standing
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: SOz
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1780.001000	-31.33	-13.00	18.33	700.0	20.000	V	214.0	0.0	-62

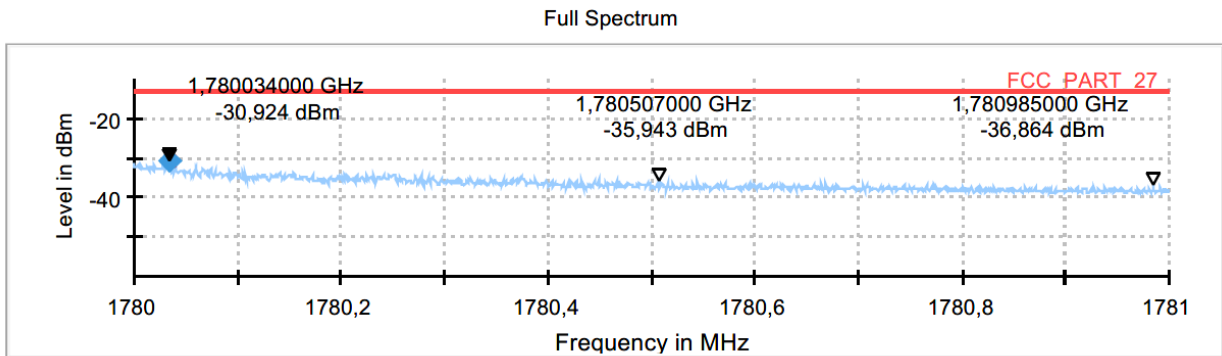
9.6604b_Bandedge_high_LTE_FDD_B66_CH_high_RB_Full_lying

Common Information

Test Description: Radiated Spurious Emissions - Band-Edge LTE Band 66 (§27.53h)
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53 / RSS-139
 Comm. Link: LTE Band 66 (1710-1780MHz)
 Operating Mode: Bandedge_low_LTE_FDD_B66_CH_high_RB_Full_high_lying
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: TFra
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01



Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1780.034000	-30.92	-13.00	17.92	700.0	20.000	V	324.0	0.0	-62

End Of Annex 1