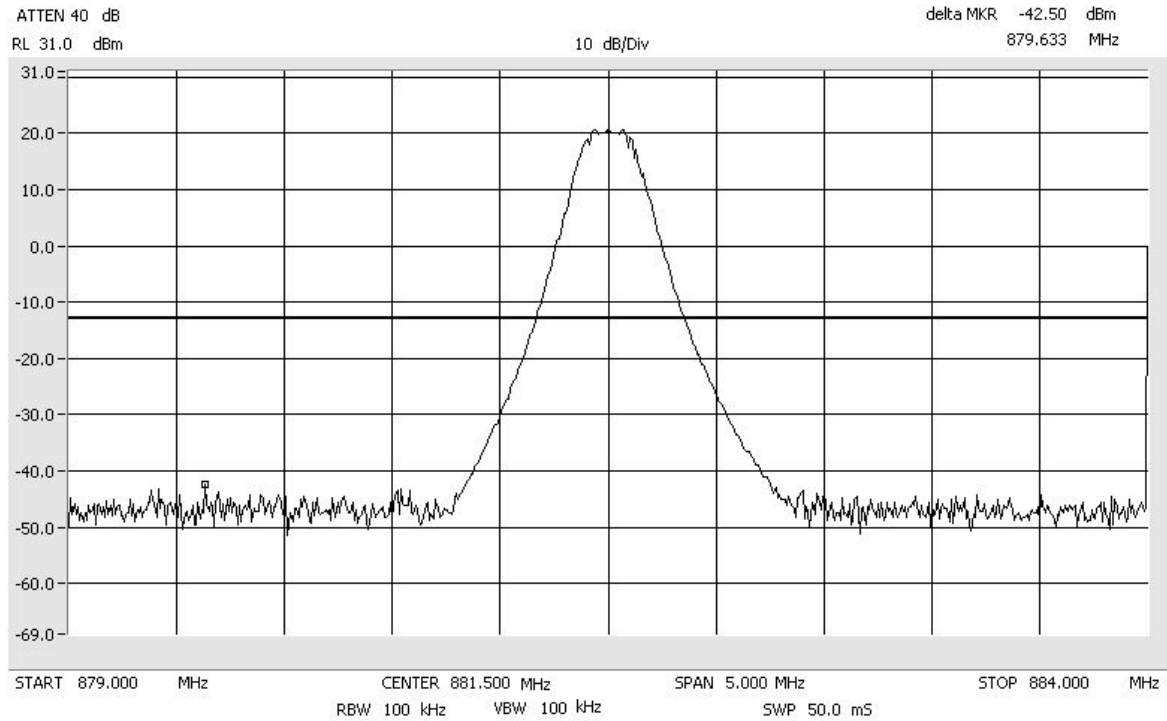
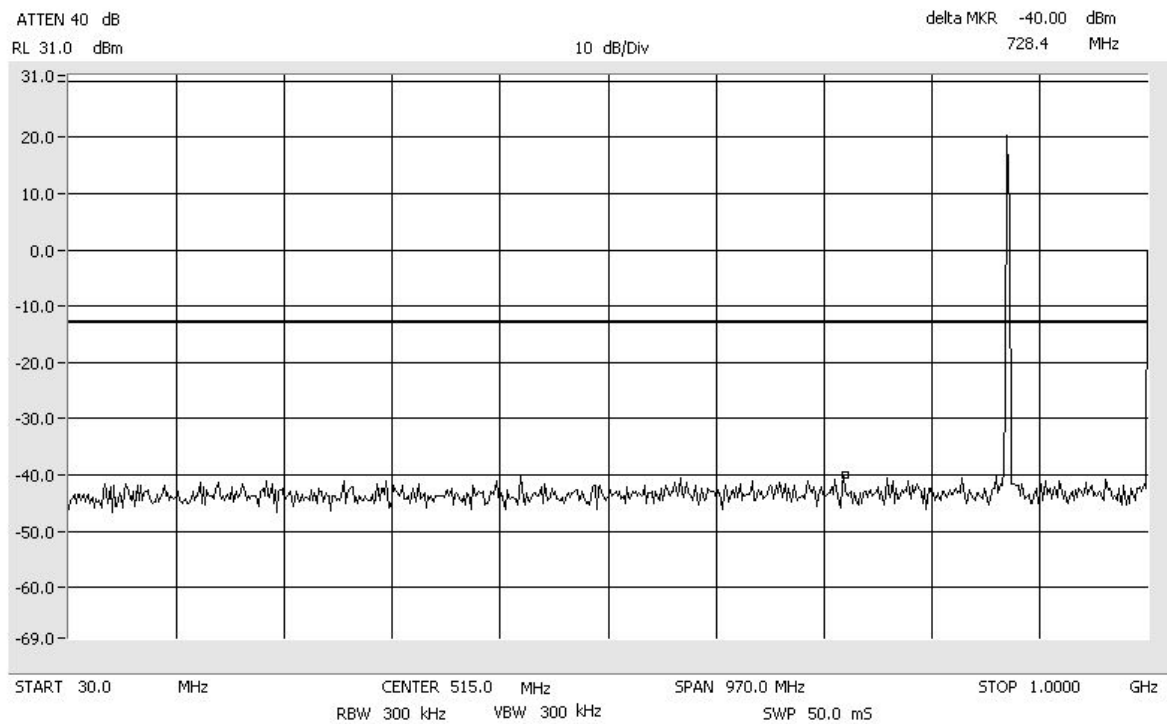


Conducted Emissions GSM CELLULAR
Center: 881.5MHz Span: 5 MHz RBW/VBW: 100 kHz

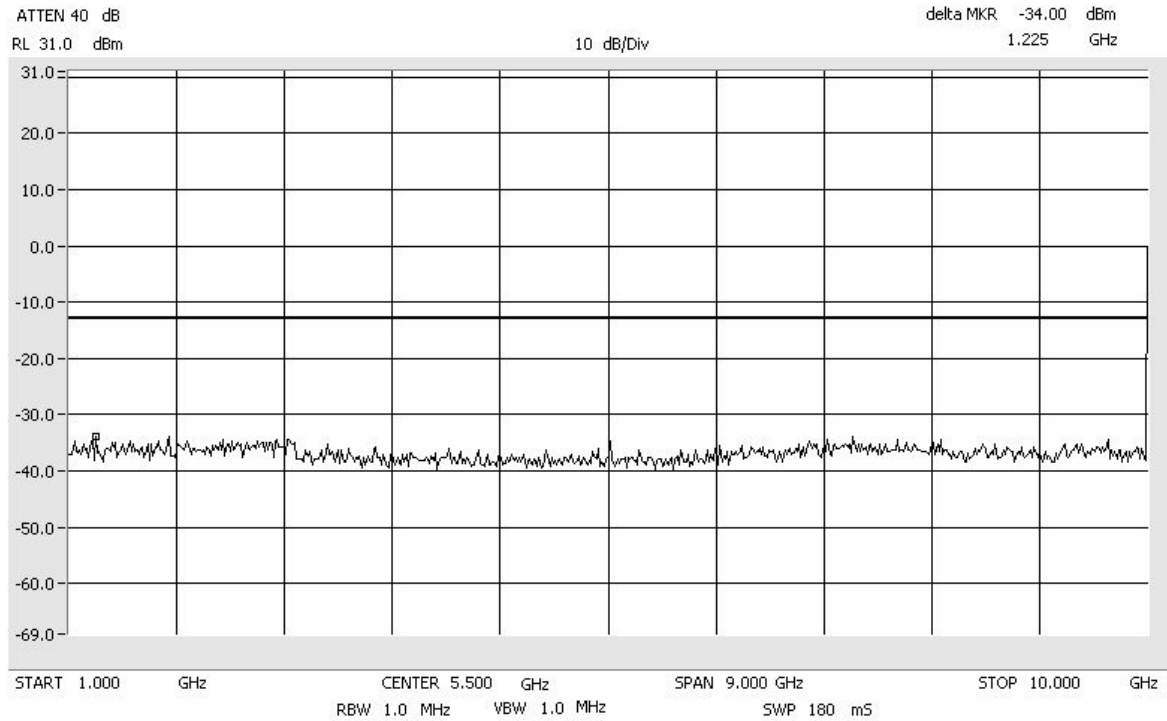


Conducted Emissions GSM CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 100 kHz

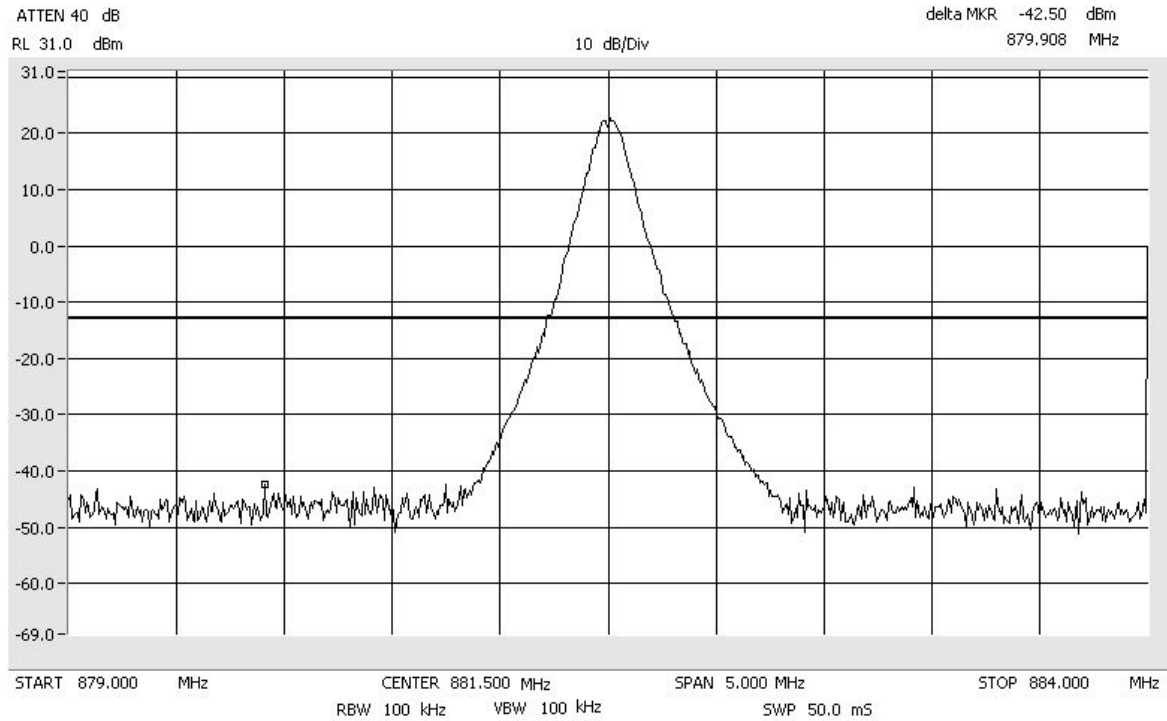


Conducted Emissions
Span: 1 GHz to 10 GHz

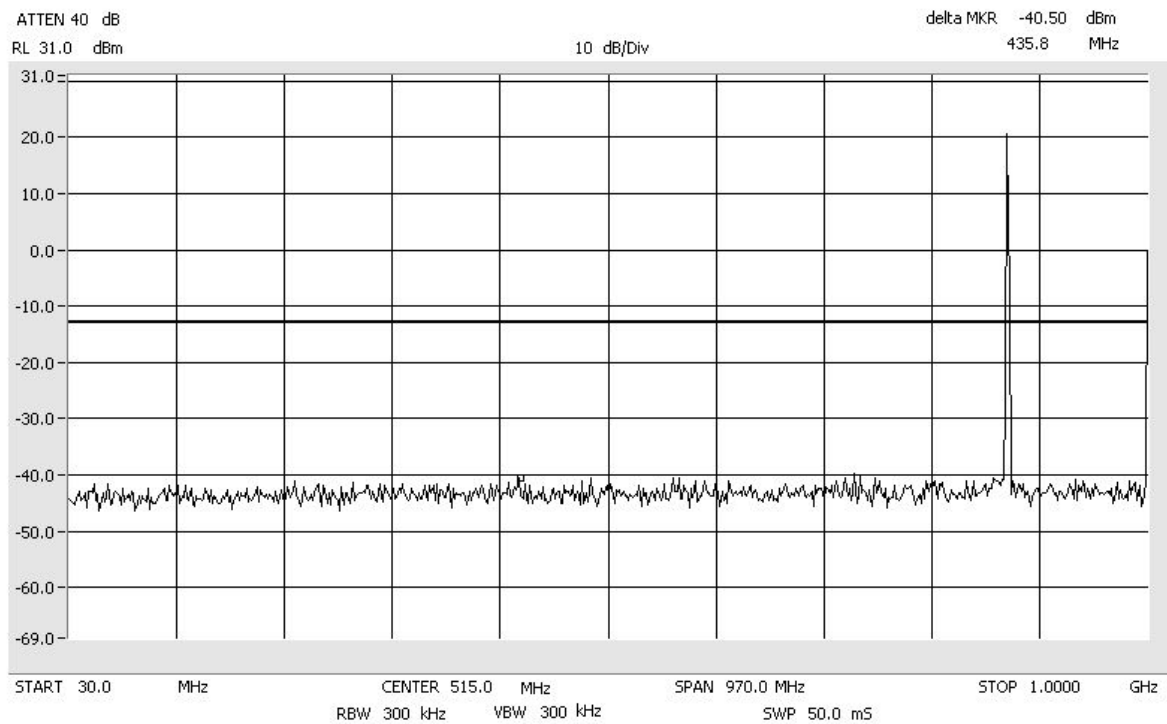
GSM CELLULAR
RBW/VBW: 1 MHz



Conducted Emissions TDMA CELLULAR
Center: 881.5MHz Span: 5 MHz RBW/VBW: 100 kHz

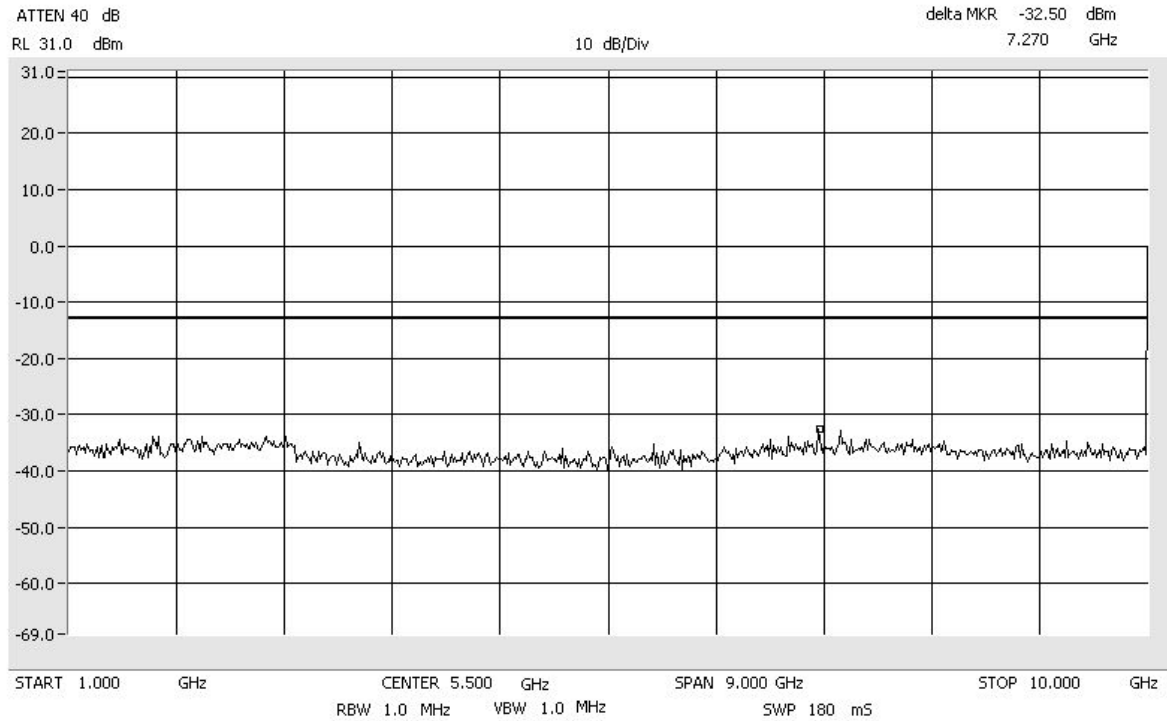


Conducted Emissions TDMA CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 100 kHz



Conducted Emissions
Span: 1 GHz to 10 GHz

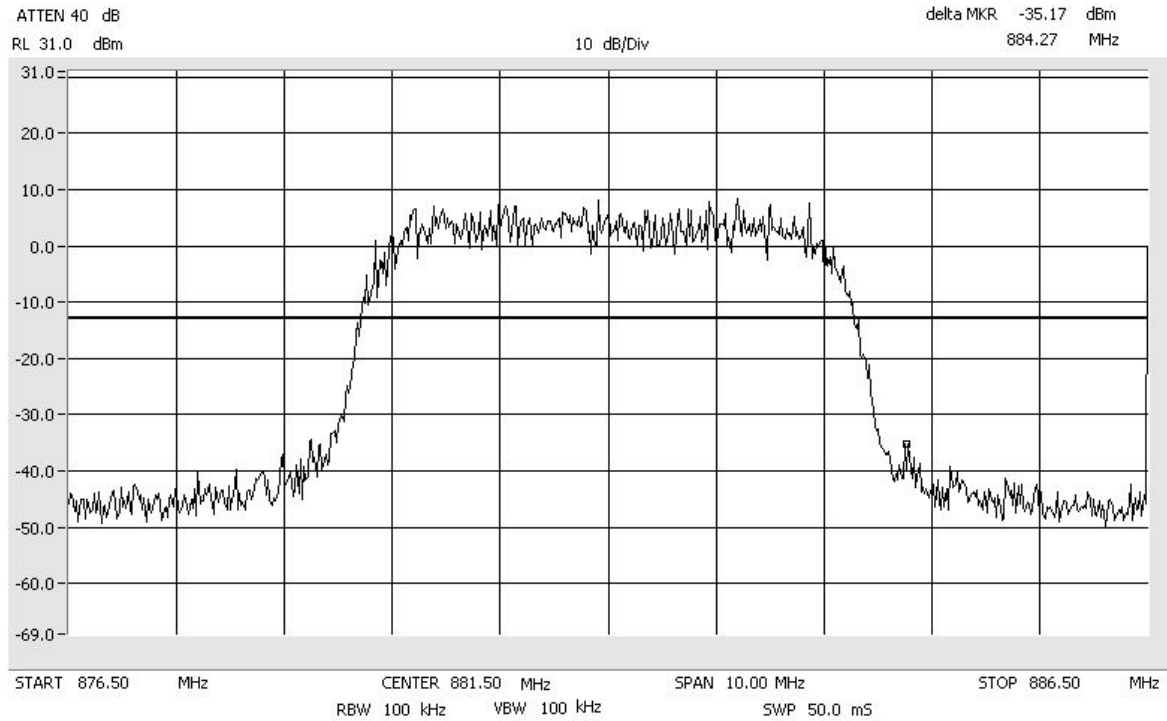
TDMA CELLULAR
RBW/VBW: 1 MHz



Conducted Emissions
Center: 881.5MHz

WCDMA
Span: 10 MHz

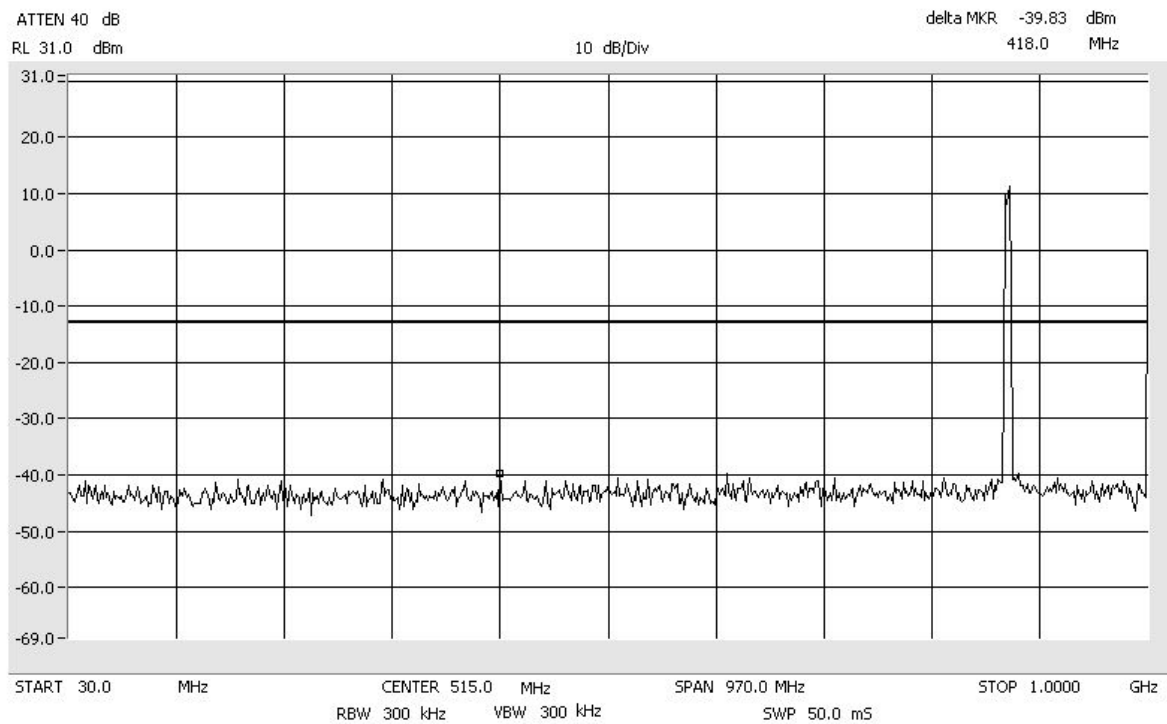
CELLULAR
RBW/VBW: 100 kHz



Conducted Emissions
Span: 30 MHz to 1 GHz

WCDMA

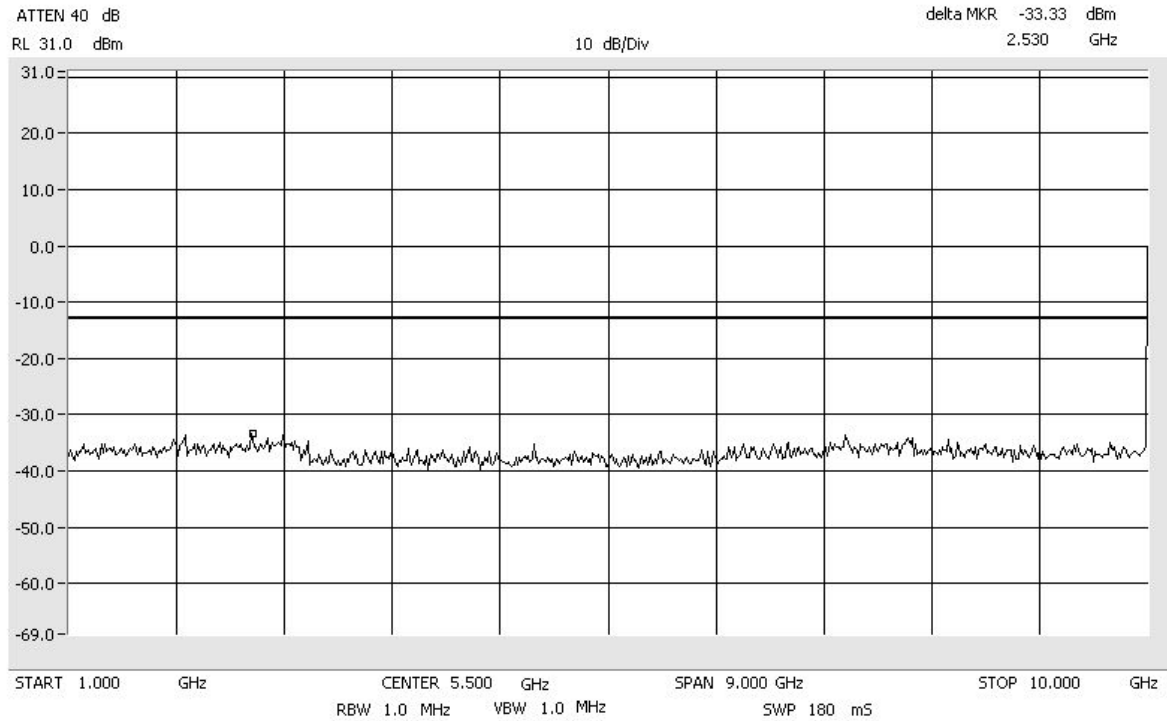
CELLULAR
RBW/VBW: 100 kHz



Conducted Emissions
Span: 1 GHz to 10 GHz

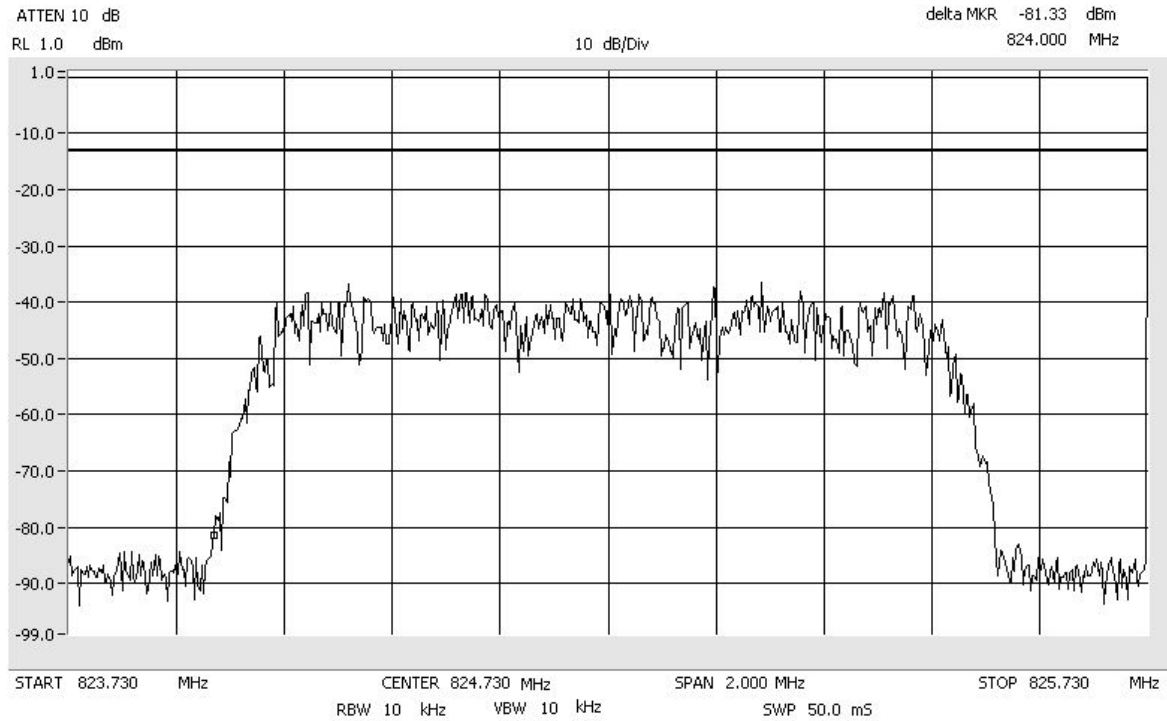
WCDMA

CELLULAR
RBW/VBW: 1 MHz



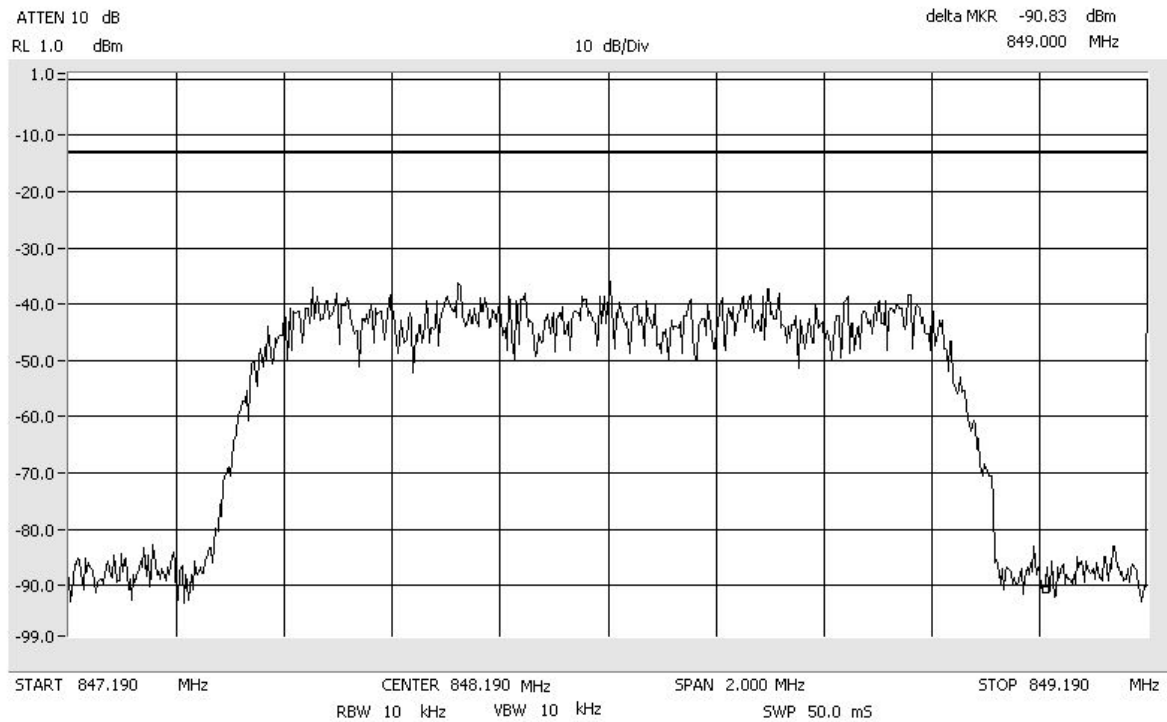
Band_Edge
Center: 824.73 MHz Span: 2 MHz

CDMA2000
RBW: 10 kHz VBW: 10 kHz

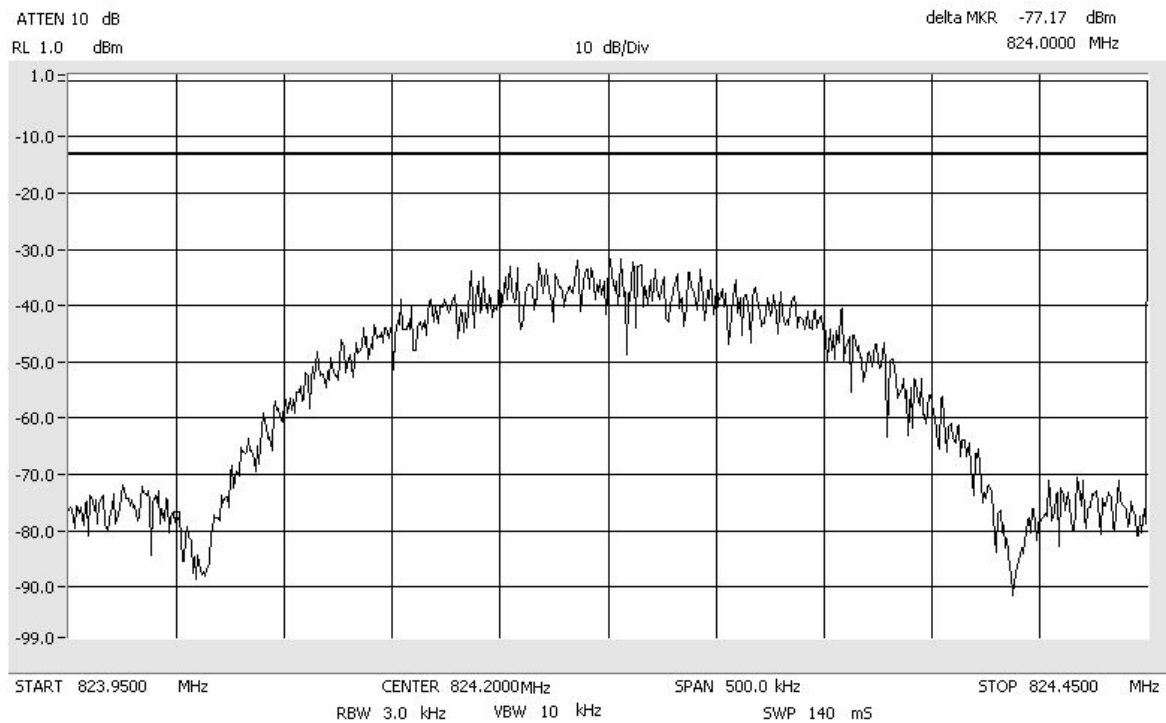


Band_Edge
Center: 848.19 MHz Span: 2 MHz

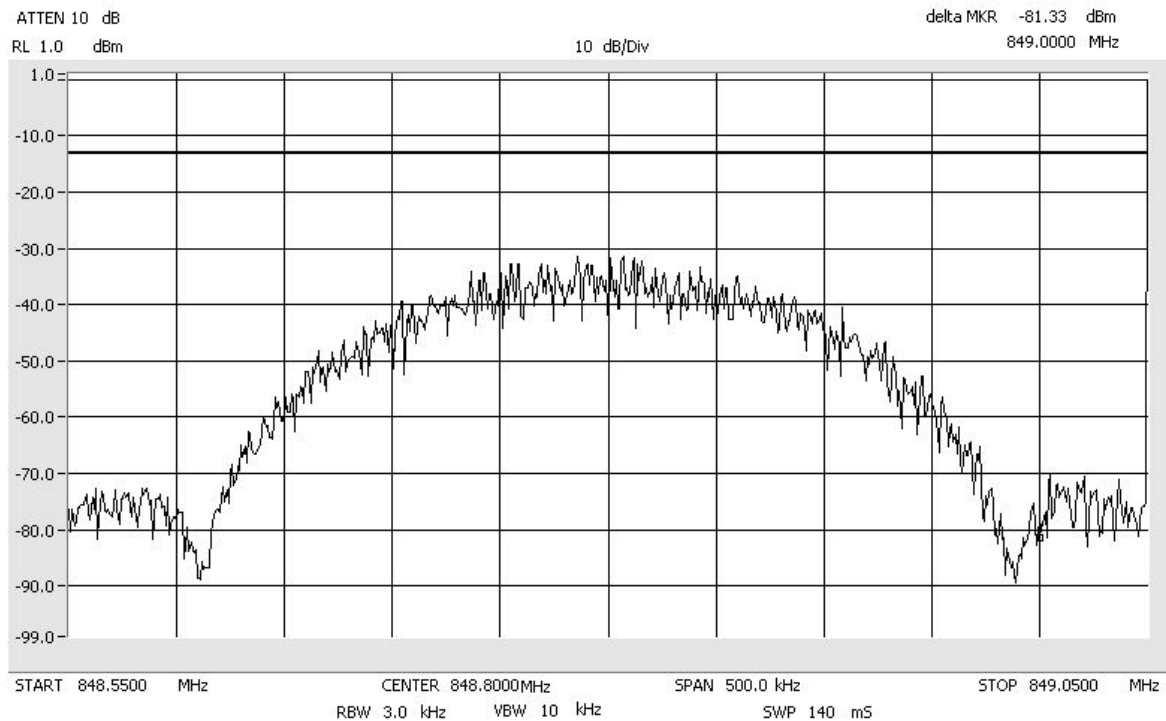
CDMA2000
RBW: 10 kHz VBW: 10 kHz



Band_Edge EDGE
Center: 824.2 MHz Span: 500 kHz RBW: 3 kHz VBW: 10 kHz

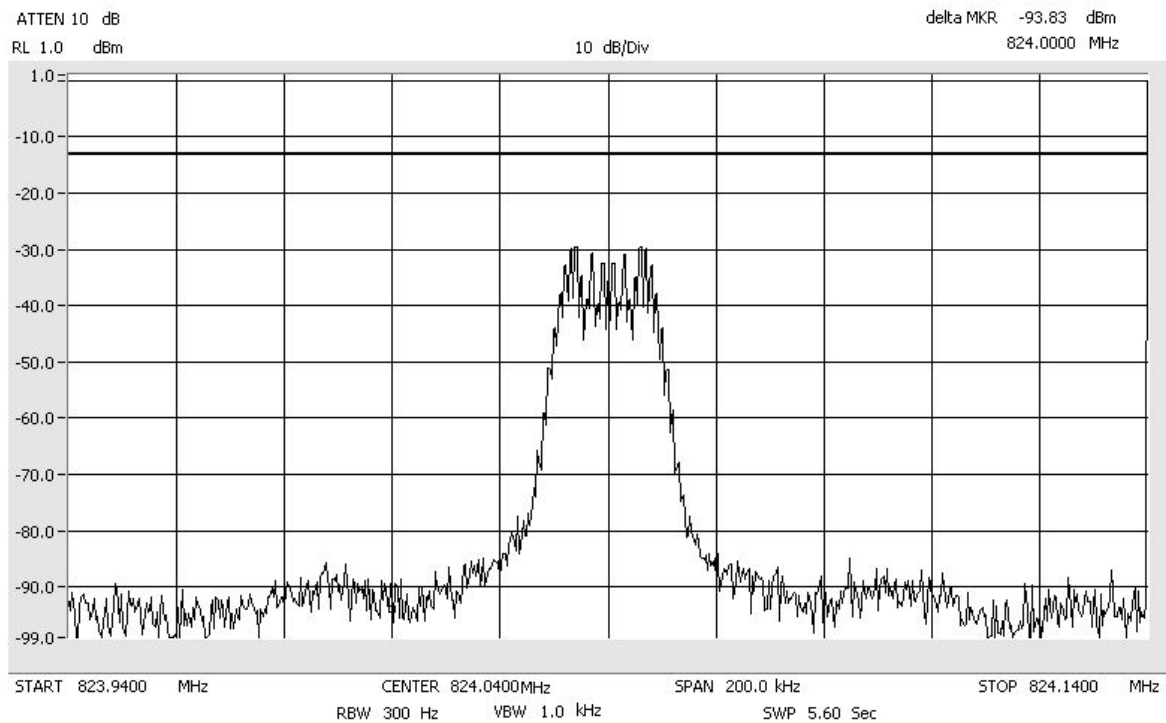


Band_Edge EDGE
Center: 848.8 MHz Span: 500 kHz RBW: 3 kHz VBW: 10 kHz



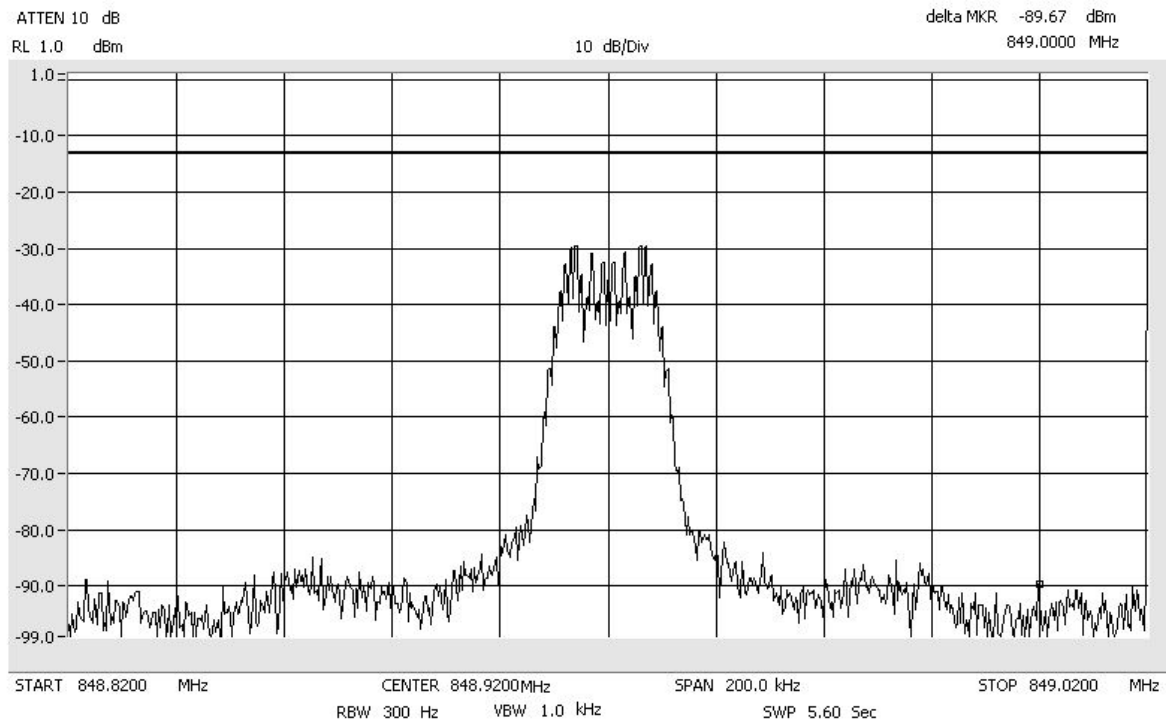
Band_Edge
Center: 824.04 MHz Span: 200 kHz

FM
RBW: 300 Hz VBW: 1 kHz



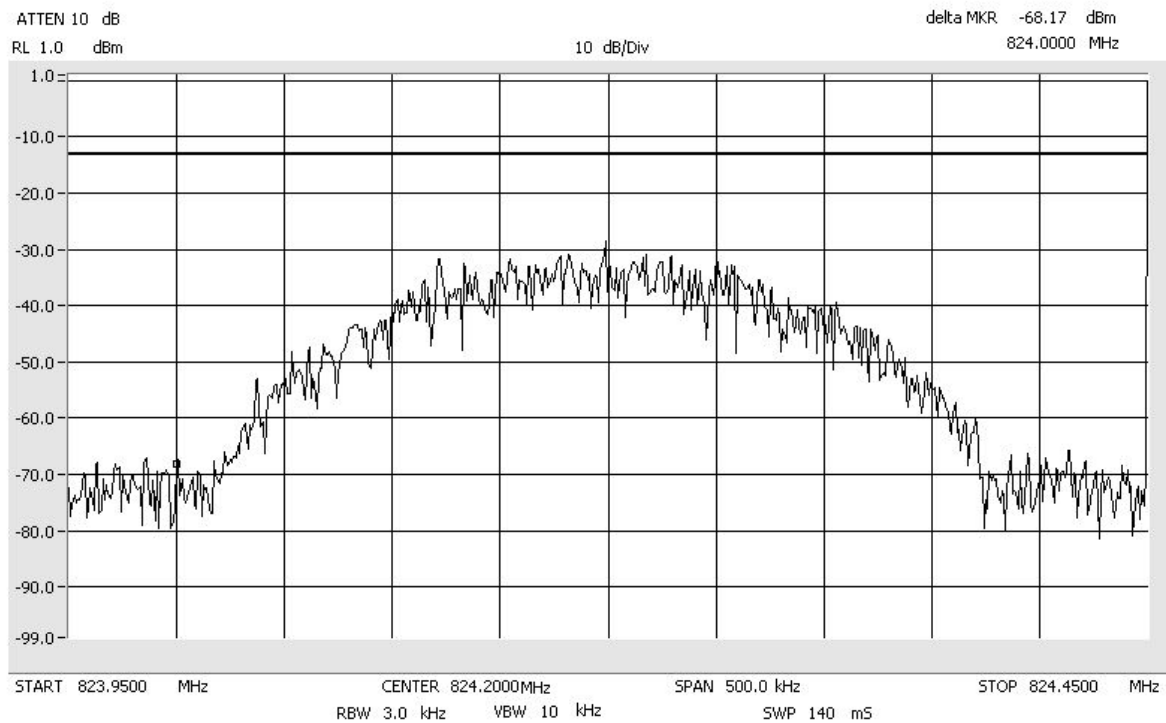
Band_Edge
Center: 848.92 MHz Span: 200 kHz

FM
RBW: 300 Hz VBW: 1 kHz



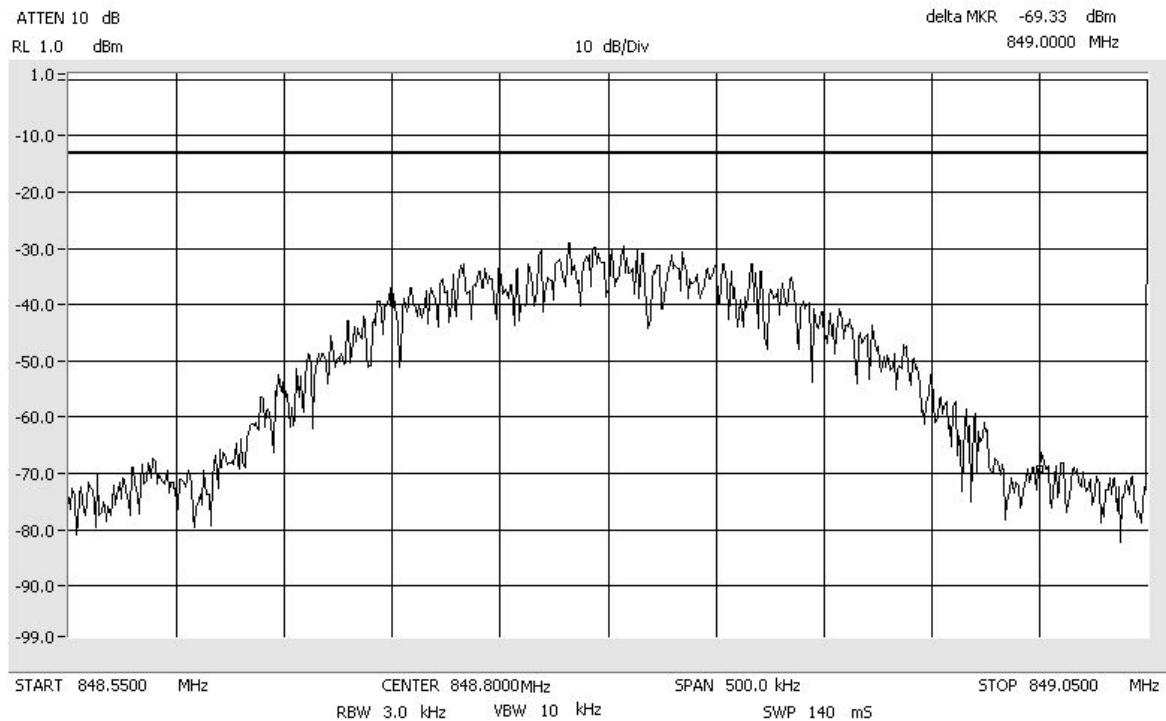
Band_Edge
Center: 824.2 MHz Span: 500 kHz

GSM
RBW: 3 kHz VBW: 10 kHz



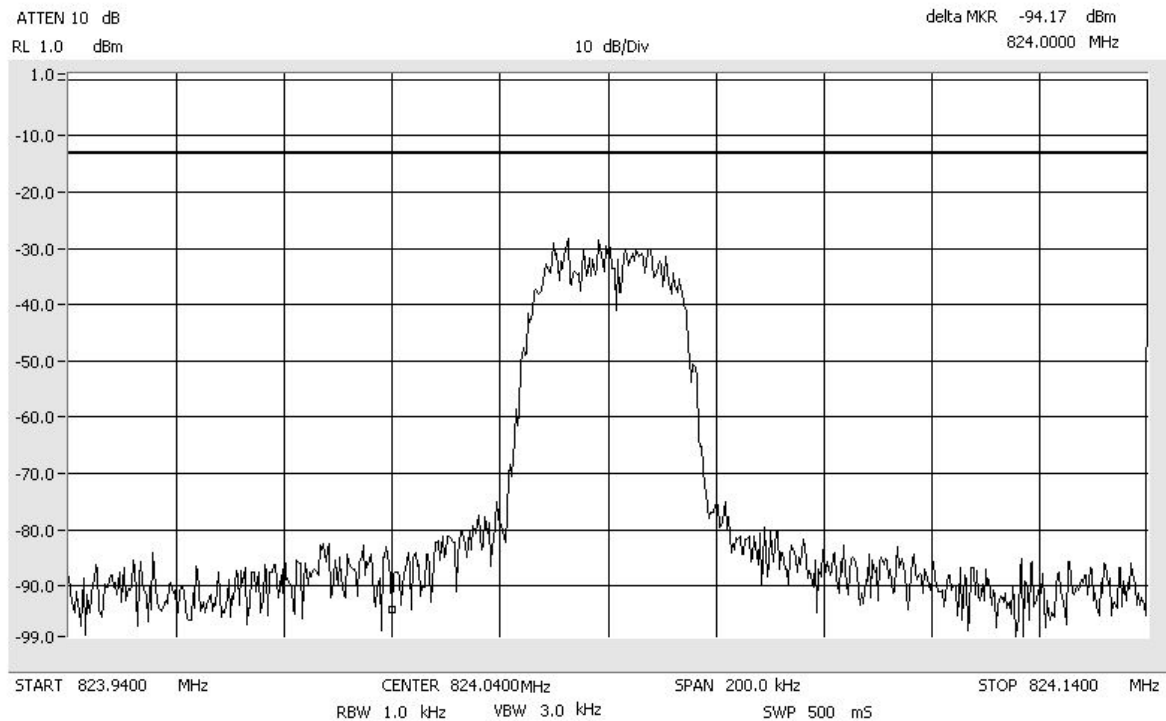
Band_Edge
Center: 848.8 MHz Span: 500 kHz

GSM
RBW: 3 kHz VBW: 10 kHz



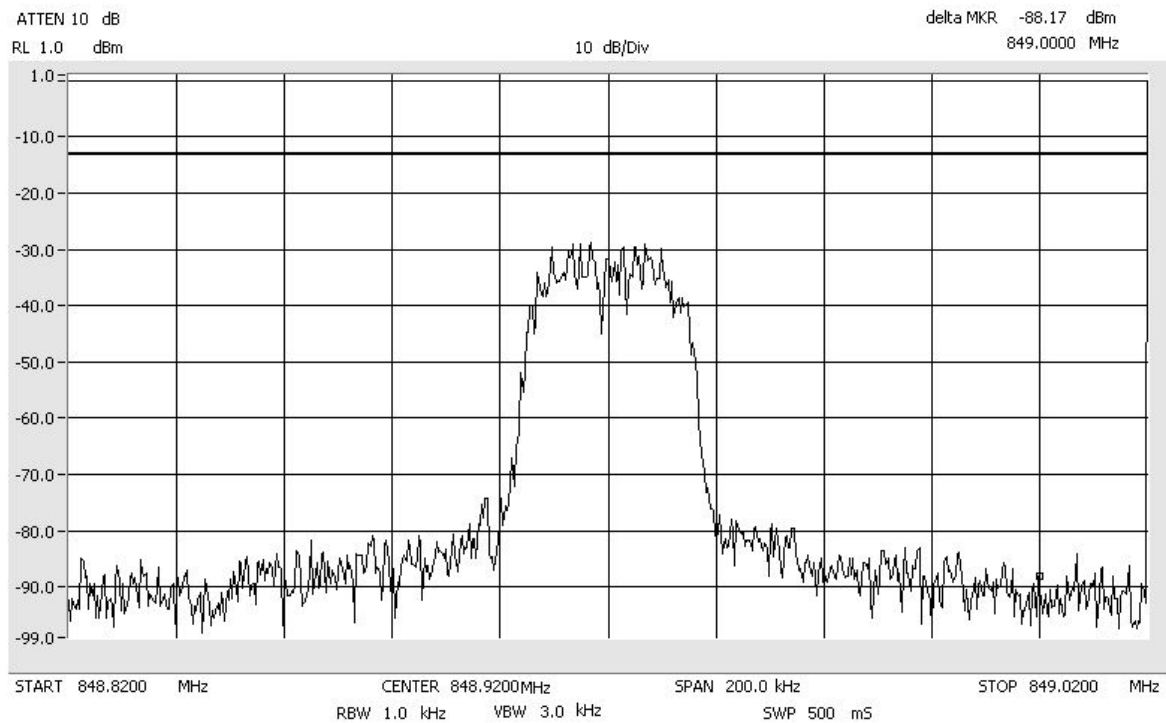
Band_Edge
Center: 824.04 MHz Span: 200 kHz

TDMA
RBW: 1 kHz VBW: 3 kHz



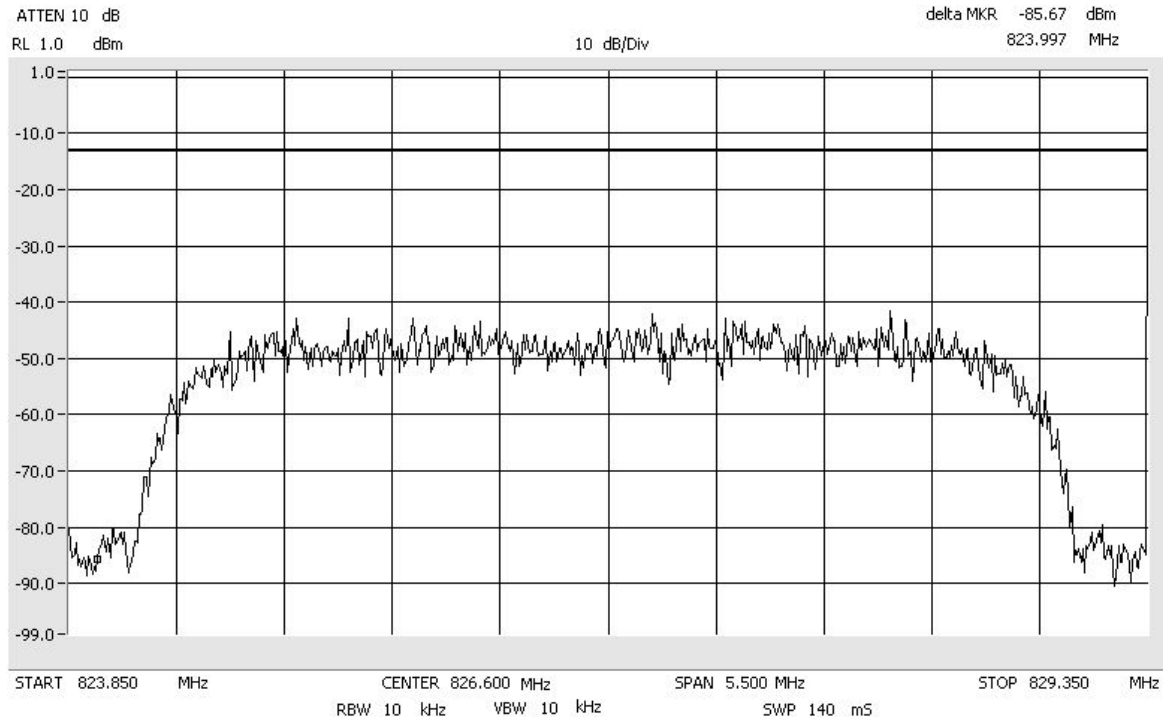
Band_Edge
Center: 848.92 MHz Span: 200 kHz

TDMA
RBW: 1 kHz VBW: 3 kHz



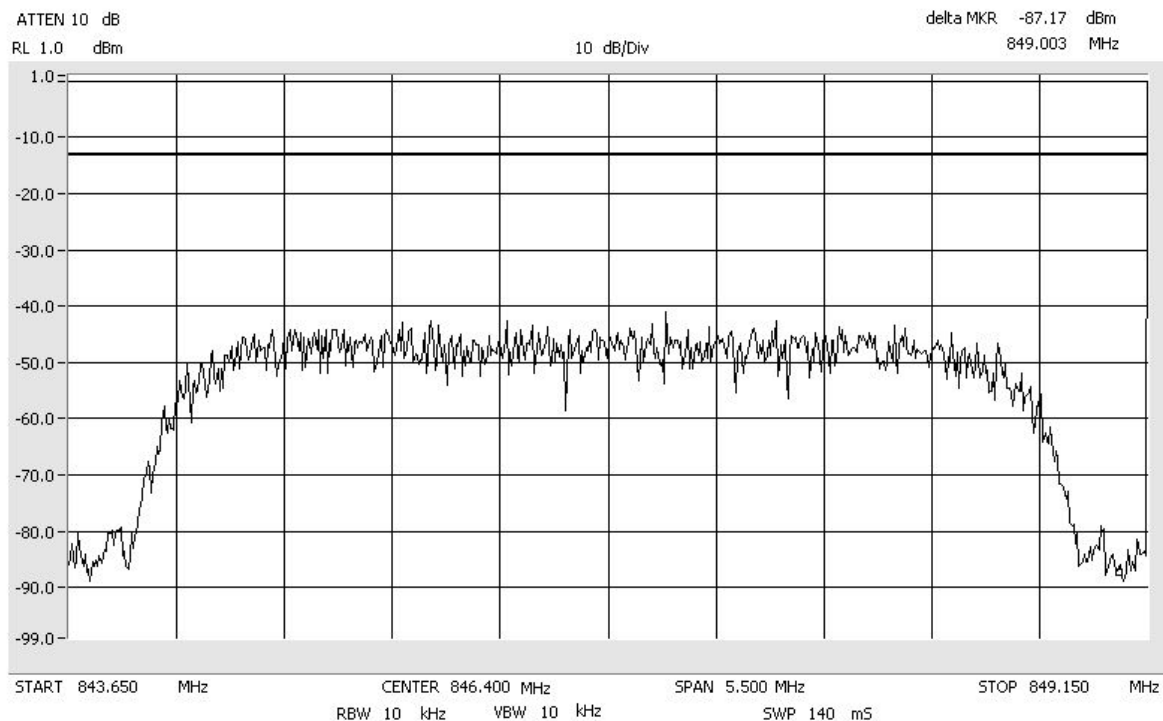
Band_Edge
Center: 826.6 MHz Span: 5.5 MHz

WCDMA
RBW: 10 kHz VBW: 10 kHz



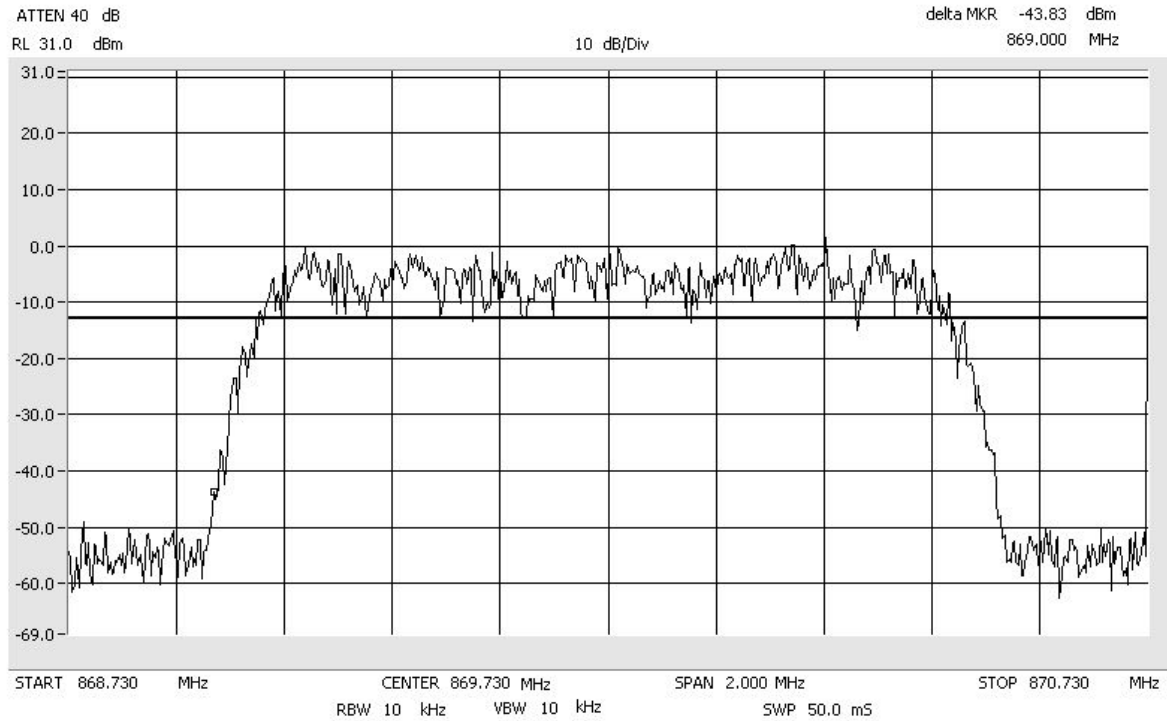
Band_Edge
Center: 846.4 MHz Span: 5.5 MHz

WCDMA
RBW: 10 kHz VBW: 10 kHz



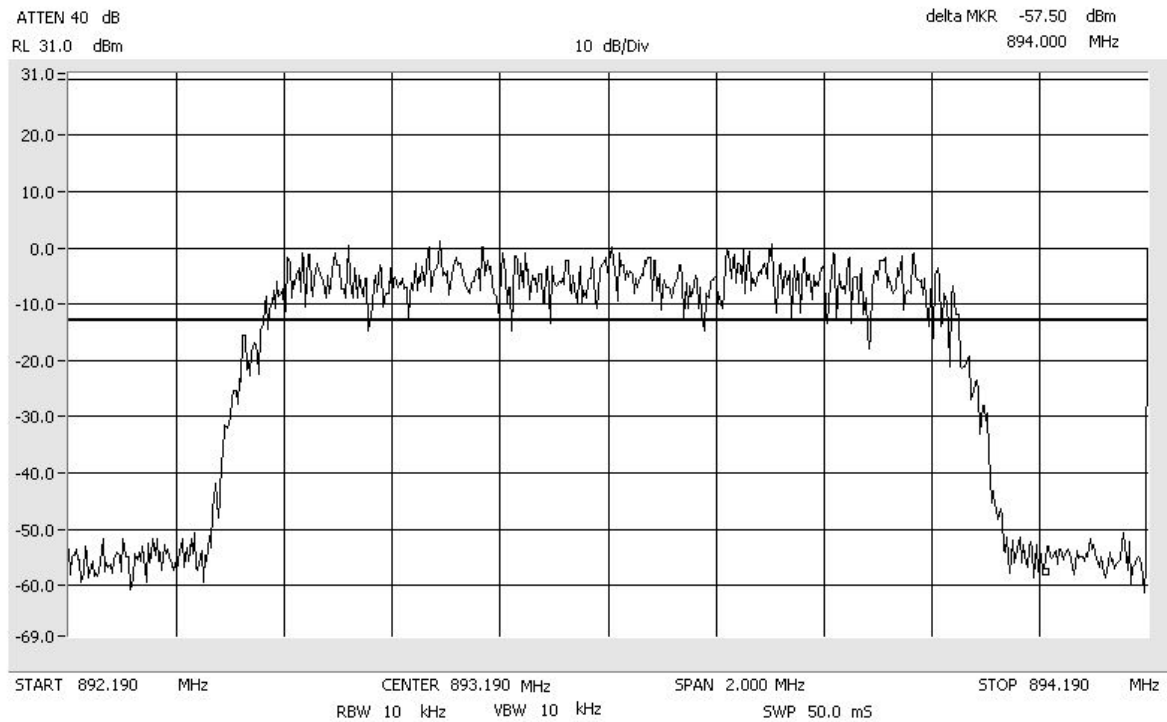
Band_Edge
Center: 869.73 MHz Span: 2 MHz

CDMA2000
RBW: 10 kHz VBW: 10 kHz

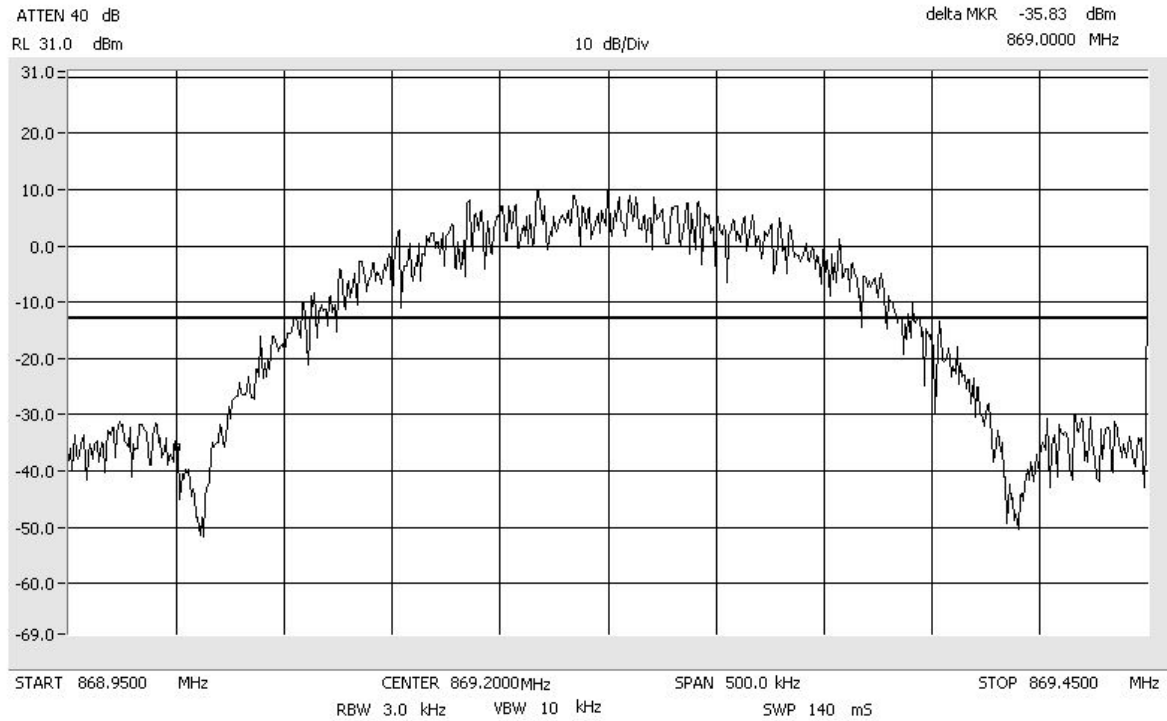


Band_Edge
Center: 893.19 MHz Span: 2 MHz

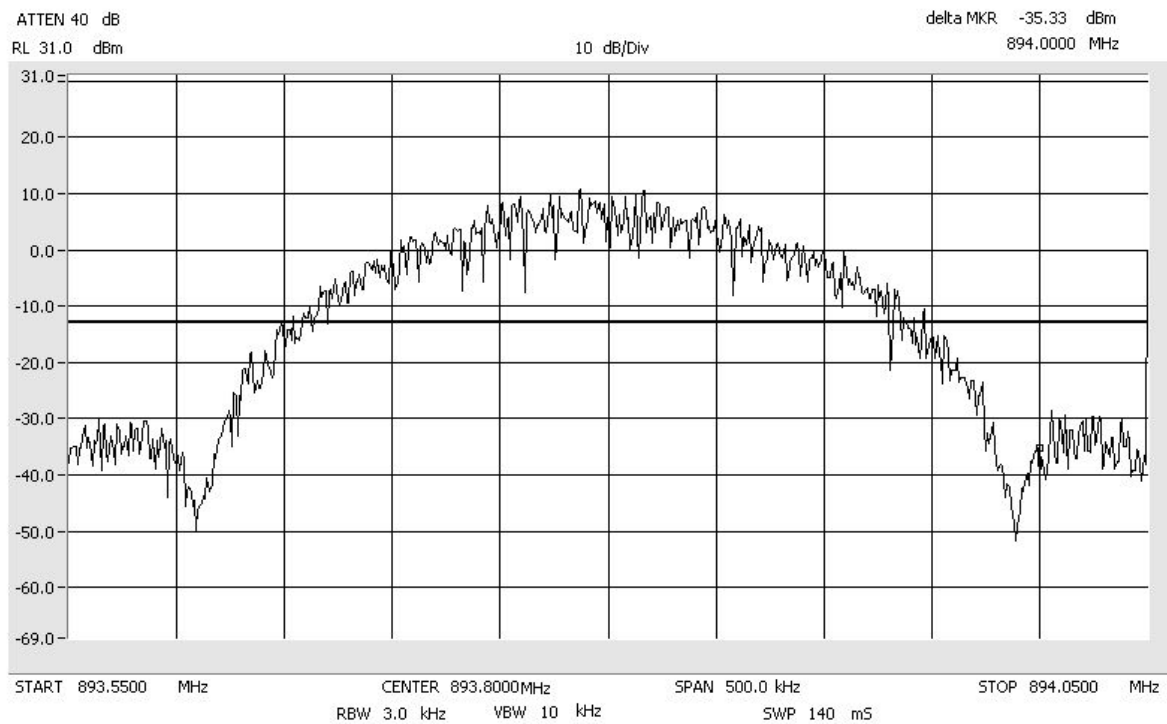
CDMA2000
RBW: 10 kHz VBW: 10 kHz



Band_Edge EDGE
Center: 869.2 MHz Span: 500 kHz RBW: 3 kHz VBW: 10 kHz

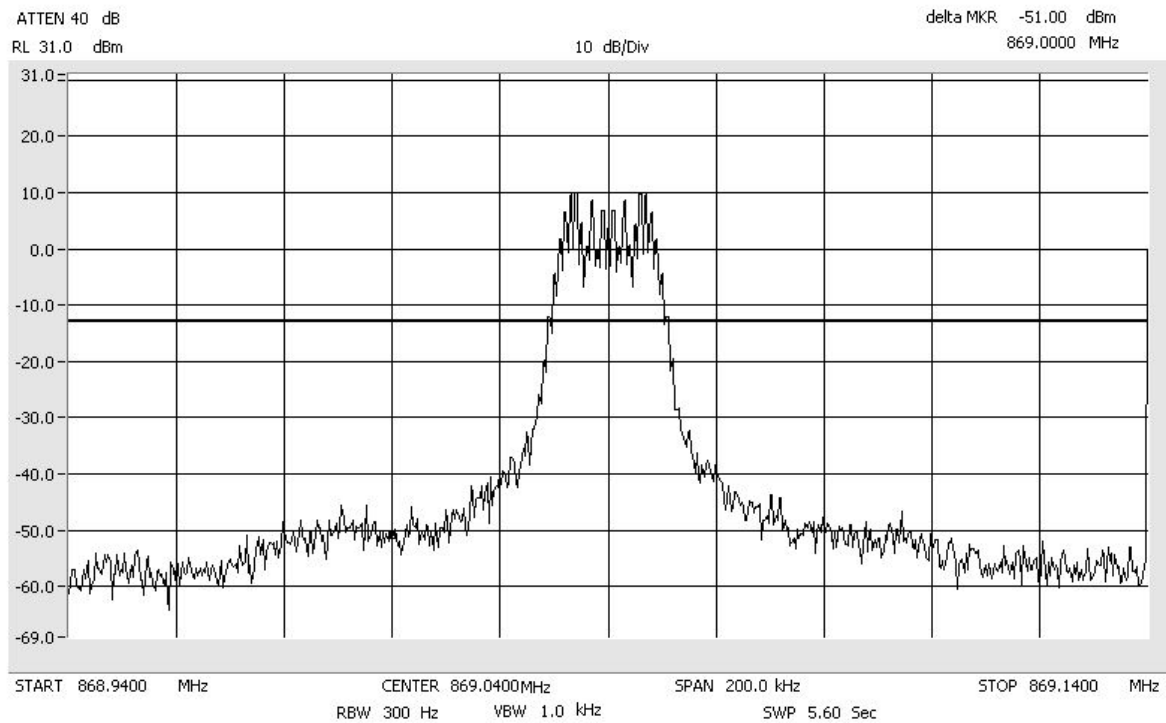


Band_Edge EDGE
Center: 893.8 MHz Span: 500 kHz RBW: 3 kHz VBW: 10 kHz



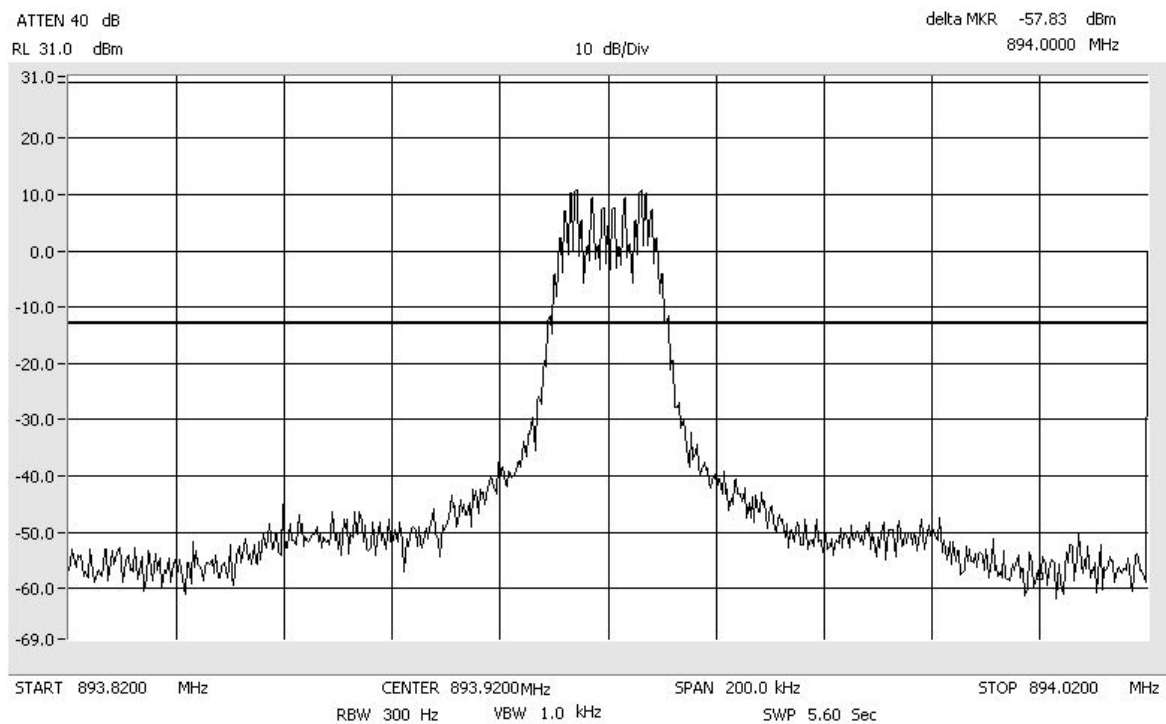
Band_Edge
Center: 869.04 MHz Span: 200 kHz

FM
RBW: 300 Hz VBW: 1 kHz



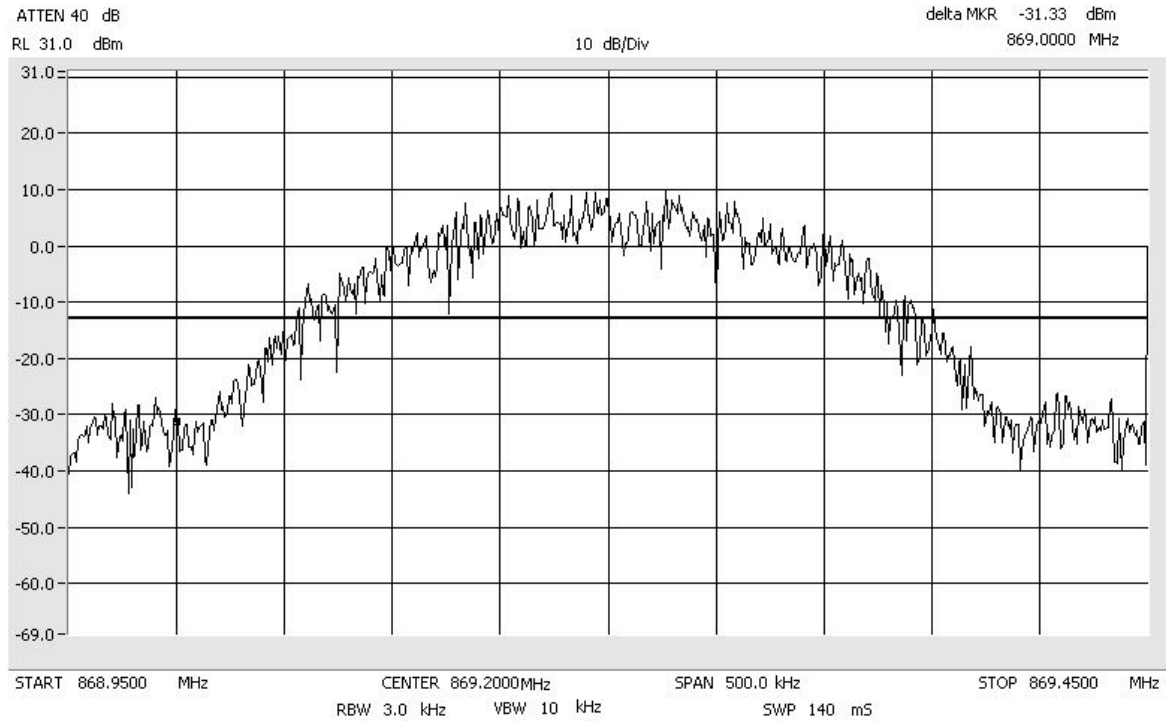
Band_Edge
Center: 893.92 MHz Span: 200 kHz

FM
RBW: 300 Hz VBW: 1 kHz



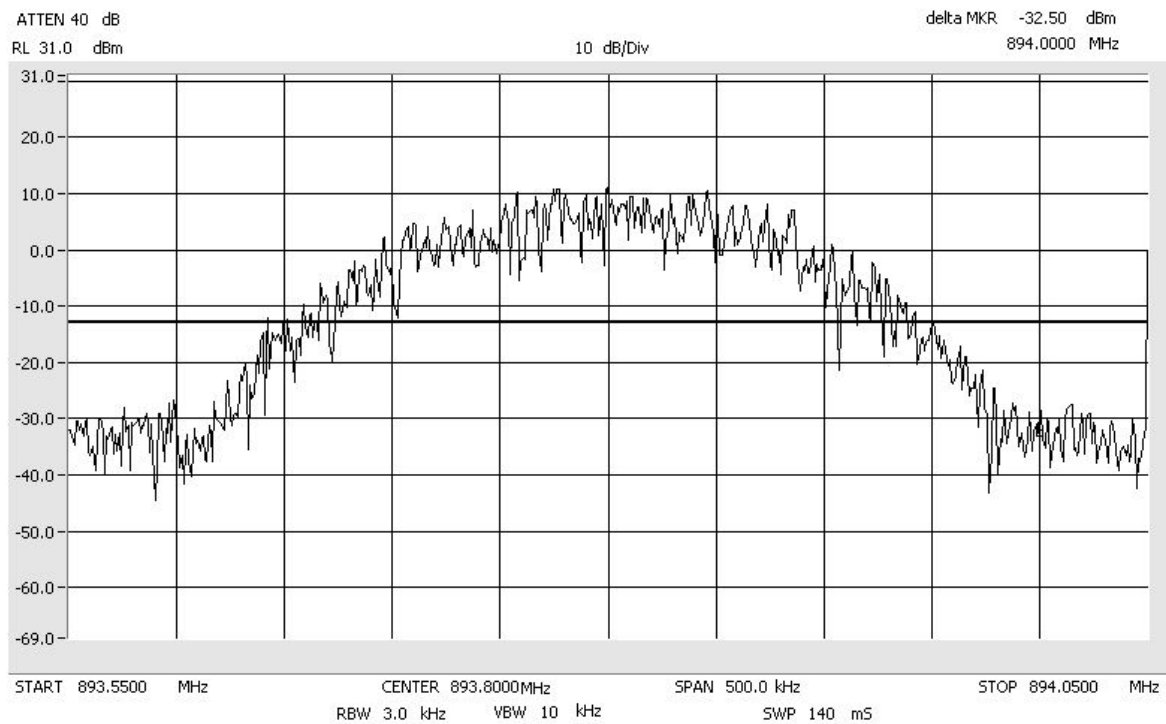
Band_Edge
Center: 869.2 MHz Span: 500 kHz

GSM
RBW: 3 kHz VBW: 10 kHz



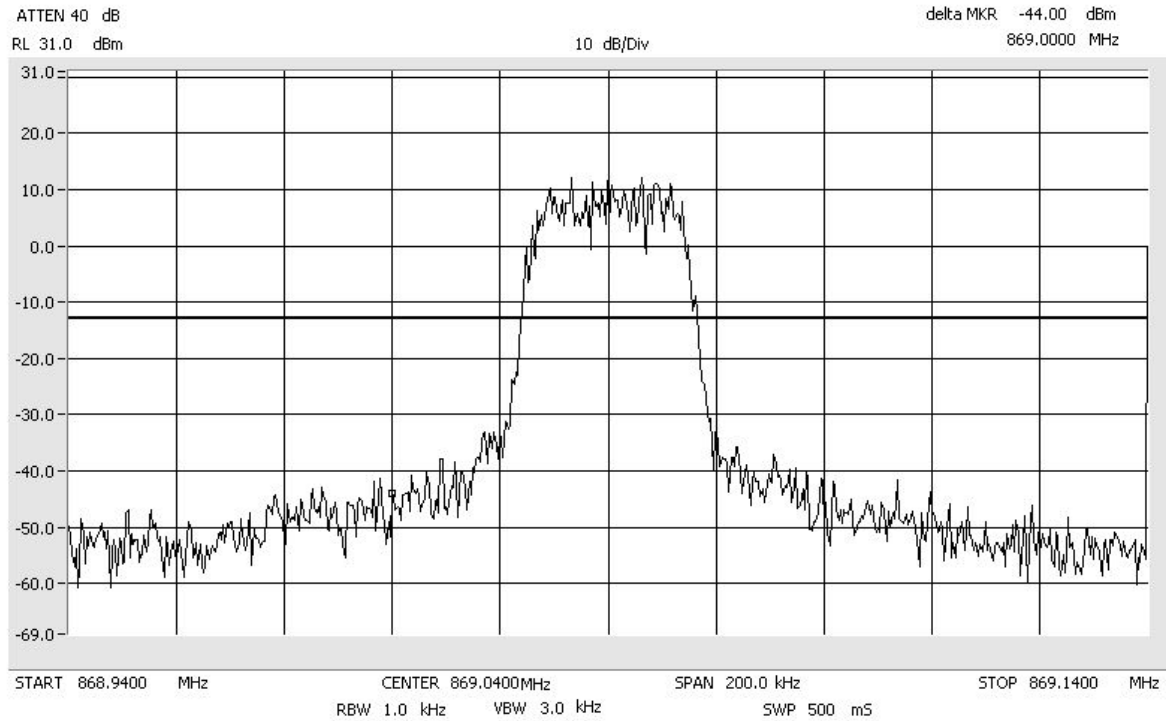
Band_Edge
Center: 893.8 MHz Span: 500 kHz

GSM
RBW: 3 kHz VBW: 10 kHz



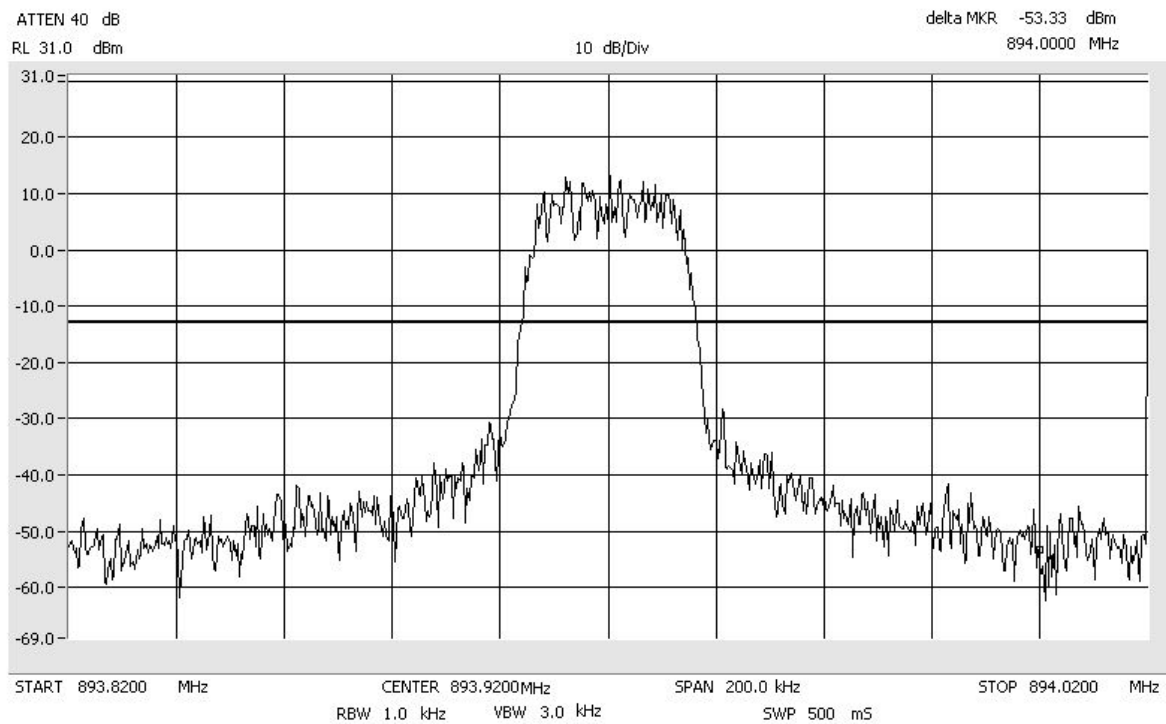
Band_Edge
Center: 869.04 MHz Span: 200 kHz

TDMA
RBW: 1 kHz VBW: 3 kHz



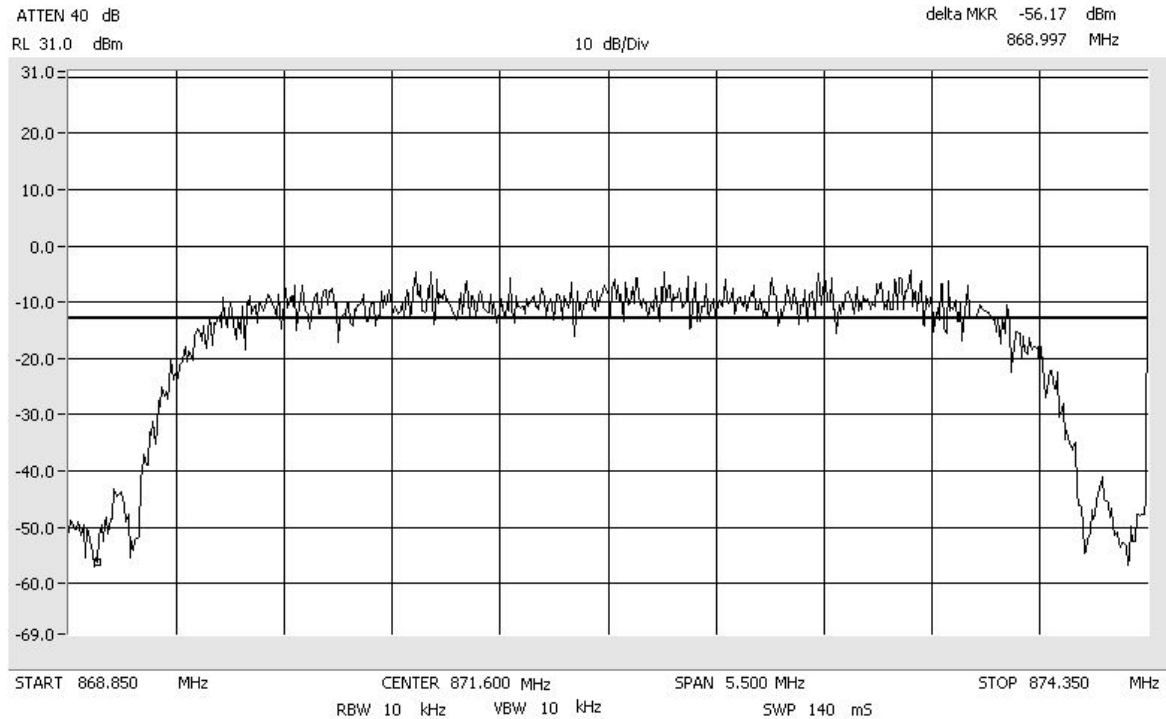
Band_Edge
Center: 893.92 MHz Span: 200 kHz

TDMA
RBW: 1 kHz VBW: 3 kHz



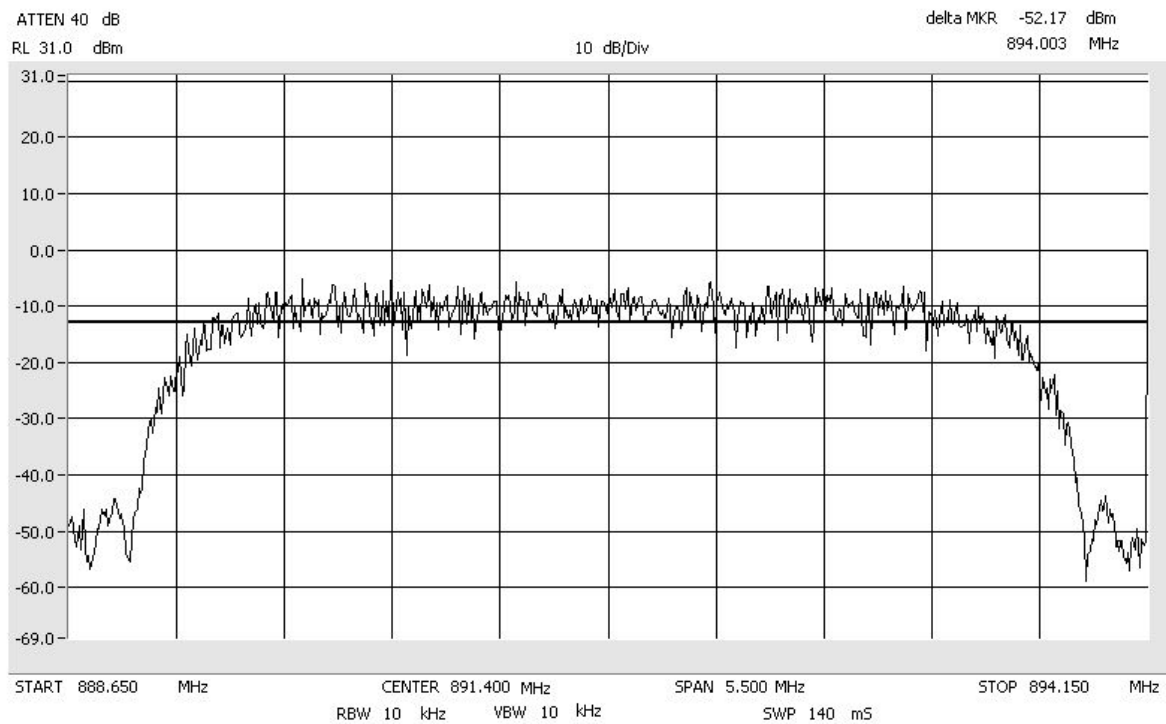
Band_Edge
Center: 871.6 MHz Span: 5.5 MHz

WCDMA
RBW: 10 kHz VBW: 10 kHz



Band_Edge
Center: 891.4 MHz Span: 5.5 MHz

WCDMA
RBW: 10 kHz VBW: 10 kHz



7.2 Conducted Output Power Test

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*Note: The EUT is a fixed repeater and not a base station.

This measurement was made as a direct conducted emission measurement. The output from the EUT antenna connector was connected to the power meter. The carrier output, below, was conducted using a single CDMA2000, EDGE, FM, GSM, TDMA, and WCDMA signal generator. The power meter level was offset to compensate for attenuators and cable loss between the EUT and the power meter.

A signal was used at the low, mid and high parts of the selected band.

CDMA2000	0.0194 mWatts	EDGE	0.0163 mWatts
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
824.7 MHz	<u>-18.13</u> dBm	824.2 MHz	<u>-17.87</u> dBm
836.5 MHz	<u>-18.17</u> dBm	836.5 MHz	<u>-18.13</u> dBm
848.3 MHz	<u>-17.13</u> dBm	848.8 MHz	<u>-18.68</u> dBm

FM	0.0192 mWatts	GSM	0.0175 mWatts
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
824.2 MHz	<u>-17.40</u> dBm	824.2 MHz	<u>-18.25</u> dBm
836.5 MHz	<u>-17.78</u> dBm	836.5 MHz	<u>-17.56</u> dBm
848.8 MHz	<u>-17.17</u> dBm	848.5 MHz	<u>-17.63</u> dBm

TDMA	0.0175 mWatts	WCDMA	0.0163 mWatts
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
824.2 MHz	<u>-18.24</u> dBm	826.5 MHz	<u>-18.06</u> dBm
836.5 MHz	<u>-17.79</u> dBm	836.5 MHz	<u>-18.17</u> dBm
848.8 MHz	<u>-17.57</u> dBm	846.5 MHz	<u>-17.88</u> dBm

CDMA2000	360.6 mWatts	EDGE	377.6 mWatts
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
869.7 MHz	<u>25.40</u> dBm	869.2 MHz	<u>25.17</u> dBm
881.5 MHz	<u>25.57</u> dBm	881.5 MHz	<u>25.23</u> dBm
893.3 MHz	<u>25.08</u> dBm	893.8 MHz	<u>25.77</u> dBm

FM	358.1 mWatts	GSM	382.8 mWatts
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
869.2 MHz	<u>25.53</u> dBm	869.2 MHz	<u>25.23</u> dBm
881.5 MHz	<u>25.11</u> dBm	881.5 MHz	<u>25.05</u> dBm
893.8 MHz	<u>25.54</u> dBm	893.5 MHz	<u>25.83</u> dBm

TDMA	388.2 mWatts	WCDMA	378.4 mWatts
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
869.2 MHz	<u>25.89</u> dBm	871.5 MHz	<u>25.78</u> dBm
881.5 MHz	<u>25.32</u> dBm	881.5 MHz	<u>25.46</u> dBm
893.8 MHz	<u>25.23</u> dBm	891.5 MHz	<u>25.27</u> dBm

7.3 Frequency Stability Test

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Host/Expansion	RAU			
Input Voltage	Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
100 VAC	45.9 VDC	824.200 MHz	824.200 MHz	Yes
170 VAC	54 VDC	824.200 MHz	824.200 MHz	Yes
240 VAC	62.1 VDC	824.200 MHz	824.200 MHz	Yes
100 VAC	45.9 VDC	836.500 MHz	836.500 MHz	Yes
170 VAC	54 VDC	836.500 MHz	836.500 MHz	Yes
240 VAC	62.1 VDC	836.500 MHz	836.500 MHz	Yes
100 VAC	45.9 VDC	848.800 MHz	848.800 MHz	Yes
170 VAC	54 VDC	848.800 MHz	848.800 MHz	Yes
240 VAC	62.1 VDC	848.800 MHz	848.800 MHz	Yes
Temperature		Carrier Frequency	Measured Frequency	Meets Requirements?
-30 Deg. C		824.200 MHz	824.200 MHz	Yes
-20 Deg. C		824.200 MHz	824.200 MHz	Yes
-10 Deg. C		824.200 MHz	824.200 MHz	Yes
0 Deg. C		824.200 MHz	824.200 MHz	Yes
10 Deg. C		824.200 MHz	824.200 MHz	Yes
20 Deg. C		824.200 MHz	824.200 MHz	Yes
30 Deg. C		824.200 MHz	824.200 MHz	Yes
40 Deg. C		824.200 MHz	824.200 MHz	Yes
50 Deg. C		824.200 MHz	824.200 MHz	Yes
-30 Deg. C		836.500 MHz	836.500 MHz	Yes
-20 Deg. C		836.500 MHz	836.500 MHz	Yes
-10 Deg. C		836.500 MHz	836.500 MHz	Yes
0 Deg. C		836.500 MHz	836.500 MHz	Yes
10 Deg. C		836.500 MHz	836.500 MHz	Yes
20 Deg. C		836.500 MHz	836.500 MHz	Yes
30 Deg. C		836.500 MHz	836.500 MHz	Yes
40 Deg. C		836.500 MHz	836.500 MHz	Yes
50 Deg. C		836.500 MHz	836.500 MHz	Yes
-30 Deg. C		848.800 MHz	848.800 MHz	Yes
-20 Deg. C		848.800 MHz	848.800 MHz	Yes
-10 Deg. C		848.800 MHz	848.800 MHz	Yes
0 Deg. C		848.800 MHz	848.800 MHz	Yes
10 Deg. C		848.800 MHz	848.800 MHz	Yes
20 Deg. C		848.800 MHz	848.800 MHz	Yes
30 Deg. C		848.800 MHz	848.800 MHz	Yes
40 Deg. C		848.800 MHz	848.800 MHz	Yes
50 Deg. C		848.800 MHz	848.800 MHz	Yes

Host/Expansion	RAU			
Input Voltage	Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
100 VAC	45.9 VDC	869.200 MHz	869.200 MHz	Yes
170 VAC	54 VDC	869.200 MHz	869.200 MHz	Yes
240 VAC	62.1 VDC	869.200 MHz	869.200 MHz	Yes
100 VAC	45.9 VDC	881.500 MHz	881.500 MHz	Yes
170 VAC	54 VDC	881.500 MHz	881.500 MHz	Yes
240 VAC	62.1 VDC	881.500 MHz	881.500 MHz	Yes
100 VAC	45.9 VDC	893.800 MHz	893.800 MHz	Yes
170 VAC	54 VDC	893.800 MHz	893.800 MHz	Yes
240 VAC	62.1 VDC	893.800 MHz	893.800 MHz	Yes
Temperature		Carrier Frequency	Measured Frequency	Meets Requirements?
-30 Deg. C		869.200 MHz	869.200 MHz	Yes
-20 Deg. C		869.200 MHz	869.200 MHz	Yes
-10 Deg. C		869.200 MHz	869.200 MHz	Yes
0 Deg. C		869.200 MHz	869.200 MHz	Yes
10 Deg. C		869.200 MHz	869.200 MHz	Yes
20 Deg. C		869.200 MHz	869.200 MHz	Yes
30 Deg. C		869.200 MHz	869.200 MHz	Yes
40 Deg. C		869.200 MHz	869.200 MHz	Yes
50 Deg. C		869.200 MHz	869.200 MHz	Yes
-30 Deg. C		881.500 MHz	881.500 MHz	Yes
-20 Deg. C		881.500 MHz	881.500 MHz	Yes
-10 Deg. C		881.500 MHz	881.500 MHz	Yes
0 Deg. C		881.500 MHz	881.500 MHz	Yes
10 Deg. C		881.500 MHz	881.500 MHz	Yes
20 Deg. C		881.500 MHz	881.500 MHz	Yes
30 Deg. C		881.500 MHz	881.500 MHz	Yes
40 Deg. C		881.500 MHz	881.500 MHz	Yes
50 Deg. C		881.500 MHz	881.500 MHz	Yes
-30 Deg. C		893.800 MHz	893.800 MHz	Yes
-20 Deg. C		893.800 MHz	893.800 MHz	Yes
-10 Deg. C		893.800 MHz	893.800 MHz	Yes
0 Deg. C		893.800 MHz	893.800 MHz	Yes
10 Deg. C		893.800 MHz	893.800 MHz	Yes
20 Deg. C		893.800 MHz	893.800 MHz	Yes
30 Deg. C		893.800 MHz	893.800 MHz	Yes
40 Deg. C		893.800 MHz	893.800 MHz	Yes
50 Deg. C		893.800 MHz	893.800 MHz	Yes

7.4 Intermodulation Test

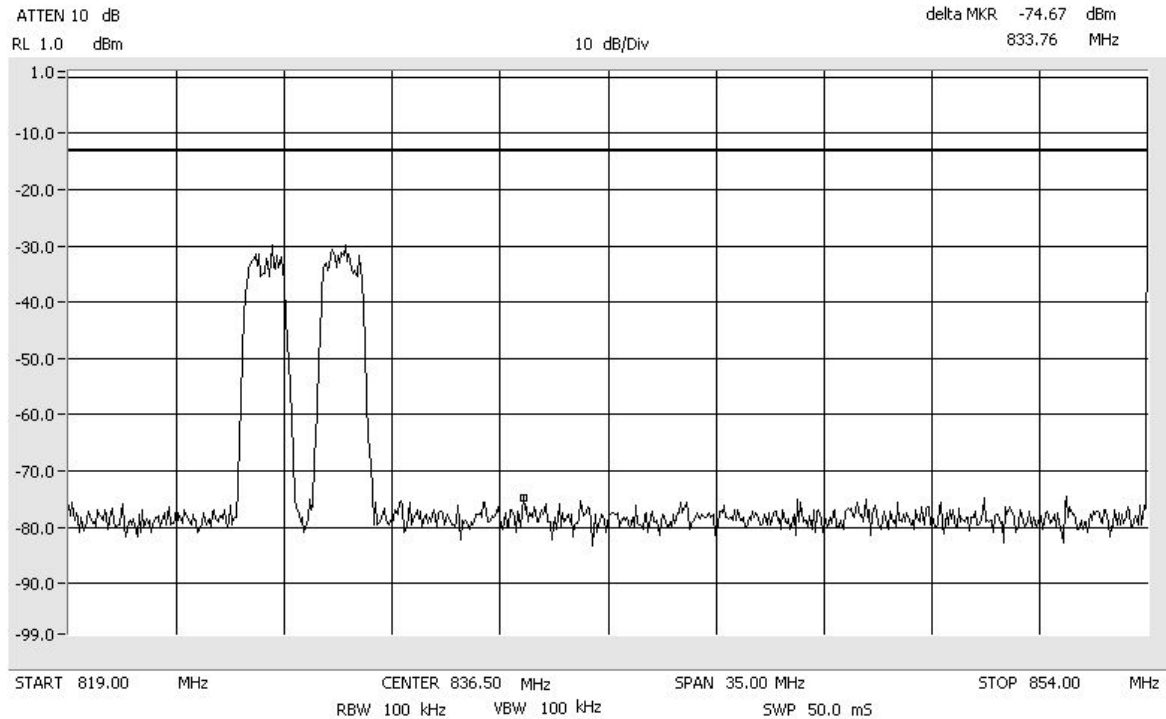
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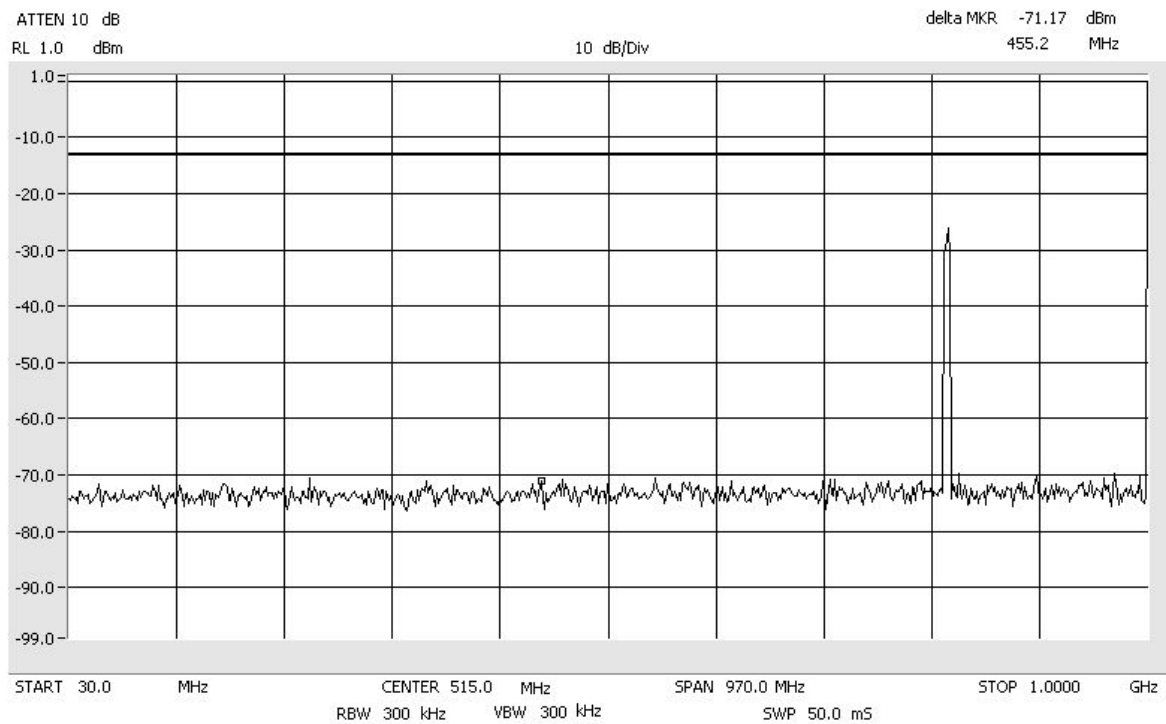
The inter-modulation products test was performed for the EUT. Three tests were performed with the modulation type. Test 1 was with 2 signals input to the EUT at lower end channels. Test 2 was with 2 signals input to the EUT at upper end channels. Test 3 was with 2 signals input to the EUT at upper and lower end channels. The modulation types tested were CDMA2000, EDGE, FM, GSM, TDMA, and WCDMA. An investigation was made from 30 MHz to the 10th Harmonic of the highest fundamental frequency (~10 GHz). The following plots show the results.

Results:
(See Plots)

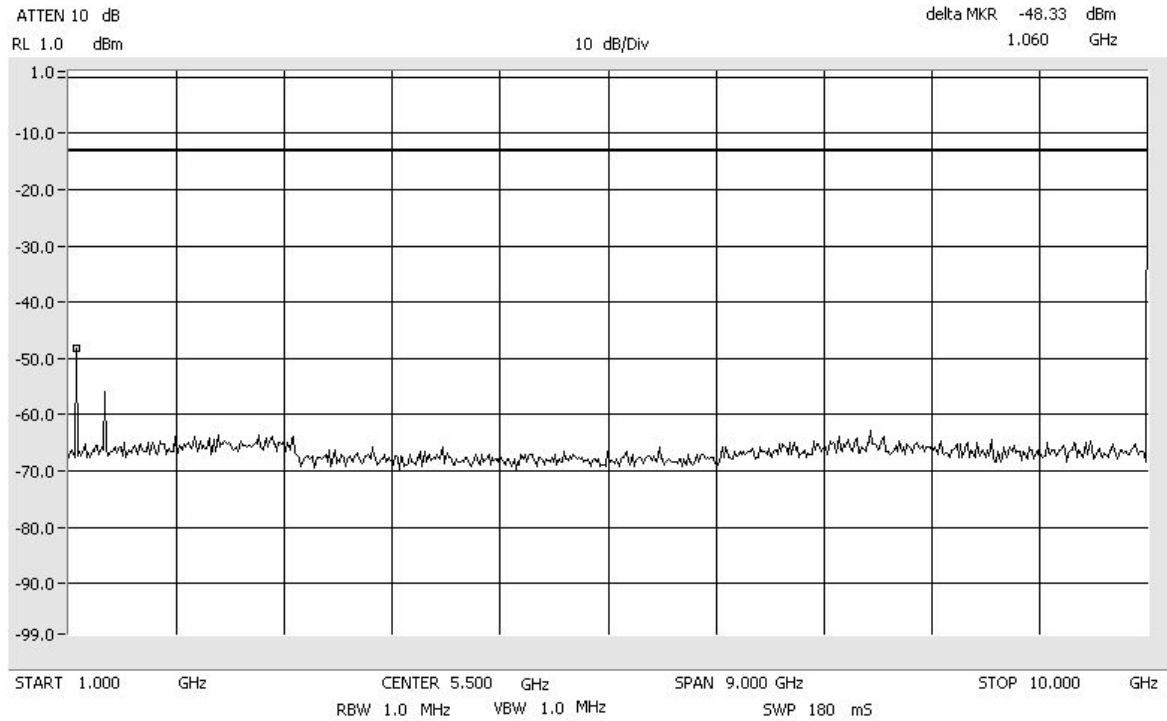
Intermodulation CDMA2000_Low CELLULAR
Center: 836.5 MHz Span: 35 MHz RBW/VBW: 100 kHz



Intermodulation CDMA2000_Low CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



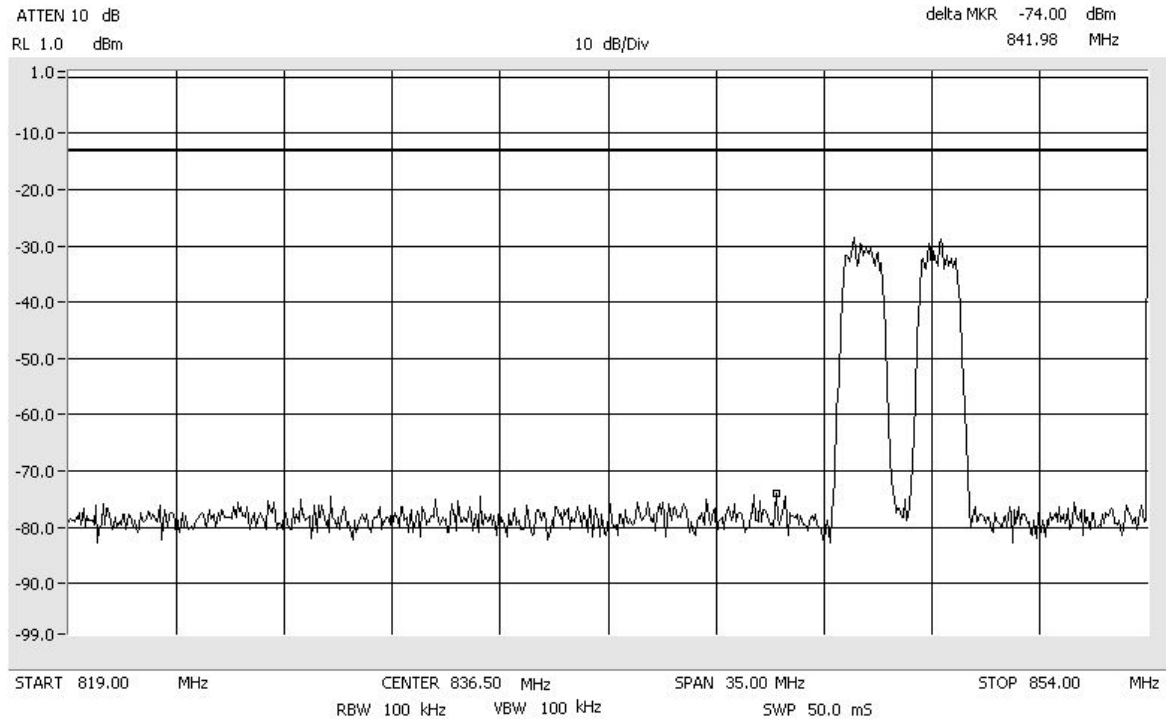
Intermodulation CDMA2000_Low CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



Intermodulation
Center: 836.5 MHz

CDMA2000_High
Span: 35 MHz

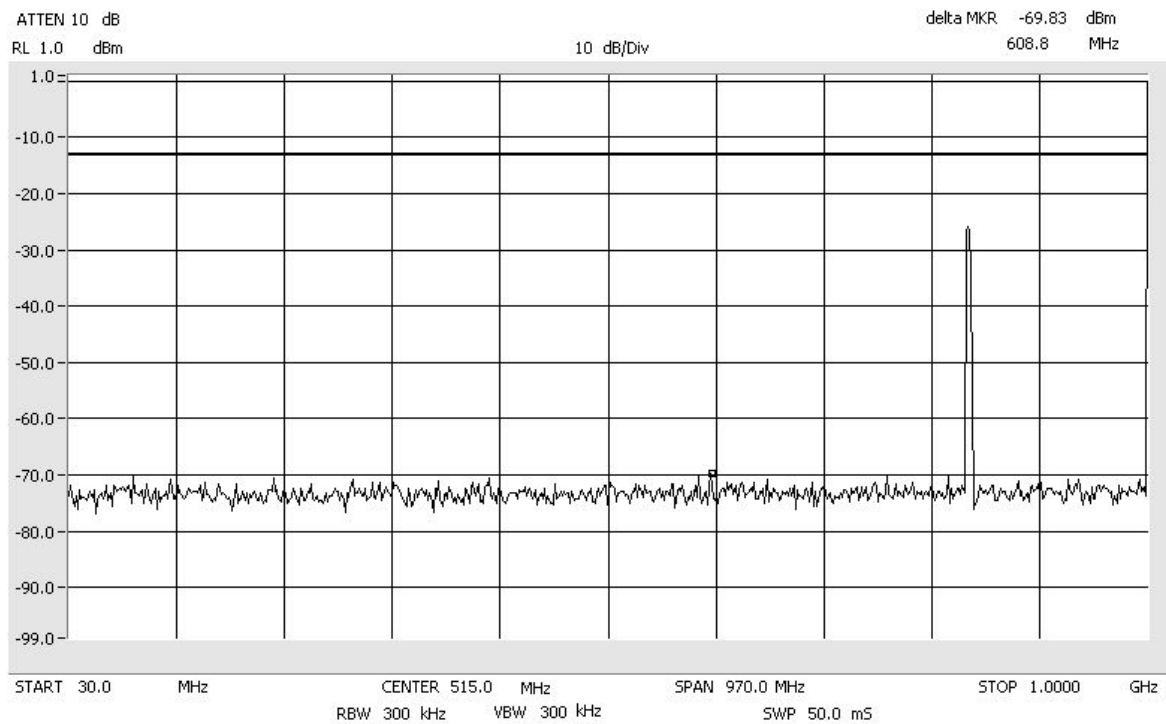
CELLULAR
RBW/VBW: 100 kHz



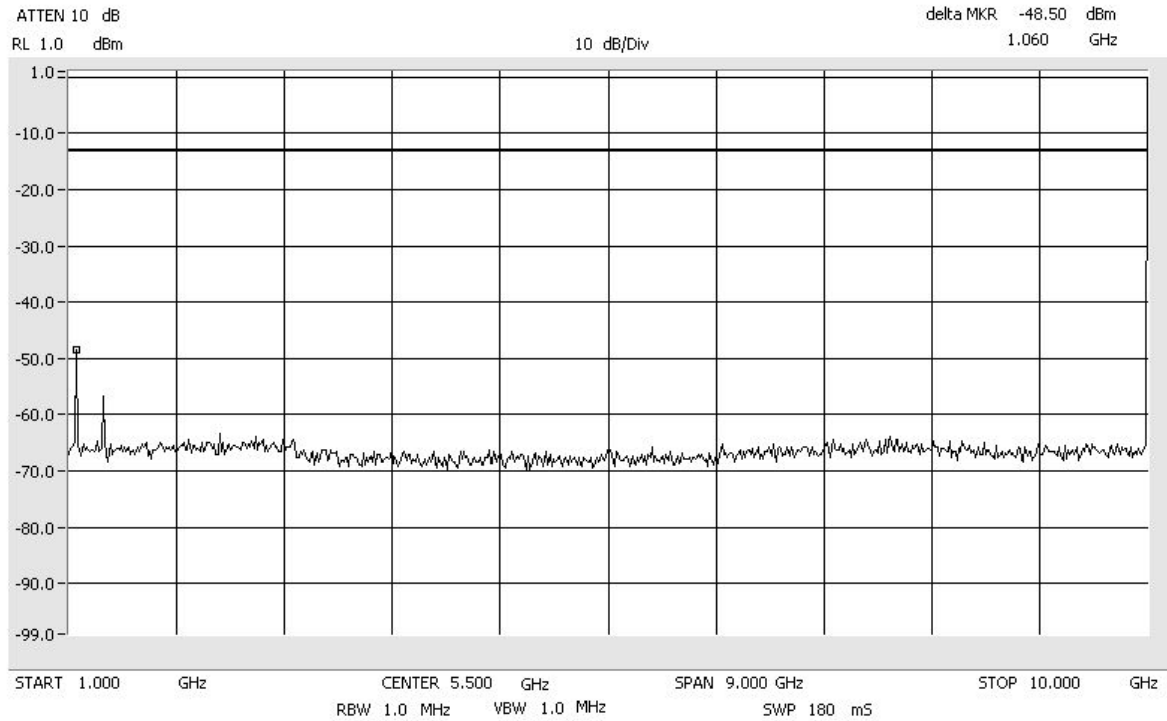
Intermodulation
Span: 30 MHz to 1 GHz

CDMA2000_High

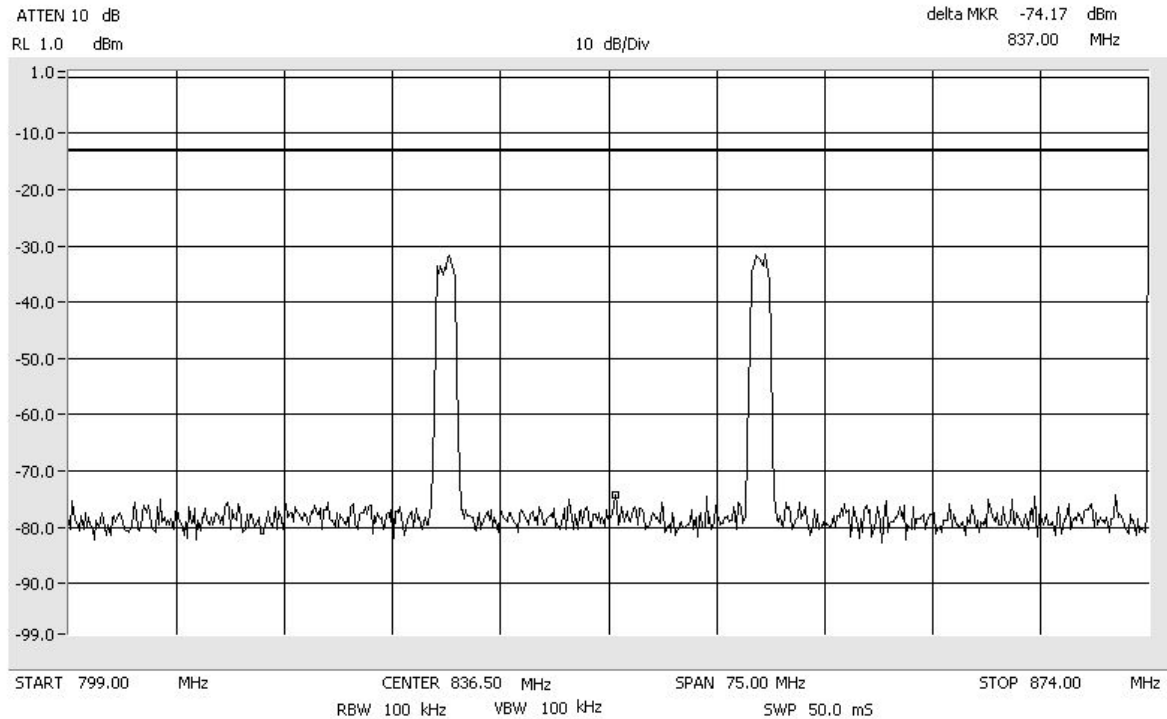
CELLULAR
RBW/VBW: 300 kHz



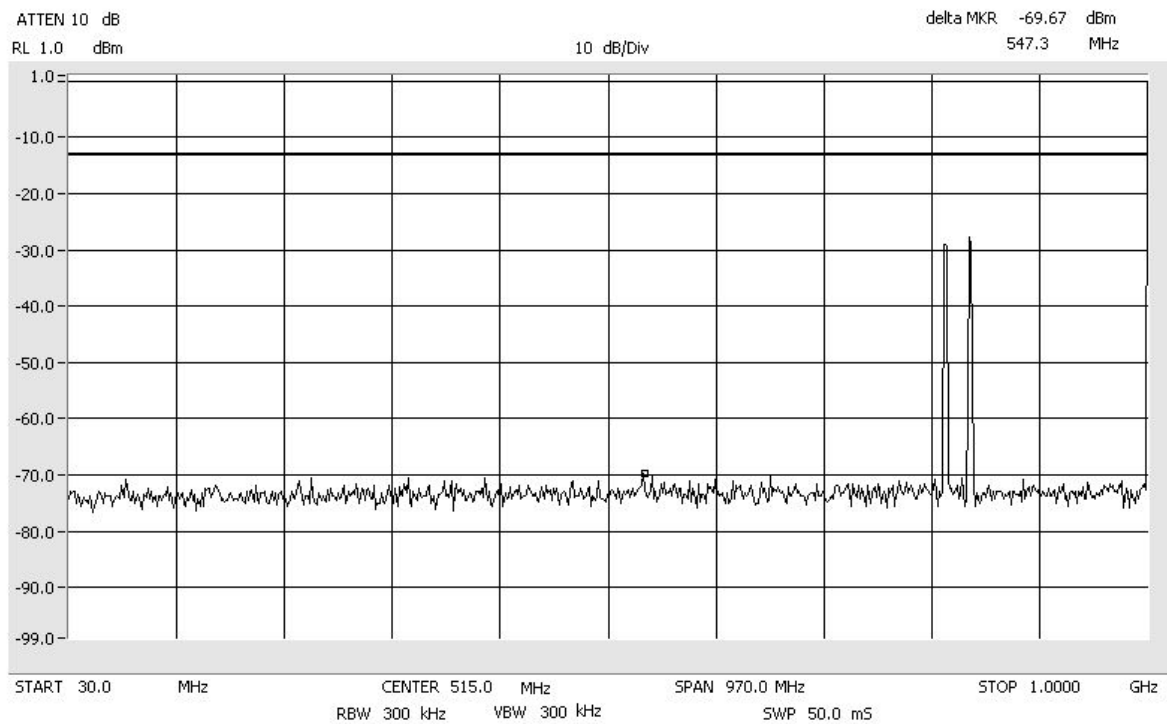
Intermodulation CDMA2000_High CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



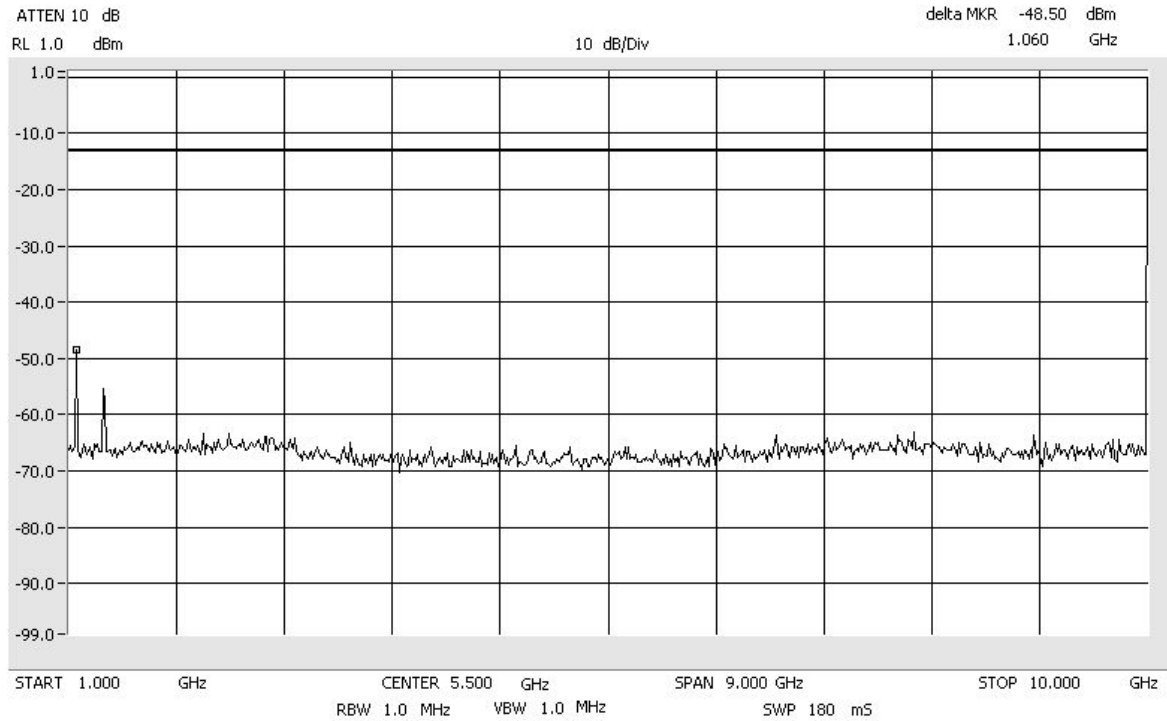
Intermodulation CDMA2000_Apart CELLULAR
Center: 836.5 MHz Span: 75 MHz RBW/VBW: 100 kHz



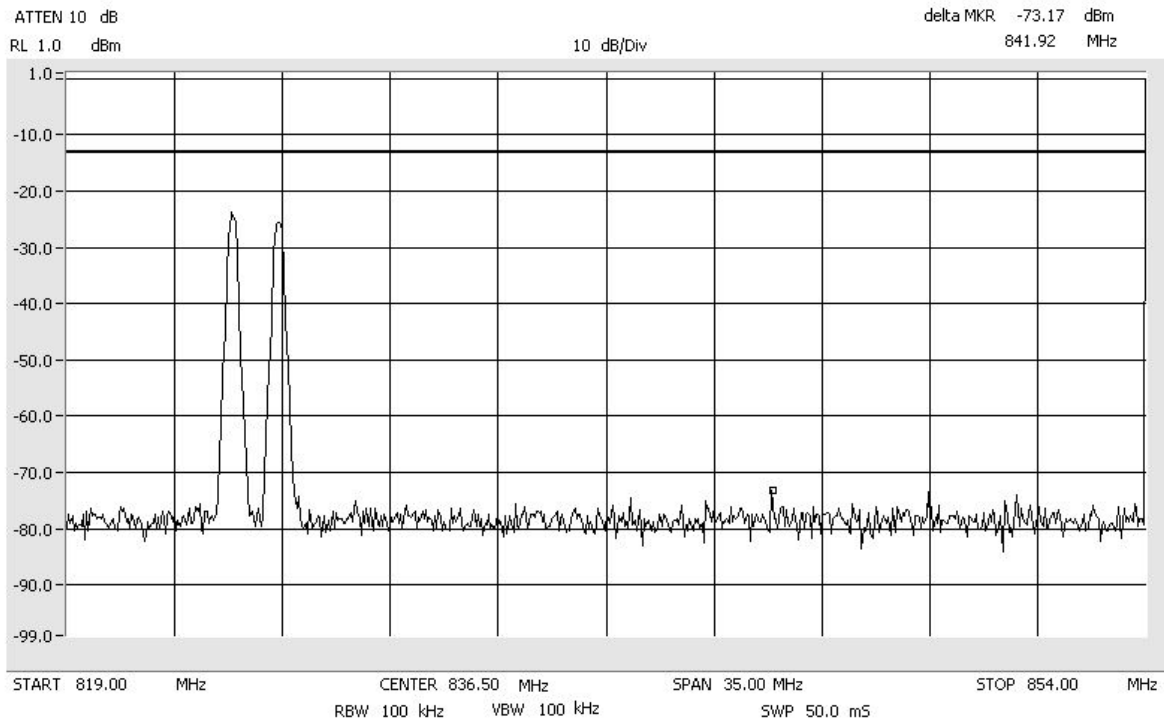
Intermodulation CDMA2000_Apart CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 100 kHz



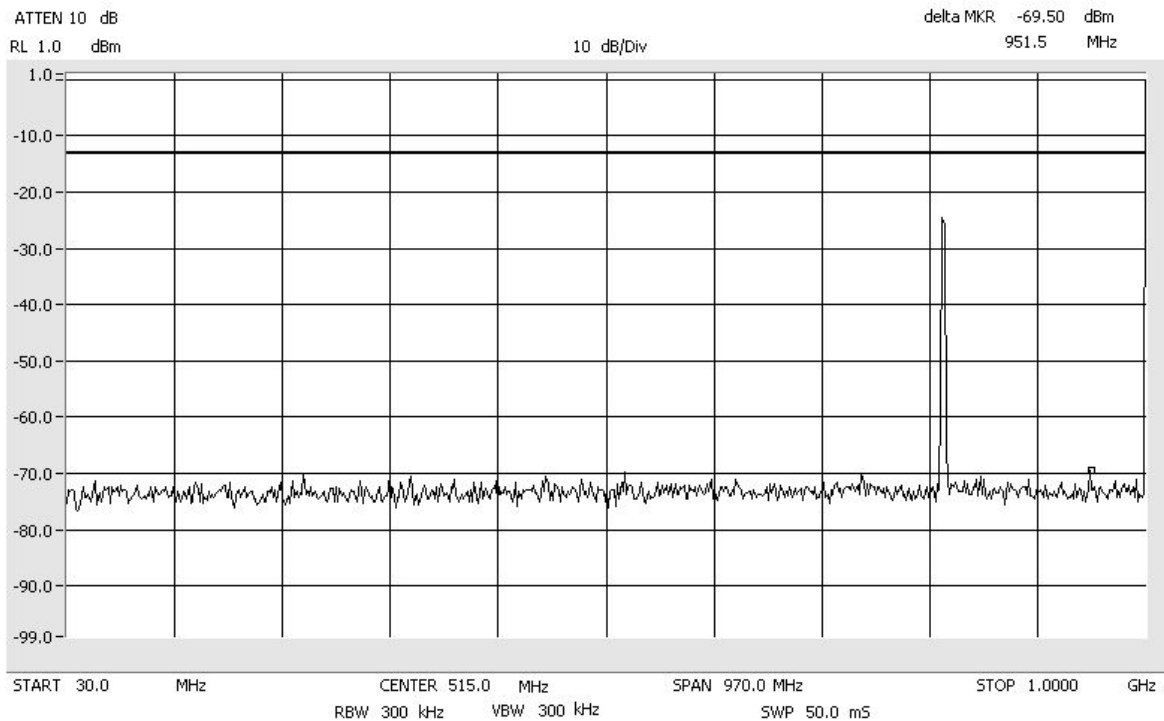
Intermodulation CDMA2000_Apart CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



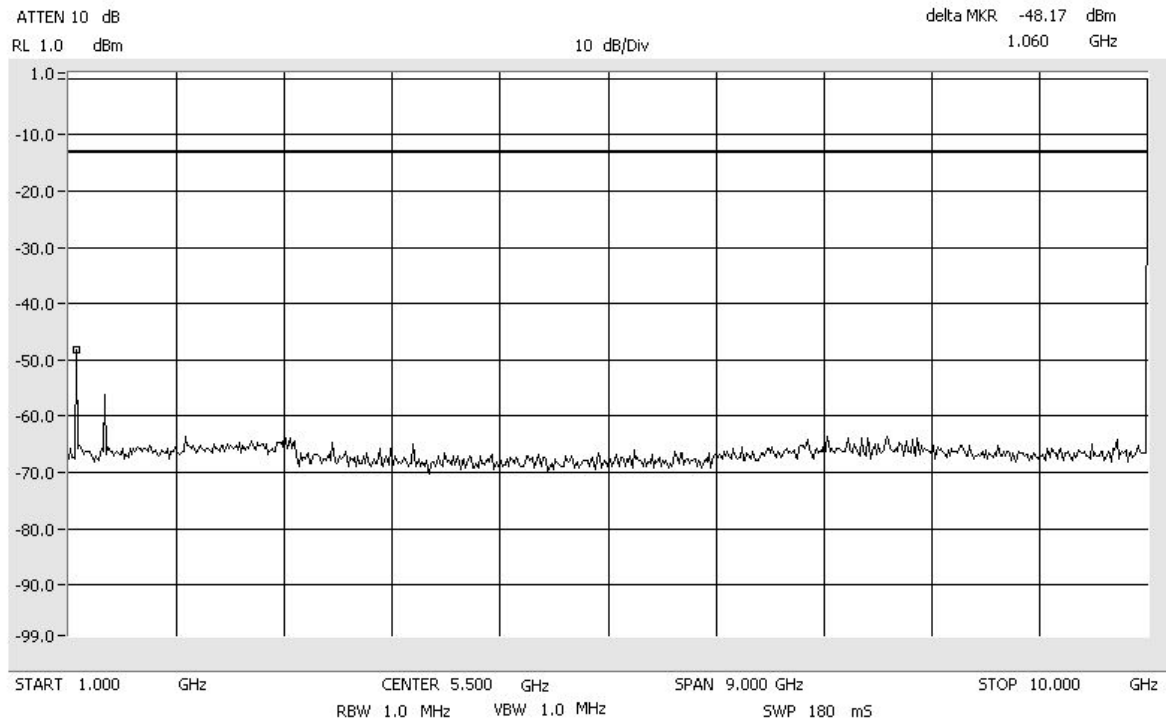
Intermodulation EDGE_Low CELLULAR
Center: 836.5 MHz Span: 35 MHz RBW/VBW: 100 kHz



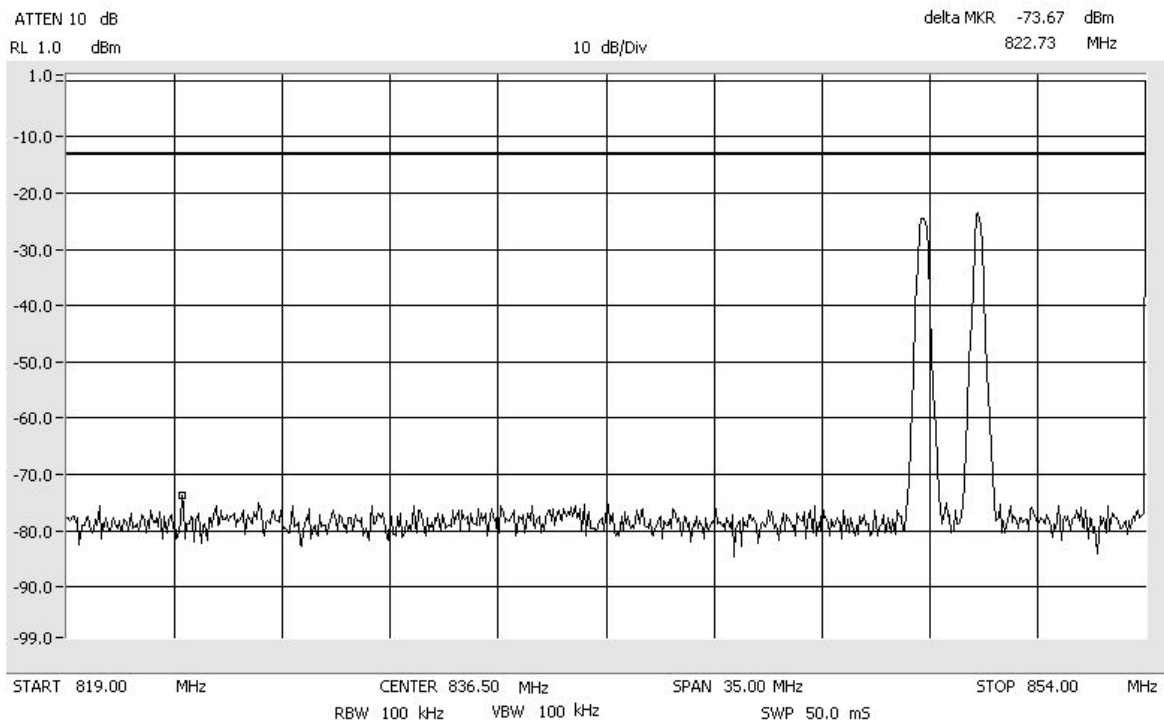
Intermodulation EDGE_Low CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



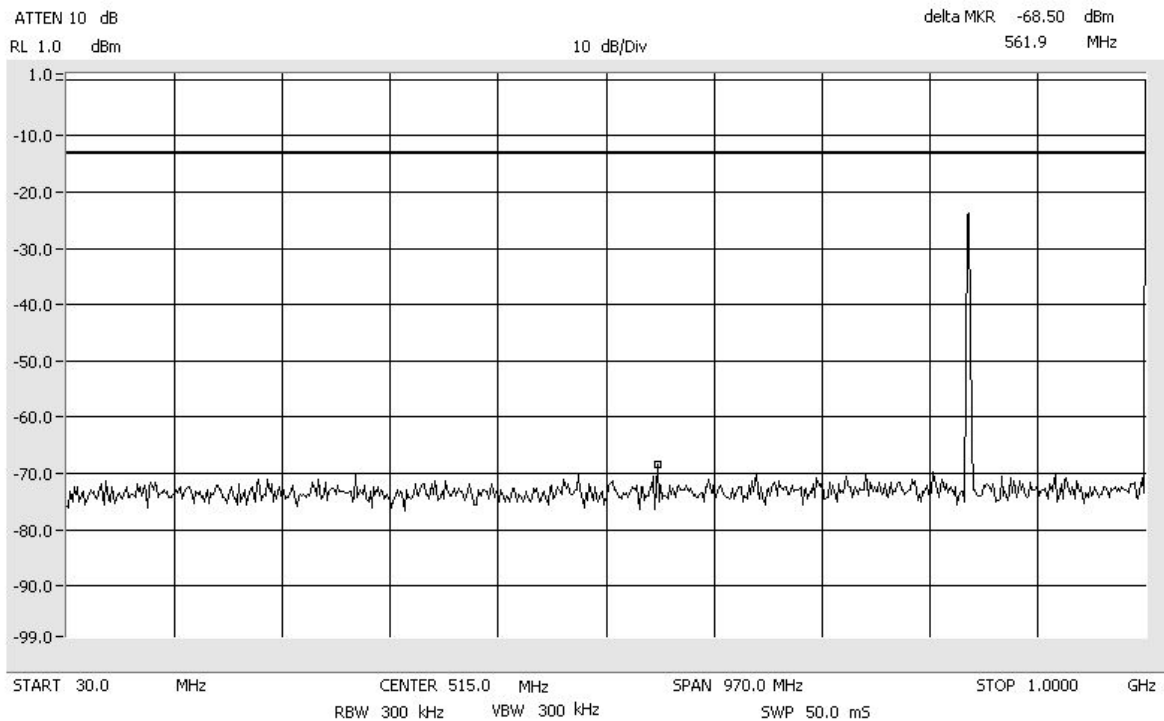
Intermodulation EDGE_Low CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



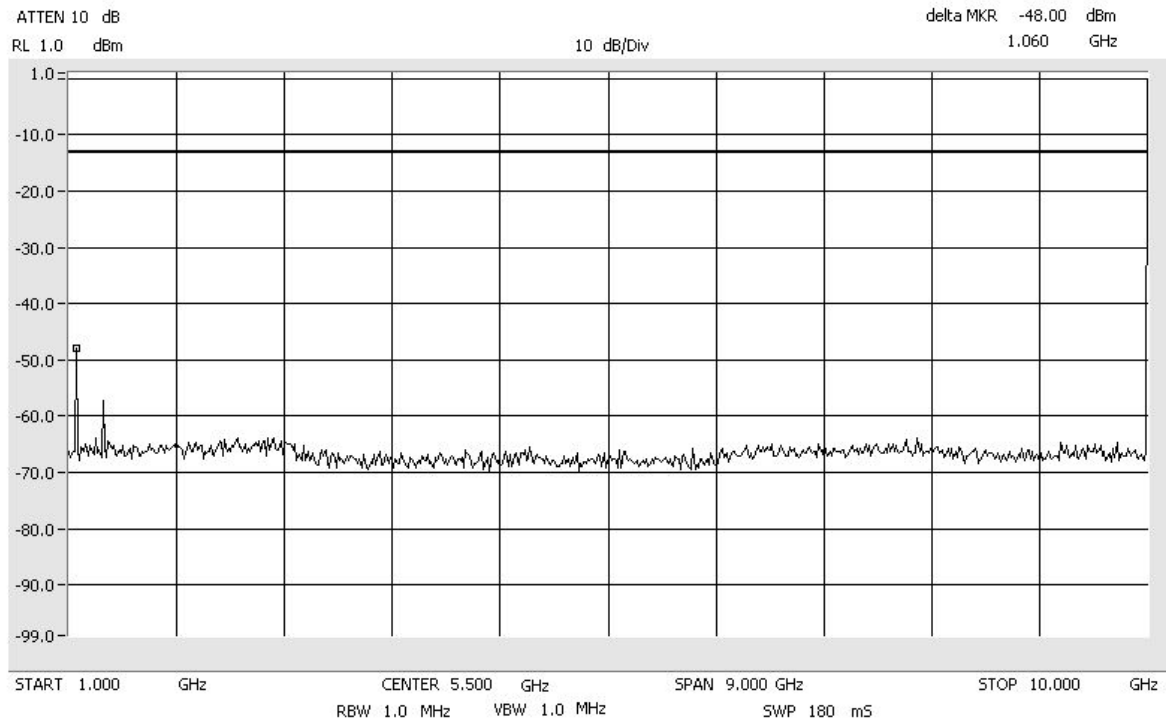
Intermodulation EDGE_High CELLULAR
Center: 836.5 MHz Span: 35 MHz RBW/VBW: 100 kHz



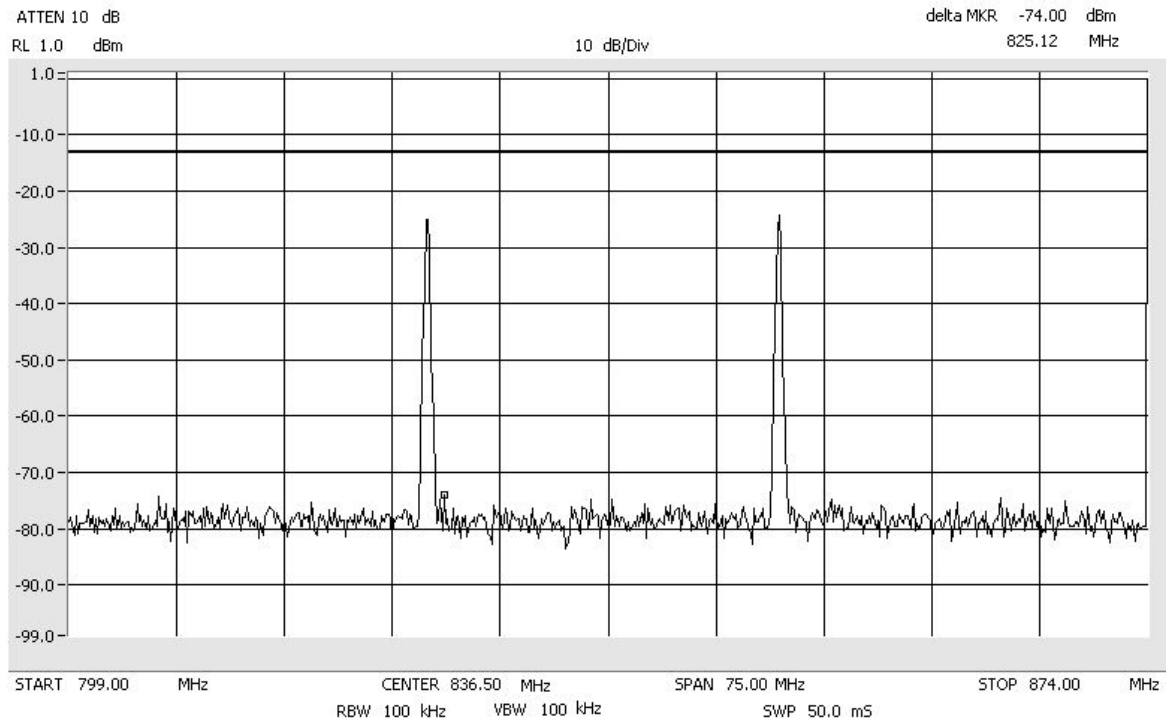
Intermodulation EDGE_High CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



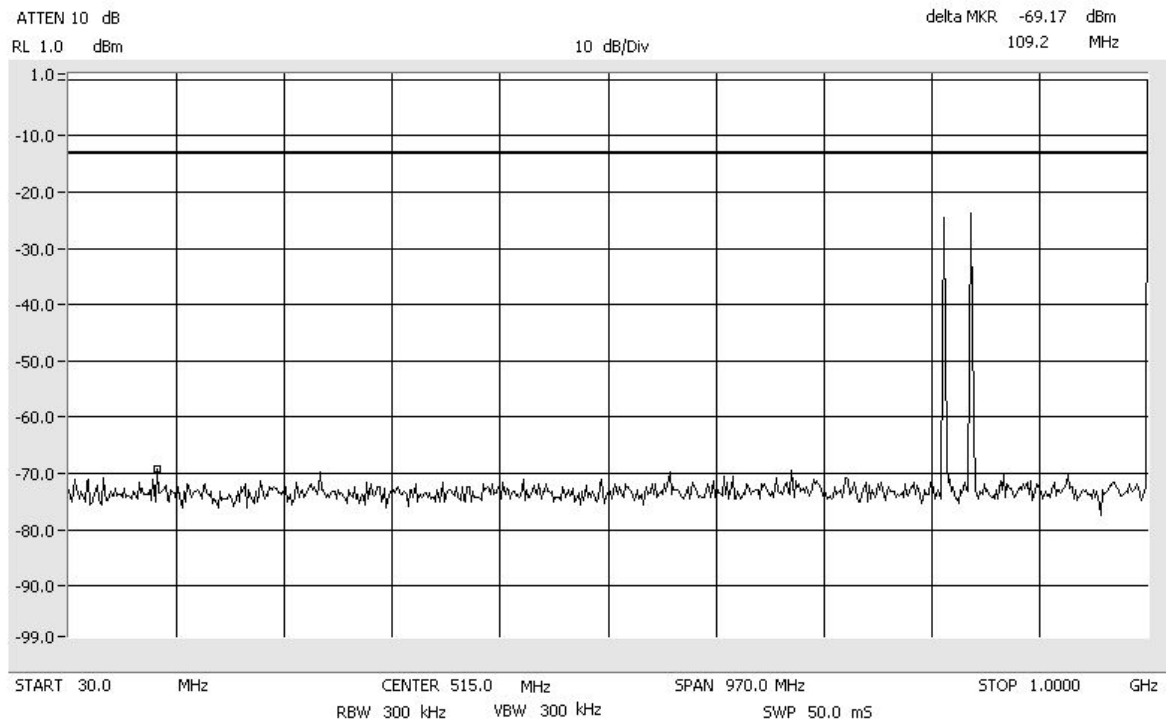
Intermodulation EDGE_High CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



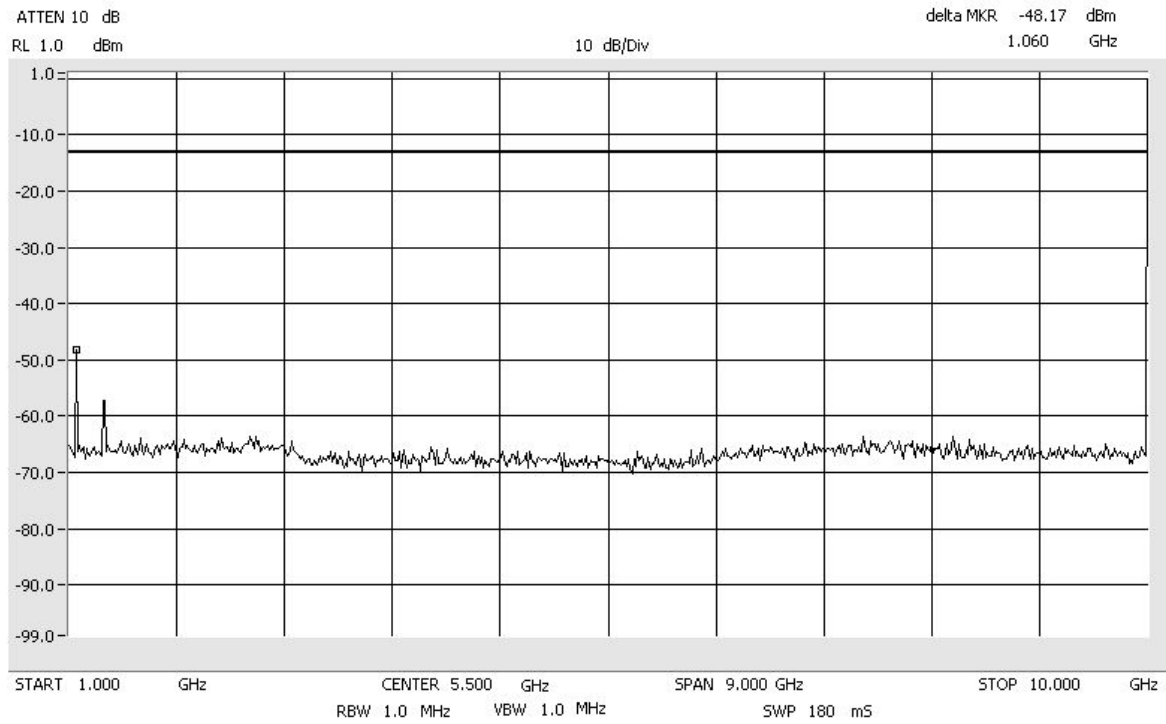
Intermodulation EDGE_Apart CELLULAR
Center: 836.5 MHz Span: 75 MHz RBW/VBW: 100 kHz



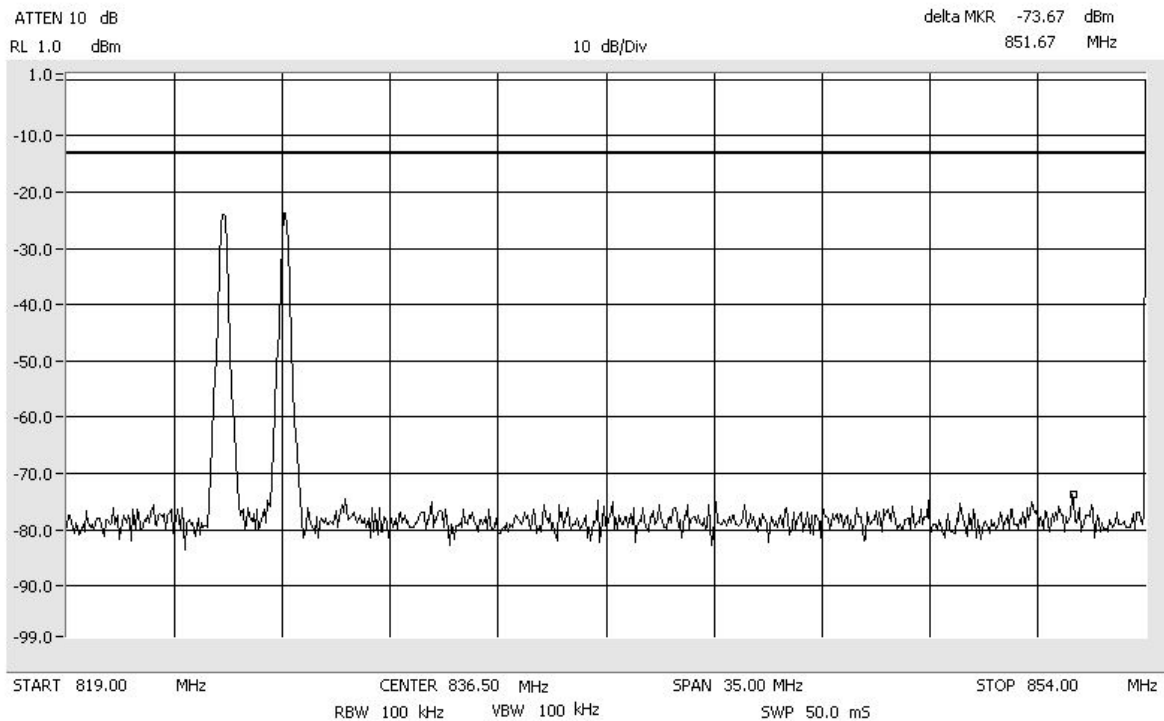
Intermodulation EDGE_Apart CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



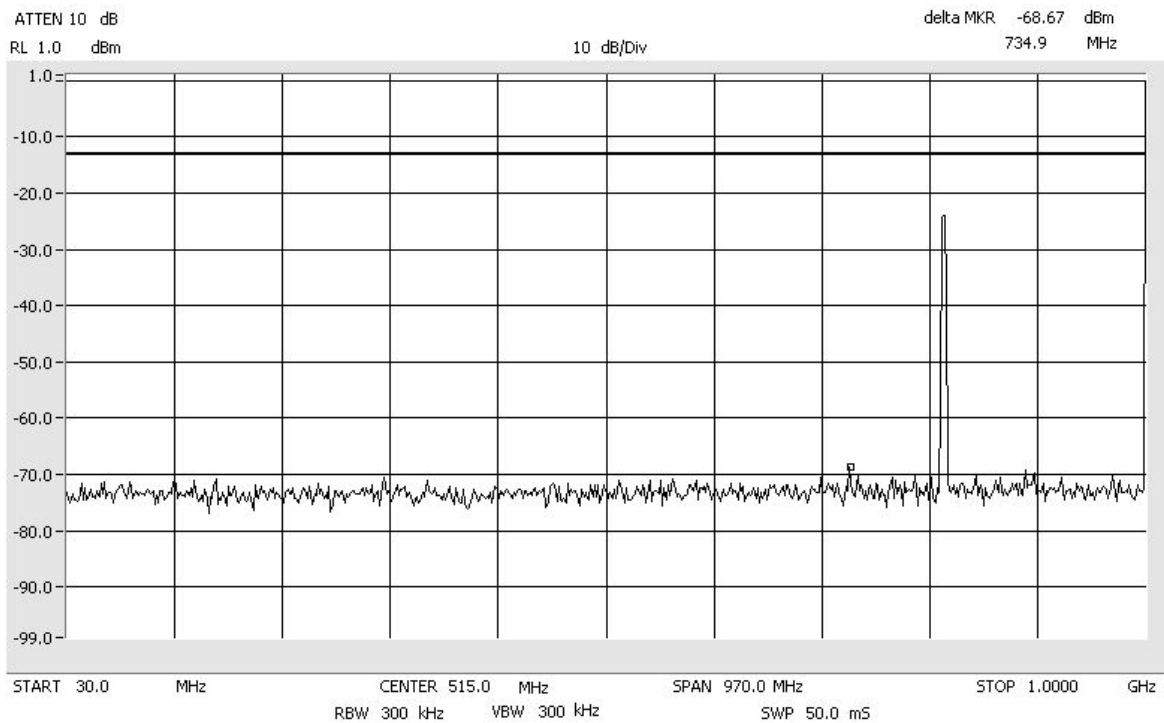
Intermodulation EDGE_Apart CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



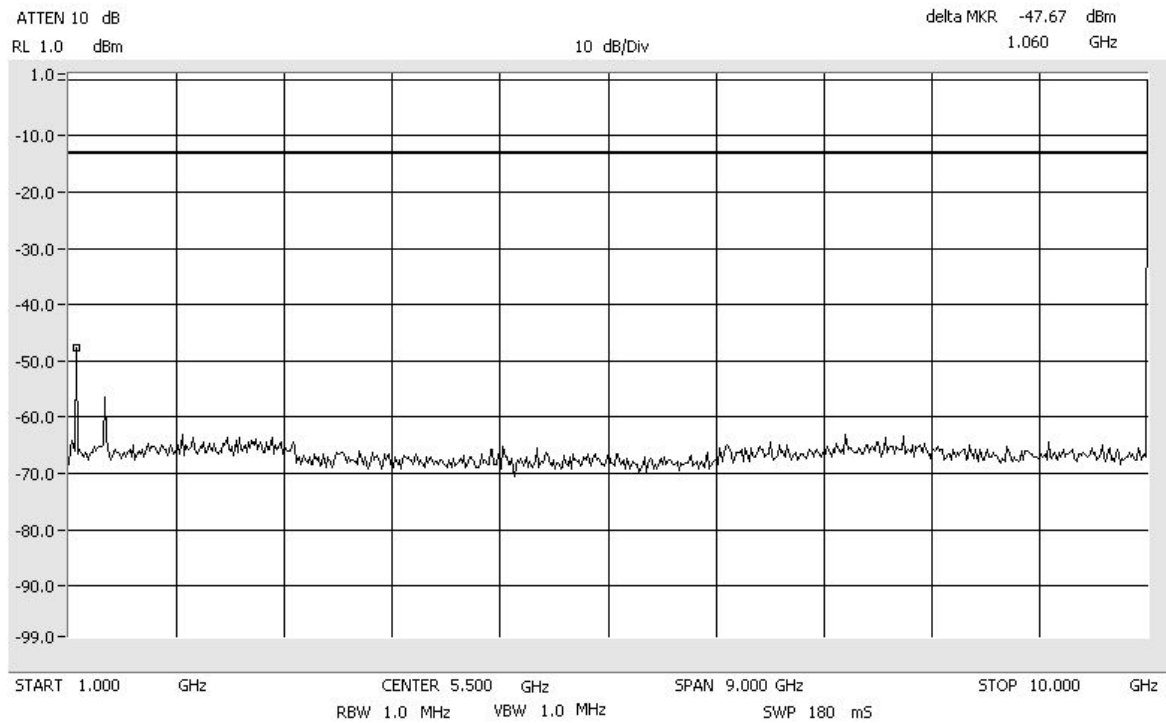
Intermodulation FM_Low CELLULAR
Center: 836.5 MHz Span: 35 MHz RBW/VBW: 100 kHz



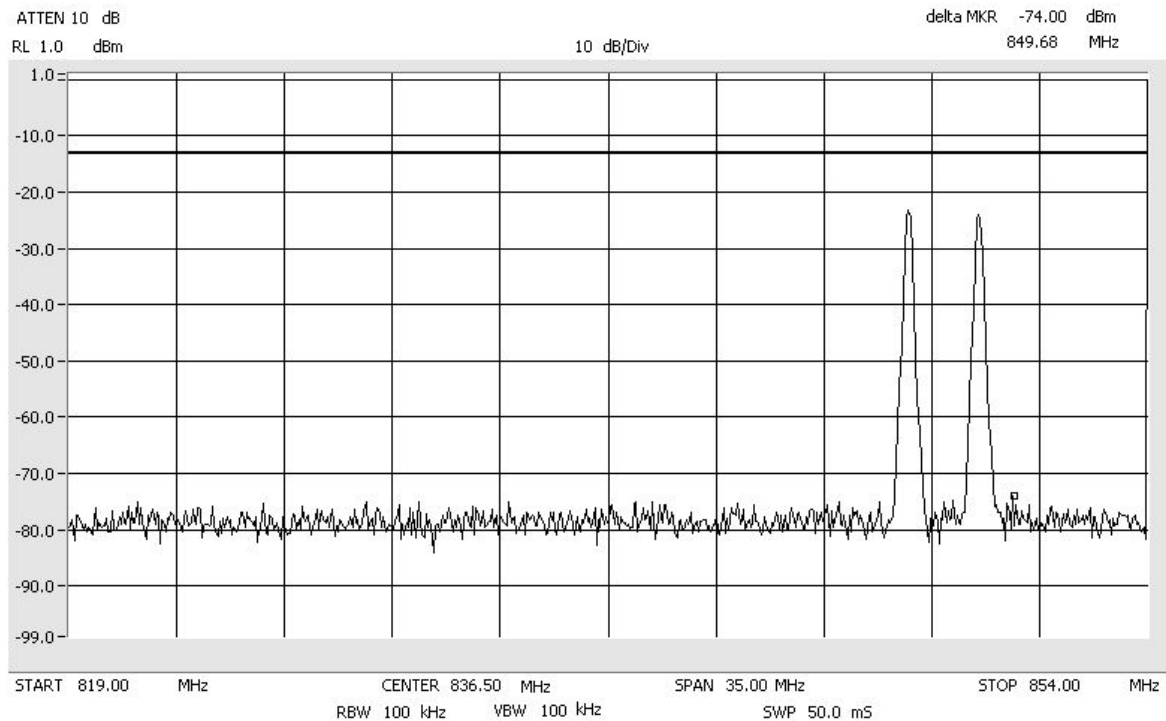
Intermodulation FM_Low CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



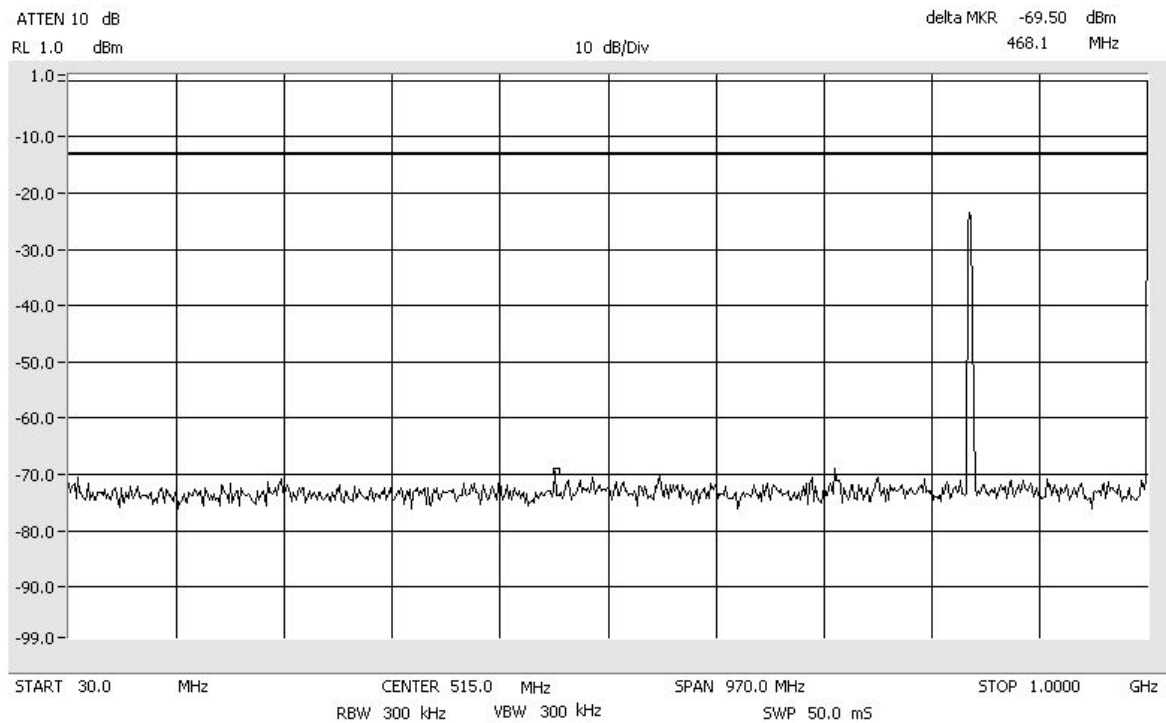
Intermodulation FM_Low CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



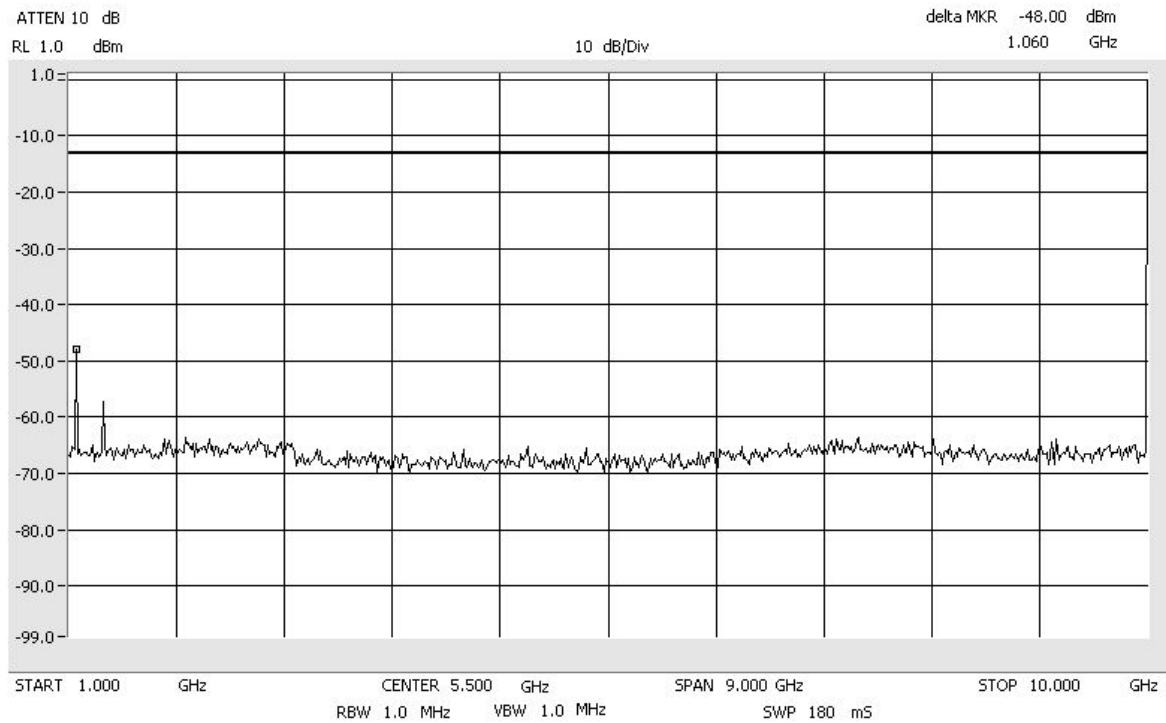
Intermodulation FM_High CELLULAR
Center: 836.5 MHz Span: 35 MHz RBW/VBW: 100 kHz



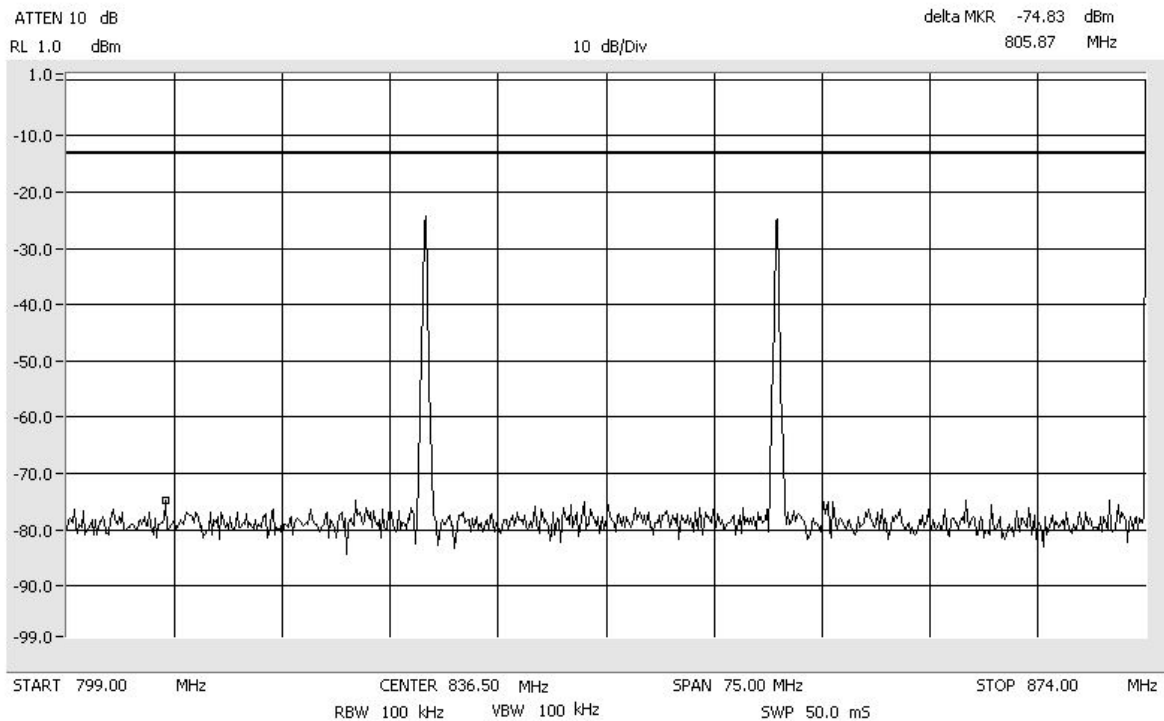
Intermodulation FM_High CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



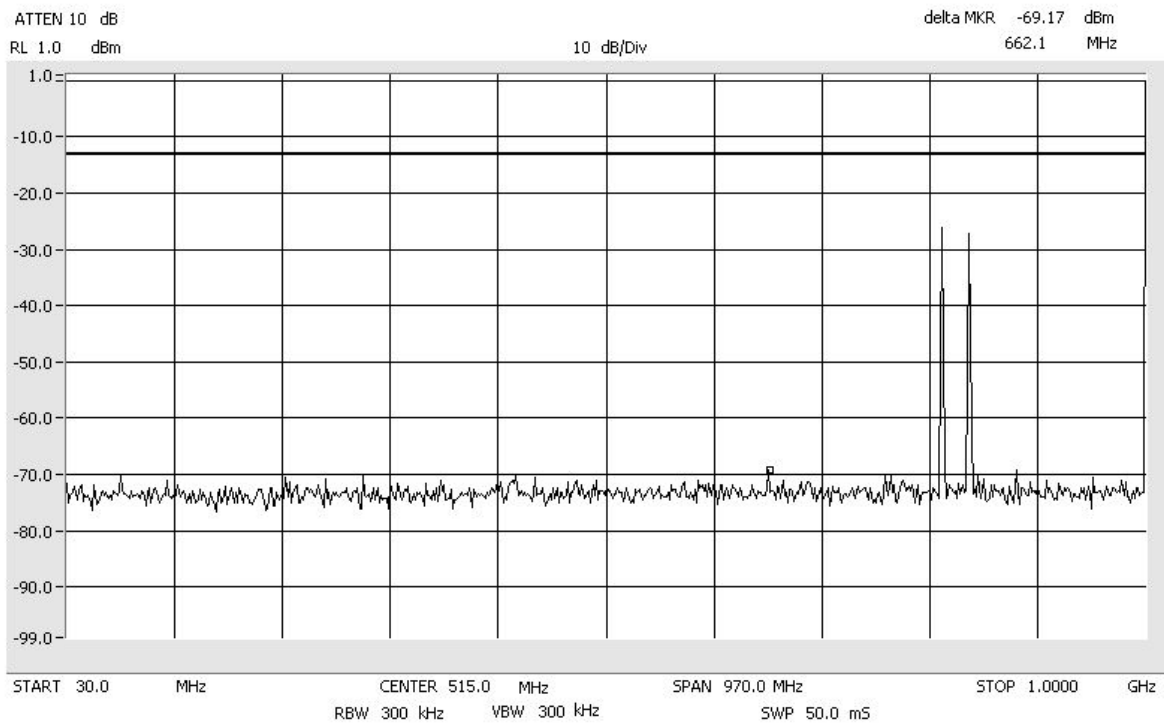
Intermodulation FM_High CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz



Intermodulation FM_Apart CELLULAR
Center: 836.5 MHz Span: 75 MHz RBW/VBW: 100 kHz



Intermodulation FM_Apart CELLULAR
Span: 30 MHz to 1 GHz RBW/VBW: 100 kHz



Intermodulation FM_Apart CELLULAR
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz

