

Annex 1: Measurement diagrams 21-1-0178701T018a-C01-A1

Number of pages:	114	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

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1 Radiated field strength emissions below 30 MHz

2.201_Traffic_mode_LTE_FDD_B02_CH_19100

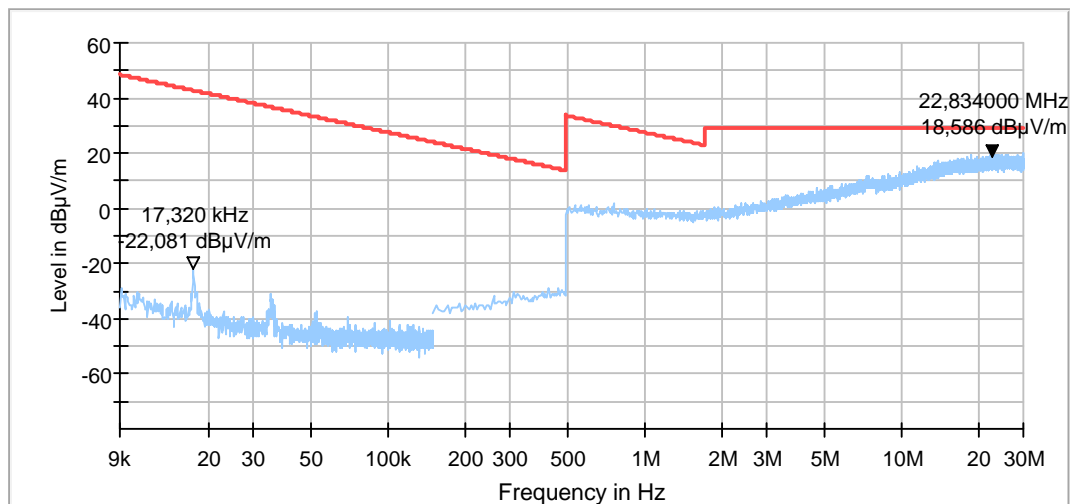
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLa
Operating Mode:	LTE_FDD_B02_CH_19100
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787S50_C01
Comment:	12 V DC

Full Spectrum



2.401_Traffic_mode_LTE_FDD_B04_CH_19957

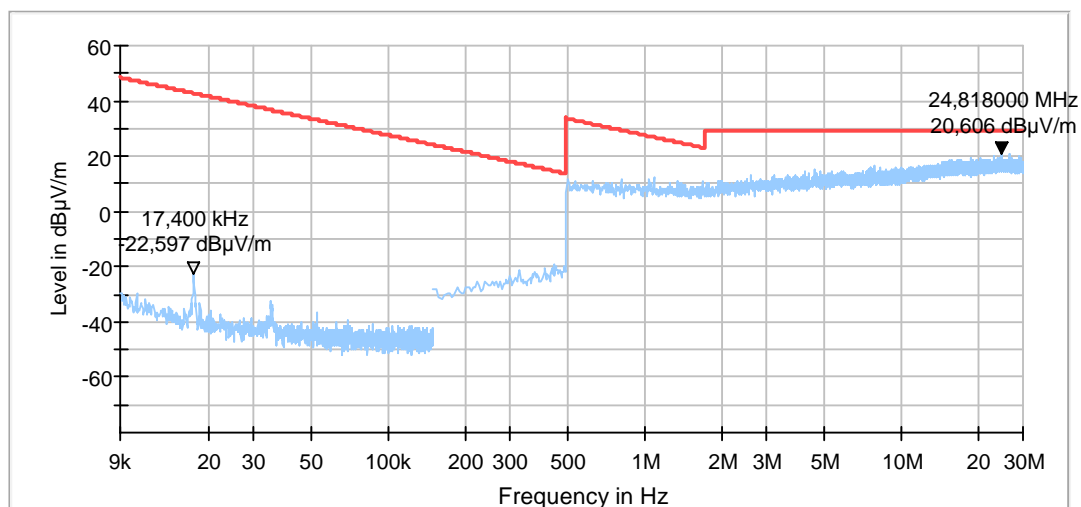
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLa
Operating Mode:	LTE_FDD_B04_CH_19957
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787S50_C01
Comment:	12 V DC

Full Spectrum



2.501_Traffic_mode_LTE_FDD_B05_CH_20525

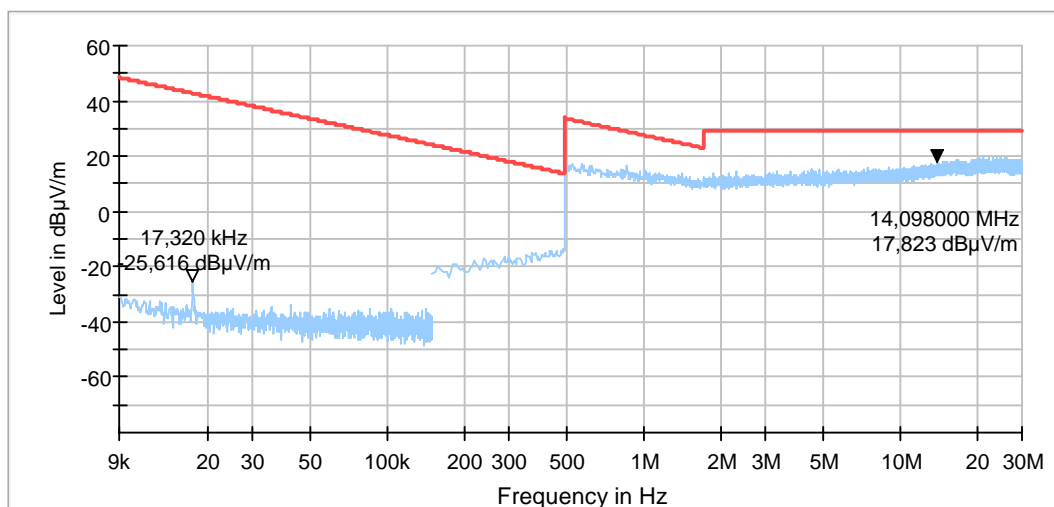
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLa
Operating Mode:	LTE_FDD_B05_CH_20525
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787550_C01
Comment:	12 V DC

Full Spectrum



2.701_Traffic_mode_LTE_FDD_B07_CH_21100

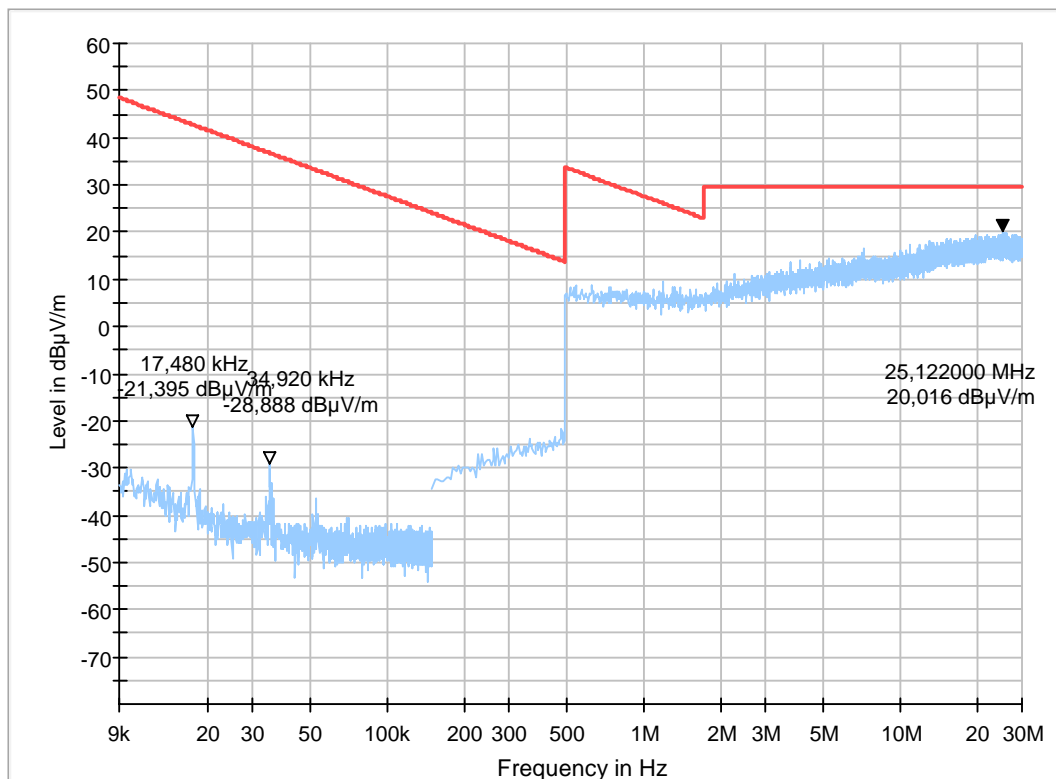
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	LTE_FDD_B07_CH_21100
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787S50_C01
Comment:	12 V DC

Full Spectrum



2.1201_H_field_LTE_FDD_B12_CH_23017

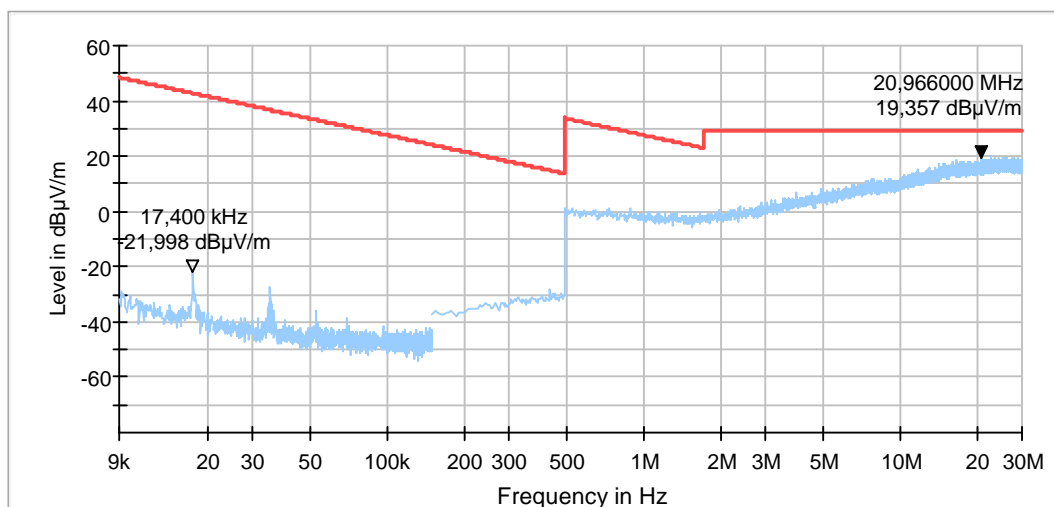
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLA
Operating Mode:	LTE_FDD_B12_CH_23017
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787550_C01
Comment:	12 V DC

Full Spectrum



2.1301_H_field_LTE_FDD_B13_CH_23230

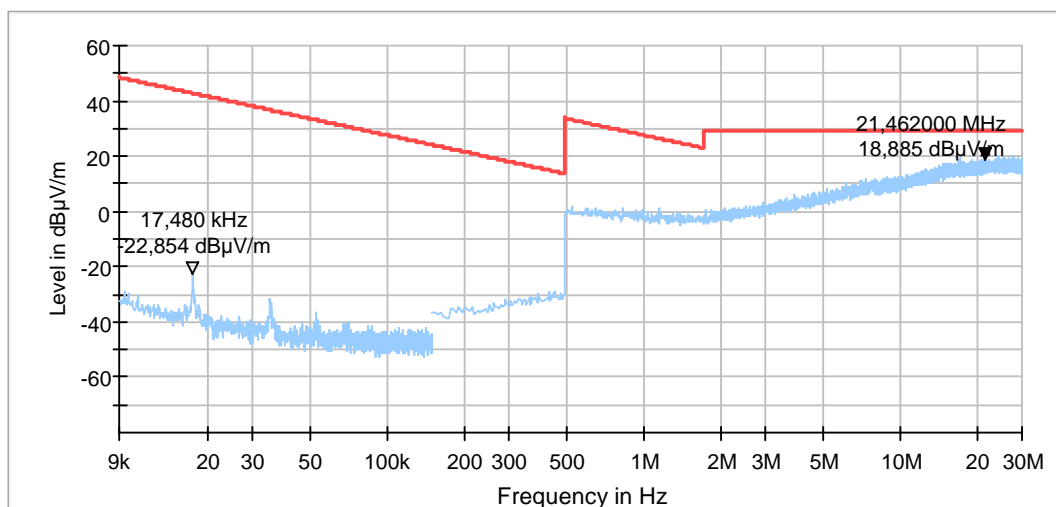
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLA
Operating Mode:	LTE_FDD_B13_CH_23230
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787S50_C01
Comment:	12 V DC

Full Spectrum



2.2601_H_field_LTE_FDD_B26_CH_26865

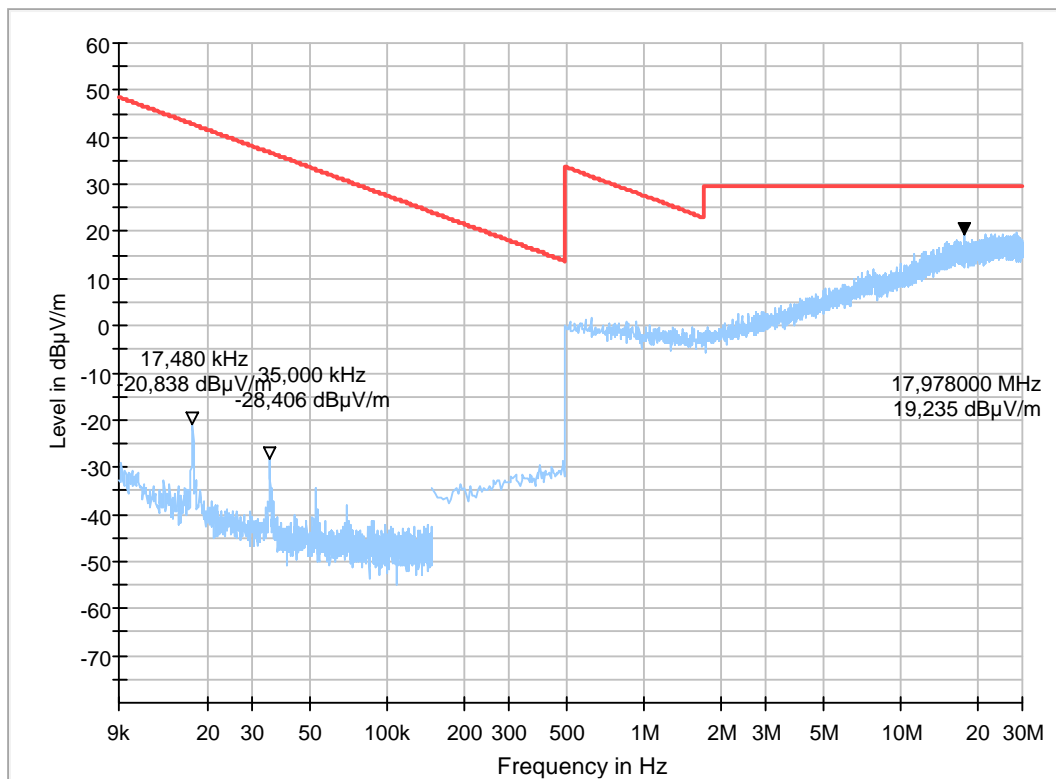
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	LTE_FDD_B26_CH_26865
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787S50_C01
Comment:	12 V DC

Full Spectrum



2.6601_H_field_LTE_FDD_B66_CH_132322

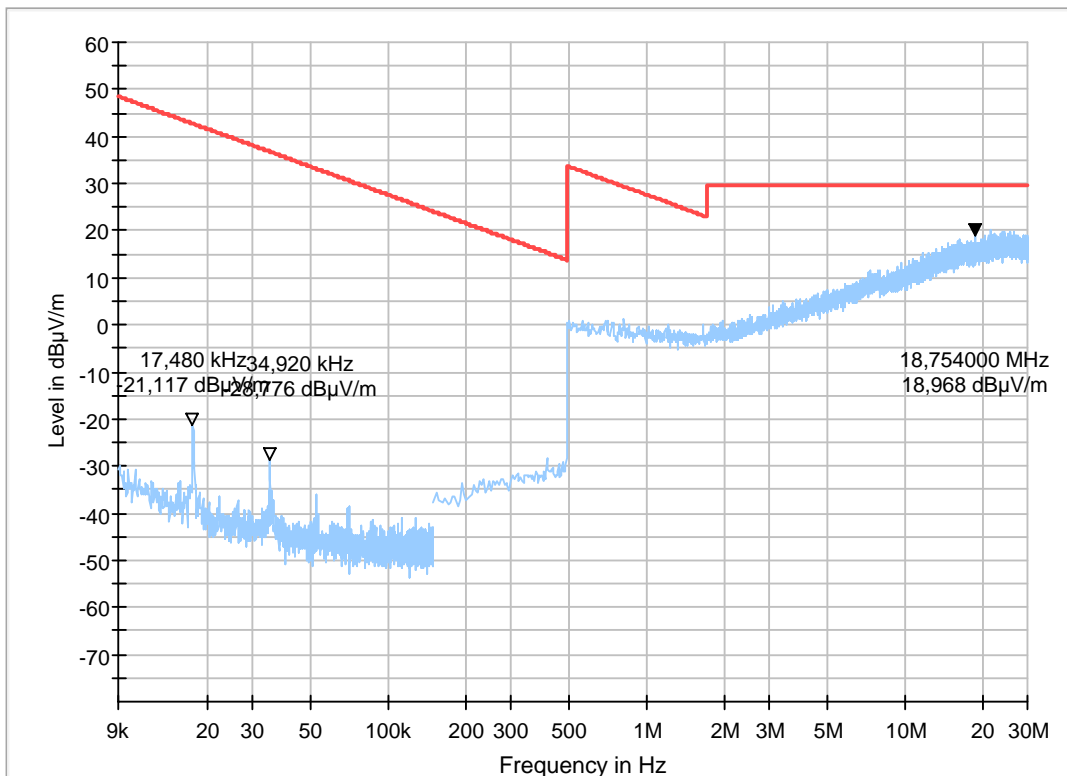
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	FDD_B66_CH_132322
Power during tests:	12 V DC
Verdict:	Passed

EUT Information

PMT number	21-1-01787550_C01
Comment:	12 V DC

Full Spectrum



2.3801_H_field_LTE_FDD_B38_CH_38000_External_Antenna

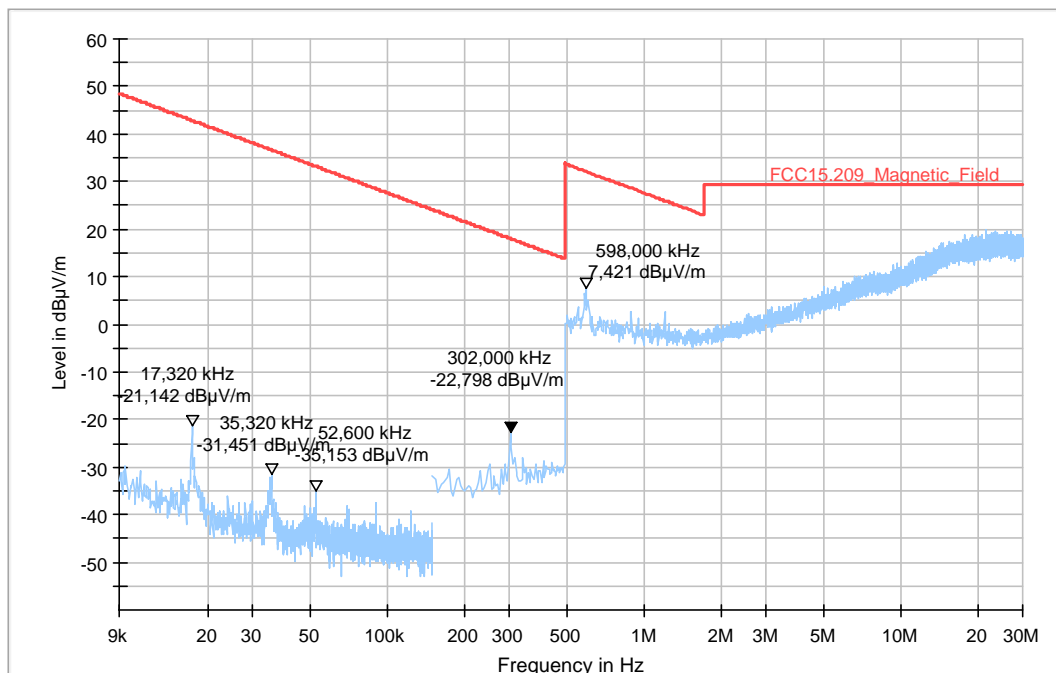
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	TX-on
Power during tests:	12V DC
Comment 1:	LTE_FDD_B38_CH_38000_External_Antenna
Environmental Conditions:	Humidity : 59%rH; Temperature: 21°C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
Power supply:	12 VDC

Full Spectrum



2.3802_H_field_LTE_FDD_B38_CH_38000_External_Antenna

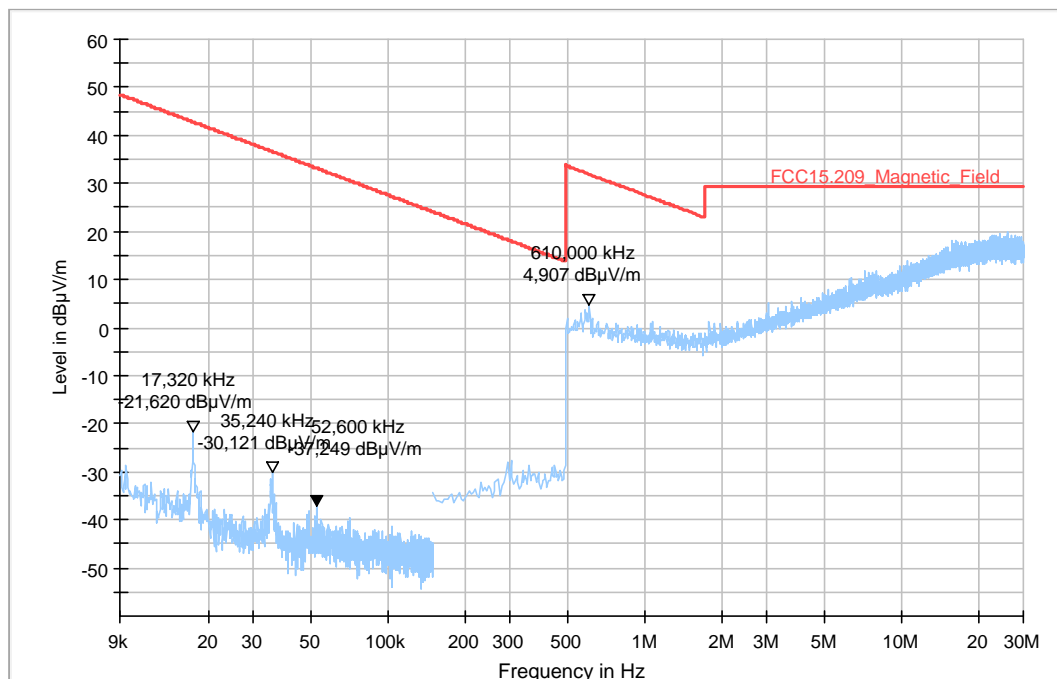
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	TX-on
Power during tests:	12V DC
Comment 1:	LTE_FDD_B38_CH_38000_External_Antenna
Environmental Conditions:	Humidity : 59%rH; Temperature: 21°C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
Power supply:	12 VDC

Full Spectrum



2 Radiated spurious emissions

8.02a_Traffic_mode_LTE_FDD_B02_CH_19100

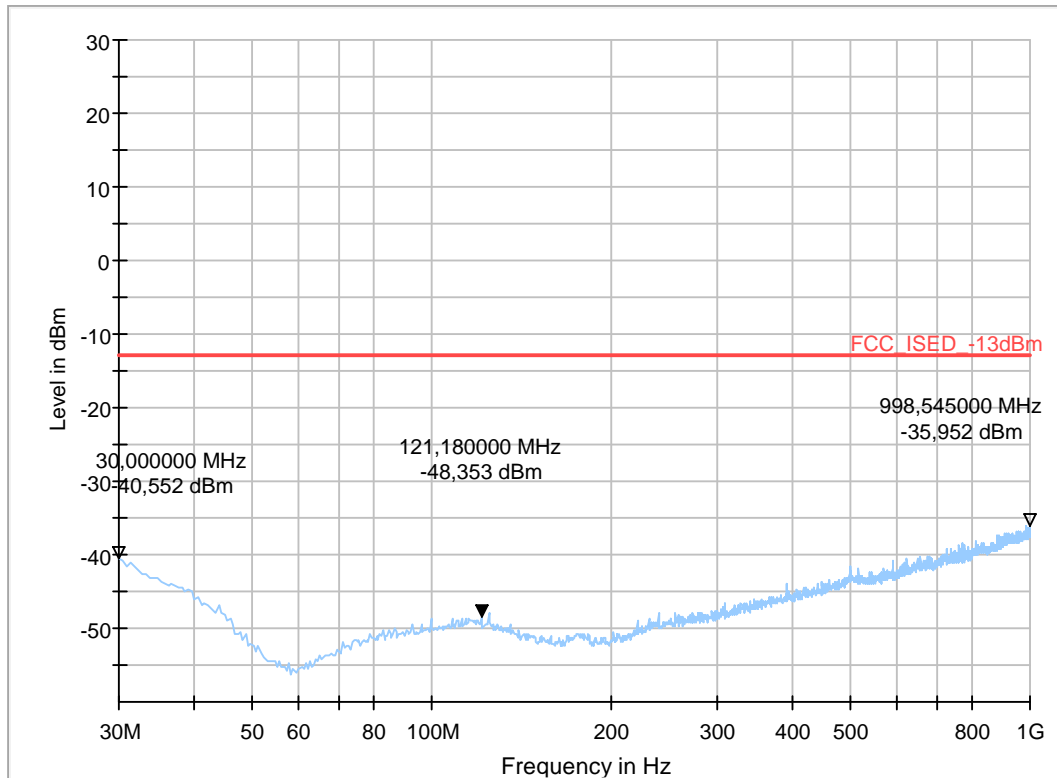
Common Information

Test Description:	Radiated emission
Test Site:	Fully-Anechoic Chamber
Test Standard:	FCC §24.238 / RSS-133
Antenna polarisation:	vertical / horizontal
Measurement software version	EMC32 V10.60.20
Operating Mode:	LTE_TX_B02_1900MHz_BW_20MHz_1RB@0
Operator:	TFra/KTe
Comment:	--
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
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Full Spectrum



8.02b_Traffic_mode_LTE_FDD_B02_CH_19100_standing

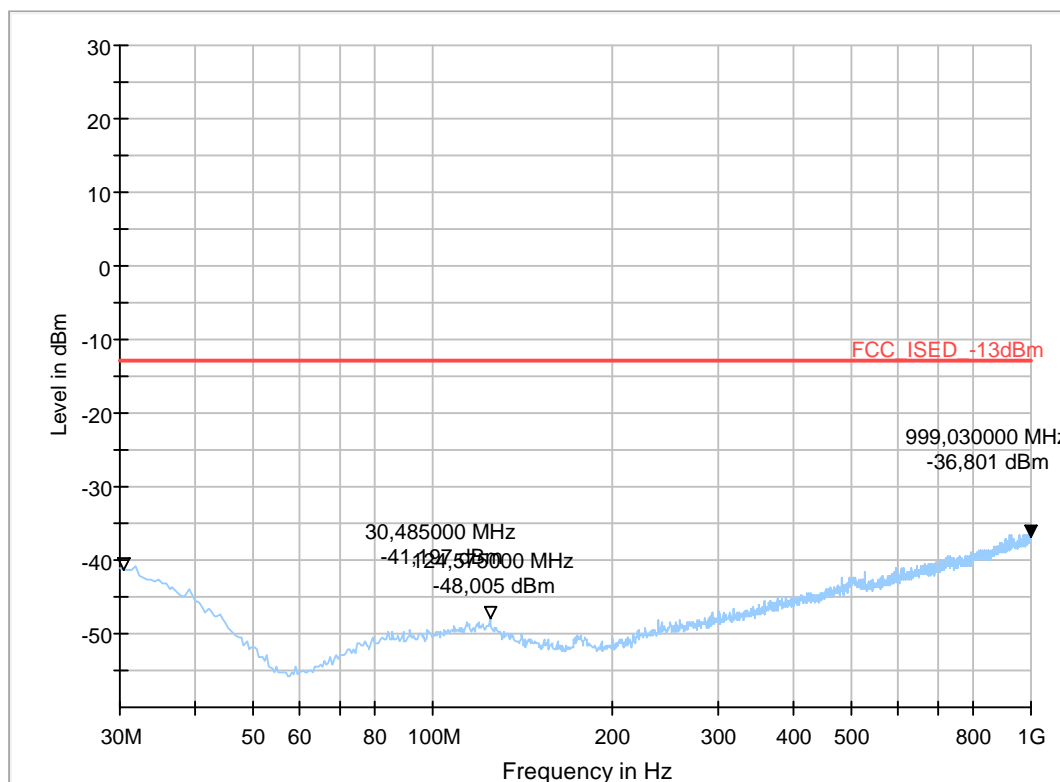
Common Information

Test Description:	Radiated emission
Test Site:	Fully-Anechoic Chamber
Test Standard:	FCC §24.238 / RSS-133
Antenna polarisation:	vertical / horizontal
Measurement software version	EMC32 V10.60.20
Operating Mode:	LTE FDD2 Ch19100 UP 1900MHz 1RB@0 BW20MHz QPSK
Operator:	KTe
Comment:	Humidity : 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



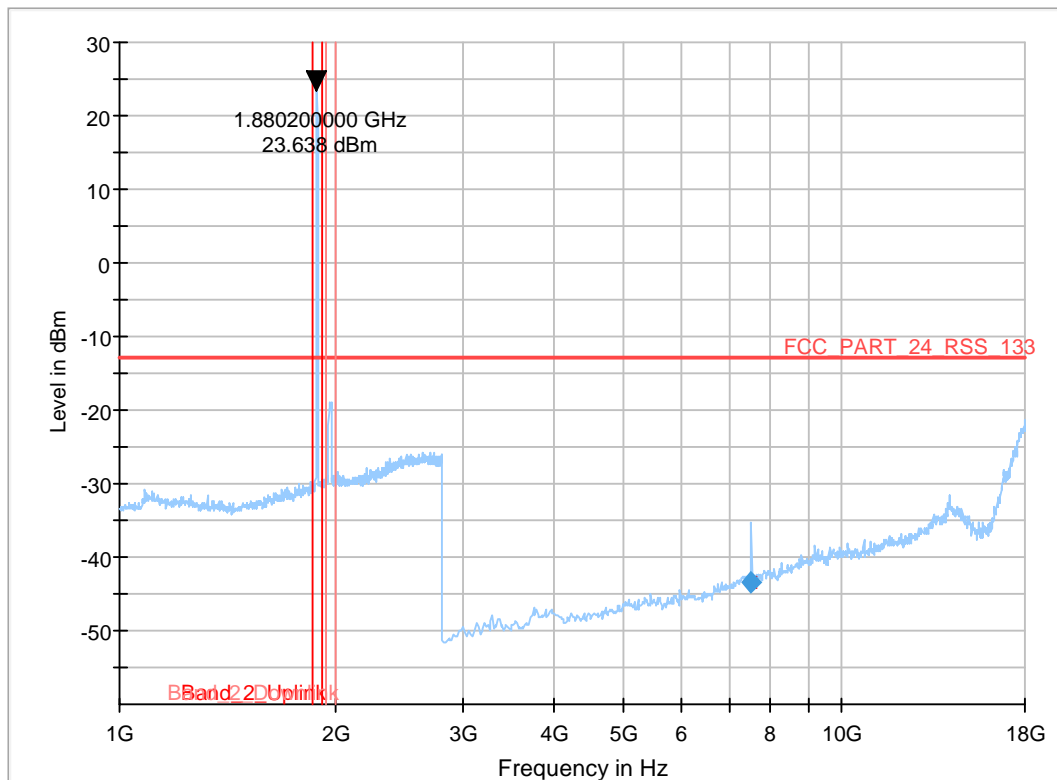
8.03a_RSE_TX_Ch18900_QPSK_BW20_1RB_Offs50_Ext Ant_EUT_laying

Common Information

Test Description:	Radiated Spurious Emissions LTE II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24.238 / RSS-133
Comm. Link:	LTE Band 2 / QPSK / 10MHz BW
Operating Mode:	MS allocated channel 18900 (Mid)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 35% rH; Temperature: 20.2 °C
Operator:	Lor
EUT Setup:	External Antenna of EUT used
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787551_C01
Full Spectrum



Final_Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB)
7520.400000	-13.00	30.48	500.0	150.0	H	209.0	-91.0	-32.2	59.5	-118.3

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)	Comment
7520.400000	47.5	3:38:47 PM - 11/22/2022

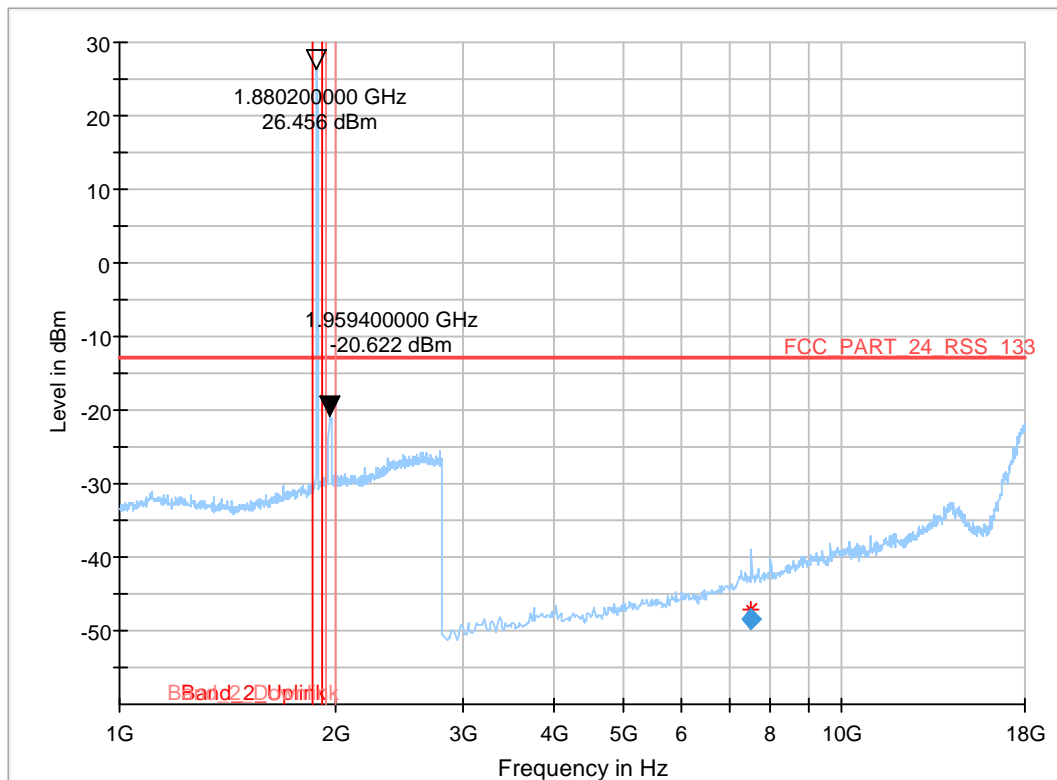
8.03b_RSE_TX_Ch18900_QPSK_BW20_1RB_Offs50_Ext Ant_EUT_standing

Common Information

Test Description:	Radiated Spurious Emissions LTE II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24.238 / RSS-133
Comm. Link:	LTE Band 2 / QPSK / 20MHz BW / 1RB / Mid
Operating Mode:	MS allocated channel 18900 (Mid)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 35% rH; Temperature: 20.2 °C
Operator:	Lor
EUT Setup:	External Antenna of EUT used
Verdict:	Passed

EUT Information

PMT Sample Nr.	21-1-01787551_C01
	Full Spectrum



Final_Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB)
7520.400000	-13.00	35.33	500.0	150.0	V	320.0	-91.0	-32.2	59.5	-118.3

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)	Comment
7520.400000	42.6	5:02:40 PM - 11/22/2022

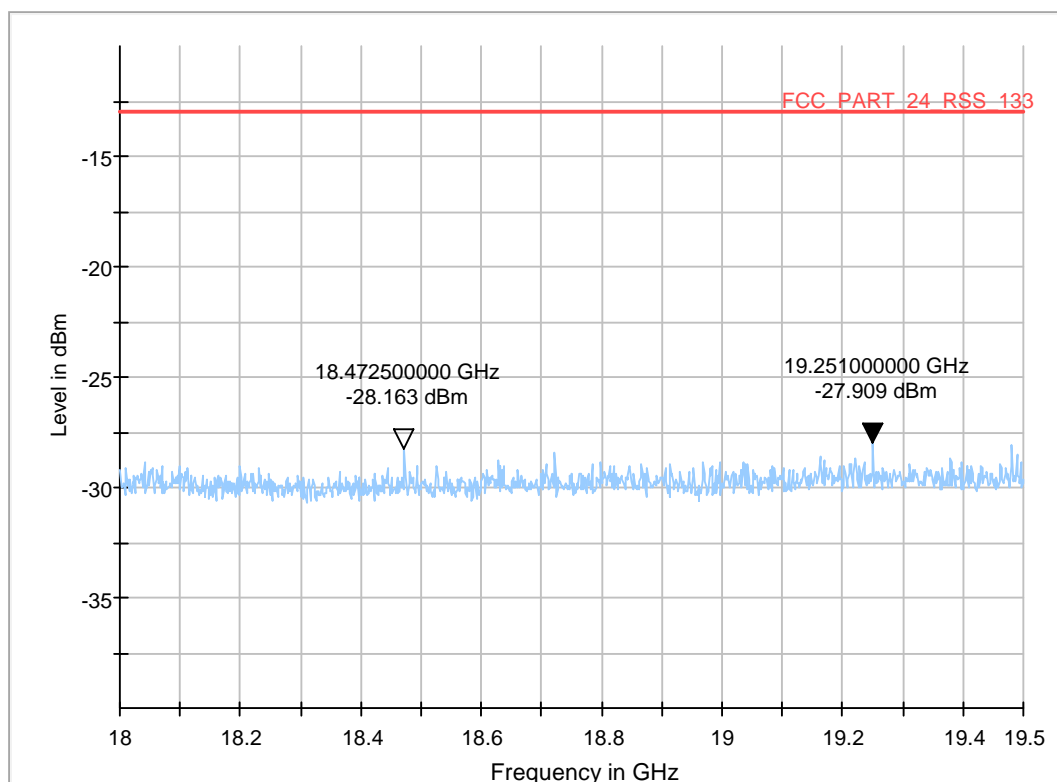
8.04a_c_Traffic_mode_LTE_FDD_B02_CH_19100_laying

Common Information

Test Description:	Radiated Spurious Emissions GSM1900
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:	Ch19100 / 1RB low / BW:20MHz / QPSK
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40% rH; Temperature: 19.8 °C
Operator:	Lor
EUT Setup:	1 / Set-up laying
Verdict:	Passed

EUT Information

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



8.04b_d_Traffic_mode_LTE_FDD_B02_CH_19100_standing

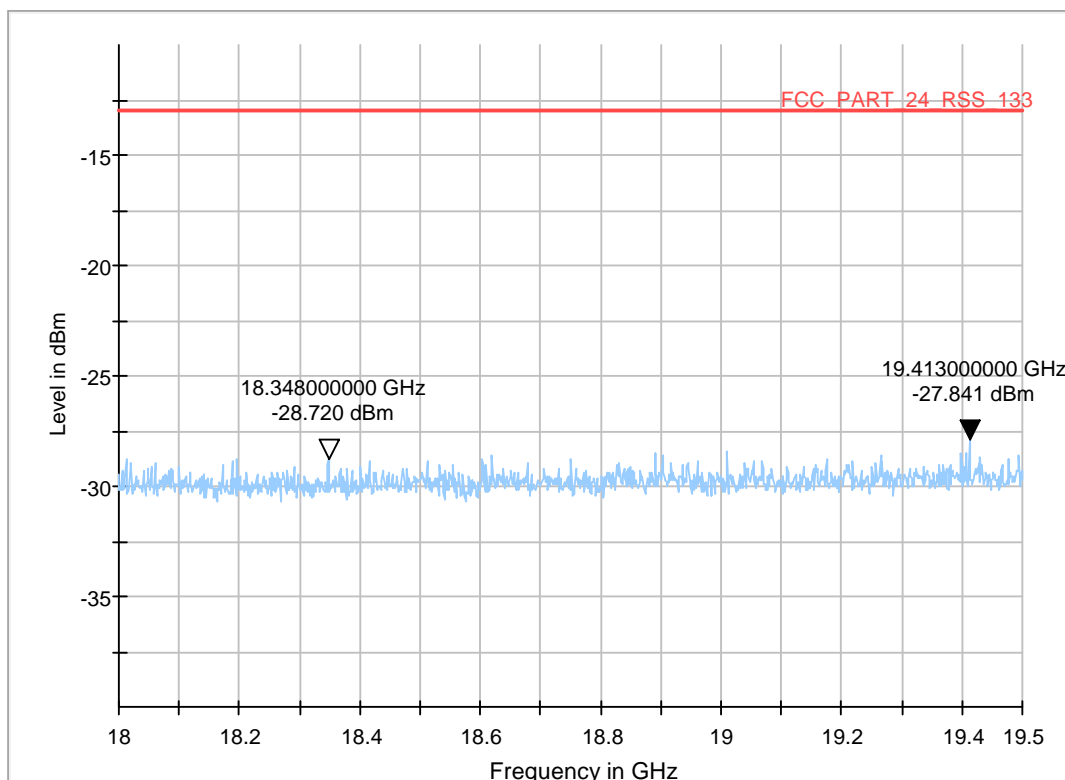
Common Information

Test Description:	Radiated Spurious Emissions GSM1900
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:	Ch19100 / 1RB low / BW:20MHz / QPSK
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40% rH; Temperature: 19.8 °C
Operator:	Lor
EUT Setup:	1/ Set-up standing
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



8.04a_Traffic_mode_LTE_FDD_B04_CH_19957

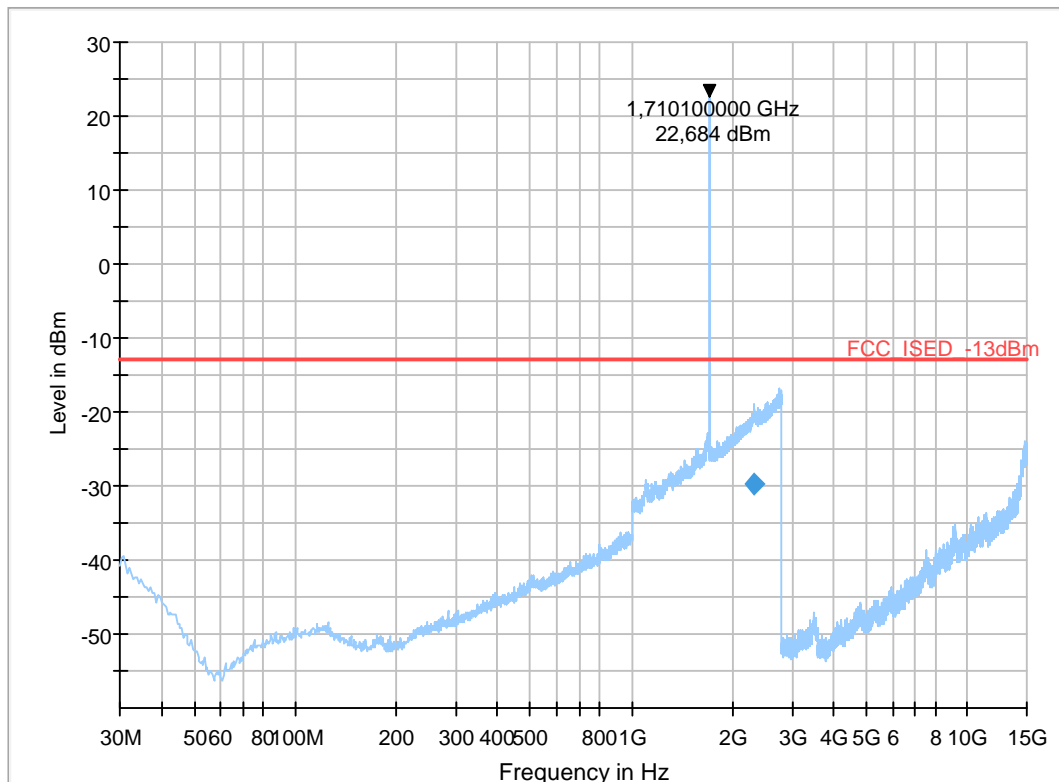
Common Information

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 FDD4 | Ch19957 | UP 1710.7MHz | 1RB@0 | BW1.4MHz | QPSK
 Operator: KTe
 Comment: --
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Remark: Emission at 1.71 GHz is uplink frequency of LTE FDD 4 and not related to spurious emission results.

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
2322.612500	-29.83	-13.00	16.83	100.0	1000.000	155.0	V	210.0	0.0	-58

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

Frequency (MHz)	Comment
2322.612500	11:21:32 - 30.12.2022

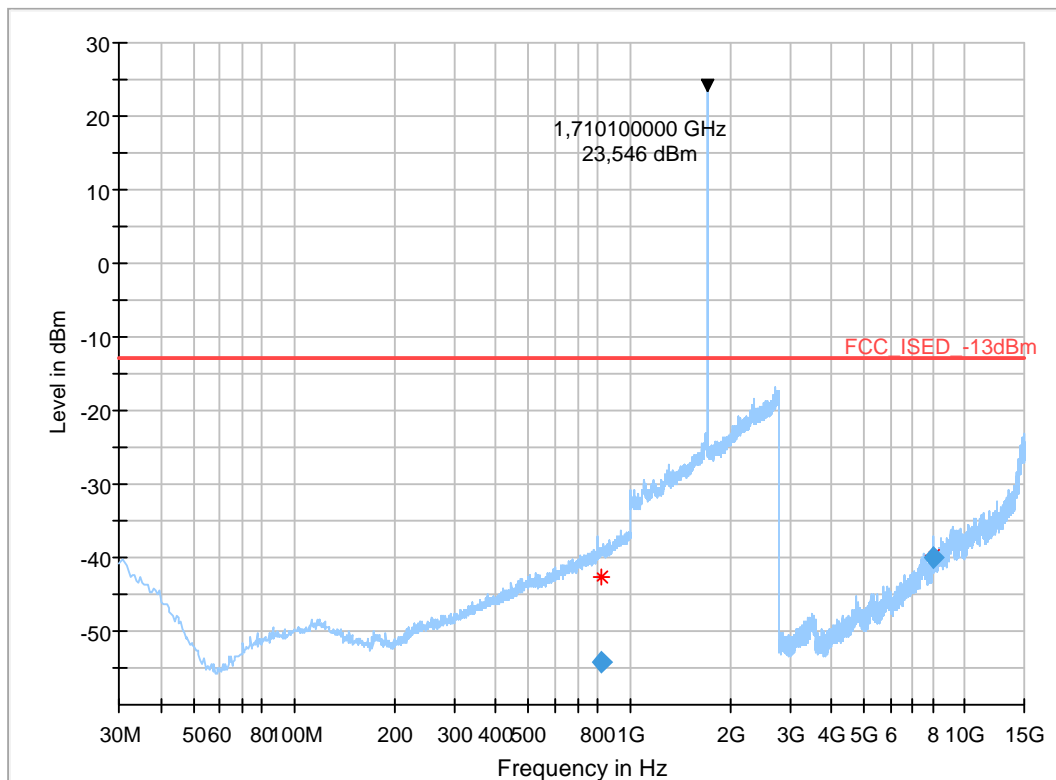
8.04b_Traffic_mode_LTE_FDD_B04_CH_19957

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 FDD4 Ch19957 UP 1710.7MHz 1RB@0 BW1.4MHz QPSK
Operator:	KTe
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



Remark: Emission at 1.71 GHz is uplink frequency of LTE FDD 4 and not related to spurious emission results.

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
822.475000	-54.18	-13.00	41.18	100.0	1000.000	155.0	H	98.0	0.0	-76
8071.030000	-40.06	-13.00	27.06	100.0	1000.000	155.0	V	348.0	0.0	-76

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

Frequency (MHz)	Comment
822.475000	12:02:38 - 28.12.2022
8071.030000	12:36:39 - 28.12.2022

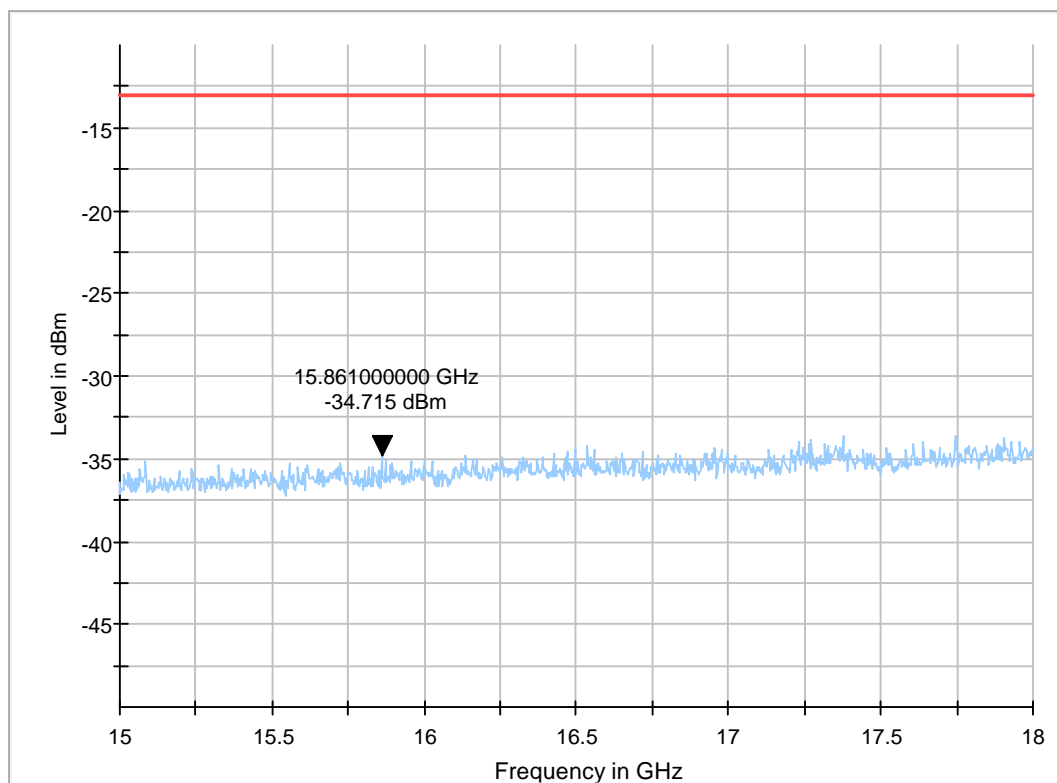
8.05a_c_Traffic_mode_LTE_FDD_B04_CH_19957_laying

Common Information

Test Description:	Radiated Spurious Emissions LTE Band 41
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 27.53 (m)(4)/ RSS-139
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:	Lor
Set-up:	EUT laying
Verdict:	Passed

EUT Information

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



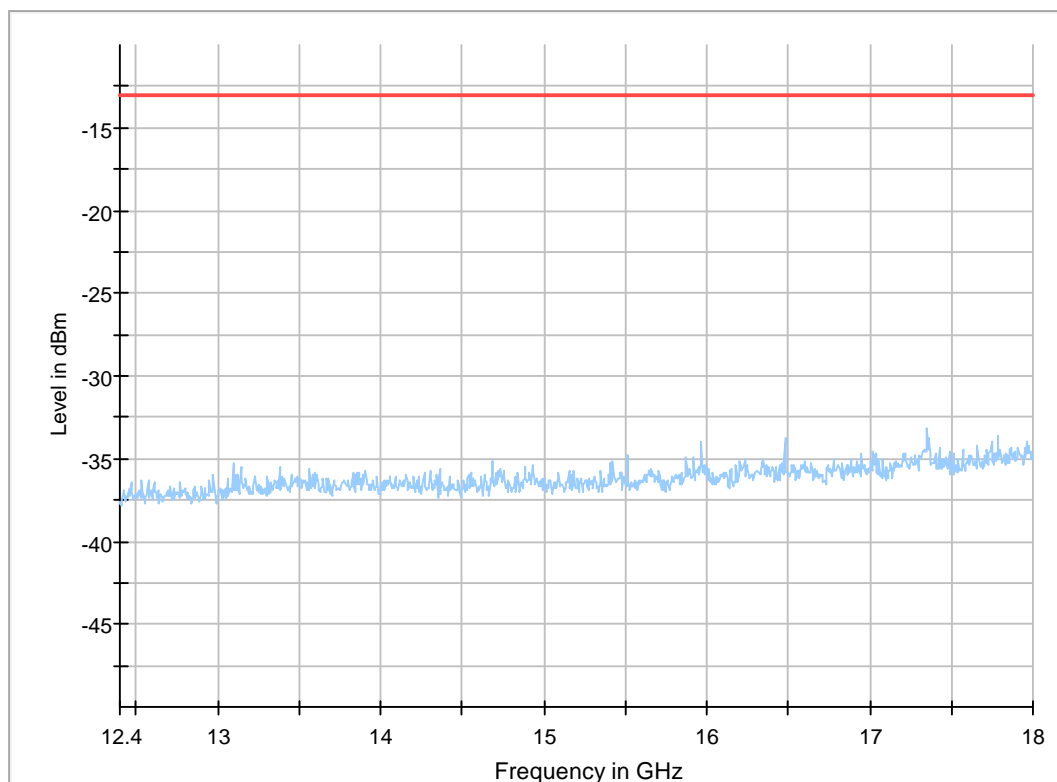
8.05b_d_Traffic_mode_LTE_FDD_B04_CH_19957_standing

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) / RSS-139
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:	Lor
Set-up:	EUTstanding
Verdict:	Passed

EUT Information

PMT Sample Nr.	21-1-01787550_C01
	Full Spectrum



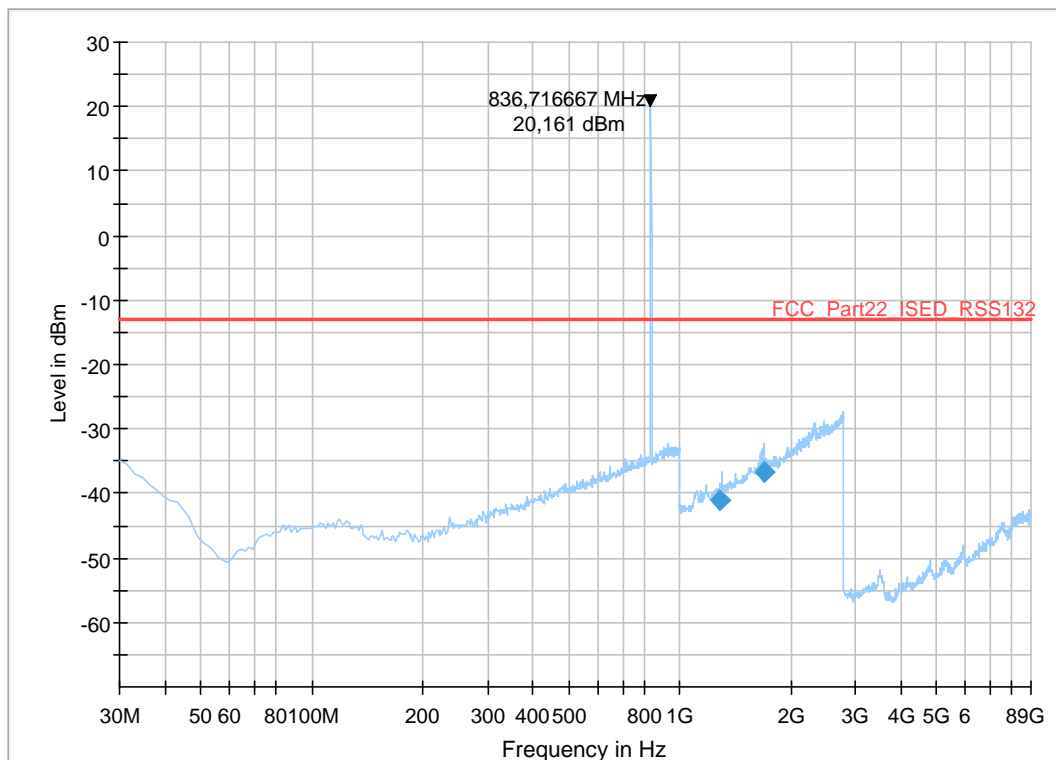
8.05a_Traffic_mode_LTE_FDD_B05_CH_20525_standing

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 FDD5 | Ch20525 | UP 836.5MHz | 1RB@mid | BW10MHz | QPSK
 Operator: KTe
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787S50_C01
 Full Spectrum



Remark: Emission at 836.72 MHz is uplink frequency of LTE FDD 5 and not related to spurious emission results.

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1290.400000	-40.98	-13.00	27.98	100.0	100.000	155.0	V	82.0	0.0	-65
1691.150000	-36.72	-13.00	23.72	100.0	100.000	155.0	H	316.0	0.0	-60

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

Frequency (MHz)	Comment
1290.400000	12:54:39 - 30.12.2022
1691.150000	12:52:09 - 30.12.2022

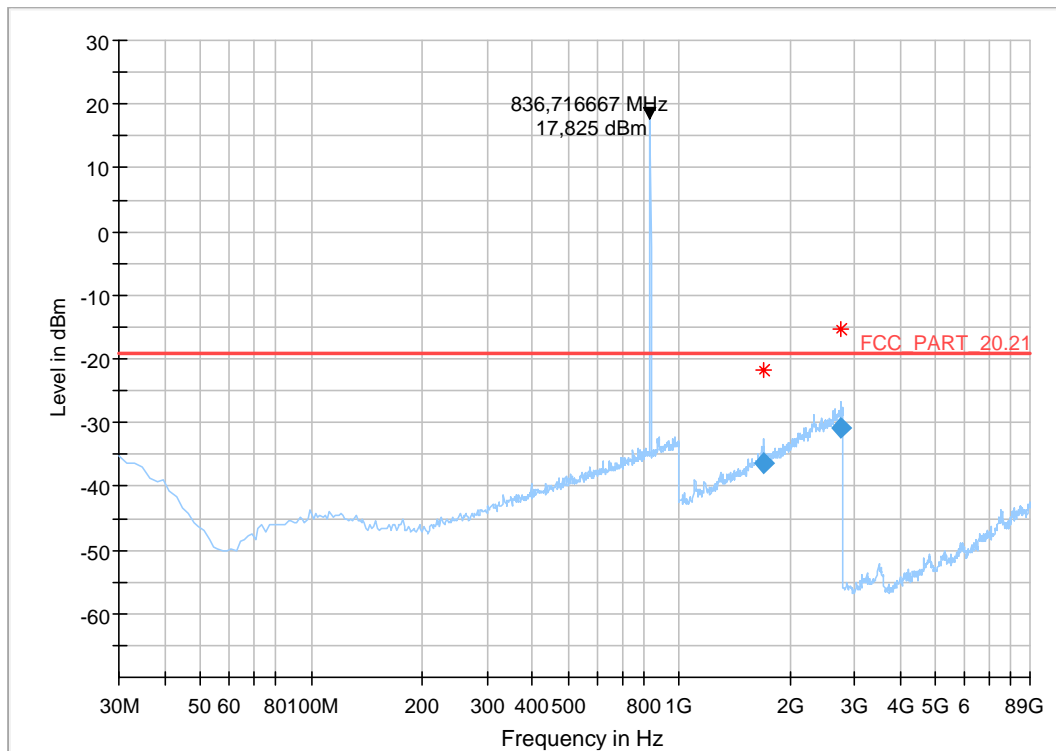
8.05b_Traffic_mode_LTE_FDD_B05_CH_20525_laying

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 FDD5 | Ch20525 | UP 836.5MHz| 1RB@25| BW10MHz | QPSK
 Operator: KTe
 Comment: --
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787S50_C01
 Full Spectrum



Remark: Emission at 836.72 MHz is uplink frequency of LTE FDD 5 and not related to spurious emission results.

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1695.075000	-36.41	-19.00	17.41	100.0	100.000	155.0	H	34.0	0.0	-61
2752.100000	-30.74	-19.00	11.74	100.0	100.000	155.0	H	37.0	0.0	-56

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

Frequency (MHz)	Comment
1695.075000	14:06:50 - 28.12.2022
2752.100000	14:08:45 - 28.12.2022

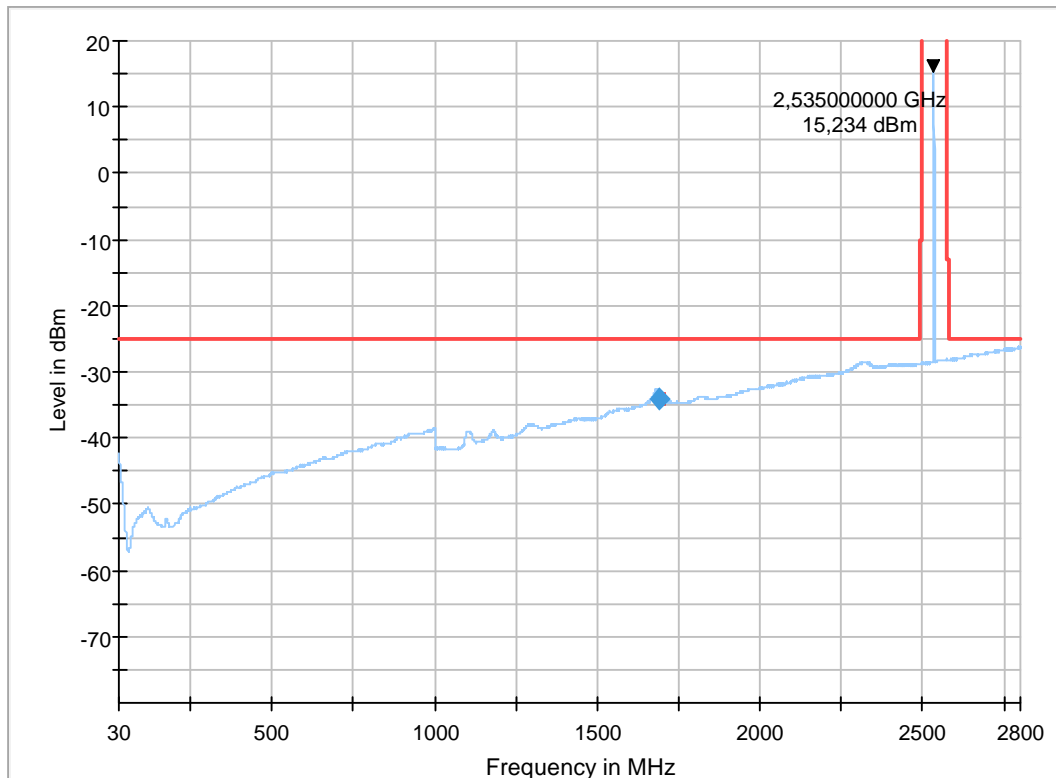
8.07a_Traffic_mode_LTE_FDD_B07_CH_21100

Common Information

Test Description: Radiated Spurious Emissions LTE Band 7
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53(m)(4) / RSS-199
 Operating Mode: LTE FDD7 | Ch21100 | UP 2535MHz | 1RB@mid | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - layin position
 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)
1690.250000	-34.23	-25.00	9.23	1000.0	1000.000	H	80.0	0.0	-60

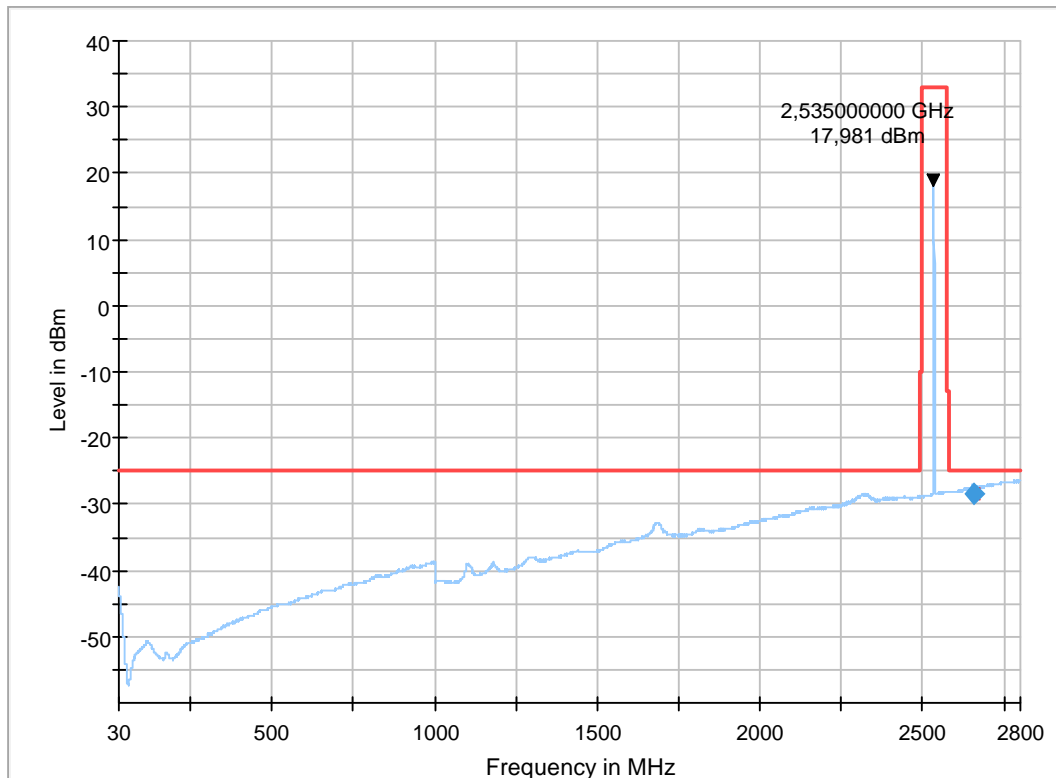
8.07b_Traffic_mode_LTE_FDD_B07_CH_21100

Common Information

Test Description: Radiated Spurious Emissions LTE Band 7
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53(m)(4) / RSS-199
 Operating Mode: LTE FDD7 | Ch21100 | UP 2535MHz | 1RB@13 | BW5MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - standing position
 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)
2655.810000	-28.43	-25.00	3.43	1000.0	1000.000	H	291.0	0.0	-57

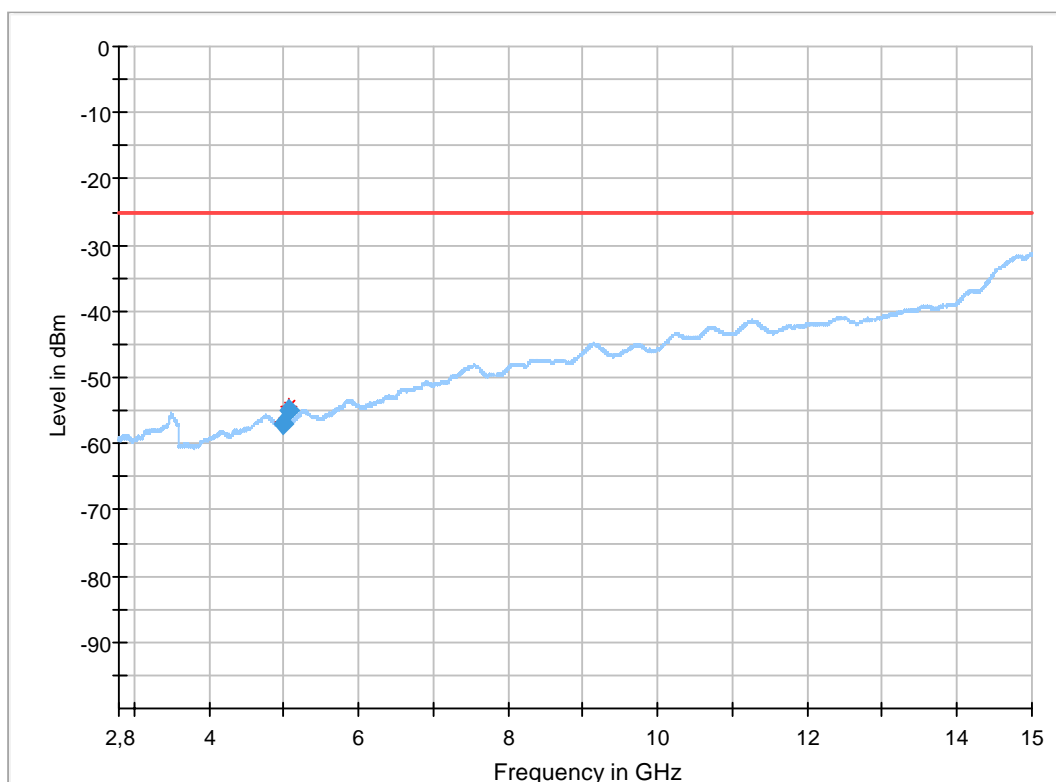
8.08a_Traffic_mode_LTE_FDD_B07_CH_21100

Common Information

Test Description: Radiated Spurious Emissions LTE Band 7
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53(m)(4) / RSS-199
 Test Case: TX
 Operating Mode: LTE FDD7 | Ch21100 | UP 2535MHz | 1RB@mid | BW5MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Operator: KTe
 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)
4999.225000	-57.15	-25.00	32.15	1000.0	1000.000	H	5.0	0.0	-86
5070.280000	-55.00	-25.00	30.00	1000.0	1000.000	V	42.0	0.0	-85

8.08b_Traffic_mode_LTE_FDD_B07_CH_21100

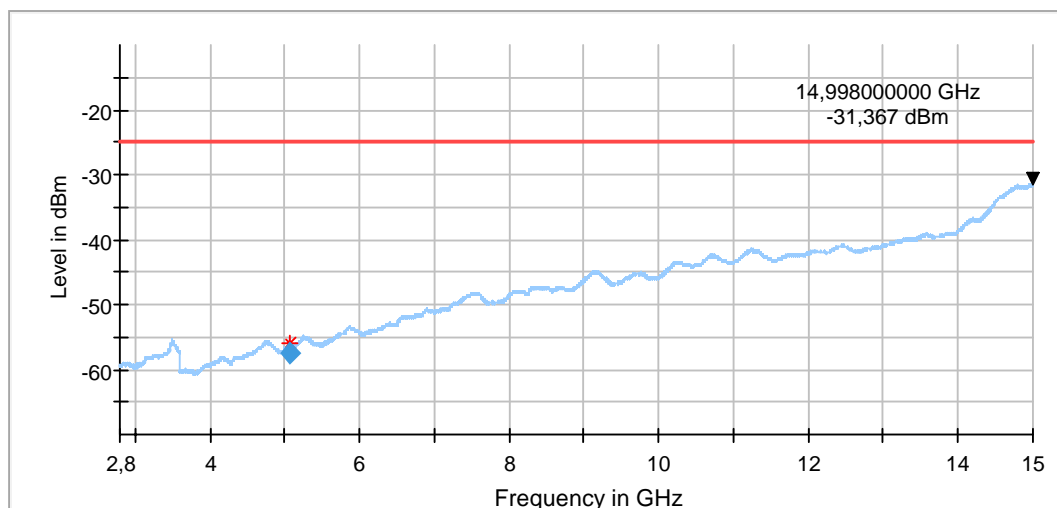
Common Information

Test Description: -
 Test Site Location: CETECOM GmbH
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC Part 27.53(m)(4) / RSS-199
 Test Case: TX
 Operating Mode: LTE FDD7 | Ch21100 | UP 2535MHz | 1RB@mid | BW5MHz | QPSK
 Environmental Conditions: Humidity : 38% 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)
5070.370000	-57.33	-25.00	32.33	1000.0	1000.000	V	176.0	0.0	-85.2

8.09a_c_Traffic_mode_LTE_FDD_B07_CH_21100_laying

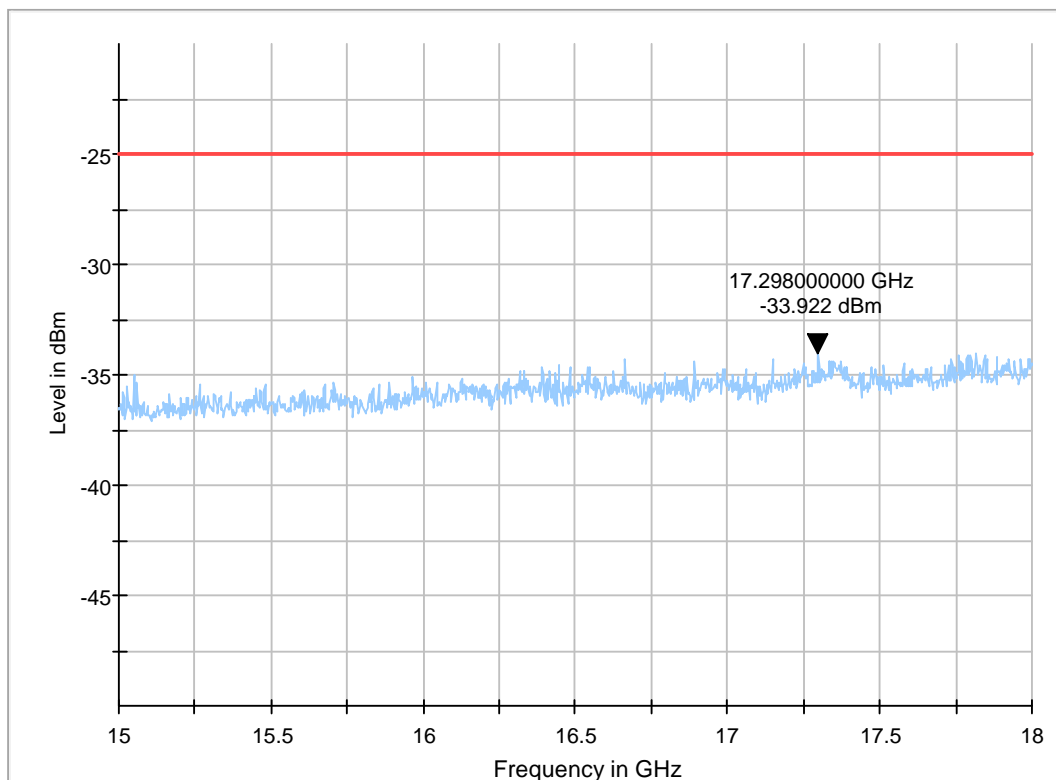
Common Information

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:	MS allocated channel 21100 / BW:5MHz / 1RB mid / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 19.8 °C
Operator:	Lor
Set-up:	1 / Set-up laying/External antenna
Verdict:	Passed

EUT Information

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



8.09b_d_Traffic_mode_LTE_FDD_B07_CH_21100

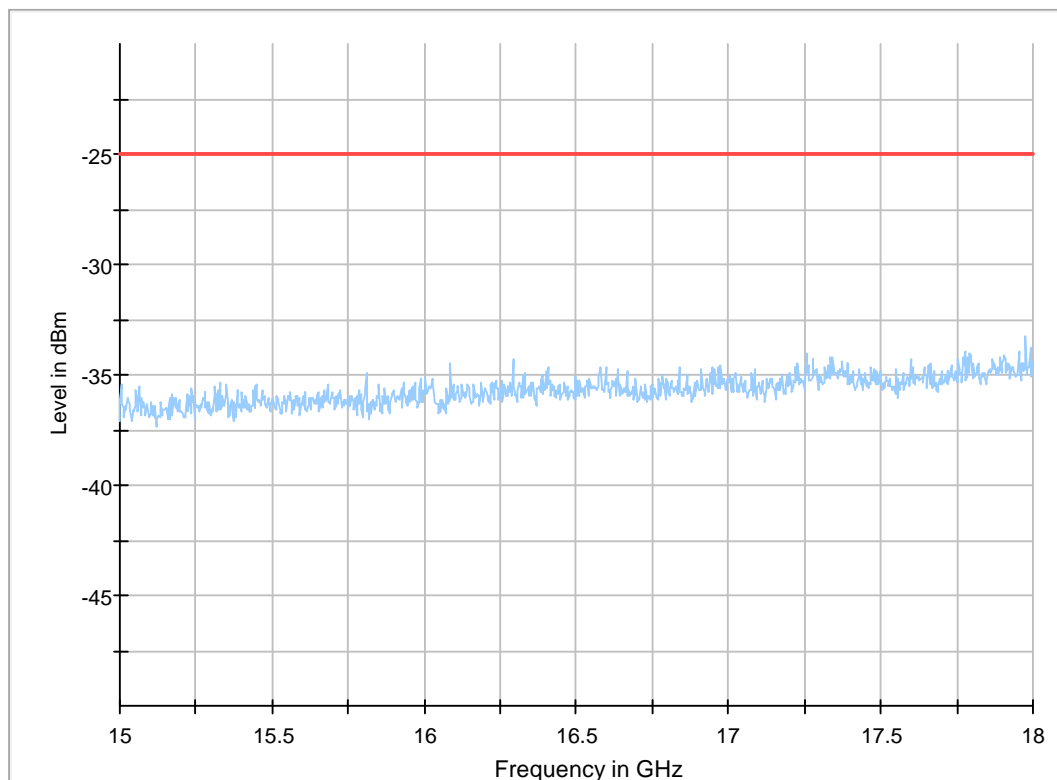
Common Information

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:	MS allocated channel 21100 / BW:5MHz / 1RB mid / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.3 °C
Operator:	Lor
Set-up:	1/ Set-up standing/External antenna
Verdict:	Passed

EUT Information

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



8.10a_c_Traffic_mode_LTE_FDD_B07_CH_21100_laying

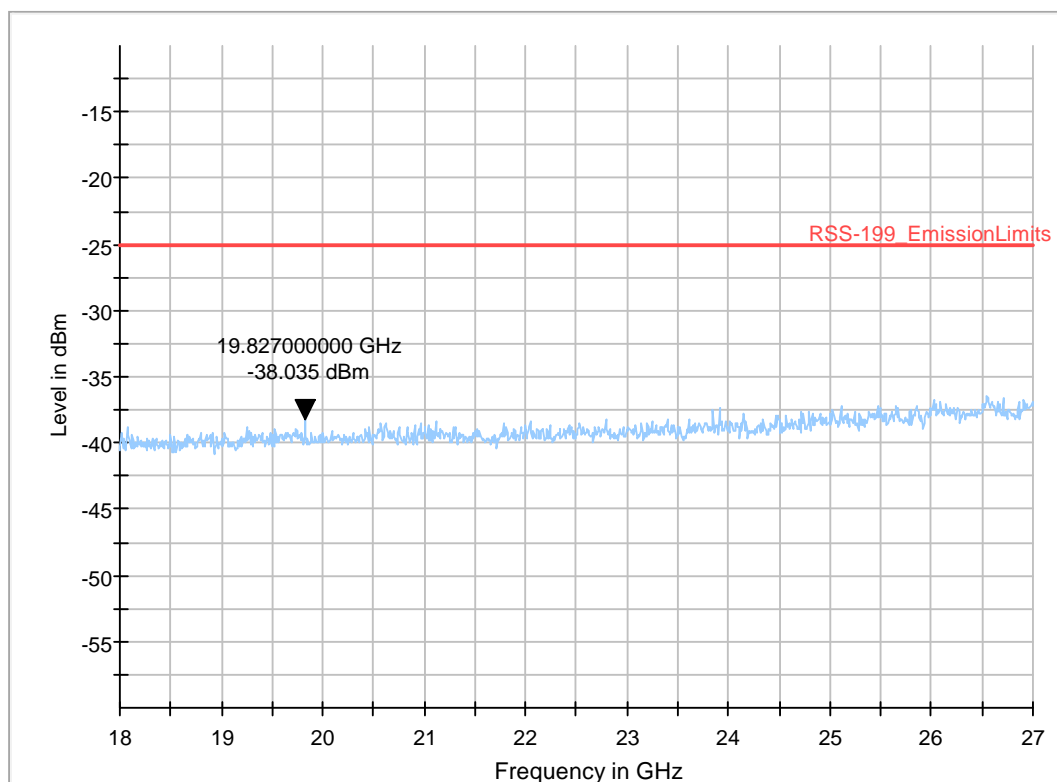
Common Information

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:	MS allocated channel 21100 / BW:5MHz / 1RB mid / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.5 °C
Operator:	Lor
Set-up:	1 / Set-up laying/ External antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



8.10b_d_Traffic_mode_LTE_FDD_B07_CH_21100_standi ng

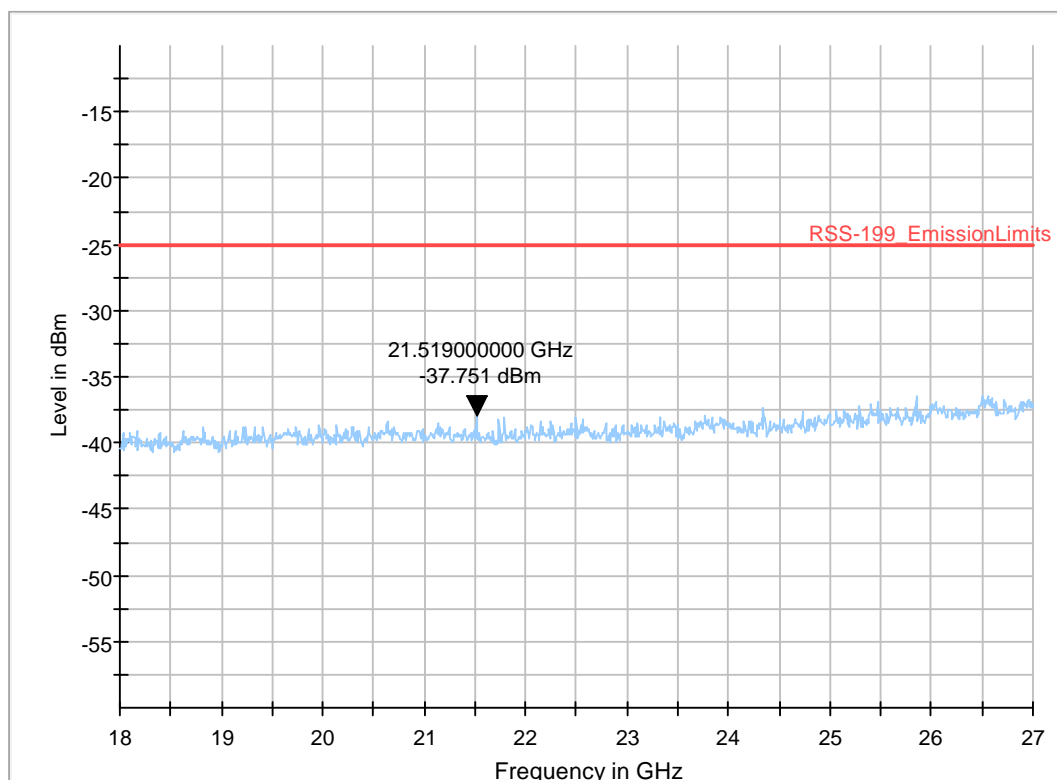
Common Information

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:	MS allocated channel 21100 / BW:5MHz / 1RB mid / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 19.8 °C
Operator:	Lor
Set-up:	1/ Set-up standing/External antenna
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787S50_C01

Full Spectrum



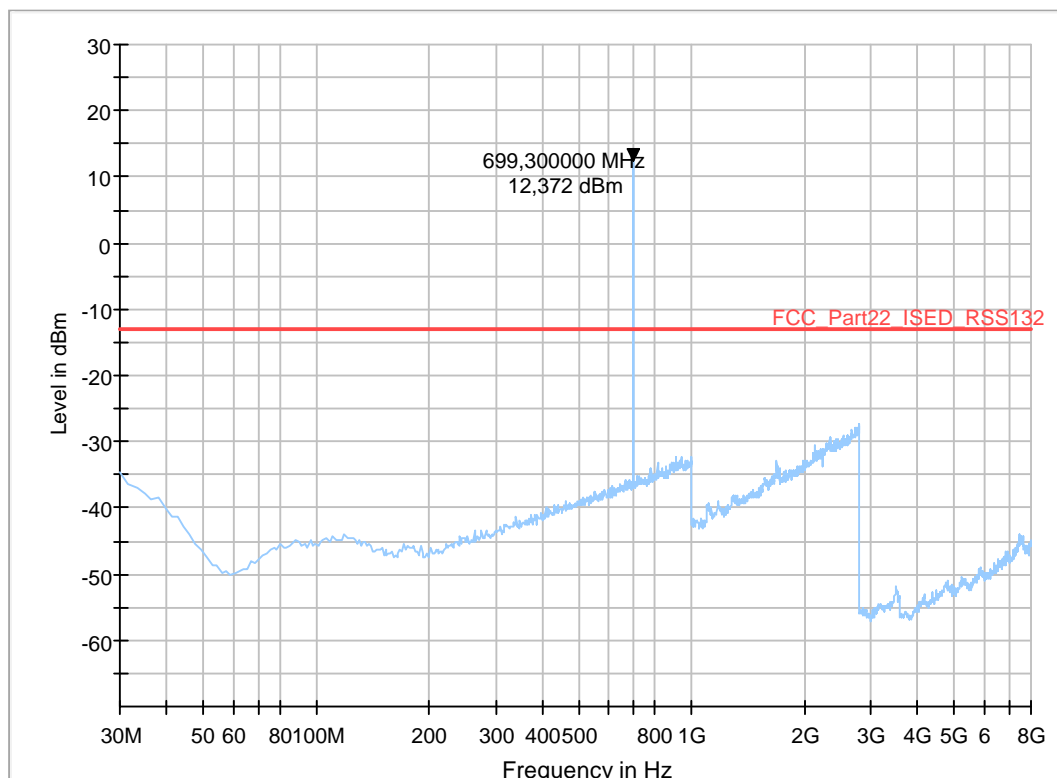
8.12a_Traffic_mode_LTE_FDD_B12_CH_23017_standing

Common Information

Test Description:	Radiated emission
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §27.53 / RSS-130
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE FDD12 Ch23017 UP 699.7MHz 1RB@0 BW1.4MHz QPSK
Operator:	KTe
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



Remark: Emission at 699.3 MHz is uplink frequency of LTE FDD 12 and not related to spurious emission results.

8.12b_Traffic_mode_LTE_FDD_B12_CH_23017_lying

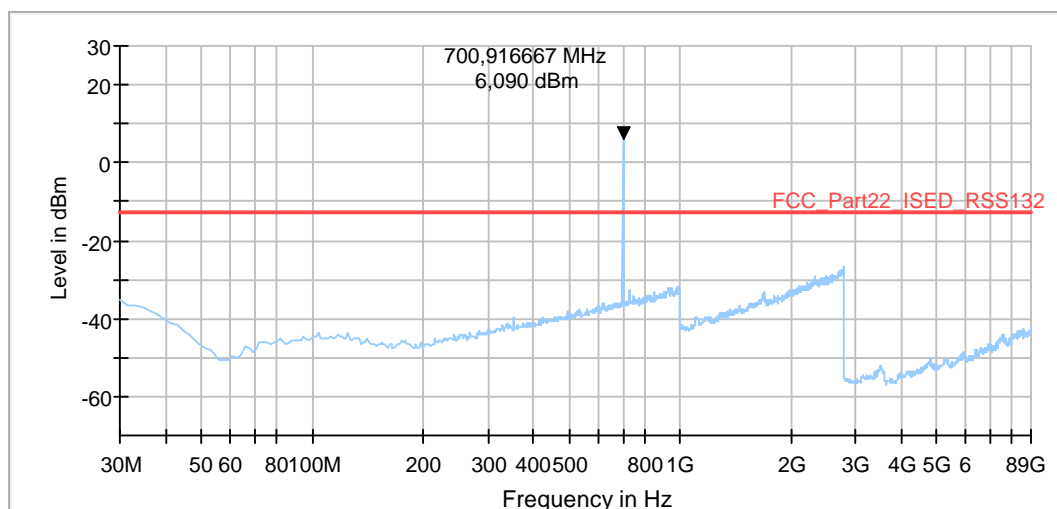
Common Information

Test Description:	Radiated emission related to 3m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §27.53 / RSS-130
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE FDD12 Ch23017 UP 699.7MHz 1RB@low BW1.4MHz QPSK
Operator:	TFra
Comment:	--
Environmental Conditions::	Humidity : 38% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



Remark: Emission at 700.92 MHz is uplink frequency of LTE FDD 12 and not related to spurious emission results.

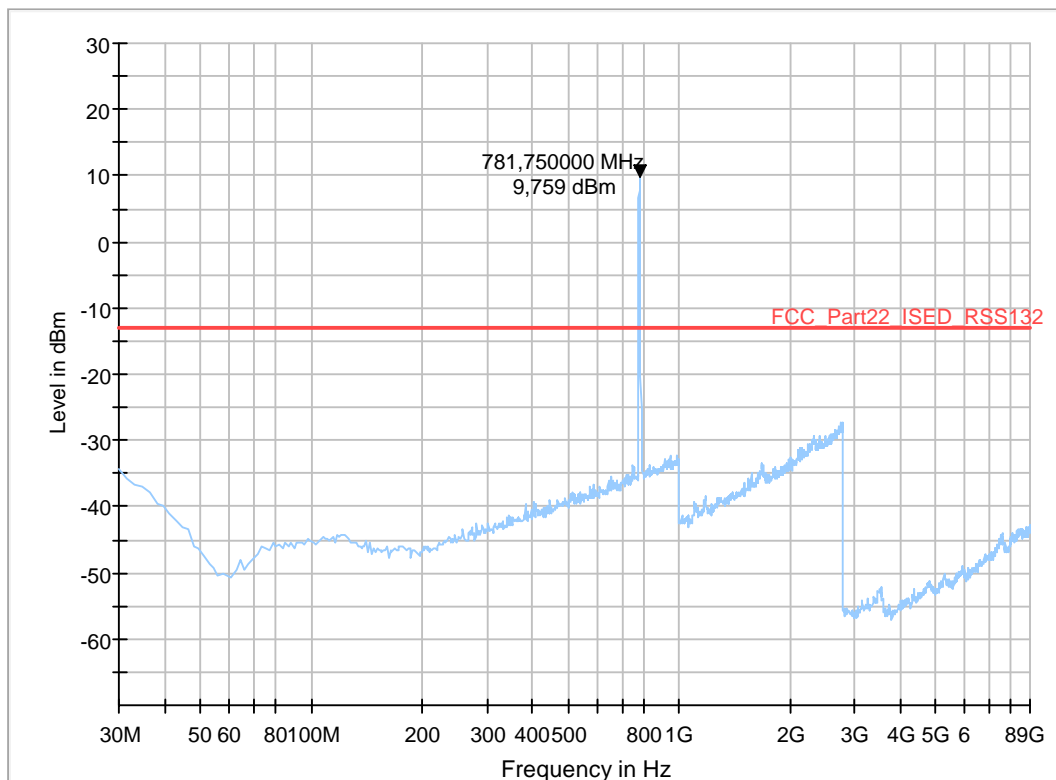
8.13a_Traffic_mode_LTE_FDD_B13_CH_23230_standing

Common Information

Test Description:	Radiated emission related to 3m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §27.53 / RSS-130
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE_FDD_B13_CH_23230_standing
Operator:	SOz
Comment:	--
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
	Full Spectrum



Remark: Emission at 781.75 MHz is uplink frequency of LTE FDD 13 and not related to spurious emission results.

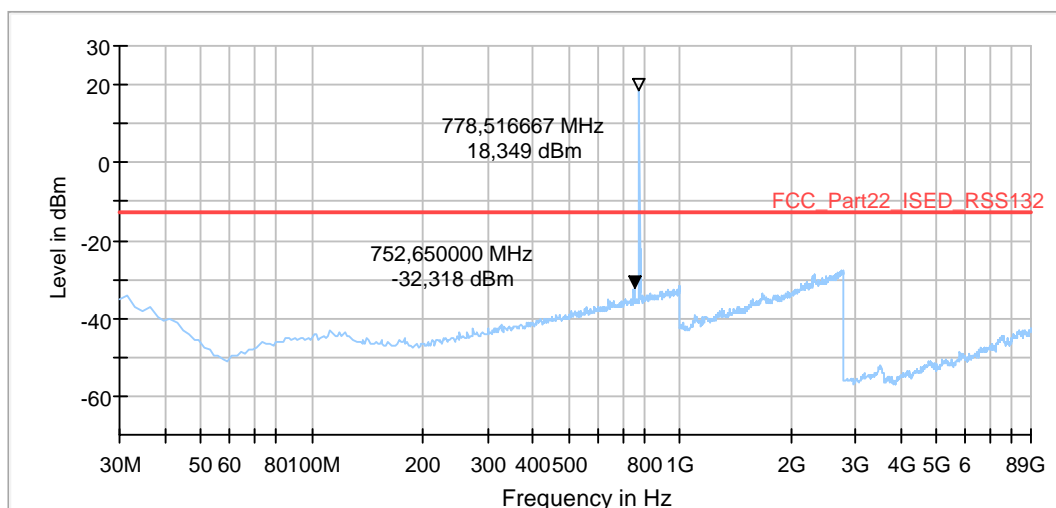
8.13b_Traffic_mode_LTE_FDD_B13_CH_23230_lying

Common Information

Test Description:	Radiated emission related to 1m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §27.53 / RSS-130
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE FDD13 Ch23230 UP 751MHz 1RB@high BW1.4MHz QPSK
Operator:	TFra
Comment:	--
Environmental Conditions::	Humidity : 38% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
	Full Spectrum



Remark: Emission at 778.52 MHz is uplink frequency of LTE FDD 13 and not related to spurious emission results.

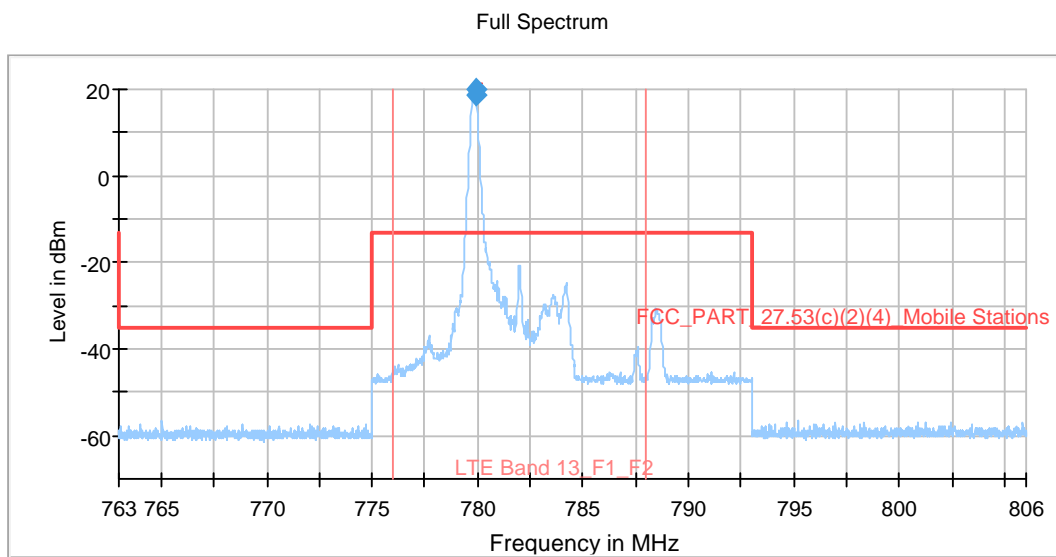
8.13c_Traffic_mode_LTE_FDD_B13_CH_23230_standing

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 (c)(4)/ 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 : 44% rH; Temperature: 20 °C
Operator:	Lor
EUT Setup:	external antenna / standing
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
Power Supply:	12 V DC



Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
779.896000	19.93	-13.00	-32.93	100.0	100.000	H	180.0	-77	2
779.932000	18.65	-13.00	-31.65	100.0	100.000	H	180.0	-77	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
779.896000	-79	97
779.932000	-79	96

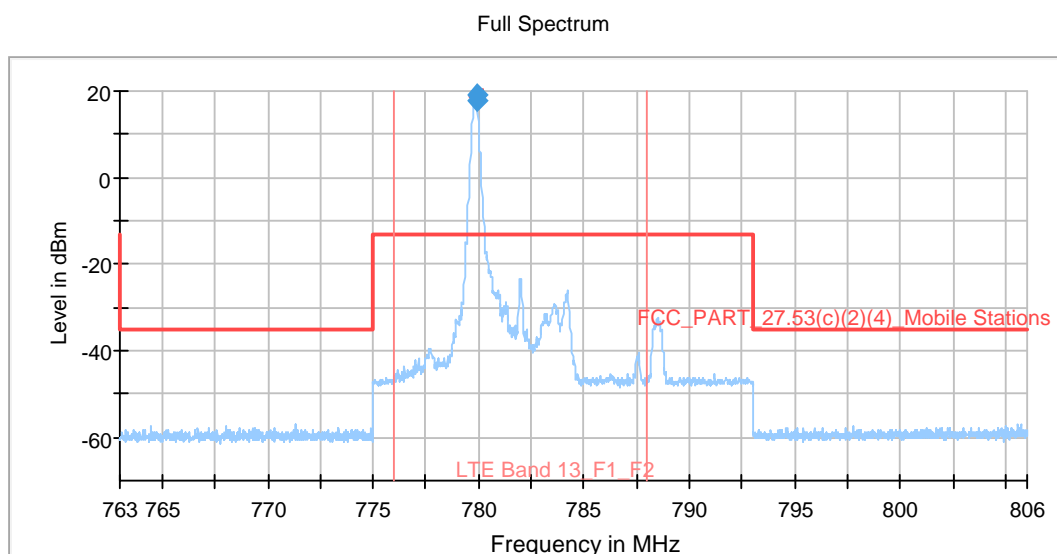
8.13d_Traffic_mode_LTE_FDD_B13_laying

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 (c)(4)/ RSS-130
 Comm. Link: LTE Band 13
 Operating Mode: MS allocated channel 23230 (UL = 782MHz)
 Exclusionband: Uplink: 776-787MHz Downlink: -31MHz Offset
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: Lor
 EUT Setup: external antenna / laying
 Verdict: Passed

EUT Information

PMT Sample Nr: 20-1-00182S40_C01
 Power Supply: 12 V DC



Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
779.896000	18.90	-13.00	-31.90	100.0	100.000	V	120.0	-77	2
779.932000	17.62	-13.00	-30.62	100.0	100.000	V	120.0	-77	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
779.896000	-79	96
779.932000	-79	95

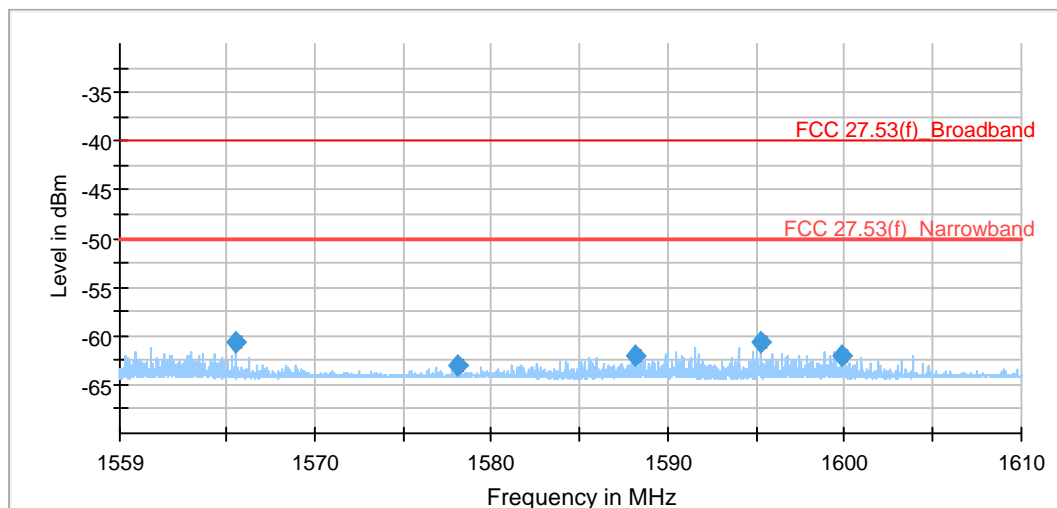
8.13e_Traffic_mode_LTE_FDD_B13_CH_23230_GPS_Band_laying

Common Information

Test Description:	Radiated Spurious Emissions LTE Band 13 - GPS area
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53(f) / RSS-130
Comm. Link:	LTE Band 13
Operating Mode:	LTE FDD13 Ch23230 UP 782.0MHz 1RBlow BW5MHz QPSK
Exclusionband:	Uplink: 776-787MHz Downlink: -31MHz Offset
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Operator:	Lor
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)	Corr. (dB)	Sig Path (dB)
1565.528000	-60.71	-50.00	10.71	3000.0	1000.000	H	46.0	-96	-25
1578.137750	-62.99	-50.00	12.99	3000.0	1000.000	H	341.0	-96	-25
1588.121000	-61.96	-50.00	11.96	3000.0	1000.000	H	46.0	-96	-25
1595.248250	-60.60	-50.00	10.60	3000.0	1000.000	H	46.0	-96	-25
1599.812750	-62.12	-50.00	12.12	3000.0	1000.000	H	329.0	-96	-25

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
1565.528000	-71	35
1578.137750	-71	33
1588.121000	-71	34
1595.248250	-71	36
1599.812750	-71	34

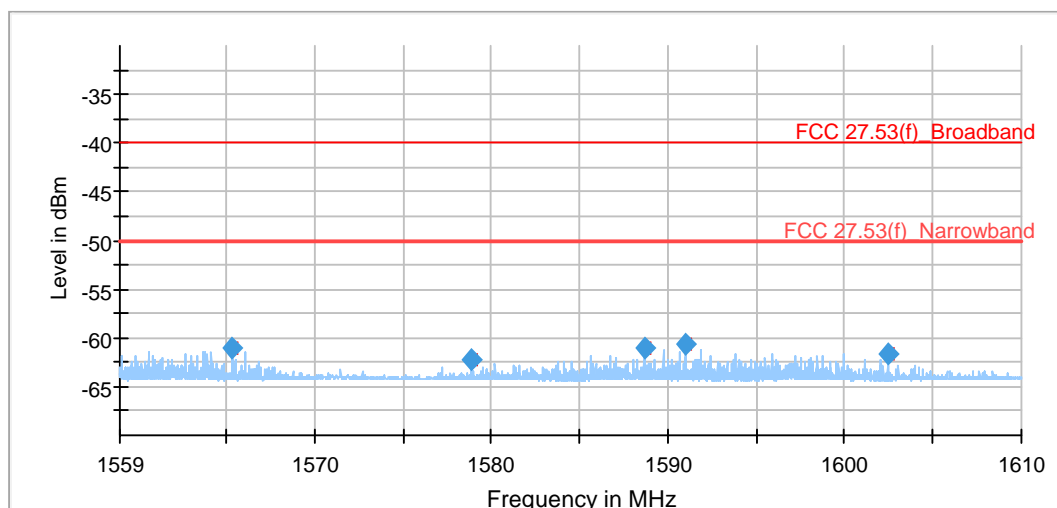
8.13f_Traffic_mode_LTE_FDD_B13_CH_23230_GPS_Band_standing

Common Information

Test Description:	Radiated Spurious Emissions LTE Band 13 - GPS-area
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27.53(f) / RSS-130
Comm. Link:	LTE Band 13
Operating Mode:	LTE FDD13 Ch23230 UP 782.0MHz 1RBlow BW5MHz QPSK
Exclusionband:	Uplink: 776-787MHz Downlink: -31MHz Offset
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Operator:	Lor
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)	Corr. (dB)	Sig Path (dB)
1565.387750	-61.02	-50.00	11.02	3000.0	1000.000	H	158.0	-96	-25
1578.839000	-62.32	-50.00	12.32	3000.0	1000.000	H	82.0	-96	-25
1588.656500	-61.02	-50.00	11.02	3000.0	1000.000	H	147.0	-96	-25
1591.002500	-60.55	-50.00	10.55	3000.0	1000.000	H	38.0	-96	-25
1602.464750	-61.72	-50.00	11.72	3000.0	1000.000	H	27.0	-96	-25

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
1565.387750	-71	35
1578.839000	-71	34
1588.656500	-71	35
1591.002500	-71	36
1602.464750	-71	34

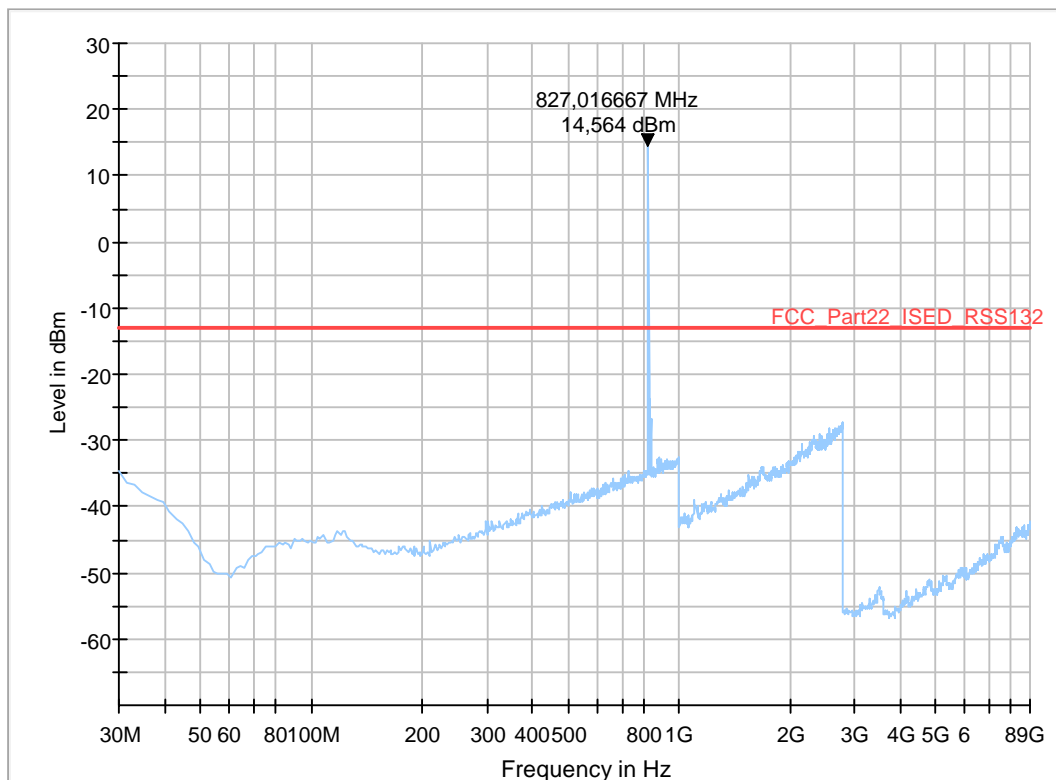
8.26a_Traffic_mode_LTE_FDD_B26_CH_26865_standing

Common Information

Test Description:	Radiated emission related to 1m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC §22.917 / RSS-132
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE_FDD_B26_CH_26865_standing
Operator:	SOz
Comment:	--
Environmental Conditions::	Humidity : 45% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
	Full Spectrum



Remark: Emission at 827.02 MHz is uplink frequency of LTE FDD 26 and not related to spurious emission results.

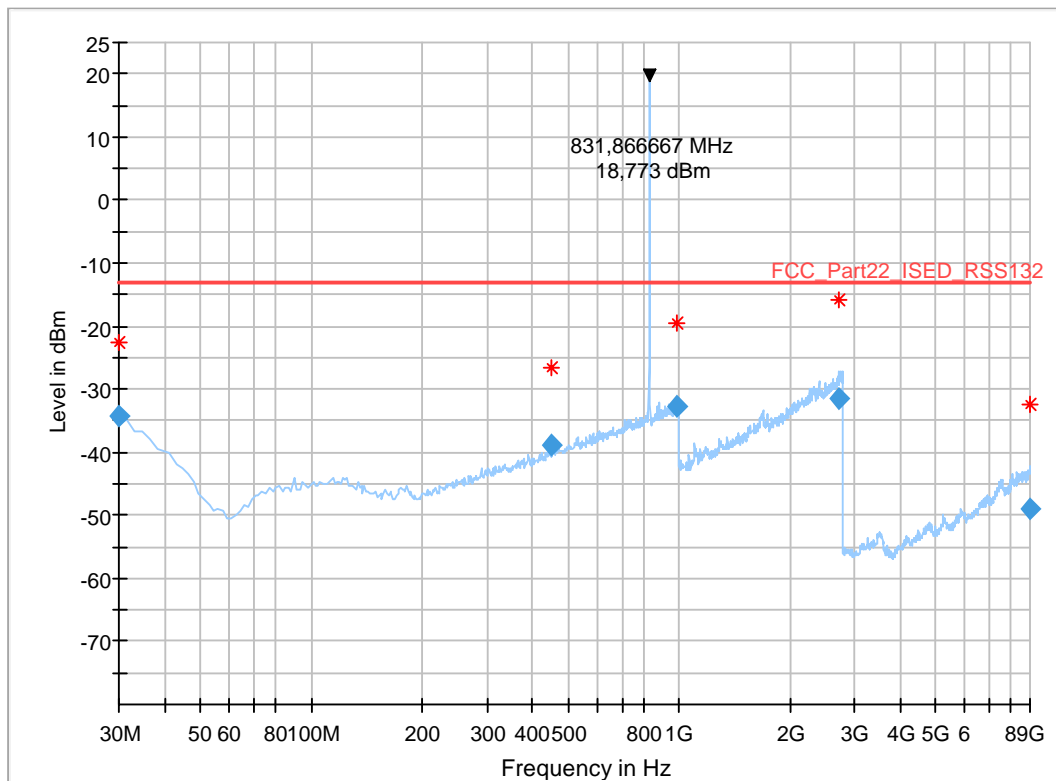
8.26b_Traffic_mode_LTE_FDD_B26_CH_26865_laying

Common Information

Test Description: Radiated emission related to 3m
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §22.917 / RSS-132
 Antenna polarisation: vertical / horizontal
 Operating Mode: LTE_FDD_B26_CH_26865_laying
 Operator: Lor
 Comment: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787S50_C01
 Full Spectrum



Remark: Emission at 831.87 MHz is uplink frequency of LTE FDD 26 and not related to spurious emission results.

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
30.136750	-34.28	-13.00	21.28	100.0	100.000	155.0	H	254.0	0.0	-77
450.875000	-38.94	-13.00	25.94	100.0	100.000	155.0	H	-4.0	0.0	-82
991.133333	-32.85	-13.00	19.85	100.0	100.000	155.0	H	9.0	0.0	-75
2716.725000	-31.42	-13.00	18.42	100.0	100.000	155.0	V	338.0	0.0	-56
8973.125000	-49.09	-13.00	36.09	100.0	100.000	155.0	H	103.0	0.0	-75

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

Frequency (MHz)	Comment
30.136750	08:26:53 - 03.01.2023
450.875000	08:20:59 - 03.01.2023
991.133333	08:22:48 - 03.01.2023
2716.725000	08:28:58 - 03.01.2023
8973.125000	08:24:58 - 03.01.2023

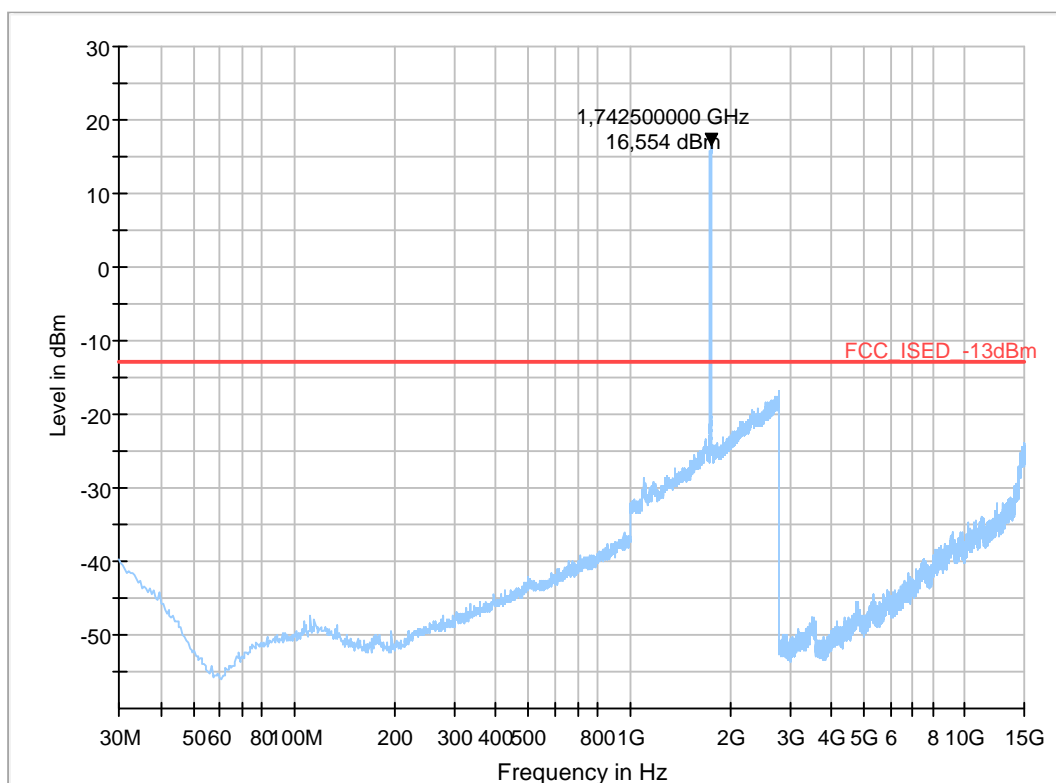
8.66a_Traffic_mode_LTE_FDD_B66_CH_132322_standin g

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_FDD_B66_CH_132322_standing
Operator:	SOz
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787S50_C01
	Full Spectrum



Remark: Emission at 1.74 GHz is uplink frequency of LTE FDD 66 and not related to spurious emission results.

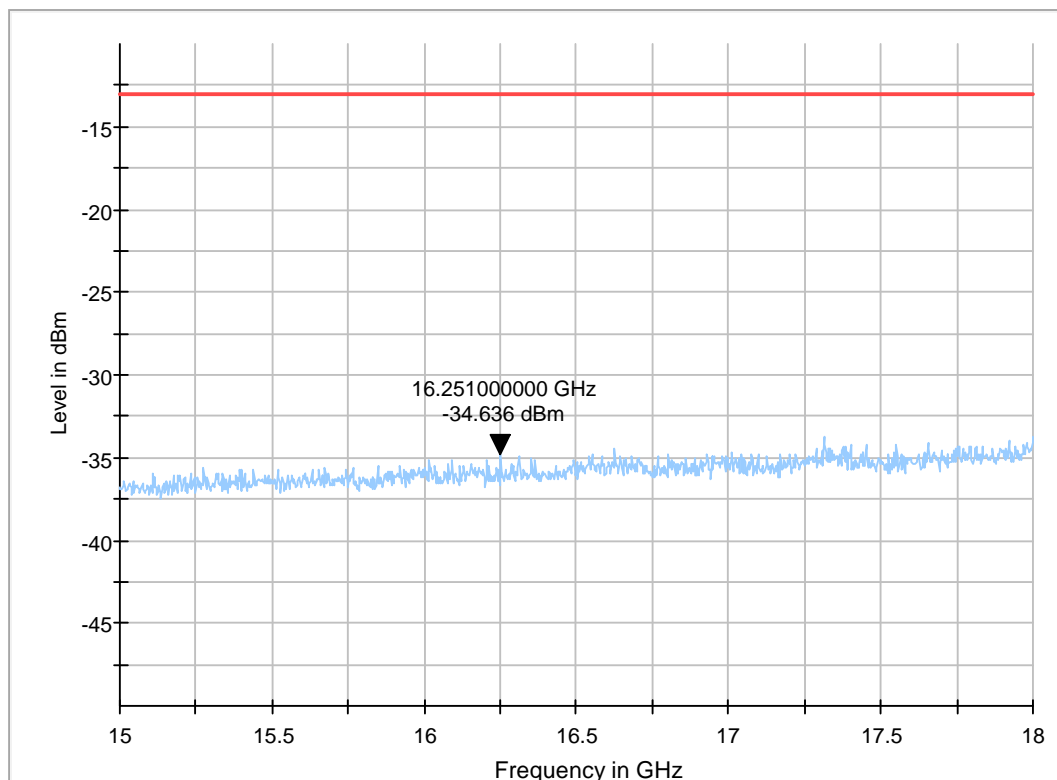
8.66b_Traffic_mode_LTE_FDD_B66_CH_132322_standin g

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 / RSS-139
Comm. Link:	LTE Band 66
Operating Mode:	MS allocated channel 132322 / BW:10MHz / 1RB low / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.6 °C
Operator:	Lor
Verdict:	Passed

EUT Information

PMT Sample Nr.	21-1-01787550_C01
	Full Spectrum



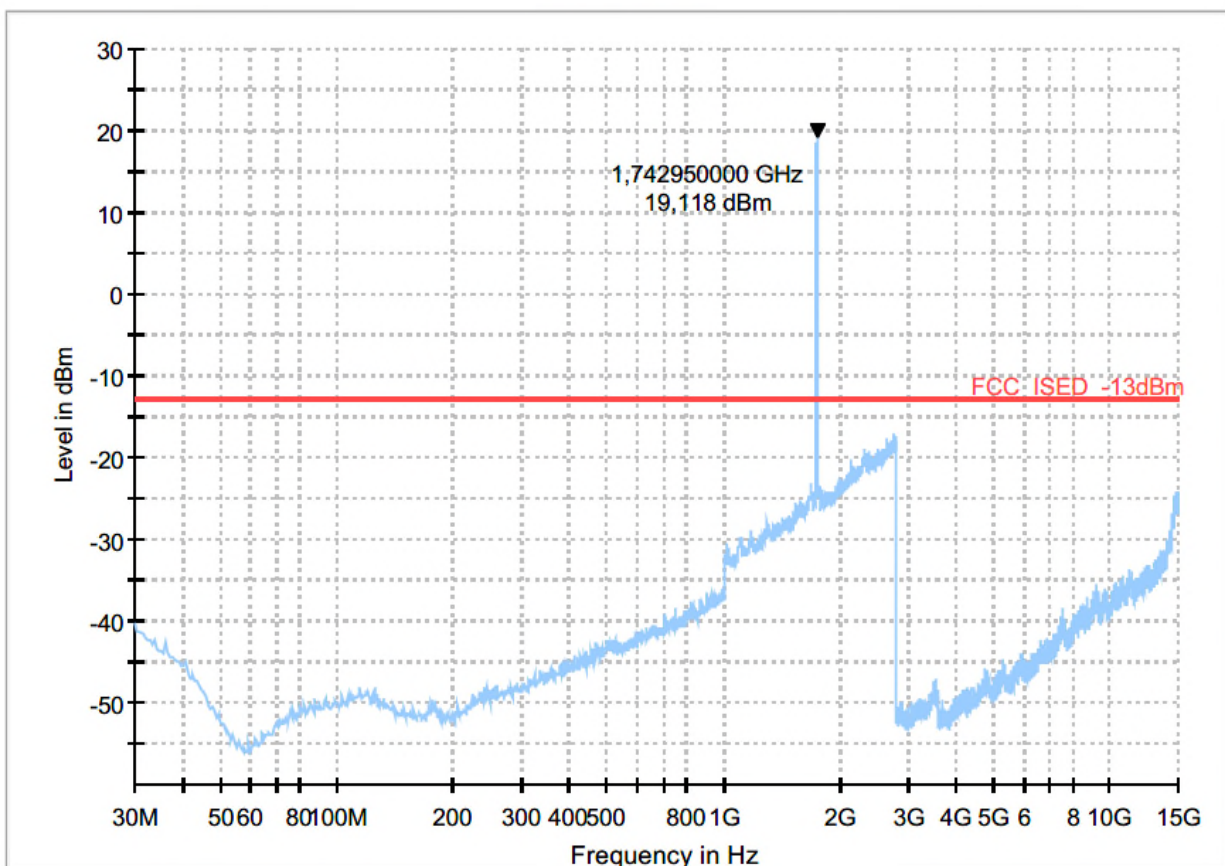
8.66c_Traffic_mode_LTE_FDD_B66_CH_132322_lying

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_FDD_B66_CH_132322_lying
Operator:	SOz
Comment:	--
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
	Full Spectrum



Remark: Emission at 1.74 GHz is uplink frequency of LTE FDD 66 and not related to spurious emission results.

8.66d_Traffic_mode_LTE_FDD_B66_CH_132322_lying

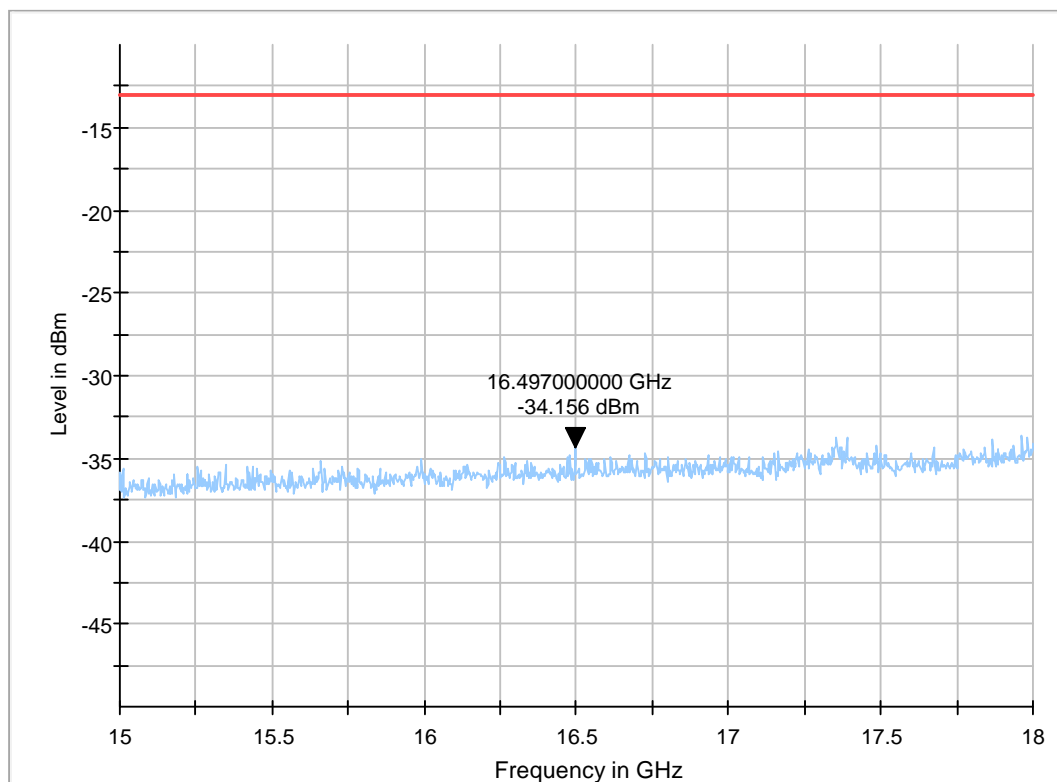
Common Information

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 / RSS-139
Comm. Link:	LTE Band 66
Operating Mode:	MS allocated channel 132322 / BW:10MHz / 1RB low / QPSK
Environmental Conditions:	Humidity: 40% rH; Temperature: 20.6 °C
Operator:	Lor
Verdict:	Passed

EUT Information

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



8.38a_Traffic_mode_LTE_TDD_B38_CH_38000_External_Antenna_EUT0°

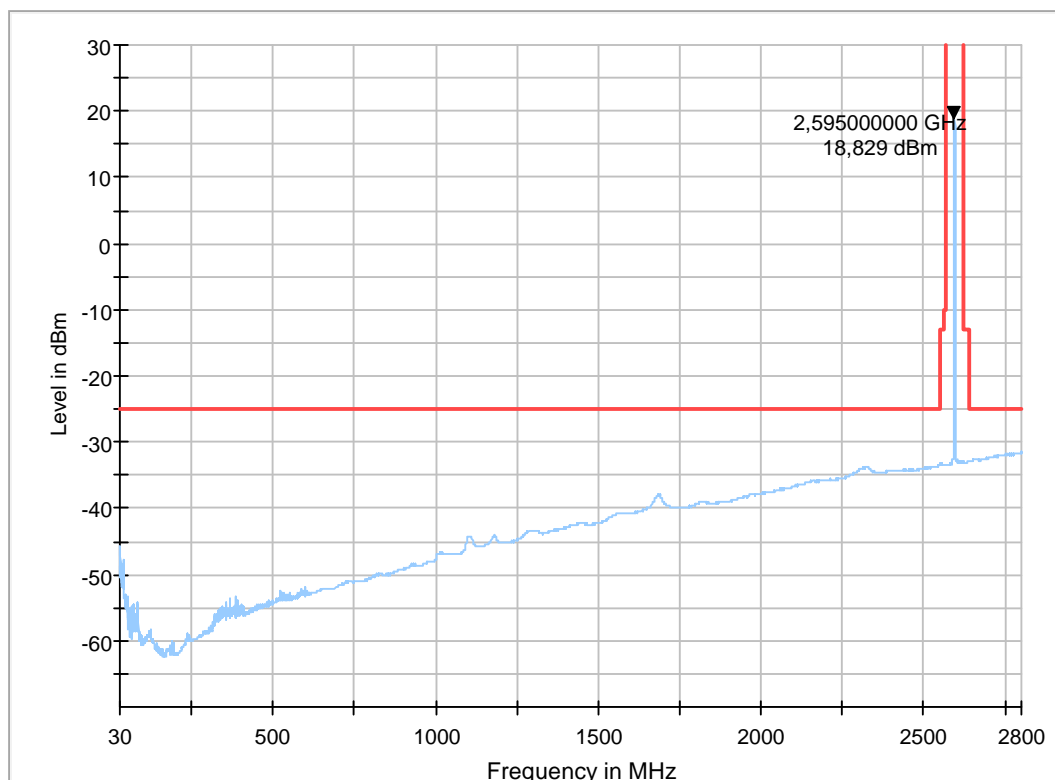
Common Information

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 / RSS-199
Operating Mode:	UE allocated channel 38000/ BW: 20MHz/ RB: 1/ Position: 50
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Test SW Version:	EMC32 V10.60.20
Operator:	AHo/DMa/LAb
Remarks:	EUT - laying
EUT Setup:	1
Verdict:	Passed

EUT Information

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

Full Spectrum



8.38b_Traffic_mode_LTE_TDD_B38_CH_38000_ External_Antenna_EUT90°

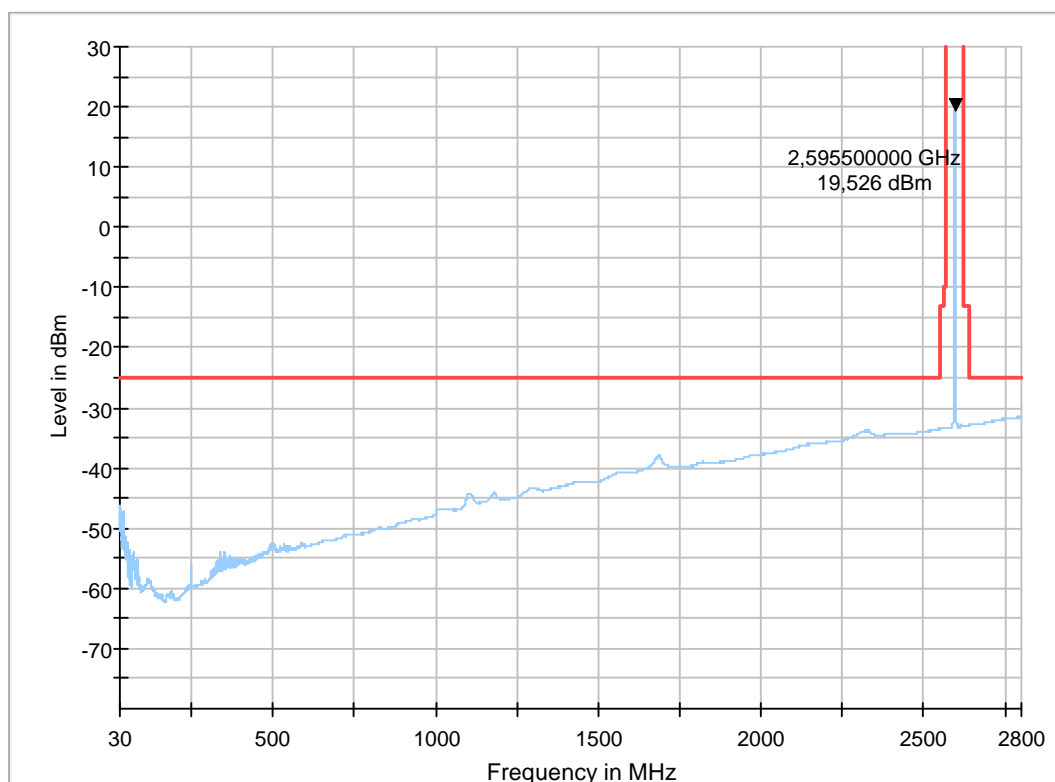
Common Information

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 / RSS-199
Operating Mode:	UE allocated channel 38000/ BW: 20MHz/ RB: 1/ Position: 50
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Test SW Version:	EMC32 V10.60.20
Operator:	AHo/DMa/LAb
Remarks:	EUT - Standing
EUT Setup:	1
Verdict:	Passed

EUT Information

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

Full Spectrum



8.38c_Traffic_mode_LTE_TDD_B38_CH_38000_ External_Antenna

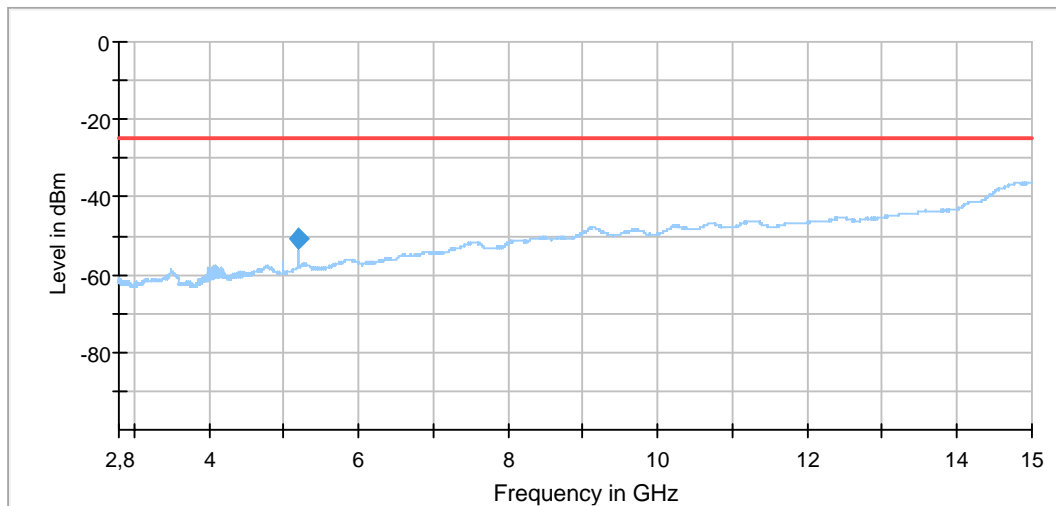
Common Information

Test Description:	Radiated Spurious Emissions
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC Part 27 / RSS-199
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)
5190.160000	-50.95	-25.00	25.95	1000.0	1000.000	H	261.0	90.0	-84

8.38d_Traffic_mode_LTE_TDD_B38_CH_38000_External_Antenna

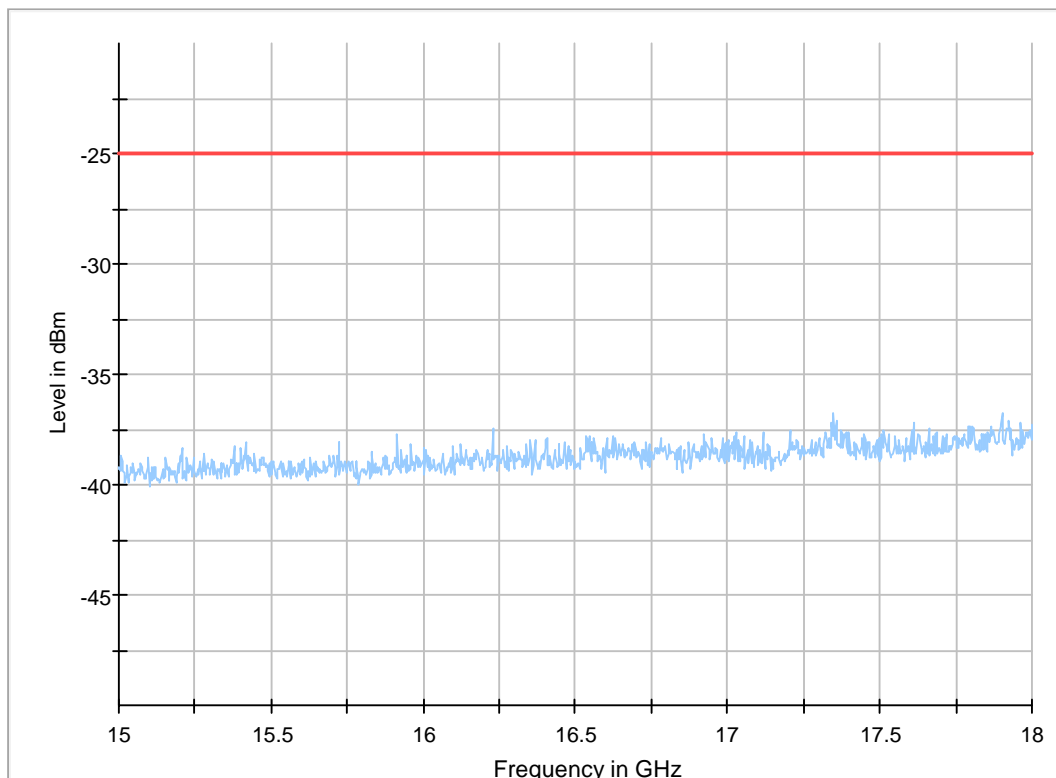
Common Information

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



8.38e_Traffic_mode_LTE_TDD_B38_CH_38000_External_Antenna

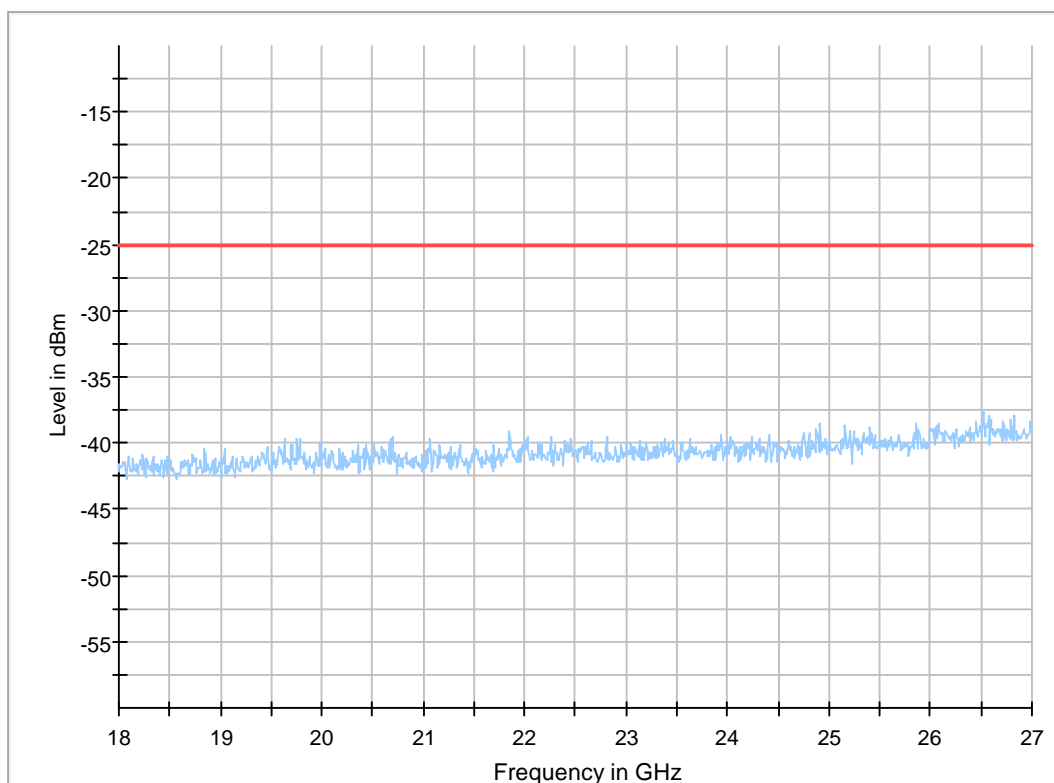
Common Information

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



3 Radiated Band Edge

3.1 Band-Edge LTE Band 2

9.07a_BE_Ch18607_QPSK_BW1.4_1RB_low_ExtAnt_EUT_laying

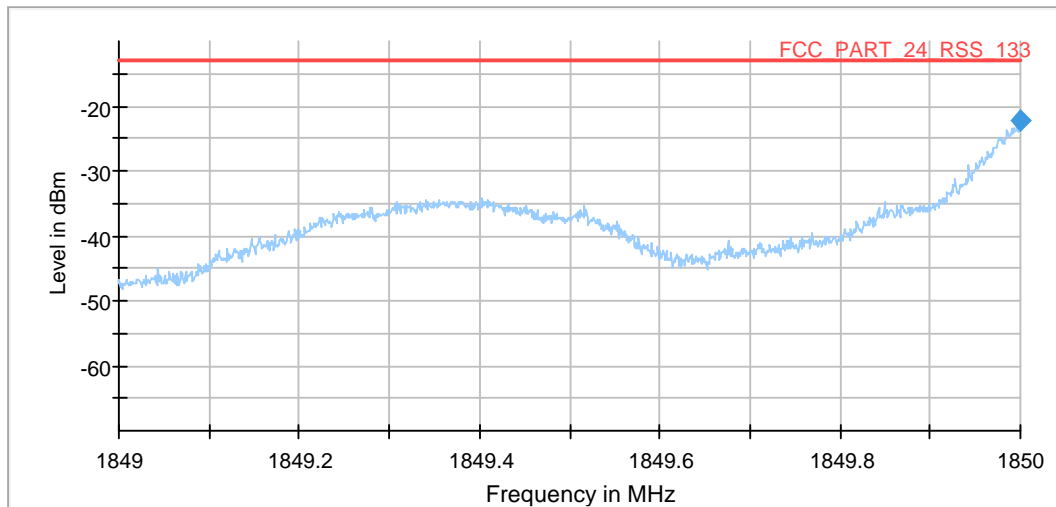
Common Information

Test Description:	Radiated emissions at band-edge - low
Test Site:	FAC2
Test Standard:	FCC §24.238 / RSS-133
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE OBW=1.4MHz / QPSK / 1RB low
Operator:	Lor
Environmental Conditions:	Tnom, Vnom
EUT Setup:	External Antenna = 1
Verdict:	Passed

EUT Information

PMT Sample Nr.	21-1-01787S51_C01
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Full Spectrum



Final_Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB)
1850.000000	-13.00	9.17	700.0	150.0	V	180.0	-63.0	5.4	47.3	-115.7

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)	Comment
1850.000000	40.8	3:57:20 PM - 11/22/2022

9.07b_BE_Ch18607_QPSK_BW1.4_1RB_low_ExtAnt_EUT_standing

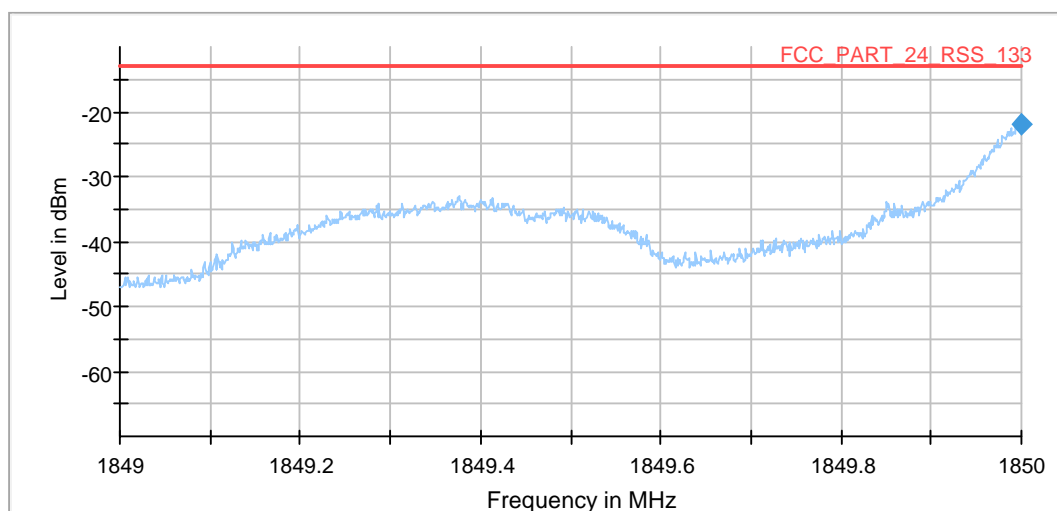
Common Information

Test Description:	Radiated emissions at band-edge - low
Test Site:	FAC2
Test Standard:	FCC §24.238 / RSS-133
Antenna polarisation:	vertical / horizontal
Operating Mode:	LTE OBW=1.4MHz / QPSK / 1RB low/ ch18607
Operator:	Lor
Environmental Conditions:	Tnom, Vnom
EUT Setup:	External Antenna = 1
Verdict:	Passed

EUT Information

PMT Sample Nr. 21-1-01787551_C01

Full Spectrum



Final_Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB)
1849.999000	-13.00	8.83	700.0	150.0	V	6.0	-63.0	5.4	47.3	-115.7

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)	Comment
1849.999000	41.2	4:19:32 PM - 11/22/2022

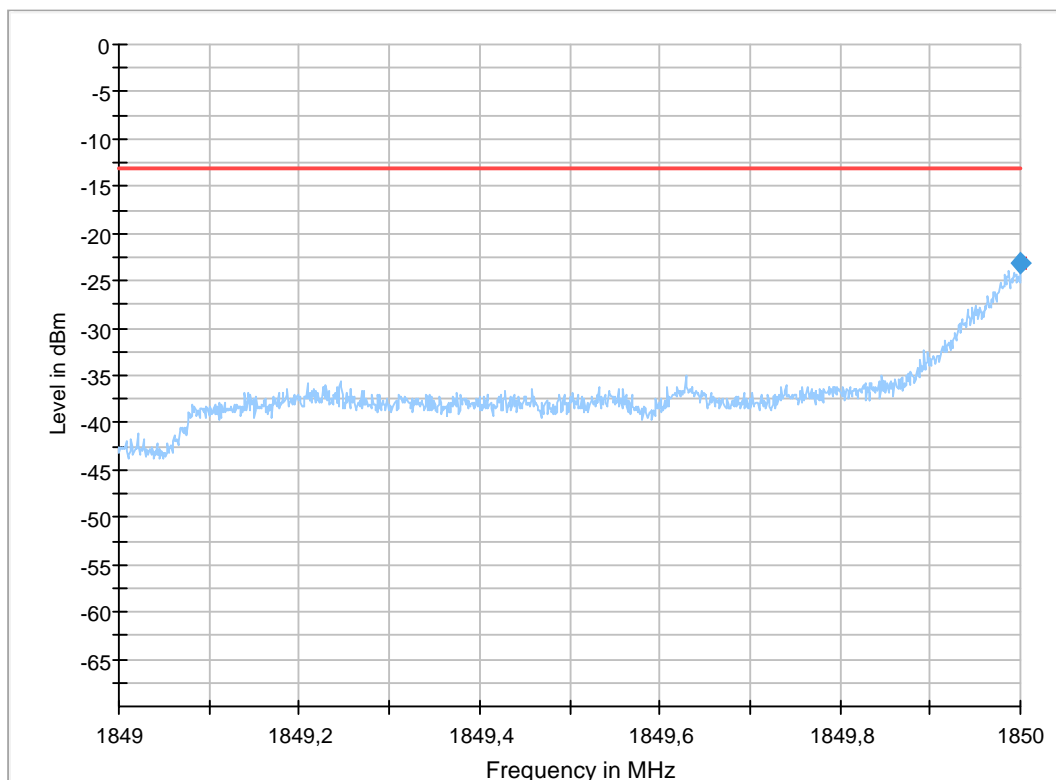
9.07c_BE_Ch18607_QPSK_BW1.4_FullRB_ ExtAnt_EUT_laying

Common Information

Test Description:	Radiated emissions at band-edge - low
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:	LTE Band-Edge
Operating Mode:	LTE FDD2 Ch18607 UP 1850.7MHz 6RB@0 BW1.4MHz QPSK
Environmental Conditions:	Humidity : 50% rH; Temperature: 20 °C
Operator:	TFra/KTe
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)
1850.000000	-23.17	-13.00	10.17	700.0	20.000	V	16.0	0.0	-62

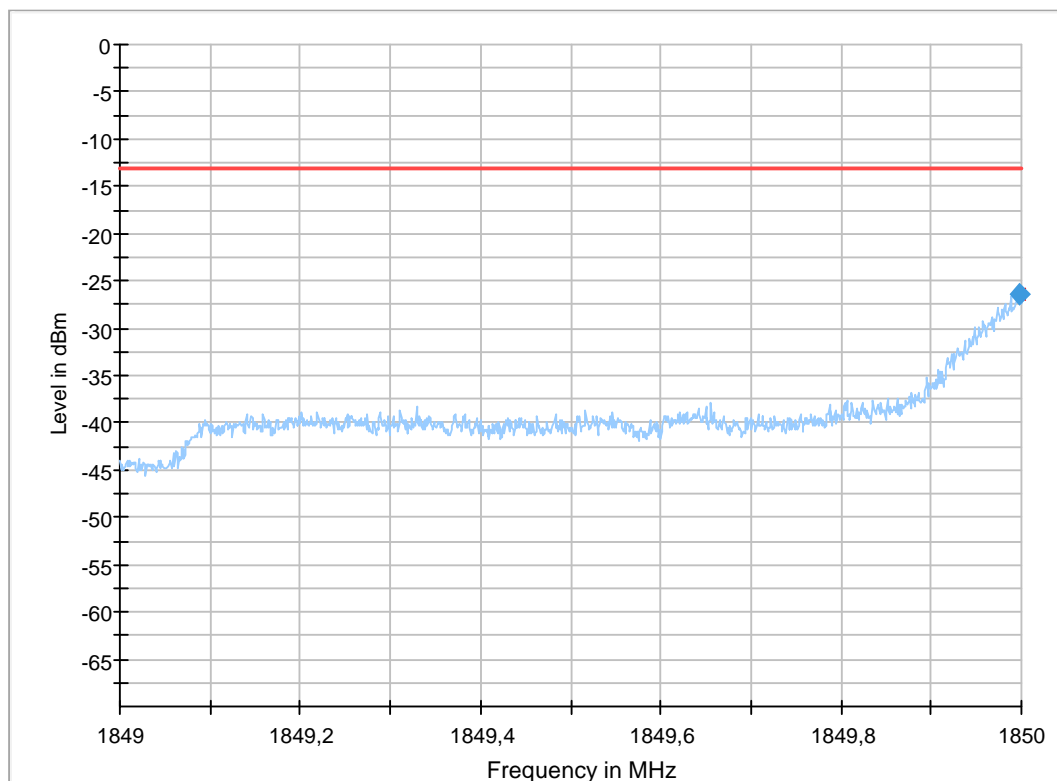
9.07d_BE_Ch18607_QPSK_BW1.4_ FullRB_ExtAnt_EUT_standing

Common Information

Test Description:	Radiated emissions at band-edge - low
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:	-
Operating Mode:	LTE FDD2 Ch18607 UP 1850.7MHz 6RB@0 BW1.4MHz QPSK
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Operator:	KTe
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)
1849.998000	-26.45	-13.00	13.45	700.0	20.000	V	187.0	0.0	-62

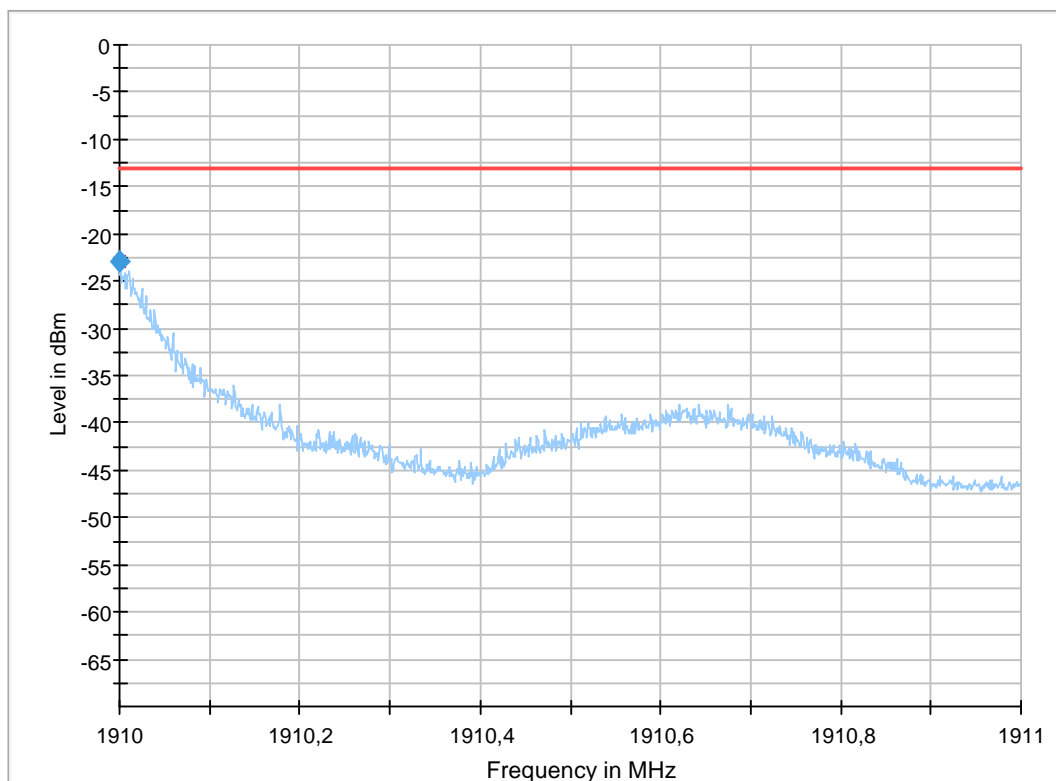
9.203a_Bandedge_high_LTE_FDD_B02_CH_high_RB_1_high_laying

Common Information

Test Description:	Radiated emissions at band-edge - high
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:	-
Operating Mode:	LTE FDD2 Ch19193 UP 1909.3MHz 1RB@5 BW1.4MHz QPSK
Environmental Conditions::	Humidity : 49% rH; Temperature: 19 °C
Operator:	KTe
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)
1910.001000	-22.95	-13.00	9.95	700.0	20.000	V	173.0	0.0	-61

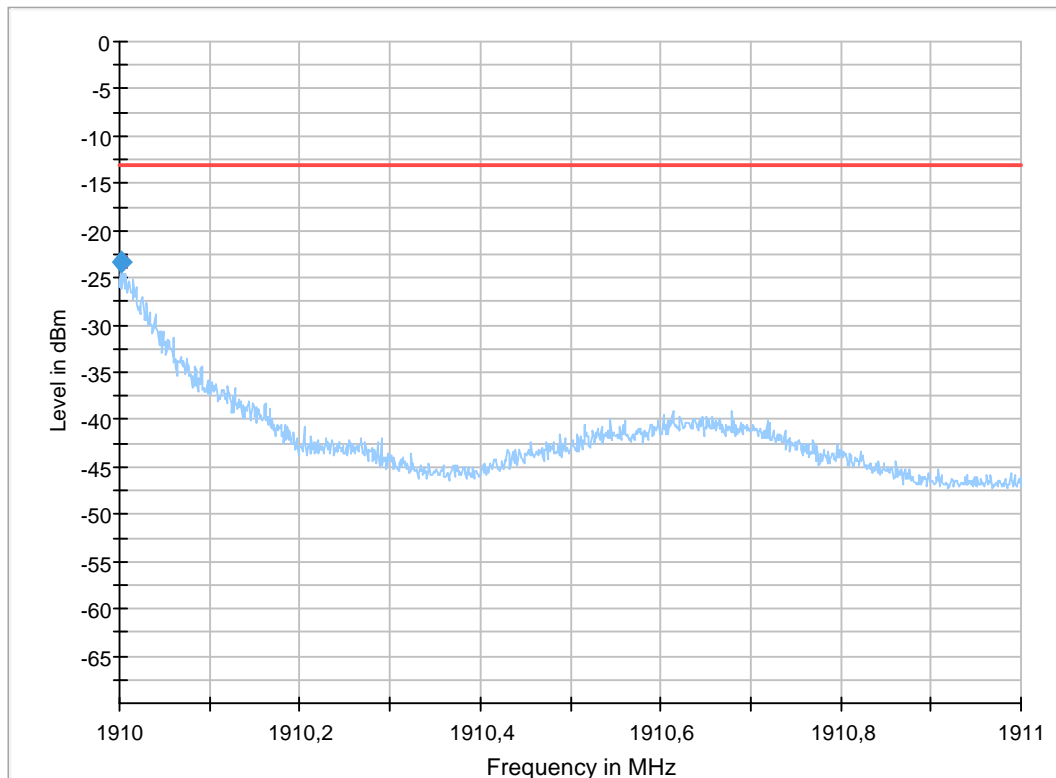
9.203b_Bandedge_high_LTE_FDD_B02_CH_high_RB_1_high_standing

Common Information

Test Description:	Radiated emissions at band-edge - high
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:	-
Operating Mode:	LTE FDD2 Ch19193 UP 1909.3MHz 1RB@5 BW1.4MHz QPSK
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Operator:	KTe
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)
1910.002000	-23.28	-13.00	10.28	700.0	20.000	H	144.0	0.0	-61

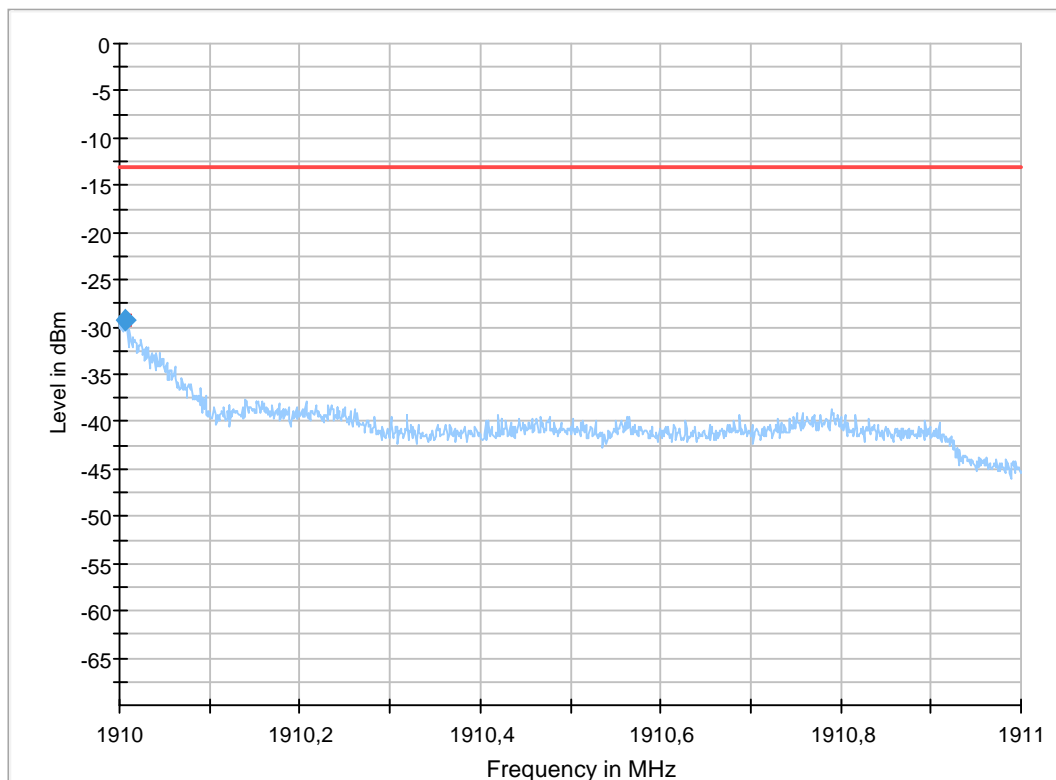
9.204a_Bandedge_high_LTE_FDD_B02_CH_high_RB_Full_laying

Common Information

Test Description:	Radiated emissions at band-edge - high
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:	-
Operating Mode:	LTE FDD2 Ch19193 UP 1909.3MHz 6RB@0 BW1.4MHz QPSK
Environmental Conditions::	Humidity : 50% rH; Temperature: 20 °C
Operator:	TFra/KTe
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)
1910.006000	-29.22	-13.00	16.22	700.0	20.000	V	178.0	0.0	-61

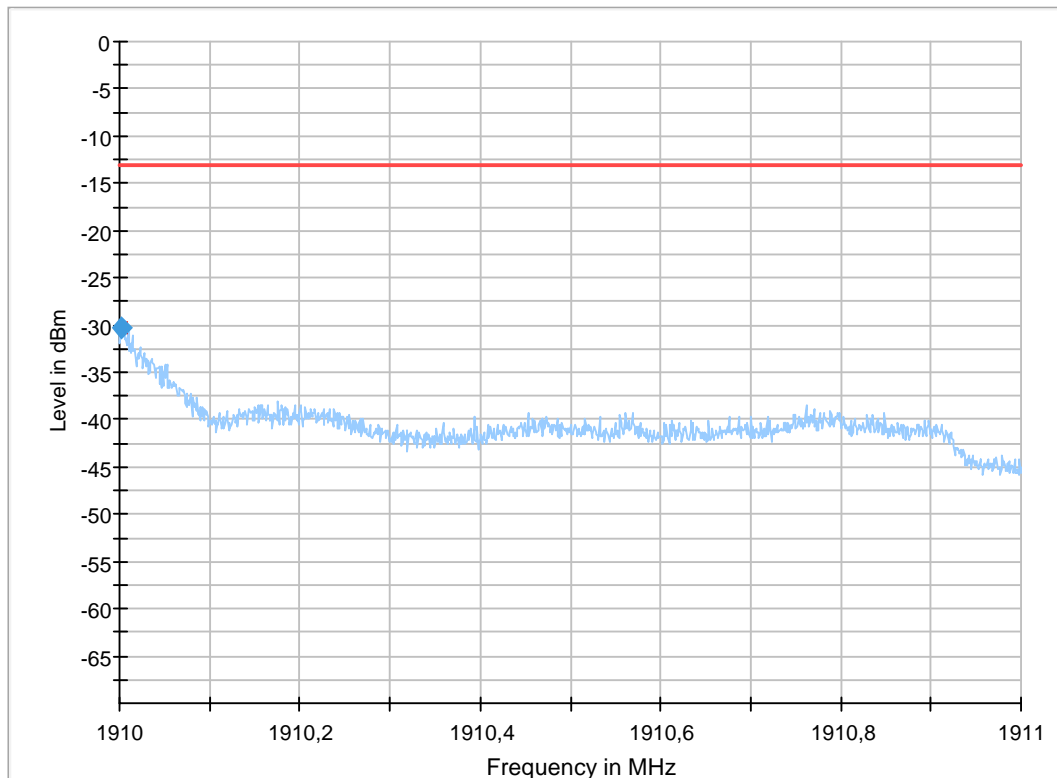
9.204b_Bandedge_high_LTE_FDD_B02_CH_high_RB_Full_standing

Common Information

Test Description: Radiated emissions at band-edge - high
 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: -
 Operating Mode: LTE FDD2 | Ch19193 | UP 1909.3MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Operator: KTe
 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)
1910.002000	-30.25	-13.00	17.25	700.0	20.000	H	148.0	0.0	-61

3.2 Band-Edge LTE Band 4

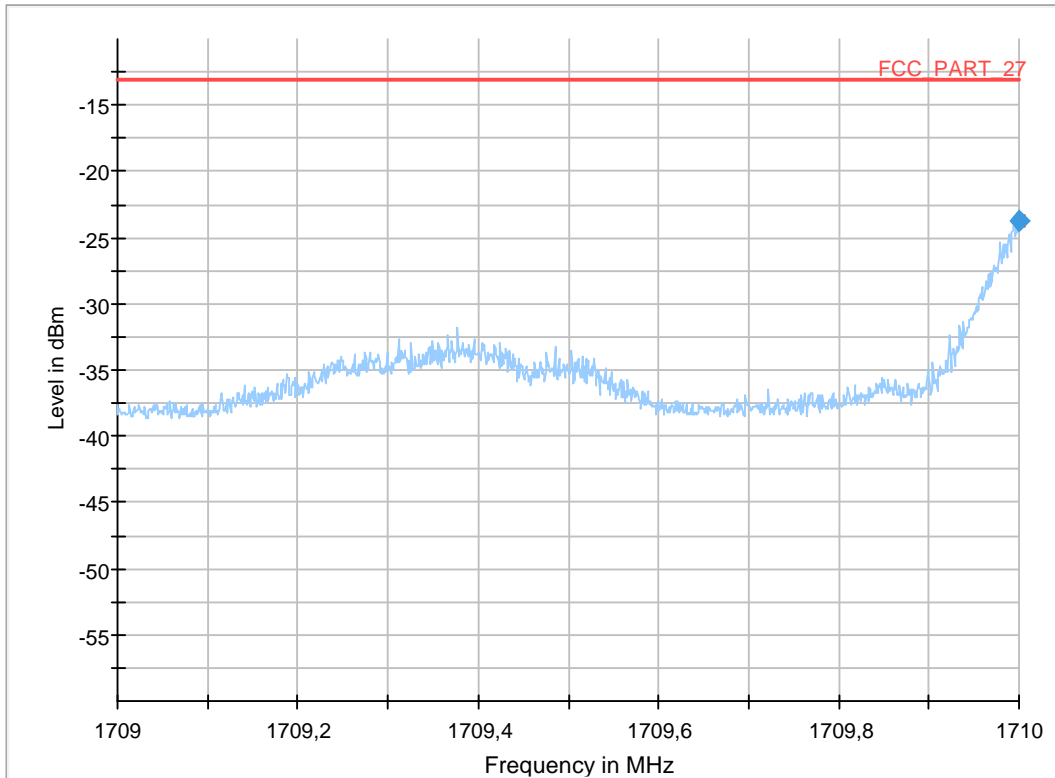
9.401a_Bandedge_low_LTE_FDD_B04_CH_low_RB_1_low_standing

Common Information

Test Description:	Radiated emissions at band-edge - low
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:	-
Operating Mode:	LTE FDD4 Ch19957 UP 1710.7MHz 1RB@0 BW1.4MHz QPSK
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Operator:	KTe
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)
1709.999000	-23.80	-13.00	10.80	700.0	20.000	H	69.0	0.0	-62

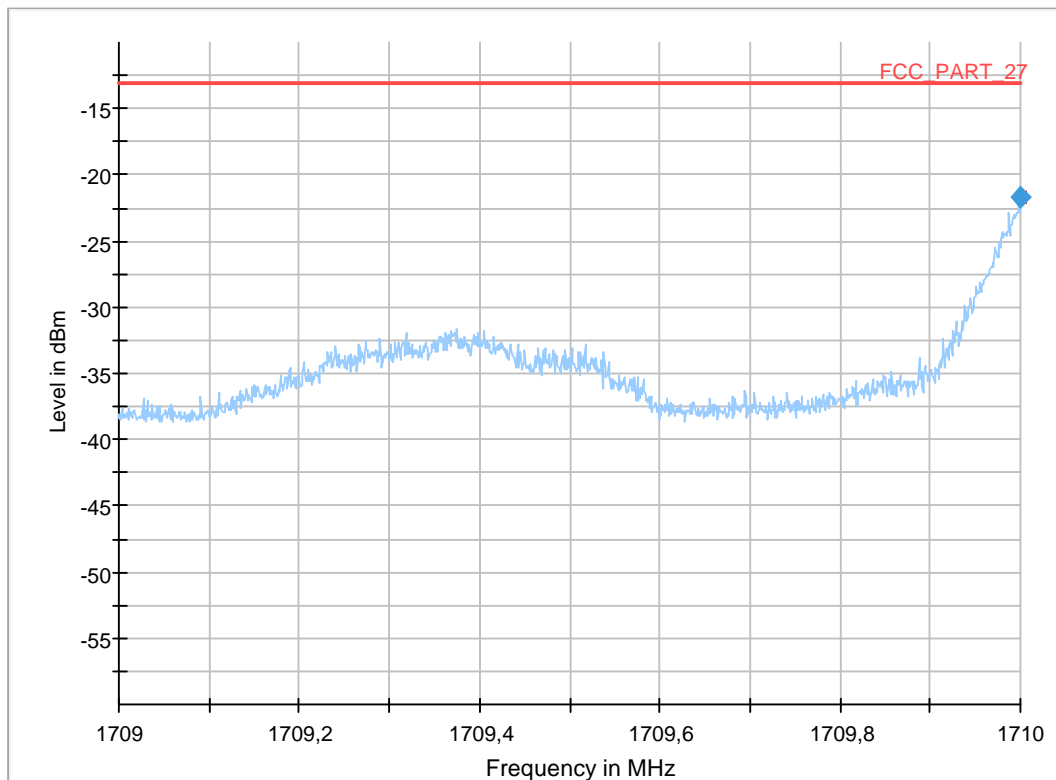
9.401b_Bandedge_low_LTE_FDD_B04_CH_low_RB_1_low_laying

Common Information

Test Description: Radiated emissions at band-edge - low
 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: -
 Operating Mode: LTE FDD4 | Ch19957 | UP 1710.7MHz | 1RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Operator: KTe
 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	-21.70	-13.00	8.70	700.0	20.000	V	335.0	0.0	-62

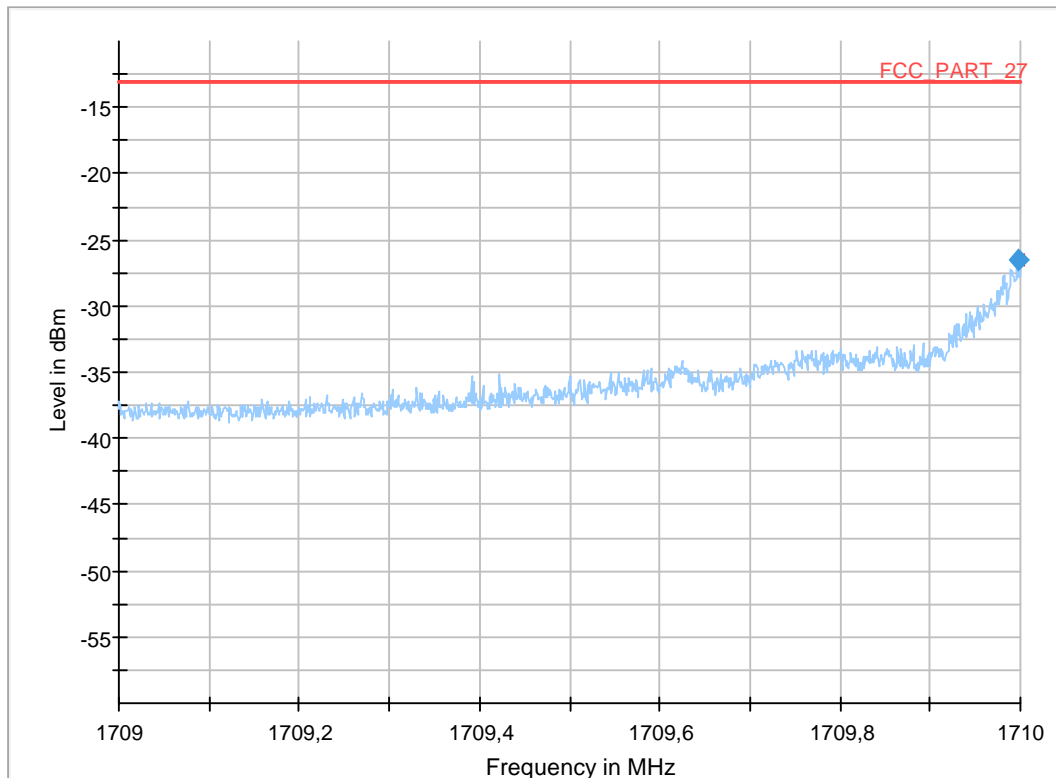
9.402a_Bandedge_low_LTE_FDD_B04_CH_low_RB_Full_standing

Common Information

Test Description:	Radiated emissions at band-edge - low
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
FCC §27.53 / RSS-139	FCC §27.53 / RSS-139
Test Case:	-
Operating Mode:	LTE FDD4 Ch19957 UP 1710.7MHz 6RB@0 BW1.4MHz QPSK
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Operator:	KTe
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)
1709.998000	-26.49	-13.00	13.49	700.0	20.000	H	136.0	0.0	-62

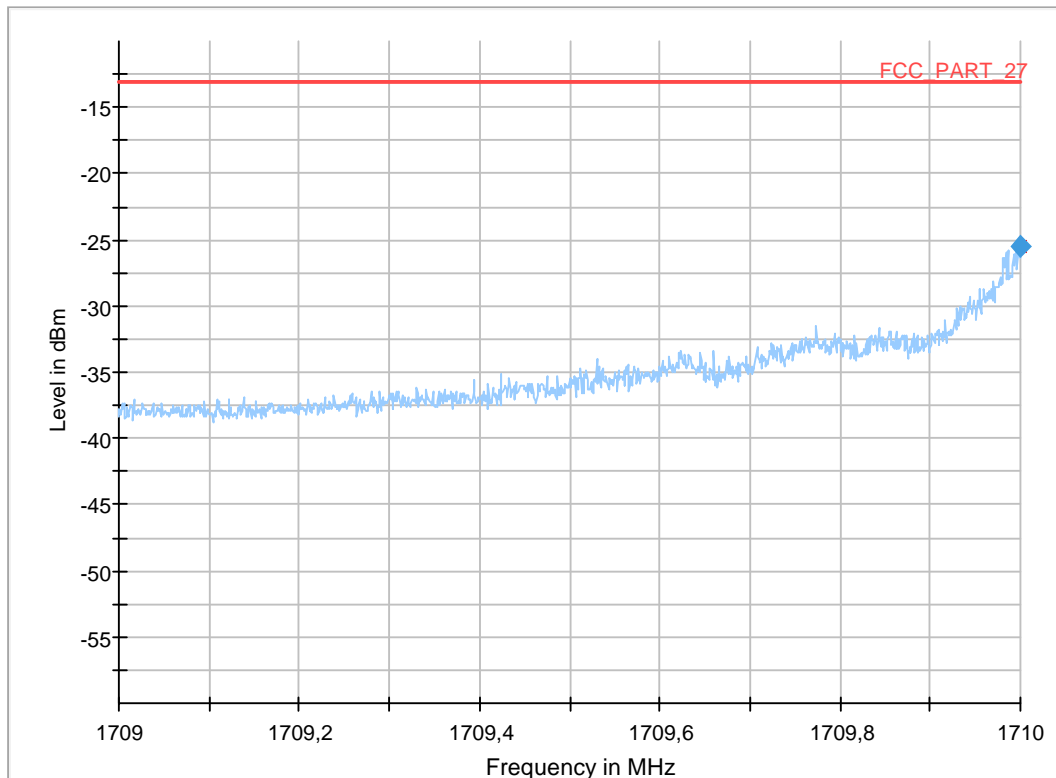
9.402b_Bandedge_low_LTE_FDD_B04_CH_low_RB_Full_laying

Common Information

Test Description: Radiated emissions at band-edge - low
 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: -
 Operating Mode: LTE FDD4 | Ch19957 | UP 1710.7MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Operator: KTe
 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)
1710.000000	-25.54	-13.00	12.54	700.0	20.000	V	0.0	0.0	-62

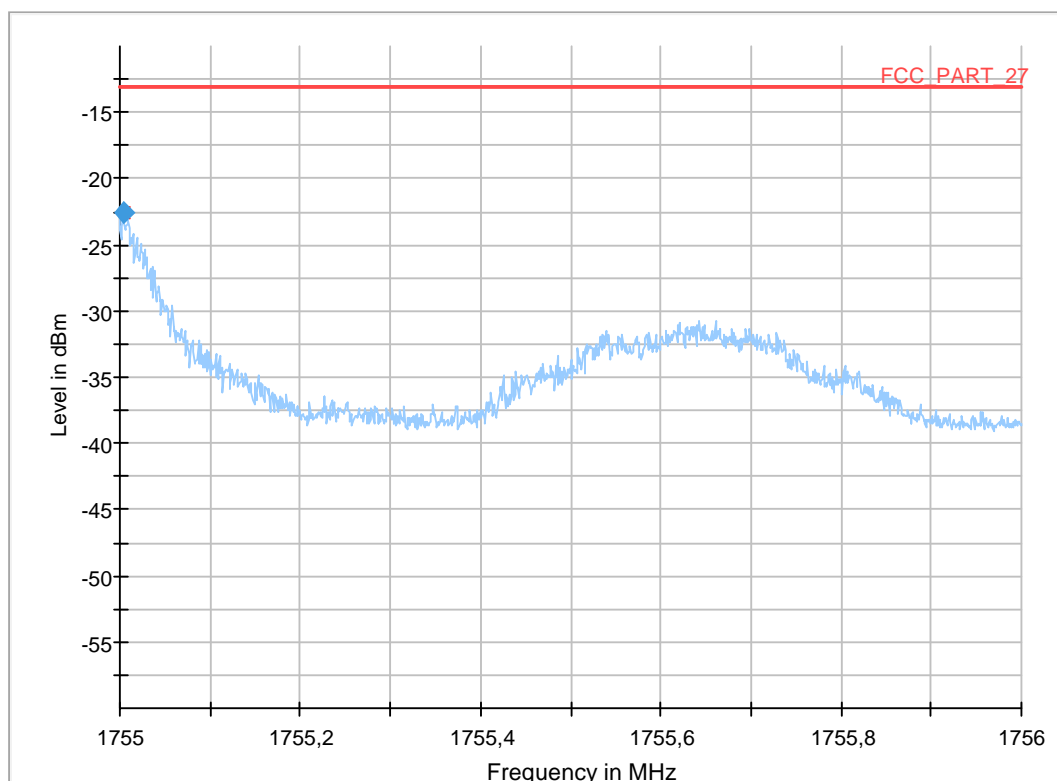
9.403a_Bandedge_high_LTE_FDD_B04_CH_high_RB_1_high_standing

Common Information

Test Description: Radiated emissions at band-edge - high
 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: -
 Operating Mode: LTE FDD4 | Ch20393 | UP 1754.3MHz | 1RB@5 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Operator: KTe
 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)
1755.004000	-22.58	-13.00	9.58	700.0	20.000	H	132.0	0.0	-62

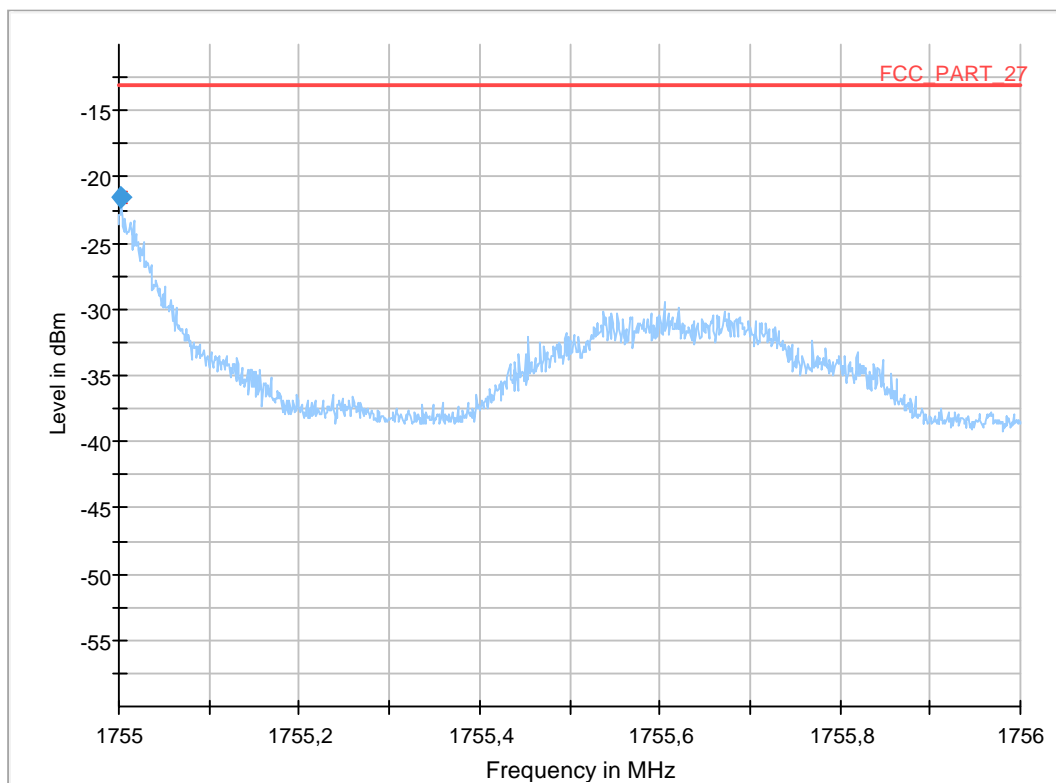
9.403b_Bandedge_high_LTE_FDD_B04_CH_high_RB_1_high_laying

Common Information

Test Description: Radiated emissions at band-edge - high
 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: -
 Operating Mode: LTE FDD4 | Ch20393 | UP 1754.3MHz | 1RB@5 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Operator: KTe
 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)
1755.003000	-21.53	-13.00	8.53	700.0	20.000	V	337.0	0.0	-62

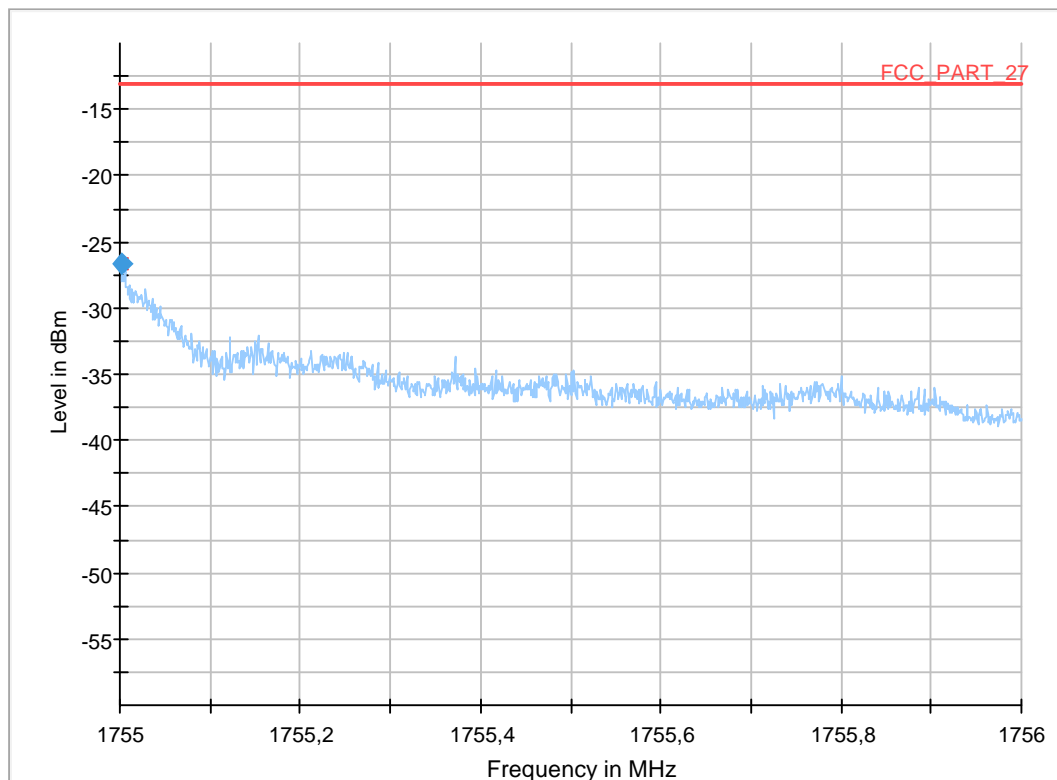
9.404a_Bandedge_high_LTE_FDD_B04_CH_high_RB_Ful I_standing

Common Information

Test Description: Radiated emissions at band-edge - high
 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: -
 Operating Mode: LTE FDD4 | Ch20393 | UP 1754.3MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Operator: KTe
 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)
1755.002000	-26.61	-13.00	13.61	700.0	20.000	H	135.0	0.0	-62

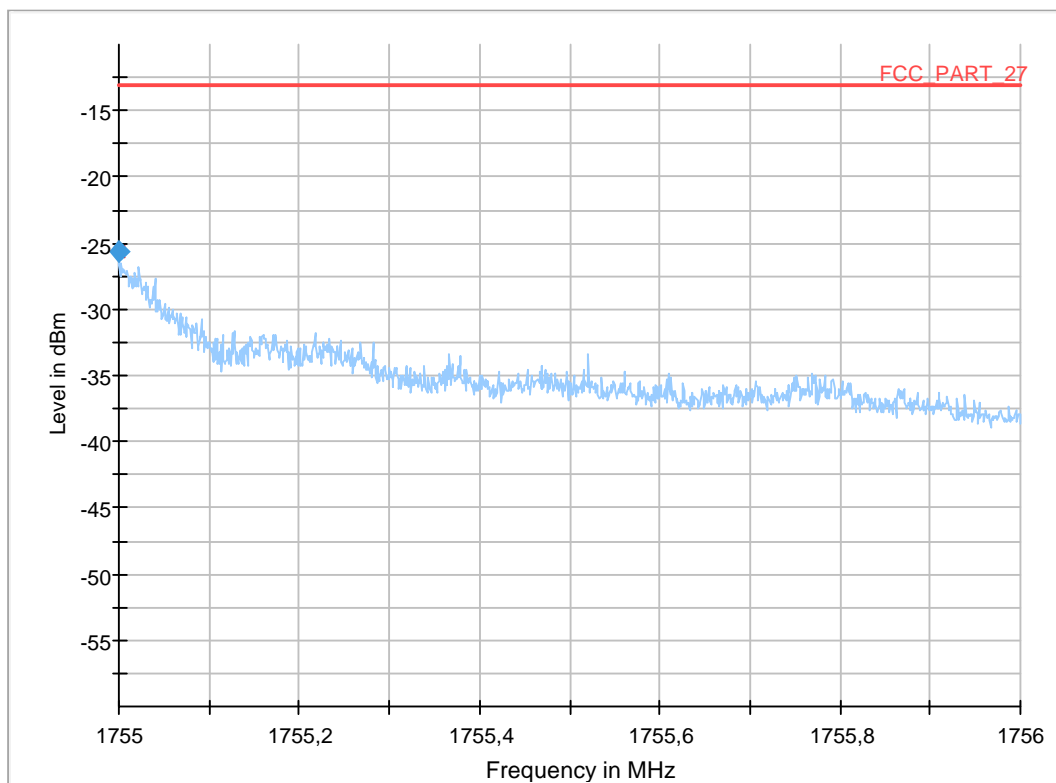
9.404b_Bandedge_high_LTE_FDD_B04_CH_high_RB_Full_laying

Common Information

Test Description: Radiated emissions at band-edge - high
 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: -
 Operating Mode: LTE FDD4 | Ch20393 | UP 1754.3MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Operator: KTe
 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)
1755.000000	-25.61	-13.00	12.61	700.0	20.000	V	12.0	0.0	-62

3.3 Band-Edge LTE Band 5

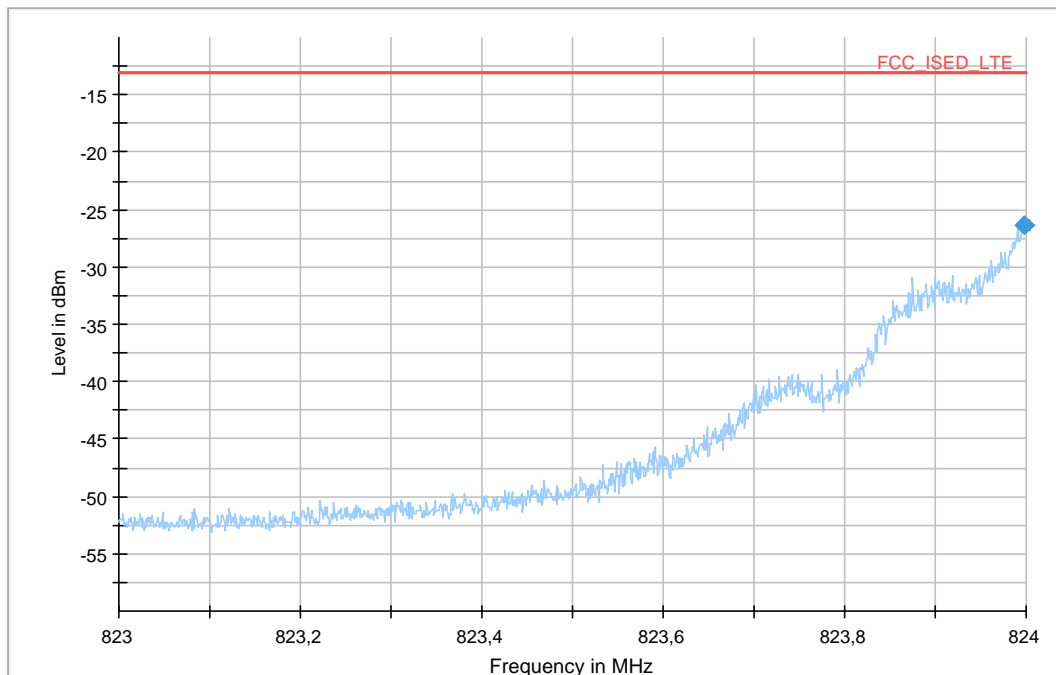
9.501a_Bandedge_low_LTE_FDD_B05_CH_low_RB_1_low_standing

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:	LTE FDD5 Ch20407 UP 824.7MHz 1RB@0 BW1.4MHz QPSK
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	KTe
Remarks:	EUT - laying/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)
823.997000	-26.31	-13.00	13.31	700.0	20.000	H	0.0	0.0	-76

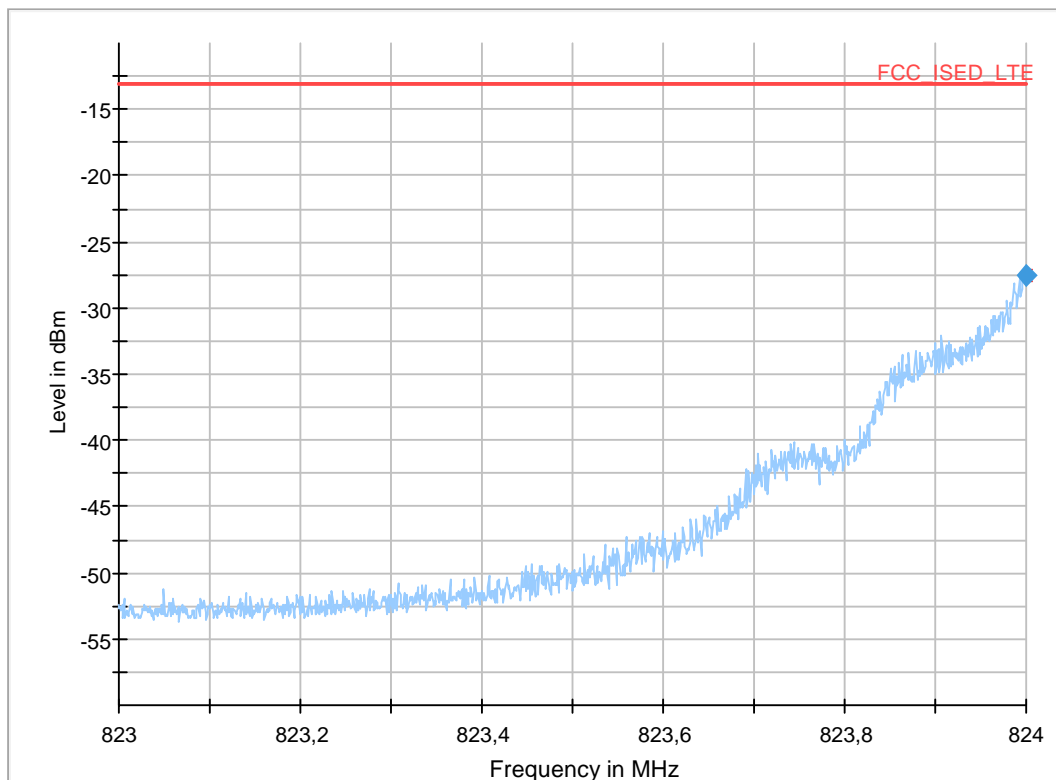
9.501b_Bandedge_low_LTE_FDD_B05_CH_low_RB_1_low_laying

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:	LTE FDD5 Ch20407 UP 824.7MHz 1RB@0 BW1.4MHz QPSK
Environmental Conditions:	Humidity : 49% rH; Temperature: 19 °C
Test SW Version:	EMC32 V10.60.20
Operator:	KTe
Remarks:	EUT - laying/standing position
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)
823.999000	-27.62	-13.00	14.62	700.0	20.000	V	114.0	0.0	-76

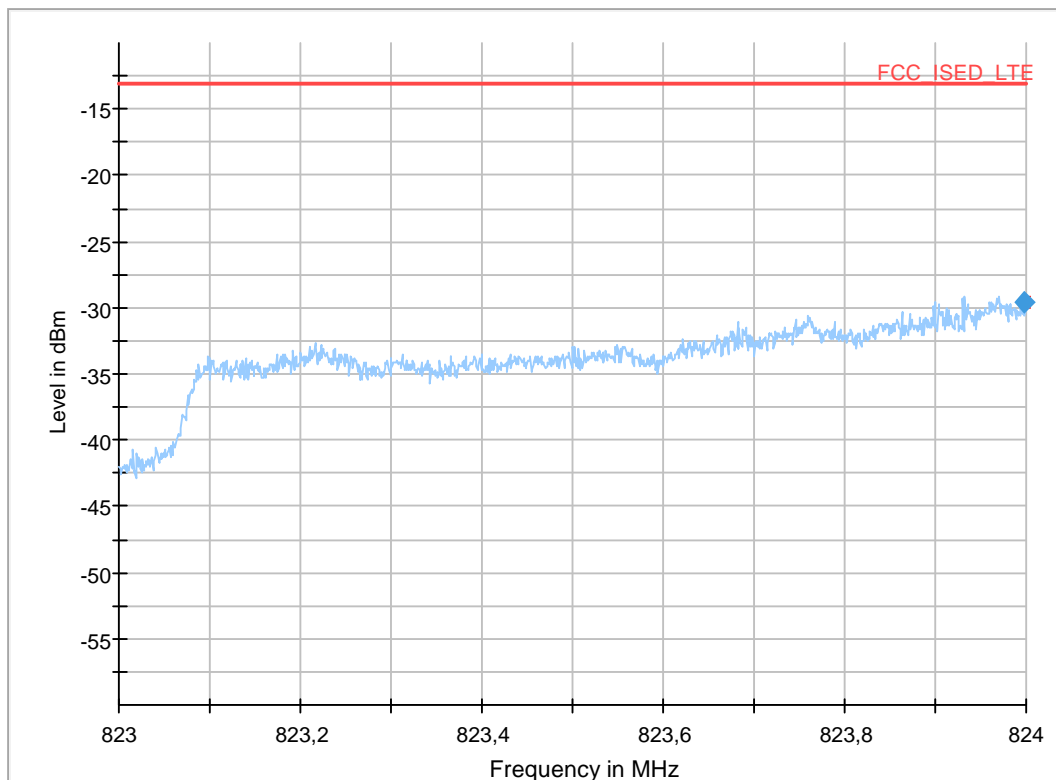
9.502a_Bandedge_low_LTE_FDD_B05_CH_low_RB_Full_standing

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: LTE FDD5 | Ch20407 | UP 824.7MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - laying/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)
823.997000	-29.64	-13.00	16.64	700.0	20.000	H	13.0	0.0	-76

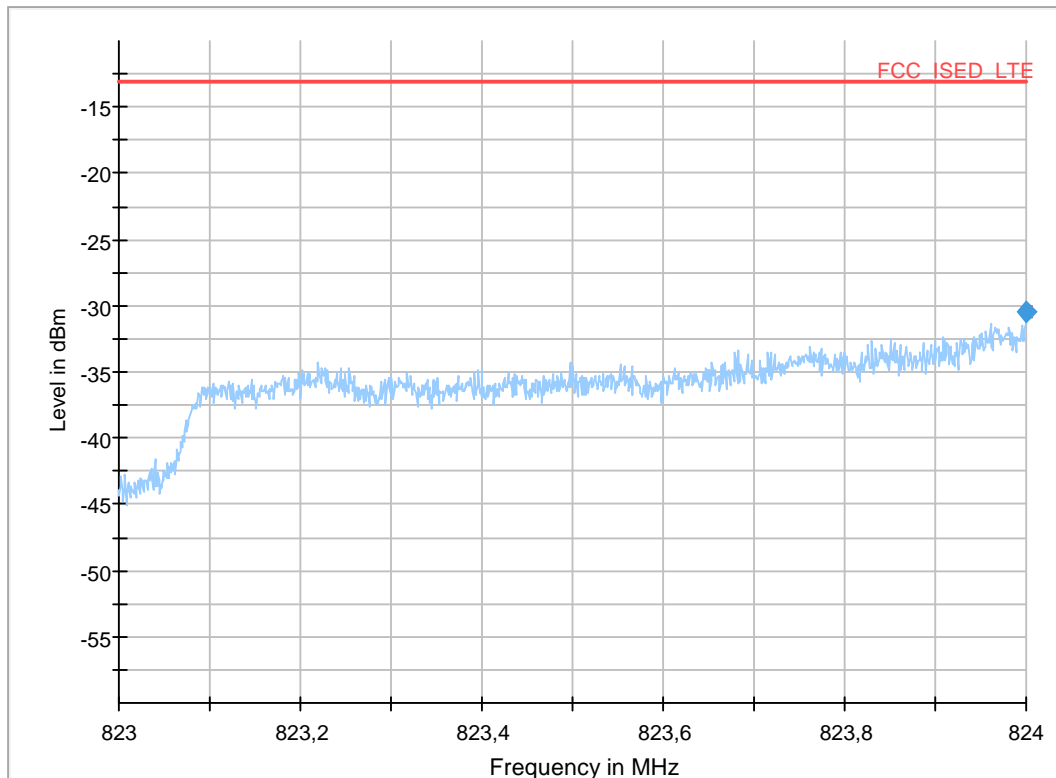
9.502b_Bandedge_low_LTE_FDD_B05_CH_low_RB_Full_laying

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: LTE FDD5 | Ch20407 | UP 824.7MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - laying/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)
824.000000	-30.40	-13.00	17.40	700.0	20.000	V	116.0	0.0	-76

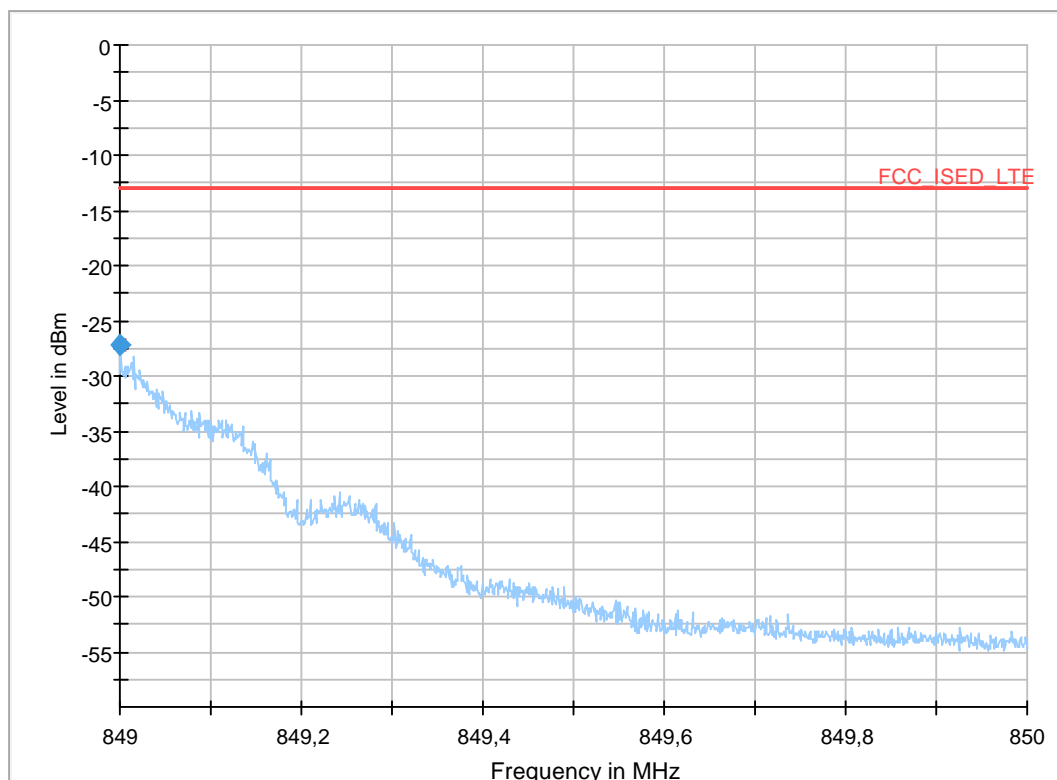
9.503a_Bandedge_low_LTE_FDD_B05_CH_high_RB_1_high_standing

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: LTE FDD5 | Ch20643 | UP 848.3MHz | 1RB@5 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - laying/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)
849.001000	-27.17	-13.00	14.17	700.0	20.000	H	16.0	0.0	-76

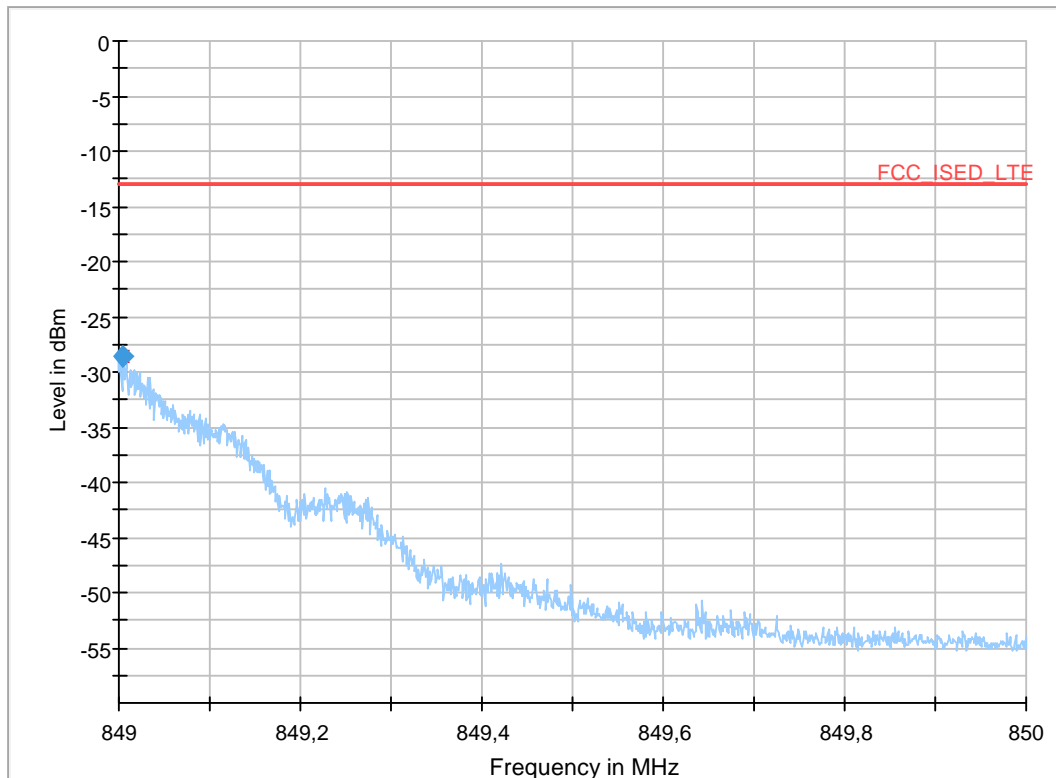
9.503b_Bandedge_low_LTE_FDD_B05_CH_high_RB_1_high_laying

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: LTE FDD5 | Ch20643 | UP 848.3MHz | 1RB@5 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - laying/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)
849.005000	-28.55	-13.00	15.55	700.0	20.000	V	110.0	0.0	-76

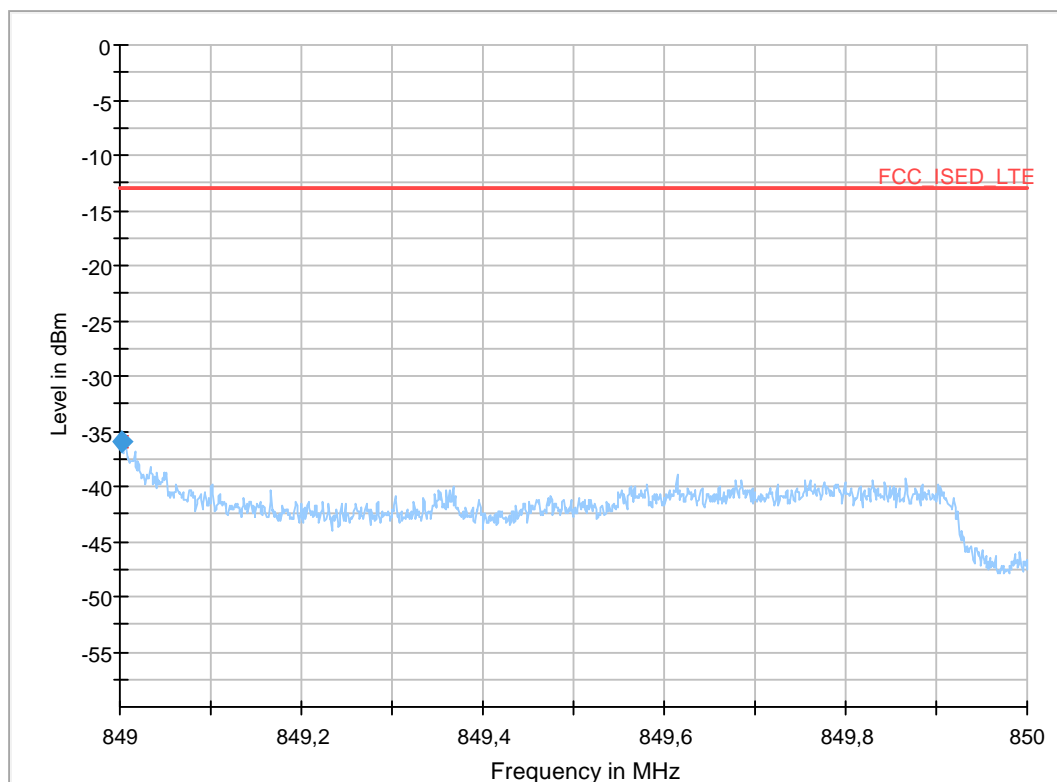
9.504a_Bandedge_high_LTE_FDD_B05_CH_high_RB_Ful I_standing

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: LTE FDD5 | Ch20643 | UP 848.3MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - laying/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)
849.002000	-35.98	-13.00	22.98	700.0	20.000	H	12.0	0.0	-76

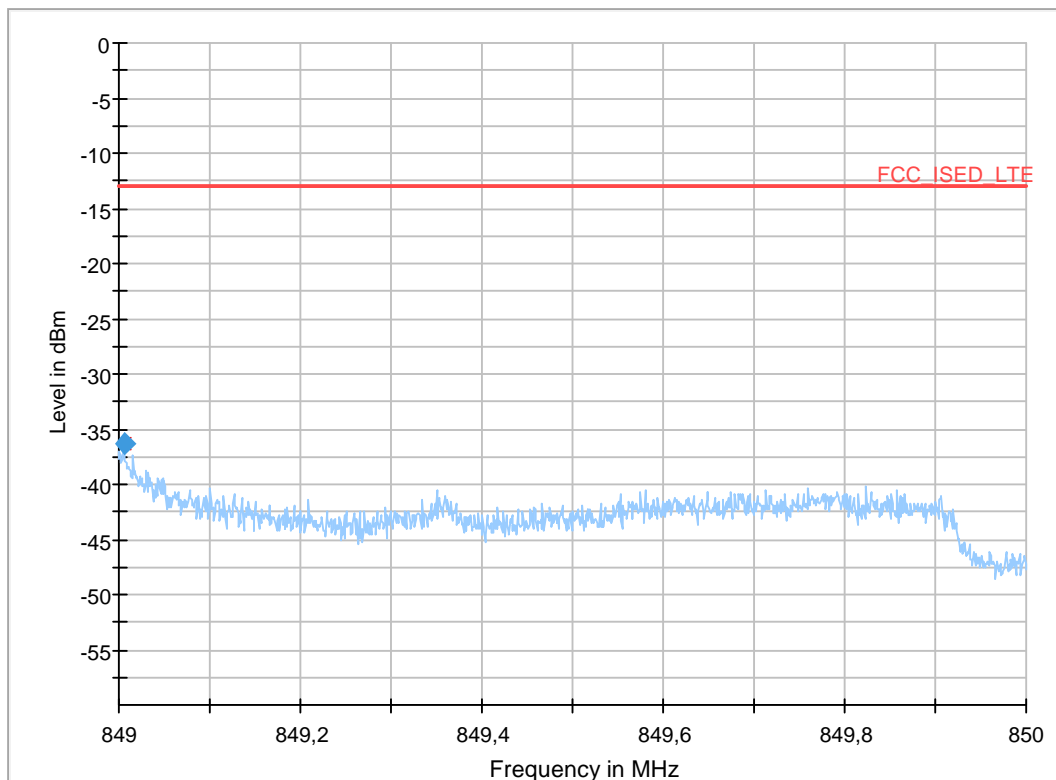
9.504b_Bandedge_high_LTE_FDD_B05_CH_high_RB_Full_laying

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: LTE FDD5 | Ch20643 | UP 848.3MHz | 6RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 49% rH; Temperature: 19 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - laying/standing position
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01
 Full Spectrum

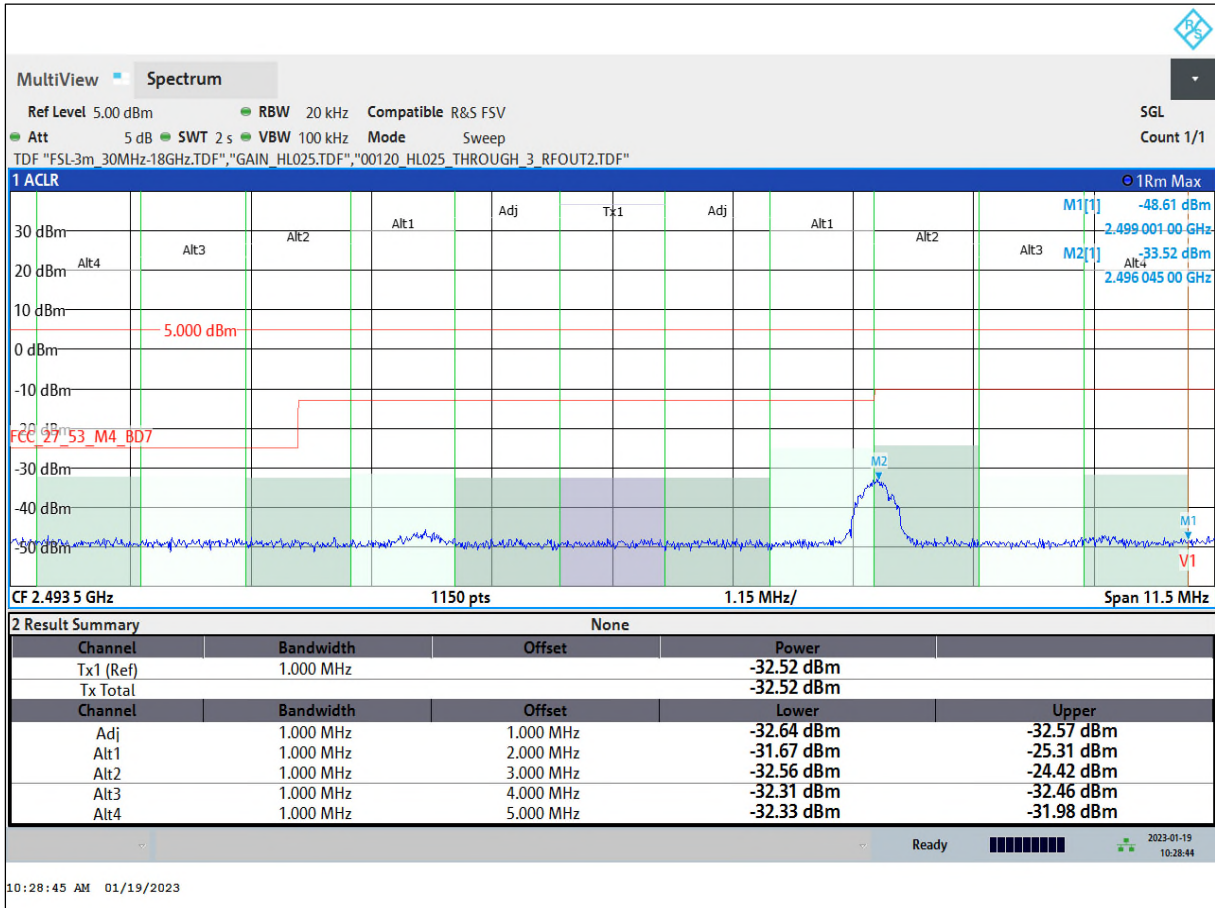


Final Result

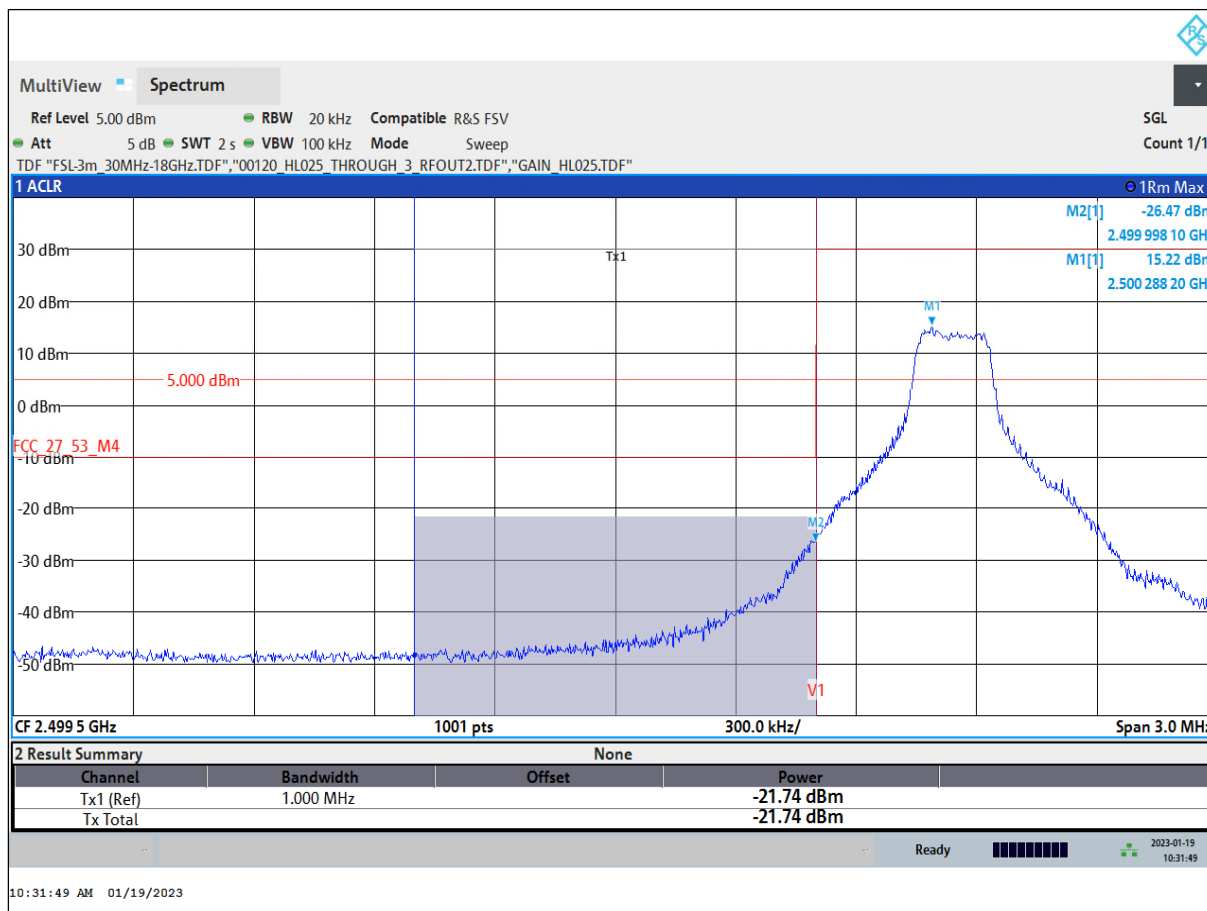
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
849.006000	-36.39	-13.00	23.39	700.0	20.000	V	106.0	0.0	-76

3.4 Band-Edge LTE Band 7

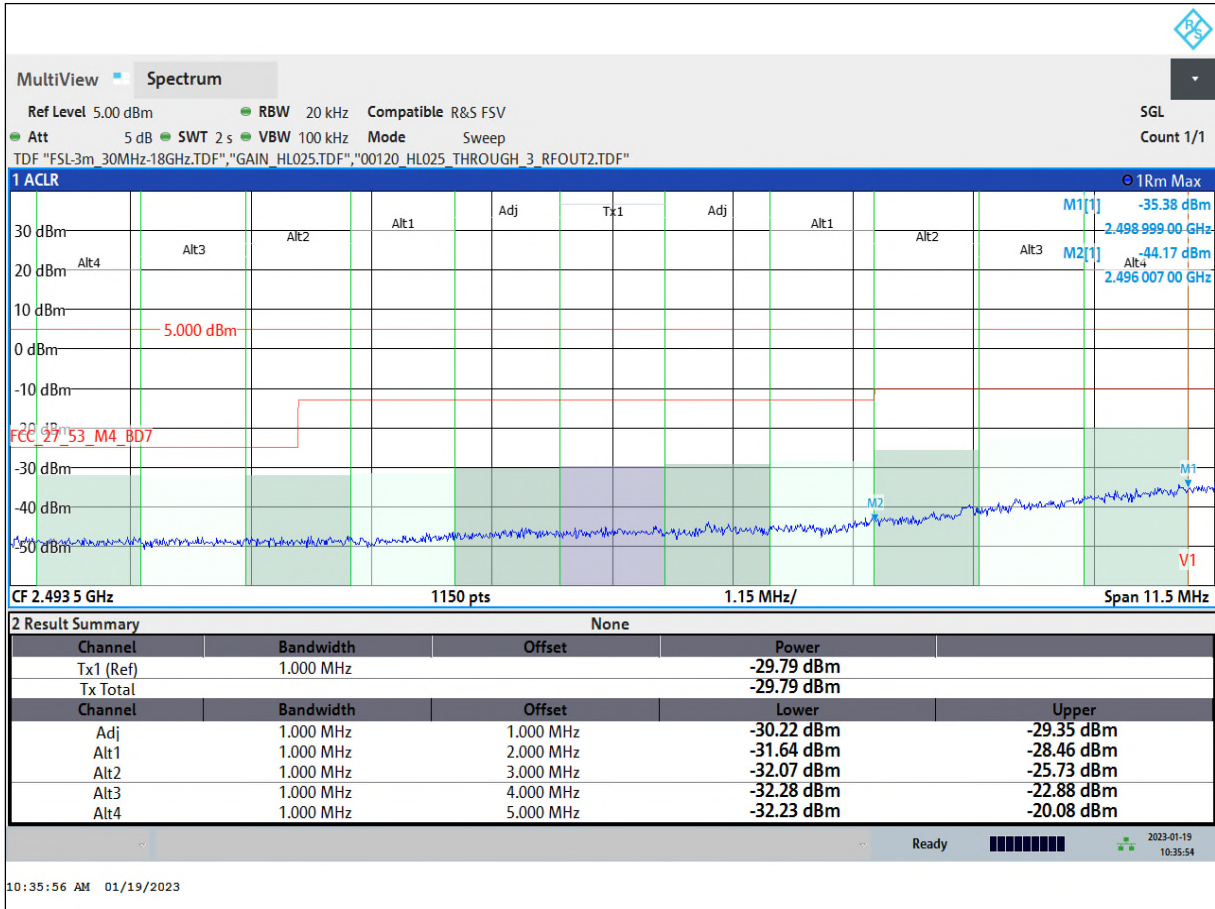
9.701_Bandedge_low_LTE_FDD_B07_CH_low_RB_1_low_sweep_1_ext_ant



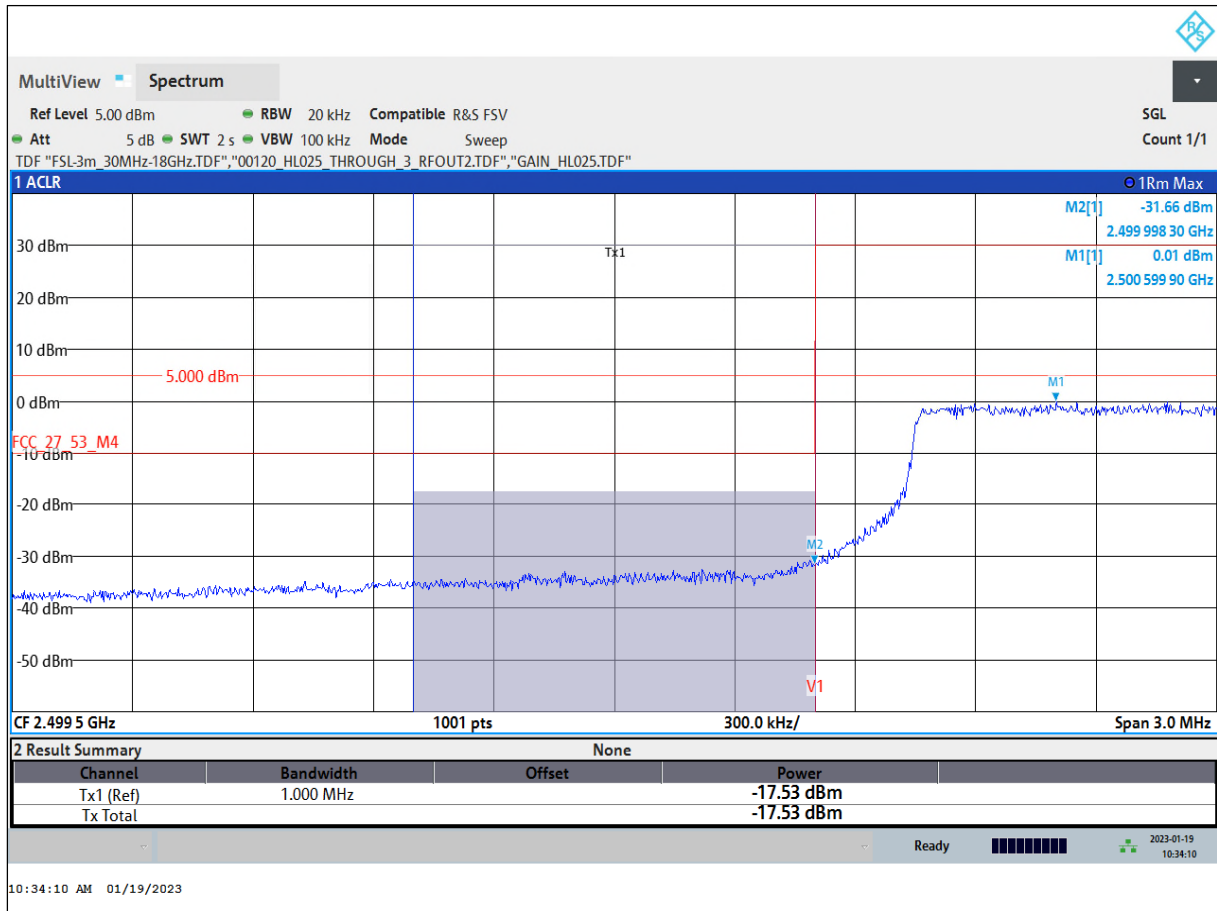
9.702_Bandedge_low_LTE_FDD_B07_CH_low_RB_1_low_sweep_2_ext_ant



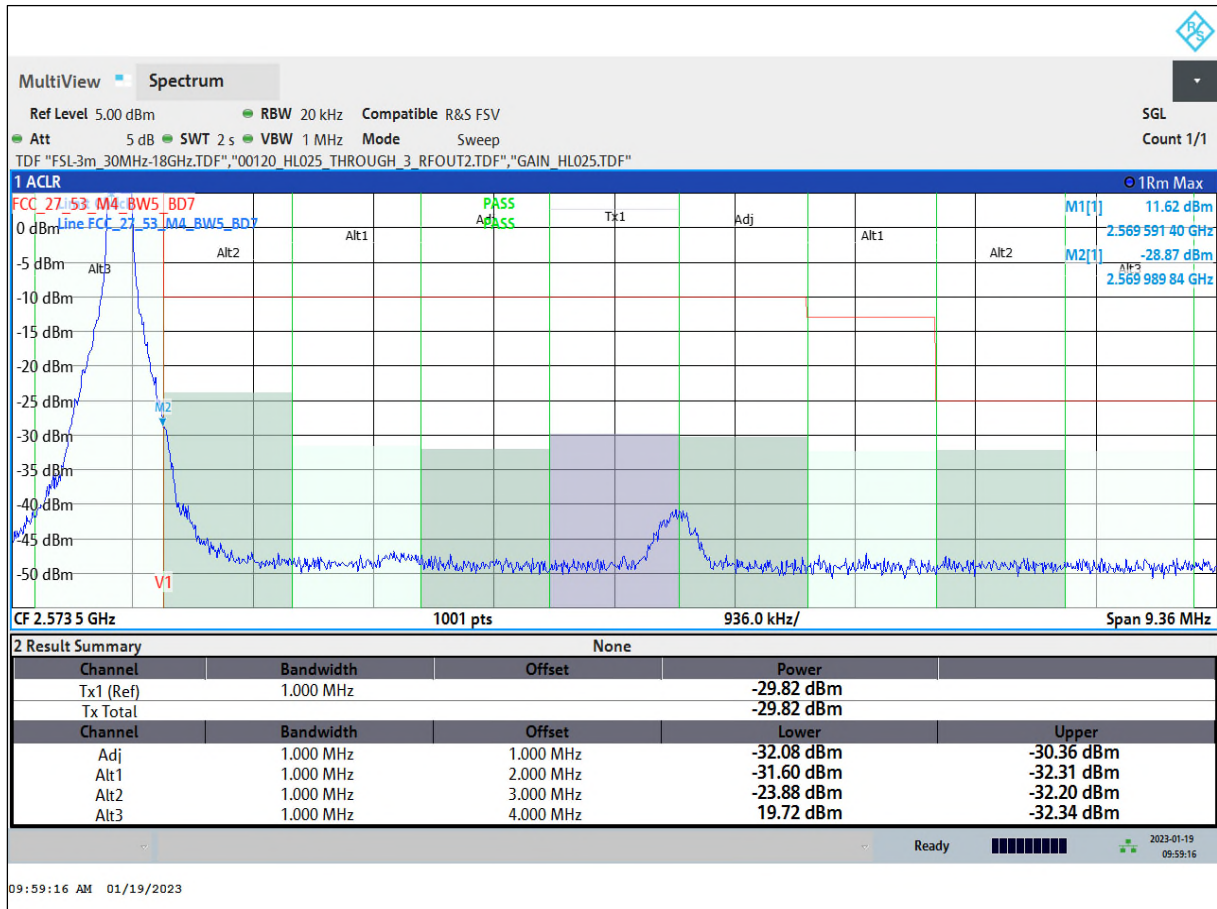
9.703_Bandedge_low_LTE_FDD_B07_CH_low_RB_25_sweep_1_ext_ant



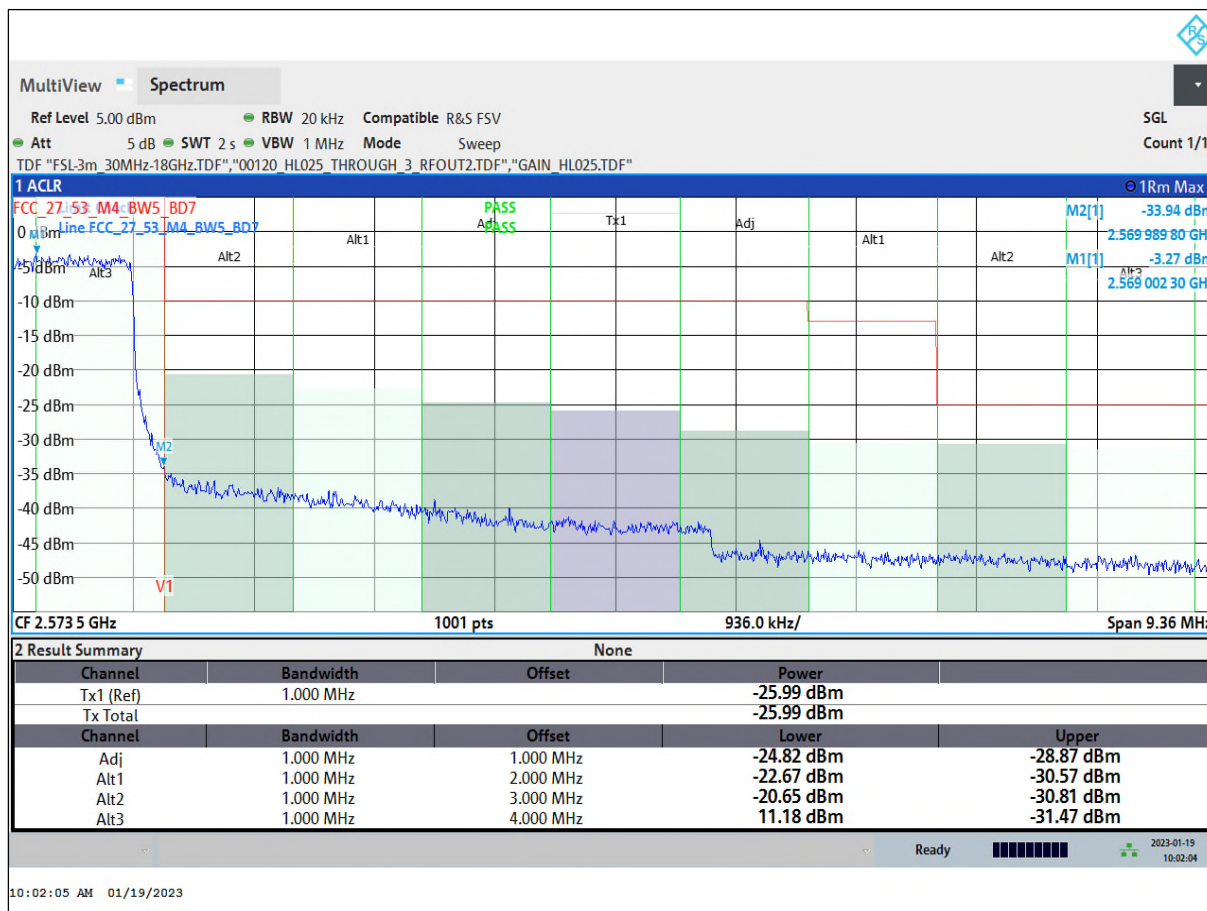
9.704_Bandedge_low_LTE_FDD_B07_CH_low_RB_25_sweep_2_ext_ant



9.705_Bandedge_high_LTE_FDD_B07_CH_high_RB_1_high_sweep_1_ext_ant



9.706_Bandedge_high_LTE_FDD_B07_CH_high_RB_25_sweep_1_ext_ant



3.5 Band-Edge LTE Band 12

9.1201a_Bandedge_low_LTE_FDD_B12_CH_low_RB_1_low_lying

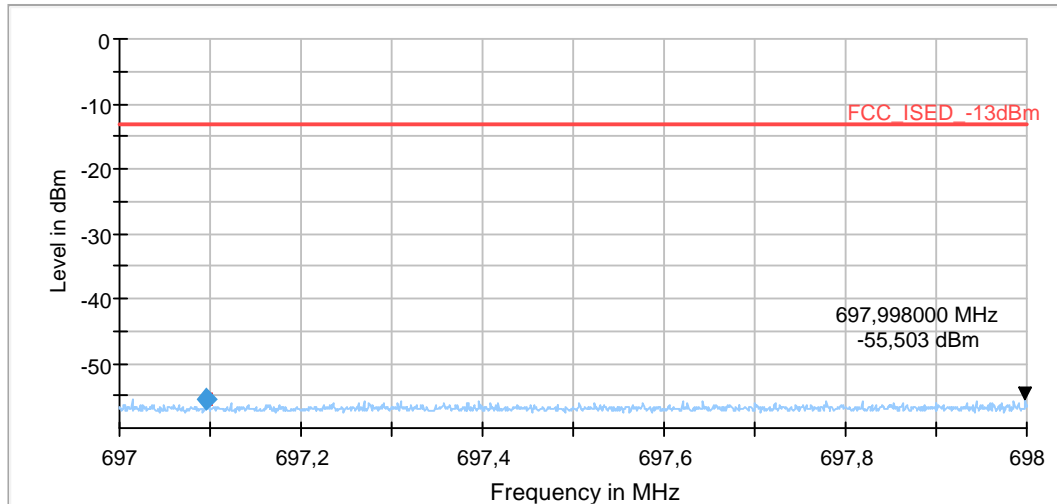
Common Information

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 §27.53 / RSS-130
Operating Mode:	LTE FDD12 Ch23017 UP 699.7MHz 1RB@low BW1.4MHz QPSK
Environmental Conditions::	Humidity : % rH; Temperature: °C
Test SW Version:	EMC32 V10.60.20
Operator:	TFra
Remarks:	EUT - laying/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)
697.095000	-55.49	-13.00	42.49	700.0	20.000	V	43.0	0.0	-78

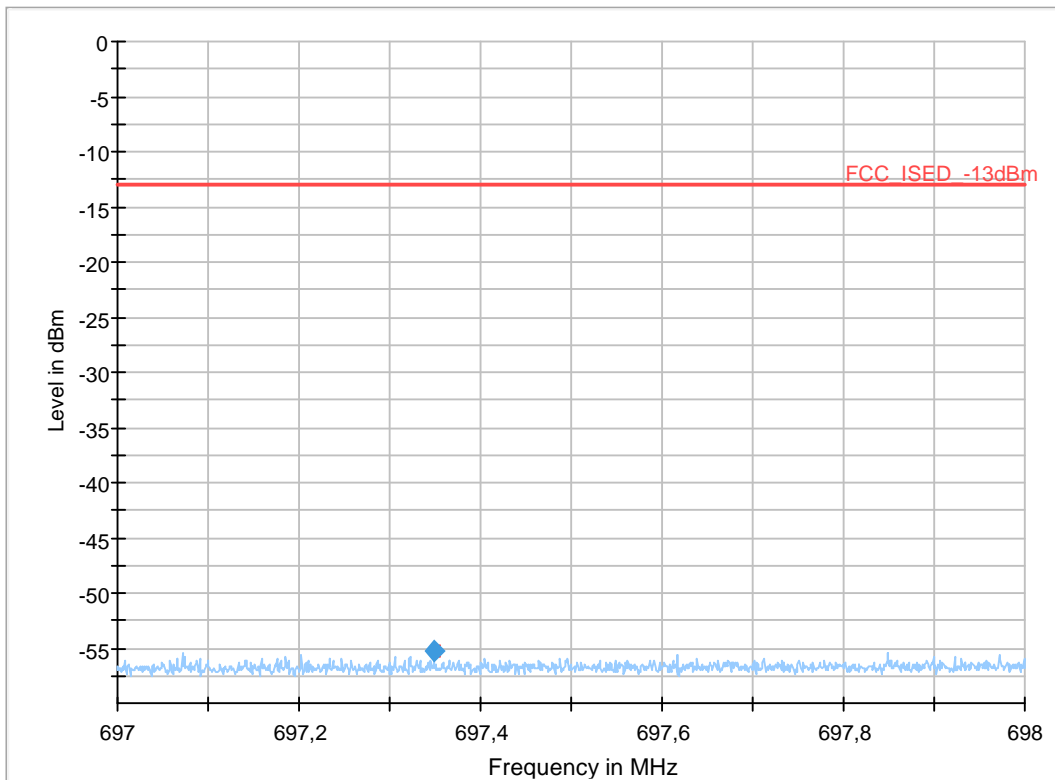
9.1201b_Bandedge_low_LTE_FDD_B12_CH_low_RB_1_low_standing

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 §27.53 / RSS-130
 Operating Mode: LTE FDD12 | Ch23017 | UP 699.7MHz | 1RB@0 | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 40% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: KTe
 Remarks: EUT - laying/standing position
 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)	Corr. (dB)	Sig Path (dB)
697.349000	-55.26	-13.00	42.26	700.0	20.000	H	161.0	-78	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)
697.349000	-80	23

9.1202a_Bandedge_low_LTE_FDD_B12_CH_low_RB_Full_lying

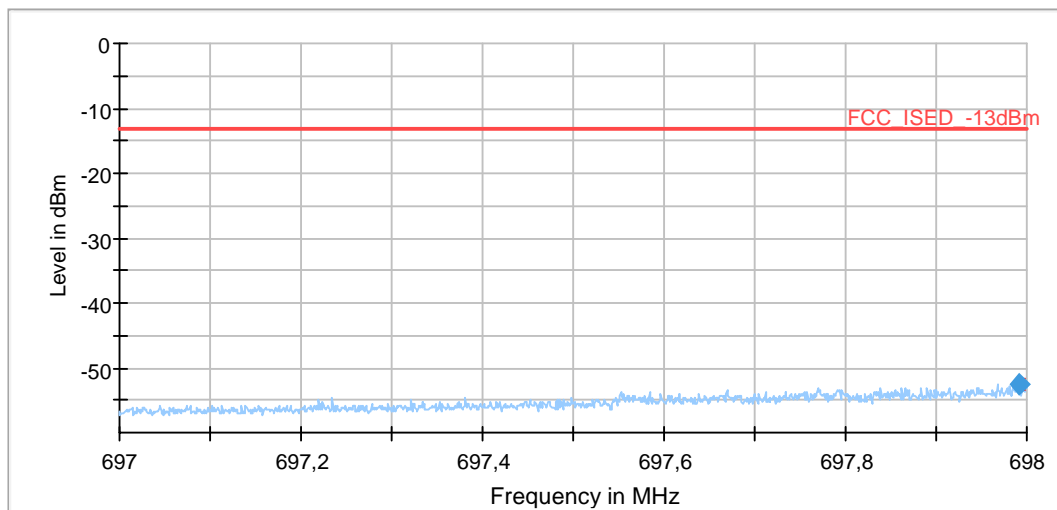
Common Information

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 §27.53 / RSS-130
Operating Mode:	UE allocated channel xxx
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	--
Remarks:	EUT - laying/standing position
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)
697.991000	-52.44	-13.00	39.44	700.0	20.000	V	110.0	0.0	-78

9.1202b_Bandedge_low_LTE_FDD_B12_CH_low_RB_Full_standing

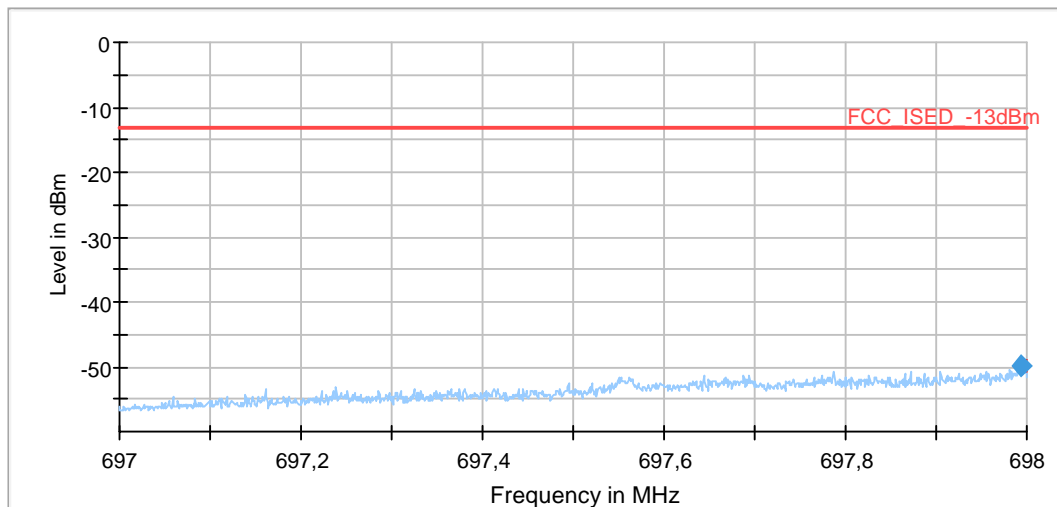
Common Information

Test Description: Band-Edge low - Radiated Spurious Emissions LTE Band 12
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC §27.53 / RSS-130
 Operating Mode: LTE FDD12 | Ch23017 | UP 699.7MHz | 6RBs | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: Lor
 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)	Corr. (dB)	Sig Path (dB)
697.993000	-49.93	-13.00	36.93	700.0	20.000	H	340.0	-78	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)
697.993000	-80	28

9.1203a_Bandedge_high_LTE_FDD_B12_CH_high_RB_1_high_lying

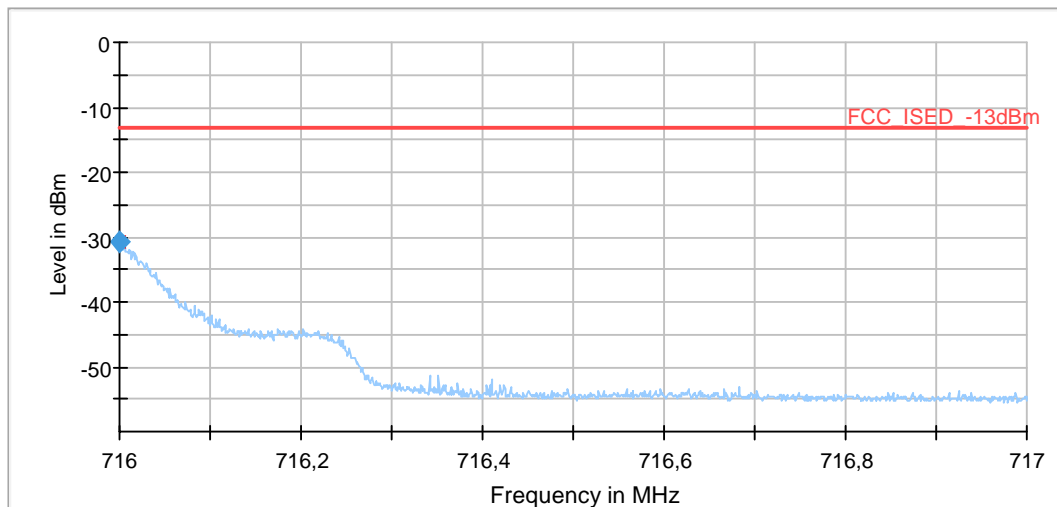
Common Information

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 §27.53 / RSS-130
 Operating Mode: LTE FDD12 | Ch23173 | UP 699.7MHz | 1RB@high | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 38% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying/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)	Corr. (dB)	Sig Path (dB)
716.001000	-30.68	-13.00	17.68	700.0	30.000	V	302.0	-78	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)
716.001000	-80	47

9.1203b_Bandedge_high_LTE_FDD_B12_CH_high_RB_1_high_standing

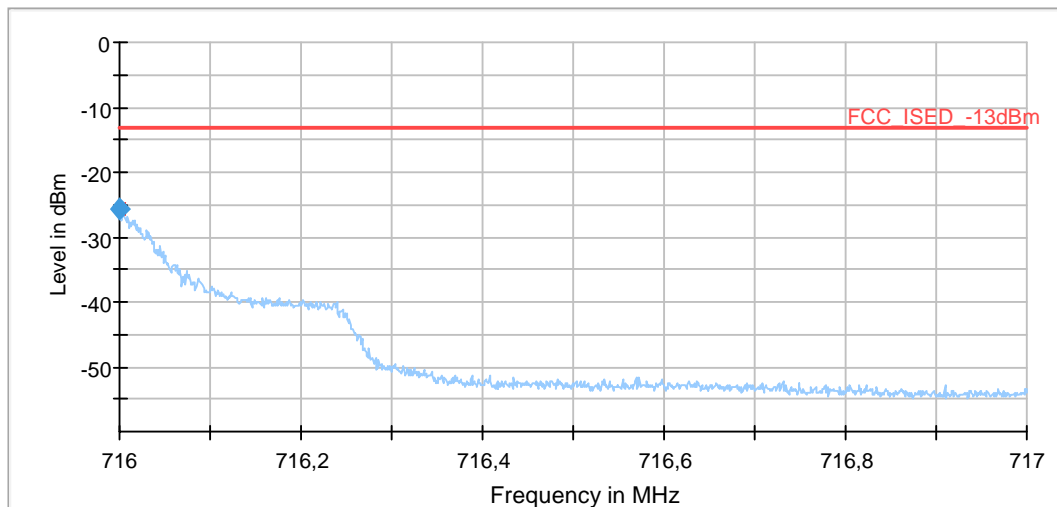
Common Information

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 §27.53 / RSS-130
Operating Mode:	LTE FDD12 Ch23173 UP 715.3MHz 1RB-high BW1.4MHz QPSK
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	Lor
Remarks:	EUT - standing position
EUT Setup:	external antenna / standing
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)	Corr. (dB)	Sig Path (dB)
716.000000	-25.82	-13.00	12.82	700.0	30.000	H	332.0	-78	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
716.000000	-80	52

9.1204a_Bandedge_high_LTE_FDD_B12_CH_high_RB_Full_lying

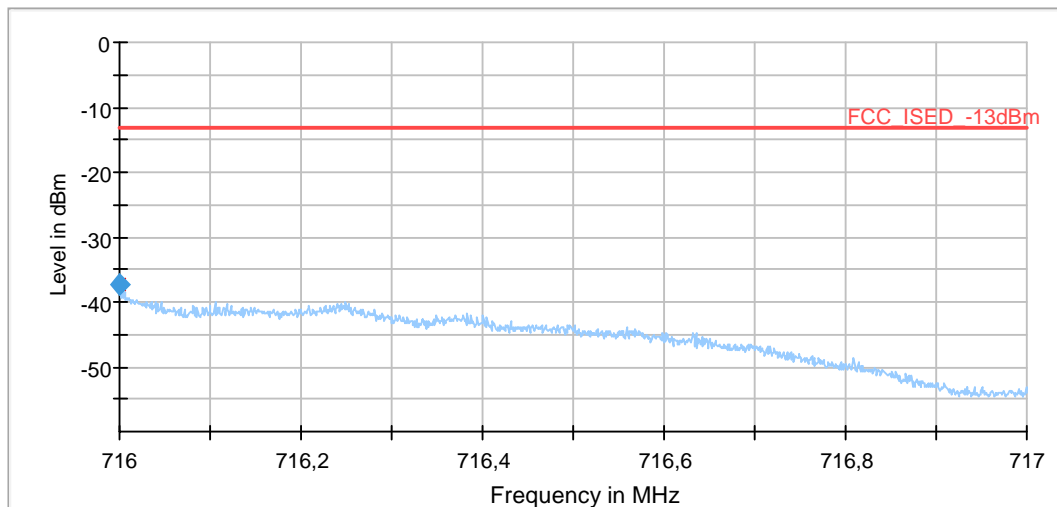
Common Information

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 §27.53 / RSS-130
Operating Mode:	LTE FDD12 Ch23173 UP 699.7MHz 1RB@high BW1.4MHz QPSK
Environmental Conditions::	Humidity : 38% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	TFra
Remarks:	EUT - laying/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)	Corr. (dB)	Sig Path (dB)
716.000000	-37.44	-13.00	24.44	700.0	30.000	V	304.0	-78	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
716.000000	-80	40

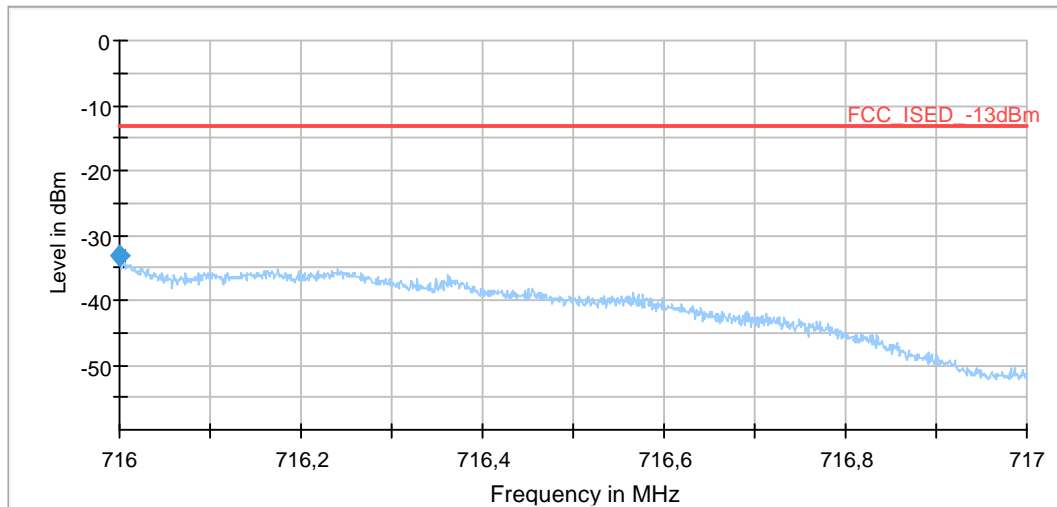
9.1204b_Bandedge_high_LTE_FDD_B12_CH_high_RB_Full_standing

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 §27.53 / RSS-130
 Operating Mode: LTE FDD12 | Ch23173 | UP 715.3MHz | 6RBs | BW1.4MHz | QPSK
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: Lor
 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)	Corr. (dB)	Sig Path (dB)
716.000000	-33.14	-13.00	20.14	700.0	30.000	H	343.0	-78	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
716.000000	-80	44

3.6 Band-Edge LTE Band 13

9.1301a_Bandedge_low_LTE_FDD_B13_CH_low_RB_1_low_standing

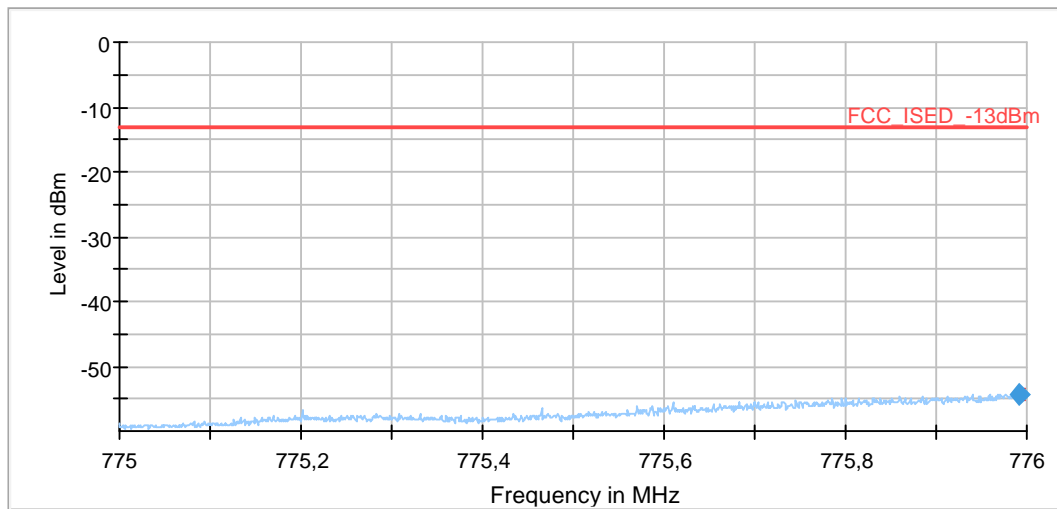
Common Information

Test Description: Band-Edge low - 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 §27.53 / RSS-130
 Operating Mode: LTE FDD13 | Ch23205 | UP 779.5MHz | 1RBlow | BW5MHz | QPSK
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °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)
775.992000	-54.20	-13.00	41.20	700.0	50.000	H	185.0	0.0	-77

9.1301b_Bandedge_low_LTE_FDD_B13_CH_low_RB_1_low_lying

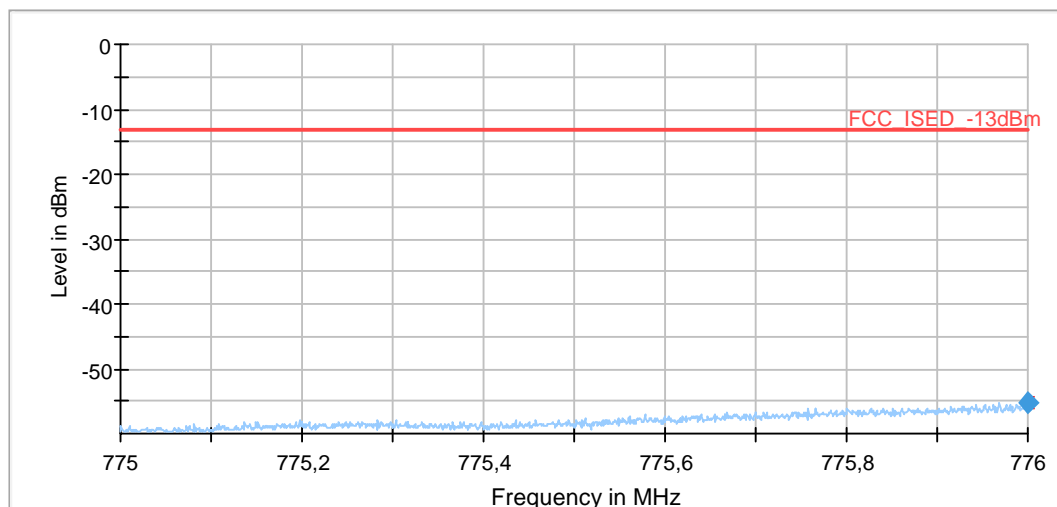
Common Information

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 §27.53 / RSS-130
Operating Mode:	LTE FDD13 Ch23205 UP 779.5MHz 1RB@low BW5MHz QPSK
Environmental Conditions:	Humidity : 38% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	TFra
Remarks:	EUT - laying/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)
776.000000	-55.31	-13.00	42.31	700.0	50.000	V	102.0	0.0	-77

9.1302a_Bandedge_low_LTE_FDD_B13_CH_low_RB_full_standing

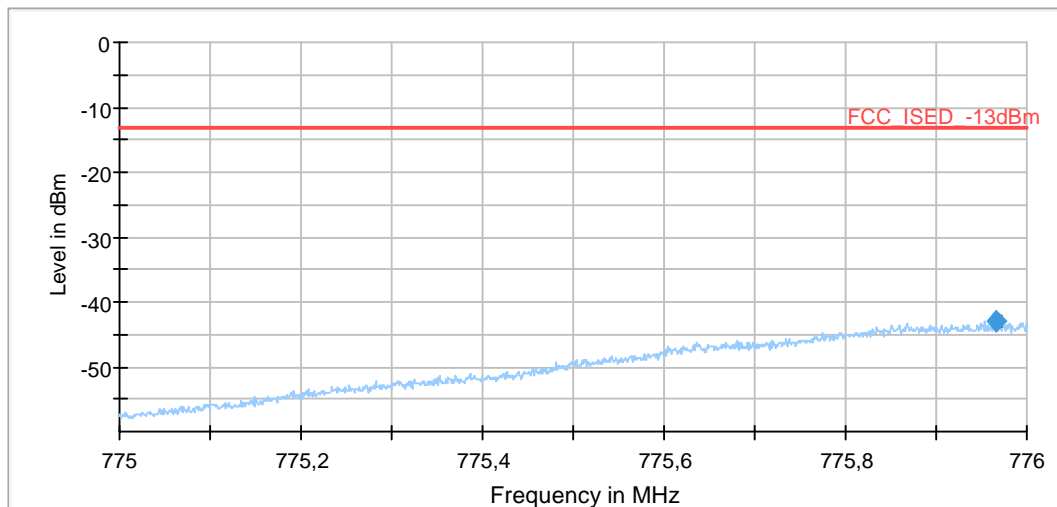
Common Information

Test Description: Band-Edge low - 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 §27.53 / RSS-130
 Operating Mode: LTE FDD13 | Ch23205 | UP 779.5MHz | 25RB | BW5MHz | QPSK
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: Lor
 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)
775.965000	-42.84	-13.00	29.84	700.0	50.000	H	194.0	90.0	-77

9.1302b_Bandedge_low_LTE_FDD_B13_CH_low_RB_full_lying

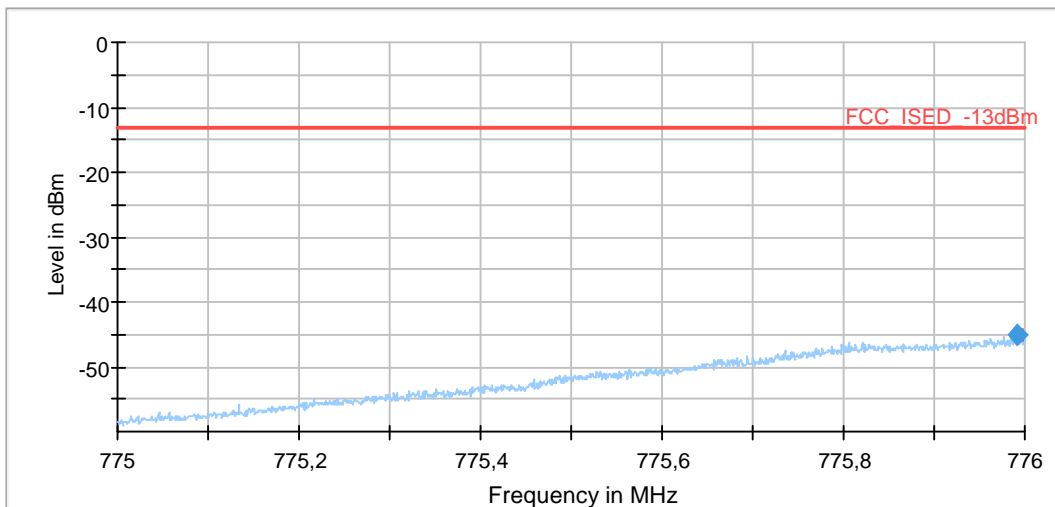
Common Information

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 §27.53 / RSS-130
 Operating Mode: LTE FDD13 | Ch23205 | UP 779.5MHz | 1RB@low | BW5MHz | QPSK
 Environmental Conditions: Humidity : 38% rH; Temperature: 20 °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying/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)
775.992000	-45.13	-13.00	32.13	700.0	50.000	V	111.0	0.0	-77

9.1303a_Bandedge_high_LTE_FDD_B13_CH_high_RB_1_high_standing

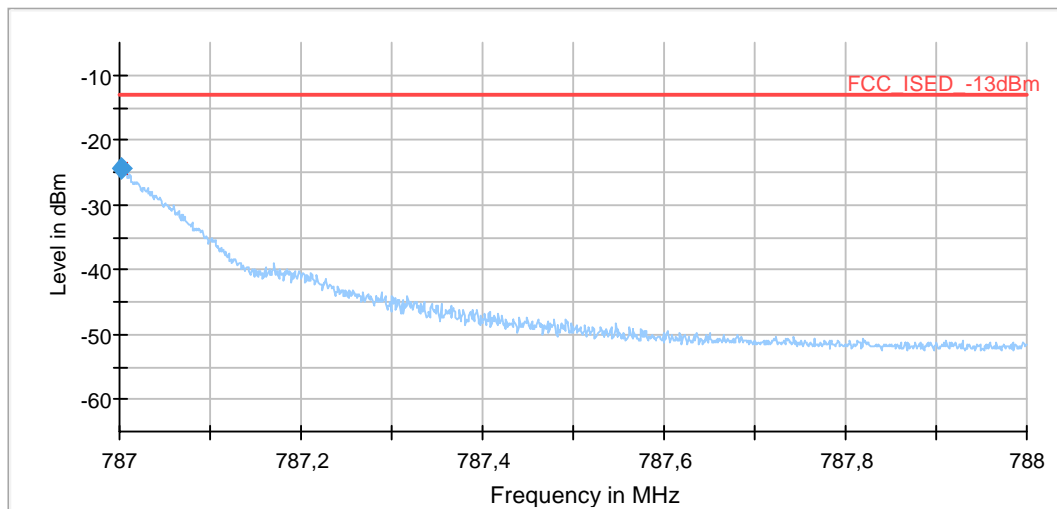
Common Information

Test Description:	Band-Edge low - 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 §27.53 / RSS-130
Operating Mode:	LTE FDD13 Ch23255 UP 784.5MHz 1RBhigh BW5MHz QPSK
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	Lor
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)	Corr. (dB)	Sig Path (dB)
787.002000	-24.54	-13.00	11.54	700.0	50.000	H	186.0	-77	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
787.002000	-79	53

9.1303b_Bandedge_high_LTE_FDD_B13_CH_high_RB_1_high_lying

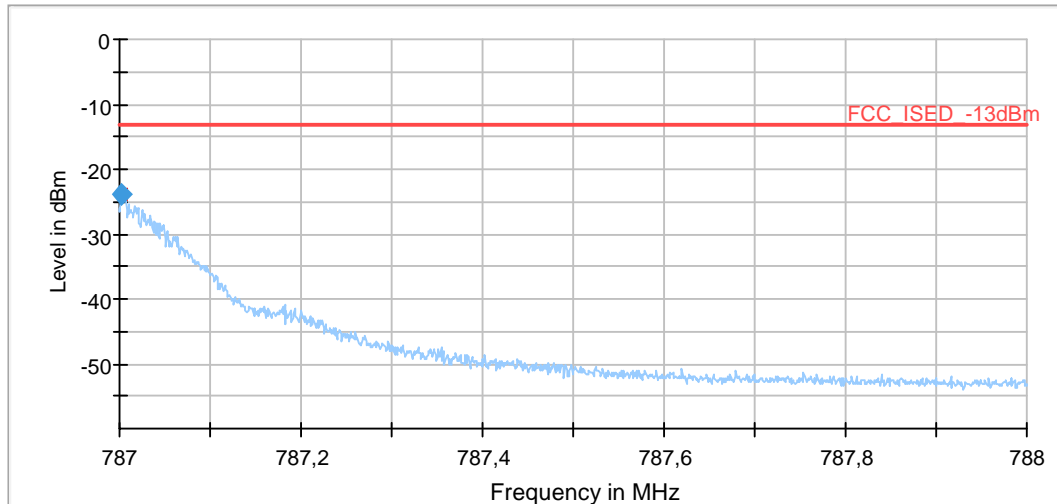
Common Information

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 §27.53 / RSS-130
Operating Mode:	LTE FDD13 Ch23255 UP 784.5MHz 1RB@high BW5MHz QPSK
Environmental Conditions::	Humidity : 38% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	TFra
Remarks:	EUT - laying/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)
787.002000	-23.95	-13.00	10.95	700.0	50.000	V	116.0	0.0	-77

9.1304a_Bandedge_high_LTE_FDD_B13_CH_high_RB_Full_standing

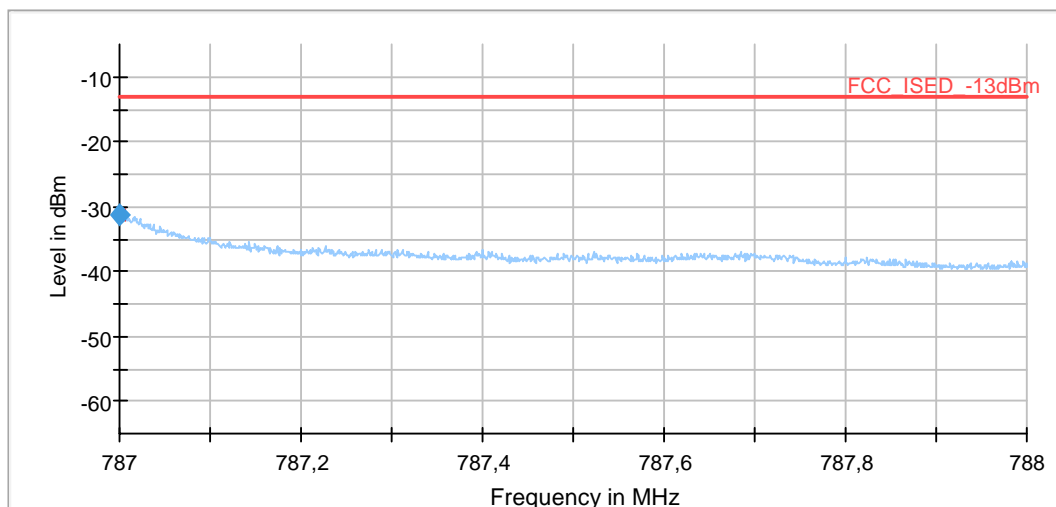
Common Information

Test Description:	Band-Edge low - 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 §27.53 / RSS-130
Operating Mode:	LTE FDD13 Ch23255 UP 784.5MHz 25RBs BW5MHz QPSK
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Test SW Version:	EMC32 V10.60.20
Operator:	Lor
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)	Corr. (dB)	Sig Path (dB)
787.000000	-31.17	-13.00	18.17	700.0	50.000	H	359.0	-77	2

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)
787.000000	-79	46

9.1304b_Bandedge_high_LTE_FDD_B13_CH_high_RB_Full_lying

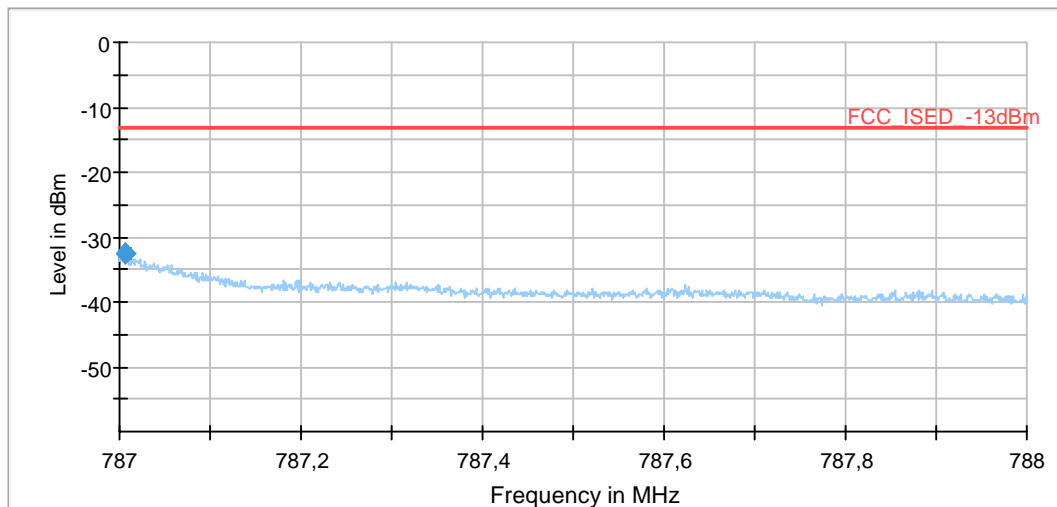
Common Information

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 §27.53 / RSS-130
 Operating Mode: LTE FDD13 | Ch23255 | UP 784.5MHz | 25RB@high | BW5MHz | QPSK
 Environmental Conditions: Humidity : 38% rH; Temperature: °C
 Test SW Version: EMC32 V10.60.20
 Operator: TFra
 Remarks: EUT - laying/standing position
 EUT Setup: 1
 Verdict: Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum

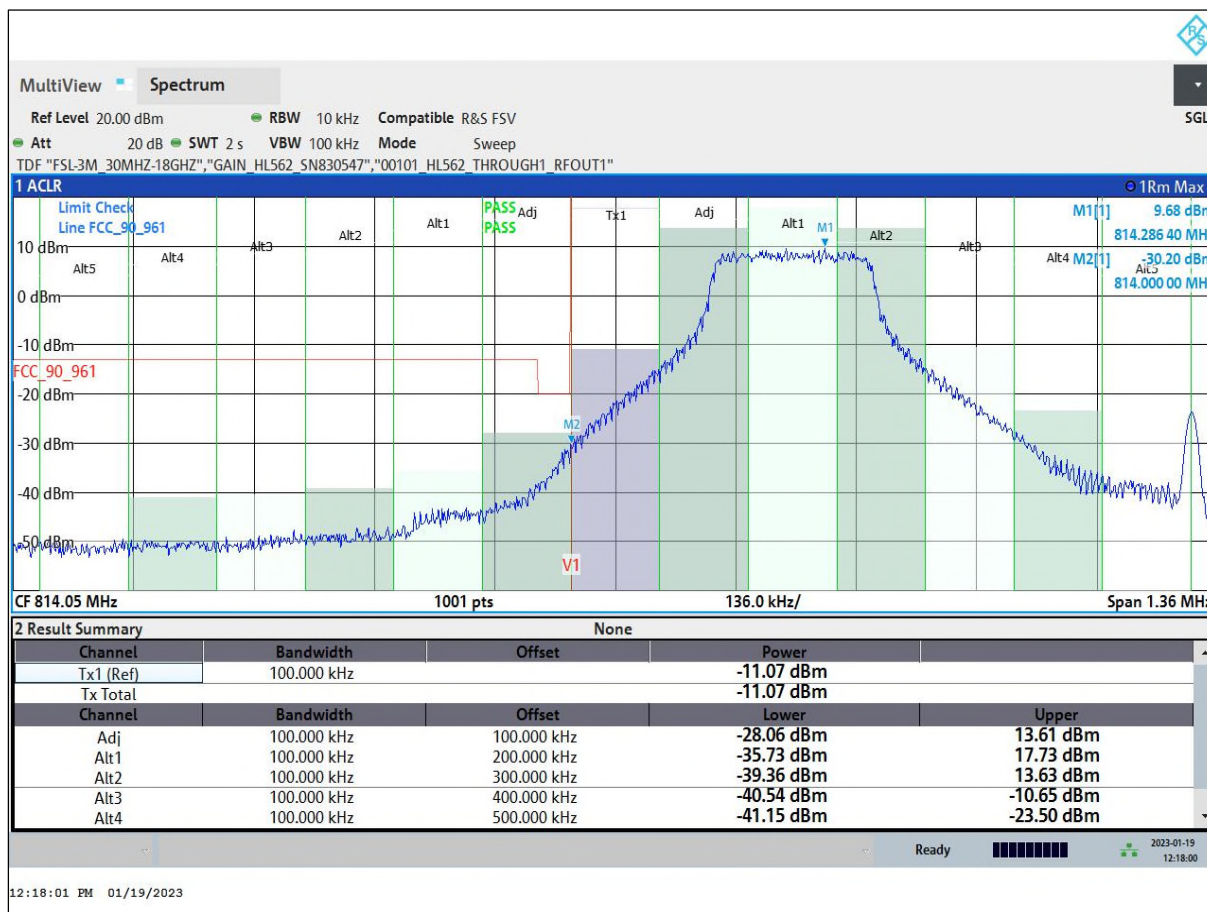


Final_Result

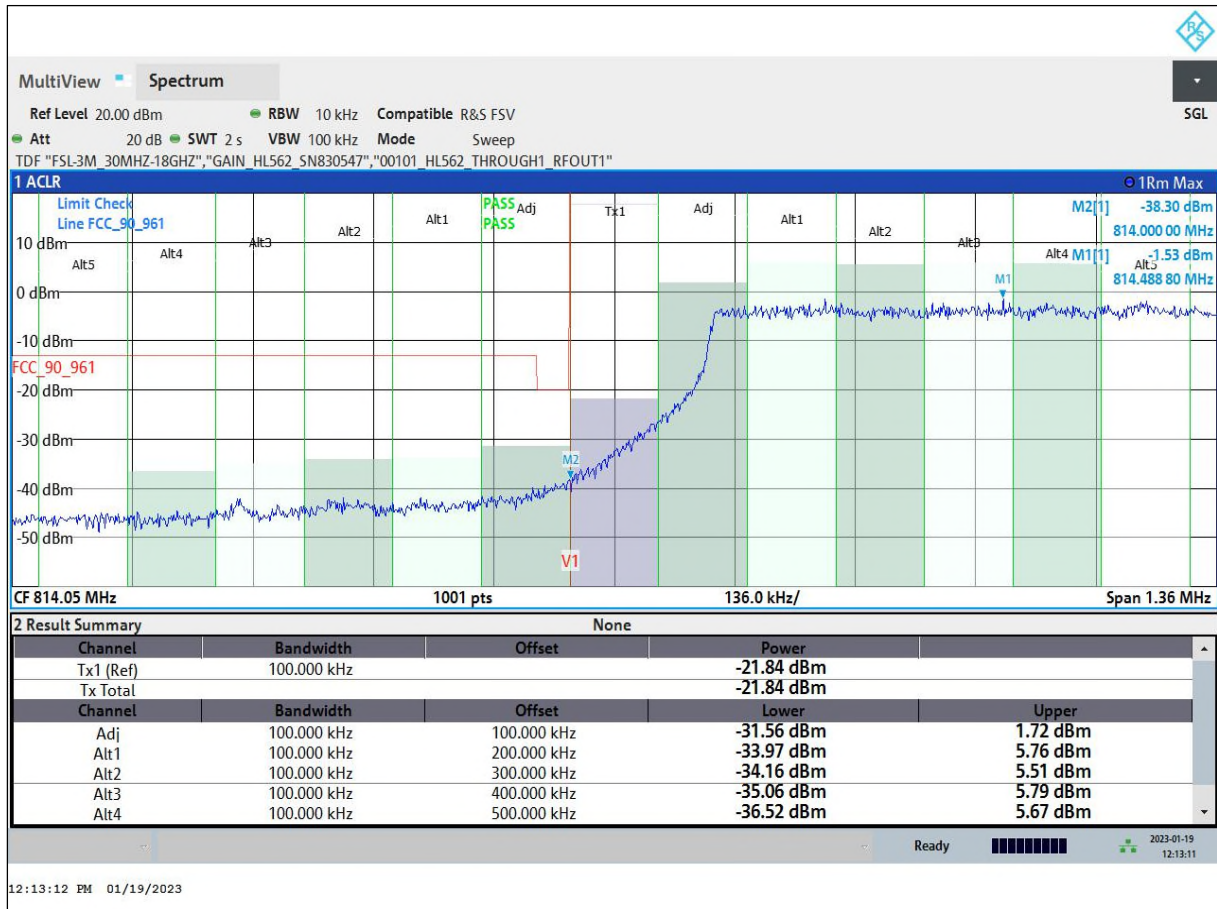
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
787.006000	-32.52	-13.00	19.52	700.0	50.000	V	114.0	0.0	-77

3.7 Band-Edge LTE Band 26

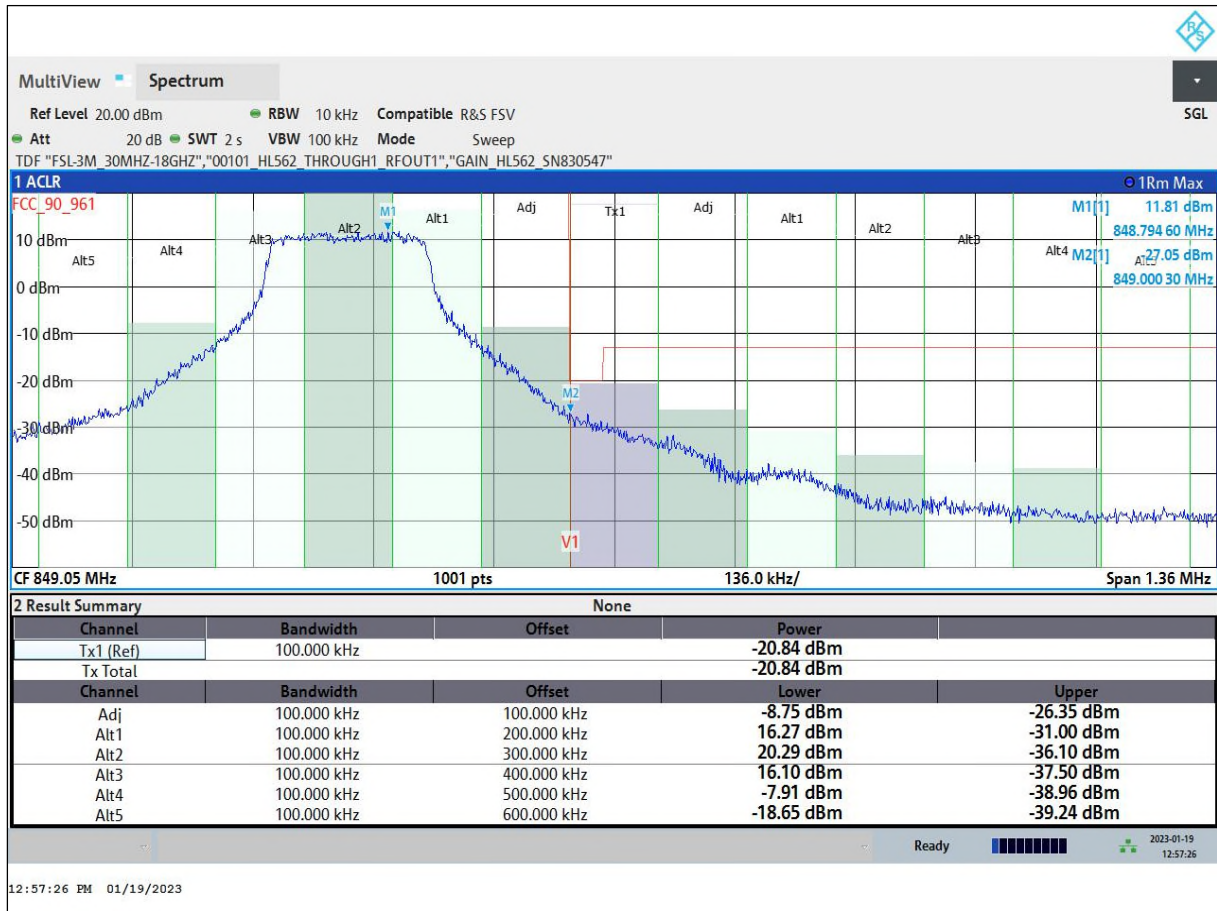
9.2601_Bandedge_low_LTE_FDD_B26_CH_low_1RB_low_sweep_1_ext_ant



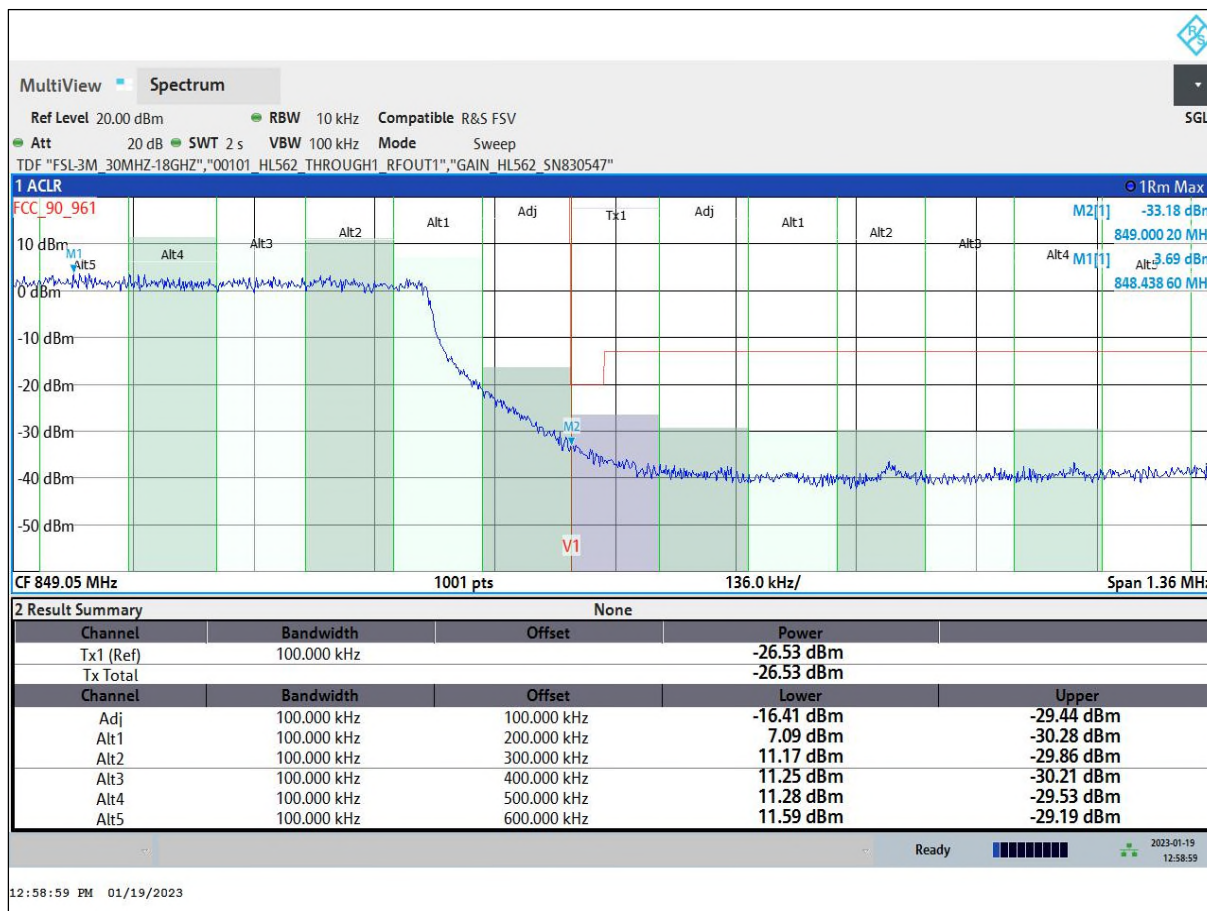
9.2602_Bandedge_low_LTE_FDD_B26_CH_low_RB_full_sweep_1_ext_ant



9.2603_Bandedge_high_LTE_FDD_B26_CH_high_1_RB_high_sweep_1_ext_ant



9.2604_Bandedge_high_LTE_FDD_B26_CH_high_RB_Full_sweep_1_ext_ant



3.8 Band-Edge LTE Band 66

9.6601a_Bandedge_low_LTE_FDD_B66_CH_low_RB_1_low_standing

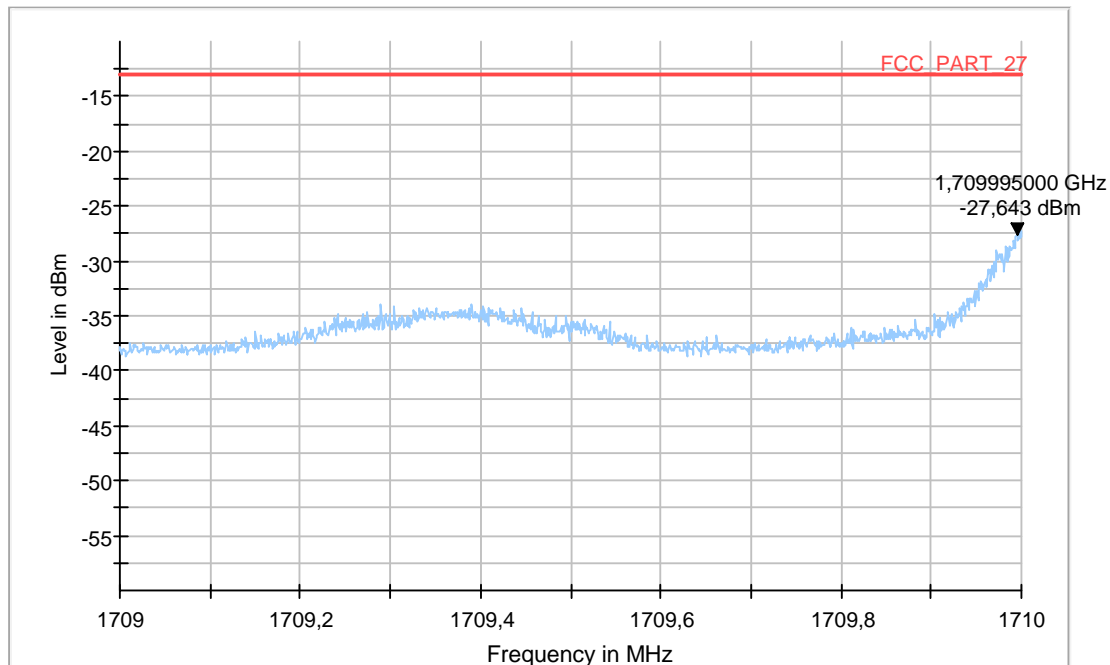
Common Information

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:	LTE_FDD_B66_CH_131979_standing
Exclusionband:	--
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Operator:	Lor
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01

Full Spectrum



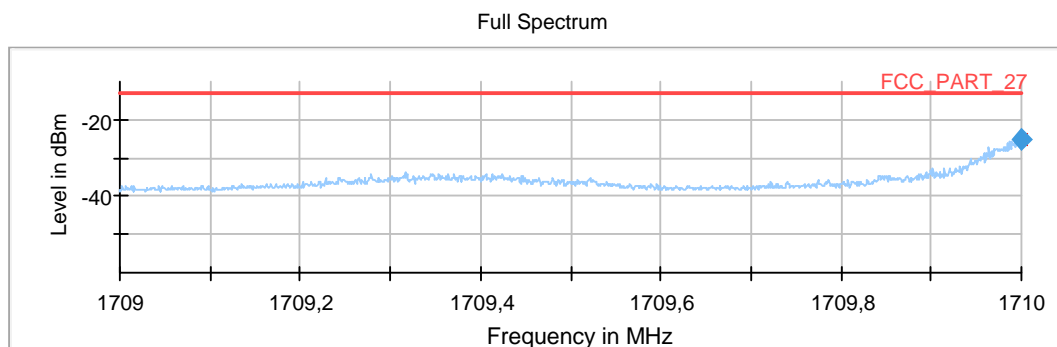
9.6601b_Bandedge_low_LTE_FDD_B66_CH_low_RB_1_low_laying

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: LTE_FDD_B66_CH_131979_laying/ 1RB low
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: Lor
 EUT Setup: external antenna / laying
 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)	Corr. (dB)	Sig Path (dB)
1709.999000	-25.19	-13.00	12.19	700.0	20.000	V	204.0	-62	6

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1709.999000	-68	37	14:46:35 - 03.01.2023

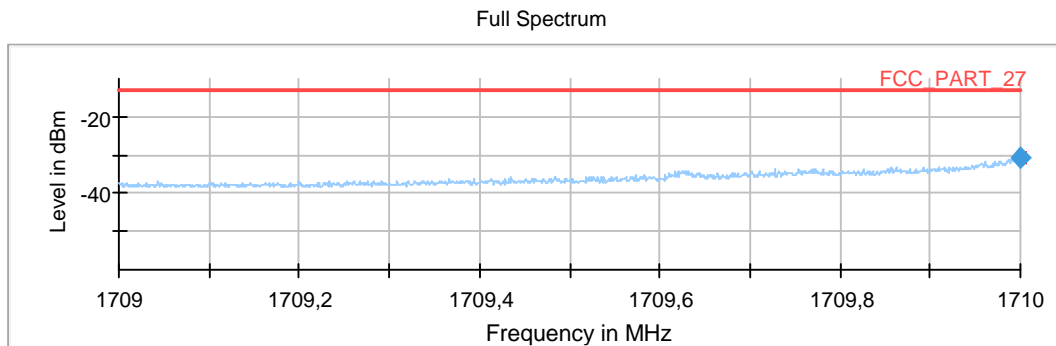
9.6602a_Bandedge_low_LTE_FDD_B66_CH_low_RB_Full_standing

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: LTE_FDD_B66_CH_131979_standing / Full RBs (6RB)
 Exclusionband: --
 Environmental Conditions:: Humidity : 44% rH; Temperature: 20 °C
 Operator: Lor
 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)	Corr. (dB)	Sig Path (dB)
1710.000000	-30.58	-13.00	17.58	700.0	20.000	H	56.0	-62	6

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1710.000000	-68	31	13:53:56 - 03.01.2023

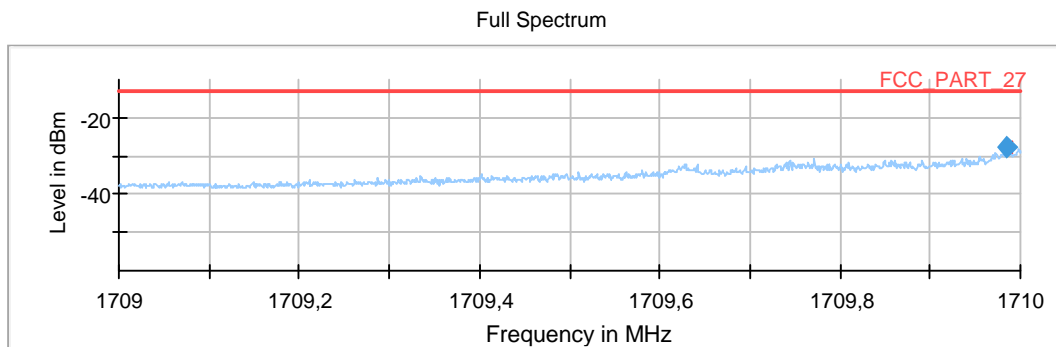
9.6602b_Bandedge_low_LTE_FDD_B66_CH_low_RB_Full_laying

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:	LTE_FDD_B66_CH_131979_standing / Full RBs (6RB)
Exclusionband:	--
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Operator:	Lor
EUT Setup:	external antenna / laying
Verdict:	Passed

EUT Information

PMT number:	21-1-01787550_C01
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Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
1709.984000	-27.80	-13.00	14.80	700.0	20.000	V	203.0	-62	6

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBμV)	Comment
1709.984000	-68	34	14:37:10 - 03.01.2023

9.6603a_Bandedge_high_LTE_FDD_B66_CH_high_RB_1_high_standing

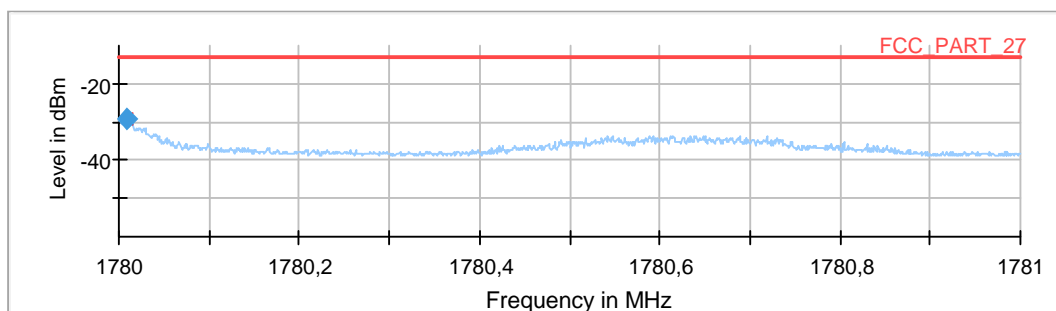
Common Information

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:	LTE_FDD_B66_CH_132665_standing / 1RB high
Exclusionband:	--
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Operator:	Lor
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)	Corr. (dB)	Sig Path (dB)
1780.008000	-29.14	-13.00	16.14	700.0	20.000	H	151.0	-62	6

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1780.008000	-68	33	14:09:15 - 03.01.2023

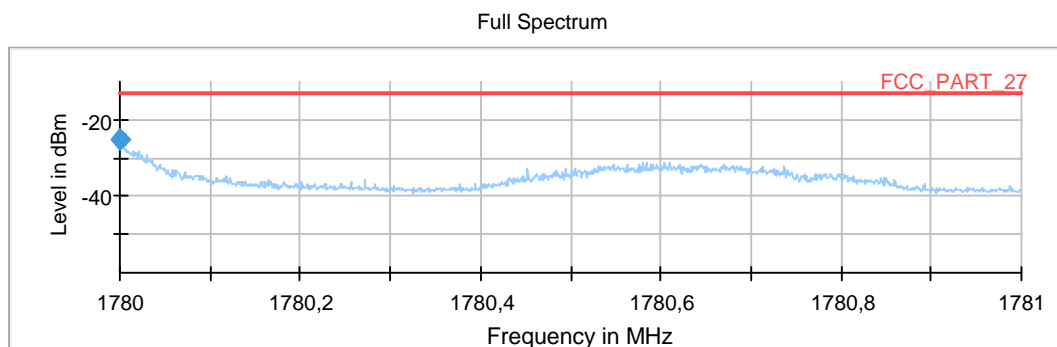
9.6603b_Bandedge_high_LTE_FDD_B66_CH_high_RB_1_high_laying

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: LTE_FDD_B66_CH_132665_laying / 1RB high
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 21 °C
 Operator: Lor
 EUT Setup: external antenna / laying
 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)	Corr. (dB)	Sig Path (dB)
1780.000000	-25.27	-13.00	12.27	700.0	20.000	V	177.0	-62	6

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1780.000000	-68	37	14:18:23 - 03.01.2023

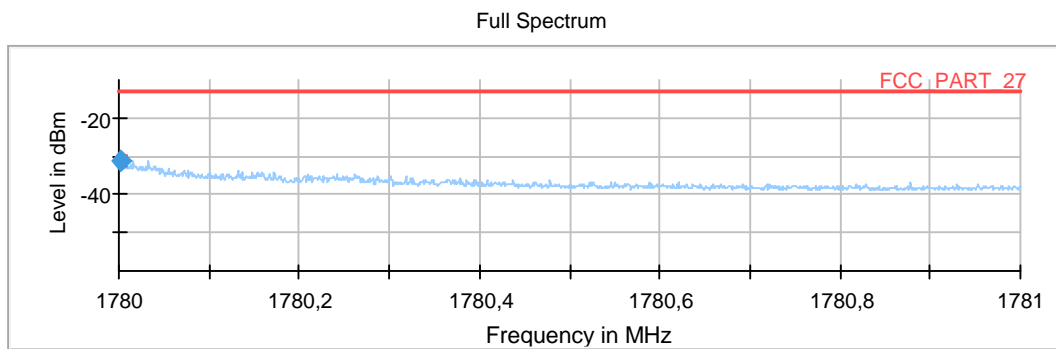
9.6604a_Band-edge_high_LTE_FDD_B66_CH_high_RB_Full_standing

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: LTE_FDD_B66_CH_132665_standing / Full RBs (6RBS)
 Exclusionband: --
 Environmental Conditions: Humidity : 44% rH; Temperature: 20 °C
 Operator: Lor
 EUT Setup: external antenna / standing
 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)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
1780.002000	-30.99	-13.00	17.99	700.0	20.000	H	135.0	-62	6

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

Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1780.002000	-68	31	14:02:14 - 03.01.2023

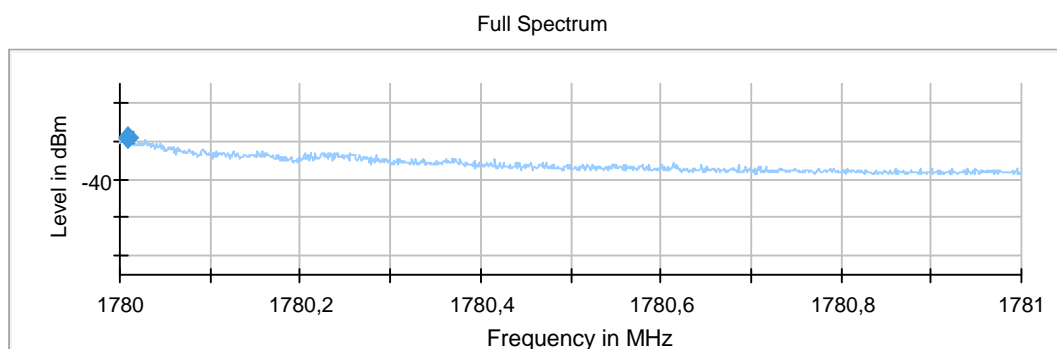
9.6604b_Band-edge_high_LTE_FDD_B66_CH_high_RB_Full_laying

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:	LTE_FDD_B66_CH_132665_laying / 6RBs
Exclusionband:	--
Environmental Conditions::	Humidity : 44% rH; Temperature: 20 °C
Operator:	Lor
EUT Setup:	external antenna / laying
Verdict:	Passed

EUT Information

PMT number: 21-1-01787550_C01



Final_Result

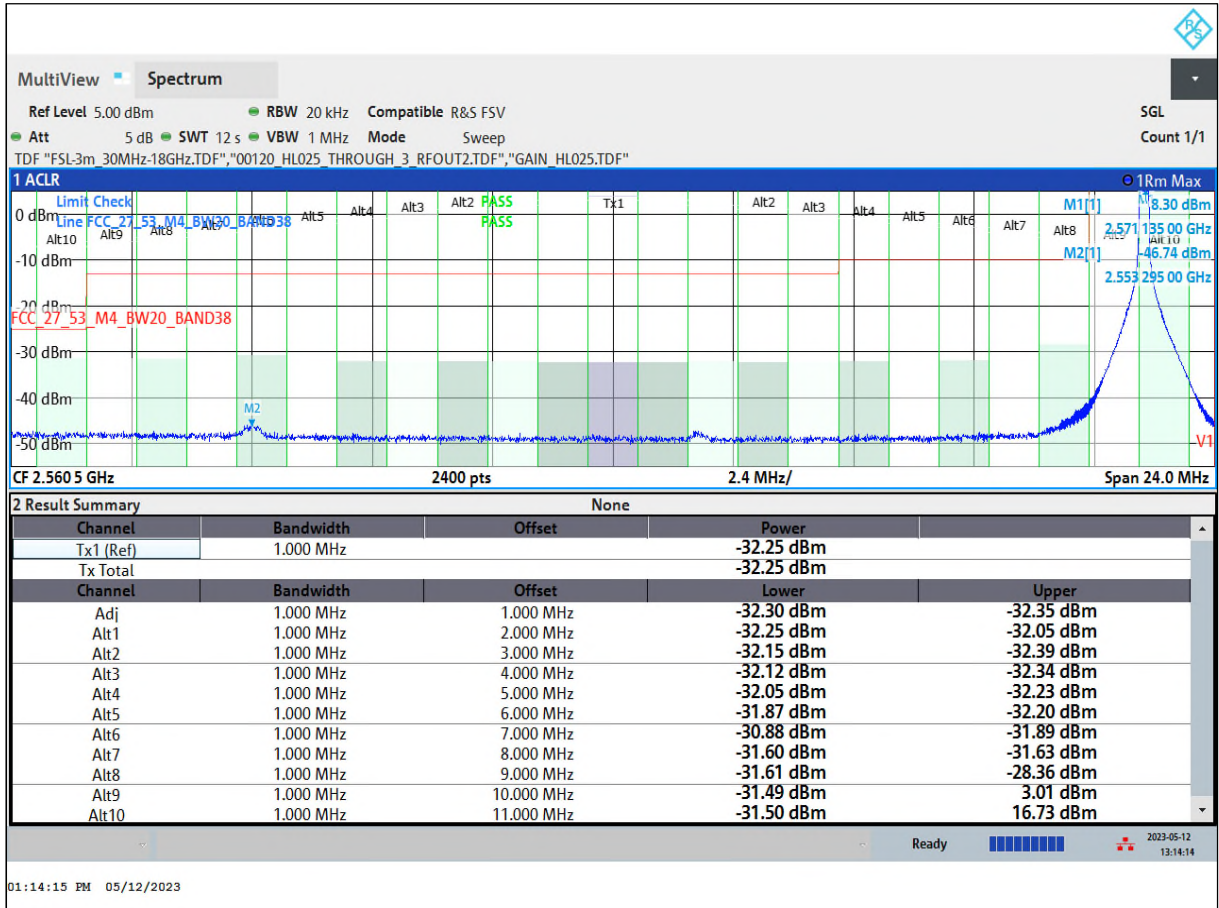
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)
1780.008000	-29.28	-13.00	16.28	700.0	20.000	V	179.0	-62	6

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

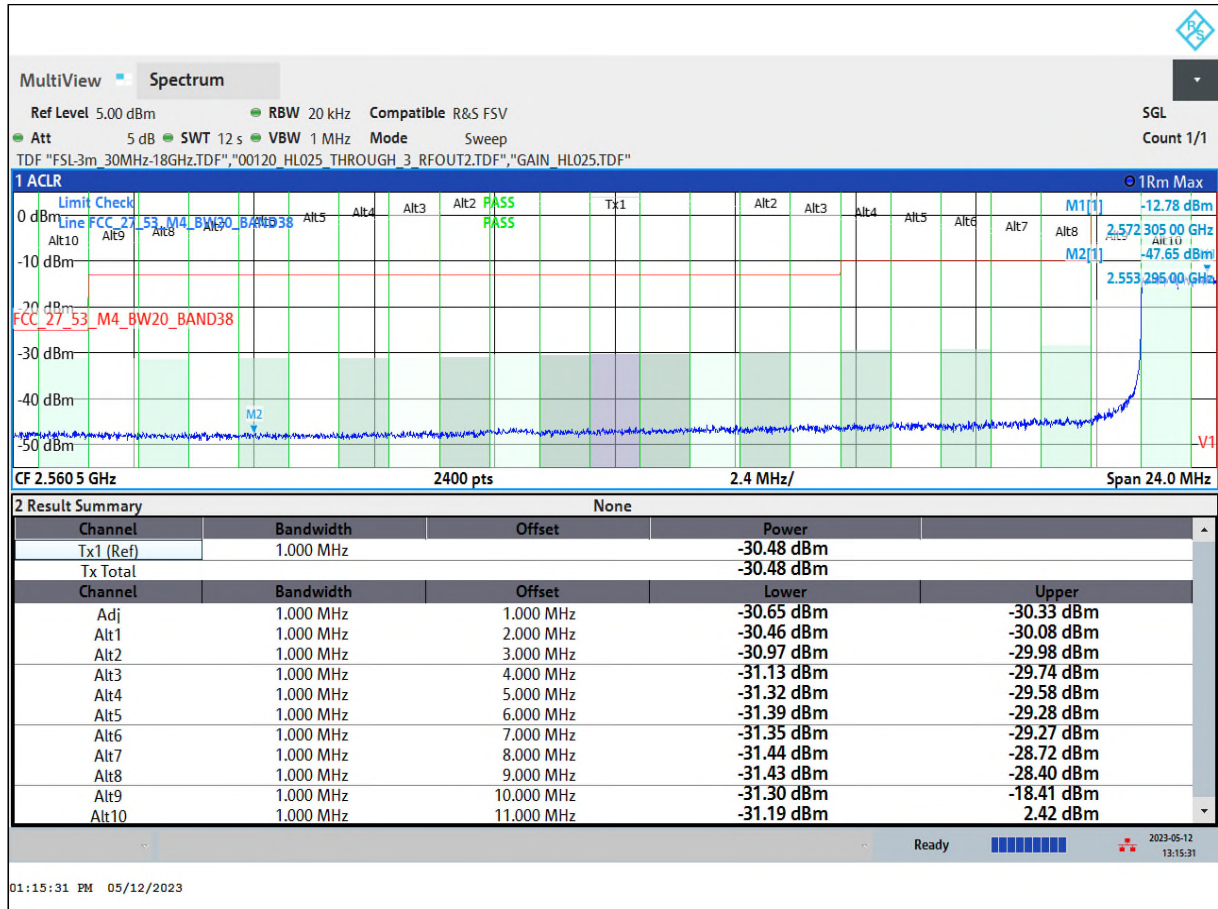
Frequency (MHz)	Trd Corr. (dB)	Raw Rec (dBµV)	Comment
1780.008000	-68	33	14:27:29 - 03.01.2023

3.9 Band-Edge LTE Band 38

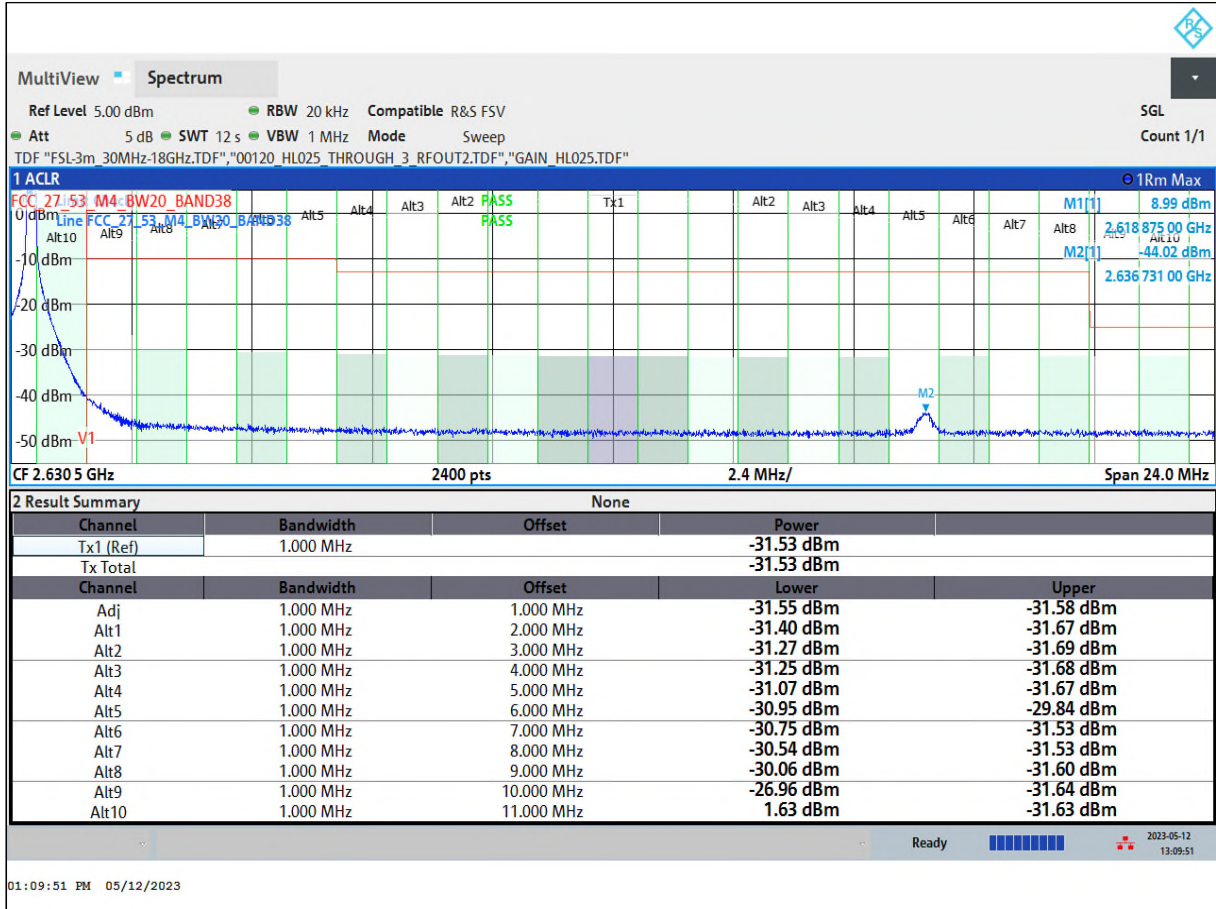
9.3801_Bandedge_low_LTE_TDD_B38_CH_low_RB_1_low_External_Antenna



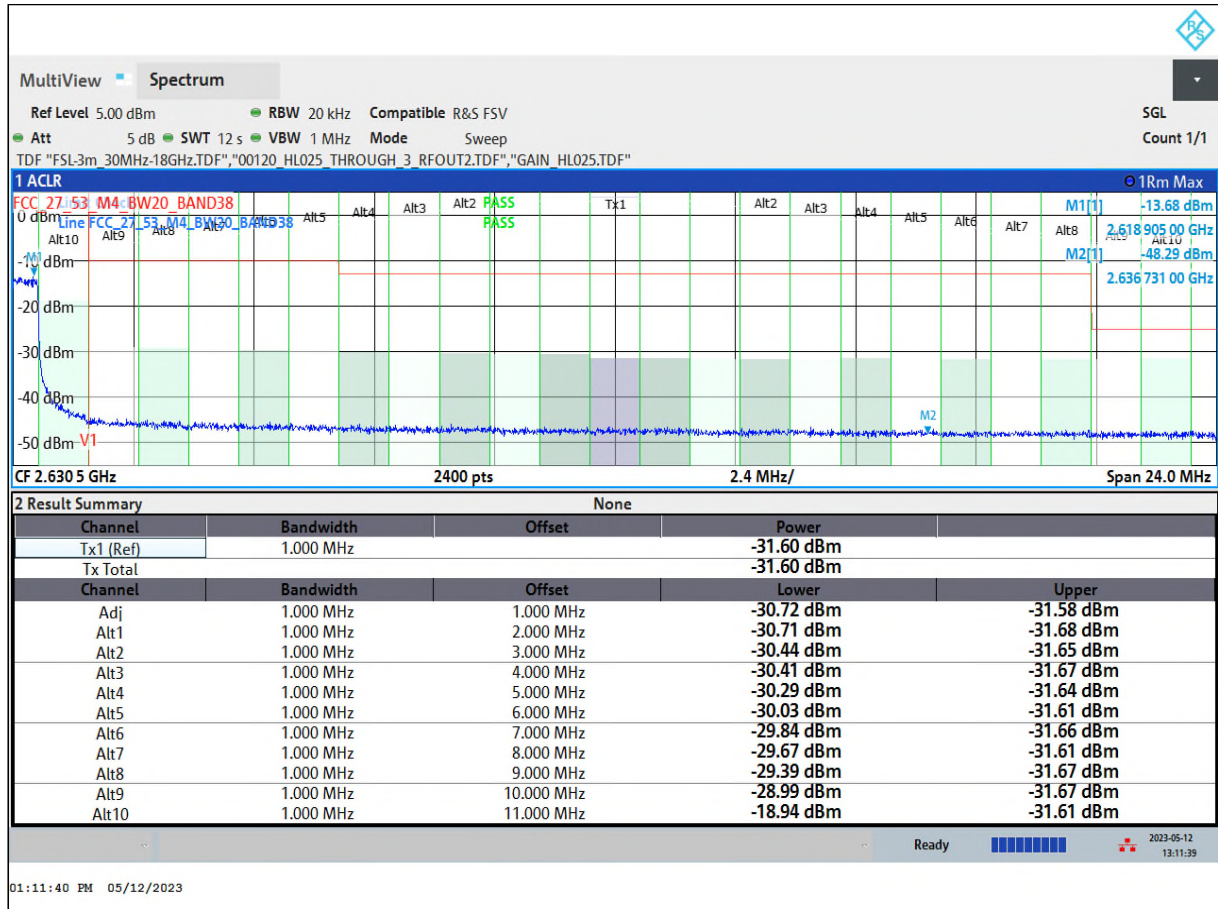
9.3802_Bandedge_low_LTE_TDD_B38_CH_low_RB_Full_External_Antenna



9.3803_Bandedge_high_LTE_TDD_B38_CH_high_RB_1_high_External_Antenna



9.3804_Bandedge_high_LTE_TDD_B38_CH_high_RB_Full_External_Antenna



End Of Annex 1