

Annex 1: Diagrams
to
TEST REPORT
No.: 2-20792474b/10

According to:
FCC Regulations
FCC Part 22H/24E
FCC Part 15.207C
FCC Part 15.209C
&
IC Regulations
RSS-132, Issue 2
RSS-133, Issue 5
RSS-Gen, Issue 2

for

Cinterion Wireless Modules GmbH

Quad-Band GSM/GPRS Module MC55i-W
FCC-ID: QIPMC55i-W
IC: 7830A-MC55i-W

Laboratory Accreditation and Listings			
 DGA-PL-176/94-03	 Reg. No.: 99538 MRA US-EU 0003	 Reg. No.: 3462D-1 3462D-2	 Reg. No.: R-2665, R-2666 C-2914, T-339
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.de • Internet: www.cetecom.com			

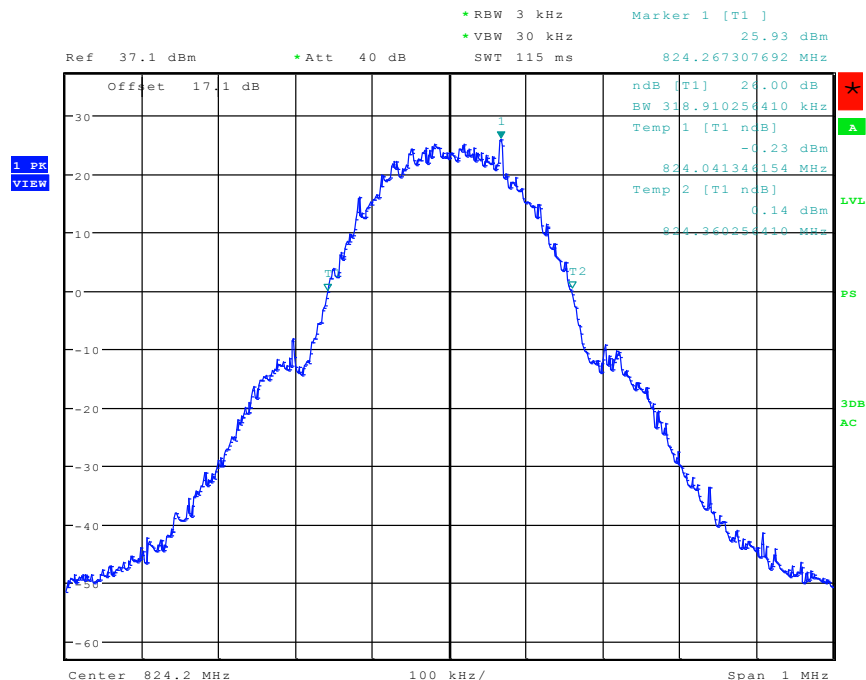
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1. Diagrams

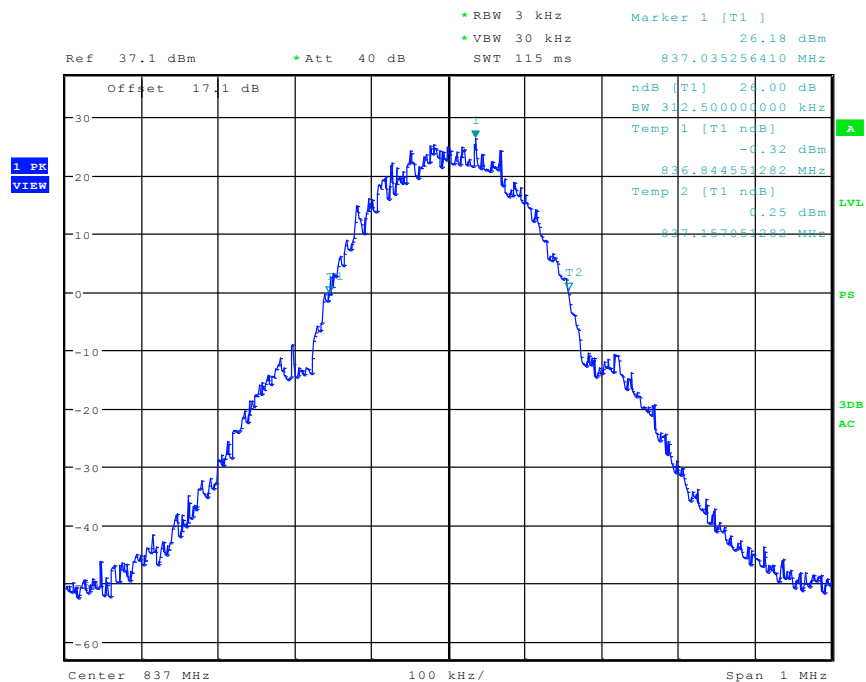
1.1. 26dBc Emission bandwidth

GSM 850



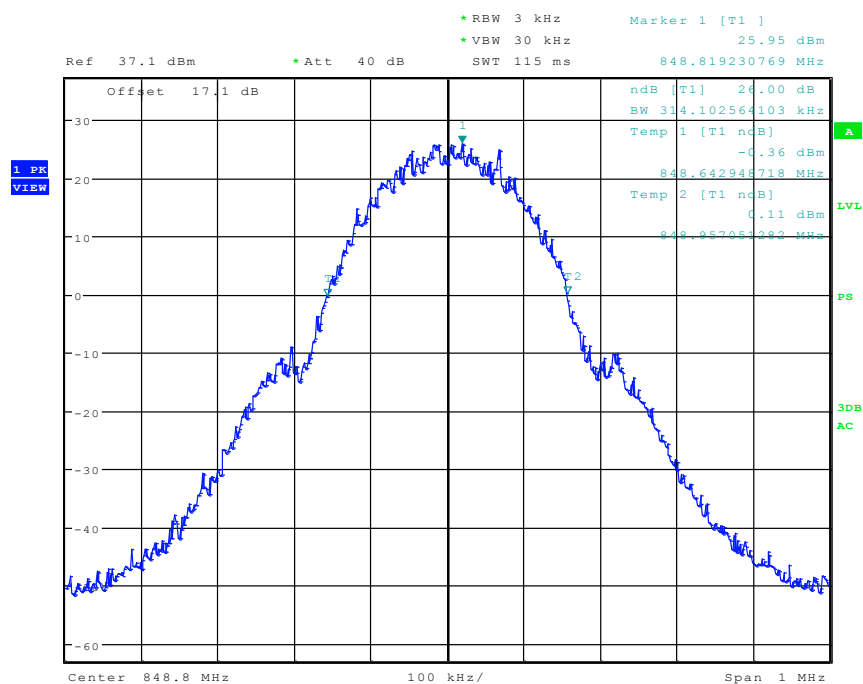
Date: 11.NOV.2010 09:07:41

Channel 128



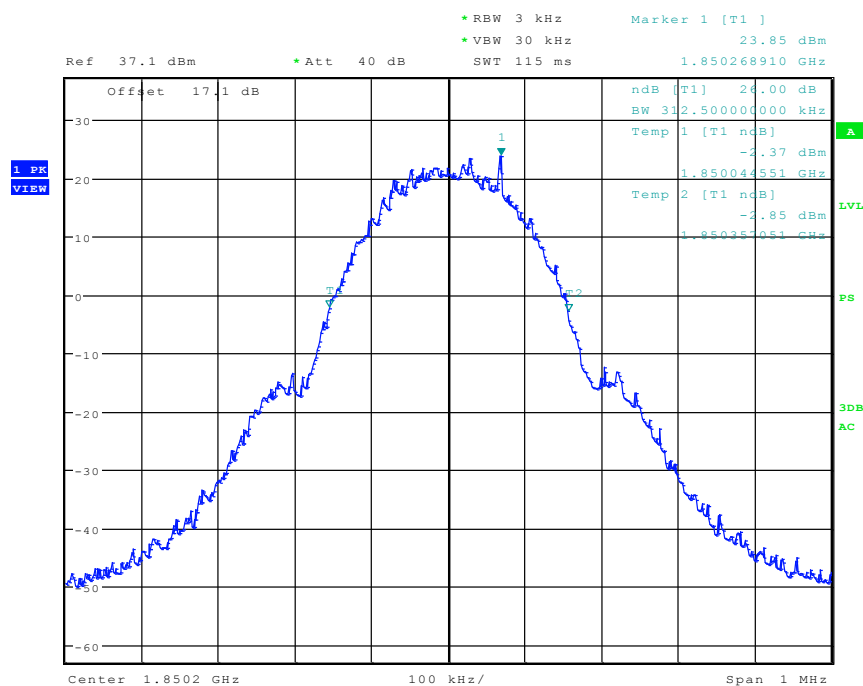
Date: 11.NOV.2010 09:24:38

Channel 192

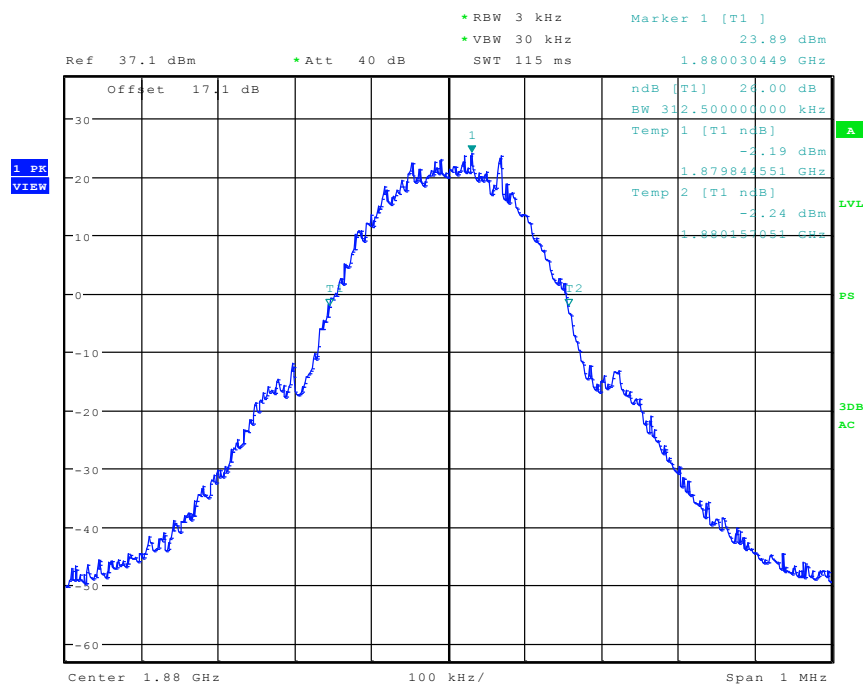


Date: 11.NOV.2010 09:23:12

Channel 251

GSM 1900**Channel 512**

Date: 11.NOV.2010 09:34:38

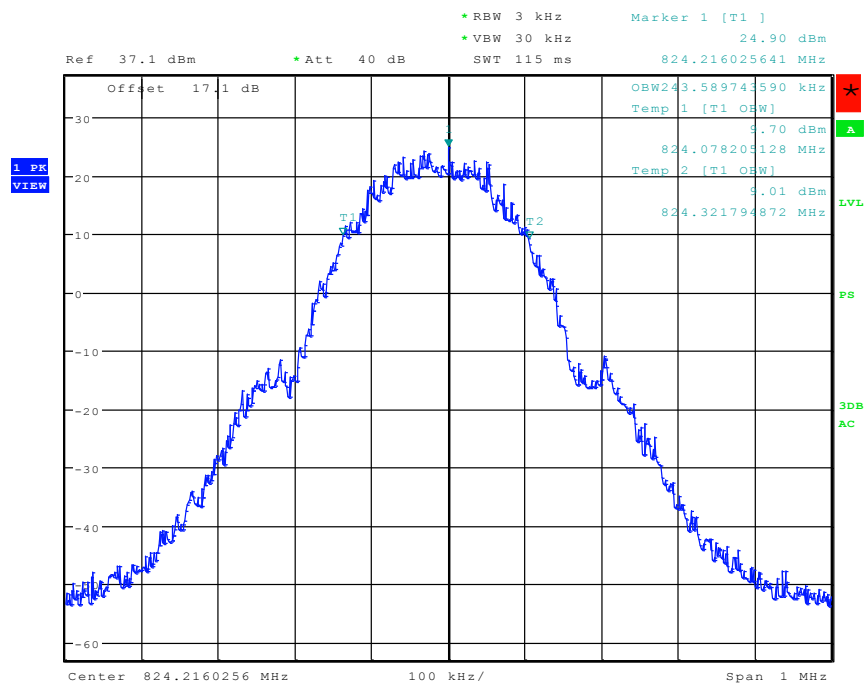
Channel 661

Date: 11.NOV.2010 09:38:21

Channel 810

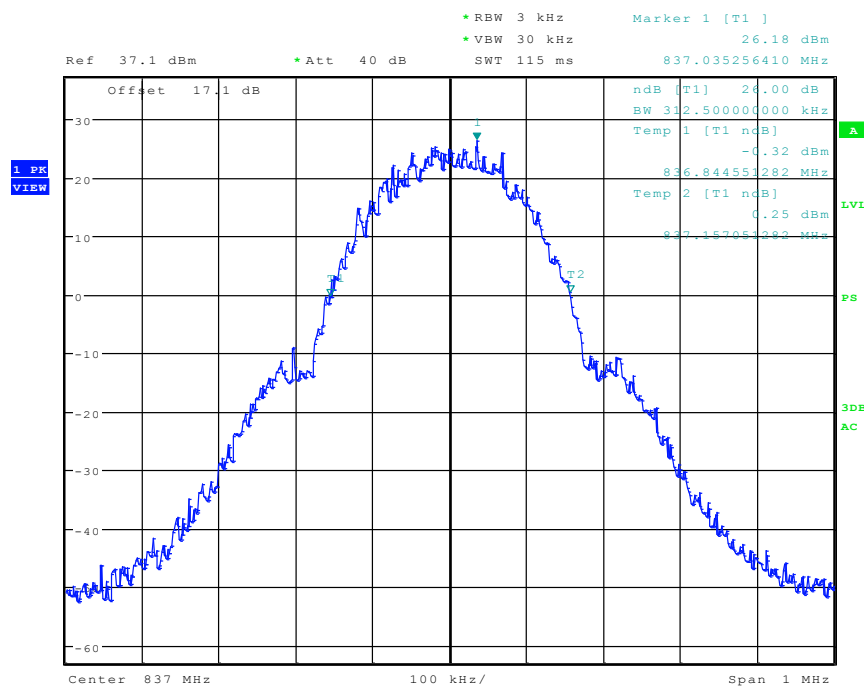
1.2. 99% Occupied bandwidth

GSM 850



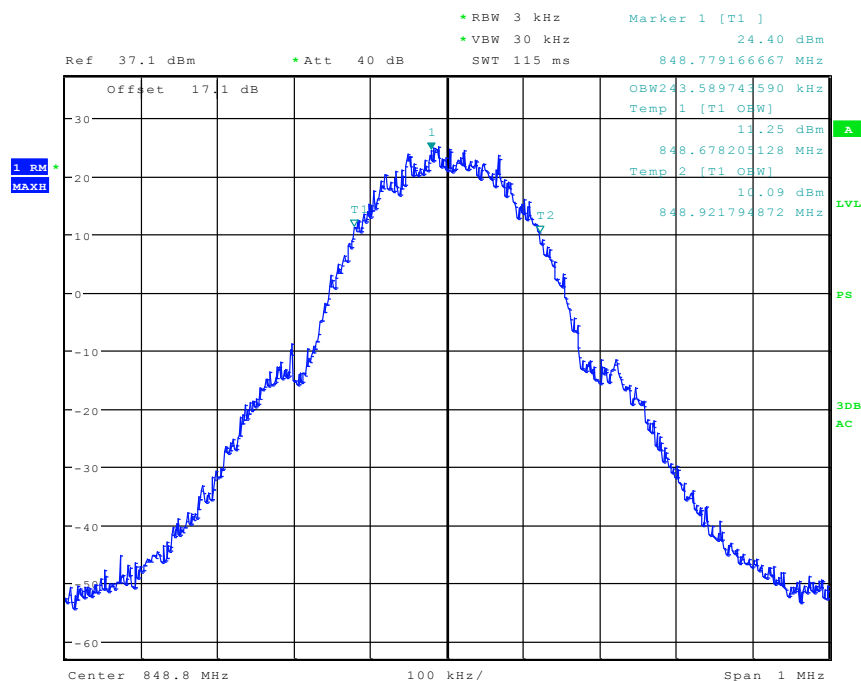
Date: 11.NOV.2010 09:11:14

Channel 128

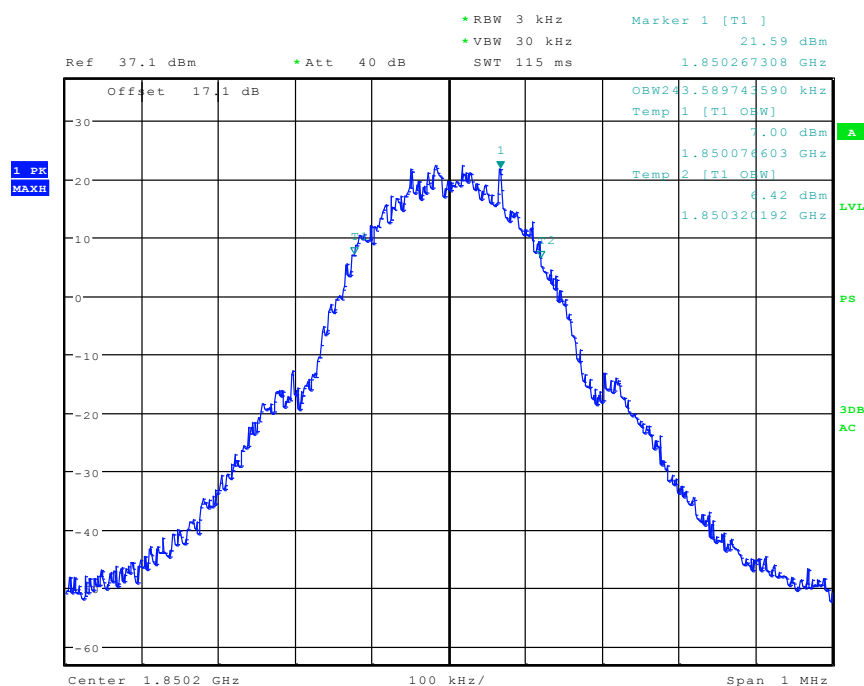


Date: 11.NOV.2010 09:24:38

Channel 192

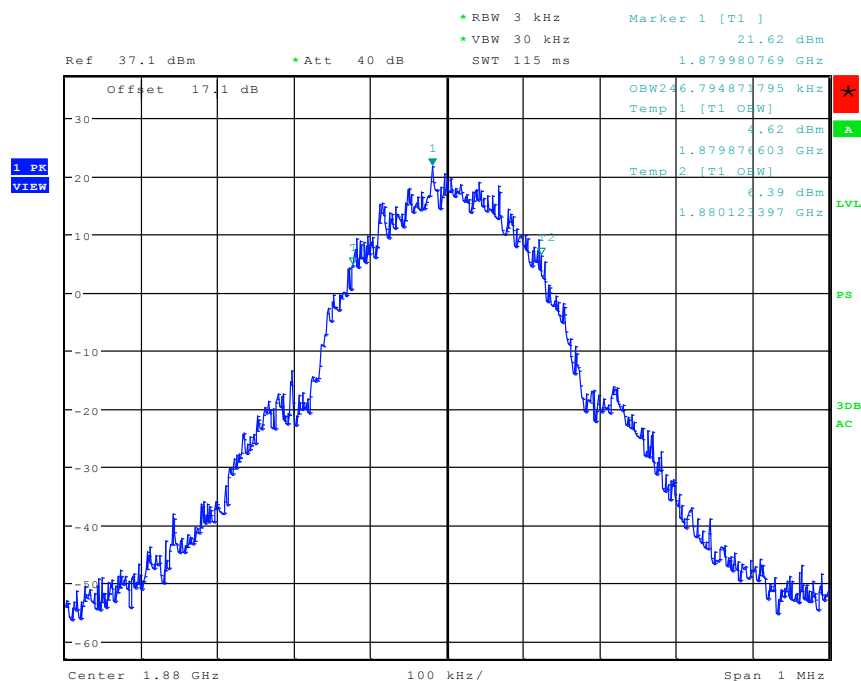


Date: 19.MAY.2010 17:47:15

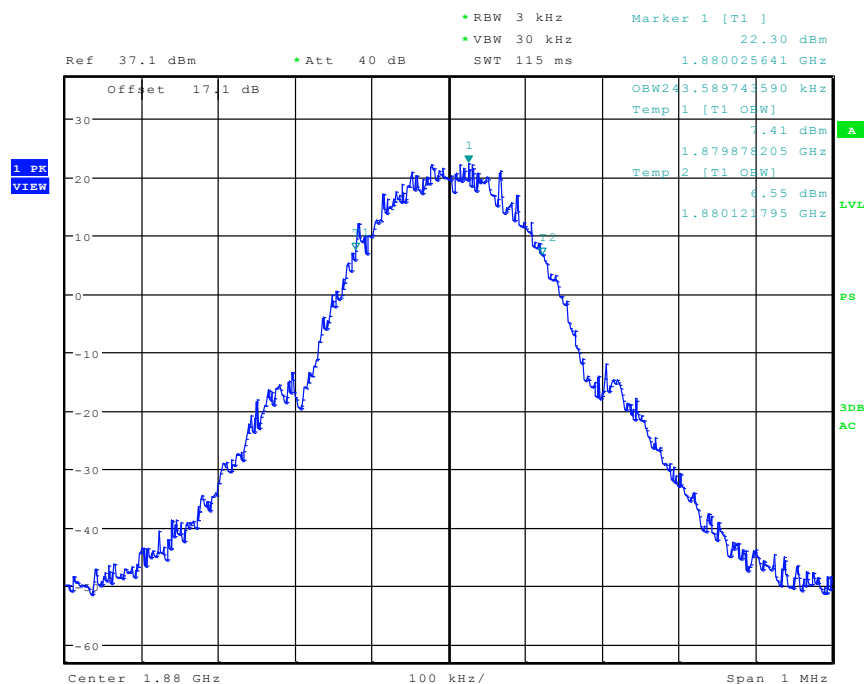
Channel 251**GSM 1900**

Date: 11.NOV.2010 09:56:28

Channel 512



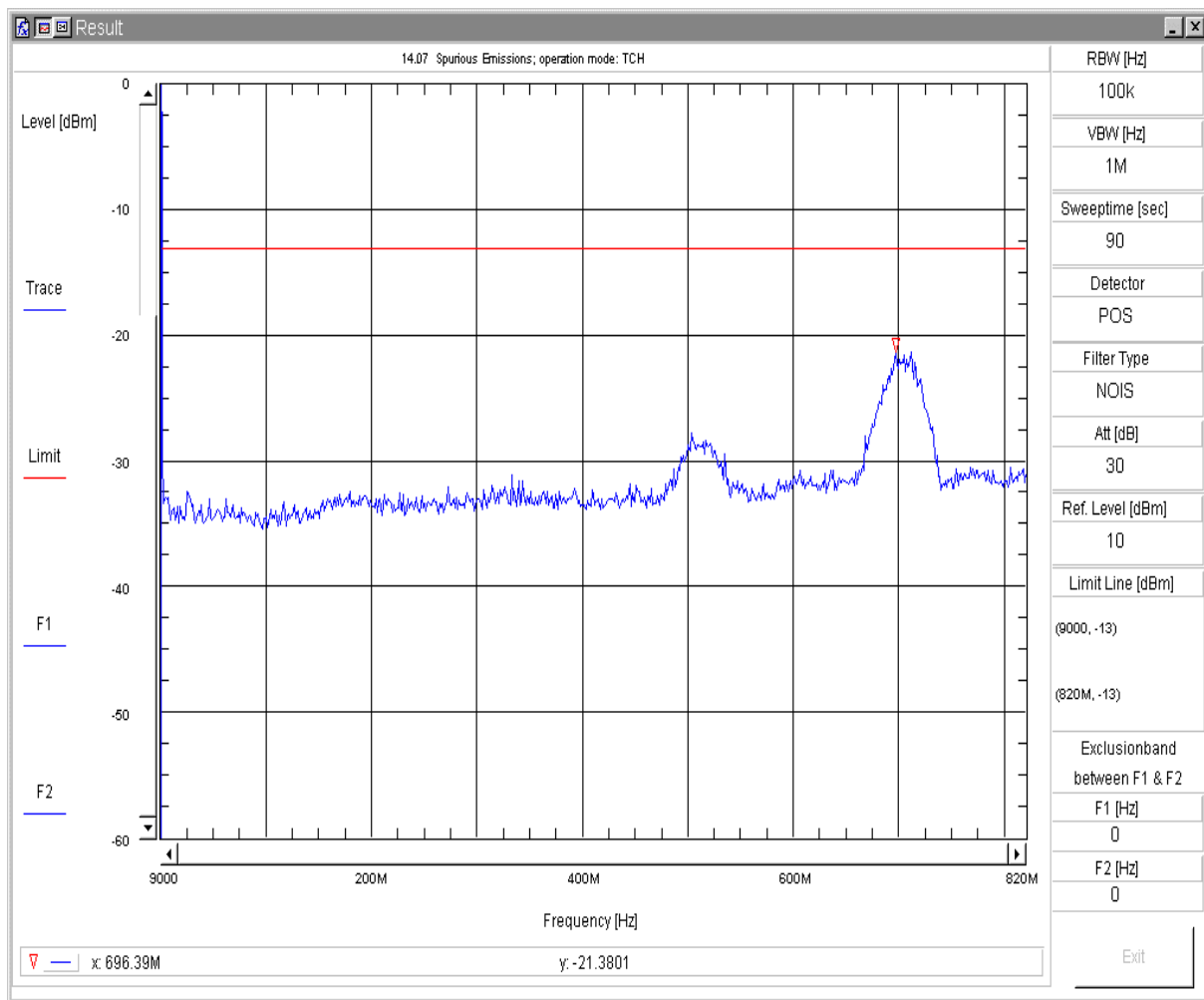
Date: 10.MAY.2010 15:29:00

Channel 661

Date: 11.NOV.2010 09:54:39

Channel 810

1.3. Spurious emissions conducted – GSM850 Mode (TX-mode)

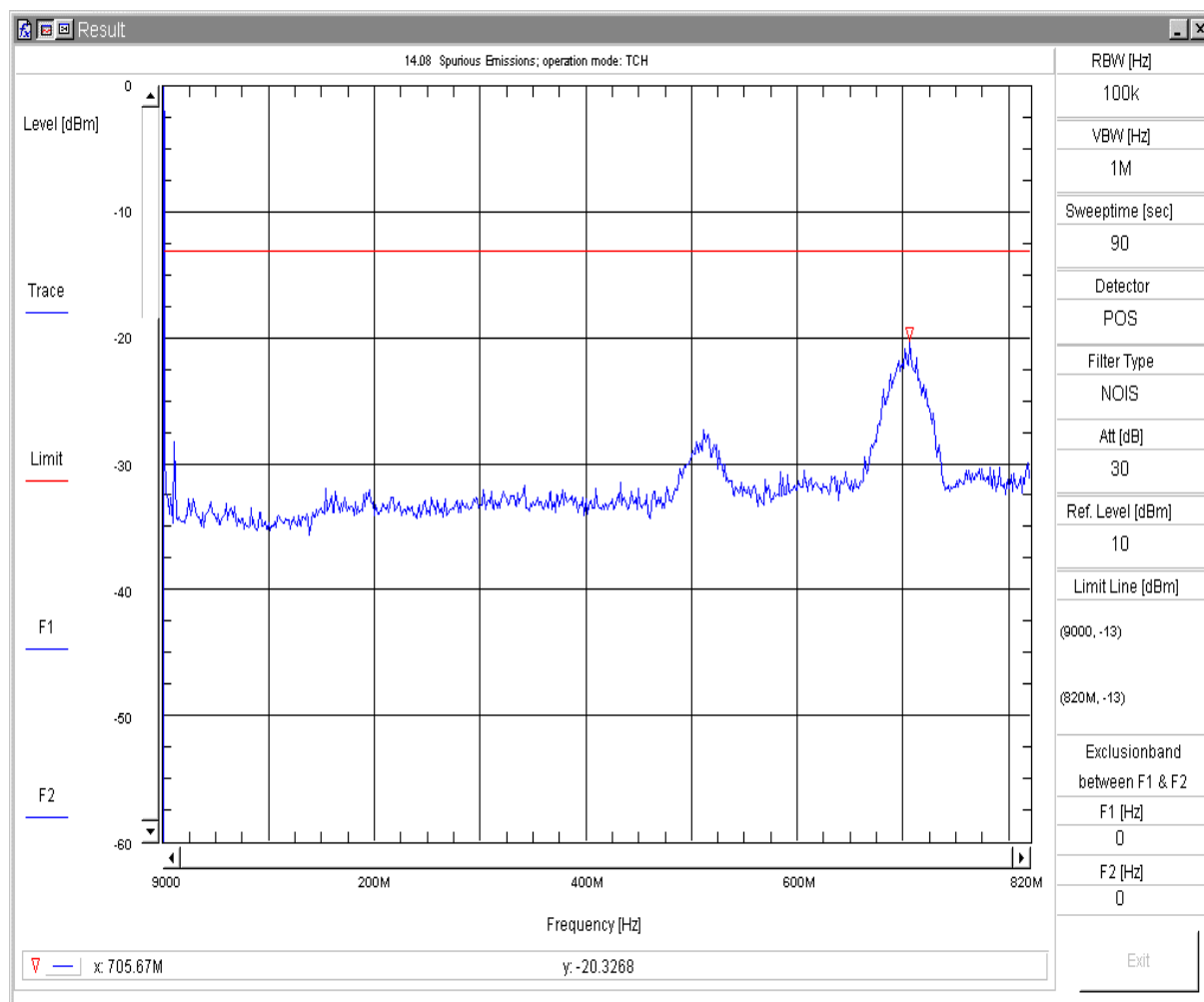


14.07 Conducted Spurious Emission

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: 33.25 dBm / 33.25 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Nominal Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 11:46:040

Conducted Spurious Emissions V7.1.5

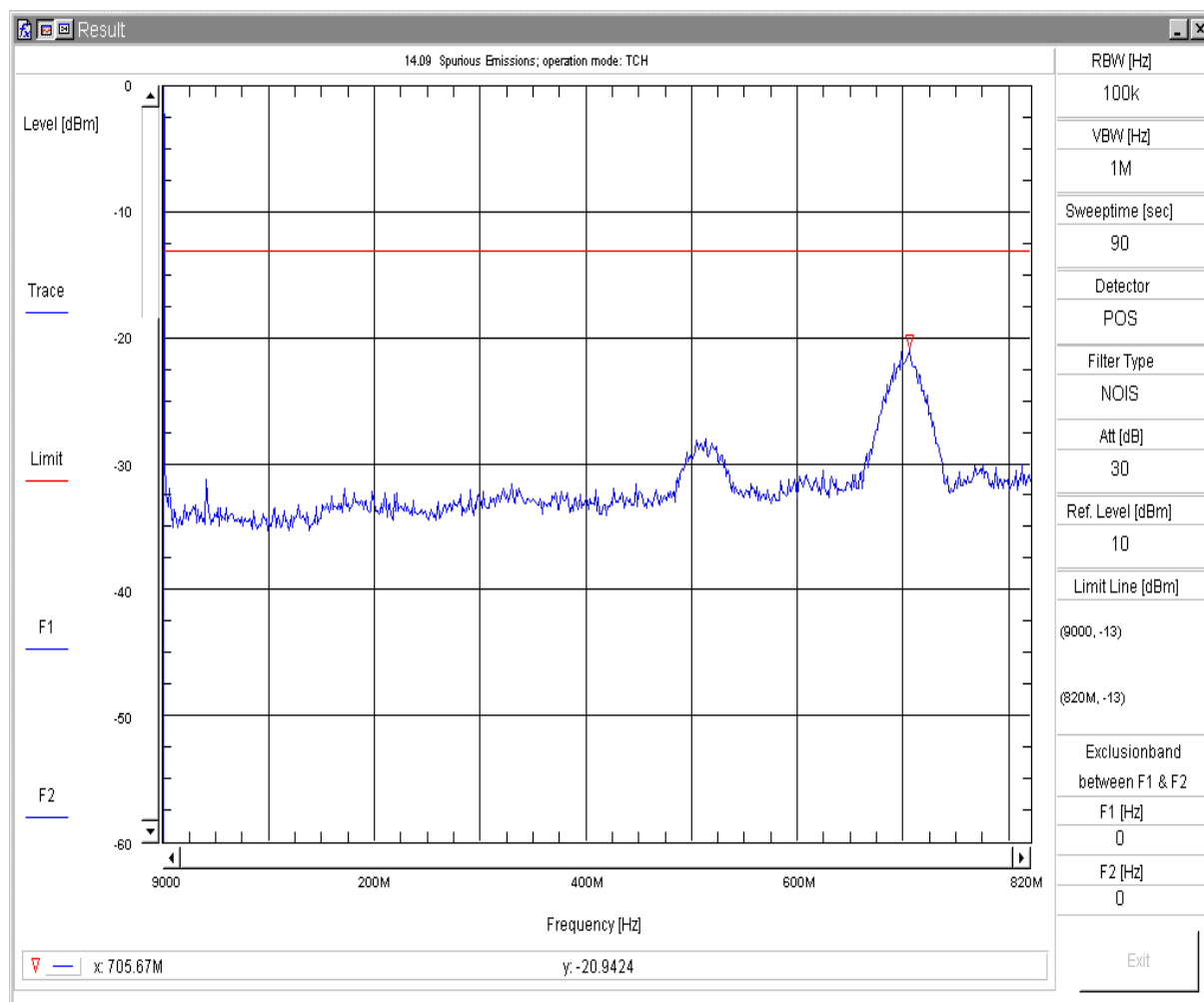


14.08 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 33.4 dBm / 33.4 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Nominal Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Tas
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 11:53:010

Conducted Spurious Emissions V7.1.5

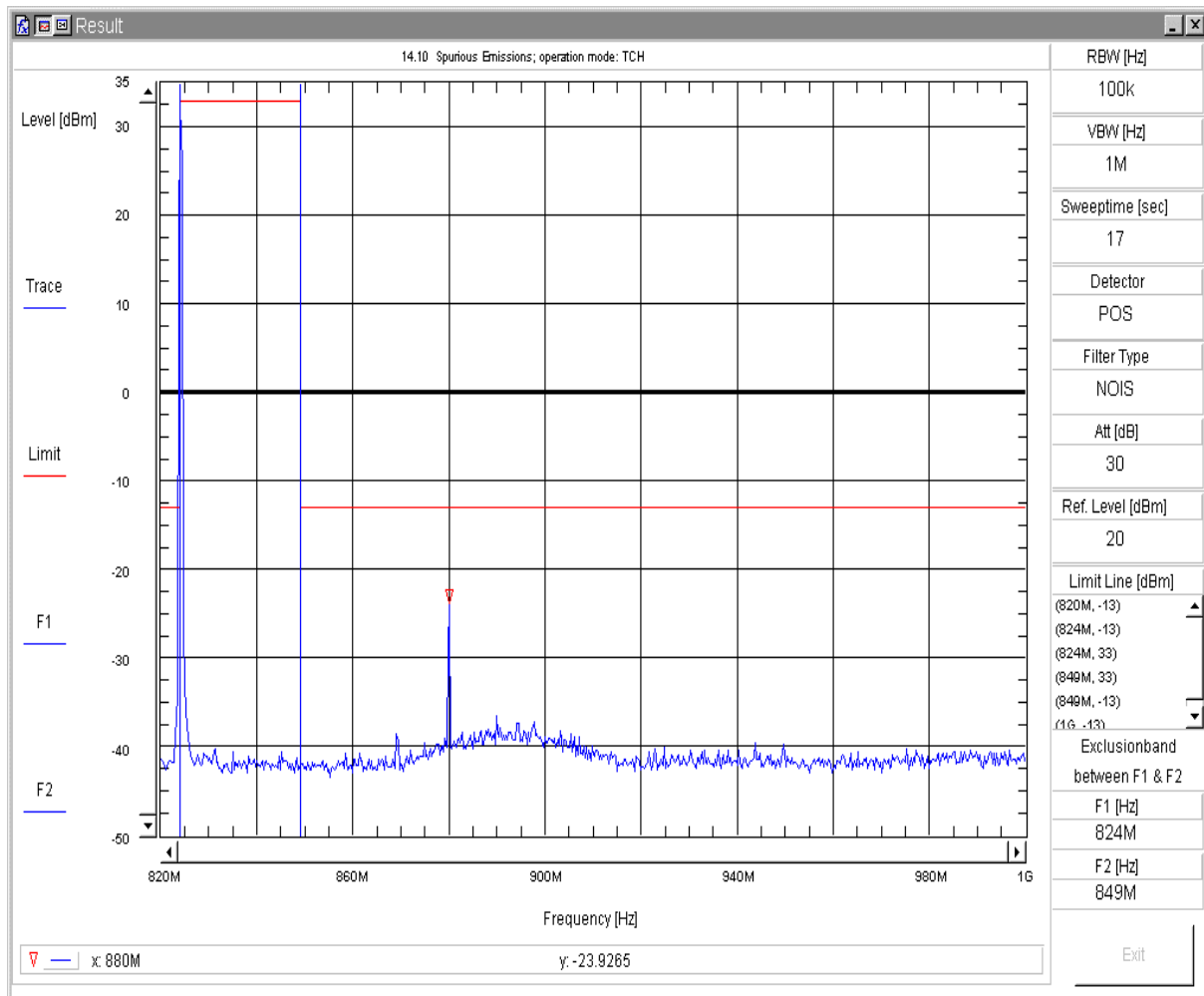


14.09 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_22_850\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_22_850 TCH
 UE Power: 33.5 dBm / 33.5 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Nominal Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 12:04:330

Conducted Spurious Emissions V7.1.5

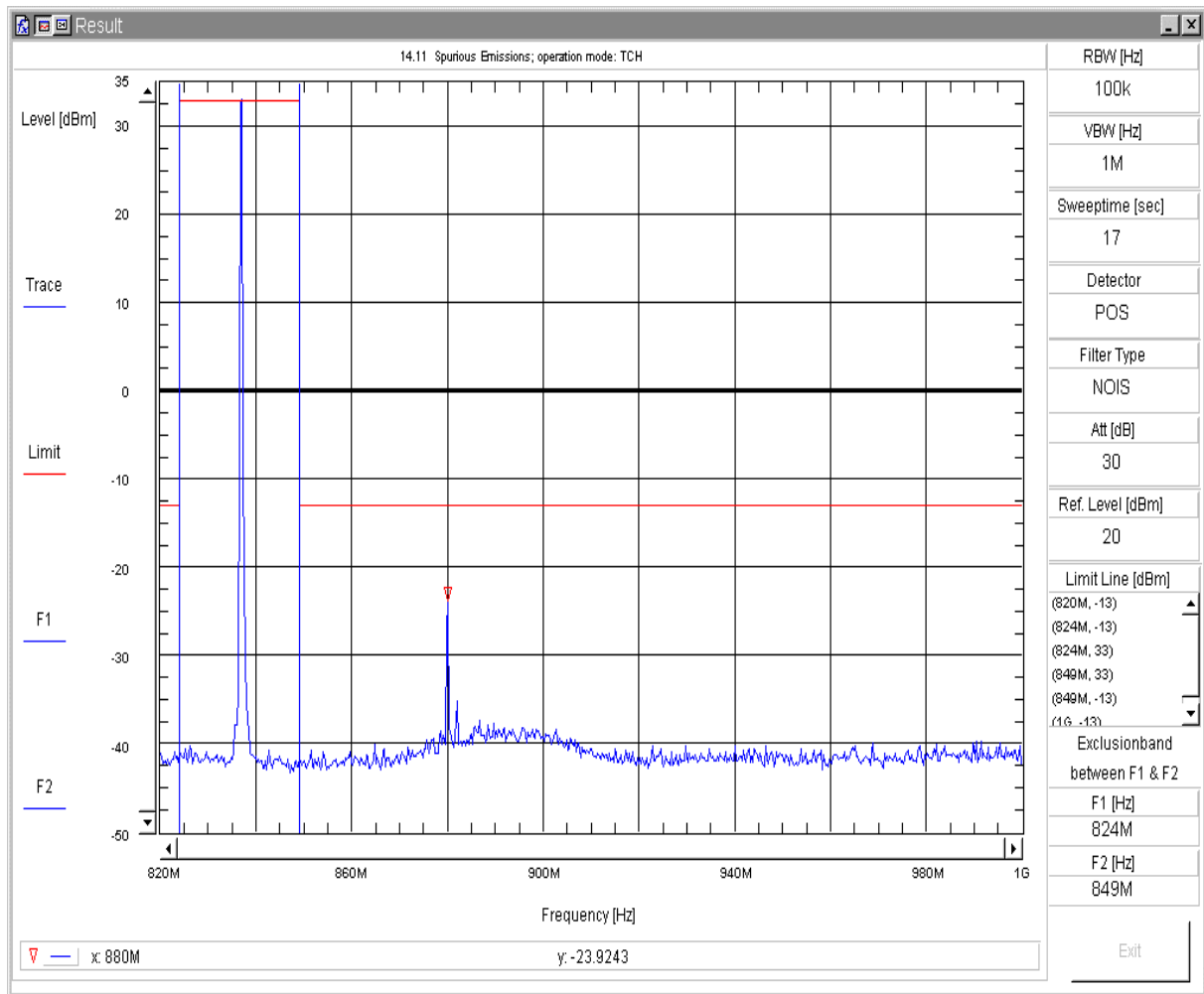


14.10 Conducted Spurious Emission

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: 33.25 dBm / 33.25 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: 512 MHz
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 18:50:420

Conducted Spurious Emissions V7.1.5

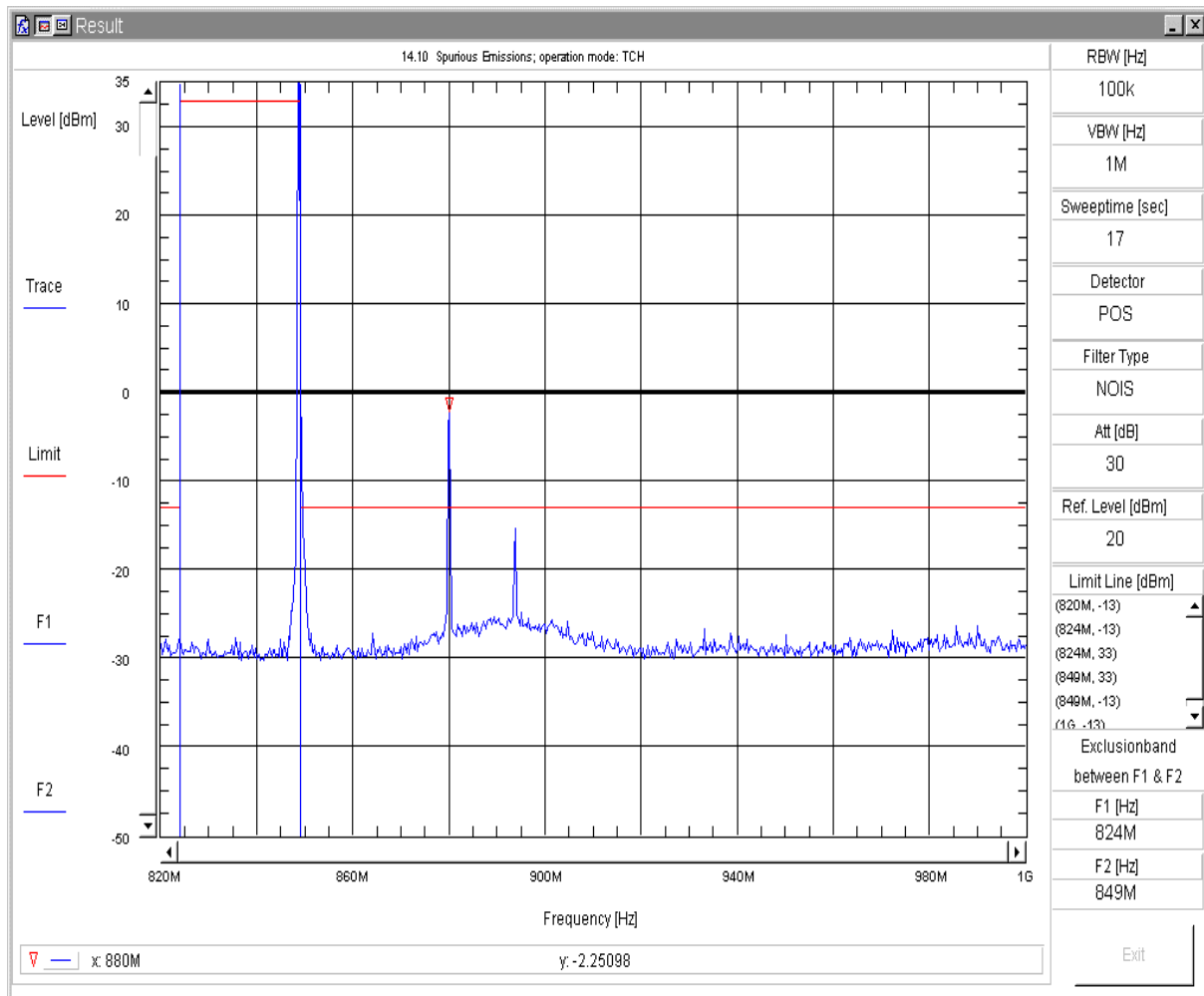


14.11 Conducted Spurious Emission

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: 33.25 dBm / 33.25 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: 512 MHz
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 18:57:040

Conducted Spurious Emissions V7.1.5

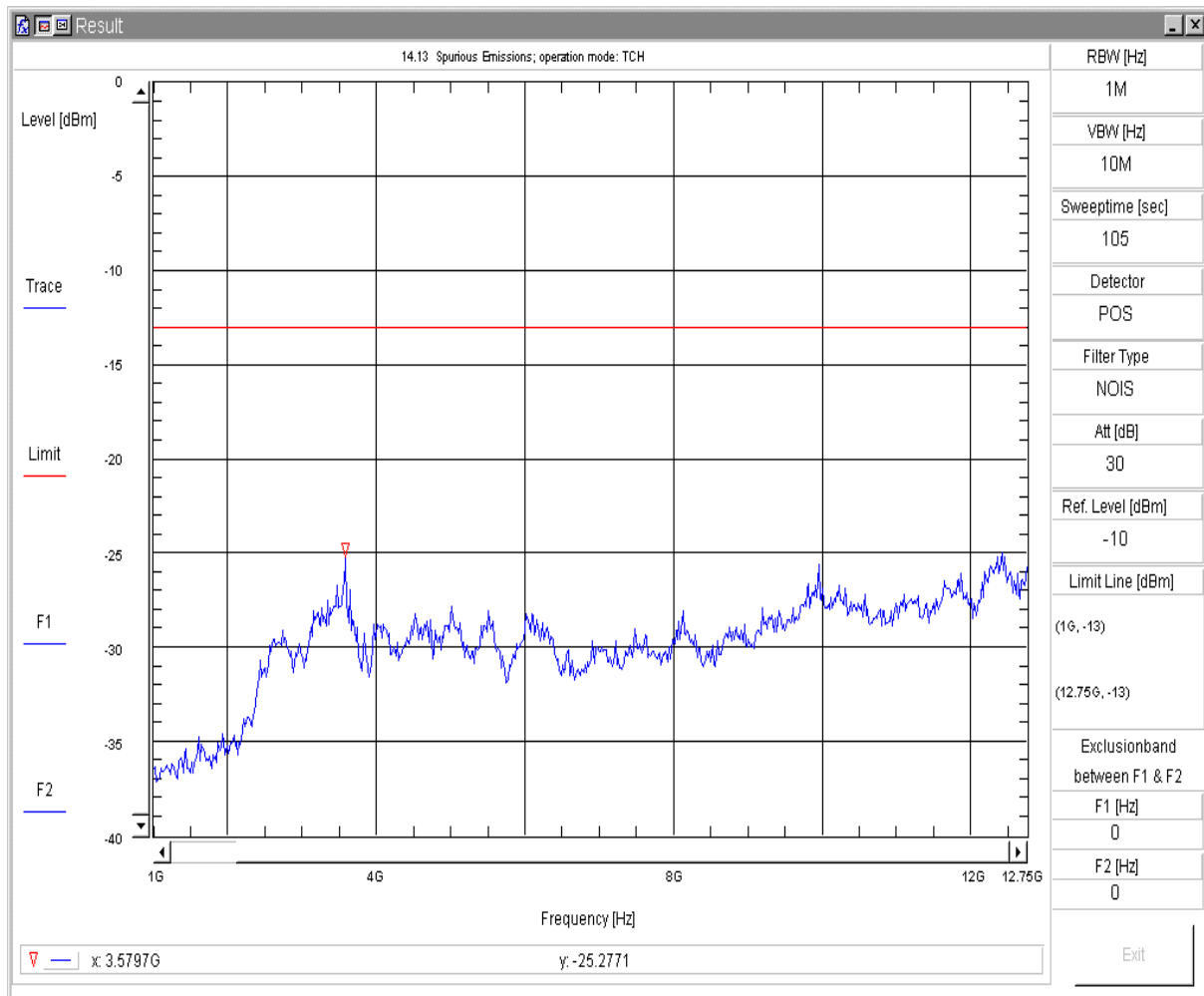


14.12 Conducted Spurious Emission

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: 33.4 dBm / 33.4 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: 848.8 MHz
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Nominal Voltage; 4.5 VDC
 Remark: ARFCN 251 (DL 893,8 MHz)
 Operator: Tas
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 12:09:290

Conducted Spurious Emissions V7.1.5

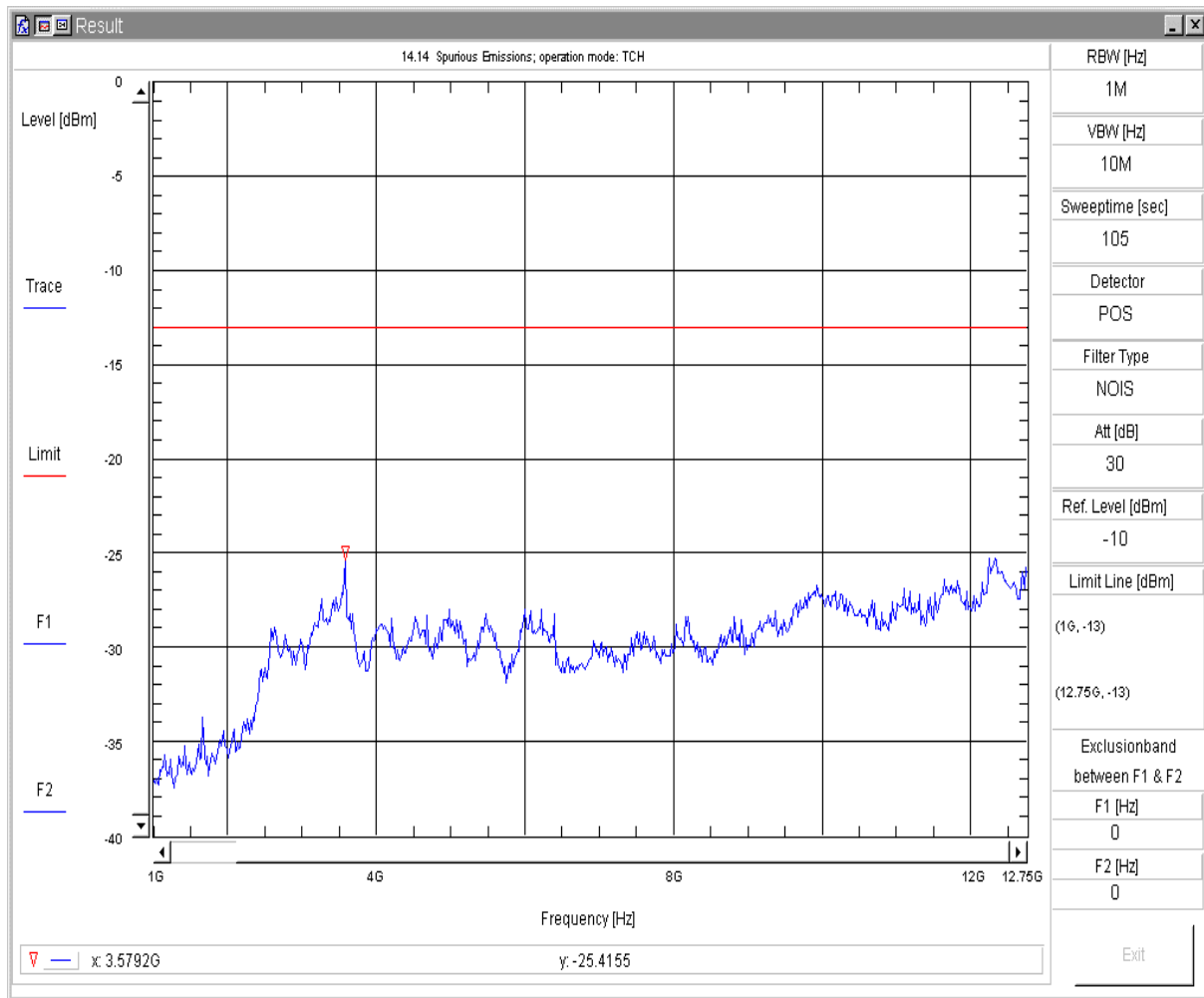


14.13 Conducted Spurious Emission

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: 33,25 dBm / 33,25 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: 512 MHz
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:13:450

Conducted Spurious Emissions V7.1.5

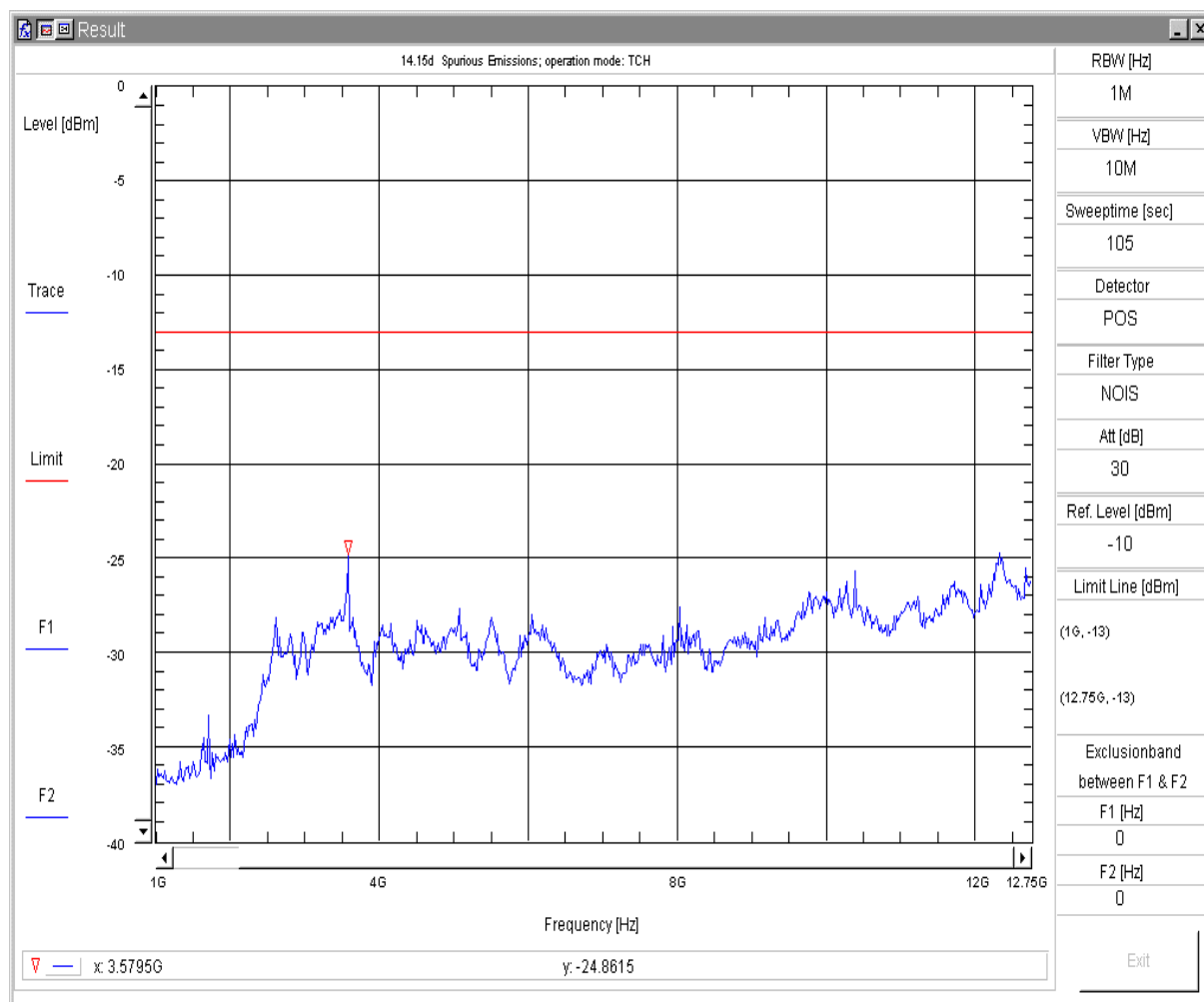


14.14 Conducted Spurious Emission

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: 33,47 dBm / 33,47 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: 512 MHz
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:06:140

Conducted Spurious Emissions V7.1.5



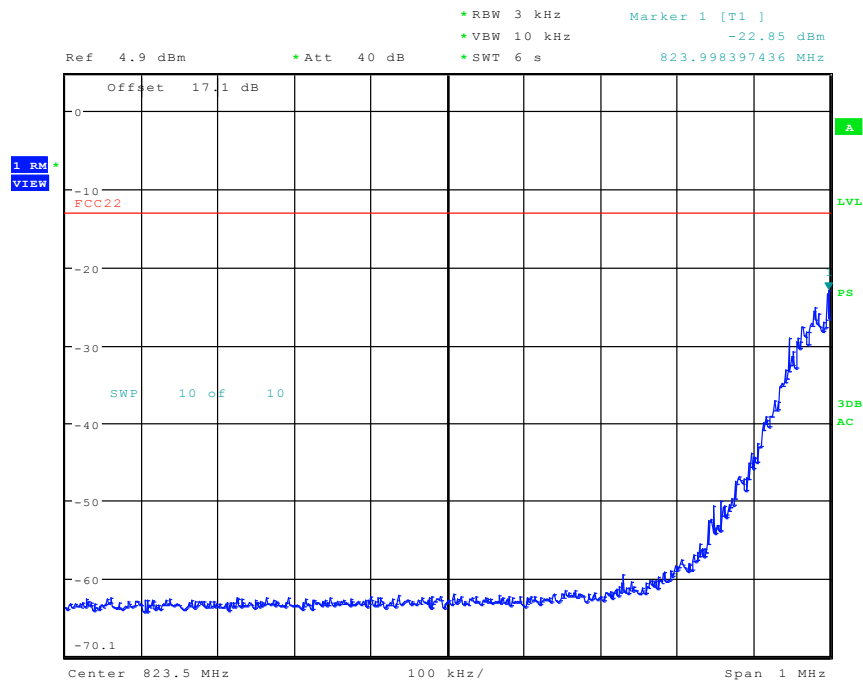
14.15d Conducted Spurious Emission

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: 33.4 dBm / 33.4 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: 848.8 MHz
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Nominal Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 13:48:470

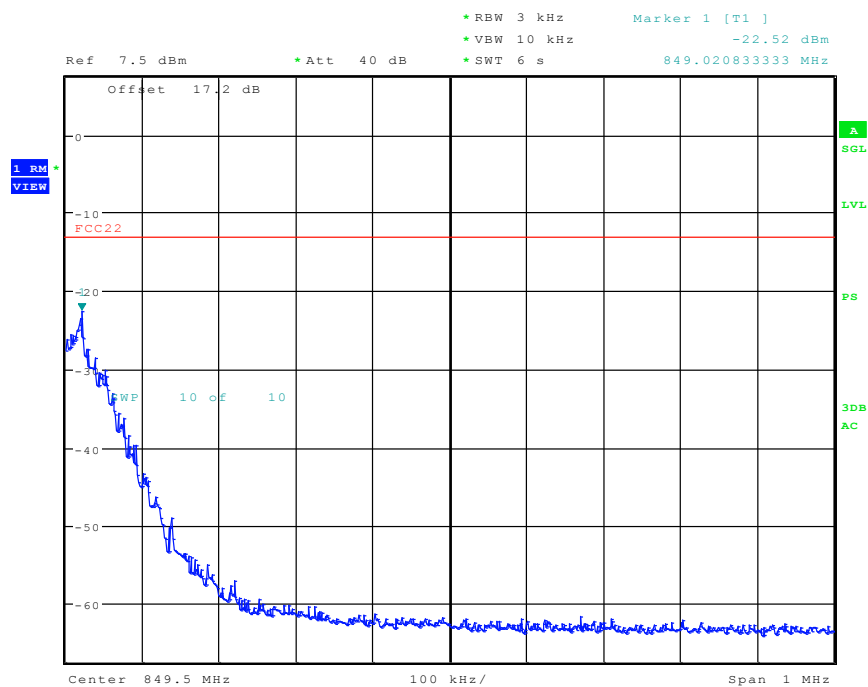
Conducted Spurious Emissions V7.1.5

Band-Edge 'Block A' compliance, channel 128 – GMSK



Date: 10.NOV.2010 17:44:21

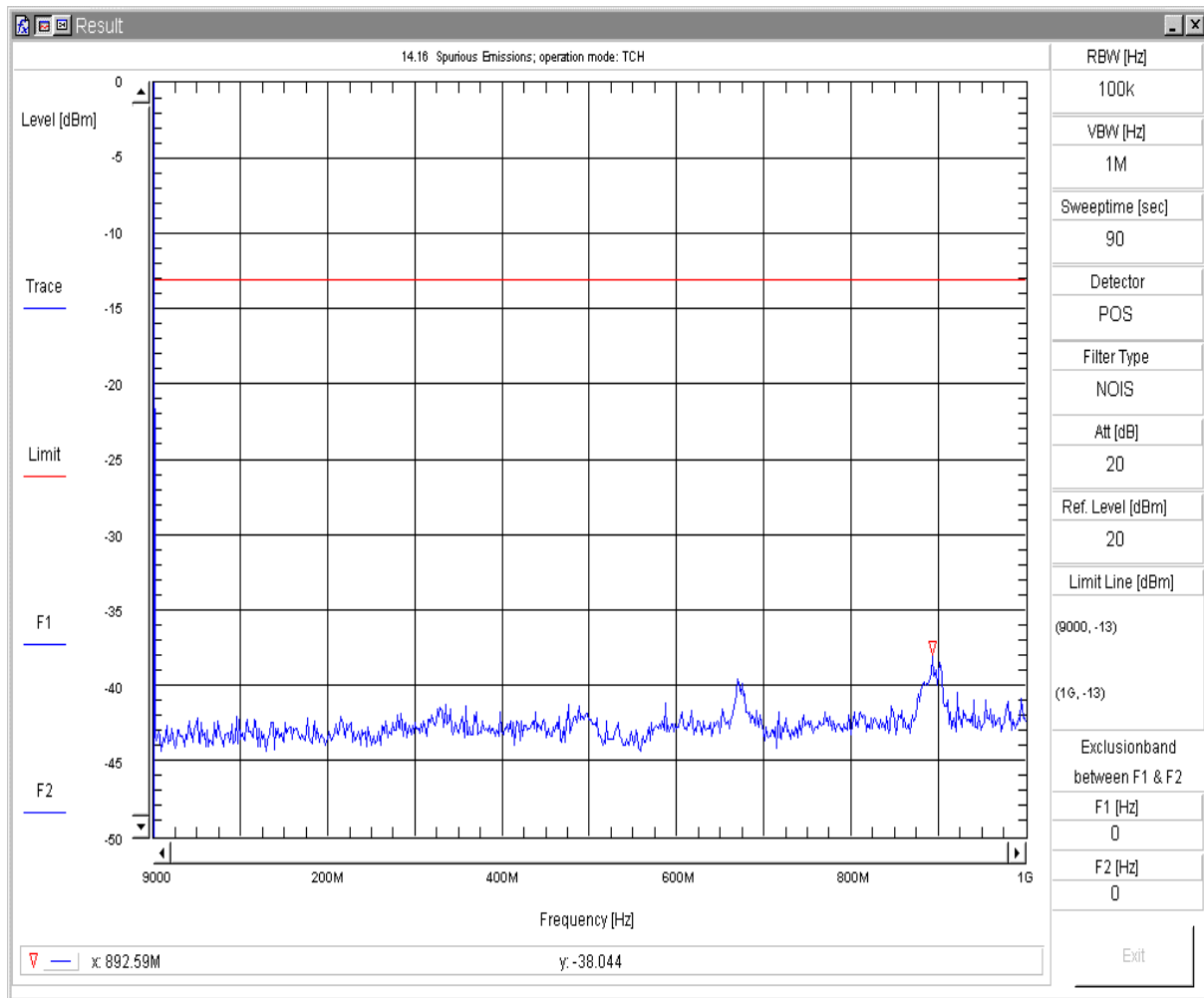
Band-Edge 'Block B' compliance, channel 251 – GMSK



Date: 10.NOV.2010 19:16:03

1.4. Spurious emissions conducted – GSM1900 Mode (TX-mode)

Diagrams – TX GSM 1900 mode

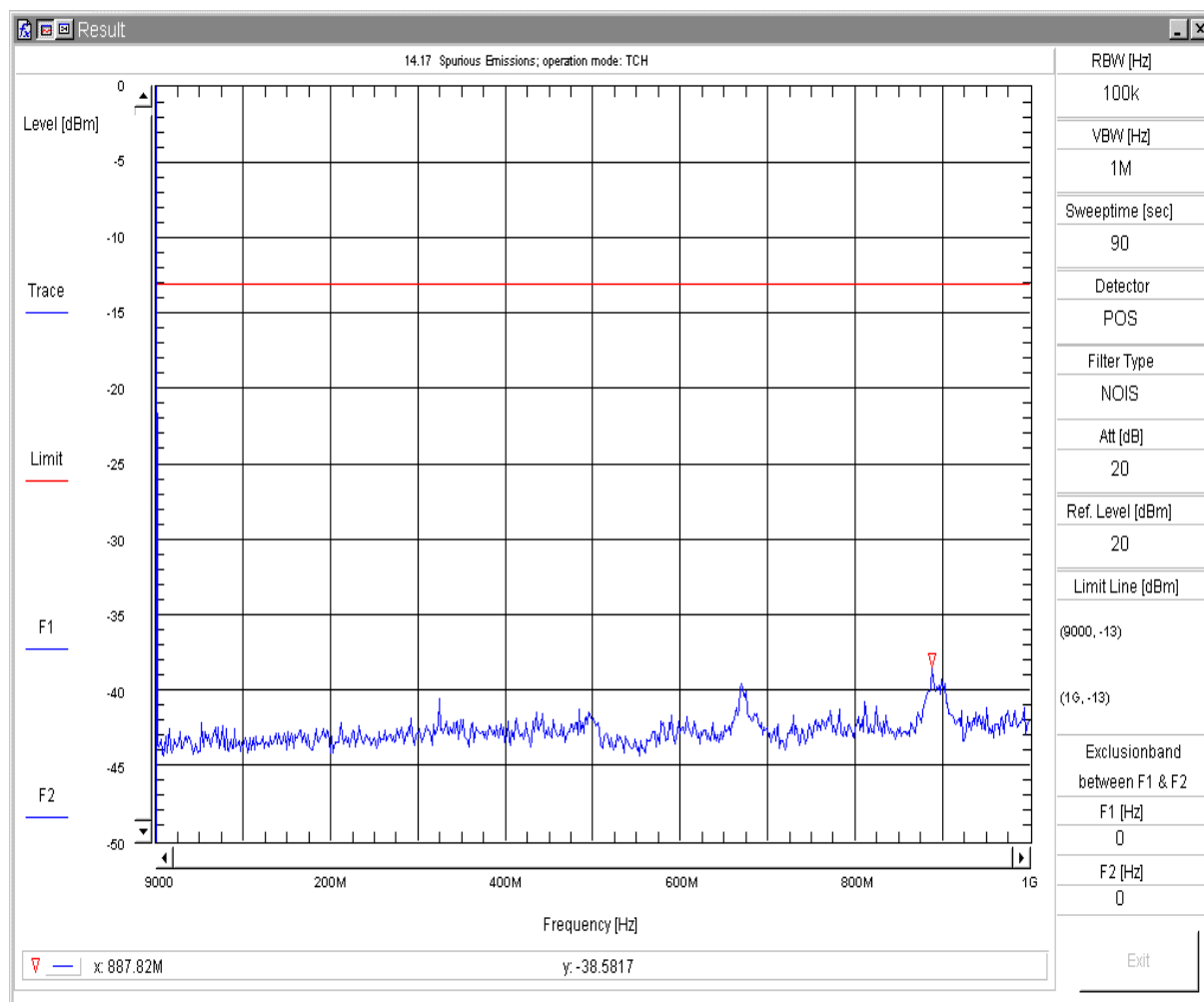


14.16 Conducted Spurious Emission

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: 33,77 dBm / 33,77 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: //
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:33:060

Conducted Spurious Emissions V7.1.5

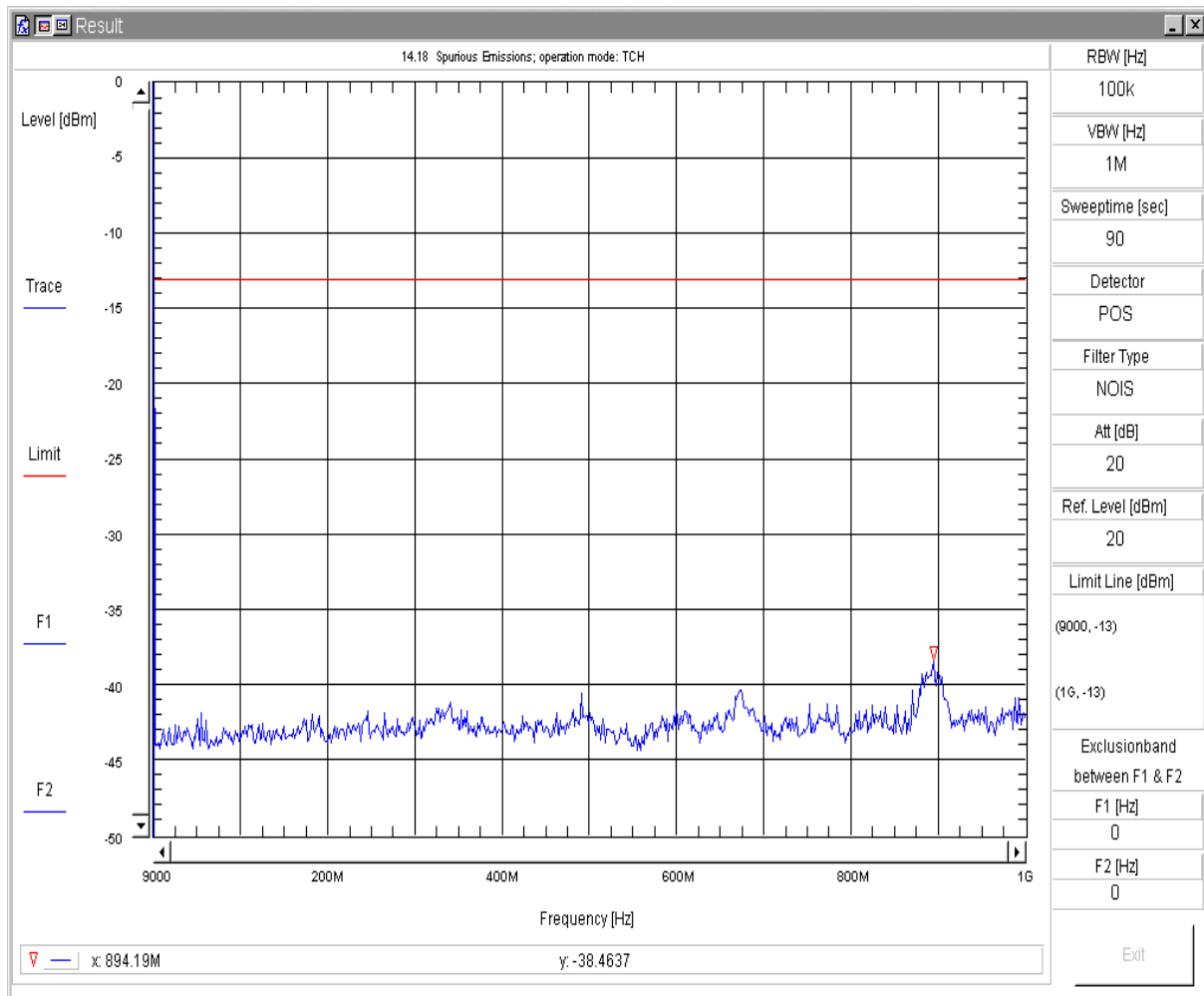


14.17 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 30,77 dBm / 30,77 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:48:330

Conducted Spurious Emissions V7.1.5

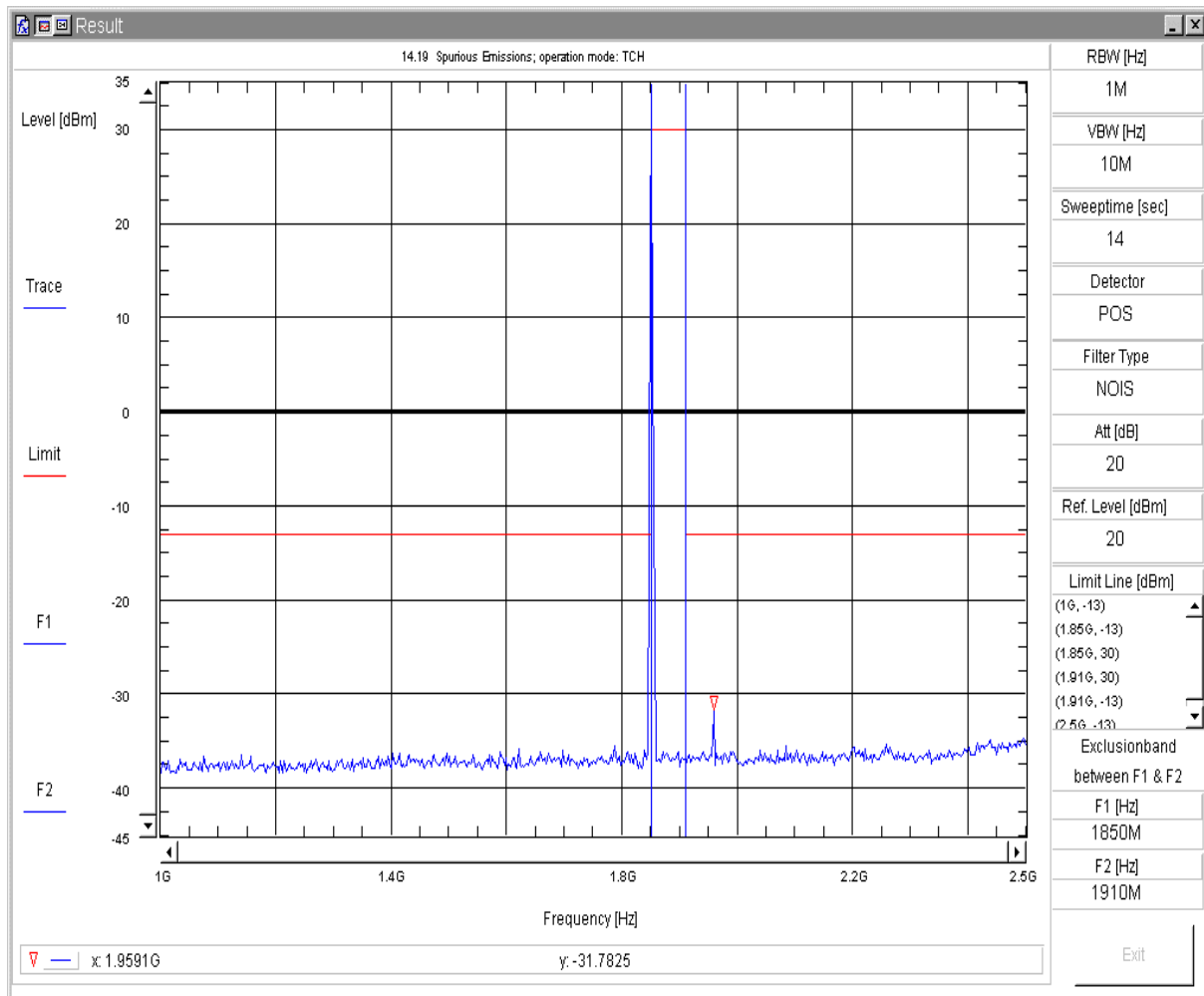


14.18 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep1
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 31,24 dBm / 31,24 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:59:580

Conducted Spurious Emissions V7.1.5

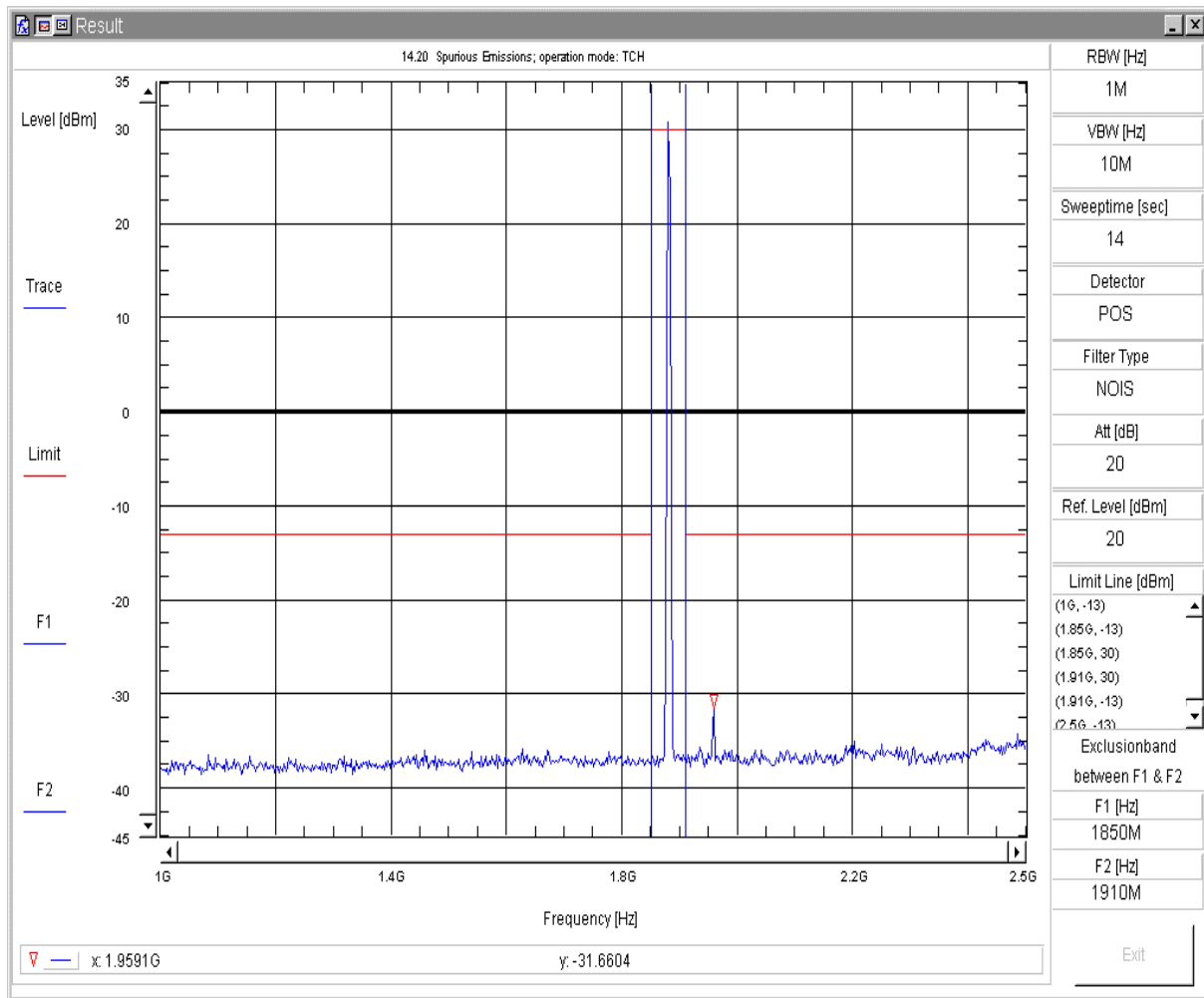


14.19 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 30,77 dBm / 30,77 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:38:080

Conducted Spurious Emissions V7.1.5

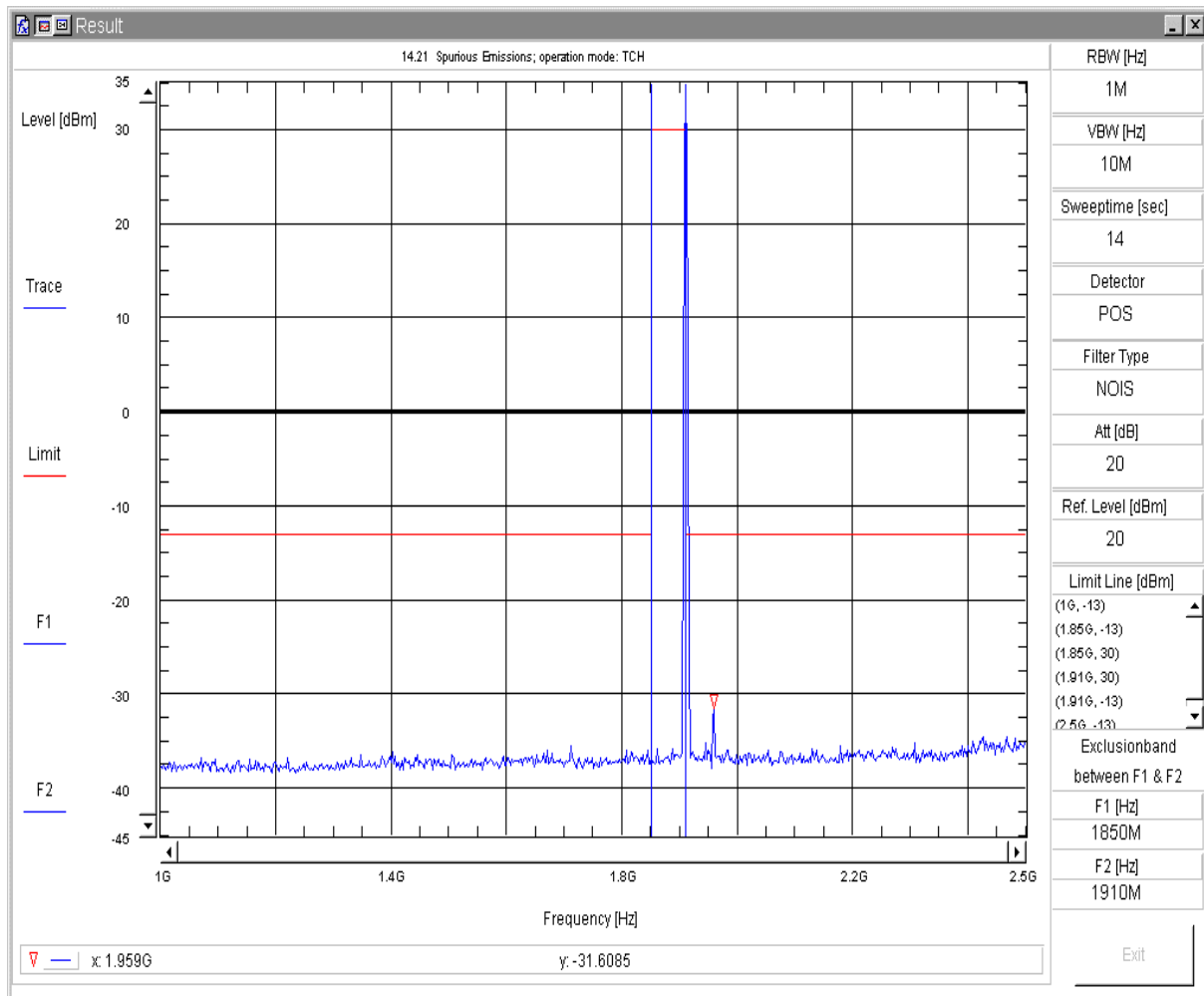


14.20 Conducted Spurious Emission

Transducer: c:\vee_user\spuri_V7\conducted\FCC_Part_24_1900\TD_TX
 Sweepnr: Sweep2
 EUT OP Mode: FCC_Part_24_1900 TCH
 UE Power: 30,87 dBm / 30,87 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: 512 MHz
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:51:550

Conducted Spurious Emissions V7.1.5

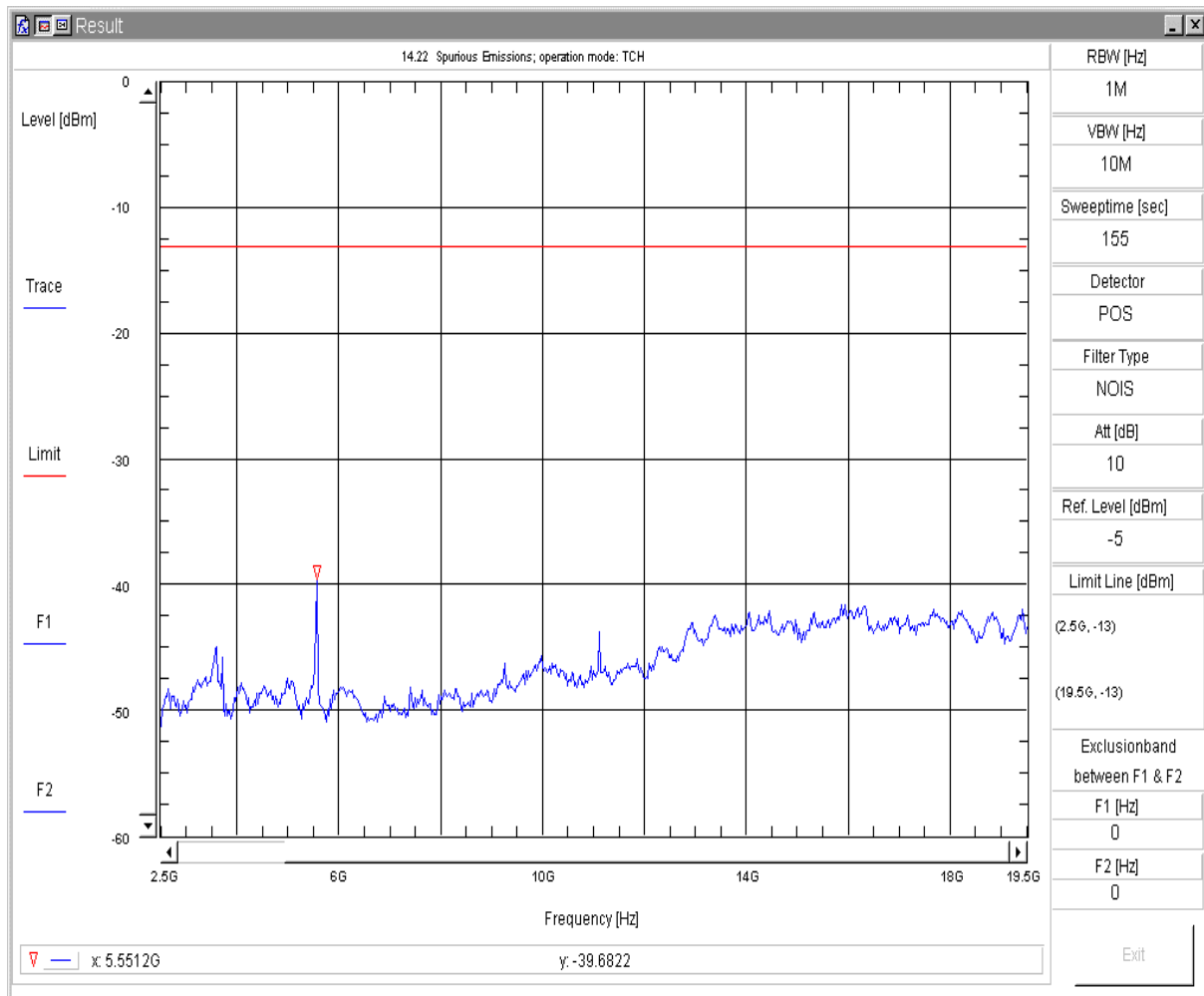


14.21 Conducted Spurious Emission

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: 31,24 dBm / 31,24 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 20:04:020

Conducted Spurious Emissions V7.1.5

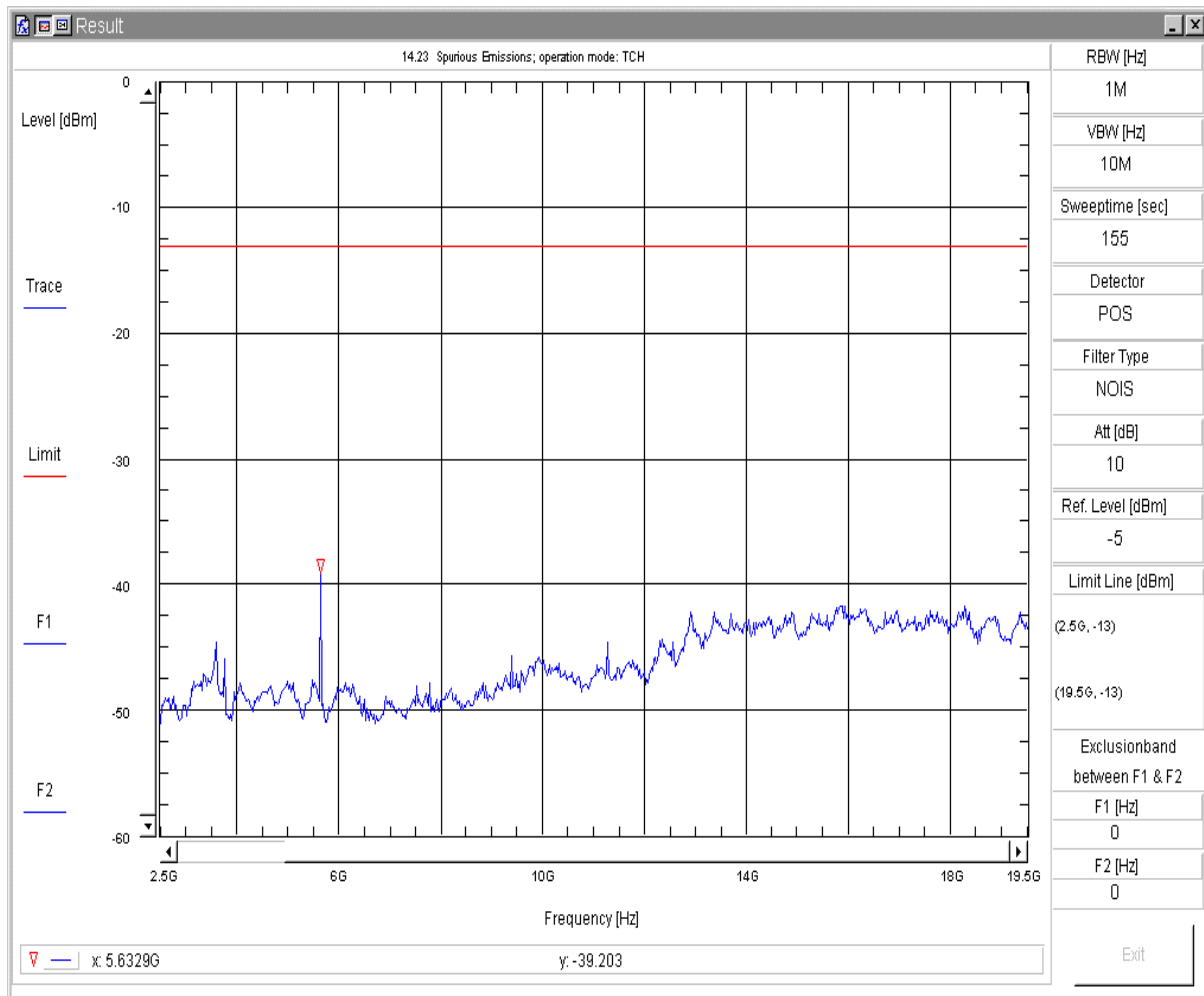


14.22 Conducted Spurious Emission

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: 30,77 dBm / 30,77 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:43:250

Conducted Spurious Emissions V7.1.5

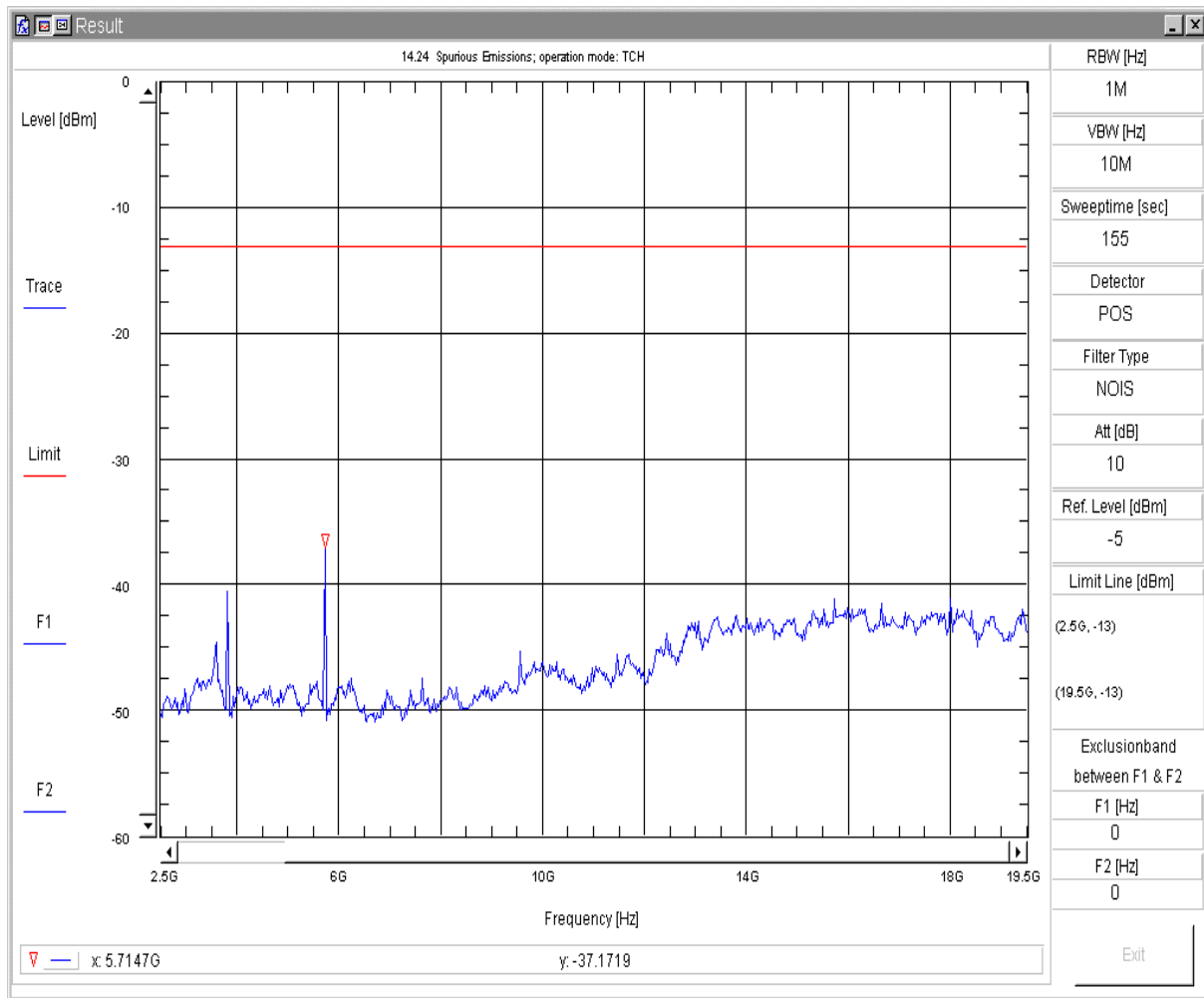


14.23 Conducted Spurious Emission

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: 30,87 dBm / 30,87 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 19:54:170

Conducted Spurious Emissions V7.1.5



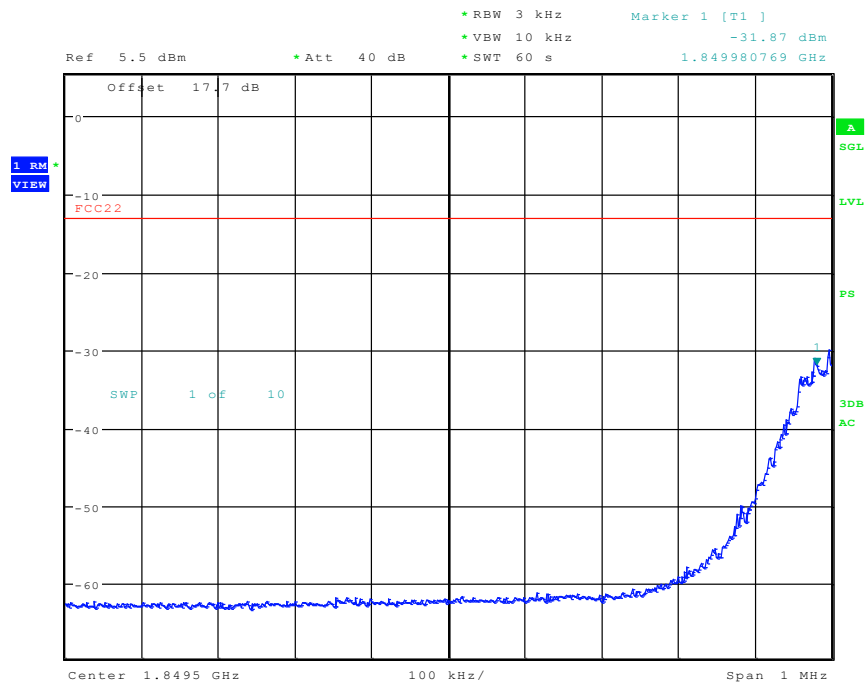
14.24 Conducted Spurious Emission

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: 31,24 dBm / 31,24 dBm
 UE Status: Connection established (observed by operator)
 UE Uplink Freq: --
 EUT Description: MC55i-W
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Iph
 Testing Site: Radio Laboratory; CETECOM Essen

Thu 11/Nov/2010 20:06:570

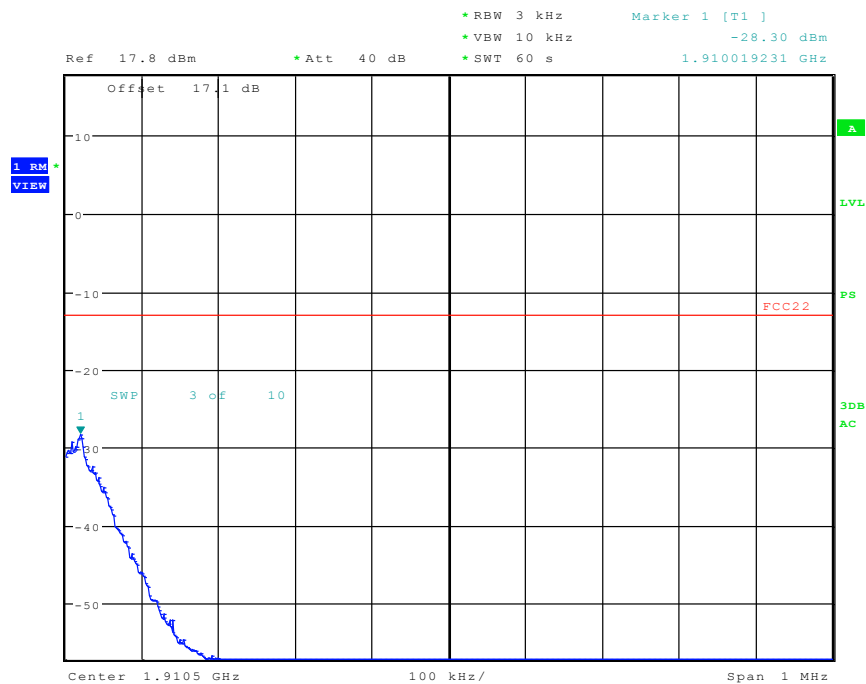
Conducted Spurious Emissions V7.1.5

Band-Edge compliance, channel 512 – GMSK



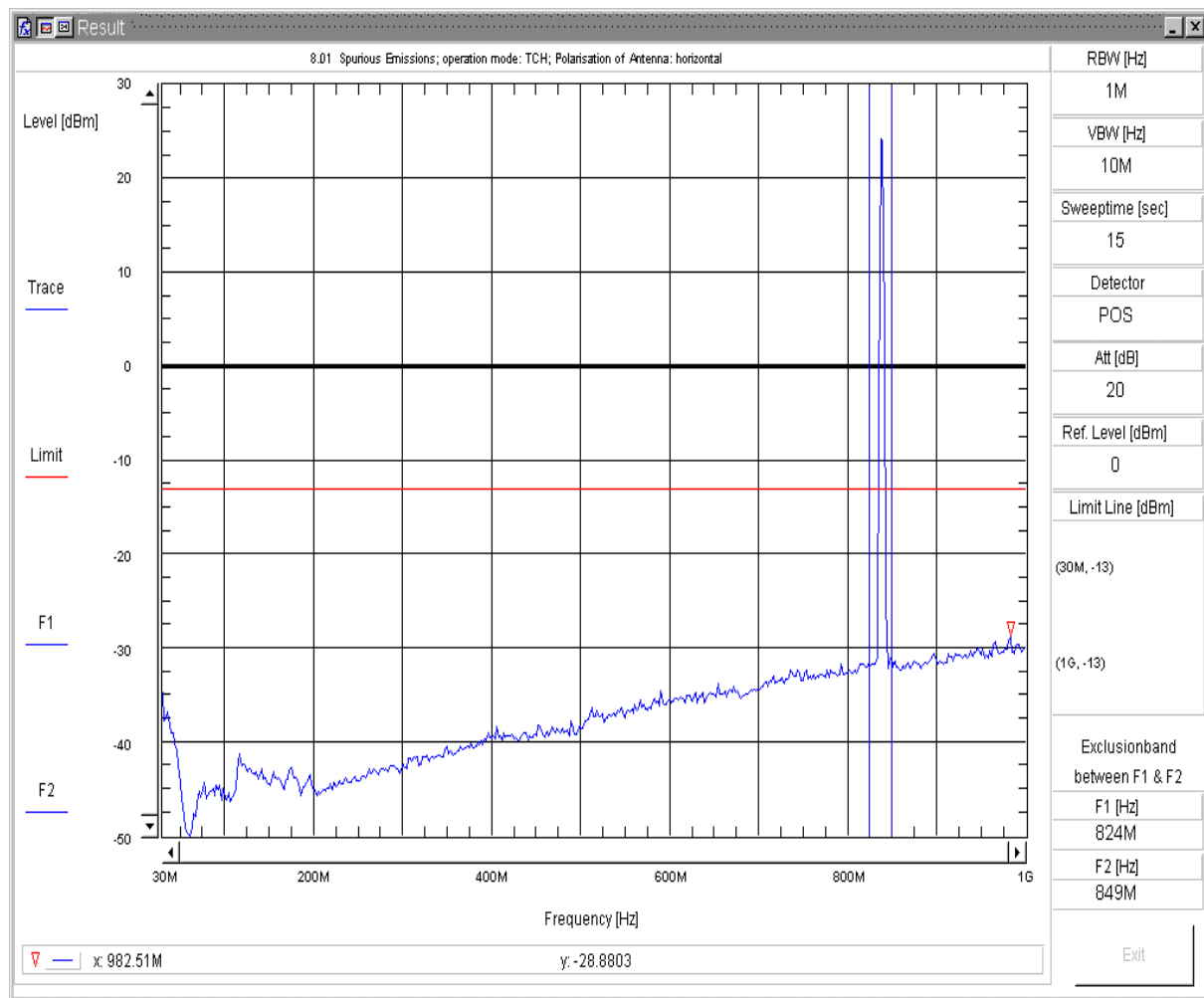
Date: 11.NOV.2010 17:09:56

Band-Edge compliance, Channel 810 – GMSK



Date: 11.NOV.2010 18:52:35

1.5. Spurious emissions radiated – GSM850 TX-Mode

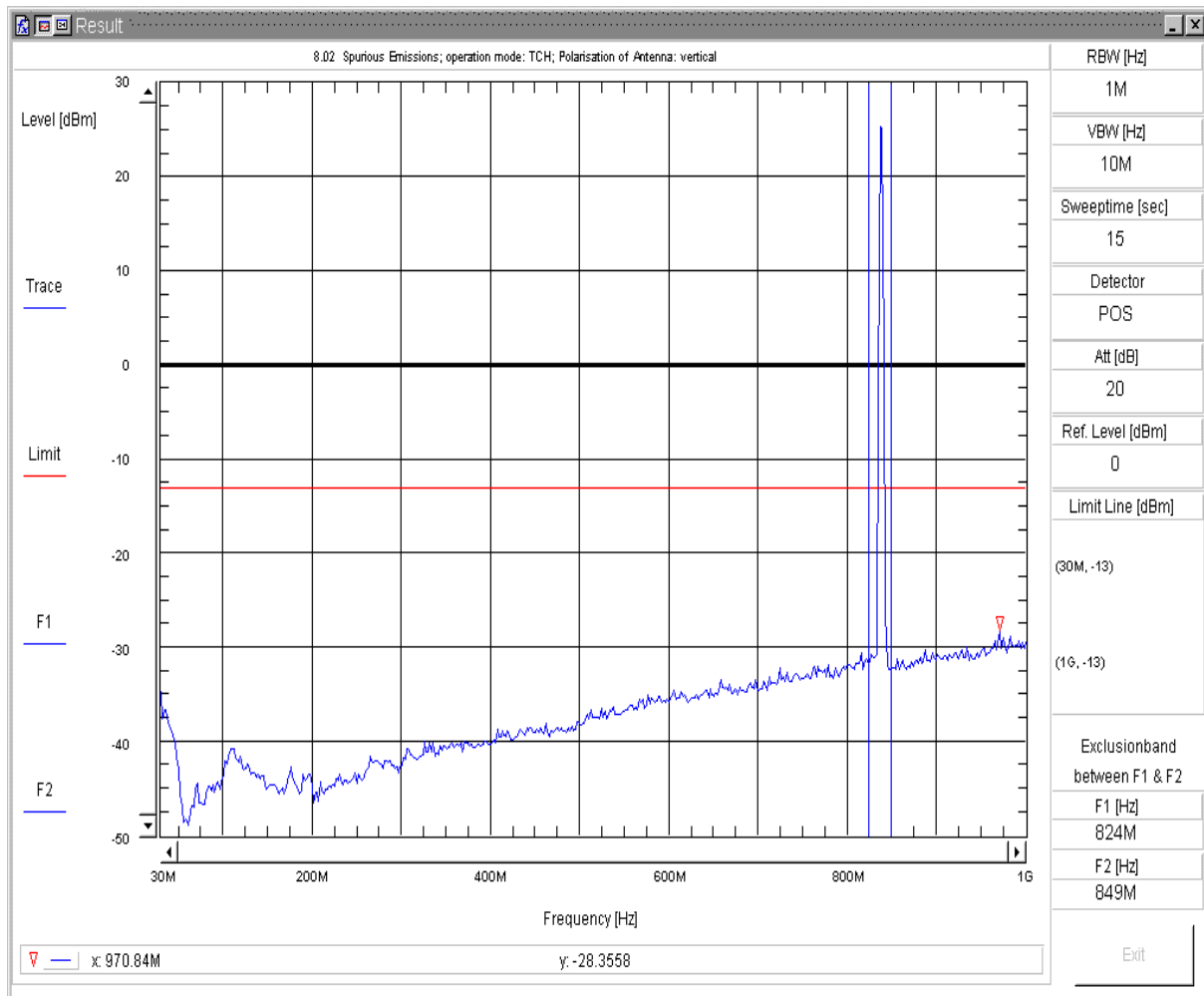


8.01 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+DSBoard+ USB L line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: 004401-08-042087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 09:07:32pfp

Spurious Emissions V7.2.5

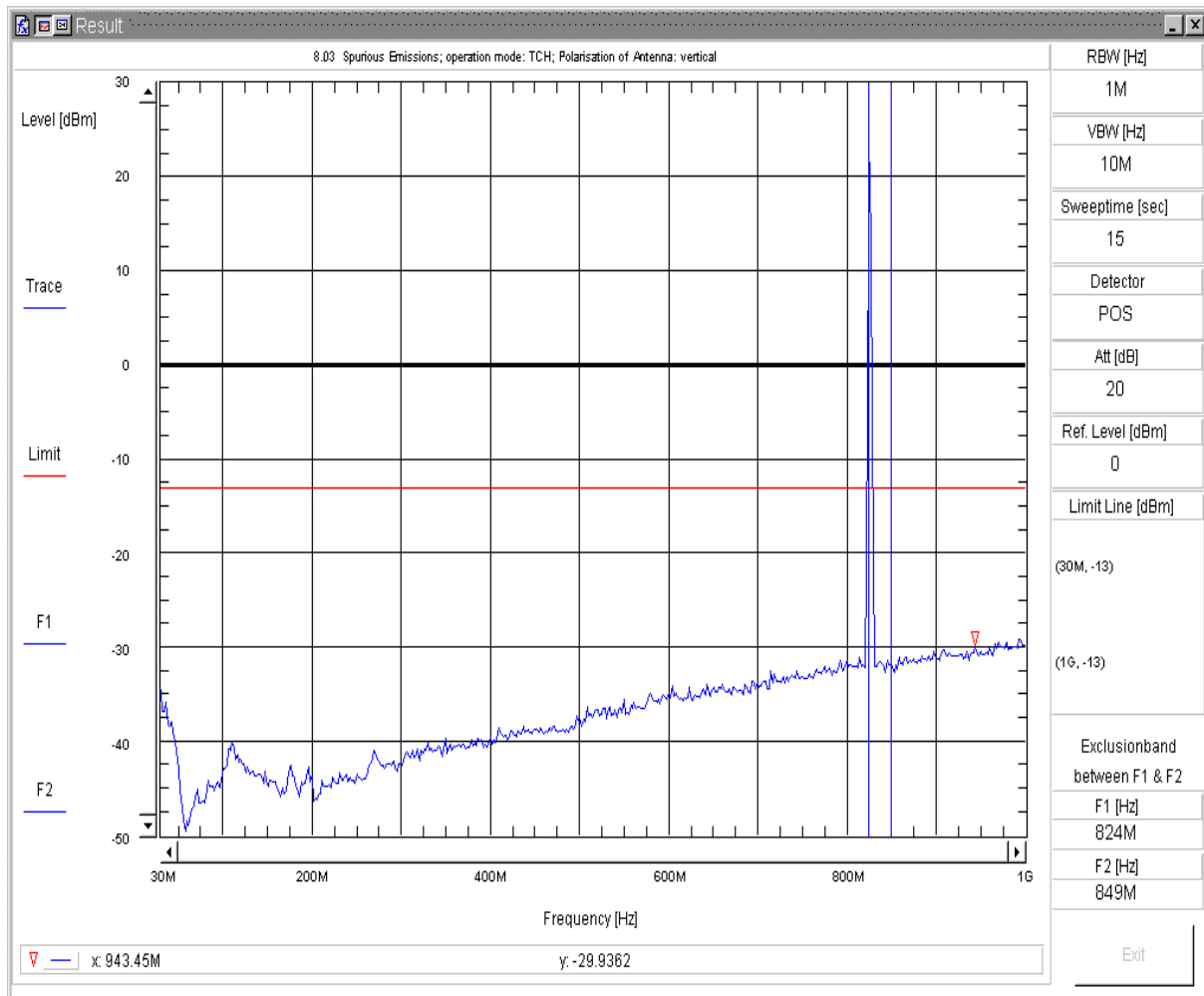


8.02 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 12:18:26ppp

Spurious Emissions V7.2.5

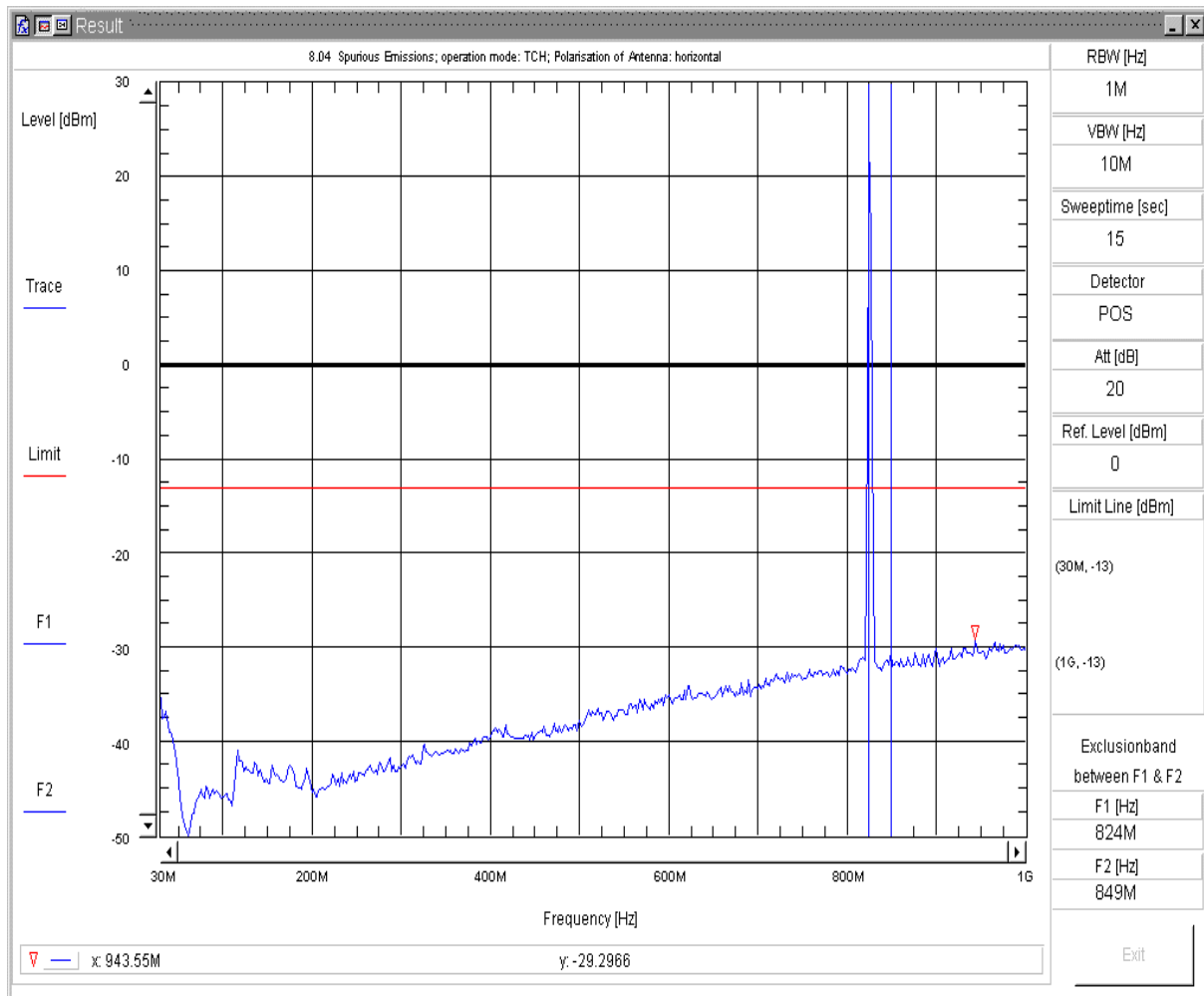


8.03 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 09:18:51pff

Spurious Emissions V7.2.5

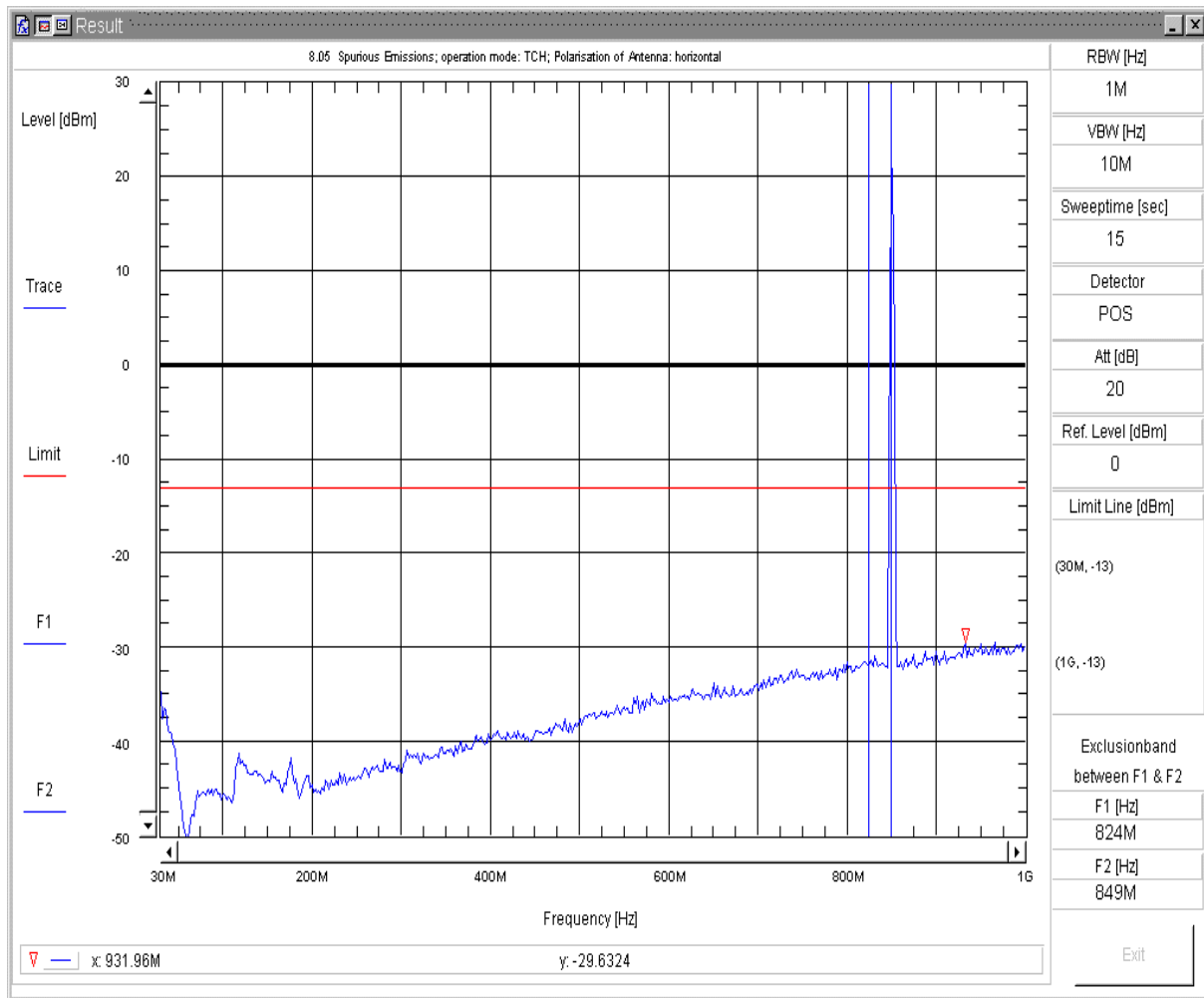


8.04 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 09:24:19pff

Spurious Emissions V7.2.5

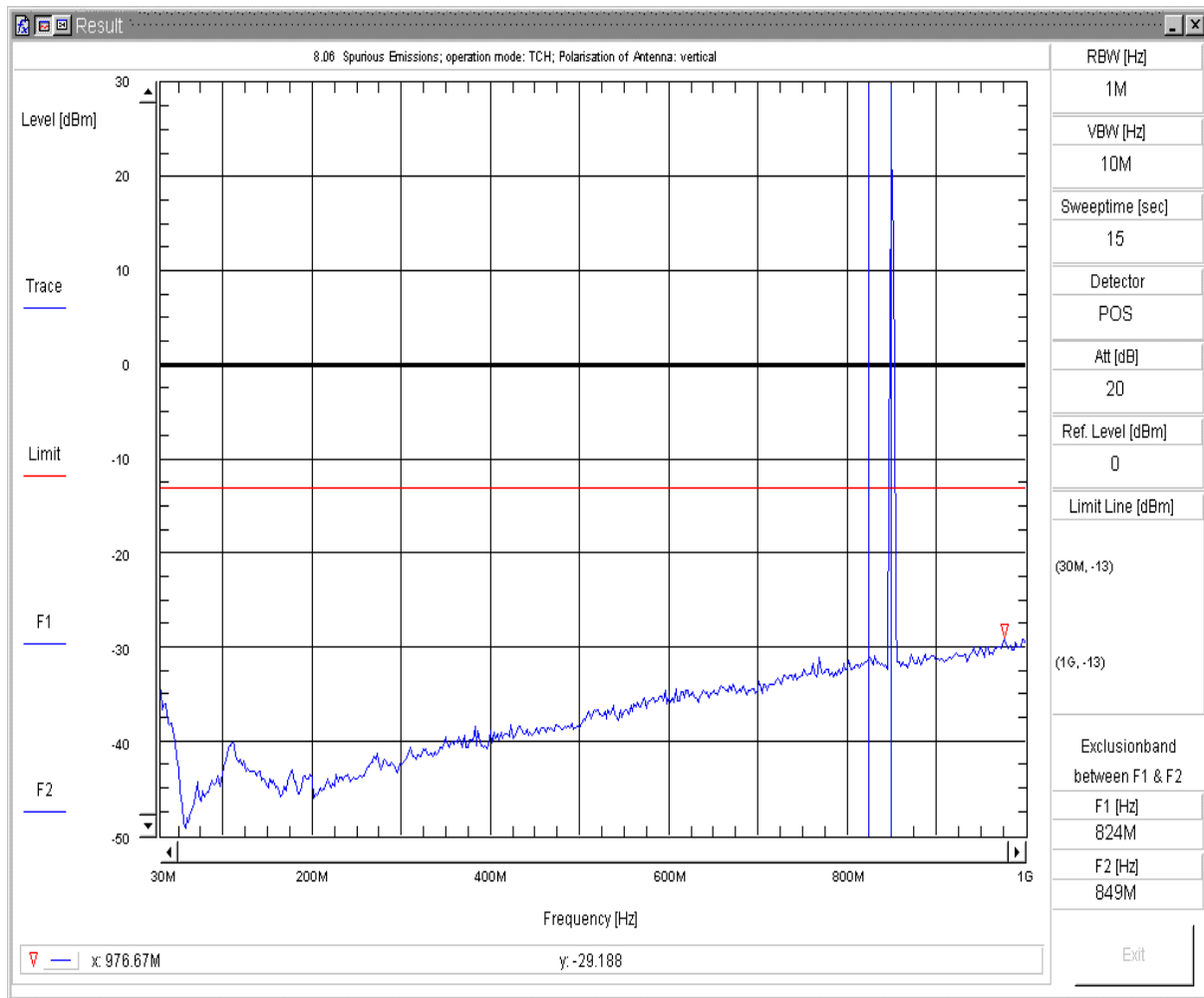


8.05 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARRCN 251
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 09:28:32pfp

Spurious Emissions V7.2.5

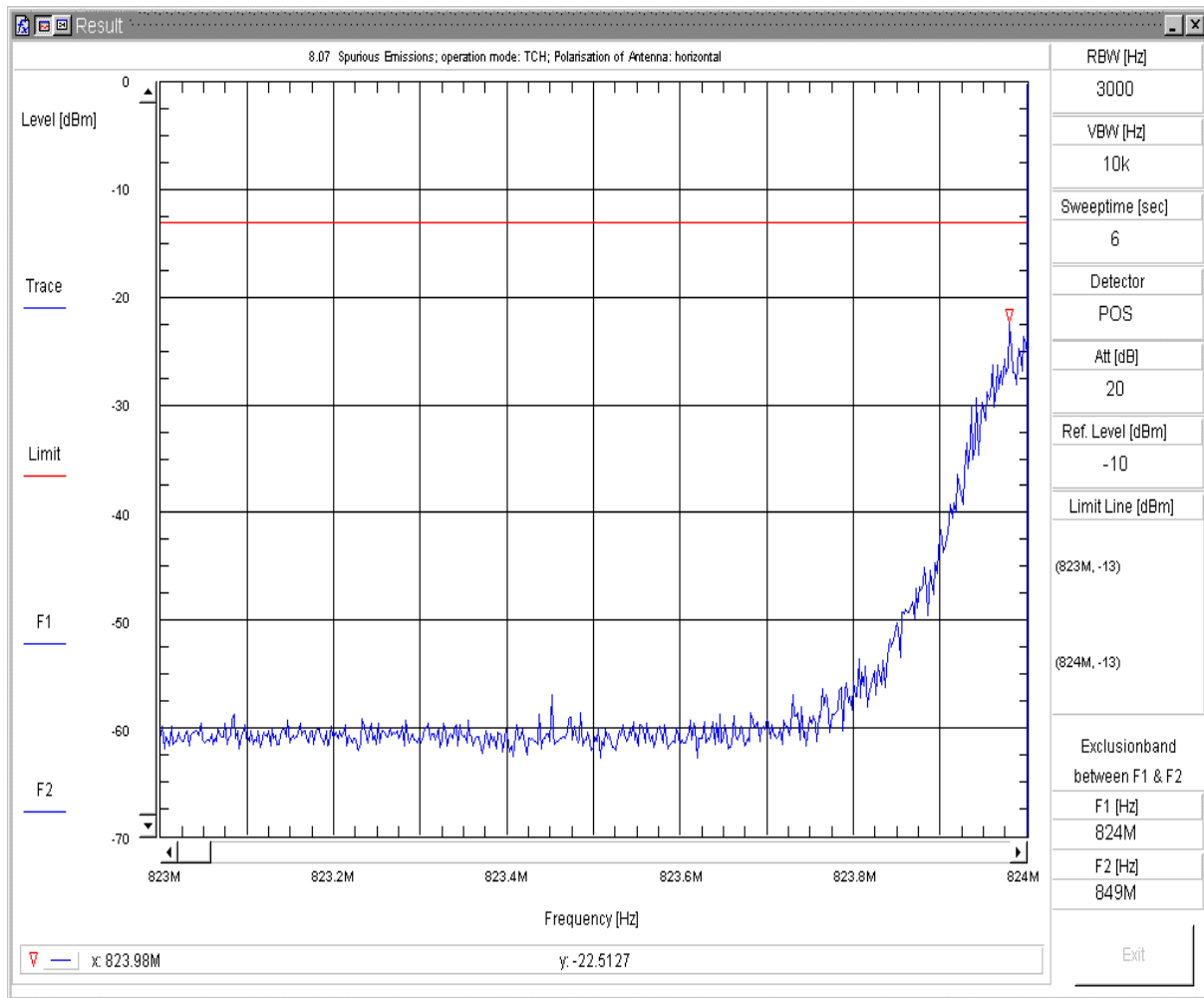


8.06 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 09:32:44pff

Spurious Emissions V7.2.5

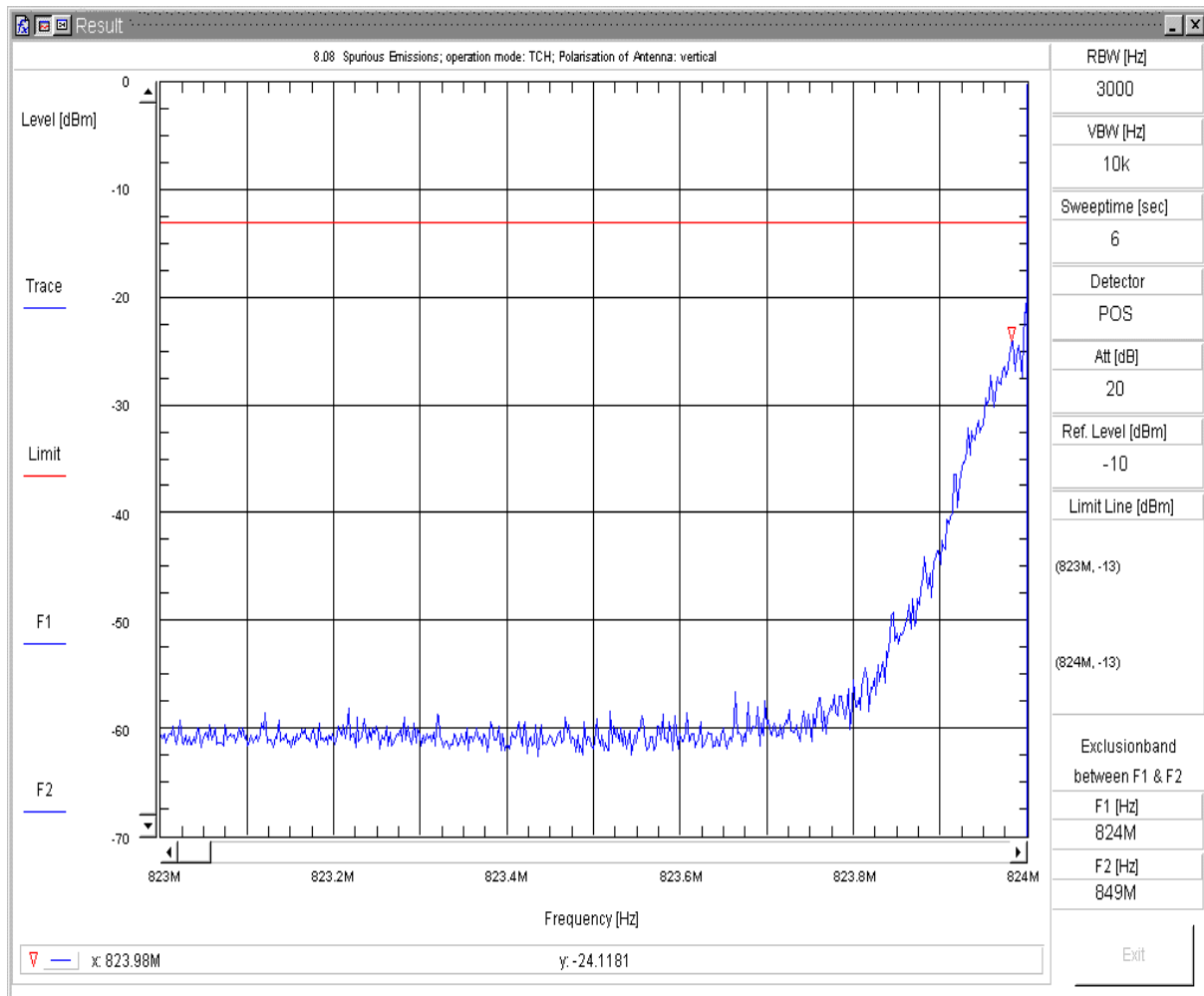


8.07 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 09:50:25pff

Spurious Emissions V7.2.5

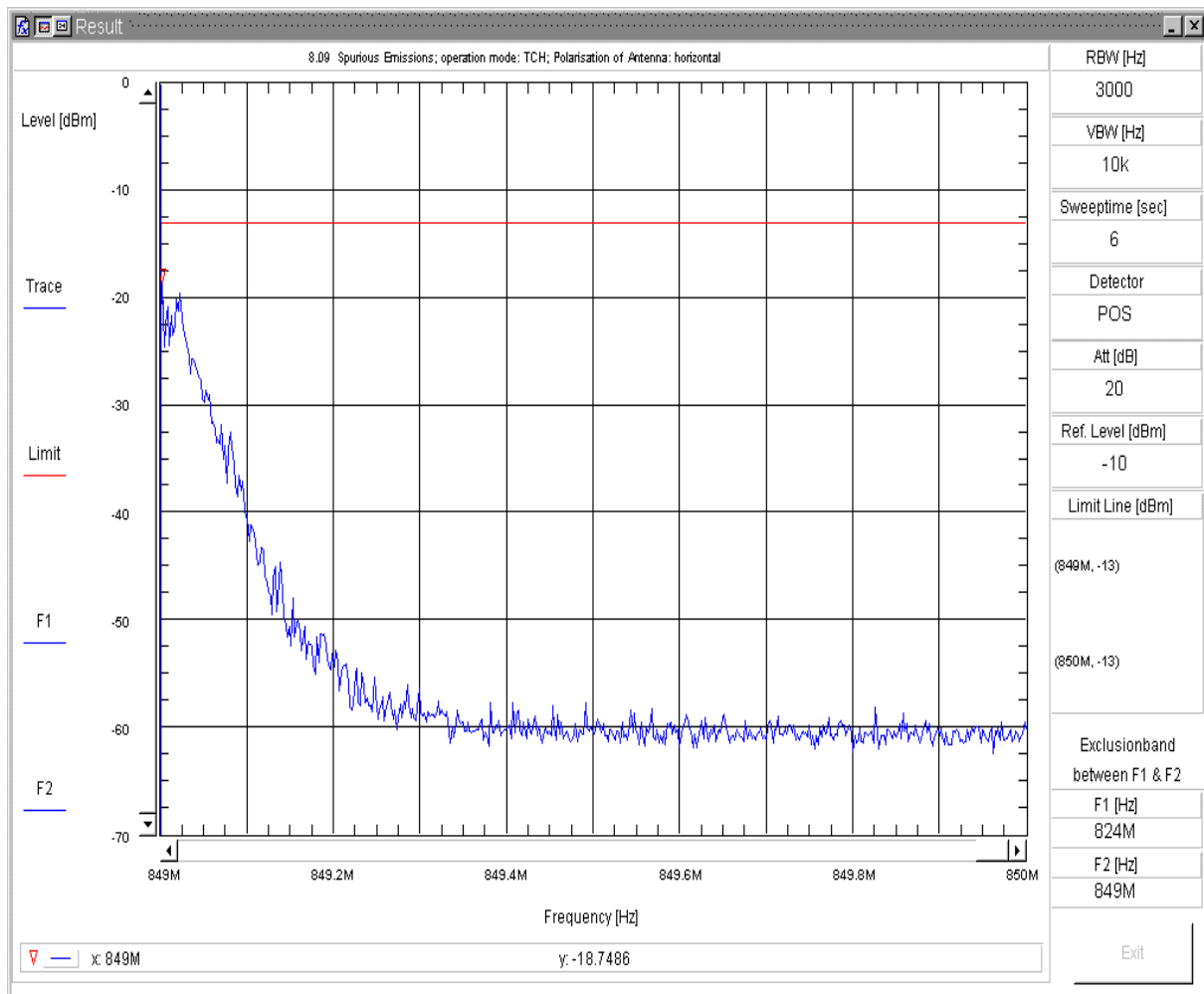


8.08 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 09:53:49fff

Spurious Emissions V7.2.5

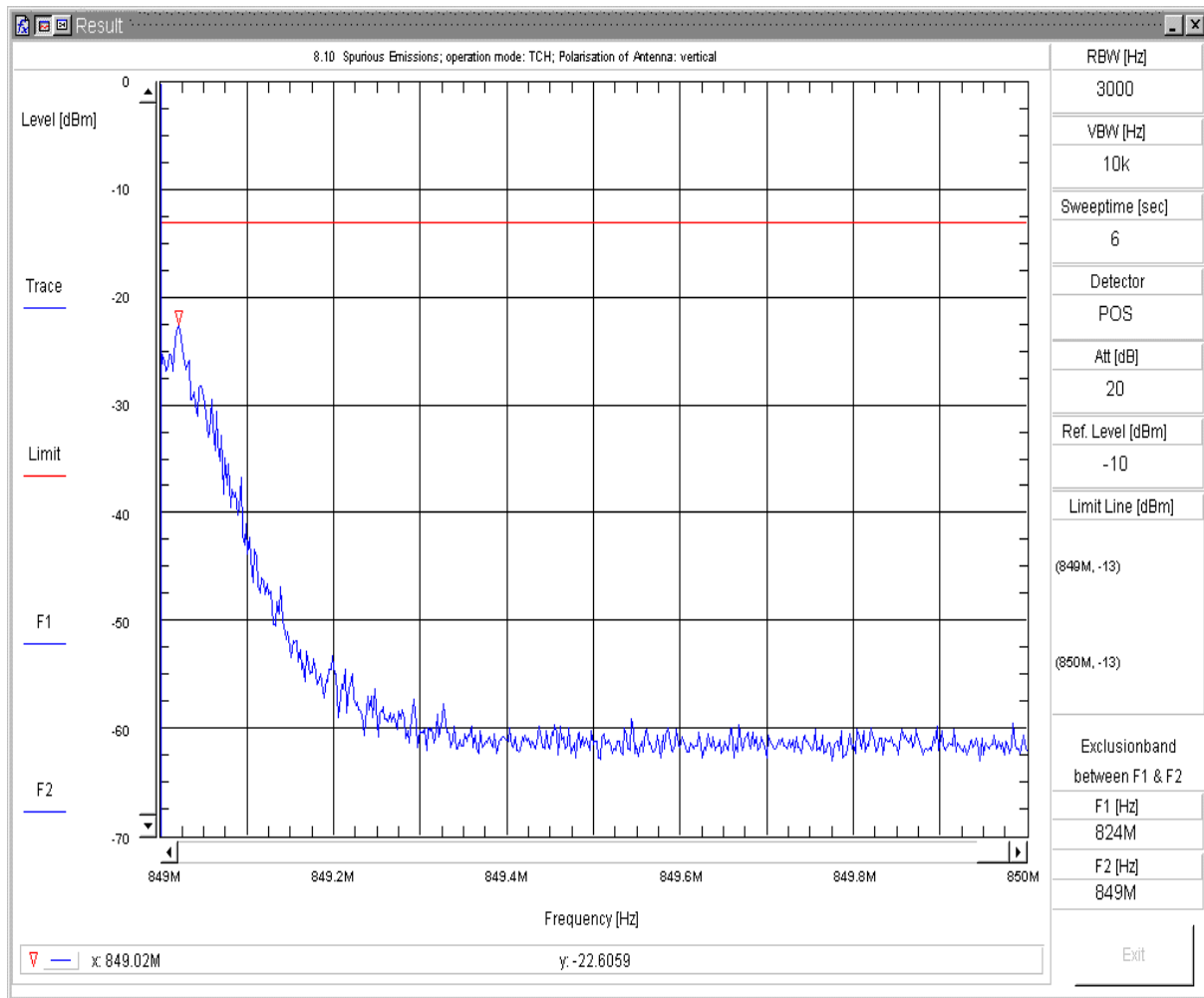


8.09 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N:
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: -
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Fri 10/Dec/2010 15:35:11pff

Spurious Emissions V7.2.5

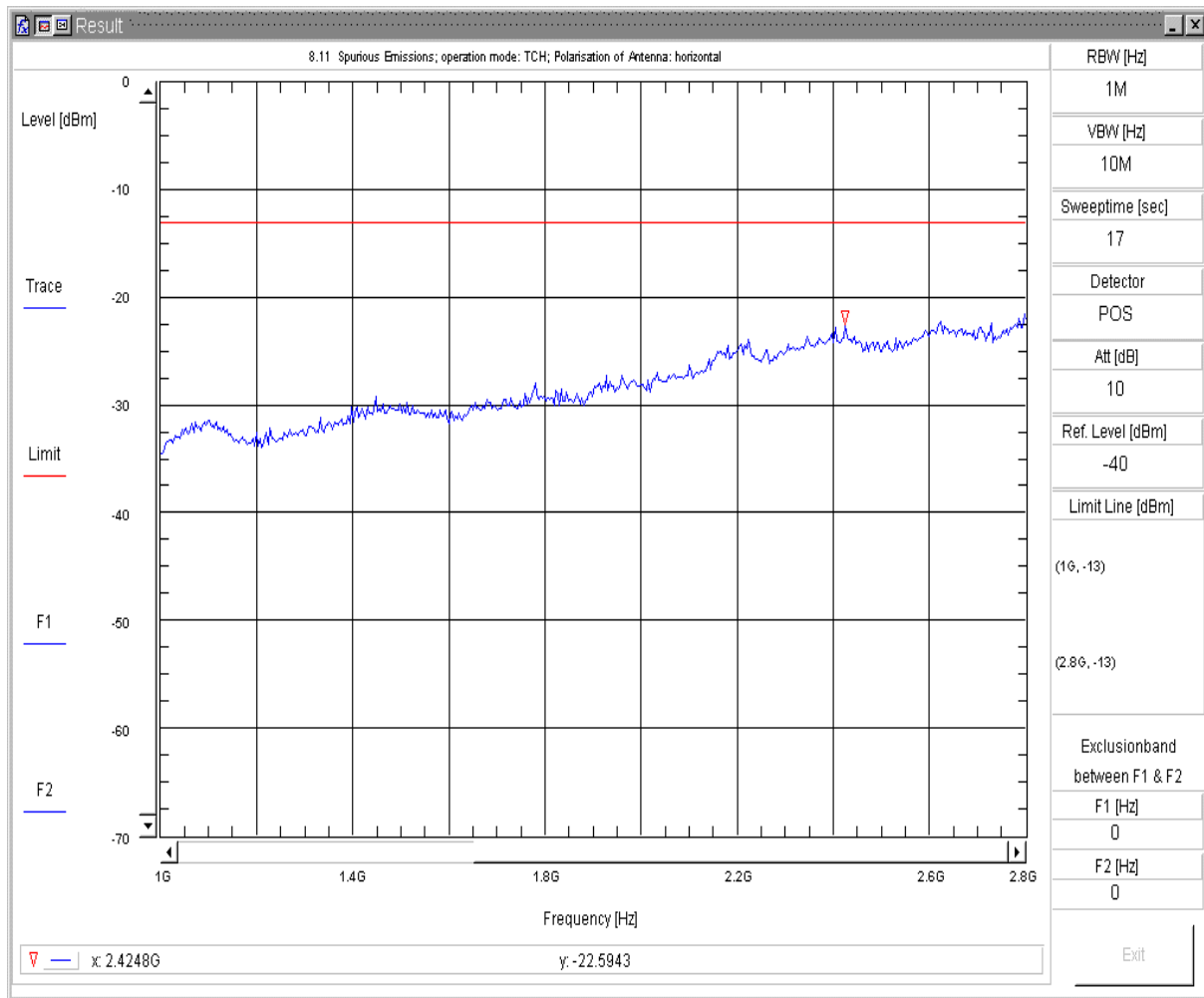


8.10 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 12:12:13ppf

Spurious Emissions V7.2.5

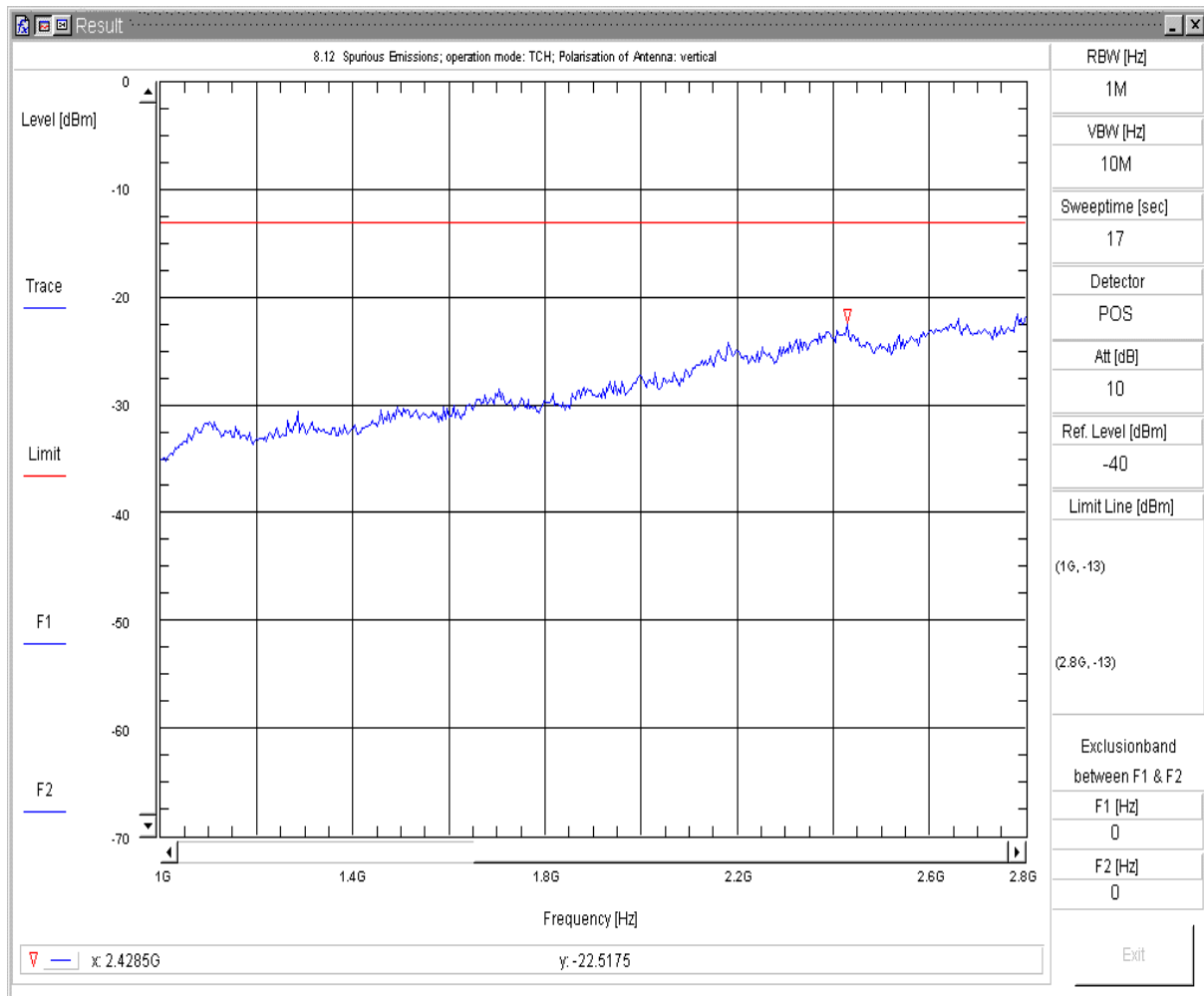


8.11 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 10:16:47fp

Spurious Emissions V7.2.5

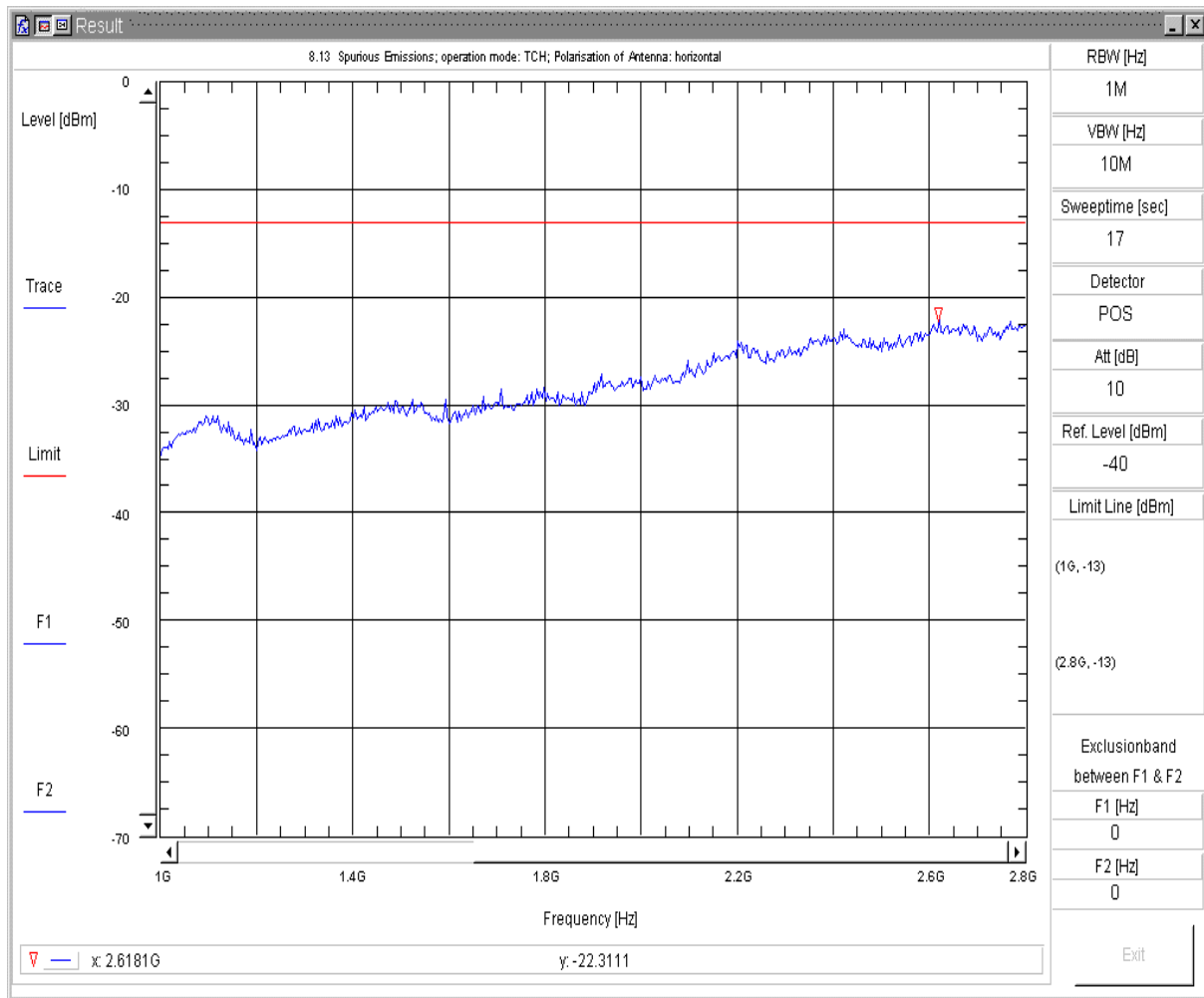


8.12 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 10:24:55pp

Spurious Emissions V7.2.5

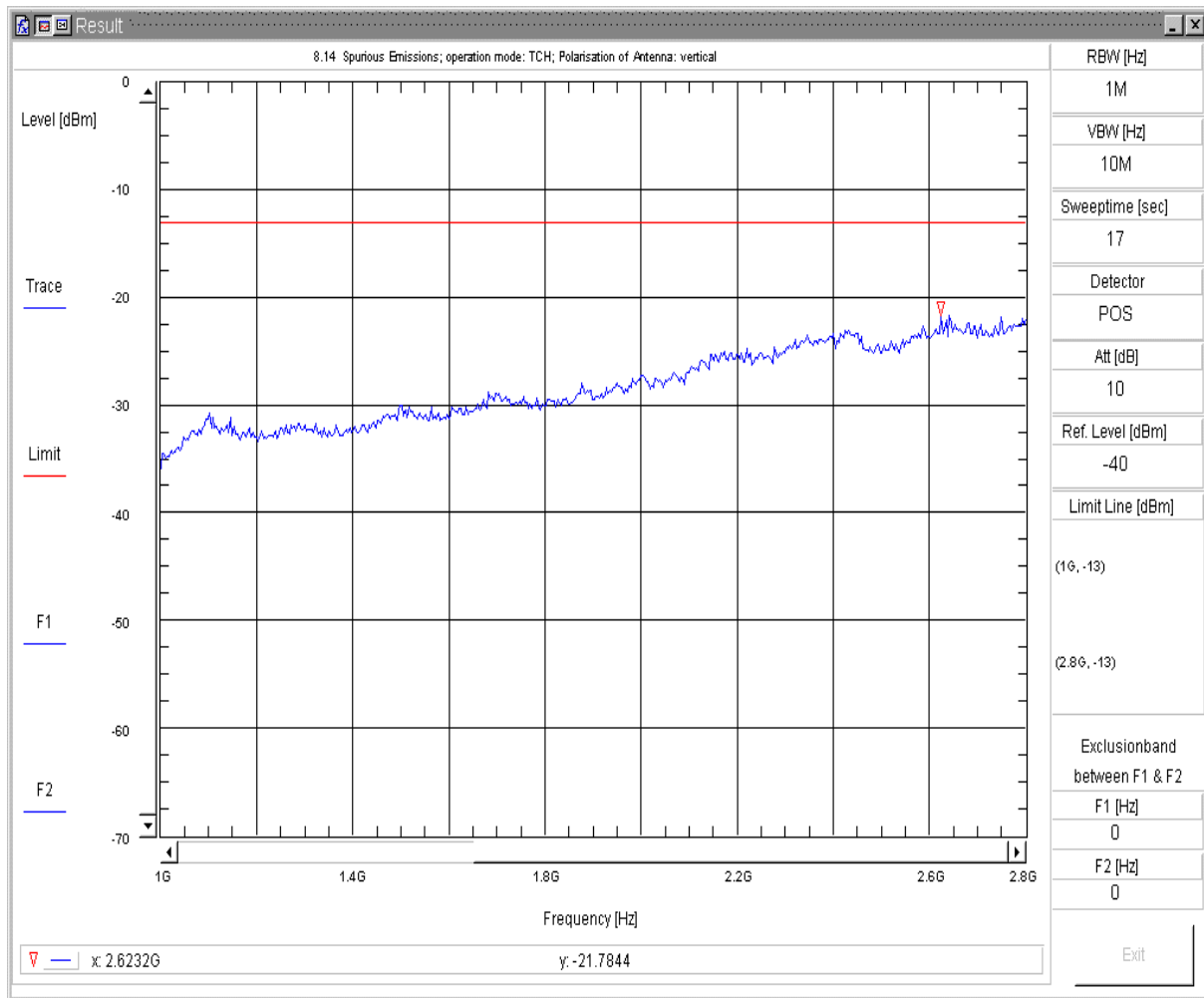


8.13 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 10:32:19fp

Spurious Emissions V7.2.5

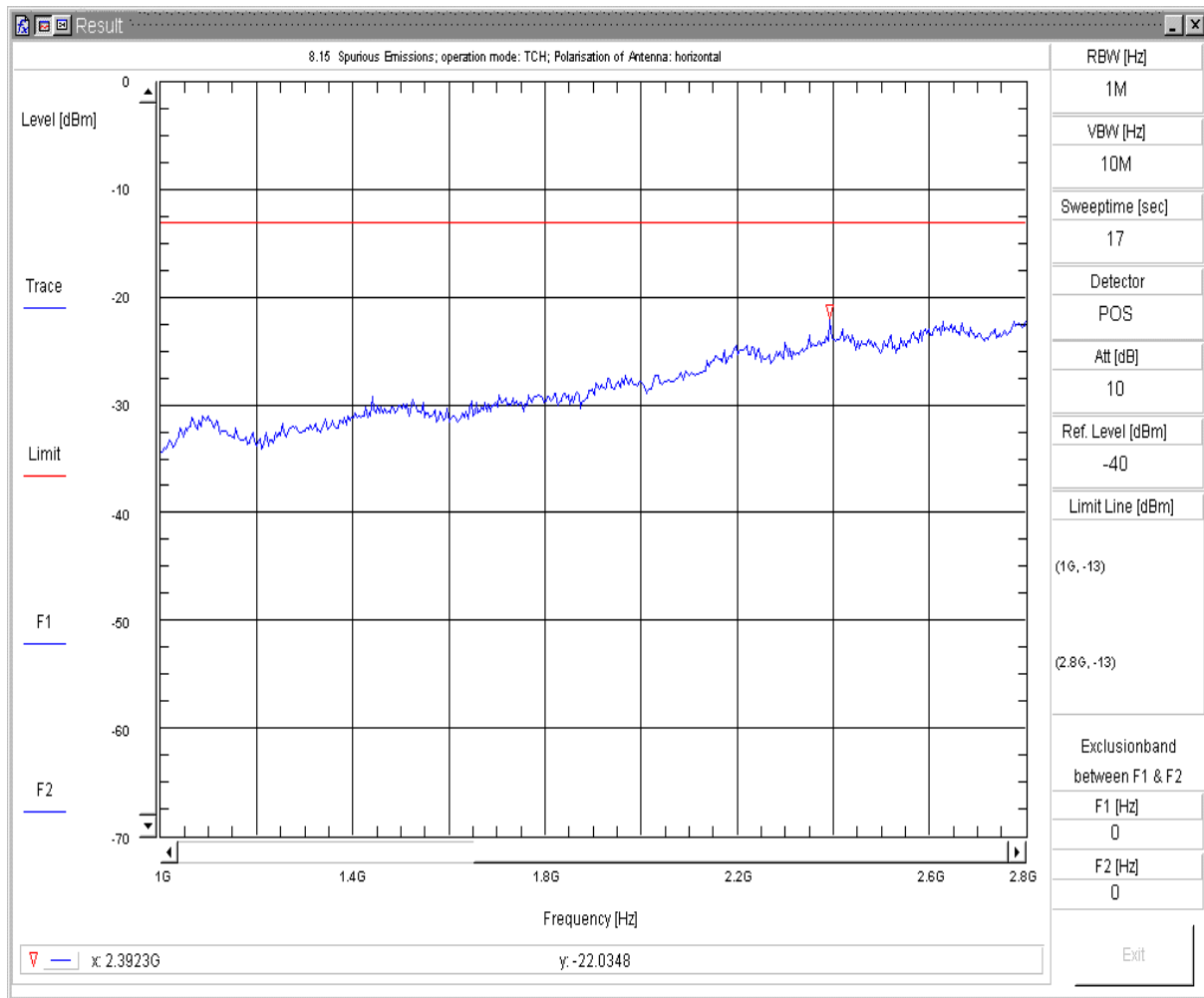


8.14 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 10:39:26pp

Spurious Emissions V7.2.5

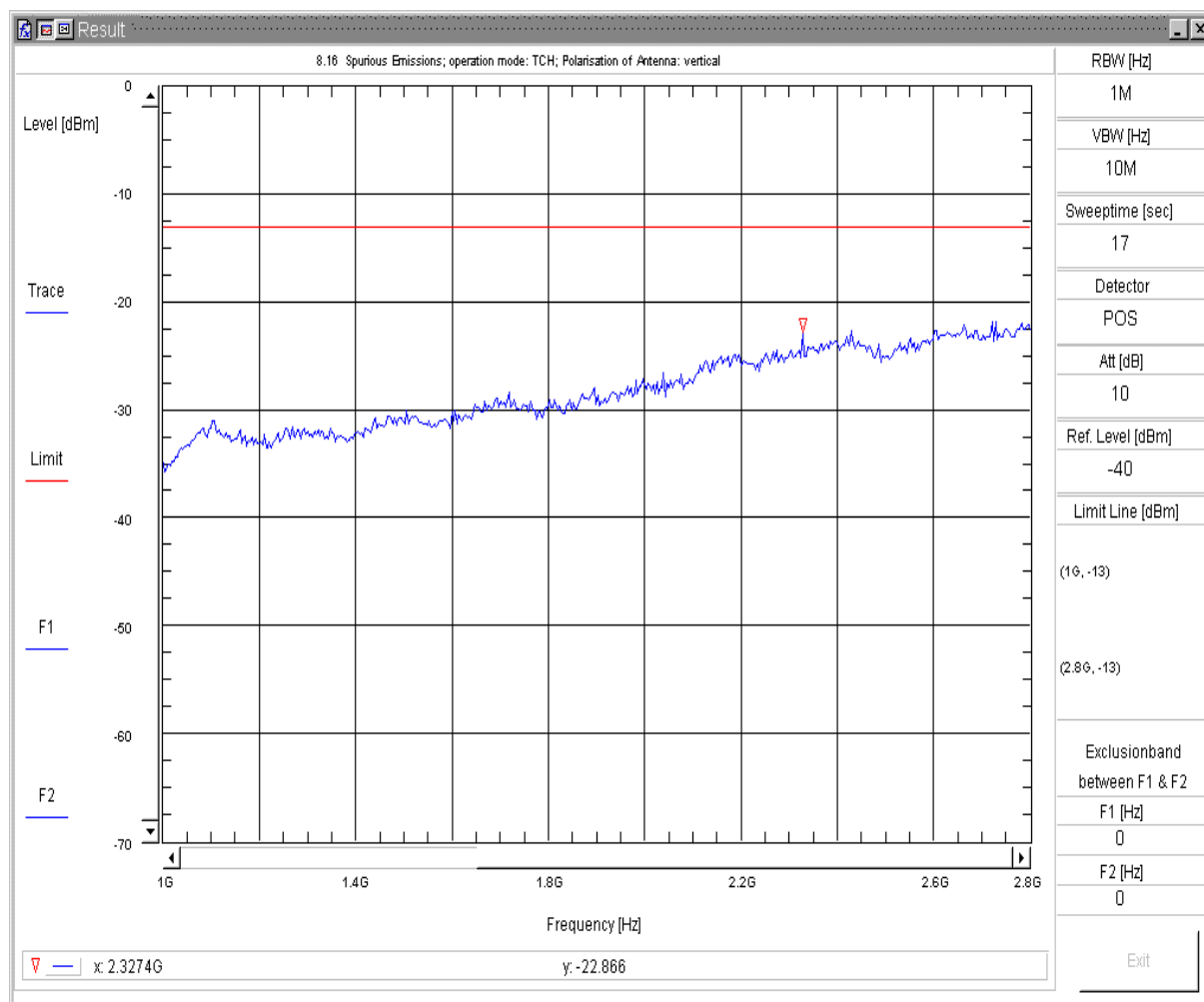


8.15 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 10:46:27fp

Spurious Emissions V7.2.5

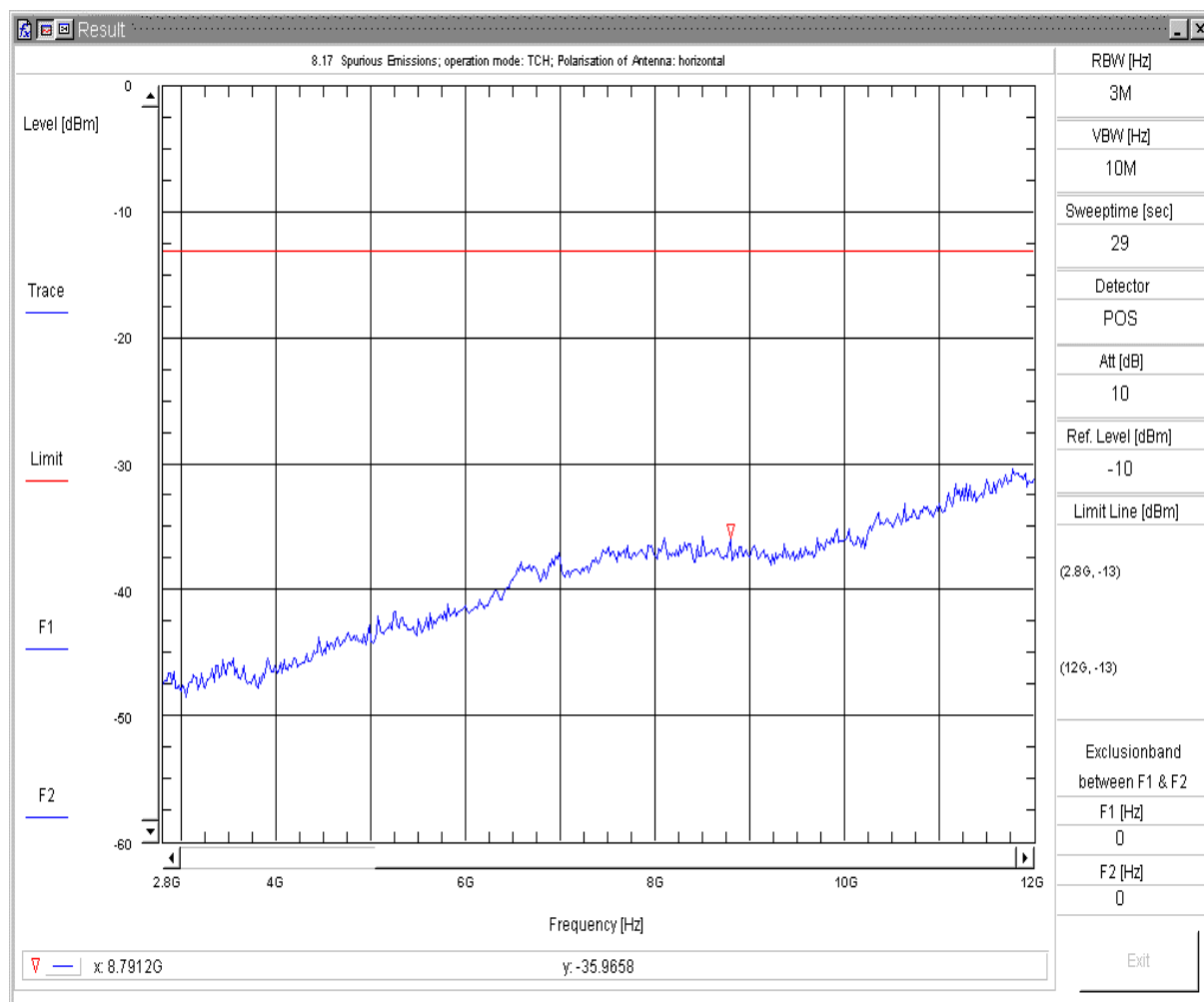


8.16 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 10:53:23pp

Spurious Emissions V7.2.5

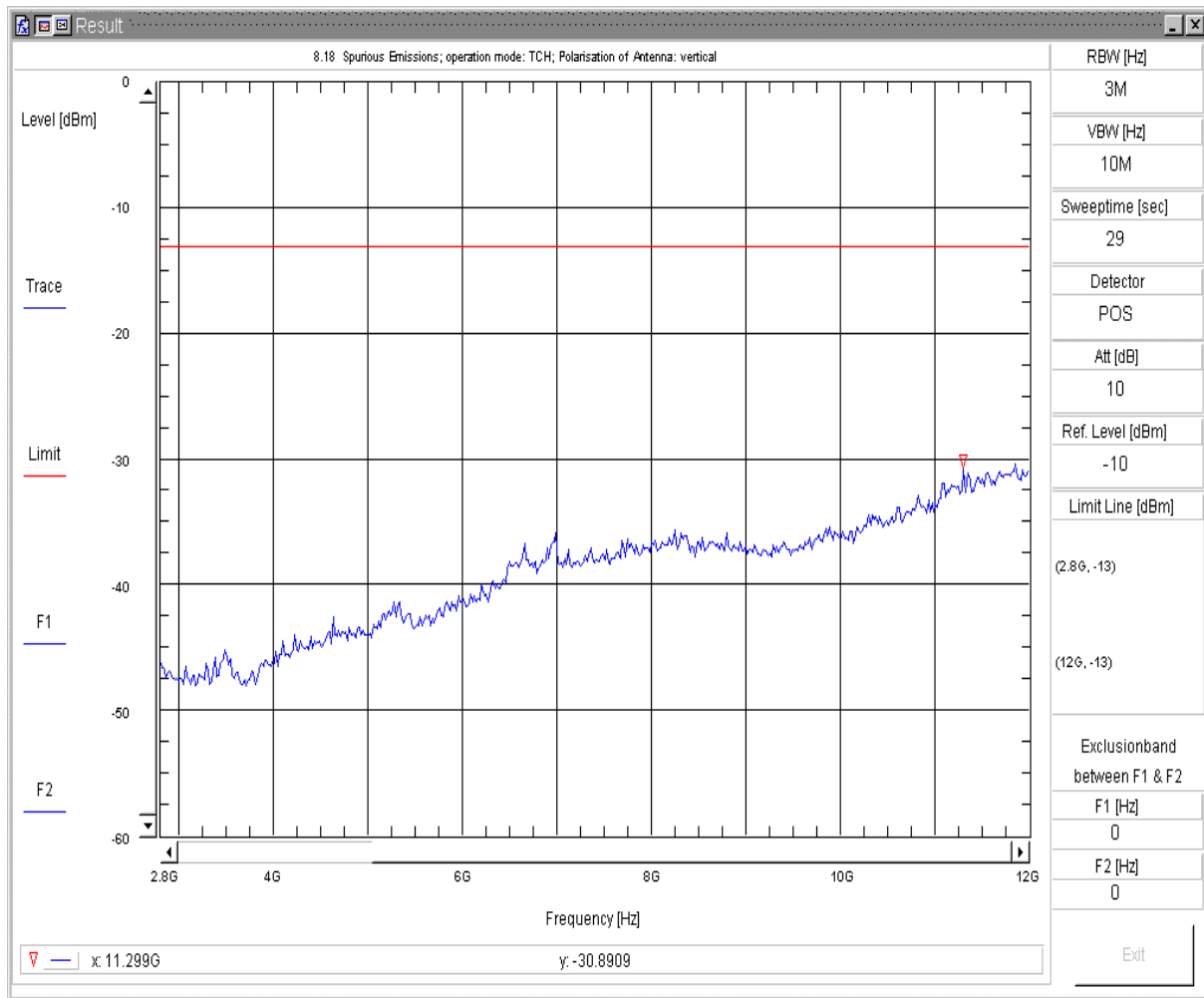


8.17 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 11:21:57pp

Spurious Emissions V7.2.5

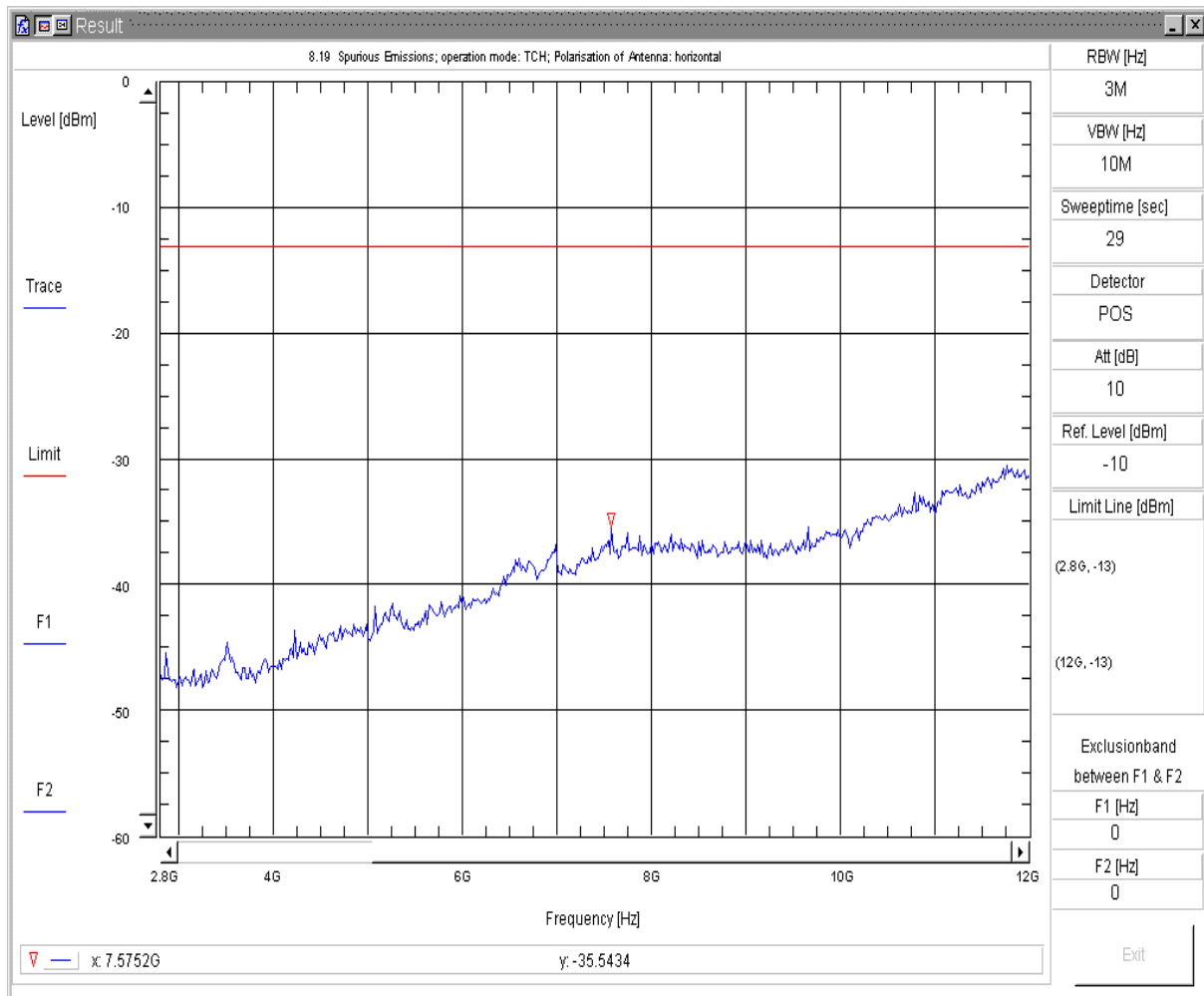


8.18 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 128
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 11:32:07fp

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: MC55i-W

EUT add. Info: HS+UBL line+ RS232 line+ DSB Board

EUT Hardware: B1

EUT Software: 00.060

EUT Config:

EUT S/N: IMEI 004401-08-04087-6

Battery: Power Supply (external); Maximum Voltage; 4.5 VDC

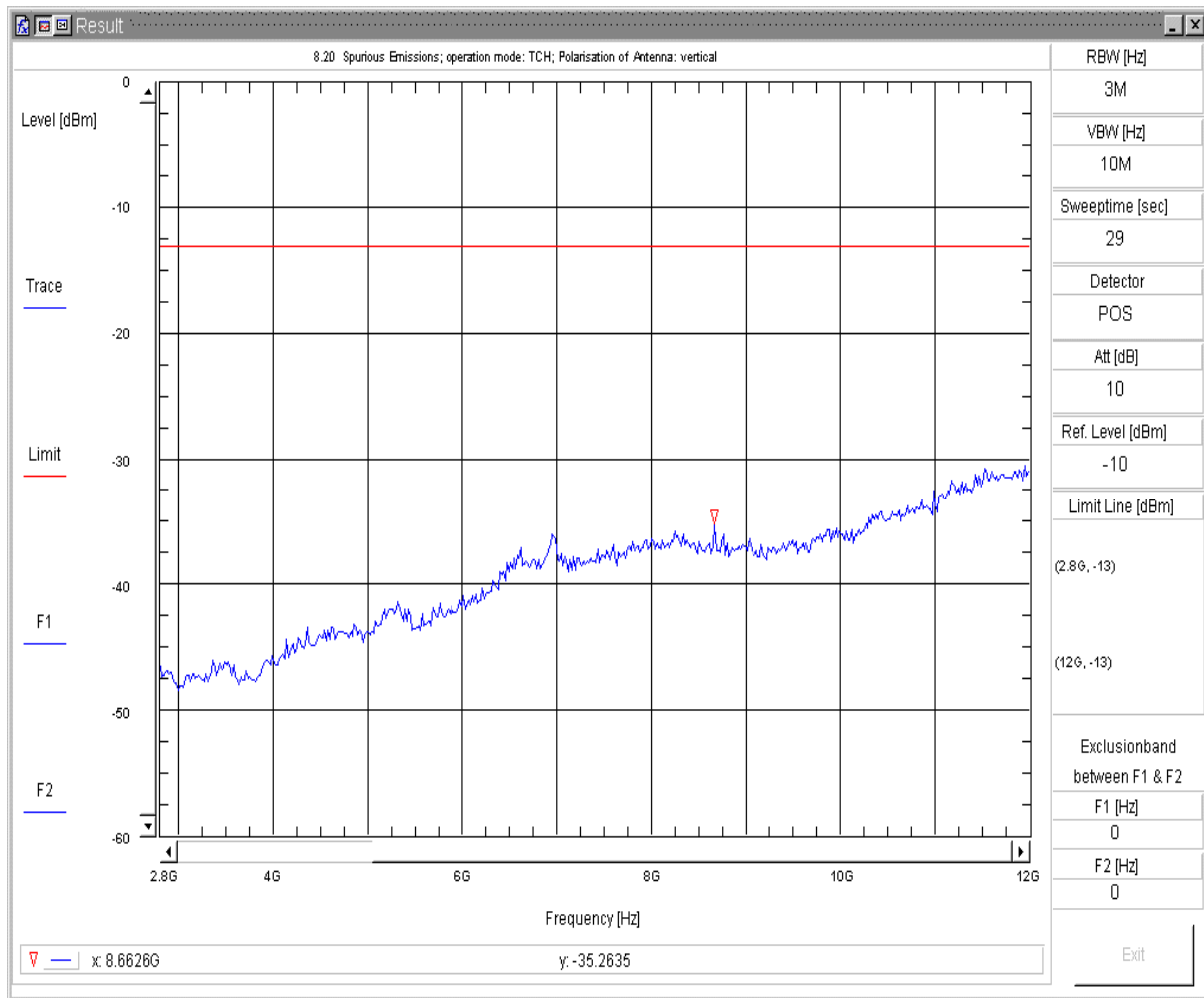
Remark: ARFCN 192

Operator: Tas

Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 11:52:43pp

Spurious Emissions V7.2.5

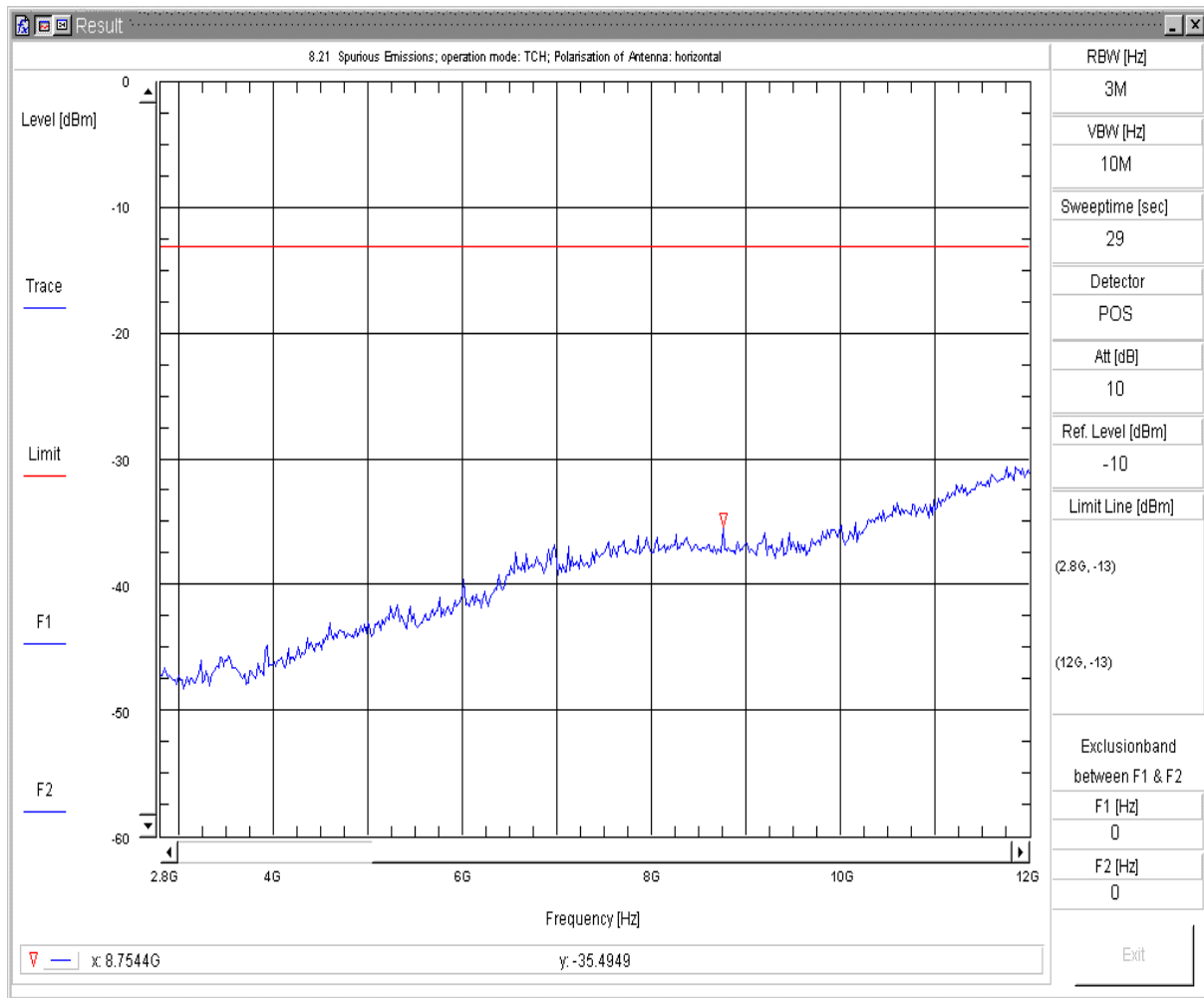


8.20 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 192
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 11:42:44fp

Spurious Emissions V7.2.5

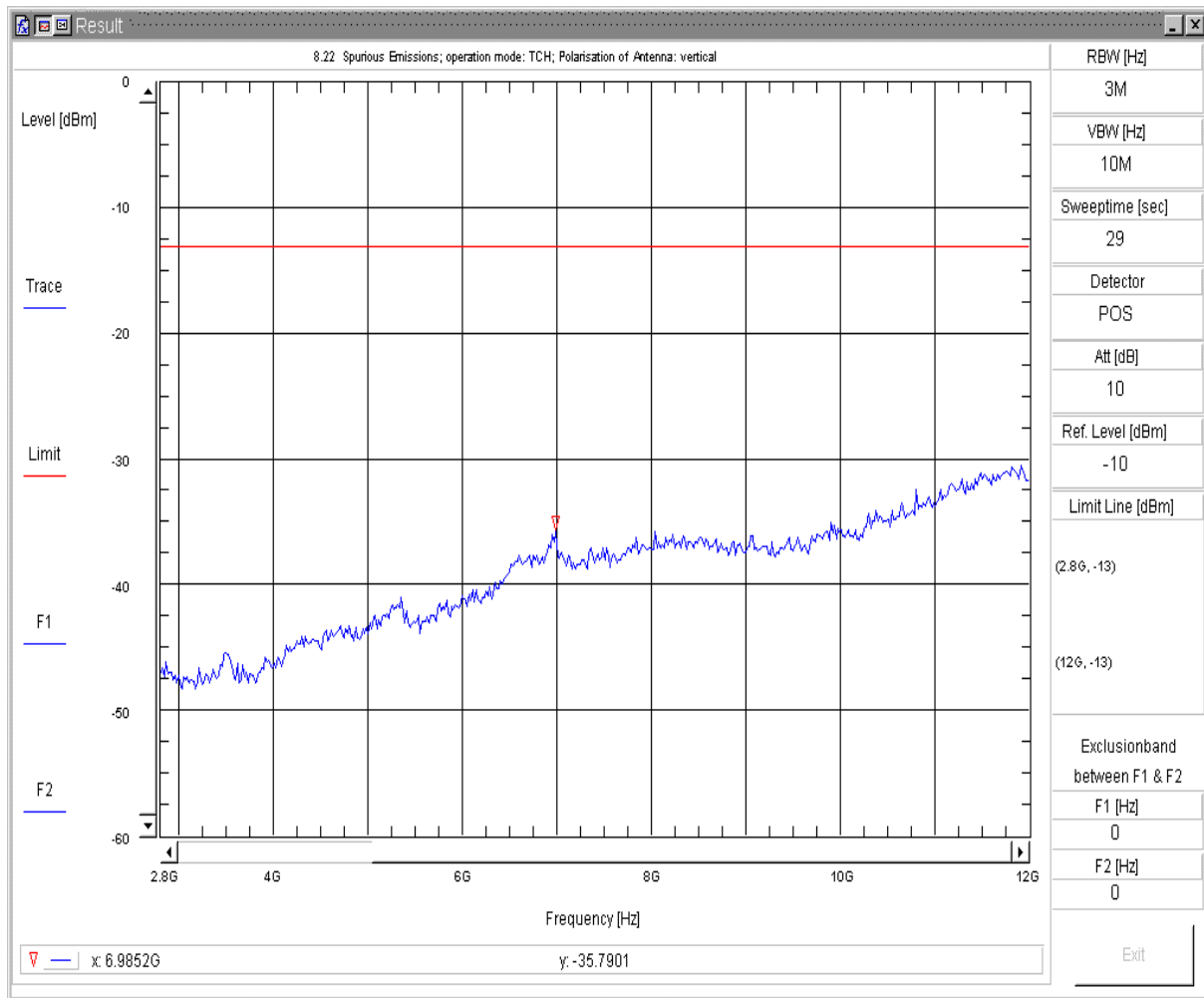


8.21 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 11:11:47pp

Spurious Emissions V7.2.5



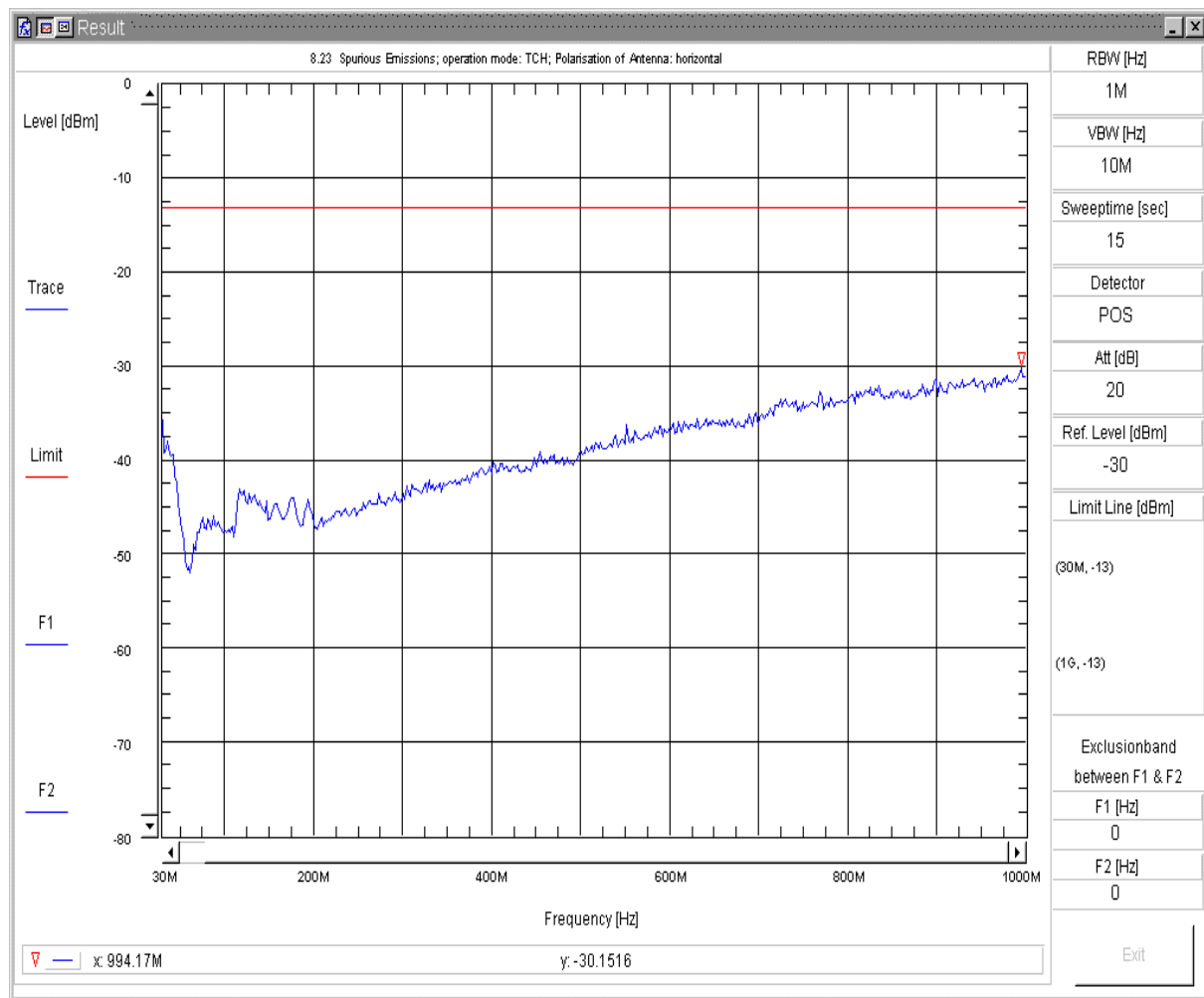
8.22 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+UBL line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 251
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 11:01:50fp

Spurious Emissions V7.2.5

1.6. Spurious emissions radiated – PCS1900 TX-Mode

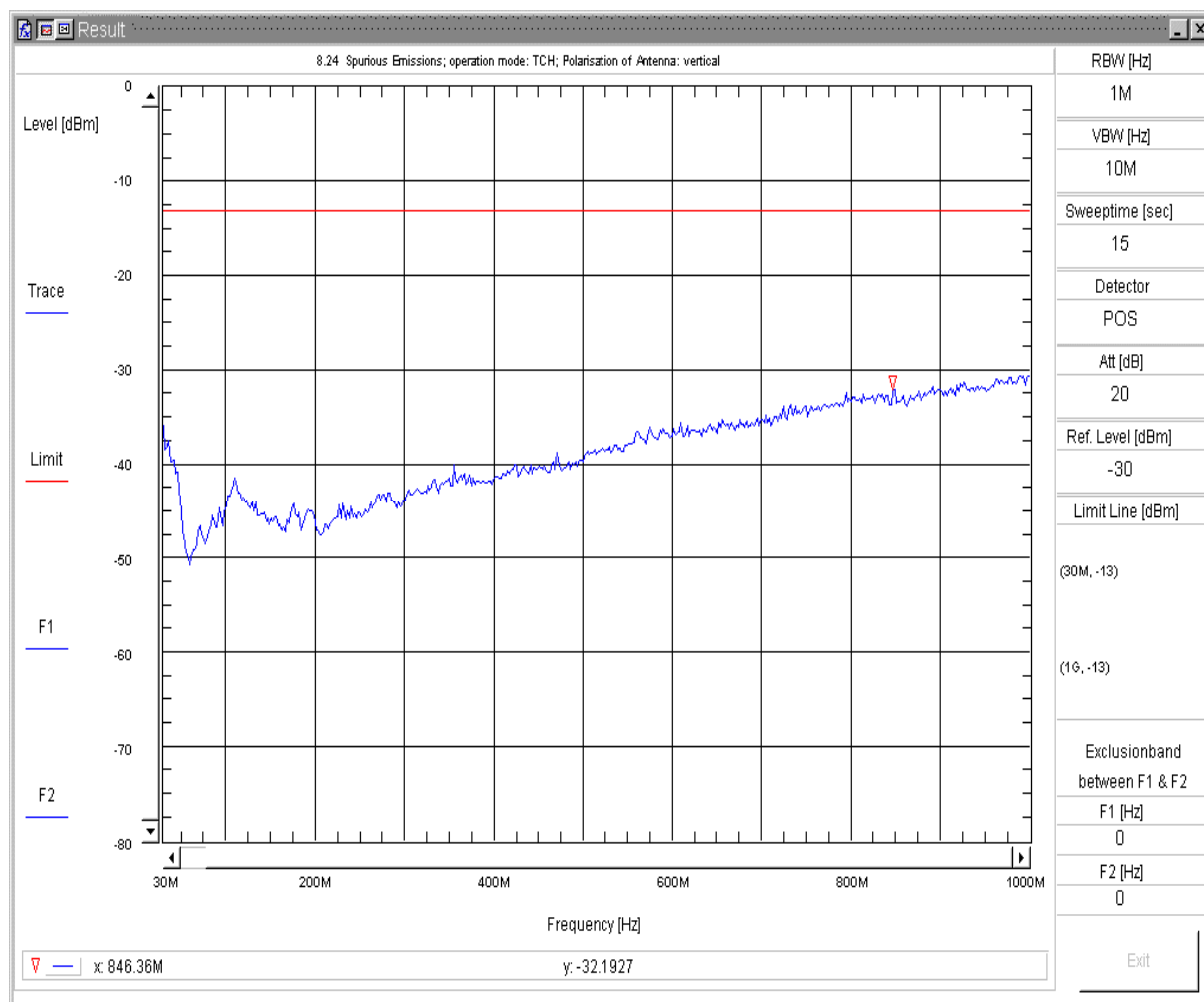


8.23 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 15:49:25fp

Spurious Emissions V7.2.5

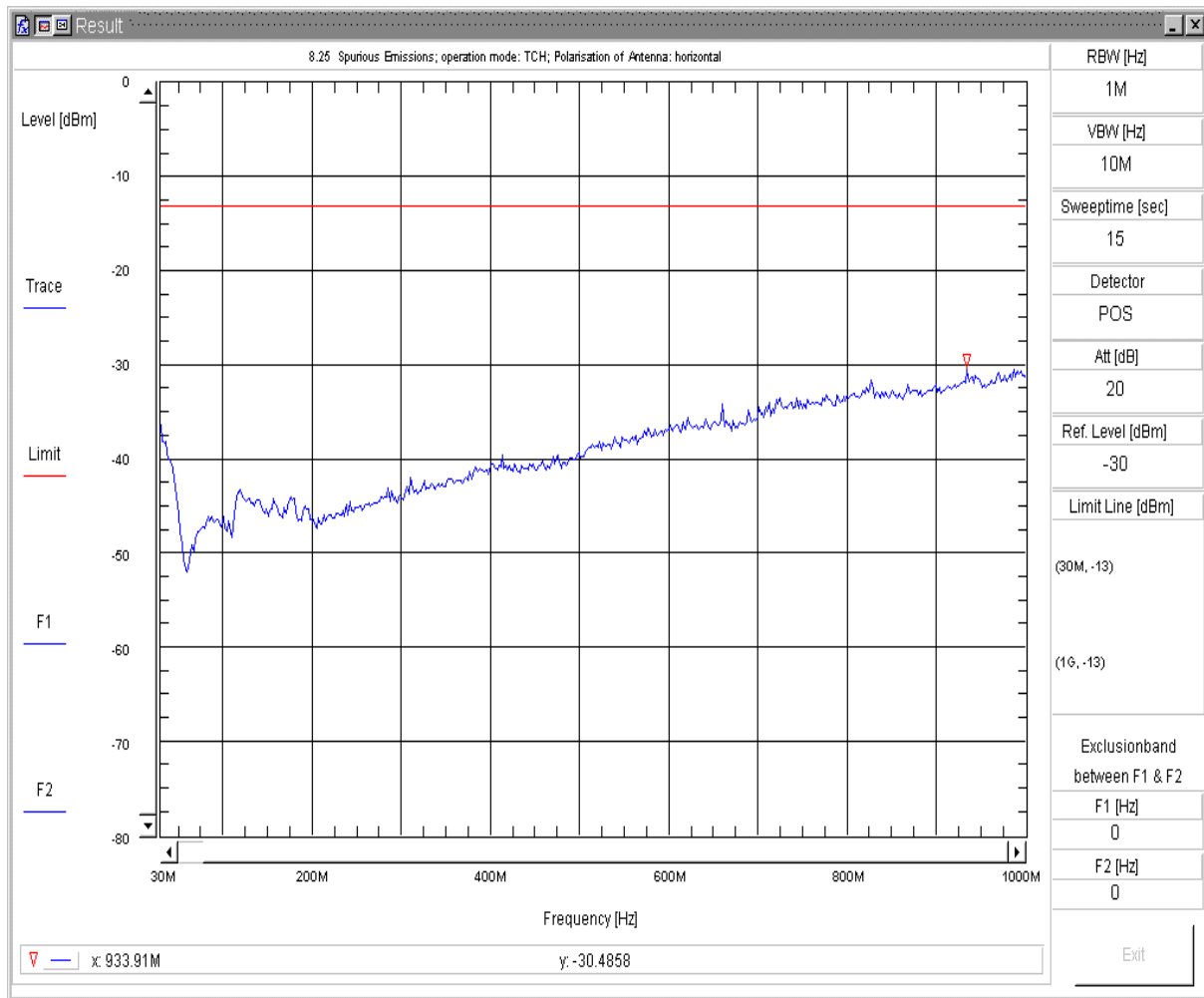


8.24 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 15:53:21ppp

Spurious Emissions V7.2.5

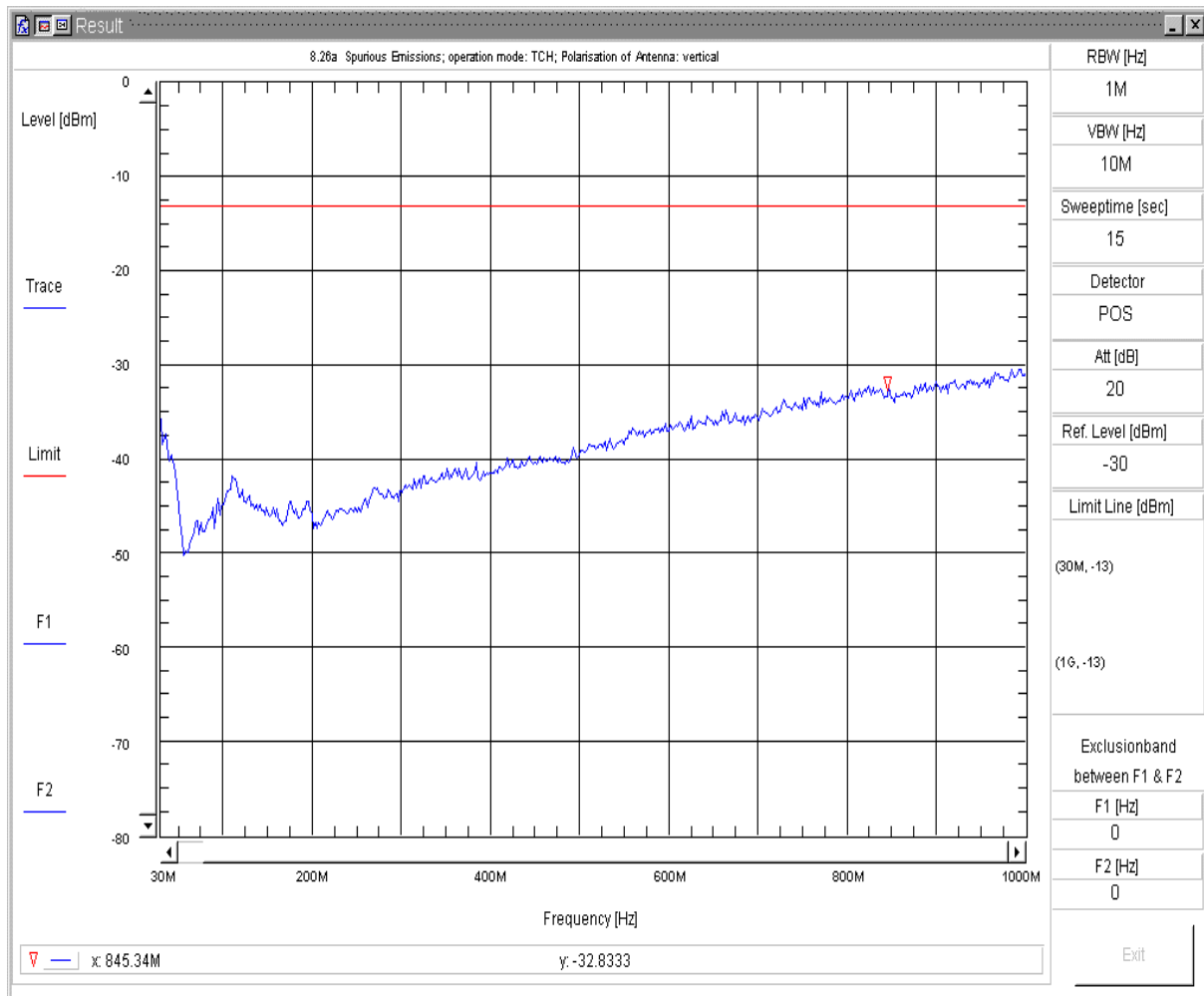


8.25 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 15:44:43pfp

Spurious Emissions V7.2.5

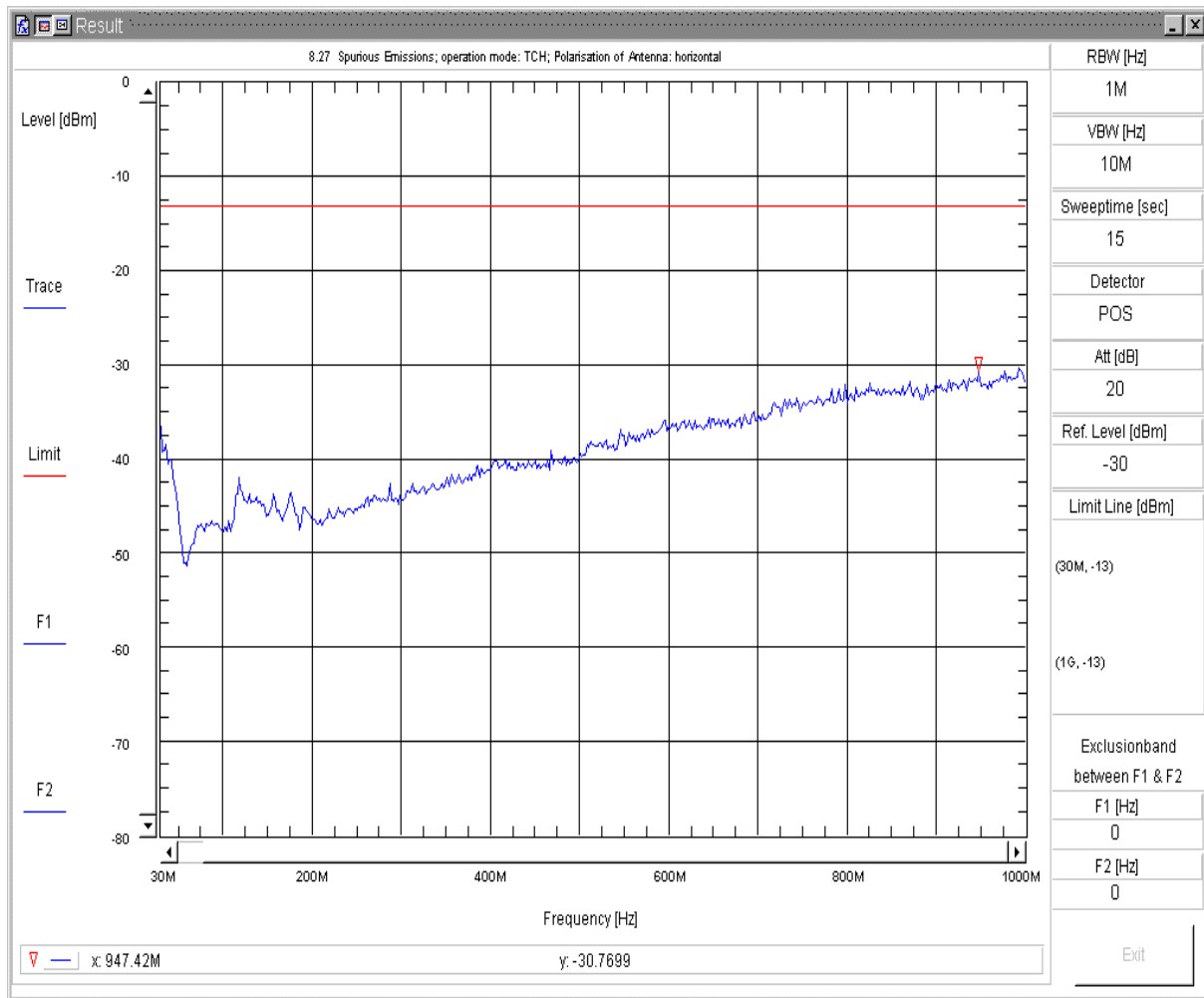


8.26a Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 14:31:37ppp

Spurious Emissions V7.2.5

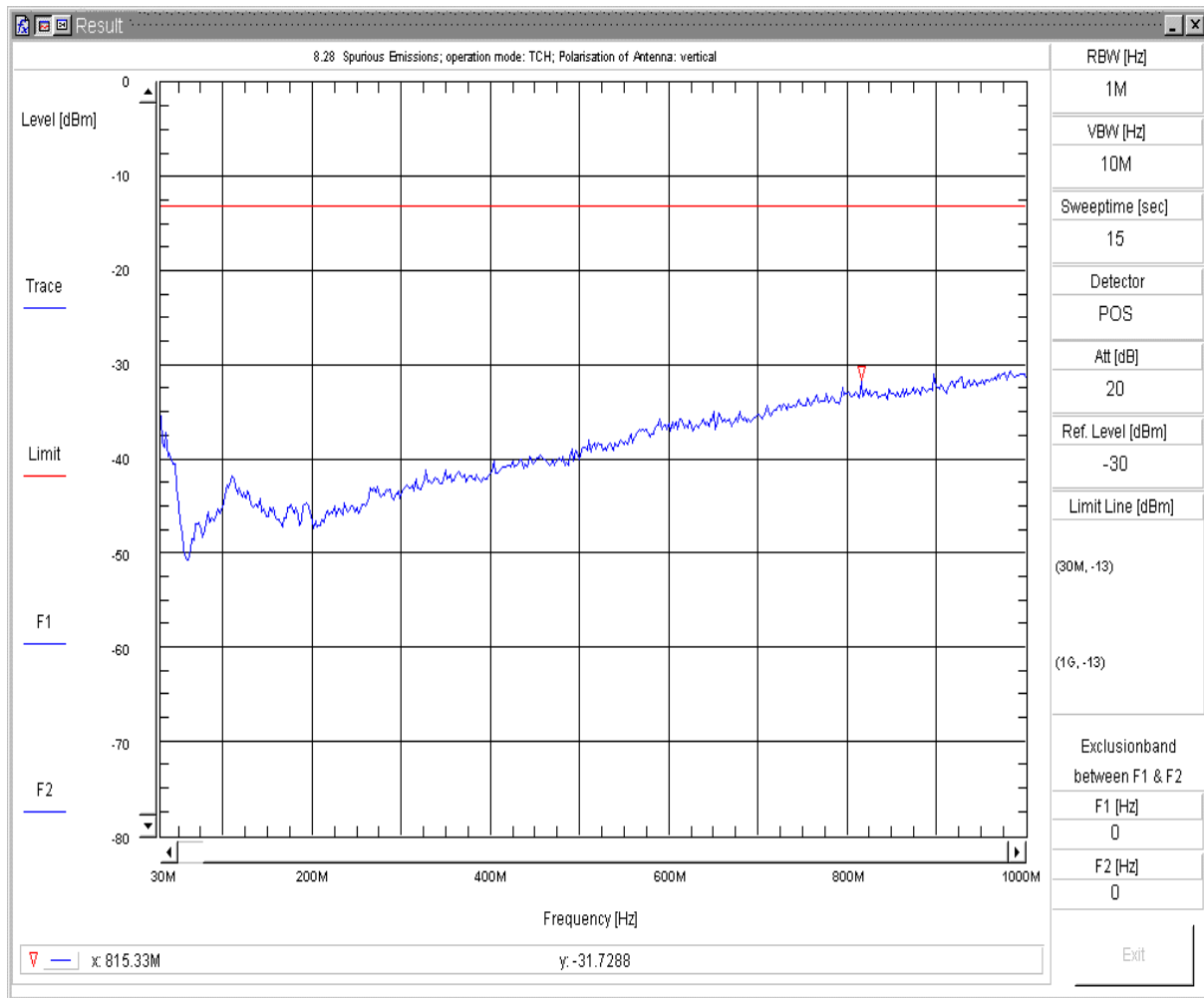


8.27 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:03:35fpf

Spurious Emissions V7.2.5

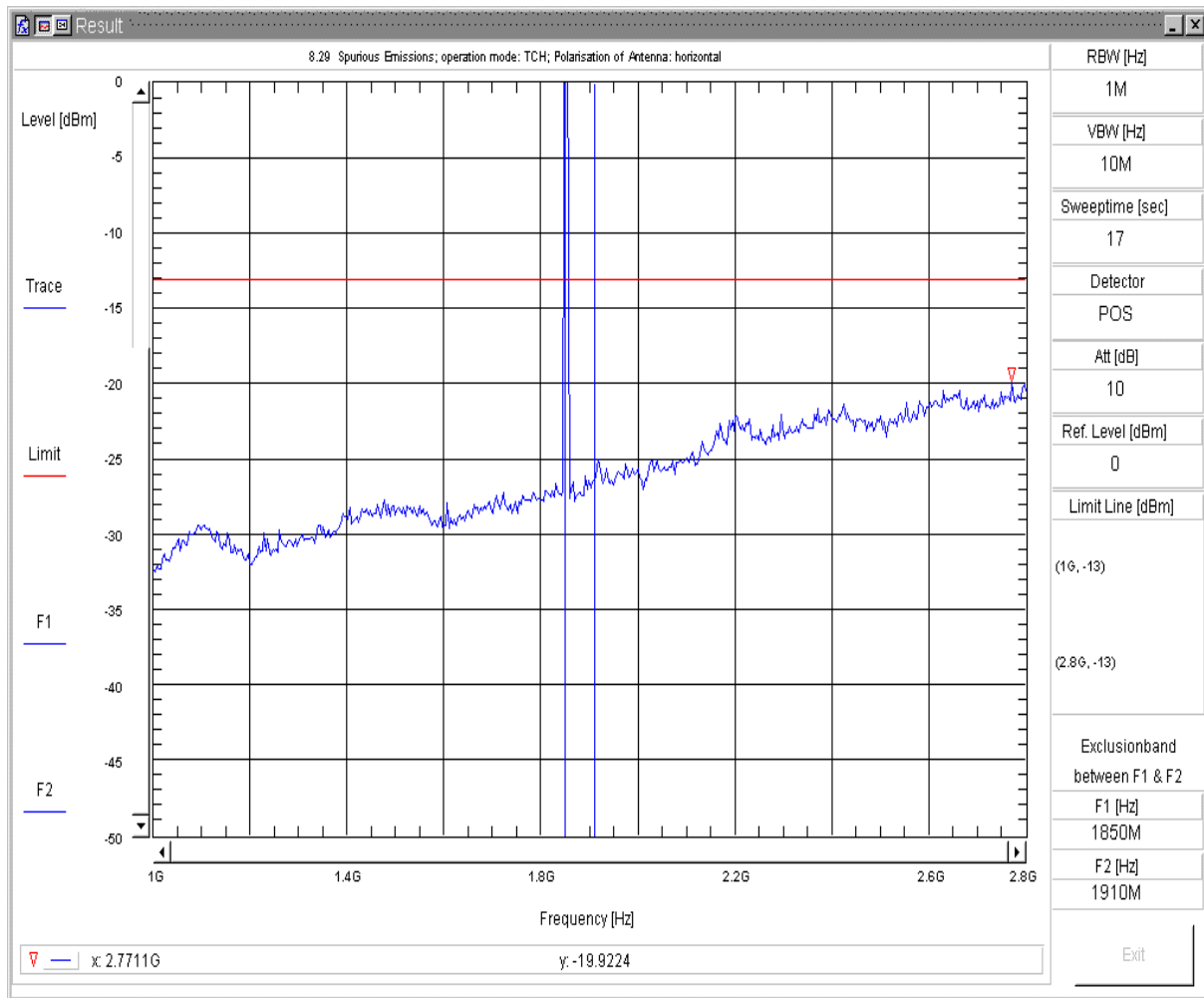


8.28 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 15:58:33ppp

Spurious Emissions V7.2.5

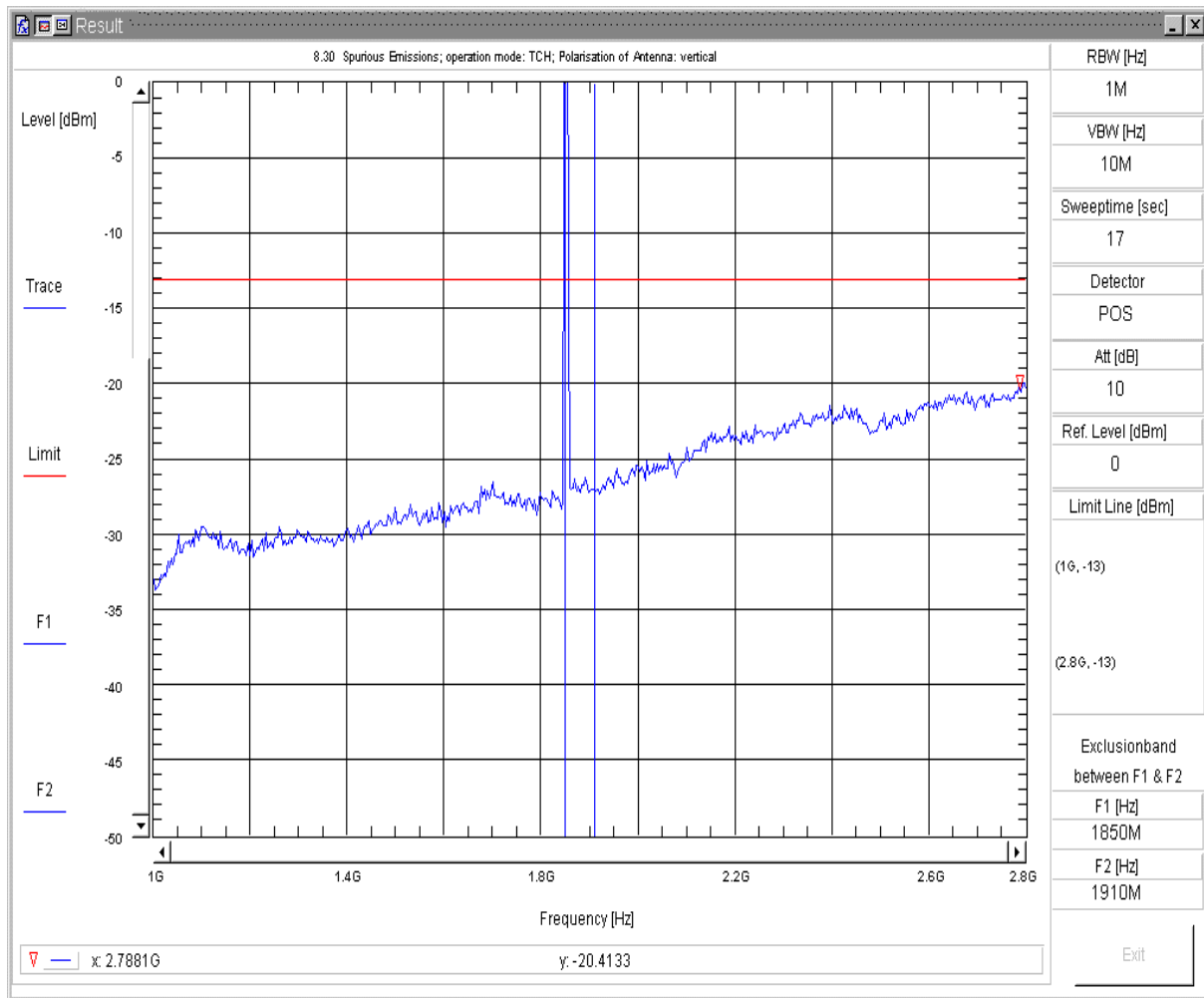


8.29 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:22:09pp

Spurious Emissions V7.2.5

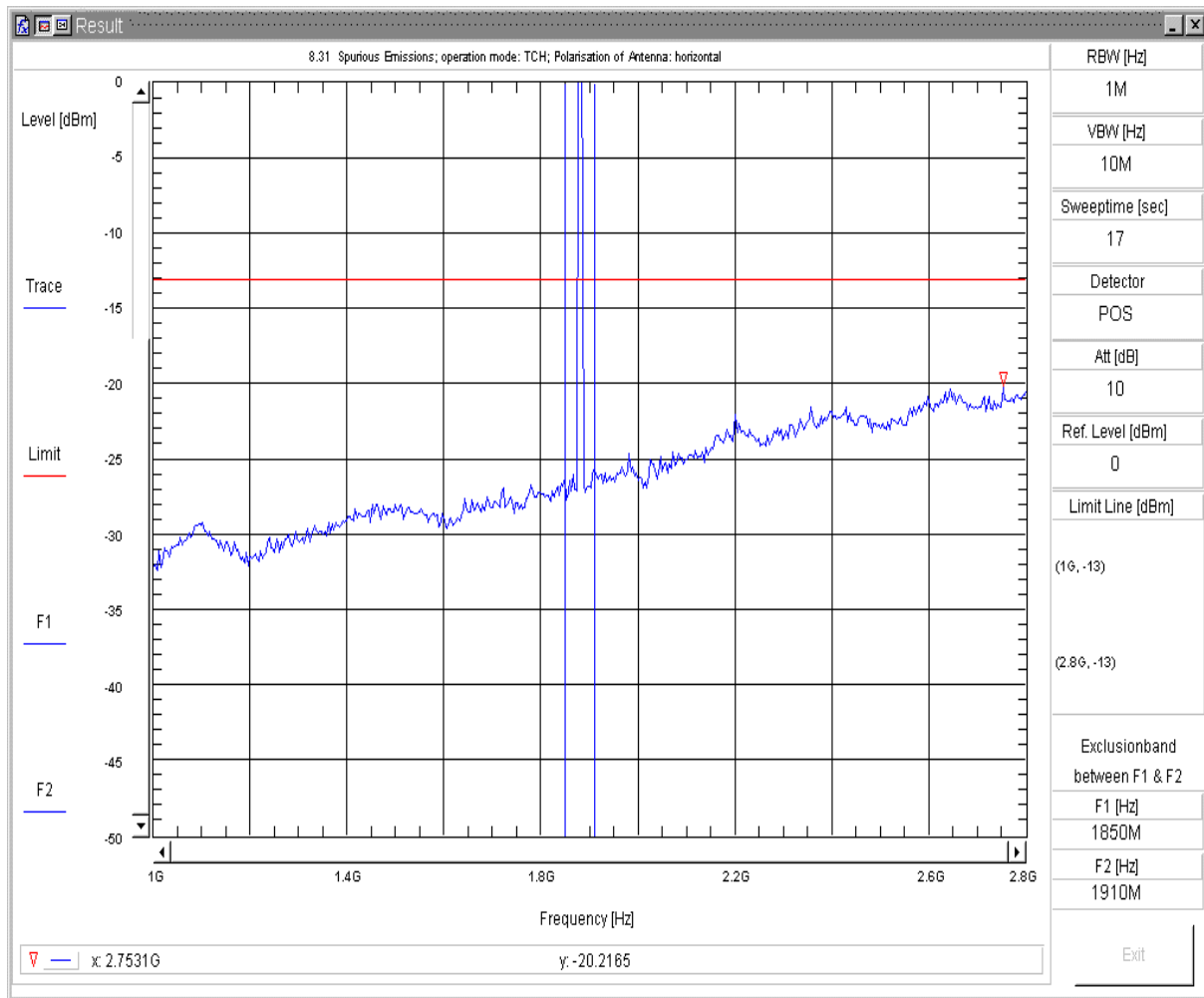


8.30 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:29:06pp

Spurious Emissions V7.2.5

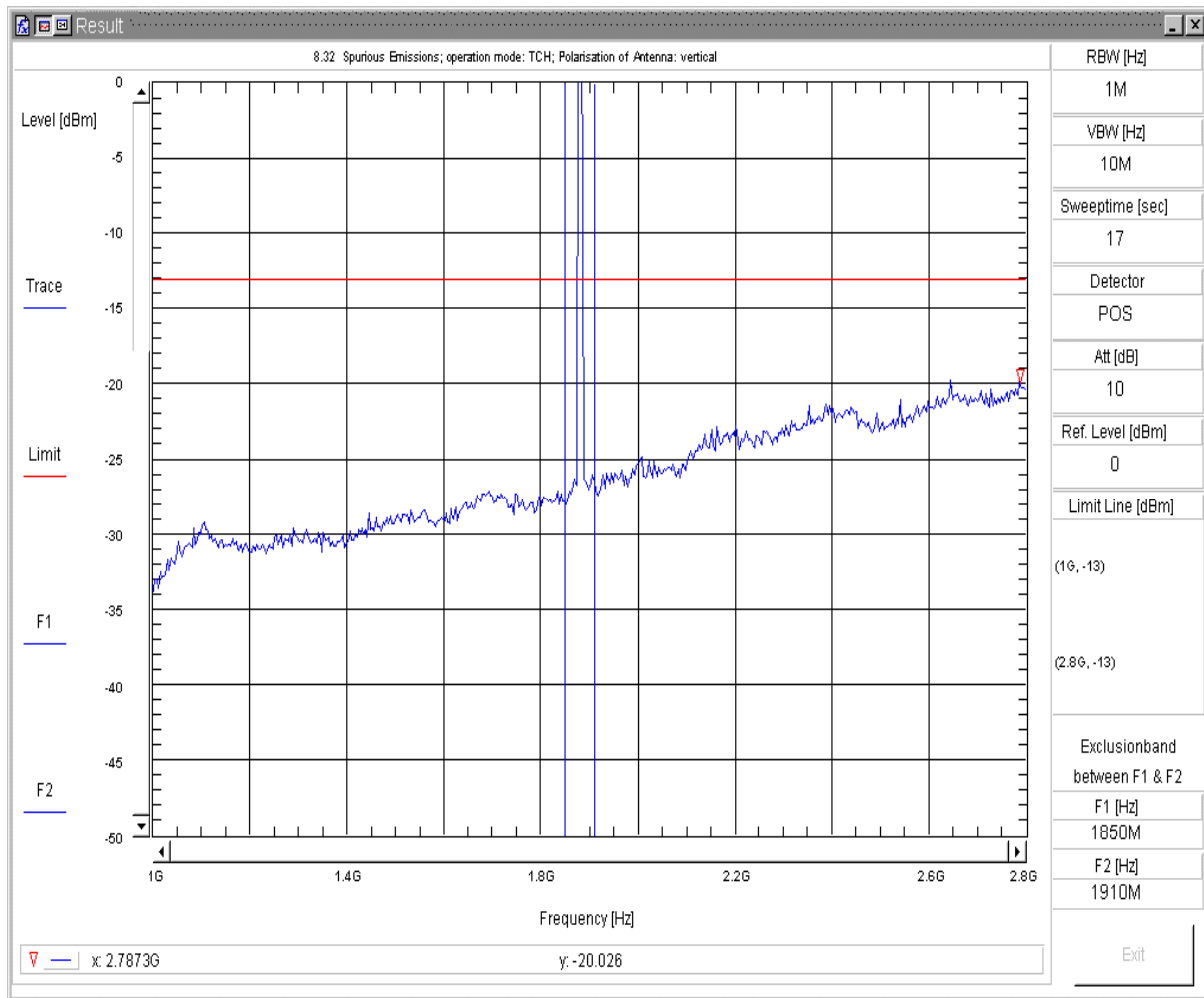


8.31 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:36:13pp

Spurious Emissions V7.2.5

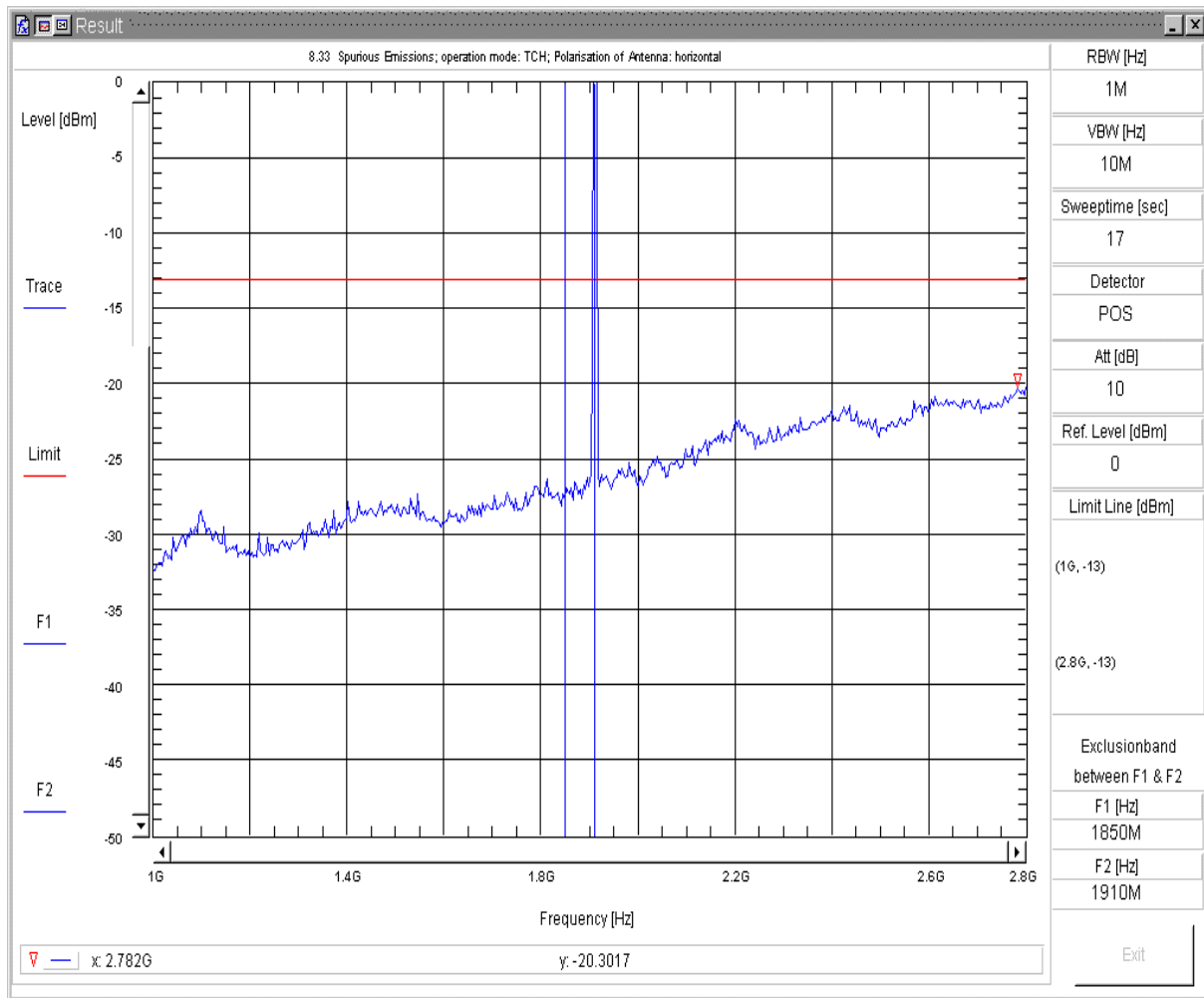


8.32 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:43:02pp

Spurious Emissions V7.2.5

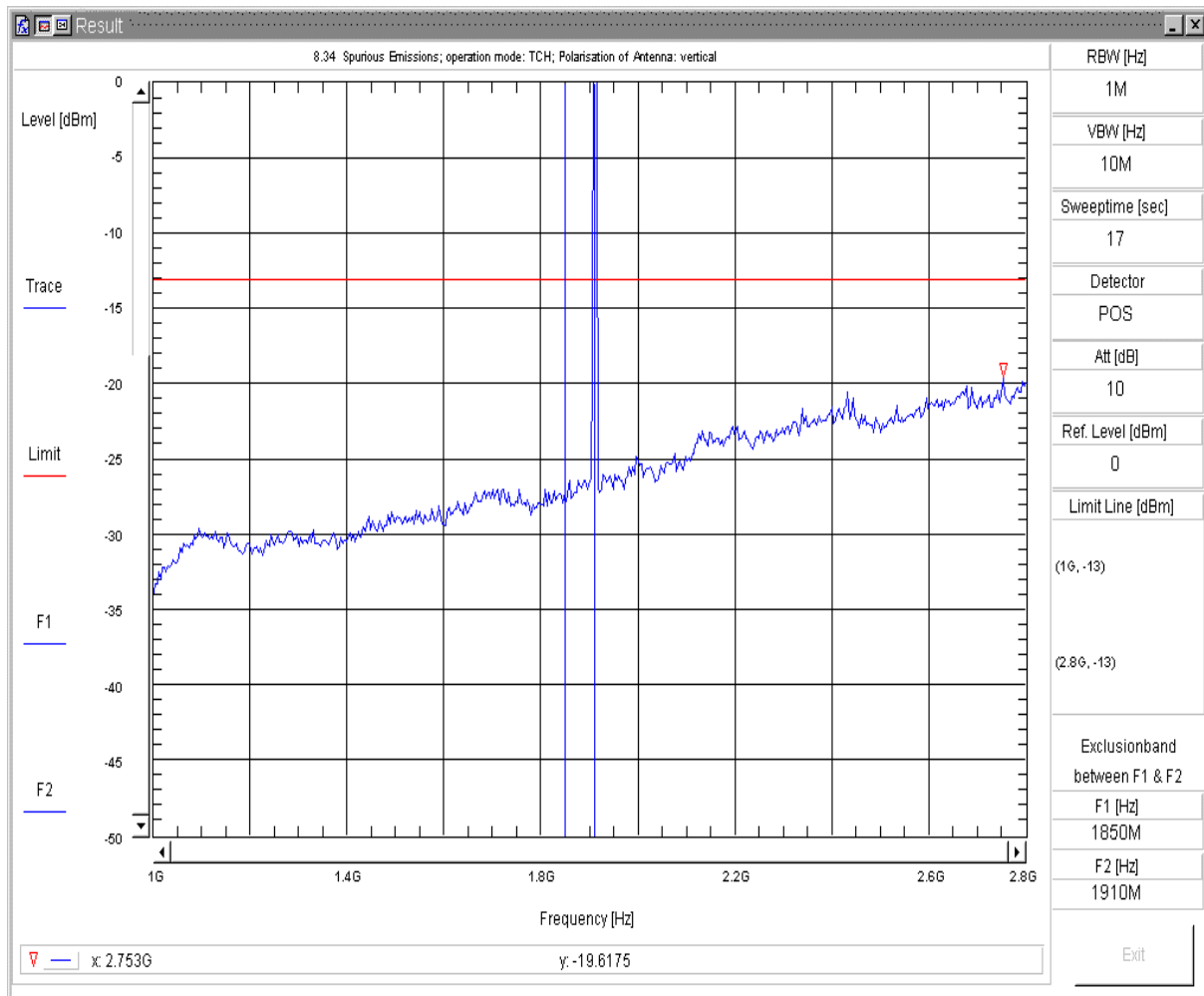


8.33 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:07:47fp

Spurious Emissions V7.2.5

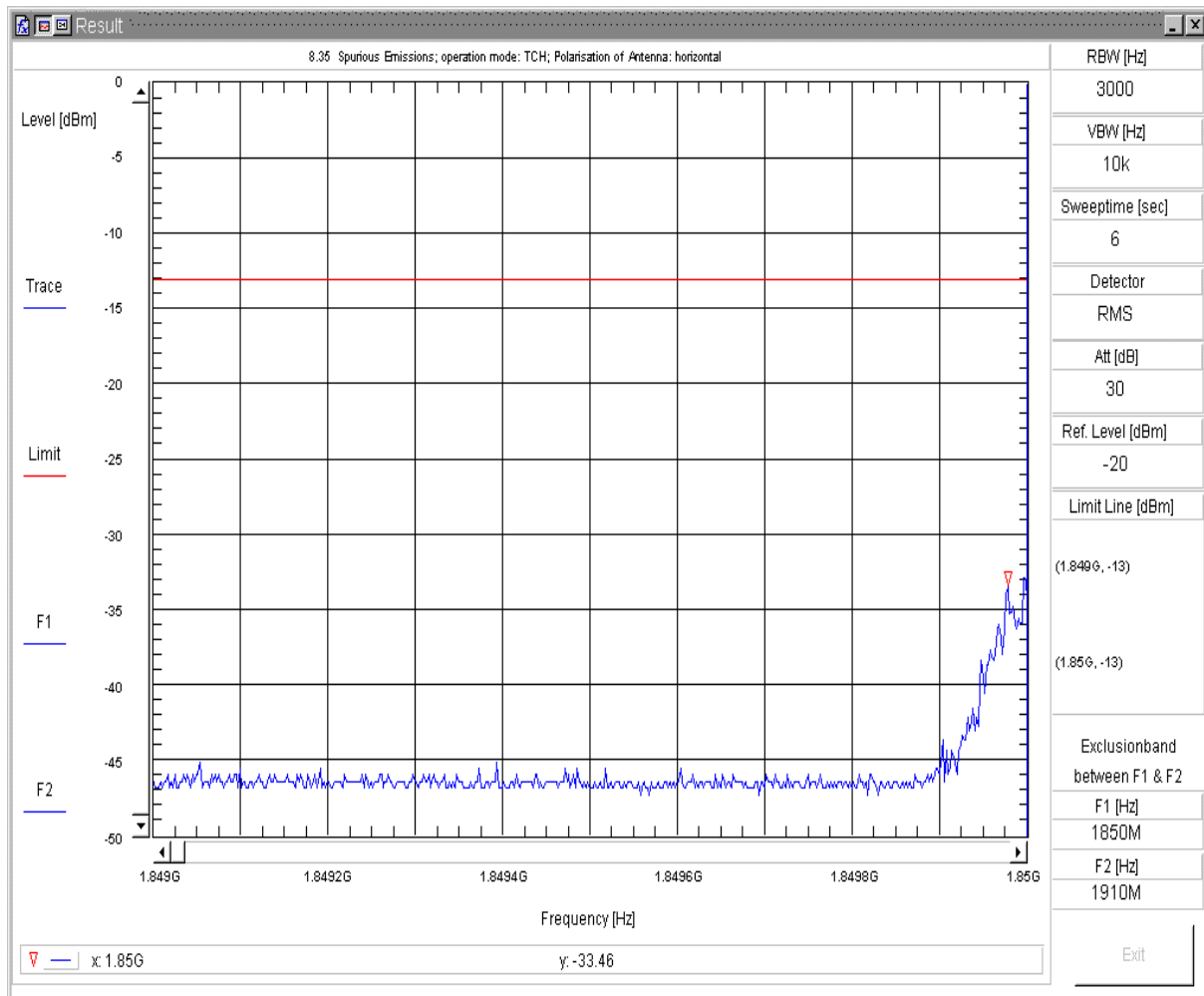


8.34 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:15:10pp

Spurious Emissions V7.2.5

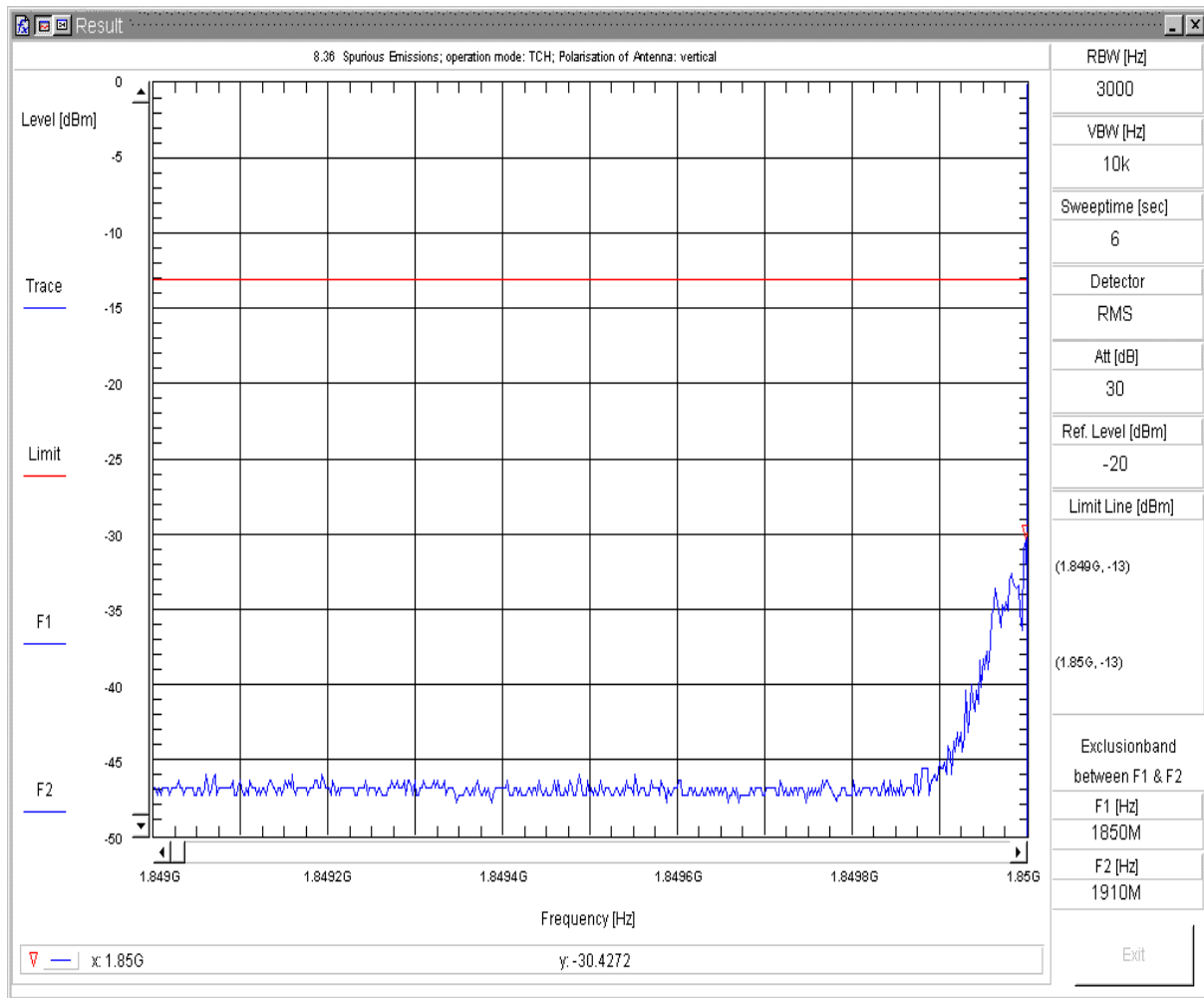


8.35 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:50:07fp

Spurious Emissions V7.2.5

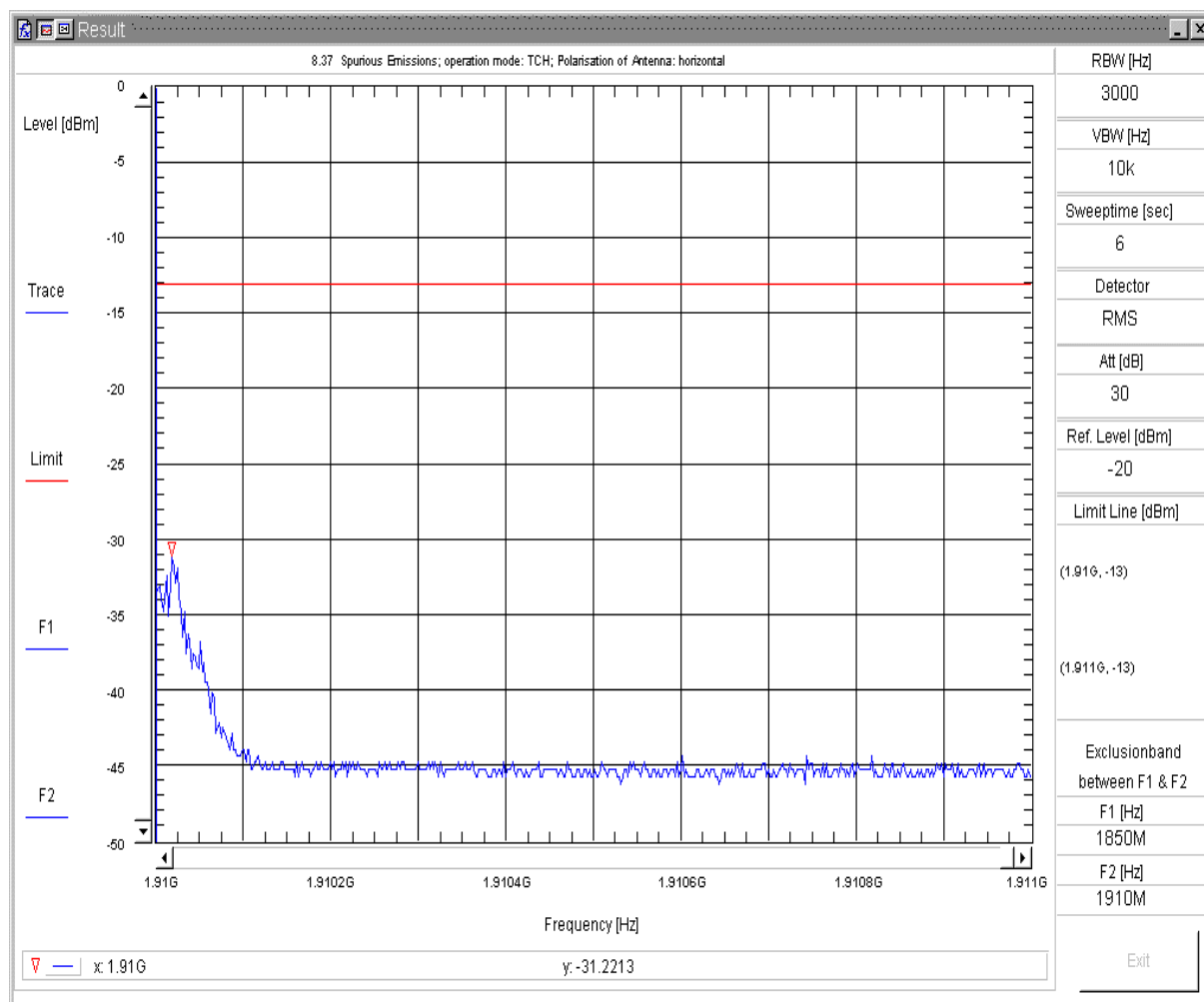


8.36 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 16:55:12pp

Spurious Emissions V7.2.5

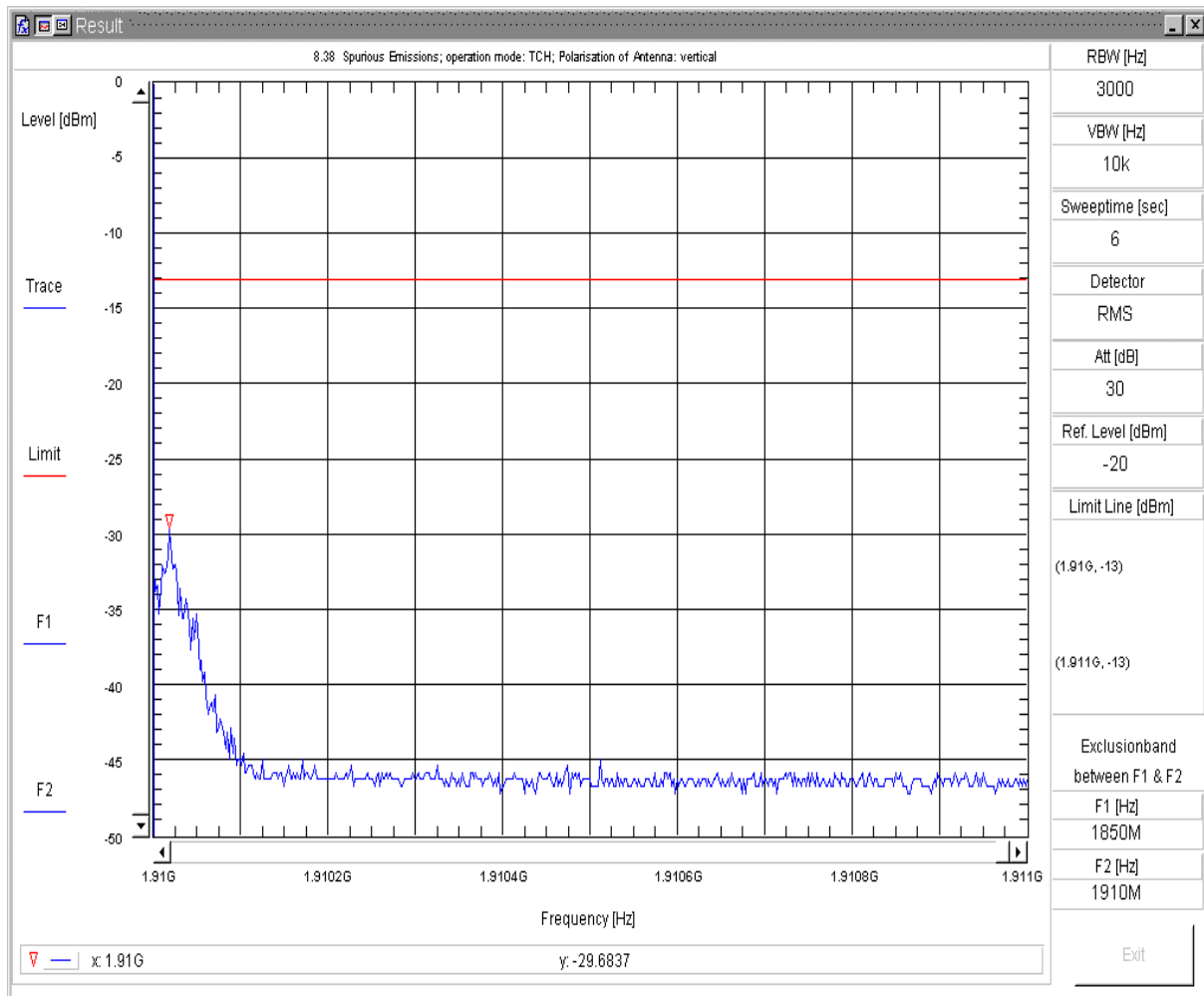


8.37 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 17:05:02fp

Spurious Emissions V7.2.5

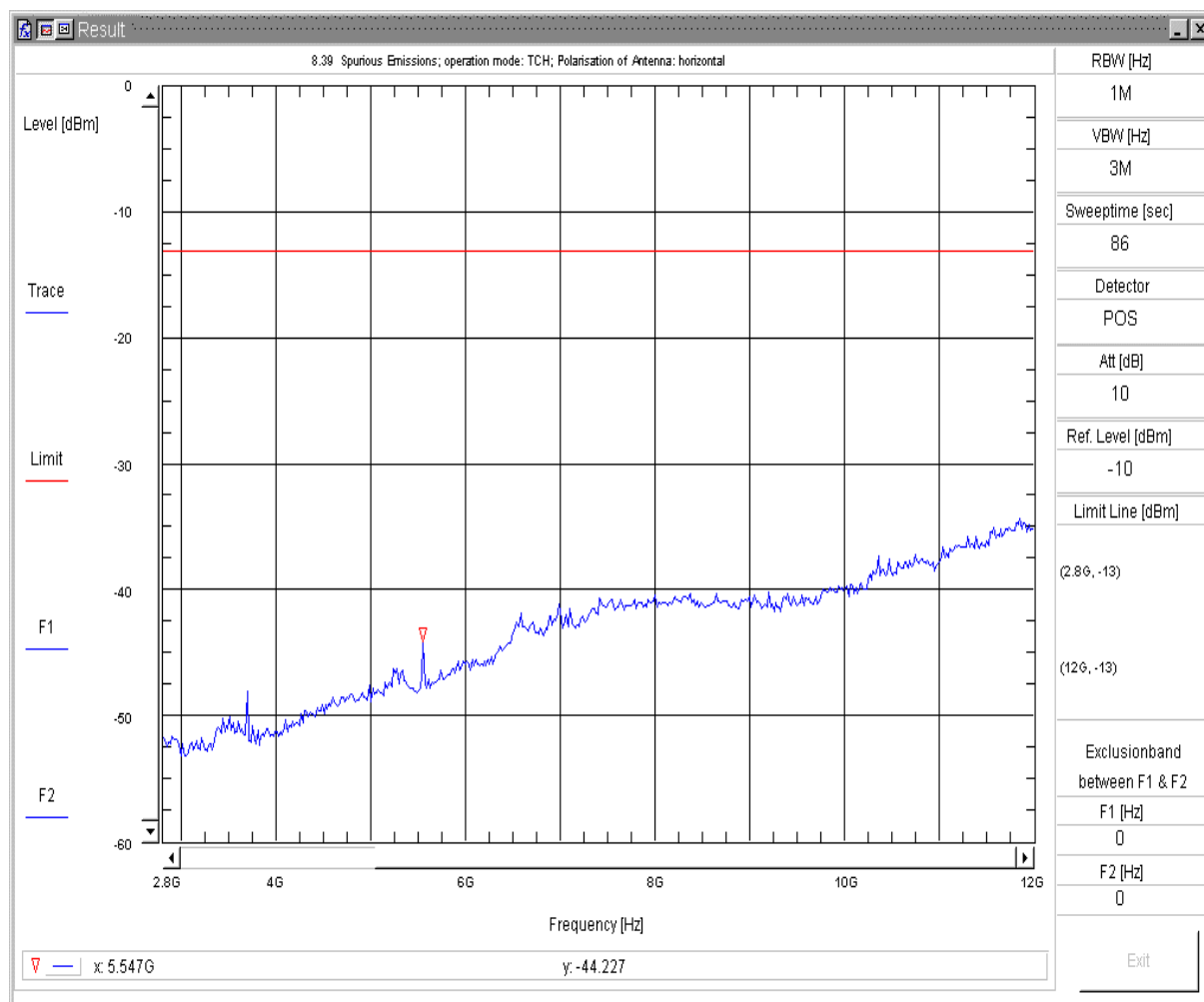


8.38 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 17:00:47pp

Spurious Emissions V7.2.5

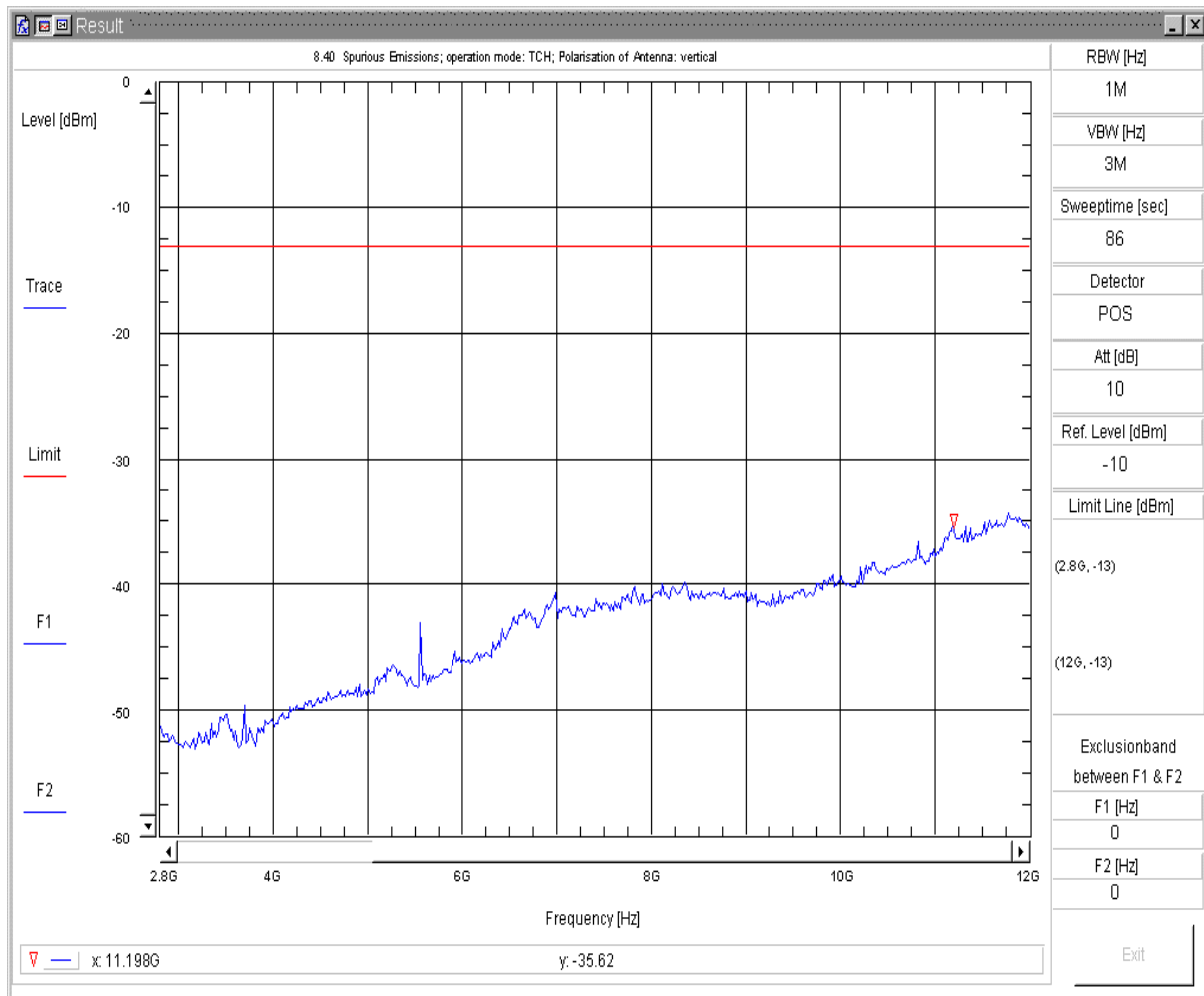


8.39 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 09:58:30pp

Spurious Emissions V7.2.5

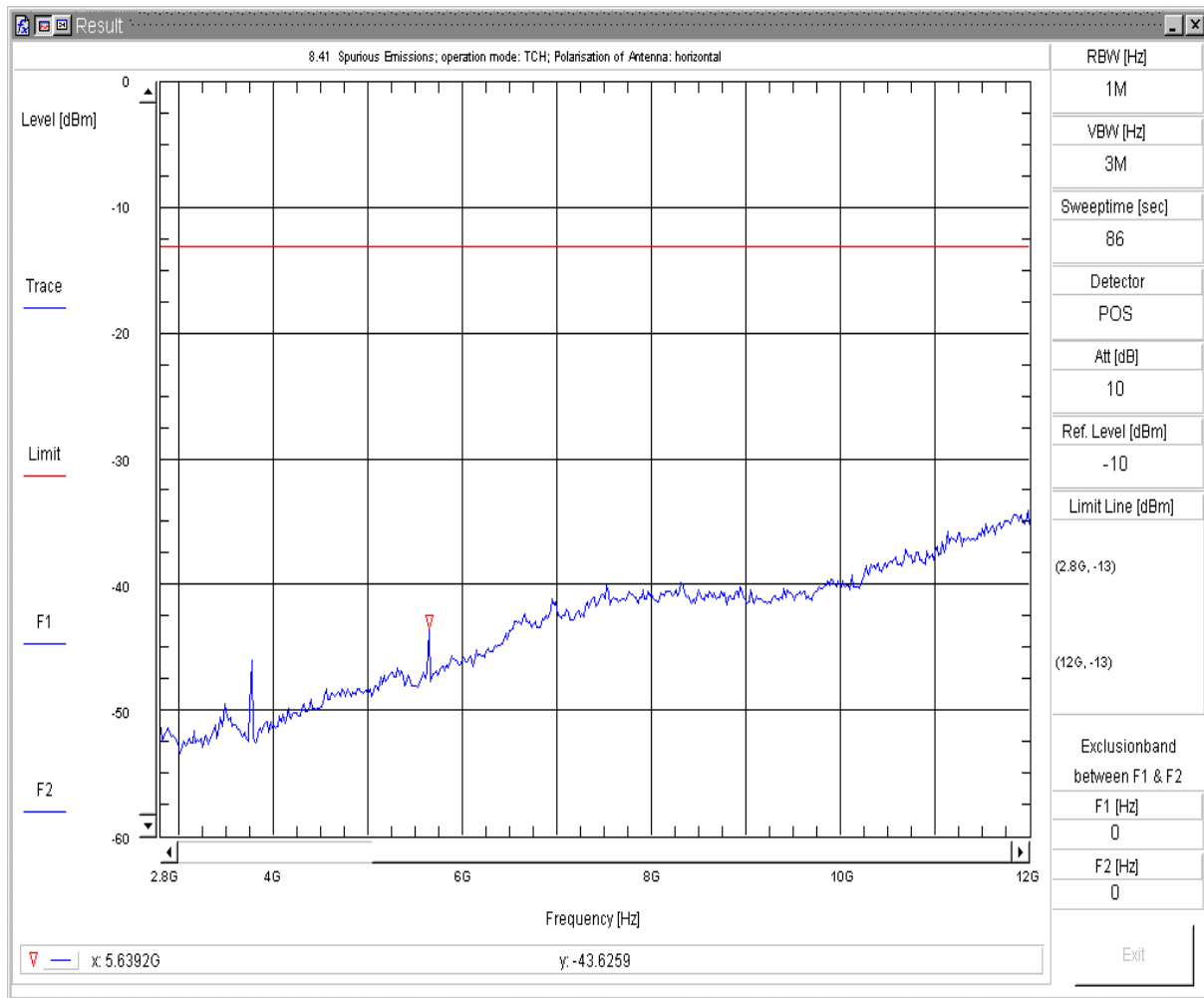


8.40 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 17:59:33fp

Spurious Emissions V7.2.5

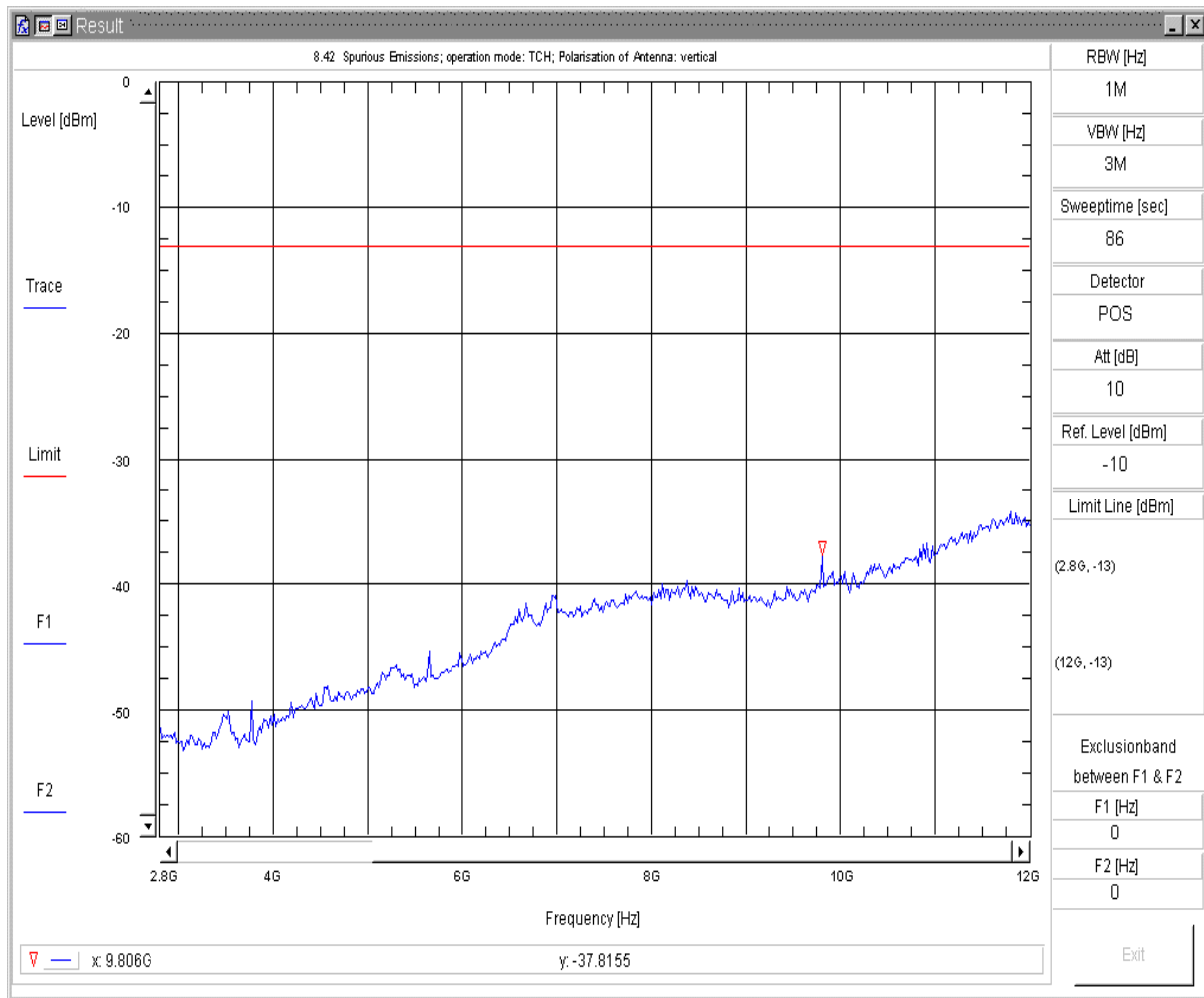


8.41 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 09:34:52pp

Spurious Emissions V7.2.5

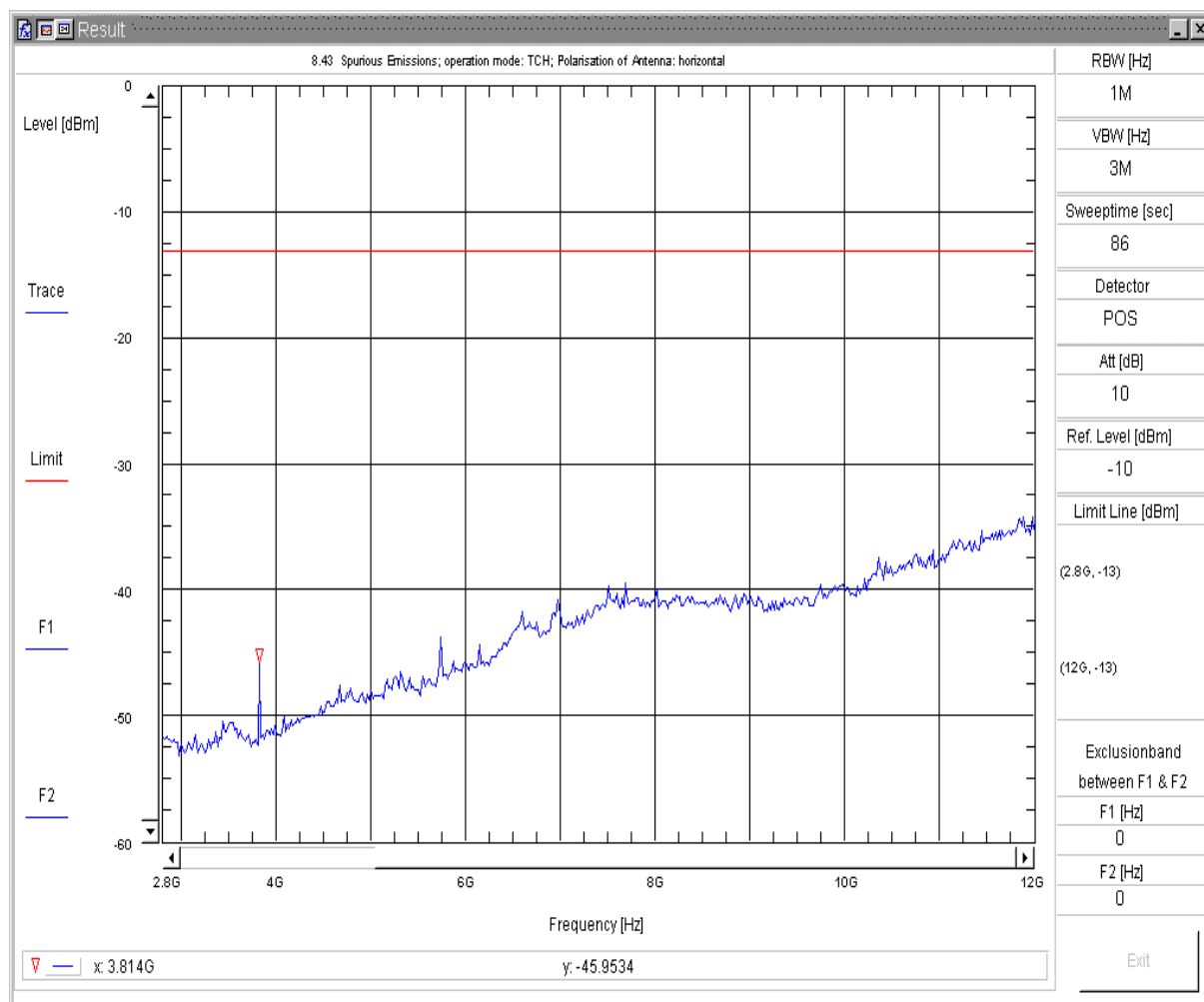


8.42 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 17:36:11fp

Spurious Emissions V7.2.5

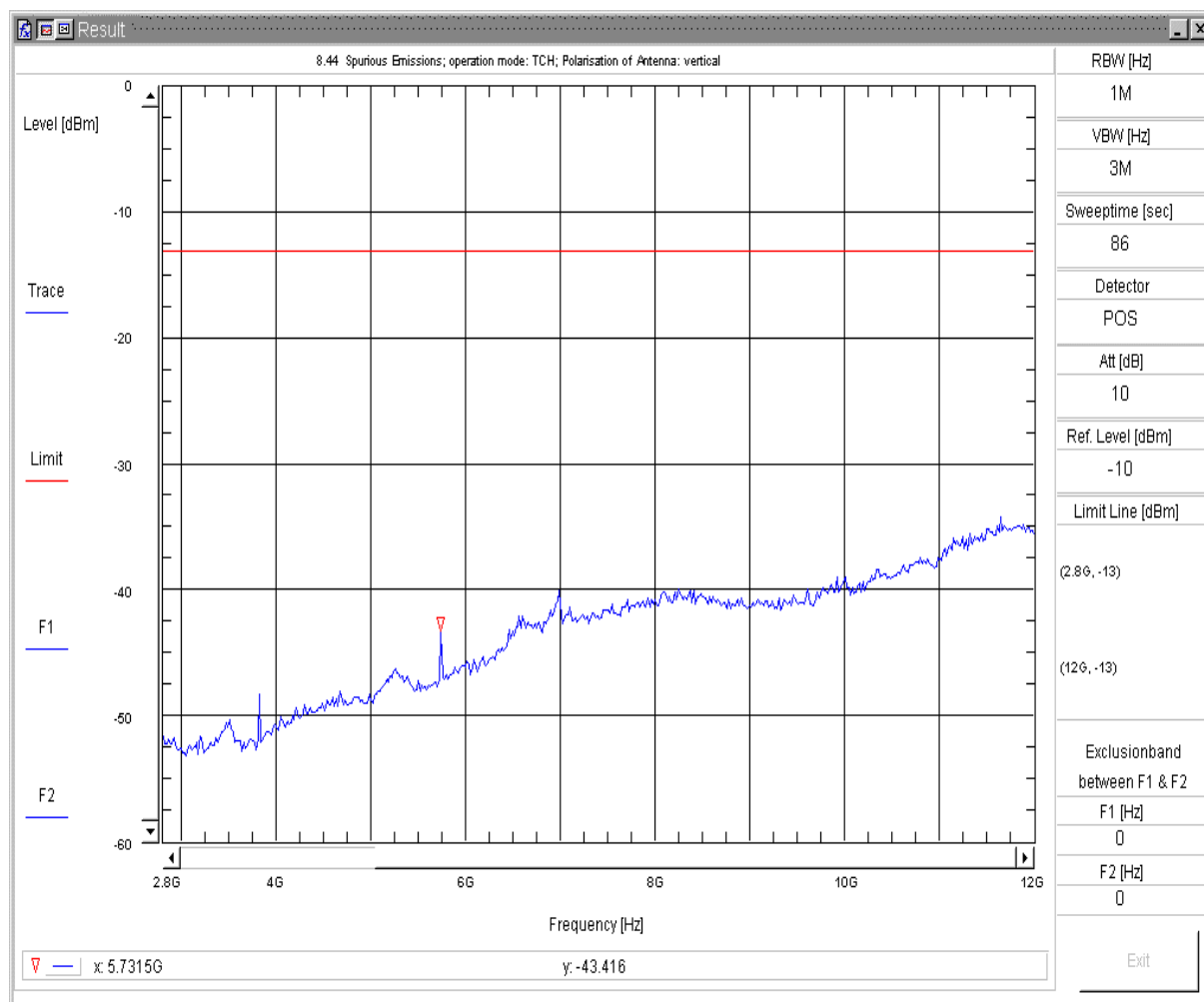


8.43 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 10:22:17pp

Spurious Emissions V7.2.5

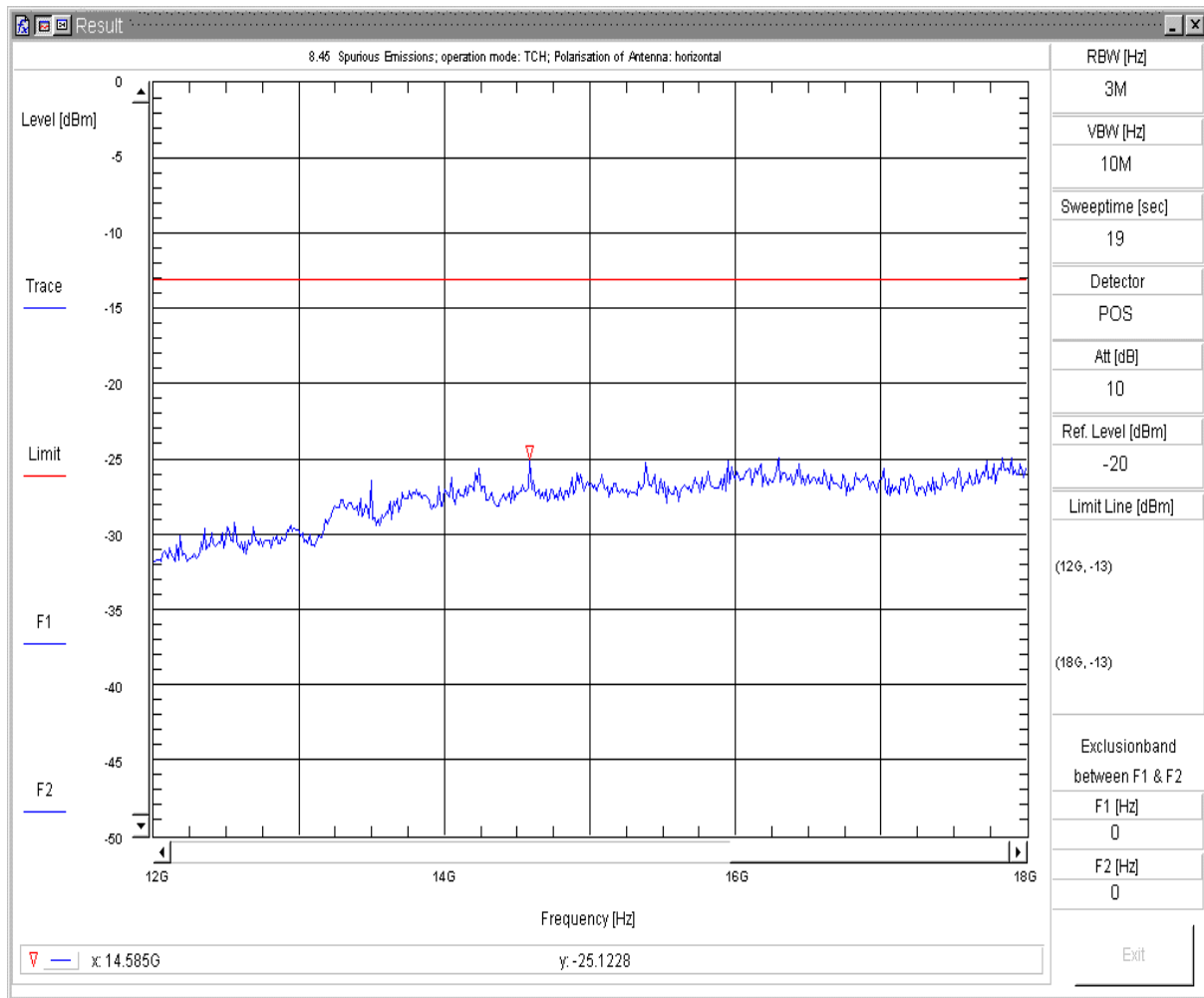


8.44 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 17:09:26fp

Spurious Emissions V7.2.5

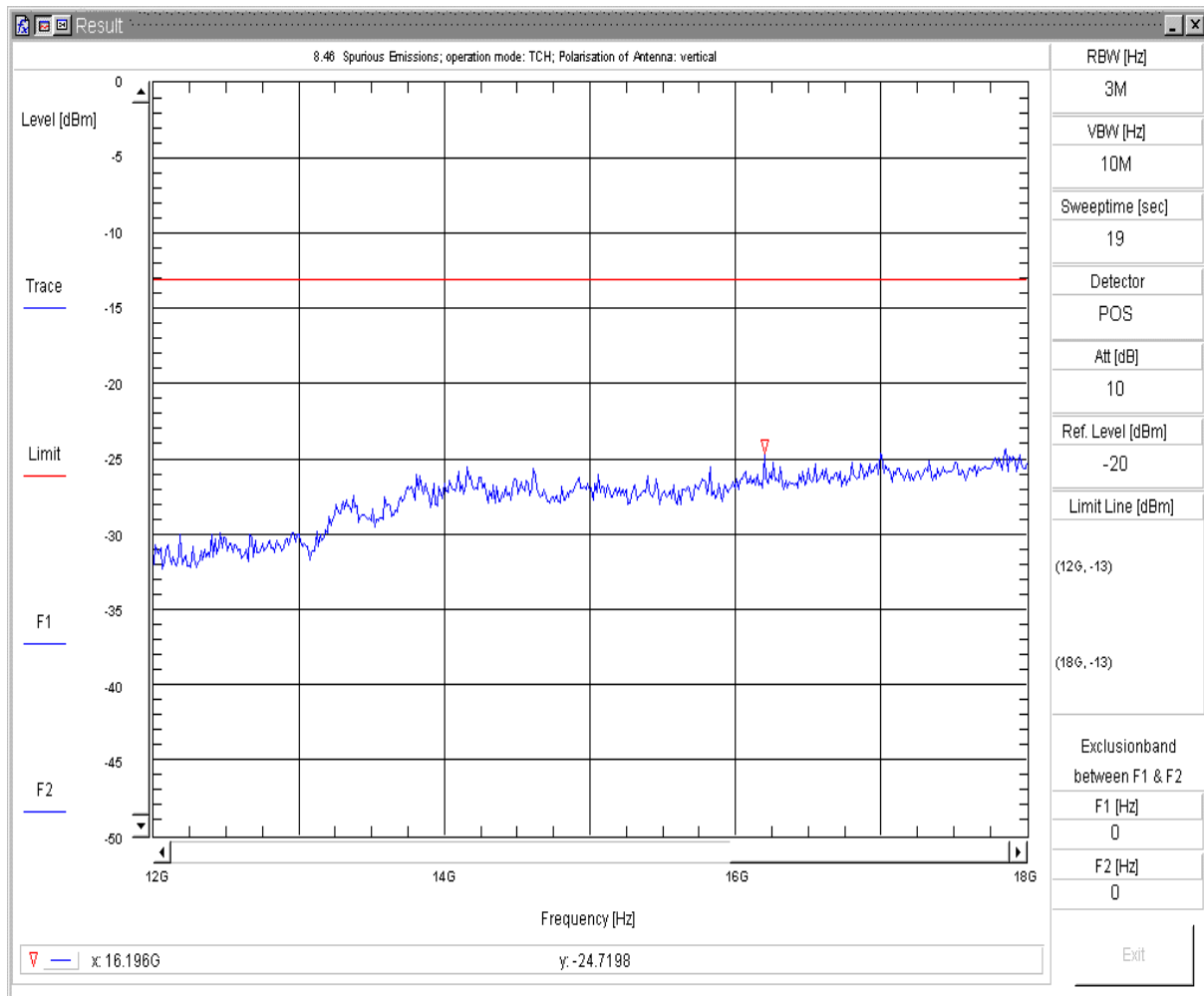


8.45 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 11:01:01pp

Spurious Emissions V7.2.5

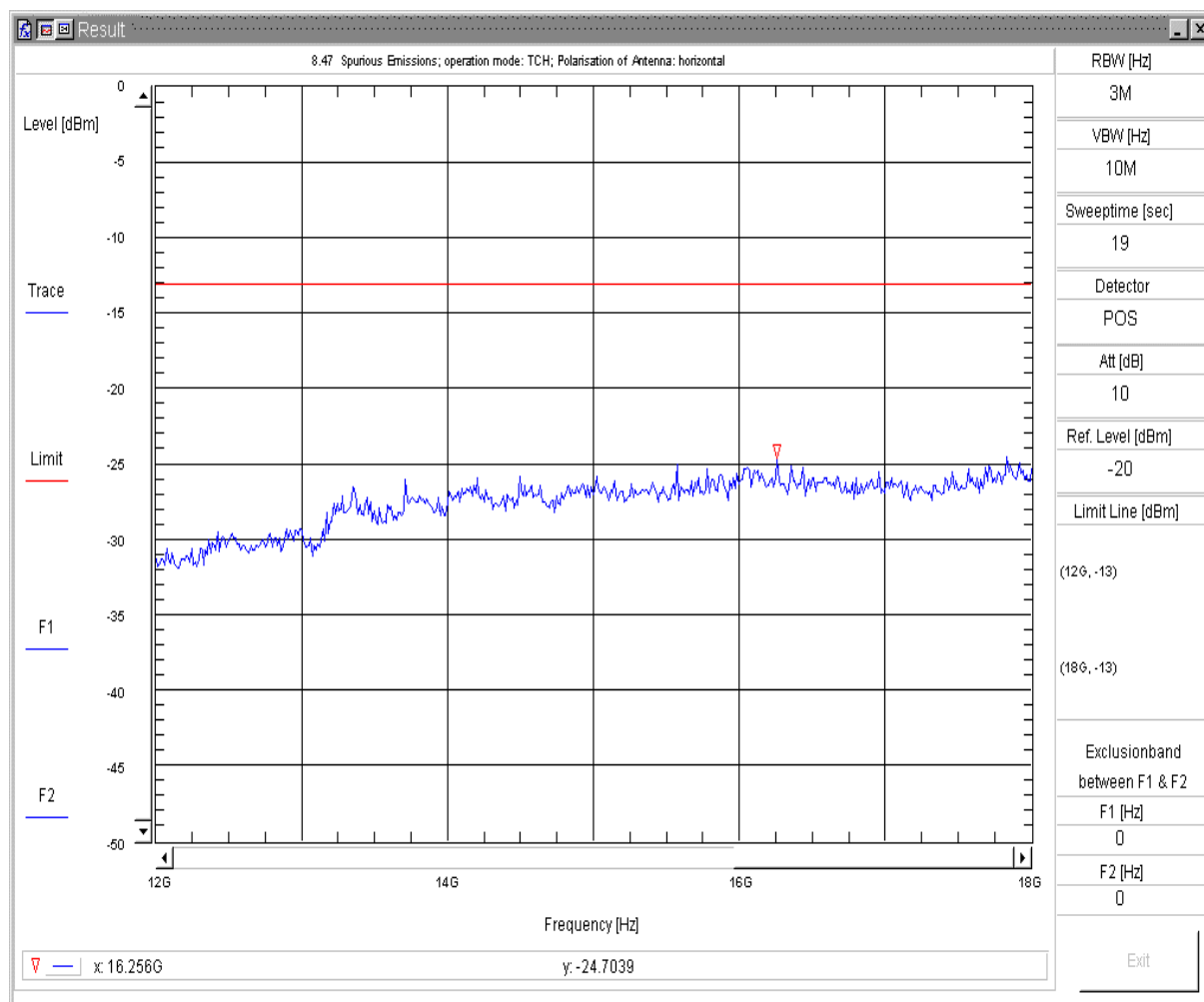


8.46 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004401-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 512
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Mon 15/Nov/2010 18:23:11fp

Spurious Emissions V7.2.5

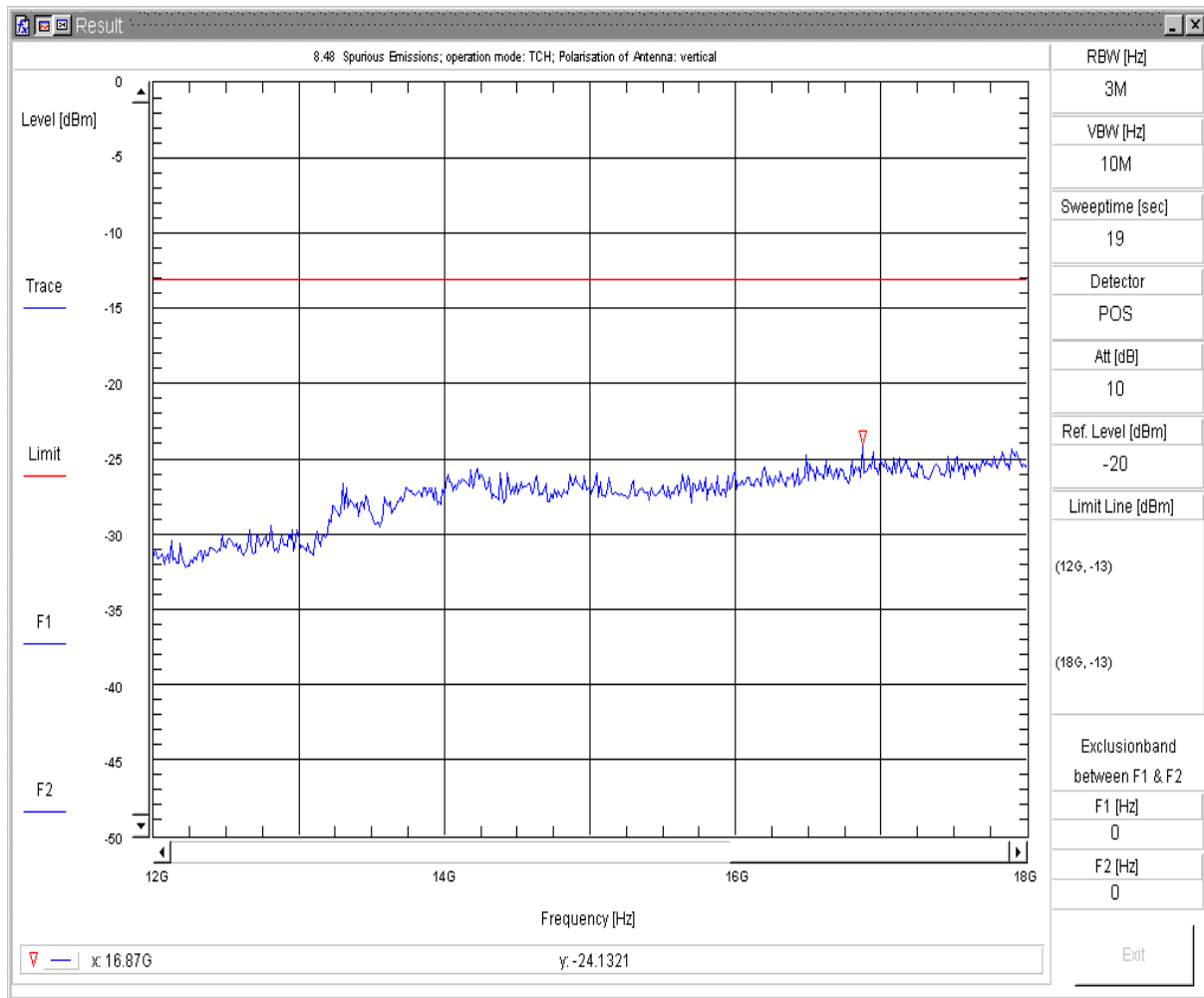


8.47 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 09:26:09pp

Spurious Emissions V7.2.5

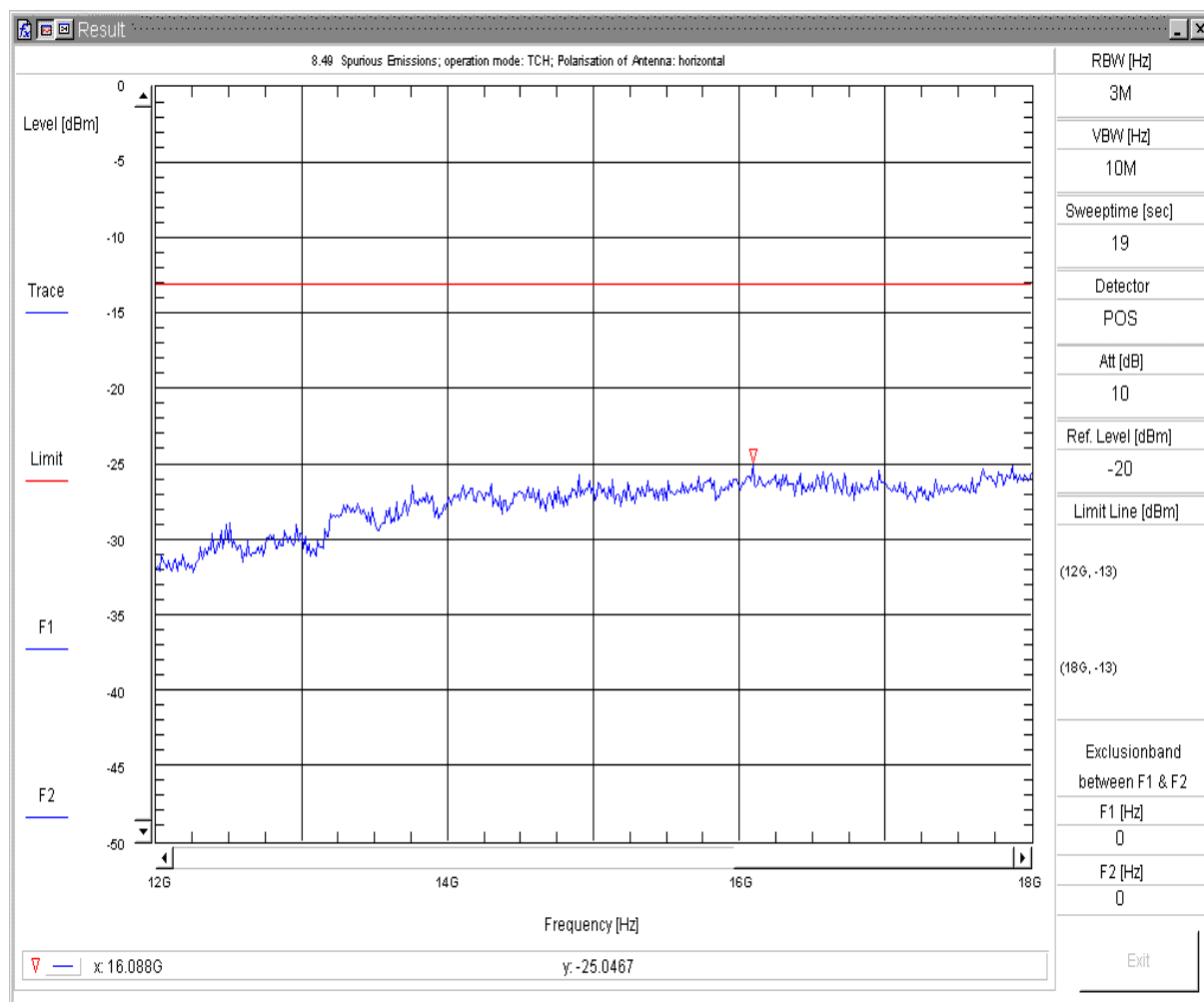


8.48 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 661
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 09:16:15pp

Spurious Emissions V7.2.5

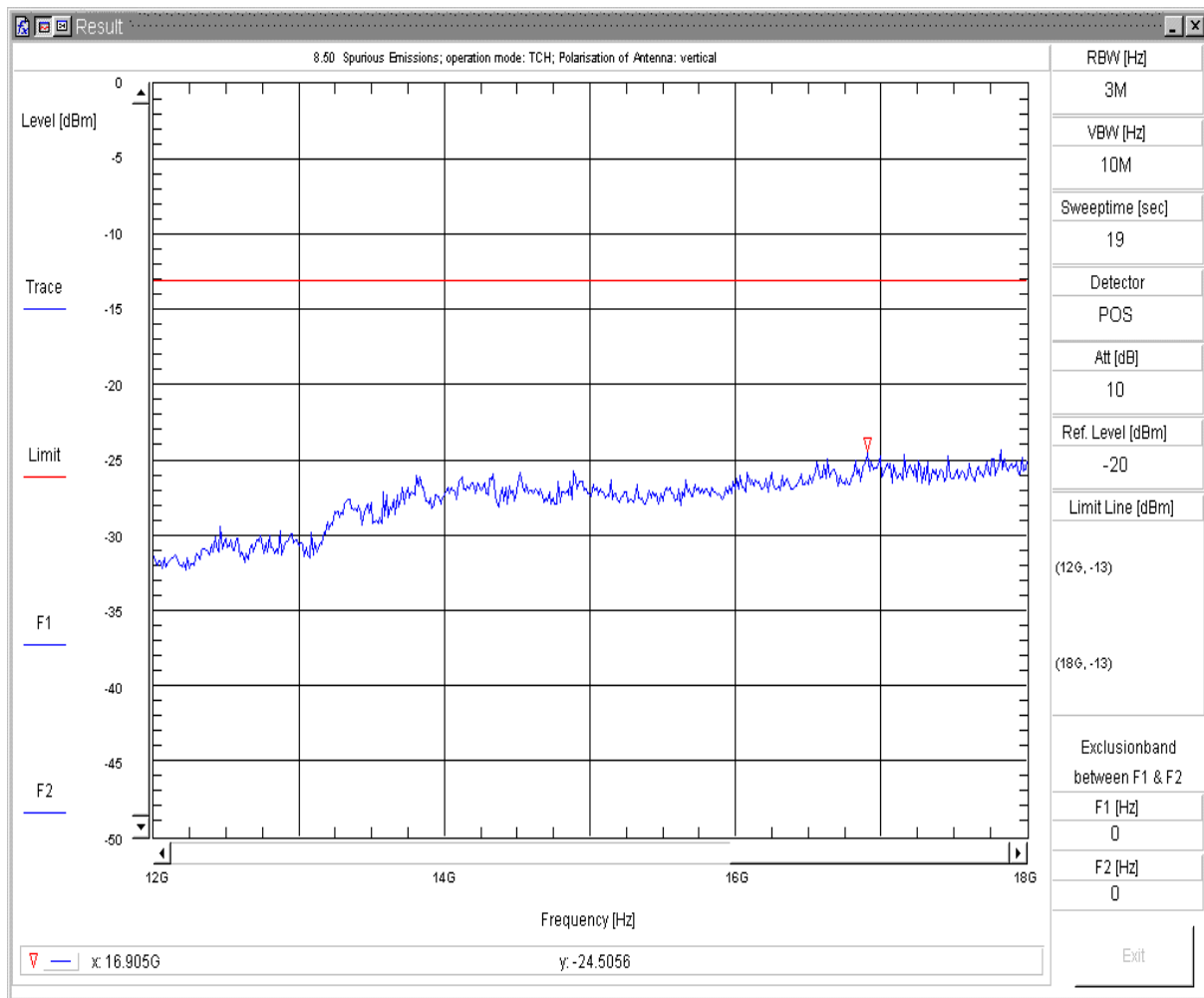


8.49 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 10:46:04pp

Spurious Emissions V7.2.5



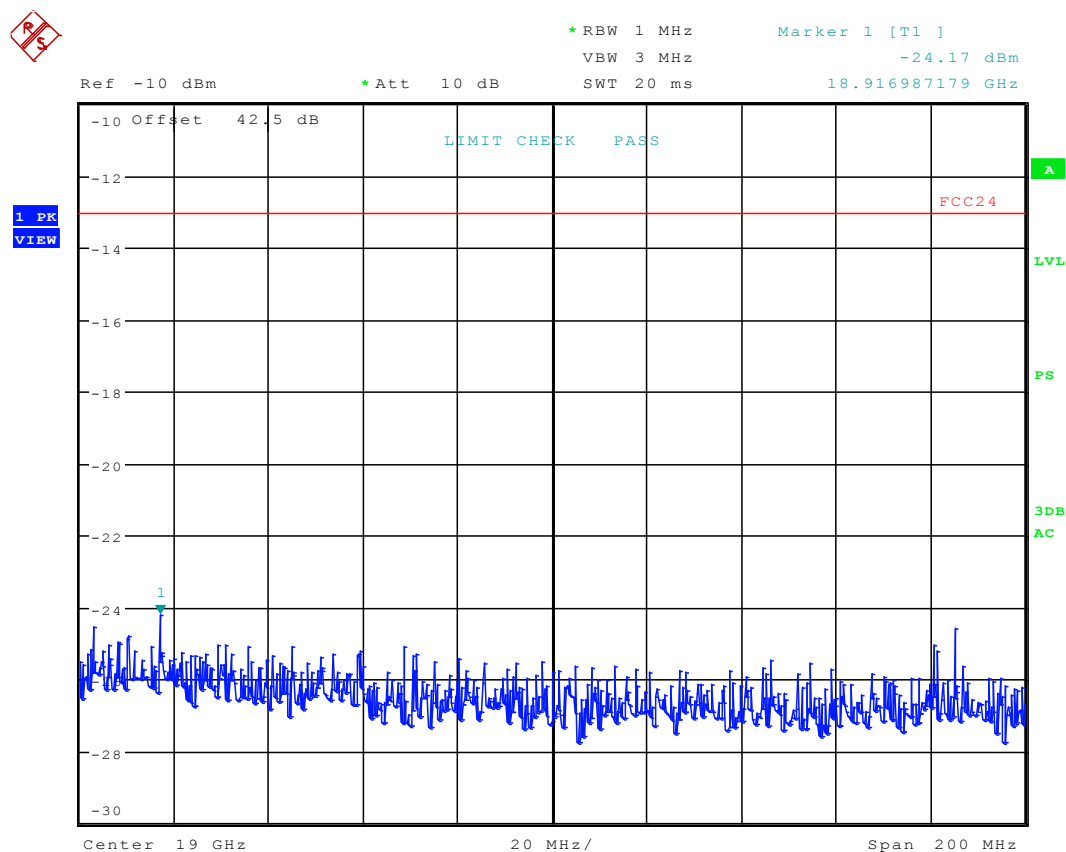
8.50 Radiated Spurious Emission

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: MC55i-W
 EUT add. Info: HS+USB line+ RS232 line+ DSB Board
 EUT Hardware: B1
 EUT Software: 00.060
 EUT Config:
 EUT S/N: IMEI 004001-08-04087-6
 Battery: Power Supply (external); Maximum Voltage; 4.5 VDC
 Remark: ARFCN 810
 Operator: Tas
 Testing Site: Fully Anechoic Room (FAR); CETECOM Essen

Tue 16/Nov/2010 10:53:21fp

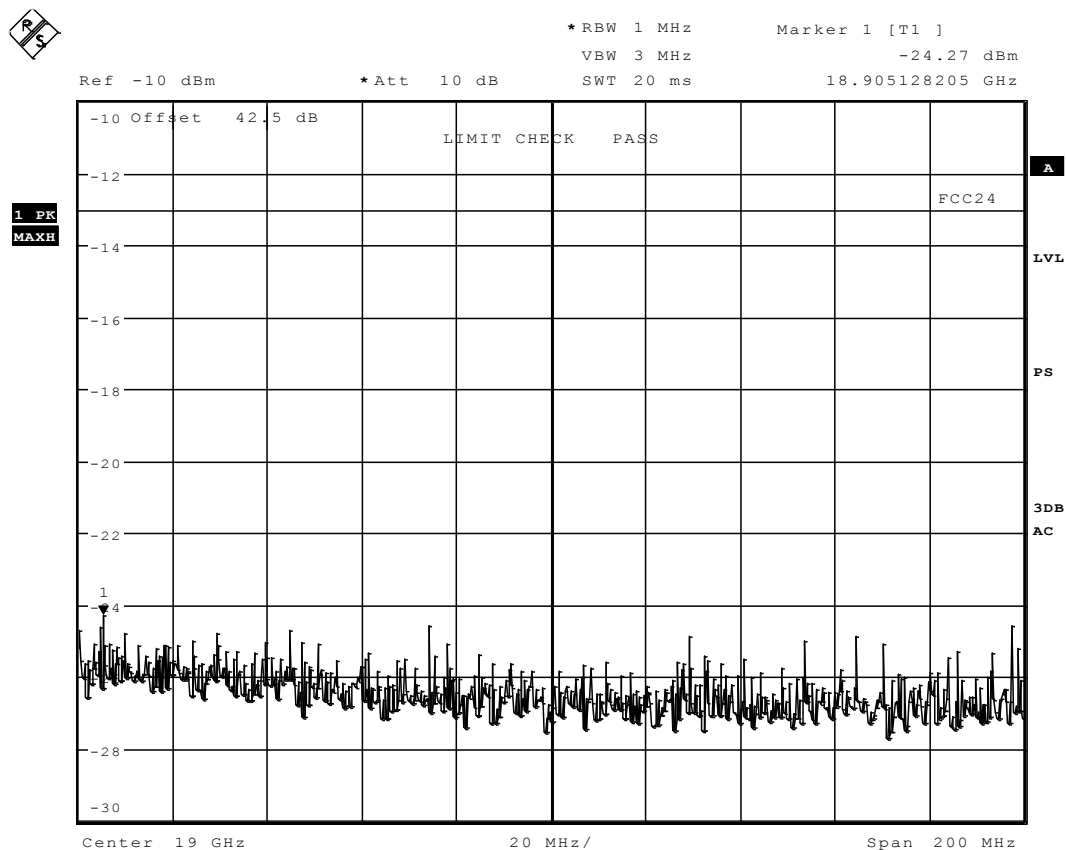
Spurious Emissions V7.2.5

1.7. Radiated emissions in the frequency range above 18GHz – GSM1900 Mode



Date: 16.NOV.2010 12:13:56

Diagram 8.51 – Channel 512 (Overview measurement only)



Date: 16.NOV.2010 12:11:39

Diagram 8.52 – Channel 661 (Overview measurement only)



Diagram 8.53 – Channel 810 (Overview measurement only)

1.8. Radiated magnetic field strength measurements ($f < 30\text{MHz}$)

Diagram No. 3.01 Test

Common Information

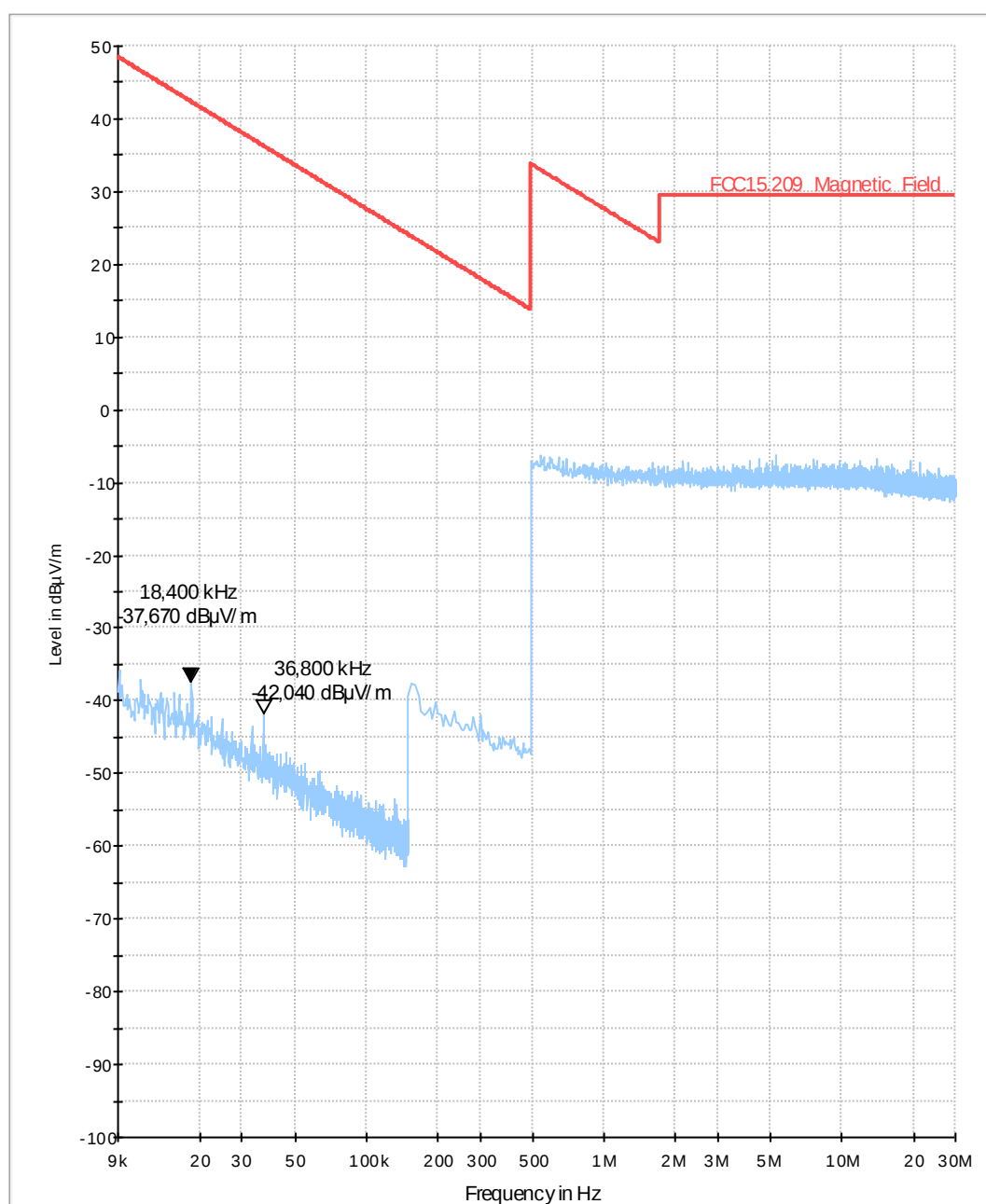
Test description:
 Test site and distance:
 Measured sides of EUT:
 Rec. antenna (pre-scan):
 Turntable step:
 Test specification.:

Magnetic Fieldstrength Measurement related to 3 m distance
 Semi Anechoic Room (SAR) with 3 m measurement distance
 front, right, rear, left
 height 1.00 m, parallel and 90° to EUT polarisation
 90° during pre-scan
 FCC 15.205 § 15.209

Operator:
 Operating conditions:
 Comment 1:
 EUTs:

TAS
 G850 TCH
 Channel middle ARFCN 128
 MCC55i-W (IMEI 00401-08-042087-6), HS (Votronic), USB converter, DSB Board

01_FCC15.209_magn hor+vert



EMI Auto Test Template: 01_FCC15.209_magn hor+vert

Hardware Setup: HW25a_FCC15209_ESCS_MgFeld
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 9 kHz - 30 MHz
 Graphics Level Range: -100 dBµV/m - 50 dBµV/m

Preview Measurements:
 Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
 Polarization: H + V
 Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
 Scan Test Template: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

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: 10
 After Data Reduction: Interactive data reduction

Adjustment:
 Antenna height: Adjustment with full Range , Measuring Speed = 1
 Turntable position: Adjustment with full Range , Measuring Speed = 3
 Template for Single Meas.: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
 Template for Single Meas.: 06_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

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

Actions:
 Data Reduction: Before
 Notify: Sound (WAV file) 'tada.wav'
 Final Measurements: After
 Notify: Sound (WAV file) 'tada.wav'

Diagram No. 3.02 Test

Common Information

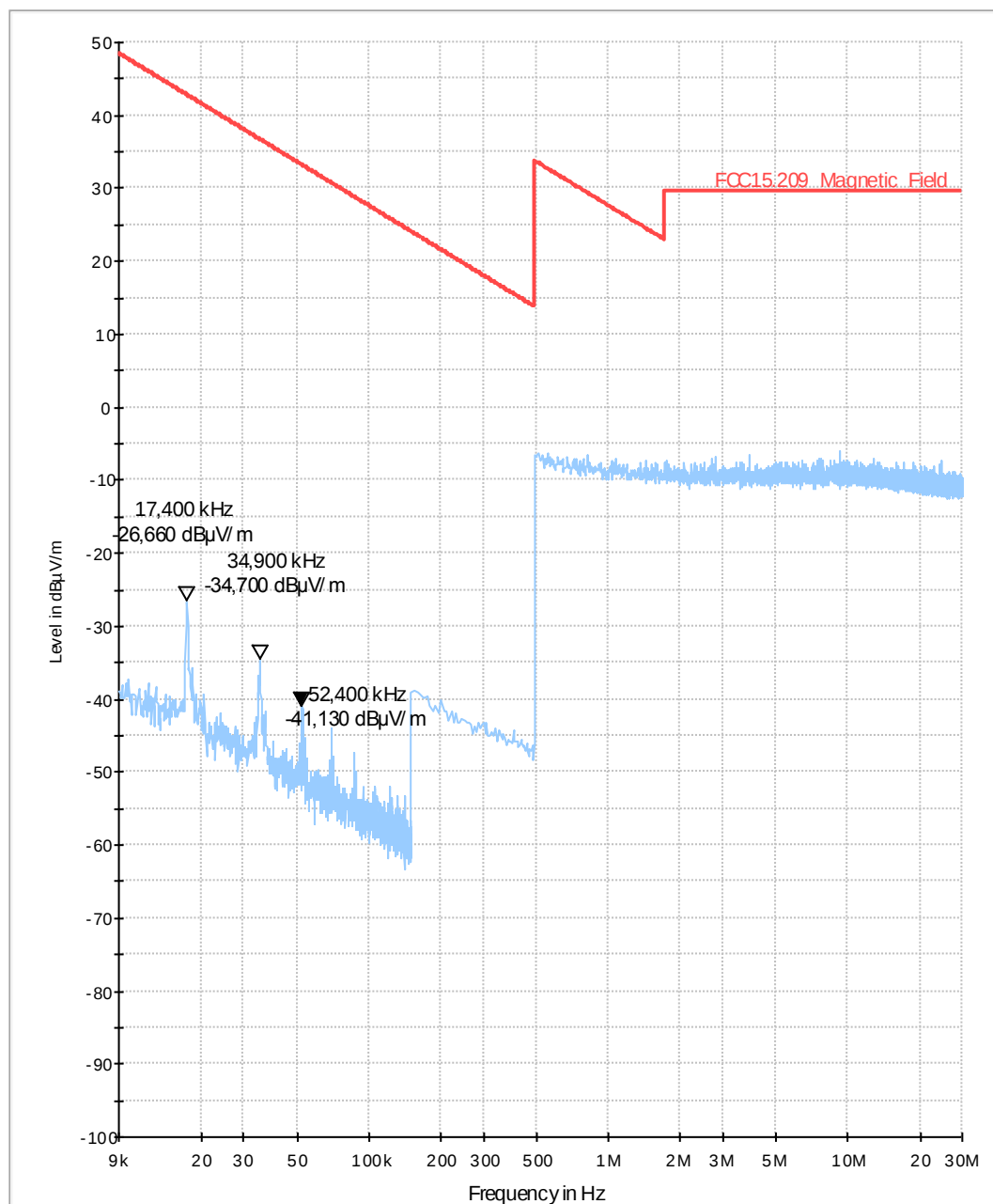
Test description:
 Test site and distance:
 Measured sides of EUT:
 Rec. antenna (pre-scan):
 Turntable step:
 Test specification.:

Magnetic Fieldstrength Measurement related to 3 m distance
 Semi Anechoic Room (SAR) with 3 m measurement distance
 front, right, rear, left
 height 1.00 m, parallel and 90° to EUT polarisation
 90° during pre-scan
 FCC 15.205 § 15.209

Operator:
 Operating conditions:
 Comment 1:
 EUTs:

TAS
 G850 TCH
 Channel middle ARFCN 192
 MCC55i-W (IMEI 00401-08-042087-6), HS (Votronic), USB converter, DSB Board

01_FCC15.209_magn hor+vert



EMI Auto Test Template: 01_FCC15.209_magn hor+vert

Hardware Setup: HW25a_FCC15209_ESCS_MgFeld
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 9 kHz - 30 MHz
 Graphics Level Range: -100 dBμV/m - 50 dBμV/m

Preview Measurements:
 Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
 Polarization: H + V
 Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
 Scan Test Template: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

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: 10
 After Data Reduction: Interactive data reduction

Adjustment:
 Antenna height: Adjustment with full Range , Measuring Speed = 1
 Turntable position: Adjustment with full Range , Measuring Speed = 3
 Template for Single Meas.: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
 Template for Single Meas.: 06_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

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

Actions:
 Data Reduction: Before
 Notify: Sound (WAV file) 'tada.wav'
 Final Measurements: After
 Notify: Sound (WAV file) 'tada.wav'

Diagram No. 3.03 Test

Common Information

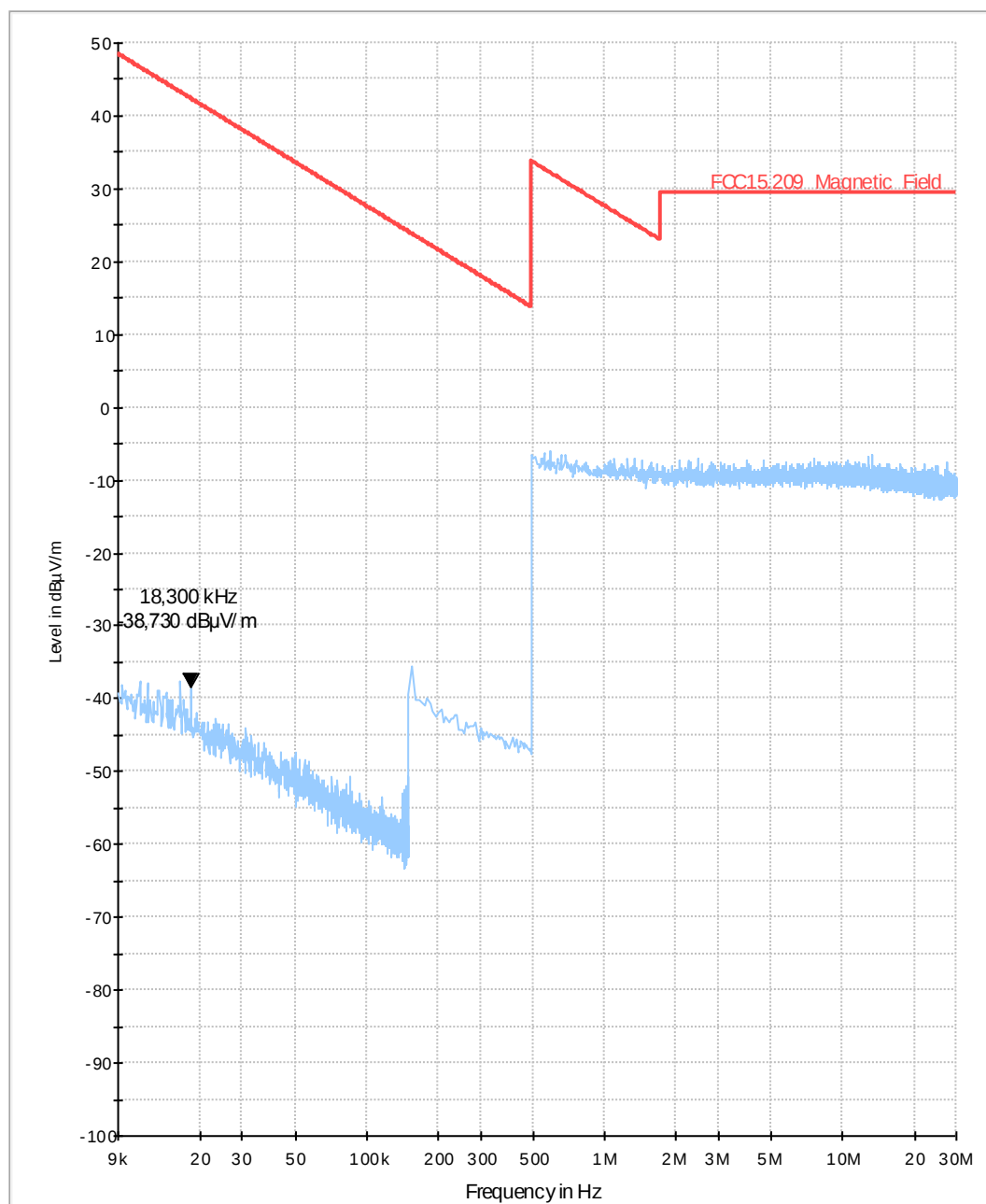
Test description:
 Test site and distance:
 Measured sides of EUT:
 Rec. antenna (pre-scan):
 Turntable step:
 Test specification.:

Magnetic Fieldstrength Measurement related to 3 m distance
 Semi Anechoic Room (SAR) with 3 m measurement distance
 front, right, rear, left
 height 1.00 m, parallel and 90° to EUT polarisation
 90° during pre-scan
 FCC 15.205 § 15.209

Operator:
 Operating conditions:
 Comment 1:
 EUTs:

TAS
 G850 TCH
 Channel high ARFCN 251
 MCC55i-W (IMEI 00401-08-042087-6), HS (Votronic), USB converter, DSB Board

01_FCC15.209_magn hor+vert



EMI Auto Test Template: 01_FCC15.209_magn hor+vert

Hardware Setup: HW25a_FCC15209_ESCS_MgFeld
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 9 kHz - 30 MHz
 Graphics Level Range: -100 dBμV/m - 50 dBμV/m

Preview Measurements:
 Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
 Polarization: H + V
 Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
 Scan Test Template: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

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: 10
 After Data Reduction: Interactive data reduction

Adjustment:
 Antenna height: Adjustment with full Range , Measuring Speed = 1
 Turntable position: Adjustment with full Range , Measuring Speed = 3
 Template for Single Meas.: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
 Template for Single Meas.: 06_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

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

Actions:
 Data Reduction: Before
 Notify: Sound (WAV file) 'tada.wav'
 Final Measurements: After
 Notify: Sound (WAV file) 'tada.wav'

Diagram No. 3.04 Test

Common Information

Test description:

Test site and distance:

Measured sides of EUT:

Rec. antenna (pre-scan):

Turntable step:

Test specification:

Magnetic Fieldstrength Measurement related to 3 m distance

Semi Anechoic Room (SAR) with 3 m measurement distance

front, right, rear, left

height 1.00 m, parallel and 90° to EUT polarisation

90° during pre-scan

FCC 15.205 § 15.209

Operator:

Operating conditions:

Comment 1:

EUTs:

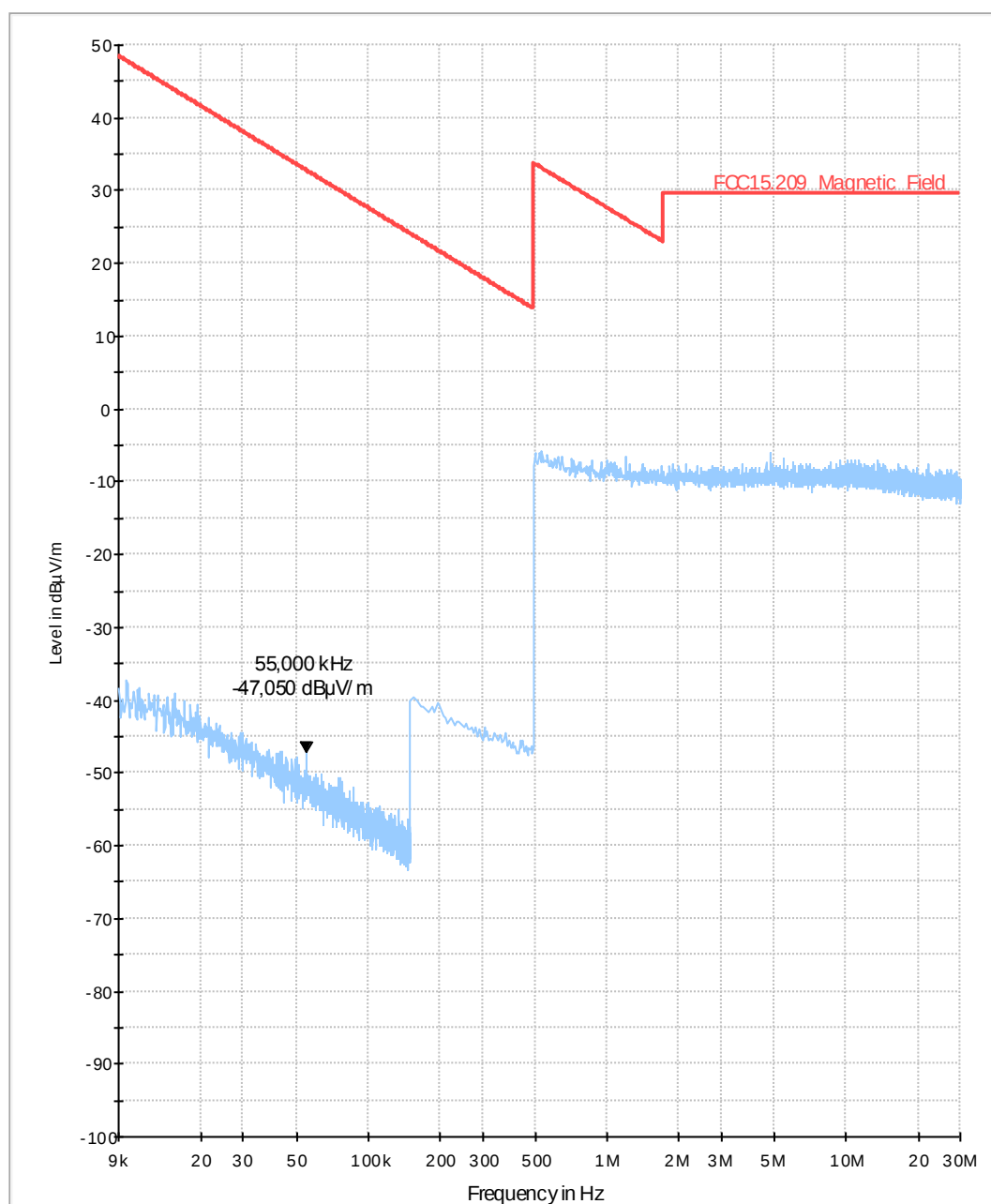
TAS

PCS1900 TCH

Channel low ARFCN 512

MCC55i-W (IMEI 00401-08-042087-6), HS (Votronic), USB converter, DSB Board

01_FCC15.209_magn hor+vert



EMI Auto Test Template: 01_FCC15.209_magn hor+vert

Hardware Setup: HW25a_FCC15209_ESCS_MgFeld
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 9 kHz - 30 MHz
 Graphics Level Range: -100 dBμV/m - 50 dBμV/m

Preview Measurements:
 Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
 Polarization: H + V
 Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
 Scan Test Template: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

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: 10
 After Data Reduction: Interactive data reduction

Adjustment:
 Antenna height: Adjustment with full Range , Measuring Speed = 1
 Turntable position: Adjustment with full Range , Measuring Speed = 3
 Template for Single Meas.: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
 Template for Single Meas.: 06_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

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

Actions:
 Data Reduction: Before
 Notify: Sound (WAV file) 'tada.wav'
 Final Measurements: After
 Notify: Sound (WAV file) 'tada.wav'

Diagram No. 3.05 Test

Common Information

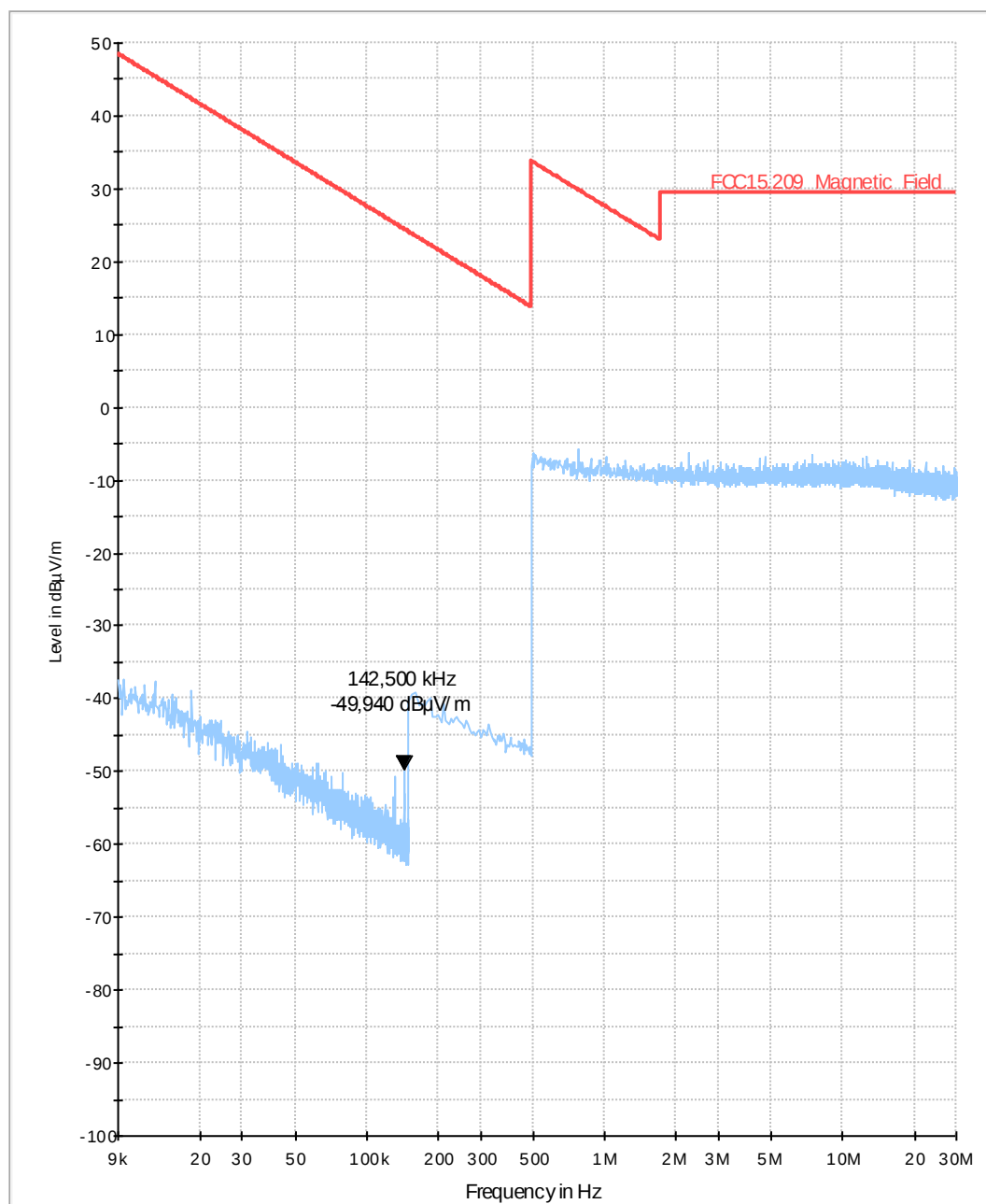
Test description:
 Test site and distance:
 Measured sides of EUT:
 Rec. antenna (pre-scan):
 Turntable step:
 Test specification.:

Magnetic Fieldstrength Measurement related to 3 m distance
 Semi Anechoic Room (SAR) with 3 m measurement distance
 front, right, rear, left
 height 1.00 m, parallel and 90° to EUT polarisation
 90° during pre-scan
 FCC 15.205 § 15.209

Operator:
 Operating conditions:
 Comment 1:
 EUTs:

TAS
 PCS1900 TCH
 Channel middle ARFCN 661
 MCC55i-W (IMEI 00401-08-042087-6), HS (Votronic), USB converter, DSB Board

01_FCC15.209_magn hor+vert



EMI Auto Test Template: 01_FCC15.209_magn hor+vert

Hardware Setup: HW25a_FCC15209_ESCS_MgFeld
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 9 kHz - 30 MHz
 Graphics Level Range: -100 dBµV/m - 50 dBµV/m

Preview Measurements:
 Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
 Polarization: H + V
 Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
 Scan Test Template: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

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: 10
 After Data Reduction: Interactive data reduction

Adjustment:
 Antenna height: Adjustment with full Range , Measuring Speed = 1
 Turntable position: Adjustment with full Range , Measuring Speed = 3
 Template for Single Meas.: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
 Template for Single Meas.: 06_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

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

Actions:
 Data Reduction: Before
 Notify: Sound (WAV file) 'tada.wav'
 Final Measurements: After
 Notify: Sound (WAV file) 'tada.wav'

Diagram No. 3.06 Test

Common Information

Test description:

Test site and distance:

Measured sides of EUT:

Rec. antenna (pre-scan):

Turntable step:

Test specification:

Magnetic Fieldstrength Measurement related to 3 m distance

Semi Anechoic Room (SAR) with 3 m measurement distance

front, right, rear, left

height 1.00 m, parallel and 90° to EUT polarisation

90° during pre-scan

FCC 15.205 § 15.209

Operator:

Operating conditions:

Comment 1:

EUTs:

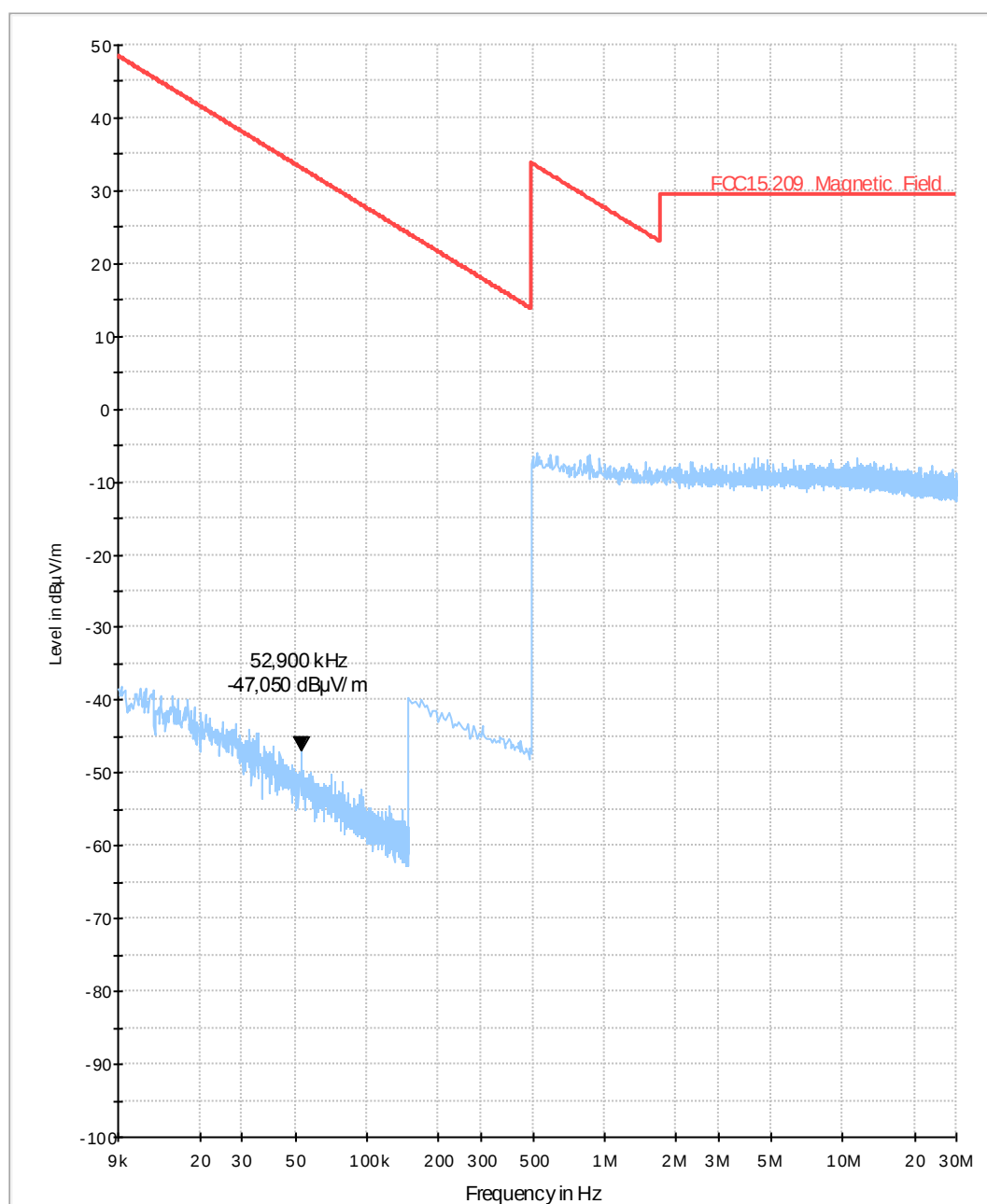
TAS

PCS1900 TCH

Channel high ARFCN 810

MCC55i-W (IMEI 00401-08-042087-6), HS (Votronic), USB converter, DSB Board

01_FCC15.209_magn hor+vert



EMI Auto Test Template: 01_FCC15.209_magn hor+vert

Hardware Setup: HW25a_FCC15209_ESCS_MgFeld
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 9 kHz - 30 MHz
 Graphics Level Range: -100 dBµV/m - 50 dBµV/m

Preview Measurements:
 Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
 Polarization: H + V
 Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
 Scan Test Template: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

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: 10
 After Data Reduction: Interactive data reduction

Adjustment:
 Antenna height: Adjustment with full Range , Measuring Speed = 1
 Turntable position: Adjustment with full Range , Measuring Speed = 3
 Template for Single Meas.: 05_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
 Template for Single Meas.: 06_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

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

Actions:
 Data Reduction: Before
 Notify: Sound (WAV file) 'tada.wav'
 Final Measurements: After
 Notify: Sound (WAV file) 'tada.wav'

1.9 Conducted emissions on AC-Power lines (TX-mode)

Diagram No. 1.5_TX_G850

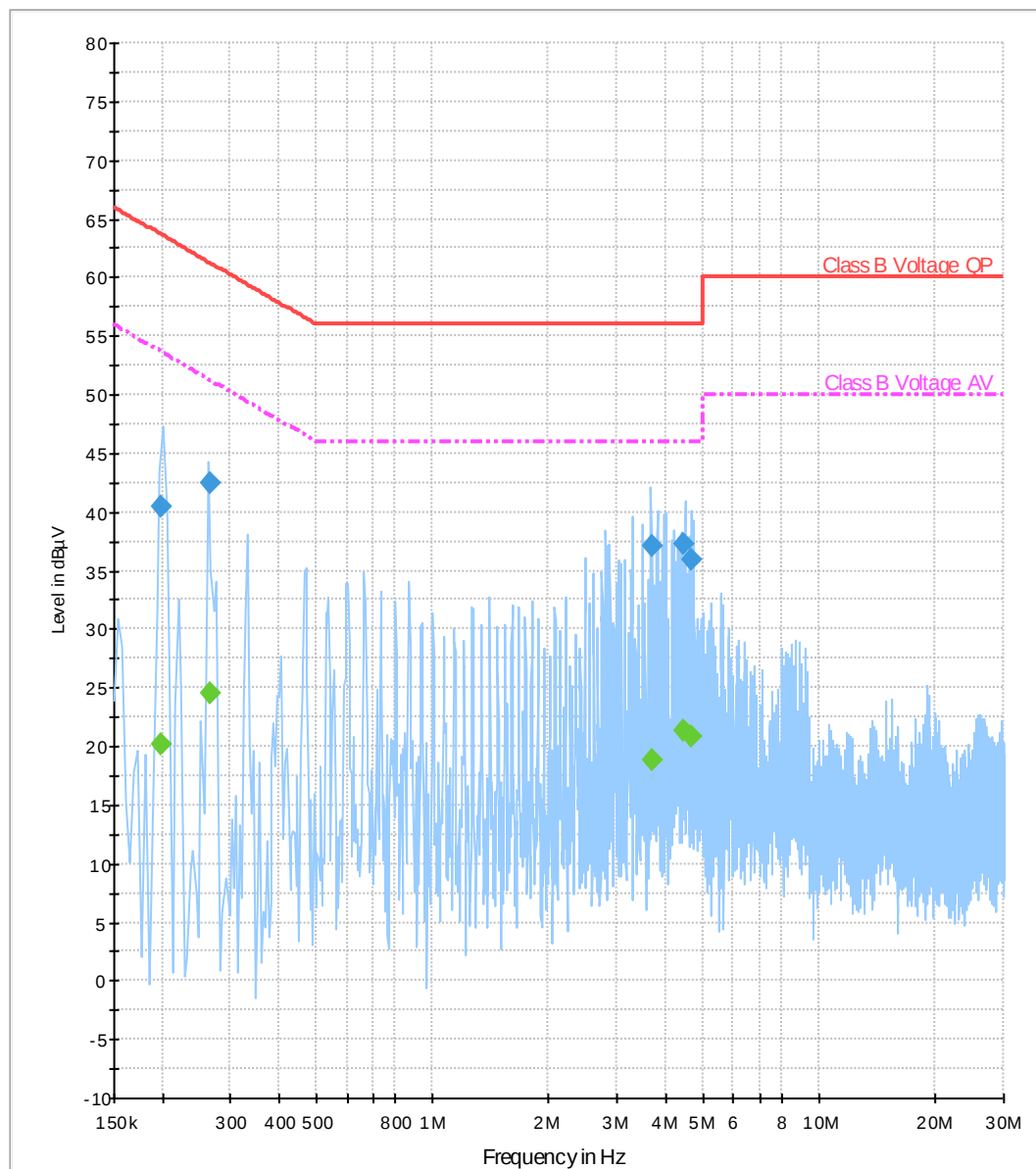
Test Description:
 Testspezifikation:
 Technical Data:
 Diagram:
 Operator name:
 Report.- Nr.

Date: 18.11.2010 Page 1 of 3
 Conducted Voltage Measurement Class B
 FCC 15.207, TR (see Report for more details)
 Please see next page for detailed information
 Shows the peak values as a sum of measured ports (N+L1) in maxhold mode
 dpa
 2-20785798/10

EUT:
 IMEI:
 Operating mode:
 Measured on line:
 Power during test:
 Hardware / Software:
 Comment 2:

MC55i_W + HS(v.2.0) + RS232line + AC/DC adapter FW7238/09
 004401-08-042087-6
 TX_G850 (TCH=192)
 Mains AC L1 and N
 110 V AC 60 Hz
 B1 / 00.060

01_Class B_Voltage_PK_QPAV_N_L1



Date: 18.11.2010 Page 2 of 3

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.198281	40.5	15000.0	9.000	GND	N	0.0	23.2	63.7
0.265781	42.4	15000.0	9.000	GND	L1	0.1	18.8	61.2
3.680938	37.2	15000.0	9.000	GND	L1	0.0	18.8	56.0
4.473438	37.2	15000.0	9.000	GND	L1	0.1	18.8	56.0
4.679844	35.9	15000.0	9.000	GND	L1	0.1	20.1	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.198281	20.2	15000.0	9.000	GND	N	0.0	33.5	53.7
0.265781	24.6	15000.0	9.000	GND	L1	0.1	26.6	51.2
3.680938	18.8	15000.0	9.000	GND	L1	0.0	27.2	46.0
4.473438	21.3	15000.0	9.000	GND	L1	0.1	24.7	46.0
4.679844	20.8	15000.0	9.000	GND	L1	0.1	25.2	46.0

Technical Data of Measurements with R&S EMC32 V8.40.2**Hardware Setup: EMI conducted\ESH2-Z5 - [EMI conducted]**

Subrange 1
Frequency Range: 150 kHz - 30 MHz
Receiver: Receiver [ESCS 30]
@ GPIB0 (ADR 19), SN Ref.-Nr. 377, FW 2.30 02.01 02.36
Signal Path: ESH2-Z5 Kabeldämpfung
Correction Table: Conducted Voltage ESH2-Z5 cable loss
LISN: ESH2-Z5
Correction Table (Line 0): 4-Line-LISN ESH2-Z5 Line N
Correction Table (Line 1): 4-Line-LISN ESH2-Z5 Line L1
Correction Table (Line 2): 4-Line-LISN ESH2-Z5 Line L2
Correction Table (Line 3): 4-Line-LISN ESH2-Z5 Line L3

EMI Auto Test Template: 01_Class B_Voltage_PK_QPAV_N_L1

Hardware Setup: ESH2-Z5
Measurement Type: 4 Line LISN
Frequency Range: 150 kHz - 30 MHz
Graphics Level Range: -10 dBµV - 80 dBµV

Preview Measurements:
Scan Test Template: 02_Class B pre_PK_fast

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	3.906 kHz	PK+	9 kHz	0,00005 s	0 dB

Receiver: [ESCS 30]

Data Reduction:
Limit Line #1: Class B Voltage QP
Limit Line #2: Class B Voltage AV
Peak Search: 6 dB , Maximum Results: 10
Subrange Maxima: 50 Subranges , Maxima per Subrange: 2
Acceptance Offset: -13 dB
Maximum Number of Results: 30
After Data Reduction: Interactive data reduction

Frequency Zoom:
Zoom Scan Template: 08_Class B maxZoom_PK100mS

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	5 kHz	PK+	9 kHz	0,1 s	0 dB

Receiver: [ESCS 30]

Final Measurements:
Template for Single Meas.: 07_Class B fin AV QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	4.5 kHz	QPK; CAV	9 kHz	15 s	0 dB

Receiver: [ESCS 30]

Diagram No. 1.7_TX_PCS1900

Test Description:

Test specification:

Technical Data:

Diagram:

Operator name:

Report - Nr.

Date: 18.11.2010 Page 1 of 3

Conducted Voltage Measurement Class B

FCC 15.207, TR (see Report for more details)

Please see next page for detailed information

Shows the peak values as a sum of measured ports (N+L1) in maxhold mode

dpa

2-20785798/10

EUT:

IMEI:

Operating mode:

Measured on line:

Power during test:

Hardware / Software:

Comment 2:

MC55i_W + HS(v.2.0) + RS232line + AC/DC adapter FW7238/09

004401-08-042087-6

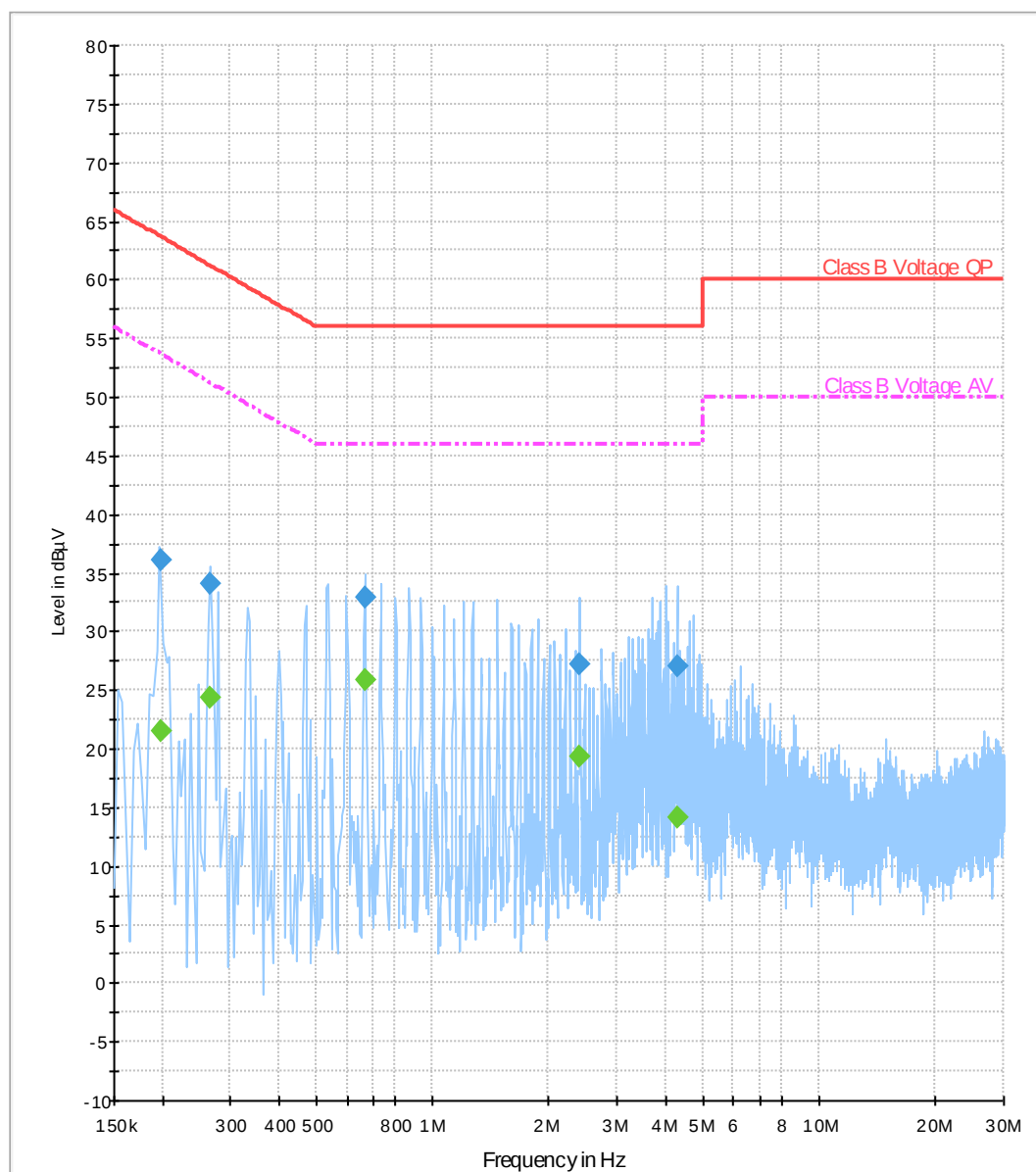
TX_PCS1900 (TCH=661)

Mains AC L1 and N

110 V AC 60 Hz

B1 / 00.060

01_Class B_Voltage_PK_QPAV_N_L1



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Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.199375	36.1	15000.0	9.000	GND	N	0.0	27.5	63.6
0.264688	34.1	15000.0	9.000	GND	L1	0.0	27.2	61.3
0.667031	32.9	15000.0	9.000	GND	L1	0.1	23.1	56.0
2.401406	27.2	15000.0	9.000	GND	L1	0.1	28.8	56.0
4.280312	27.0	15000.0	9.000	GND	L1	0.1	29.0	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.199375	21.6	15000.0	9.000	GND	N	0.0	32.0	53.6
0.264688	24.3	15000.0	9.000	GND	L1	0.0	27.0	51.3
0.667031	25.8	15000.0	9.000	GND	L1	0.1	20.2	46.0
2.401406	19.3	15000.0	9.000	GND	L1	0.1	26.7	46.0
4.280312	14.1	15000.0	9.000	GND	L1	0.1	31.9	46.0

Technical Data of Measurements with R&S EMC32 V8.40.2**Hardware Setup: EMI conducted\ESH2-Z5 - [EMI conducted]**

Subrange 1

Frequency Range: 150 kHz - 30 MHz

Receiver: Receiver [ESCS 30]
@ GPIB0 (ADR 19), SN Ref.-Nr. 377, FW 2.30 02.01 02.36Signal Path: ESH2-Z5 Kabeldämpfung
Correction Table: Conducted Voltage ESH2-Z5 cable loss
ESH2-Z5LISN: Correction Table (Line 0): 4-Line-LISN ESH2-Z5 Line N
Correction Table (Line 1): 4-Line-LISN ESH2-Z5 Line L1
Correction Table (Line 2): 4-Line-LISN ESH2-Z5 Line L2
Correction Table (Line 3): 4-Line-LISN ESH2-Z5 Line L3**EMI Auto Test Template: 01_Class B_Voltage_PK_QPAV_N_L1**Hardware Setup: ESH2-Z5
Measurement Type: 4 Line LISN
Frequency Range: 150 kHz - 30 MHz
Graphics Level Range: -10 dBµV - 80 dBµVPreview Measurements:
Scan Test Template: 02_Class B_pre_PK_fast

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	3.906 kHz	PK+	9 kHz	0,00005 s	0 dB

Receiver: [ESCS 30]

Data Reduction:
Limit Line #1: Class B Voltage QP
Limit Line #2: Class B Voltage AV
Peak Search: 6 dB , Maximum Results: 10
Subrange Maxima: 50 Subranges , Maxima per Subrange: 2
Acceptance Offset: -13 dB
Maximum Number of Results: 30
After Data Reduction: Interactive data reductionFrequency Zoom:
Zoom Scan Template: 08_Class B_maxZoom_PK100mS

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	5 kHz	PK+	9 kHz	0,1 s	0 dB

Receiver: [ESCS 30]

Final Measurements:
Template for Single Meas.: 07_Class B_fin_AV_QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	4.5 kHz	QPK; CAV	9 kHz	15 s	0 dB

Receiver: [ESCS 30]