

Annex 1: Measurement diagrams
to TEST REPORT
No.: 2-20773166b/09

According to:
FCC Regulations
Part 22 & Part 24
Part 15.209
IC Regulations
RSS-132
RSS-133
RSS-Gen

for
u-blox AG

Quad Band GSM/GPRS data and voice module LEON-G200
FCC-ID: XPYLEONG200





Laboratory Accreditation and Listings			
 Deutscher Akkreditierungs Rat DAT-P176/94-02	 FEDERAL COMMUNICATIONS COMMISSION USA Reg. No.: 99538 MRA US-EU 0003	 Industry Canada Reg. No.: 3462D-1 3462D-2	 Reg. No.: R-2665, R-2666 C-2914, T-339
accredited according to DIN EN ISO/IEC 17025			
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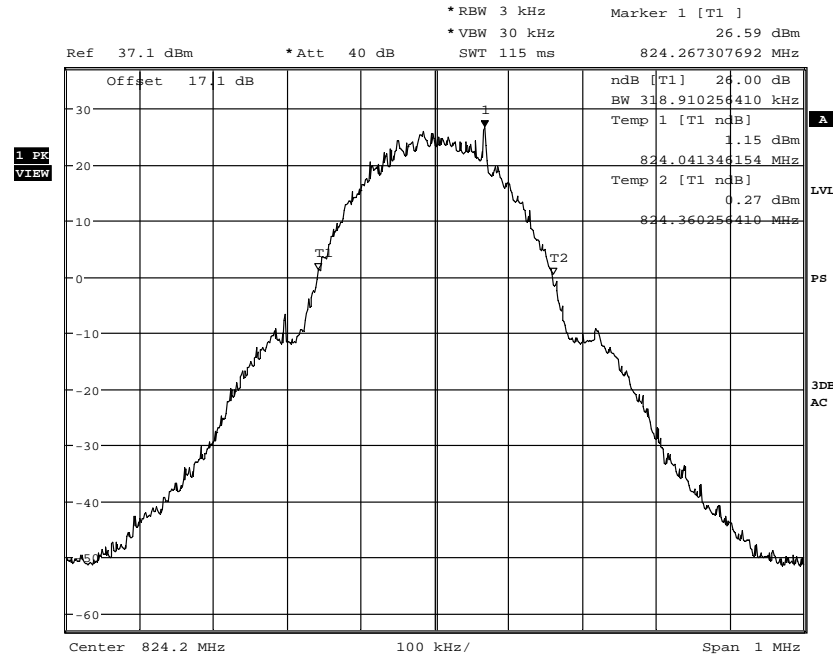
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1. Measurement diagrams

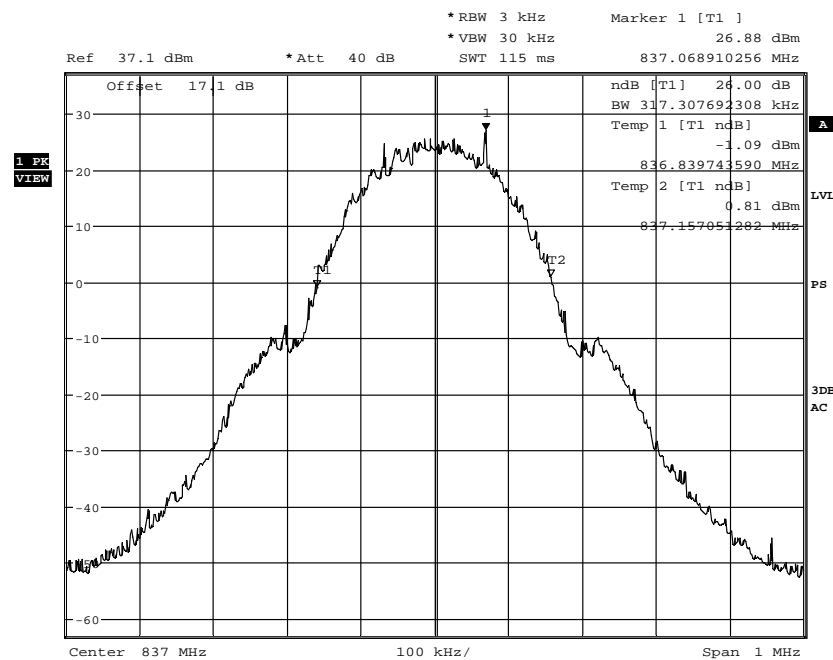
1.1. EMISSION BANDWIDTH

GSM 850



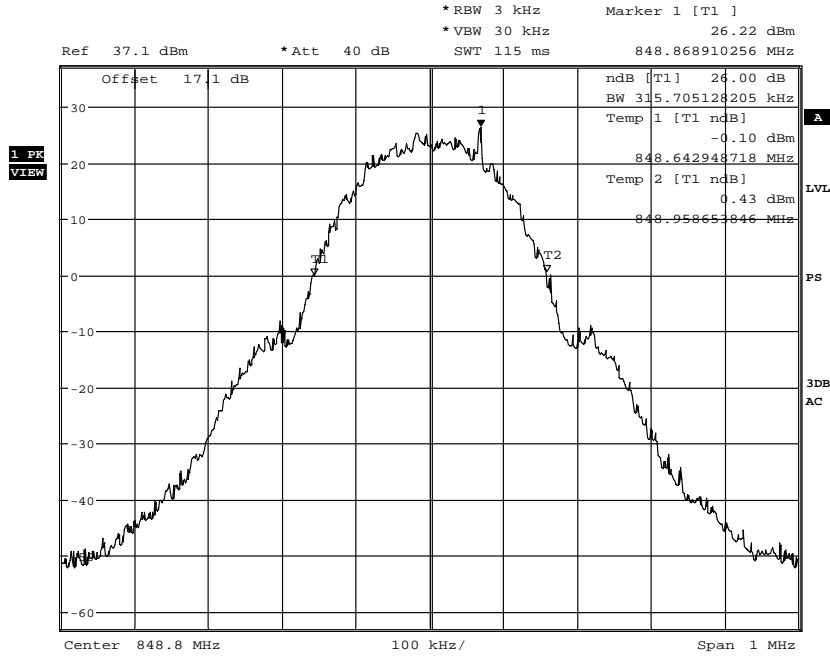
Date: 10.AUG.2009 13:24:26

Channel 128



Date: 10.AUG.2009 13:18:49

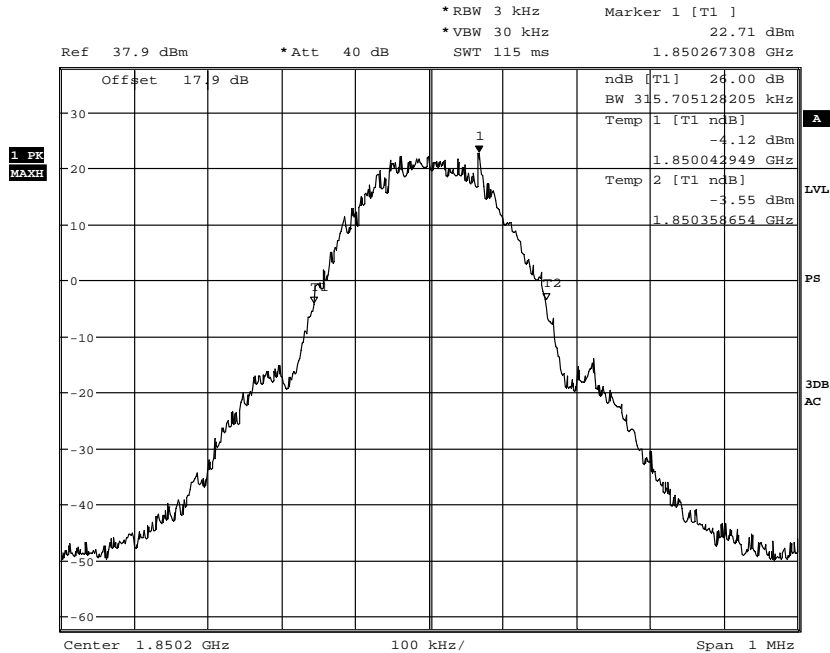
Channel 192



Date: 10.AUG.2009 13:15:31

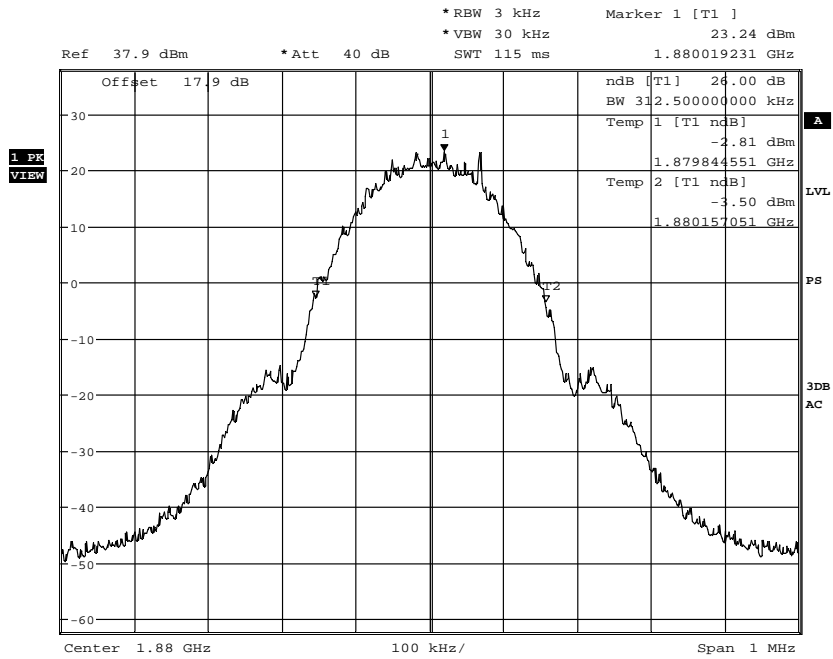
Channel 251

GSM 1900



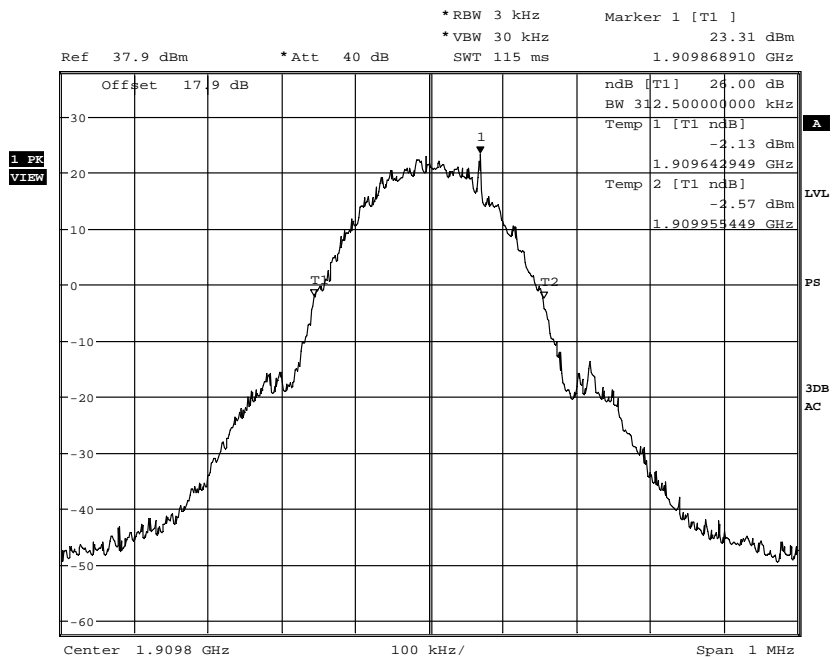
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Channel 512



Date: 10.AUG.2009 12:36:47

Channel 661

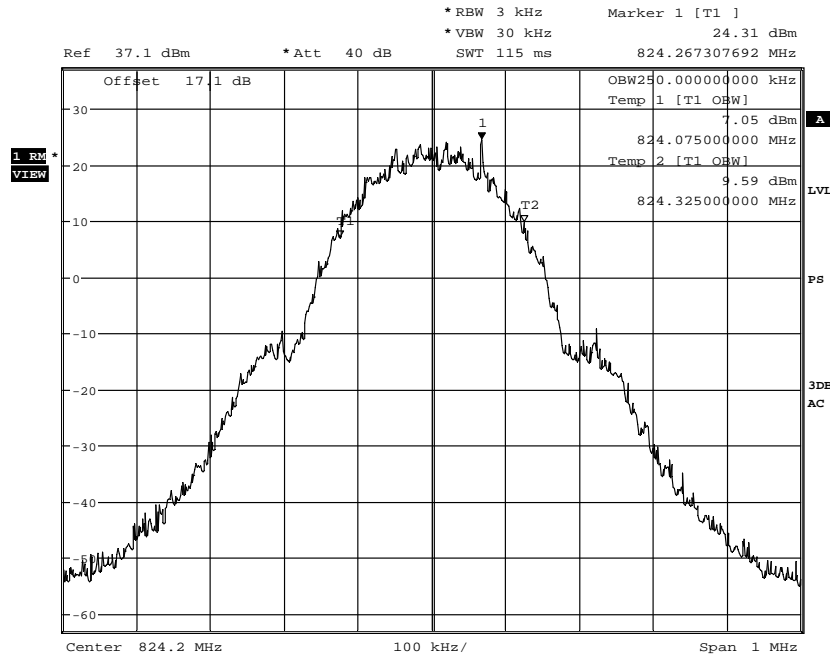


Date: 10.AUG.2009 12:33:24

Channel 810

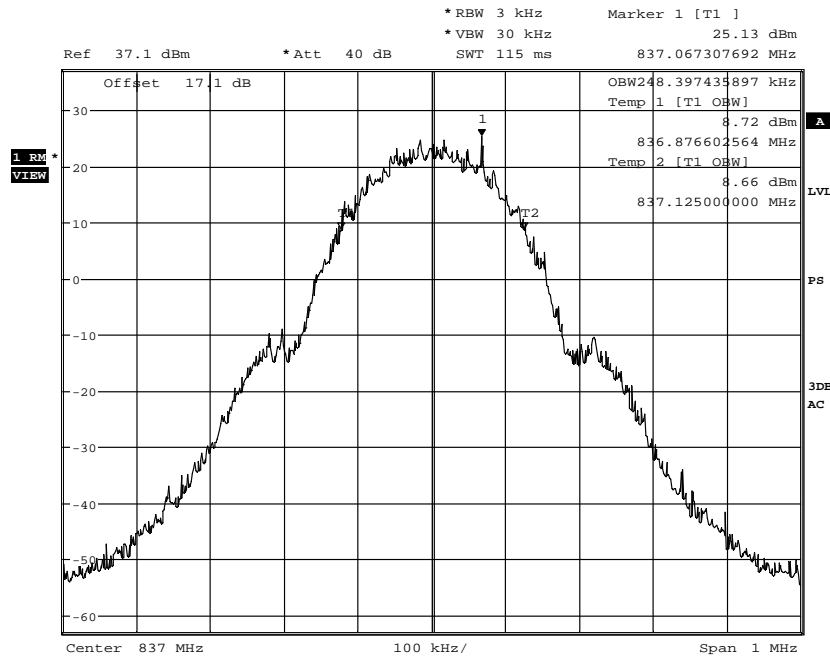
1.2. OCCUPIED 99% BANDWIDTH

GSM 850



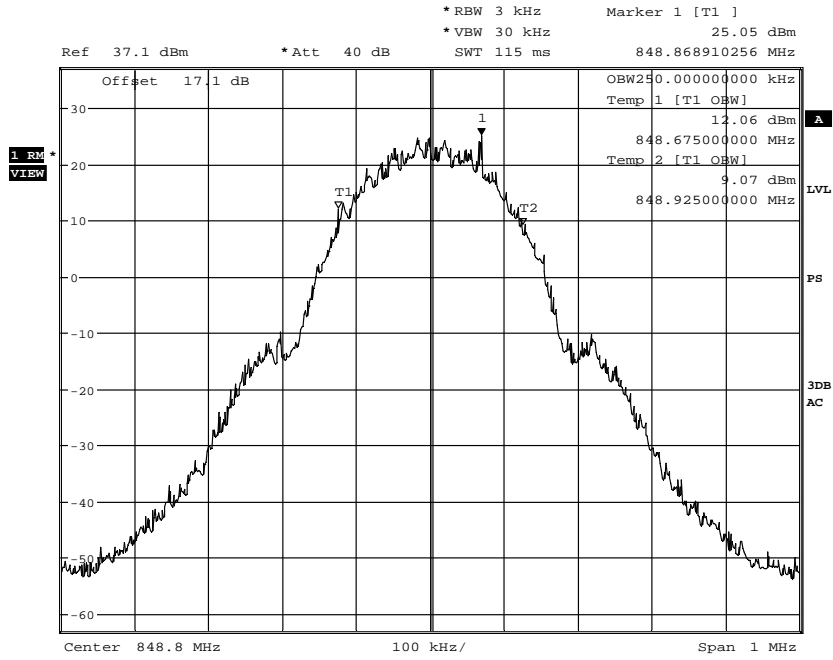
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Channel 128



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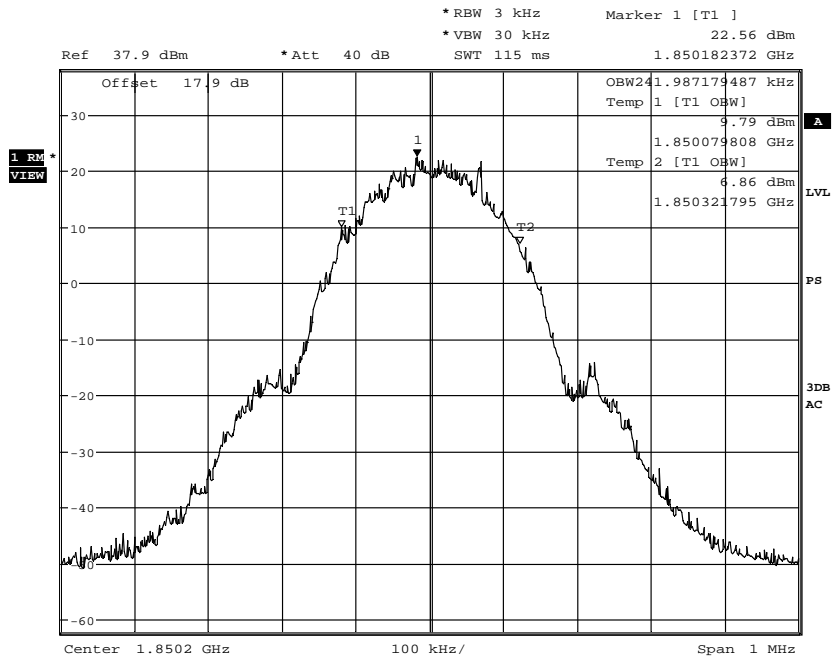
Channel 192



Date: 10.AUG.2009 13:33:56

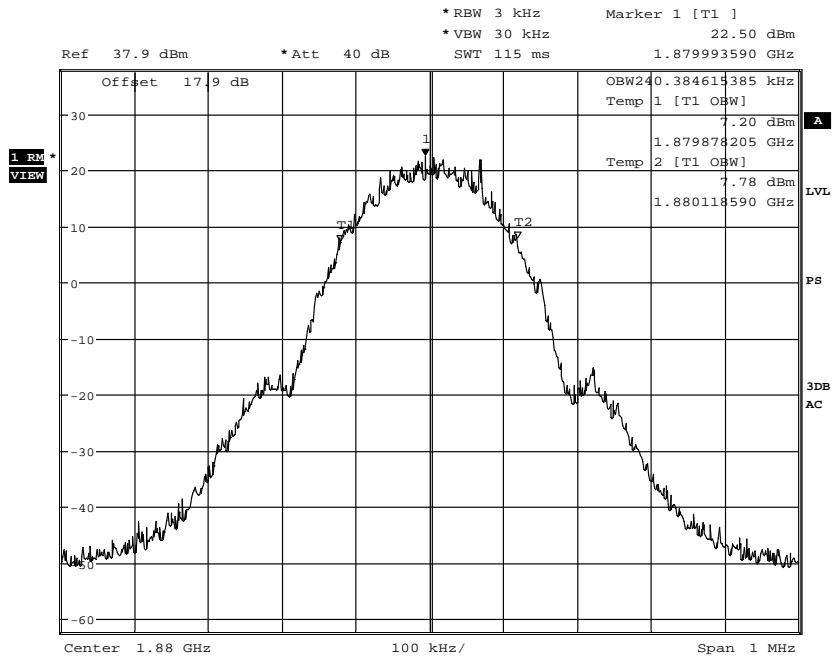
Channel 251

GSM 1900



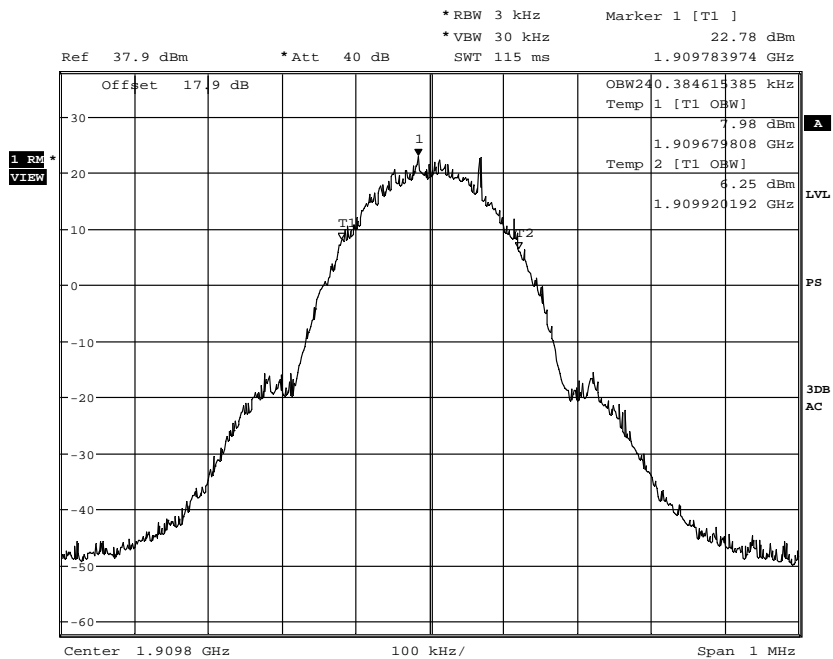
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Channel 512



Date: 10.AUG.2009 12:45:45

Channel 661

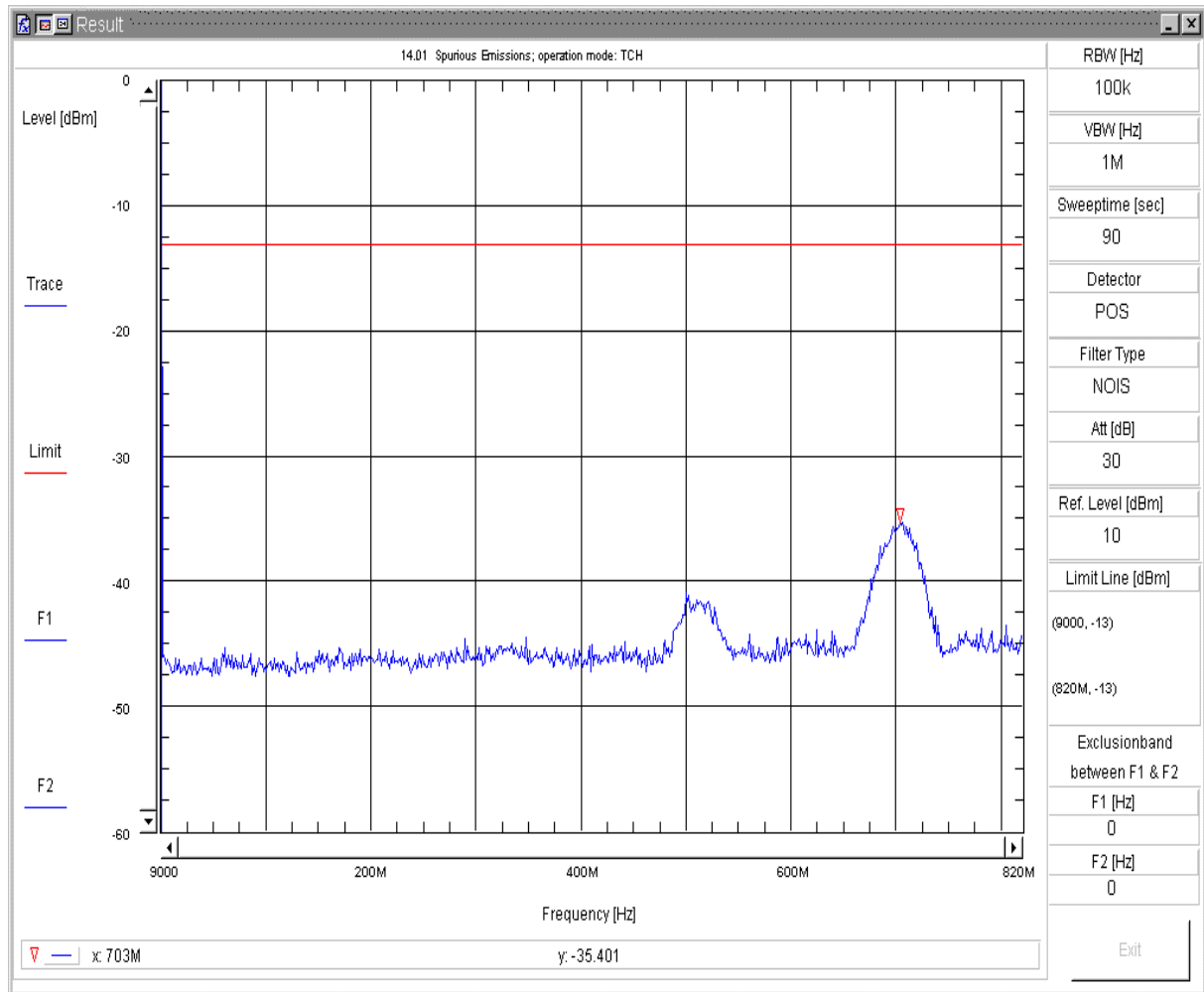


Date: 10.AUG.2009 12:50:55

Channel 810

1.3. SPURIOUS EMISSIONS CONDUCTED – GSM850 MODE

Diagrams - GSM 850 Mode

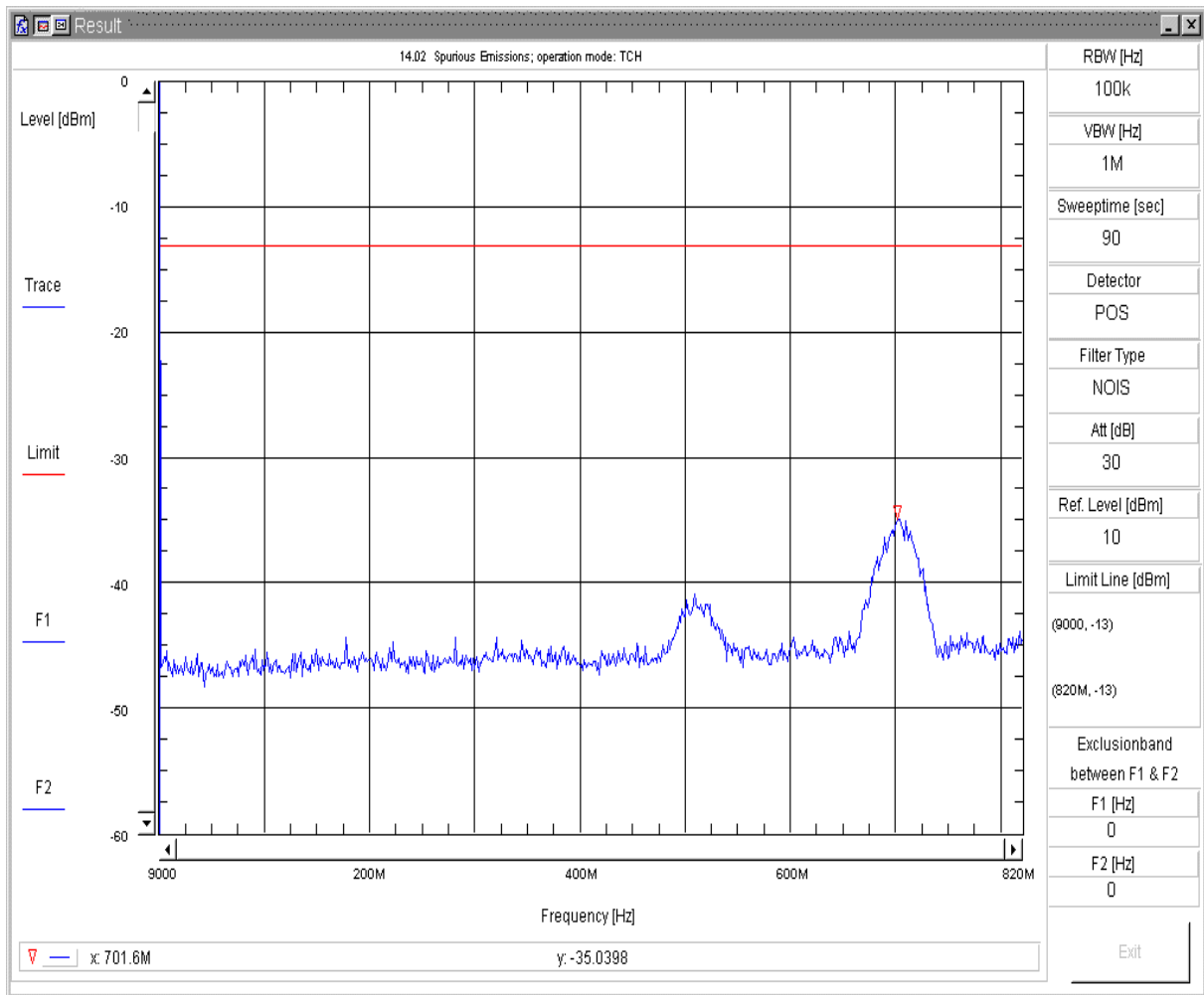


14.01 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 25.1 dBm / 25.1 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 512
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:24:010

Conducted Spurious Emissions V7.1.5

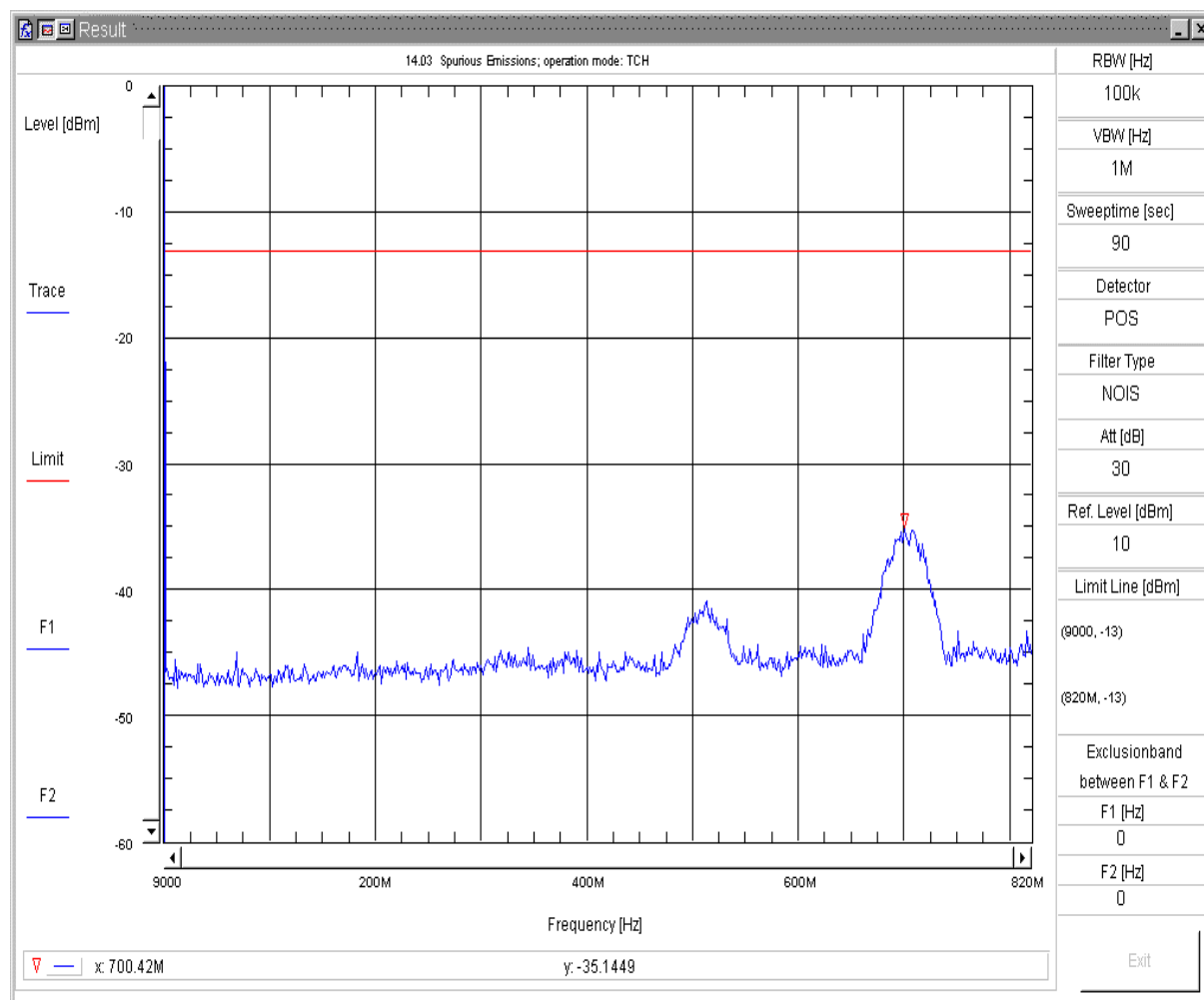


14.02 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 29.9 dBm / 29.9 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 192
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:51:380

Conducted Spurious Emissions V7.1.5

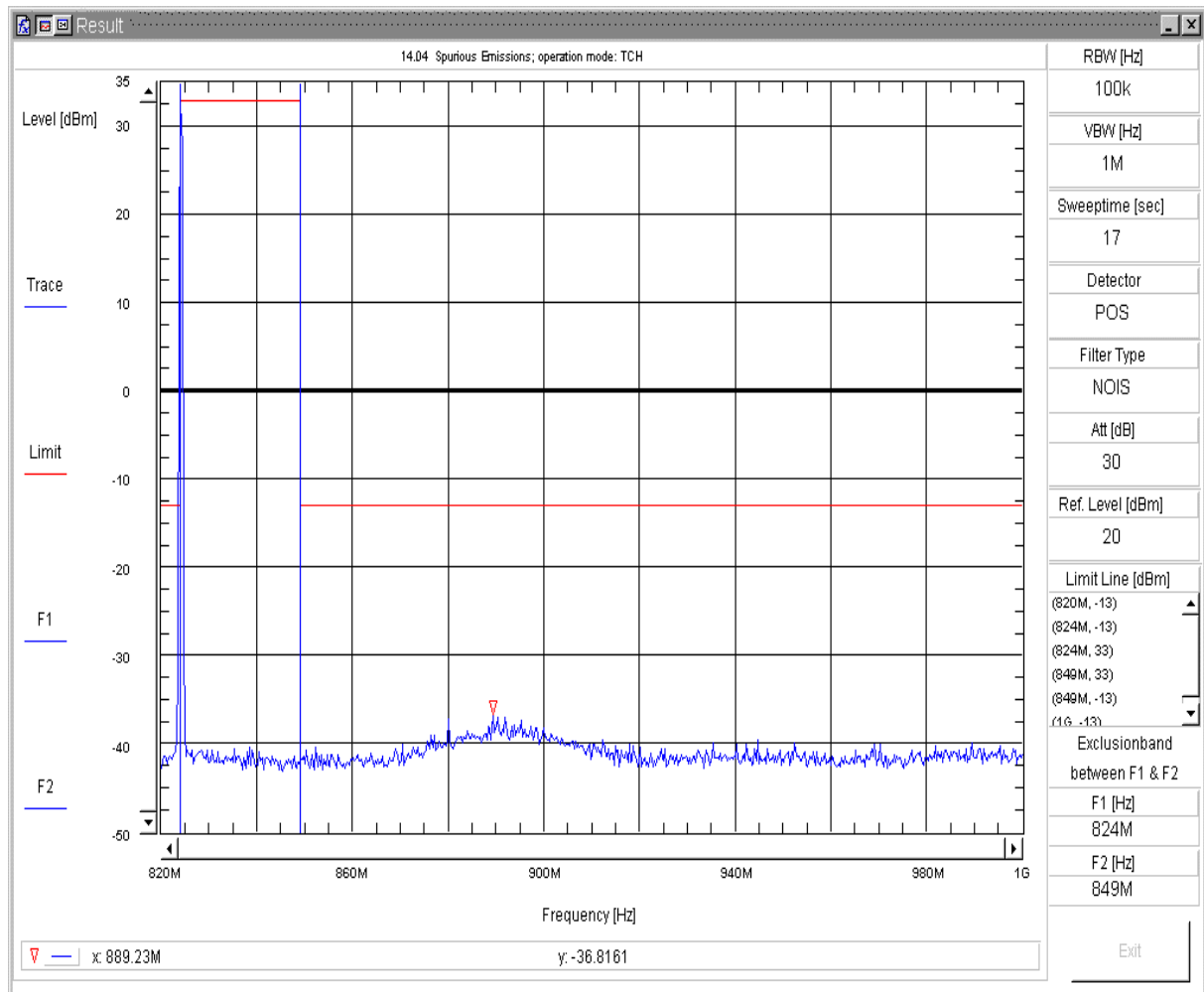


14.03 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 29.9 dBm / 29.9 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 251
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:49:020

Conducted Spurious Emissions V7.1.5

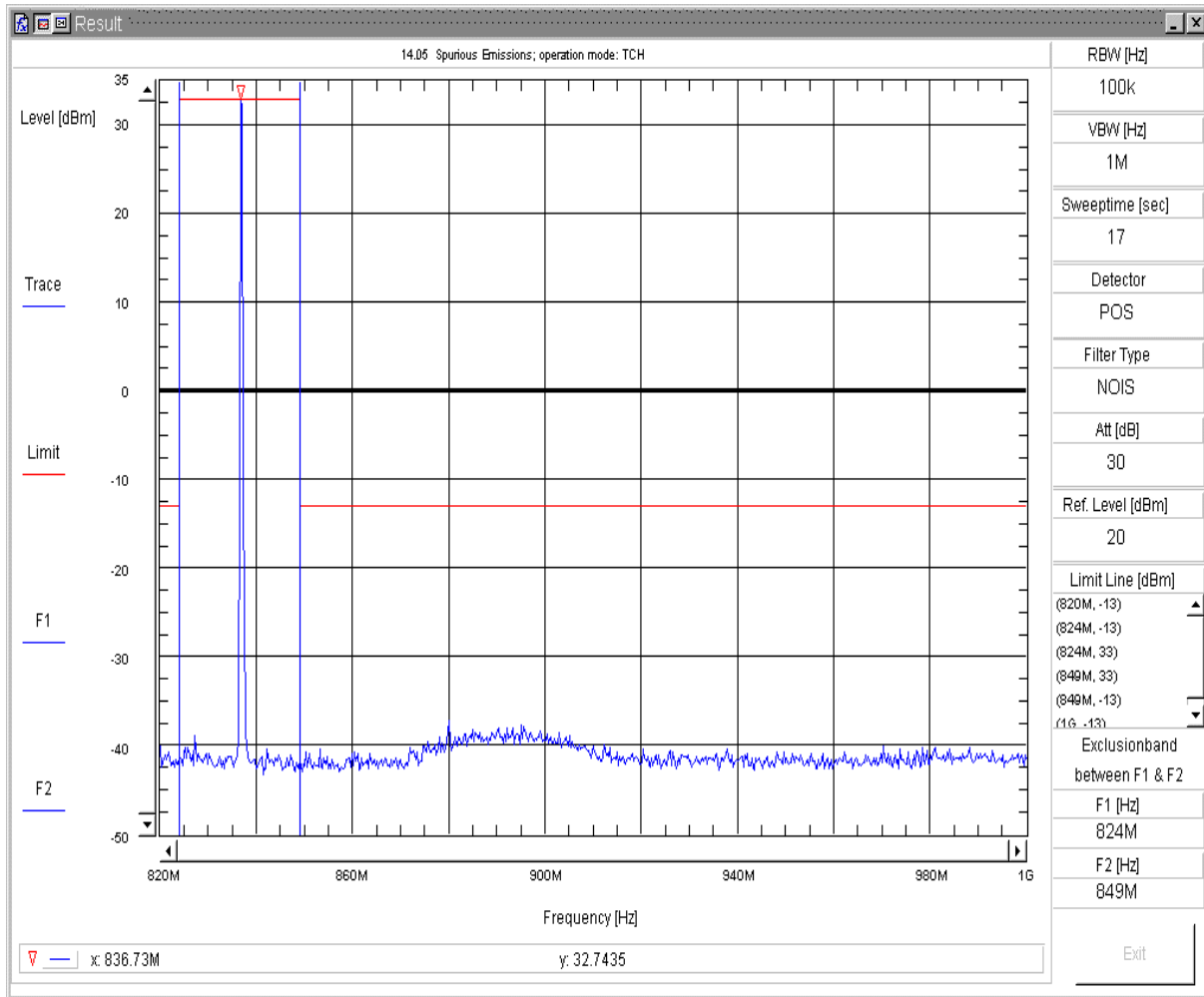


14.04 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 29.7 dBm / 29.7 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 512
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:32:510

Conducted Spurious Emissions V7.1.5

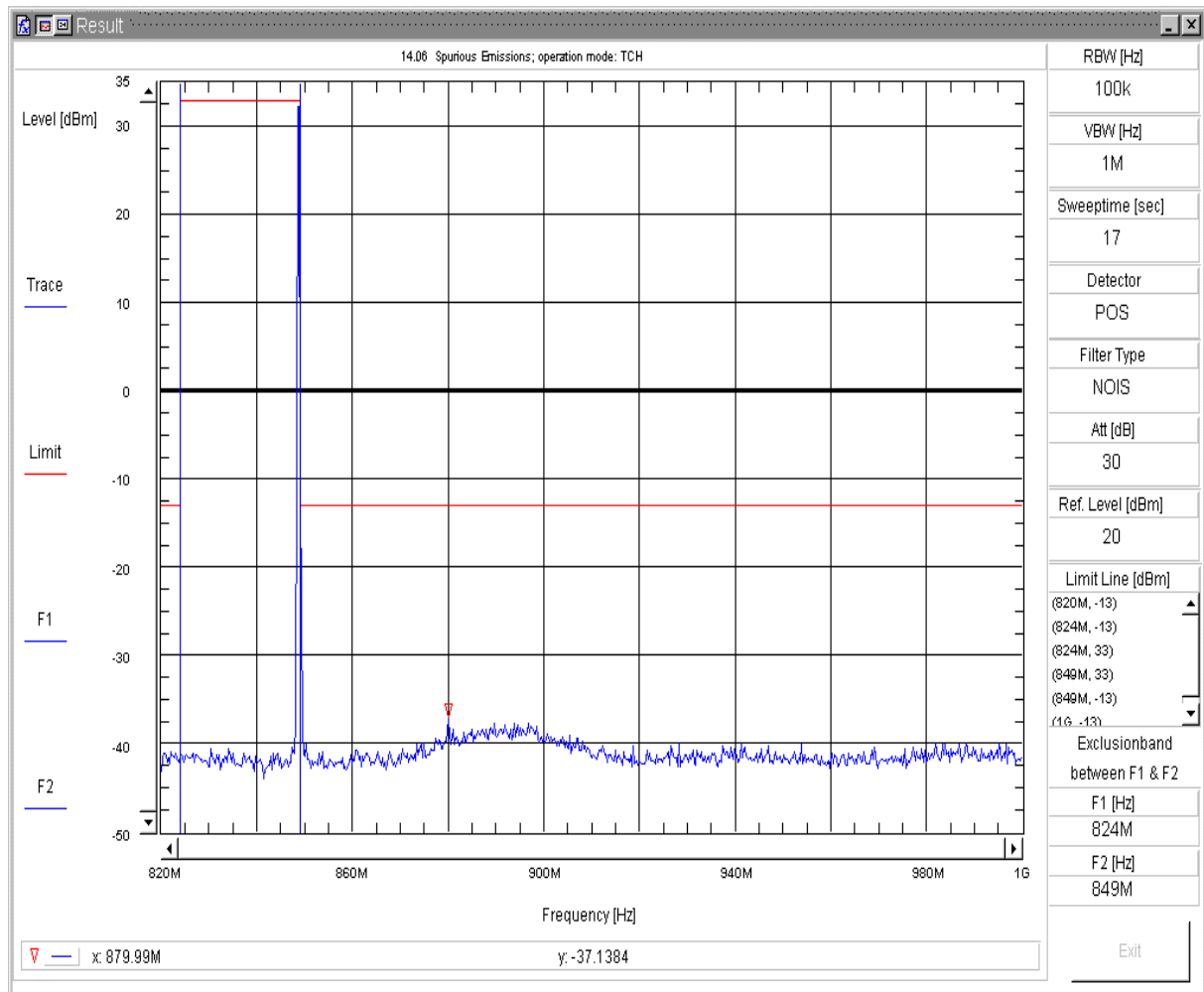


14.05 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 29.5 dBm / 29.5 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 192
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:54:520

Conducted Spurious Emissions V7.1.5

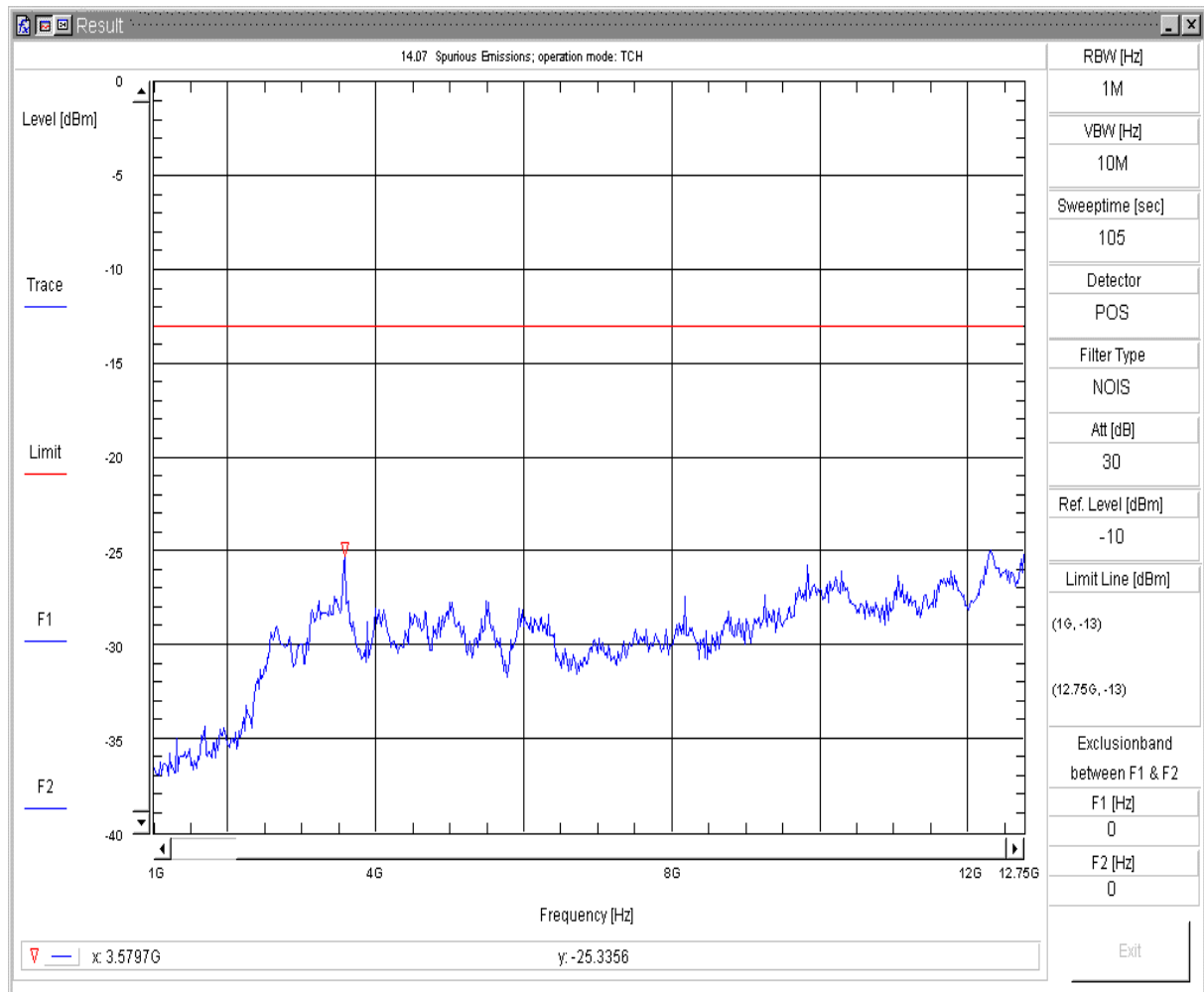


14.06 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 29.9 dBm / 29.9 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 251
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:47:470

Conducted Spurious Emissions V7.1.5

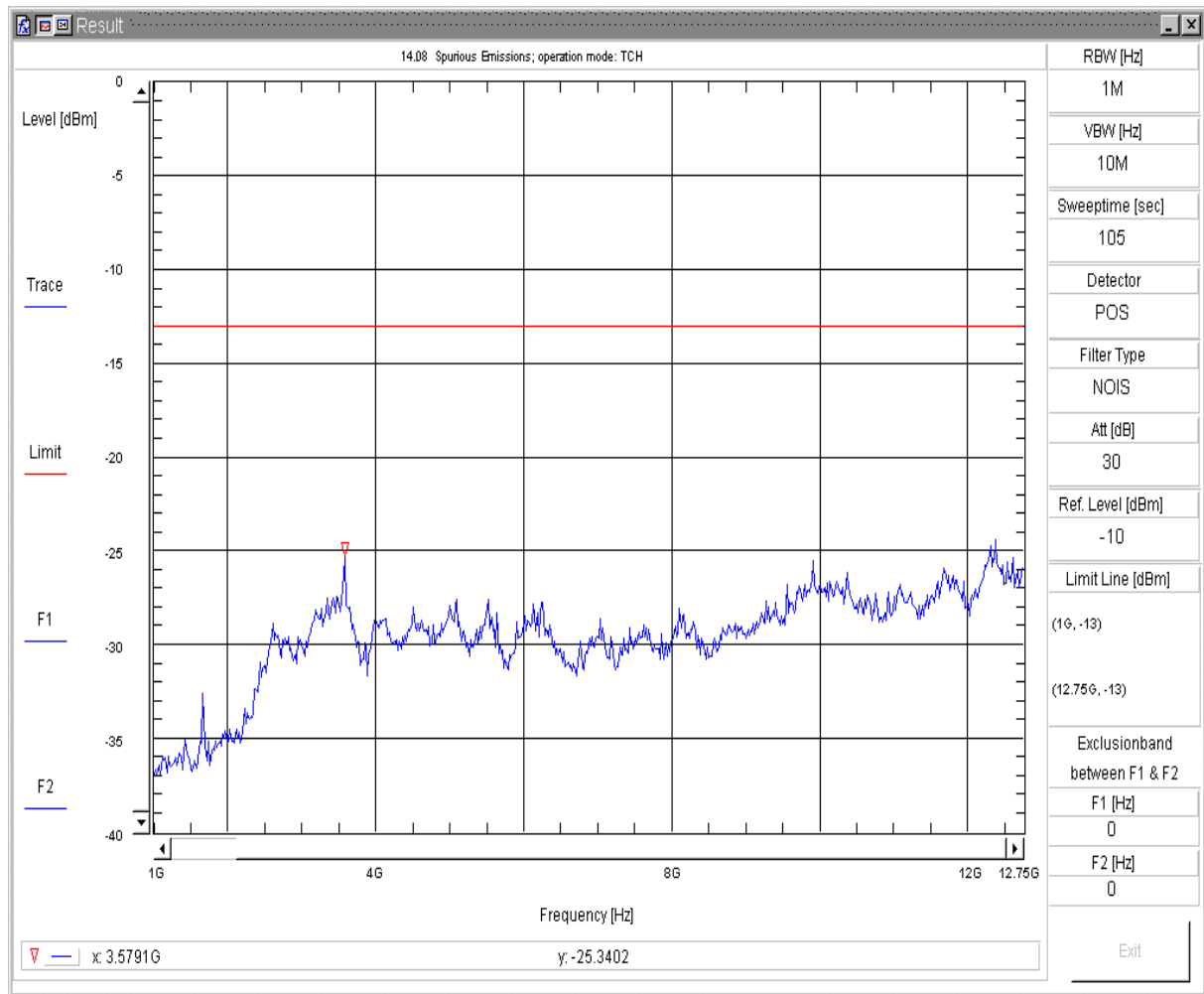


14.07 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep3
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 32.8 dBm / 32.8 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 512
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:35:110

Conducted Spurious Emissions V7.1.5

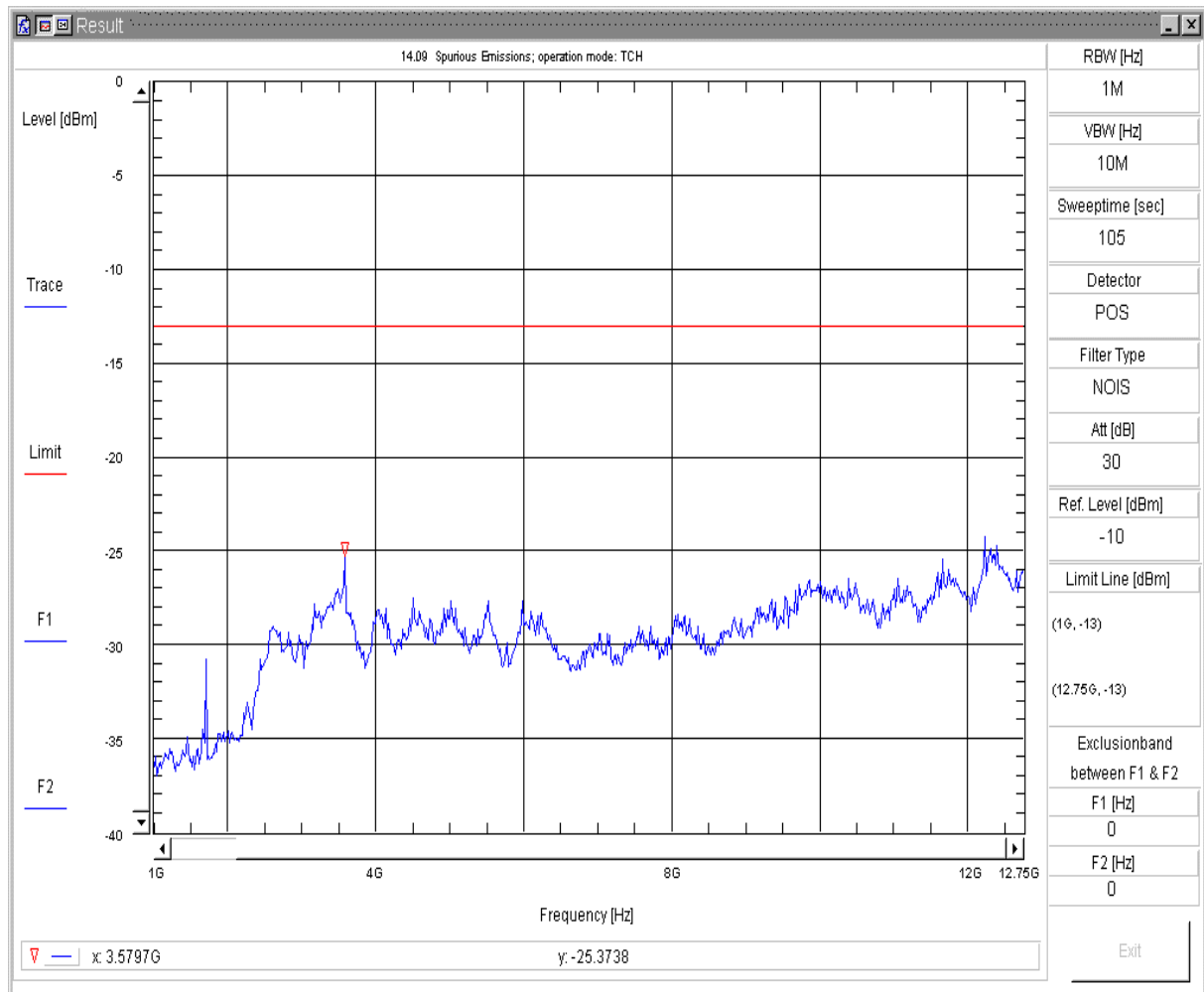


14.08 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep3
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 32.8 dBm / 32.8 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 192
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:38:550

Conducted Spurious Emissions V7.1.5



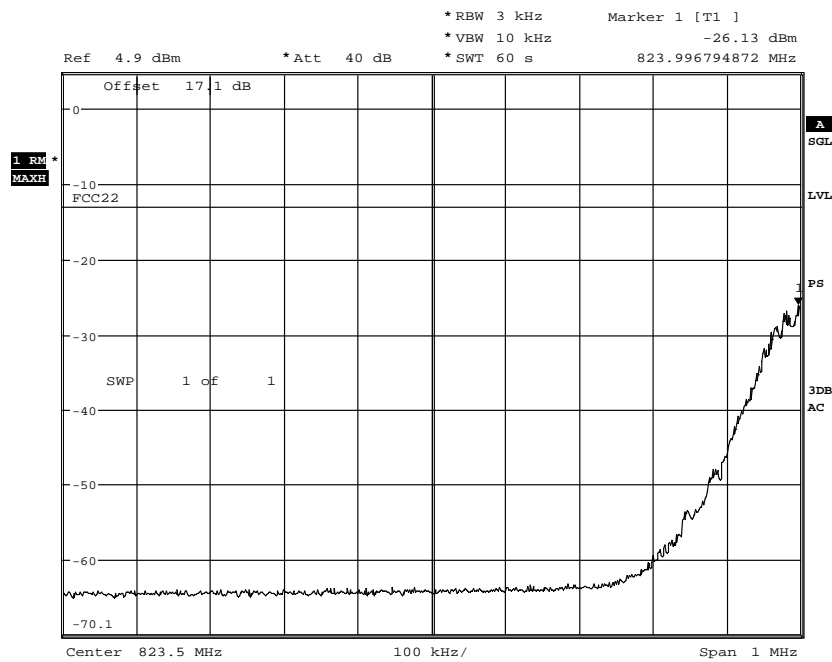
14.09 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep3
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 25.5 dBm / 25.5 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 251
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 10:42:420

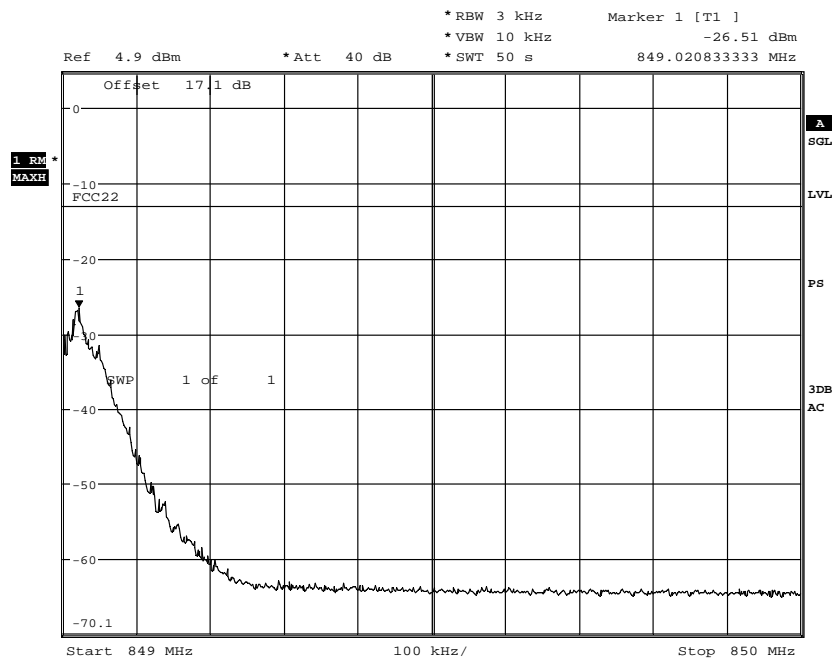
Conducted Spurious Emissions V7.1.5

Band-Edge compliance



Date: 10.AUG.2009 11:33:41

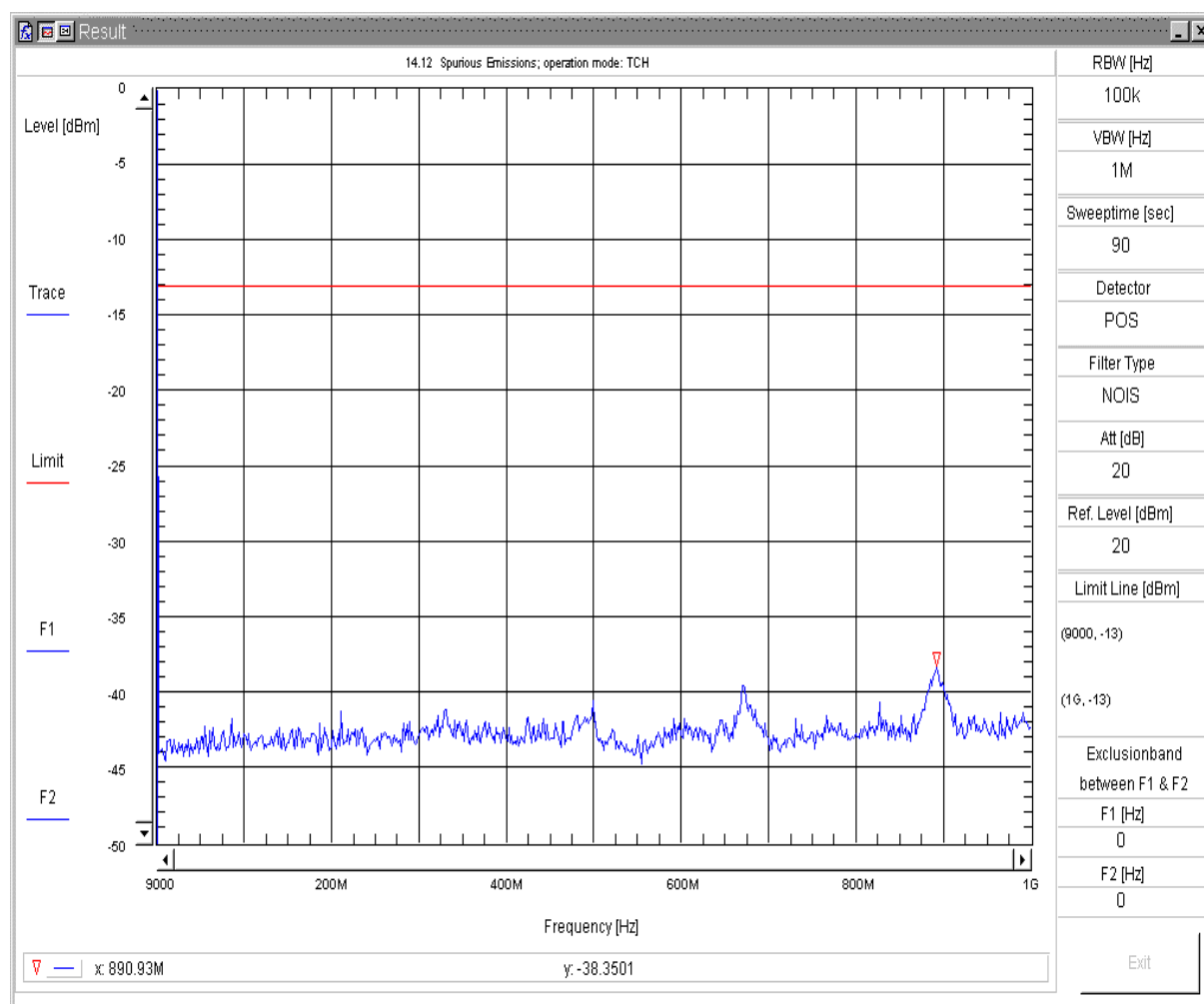
Diagram 14.10: Band Edge Channel 128 – GMSK



Date: 10.AUG.2009 11:35:12

Diagram 14.11: Band Edge Channel 251 – GMSK

1.4.SPURIOUS EMISSIONS CONDUCTED - GSM 1900 MODE

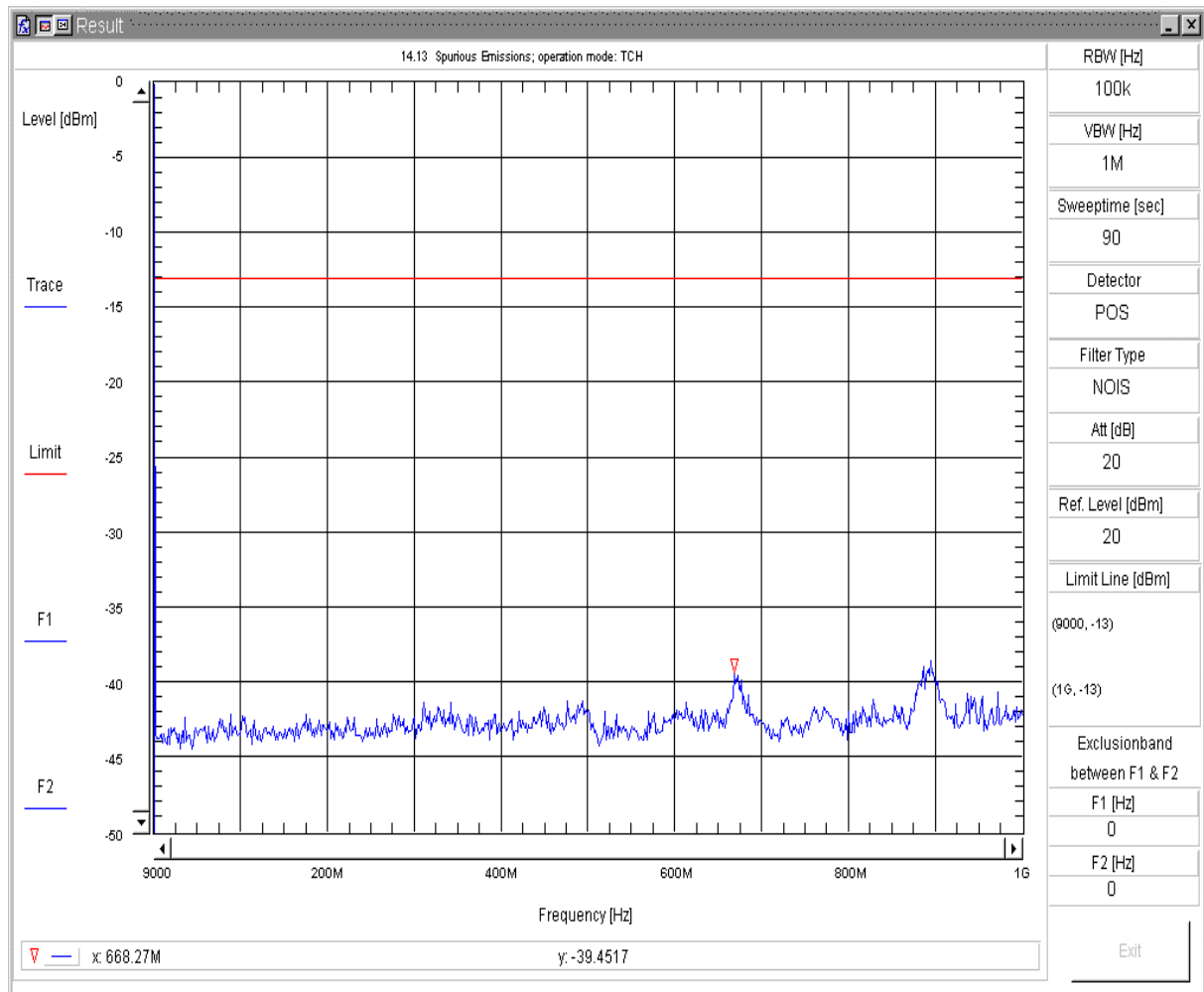


14.12 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 29.5 dBm / 29.5 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 512
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:13:470

Conducted Spurious Emissions V7.1.5

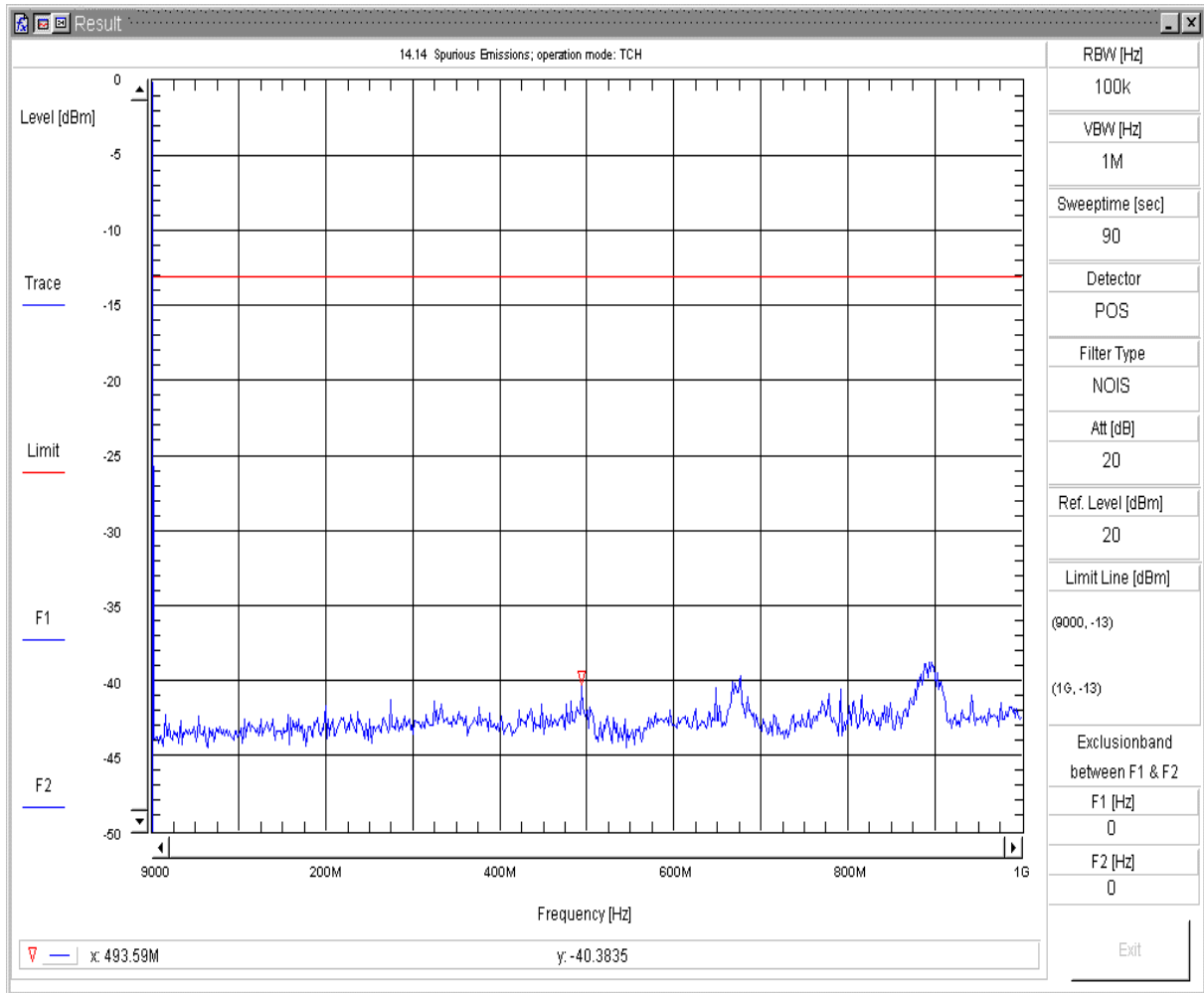


14.13 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 29.5 dBm / 29.5 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 661
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:35:070

Conducted Spurious Emissions V7.1.5

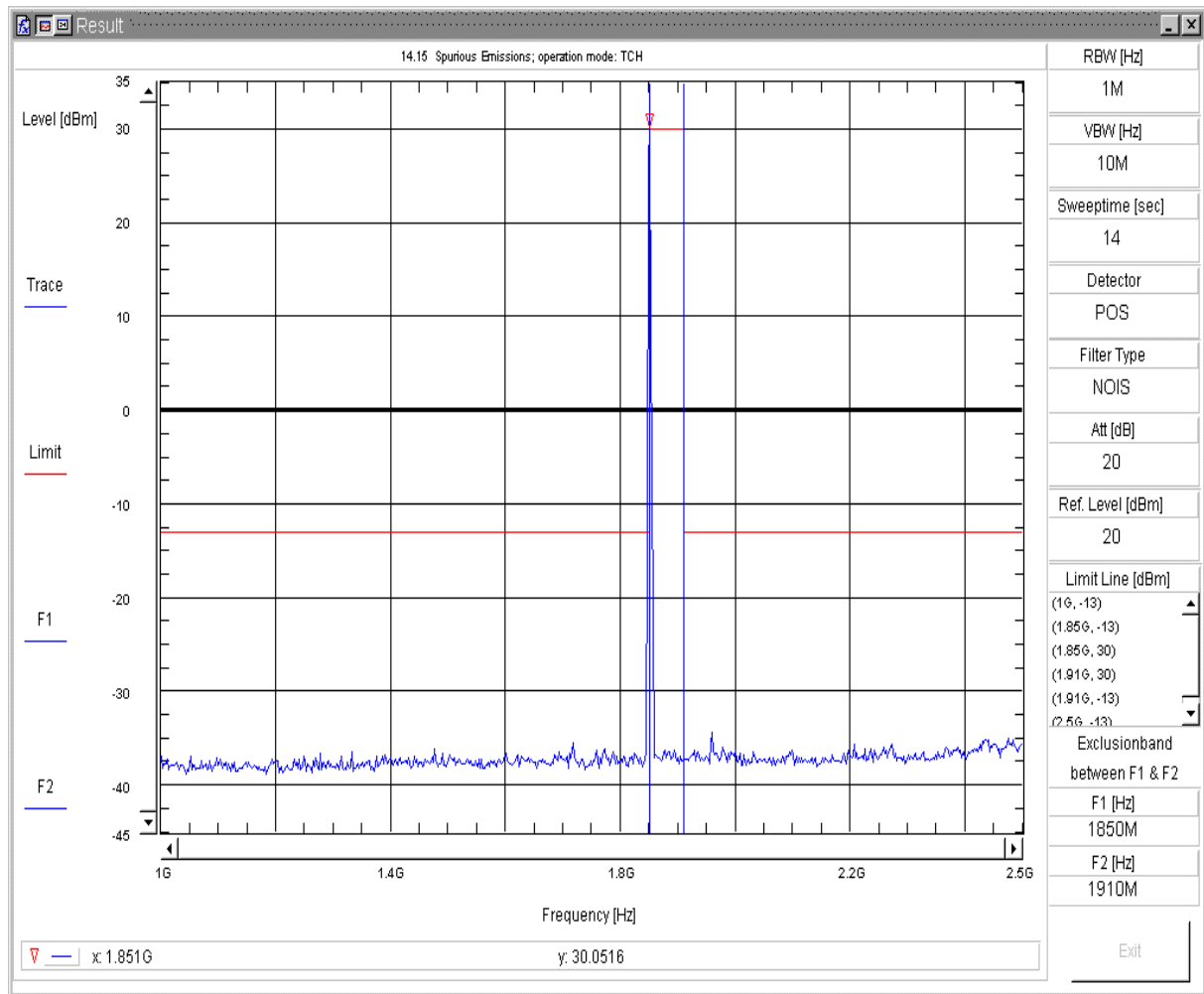


14.14 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 29.5 dBm / 29.5 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 810
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:32:120

Conducted Spurious Emissions V7.1.5

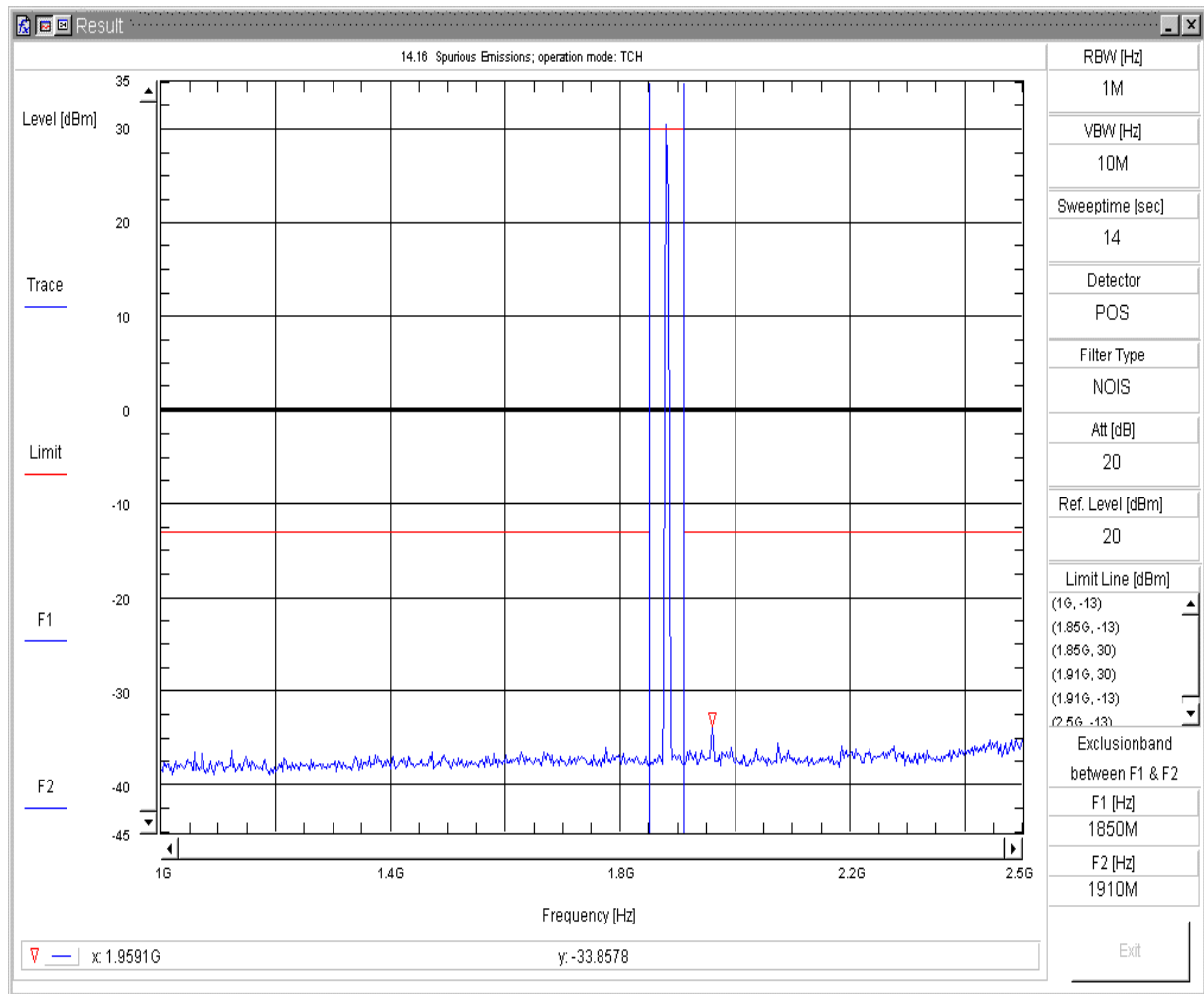


14.15 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 21.3 dBm / 21.3 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 512
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:16:410

Conducted Spurious Emissions V7.1.5

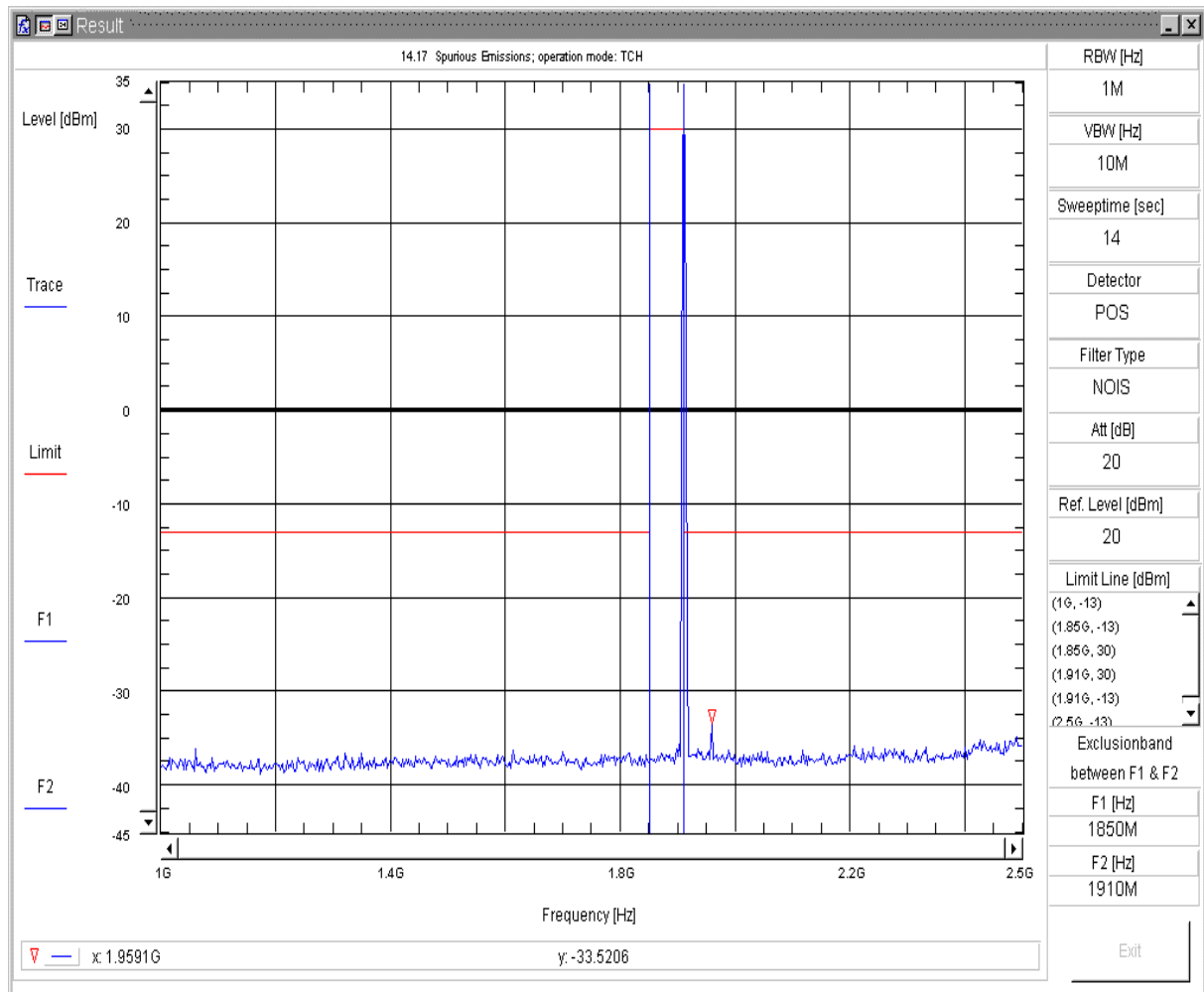


14.16 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 27.7 dBm / 27.7 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 661
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:38:360

Conducted Spurious Emissions V7.1.5

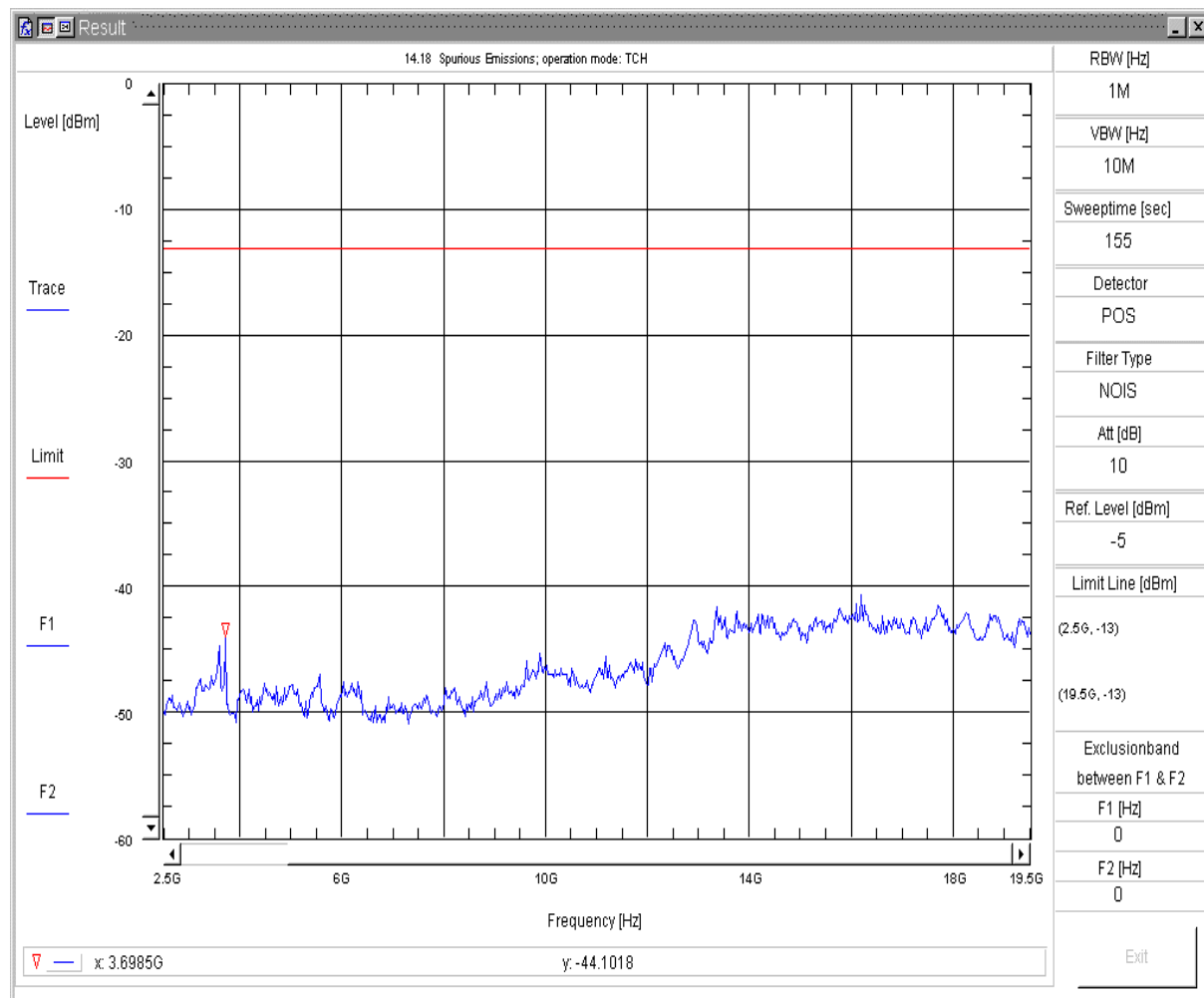


14.17 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 29.5 dBm / 29.5 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 810
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:30:500

Conducted Spurious Emissions V7.1.5

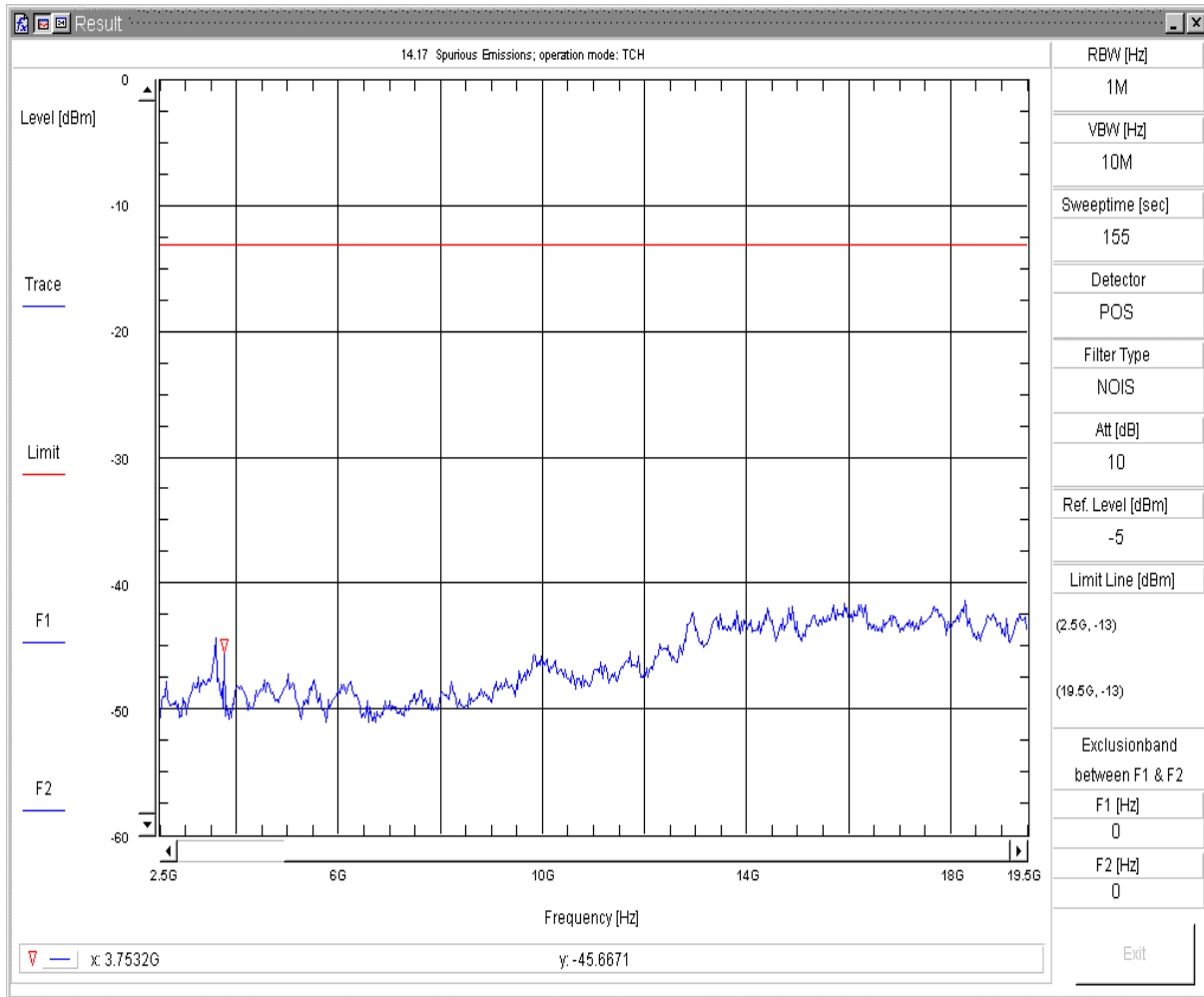


14.18 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep3
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 21.4 dBm / 21.4 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 512
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:18:160

Conducted Spurious Emissions V7.1.5

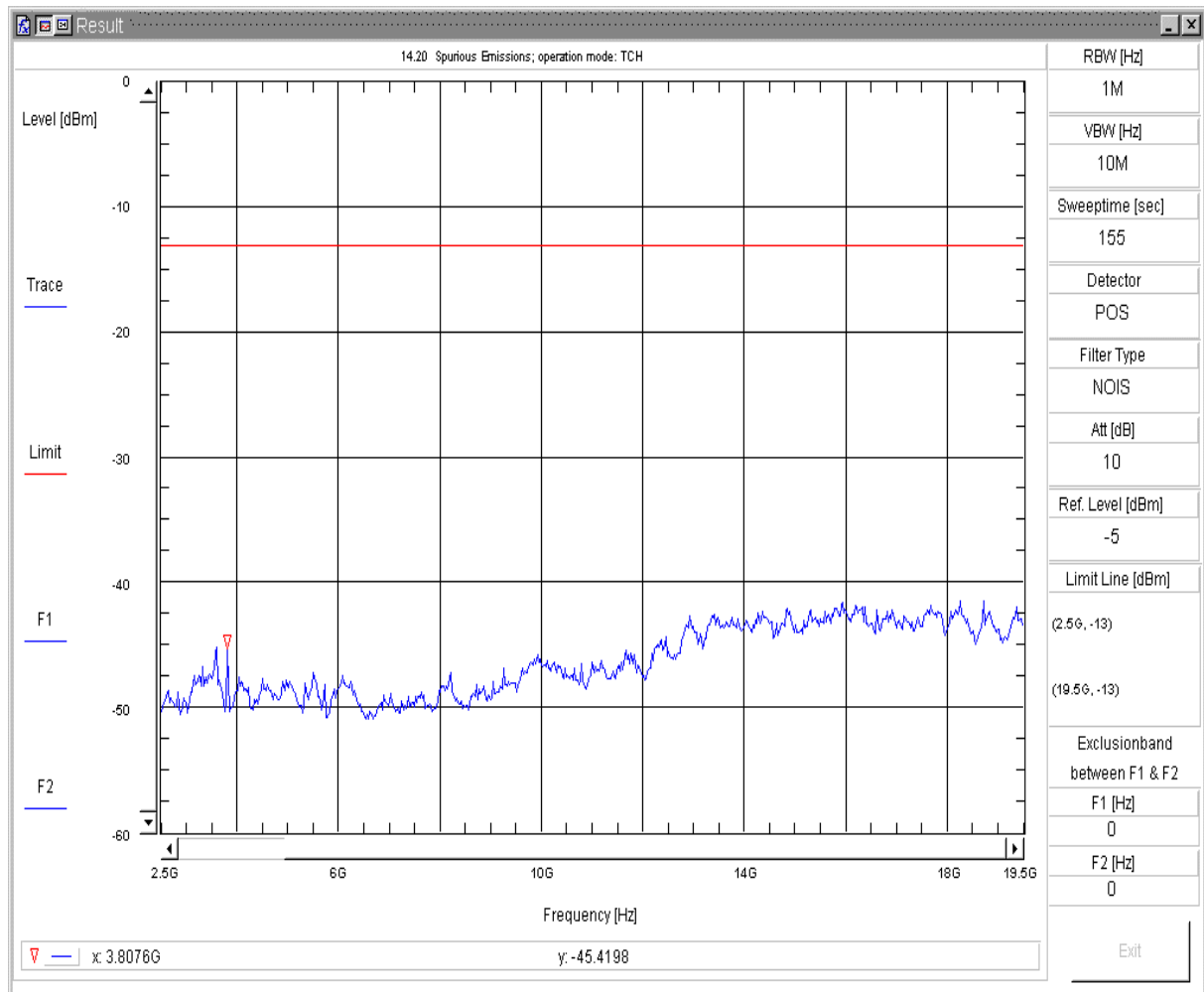


14.19 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep3
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 21.4 dBm / 21.4 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 661
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:22:060

Conducted Spurious Emissions V7.1.5



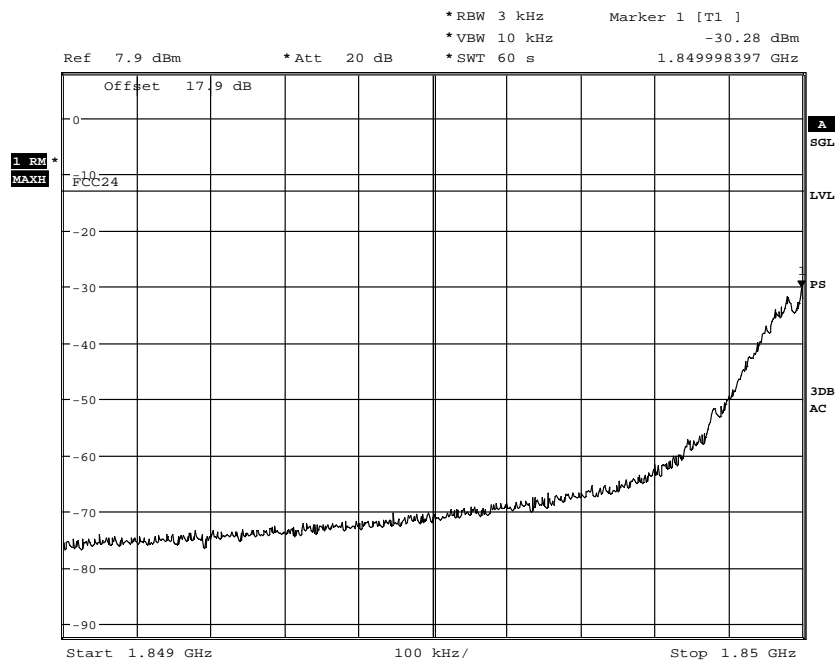
14.20 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep3
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 27.6 dBm / 27.6 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq:
 EUT Description: LEON- G200 + Handset + USB cable
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config: C02
 EUT S/N: 002411
 Battery: Power Supply (external); Nominal Voltage; 3.8 VDC
 Remark: channel 810
 Operator: LOR
 Testing Site: Radio Laboratory; CETECOM Essen

Mon 10/Aug/2009 11:26:550

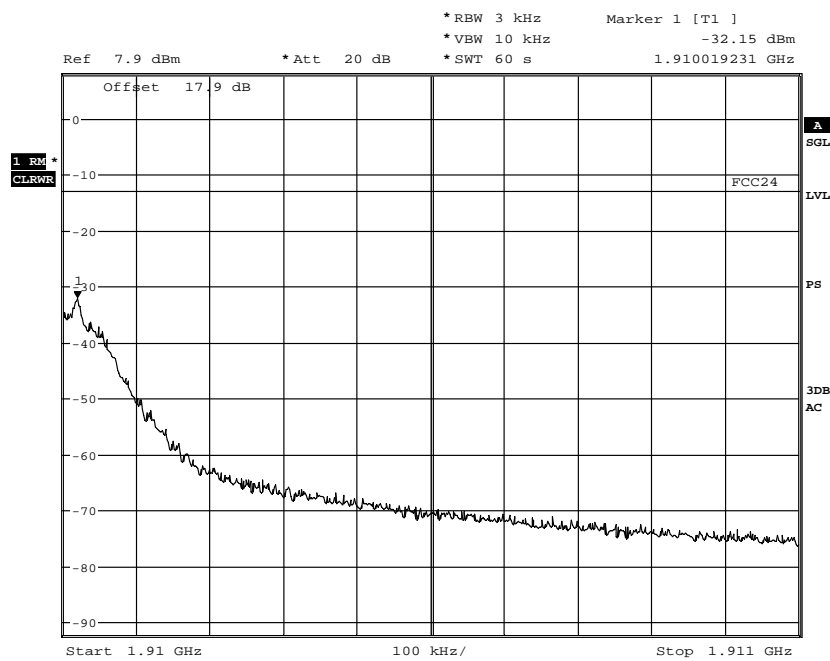
Conducted Spurious Emissions V7.1.5

Band-Edge compliance



Date: 10.AUG.2009 12:22:57

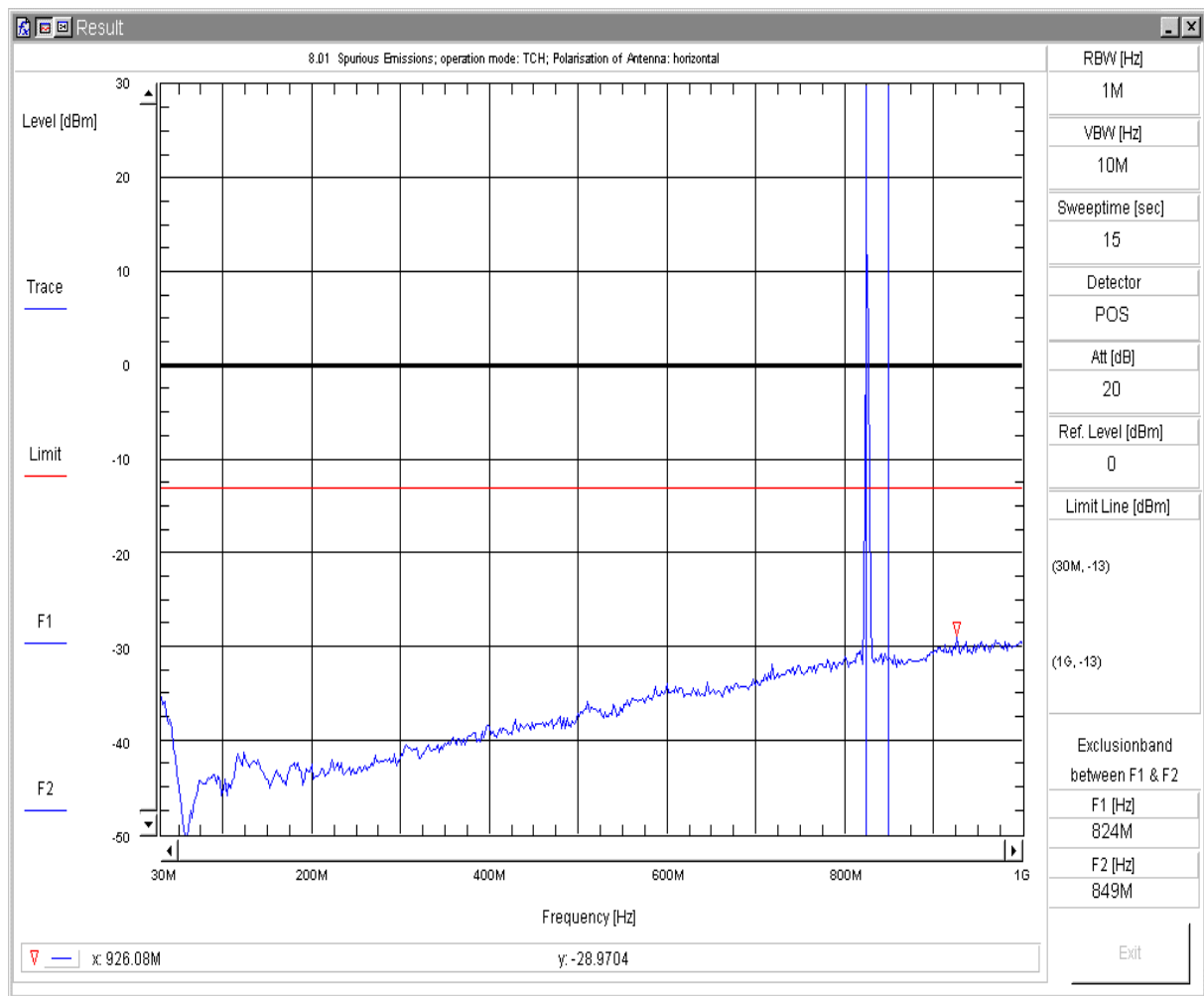
Diagram 14.21: Band Edge Channel 512 – GMSK



Date: 10.AUG.2009 12:19:22

Diagram 14.22: Band Edge Channel 810 – GMSK

1.5. SPURIOUS EMISSIONS RADIATED – GSM850 MODE

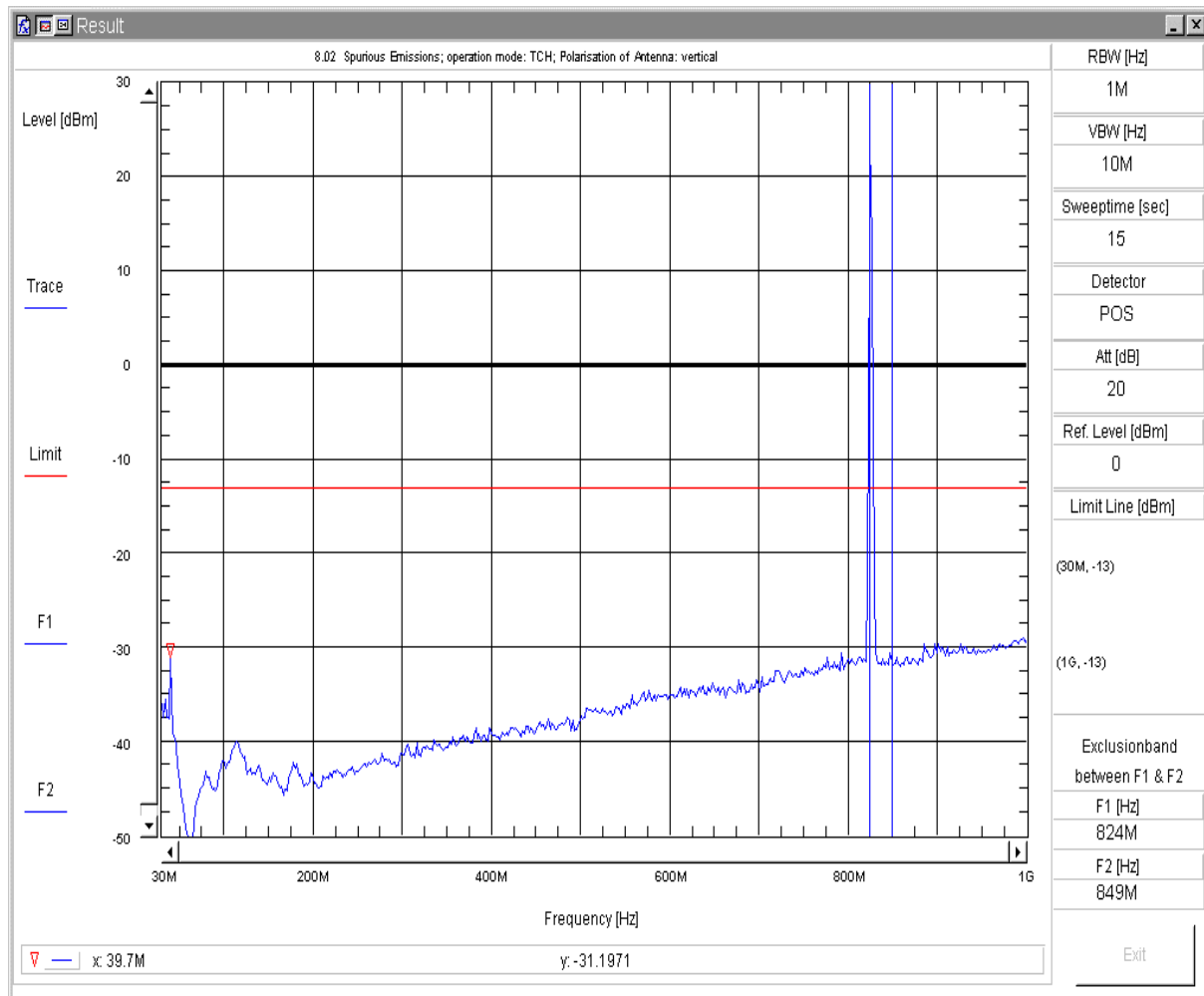


8.01 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep1
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON--G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:10:37ppf

Spurious Emissions V7.2.5

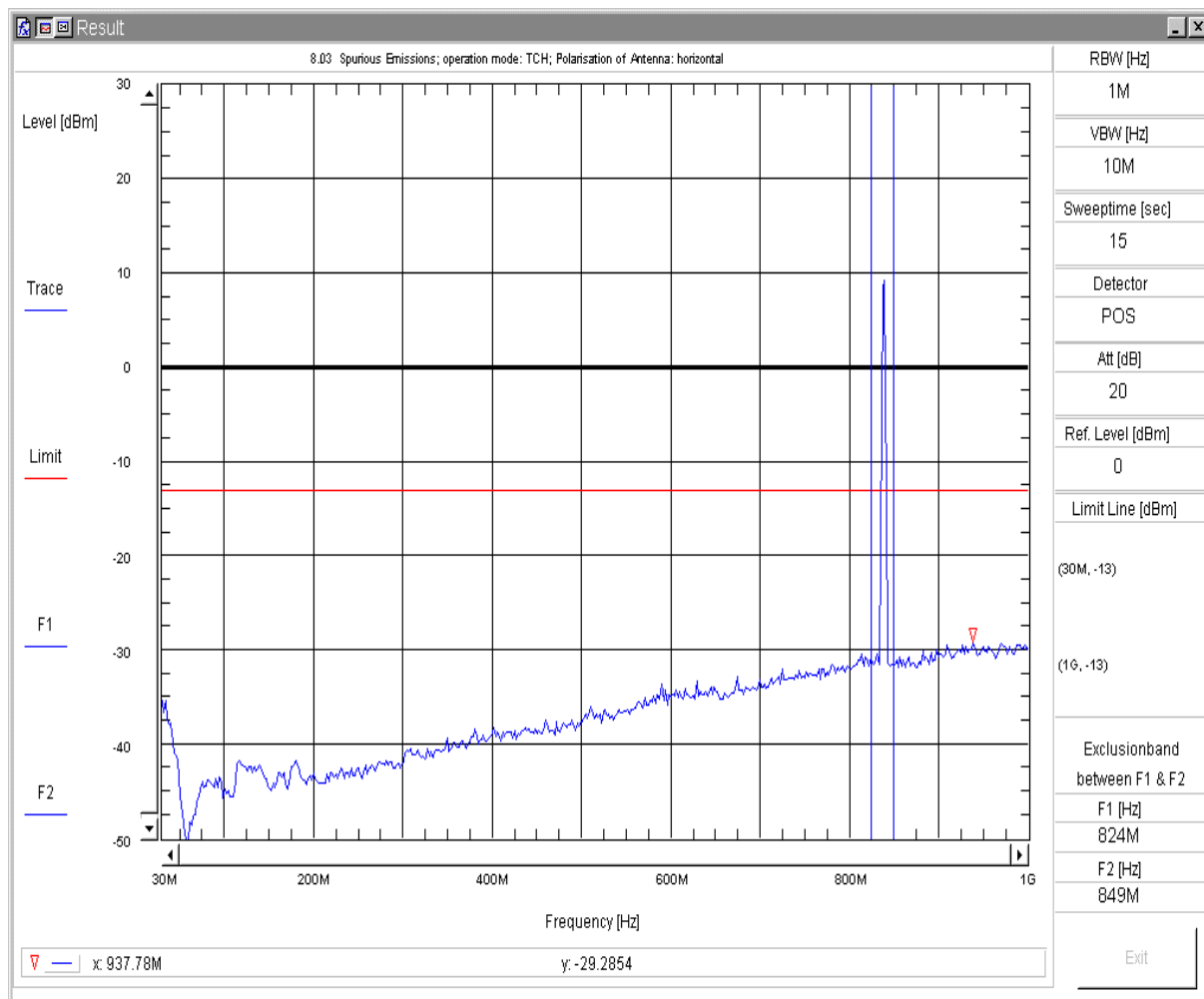


8.02 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep1
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:14:43ppf

Spurious Emissions V7.2.5

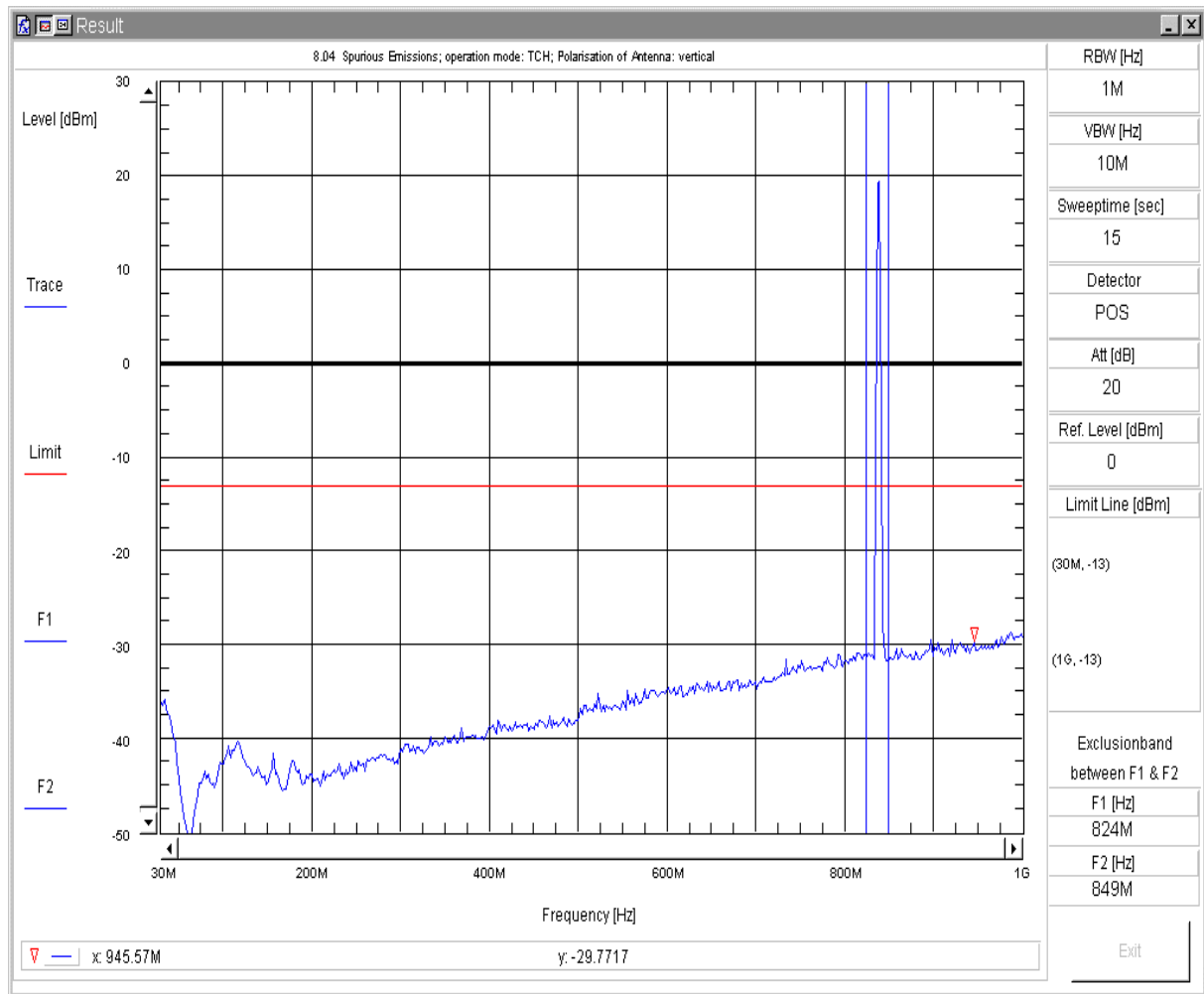


8.03 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep1
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 192
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:39:54ppf

Spurious Emissions V7.2.5

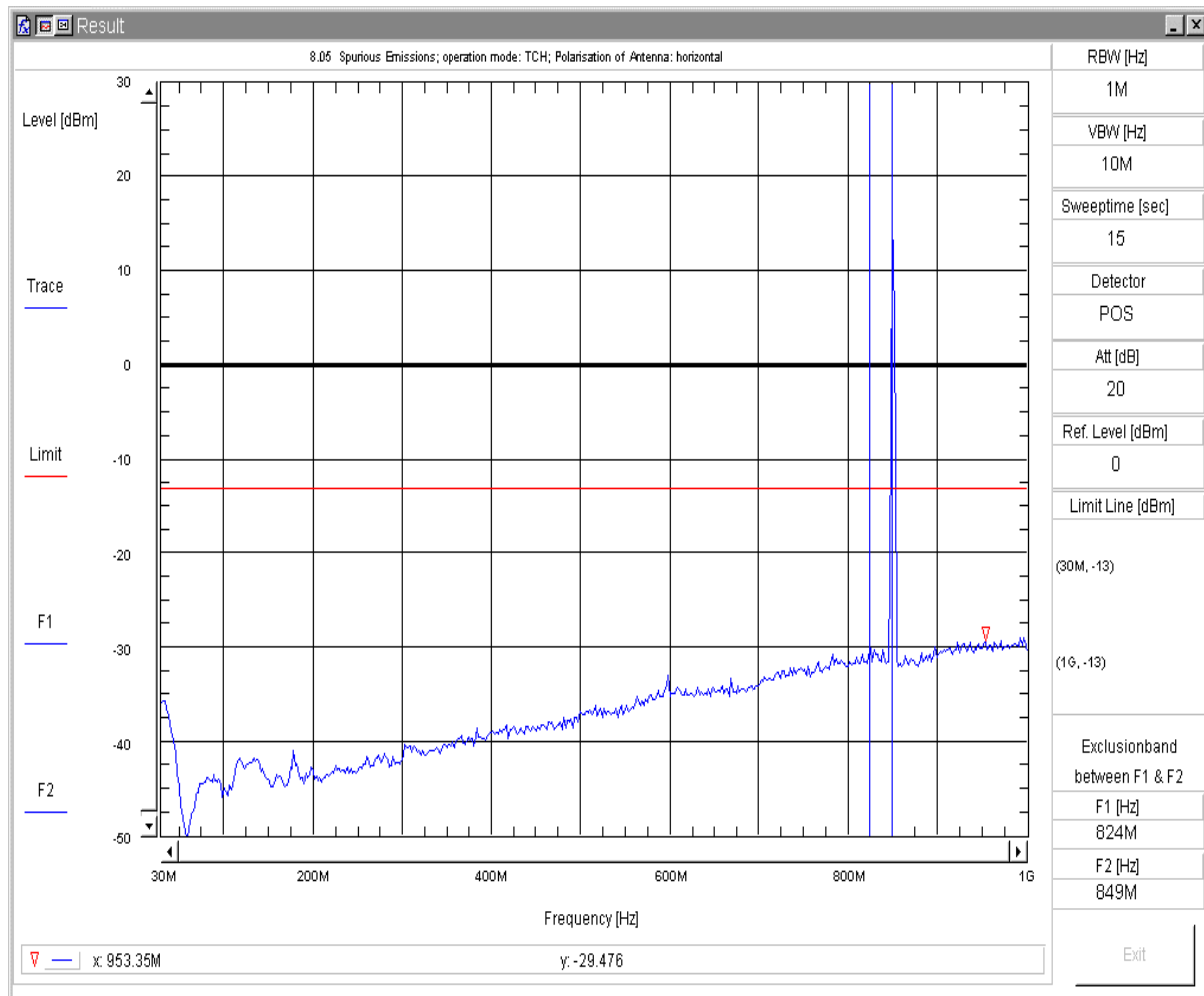


8.04 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep1
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 192
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:43:49ppf

Spurious Emissions V7.2.5

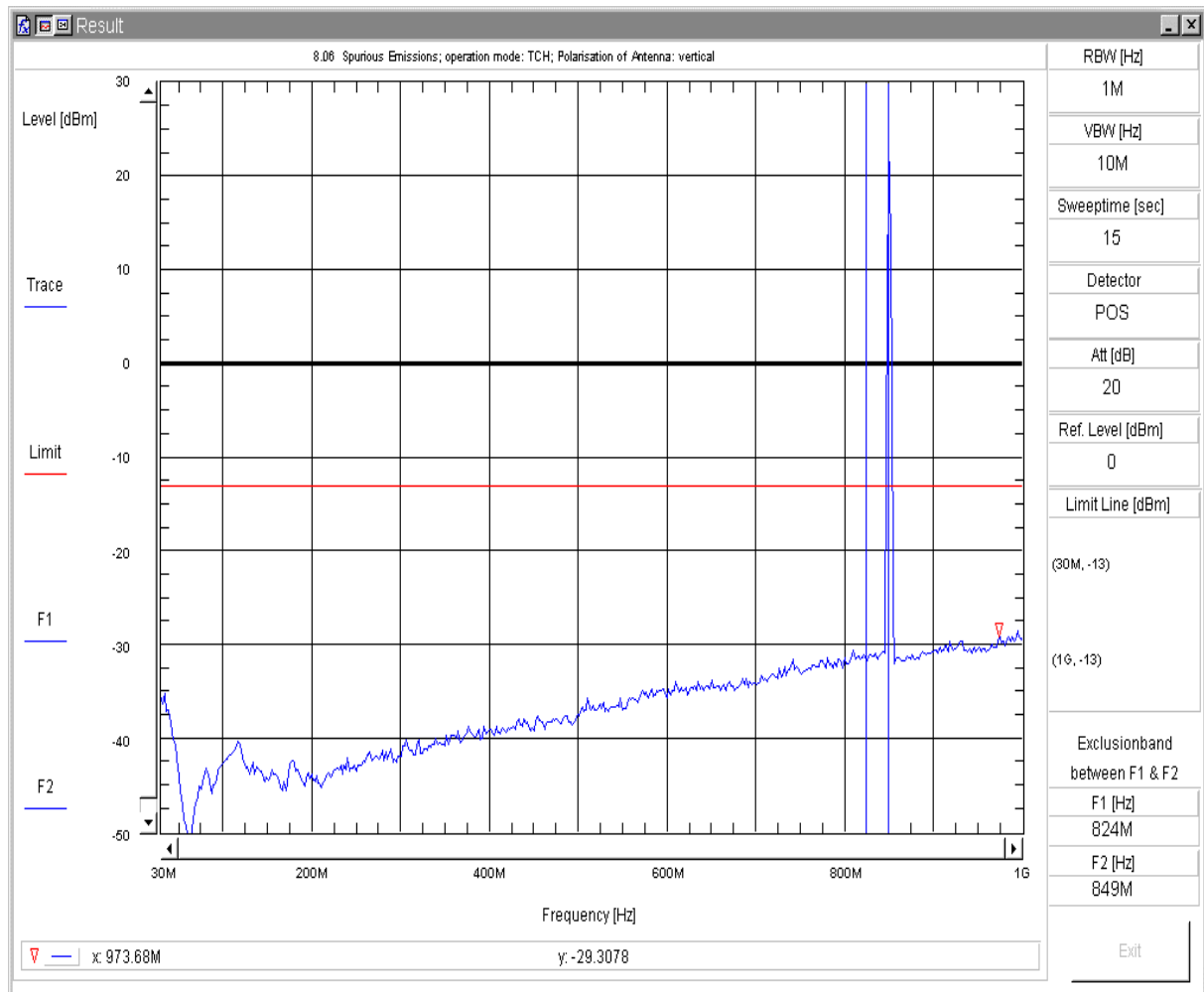


8.05 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep1
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:48:22ppp

Spurious Emissions V7.2.5

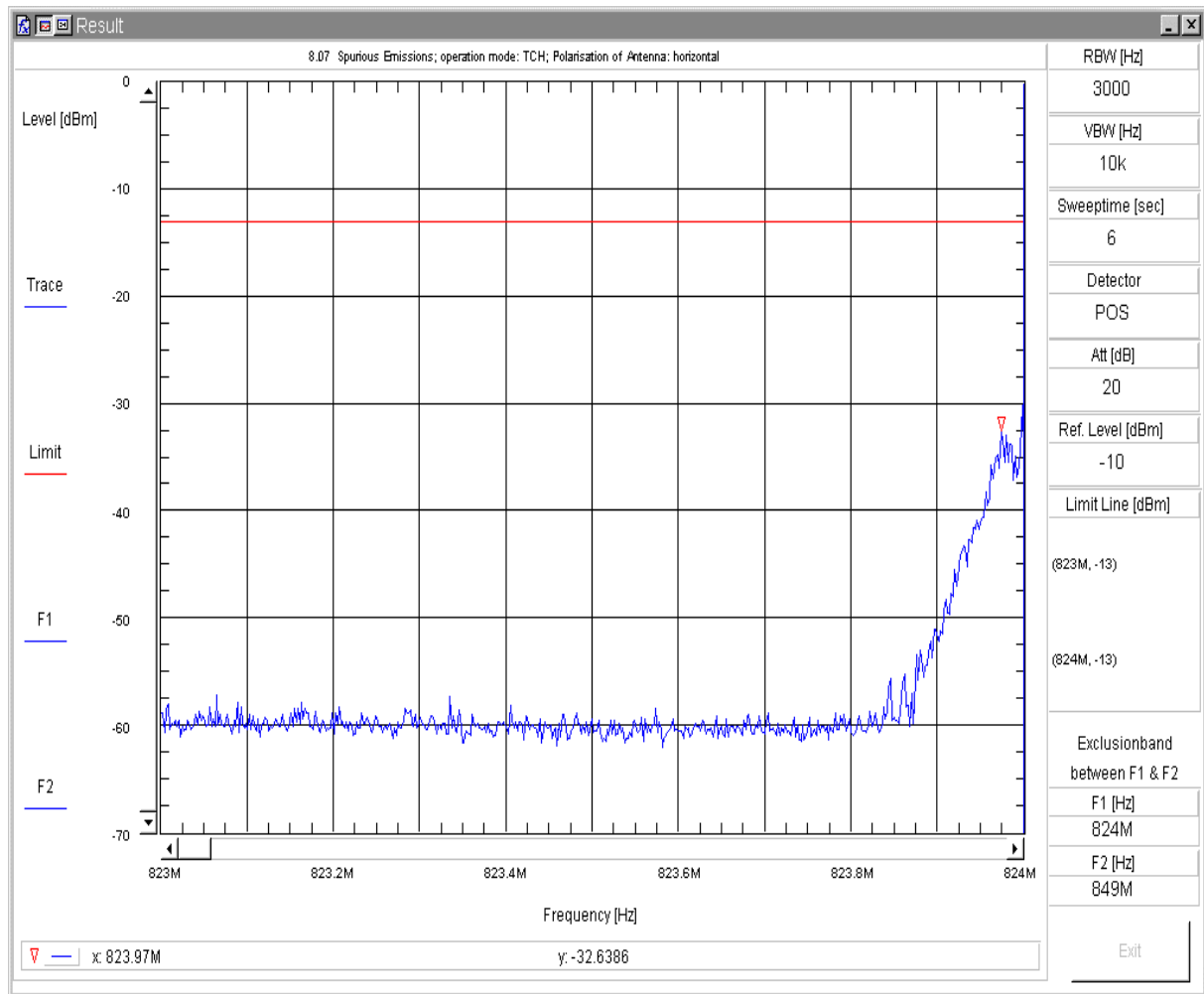


8.06 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep1
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:52:13ppf

Spurious Emissions V7.2.5

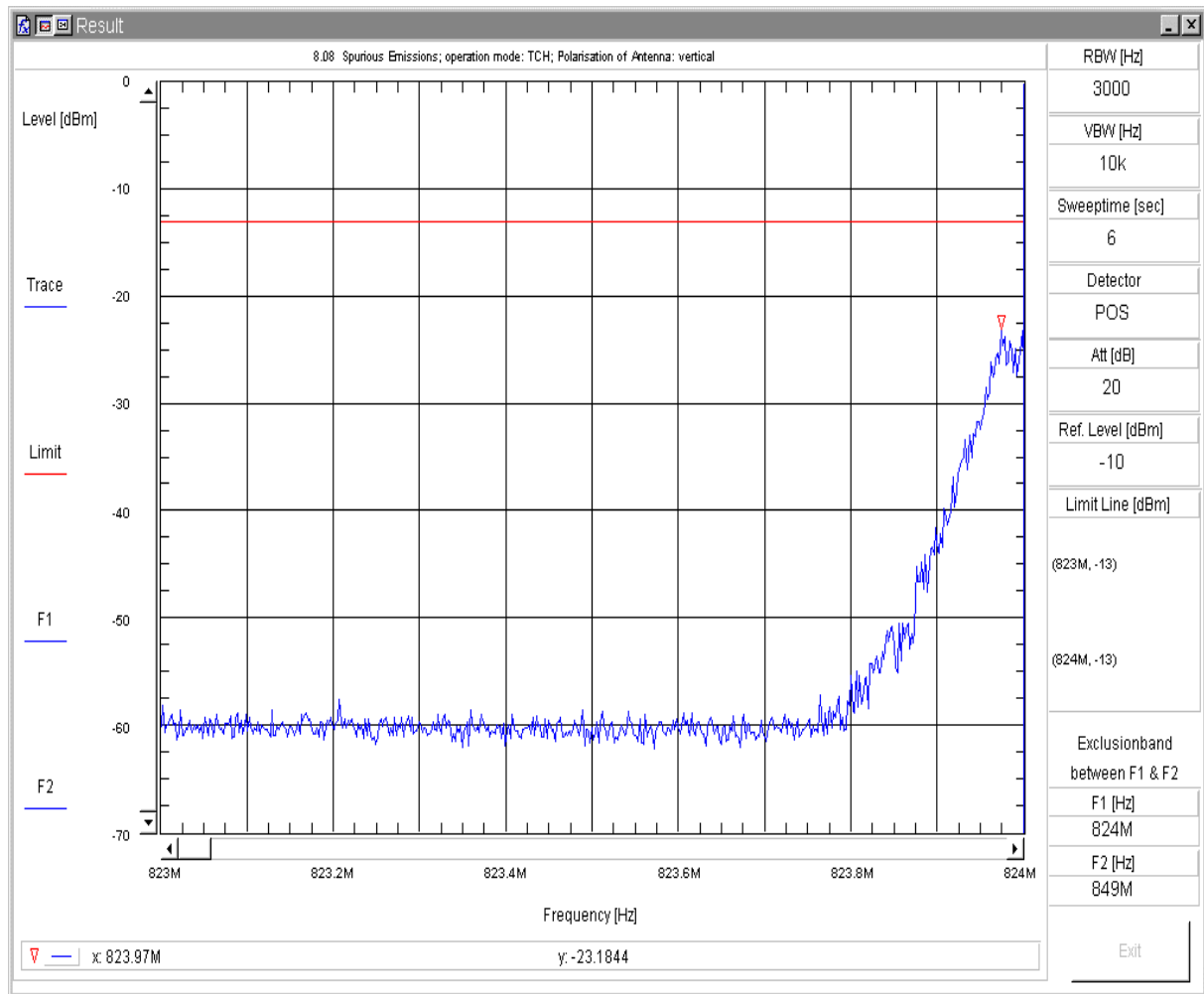


8.07 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep2
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:19:14ppf

Spurious Emissions V7.2.5

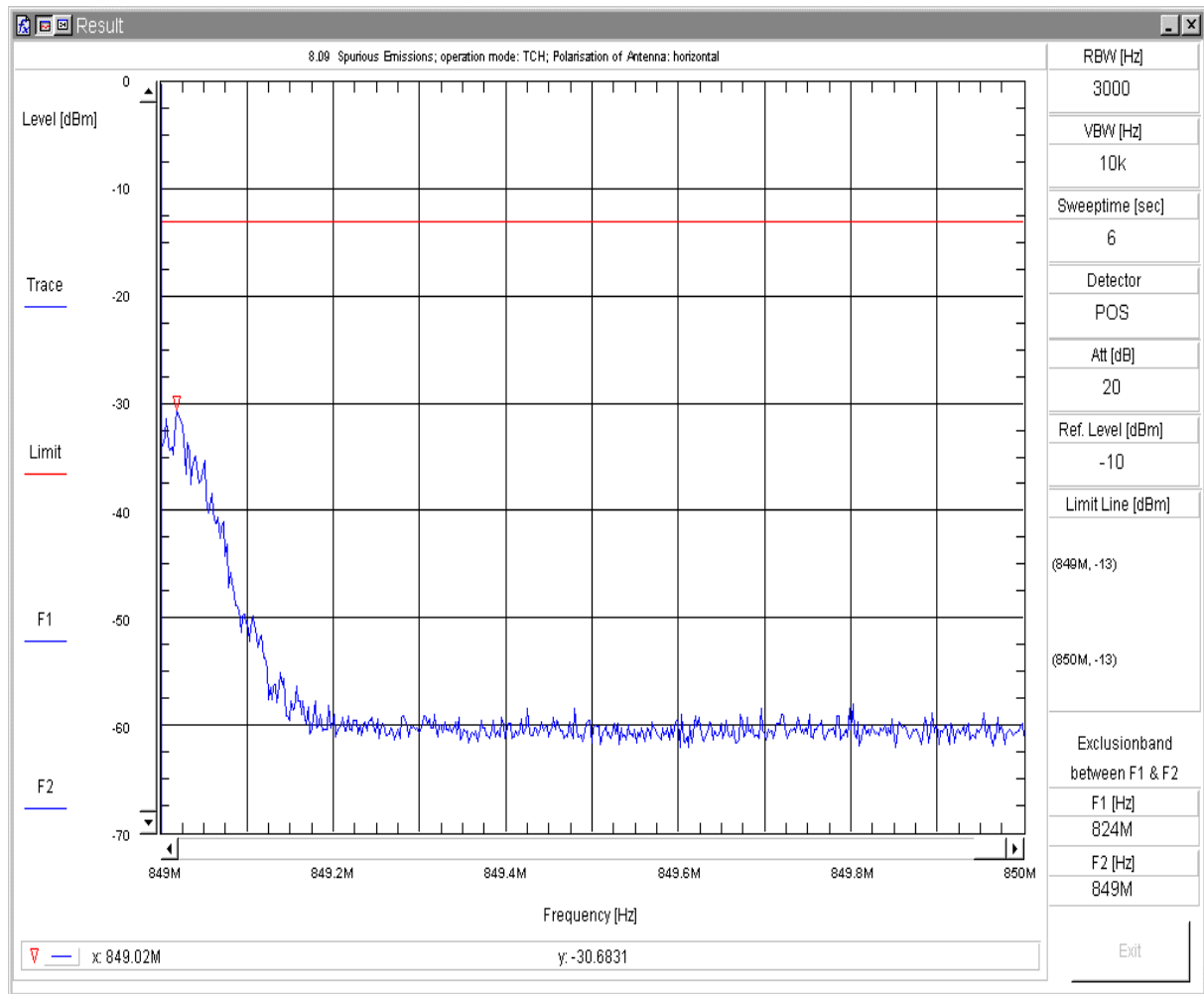


8.08 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep2
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:23:37ppf

Spurious Emissions V7.2.5

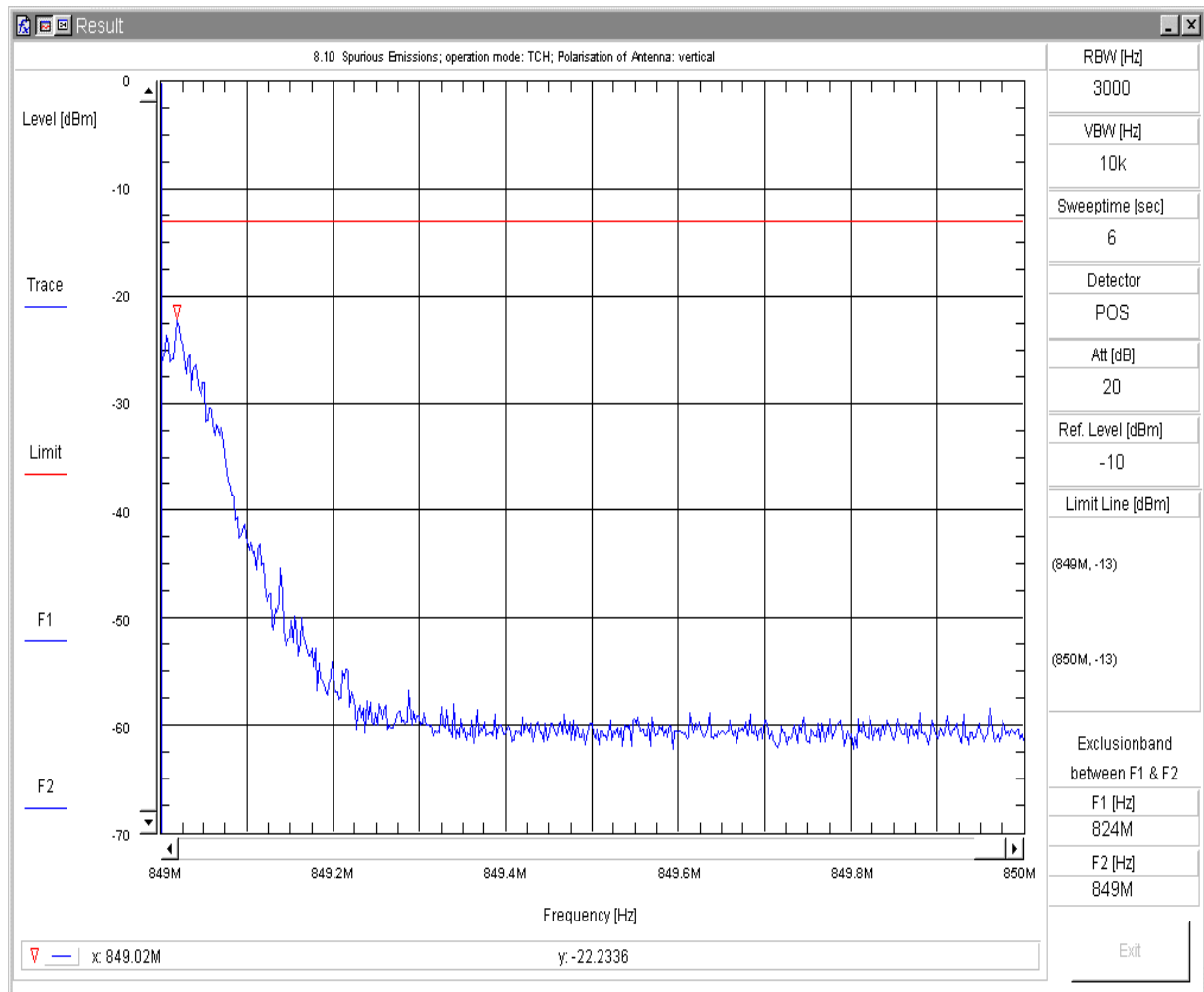


8.09 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep3
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:56:24ppf

Spurious Emissions V7.2.5

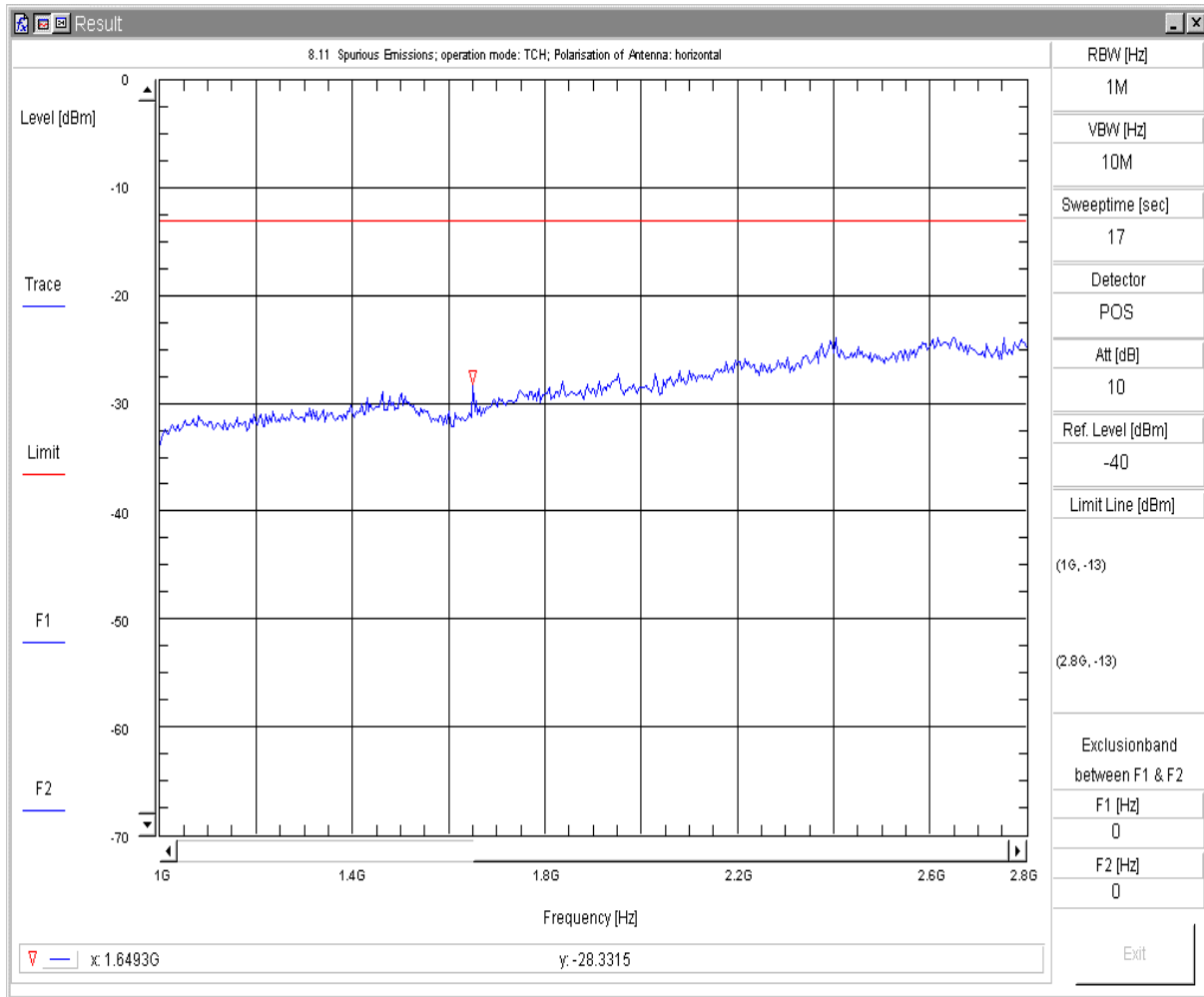


8.10 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep3
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:59:28ppf

Spurious Emissions V7.2.5

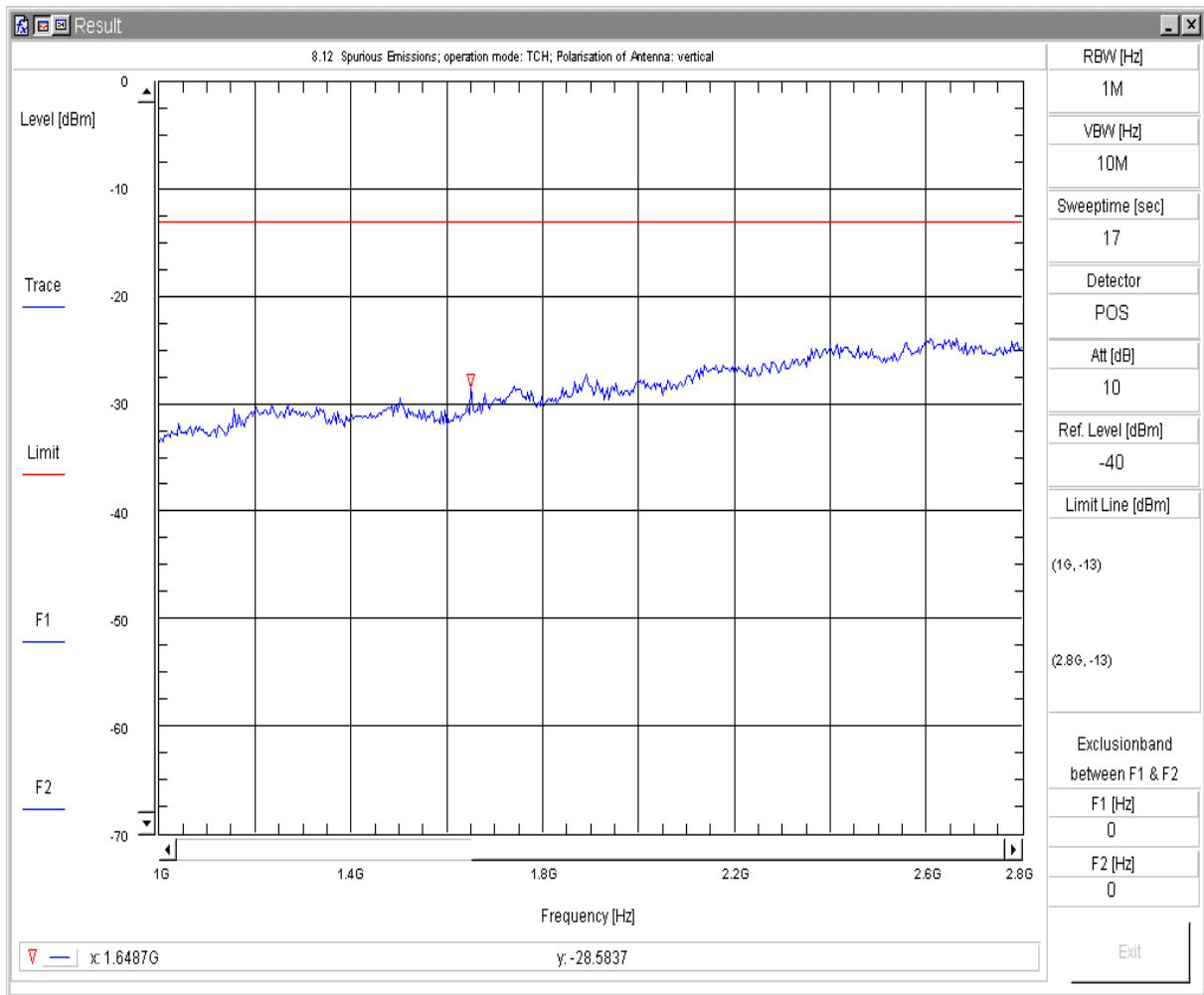


8.11 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep4
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:27:45fp

Spurious Emissions V7.2.5

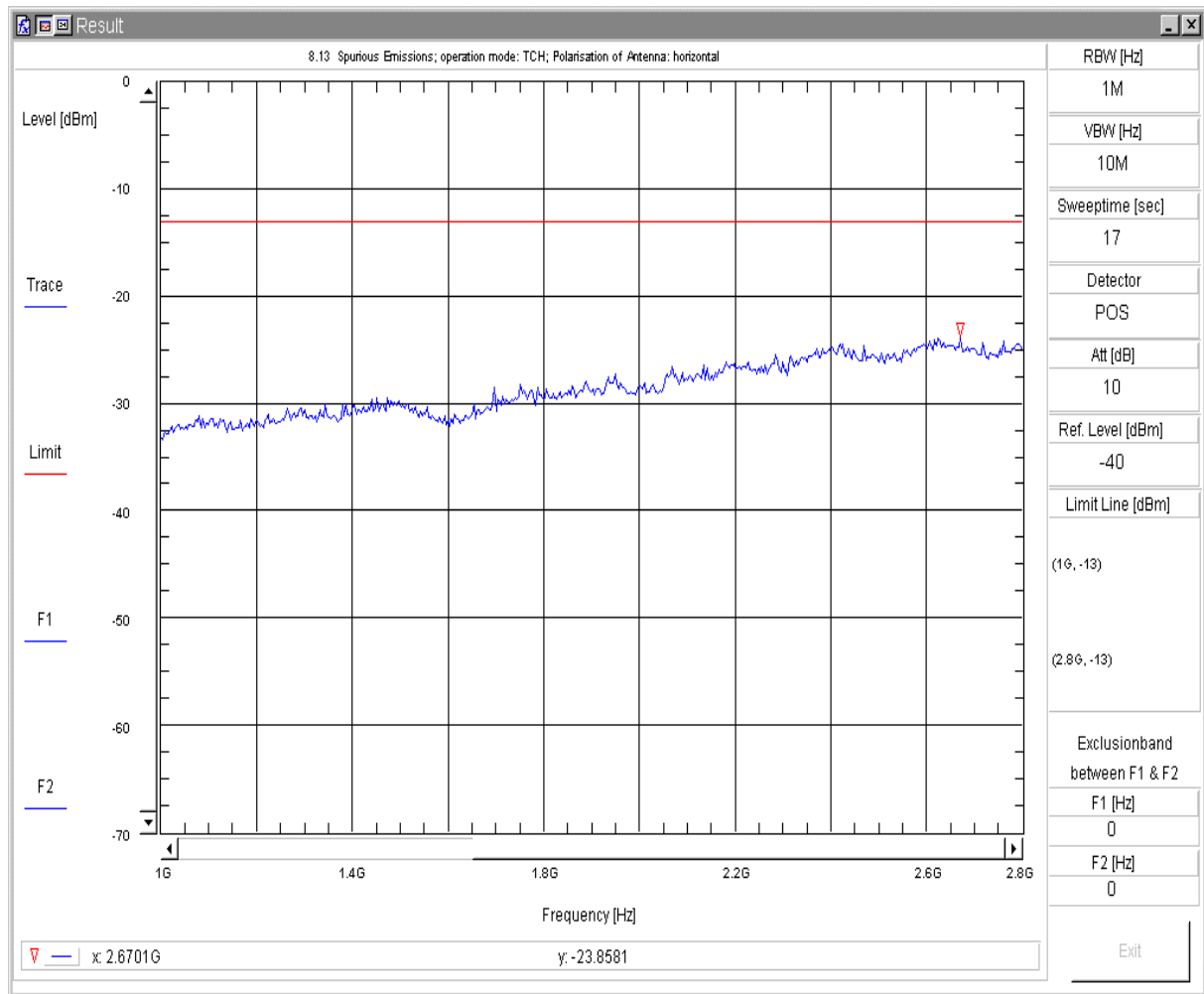


8.12 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep4
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:34:44pp

Spurious Emissions V7.2.5

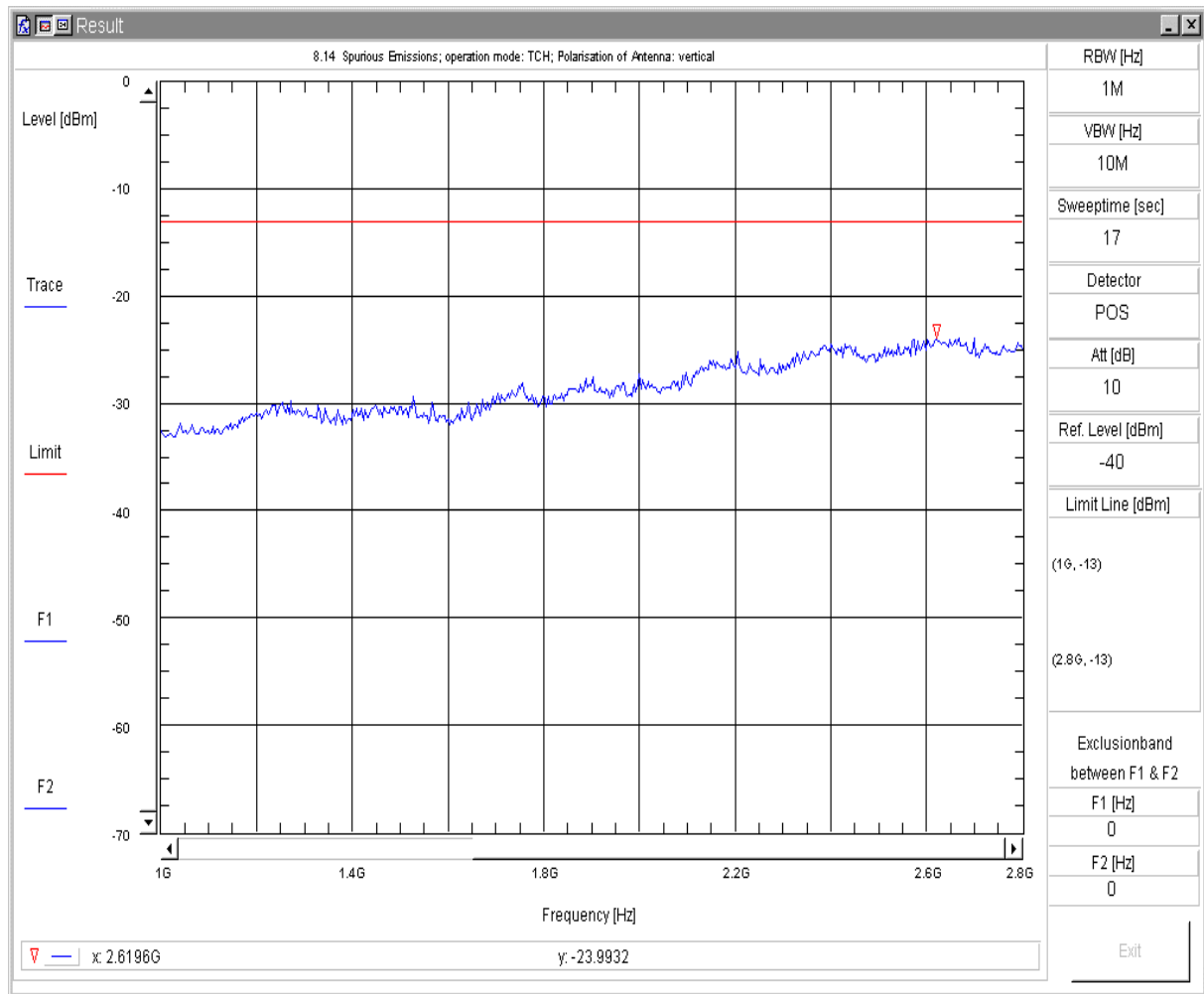


8.13 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep4
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 192
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:26:12fp

Spurious Emissions V7.2.5

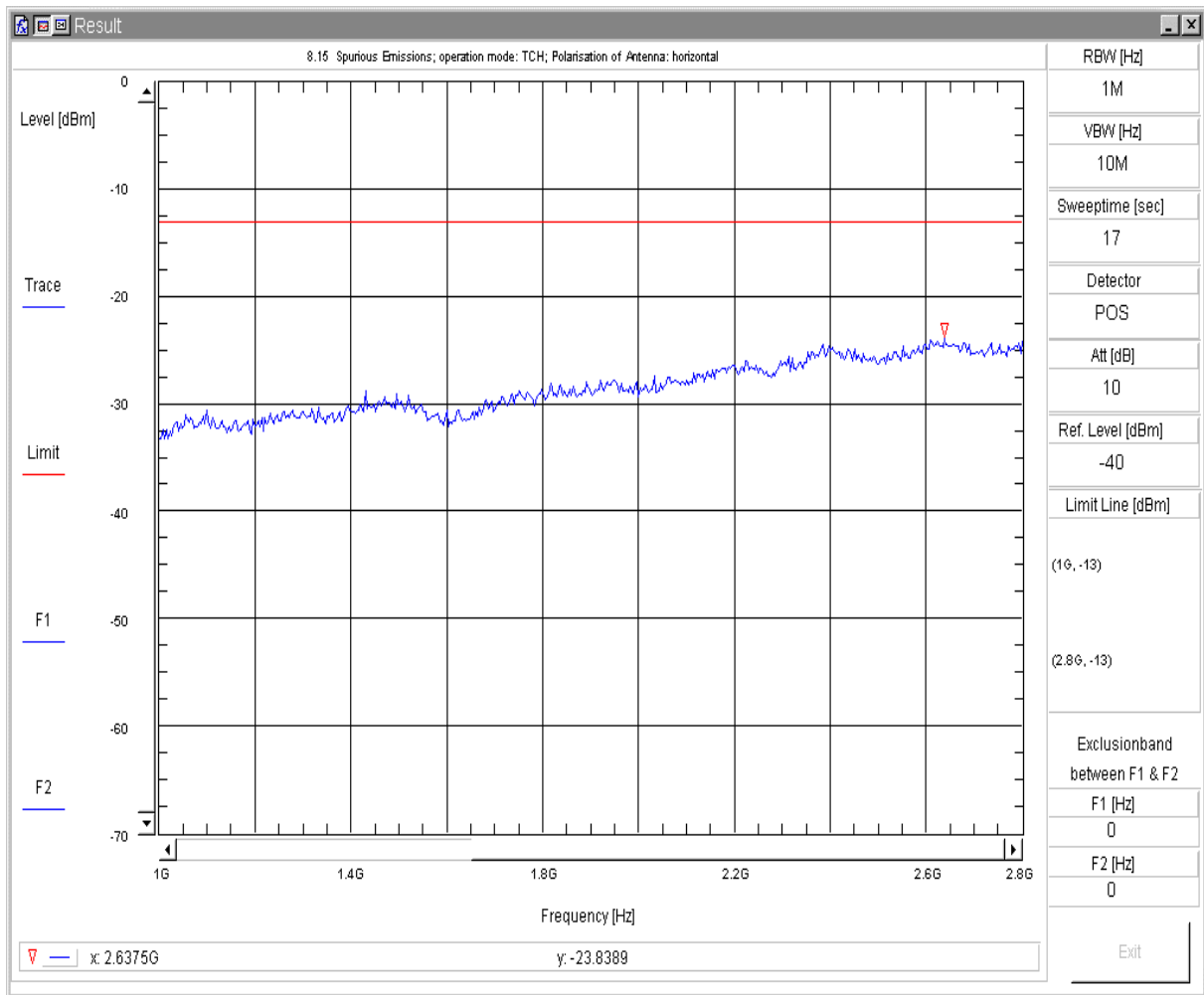


8.14 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep4
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 192
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:32:58pp

Spurious Emissions V7.2.5

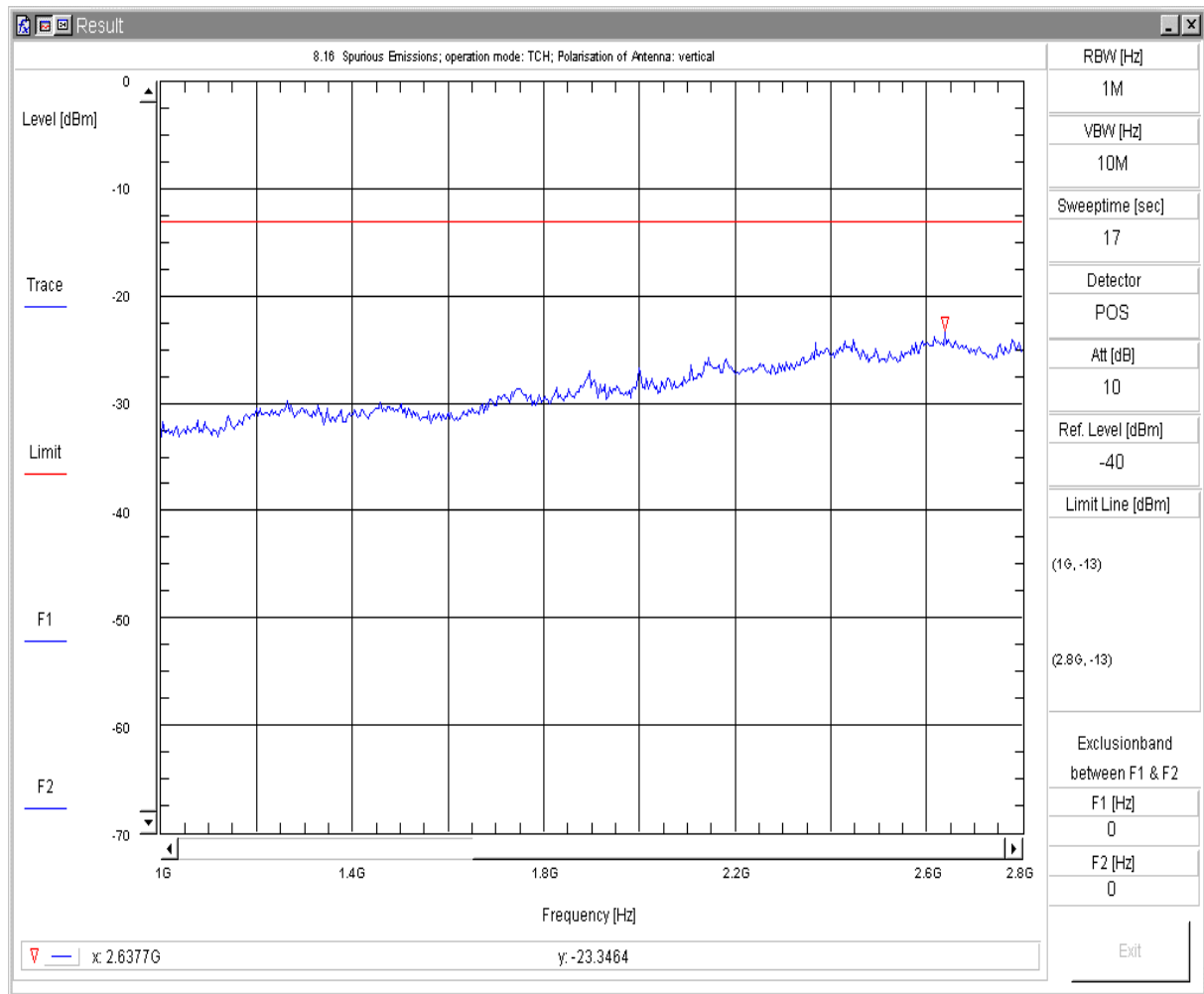


8.15 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep4
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 22:02:52fp

Spurious Emissions V7.2.5

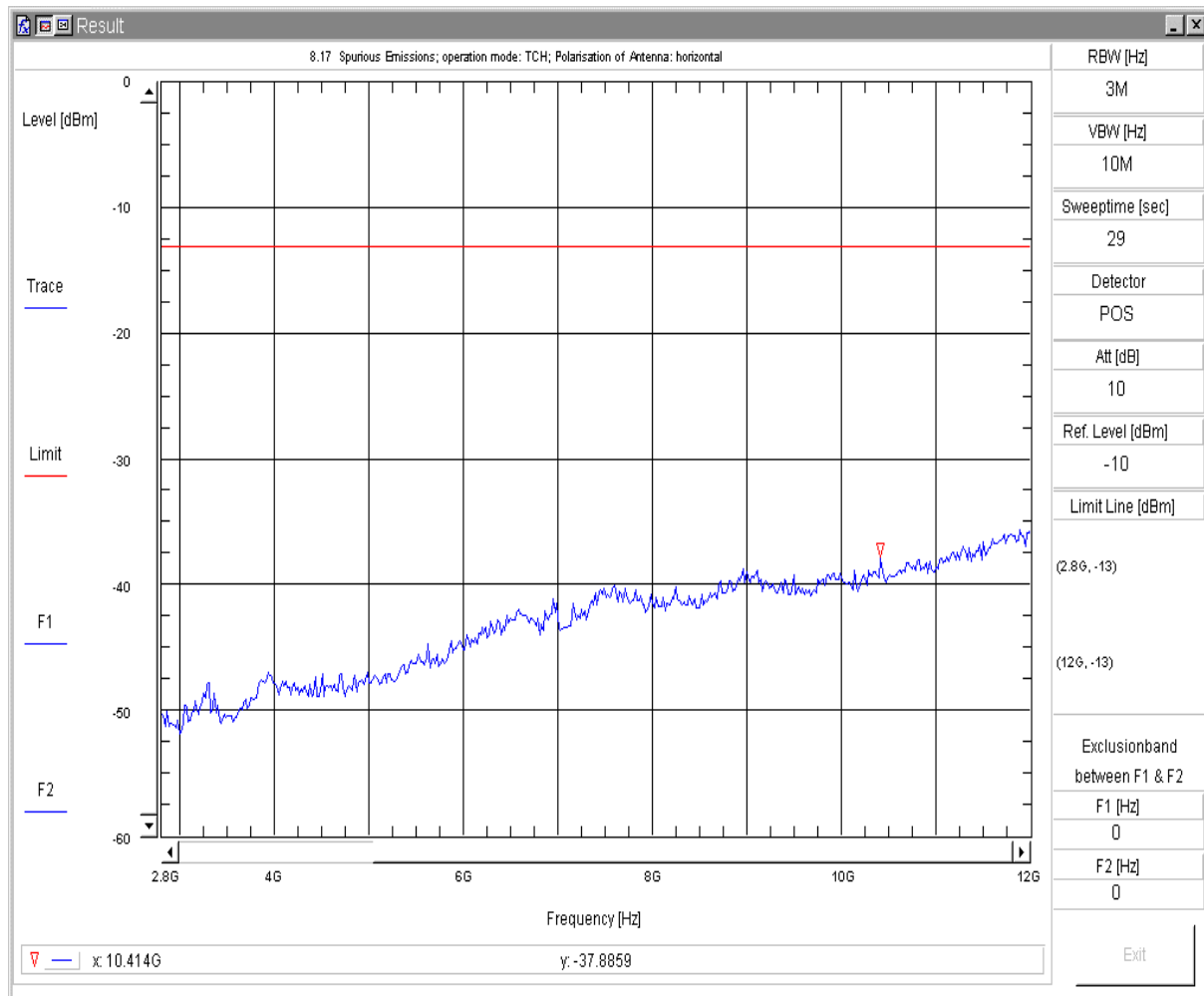


8.16 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep4
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 22:09:53pp

Spurious Emissions V7.2.5

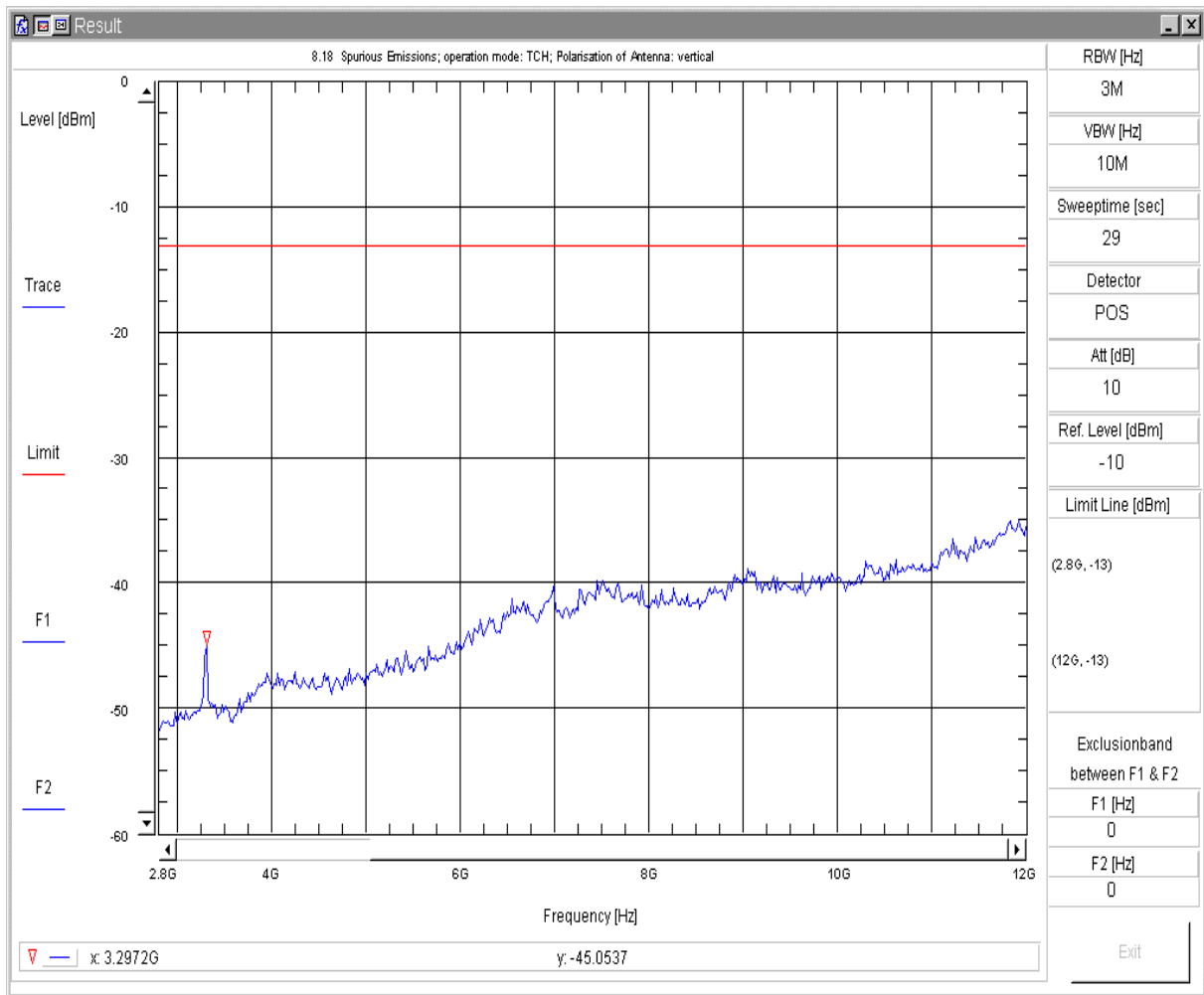


8.17 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep5
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:41:39fp

Spurious Emissions V7.2.5

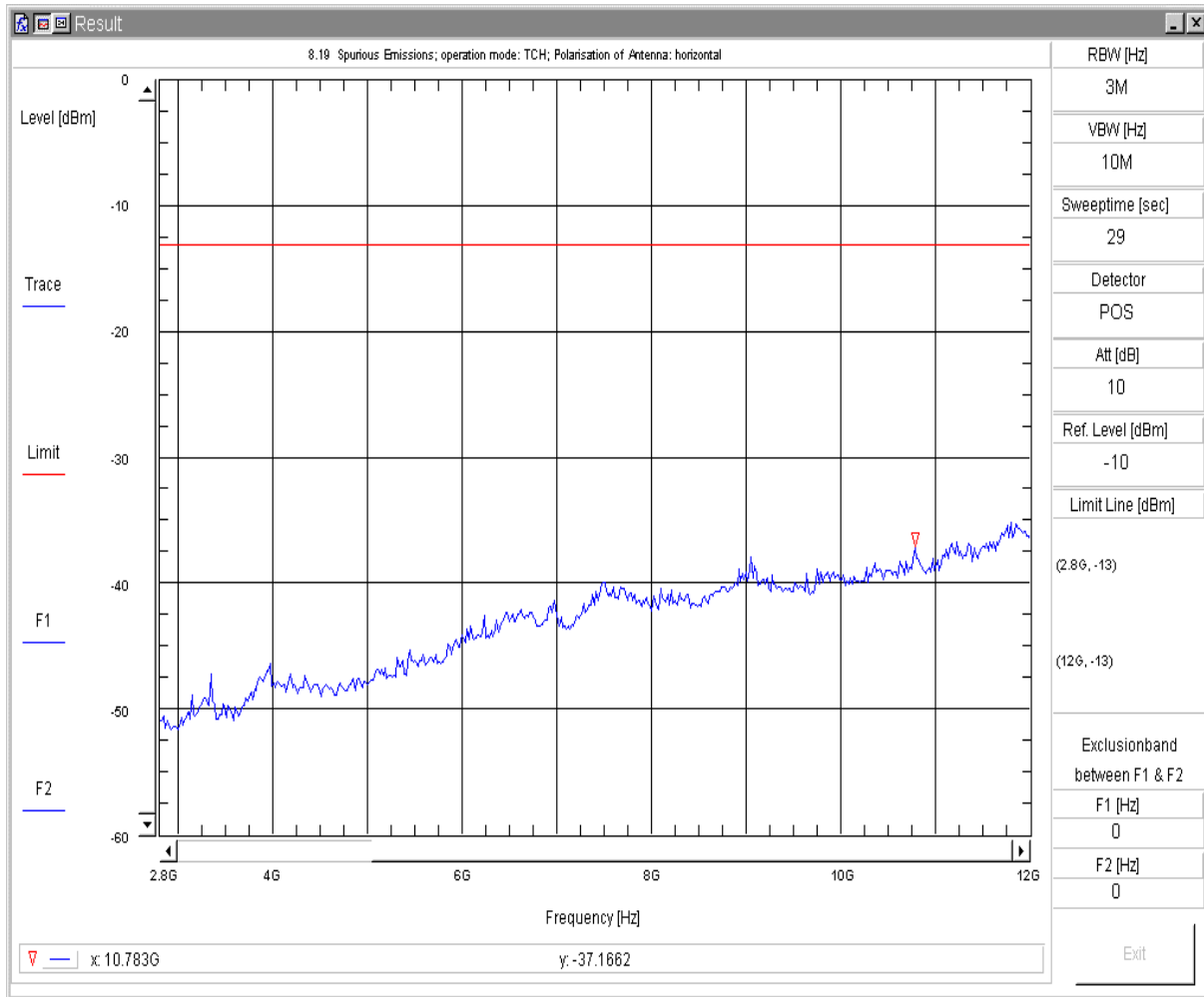


8.18 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep5
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 128
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 20:51:27fp

Spurious Emissions V7.2.5

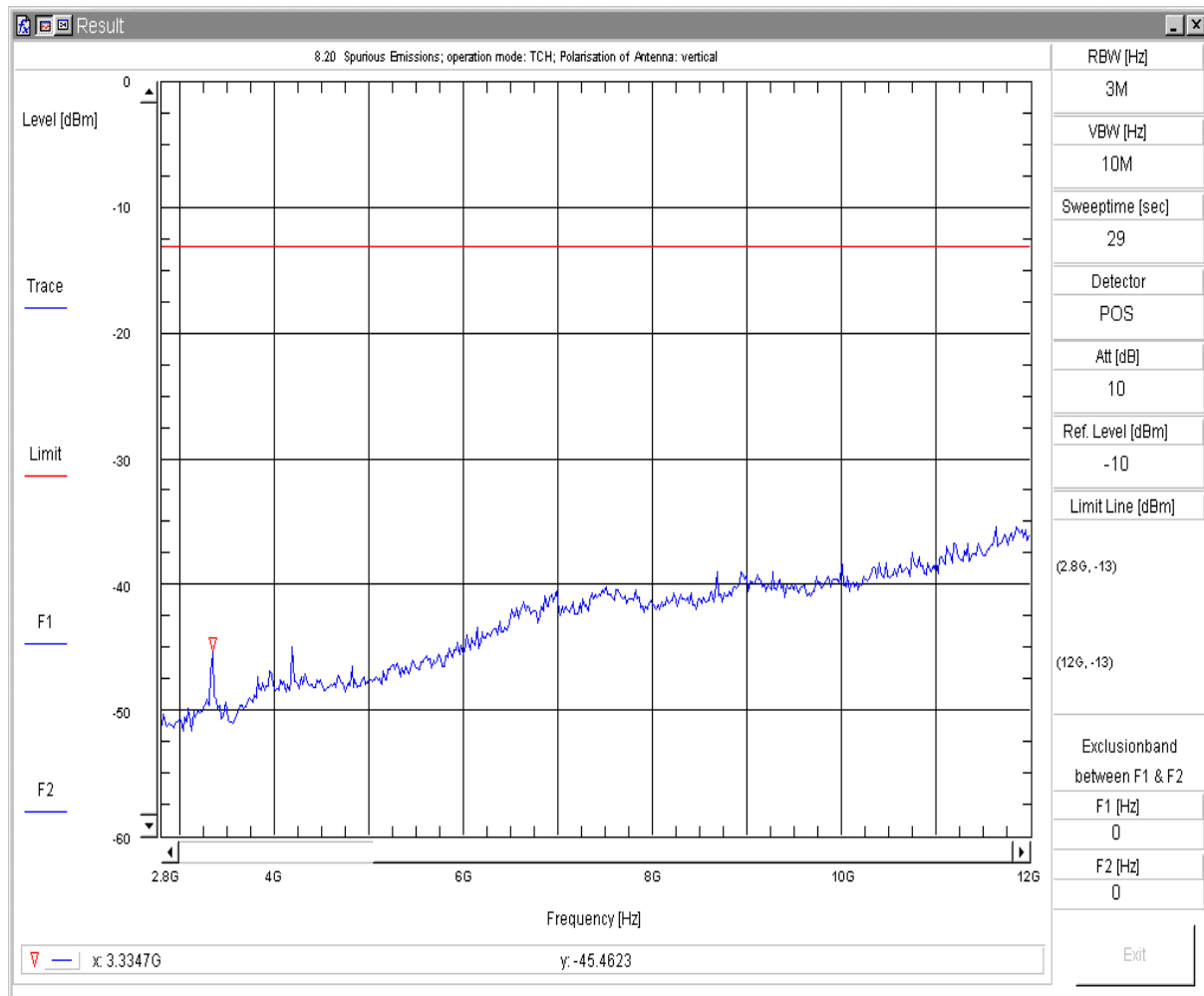


8.19 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep5
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 192
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:03:51fp

Spurious Emissions V7.2.5

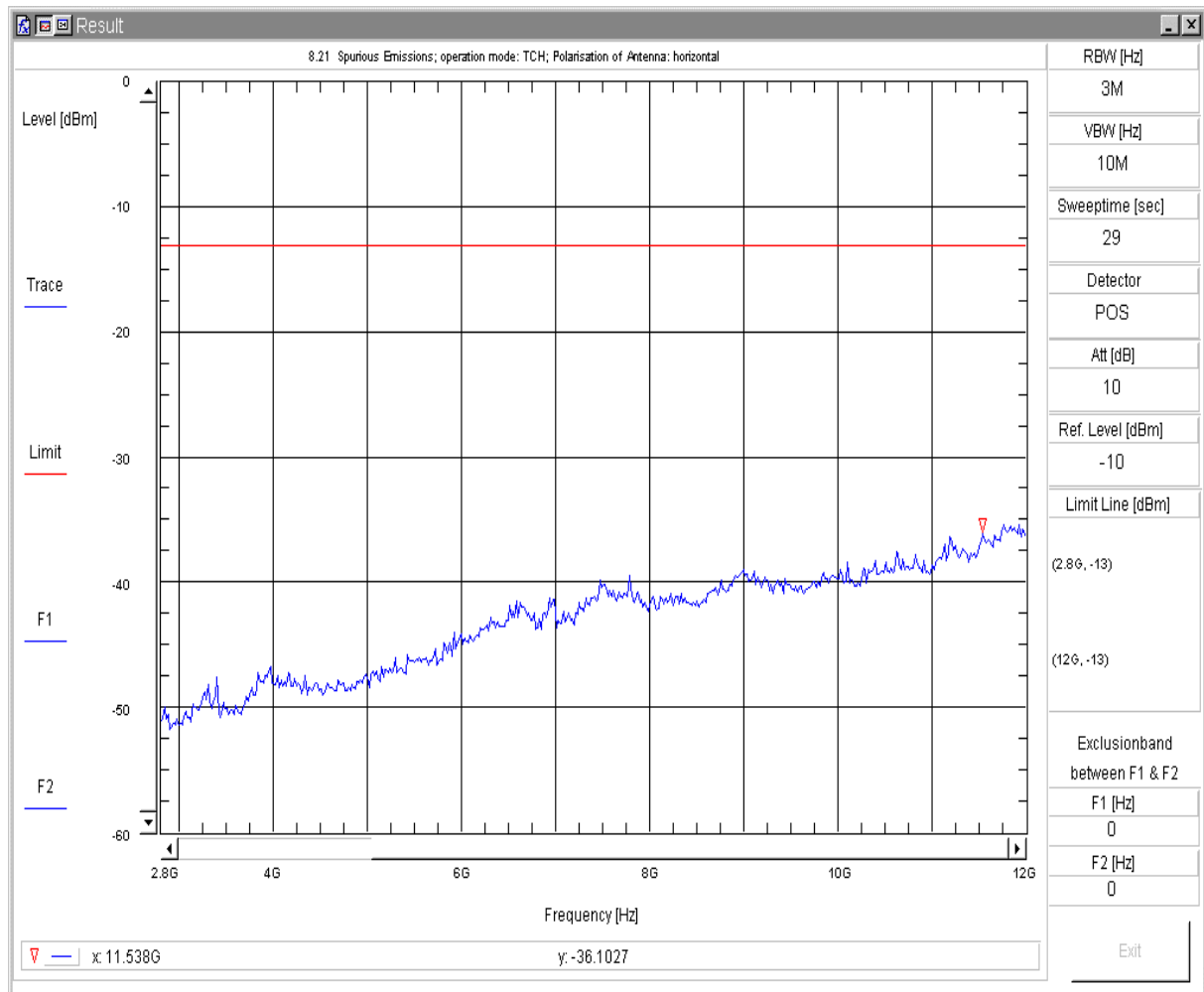


8.20 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep5
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 192
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 21:15:36fp

Spurious Emissions V7.2.5

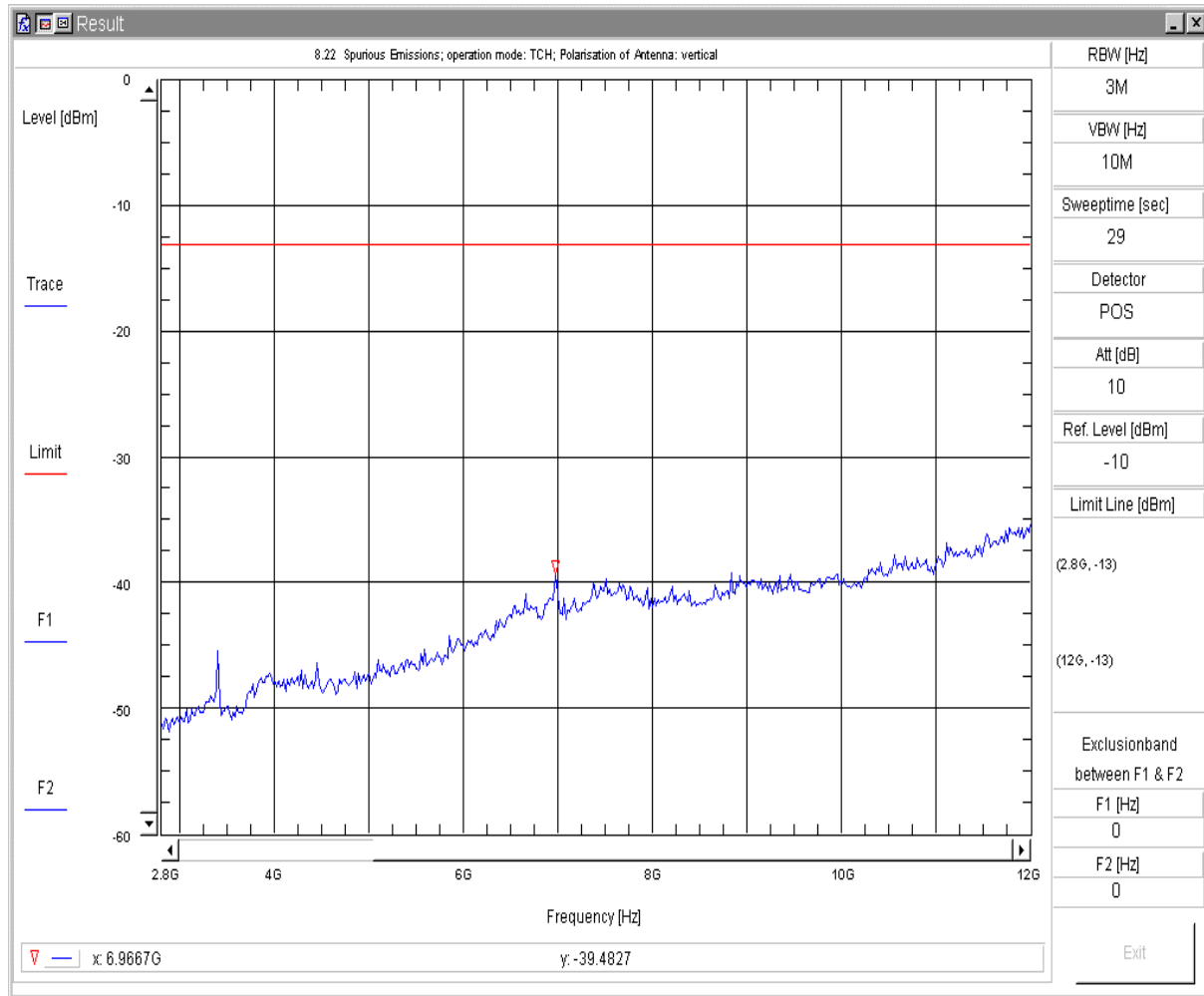


8.21 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_H
 Sweepnr: Sweep5
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 22:16:49fp

Spurious Emissions V7.2.5



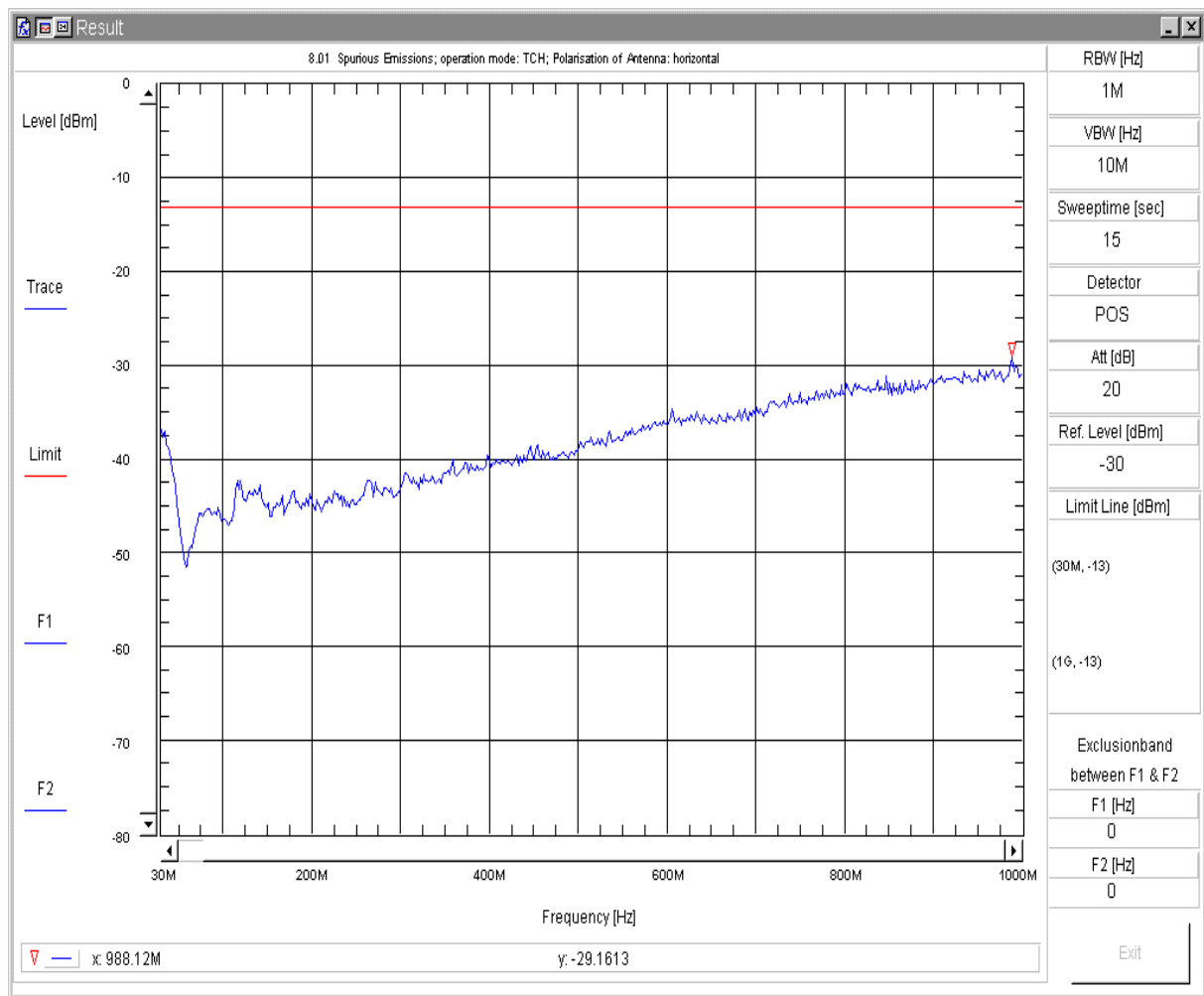
8.22 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_22.917_(GSM_850)\TD_TX_V
 Sweepnr: Sweep5
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_22.917_(GSM_850) TCH
 EUT Description: 04NSG2i
 EUT add. Info: LEON-G200 (EMC Sample)
 EUT Hardware:
 EUT Software:
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Nominal Voltage; 110V AC, 60Hz
 Remark: Ch. 251
 Operator: x_Fto
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 04/Aug/2009 22:26:56fp

Spurious Emissions V7.2.5

1.6. SPURIOUS EMISSIONS RADIATED – GSM1900 MODE

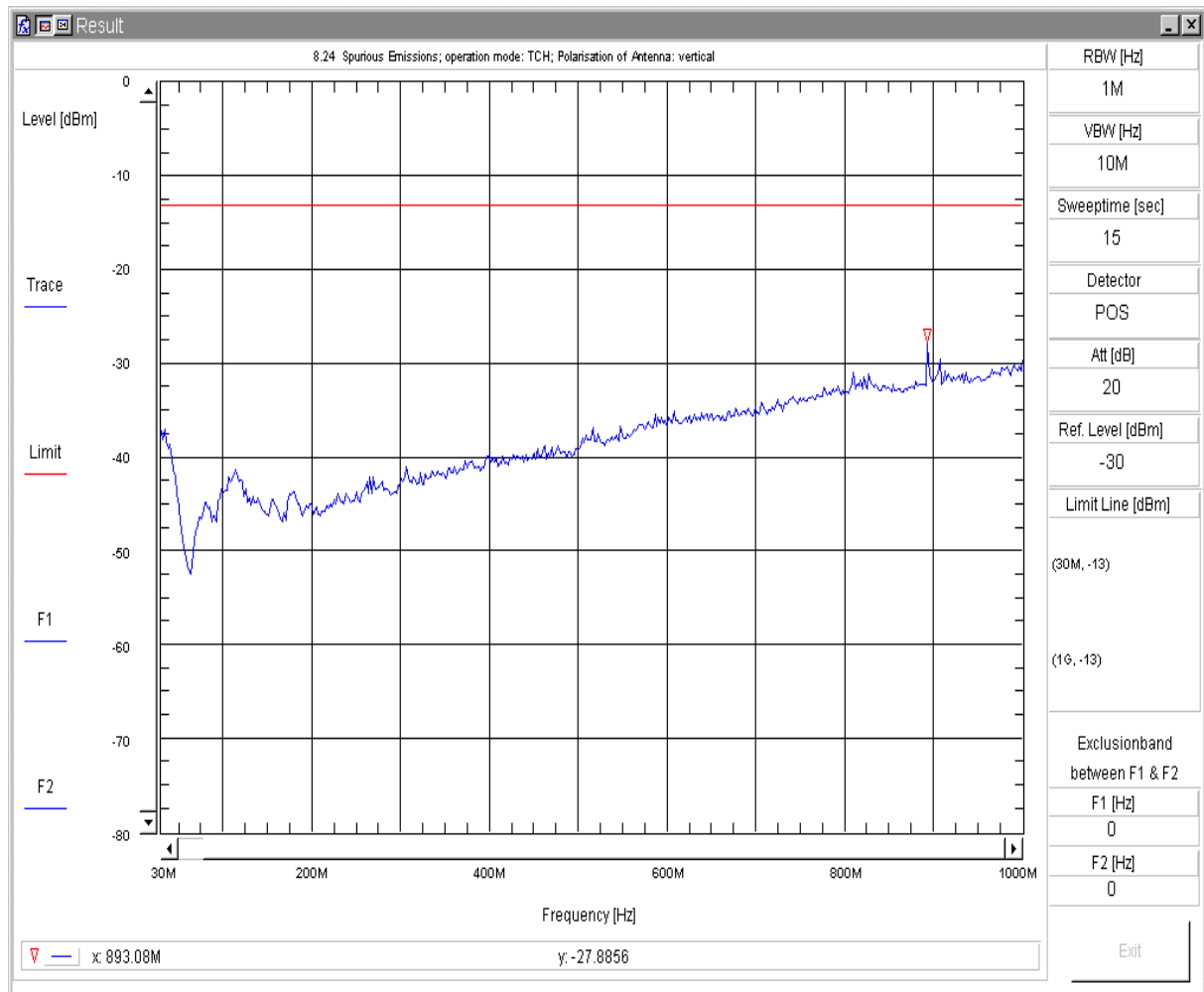


8.23 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep1
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:18:54ppp

Spurious Emissions V7.2.5

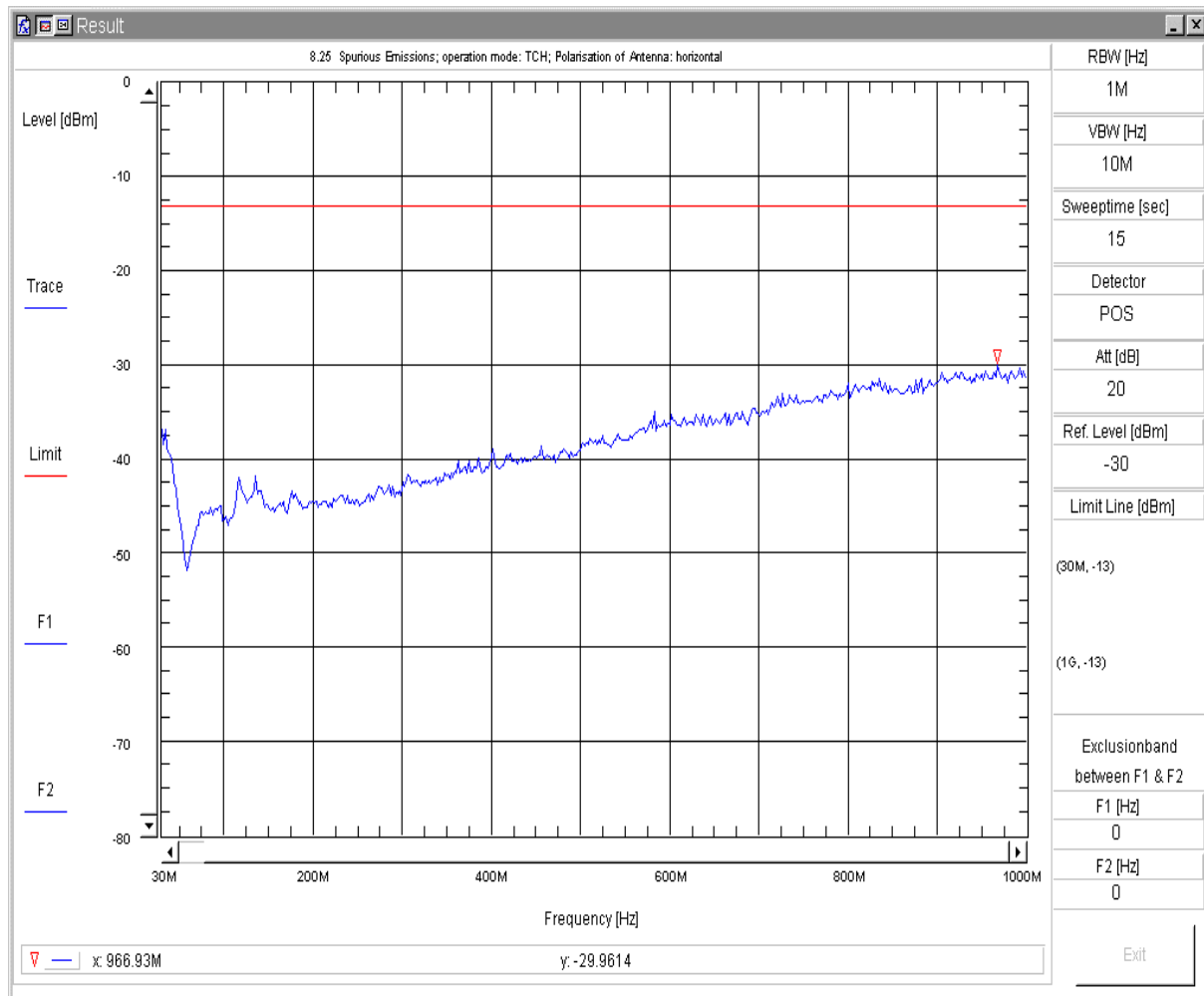


8.24 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep1
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:36:30ppf

Spurious Emissions V7.2.5

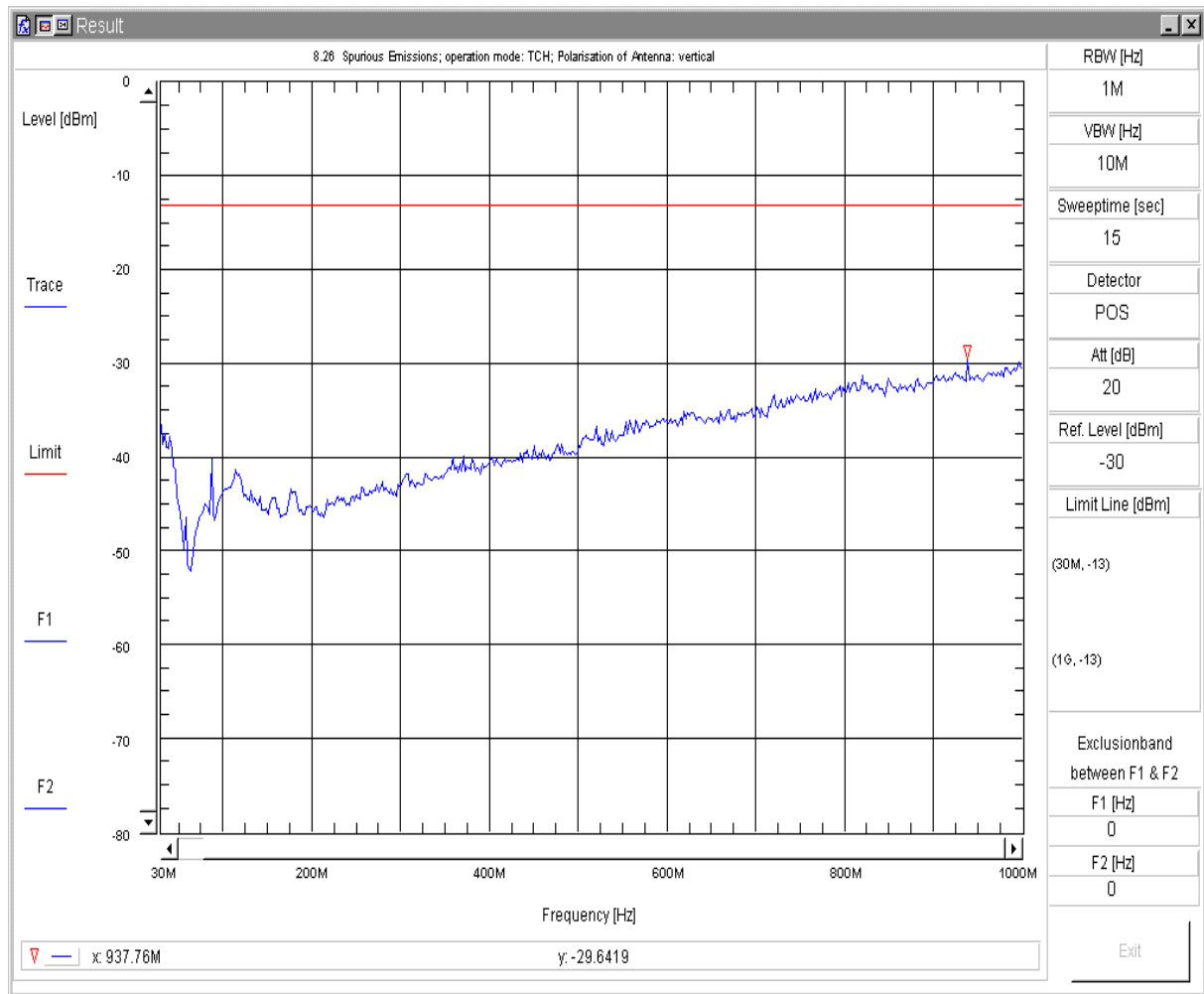


8.25 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep1
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:40:59ppp

Spurious Emissions V7.2.5

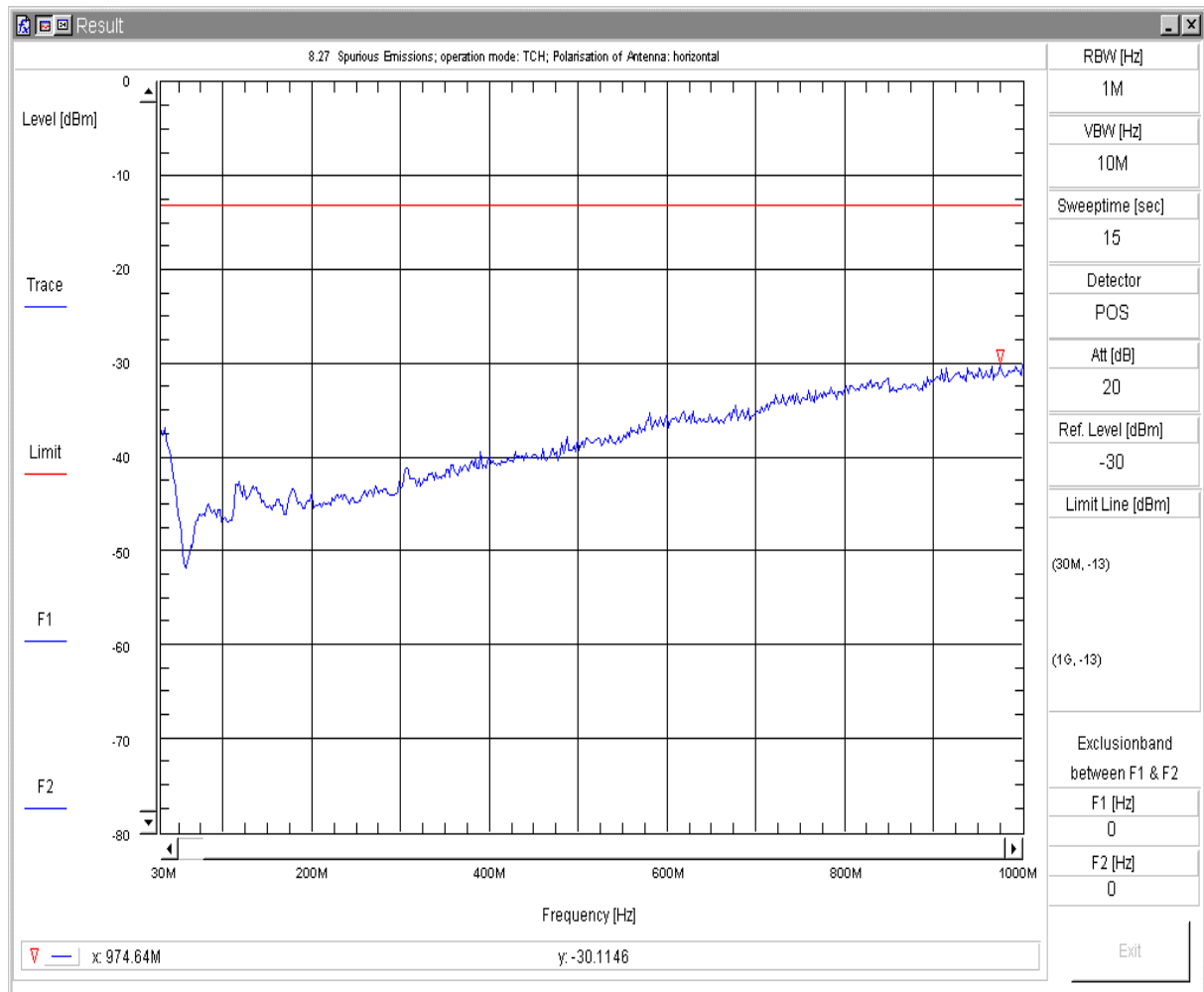


8.26 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep1
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:44:56ppf

Spurious Emissions V7.2.5

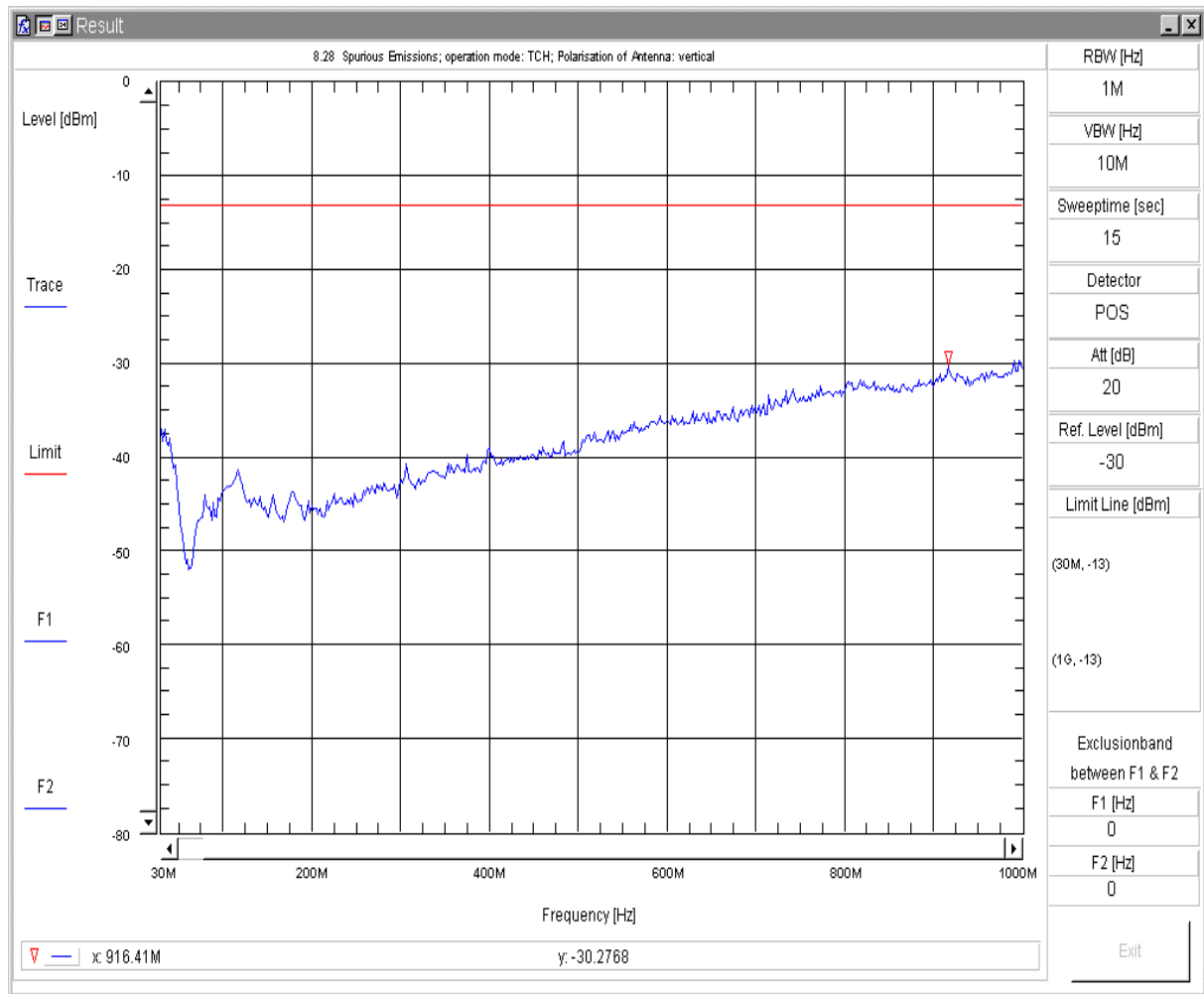


8.27 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep1
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:49:20ppp

Spurious Emissions V7.2.5

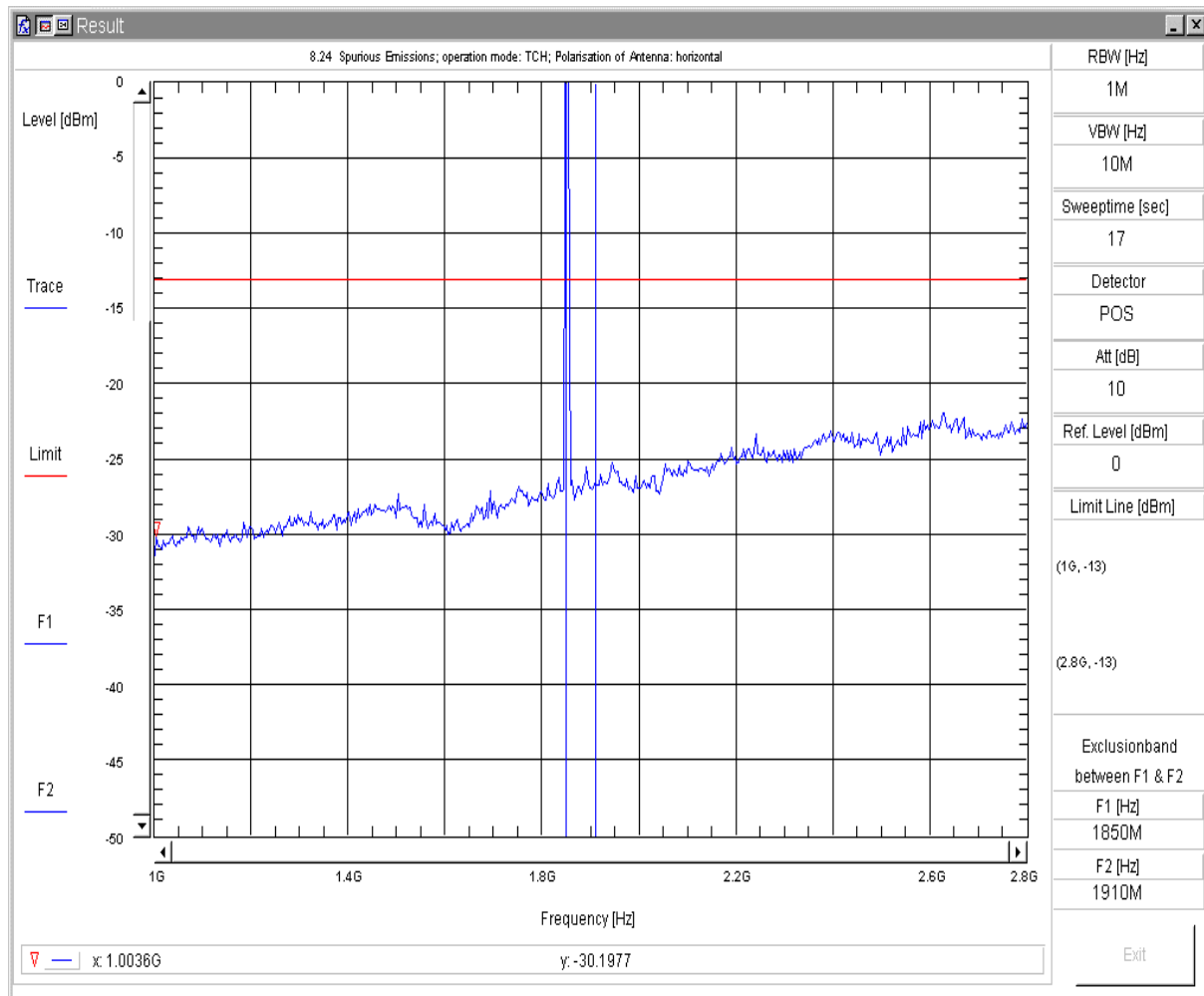


8.28 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep1
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:53:49ppf

Spurious Emissions V7.2.5

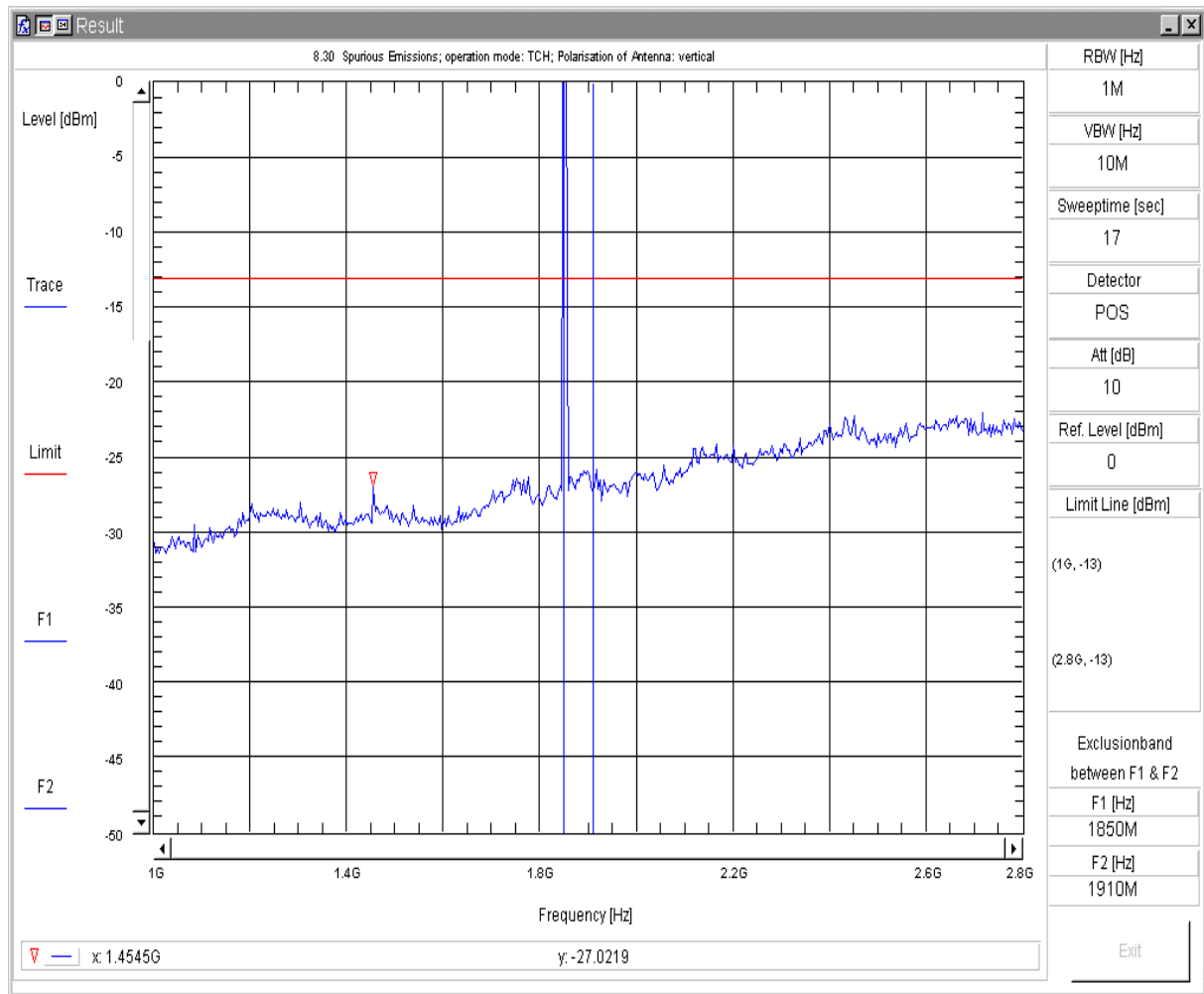


8.29 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep2
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: -
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:25:25pp

Spurious Emissions V7.2.5

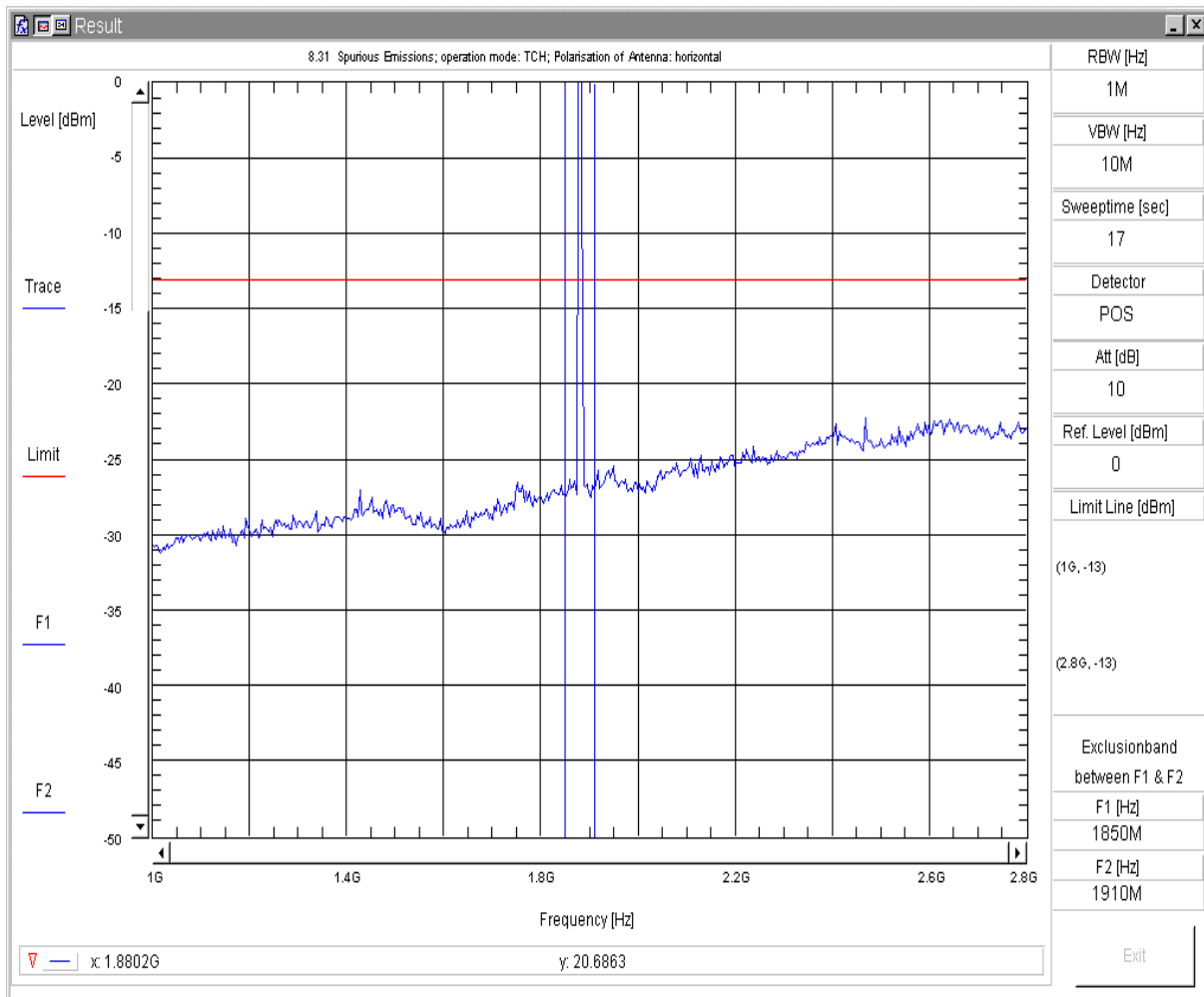


8.30 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep2
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:26:56pp

Spurious Emissions V7.2.5

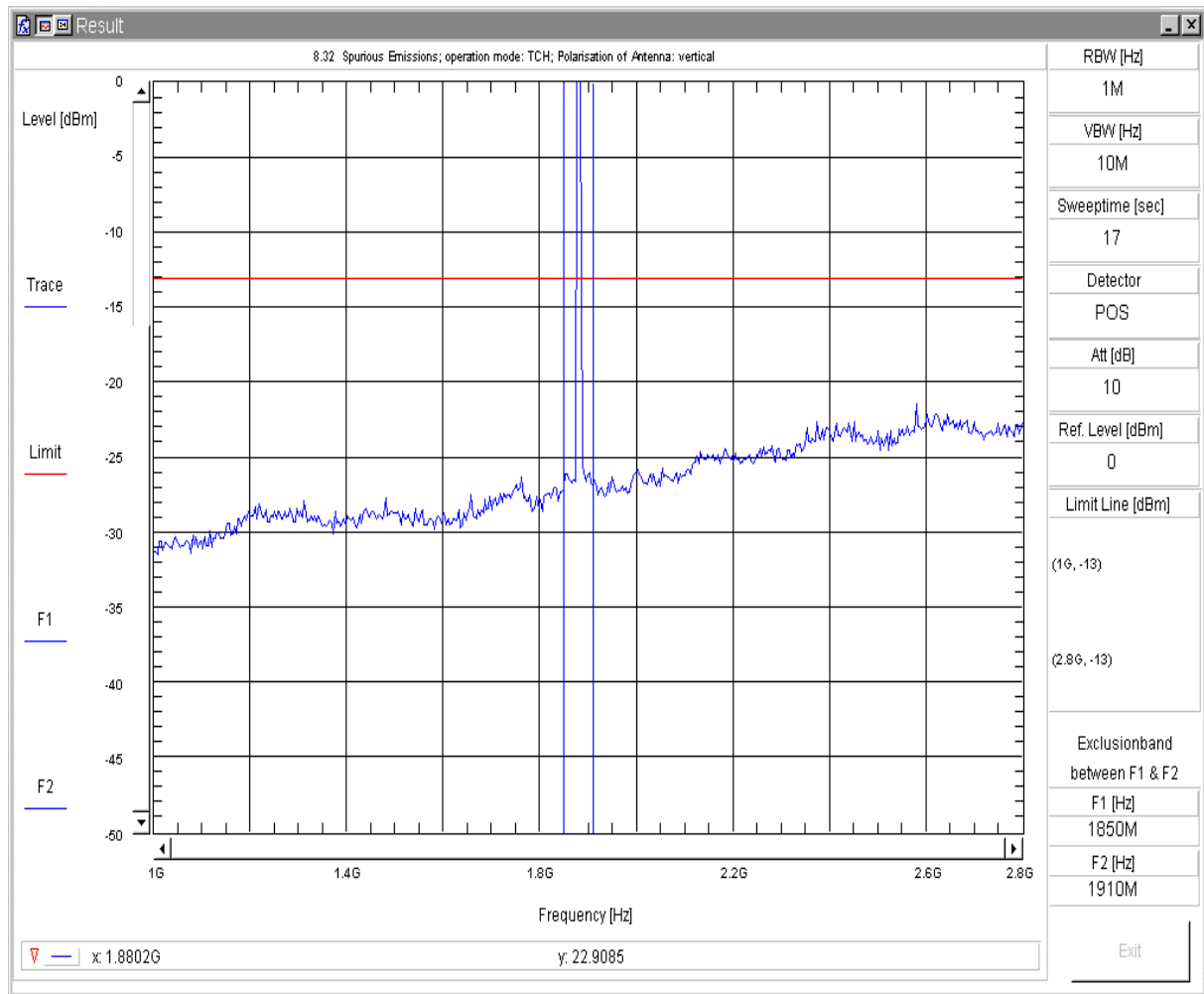


8.31 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep2
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:12:39pp

Spurious Emissions V7.2.5

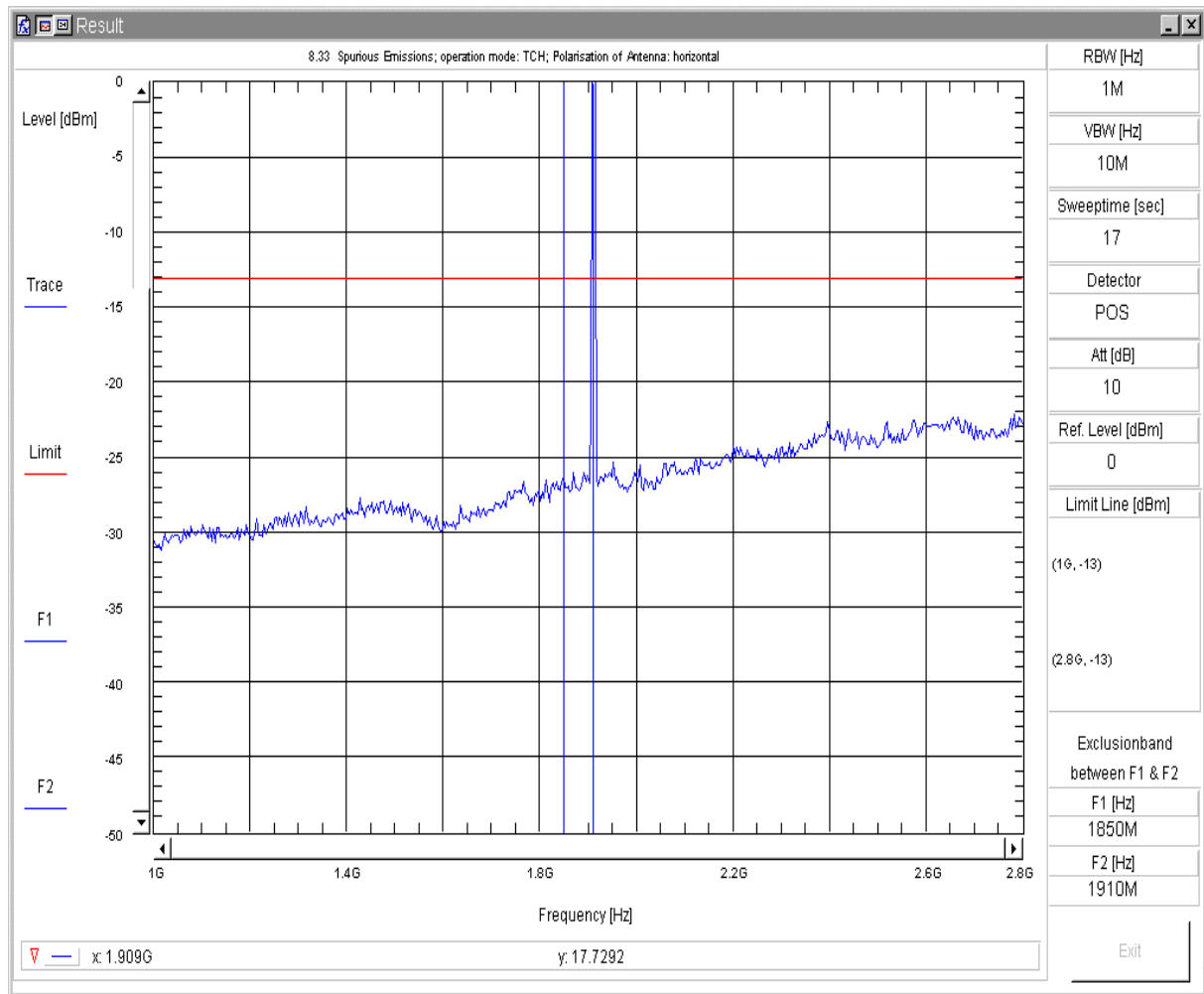


8.32 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep2
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:19:27pp

Spurious Emissions V7.2.5

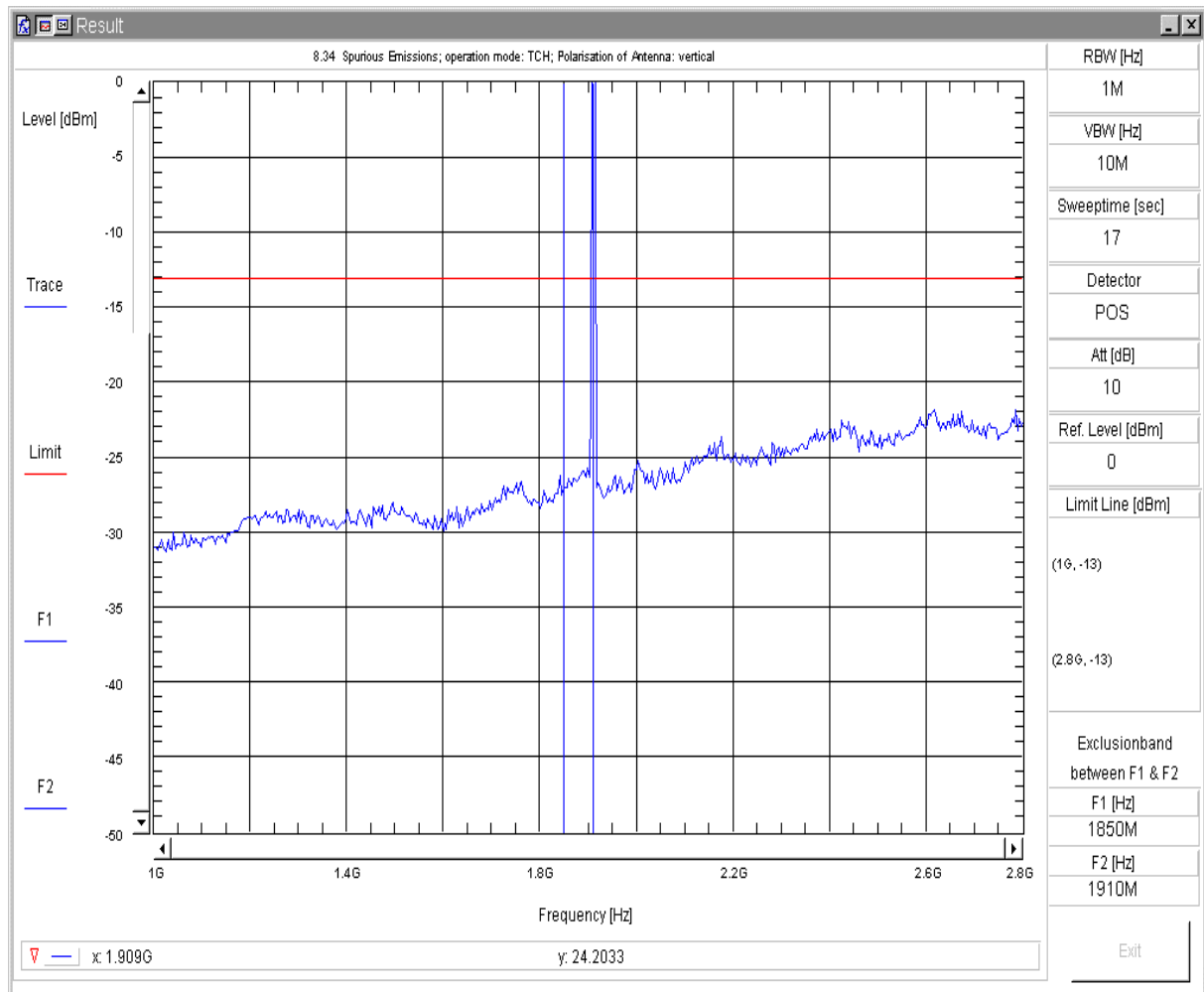


8.33 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep2
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 08:58:01pp

Spurious Emissions V7.2.5

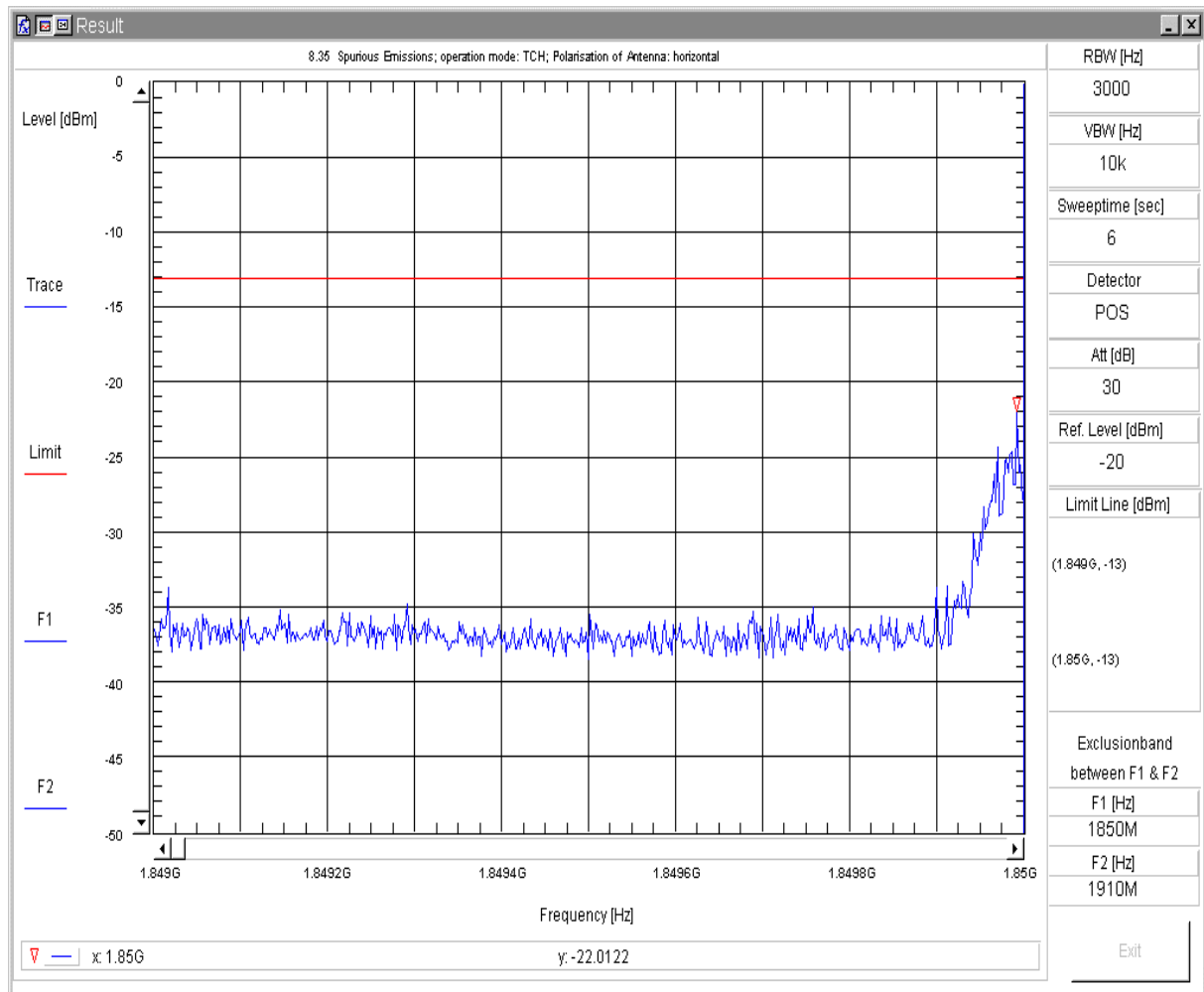


8.34 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep2
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:05:15pp

Spurious Emissions V7.2.5

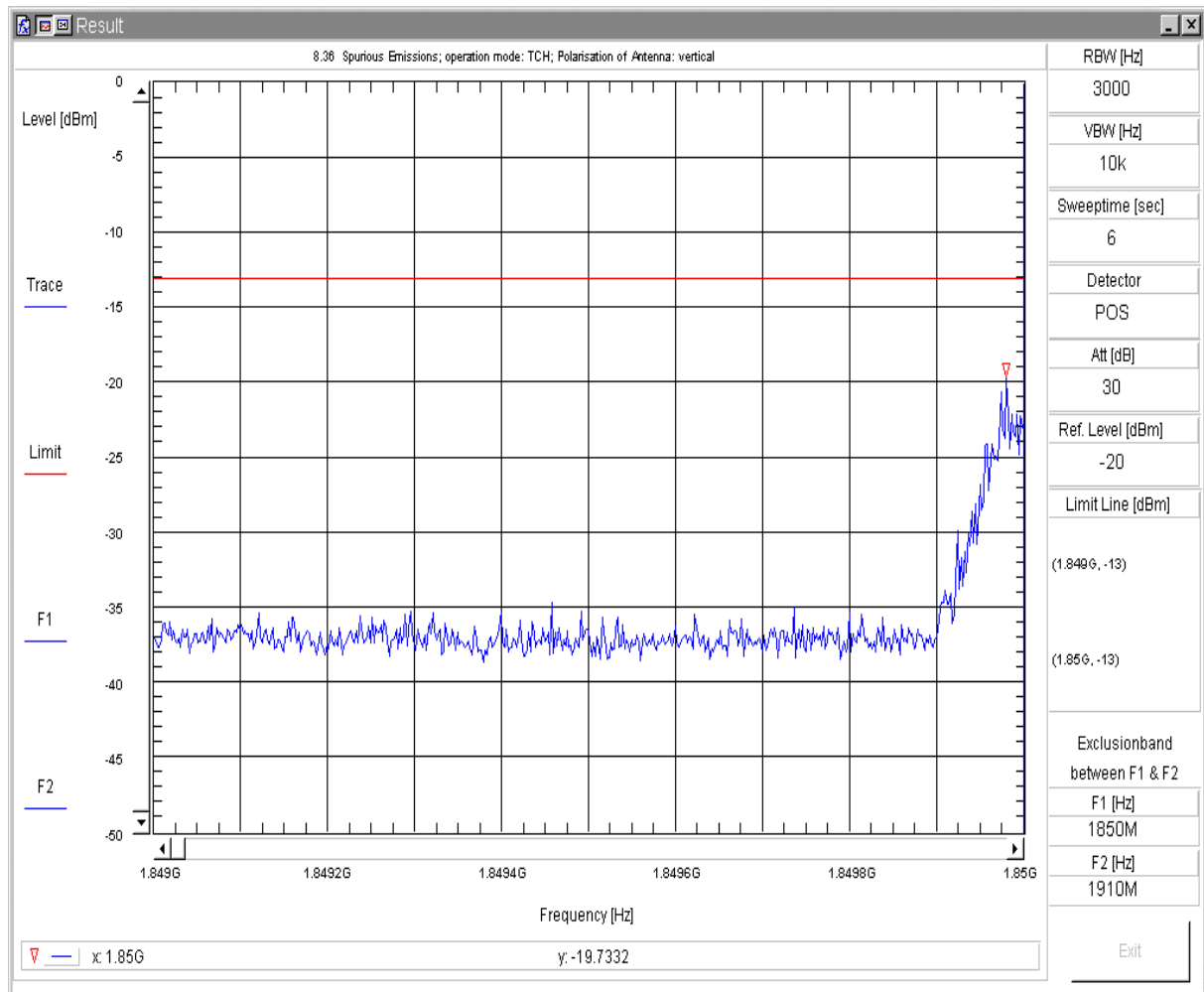


8.35 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep3
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:34:13pp

Spurious Emissions V7.2.5

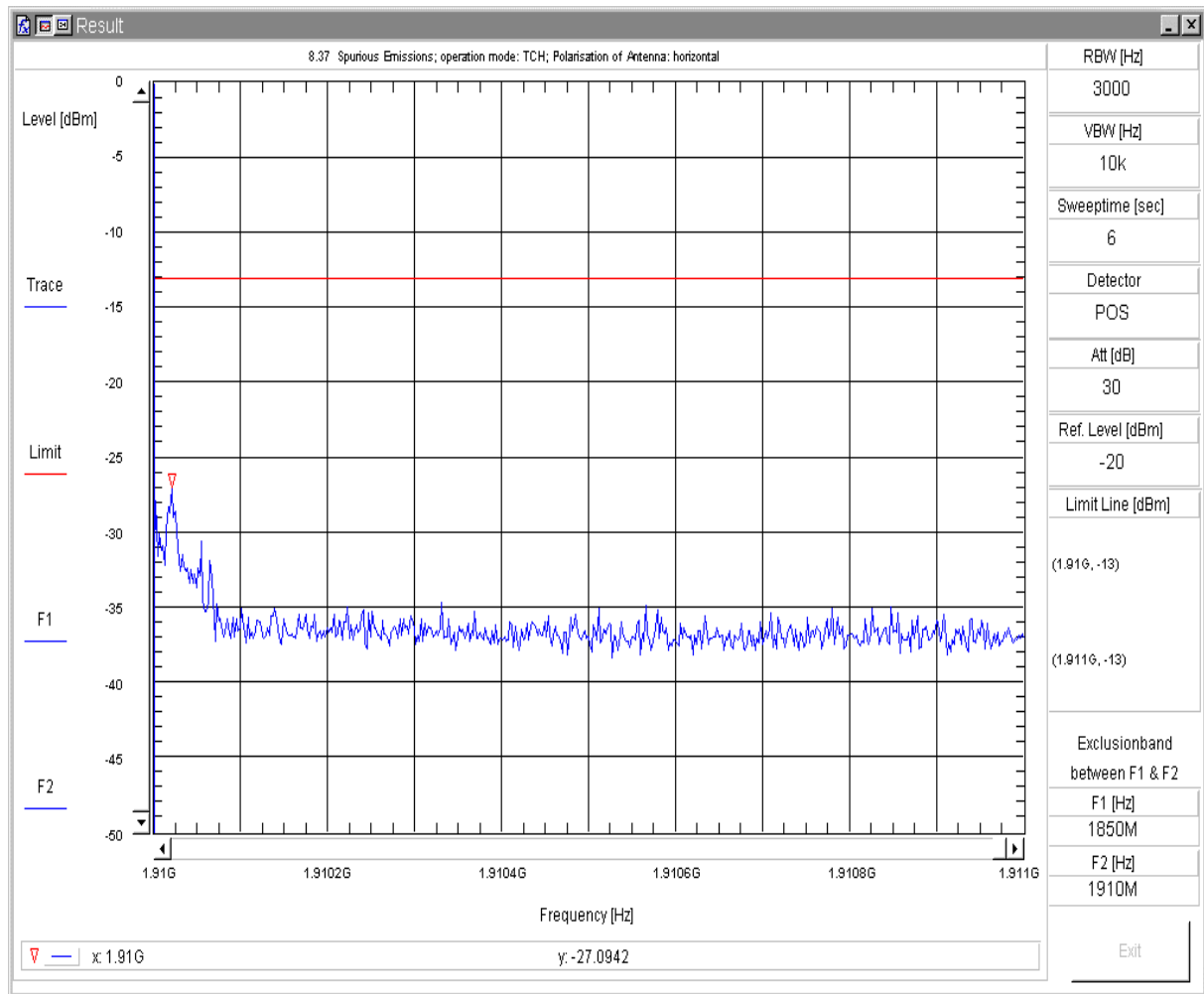


8.36 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep3
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:38:28pp

Spurious Emissions V7.2.5

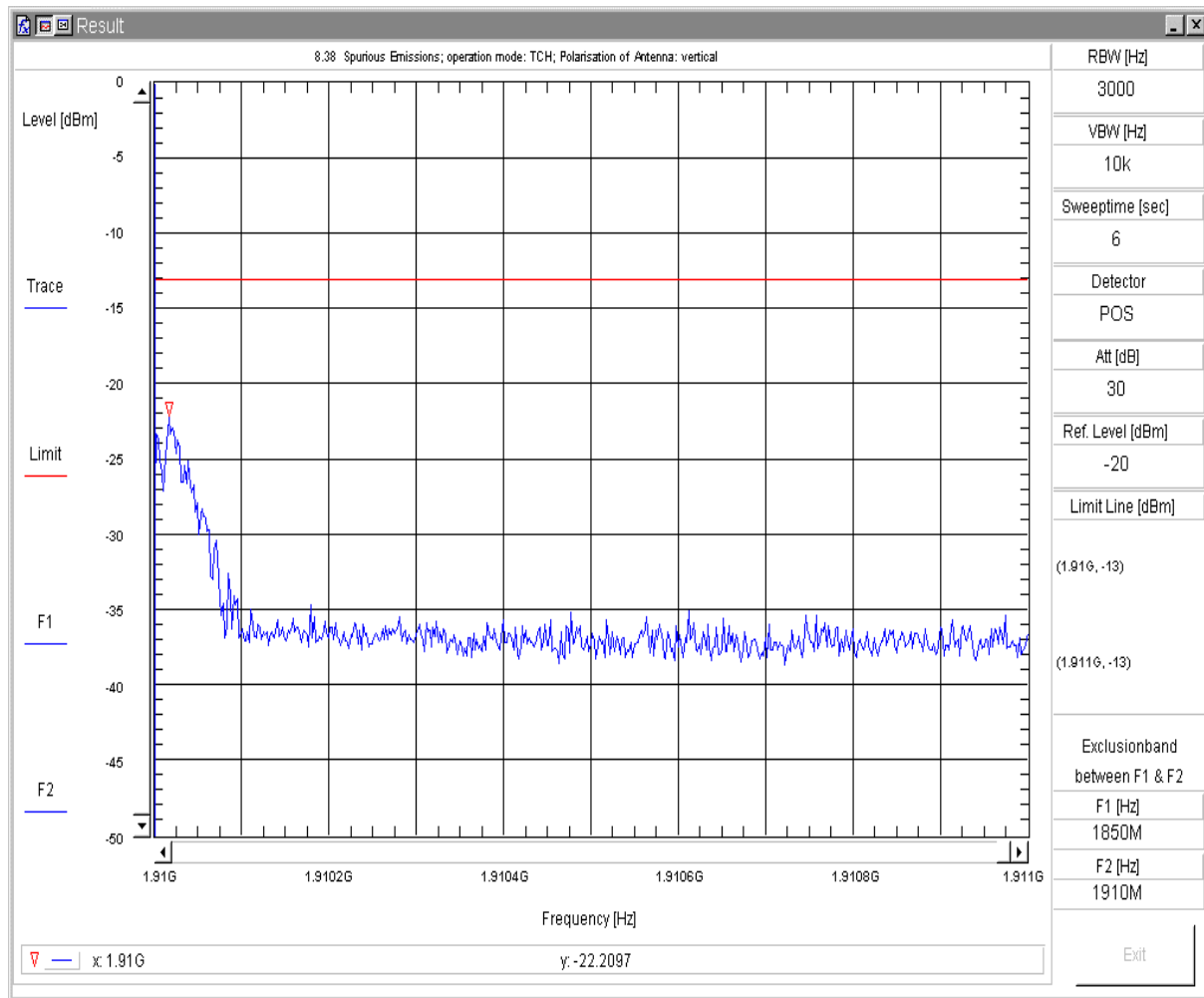


8.37 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep4
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:43:13pp

Spurious Emissions V7.2.5

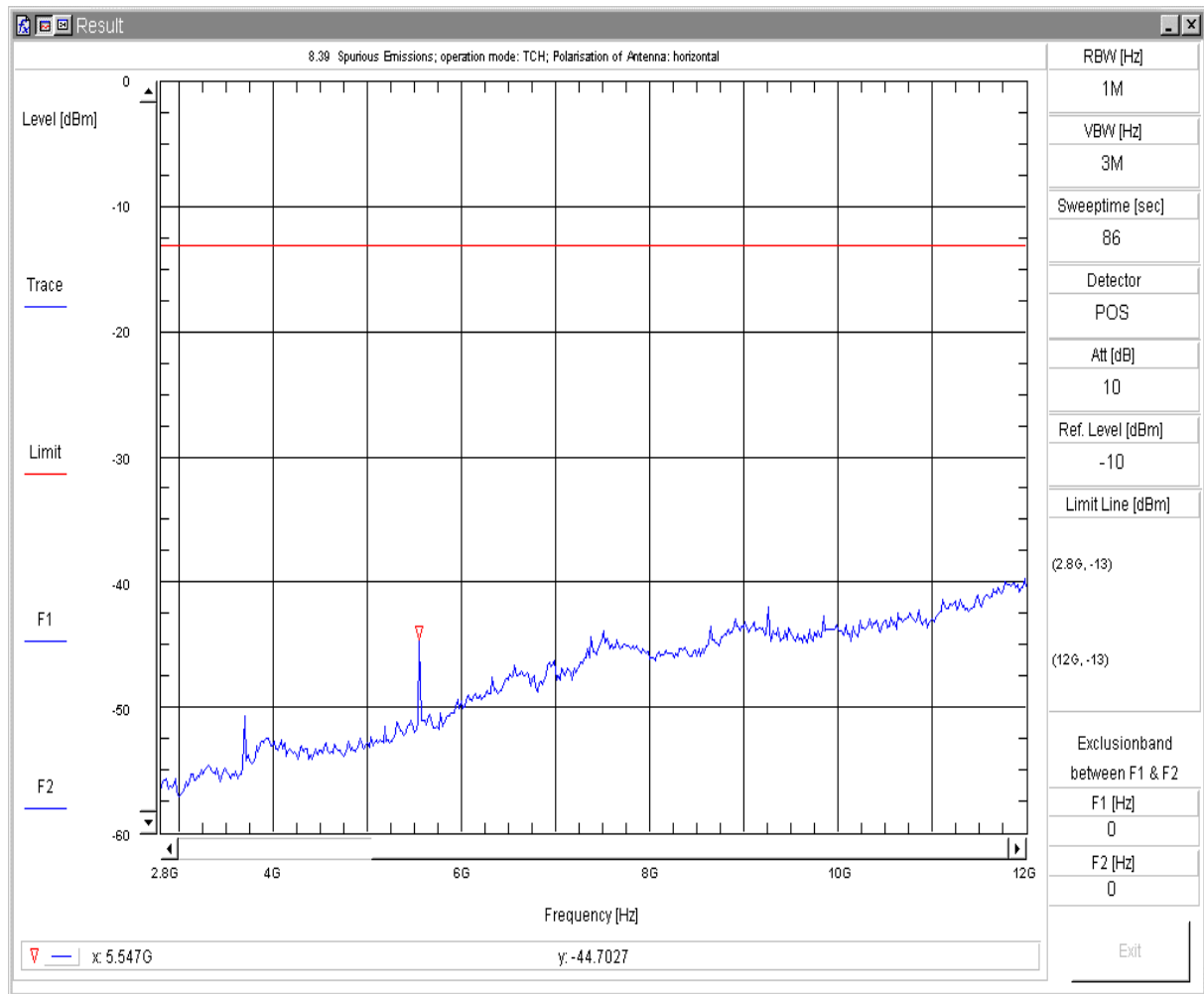


8.38 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep4
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:47:28pp

Spurious Emissions V7.2.5

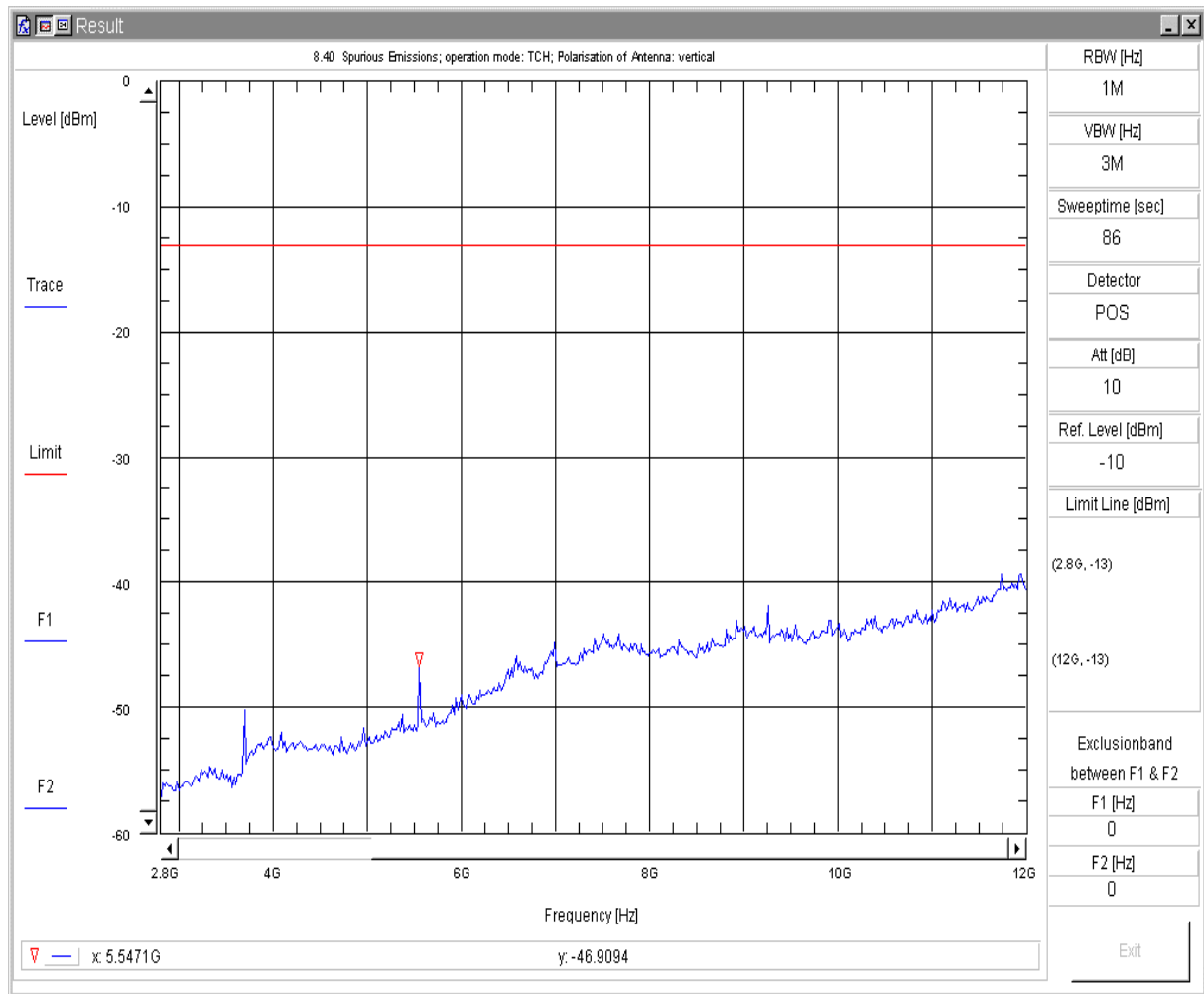


8.39 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep5
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 10:39:32fp

Spurious Emissions V7.2.5

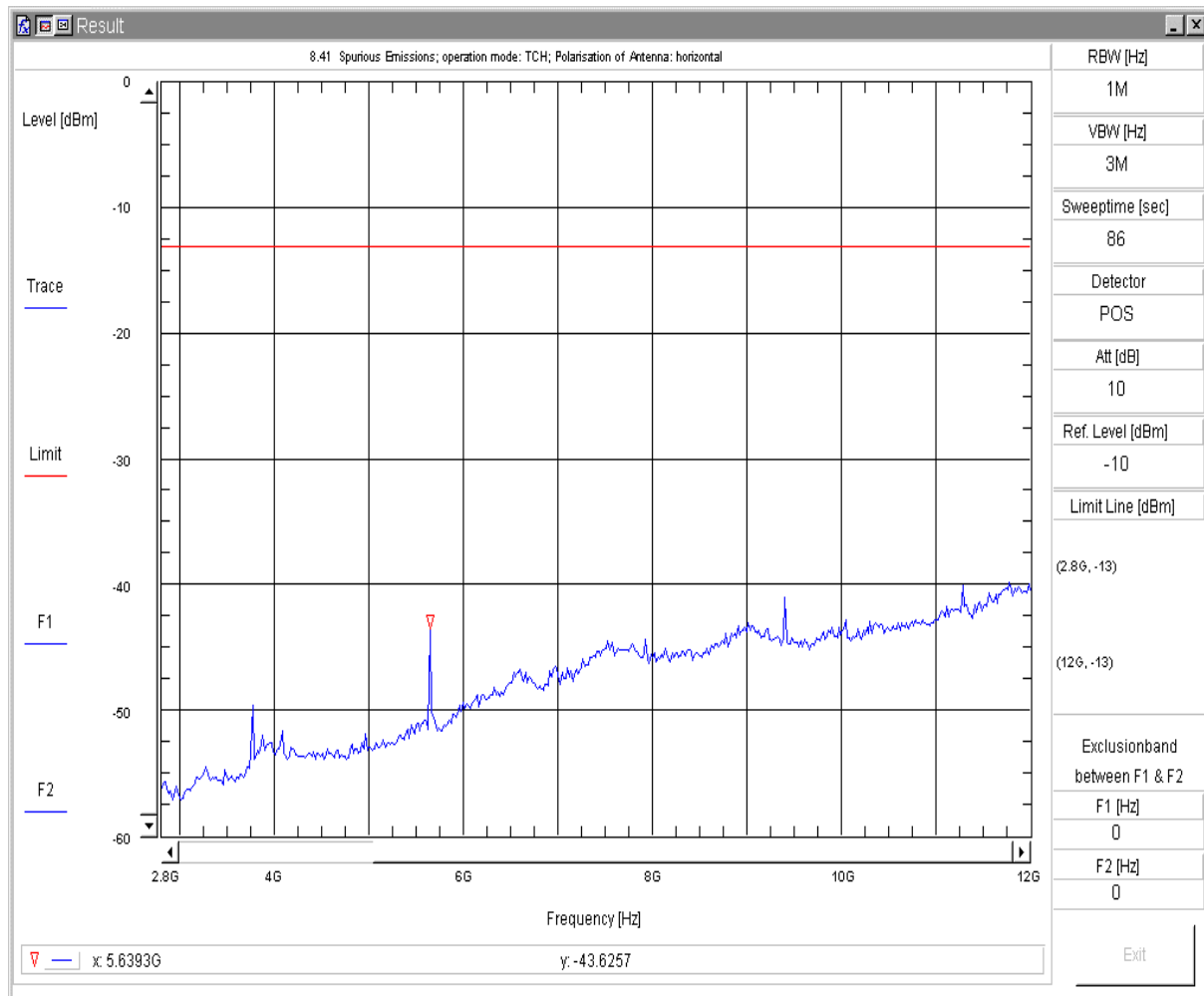


8.40 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep5
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 11:02:56fp

Spurious Emissions V7.2.5

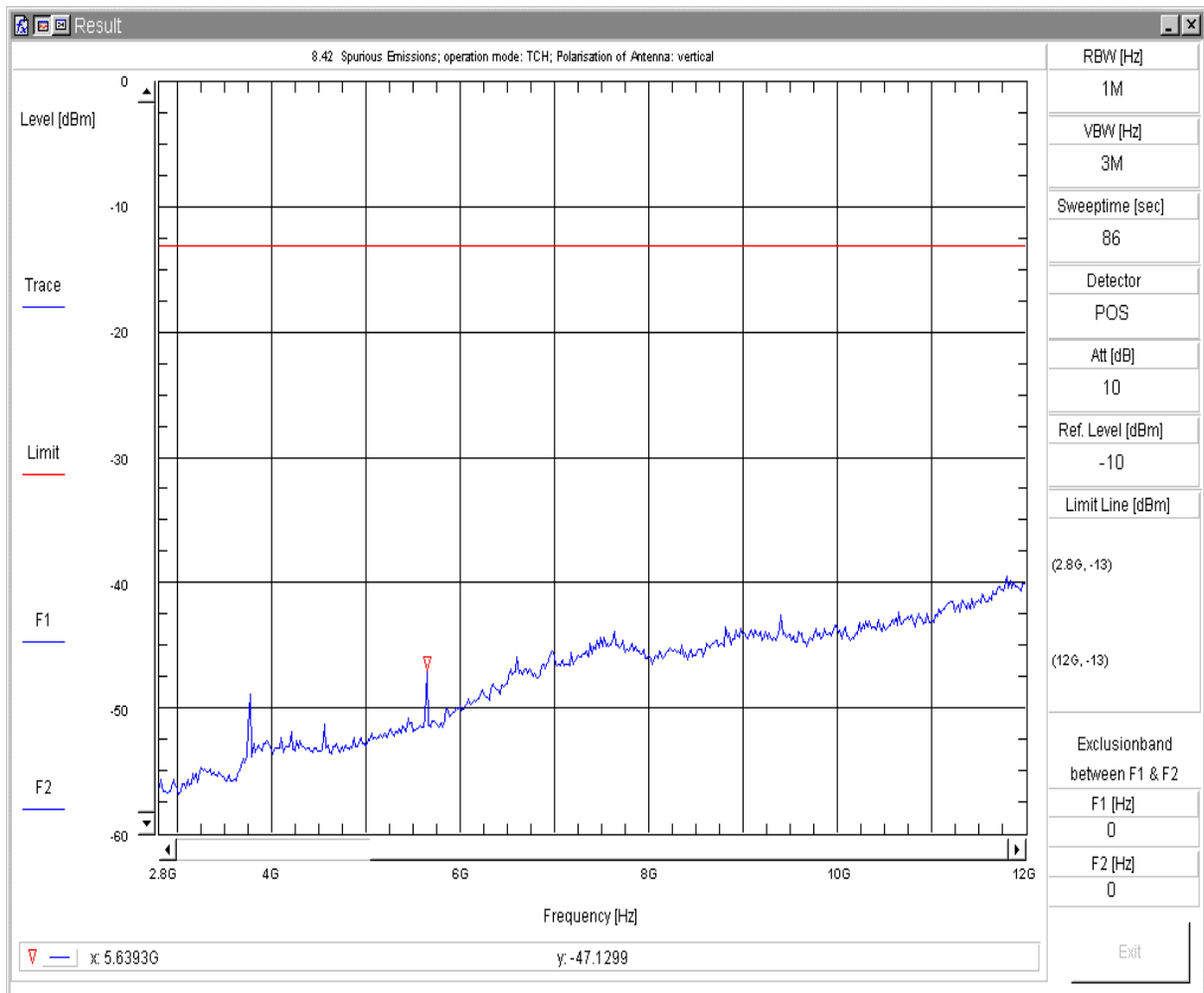


8.41 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep5
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 11:44:43fp

Spurious Emissions V7.2.5

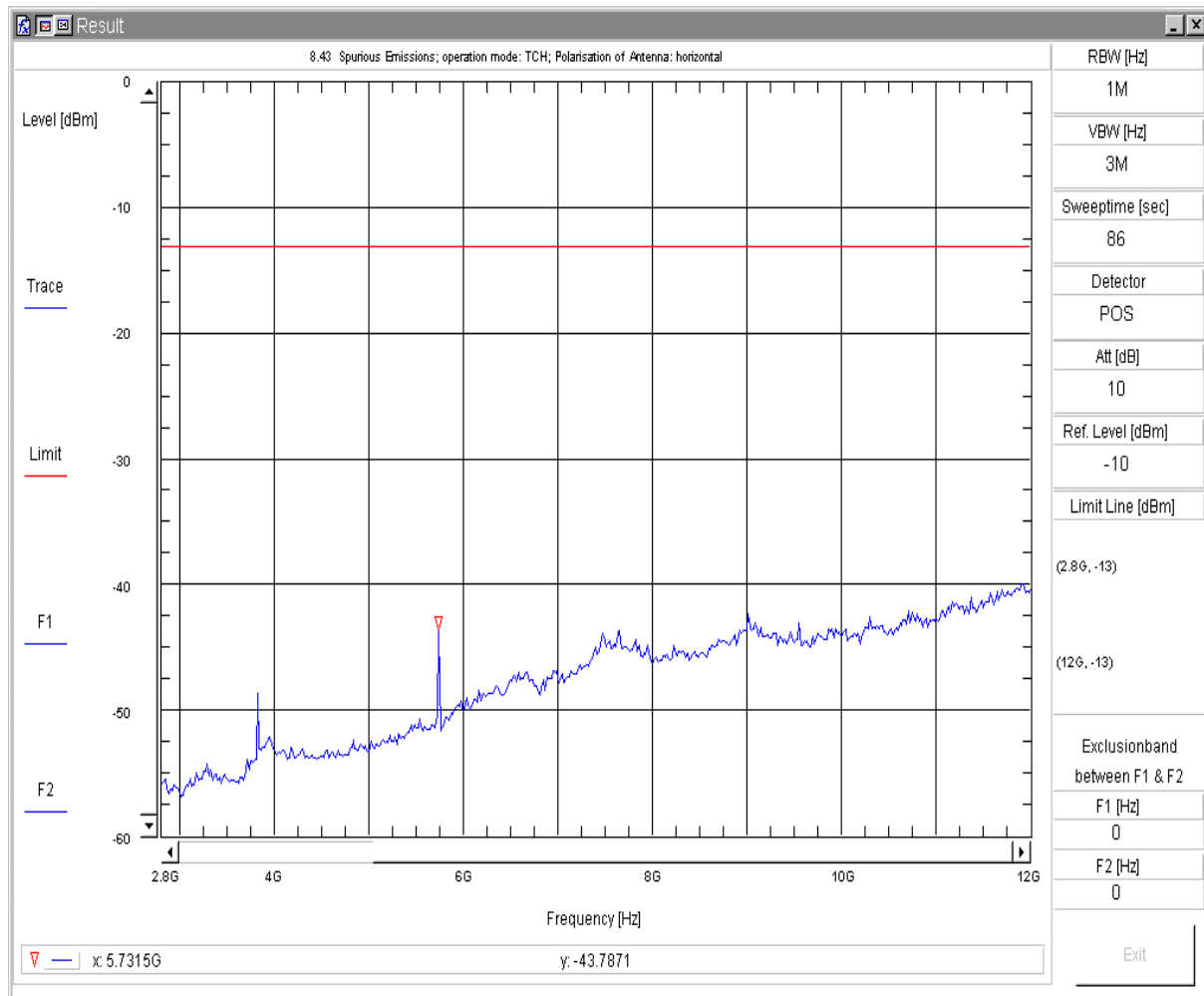


8.42 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep5
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 12:09:12fp

Spurious Emissions V7.2.5

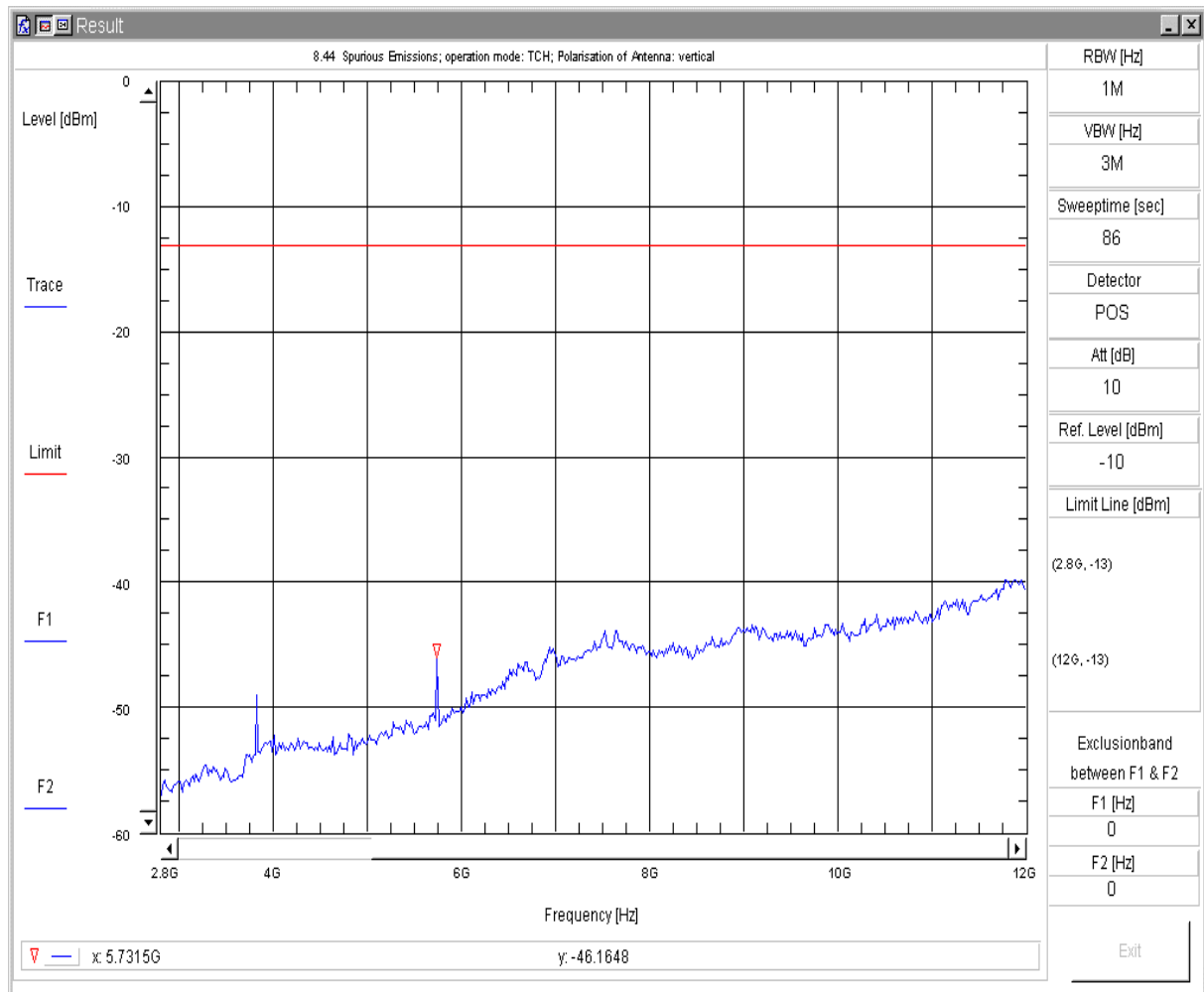


8.43 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep5
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 09:51:52fp

Spurious Emissions V7.2.5

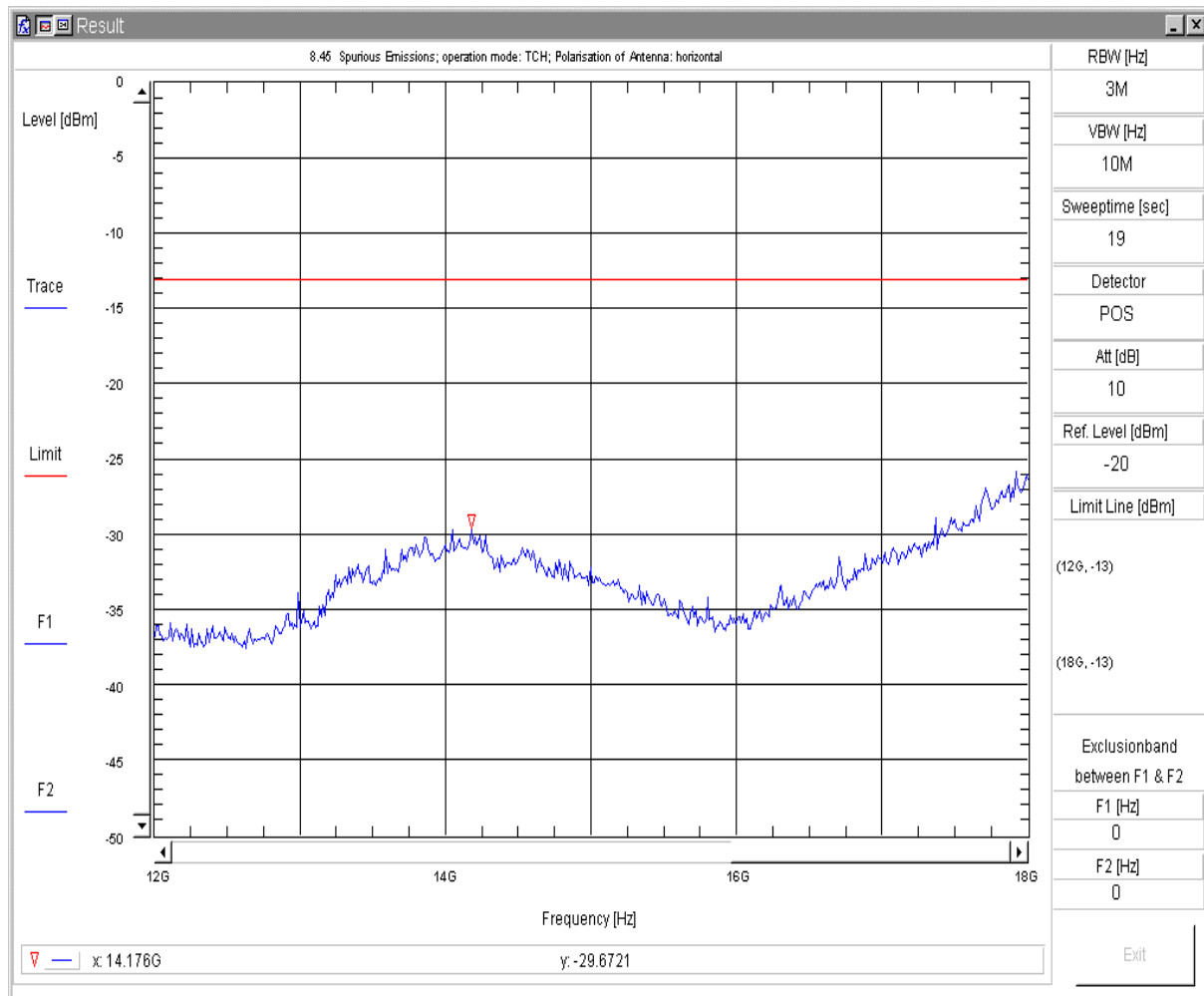


8.44 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep5
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 10:16:00fp

Spurious Emissions V7.2.5

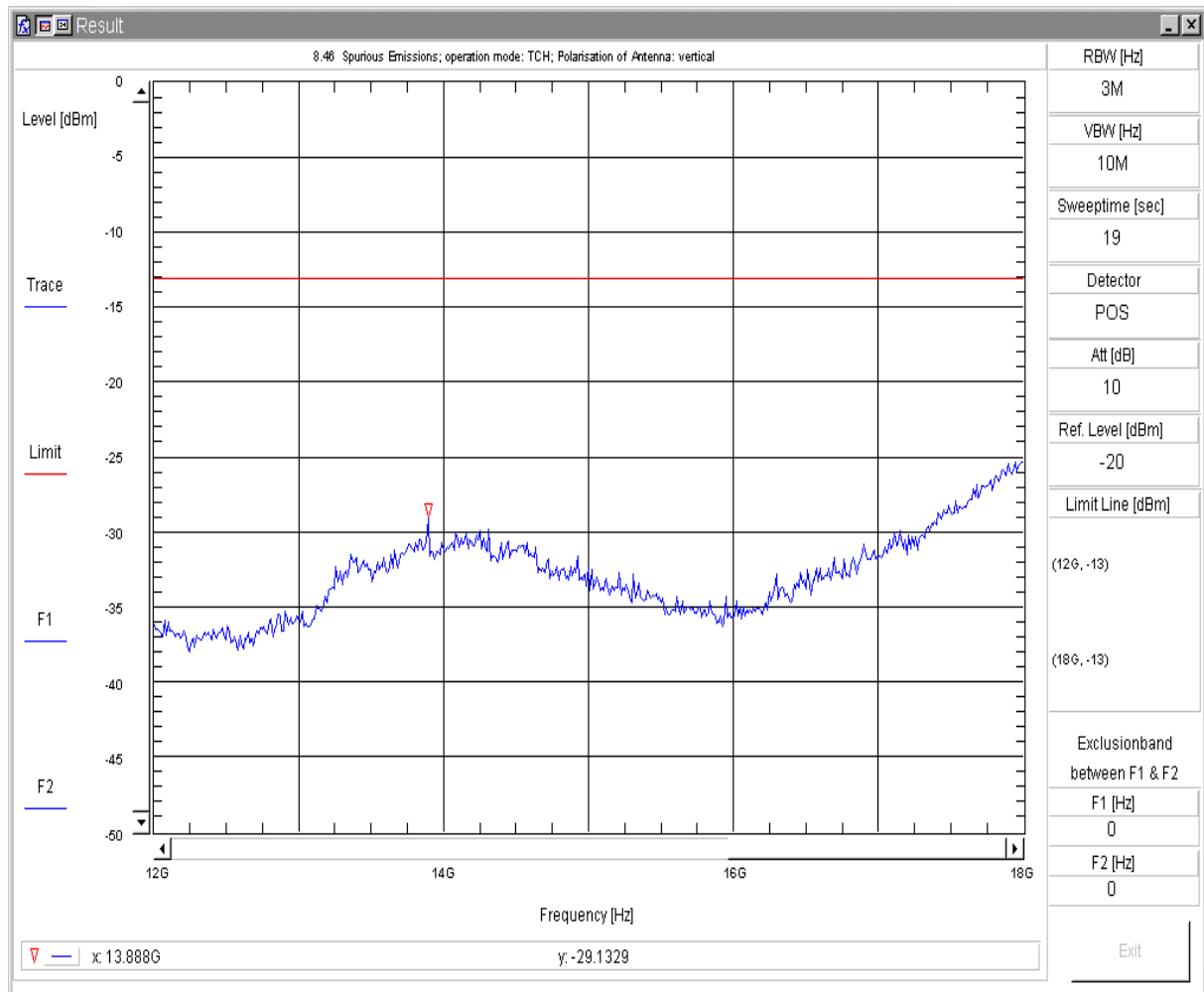


8.45 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep6
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 11:26:52fp

Spurious Emissions V7.2.5

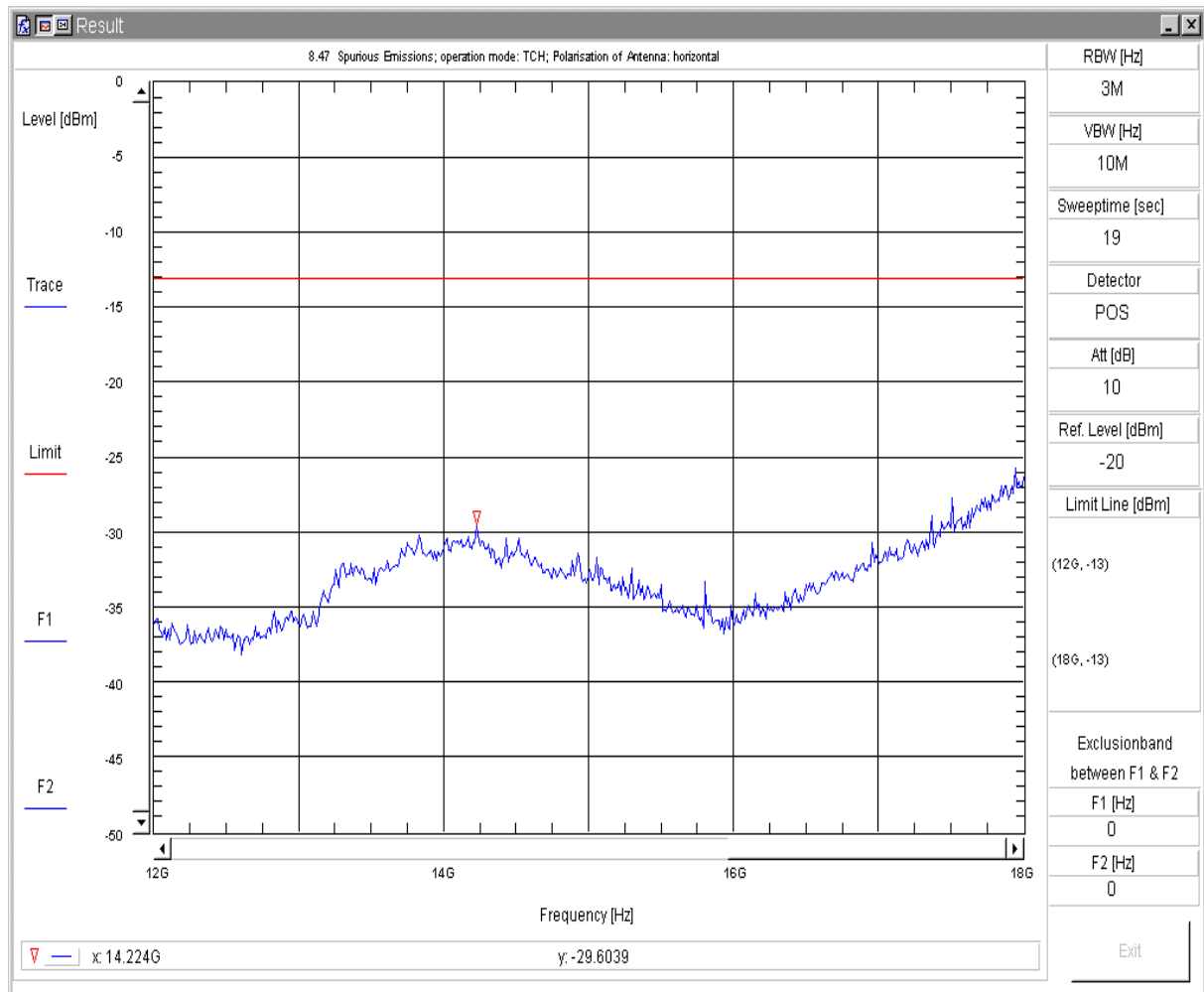


8.46 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep6
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 512
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 11:36:01fp

Spurious Emissions V7.2.5

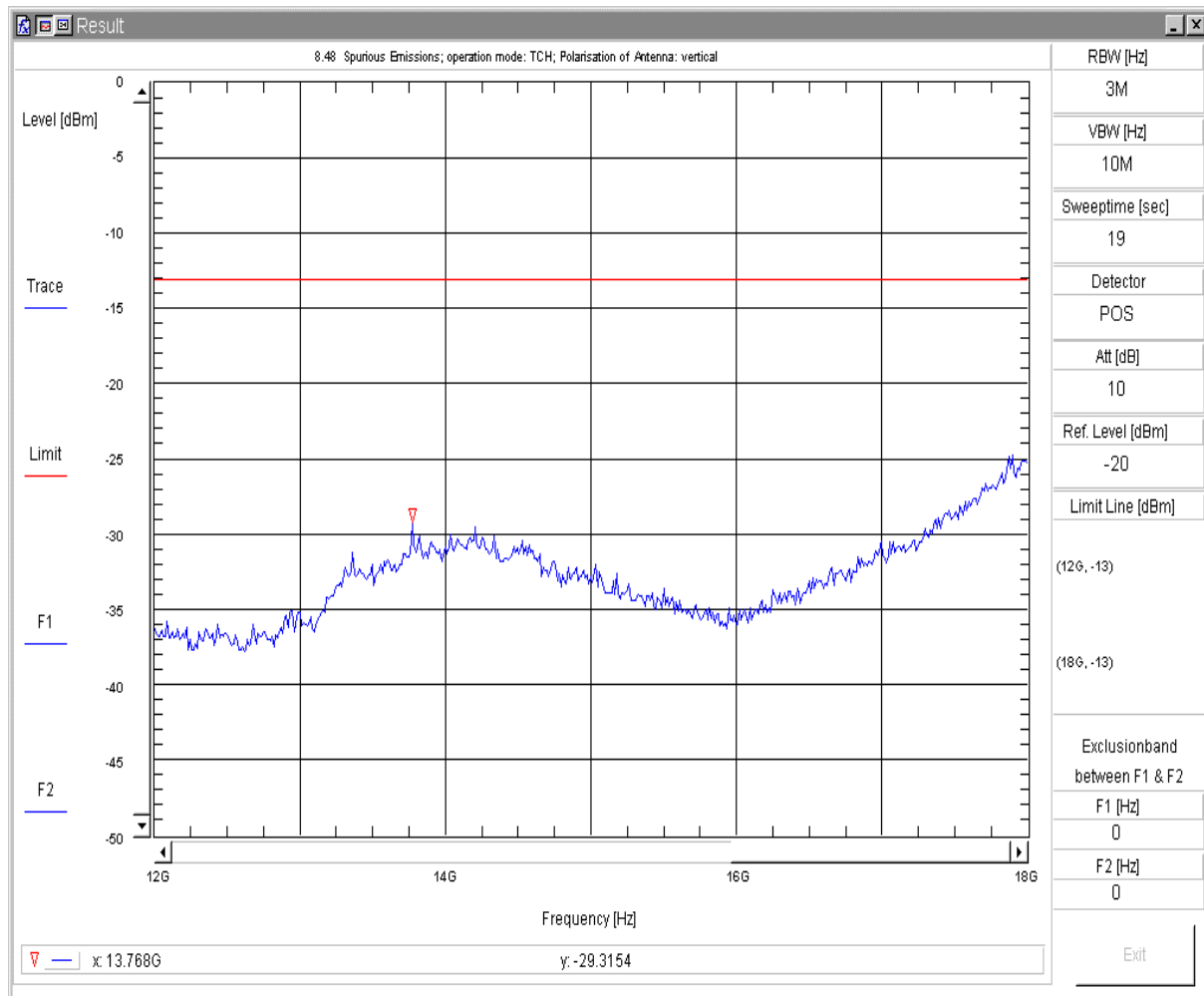


8.47 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep6
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 12:32:31fp

Spurious Emissions V7.2.5

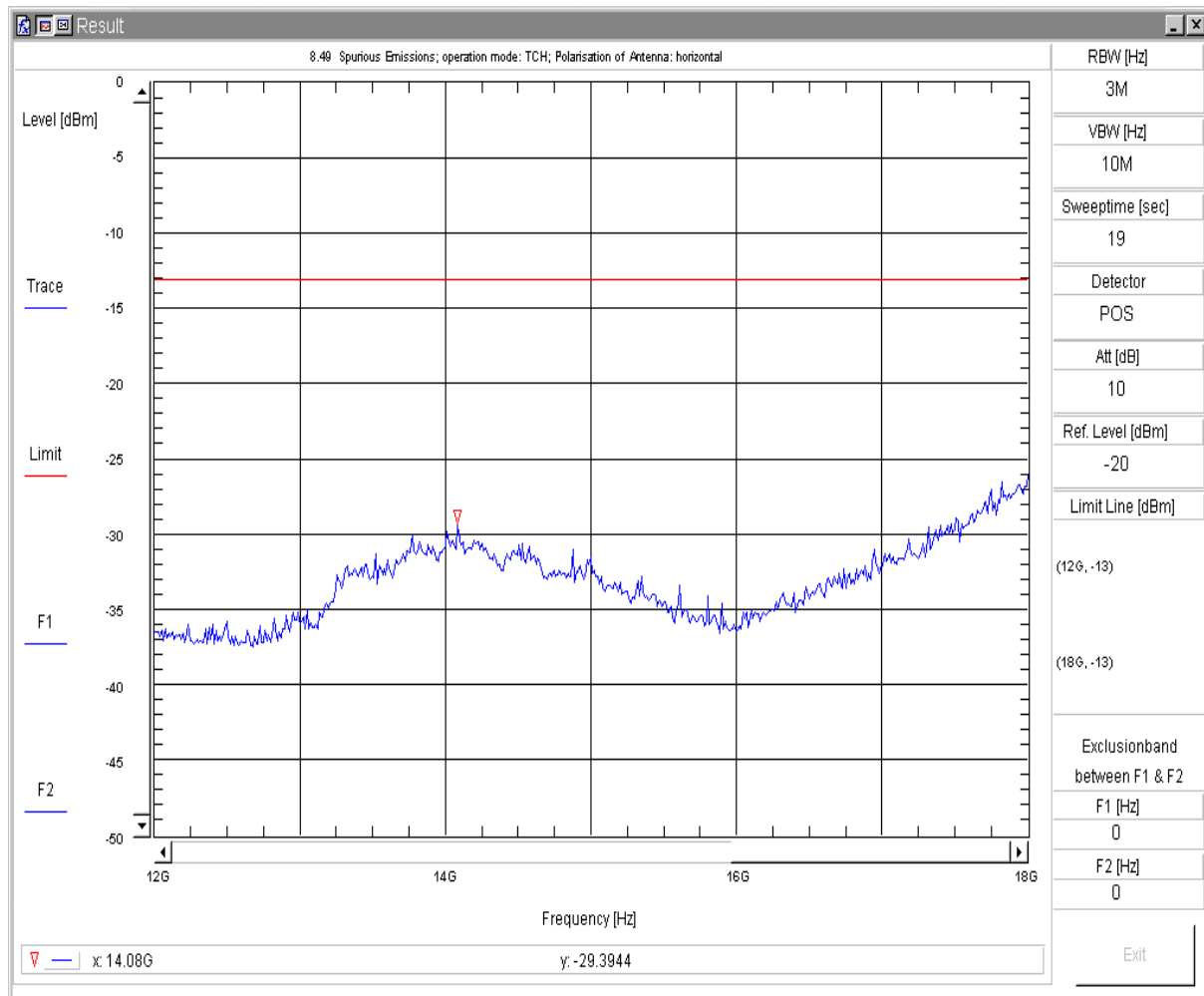


8.48 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep6
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 661
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 12:40:01fp

Spurious Emissions V7.2.5

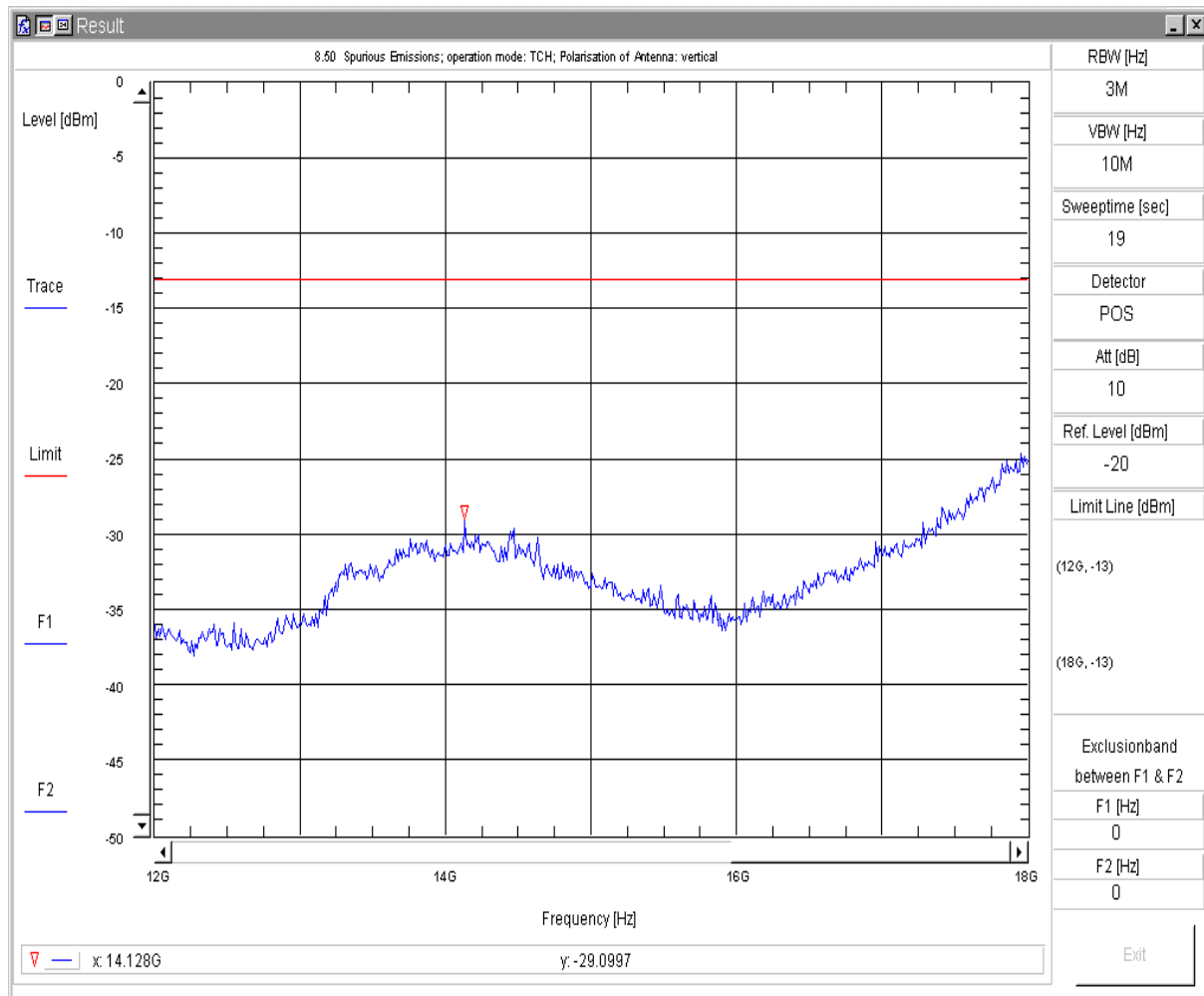


8.49 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_H
 Sweepnr: Sweep6
 Pol. of Antenna: horizontal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 12:49:50fp

Spurious Emissions V7.2.5



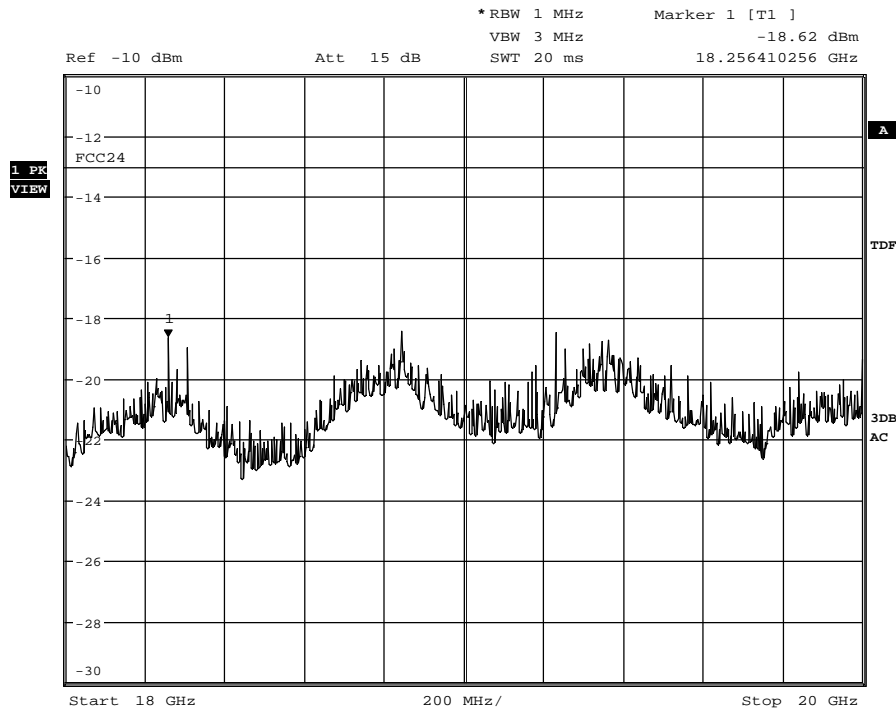
8.50 Radiated Spurious Emission

Transducer: c:\vee_user\spuri_V7\FCC_Part_24.238_(GSM_1900)\TD_TX_V
 Sweepnr: Sweep6
 Pol. of Antenna: vertikal
 EUT Position: EUT_vertical+horizontal
 EUT OP Mode: FCC_Part_24.238_(GSM_1900) TCH
 EUT Description: LEON-G200 + AC/DC Adapter + Handset + USB cable
 EUT add. Info: antenna type MAR-C3G-2F
 EUT Hardware: GB01.HW.HR.100001
 EUT Software: GB01.SW.SR.07.10.00
 EUT Config:
 EUT S/N: 002411
 Battery: AC/DC Charger; Nominal Voltage; 4.2 V
 Remark: channel 810
 Operator: Lor
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Wed 05/Aug/2009 12:58:43fp

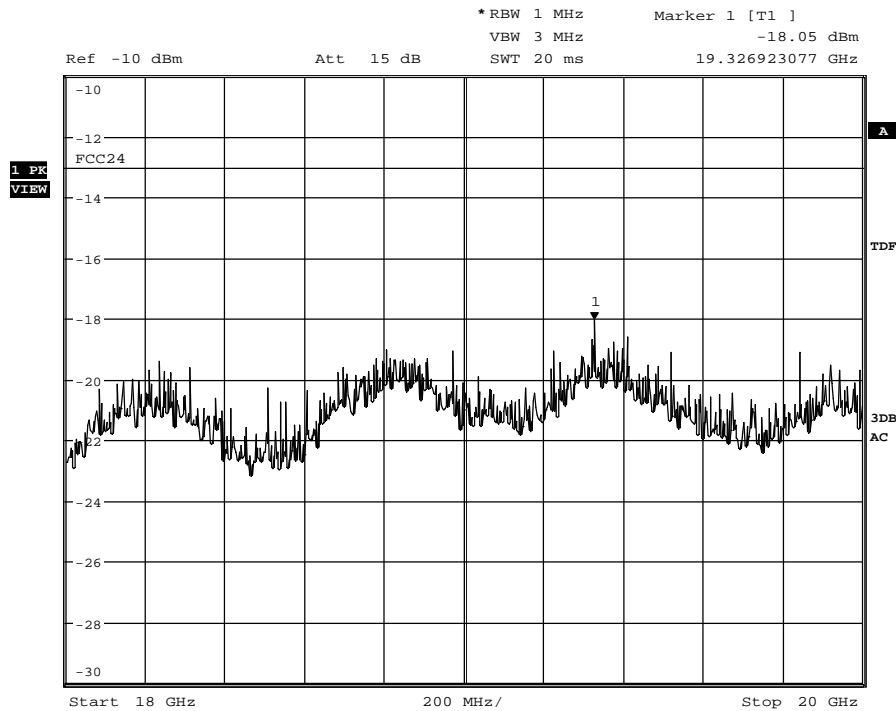
Spurious Emissions V7.2.5

1.7. RADIATED EMISSIONS IN THE FREQUENCY RANGE ABOVE 18GHZ – GSM1900 MODE



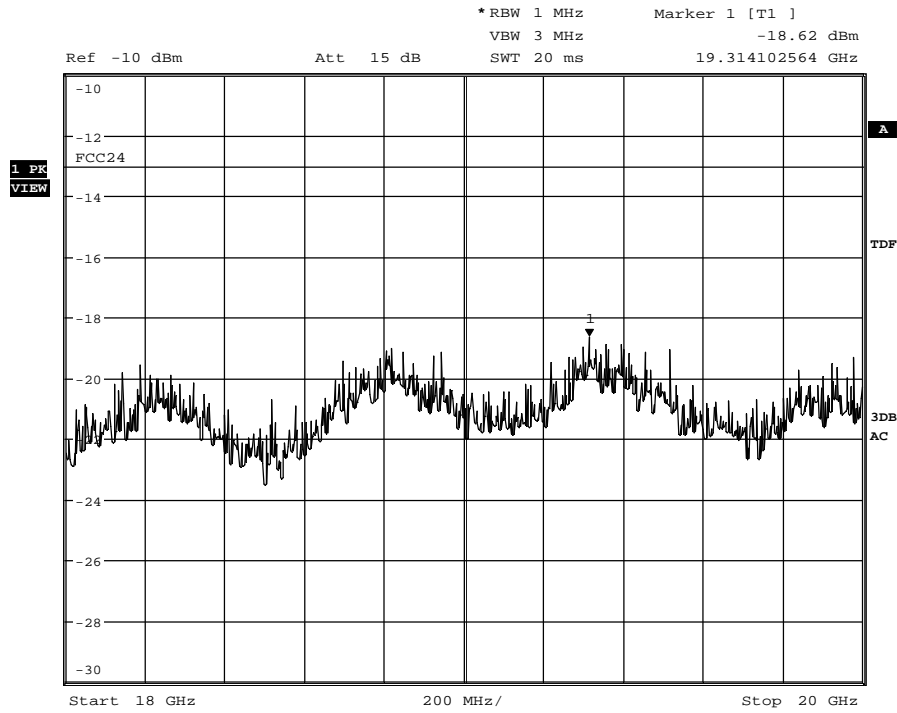
Date: 10.AUG.2009 16:24:13

Diagram 8.51 – Channel 512 (Overview measurement only)



Date: 10.AUG.2009 16:28:26

Diagram 8.52 – Channel 661 (Overview measurement only)



Date: 10.AUG.2009 16:26:26

Diagram 8.53 – Channel 810 (Overview measurement only)

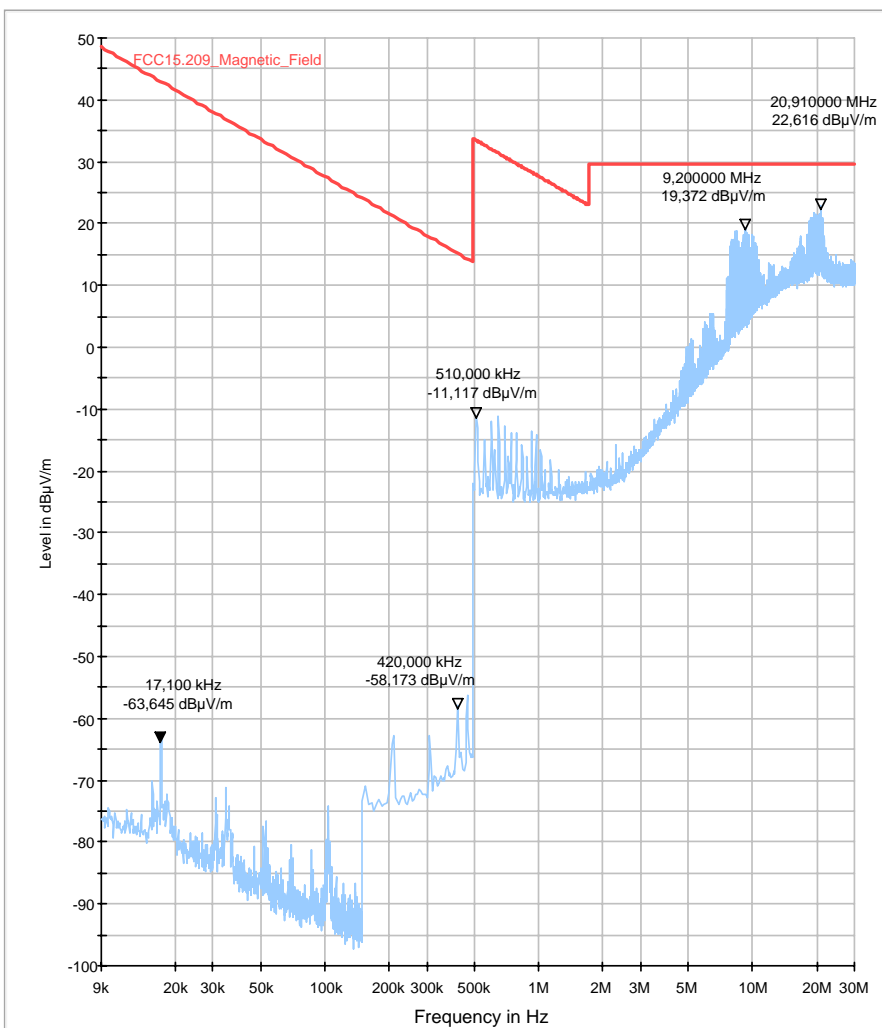
1.8. RADIATED MAGNETIC FIELD STRENGTH MEASUREMENTS (F<30MHz)

Diagram No. 3.01

Common Information

Test description:	Magnetic Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Turntable step:	90° during pre-scan
Used filter:	bypass
Test specification.:	FCC 15.205 § 15.209
Operator:	Lor
Operating conditions:	TX-on
Comment 1:	Channel low

FCC15.209_magn hor+vert



EMI Auto Test Template: FCC15.209_magn hor+vert

Hardware Setup: HW25_FCC15109_ESCS_MgFeld_ohne_SAR_MATRIX
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 9 kHz - 30 MHz
 Graphics Level Range: -100 dB μ V/m - 50 dB μ V/m

Preview Measurements:
 Antenna height: 0 - 1000 cm , Step Size = 0 cm , Speed = 1
 Polarity: H + V
 Turntable position: 35 - 305 deg , Step Size = 90 deg , Speed = 0
 Scan Test Template: 01_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
9 kHz - 150 kHz	MaxPeak	200 Hz	0,01 s	ESCS 30
150 kHz - 30 MHz	MaxPeak	10 kHz	0,01 s	ESCS 30

Data Reduction:
 Limit Line #1: FCC15.209_Magnetic_Field
 Peak Search: 20 dB , Maximum Results: 10
 Subrange Maxima: 10 Subranges , Maxima per Subrange: 1
 Acceptance Offset: -10 dB
 Maximum Number of Results: 20

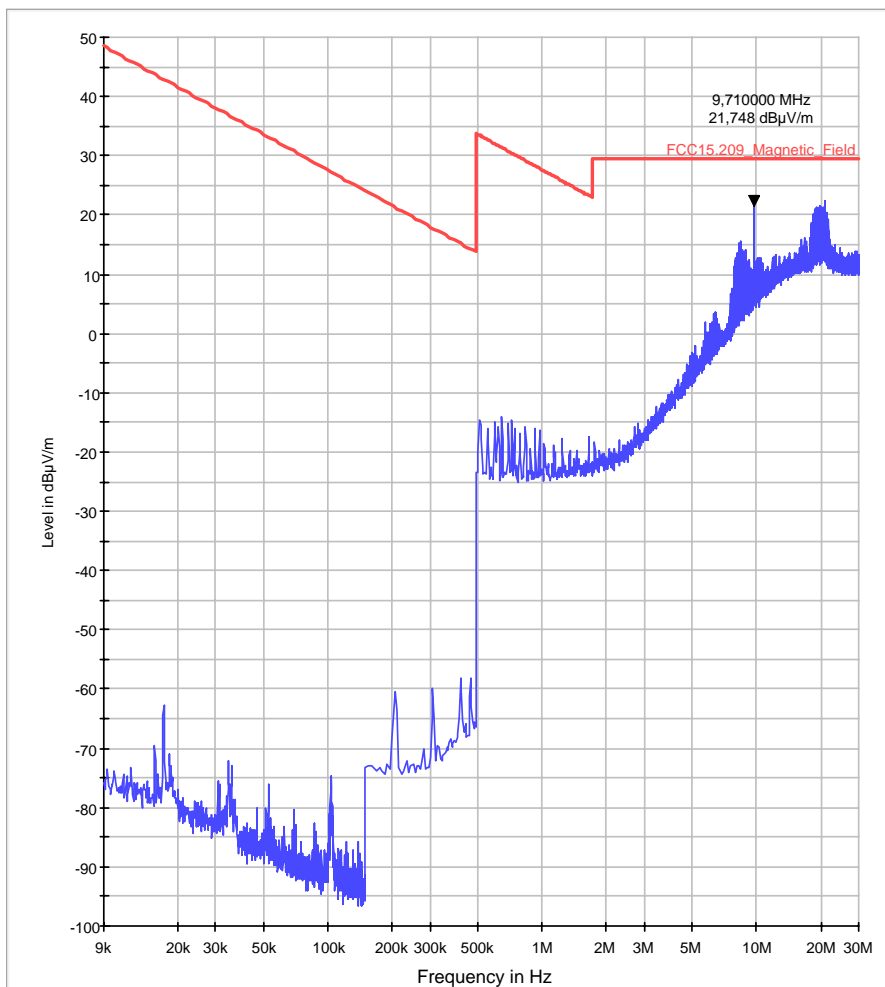
Report Settings:
 Report Template: FCC15_209_magn_vert_hor
 Create Electronic Report: PDF
 Document Name: EMI Report

Diagram No. 3.02

Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209
Operator:	Lor
Operating conditions:	TX-on, GSM850 voice call
Comment 1:	Channel 192

01_FCC_MG_FELD_PK_FAST_H&V_EUT



Scan Setup: 01_FCC_MG_FELD_PK_FAST_H&V_EUT [EMI radiated]

Hardware Setup: HW25_FCC15109_ESCS_MgFeld_ohne_SAR_MATRIX
 Level Unit: dBµV/m

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
9 kHz - 150 kHz	MaxPeak	200 Hz	0,01 s	ESCS 30
150 kHz - 30 MHz	MaxPeak	10 kHz	0,01 s	ESCS 30

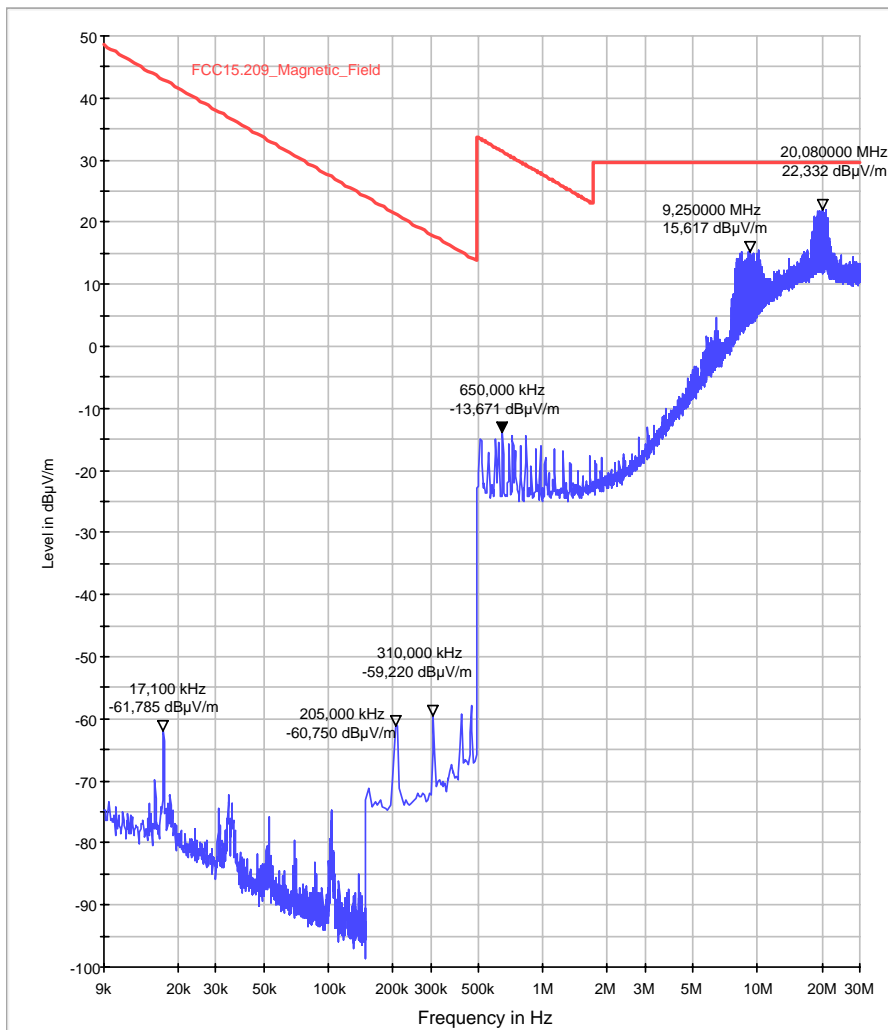
Diagram No. 3.03

Common Information

Test description: Electric Fieldstrength Measurement related to 3 m distance
 Test site and distance: Semi Anechoic Room (SAR) with 3 m measurement distance
 Measured sides of EUT: front, right, rear, left
 Turntable step: 90° during pre-scan, continuously turning during final measurement
 Used filter: lowpass 1200 MHz
 Test specification.: FCC 15.205 § 15.209

Operator: Lor
 Operating conditions: TX-on, GSM850 voice call
 Comment 1: Channel high

01_FCC_MG_FELD_PK_FAST_H&V_EUT



Scan Setup: 01_FCC_MG_FELD_PK_FAST_H&V_EUT [EMI radiated]

Hardware Setup: HW25_FCC15109_ESCS_MgFeld_ohne_SAR_MATRIX
 Level Unit: dBµV/m

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
9 kHz - 150 kHz	MaxPeak	200 Hz	0,01 s	ESCS 30
150 kHz - 30 MHz	MaxPeak	10 kHz	0,01 s	ESCS 30