



Appendix A

Modulation Characteristic Measurement

According to CFR 47 (FCC) part 2.1047



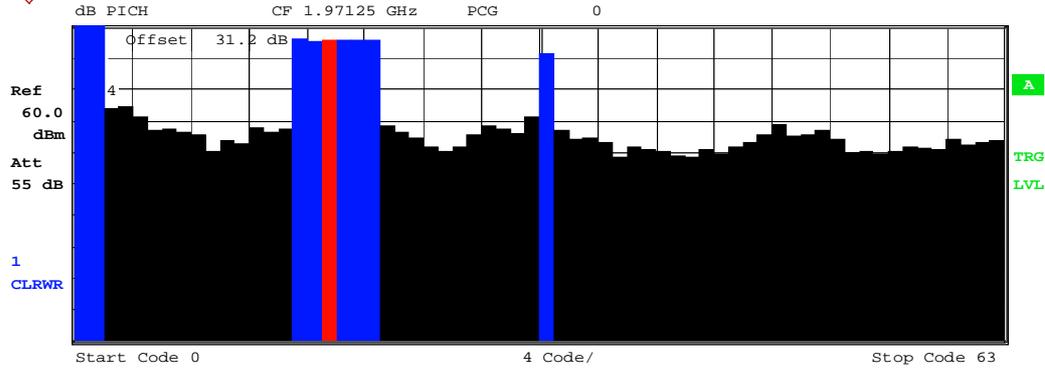
CDMA2000 1X:

RC1 Channel 825



BS,1X,C1 :CODE POWER

SR 19.2 kbps
Chan 17.64
PCG 0



RESULT SUMMARY TABLE

SR 19.2 kbps
Chan 17.64
Offset 31.2 dB CF 1.97125 GHz PCG 0

EXT

RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:	
Total PWR	28.80 dBm	Carr Freq Error	-6.44 Hz
Pilot PWR	21.68 dBm	Carr Freq Error	-0.00 ppm
RHO	0.95615	Chip Rate Error	-0.54 ppm
Composite EVM	21.41 %	Trg to Frame	-364.326212 ns
Pk CDE (SF 64)	-25.25 dB	Active Channels	9
IQ Imbal/Offset	0.37/0.74 %		
CHANNEL RESULTS:		Modulation	
Symbol Rate	19.2 kbps	Modulation	BPSK
Channel.SF	17.64	Timing Offset	-.-- ns
Channel Power Rel	-3.45 dB	Phase Offset	-.-- mrad
Symbol EVM	10.54 % rms	Channel Power Abs	18.23 dBm
		Symbol EVM	19.64 % Pk

AB

Date: 22.JUL.2008 18:35:55



Channel 1000



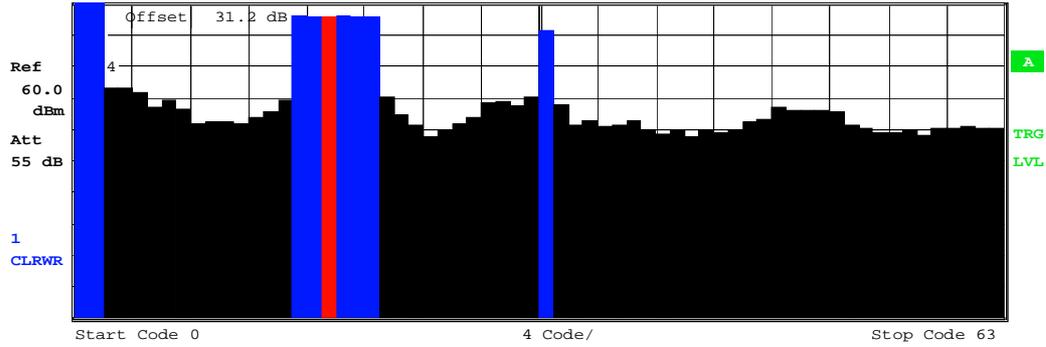
BS,IX,C1 :CODE POWER

SR 19.2 ksps

Chan 17.64

PCG 0

dB PICH CF 1.98 GHz



RESULT SUMMARY TABLE

SR 19.2 ksps

Chan 17.64

PCG 0

Offset 31.2 dB CF 1.98 GHz

RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:	
Total PWR	29.05 dBm	Carr Freq Error	1.91 Hz
Pilot PWR	21.92 dBm	Carr Freq Error	0.00 ppm
RHO	0.95899	Chip Rate Error	-0.68 ppm
Composite EVM	20.68 %	Trg to Frame	-373.537318 ns
Pk CDE (SF 64)	-26.27 dB	Active Channels	9
IQ Imbal/Offset	0.60/0.49 %		
CHANNEL RESULTS:		Modulation	
Symbol Rate	19.2 ksps		BPSK
Channel.SF	17.64	Timing Offset	-.-- ns
Channel Power Rel	-3.42 dB	Phase Offset	-.-- mrad
Channel Power Abs	18.50 dBm	Channel Power Abs	18.50 dBm
Symbol EVM	11.82 % rms	Symbol EVM	17.57 % Pk

AB

Date: 22.JUL.2008 18:34:20

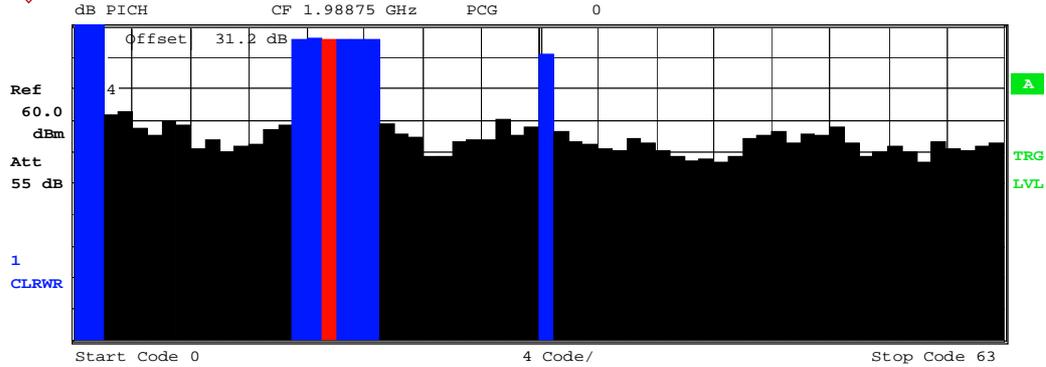


Channel 1175



BS,1X,C1 :CODE POWER

SR 19.2 kbps
 Chan 17.64
 PCG 0



RESULT SUMMARY TABLE

SR 19.2 kbps
 Chan 17.64
 PCG 0

RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:	
Total PWR	29.20 dBm	Carr Freq Error	-890.20 mHz
Pilot PWR	22.16 dBm	Carr Freq Error	-0.00 ppm
RHO	0.95990	Chip Rate Error	0.53 ppm
Composite EVM	20.44 %	Trg to Frame	-374.832098 ns
Pk CDE (SF 64)	-26.50 dB	Active Channels	9
IQ Imbal/Offset	0.44/0.71 %		
CHANNEL RESULTS:		Modulation	
Symbol Rate	19.2 kbps	Modulation	BPSK
Channel.SF	17.64	Timing Offset	-.-- ns
Channel Power Rel	-3.31 dB	Phase Offset	-.-- mrad
Symbol EVM	11.94 % rms	Channel Power Abs	18.85 dBm
		Symbol EVM	19.82 % Pk

AB

Date: 22.JUL.2008 18:31:40



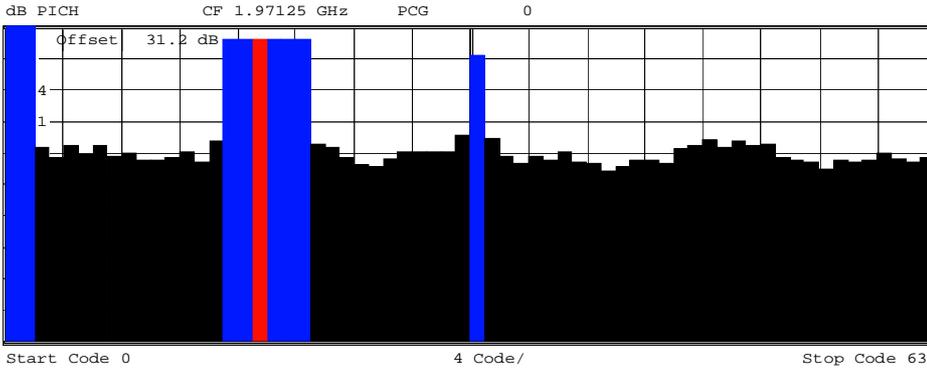
RC3

Channel 825



BS,1X,C1 :CODE POWER

SR 19.2 ksps
Chan 17.64
PCG 0



Start Code 0 4 Code/ Stop Code 63

RESULT SUMMARY TABLE

SR 19.2 ksps
Chan 17.64
PCG 0

Offset 31.2 dB CF 1.97125 GHz PCG 0

RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:	
Total PWR	29.06 dBm	Carr Freq Error	-3.83 Hz
Pilot PWR	21.93 dBm	Carr Freq Error	-0.00 ppm
RHO	0.98026	Chip Rate Error	-0.17 ppm
Composite EVM	14.19 %	Trg to Frame	-363.582842 ns
Pk CDE (SF 64)	-31.17 dB	Active Channels	9
IQ Imbal/Offset	0.96/0.34 %		
CHANNEL RESULTS:		Modulation QPSK	
Symbol Rate	19.2 ksps	Timing Offset	-.-- ns
Channel.SF	17.64	Phase Offset	-.-- mrad
Channel Power Rel	-3.07 dB	Channel Power Abs	18.86 dBm
Symbol EVM	8.28 % rms	Symbol EVM	14.82 % Pk

AB

Date: 22.JUL.2008 17:40:19



Channel 1000



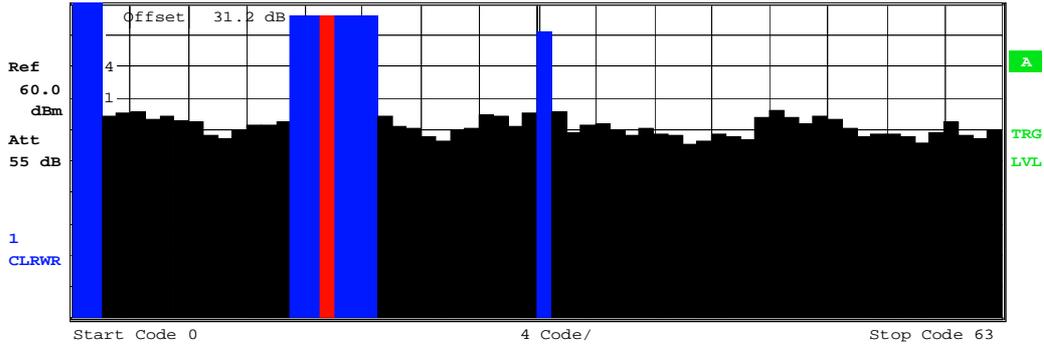
BS,IX,C1 :CODE POWER

SR 19.2 ksps

Chan 17.64

PCG 0

dB PICH CF 1.98 GHz



RESULT SUMMARY TABLE

SR 19.2 ksps

Chan 17.64

PCG 0

Offset 31.2 dB CF 1.98 GHz

RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:	
Total PWR	29.08 dBm	Carr Freq Error	3.17 Hz
Pilot PWR	21.95 dBm	Carr Freq Error	0.00 ppm
RHO	0.97659	Chip Rate Error	0.16 ppm
Composite EVM	15.48 %	Trg to Frame	-373.290874 ns
Pk CDE (SF 64)	-31.21 dB	Active Channels	9
IQ Imbal/Offset	0.17/0.23 %		
CHANNEL RESULTS:		Modulation	
Symbol Rate	19.2 ksps	Modulation	QPSK
Channel.SF	17.64	Timing Offset	-.-- ns
Channel Power Rel	-3.17 dB	Phase Offset	-.-- mrad
Symbol EVM	8.17 % rms	Channel Power Abs	18.78 dBm
		Symbol EVM	13.89 % Pk

AB

Date: 22.JUL.2008 17:27:10



Channel 1175



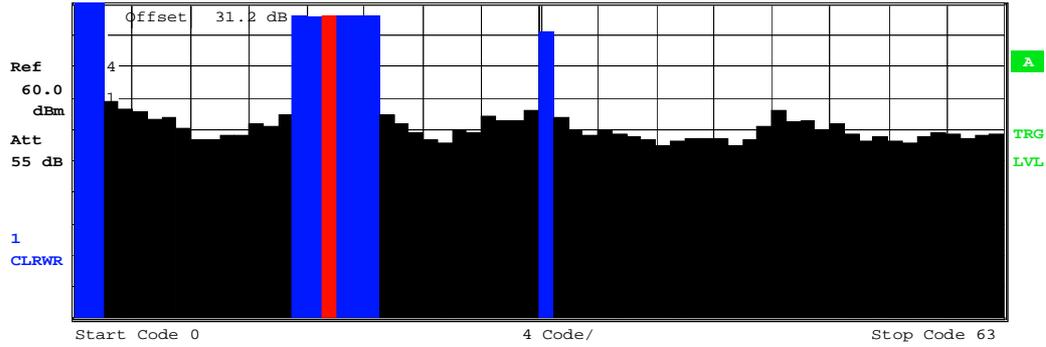
BS,IX,C1 :CODE POWER

SR 19.2 ksps

Chan 17.64

dB PICH CF 1.98875 GHz

PCG 0



RESULT SUMMARY TABLE

SR 19.2 ksps

Chan 17.64

Offset 31.2 dB CF 1.98875 GHz

PCG 0

RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:	
Total PWR	29.18 dBm	Carr Freq Error	2.14 Hz
Pilot PWR	22.06 dBm	Carr Freq Error	0.00 ppm
RHO	0.97746	Chip Rate Error	0.18 ppm
Composite EVM	15.19 %	Trg to Frame	-372.411137 ns
Pk CDE (SF 64)	-29.32 dB	Active Channels	9
IQ Imbal/Offset	0.20/0.29 %		
CHANNEL RESULTS:		Modulation	
Symbol Rate	19.2 ksps	Modulation	QPSK
Channel.SF	17.64	Timing Offset	-.-- ns
Channel Power Rel	-3.18 dB	Phase Offset	-.-- mrad
Channel Power Abs	18.88 dBm	Channel Power Abs	18.88 dBm
Symbol EVM	9.71 % rms	Symbol EVM	18.08 % Pk

AB

Date: 22.JUL.2008 18:03:25

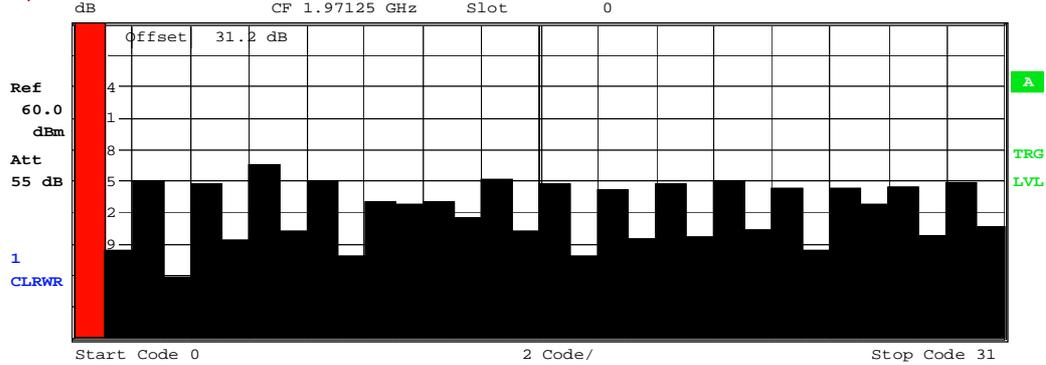


CDMA2000 1X EV-DO: Channel 825



BS,DO,C1 : CODE POWER

Type PILOT-I
 Code 0.32
 Slot 0



GENERAL RESULTS

Type ALL

Offset 31.2 dB CF 1.97125 GHz

Global Results for Set 0:				
Ref	Carr Freq Error	-54.69 Hz	RHO Pilot	0.99475
60.0	Carr Freq Error	-0.03 ppm	RHO ov-1/-2	0.98213/0.98268
dBm	Chip Rate Error	-0.11 ppm	RHO MAC	0.99330
	Trg to Frame	-1.266968 μs	RHO DATA	0.97947
Results for Set 0 / Slot 0:				
Att	Power PILOT	29.47 dBm	Data Modulation Type	16-QAM
55 dB	Power MAC	29.17 dBm	Act. MAC Channels	35
	Power DATA	28.92 dBm	Act. DATA Channels	16
1	Power PREAMBLE	29.32 dBm	Preamble Length	64 Chips
CLRWR	Composite EVM	13.62 %	RHO	0.98178
	Max. Pwr DATA	-14.51 dB	Max. inact. Pwr MAC	-38.57 dB
	Min. Pwr DATA	-15.97 dB		

AB

Date: 25.JUL.2008 07:53:41

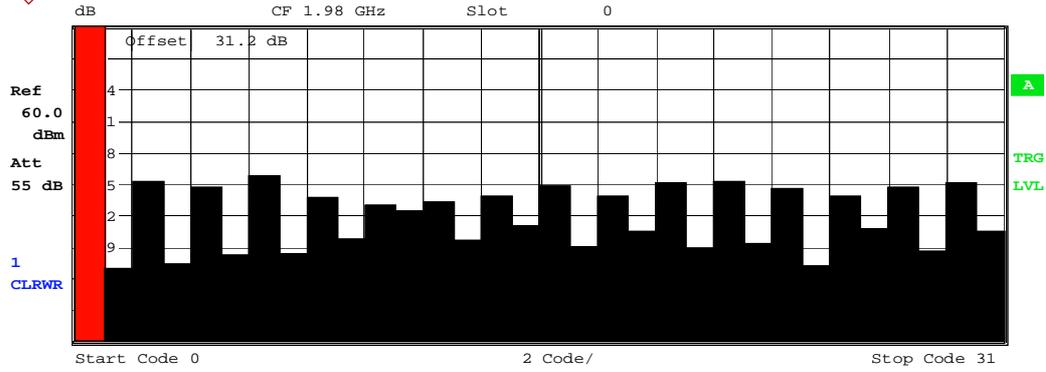


Channel 1000



BS,DO,C1 : CODE POWER

Type PILOT-I
 Code 0.32
 Slot 0



GENERAL RESULTS

Type ALL

Offset 31.2 dB CF 1.98 GHz

Global Results for Set 0:			
Ref	Carr Freq Error	-55.04 Hz	RHO Pilot 0.99506
60.0	Carr Freq Error	-0.03 ppm	RHO ov-1/-2 0.98348/0.98282
dBm	Chip Rate Error	0.09 ppm	RHO MAC 0.99365
	Trg to Frame	-1.273055 μs	RHO DATA 0.97990
Results for Set 0 / Slot 0:			
Att	Power PILOT	29.76 dBm	Data Modulation Type 16-QAM
55 dB	Power MAC	29.58 dBm	Act. MAC Channels 31
	Power DATA	29.26 dBm	Act. DATA Channels 16
1	Power PREAMBLE	29.53 dBm	Preamble Length 64 Chips
CLRWR	Composite EVM	12.65 %	RHO 0.98426
	Max. Pwr DATA	-14.45 dB	Max. inact. Pwr MAC -37.11 dB
	Min. Pwr DATA	-15.95 dB	

AB

Date: 25.JUL.2008 07:51:04

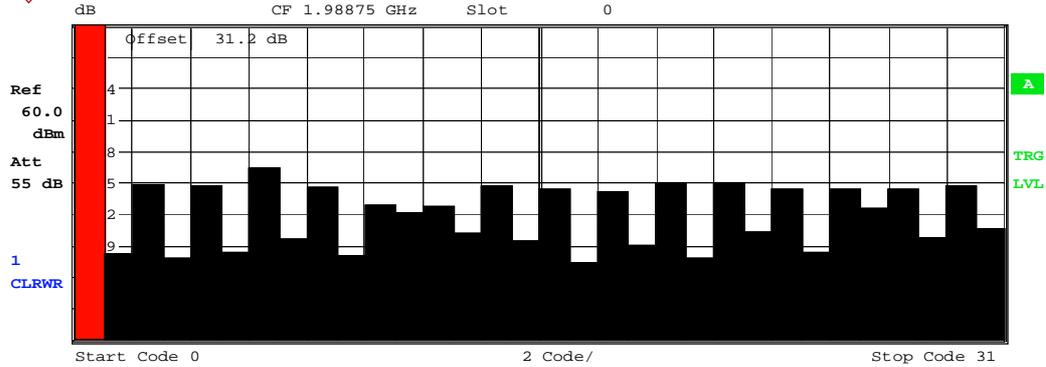


Channel 1175



BS,DO,C1 : CODE POWER

Type PILOT-I
 Code 0.32
 Slot 0



Start Code 0 2 Code/ Stop Code 31

GENERAL RESULTS Type ALL

Offset 31.2 dB CF 1.98875 GHz

Global Results for Set 0:				
Ref	Carr Freq Error	-58.38 Hz	RHO Pilot	0.99502
60.0	Carr Freq Error	-0.03 ppm	RHO ov-1/-2	0.98179/0.98094
dBm	Chip Rate Error	-0.41 ppm	RHO MAC	0.99204
	Trg to Frame	-1.273519 μs	RHO DATA	0.97814
Results for Set 0 / Slot 0:				
Att	Power PILOT	29.69 dBm	Data Modulation Type	16-QAM
55 dB	Power MAC	29.40 dBm	Act. MAC Channels	47
	Power DATA	29.13 dBm	Act. DATA Channels	16
1	Power PREAMBLE	29.42 dBm	Preamble Length	64 Chips
CLRWR	Composite EVM	13.78 %	RHO	0.98137
	Max. Pwr DATA	-14.20 dB	Max. inact. Pwr MAC	-38.81 dB
	Min. Pwr DATA	-15.74 dB		

AB

Date: 25.JUL.2008 07:55:30



Appendix B

Occupied Bandwidth Measurement

According to CFR 47 (FCC) part 2.1049



CDMA2000 1X

Channel 825



BS,1X,C1 :OCC BANDWDT

* RBW 20 kHz

Marker 1 [T1]

* VBW 300 kHz

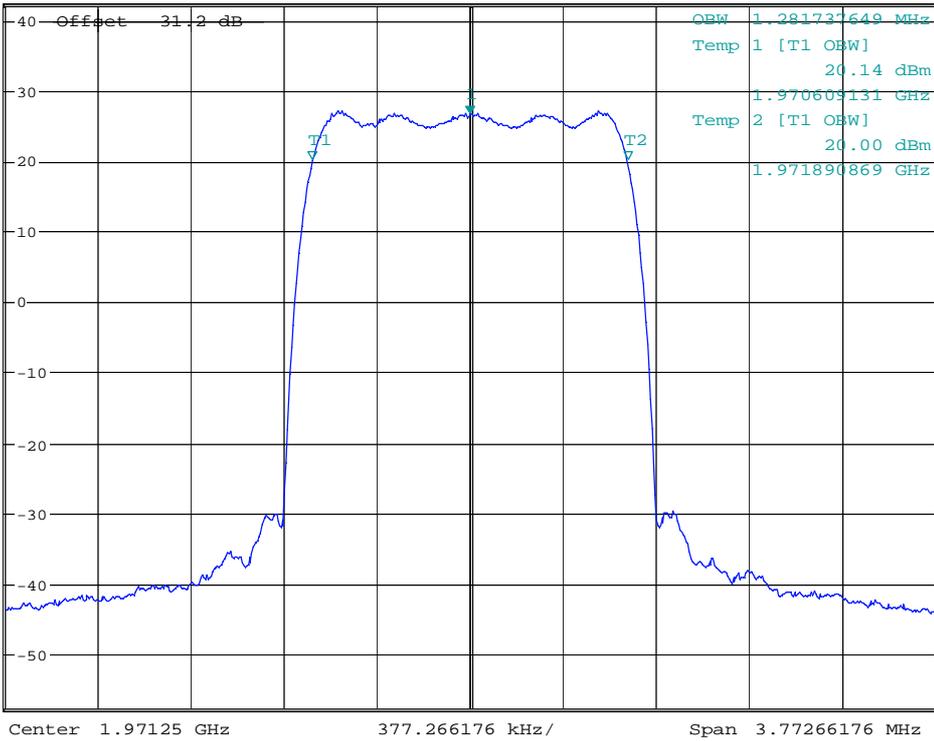
26.54 dBm

* SWT 5 s

1.971250000 GHz

Ref 42.2 dBm

* Att 20 dB



AB

Date: 22.JUL.2008 18:14:35



Channel 1000



BS,1X,C1 :OCC BANDWDT

* RBW 20 kHz

Marker 1 [T1]

* VBW 300 kHz

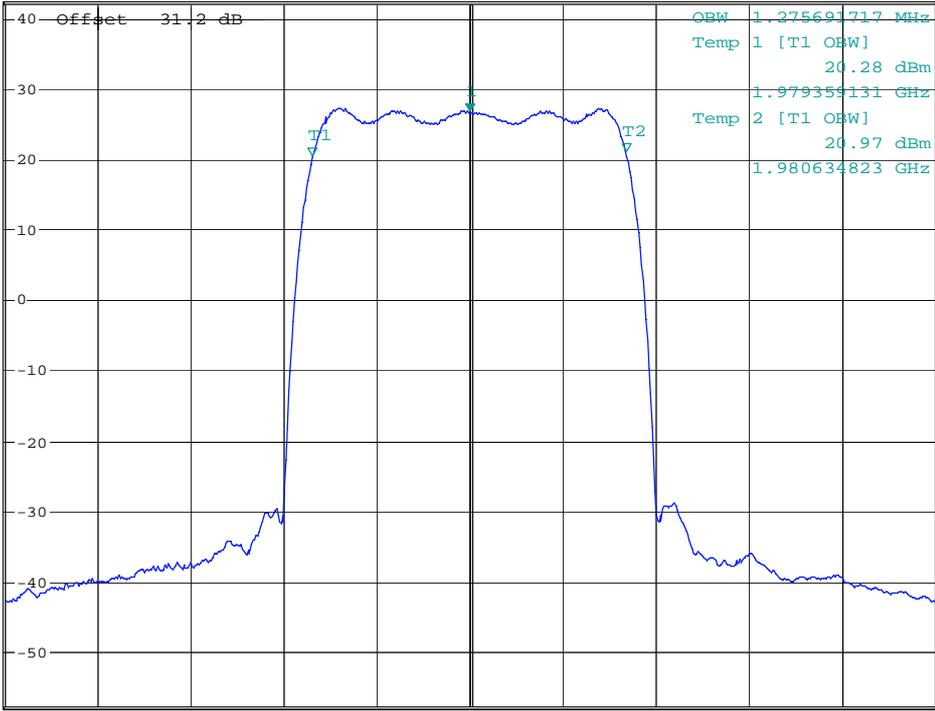
26.61 dBm

* SWT 5 s

1.980000000 GHz

Ref 42.2 dBm

* Att 20 dB



Center 1.98 GHz 377.266176 kHz/ Span 3.77266176 MHz

AB

Date: 22.JUL.2008 18:18:59



Channel 1175



BS,1X,C1 :OCC BANDWDT

* RBW 20 kHz

Marker 1 [T1]

* VBW 300 kHz

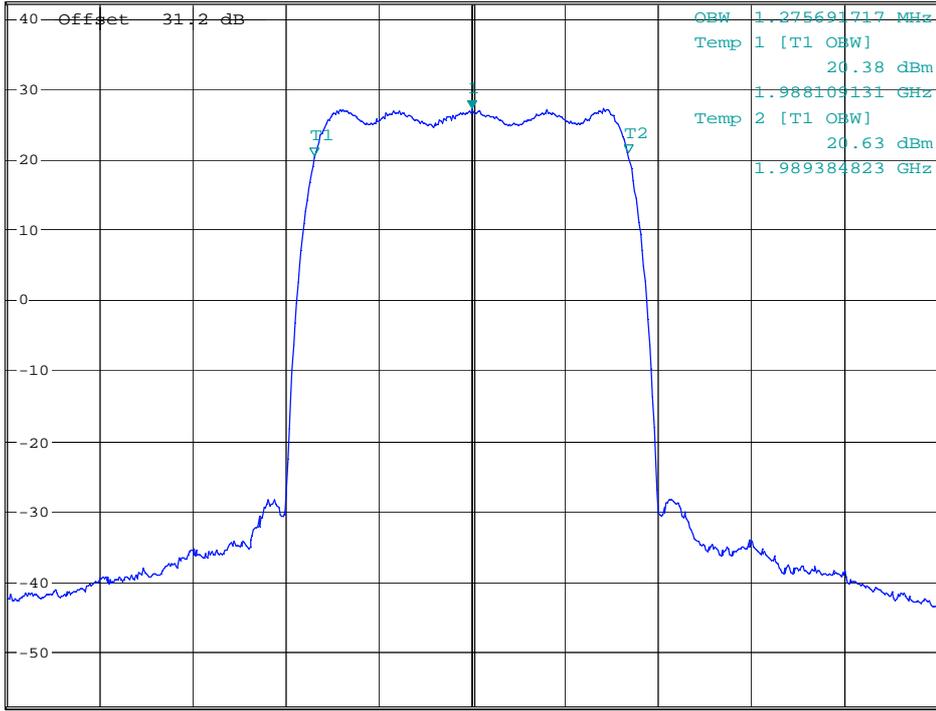
26.95 dBm

* SWT 5 s

1.988752310 GHz

Ref 42.2 dBm

* Att 20 dB



Center 1.98875 GHz 377.266176 kHz/ Span 3.77266176 MHz

AB

Date: 22.JUL.2008 18:06:54



CDMA2000 1X EV-DO Channel 825



BS,DO,C1 :OCC BANDWDT

* RBW 20 kHz

Marker 1 [T1]

* VBW 300 kHz

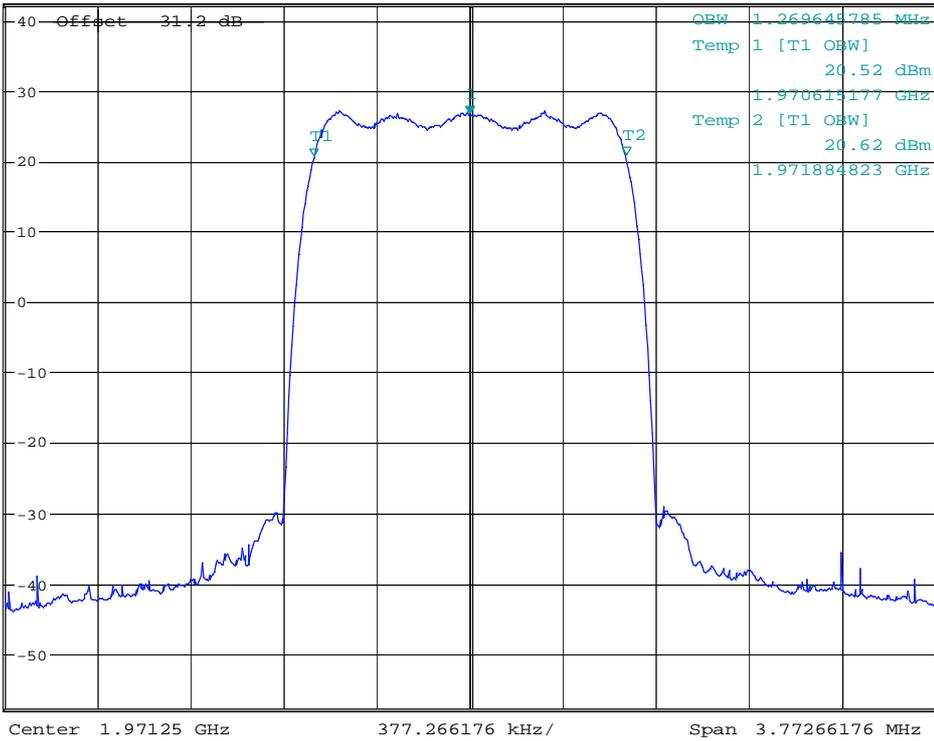
26.61 dBm

* SWT 5 s

1.971250000 GHz

Ref 42.2 dBm

* Att 20 dB



AB

Date: 23.JUL.2008 17:32:12



Channel 1000



BS,DO,C1 :OCC BANDWDT

* RBW 20 kHz

Marker 1 [T1]

* VBW 300 kHz

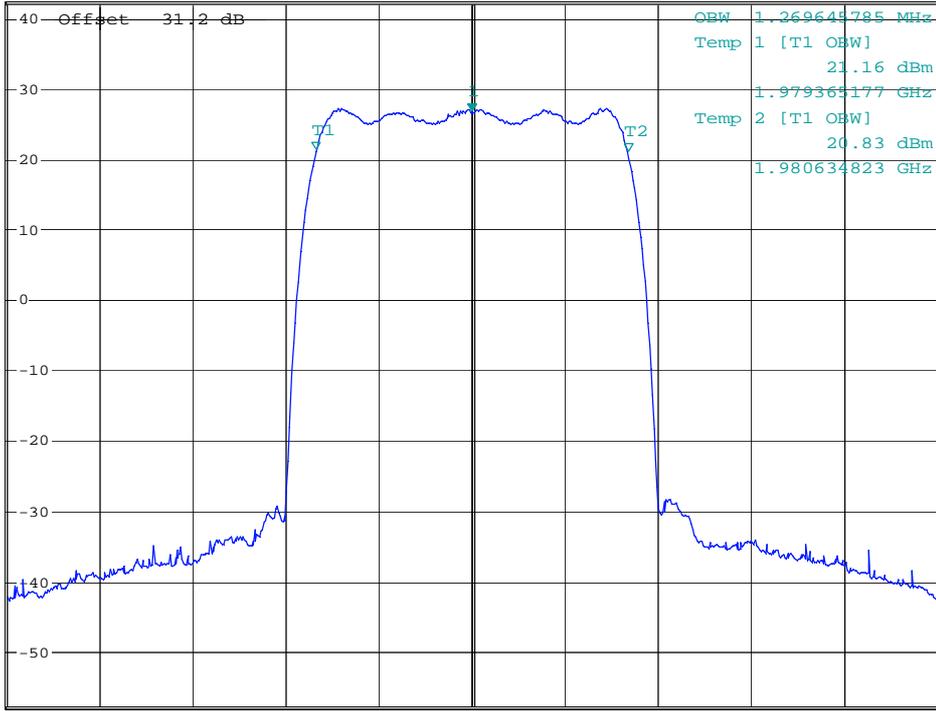
26.54 dBm

* SWT 5 s

1.980000000 GHz

Ref 42.2 dBm

* Att 20 dB



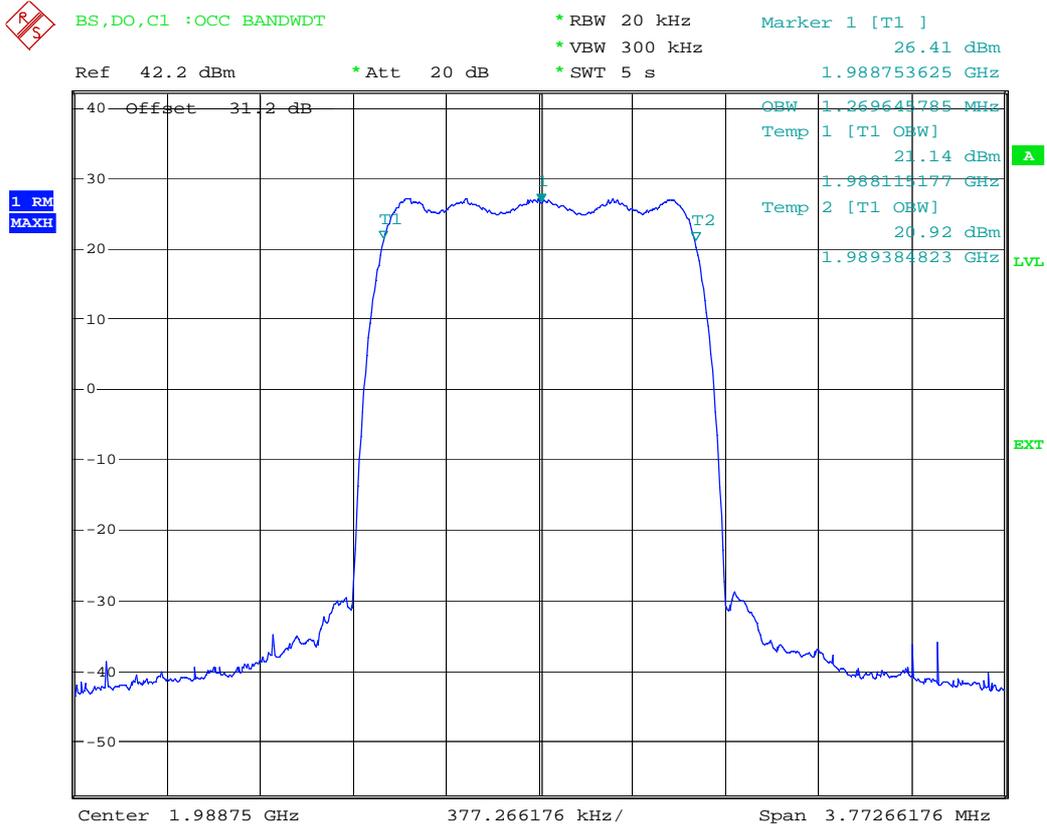
Center 1.98 GHz 377.266176 kHz/ Span 3.77266176 MHz

AB

Date: 23.JUL.2008 17:29:44



Channel 1175



AB

Date: 23.JUL.2008 18:03:31



Appendix C

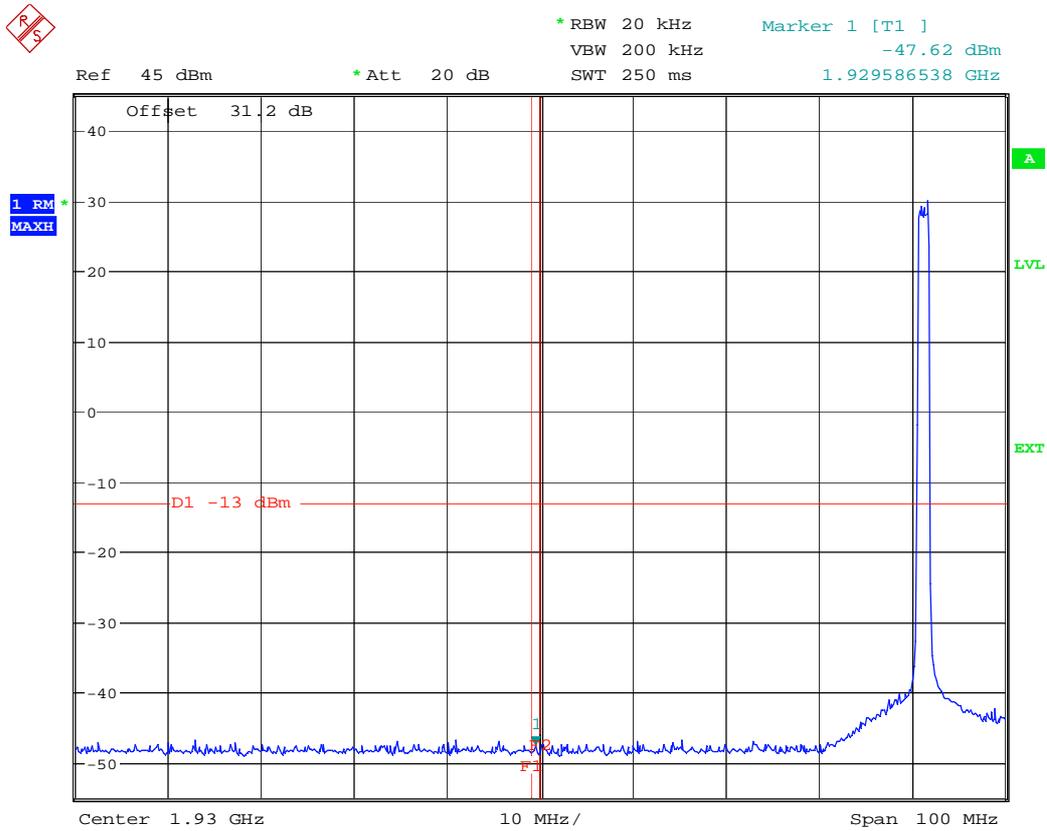
Band Edge Measurements According to FCC Part 2.1051 & 24.238



CDMA2000 1X:

A. Single Carrier:

Channel 825 (1971.25 MHz)

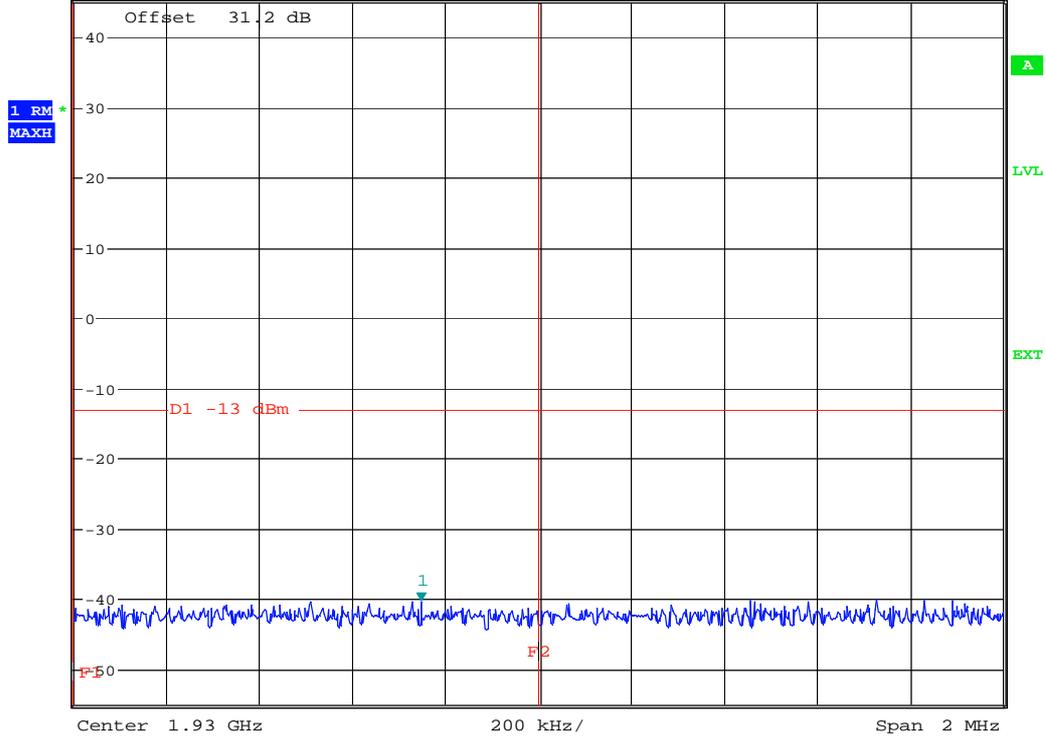


AB

Date: 22.JUL.2008 17:56:37



Ref 45 dBm *Att 20 dB *RBW 20 kHz Marker 1 [T1]
Offset 31.2 dB VBW 200 kHz -40.49 dBm
SWT 20 ms 1.929746795 GHz

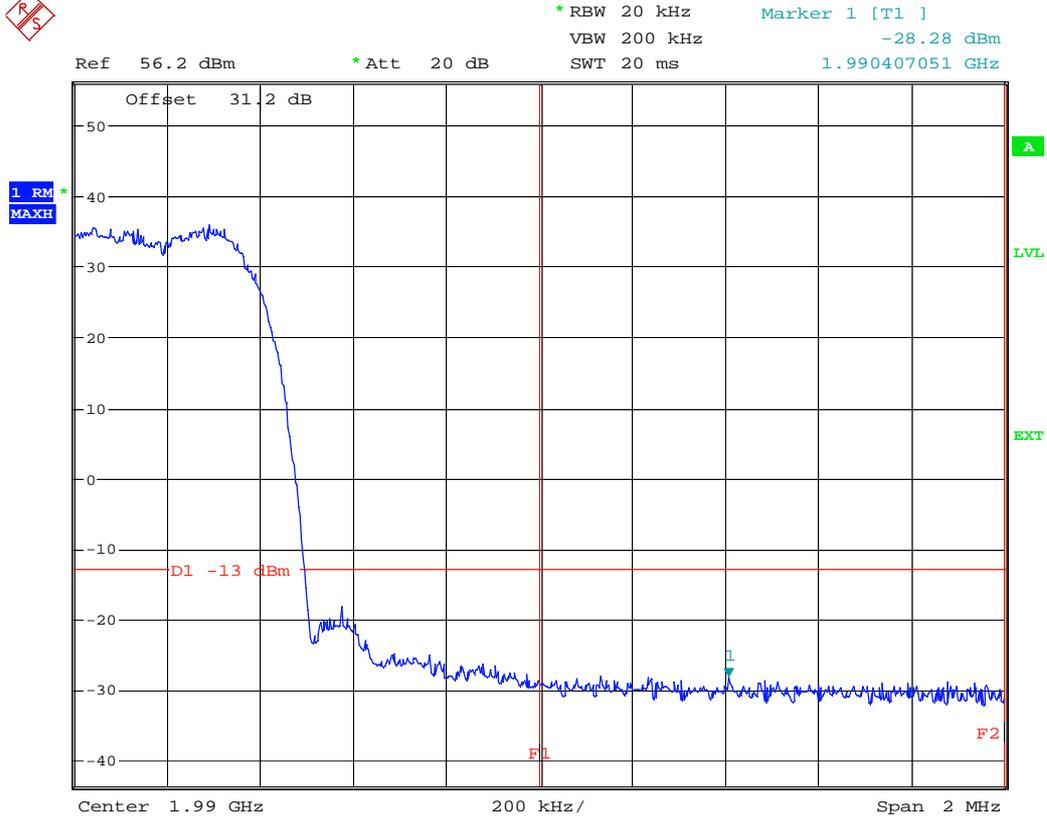


AB

Date: 22.JUL.2008 17:55:17



Channel 1175(1988.75 MHz)



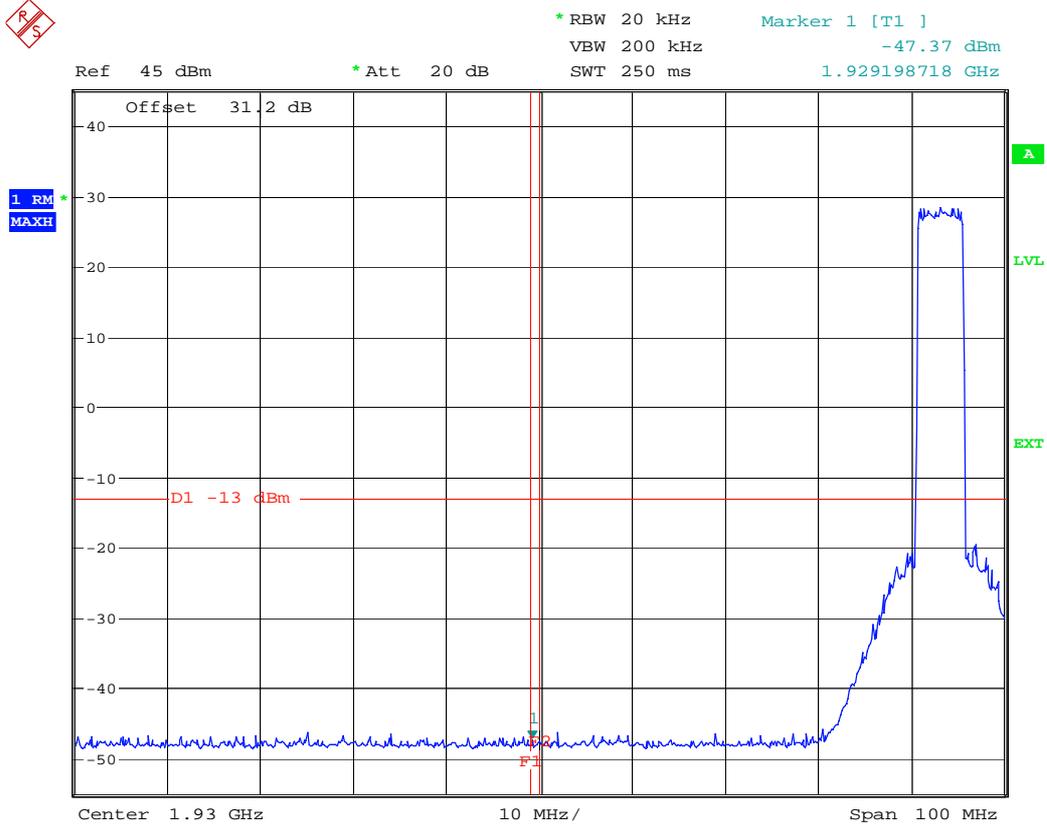
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Date: 22.JUL.2008 18:26:40



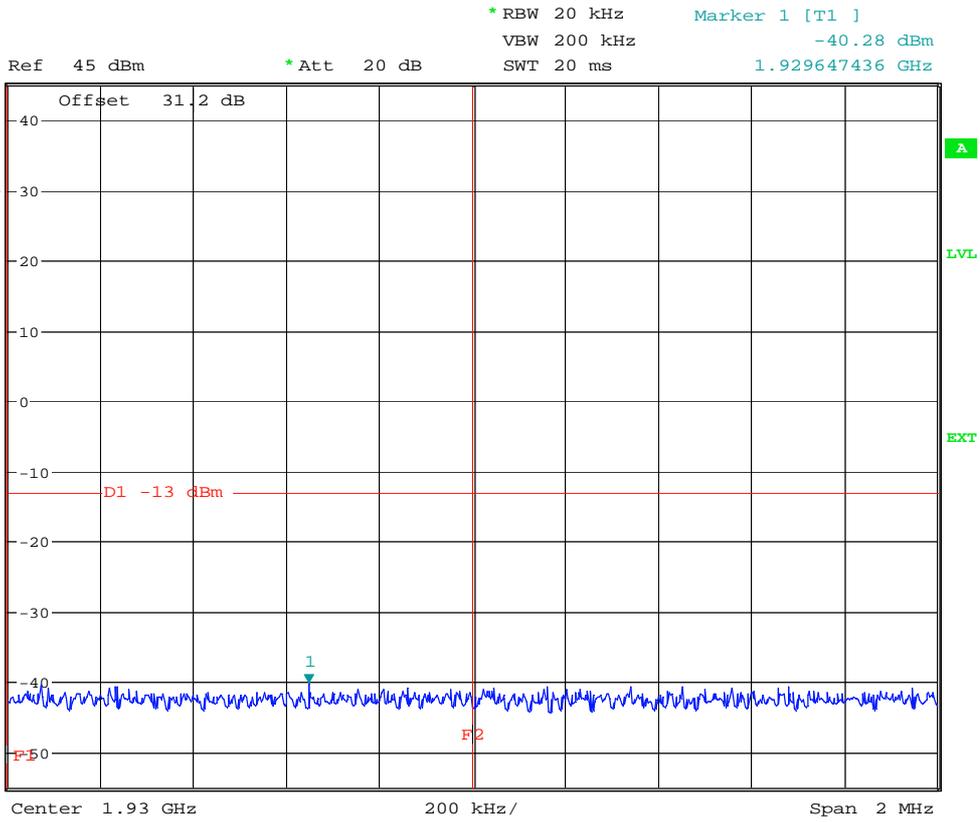
B. Multiple Carriers:

Channel Number: 825/850/875/900



AB

Date: 22.JUL.2008 19:13:43

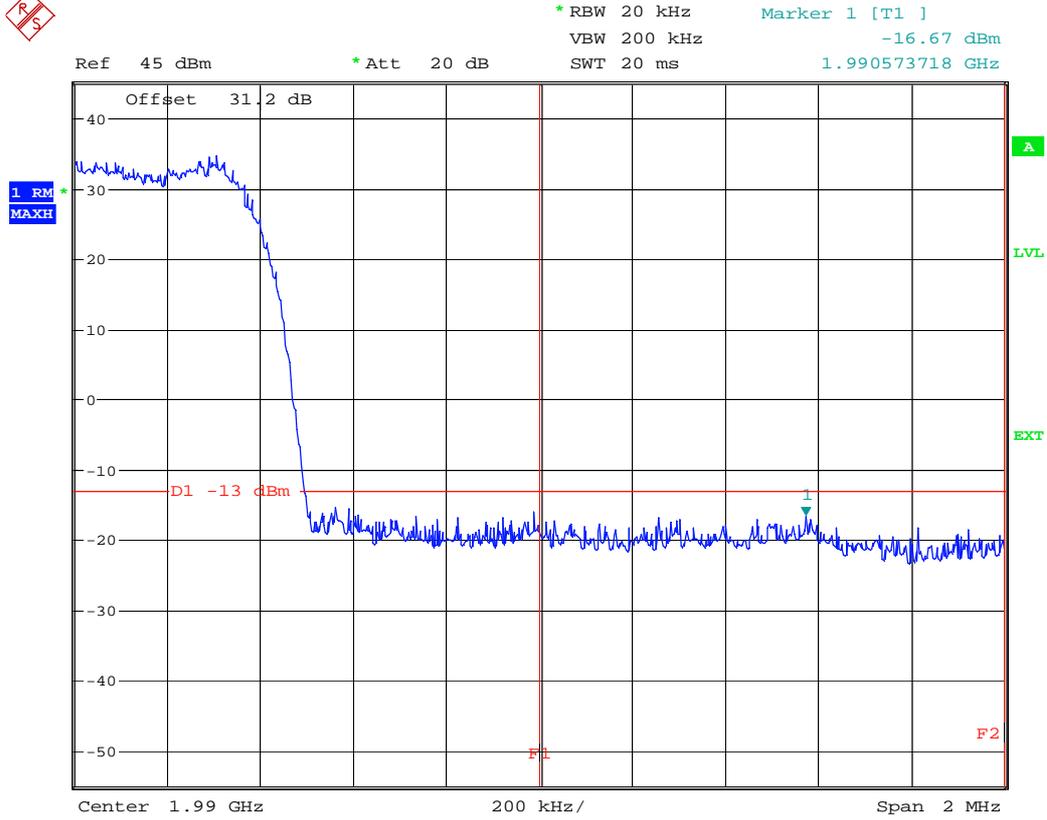


AB

Date: 22.JUL.2008 19:17:01



Channel Number: 1175/1150/1125/1100



AB

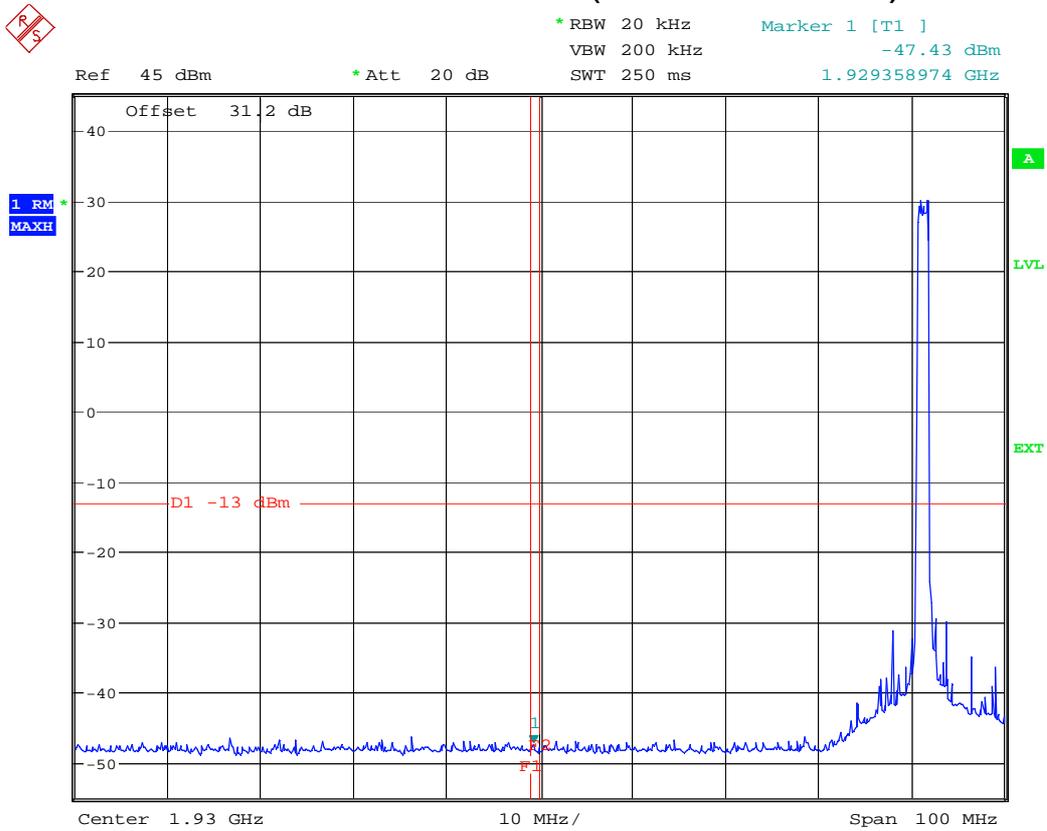
Date: 22.JUL.2008 19:37:54



CDMA2000 EVDO:

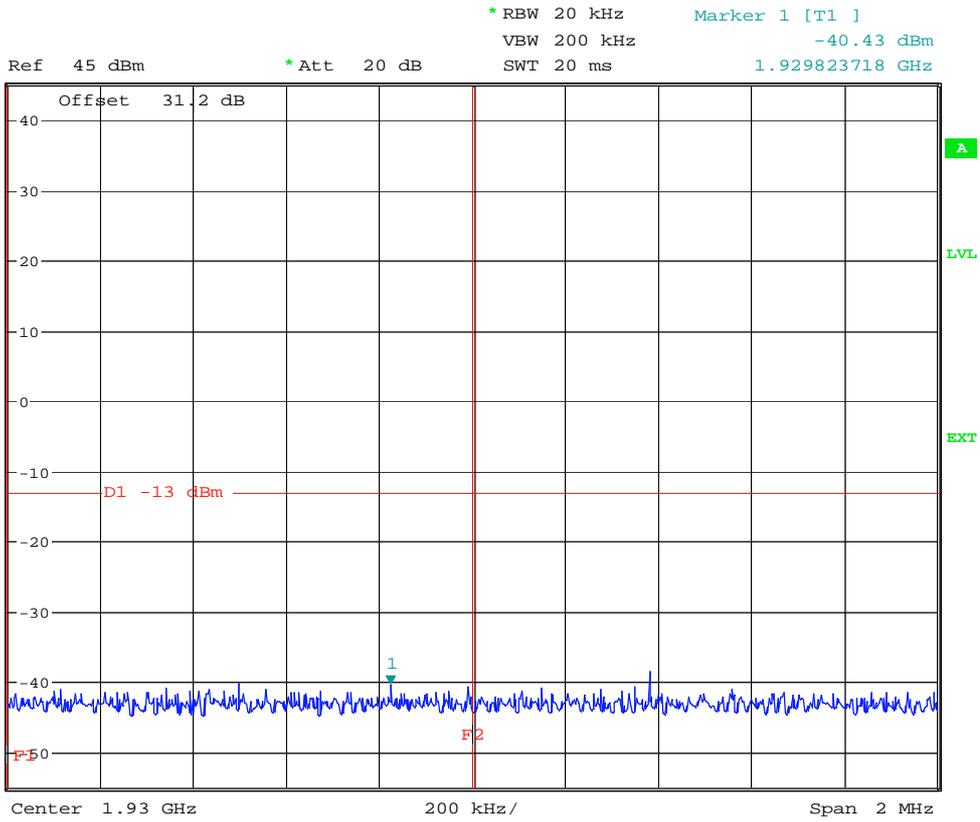
A. Single Carrier:

Channel 825 (1971.25 MHz)



AB

Date: 23.JUL.2008 17:39:15



AB

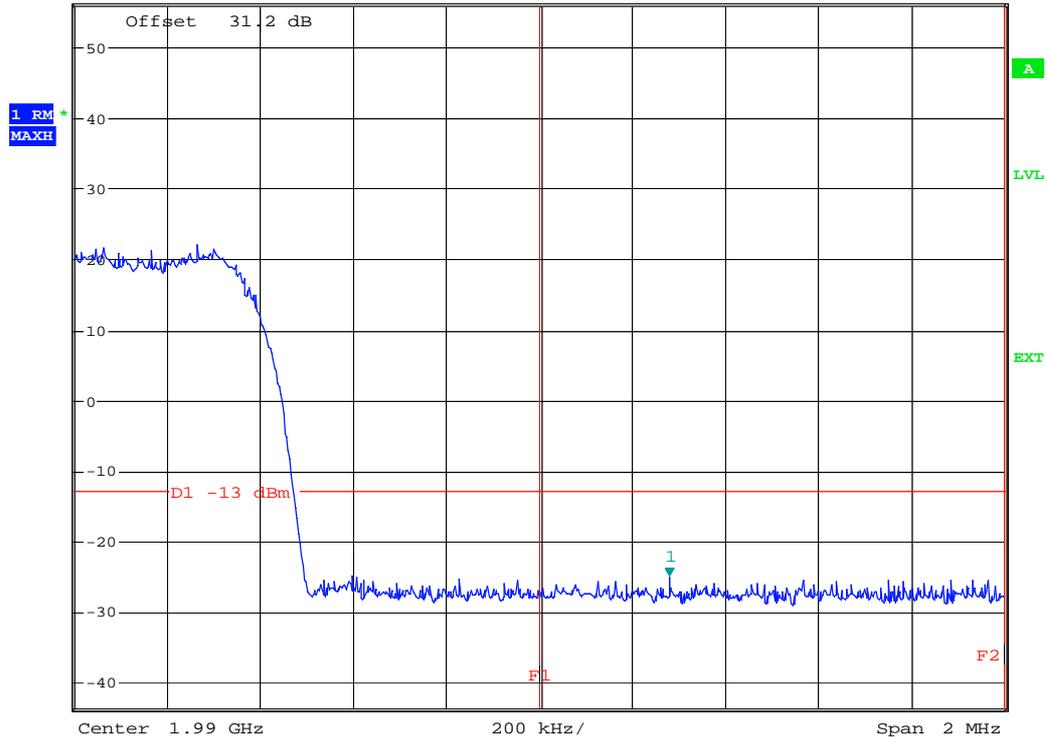
Date: 23.JUL.2008 17:40:14



Channel 1175(1988.75 MHz)



Ref 56.2 dBm *Att 40 dB *RBW 20 kHz Marker 1 [T1]
 VBW 200 kHz -25.23 dBm
 SWT 20 ms 1.990278846 GHz



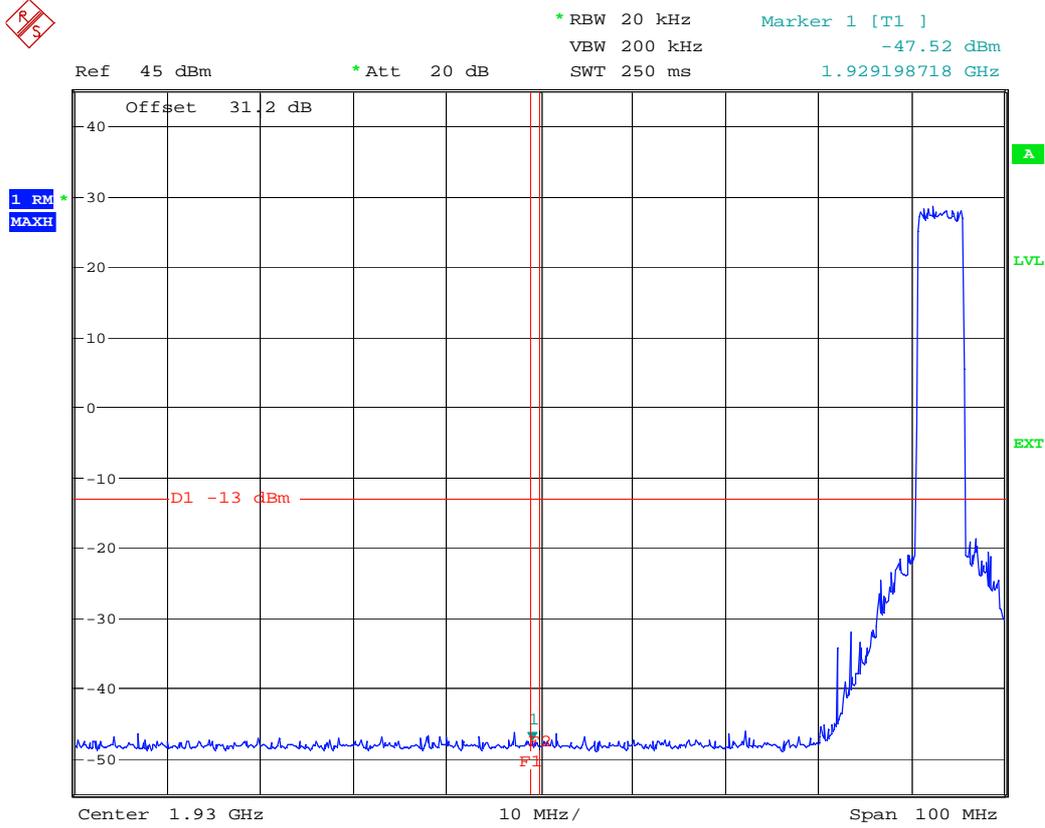
AB

Date: 23.JUL.2008 18:16:12



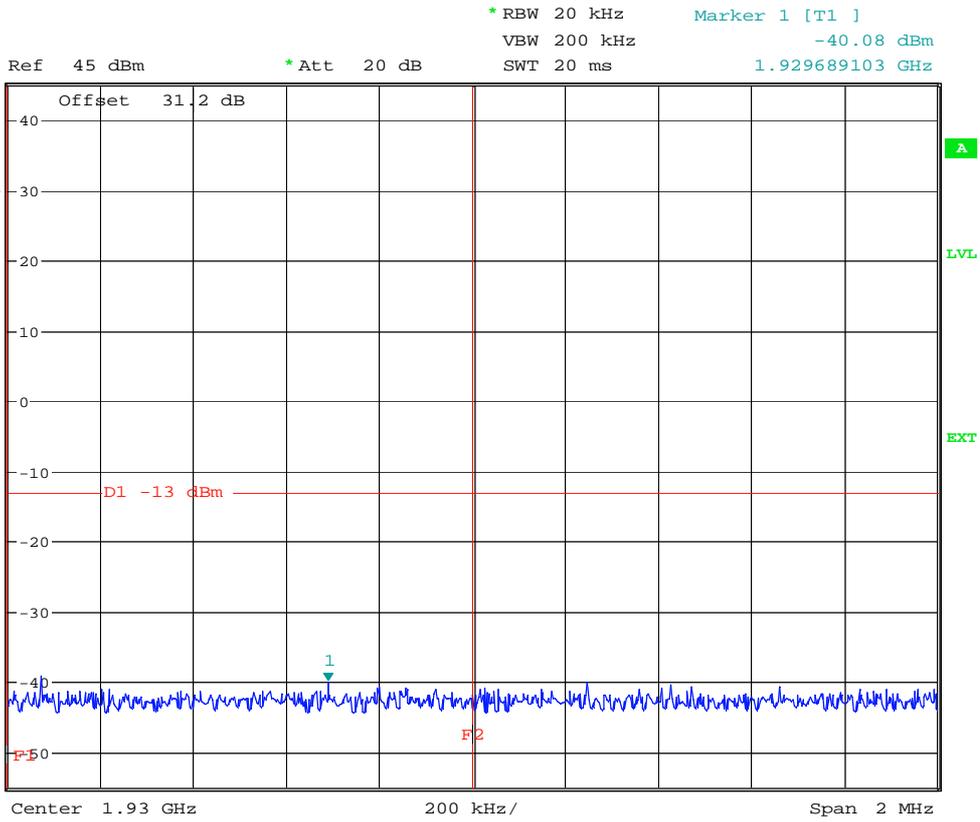
B. Multiple Carriers:

Channel Number: 825/850/875/900



AB

Date: 23.JUL.2008 18:51:32



AB

Date: 23.JUL.2008 18:54:01



Appendix D

Conducted Spurious Emission Measurements

According to FCC Part 2.1051 & 24.238

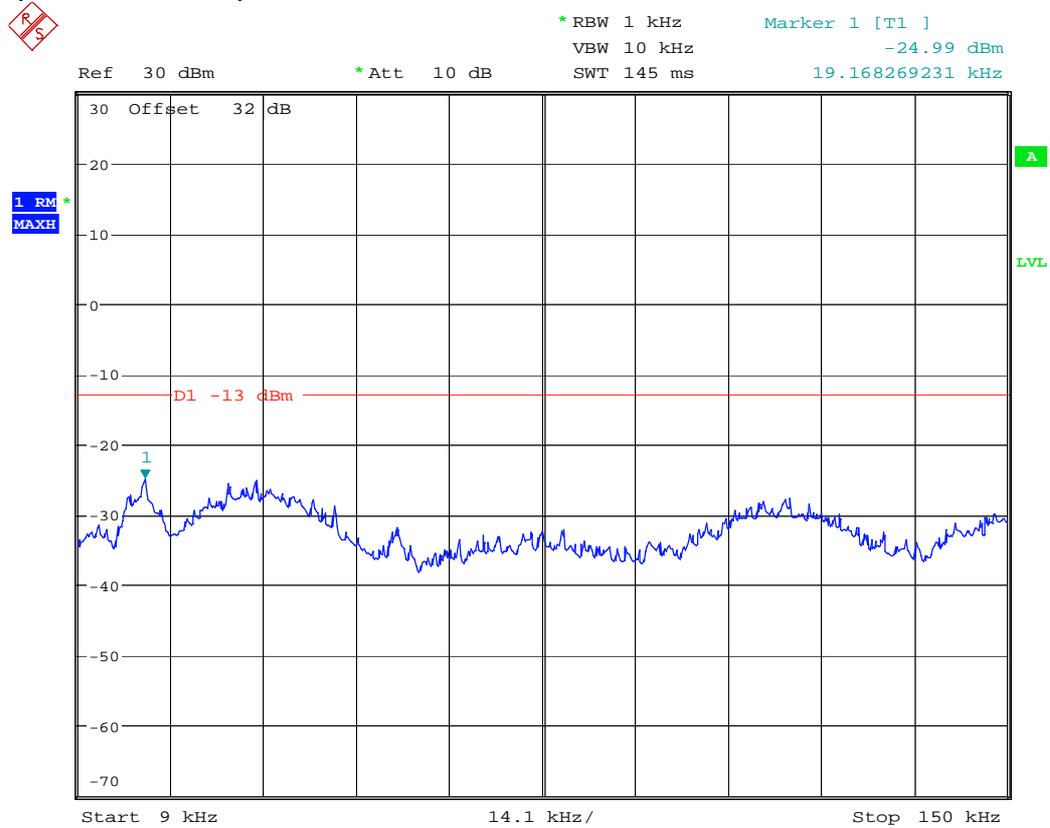


CDMA2000 1X:

A. Single Carrier

Channel Number: 825

(9k ~ 150k)

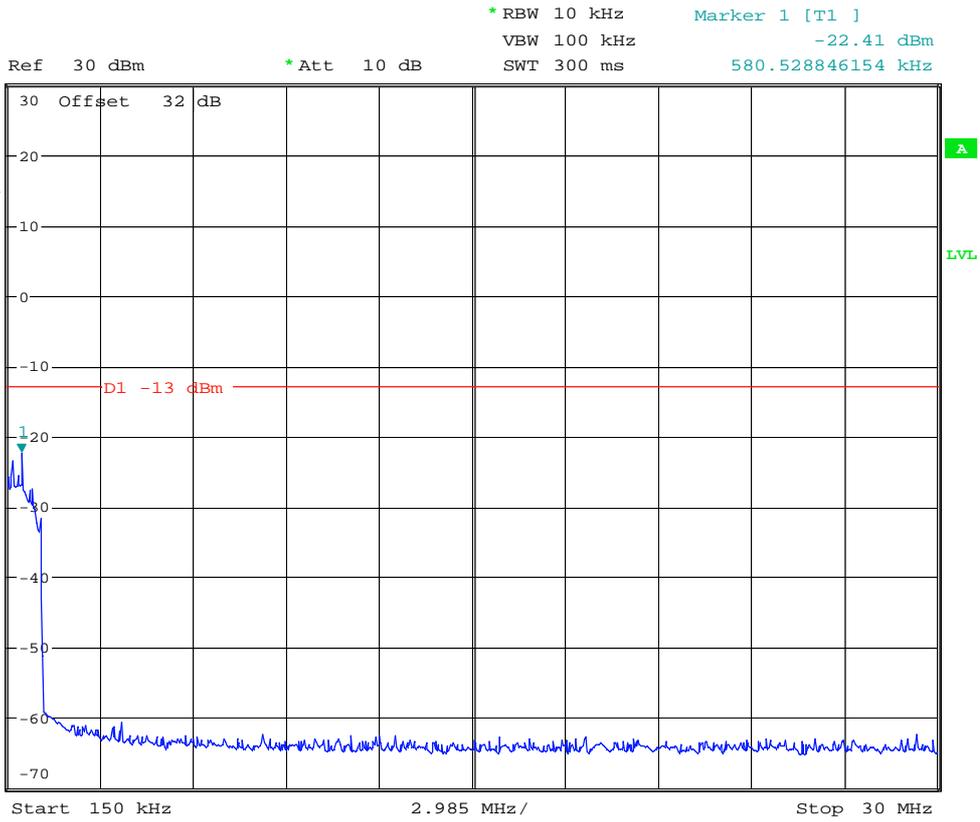


AB

Date: 23.JUL.2008 10:59:38



(150k ~ 30M)

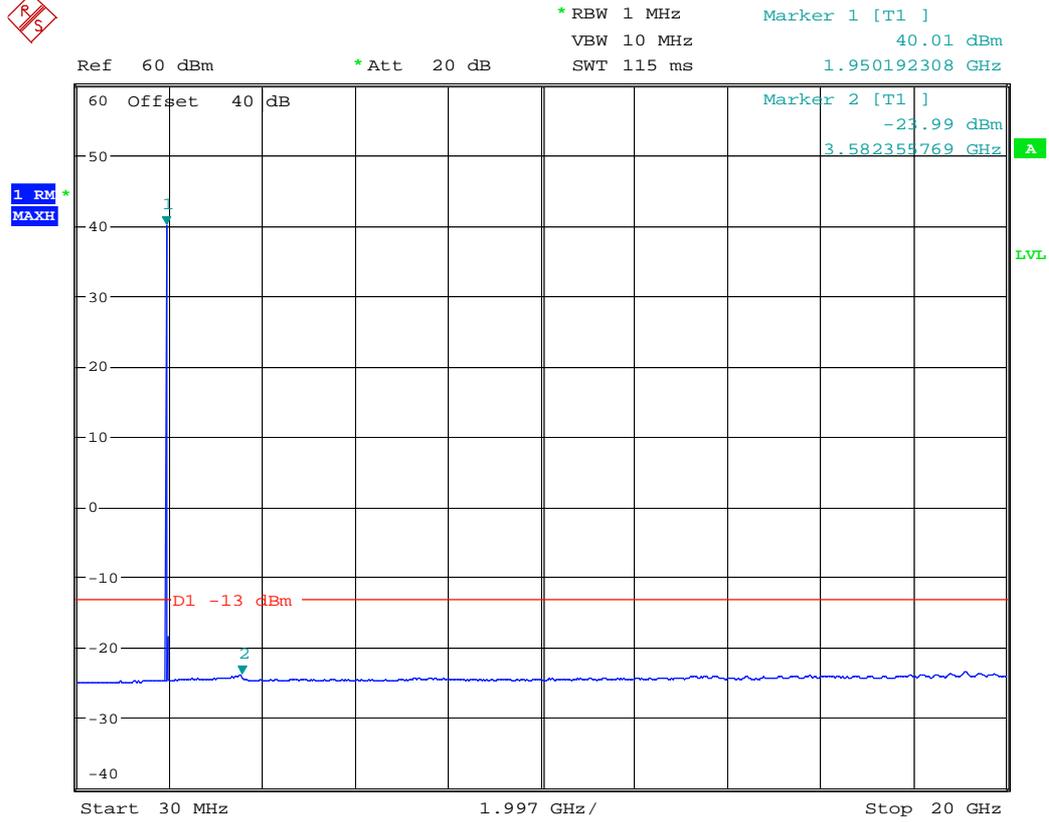


AB

Date: 23.JUL.2008 11:10:02



(30M ~ 20G)



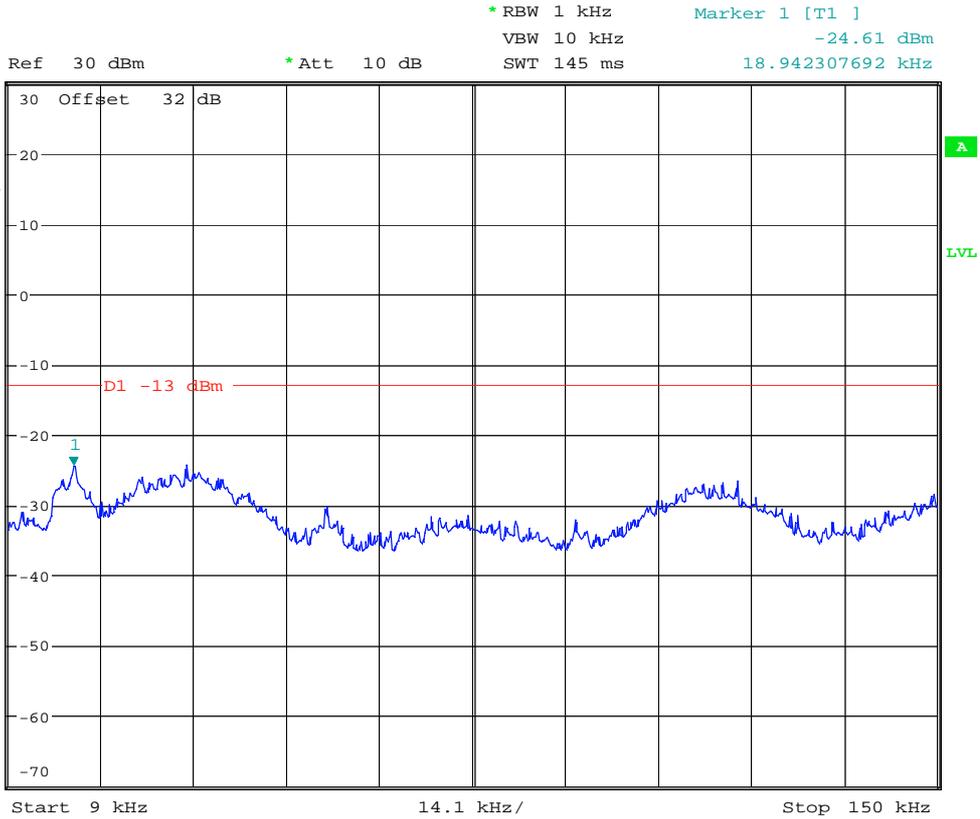
AB

Date: 23.JUL.2008 10:55:36



Channel Number: 1000

(9k ~ 150k)

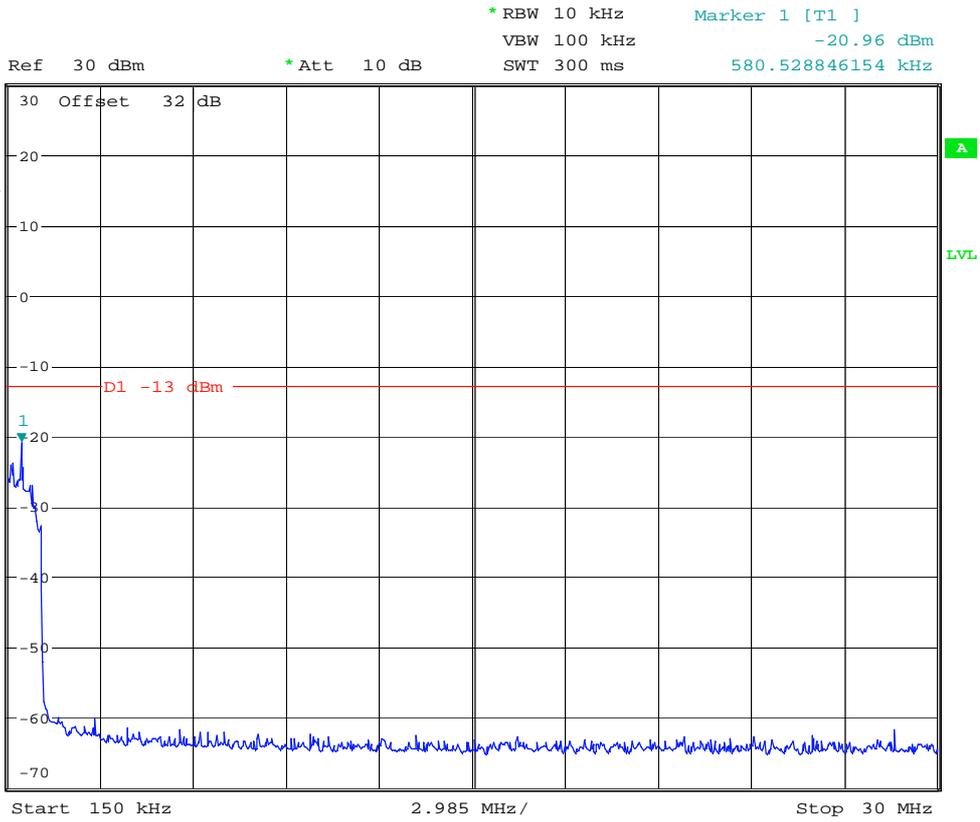


AB

Date: 23.JUL.2008 10:45:11



(150k ~ 30M)

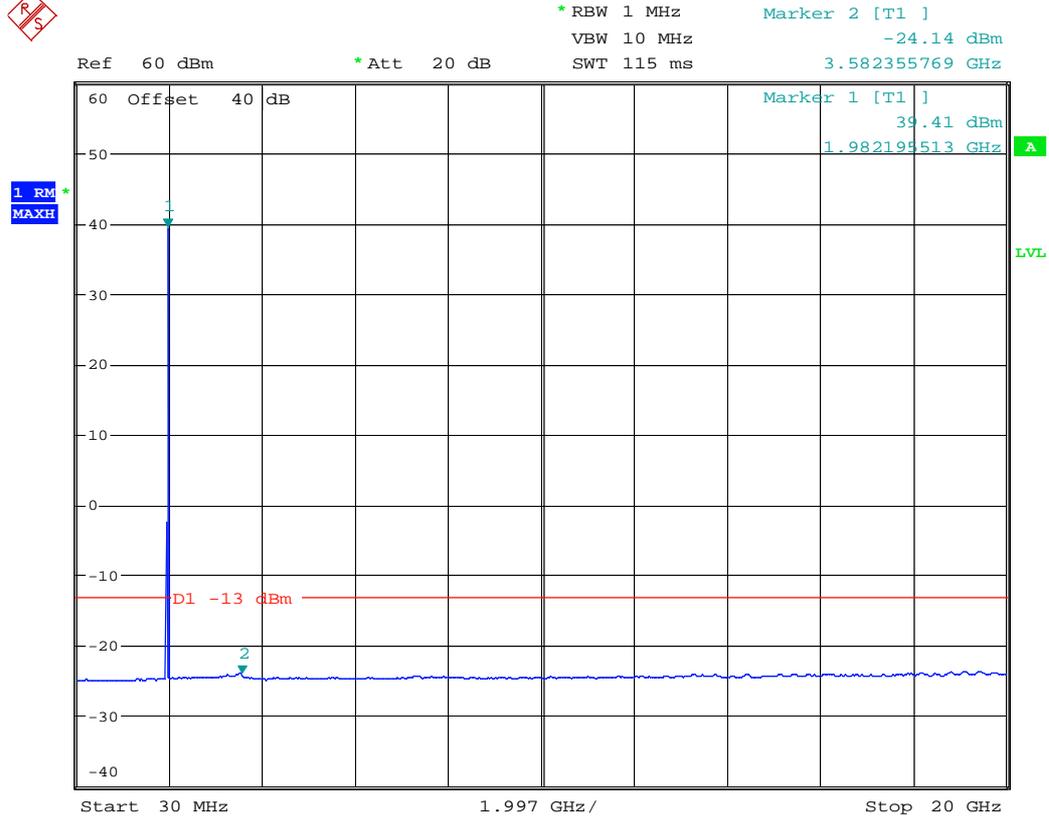


AB

Date: 23.JUL.2008 10:46:55



(30M ~ 20G)

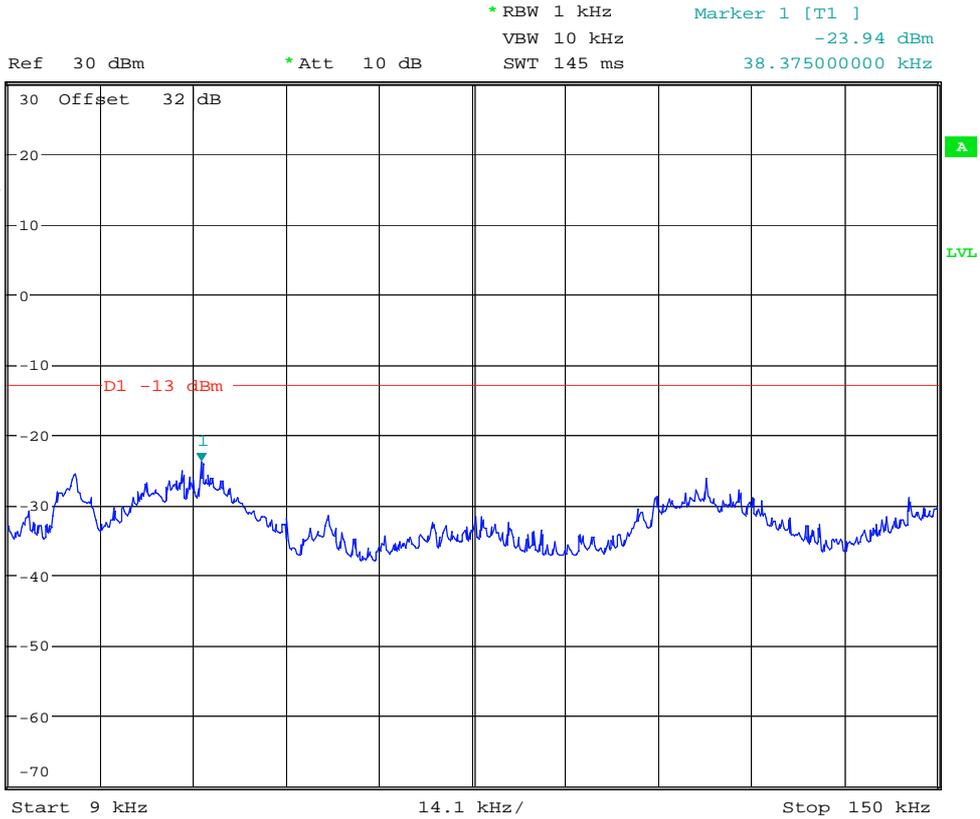


AB

Date: 23.JUL.2008 10:51:59



Channel Number: 1175 (9k ~ 150k)

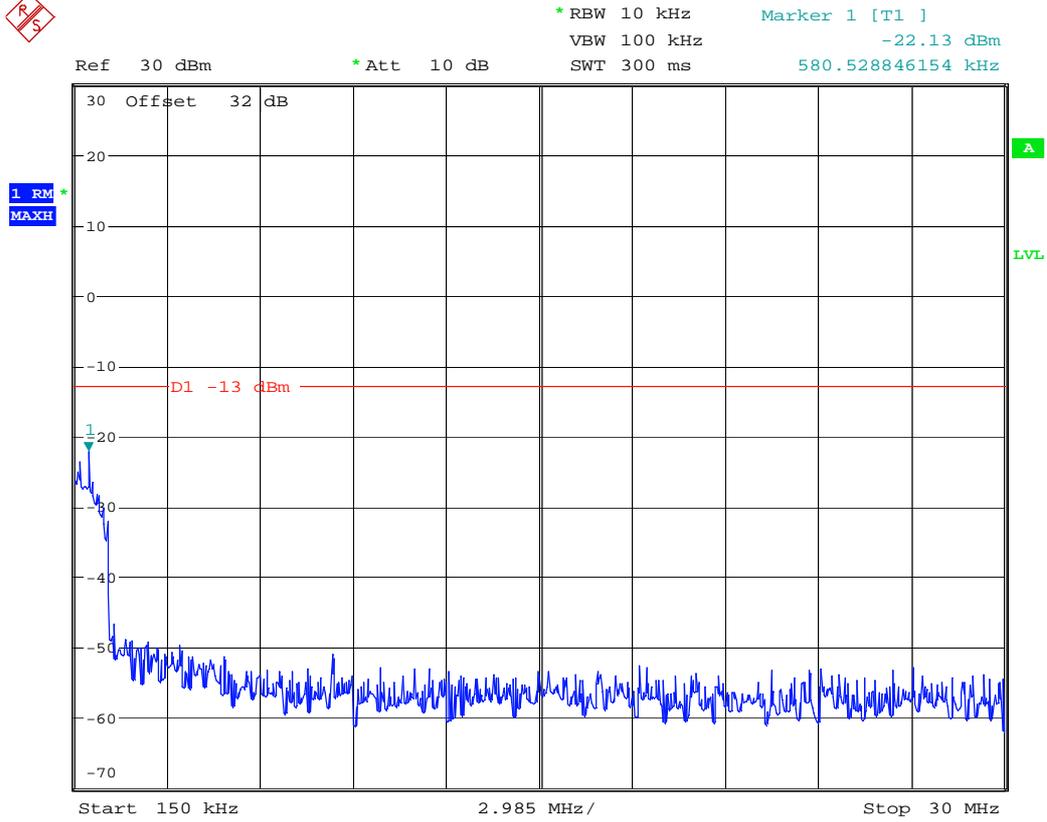


AB

Date: 23.JUL.2008 11:05:48



(150k ~ 30M)

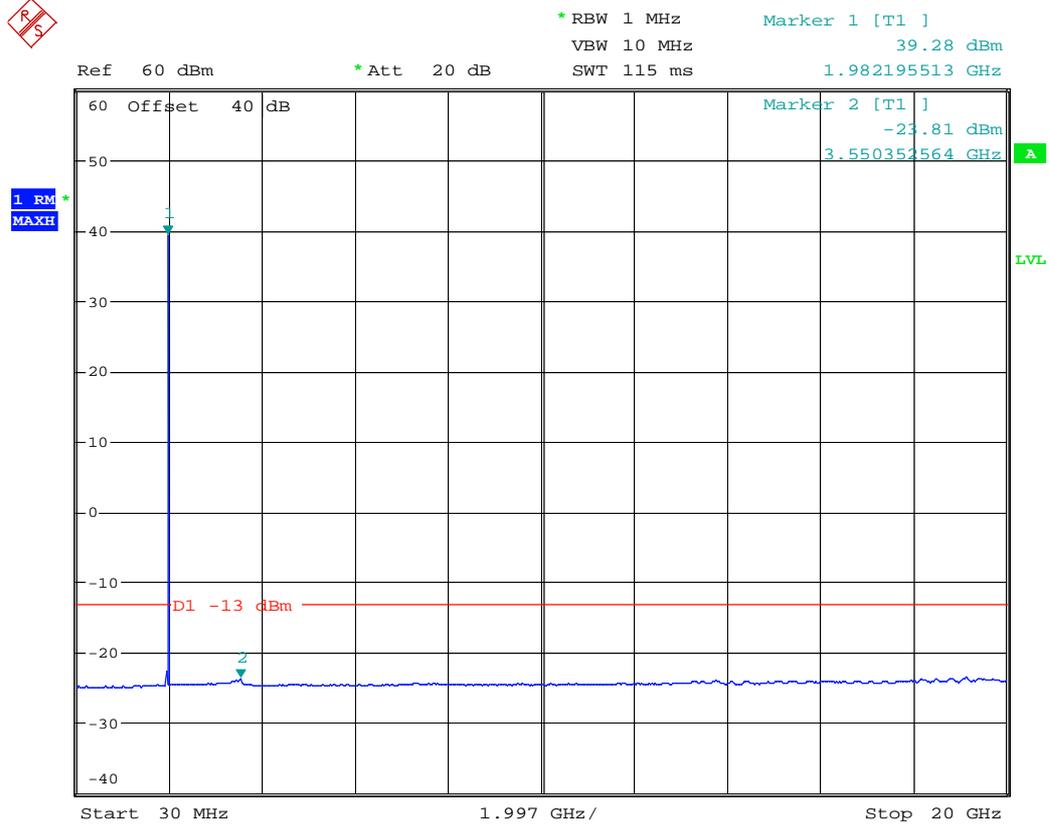


AB

Date: 23.JUL.2008 11:04:41



(30M ~ 20G)



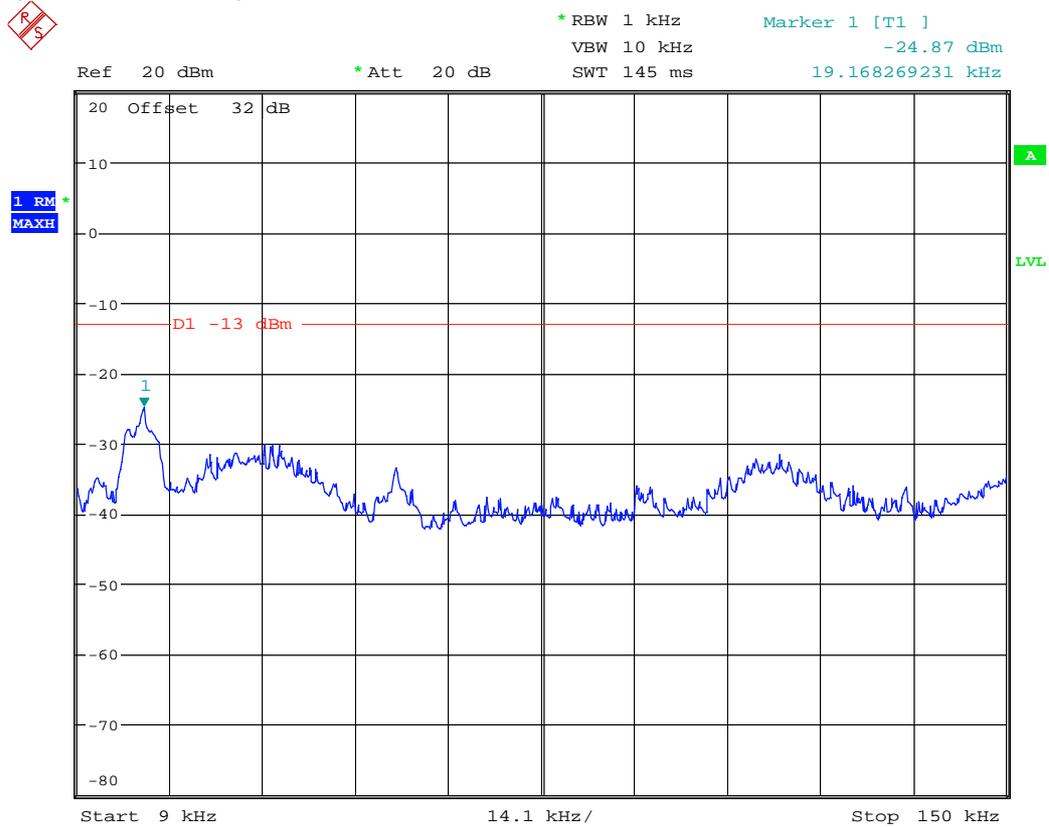
AB

Date: 23.JUL.2008 11:03:14



B. Multiple Carriers:

Channel Number: 825/850/875/900
(9k ~ 150k)

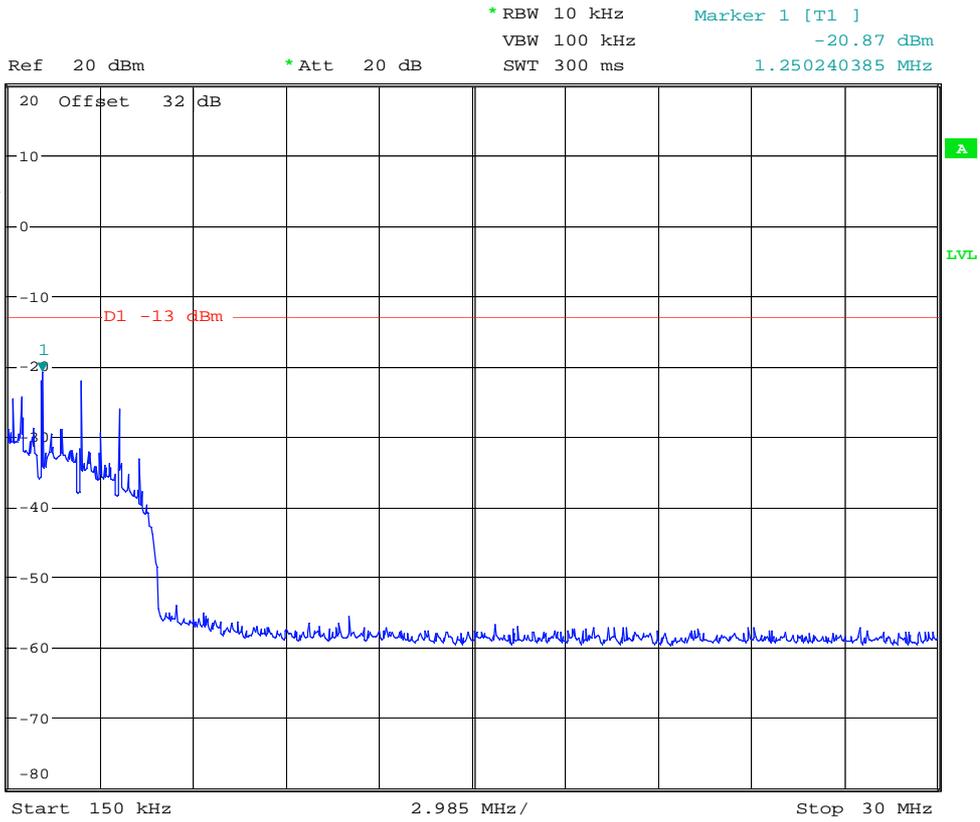


AB

Date: 23.JUL.2008 16:24:52



(150k ~ 30M)

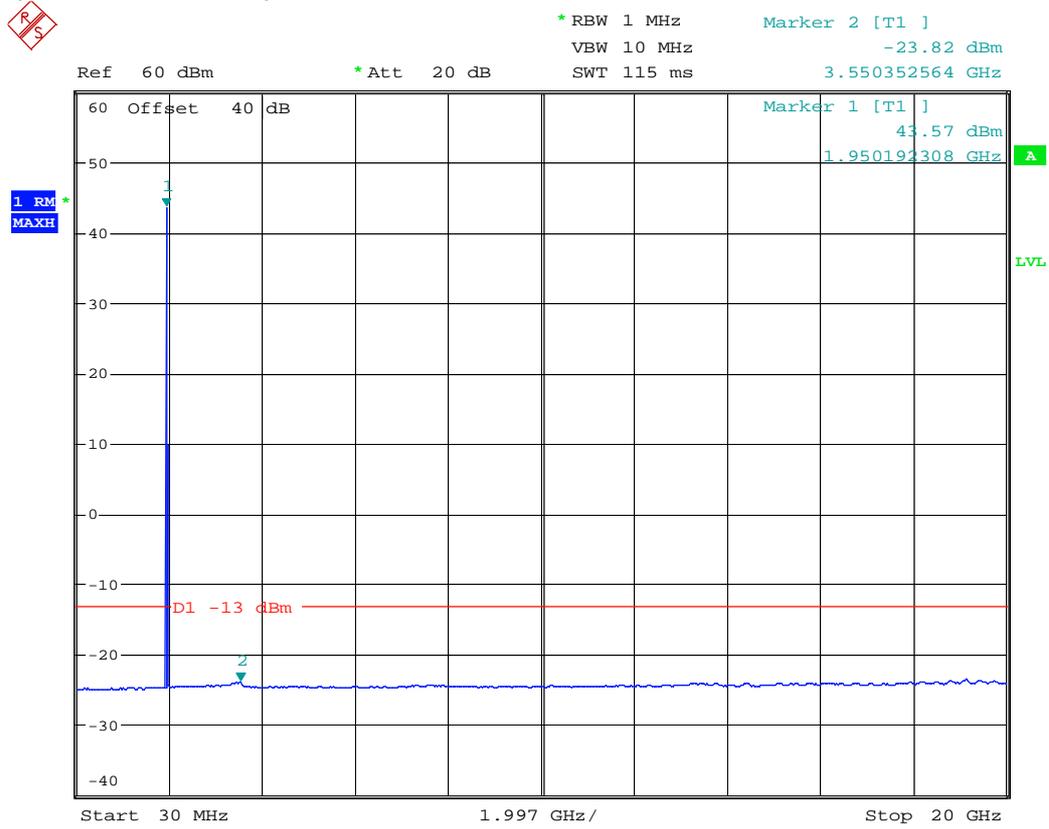


AB

Date: 23.JUL.2008 16:26:52



(30M ~ 20G)

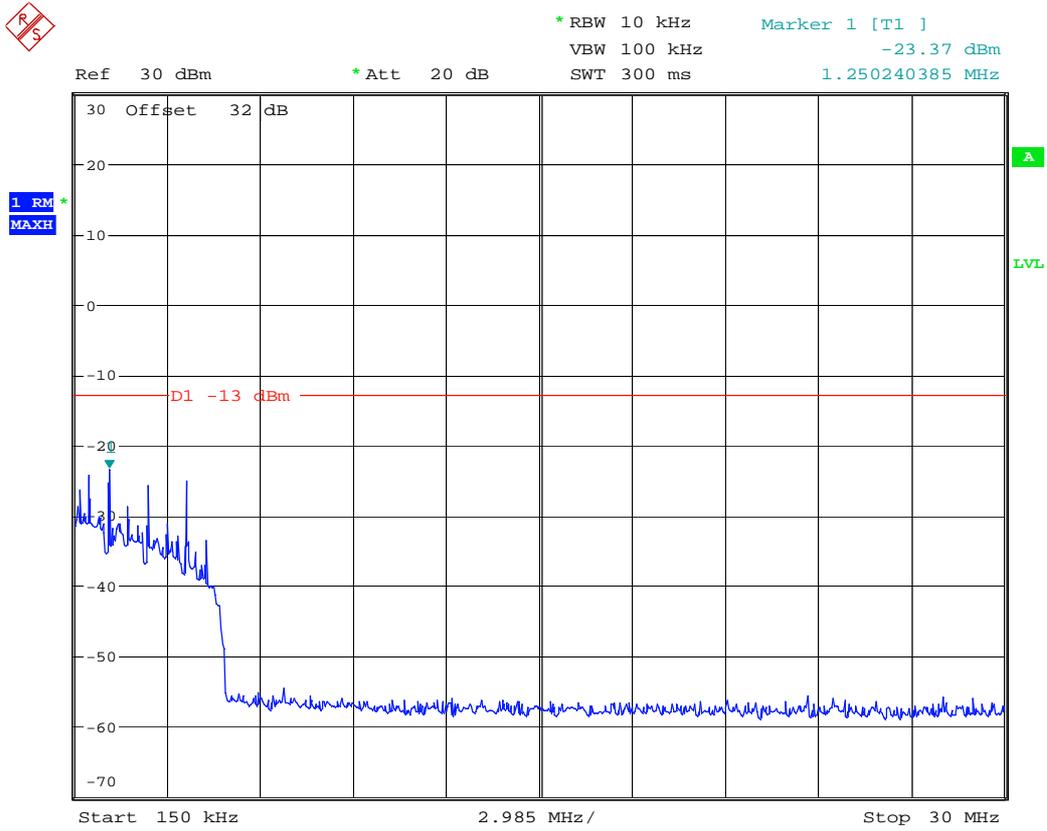


AB

Date: 23.JUL.2008 16:28:26



(150k ~ 30M)

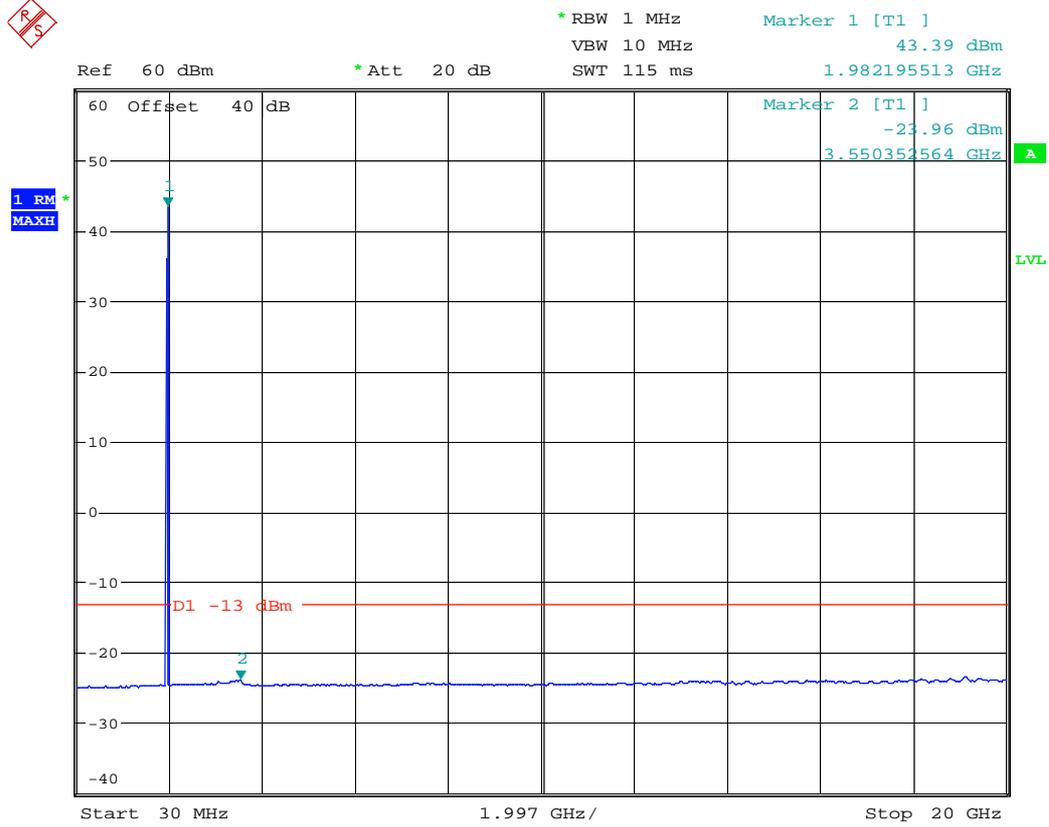


AB

Date: 23.JUL.2008 16:09:07



(30M ~ 20G)

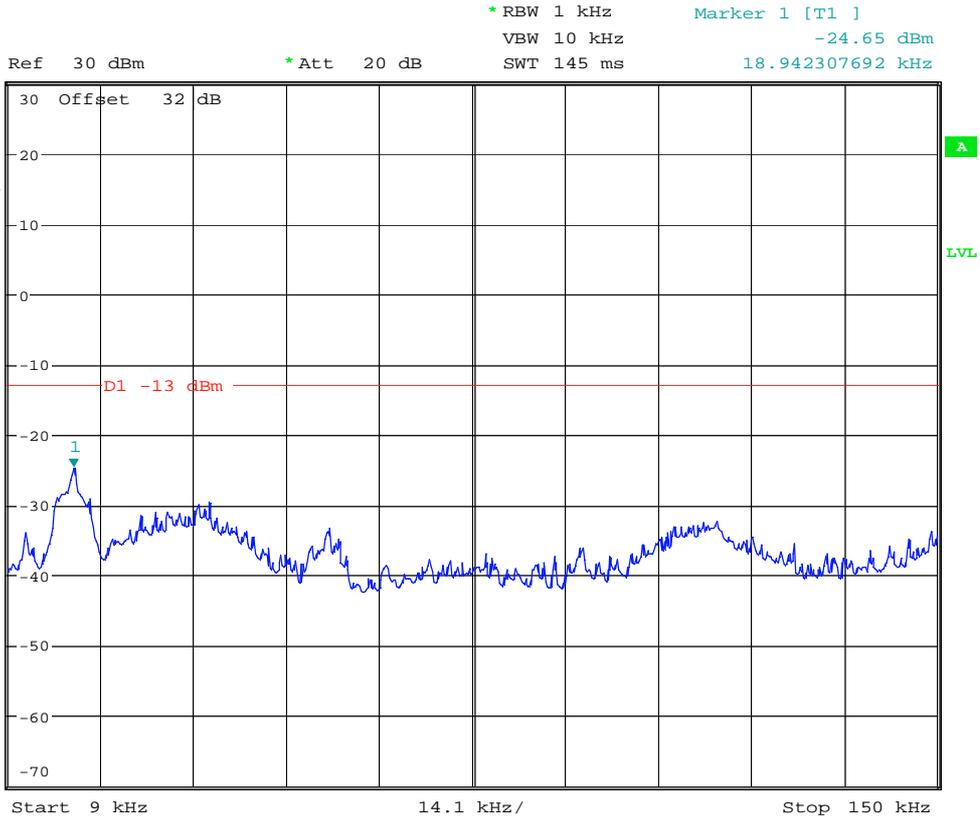


AB

Date: 23.JUL.2008 16:12:43



Channel Number: 1100/1125/1150/1175 (9k ~ 150k)

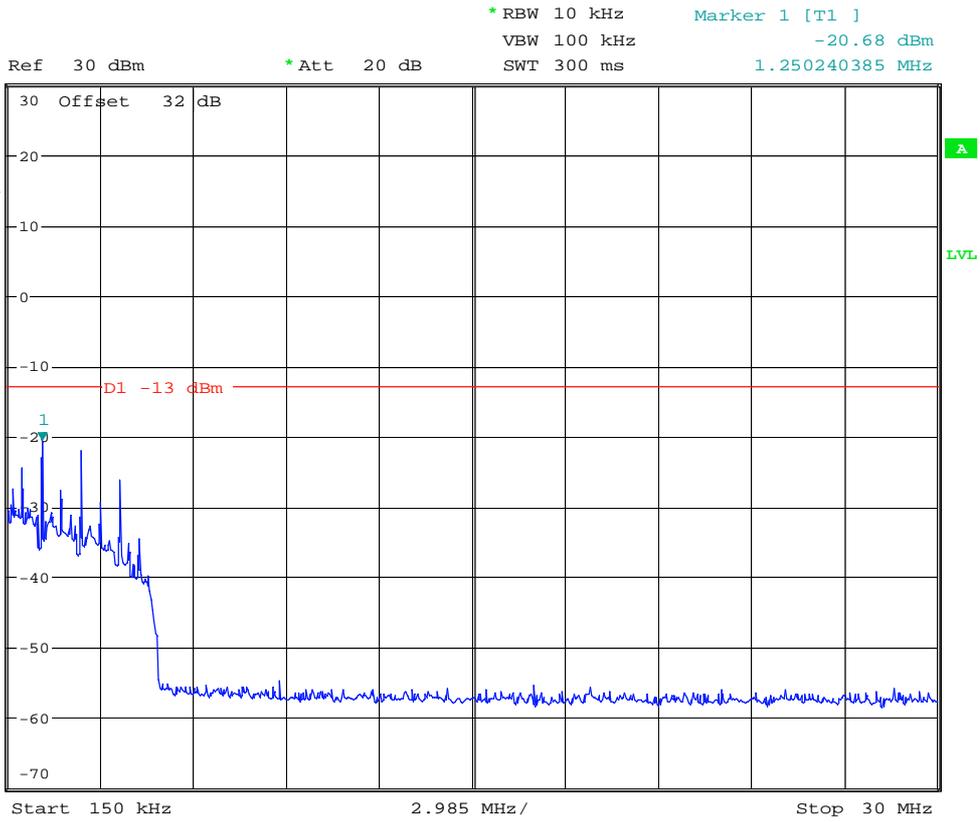


AB

Date: 23.JUL.2008 16:33:53



(150k ~ 30M)

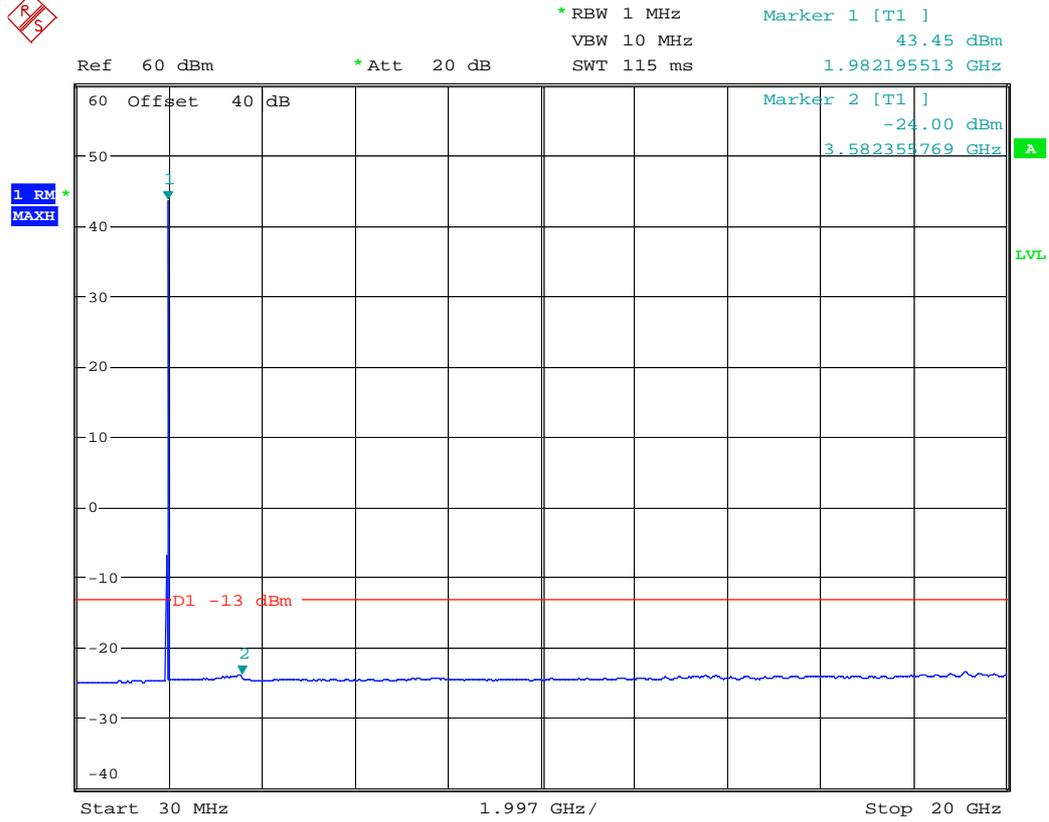


AB

Date: 23.JUL.2008 16:32:59



(30M ~ 20G)



AB

Date: 23.JUL.2008 16:30:48

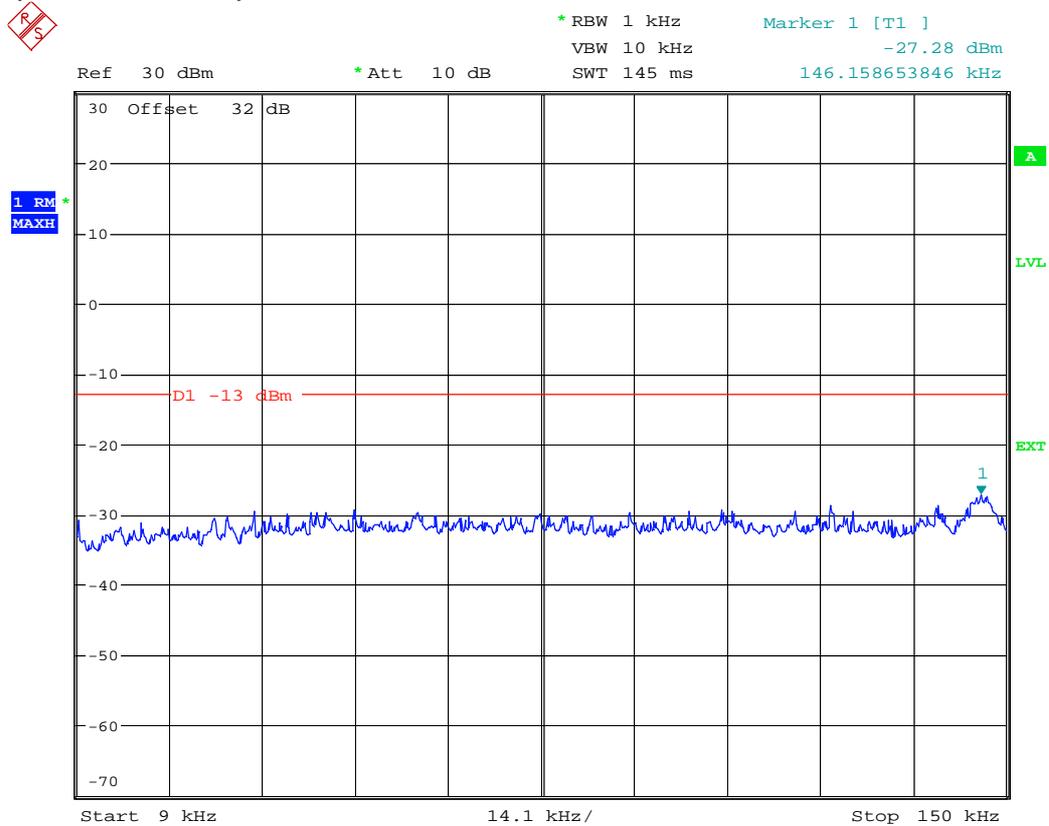


CDMA2000 1X EV-DO

A. Single Carrier

Channel Number: 825

(9k ~ 150k)

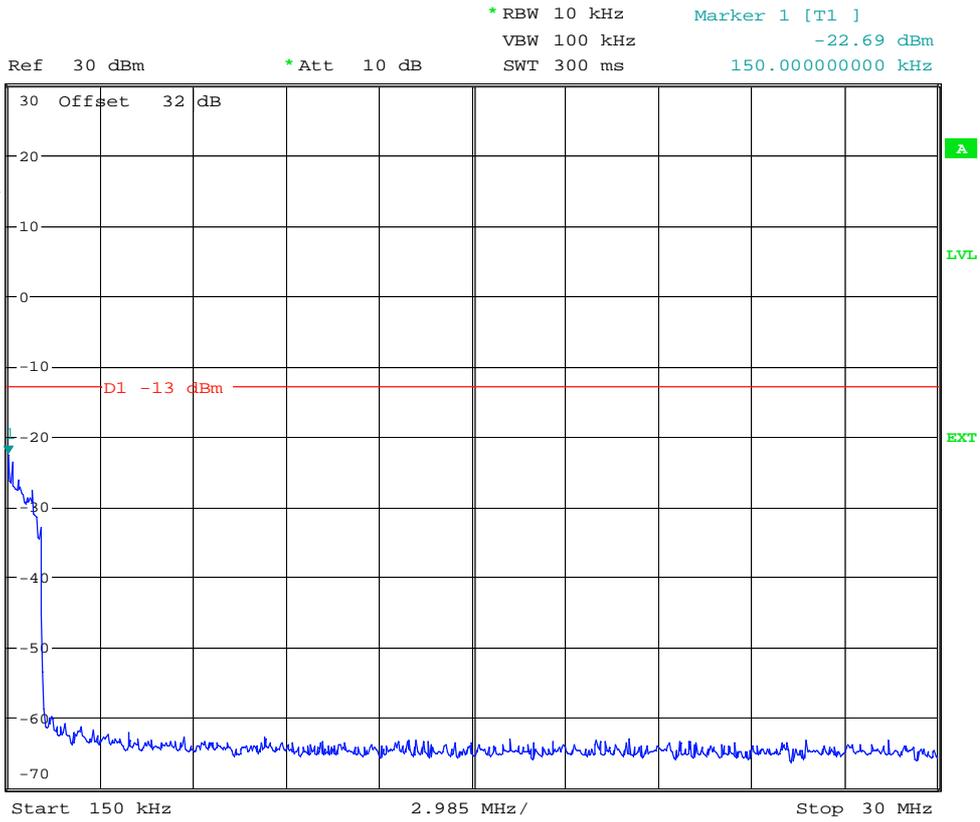


AB

Date: 23.JUL.2008 17:42:57



(150k ~ 30M)

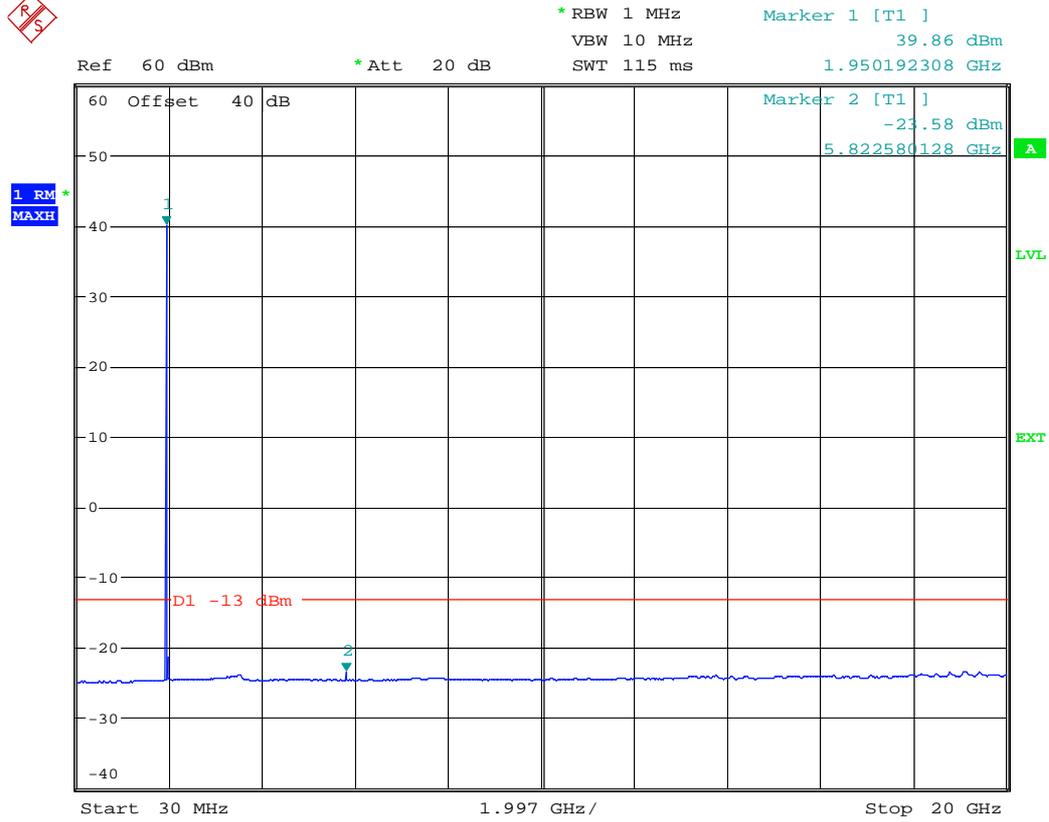


AB

Date: 23.JUL.2008 17:44:03



(30M ~ 20G)



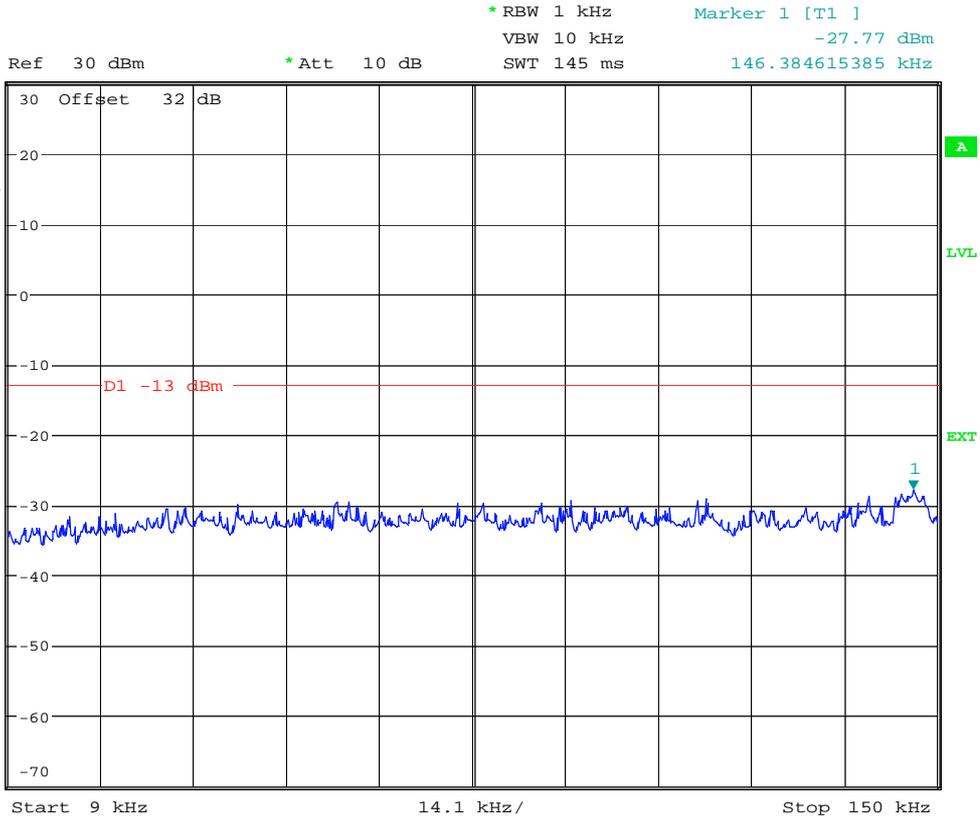
AB

Date: 23.JUL.2008 17:46:22



Channel Number: 1000

(9k ~ 150k)

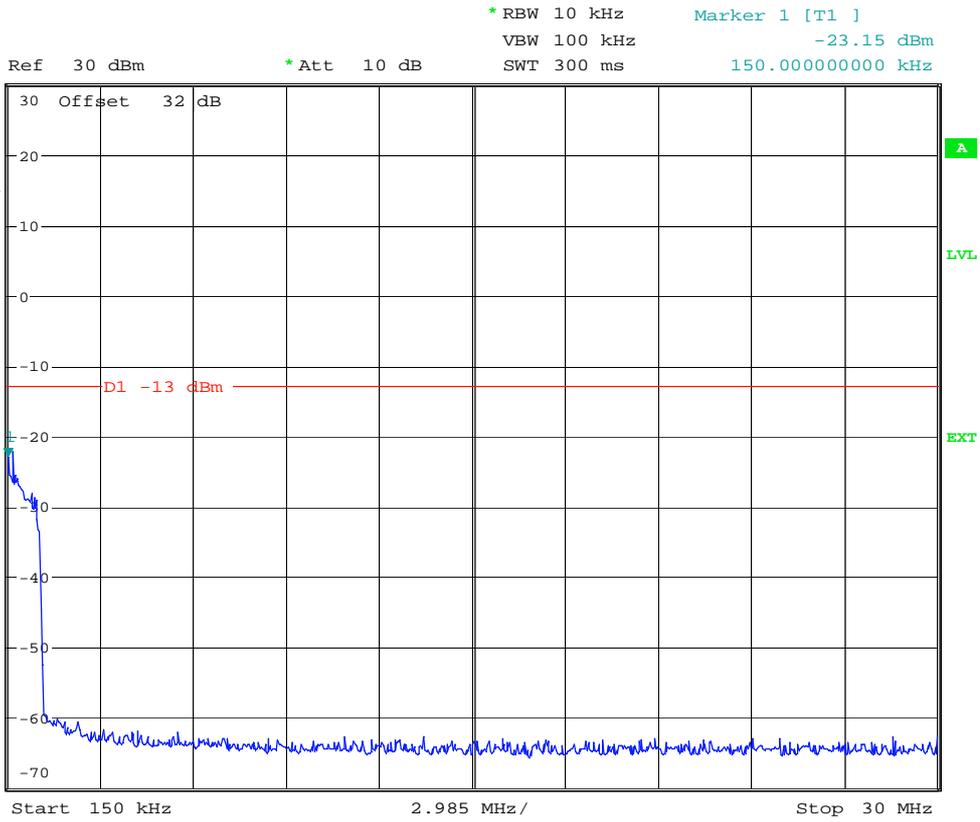


AB

Date: 23.JUL.2008 17:54:48



(150k ~ 30M)

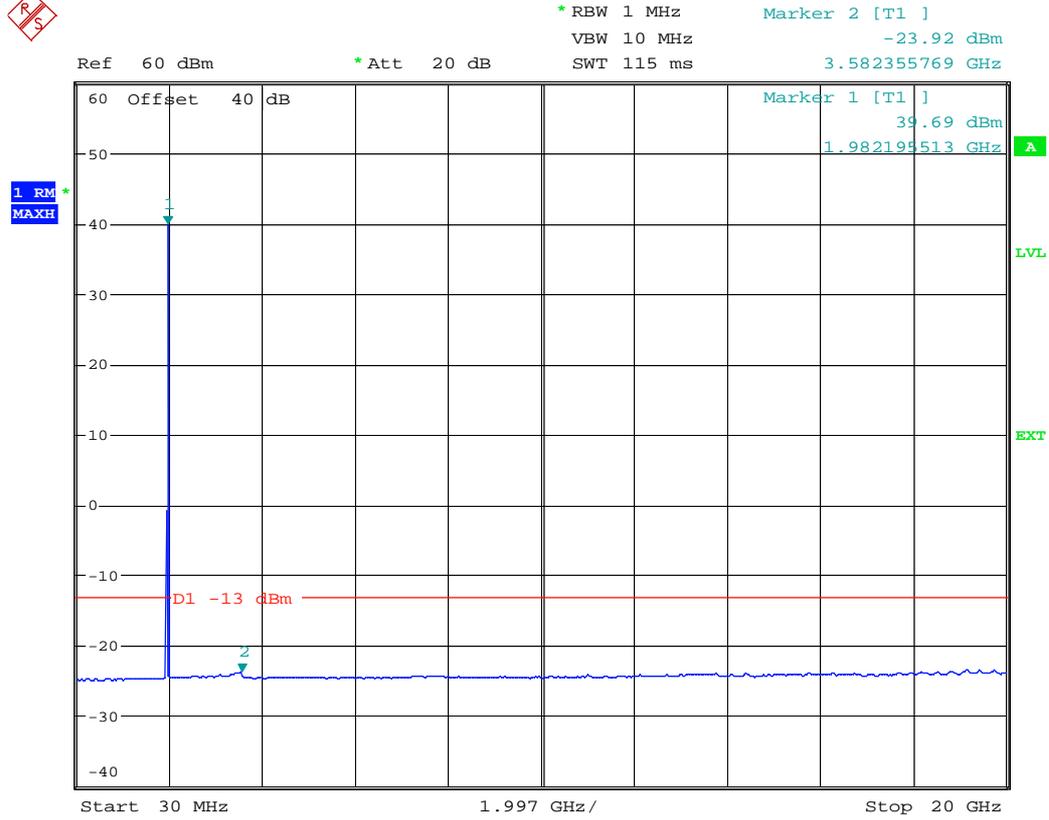


AB

Date: 23.JUL.2008 17:53:37



(30M ~ 20G)



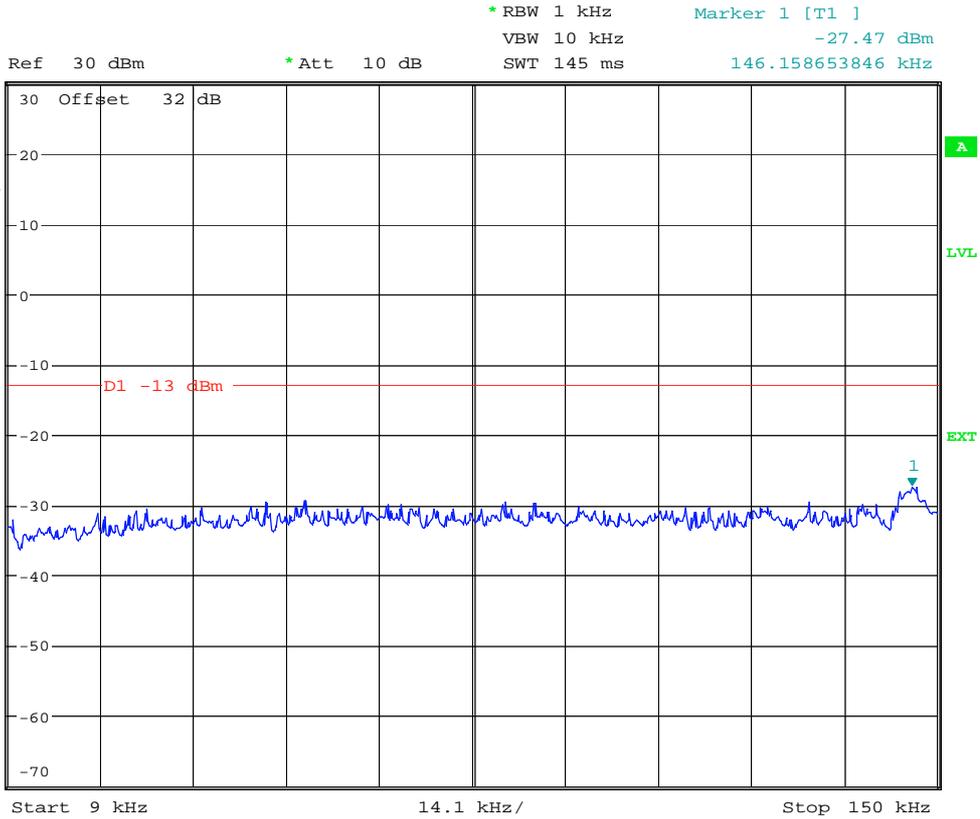
AB

Date: 23.JUL.2008 17:51:59



Channel Number: 1175

(9k ~ 150k)

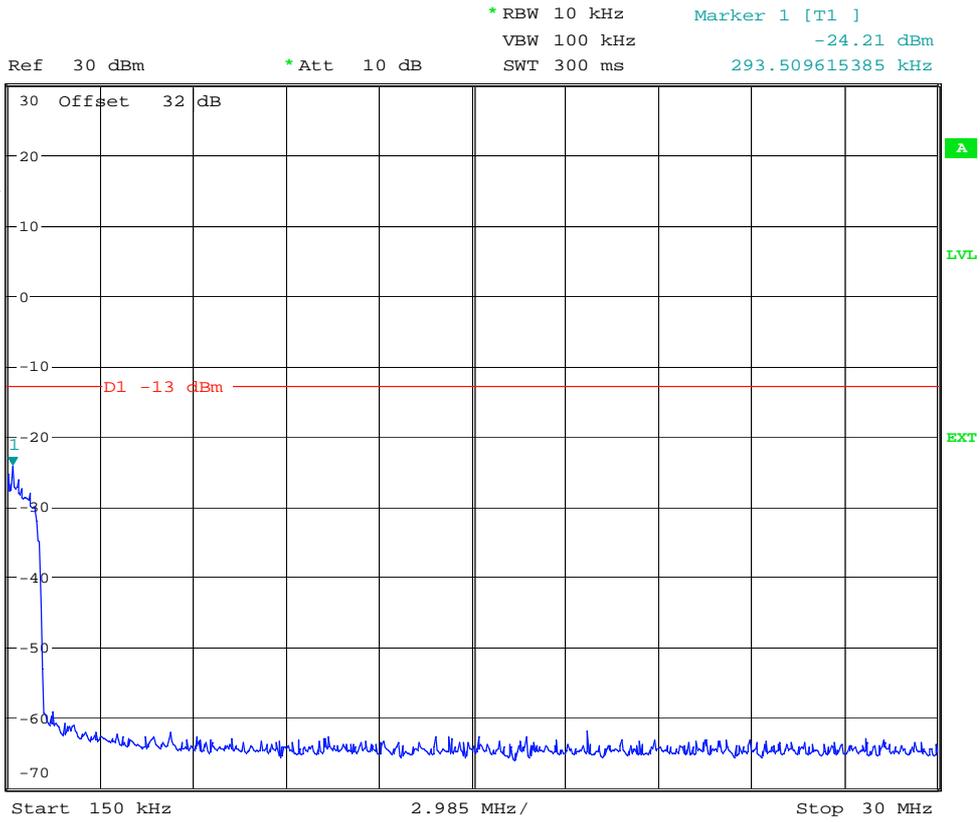


AB

Date: 23.JUL.2008 18:18:39



(150k ~ 30M)

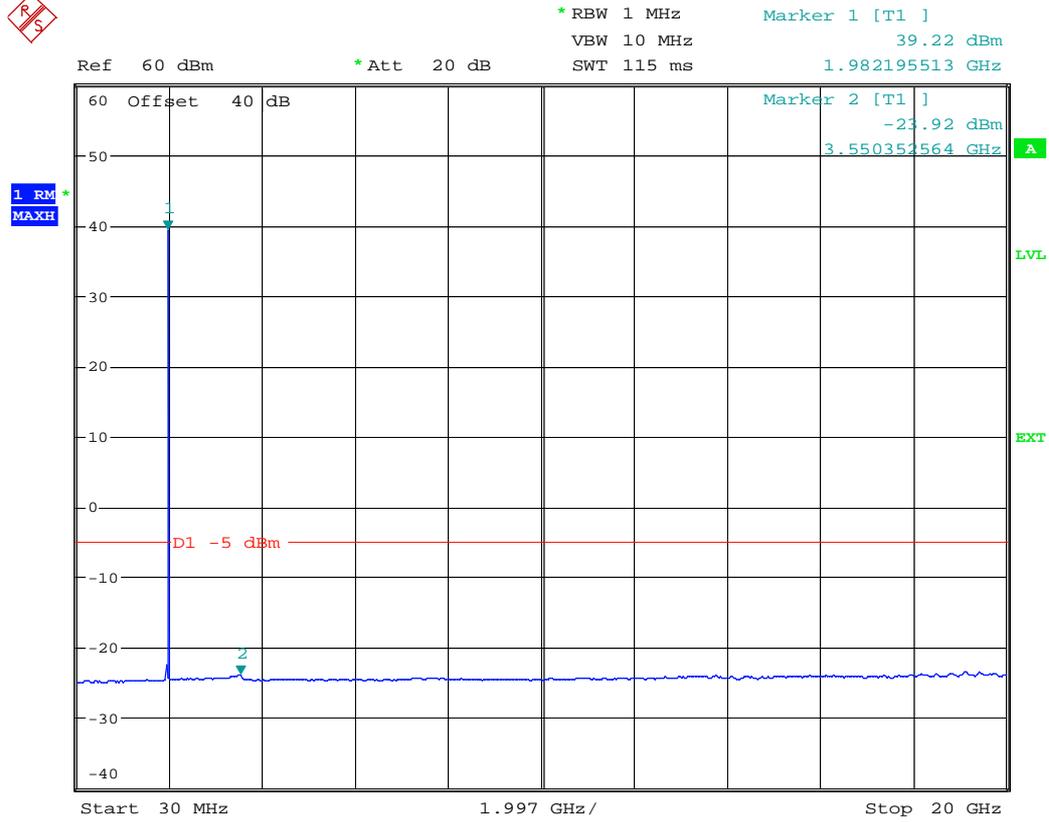


AB

Date: 23.JUL.2008 18:19:23



(30M ~ 20G)



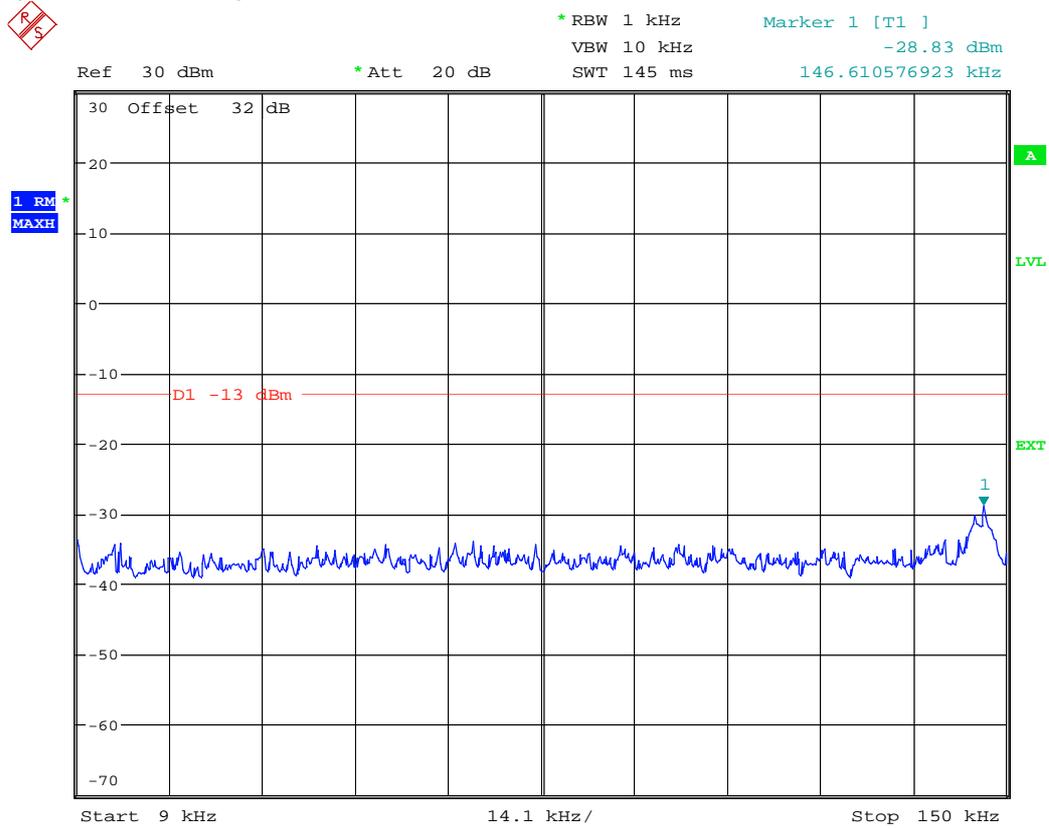
AB

Date: 23.JUL.2008 18:24:12



B. Multiple Carriers:

Channel Number: 825/850/875/900 (9k ~ 150k)

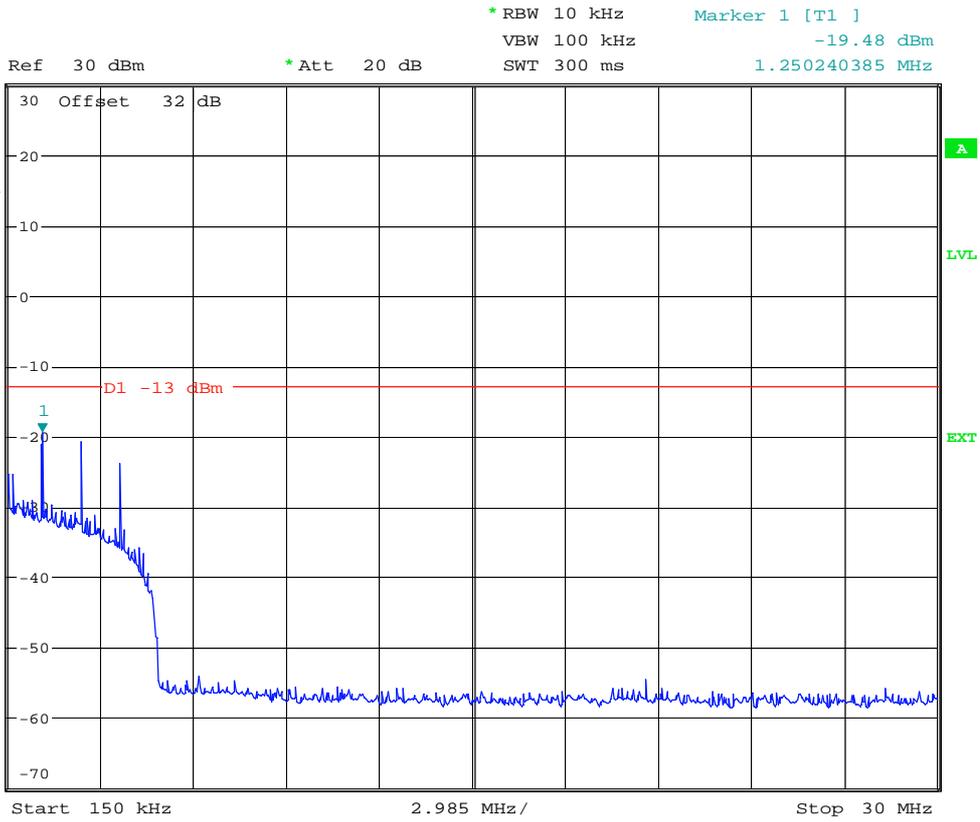


AB

Date: 23.JUL.2008 18:55:38



(150k ~ 30M)

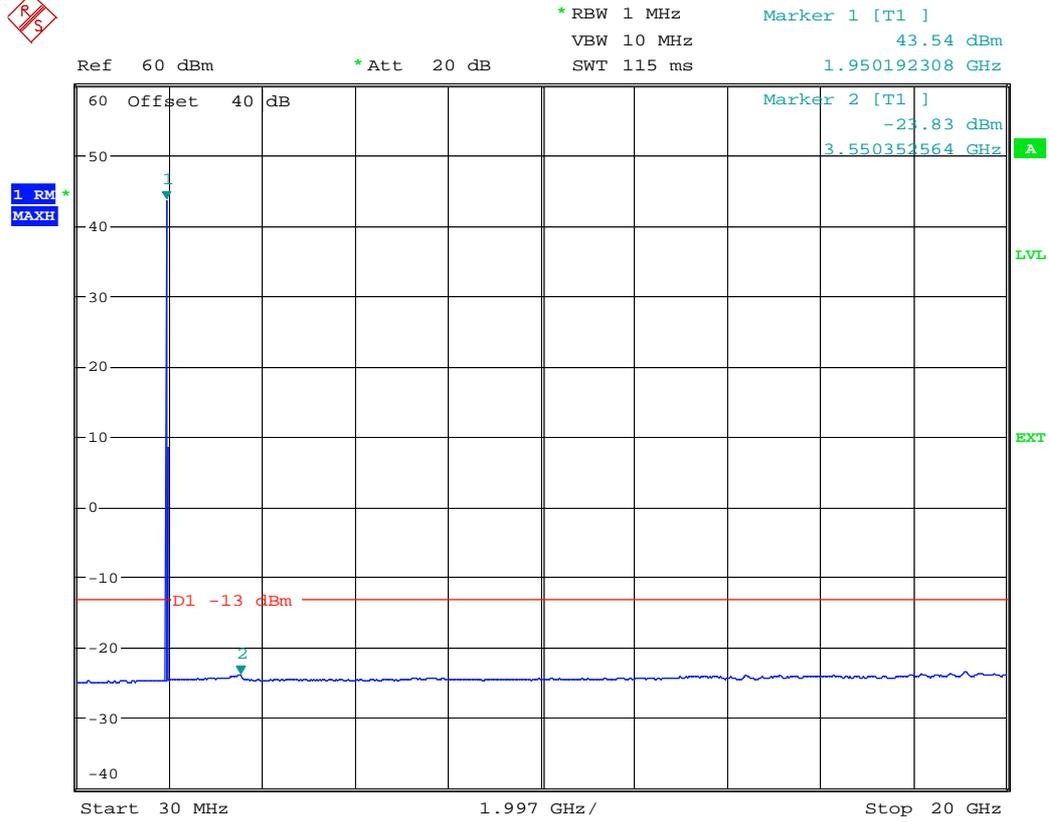


AB

Date: 23.JUL.2008 18:57:09



(30M ~ 20G)



AB

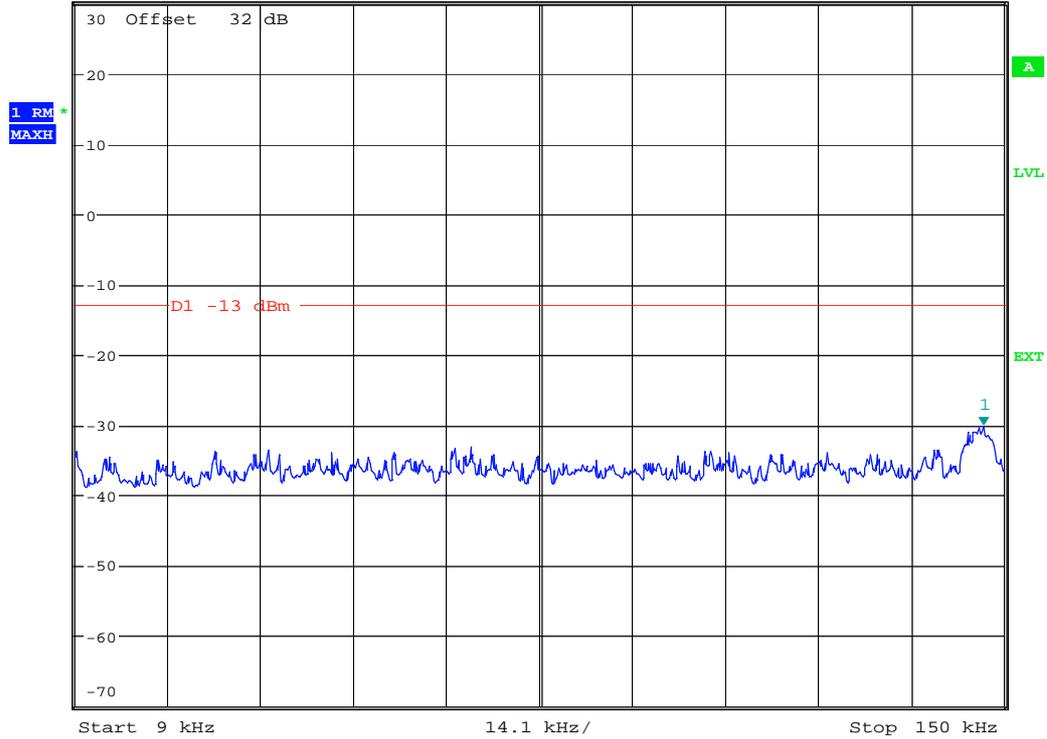
Date: 23.JUL.2008 18:59:12



Channel Number: 950/975/1000/1025 (9k ~ 150k)



Ref 30 dBm * Att 20 dB * RBW 1 kHz Marker 1 [T1]
 VBW 10 kHz -30.14 dBm
 SWT 145 ms 146.836538462 kHz

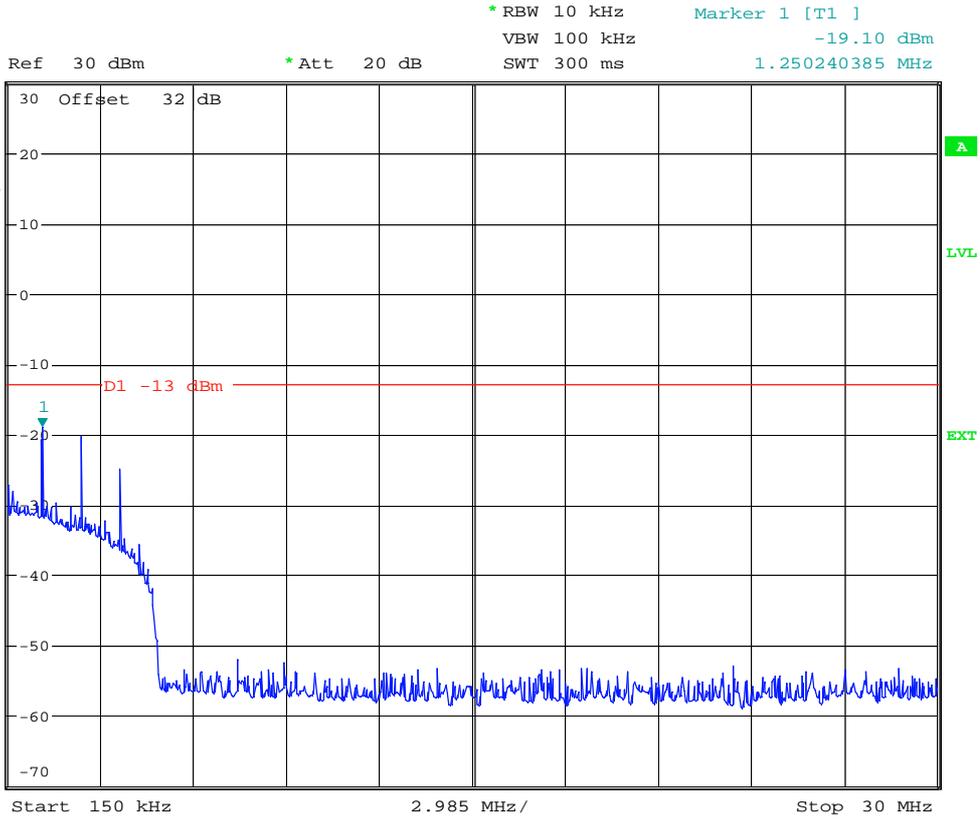


AB

Date: 23.JUL.2008 19:06:20



(150k ~ 30M)

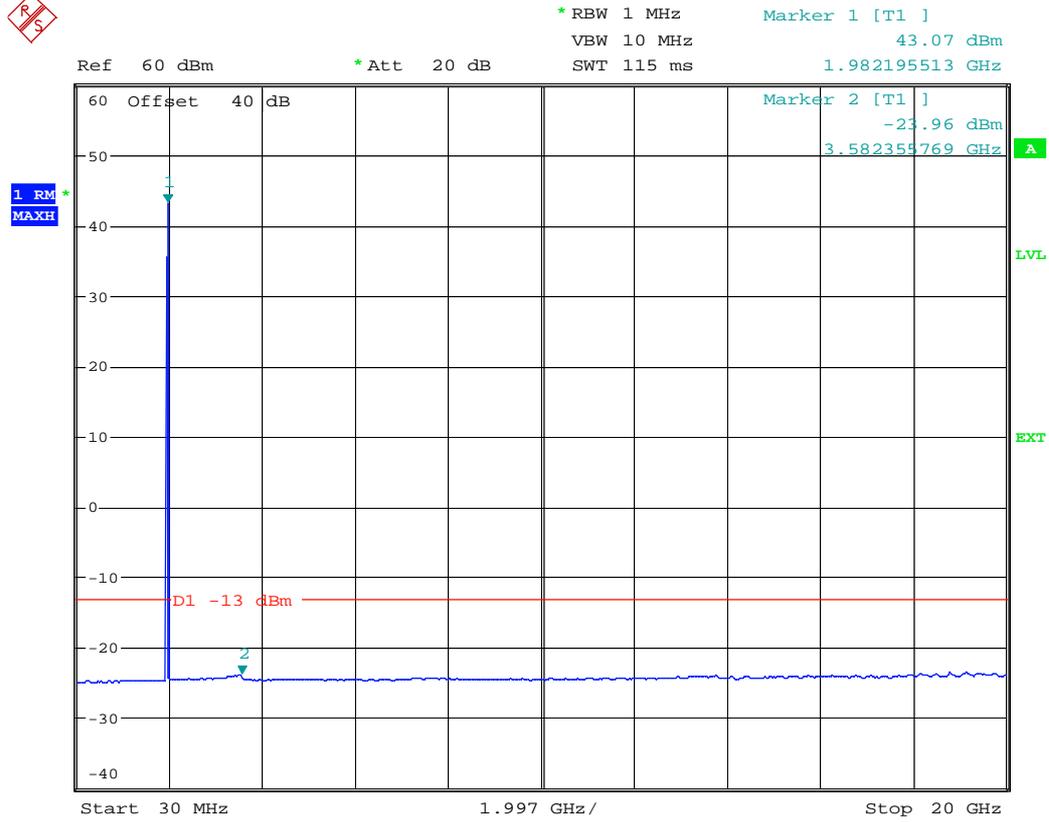


AB

Date: 23.JUL.2008 19:05:17



(30M ~ 20G)

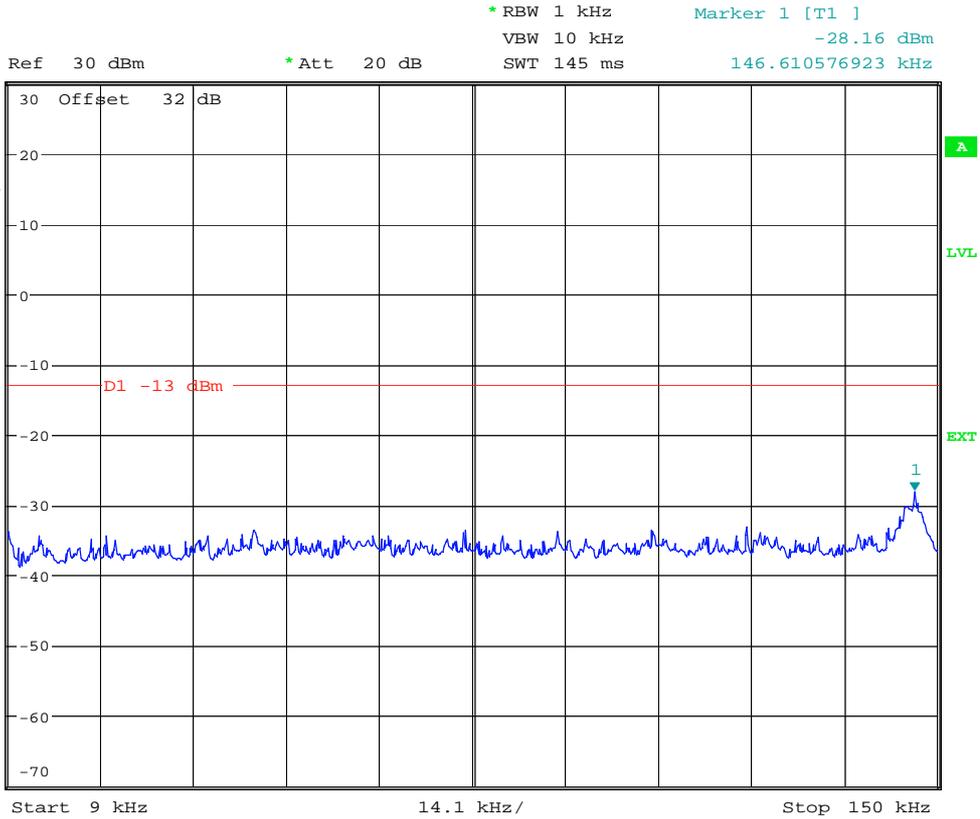


AB

Date: 23.JUL.2008 19:03:13



Channel Number: 1100/1125/1150/1175 (9k ~ 150k)

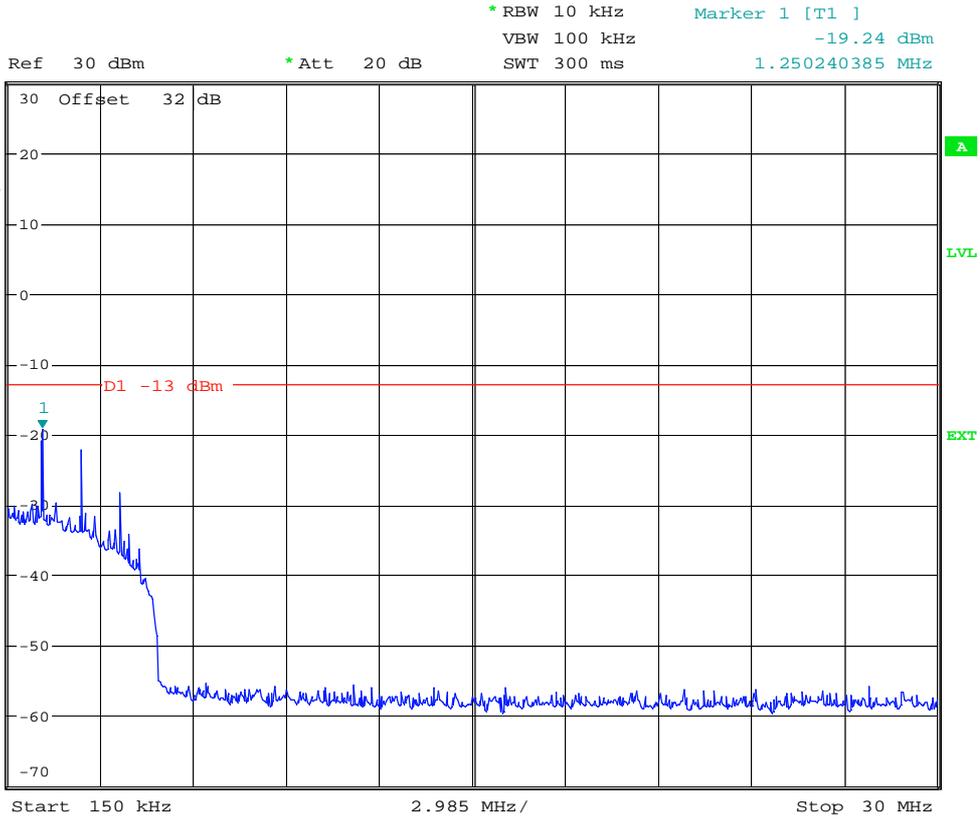


AB

Date: 23.JUL.2008 19:20:19



(150k ~ 30M)

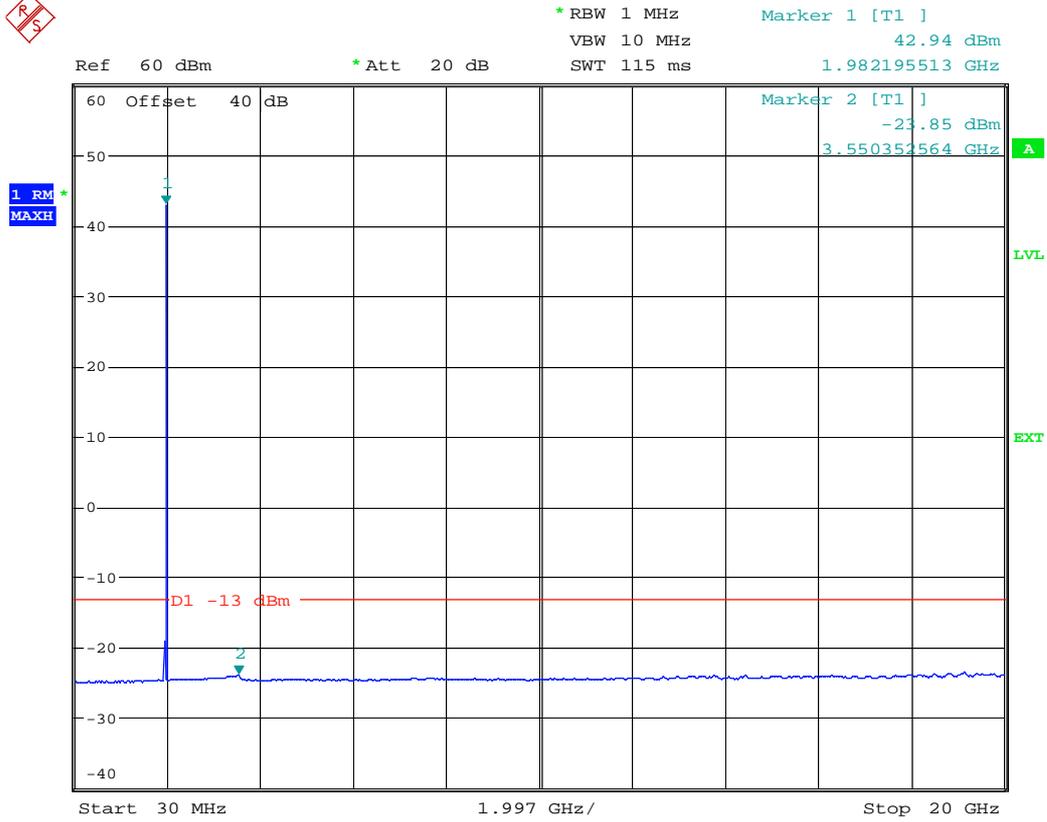


AB

Date: 23.JUL.2008 19:20:50



(30M ~ 20G)



AB

Date: 23.JUL.2008 19:23:21



Appendix E

Field Strength of Spurious Radiation

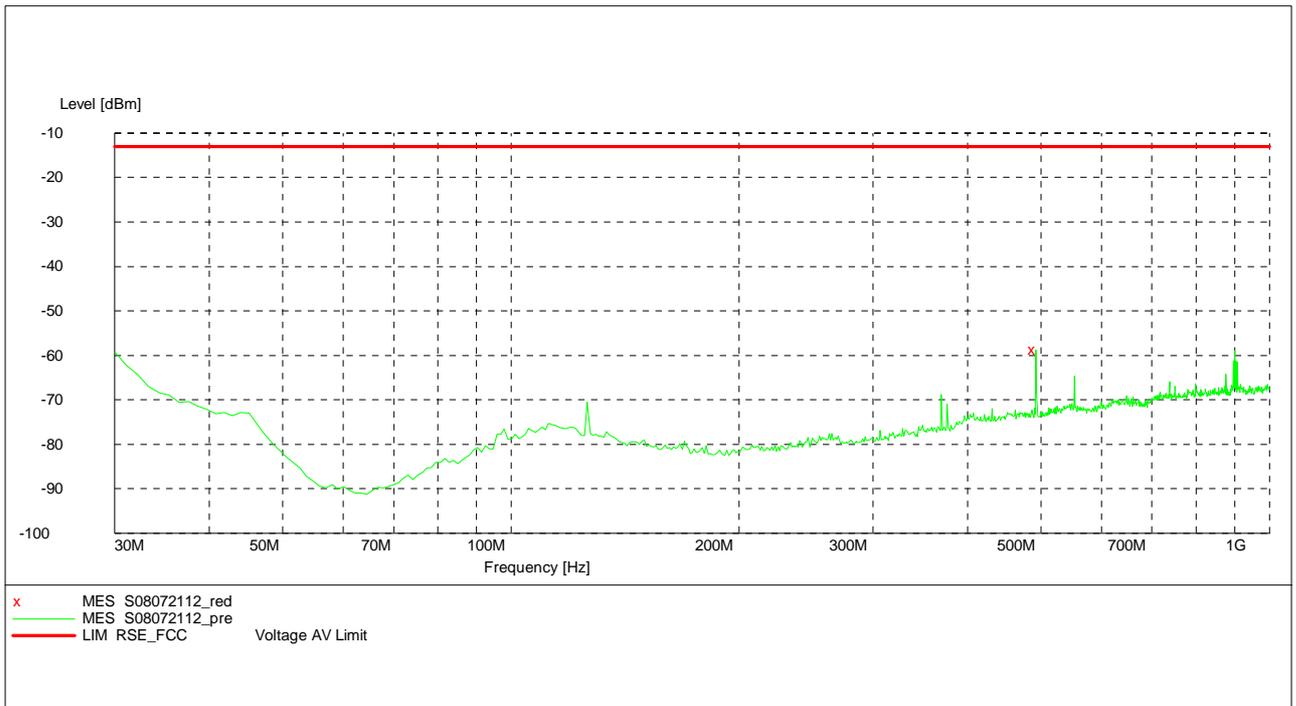
According to FCC Part 2.1053 & 24.238



Measurement Result

Note: more strict limit was employed by this test.

30MHz-1GHz





Above 1GHz

