

## Annex 1: Measurement diagrams 22-1-0030601T048a-C01-A1

<b>Number of pages:</b>	18	<b>Date of Report:</b>	2023-Mar-31
<b>Testing company:</b>	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	<b>Applicant:</b>	Continental Automotive Technologies GmbH
<b>Product:</b> <b>Model:</b>	Telematic Control Unit BSRF_EA_RW0		
<b>FCC ID:</b>	KR5-BSRFEARW0	<b>IC:</b>	--
<b>Testing has been carried out in accordance with:</b>	<b>FCC Regulations</b> <b>Title 47 CFR, Chapter I, Subchapter A</b> Part 15, Subpart C Intentional Radiators § 15.209 Radiated emission limits; general requirements <b>Title 47 CFR, Chapter I, Subchapter B</b> Part 22, Subpart H Cellular Radiotelephone Service Part 24, Subpart E Paging and Radiotelephone Service <b>ISED-Regulations</b> <b>Radio Standards Specification</b> <b>RSS-Gen, Issue 5</b> General Requirements for Compliance of Radio Apparatus <b>RSS-132, Issue 3</b> Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz <b>RSS-133, Issue 6, Amendment 1</b> 2 GHz Personal Communications Services		

## Table of Contents

1	Measurement diagrams.....	3
---	---------------------------	---

## 1 Measurement diagrams

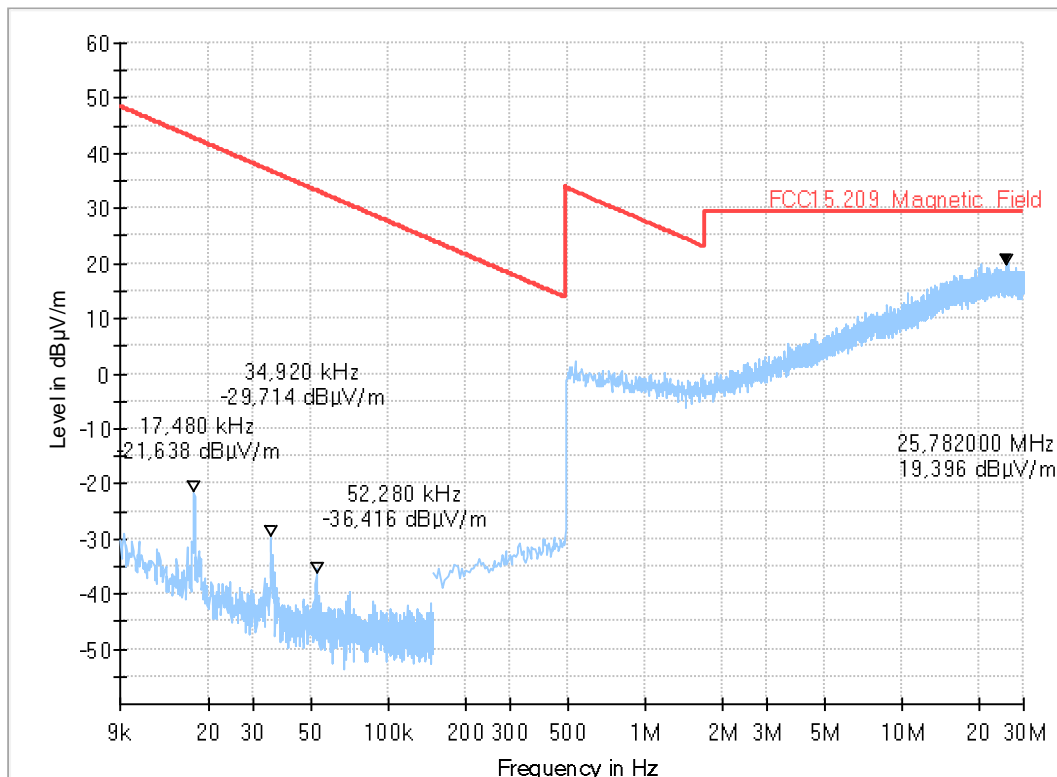
### 2.1901a\_H\_field\_GSM\_1900\_CH\_512

#### 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:	npe
Operating Mode:	GSM 1900 TCH
Environmental Conditions:	Humidity : 50% rH; Temperature: 21 °C
EUT Setup:	2, standing
Verdict:	Passed

#### EUT Information

PMT number	22-1-00306S139_C01
	Full Spectrum



## 2.1901b\_H\_field\_GSM\_1900\_CH\_512

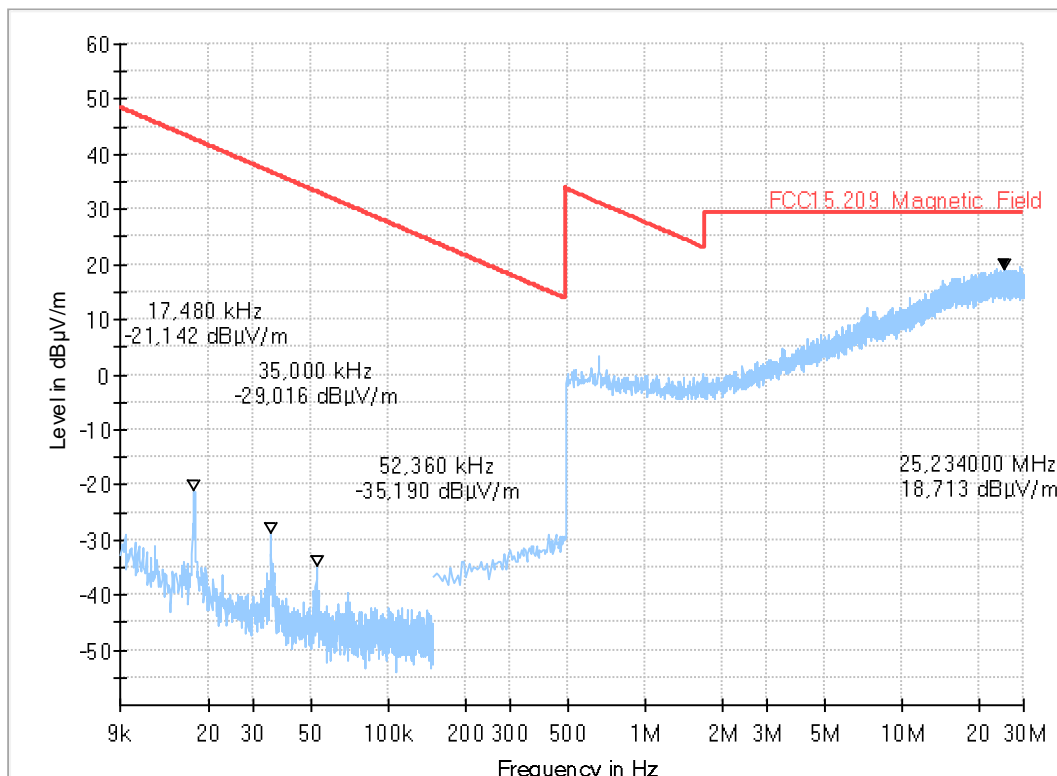
### Common Information

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:	npe
Operating Mode:	GSM 1900 TCH
Environmental Conditions:	Humidity : 50% rH; Temperature: 21 °C
EUT Setup:	2, laying
Verdict:	Passed

### EUT Information

PMT number	22-1-00306S139_C01
------------	--------------------

Full Spectrum



## 2.850a\_H\_field\_GSM\_850\_CH\_128

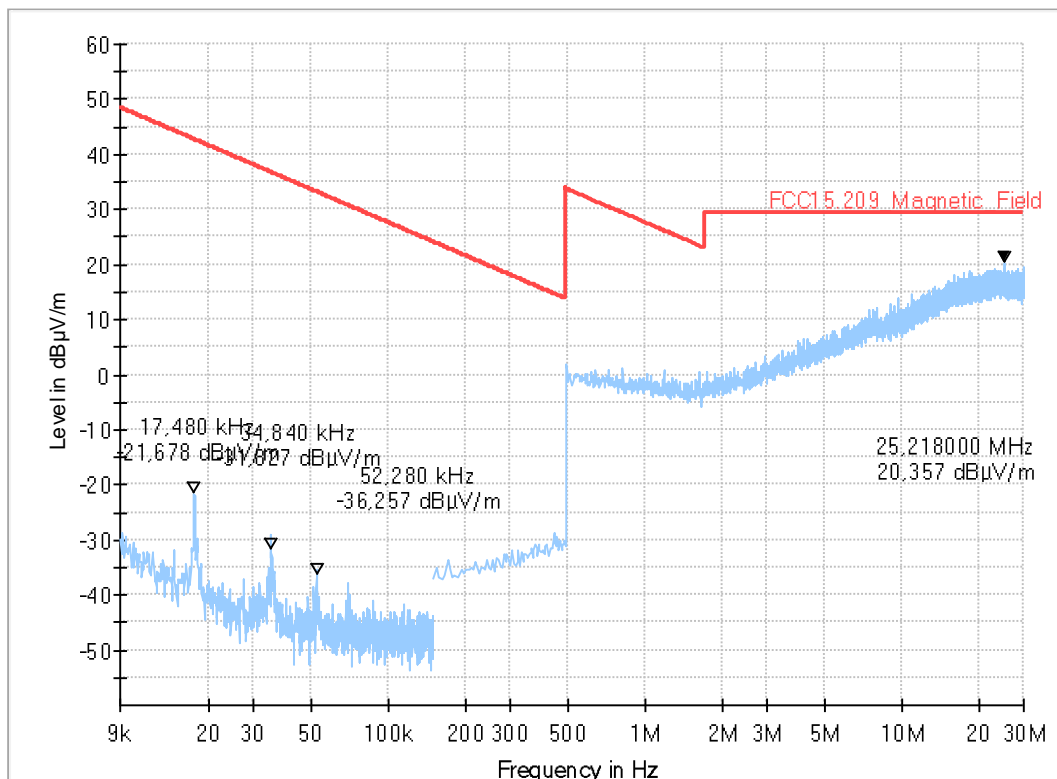
### Common Information

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:	npe
Operating Mode:	GSM 850 TCH
Environmental Conditions:	Humidity : 50% rH; Temperature: 21 °C
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number 22-1-00306S139\_C01

Full Spectrum



## 2.850b\_H\_field\_GSM\_850\_CH\_128

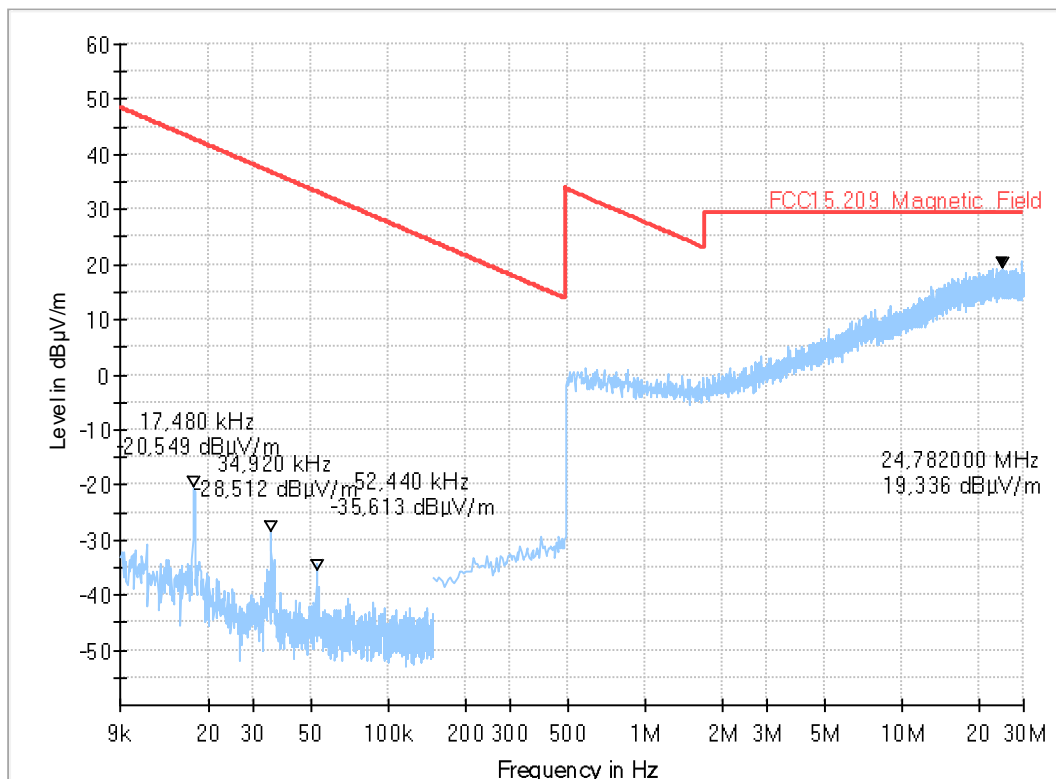
### Common Information

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:	npe
Operating Mode:	GSM 850 TCH
Environmental Conditions:	Humidity : 50% rH; Temperature: 21 °C
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number 22-1-00306S139\_C01

Full Spectrum



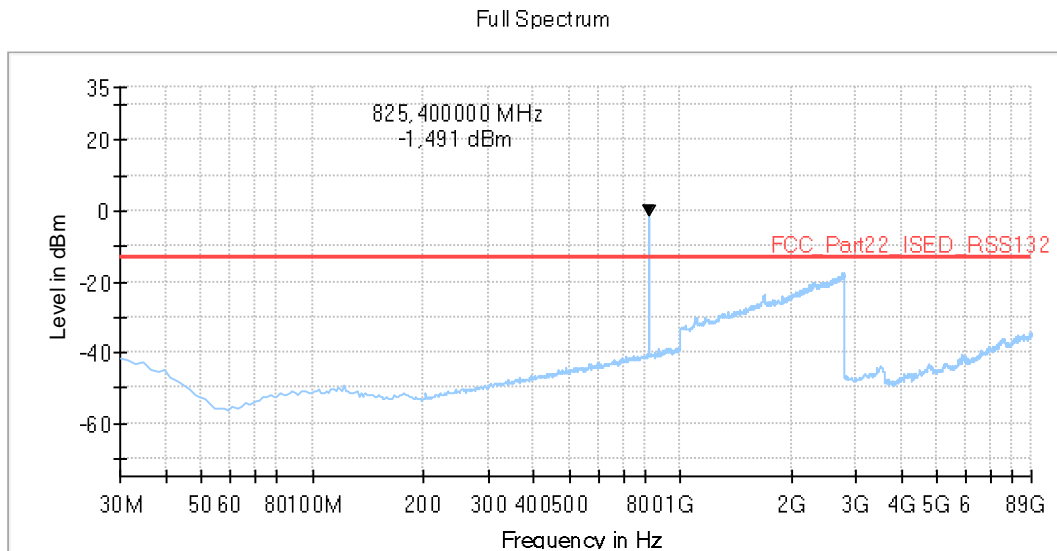
## 8.01\_Traffic\_mode\_GSM\_850\_CH\_128

### Common Information

Test Description:	Radiated emission related to 3m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC FCC Part 24.238 Broadband PCS
Antenna polarisation:	vertical / horizontal
Operating Mode:	GSM 850 ch128
Operator:	TFra
Environmental Conditions::	Humidity : 50% rH; Temperature: 20 °C
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number: 22-1-00306S139\_C01



Remark: Emission at 825.4 GHz is uplink frequency of GSM 850 and not related to result.

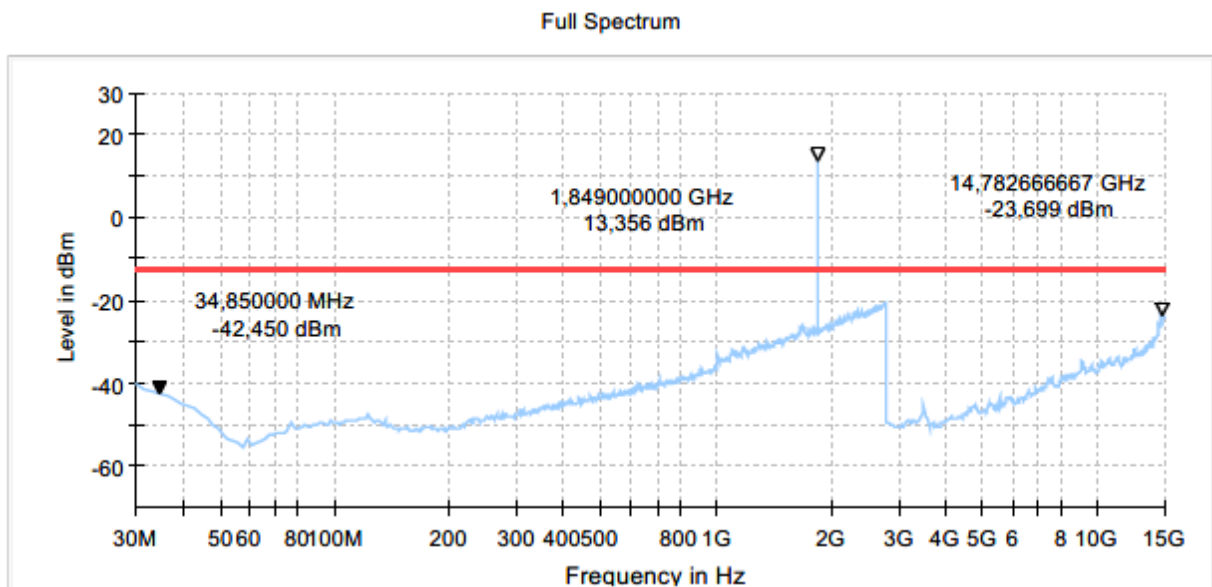
## 8.02\_Traffic\_mode\_GSM\_1900\_CH\_512

### Common Information

Test Description:	Radiated emission related to 1m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC FCC Part 24.238 Broadband PCS
Antenna polarisation:	vertical / horizontal
Operating Mode:	GSM 1900 ch512
Operator:	TFra
Environmental Conditions:	Humidity : 45% rH; Temperature: 19 °C
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number:	22-1-00306S139_C01
-------------	--------------------



Remark: Emission at 1.849 GHz is uplink frequency of GSM 1900 and not related to result.



## 8.03a\_Traffic\_mode\_GSM\_1900\_CH\_512

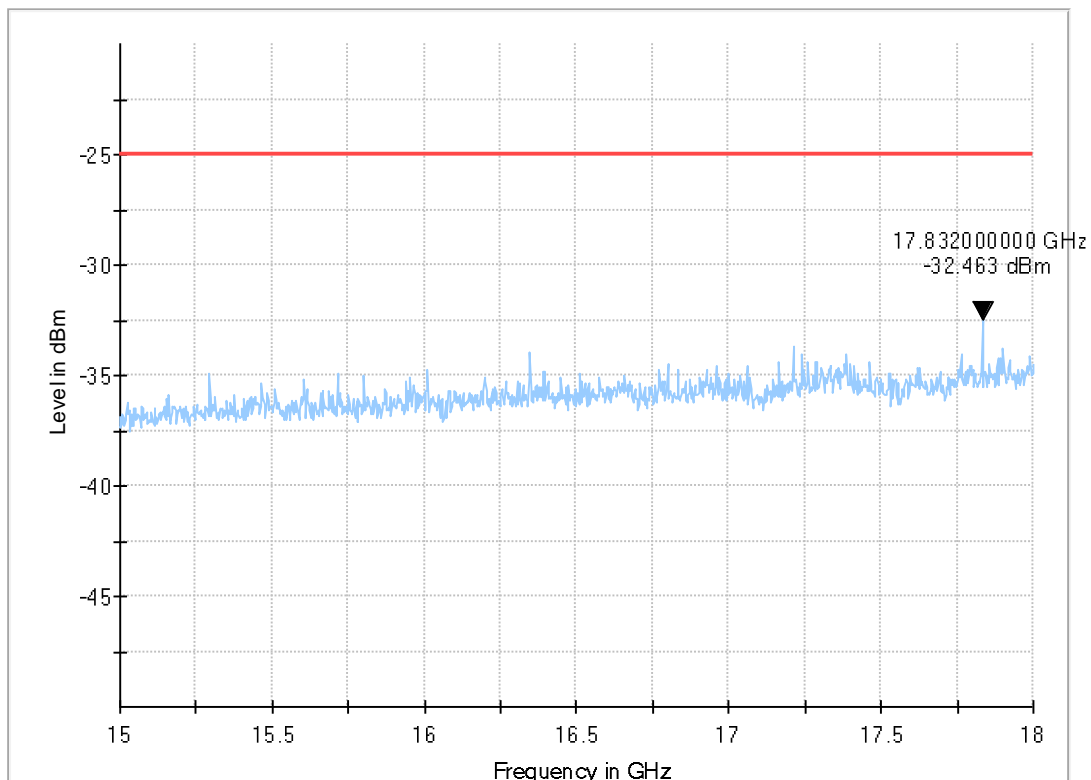
### Common Information

Test Description:	Radiated Field Strength Emission
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24
Comm. Link:	GSM 1900
Operating Mode:	MS allocated channel 512
Exclusionband:	--
Environmental Conditions:	Humidity: 45% rH; Temperature: 21 °C
Operator:	npe
Set-up:	1, EUT laying, Ant Hor
Verdict:	Passed

### EUT Information

PMT Sample Nr.	22-1-00306S58_C01
----------------	-------------------

Full Spectrum



## 8.03b\_Traffic\_mode\_GSM\_1900\_CH\_512

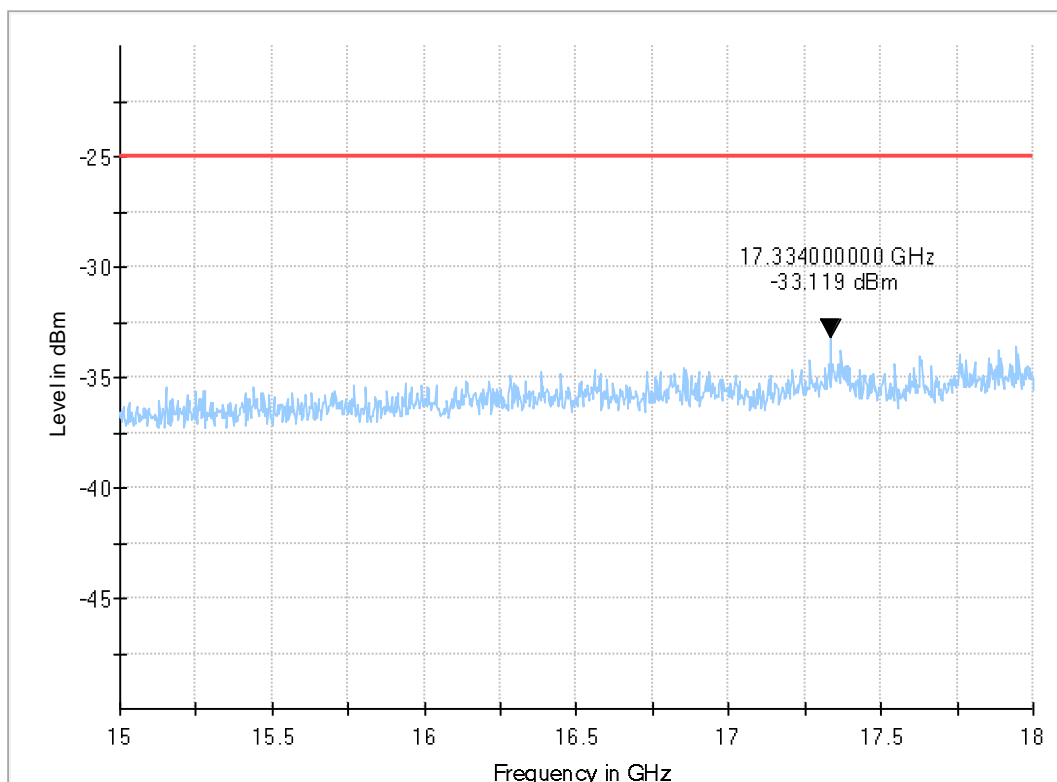
### Common Information

Test Description:	Radiated Field Strength Emission
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24
Comm. Link:	GSM 1900
Operating Mode:	MS allocated channel 512
Exclusionband:	--
Environmental Conditions:	Humidity: 45% rH; Temperature: 21 °C
Operator:	npe
Set-up:	1, EUT standing, Ant Hor
Verdict:	Passed

### EUT Information

PMT Sample Nr.	22-1-00306S58_C01
----------------	-------------------

Full Spectrum



## 8.03c\_Traffic\_mode\_GSM\_1900\_CH\_512

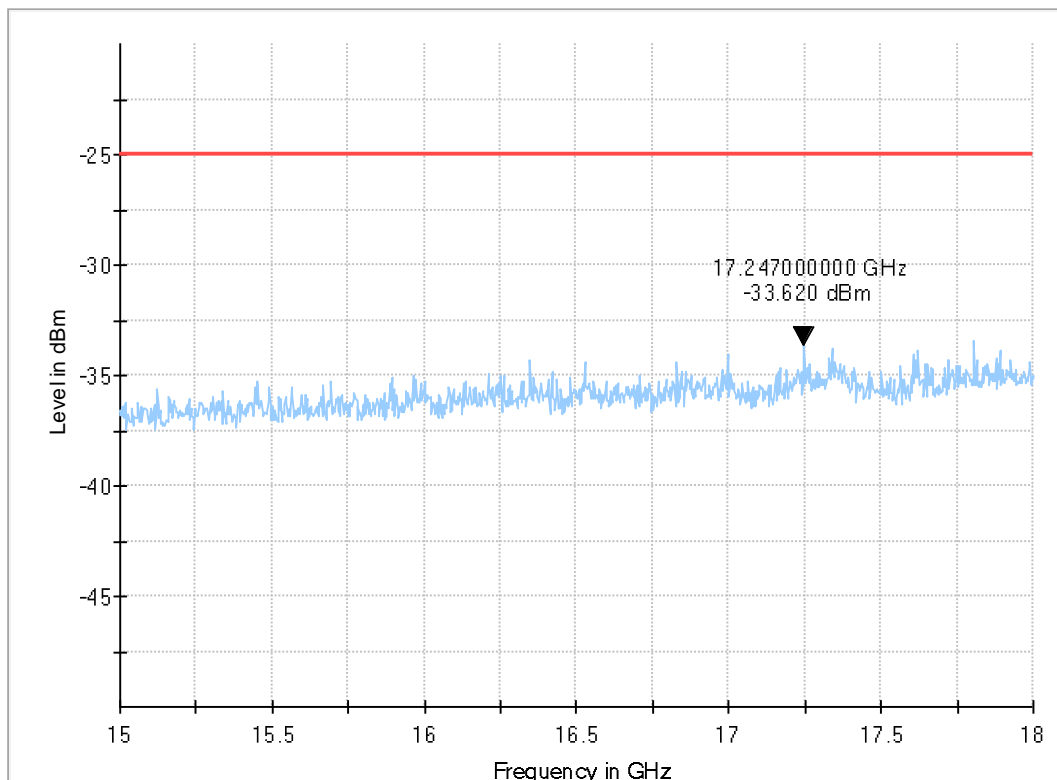
### Common Information

Test Description:	Radiated Field Strength Emission
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24
Comm. Link:	GSM 1900
Operating Mode:	MS allocated channel 512
Exclusionband:	--
Environmental Conditions:	Humidity: 45% rH; Temperature: 21 °C
Operator:	npe
Set-up:	1, EUT laying, Ant Ver
Verdict:	Passed

### EUT Information

PMT Sample Nr.	22-1-00306S58_C01
----------------	-------------------

Full Spectrum



## 8.03d\_Traffic\_mode\_GSM\_1900\_CH\_512

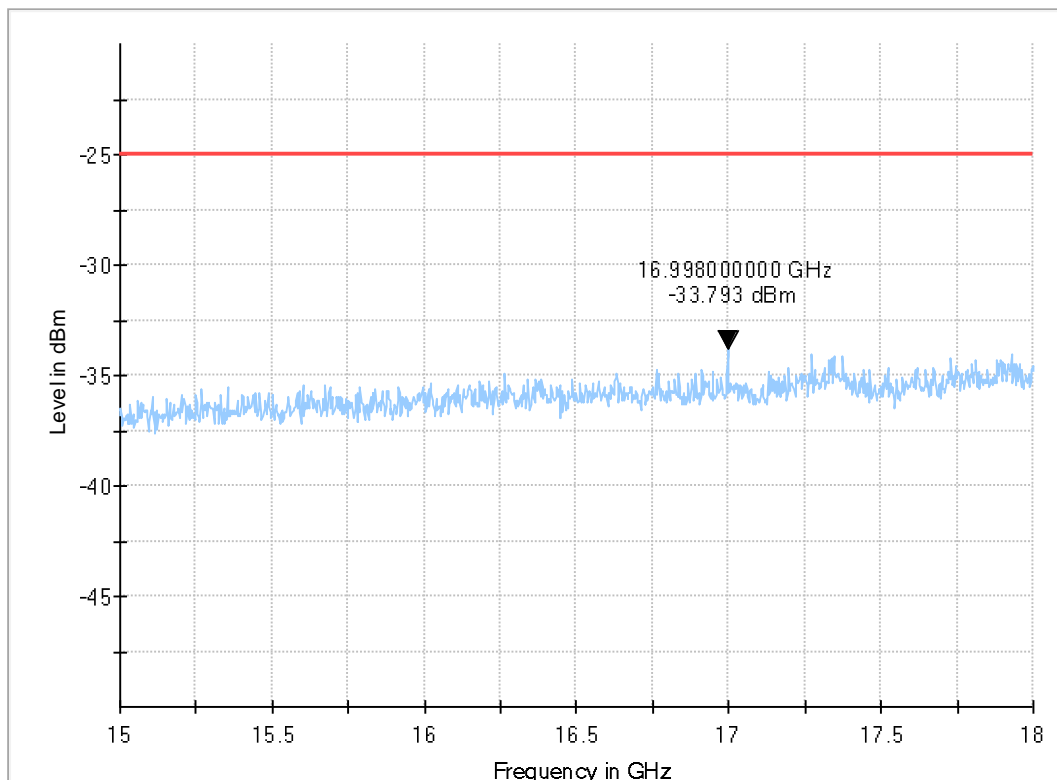
### Common Information

Test Description:	Radiated Field Strength Emission
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC Part 24
Comm. Link:	GSM 1900
Operating Mode:	MS allocated channel 512
Exclusionband:	--
Environmental Conditions:	Humidity: 45% rH; Temperature: 21 °C
Operator:	npe
Set-up:	1, EUT standing, Ant Ver
Verdict:	Passed

### EUT Information

PMT Sample Nr.	22-1-00306S58_C01
----------------	-------------------

Full Spectrum



## 8.04a\_Traffic\_mode\_GSM\_1900\_CH\_512

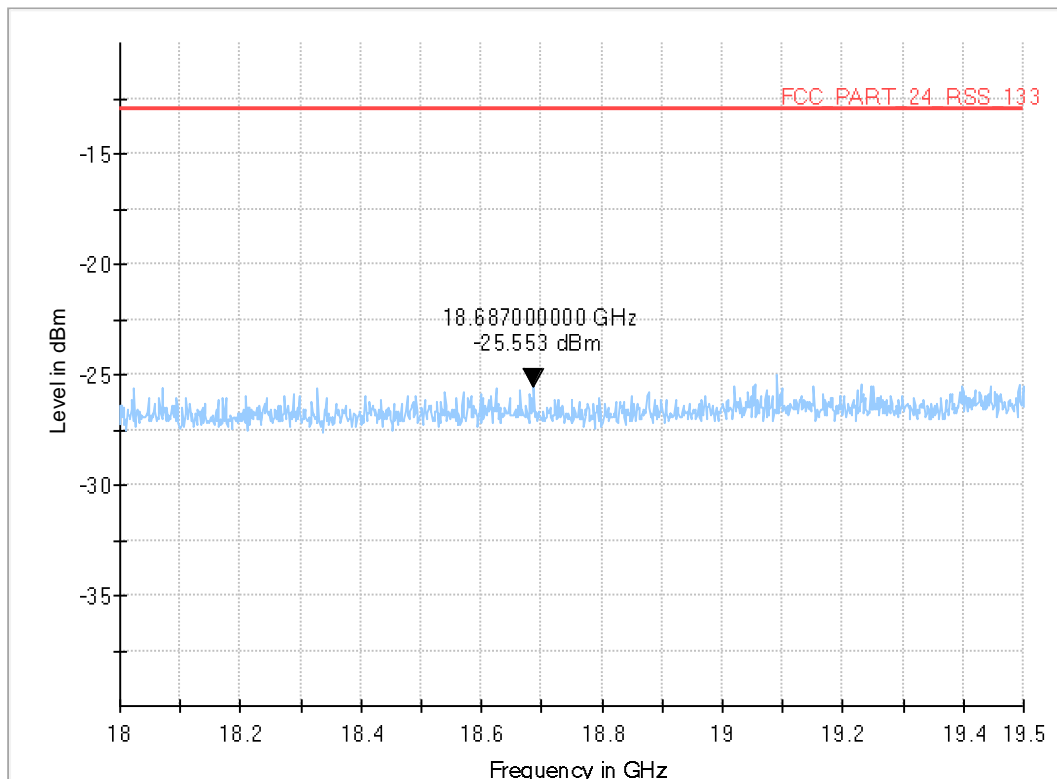
### Common Information

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:	GSM1900, Voice/EDGE
Operating Mode:	MS allocated channel 512 (UL = 1850.2MHz),661(UL = 1880.0MHz),810 (UL = 1909.8MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 45% rH; Temperature: 22.1 °C
Operator:	npe
EUT Setup:	1, EUT laying, Ant hor/ver, backup antenna
Verdict:	Passed

### EUT Information

PMT Sample Nr.	22-1-00306S58_C01
----------------	-------------------

Full Spectrum



## 8.04c\_Traffic\_mode\_GSM\_1900\_CH\_512

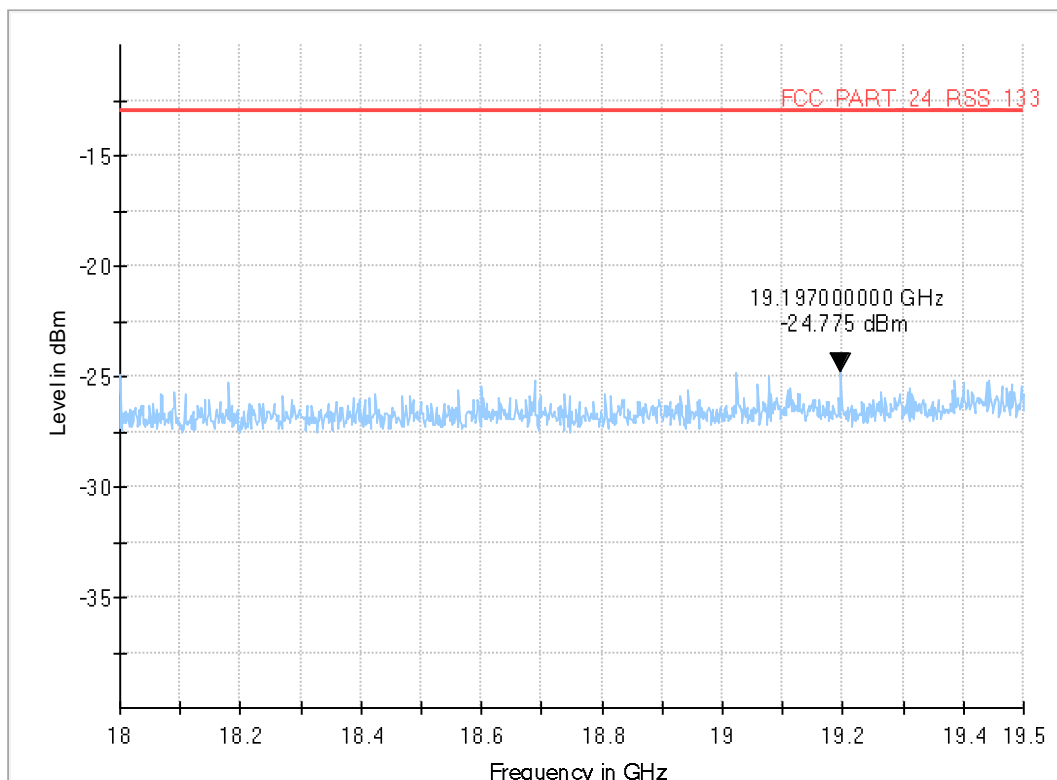
### Common Information

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:	GSM1900, Voice/EDGE
Operating Mode:	MS allocated channel 512 (UL = 1850.2MHz),661(UL = 1880.0MHz),810 (UL = 1909.8MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 45% rH; Temperature: 22.1 °C
Operator:	npe
EUT Setup:	1, EUT standing, Ant hor/ver, backup antenna
Verdict:	Passed

### EUT Information

PMT Sample Nr. 22-1-00306S58\_C01

Full Spectrum



## 9.850\_Bandedge\_low\_Channel\_128\_UL\_824.2

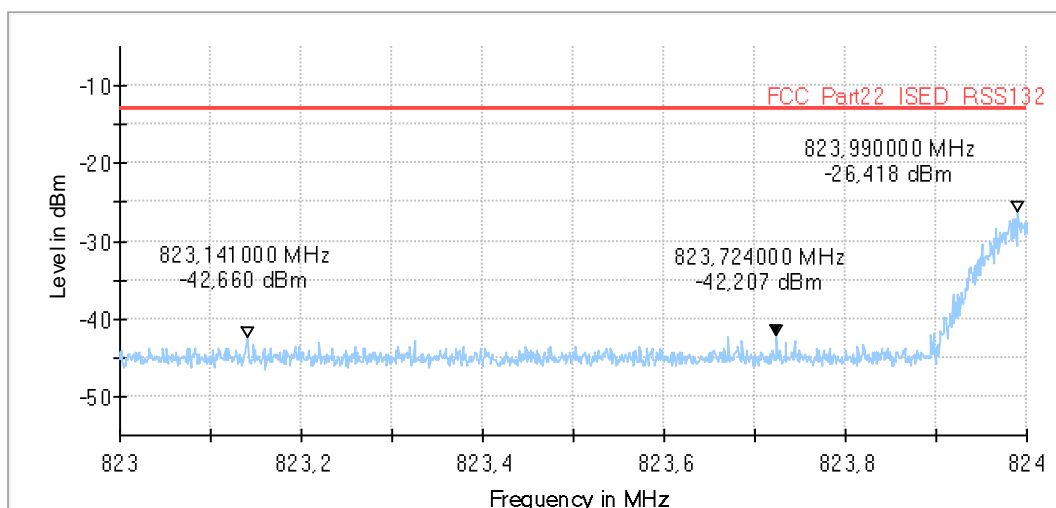
### Common Information

Test Description:	Radiated emission related to 1m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC FCC Part 24.238 Broadband PCS
Antenna polarisation:	vertical / horizontal
Operating Mode:	GSM 850 ch128
Operator:	TFra
Environmental Conditions:	Humidity : 45% rH; Temperature: 19 °C
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number: 22-1-00306S139\_C01

Full Spectrum



## 9.851\_Bandedge\_high\_Channel\_251\_UL\_848.8

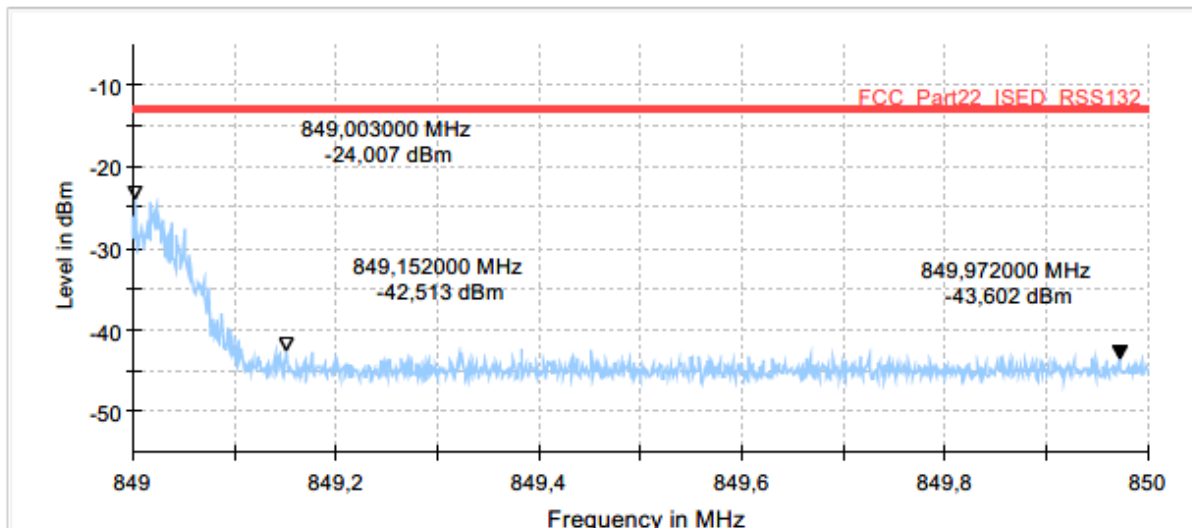
### Common Information

Test Description:	Radiated emission related to 1m
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC FCC Part 24.238 Broadband PCS
Antenna polarisation:	vertical / horizontal
Operating Mode:	GSM 850 ch251
Operator:	TFra
Environmental Conditions:	Humidity : 45% rH; Temperature: 19 °C
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number:	22-1-00306S139_C01
-------------	--------------------

Full Spectrum





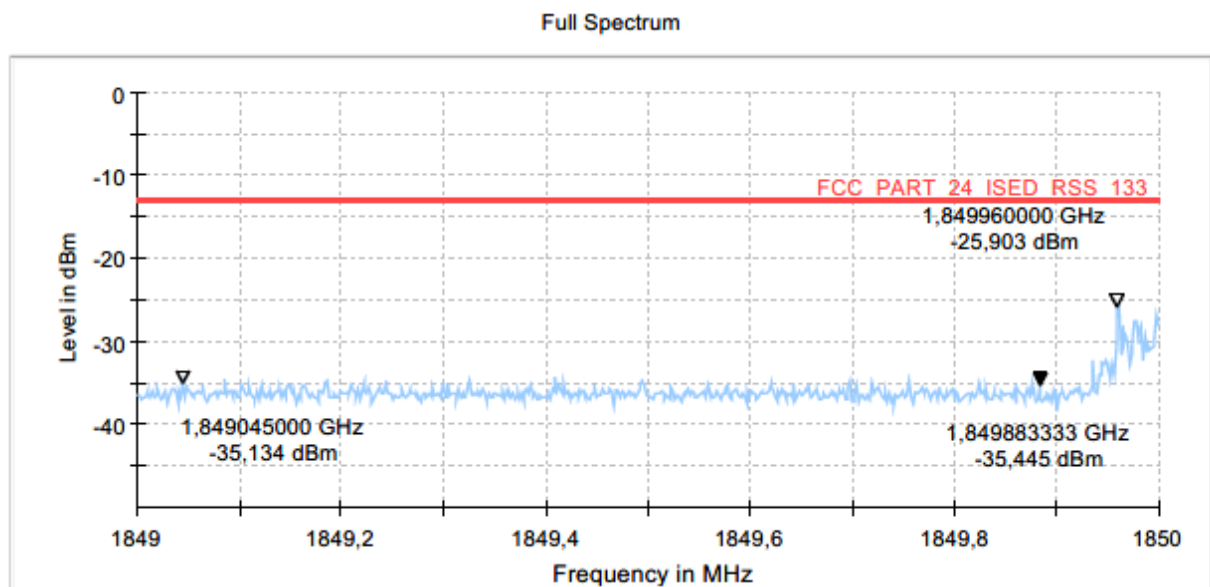
## 9.1901\_Bandedge\_low\_Channel\_512\_UL\_1850.2

### Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	-
Test Case:	-
Operating Mode:	GSM 1900 ch512
Environmental Conditions:	Humidity : 45% rH; Temperature: 19 °C
Operator:	TFra
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number:	22-1-00306S139_C01
-------------	--------------------



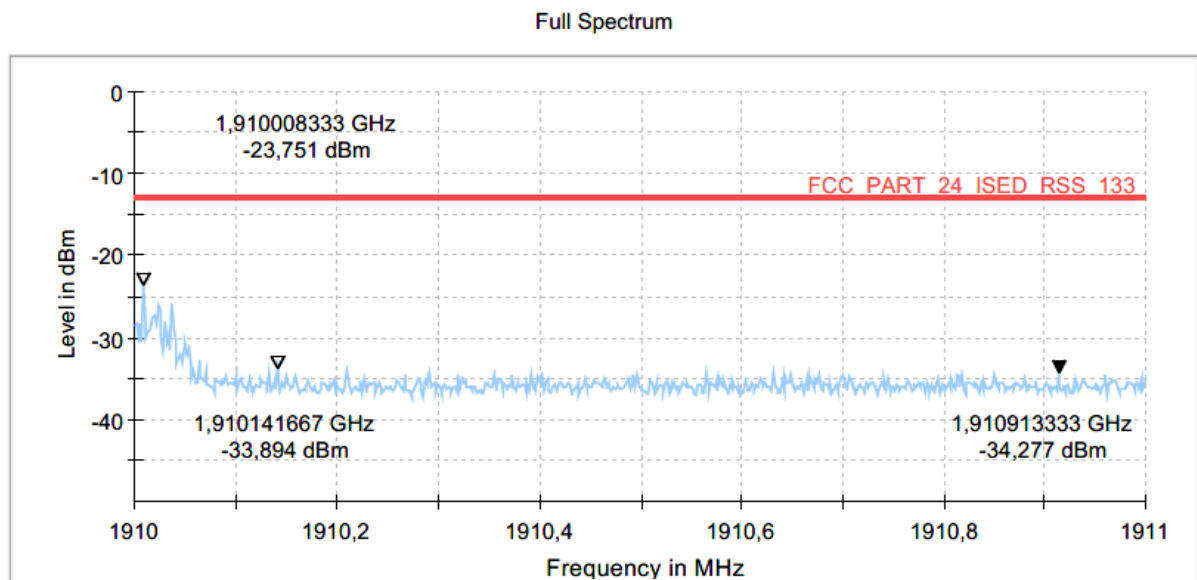
## 9.1902\_Bandedge\_high\_Channel\_810\_UL\_1909.8

### Common Information

Test Description:	-
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	-
Test Case:	-
Operating Mode:	GSM 1900 ch810
Environmental Conditions:	Humidity : 45% rH; Temperature: 19 °C
Operator:	TFra
EUT Setup:	2
Verdict:	Passed

### EUT Information

PMT number:	22-1-00306S139_C01
-------------	--------------------



End Of Annex 1