

8 – RADIATED SPURIOUS EMISSION

8.1 Test Procedure

Requirements: CFR 47, § 2.1053, § 22.917 and § 90.210.

8.2 Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB = $10 \lg(\text{TXpwr in Watts}/0.001)$ – the absolute level

Spurious attenuation limit in dB = $43 + 10 \text{Log}_{10}(\text{power out in Watts})$

8.3 Test Equipment

CDI B100/200/300 Biconical Antennas
EMCO Bi-logcon Antenna
EMCO 3115 Horn Antenna
HP 8566B Spectrum Analyzer
Preamplifiers
HP8640 Generator
Non-radiating Load

8.4 Test Result

BDA-8087-80-Cell A+A':

Up-link:

Low Frequency: -12.6 dBm at 1650 MHz
Middle Frequency: -12.2 dBm at 1670 MHz
High Frequency: -12.8 dBm at 1690 MHz

Down-link:

Low Frequency: -12.5 dBm at 1740 MHz
Middle Frequency: -12.3 dBm at 1760 MHz
High Frequency: -12.3 dBm at 1780 MHz

BDA-8087-80-Cell B+B’:

Up-link:

Low Frequency: -12.4 dBm at 1670 MHz
Middle Frequency: -11.9 dBm at 1680 MHz
High Frequency: -12.8 dBm at 1690 MHz

Down-link:

Low Frequency: -12.6 dBm at 1760 MHz
Middle Frequency: -12.5 dBm at 1770 MHz
High Frequency: -13.3 dBm at 1780 MHz

BDA-8087-80-SMR800:

Up-link:

Low Frequency: -12.3 dBm at 1620 MHz
Middle Frequency: -12.1 dBm at 1630 MHz
High Frequency: -12.6 dBm at 1640 MHz

Down-link:

Low Frequency: -12.4 dBm at 1710 MHz
Middle Frequency: -12.2 dBm at 1720 MHz
High Frequency: -12.6 dBm at 1730 MHz

BDA-8087-80-SMR900:

Up-link:

Low Frequency: -12.6 dBm at 1794 MHz
High Frequency: -13.5 dBm at 1800 MHz

Down-link:

Low Frequency: -12.9 dBm at 1872 MHz
High Frequency: -13.6 dBm at 1878 MHz

BDA-8087-80-Cell A+A':

Up-Link, Low Channel at 825 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
825	122.3	90	1.5	v	825	26.9	v	0	0.3	26.6			
825	109.8	0	1.5	h	825	21.5	h	0	0.3	21.2			
1650	43.1	30	1.2	v	1650	-31.9	v	6.8	0.5	-25.6	-13	-12.6	
1650	40.7	110	1.5	h	1650	-33.7	h	6.8	0.5	-27.4	-13	-14.4	
2475	39.6	180	1.2	v	2475	-35.6	v	7.6	0.7	-28.7	-13	-15.7	
2475	36.3	270	1.5	h	2475	-36.8	h	7.6	0.7	-29.9	-13	-16.9	

Up-link, Mid. Channel at 835 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
835	122.5	0	1.5	v	835	26.9	v	0	0.3	26.6			
835	110.4	60	1.2	h	835	24.7	h	0	0.3	24.4			
1670	43.7	30	1.2	v	1670	-31.5	v	6.8	0.5	-25.2	-13	-12.2	
1670	41.1	110	1.5	h	1670	-33.6	h	6.8	0.5	-27.3	-13	-14.3	
2505	40.6	180	1.5	v	2505	-34.9	v	7.6	0.7	-28	-13	-15	
2505	37.6	230	1.2	h	2505	-36.5	h	7.6	0.7	-29.6	-13	-16.6	

Up-Link, High Channel at 845 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
845	121.8	120	1.5	v	845	24.8	v	0	0.3	24.5			
845	109.6	90	1.5	h	845	23.6	h	0	0.3	23.3			
1690	42.9	150	1.2	v	1690	-32.1	v	6.8	0.5	-25.8	-13	-12.8	
1690	40.8	180	1.2	h	1690	-34.5	h	6.8	0.5	-28.2	-13	-15.2	
2535	39.2	90	2	v	2535	-35.8	v	7.6	0.7	-28.9	-13	-15.9	
2535	36.4	0	1.5	h	2535	-37.1	h	7.6	0.7	-30.2	-13	-17.2	

Down-Link, Low Channel at 870 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
870	122.1	60	1.2	v	870	26.5	v	0	0.3	26.2		
870	109.7	90	1.5	h	870	23.5	h	0	0.3	23.2		
1740	43.1	0	1.2	v	1740	-31.8	v	6.8	0.5	-25.5	-13	-12.5
1740	40.5	120	1.5	h	1740	-33.9	h	6.8	0.5	-27.6	-13	-14.6
2610	39.6	230	1.2	v	2610	-35.8	v	7.6	0.7	-28.9	-13	-15.9
2610	36.2	150	1.3	h	2610	-37.1	h	7.6	0.7	-30.2	-13	-17.2

Down-Link, Mid. Channel at 880 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
880	122.3	30	1.5	v	880	27.3	v	0	0.3	27		
880	110.4	0	1.5	h	880	23.7	h	0	0.3	23.4		
1760	43.5	150	1.2	v	1760	-31.6	v	6.8	0.5	-25.3	-13	-12.3
1760	41	110	1.2	h	1760	-33.7	h	6.8	0.5	-27.4	-13	-14.4
2640	39.9	270	1.5	v	2640	-35.5	v	7.6	0.7	-28.6	-13	-15.6
2640	37.6	230	1.2	h	2640	-36.6	h	7.6	0.7	-29.7	-13	-16.7

Down-Link, High Channel at 890 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
890	121.5	150	1.2	v	890	25.3	v	0	0.3	25		
890	109.2	180	1.5	h	890	24.1	h	0	0.3	23.8		
1780	42.3	0	1.2	v	1780	-32.6	v	6.8	0.5	-26.3	-13	-13.3
1780	40.8	30	1.2	h	1780	-33.9	h	6.8	0.5	-27.6	-13	-14.6
2670	38.7	210	2	v	2670	-35.2	v	7.6	0.7	-28.3	-13	-15.3
2670	36.1	250	1.2	h	2670	-37.9	h	7.6	0.7	-31	-13	-18

BDA-8087-80-Cell B+B':

Up-Link, Low Channel at 835 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
835	122.1	210	1.2	v	835	27.2	v	0	0.3	26.9			
835	110.3	180	1.5	h	835	24.6	h	0	0.3	24.3			
1670	43.5	0	1.2	v	1670	-31.7	v	6.8	0.5	-25.4	-13	-12.4	
1670	40.7	15	1.2	h	1670	-33.7	h	6.8	0.5	-27.4	-13	-14.4	
2505	39.6	180	1.5	v	2505	-35.9	v	7.6	0.7	-29	-13	-16	
2505	36.3	150	1.5	h	2505	-36.8	h	7.6	0.7	-29.9	-13	-16.9	

Up-link, Mid. Channel at 840 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
840	122.5	110	1.5	v	840	27.3	v	0	0.3	27			
840	110.7	90	1.5	h	840	25.1	h	0	0.3	24.8			
1680	43.6	30	1.2	v	1680	-31.2	v	6.8	0.5	-24.9	-13	-11.9	
1680	41.1	0	1.5	h	1680	-33.6	h	6.8	0.5	-27.3	-13	-14.3	
2520	40.6	120	1.5	v	2520	-34.8	v	7.6	0.7	-27.9	-13	-14.9	
2520	37.2	230	1.2	h	2520	-36.7	h	7.6	0.7	-29.8	-13	-16.8	

Up-Link, High Channel at 845 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
845	120.9	150	1.2	v	845	25.2	v	0	0.3	24.9			
845	109.7	120	1.5	h	845	24.3	h	0	0.3	24			
1690	42.5	150	1.2	v	1690	-32.1	v	6.8	0.5	-25.8	-13	-12.8	
1690	40.8	180	1.2	h	1690	-34.4	h	6.8	0.5	-28.1	-13	-15.1	
2535	39.1	90	2	v	2535	-36.2	v	7.6	0.7	-29.3	-13	-16.3	
2535	36.1	270	1.2	h	2535	-37.2	h	7.6	0.7	-30.3	-13	-17.3	

Down-Link, Low Channel at 870 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
880	122.1	60	1.2	v	880	26.7	v	0	0.3	26.4		
880	109.8	90	1.5	h	880	24.1	h	0	0.3	23.8		
1760	43.2	0	1.2	v	1760	-31.9	v	6.8	0.5	-25.6	-13	-12.6
1760	40.1	120	1.5	h	1760	-34.5	h	6.8	0.5	-28.2	-13	-15.2
2640	39.3	230	1.2	v	2640	-35.7	v	7.6	0.7	-28.8	-13	-15.8
2640	36.4	150	1.3	h	2640	-37	h	7.6	0.7	-30.1	-13	-17.1

Down-Link, Mid. Channel at 880 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
885	122.3	60	1.5	v	885	27.1	v	0	0.3	26.8		
885	110.4	30	1.2	h	885	24.9	h	0	0.3	24.6		
1770	43.9	150	1.2	v	1770	-31.8	v	6.8	0.5	-25.5	-13	-12.5
1770	41.1	180	1.5	h	1770	-33.4	h	6.8	0.5	-27.1	-13	-14.1
2655	39.9	270	1.5	v	2655	-34.7	v	7.6	0.7	-27.8	-13	-14.8
2655	37.6	230	1.2	h	2655	-36.6	h	7.6	0.7	-29.7	-13	-16.7

Down-Link, High Channel at 890 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
890	121.7	120	1.2	v	890	25.4	v	0	0.3	25.1		
890	109.3	90	1.5	h	890	24.2	h	0	0.3	23.9		
1780	42.1	330	1.2	v	1780	-32.6	v	6.8	0.5	-26.3	-13	-13.3
1780	40.8	30	1.2	h	1780	-33.9	h	6.8	0.5	-27.6	-13	-14.6
2670	38.7	210	2	v	2670	-35.2	v	7.6	0.7	-28.3	-13	-15.3
2670	36.1	270	1.2	h	2670	-37.2	h	7.6	0.7	-30.3	-13	-17.3

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Up-Link, Low Channel at 810 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
810	122.5	230	1.2	v	810	27.1	v	0	0.3	26.8			
810	110.4	90	1.5	h	810	24.8	h	0	0.3	24.5			
1620	43.6	0	1.2	v	1620	-31.6	v	6.8	0.5	-25.3	-13	-12.3	
1620	40.7	110	1.5	h	1620	-33.7	h	6.8	0.5	-27.4	-13	-14.4	
2430	39.8	180	1.2	v	2430	-35.2	v	7.6	0.7	-28.3	-13	-15.3	
2430	36.3	150	1	h	2430	-36.8	h	7.6	0.7	-29.9	-13	-16.9	

Up-link, Mid. Channel at 815 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
815	122.7	60	1.5	v	815	27.5	v	0	0.3	27.2			
815	110.9	90	1.5	h	815	25.6	h	0	0.3	25.3			
1630	43.8	30	1.2	v	1630	-31.4	v	6.8	0.5	-25.1	-13	-12.1	
1630	41.2	110	1.5	h	1630	-33.2	h	6.8	0.5	-26.9	-13	-13.9	
2445	40.6	120	1.5	v	2445	-34.8	v	7.6	0.7	-27.9	-13	-14.9	
2445	37.7	230	1.2	h	2445	-36.5	h	7.6	0.7	-29.6	-13	-16.6	

Up-Link, High Channel at 820 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
820	122.1	150	1.2	v	820	25.6	v	0	0.3	25.3			
820	109.8	0	1	h	820	24.8	h	0	0.3	24.5			
1640	42.7	150	1.2	v	1640	-31.9	v	6.8	0.5	-25.6	-13	-12.6	
1640	41.1	180	1.2	h	1640	-34.1	h	6.8	0.5	-27.8	-13	-14.8	
2460	39.2	90	2	v	2460	-35.8	v	7.6	0.7	-28.9	-13	-15.9	
2460	36.1	270	1.2	h	2460	-37.2	h	7.6	0.7	-30.3	-13	-17.3	

Down-Link, Low Channel at 855 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
855	122.3	60	1.2	v	855	26.9	v	0	0.3	26.6		
855	110.2	90	1.5	h	855	24.6	h	0	0.3	24.3		
1710	43.3	0	1.2	v	1710	-31.7	v	6.8	0.5	-25.4	-13	-12.4
1710	40.5	120	1.5	h	1710	-33.9	h	6.8	0.5	-27.6	-13	-14.6
2565	39.7	230	1.2	v	2565	-35.6	v	7.6	0.7	-28.7	-13	-15.7
2565	36.2	150	1.3	h	2565	-37.1	h	7.6	0.7	-30.2	-13	-17.2

Down-Link, Mid. Channel at 860 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
860	122.5	60	1.5	v	860	27.3	v	0	0.3	27		
860	110.7	0	1.5	h	860	25.4	h	0	0.3	25.1		
1720	43.7	150	1.2	v	1720	-31.5	v	6.8	0.5	-25.2	-13	-12.2
1720	41.1	110	1.5	h	1720	-33.4	h	6.8	0.5	-27.1	-13	-14.1
2580	40.5	170	1.5	v	2580	-35.1	v	7.6	0.7	-28.2	-13	-15.2
2580	37.6	230	1.2	h	2580	-36.6	h	7.6	0.7	-29.7	-13	-16.7

Down-Link, High Channel at 865 MHz

EUT					Generator						Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm
865	121.8	150	1.5	v	865	25.5	v	0	0.3	25.2		
865	109.4	90	1.5	h	865	24.5	h	0	0.3	24.2		
1730	42.5	0	1.2	v	1730	-32.4	v	6.8	0.5	-26.1	-13	-13.1
1730	41	30	1.2	h	1730	-33.7	h	6.8	0.5	-27.4	-13	-14.4
2595	38.7	210	2	v	2595	-35.2	v	7.6	0.7	-28.3	-13	-15.3
2595	35.9	270	1.2	h	2595	-37.8	h	7.6	0.7	-30.9	-13	-17.9

BDA-8087-80-SMR900:

Up-Link, Low Channel at 897 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
897	121.9	150	1.2	v	897	26.8	v	0	0.3	26.5			
897	110.1	180	1.5	h	897	24.5	h	0	0.3	24.2			
1794	43.2	0	1.2	v	1794	-31.9	v	6.8	0.5	-25.6	-13	-12.6	
1794	40.5	15	1.2	h	1794	-33.8	h	6.8	0.5	-27.5	-13	-14.5	
2691	39.2	210	1.5	v	2691	-35.5	v	7.6	0.7	-28.6	-13	-15.6	
2691	36.1	230	1.5	h	2691	-37.2	h	7.6	0.7	-30.3	-13	-17.3	

Up-link, High Channel at 900 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
900	120.7	90	1.5	v	900	25.1	v	0	0.3	24.8			
900	109.5	120	1.2	h	900	24.2	h	0	0.3	23.9			
1800	42.1	150	1.2	v	1800	-32.8	v	6.8	0.5	-26.5	-13	-13.5	
1800	40.7	180	1.2	h	1800	-34.9	h	6.8	0.5	-28.6	-13	-15.6	
2700	39	90	2	v	2700	-36.5	v	7.6	0.7	-29.6	-13	-16.6	
2700	36.4	270	1.5	h	2700	-37.1	h	7.6	0.7	-30.2	-13	-17.2	

Down-Link, Low Channel at 936 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
936	121.4	15	1.2	v	936	26.3	v	0	0.3	26			
936	109.5	0	1.2	h	936	24	h	0	0.3	23.7			
1872	43.1	90	1.5	v	1872	-32.2	v	6.8	0.5	-25.9	-13	-12.9	
1872	40	120	1.5	h	1872	-34.7	h	6.8	0.5	-28.4	-13	-15.4	
2808	39.1	230	1.2	v	2808	-36.1	v	7.6	0.7	-29.2	-13	-16.2	
2808	36.2	150	1.3	h	2808	-37.3	h	7.6	0.7	-30.4	-13	-17.4	

Down-Link, High Channel at 939 MHz

EUT					Generator							Standard	
Indicated		Table	Test Antenna		Substitution			Antenna	Cable	Absolute	FCC	FCC	
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Corrected	Loss dBm	Level dB	Limit dBm	Margin DBm	
939	121.4	180	1.5	v	939	25	v	0	0.3	24.7			
939	109.2	210	1.5	h	939	24.1	h	0	0.3	23.8			
1878	41.8	0	1.2	v	1878	-32.9	v	6.8	0.5	-26.6	-13	-13.6	
1878	40.6	30	1.2	h	1878	-34.2	h	6.8	0.5	-27.9	-13	-14.9	
2817	38.5	210	2	v	2817	-35.9	v	7.6	0.7	-29	-13	-16	
2817	36	230	1.2	h	2817	-37.5	h	7.6	0.7	-30.6	-13	-17.6	

9 – BAND EDGE TEST

9.1 Applicable Standards

According to FCC §2.1049 and §22.917(b), when measuring the emission limits, carrier frequency shall be adjusted as close to the frequency block edges, both upper and lower.

9.2 Test Procedure

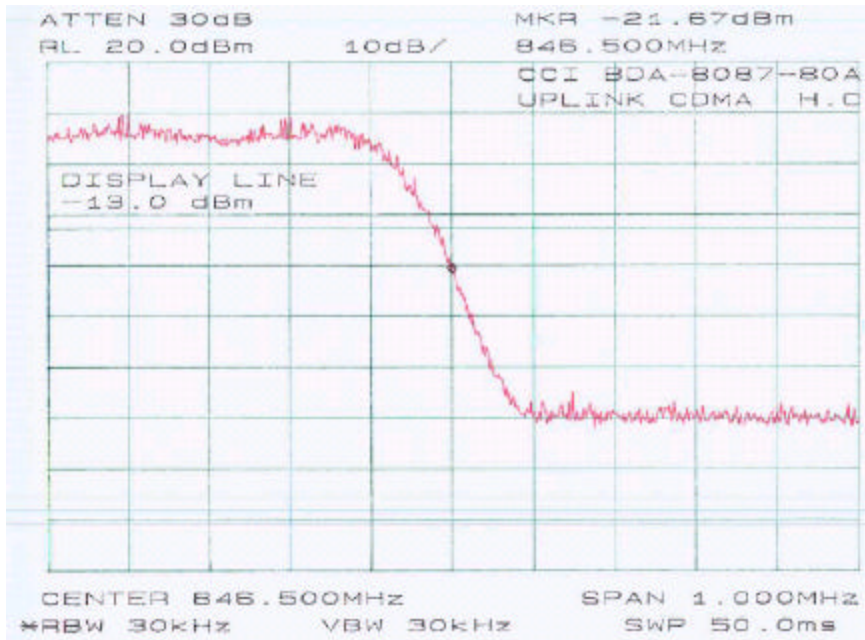
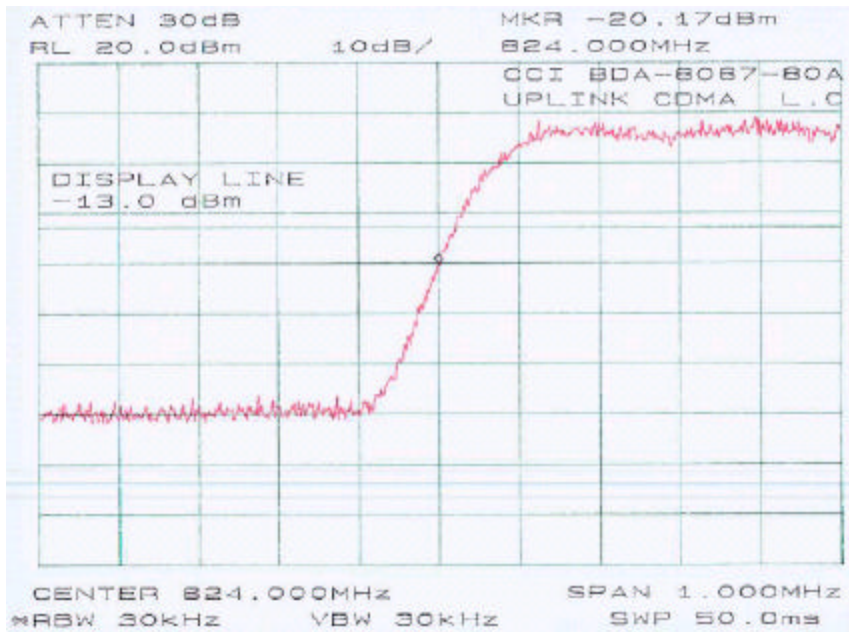
The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. Adjust the carrier frequency as close to the frequency block edges both upper and lower. Sufficient scans were taken to show any out of band-edge emission.

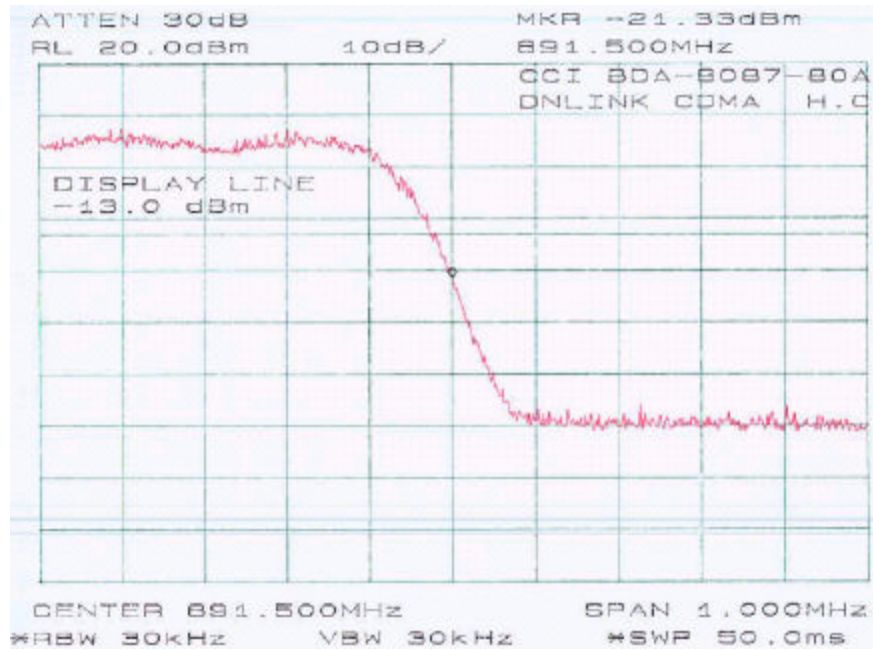
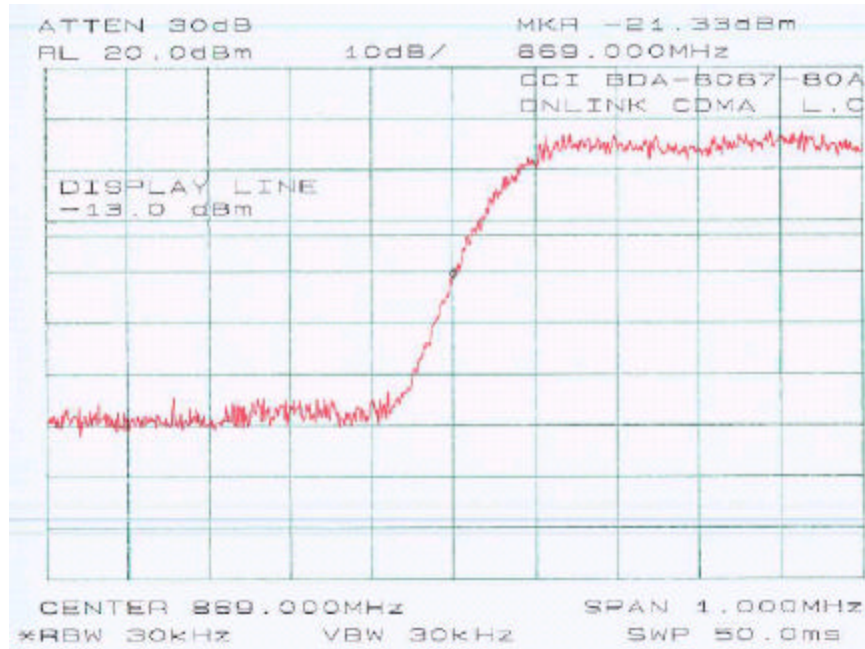
9.3 Test Equipment

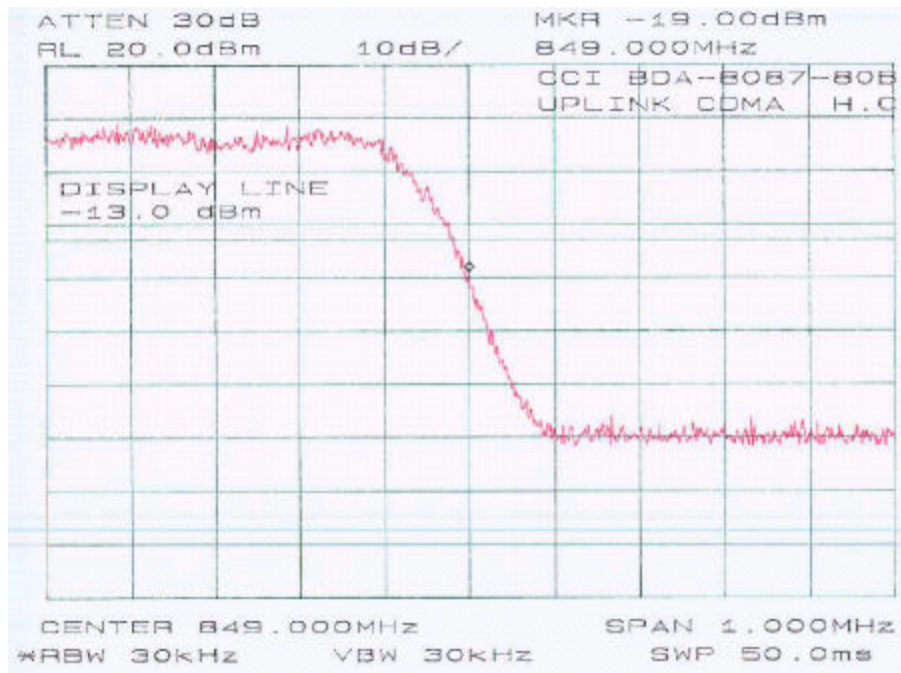
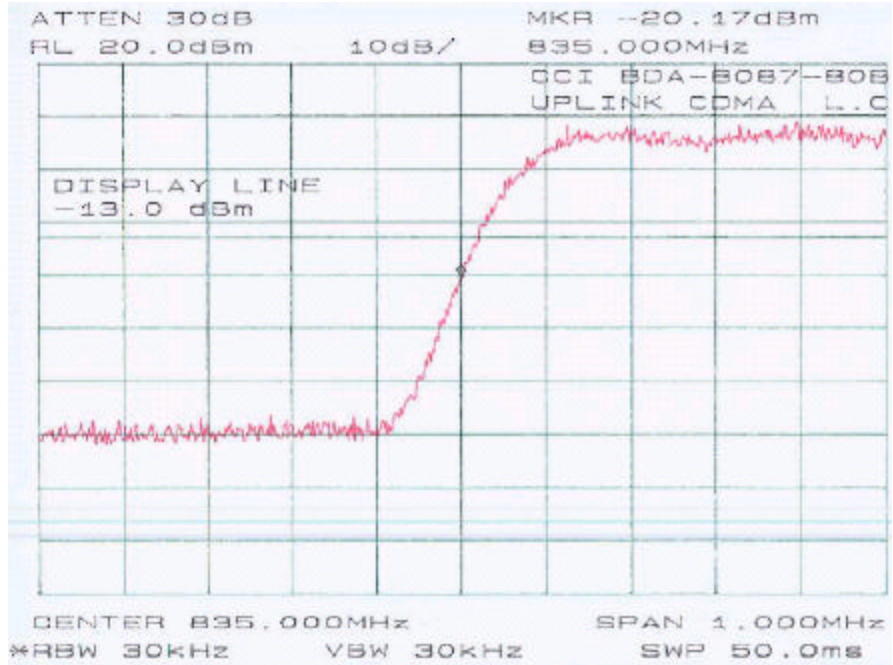
Hewlett Packard HP8566B Spectrum Analyzer
Hewlett Packard HP 7470A Plotter
Rohde & Schwarz SMIQ03B Signal Generator
Rohde & Schwarz AMIQ I/Q Modulation Generator

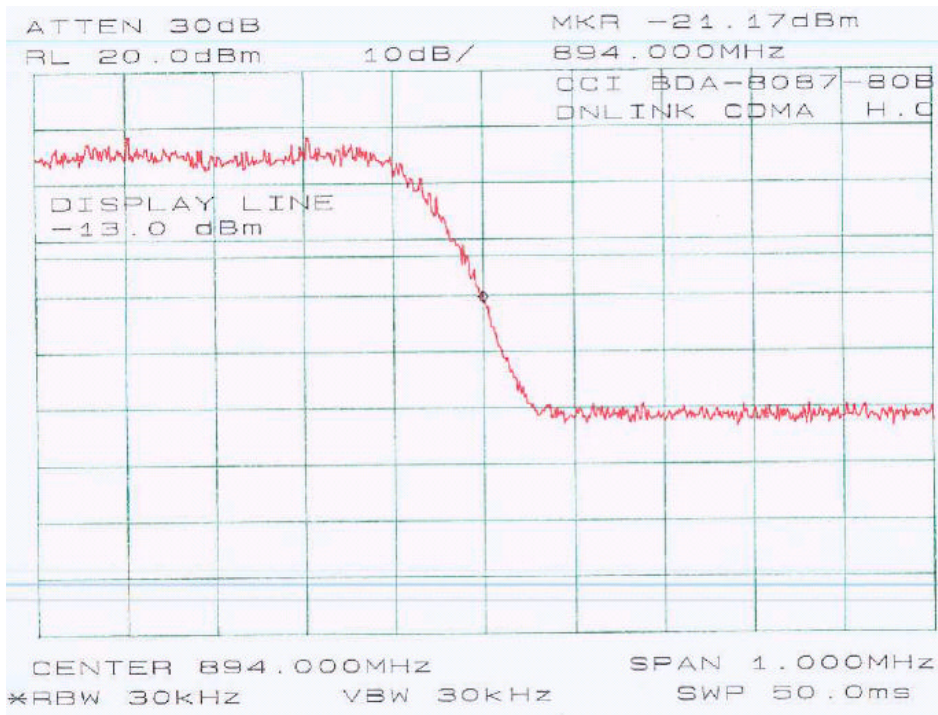
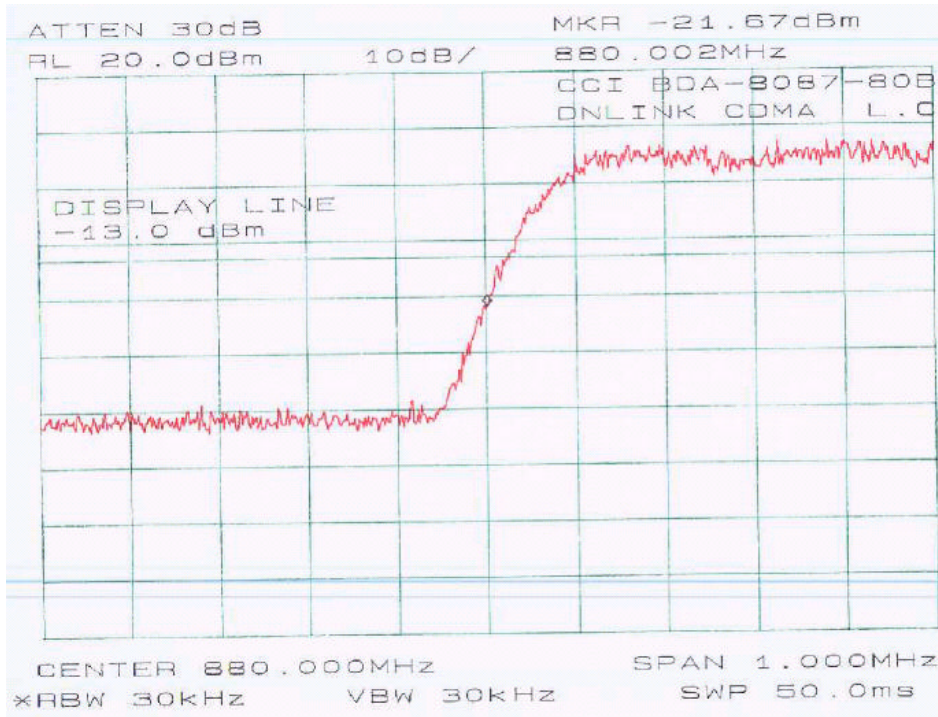
9.4 Plots of Out-of-Band-Edge Emissions at Antenna Terminal

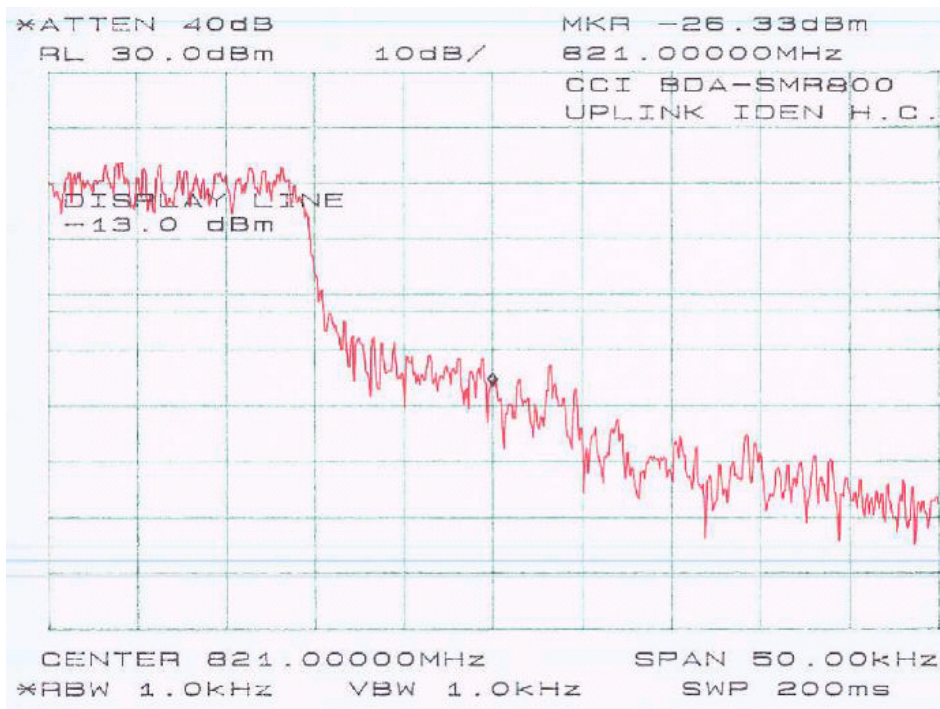
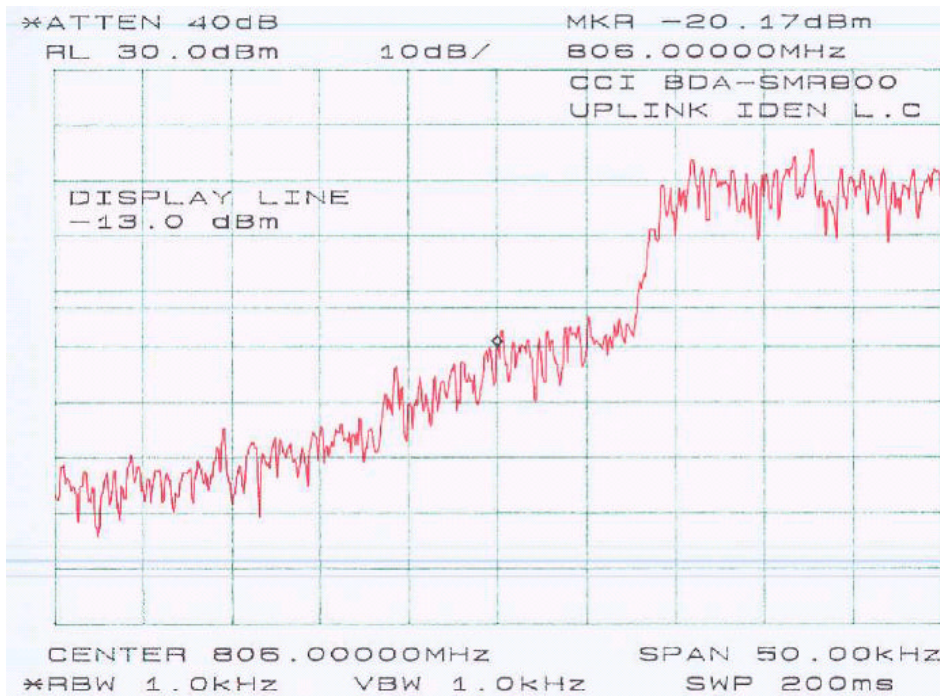
Please refer to plots hereinafter.

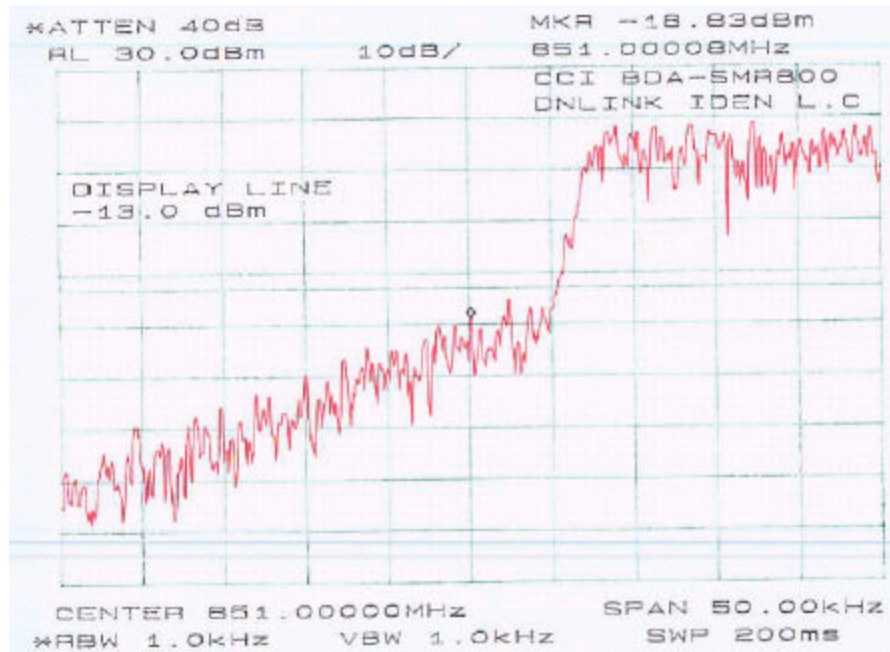
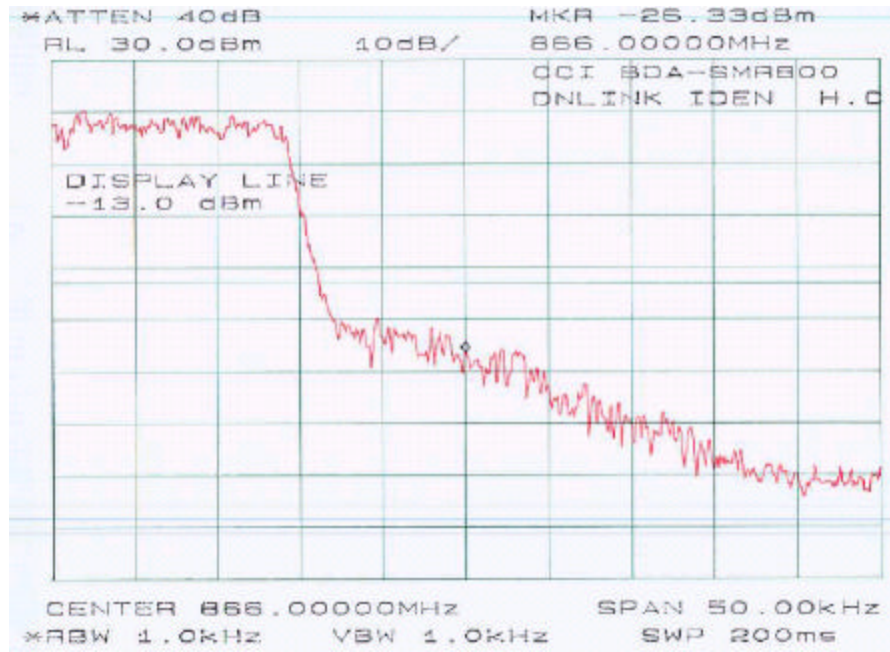


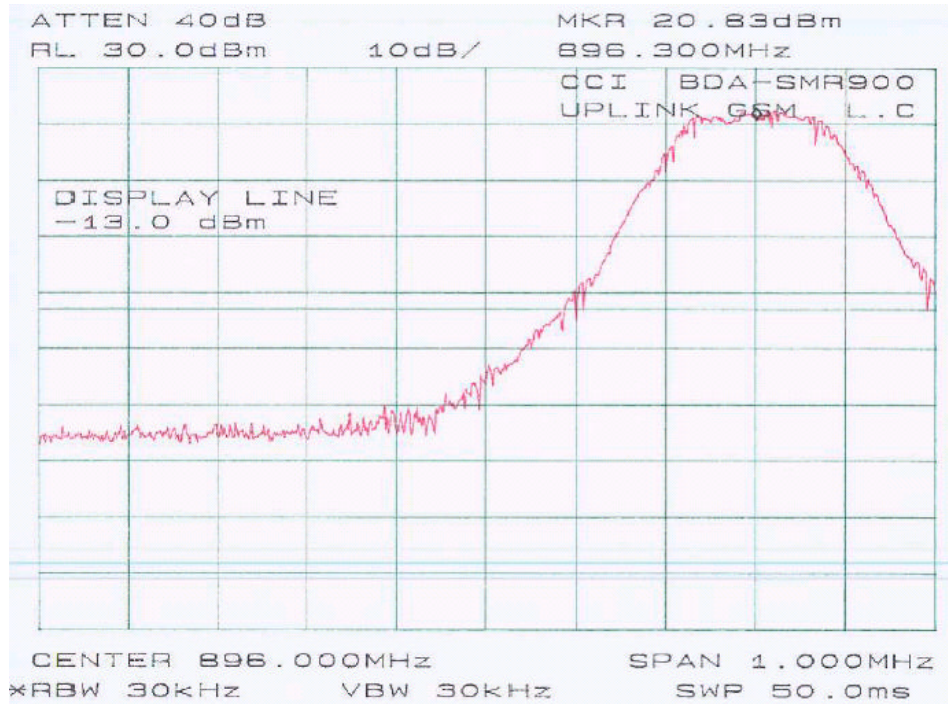
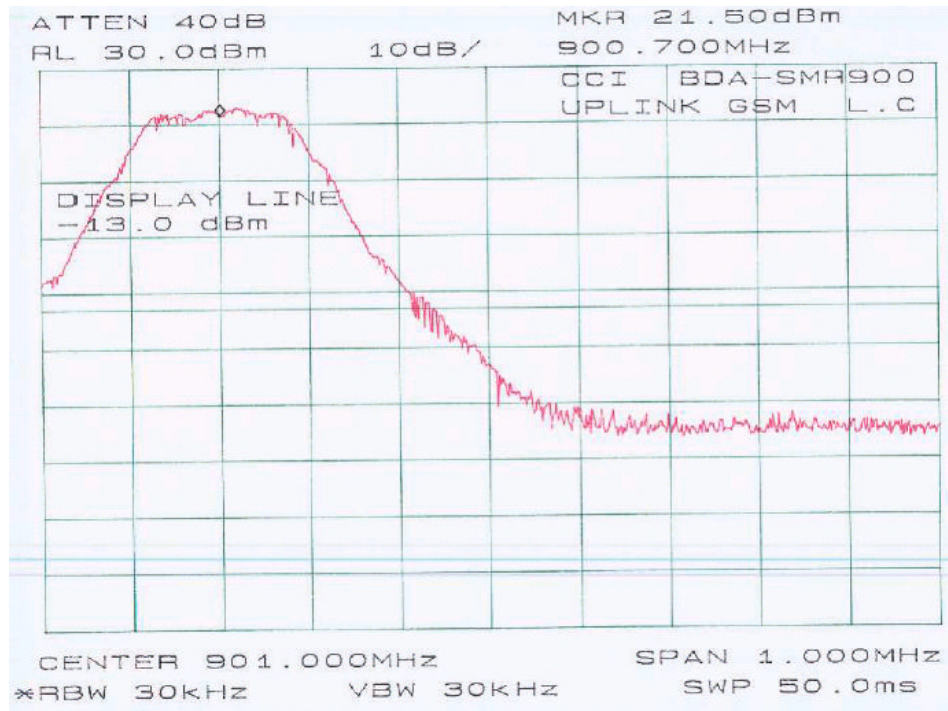


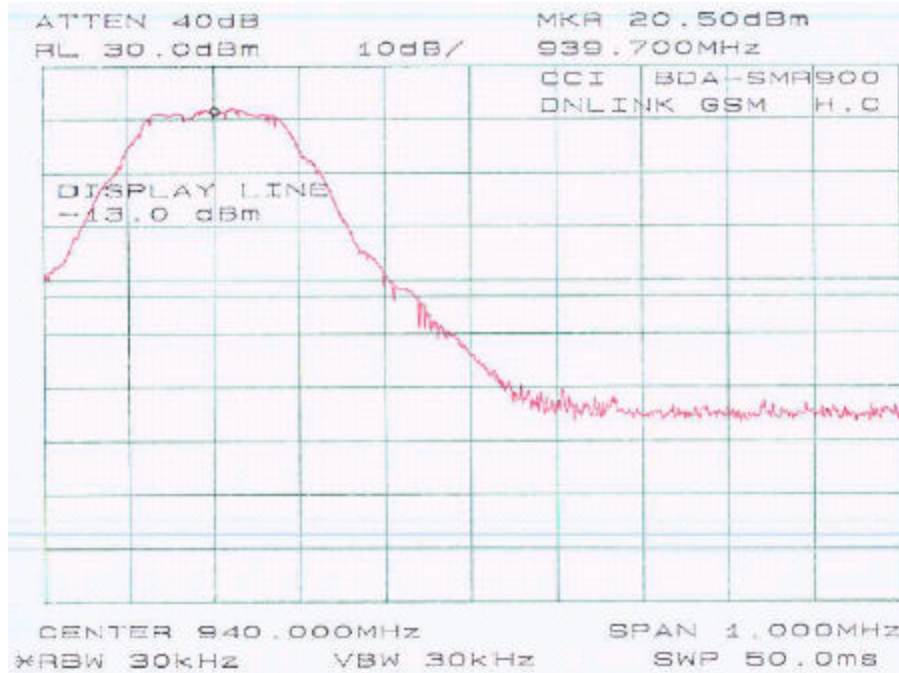
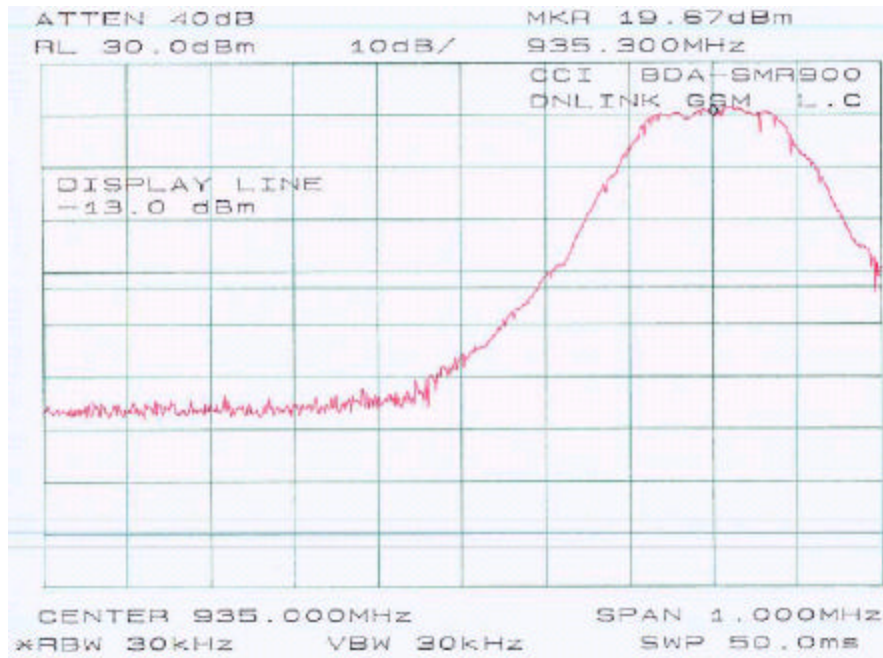












10 – Modulation Characteristics

This EUT only is an amplifier, it is not a transmitter. There is no modulating circuit in the EUT and no modulating characteristics measurement required.

11 - FREQUENCY STABILITY

This EUT only is an amplifier, it is not a transmitter. There is no oscillator circuit in the EUT, and no frequency stability measurement required.

12 - CONDUCTED EMISSION

Not Applicable.