







ANNEX 4  
MEASUREMENT DIAGRAMS  
to  
TEST REPORT  
TR6-0171-12-5-2a\_C1

**According to:**  
FCC Regulations  
CFR47: Part 15.209, Part 22 & Part 24  
**IC Regulations**  
RSS Gen, Issue 3  
RSS-132, Issue 2  
RSS-133, Issue 5

for  
**CARLO GAVAZZI SPA**

**UNIVERSAL MOBILE MODEM FOR DATA COMMUNICATION**  
**VMU-WAUMM2X**  
*FCC ID: SNJUMMNAD*  
*IC: 7118D-UMMNAD*

Laboratory Accreditation and Listings			
 <b>Deutsche Akkreditierungsstelle</b> D-PL-12047-01-01	 Reg. No.: 736496 MRA US-EU 0003	 Industry Canada Reg. No.: 3462D-1 Reg. No.: 3462D-2 Reg. No.: 3462D-3	 Voluntary Controls for Electromagnetic Emissions Reg. No.: R-2665, R-2666 C-2914, T-1967, G-301
 <b>AUTHORIZED RF LABORATORY</b>	 <b>LAB CODE 20011130-00</b>		
accredited according to DIN EN ISO/IEC 17025			
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# 1. Measurement diagrams

## 1.1 General field strength emissions radiated (f < 30 MHz)

### 1.1.1 PLANAR Antenna

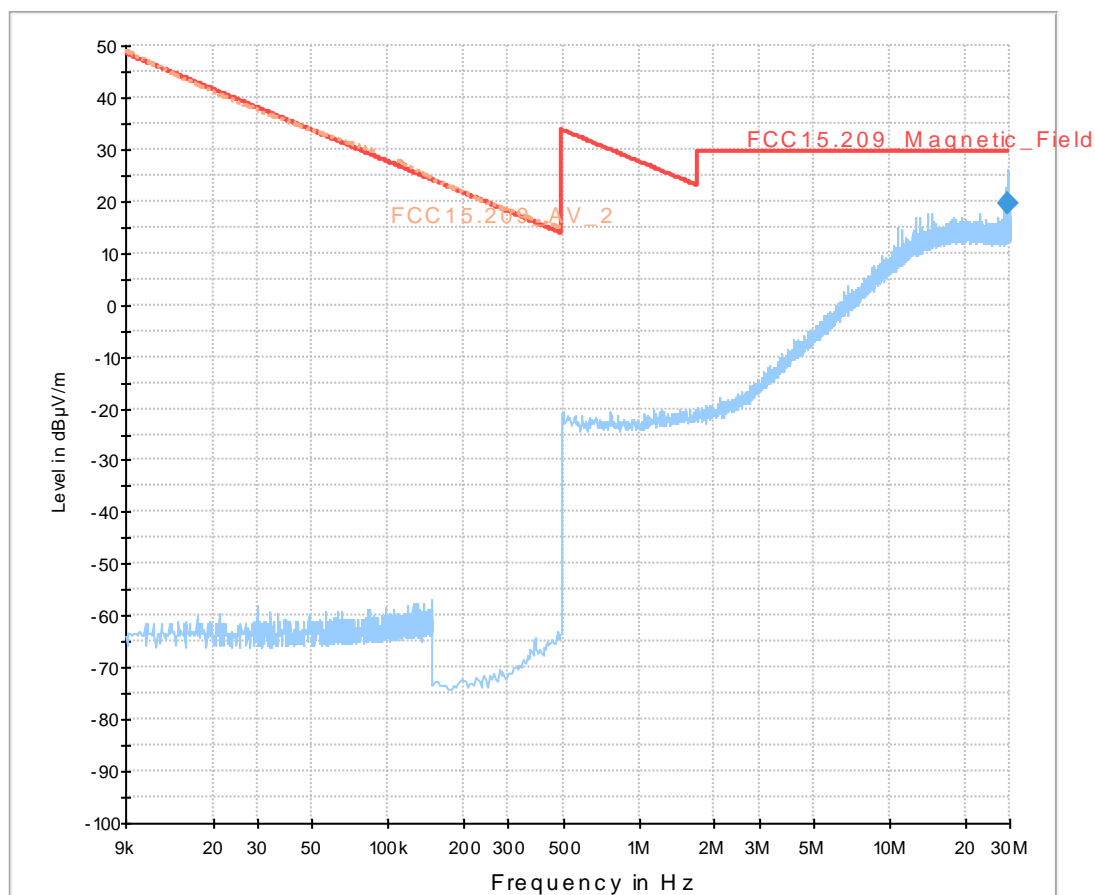
#### Diagram No. 2.01\_RSE\_TX\_Ch128\_Planar

Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
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:	Lor
Operating conditions:	GPRS 850, Channel low=128
Power during tests:	24V DC
Comment :	EUT standing

#### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC15.209\_magn hor+vert



#### Final Result 1

Frequency (MHz)	Quasi Peak (dBµV/)	Meas. Time (ms)	Bandwidth (kHz)	Polariza-tion	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
29.632000	19.6	1000.0	10.000	V	312.0	2.8	10.00	29.50

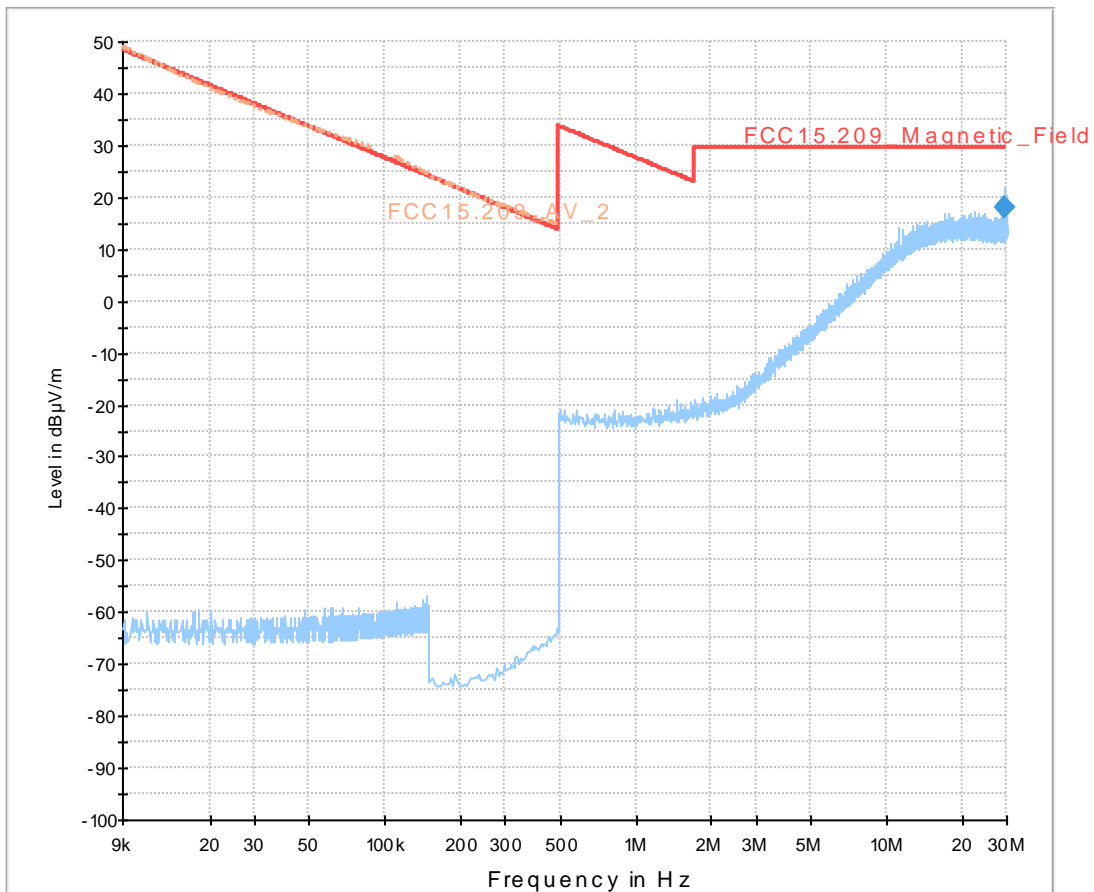
## Diagram No. 2.02\_RSE\_TX\_Ch192\_Planar

Date:	22.11.2012	Page 1 of 1
Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance	
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance	
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:	Lor	
Operating conditions:	GPRS 850	
Power during tests:	24V DC	
Comment 1:	Channel middle=192, EUT laying	

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC15.209\_magn hor+vert



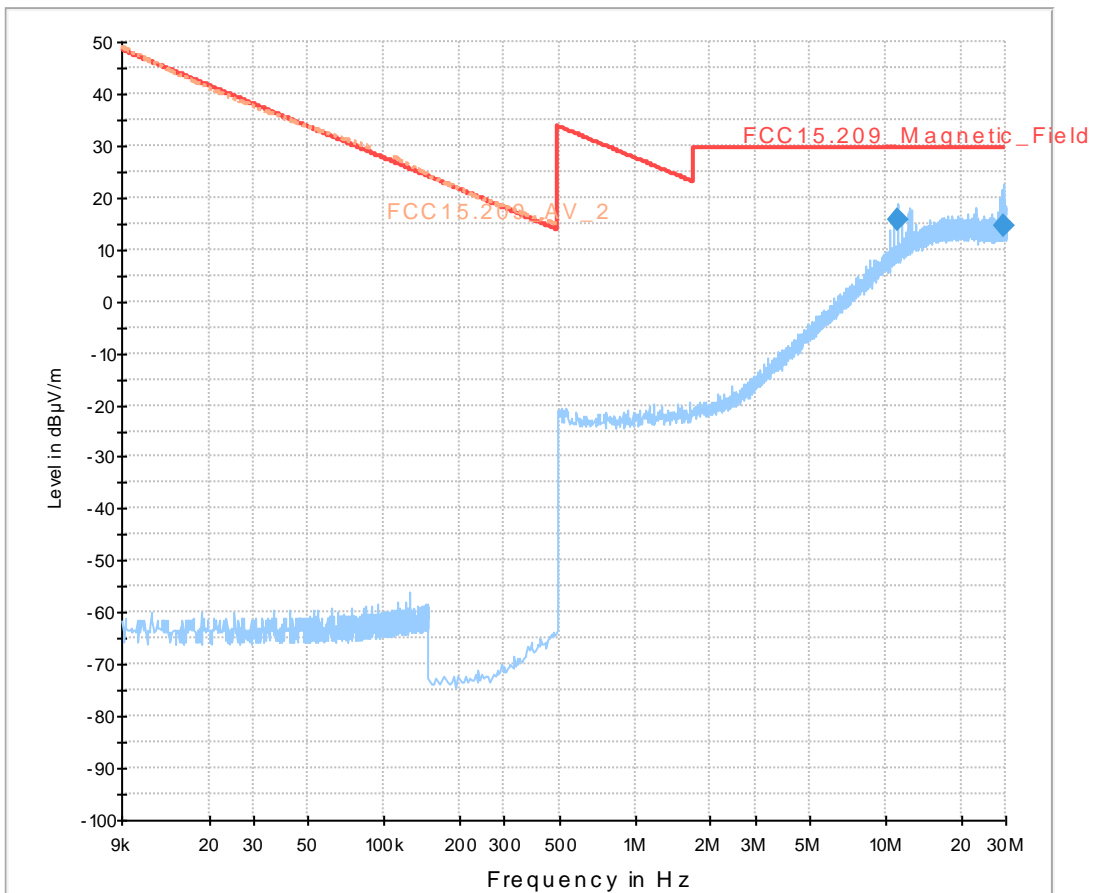
## Diagram No. 2.03\_RSE\_TX\_Ch251\_Planar

Test description:	Date: 22.11.2012 Page 1 of 1
Test site and distance:	Magnetic Fieldstrength Measurement related to 30/300 m distance
Distance correction:	Semi Anechoic Room (SAR) with 3 m measurement distance
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 3
Operator:	Lor
Operating conditions:	GPRS 850
Power during tests:	24V DC
Comment 1:	Channel high=251
Comment 2:	EUT laying

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC 15.209\_magn hor+vert



### Final Result 1

Frequency (MHz)	Quasi Peak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
11.160000	15.8	1000.0	10.000	V	200.0	-2.4	13.80	29.50

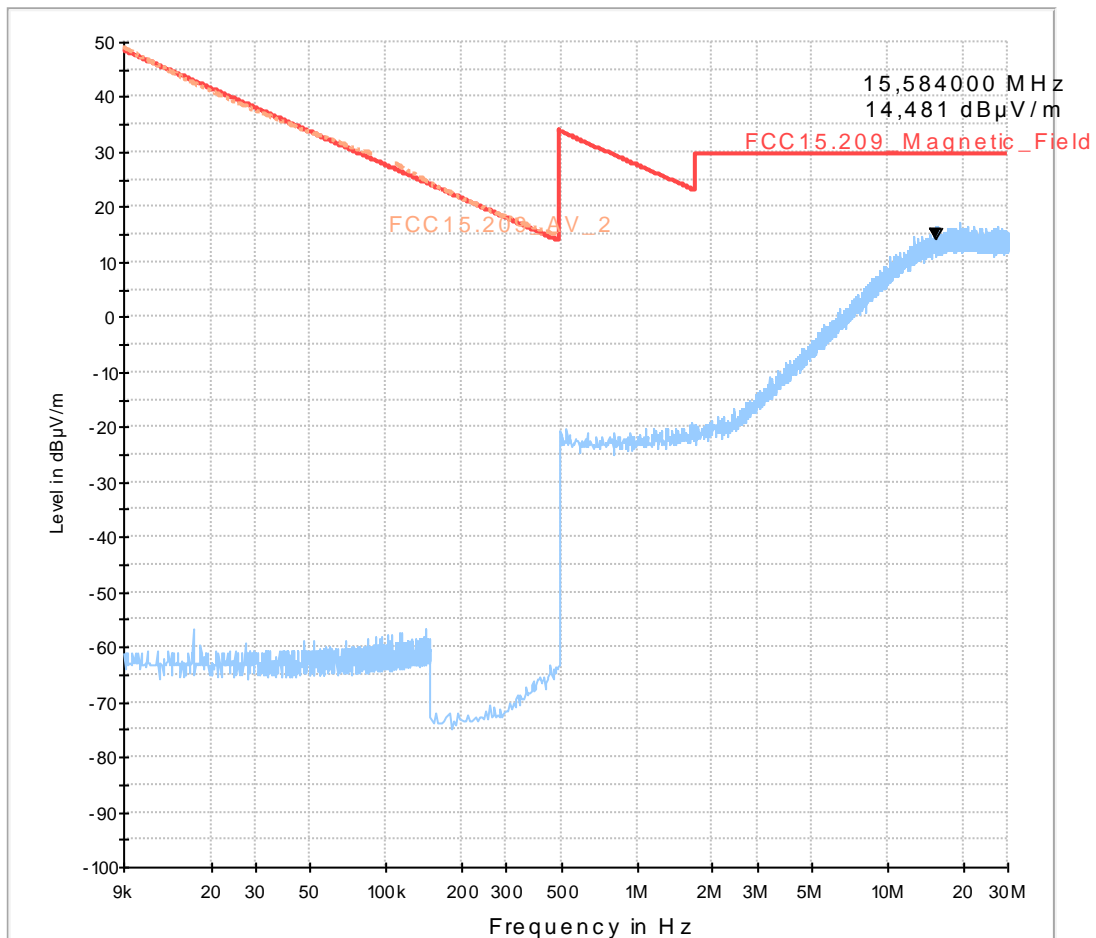
## Diagram No. 2.10\_RSE\_TX\_Ch512\_GSM1900

Date:	06.12.2012	Page 1 of 2
Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance	
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance	
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:	Lor	
Operating conditions:	TX GSM1900 (Channel 512)	
Power during tests:	24V DC	

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC15.209\_magn hor+vert



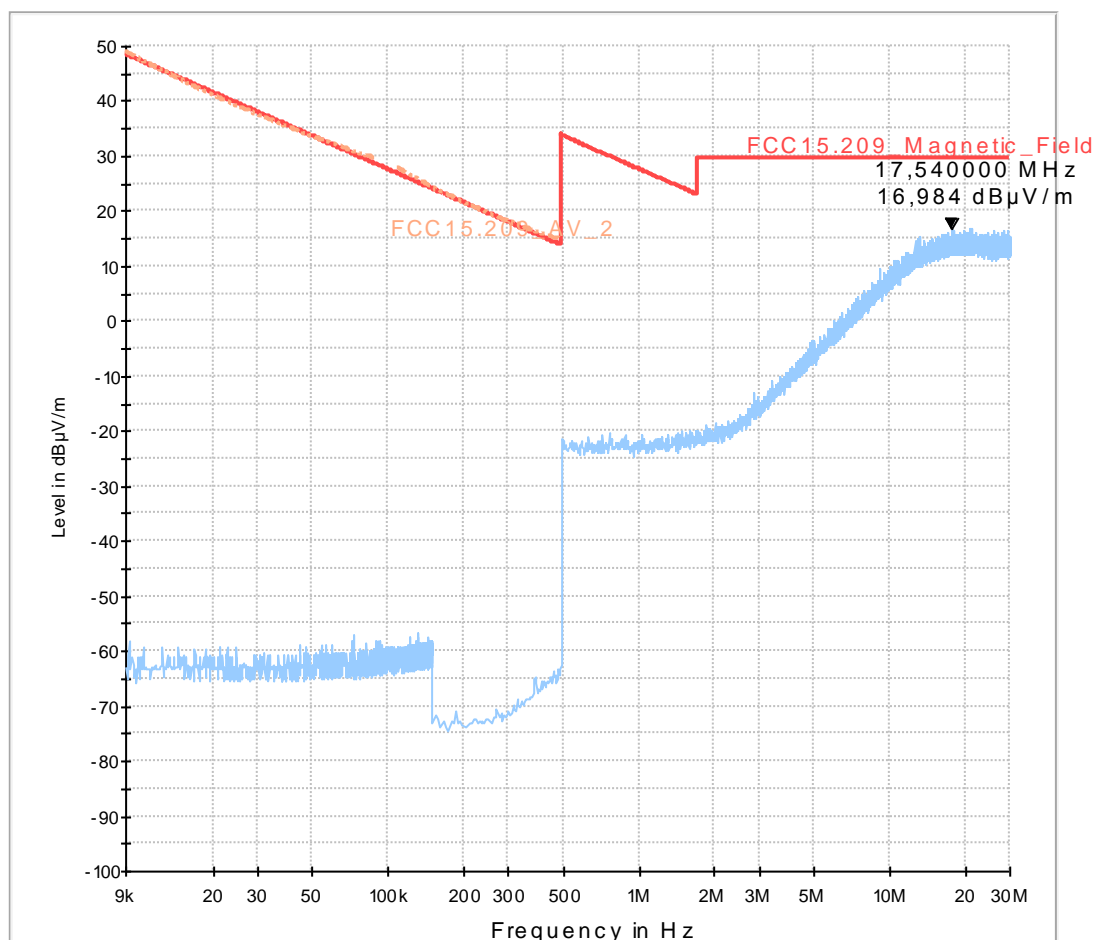
## Diagram No. 2.11\_RSE\_TX\_Ch4183\_FDD5

Date:	06.12.2012	Page 1 of 2
Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance	
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance	
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:	Lor	
Operating conditions:	TX FDD Band V (Channel 4183)	
Power during tests:	24V DC	

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC15.209\_magn hor+vert



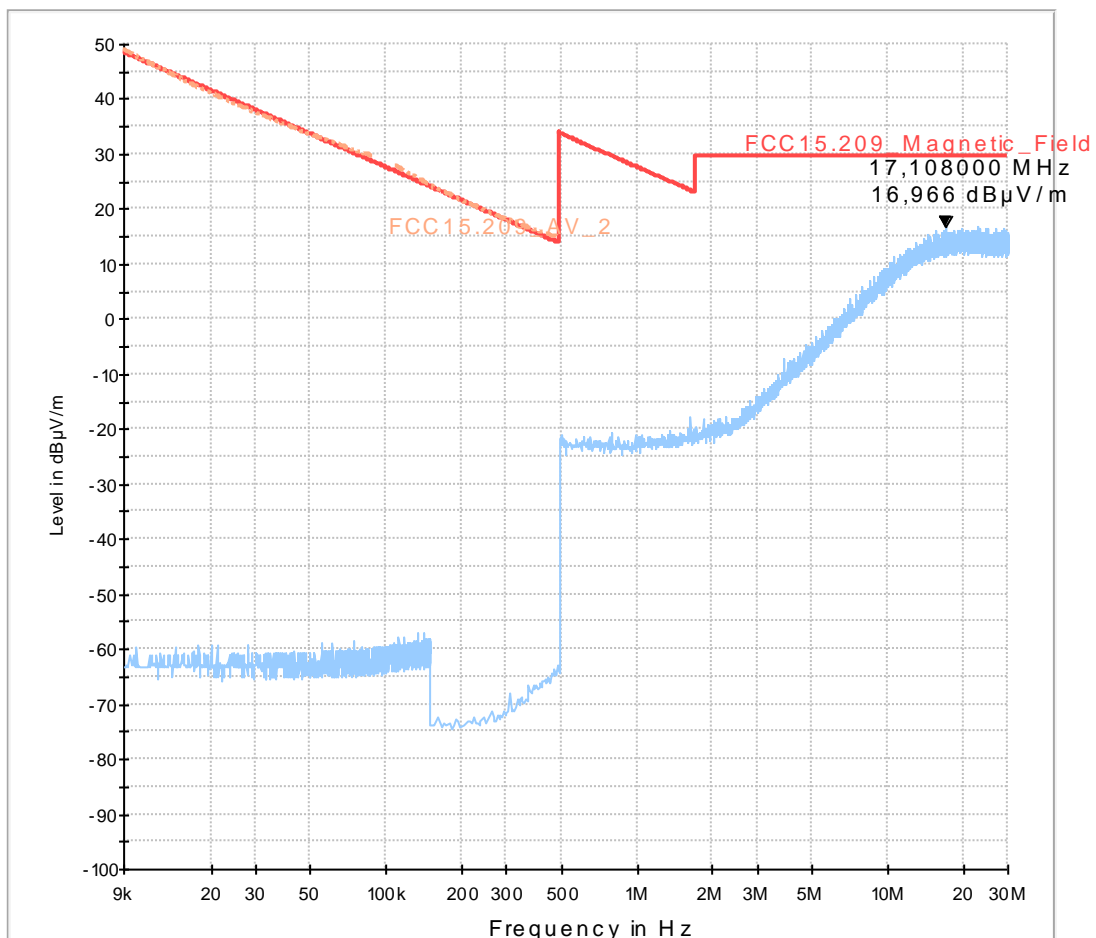
## Diagram No. 2.12\_RSE\_TX\_Ch9538\_FDD2

Date:	06.12.2012	Page 1 of 2
Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance	
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance	
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:	Lor	
Operating conditions:	TX FDDII (Channel 9538)	
Power during tests:	24V DC	

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC 15.209\_magn hor+vert





1.1.2 STUBBY Antenna

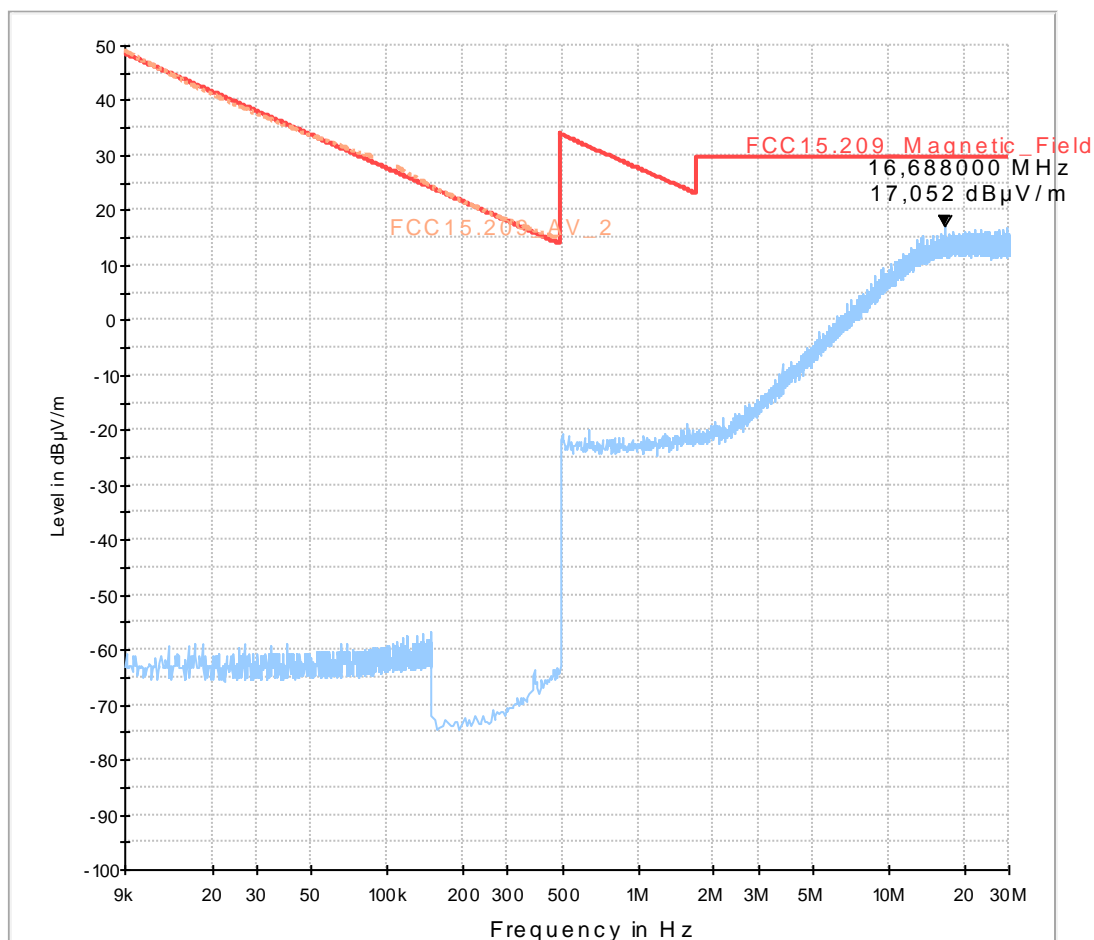
## Diagram No. 2.07\_RSE\_TX\_Ch128\_Stub\_Antenna

Date:	06.12.2012	Page 1 of 2
Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance	
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance	
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:	Lor	
Operating conditions:	TX GSM850 (Channel 128)	
Power during tests:	24V DC	

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region America)
SW:	tbd
Accessories:	Stub antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC 15.209\_magn hor+vert



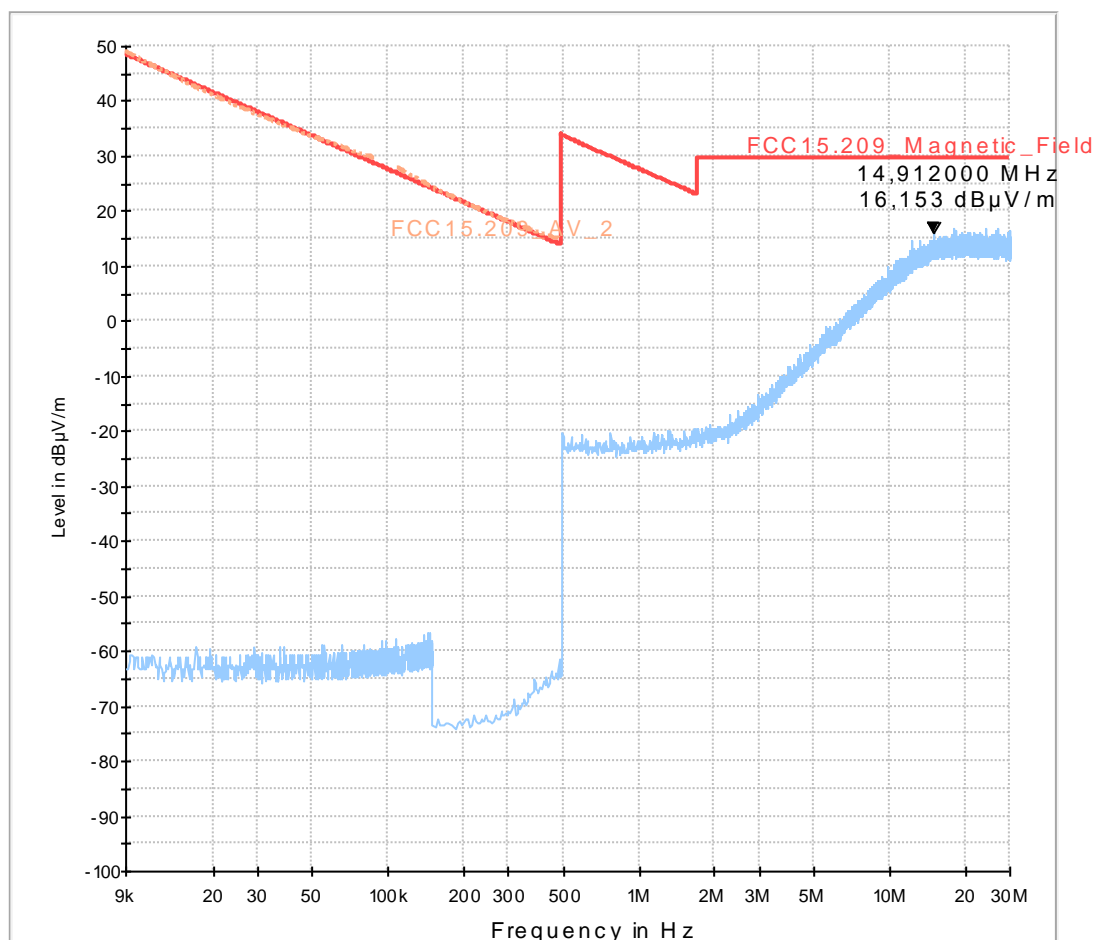
## Diagram No. 2.08\_RSE\_TX\_Ch661\_Stub\_Antenna

Date:	06.12.2012	Page 1 of 1
Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance	
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance	
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:	Lor	
Operating conditions:	TX GSM1900 (Channel 661)	
Power during tests:	24V DC	

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region America)
SW:	tbd
Accessories:	Stub antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC15.209\_magn hor+vert



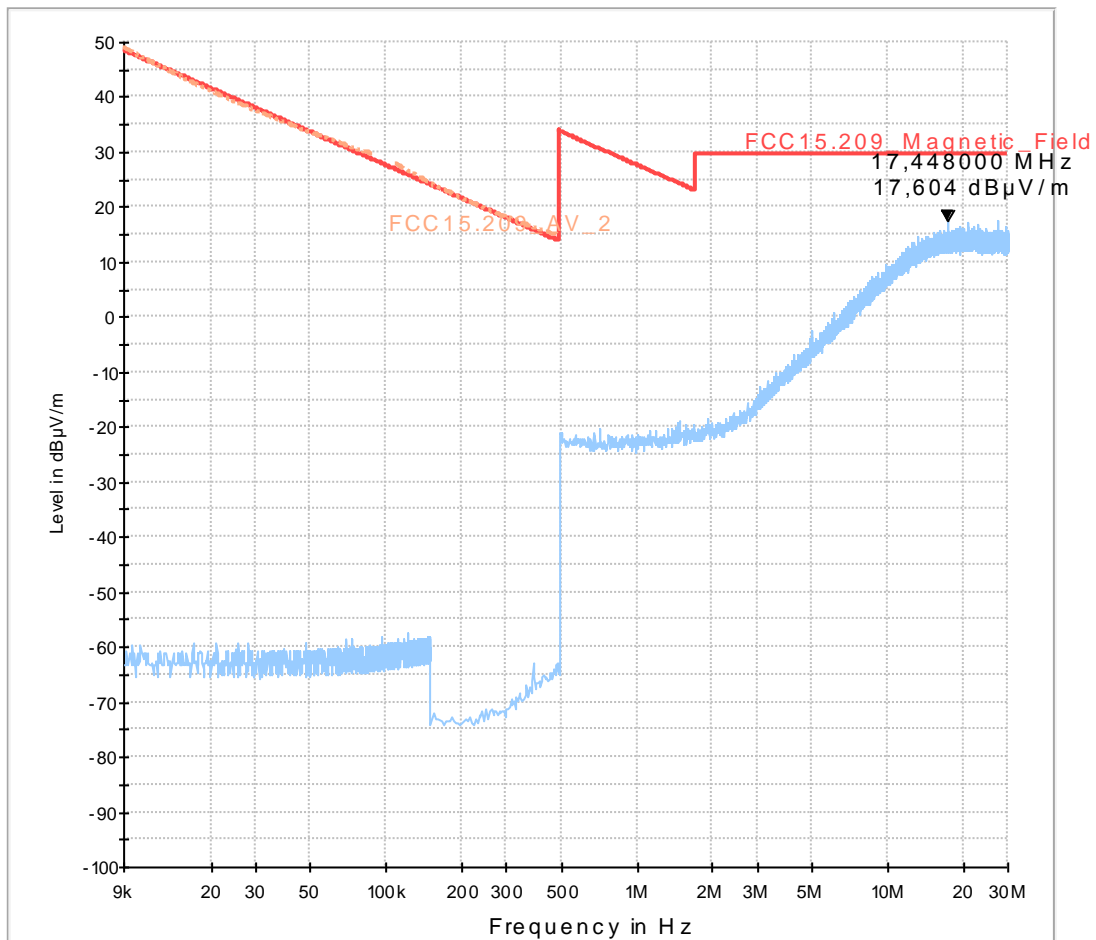
## Diagram No. 2.09\_RSE\_TX\_Ch4233\_Stub\_Antenna

Date:	06.12.2012	Page 1 of 1
Test description:	Magnetic Fieldstrength Measurement related to 30/300 m distance	
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance	
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:	Lor	
Operating conditions:	TX FDD V (Channel 4233)	
Power during tests:	24V DC	

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323040015437
Hardware Rev:	tbd (region America)
SW:	tbd
Accessories:	Stub antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

FCC15.209\_magn hor+vert



## Diagram No. 2.04\_RSE\_TX\_Ch9262\_Stub\_Antenna

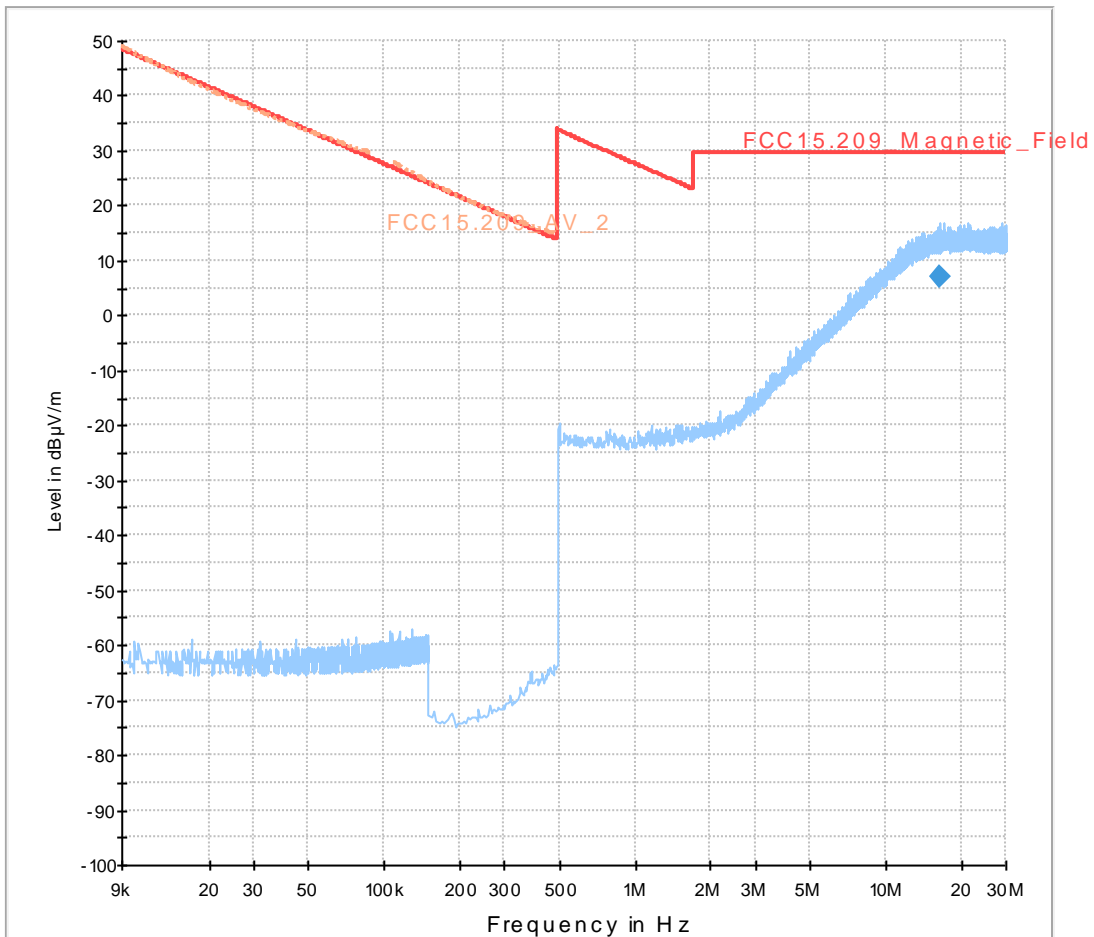
Date: 06.12.2012 Page 1 of 3  
 Test description: Magnetic Fieldstrength Measurement related to 30/300 m distance  
 Test site and distance: Semi Anechoic Room (SAR) with 3 m measurement distance  
 Distance correction: used accord. table, pls. see test report  
 Technical Data: Please see page 2 for 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: Lor  
 Operating conditions: TX FDD Band II (Channel 9262)  
 Power during tests: 24V DC

### EUT Information

Manufacturer: CARLO GAVAZZI CONTROLS SPA  
 EUT: VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)  
 Serial Number: 355323040015437  
 Hardware Rev: tbd (region America)  
 SW: tbd  
 Accessories: Stub antenna + USB/Bus(8 pins) adapter cable (2m)  
 Power during test: 24 VDC

FCC 15.209\_magn hor+vert



### Final Result 1

Frequency (MHz)	Quasi Peak (dBµV/)	Meas. Time (ms)	Band-width (kHz)	Polariza-tion	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
16.496000	7.0	1000.0	10.000	H	248.0	2.1	22.50	29.50

## 1.2 General field strength emissions radiated (f > 30 MHz)

### 1.2.1 PLANAR Antenna

## 8.07\_RSE\_R\_Ch128\_EDGE

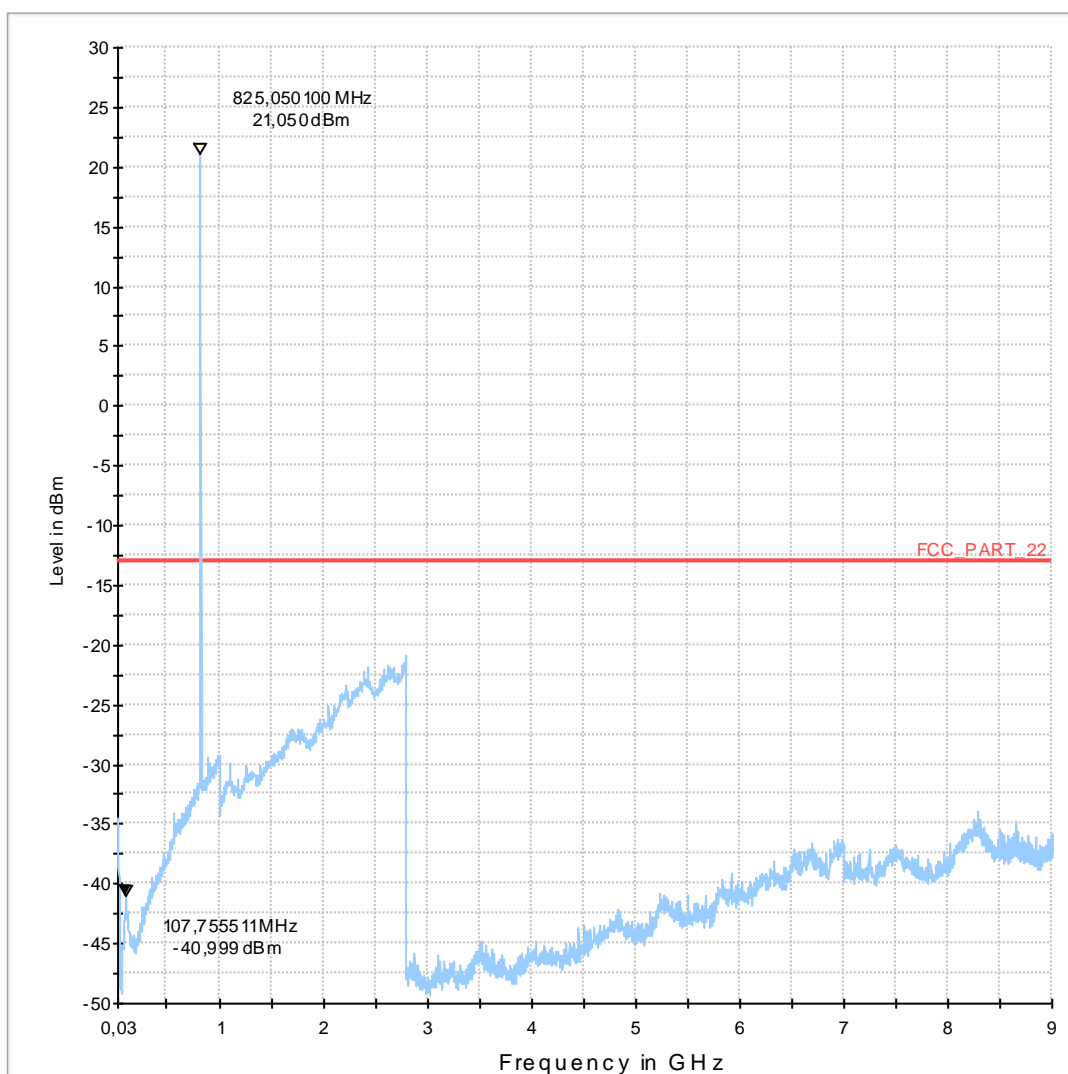
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	MS allocated UL channel 128, EDGE - MCS5
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 37 %rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030401\_FCC\_Part22\_GSM850\_TX\_all\_channels\_30M-12G



## 8.08\_RSE\_R\_Ch192\_EDGE

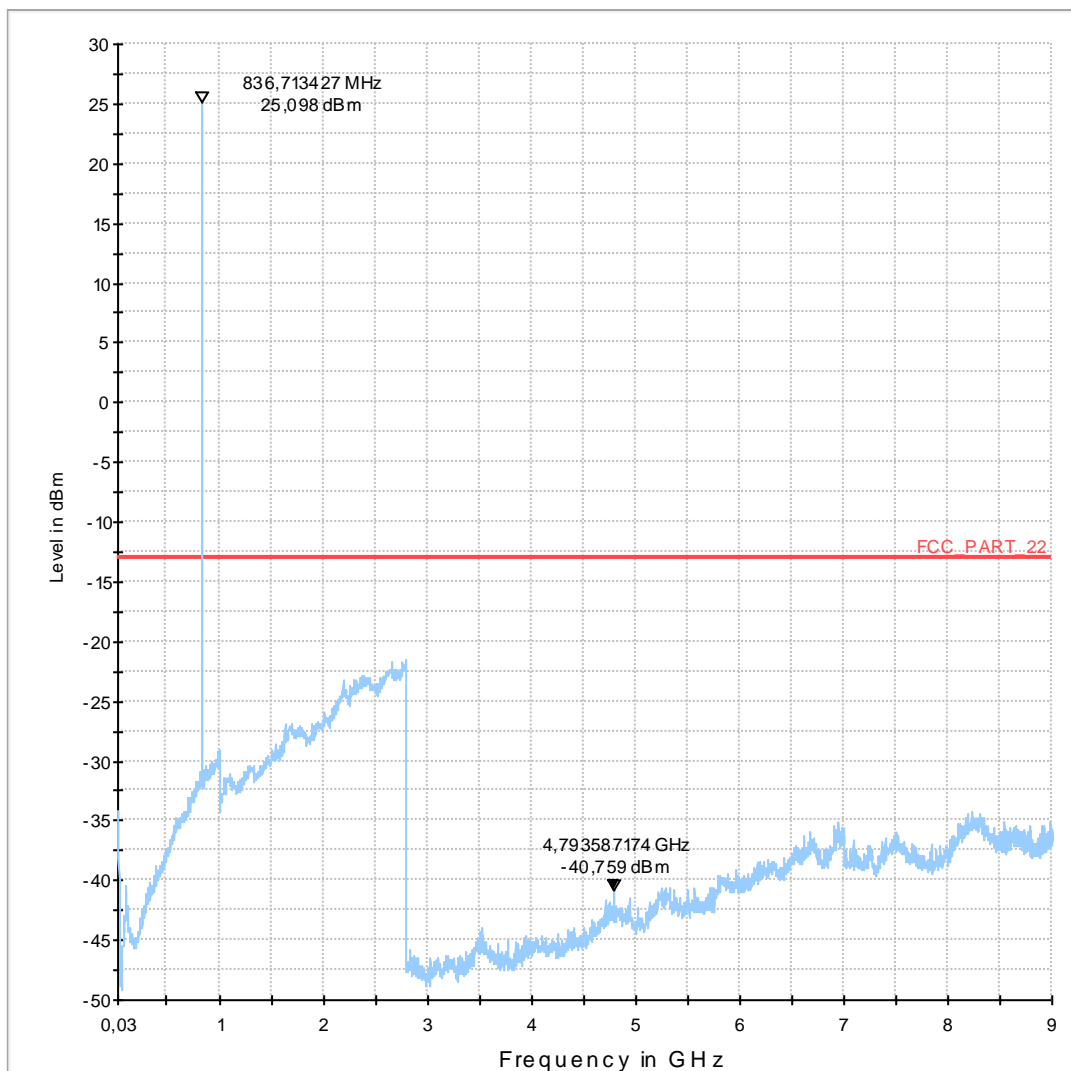
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 192 (fc= 837 MHz), EDGE
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 37 %rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030401\_FCC\_Part22\_GSM850\_TX\_all\_channels\_30M-12G



## 8.09\_RSE\_R\_Ch251\_EDGE

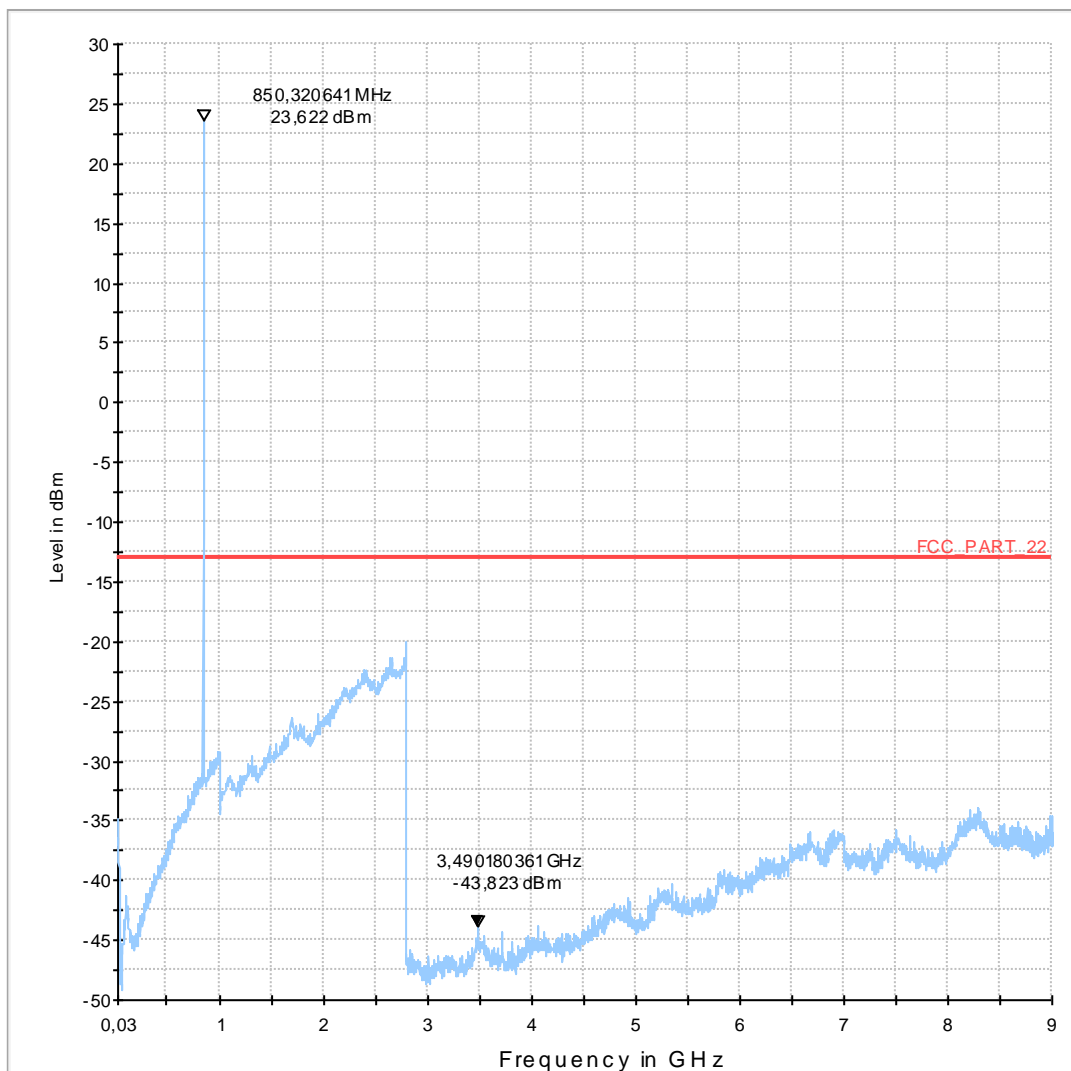
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 251 (fc= 848,8 MHz), EDGE
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 37 %rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030401\_FCC\_Part22\_GSM850\_TX\_all\_channels\_30M-12G



## 8.10\_RSE\_R\_CH512\_EDGE

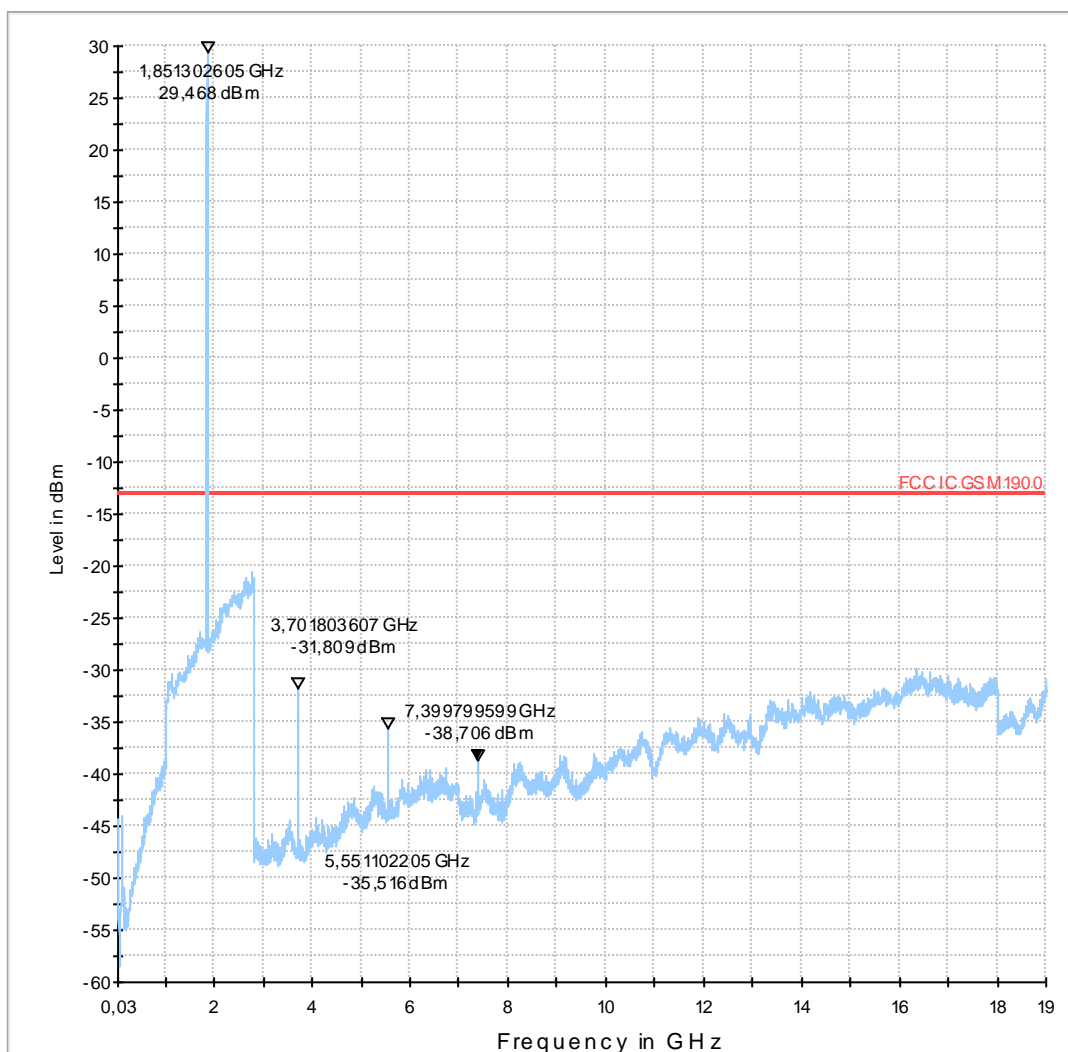
### Common Information

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, EDGE
Operating Mode:	MS allocated channel 512 (fc = 1805.2 MHz); EDGE - MCS5, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030404\_FCC\_Part24\_GSM1900\_TX\_all\_channels\_30M-20G





## 8.11\_RSE\_R\_Ch661\_EDGE

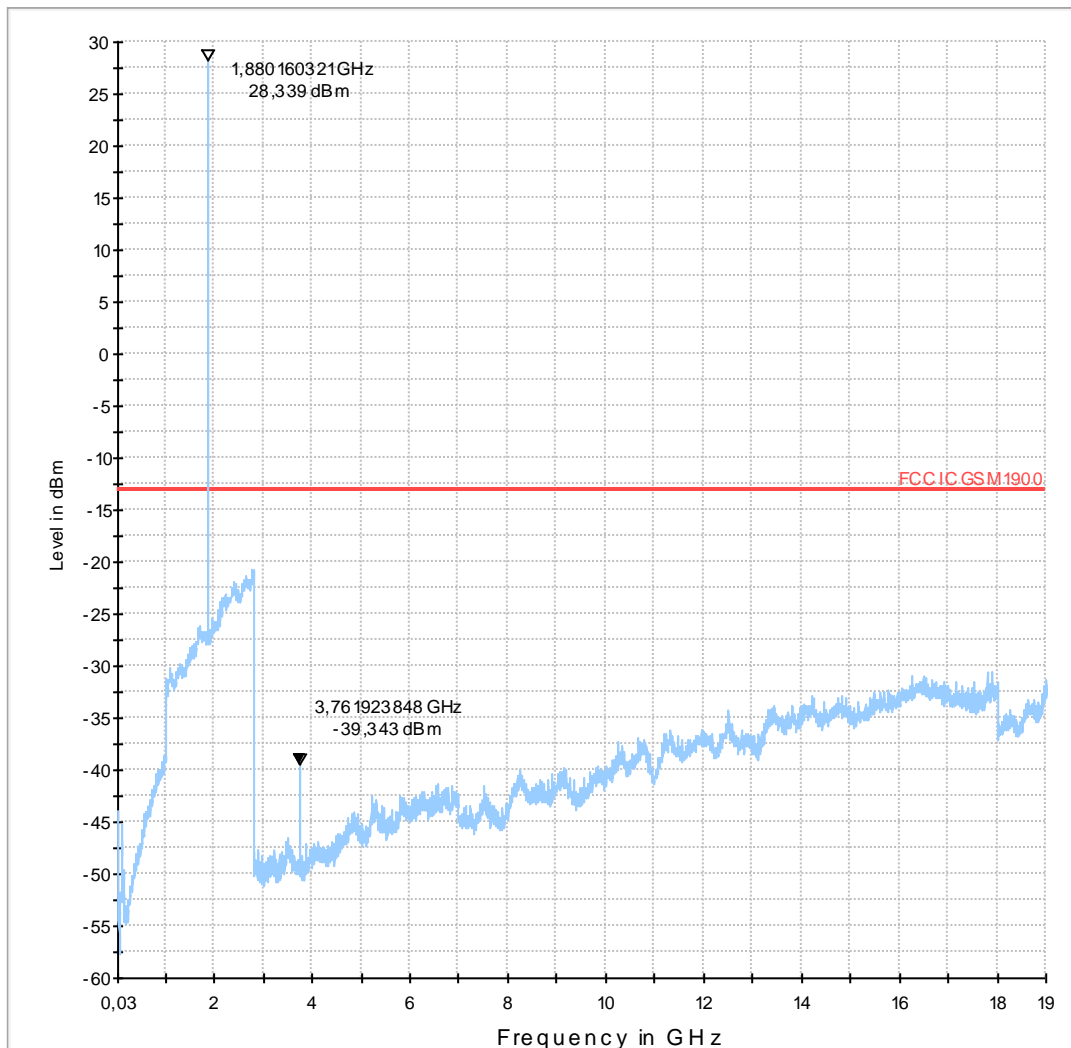
### Common Information

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, EDGE
Operating Mode:	MS allocated channel 661 (fc = 1880 MHz); EDGE - MCS5, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030404\_FCC\_Part24\_GSM1900\_TX\_all\_channels\_30M-20G



## 8.12\_RSE\_R\_Ch810\_EDGE

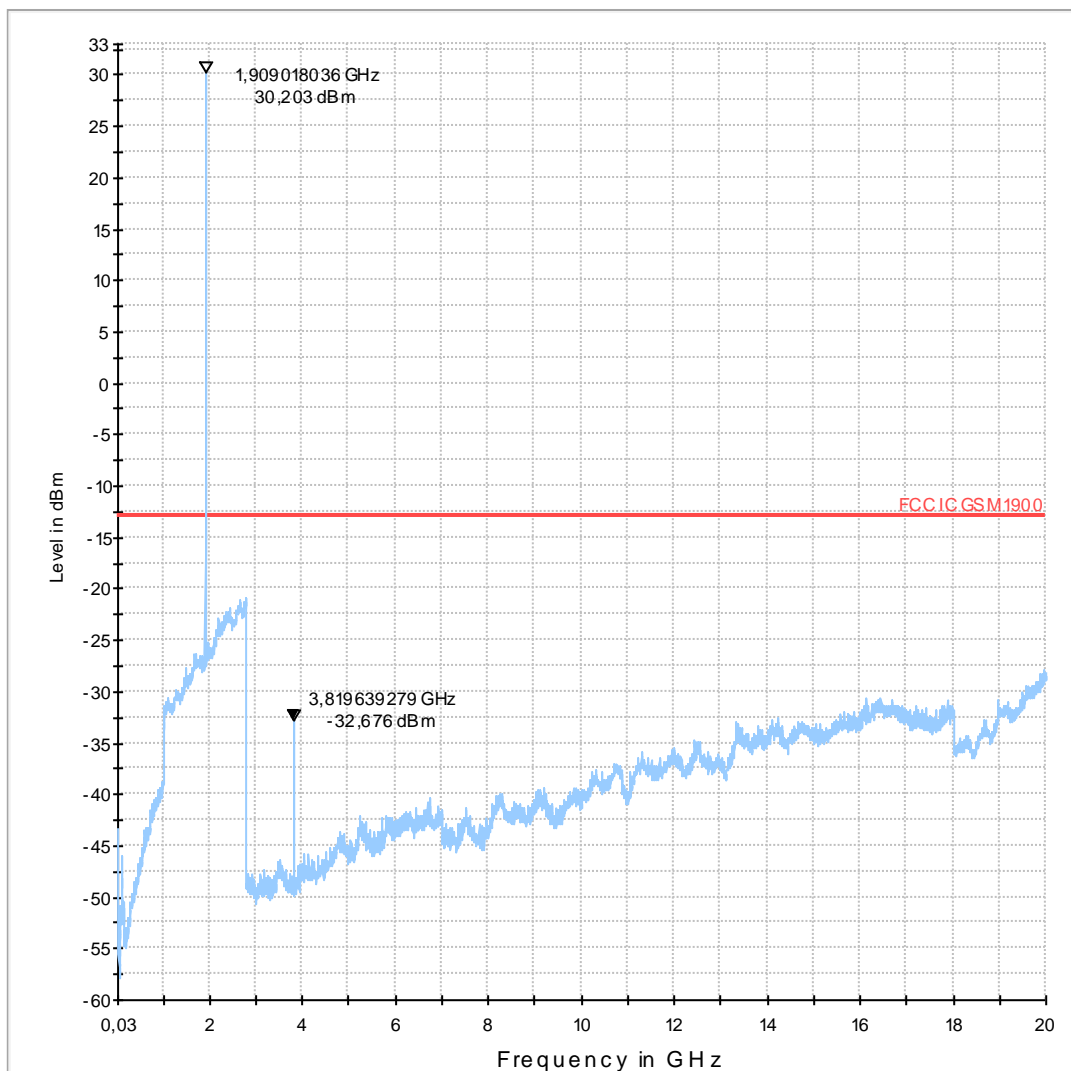
### Common Information

Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Comm. Link:	GSM1900, EDGE
Operating Mode:	MS allocated channel 810 ( $f_c = 1909$ MHz); EDGE - MCS5, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030404\_FCC\_Part24\_GSM1900\_TX\_all\_channels\_30M-20G



## 8.01\_FDDII\_RSE\_RMC

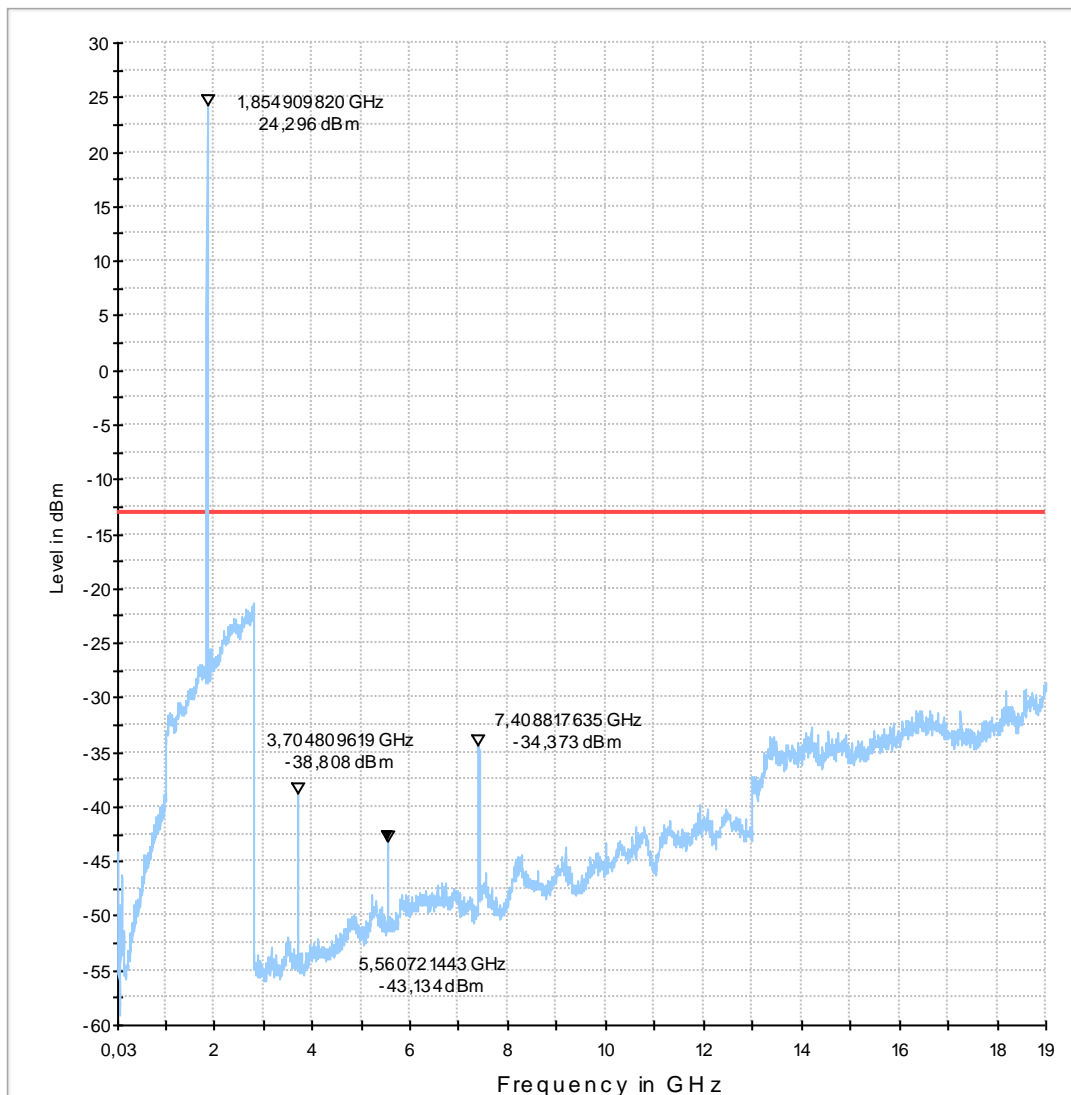
### Common Information

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), RMC
Environmental Conditions:	Humidity: _45%rH; Temperature: 21°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar Antenna (2m) + USB adapter cable (2m)
Power during test	24 VDC

030414\_FCC\_Part24\_UMTS-FDDII\_TX\_all\_channels\_30M-25G



## 8.02\_FDDII\_RSE\_RMC

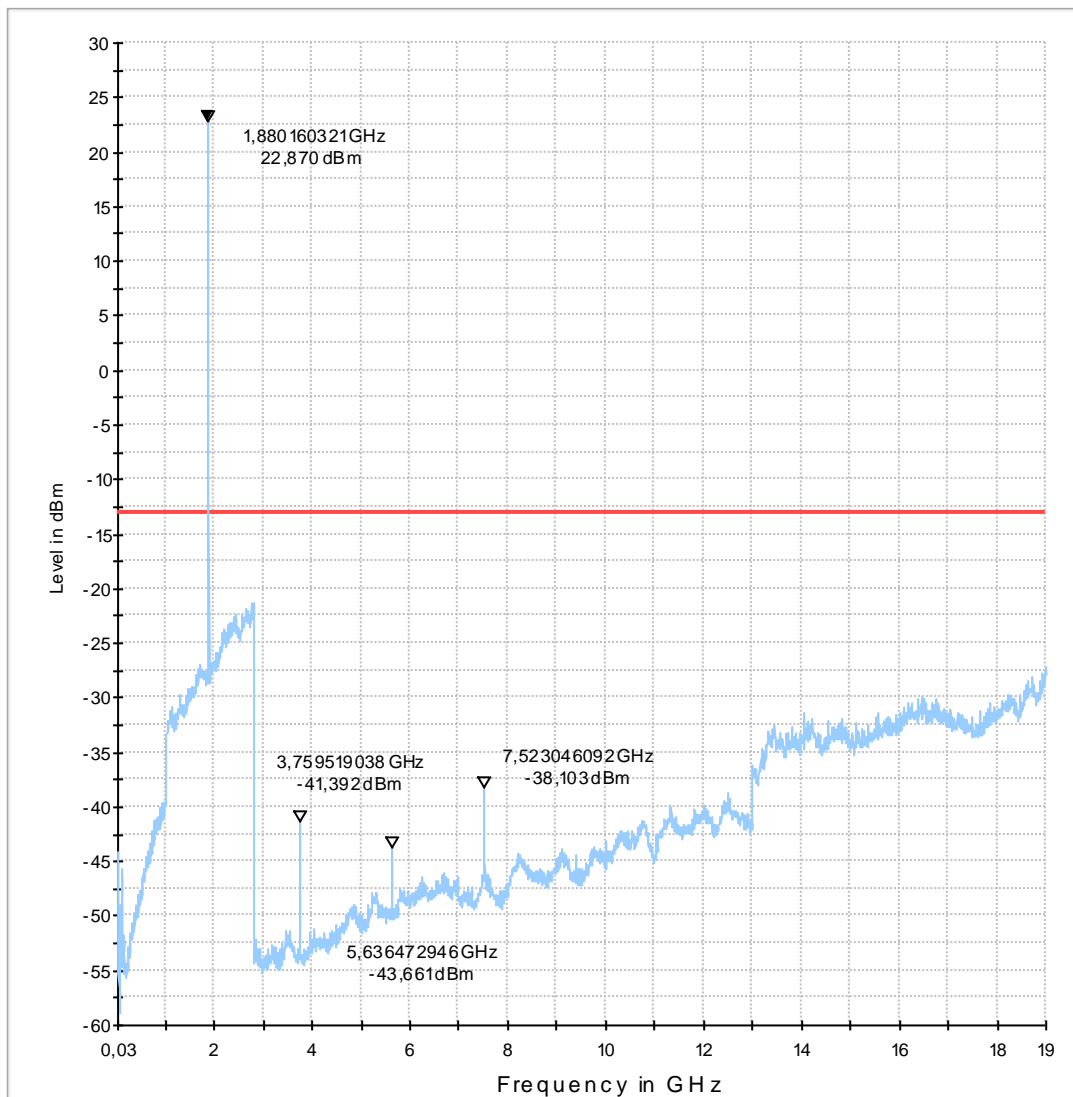
### Common Information

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 9400 (fc = 1880.0), RMC
Environmental Conditions:	Humidity: _45%rH; Temperature: 21°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar Antenna (2m) + USB adapter cable (2m)
Power during test	24 VDC

030414\_FCC\_Part24\_UMTS-FDDII\_TX\_all\_channels\_30M-25G



## 8.03\_FDDII\_RSE\_RMC

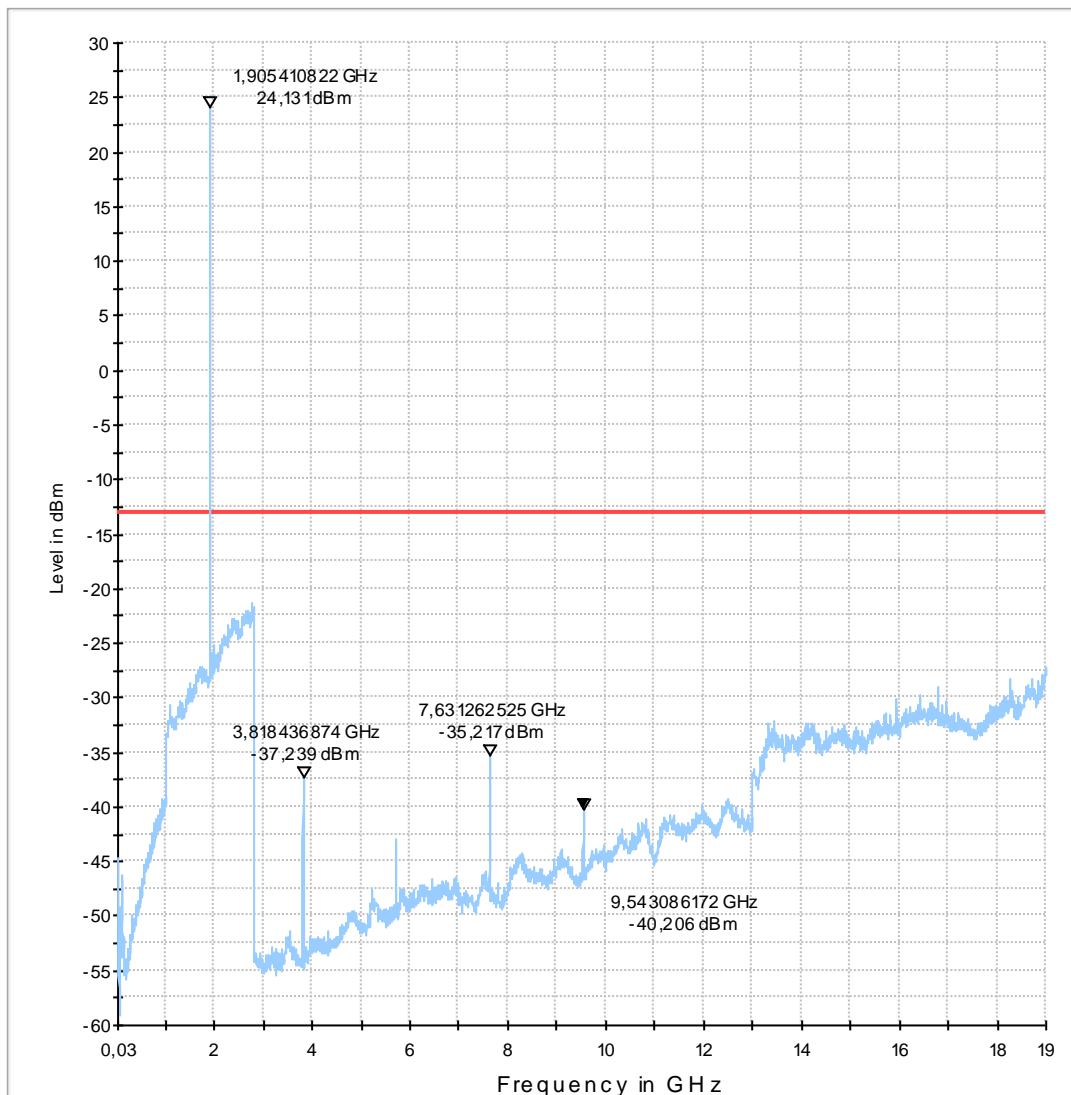
### Common Information

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 9538 (fc = 1907.6 MHz), RMC
Environmental Conditions:	Humidity: _45%rH; Temperature: 21°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar Antenna (2m) + USB adapter cable (2m)
Power during test	24 VDC

030414\_FCC\_Part24\_UMTS-FDDII\_TX\_all\_channels\_30M-25G



## 8.50\_RSE\_R\_Ch4132\_RMC

### 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), RMC  
 Environmental Conditions: Humidity: 36 %rH; Temperature: 23°C  
 Operator: Tas  
 6-0172-12-5-2a

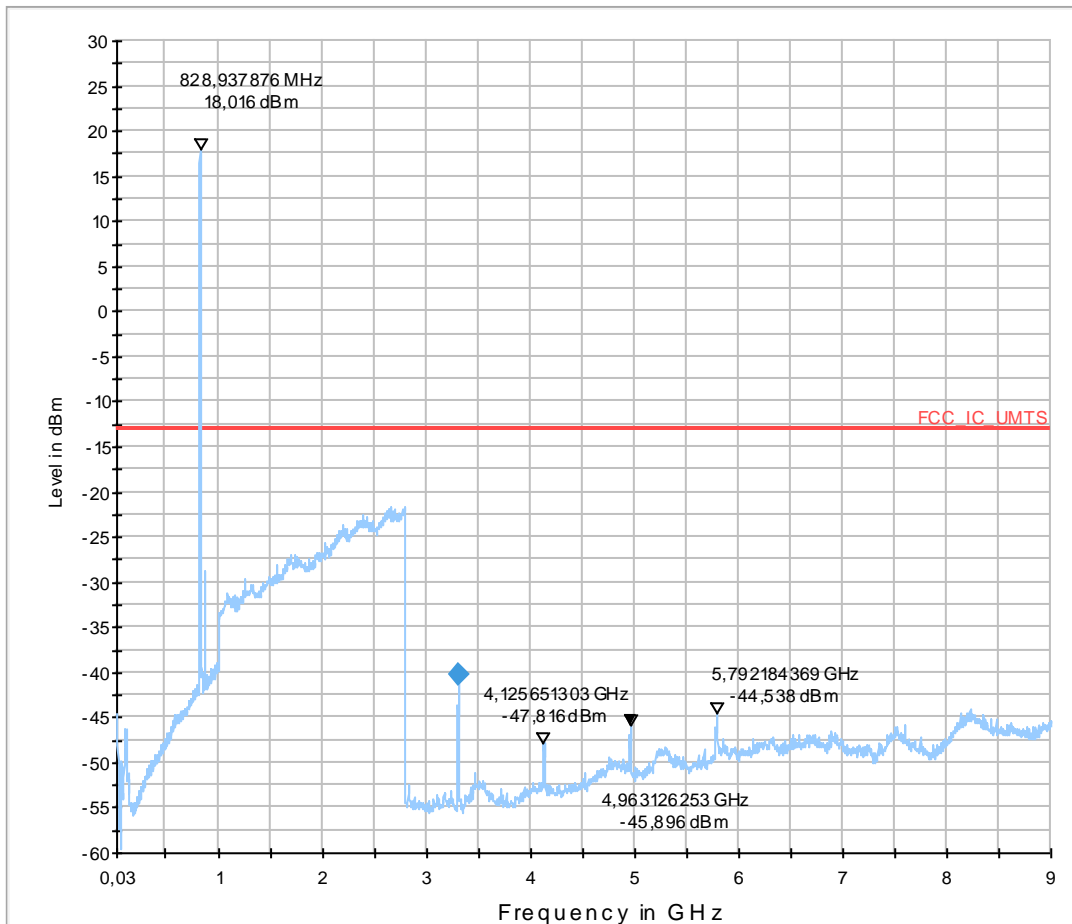
### EUT Information

Manufacturer: CARLO GAVAZZI CONTROLS SPA  
 EUT: VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)  
 Serial Number: 355323-04-001514-8  
 Hardware Rev: tbd (region Americas)  
 SW: tbd  
 Accessories: Planar Antenna (2m) + USB adapter cable (2m)  
 Power during test: 24 VDC

### Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3310.390782	-40.3	10000.0	1000.000	H	50.0	90.0	-95.7	27.3	-13.0

030411\_FCC\_Part22\_UMTS-FDDV\_TX\_all\_channels\_30M-12G



## 8.51\_RSE\_R\_Ch4183\_RMC

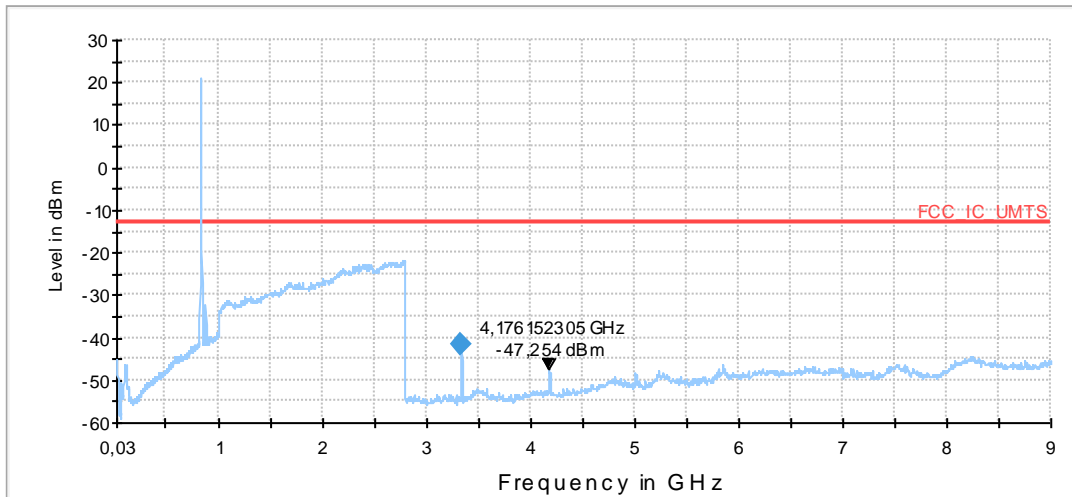
### Common Information

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 4133/4182/4233 (fc = 826.6 MHz), RMC
Environmental Conditions:	Humidity: 45%rH; Temperature: 21°C
Operator:	OOu

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar Antenna (2m) + USB adapter cable (2m)
Power during test	24 VDC

030411\_FCC\_Part22\_UMTS-FDDV\_TX\_all\_channels\_30M-12G



### Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3341.412826	-41.5	10000.0	1000.000	V	182.0	90.0	-95.6	28.5	-13.0

## 8.52\_RSE\_R\_Ch4233\_RMC

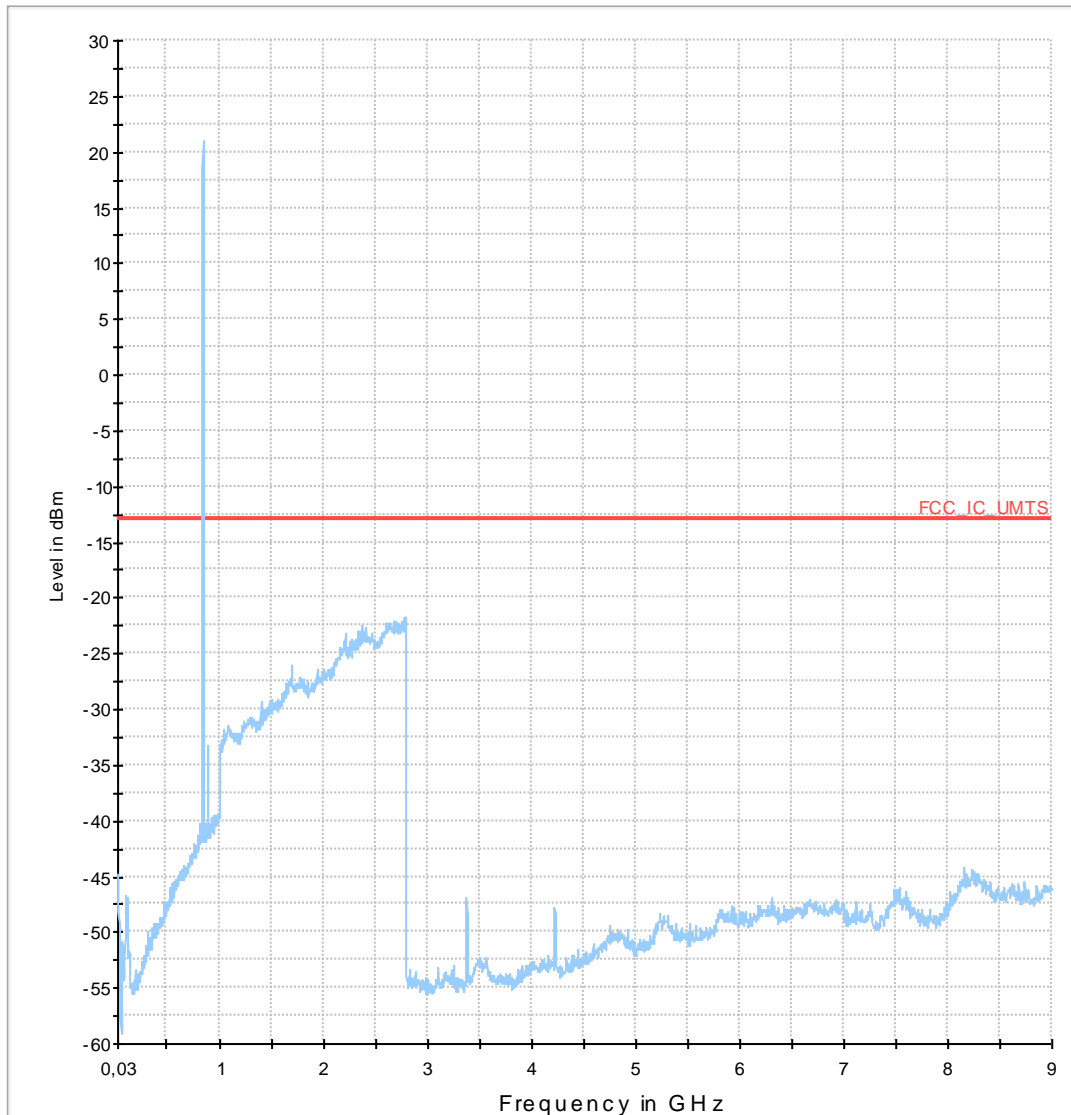
### Common Information

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 4233 (fc = 846.6 MHz), RMC
Environmental Conditions:	Humidity: 45%rH; Temperature: 21°C
Operator:	OOu

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar Antenna (2m) + USB adapter cable (2m)
Power during test	24 VDC

030411\_FCC\_Part22\_UMTS-FDDV\_TX\_all\_channels\_30M-12G





1.2.2 STUBBY Antenna

8.04\_RSE\_R\_Ch128\_EDGE

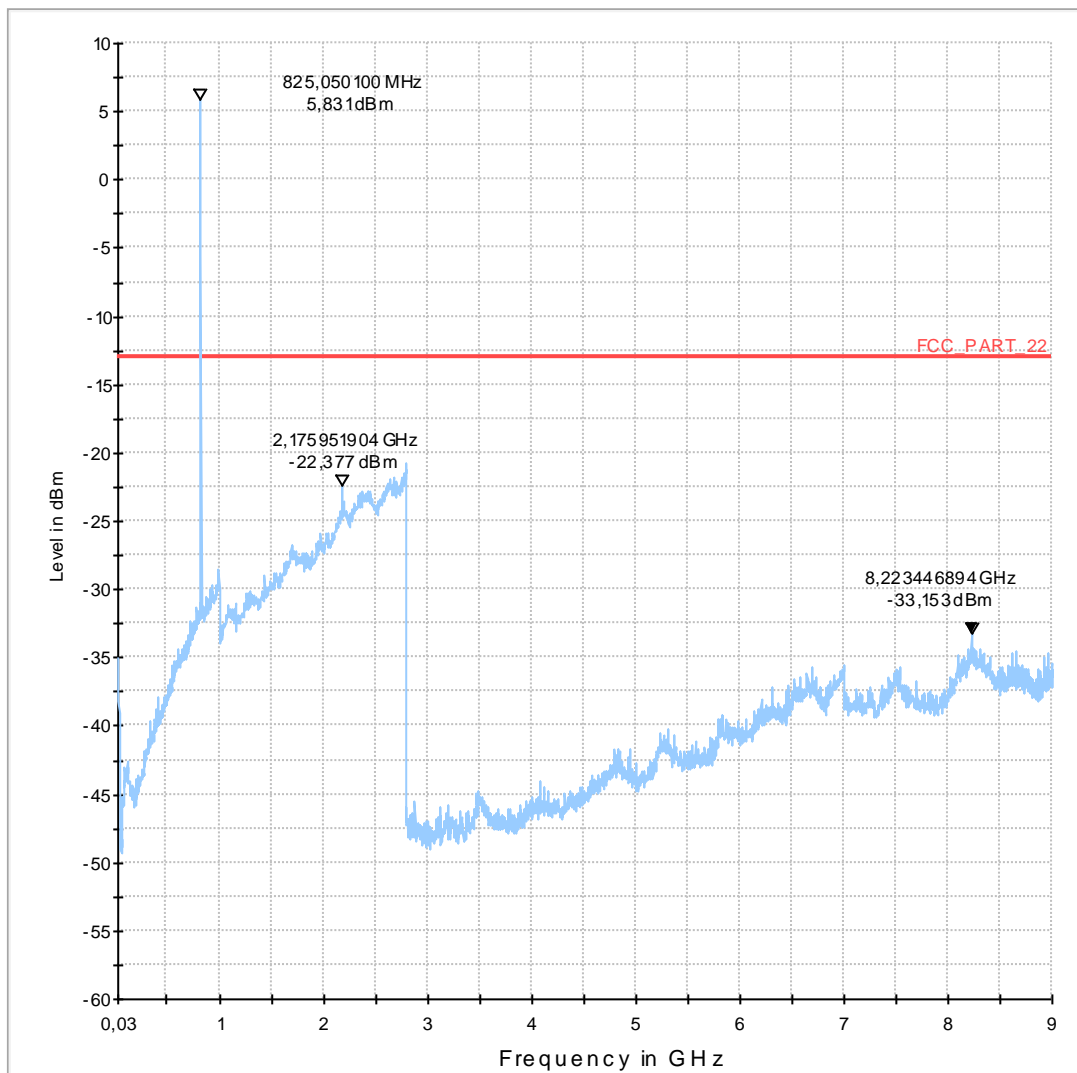
Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 128 (Exclusion at fc= 824.2 MHz), EDGE
Exclusionband:	824 - 849MHz
Operator:	Tas 6-0171-12-5-2a

EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030401\_FCC\_Part22\_GSM850\_TX\_all\_channels\_30M-12G



## 8.05\_RSE\_R\_Ch192\_EDGE

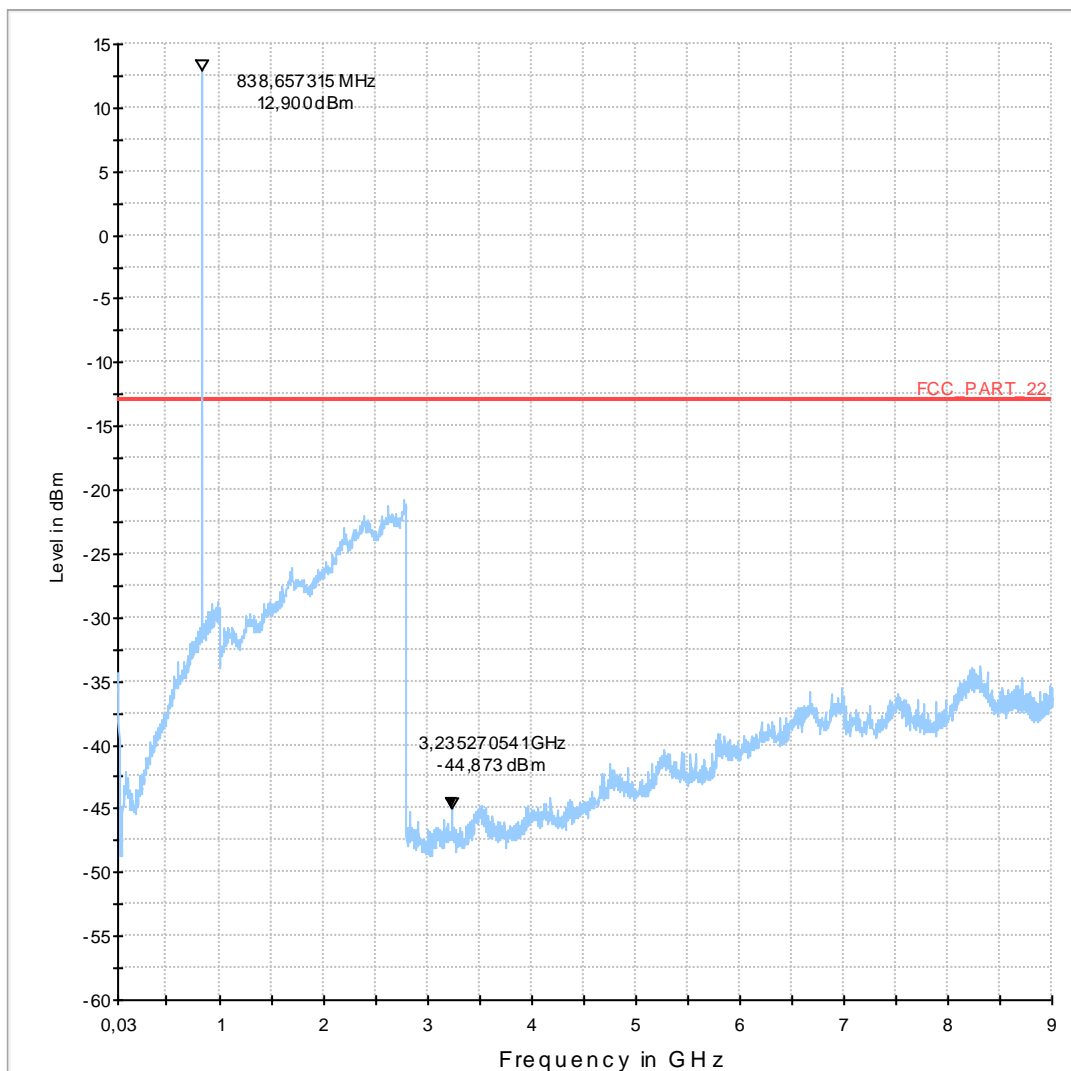
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 192 (Exclusion at $f_c = 837$ MHz), EDGE
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 34%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030401\_FCC\_Part22\_GSM850\_TX\_all\_channels\_30M-12G



## 8.06\_RSE\_R\_Ch251\_EDGE

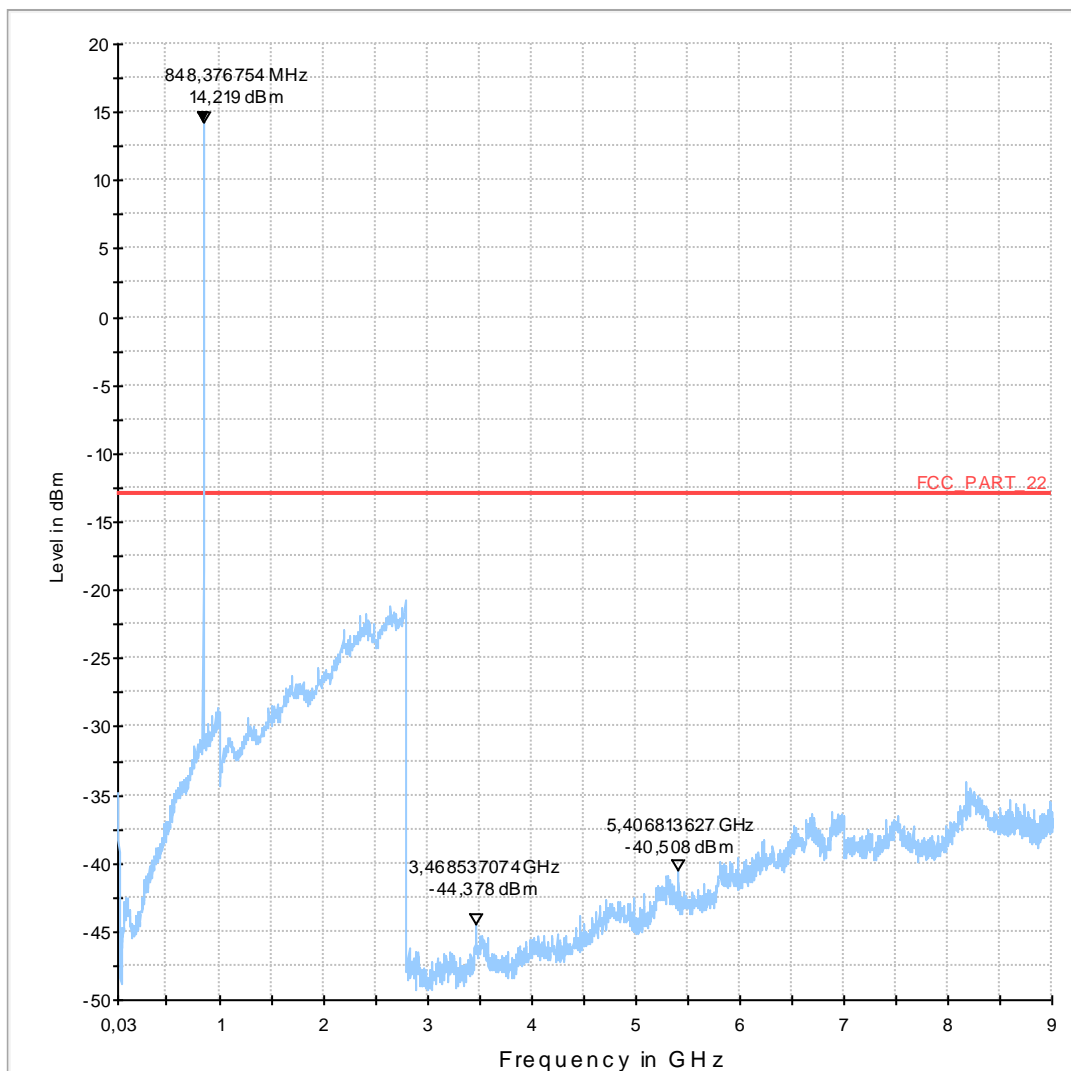
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 251 (Exclusion at $f_c = 848,8$ MHz), EDGE
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 34%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030401\_FCC\_Part22\_GSM850\_TX\_all\_channels\_30M-12G



## 8.16\_RSE\_R\_CH512\_EDGE

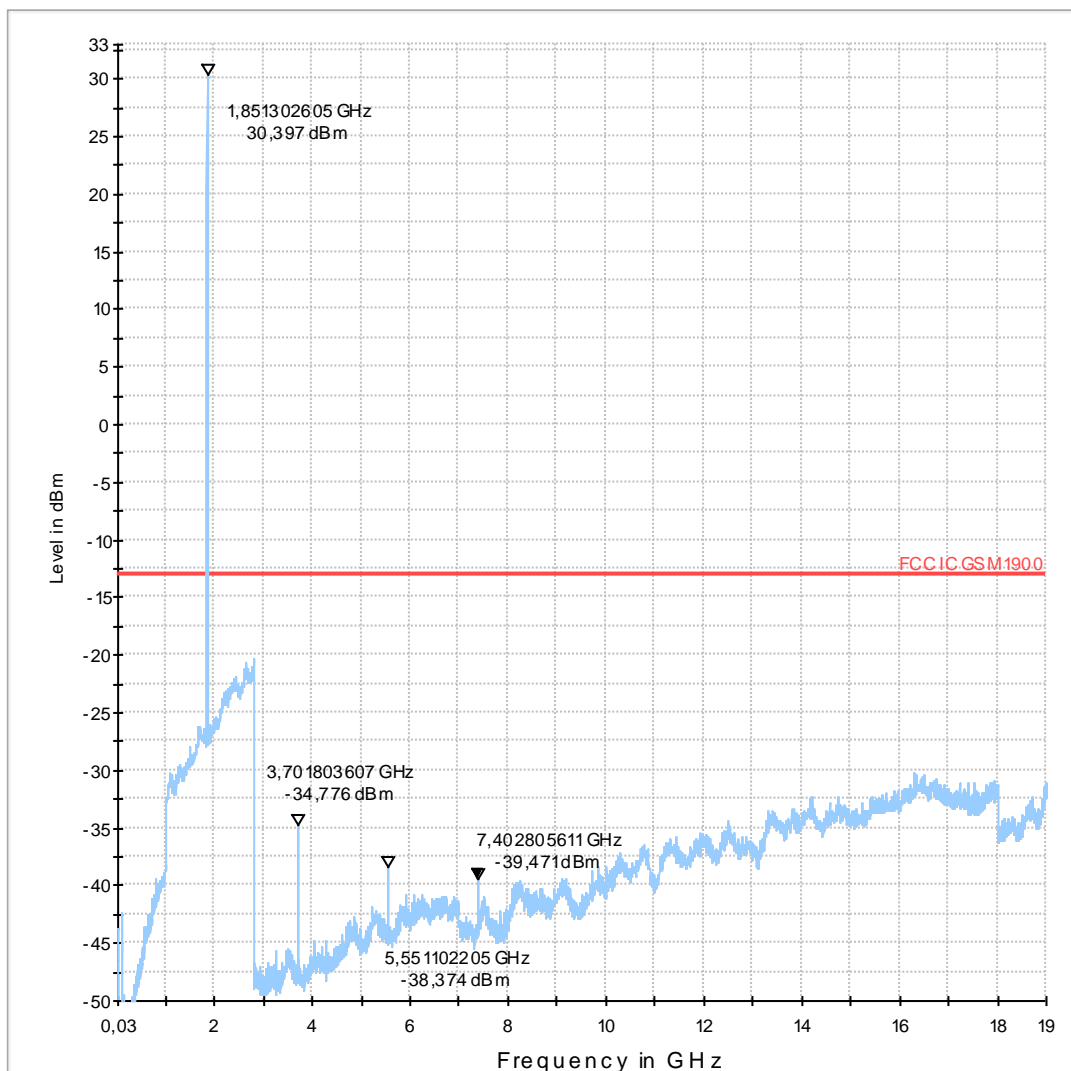
### Common Information

Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Comm. Link:	GSM1900, EDGE
Operating Mode:	MS allocated channel 512 (fc = 1850,2 MHz); EDGE MCS-5, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030404\_FCC\_Part24\_GSM1900\_TX\_all\_channels\_30M-20G



## 8.17\_RSE\_R\_CH661\_EDGE

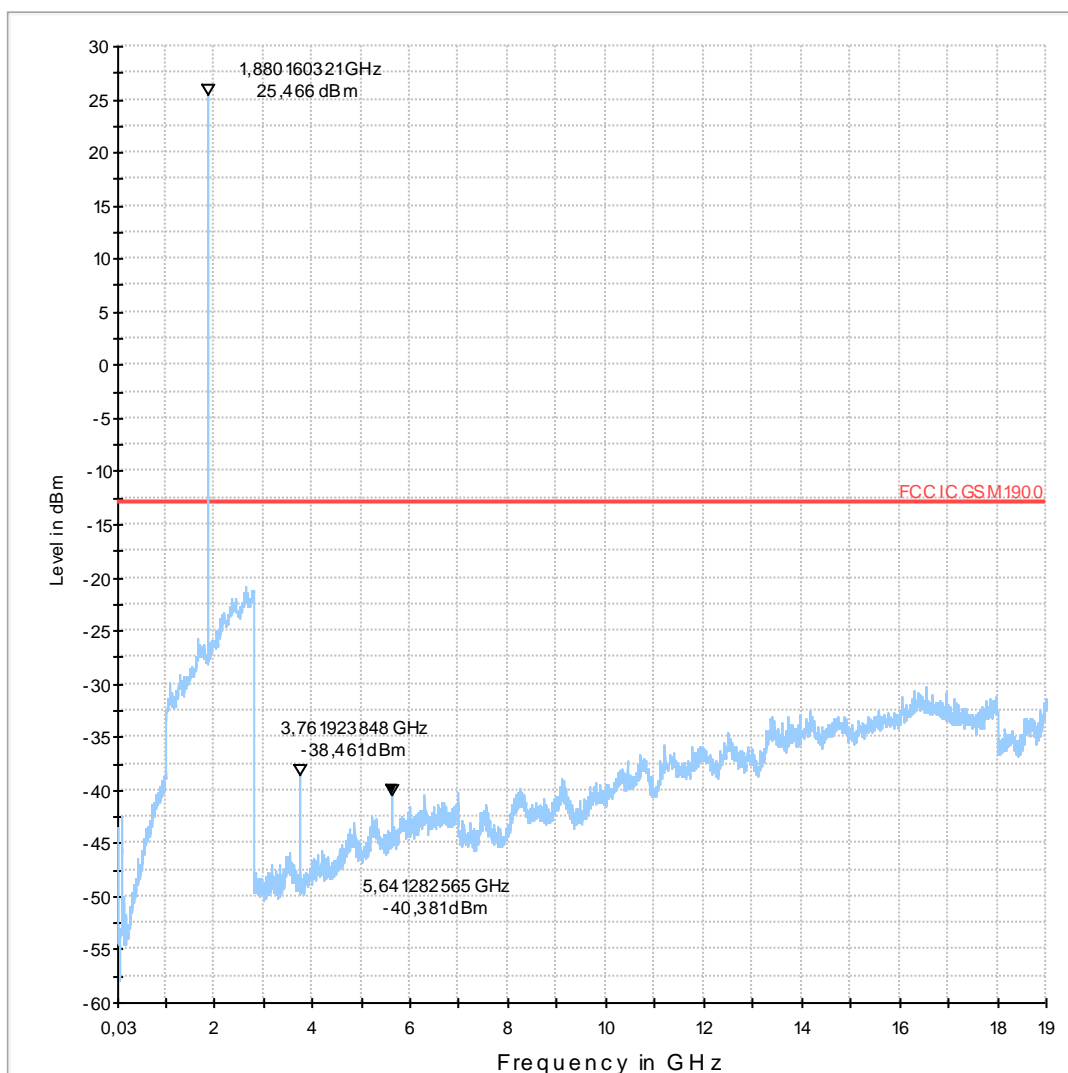
### Common Information

Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Comm. Link:	GSM1900, EDGE
Operating Mode:	MS allocated channel 661 (fc = 1880 MHz); EDGE - MCS5, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030404\_FCC\_Part24\_GSM1900\_TX\_all\_channels\_30M-20G



## 8.18\_RSE\_R\_CH810\_EDGE

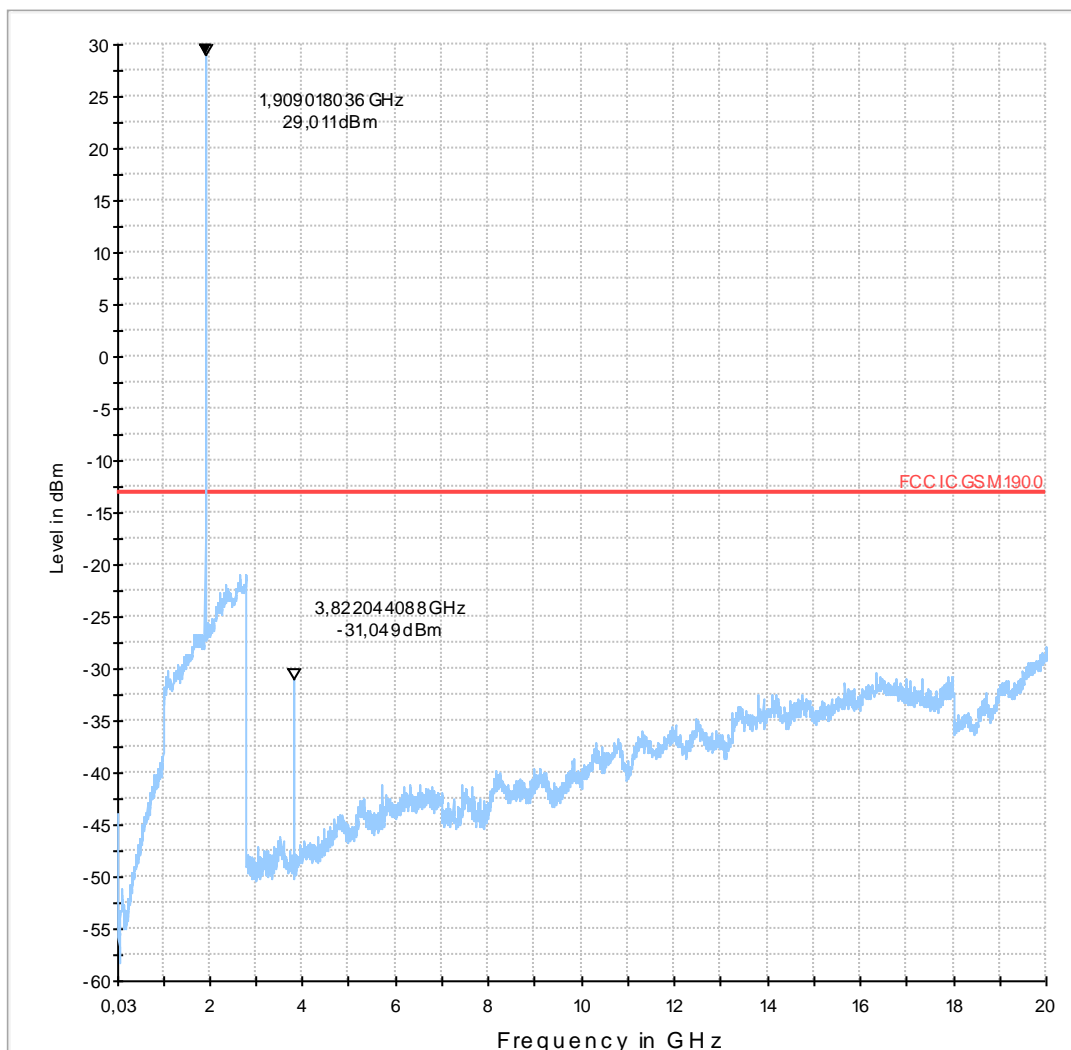
### Common Information

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, EDGE
Operating Mode:	MS allocated channel 810 (exclusion at $f_c = 1909$ MHz); EDGE - MCS5, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 33%rH; Temperature: 19°C
Operator:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030404\_FCC\_Part24\_GSM1900\_TX\_all\_channels\_30M-20G



## 8.53\_RSE\_R\_Ch4132\_RMC

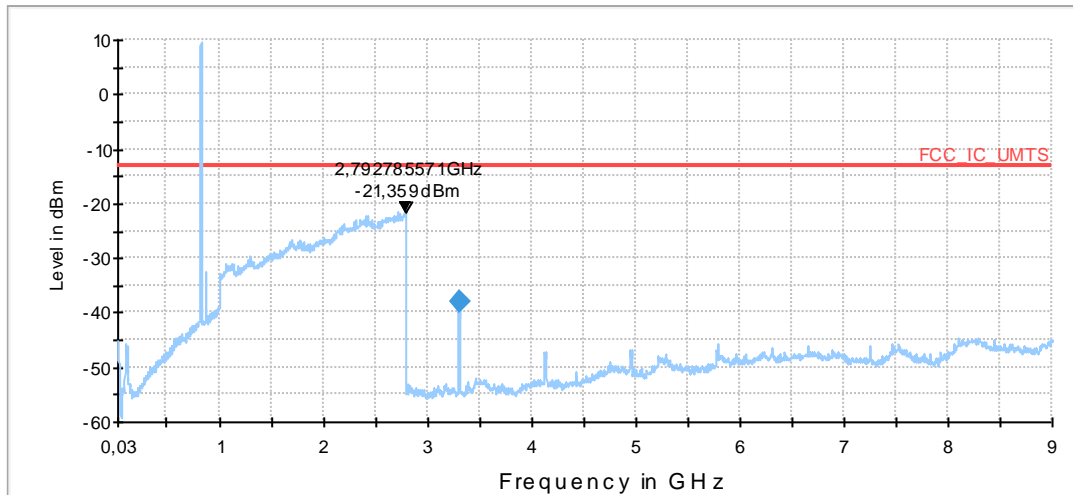
### Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel 4133/4182/4233 (fc = 826.6 MHz), RMC
Environmental Conditions:	Humidity: 45%rH; Temperature: 21°C
Operator:	OOu 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stab antenna + USB adapter cable (2m)
Power during test	24 VDC

030411\_FCC\_Part22\_UMTS-FDDV\_TX\_all\_channels\_30M-12G



### Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3310.651303	-38.0	10000.0	1000.000	V	180.0	90.0	-95.7	25.0	-13.0

## 8.54\_RSE\_R\_Ch4183\_RMC

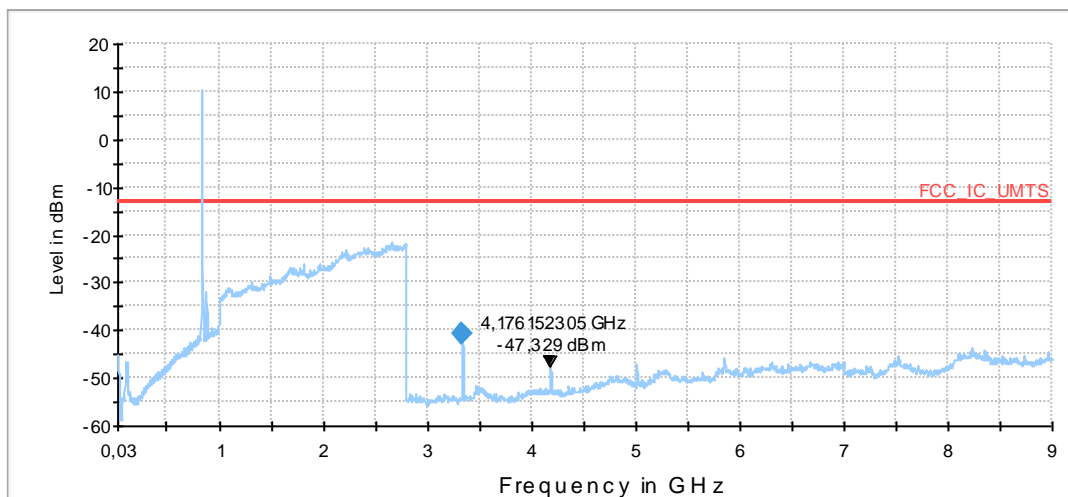
### Common Information

Test Description: Radiated Spurious Emissions UMTS FDDV  
 Test Site Location: CETECOM GmbH Essen  
 Test Site: Fully Anechoic Room (FAR)  
 Test Standard: FCC Part 22  
 Operating Mode: UE allocated channel 4133/4182/4233 (fc = 826.6 MHz), RMC  
 Environmental Conditions: Humidity: 45%rH; Temperature: 21°C  
 Operator: OOu  
 6-0171-12-5-2a

### EUT Information

Manufacturer: CARLO GAVAZZI CONTROLS SPA  
 EUT: VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)  
 Serial Number: 355323-04-001514-8  
 Hardware Rev: tbd (region Americas)  
 SW: tbd  
 Accessories: Stab antenna + USB adapter cable (2m)  
 Power during test: 24 VDC

030411\_FCC\_Part22\_UMTS-FDDV\_TX\_all\_channels\_30M-12G



### Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3341.252505	-40.9	10000.0	1000.000	V	-20.0	0.0	-95.6	27.8	-13.0



## 8.55\_RSE\_R\_Ch4233\_RMC

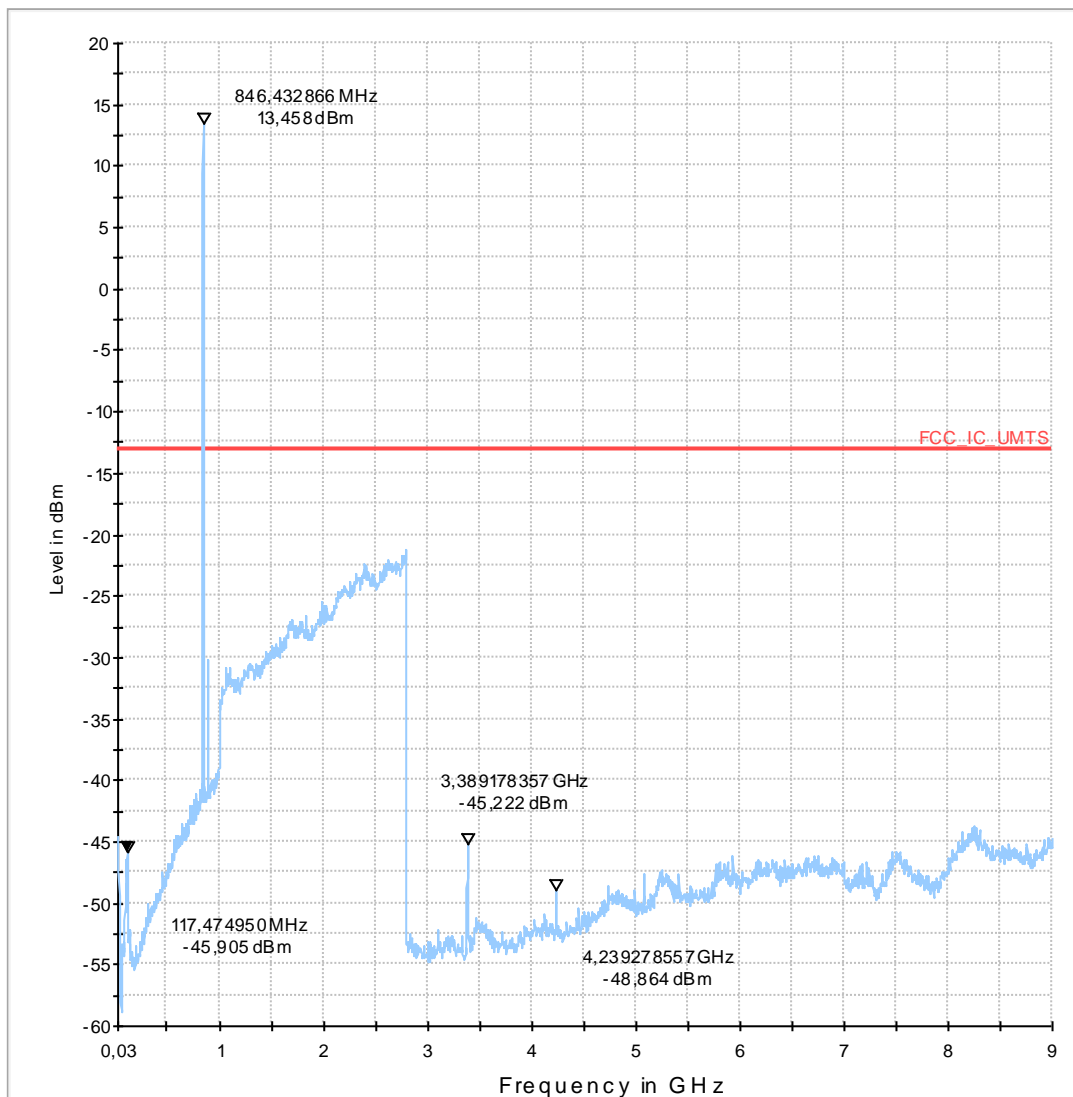
### Common Information

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 4233 (Exclusion band fc = 846.6 MHz), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stab antenna + USB adapter cable (2m)
Power during test	24 VDC

030411\_FCC\_Part22\_UMTS-FDDV\_TX\_all\_channels\_30M-12G



## 8.56\_RSE\_R\_Ch9262\_RMC

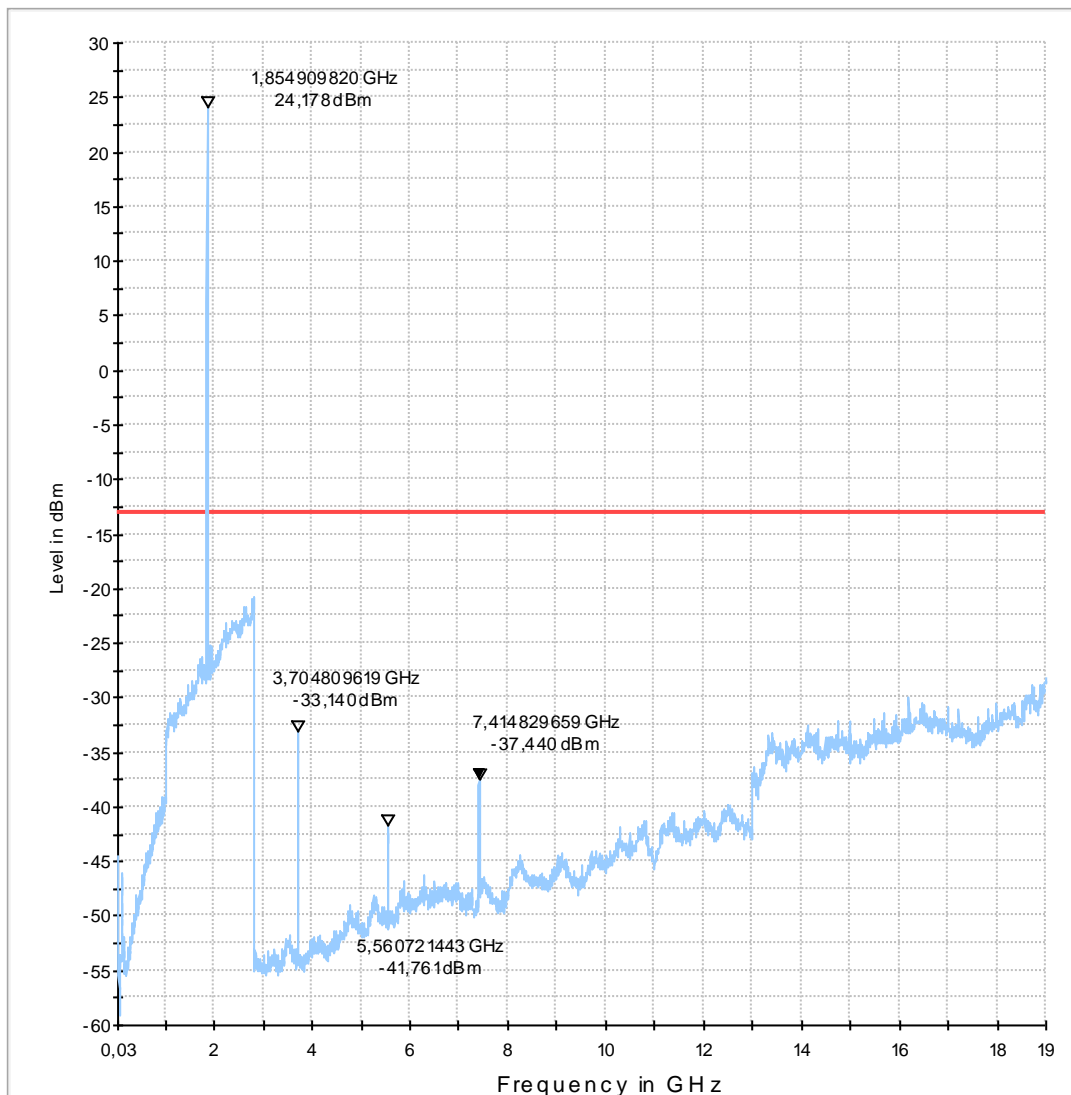
### Common Information

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 (Exclusion at $f_c = 1852.4$ MHz), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stab antenna + USB adapter cable (2m)
Power during test	24 VDC

030414\_FCC\_Part24\_UMTS-FDDII\_TX\_all\_channels\_30M-25G



## 8.57\_RSE\_R\_Ch9400\_RMC

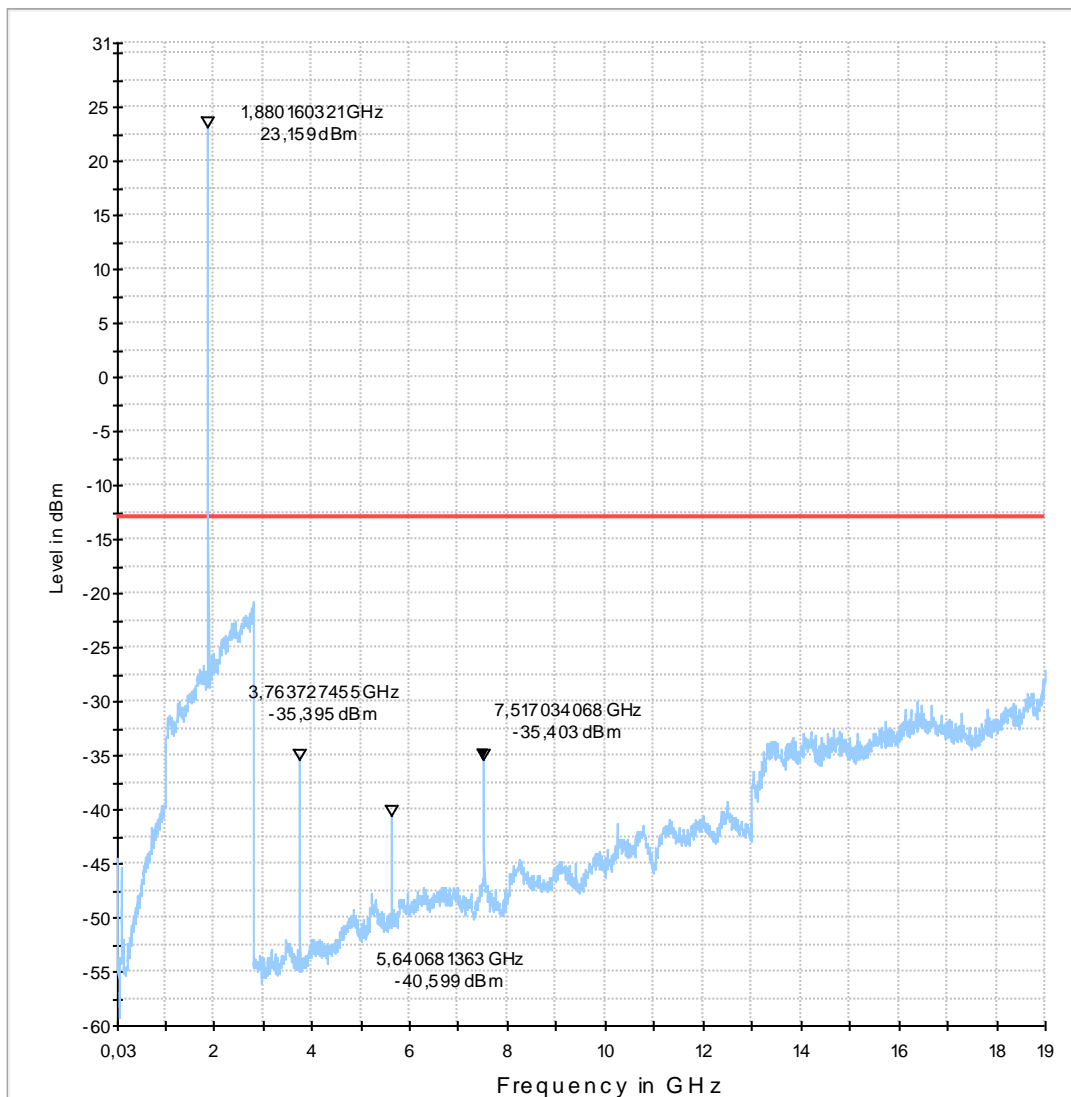
### Common Information

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 9400 (exclusion fc = 1880.0), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030414\_FCC\_Part24\_UMTS-FDDII\_TX\_all\_channels\_30M-25G



## 8.58\_RSE\_R\_Ch9538\_RMC

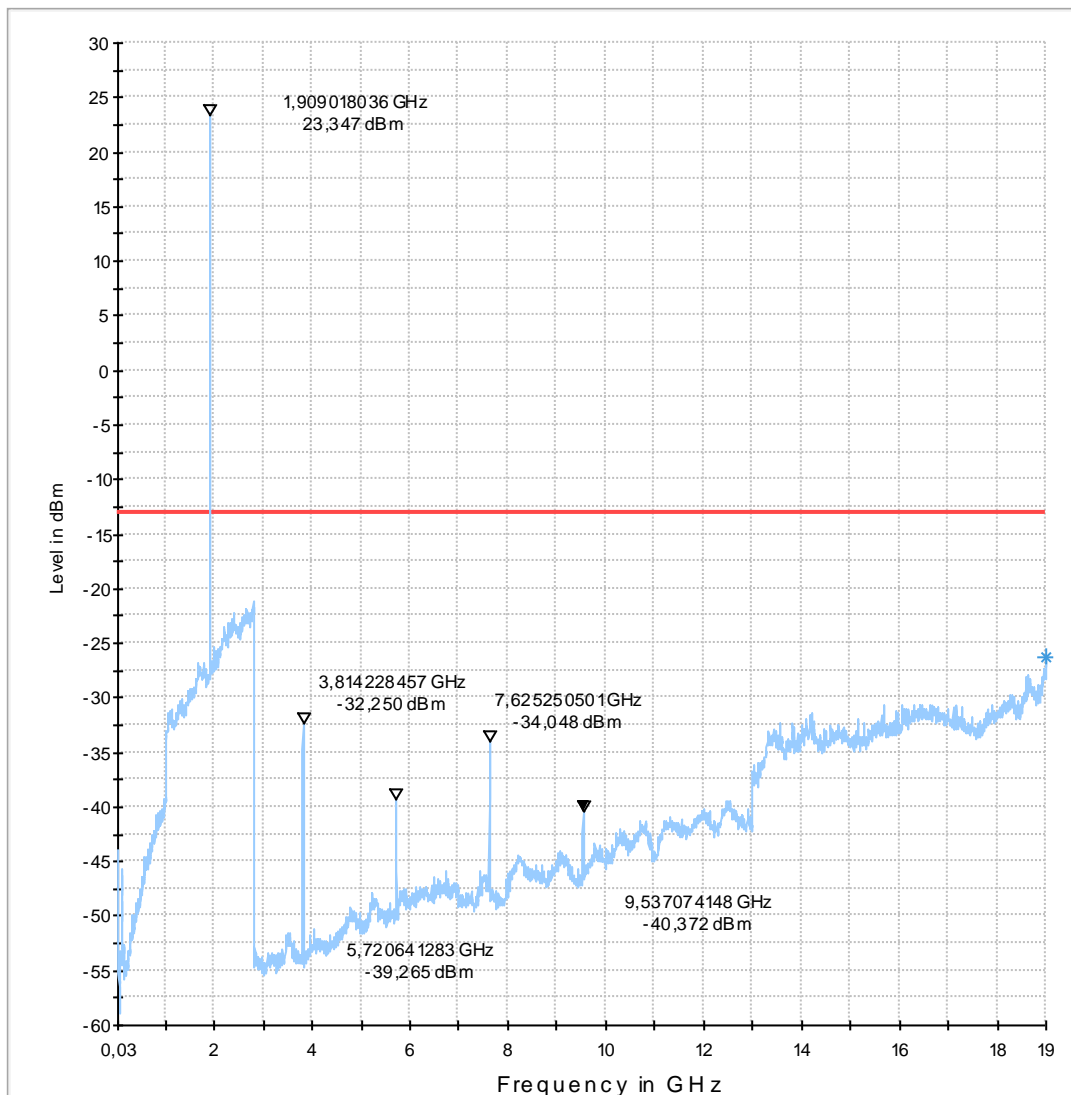
### Common Information

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 9538 (Exclusion at $f_c = 1907.6$ MHz), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030414\_FCC\_Part24\_UMTS-FDDII\_TX\_all\_channels\_30M-25G



### 1.3 Band-Edge compliance radiated

#### 9.01\_BE\_L\_RMC

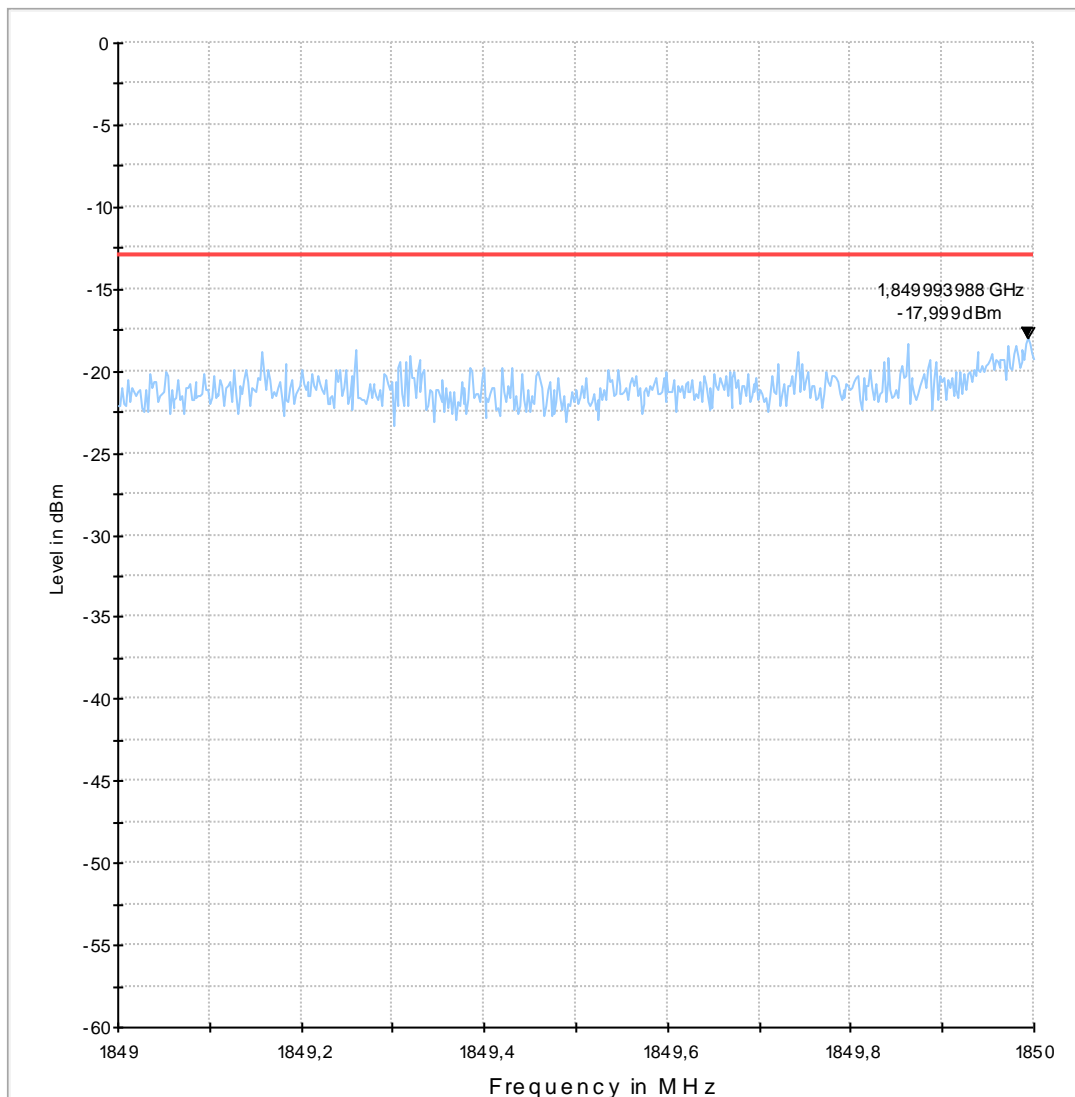
##### Common Information

Test Description:	Band-Edge Radiated - FDD II
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), RMC
Environmental Conditions:	Humidity: _45%rH; Temperature: 21°C
Operator:	Tas 6-0171-12-5-2a

##### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar Antenna (2m) + USB adapter cable (2m)
Power during test	24 VDC

030415\_FCC\_Part24\_UMTS-FDDII\_TX\_low\_channel\_band\_edge



## 9.02\_BE\_L\_RMC

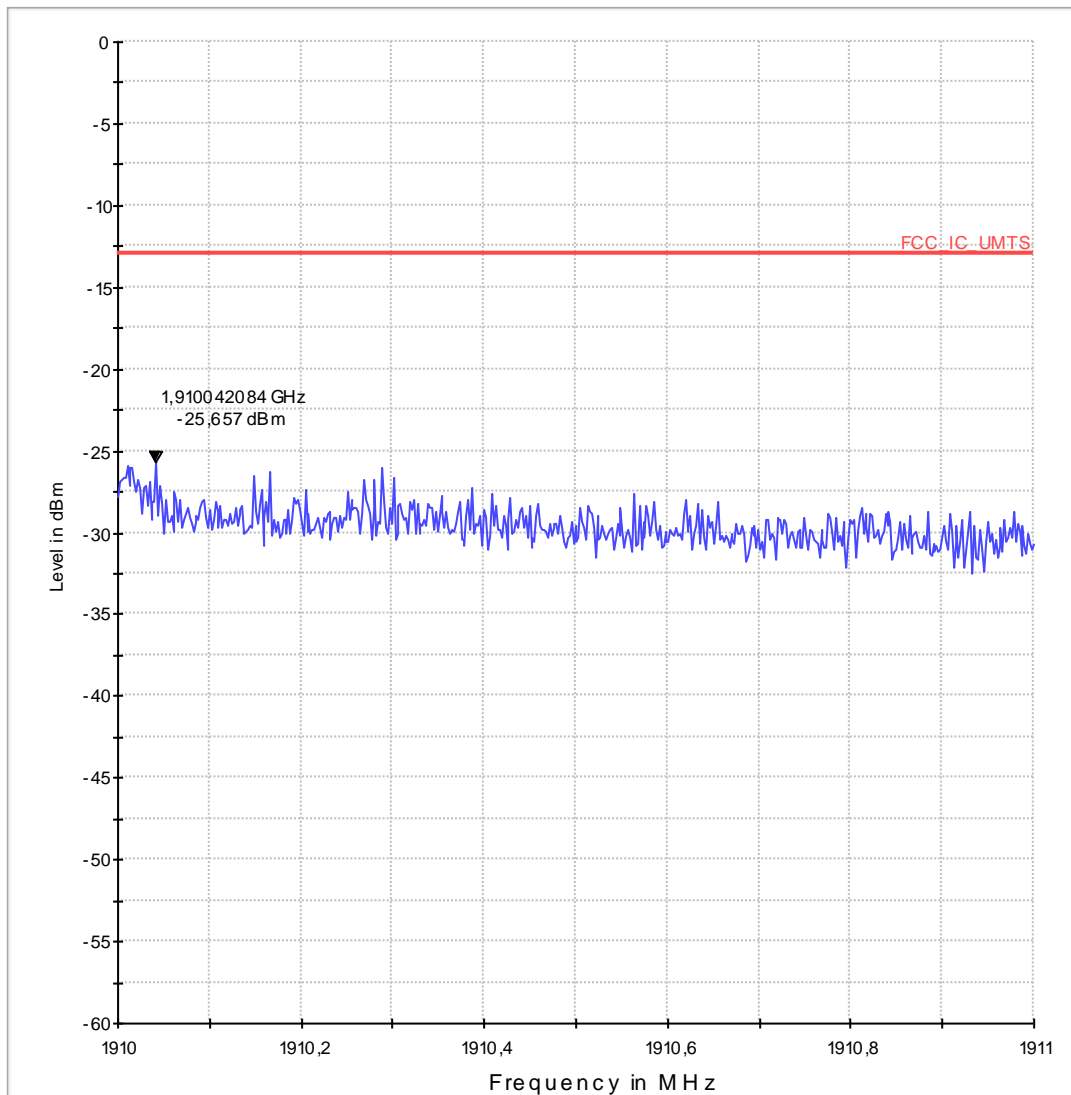
### Common Information

Test Description:	Band-Edge Radiated - FDD II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel 9538 (fc = 1907.6 MHz), RMC
Environmental Conditions:	Humidity: _45%rH; Temperature: 21°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar Antenna (2m) + USB adapter cable (2m)
Power during test	24 VDC

010416\_FCC\_Part24\_UMTS-FDD II\_TX\_channel\_9538\_band\_edge



## 9.03\_BE\_R\_Ch128\_GPRS

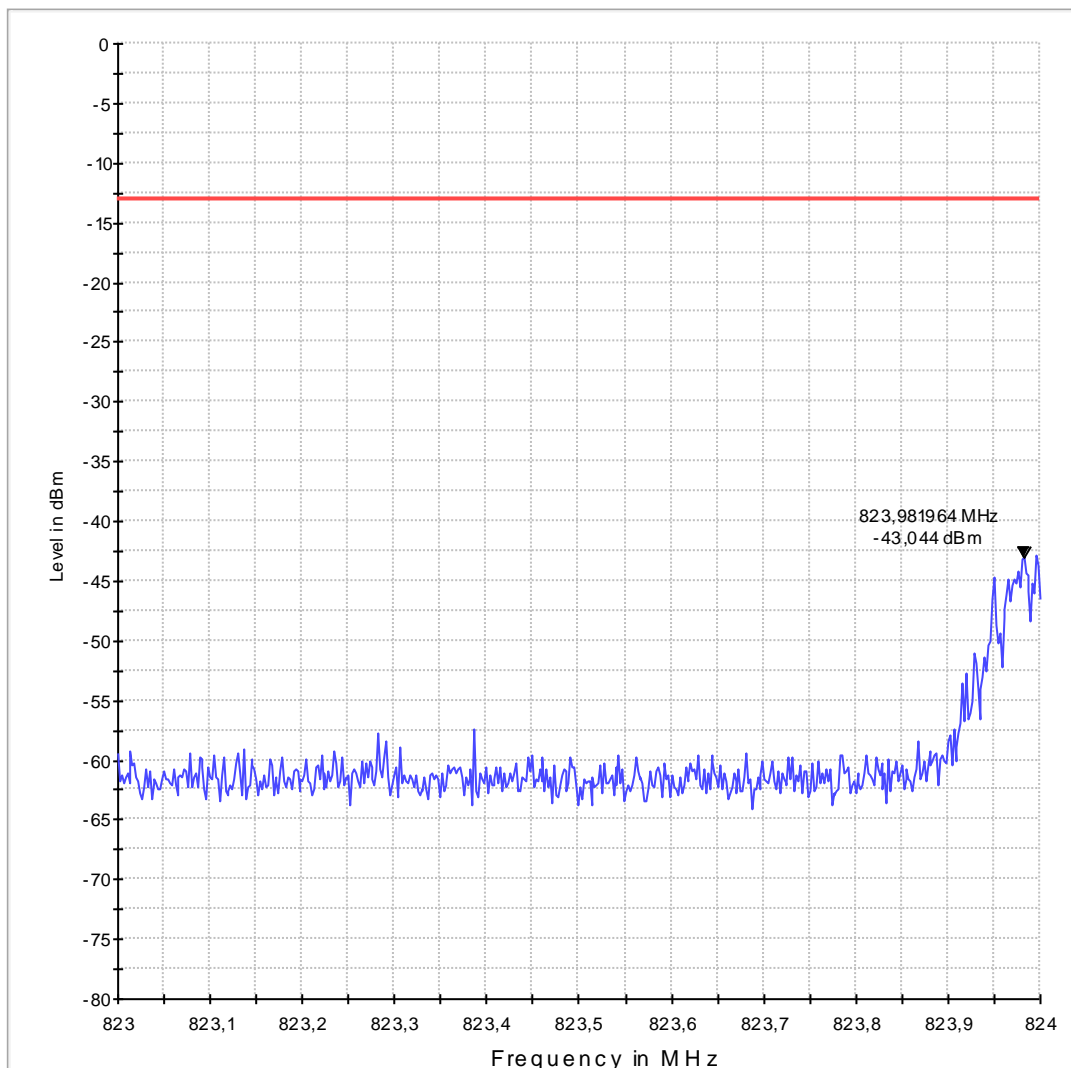
### Common Information

Test Description:	Band-Edge Radiated - G850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 128 (fc= 824.2 MHz), GPRS
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 33%rH; Temperature: 19°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010402\_FCC\_Part22\_GSM850\_TX\_channel\_128\_band\_edge



## 9.04\_BE\_R\_Ch251\_GPRS

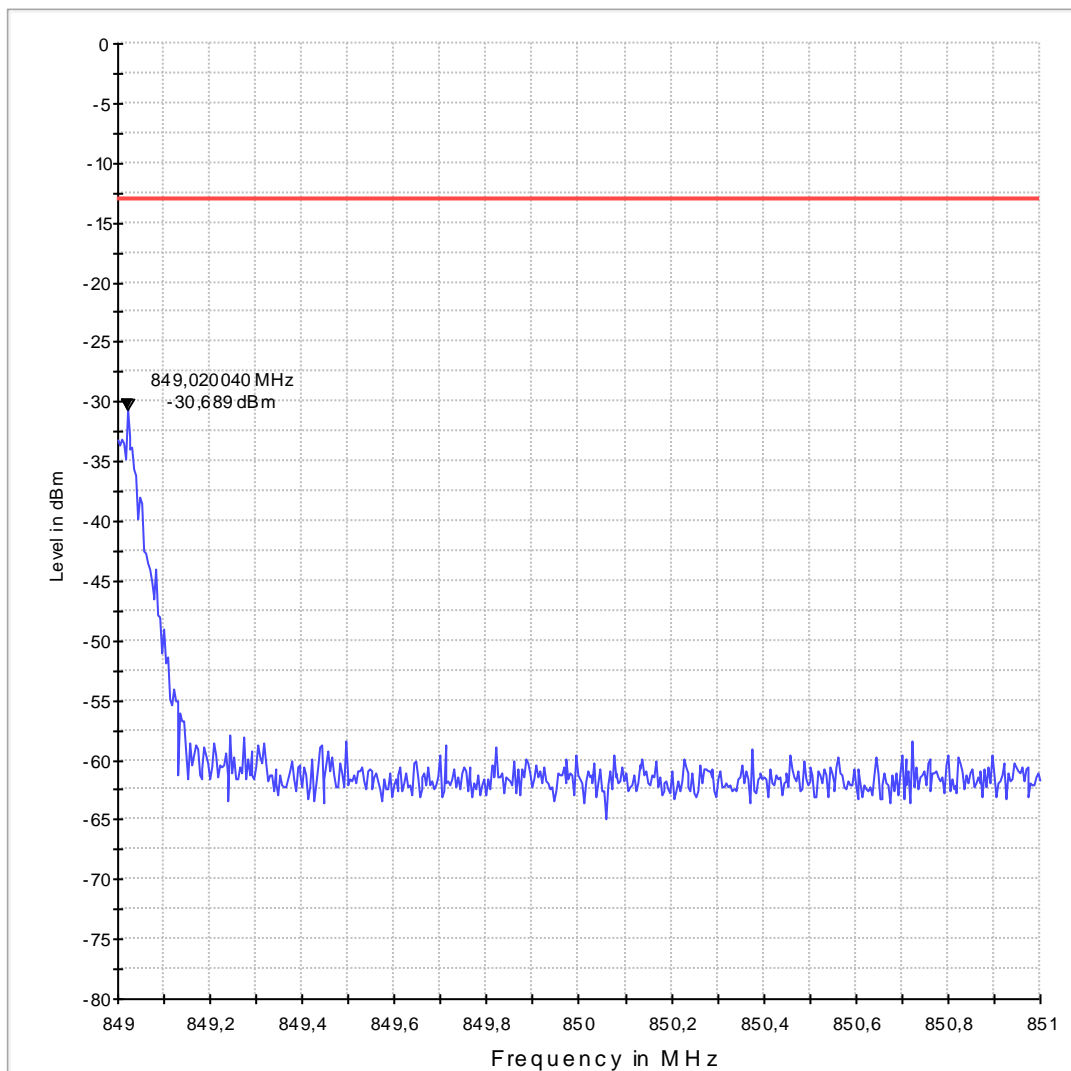
### Common Information

Test Description:	Band-Edge Radiated - G850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Comm. Link:	GSM850, GPRS
Operating Mode:	MS allocated channel 251 (fc = 848.8 MHz); PCL5 (+33dBm)
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 33%rH; Temperature: 19°C 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010403\_FCC\_Part22\_GSM850\_TX\_channel\_251\_band\_edge





## 9.05\_BE\_R\_Ch128\_EDGE

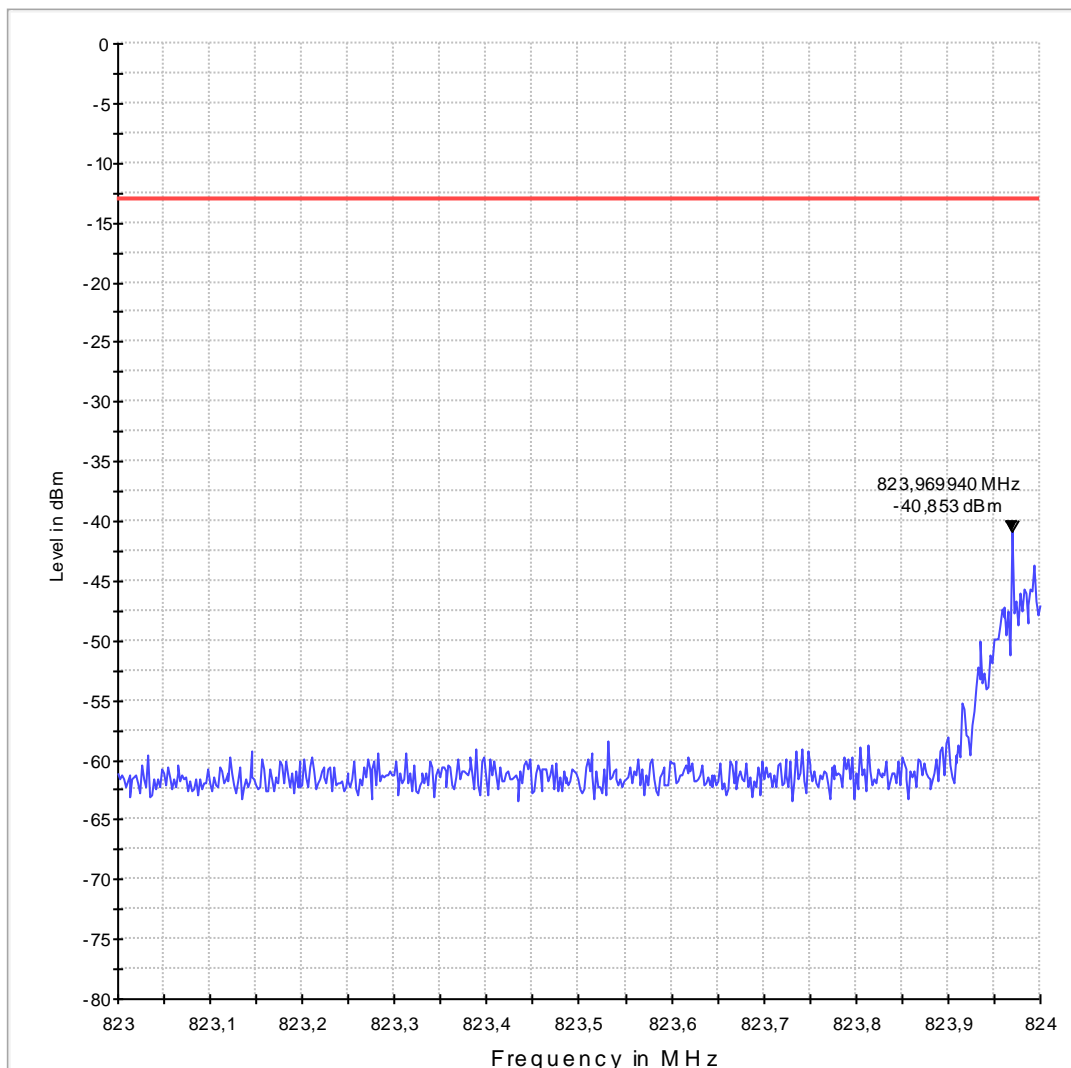
### Common Information

Test Description:	Band-Edge Radiated - G850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 128 (fc= 824.2 MHz), EDGE
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 34%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010402\_FCC\_Part22\_GSM850\_TX\_channel\_128\_band\_edge



## 9.06\_BE\_R\_Ch251\_EDGE

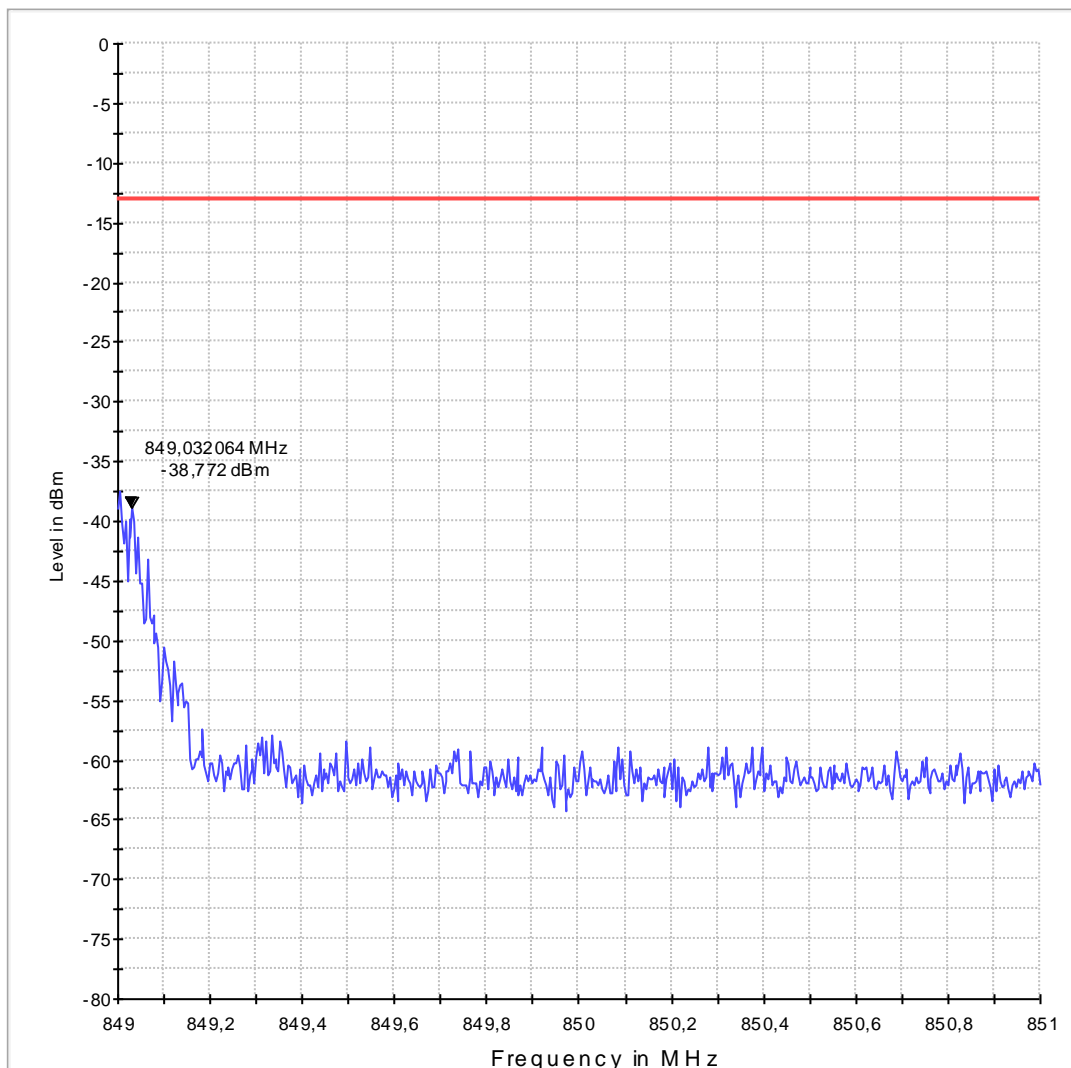
### Common Information

Test Description:	Band-Edge Radiated - G850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part22.917
Operating Mode:	UE allocated UL channel 251 (fc= 848,8 MHz), EDGE
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 34%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010403\_FCC\_Part22\_GSM850\_TX\_channel\_251\_band\_edge



## 9.09\_BE\_R\_Ch512\_GPRS

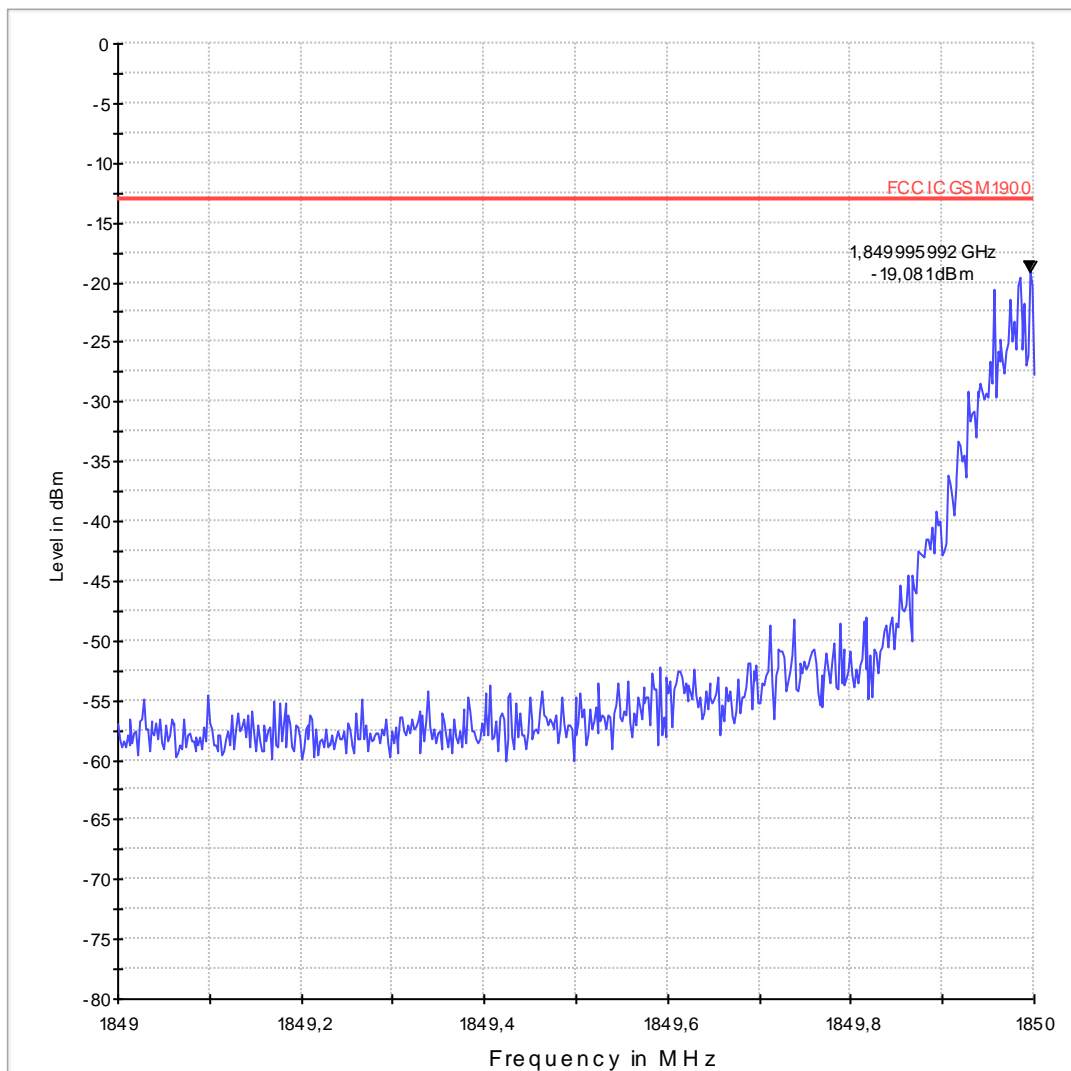
### Common Information

Test Description:	Band-Edge Radiated - PCS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated UL channel 512 (fc= 1850,2 MHz), GPRS
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010405\_FCC\_Part24\_GSM1900\_TX\_channel\_512\_band\_edge



## 9.10\_BE\_R\_Ch810\_GPRS

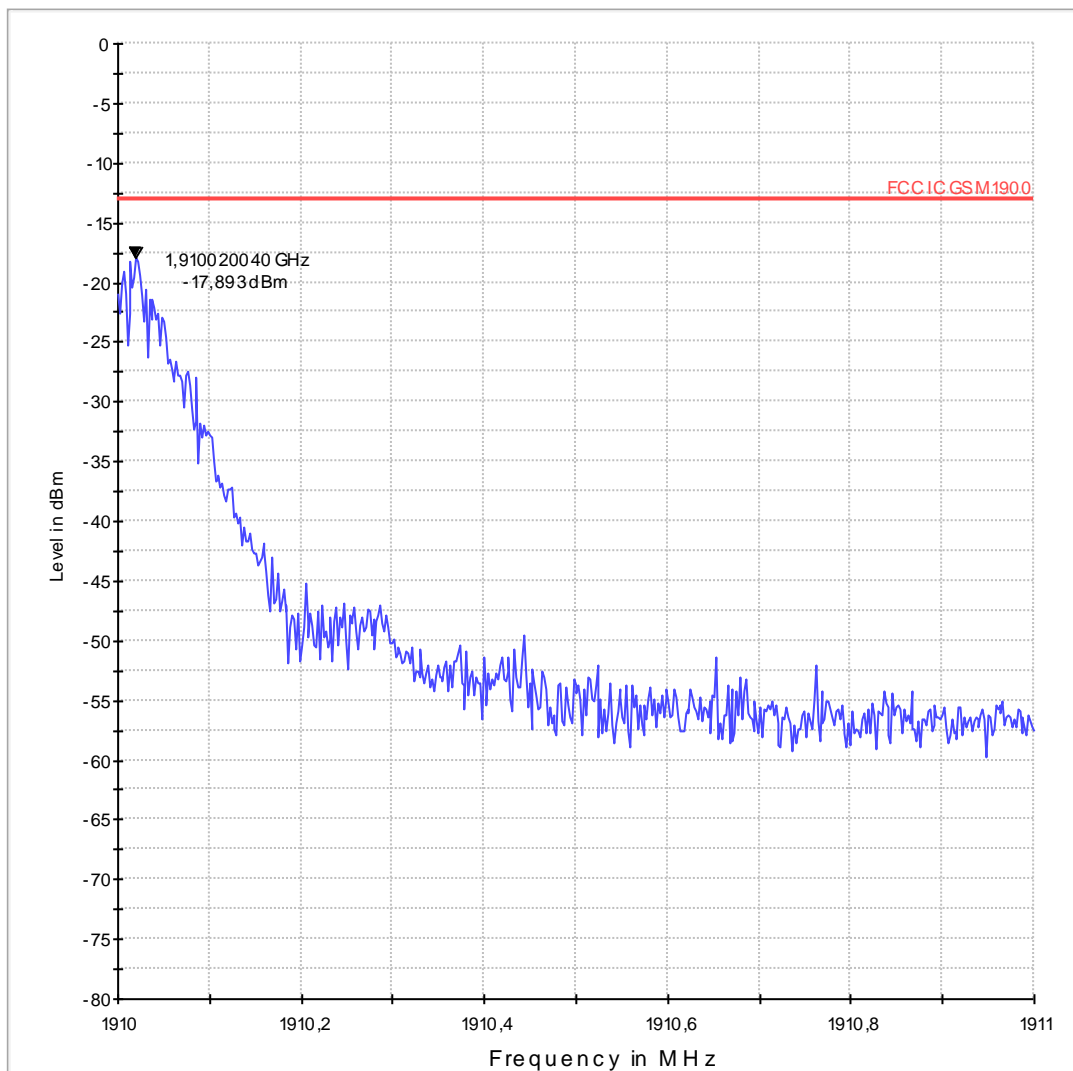
### Common Information

Test Description:	Band-Edge Radiated - PCS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Comm. Link:	GSM1900, GPRS
Operating Mode:	MS allocated channel 810 (fc = 1909 MHz); GPRS CS-4, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 33%rH; Temperature: 19°C
Operator:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010406\_FCC\_Part24\_GSM1900\_TX\_channel\_810\_band\_edge



## 9.11\_BE\_R\_Ch512\_EDGE

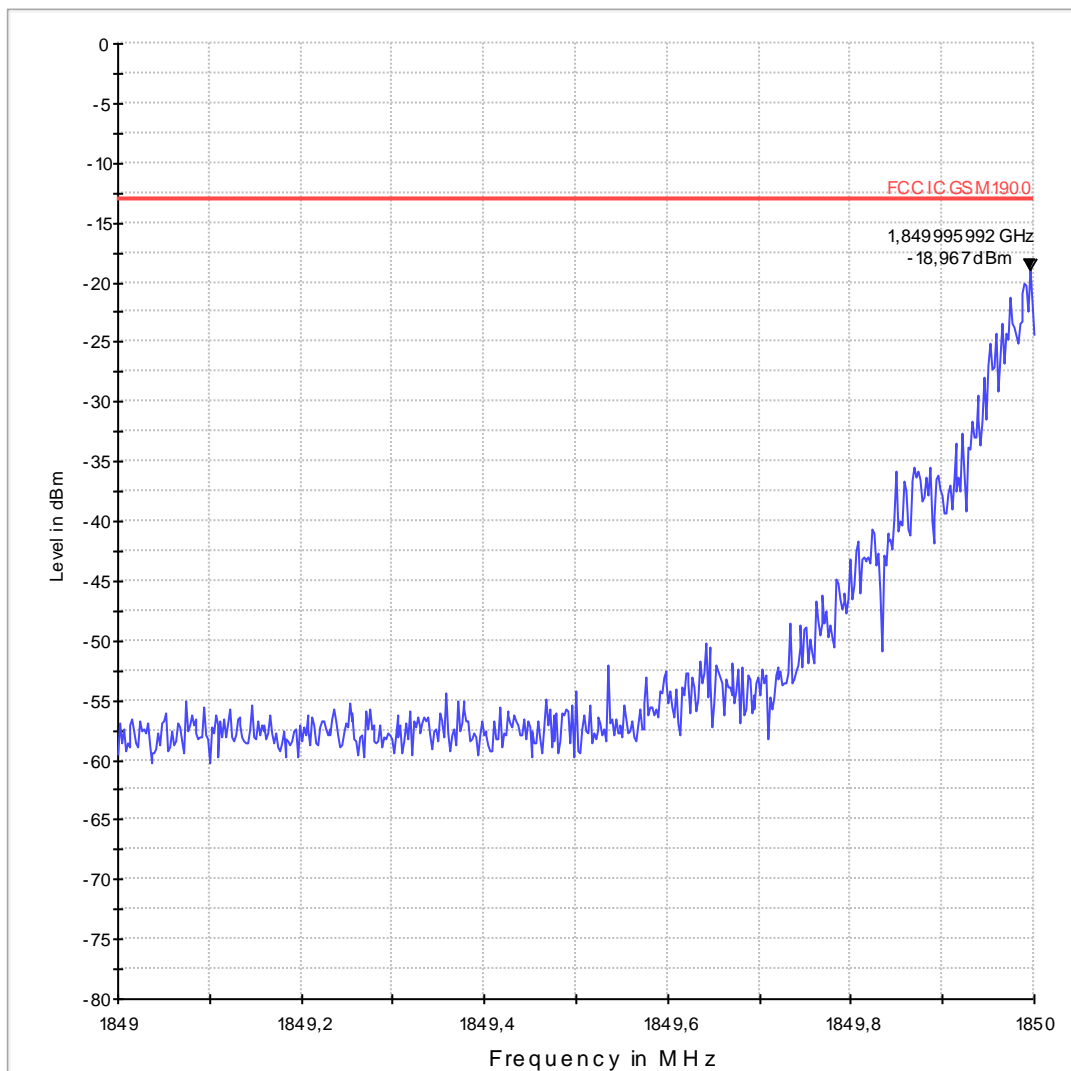
### Common Information

Test Description:	Band-Edge Radiated - PCS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated UL channel 512 (fc= 1850,2 MHz), EDGE
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 34%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010405\_FCC\_Part24\_GSM1900\_TX\_channel\_512\_band\_edge



## 9.12\_BE\_R\_Ch810\_EDGE

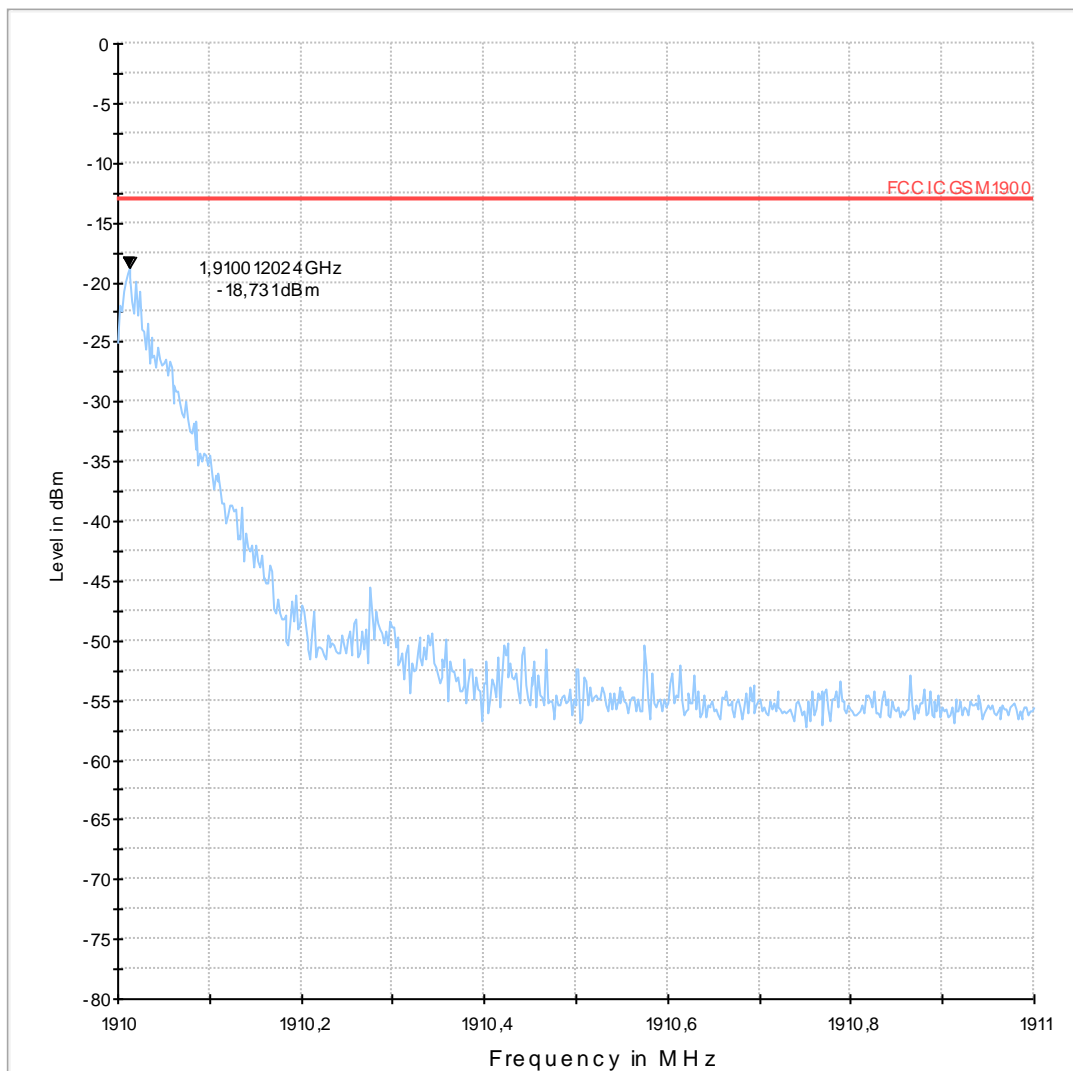
### Common Information

Test Description:	Band-Edge Radiated - PCS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Comm. Link:	GSM1900, EDGE
Operating Mode:	MS allocated channel 810 (fc = 1909 MHz); EDGE - MCS5, PCL0 (+30dBm)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 33%rH; Temperature: 19°C
	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030406\_FCC\_Part24\_GSM1900\_TX\_high\_ch\_band\_edge



## 9.20\_BE\_R\_Ch512\_GPRS

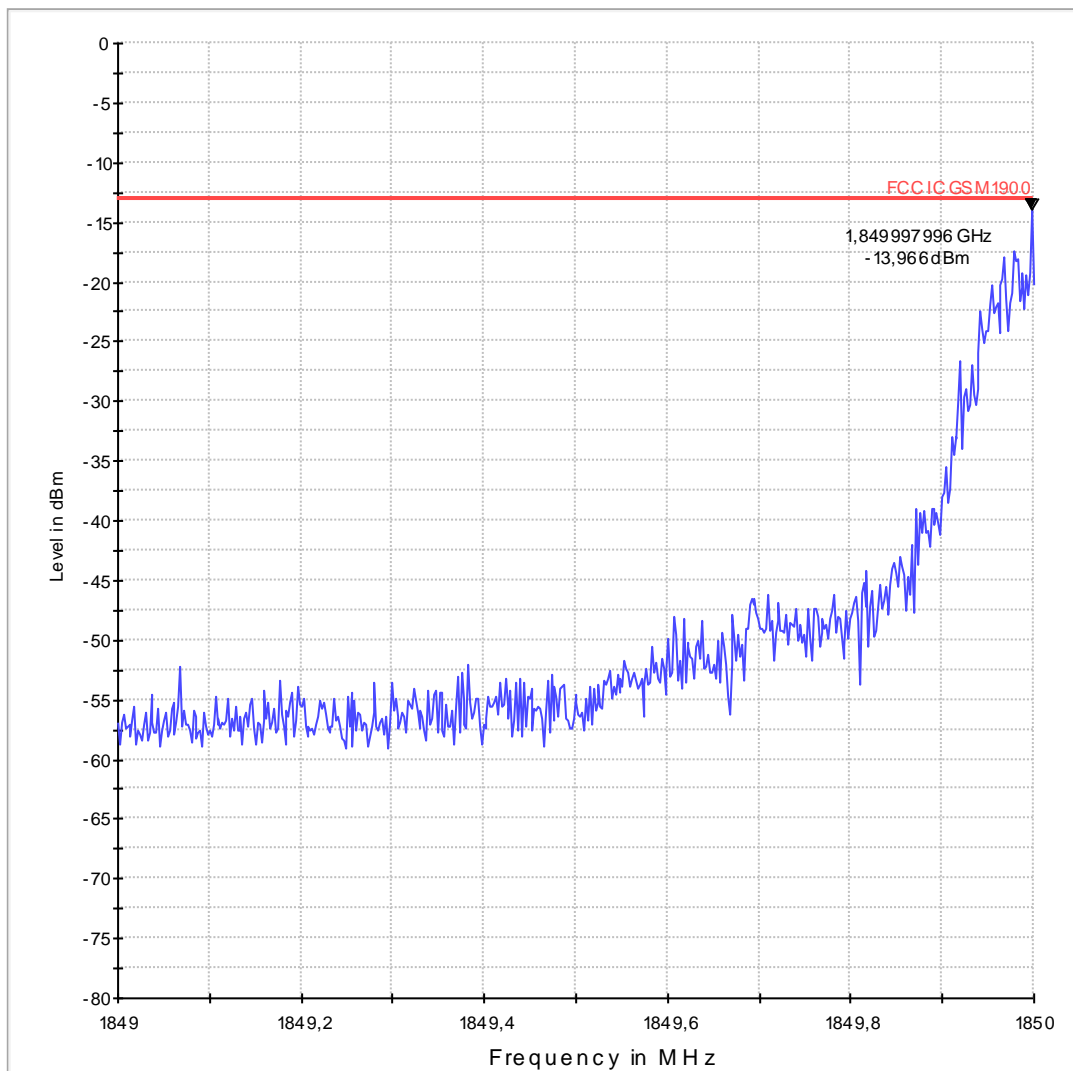
### Common Information

Test Description:	Band-Edge Radiated - PCS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Test Case:	GSM1900, GPRS
Operating mode	MS allocated channel 512 (fc = 1850,2 MHz); GPRS CS-4, PCL0 (+30dBm)
Temperature	Humidity: 40%rH; Temperature: 20°C
Operator	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010405\_FCC\_Part24\_GSM1900\_TX\_channel\_512\_band\_edge



## 9.21\_BE\_R\_Ch810\_GPRS

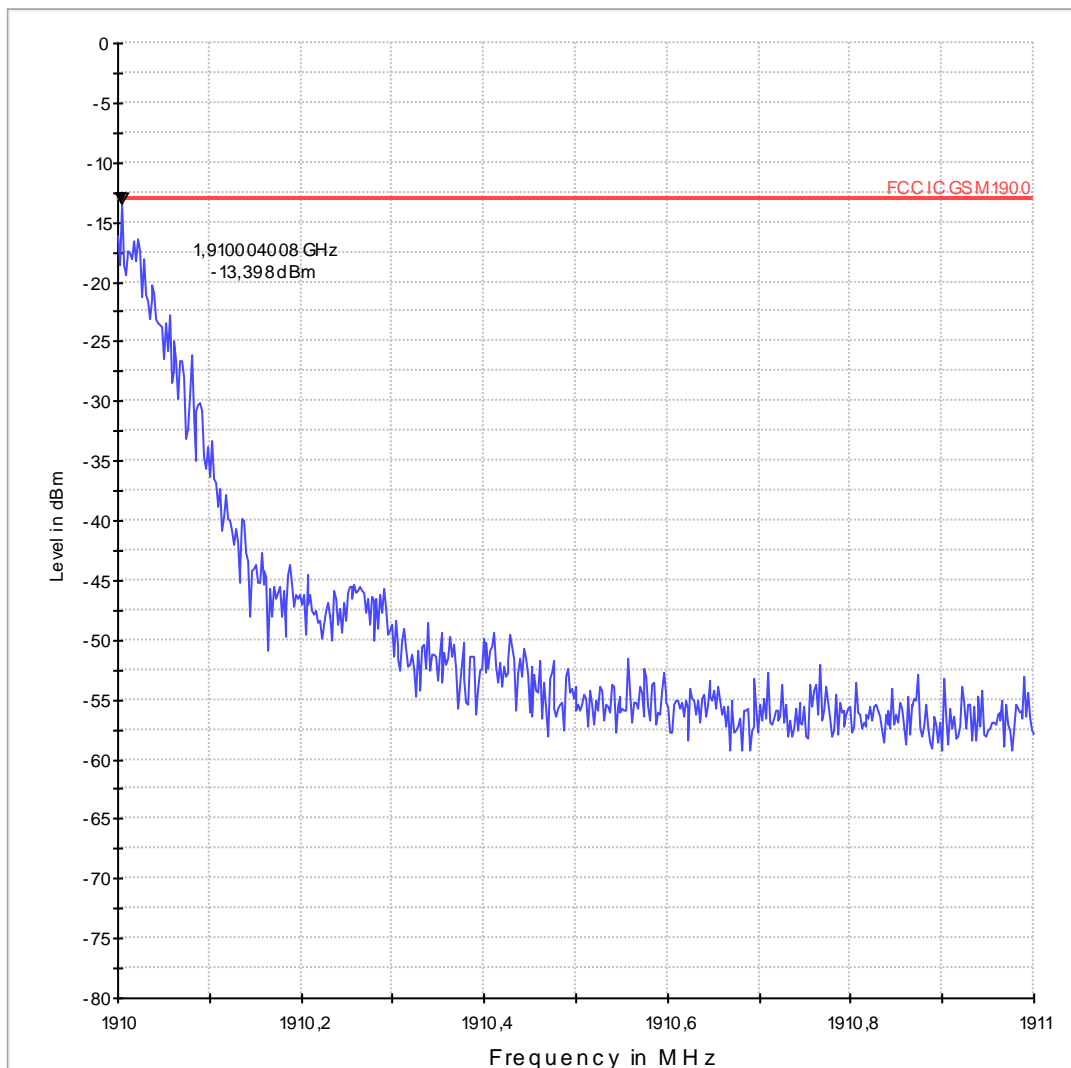
### Common Information

Test Description:	Band-Edge Radiated - PCS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated UL channel 810 (fc= 1909 MHz), GPRS
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010406\_FCC\_Part24\_GSM1900\_TX\_channel\_810\_band\_edge





## 9.22\_BE\_R\_Ch512\_EDGE

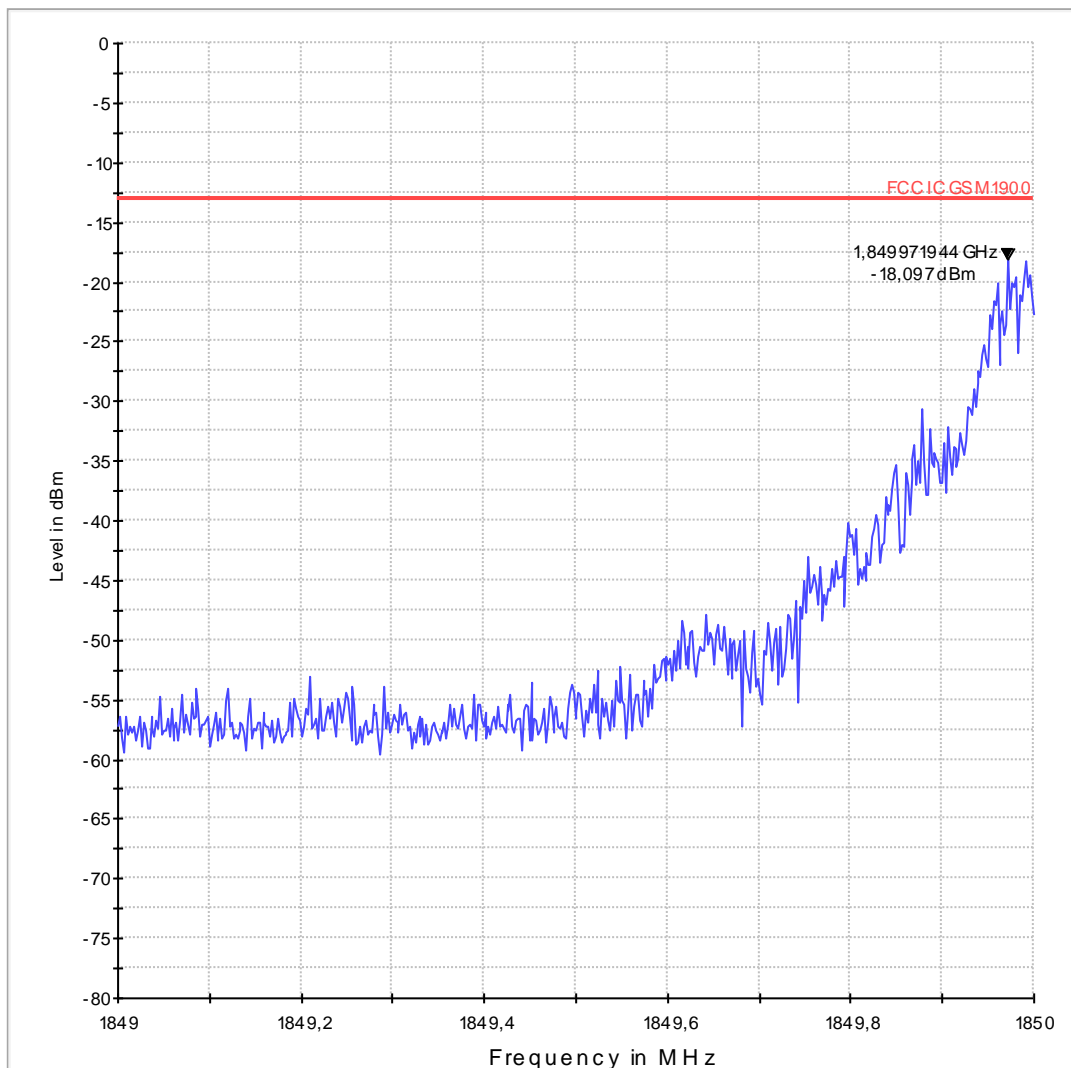
### Common Information

Test Description:	Band-Edge Radiated - PCS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated UL channel 512 (fc= 1850,2 MHz), EDGE
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010405\_FCC\_Part24\_GSM1900\_TX\_channel\_512\_band\_edge



## 9.23\_BE\_R\_Ch810\_EDGE

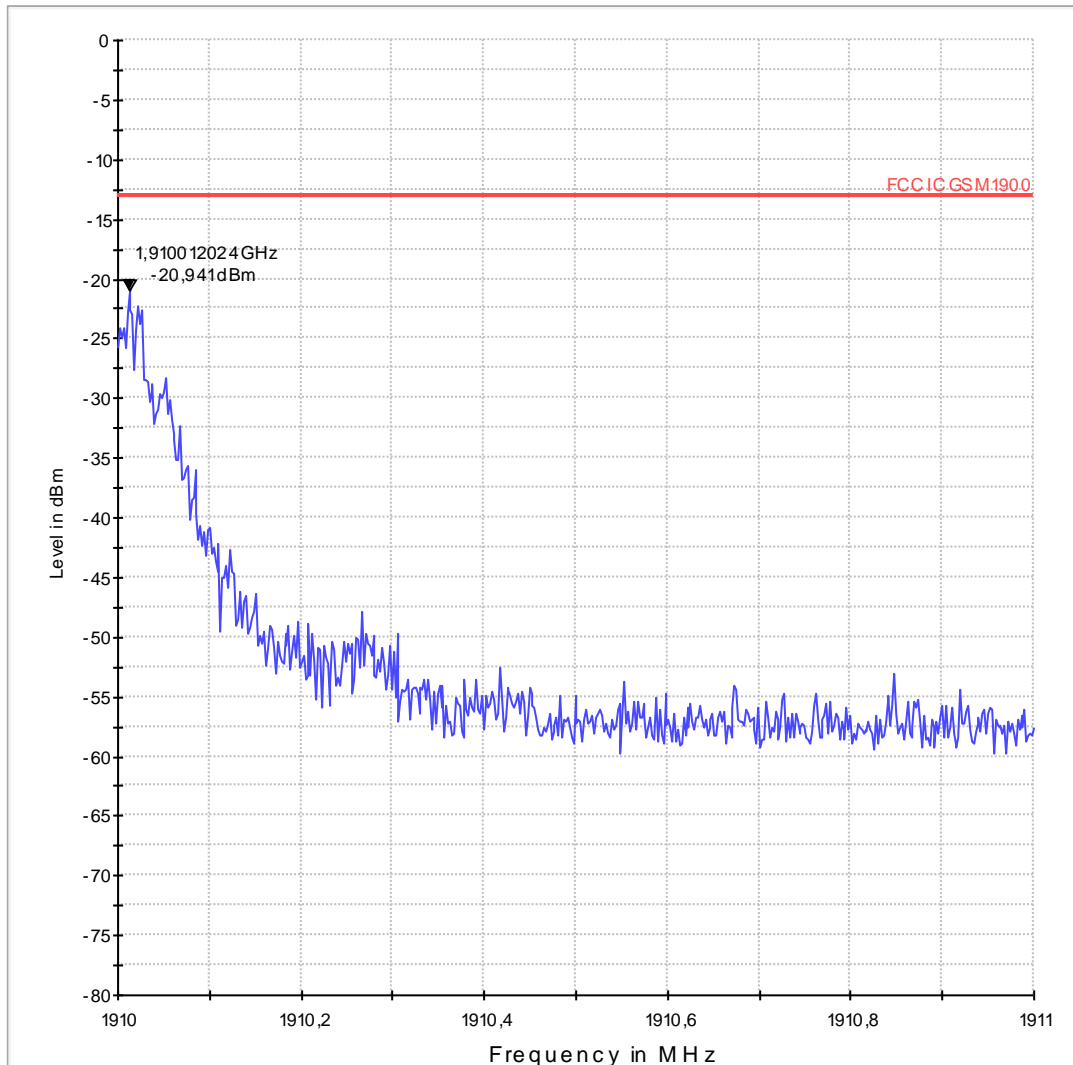
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated UL channel 810 (fc= 1909 MHz), EDGE
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010406\_FCC\_Part24\_GSM1900\_TX\_channel\_810\_band\_edge



## 9.24\_BE\_R\_Ch128\_GPRS

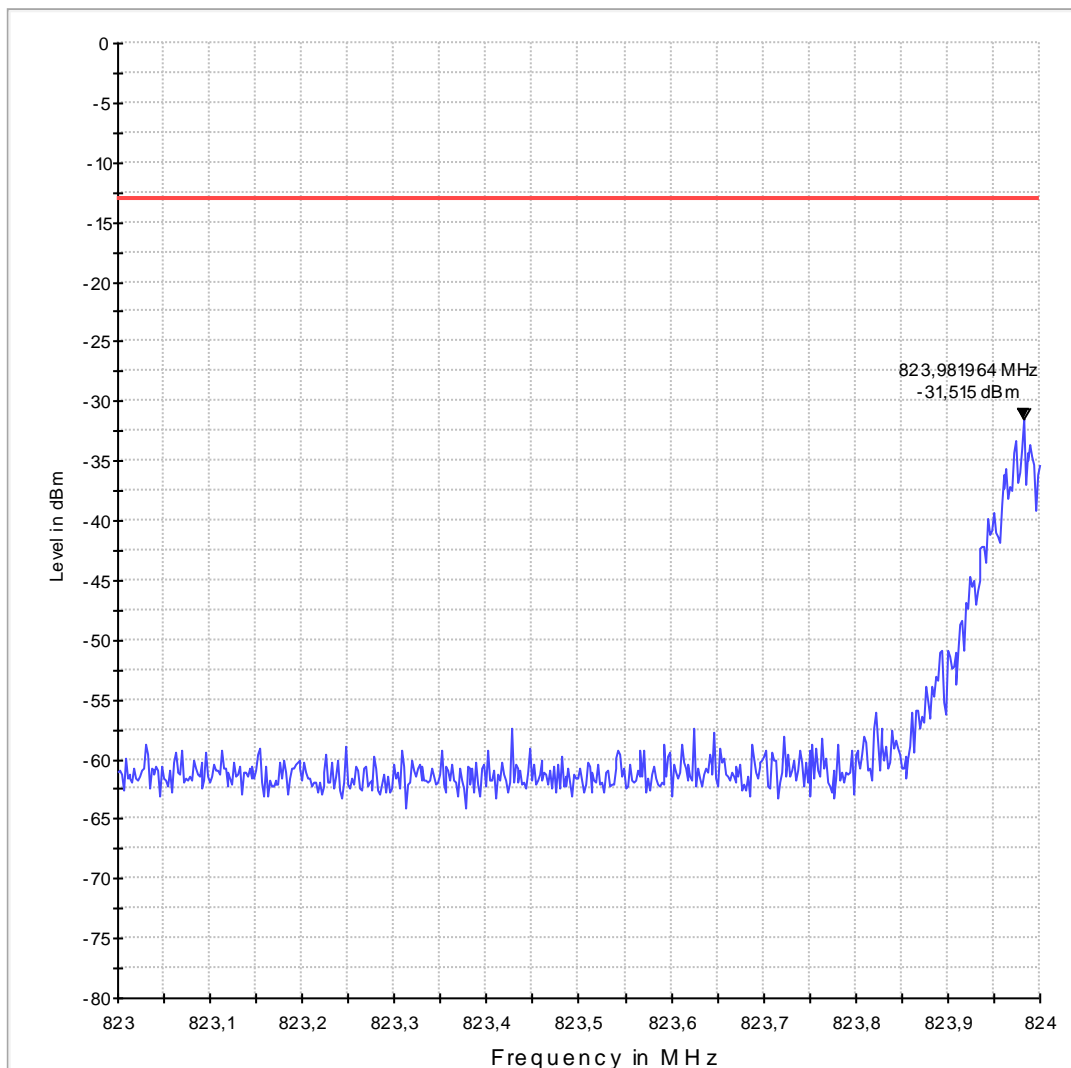
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	MS allocated UL channel 128, EDGE - MCS5
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 37 %rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010402\_FCC\_Part22\_GSM850\_TX\_channel\_128\_band\_edge



## 9.25\_BE\_R\_Ch251\_GPRS

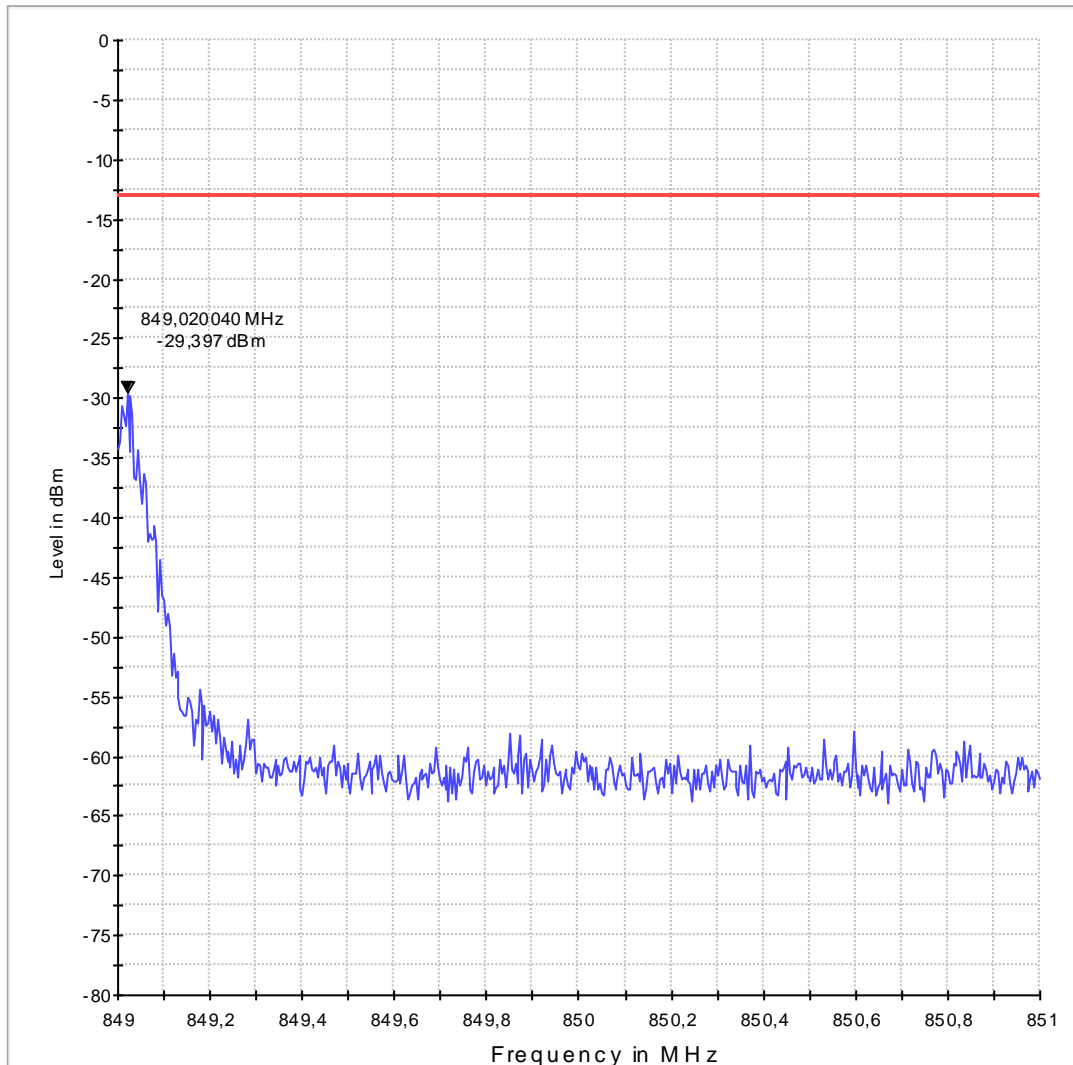
### Common Information

Test Description:	Band-Edge Radiated - G850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 251 (fc= 848,8 MHz), GPRS - CS4
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 37 %rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010403\_FCC\_Part22\_GSM850\_TX\_channel\_251\_band\_edge



## 9.26\_BE\_R\_Ch128\_EDGE

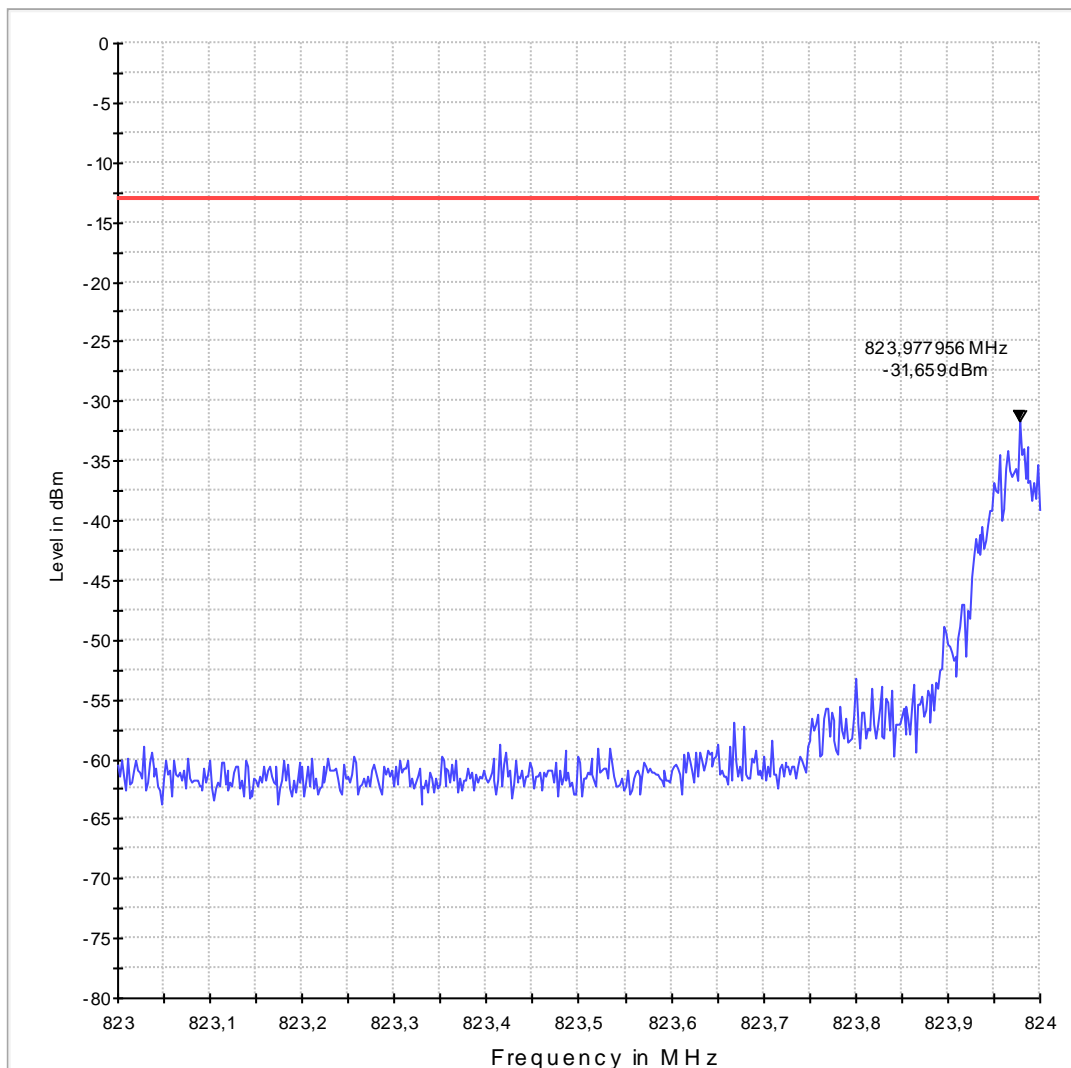
### Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	MS allocated UL channel 128, EDGE - MCS5
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 37 %rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010402\_FCC\_Part22\_GSM850\_TX\_channel\_128\_band\_edge



## 9.27\_BE\_R\_Ch251\_EDGE

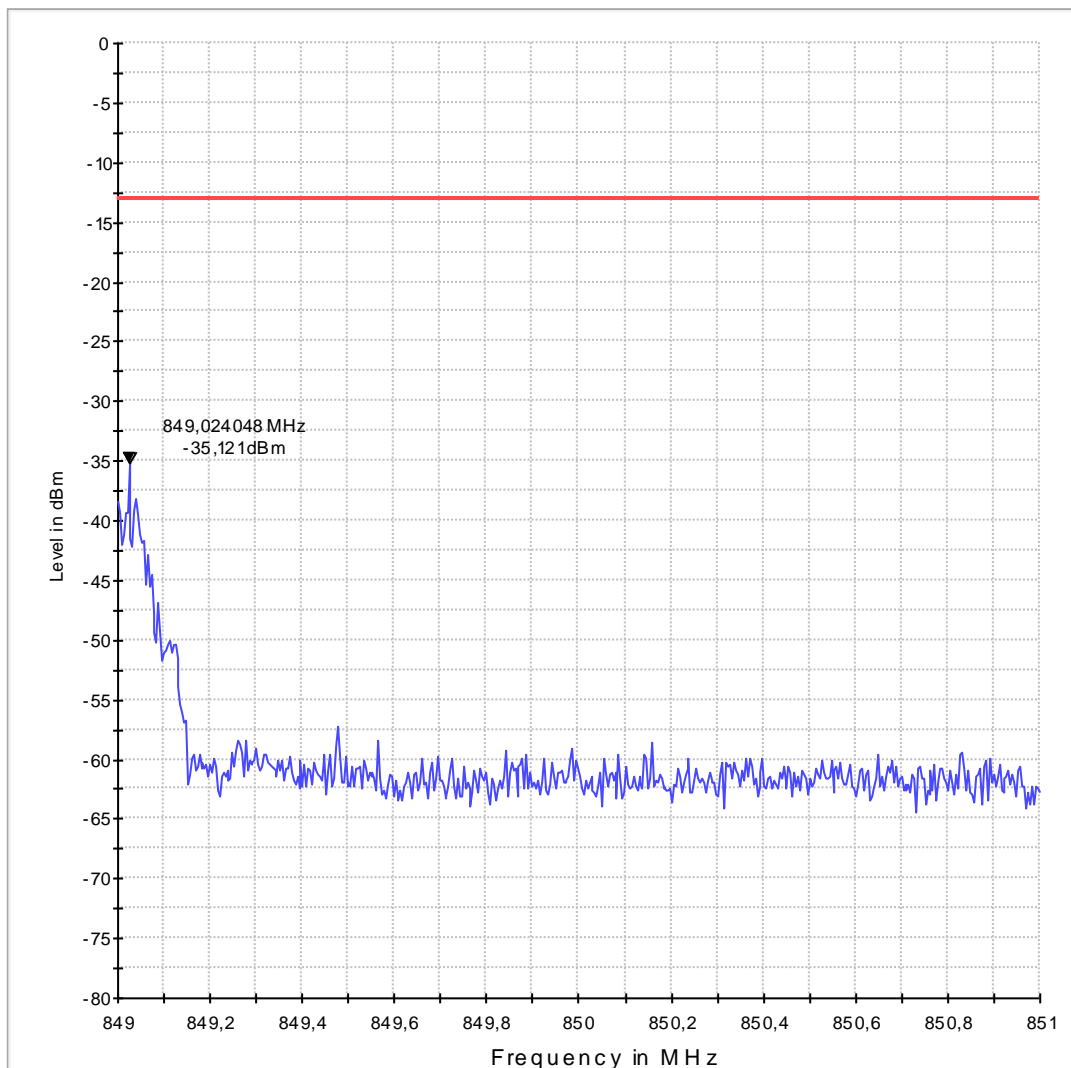
### Common Information

Test Description:	Band-Edge Radiated - G850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated UL channel 251 (fc= 848,8 MHz), EDGE
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 37 %rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010403\_FCC\_Part22\_GSM850\_TX\_channel\_251\_band\_edge



## 9.50\_BE\_R\_Ch4132\_RMC

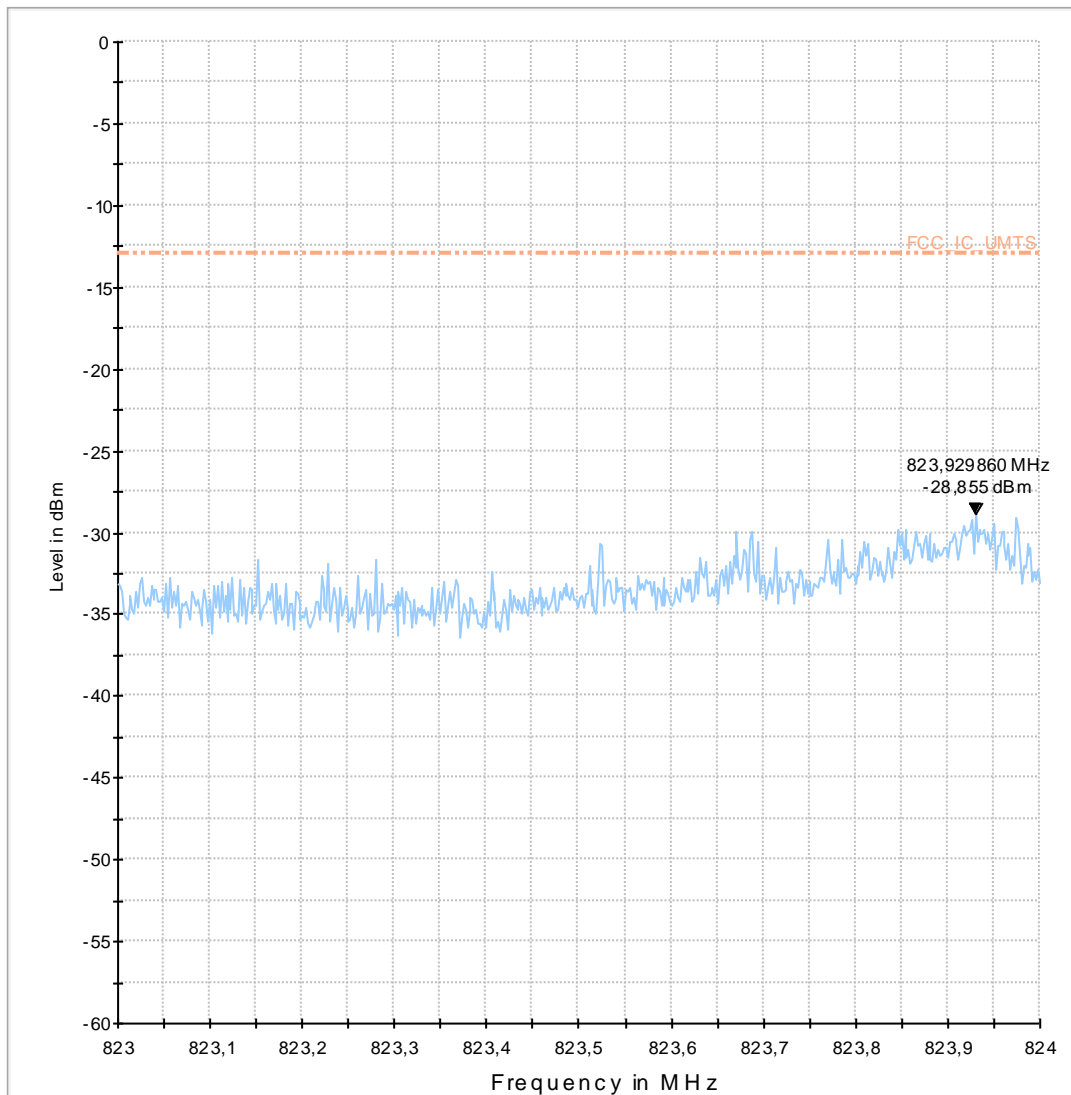
### Common Information

Test Description:	Band-Edge Radiated - FDD V
Operating Conditions:	CETECOM GmbH Essen
Test site location:	Fully Anechoic Room (FAR)
	FCC Part 22
	UE allocated channel 4132 (fc = 826.4 MHz), RMC
	Humidity: 45%rH; Temperature: 21°C
	Lor
	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test:	24 VDC

030412\_FCC\_Part22\_UMTS-FDD V\_TX\_low\_channel\_band\_edge



## 9.51\_BE\_R\_Ch4233\_RMC

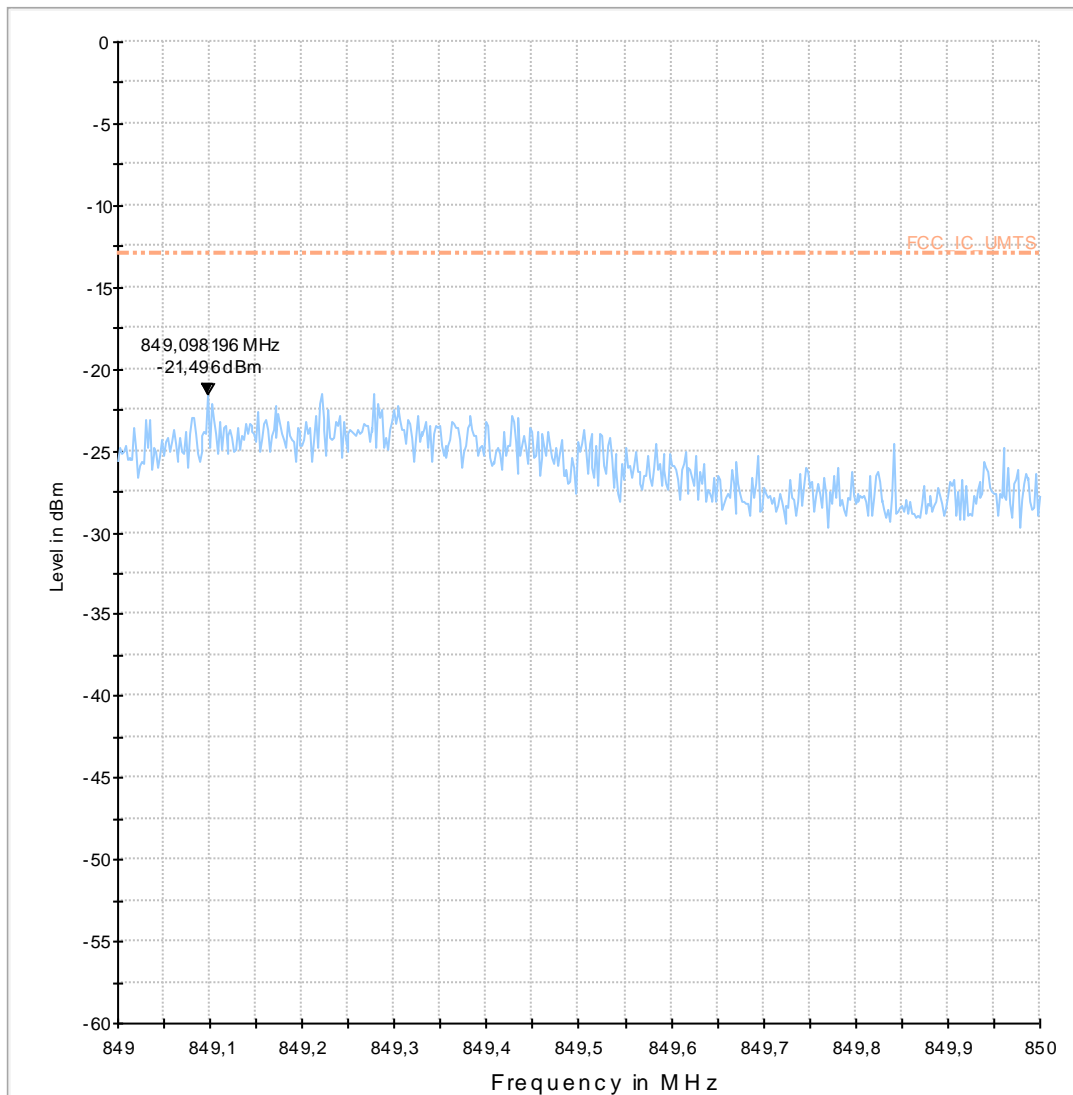
### Common Information

Test Description:	Band-Edge Radiated - FDD V
Operating Conditions:	CETECOM GmbH Essen
Test site location:	Fully Anechoic Room (FAR)
	FCC Part 22
	UE allocated channel 4233 (fc = 848.2 MHz), RMC
	Humidity: 45%rH; Temperature: 21°C
	Lor
	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030413\_FCC\_Part22\_UMTS-FDD V\_TX\_high\_channel\_band\_edge





## 9.52\_BE\_R\_Ch4132\_RMC

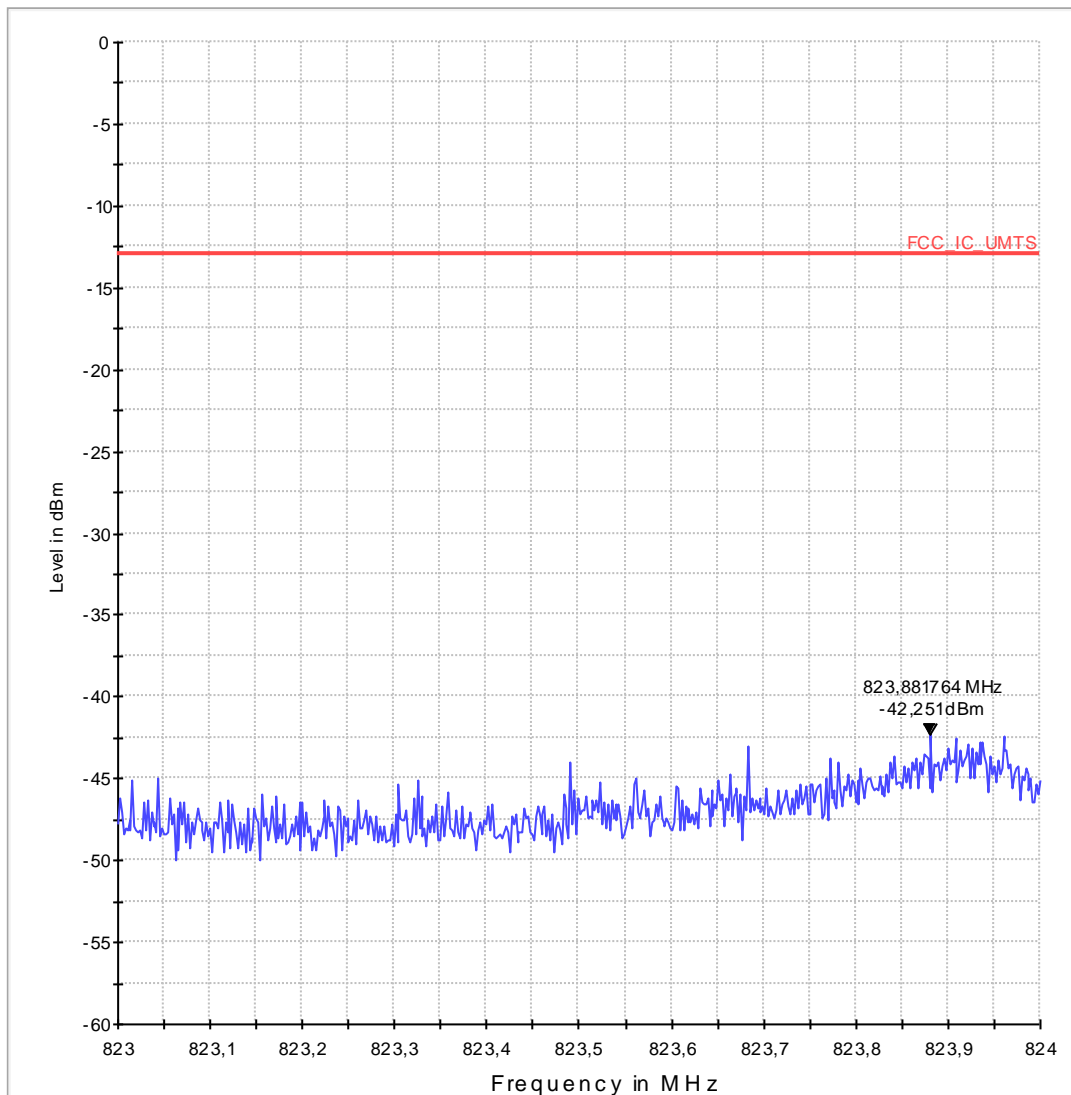
### Common Information

Test Description:	Band-Edge Radiated - FDD V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel 4132 (Exclusion fc = 826.4 MHz), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB adapter cable (2m)
Power during test	24 VDC

010412\_FCC\_Part22\_UMTS-FDD II\_TX\_channel\_4132\_band\_edge



## 9.53\_BE\_R\_Ch4233\_RMC

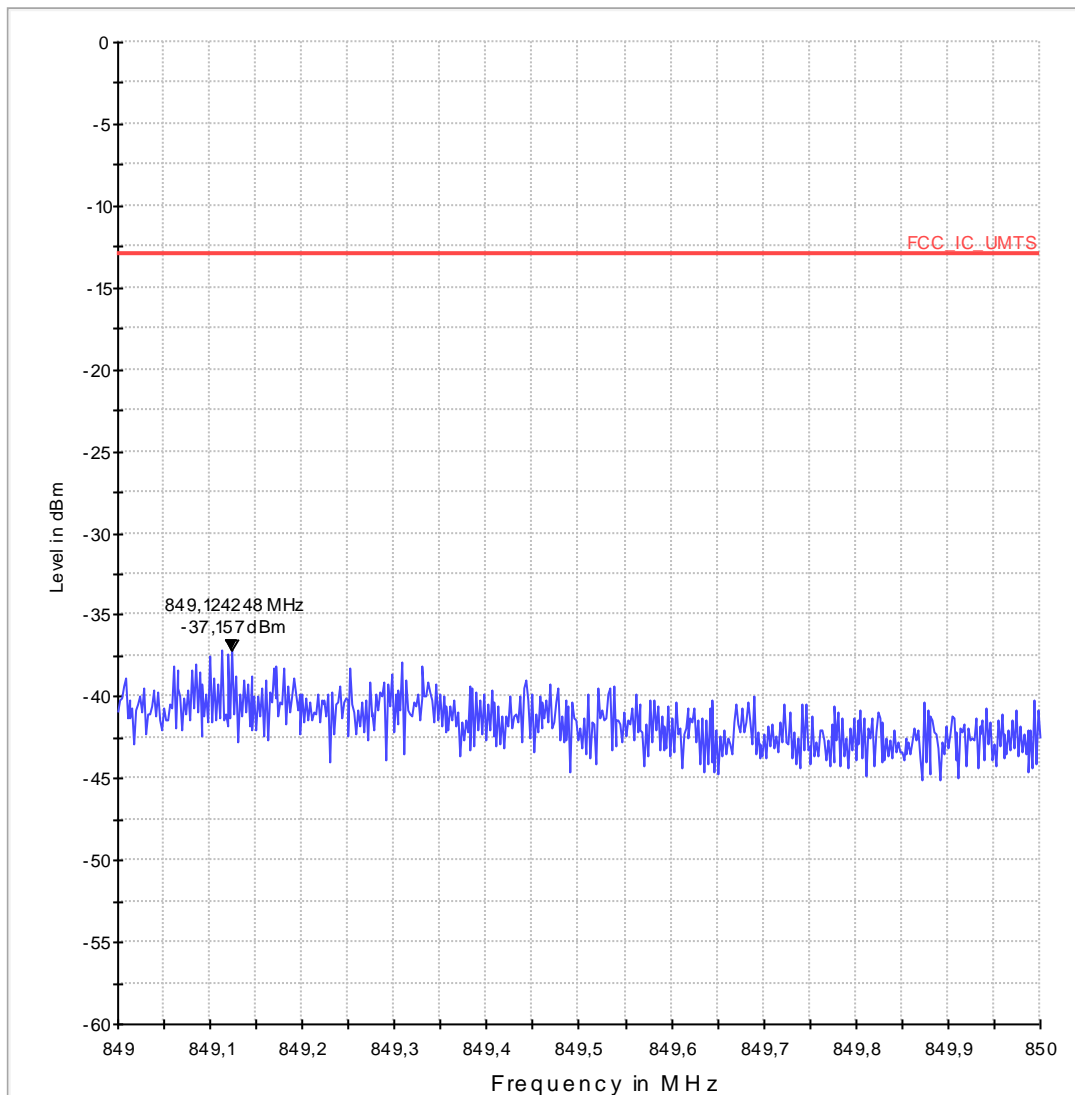
### Common Information

Test Description:	Band-Edge Radiated - FDD V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel 4233 (Exclusion band fc = 846.6 MHz), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB adapter cable (2m)
Power during test	24 VDC

010413\_FCC\_Part22\_UMTS-FDD II\_TX\_channel\_4233\_band\_edge



## 9.54\_BE\_R\_ch9262\_RMC

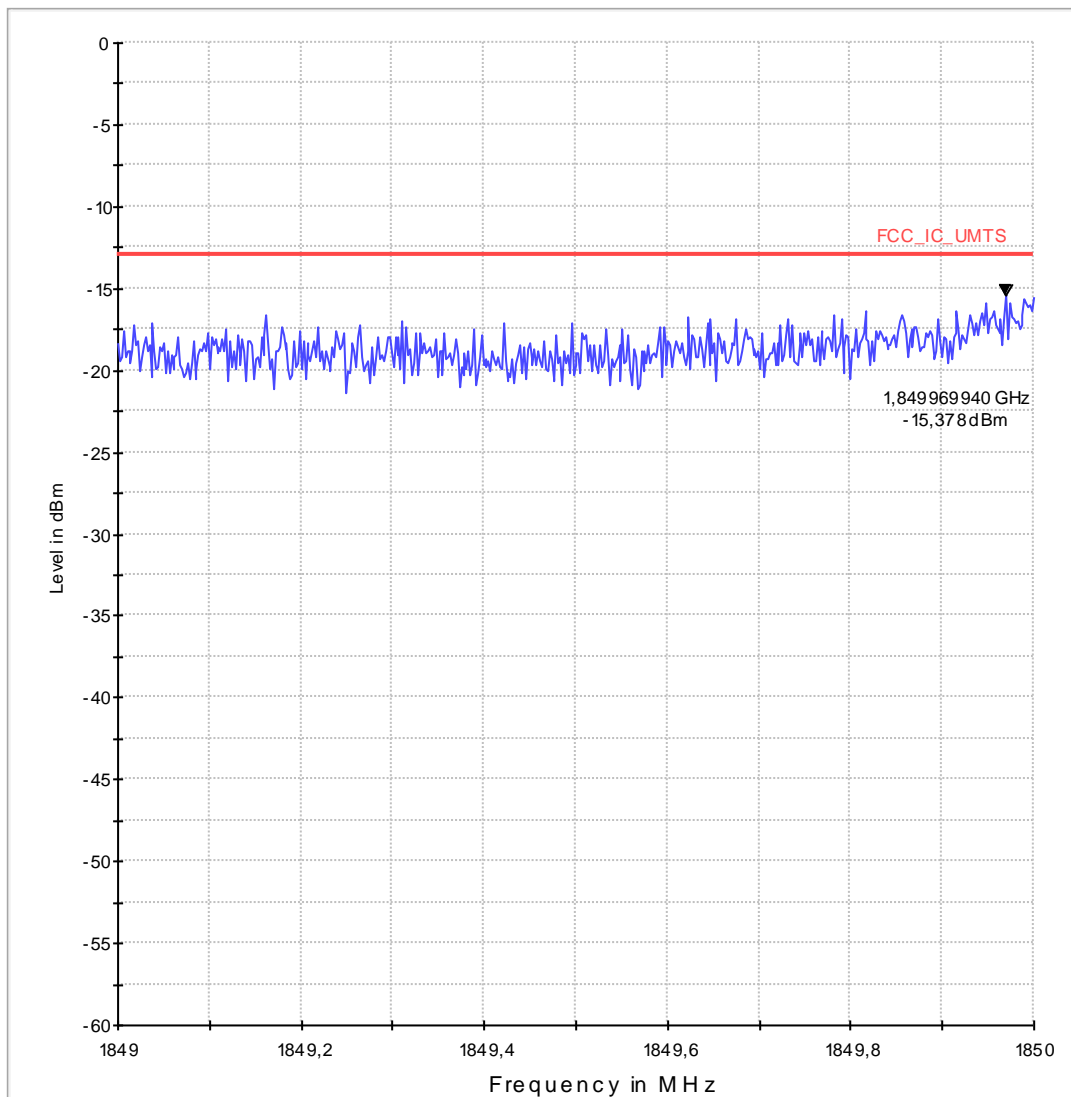
### Common Information

Test Description:	Band-Edge Radiated - FDD II
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), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB adapter cable (2m)
Power during test	24 VDC

010415\_FCC\_Part24\_UMTS-FDD II\_TX\_channel\_9262\_band\_edge



## 9.55\_BE\_R\_ch9538\_RMC

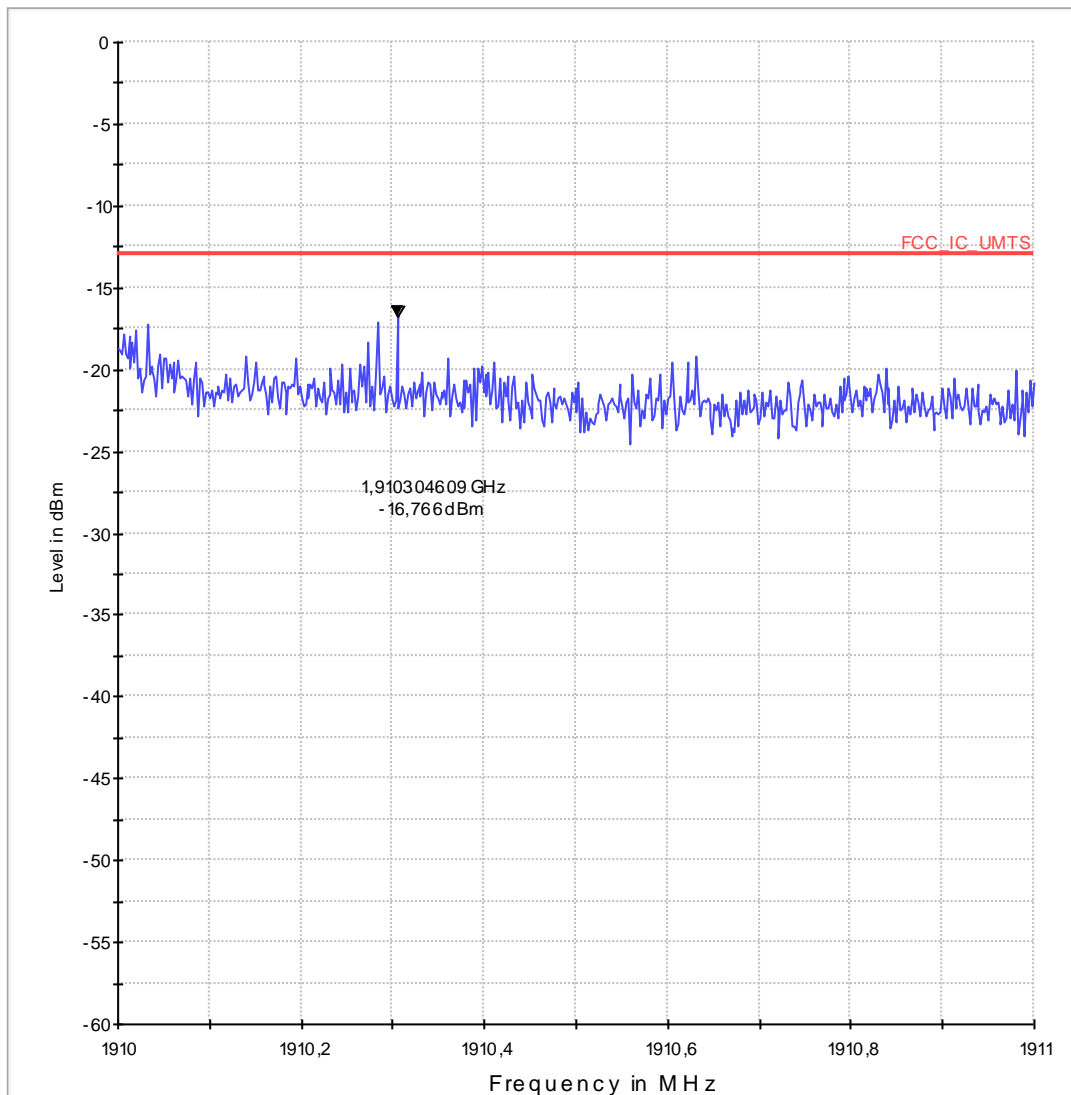
### Common Information

Test Description:	EIRP Measurement UMTS FDDII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel 9538 (fc = 1907.6 MHz), RMC
Environmental Conditions:	Humidity: 33%rH; Temperature: 21,3°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010416\_FCC\_Part24\_UMTS-FDDII\_TX\_channel\_9538\_band\_edge



## 9.56\_BE\_R\_Ch9262\_HSUPA

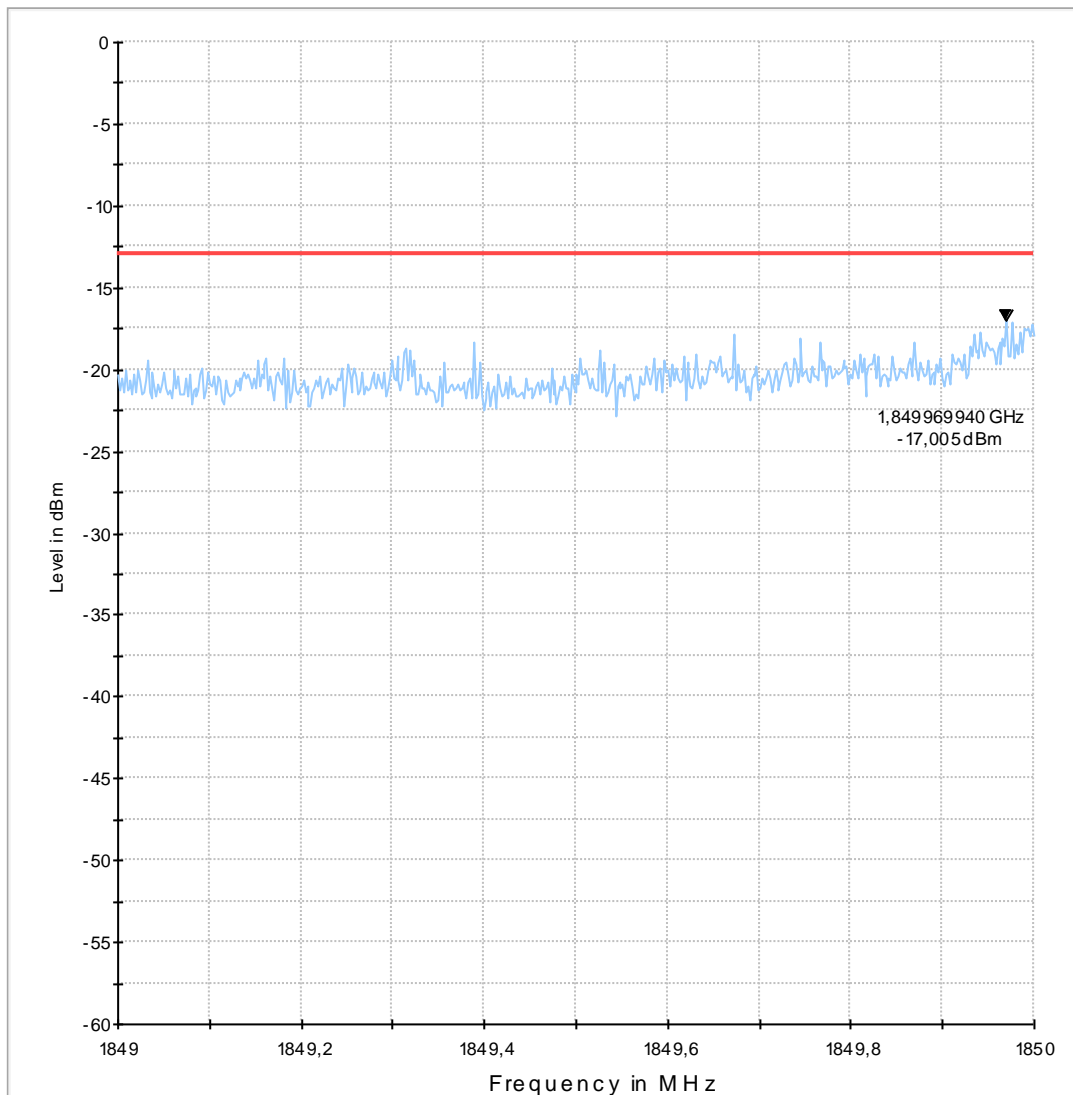
### Common Information

Test Description:	Band-Edge Radiated - FDD II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Operating Mode:	UE allocated channel 9262 (fc = 1852.4 MHz), HSUPA
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030415\_FCC\_Part24\_UMTS-FDD II\_TX\_low\_channel\_band\_edge



## 9.57\_BE\_R\_Ch9538\_HSUPA

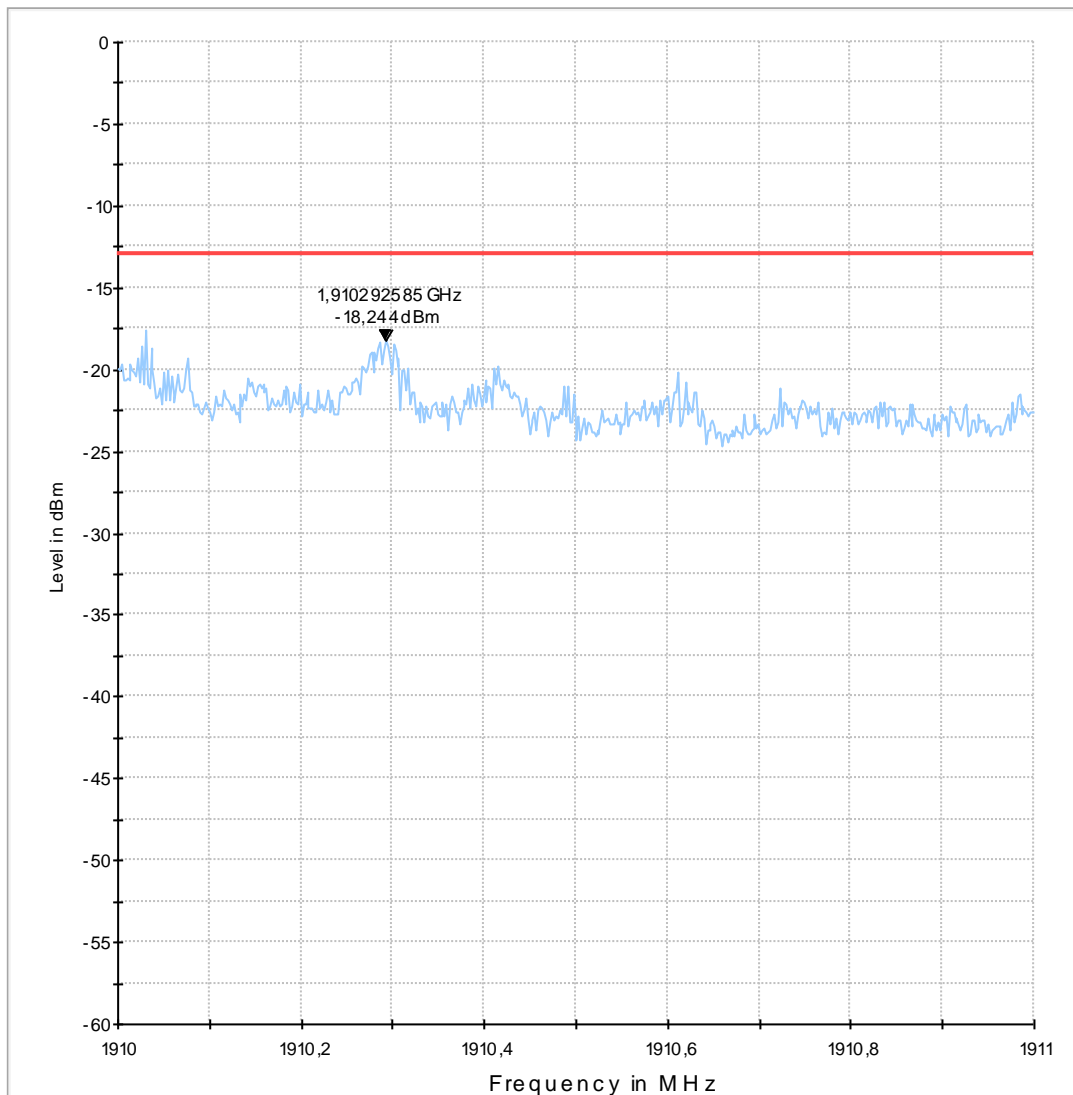
### Common Information

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 9538 (fc = 1907.6 MHz), HSUPA
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030416\_FCC\_Part24\_UMTS-FDDII\_TX\_high\_channel\_band\_edge



## 9.58\_BE\_R\_Ch4132\_HSUPA

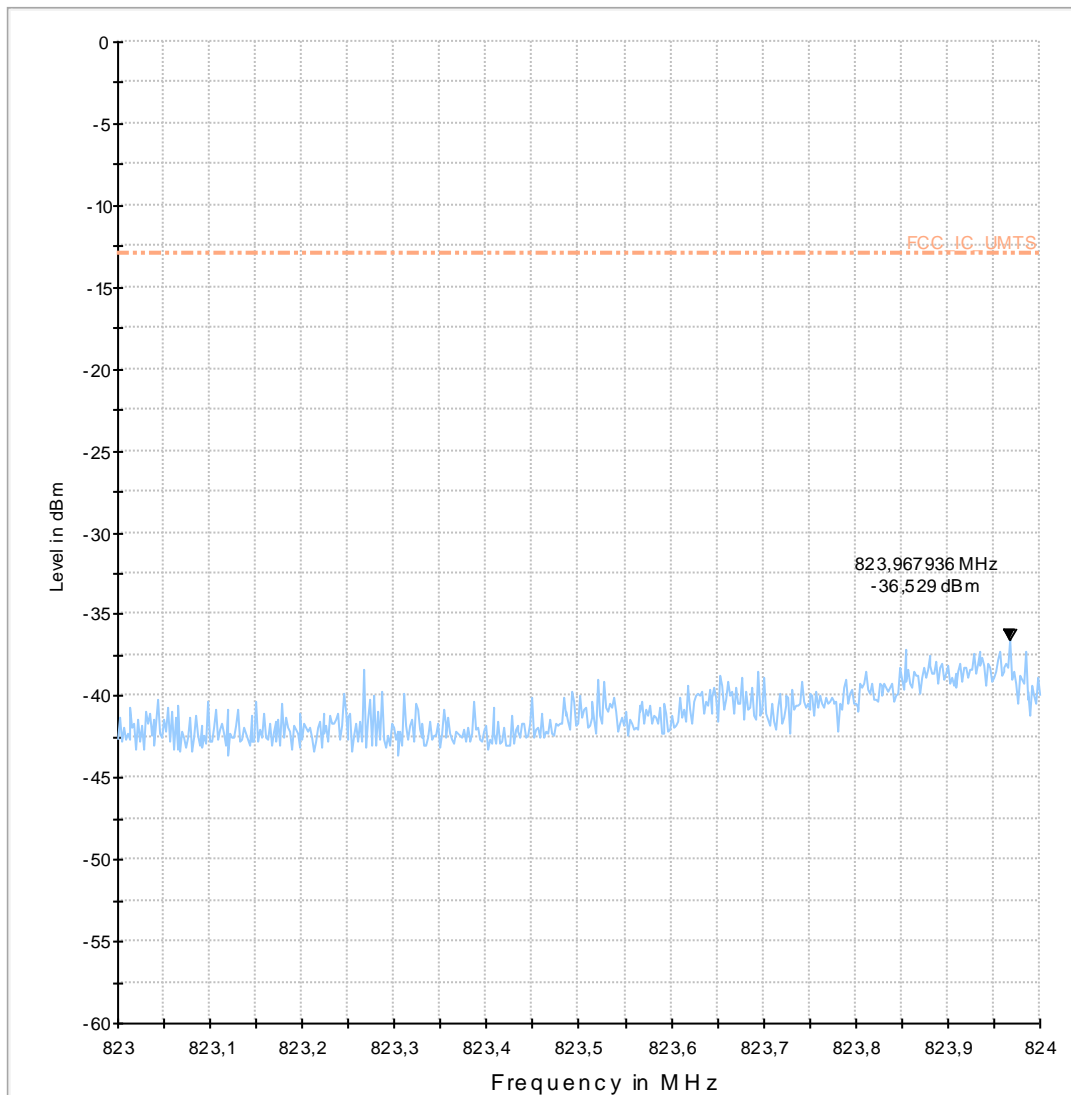
### Common Information

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 = 826.6 MHz), HSUPA
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030412\_FCC\_Part22\_UMTS-FDDV\_TX\_low\_channel\_band\_edge



## 9.59\_BE\_R\_Ch4233\_HSUPA

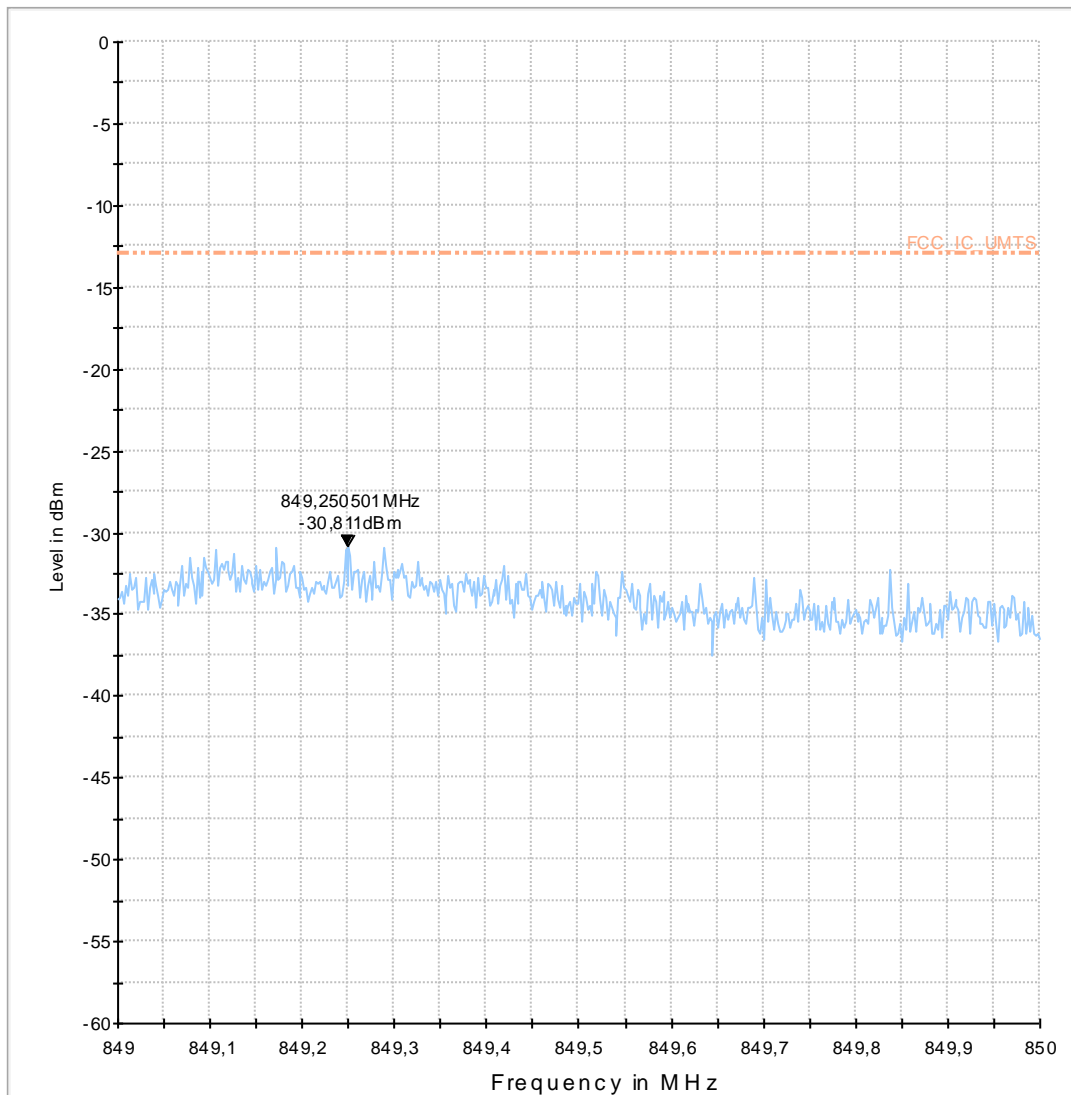
### Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel 4233 (fc = 846.6 MHz), HSUPA
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Stubby antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030413\_FCC\_Part22\_UMTS-FDDV\_TX\_high\_channel\_band\_edge





## 9.60\_BE\_R\_Ch4132\_HSUPA

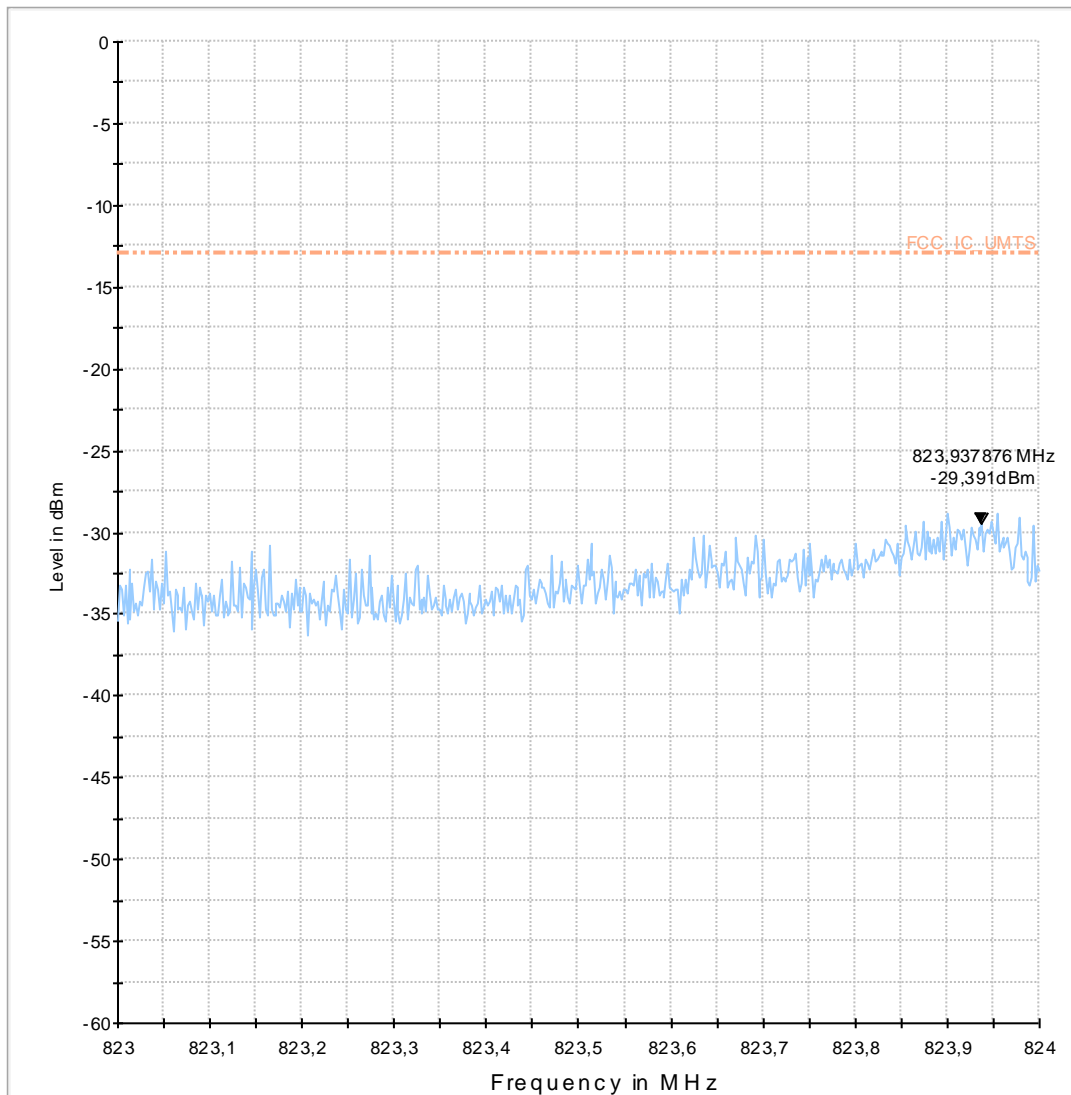
### Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel 4132 (fc = 826.6 MHz), HSUPA
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030412\_FCC\_Part22\_UMTS-FDDV\_TX\_low\_channel\_band\_edge



## 9.61\_BE\_R\_Ch4233\_HSUPA

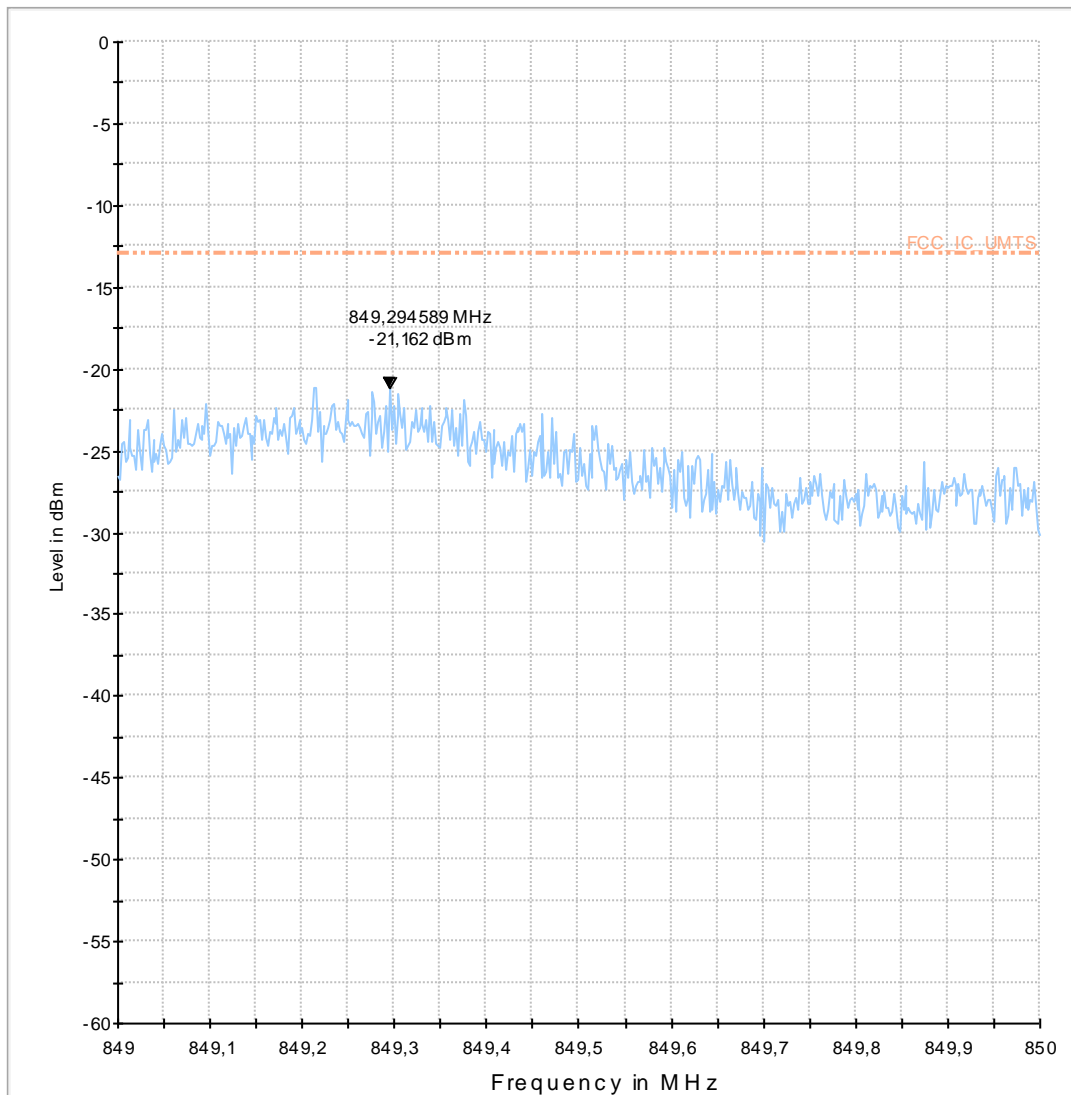
### Common Information

Test Description:	Band-Edge Radiated - FDD V
Test site location:	CETECOM GmbH Essen
Test site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22
Operating mode:	UE allocated channel 4233 (fc = 846.6 MHz), HSUPA
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test:	24 VDC

030413\_FCC\_Part22\_UMTS-FDD V\_TX\_high\_channel\_band\_edge



## 9.62\_BE\_R\_Ch9262\_HSUPA

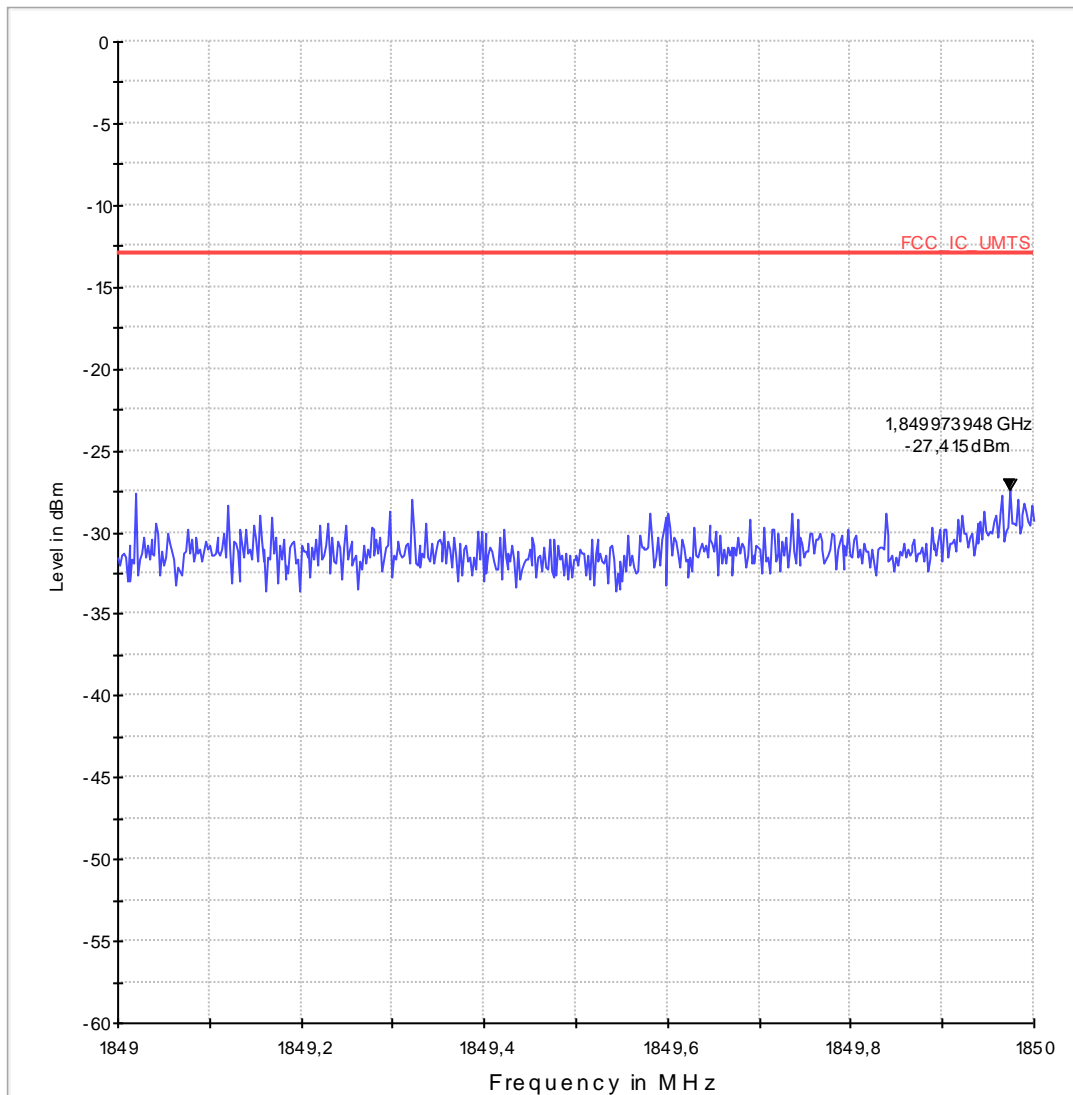
### Common Information

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: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

010415\_FCC\_Part24\_UMTS-FDDII\_TX\_channel\_9262\_band\_edge



## 9.63\_BE\_R\_Ch9538\_HSUPA

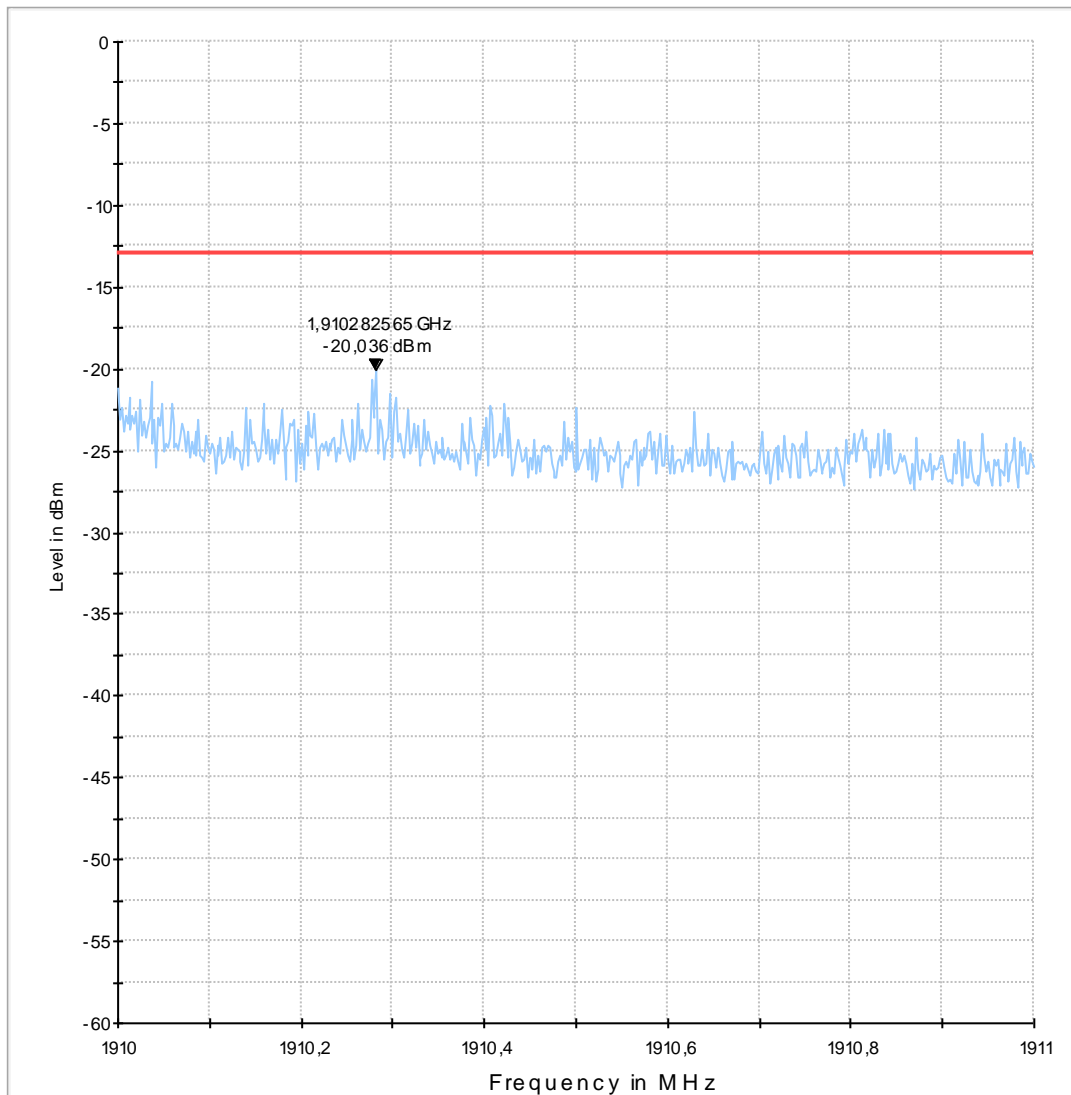
### Common Information

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 9538 (fc = 1907.6 MHz), HSUPA
Environmental Conditions:	Humidity: 38%rH; Temperature: 20°C
Operator:	Tas 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Planar (dynaflex) antenna + USB/Bus(8 pins) adapter cable (2m)
Power during test	24 VDC

030416\_FCC\_Part24\_UMTS-FDDII\_TX\_high\_channel\_band\_edge

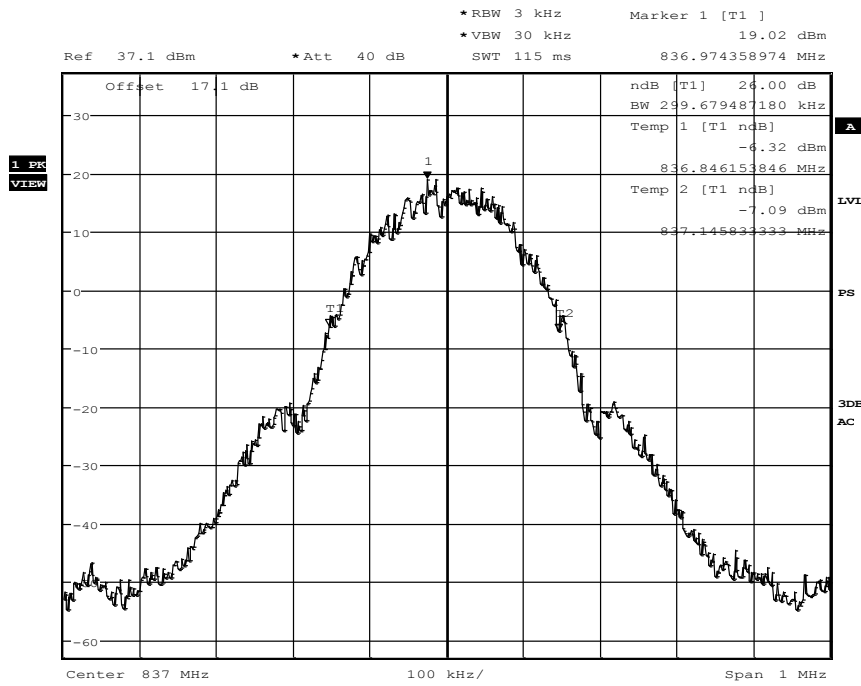


### 1.4 26dB Emission bandwidth and 99% Occupied bandwidth

Emission bandwidth - G850 band

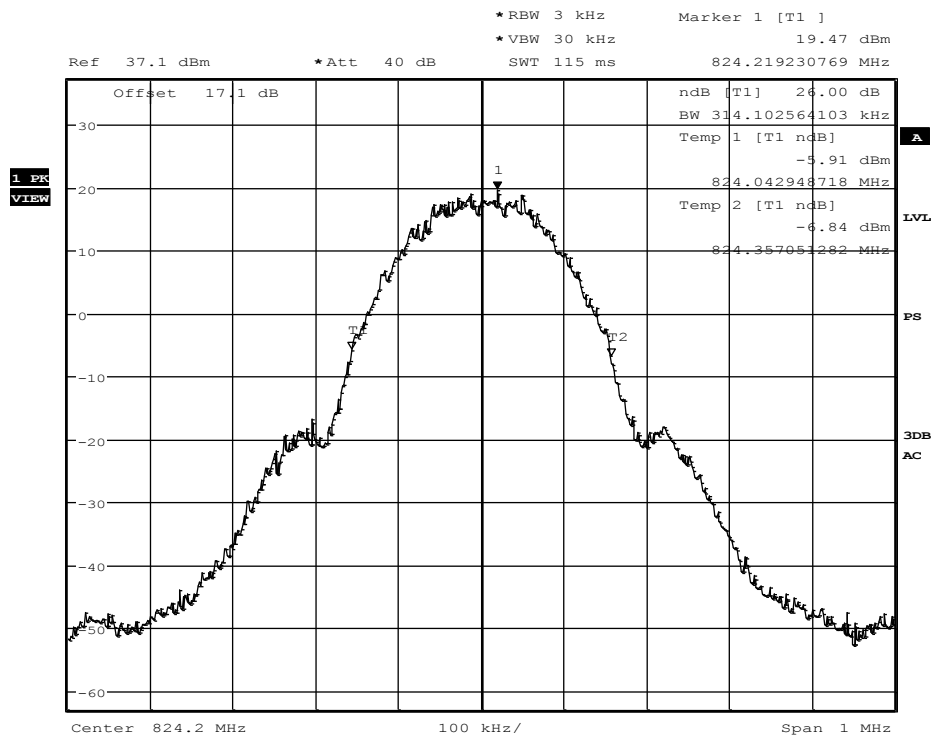
GPRS-mode

34.01



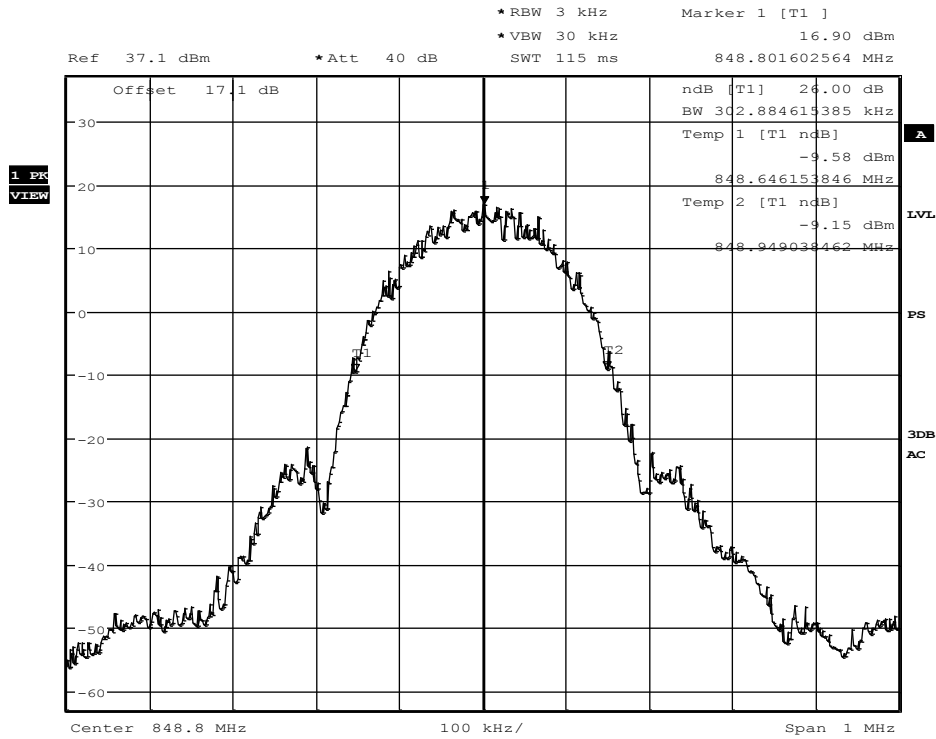
Date: 6.DEC.2012 09:41:25

34.02



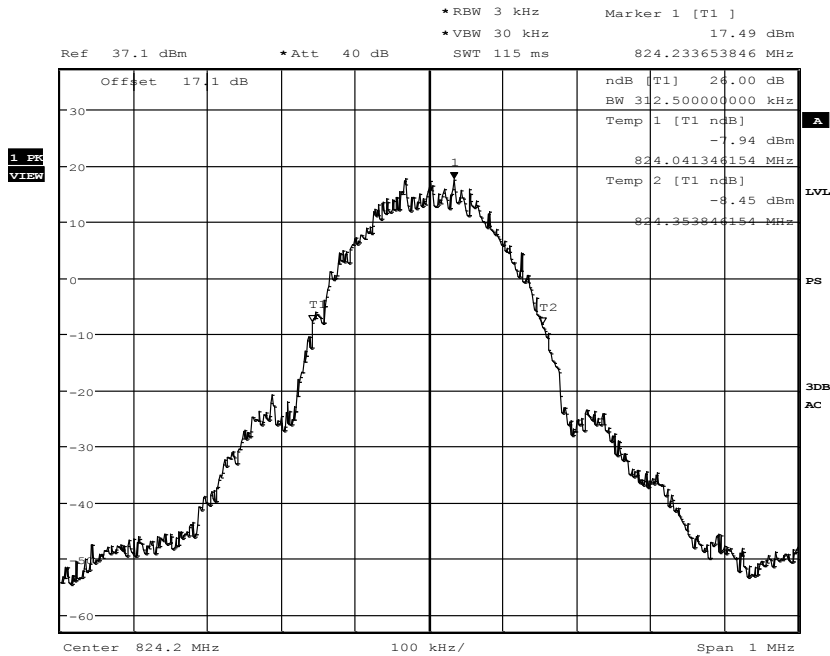
Date: 6.DEC.2012 09:36:08

34.03



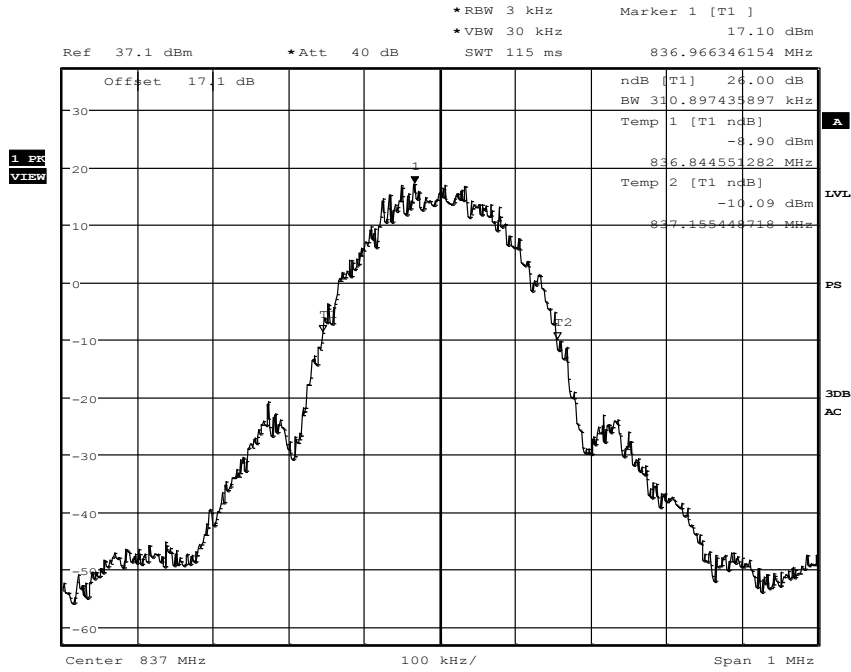
Date: 6.DEC.2012 09:26:52

EDGE mode  
 34.04



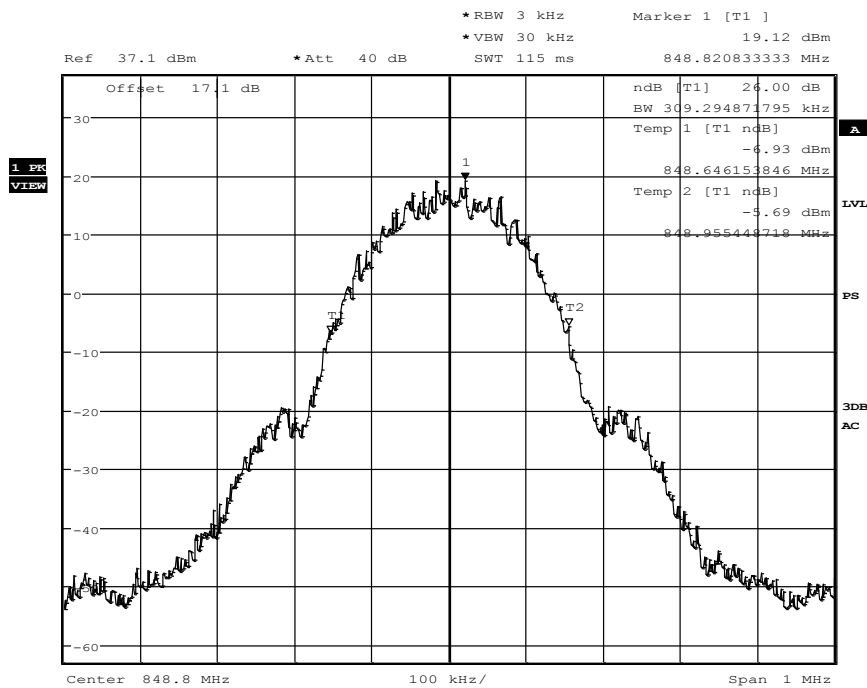
Date: 6.DEC.2012 09:20:23

34.05



Date: 6.DEC.2012 09:22:08

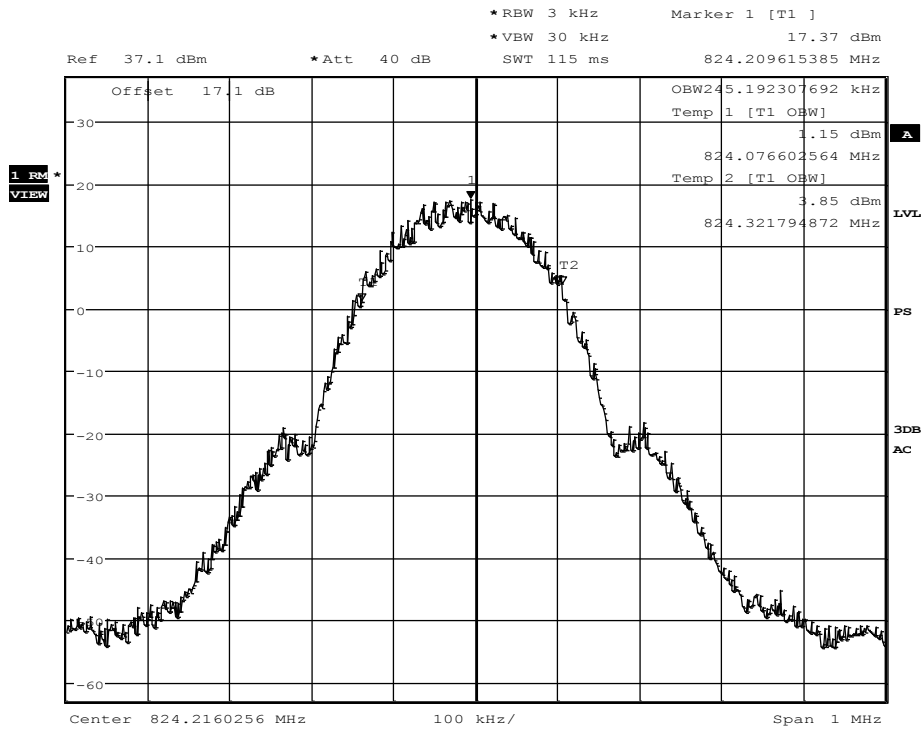
34.06



Date: 6.DEC.2012 09:42:36

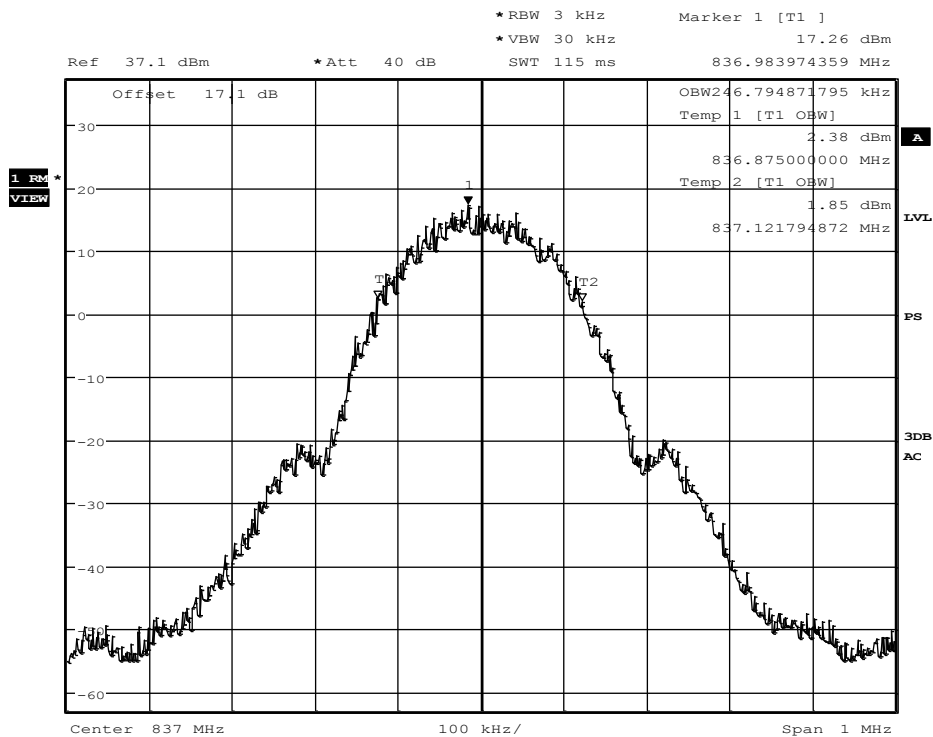
Occupied bandwidth – G850 band

**GPRS – mode**  
**35.01**



Date: 6.DEC.2012 09:38:28

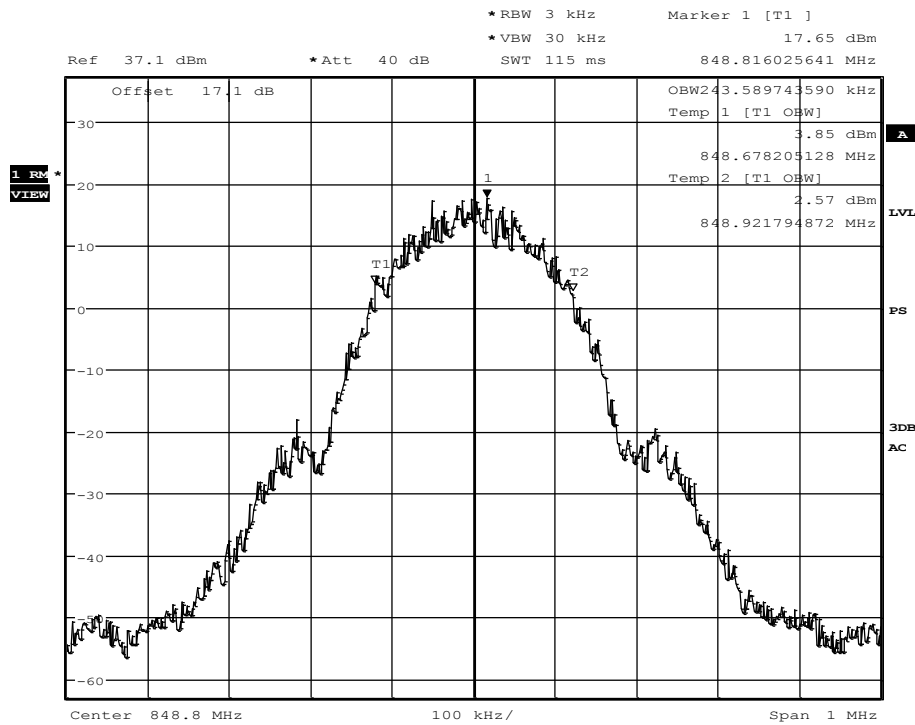
**35.02**



Date: 6.DEC.2012 09:40:10

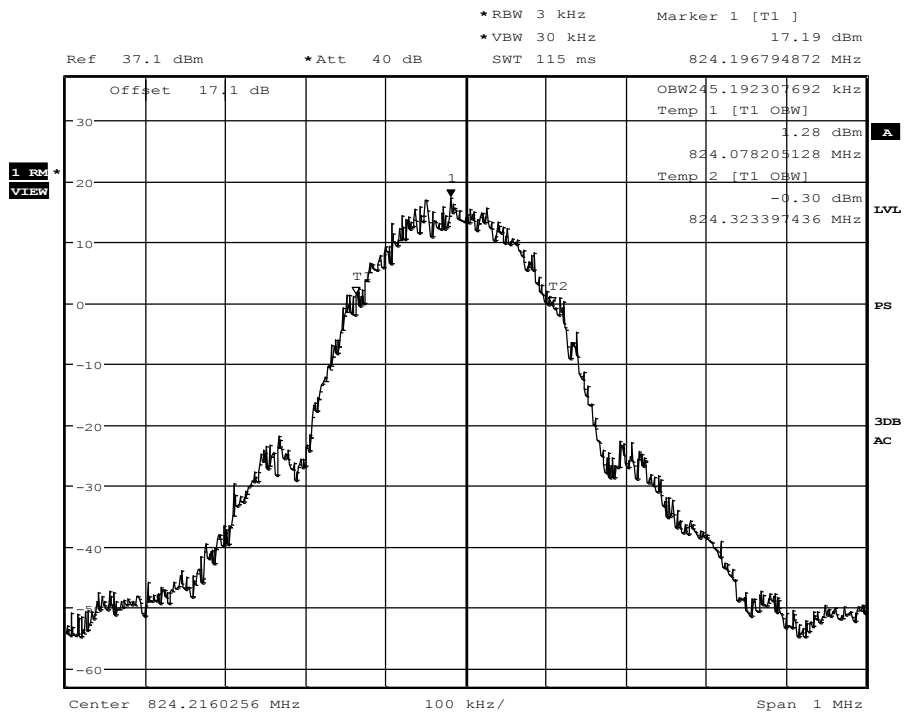


35.03



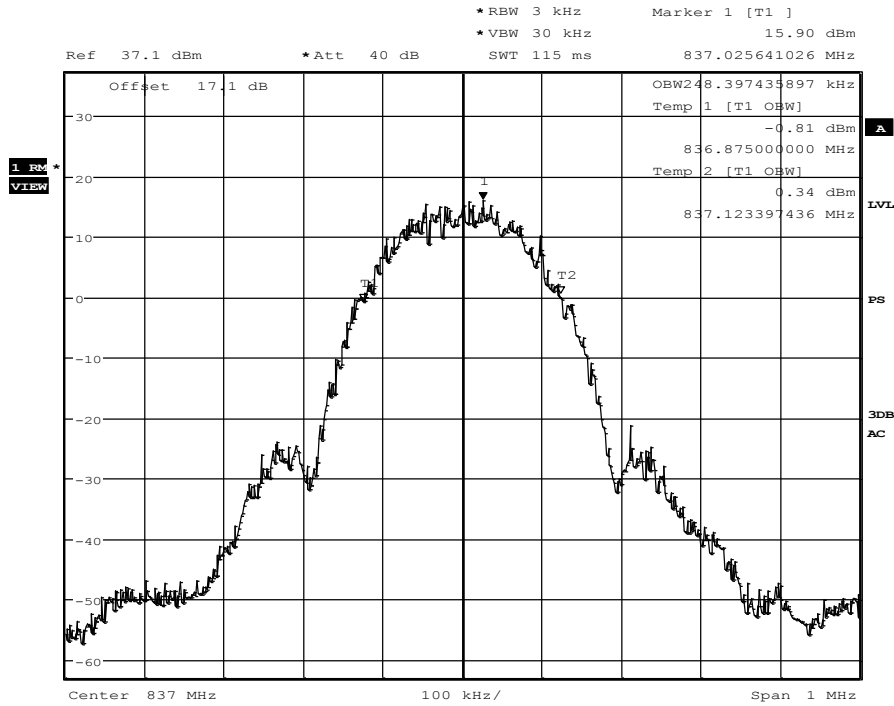
Date: 6.DEC.2012 09:44:12

EDGE mode  
 35.04



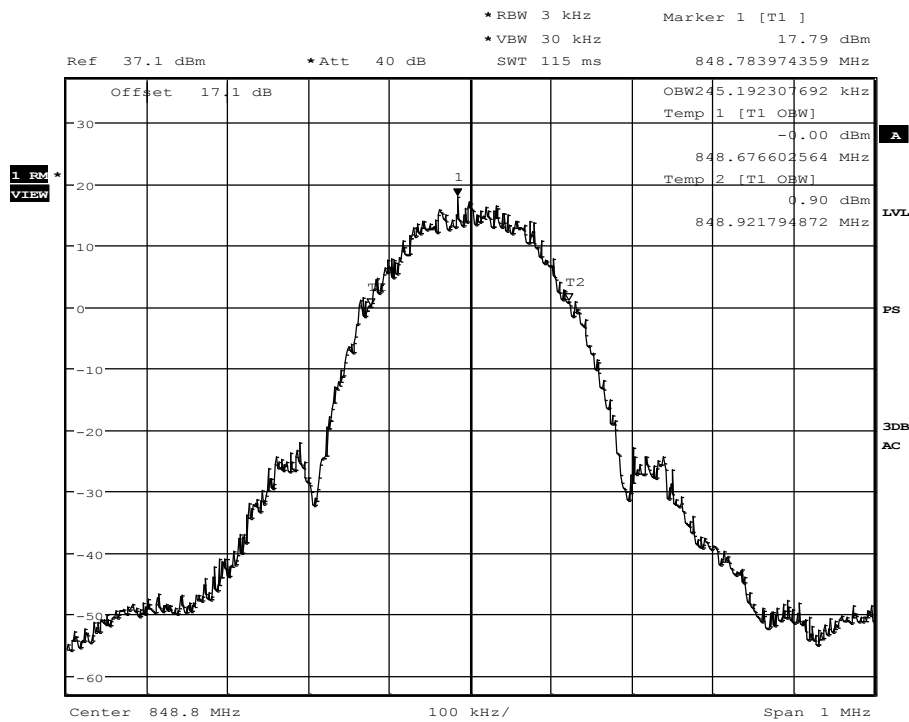
Date: 6.DEC.2012 08:42:24

35.05



Date: 6.DEC.2012 09:23:35

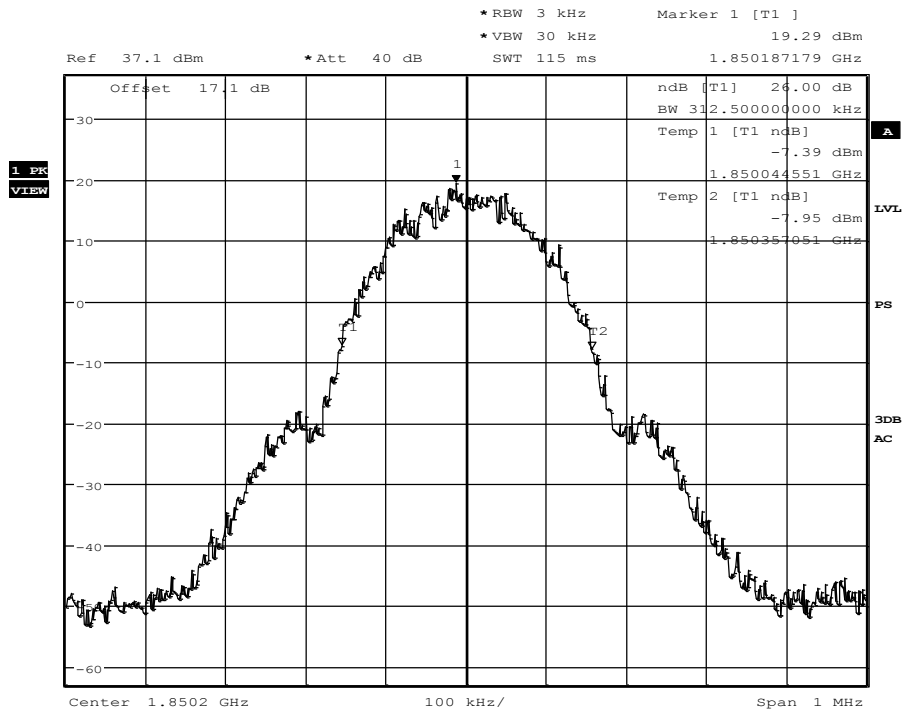
35.06



Date: 6.DEC.2012 09:25:37

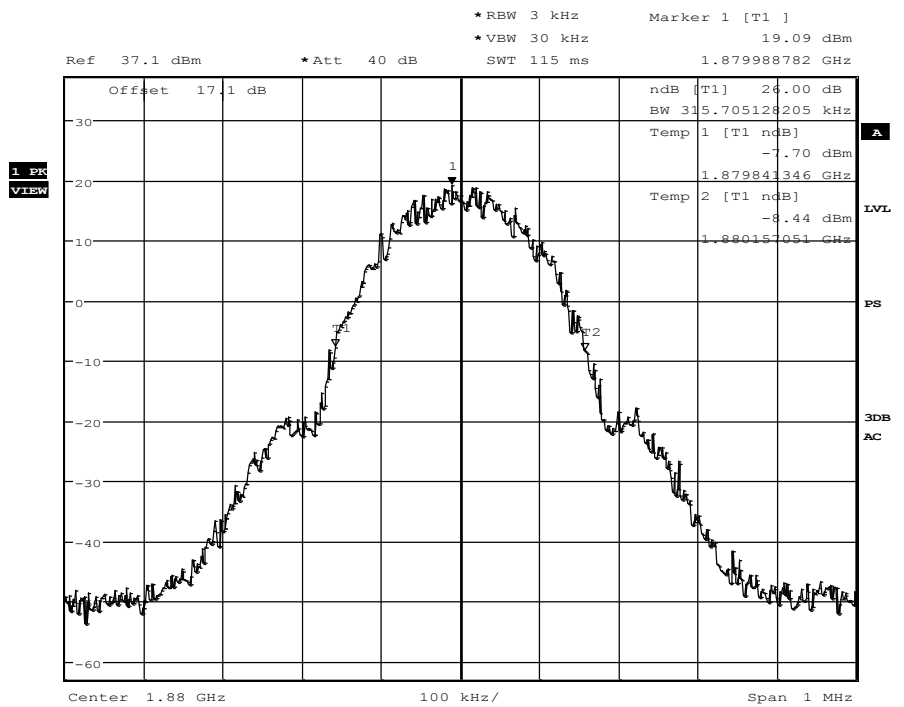
Emission bandwidth – PCS 1900 band

**GPRS mode**  
**34.07**



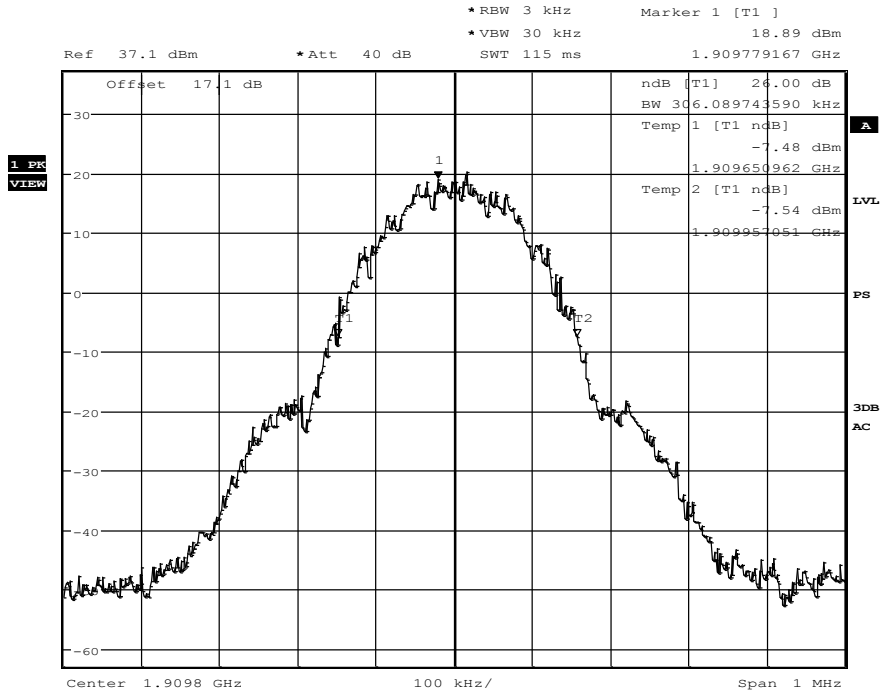
Date: 6.DEC.2012 15:28:05

**34.08**



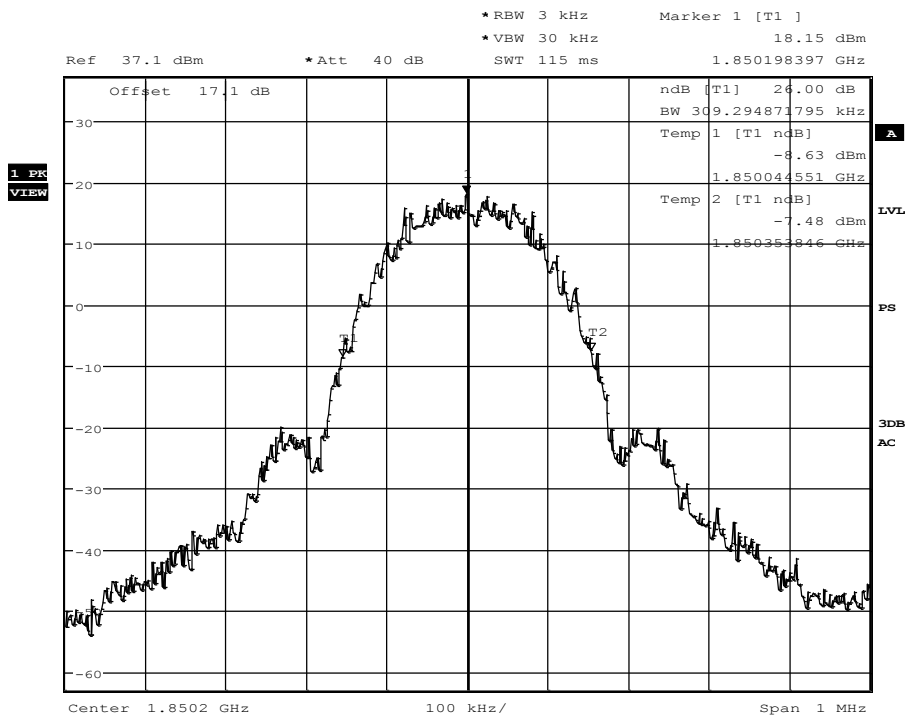
Date: 6.DEC.2012 15:31:36

34.09



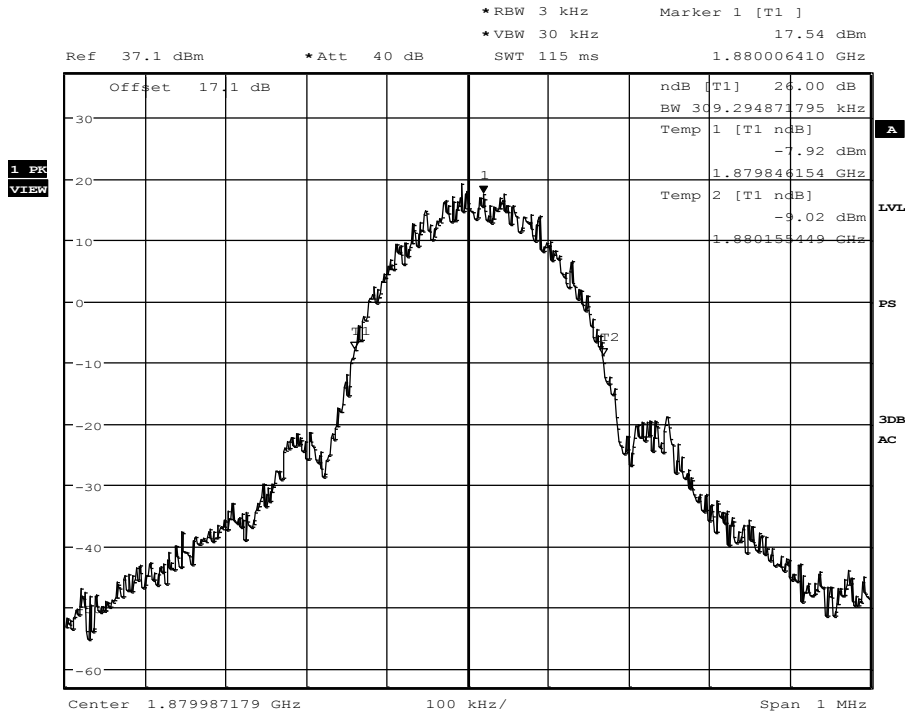
Date: 6.DEC.2012 15:26:44

EDGE mode  
 34.10



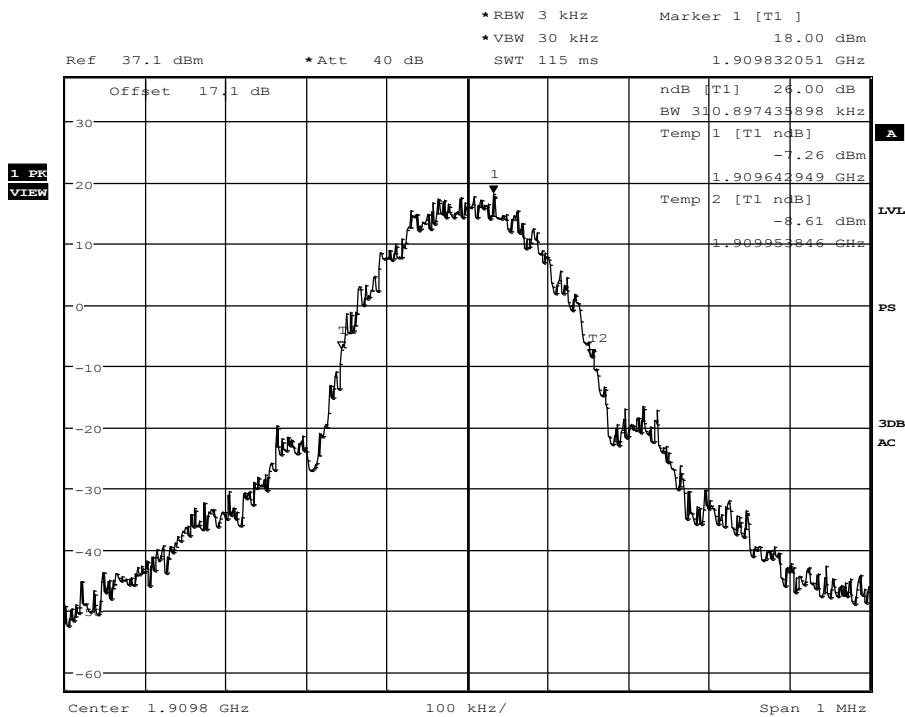
Date: 6.DEC.2012 15:33:39

34.11



Date: 6.DEC.2012 15:37:27

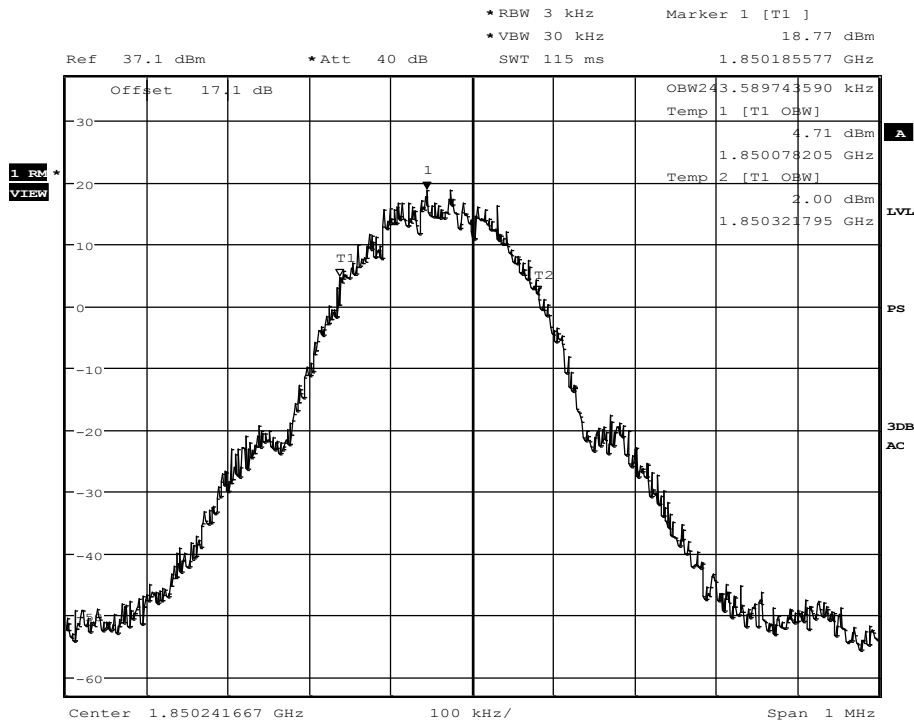
34.12



Date: 6.DEC.2012 15:38:36

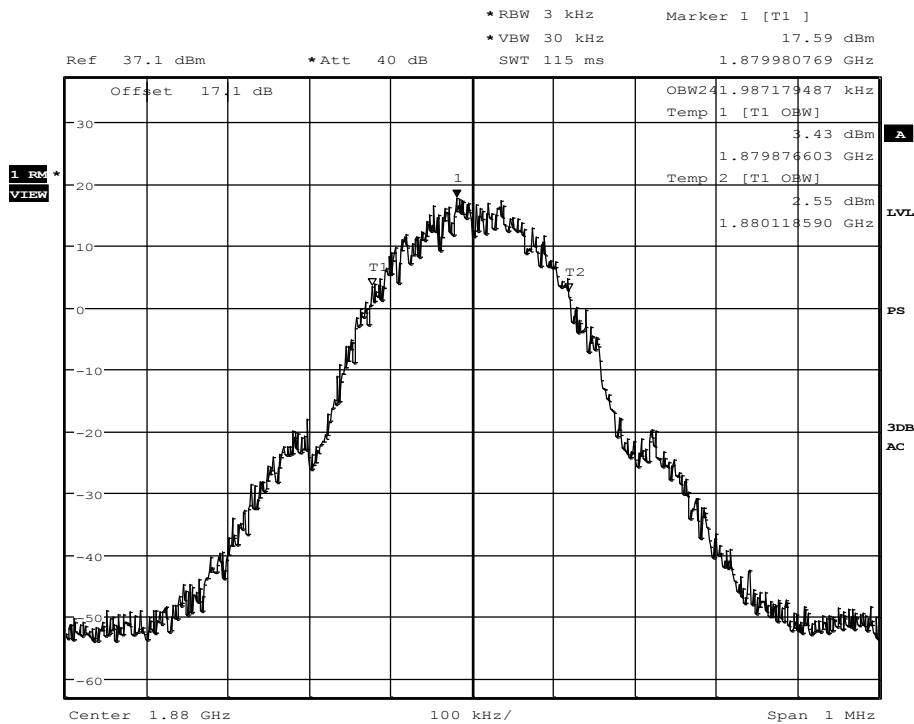
Occupied bandwidth – PCS 1900 band

**GPRS mode**  
**35.07**



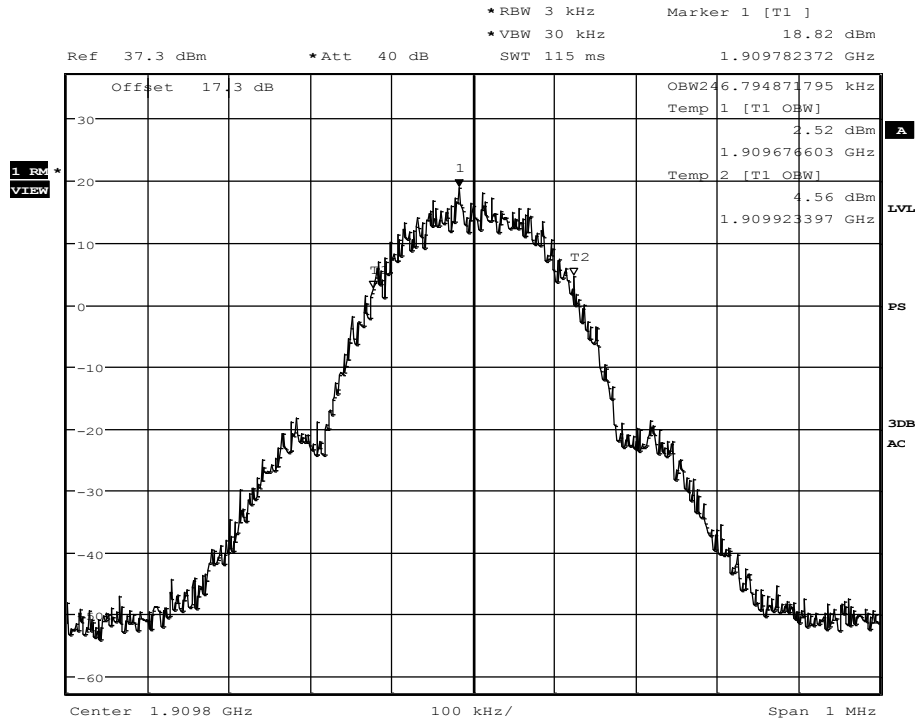
Date: 6.DEC.2012 15:29:25

**35.08**



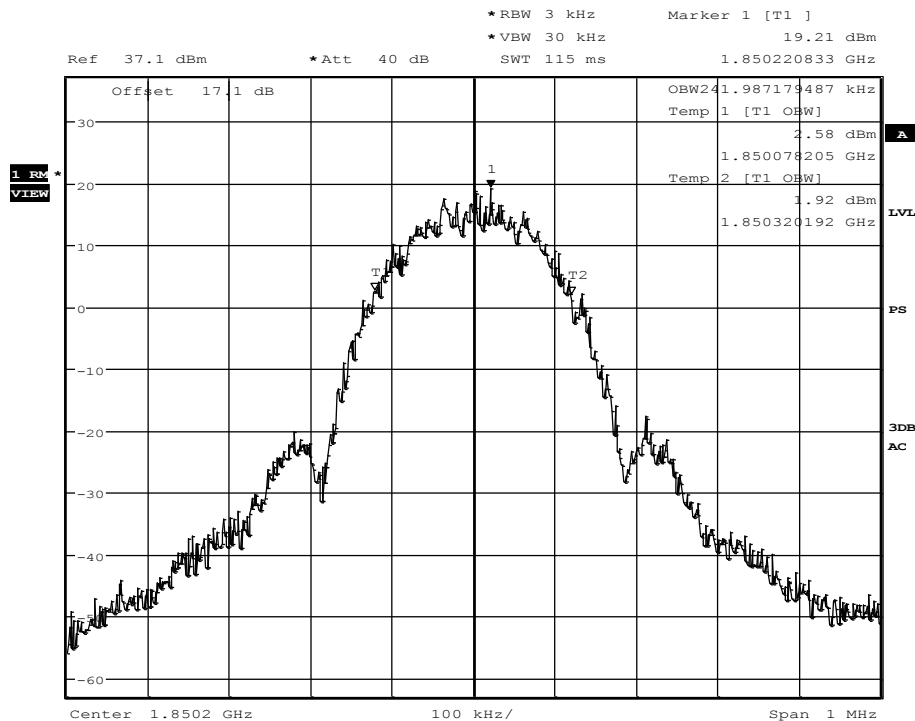
Date: 6.DEC.2012 15:30:38

35.09



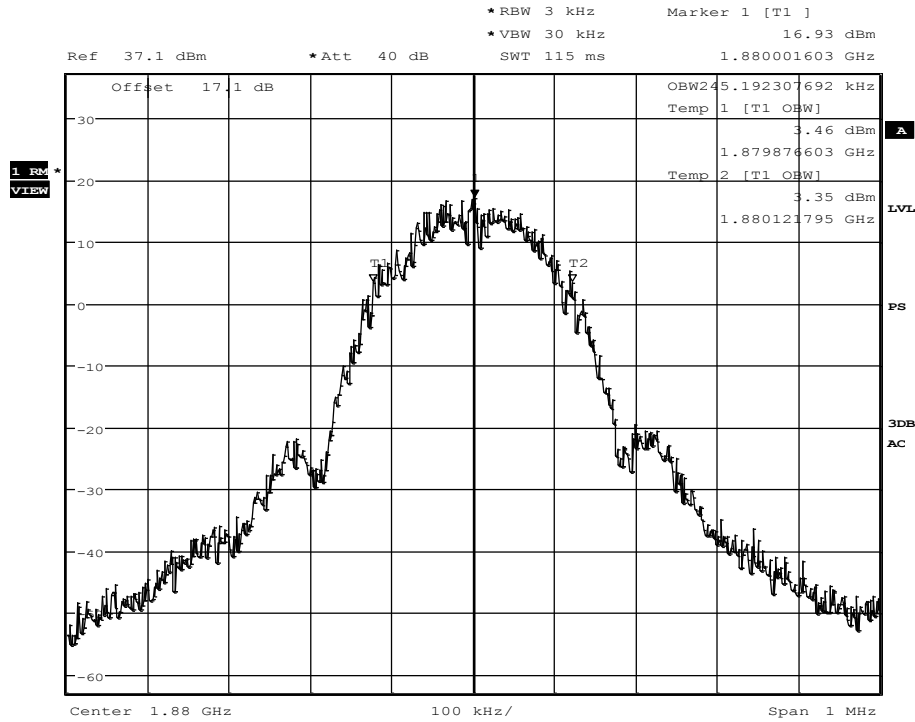
Date: 6.DEC.2012 15:25:22

**EDGE mode**  
**35.10**



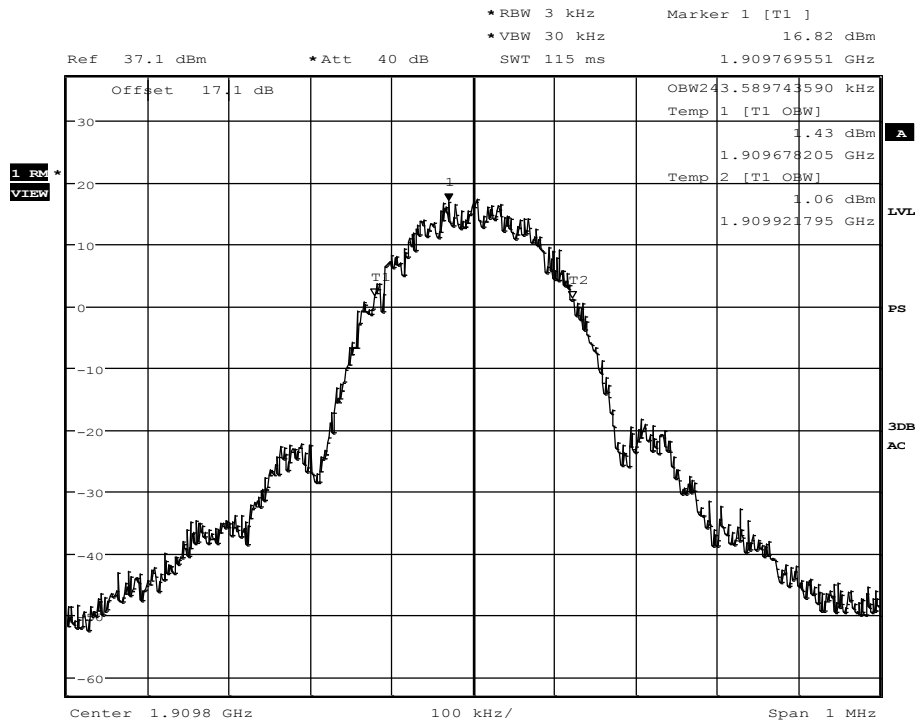
Date: 6.DEC.2012 15:35:02

35.11



Date: 6.DEC.2012 15:36:05

35.12



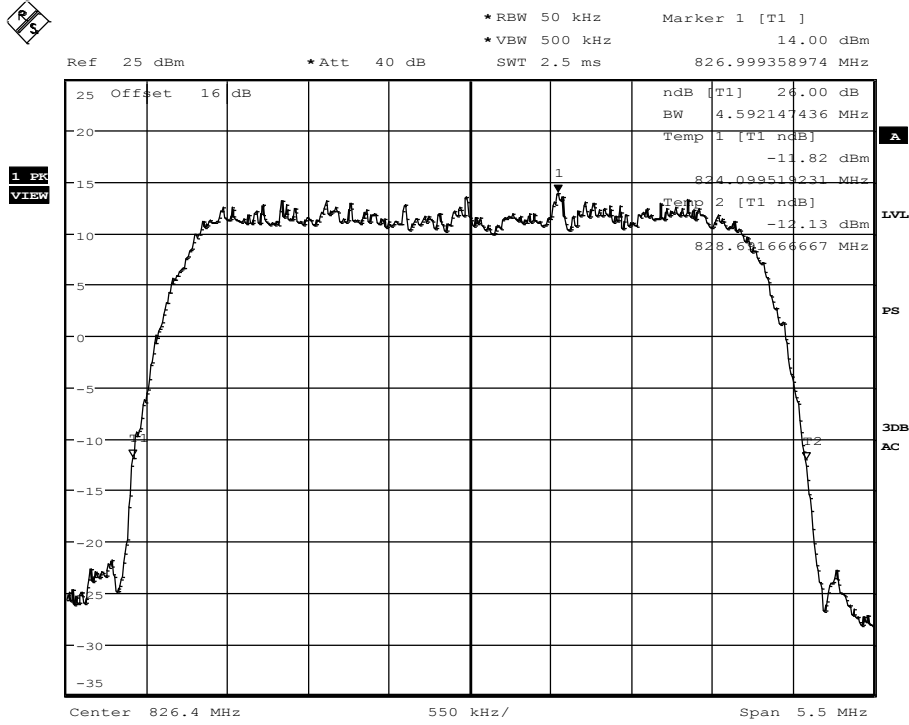
Date: 6.DEC.2012 15:39:46



Emission bandwidth - FDD V band

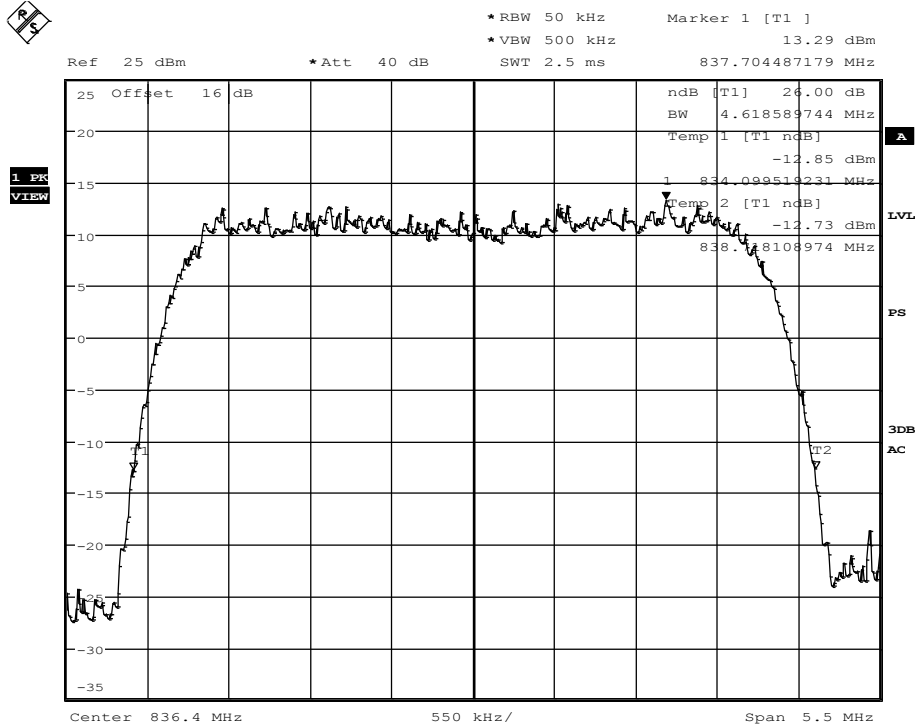
RMC mode

34.13



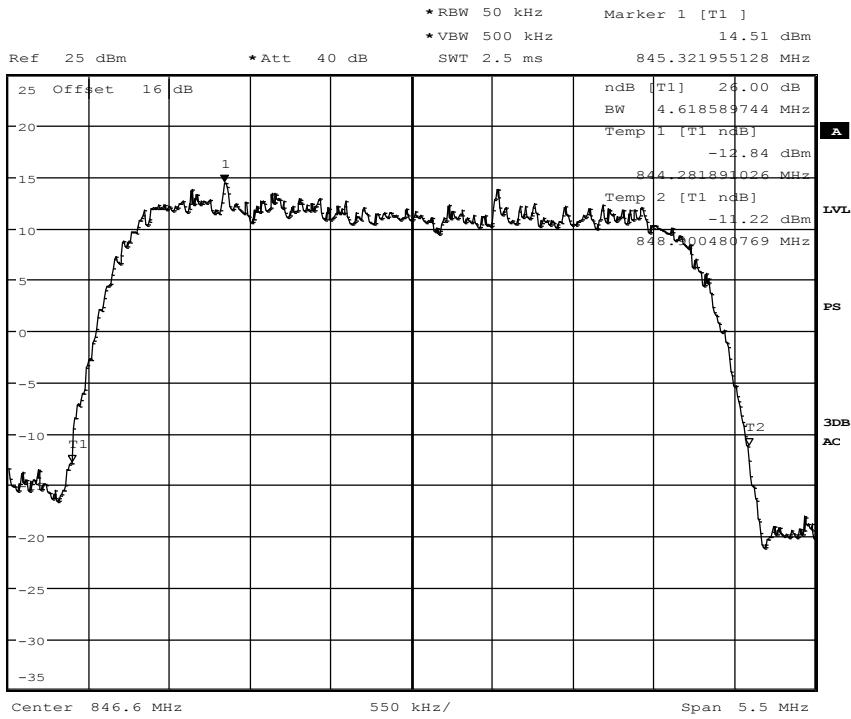
Date: 11.DEC.2012 09:01:19

34.14



Date: 11.DEC.2012 09:06:47

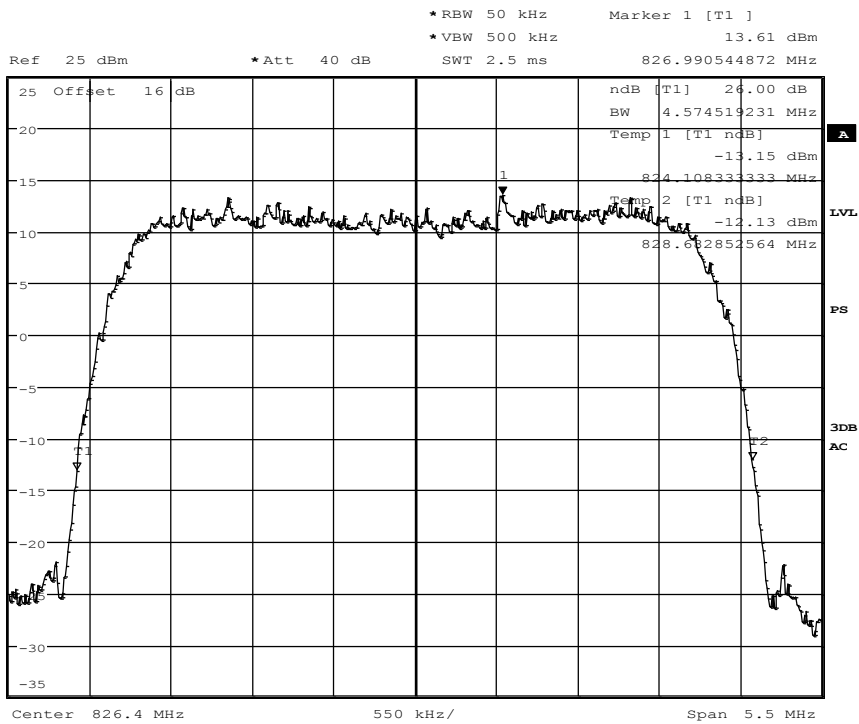
34.15



Date: 11.DEC.2012 09:08:32

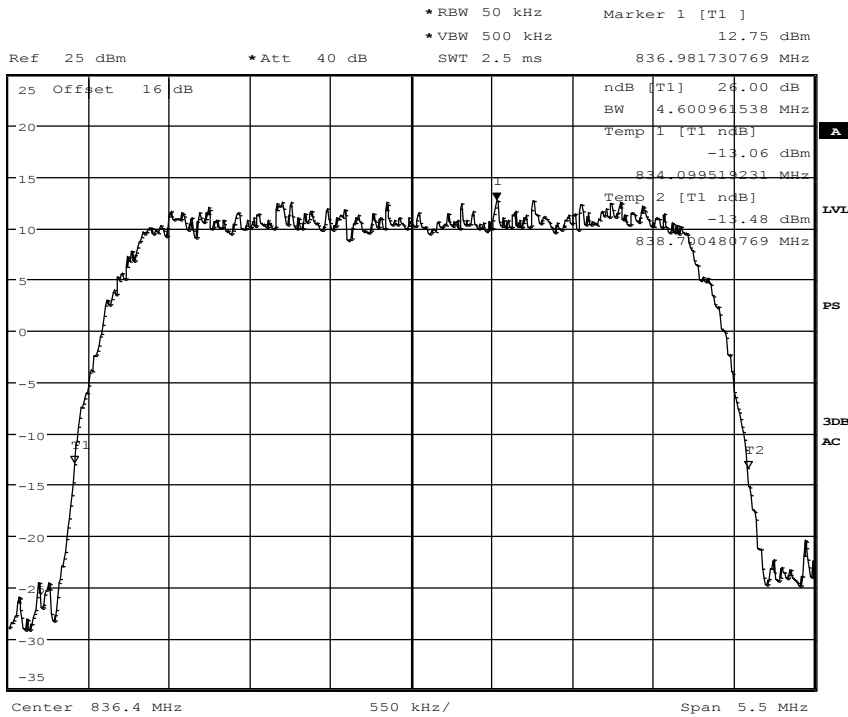
HSUPA mode

34.16



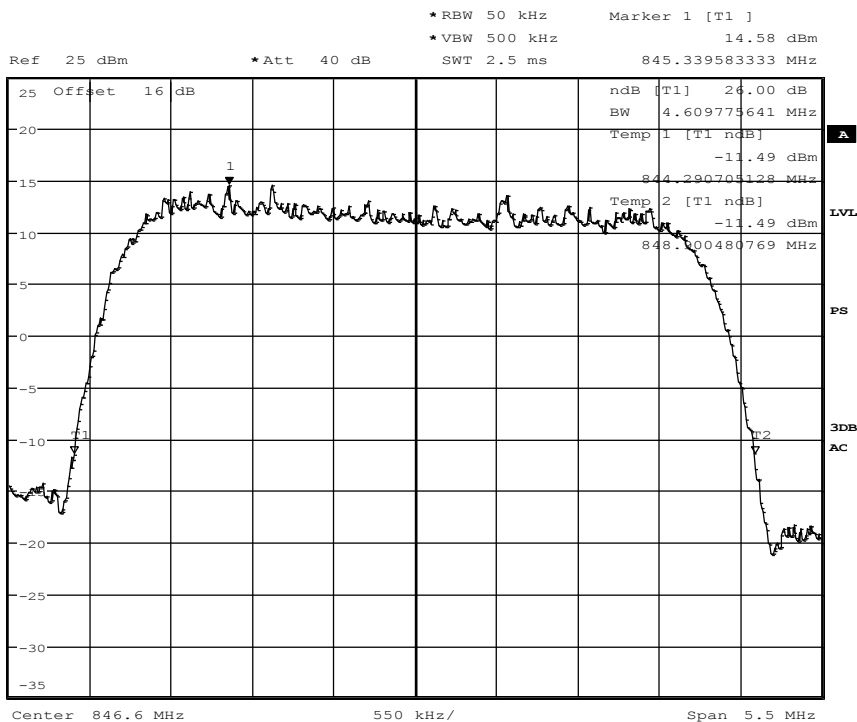
Date: 11.DEC.2012 08:56:30

34.17



Date: 11.DEC.2012 08:54:53

34.18

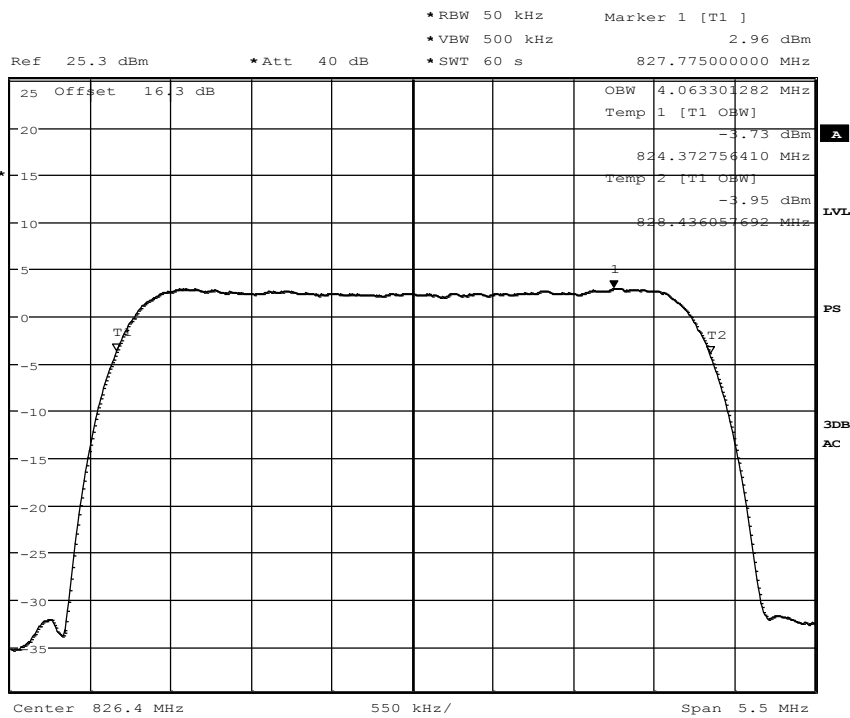


Date: 11.DEC.2012 08:53:03

Occupied bandwidth – FDD V band

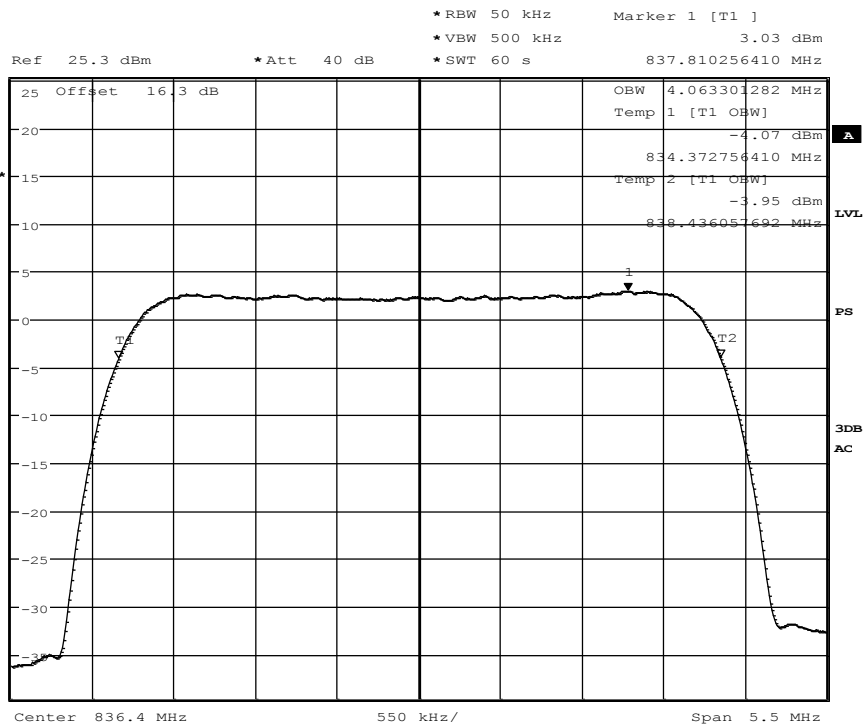
RMC mode

35.13



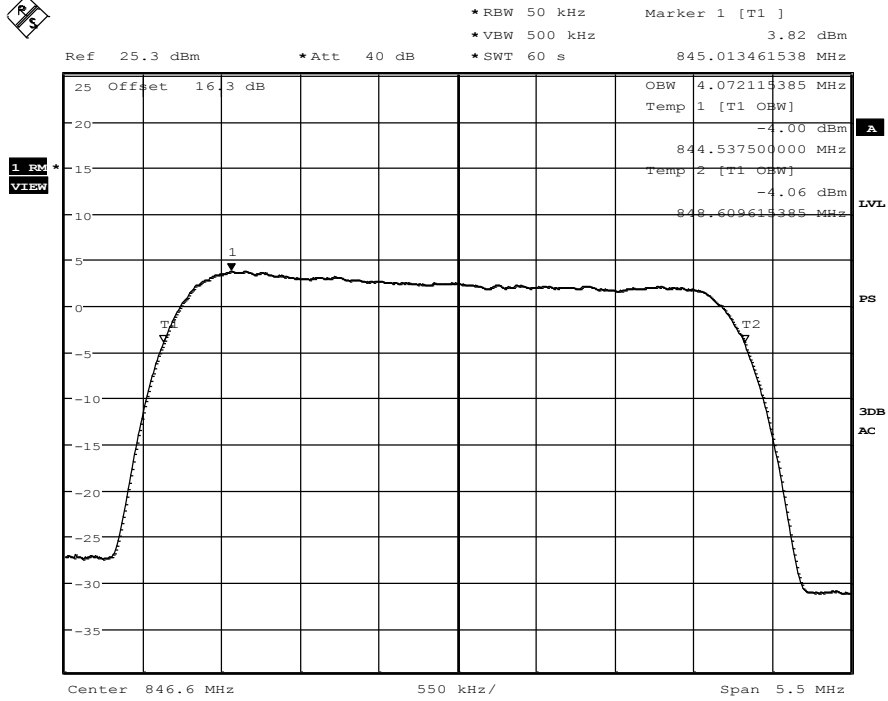
Date: 11.DEC.2012 09:17:02

35.14



Date: 11.DEC.2012 09:15:20

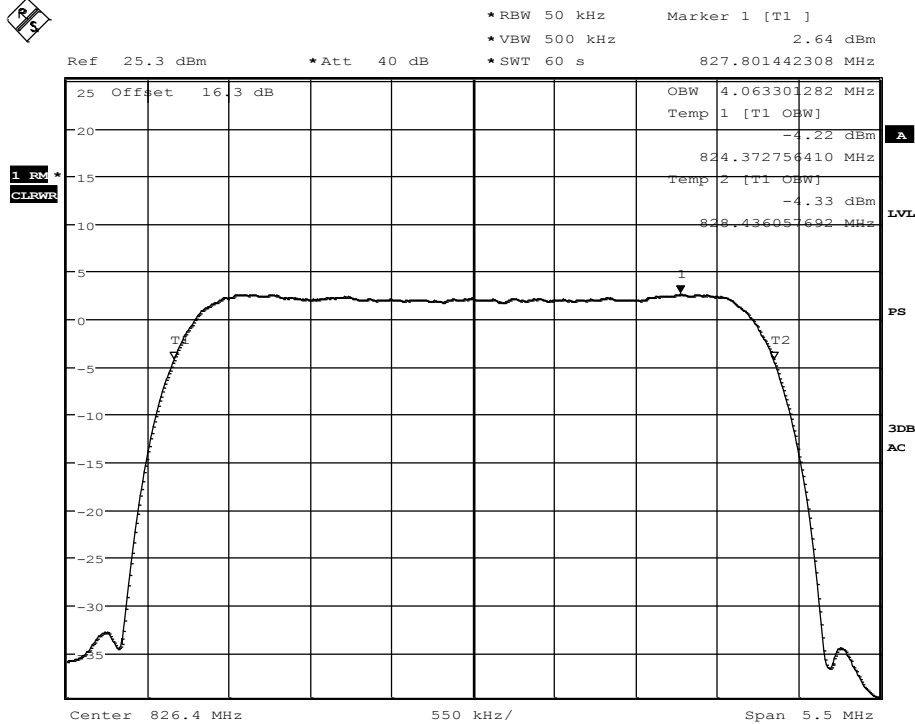
35.15



Date: 11.DEC.2012 09:11:27

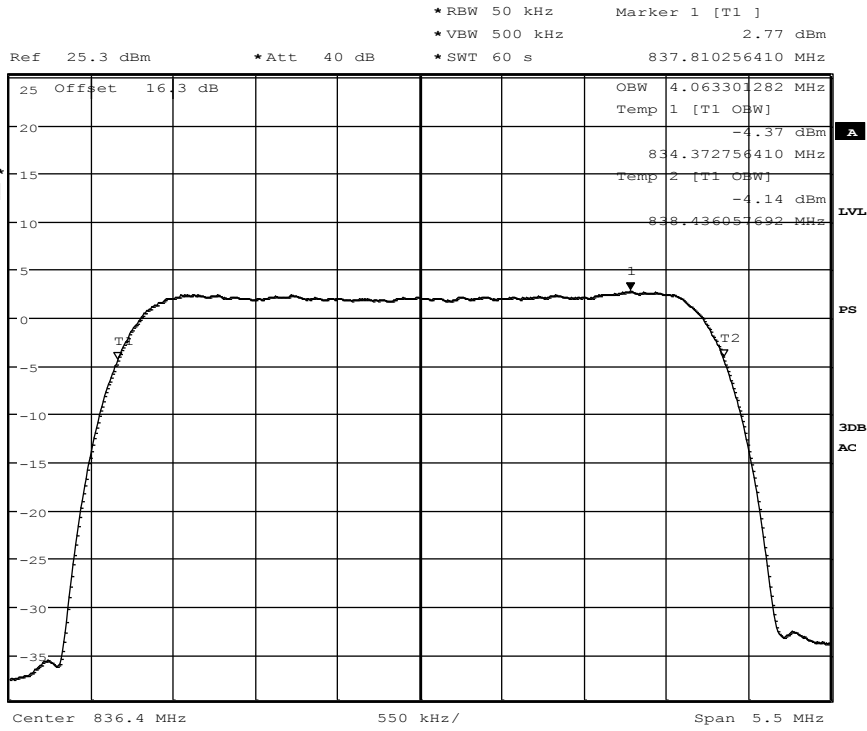
HSUPA mode

35.16



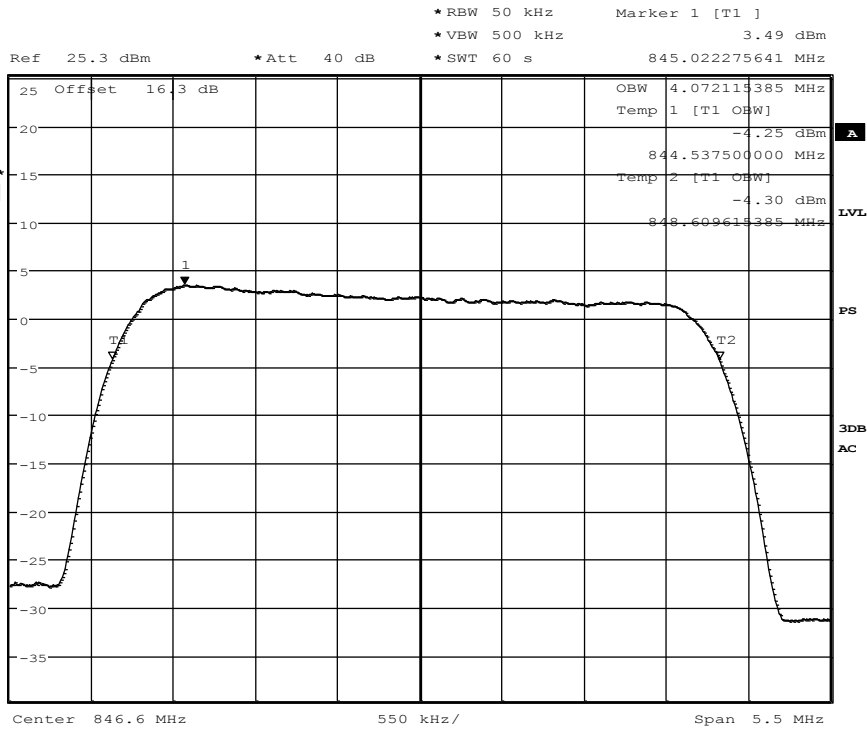
Date: 11.DEC.2012 08:41:22

35.17



Date: 11.DEC.2012 08:46:25

35.18

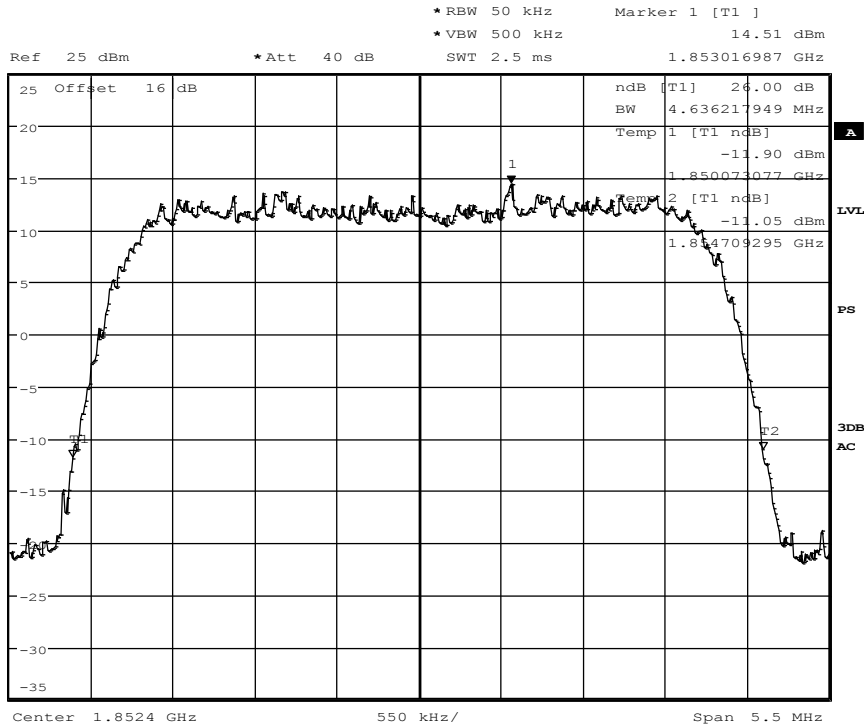


Date: 11.DEC.2012 08:50:14

Emission bandwidth – FDD II band

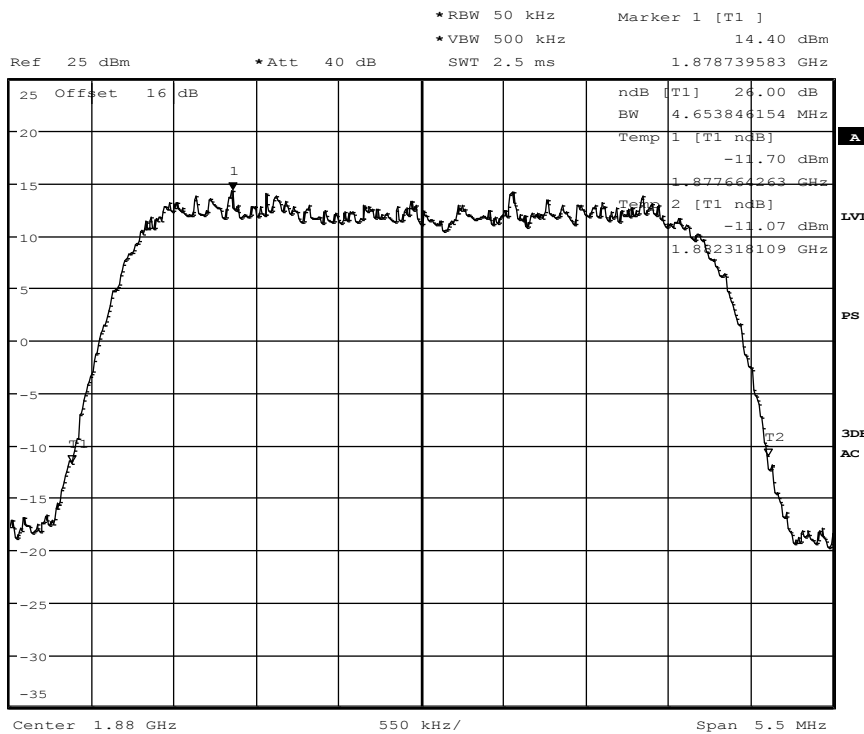
RMC mode

34.19



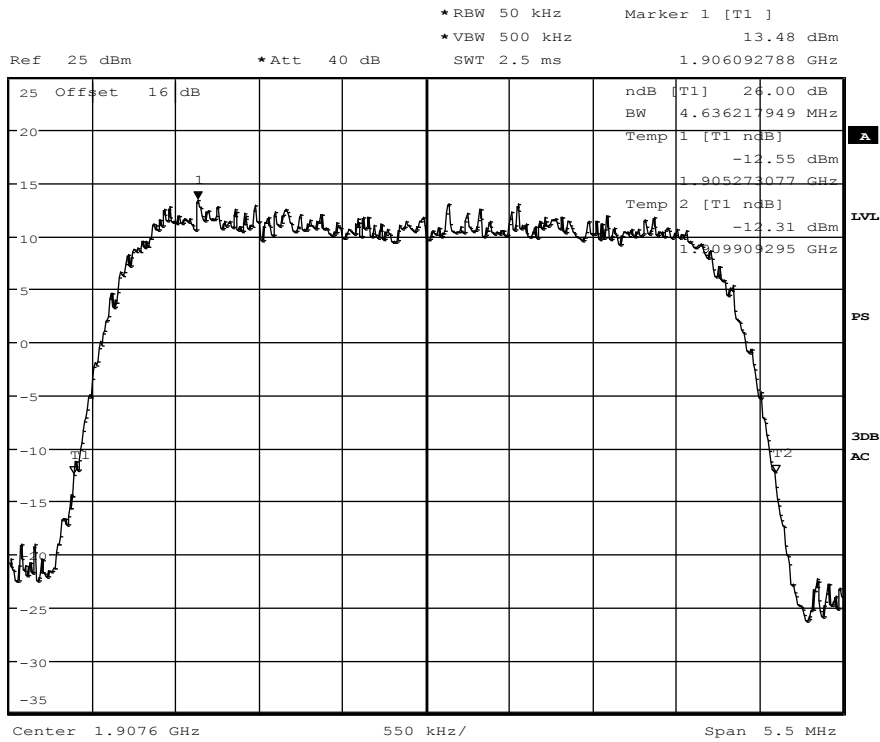
Date: 11.DEC.2012 09:52:12

34.20



Date: 11.DEC.2012 09:53:55

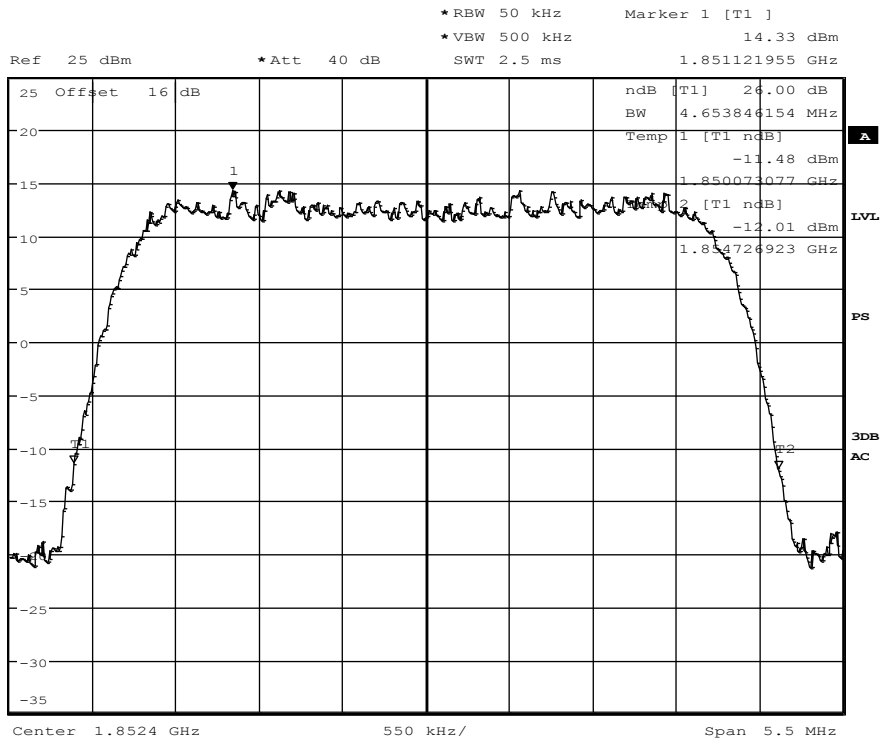
34.21



Date: 11.DEC.2012 09:55:22

HSUPA mode

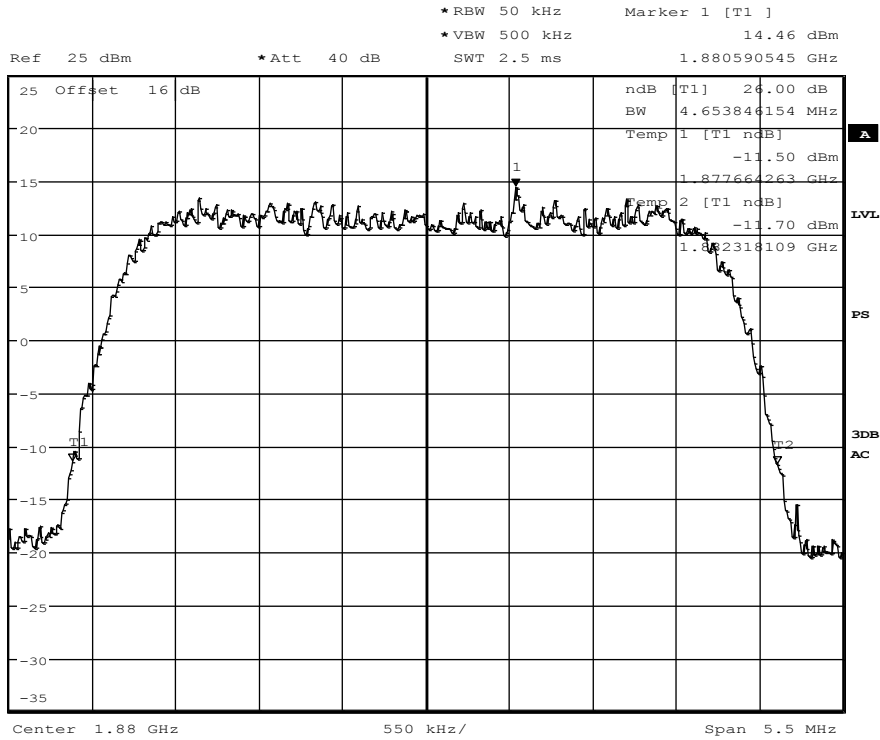
34.22



Date: 11.DEC.2012 09:49:33

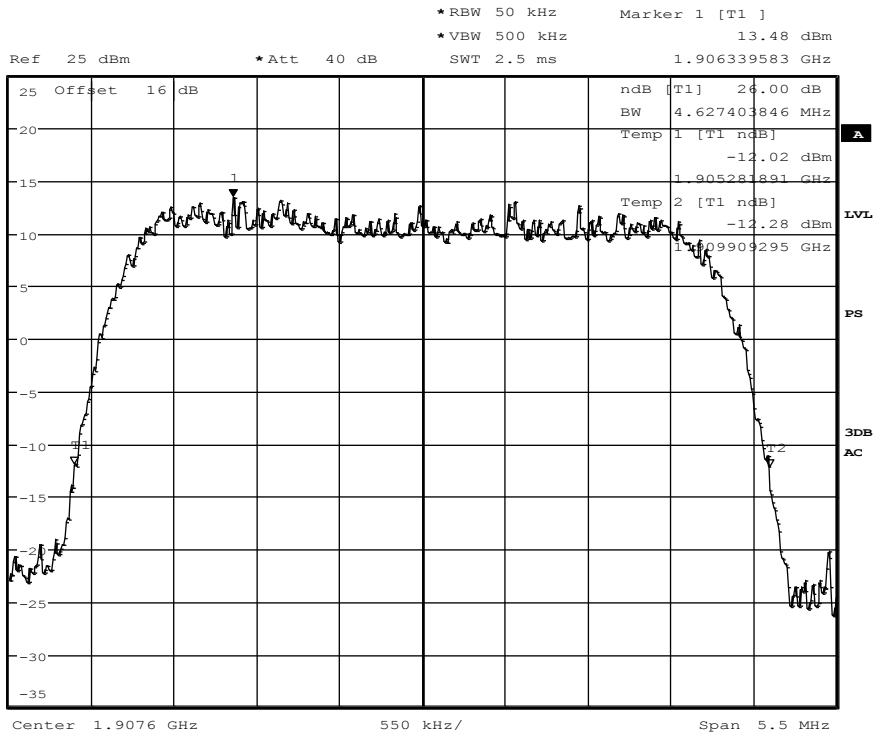


34.23



Date: 11.DEC.2012 09:44:41

34.24

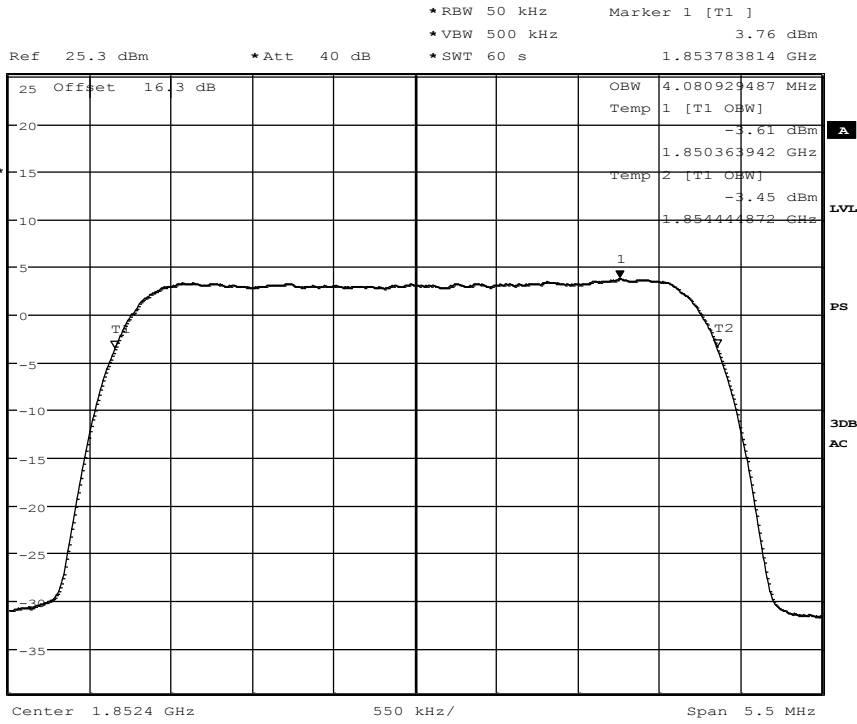


Date: 11.DEC.2012 09:43:21

Occupied bandwidth – FDD II band

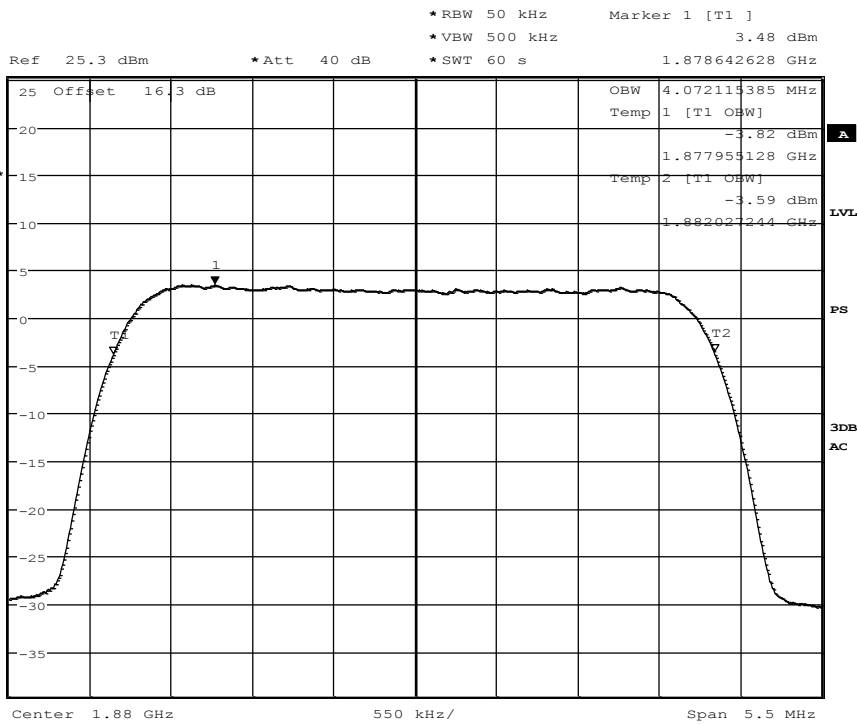
RMC mode

35.19



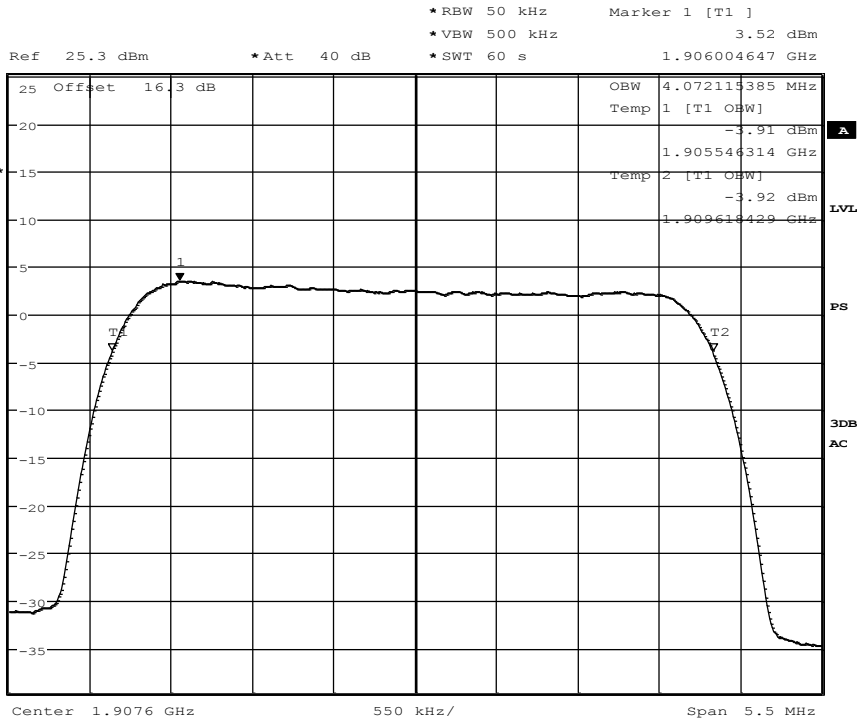
Date: 11.DEC.2012 10:03:46

35.20



Date: 11.DEC.2012 10:01:53

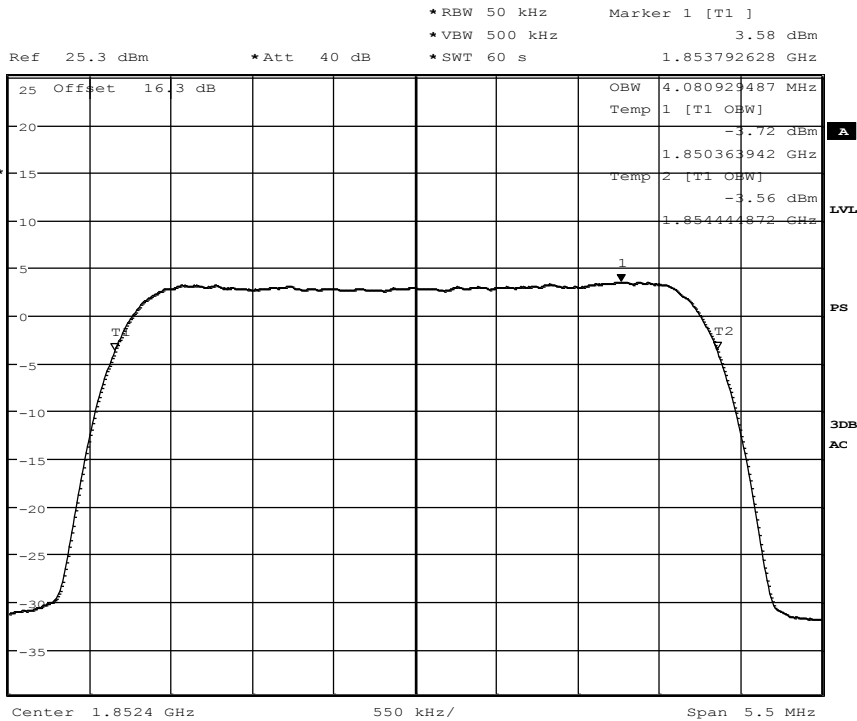
35.21



Date: 11.DEC.2012 09:59:34

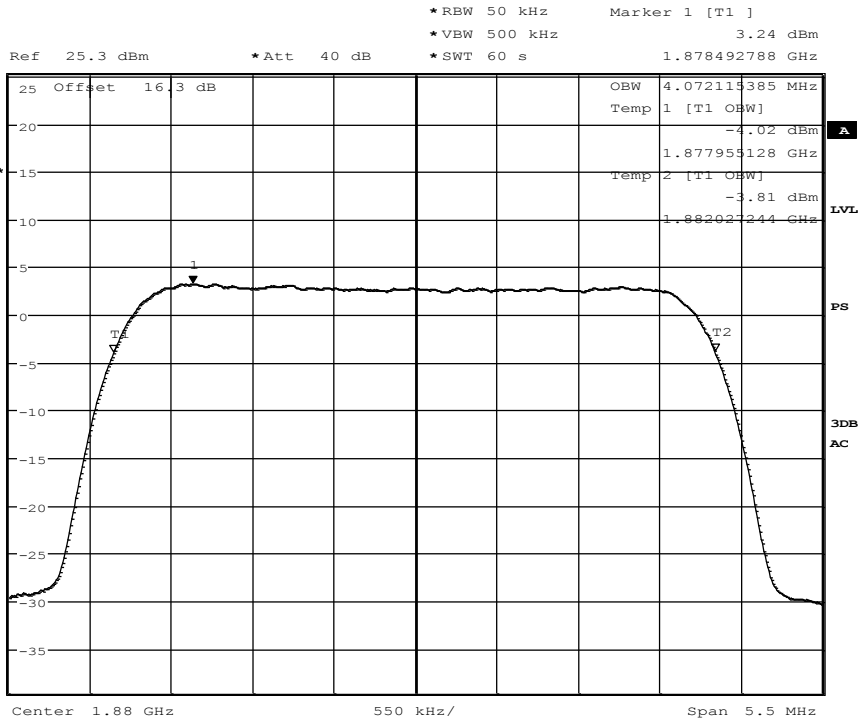
HSUPA mode

35.22



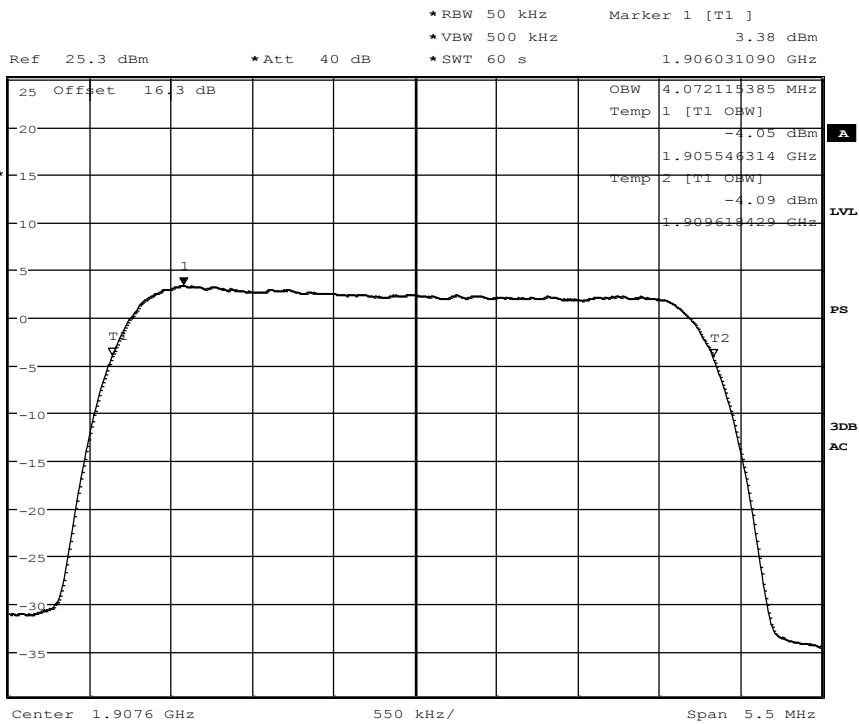
Date: 11.DEC.2012 09:33:19

35.23



Date: 11.DEC.2012 09:37:25

35.24



Date: 11.DEC.2012 09:41:44

### 1.5 Spurious emission conducted

G850 band

Diagram No.: 36.01\_RSE\_Ch128\_GPRS

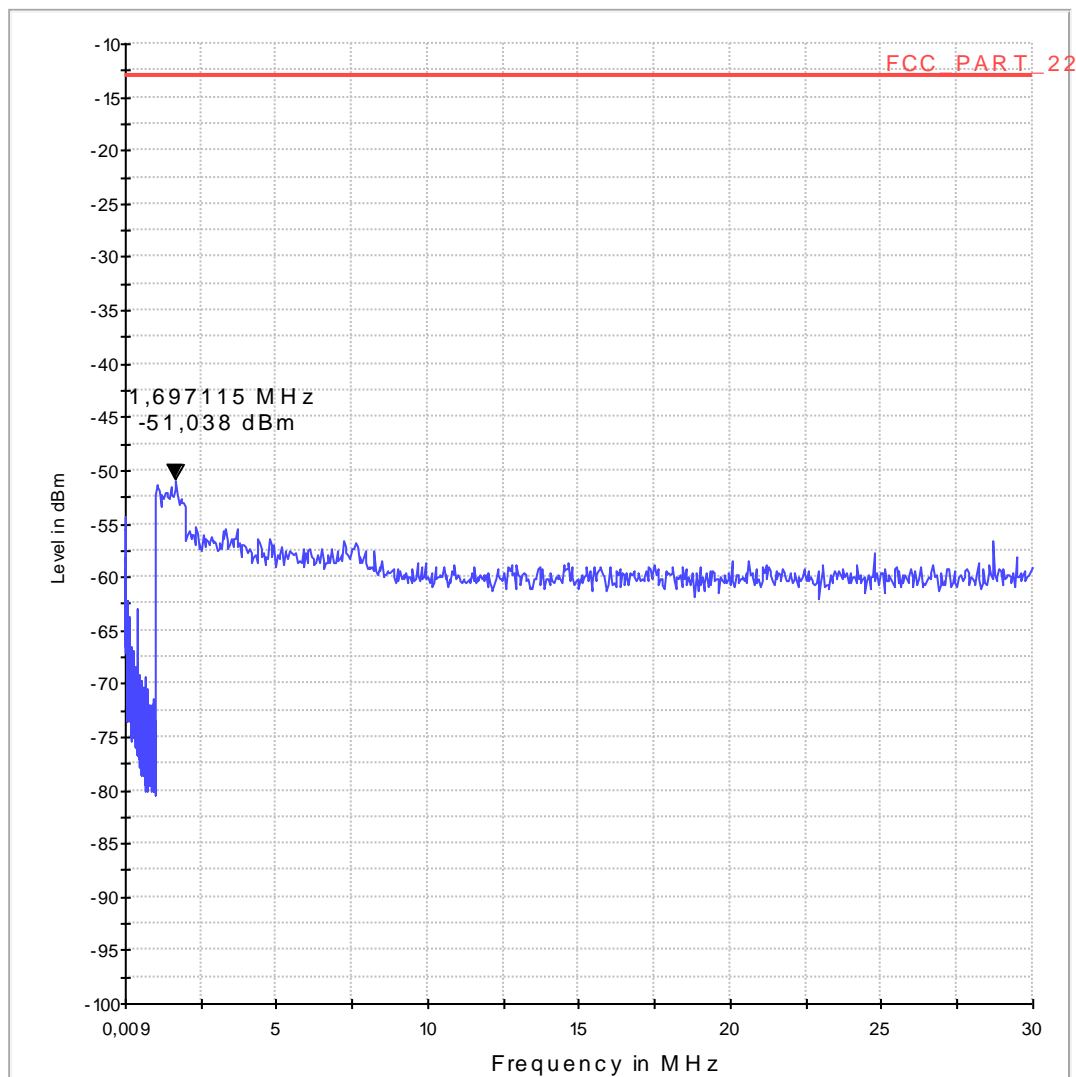
#### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 251
Operator Name:	Tas
Comment:	6-0171-12-5-2a

#### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.02\_RSE\_Ch128\_GPRS\_Sweep2

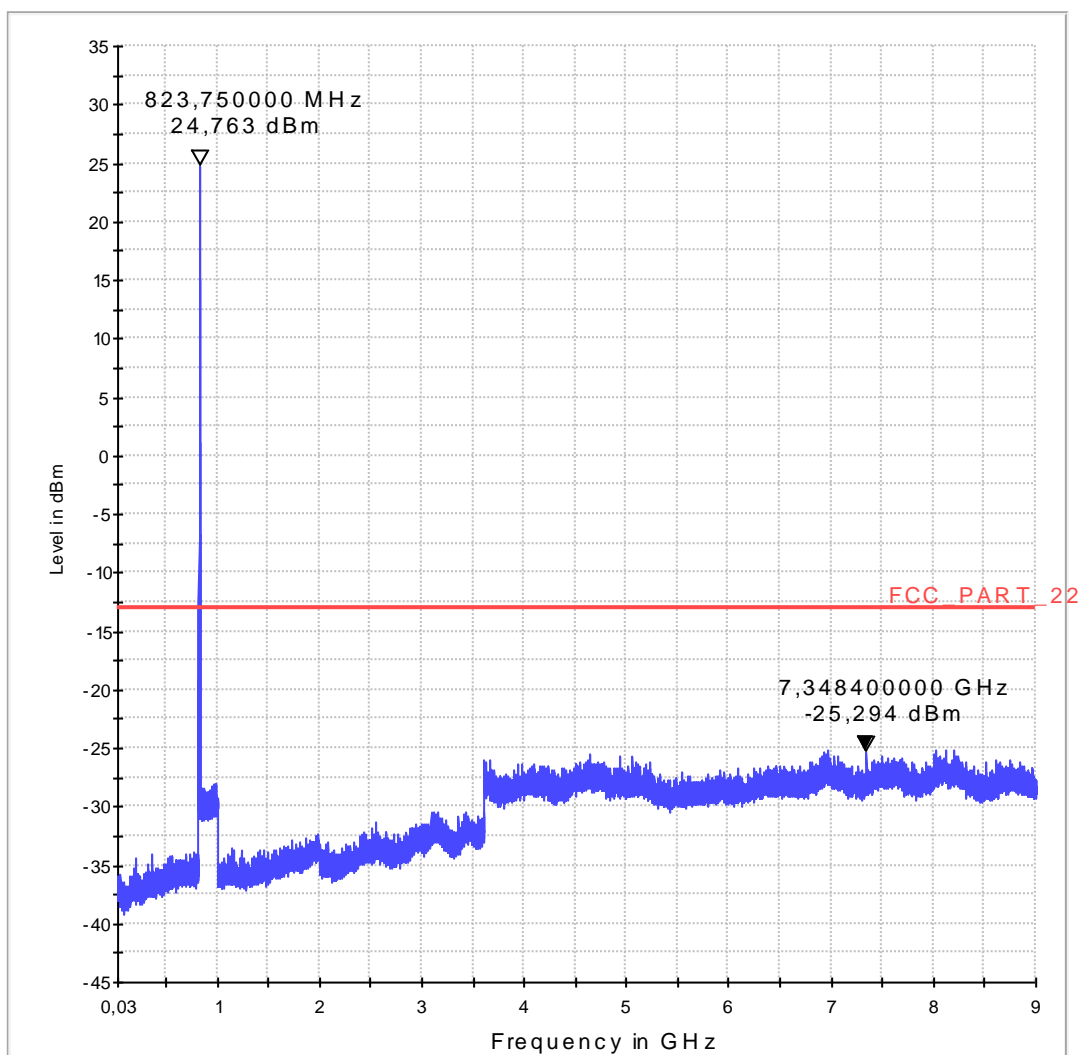
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 128
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.03\_RSE\_Ch192\_GPRS\_Sweep1

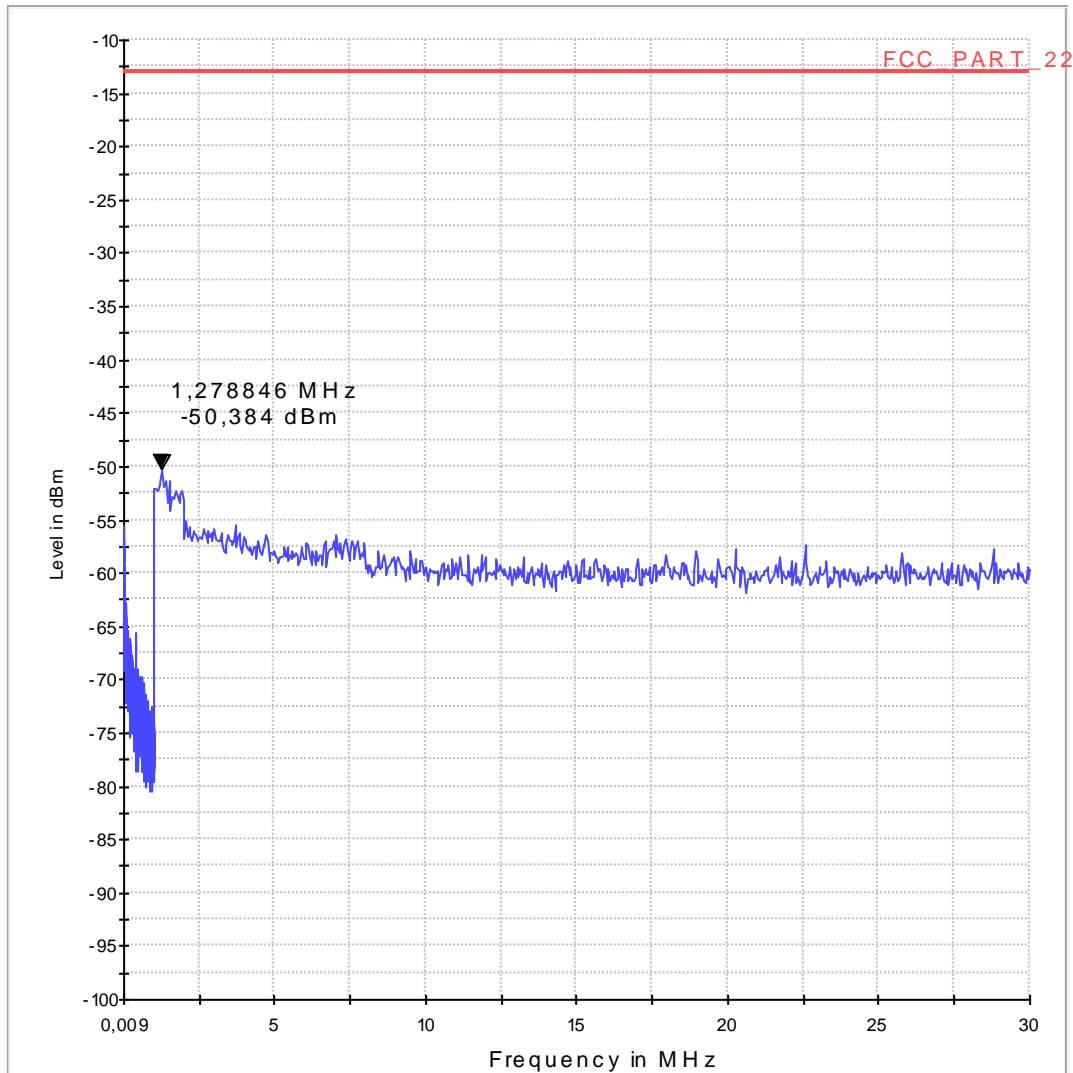
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 192
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.04\_RSE\_Ch192\_GPRS\_Sweep2

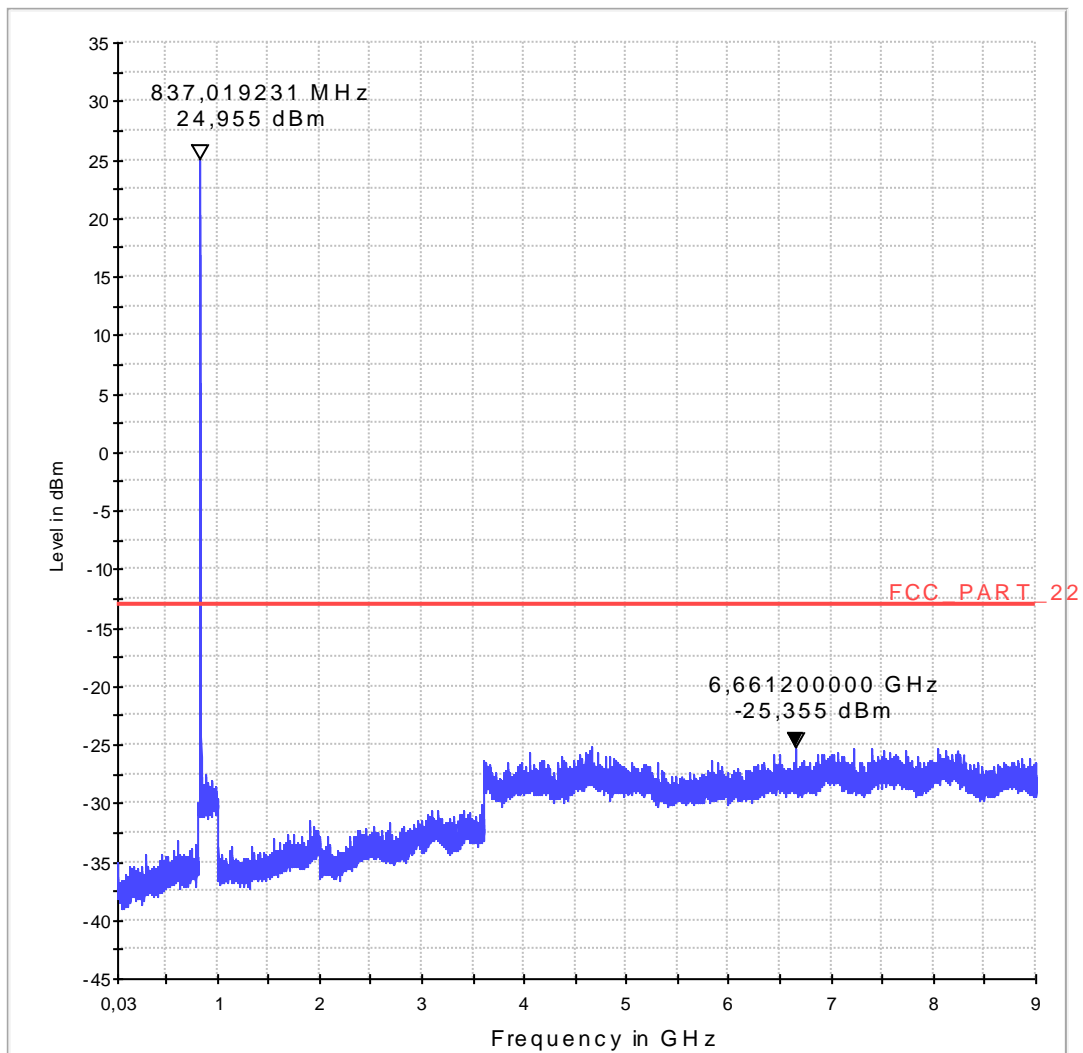
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 192
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2





## Diagram No.: 36.05\_RSE\_Ch251\_GPRS

### Common Information

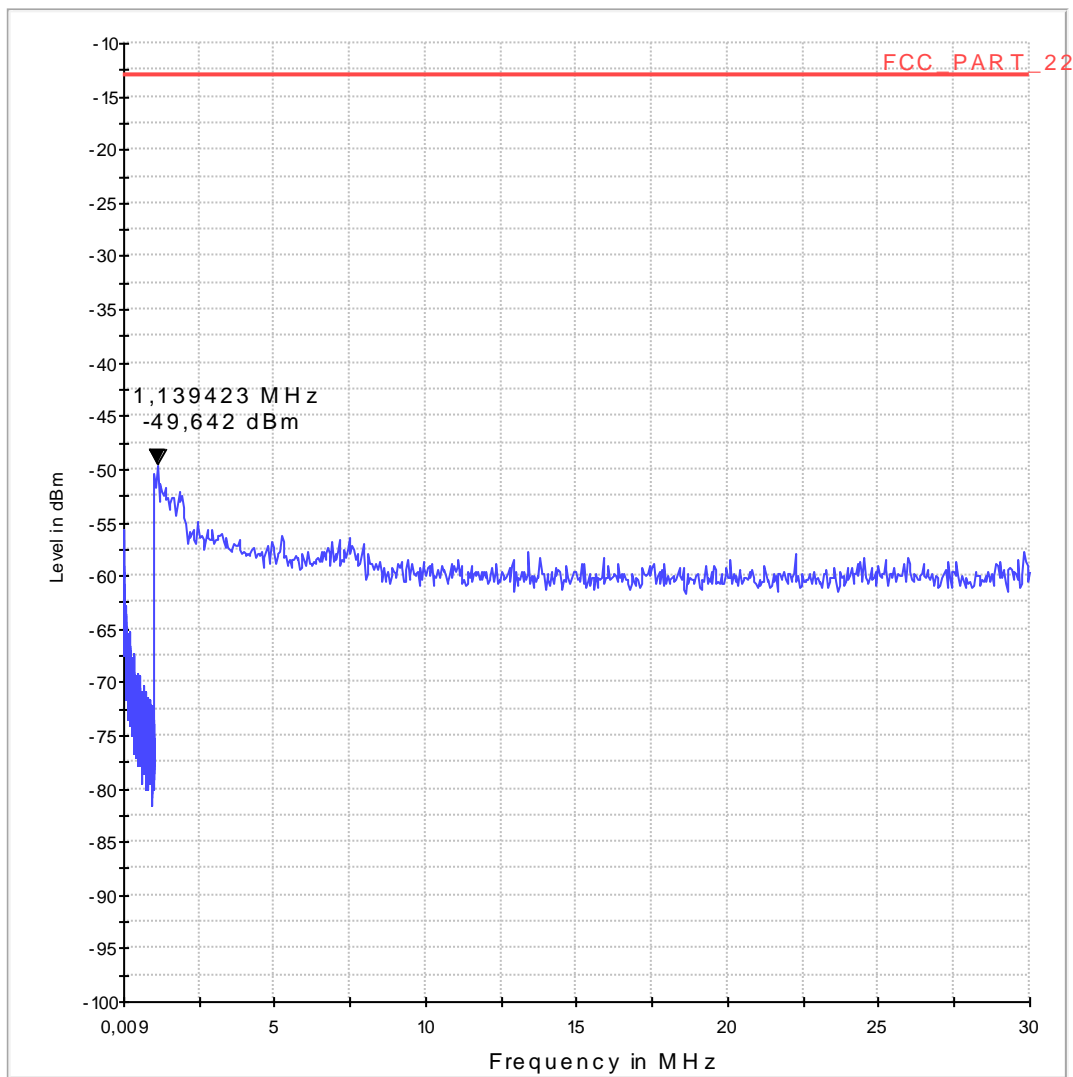
Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 251
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

### Sweep\_1

Sweep\_1



## Diagram No.: 36.06\_RSE\_C\_Ch251\_GPRS

### Common Information

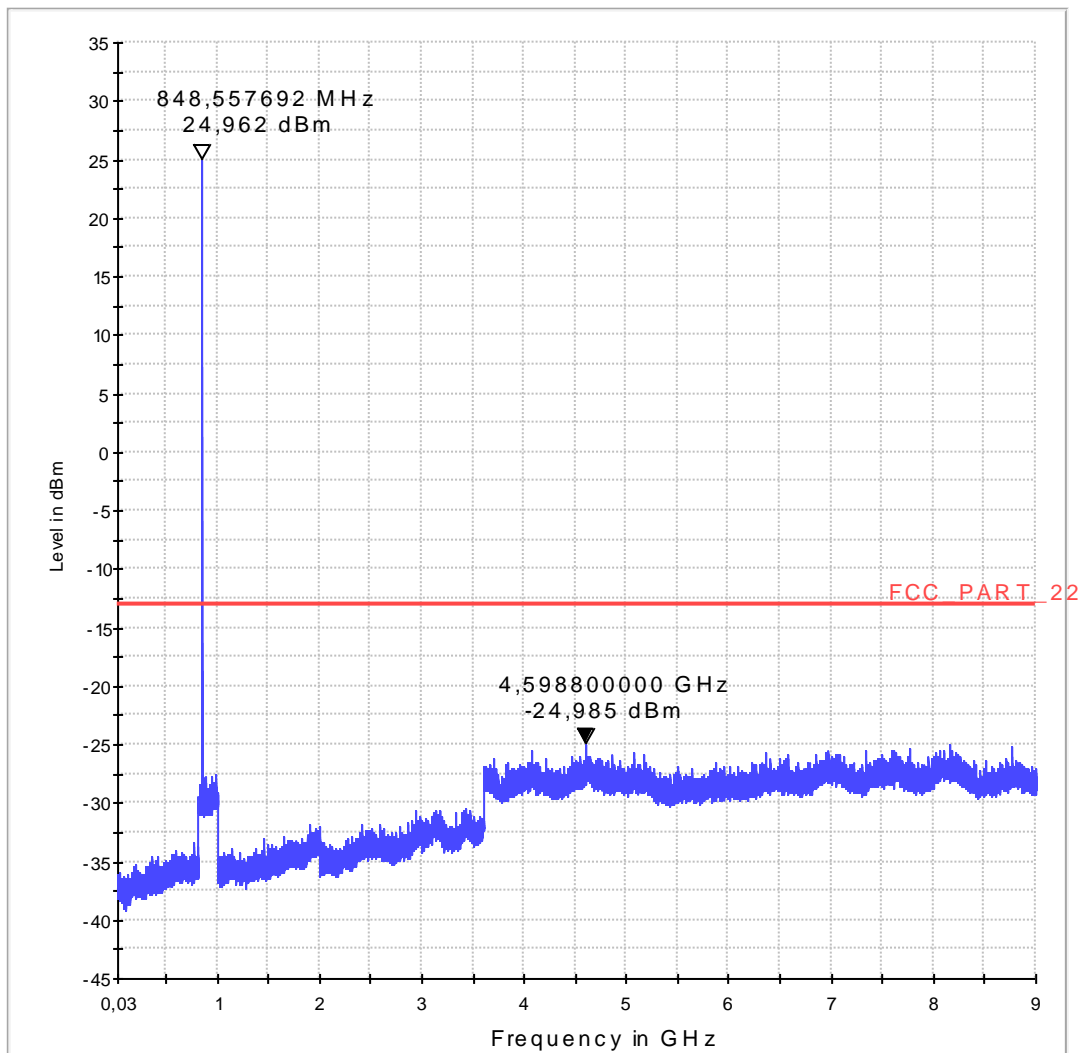
Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 251
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

### Sweep\_2

Sweep\_2



## Diagram No.: 36.07\_RSE\_Ch128\_EDGE\_Sweep1

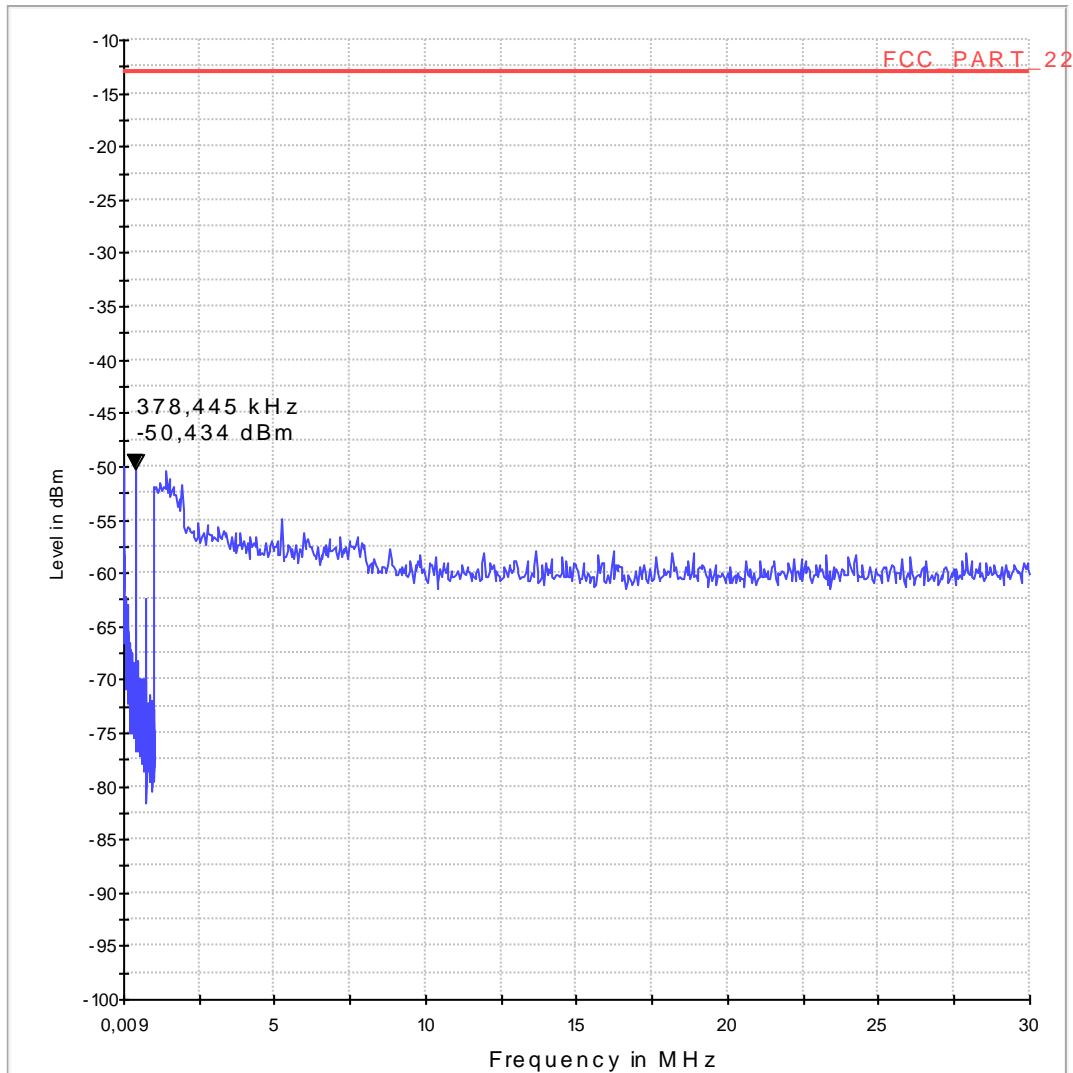
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 128
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.08\_RSE\_Ch128\_EDGE\_Sweep2

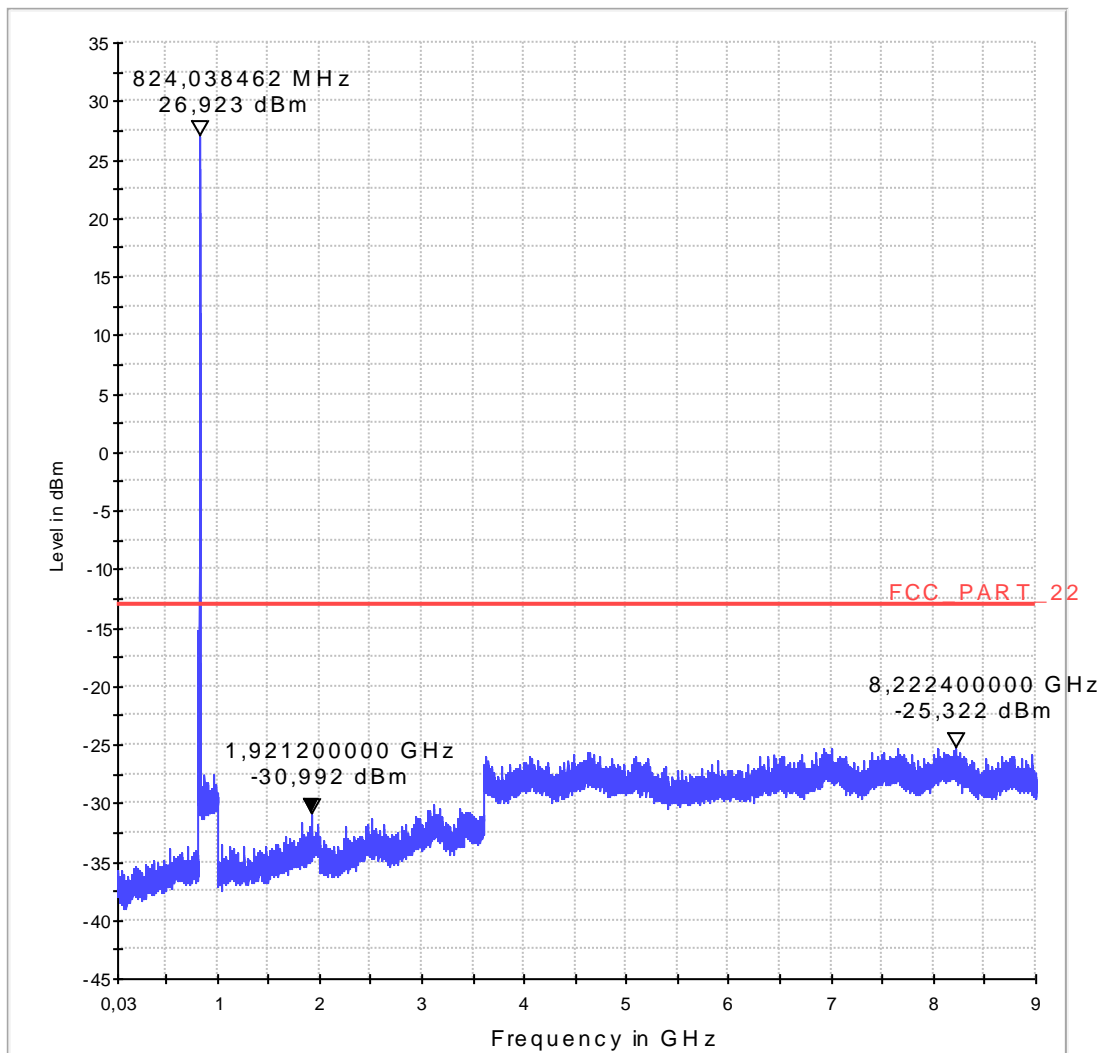
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 128
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.09\_RSE\_Ch192\_EDGE\_Sweep1

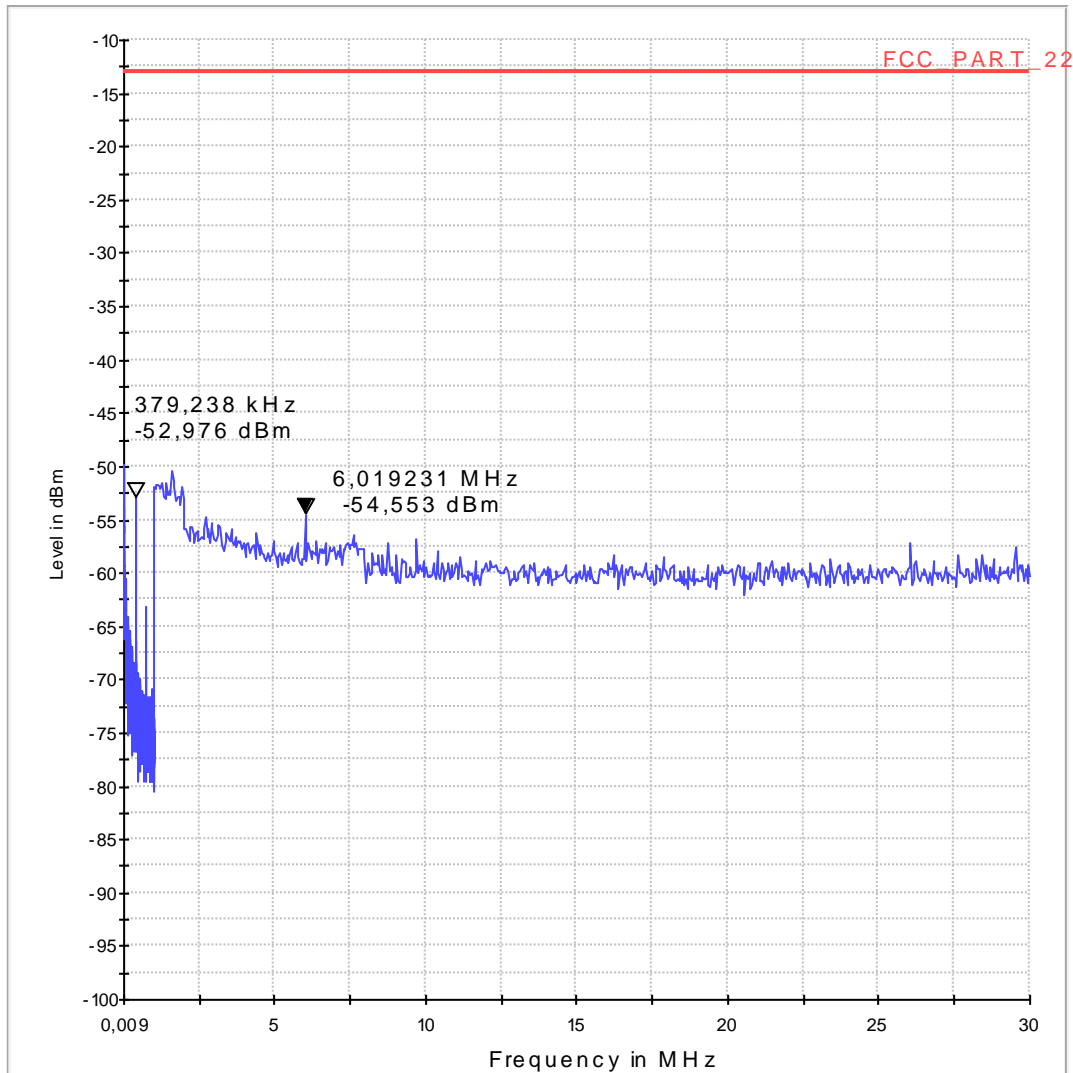
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 192
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.10\_RSE\_Ch192\_EDGE\_Sweep2

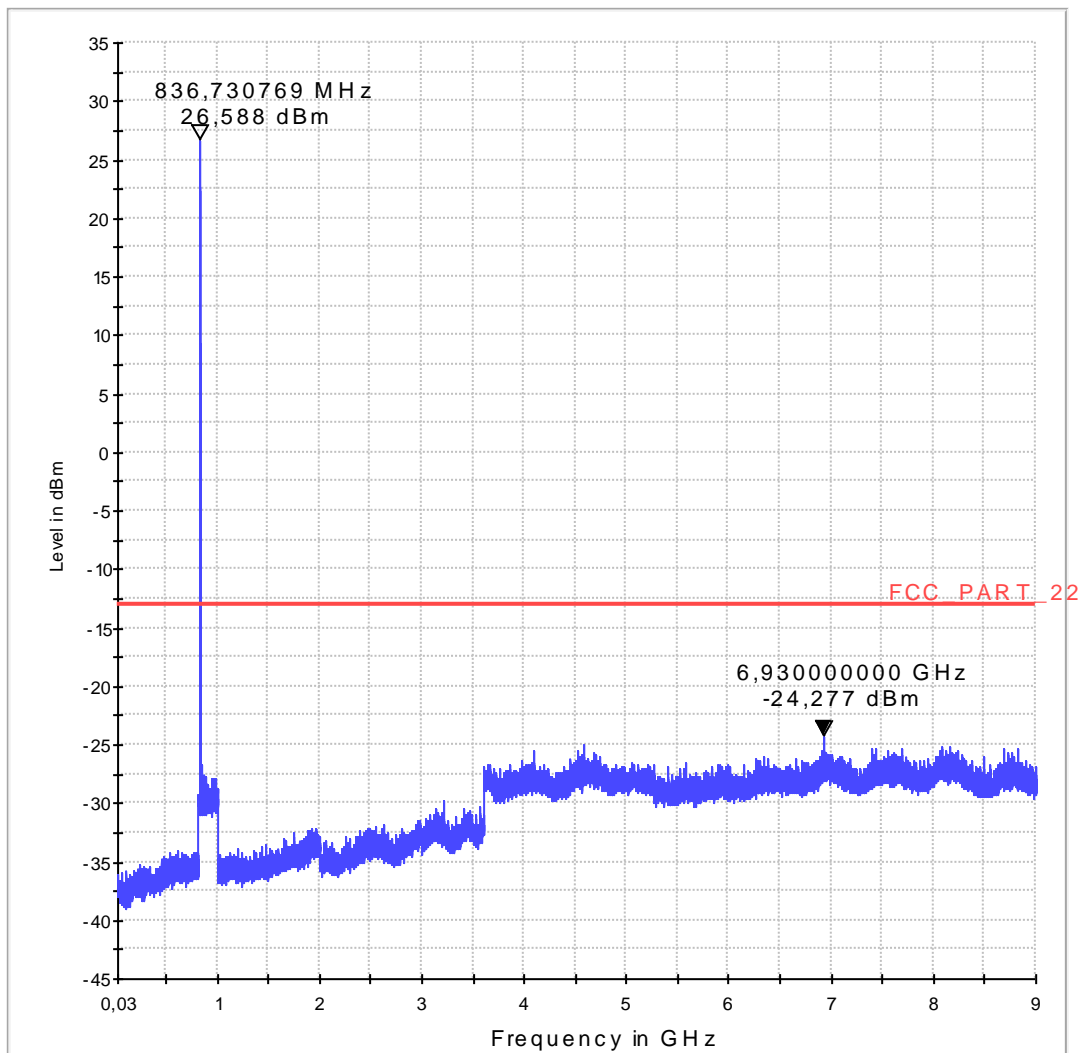
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 192
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.11\_RSE\_Ch251\_EDGE\_Sweep1

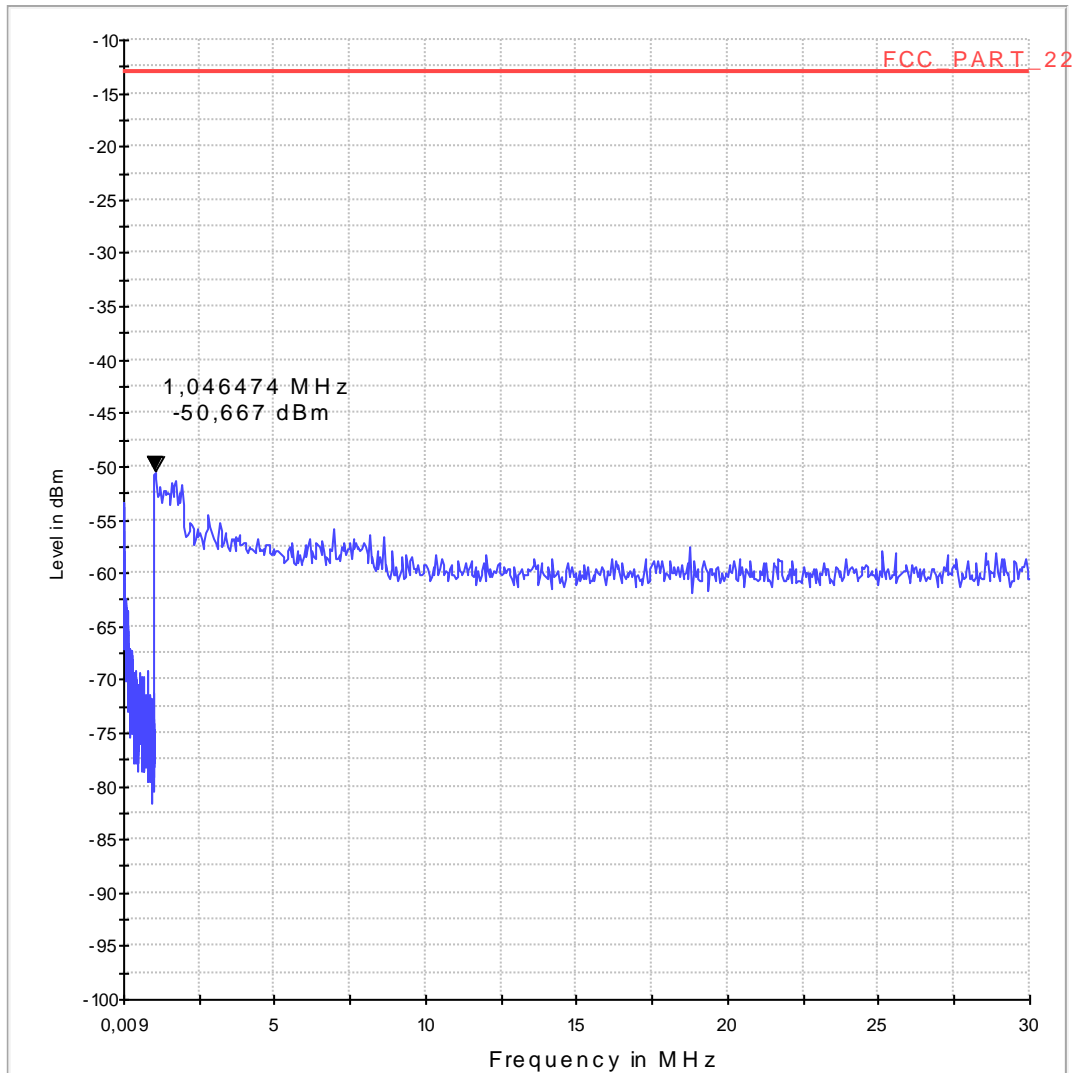
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 251
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.12\_RSE\_Ch251\_EDGE\_Sweep2

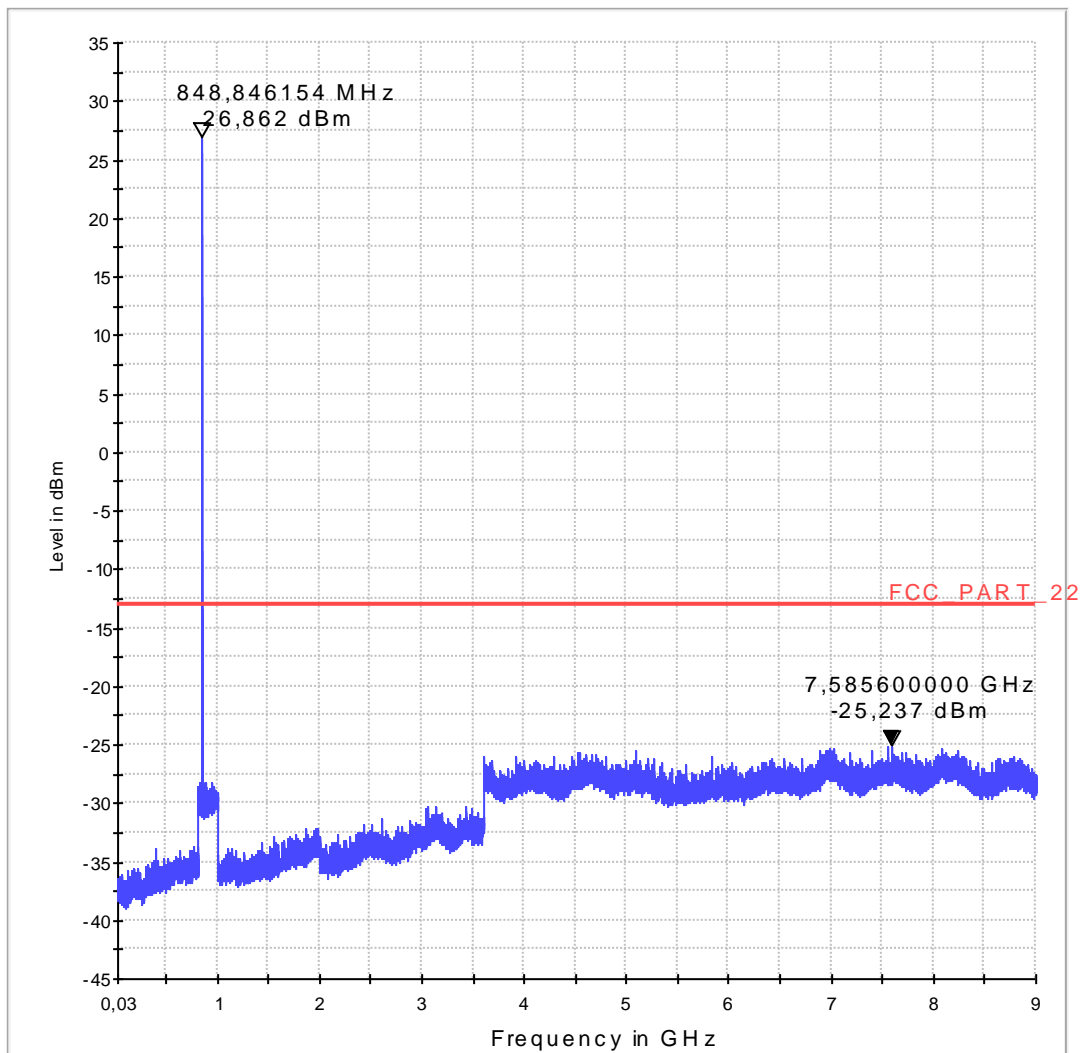
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 251
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2





PCS1900 band

## Diagram No.: 36.20\_RSE\_Ch512\_GPRS\_Sweep1

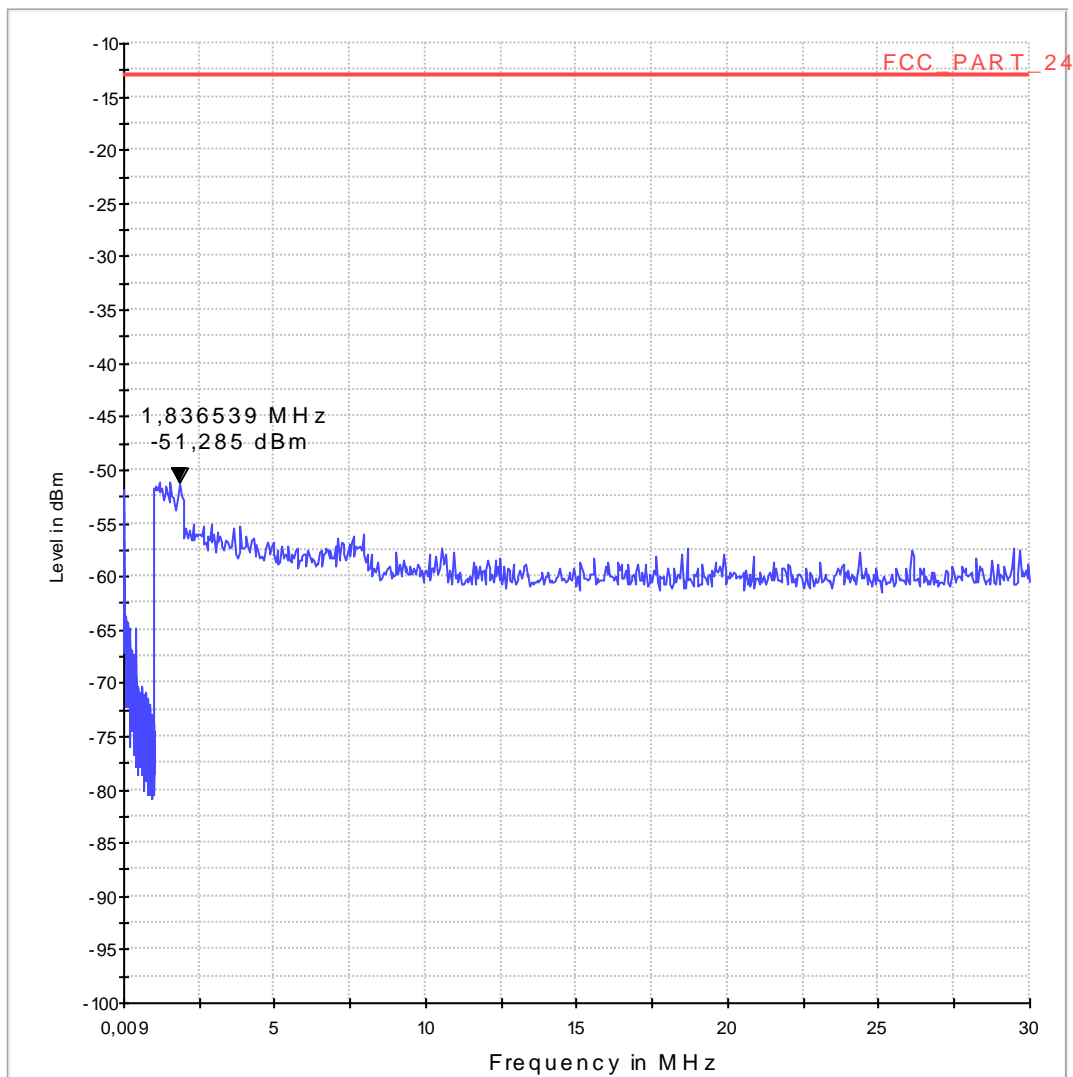
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX GPRS (CS-4) PCS1900, CHANNEL 512
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.21\_RSE\_Ch512\_GPRS\_Sweep2

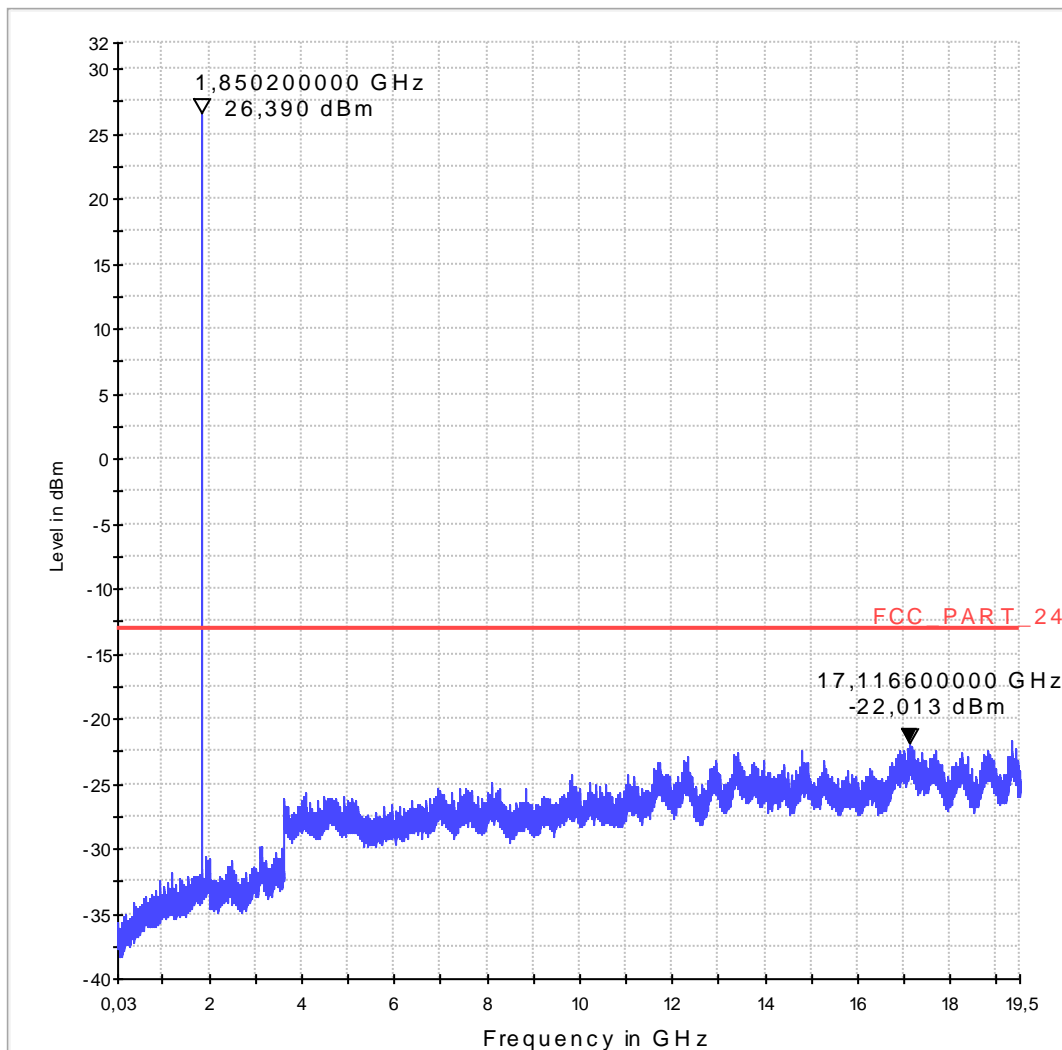
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX GPRS (CS-4) PCS1900, CHANNEL 512
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.22\_RSE\_Ch661\_GPRS\_Sweep1

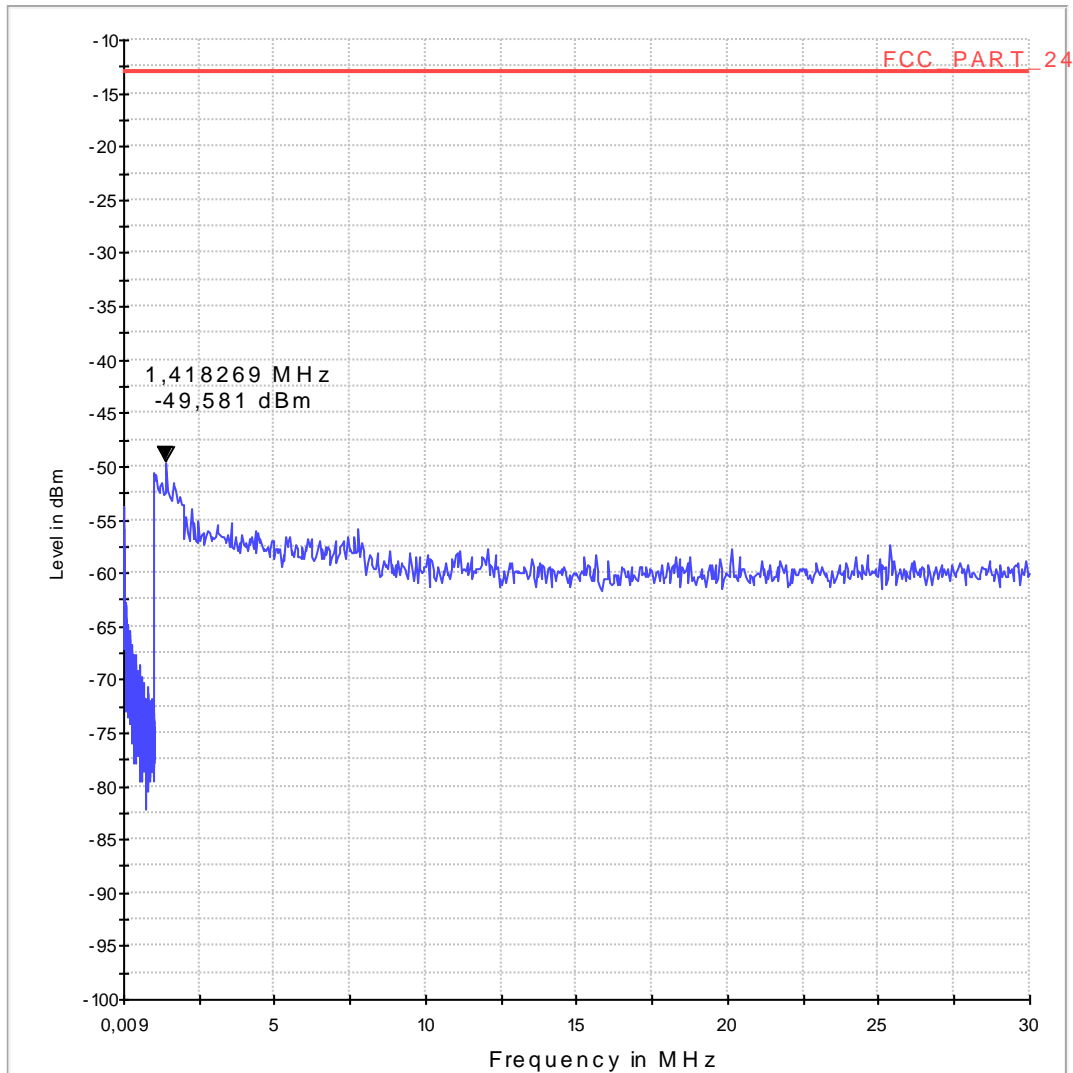
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX GPRS (CS-4) PCS1900, CHANNEL 661
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.23\_RSE\_Ch661\_GPRS\_Sweep2

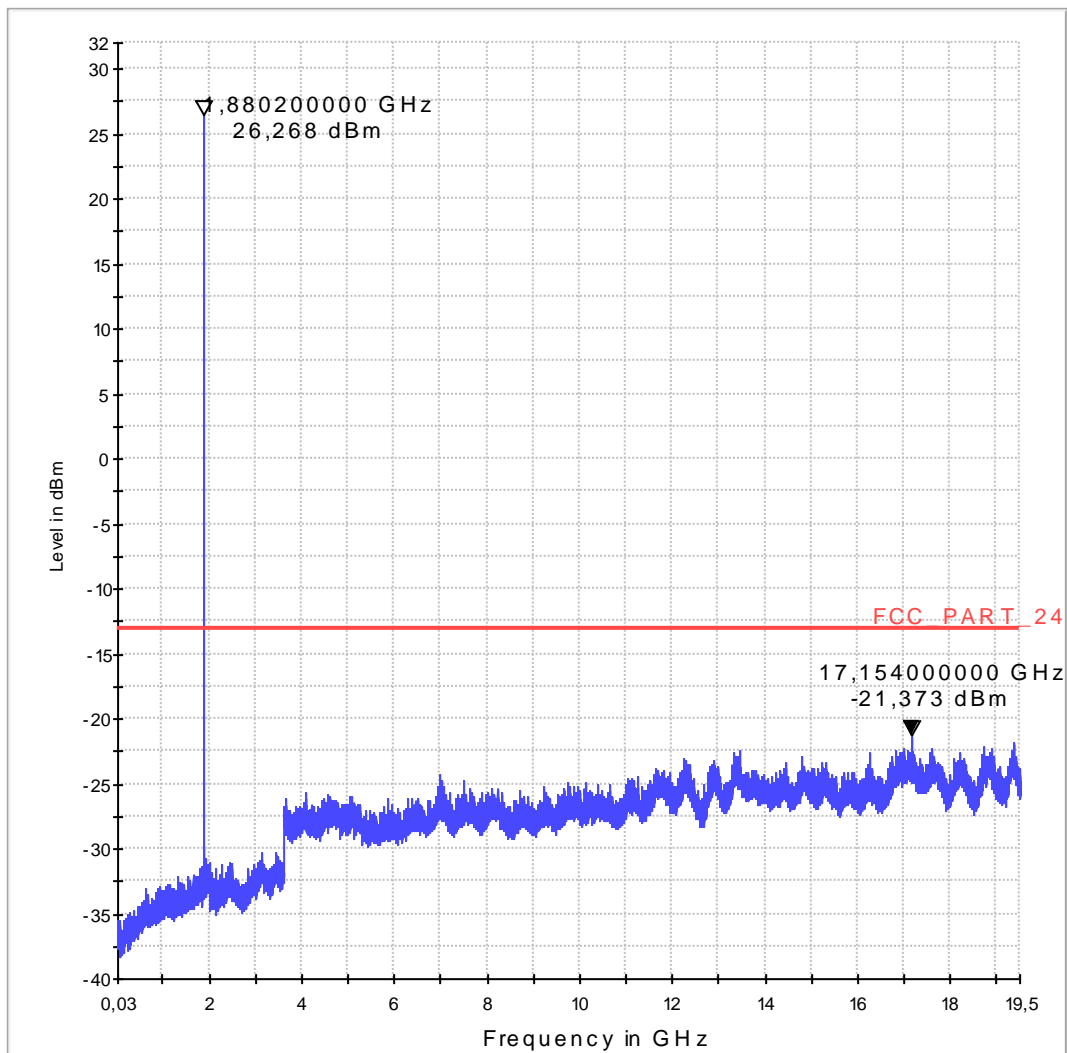
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX GPRS (CS-4) PCS1900, CHANNEL 661
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.24\_RSE\_CH810\_GPRS\_Sweep1

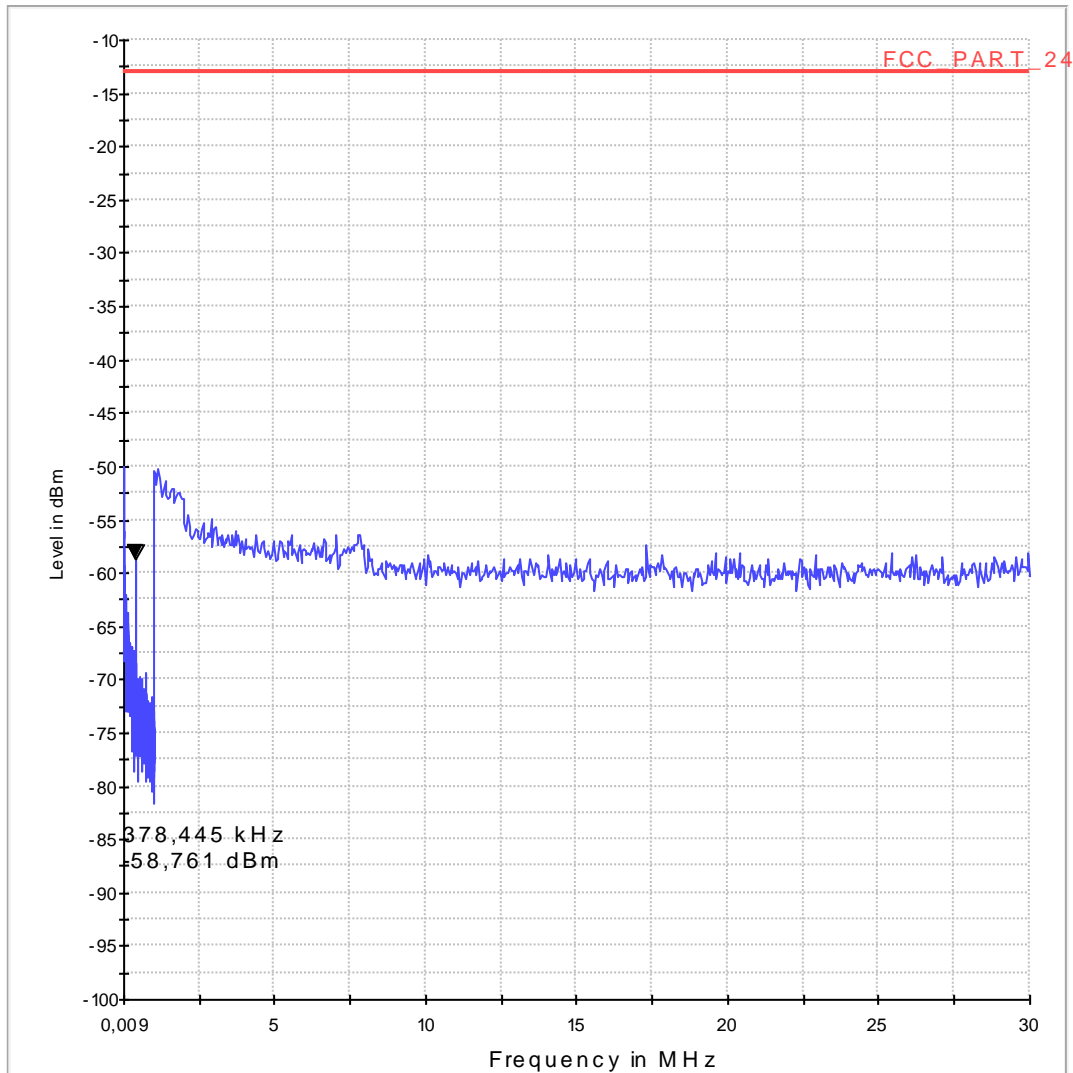
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX GPRS (CS-4) PCS1900, CHANNEL 810
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.25\_RSE\_Ch810\_GPRS\_Sweep2

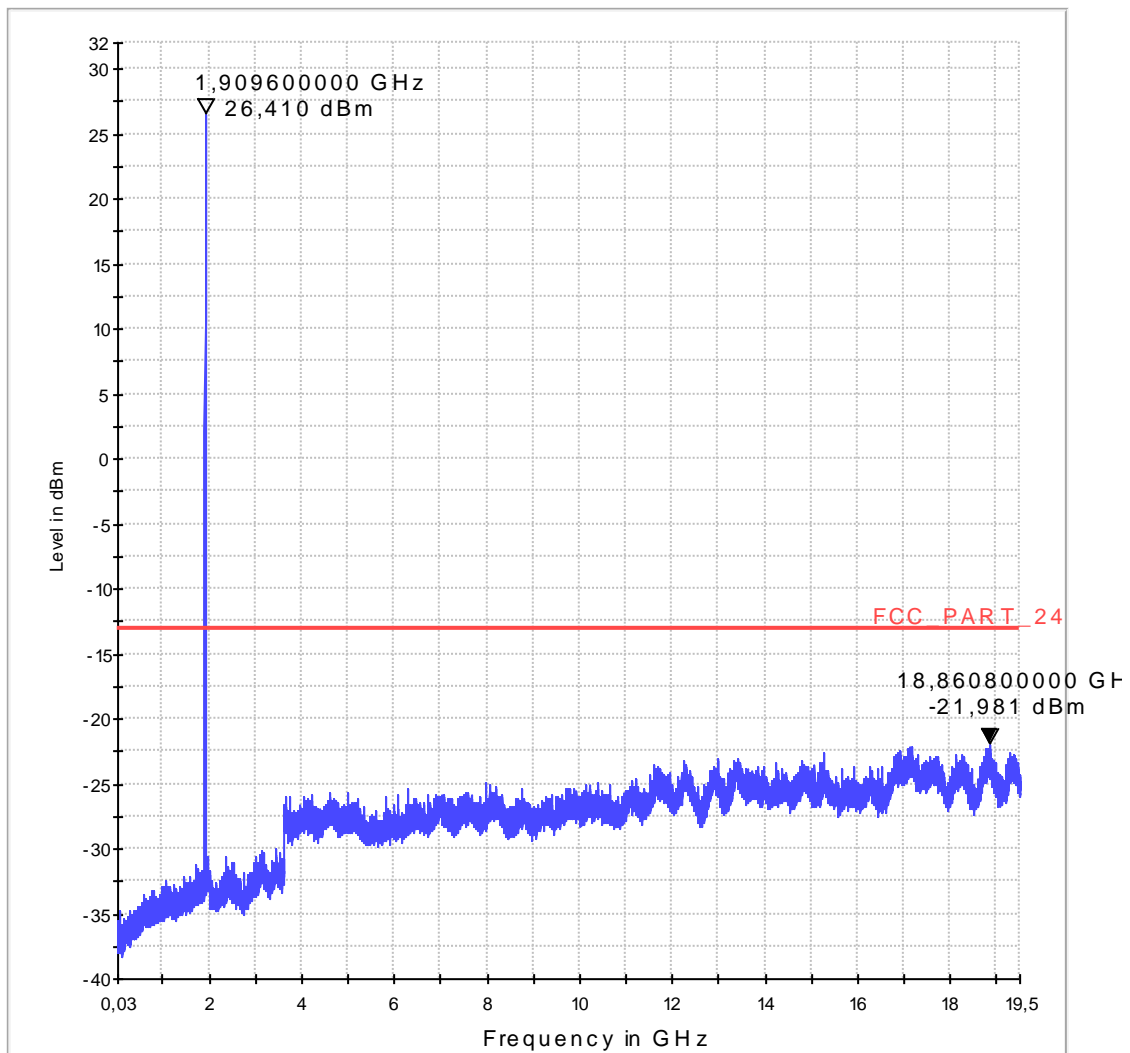
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX GPRS (CS-4) PCS1900, CHANNEL 810
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.26\_RSE\_Ch512\_EDGE\_Sweep1

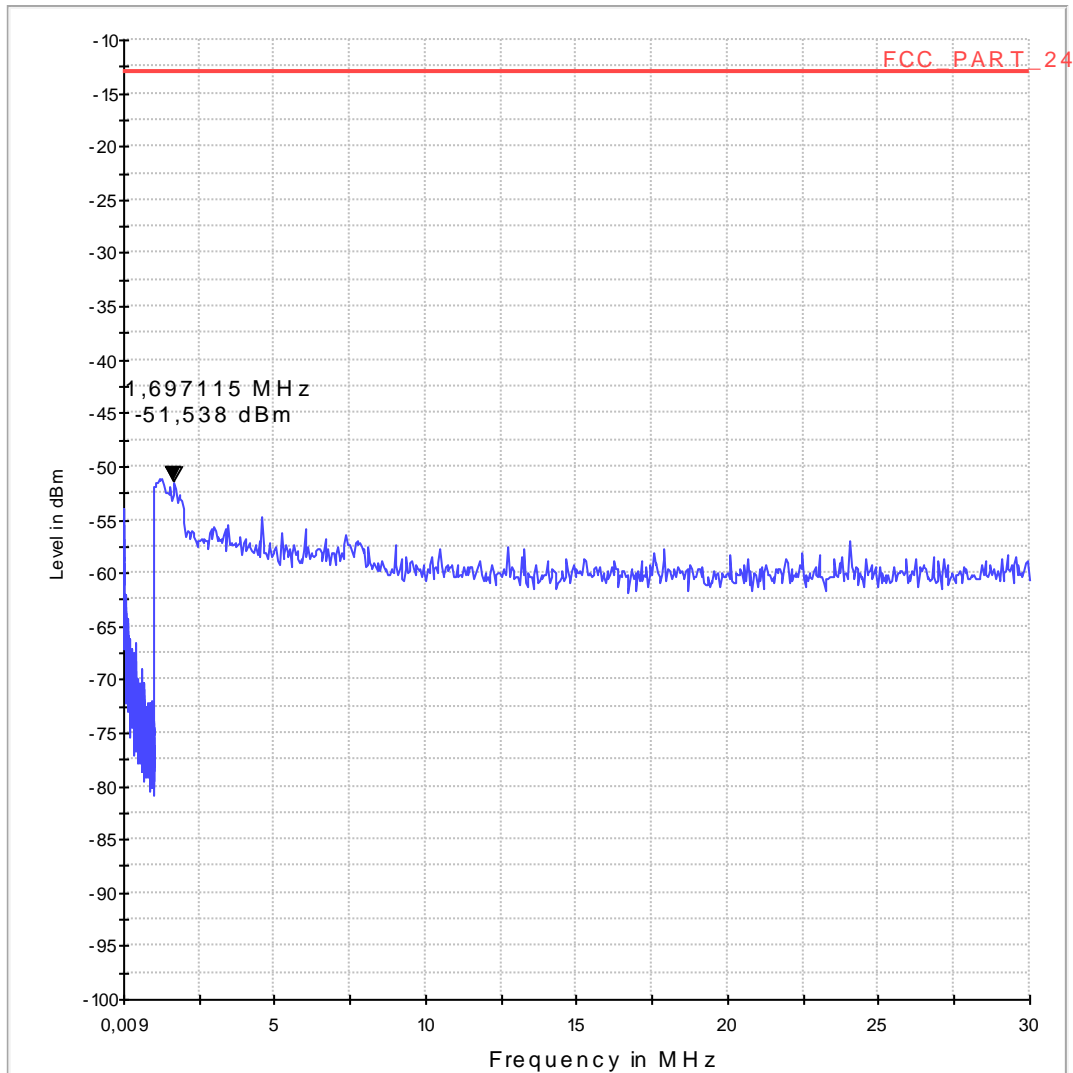
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX EDGE (MCS-5) PCS1900, CHANNEL 512
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.27\_RSE\_Ch512\_EDGE\_Sweep2

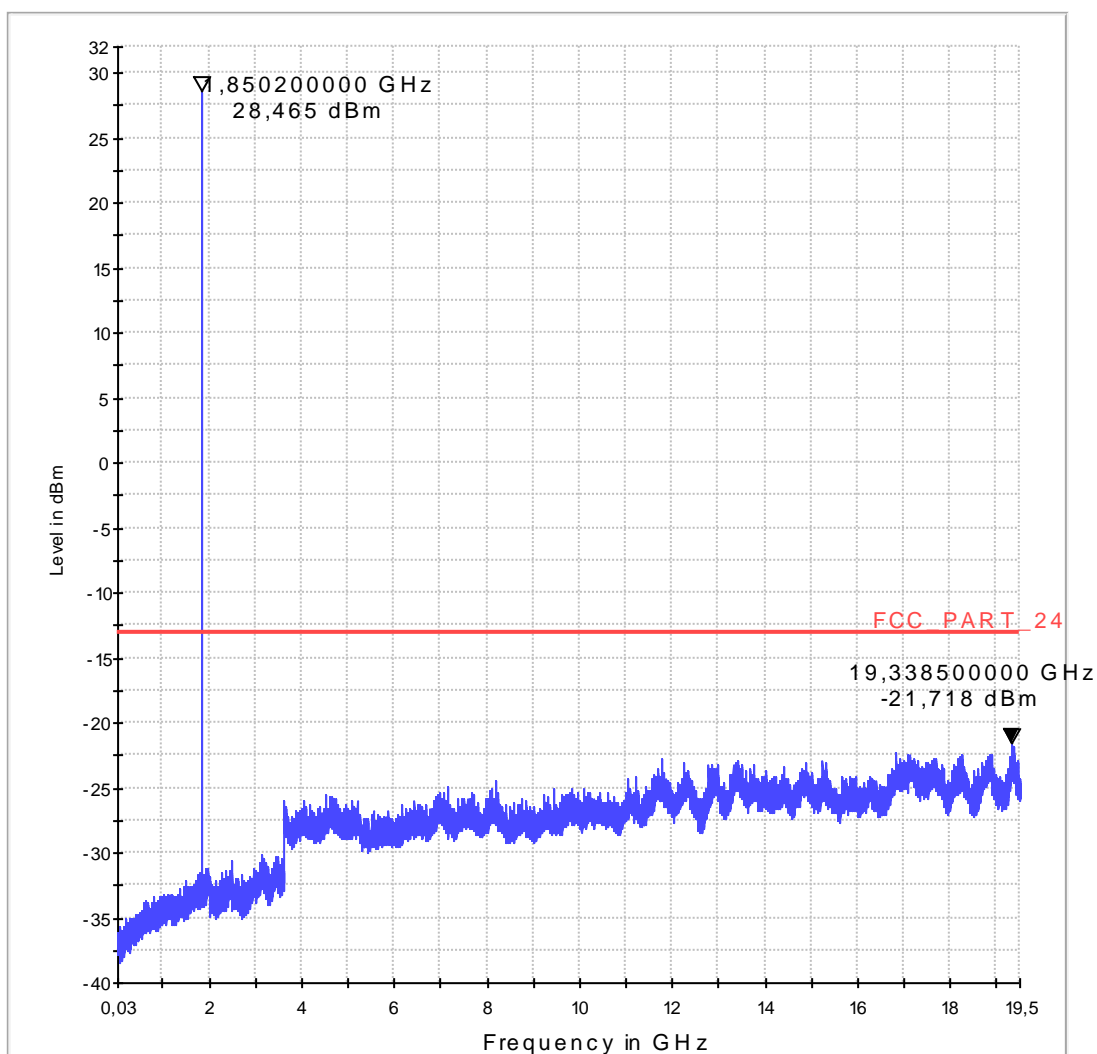
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX EDGE (MCS-5) PCS1900, CHANNEL 512
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2





## Diagram No.: 36.28\_RSE\_Ch61\_EDGE\_Sweep1

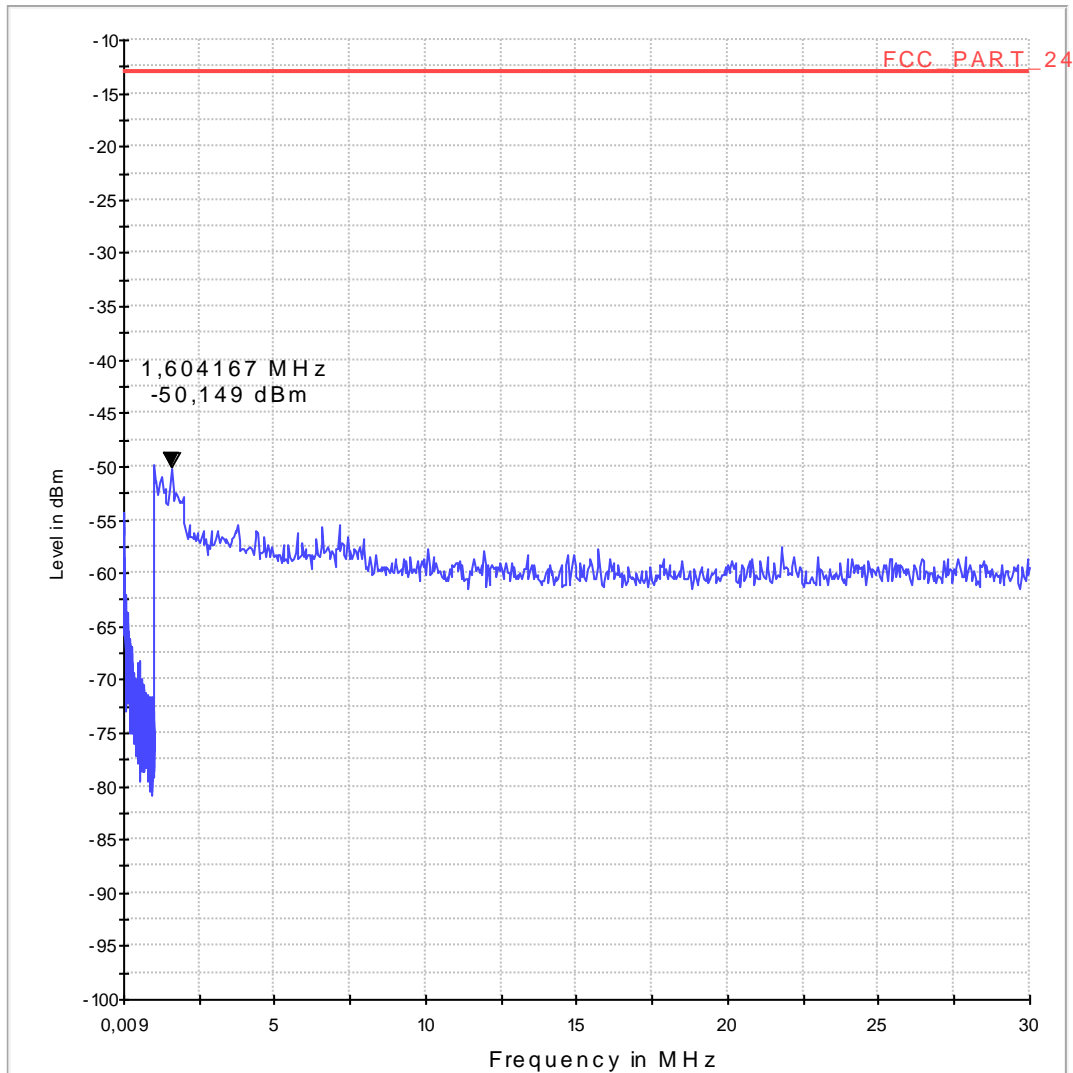
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX EDGE (MCS-5) PCS1900, CHANNEL 661
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.29\_RSE\_Ch661\_EDGE\_Sweep2

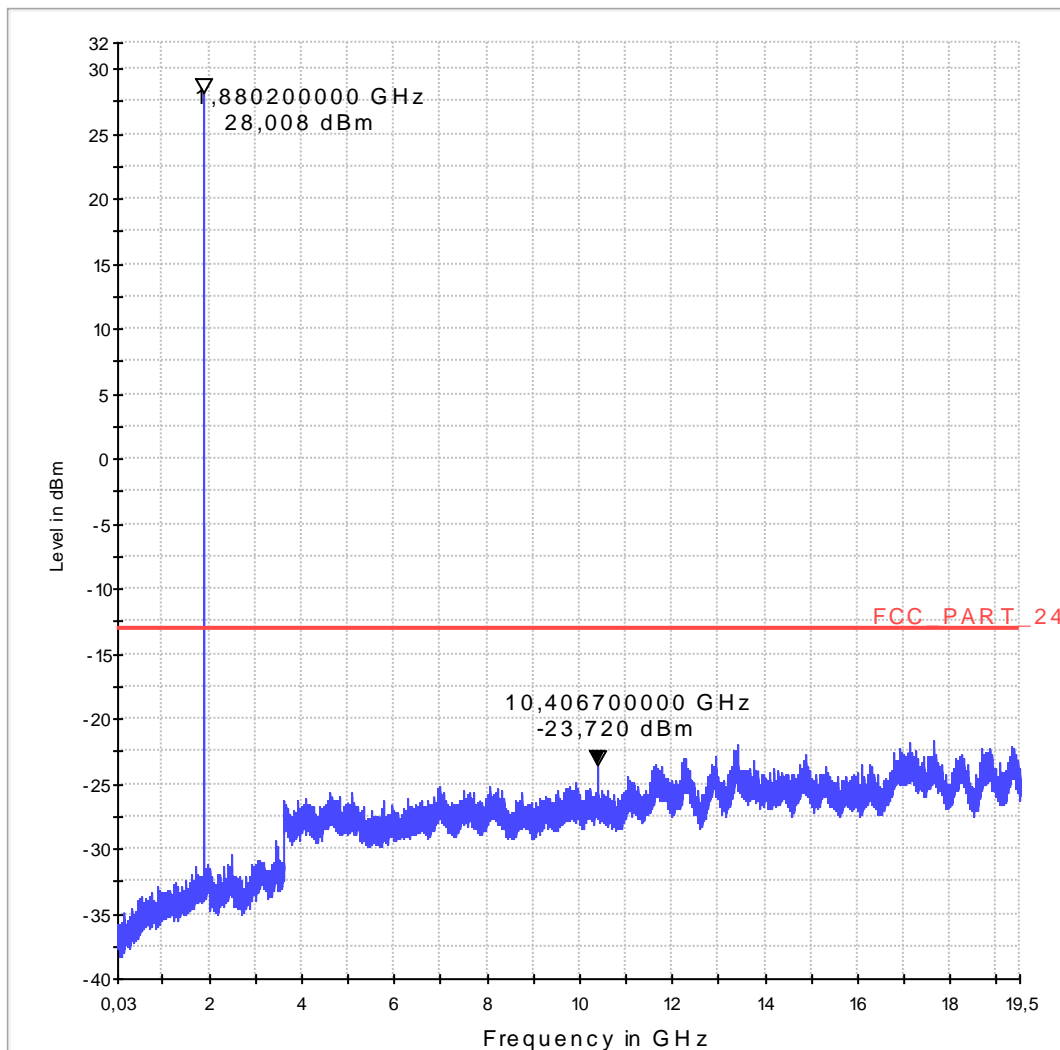
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX EDGE (MCS-5) PCS1900, CHANNEL 661
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.30\_RSE\_Ch810\_EDGE\_Sweep1

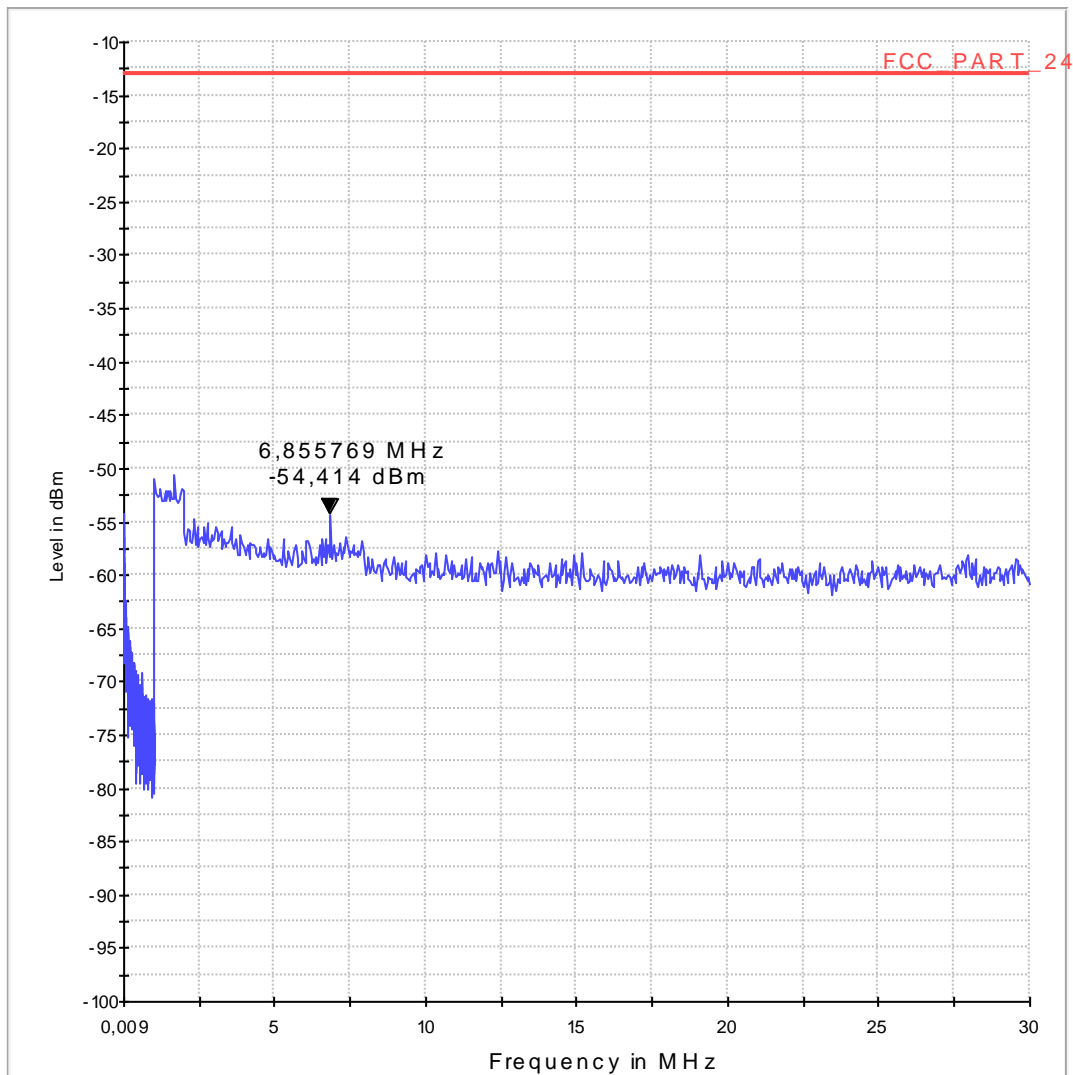
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX EDGE (MCS-5) PCS1900, CHANNEL 810
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.31\_RSE\_Ch810\_EDGE\_Sweep2

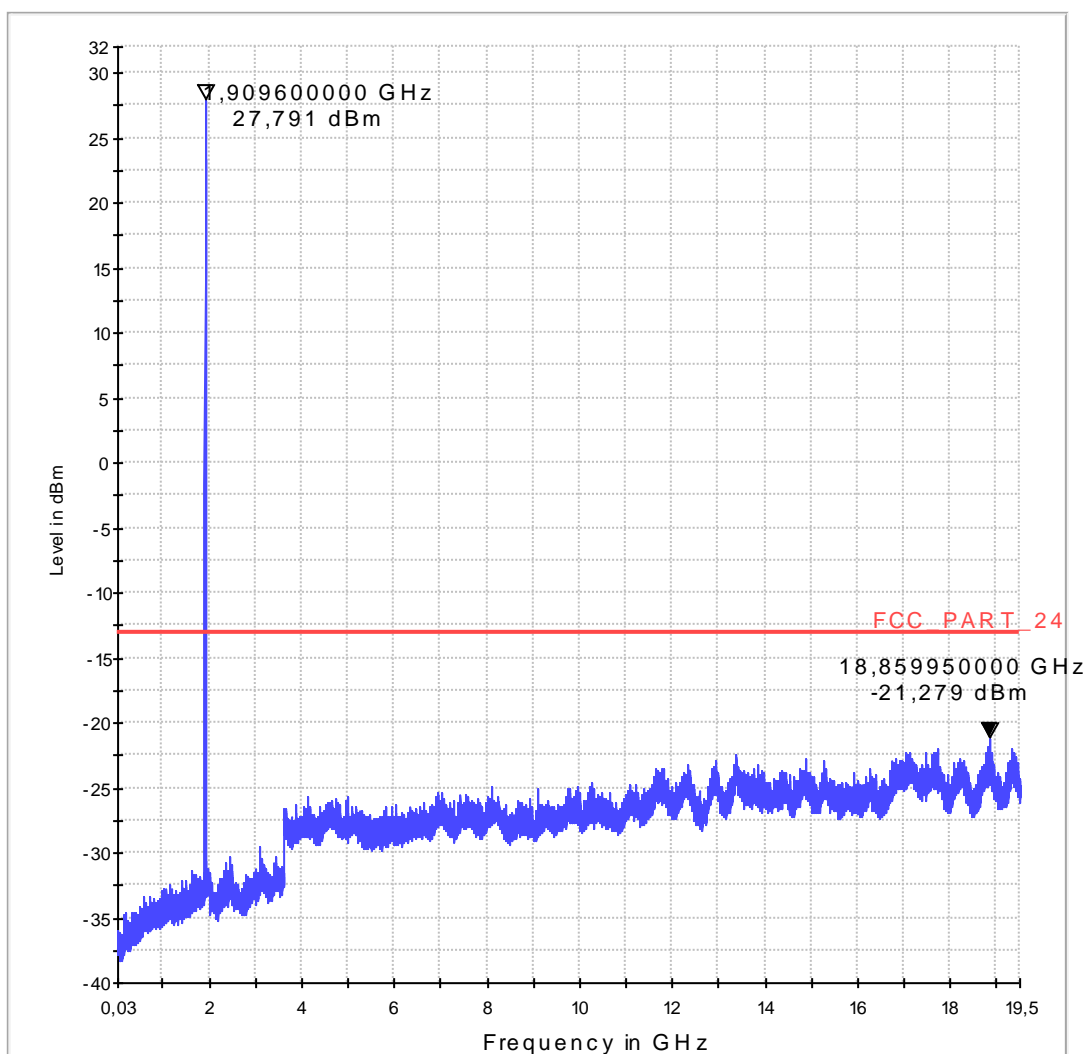
### Common Information

Test Description:	TX Spurious Emission conducted
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX EDGE (MCS-5) PCS1900, CHANNEL 810
Operator Name:	Tas
Comment:	TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



FDD V band

Diagram No.: 36.40\_RSE\_Ch4132\_RMC\_Sweep1

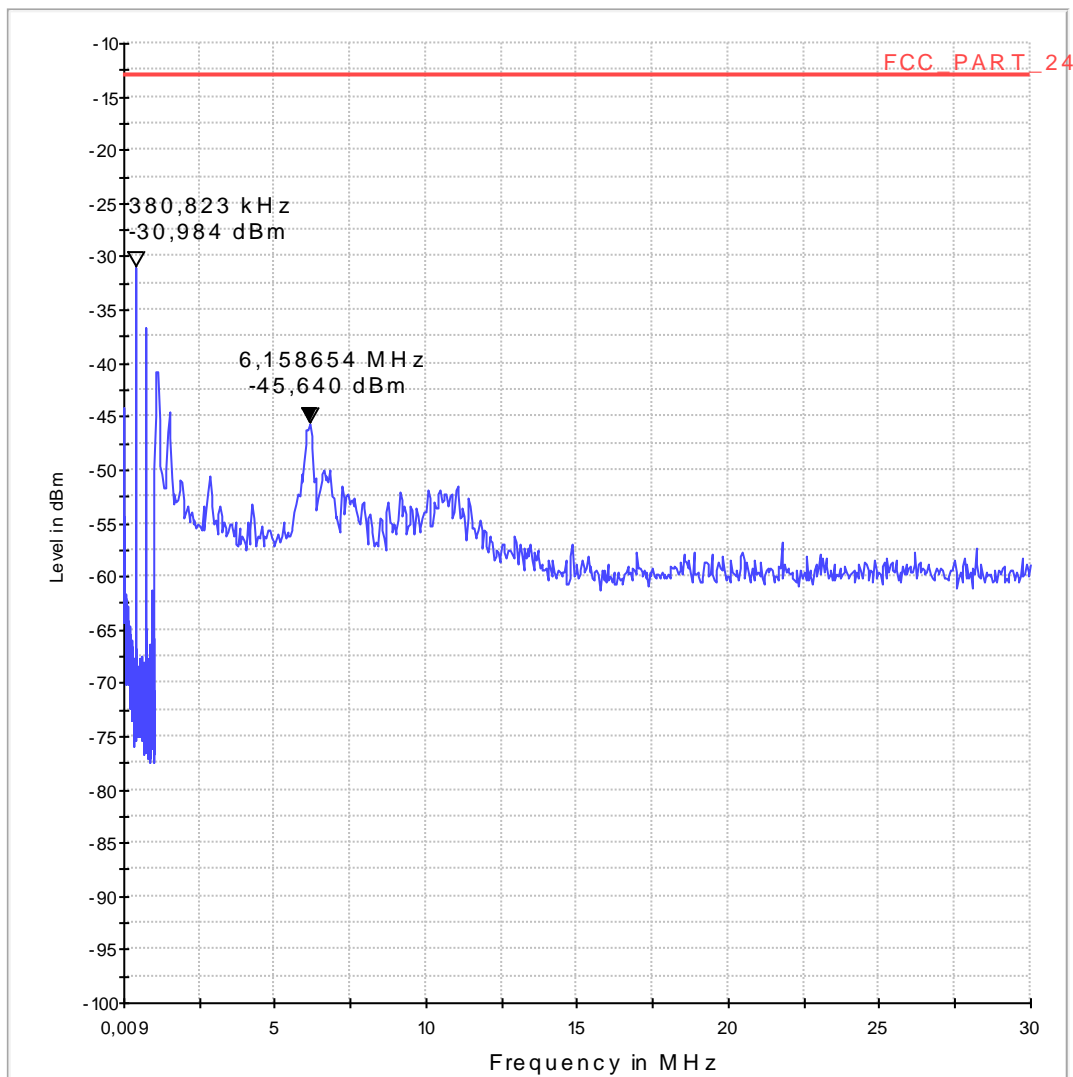
Common Information

Test Description: Transmitter unwanted emissions (Out-of-Band)/ FCC requirements  
Test Site: Radio LAB, CETECOM GmbH, Essen, Germany  
Test Standard: FCC Part 22, RSS-132  
  
Operation mode: TX - FDD V (RMC), low channel on U-ARFCN 4132  
Operator Name: Tas  
Comment: 6-0171-12-5-2a

EUT Information

Manufacturer: CARLO GAVAZZI CONTROLS SPA  
EUT: VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)  
Serial Number: 355323-04-001514-8  
Hardware Rev: tbd (region Americas)  
SW: tbd  
Accessories: Reverse SMA require for conducted tests  
Power during test: 24 VDC

Sweep\_1



## Diagram no.: 36.41\_RSE\_Ch4132\_RMC\_Sweep2

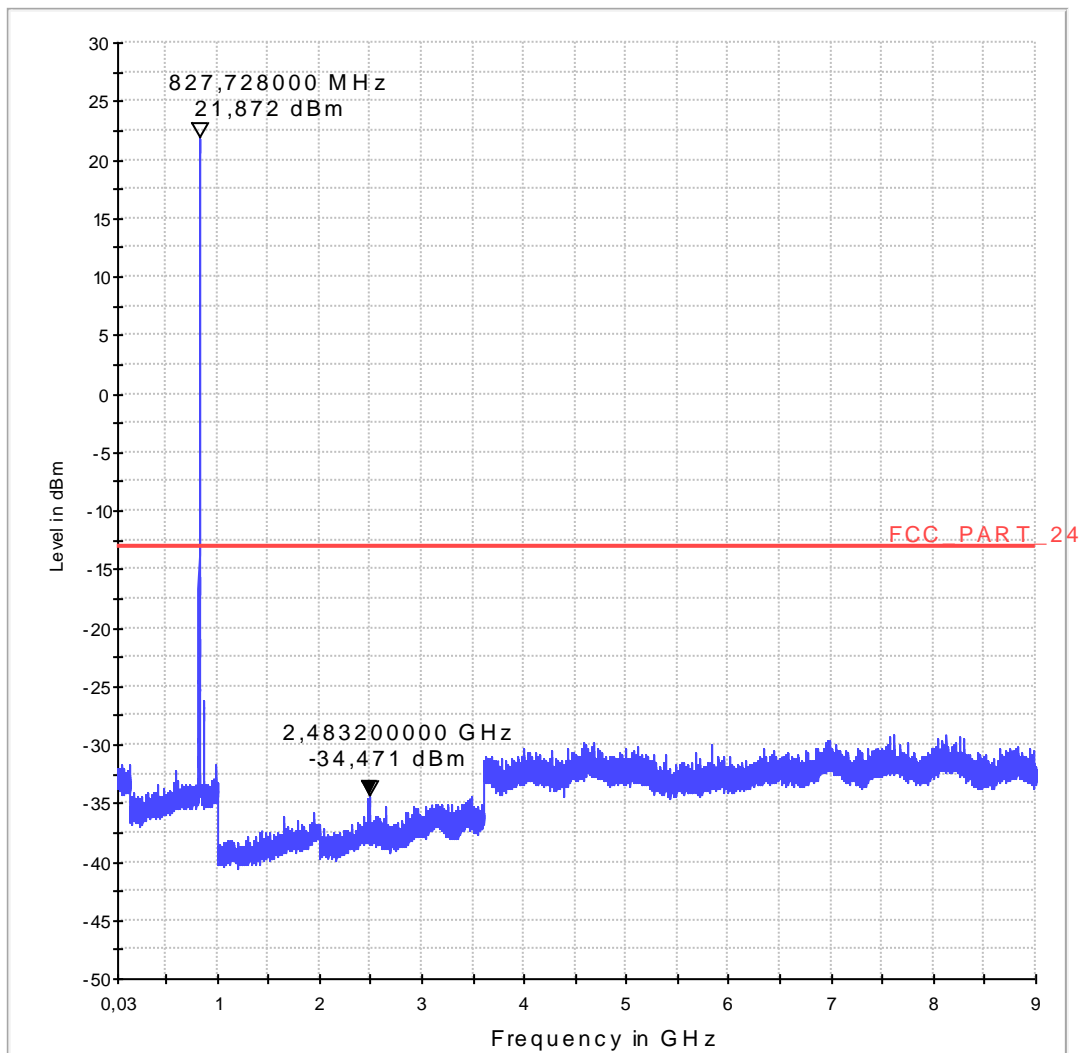
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Comment:	TX_low channel on U-ARFCN 4132, RMC TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.42\_RSE\_Ch4183\_RMC\_Sweep1

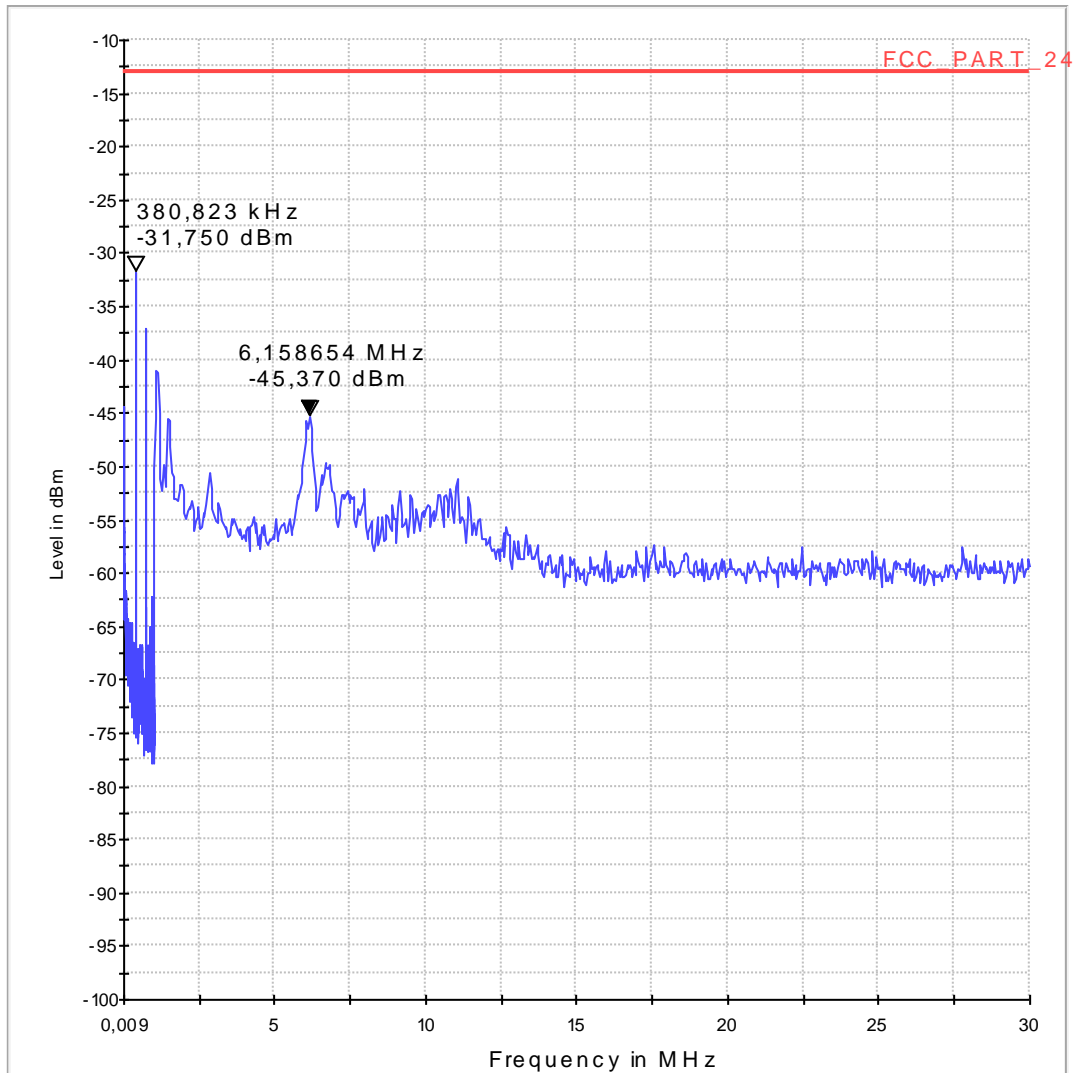
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX - FDD V (RMC), middle channel on U-ARFCN 4182
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram no.: 36.43\_RSE\_Ch4182\_RMC\_Sweep2

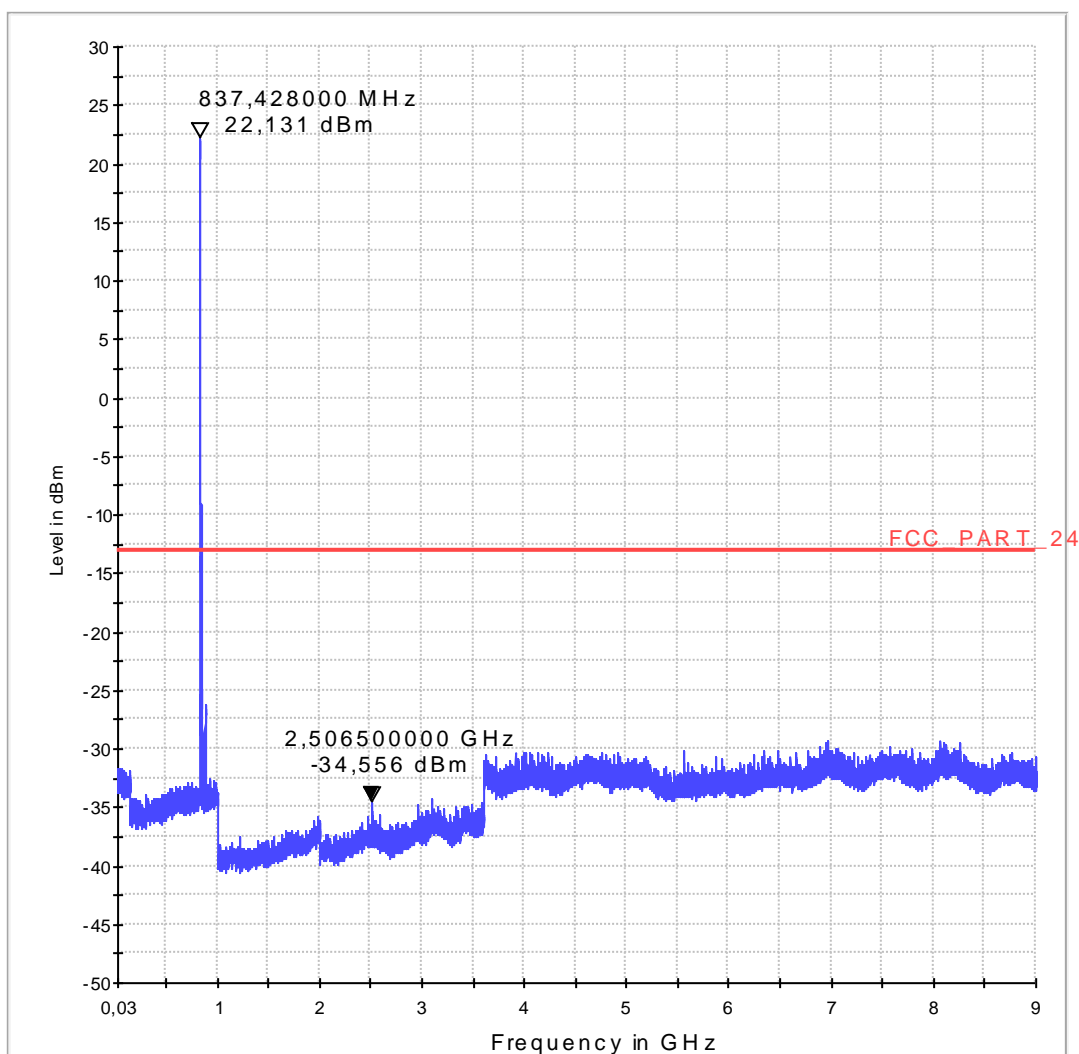
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Comment:	TX_middle channel on U-ARFCN 4182, RMC TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2





## Diagram No.: 36.44\_RSE\_Ch4233\_RMC\_Sweep1

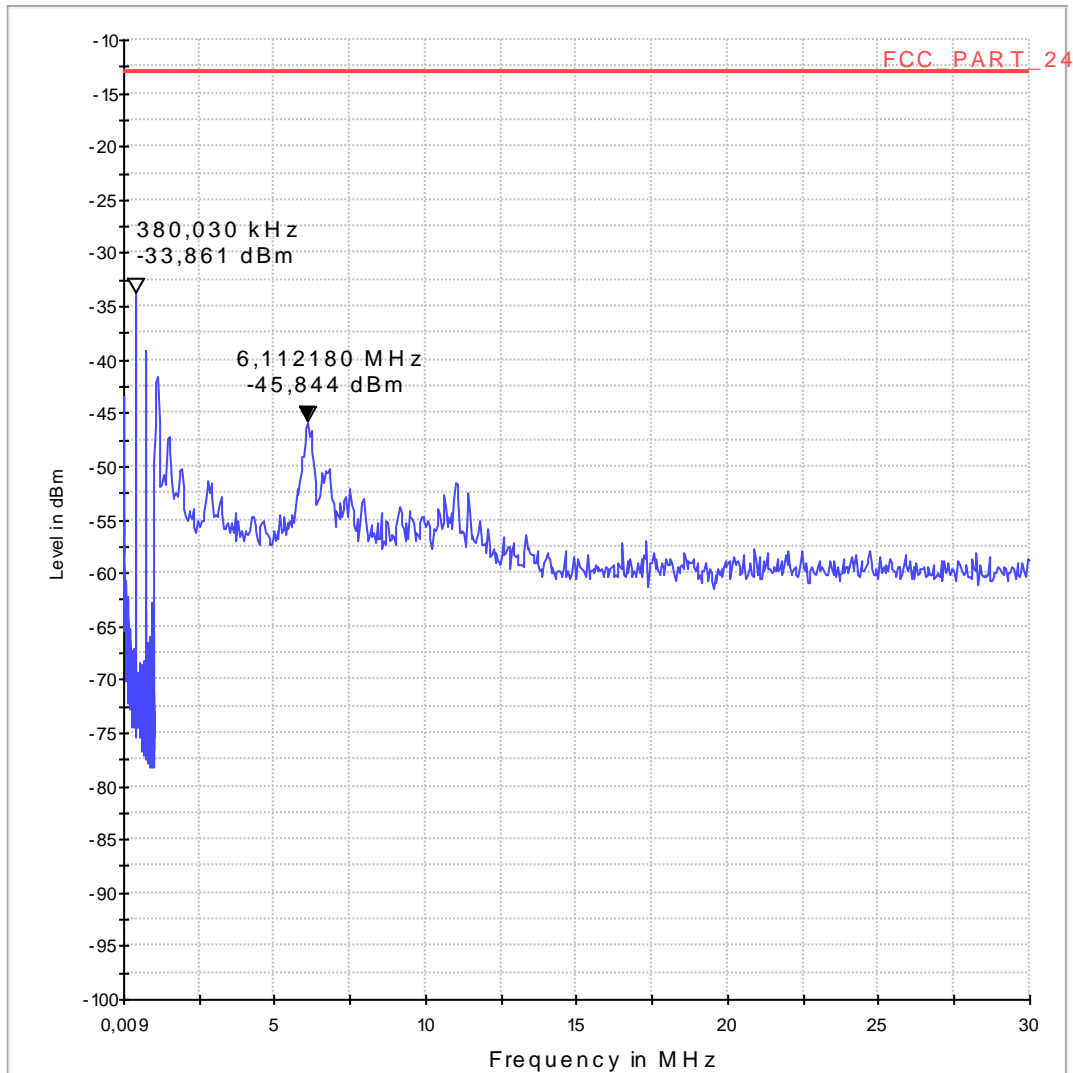
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX - FDD V (RMC), high channel on U-ARFCN 4233
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram no.: 36.45\_RSE\_Ch4233\_RMC\_Sweep2

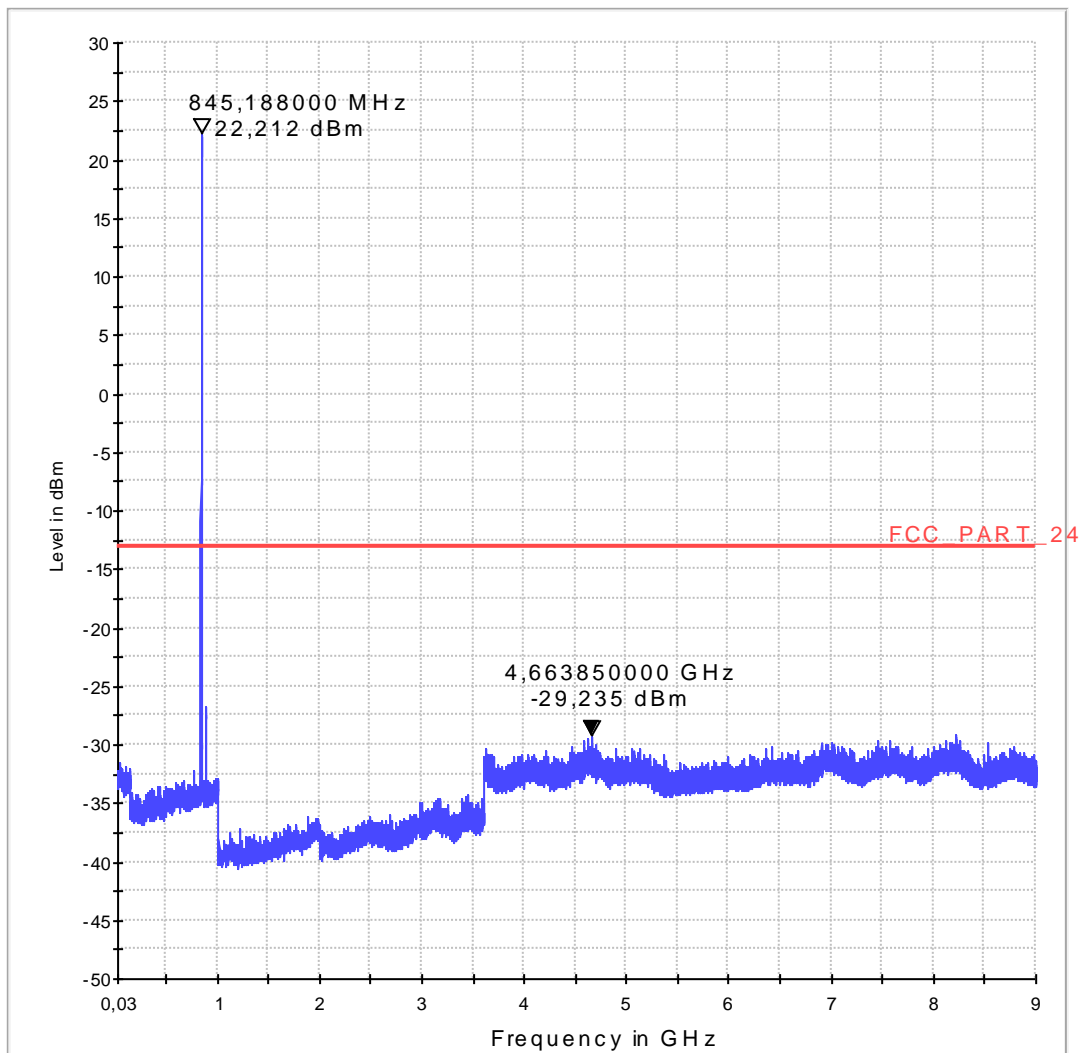
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Comment:	TX_high channel on U-ARFCN 4233, RMC TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



**FDD II band**

**Diagram No.: 36.60\_RSE\_Ch9262\_RMC\_Sweep1**

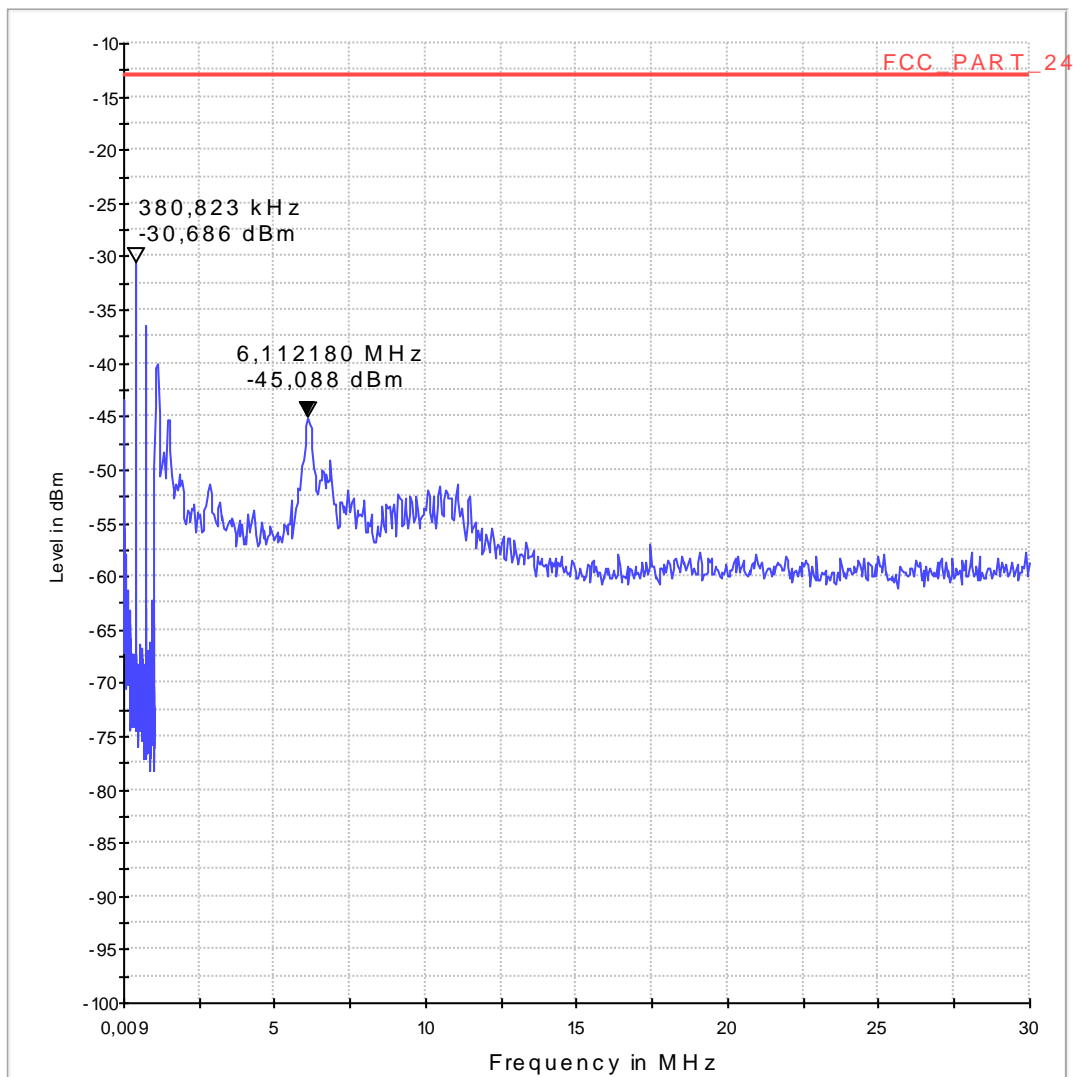
**Common Information**

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX - FDD II (RMC), high channel on U-ARFCN 9262
Operator Name:	Tas
Comment:	6-0171-12-5-2a

**EUT Information**

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram no.: 36.61\_RSE\_Ch9262\_RMC\_Sweep2

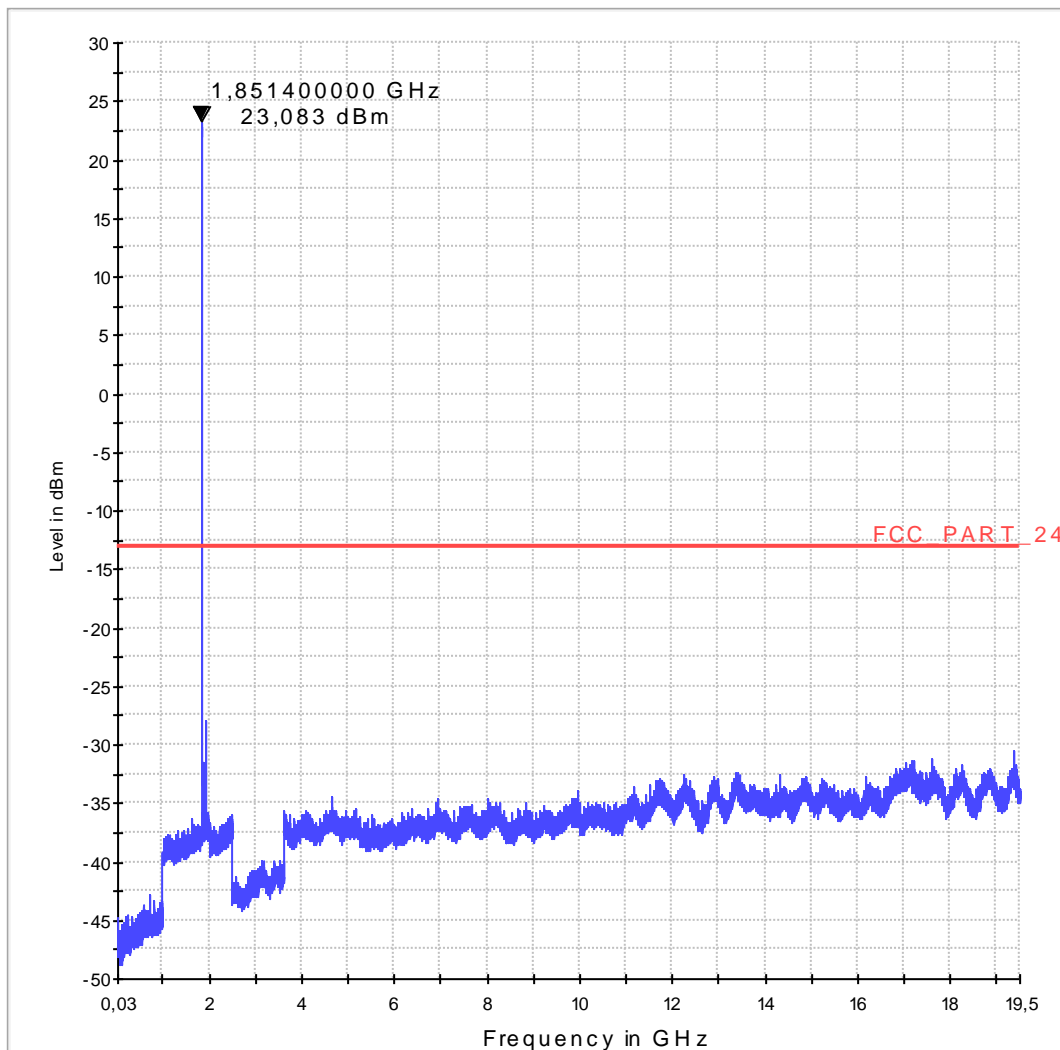
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24.238 (a) RSS 133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Comment:	TX_low channel on U-ARFCN 9262, RMC 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.62\_RSE\_Ch9400\_RMC\_Sweep1

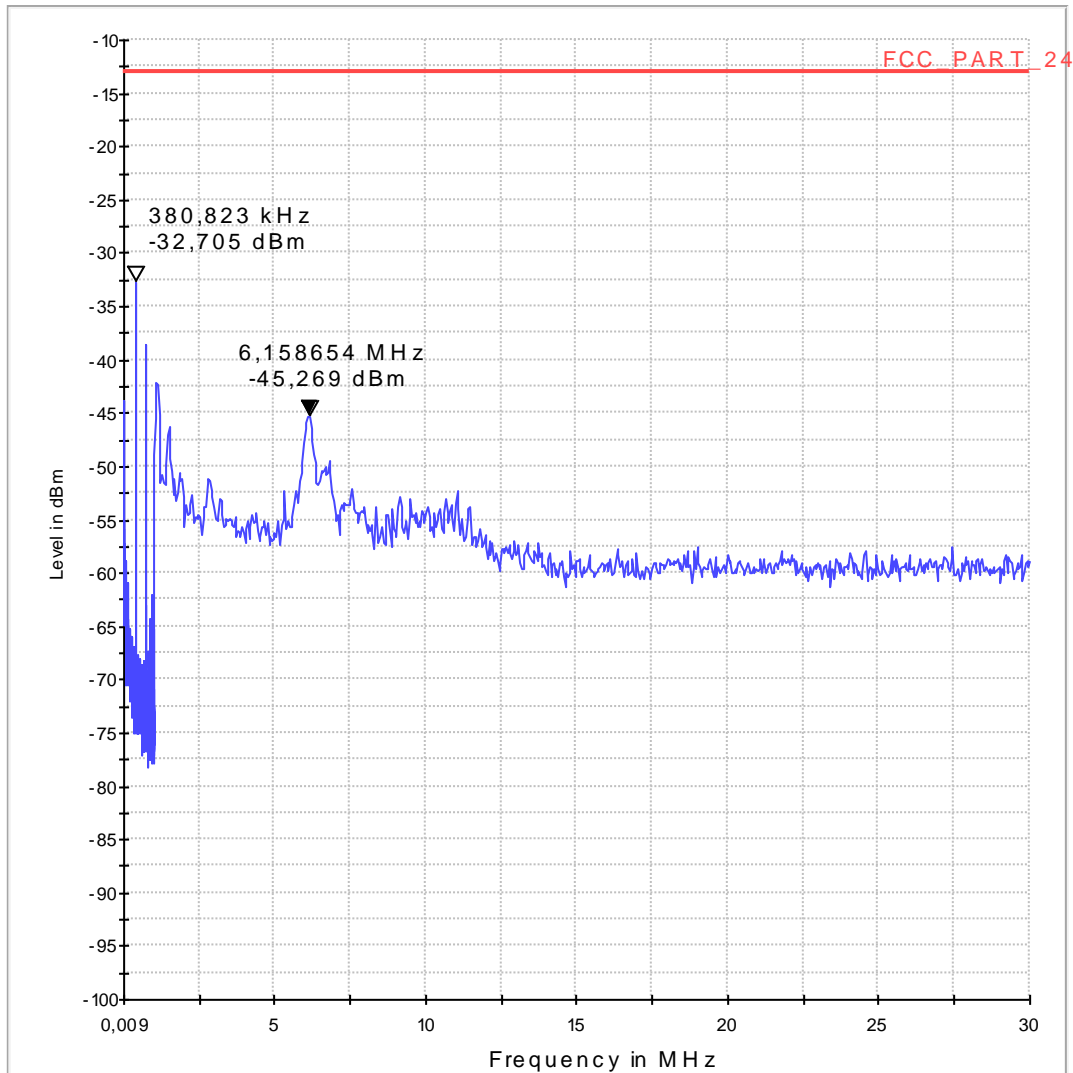
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX - FDD II (RMC), middle channel on U-ARFCN 9400
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.63\_RSE\_Ch9400\_RMC\_Sweep2

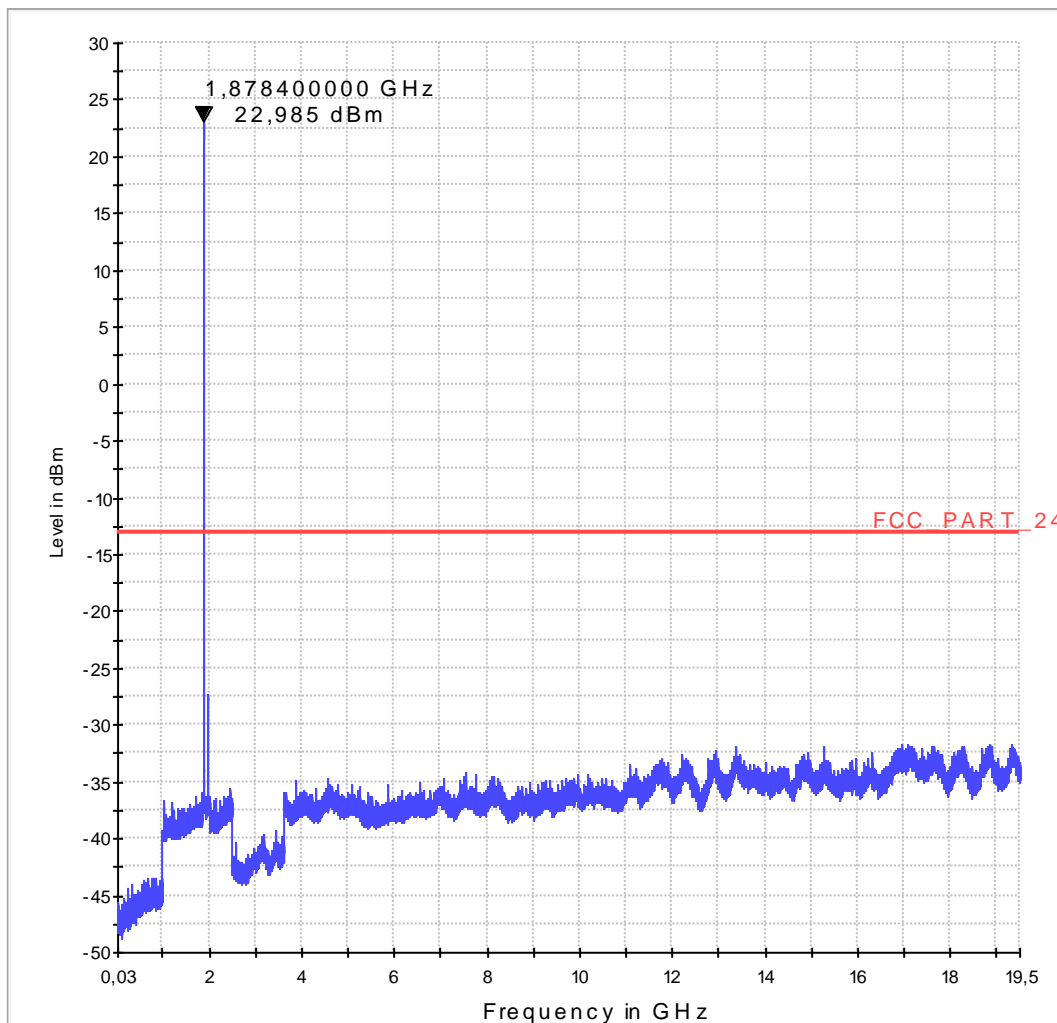
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24.238 (a) RSS 133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Comment:	TX_middle channel on U-ARFCN 9400, RMC TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2



## Diagram No.: 36.64\_RSE\_Ch9538\_RMC\_Sweep1

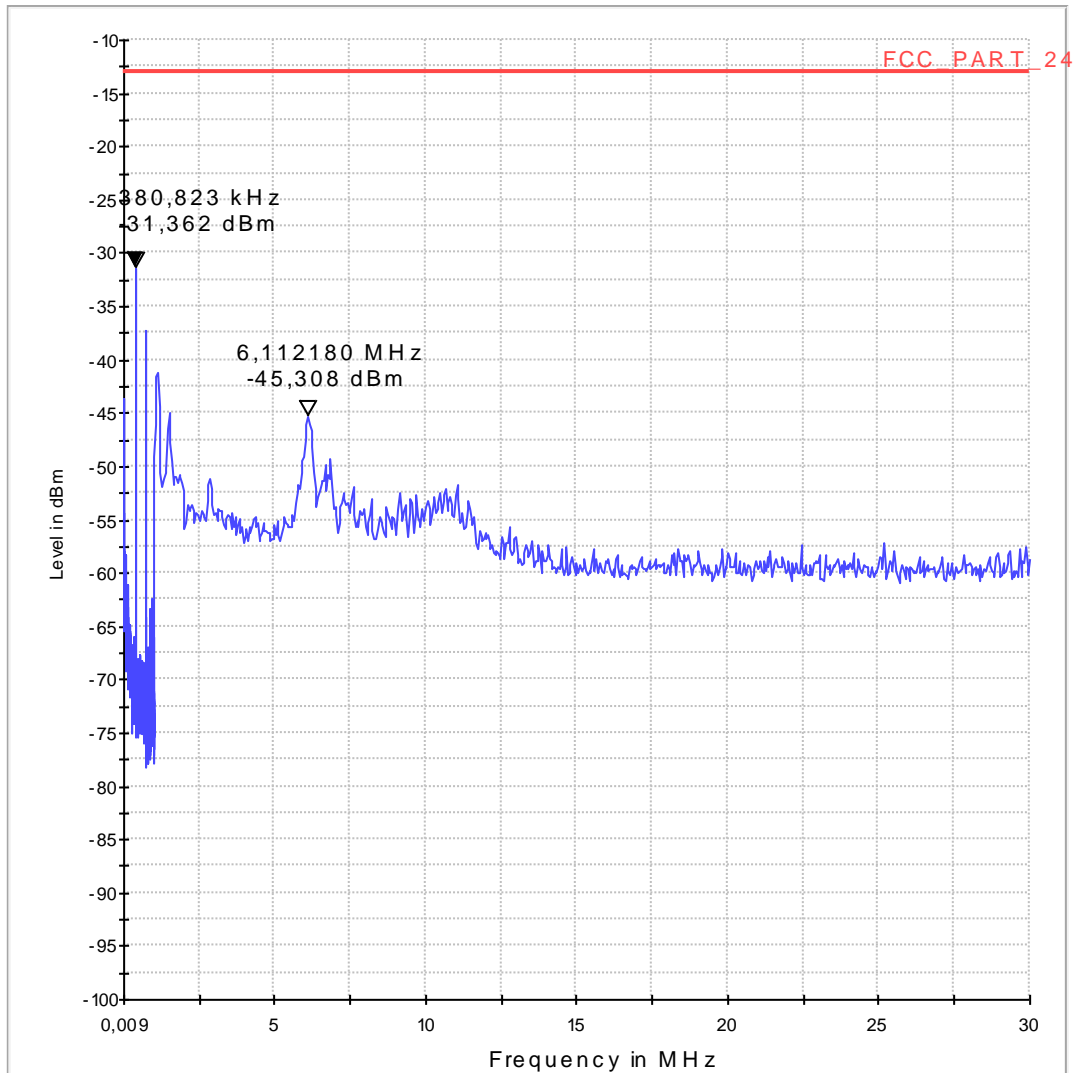
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX - FDD II (RMC), high channel on U-ARFCN 9538
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_1



## Diagram No.: 36.65\_RSE\_Ch9538\_RMC\_Sweep2

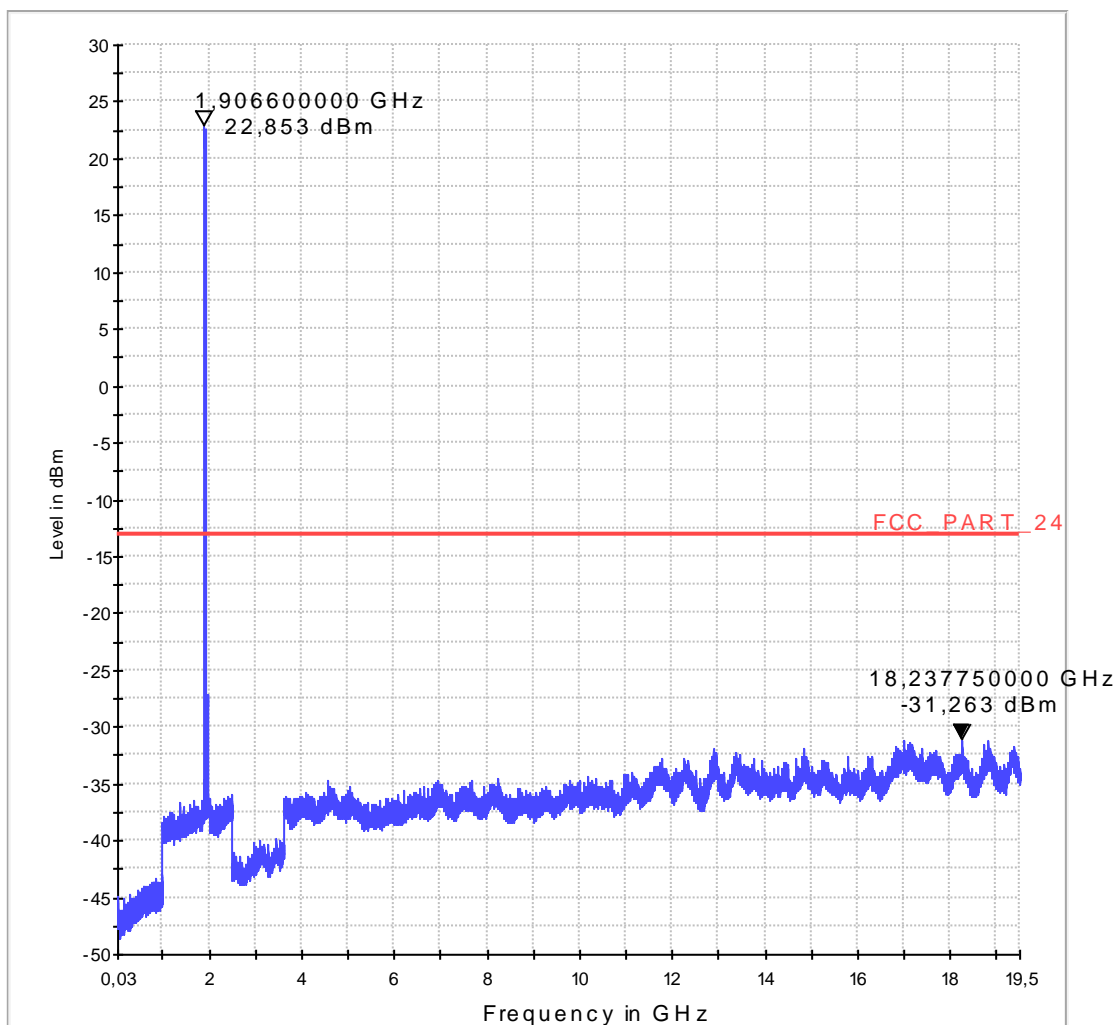
### Common Information

Test Description:	Transmitter unwanted emissions (Out-of-Band)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24.238 (a) RSS 133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Comment:	TX_high channel on U-ARFCN 9538, RMC TX carrier visible and for spurious emission test shall be ignored 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_2





## 1.6 Band-Edge compliance conducted

### Diagram No.: 37.01\_BE\_Ch128\_GPRS\_PK

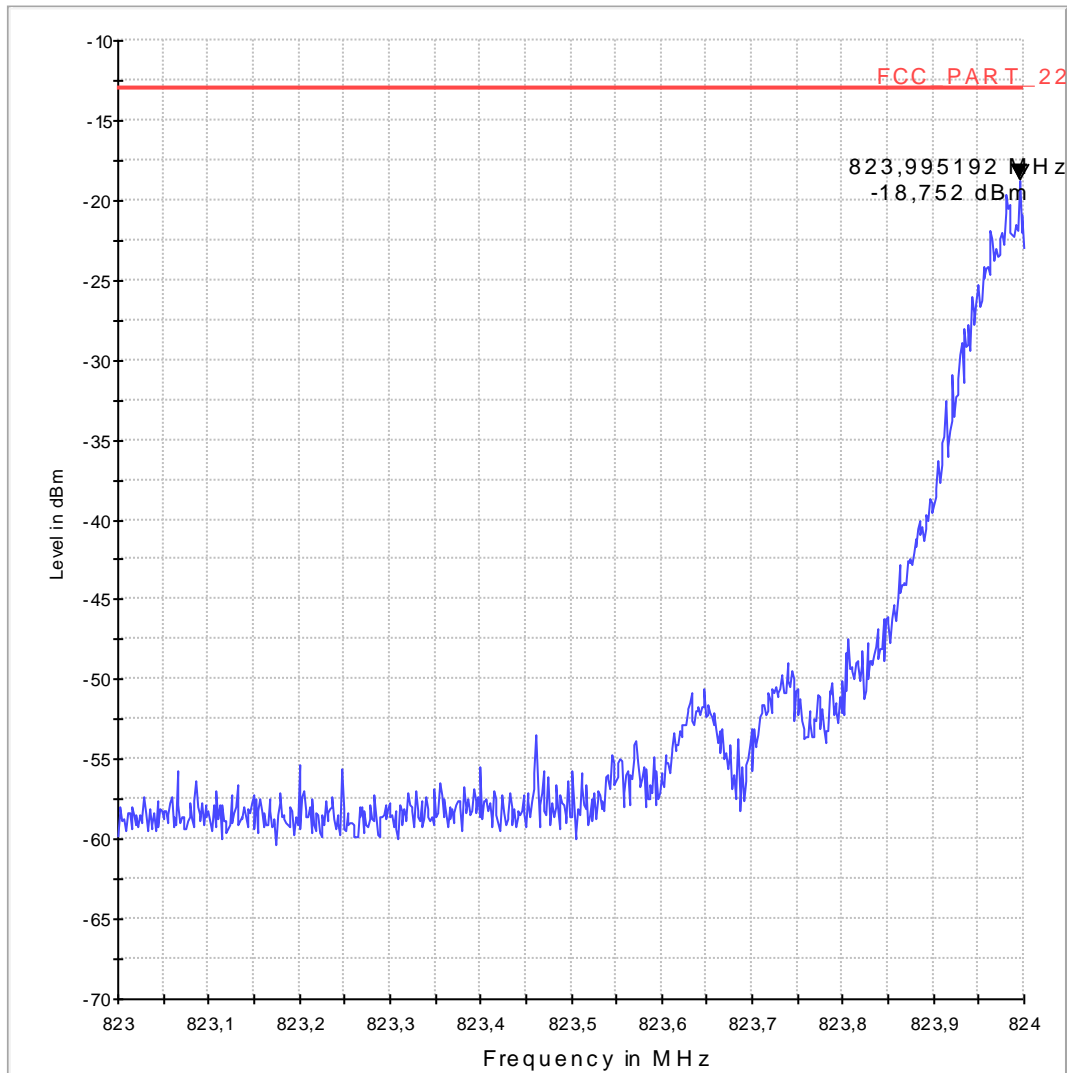
#### Common Information

Test Description:	TX Spurious Emission conducted §2.1051 - Band-Edge Compliance
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 128
Operator Name:	Tas
Comment:	6-0171-12-5-2a

#### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_3a\_Band\_Edge\_Channel\_128\_PK



## Diagram No.: 37.02\_BE\_Ch251\_GPRS\_PK

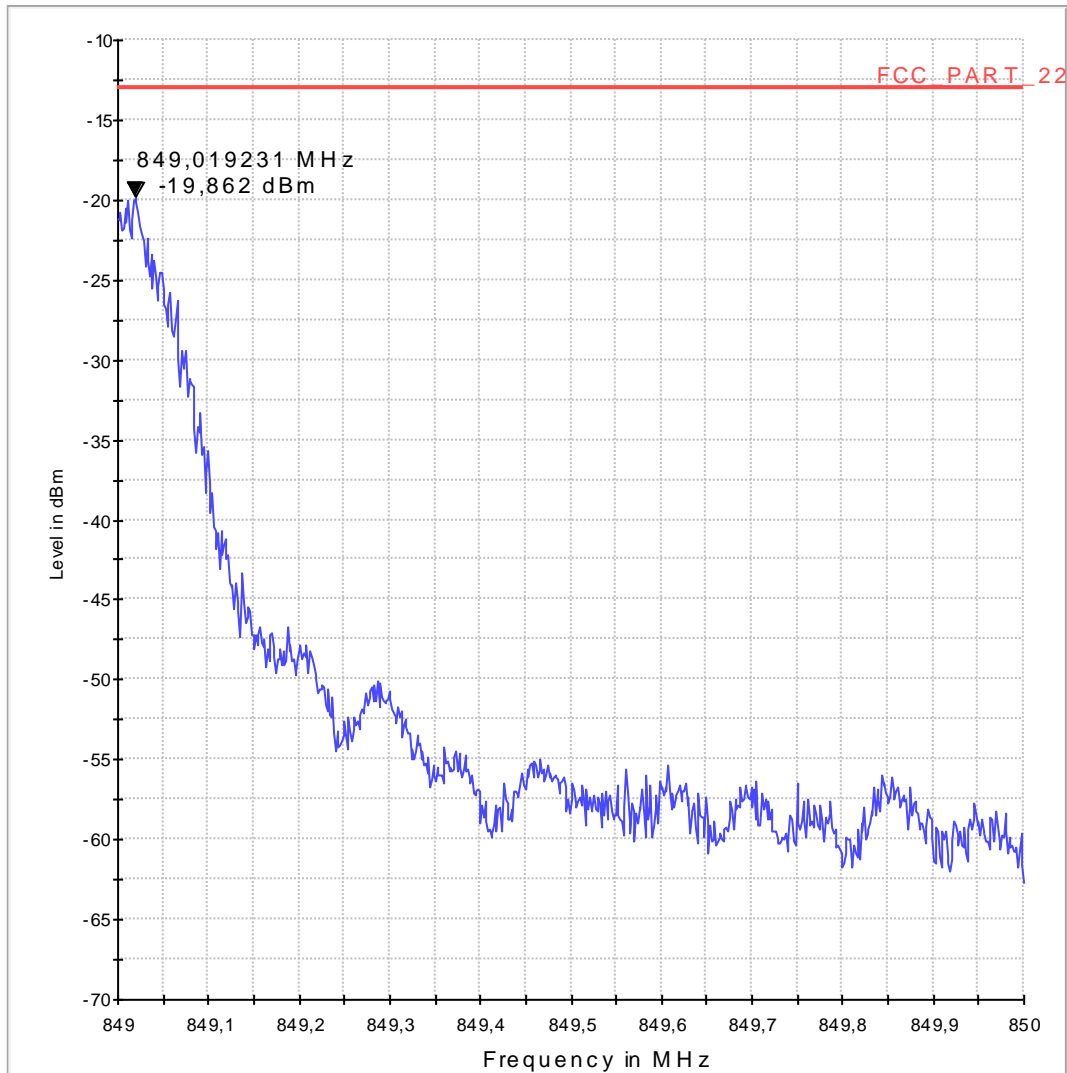
### Common Information

Test Description:	TX Spurious Emission conducted §2.1051 - Band-Edge Compliance
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX GPRS (CS-4) G850, CHANNEL 251
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_251\_PK



## Diagram No.: 37.03\_BE\_Ch128\_EDGE\_PK

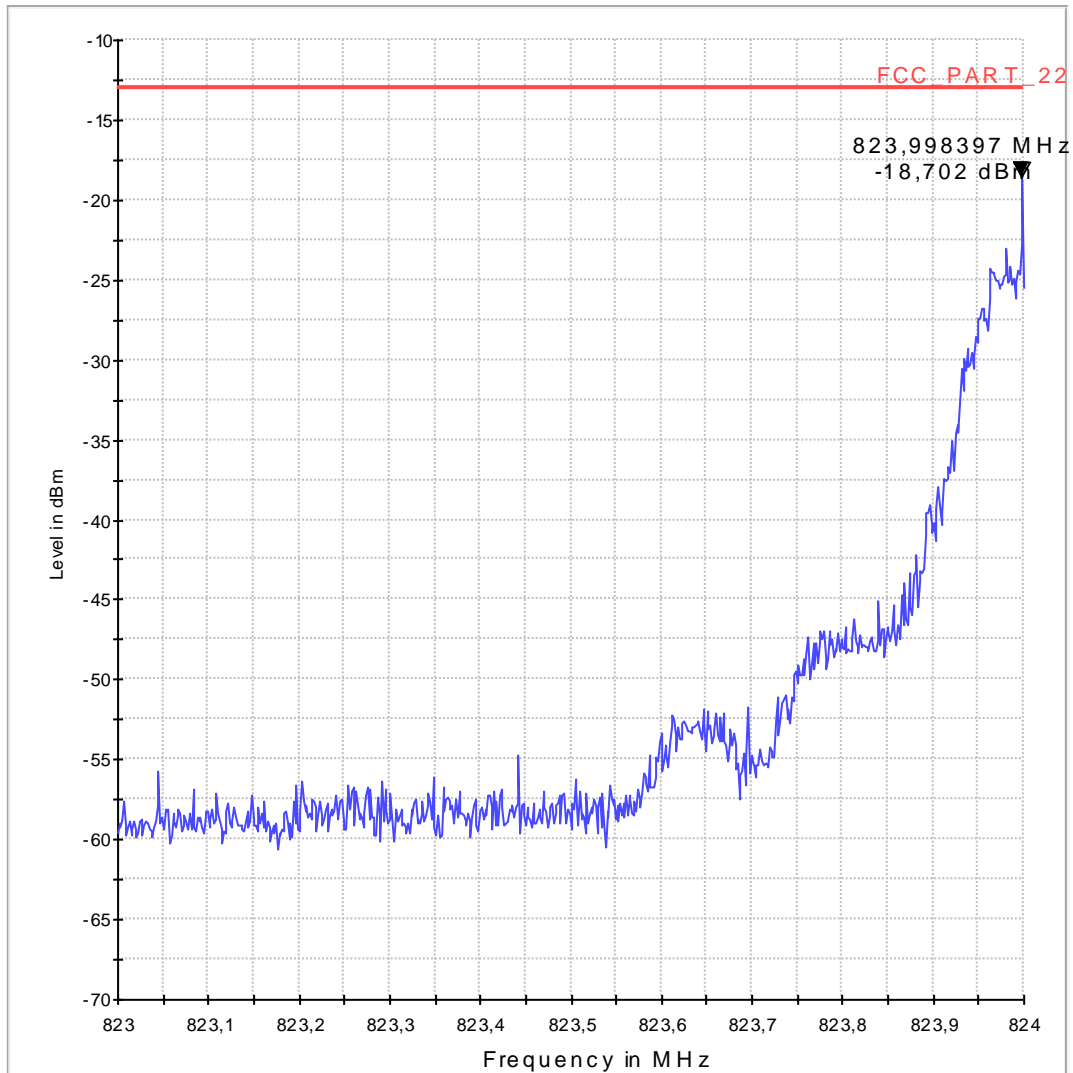
### Common Information

Test Description:	TX Spurious Emission conducted §2.1051 - Band-Edge Compliance
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 128
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_3a\_Band\_Edge\_Channel\_128\_PK



## Diagram No.: 37.04\_BE\_Ch251\_EDGE\_PK

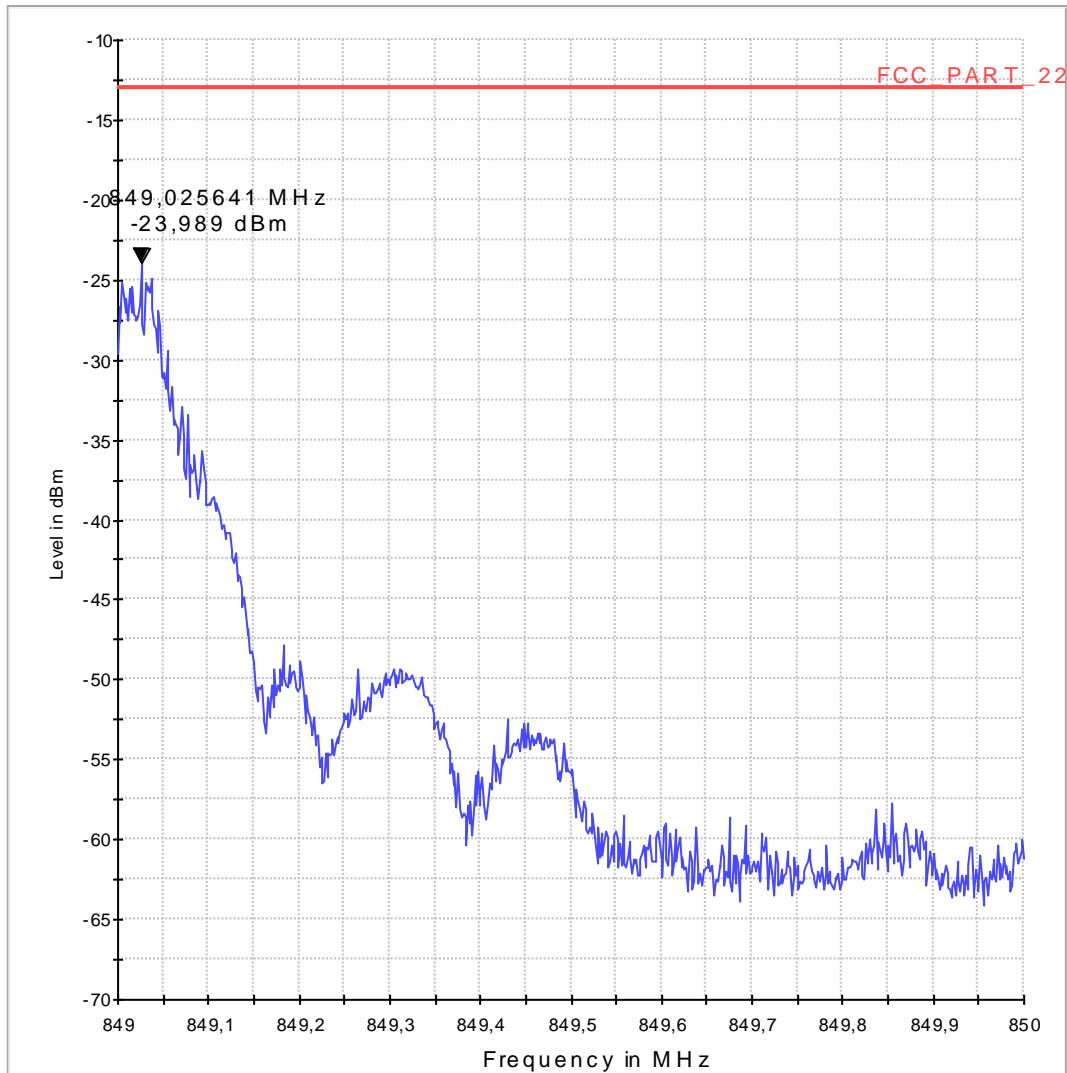
### Common Information

Test Description:	TX Spurious Emission conducted §2.1051 - Band-Edge Compliance
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 22, RSS-132
Operation mode:	TX EDGE (MCS-5) G850, CHANNEL 251
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_251\_PK



## Diagram No. 37.10\_BE\_Ch512\_GPRS

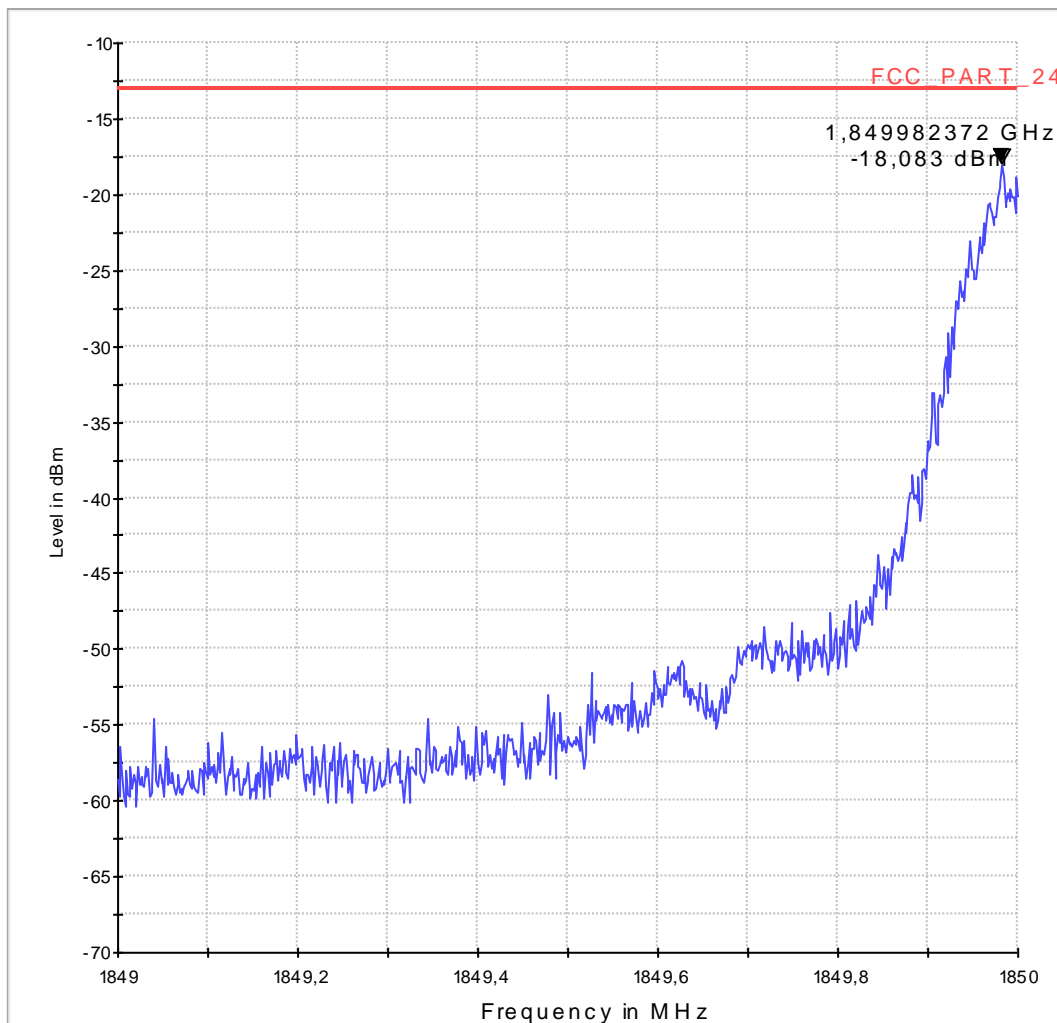
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24.238 (a,b) RSS 133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	GPRS-TX_low channel on ARFCN 512 6-0171-12-5-2a

### EUT Information

Manufacturer Name:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number	....5148-8
Hardware version:	Tbd
Software version:	Tbd
Remarks:	Reverse SMA require for conducted tests 24 V DC

Sweep\_3a\_Band\_Edge\_Channel\_512\_PK



## Diagram No. 37.11\_BE\_Ch810\_GPRS

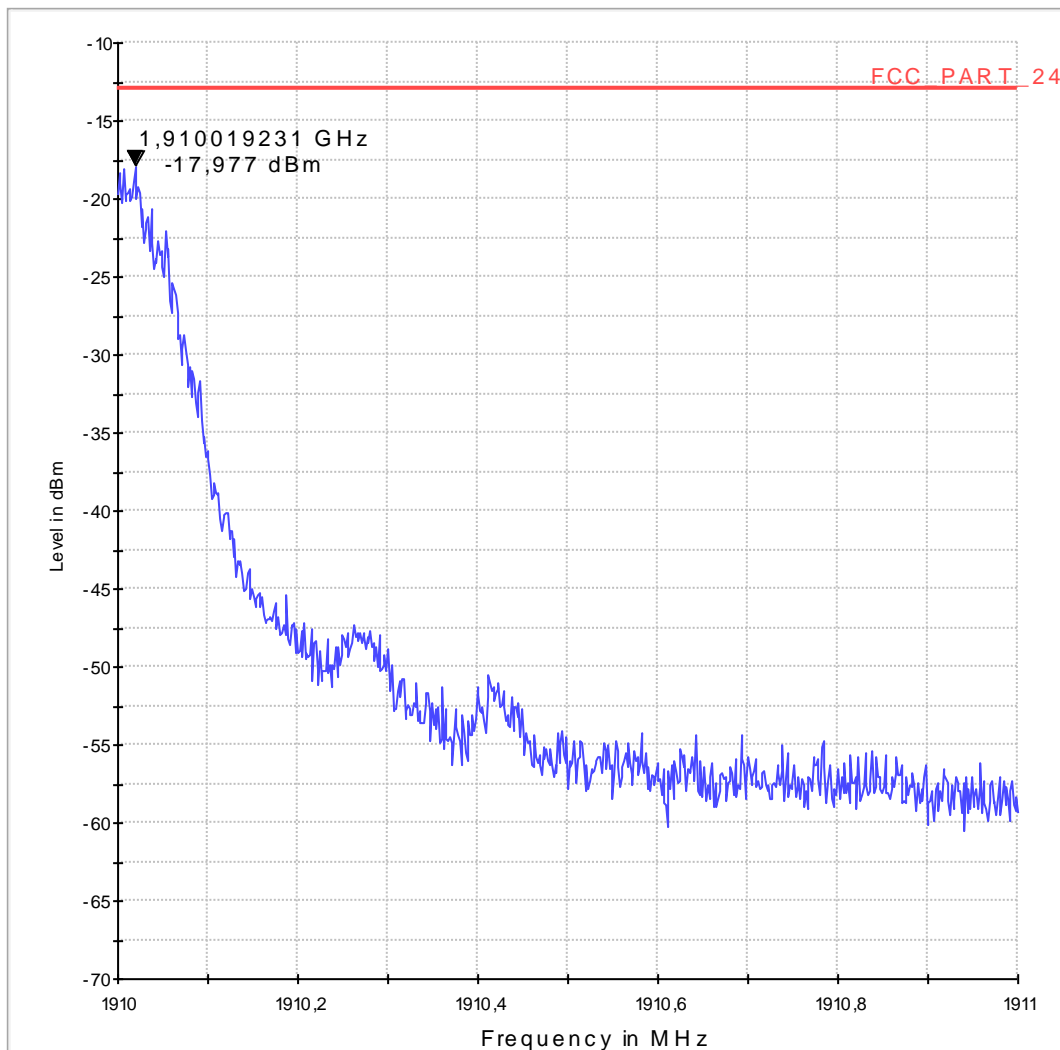
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24.238 (a,b) RSS 133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	GPRS-TX_high channel on ARFCN 810 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_810\_PK



## Diagram No.: 37.12\_BE\_Ch512\_EDGE\_PK

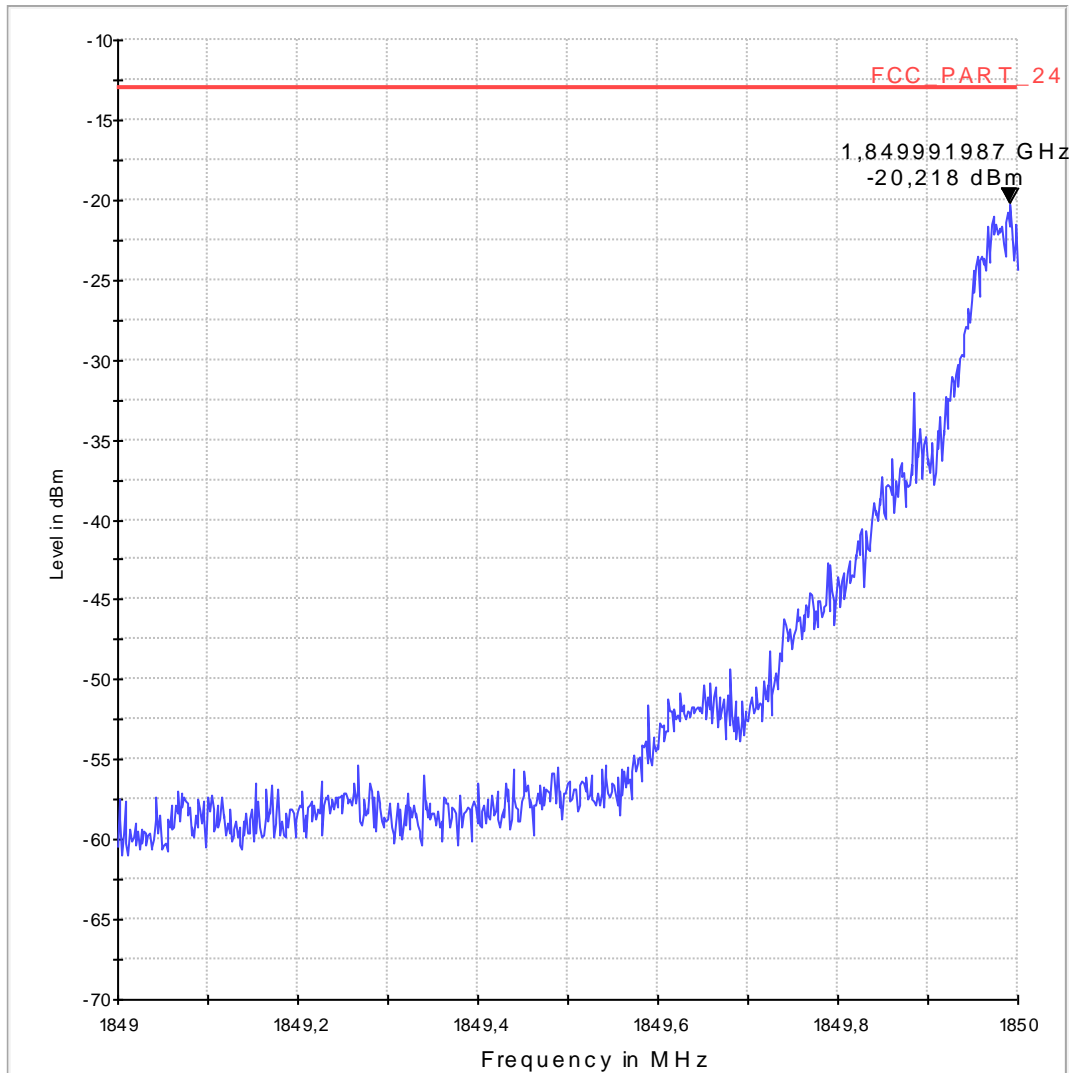
### Common Information

Test Description:	TX Spurious Emission conducted §2.1051 - Band-Edge Compliance
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24, RSS-133
Operation mode:	TX EDGE (MCS-5) PCS1900, CHANNEL 512
Operator Name:	Tas
Comment:	6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_3a\_Band\_Edge\_Channel\_512\_PK



## Diagram No. 37.13\_BE\_Ch810\_EDGE\_PK

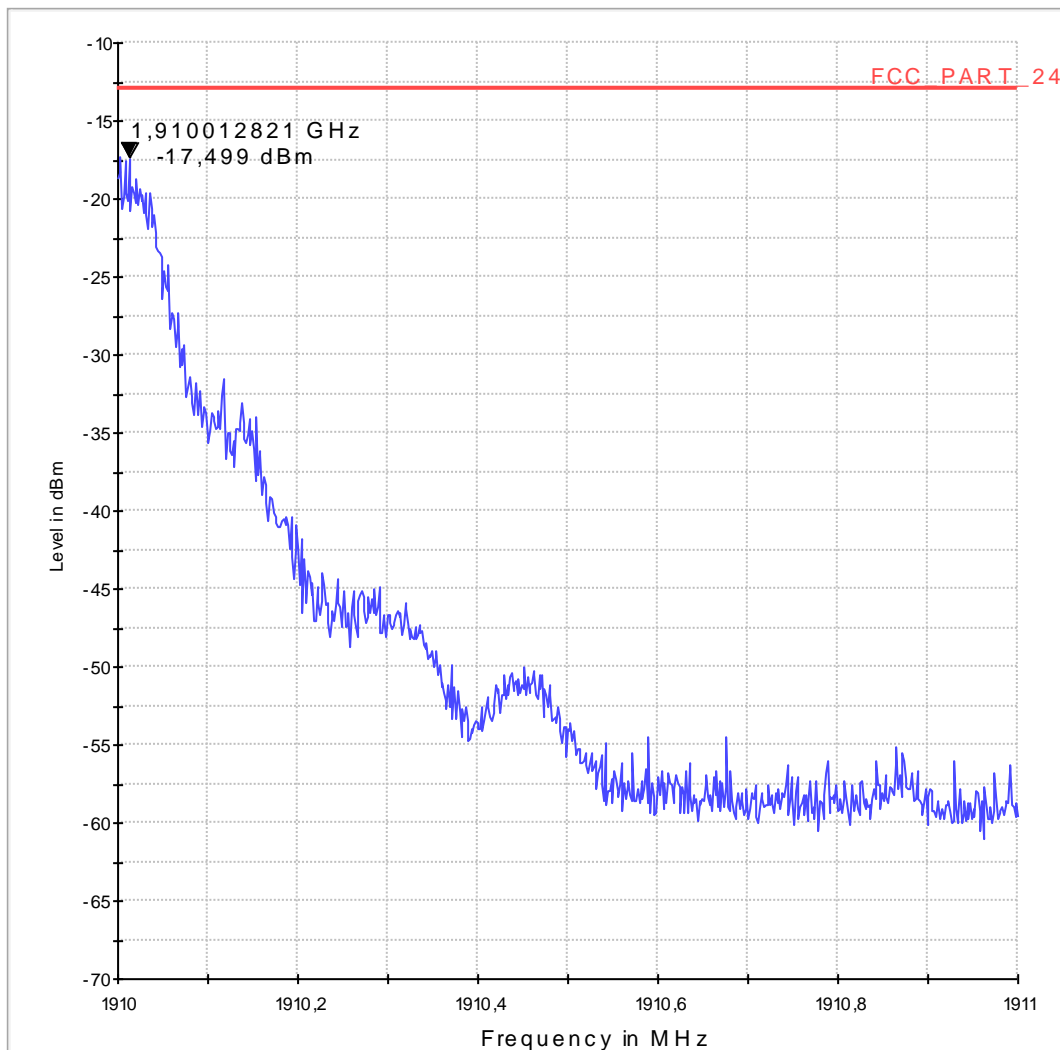
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio laboratory 1
Test Standard:	FCC Part 24.238 (a,b) RSS 133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	E-GPRS-TX_high channel on ARFCN 810 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_810\_PK





## Diagram no.: 37.40

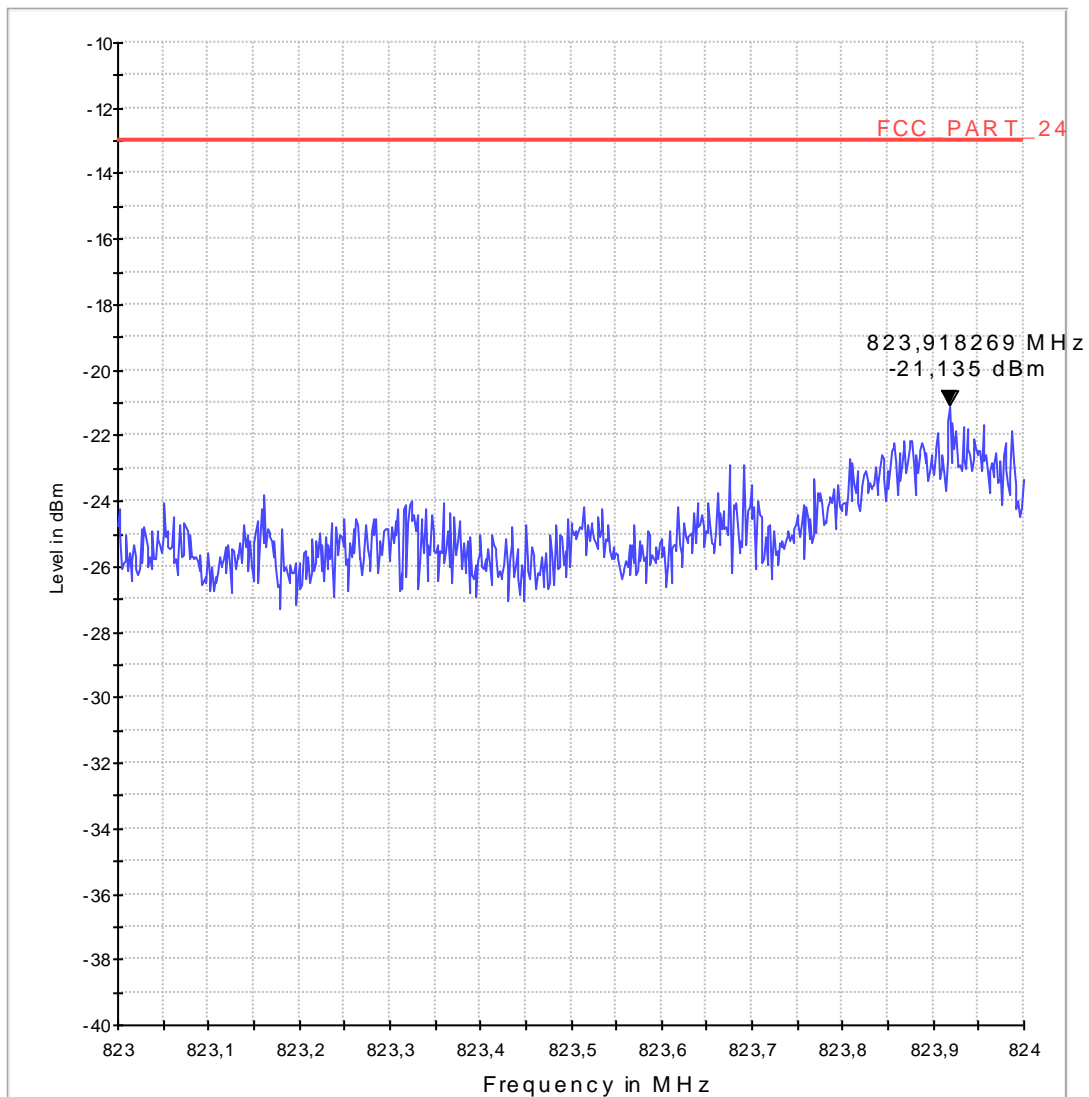
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	TX_low channel on U-ARFCN 4132, RMC

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_3a\_Band\_Edge\_Channel\_4132\_PK



## Diagram no.: 37.41

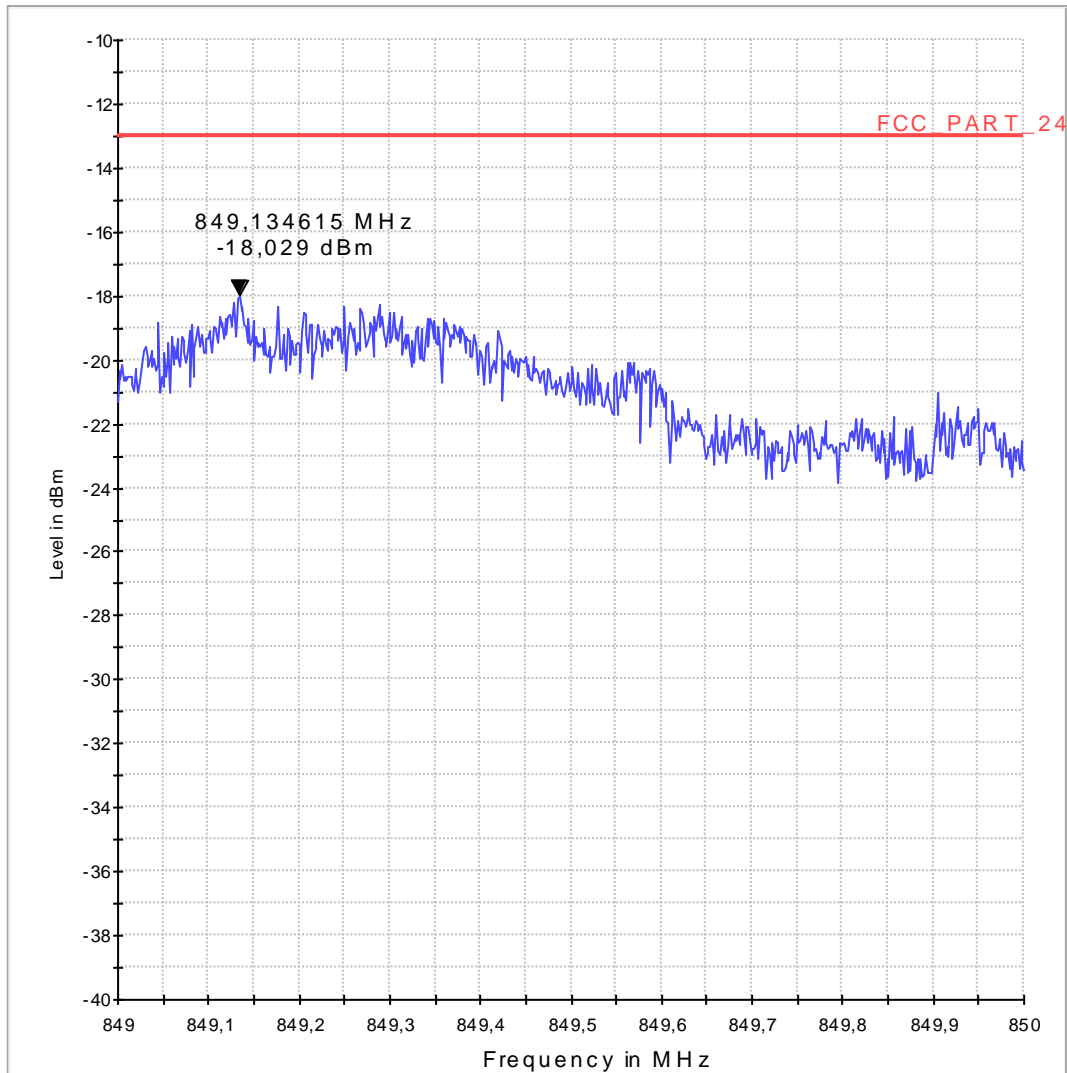
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	TX_high channel on U-ARFCN 4233, RMC 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_4233\_PK



## Diagram no.: 37.42

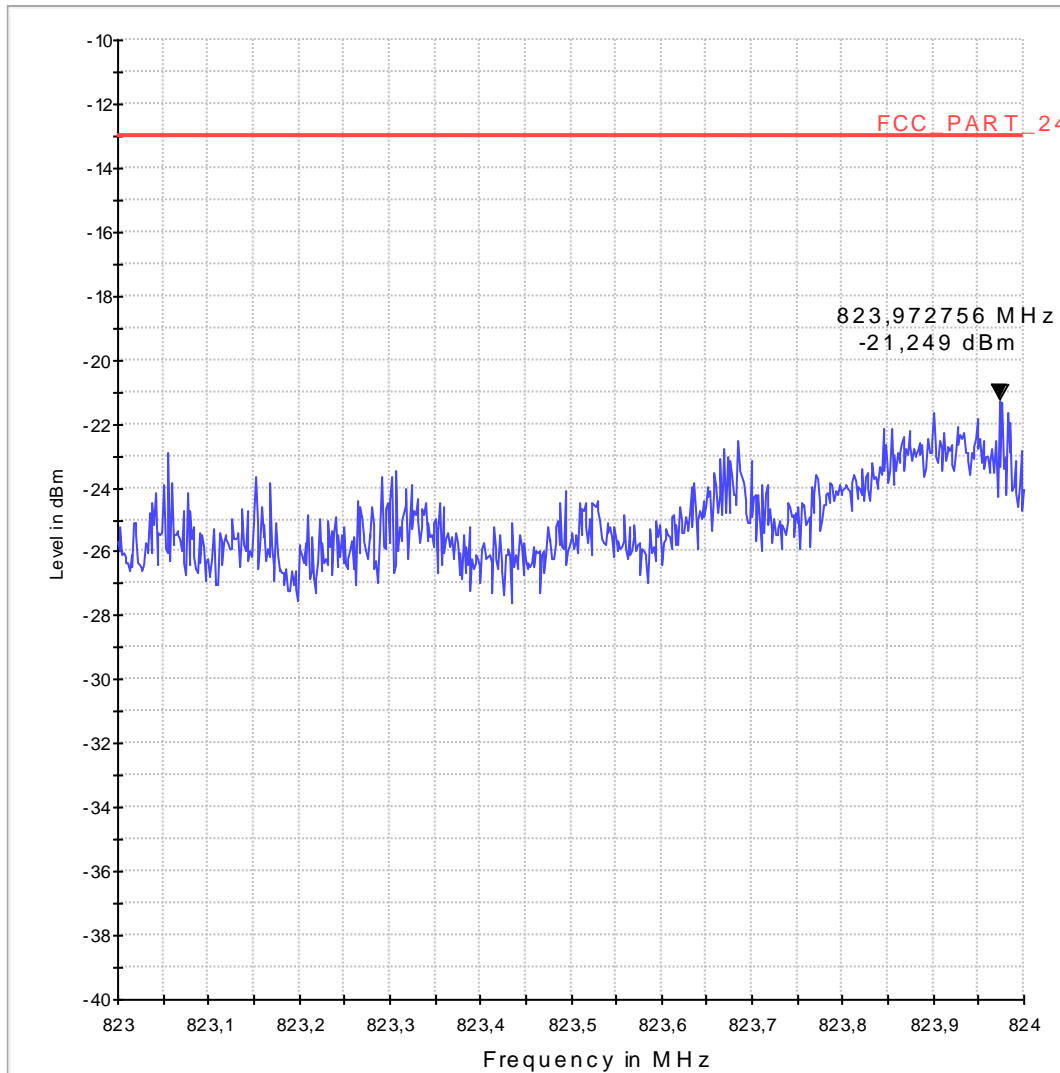
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24, RSS-133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	TX_low channel on U-ARFCN 4132, HSUPA (rel.6) 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_3a\_Band\_Edge\_Channel\_4132\_PK



## Diagram no.: 37.43

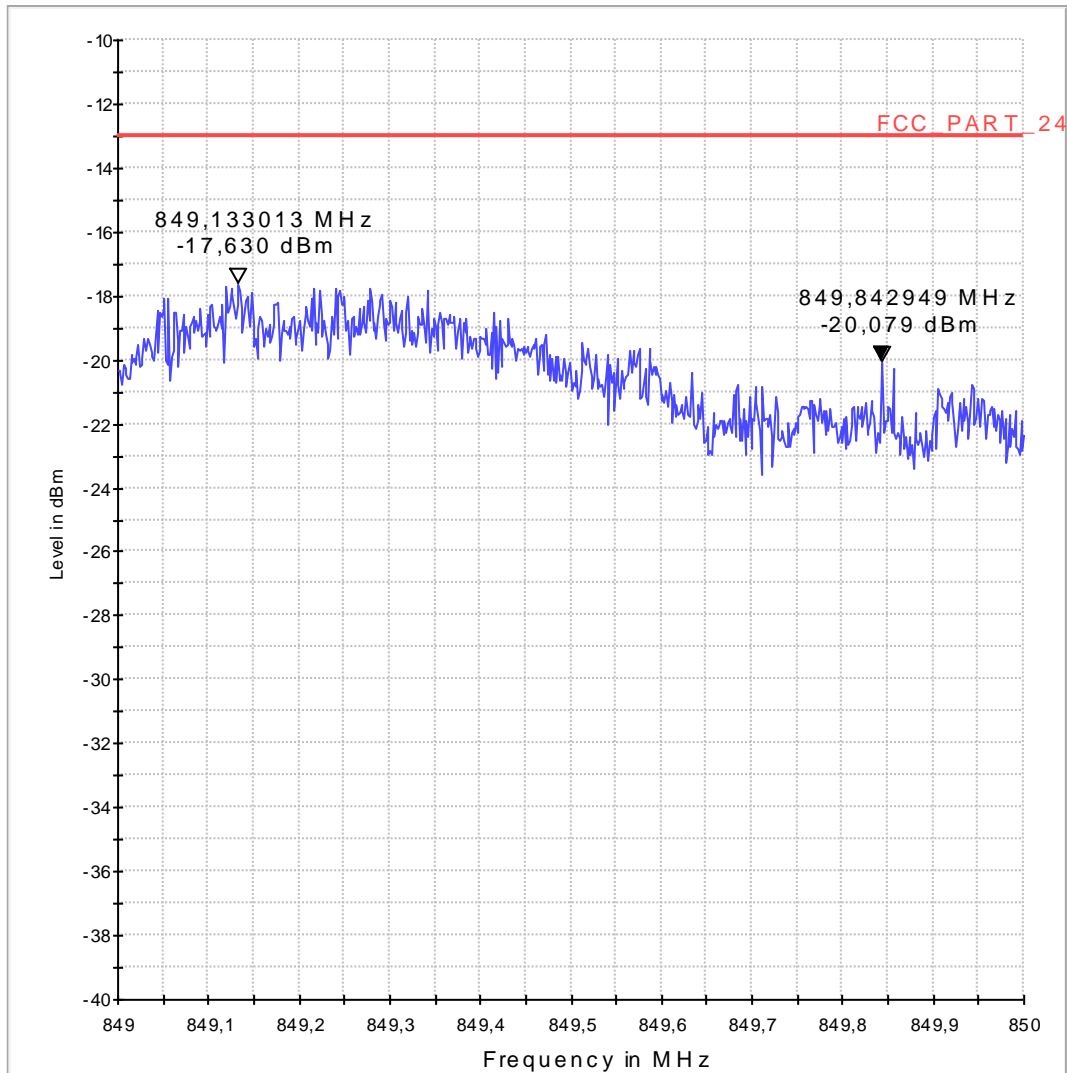
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 22, RSS-132
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	TX_high channel on U-ARFCN 4233, HSUPA (rel. 6) 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_4233\_PK



## Diagram no.: 37.60

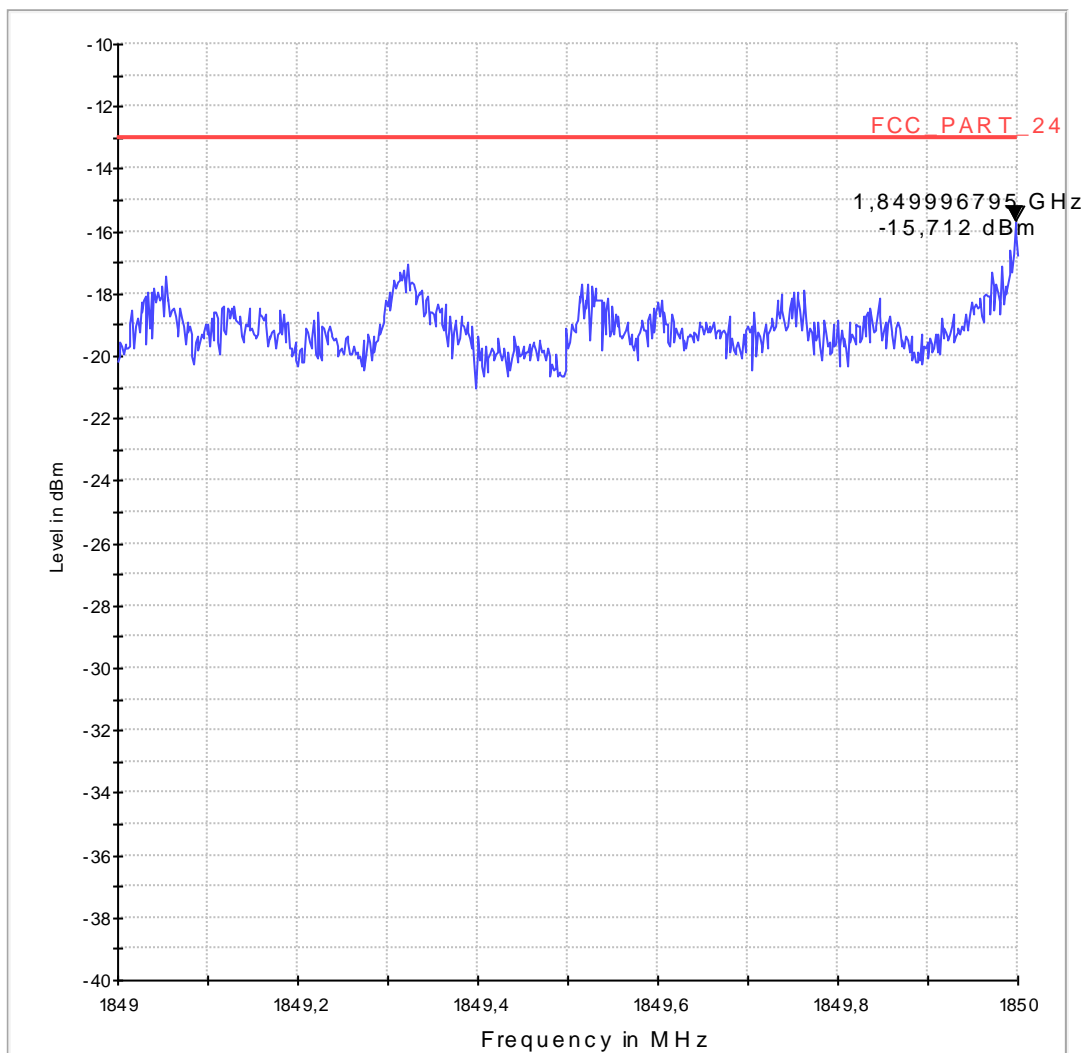
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24.238 (a) RSS 133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Comment:	TX_low channel on U-ARFCN 9262, RMC 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_3a\_Band\_Edge\_Channel\_9262\_PK



## Diagram no.: 37.61

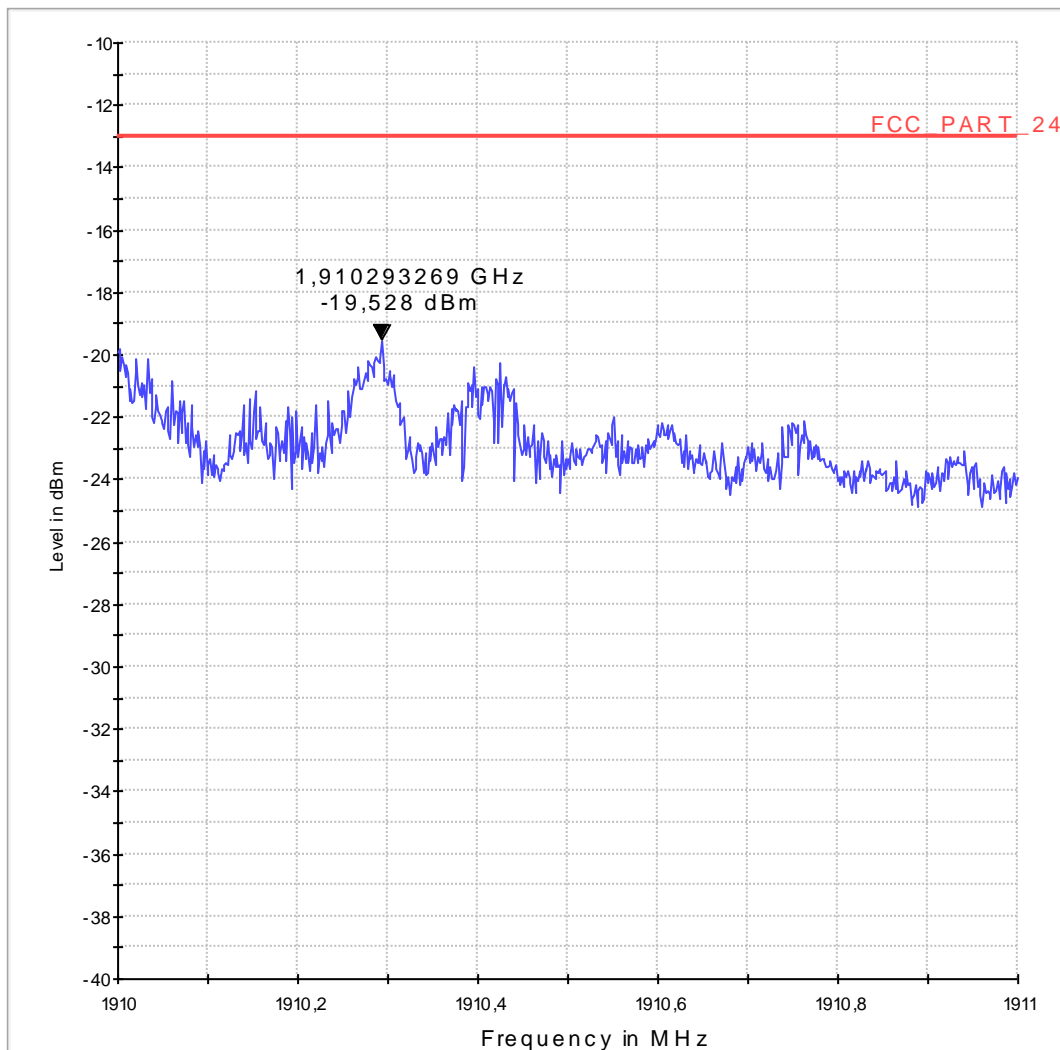
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24, RSS-133 FCC Part 22.917 (a,b)
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	TX_high channel on U-ARFCN 9538, RMC 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_9538\_PK



## Diagram no.: 37.62

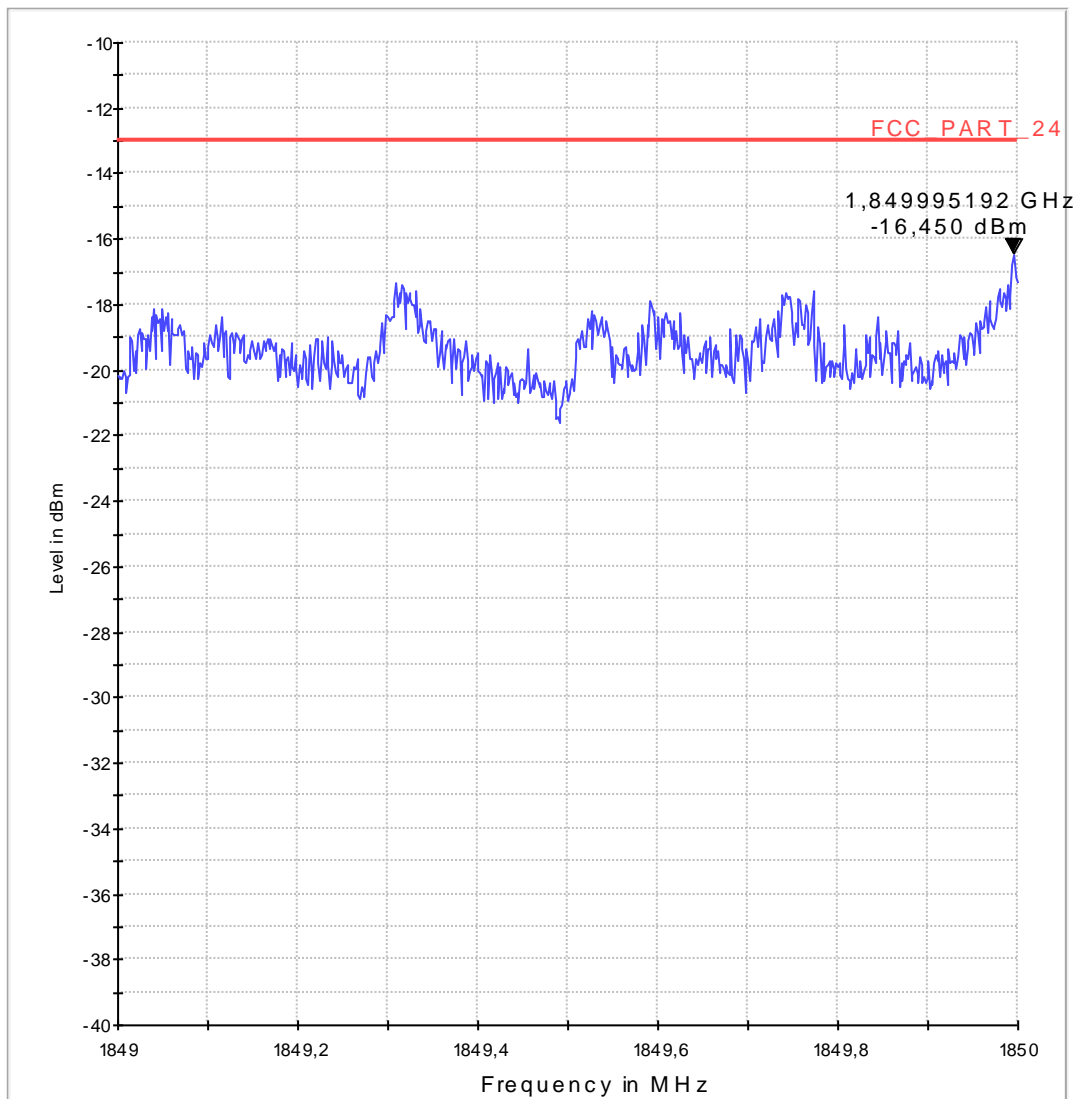
### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24, RSS-133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	TX_low channel on U-ARFCN 9262, HSUPA (rel.6)

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_3a\_Band\_Edge\_Channel\_9262\_PK



## Diagram no.: 37.63

### Common Information

Test Description:	Transmitter unwanted emissions (Band-Edge)/ FCC requirements
Test Site:	Radio LAB, CETECOM GmbH, Essen, Germany
Test Standard:	FCC Part 24, RSS-133
Environment Conditions:	Normal conditions (Vnominal, Tnominal)
Operator Name:	Tas
Operating mode:	TX_high channel on U-ARFCN 9538, HSUPA(rel. 6) 6-0171-12-5-2a

### EUT Information

Manufacturer:	CARLO GAVAZZI CONTROLS SPA
EUT:	VMU-W.A UMM.2.X (GSM/GPRS/EDGE/HSPA wireless data modem)
Serial Number:	355323-04-001514-8
Hardware Rev:	tbd (region Americas)
SW:	tbd
Accessories:	Reverse SMA require for conducted tests
Power during test	24 VDC

Sweep\_4a\_Band\_Edge\_Channel\_9538\_PK

