

Annex 1: Measurement diagrams to  
**TEST REPORT**  
 No.: 17-1-0227101T02a-C1







According to:  
**FCC Regulations**  
 Part 22, Part 24

for

**Daimler Trucks**

**A 000 446 5860**  
**CTPMID**

FCC: 2AMIOCTP4465860

Laboratory Accreditation and Listings			
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<p><b>CETECOM GmbH</b></p> <p>Laboratory Radio Communications &amp; Electromagnetic Compatibility Im Teelbruch 116 • 45219 Essen • Germany</p> <p>Registered in Essen, Germany, Reg. No.: HRB Essen 8984 Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964 E-mail: info@cetecom.com • Internet: www.cetecom.com</p>			

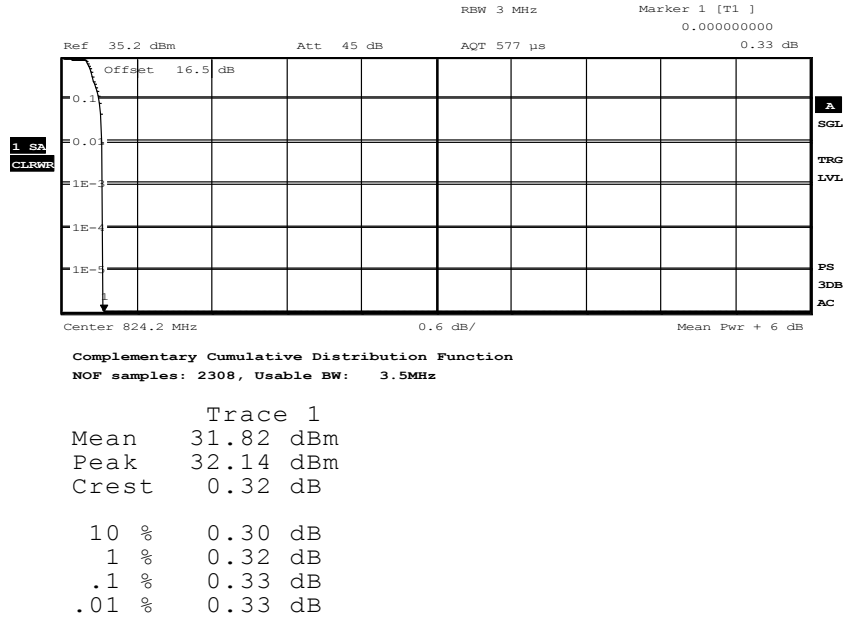
## Table of contents

<b>1. MEASUREMENT DIAGRAMS.....</b>	<b>3</b>
1.1. Power Measurements and PAPR-Value .....	3
1.2. Magnetic field emissions radiated (850 MHz transmitting mode).....	11
1.3. Magnetic field emissions radiated (1900 MHz transmitting mode).....	14
1.4. Spurious emissions radiated (850 MHz transmitting mode).....	17
1.5. Spurious emissions radiated (1900 MHz transmitting mode).....	20
1.6. Radiated emissions on 850 MHz transmitting band-edge.....	23
1.7. Radiated emissions on 1900 MHz transmitting band-edge.....	25

## 1. Measurement diagrams

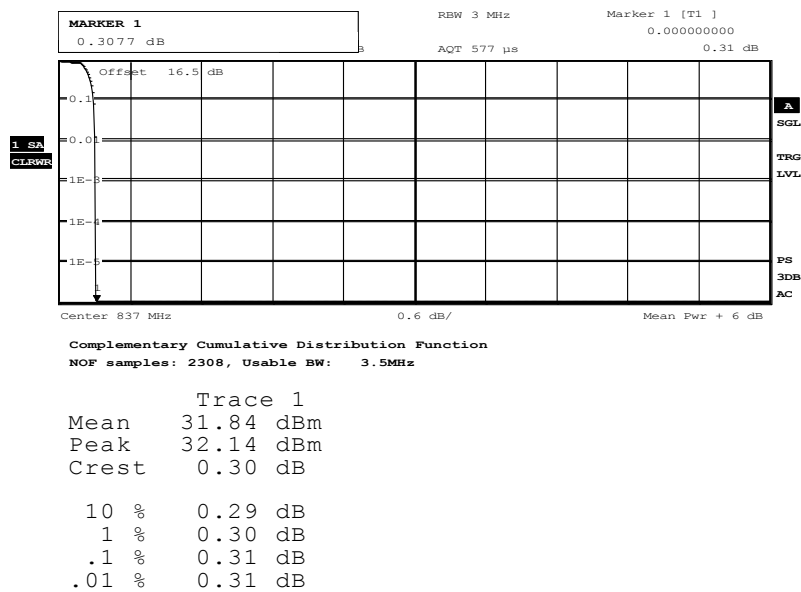
### 1.1. Power Measurements and PAPR-Value

#### 1.1.1. GSM 850 (GMSK Modulation)



Date: 16.JAN.2018 11:15:08

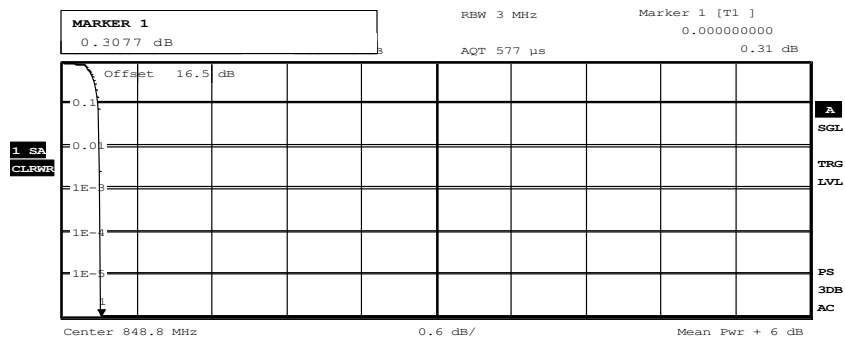
#### Diagram CCDF\_128\_GMSK



Date: 16.JAN.2018 11:17:27

Diagram

#### CCDF\_192\_GMSK



Complementary Cumulative Distribution Function  
NOF samples: 2308, Usable BW: 3.5MHz

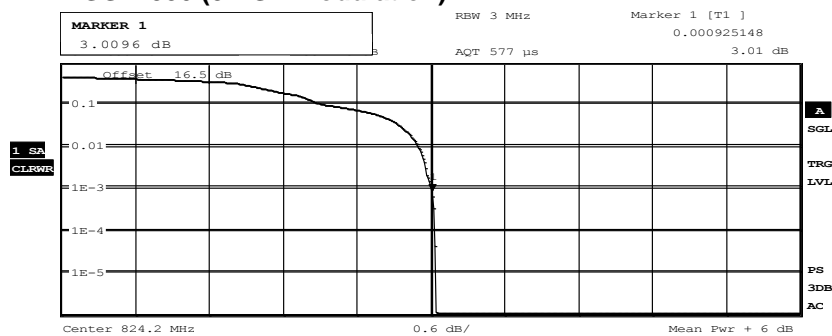
Trace 1  
Mean 31.84 dBm  
Peak 32.14 dBm  
Crest 0.30 dB

10 % 0.29 dB  
1 % 0.30 dB  
.1 % 0.31 dB  
.01 % 0.31 dB

Date: 16.JAN.2018 11:18:02

### Diagram CCDF\_251\_GMSK

## 1.1.2. GSM 850 (8-PSK Modulation)



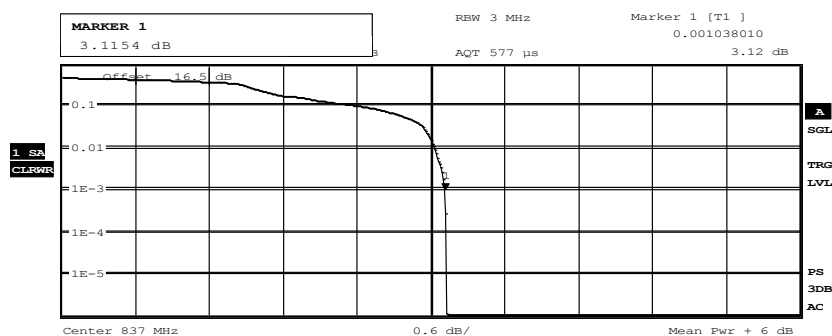
Complementary Cumulative Distribution Function  
NOF samples: 2308, Usable BW: 3.5MHz

Trace 1  
Mean 25.93 dBm  
Peak 28.96 dBm  
Crest 3.03 dB

10 % 2.16 dB  
1 % 2.89 dB  
.1 % 3.01 dB  
.01 % 3.04 dB

Date: 16.JAN.2018 11:20:51

## Diagram CCDF\_128\_8PSK



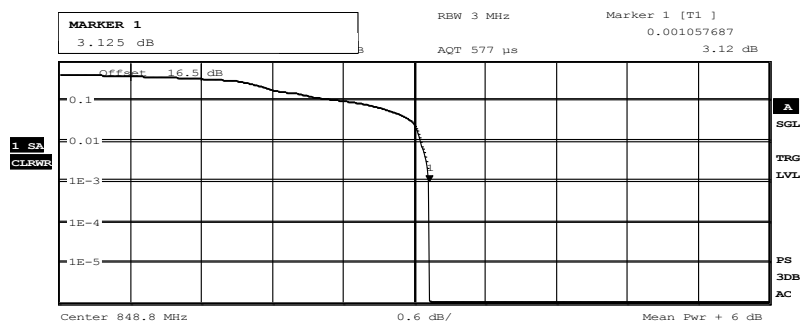
Complementary Cumulative Distribution Function  
NOF samples: 2308, Usable BW: 3.5MHz

Trace 1  
Mean 25.98 dBm  
Peak 29.11 dBm  
Crest 3.12 dB

10 % 2.45 dB  
1 % 3.04 dB  
.1 % 3.12 dB  
.01 % 3.13 dB

Date: 16.JAN.2018 11:20:20

## Diagram CCDF\_192\_8PSK



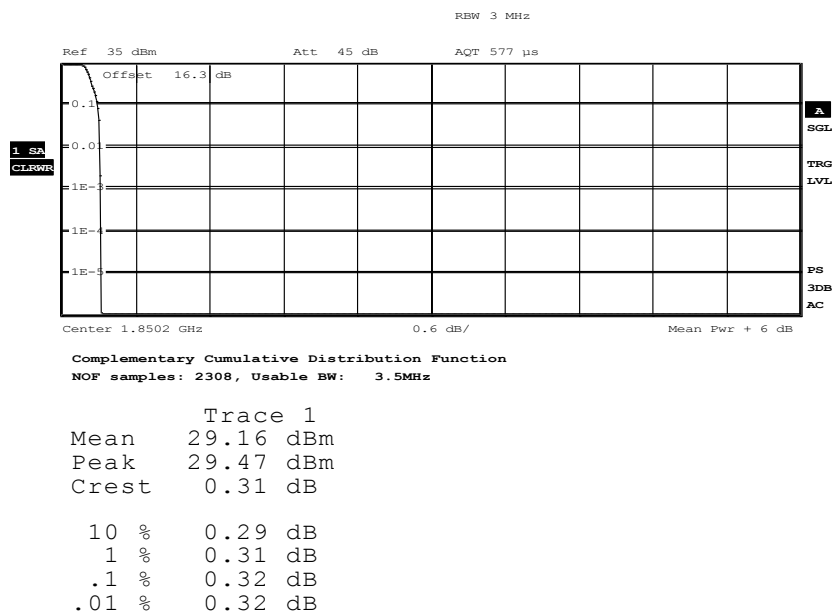
Trace 1  
Mean 25.91 dBm  
Peak 29.03 dBm  
Crest 3.13 dB

10 % 2.46 dB  
1 % 3.06 dB  
.1 % 3.13 dB  
.01 % 3.13 dB

Date: 16.JAN.2018 11:19:38

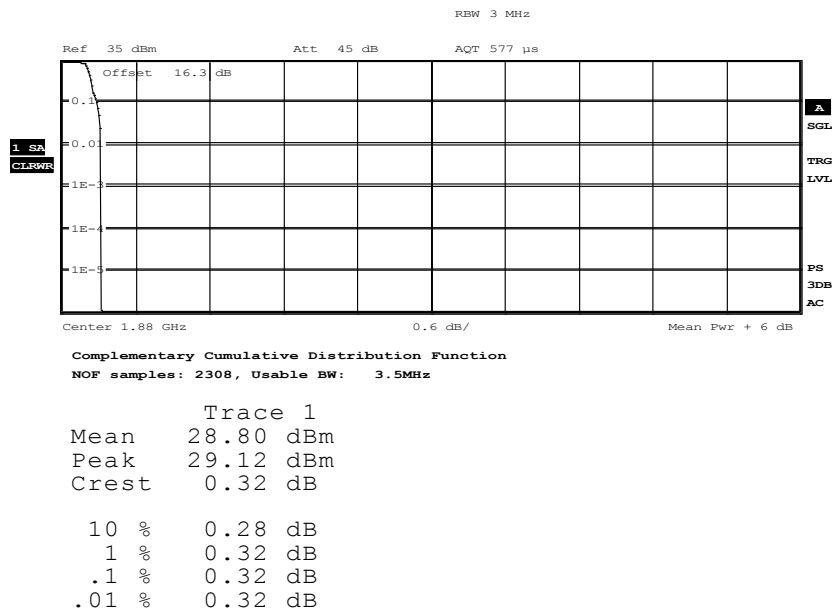
**Diagram CCDF\_251\_8PSK**

### 1.1.3. GSM 1900 (GMSK Modulation)



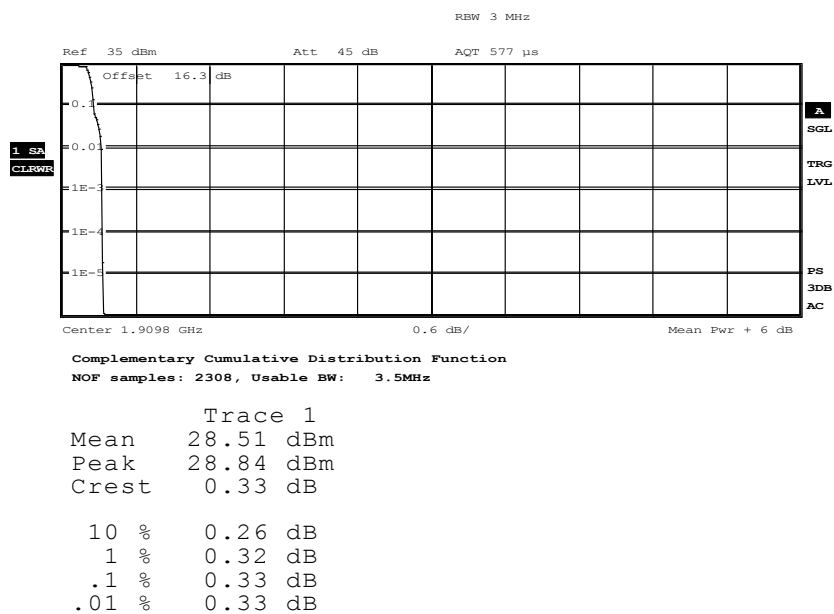
Date: 17.JAN.2018 15:38:37

#### Diagram CCDF\_512\_GMSK



Date: 17.JAN.2018 15:39:24

#### Diagram CCDF\_661\_GMSK



Date: 17.JAN.2018 15:39:59

## Diagram CCDF\_810\_GMSK



## 1.1.4. GSM 1900 (8-PSK Modulation)

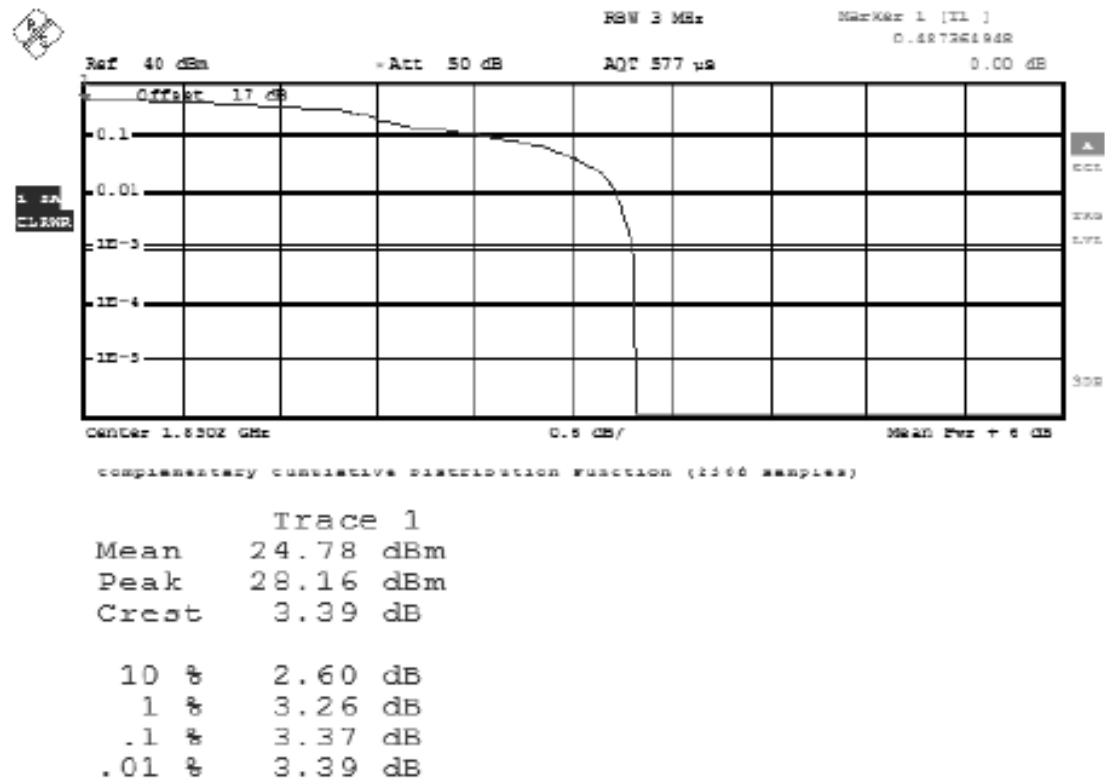


Diagram CCDF\_512\_8PSK

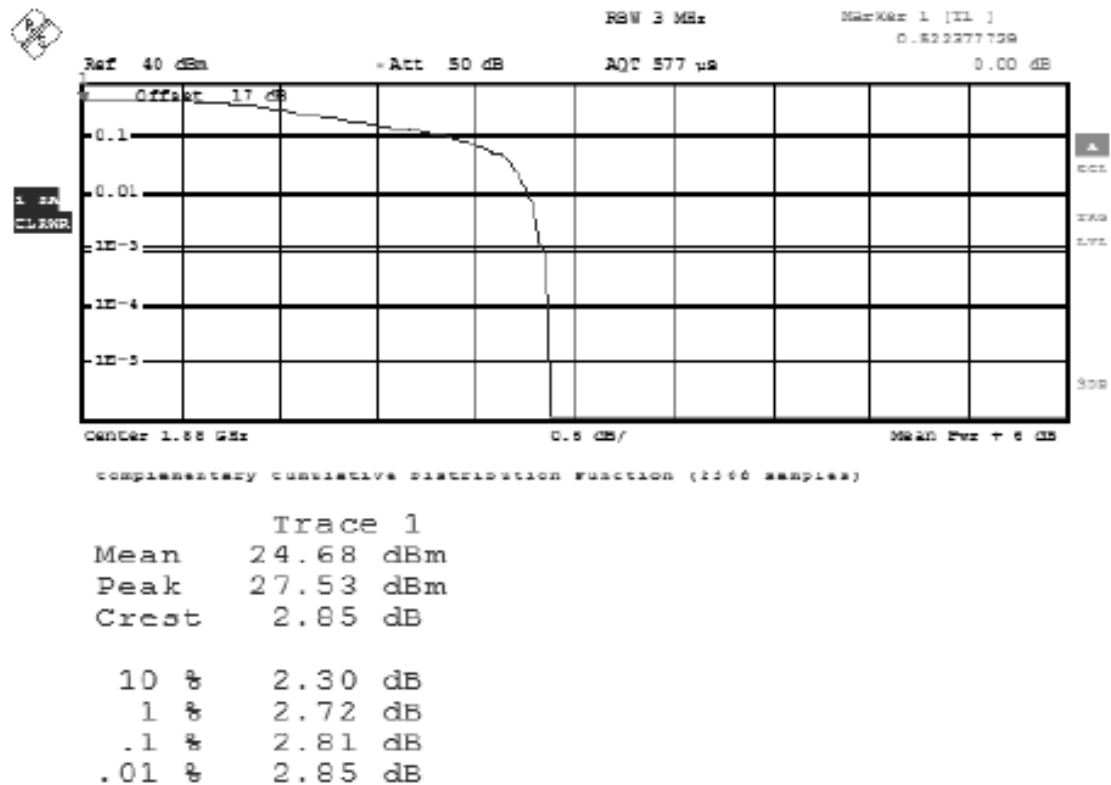


Diagram CCDF\_661\_8PSK

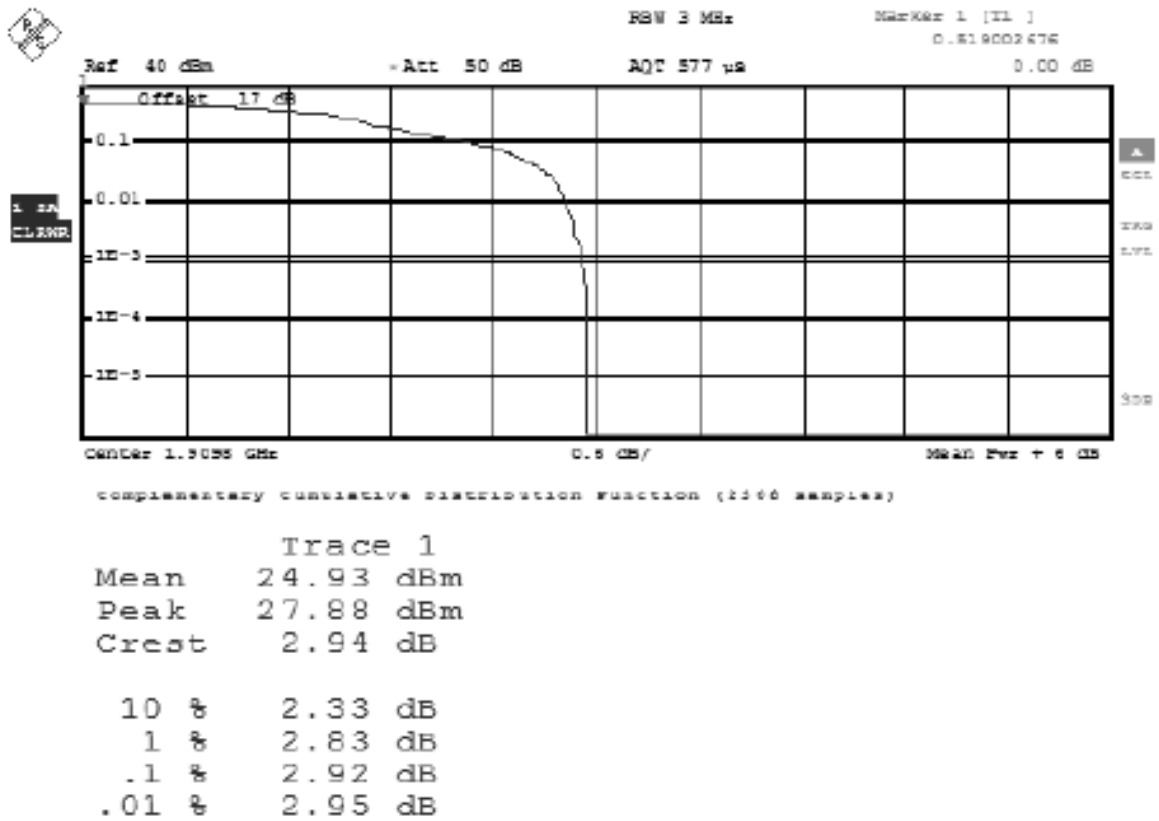


Diagram CCDF\_810\_8PSK

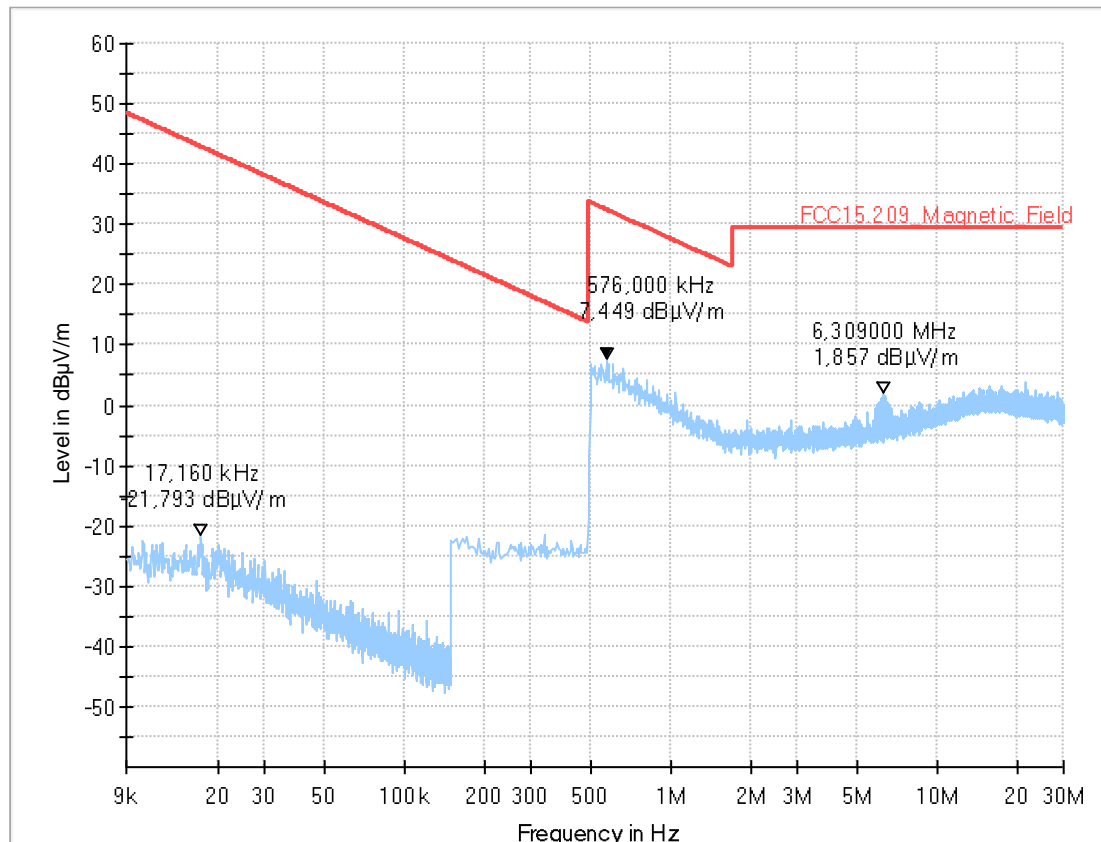
## 1.2. Magnetic field emissions radiated (850 MHz transmitting mode)

### 2.01\_RSE\_R\_Ch128\_GPRS

Date:	09.12.2017	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V9.25.0	
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 specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4	
Operator:	Klv	
Operating conditions:	TX-on	
Power during tests:	24 V DC	
Comment 1:	GPRS850 Channel: 128	

#### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

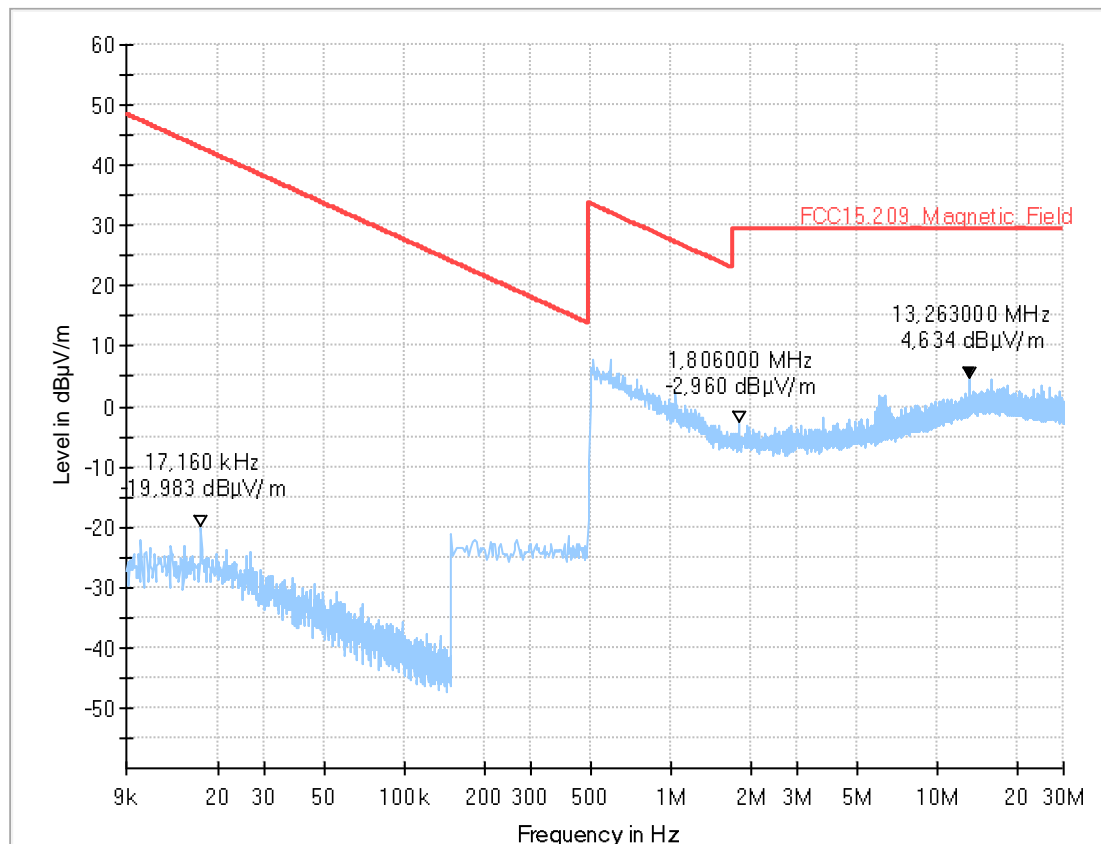


## 2.02\_RSE\_R\_Ch192\_GPRS

Date:	09.12.2017	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V9.25.0	
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 specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4	
Operator:	Klv	
Operating conditions:	TX-on	
Power during tests:	24 V DC	
Comment 1:	GPRS850 Channel: 192	

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

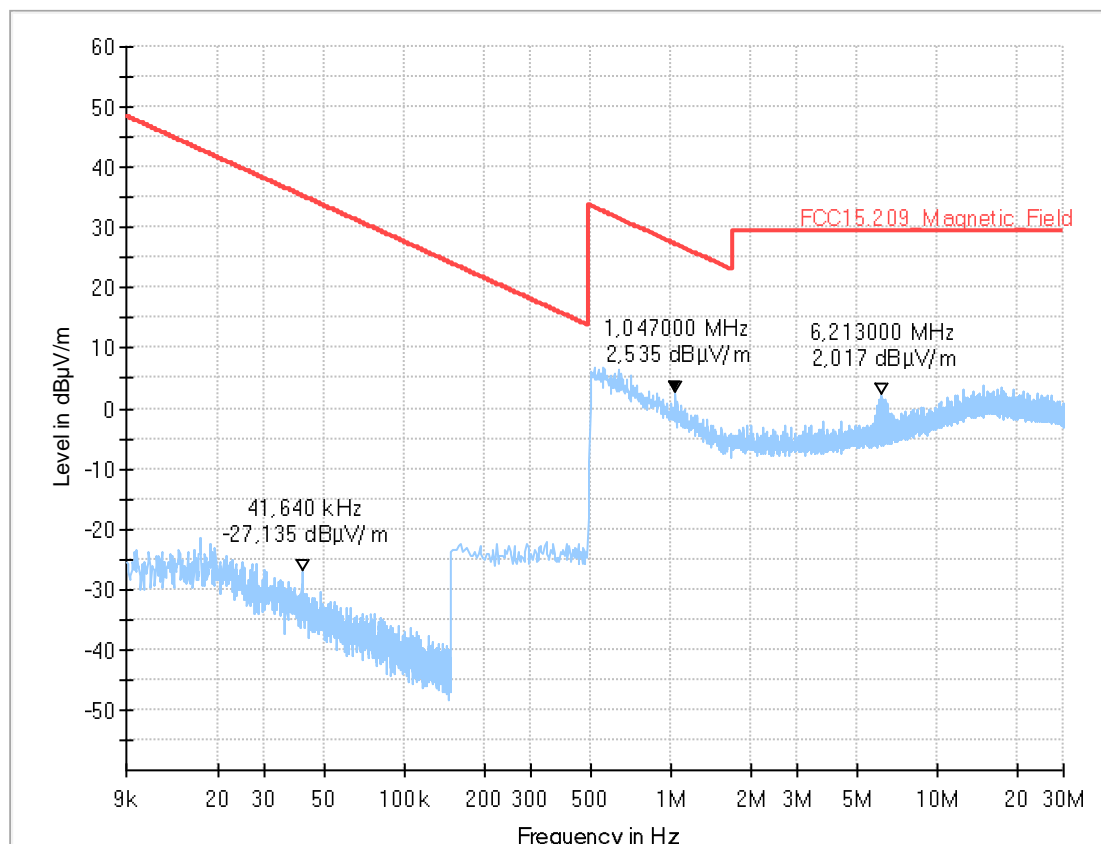


## 2.03\_RSE\_R\_Ch251\_GPRS

Date: 09.12.2017	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
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 specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	Klv
Operating conditions:	TX-on
Power during tests:	24 V DC
Comment 1:	GPRS850 Channel: 251

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC



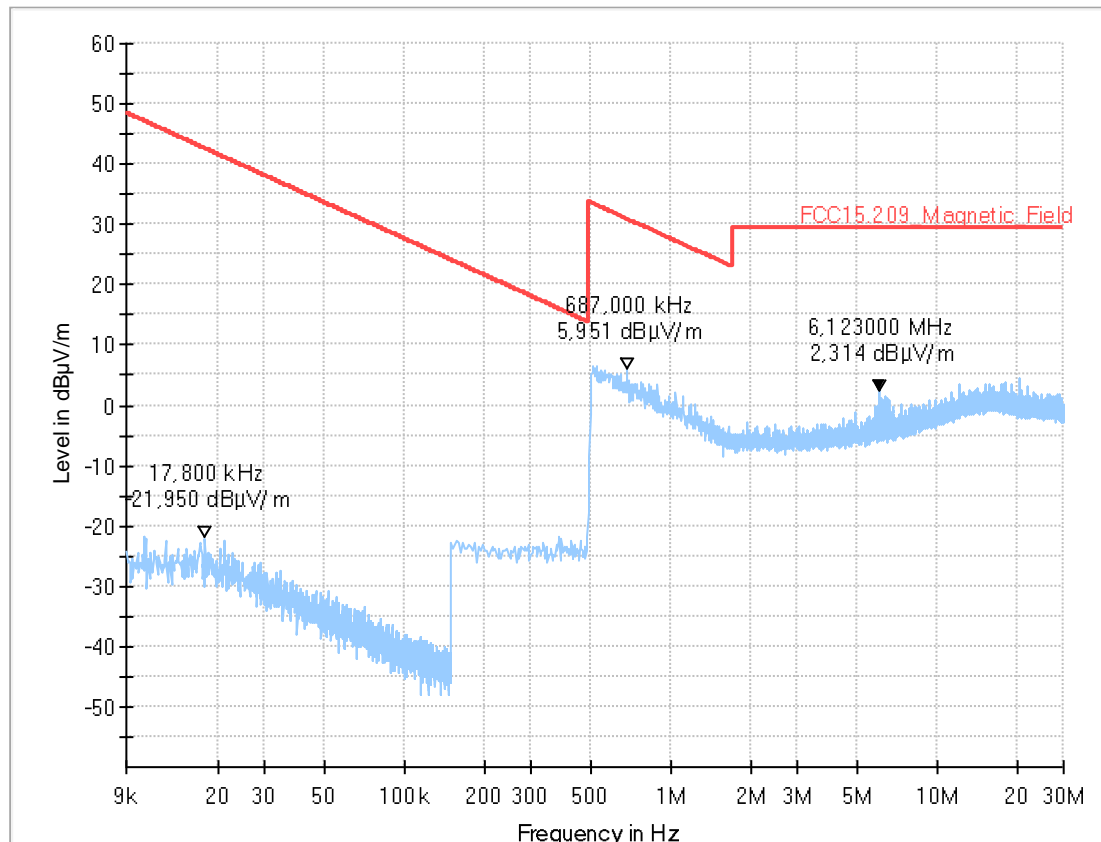
### 1.3. Magnetic field emissions radiated (1900 MHz transmitting mode)

#### 2.10\_RSE\_R\_Ch512\_GPRS

Date:	09.12.2017	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V9.25.0	
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 specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4	
Operator:	Klv	
Operating conditions:	TX-on	
Power during tests:	24 V DC	
Comment 1:	GPRS1900 Channel: 512	

#### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

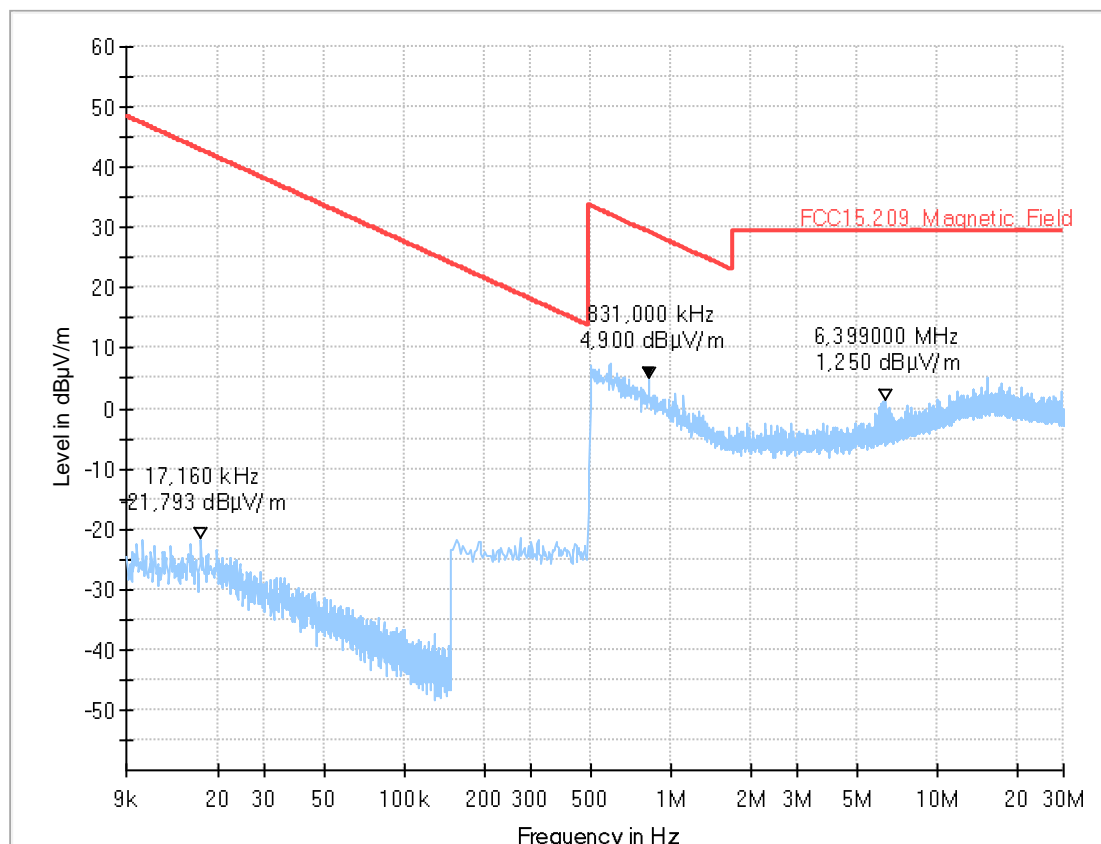


## 2.11\_RSE\_R\_Ch661\_GPRS

Test description:	Date: 09.12.2017    Page 1 of 1
Test site and distance:	Magnetic Field Strength Measurement related to 30/300 m distance
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V9.25.0
Technical Data:	used accord. table, pls. see test report
Rec. antenna (pre-scan):	Please see page 2 for detailed data of measurement setup
Used filter:	height 1.00 m, parallel and 90° to EUT polarisation
Test specification:	bypass
	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	Klv
Operating conditions:	TX-on
Power during tests:	24 V DC
Comment 1:	GPRS1900 Channel: 661

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

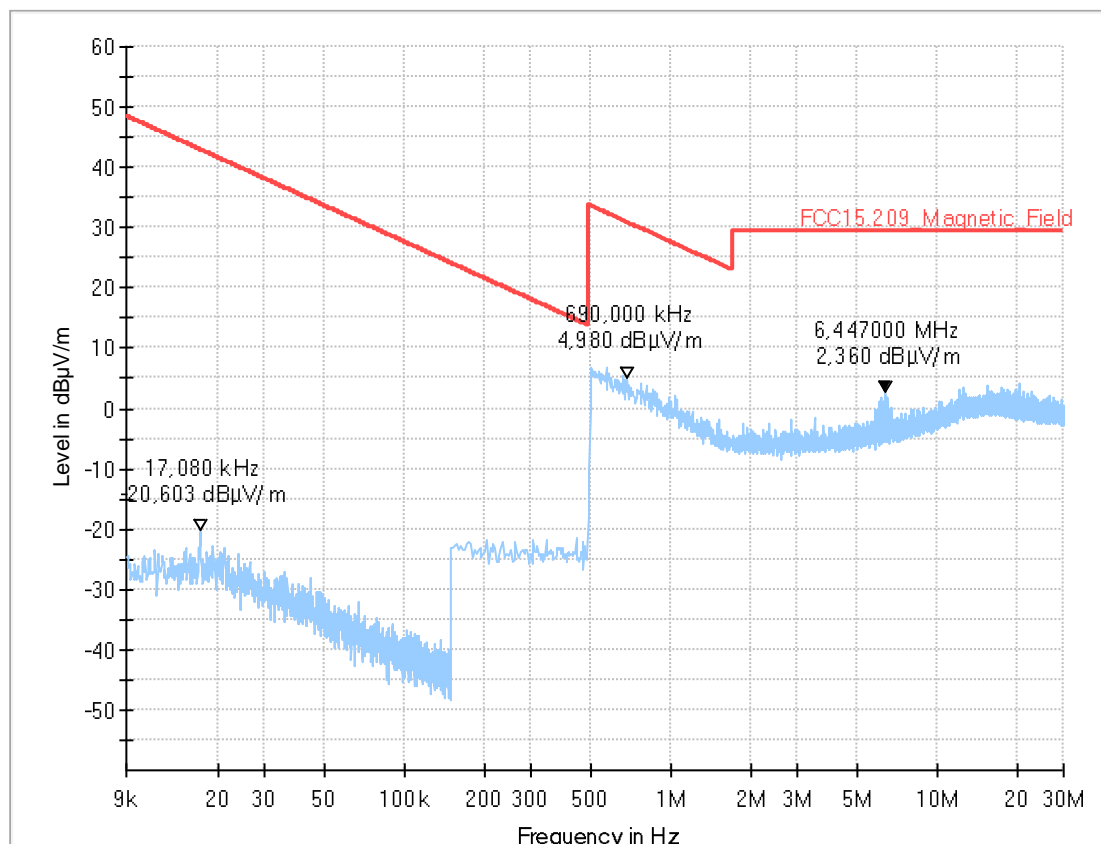


## 2.12\_RSE\_R\_Ch810\_GPRS

Date:	09.12.2017	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V9.25.0	
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 specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4	
Operator:	Klv	
Operating conditions:	TX-on	
Power during tests:	24 V DC	
Comment 1:	GPRS1900 Channel: 810	

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC





## 1.4. Spurious emissions radiated (850 MHz transmitting mode)

### 8.01\_RSE\_R\_Ch128\_GPRS

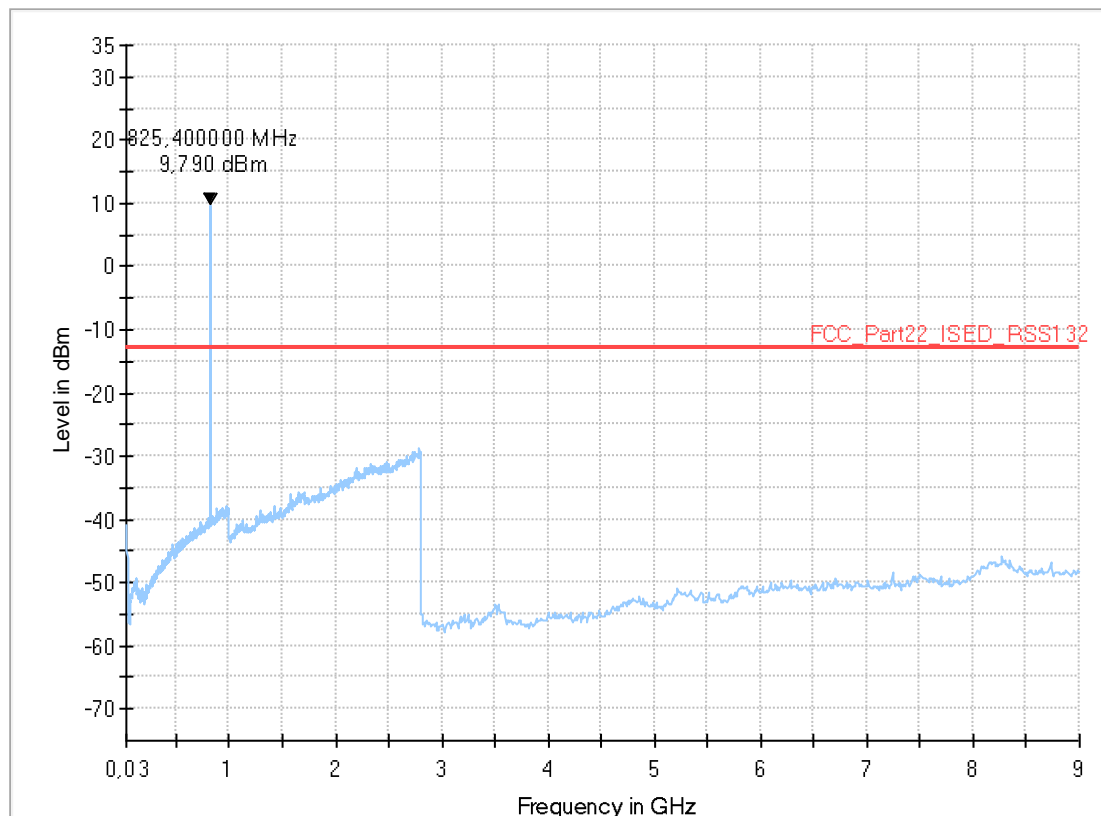
#### Common Information

Test Description:	EIRP Measurement GPRS 850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	GPRS850, Channel: 128
Environmental Conditions:	Humidity: 48%rH; Temperature: 20°C
Operator:	Klv

#### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 8.02\_RSE\_R\_ Ch192\_GPRS

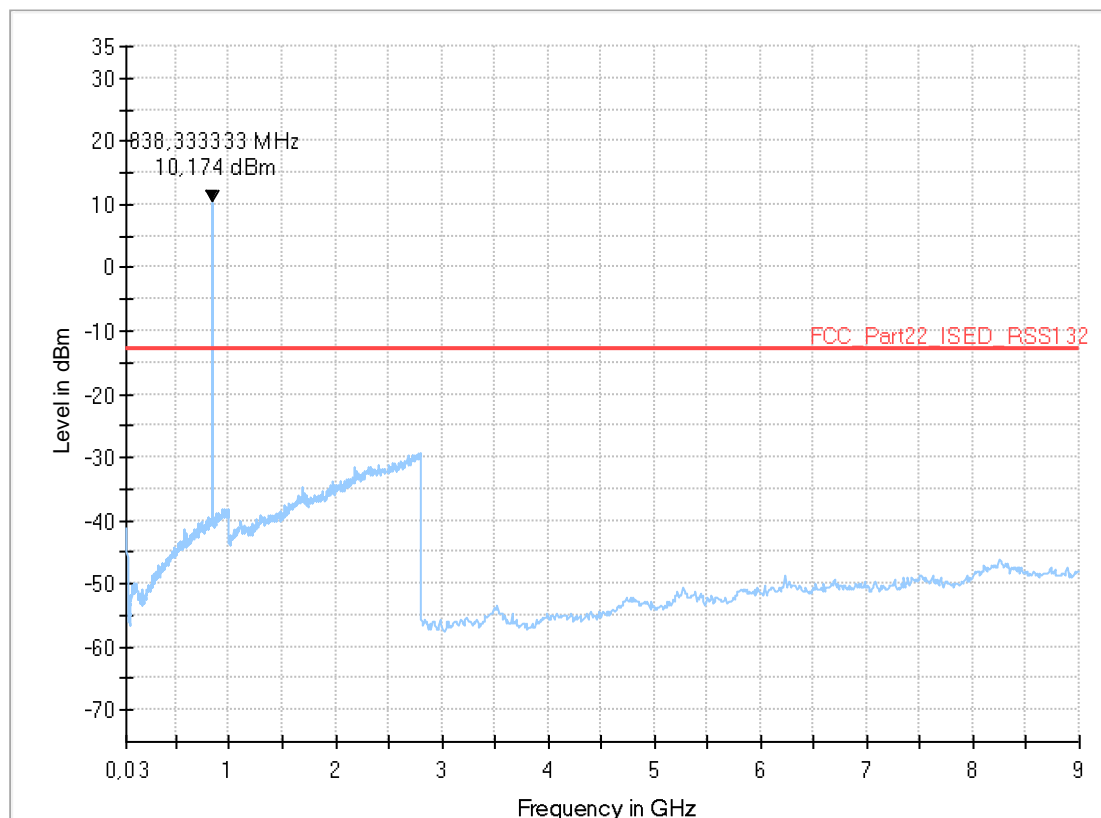
### Common Information

Test Description:	EIRP Measurement GPRS 850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	GPRS850, Channel: 192
Environmental Conditions:	Humidity: 48%rH; Temperature: 20°C
Operator:	Klv

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 8.03\_RSE\_R\_Ch251\_GPRS

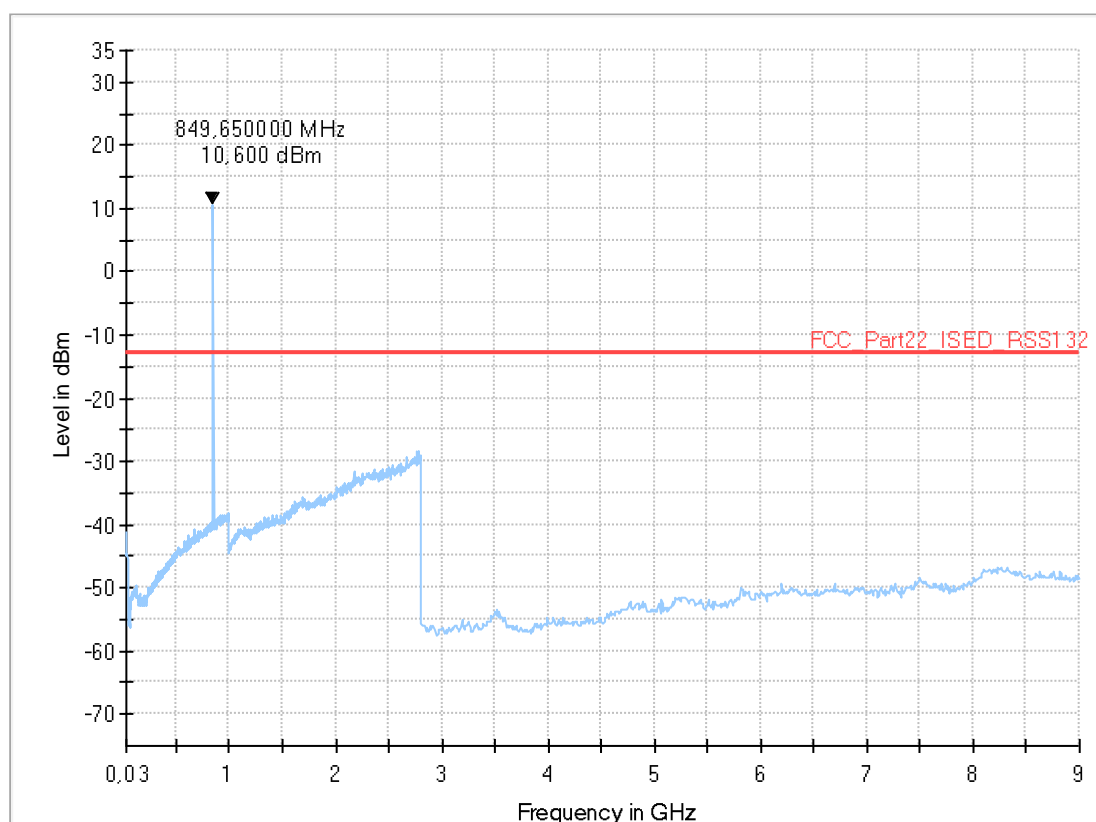
### Common Information

Test Description:	EIRP Measurement GPRS 850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	GPRS850, Channel: 251
Environmental Conditions:	Humidity: 48%rH; Temperature: 20°C
Operator:	Klv

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 1.5. Spurious emissions radiated (1900 MHz transmitting mode)

### 8.10\_RSE\_R\_Ch512\_GPRS

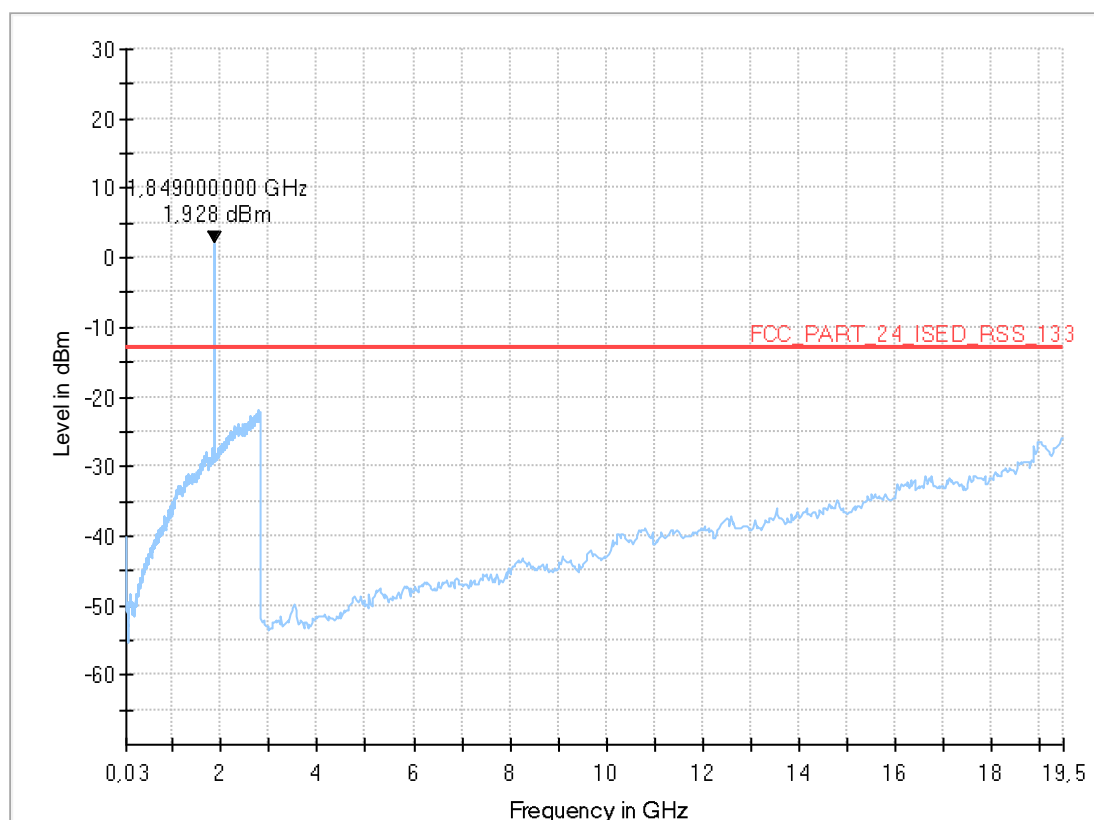
#### Common Information

Test Description:	EIRP Measurement GPRS 850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	GPRS1900, Channel: 512
Environmental Conditions:	Humidity: 48%rH; Temperature: 20°C
Operator:	Klv

#### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 8.11\_RSE\_R\_Ch661\_GPRS

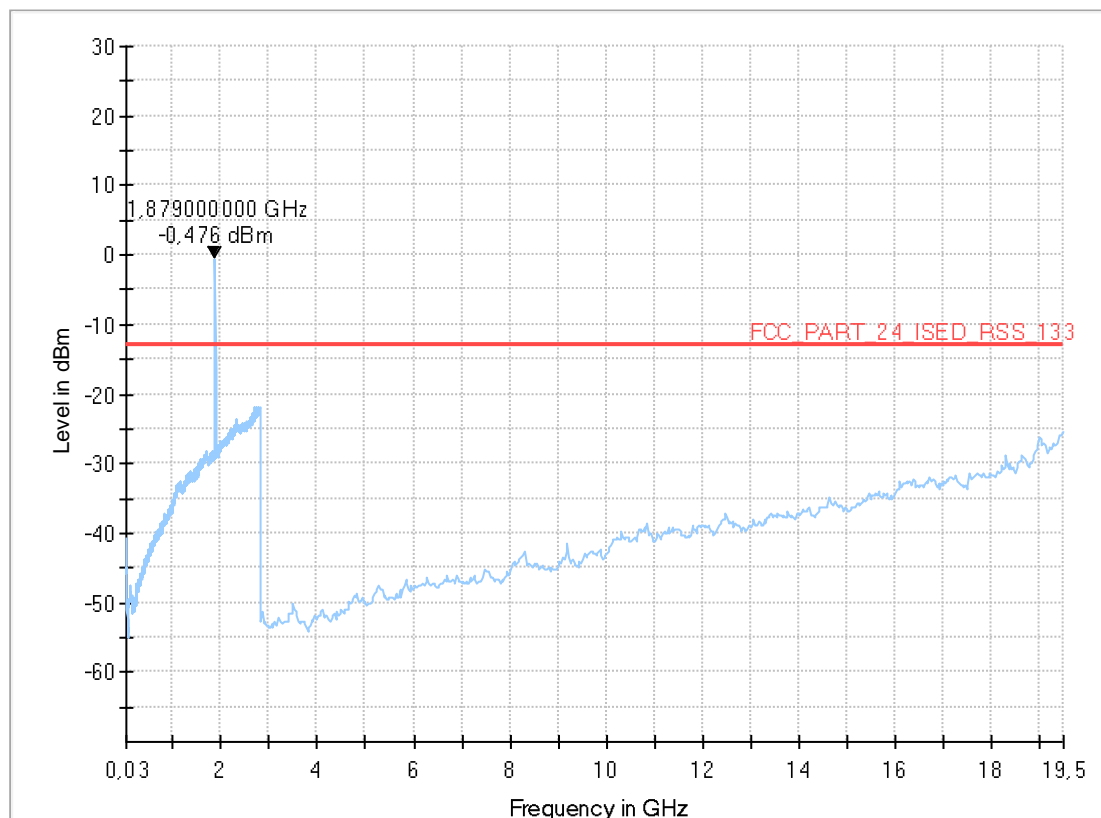
### Common Information

Test Description:	EIRP Measurement GPRS 850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	GPRS1900, Channel: 661
Environmental Conditions:	Humidity: 48%rH; Temperature: 20°C
Operator:	Klv

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	-----
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 8.12\_RSE\_R\_ Ch810\_GPRS

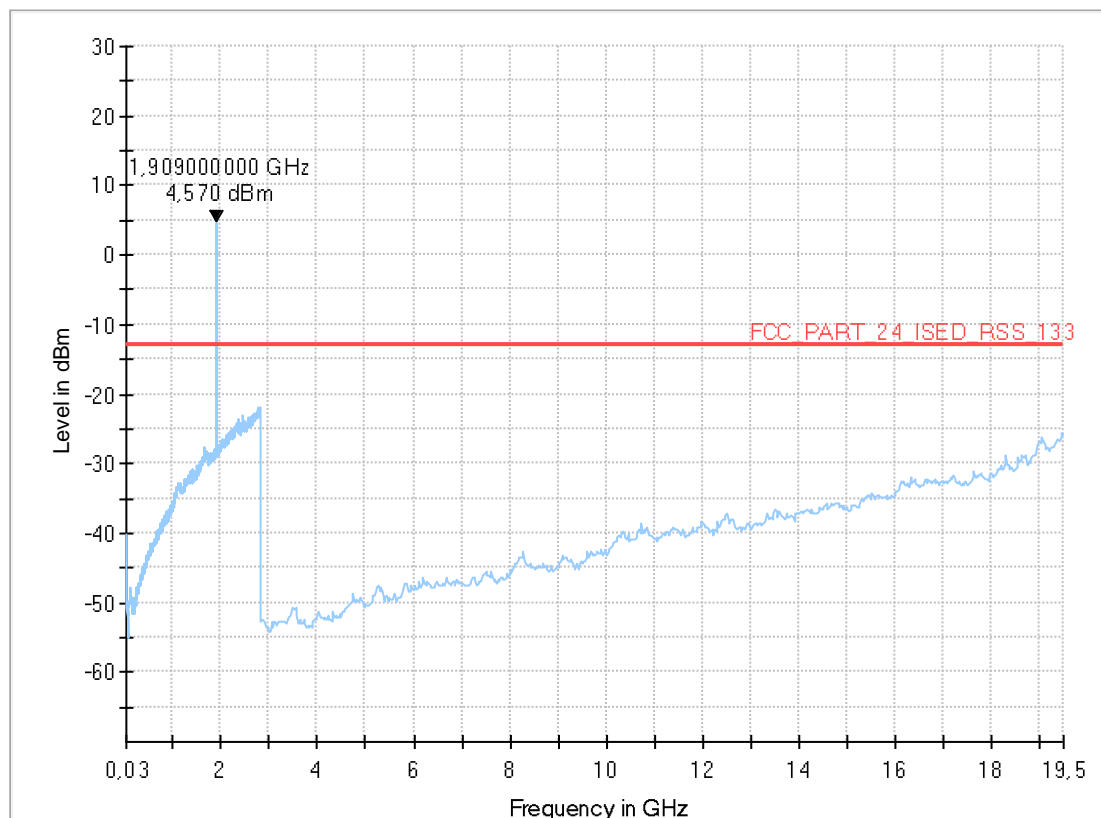
### Common Information

Test Description:	EIRP Measurement GPRS 850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	GPRS1900, Channel: 810
Environmental Conditions:	Humidity: 48%rH; Temperature: 20°C
Operator:	Klv

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 1.6. Radiated emissions on 850 MHz transmitting band-edge

### 9.01\_BE\_R\_Ch128\_GPRS

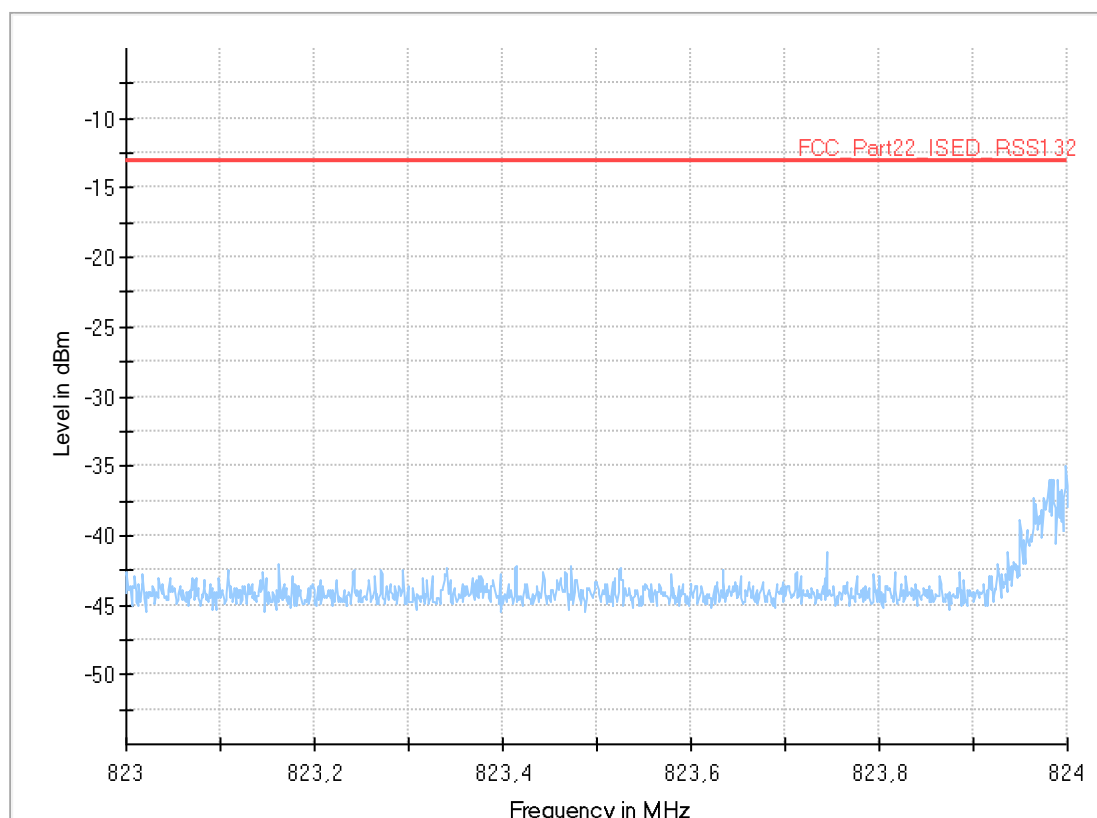
#### Common Information

Test Description:	Radiated emission related to 1m
Test Site:	FAR
Test Standard:	FCC FCC Part 24.238 Broadband PCS
Antenna polarisation:	vertical / horizontal
EUT:	CTP MID
Conditions:	Humidity: 30%RH; Temperature: 20°C
Operation mode:	TCH 850 CH128
Operator Name:	Klv
Comment:	

#### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 9.02\_BE\_R\_Ch251\_GPRS

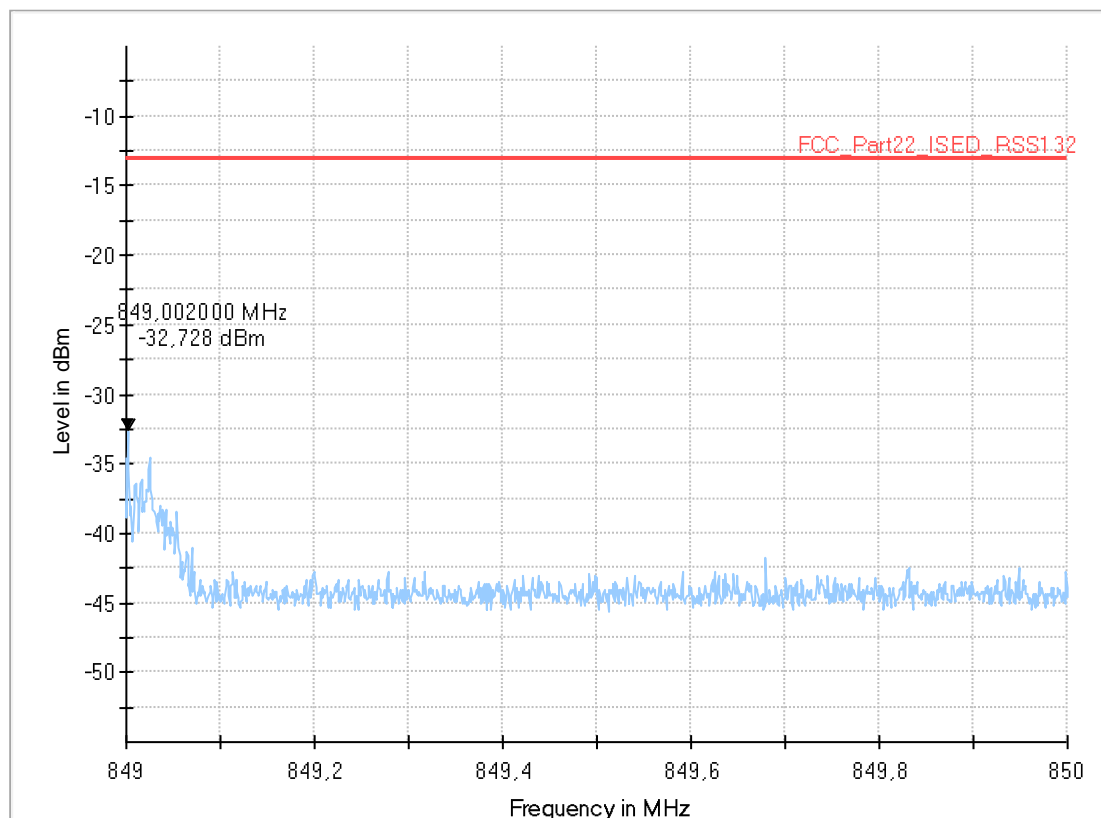
### Common Information

Test Description:	Radiated Band Edge Compliance GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917
Operating Mode:	MS allocated channel 251 (fc = 848.8MHz), Voice, PCL0 (+33dBm)
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 30%rH; Temperature: 20°C
Operator:	Klv

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
-----	-----
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum





## 1.7. Radiated emissions on 1900 MHz transmitting band-edge 9.07\_BE\_R\_Ch512\_GPRS

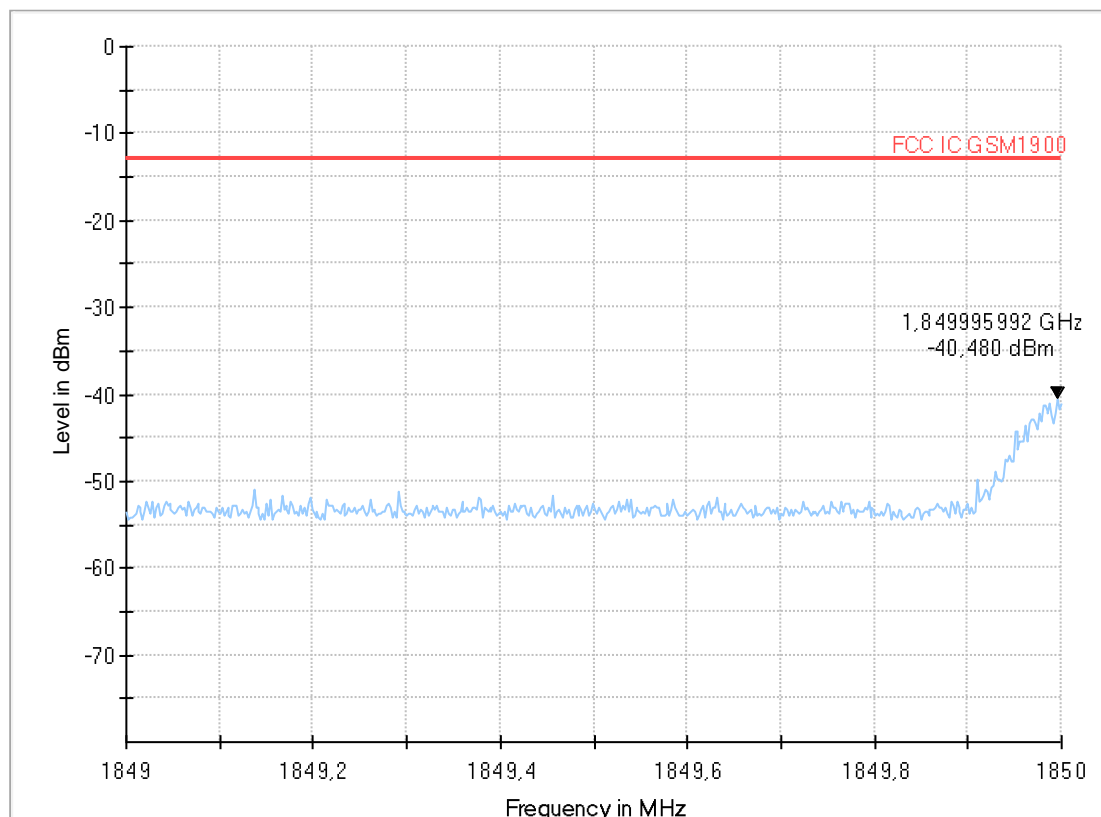
### Common Information

Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Comm. Link:	GSM1900, Voice/EDGE
Operating Mode:	MS allocated channel 512 (UL = 1850.2MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Klv

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum



## 9.08\_BE\_R\_Ch810\_GPRS

### Common Information

Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Comm. Link:	GSM1900, Voice/EDGE
Operating Mode:	MS allocated channel 810 (UL = 1909.8MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Klv

### EUT Information

Manufacturer:	Daimler AG
EuT:	CTPMID/ A 000 446 58 60
HW Version:	0342G05
SW Version:	tbd
Serial Number:	3600003042
Connected Interfaces:	Main wiring + Antenna A005 820 30 75 + Splitter A005 820 43 75
Power Supply:	24 V DC

Full Spectrum

