

Annex 1: Measurement diagrams
to
TEST REPORT
No.: 20835060b/15-C1

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 4

for

Gemalto M2M GmbH

Wireless Module PLS8-X
FCC-ID: QIPPLS8-X
IC: 7830A-PLS8X
PMN: Cinterion PLS8-X, HVIN: PLS8-X

Laboratory Accreditation and Listings			
 DAkkS Deutsche Akkreditierungsstelle D-PL-12047-01-01	 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-2666 C-2914, T-1967, G-301
 WiFi ALLIANCE AUTHORIZED RF LABORATORY	 CTIA Authorized Test Lab LAB CODE 20011130-00		
accredited according to DIN EN ISO/IEC 17025			
CETECOM GmbH Laboratory Radio Communications & 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			

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1. Measurement diagrams

1.1. Spurious emissions radiated (FDD Band II transmitting mode)

8.43_CH9262_RMC

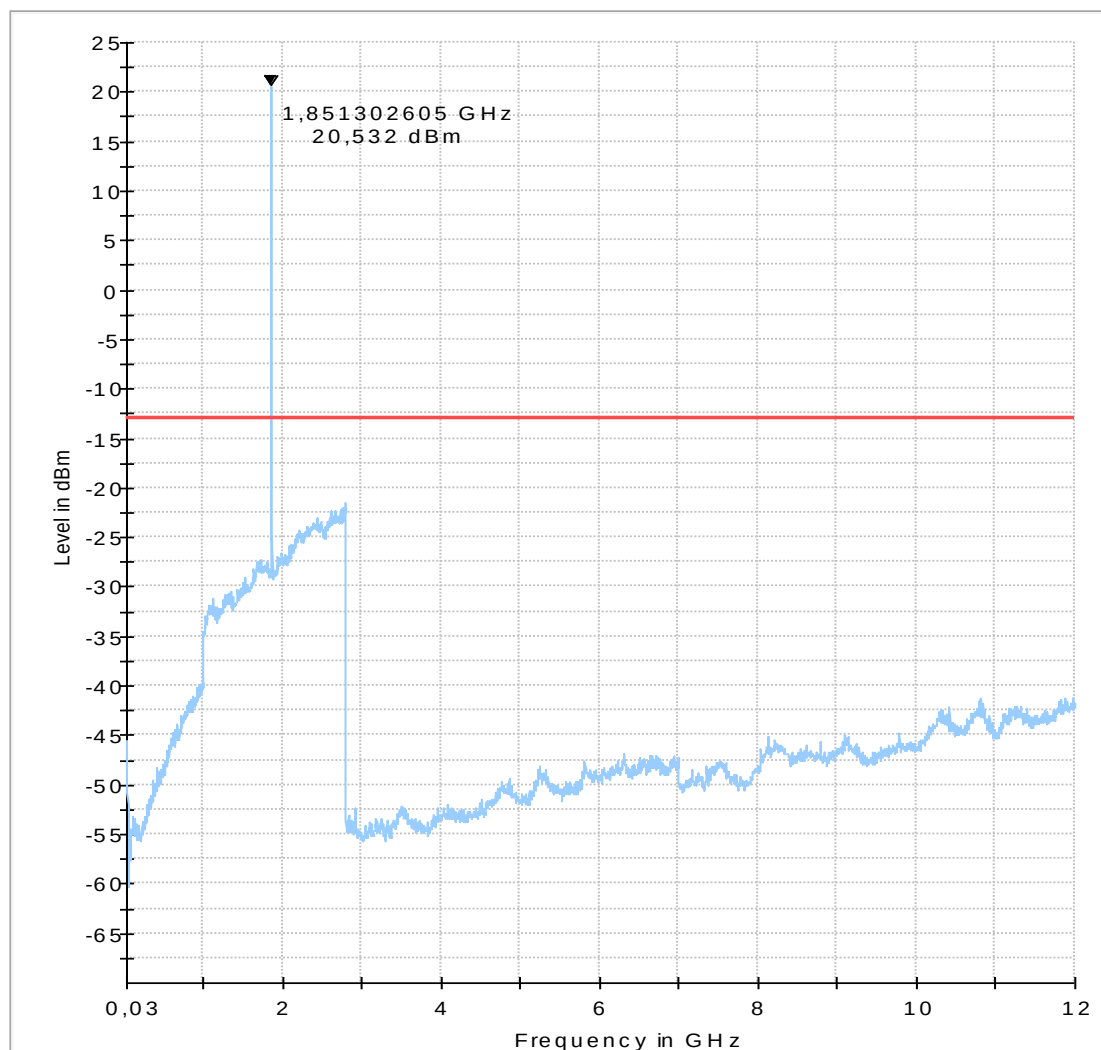
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24 / RSS-133, Issue 6
Operating Mode:	UE allocated channel 9262 (fc = 1852.4 MHz)
Environmental Conditions:	Humidity: 29%rH; Temperature: 25C
Operator:	kRe

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



8.43a_CH9262_RMC

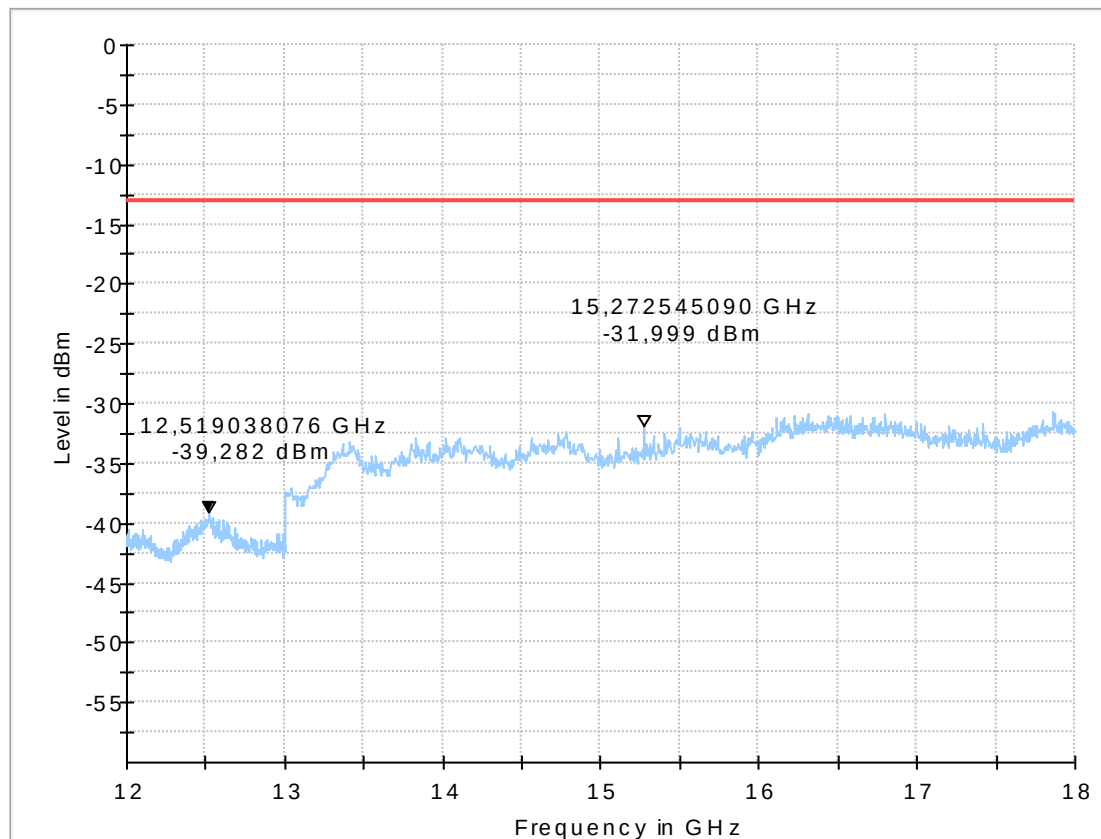
Common Information

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 (fc = 1852.4)
Environmental Conditions:	Humidity: 33%rH; Temperature:25°C
Operator:	AHo
Comments	12-18GHz

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



8.44_CH9400_RMC

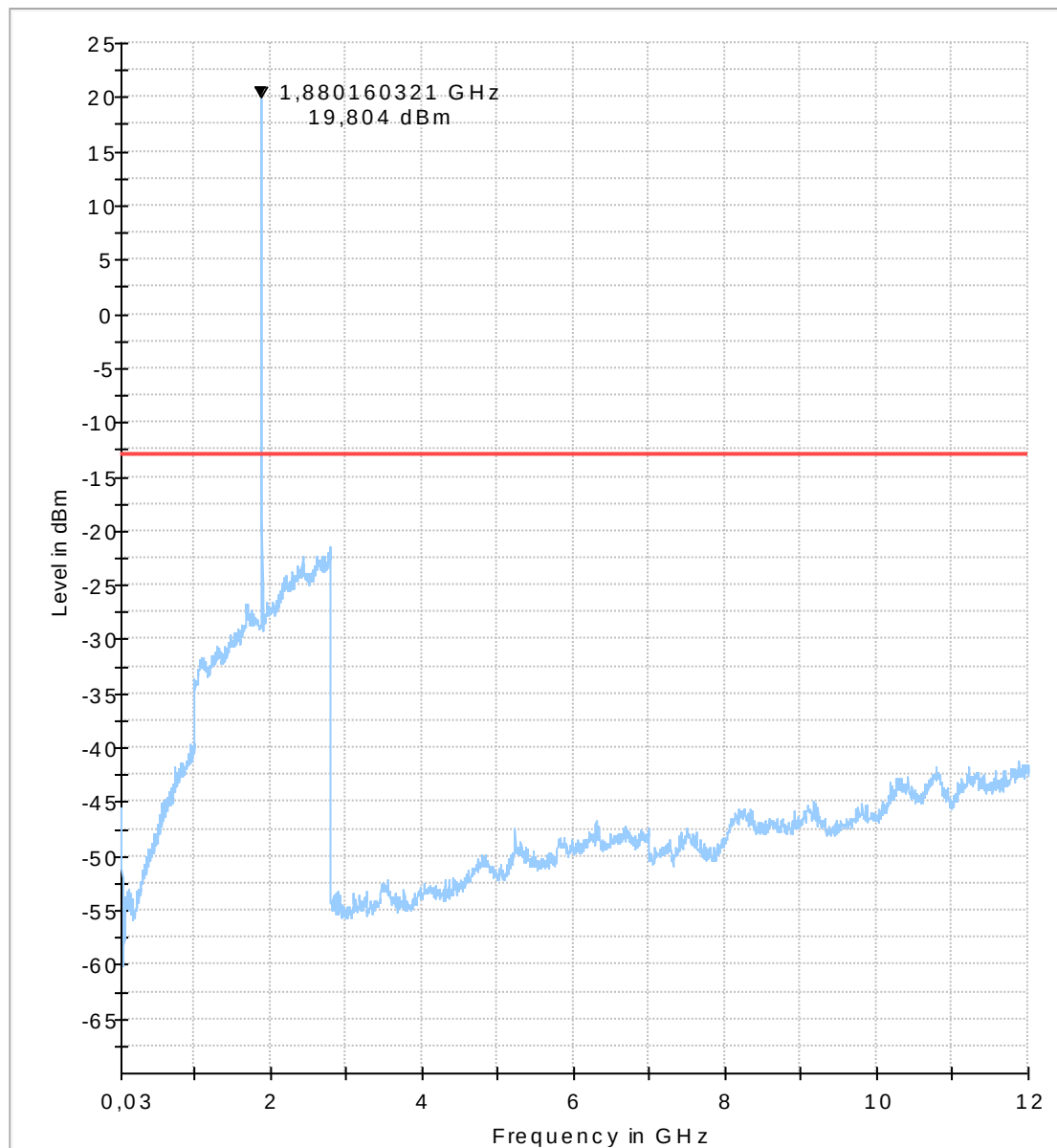
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24 / RSS-133, Issue 6
Operating Mode:	UE allocated channel 9400 (fc = 1880.0 MHz)
Environmental Conditions:	Humidity: 29%rH; Temperature: 25C
Operator:	kRe

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



8.44a_CH9400_RMC

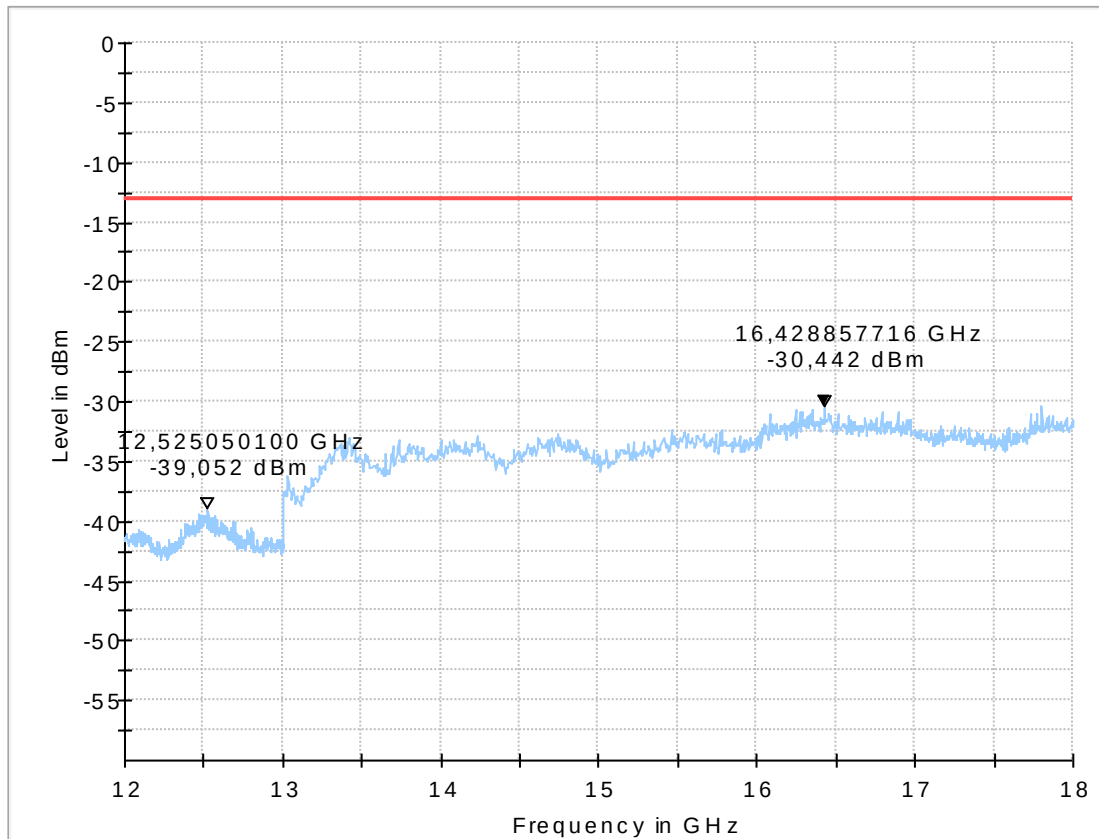
Common Information

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 9262 (fc = 1852.4)
Environmental Conditions:	Humidity: 33%rH; Temperature:25°C
Operator:	AHo
Comments	12-18GHz

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



8.45_CH9538_RMC

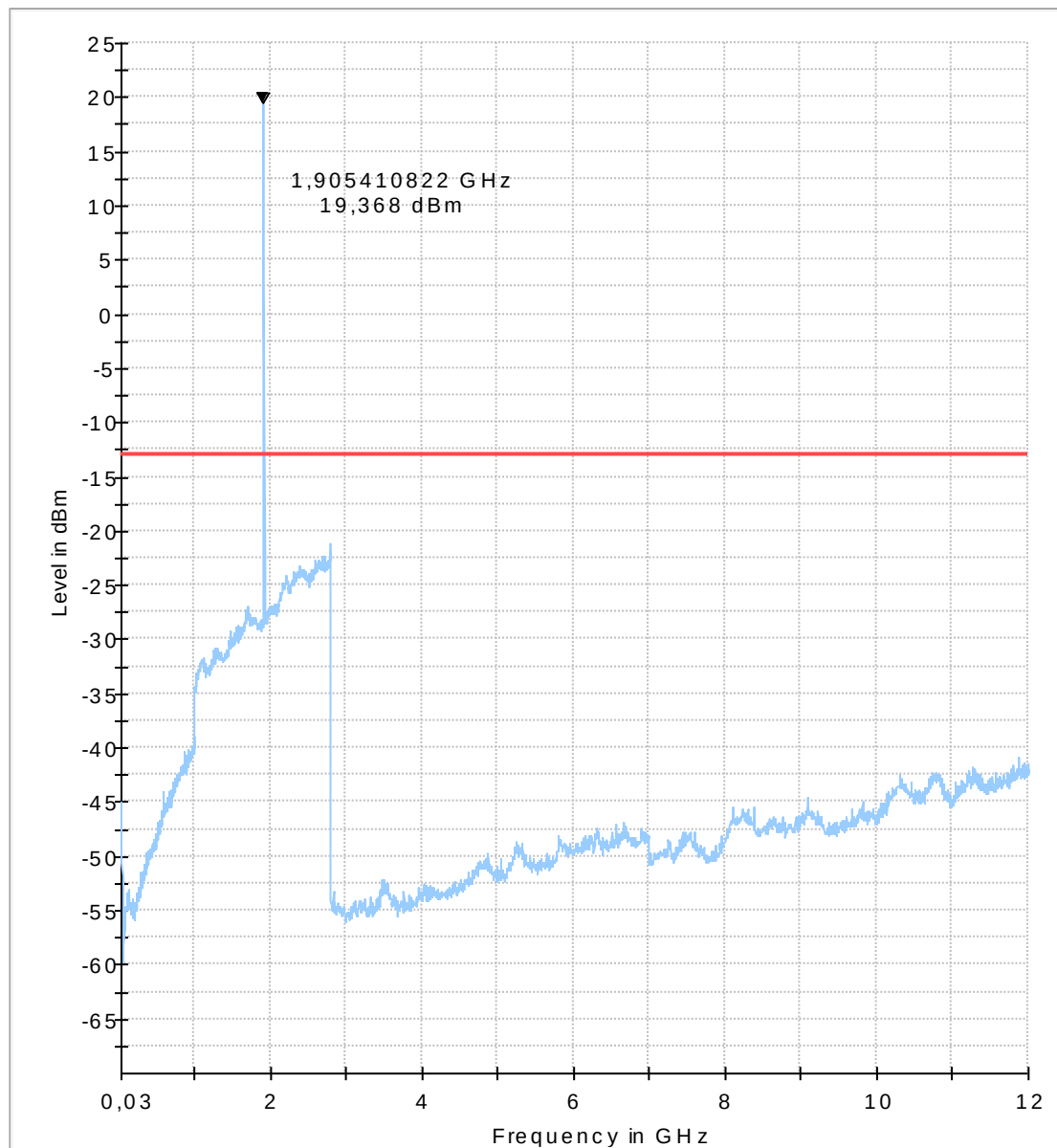
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24 / RSS-133, Issue 6
Operating Mode:	UE allocated channel 9538 (fc = 1907.6 MHz), RMC Mode, PCL3 (+24dBm)
Environmental Conditions:	Humidity: 29%rH; Temperature: 24C
Operator:	kRe

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



8.45a_CH9538_RMC

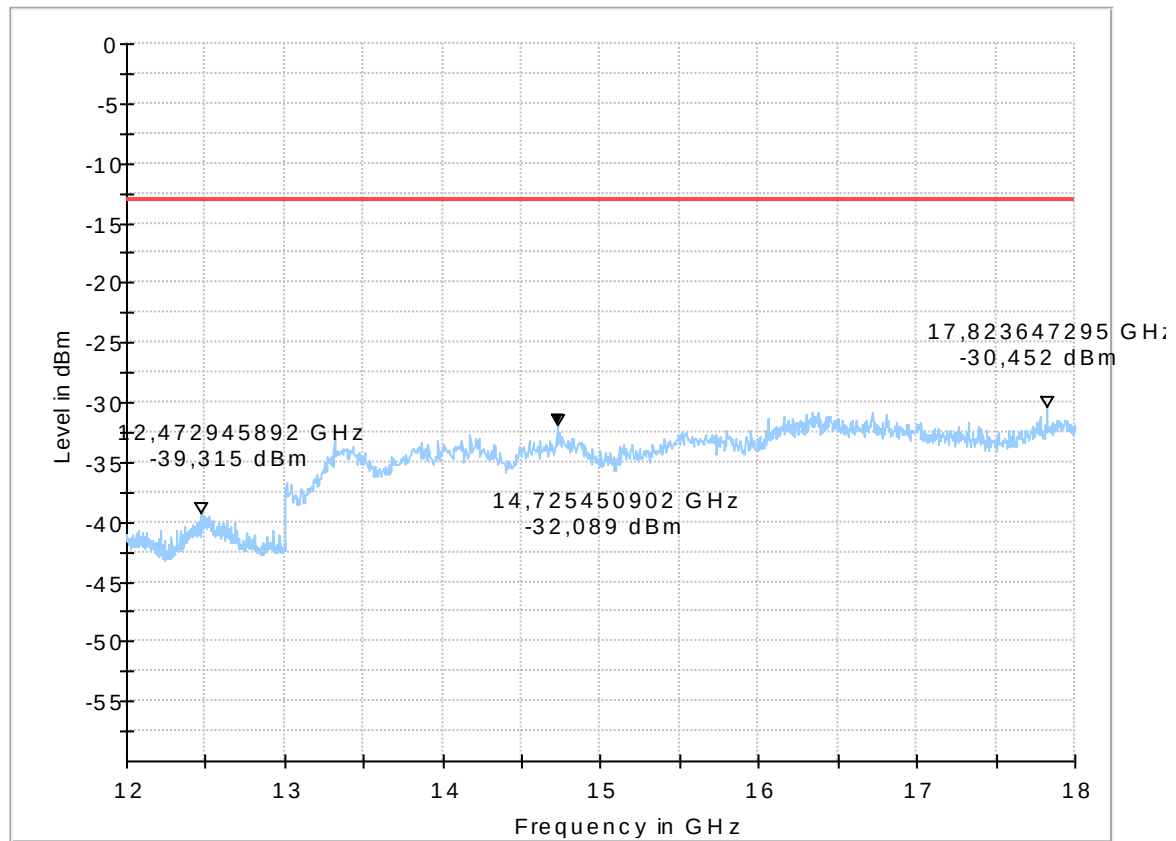
Common Information

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 9262 (fc = 1852.4)
Environmental Conditions:	Humidity: 33%rH; Temperature:25°C
Operator:	AHo
Comments	12-18GHz

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



1.2. Spurious emissions radiated (FDD Band IV transmitting mode)

8.46_CH1312_RMC

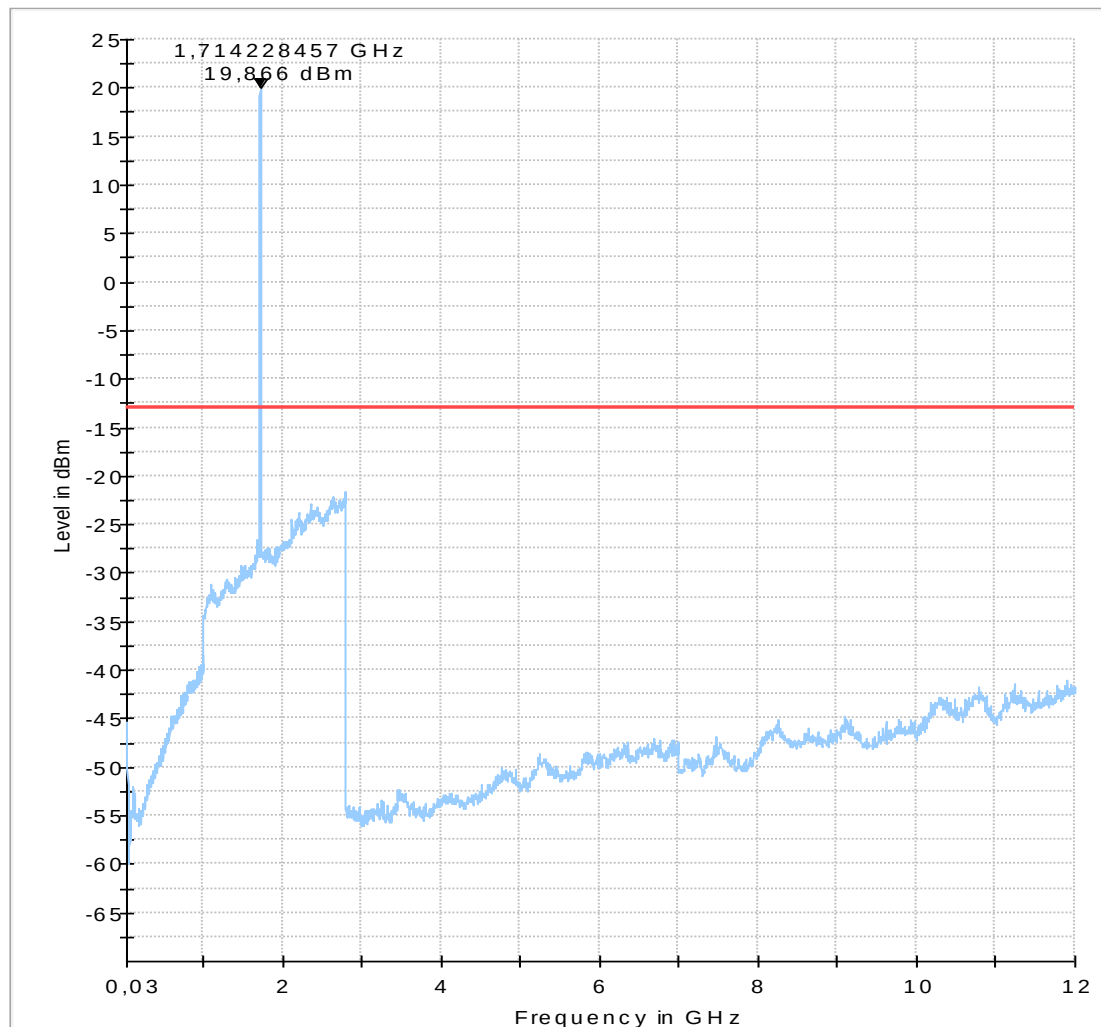
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDIV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27 / RSS-139, Issue 2
Operating Mode:	UE allocated channel 1312 (fc = 1712,4)
Environmental Conditions:	Humidity: 30%rH; Temperature: 24°C
Operator:	KRe

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



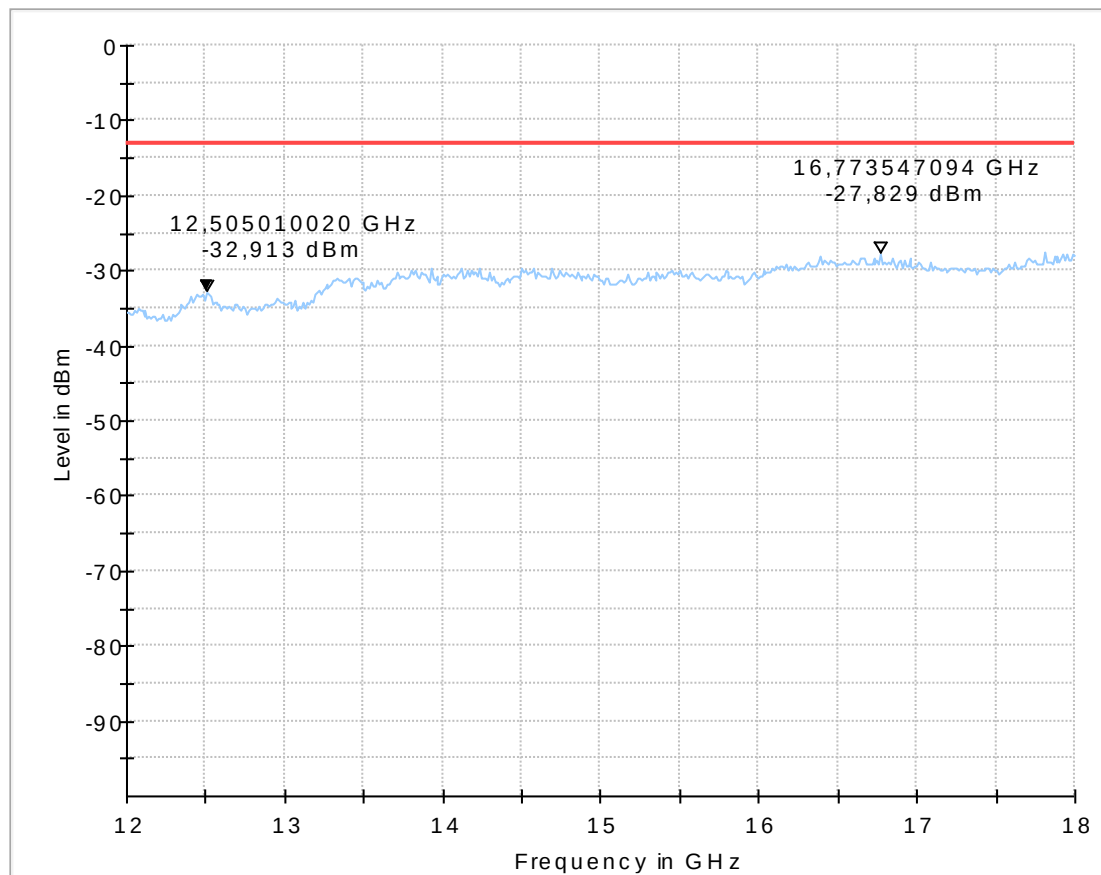
8.46a_CH1312_RMC

Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDIV
Operating Conditions:	CETECOM GmbH Essen
Test Site: Fully Anechoic Room (FAR)	Fully Anechoic Room (FAR)
Operating Mode:	FCC Part 27 / RSS-139, Issue 2
Environmental Conditions:	Humidity: 30%rH; Temperature: 24°C
Operator Name:	AHo

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--



8.47_CH1450_RMC

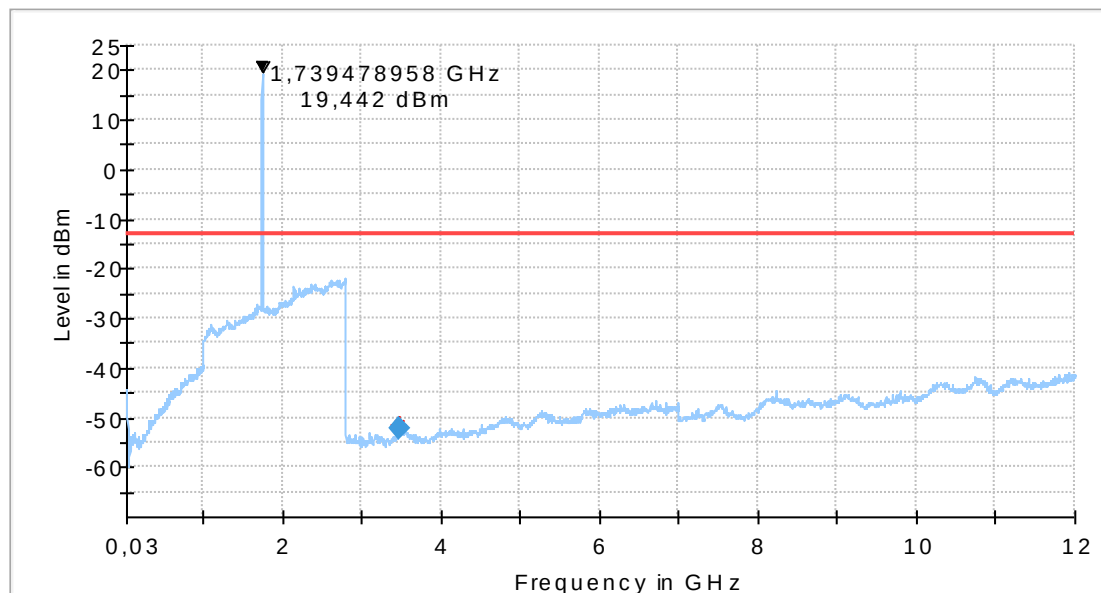
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDIV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27 / RSS-139, Issue 2
Operating Mode:	UE allocated channel 1450 (fc = 1740)
Environmental Conditions:	Humidity: 30%rH; Temperature: 24°C
Operator:	KRe

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)
3478.056112	-52.33	-13.00	39.33	10000.0	1000.000	155.0	V	96.0	0.0	-93.9

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Comment
3478.056112	06:44:19 - 28.03.2015

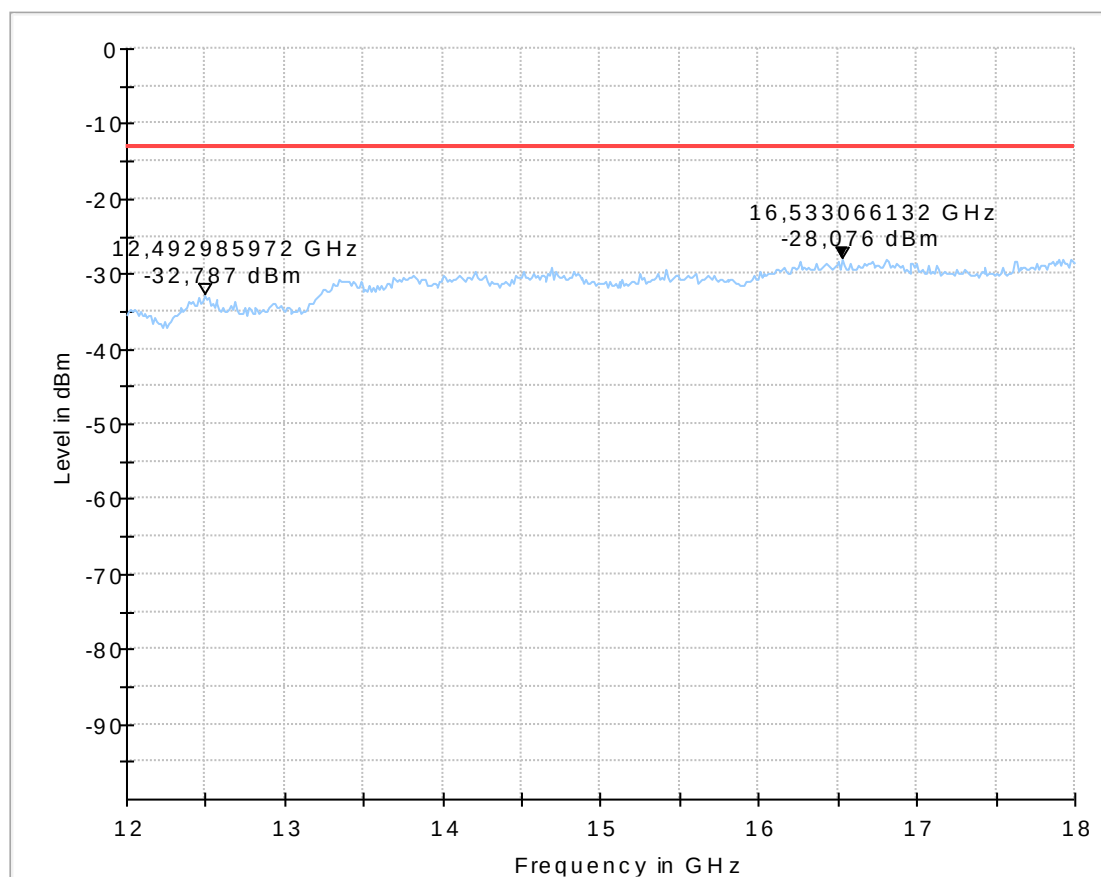
8.47a_CH1450_RMC

Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDIV
Test Site Location	CETECOM GmbH Essen
Test Site	Fully Anechoic Room (FAR)
Test Standard	FCC Part 27 / RSS-139, Issue 2
Operating Mode	UE allocated channel 1450(fc=1740) , RMC99
Environment Conditions	Humidity: 33%rH; Temperature:25°C
Operator Name:	AHo
Comment:	12-18GHz

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--



8.48_CH1513_RMC

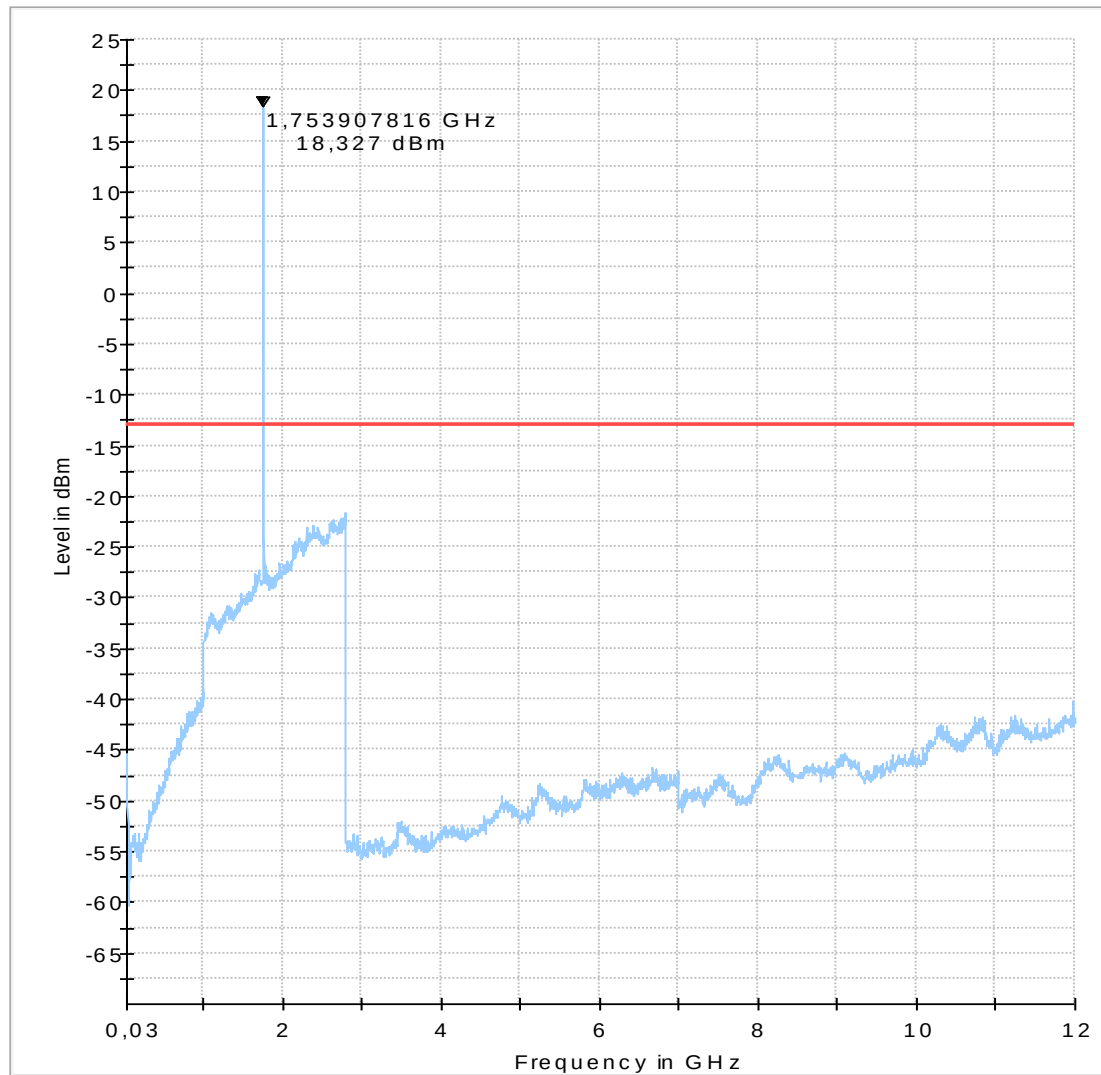
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDIV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27 / RSS-139, Issue 2
Operating Mode:	UE allocated channel 1513 (fc=1752,6 MHz), RMC99
Environmental Conditions:	Humidity: 30%rH; Temperature: 24°C
Operator:	KRe

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421360
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



8.48a_CH1513_RMC

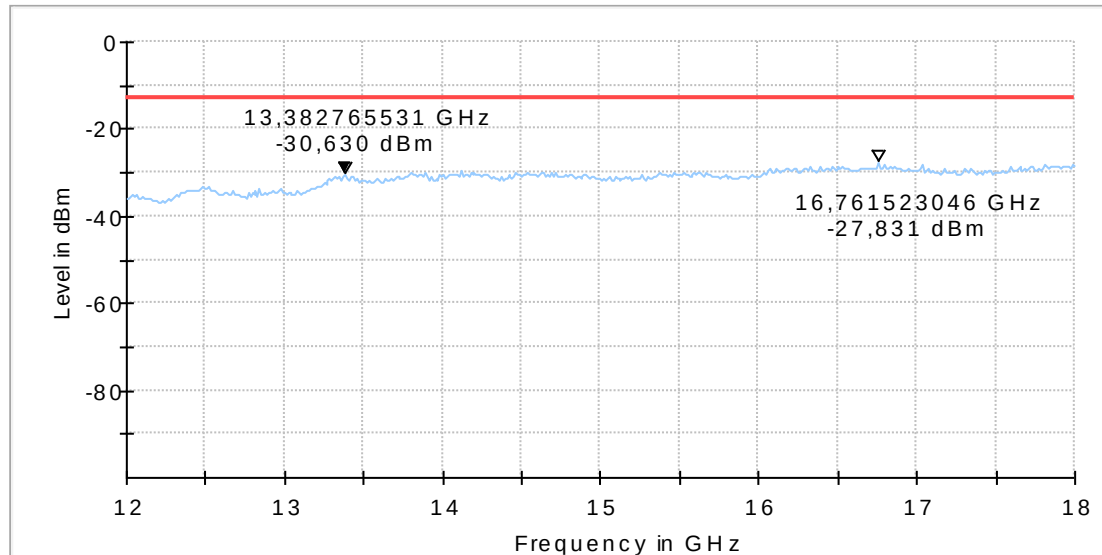
Common Information

Test Description:	Radiated Spurious Emissions Part 27
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27 / RSS-139, Issue 2
Comm. Link:	FDD4/LTE4, RMC99
Operating Mode:	MS allocated channel 1513
Environmental Conditions:	Humidity: 33%rH; Temperature: 25°C
Operator:	AHo
Comments:	12-18 GHz

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



1.3. Spurious emissions radiated (FDD Band V transmitting mode)

8.40_CH4183_RMC

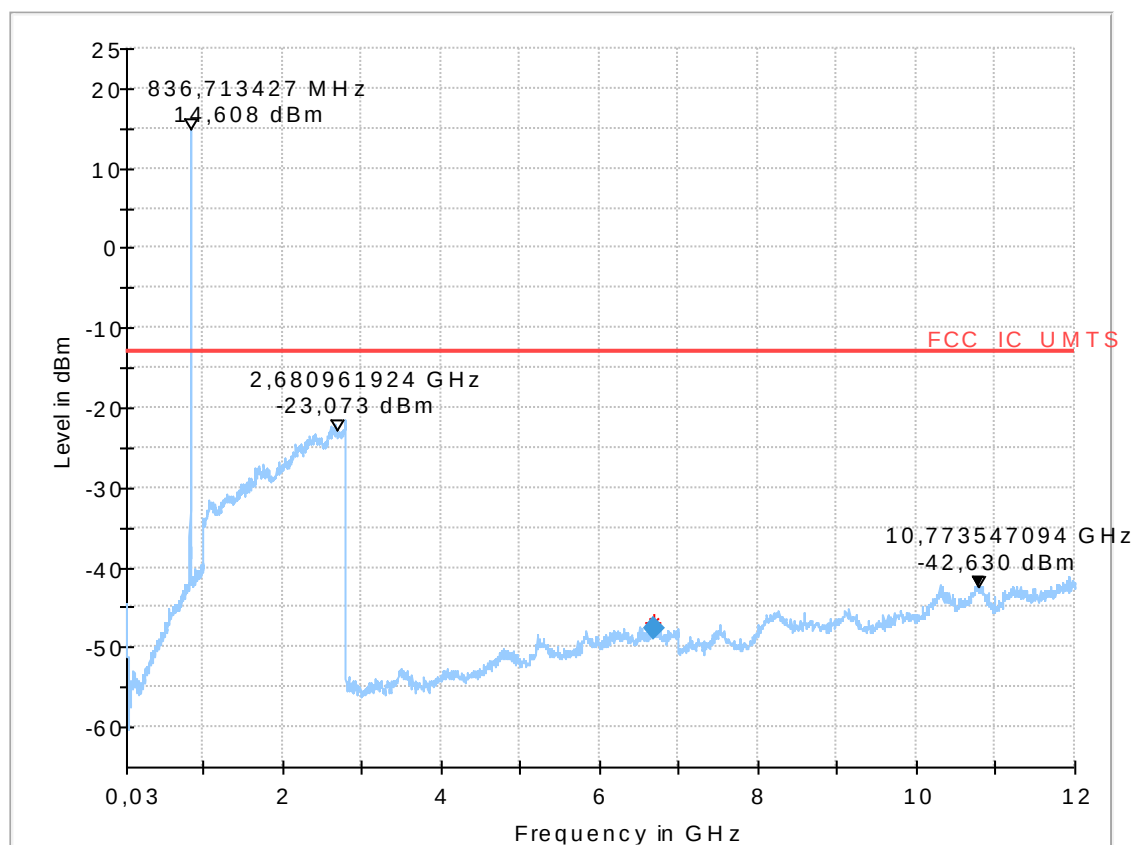
Common Information

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) / RSS-132, Issue 3
Operating Mode:	UE allocated channel 4183 (fc = 836.6), RMC99
Environmental Conditions:	Humidity: 29%rH; Temperature: 25C
Operator:	kmo

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Correction (dB)
6695.080160	-47.64	13.00	34.64	10000.0	1000.000	H	53.0	90.0	-85.2

8.41_CH4233_RMC

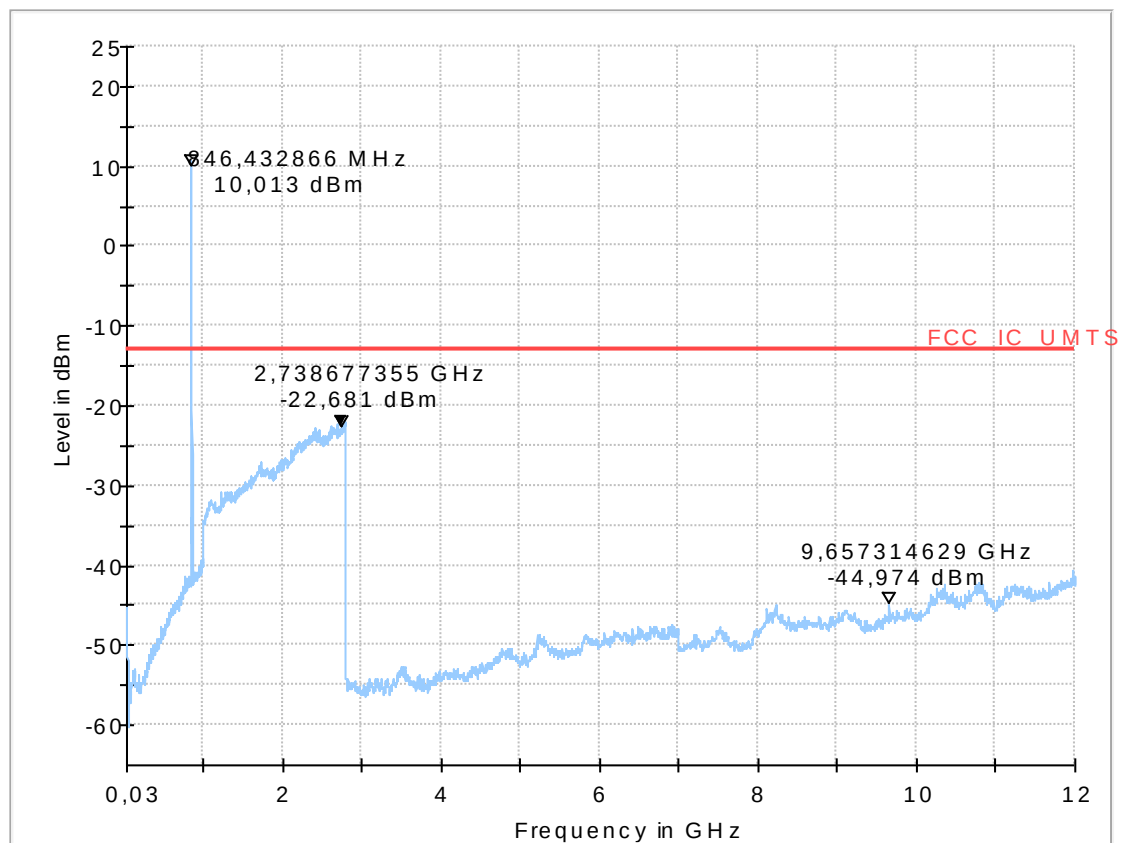
Common Information

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) / RSS-132, Issue 3
Operating Mode:	UE allocated channel 4233 (fc = 846.6MHz), RMC Mode, PCL3 (+24dBm)
Environmental Conditions:	Humidity: 29%rH; Temperature: 25C
Operator:	kmo

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



8.42_CH4132_RMC

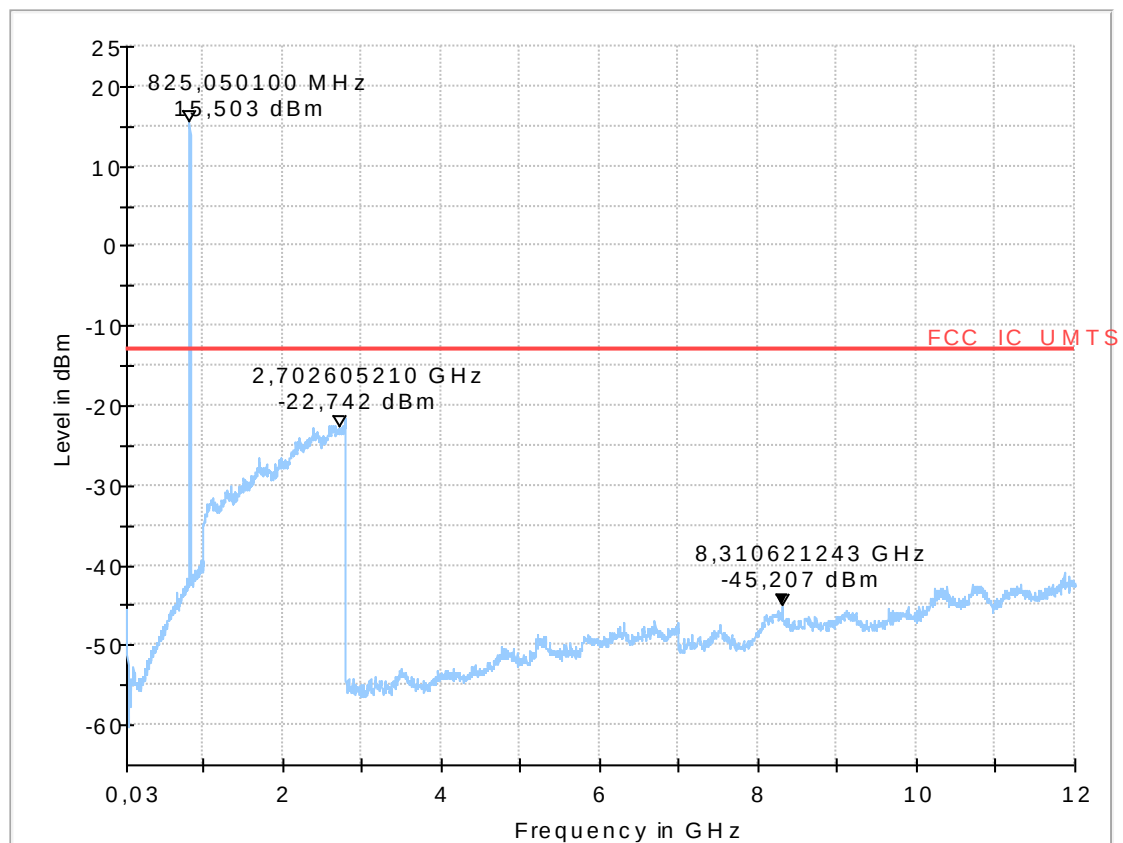
Common Information

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) / RSS-132, Issue 3
Operating Mode:	UE allocated channel 4132 (fc = 826.4MHz), RMC Mode, PCL3 (+24dBm)
Environmental Conditions:	Humidity: 29%rH; Temperature: 25C
Operator:	kmo

EUT Information

EUT Name:	WMC0534PX8 (f)
Manufacturer:	Gemalto
Serial Number:	#004401081421380
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



1.4. Radiated emissions on FDD Band II band-edge

9.20_BE_R_Ch9262_RMC

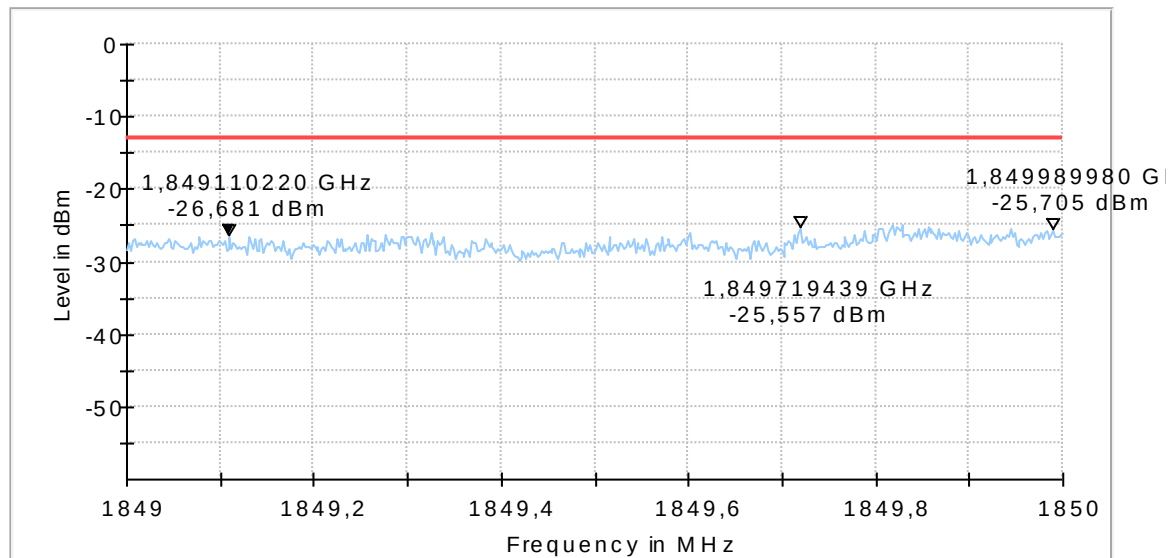
Common Information

Test Description:	Radiated Band Edge Compliance UMTS FDDII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24 / RSS-133, Issue 6
Operating Mode:	UE allocated channel 9262 (fc = 1852.4 MHz), RMC99
Environmental Conditions:	Humidity: 28%rH; Temperature: 24°C
Operator:	AHo/ HLa

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



9.21_BE_R_Ch9538_RMC

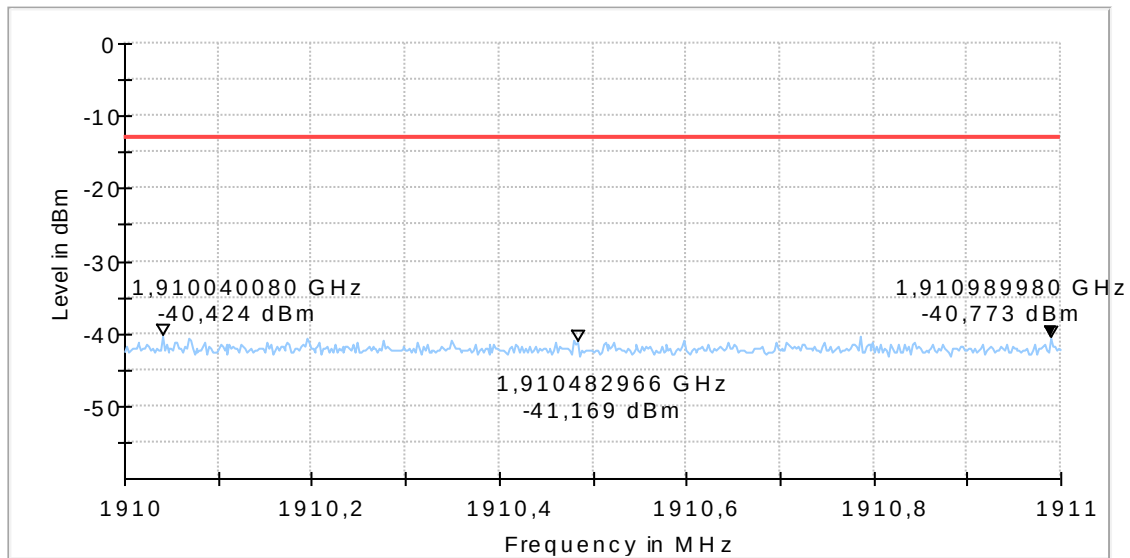
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24 / RSS-133, Issue 6
Operating Mode:	UE allocated channel:9538 (fc = 1852.4 MHz), RMC99
Environmental Conditions:	Humidity: 28%rH; Temperature: 24°C
Operator:	AHo/ HLa

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



1.5. Radiated emissions on FDD Band IV band-edge

9.40_BE_R_Ch1312_RMC

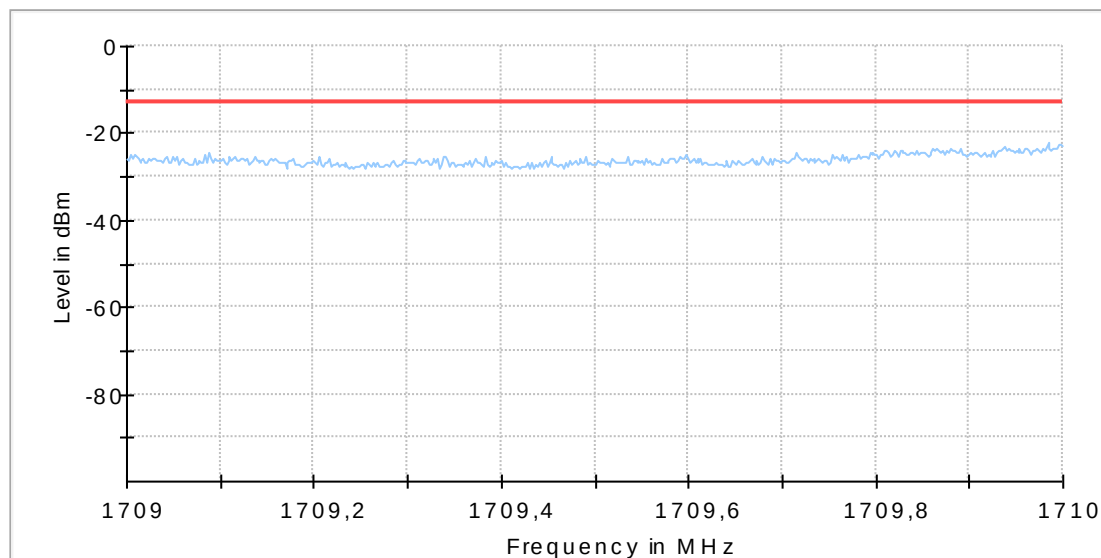
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDIV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27 / RSS-139, Issue 2
Operating Mode:	UE allocated channel 1513, RMC99
Environmental Conditions:	Humidity: 24%rH; Temperature: 27°C
Operator:	HLA

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



9.41_BE_R_Ch1513_RMC

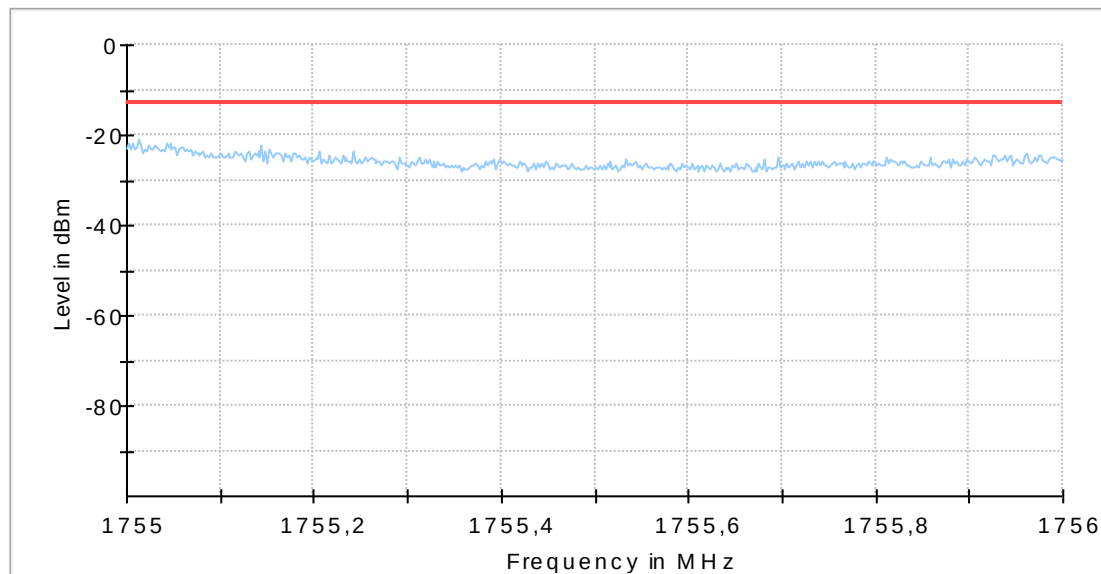
Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDIV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 27 / RSS-139, Issue 2
Operating Mode:	UE allocated channel 1513, RMC99
Environmental Conditions:	Humidity: 24%rH; Temperature: 27°C
Test SW Version:	EMC32 V9.15.0
Operator:	HLA
	EUT - laying/standing position

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



1.6. Radiated emissions on FDD Band V band-edge

9.50_BE_R_Ch4132_RMC

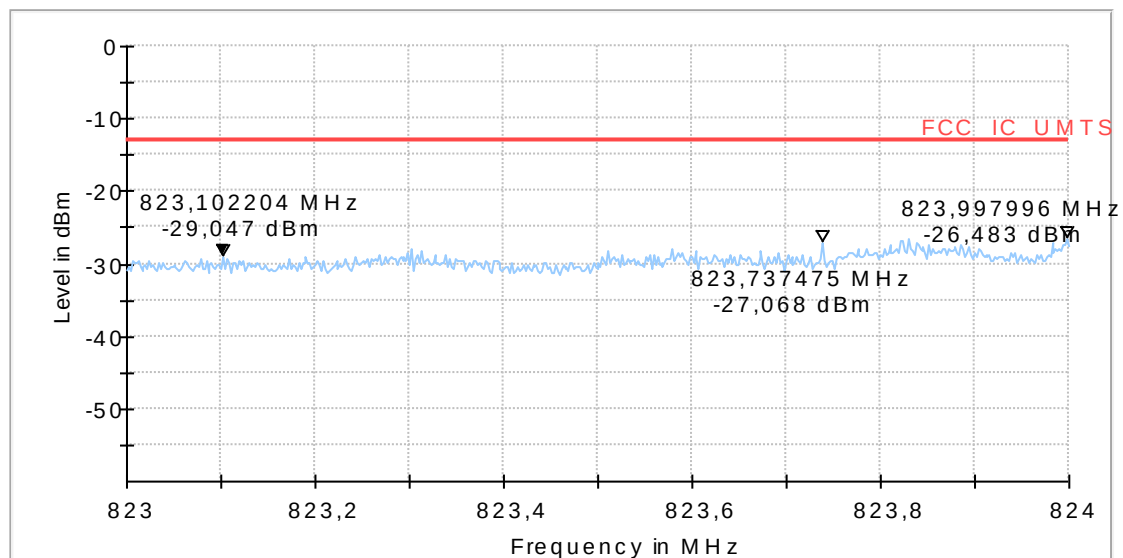
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions UMTS FDDV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a) / RSS-132 Issue 3
Operating Mode:	UE allocated channel 4132, RMC99
Environmental Conditions:	Humidity: 28%rH; Temperature: 24°C
Operator:	AHo/ HLa

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



9.51_BE_R_Ch4233_RMC

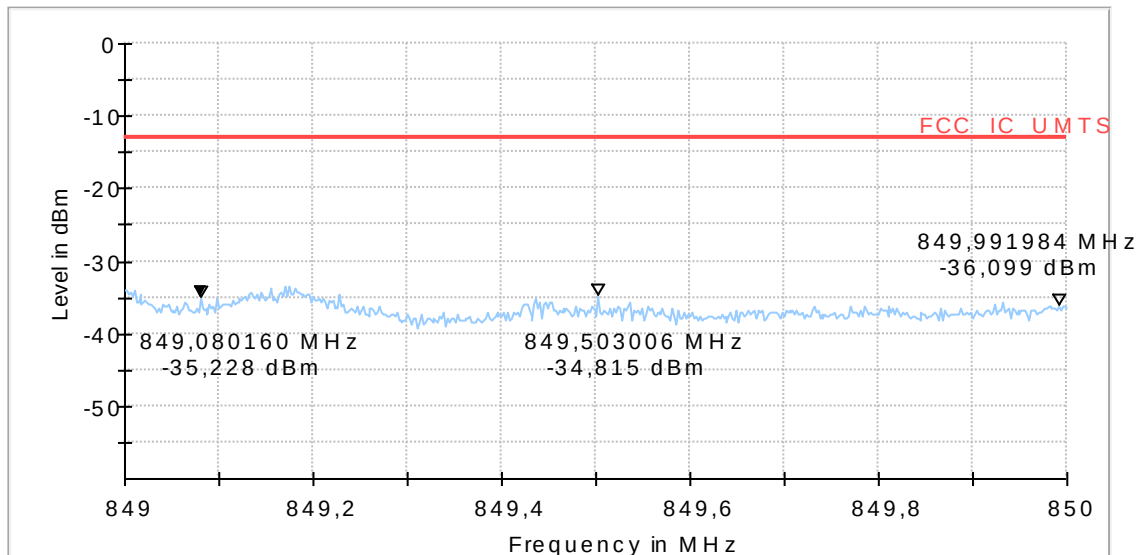
Common Information

Test Description:	Band-Edge low - Radiated Spurious Emissions UMTS FDDV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a) / RSS-132 Issue 3
Operating Mode:	UE allocated channel 4233, RMC99
Environmental Conditions:	Humidity: 28%rH; Temperature: 24°C
Operator:	AHo/ HLa

EUT Information

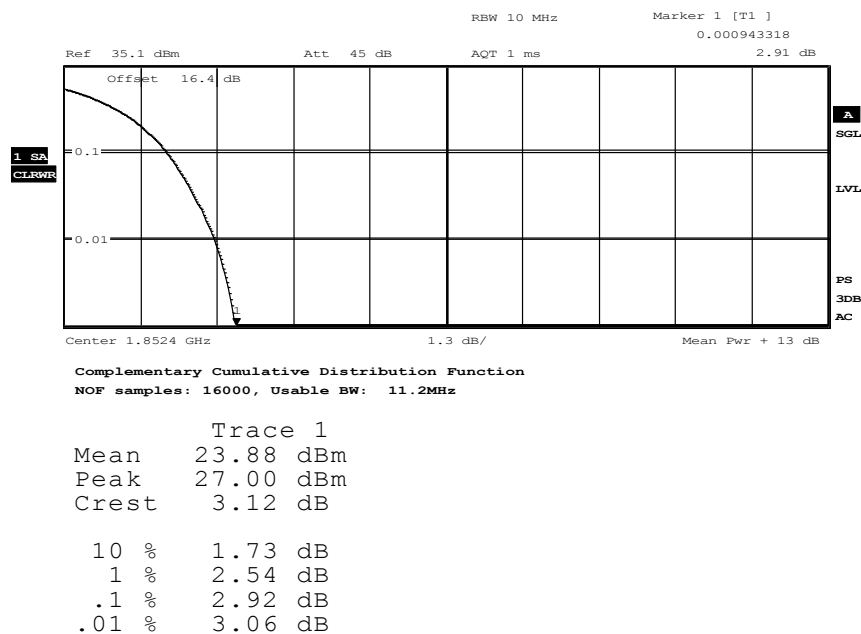
EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Full Spectrum



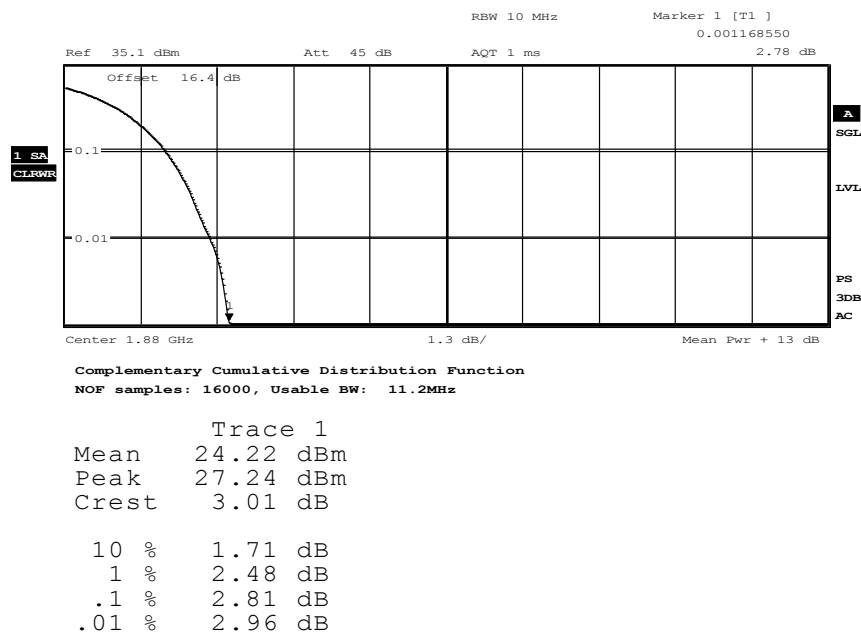
1.7. Peak power output and PAPR-Value

1.7.1. FDD Band 2



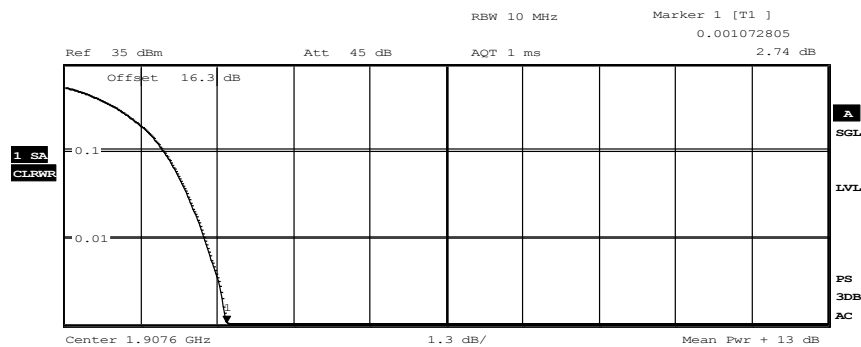
Date: 1.AUG.2015 09:53:33

Channel 9262



Date: 1.AUG.2015 09:54:17

Channel 9400



Complementary Cumulative Distribution Function
NOF samples: 16000, Usable BW: 11.2MHz

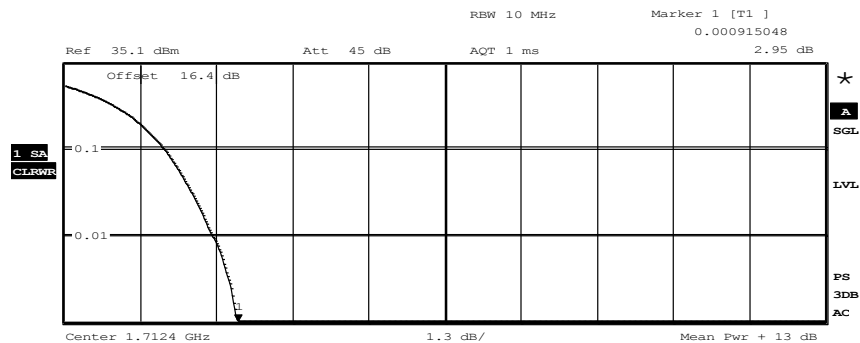
Trace 1
Mean 23.53 dBm
Peak 26.51 dBm
Crest 2.98 dB

10 % 1.69 dB
1 % 2.38 dB
.1 % 2.75 dB
.01 % 2.90 dB

Date: 1.AUG.2015 09:55:33

Channel 9538

1.7.2. FDD Band 4



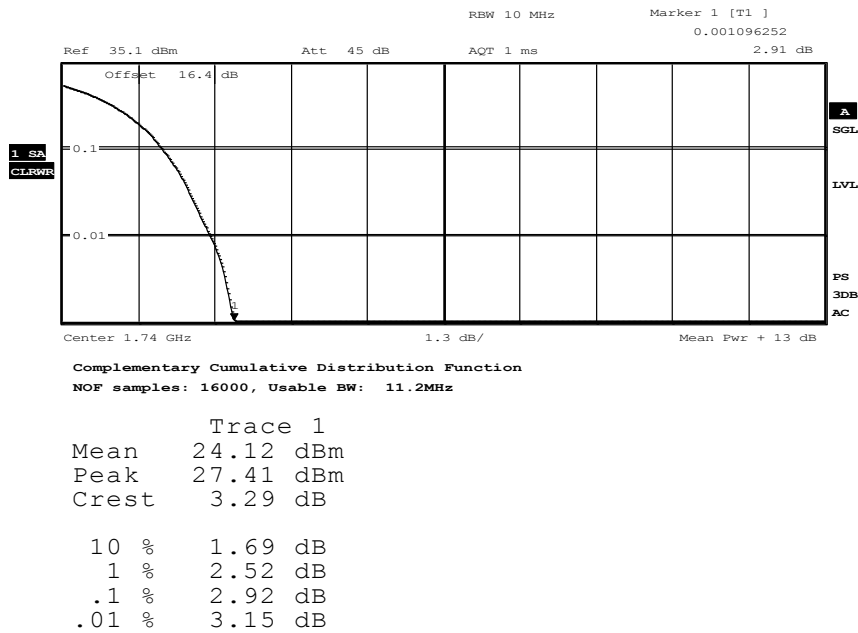
Complementary Cumulative Distribution Function
NOF samples: 16000, Usable BW: 11.2MHz

Trace 1
Mean 23.65 dBm
Peak 26.83 dBm
Crest 3.18 dB

10 % 1.71 dB
1 % 2.52 dB
.1 % 2.96 dB
.01 % 3.15 dB

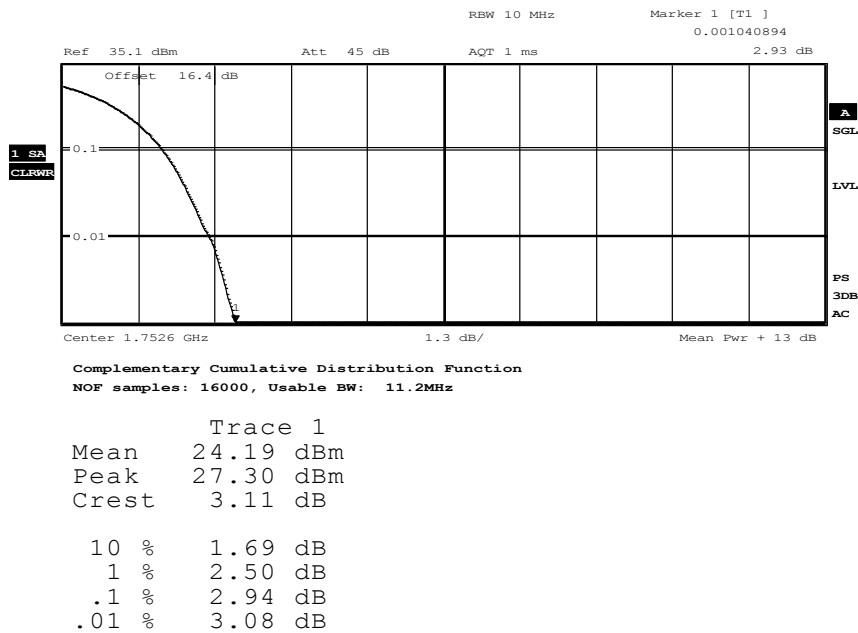
Date: 1.AUG.2015 09:42:03

Channel 1312



Date: 1.AUG.2015 09:44:40

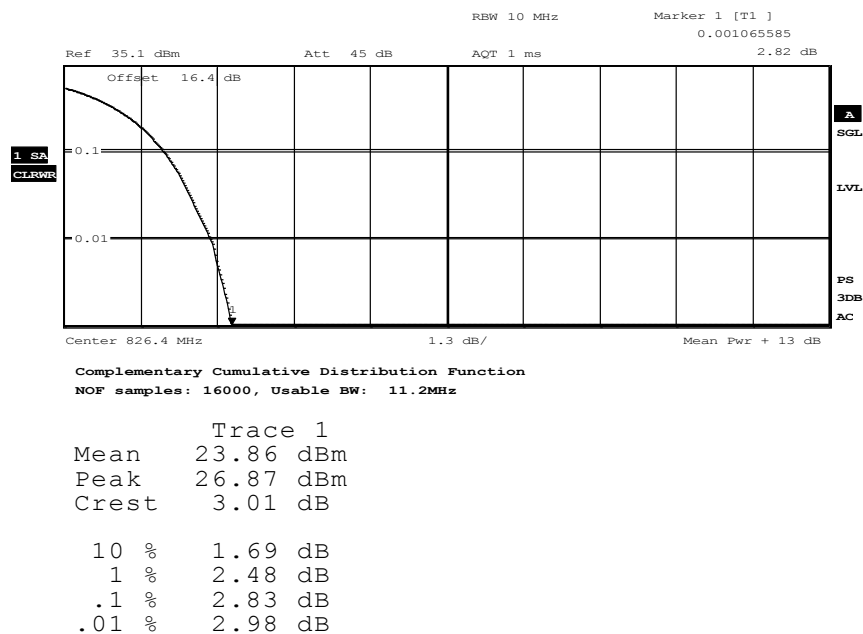
Channel 1450



Date: 1.AUG.2015 09:45:51

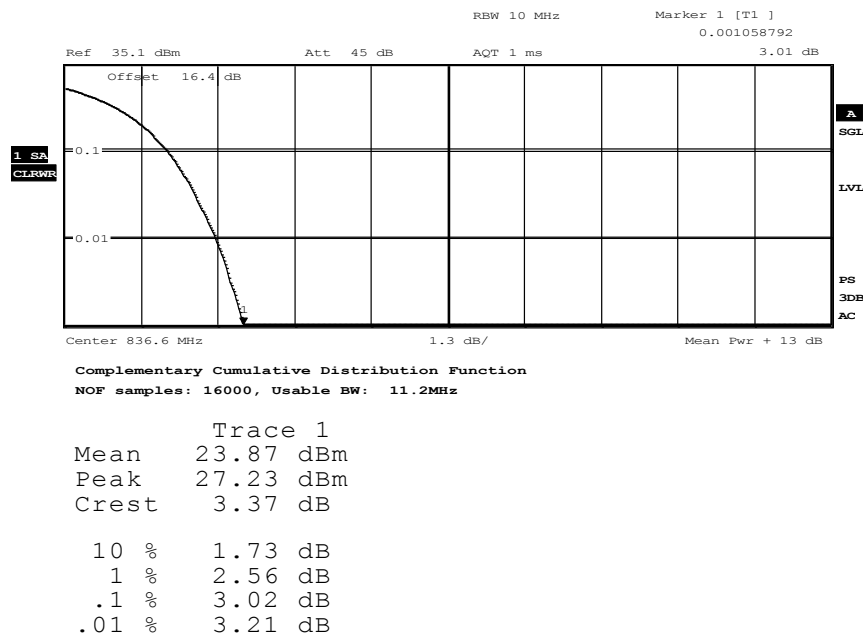
Channel 1513

1.7.3. FDD Band 5



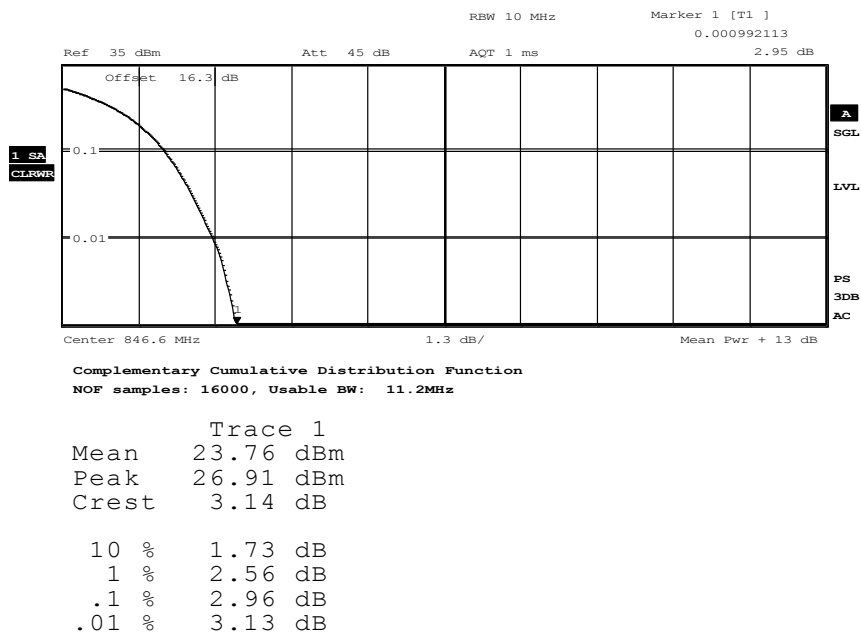
Date: 1.AUG.2015 09:49:59

Channel 4132



Date: 1.AUG.2015 09:49:02

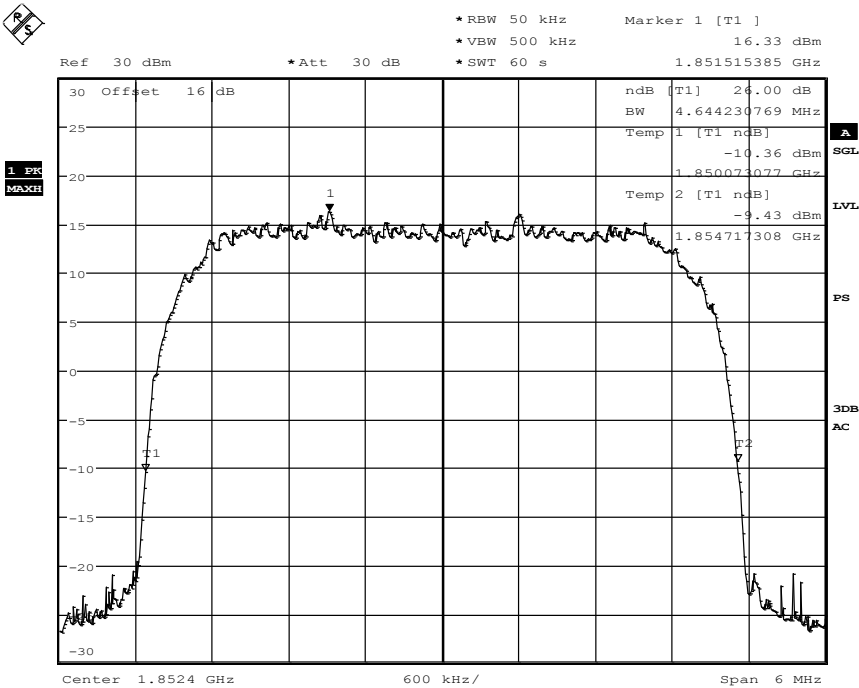
Channel 4183



Date: 1.AUG.2015 09:58:07

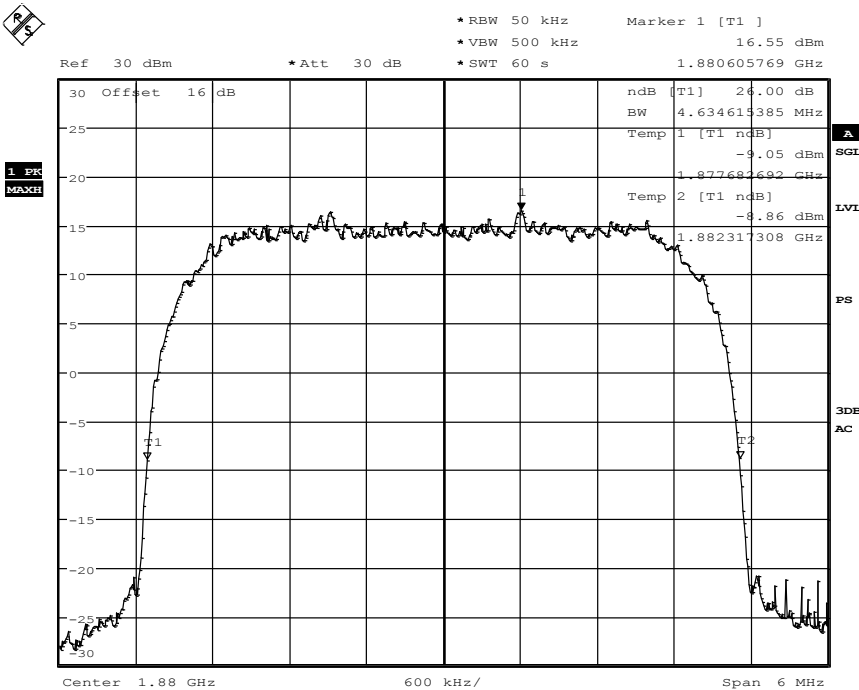
Channel 4233

1.8. 26dBc Emission bandwidth
1.8.1. FDD II TX Mode



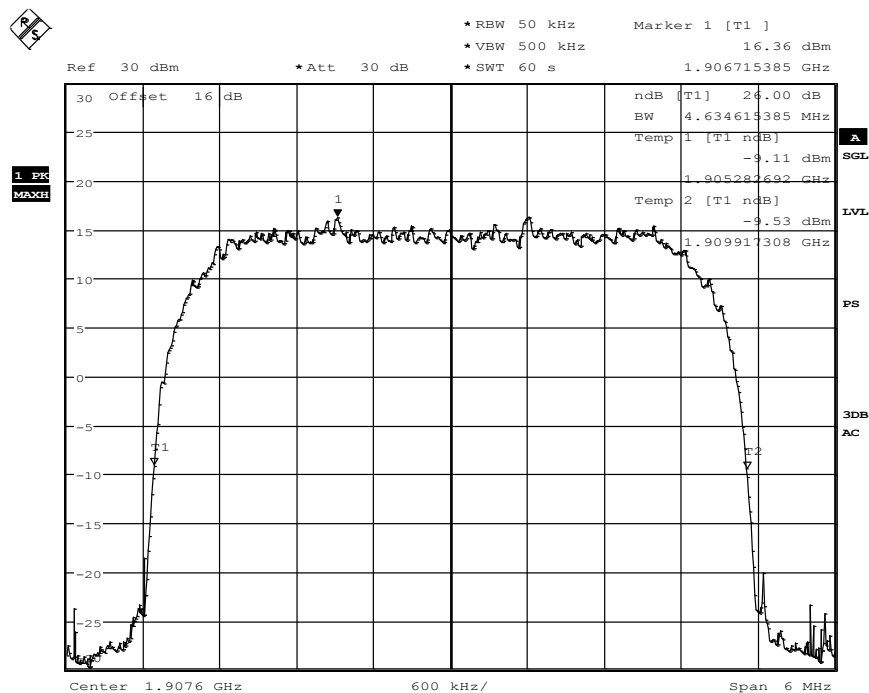
Date: 13.APR.2015 14:10:38

Channel 9262



Date: 13.APR.2015 14:08:44

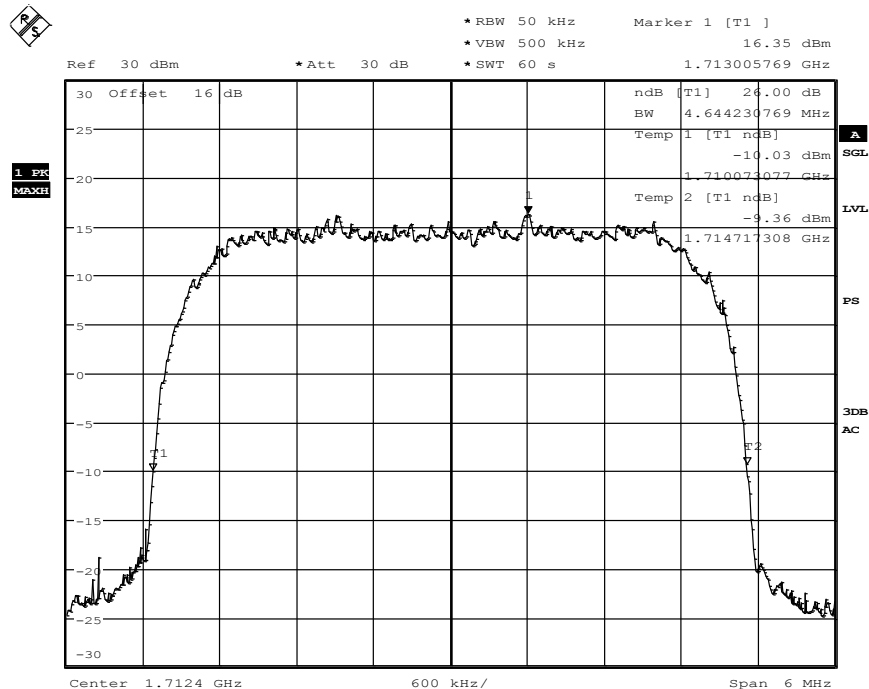
Channel 9400



Date: 13.APR.2015 14:06:47

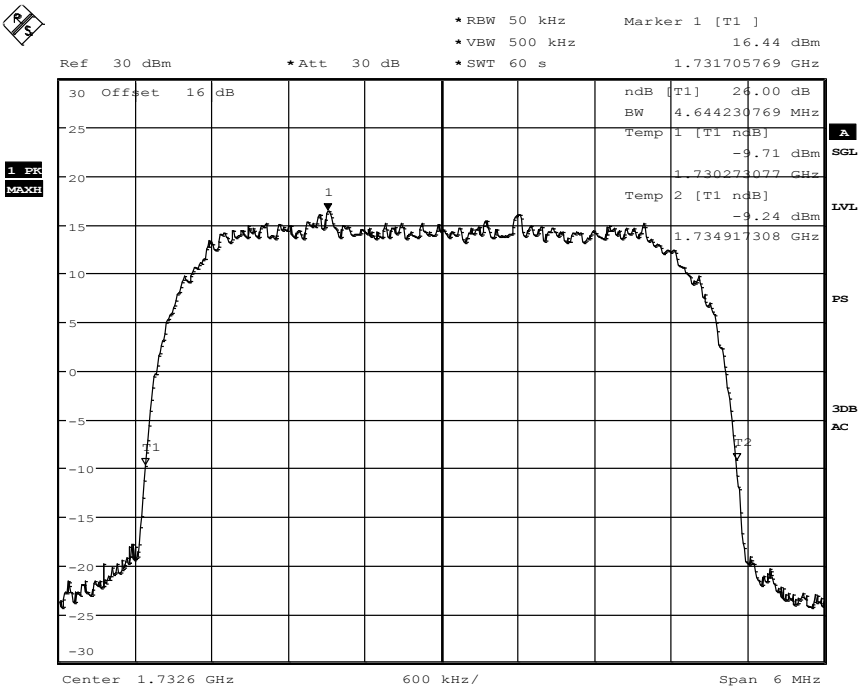
Channel 9538

1.8.2. FDD IV TX Mode



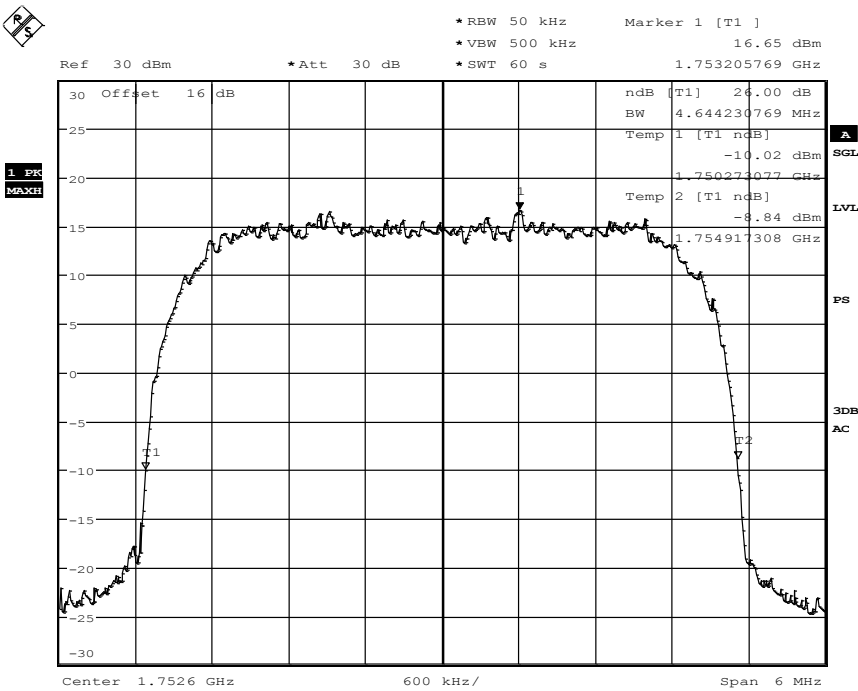
Date: 13.APR.2015 14:52:11

Channel 1312



Date: 13.APR.2015 14:54:28

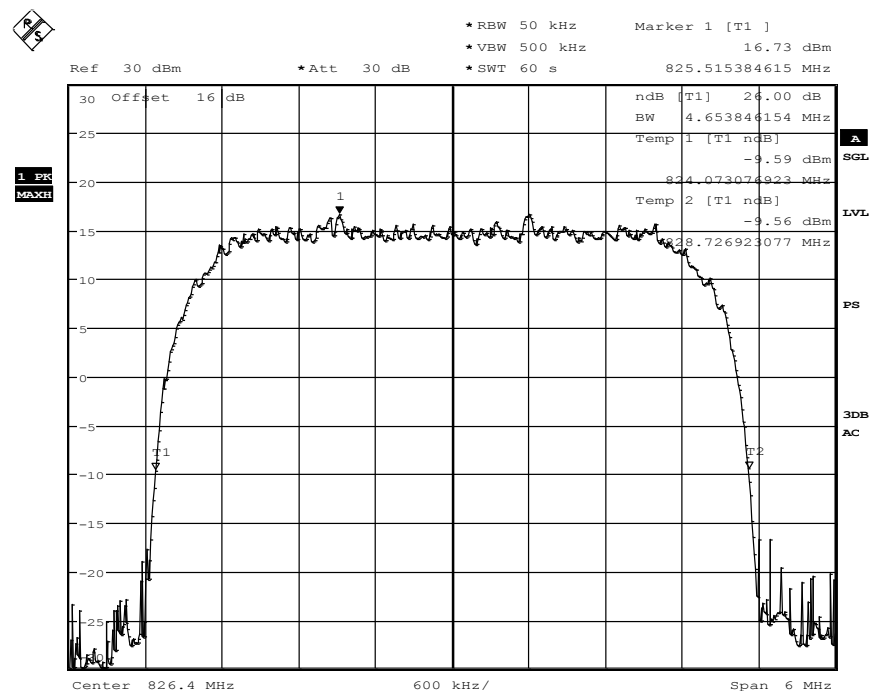
Channel 1413



Date: 13.APR.2015 14:57:30

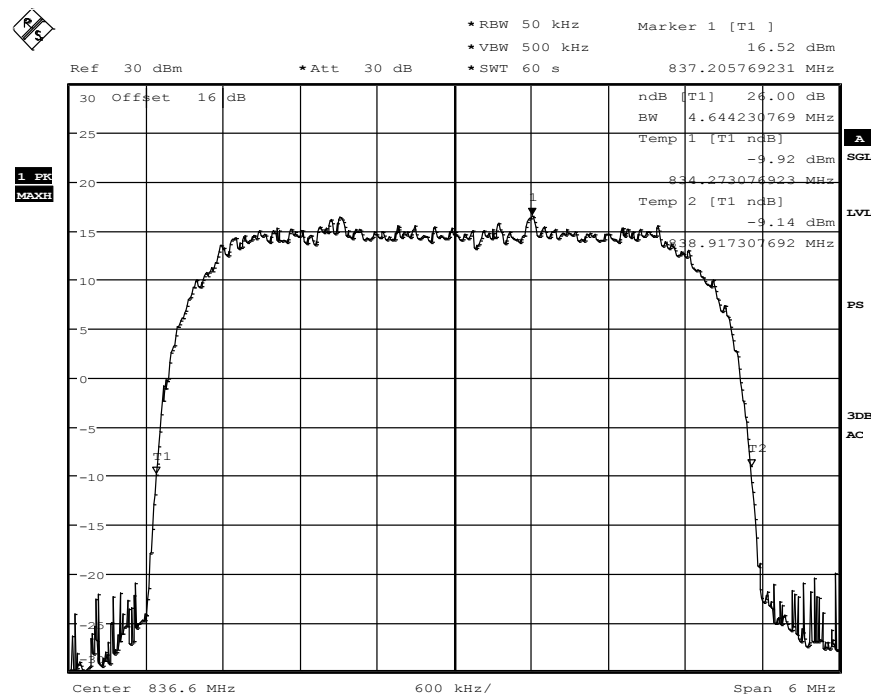
Channel 1513

1.8.3. FDD V TX Mode



Date: 13.APR.2015 14:15:39

Channel 4132



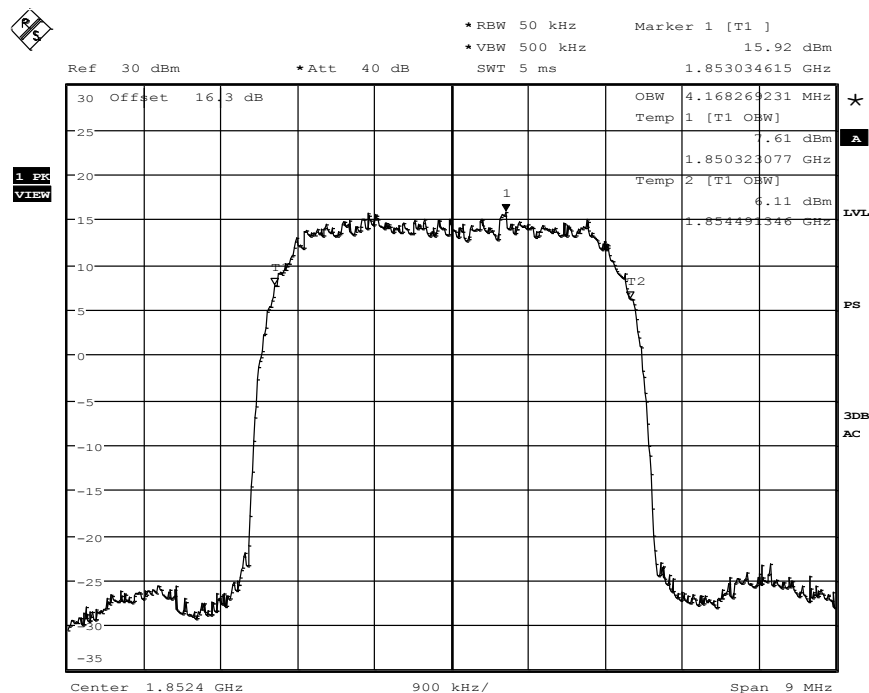
Date: 13.APR.2015 14:19:23

Channel 4183

Channel 4233

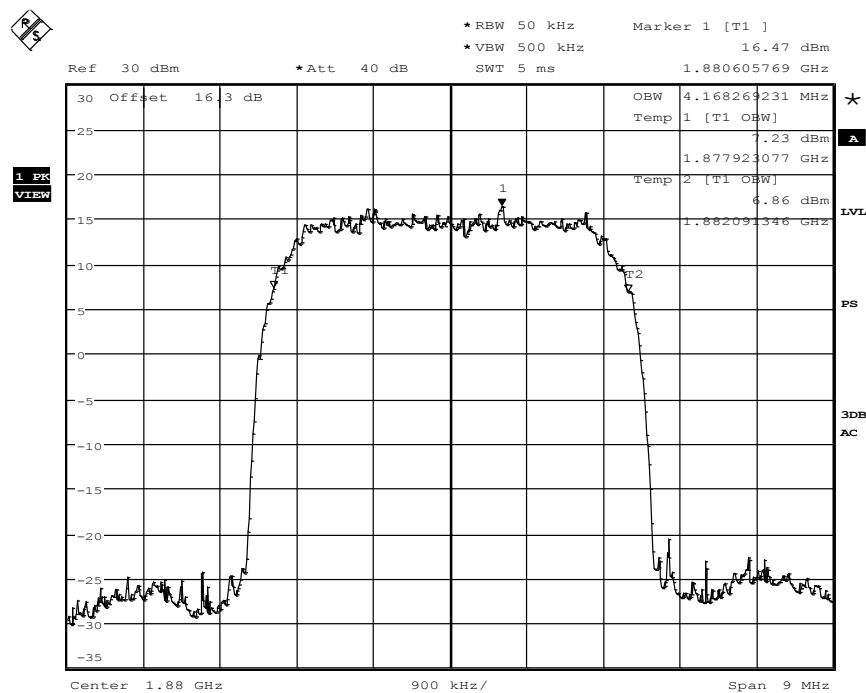
1.9. 99% Occupied bandwidth

1.9.1. FDD II TX Mode



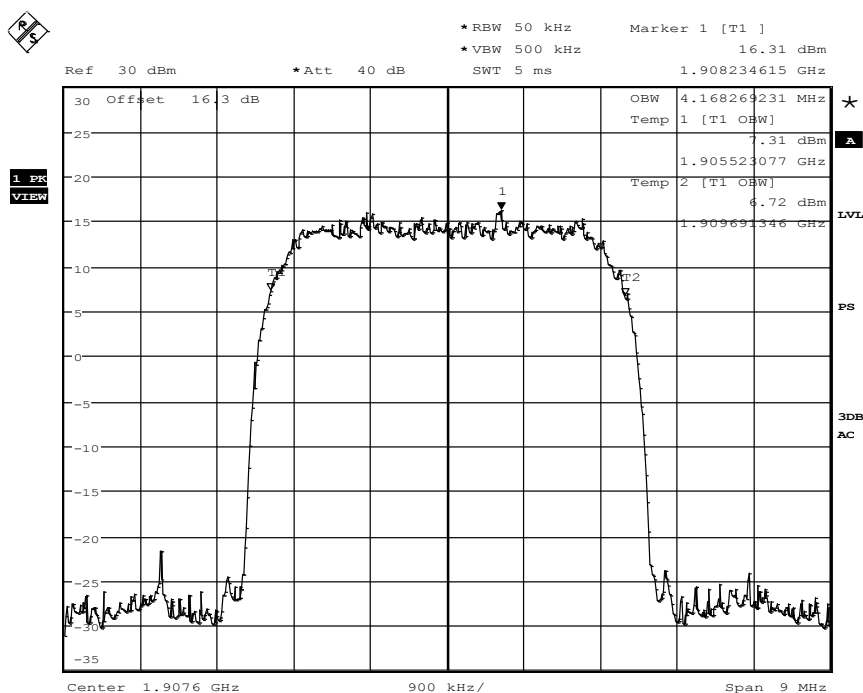
Date: 16.JUL.2015 10:26:23

Channel 9262



Date: 16.JUL.2015 10:29:50

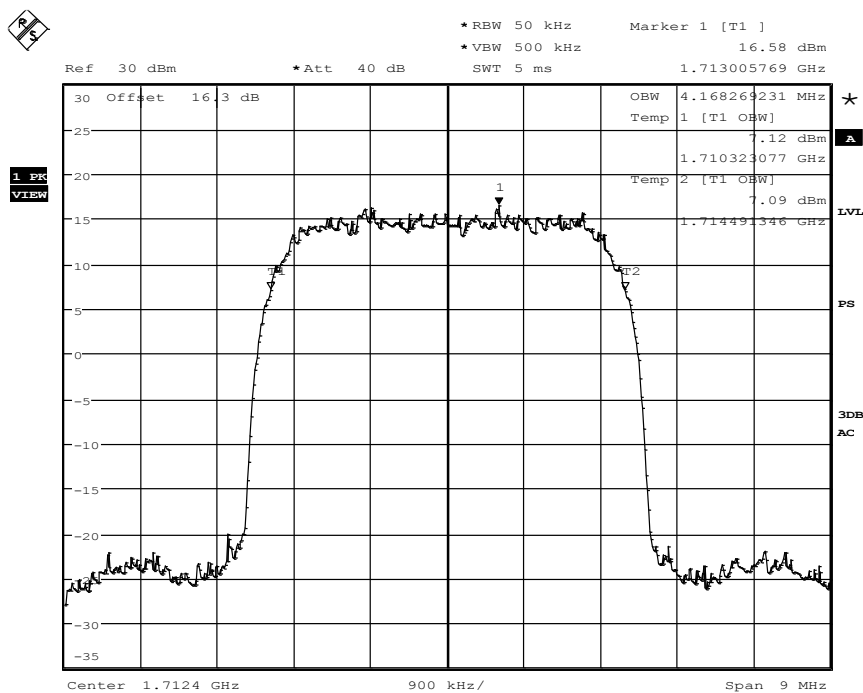
Channel 9400



Date: 16.JUL.2015 10:32:31

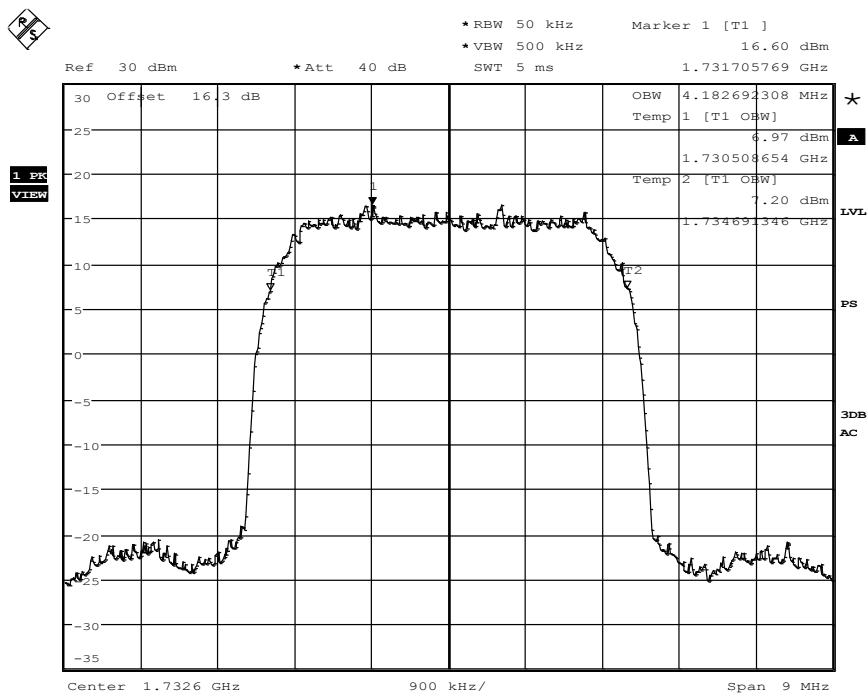
Channel 9538

1.9.2. FDD IV TX Mode



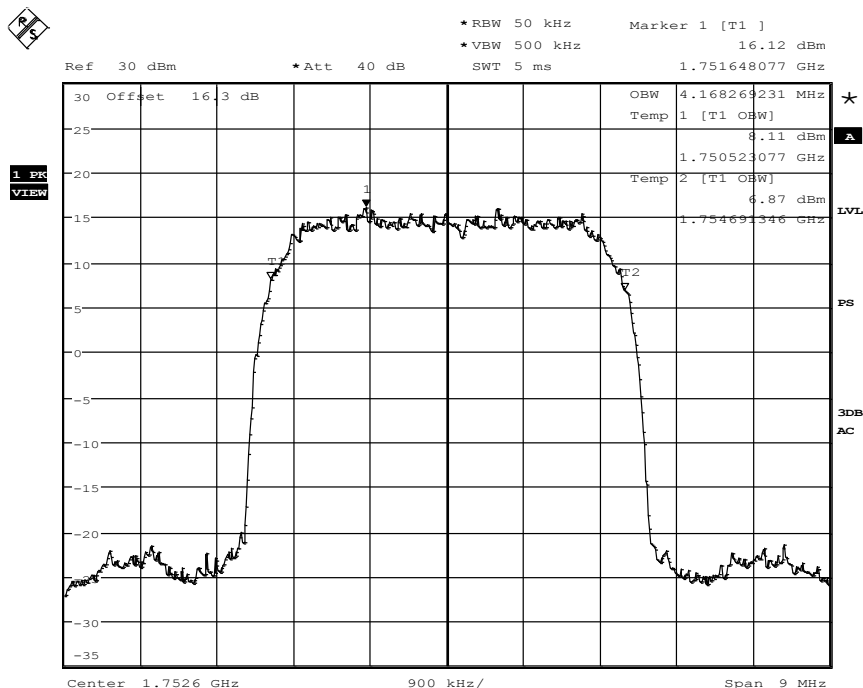
Date: 16.JUL.2015 10:41:48

Channel 1312



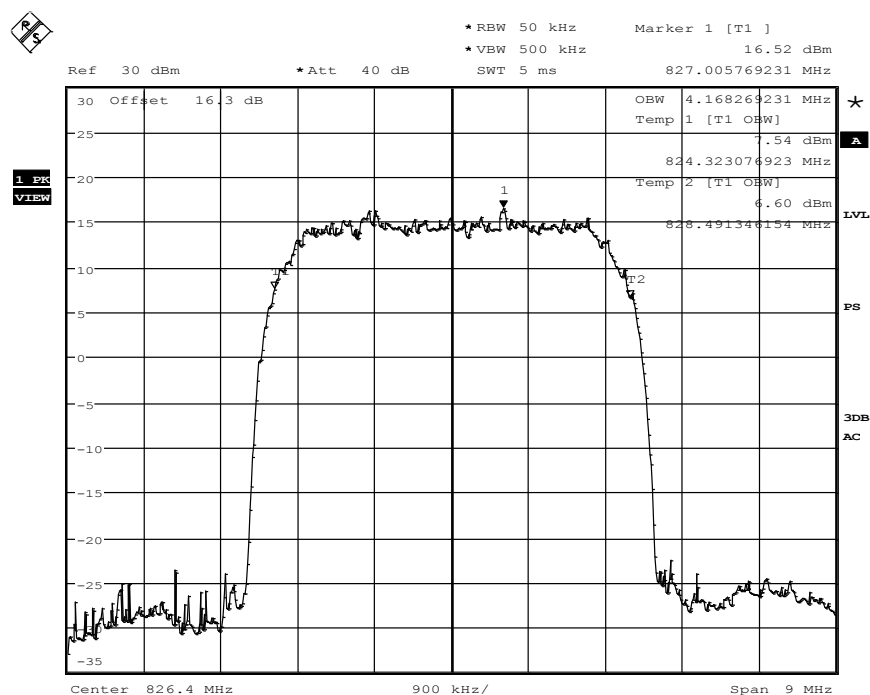
Date: 16.JUL.2015 10:45:22

Channel 1413



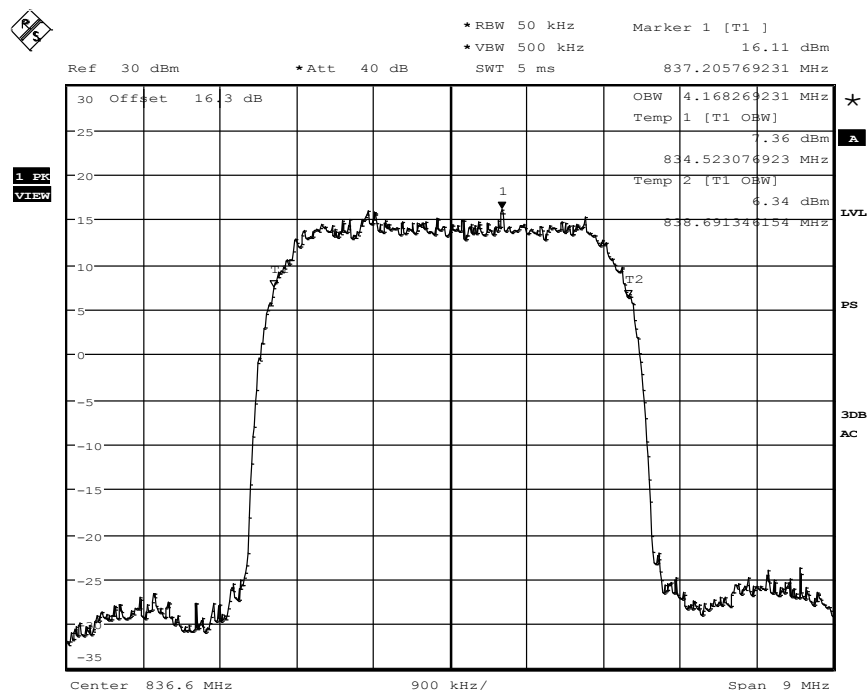
Date: 16.JUL.2015 10:48:25

Channel 1513

1.9.3. FDD V TX Mode

Date: 16.JUL.2015 10:53:11

Channel 4132



Date: 16.JUL.2015 10:56:34

Channel 4183

Channel 4233

1.10. Spurious emissions conducted on FDD Band II**Diagram No.: 36.60_Ch9262_RMC_Sweep1****Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9262
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_24_FDD_Scan1_9kHz_30MHz

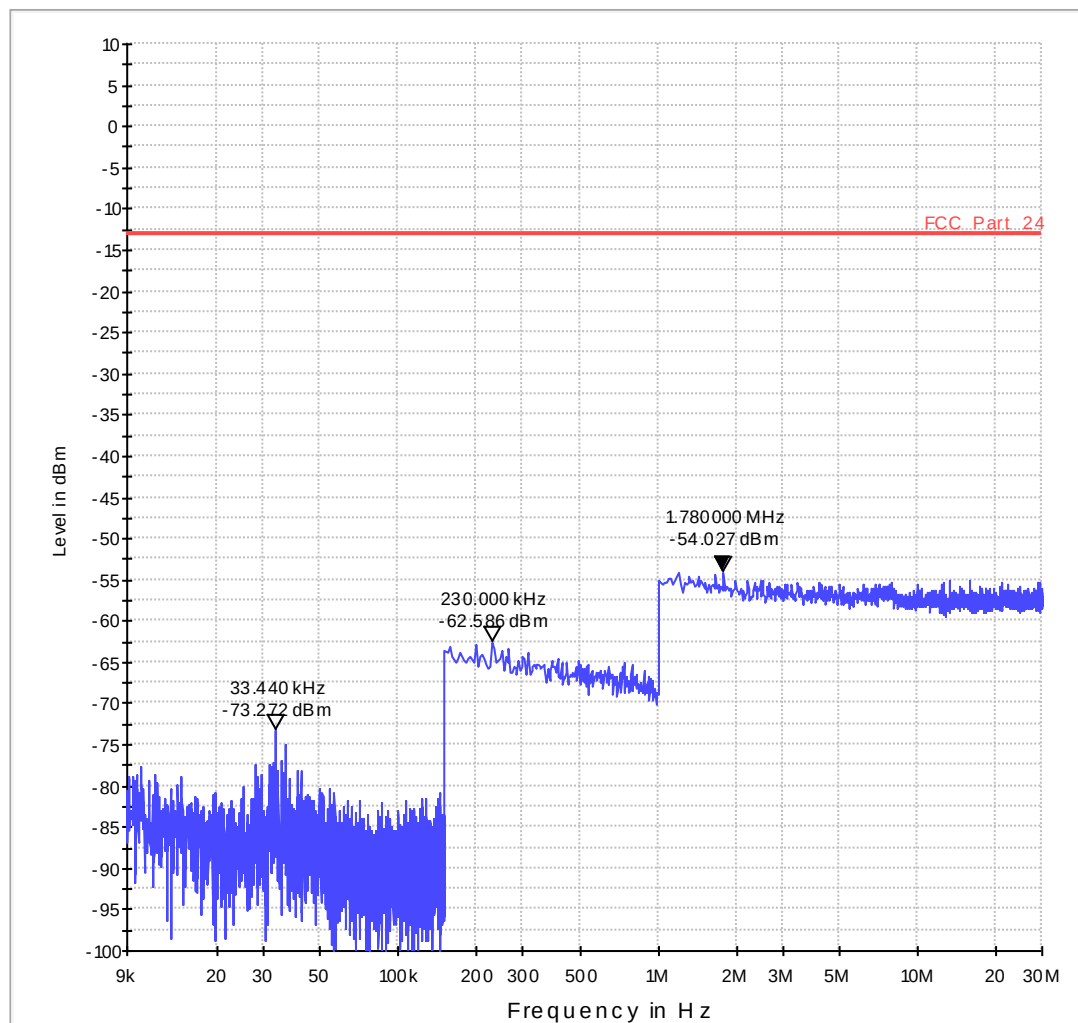


Diagram No.: 36.61_Ch9262_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9262
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_24_FDD_Scan2_30MHz_19.5GHz

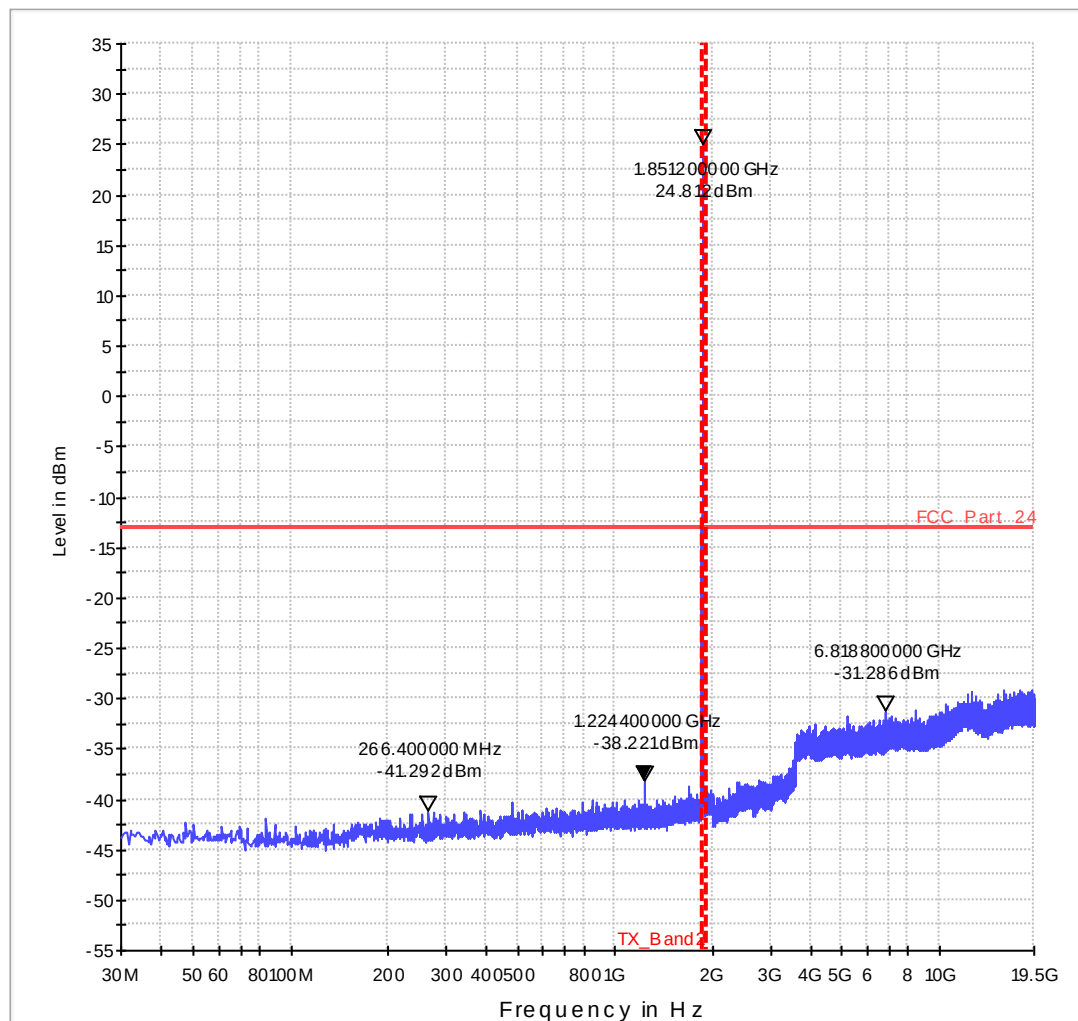


Diagram No.: 36.62_Ch9400_RMC_Sweep1**Common Information**

Test Description:	TX Spurious Emission Conducted S2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9400
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_24_FDD_Scan1_9kHz_30MHz

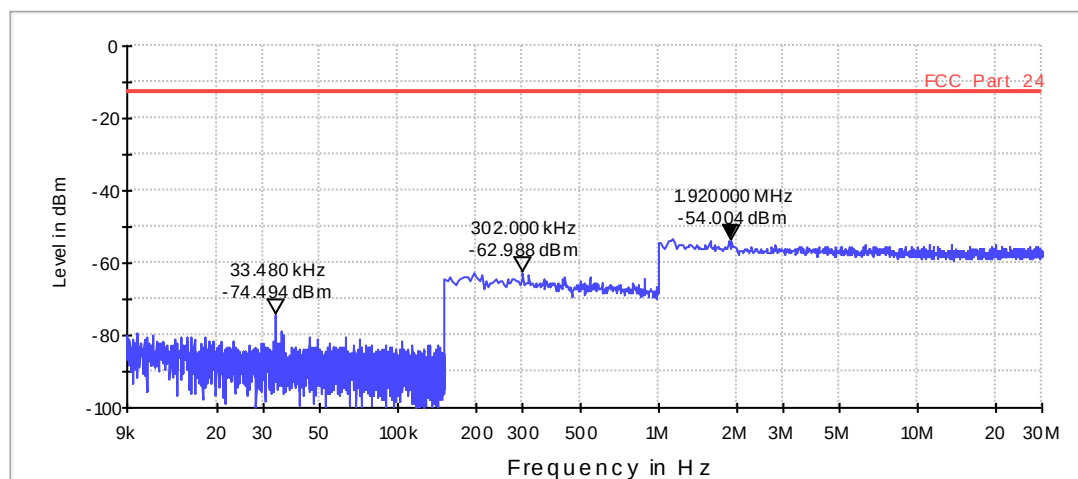


Diagram No.: 36.63_Ch9400_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9400
Operator	MFr

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_24_FDD_Scan2_30MHz_19.5GHz

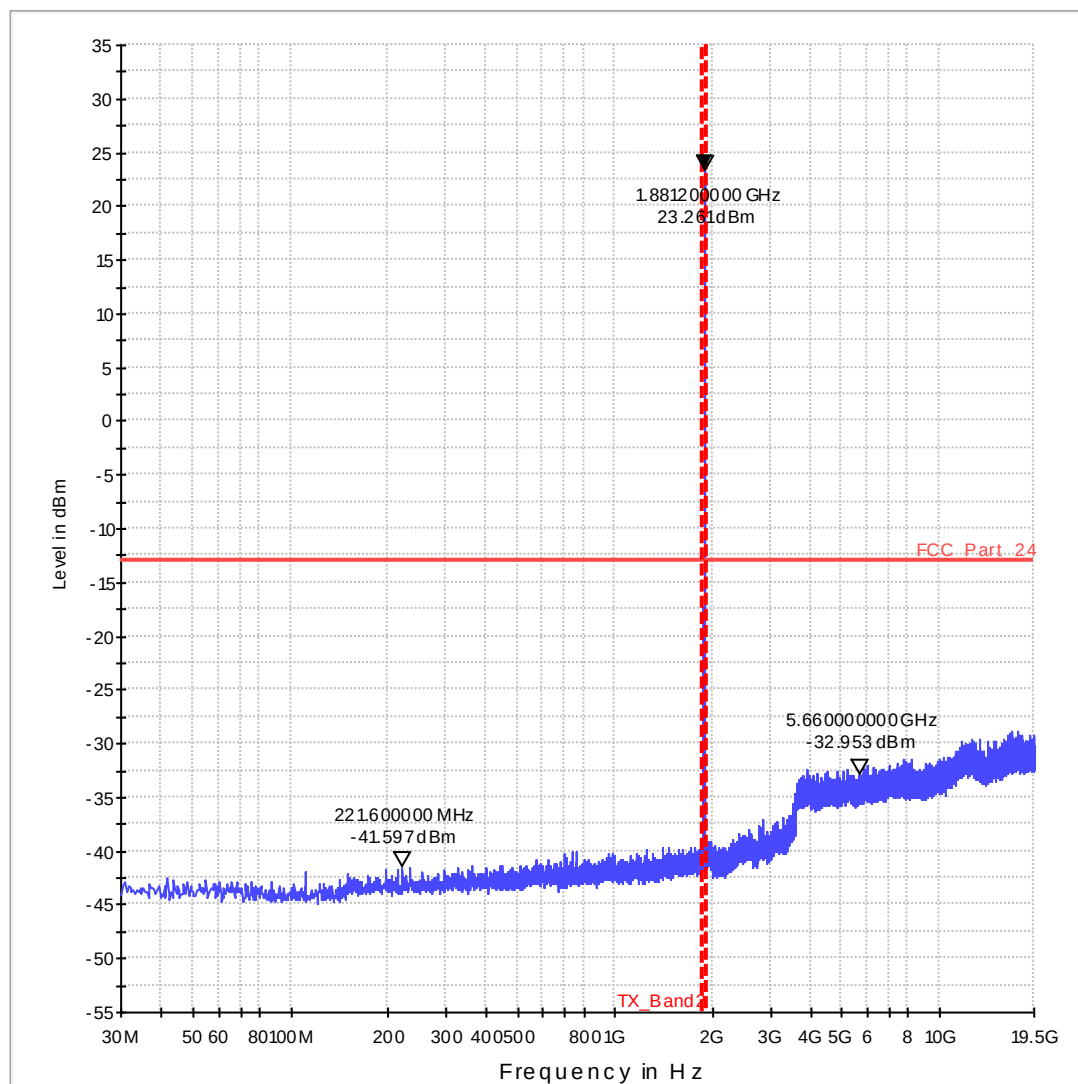


Diagram No.: 36.64_Ch9538_RMC_Sweep1**Common Information**

Test Description:	TX Spurious Emission Conducted S2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9538
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_24_FDD_Scan1_9kHz_30MHz

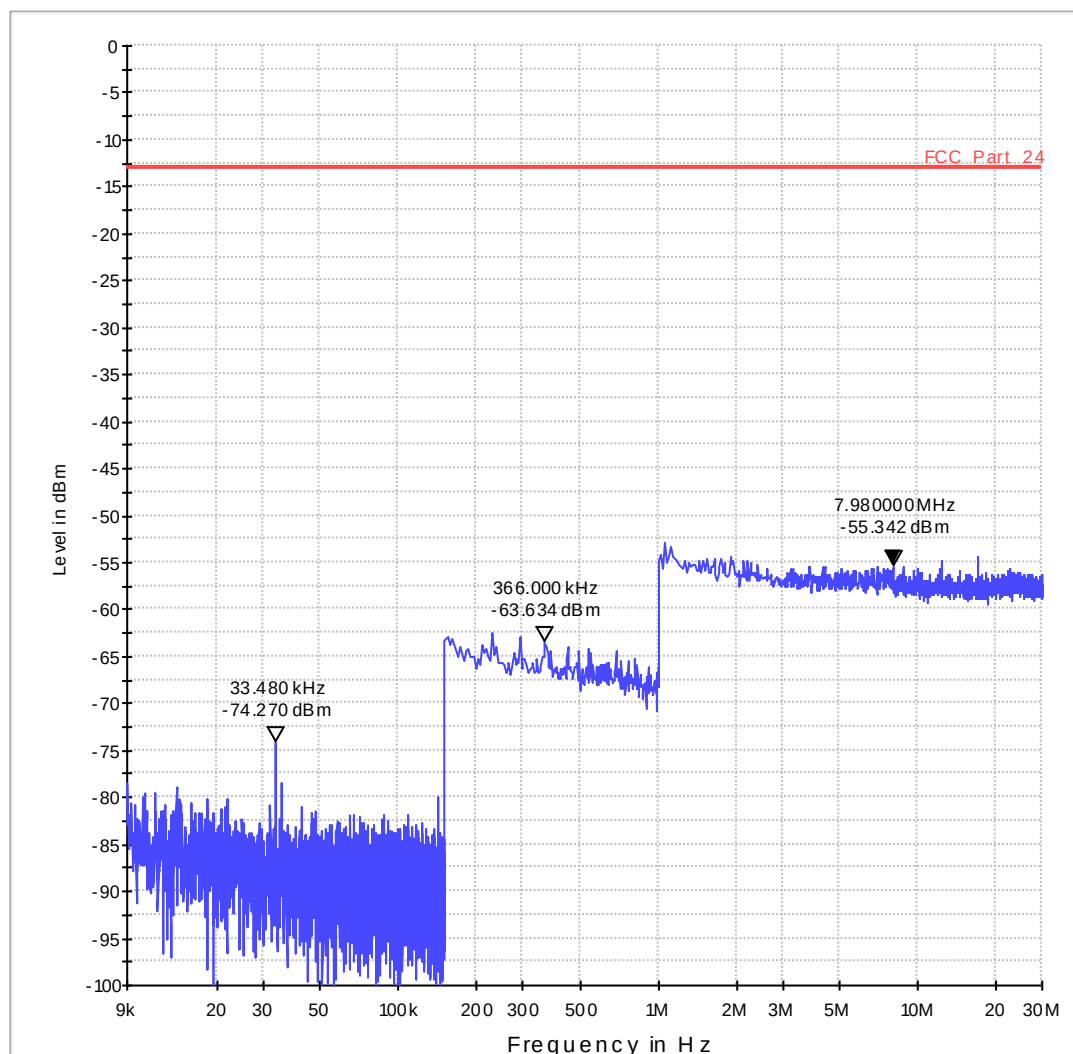


Diagram No.: 36.65_Ch9538_RMC_Sweep2

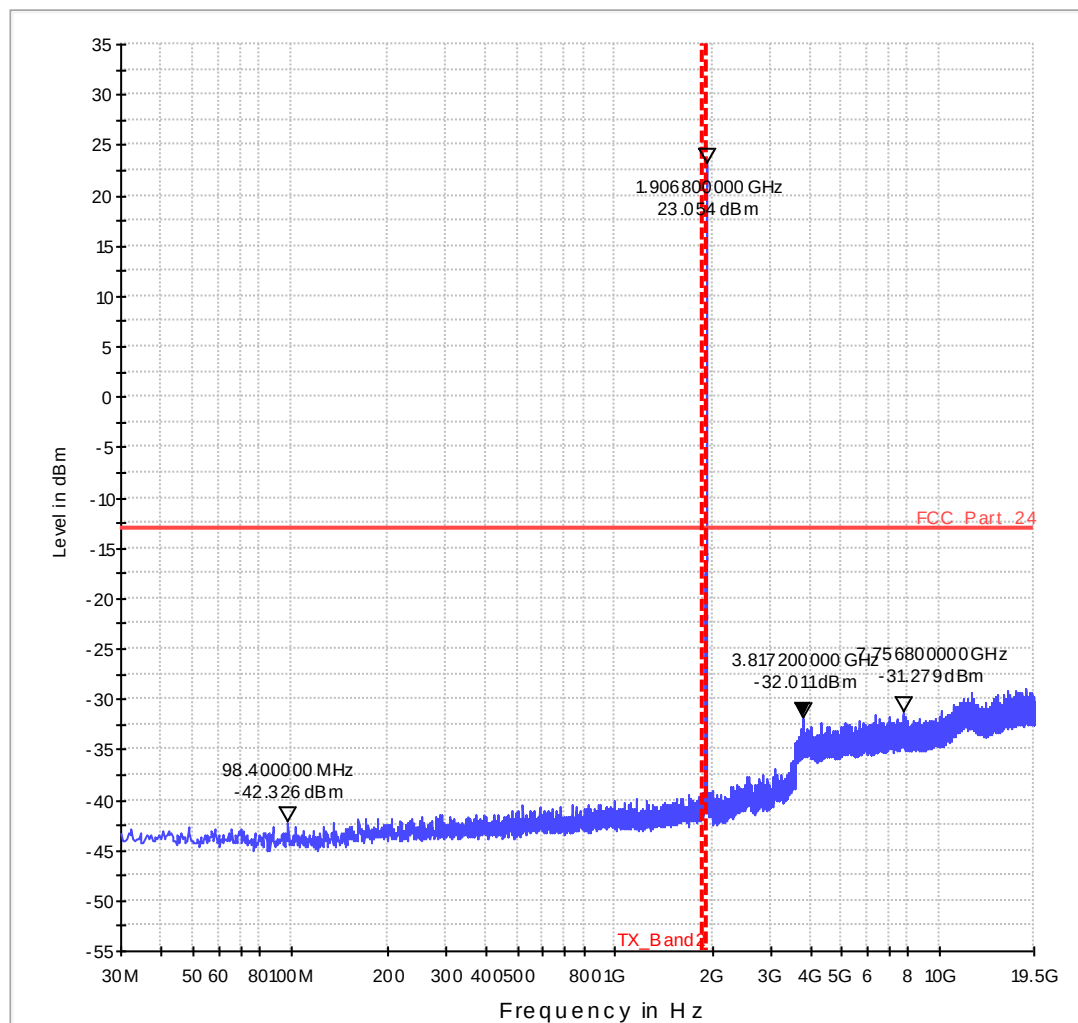
Common Information

Test Description:	TX Spurious Emission Conducted S2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9538
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_24_FDD_Scan2_30MHz_19.5GHz



1.11. Spurious emissions conducted on FDD Band IV**Diagram No.: 36.70_Ch1312_RMC_Sweep1****Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1312
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_27_Scan1_9kHz_30MHz

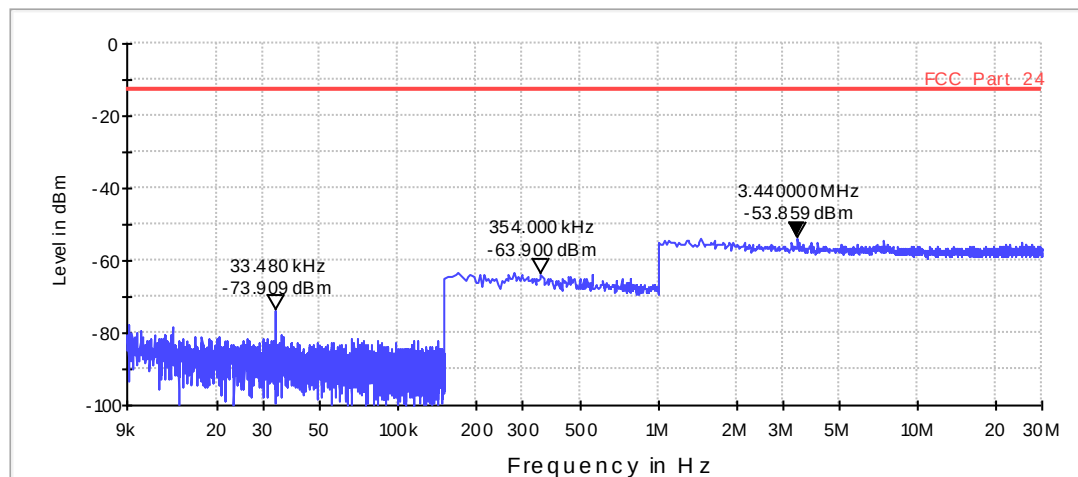


Diagram No.: 36.71_Ch1312_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1312
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_27_Scan2_30MHz_18GHz

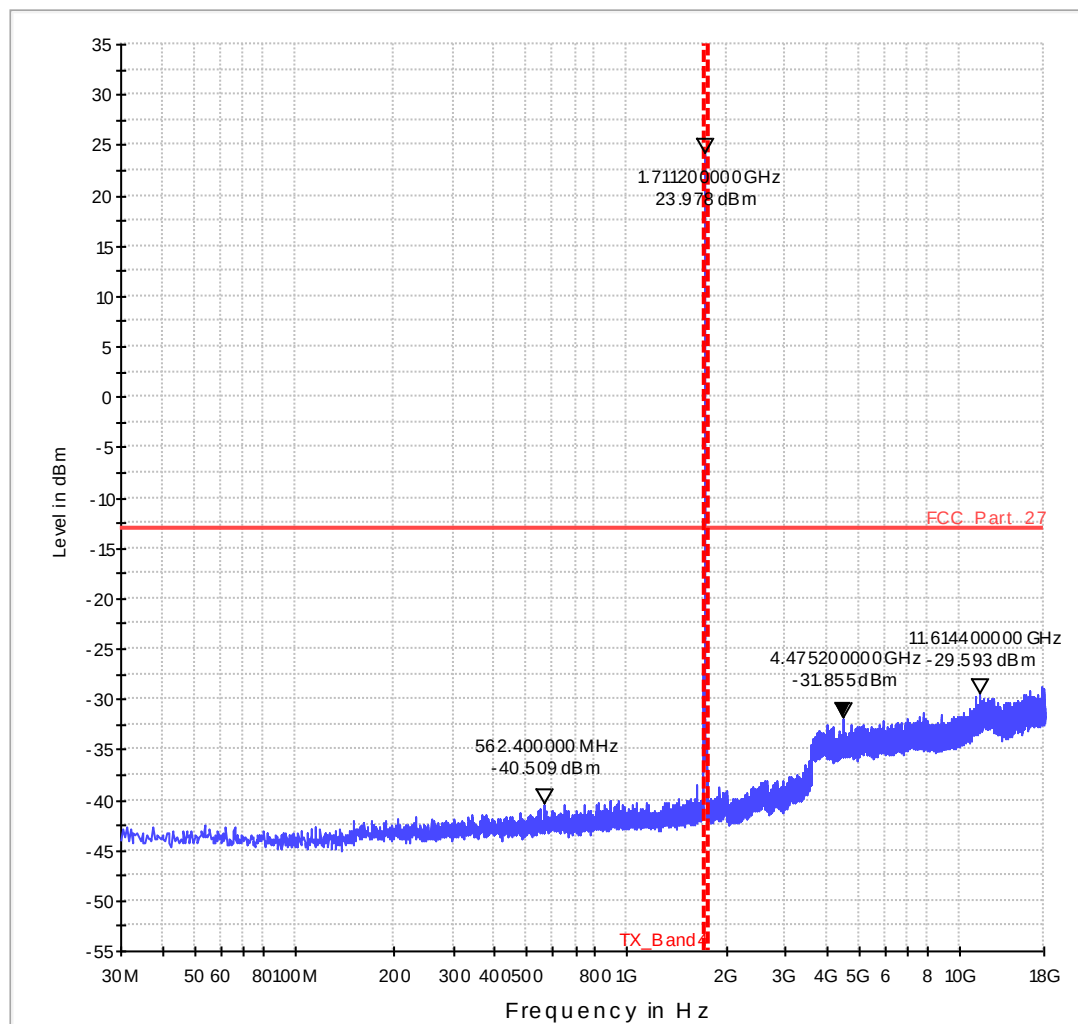


Diagram No.: 36.72_Ch1450_RMC_Sweep1**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1450
Operator	MFr

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_27_Scan1_9kHz_30MHz

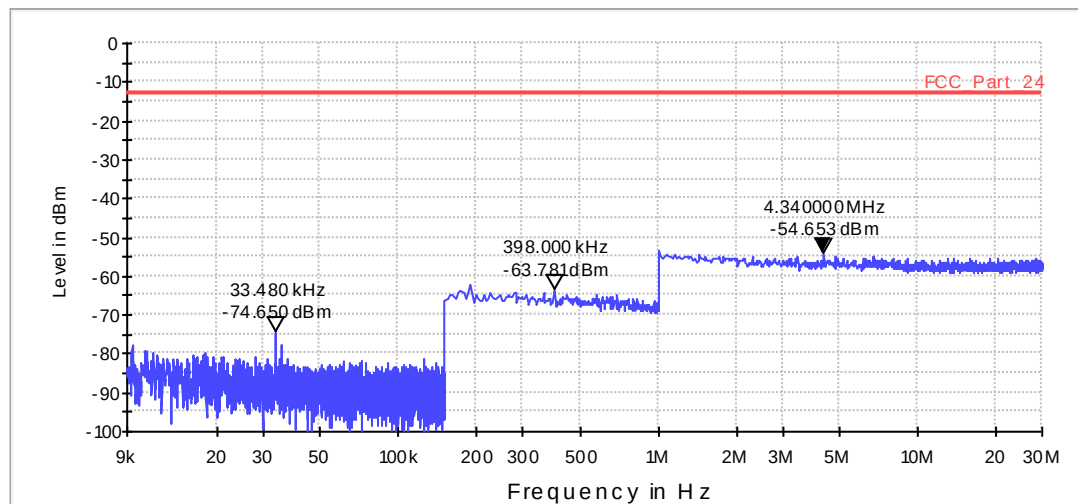


Diagram No.: 36.73_Ch1450_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1450
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_27_Scan2_30MHz_18GHz

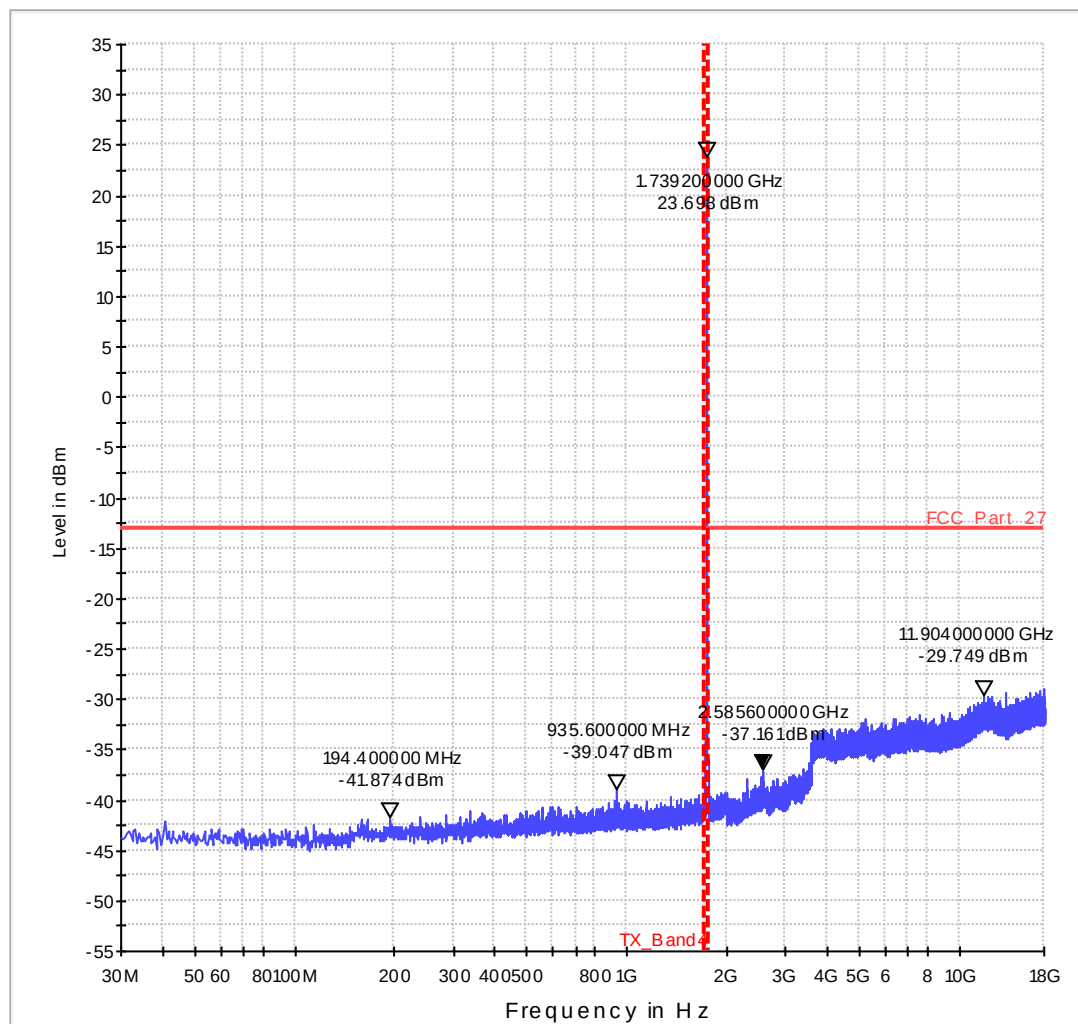


Diagram No.: 36.74_Ch1513_RMC_Sweep1**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1513
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_27_Scan1_9kHz_30MHz

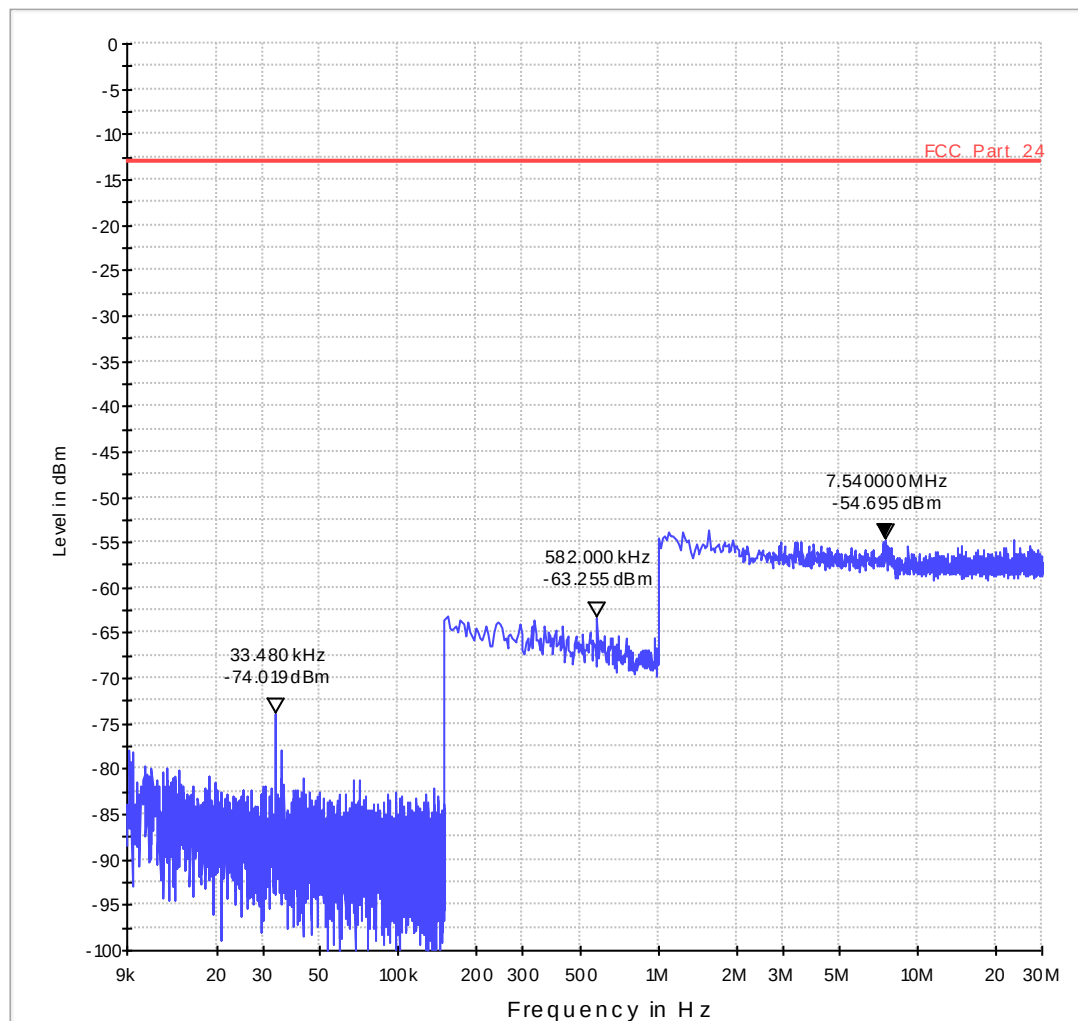


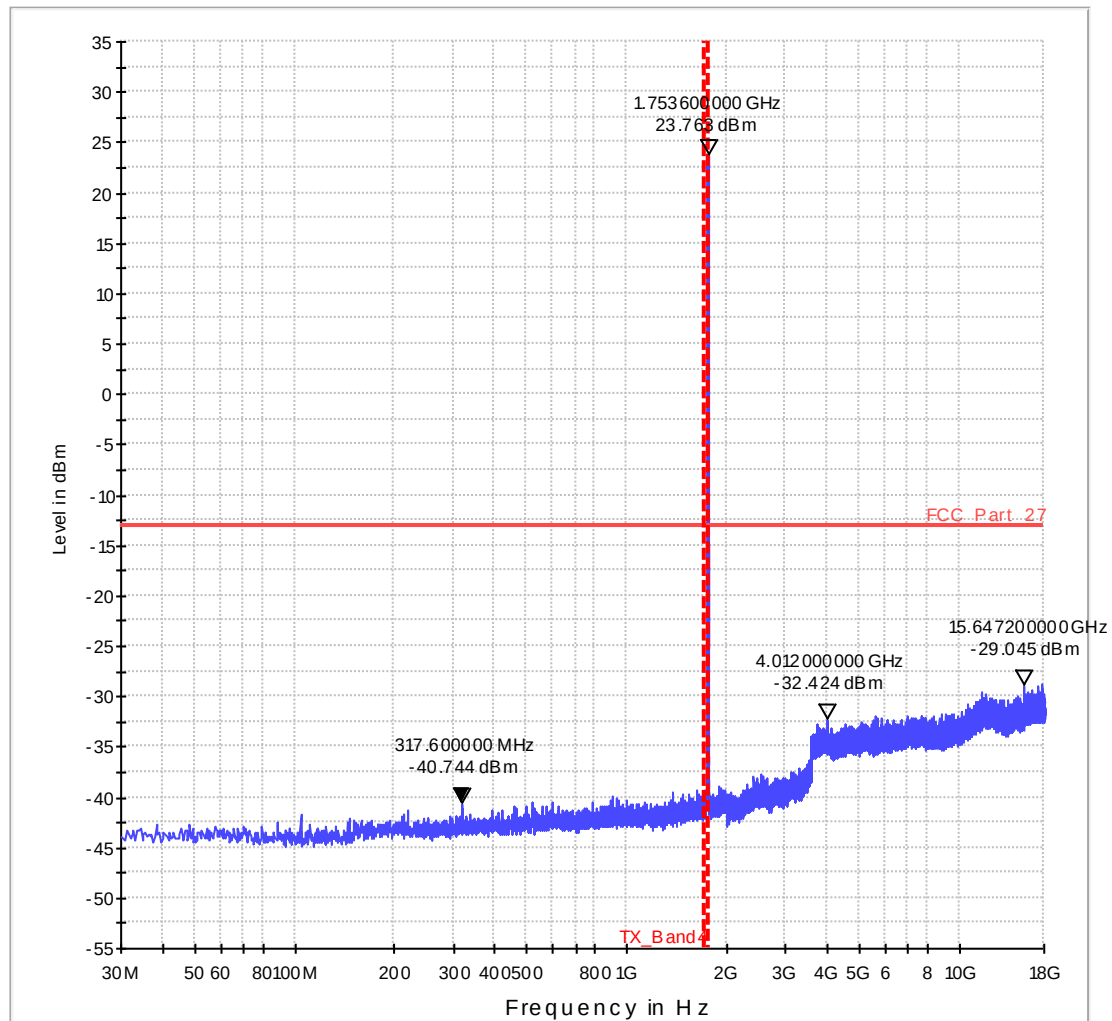
Diagram No.: 36.75_Ch1513_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1513
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_27_Scan2_30MHz_18GHz



1.12. Spurious emissions conducted on FDD Band V

Diagram No.: 36.40_Ch4132_RMC_Sweep1

Common Information

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - UMTS B5 (RMC), Channel 4132
Channel Bandwidth	--
Operator	mfr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_22_Scan1_9kHz_30MHz

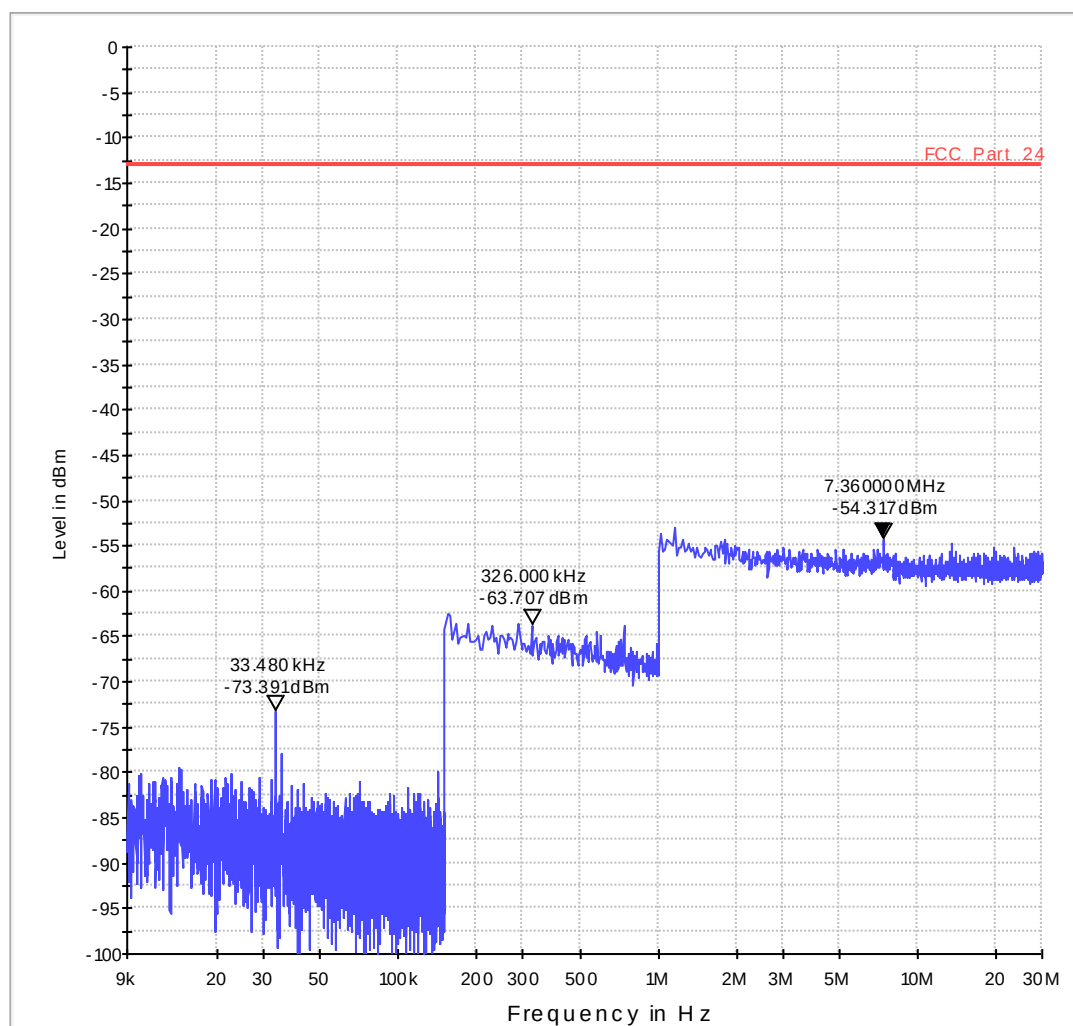


Diagram No.: 36.41_Ch4132_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B5 (RMC), Channel 4132
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_22_Scan2_30MHz_9GHz

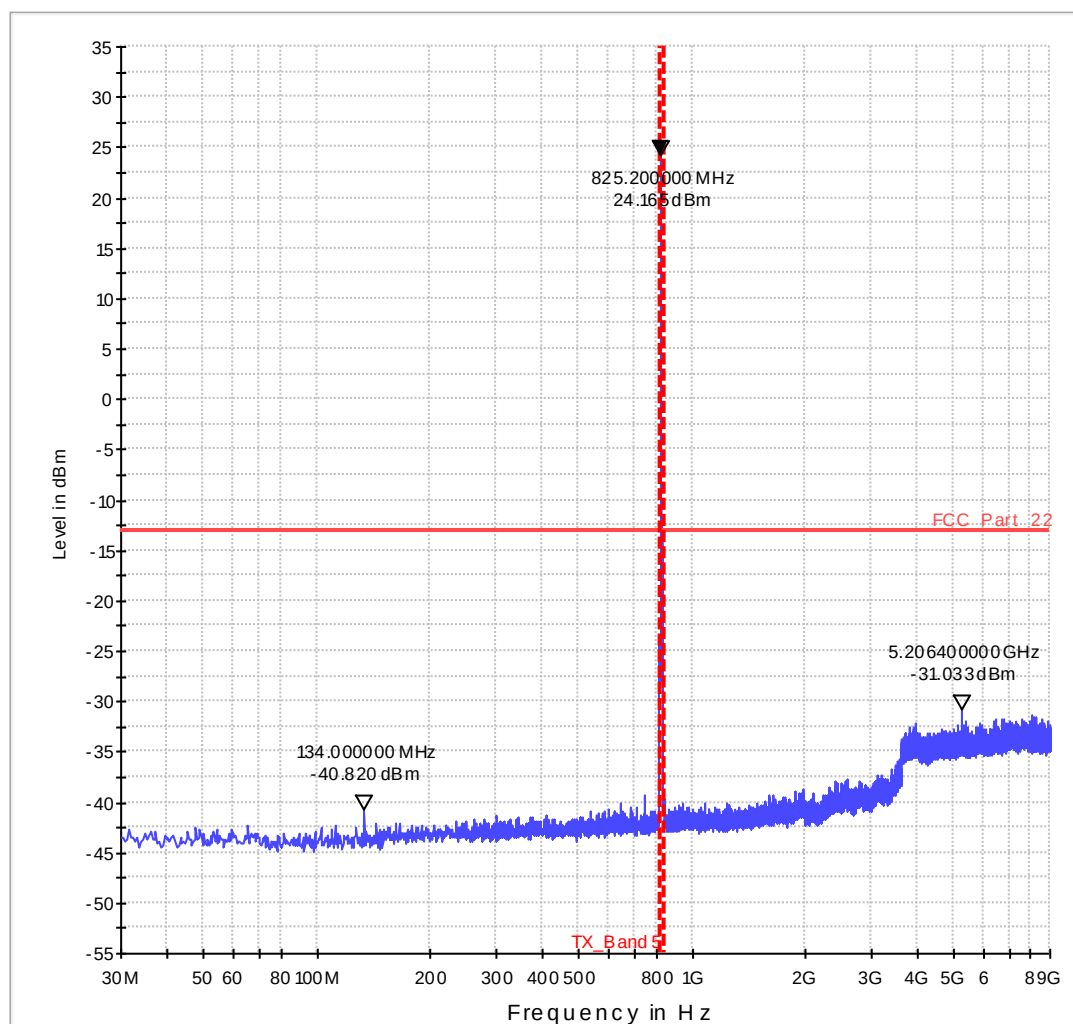


Diagram No.: 36.42_Ch4183_RMC_Sweep1**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - UMTS B5 (RMC), Channel 4183
Channel Bandwidth	--
Operator	mfr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_22_Scan1_9kHz_30MHz

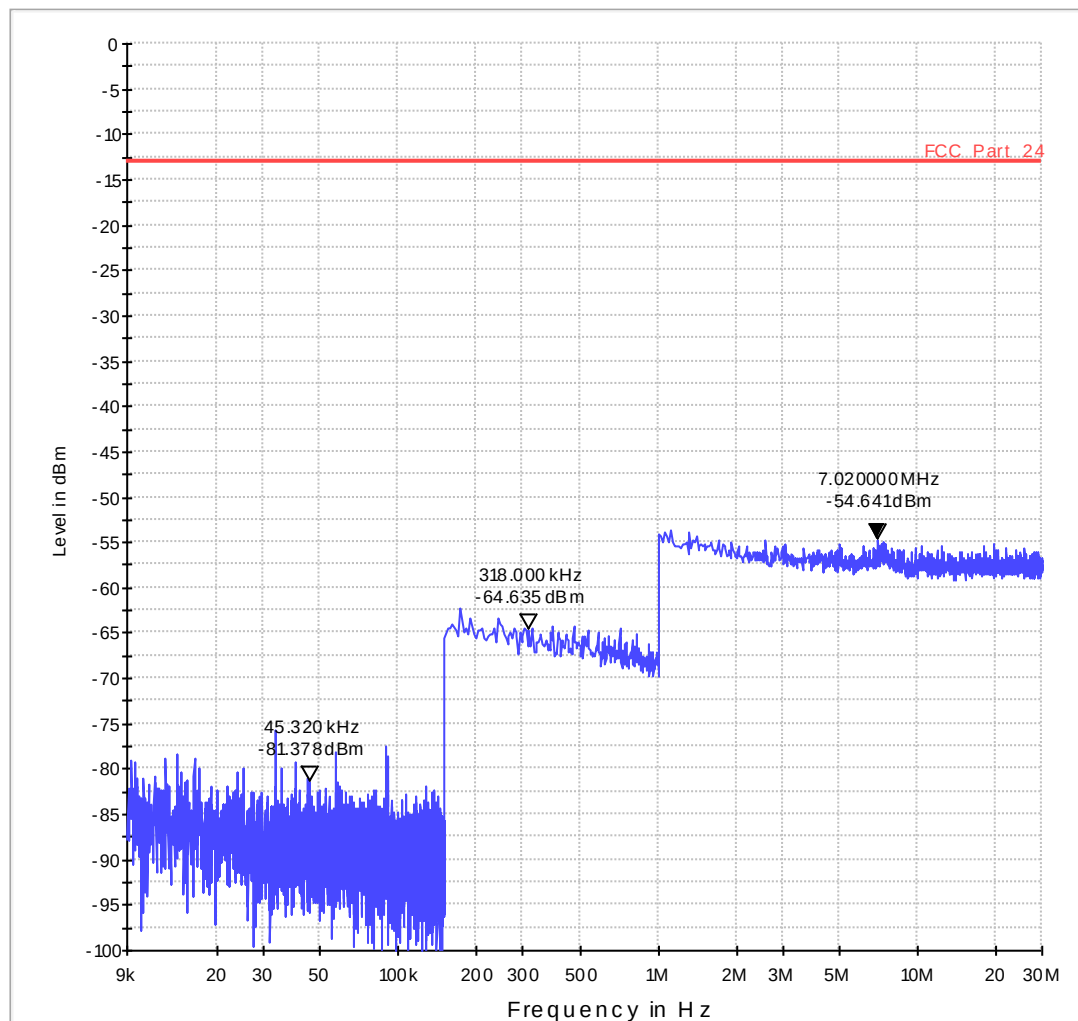


Diagram No.: 36.43_Ch4183_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - UMTS B5 (RMC), Channel 4183
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_22_Scan2_30MHz_9GHz

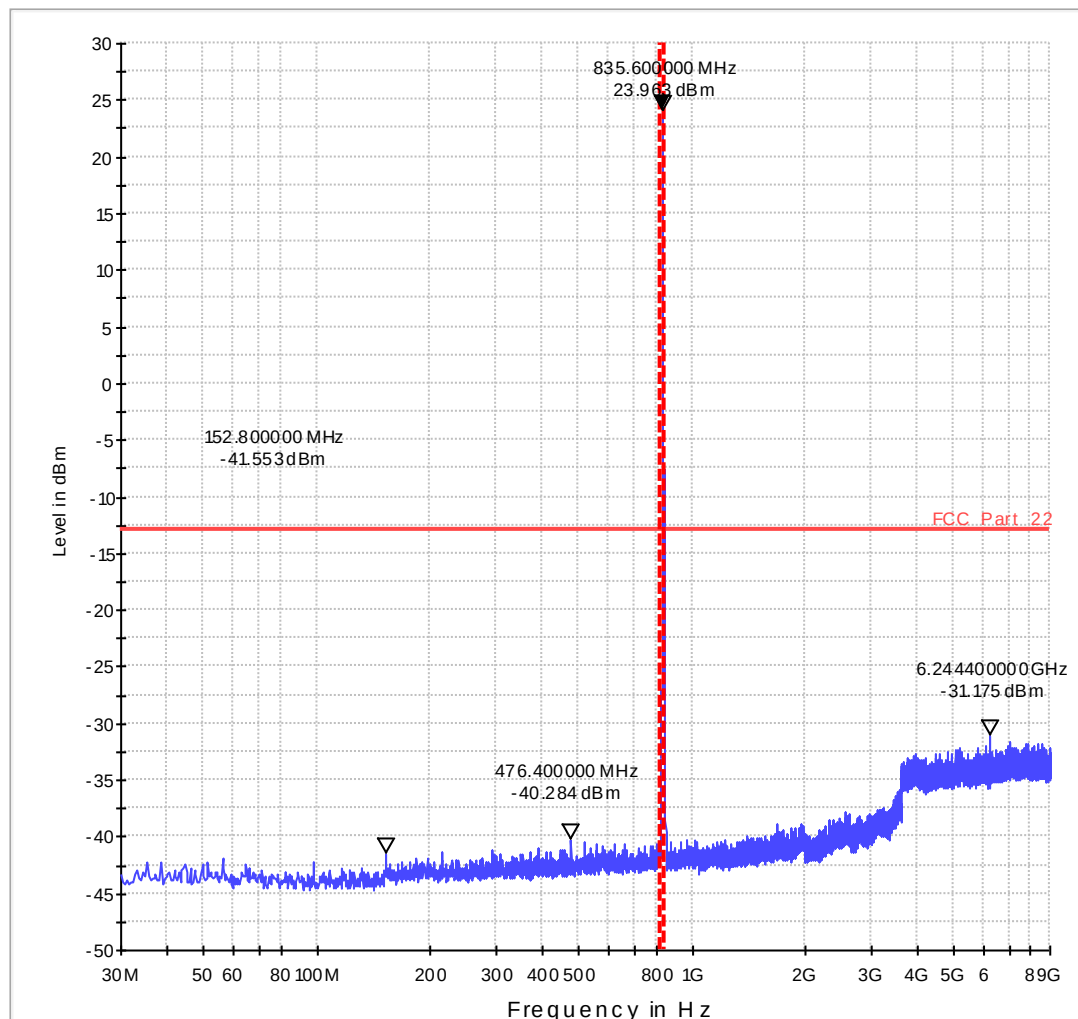


Diagram No.: 36.44_Ch4233_RMC_Sweep1**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - UMTS B5 (RMC), Channel 4233
Operator	MFr

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_22_Scan1_9kHz_30MHz

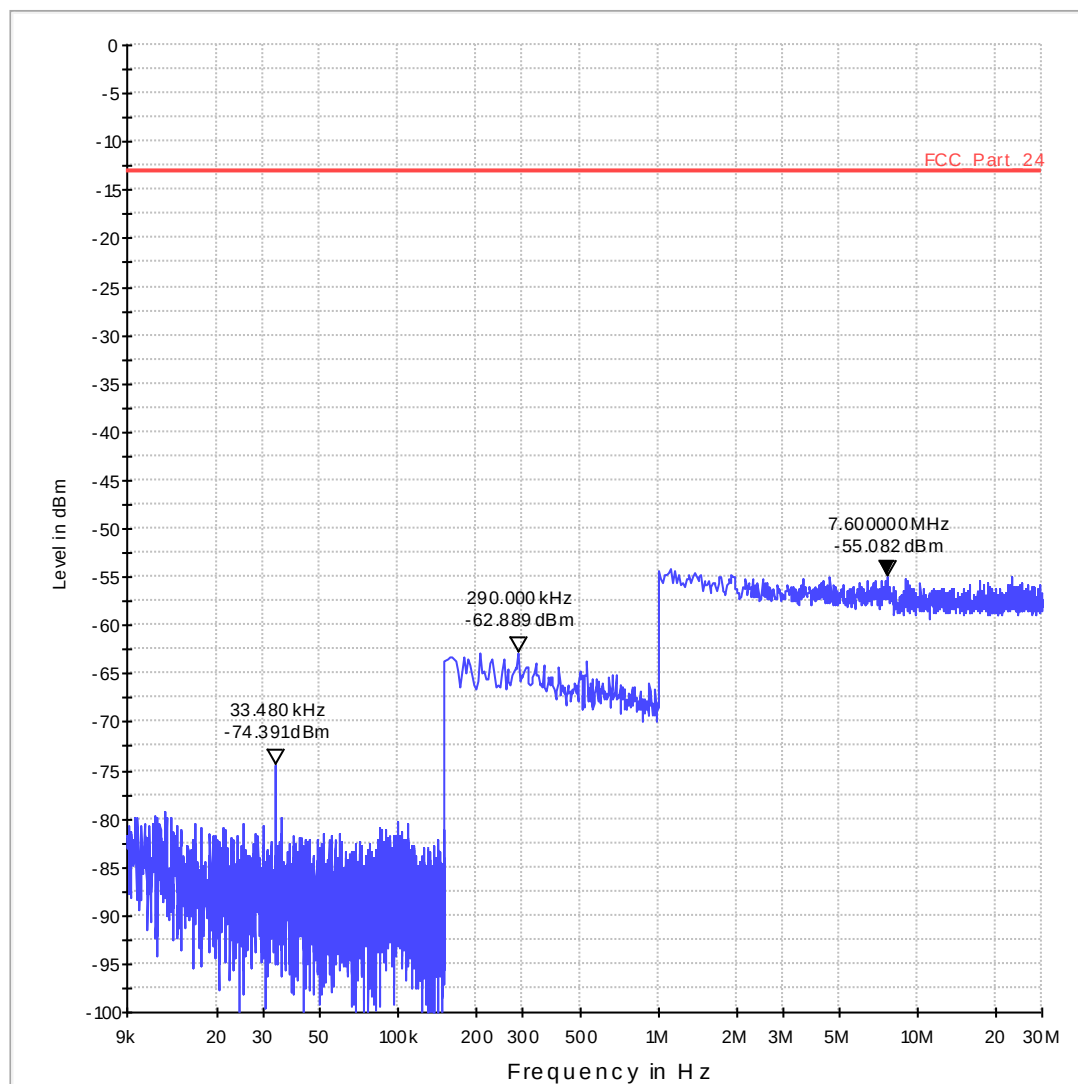


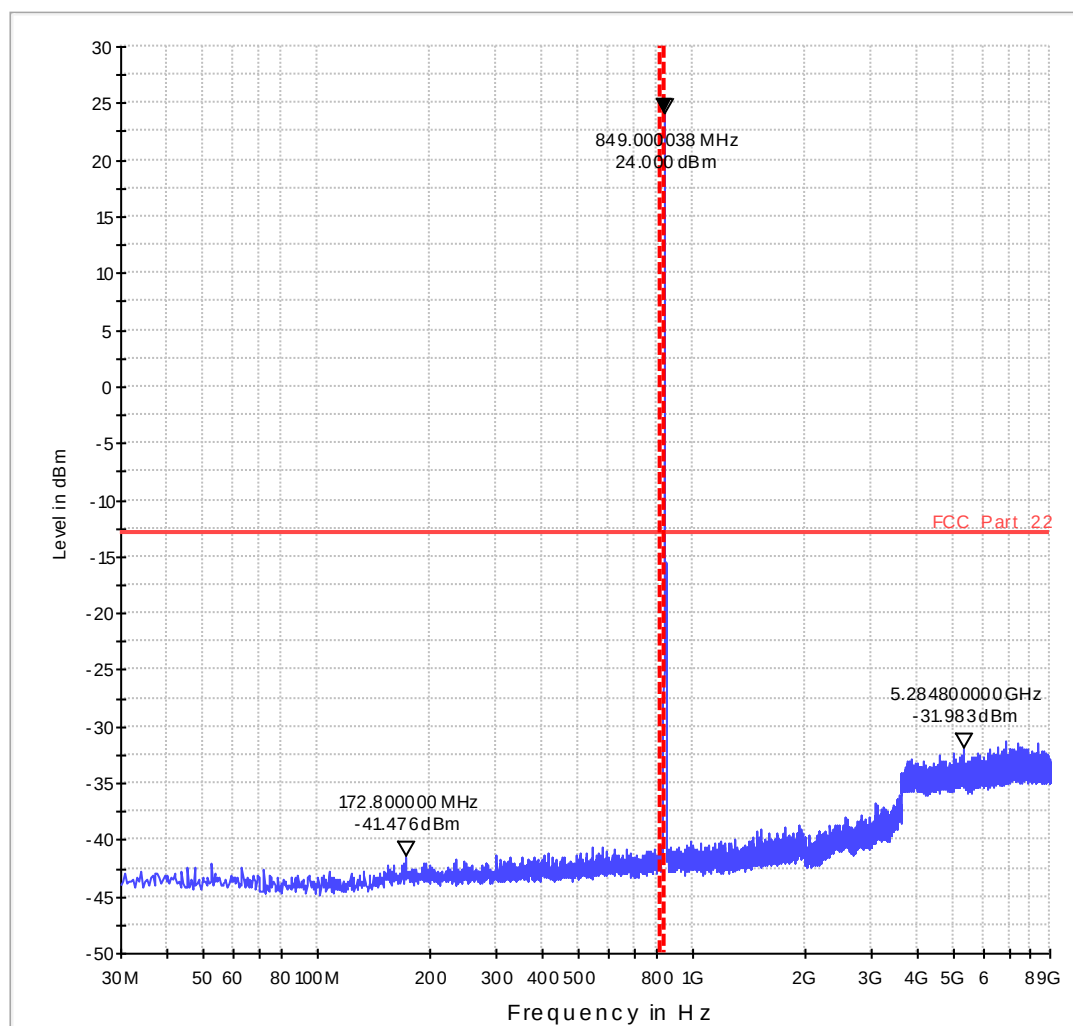
Diagram No.: 36.45_Ch4233_RMC_Sweep2**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - UMTS B5 (RMC), Channel 4233
Channel Bandwidth	--
Operator	MFr
Comment:	--

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

Fula2_FCC_22_Scan2_30MHz_9GHz



1.13. Conducted emissions on FDD Band II band-edge**Diagram No.: 37.60_BE_Ch9262_RMC_PK****Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9262
Channel Bandwidth	--
Operator	Lor
Comment:	--

Fula2_FCC_24_BE_LOW_9262

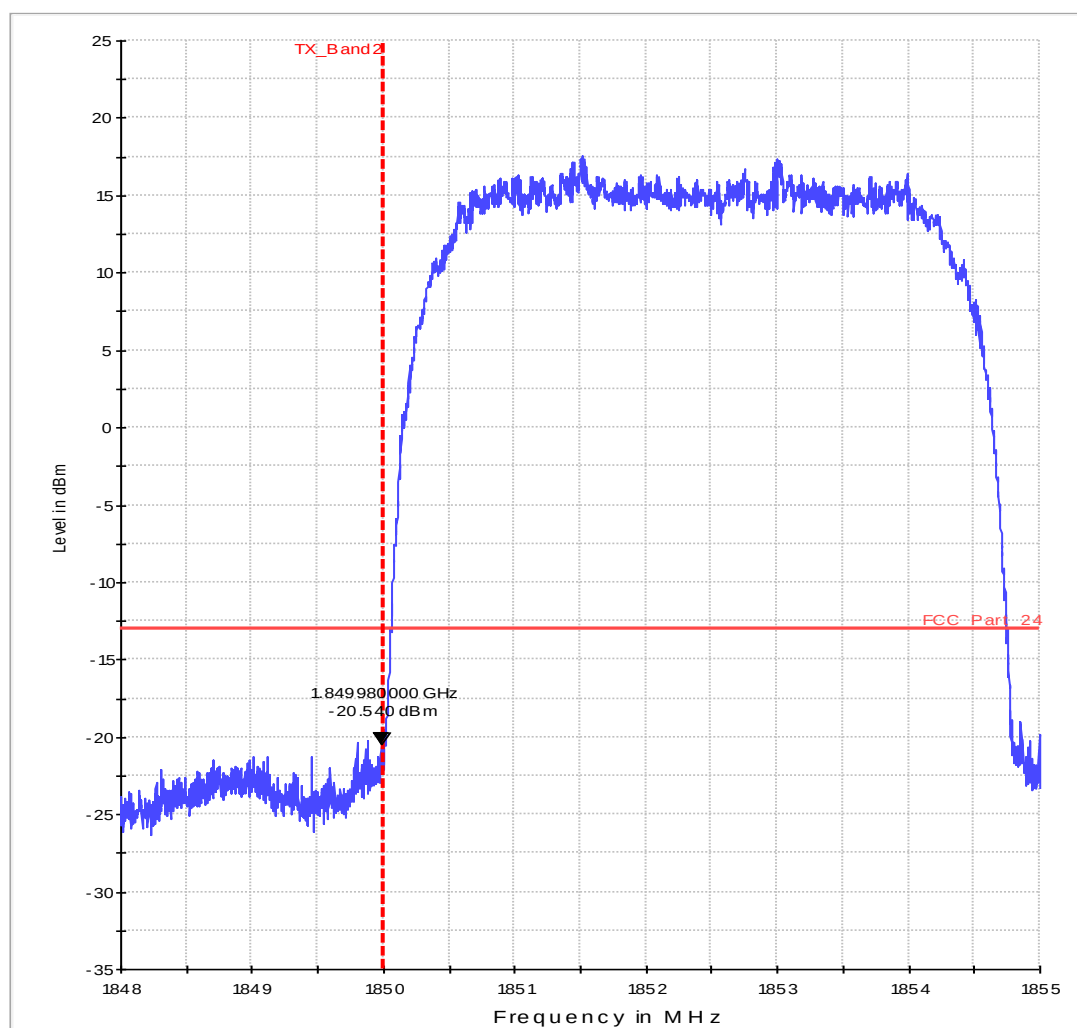
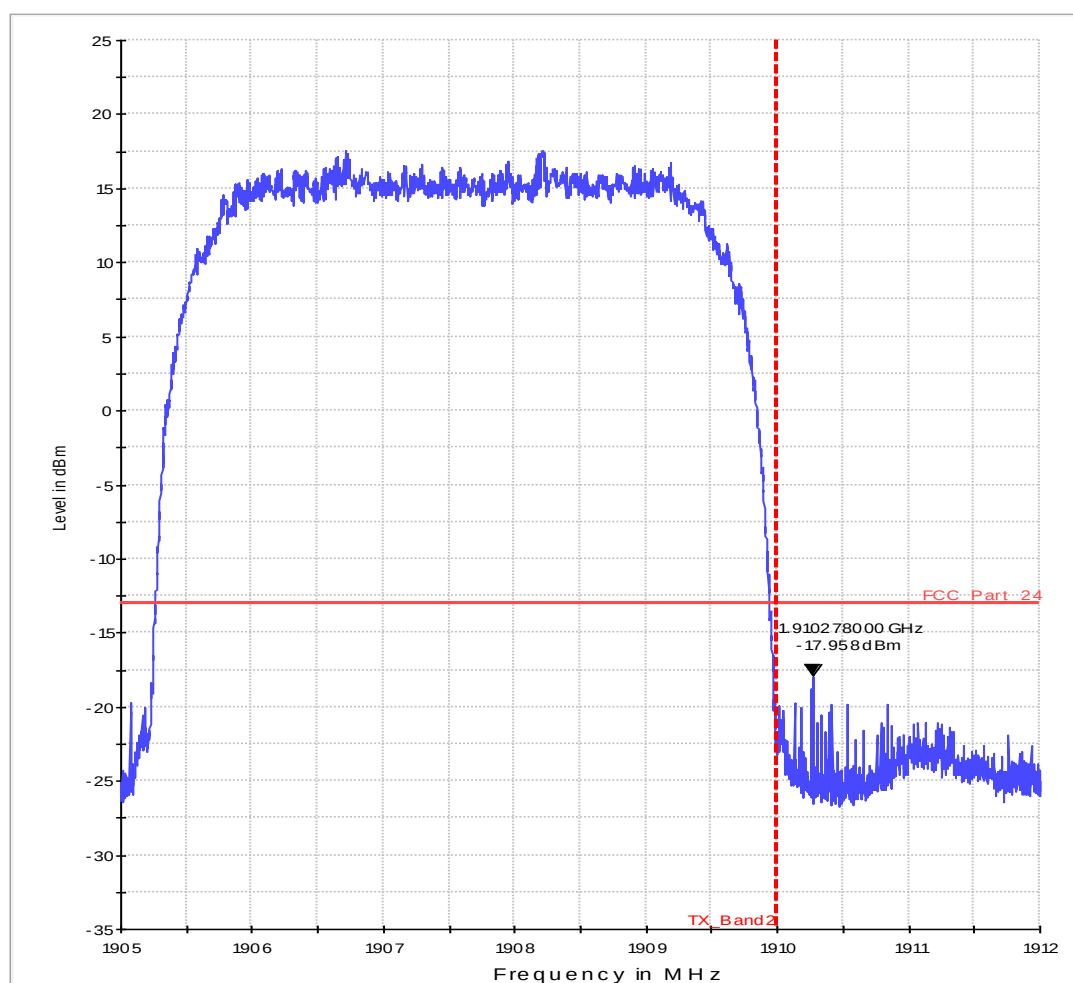


Diagram No.: 37.61_BE_Ch9538_RMC_PK**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 24 / RSS-133, Issue 6
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B2 (RMC), Channel 9538
Channel Bandwidth	--
Operator	Lor
Comment:	--

Fula2_FCC_24_BE_High_9538



1.14. Conducted emissions on FDD Band IV band-edge**Diagram No.: 37.70_BE_Ch1312_RMC_PK****Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1312
Channel Bandwidth	--
Operator	Lor
Comment:	--

Fula2_FCC_27_BE_Low_1312

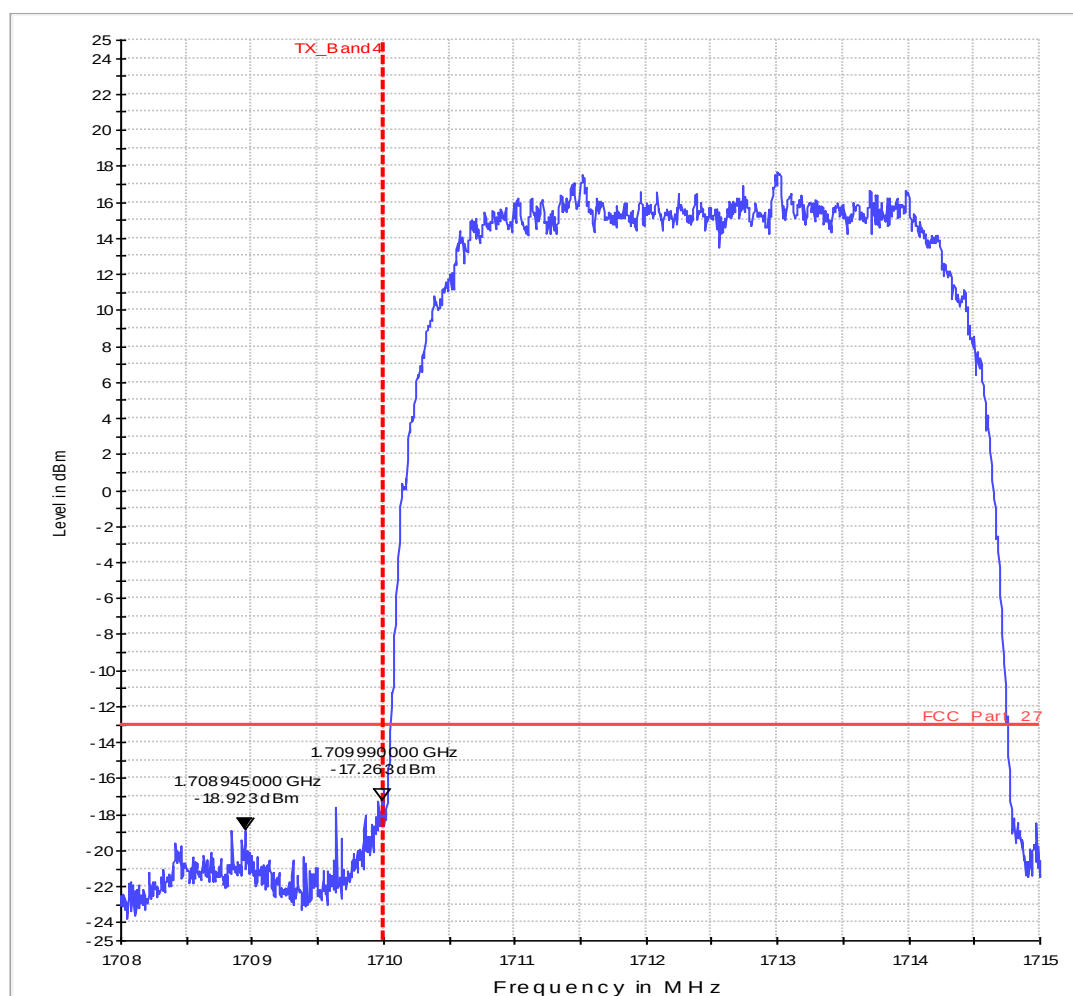
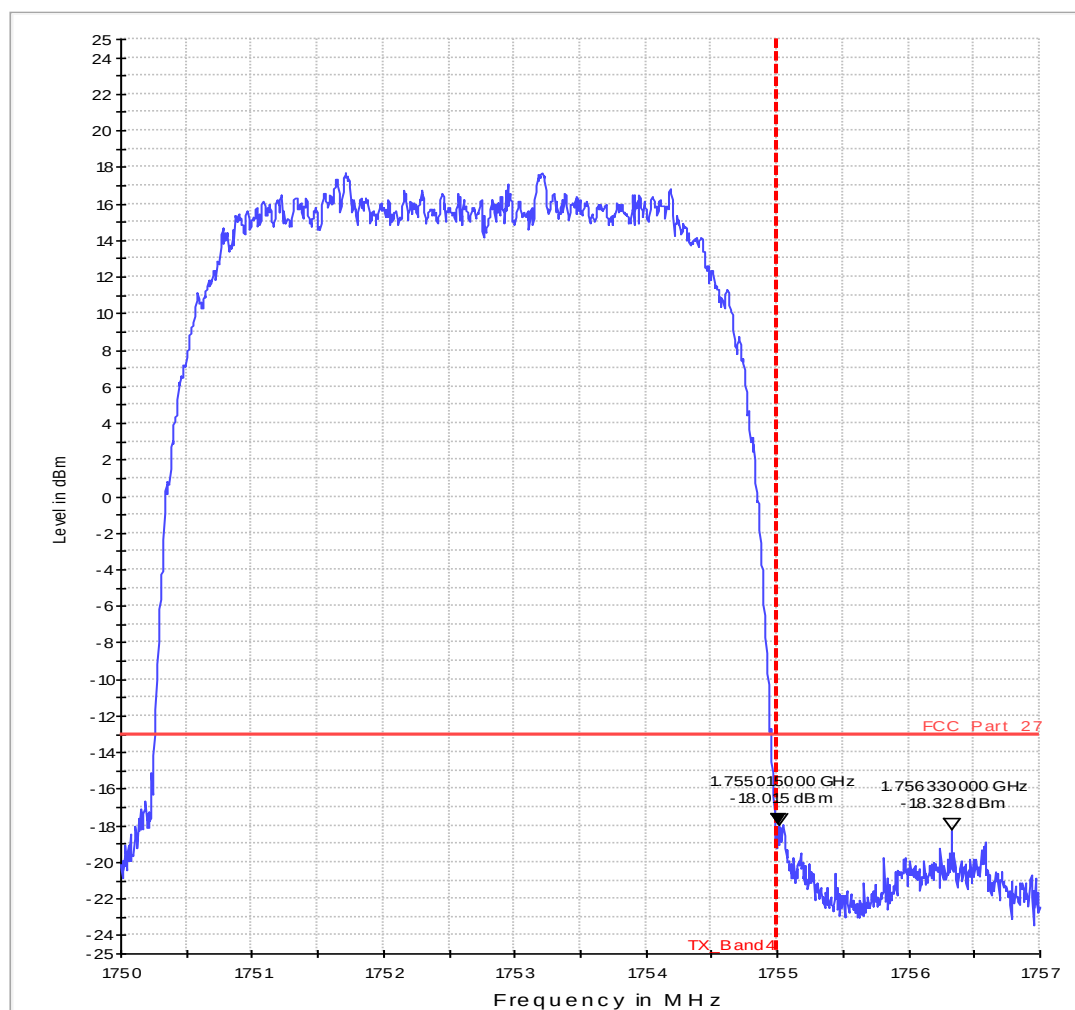


Diagram No.: 37.71_BE_Ch1513_RMC_PK**Common Information**

Test Description:	TX Spurious Emission Conducted S2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 27 / RSS-139, Issue 2
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - FDD B4 (RMC), Channel 1513
Channel Bandwidth	--
Operator	Lor
Comment:	--

Fula2_FCC_24_BE_High_1513



1.15. Conducted emissions on FDD Band V band-edge**Diagram No.: 37.40_BE_Ch4132_RMC_PK****Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - UMTS B5 (RMC), Channel 4132
Channel Bandwidth	--
Operator	Lor
Comment:	--

Fula2_FCC_22_BE_LOW_4132

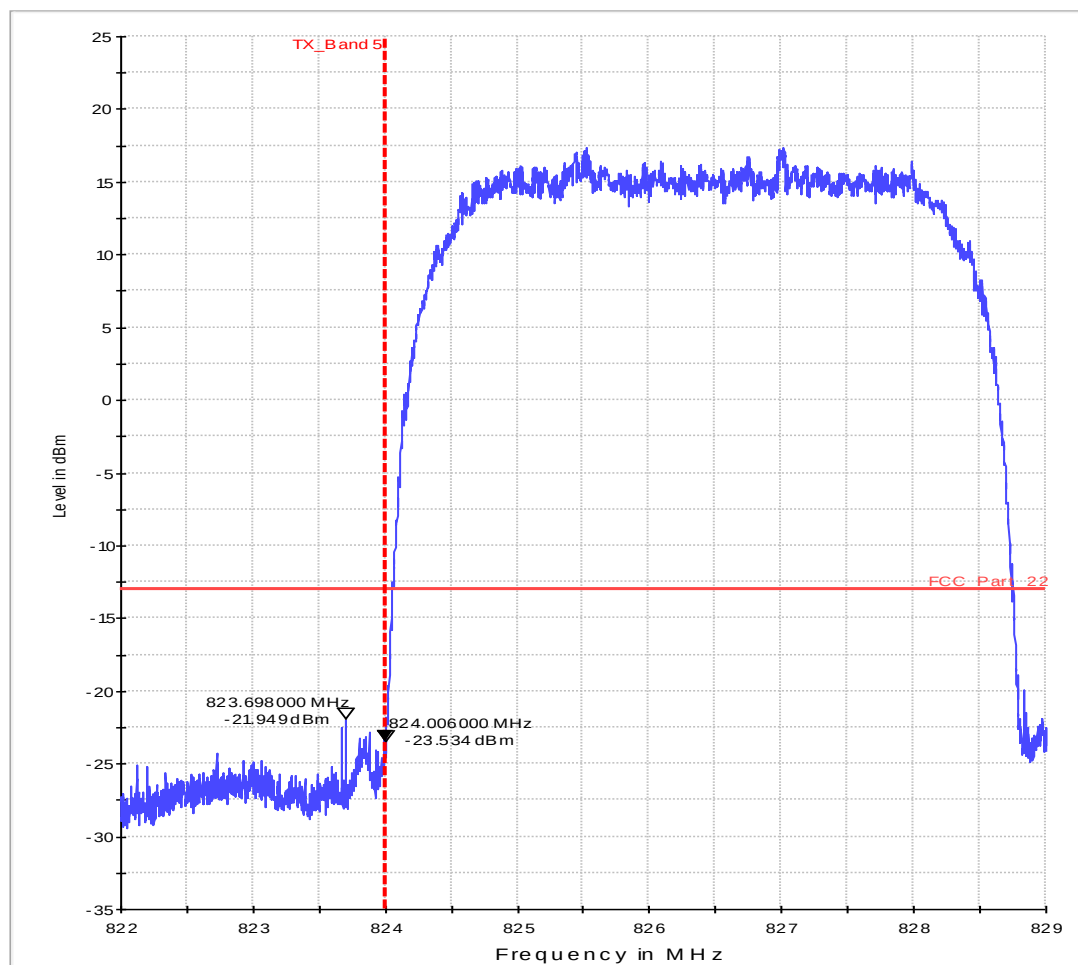
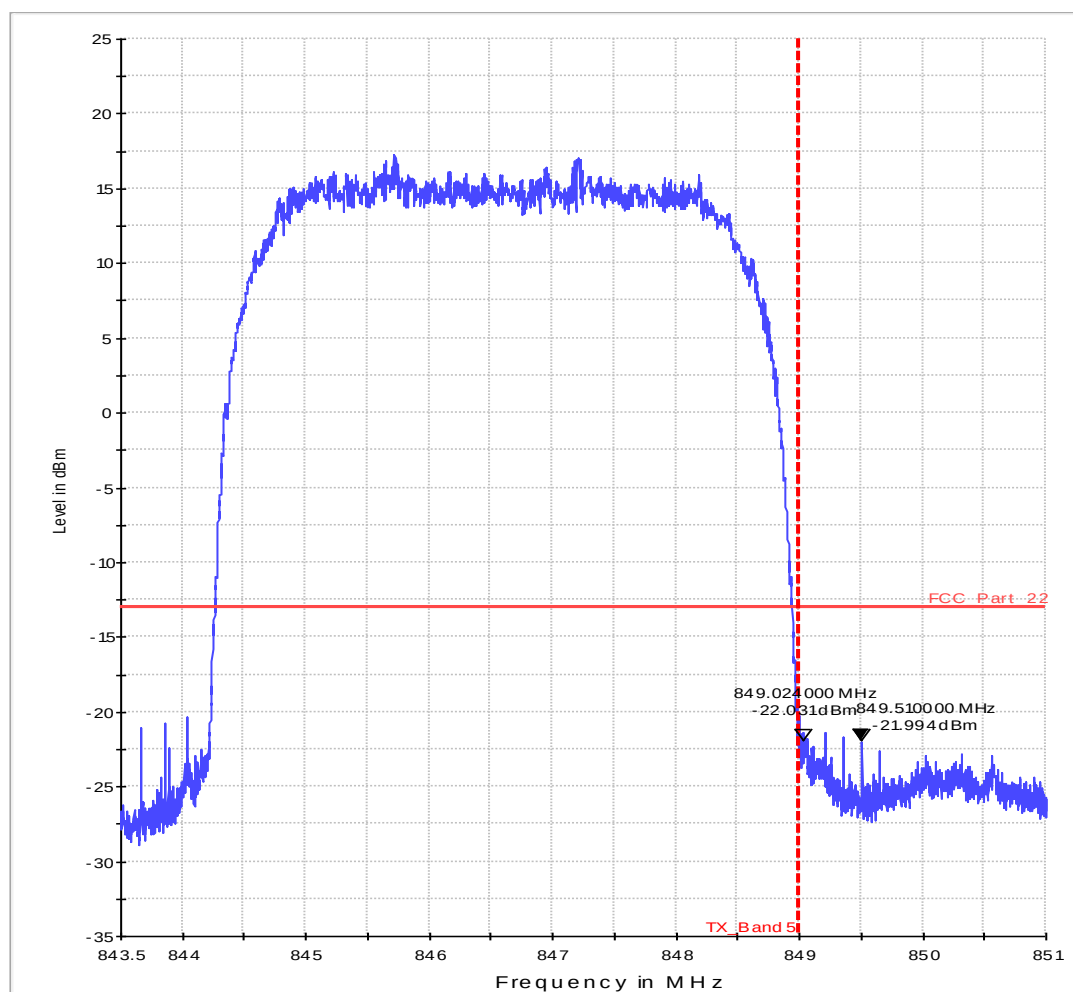


Diagram No.: 37.41_BE_Ch4233_RMC_PK**Common Information**

Test Description:	TX Spurious Emission Conducted §2.1051
Test Site:	Radio laboratory 2
Test Standard:	FCC Part 22 / RSS-132, Issue 3
SW-Version:	EMC32 V8.53.0
Operation mode:	TX - UMTS B5 (RMC), Channel 4233
Channel Bandwidth	--
Operator	Lor
Comment:	--

Fula2_FCC_22_BE_High_4233



1.16. Magnetic field strength measurements (f<30MHz) accord. Part 15, Subpart C

1.16.1. FDD Band 2

Diagram No. 2.16_Ch9262_FDDII

Date:	22.03.2015	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209 / RSS-Gen: Issue 4	
Operator:	Lor	
Operating conditions:	WCDMA FDD II RMC TX, ch 9262	
Power during tests:	12V DC	
Comment 1:		
Comment 2:		

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

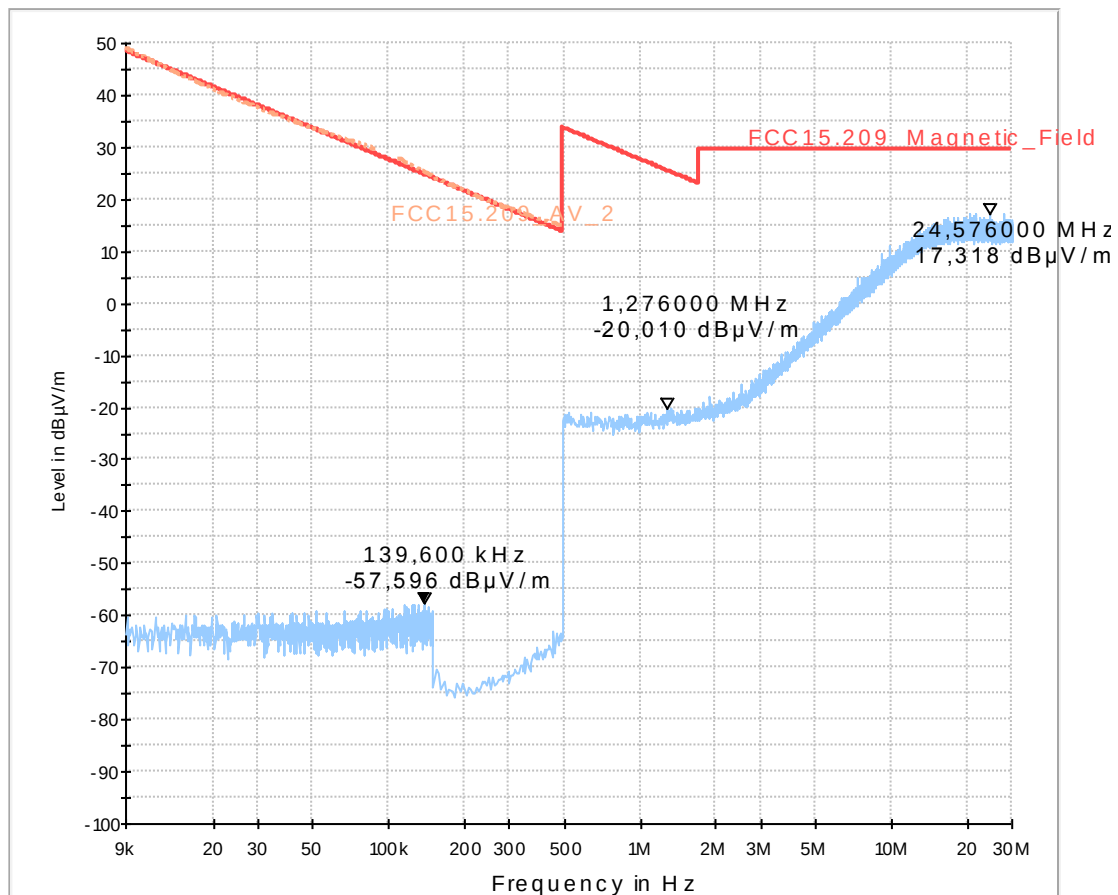


Diagram No. 2.17_Ch9400_FDDII

Date:	22.03.2015	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209 / RSS-Gen: Issue 4	
Operator:	Lor	
Operating conditions:	WCDMA FDD II RMC TX, ch 9400	
Power during tests:	12V DC	
Comment 1:		
Comment 2:		

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

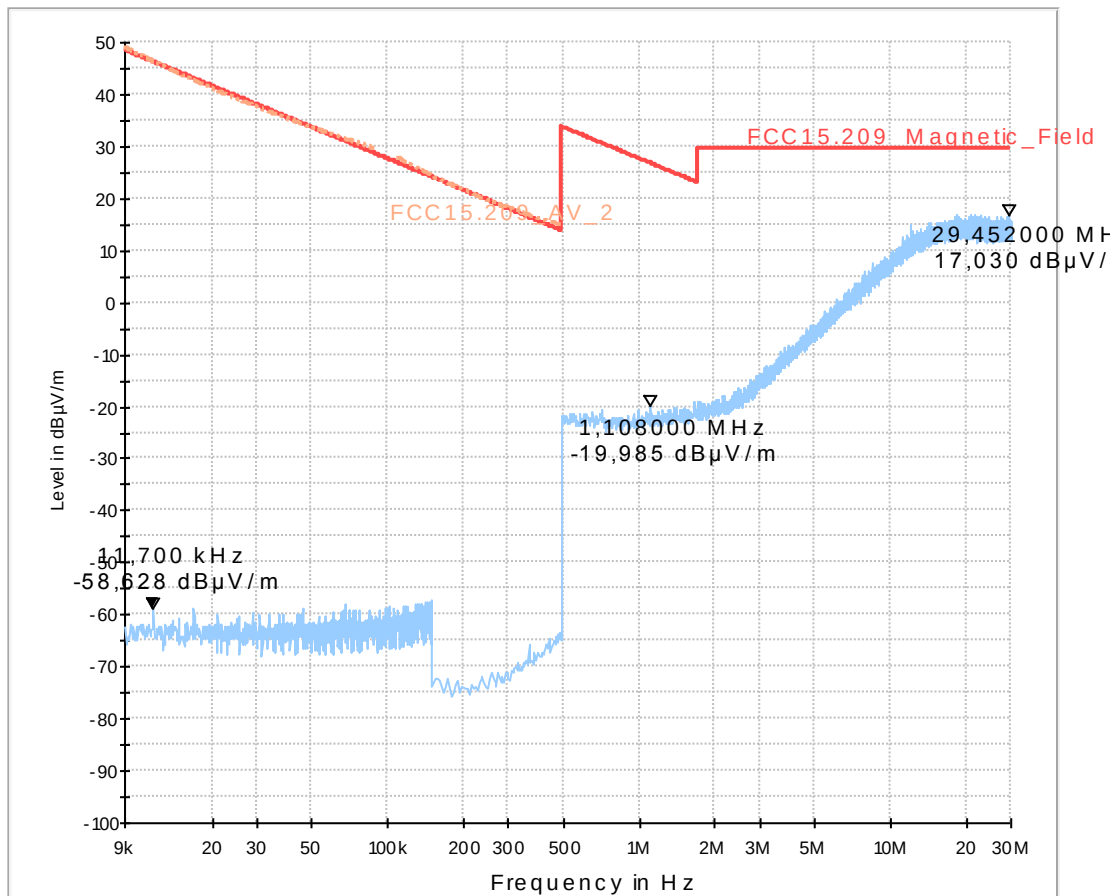
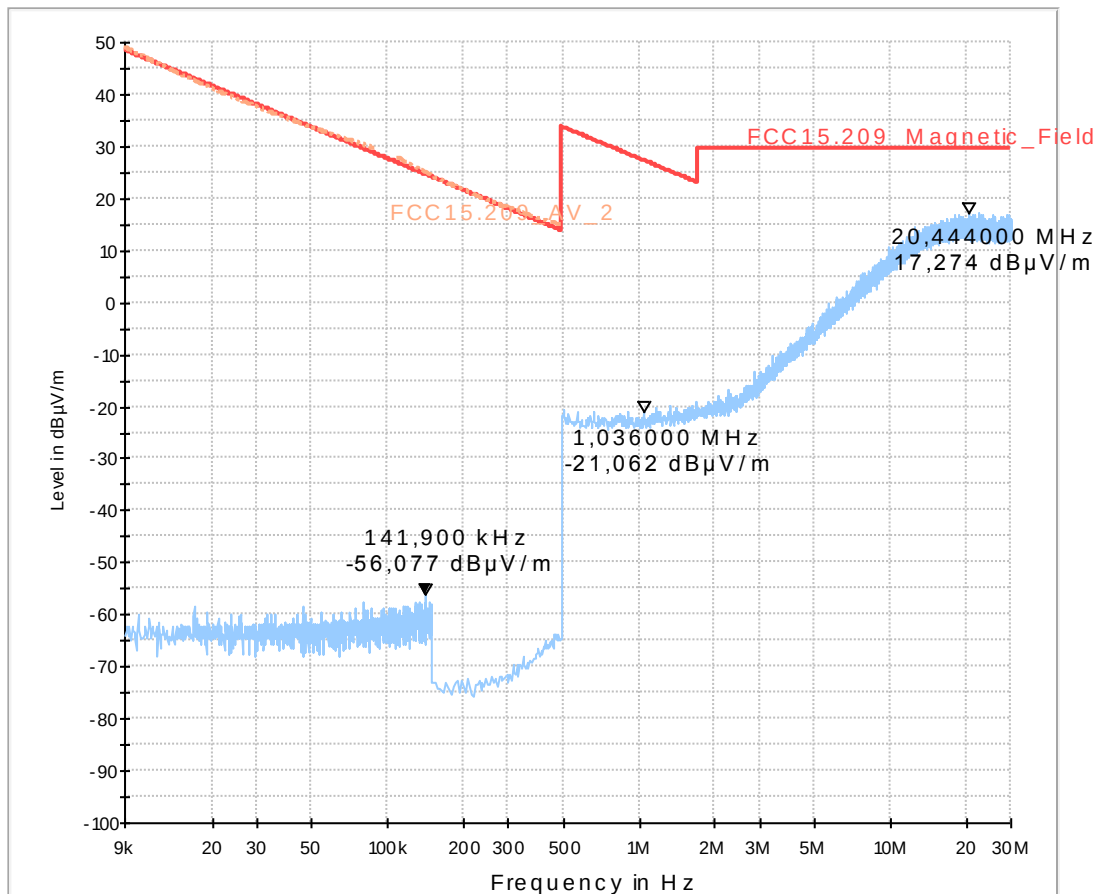


Diagram No. 2.18_Ch9538_FDDII

Date:	22.03.2015	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209 / RSS-Gen: Issue 4	
Operator:	Lor	
Operating conditions:	WCDMA FDD II RMC TX, ch 9538	
Power during tests:	12V DC	
Comment 1:		
Comment 2:		

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--



1.16.2. FDD Band 4

Diagram No. 2.10_Ch1312_FDD4

Test description:	Date: 21.03.2015 Page 1 of 1
Test site and distance:	Magnetic Field Strength Measurement related to 30/300 m distance
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V8.51.0
Technical Data:	used accord. table, pls. see test report
Rec. antenna (pre-scan):	Please see page 2 for detailed data of measurement setup
Used filter:	height 1.00 m, parallel and 90° to EUT polarisation
Test specification:	bypass
	FCC 15.205 § 15.209 / RSS-Gen: Issue 4
Operator:	Lor
Operating conditions:	WCDMA FDD IV RMC, ch 1312
Power during tests:	12V DC on DSB75
Comment 1:	

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

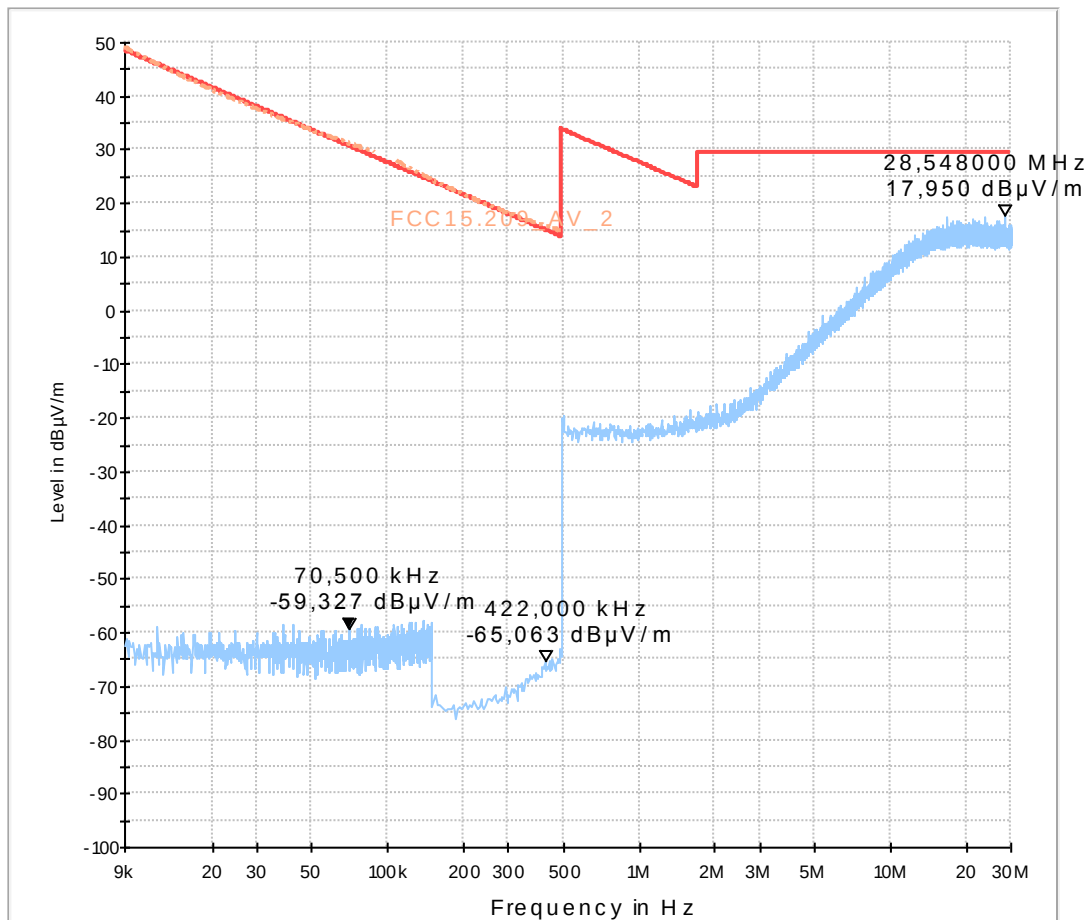


Diagram No. 2.11_Ch1450_FDD4

Date:	21.03.2015	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209 / RSS-Gen: Issue 4	
Operator:	Lor	
Operating conditions:	WCDMA FDD IV RMC, ch 1450	
Power during tests:	12V DC on DSB75	
Comment 1:		

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

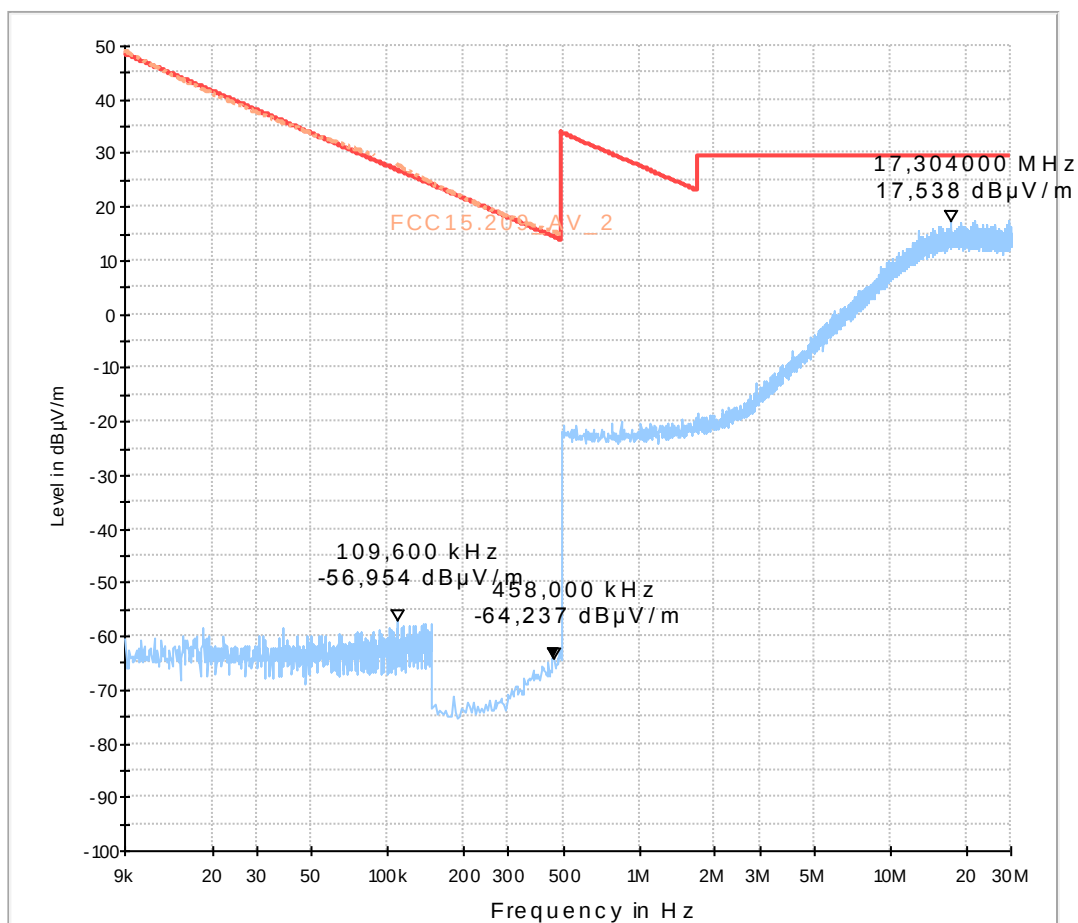
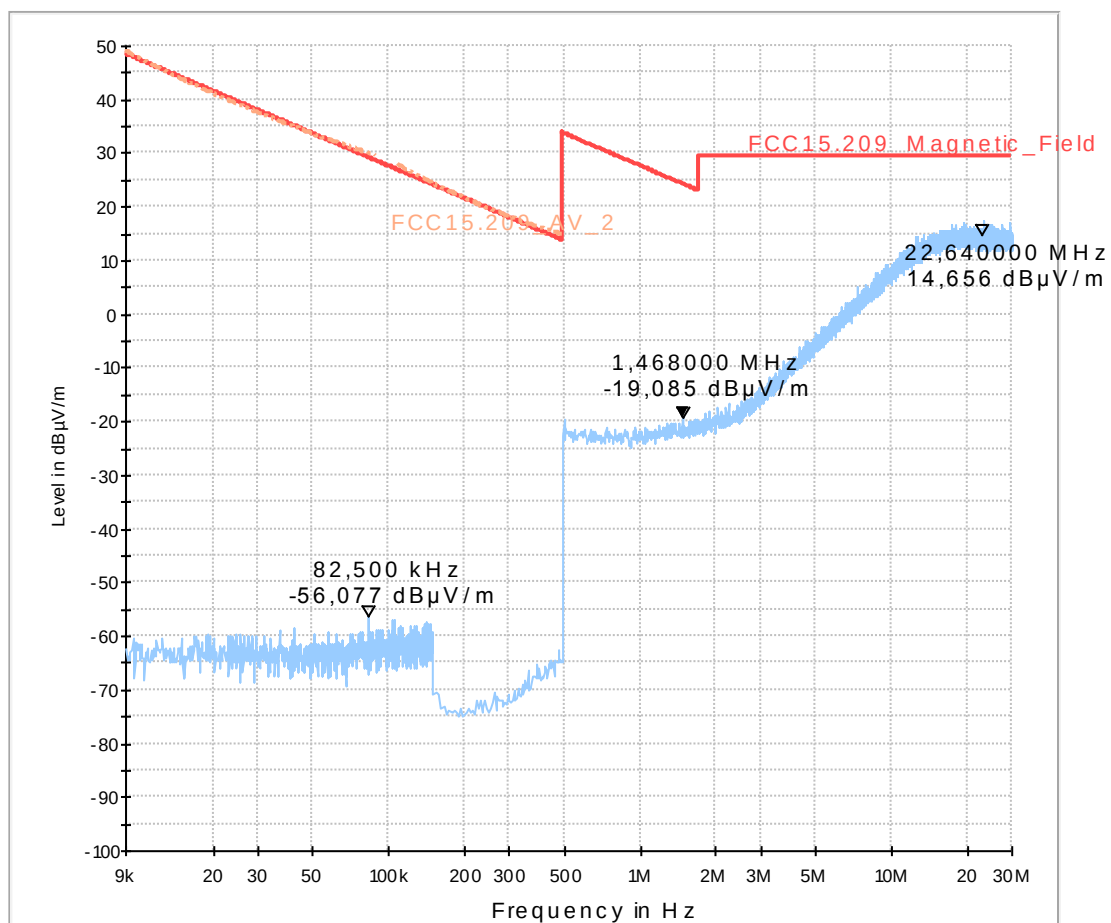


Diagram No. 2.12_Ch1513_FDD4

Date:	21.03.2015	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209 / RSS-Gen., Issue 4	
Operator:	Lor	
Operating conditions:	WCDMA FDD IV RMC, ch 1513	
Power during tests:	12V DC	
Comment 1:		

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--



1.16.3. FDD Band 5

Diagram No. 2.13_Ch4132_FDDV

Test description:	Date: 21.03.2015 Page 1 of 1
Test site and distance:	Magnetic Field Strength Measurement related to 30/300 m distance
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V8.51.0
Technical Data:	used accord. table, pls. see test report
Rec. antenna (pre-scan):	Please see page 2 for detailed data of measurement setup
Used filter:	height 1.00 m, parallel and 90° to EUT polarisation
Test specification:	bypass
	FCC 15.205 § 15.209 / RSS-Gen., Issue 4
Operator:	Lor
Operating conditions:	WCDMA FDD V RMC TX, ch 4132
Power during tests:	12V DC
Comment 1:	

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

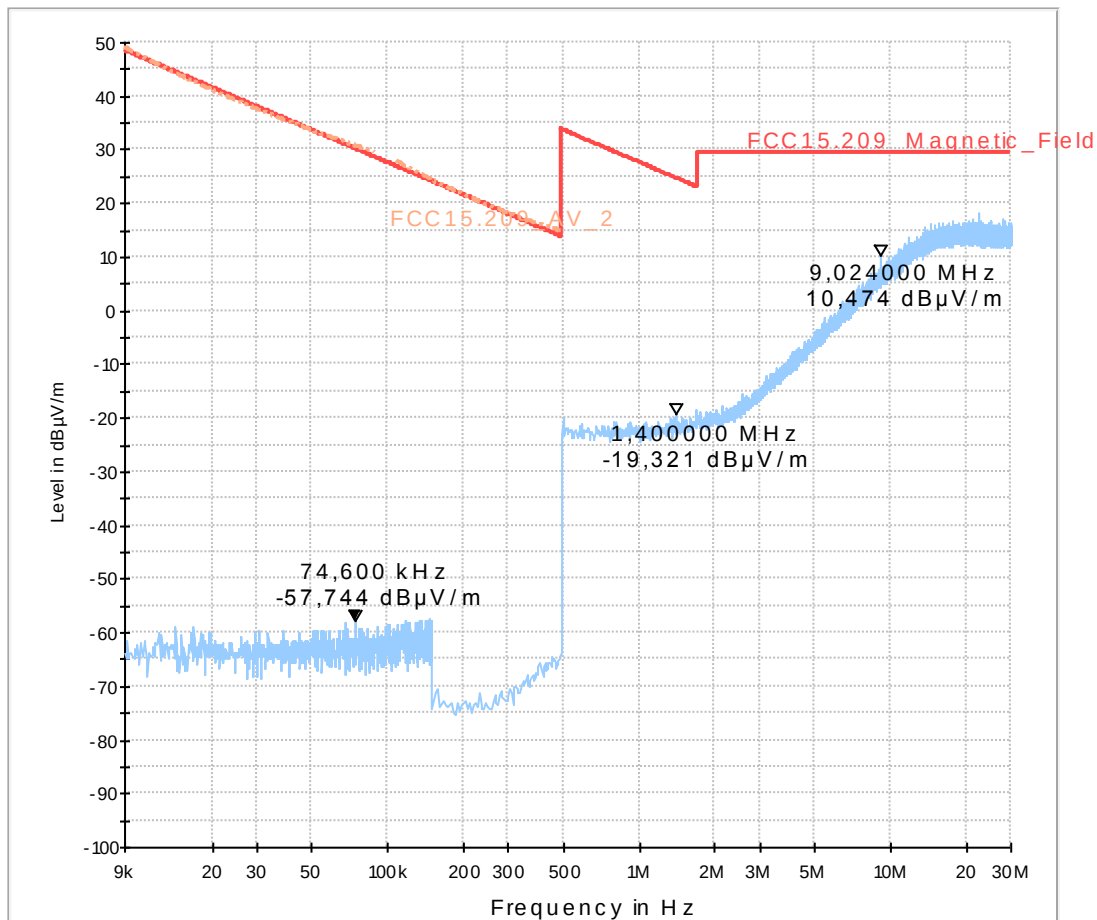


Diagram No. 2.14_Ch4183_FDDV

Date:	21.03.2015	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209 / RSS-Gen., Issue 4	
Operator:	Lor	
Operating conditions:	WCDMA FDD V RMC TX, ch 4183	
Power during tests:	12V DC	
Comment 1:		

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

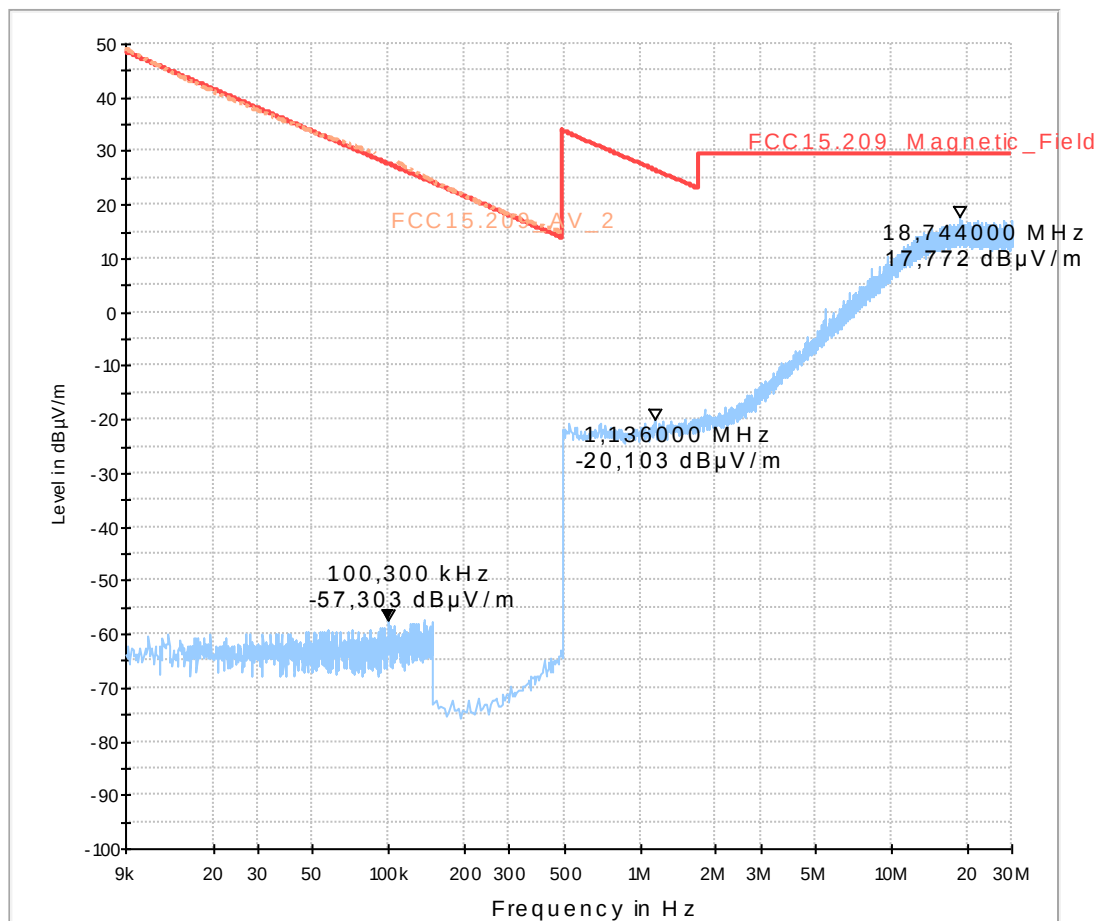


Diagram No. 2.15_Ch4233_FDDV

Date:	21.03.2015	Page 1 of 1
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Testsoftware:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209 / RSS-Gen., Issue 4	
Operator:	Lor	
Operating conditions:	WCDMA FDD V RMC TX, ch 4233	
Power during tests:	12V DC	
Comment 1:		

EUT Information

EUT Name:	WMC0534PX8 (d)
Manufacturer:	Gemalto
Serial Number:	#0044010814211345
Hardware Rev:	2.3
Software Rev:	02.502
Comment:	--

