

FCC Part 22 Transmitter Certification

Test Report

FCC ID: DNY0A5EPCELL20REM

FCC Rule Part: CFR 47 Part 22 Subpart H

ACS Report Number: 06-0471-22H-A

Manufacturer: EMS Wireless
Equipment Type: Cellular Fiber Optic DAS
Tradename: EkoLink Plus[®] II
Model: EPCELL20REM

Test Begin Date: December 4, 2006

Test End Date: December 19, 2006

Report Issue Date: January 9, 2007



FOR THE SCOPE OF ACCREDITATION UNDER LAB Code 200612

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

Reviewed by: 
R. Sam Wismer
Engineering Manager
ACS, Inc.

This test report shall not be reproduced except in full. This report may be reproduced in part with prior written consent of ACS, Inc. The results contained in this report are representative of the sample(s) submitted for evaluation.

This report contains **18** pages

Table of Contents

1.0 Occupied Bandwidth	
1.1 Downlink	3
2.0 Spurious Emissions at Antenna Terminals and Inter-modulation Products	
2.1 CDMA Downlink	6
2.2 TDMA Downlink	9
2.3 CW Downlink	12
2.4 GSM Downlink	14
3.0 Band-edge	
3.1 CDMA Downlink	16
3.2 TDMA Downlink	17
3.3 GSM Downlink	18

1.0 Occupied Bandwidth (Input vs. Output)

1.1 Downlink

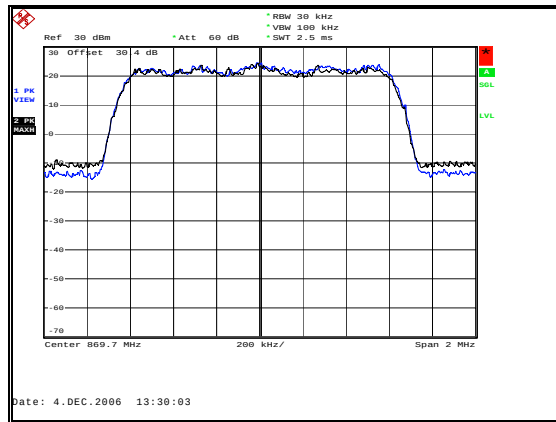


Figure 1: Occupied Bandwidth - Downlink CDMA Low Channel

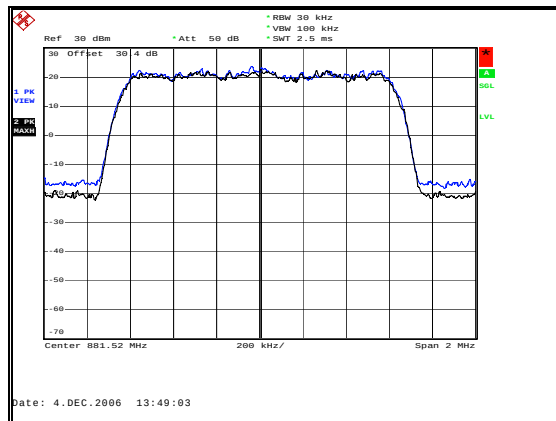


Figure 2: Occupied Bandwidth - Downlink CDMA Mid Channel

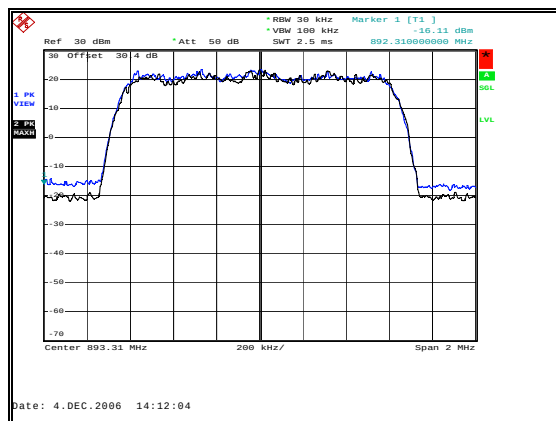


Figure 3: Occupied Bandwidth - Downlink CDMA High Channel

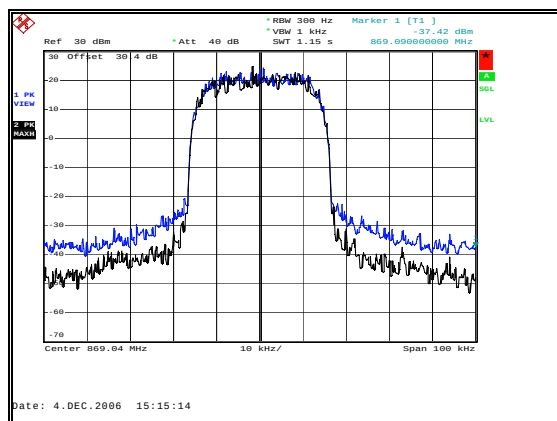


Figure 4: Occupied Bandwidth - Downlink TDMA Low Channel

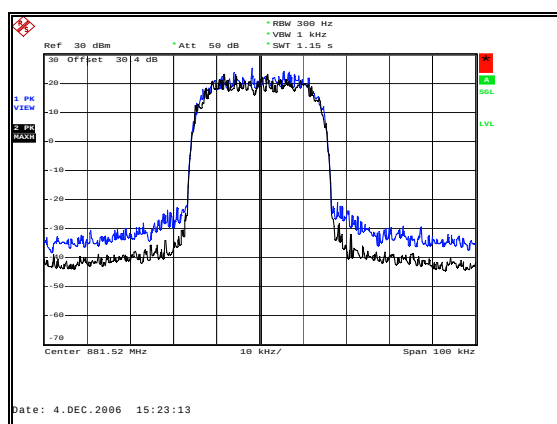


Figure 5: Occupied Bandwidth - Downlink TDMA Mid Channel

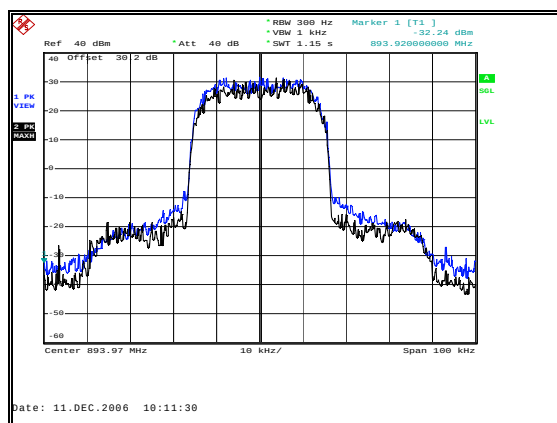


Figure 6: Occupied Bandwidth - Downlink TDMA High Channel

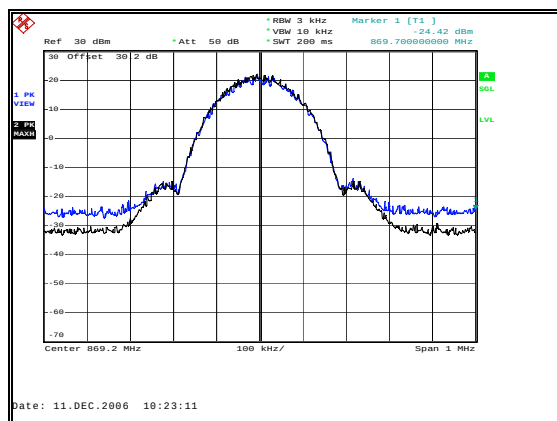


Figure 7: Occupied Bandwidth - Downlink GSM Low Channel

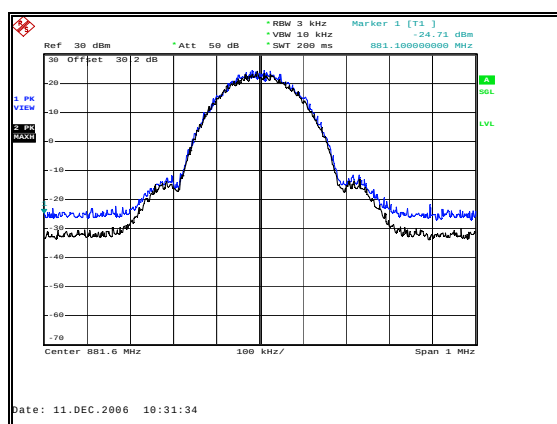


Figure 8: Occupied Bandwidth - Downlink GSM Mid Channel

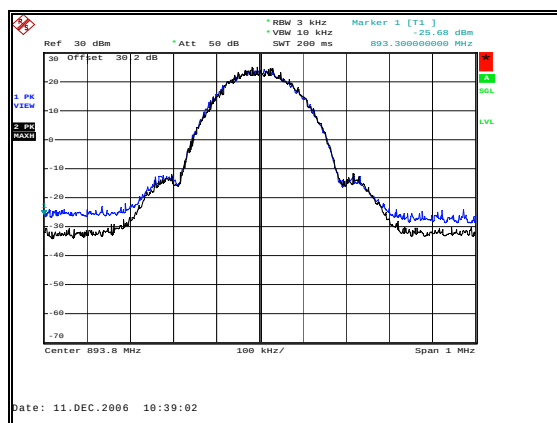


Figure 9: Occupied Bandwidth - Downlink GSM High Channel

2.0 Spurious Emissions at Antenna Terminals and Inter-modulation Products

2.1 CDMA Downlink

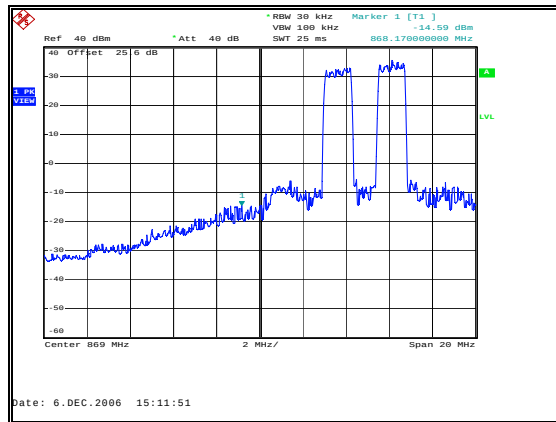


Figure 10: Spurious Emissions - Downlink CDMA Low Channel – Inter-modulation In Band

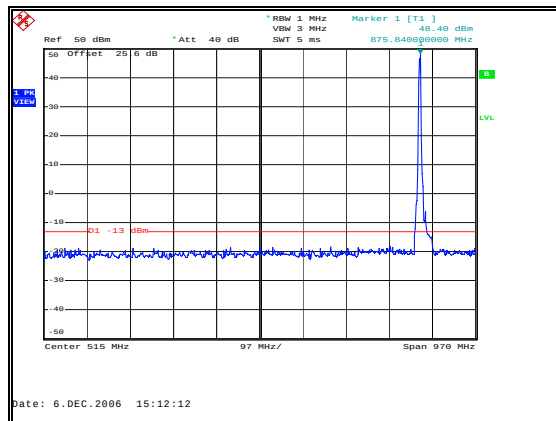


Figure 11: Spurious Emissions - Downlink CDMA Low Channel – Inter-modulation-30MHz to 1GHz

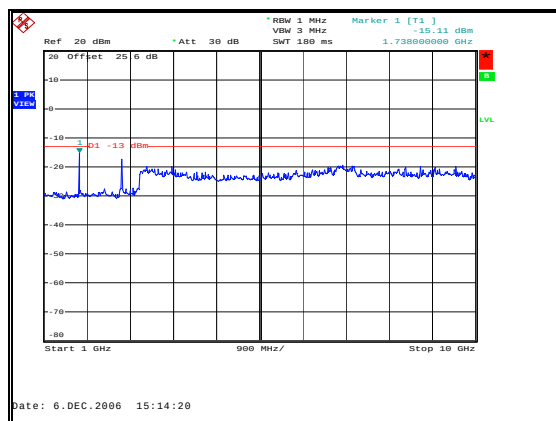


Figure 12: Spurious Emissions - Downlink CDMA Low Channel – Inter-modulation - 1 to 10 GHz

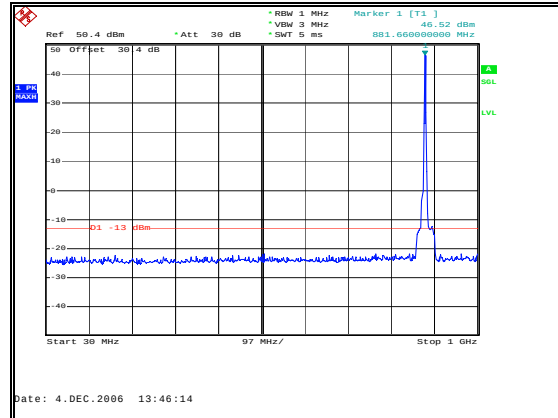


Figure 13: Spurious Emissions - Downlink CDMA Mid Channel – 30 MHz to 1 GHz

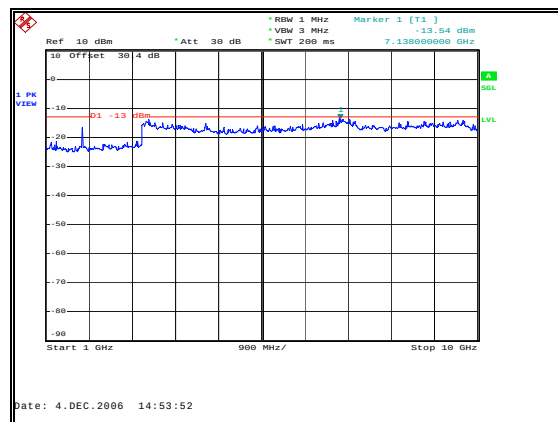


Figure 14: Spurious Emissions - Downlink CDMA Mid Channel – 1 to 10 GHz

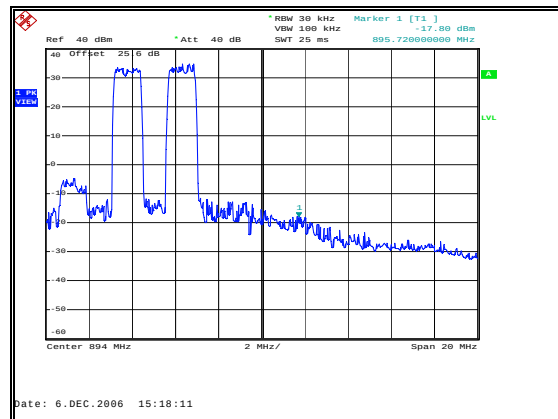


Figure 15: Spurious Emissions - Downlink CDMA High Channel – Inter-modulation In Band

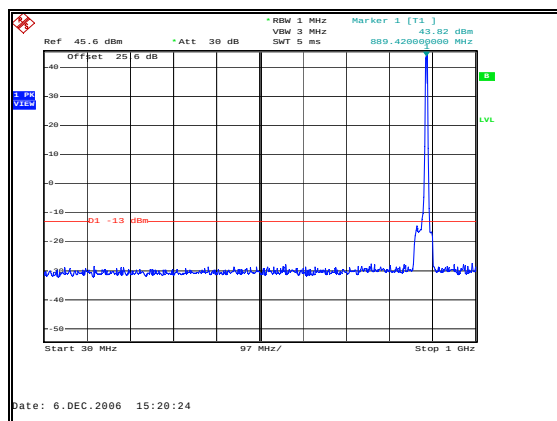


Figure 16: Spurious Emissions - Downlink CDMA High Channel –Inter-modulation-30MHz to 1GHz

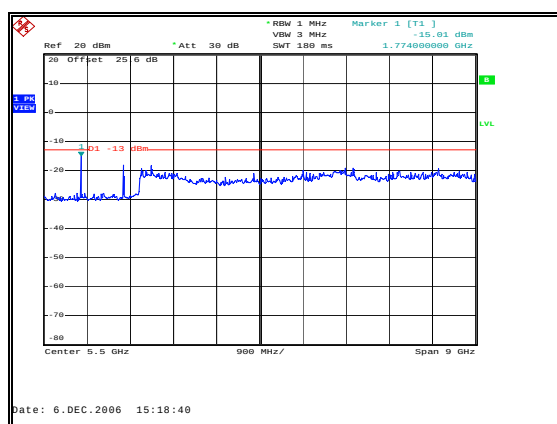


Figure 17: Spurious Emissions - Downlink CDMA High Channel – Inter-modulation - 1 to 10 GHz

2.2 TDMA Downlink

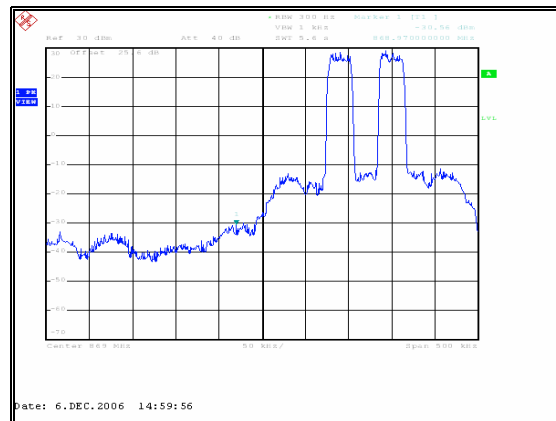


Figure 18: Spurious Emissions - Downlink TDMA Low Channel – Inter-modulation In Band

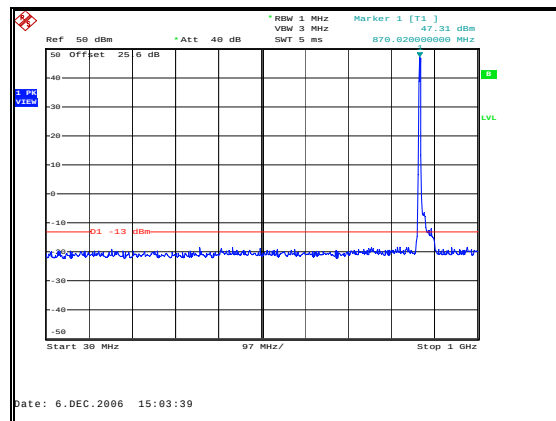


Figure 19: Spurious Emissions - Downlink TDMA Low Channel – Inter-modulation-30MHz to 1GHz

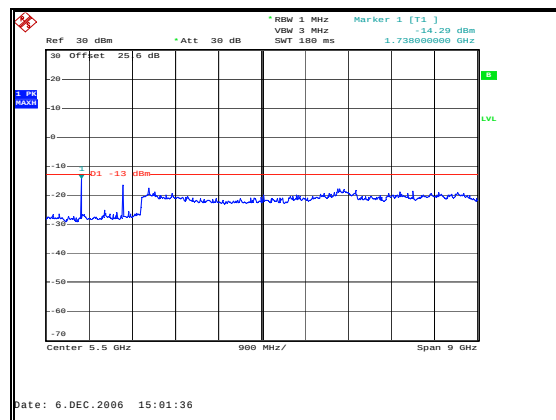


Figure 20: Spurious Emissions - Downlink TDMA Low Channel – Inter-modulation - 1 to 10 GHz

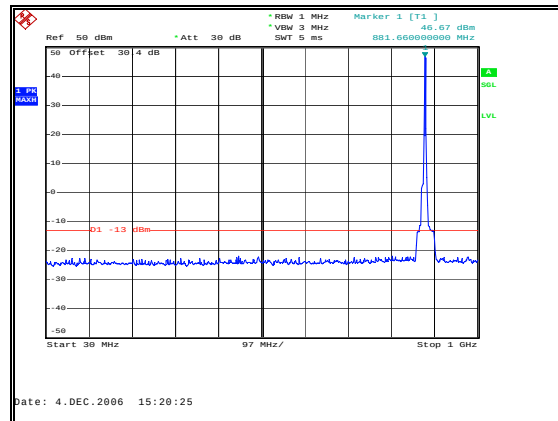


Figure 21: Spurious Emissions - Downlink TDMA Mid Channel – 30 MHz to 1 GHz

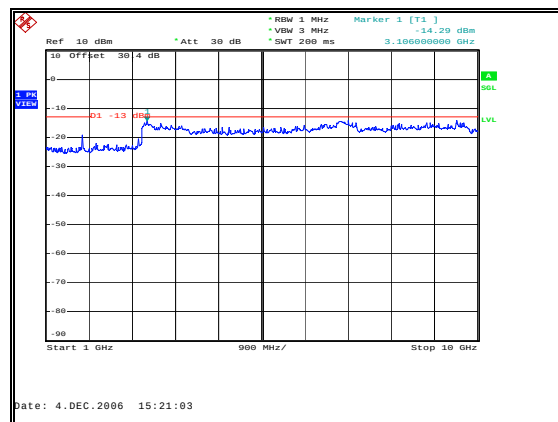


Figure 22: Spurious Emissions - Downlink TDMA Mid Channel – 1 to 10 GHz

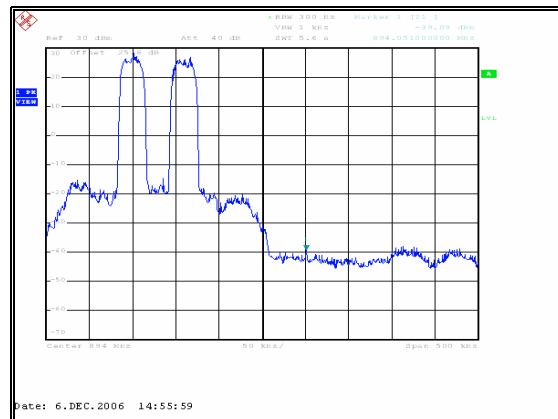


Figure 23: Spurious Emissions - Downlink TDMA High Channel – Inter-modulation In Band

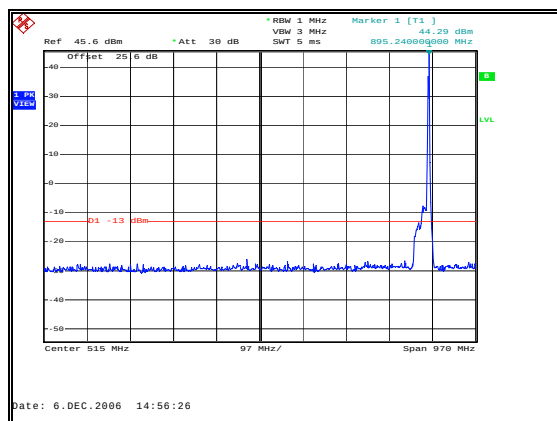


Figure 24: Spurious Emissions - Downlink TDMA High Channel –Inter-modulation-30MHz to 1GHz

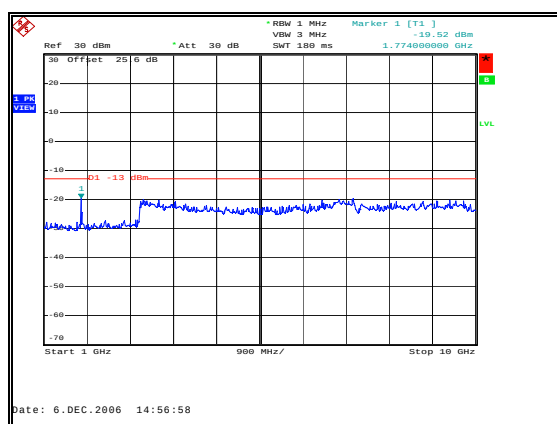


Figure 25: Spurious Emissions - Downlink TDMA High Channel – Inter-modulation - 1 to 10 GHz

2.3 CW Downlink – Covers FM (GSM and F1D)

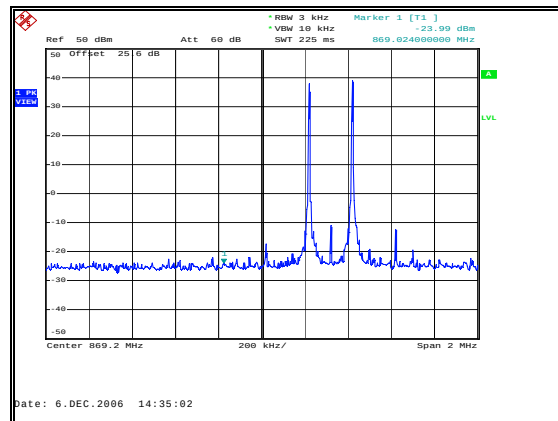


Figure 26: Spurious Emissions - Downlink CW Low Channel – Inter-modulation In Band

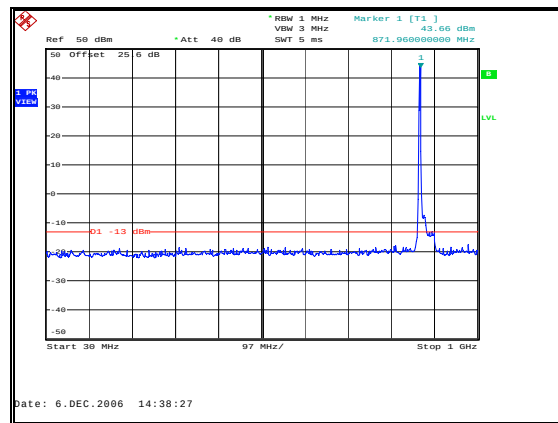


Figure 27: Spurious Emissions - Downlink CW Low Channel – Inter-modulation - 30 MHz to 1 GHz

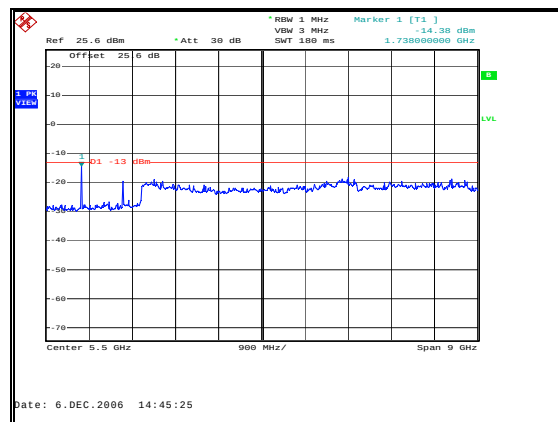


Figure 28: Spurious Emissions - Downlink CW Low Channel – Inter-modulation - 1 to 10 GHz

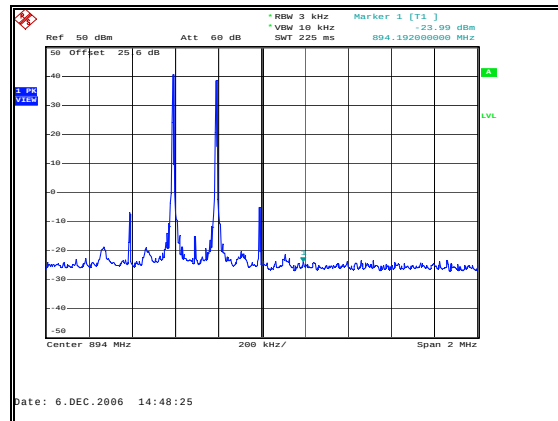


Figure 29: Spurious Emissions - Downlink CW High Channel – Inter-modulation In Band

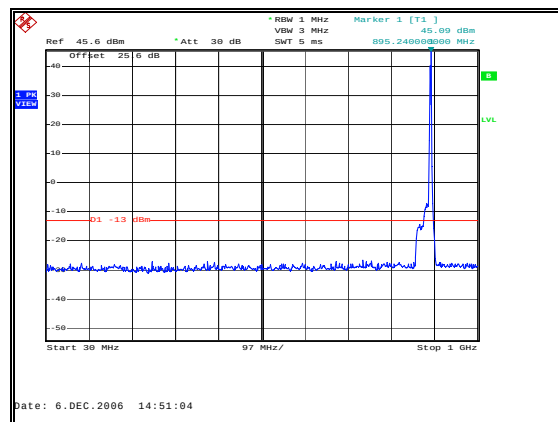


Figure 30: Spurious Emissions - Downlink CW High Channel – Inter-modulation - 30 MHz to 1 GHz

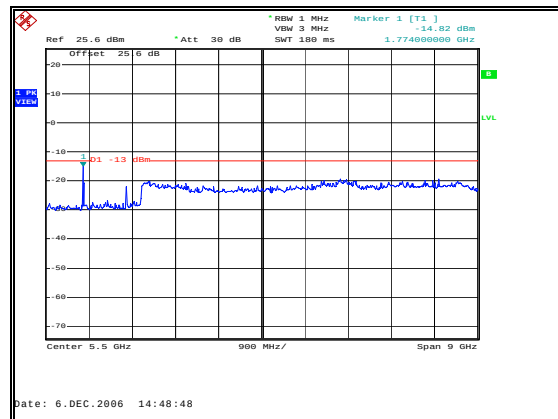


Figure 31: Spurious Emissions - Downlink CW High Channel – Inter-modulation - 1 to 10 GHz

2.4 GSM Downlink

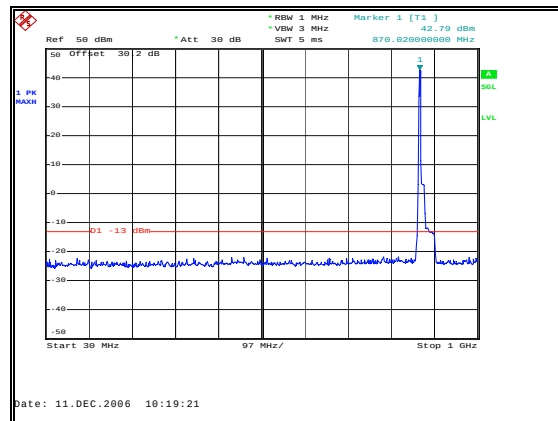


Figure 32: Spurious Emissions - Downlink GSM Low Channel – 30 MHz to 1 GHz

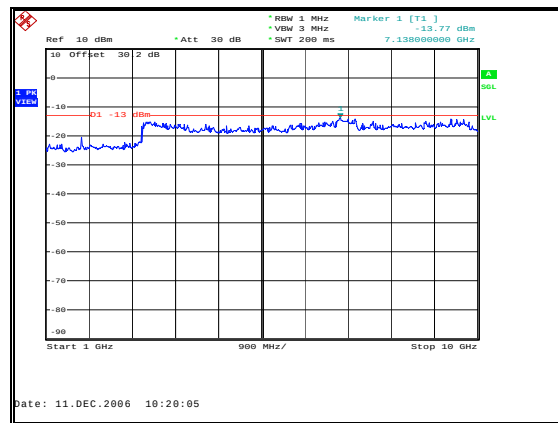


Figure 33: Spurious Emissions - Downlink GSM Low Channel – 1 to 10 GHz

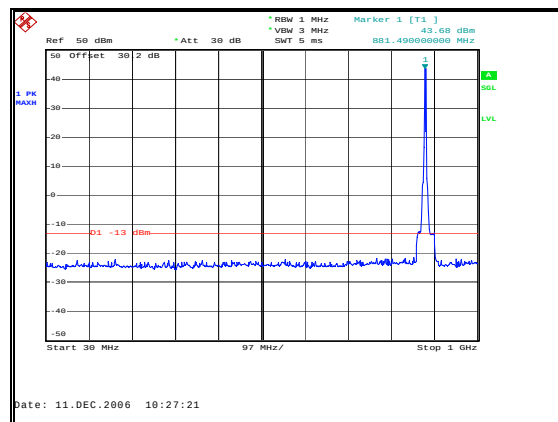


Figure 34: Spurious Emissions - Downlink GSM Mid Channel – 30 MHz to 1 GHz

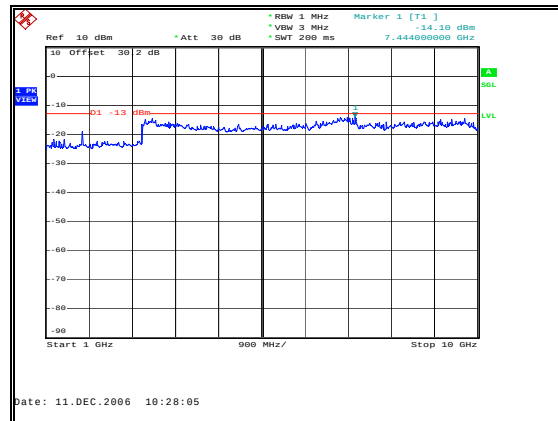


Figure 35: Spurious Emissions - Downlink GSM Mid Channel – 1 to 10 GHz

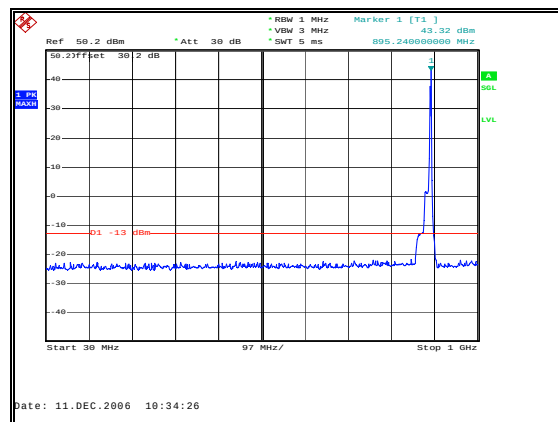


Figure 36: Spurious Emissions - Downlink GSM High Channel – 30 MHz to 1 GHz

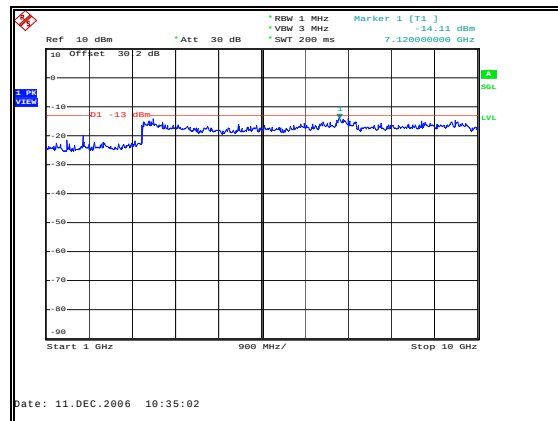


Figure 37: Spurious Emissions - Downlink GSM High Channel – 1 to 10 GHz

3.0 Band-edge

3.1 CDMA Downlink

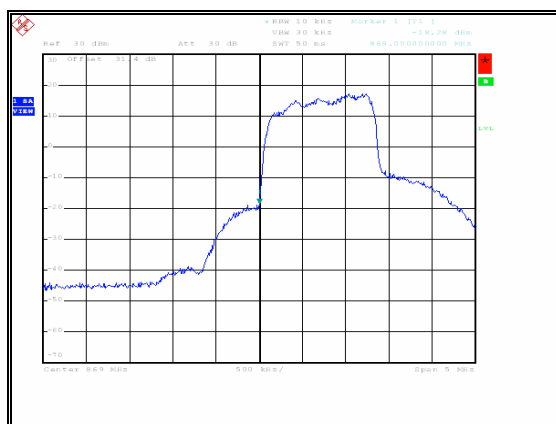


Figure 38: Band-Edge Downlink CDMA Low Channel

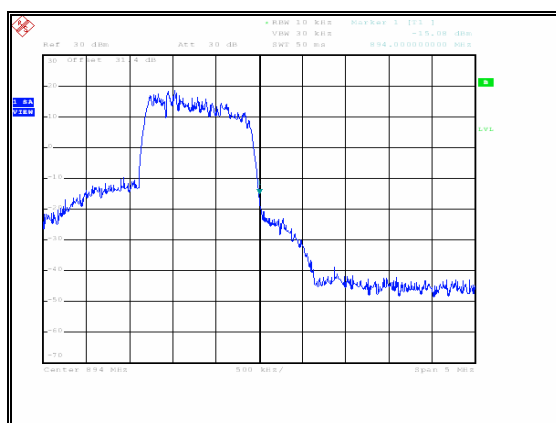


Figure 39: Band-Edge Downlink CDMA High Channel

3.2 TDMA Downlink

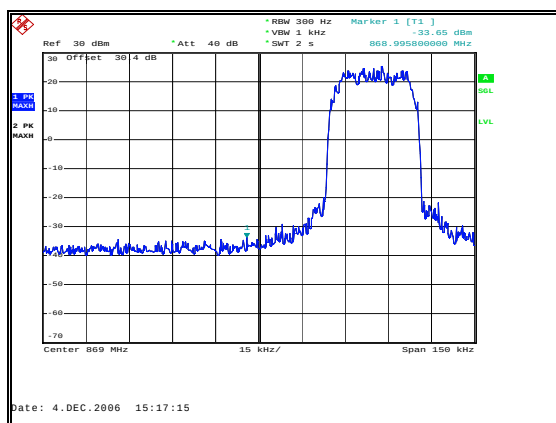


Figure 40: Band-Edge Downlink TDMA Low Channel

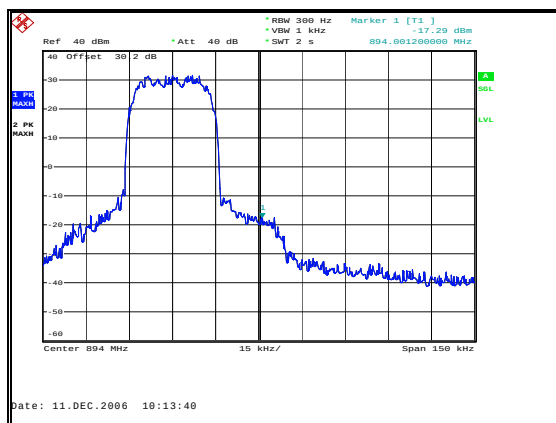


Figure 41: Band-Edge Downlink TDMA High Channel

[illegible][illegible]

END REPORT