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Appendix A

Channel Power Measurement

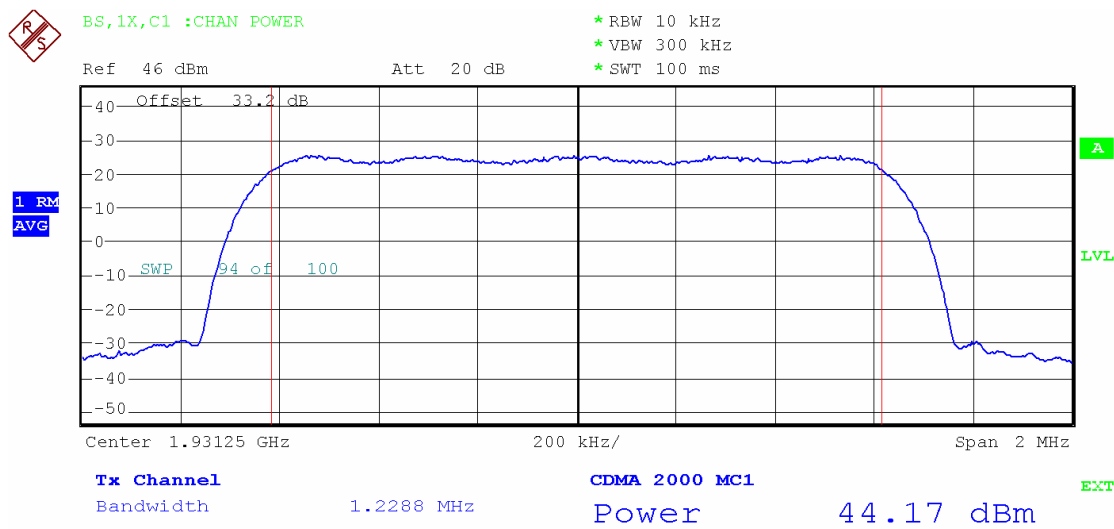
According to CFR 47 (FCC) part 2.1046

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A. Single Carrier:

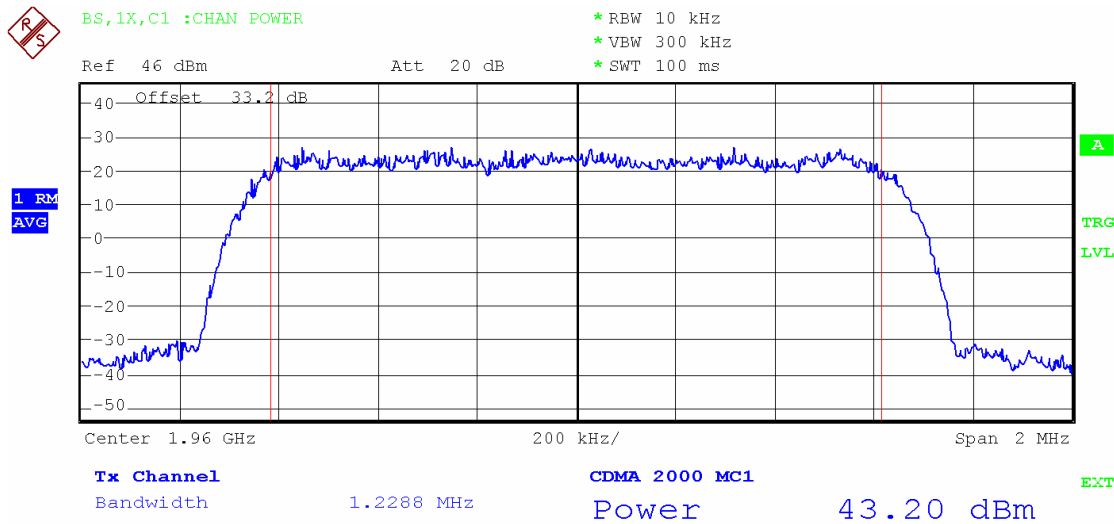
Channel 25



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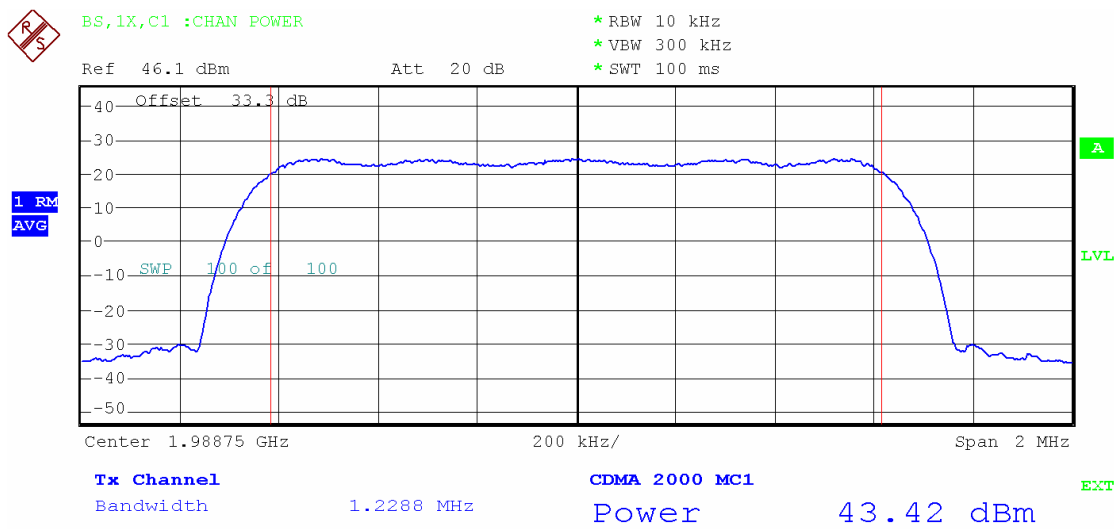
Channel 600



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Channel 1175

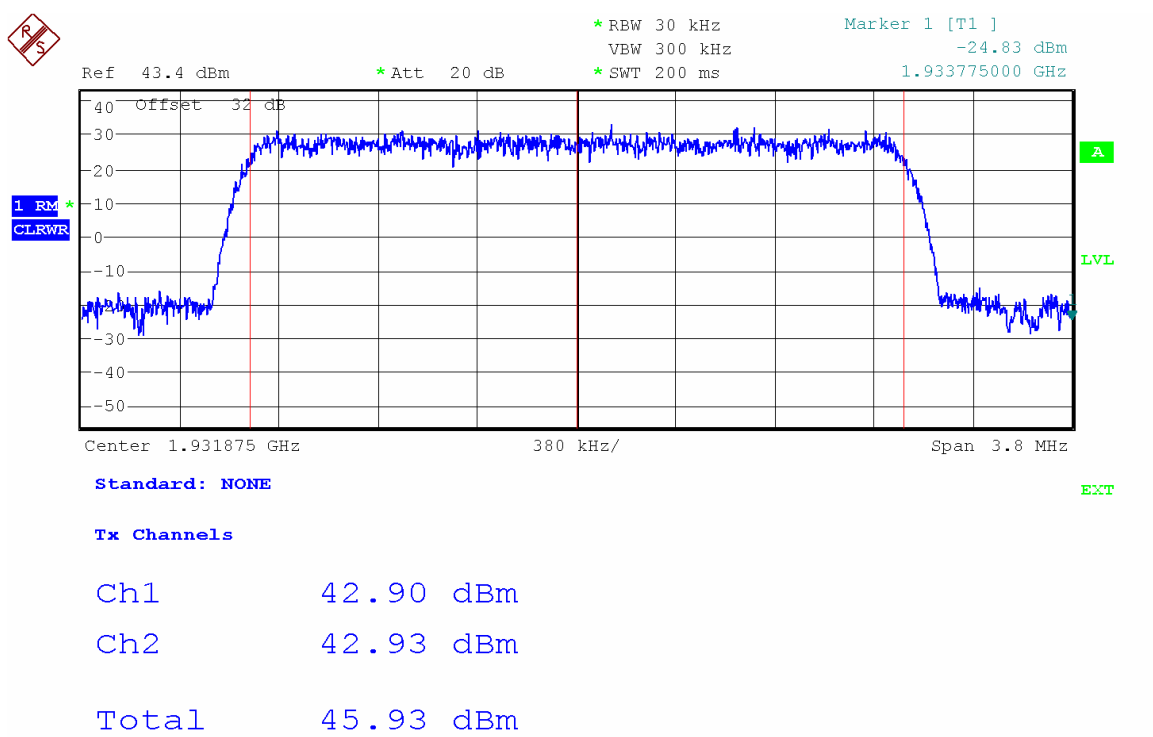


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B. Two Carriers:

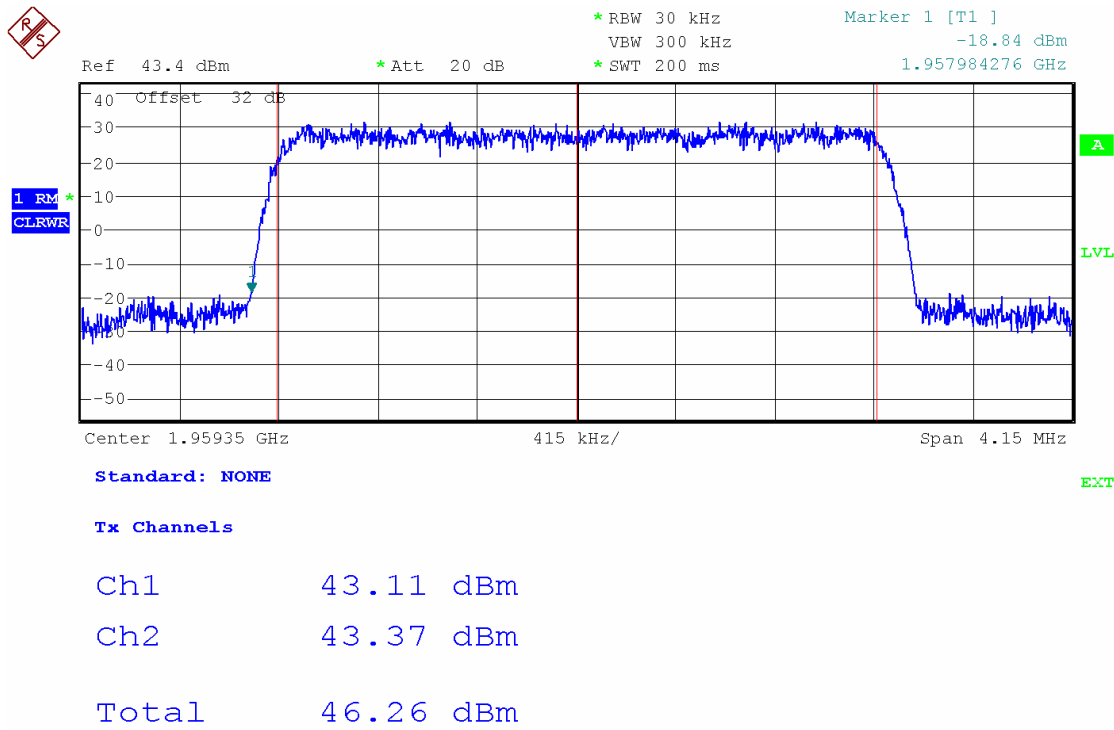
Channel 25



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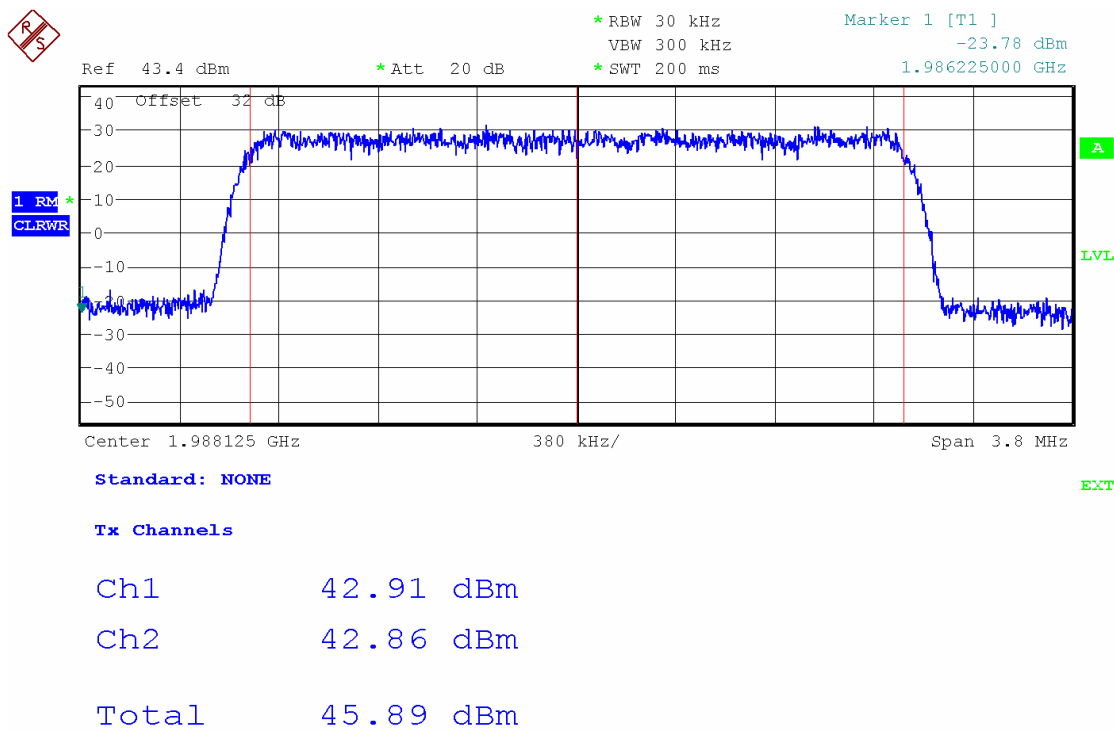
Channel 600



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Channel 1175

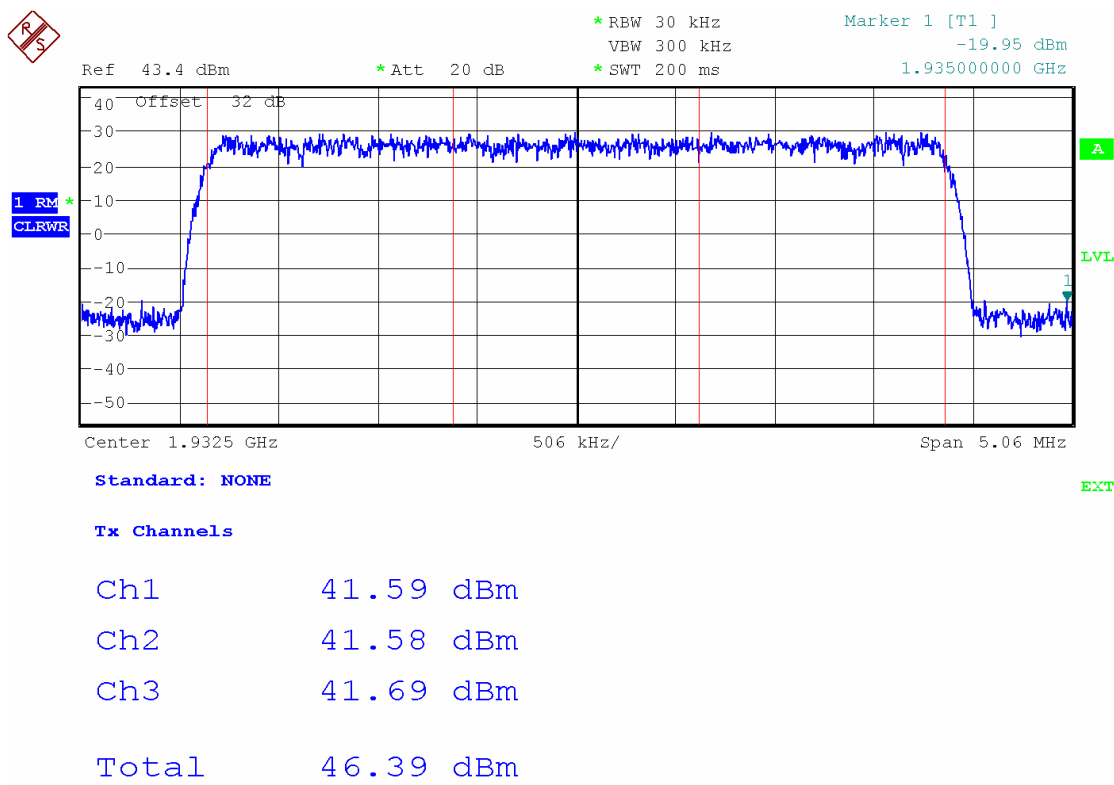


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C. Three Carriers:

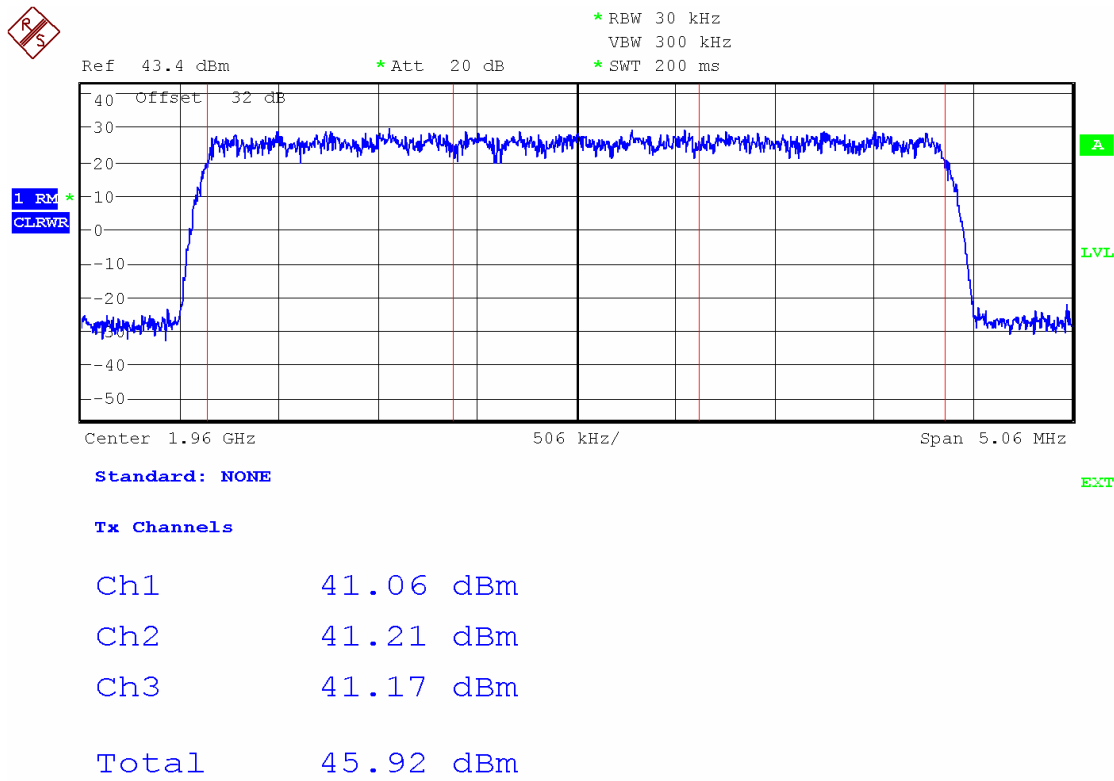
Channel 25



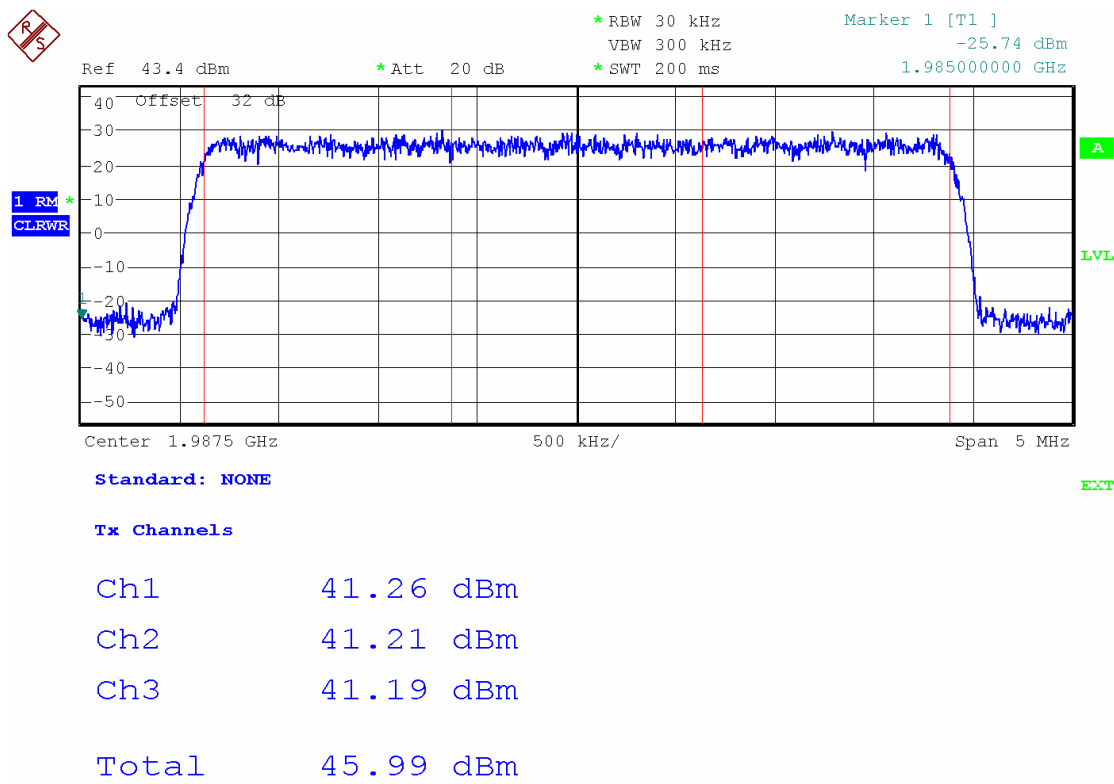
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Channel 600



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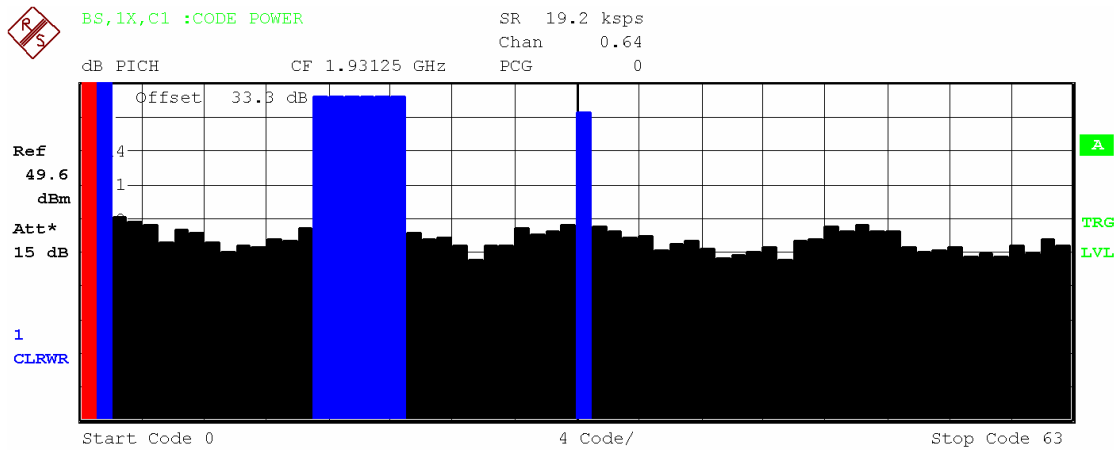
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Appendix B

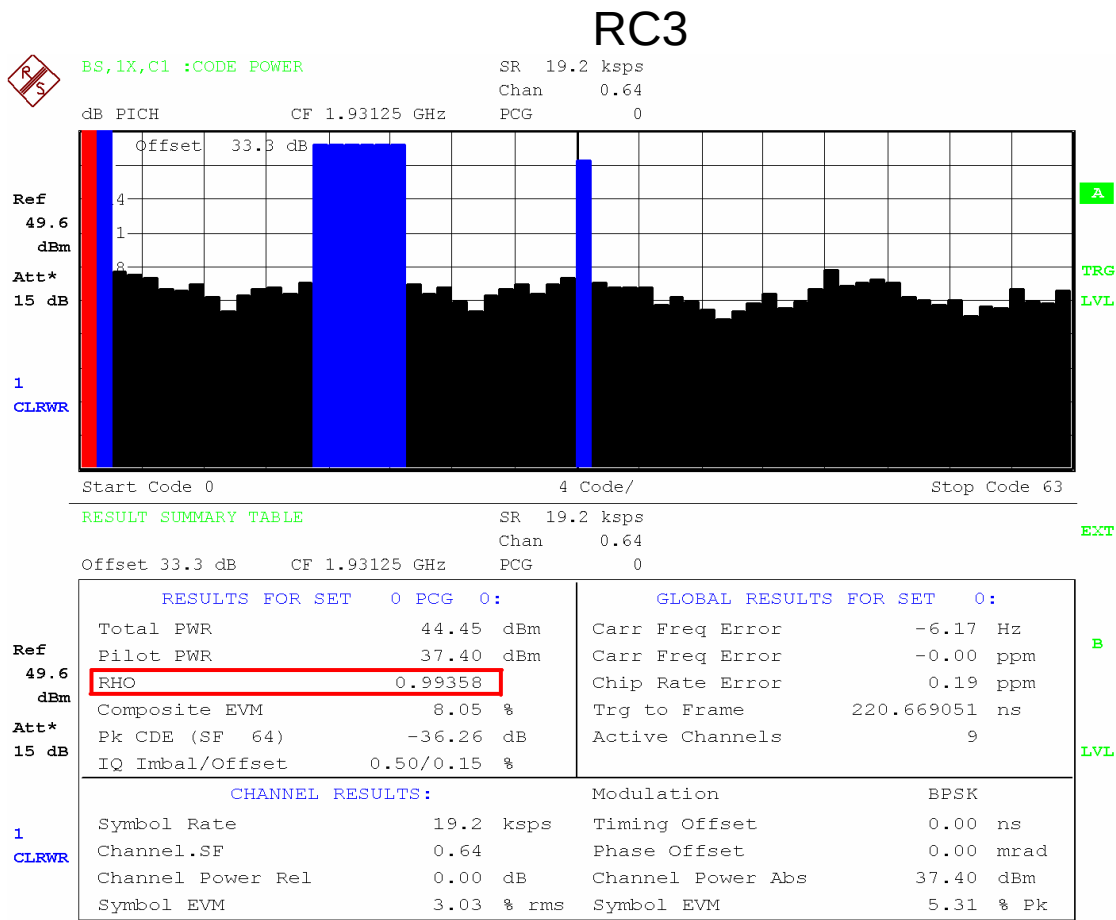
Modulation Characteristic Measurement

According to CFR 47 (FCC) part 2.1047

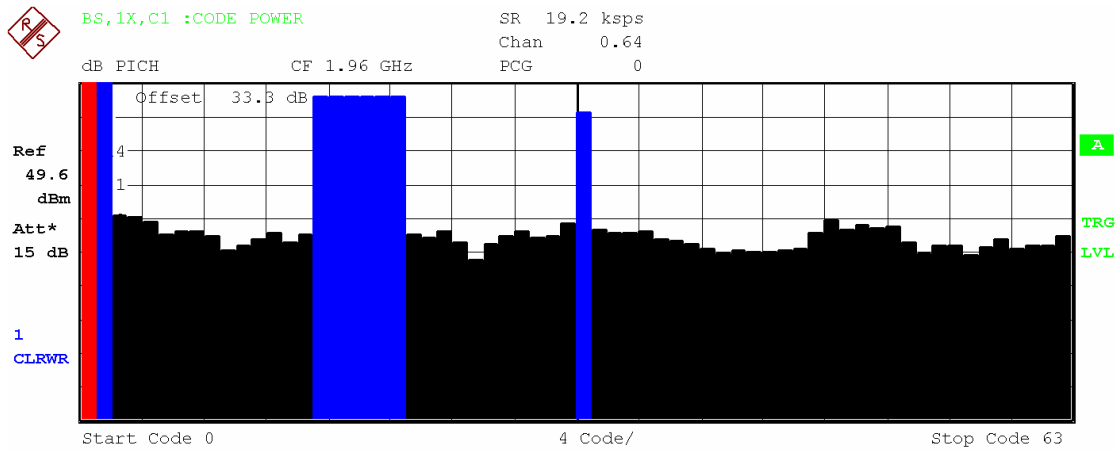
Channel 25
RC1



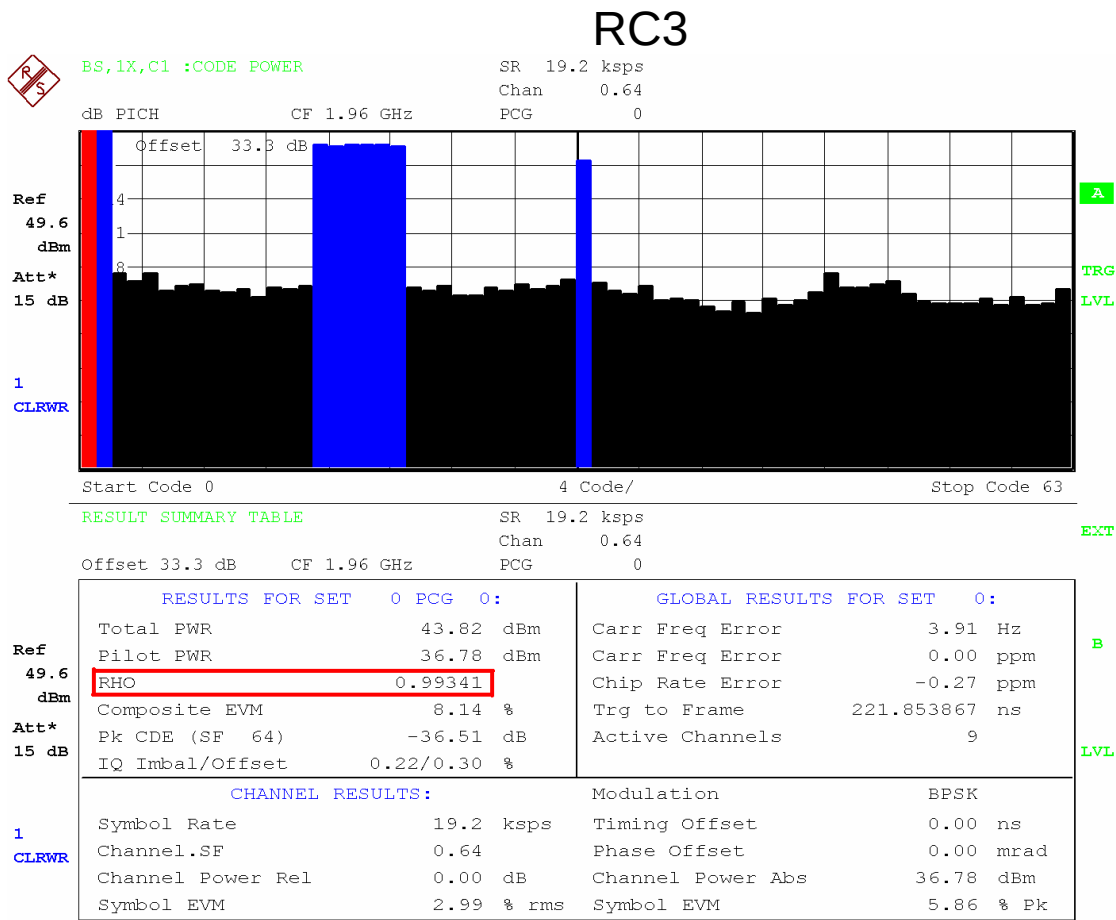
RESULT SUMMARY TABLE				SR 19.2 ksps	EXT
				Chan 0.64	
Offset 33.3 dB CF 1.93125 GHz PCG 0					
Ref 49.6 dBm Att* 15 dB	RESULTS FOR SET 0 PCG 0:			GLOBAL RESULTS FOR SET 0:	
	Total PWR 44.41 dBm			Carr Freq Error -12.65 Hz	
	Pilot PWR 37.37 dBm			Carr Freq Error -0.01 ppm	
	RHO 0.99229			Chip Rate Error -0.14 ppm	
	Composite EVM 8.82 %			Trg to Frame 221.514739 ns	
	Pk CDE (SF 64) -35.02 dB			Active Channels 9	
	IQ Imbal/Offset 0.26/0.33 %				
1 CLRWR	CHANNEL RESULTS:			Modulation BPSK	
	Symbol Rate 19.2 ksps			Timing Offset 0.00 ns	
	Channel.SF 0.64			Phase Offset 0.00 mrad	
	Channel Power Rel 0.00 dB			Channel Power Abs 37.37 dBm	
	Symbol EVM 2.83 % rms			Symbol EVM 6.78 % Pk	



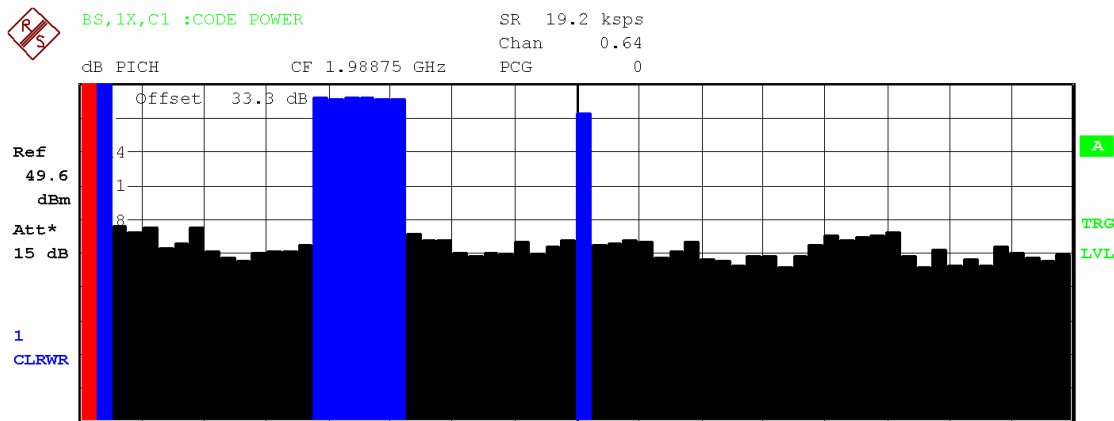
Channel 600
RC1



RESULT SUMMARY TABLE			SR 19.2 ksps	EXT	
			Chan 0.64		
Offset 33.3 dB CF 1.96 GHz			PCG 0		
Ref 49.6 dBm Att* 15 dB	RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:		B LVL
	Total PWR	43.76 dBm	Carr Freq Error	-21.24 mHz	
	Pilot PWR	36.70 dBm	Carr Freq Error	-0.00 ppm	
	RHO	0.99136	Chip Rate Error	0.04 ppm	
	Composite EVM	9.35 %	Trg to Frame	221.101558 ns	
	Pk CDE (SF 64)	-34.72 dB	Active Channels	9	
	IQ Imbal/Offset	0.21/0.21 %			
1 CLRWR	CHANNEL RESULTS:		Modulation BPSK		
	Symbol Rate	19.2 ksps	Timing Offset	0.00 ns	
	Channel.SF	0.64	Phase Offset	0.00 mrad	
	Channel Power Rel	0.00 dB	Channel Power Abs	36.70 dBm	
	Symbol EVM	3.20 % rms	Symbol EVM	6.25 % Pk	



Channel 1175
RC1



RESULT SUMMARY TABLE

SR 19.2 kbps
Chan 0.64
EXT

Offset 33.3 dB CF 1.98875 GHz PCG 0

RESULTS FOR SET 0 PCG 0:		GLOBAL RESULTS FOR SET 0:	
Total PWR	43.81 dBm	Carr Freq Error	3.84 Hz
Pilot PWR	36.79 dBm	Carr Freq Error	0.00 ppm
RHO	0.99443	Chip Rate Error	0.19 ppm
Composite EVM	7.49 %	Trg to Frame	220.649738 ns
Pk CDE (SF 64)	-36.65 dB	Active Channels	9
IQ Imbal/Offset	0.51/0.28 %		

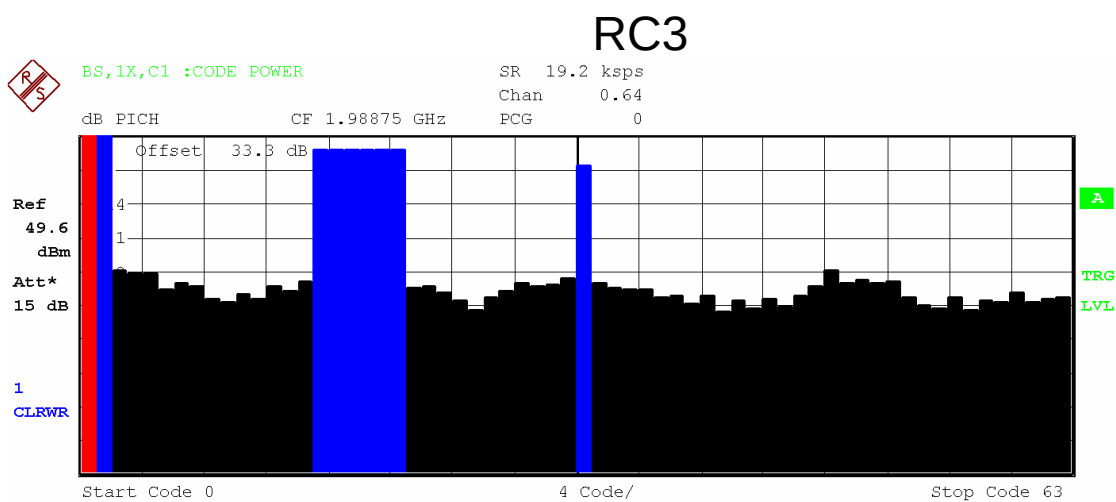
CHANNEL RESULTS:		Modulation	
Symbol Rate	19.2 kbps	Timing Offset	0.00 ns
Channel.SF	0.64	Phase Offset	0.00 mrad
Channel Power Rel	0.00 dB	Channel Power Abs	36.79 dBm
Symbol EVM	2.51 % rms	Symbol EVM	5.73 % Pk

Ref 49.6 dBm
Att* 15 dB

1 CLRWR

B

LVL



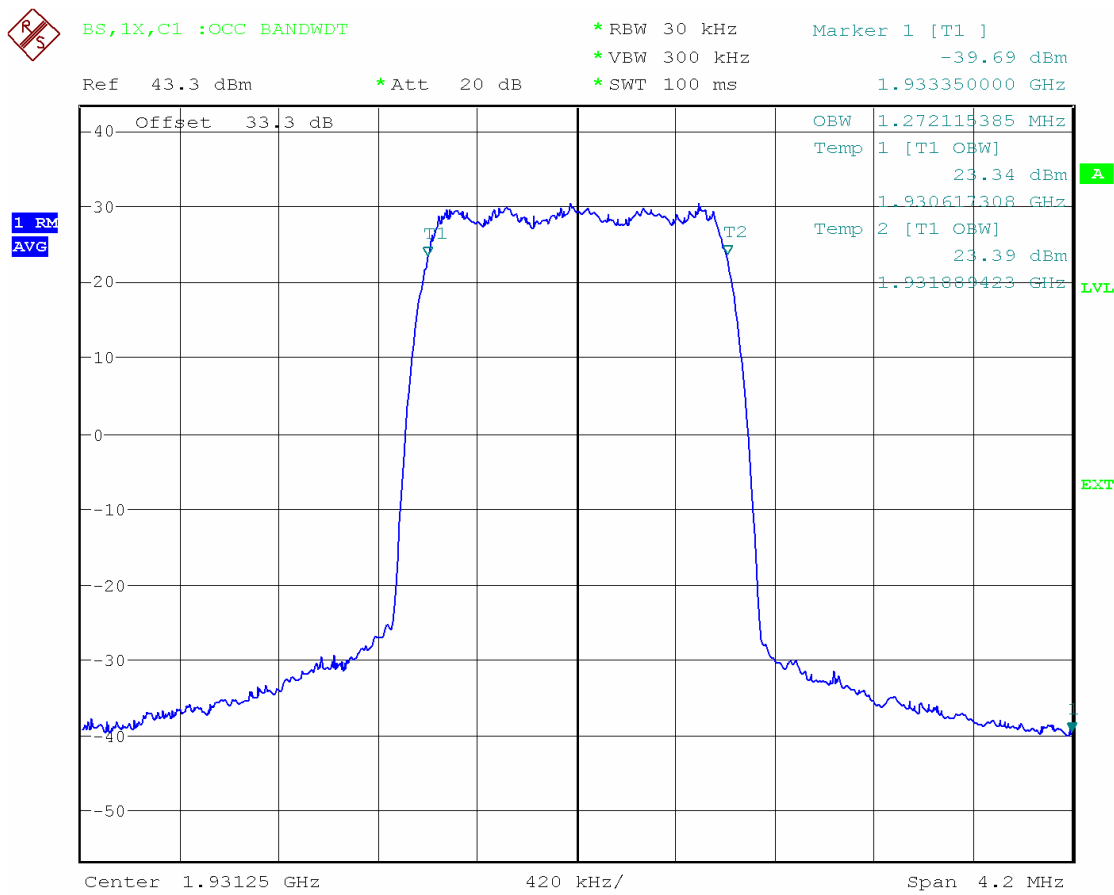
RESULT SUMMARY TABLE				SR	19.2	ksp/s	
				Chan	0.64		EXT
Offset 33.3 dB		CF 1.98875 GHz		PCG	0		
RESULTS FOR SET 0				GLOBAL RESULTS FOR SET 0:			
Ref 49.6 dBm Att* 15 dB	Total PWR	43.71	dBm	Carr Freq Error	-622.73	mHz	B
	Pilot PWR	36.63	dBm	Carr Freq Error	-0.00	ppm	
	RHO	0.99151		Chip Rate Error	-0.03	ppm	
	Composite EVM	9.25	%	Trg to Frame	221.188685	ns	
	Pk CDE (SF 64)	-34.36	dB	Active Channels	9		
	IQ Imbal/Offset	0.53/0.24	%				LVL
CHANNEL RESULTS:				Modulation BPSK			
1 CLRWR	Symbol Rate	19.2	ksp/s	Timing Offset	0.00	ns	
	Channel.SF	0.64		Phase Offset	0.00	mrad	
	Channel Power Rel	0.00	dB	Channel Power Abs	36.63	dBm	
	Symbol EVM	4.31	% rms	Symbol EVM	10.79	% Pk	

Appendix C

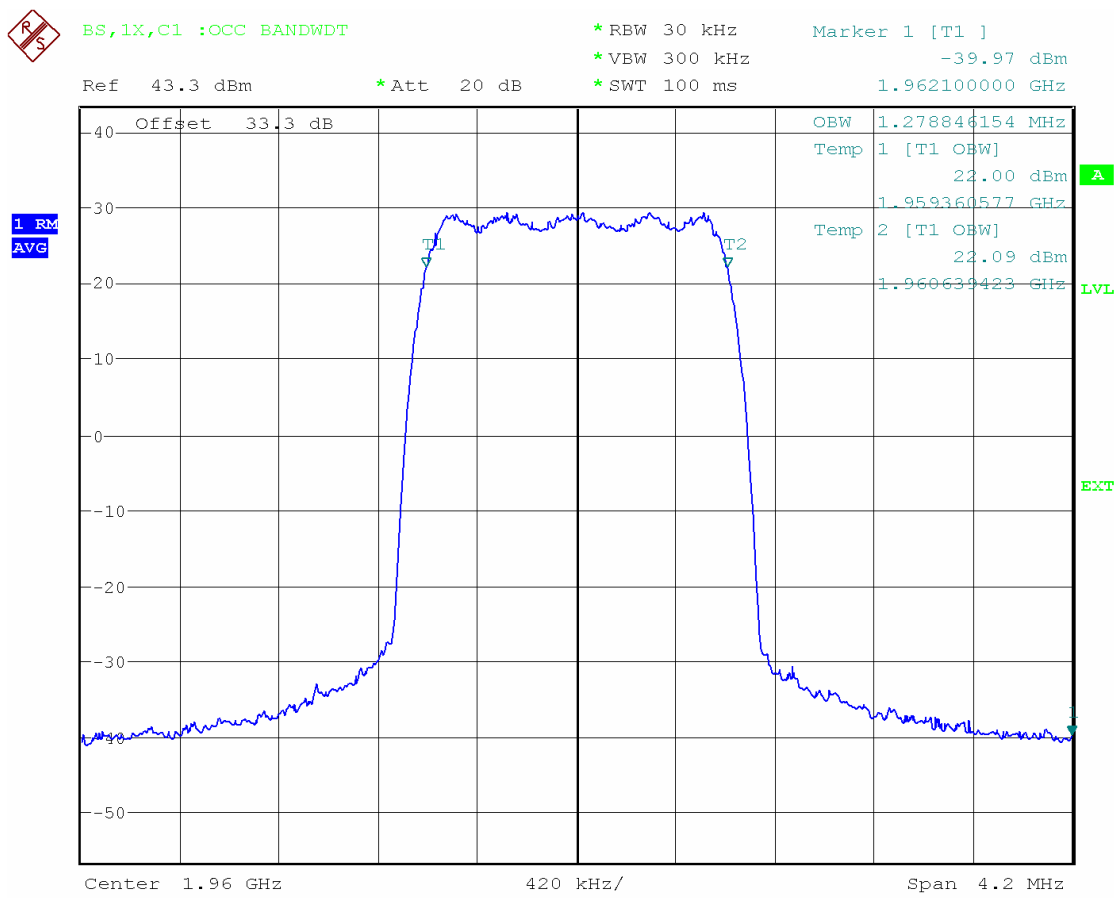
Occupied Bandwidth Measurement

According to CFR 47 (FCC) part 2.1049

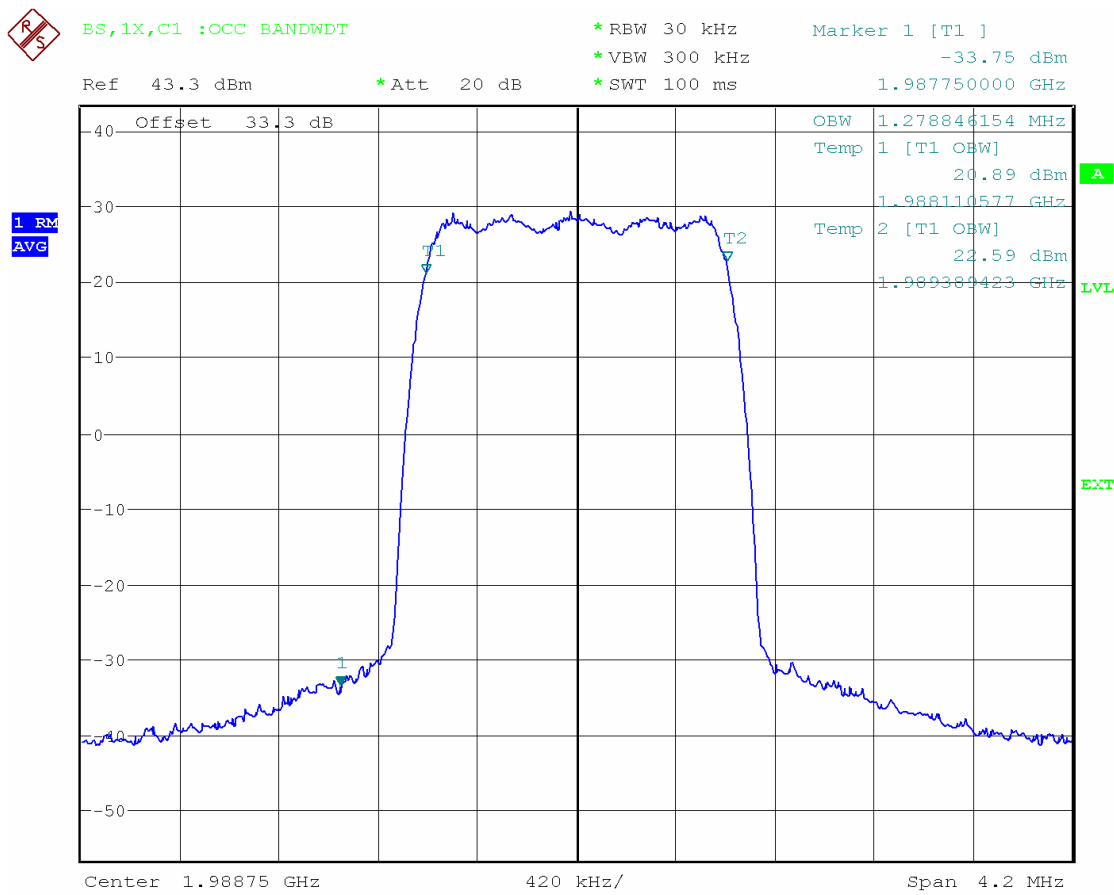
Channel 25



Channel 600



Channel 1175



Appendix D

Spurious Emission at Antenna Terminal Measurements

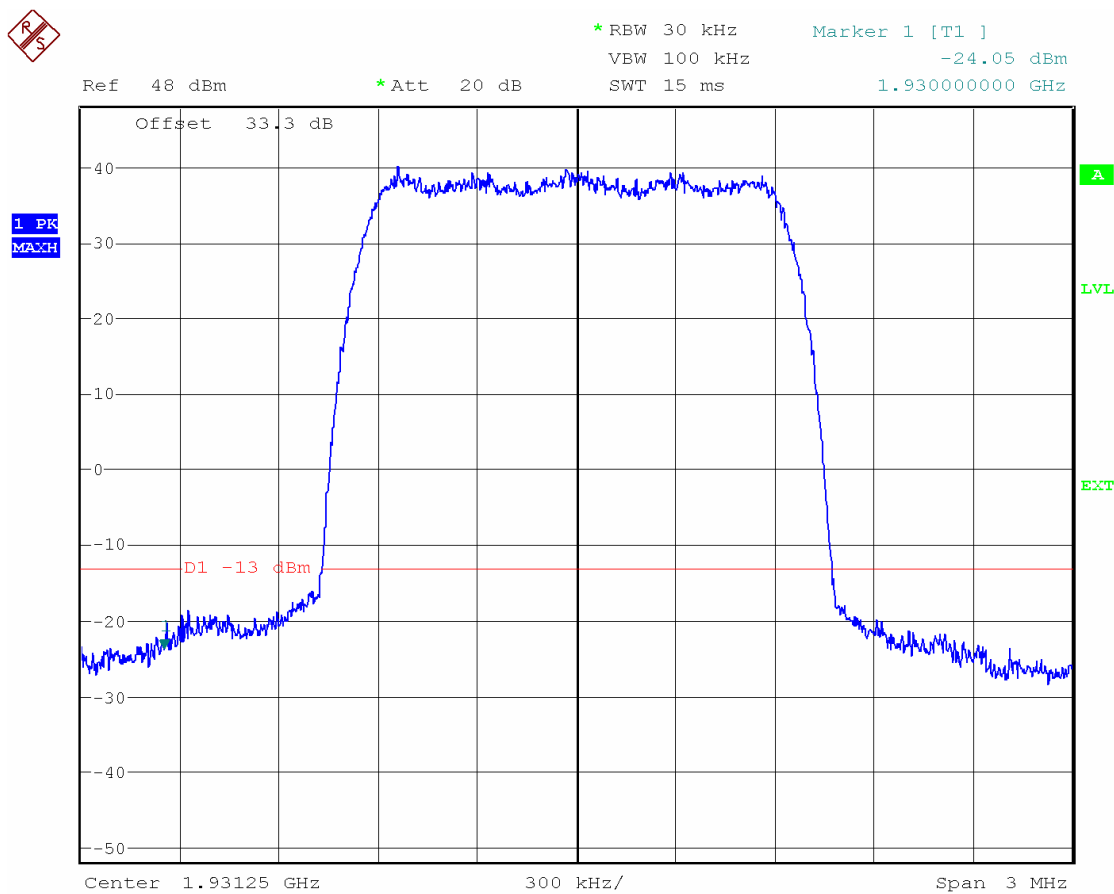
According to CFR 47 (FCC) part 2.1051

Measurement Result at Block Edge

A 、 Test Record For Single Carrier

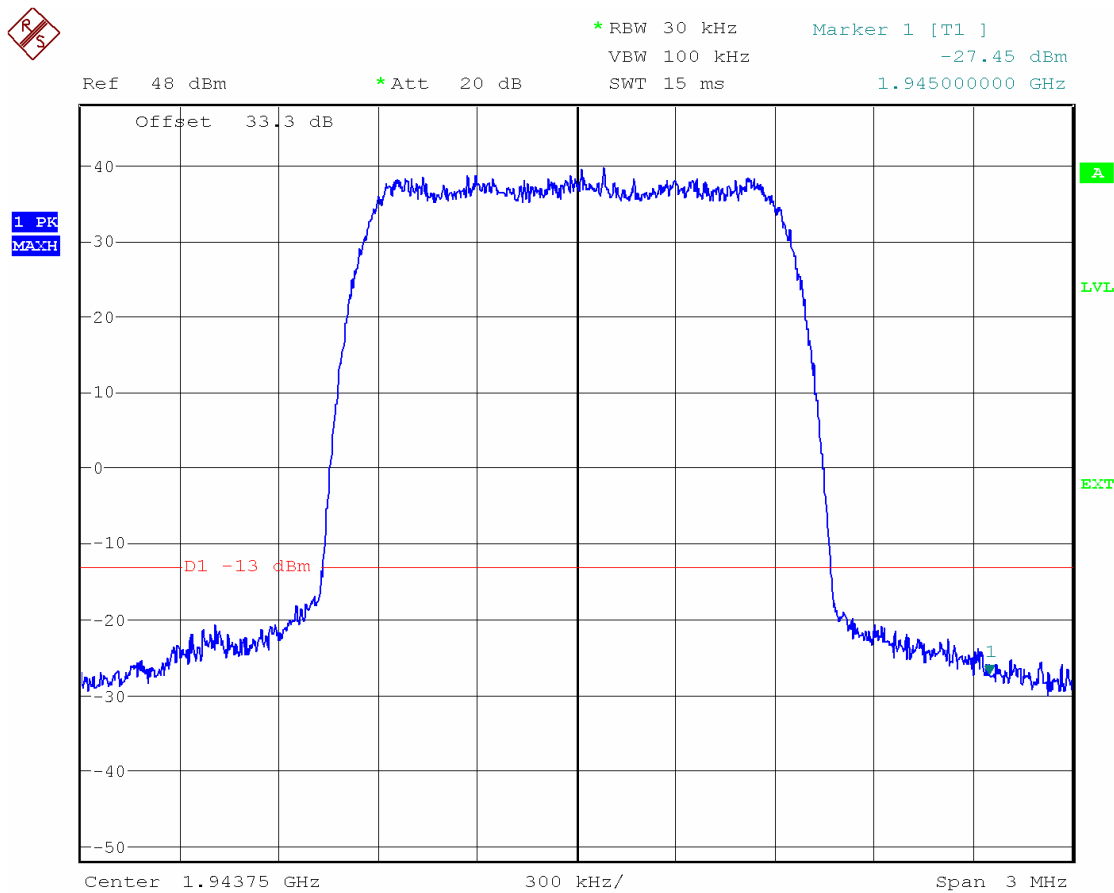
Block A, Left Edge (1930MHz)

Channel 25

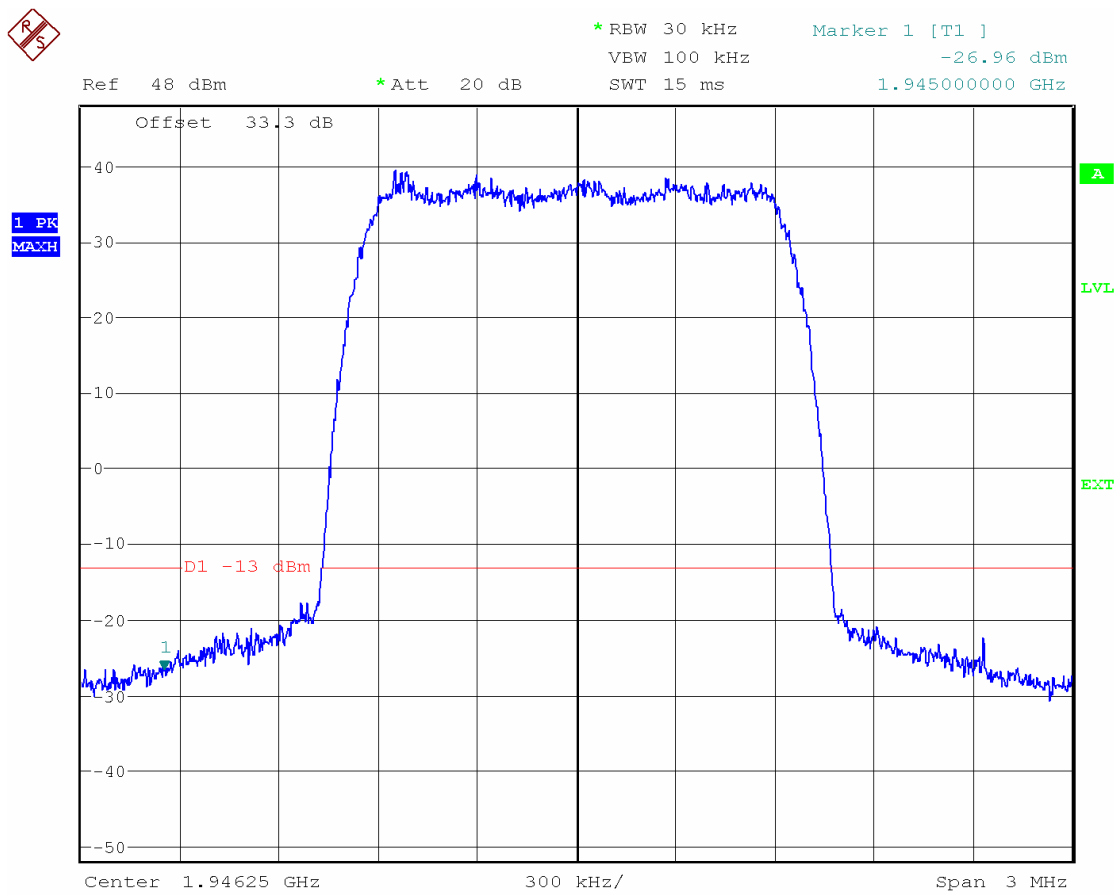


Block A, Right Edge (1945MHz)

Channel 275

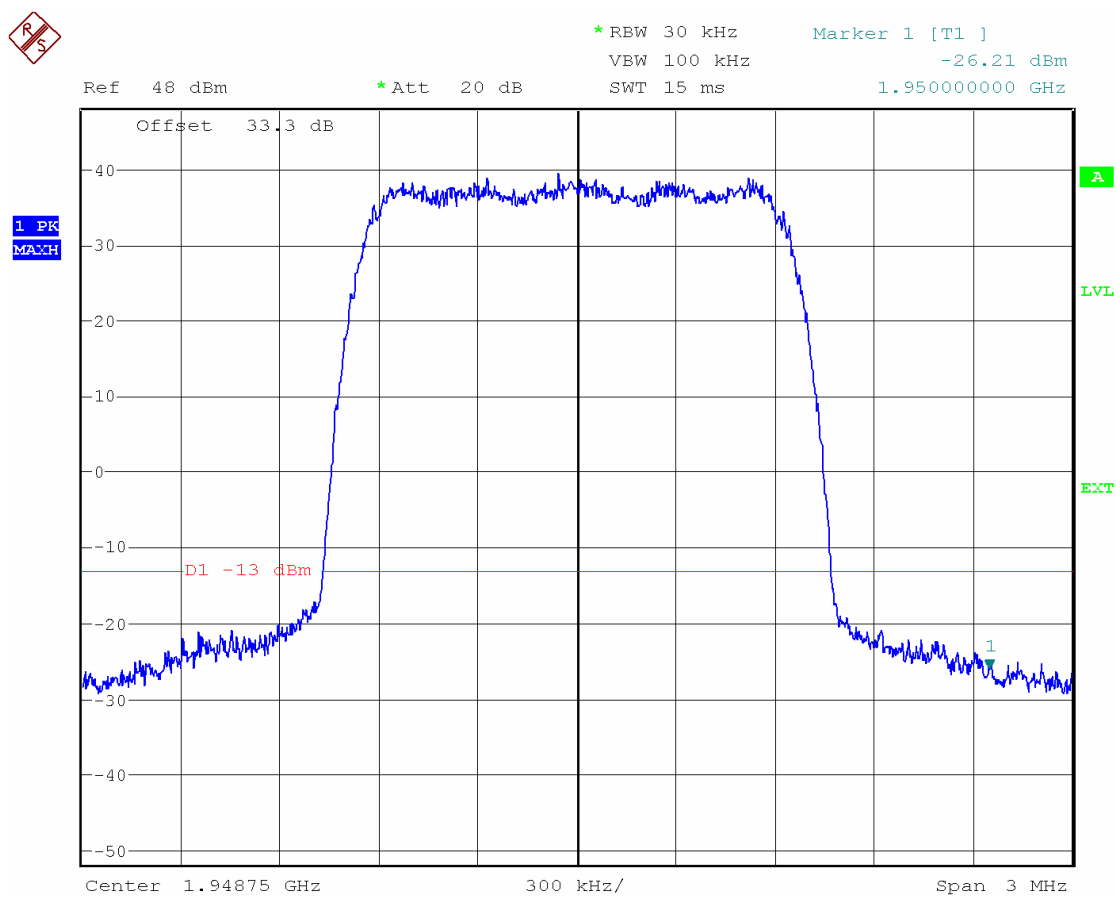


Block D, Left Edge (1945MHz)
Channel 325

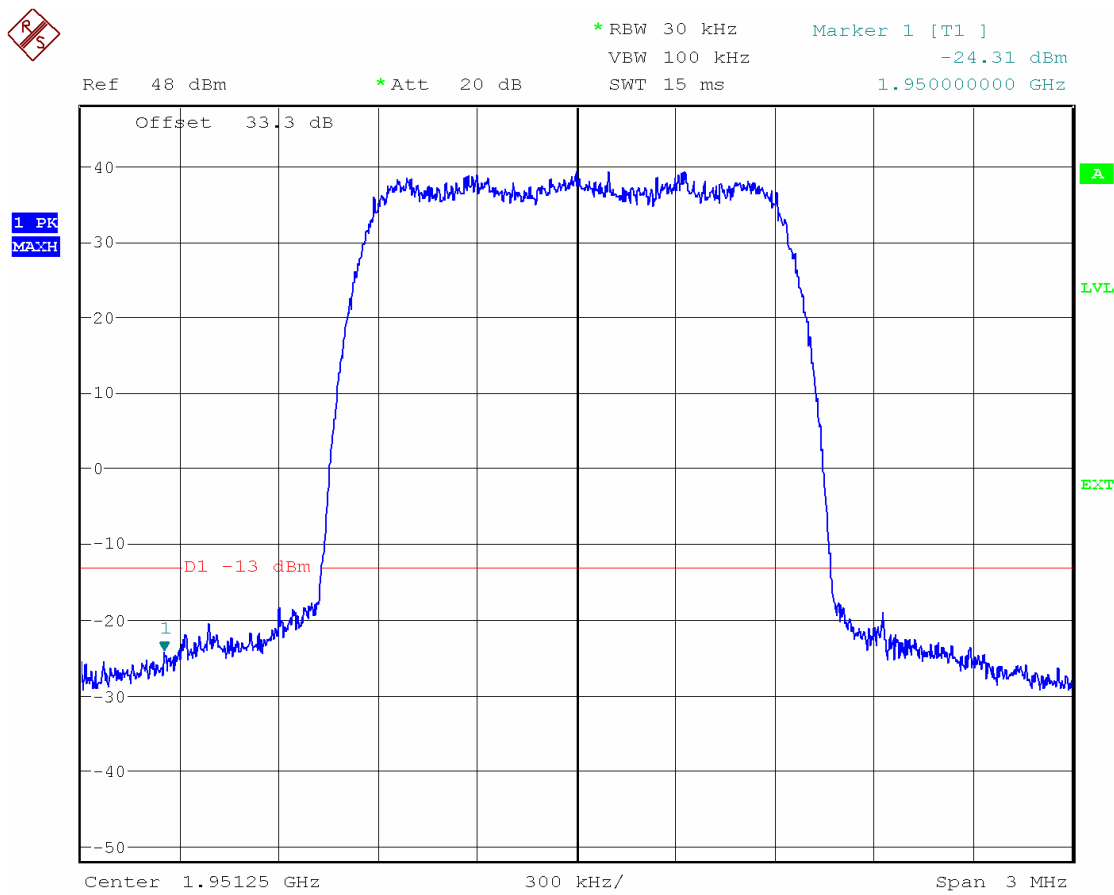


Block D, Right Edge (1950MHz)

Channel 375

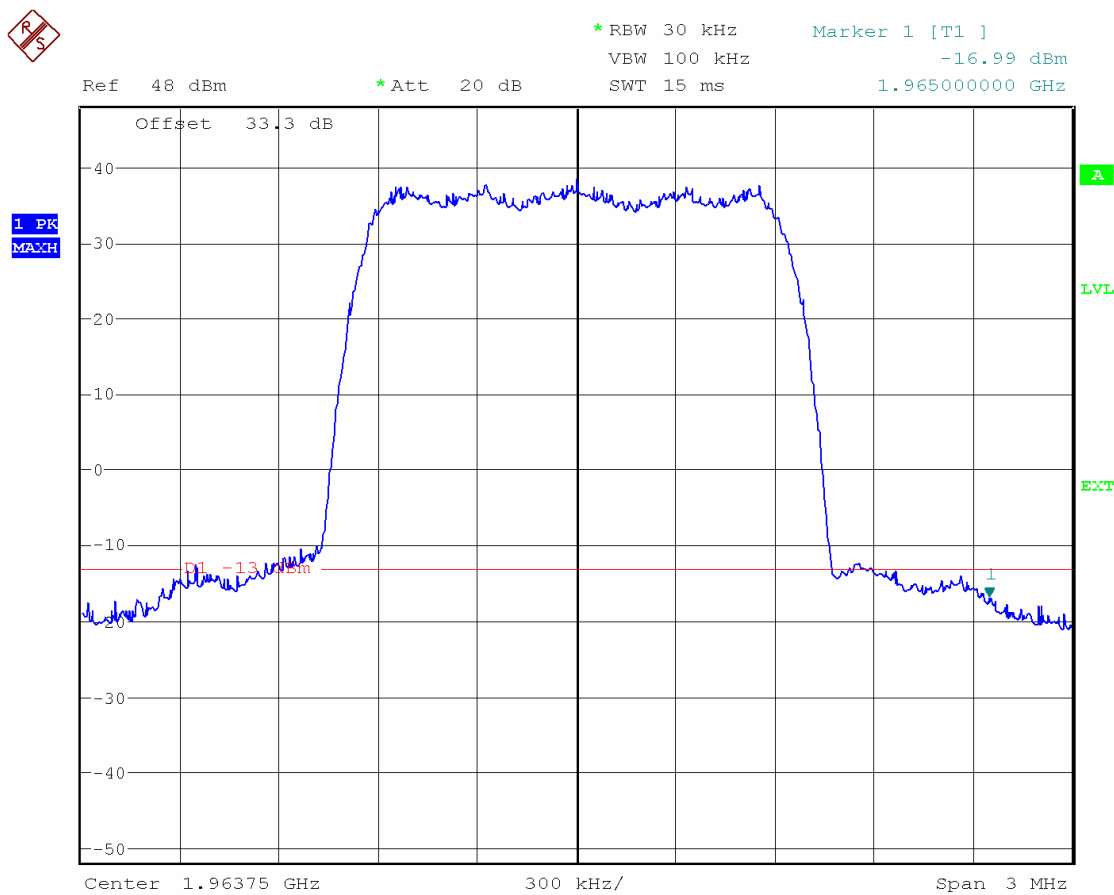


Block B, Left Edge (1950MHz)
Channel 425



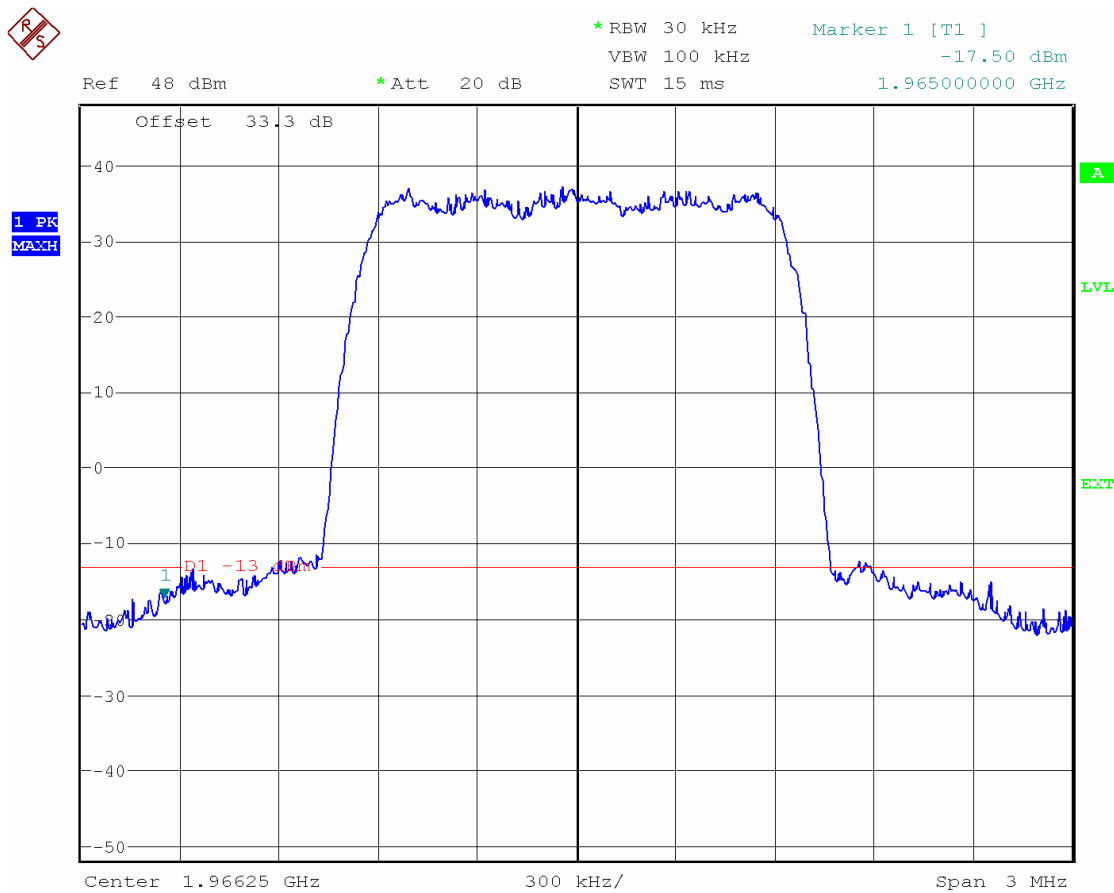
Block B, Right Edge (1965MHz)

Channel 675



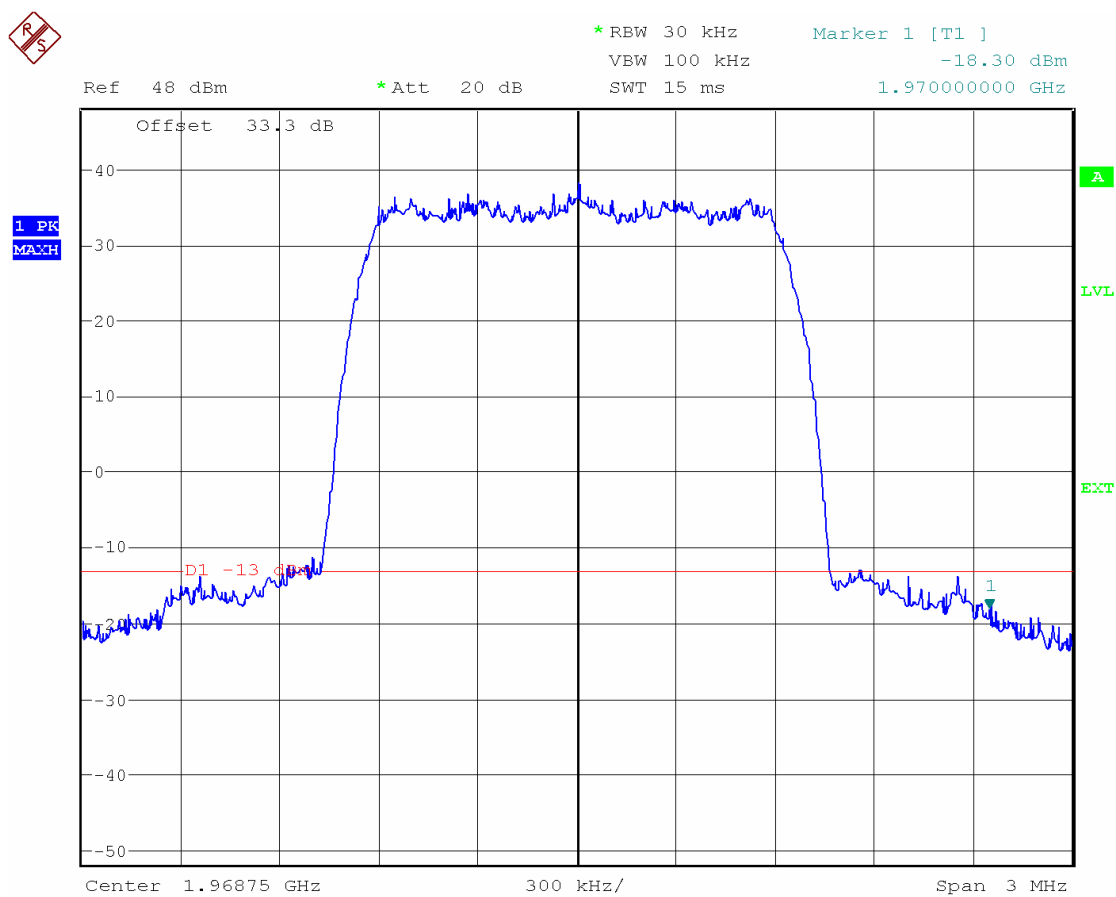
Block E, Left Edge (1965MHz)

Channel 725



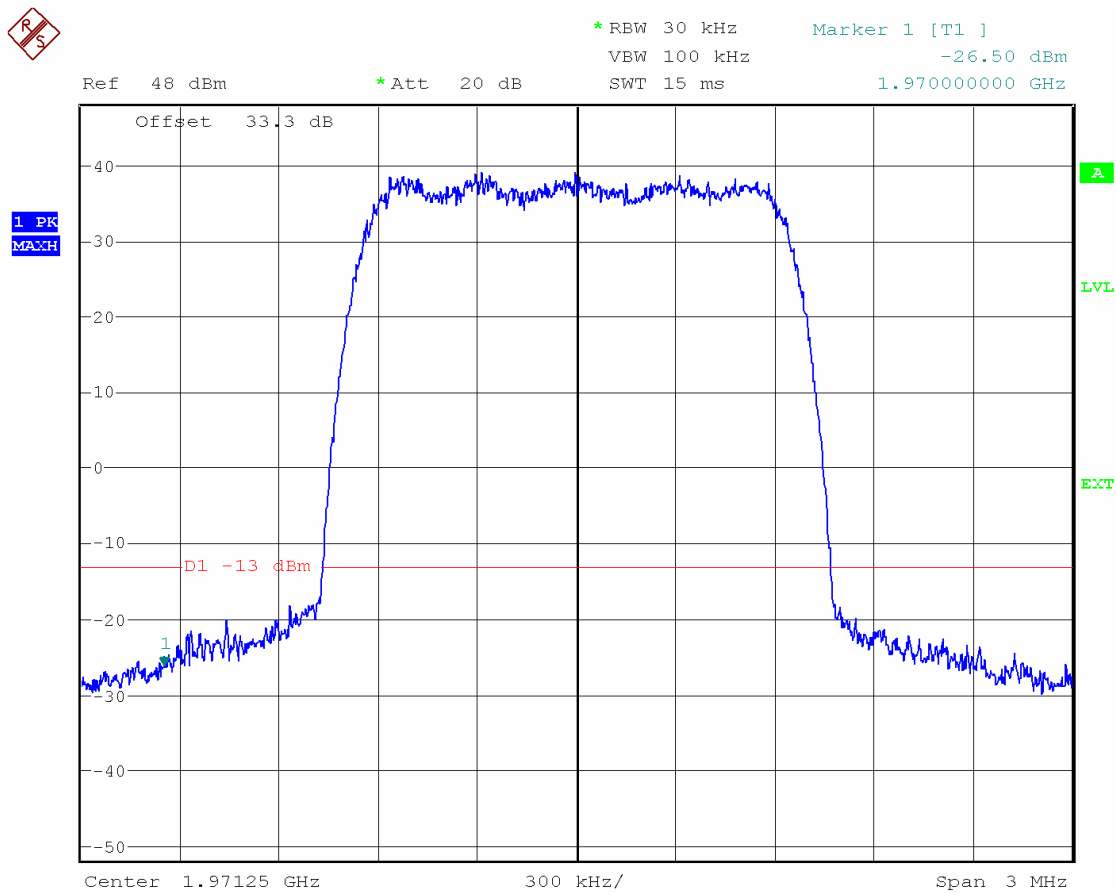
Block E, Right Edge (1970MHz)

Channel 775



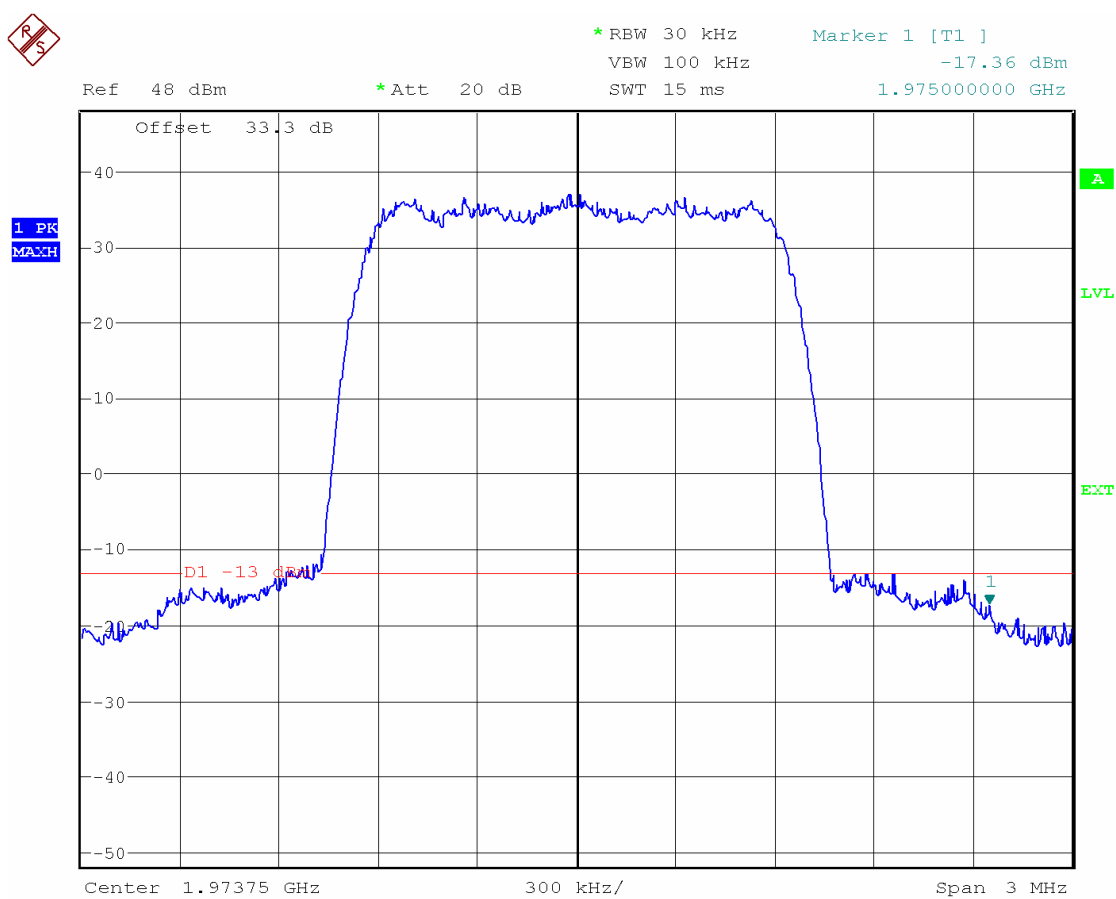
Block F, Left Edge (1970MHz)

Channel 825

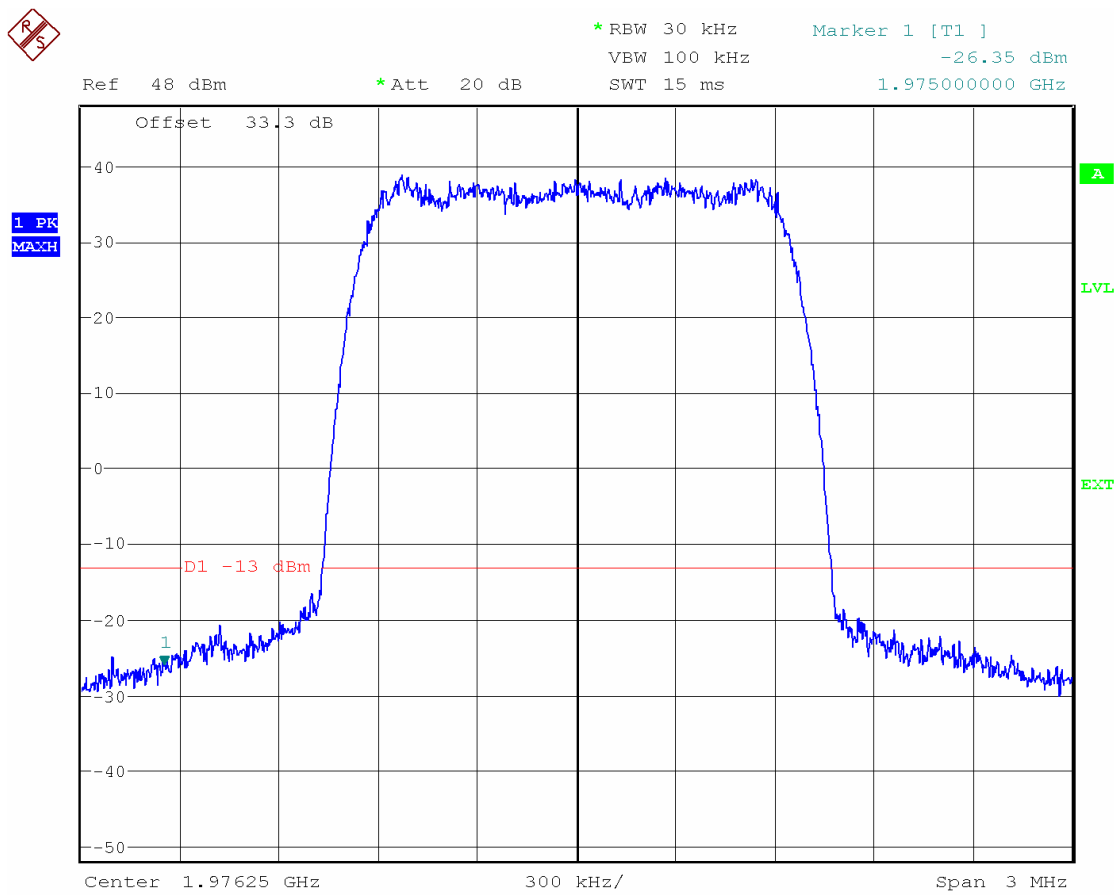


Block F, Right Edge (1975MHz)

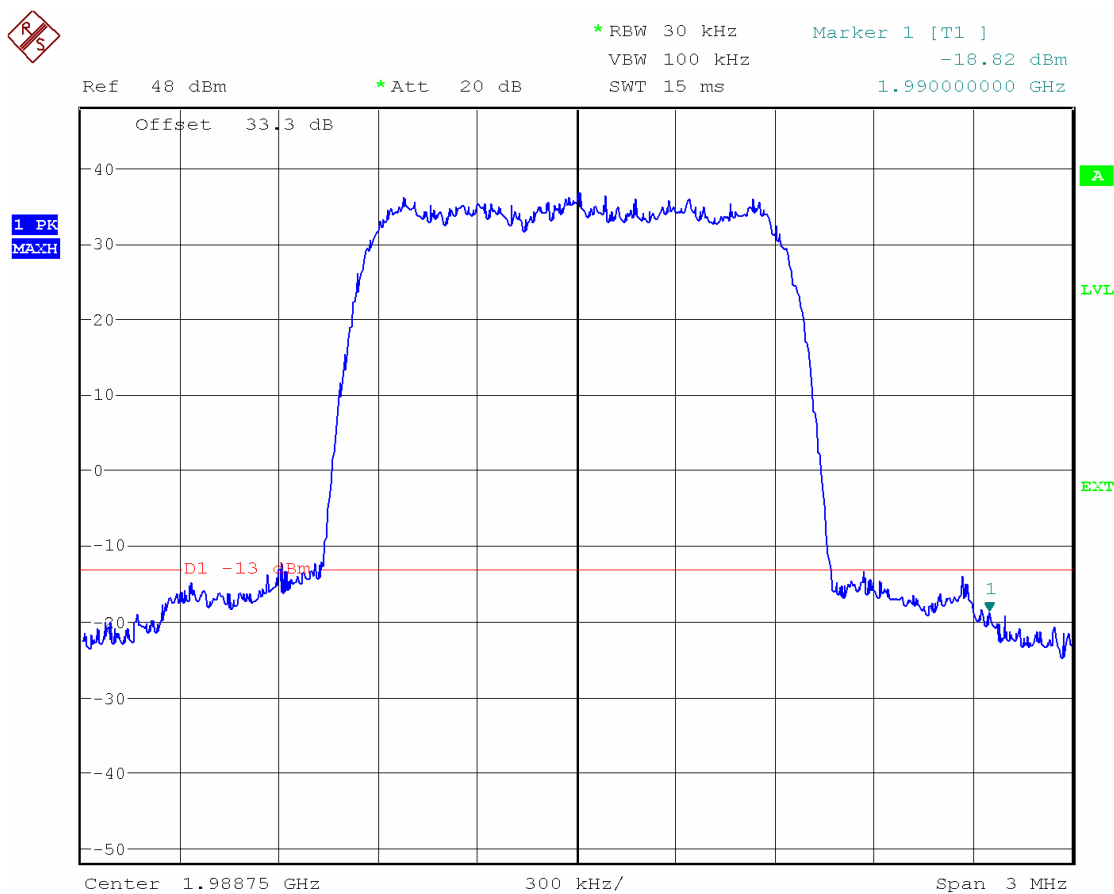
Channel 875



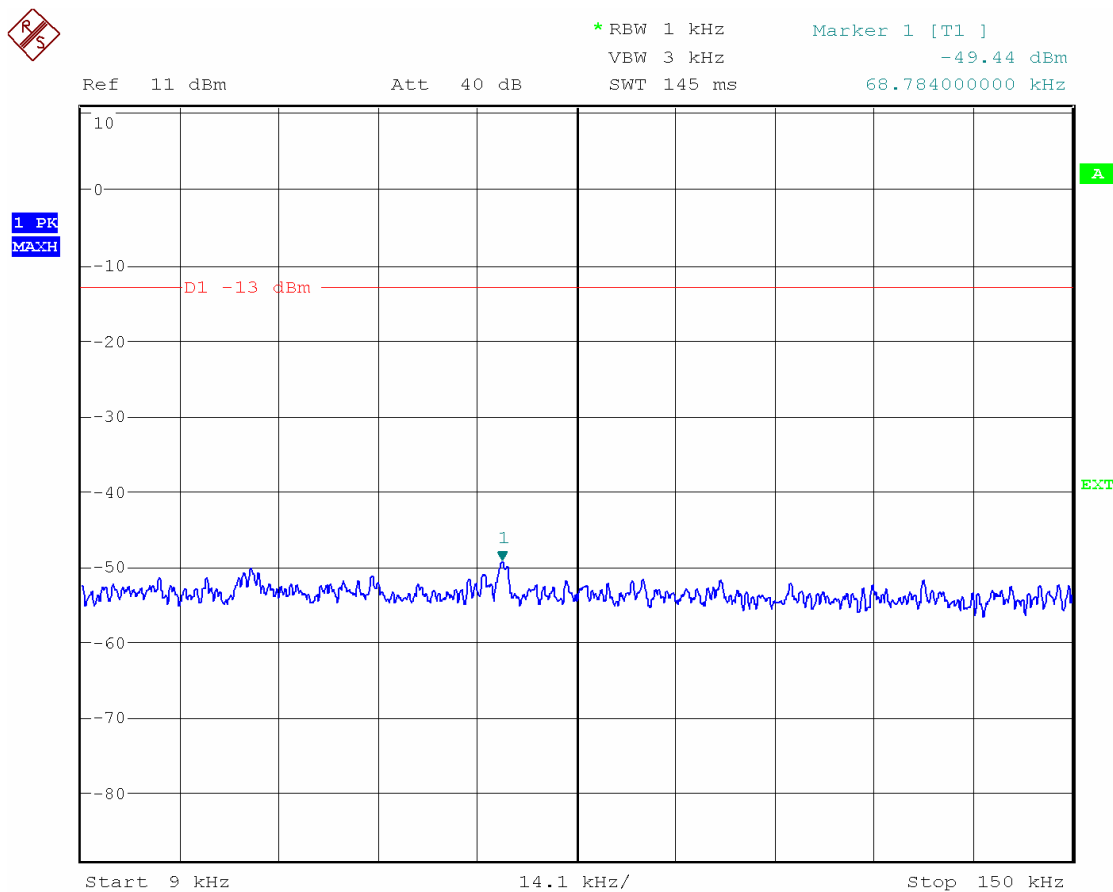
Block C, Left Edge (1975MHz)
Channel 925

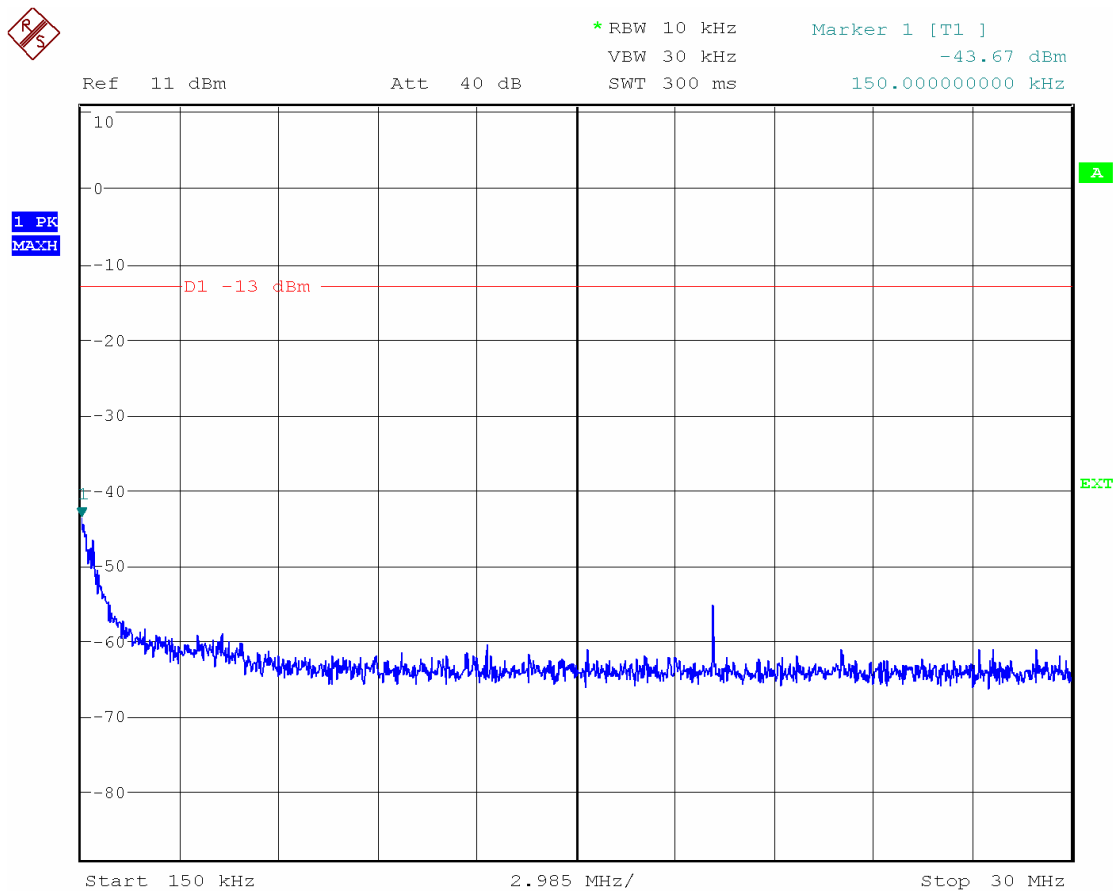


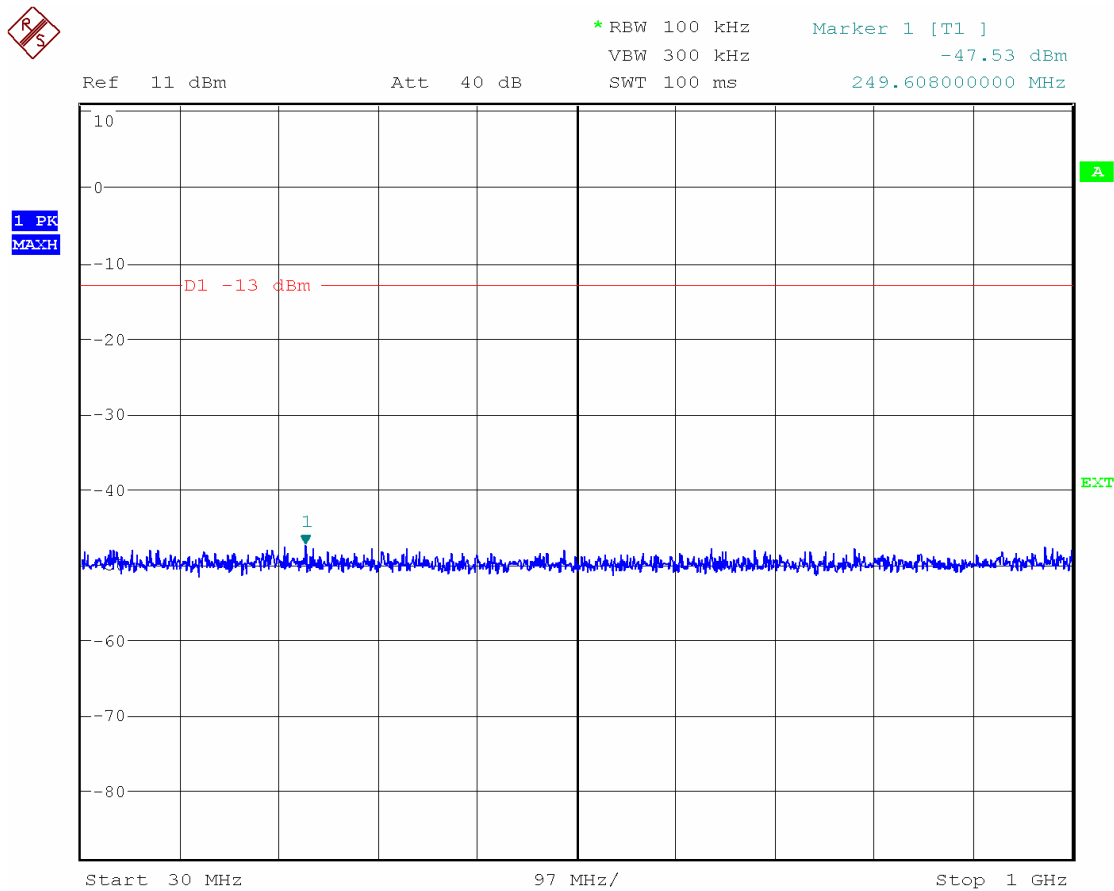
Block C, Right Edge (1990MHz)
Channel 1175

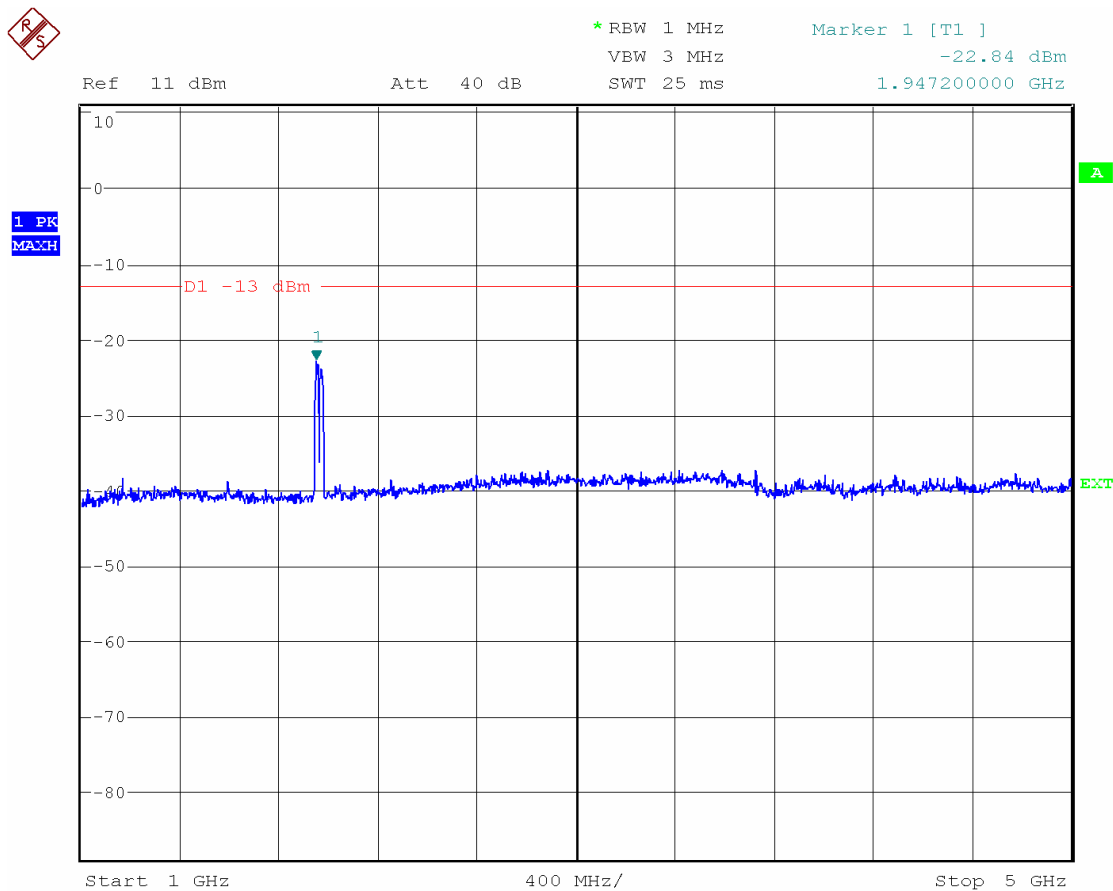


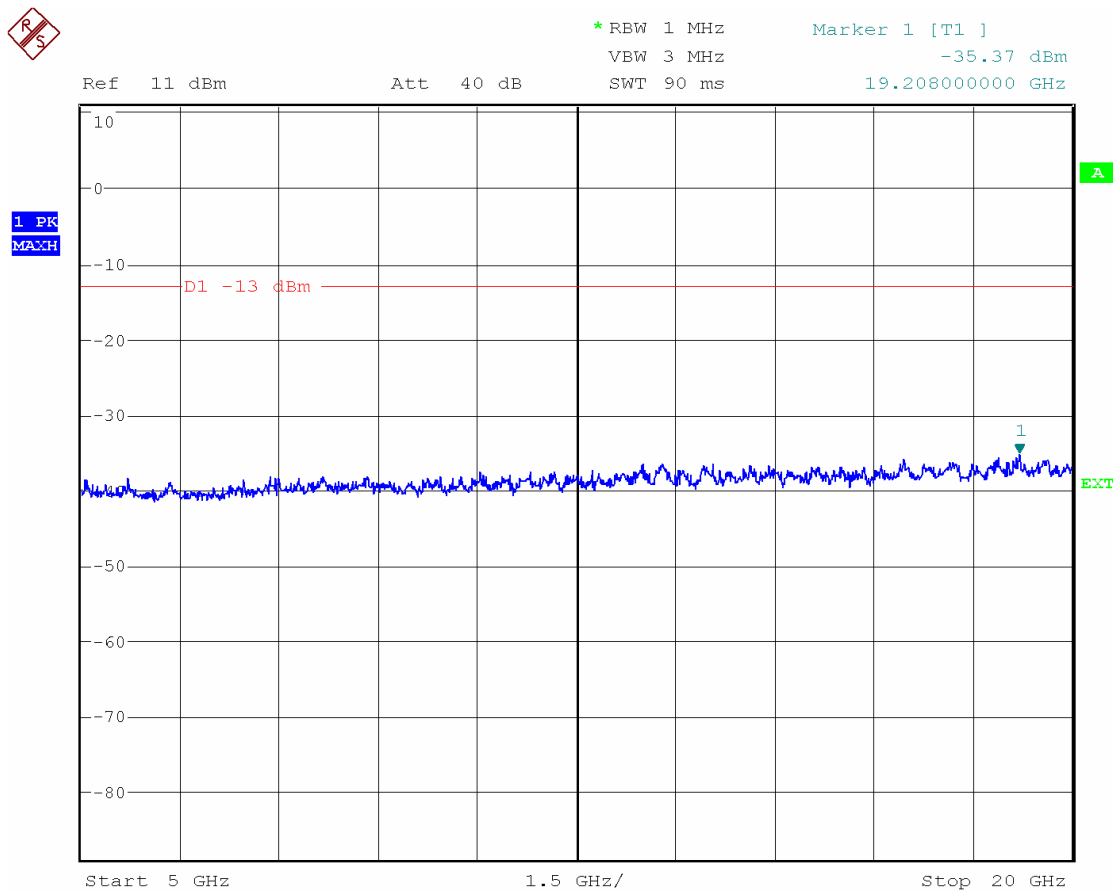
Measurement Result Outband Band Edge
Channel 600



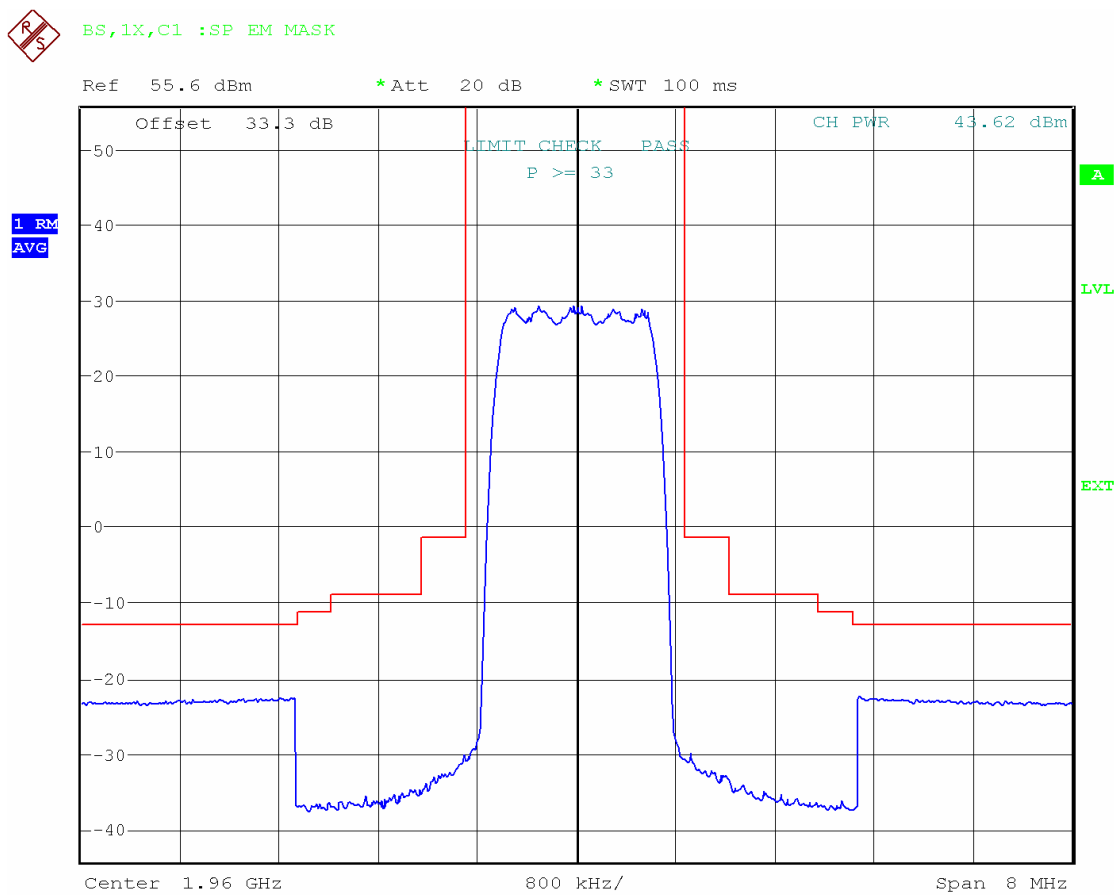








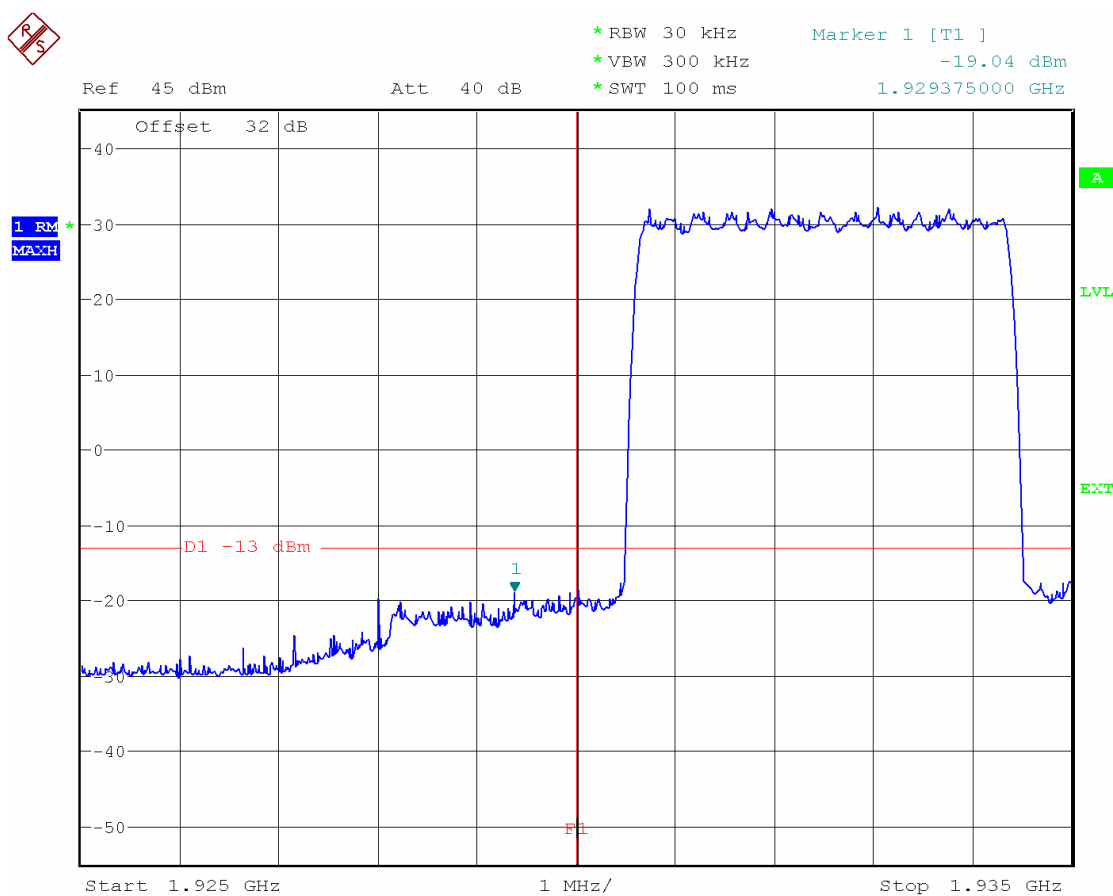
Spectrum Mask Test according to EIA/TIA 97E
Channel 600



B 、 Test Record For Multiple Carrier

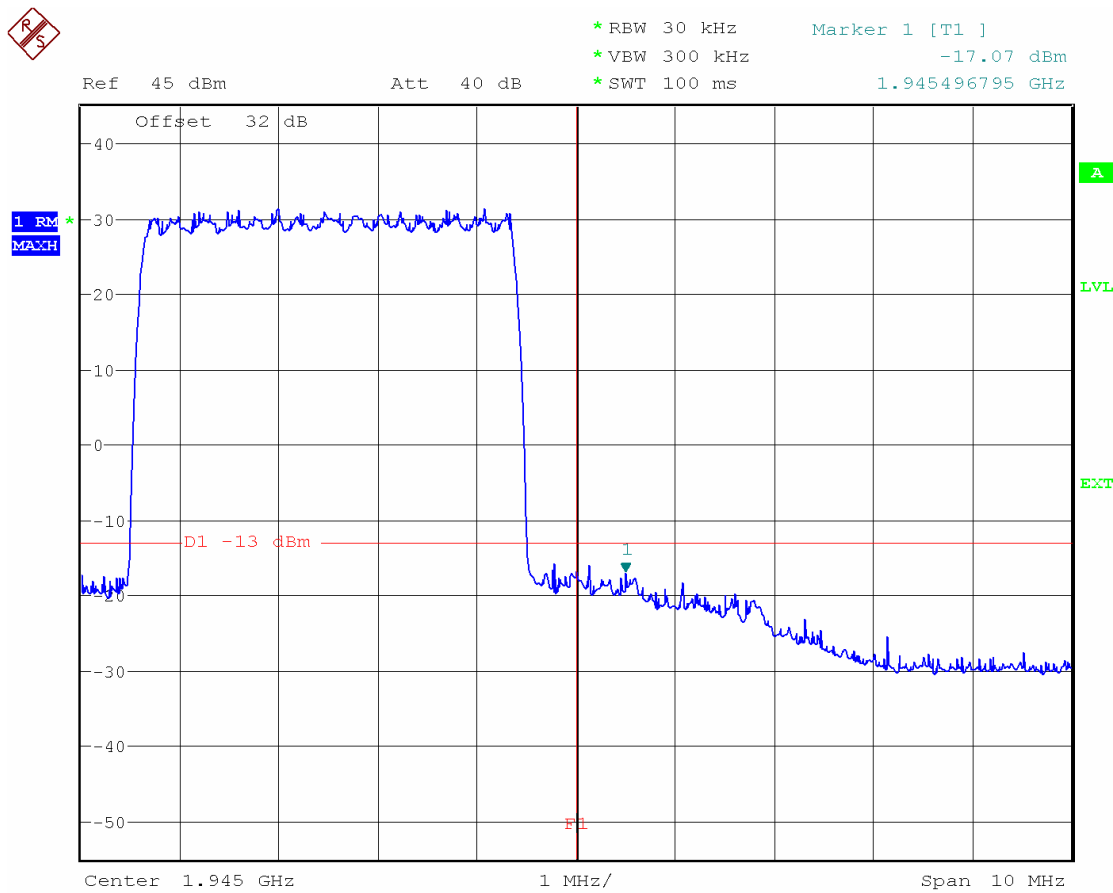
Block A, Left Edge (1930MHz)

Channel 25/50/75



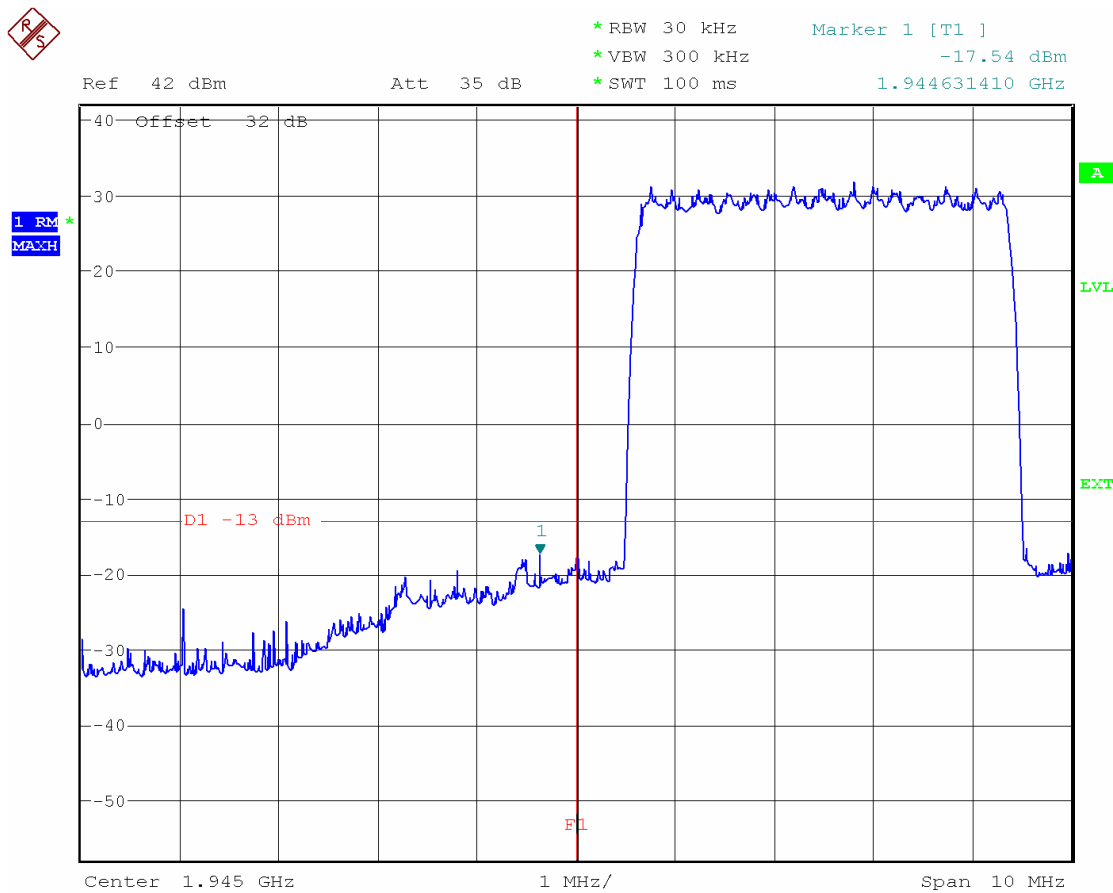
Block A, Right Edge (1945MHz)

Channel 225/250/275



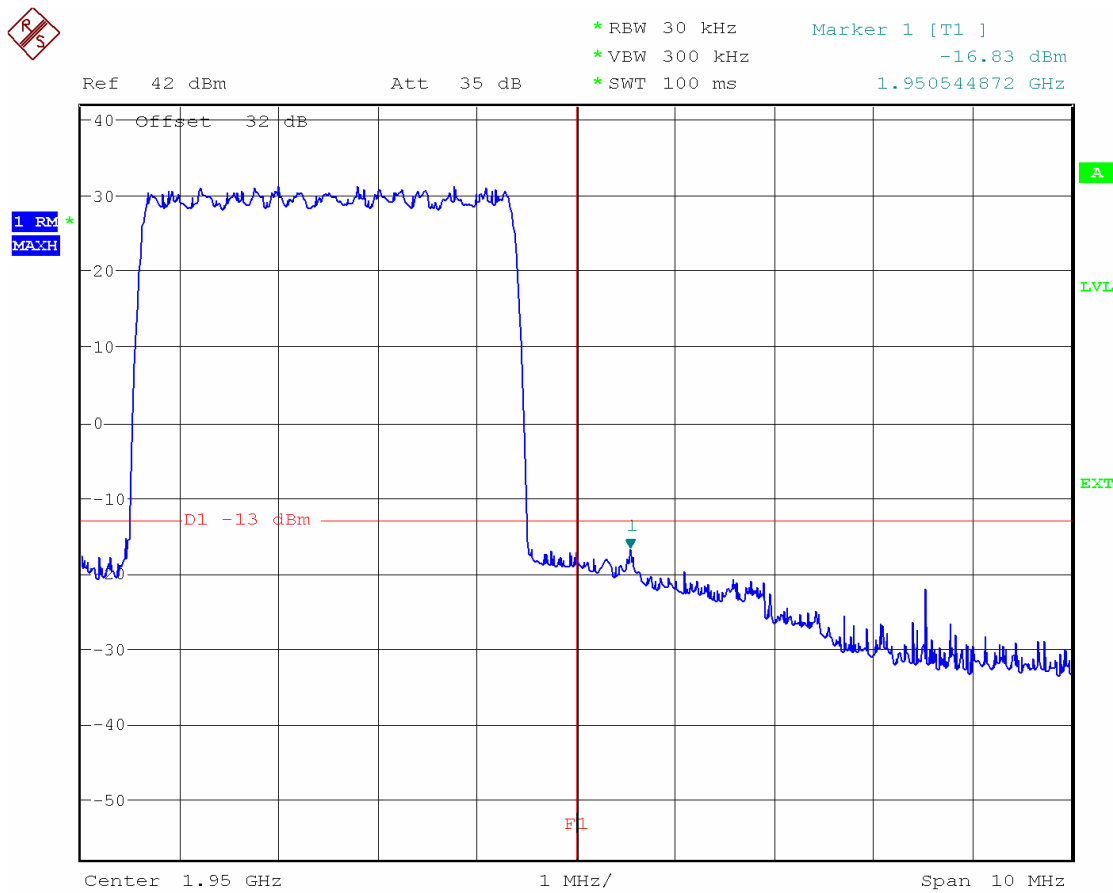
Block D, Left Edge (1945MHz)

Channel 325/350/375



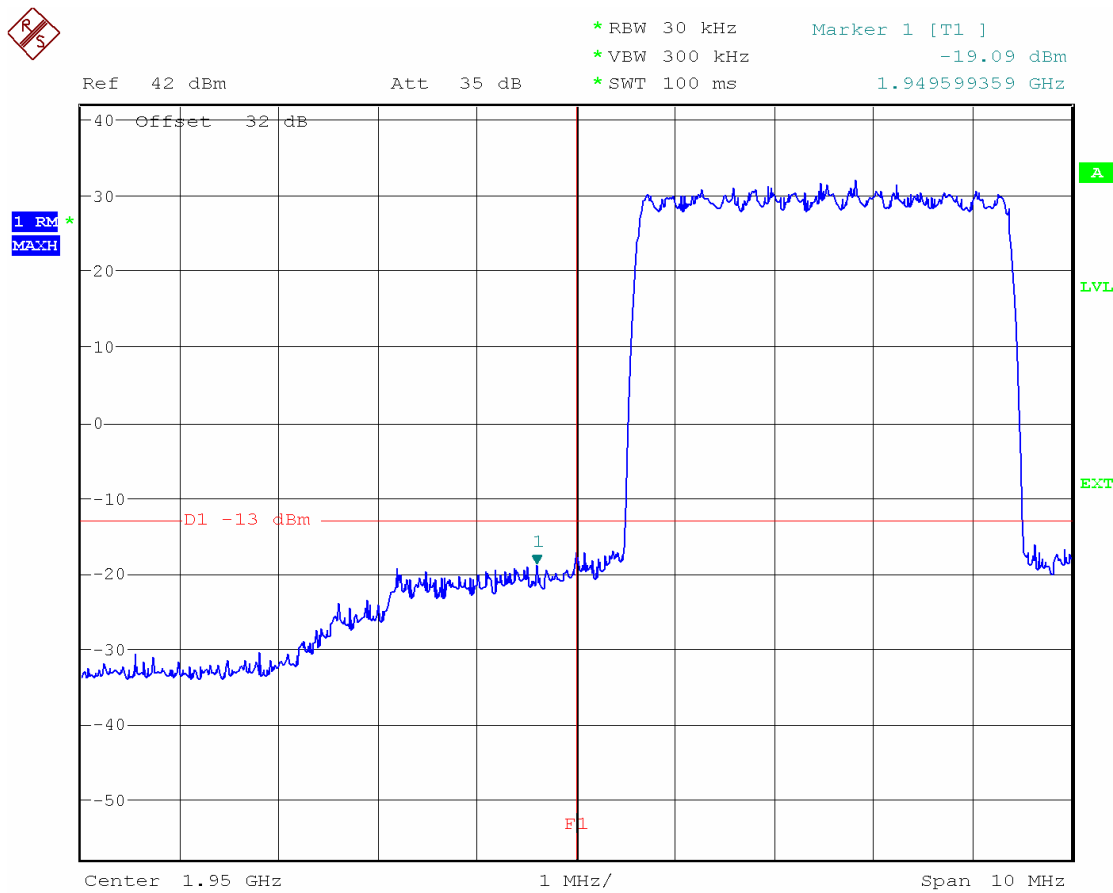
Block D, Right Edge (1950MHz)

Channel 325/350/375



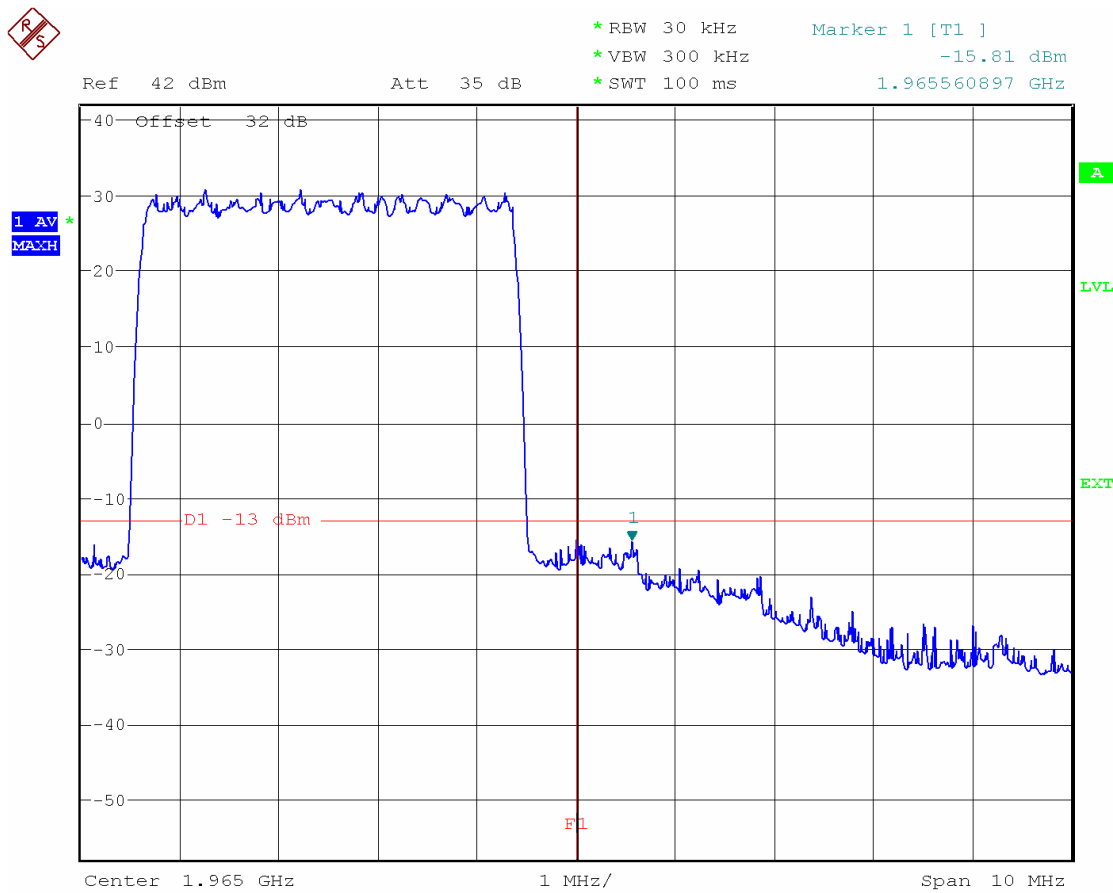
Block B, Left Edge (1950MHz)

Channel 425/450/475



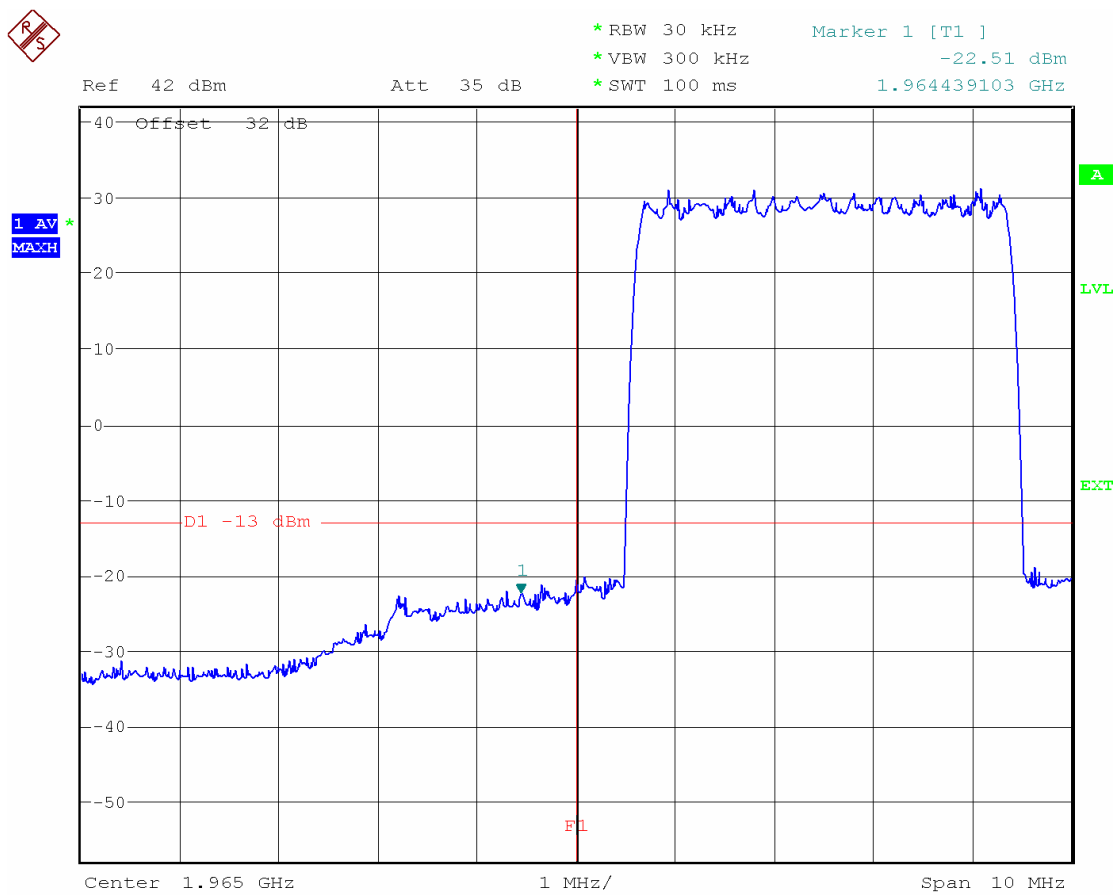
Block B, Right Edge (1965MHz)

Channel 625/650/675



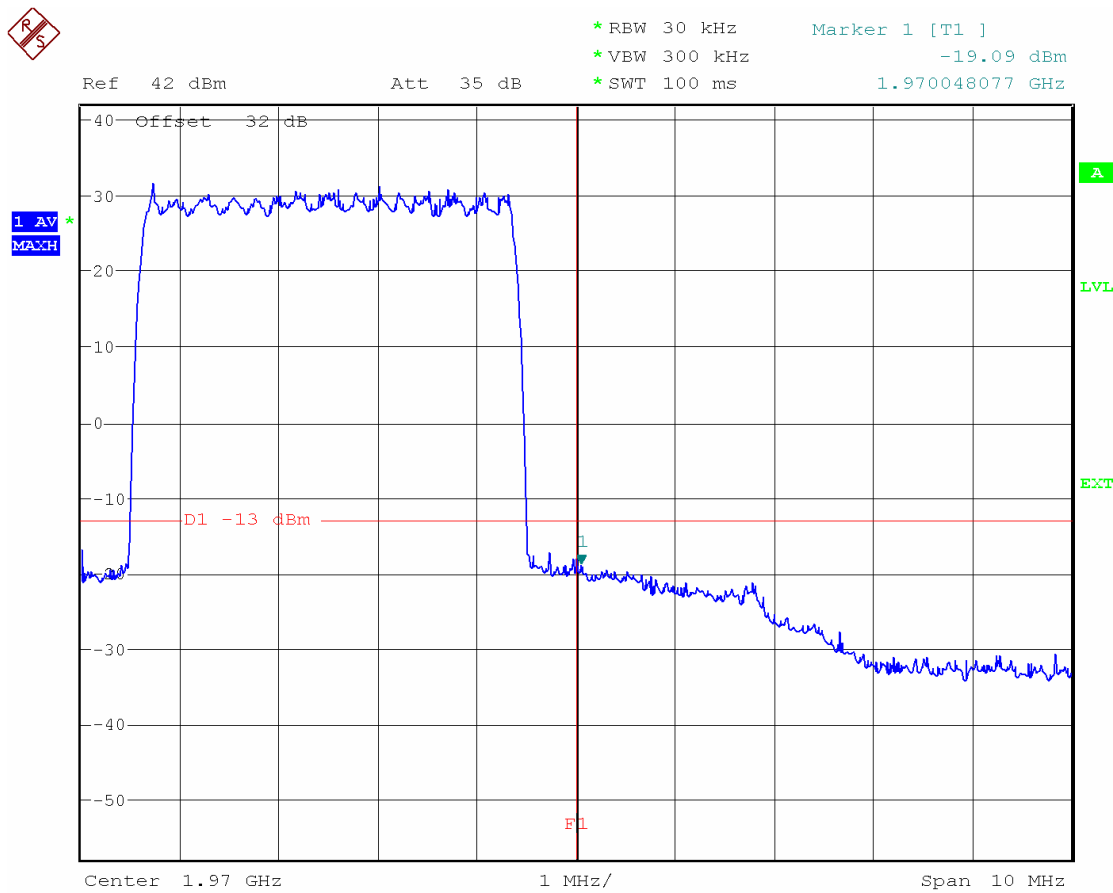
Block E, Left Edge (1965MHz)

Channel 725/750/775



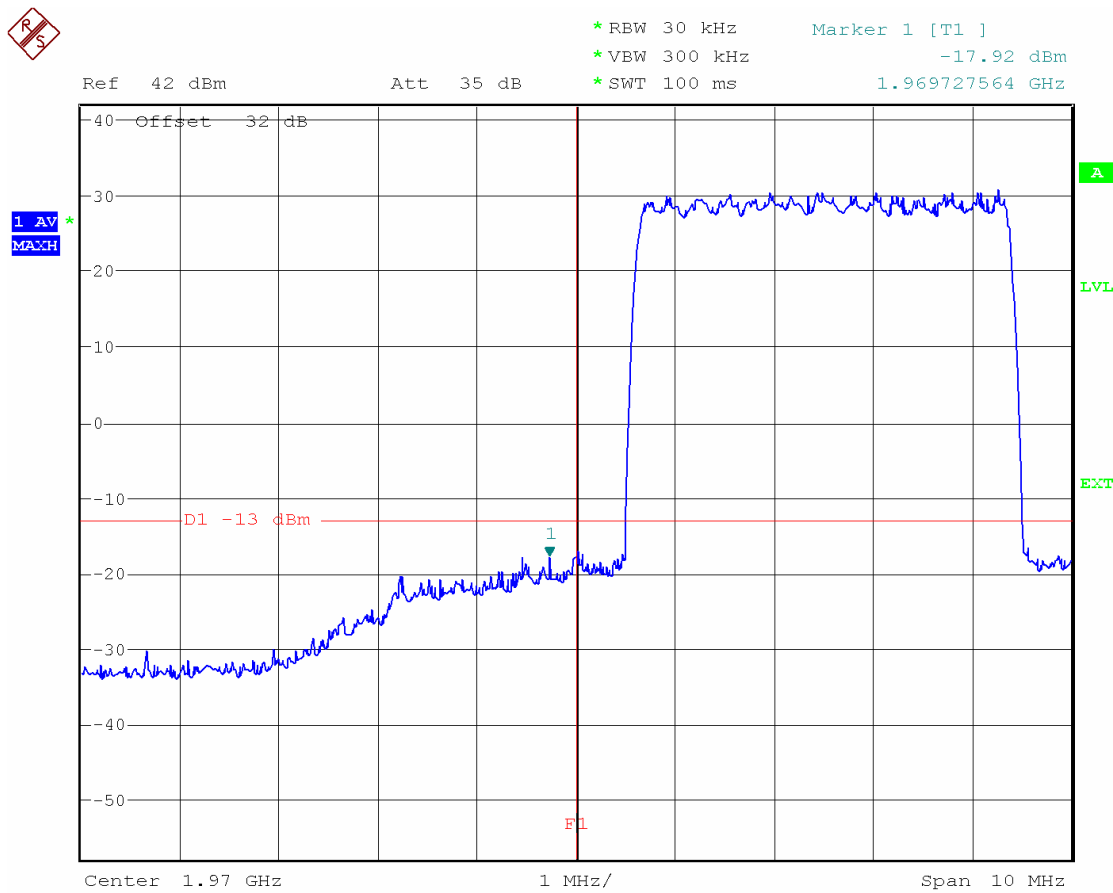
Block E, Right Edge (1970MHz)

Channel 725/750/775



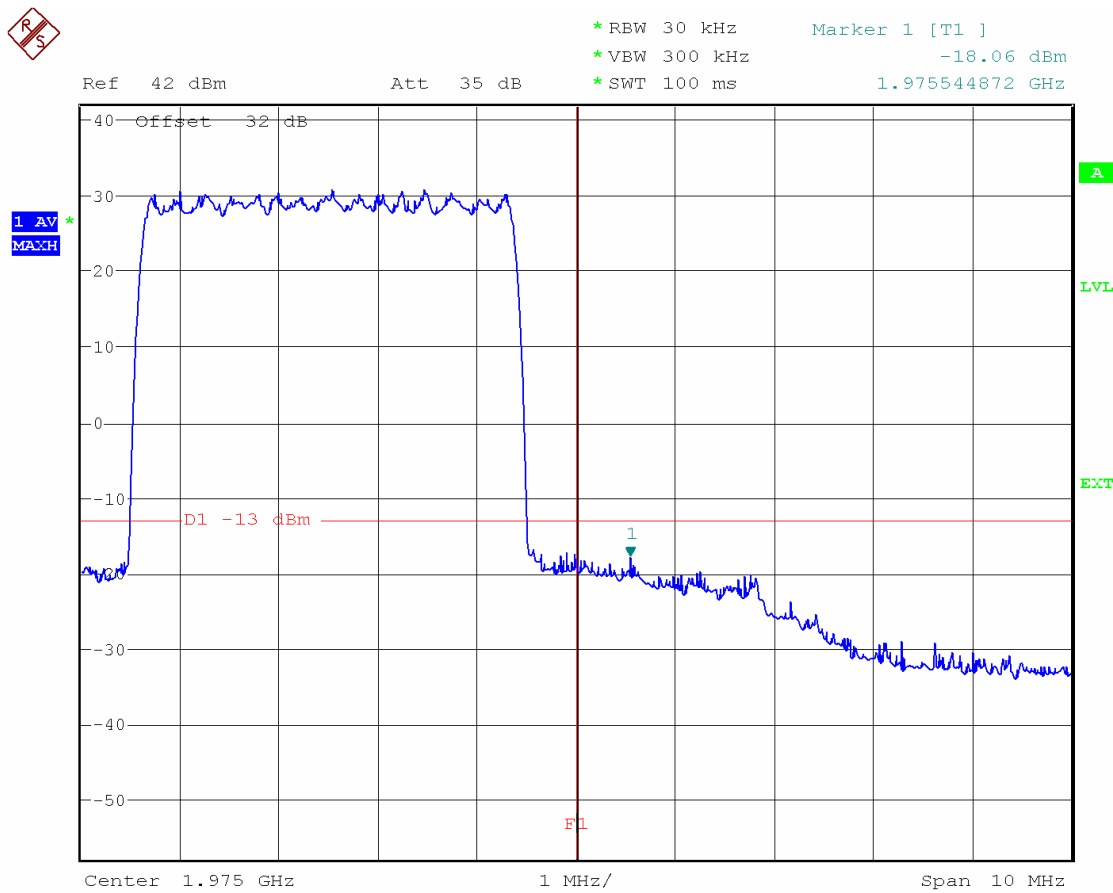
Block F, Left Edge (1970MHz)

Channel 825/850/875



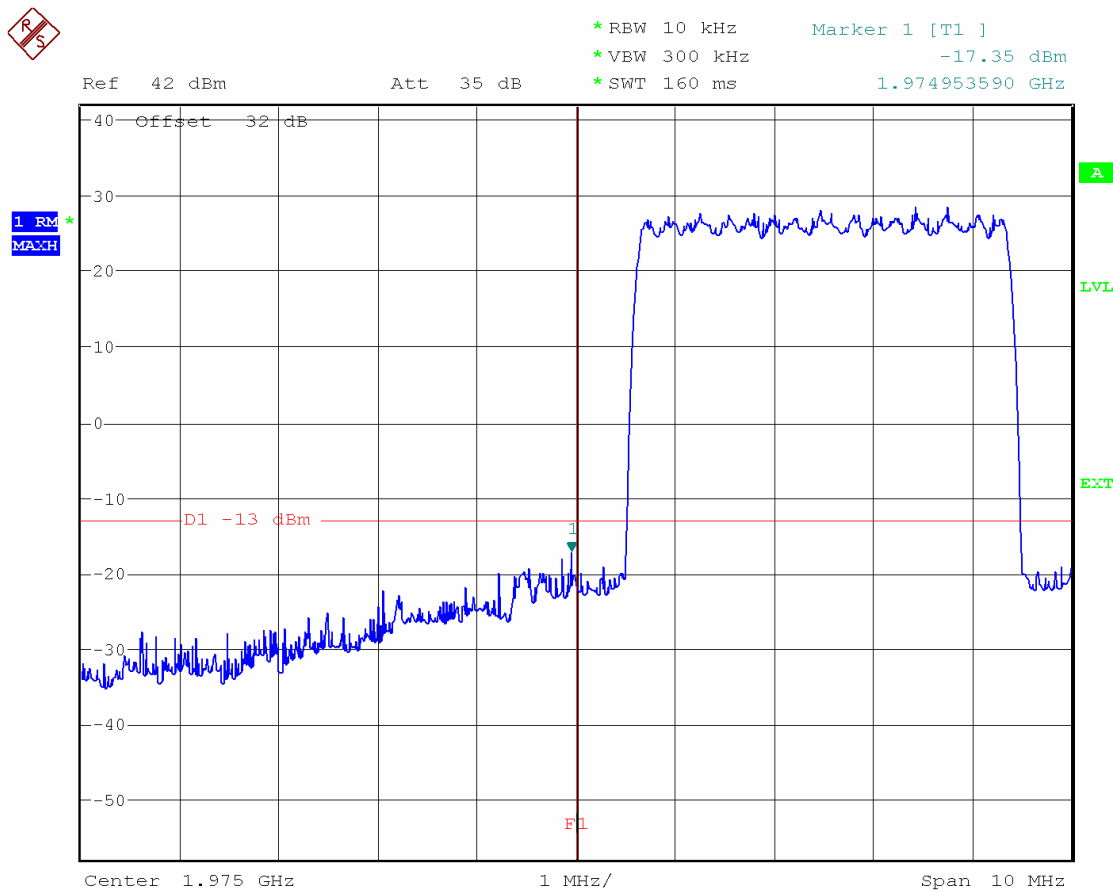
Block F, Right Edge (1975MHz)

Channel 825/850/875



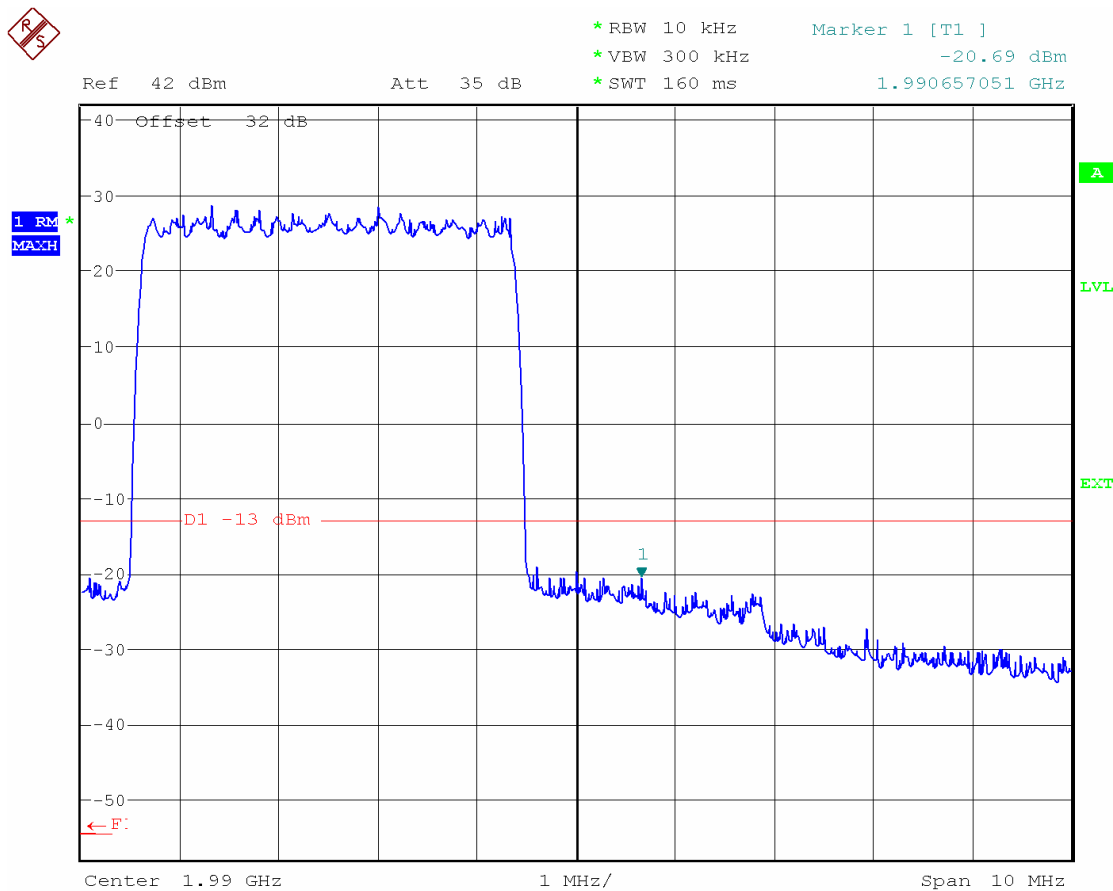
Block C, Left Edge (1975MHz)

Channel 925/950/975



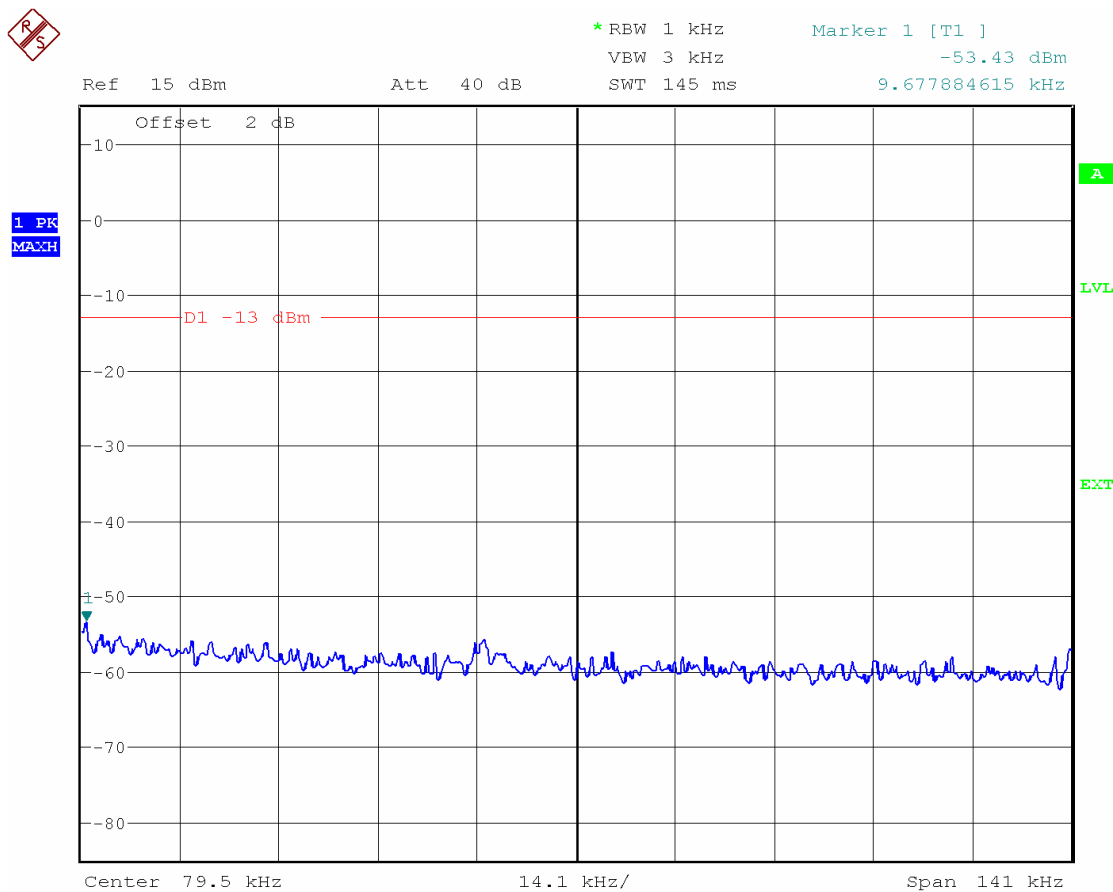
Block C, Right Edge (1990MHz)

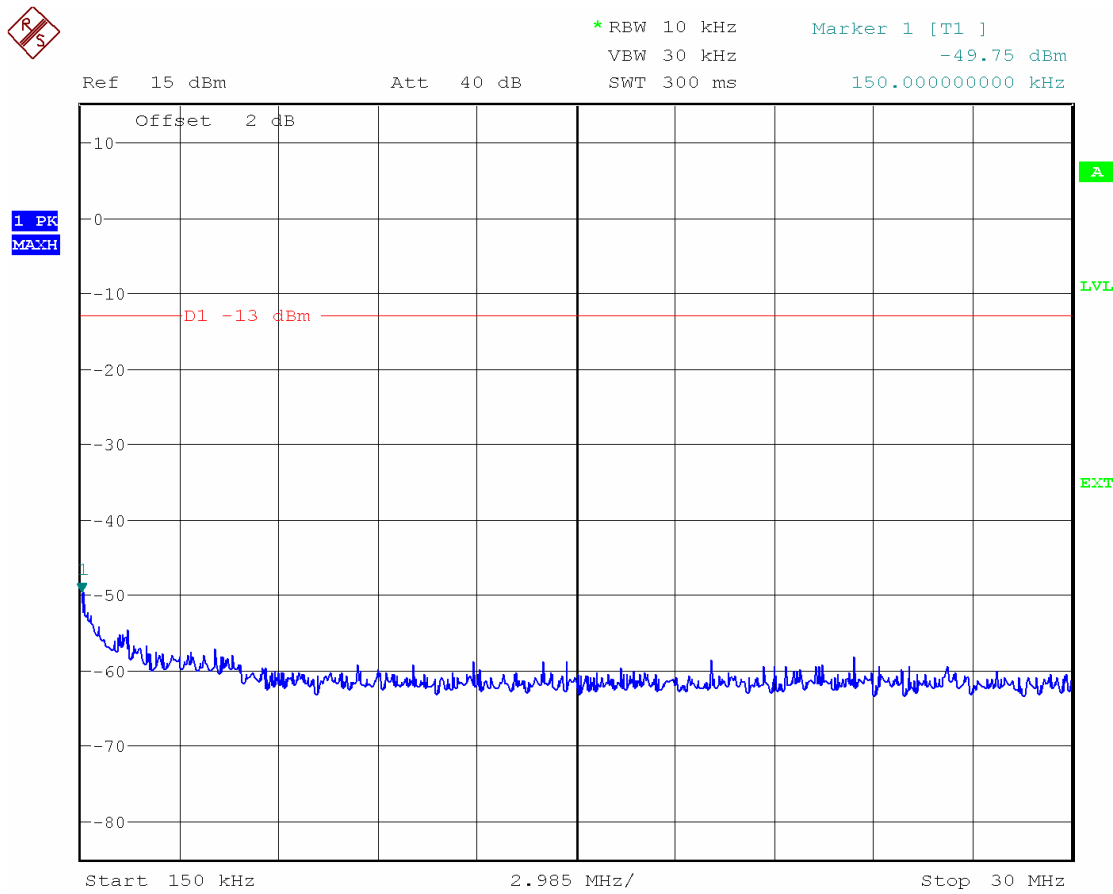
Channel 1125/1150/1175

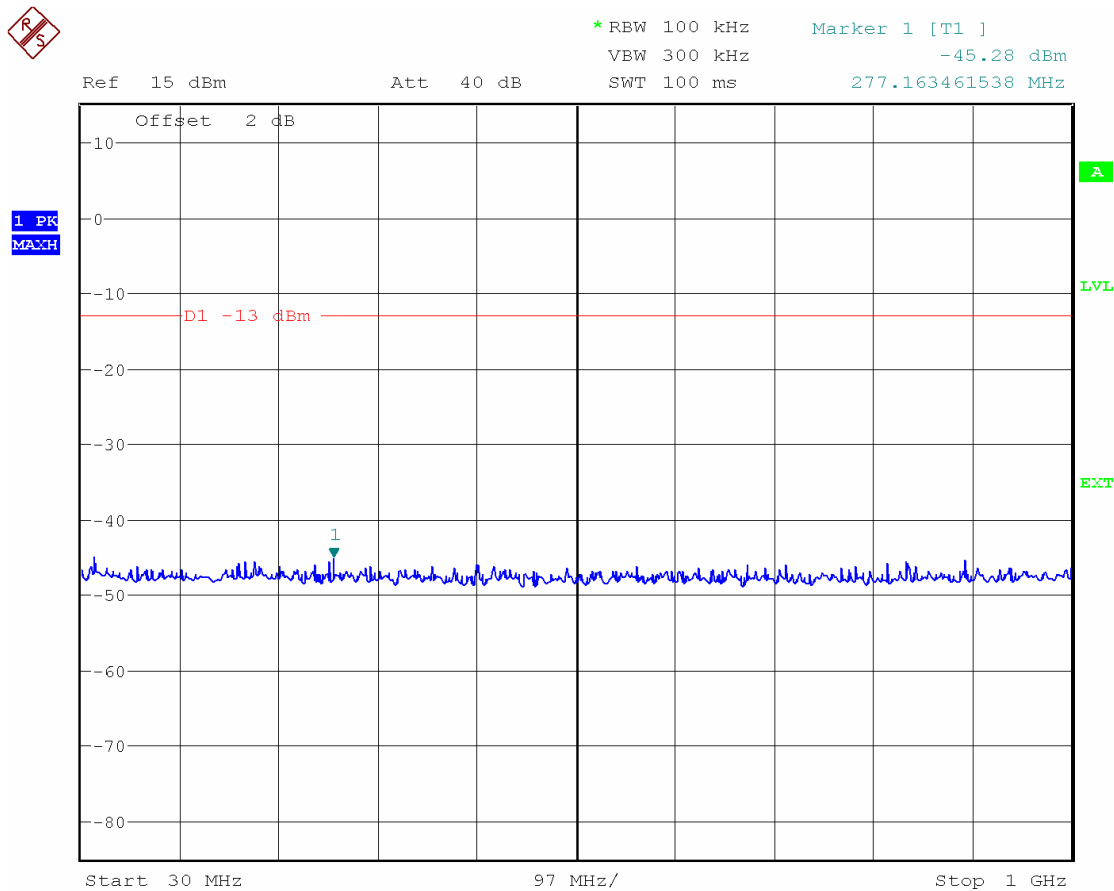


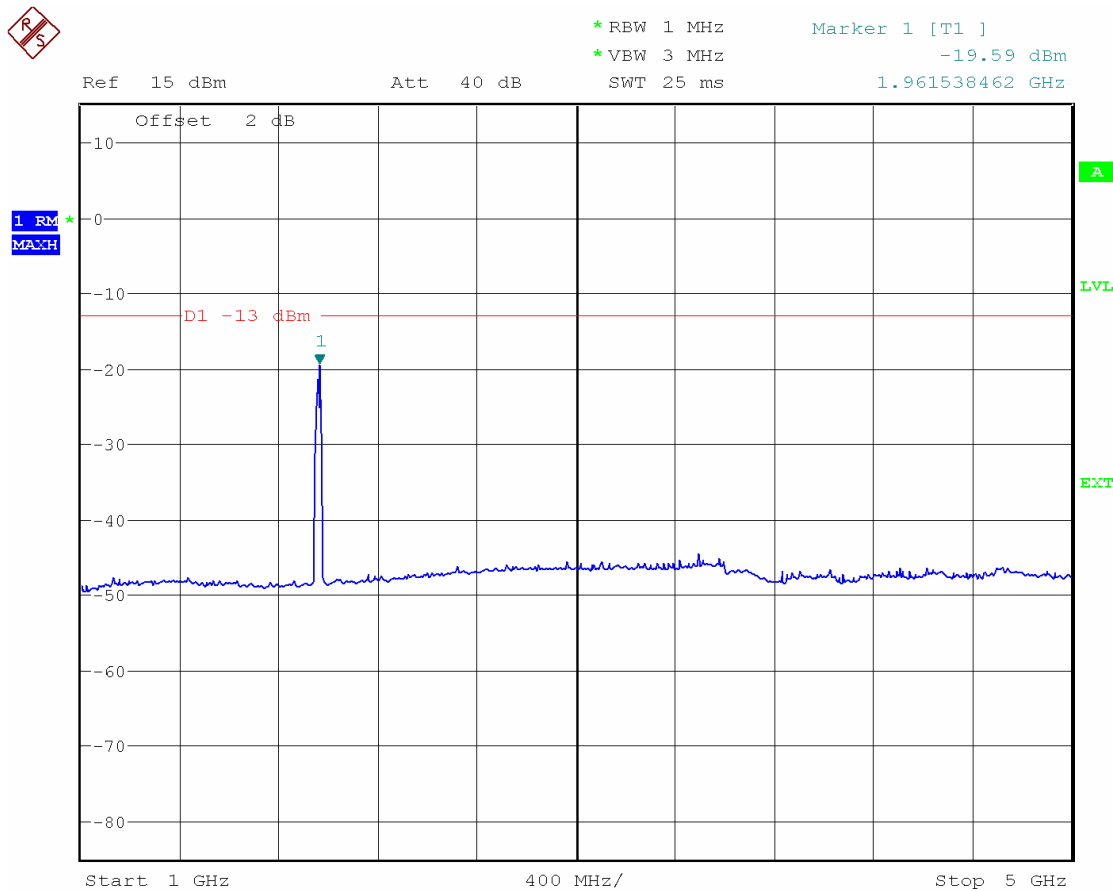
Measurement Result Outband Band Edge

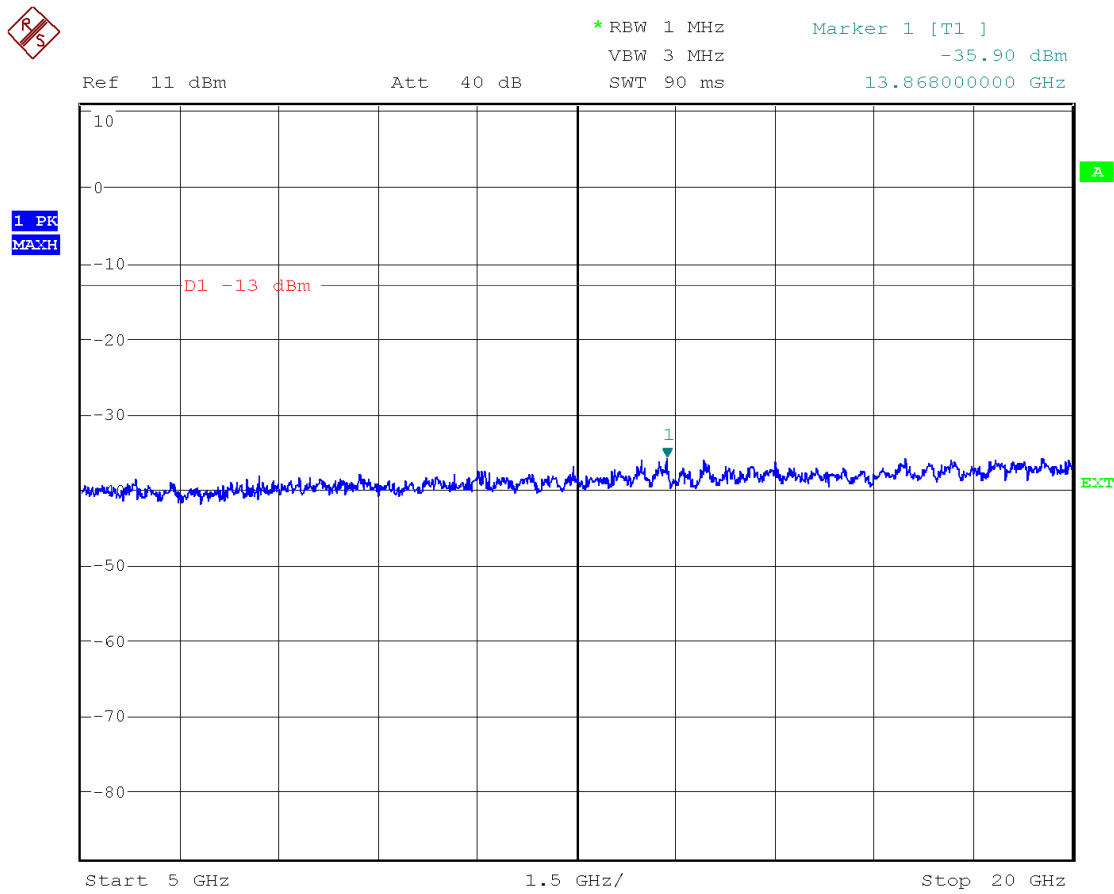
Channel 575/600/625











Appendix E

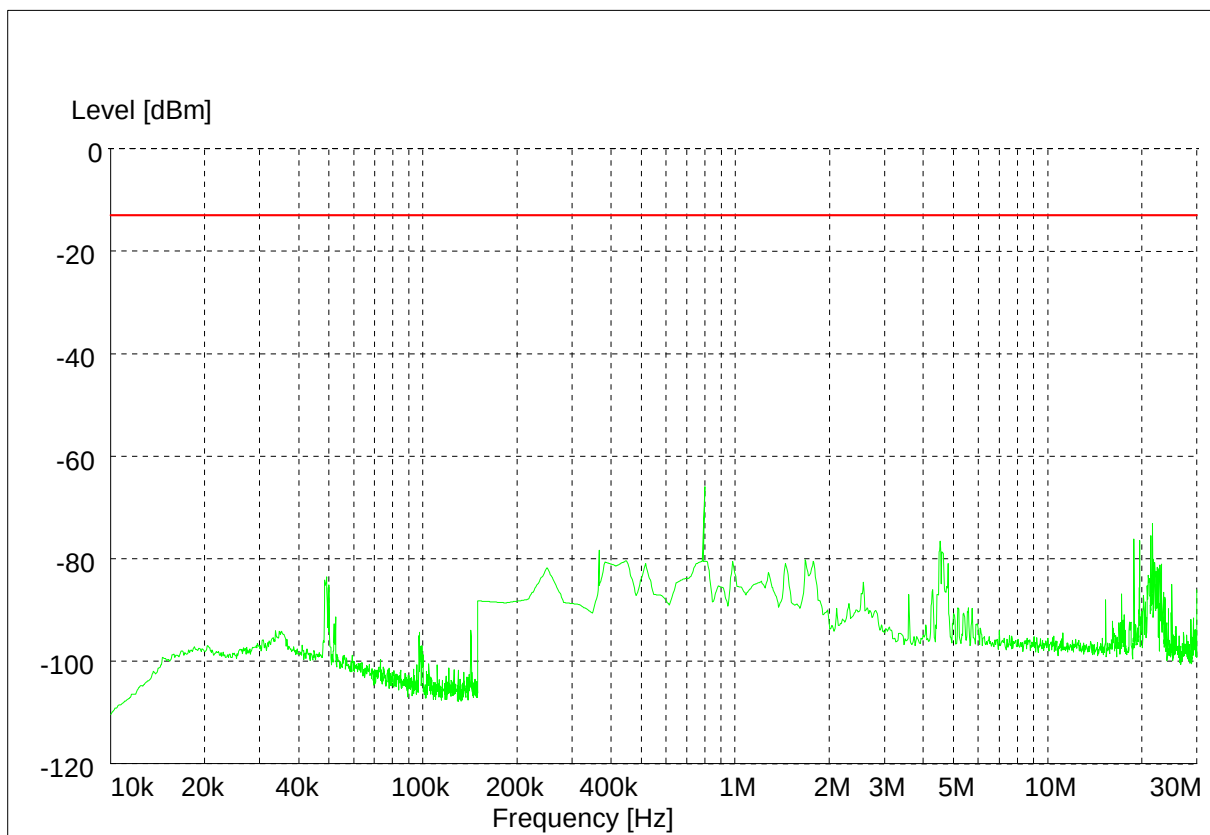
Field Strength of Spurious Radiation Measurements

According to CFR 47 (FCC) part 2.1053

The Result of Spurious Radiation Test

1. BTS3606 Test Result

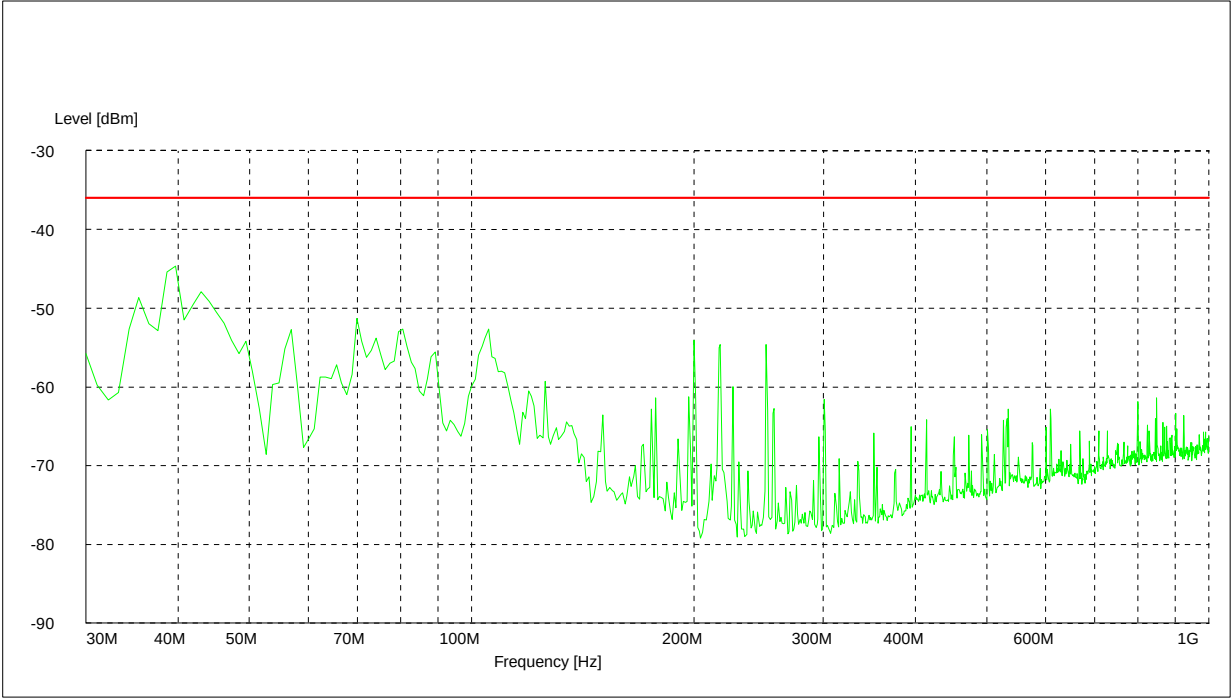
1 carriers have been work normally. BTS work at frequency No.600(1960MHz).





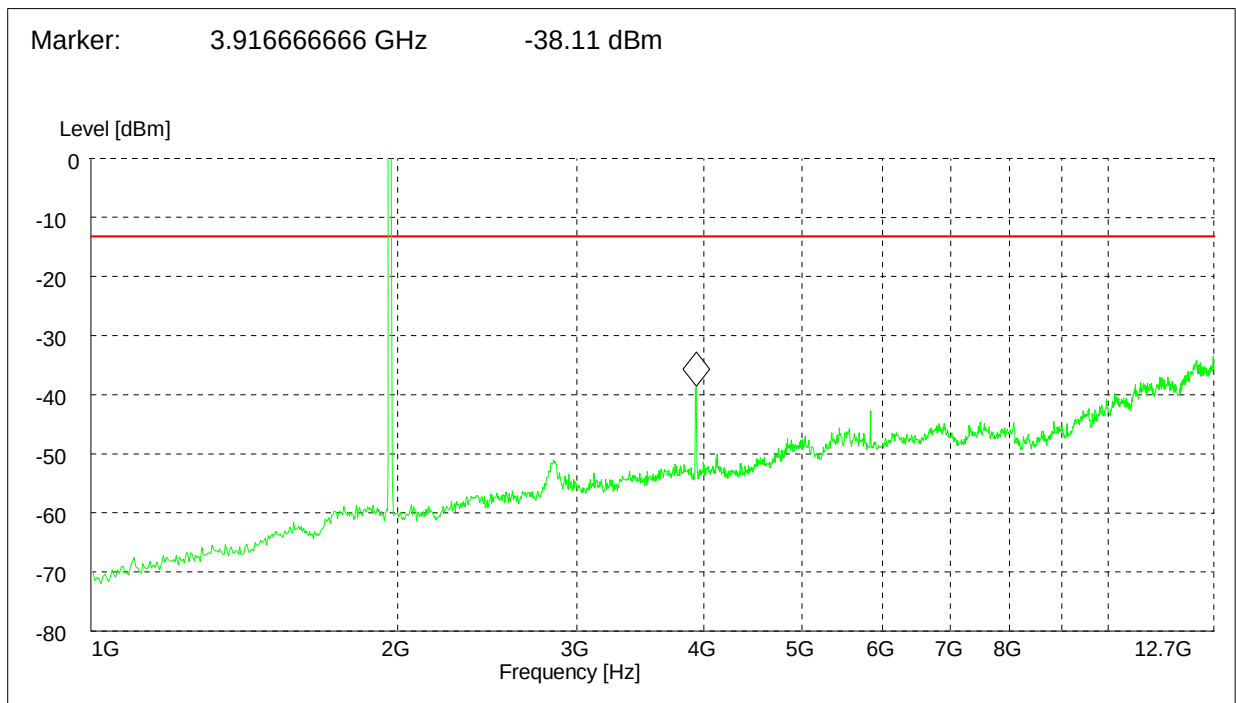
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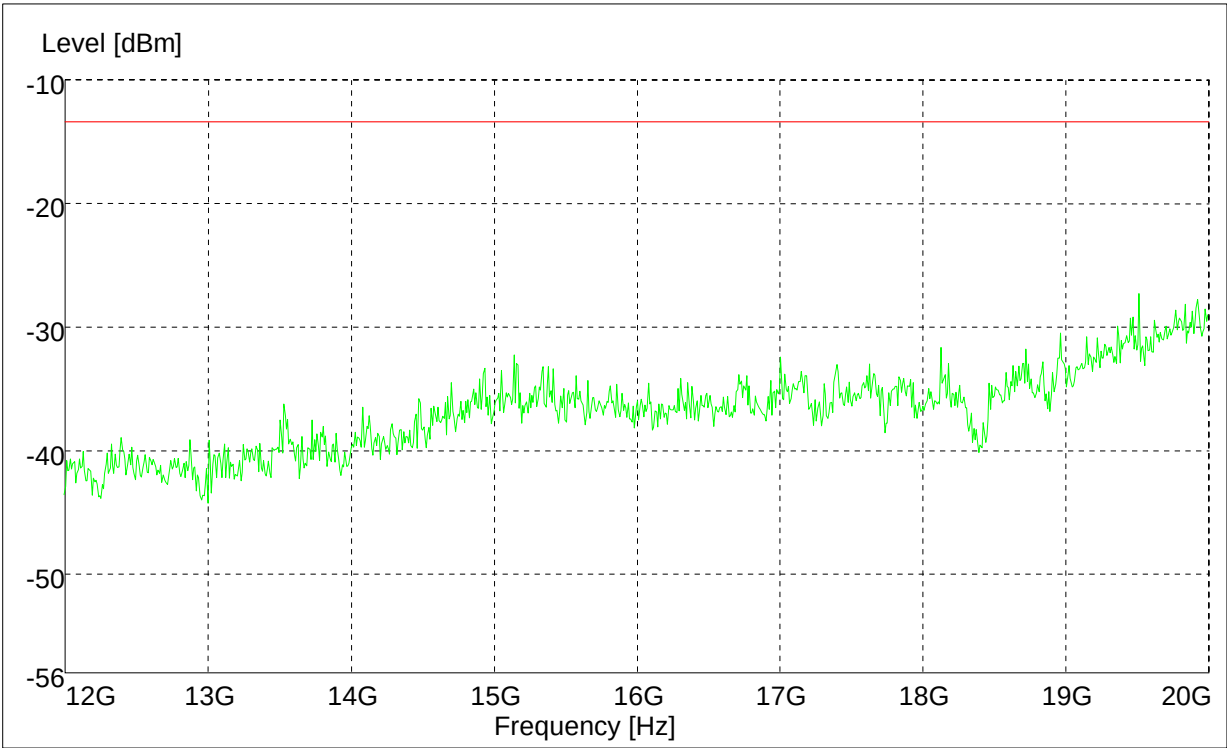
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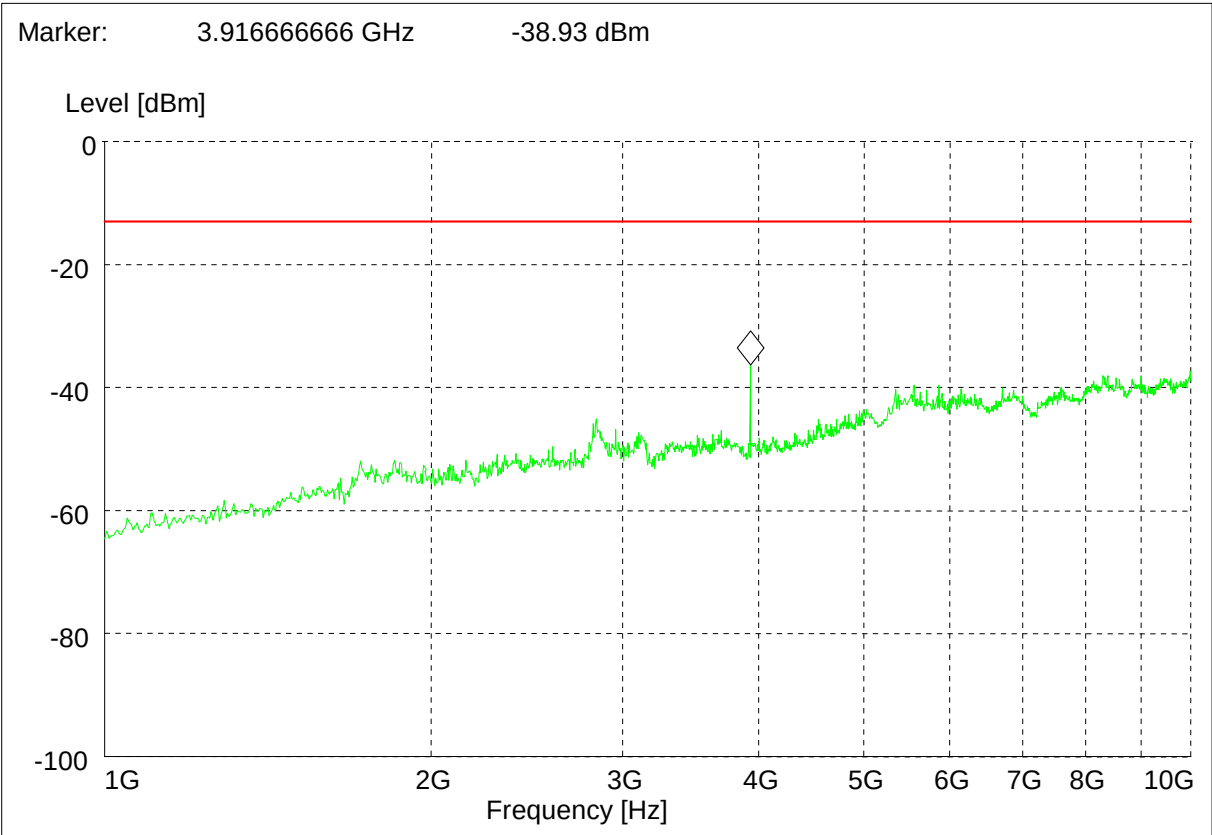
The point which exceeds the limit line is the carrier frequency.

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The Result of Substitute Test



END

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Appendix F

Frequency Stability Measurements

According to CFR 47 (FCC) part 2.1055

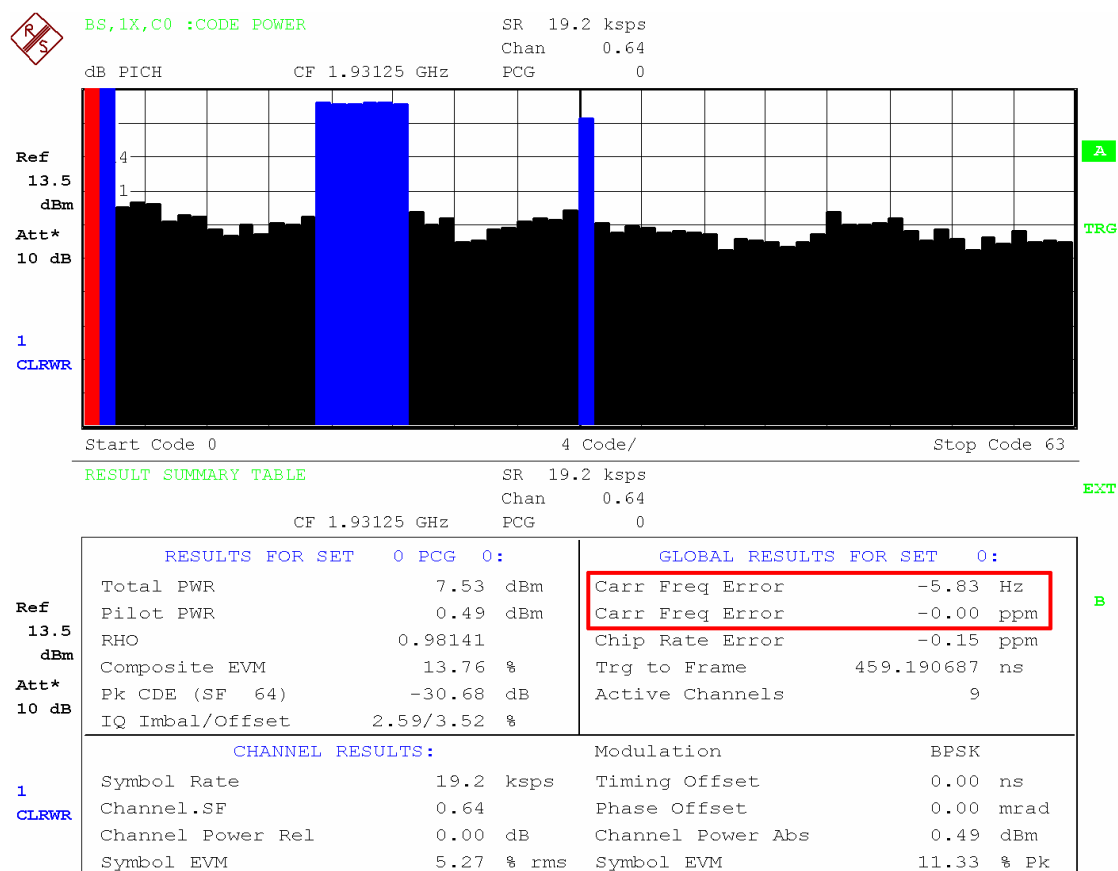
Frequency Stability versus Voltage

1. BTS3606

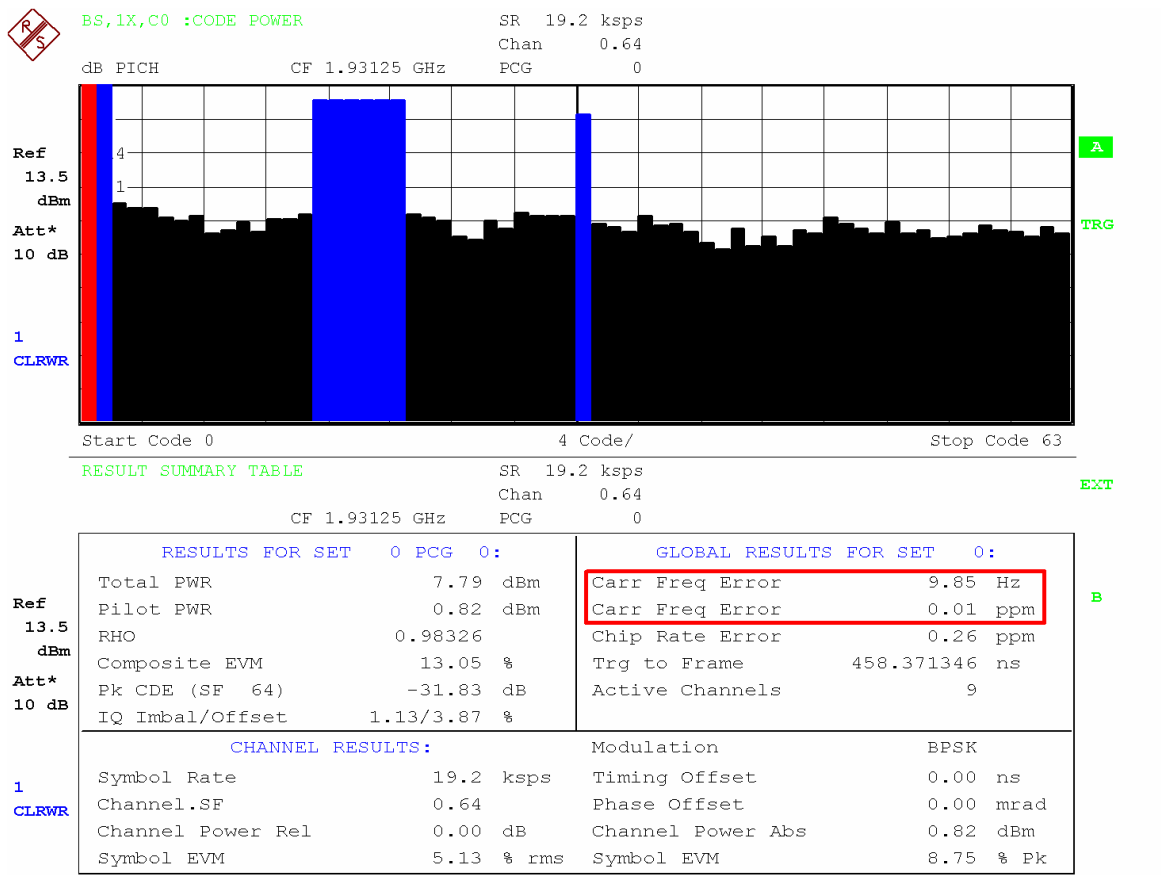
Frequency Stability versus Temperature

TRX1: Channel No. 1013(869.7MHz)

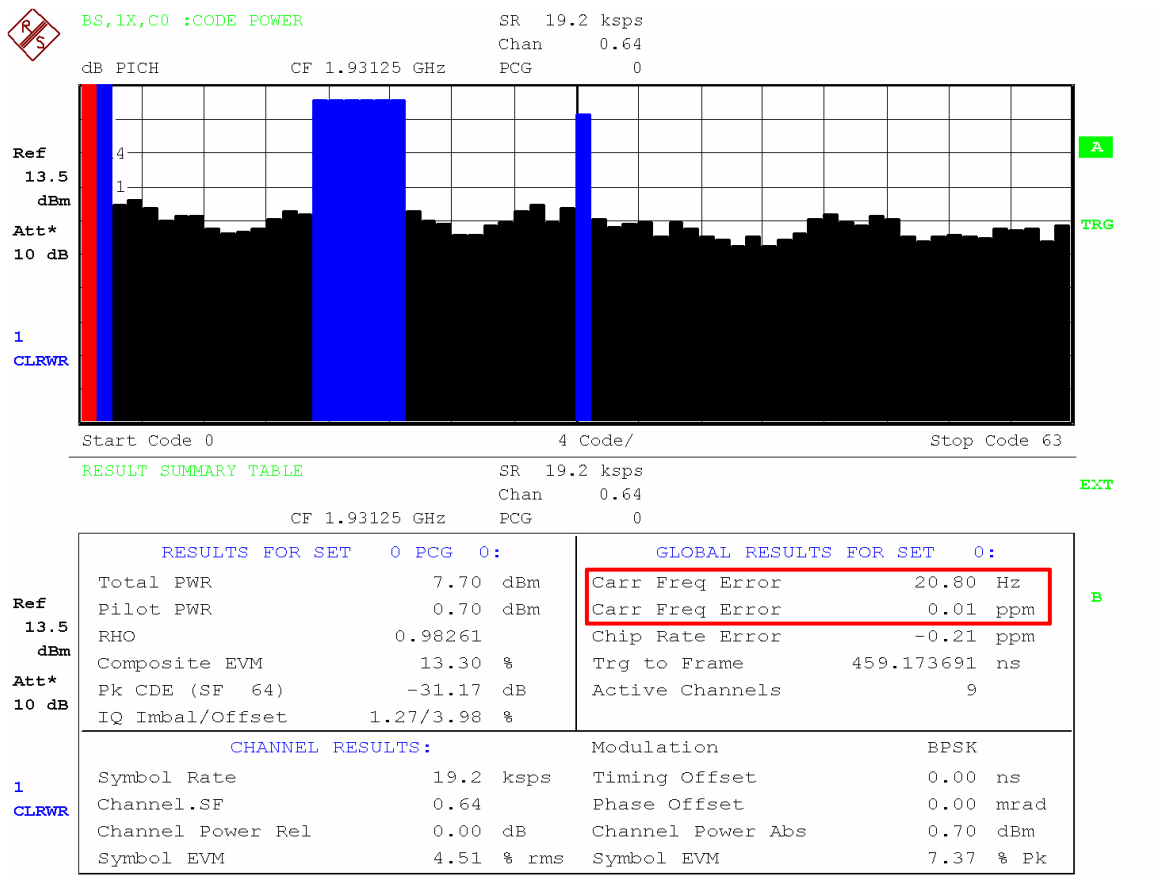
Temperature = - 30°C



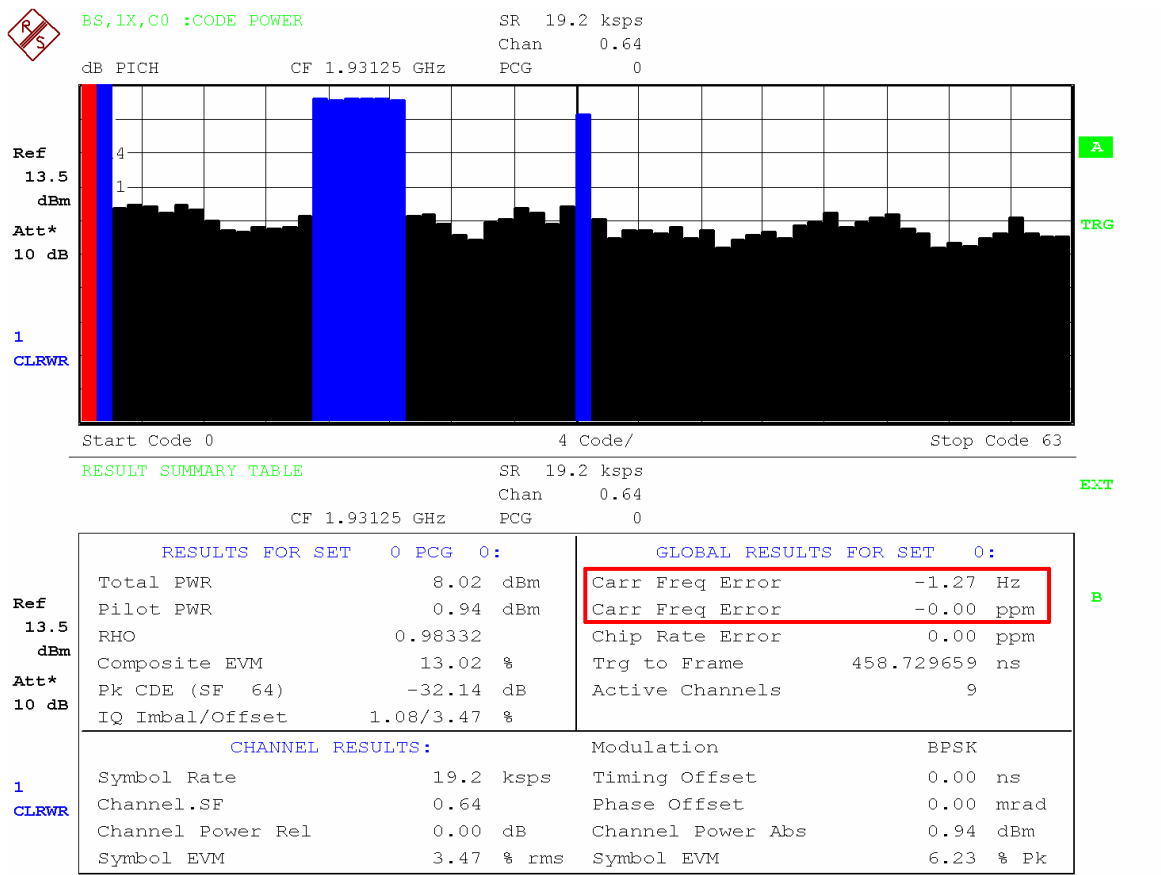
Temperature = - 20℃



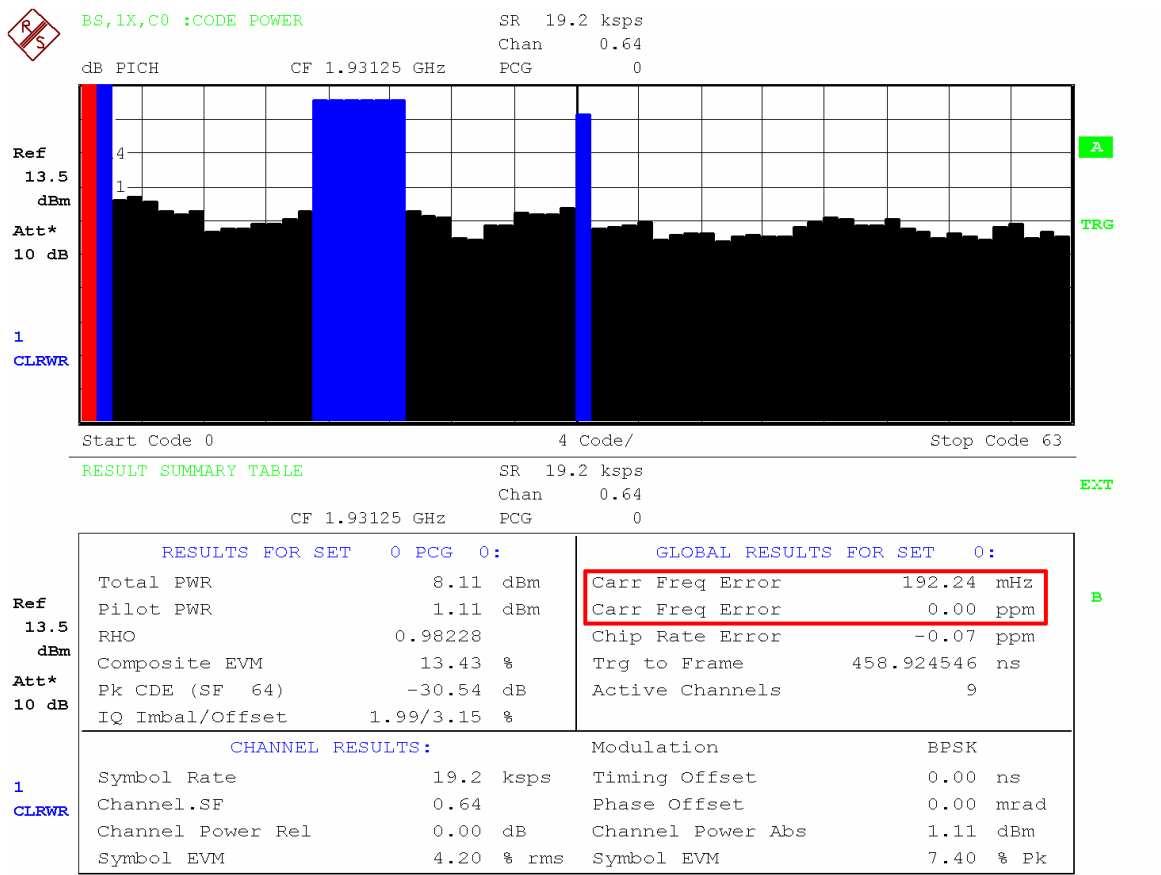
Temperature = - 10℃



Temperature = 0°C

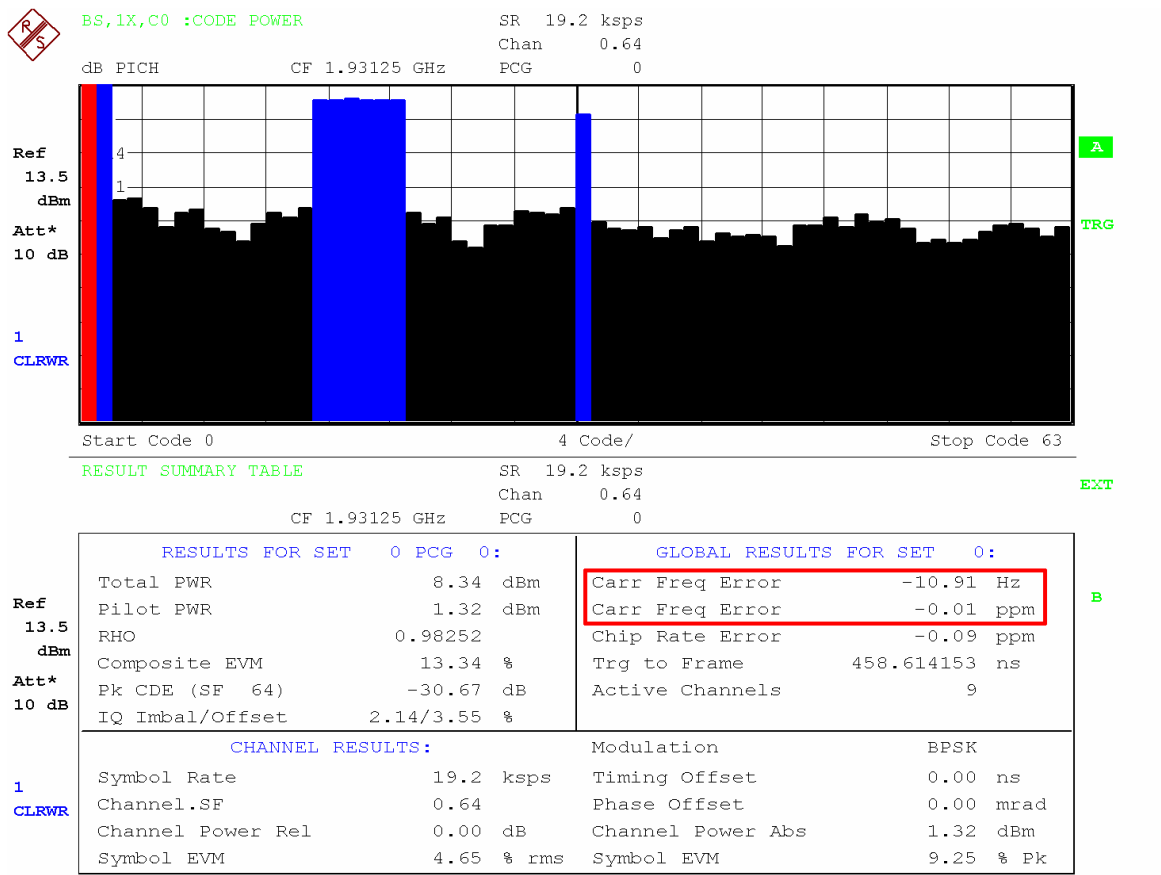


Temperature = 10°C

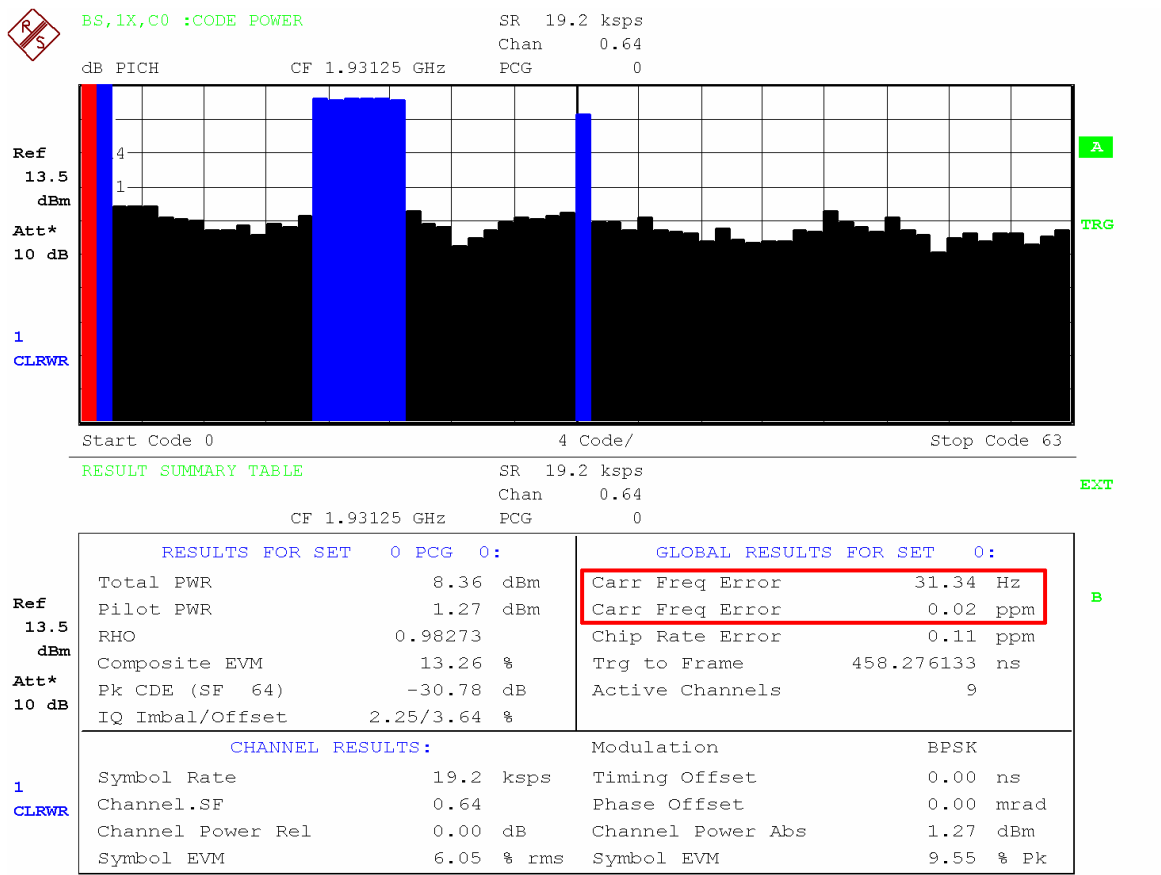


B

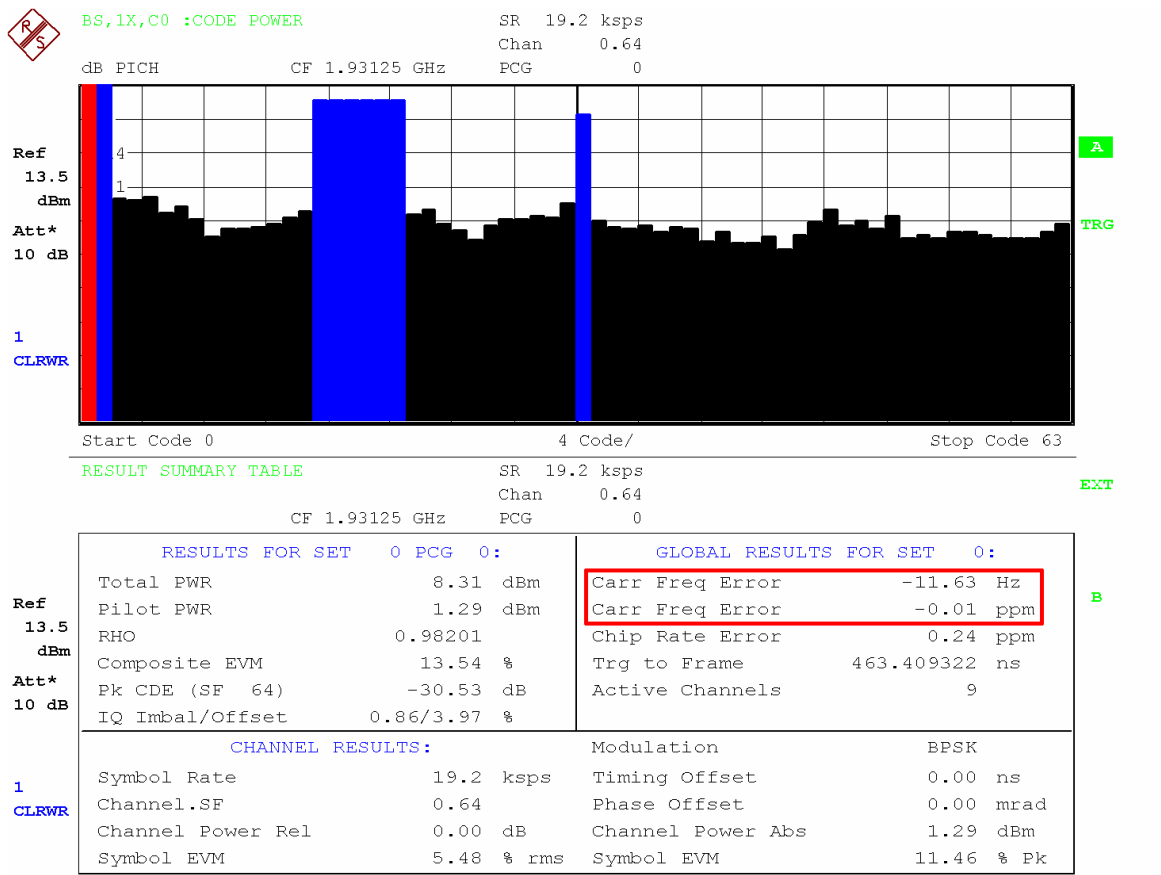
Temperature = 20°C



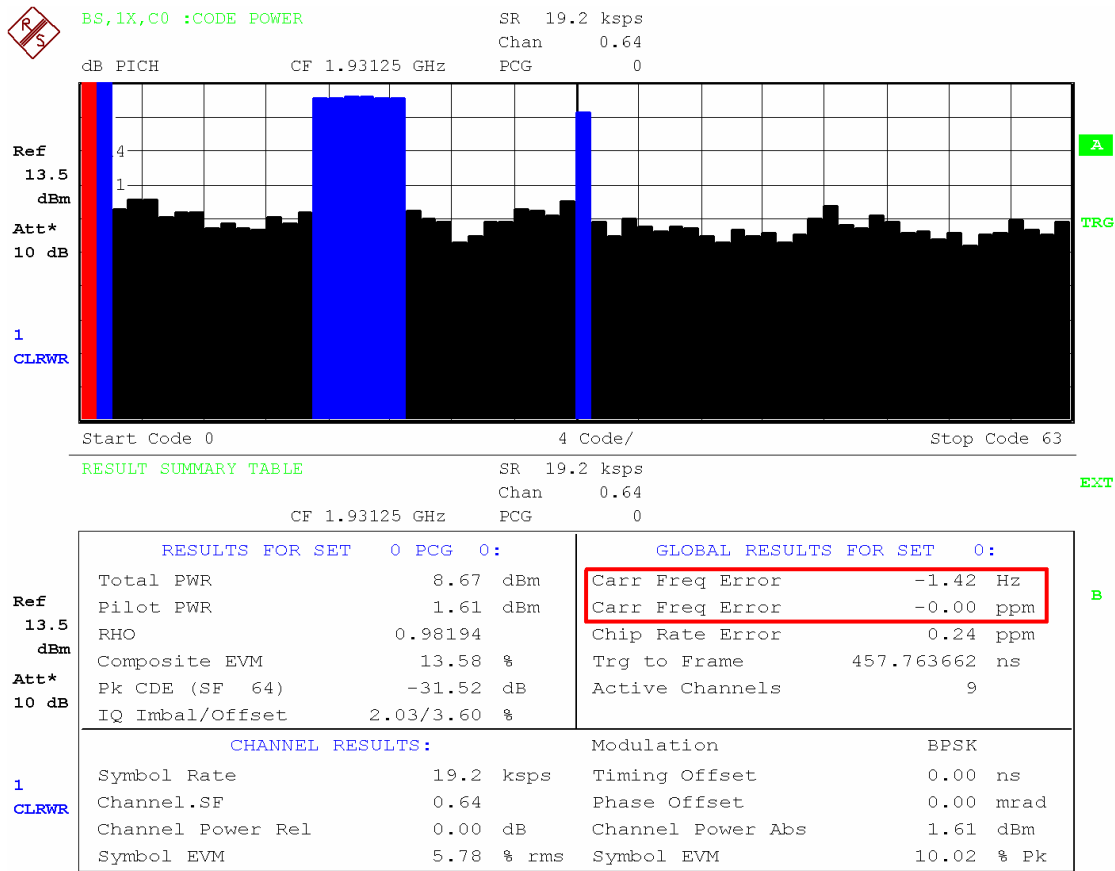
Temperature = 30℃



Temperature = 40°C

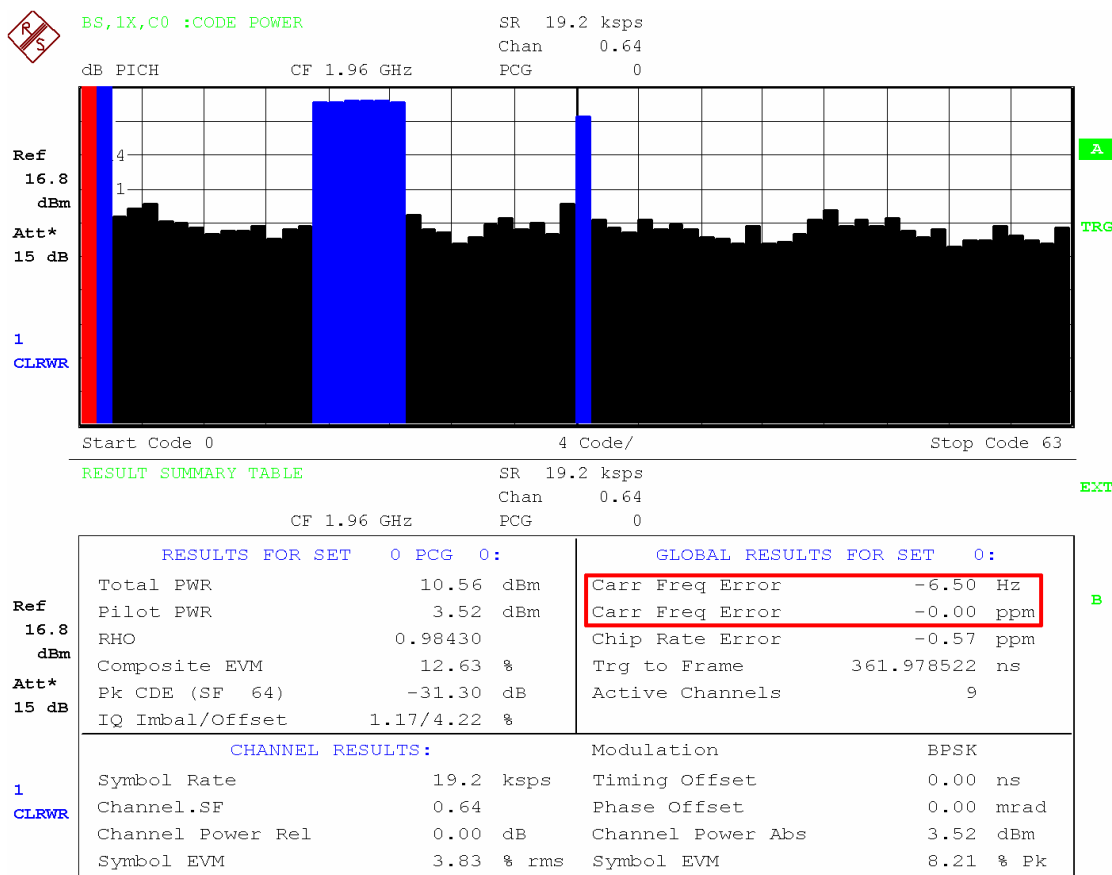


Temperature = 50°C

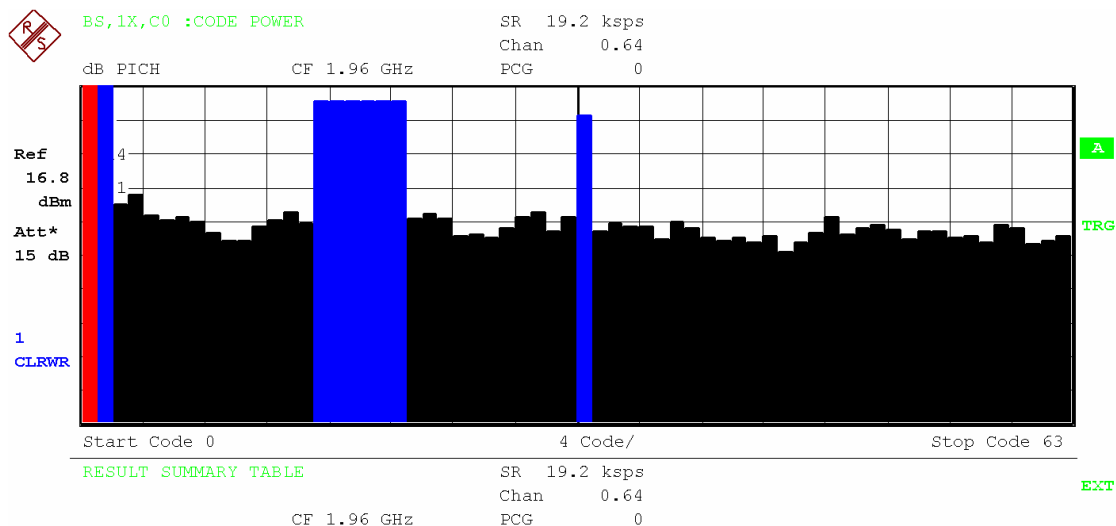


TRX2: Channel No. 600(1960.00MHz)

Temperature = - 30℃

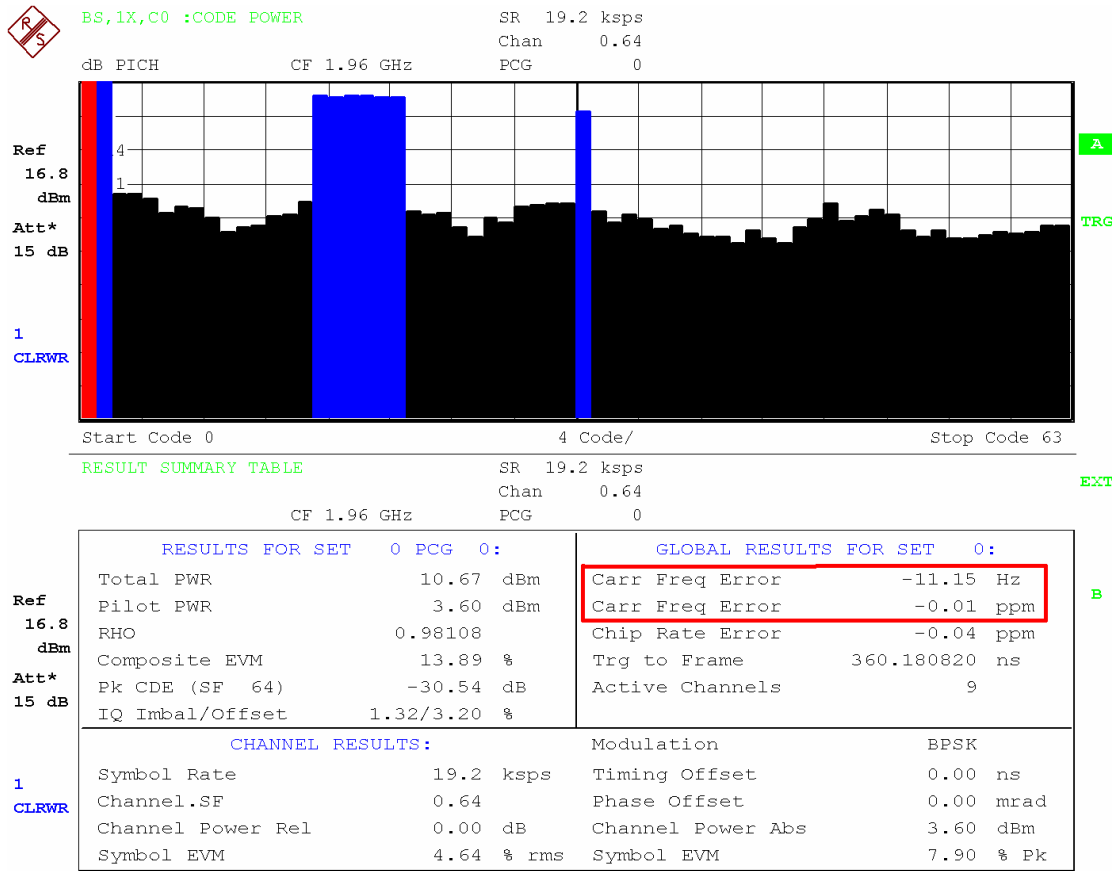


Temperature = - 20°C

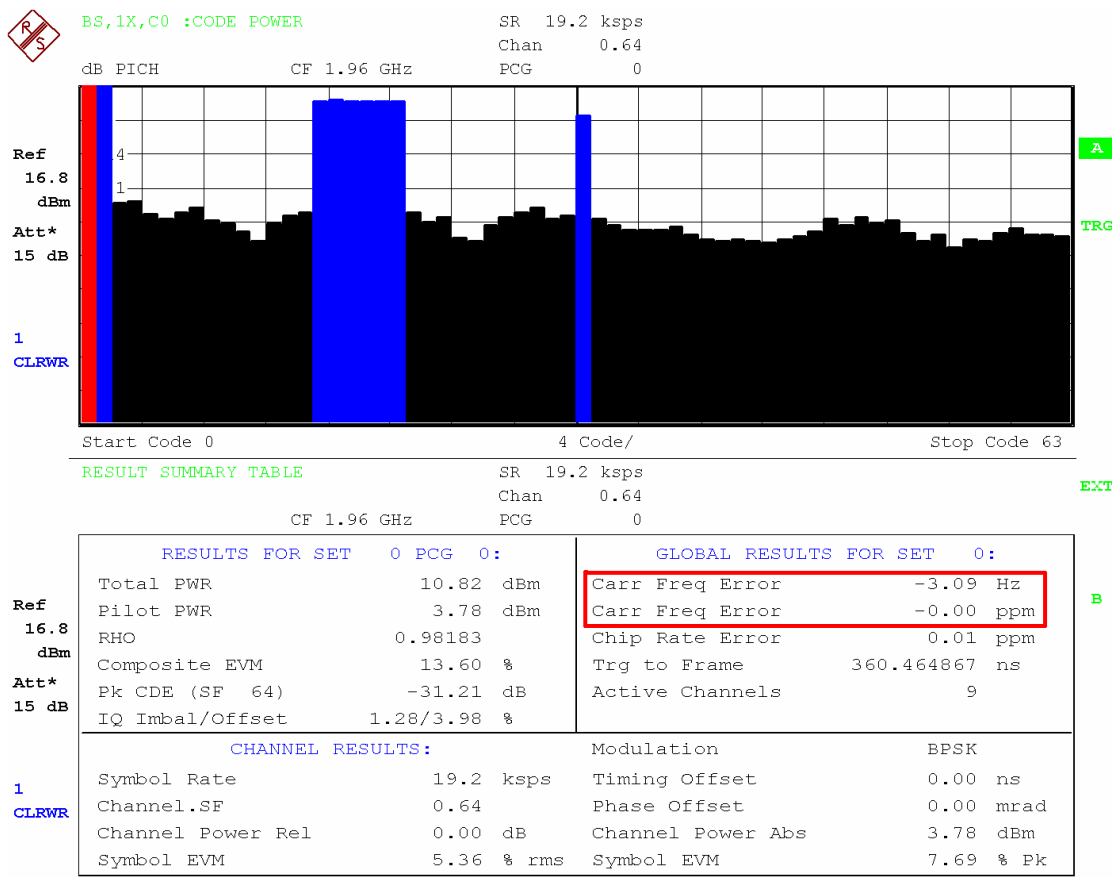


RESULTS FOR SET 0 PCG 0:				GLOBAL RESULTS FOR SET 0:				
Ref 16.8 dBm	Total PWR	10.60	dBm	Carr Freq Error	-10.72	Hz		
	Pilot PWR	3.63	dBm	Carr Freq Error	-0.01	ppm		
	RHO	0.98284		Chip Rate Error	-0.04	ppm		
	Composite EVM	13.22	%	Trg to Frame	360.617832	ns		
	Att* 15 dB	Pk CDE (SF 64)	-29.76	dB	Active Channels	9		
	IQ Imbal/Offset	1.42/4.02	%					
1 CLRWR	CHANNEL RESULTS:			Modulation				BPSK
	Symbol Rate	19.2	ksp/s	Timing Offset	0.00	ns		
	Channel.SF	0.64		Phase Offset	0.00	mmrad		
	Channel Power Rel	0.00	dB	Channel Power Abs	3.63	dBm		
	Symbol EVM	5.67	% rms	Symbol EVM	10.31	% Pk		

Temperature = - 10℃



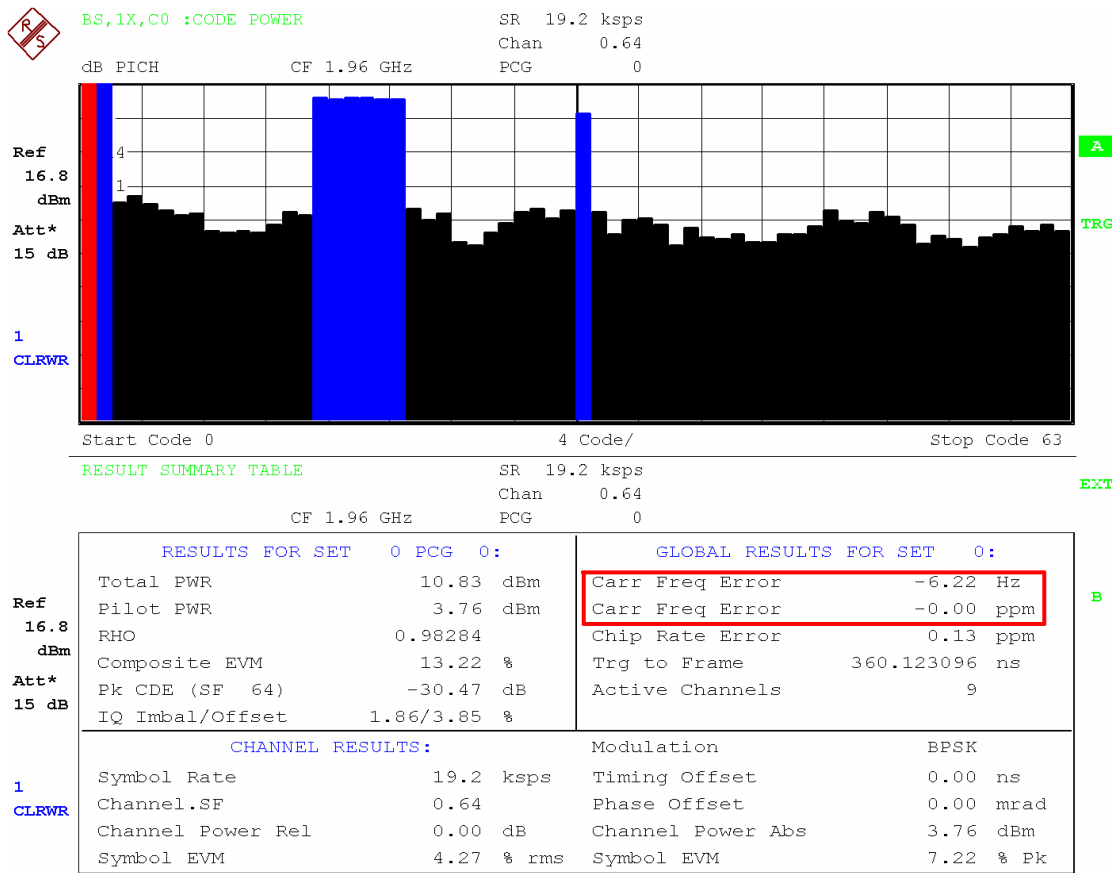
Temperature = 0°C



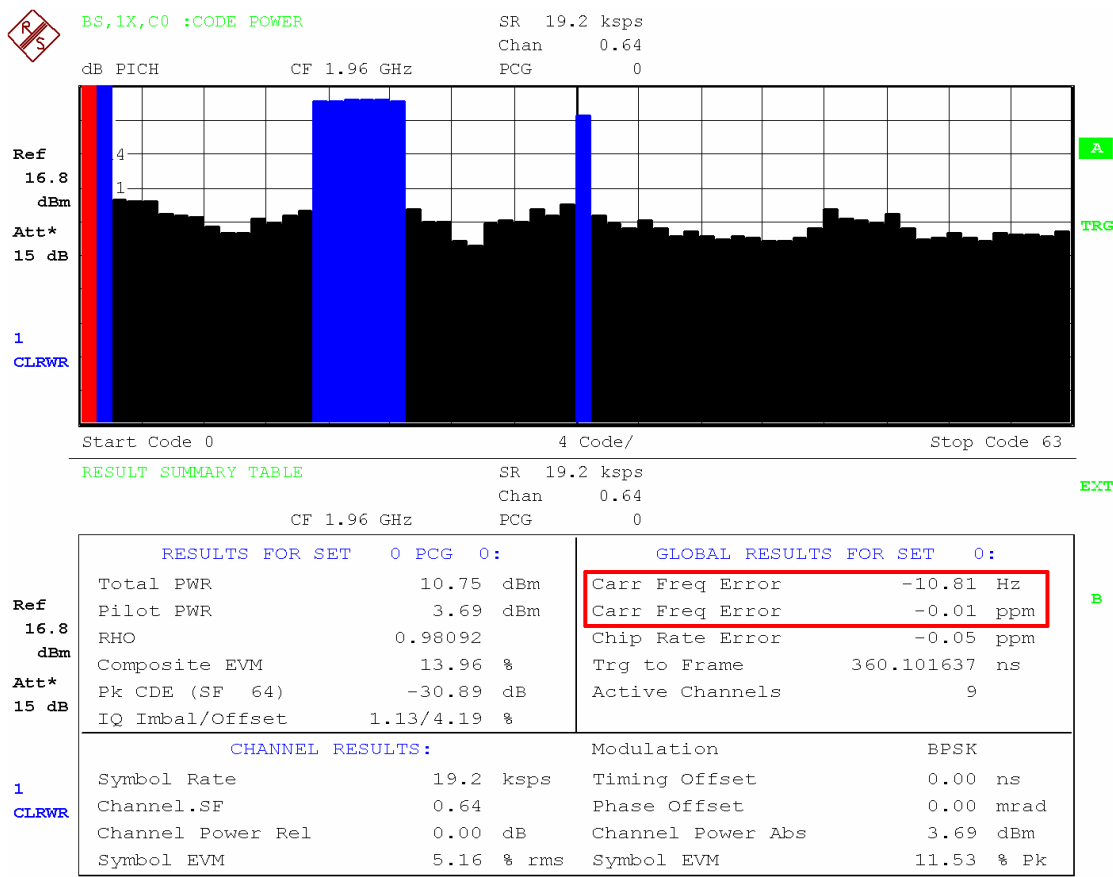
A

B

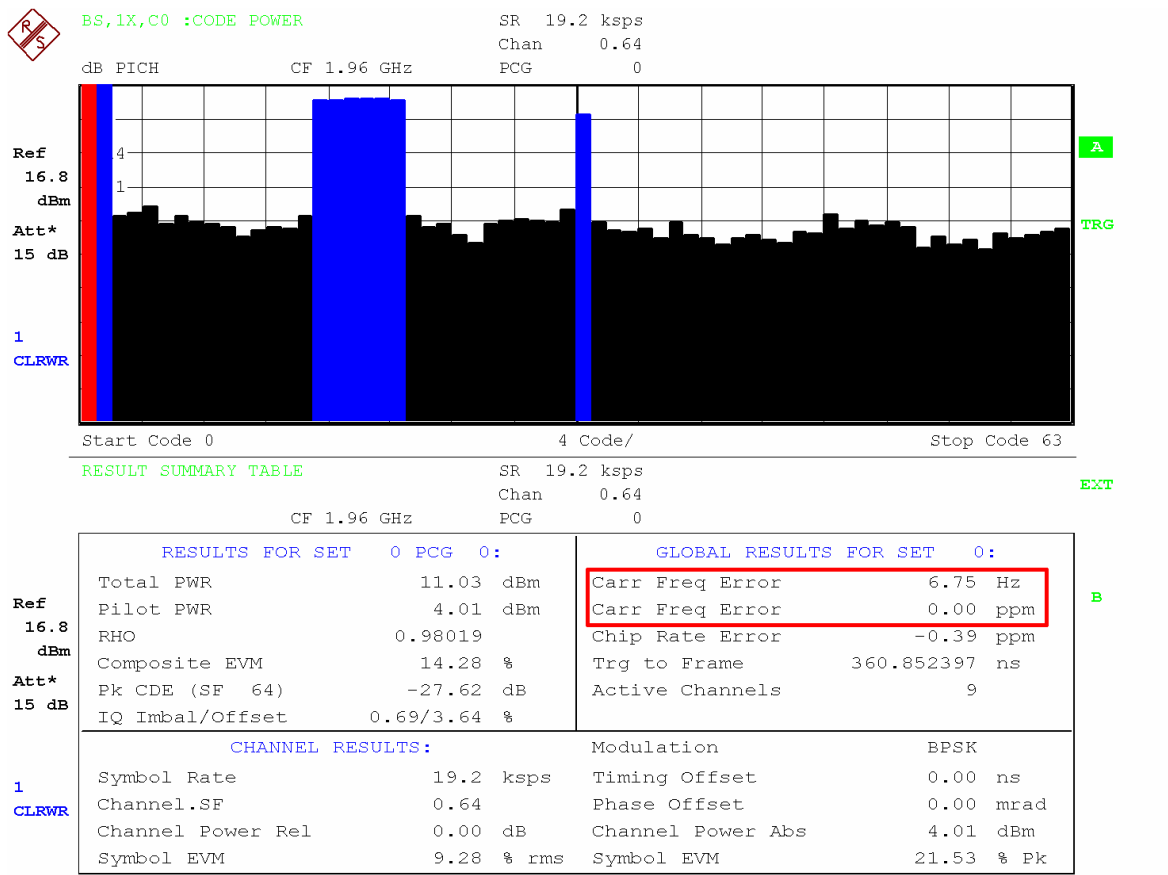
Temperature = 10°C



Temperature = 20°C

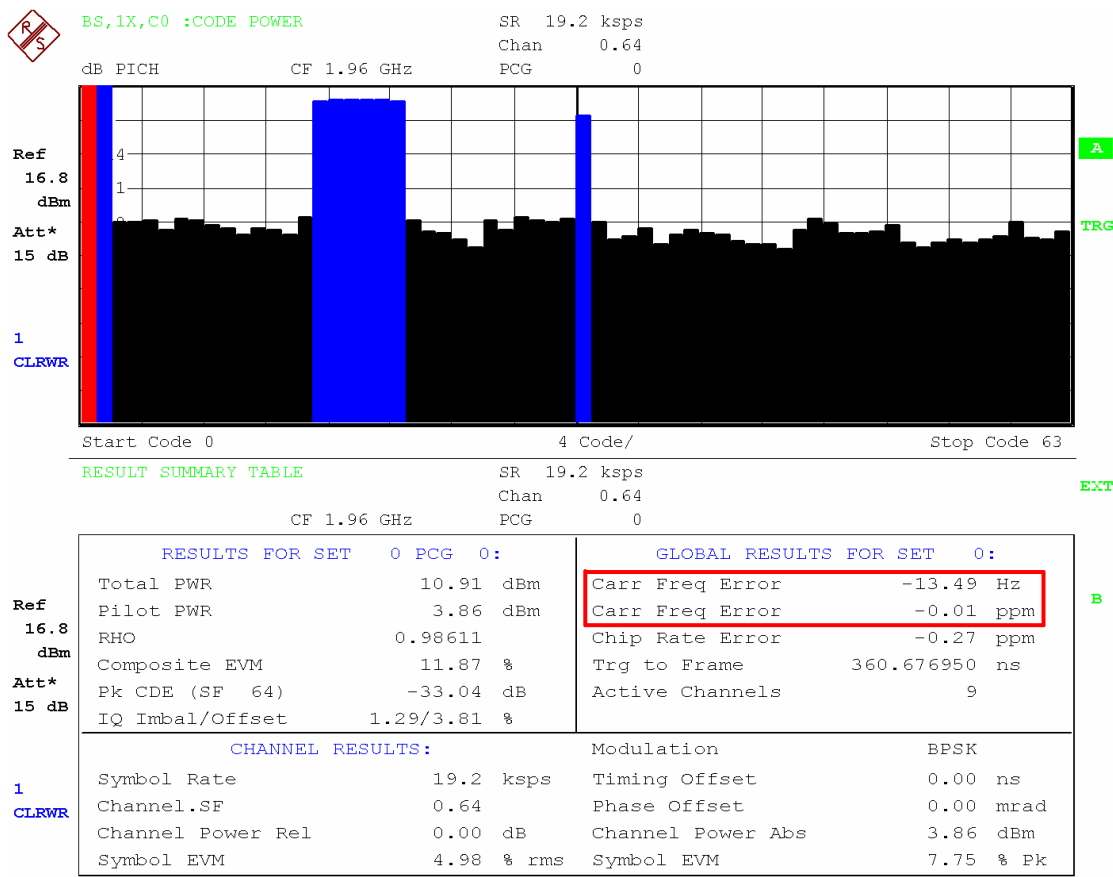


Temperature = 30°C

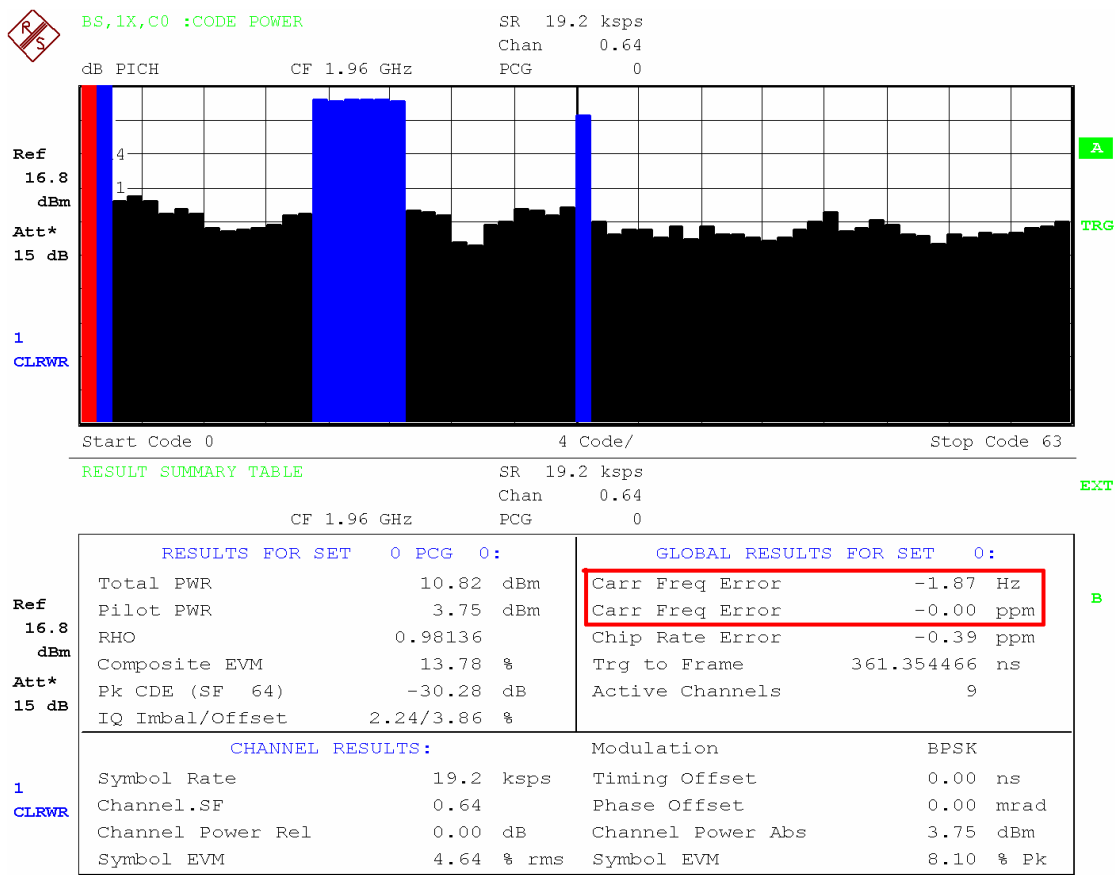


B

Temperature = 40°C

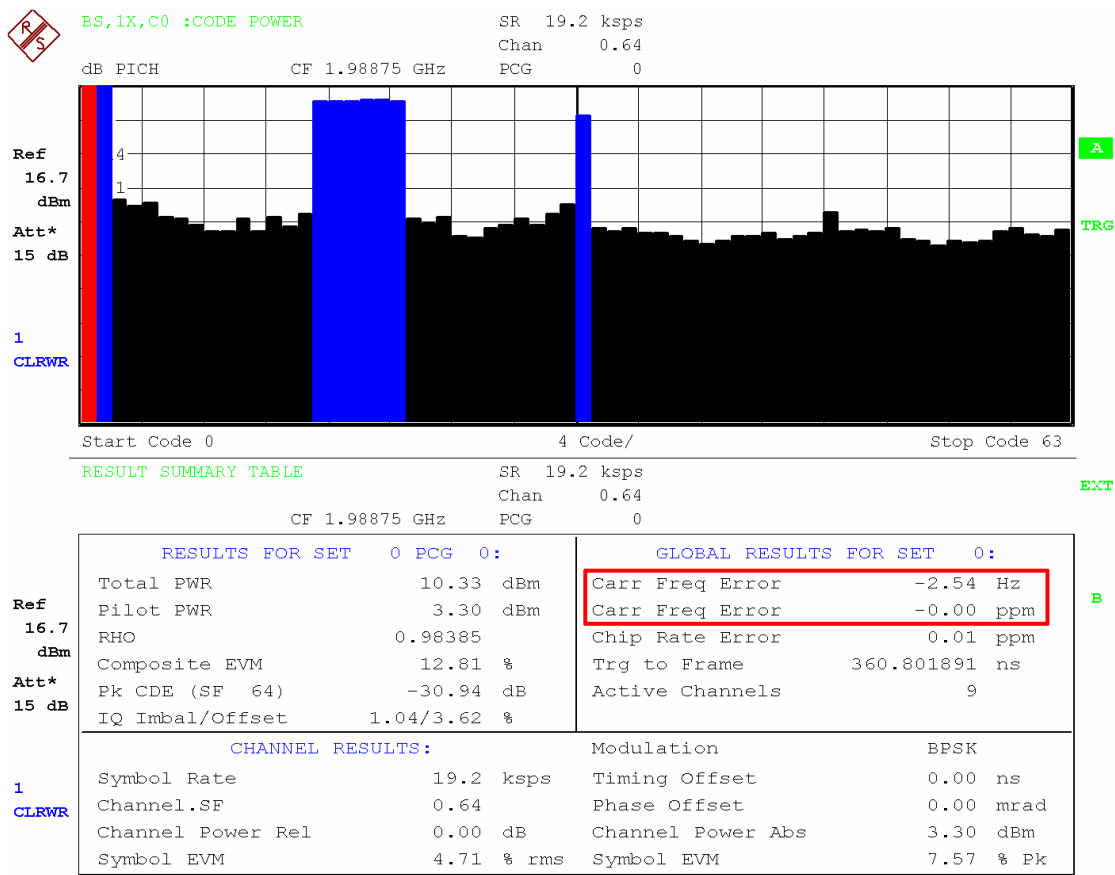


Temperature = 50°C

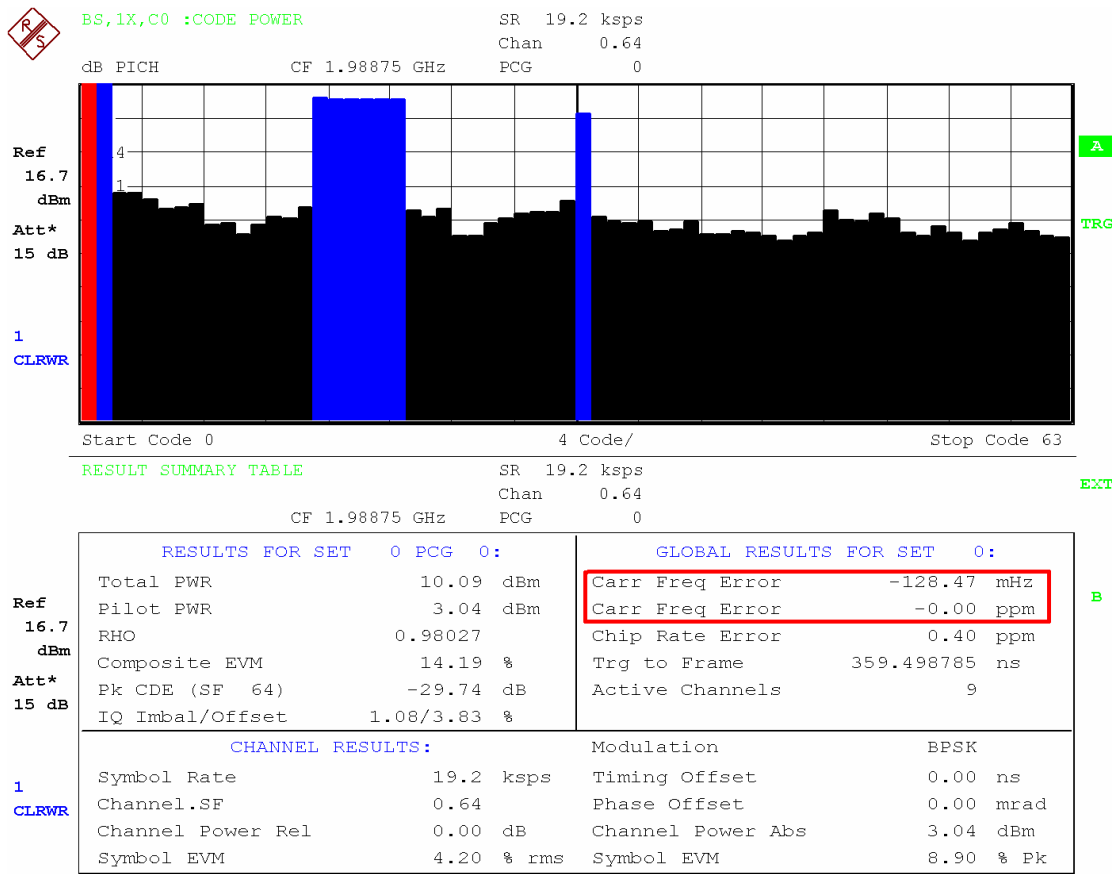


TRX3: Channel No. 1175(1988.75MHz)

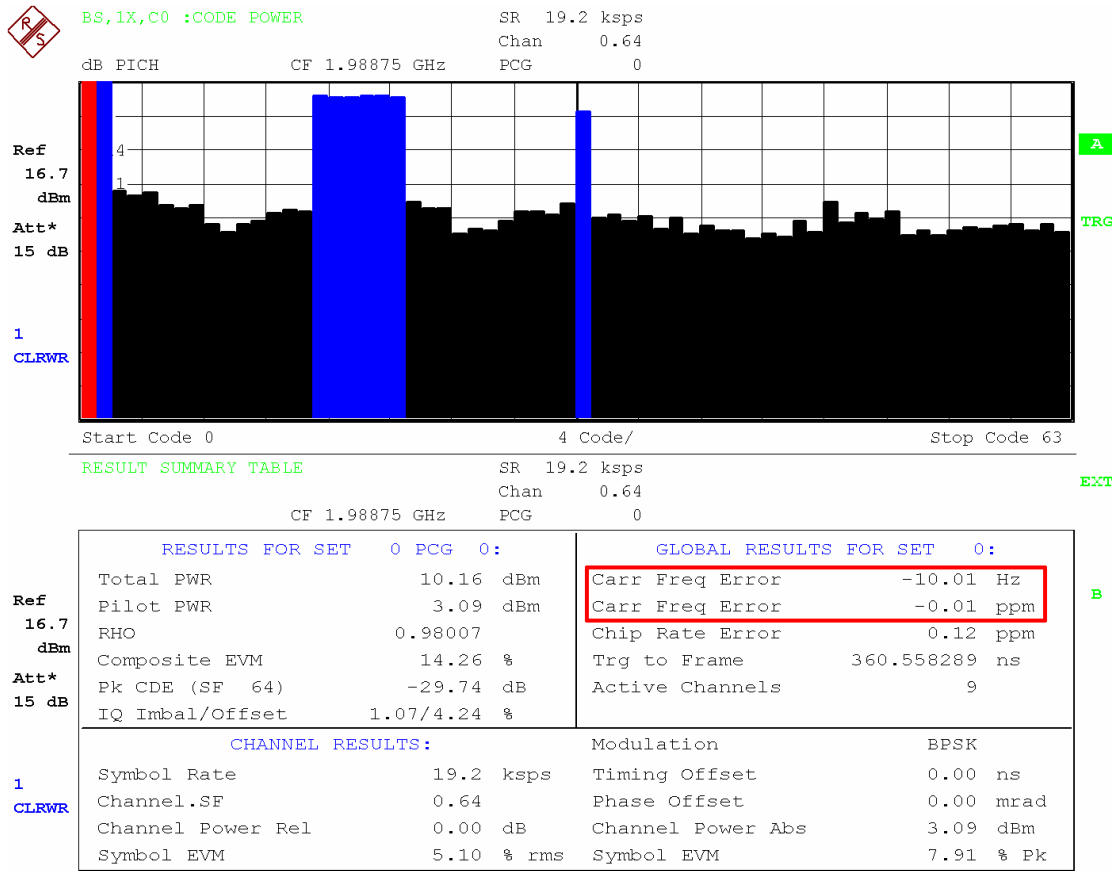
Temperature = - 30℃



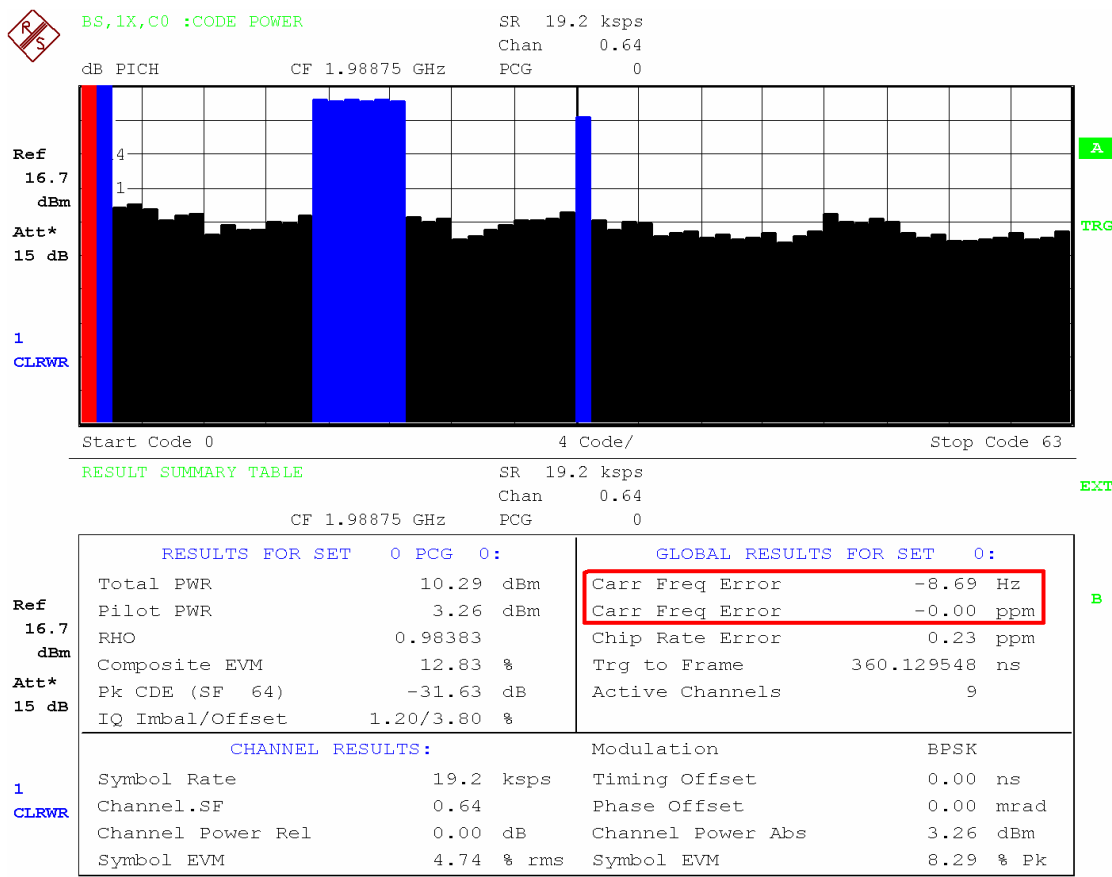
Temperature = - 20℃



Temperature = - 10℃



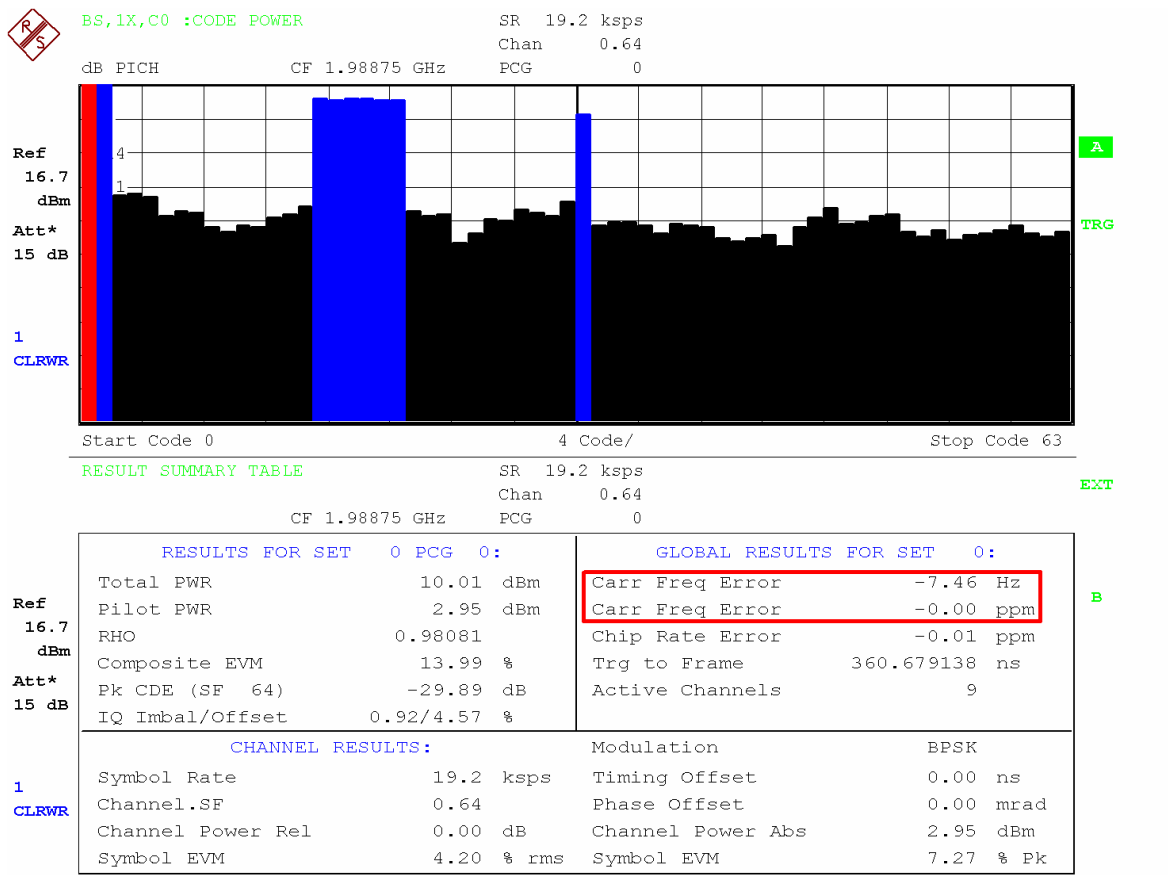
Temperature = 0°C



A

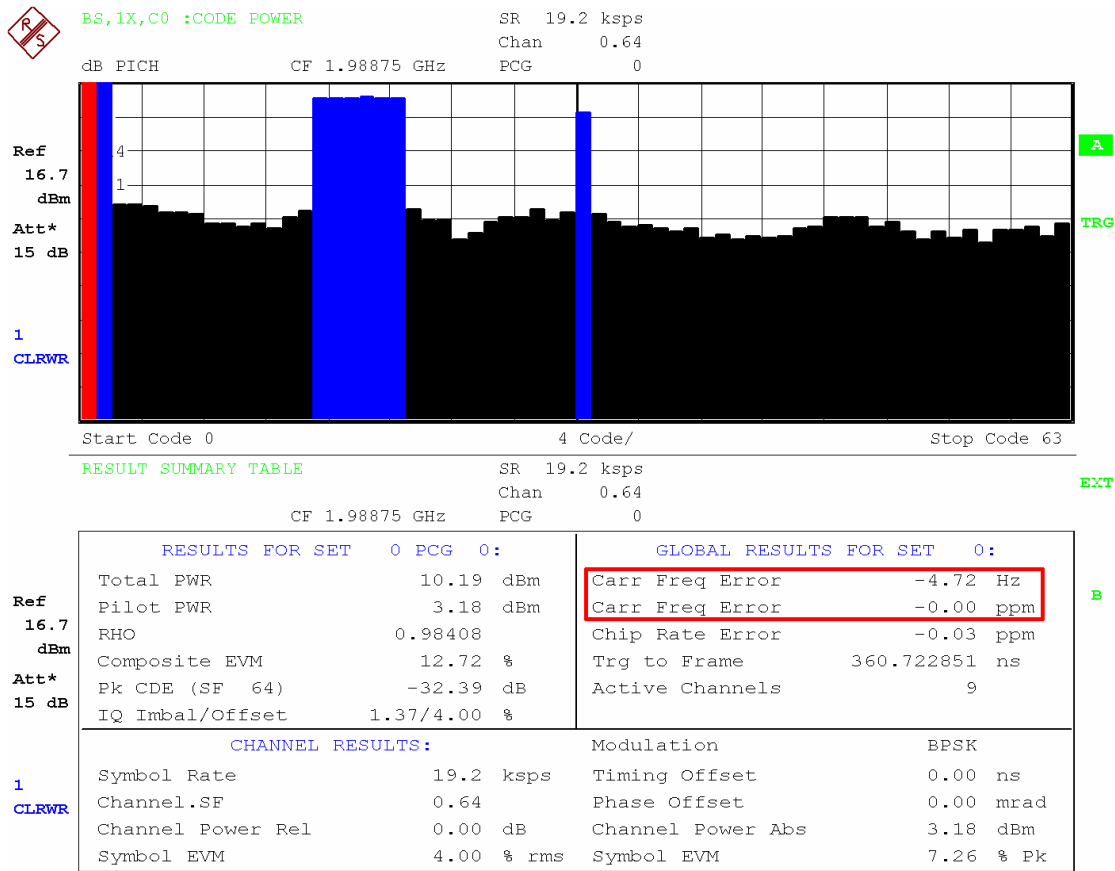
B

Temperature = 10°C

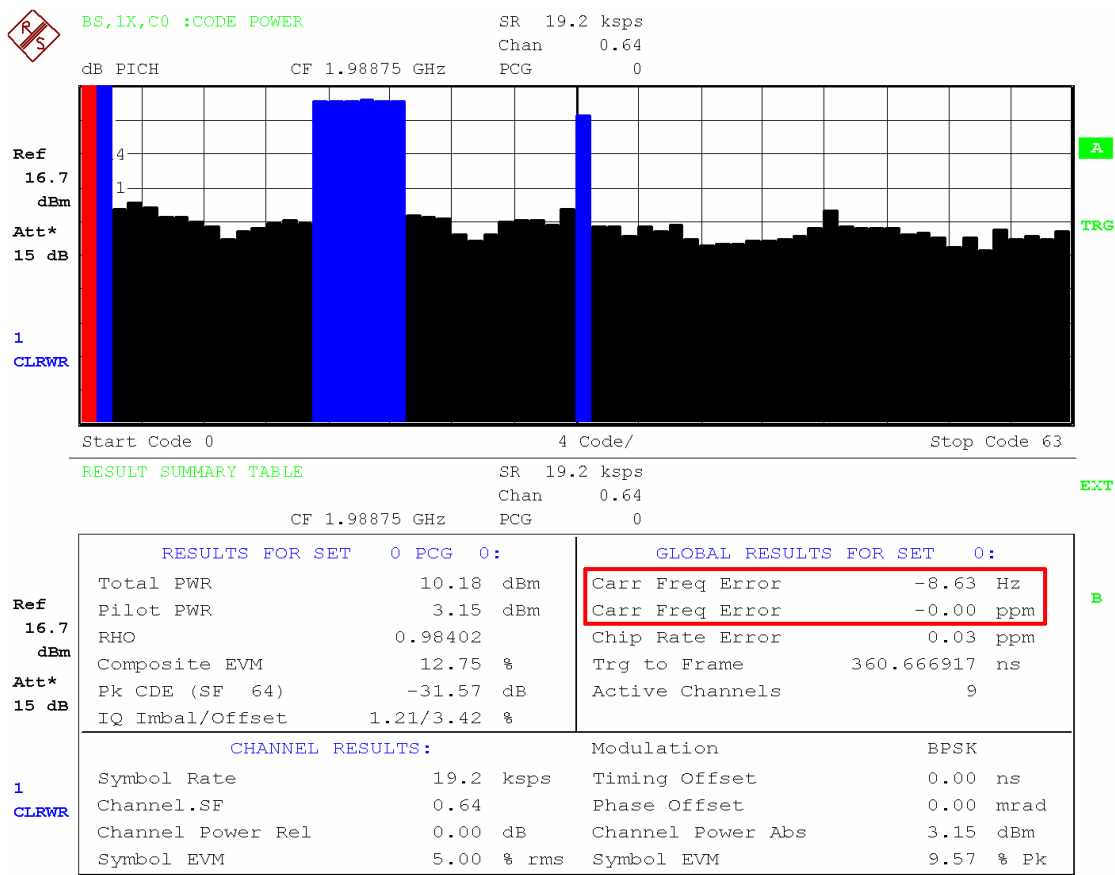


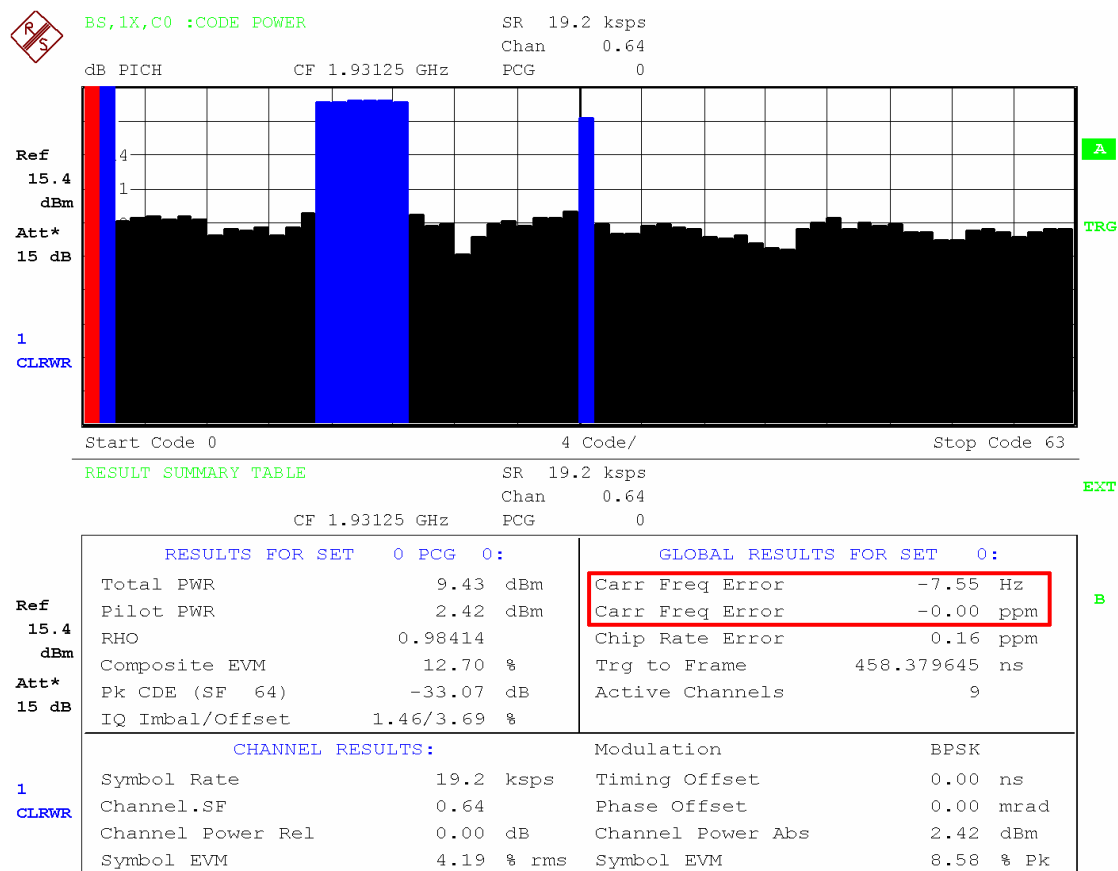
B

Temperature = 20°C

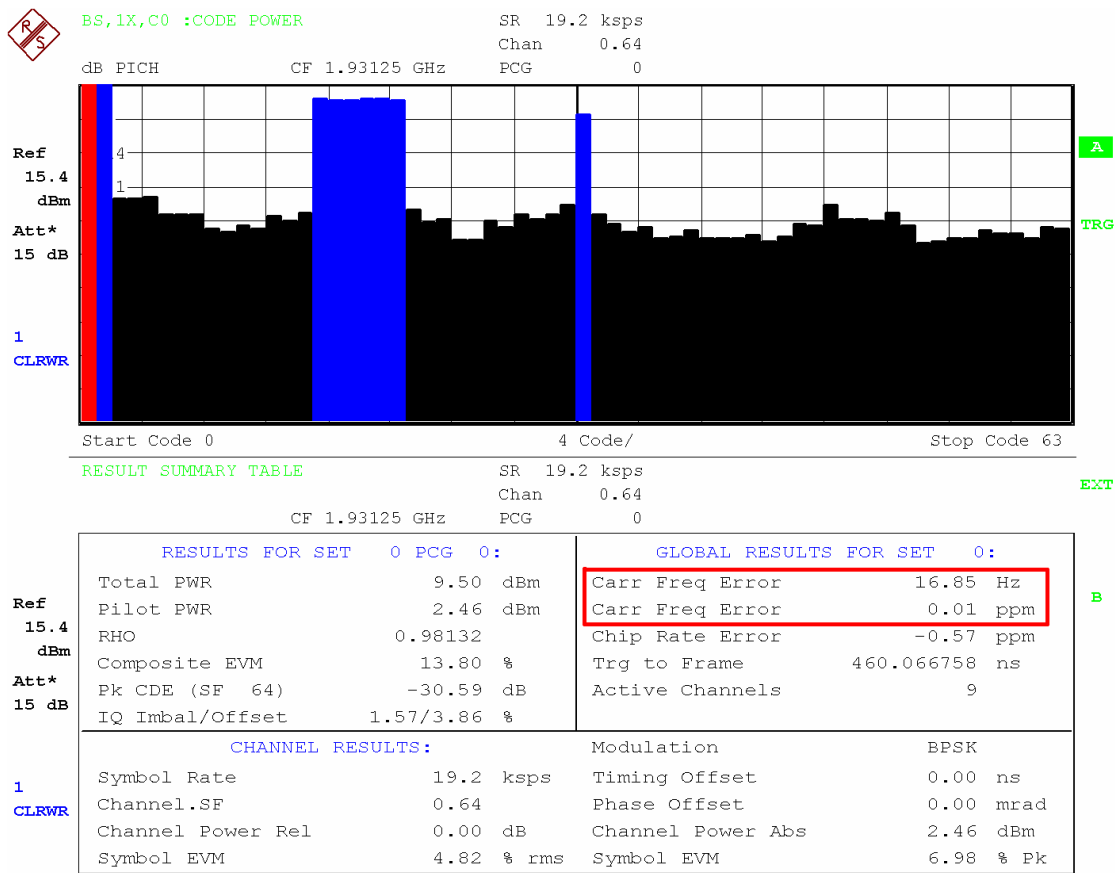


Temperature = 50°C

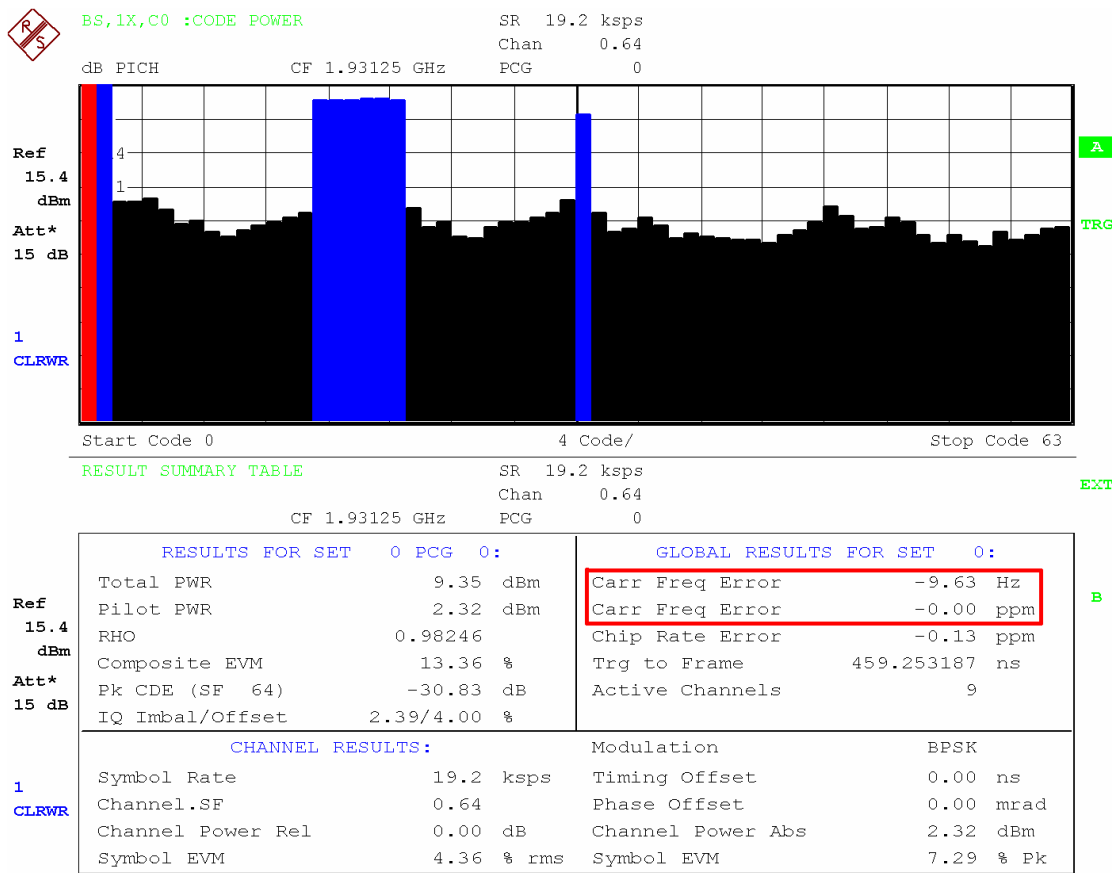




Voltage= -48V

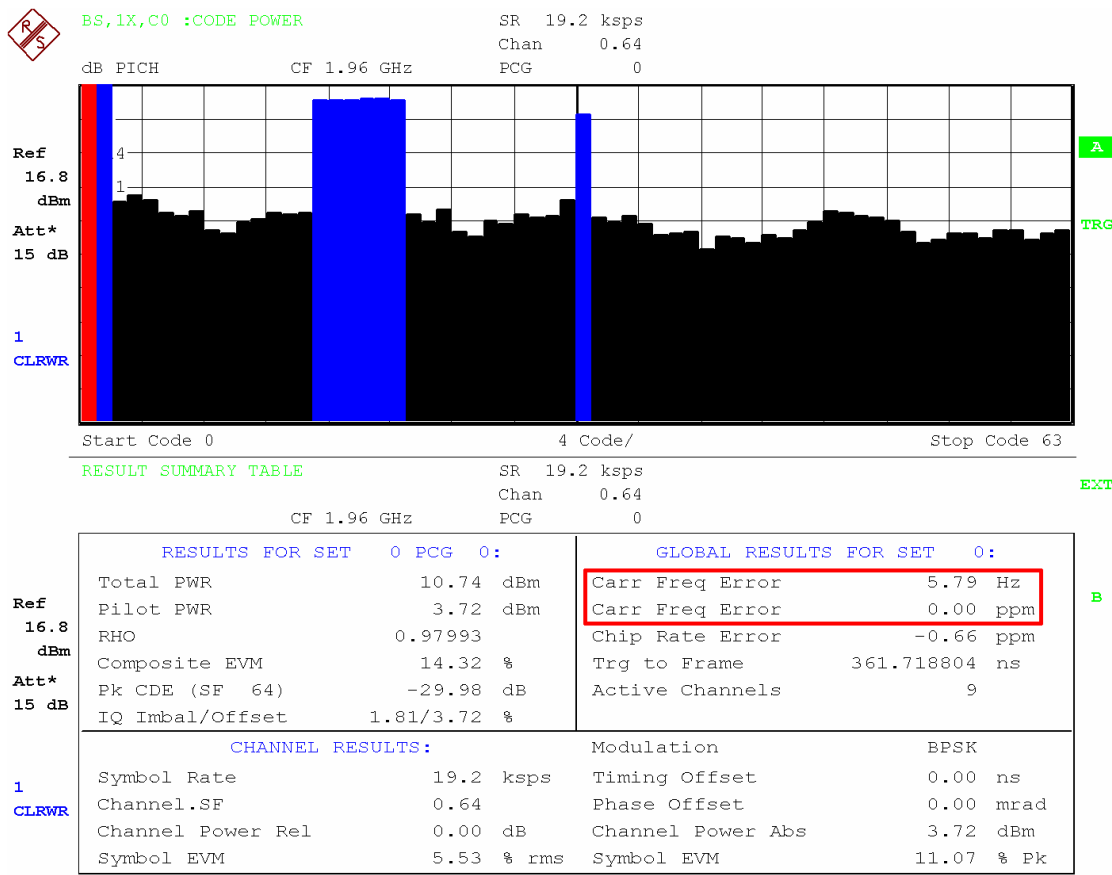


Voltage= -55.2V

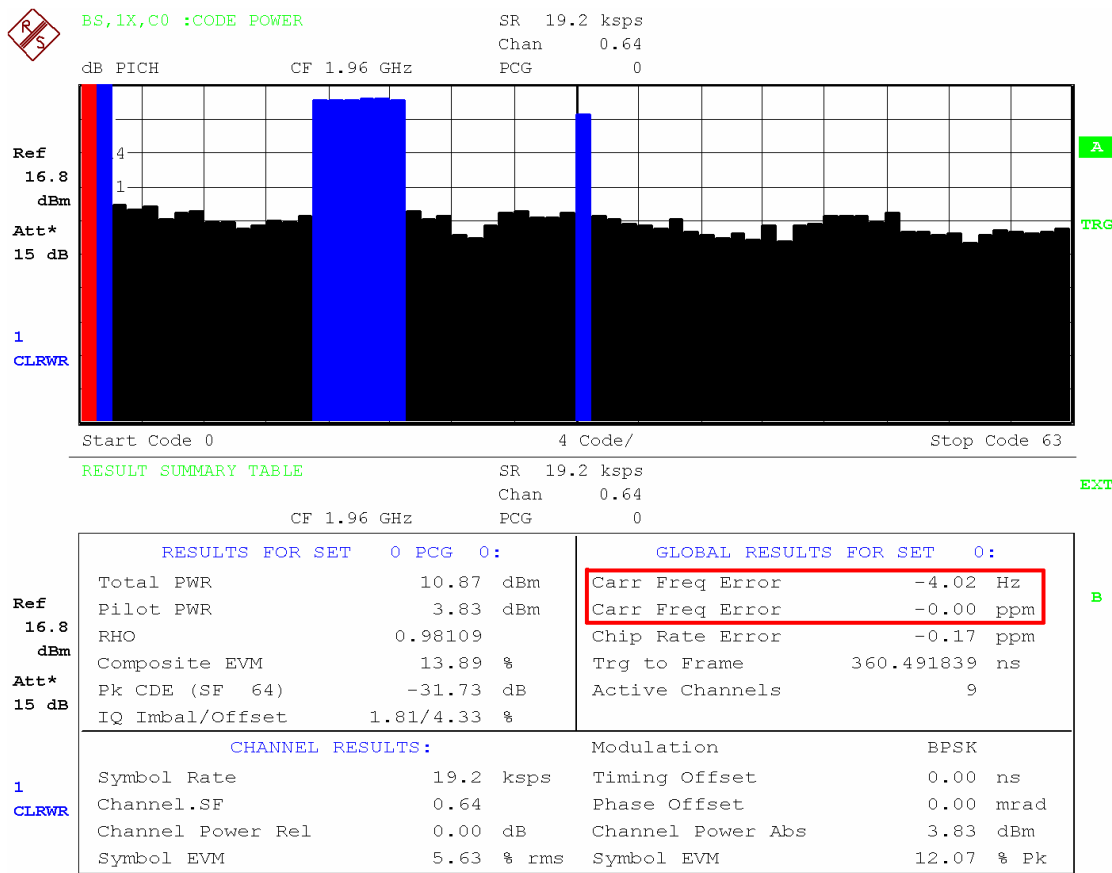


TRX2: Channel No. 600(1960.00MHz)

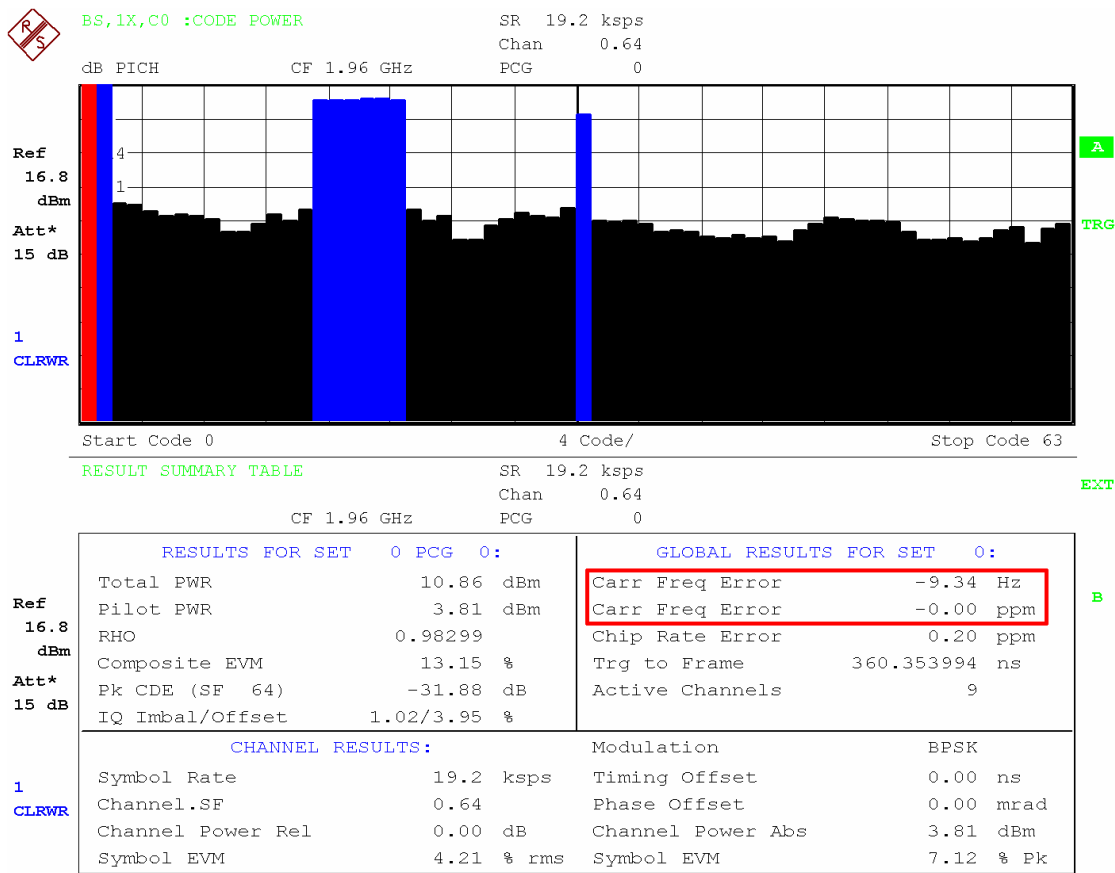
Voltage= -40.8V



Voltage= -48V

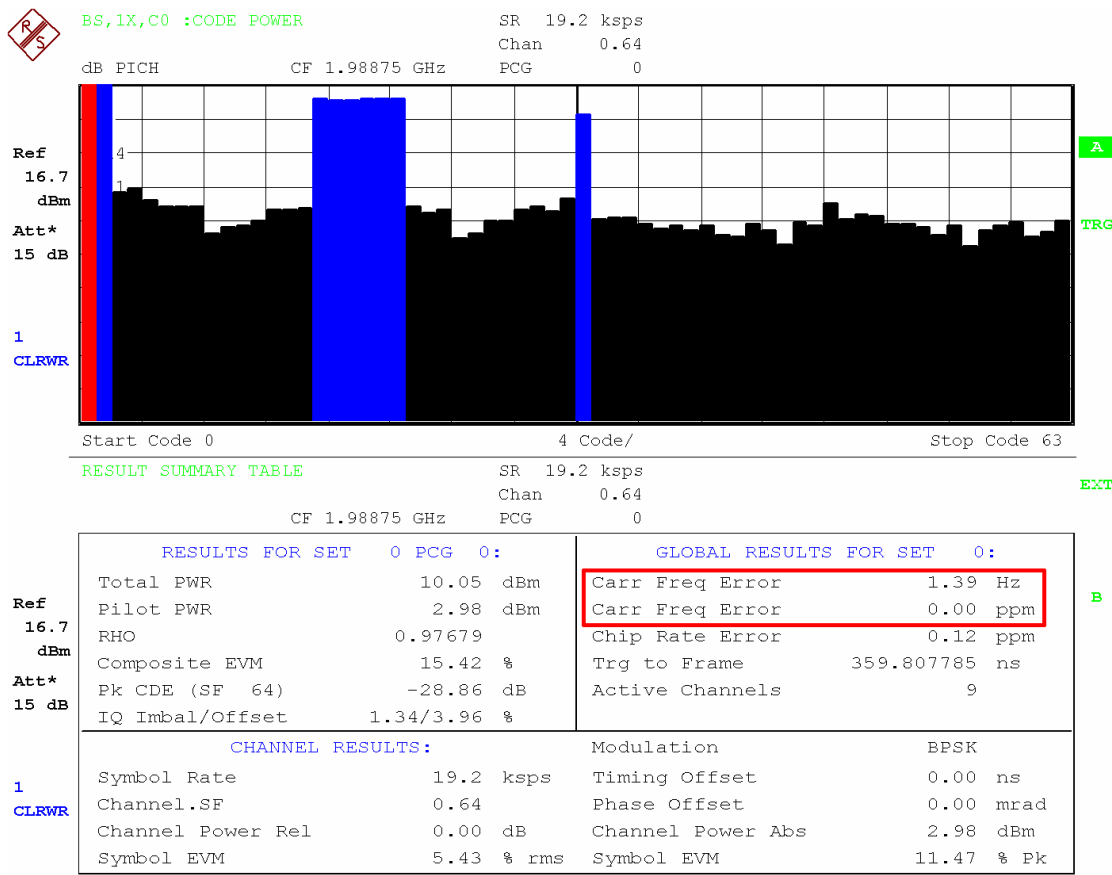


Voltage= -55.2V

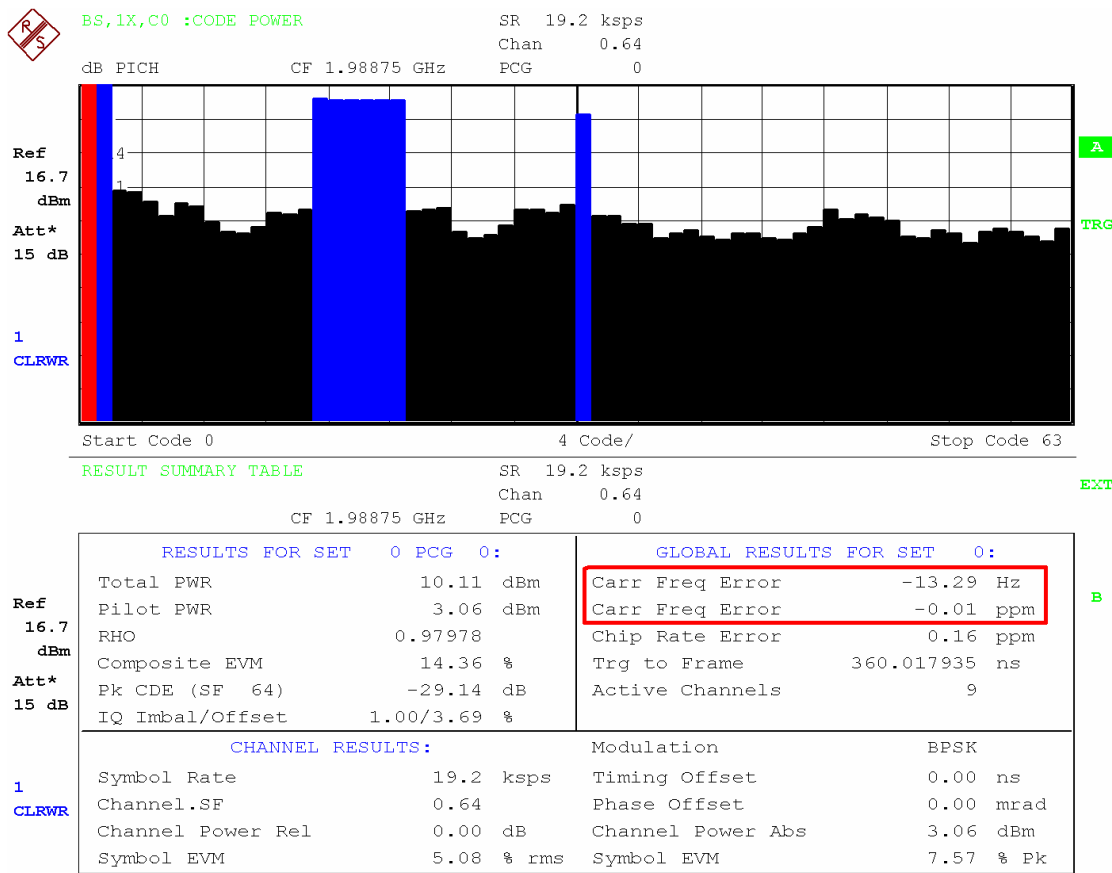


TRX1: Channel No. 1175(1988.75MHz)

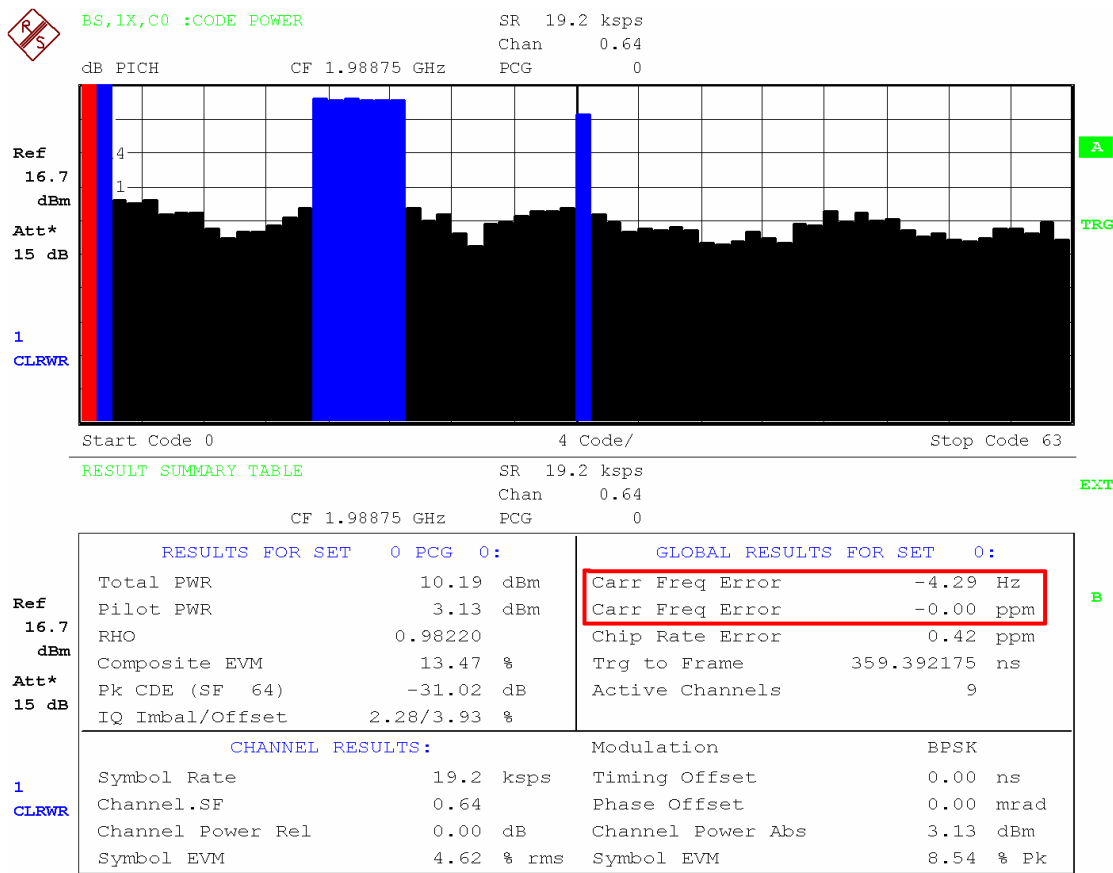
Voltage= -40.8V



Voltage= -48V



Voltage= -55.2V



Appendix G

Conducted Emission Measurements

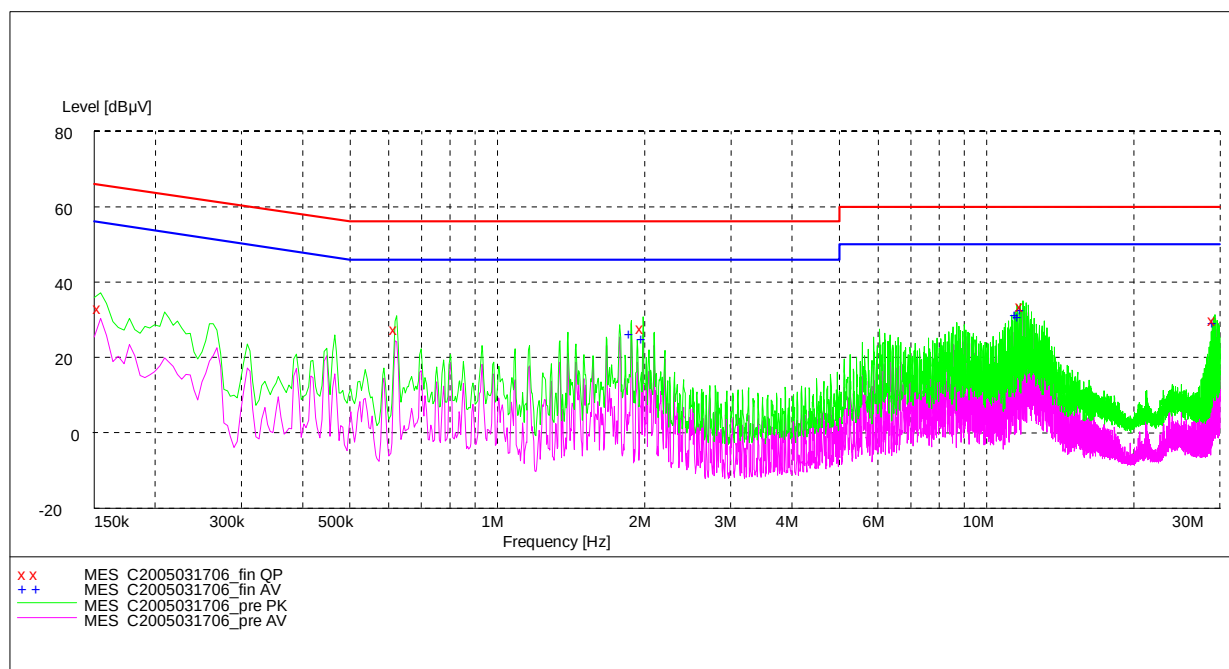
According to CFR 47 (FCC) part 15.207

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CONDUCTED EMISSION TEST

Test result of BTS3606:



MEASUREMENT RESULT: " C2005031706_fin QP"

Frequency (MHz)	Level (dBμV)	Transd (dB)	Limit (dBμV)	Margin (dB)	Line	PE
0.154500	33.60	1.7	66	32.2	L3	GND
0.622500	28.10	0.6	56	27.9	L3	GND
1.986000	28.40	0.5	56	27.6	L3	GND
11.877000	34.20	2.0	60	25.8	L3	GND
29.274000	30.50	3.1	60	29.5	L3	GND

MEASUREMENT RESULT: " C2005031706_fin AV"

Frequency (MHz)	Level (dBμV)	Transd (dB)	Limit (dBμV)	Margin (dB)	Line	PE
1.882500	26.80	0.5	46	19.2	L3	GND
1.990500	25.50	0.5	46	20.6	L3	GND
11.566500	31.70	2.2	50	18.3	L3	GND
11.719500	31.40	2.1	50	18.6	L3	GND
11.877000	33.10	2.0	50	16.9	L3	GND
29.274000	29.70	3.1	50	20.3	L3	GND

Appendix H

Radiated Emission Measurements

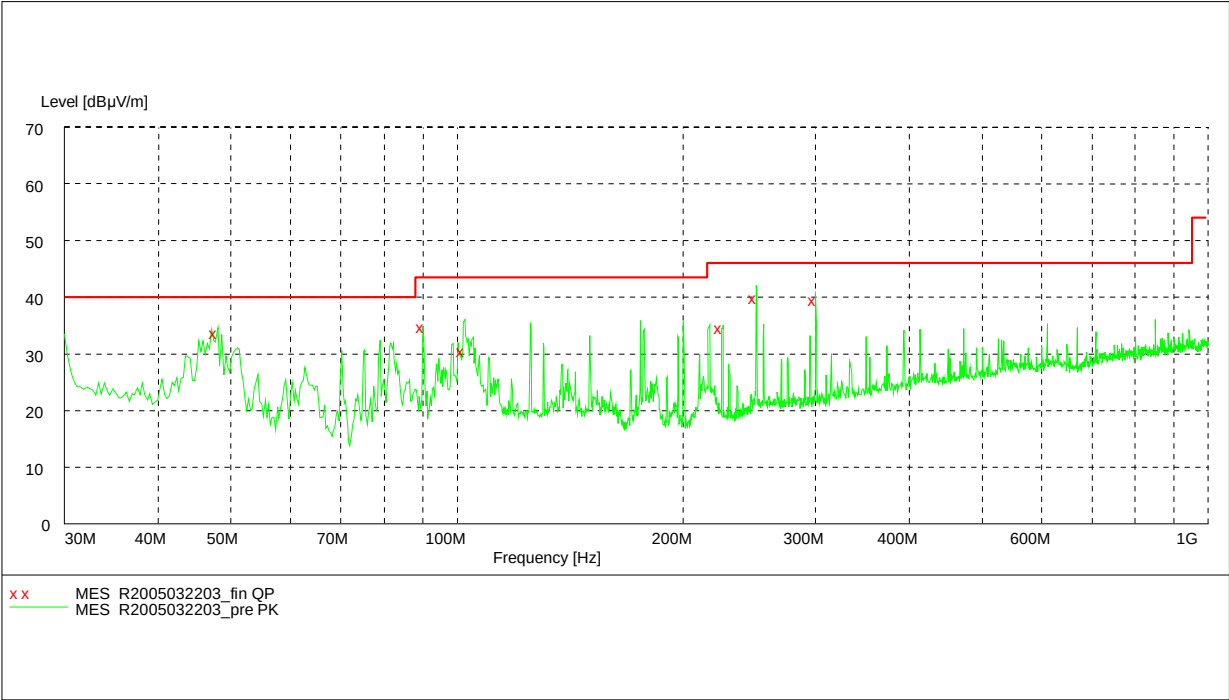
According to CFR 47 (FCC) part 15.207

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RADIATED EMISSION TEST

Test result of BTS3606:



MEASUREMENT RESULT: " R2005032203_fin QP"

Frequency (MHz)	Level (dBμV)	Transd (dB)	Limit (dBμV)	Margin (dB)	Height (cm)	Azimuth (deg)	Polarisation
47.760000	33.90	-13.4	40.0	6.1	119.0	145.00	VERTICAL
90.000000	35.10	-12.6	43.5	8.4	100.0	6.00	VERTICAL
101.880000	30.70	-10.3	43.5	12.8	181.0	13.00	VERTICAL
225.000000	34.30	-10.1	46.0	11.7	115.0	80.00	VERTICAL
249.960000	40.20	-7.6	46.0	5.8	104.0	251.00	VERTICAL
300.000000	39.70	-6.1	46.0	6.3	100.0	175.00	VERTICAL

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Appendix I

Photos of Test Set-up

BTS3606



Photo ERP Measurement 30 MHz – 1 GHz

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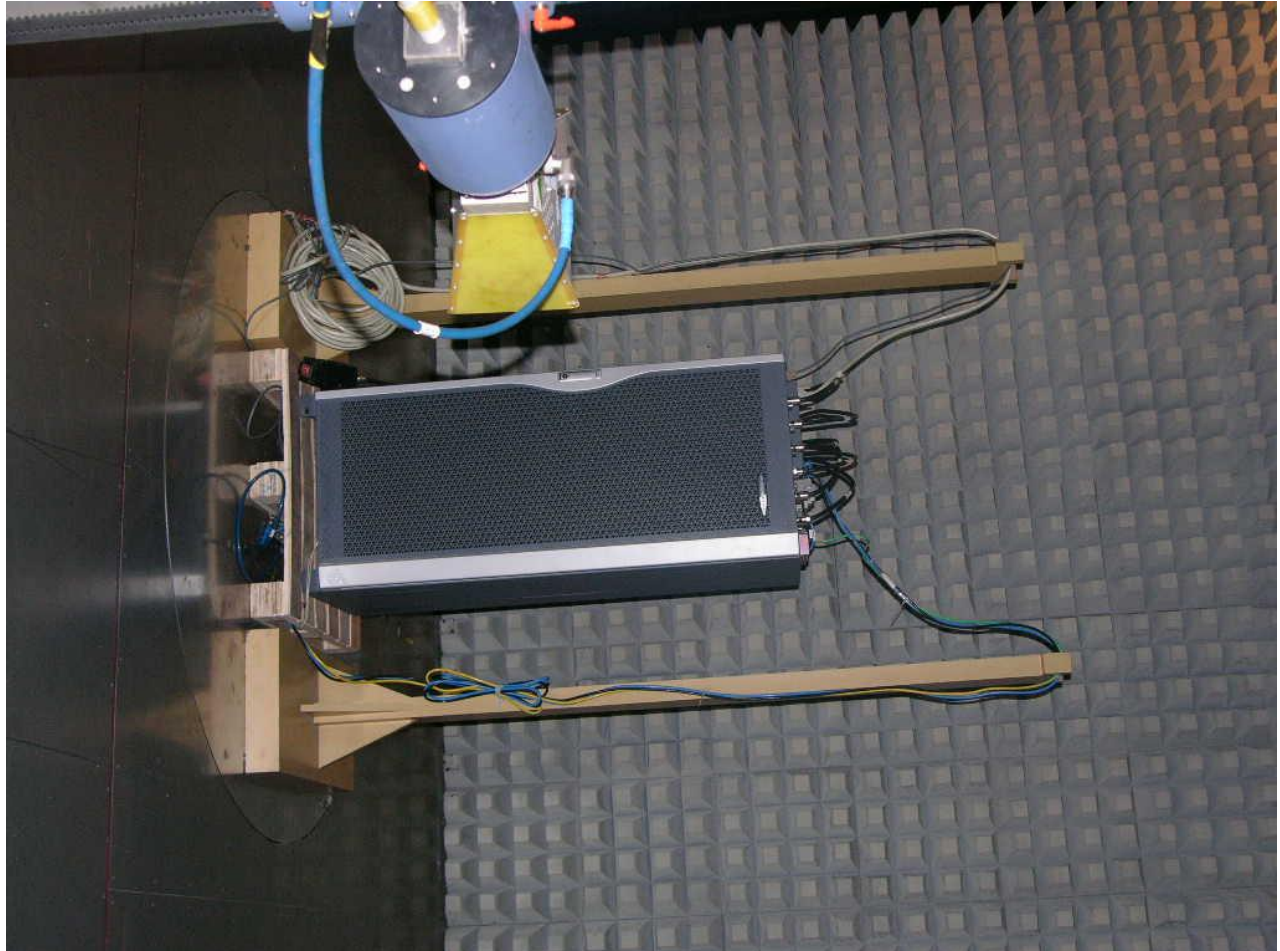


Photo ERP measurement 1 GHz – 10 GHz

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BTS3606



Photo Conducted Emission Measurement