

# Annex 4: Diagrams to PARTIAL TEST REPORT

No.: 2-0128-14-1-4c

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

IC-Regulations RSS-132, RSS-133, RSS-Gen

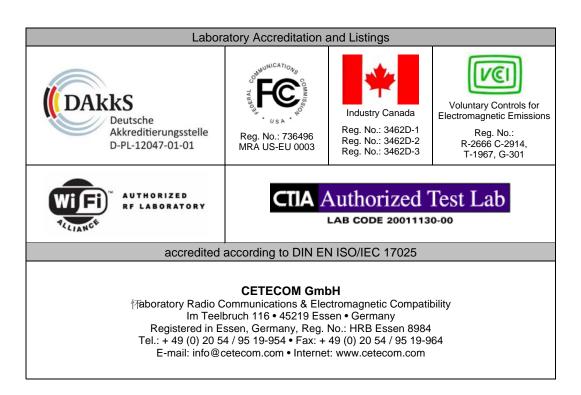
for

Social Bicycles Inc.

Electro mechanical bicycle lock with Cellular, GPS and RFID Model: SB1

(GSM/W-CDMA mode)

FCC ID: 2ADEK102014SBP1
IC Certification Number: 12433A-102014SBP1





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### 1. Diagrams

#### 1.1. RF-Parameter GSM/E-GPRS - Radiated RF-Power (ERP/EIRP)

### 7.01\_PWR\_R\_Ch128\_GSM\_h

#### **Common Information**

Test Description: GSM850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

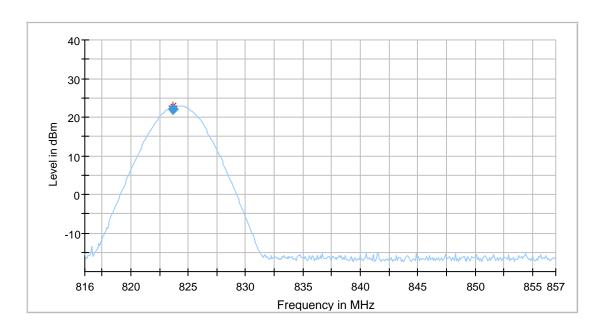
Test Standard: FCC Part 22.917

Operating Mode: MS allocated channel 128 (fc = 824.2MHz), Voice, PCL5 (+33dBm)

Exclusionband: 824 - 849MH

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator: dpa



#### Final\_Result

	equency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
		-			-						
82	23.644289	22.05			5000.0	3000.000	155.0	V	74.0	0.0	-75.8

Frequency (MHz)	Comment
823.644289	11:19:56 - 30.10.2014



### 7.01\_PWR\_R\_Ch128\_GSM\_v

#### **Common Information**

Test Description: GSM850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

Test Standard: FCC Part 22.917

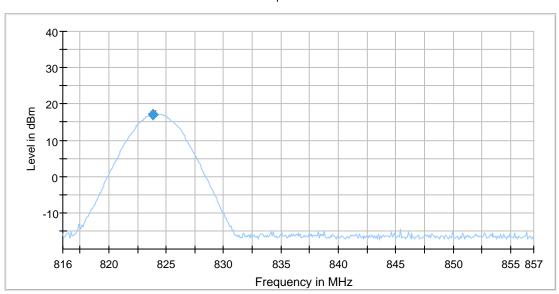
Operating Mode: MS allocated channel 128 (fc = 824.2MHz), Voice, PCL5 (+33dBm)

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator: dpa

#### Full Spectrum



#### Final\_Result

Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
823.868738	16.99		-	5000.0	3000.000	155.0	Н	80.0	0.0	-75.8

Frequency (MHz)	Comment
823.868738	09:39:12 - 30.10.2014



### 7.02\_PWR\_R\_Ch192\_GSM\_h

#### **Common Information**

Test Description: GSM850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

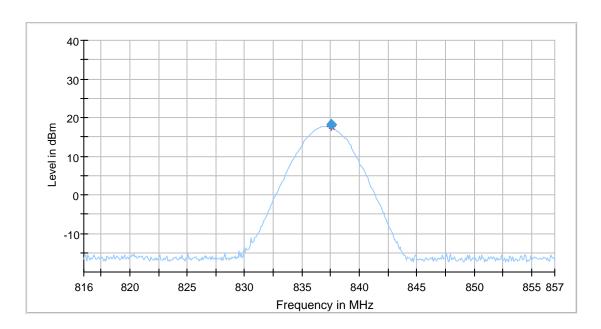
Test Standard: FCC Part 22.917

Operating Mode: MS allocated channel 192, Voice, PCL5 (+33dBm)

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator: dpa



#### Final\_Result

•	a										
	Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas. Time	Bandwidt h	Heigh t	Po	Azimut h	Elevatio n	Corr. (dB)
	` ,	(dBm)	`)	(dB)	(ms)	(kHz)	(cm)		(deg)	(deg)	` ,
	837.590181	18.29			5000.0	3000.000	155.0	V	84.0	0.0	-75.7

Frequency (MHz)	Comment
837.590181	11:26:35 - 30.10.2014



### 7.02\_PWR\_R\_Ch192\_GSM\_v

#### **Common Information**

Test Description: GSM850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

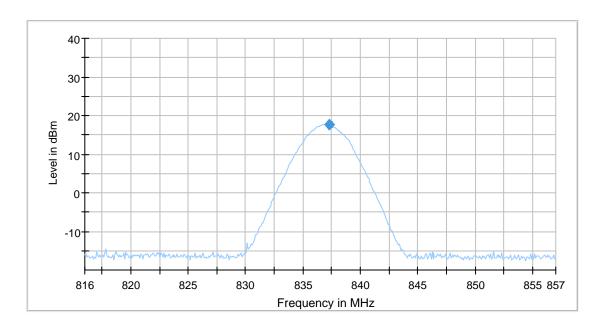
Test Standard: FCC Part 22.917

Operating Mode: MS allocated channel 192, Voice, PCL5 (+33dBm)

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator: dpa



#### Final\_Result

Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas. Time	Bandwidt h	Heigh t	Po	Azimut	Elevatio	Corr. (dB)
(/		(abiii		_			•		" .	(GD)
	(dBm)	)	(dB)	(ms)	(kHz)	(cm)		(deg)	(deg)	
837.243487	17.63			5000.0	3000.000	155.0	Н	94.0	0.0	-75.7

	Frequency (MHz)	Comment
Γ	837.243487	11:48:45 - 30.10.2014



### 7.03\_PWR\_R\_Ch251\_GSM\_h

#### **Common Information**

Test Description: GSM850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

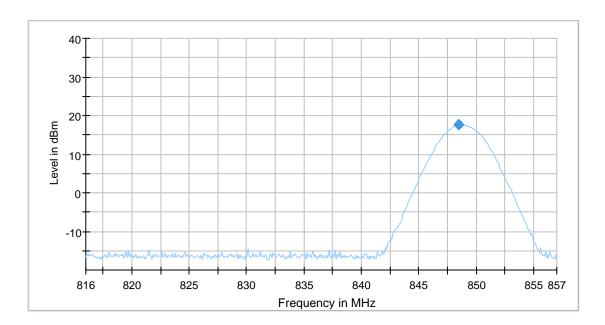
Test Standard: FCC Part 22.917

Operating Mode: MS allocated channel 251, Voice, PCL5 (+33dBm)

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator: dpa



#### Final\_Result

Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas. Time	Bandwidt h	Heigh t	Po I	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	(ms)	(kHz)	(cm)		(deg)	(deg)	
848.463927	17.54			5000.0	3000.000	155.0	V	88.0	0.0	-75.9

Frequency (MHz)	Comment
848.463927	11:34:36 - 30.10.2014



### 7.03\_PWR\_R\_Ch251\_GSM\_v

#### **Common Information**

Test Description: GSM850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

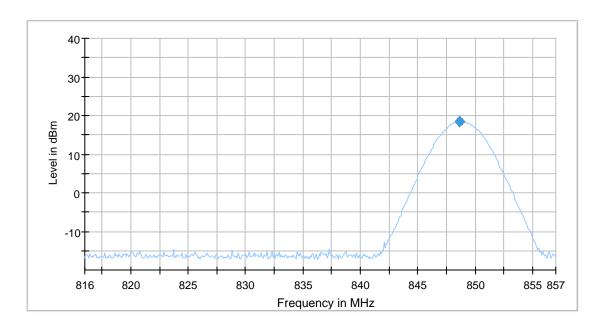
Test Standard: FCC Part 22.917

Operating Mode: MS allocated channel 251, Voice, PCL5 (+33dBm)

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator: dpa



#### Final\_Result

Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas. Time	Bandwidt h	Heigh t	Po	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	(ms)	(kHz)	(cm)		(deg)	(deg)	, ,
848.614228	18.43			5000.0	3000.000	155.0	Н	93.0	0.0	-75.9

Frequency (MHz)	Comment
848.614228	11:42:25 - 30.10.2014



### 7.04\_PWR\_R\_Ch128\_GPRS\_h

#### **Common Information**

Test Description: GPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 128 (fc = 824.2MHz), GPRS, CS1, Testmode A, 1 UL Slot

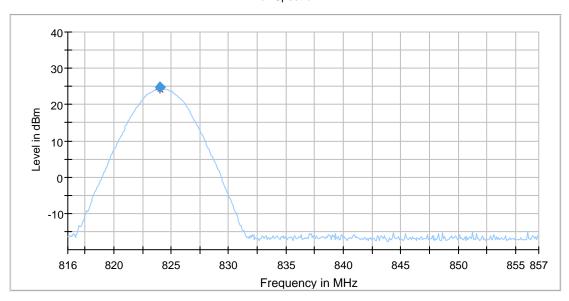
(3).

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator: npe

#### Full Spectrum



#### Final Result

-											
	Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas. Time	Bandwidt h	Heigh t	Po I	Azimut h	Elevatio n	Corr. (dB)
		(dBm)	)	(dB)	(ms)	(kHz)	(cm)		(deg)	(deg)	
	824.063127	24.78			5000.0	3000.000	155.0	V	112.0	0.0	-75.8

Frequency (MHz)	Comment
824.063127	07:43:48 - 03.11.2014



### 7.04\_PWR\_R\_Ch128\_GPRS\_v

#### **Common Information**

Test Description: GPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 128 (fc = 824.2MHz), EGPRS, CS1, Testmode A, 1 UL Slot

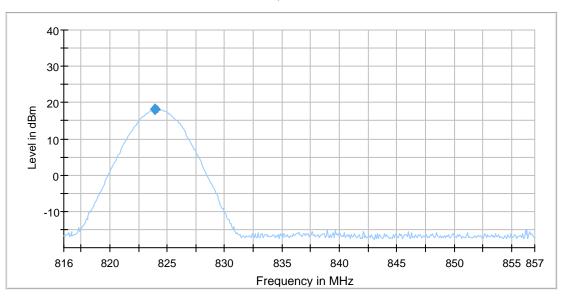
(3).

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: npe

#### Full Spectrum



#### Final\_Result

Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
823.908818	18.02			5000.0	3000.000	155.0	Н	91.0	0.0	-75.8

	Frequency (MHz)	Comment
ſ	823.908818	12:30:00 - 31.10.2014



### 7.05\_PWR\_R\_Ch192\_GPRS\_h

#### **Common Information**

Test Description: GPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 192 (fc = 837.0MHz), GPRS, CS1, Testmode A, 1 UL Slot

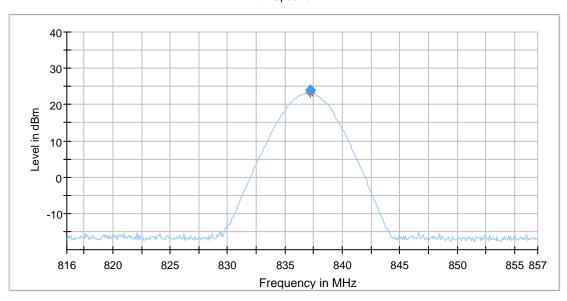
(3).

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator: npe

#### Full Spectrum



#### Final Result

Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
837.223447	23.84			5000.0	3000.000	155.0	V	215.0	0.0	-75.7

Frequency (MHz)	Comment
837.223447	07:52:37 - 03.11.2014



### 7.05\_PWR\_R\_Ch192\_GPRS\_v

#### **Common Information**

Test Description: GPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 192 (fc = 837.0MHz), GPRS, CS1, Testmode A, 1 UL Slot

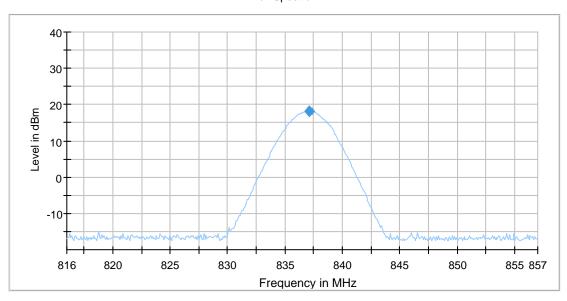
(3)

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: npe

#### Full Spectrum



#### Final\_Result

Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
837.123247	18.14			5000.0	3000.000	155.0	Н	90.0	0.0	-75.7

Frequency (MHz)	Comment
837.123247	12:38:44 - 31.10.2014



# 7.06\_PWR\_R\_Ch251\_GPRS\_h

#### **Common Information**

Test Description: GPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 251 (fc = 848.8MHz), GPRS, CS1, Testmode A, 1 UL Slot

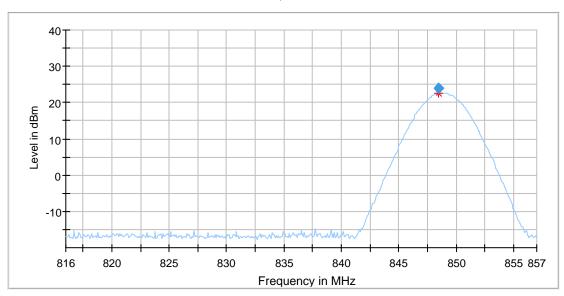
(3).

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator: HLa

#### Full Spectrum



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
848.461924	23.96			5000.0	3000.000	155.0	\/	211.0	0.0	-75.9



### 7.06\_PWR\_R\_Ch251\_GPRS\_v

#### **Common Information**

Test Description: GPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 251 (fc = 848.8MHz), GPRS, CS1, Testmode A, 1 UL Slot

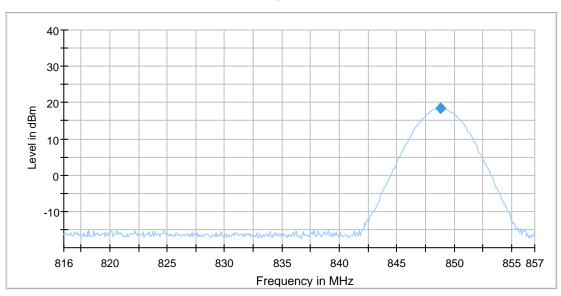
(3).

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: npe

#### Full Spectrum



#### Final Result

Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
848.842686	18.41			5000.0	3000.000	155.0	Н	86.0	90.0	-75.9

Frequency (MHz)	Comment
848.842686	13:10:24 - 31.10.2014



### 7.07\_PWR\_R\_Ch128\_EGPRS\_h

#### **Common Information**

Test Description: EGPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00
Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 128 (fc = 824.2MHz), EGPRS, MCS5, Testmode A, 1 UL

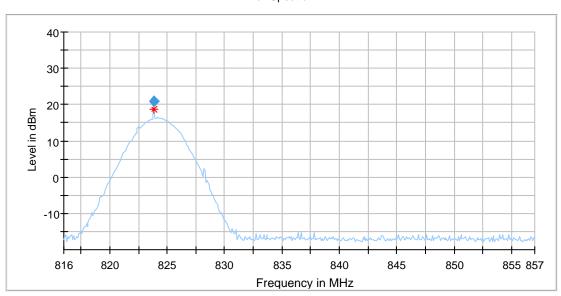
Slot (3),

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: ABA

#### Full Spectrum



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
823.840681	20.99			5000.0	3000.000	155.0	Н	-50.0	0.0	-75.8



### 7.07\_PWR\_R\_Ch128\_EGPRS\_v

#### **Common Information**

Test Description: EGPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 128 (fc = 824.2MHz), EGPRS, MCS5, Testmode A, 1 UL

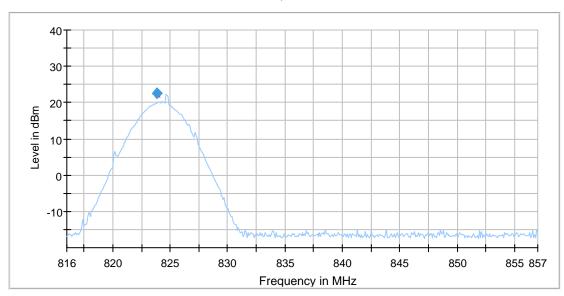
Slot (3),

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: npe

#### Full Spectrum





### 7.08\_PWR\_R\_ch192\_EGPRS\_h

#### **Common Information**

Test Description: EGPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00
Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

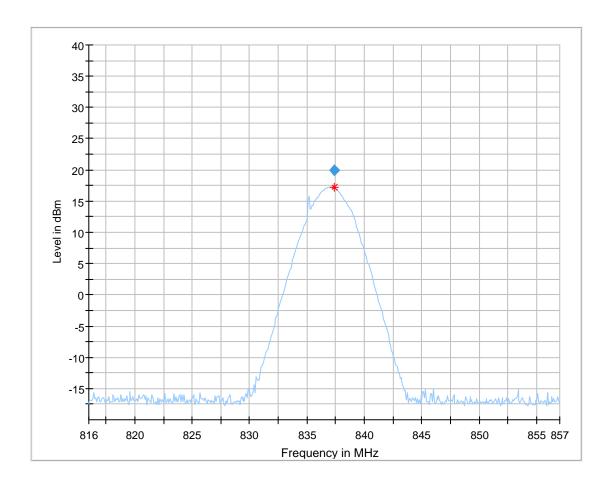
Operating Mode: MS allocated channel 192 (fc = 837.0MHz), EGPRS, MCS5, Testmode A, 1 UL

Slot (3),

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: ABA



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
837.331663	19.89			5000.0	3000.000	155.0	Н	-47.0	0.0	-75.7



### 7.08\_PWR\_R\_Ch192\_EGPRS\_v

#### **Common Information**

Test Description: EGPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 192 (fc = 837.0MHz), EGPRS, MCS5, Testmode A, 1 UL

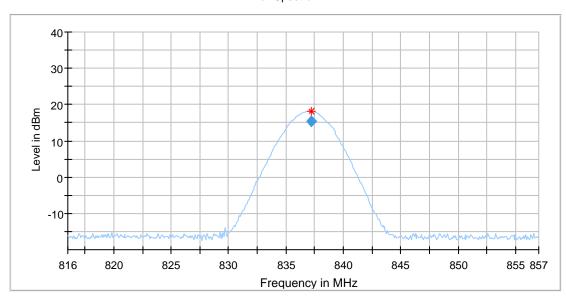
Slot (3),

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: npe

#### Full Spectrum





### 7.09\_PWR\_R\_Ch251\_EGPRS\_h

#### **Common Information**

Test Description: EGPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00
Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 251 (fc = 848.8MHz), EGPRS, MCS5, Testmode A, 1 UL

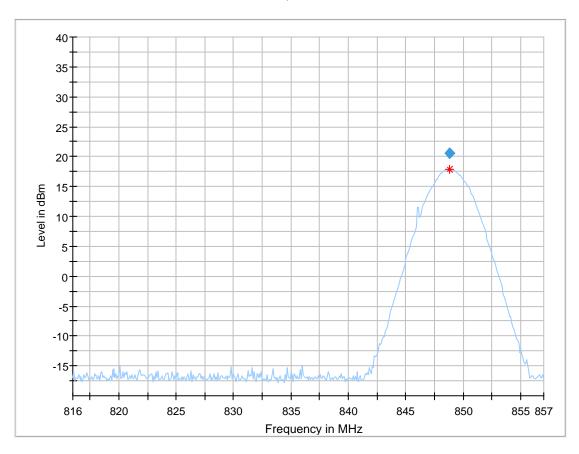
Slot (3),

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: ABA

#### Full Spectrum



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
848.768537	20.64			5000.0	3000.000	155.0	Н	-25.0	0.0	-75.9



### 7.09\_PWR\_R\_Ch251\_EGPRS\_v

#### **Common Information**

Test Description: EGPRS850 - ERP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917(2) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 251 (fc = 848.8MHz), EGPRS, MCS5, Testmode A, 1 UL

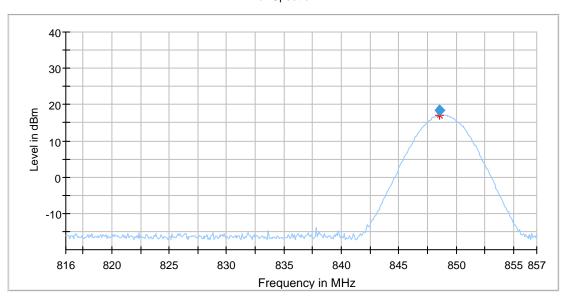
Slot (3),

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator: npe

#### Full Spectrum



Frequency (MHz)	Limit (dBm )	Margin (dB)	Meas. Time (ms)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)	Comment
848.562124			5000.0	155.0	Н	84.0	0.0	-75.9	12:19:59 - 31.10.2014



### 7.10\_PWR\_R\_Ch512\_GSM\_h

#### **Common Information**

30.10.2014 11:10:48

Test Description: GSM1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site:

Fully Anechoic Room (FAR), EMC32 v 9.15.00

Test specification:

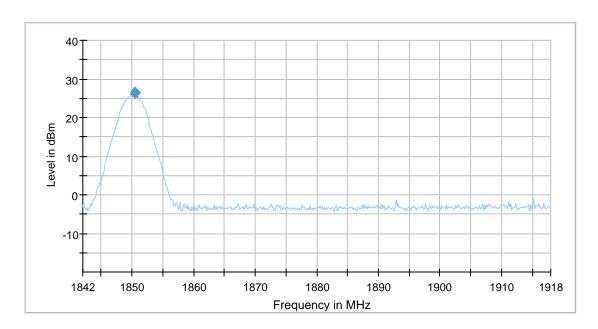
Operating Mode:

FCC Part 24.232(c) - Limitation of mobile transmitters

MS allocated channel 512,661, 810, Voice, PCL0 (+30dBm)

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



	Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas Time	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
I	1850.401804	26.45		-	500.0	5000.000	155.0	Н	-6.0	0.0	-63.1



### Diagram No.: 7.10\_PWR\_R\_Ch512\_GSM\_v

#### **Common Information**

30.10.2014 10:05:21

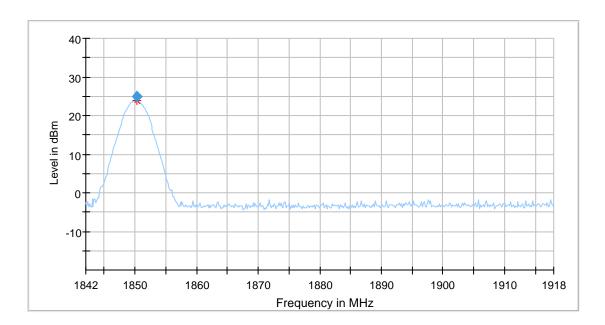
Test Description: GSM1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters
Operating Mode: MS allocated channel 512,661, 810, Voice, PCL0 (+30dBm)

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Ро	Azimut	Elevatio	Corr.
(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1850.309619	24.86			500.0	5000.000	155.0	V	99.0	0.0	-63.1



### 7.11\_PWR\_R\_Ch661\_GSM\_h

#### **Common Information**

30.10.2014 10:55:33

Test Description: GSM1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site:

Fully Anechoic Room (FAR), EMC32 v 9.15.00

Test specification:

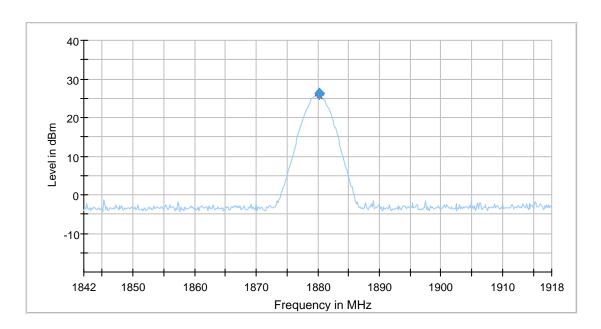
Operating Mode:

FCC Part 24.232(c) - Limitation of mobile transmitters

MS allocated channel 661, Voice, PCL0 (+30dBm)

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Ро	Azimut	Elevatio	Corr.
(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1880.289579	26.14			500.0	5000.000	155.0	Н	318.0	0.0	-63.0



### Diagram No.: 7.11\_PWR\_R\_Ch661\_GSM\_v

#### **Common Information**

30.10.2014 10:19:26

Test Description: GSM1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site:

Fully Anechoic Room (FAR), EMC32 v 9.15.00

Test specification:

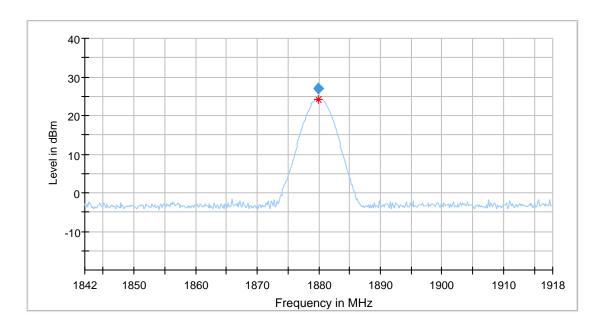
Operating Mode:

FCC Part 24.232(c) - Limitation of mobile transmitters

MS allocated channel 661, Voice, PCL0 (+30dBm)

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



	Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Ро	Azimut	Elevatio	Corr.
	(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
		(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
ĺ	1879.992986	26.96			500.0	5000.000	155.0	Н	15.0	0.0	-63.0



### 7.12\_PWR\_R\_Ch810\_GSM\_h

#### **Common Information**

30.10.2014 10:42:47

Test Description: GSM1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site:

Fully Anechoic Room (FAR), EMC32 v 9.15.00

Test specification:

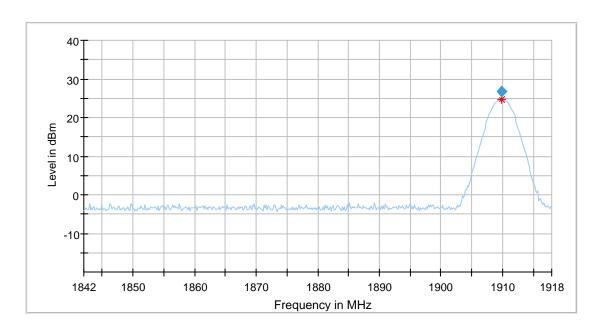
Operating Mode:

FCC Part 24.232(c) - Limitation of mobile transmitters

MS allocated channel 810, Voice, PCL0 (+30dBm)

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Ро	Azimut	Elevatio	Corr.
(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1909.814629	26.72			500.0	5000.000	155.0	Н	-10.0	0.0	-62.8



### Diagram No.: 7.12\_PWR\_R\_Ch810\_GSM\_v

#### **Common Information**

30.10.2014 10:29:41

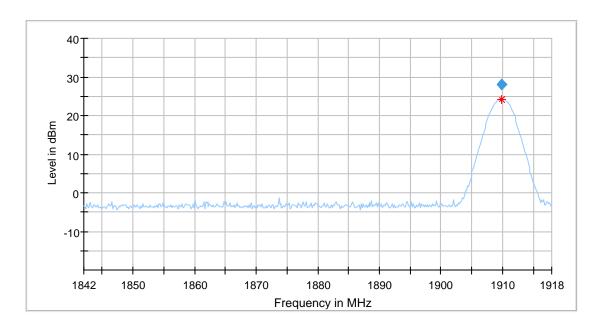
Test Description: GSM1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters
Operating Mode: MS allocated channel 810, Voice, PCL0 (+30dBm)

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Ро	Azimut	Elevatio	Corr.
(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1909.854709	28.18			500.0	5000.000	155.0	Н	13.0	0.0	-62.8



### Diagram No.: 7.13\_PWR\_R\_Ch512\_GPRS\_h

#### **Common Information**

03.11.2014 08:23:56

Test Description: GPRS1900 - EIRP Carrier Measurement

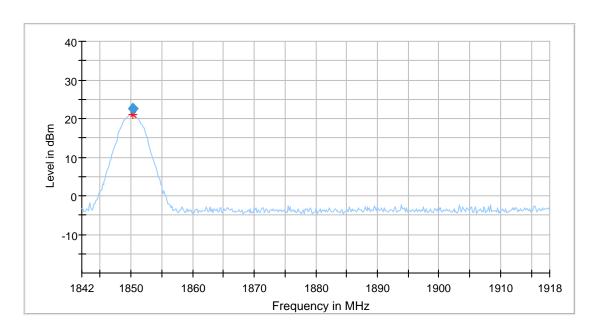
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 512 GPRS, CS1, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator Name: HLa



Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Ро	Azimut	Elevatio	Corr.
(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1850.239479	22.55			500.0	5000.000	155.0	Н	303.0	0.0	-63.1



# Diagram No.: 7.13\_PWR\_R\_Ch512\_GPRS\_v

#### **Common Information**

31.10.2014 13:48:35

Test Description: GPRS1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

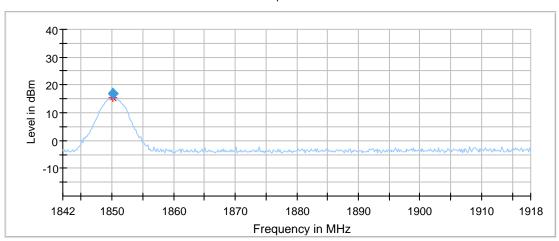
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 512, GPRS, CS1, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas	Bandwidt h	Heigh t	РО	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	



### Diagram No.: 7.14\_PWR\_R\_Ch661\_GPRS\_h

#### **Common Information**

03.11.2014 08:36:56

Test Description: GPRS1900 - EIRP Carrier Measurement

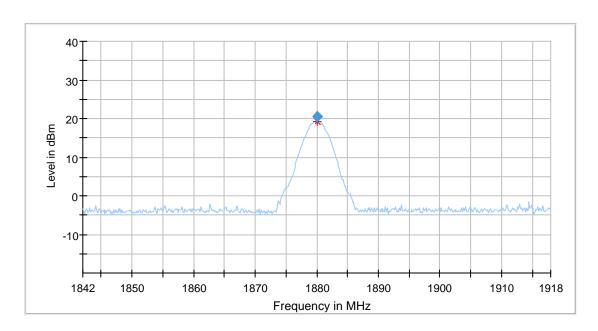
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 661, GPRS, CS1, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator Name: HLa



Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Po	Azimut	Elevatio	Corr.
(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1880.139279	20.43			500.0	5000.000	155.0	Н	67.0	0.0	-63.0



# Diagram No.: 7.14\_PWR\_R\_Ch661\_GPRS\_v

#### **Common Information**

31.10.2014 13:58:15

Test Description: GPRS1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

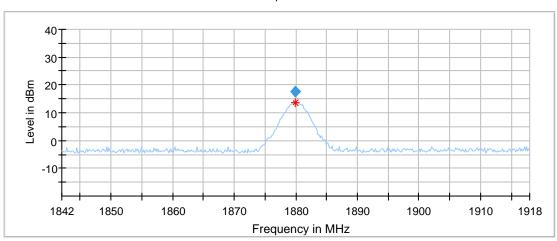
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 661, GPRS, CS1, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas	Bandwidt h	Heigh t	РО	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	



### Diagram No.: 7.15\_PWR\_R\_Ch810\_GPRS\_h

#### **Common Information**

03.11.2014 08:47:24

Test Description: GPRS1900 - EIRP Carrier Measurement

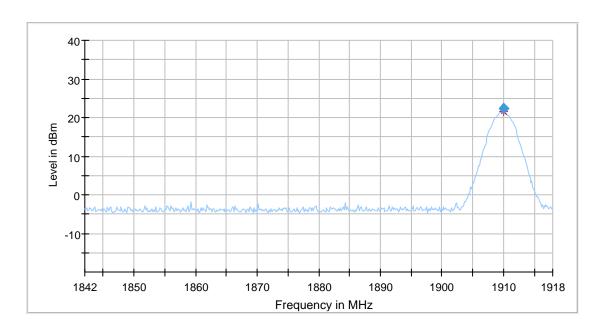
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 810, GPRS, CS1, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator Name: HLa



Frequency	MaxPea	Limit	Margi	Meas	Bandwidt	Heigh	Po	Azimut	Elevatio	Corr.
(MHz)	k	(dBm	n		h	t	- 1	h	n	(dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1910.061122	22.29			500.0	5000.000	155.0	Н	347.0	0.0	-62.8



# Diagram No.: 7.15\_PWR\_R\_Ch810\_GPRS\_v

#### **Common Information**

31.10.2014 14:09:06

Test Description: GPRS1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

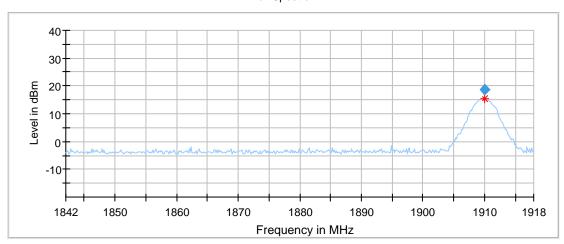
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 810, EGPRS, CS1, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas	Bandwidt h	Heigh t	Po I	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	



### 7.16\_PWR\_R\_Ch512\_EGPRS\_h

#### **Common Information**

Test Description: Radiated Spurious Emissions GSM1900

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

Test Standard: FCC Part 24.238
Comm. Link: GSM1900, Voice/EDGE

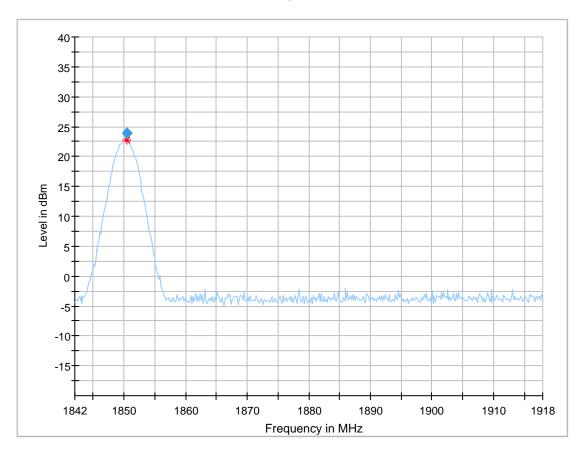
Operating Mode: MS allocated channel 512, EGPRS, MCS5, Testmode A, 1 UL Slot (3)

Exclusionband: 1850- 1910MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 21°C

Operator: ABA

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas	Bandwidt h	Heigh t	Po I	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	
1850.391784	23.99			500.0	5000.000	155.0	Н	323.0	0.0	-63.1



# Diagram No.: 7.16\_PWR\_R\_Ch512\_EGPRS\_v

#### **Common Information**

31.10.2014 13:15:02

Test Description: EGPRS1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

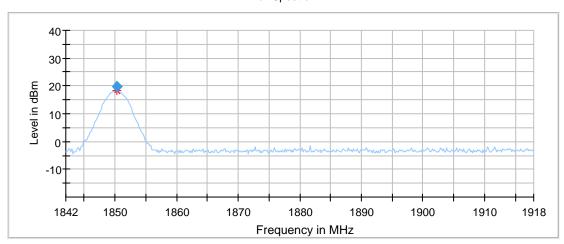
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 512, EGPRS, MCS5, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas	Bandwidt h	Heigh t	РО	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	



# Diagram No.: 7.17\_PWR\_R\_Ch661\_EGPRS\_v

#### **Common Information**

31.10.2014 13:28:58

Test Description: EGPRS1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

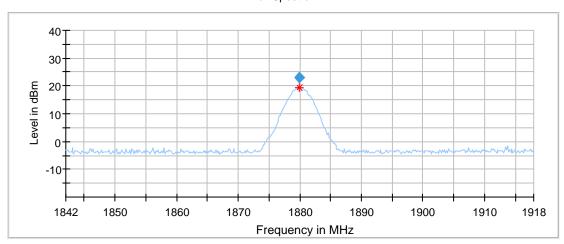
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 661, EGPRS, MCS5, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas	Bandwidt h	Heigh t	РО	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	



### 7.18\_PWR\_R\_Ch810\_EGPRS\_h

#### **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

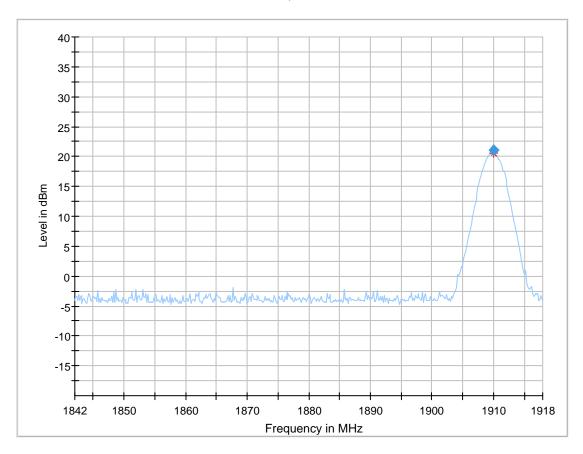
Operating Mode: MS allocated channel 810, EGPRS, MCS5, Testmode A, 1 UL Slot (3)

Exclusionband: 1850- 1910MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 21°C

Operator: ABA

#### Full Spectrum



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas Time	Bandwidt h (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
1910.077154	21.10			500.0	5000.000	155.0	Н	317.0	0.0	-62.8



# Diagram No.: 7.18\_PWR\_R\_Ch810\_EGPRS\_v

#### **Common Information**

31.10.2014 13:38:35

Test Description: EGPRS1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

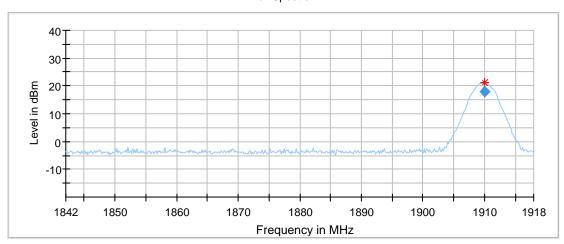
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 810, EGPRS, MCS5, Testmode A, 1 UL Slot (3)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas	Bandwidt h	Heigh t	Po	Azimut h	Elevatio n	Corr. (dB)
	(dBm)	)	(dB)	Time	(kHz)	(cm)		(deg)	(deg)	



## 1.2. RF-Parameter W-CDMA - Radiated RF-Power (ERP/EIRP)

### 7.20 PWR R CH9262 RMC99 h

#### **Common Information**

30.10.2014 14:22:09

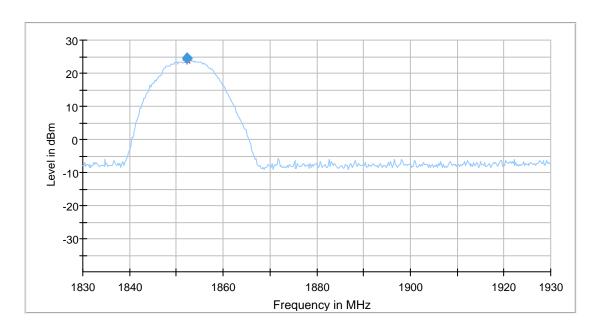
Test Description: UMTSII - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9262, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency	MaxPea	Limit	Margi	Meas.	Bandwidt	Po	Azimut	Corr.
(MHz)	k	(dBm	n	Time	h	I	h	(dB)
	(dBm)	)	(dB)	(ms)	(kHz)		(deg)	



## 7.20\_PWR\_R\_CH9262\_RMC99\_v

#### **Common Information**

30.10.2014 15:38:09

Test Description: UMTSII - EIRP Carrier Measurement

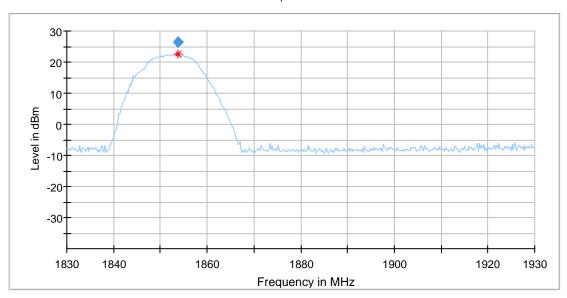
Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9262, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa

#### Full Spectrum



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas. Time	Bandwidt h	Po I	Azimut h	Corr. (dB)
	(dBm)	)	(dB)	(ms)	(kHz)		(deg)	
	(dBm)	)	(dB)	(ms)	(kHz)		(deg)	



# 7.21\_PWR\_R\_CH9400\_RMC99\_h

#### **Common Information**

30.10.2014 14:32:21

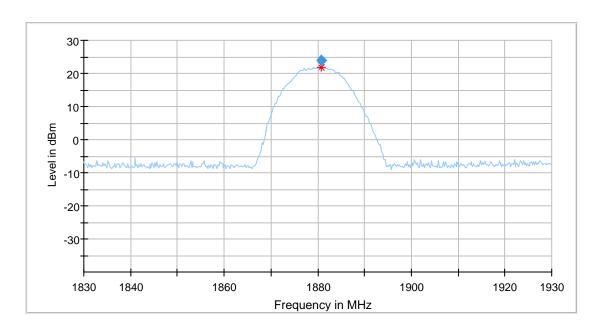
Test Description: UMTSII - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9400, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
	(42)	,	(42)	(	(		(409)	
1880.751503	23.86			10000.0	10000.000	Н	-11.0	-63.0



# 7.21\_PWR\_R\_CH9400\_RMC99\_v

#### **Common Information**

30.10.2014 17:20:32

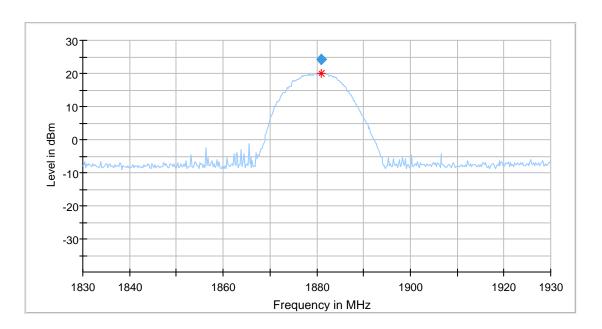
Test Description: UMTSII - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9400, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency (MHz)	MaxPea k	Limit (dBm	Margi	Meas. Time	Bandwidt h	Ро	Azimut h	Corr. (dB)
(		(GDIII	••		••		•••	(45)
	(dBm)	)	(dB)	(ms)	(kHz)		(deg)	
1881.052104	24.34			10000.0	10000.000	Н	16.0	-63.0



# 7.22\_PWR\_R\_CH9538\_RMC99\_h

#### **Common Information**

30.10.2014 15:05:12

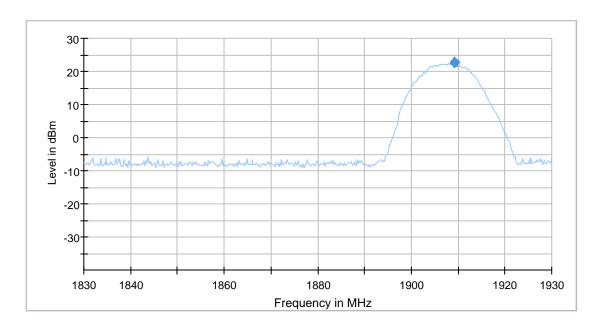
Test Description: UMTSII - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9538, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency (MHz)	MaxPea k	Limit (dBm	Margi n	Meas. Time	Bandwidt h	Po I	Azimut h	Corr. (dB)
	(dBm)	)	(dB)	(ms)	(kHz)		(deg)	
1909.128257	22.63			10000.0	10000.000	Н	41.0	-62.8



## 7.22\_PWR\_R\_CH9538\_RMC99\_v

#### **Common Information**

30.10.2014 17:12:41

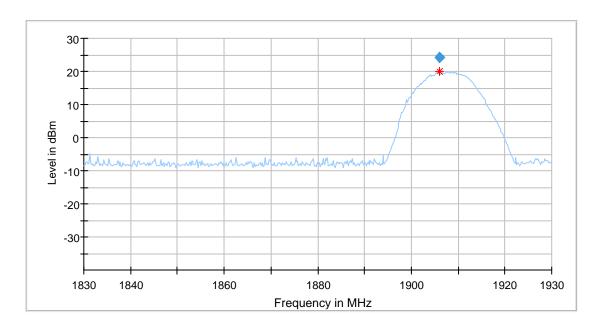
Test Description: UMTSII - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00
Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9538, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency (MHz)	MaxPea	Limit (dBm	Margi	Meas. Time	Bandwidt	Ро	Azimut	Corr. (dB)
(IVITIZ)	N.	(ubiii	- 11	Hille	n		11	(ub)
	(dBm)	)	(dB)	(ms)	(kHz)		(deg)	
1906.082164	24.20			10000.0	10000.000	Н	16.0	-62.9



# 7.26\_PWR\_R\_CH4132\_RMC99\_h

#### **Common Information**

30.10.2014 15:31:53

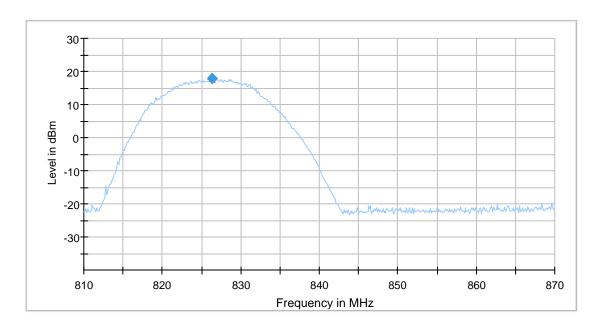
Test Description: UMTSV - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00 Test specification: FCC Part 22 - Limitation of mobile transmitters

Operating Mode: MS allocated channel 4132, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



- mai_100ait									
	Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
	826.322645	17.84			10000.0	10000.000	V	268.0	-75.9



# 7.26\_PWR\_R\_CH4132\_RMC99\_v

#### **Common Information**

30.10.2014 17:05:39

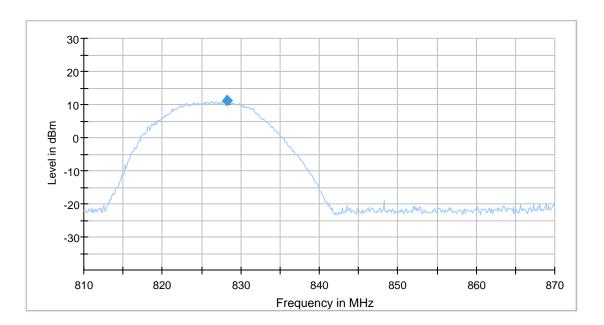
Test Description: UMTSV - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00 Test specification: FCC Part 22 - Limitation of mobile transmitters

Operating Mode: MS allocated channel 4132, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
828.246493	11.17	-		10000.0	10000.000	Τ	98.0	-75.9



# 7.27\_PWR\_R\_CH4183\_RMC99\_h

#### **Common Information**

30.10.2014 16:10:12

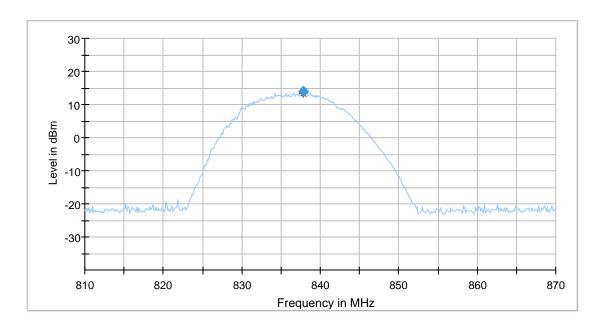
Test Description: UMTSV - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00 Test specification: FCC Part 22 - Limitation of mobile transmitters

Operating Mode: MS allocated channel 4183, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



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Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
837.845691	14.01			10000.0	10000.000	V	227.0	-75.7



# 7.27\_PWR\_R\_CH4183\_RMC99\_v

#### **Common Information**

30.10.2014 15:59:12

Test Description: UMTSV - EIRP Carrier Measurement

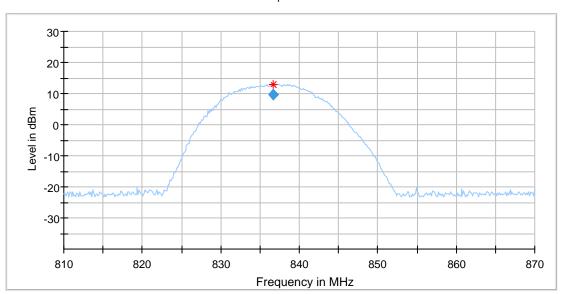
Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00 Test specification: FCC Part 22 - Limitation of mobile transmitters

Operating Mode: MS allocated channel 4183, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa

#### Full Spectrum



- mai_100ait									
	Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
	836.643286	9.62			10000.0	10000.000	Н	249.0	-75.7



# 7.28\_PWR\_R\_CH4233\_RMC99\_h

#### **Common Information**

30.10.2014 16:28:10

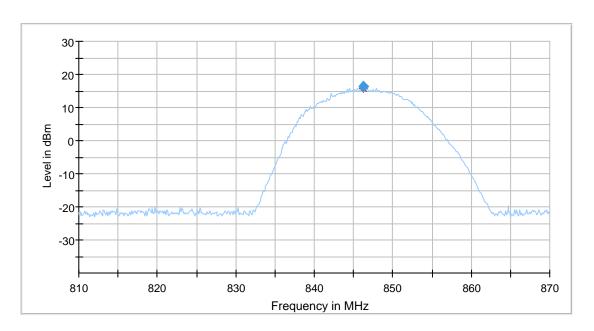
Test Description: UMTSV - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00 Test specification: FCC Part 22 - Limitation of mobile transmitters

Operating Mode: MS allocated channel 4183, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



i mai_nocan								
Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
846.202405	16.39			10000.0	10000.000	V	93.0	-75.9



# 7.28\_PWR\_R\_CH4233\_RMC99\_v

#### **Common Information**

30.10.2014 16:40:51

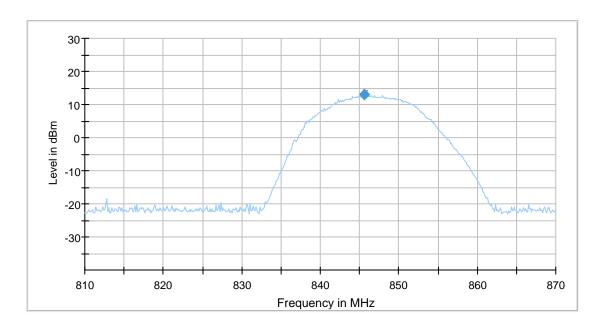
Test Description: UMTSV - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR), EMC32 v 9.15.00 Test specification: FCC Part 22 - Limitation of mobile transmitters

Operating Mode: MS allocated channel 4233, RMC Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa



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Frequency (MHz)	MaxPea k (dBm)	Limit (dBm )	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
845.601203	13.17			10000.0	10000.000	Н	94.0	-75.9



### 1.3. RF-Parameter GSM/E-GPRS -Radiated out of Band RF emissions

### 7.33 RSE R Ch128 GSM GPRS h

#### **Common Information**

Test Description: Radiated Spurious Emissions GSM850 GPRS

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part22.917

Test Case:

Operating Mode: MS allocated UL channel 128, GPRS

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 21°C

Operator:

#### Full Spectrum



Frequency (MHz)	Limit (dBm )	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Corr. (dB)
1648.346693	-	9.03	5000.0	1000.000	155.0	Н	53.0	-63.4
3297.00400	-	21.63	5000.0	1000.000	155.0	Н	103.0	-95.7
4944.29859	- 3	28.07	5000.0	1000.000	155.0	Н	85.0	-90.9



## 7.30\_RSE\_R\_Ch810\_GSM\_v

#### **Common Information**

Test Description: Radiated Spurious Emissions GSM1900

Test Site Location: CETECOM GmbH Essen

Test Site: Fully Anechoic Room (FAR) - EMC32 V9.15.00

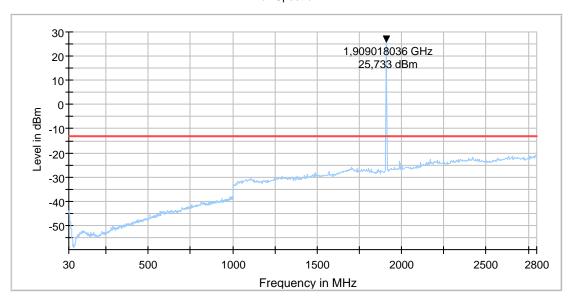
Test Standard: FCC Part 24.238
Comm. Link: GSM1900, Voice/EDGE

Operating Mode: MS allocated channel 810, Voice, PCL0 (+30dBm)

Exclusionband: 1850- 1910MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 21°C

Operator: dpa





# $7.30\_RSE\_R\_Ch810\_GSM\_v\_B$

#### **Common Information**

30.10.2014 13:28:00

Test Description: GSM1900 - EIRP Carrier Measurement

Test Site Location: CETECOM GmbH Essen

Test Site:

Fully Anechoic Room (FAR), EMC32 v 9.15.00

Test specification:

Operating Mode:

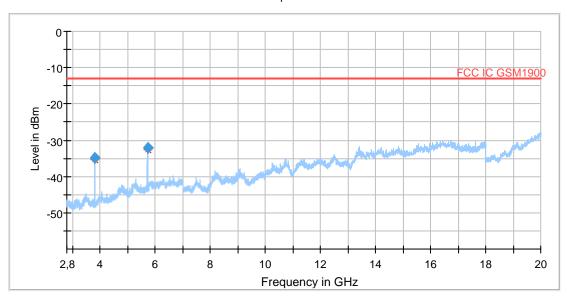
FCC Part 24.232(c) - Limitation of mobile transmitters

MS allocated channel 810, Voice, PCL0 (+30dBm)

Environmental Conditions: Humidity: 44%rH; Temperature:20°C

Operator Name: dpa

#### Full Spectrum



Frequency (MHz)	MaxPea k (dBm)	Limit (dBm)	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
3819.744489	-34.87	-13.00	21.87	1000.0	1000.000	Н	128.0	-95.1
5729.604209	-31.98	-13.00	18.98	1000.0	1000.000	Н	39.0	-89.4



## 1.4. RF-Parameter GSM/E-GPRS – Radiated Band Edge

### 9.03 RSE R Ch128 GPRS

#### **Common Information**

Test Description: Radiated Band Edge Compliance GSM850 GPRS

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917

Operating Mode: MS allocated channel 128 (fc = 824.2MHz), GPRS, CS1, Testmode A, 1 UL Slot

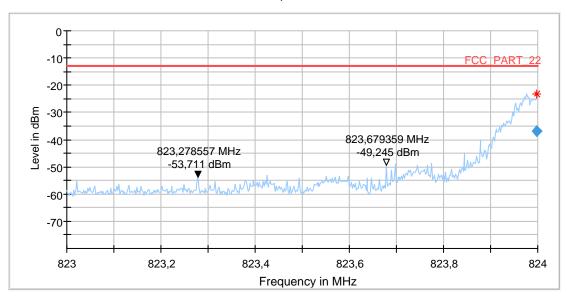
(3),

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator: HLa

#### Full Spectrum



Frequency (MHz)	Limit (dBm )	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Po	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
823.997996	13.00	23.79	10000. 0	3.000	155.0	V	99.0	0.0	-75.8



## 9.04\_RSE\_R\_Ch251\_GPRS

#### **Common Information**

Test Description: Radiated Band Edge Compliance GSM850 GPRS

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), GPRS, CS1, Testmode A, 1 UL Slot

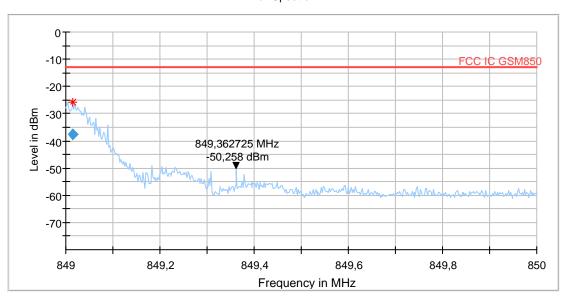
(3).

Exclusionband: 824 - 849MHz

Environmental Conditions: Humidity: 56%rH; Temperature: 20°C

Operator: HL:

#### Full Spectrum



Frequency (MHz)		Margin (dB)	Meas. Time	Bandwidth (kHz)	Heigh t	Po I	Azimut h	Elevatio n	Corr. (dB)
849.01402	8 13.00	24.43	10000. 0	3.000	155.0	V	207.0	0.0	-76.0



## 9.07\_BE\_R\_Ch512\_GSM

#### **Common Information**

Test Description: Radiated Band Edge Compliance GSM1900

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 24.238 Comm. Link: GSM1900 Voice

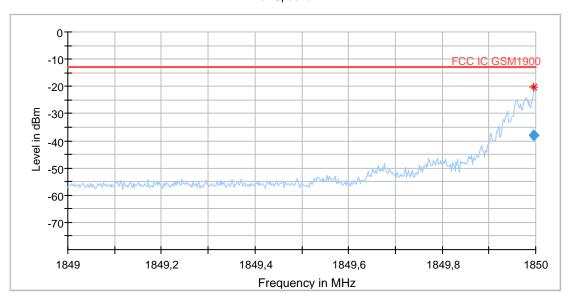
Operating Mode: MS allocated channel 512 (UL = 1850.2MHz)

Exclusionband: 1850- 1910MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 21°C

Operator: His

#### Full Spectrum



Frequency (MHz)	Limit (dBm )	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
1849.995992	13.00	24.85	10000.	3.000	155.0	Н	19.0	0.0	-63.1



## 9.08\_BE\_R\_Ch810\_GSM

#### **Common Information**

Test Description: Radiated Band Edge Compliance GSM1900

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 24.238 Comm. Link: GSM1900, Voice

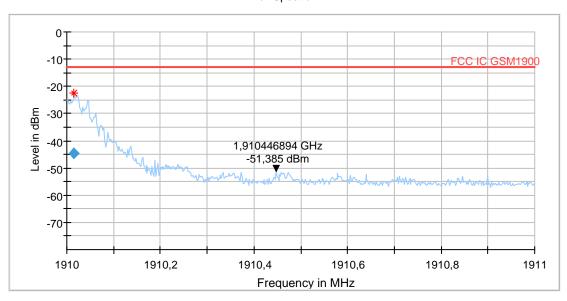
Operating Mode: MS allocated channel 810 (UL = 1909.8MHz)

Exclusionband: 1850- 1910MHz

Environmental Conditions: Humidity: 49%rH; Temperature: 21°C

Operator: His

#### Full Spectrum



Frequency (MHz)	Limit (dBm )	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Po I	Azimut h (deg)	Elevatio n (deg)	Corr. (dB)
1910.016032	13.00	31.43	10000. 0	3.000	155.0	Н	15.0	0.0	-62.8



### 1.5. RF-Parameter W-CDMA - Radiated out of Band RF emissions

### 7.31 RSE R Ch9262 UMTS v

#### **Common Information**

Test Description: Radiated Spurious Emissions UMTS FDDII

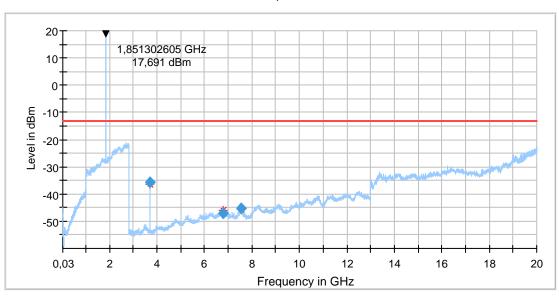
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 24

Operating Mode: UE allocated channel 9262 (fc = 1852.4 MHz)
Environmental Conditions: Humidity: 60%rH; Temperature: 20°C

Operator: KRe

#### Full Spectrum



Frequency (MHz)	Limit (dBm)	Margi n (dB)	Meas. Time (ms)	Bandwidt h (kHz)	Po I	Azimut h (deg)	Corr. (dB)
3702.454909	-13.00	22.60	10000.0	1000.000	Н	49.0	-94.9
6776.603207	-13.00	34.25	10000.0	1000.000	V	289.0	-85.5
7525.921843	-13.00	32.23	10000.0	1000.000	V	292.0	-83.4



# 7.32\_RSE\_R\_Ch4132\_UMTS\_FDDV\_h

#### **Common Information**

Test Description: Radiated Spurious Emissions UMTS FDDV

Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)
Test Standard: FCC Part 22.917(a)

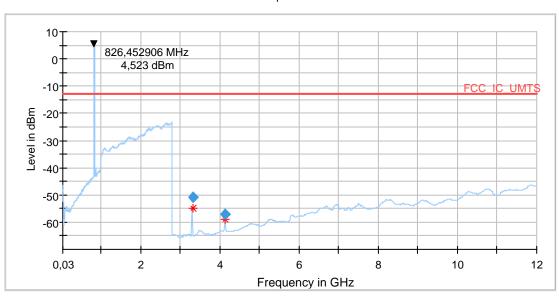
Operating Mode: UE allocated channel 4132 (fc = 826.4 MHz), Voice/HSDPA/HSDPA/HSPA+, H-

Set x

Environmental Conditions: Humidity: 60%rH; Temperature: 20°C

Operator: KRe

#### Full Spectrum



Frequency (MHz)	Limit (dBm )	Margin (dB)	Meas. Time (ms)	Po I	Azimut h (deg)	Corr. (dB)
3308.466934	13.00	37.75	10000. 0	Н	99.0	-95.7
4127.404810	13.00	44.26	10000. 0	Н	85.0	-93.4



### 1.6. RF-Parameter W-CDMA – Radiated Band Edge

## Diagram No.: 9.20\_BE\_R\_ch9262\_RMC

#### **Common Information**

31.10.2014 11:19:42

Test Description: Radiated Band Edge Compliance UMTS-FDDII

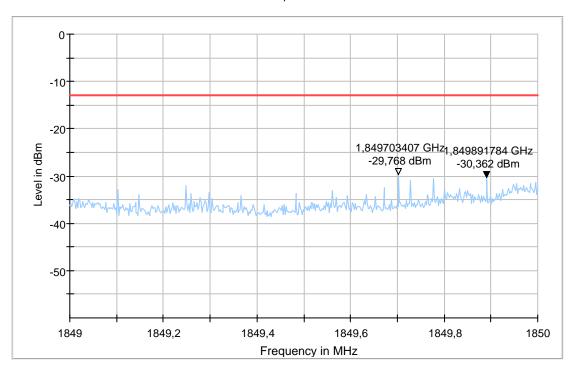
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9262 (fc = 1852.4MHz), RMC Mode, PCL3 (+24dBm)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe





## Diagram No.: 9.21\_BE\_R\_ch9538\_RMC

#### **Common Information**

31.10.2014 11:29:19

Test Description: Radiated Band Edge Compliance UMTS-FDDII

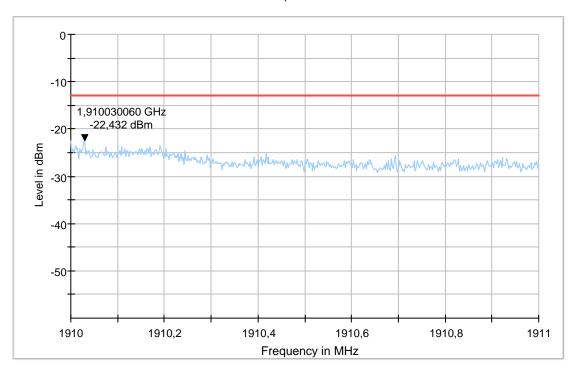
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9538 (fc = 1907.6MHz), RMC Mode, PCL3 (+24dBm)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe





## 9.50\_BE\_R\_Ch4132\_RMC

#### **Common Information**

Test Description:

31.10.2014 16:54:19

Radiated Band Edge Compliance UMTS-FDDII

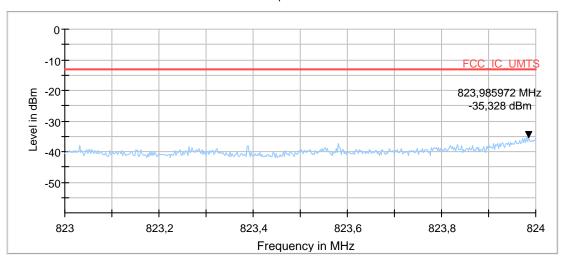
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test specification: FCC Part 24.232(c) - Limitation of mobile transmitters

Operating Mode: MS allocated channel 9538 (fc = 1907.6MHz), RMC Mode, PCL3 (+24dBm)

Environmental Conditions: Humidity: 49%rH; Temperature: 23°C

Operator Name: npe





## 9.51\_BE\_R\_Ch4233\_RMC

#### **Common Information**

Test Description: Radiated Band Edge Compliance UMTS-FDDV

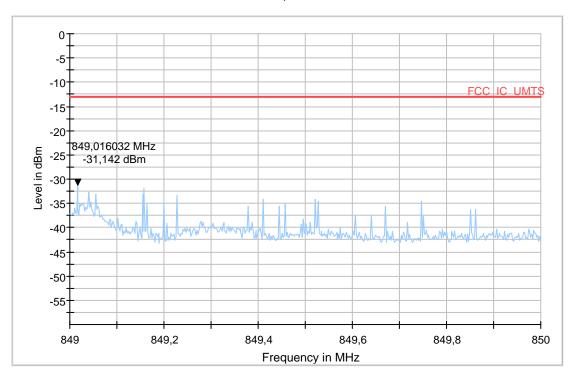
Test Site Location: CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)

Test Standard: FCC Part 22.917

Operating Mode: MS allocated channel 4233 (fc = 846.6MHz), RMC Mode, PCL3 (+24dBm)

Environmental Conditions: Humidity: 50%rH; Temperature:23°C

Operator: npe





### 1.7. General Limit - Radiated field strength emissions below 30 MHz

## Diagram No. 2.01

Date: 03.11.2014 Page 1 of 2

Magnetic Fieldstrength Measurement related to 30/300 m distance Test description: Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance

Version of Testsoftware: EMC32 V8.51.0

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

FCC 15.205 § 15.209; RSS-Gen: Issue 3 Test specification:

Operator: HLa

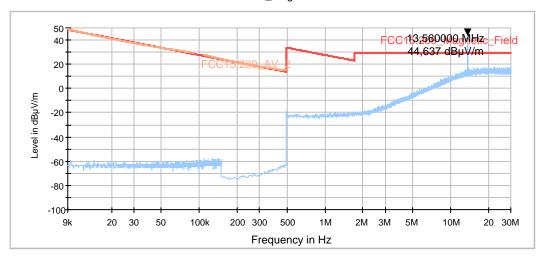
EUT:

Manufacturer

Operating conditions: UMTS FDDII (CH: 9262) + RFID ON

Power during tests: full loaded batteries Comment 1: Channel low

#### FCC15.209\_magn hor+vert





# Diagram No. 2.02

Date: 03.11.2014 Page 1 of 2

Test description: Magnetic Fieldstrength 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 V8.51.0

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 3

Operator: HLa

EUT:

Manufacturer

Operating conditions: GSM1900 (CH: 810) + RFID ON

Power during tests: full loaded batteries
Comment 1: Channel high

#### FCC15.209\_magn hor+vert

