RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Spurious Radiated Emissions (ERP) 30 MHz to 20.0 GHz		
Customer:	Cellular Specialties, Inc.	Job No:	R-4023N
Test Sample:	Bidirectional Amplifier		
Model No:	610 PCS	Serial No:	n/a
Test Specification:	FCC Part 2.1053/90.209 Paragraph: n/a		
Operating Mode:	Amplifying input signal		
Technician:	T. Firkowski	Date:	12/18/02
Notes:	Uplink Frequency Range: 1850 - 1910 MHz Tested at 1857.5 MHz CDMA Modulation Peak Detector		

Test Frequency	Antenna Position	Reference Reading	Signal Gen Level	Reference Ant Gain					Corrected Reading	Spurious Limit
MHz	(H/V) - Height	dBuV	dBm	dBI					dBm	dBm
30.00	-	-	-	-					-	-13.00
I	-	-	-	-					-	I
45.06	V-1m	23.2	-60.0	1.64					-58.36	I
51.48	V-1m	24.6	-63.0	1.64					-61.36	I
55.77	V-1m	27.9	-54.5	1.64					-52.86	I
57.93	V-1m	25.6	-56.0	1.64					-54.36	I
84.19	V-1m	26.0	-54.80	1.64					-53.16	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
20000.00	-	-	-	-					-	-13.00

EUT emissions observed throughout the given frequency spectrum were recorded & evaluated. Emission levels closest to the limit are listed on this data sheet.

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Spurious Radiated Emissions (ERP) 30 MHz to 20.0 GHz		
Customer:	Cellular Specialties, Inc.	Job No:	R-4023N
Test Sample:	Bidirectional Amplifier		
Model No:	610 PCS	Serial No:	n/a
Test Specification:	FCC Part 2.1053/90.209 Paragraph: n/a		
Operating Mode:	Amplifying input signal		
Technician:	T. Firkowski	Date:	12/18/02
Notes:	Downlink Frequency Range: 1930 - 1990 MHz Tested at 1937.5 MHz CDMA Modulation Peak Detector		

Test Frequency	Antenna Position	Reference Reading	Signal Gen Level	Reference Ant Gain					Corrected Reading	Spurious Limit
MHz	(H/V) - Height	dBuV	dBm	dBI					dBm	dBm
30.00	-	-	-	-					-	-13.00
I	-	-	-	-					-	I
55.39	28.7	-54.5	-60.0	1.64					-58.36	I
83.73	27.2	-56.0	-54.5	1.64					-52.86	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
20000.00	-	-	-	-					-	-13.00

EUT emissions observed throughout the given frequency spectrum were recorded & evaluated. Emission levels closest to the limit are listed on this data sheet.

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Spurious Radiated Emissions (ERP) 30 MHz to 20.0 GHz		
Customer:	Cellular Specialties, Inc.	**Job No:**	R-4023N
Test Sample:	Bidirectional Amplifier		
Model No:	610 PCS	**Serial No:**	n/a
Test Specification:	FCC Part 2.1053/90.209 Paragraph: n/a		
Operating Mode:	Amplifying input signal		
Technician:	T. Firkowski	**Date:**	12/18/02
Notes:	Uplink Frequency Range: 1850 - 1910 MHz Tested at 1857.5 MHz GSM Modulation Peak Detector		

Test Frequency	Antenna Position	Reference Reading	Signal Gen Level	Reference Ant Gain					Corrected Reading	Spurious Limit
MHz	(H/V) - Height	dBuV	dBm	dBI					dBm	dBm
30.00	-	-	-	-					-	-13.00
I	-	-	-	-					-	I
45.06	V-1m	23.2	-60.0	1.64					-58.36	I
51.48	V-1m	24.6	-63.0	1.64					-61.36	I
55.77	V-1m	27.9	-54.5	1.64					-52.86	I
57.93	V-1m	25.6	-56.0	1.64					-54.36	I
84.19	V-1m	26.0	-54.80	1.64					-53.16	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
20000.00	-	-	-	-					-	-13.00

EUT emissions observed throughout the given frequency spectrum were recorded & evaluated. Emission levels closest to the limit are listed on this data sheet.

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Spurious Radiated Emissions (ERP) 30 MHz to 20.0 GHz		
Customer:	Cellular Specialties, Inc.	Job No:	R-4023N
Test Sample:	Bidirectional Amplifier		
Model No:	610 PCS	Serial No:	n/a
Test Specification:	FCC Part 2.1053/90.209 Paragraph: n/a		
Operating Mode:	Amplifying input signal		
Technician:	T. Firkowski	Date:	12/18/02
Notes:	Downlink Frequency Range: 1930 - 1990 MHz Tested at 1937.5 MHz GSM Modulation Peak Detector		

Test Frequency	Antenna Position	Reference Reading	Signal Gen Level	Reference Ant Gain					Corrected Reading	Spurious Limit
MHz	(H/V) - Height	dBuV	dBm	dBI					dBm	dBm
30.00	-	-	-	-					-	-13.00
I	-	-	-	-					-	I
55.39	28.7	-54.5	-60.0	1.64					-58.36	I
83.73	27.2	-56.0	-54.5	1.64					-52.86	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
20000.00	-	-	-	-					-	-13.00

EUT emissions observed throughout the given frequency spectrum were recorded & evaluated. Emission levels closest to the limit are listed on this data sheet.

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Spurious Radiated Emissions (ERP) 30 MHz to 20.0 GHz		
Customer:	Cellular Specialties, Inc.	**Job No:**	R-4023N
Test Sample:	Bidirectional Amplifier		
Model No:	610 PCS	**Serial No:**	n/a
Test Specification:	FCC Part 2.1053/90.209 Paragraph: n/a		
Operating Mode:	Amplifying input signal		
Technician:	T. Firkowski	**Date:**	12/18/02
Notes:	Uplink Frequency Range: 1850 - 1910 MHz Tested at 1857.5 MHz TDMA Modulation Peak Detector		

Test Frequency	Antenna Position	Reference Reading	Signal Gen Level	Reference Ant Gain					Corrected Reading	Spurious Limit
MHz	(H/V) - Height	dBuV	dBm	dBI					dBm	dBm
30.00	-	-	-	-					-	-13.00
I	-	-	-	-					-	I
45.06	V-1m	23.2	-60.0	1.64					-58.36	I
51.48	V-1m	24.6	-63.0	1.64					-61.36	I
55.77	V-1m	27.9	-54.5	1.64					-52.86	I
57.93	V-1m	25.6	-56.0	1.64					-54.36	I
84.19	V-1m	26.0	-54.80	1.64					-53.16	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
20000.00	-	-	-	-					-	-13.00

EUT emissions observed throughout the given frequency spectrum were recorded & evaluated. Emission levels closest to the limit are listed on this data sheet.

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Spurious Radiated Emissions (ERP) 30 MHz to 20.0 GHz		
Customer:	Cellular Specialties, Inc.	**Job No:**	R-4023N
Test Sample:	Bidirectional Amplifier		
Model No:	610 PCS	**Serial No:**	n/a
Test Specification:	FCC Part 2.1053/90.209 Paragraph: n/a		
Operating Mode:	Amplifying input signal		
Technician:	T. Firkowski	**Date:**	12/18/02
Notes:	Downlink Frequency Range: 1930 - 1990 MHz Tested at 1937.5 MHz TDMA Modulation Peak Detector		

Test Frequency	Antenna Position	Reference Reading	Signal Gen Level	Reference Ant Gain					Corrected Reading	Spurious Limit
MHz	(H/V) - Height	dBuV	dBm	dBI					dBm	dBm
30.00	-	-	-	-					-	-13.00
I	-	-	-	-					-	I
55.39	28.7	-54.5	-60.0	1.64					-58.36	I
83.73	27.2	-56.0	-54.5	1.64					-52.86	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
I	-	-	-	-					-	I
20000.00	-	-	-	-					-	-13.00

EUT emissions observed throughout the given frequency spectrum were recorded & evaluated. Emission levels closest to the limit are listed on this data sheet.