

FCC Part 22 Transmitter Certification

Test Report

FCC ID: DNY020MCELL0800

FCC Rule Part: CFR 47 Part 22 Subpart H

ACS Report Number: 07-0137-22H-A

Manufacturer: EMS Wireless
Equipment Type: Cellular Bi-Directional Repeater
Tradename: MirrorCell® II
Model: CDM812-743

Test Begin Date: March 22, 2007

Test End Date: March 28, 2007

Report Issue Date: April 4, 2007



FOR THE SCOPE OF ACCREDITATION UNDER LAB Code 200612


Prepared by: _____
Jeff Woods
Wireless Certification Engineer
ACS, Inc.


Reviewed by: _____
J. Kirby Munroe
Manager Wireless Certifications
ACS, Inc.

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This report contains **34** pages

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3.0 Band-edge

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1.0 Occupied Bandwidth (Input vs. Output)

1.1 Uplink

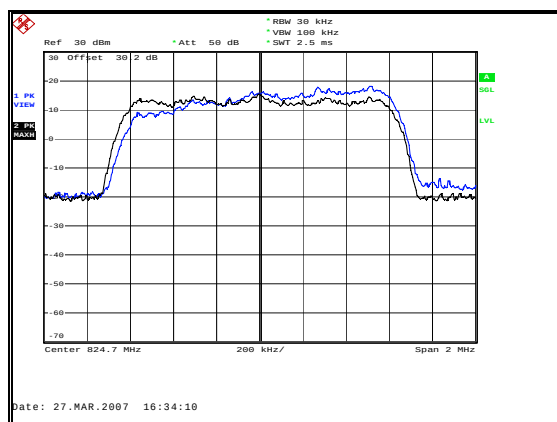


Figure 1: Occupied Bandwidth - Uplink CDMA Low Channel

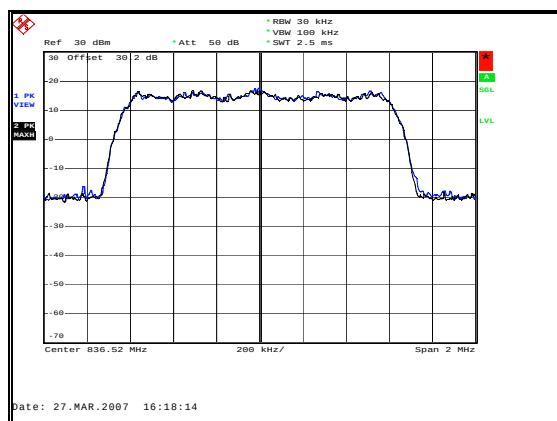


Figure 2: Occupied Bandwidth - Uplink CDMA Mid Channel

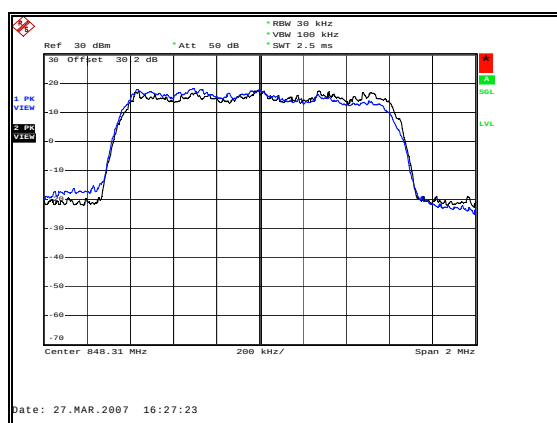


Figure 3: Occupied Bandwidth - Uplink CDMA High Channel

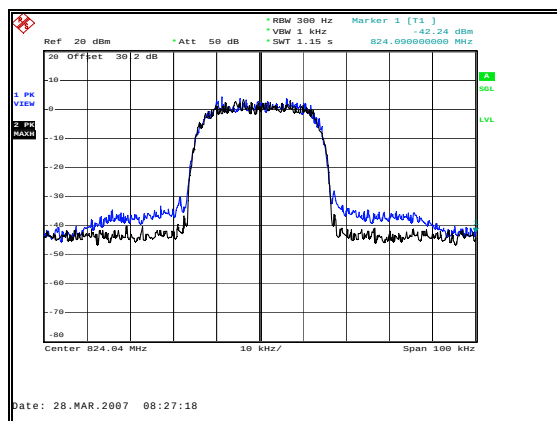


Figure 4: Occupied Bandwidth - Uplink TDMA Low Channel

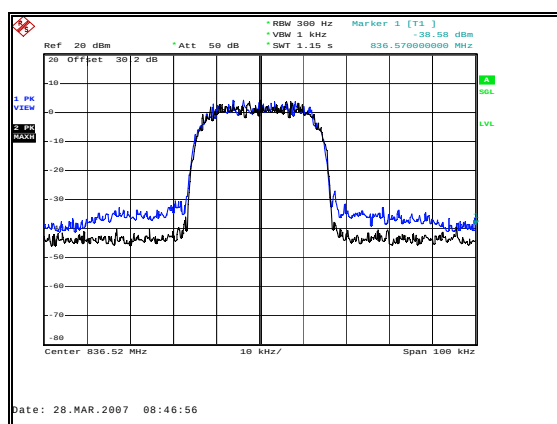


Figure 5: Occupied Bandwidth - Uplink TDMA Mid Channel

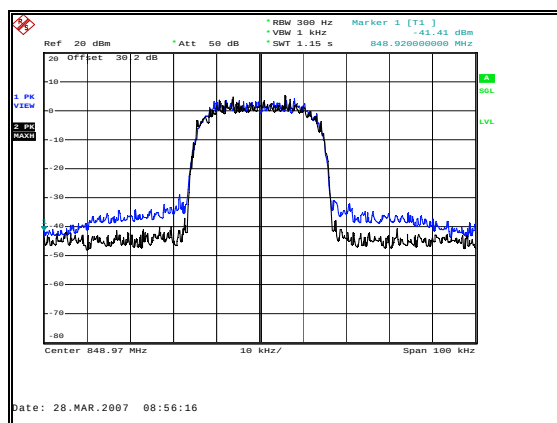


Figure 6: Occupied Bandwidth - Uplink TDMA High Channel

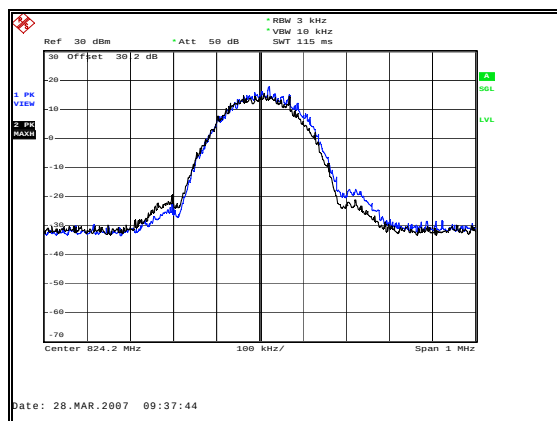


Figure 7: Occupied Bandwidth - Uplink GSM Low Channel

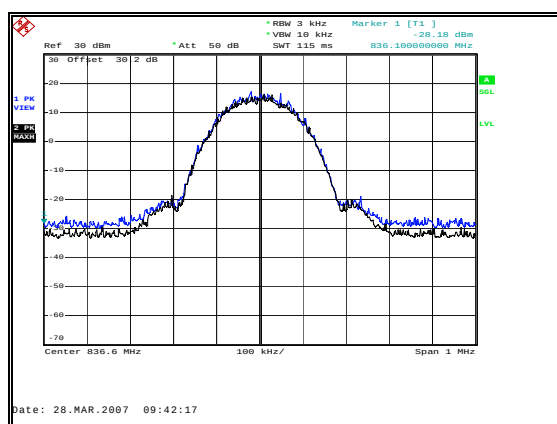


Figure 8: Occupied Bandwidth - Uplink GSM Mid Channel

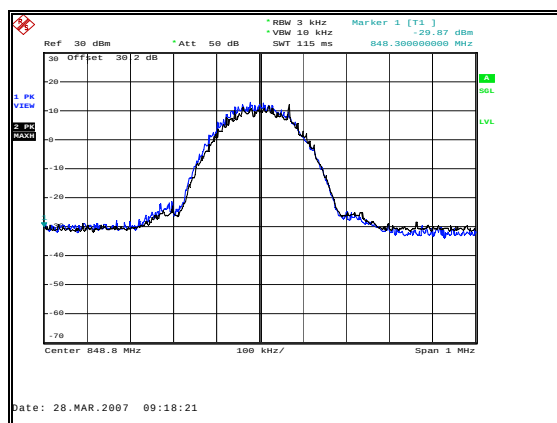


Figure 9: Occupied Bandwidth - Uplink GSM High Channel

1.2 Downlink

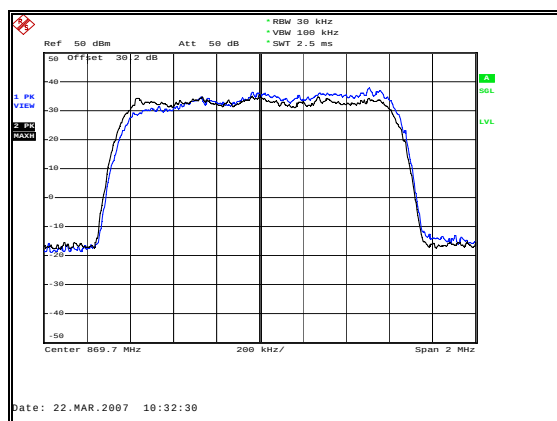


Figure 10: Occupied Bandwidth - Downlink CDMA Low Channel

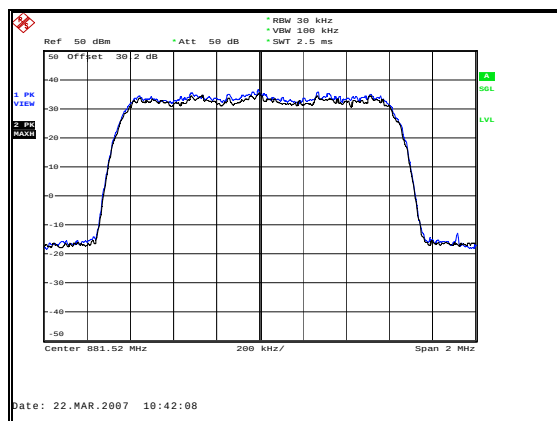


Figure 11: Occupied Bandwidth - Downlink CDMA Mid Channel

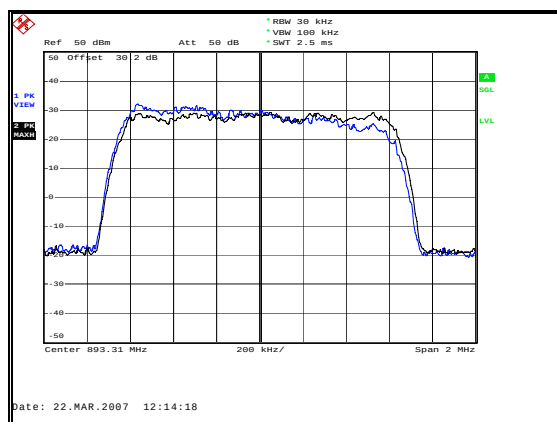


Figure 12: Occupied Bandwidth - Downlink CDMA High Channel

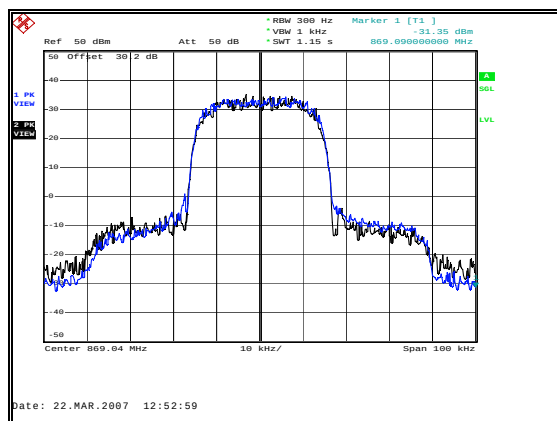


Figure 13: Occupied Bandwidth - Downlink TDMA Low Channel

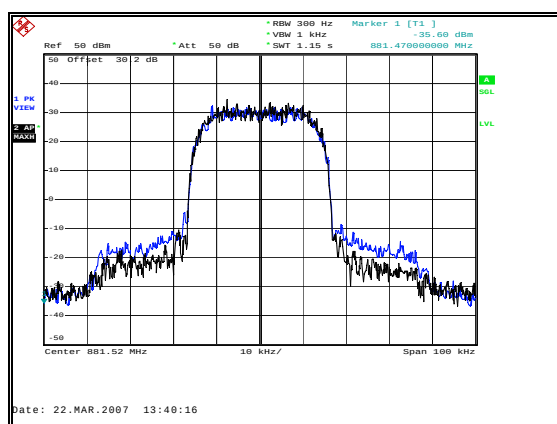


Figure 14: Occupied Bandwidth - Downlink TDMA Mid Channel

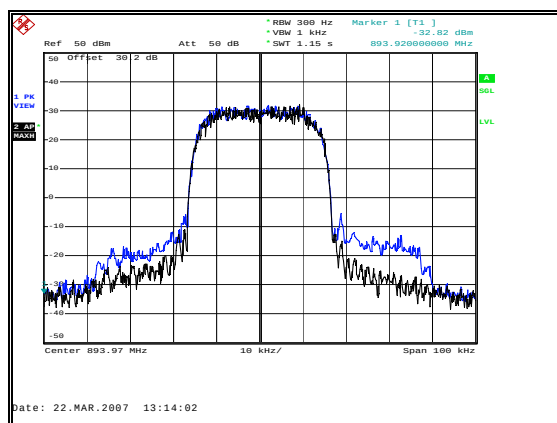


Figure 15: Occupied Bandwidth - Downlink TDMA High Channel

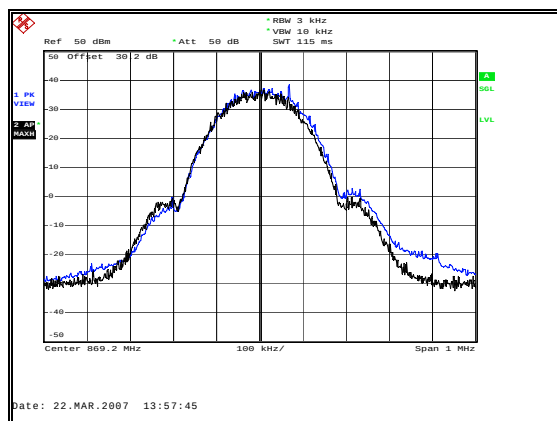


Figure 16: Occupied Bandwidth - Downlink GSM Low Channel

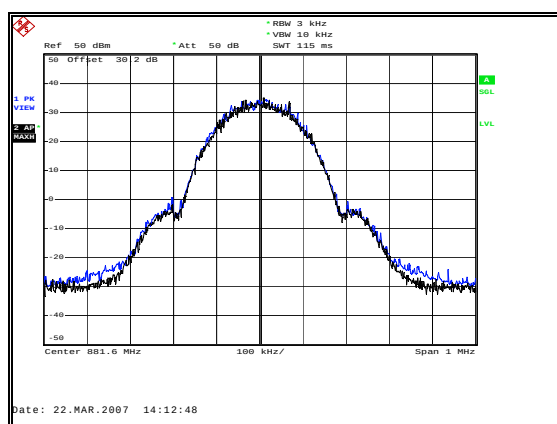


Figure 17: Occupied Bandwidth - Downlink GSM Mid Channel

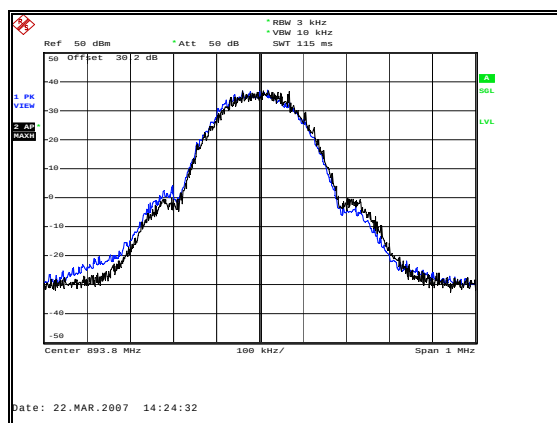


Figure 18: Occupied Bandwidth - Downlink GSM High Channel

2.0 Spurious Emissions at Antenna Terminals and Inter-modulation Products

2.1 CDMA Uplink

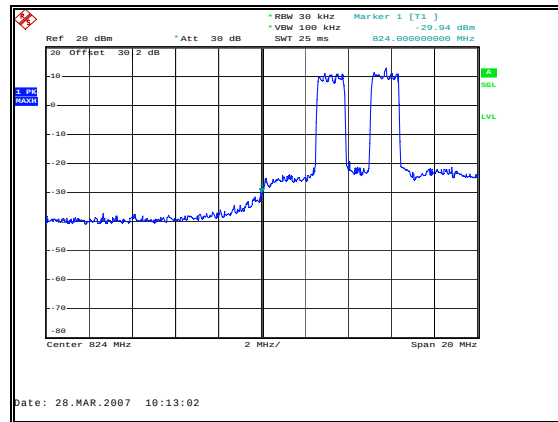


Figure 19: Spurious Emissions - Uplink CDMA Low Channel – Inter-modulation In Band

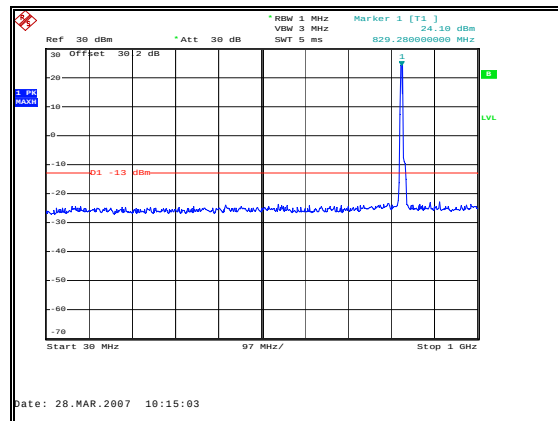


Figure 20: Spurious Emissions - Uplink CDMA Low Channel – Inter-modulation - 30 MHz to 1 GHz

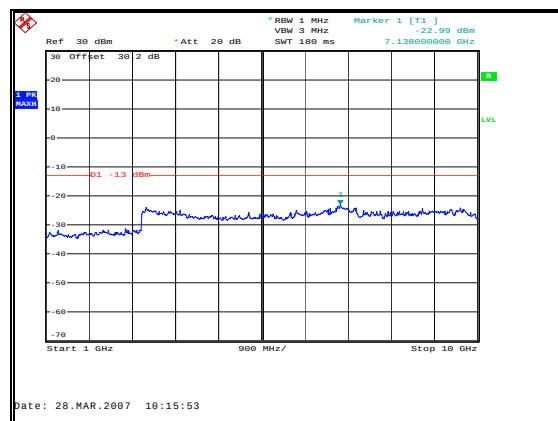


Figure 21: Spurious Emissions - Uplink CDMA Low Channel – Inter-modulation - 1 to 10 GHz

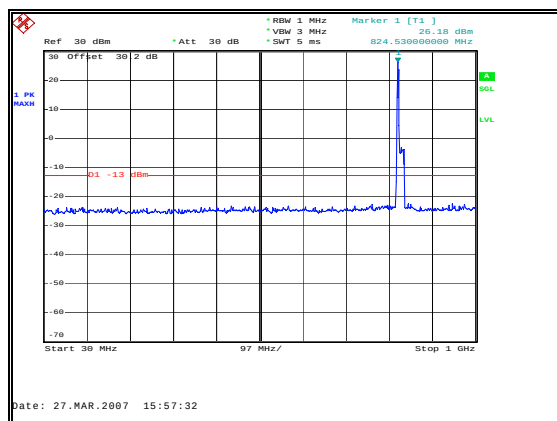


Figure 22: Spurious Emissions - Uplink CDMA Mid Channel – 30 MHz to 1 GHz

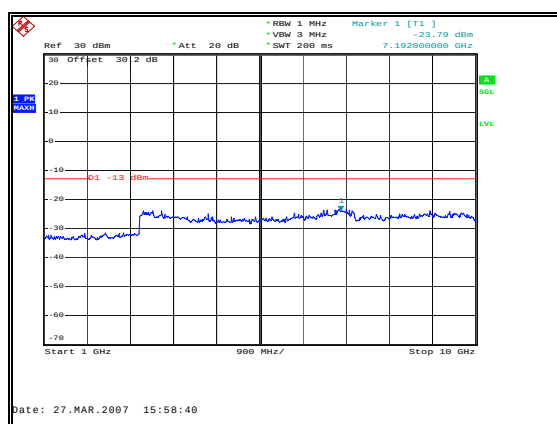


Figure 23: Spurious Emissions - Uplink CDMA Mid Channel – 1 to 10 GHz

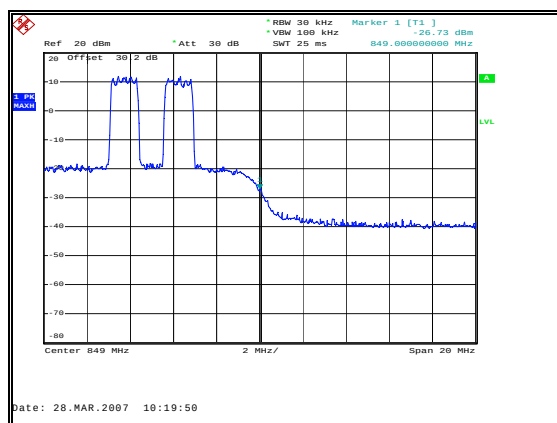


Figure 24: Spurious Emissions - Uplink CDMA High Channel – Inter-modulation In Band

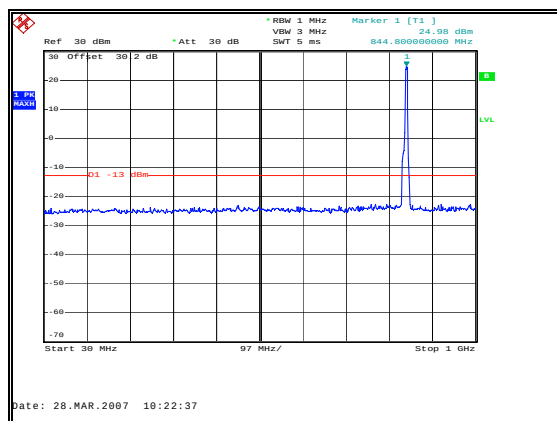


Figure 25: Spurious Emissions - Uplink CDMA High Channel – Inter-modulation - 30 MHz to 1 GHz

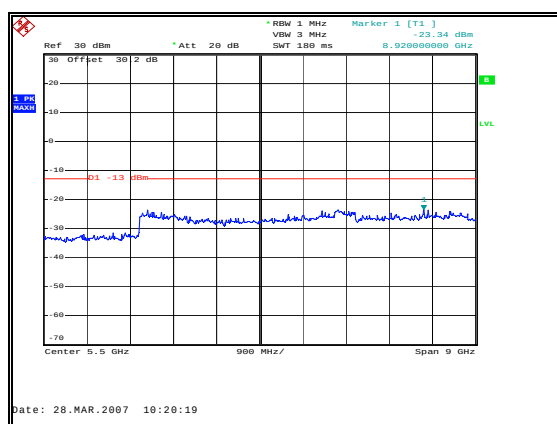


Figure 26: Spurious Emissions - Uplink CDMA High Channel – Inter-modulation - 1 to 10 GHz

2.2 TDMA Uplink

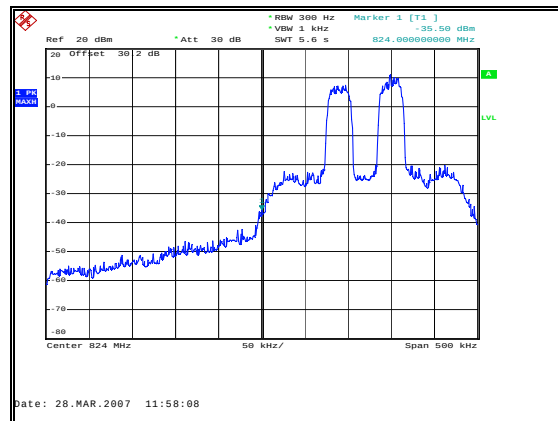


Figure 27: Spurious Emissions - Uplink TDMA Low Channel – Inter-modulation In Band

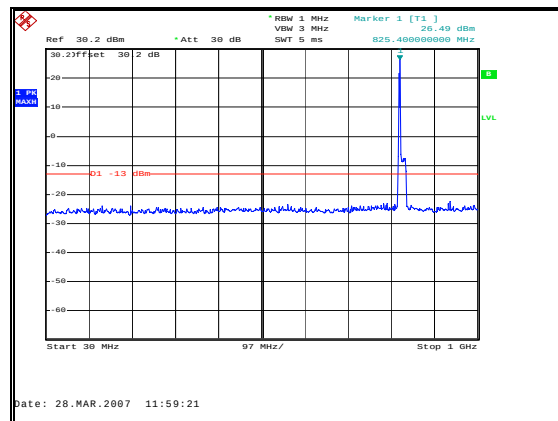


Figure 28: Spurious Emissions - Uplink TDMA Low Channel – Inter-modulation - 30 MHz to 1 GHz

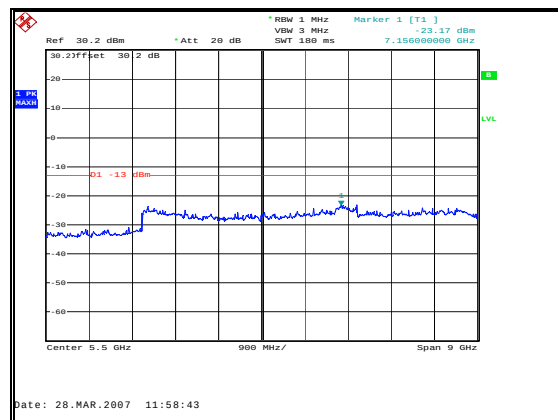


Figure 29: Spurious Emissions - Uplink TDMA Low Channel – Inter-modulation - 1 to 10 GHz

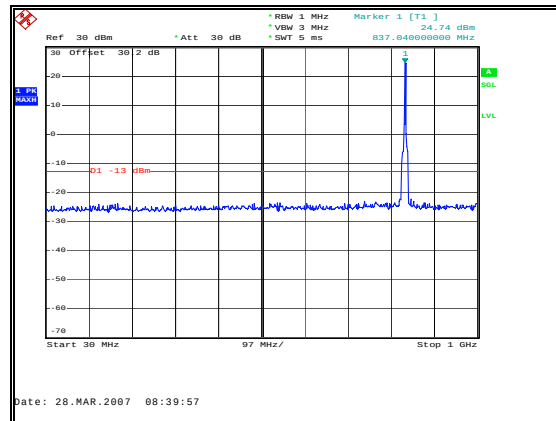


Figure 30: Spurious Emissions - Uplink TDMA Mid Channel – 30 MHz to 1 GHz

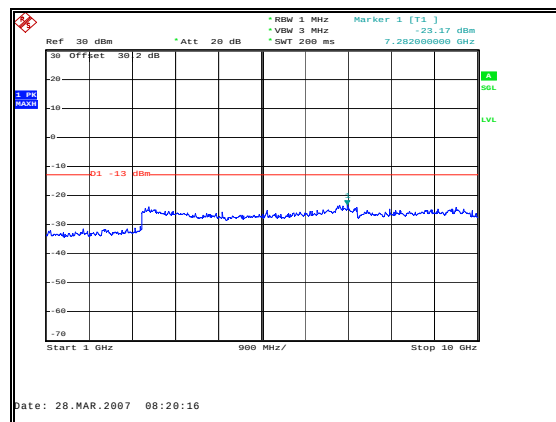


Figure 31: Spurious Emissions - Uplink TDMA Mid Channel – 1 to 10 GHz

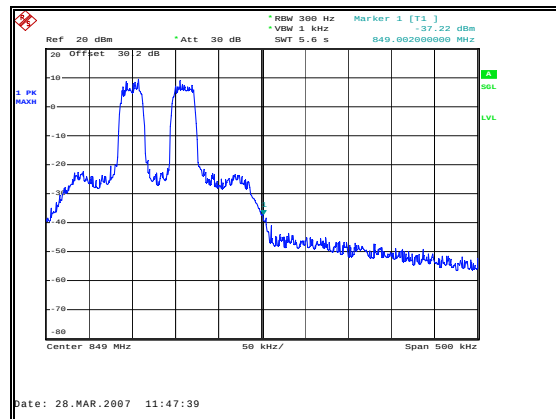


Figure 32: Spurious Emissions - Uplink TDMA High Channel – Inter-modulation In Band

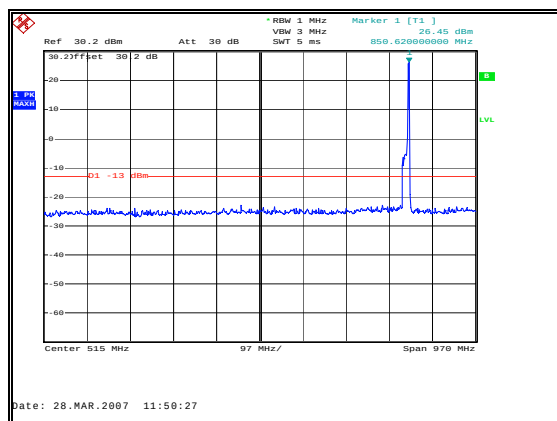


Figure 33: Spurious Emissions - Uplink TDMA High Channel – Inter-modulation - 30 MHz to 1 GHz

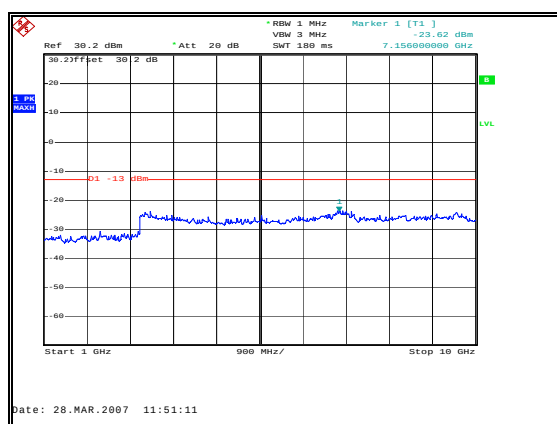


Figure 34: Spurious Emissions - Uplink TDMA High Channel – Inter-modulation - 1 to 10 GHz

2.3 CW Uplink – Covers FM (GSM and F1D)

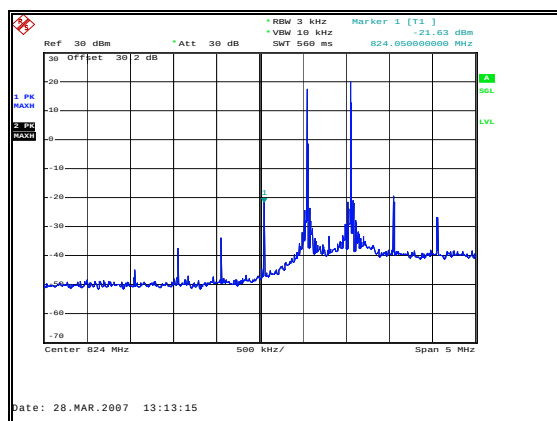


Figure 35: Spurious Emissions - Uplink CW Low Channel – Inter-modulation In Band

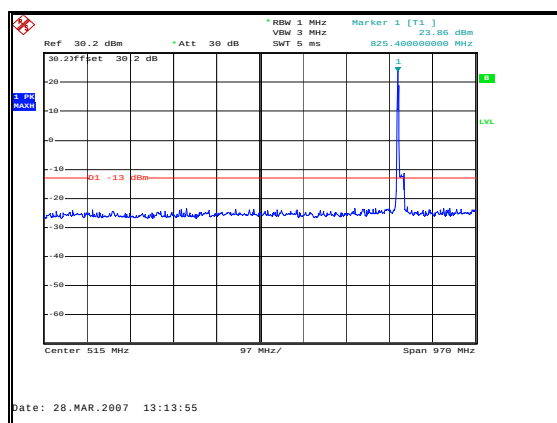


Figure 36: Spurious Emissions - Uplink CW Low Channel – Inter-modulation - 30 MHz to 1 GHz

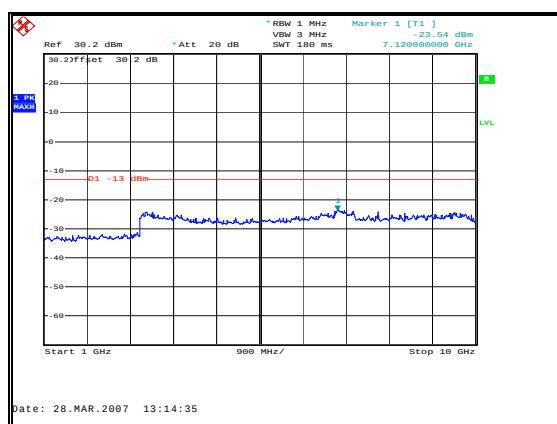


Figure 37: Spurious Emissions - Uplink CW Low Channel – Inter-modulation - 1 to 10 GHz

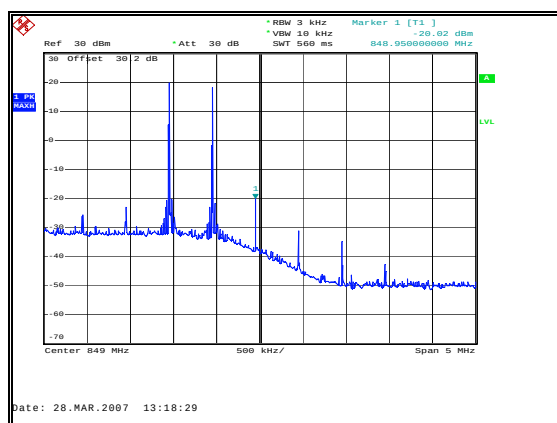


Figure 38: Spurious Emissions - Uplink CW High Channel – Inter-modulation In Band

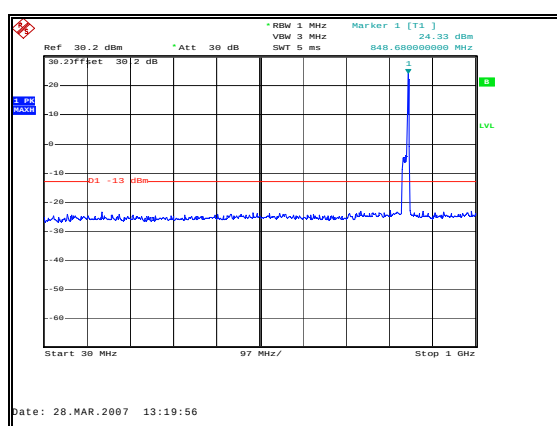


Figure 39: Spurious Emissions - Uplink CW High Channel – Inter-modulation - 30 MHz to 1 GHz

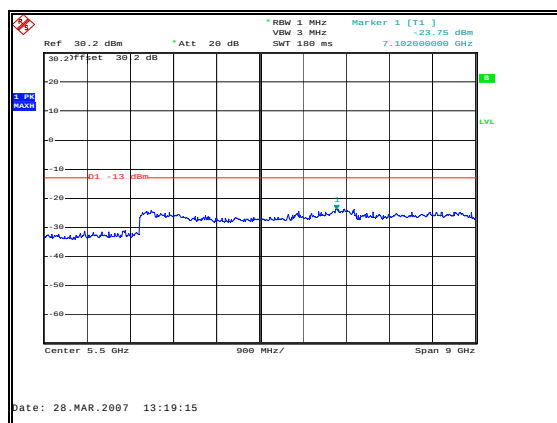


Figure 40: Spurious Emissions - Uplink CW High Channel – Inter-modulation - 1 to 10 GHz

2.4 GSM Uplink

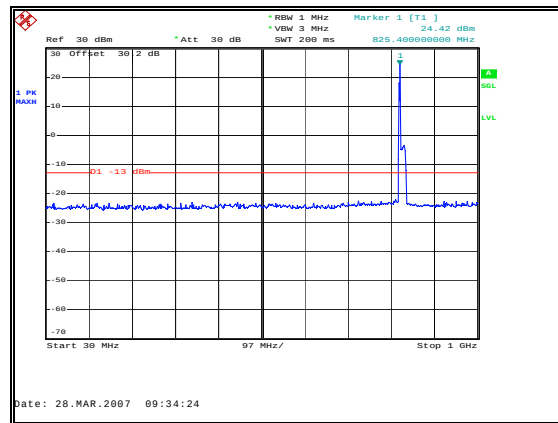


Figure 41: Spurious Emissions - Uplink GSM Low Channel – 30 MHz to 1 GHz

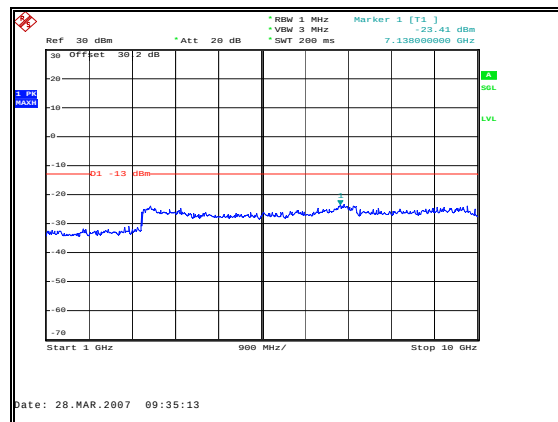


Figure 42: Spurious Emissions - Uplink GSM Low Channel – 1 to 10 GHz

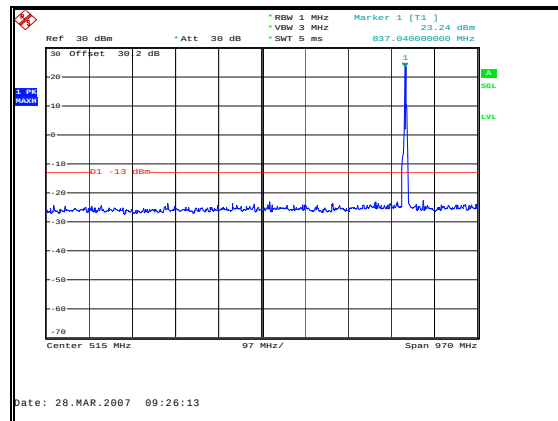


Figure 43: Spurious Emissions - Uplink GSM Mid Channel – 30 MHz to 1 GHz

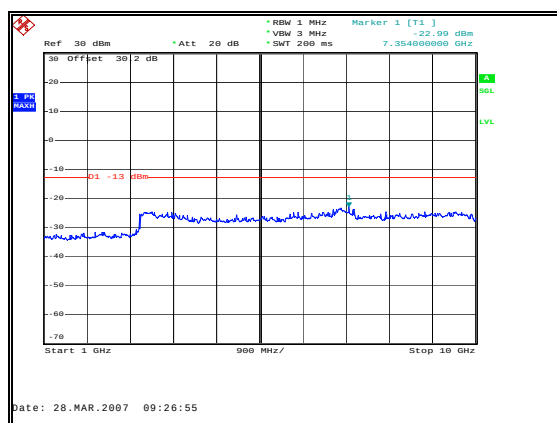


Figure 44: Spurious Emissions - Uplink GSM Mid Channel – 1 to 10 GHz

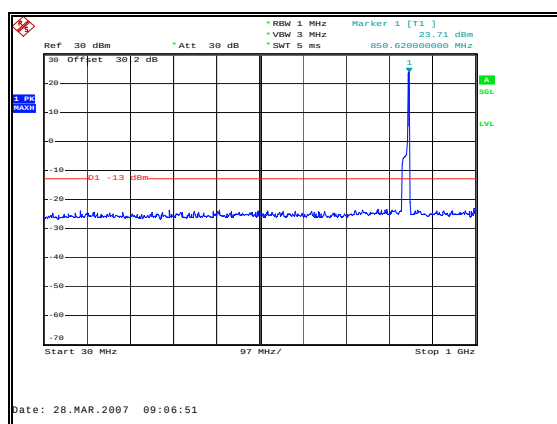


Figure 45: Spurious Emissions - Uplink GSM High Channel – 30 MHz to 1 GHz

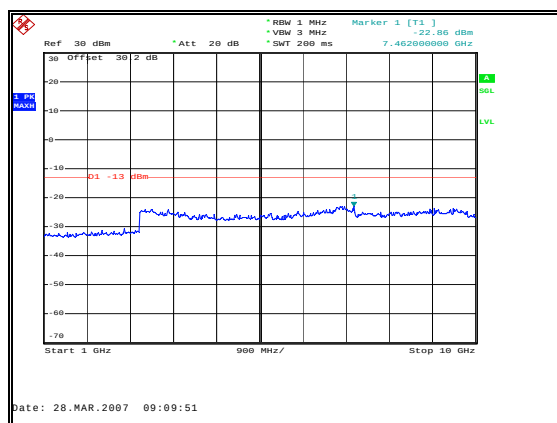


Figure 46: Spurious Emissions - Uplink GSM High Channel – 1 to 10 GHz

2.5 CDMA Downlink

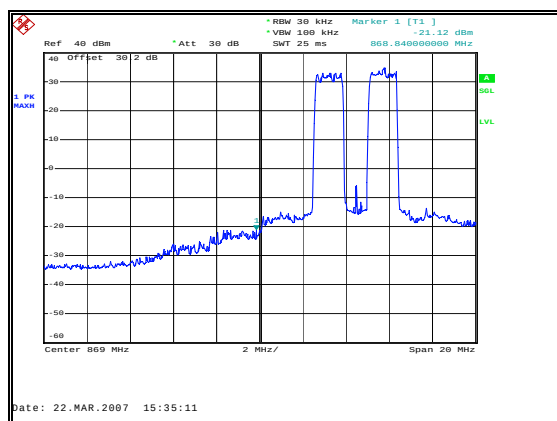


Figure 47: Spurious Emissions - Downlink CDMA Low Channel – Inter-modulation In Band

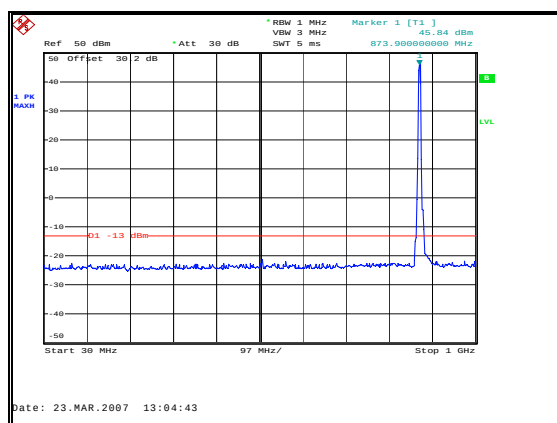


Figure 48: Spurious Emissions - Downlink CDMA Low Channel – Inter-modulation-30MHz to 1GHz

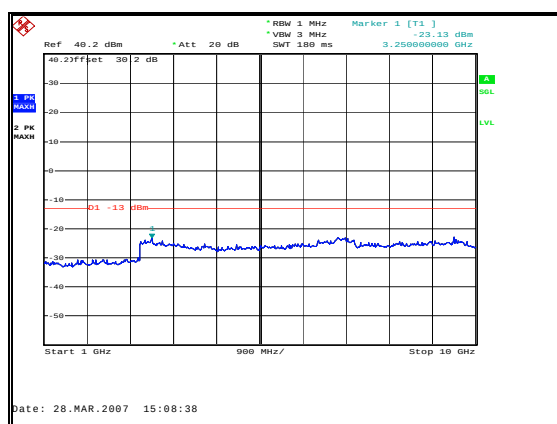


Figure 49: Spurious Emissions - Downlink CDMA Low Channel – Inter-modulation - 1 to 10 GHz

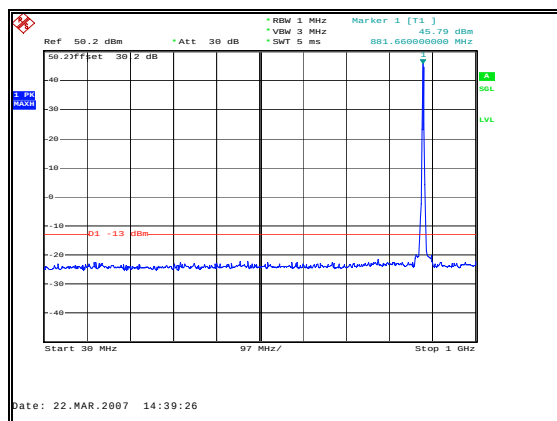


Figure 50: Spurious Emissions - Downlink CDMA Mid Channel – 30 MHz to 1 GHz

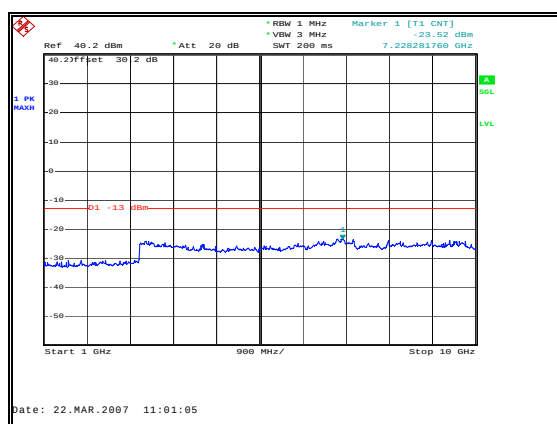


Figure 51: Spurious Emissions - Downlink CDMA Mid Channel – 1 to 10 GHz

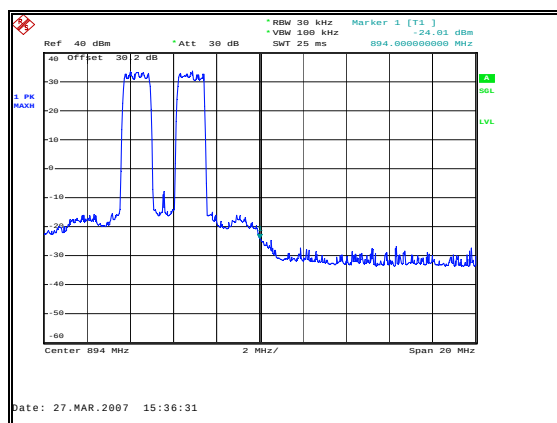


Figure 52: Spurious Emissions - Downlink CDMA High Channel – Inter-modulation In Band

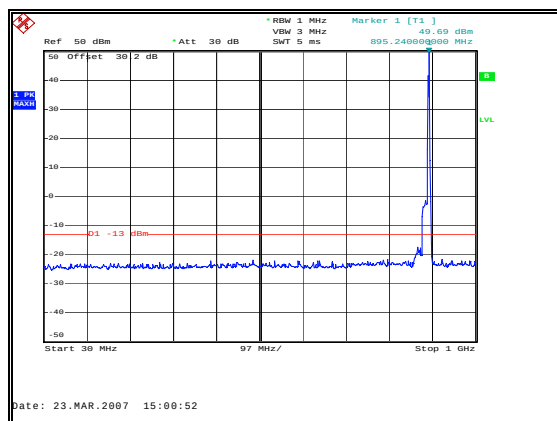


Figure 53: Spurious Emissions - Downlink CDMA High Channel –Inter-modulation-30MHz to 1GHz

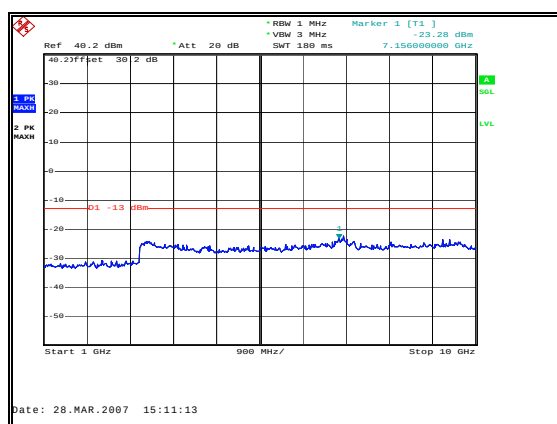


Figure 54: Spurious Emissions - Downlink CDMA High Channel – Inter-modulation - 1 to 10 GHz

2.6 TDMA Downlink

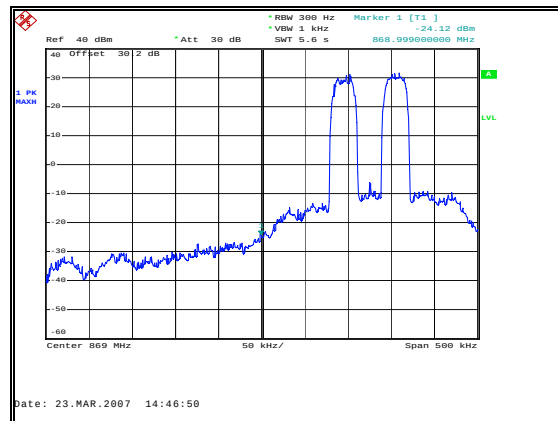


Figure 55: Spurious Emissions - Downlink TDMA Low Channel – Inter-modulation In Band

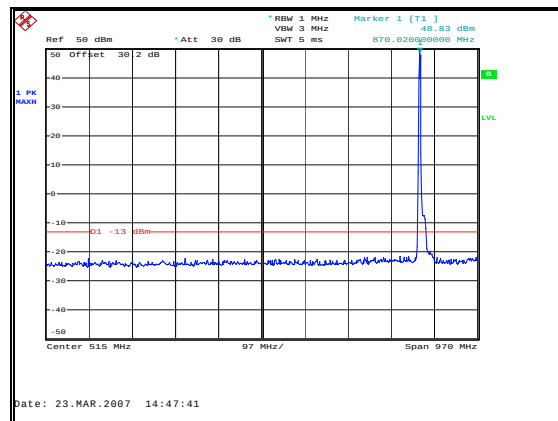


Figure 56: Spurious Emissions - Downlink TDMA Low Channel – Inter-modulation-30MHz to 1GHz

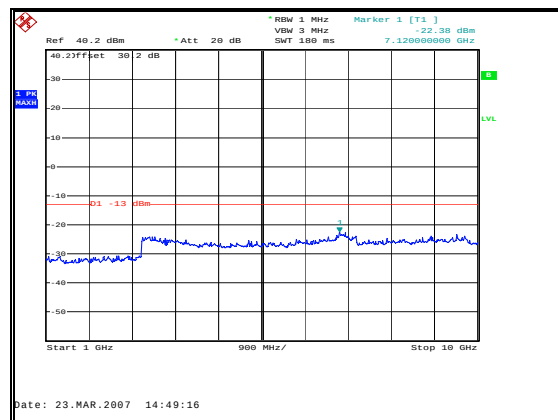


Figure 57: Spurious Emissions - Downlink TDMA Low Channel – Inter-modulation - 1 to 10 GHz

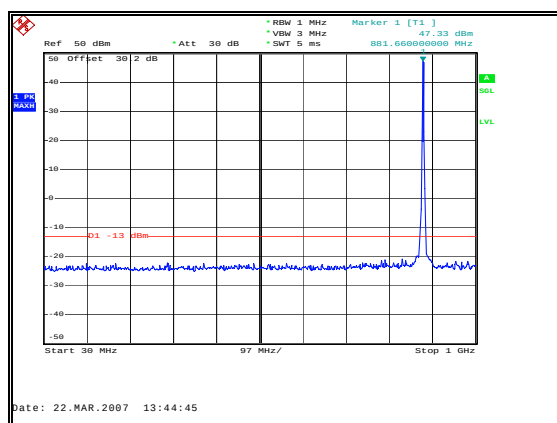


Figure 58: Spurious Emissions - Downlink TDMA Mid Channel – 30 MHz to 1 GHz

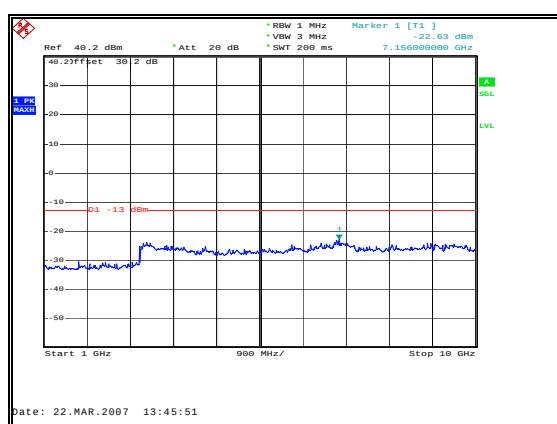


Figure 59: Spurious Emissions - Downlink TDMA Mid Channel – 1 to 10 GHz

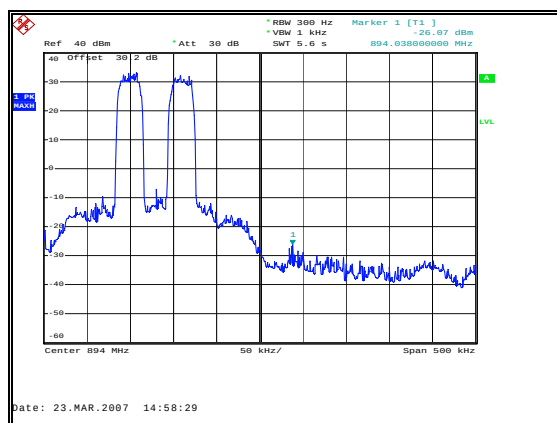


Figure 60: Spurious Emissions - Downlink TDMA High Channel – Inter-modulation In Band

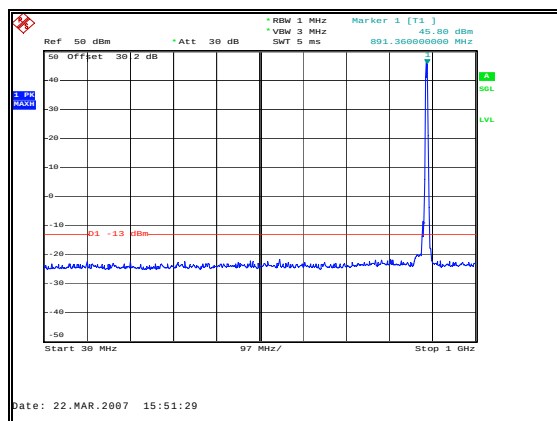


Figure 61: Spurious Emissions - Downlink TDMA High Channel –Inter-modulation-30MHz to 1GHz

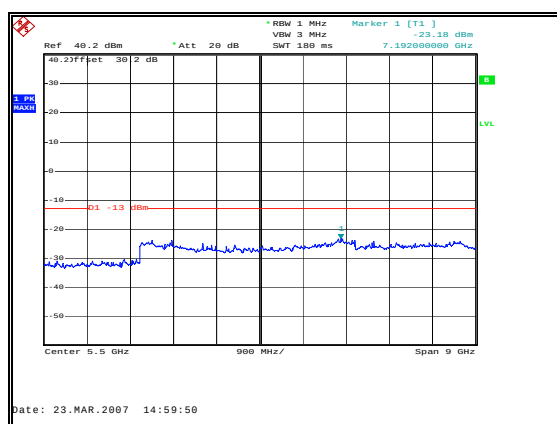


Figure 62: Spurious Emissions - Downlink TDMA High Channel – Inter-modulation - 1 to 10 GHz

2.7 CW Downlink – Covers FM (GSM and F1D)

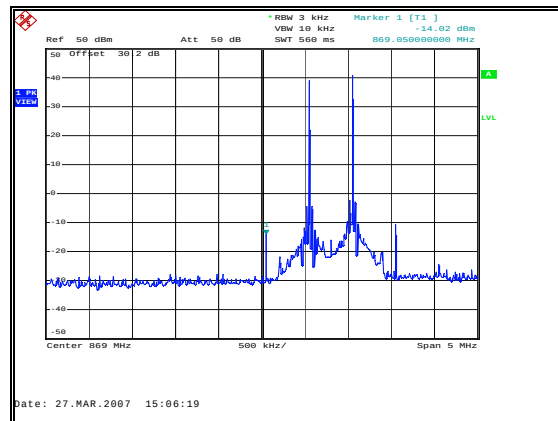


Figure 63: Spurious Emissions - Downlink CW Low Channel – Inter-modulation In Band

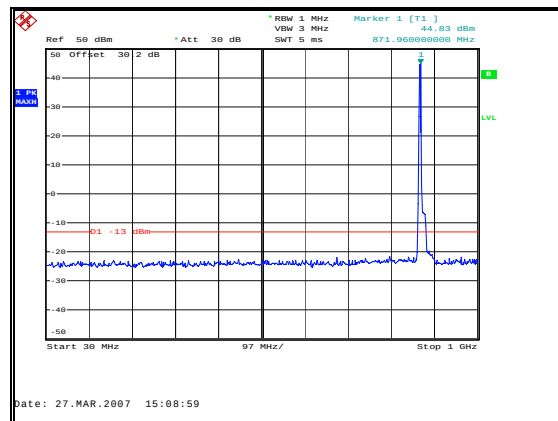


Figure 64: Spurious Emissions - Downlink CW Low Channel – Inter-modulation - 30 MHz to 1 GHz

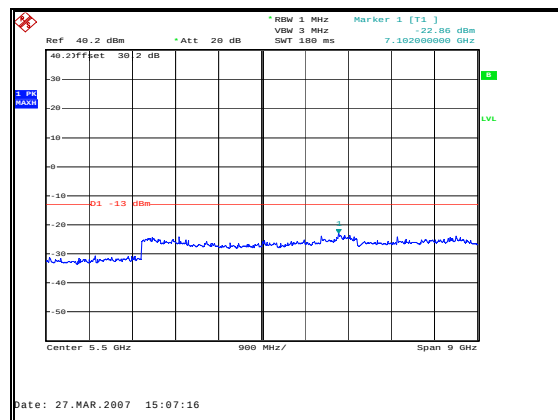


Figure 65: Spurious Emissions - Downlink CW Low Channel – Inter-modulation - 1 to 10 GHz

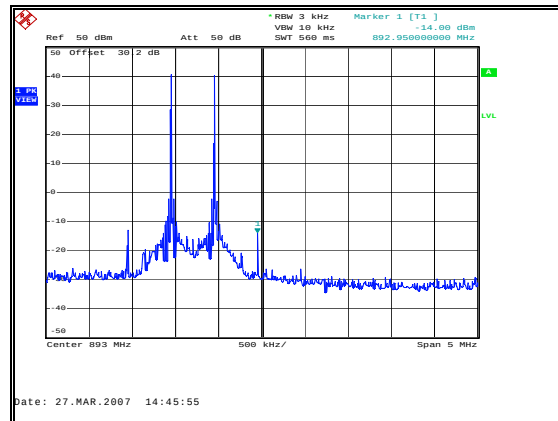


Figure 66: Spurious Emissions - Downlink CW High Channel – Inter-modulation In Band

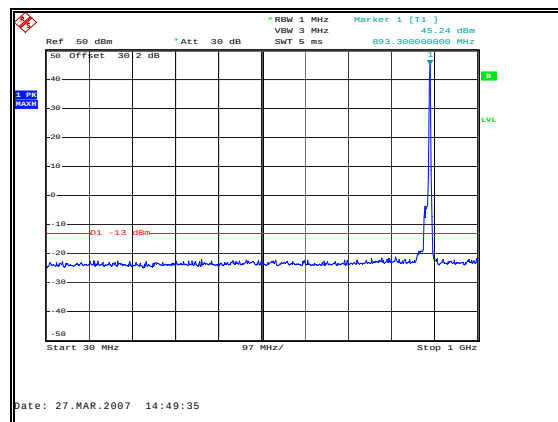


Figure 67: Spurious Emissions - Downlink CW High Channel – Inter-modulation - 30 MHz to 1 GHz

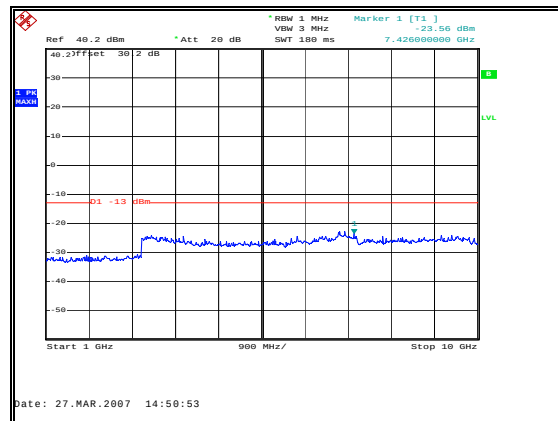


Figure 68: Spurious Emissions - Downlink CW High Channel – Inter-modulation - 1 to 10 GHz

2.8 GSM Downlink

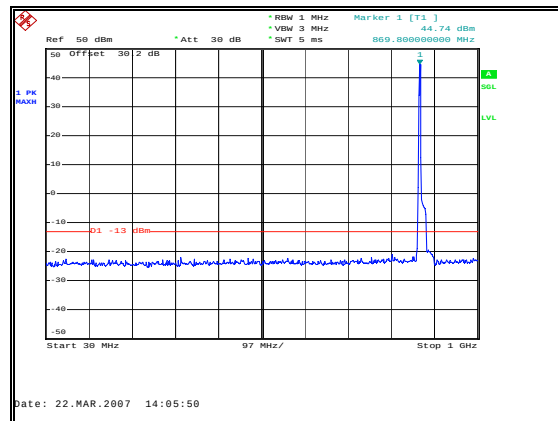


Figure 69: Spurious Emissions - Downlink GSM Low Channel – 30 MHz to 1 GHz

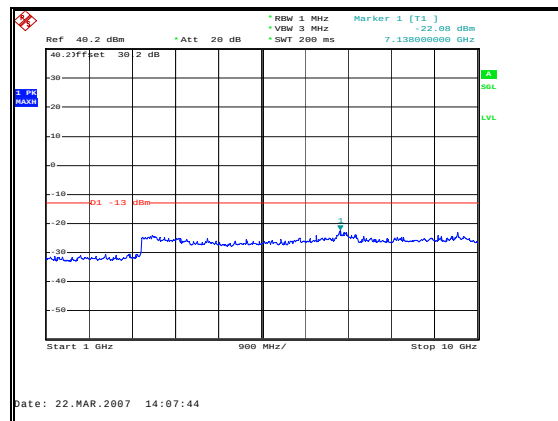


Figure 70: Spurious Emissions - Downlink GSM Low Channel – 1 to 10 GHz

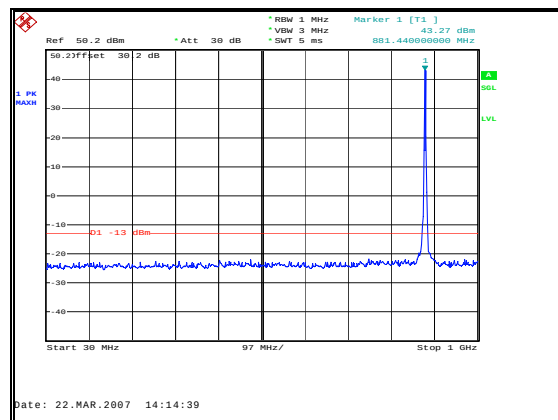


Figure 71: Spurious Emissions - Downlink GSM Mid Channel – 30 MHz to 1 GHz

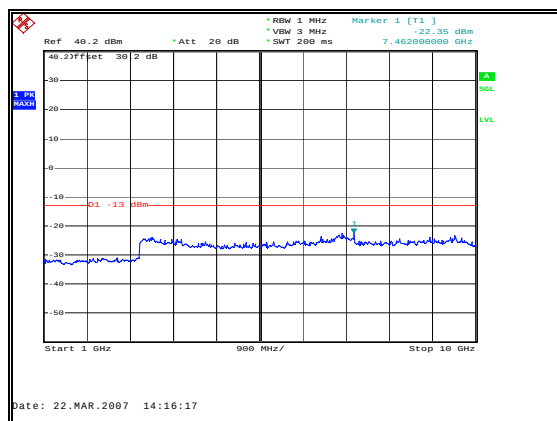


Figure 72: Spurious Emissions - Downlink GSM Mid Channel – 1 to 10 GHz

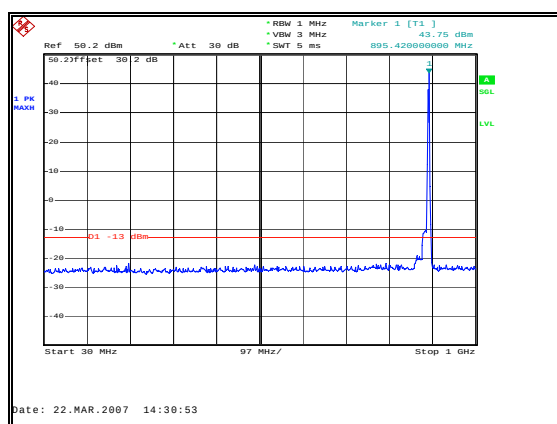


Figure 73: Spurious Emissions - Downlink GSM High Channel – 30 MHz to 1 GHz

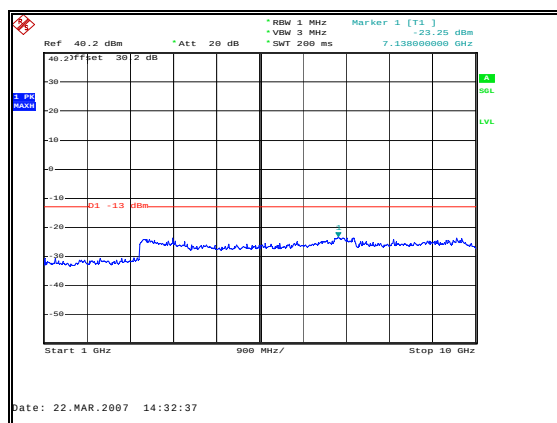


Figure 74: Spurious Emissions - Downlink GSM High Channel – 1 to 10 GHz

Band-edge

3.1 CDMA Uplink

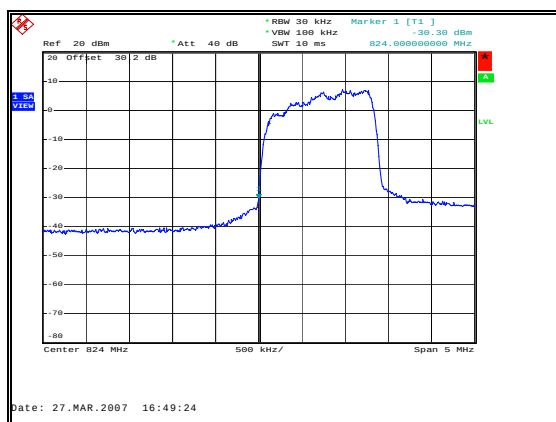


Figure 75: Band-Edge Uplink CDMA Low Channel

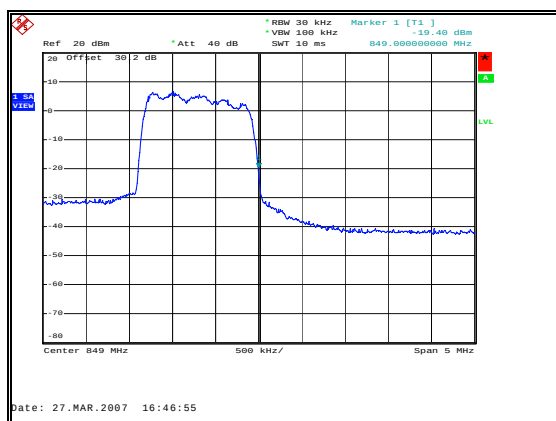


Figure 76: Band-Edge Uplink CDMA High Channel

Ref 20 dBm * Att 50 dB RBW 300 Hz Marker 1 [T1] -49.92 dBm
 Center 824 MHz 15 kHz/ Span 150 kHz

Date: 28.MAR.2007 08:36:46

Ref 20 dBm Att 50 dB SWT 1.75 Marker 1 [T1] 849.001500000 MHz

20 OFFset 30 2 dB

SA VIEW

LVL

Center 849 MHz 15 kHz/ Span 150 kHz

Date: 28.MAR.2007 08:59:42

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3.3 GSM Uplink

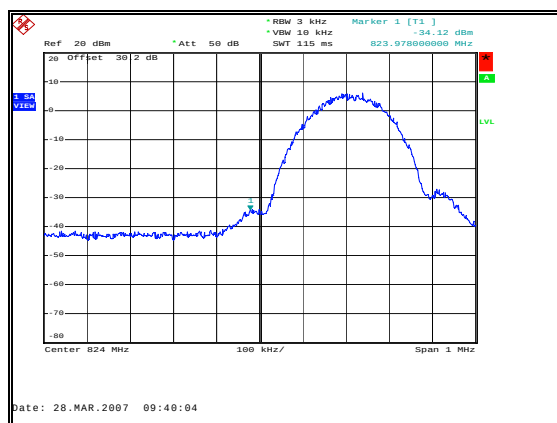


Figure 79: Band-Edge Uplink GSM Low Channel

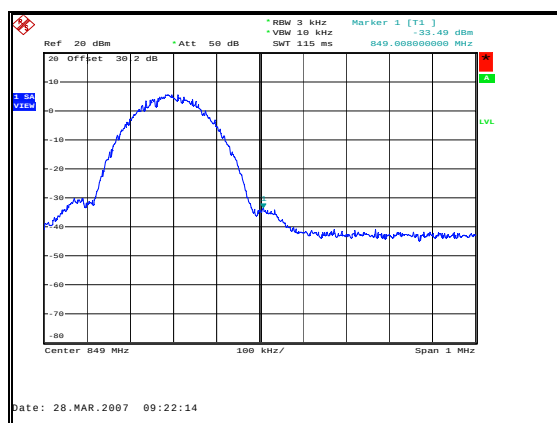


Figure 80: Band-Edge Uplink GSM High Channel

3.4 CDMA Downlink

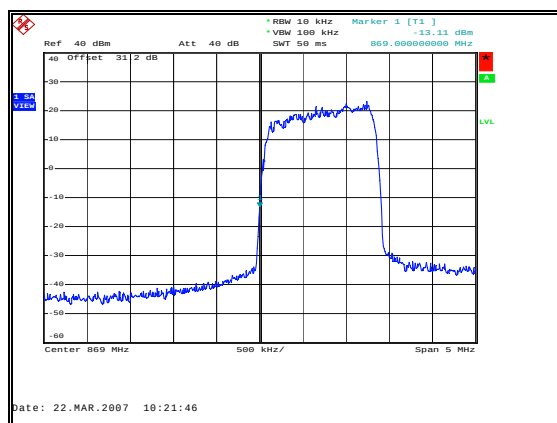


Figure 81: Band-Edge Downlink CDMA Low Channel

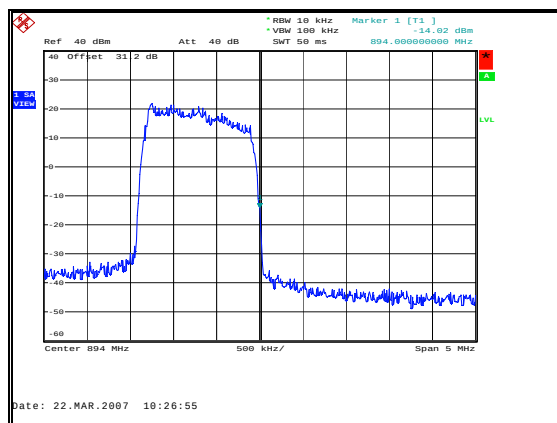


Figure 82: Band-Edge Downlink CDMA High Channel

3.5 TDMA Downlink

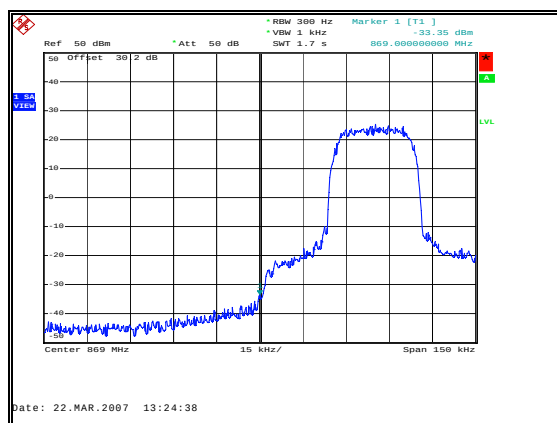


Figure 83: Band-Edge Downlink TDMA Low Channel

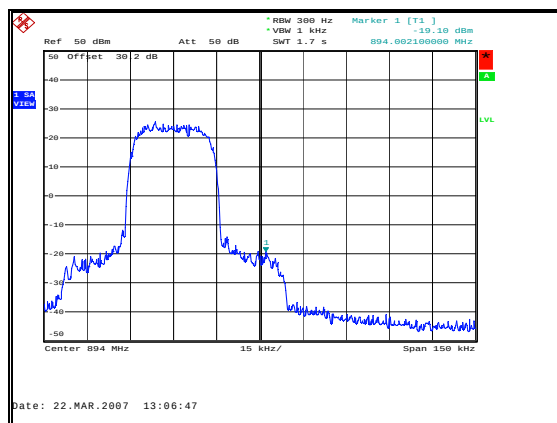


Figure 84: Band-Edge Downlink TDMA High Channel

3.6 GSM Downlink

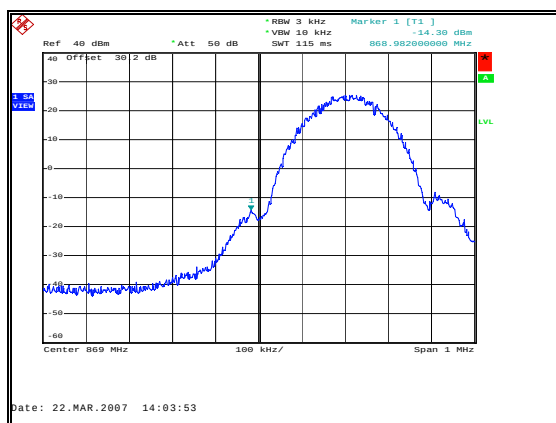


Figure 85: Band-Edge Downlink GSM Low Channel

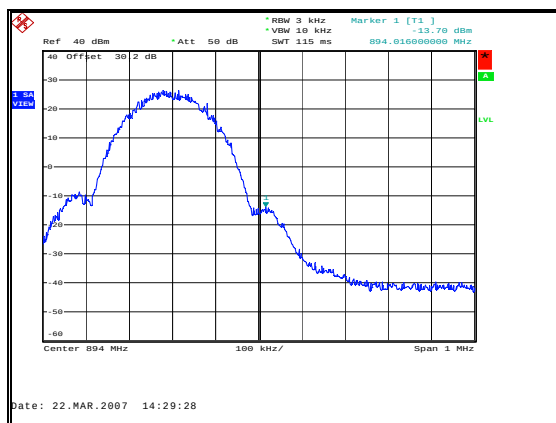


Figure 86: Band-Edge Downlink GSM High Channel

END REPORT