

Annex 4: Measurement diagrams  
to  
**TEST REPORT**  
No.: 6-0147-12-14-5c

According to:  
**FCC Regulations**  
Part 22, Part 24, Part 27







**IC-Regulations**  
RSS-132 Issue 3, RSS-133 Issue 6  
RSS-139 Issue 2, RSS-Gen Issue 3

for

Cinterion GmbH

Wireless Module ALS1-US  
(LTE-Mode)

FCC-ID: QIPALS1-US  
IC: 7830A-ALS1US

Laboratory Accreditation and Listings			
 <b>DAkKS</b> Deutsche Akkreditierungsstelle D-PL-12047-01-01	 FEDERAL COMMUNICATIONS COMMISSION USA 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>WiFi</b> ALLIANCE AUTHORIZED RF LABORATORY	 <b>CTIA Authorized Test Lab</b> LAB CODE 20011130-00		
accredited according to DIN EN ISO/IEC 17025			
<p align="center"> <b>CETECOM GmbH</b>                      Laboratory Radio Communications &amp; Electromagnetic Compatibility                      Im Teelbruch 116 • 45219 Essen • Germany                      Registered in Essen, Germany, Reg. No.: HRB Essen 8984                      Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964                      E-mail: info@cetecom.com • Internet: www.cetecom.com                 </p>			

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# 1. Measurement diagrams

## 1.1. Spurious emissions radiated (LTE Band II)

### 8.20a\_RSE\_1RB\_Ch18607\_BW1,4

#### Common Information

Test Description: Radiated Spurious Emissions LTE II  
 Test Site Location: CETECOM GmbH Essen  
 Test Site: Fully Anechoic Room (FAR)  
 Test Standard: FCC Part 24  
 Operating Mode: UE allocated channel 18607  
 Environmental Conditions: Humidity: 43%rH; Temperature: 21°C  
 Operator: Lor

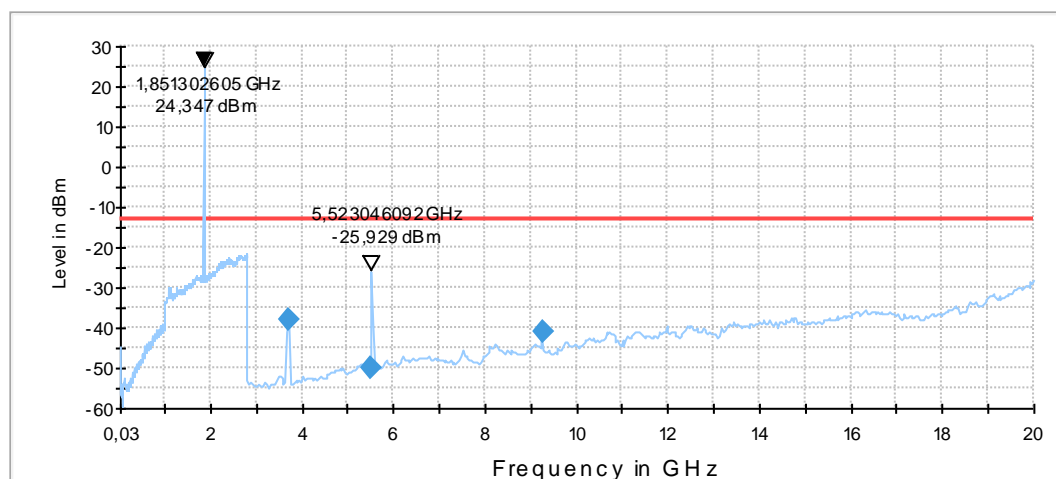
#### EUT Information

Manufacturer: Cinterion GmbH  
 EuT: Wireless Module  
 Type: ALS1-US

---

HW version: -  
 SW version: -  
 Serial number: #21  
 Connected Interfaces: Audio line to Votronic handset, RS232, USB cable  
 Power Supply: 9VD on DSB75, Intern 4.2 V to Module  
 Comments: used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030416\_FCC\_Part24\_-LTEII\_TX\_all\_channels\_30M-20G



#### Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3700.410822	-37.8	10000.0	1000.000	H	132.0	90.0	-94.9	24.8	-13.0
5521.292585	-49.8	10000.0	1000.000	H	295.0	0.0	-89.9	36.8	-13.0
9250.691383	-41.0	10000.0	1000.000	V	72.0	0.0	-81.6	28.0	-13.0

# 8.20b\_RSE\_1RB\_OFF0\_Ch18607\_ BW1,4\_16QAM

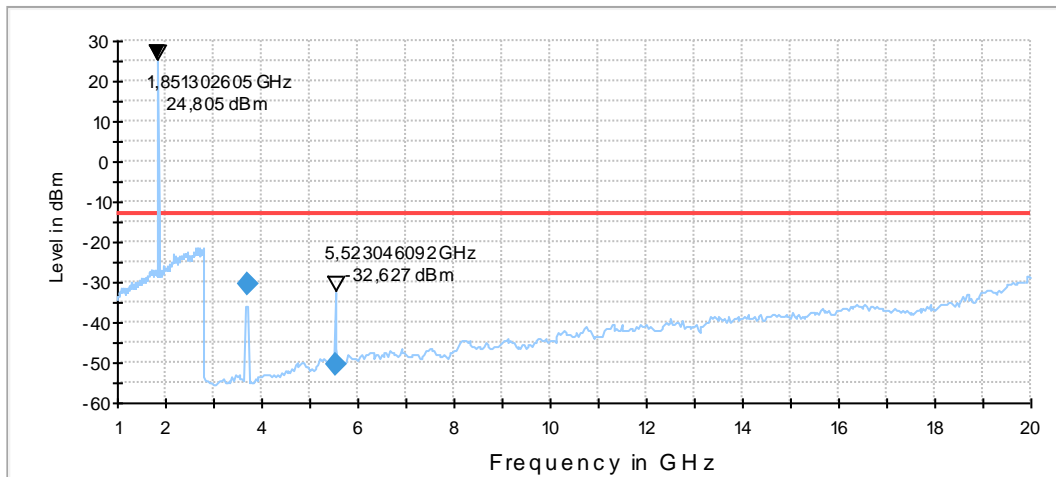
## Common Information

Test Description:	Radiated Spurious Emissions LTE II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel 18607
Environmental Conditions:	Humidity: 43%rH; Temperature: 21°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030416\_FCC\_Part24\_-LTEII\_TX\_all\_channels\_30M-20G



## Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3700.475952	-30.5	10000.0	1000.000	H	-9.0	0.0	-94.9	17.5	-13.0
5524.624248	-50.3	10000.0	1000.000	V	268.0	0.0	-89.9	37.3	-13.0

# 8.21a\_RSE\_25RB\_Ch18899\_BW10

## Common Information

Test Description: Radiated Spurious Emissions LTE II  
 Test Site Location: CETECOM GmbH Essen  
 Test Site: Fully Anechoic Room (FAR)  
 Test Standard: FCC Part 24  
 Operating Mode: UE allocated channel 18900  
 Environmental Conditions: Humidity: 43%rH; Temperature: 21°C  
 Operator: Lor

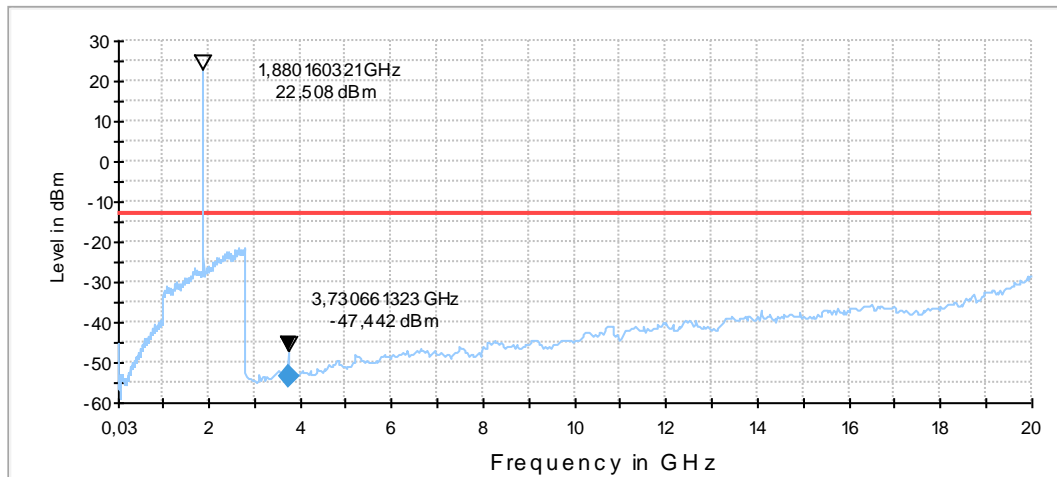
## EUT Information

Manufacturer: Cinterion GmbH  
 EuT: Wireless Module  
 Type: ALS1-US

---

HW version: -  
 SW version: -  
 Serial number: #21  
 Connected Interfaces: Audio line to Votronic handset, RS232, USB cable  
 Power Supply: 9VD on DSB75, Intern 4.2 V to Module  
 Comments: used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030416\_FCC\_Part24\_-LTEII\_TX\_all\_channels\_30M-20G



## Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3731.533066	-53.4	10000.0	1000.000	H	26.0	0.0	-95.0	40.4	-13.0

## 8.22\_RSE\_100RB\_Ch19100\_BW20

### Common Information

Test Description: Radiated Spurious Emissions LTE II  
 Test Site Location: CETECOM GmbH Essen  
 Test Site: Fully Anechoic Room (FAR)  
 Test Standard: FCC Part 24  
 Operating Mode: UE allocated channel 19100  
 Environmental Conditions: Humidity: 43%rH; Temperature: 21°C  
 Operator: Lor

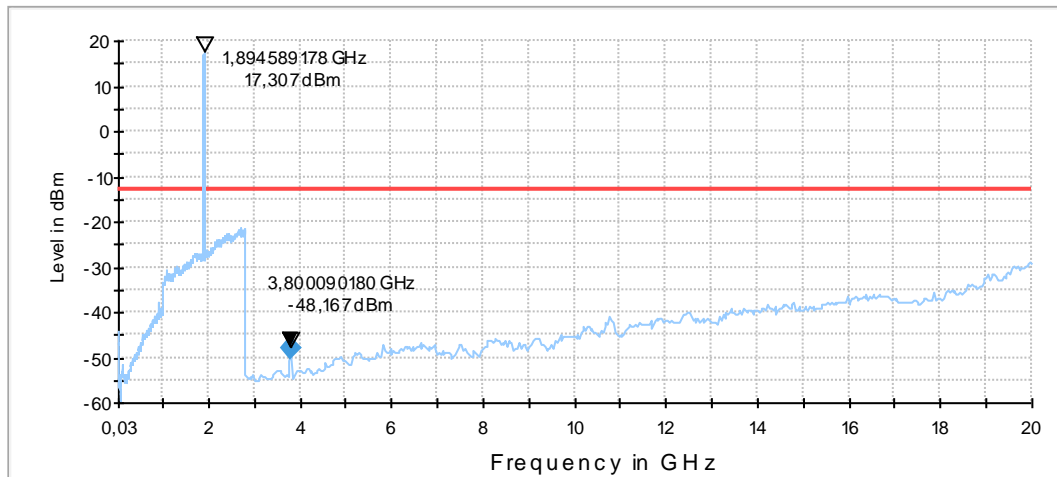
### EUT Information

Manufacturer: Cinterion GmbH  
 EuT: Wireless Module  
 Type: ALS1-US

---

HW version: -  
 SW version: -  
 Serial number: #21  
 Connected Interfaces: Audio line to Votronic handset, RS232, USB cable  
 Power Supply: 9VD on DSB75, Intern 4.2 V to Module  
 Comments: used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030416\_FCC\_Part24\_-LTEII\_TX\_all\_channels\_30M-20G



### Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
3800.090180	-48.2	10000.0	1000.000	H	138.0	90.0	-95.2	35.2	-13.0

## 1.2. Spurious emissions radiated (LTE Band IV)

# 8.40\_RSE\_R\_Ch19957\_BW\_1\_4

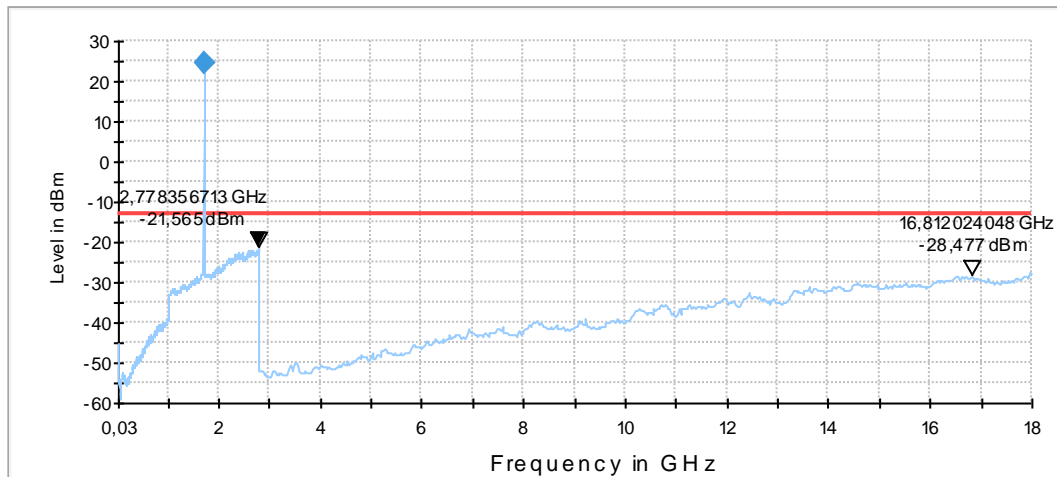
### Common Information

Test Description: Radiated Spurious Emissions LTE IV  
 Test Site Location: CETECOM GmbH Essen  
 Test Site: Fully Anechoic Room (FAR)  
 Test Standard: FCC Part 27  
 Operating Mode: UE allocated channel 19957 (QPSK)  
 Environmental Conditions: Humidity: 24%rH; Temperature: 24,1°C  
 Operator: Lor  
 Remarks: Carrier visible on diagram, not relevant for results

### EUT Information

Manufacturer: Cinterion GmbH  
 EuT: Wireless Module  
 Type: ALS1-US  
 -----  
 HW version: -  
 SW version: -  
 Serial number: #21  
 Connected Interfaces: Audio line to Votronic handset, RS232, USB cable  
 Power Supply: 9VD on DSB75, Intern 4.2 V to Module  
 Comments: used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030419\_FCC\_Part27\_LTEIV\_TX\_all\_channels\_30M-18G\_slow\_speed



### Final Result 1

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
1710.230461	24.4	10000.0	1000.000	V	228.0	0.0	-63.4	-37.4	-13.0

# 8.41\_RSE\_R\_Ch20175\_BW\_10

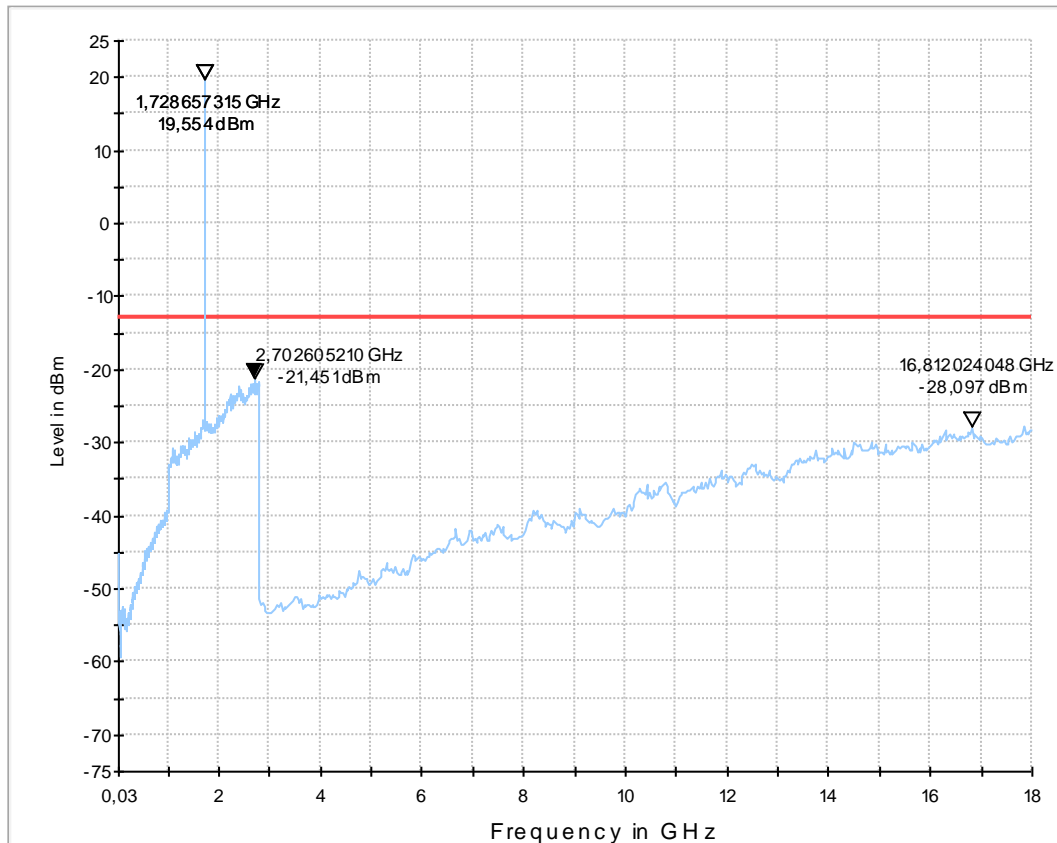
## Common Information

Test Description:	Radiated Spurious Emissions LTE IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel 20175 (QPSK)
Environmental Conditions:	Humidity: 24%rH; Temperature: 24,1°C
Operator:	Lor
Remarks:	Carrier visible on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030419\_FCC\_Part27\_LTEIV\_TX\_all\_channels\_30M-18G\_slow\_speed





## 8.42\_RSE\_R\_Ch20300\_BW\_20

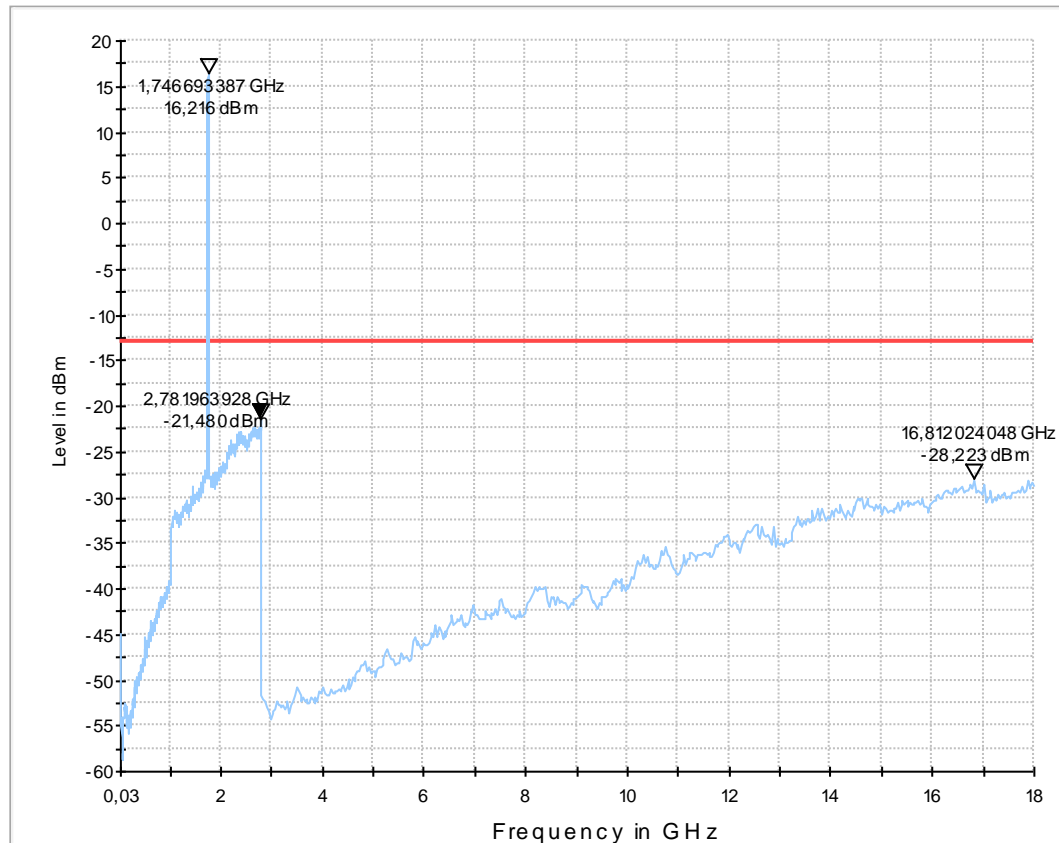
### Common Information

Test Description:	Radiated Spurious Emissions LTE IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel 20300 (QPSK)
Environmental Conditions:	Humidity: 24%rH; Temperature: 24,1°C
Operator:	Lor
Remarks:	Carrier visible on diagram, not relevant for results

### EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030419\_FCC\_Part27\_LTEIV\_TX\_all\_channels\_30M-18G\_slow\_speed



## 8.43\_RSE\_R\_Ch19957\_BW\_1\_4

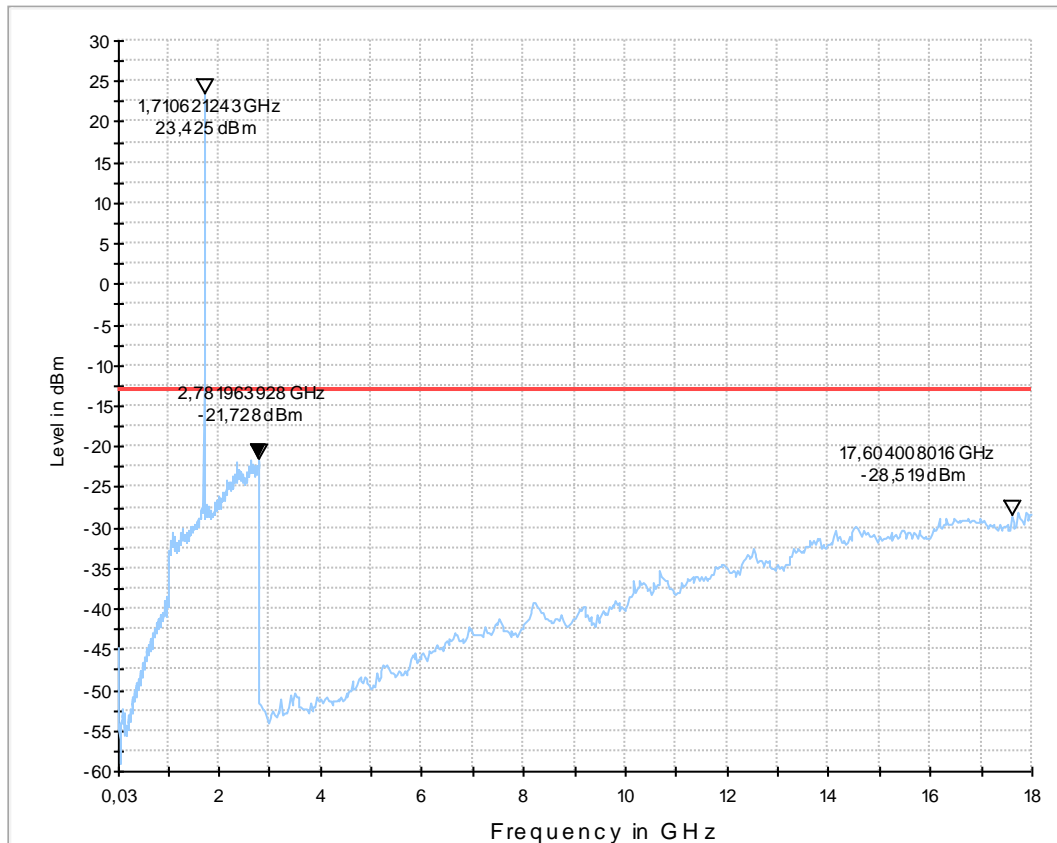
### Common Information

Test Description:	Radiated Spurious Emissions LTE IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel 19957 (16-QAM)
Environmental Conditions:	Humidity: 24%rH; Temperature: 24,1°C
Operator:	Lor
Remarks:	Carrier visible on diagram, not relevant for results

### EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030419\_FCC\_Part27\_LTEIV\_TX\_all\_channels\_30M-18G\_slow\_speed



### 1.3. Spurious emissions radiated (LTE Band V)

## 8.50\_RSE\_R\_Ch20407\_BW\_1\_4\_QPSK

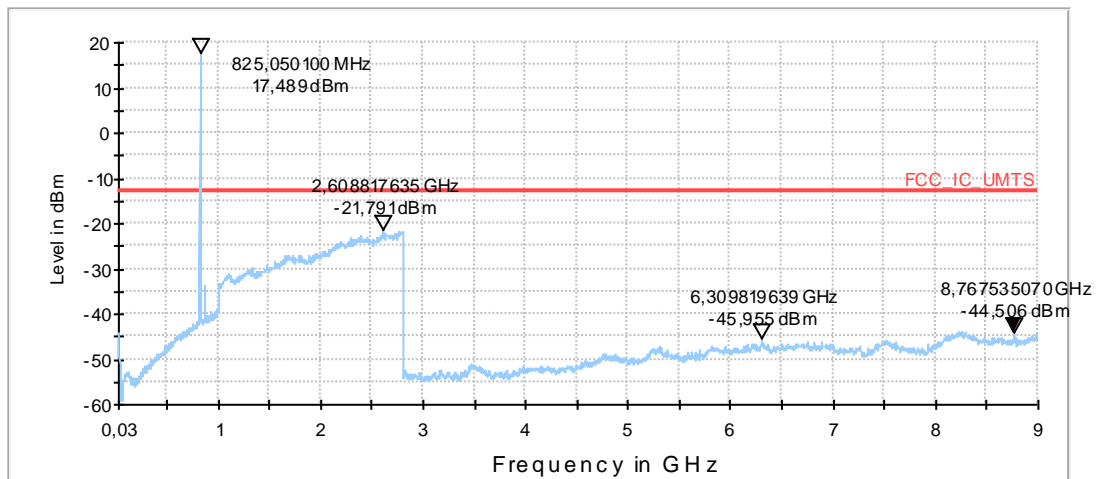
### Common Information

Test Description:	Radiated Spurious Emissions LTE V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a)
Operating Mode:	UE allocated channel 20407
Environmental Conditions:	Humidity: 22%rH; Temperature: 22°C
Operator:	Yzh

### EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

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



# 8.51\_RSE\_R\_Ch20525\_BW\_3\_QPSK

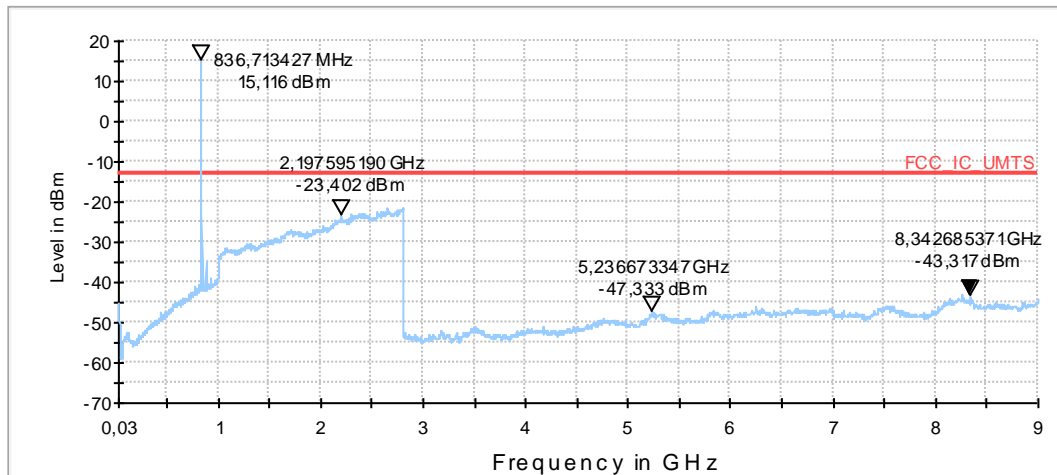
## Common Information

Test Description:	Radiated Spurious Emissions LTE V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a)
Operating Mode:	UE allocated channel 20525
Environmental Conditions:	Humidity: 22%rH; Temperature: 22°C
Operator:	Yzh

## EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

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



## 8.52\_RSE\_R\_Ch20600\_BW\_10\_QPSK

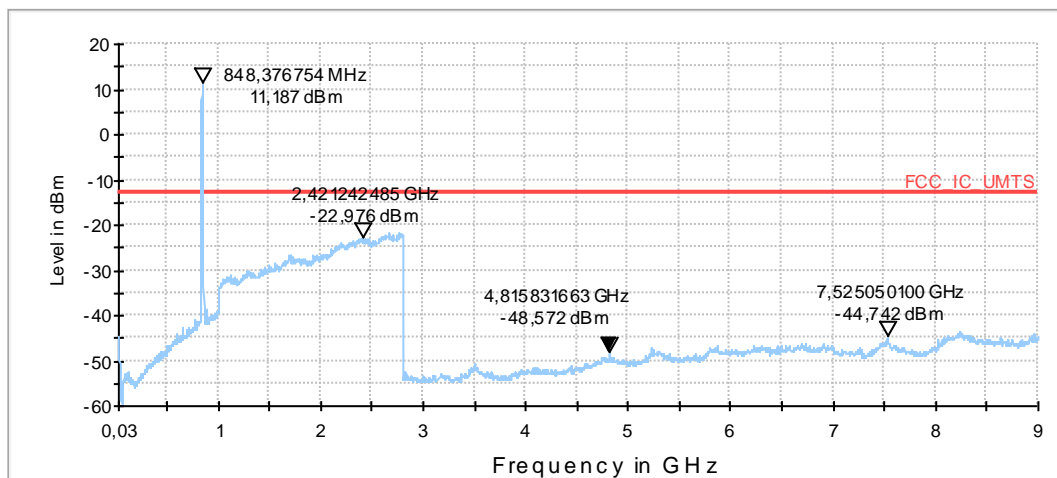
### Common Information

Test Description:	Radiated Spurious Emissions LTE V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a)
Operating Mode:	UE allocated channel 20600
Environmental Conditions:	Humidity: 22%rH; Temperature: 22°C
Operator:	Yzh

### EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

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



## 1.4. Spurious emissions radiated (LTE Band XVII)

# 8.1701a\_RSE\_R\_Ch23755\_BW\_5

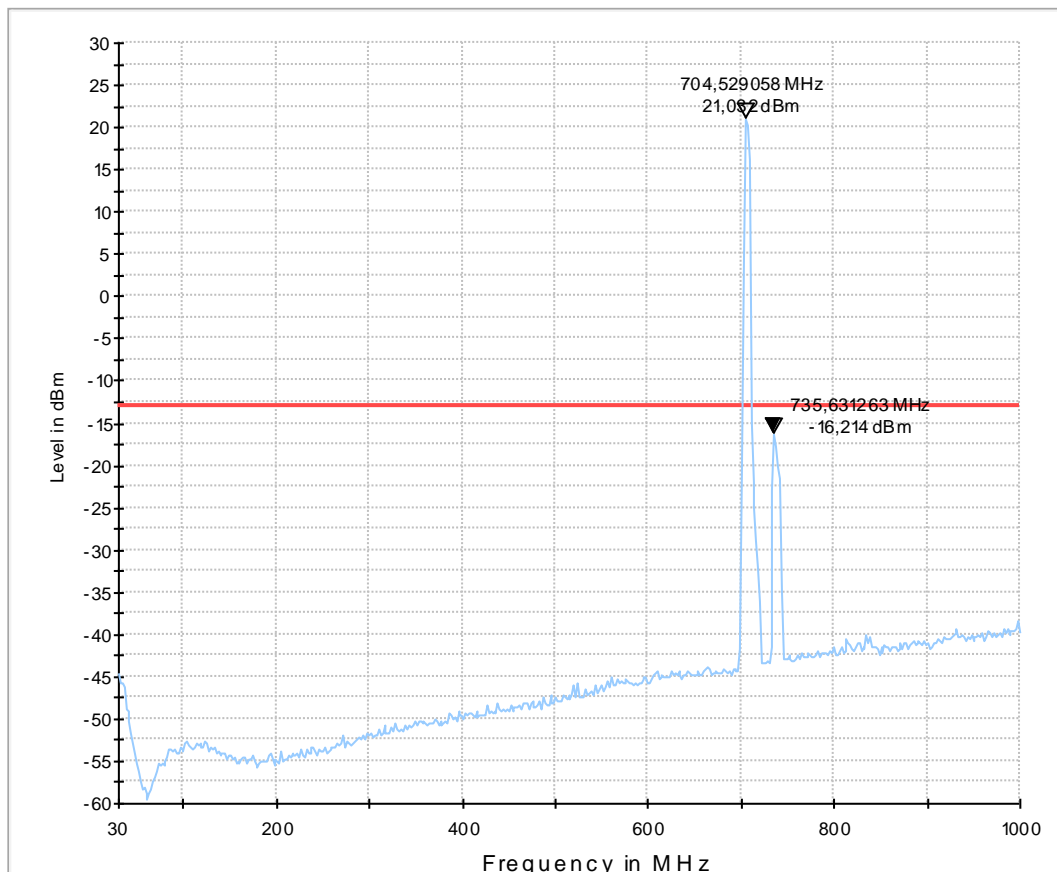
### Common Information

Test Description:	Radiated Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	MS allocated channel 23755 (QPSK)
Environmental Conditions:	Humidity: 31%rH; Temperature: 21°C
Operator:	Ada

### EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030420\_FCC\_Part27\_LTE\_Band17\_TX\_all\_channels\_30M-9G\_slow\_spee



# 8.1701b\_RSE\_R\_Ch23755\_BW\_5

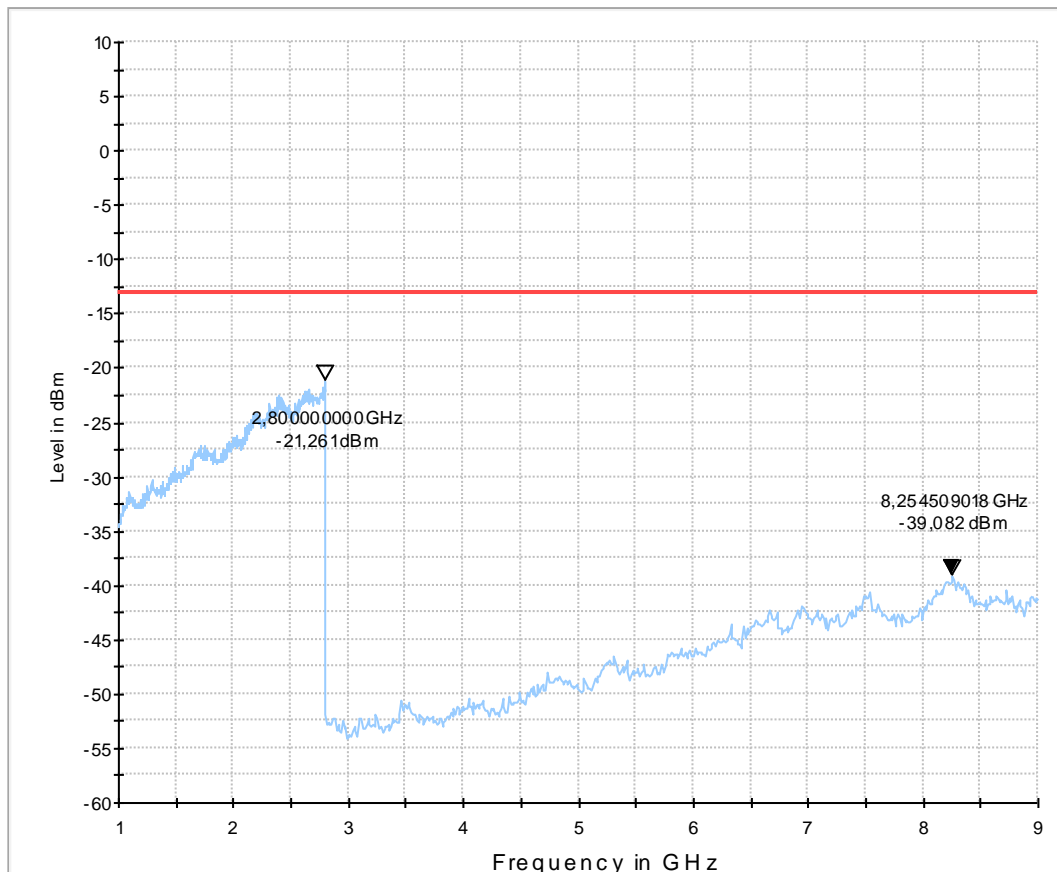
## Common Information

Test Description:	Radiated Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	MS allocated channel 23755 (QPSK)
Environmental Conditions:	Humidity: 31%rH; Temperature: 21°C
Operator:	Ada

## EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030420\_FCC\_Part27\_LTE\_Band17\_TX\_all\_channels\_30M-9G\_slow\_speed



# 8.1702\_RSE\_R\_Ch23790\_BW\_5

## Common Information

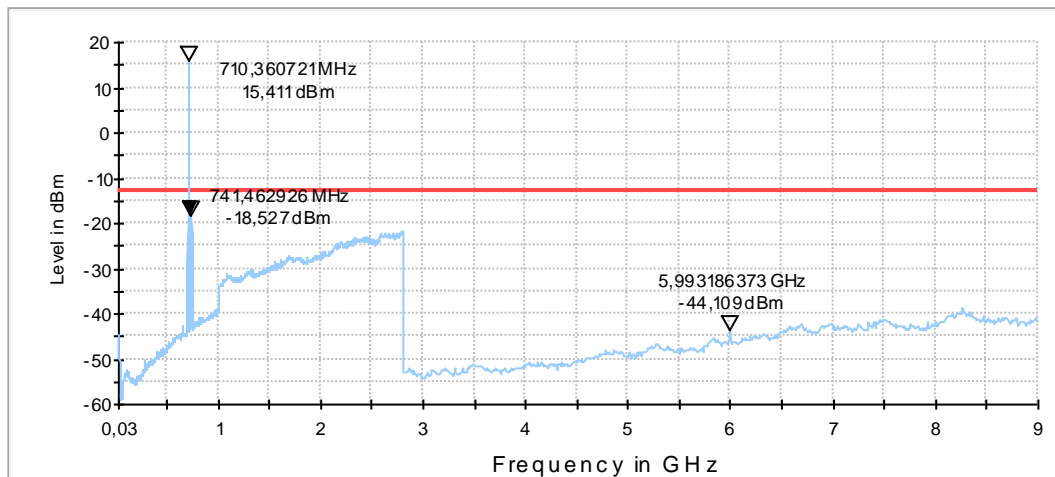
Test Description:	Radiated Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	MS allocated channel 23790 (QPSK)
Environmental Conditions:	Humidity: 31%rH; Temperature: 21°C
Operator:	Ada

## EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US

HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030420\_FCC\_Part27\_LTE\_Band17\_TX\_all\_channels\_30M-9G\_slow\_speed





# 8.1703\_RSE\_R\_Ch23800\_BW\_10

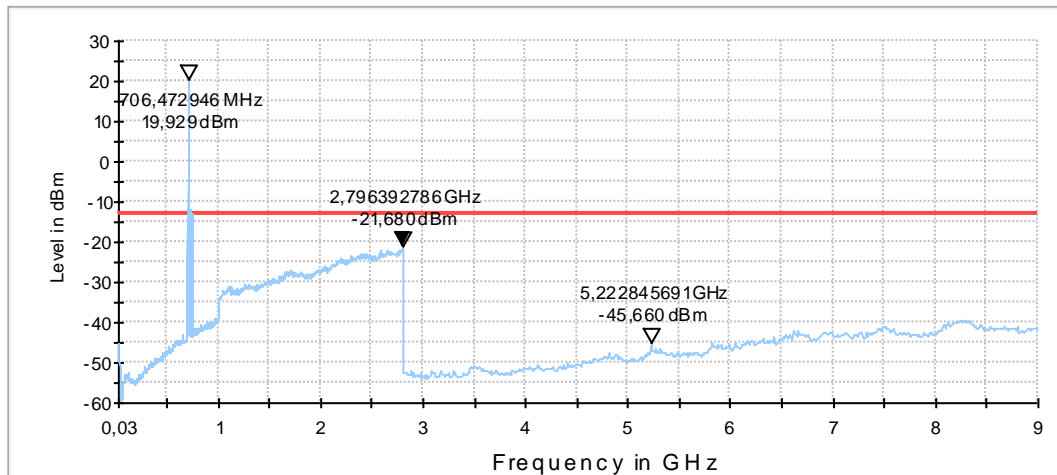
## Common Information

Test Description:	Radiated Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	MS allocated channel 23800 (QPSK)
Environmental Conditions:	Humidity: 31%rH; Temperature: 21°C
Operator:	Ada

## EUT Information

Manufacturer:	Cinterion GmbH
EuT:	Wireless Module
Type:	ALS1-US
-----	
HW version:	-
SW version:	-
Serial number:	#21
Connected Interfaces:	Audio line to Votronic handset, RS232, USB cable
Power Supply:	9VD on DSB75, Intern 4.2 V to Module
Comments:	used AEs - DSB75, Handset Votronic, ExtAntenne, RS232 cable, USB cable

030420\_FCC\_Part27\_LTE\_Band17\_TX\_all\_channels\_30M-9G\_slow\_spee



# 8.1704\_LTE\_RSE\_XVII

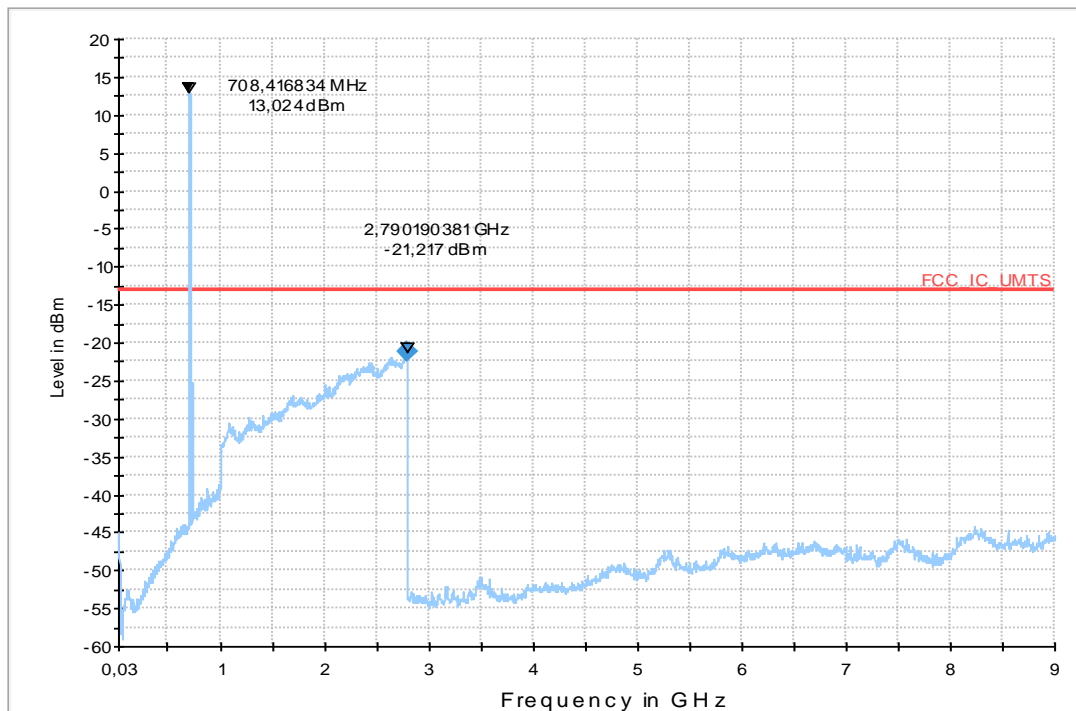
## Common Information

Test Description:	Radiated Spurious Emissions LTE XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a)
Operating Mode:	Ch 23790, BW 5MHz, 50% RB (10)
Environmental Conditions:	Humidity: 62%rH; Temperature:23°C
Operator:	GAr/FTe
Comment:	exclusion band: 710 MHz

## EUT Information

Manufacturer:	Gemalto M2M GmbH
Model:	Wireless Module
Type:	ALS1-US
-----	
EUT:	WMC0434US1bb
HW version:	B2 (Rev4.2)
SW version:	01.010
SVN:	-
Config:	-
Serial number:	004401080906320
Connected Interfaces:	USB, RS232, Audio
Power Supply:	3.3V internally, 9V DC externally over DSB75
Comments:	Two Radiated Antenna

030411\_FCC\_Part22\_UMTS-FDD V\_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)
2790.190381	-21.2	10000.0	1000.000	H	216.0	90.0	-57.2	8.2	-13.0

### 1.5. Radiated emissions LTE Band II band-edge

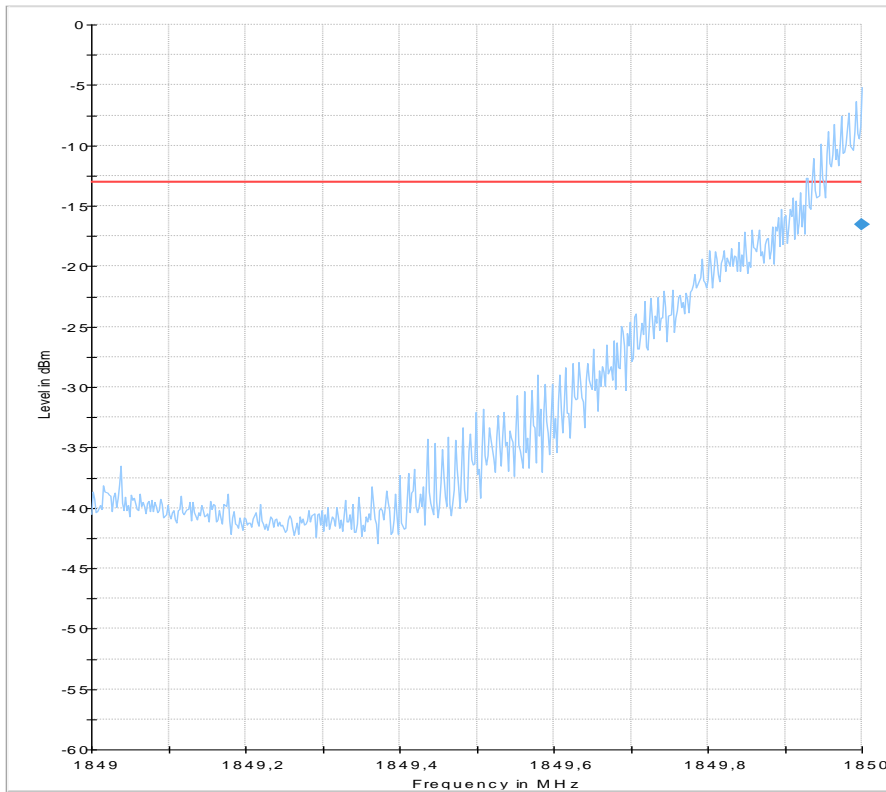


Diagram 9.24a – Channel 18615, Band-Edge QPSK modulation, 3MHz Signal bandwidth

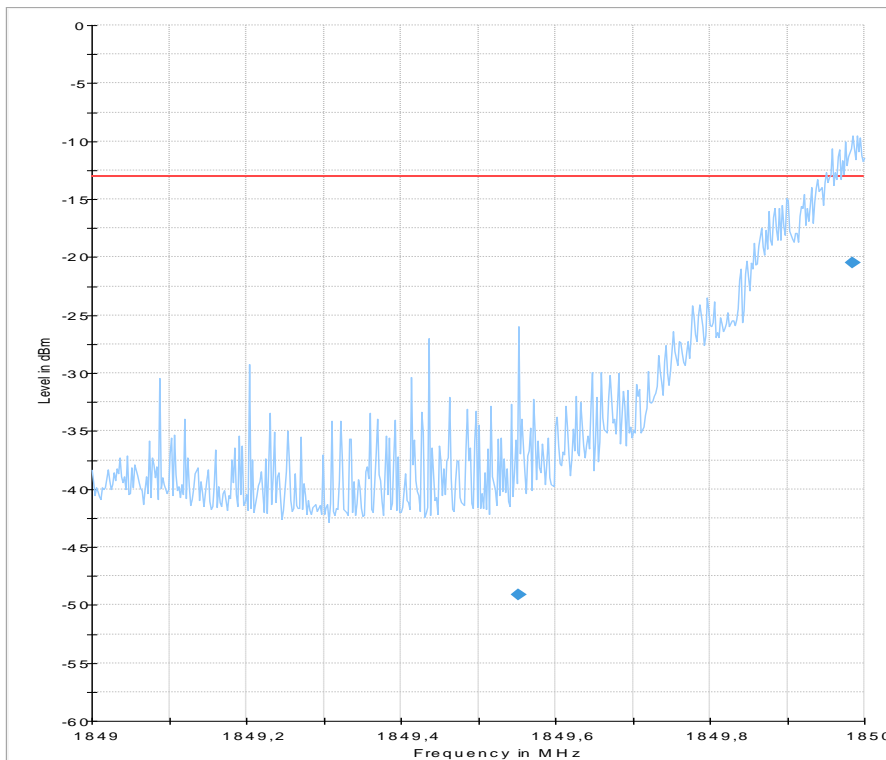


Diagram 9.24b – Channel 18615, Band-Edge QAM modulation, 3MHz Signal bandwidth

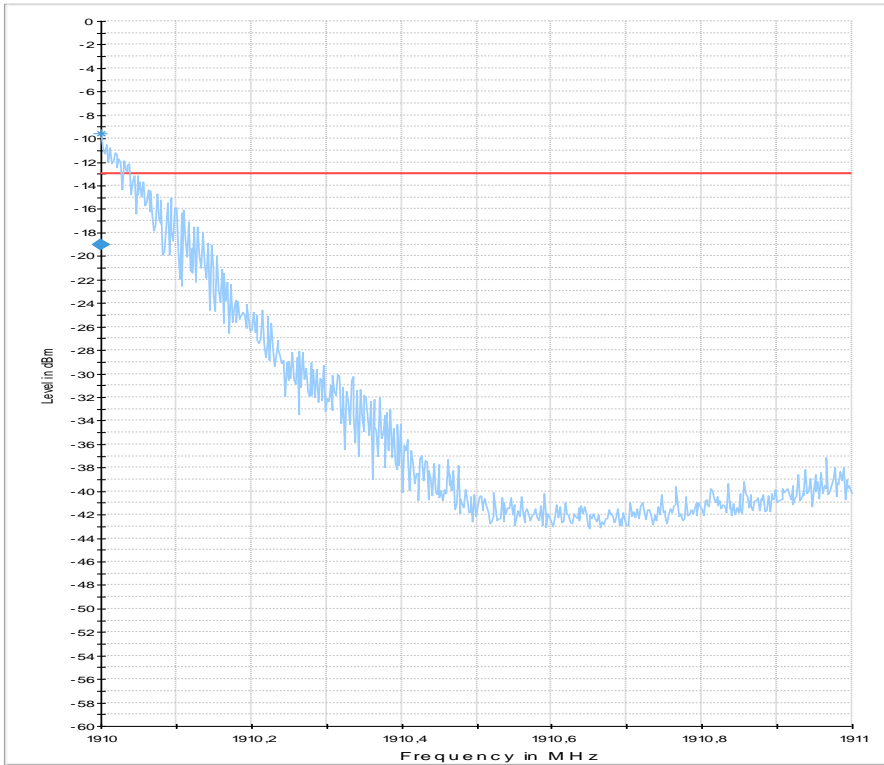


Diagram 9.26a – Channel 19185, Band-Edge QPSK modulation, 3MHz Signal bandwidth

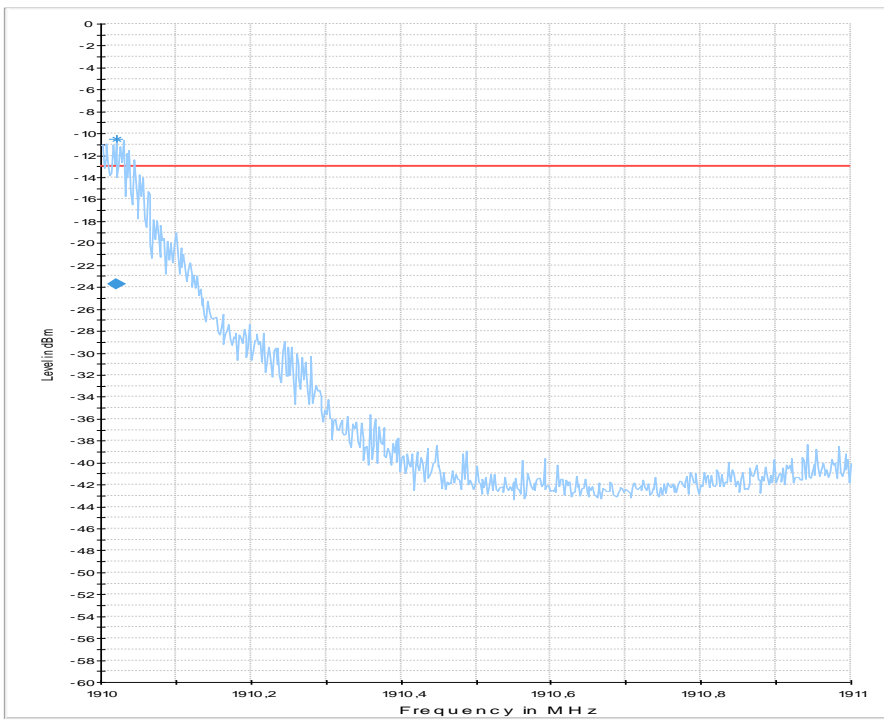


Diagram 9.26b – Channel 19185, Band-Edge QAM modulation, 3MHz Signal bandwidth

### 1.6. Radiated emissions LTE Band IV band-edge

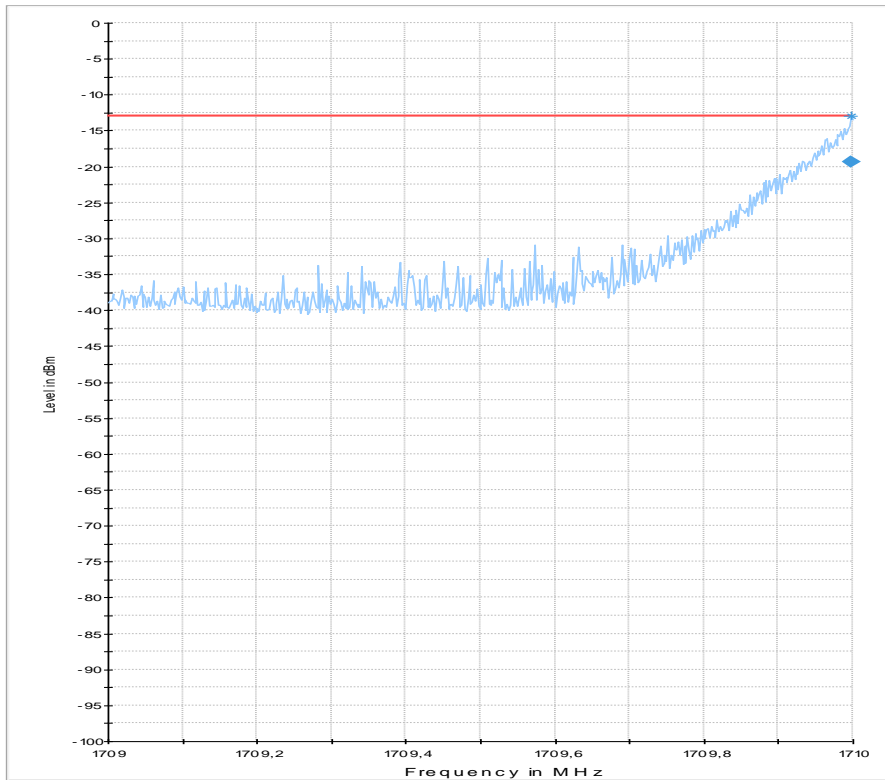
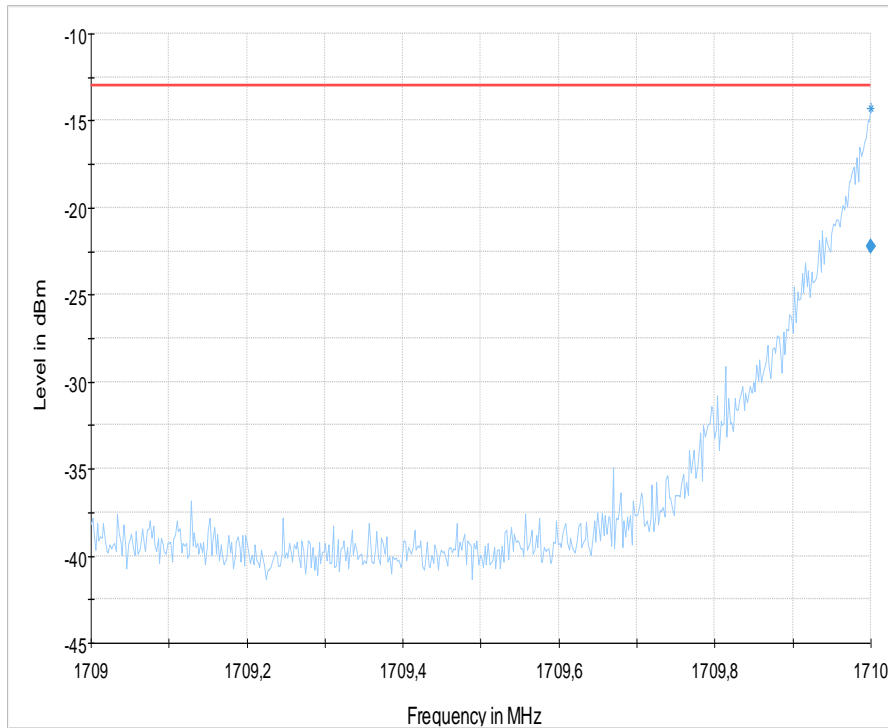


Diagram 9.44a – Channel 19965, Band-Edge QPSK modulation, 3MHz Signal bandwidth



9.44b – Channel 19965, Band-Edge QAM modulation, 3MHz Signal bandwidth

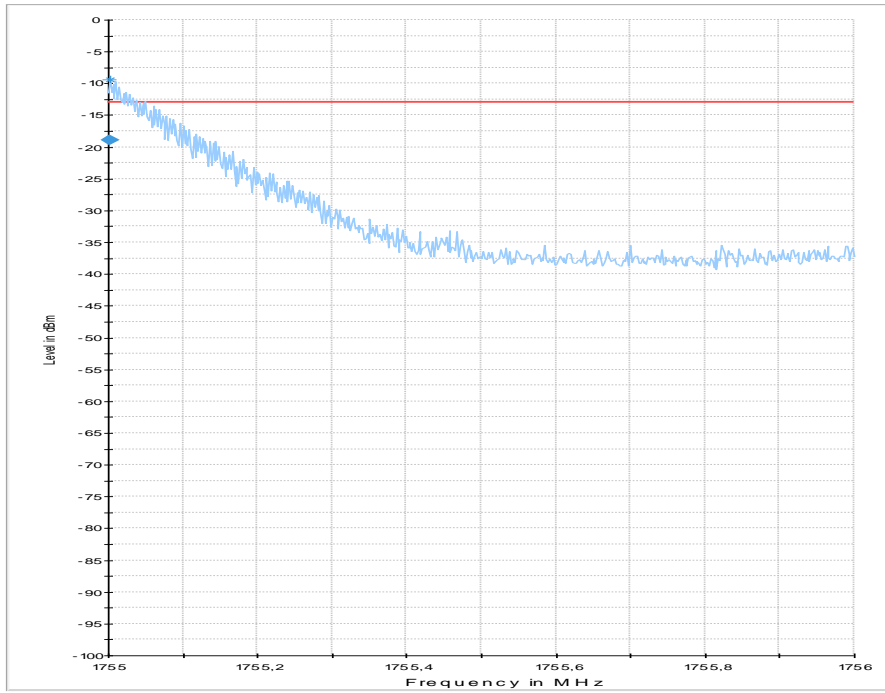


Diagram 9.46a – Channel 20385, Band-Edge QPSK modulation, 3MHz Signal bandwidth

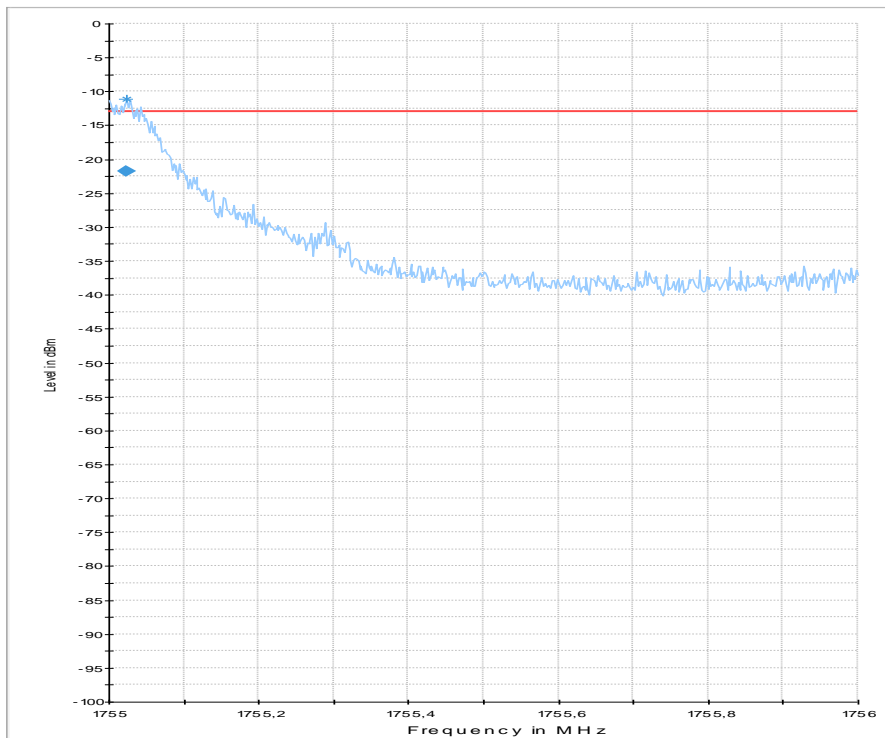


Diagram 9.46b – Channel 20385, Band-Edge QAM modulation, 3MHz Signal bandwidth

### 1.7. Radiated emissions LTE Band V band-edge

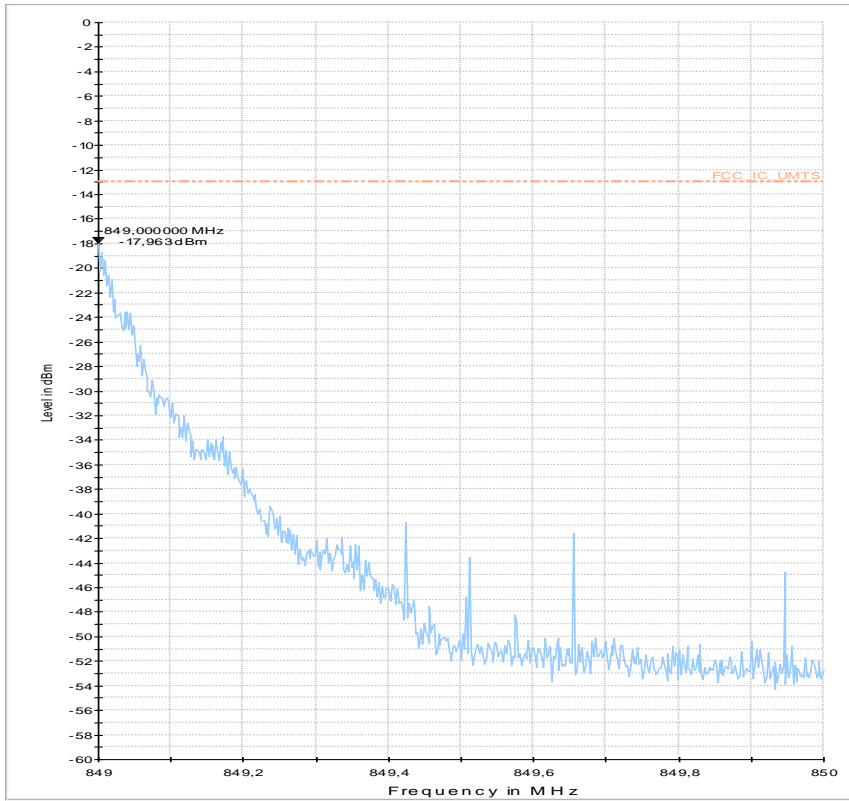


Diagram 9.502a – Channel 20643, Band-Edge QPSK modulation, 1.4MHz Signal bandwidth

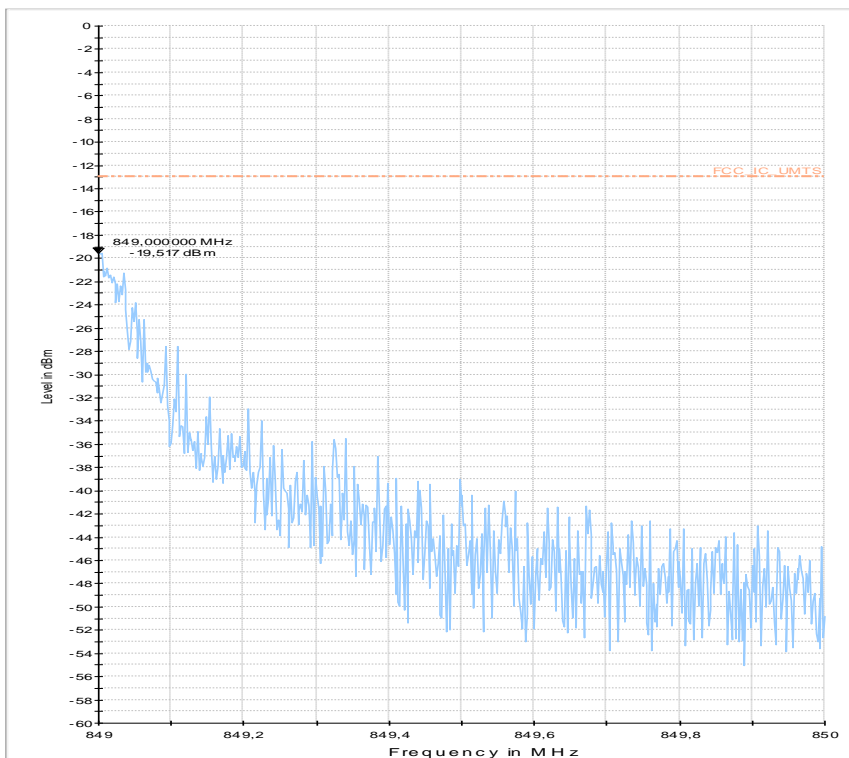


Diagram 9.502b – Channel 20643, Band-Edge QAM modulation, 1.4MHz Signal bandwidth

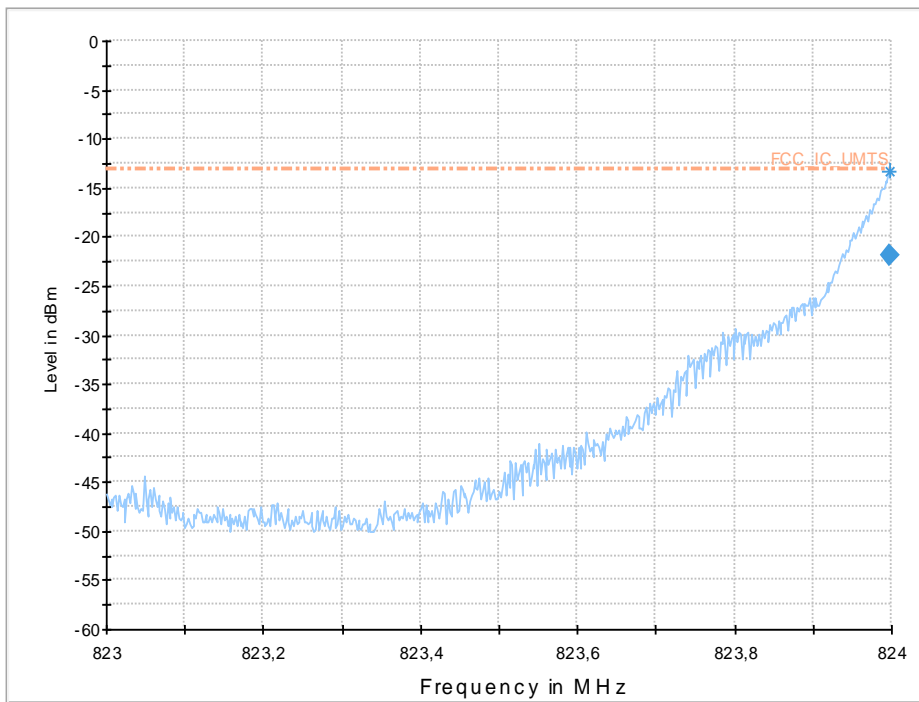


Diagram 9.504a – Channel 20415, Band-Edge QPSK modulation, 3MHz Signal bandwidth

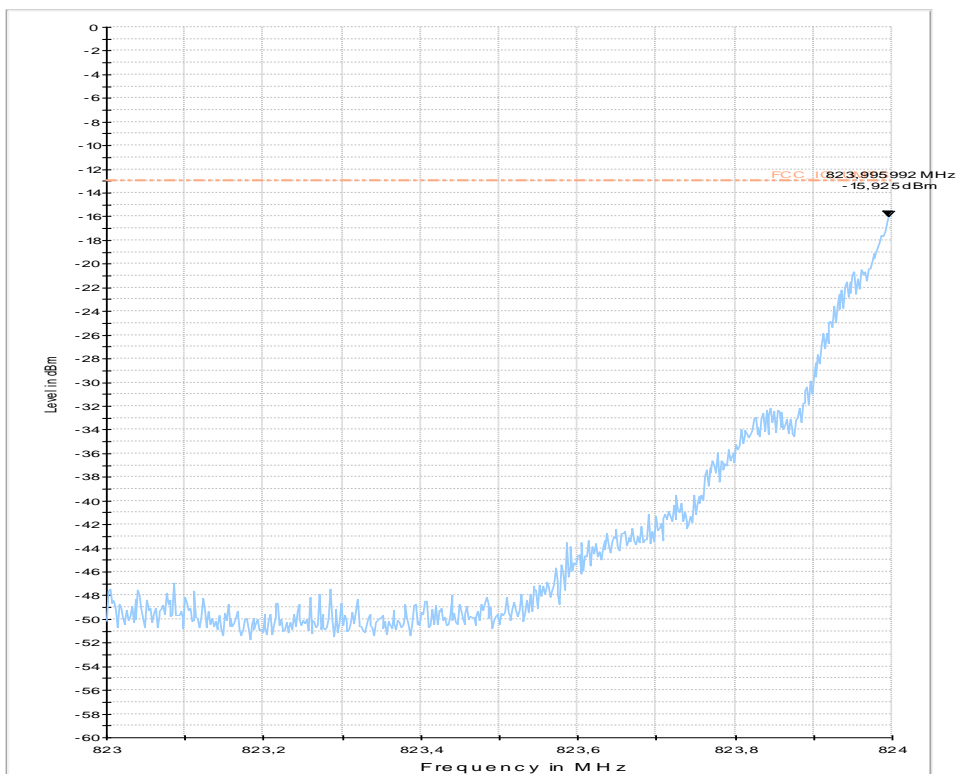


Diagram 9.504b – Channel 20415, Band-Edge QAM modulation, 3MHz Signal bandwidth



### 1.8. Radiated emissions LTE Band XVII band-edge

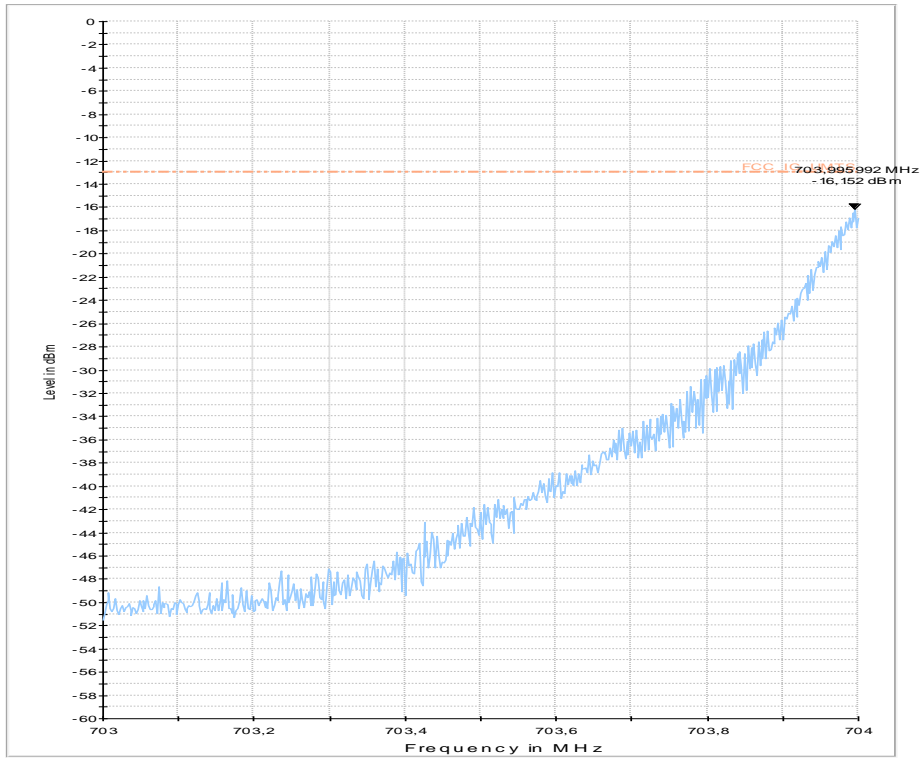


Diagram 9.1701a – Channel 23755, Band-Edge QPSK modulation, 5MHz Signal bandwidth

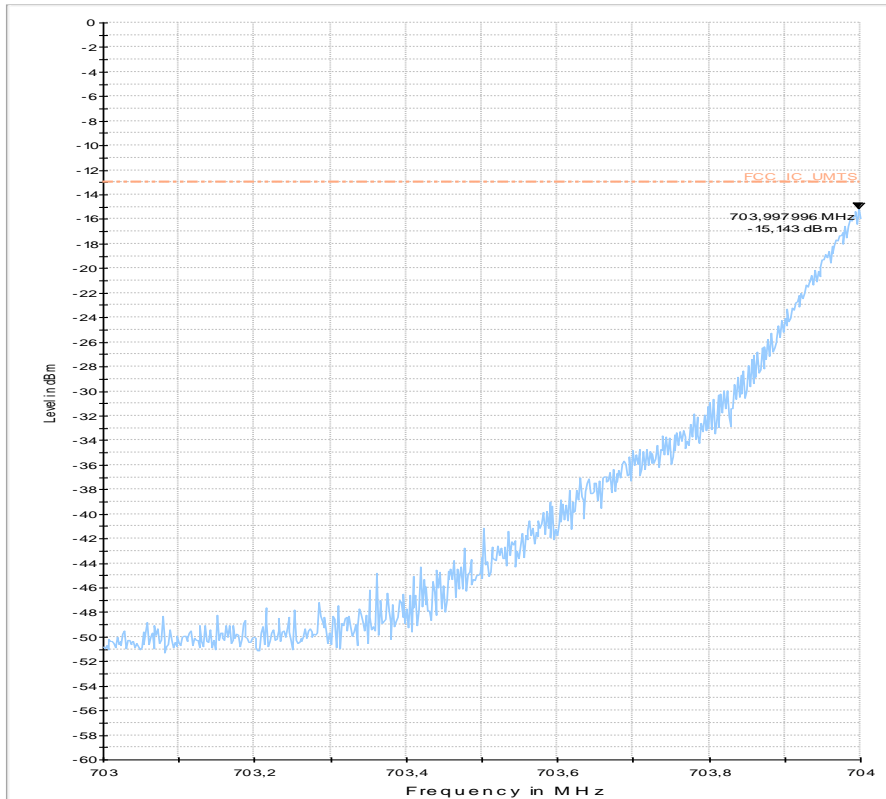


Diagram 9. 1701b – Channel 23755, Band-Edge QAM modulation, 5MHz Signal bandwidth

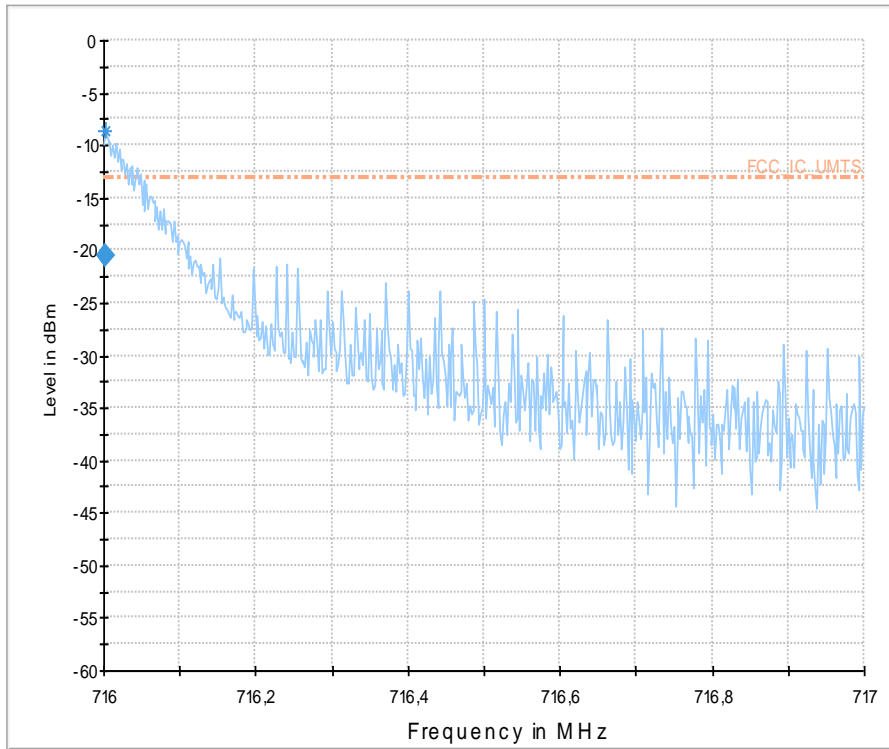


Diagram 9.1703a – Channel 23825, Band-Edge QPSK modulation, 5MHz Signal bandwidth

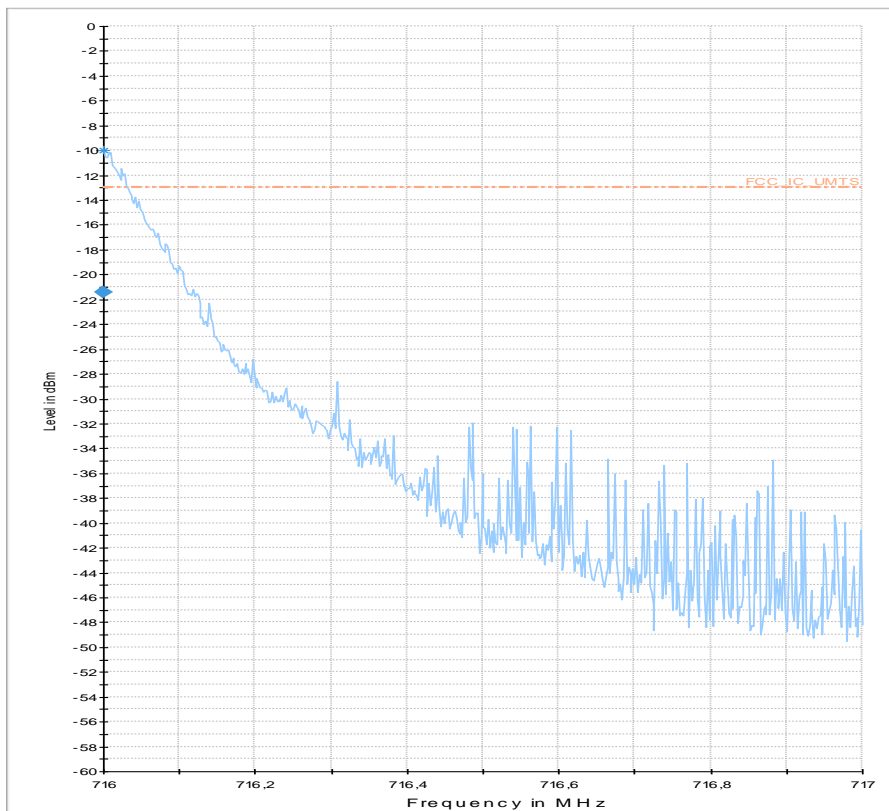


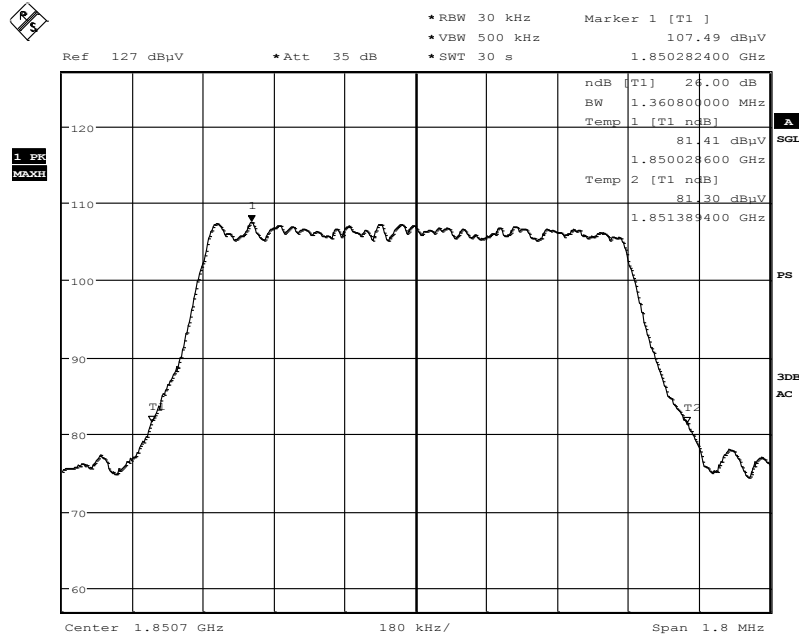
Diagram 9.1703b – Channel 23825, Band-Edge QAM modulation, 5MHz Signal bandwidth

## 1.9. 26dBc Emission bandwidth

Only maximum values are reported with the aid of the diagram.

### 1.9.1. LTE II TX Mode

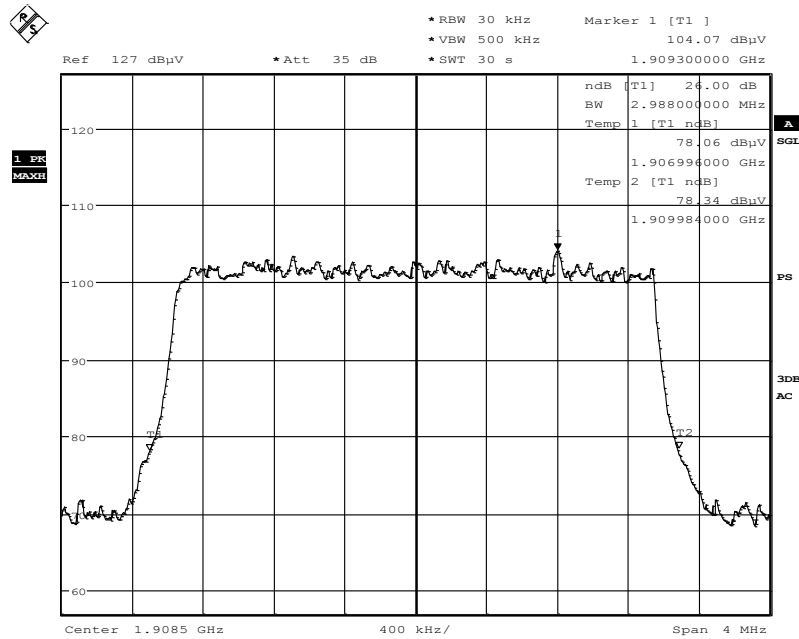
#### 1.9.1.1. BW=1.4MHz



Date: 3.APR.2013 13:54:38

### Channel 18607, QPSK Modulation

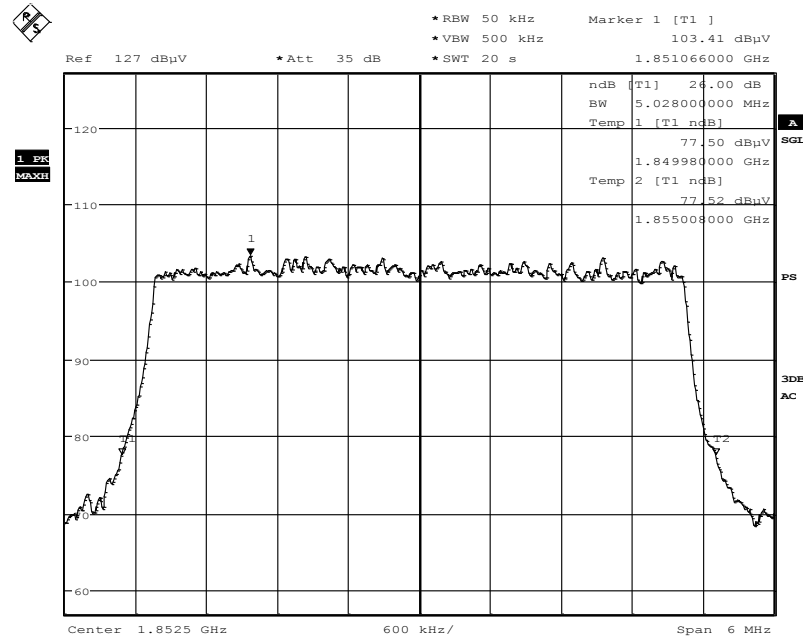
#### 1.9.1.2. BW=3MHz



Date: 3.APR.2013 14:18:57

### Channel 18900, QPSK modulation

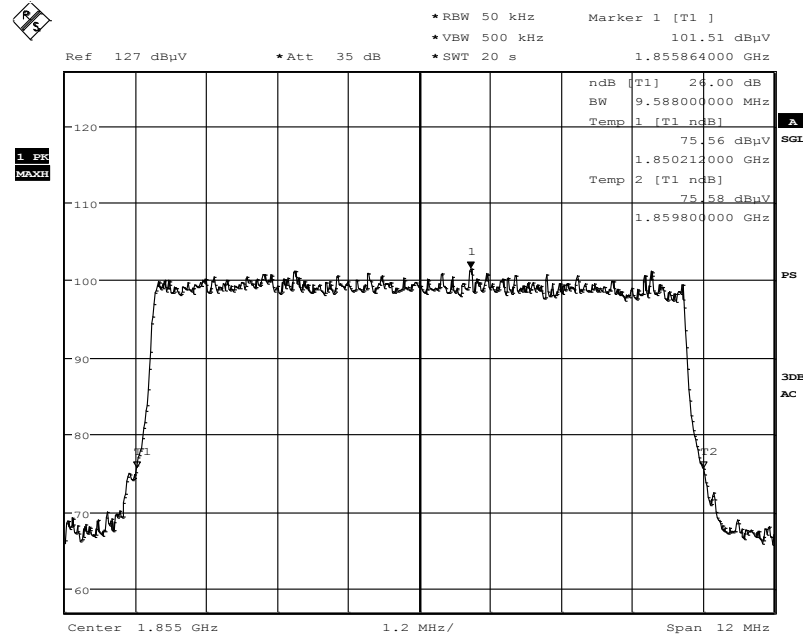
### 1.9.1.3. BW=5MHz



Date: 3.APR.2013 14:22:58

### Channel 18625, 16 QAM Modulation

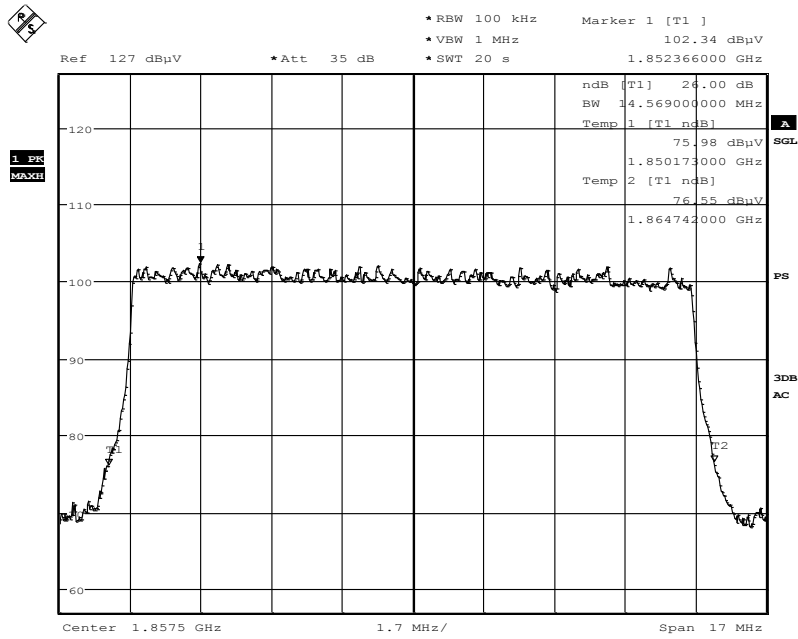
### 1.9.1.4. BW=10MHz



Date: 3.APR.2013 14:31:42

### Channel 18650, QPSK Modulation

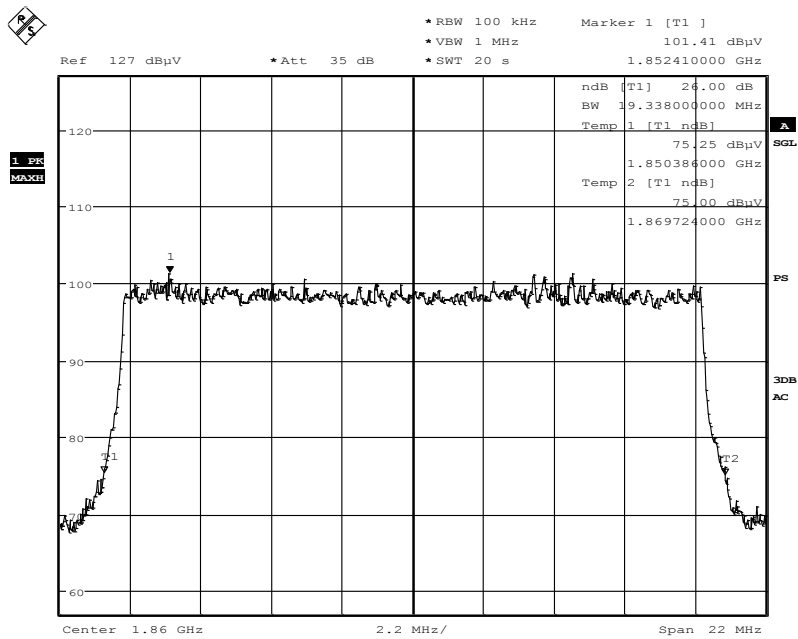
1.9.1.5. BW=15MHz



Date: 3.APR.2013 14:56:59

Channel 18675, QPSK Modulation

1.9.1.6. BW=20MHz

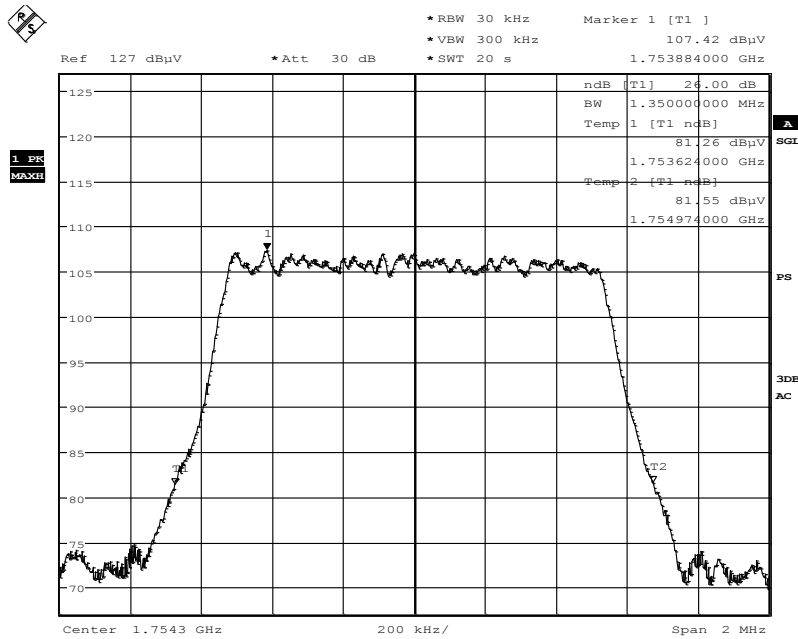


Date: 3.APR.2013 15:17:09

Channel 18700, QPSK Modulation

### 1.9.2. LTE IV TX Mode

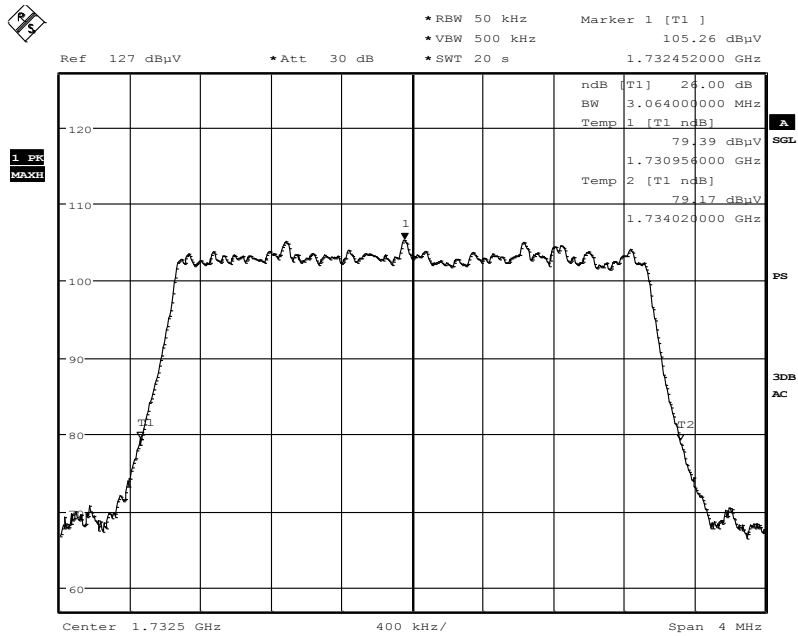
#### 1.9.2.1. BW=1.4MHz



Date: 4.APR.2013 11:14:49

#### Channel 20393, QPSK modulation

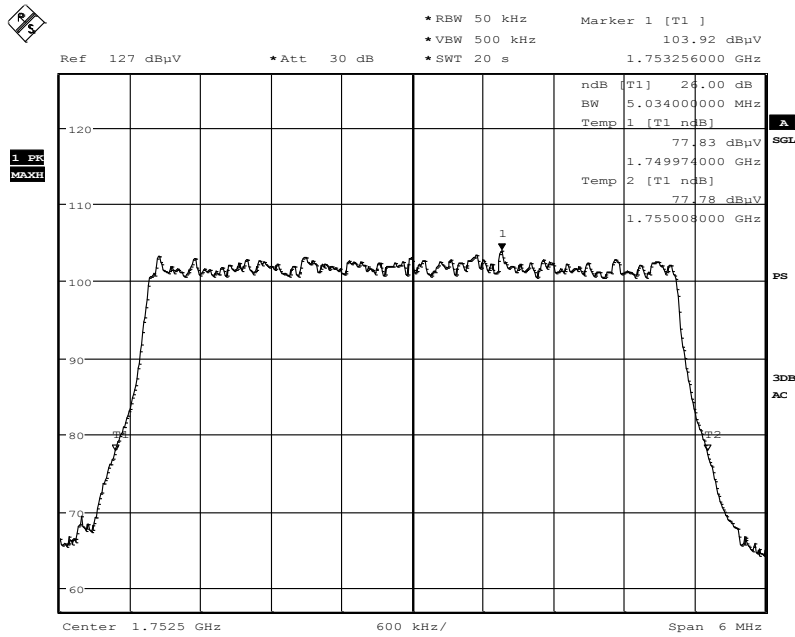
#### 1.9.2.2. BW=3MHz



Date: 4.APR.2013 11:24:32

#### Channel 20175, QAM modulation

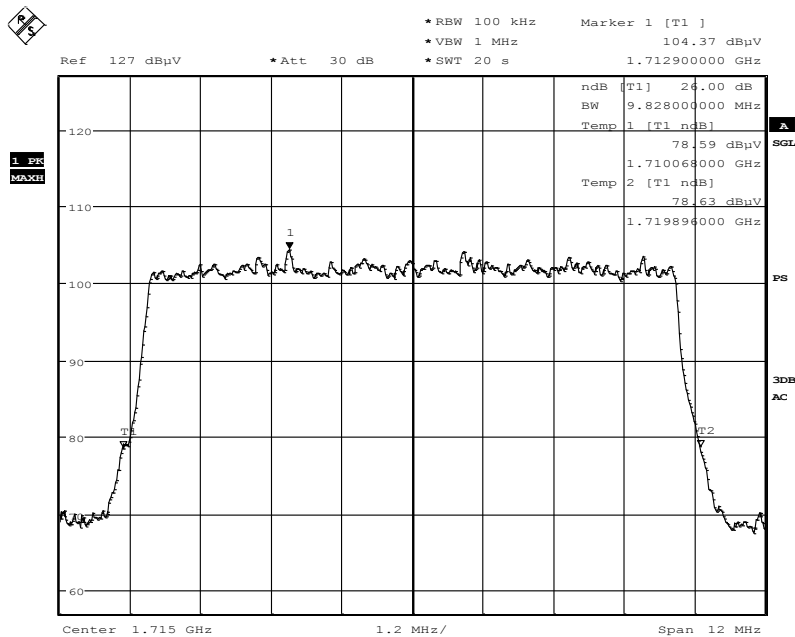
1.9.2.3. BW=5MHz



Date: 4.APR.2013 11:33:02

Channel 20375, QPSK modulation

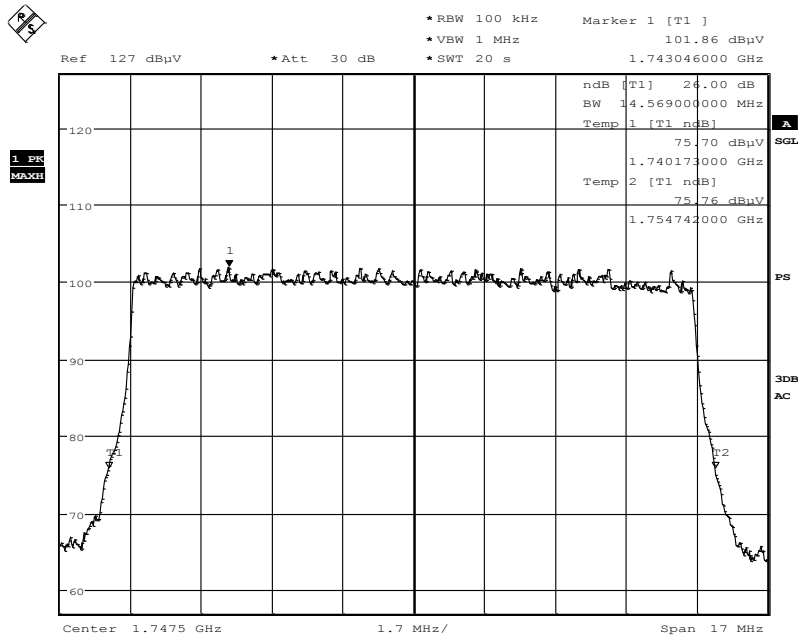
1.9.2.4. BW=10MHz



Date: 4.APR.2013 11:40:00

Channel 20000, QPSK modulation

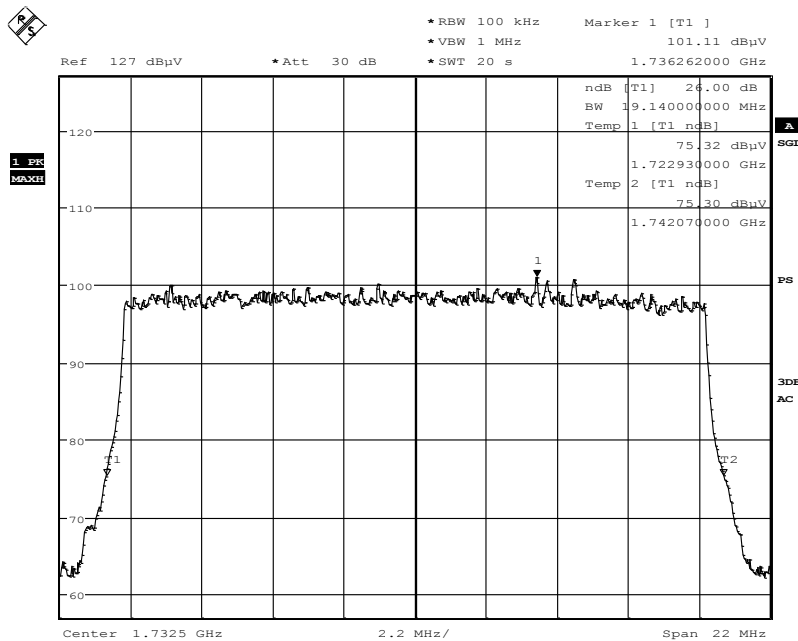
1.9.2.5. BW=15MHz



Date: 4.APR.2013 11:45:03

Channel 20325, QPSK modulation

1.9.2.6. BW=20MHz



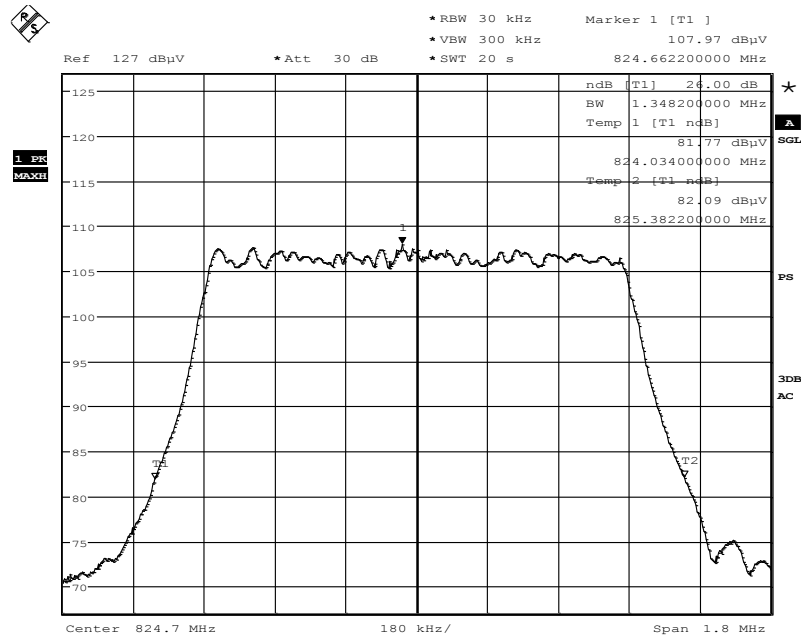
Date: 4.APR.2013 11:54:46

Channel 20175, QAM modulation



### 1.9.3. LTE V TX Mode

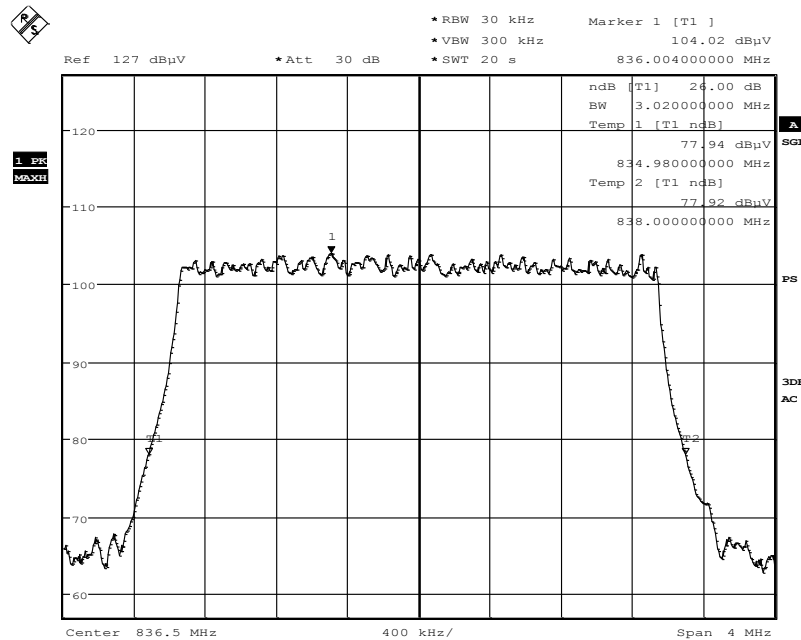
#### 1.9.3.1. BW=1.4MHz



Date: 4.APR.2013 08:33:36

#### Channel 20407, QPSK modulation

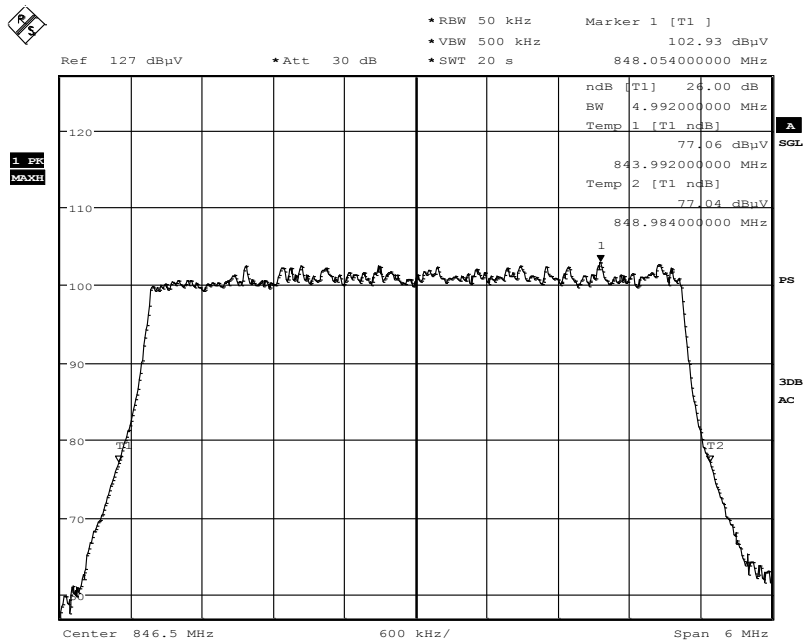
#### 1.9.3.2. BW=3MHz



Date: 4.APR.2013 08:52:30

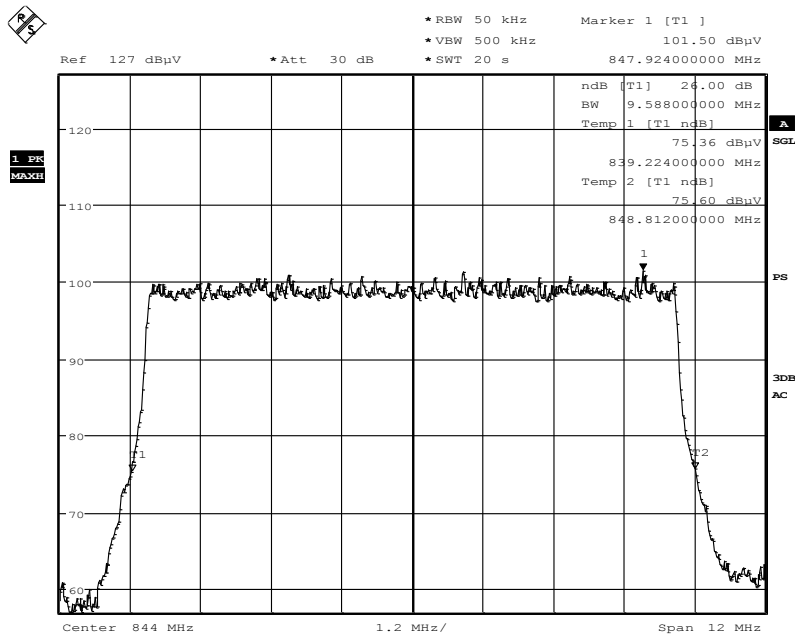
#### Channel 20525, QPSK modulation

#### 1.9.3.3. BW=5MHz



Date: 4.APR.2013 09:47:46

Channel 20625, QAM modulation  
**1.9.3.4. BW=10MHz**

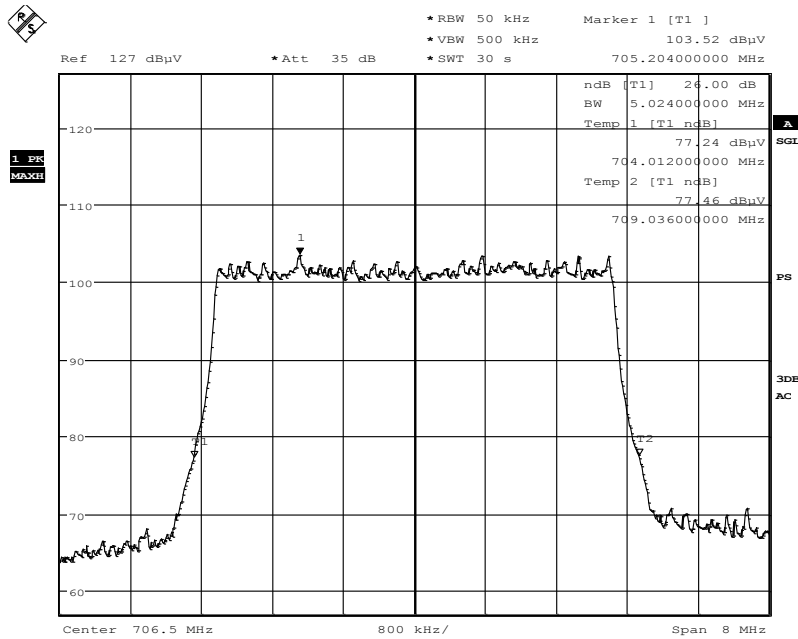


Date: 4.APR.2013 09:49:37

Channel 20600, QPSK modulation

### 1.9.4. LTE XVII - TX Mode

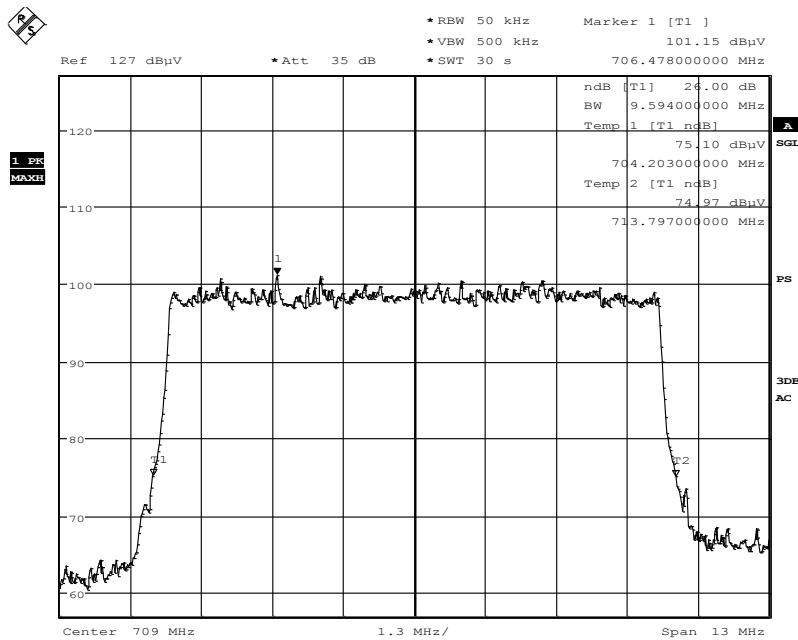
#### 1.9.4.1. BW=5MHz



Date: 3.APR.2013 13:23:23

#### Channel 23755, QAM modulation

#### 1.9.4.2. BW=10MHz



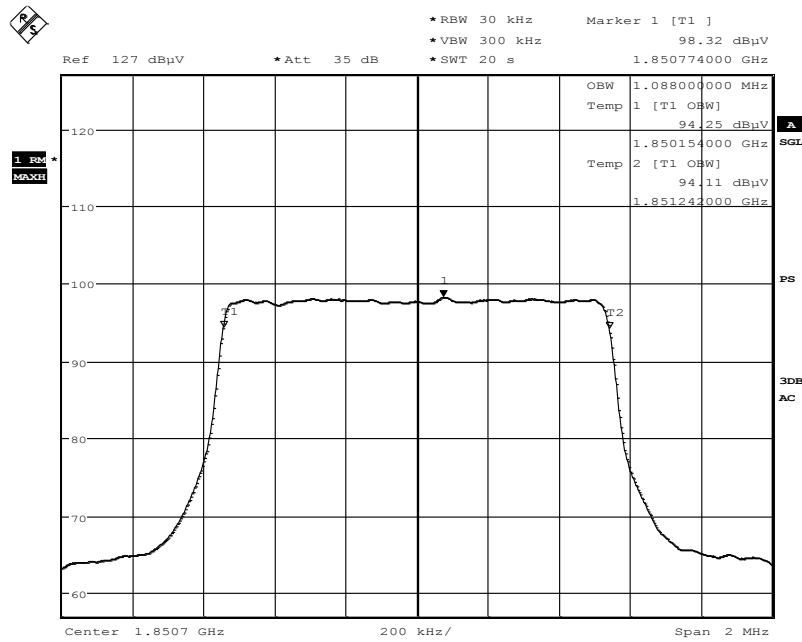
Date: 3.APR.2013 13:25:42

#### Channel 23780, QAM modulation

## 1.10. 99% Occupied bandwidth

### 1.10.1. LTE II TX Mode

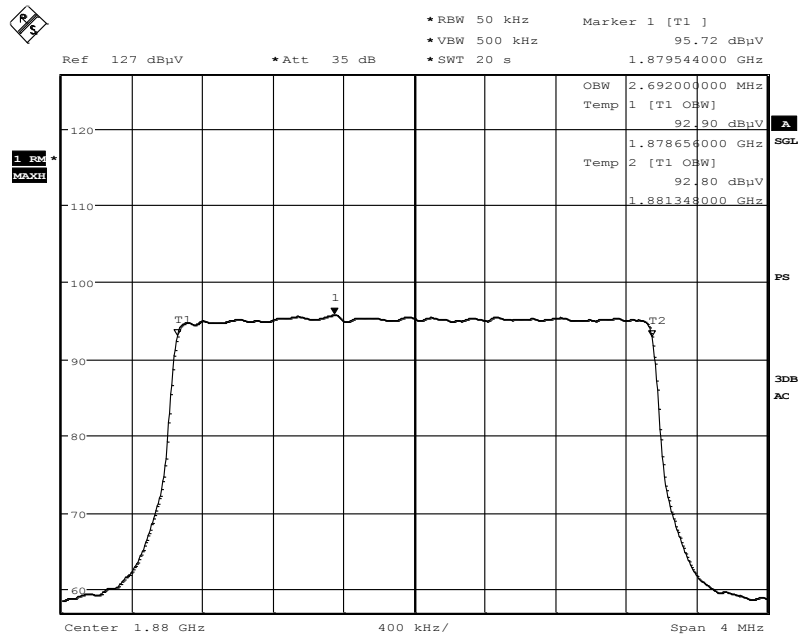
#### 1.10.1.1. BW=1.4MHz



Date: 3.APR.2013 16:32:44

Channel 18607, QPSK modulation

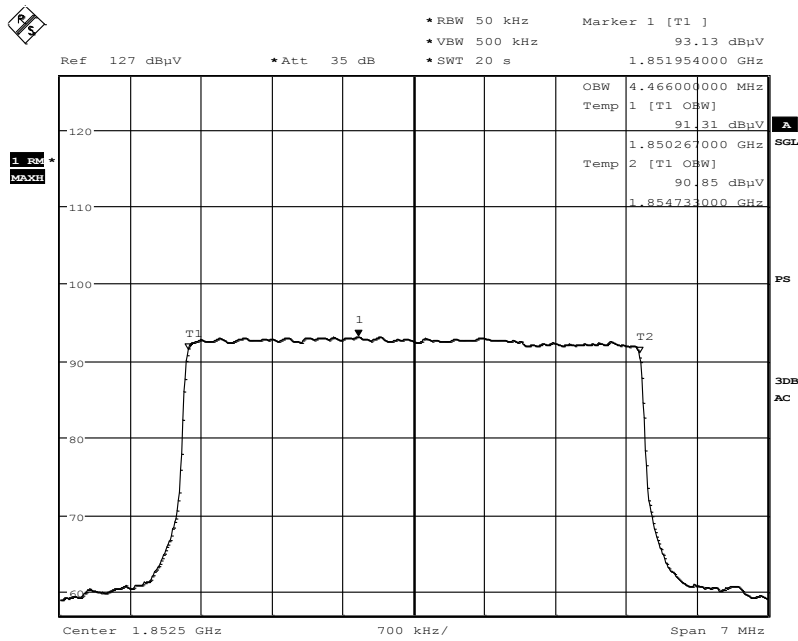
#### 1.10.1.2. BW=3MHz



Date: 3.APR.2013 15:37:23

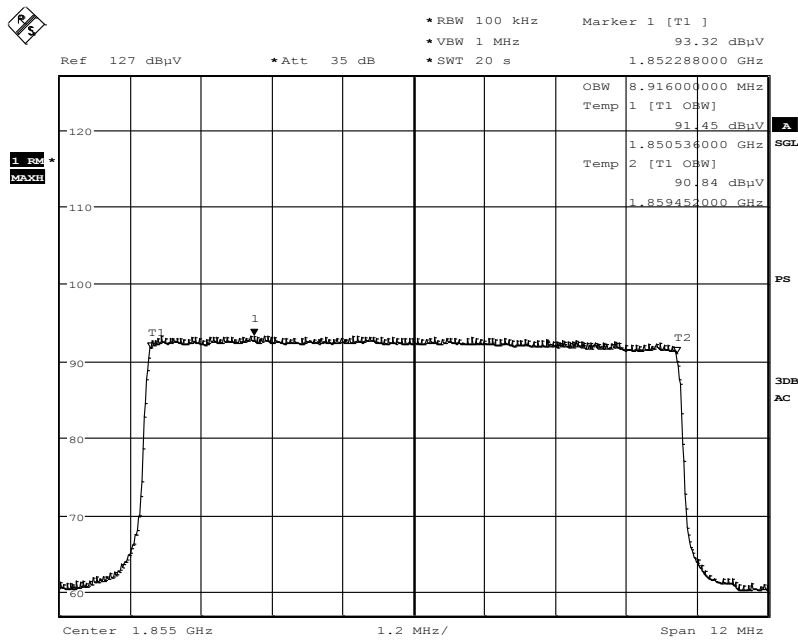
Channel 18900, QPSK Modulation

#### 1.10.1.3. BW=5MHz



Date: 3.APR.2013 15:35:36

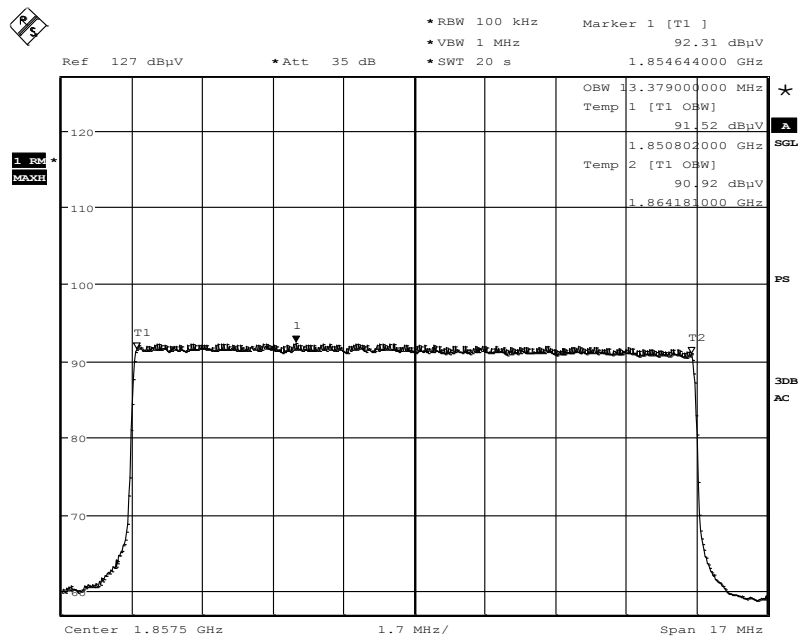
Channel 18625, QAM Modulation  
**1.10.1.4. BW=10MHz**



Date: 3.APR.2013 15:30:58

Channel 18650, QAM Modulation

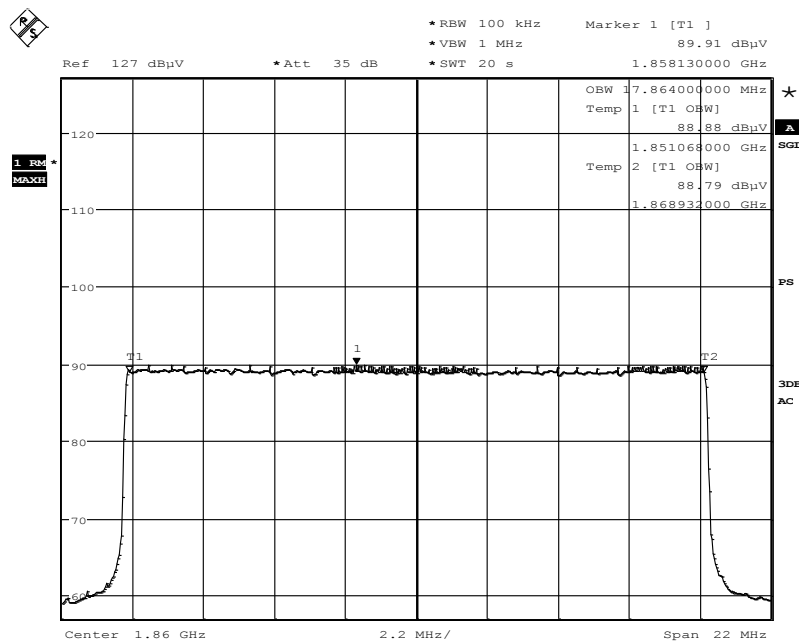
**1.10.1.5. BW=15MHz**



Date: 3.APR.2013 15:27:10

**Channel 18675, QPSK Modulation**

**1.10.1.6. BW=20MHz**

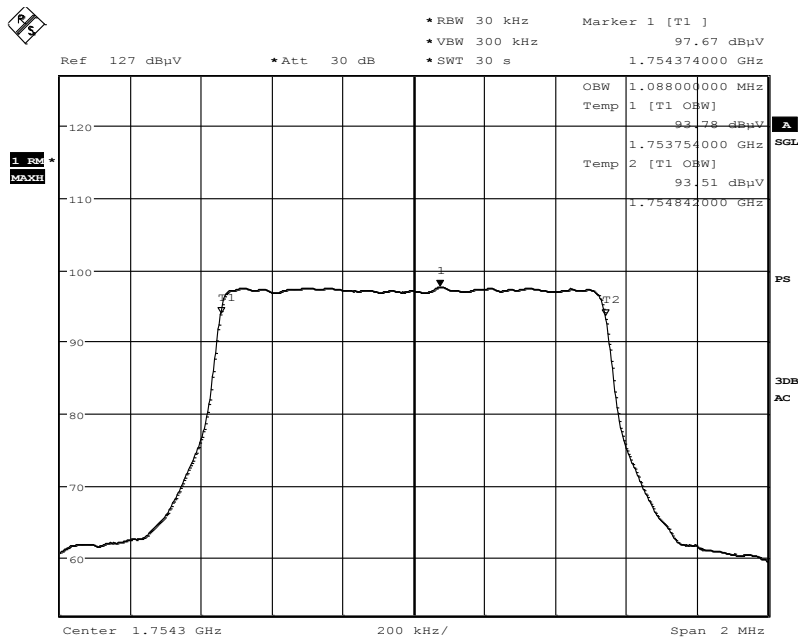


Date: 3.APR.2013 15:19:22

**Channel 18700**

### 1.10.2. LTE IV TX Mode

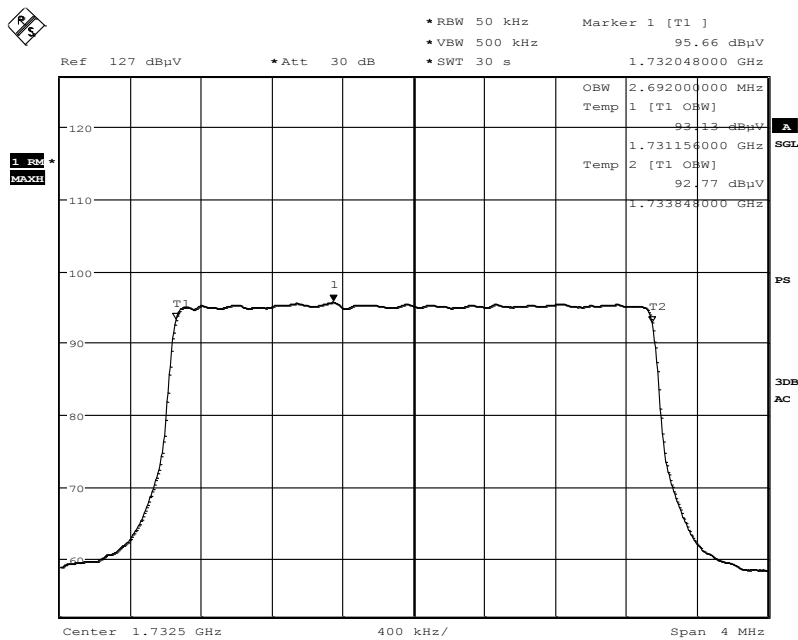
#### 1.10.2.1. BW=1.4MHz



Date: 4.APR.2013 12:35:56

#### Channel 20393, QPSK Modulation

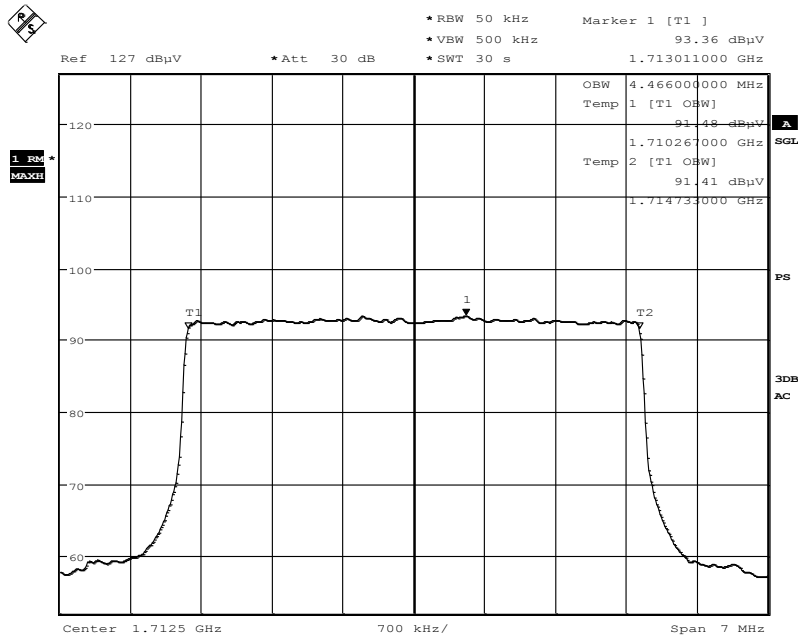
#### 1.10.2.2. BW=3MHz



Date: 4.APR.2013 12:29:08

#### Channel 20175, QPSK modulation

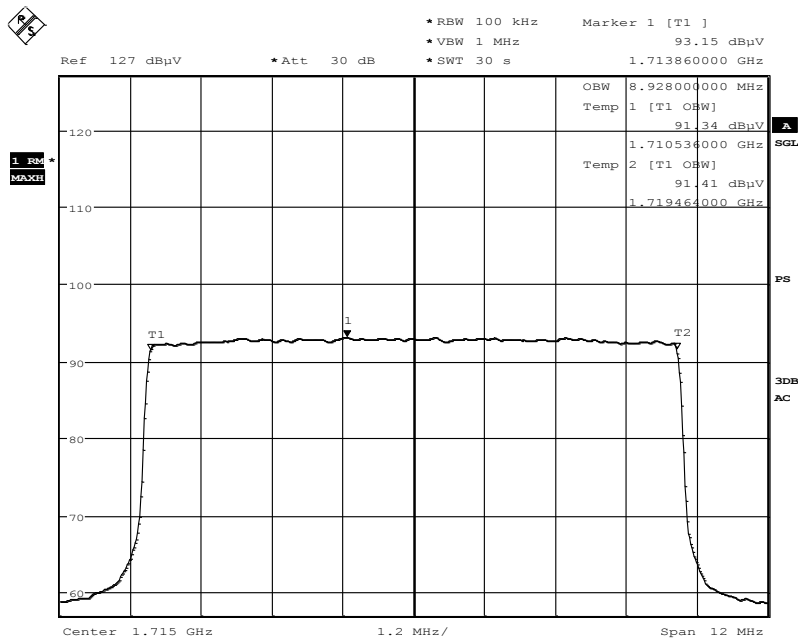
**1.10.2.3. BW=5MHz**



Date: 4.APR.2013 12:27:08

Channel 19975, QPSK modulation

**1.10.2.4. BW=10MHz**

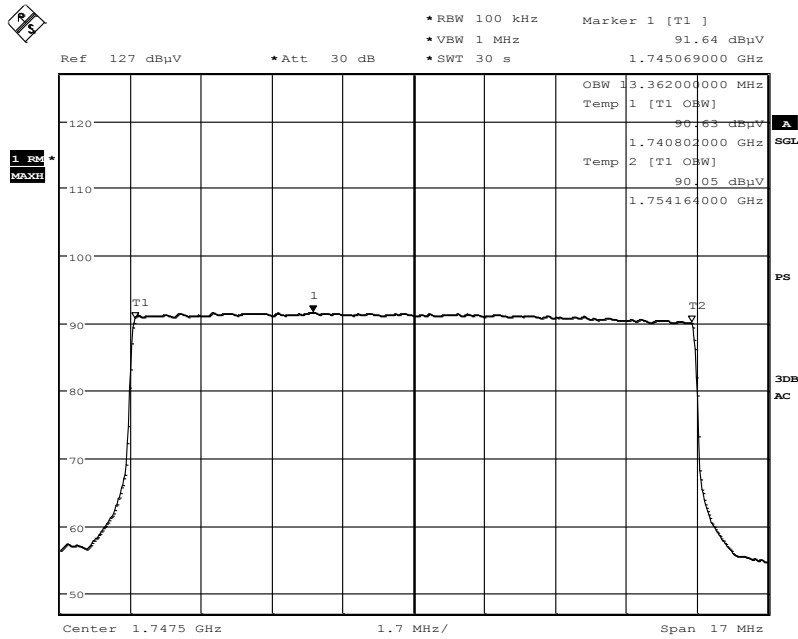


Date: 4.APR.2013 12:19:25

Channel 20000, QPSK Modulation



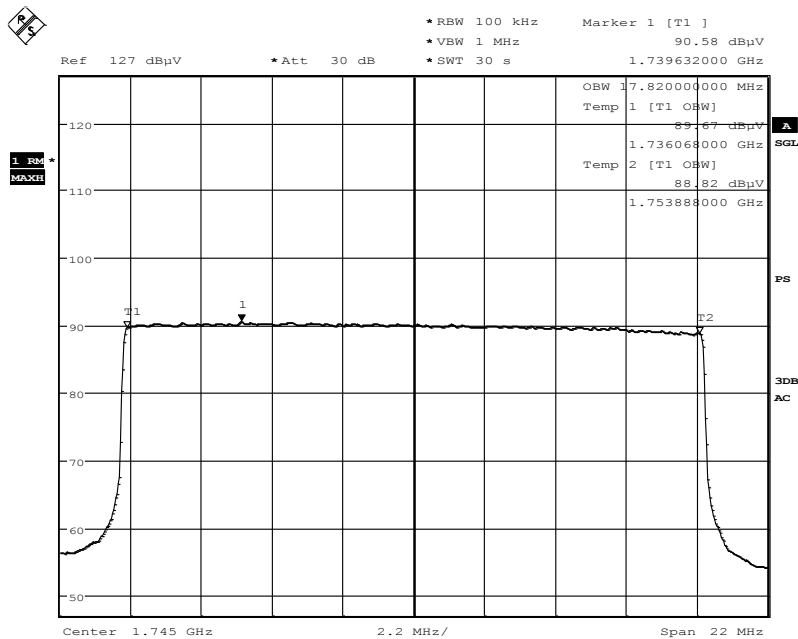
1.10.2.5. BW=15MHz



Date: 4.APR.2013 12:10:16

Channel 20325, QPSK modulation

1.10.2.6. BW=20MHz

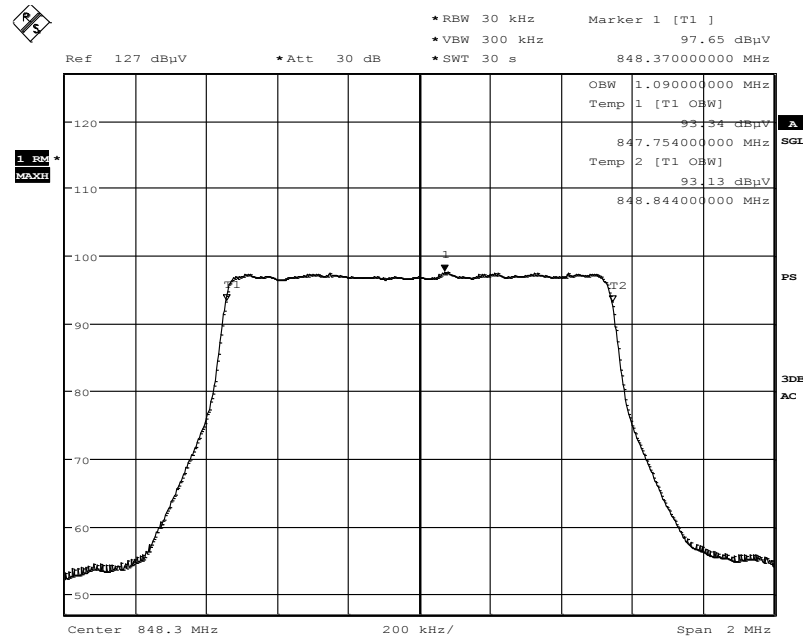


Date: 4.APR.2013 12:07:52

Channel 20300, QPSK modulation

### 1.10.3. LTE V TX Mode

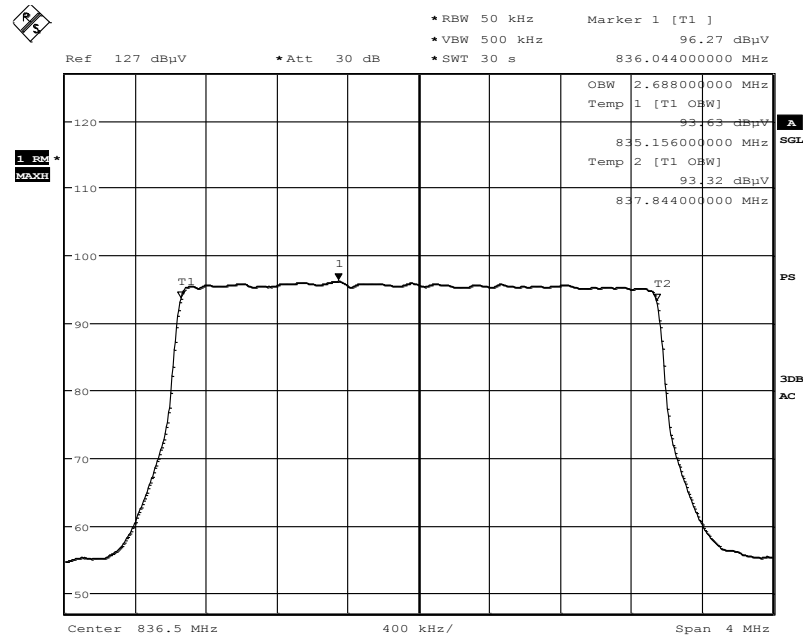
#### 1.10.3.1. BW=1.4MHz



Date: 4.APR.2013 10:55:04

#### Channel 20643, QPSK modulation

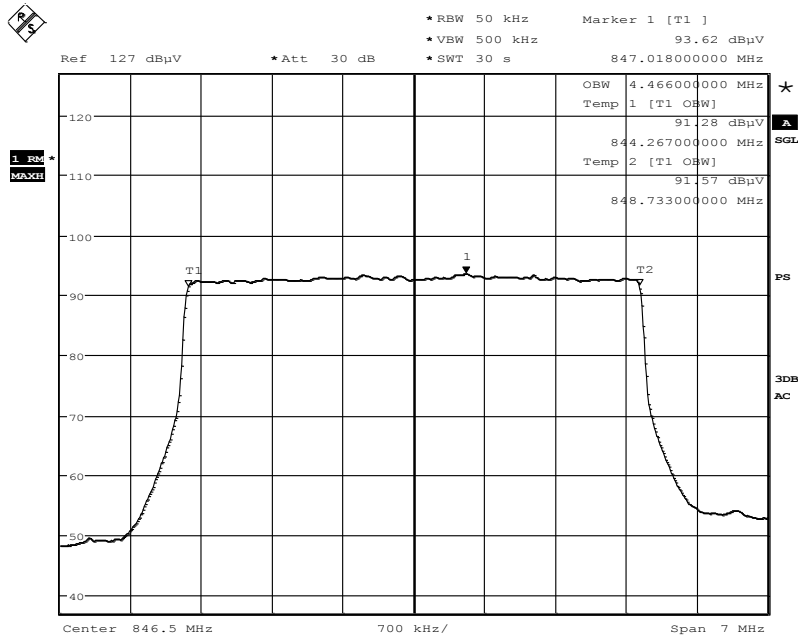
#### 1.10.3.2. BW=3MHz



Date: 4.APR.2013 10:49:57

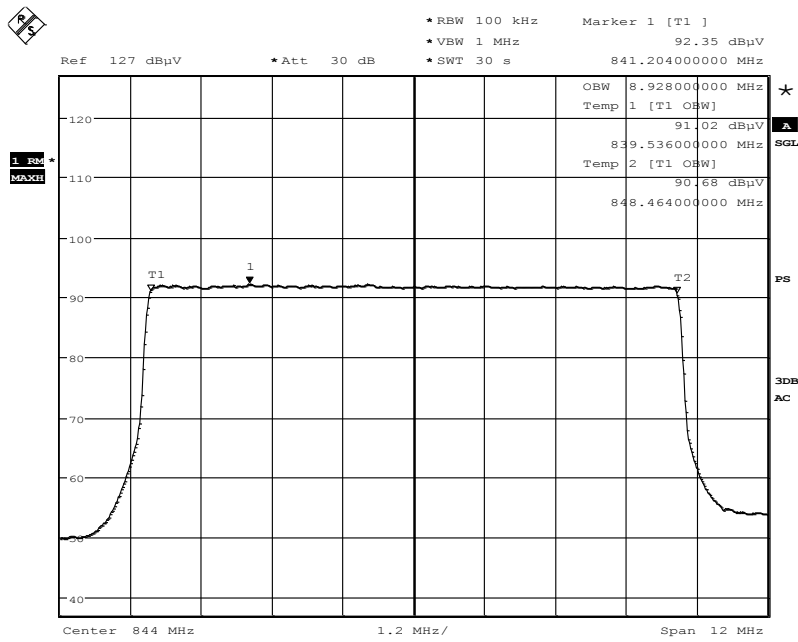
#### Channel 20525, QPSK modulation

#### 1.10.3.3. BW=5MHz



Date: 4.APR.2013 10:43:41

Channel 20625, QPSK modulation  
**1.10.3.4. BW=10MHz**

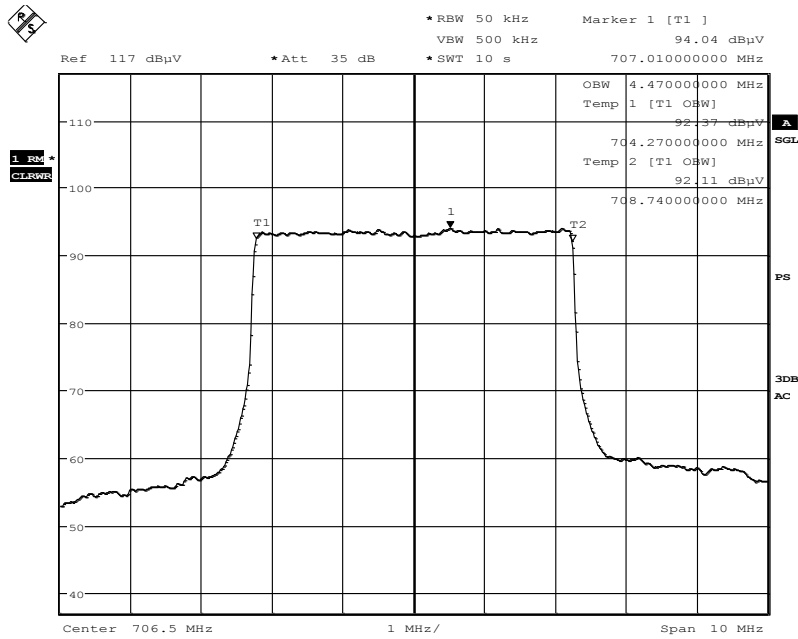


Date: 4.APR.2013 10:39:06

Channel 20600, QAM modulation

### 1.10.4. LTE XVII - TX Mode

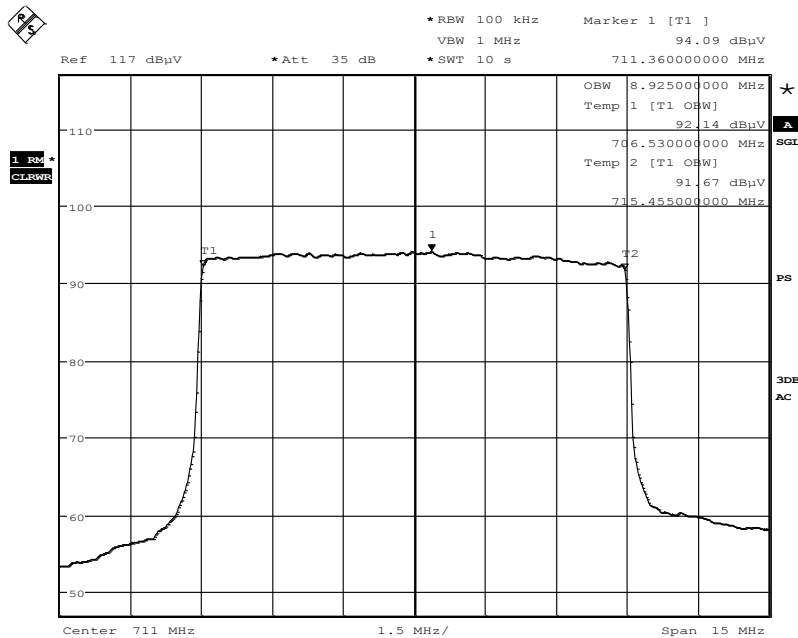
#### 1.10.4.1. BW=5MHz



Date: 3.APR.2013 13:06:33

#### Channel 23755, QPSK modulation

#### 1.10.4.2. BW=10MHz



Date: 3.APR.2013 11:51:08

#### Channel 23800, QPSK modulation

### 1.11. Spurious emissions conducted LTE Band II

## 36.20a\_RSE\_C\_Ch18607\_BW\_1\_4\_QPSK\_Sweep1

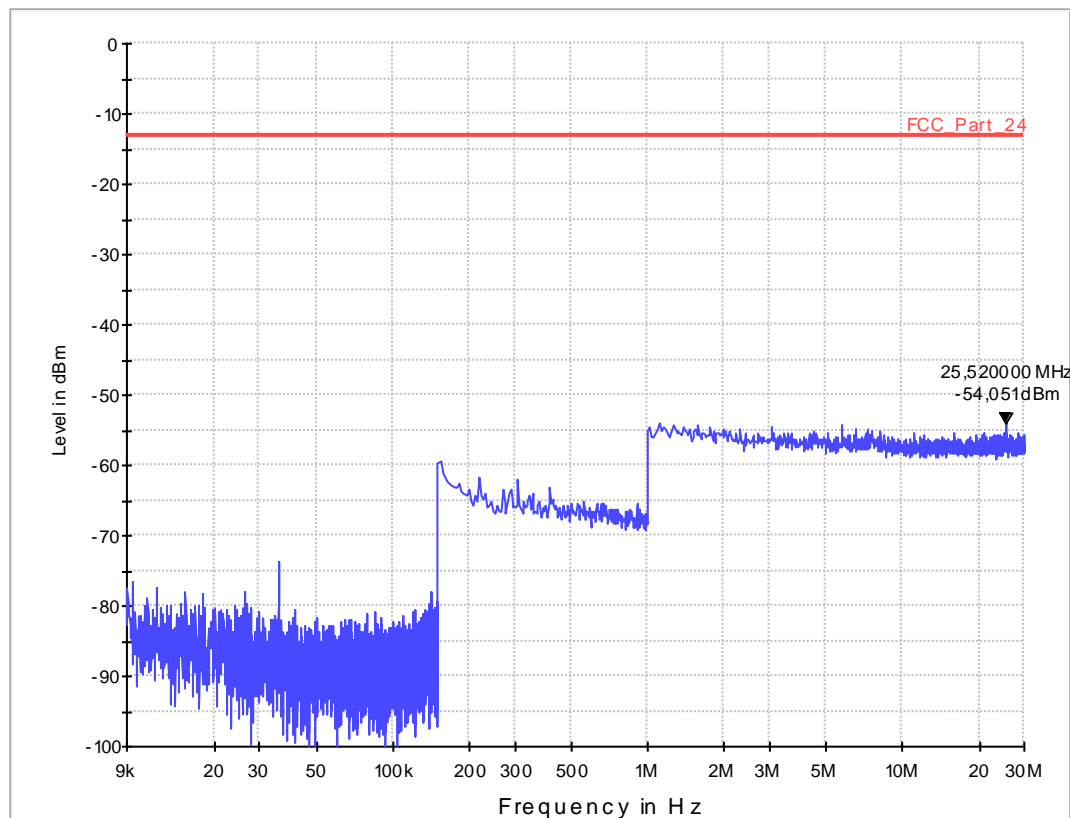
### Common Information

Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18607
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

### EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan1\_9kHz\_30MHz



# 36.20b\_RSE\_C\_Ch18607\_BW\_1\_4\_ QAM\_Sweep1

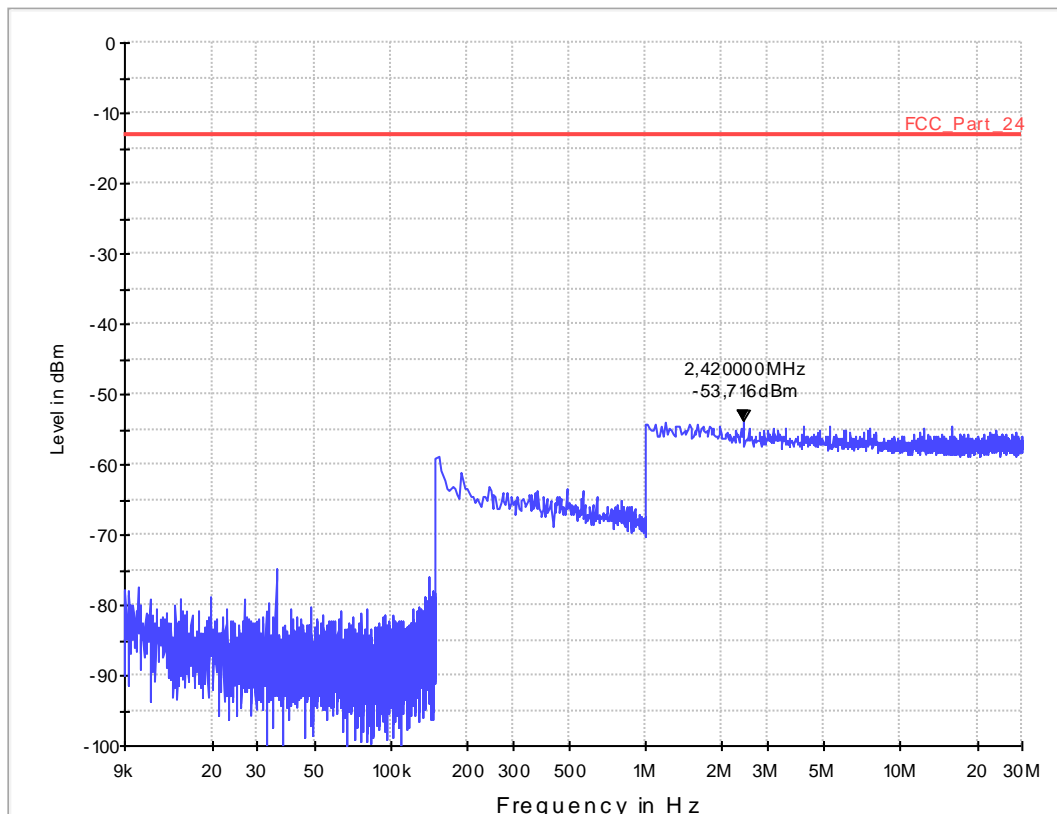
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18607
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan1\_9kHz\_30MHz



# 36.21a\_RSE\_C\_Ch18607\_BW\_1\_4\_QPSK\_Sweep2

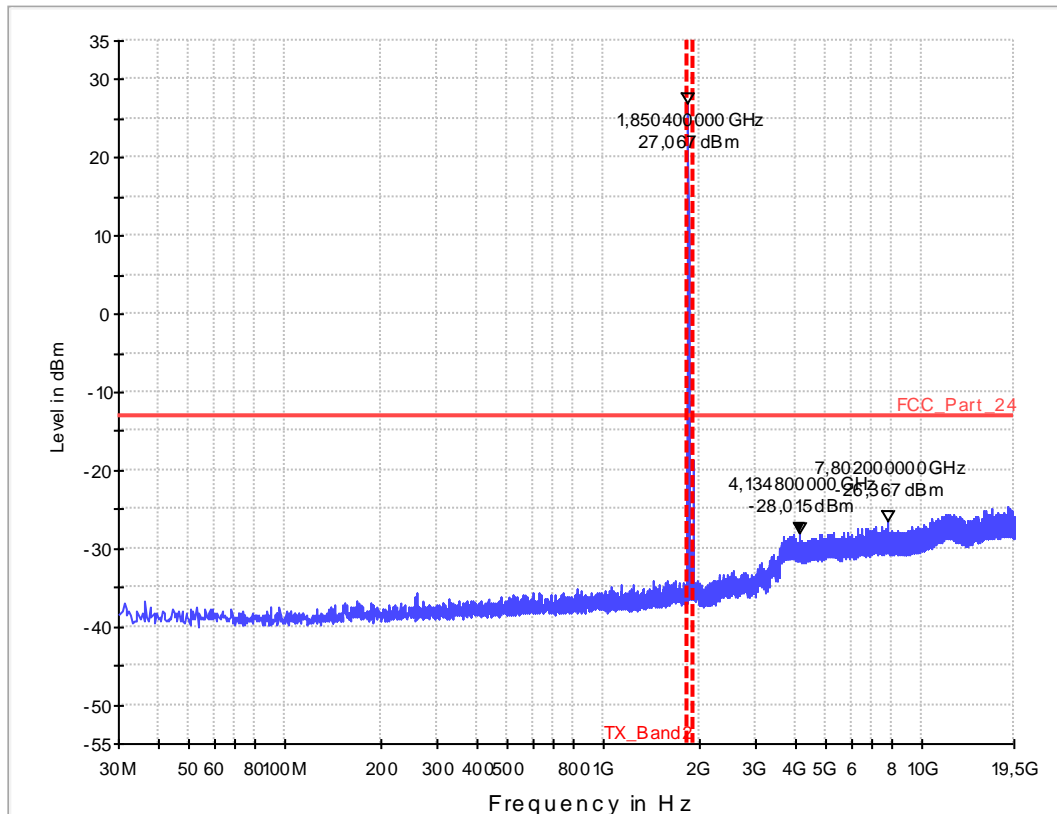
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18607
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan2\_30MHz\_19.5GHz



# 36.21b\_RSE\_C\_Ch18607\_BW\_1\_4\_ QAM\_Sweep2

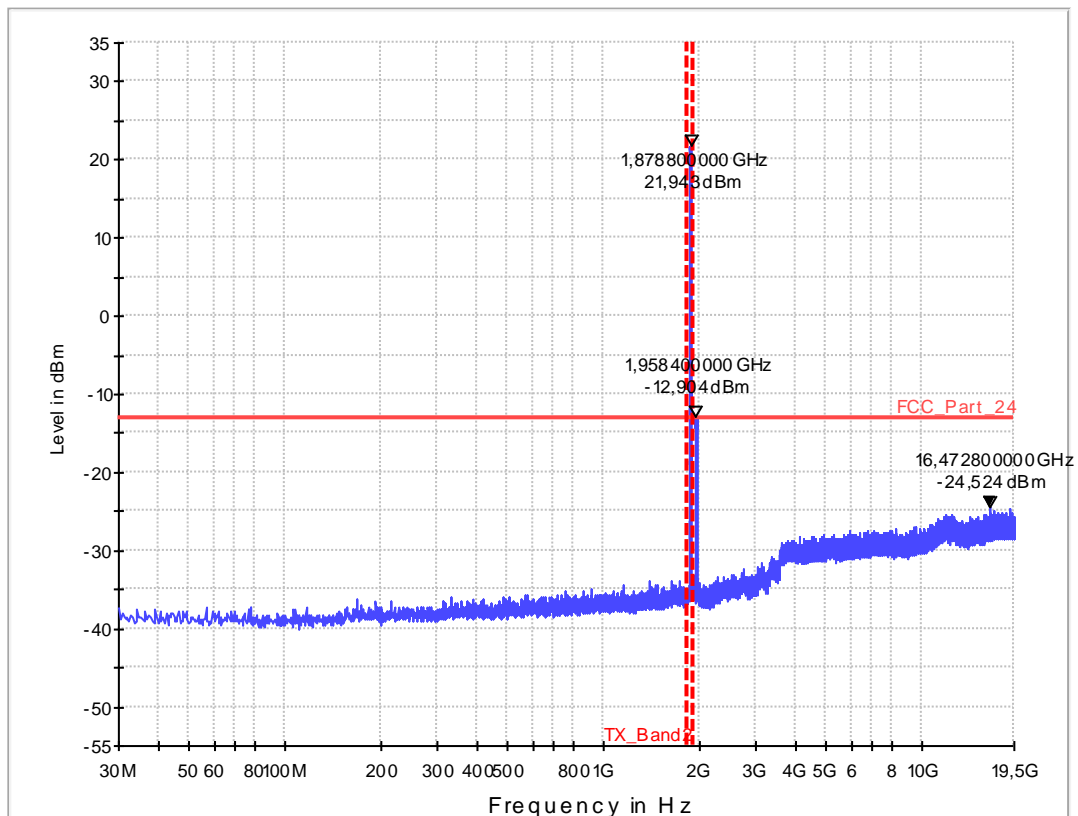
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18607
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan2\_30MHz\_19.5GHz





# 36.22a\_RSE\_C\_Ch18900\_BW\_10\_QPSK\_Sweep1

## Common Information

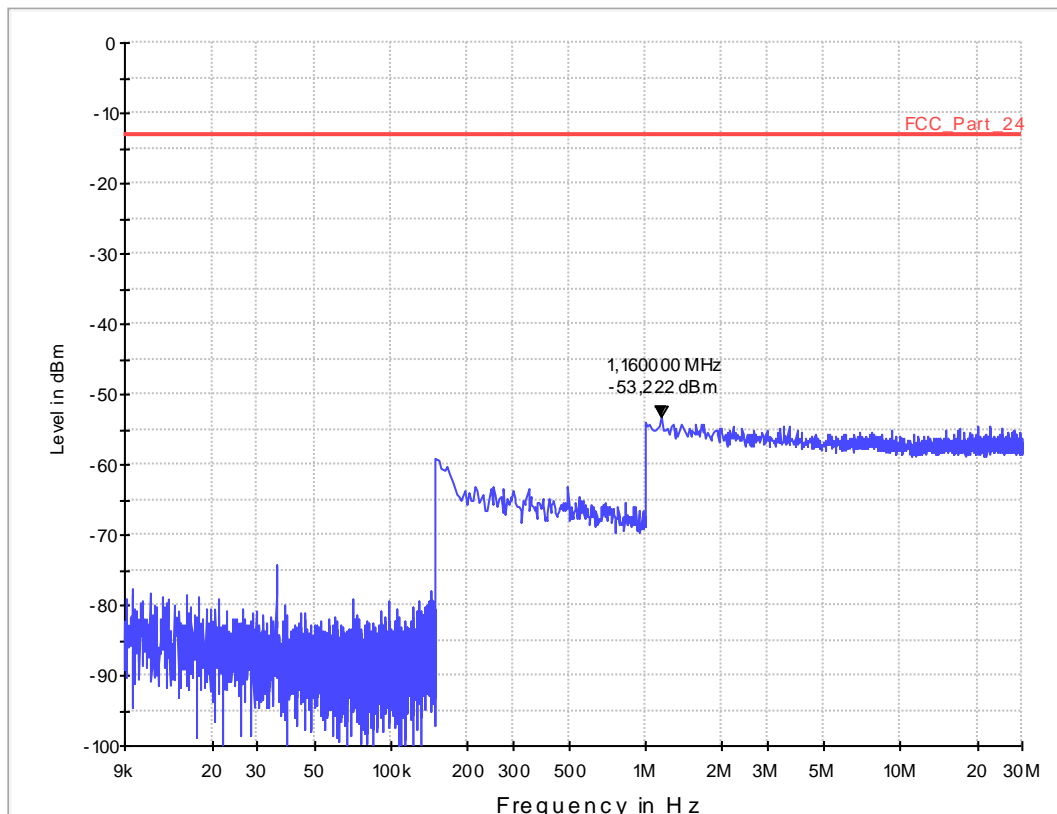
Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18900
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan1\_9kHz\_30MHz



# 36.22b\_RSE\_C\_Ch18900\_BW\_10\_QAM\_Sweep1

## Common Information

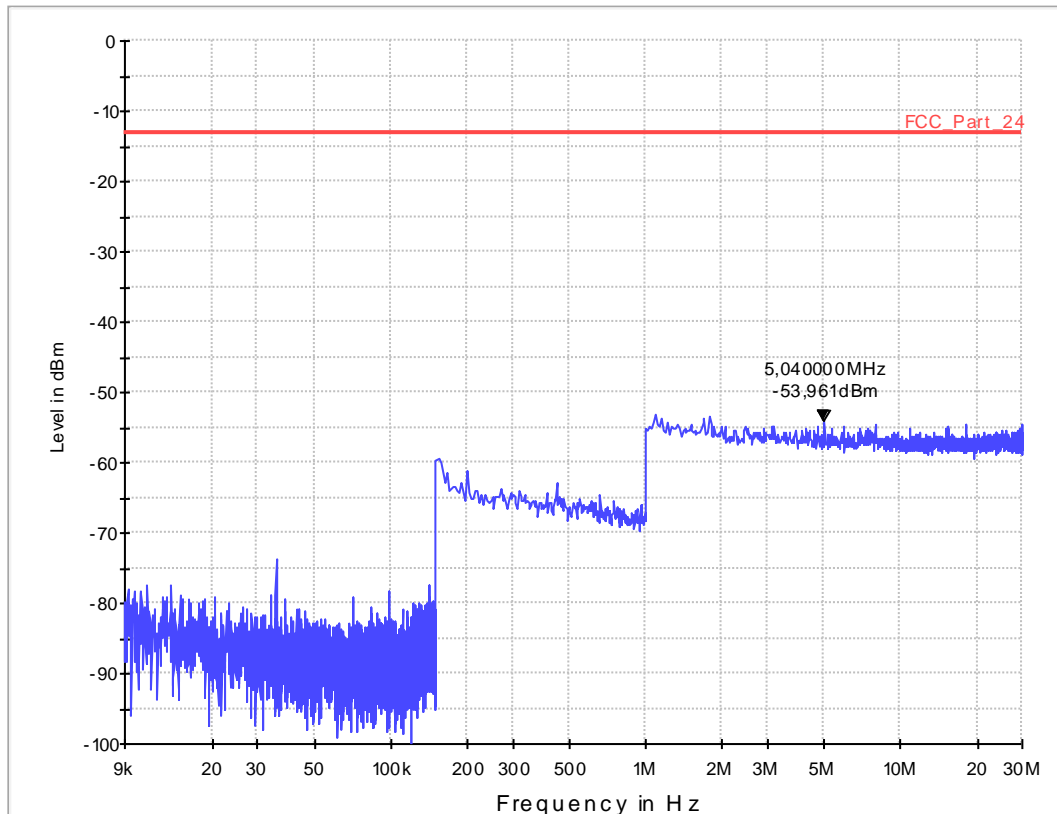
Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18900
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan1\_9kHz\_30MHz



# 36.23a\_RSE\_C\_Ch18900\_BW\_10\_QPSK\_Sweep2

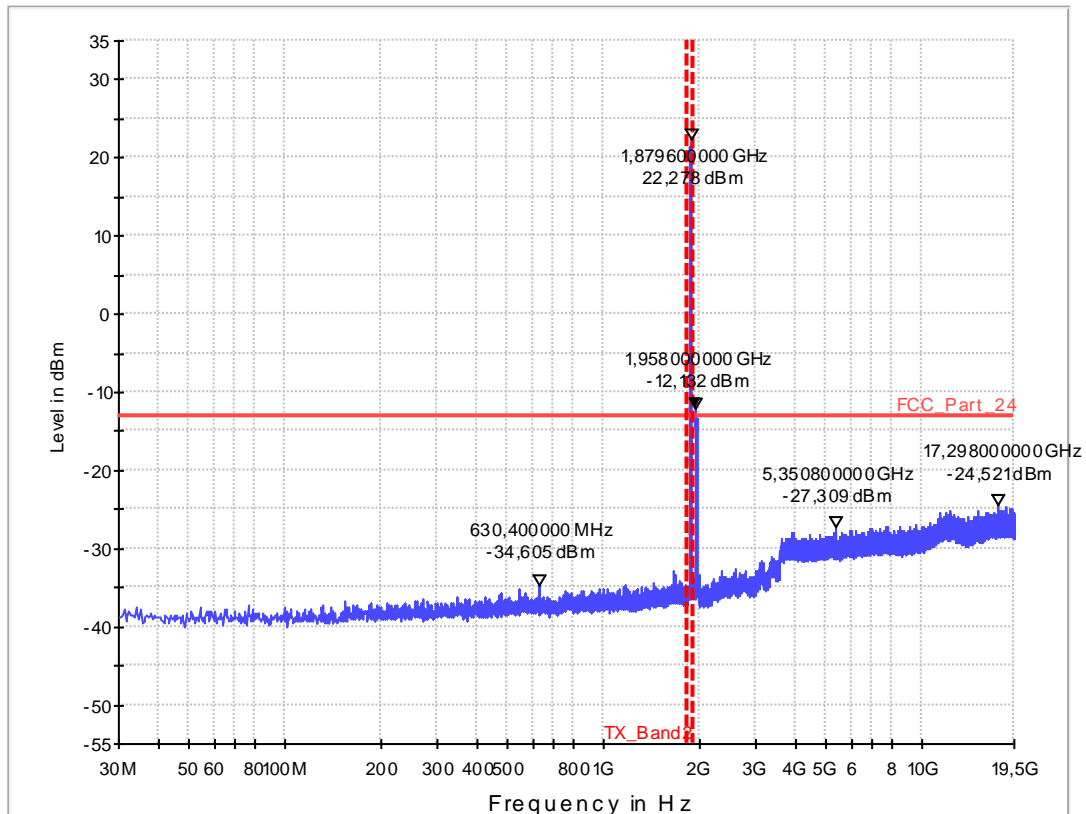
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18900
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan2\_30MHz\_19.5GHz



# 36.23b\_RSE\_C\_Ch18900\_BW\_10\_QAM\_Sweep2

## Common Information

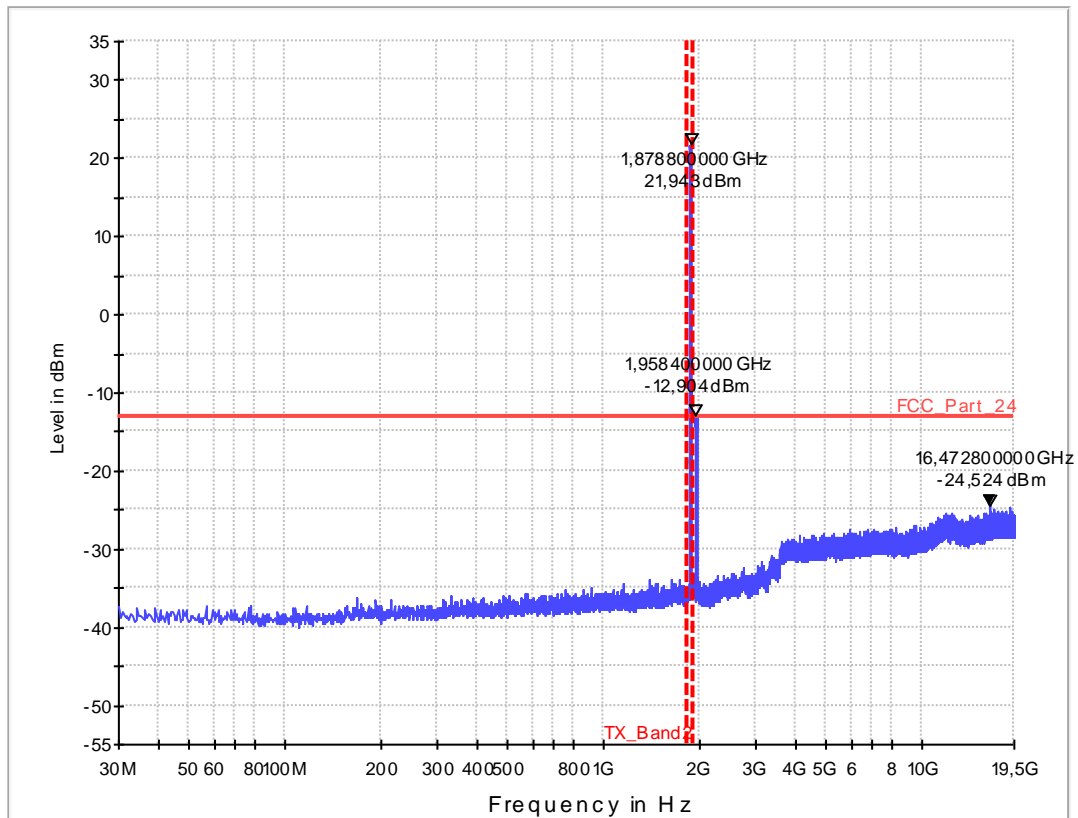
Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18900
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan2\_30MHz\_19.5GHz



# 36.24a\_RSE\_C\_Ch19100\_BW\_20\_QPSK\_Sweep1

## Common Information

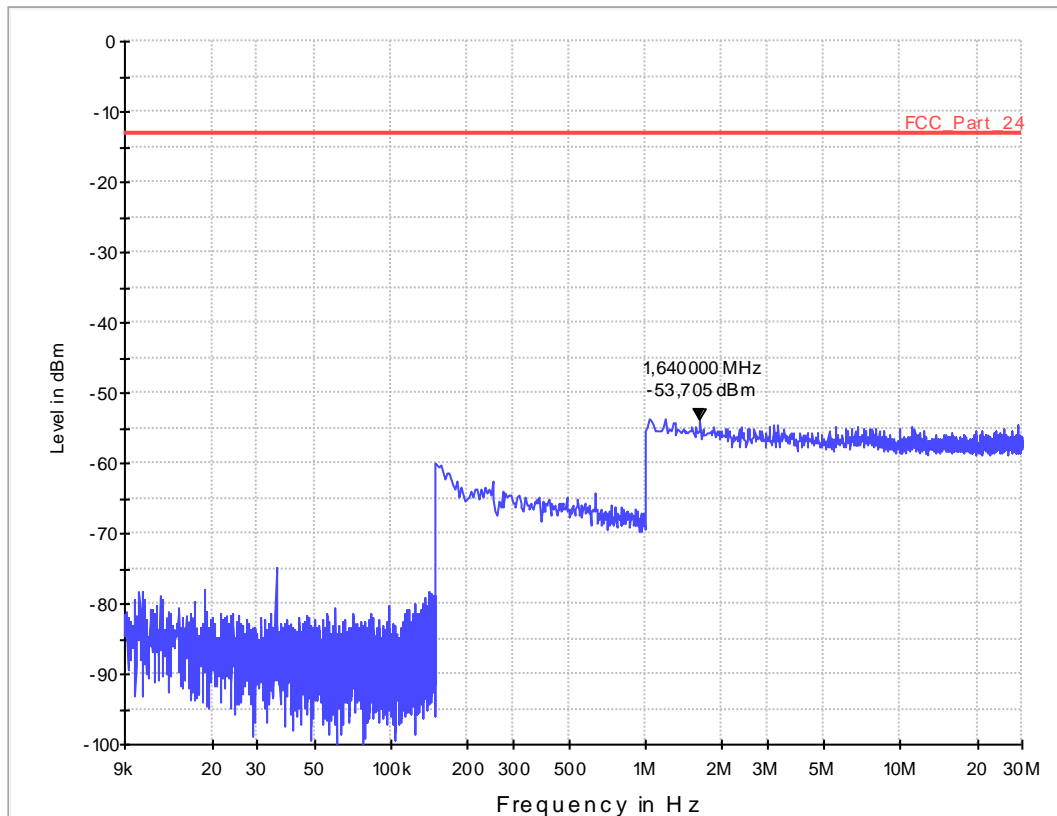
Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 19100
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan1\_9kHz\_30MHz



# 36.25a\_RSE\_C\_Ch19100\_BW\_20\_QPSK\_Sweep2

## Common Information

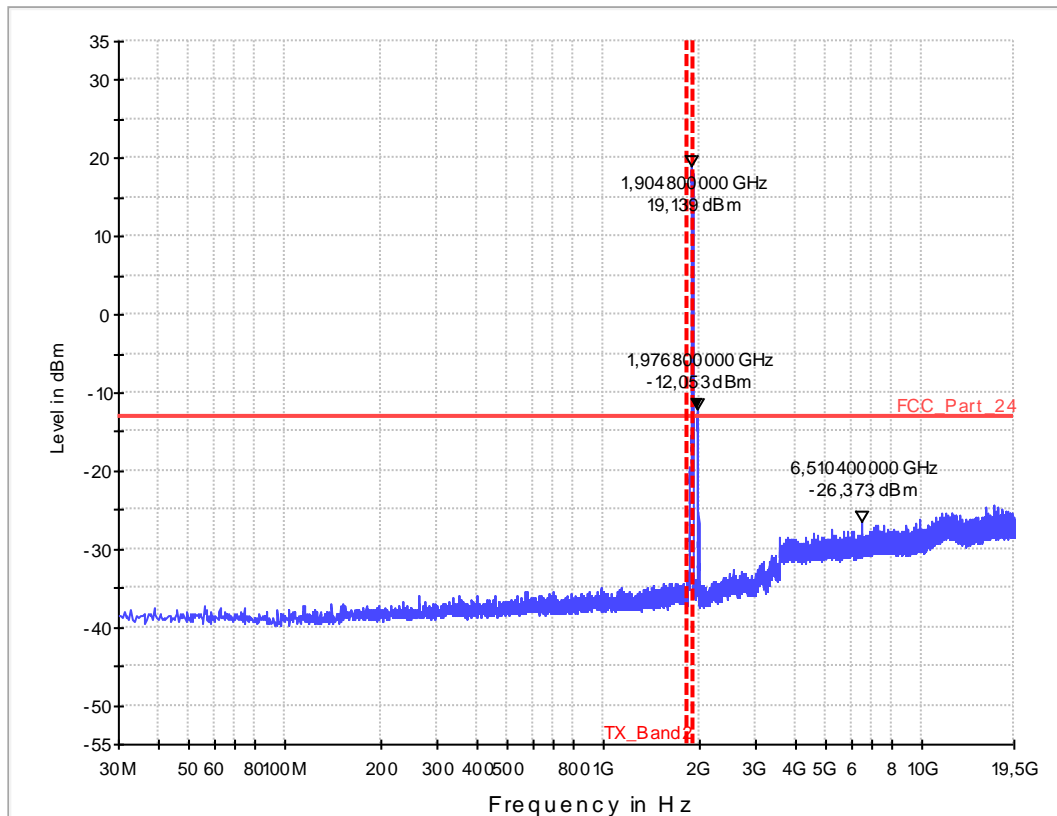
Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 19100
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan2\_30MHz\_19.5GHz



# 36.26b\_RSE\_C\_Ch19193\_BW\_1\_4\_QAM\_Sweep1

## Common Information

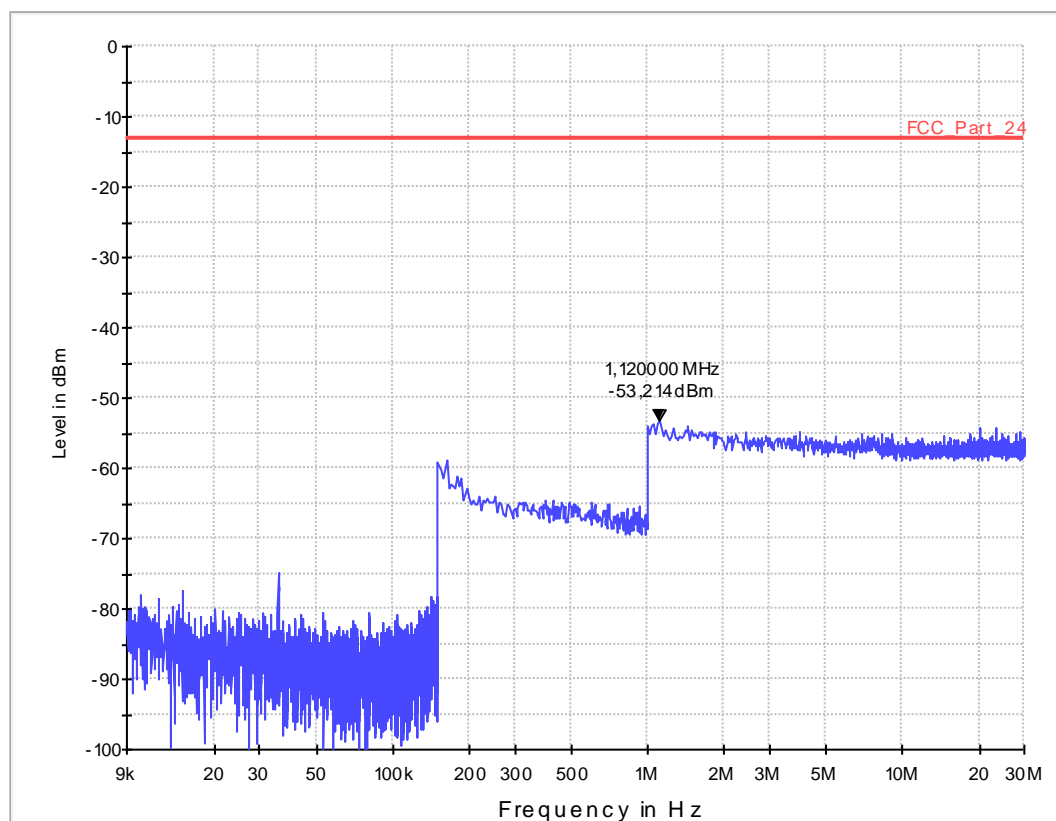
Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 19193
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan1\_9kHz\_30MHz



# 36.27b\_RSE\_C\_Ch19193\_BW\_1\_4\_QAM\_Sweep2

## Common Information

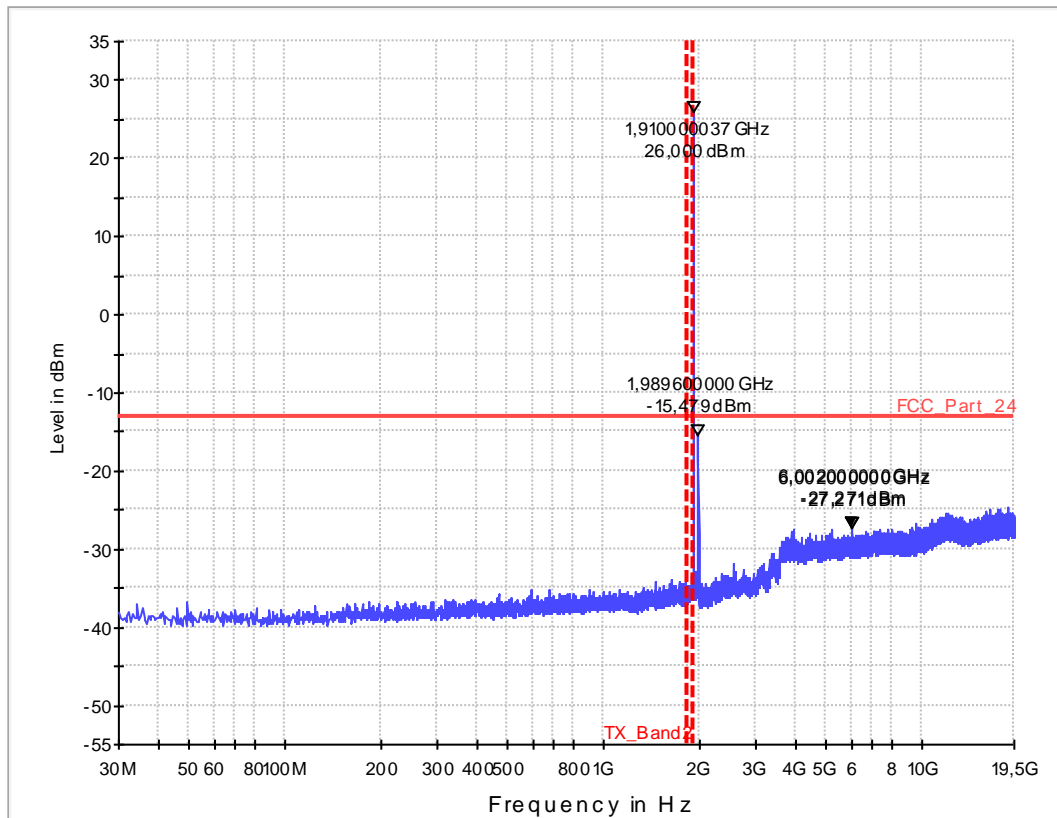
Test Description:	Conducted Spurious Emissions LTE Band II
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 19193
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_24\_Scan2\_30MHz\_19.5GHz





### 1.12. Spurious emissions conducted LTE Band IV

# 36.401a\_RSE\_C\_Ch19957\_BW\_1\_4\_QPSK\_Sweep1

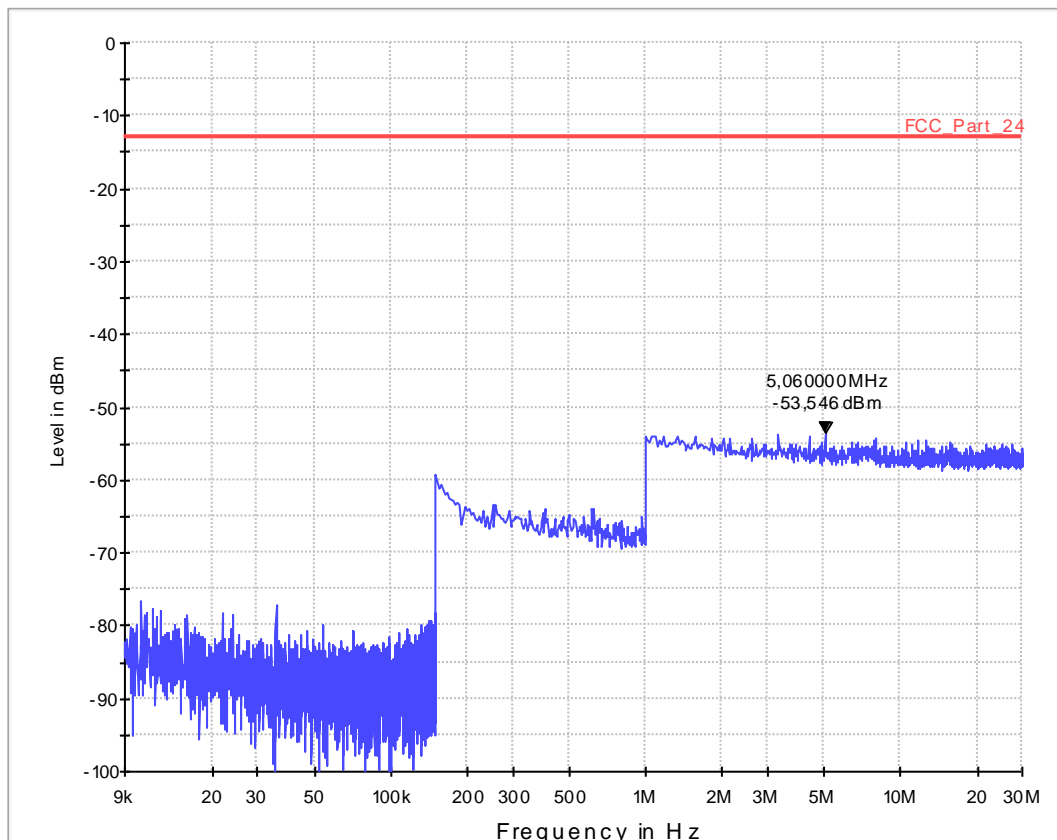
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 19957
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_Scan1\_9kHz\_30MHz



# 36.402a\_RSE\_C\_Ch19957\_BW\_1\_4\_QPSK\_Sweep2

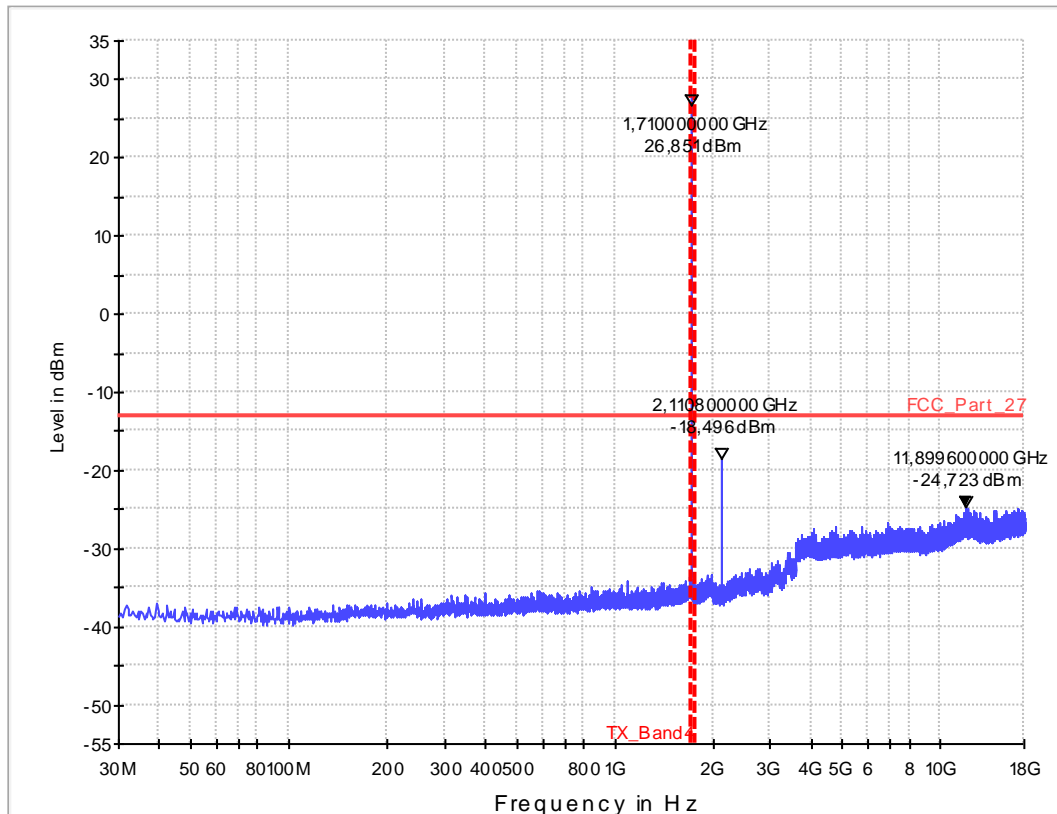
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 19957
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remark:	Downlink carrier on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd4\_Scan2\_30MHz\_18GHz



# 36.402b\_RSE\_C\_Ch19957\_BW\_1\_4\_QAM\_Sweep2

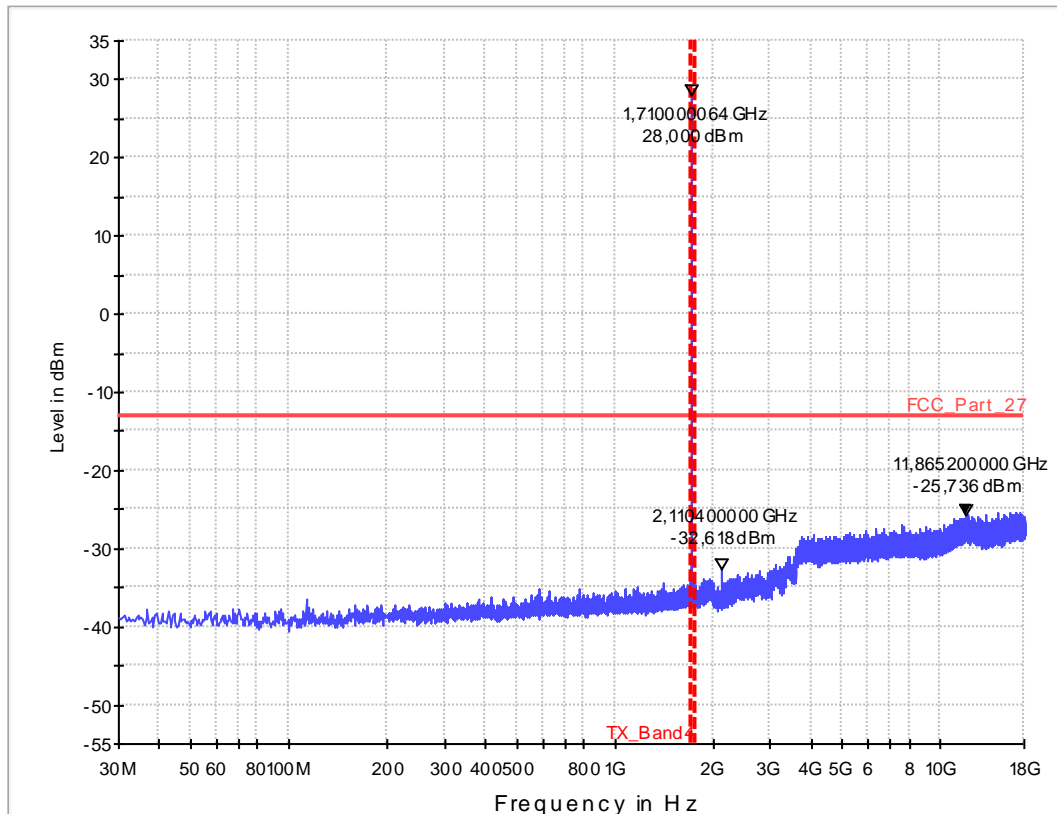
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 19957
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd4\_Scan2\_30MHz\_18GHz



# 36.403a\_RSE\_C\_Ch20175\_BW\_10\_QPSK\_Sweep1

## Common Information

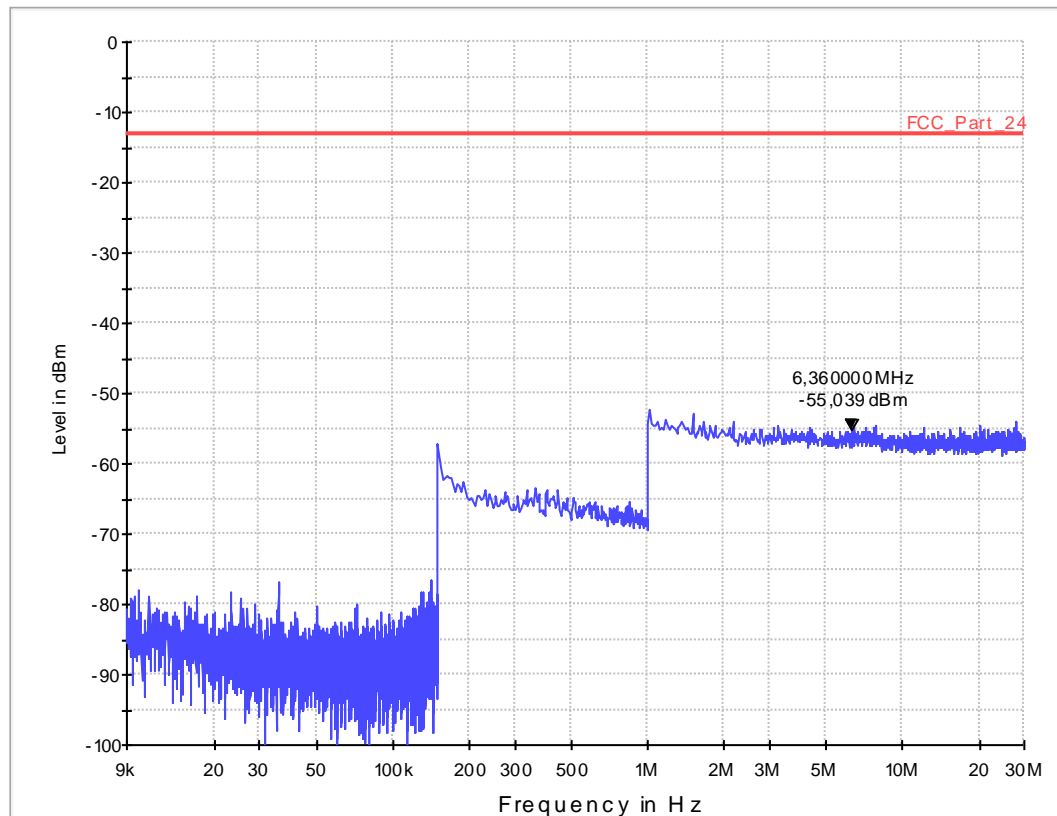
Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 20175
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_Scan1\_9kHz\_30MHz



# 36.404a\_RSE\_C\_Ch20175\_BW\_10\_QPSK\_Sweep2

## Common Information

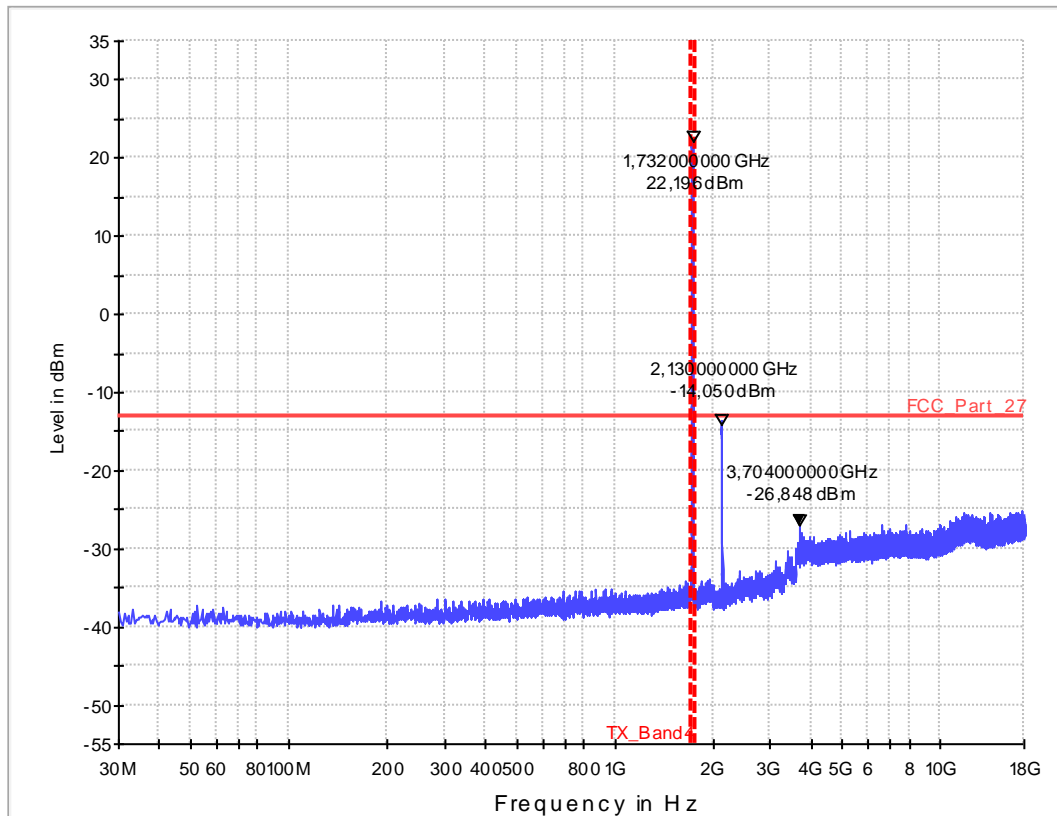
Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 20175
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd4\_Scan2\_30MHz\_18GHz



# 36.404b\_RSE\_C\_\_Ch20175\_BW\_10\_ QAM\_Sweep2

## Common Information

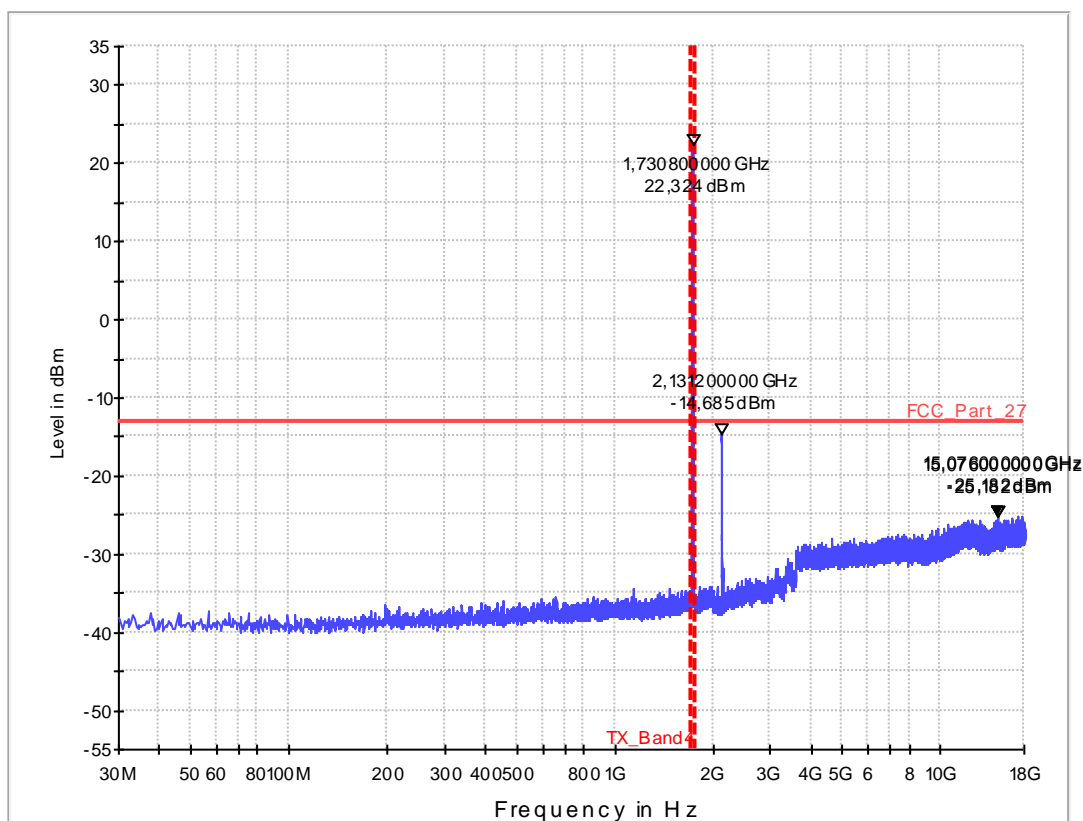
Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 20175
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd4\_Scan2\_30MHz\_18GHz



# 36.405a\_RSE\_C\_Ch20300\_BW\_20\_QPSK\_Sweep1

## Common Information

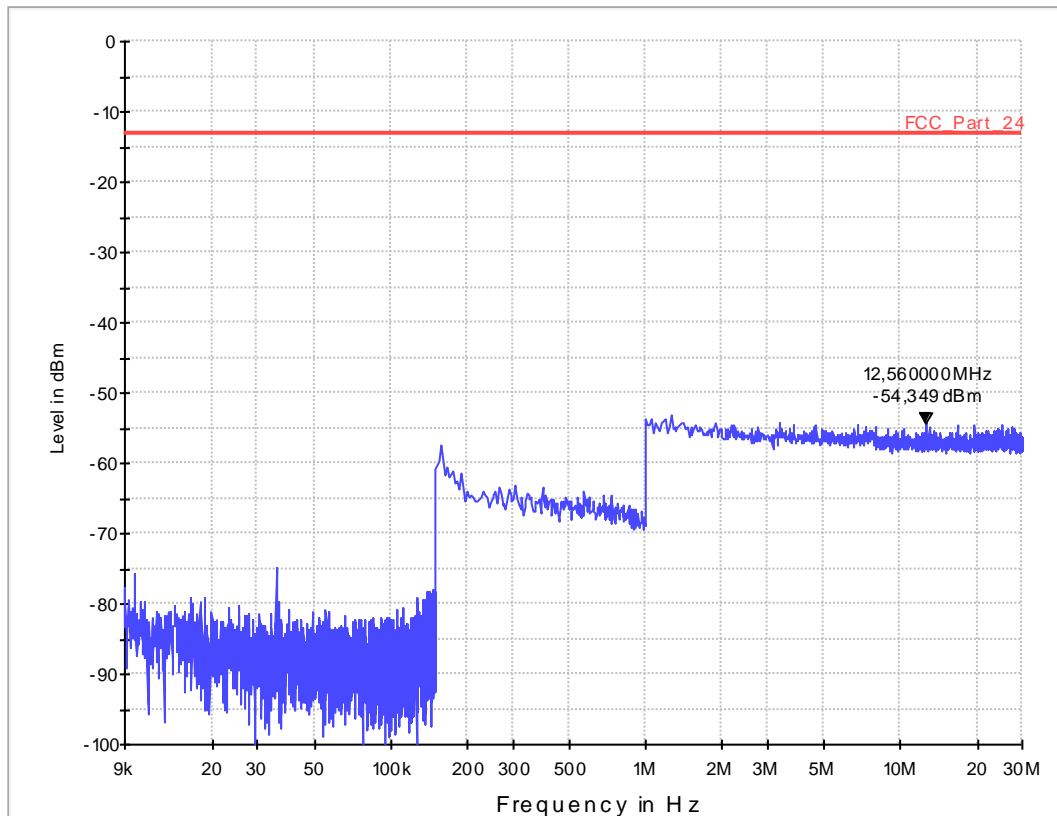
Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 20300
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_Scan1\_9kHz\_30MHz



# 36.406a\_RSE\_C\_Ch20300\_BW\_20\_QPSK\_Sweep2

## Common Information

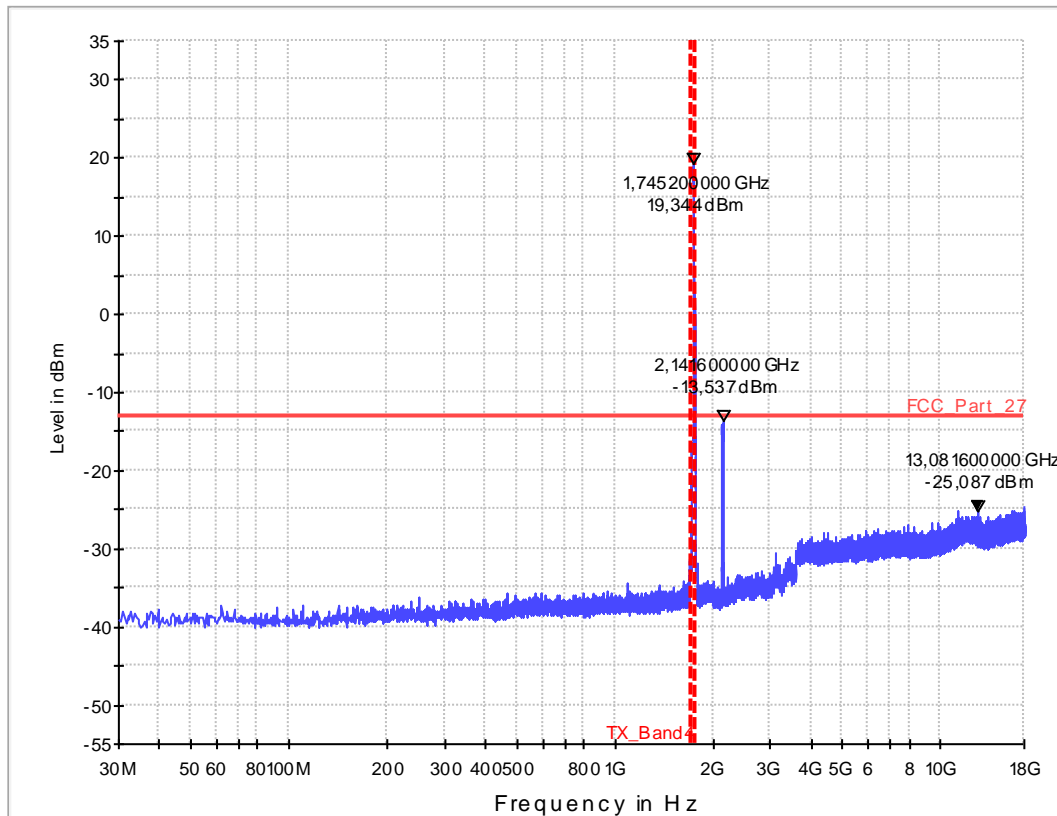
Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 20300
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd4\_Scan2\_30MHz\_18GHz





# 36.406b\_RSE\_C\_Ch20300\_BW\_20\_QAM\_Sweep2

## Common Information

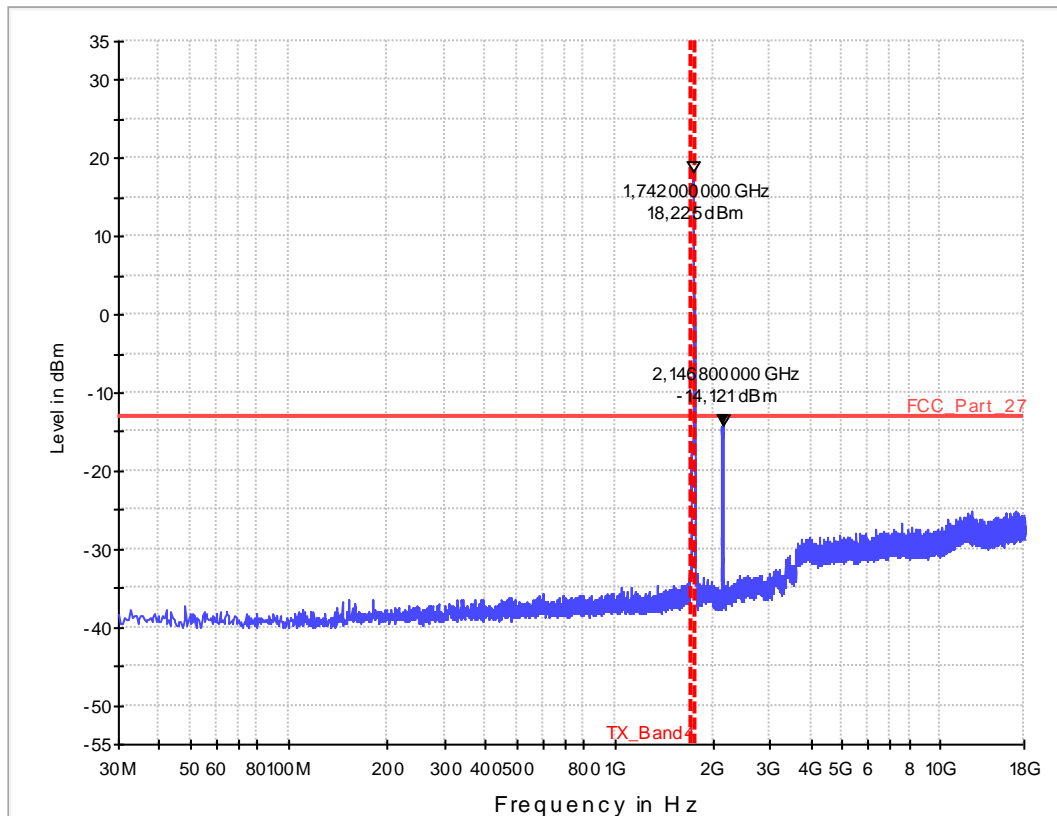
Test Description:	Conducted Spurious Emissions LTE Band IV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 20300
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd4\_Scan2\_30MHz\_18GHz



### 1.13. Spurious emissions conducted LTE Band V

## 36.52a\_RSE\_Ch20407\_BW\_1\_4\_1RB\_QPSK

### Common Information

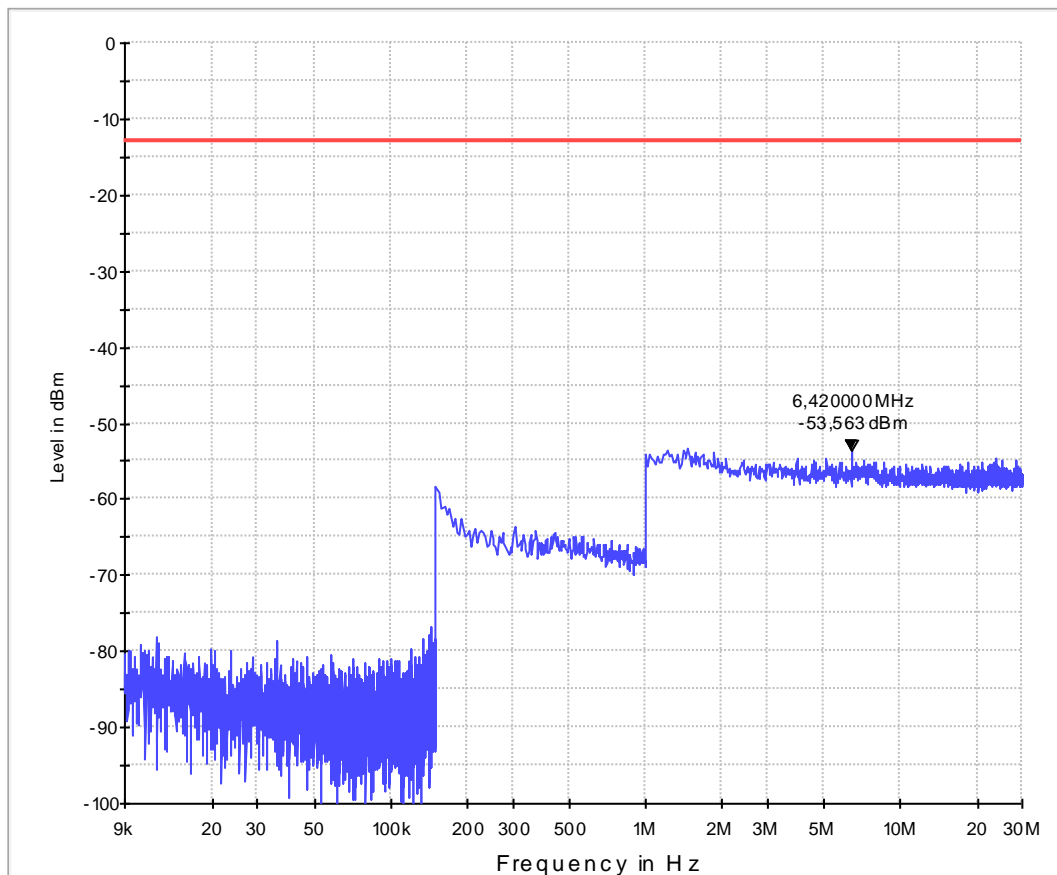
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20407
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

### EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_Scan1\_9kHz\_30MHz



# 36.53a\_RSE\_Ch20407\_BW\_1\_4\_1RB\_QPSK

## Common Information

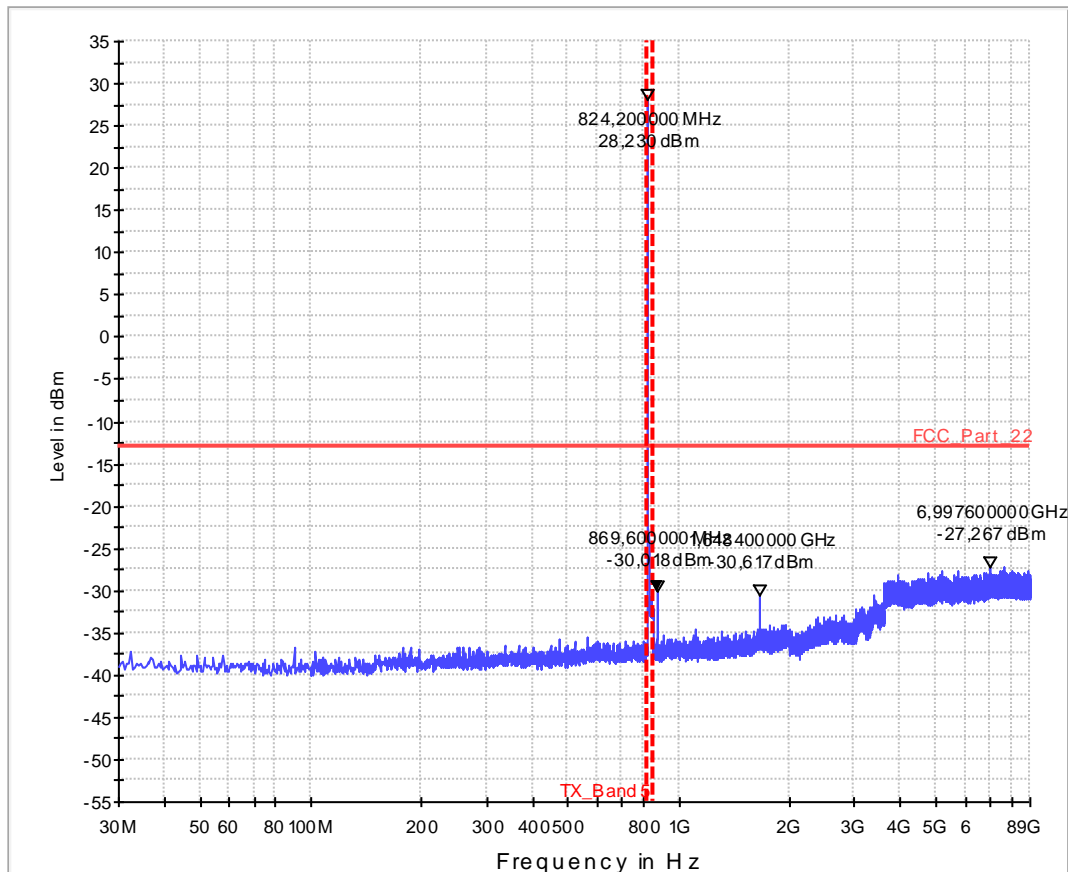
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20407
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan2\_30MHz\_9GHz



# 36.53b\_RSE\_Ch20407\_BW\_1\_4\_1RB\_QAM\_Sweep2

## Common Information

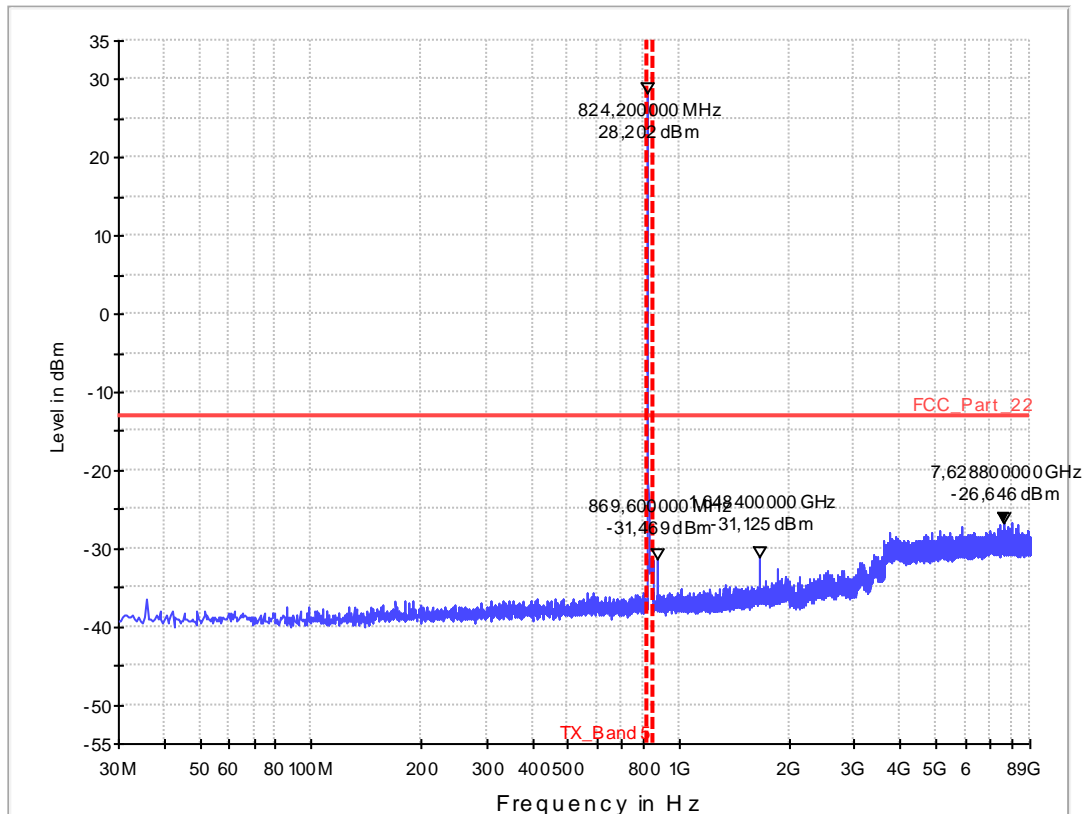
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20407
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan2\_30MHz\_9GHz



# 8.54a\_RSE\_Ch20525\_BW\_5\_25RB\_QPSK\_Sweep1

## Common Information

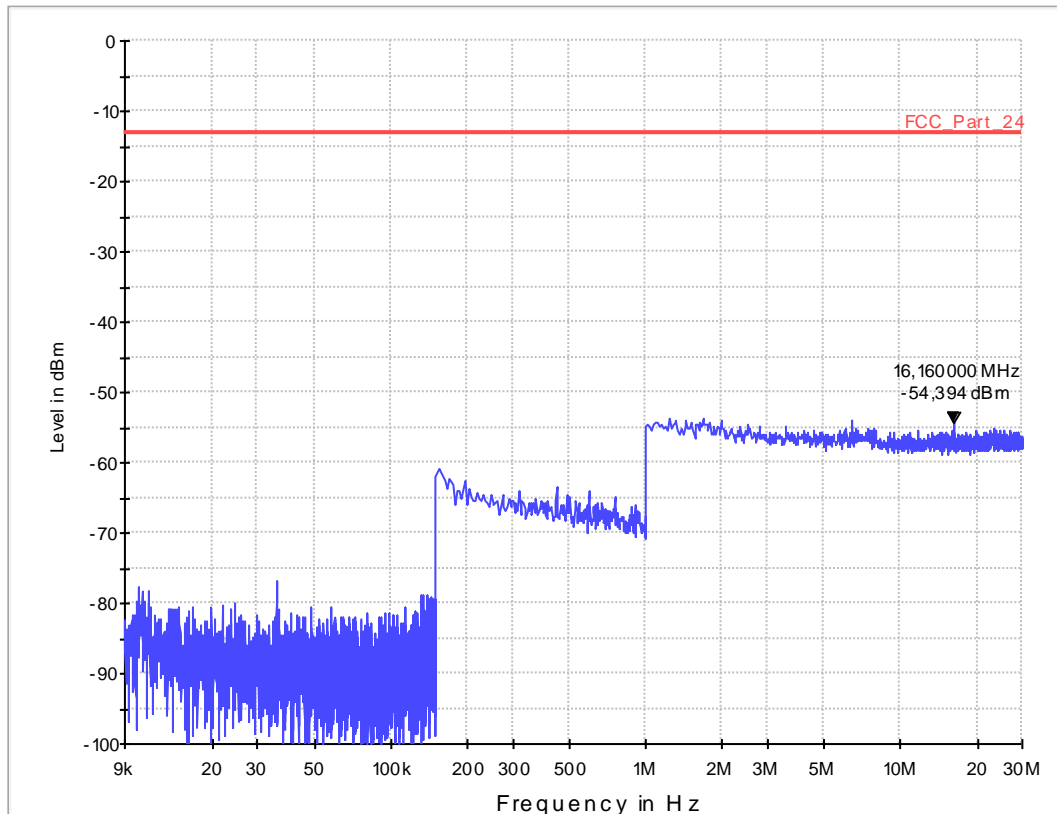
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20525
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan1\_9kHz\_30MHz



# 36.55a\_RSE\_Ch20525\_BW\_5\_25RB\_QPSK\_Sweep2

## Common Information

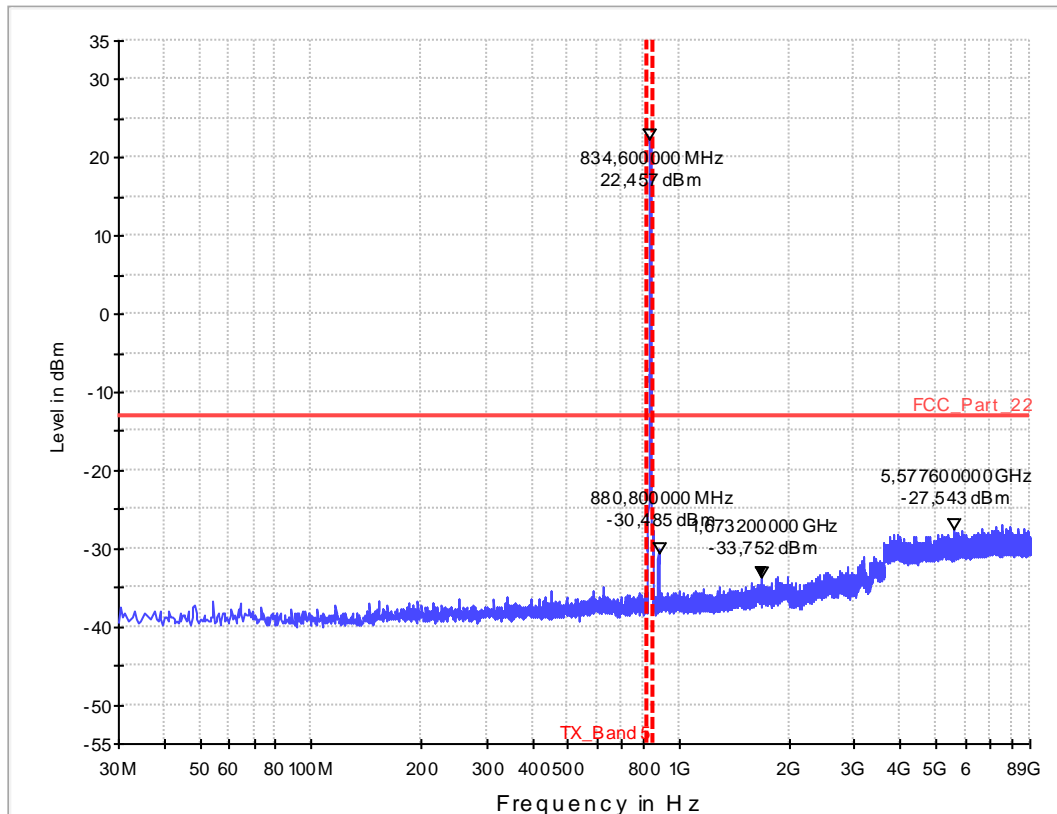
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20525
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan2\_30MHz\_9GHz



# 8.55b\_RSE\_Ch20525\_BW\_5\_25RB\_QAM\_Sweep2

## Common Information

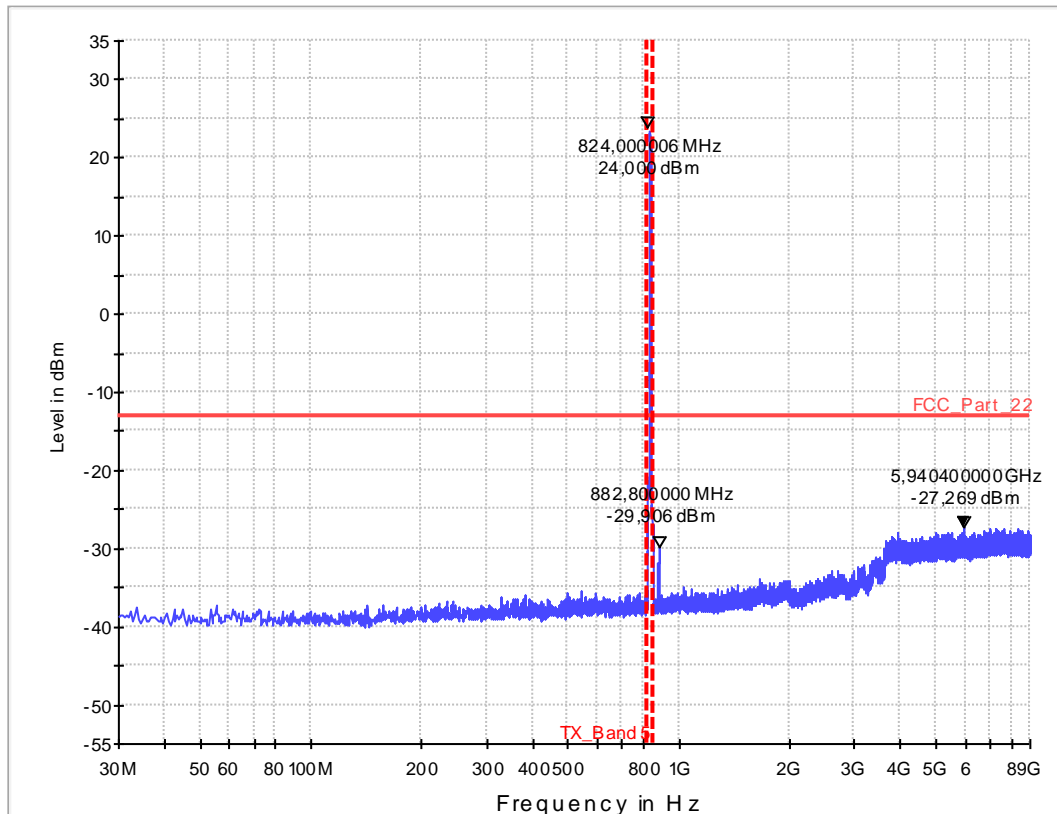
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20525
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan2\_30MHz\_9GHz



# 36.56a\_RSE\_Ch20600\_BW\_5\_50RB\_QPSK\_Sweep1

## Common Information

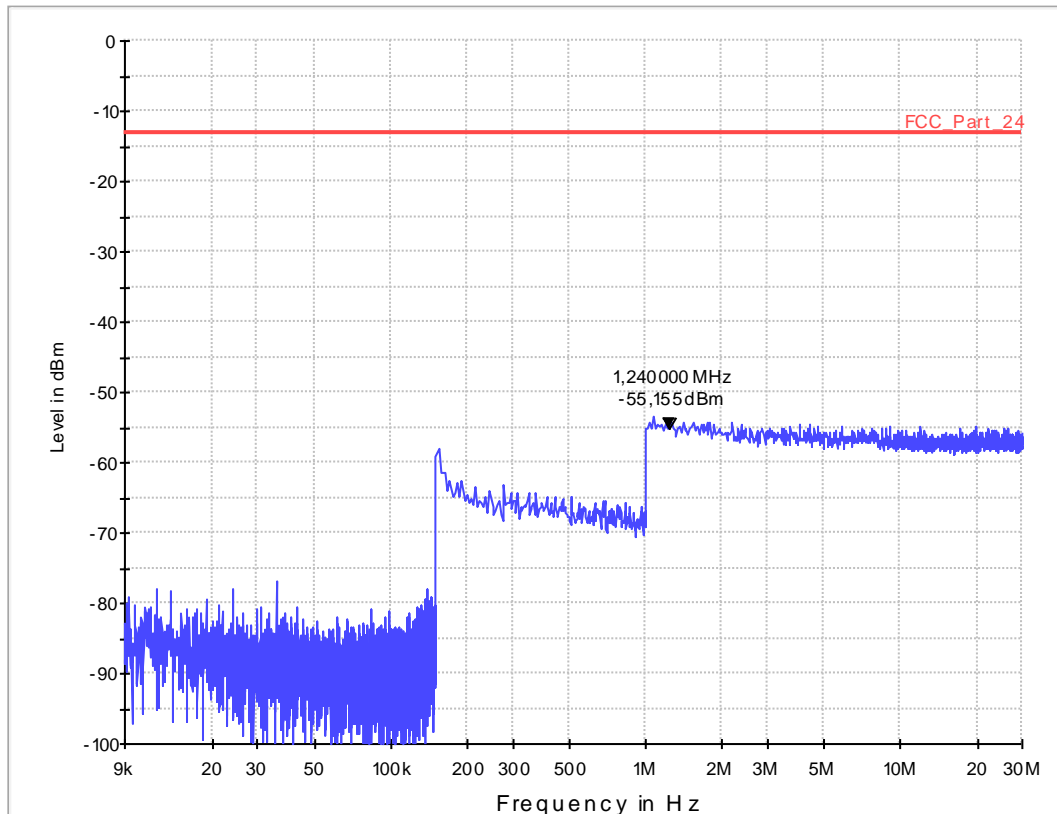
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20600
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan1\_9kHz\_30MHz





# 36.56b\_RSE\_Ch20600\_BW\_5\_50RB\_QAM\_Sweep1

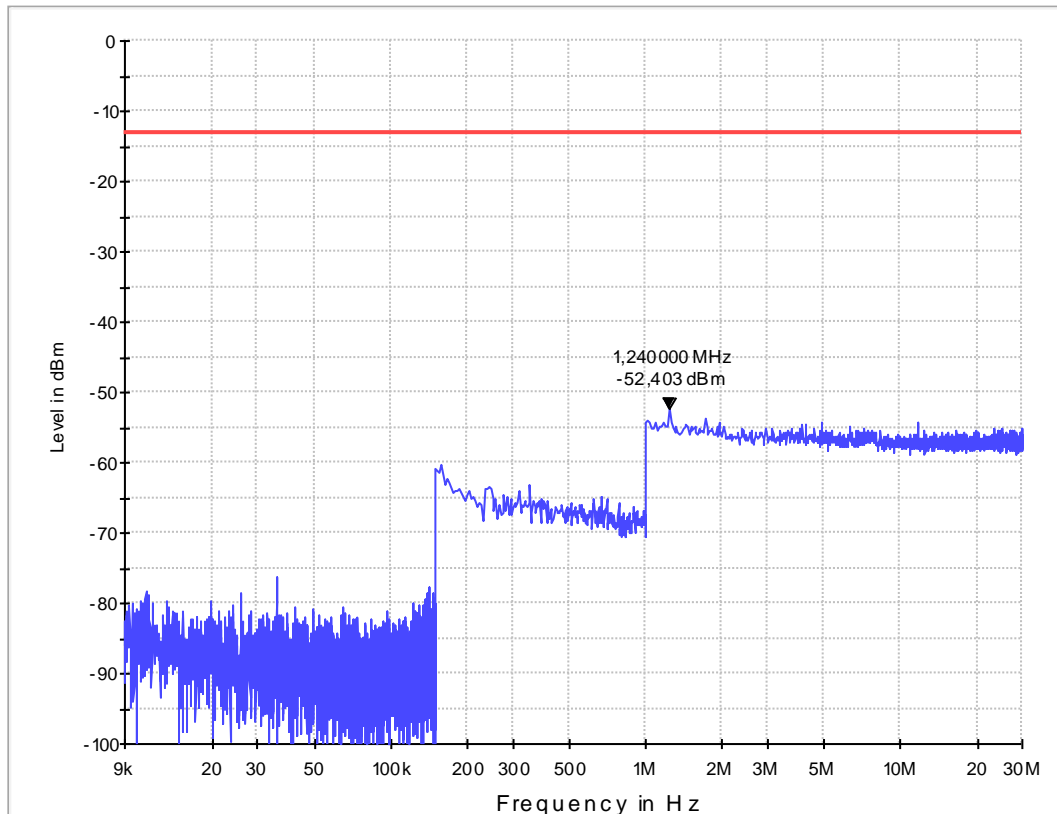
## Common Information

Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20600
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan1\_9kHz\_30MHz



# 36.57a\_RSE\_Ch20600\_BW\_5\_50RB\_QPSK\_Sweep2

## Common Information

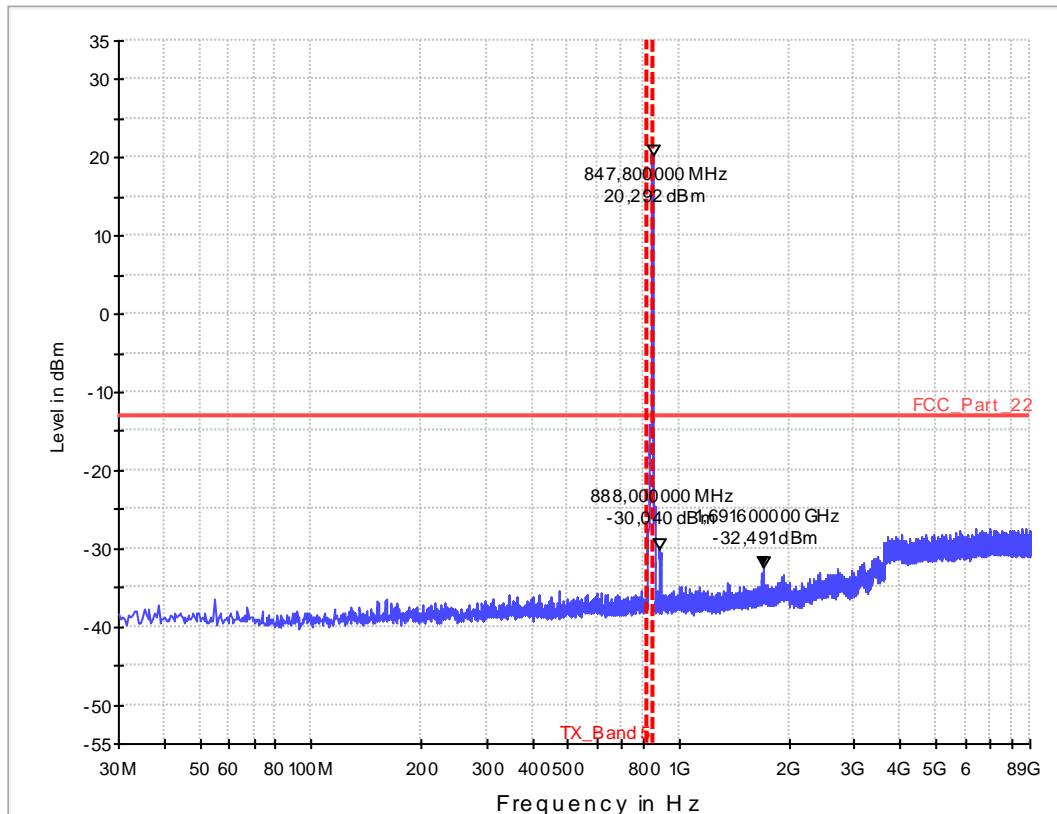
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20600
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan2\_30MHz\_9GHz



# 8.57b\_RSE\_Ch20600\_BW\_5\_50RB\_QAM\_Sweep2

## Common Information

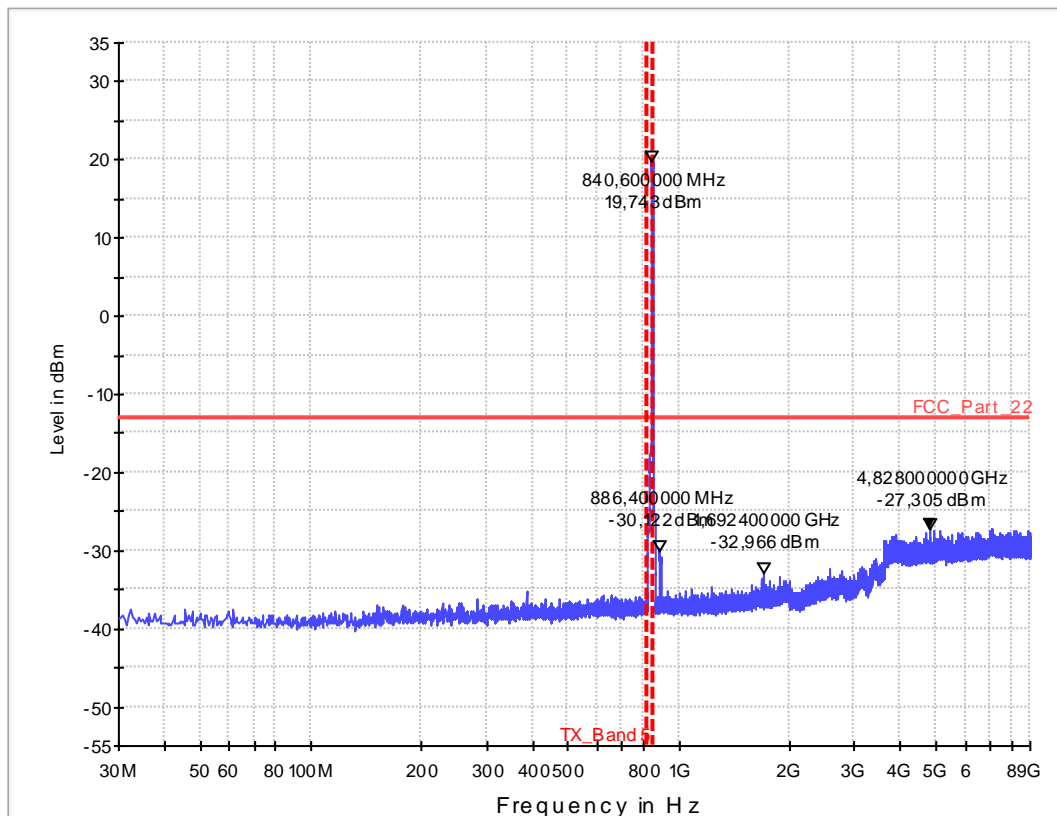
Test Description:	Conducted Spurious Emissions LTE Band V
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20600
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_22\_LTE\_Bd5\_Scan2\_30MHz\_9GHz



## 1.14. Spurious emissions conducted LTE Band XVII

# 36.170a\_\_RSE\_C\_Ch23755\_BW\_5\_1RB\_QPSK

### Common Information

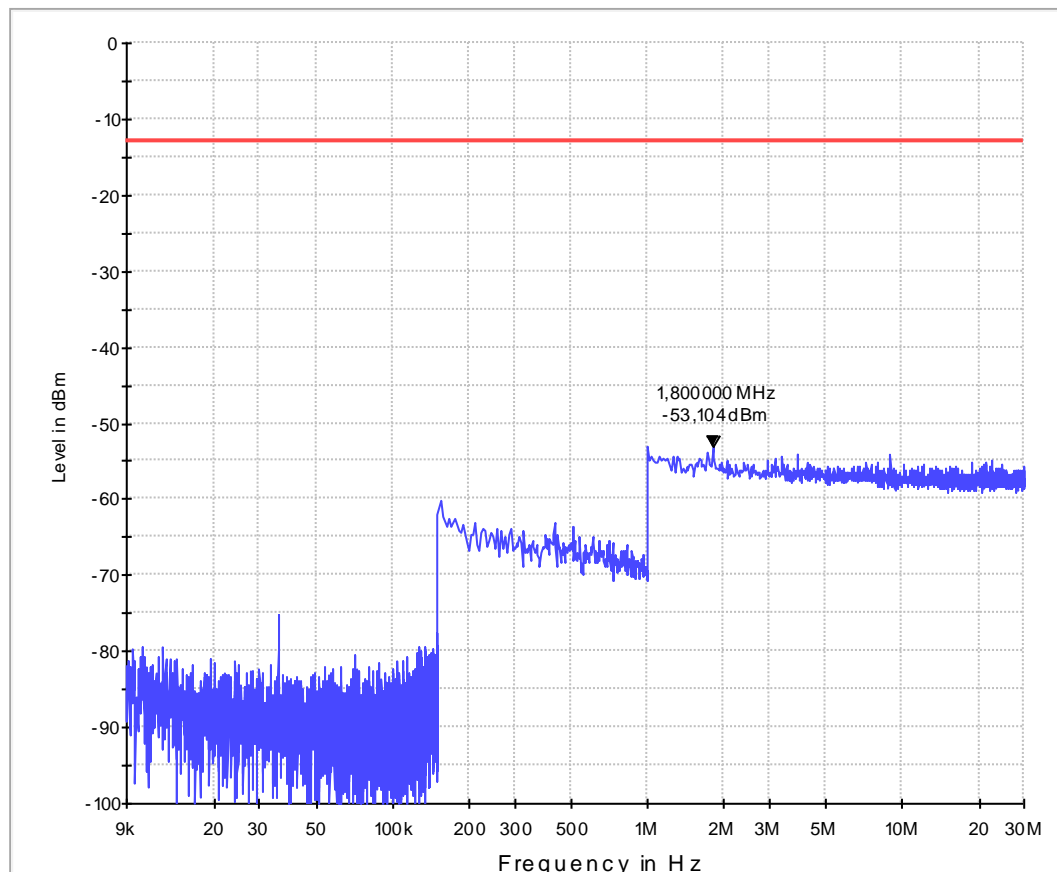
Test Description:	Conducted Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23755
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

### EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd17\_Scan1\_9kHz\_30MHz



# 36.171a\_RSE\_C\_Ch23755\_BW\_10\_1RB\_QPSK

## Common Information

Test Description:	Conducted Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23755
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

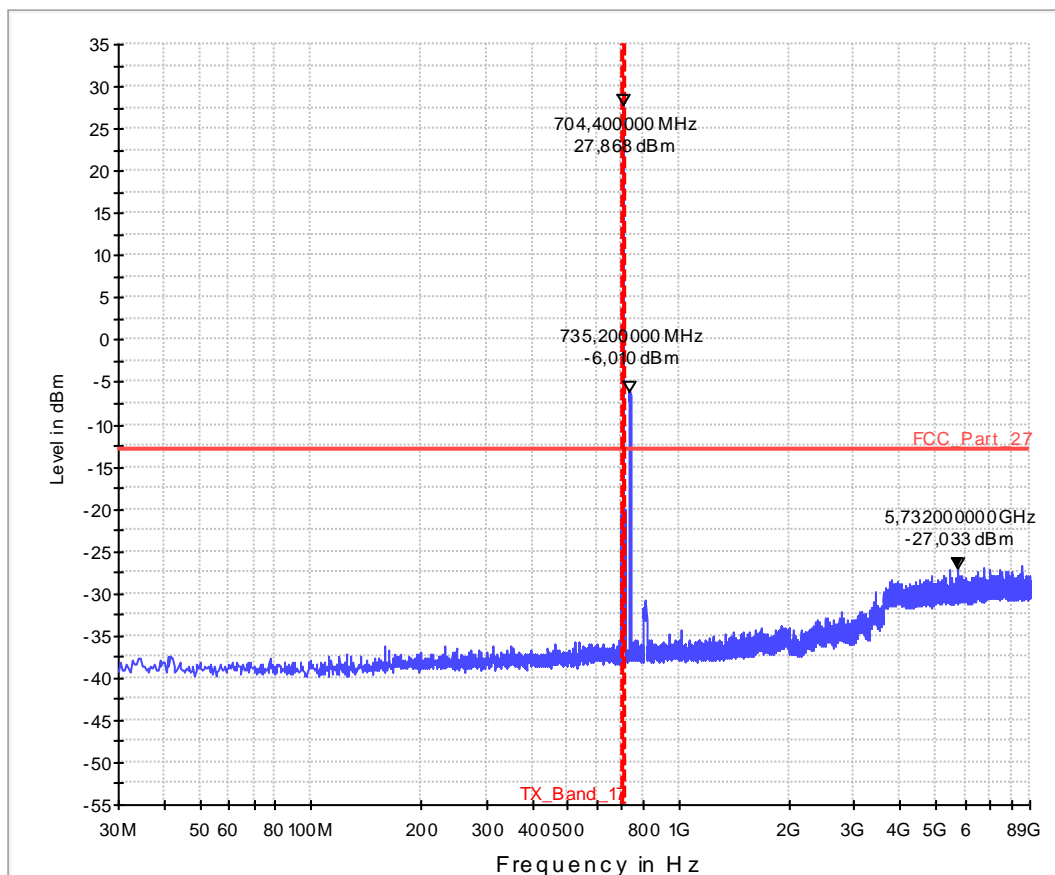
## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----

HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd17\_Scan2\_30MHz\_9GHz



# 36.172b\_\_RSE\_C\_Ch23790\_BW\_5\_25RB\_QAM

## Common Information

Test Description:	Conducted Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23790
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

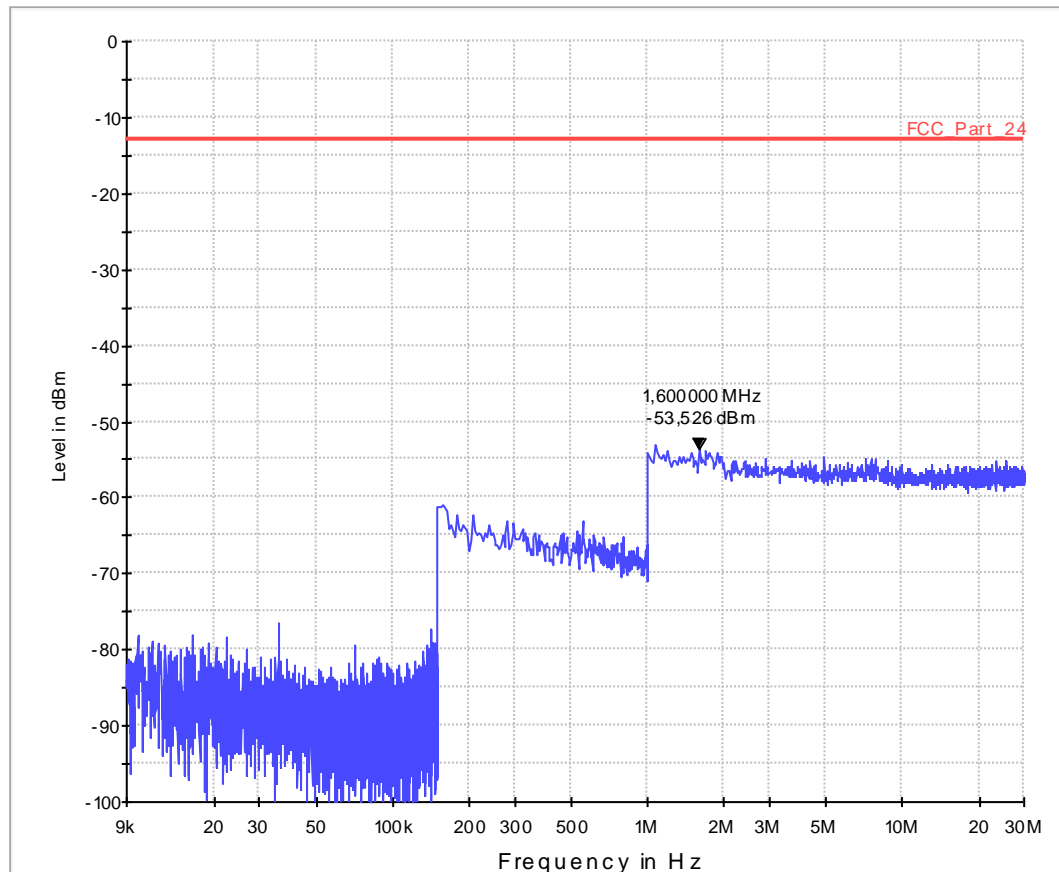
## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----

HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd17\_Scan1\_9kHz\_30MHz



# 36.173b\_RSE\_C\_Ch23790\_BW\_5\_25RB\_QAM

## Common Information

Test Description:	Conducted Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23790
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

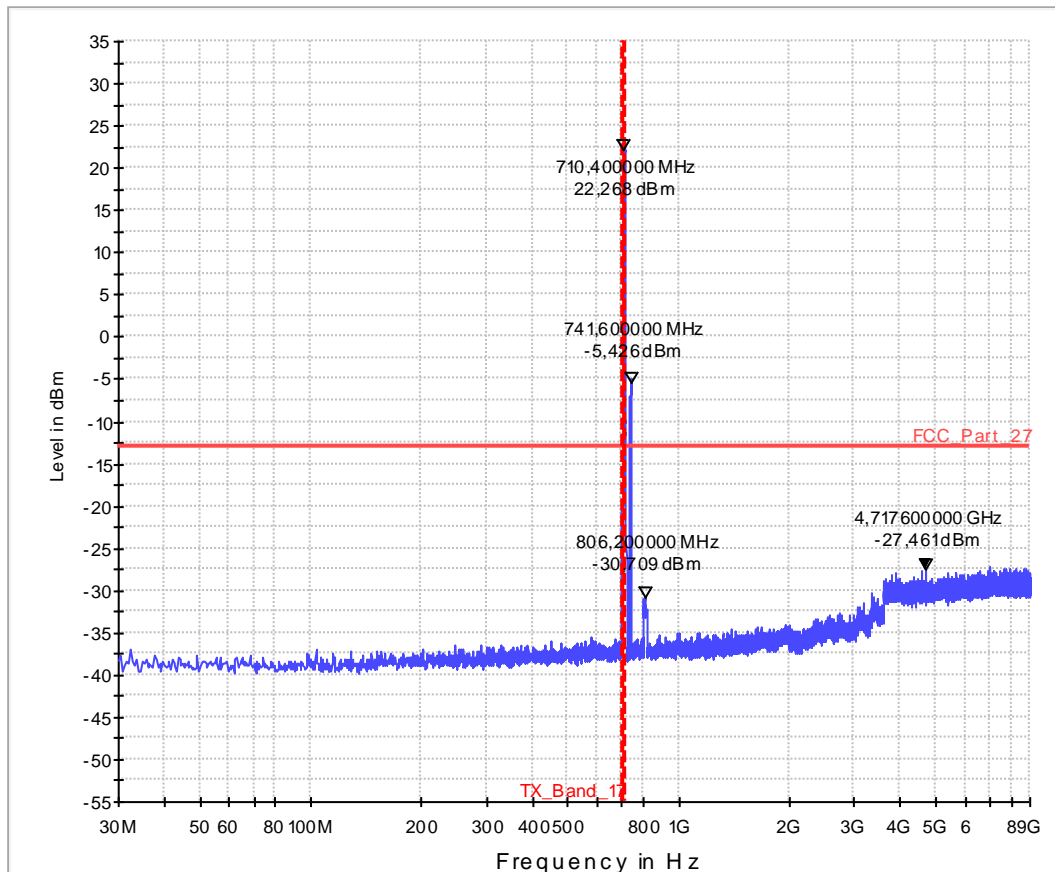
## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----

HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd17\_Scan2\_30MHz\_9GHz



# 36.174a\_RSE\_C\_Ch23800\_BW\_10\_50RB\_QPSK

## Common Information

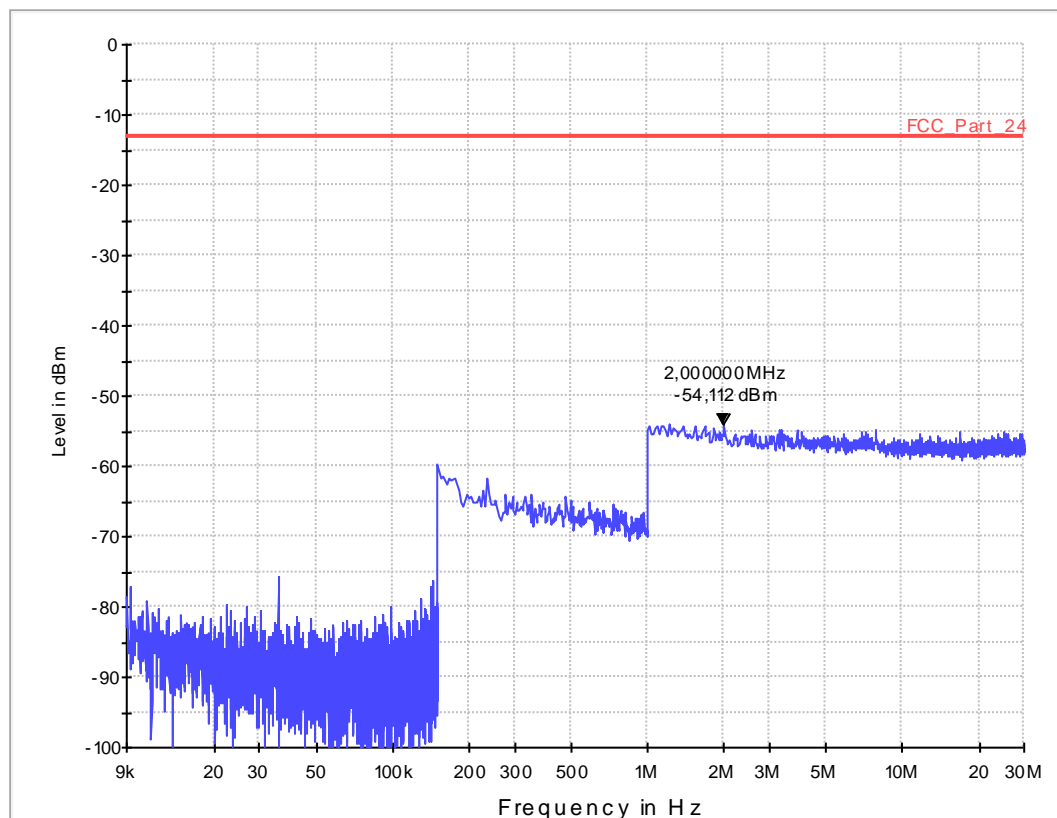
Test Description:	Conducted Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23800
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd17\_Scan1\_9kHz\_30MHz





## Hardware Setup: EMI radiated\Fula2\_HW\_08\_FCC\_22\_24\_6dB\_coupler - [EMI radiated]

Subrange 1

Frequency Range: 9 kHz - 20 GHz

Receiver: ESU 26 [ESU 26]  
@ GPIB0 (ADR 20), SN 100362/026, FW 4.43

Signal Path: FCC\_22\_24  
Correction Table: FCC22\_24\_conducted\_setup\_Tor\_2\_3

Antenna: VirtualAntenna\_FCC22\_24\_dBm  
Correction Table (vertical): dBuV\_to\_dBm  
Correction Table (horizontal): dBuV\_to\_dBm

## Scan Setup: Fula2\_FCC\_27\_LTE\_Bd17\_Scan1\_9kHz\_30MHz [EMI radiated]

Hardware Setup: Fula2\_HW\_08\_FCC\_22\_24\_6dB\_coupler

Receiver: [ESU 26]

Level Unit: dBm

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	40 Hz	PK+	100 Hz	0,005 s	0 dB
150 kHz - 1 MHz	4 kHz	PK+	9 kHz	0,005 s	0 dB
1 MHz - 30 MHz	20 kHz	PK+	100 kHz	0,01 s	0 dB

# 36.175a\_RSE\_C\_Ch23800\_BW\_10\_50RB\_QPSK

## Common Information

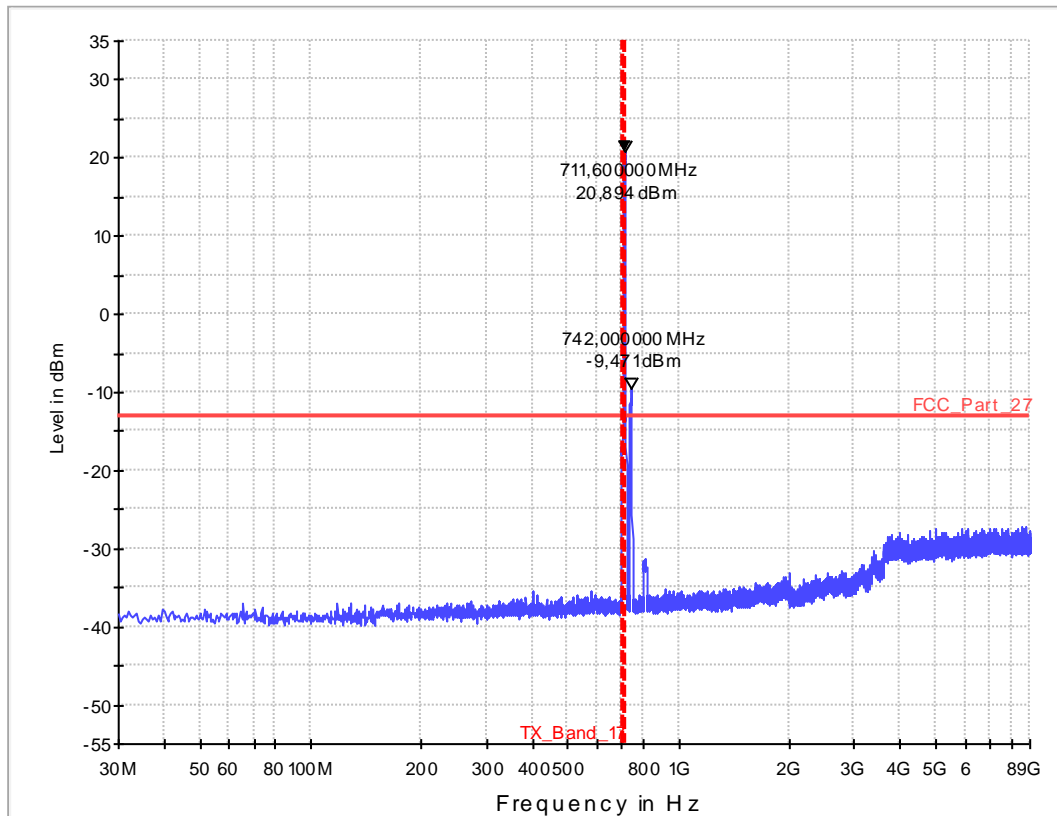
Test Description:	Conducted Spurious Emissions LTE Band XVII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23800
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor
Remarks:	Downlink channel on diagram, not relevant for results

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_FCC\_27\_LTE\_Bd17\_Scan2\_30MHz\_9GHz



### 1.15. Conducted emissions LTE Band II band-edge

## 37.203a\_BE\_Low\_Ch18615\_1RB\_QPSK

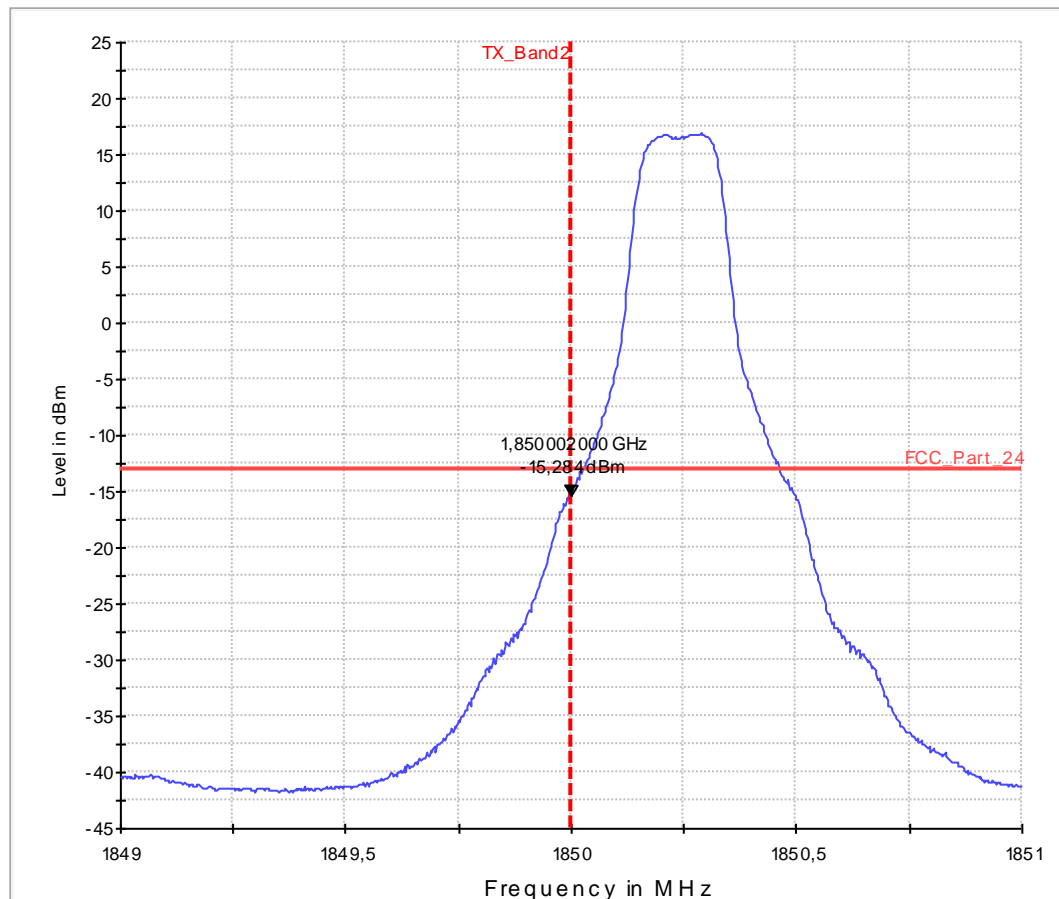
### Common Information

Test Description:	Conducted Spurious Emissions LTE II - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18615
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

### EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_022b\_FCC\_24\_BE\_Low\_Ch18615\_BW\_3MHz\_AV



# 37.203b\_BE\_Low\_Ch18615\_1RB\_QAM

## Common Information

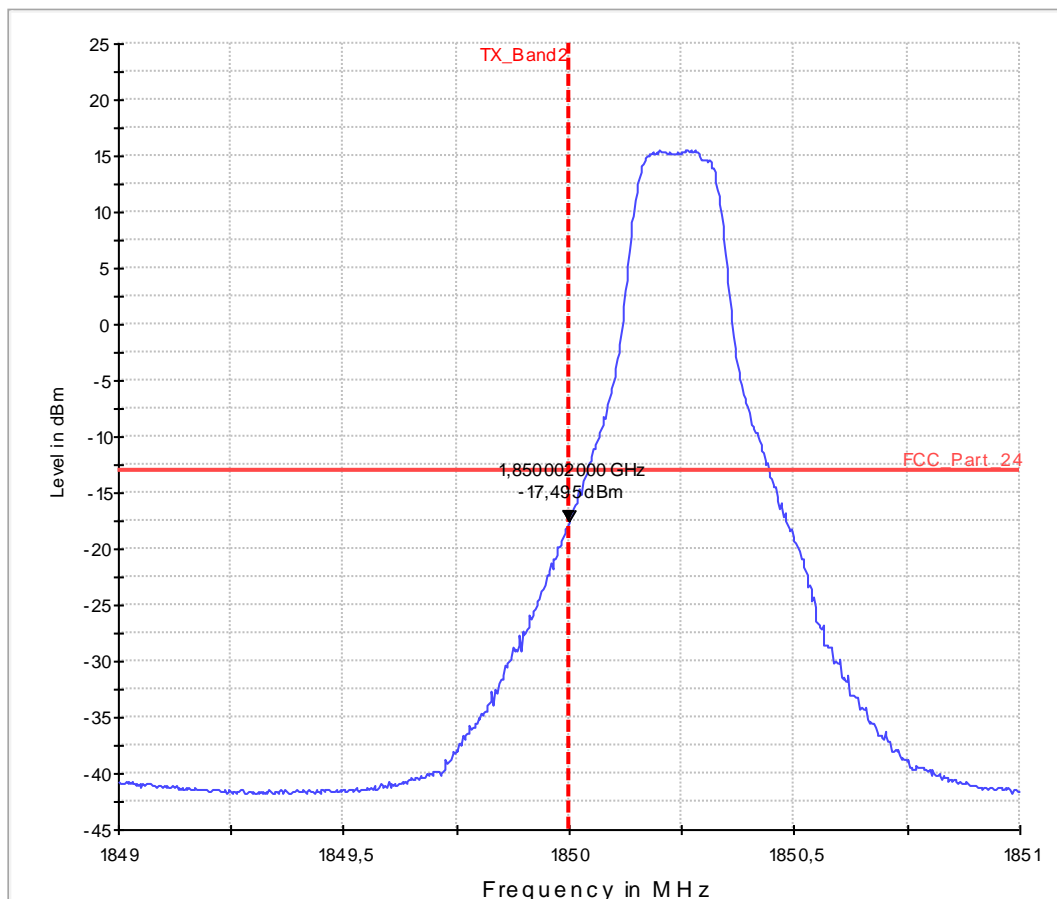
Test Description:	Conducted Spurious Emissions LTE II - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 18615
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_022b\_FCC\_24\_BE\_Low\_Ch18615\_BW\_3MHz\_AV



# 37.215a\_BE\_C\_Ch19185\_BW\_3\_1RB\_QPSK

## Common Information

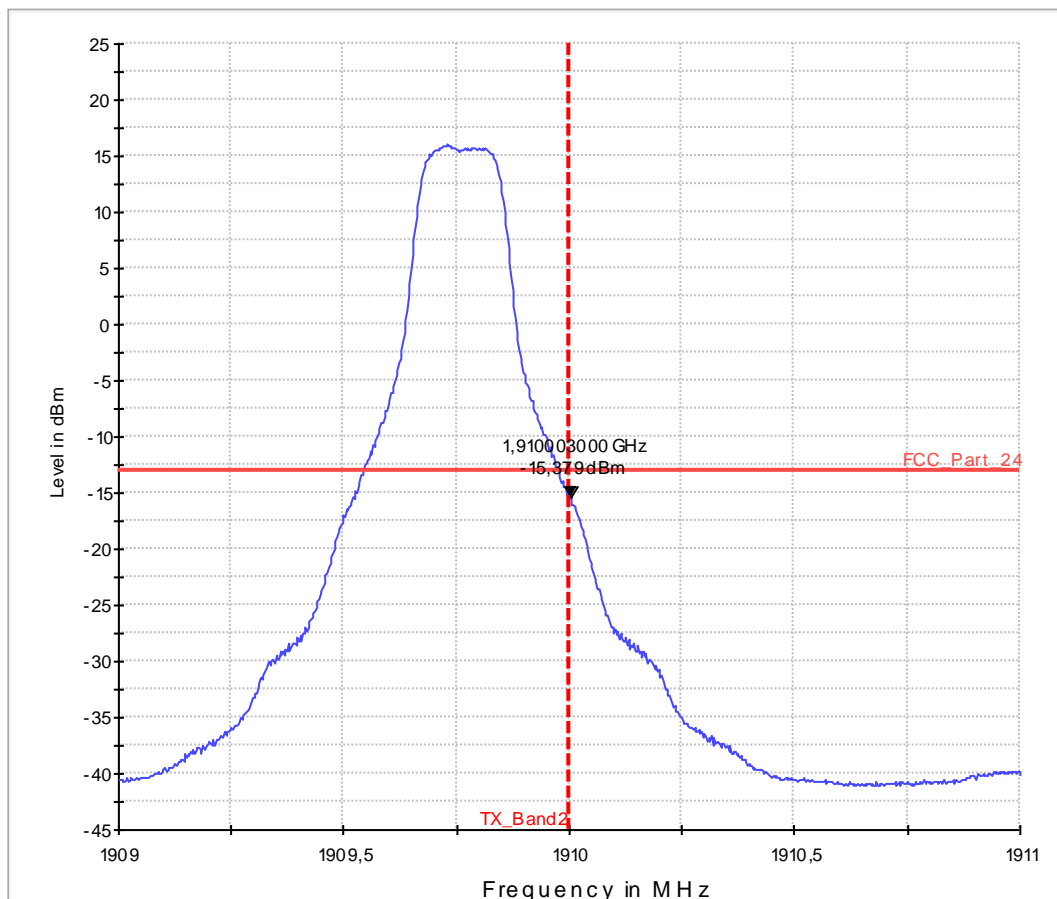
Test Description:	Conducted Spurious Emissions LTE II - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 19185
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_028b\_FCC\_24\_BE\_High\_Ch19185\_BW\_3MHz\_AV



# 37.215b\_BE\_C\_Ch19185\_BW\_3\_1RB\_QAM

## Common Information

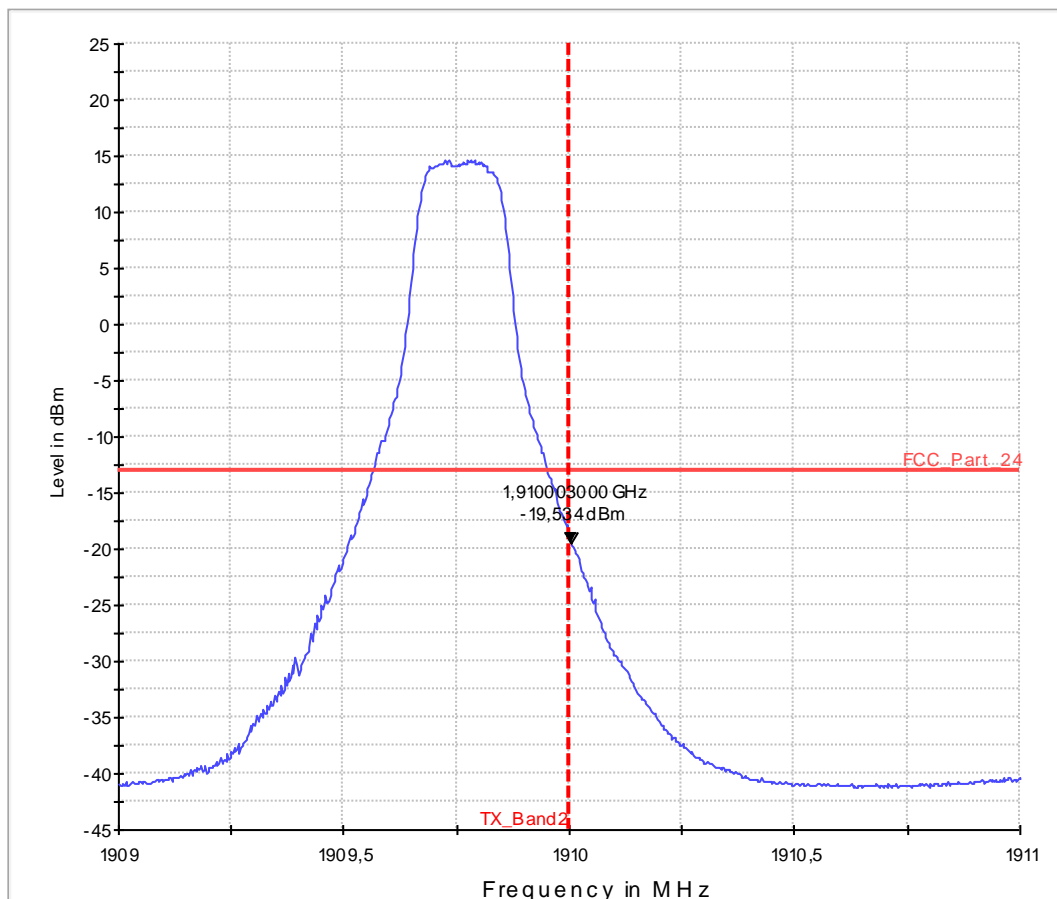
Test Description:	Conducted Spurious Emissions LTE II - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel = 19185
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_028b\_FCC\_24\_BE\_High\_Ch19185\_BW\_3MHz\_AV



### 1.16. Conducted emissions LTE Band IV band-edge

# 37.520a\_BE\_C\_Ch19965\_BW\_3\_1RB\_QPSK\_AV

## Common Information

Test Description:	Conducted Spurious Emissions LTE IV - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 19965
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

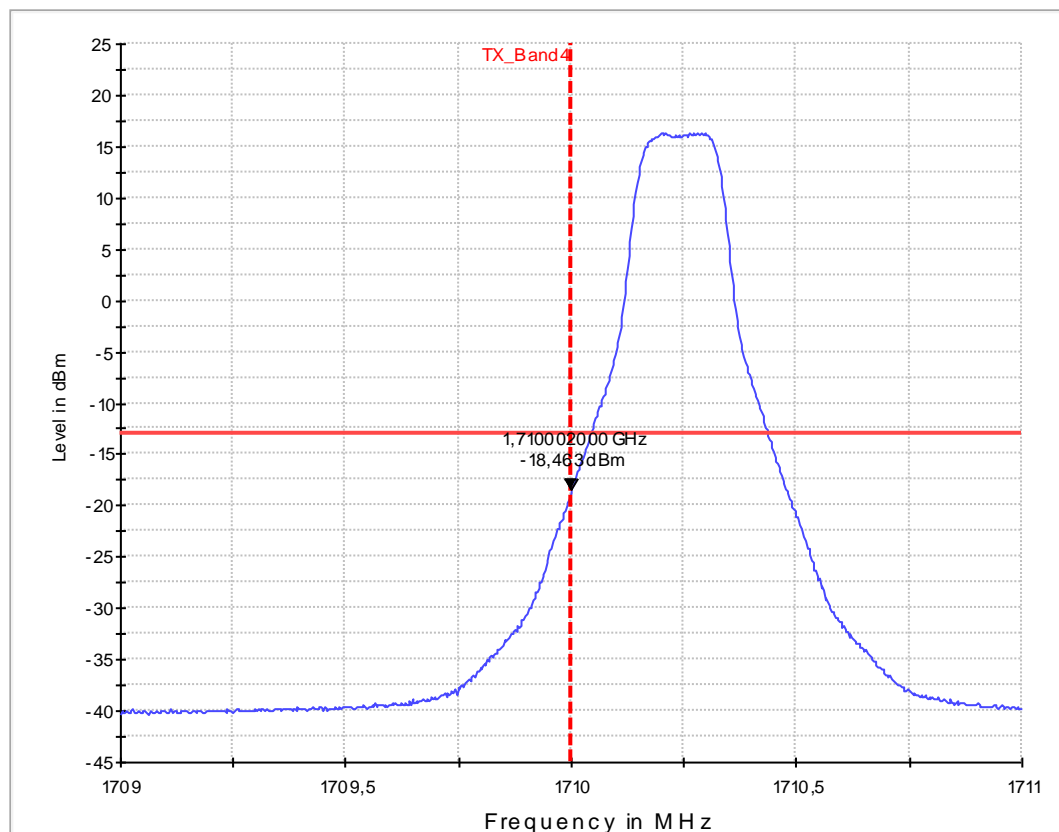
## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

---

HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_010b\_FCC\_27\_BE\_Low\_Ch19965\_BW\_3MHz\_AV



# 37.520b\_BE\_C\_Ch19965\_BW\_3\_1RB\_QAM\_AV

## Common Information

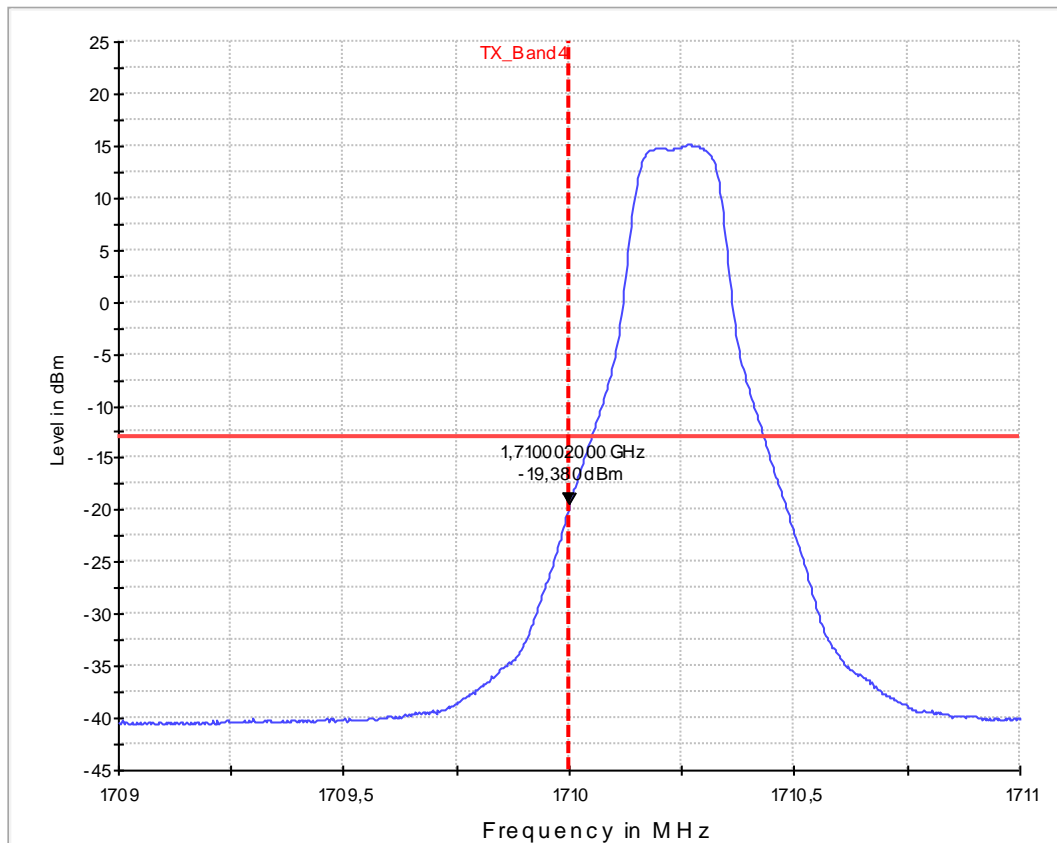
Test Description:	Conducted Spurious Emissions LTE IV - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 27.53
Operating Mode:	UE allocated channel = 19965
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----  
HW version: B2 (Rev.3)  
SW version: 00.170  
Serial number: Sample21  
Connected Interfaces: -  
Power Supply: 4.2 V  
Comments: -

Fula2\_010b\_FCC\_27\_BE\_Low\_Ch19965\_BW\_3MHz\_AV





# 37.532a\_BE\_C\_Ch20385\_BW\_3\_1RB\_QPSK\_AV

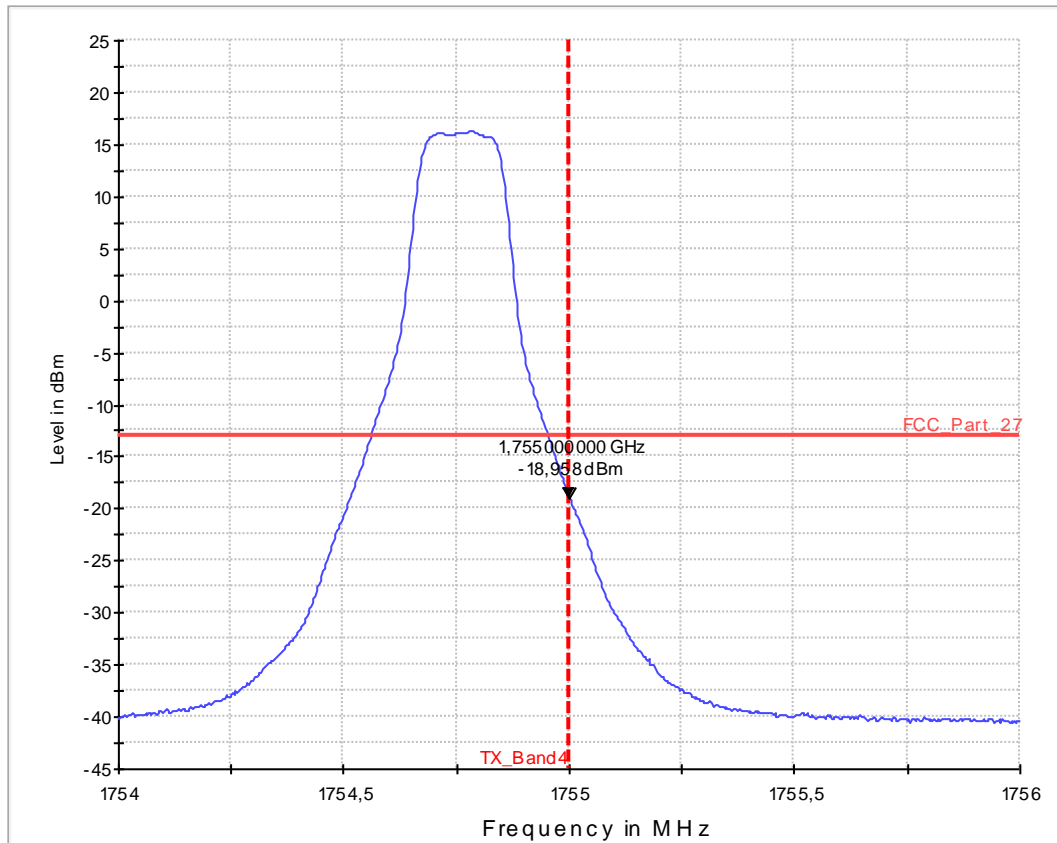
## Common Information

Test Description:	Conducted Spurious Emissions LTE IV - Band-Edge
Test Site Location:	Radio Laboratory 2
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 20385
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_016b\_FCC\_27\_BE\_High\_Ch20385\_BW\_3MHz\_AV



# 37.532b\_BE\_C\_Ch20385\_BW\_3\_1RB\_QAM\_AV

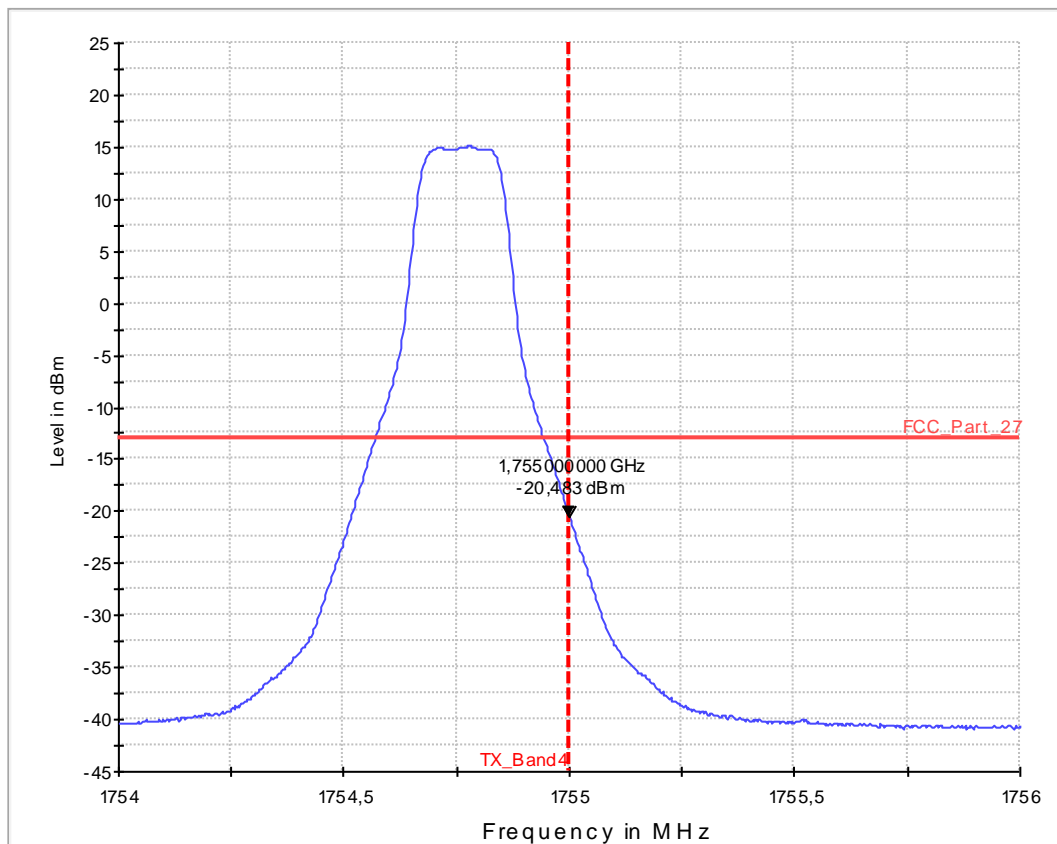
## Common Information

Test Description:	Conducted Spurious Emissions LTE IV - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 20385
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_016b\_FCC\_27\_BE\_High\_Ch20385\_BW\_3MHz\_AV



### 1.17. Conducted emissions LTE Band V band-edge

## 37.502a\_BE\_C\_Ch20643\_6RB\_BW\_1\_4\_QPSK

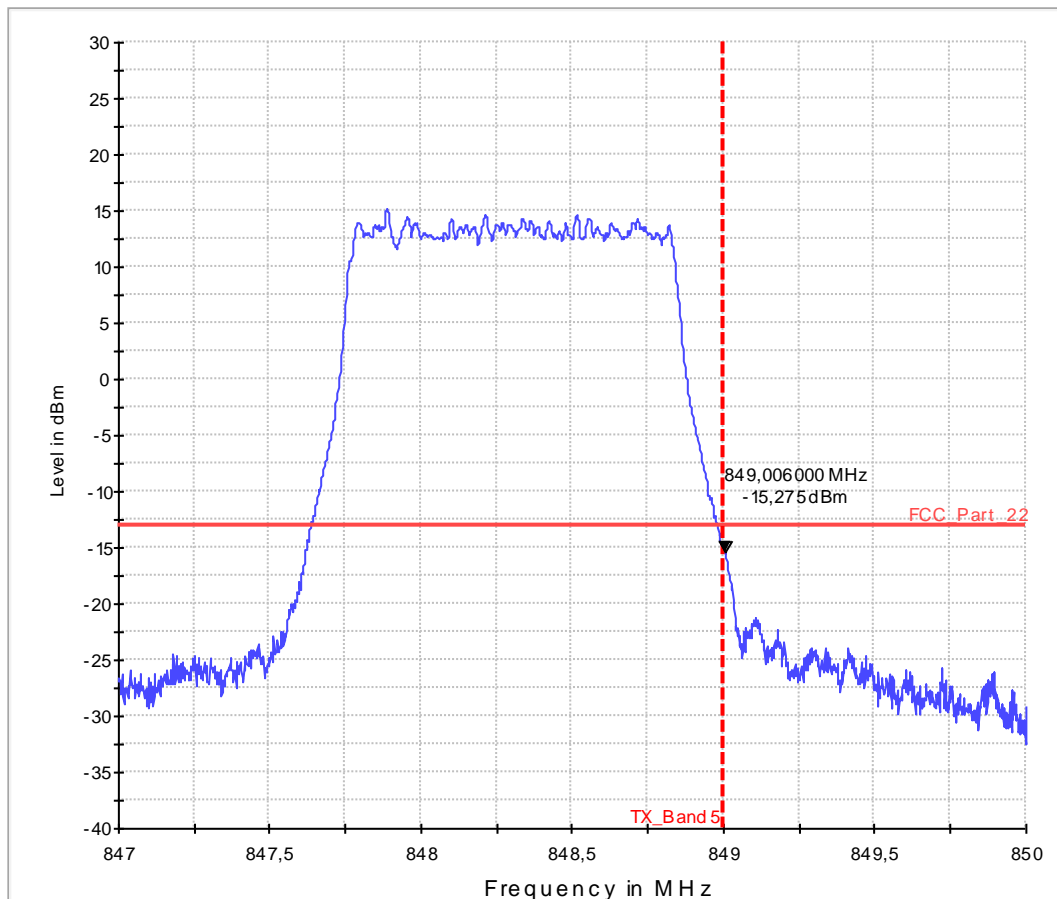
### Common Information

Test Description:	Conducted Spurious Emissions LTE V - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20643
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

### EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_001\_FCC\_22\_BE\_High\_Channel\_4233\_BW\_1\_5MHz



# 37.502b\_BE\_C\_Ch20643\_6RB\_BW\_1\_4\_QAM

## Common Information

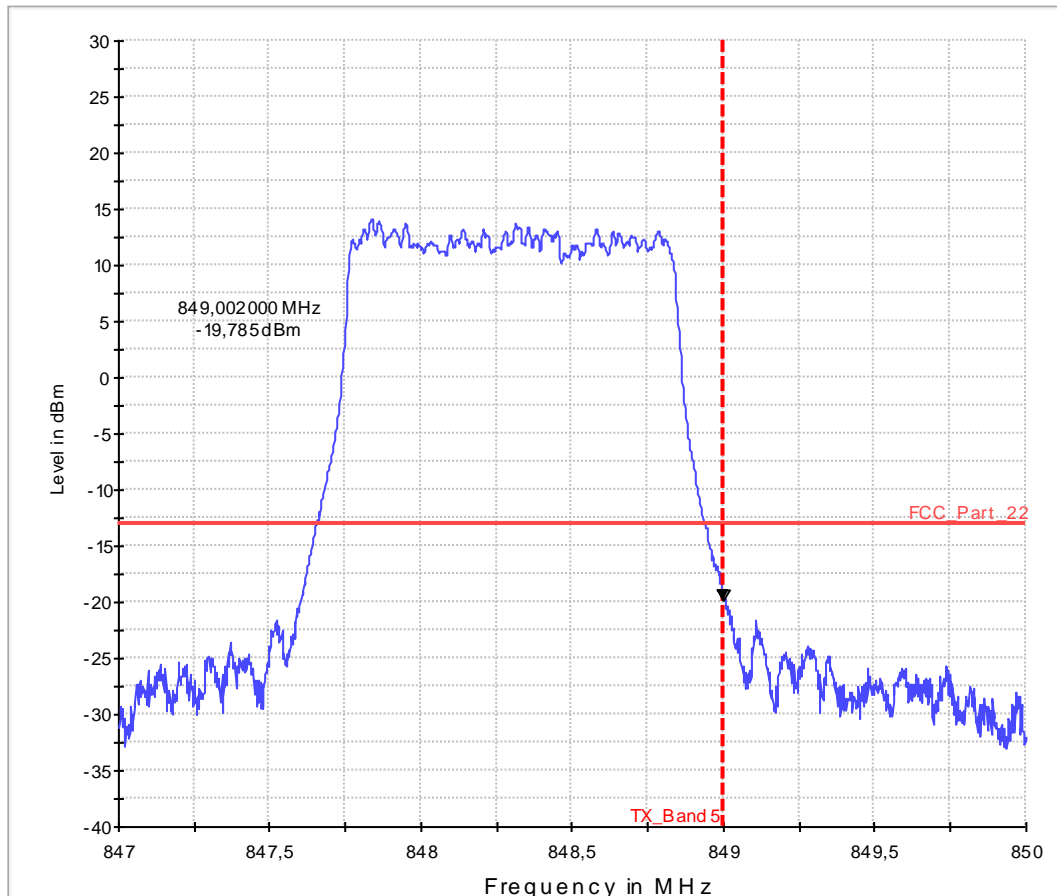
Test Description:	Conducted Spurious Emissions LTE V - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20643
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_001\_FCC\_22\_BE\_High\_Channel\_4233\_BW\_1\_5MHz



# 37.512a\_BE\_C\_Ch20415\_1RB\_BW3\_QPSK\_AV

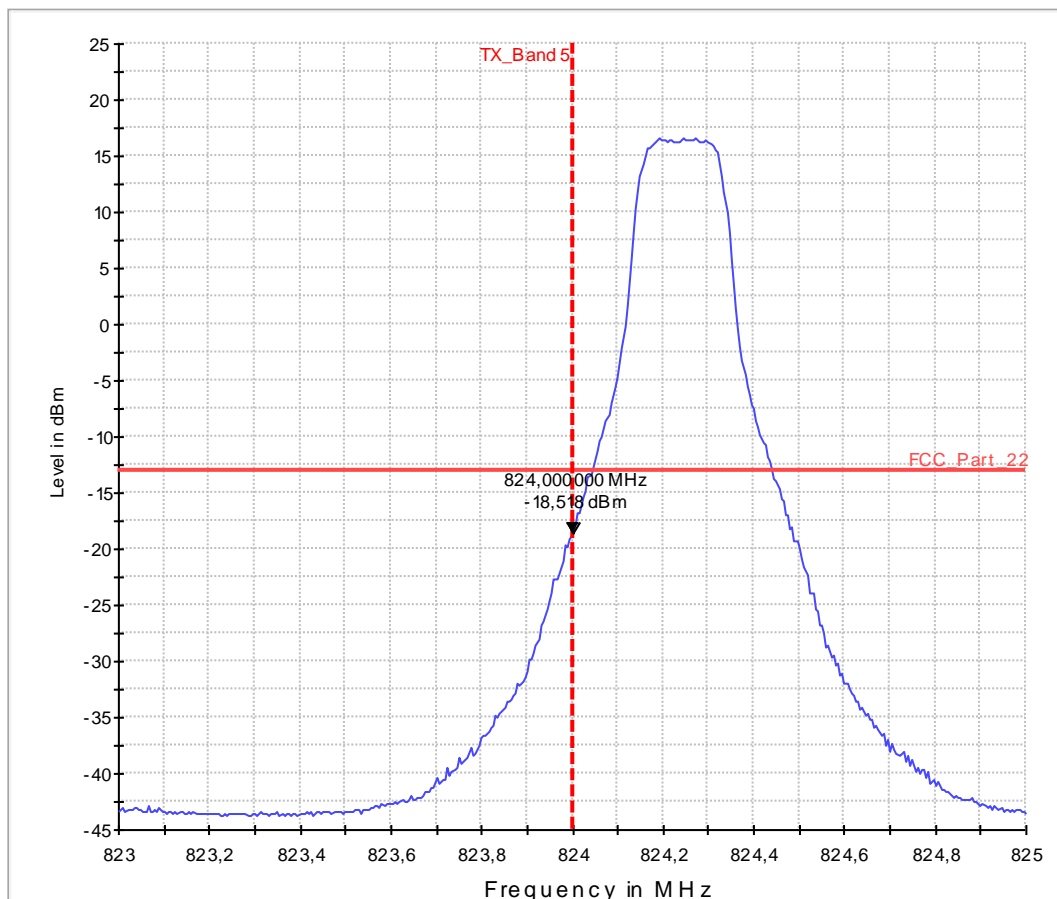
## Common Information

Test Description:	Conducted Spurious Emissions LTE V - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20415
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_006b\_FCC\_22\_BE\_low\_Channel\_20415\_BW\_3MHz\_AV



# 37.512b\_BE\_C\_Ch20415\_1RB\_BW3\_QAM\_AV

## Common Information

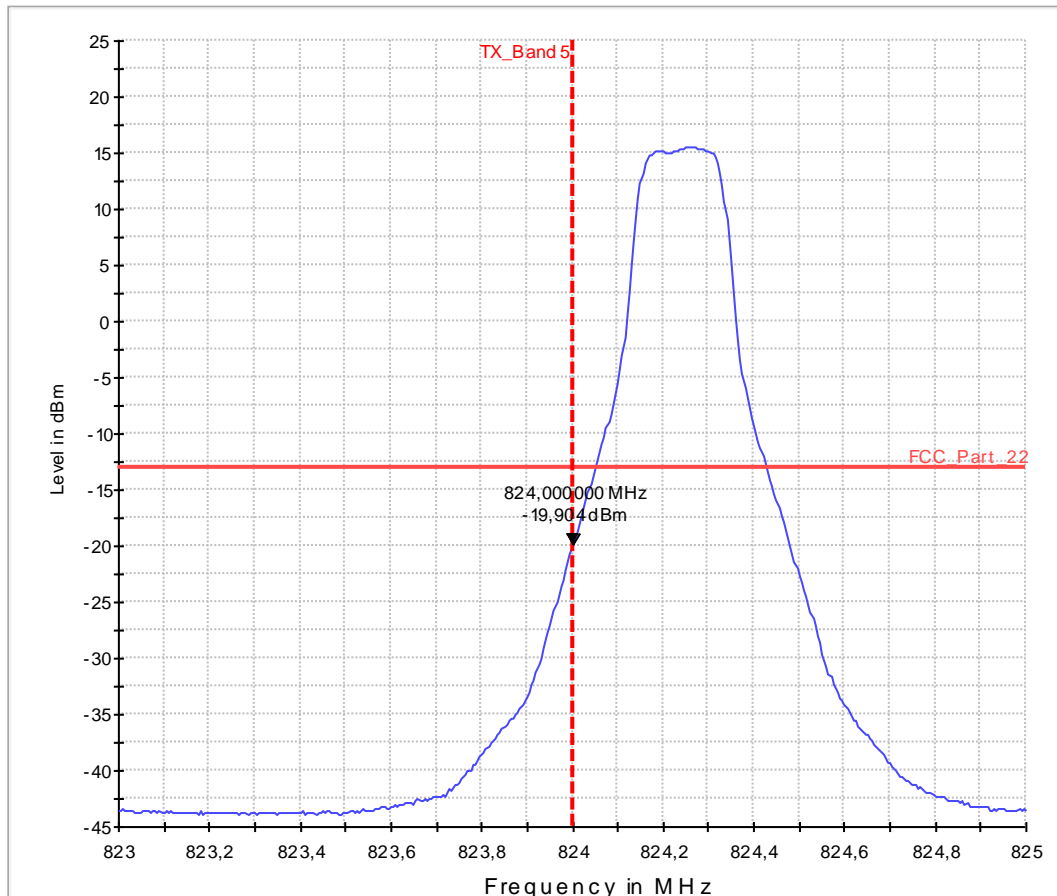
Test Description:	Conducted Spurious Emissions LTE V - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Radio Laboratory 2
Test Standard:	FCC Part 22
Operating Mode:	UE allocated channel = 20415
Environmental Conditions:	Humidity: 44%rH; Temperature:21,6°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_006b\_FCC\_22\_BE\_low\_Channel\_20415\_BW\_3MHz\_AV



### 1.18. Conducted emissions LTE Band XVII band-edge

## 37.171a\_BE\_C\_Ch23755\_BW\_5\_1RB\_QPSK

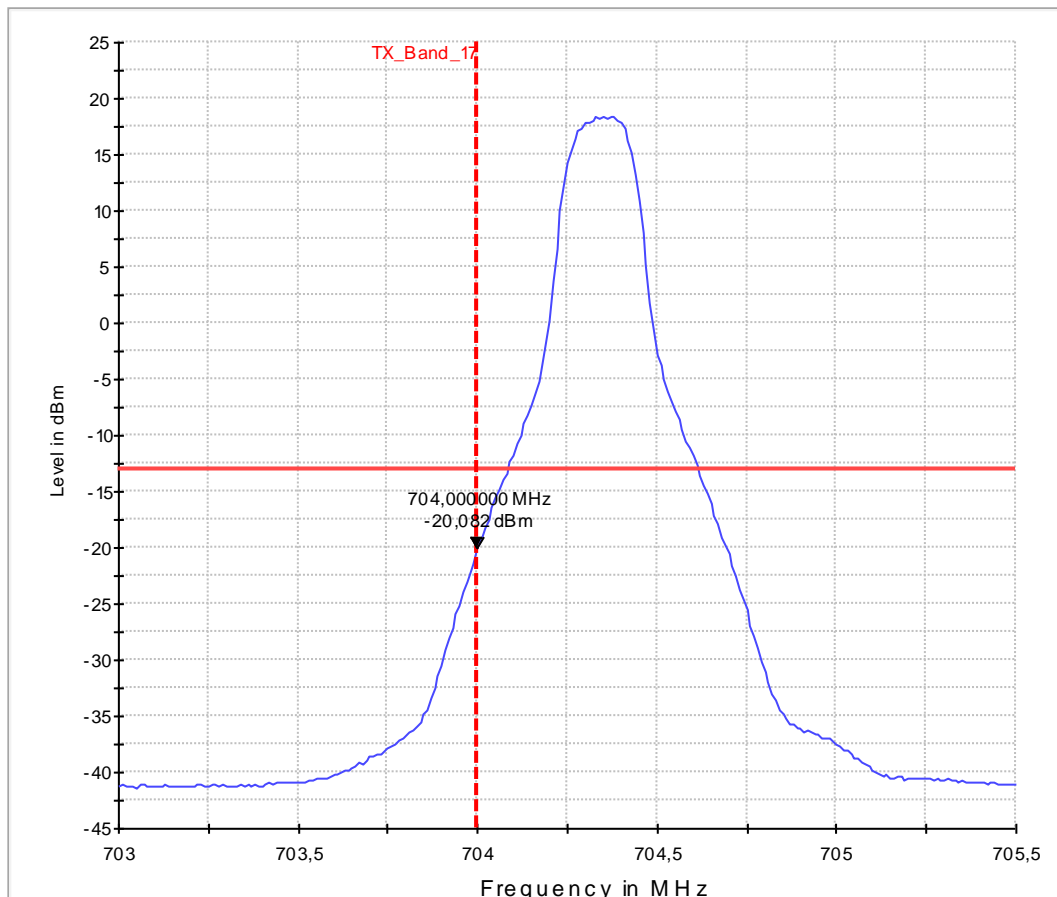
### Common Information

Test Description:	Conducted Spurious Emissions LTE XVII - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23755
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

### EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924
-----	
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_001b\_FCC\_27\_BE\_low\_Channel\_23755\_BW\_5MHz\_AV



# 37.171b\_BE\_C\_Ch23755\_BW\_5\_1RB\_QAM

## Common Information

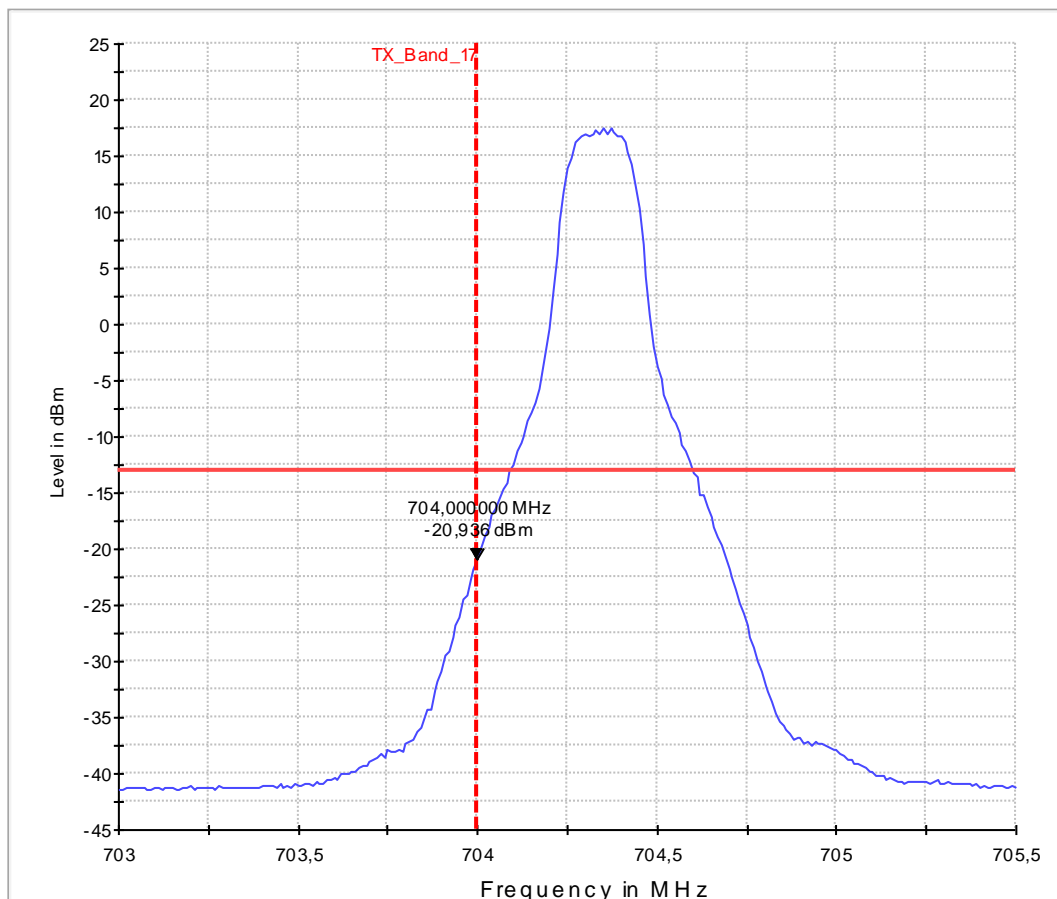
Test Description:	Conducted Spurious Emissions LTE XVII - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23755
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

-----	-----
HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_001b\_FCC\_27\_BE\_low\_Channel\_23755\_BW\_5MHz\_AV





# 37.175a\_BE\_C\_Ch23825\_BW\_5\_1RB\_QPSK

## Common Information

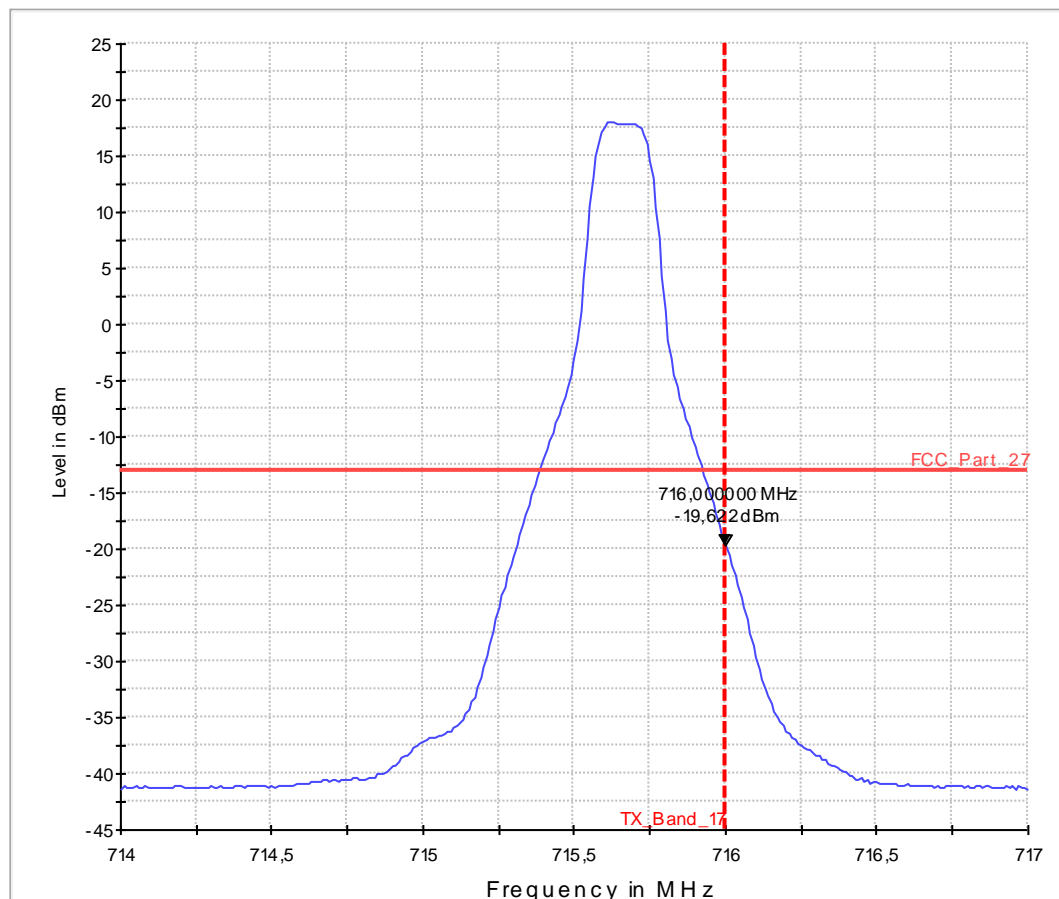
Test Description:	Conducted Spurious Emissions LTE XVII - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23825
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_003b\_FCC\_27\_BE\_high\_Channel\_23825\_BW\_5MHz\_AV



# 37.175b\_BE\_C\_Ch23825\_BW\_5\_1RB\_QAM

## Common Information

Test Description:	Conducted Spurious Emissions LTE XVII - Band-Edge
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27
Operating Mode:	UE allocated channel = 23825
Environmental Conditions:	Humidity: 43%rH; Temperature:21,9°C
Operator:	Lor

## EUT Information

Manufacturer:	Cinterion
EuT:	ALS1-US
Type:	UCC 55099-33589-49924

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HW version:	B2 (Rev.3)
SW version:	00.170
Serial number:	Sample21
Connected Interfaces:	-
Power Supply:	4.2 V
Comments:	-

Fula2\_003b\_FCC\_27\_BE\_high\_Channel\_23825\_BW\_5MHz\_AV

