



# RADIATED EMISSIONS



Test Report #: WC506388 Run 1                      Test Area: LTS  
 EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005  
 EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C  
 Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa  
 Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

Page: 2 of 16

## List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)	DELTA2 -13dBm < 1GHz (Guideline)
1.974 GHz	49.1 Pk	3.9 / 27.91 / 49.7 / 0.0	31.21	H / 1.00 / 0	-51.02	n/a
2.017 GHz	50.85 Pk	3.9 / 28.06 / 49.57 / 0.0	33.23	H / 1.00 / 0	-49.0	n/a
2.103 GHz	50.2 Pk	3.93 / 28.17 / 49.4 / 0.0	32.9	H / 1.00 / 0	-49.33	n/a
2.189 GHz	51.1 Pk	4.05 / 28.28 / 49.42 / 0.0	34.01	H / 1.00 / 0	-48.22	n/a
2.317 GHz	47.3 Pk	4.21 / 28.45 / 49.02 / 0.0	30.94	H / 1.00 / 0	-51.29	n/a
2.488 GHz	50.95 Pk	4.36 / 28.68 / 49.1 / 0.0	34.88	H / 1.00 / 0	-47.35	n/a
2.661 GHz	46.7 Pk	4.45 / 29.13 / 48.38 / 0.0	31.91	H / 1.00 / 0	-50.32	n/a
2.703 GHz	50.3 Pk	4.48 / 29.24 / 48.25 / 0.0	35.77	H / 1.00 / 0	-46.46	n/a
2.746 GHz	48.8 Pk	4.5 / 29.36 / 48.26 / 0.0	34.4	H / 1.00 / 0	-47.83	n/a
2.875 GHz	48.15 Pk	4.63 / 29.71 / 48.46 / 0.0	34.04	H / 1.00 / 0	-48.19	n/a
1.03 GHz	66.0 Pk	2.79 / 25.01 / 48.96 / 0.0	44.84	H / 1.58 / 144	-37.39	n/a
1.116 GHz	63.05 Pk	2.9 / 25.13 / 49.52 / 0.0	41.56	H / 1.58 / 144	-40.67	n/a
1.124 GHz	61.15 Pk	2.91 / 25.14 / 49.53 / 0.0	39.67	H / 1.58 / 144	-42.56	n/a
1.159 GHz	67.0 Pk	2.96 / 25.18 / 49.59 / 0.0	45.55	H / 1.58 / 144	-36.68	n/a
1.202 GHz	70.6 Pk	3.01 / 25.24 / 49.65 / 0.0	49.2	H / 1.58 / 144	-33.03	n/a
1.223 GHz	53.45 Pk	3.03 / 25.27 / 49.54 / 0.0	32.21	H / 1.58 / 144	-50.02	n/a
1.287 GHz	65.5 Pk	3.11 / 25.36 / 49.21 / 0.0	44.76	H / 1.58 / 144	-37.47	n/a
1.33 GHz	61.2 Pk	3.15 / 25.41 / 49.28 / 0.0	40.49	H / 1.58 / 144	-41.74	n/a
1.373 GHz	60.85 Pk	3.2 / 25.47 / 49.48 / 0.0	40.04	H / 1.58 / 144	-42.19	n/a
1.459 GHz	56.45 Pk	3.38 / 25.59 / 49.73 / 0.0	35.68	H / 1.58 / 144	-46.55	n/a
1.502 GHz	55.45 Pk	3.43 / 25.65 / 49.81 / 0.0	34.72	H / 1.58 / 144	-47.51	n/a
1.631 GHz	61.75 Pk	3.55 / 26.27 / 49.58 / 0.0	41.99	H / 1.58 / 144	-40.24	n/a
1.674 GHz	58.8 Pk	3.59 / 26.47 / 49.7 / 0.0	39.16	H / 1.58 / 144	-43.07	n/a
1.717 GHz	57.0 Pk	3.65 / 26.68 / 49.75 / 0.0	37.57	H / 1.58 / 144	-44.66	n/a
1.888 GHz	67.55 Pk	3.86 / 27.5 / 49.93 / 0.0	48.98	H / 1.58 / 144	-33.25	n/a
1.931 GHz	60.65 Pk	3.89 / 27.7 / 49.86 / 0.0	42.39	H / 1.58 / 144	-39.84	n/a

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# RADIATED EMISSIONS



Test Report #: WC506388 Run 1                      Test Area: LTS  
 EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005  
 EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C  
 Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa  
 Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

Page: 3 of 16

## List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)	DELTA2 -13dBm < 1GHz (Guideline)
1.974 GHz	57.2 Pk	3.9 / 27.91 / 49.7 / 0.0	39.31	H / 1.58 / 144	-42.92	n/a
2.017 GHz	52.65 Pk	3.9 / 28.06 / 49.57 / 0.0	35.03	H / 1.58 / 144	-47.2	n/a
2.317 GHz	62.65 Pk	4.21 / 28.45 / 49.02 / 0.0	46.29	H / 1.58 / 144	-35.94	n/a
2.661 GHz	57.5 Pk	4.45 / 29.13 / 48.38 / 0.0	42.71	H / 1.58 / 144	-39.52	n/a
2.703 GHz	54.55 Pk	4.48 / 29.24 / 48.25 / 0.0	40.02	H / 1.58 / 144	-42.21	n/a
2.746 GHz	55.75 Pk	4.5 / 29.36 / 48.26 / 0.0	41.35	H / 1.58 / 144	-40.88	n/a
2.875 GHz	53.6 Pk	4.63 / 29.71 / 48.46 / 0.0	39.49	H / 1.58 / 144	-42.74	n/a
2.918 GHz	50.35 Pk	4.68 / 29.83 / 48.45 / 0.0	36.41	H / 1.58 / 144	-45.82	n/a
3.004 GHz	48.0 Pk	4.76 / 30.06 / 48.08 / 0.0	34.74	H / 1.58 / 144	-47.49	n/a
3.259 GHz	47.1 Pk	4.99 / 30.6 / 47.57 / 0.0	35.13	H / 1.58 / 144	-47.1	n/a
3.433 GHz	51.3 Pk	5.19 / 30.97 / 47.31 / 0.0	40.15	H / 1.58 / 144	-42.08	n/a
3.823 GHz	49.0 Pk	5.66 / 31.94 / 46.24 / 0.0	40.35	H / 1.58 / 144	-41.88	n/a
3.952 GHz	48.3 Pk	5.8 / 32.26 / 46.25 / 0.0	40.11	H / 1.58 / 144	-42.12	n/a
5.734 GHz	51.6 Pk	6.94 / 34.21 / 45.52 / 0.0	47.23	H / 1.58 / 144	-35.0	n/a
1.201 GHz maxed:						
1.202 GHz	75.2 Pk	3.01 / 25.24 / 49.65 / 0.0	53.8	H / 1.58 / 144	-28.43	n/a
1.03 GHz	69.85 Pk	2.79 / 25.01 / 48.96 / 0.0	48.69	H / 1.58 / 144	-33.54	n/a
1.073 GHz	61.45 Pk	2.84 / 25.07 / 49.28 / 0.0	40.08	H / 1.58 / 144	-42.15	n/a
1.094 GHz	54.35 Pk	2.87 / 25.1 / 49.45 / 0.0	32.87	H / 1.58 / 144	-49.36	n/a
1.223 GHz	59.3 Pk	3.03 / 25.27 / 49.54 / 0.0	38.06	H / 1.58 / 144	-44.17	n/a
1.33 GHz	63.4 Pk	3.15 / 25.41 / 49.28 / 0.0	42.69	H / 1.58 / 144	-39.54	n/a
1.373 GHz	64.55 Pk	3.2 / 25.47 / 49.48 / 0.0	43.74	H / 1.58 / 144	-38.49	n/a
1.459 GHz	64.75 Pk	3.38 / 25.59 / 49.73 / 0.0	43.98	H / 1.58 / 144	-38.25	n/a
1.545 GHz	58.5 Pk	3.47 / 25.85 / 49.67 / 0.0	38.15	H / 1.58 / 144	-44.08	n/a
1.717 GHz	59.2 Pk	3.65 / 26.68 / 49.75 / 0.0	39.77	H / 1.58 / 144	-42.46	n/a

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Test Report #: WC506388 Run 1                      Test Area: LTS  
 EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005  
 EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C  
 Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa  
 Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

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## List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)	DELTA2 -13dBm < 1GHz (Guideline)
1.025 GHz	57.7 Pk	2.78 / 25.0 / 48.92 / 0.0	36.57	V / 1.10 / 139	-45.66	n/a
1.033 GHz	59.05 Pk	2.79 / 25.02 / 48.98 / 0.0	37.88	V / 1.10 / 139	-44.35	n/a
1.038 GHz	59.45 Pk	2.8 / 25.02 / 49.02 / 0.0	38.25	V / 1.10 / 139	-43.98	n/a
1.121 GHz	57.65 Pk	2.91 / 25.13 / 49.53 / 0.0	36.17	V / 1.10 / 139	-46.06	n/a
1.156 GHz	56.3 Pk	2.95 / 25.18 / 49.59 / 0.0	34.85	V / 1.10 / 139	-47.38	n/a
1.244 GHz	67.5 Pk	3.06 / 25.3 / 49.43 / 0.0	46.43	V / 1.10 / 139	-35.8	n/a
1.416 GHz	57.15 Pk	3.29 / 25.53 / 49.64 / 0.0	36.32	V / 1.10 / 139	-45.91	n/a
1.502 GHz	57.95 Pk	3.43 / 25.65 / 49.81 / 0.0	37.22	V / 1.10 / 139	-45.01	n/a
1.545 GHz	68.5 Pk	3.47 / 25.85 / 49.67 / 0.0	48.15	V / 1.10 / 139	-34.08	n/a
1.588 GHz	55.8 Pk	3.51 / 26.06 / 49.53 / 0.0	35.84	V / 1.10 / 139	-46.39	n/a
1.631 GHz	59.65 Pk	3.55 / 26.27 / 49.58 / 0.0	39.89	V / 1.10 / 139	-42.34	n/a
1.759 GHz	62.7 Pk	3.72 / 26.88 / 49.69 / 0.0	43.61	V / 1.10 / 139	-38.62	n/a
1.802 GHz	62.3 Pk	3.79 / 27.09 / 49.65 / 0.0	43.53	V / 1.10 / 139	-38.7	n/a
1.794 GHz	61.2 Pk	3.77 / 27.05 / 49.65 / 0.0	42.38	V / 1.10 / 139	-39.85	n/a
1.824 GHz	60.8 Pk	3.81 / 27.19 / 49.72 / 0.0	42.08	V / 1.10 / 139	-40.15	n/a
1.843 GHz	61.55 Pk	3.82 / 27.28 / 49.78 / 0.0	42.87	V / 1.10 / 139	-39.36	n/a
1.931 GHz	63.0 Pk	3.89 / 27.7 / 49.86 / 0.0	44.74	V / 1.10 / 139	-37.49	n/a
1.974 GHz	63.55 Pk	3.9 / 27.91 / 49.7 / 0.0	45.66	V / 1.10 / 139	-36.57	n/a
2.403 GHz	56.85 Pk	4.31 / 28.56 / 49.4 / 0.0	40.32	V / 1.10 / 139	-41.91	n/a
2.446 GHz	61.95 Pk	4.33 / 28.62 / 49.25 / 0.0	45.65	V / 1.10 / 139	-36.58	n/a
2.489 GHz	58.4 Pk	4.36 / 28.68 / 49.1 / 0.0	42.34	V / 1.10 / 139	-39.89	n/a
2.532 GHz	56.55 Pk	4.38 / 28.78 / 48.9 / 0.0	40.81	V / 1.10 / 139	-41.42	n/a
2.698 GHz	57.5 Pk	4.48 / 29.23 / 48.26 / 0.0	42.95	V / 1.10 / 139	-39.28	n/a
2.832 GHz	55.2 Pk	4.59 / 29.59 / 48.35 / 0.0	41.03	V / 1.10 / 139	-41.2	n/a
3.133 GHz	48.7 Pk	4.88 / 30.33 / 47.23 / 0.0	36.68	V / 1.10 / 139	-45.55	n/a
3.218 GHz	50.15 Pk	4.96 / 30.51 / 47.65 / 0.0	37.98	V / 1.10 / 139	-44.25	n/a

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# RADIATED EMISSIONS



Test Report #: WC506388 Run 1                      Test Area: LTS  
 EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005  
 EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C  
 Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa  
 Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

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## List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)	DELTA2 -13dBm < 1GHz (Guideline)
2.445 GHz maxed:						
2.446 GHz	70.55 Pk	4.33 / 28.62 / 49.25 / 0.0	54.25	V / 1.36 / 176	-27.98	n/a
1.974 GHz	65.3 Pk	3.9 / 27.91 / 49.7 / 0.0	47.41	V / 1.36 / 176	-34.82	n/a
1.094 GHz	58.95 Pk	2.87 / 25.1 / 49.45 / 0.0	37.47	H / 1.36 / 176	-44.76	n/a
3.823 GHz	53.8 Pk	5.66 / 31.94 / 46.24 / 0.0	45.15	H / 1.36 / 176	-37.08	n/a
894 MHz maxed:						
894.0 MHz	63.9 Qp	2.58 / 22.08 / 27.64 / 0.0	60.93	H / 1.19 / 123	n/a	-21.3
894.0 MHz	57.65 Qp	2.58 / 22.08 / 27.64 / 0.0	54.68	V / 1.19 / 123	n/a	-27.55
30.138 MHz	51.55 Qp	0.42 / 20.97 / 27.4 / 0.0	45.55	V / 1.19 / 123	n/a	-36.68
31.446 MHz	52.5 Qp	0.43 / 20.49 / 27.35 / 0.0	46.07	V / 1.19 / 123	n/a	-36.16
64.626 MHz	66.7 Qp	0.69 / 10.21 / 27.0 / 0.0	50.6	V / 1.19 / 123	n/a	-31.63
82.404 MHz	61.15 Qp	0.8 / 7.15 / 26.9 / 0.0	42.2	V / 1.19 / 123	n/a	-40.03
109.044 MHz	60.0 Qp	0.85 / 9.28 / 27.05 / 0.0	43.08	V / 1.19 / 123	n/a	-39.15
128.76 MHz	58.2 Qp	0.99 / 8.02 / 27.01 / 0.0	40.2	V / 1.19 / 123	n/a	-42.03
214.569 MHz	47.05 Qp	1.22 / 10.55 / 27.12 / 0.0	31.7	V / 1.19 / 123	n/a	-50.53
233.469 MHz	46.2 Qp	1.3 / 11.07 / 27.2 / 0.0	31.37	V / 1.19 / 123	n/a	-50.86
257.481 MHz	56.4 Qp	1.39 / 12.22 / 27.2 / 0.0	42.81	V / 1.19 / 123	n/a	-39.42
281.481 MHz	49.15 Qp	1.5 / 12.46 / 27.41 / 0.0	35.69	V / 1.19 / 123	n/a	-46.54
300.688 MHz	48.7 Qp	1.5 / 13.21 / 27.5 / 0.0	35.91	V / 1.19 / 123	n/a	-46.32
319.306 MHz	49.5 Qp	1.5 / 13.59 / 27.5 / 0.0	37.09	V / 1.19 / 123	n/a	-45.14
343.297 MHz	58.4 Qp	1.6 / 14.47 / 27.6 / 0.0	46.87	V / 1.19 / 123	n/a	-35.36
400.915 MHz	60.45 Qp	1.7 / 15.59 / 27.82 / 0.0	49.92	V / 1.19 / 123	n/a	-32.31
448.027 MHz	48.55 Qp	1.79 / 16.5 / 27.9 / 0.0	38.94	V / 1.19 / 123	n/a	-43.29
501.139 MHz	52.75 Qp	1.9 / 17.61 / 27.95 / 0.0	44.32	V / 1.19 / 123	n/a	-37.91
514.936 MHz	47.35 Qp	1.9 / 17.9 / 27.99 / 0.0	39.16	V / 1.19 / 123	n/a	-43.07
622.057 MHz	40.9 Qp	2.1 / 19.66 / 28.16 / 0.0	34.5	V / 1.19 / 123	n/a	-47.73

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# RADIATED EMISSIONS



Test Report #: WC506388 Run 1                      Test Area: LTS  
 EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005  
 EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C  
 Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa  
 Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

Page: 9 of 16

## List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)	DELTA2 -13dBm < 1GHz (Guideline)
281.481 MHz	50.7 Qp	1.5 / 12.46 / 27.41 / 0.0	37.24	V / 1.00 / 350	n/a	-44.99
501.139 MHz	59.55 Qp	1.9 / 17.61 / 27.95 / 0.0	51.12	V / 1.00 / 350	n/a	-31.11
622.057 MHz	48.95 Qp	2.1 / 19.66 / 28.16 / 0.0	42.55	V / 1.00 / 350	n/a	-39.68
643.687 MHz	50.95 Qp	2.12 / 19.5 / 28.18 / 0.0	44.39	V / 1.00 / 350	n/a	-37.84
901.154 MHz	52.05 Qp	2.59 / 22.22 / 27.61 / 0.0	49.25	V / 1.00 / 350	n/a	-32.98
TX setting = 880 MHz						
880.0 MHz	48.55 Qp	2.56 / 21.9 / 27.68 / 0.0	45.33	V / 1.00 / 350	n/a	-36.9
880.0 MHz	53.0 Qp	2.56 / 21.9 / 27.68 / 0.0	49.78	H / 1.00 / 350	n/a	-32.45
300.688 MHz	51.2 Qp	1.5 / 13.21 / 27.5 / 0.0	38.41	H / 1.00 / 350	n/a	-43.82
300.394 MHz	54.45 Qp	1.5 / 13.21 / 27.5 / 0.0	41.66	H / 1.00 / 350	n/a	-40.57
TX setting = 869 MHz.						
869.0 MHz	51.1 Qp	2.54 / 21.9 / 27.72 / 0.0	47.82	H / 1.00 / 350	n/a	-34.41
869.0 MHz	46.0 Qp	2.54 / 21.9 / 27.72 / 0.0	42.72	V / 1.00 / 350	n/a	-39.51
477.95 MHz	43.35 Qp	1.88 / 16.64 / 27.9 / 0.0	33.97	V / 1.00 / 350	n/a	-48.26
434.5 MHz	39.8 Qp	1.74 / 16.21 / 27.9 / 0.0	29.85	V / 1.00 / 350	n/a	-52.38
955.9 MHz	35.05 Qp	2.68 / 22.6 / 27.6 / 0.0	32.73	V / 1.00 / 350	n/a	-49.5
666.673 MHz	54.25 Qp	2.22 / 19.47 / 28.03 / 0.0	47.91	V / 1.00 / 350	n/a	-34.32
583.333 MHz	53.9 Qp	2.07 / 18.77 / 28.1 / 0.0	46.63	V / 1.00 / 350	n/a	-35.6
557.851 MHz	54.8 Qp	2.0 / 18.14 / 28.1 / 0.0	46.84	V / 1.00 / 350	n/a	-35.39
251.568 MHz	51.25 Qp	1.35 / 11.81 / 27.2 / 0.0	37.21	V / 1.00 / 350	n/a	-45.02
125.73 MHz	60.0 Qp	0.95 / 8.33 / 27.05 / 0.0	42.23	V / 1.00 / 350	n/a	-40.0
869.0 MHz	51.1 Qp	2.54 / 21.9 / 27.72 / 0.0	47.82	H / 1.00 / 350	n/a	-34.41
300.394 MHz	54.55 Qp	1.5 / 13.21 / 27.5 / 0.0	41.76	H / 1.00 / 350	n/a	-40.47

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# RADIATED EMISSIONS



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Test Report #: WC506388 Run 1 Test Area: LTS  
EUT Model #: DGVF-02000000XXCRN Date: 12/14/2005  
EUT Serial #: na EUT Power: 48 VDC Temperature: 22.0 °C  
Test Method: FCC Part 22 H Air Pressure: 98.0 kPa  
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EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat Page: 10 of 16

## List of measurements for run #: 1

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No further significant EUT emissions detected 30 MHz to 9 GHz, vert and hor ant.

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Reviewed by: Greg Jakubowski  
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Signature

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EUT Model #: DGVF-02000000XXCRN Date: 12/14/2005  
EUT Serial #: na EUT Power: 48 VDC Temperature: 22.0 °C  
Test Method: FCC Part 22 H Air Pressure: 98.0 kPa  
Customer: ADC Telecommunications Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

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## Measurement summary for limit1: -13 dBm >1GHz (Guideline) (Pk)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)
2.446 GHz	70.55 Pk	4.33 / 28.62 / 49.25 / 0.0	54.25	V / 1.36 / 176	-27.98
1.202 GHz	75.2 Pk	3.01 / 25.24 / 49.65 / 0.0	53.8	H / 1.58 / 144	-28.43
2.703 GHz	65.55 Pk	4.48 / 29.24 / 48.25 / 0.0	51.02	H / 1.10 / 139	-31.21
2.746 GHz	63.5 Pk	4.5 / 29.36 / 48.26 / 0.0	49.1	H / 1.00 / 139	-33.13
1.888 GHz	67.55 Pk	3.86 / 27.5 / 49.93 / 0.0	48.98	H / 1.58 / 144	-33.25
2.103 GHz	66.0 Pk	3.93 / 28.17 / 49.4 / 0.0	48.7	H / 1.00 / 139	-33.53
1.03 GHz	69.85 Pk	2.79 / 25.01 / 48.96 / 0.0	48.69	H / 1.58 / 144	-33.54
1.373 GHz	69.35 Pk	3.2 / 25.47 / 49.48 / 0.0	48.54	V / 1.17 / 178	-33.69
1.244 GHz	69.25 Pk	3.06 / 25.3 / 49.43 / 0.0	48.18	V / 1.00 / 147	-34.05
1.545 GHz	68.05 Pk	3.47 / 25.85 / 49.67 / 0.0	47.7	V / 1.00 / 147	-34.53
1.974 GHz	65.3 Pk	3.9 / 27.91 / 49.7 / 0.0	47.41	V / 1.36 / 176	-34.82
5.734 GHz	51.6 Pk	6.94 / 34.21 / 45.52 / 0.0	47.23	H / 1.58 / 144	-35.0
2.317 GHz	62.65 Pk	4.21 / 28.45 / 49.02 / 0.0	46.29	H / 1.58 / 144	-35.94
1.116 GHz	67.7 Pk	2.9 / 25.13 / 49.52 / 0.0	46.21	H / 1.10 / 139	-36.02
2.017 GHz	63.4 Pk	3.9 / 28.06 / 49.57 / 0.0	45.78	H / 1.58 / 144	-36.45
1.159 GHz	67.0 Pk	2.96 / 25.18 / 49.59 / 0.0	45.55	H / 1.58 / 144	-36.68
2.661 GHz	60.25 Pk	4.45 / 29.13 / 48.38 / 0.0	45.46	H / 1.58 / 144	-36.77
2.875 GHz	59.4 Pk	4.63 / 29.71 / 48.46 / 0.0	45.29	V / 1.17 / 178	-36.94
2.489 GHz	61.35 Pk	4.36 / 28.68 / 49.1 / 0.0	45.29	V / 1.17 / 178	-36.94
3.823 GHz	53.8 Pk	5.66 / 31.94 / 46.24 / 0.0	45.15	H / 1.36 / 176	-37.08
1.287 GHz	65.5 Pk	3.11 / 25.36 / 49.21 / 0.0	44.76	H / 1.58 / 144	-37.47
1.931 GHz	63.0 Pk	3.89 / 27.7 / 49.86 / 0.0	44.74	V / 1.10 / 139	-37.49
2.532 GHz	60.1 Pk	4.38 / 28.78 / 48.9 / 0.0	44.36	V / 1.17 / 178	-37.87
1.459 GHz	64.75 Pk	3.38 / 25.59 / 49.73 / 0.0	43.98	H / 1.58 / 144	-38.25
1.759 GHz	62.7 Pk	3.72 / 26.88 / 49.69 / 0.0	43.61	V / 1.10 / 139	-38.62

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# RADIATED EMISSIONS



Test Report #: WC506388 Run 1                      Test Area: LTS  
 EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005  
 EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C  
 Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa  
 Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

Page: 12 of 16

## Measurement summary for limit1: -13 dBm >1GHz (Guideline) (Pk)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)
1.802 GHz	62.3 Pk	3.79 / 27.09 / 49.65 / 0.0	43.53	V / 1.10 / 139	-38.7
2.698 GHz	57.5 Pk	4.48 / 29.23 / 48.26 / 0.0	42.95	V / 1.10 / 139	-39.28
1.843 GHz	61.55 Pk	3.82 / 27.28 / 49.78 / 0.0	42.87	V / 1.10 / 139	-39.36
2.189 GHz	59.95 Pk	4.05 / 28.28 / 49.42 / 0.0	42.86	H / 1.00 / 139	-39.37
1.717 GHz	62.15 Pk	3.65 / 26.68 / 49.75 / 0.0	42.72	H / 1.17 / 178	-39.51
1.33 GHz	63.4 Pk	3.15 / 25.41 / 49.28 / 0.0	42.69	H / 1.58 / 144	-39.54
1.073 GHz	63.85 Pk	2.84 / 25.07 / 49.28 / 0.0	42.48	H / 1.00 / 139	-39.75
1.794 GHz	61.2 Pk	3.77 / 27.05 / 49.65 / 0.0	42.38	V / 1.10 / 139	-39.85
1.156 GHz	63.7 Pk	2.95 / 25.18 / 49.59 / 0.0	42.25	H / 1.17 / 178	-39.98
1.824 GHz	60.8 Pk	3.81 / 27.19 / 49.72 / 0.0	42.08	V / 1.10 / 139	-40.15
1.674 GHz	61.6 Pk	3.59 / 26.47 / 49.7 / 0.0	41.96	H / 1.00 / 139	-40.27
2.832 GHz	55.2 Pk	4.59 / 29.59 / 48.35 / 0.0	41.03	V / 1.10 / 139	-41.2
3.218 GHz	53.2 Pk	4.96 / 30.51 / 47.65 / 0.0	41.03	V / 1.00 / 147	-41.2
1.502 GHz	61.2 Pk	3.43 / 25.65 / 49.81 / 0.0	40.47	V / 1.17 / 178	-41.76
2.403 GHz	56.85 Pk	4.31 / 28.56 / 49.4 / 0.0	40.32	V / 1.10 / 139	-41.91
3.433 GHz	51.3 Pk	5.19 / 30.97 / 47.31 / 0.0	40.15	H / 1.58 / 144	-42.08
3.952 GHz	48.3 Pk	5.8 / 32.26 / 46.25 / 0.0	40.11	H / 1.58 / 144	-42.12
1.631 GHz	59.65 Pk	3.55 / 26.27 / 49.58 / 0.0	39.89	V / 1.10 / 139	-42.34
2.918 GHz	53.75 Pk	4.68 / 29.83 / 48.45 / 0.0	39.81	H / 1.00 / 139	-42.42
1.124 GHz	61.15 Pk	2.91 / 25.14 / 49.53 / 0.0	39.67	H / 1.58 / 144	-42.56
1.416 GHz	60.0 Pk	3.29 / 25.53 / 49.64 / 0.0	39.17	V / 1.17 / 178	-43.06
3.004 GHz	51.85 Pk	4.76 / 30.06 / 48.08 / 0.0	38.59	H / 1.00 / 139	-43.64
1.503 GHz	59.25 Pk	3.43 / 25.66 / 49.81 / 0.0	38.53	H / 1.00 / 139	-43.7
1.038 GHz	59.45 Pk	2.8 / 25.02 / 49.02 / 0.0	38.25	V / 1.10 / 139	-43.98
1.223 GHz	59.3 Pk	3.03 / 25.27 / 49.54 / 0.0	38.06	H / 1.58 / 144	-44.17
1.033 GHz	59.05 Pk	2.79 / 25.02 / 48.98 / 0.0	37.88	V / 1.10 / 139	-44.35

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# RADIATED EMISSIONS



Test Report #: WC506388 Run 1                      Test Area: LTS  
 EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005  
 EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C  
 Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa  
 Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

Page: 13 of 16

## Measurement summary for limit1: -13 dBm >1GHz (Guideline) (Pk)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13 dBm >1GHz (Guideline)
1.704 GHz	57.2 Pk	3.62 / 26.62 / 49.76 / 0.0	37.68	H / 1.00 / 0	-44.55
1.094 GHz	58.95 Pk	2.87 / 25.1 / 49.45 / 0.0	37.47	H / 1.36 / 176	-44.76
2.012 GHz	55.0 Pk	3.9 / 28.05 / 49.59 / 0.0	37.36	H / 1.17 / 178	-44.87
3.133 GHz	48.7 Pk	4.88 / 30.33 / 47.23 / 0.0	36.68	V / 1.10 / 139	-45.55
1.025 GHz	57.7 Pk	2.78 / 25.0 / 48.92 / 0.0	36.57	V / 1.10 / 139	-45.66
1.121 GHz	57.65 Pk	2.91 / 25.13 / 49.53 / 0.0	36.17	V / 1.10 / 139	-46.06
1.588 GHz	55.8 Pk	3.51 / 26.06 / 49.53 / 0.0	35.84	V / 1.10 / 139	-46.39
2.682 GHz	49.95 Pk	4.47 / 29.19 / 48.31 / 0.0	35.29	V / 1.17 / 178	-46.94
3.259 GHz	47.1 Pk	4.99 / 30.6 / 47.57 / 0.0	35.13	H / 1.58 / 144	-47.1
2.488 GHz	50.95 Pk	4.36 / 28.68 / 49.1 / 0.0	34.88	H / 1.00 / 0	-47.35
1.006 GHz	54.5 Pk	2.75 / 24.98 / 48.77 / 0.0	33.46	H / 1.17 / 178	-48.77
1.011 GHz	54.4 Pk	2.76 / 24.99 / 48.81 / 0.0	33.33	H / 1.00 / 0	-48.9
1.76 GHz	52.35 Pk	3.72 / 26.88 / 49.69 / 0.0	33.26	H / 1.17 / 178	-48.97
1.737 GHz	52.4 Pk	3.68 / 26.78 / 49.72 / 0.0	33.13	H / 1.00 / 0	-49.1
1.788 GHz	50.6 Pk	3.76 / 27.02 / 49.66 / 0.0	31.73	H / 1.17 / 178	-50.5
1.006 GHz	51.65 Pk	2.75 / 24.98 / 48.78 / 0.0	30.6	H / 1.00 / 0	-51.63

Tested by: J. C. Sausen  
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# RADIATED EMISSIONS



Test Report #: WC506388 Run 1 Test Area: LTS  
EUT Model #: DGVF-02000000XXCRN Date: 12/14/2005  
EUT Serial #: na EUT Power: 48 VDC Temperature: 22.0 °C  
Test Method: FCC Part 22 H Air Pressure: 98.0 kPa  
Customer: ADC Telecommunications Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat

Page: 14 of 16

## Measurement summary for limit2: -13dBm < 1GHz (Guideline) (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 -13dBm < 1GHz (Guideline)
894.0 MHz	57.65 Qp	2.58 / 22.08 / 27.64 / 0.0	54.68	V / 1.19 / 123	-27.55
501.139 MHz	59.55 Qp	1.9 / 17.61 / 27.95 / 0.0	51.12	V / 1.00 / 350	-31.11
400.915 MHz	60.45 Qp	1.7 / 15.59 / 27.82 / 0.0	49.92	V / 1.19 / 123	-32.31
880.0 MHz	53.0 Qp	2.56 / 21.9 / 27.68 / 0.0	49.78	H / 1.00 / 350	-32.45
901.154 MHz	52.05 Qp	2.59 / 22.22 / 27.61 / 0.0	49.25	V / 1.00 / 350	-32.98
214.569 MHz	63.65 Qp	1.22 / 10.55 / 27.12 / 0.0	48.3	V / 1.00 / 350	-33.93
666.673 MHz	54.25 Qp	2.22 / 19.47 / 28.03 / 0.0	47.91	V / 1.00 / 350	-34.32
869.0 MHz	51.1 Qp	2.54 / 21.9 / 27.72 / 0.0	47.82	H / 1.00 / 350	-34.41
30.144 MHz	53.8 Qp	0.42 / 20.97 / 27.4 / 0.0	47.8	V / 1.00 / 350	-34.43
64.626 MHz	63.35 Qp	0.69 / 10.21 / 27.0 / 0.0	47.25	V / 1.00 / 350	-34.98
343.297 MHz	58.4 Qp	1.6 / 14.47 / 27.6 / 0.0	46.87	V / 1.19 / 123	-35.36
557.851 MHz	54.8 Qp	2.0 / 18.14 / 28.1 / 0.0	46.84	V / 1.00 / 350	-35.39
583.333 MHz	53.9 Qp	2.07 / 18.77 / 28.1 / 0.0	46.63	V / 1.00 / 350	-35.6
31.446 MHz	52.5 Qp	0.43 / 20.49 / 27.35 / 0.0	46.07	V / 1.19 / 123	-36.16
514.936 MHz	53.45 Qp	1.9 / 17.9 / 27.99 / 0.0	45.26	H / 1.19 / 123	-36.97
686.605 MHz	51.05 Qp	2.3 / 19.8 / 27.9 / 0.0	45.25	V / 1.19 / 123	-36.98
643.687 MHz	50.95 Qp	2.12 / 19.5 / 28.18 / 0.0	44.39	V / 1.00 / 350	-37.84
257.481 MHz	57.6 Qp	1.39 / 12.22 / 27.2 / 0.0	44.01	H / 1.19 / 123	-38.22
732.205 MHz	48.55 Qp	2.3 / 20.97 / 27.99 / 0.0	43.82	H / 1.19 / 123	-38.41
109.044 MHz	60.0 Qp	0.85 / 9.28 / 27.05 / 0.0	43.08	V / 1.19 / 123	-39.15
82.404 MHz	61.9 Qp	0.8 / 7.15 / 26.9 / 0.0	42.95	V / 1.00 / 350	-39.28
622.057 MHz	48.95 Qp	2.1 / 19.66 / 28.16 / 0.0	42.55	V / 1.00 / 350	-39.68

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# RADIATED EMISSIONS



America

Test Report #: WC506388 Run 1                      Test Area: LTS

EUT Model #: DGVF-02000000XXCRN                      Date: 12/14/2005

EUT Serial #: na                      EUT Power: 48 VDC                      Temperature: 22.0 °C

Test Method: FCC Part 22 H                      Air Pressure: 98.0 kPa

Customer: ADC Telecommunications                      Rel. Humidity: 22.0 %


EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

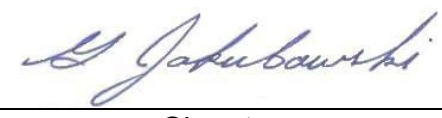
Data File Name: 6388.dat                      Page: 15 of 16

## Measurement summary for limit2: -13dBm < 1GHz (Guideline) (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 -13dBm < 1GHz (Guideline)
125.73 MHz	60.0 Qp	0.95 / 8.33 / 27.05 / 0.0	42.23	V / 1.00 / 350	-40.0
300.394 MHz	54.55 Qp	1.5 / 13.21 / 27.5 / 0.0	41.76	H / 1.00 / 350	-40.47
944.078 MHz	43.95 Qp	2.66 / 22.6 / 27.6 / 0.0	41.61	H / 1.19 / 123	-40.62
128.76 MHz	59.55 Qp	0.99 / 8.02 / 27.01 / 0.0	41.55	V / 1.00 / 350	-40.68
319.306 MHz	53.75 Qp	1.5 / 13.59 / 27.5 / 0.0	41.34	H / 1.19 / 123	-40.89
233.469 MHz	55.65 Qp	1.3 / 11.07 / 27.2 / 0.0	40.82	V / 1.00 / 350	-41.41
448.027 MHz	48.55 Qp	1.79 / 16.5 / 27.9 / 0.0	38.94	V / 1.19 / 123	-43.29
300.688 MHz	51.2 Qp	1.5 / 13.21 / 27.5 / 0.0	38.41	H / 1.00 / 350	-43.82
986.99 MHz	40.0 Qp	2.72 / 22.73 / 27.58 / 0.0	37.88	H / 2.94 / 161	-44.35
281.481 MHz	50.7 Qp	1.5 / 12.46 / 27.41 / 0.0	37.24	V / 1.00 / 350	-44.99
251.568 MHz	51.25 Qp	1.35 / 11.81 / 27.2 / 0.0	37.21	V / 1.00 / 350	-45.02
662.617 MHz	40.45 Qp	2.2 / 19.43 / 28.05 / 0.0	34.02	V / 1.19 / 123	-48.21
477.95 MHz	43.35 Qp	1.88 / 16.64 / 27.9 / 0.0	33.97	V / 1.00 / 350	-48.26
955.9 MHz	35.05 Qp	2.68 / 22.6 / 27.6 / 0.0	32.73	V / 1.00 / 350	-49.5
434.5 MHz	39.8 Qp	1.74 / 16.21 / 27.9 / 0.0	29.85	V / 1.00 / 350	-52.38

Tested by: J. C. Sausen                                            Signature

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America

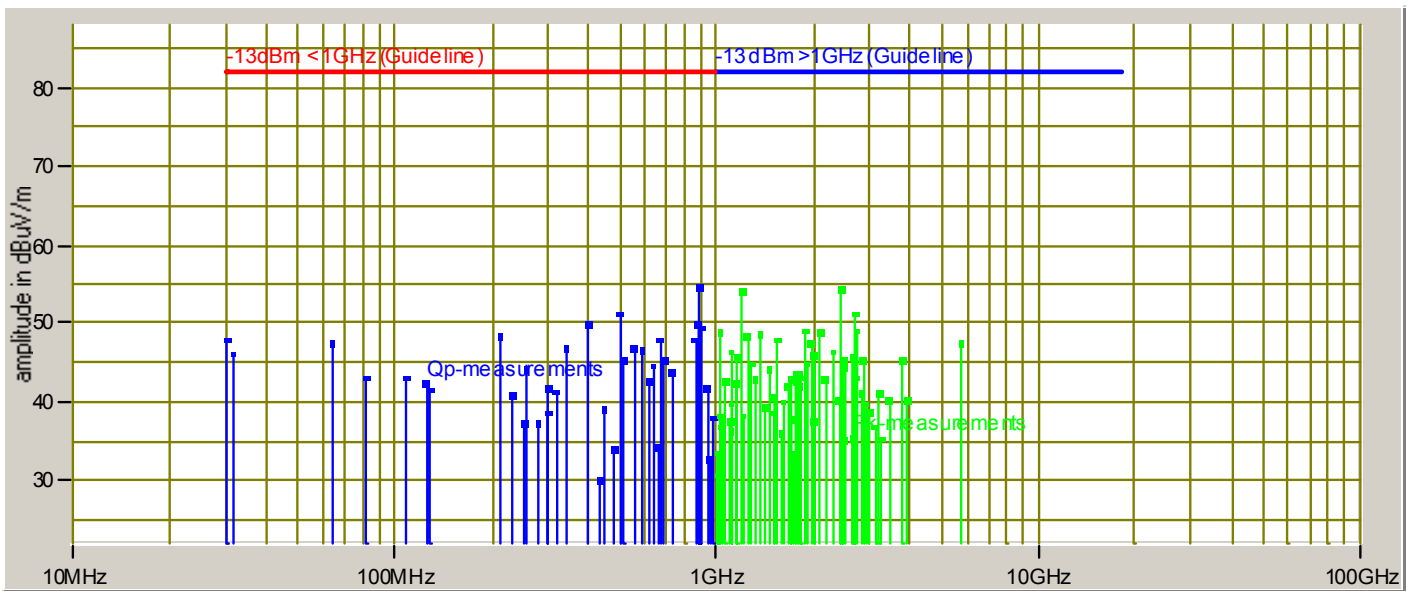
Test Report #: WC506388 Run 1 Test Area: LTS  
EUT Model #: DGVF-02000000XXCRN Date: 12/14/2005  
EUT Serial #: na EUT Power: 48 VDC Temperature: 22.0 °C  
Test Method: FCC Part 22 H Air Pressure: 98.0 kPa  
Customer: ADC Telecommunications Rel. Humidity: 22.0 %

EUT Description: Digivance CXD 800 MHz full band

Notes: 800 MHz. A & B Bands

Data File Name: 6388.dat Page: 16 of 16

## Graph:



Tested by: J. C. Sausen  
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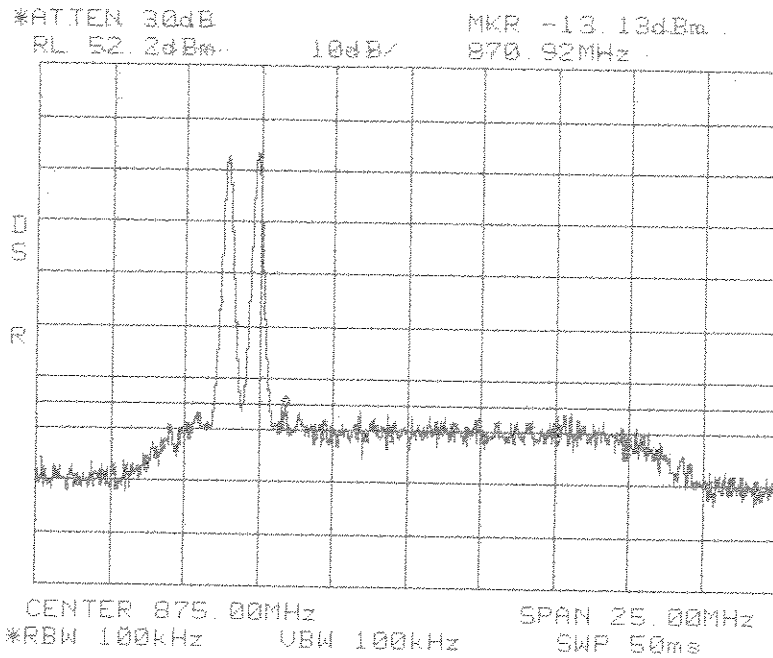
Greg Jakubowski  
Signature

**Inter-Modulation Test for ADC Inc**  
**Digivance CXD**  
**Model Number DGVF-02000000XXCRN**

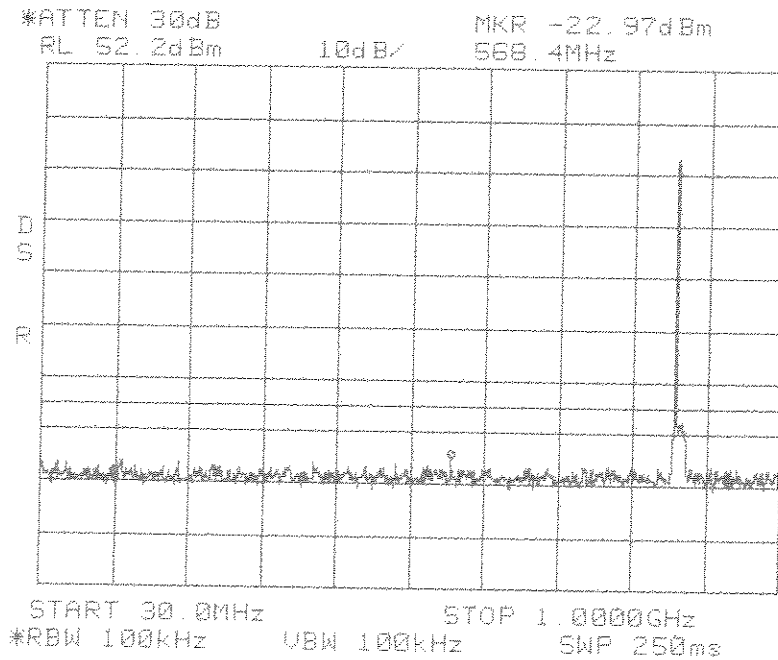
The inter-modulation products test was performed for the EUT. Three tests were performed with the modulation type. Test 1 was with 2 signals input to the EUT at lower end channels. Test 2 was with 2 signals input to the EUT at upper end channels. Test 3 was with 2 signals, one at a lower end channel and one at a higher end channel. The modulations type tested was FM, 16 QAM, GSM, TDMA, and CDMA. An investigation was made from 30 MHz to the 10<sup>th</sup> Harmonic of the highest fundamental frequency (~10 GHz). The following plots show the results.

Results:  
(See Plots)

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



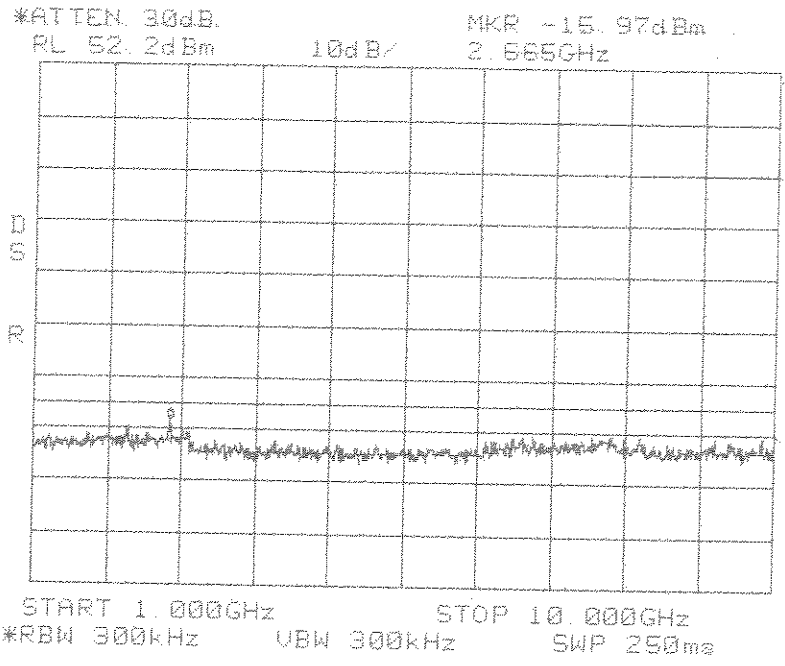
**Intermodulation  
Close  
Lower  
FM  
Cellular 800 MHz  
A Band**



**Intermodulation  
Close  
Lower  
FM  
Cellular 800 MHz  
A Band**

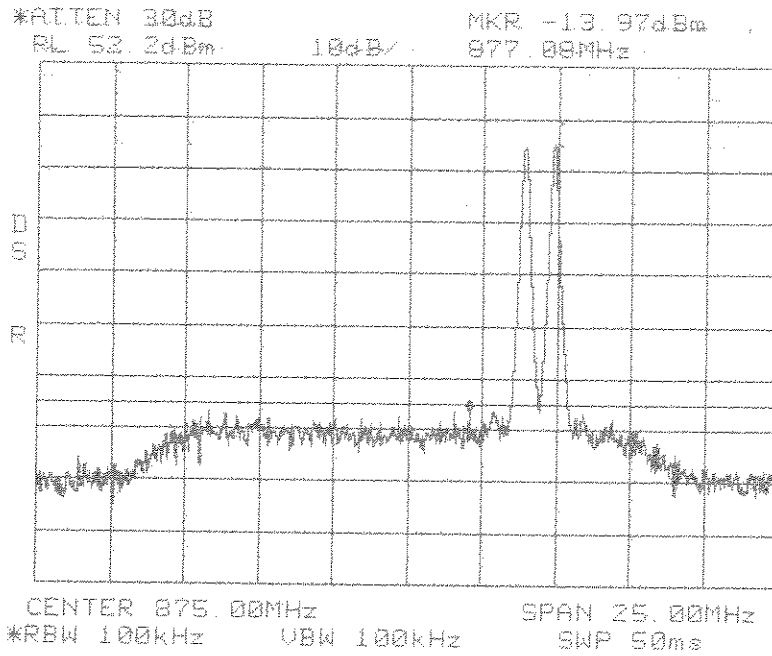
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

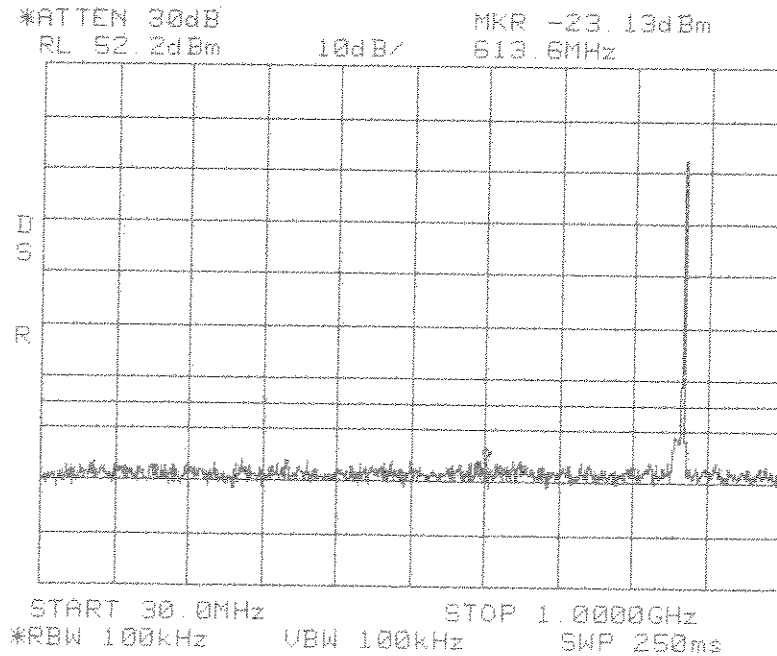


**Intermodulation  
Close  
Lower  
FM  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



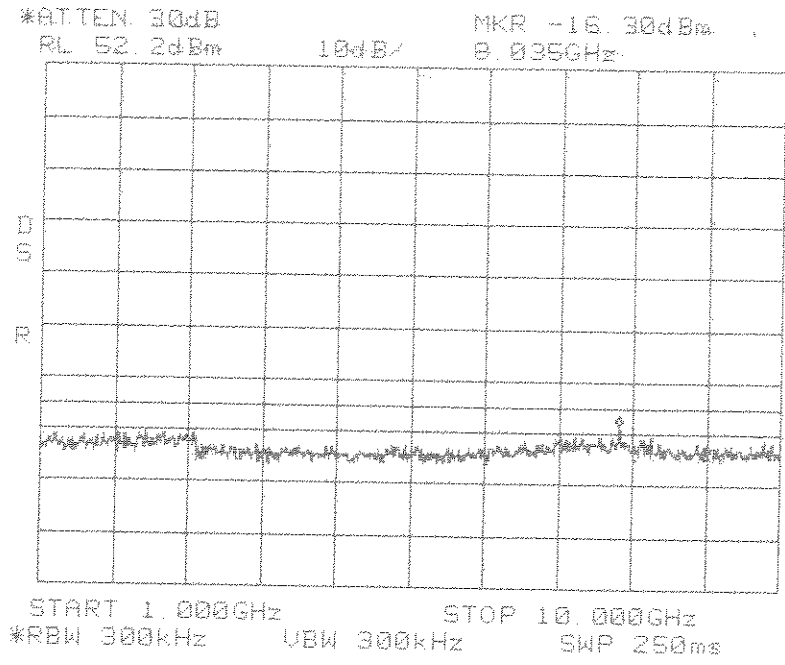
**Intermodulation  
Close  
Upper  
FM  
Cellular 800 MHz  
A Band**



**Intermodulation  
Close  
Upper  
FM  
Cellular 800 MHz  
A Band**

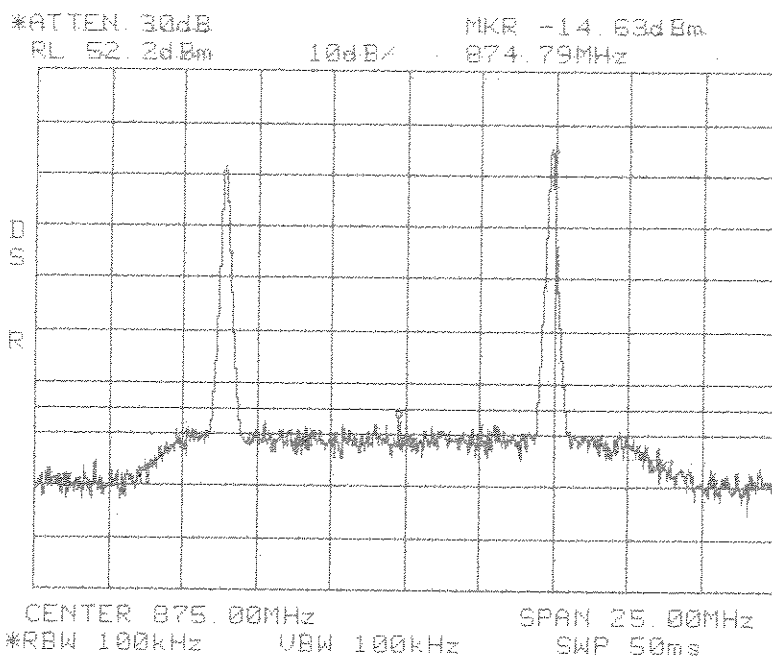
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

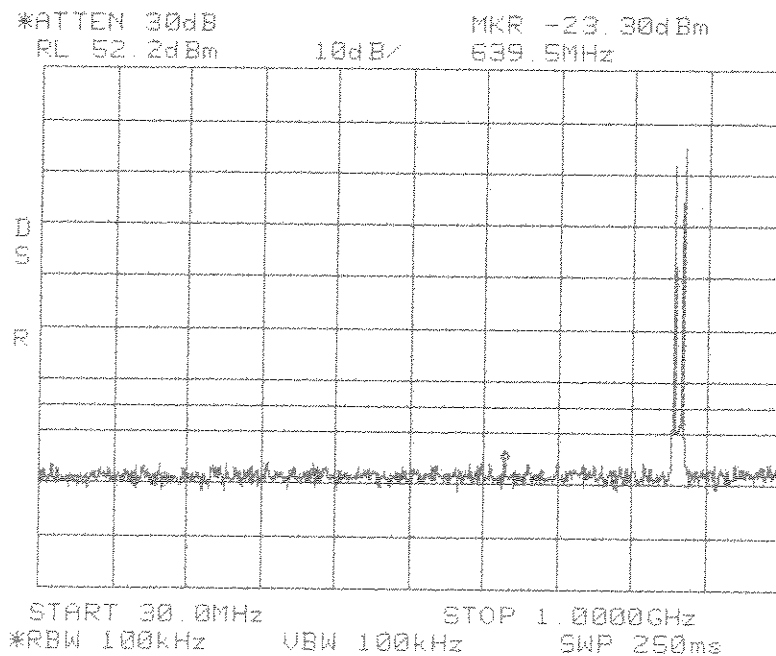


**Intermodulation  
Close  
Upper  
FM  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Apart  
FM  
Cellular 800 MHz  
A Band**

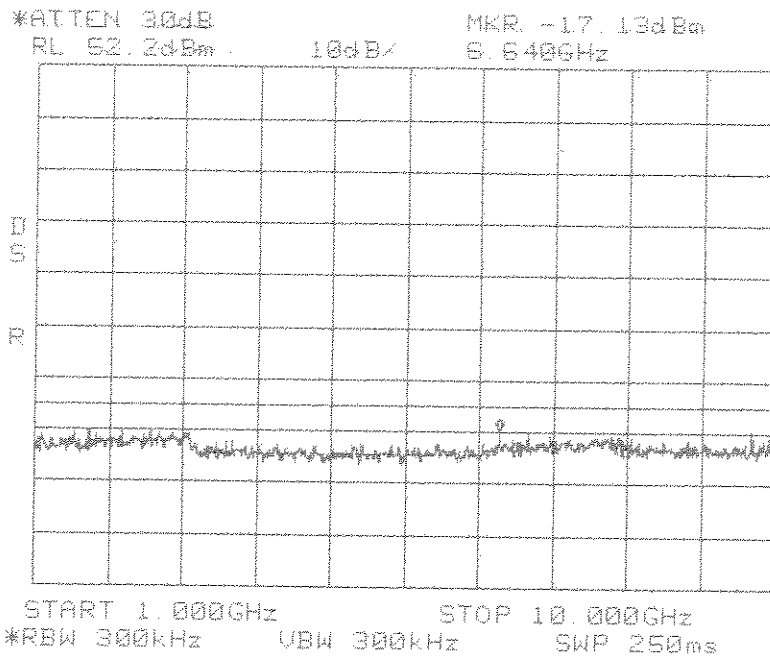


**Intermodulation  
Apart  
FM  
Cellular 800 MHz  
A Band**

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

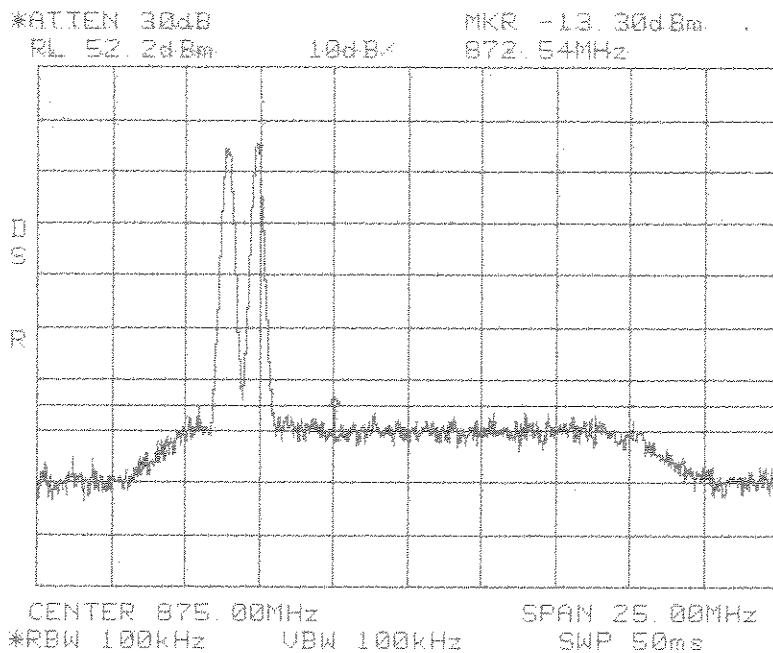


Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

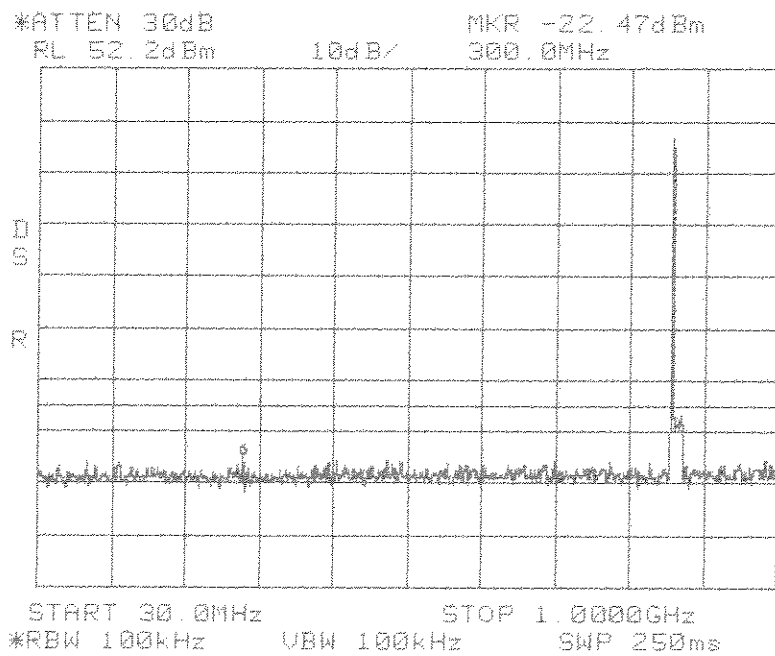


**Intermodulation  
Apart  
FM  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



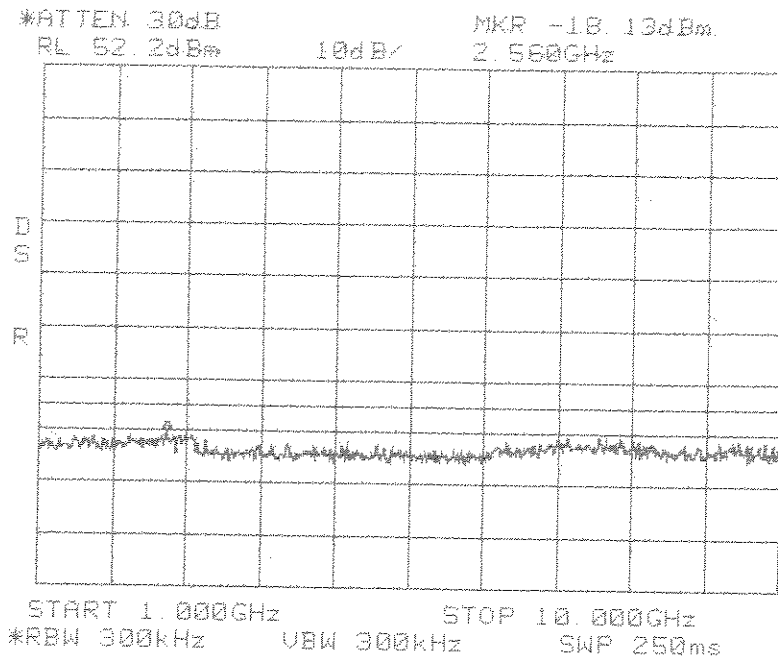
**Intermodulation**  
**Close**  
**Lower**  
**16QAM**  
**Cellular 800 MHz**  
**A Band**



**Intermodulation**  
**Close**  
**Lower**  
**16QAM**  
**Cellular 800 MHz**  
**A Band**

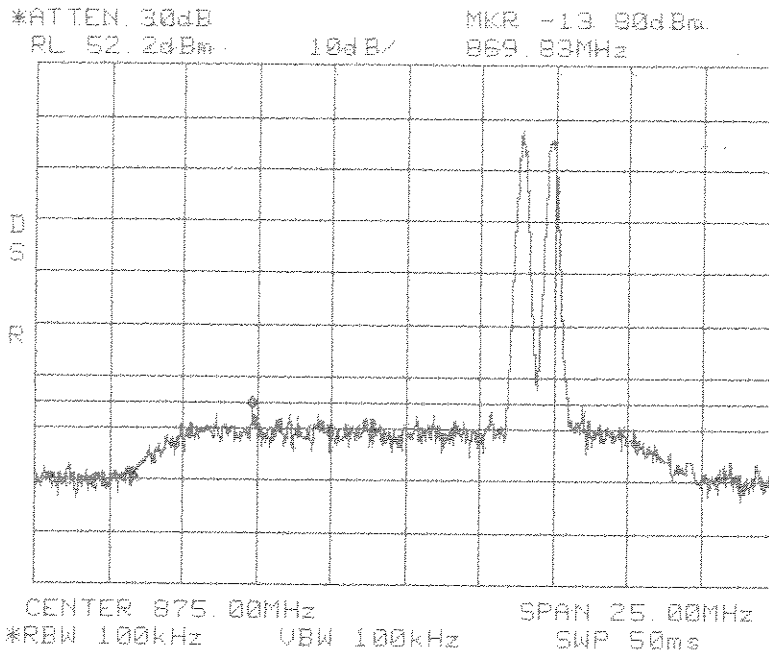
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

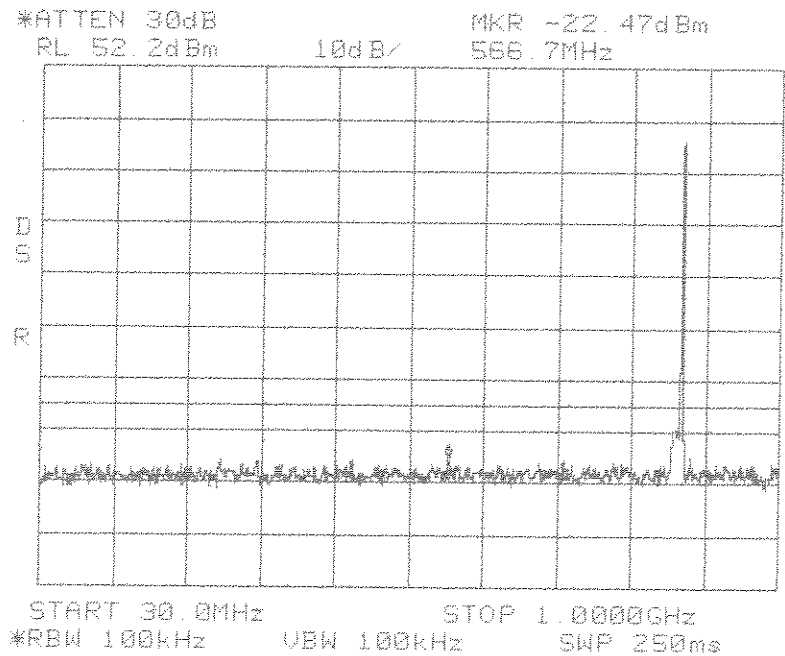


**Intermodulation**  
**Close**  
**Lower**  
**16QAM**  
**Cellular 800 MHz**  
**A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



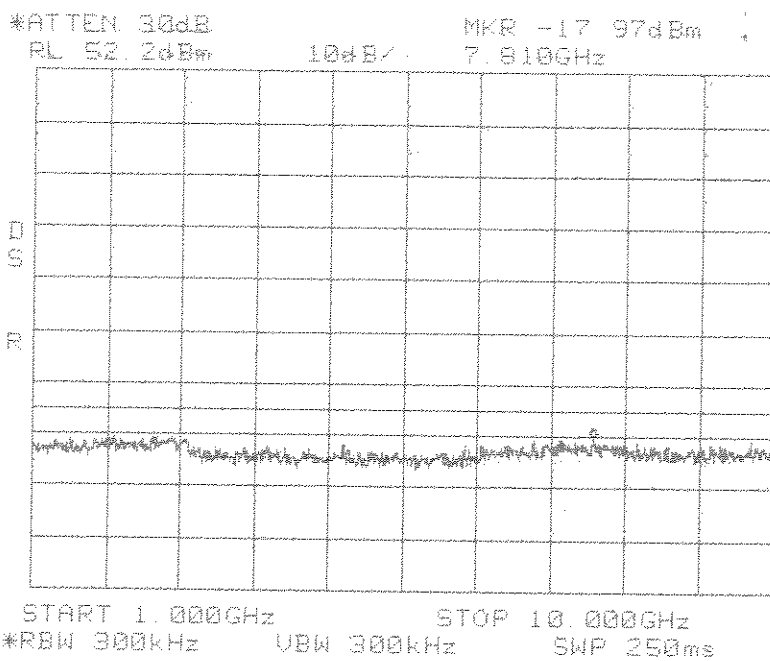
**Intermodulation  
Close  
Upper  
16QAM  
Cellular 800 MHz  
A Band**



**Intermodulation  
Close  
Upper  
16QAM  
Cellular 800 MHz  
A Band**

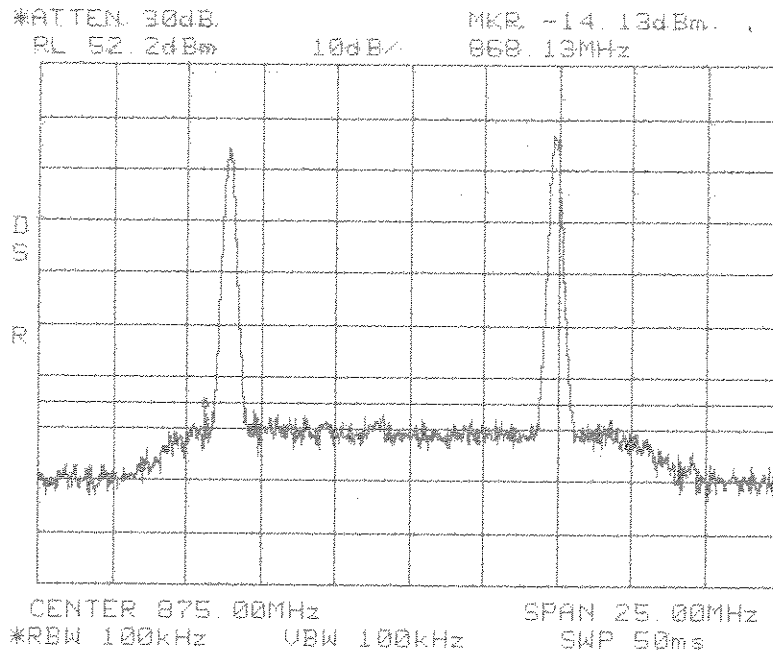
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

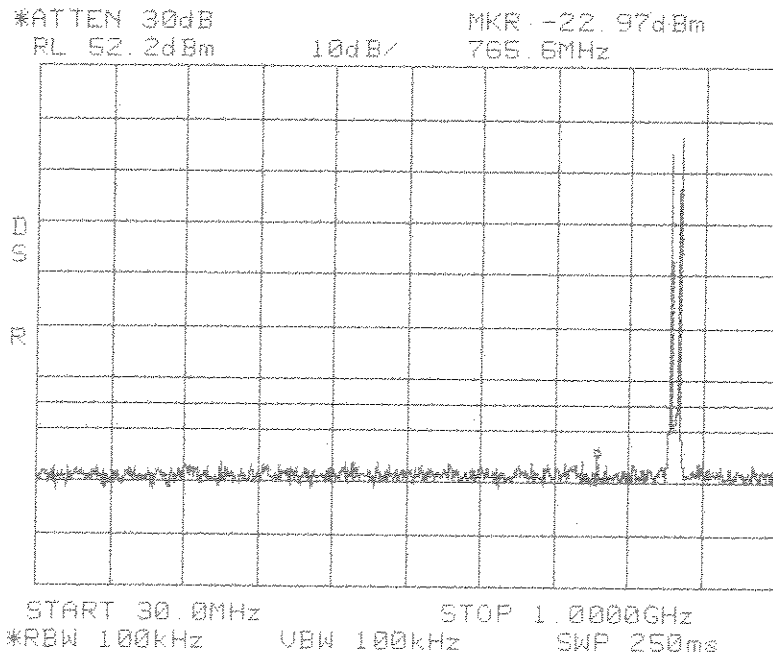


**Intermodulation  
Close  
Upper  
16QAM  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



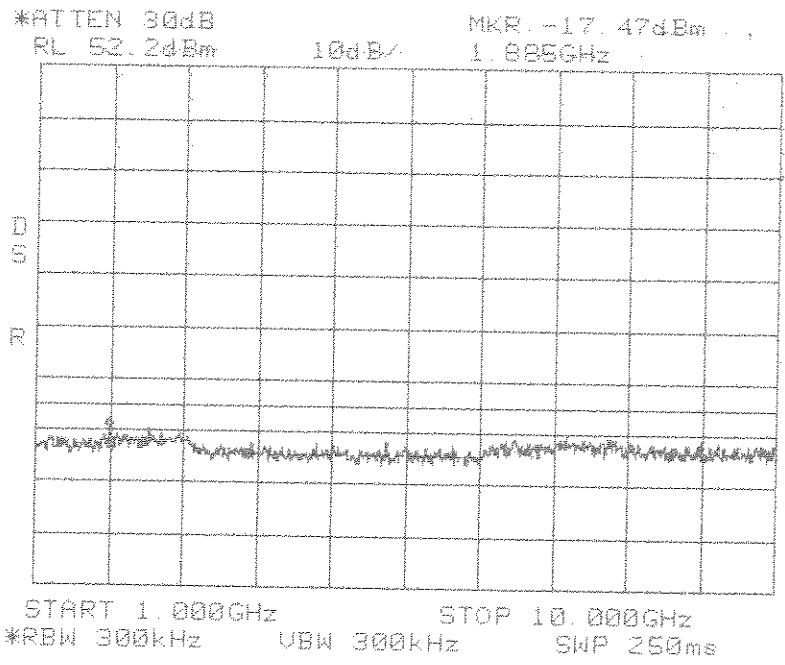
**Intermodulation  
Apart  
16QAM  
Cellular 800 MHz  
A Band**



**Intermodulation  
Apart  
16QAM  
Cellular 800 MHz  
A Band**

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

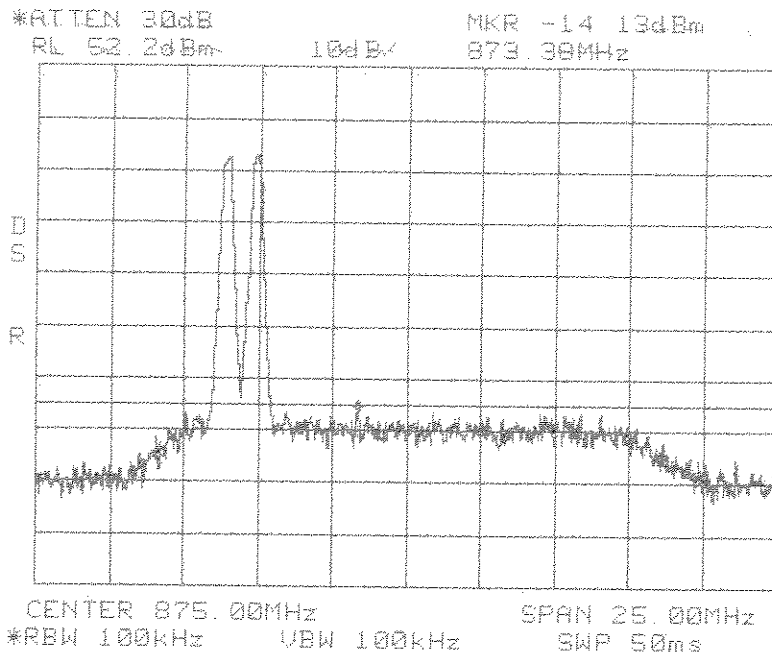
Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz



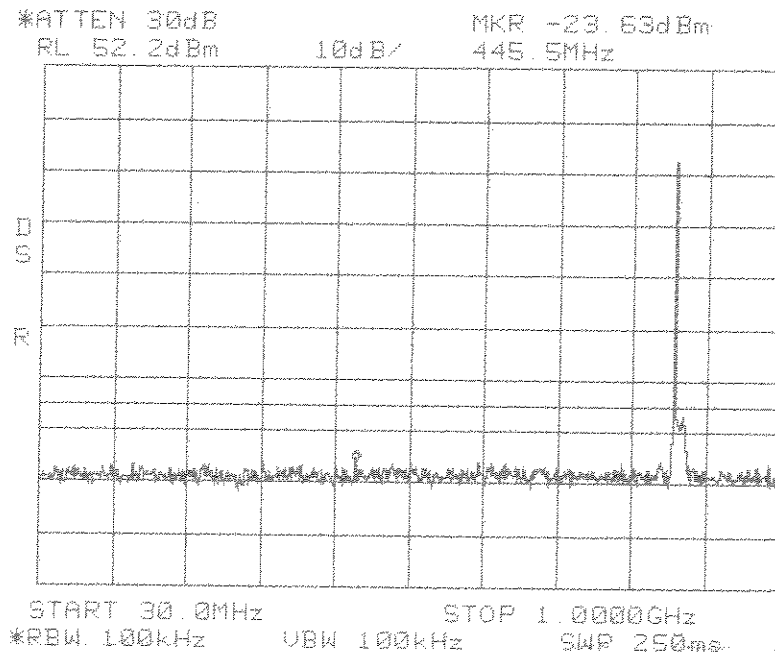
**Intermodulation  
Apert  
16QAM  
Cellular 800 MHz  
A Band**



Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



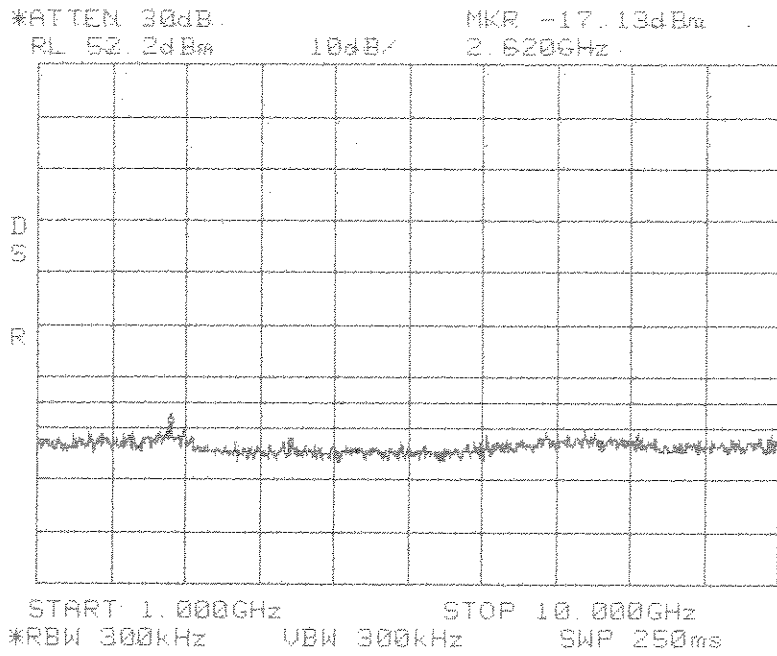
**Intermodulation  
Close  
Lower  
GSM  
Cellular 800 MHz  
A Band**



**Intermodulation  
Close  
Lower  
GSM  
Cellular 800 MHz  
A Band**

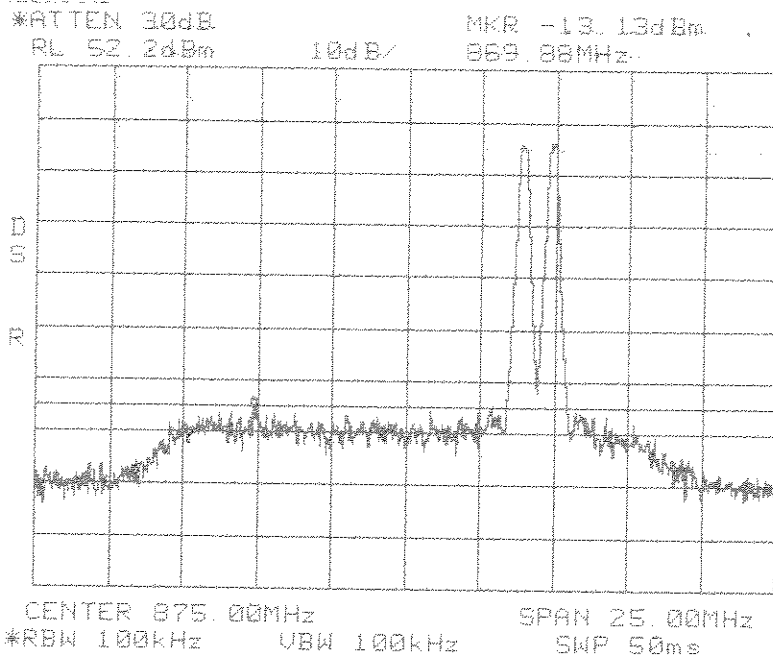
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

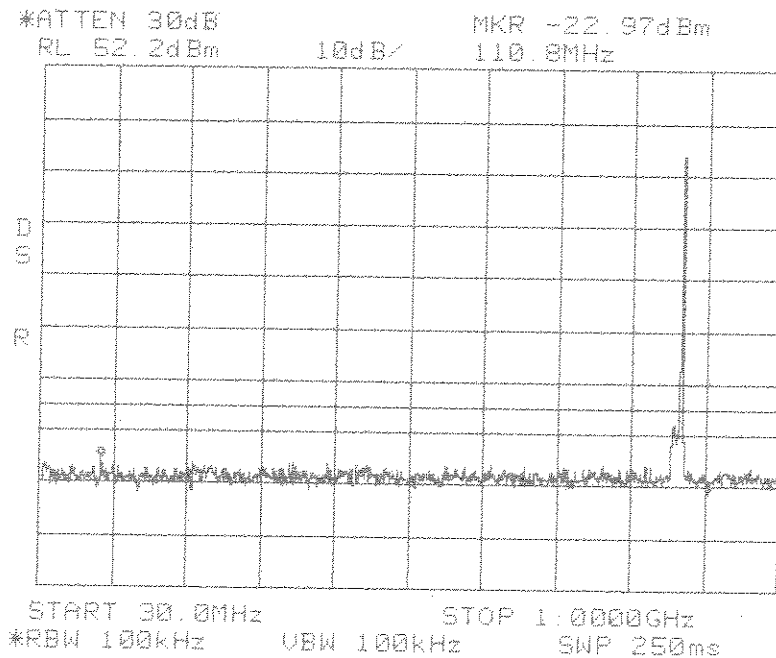


**Intermodulation  
Close  
Lower  
GSM  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



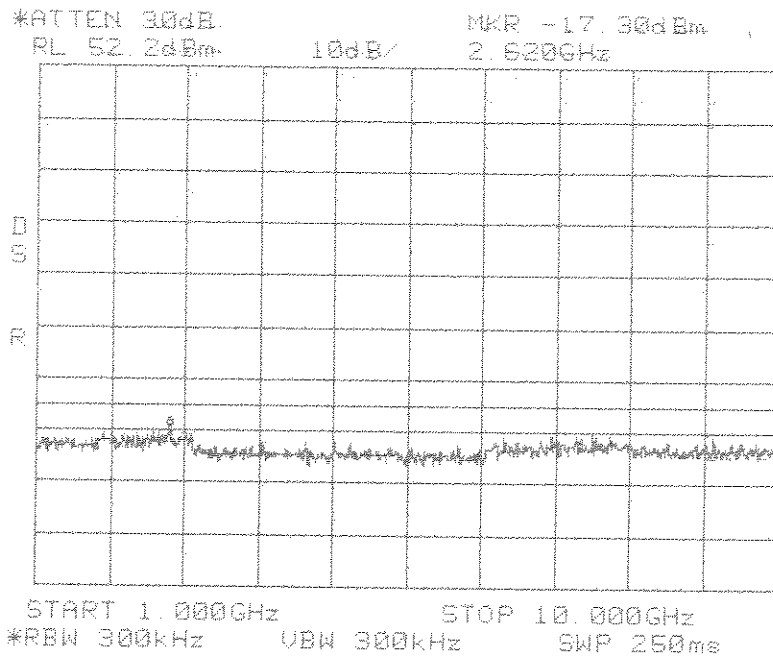
**Intermodulation  
Close  
Upper  
GSM  
Cellular 800 MHz  
A Band**



**Intermodulation  
Close  
Upper  
GSM  
Cellular 800 MHz  
A Band**

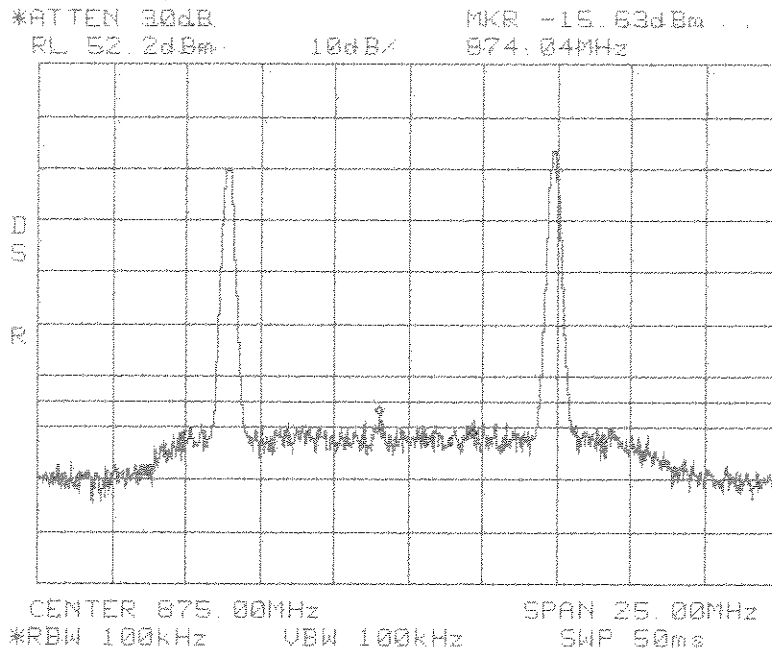
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

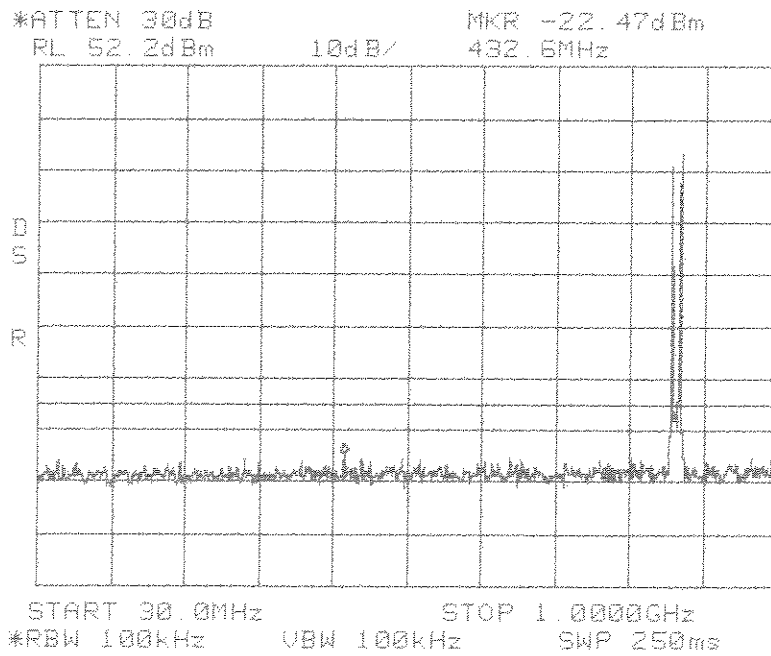


**Intermodulation  
Close  
Upper  
GSM  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



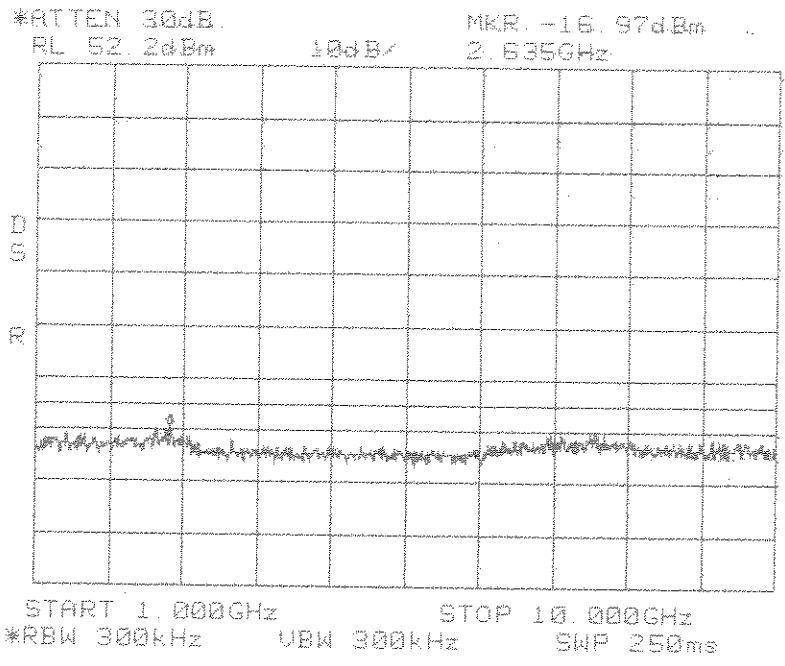
**Intermodulation  
Apart  
GSM  
Cellular 800 MHz  
A Band**



**Intermodulation  
Apart  
GSM  
Cellular 800 MHz  
A Band**

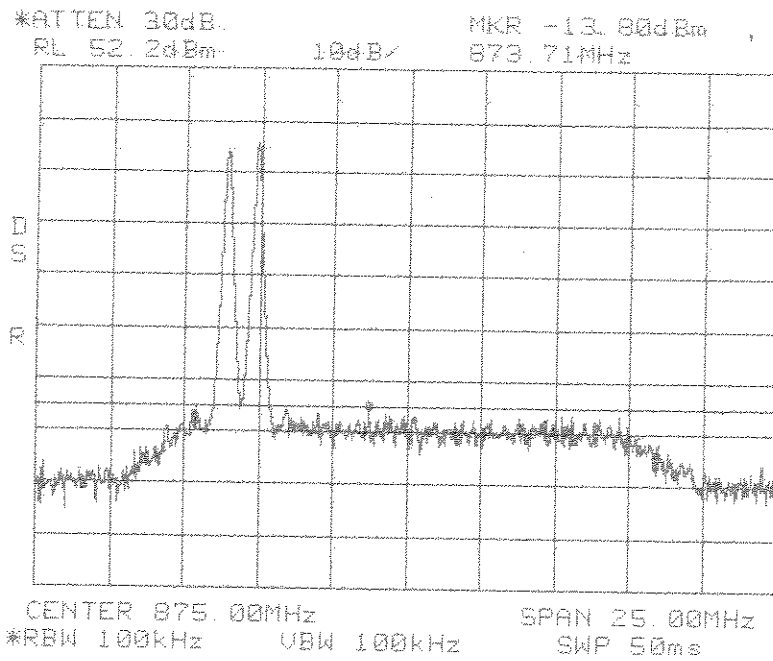
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

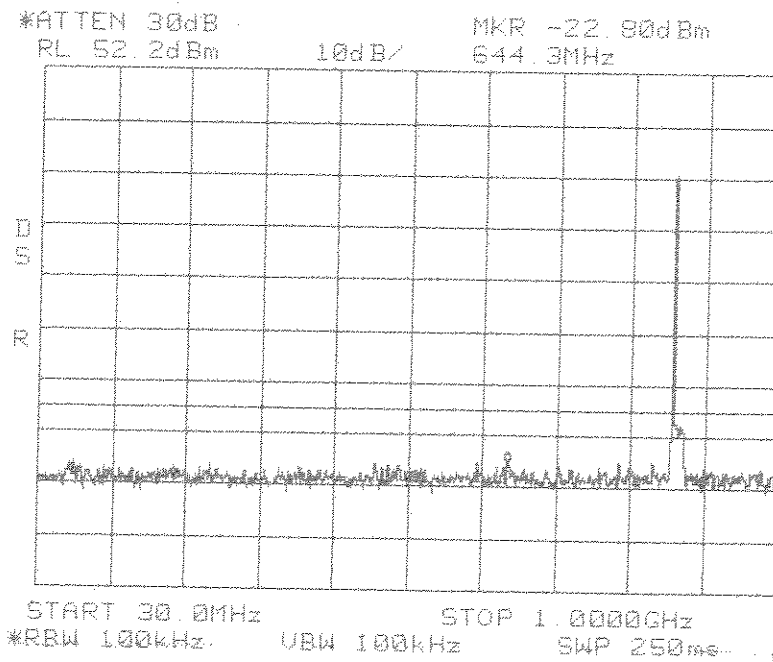


**Intermodulation  
Apart  
GSM  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Close  
Lower  
TDMA  
Cellular 800 MHz  
A Band**

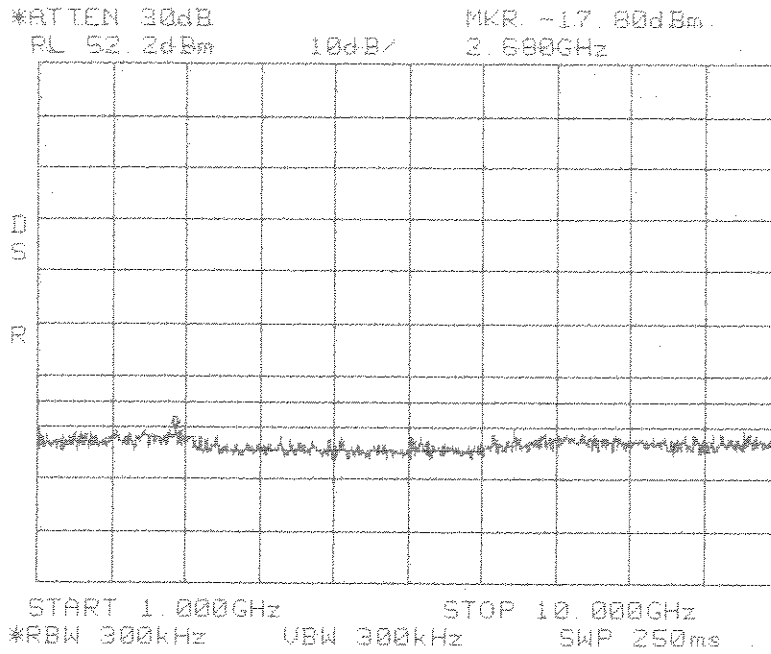


**Intermodulation  
Close  
Lower  
TDMA  
Cellular 800 MHz  
A Band**

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

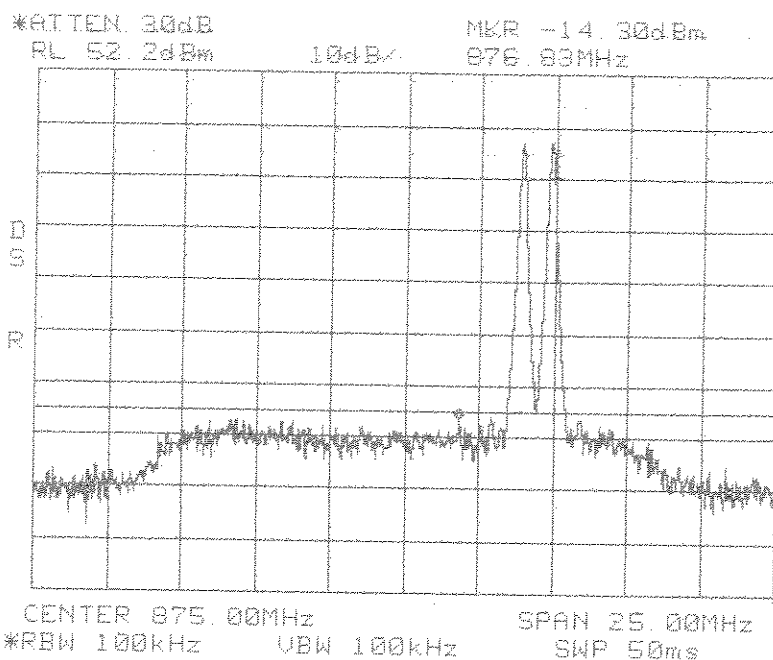


Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

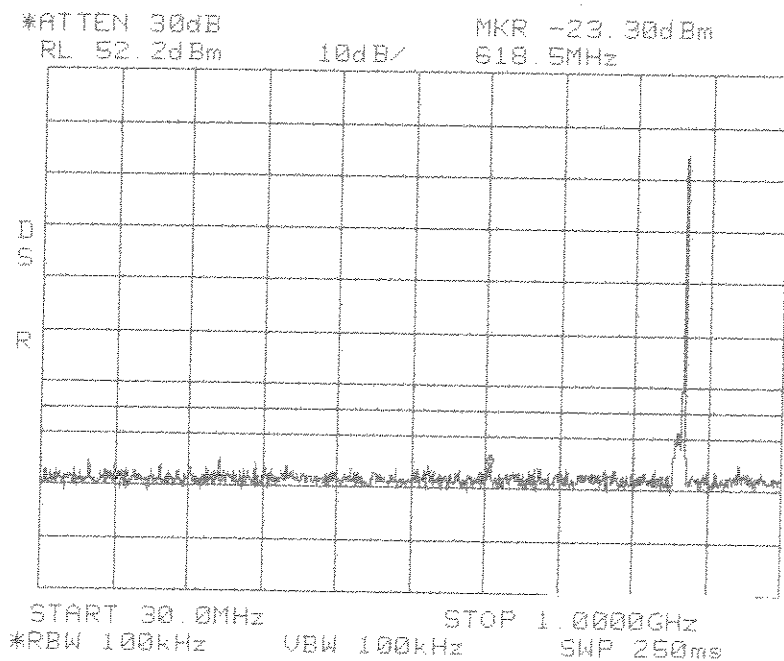


**Intermodulation  
Close  
Lower  
TDMA  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



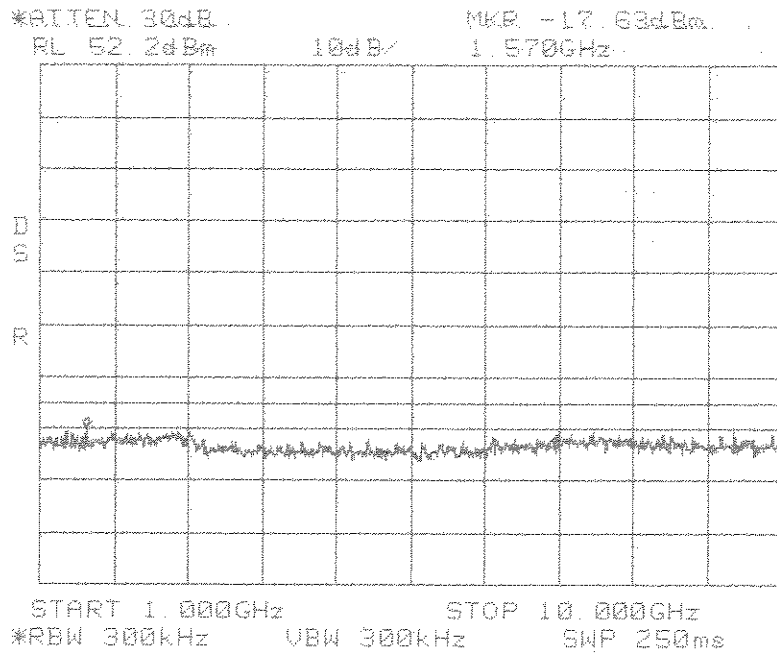
**Intermodulation  
Close  
Upper  
TDMA  
Cellular 800 MHz  
A Band**



**Intermodulation  
Close  
Upper  
TDMA  
Cellular 800 MHz  
A Band**

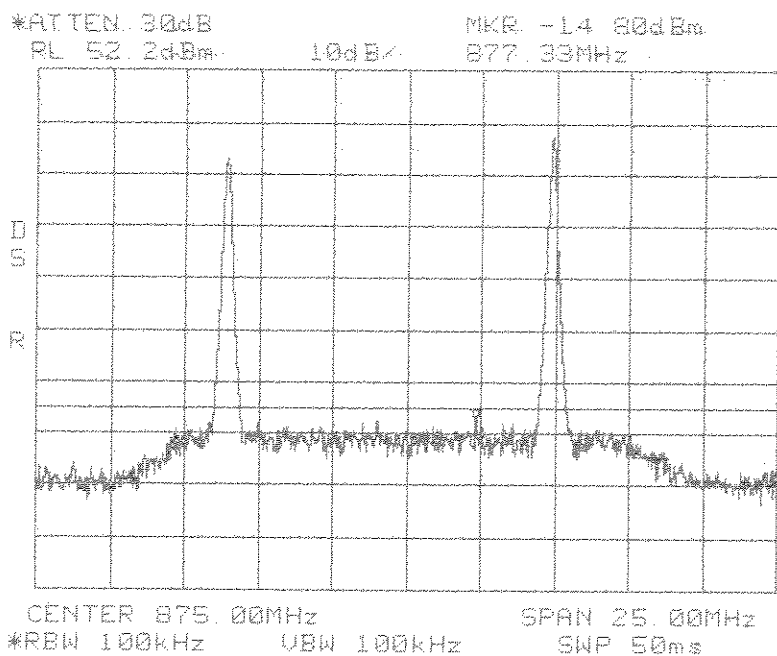
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

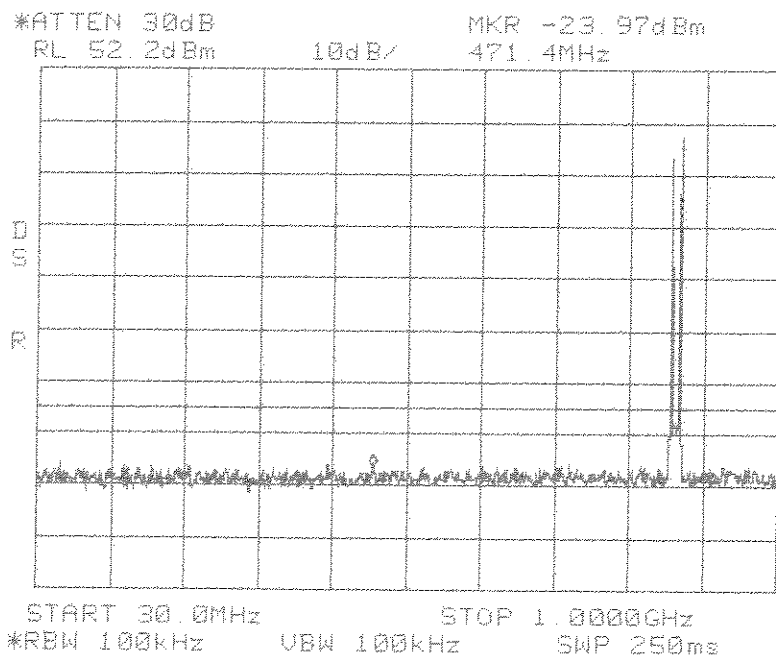


**Intermodulation  
Close  
Upper  
TDMA  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



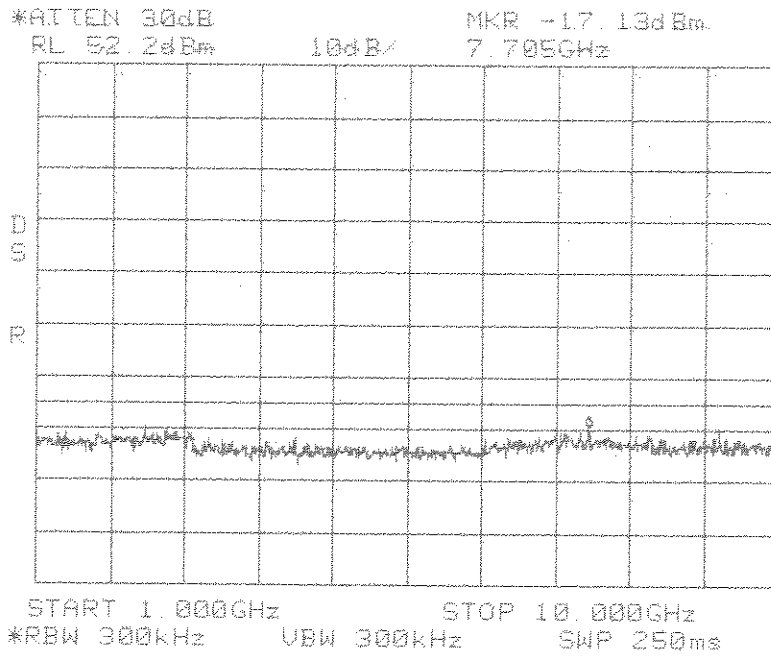
**Intermodulation  
Apart  
TDMA  
Cellular 800 MHz  
A Band**



**Intermodulation  
Apart  
TDMA  
Cellular 800 MHz  
A Band**

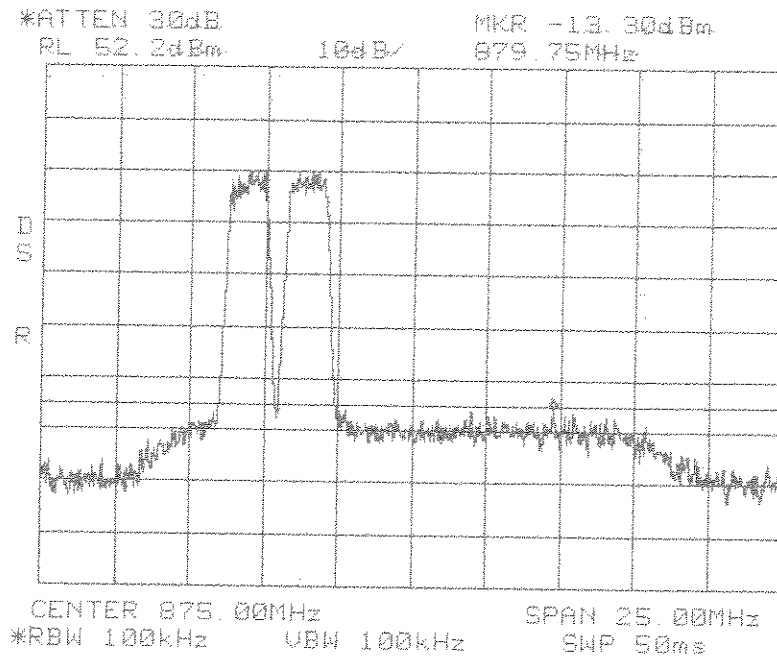
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

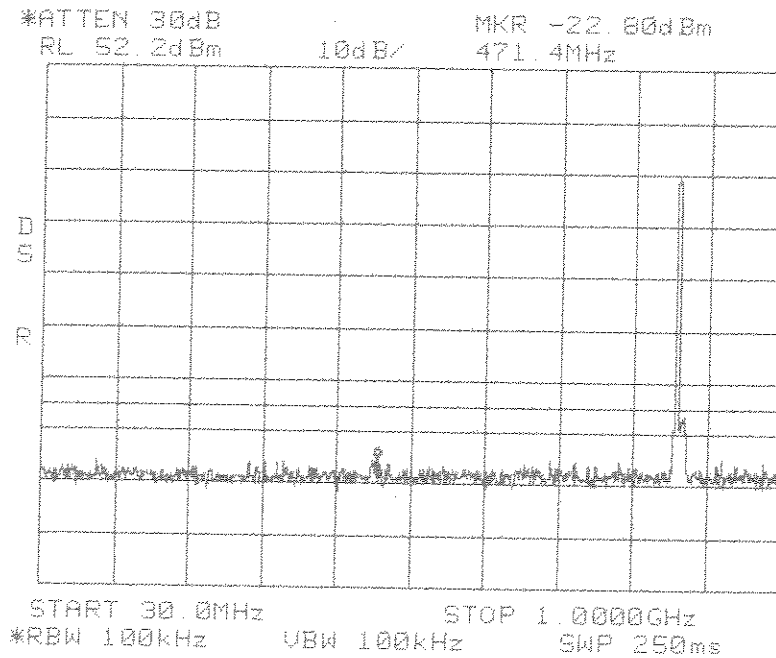


**Intermodulation  
Apart  
TDMA  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



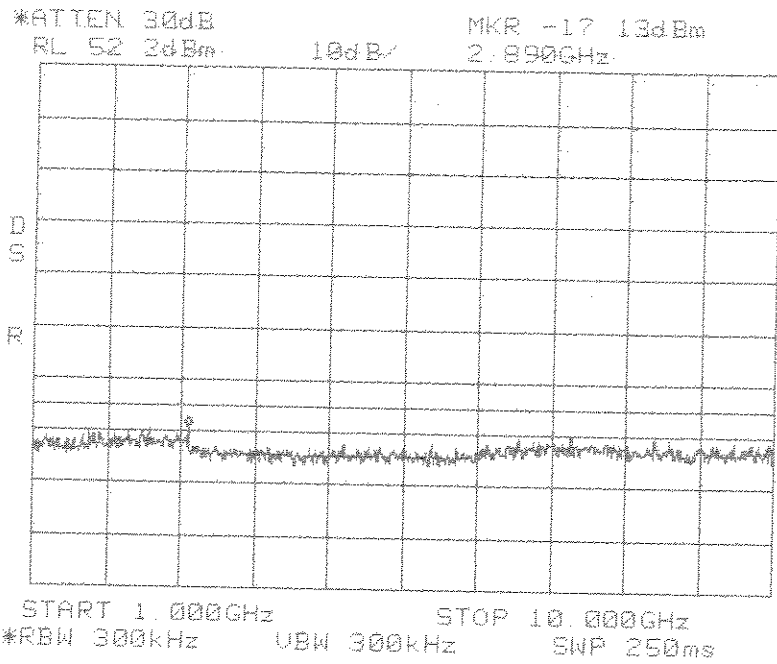
**Intermodulation  
Close  
Lower  
CDMA  
Cellular 800 MHz  
A Band**



**Intermodulation  
Close  
Lower  
CDMA  
Cellular 800 MHz  
A Band**

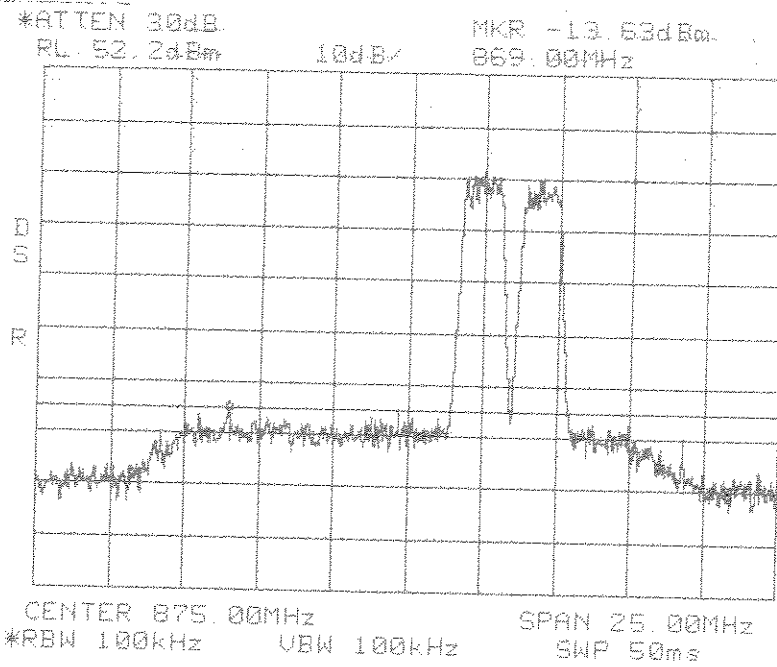
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

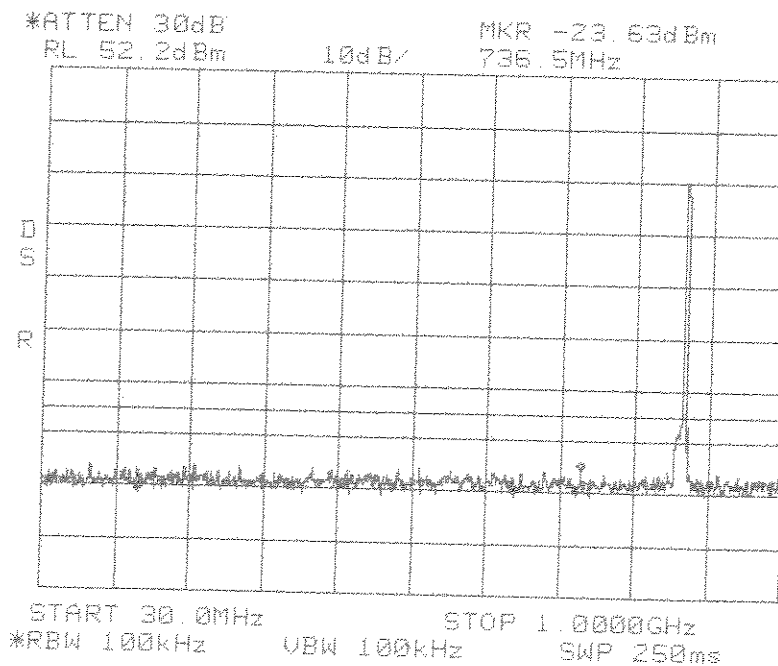


**Intermodulation  
Close  
Lower  
CDMA  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Close  
Upper  
CDMA  
Cellular 800 MHz  
A Band**

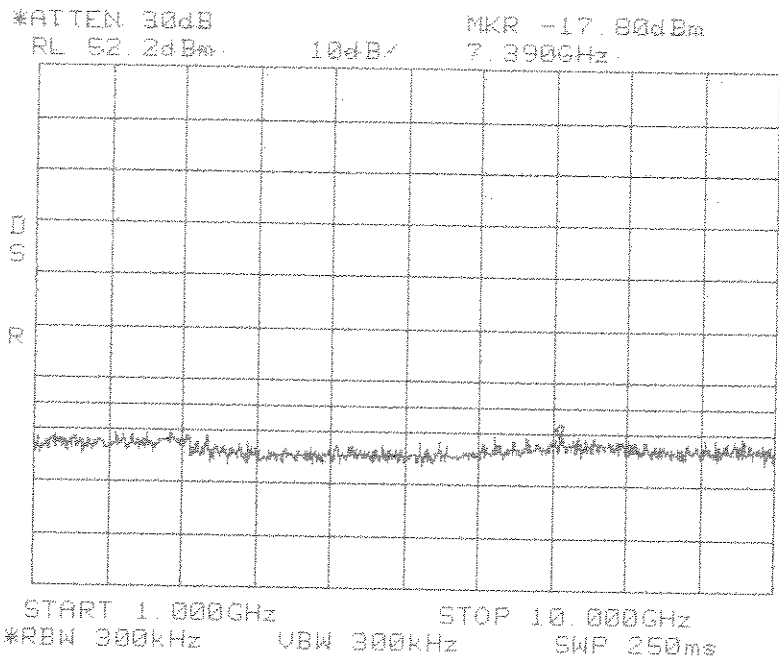


**Intermodulation  
Close  
Upper  
CDMA  
Cellular 800 MHz  
A Band**

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

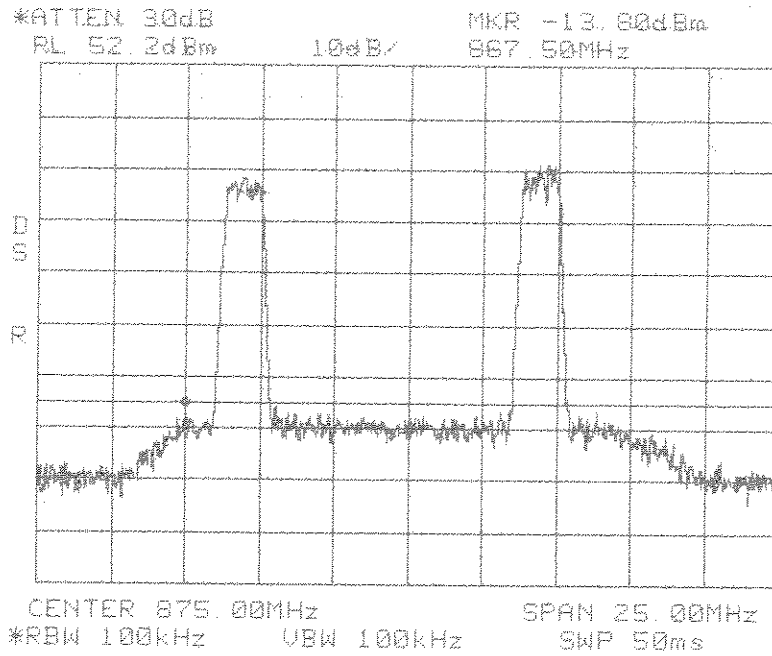


Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

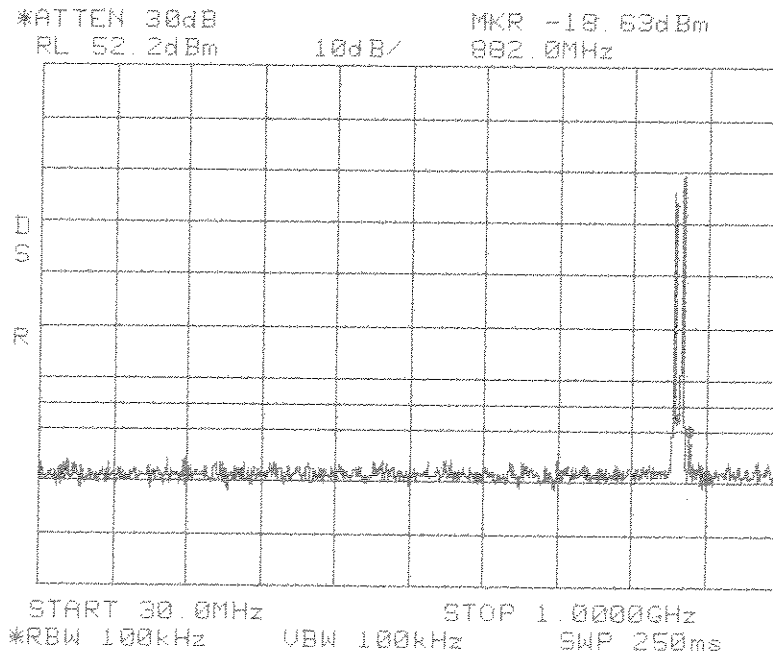


**Intermodulation  
Close  
Upper  
CDMA  
Cellular 800 MHz  
A Band**

Center: 875.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



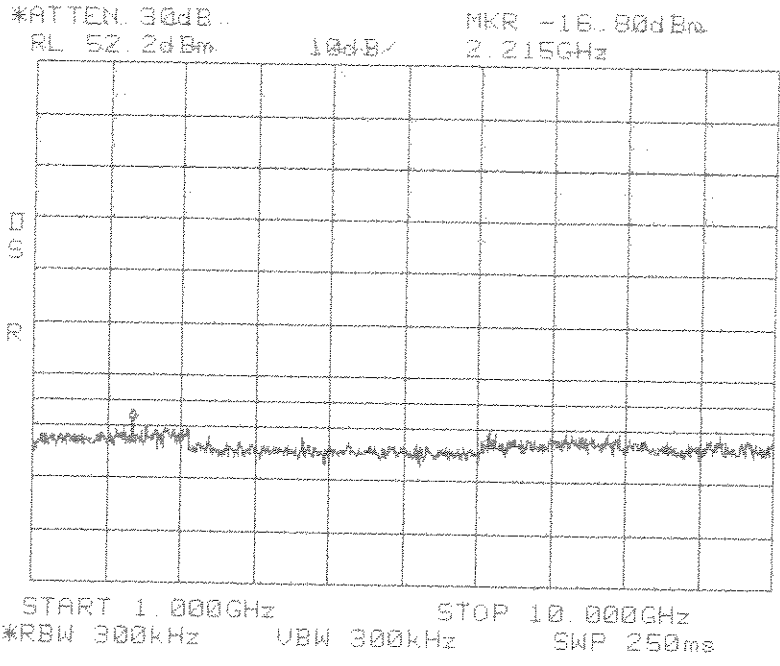
**Intermodulation  
Apart  
CDMA  
Cellular 800 MHz  
A Band**



**Intermodulation  
Apart  
CDMA  
Cellular 800 MHz  
A Band**

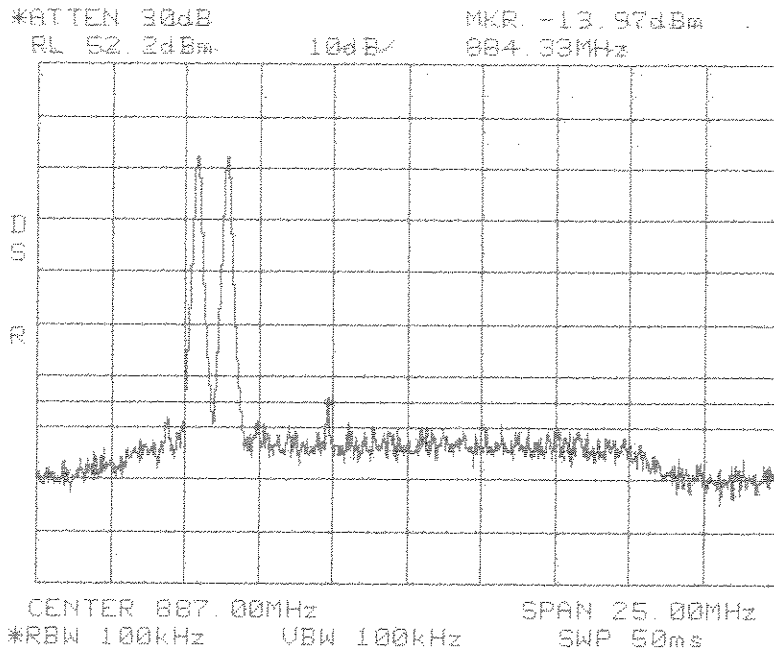
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

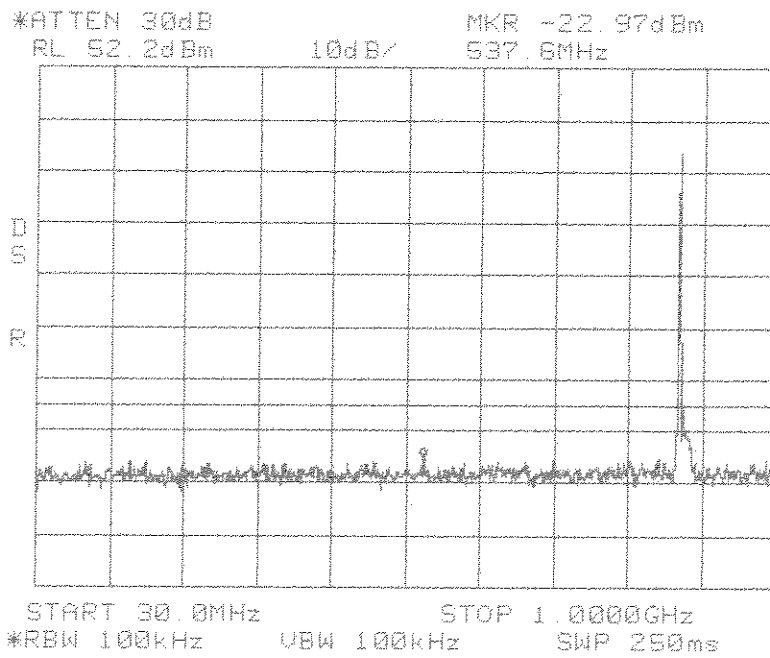


**Intermodulation  
Apart  
CDMA  
Cellular 800 MHz  
A Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



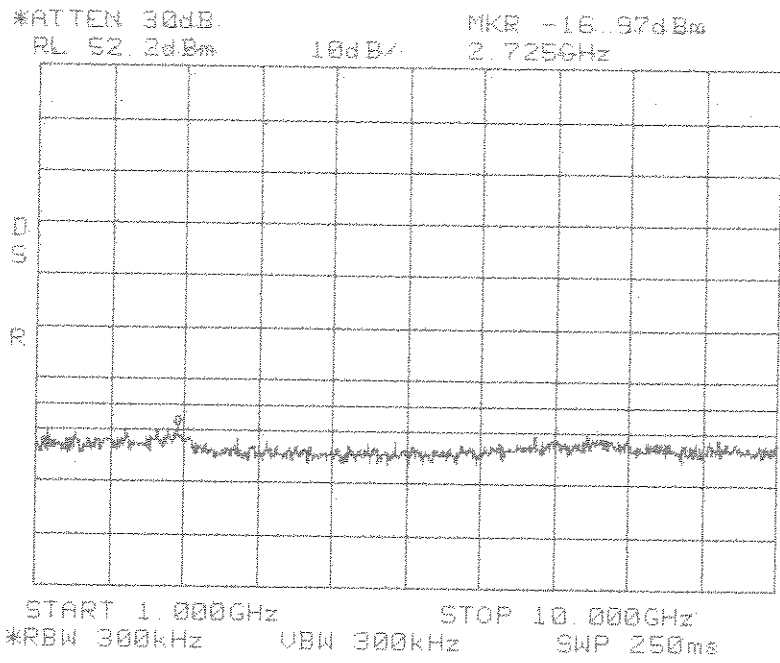
**Intermodulation  
Close  
Lower  
FM  
Cellular 800 MHz  
B Band**



**Intermodulation  
Close  
Lower  
FM  
Cellular 800 MHz  
B Band**

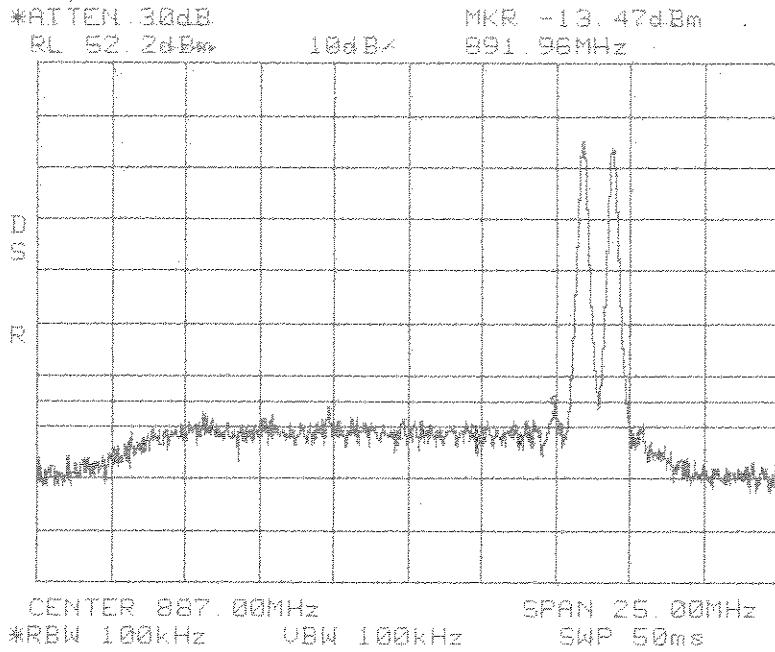
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

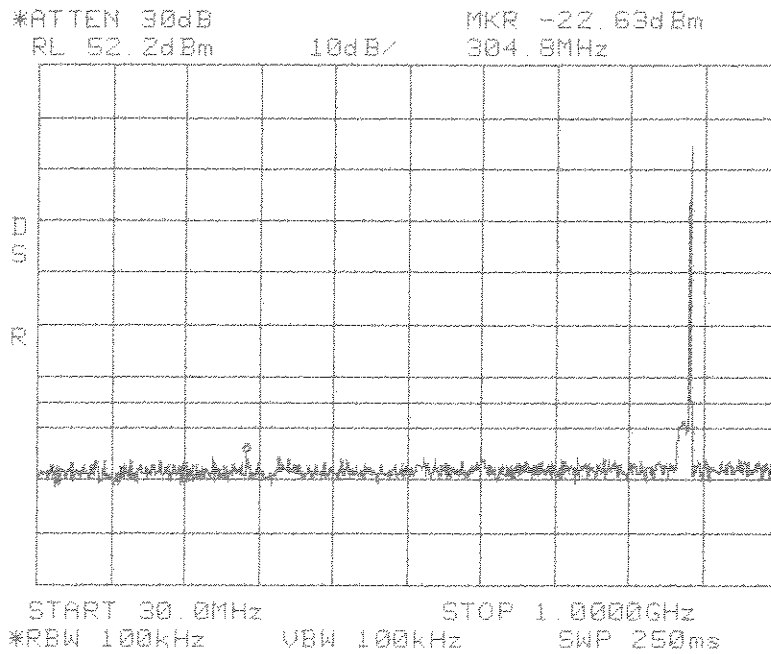


**Intermodulation  
Close  
Lower  
FM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



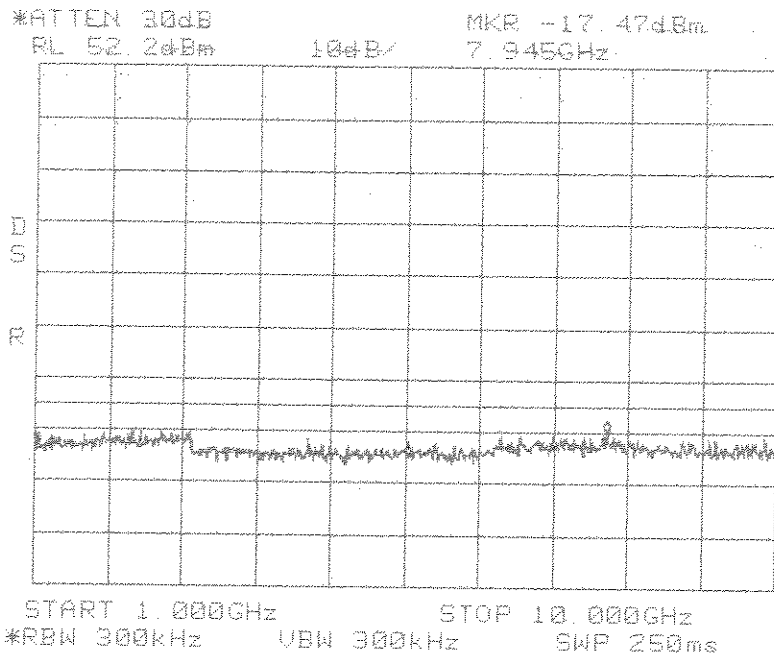
**Intermodulation  
Close  
Upper  
FM  
Cellular 800 MHz  
B Band**



**Intermodulation  
Close  
Upper  
FM  
Cellular 800 MHz  
B Band**

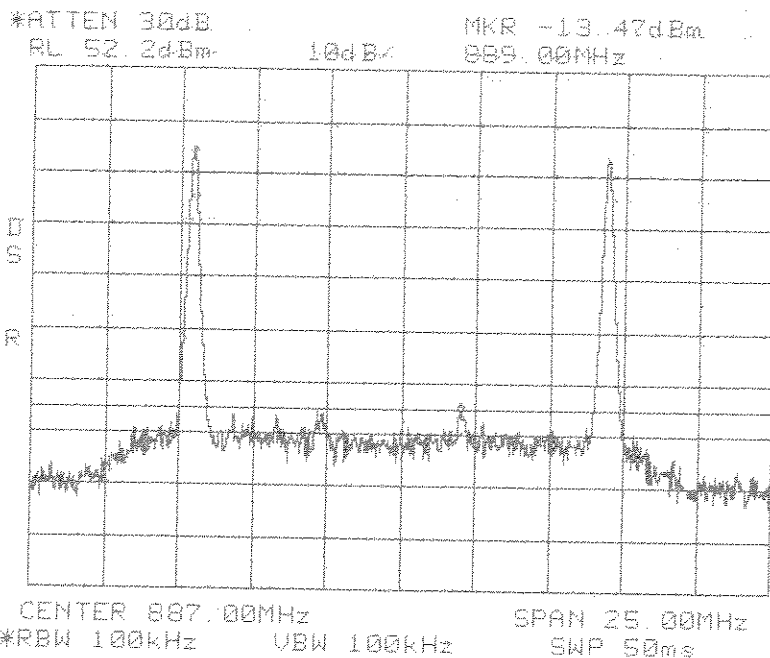
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

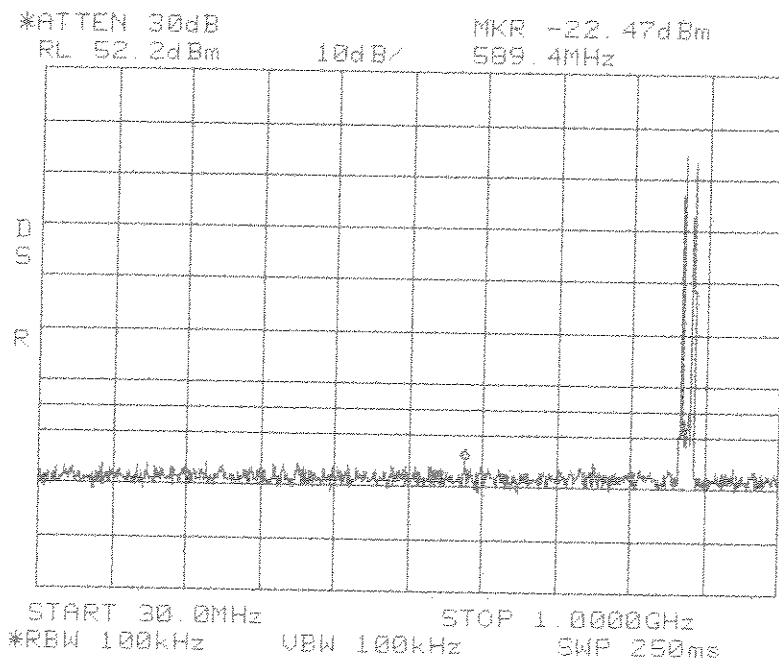


**Intermodulation  
Close  
Upper  
FM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Apart  
FM  
Cellular 800 MHz  
B Band**

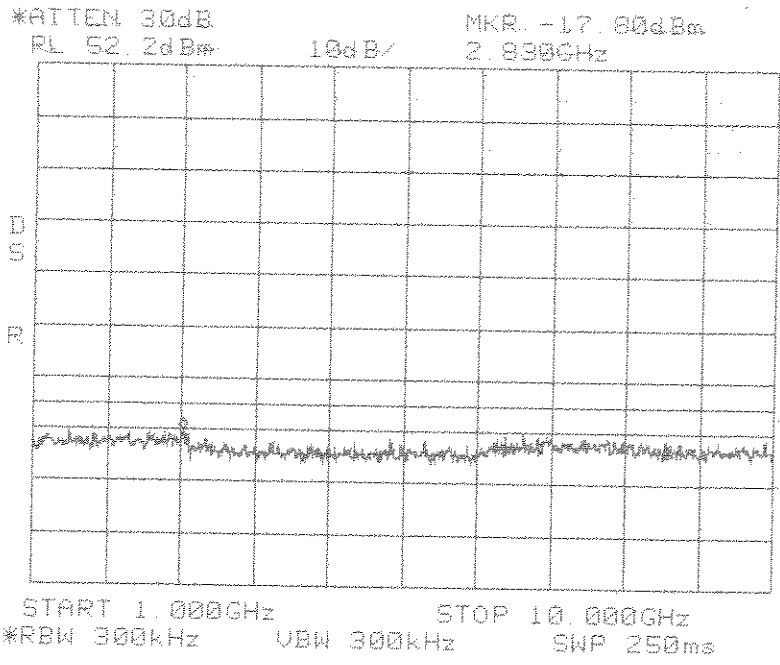


**Intermodulation  
Apart  
FM  
Cellular 800 MHz  
B Band**

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

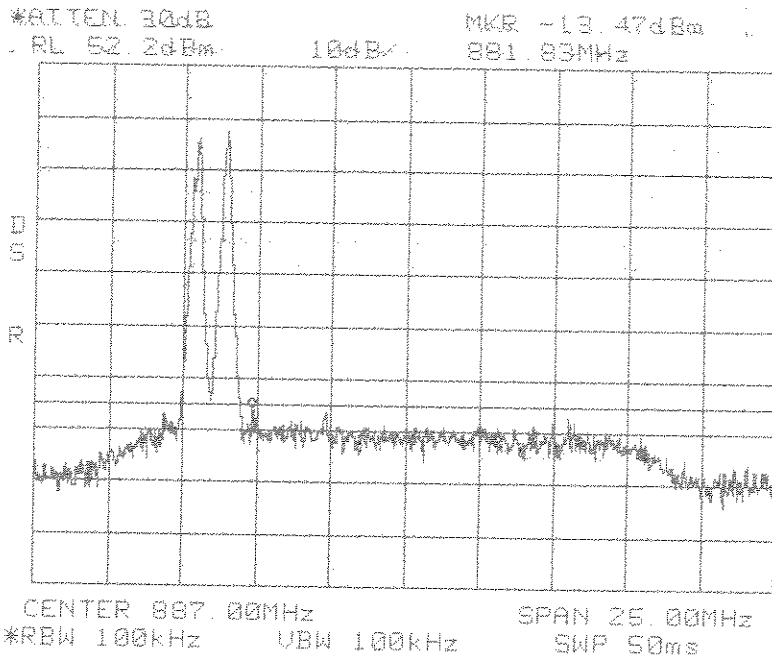


Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

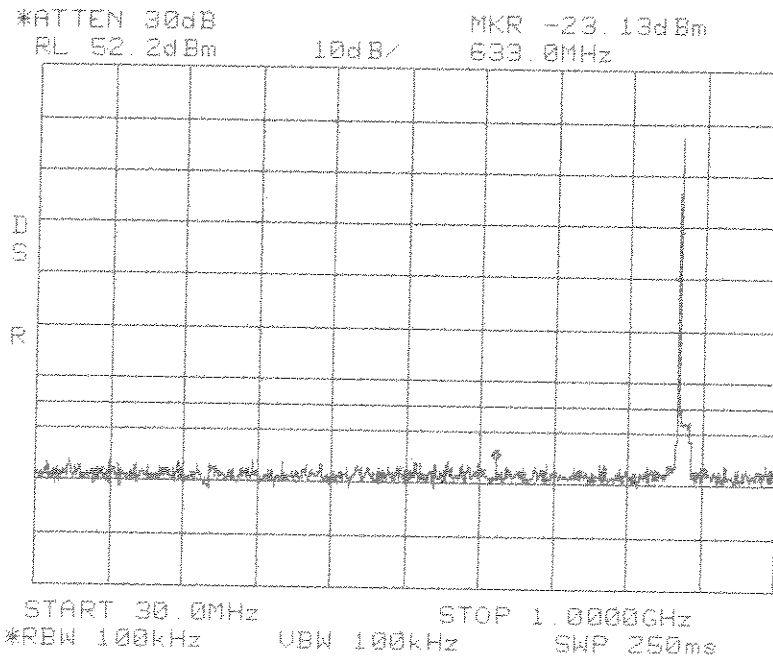


**Intermodulation  
Apart  
FM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



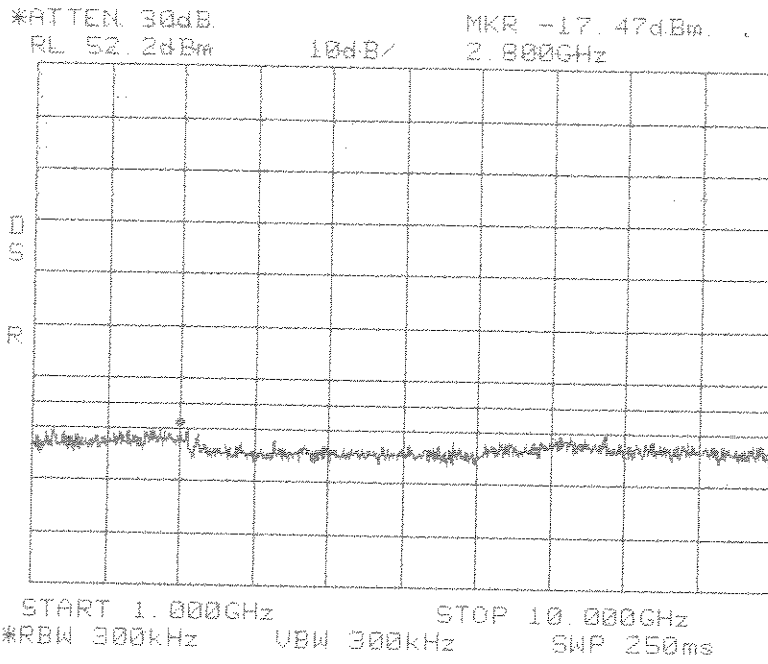
**Intermodulation  
Close  
Lower  
16QAM  
Cellular 800 MHz  
B Band**



**Intermodulation  
Close  
Lower  
16QAM  
Cellular 800 MHz  
B Band**

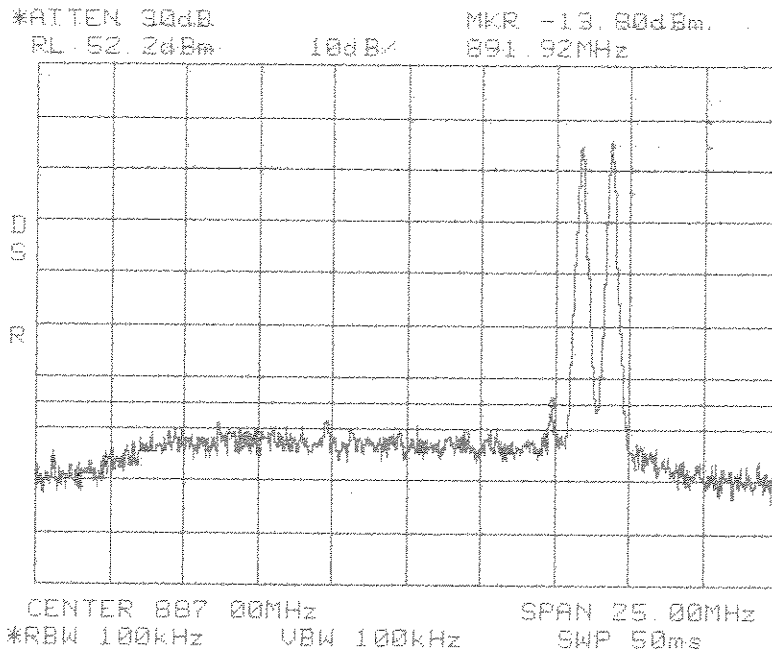
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

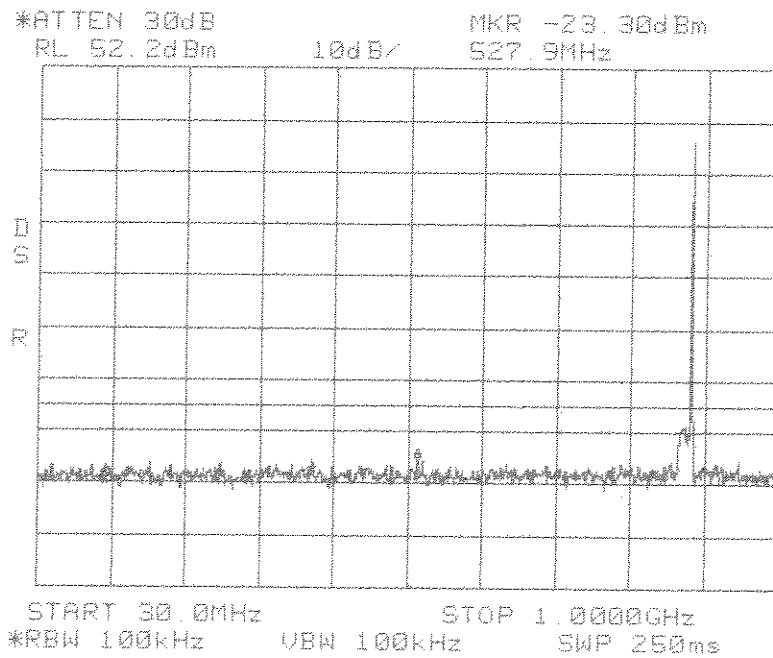


**Intermodulation  
Close  
Lower  
16QAM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



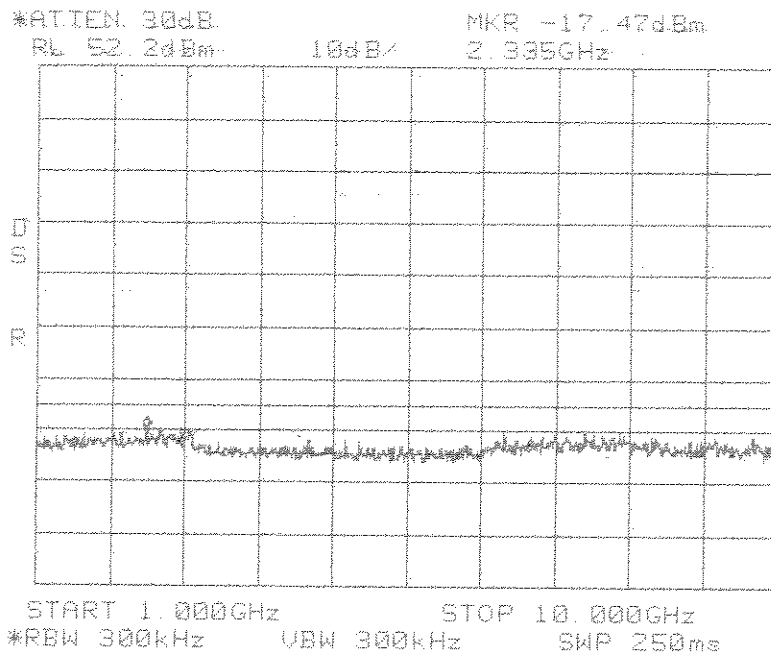
**Intermodulation  
Close  
Upper  
16QAM  
Cellular 800 MHz  
B Band**



**Intermodulation  
Close  
Upper  
16QAM  
Cellular 800 MHz  
B Band**

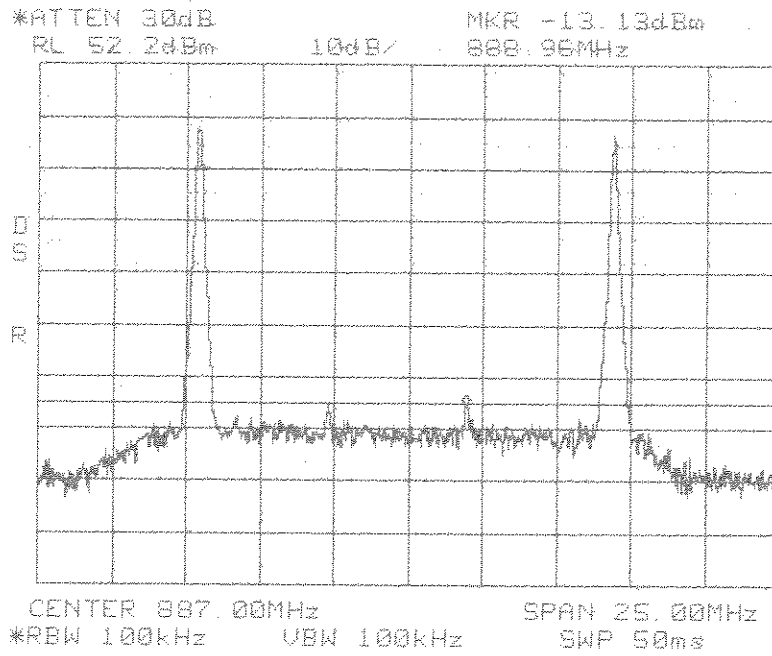
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

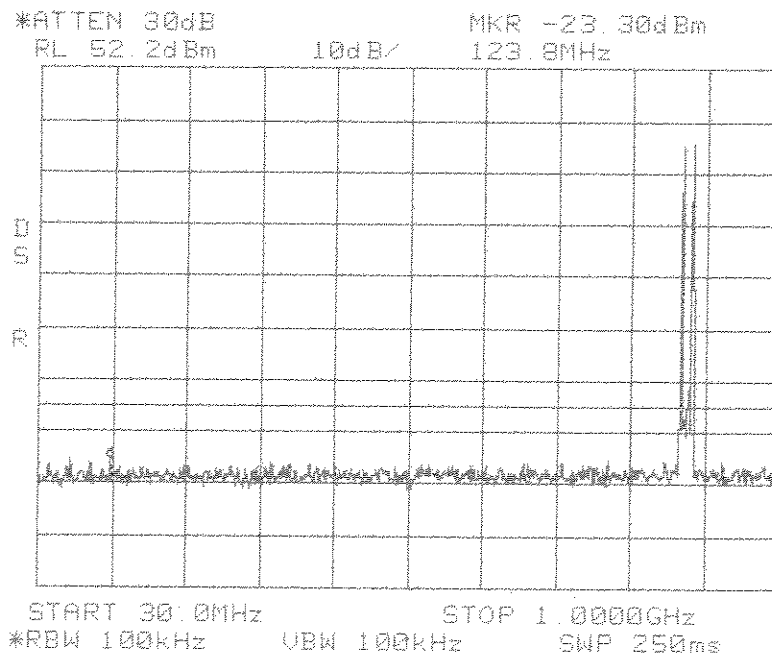


**Intermodulation  
Close  
Upper  
16QAM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Apart  
16QAM  
Cellular 800 MHz  
B Band**

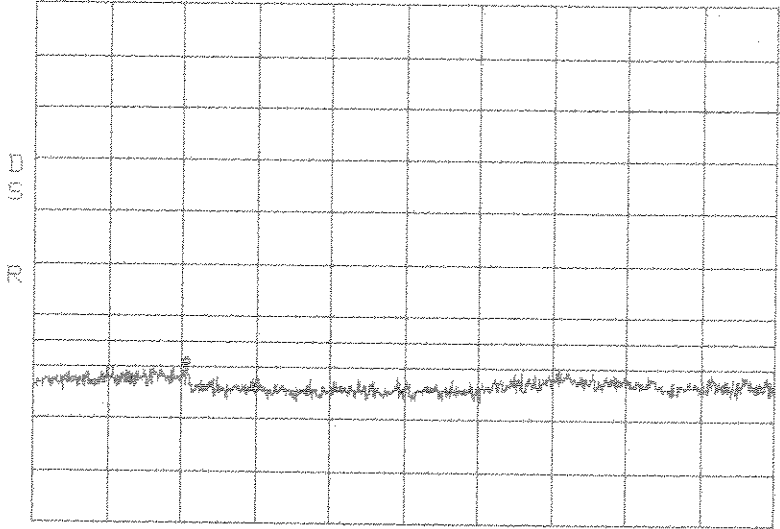


**Intermodulation  
Apart  
16QAM  
Cellular 800 MHz  
B Band**

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

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

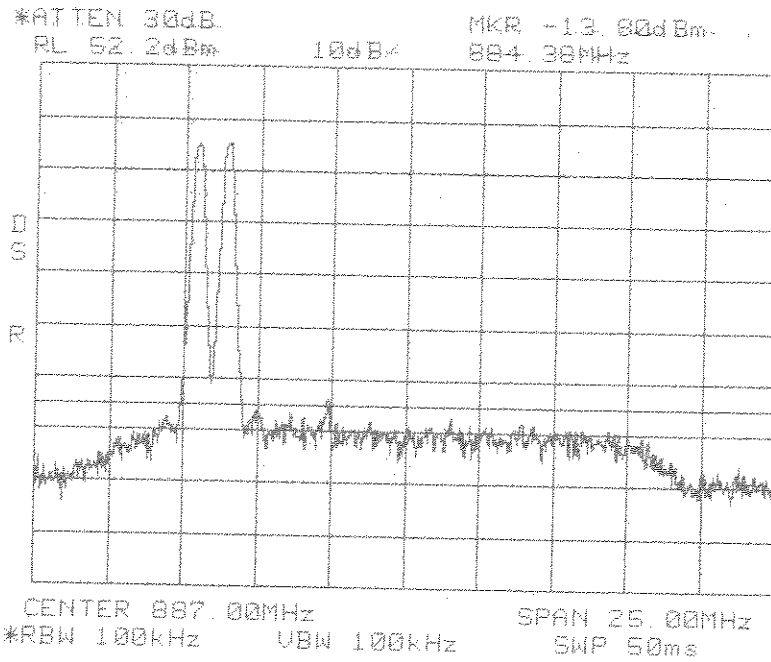
\*ATTEN 30dB  
\*ATTEN 30dB  
RL 52.2dBm 10dB/ 2.860GHz  
MKP -79.30dBm  
MKP -17.63dBm



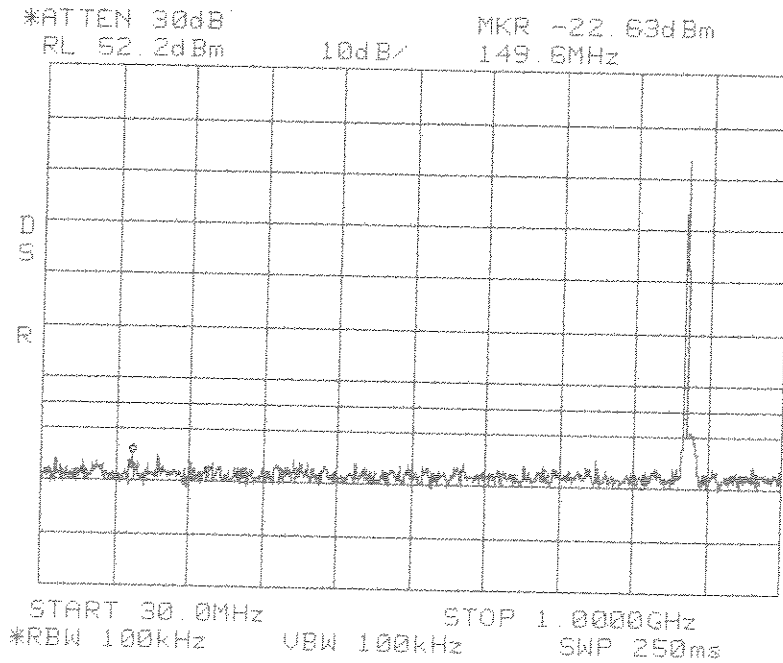
START 1.000GHz STOP 10.000GHz  
\*RBW 300kHz UBW 300kHz SWP 250ms

**Intermodulation  
Apert  
16QAM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Close  
Lower  
GSM  
Cellular 800 MHz  
B Band**

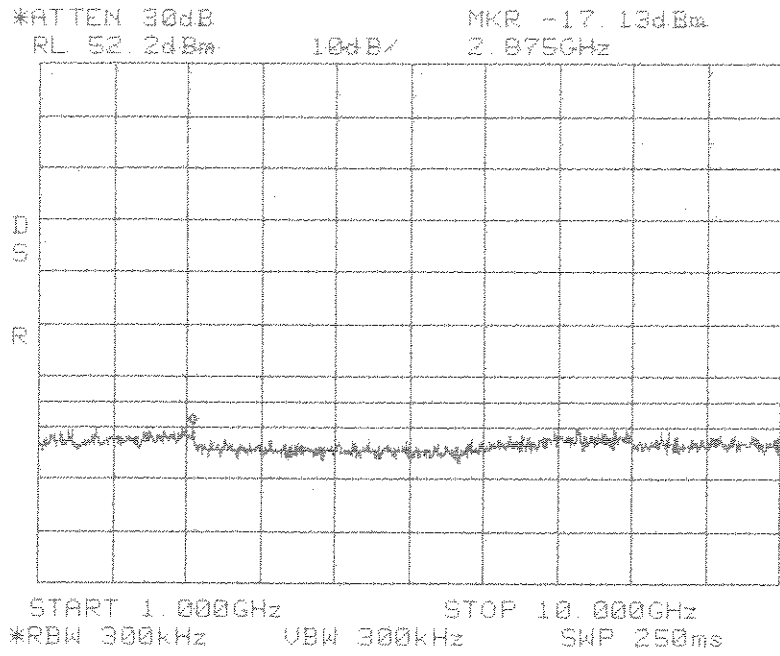


**Intermodulation  
Close  
Lower  
GSM  
Cellular 800 MHz  
B Band**

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

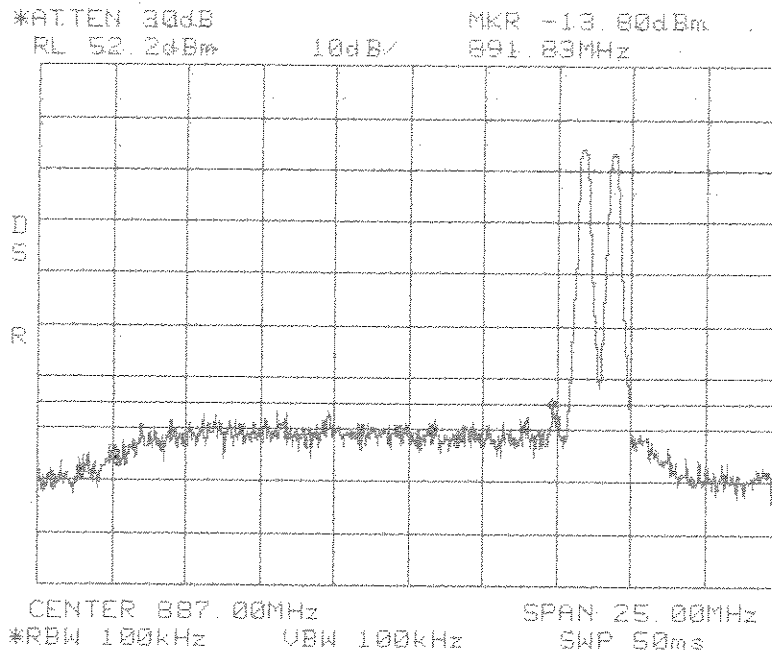


Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

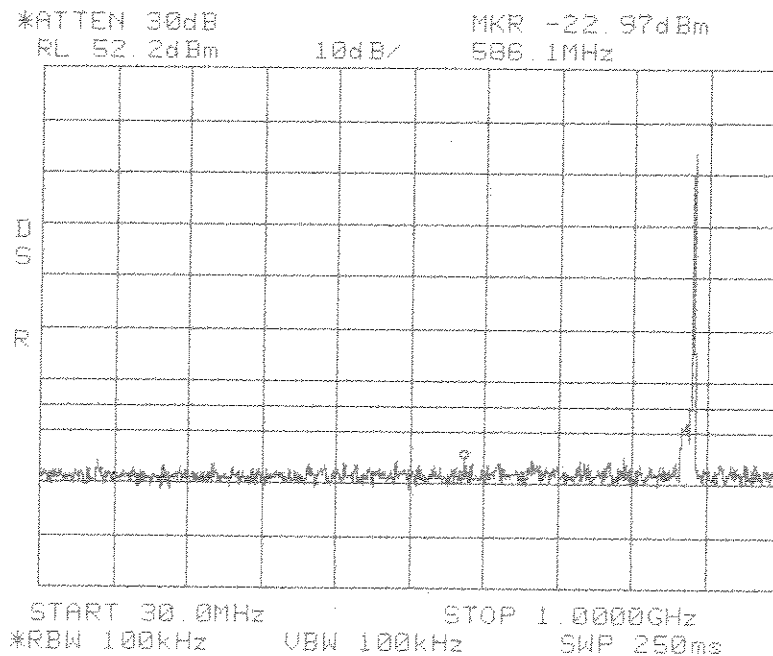


**Intermodulation  
Close  
Lower  
GSM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



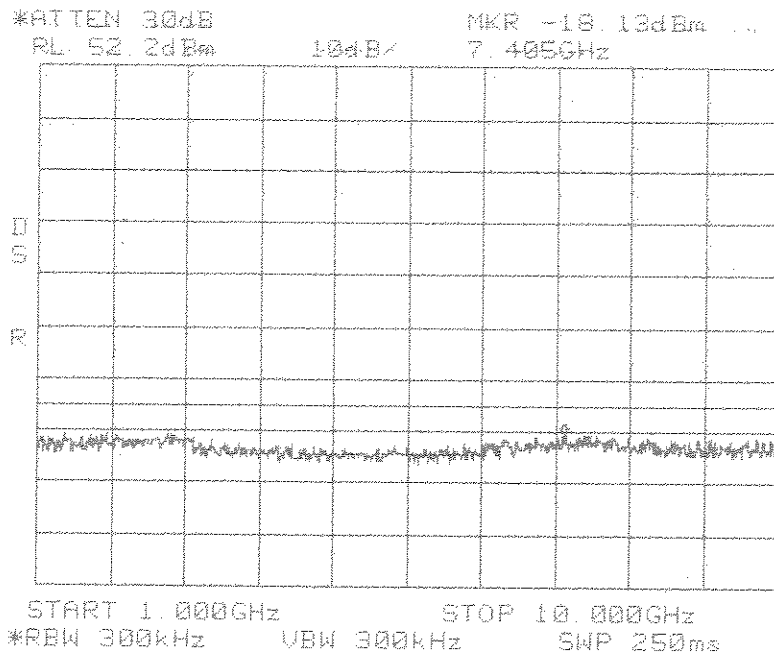
**Intermodulation  
Close  
Upper  
GSM  
Cellular 800 MHz  
B Band**



**Intermodulation  
Close  
Upper  
GSM  
Cellular 800 MHz  
B Band**

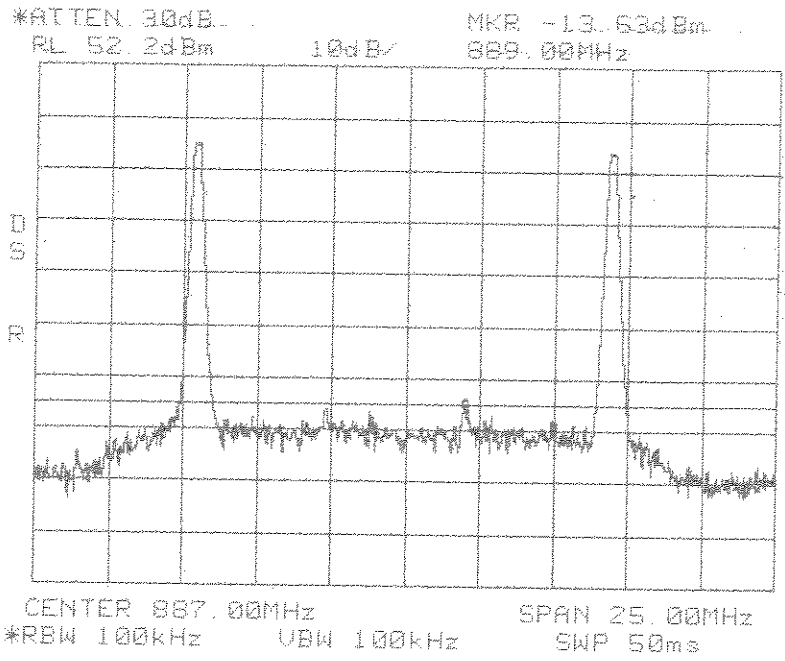
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

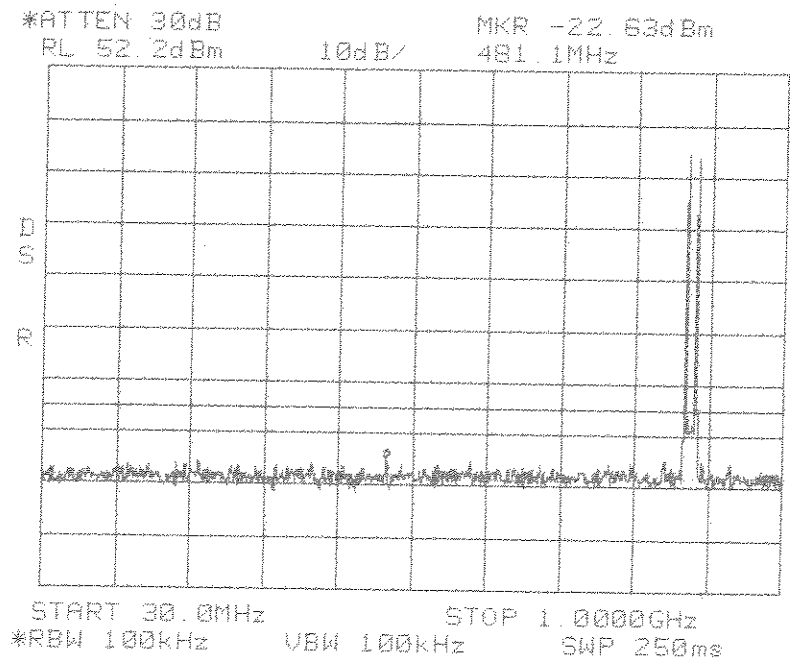


**Intermodulation  
Close  
Upper  
GSM  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Apart  
GSM  
Cellular 800 MHz  
B Band**

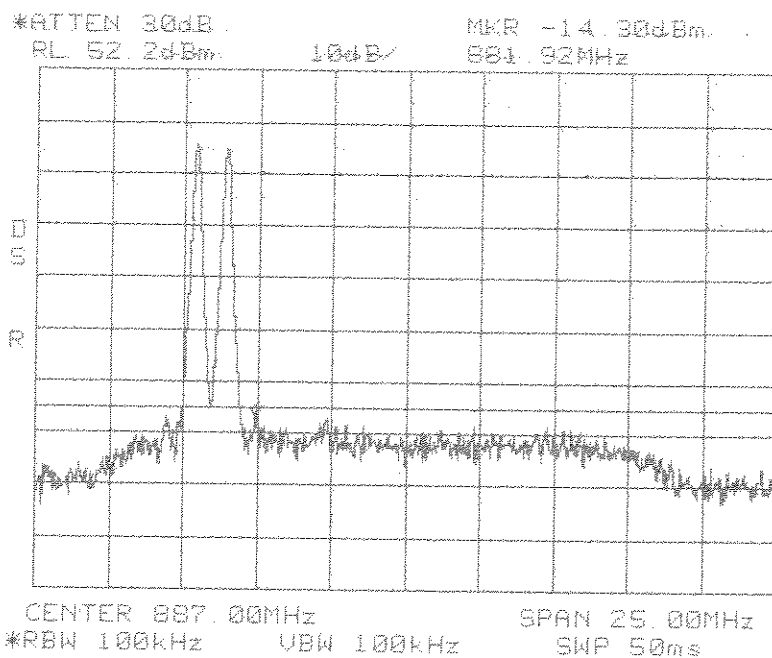


**Intermodulation  
Apart  
GSM  
Cellular 800 MHz  
B Band**

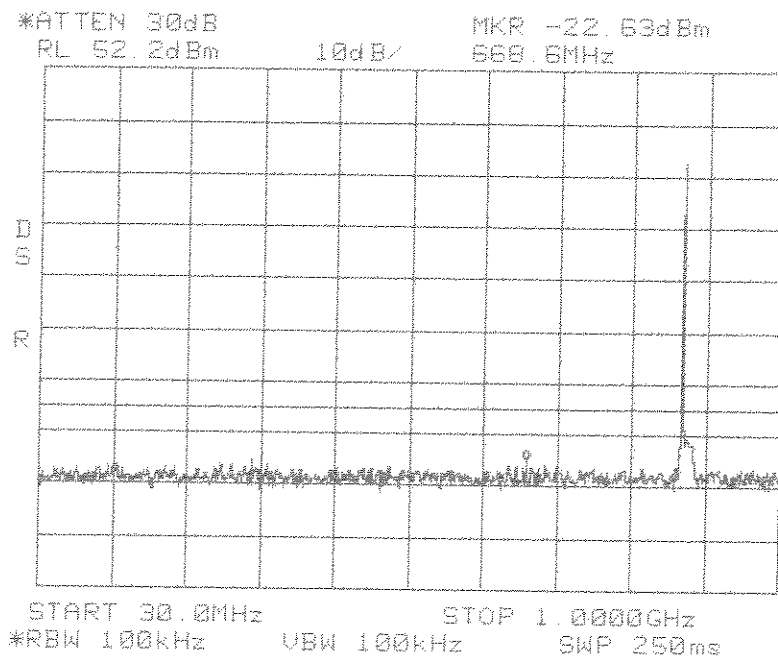
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz



Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Close  
Lower  
TDMA  
Cellular 800 MHz  
B Band**

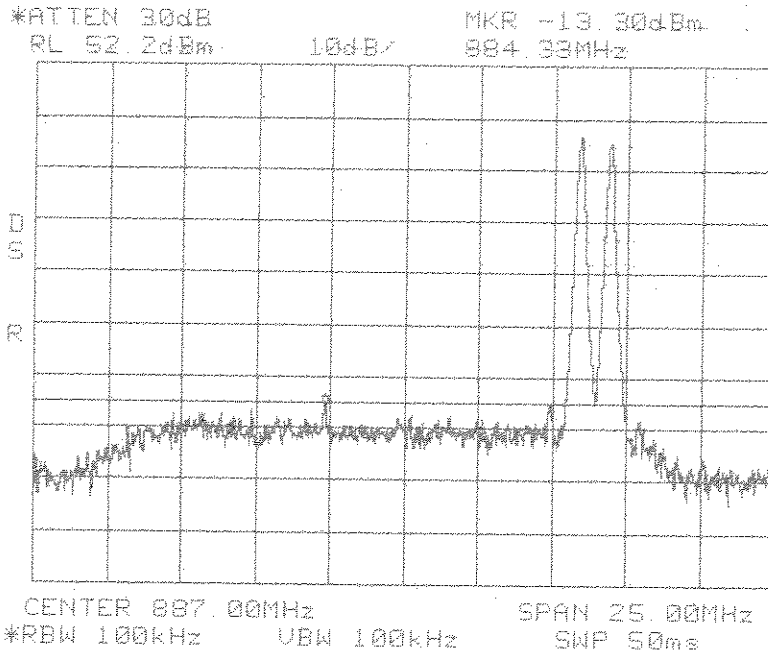


**Intermodulation  
Close  
Lower  
TDMA  
Cellular 800 MHz  
B Band**

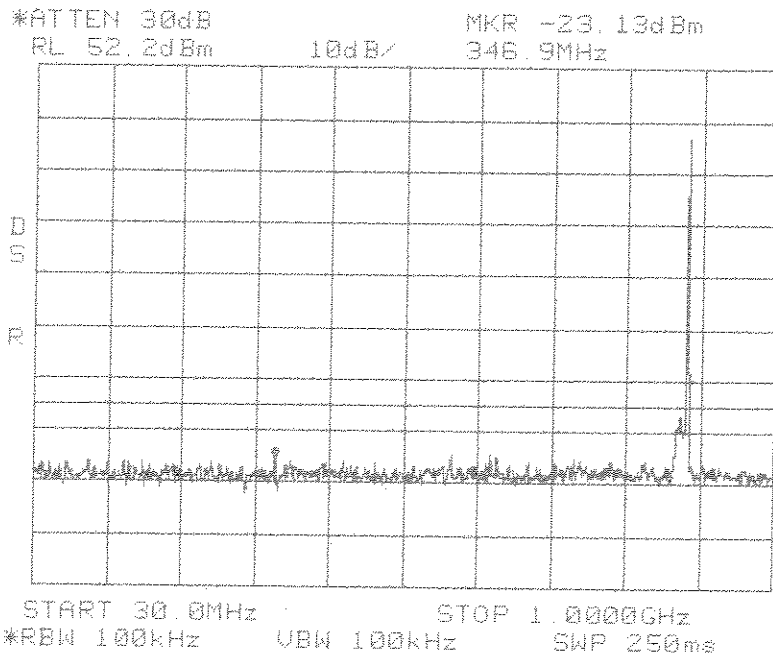
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz



Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Close  
Upper  
TDMA  
Cellular 800 MHz  
B Band**

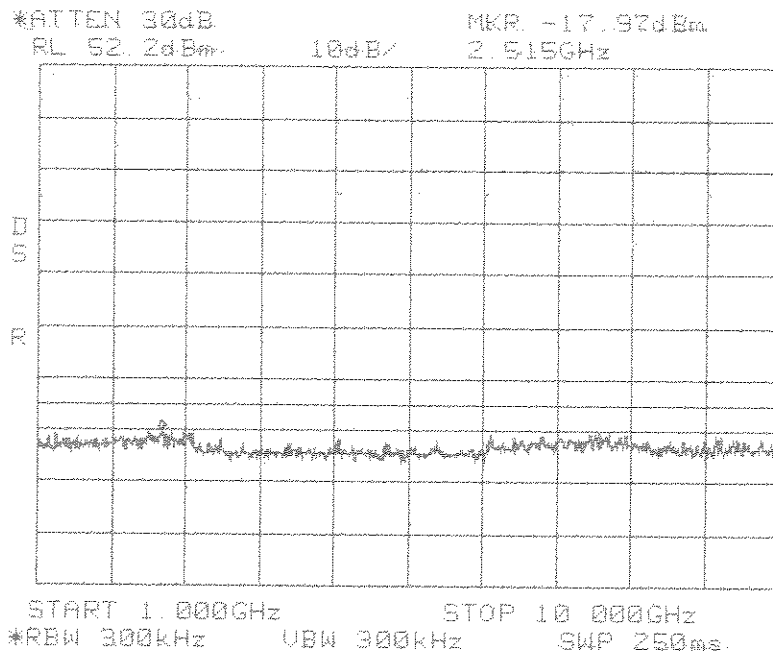


**Intermodulation  
Close  
Upper  
TDMA  
Cellular 800 MHz  
B Band**

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

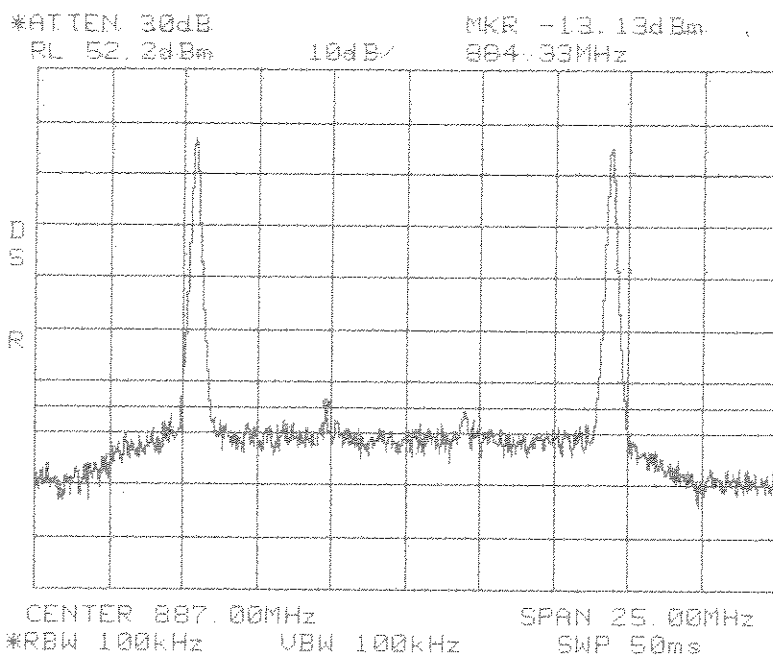


Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

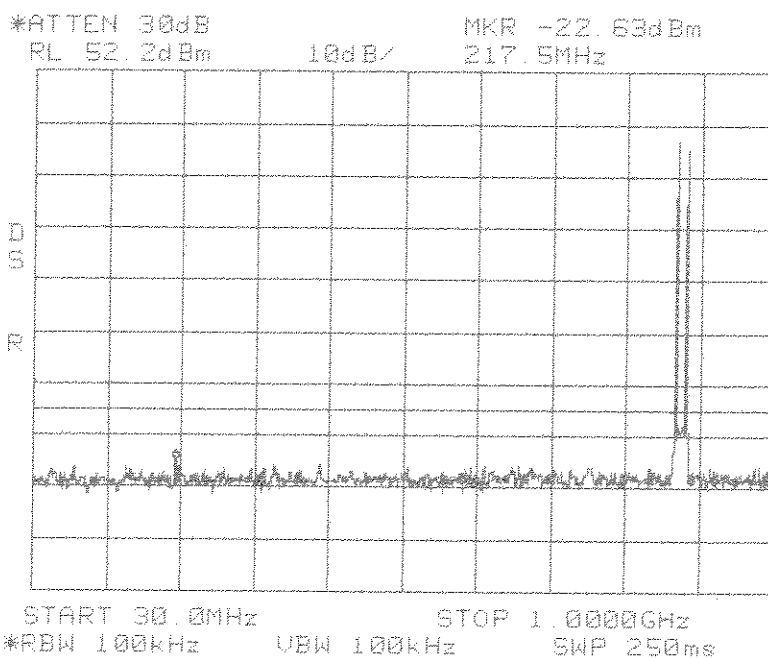


**Intermodulation  
Close  
Upper  
TDMA  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



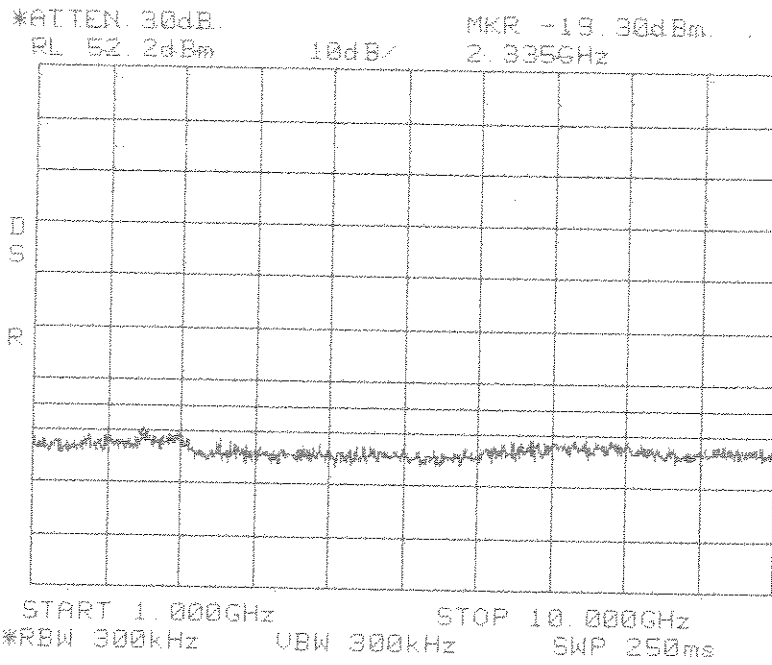
**Intermodulation  
Apart  
TDMA  
Cellular 800 MHz  
B Band**



**Intermodulation  
Apart  
TDMA  
Cellular 800 MHz  
B Band**

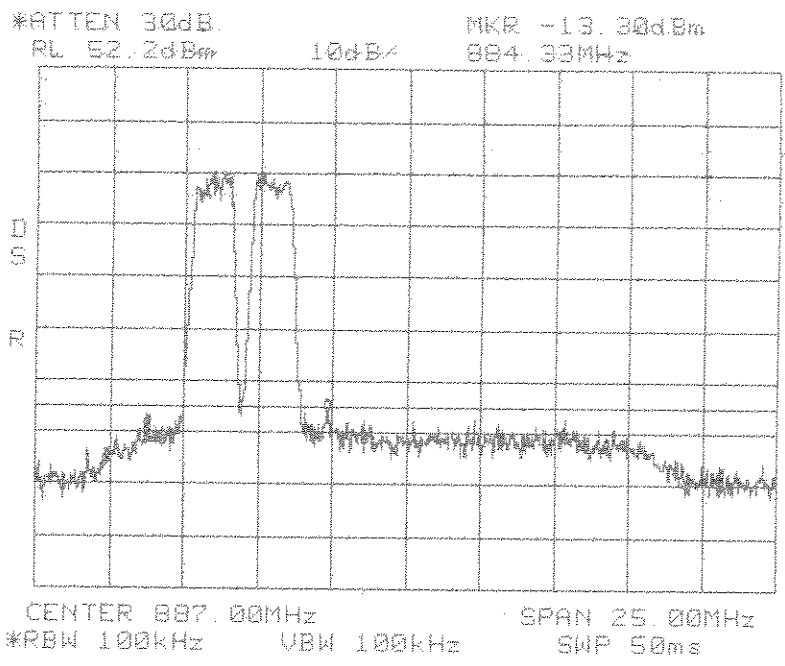
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

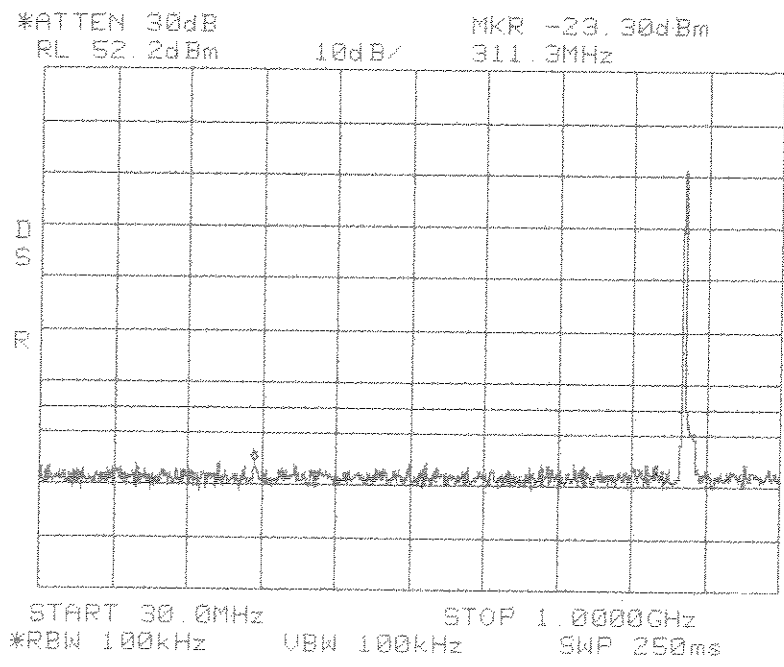


**Intermodulation  
Apart  
TDMA  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



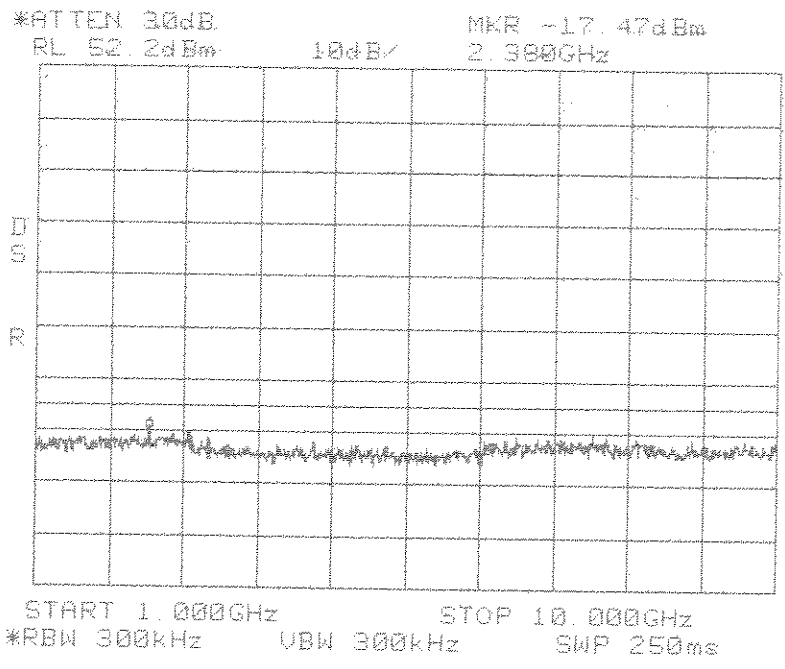
**Intermodulation  
Close  
Lower  
CDMA  
Cellular 800 MHz  
B Band**



**Intermodulation  
Close  
Lower  
CDMA  
Cellular 800 MHz  
B Band**

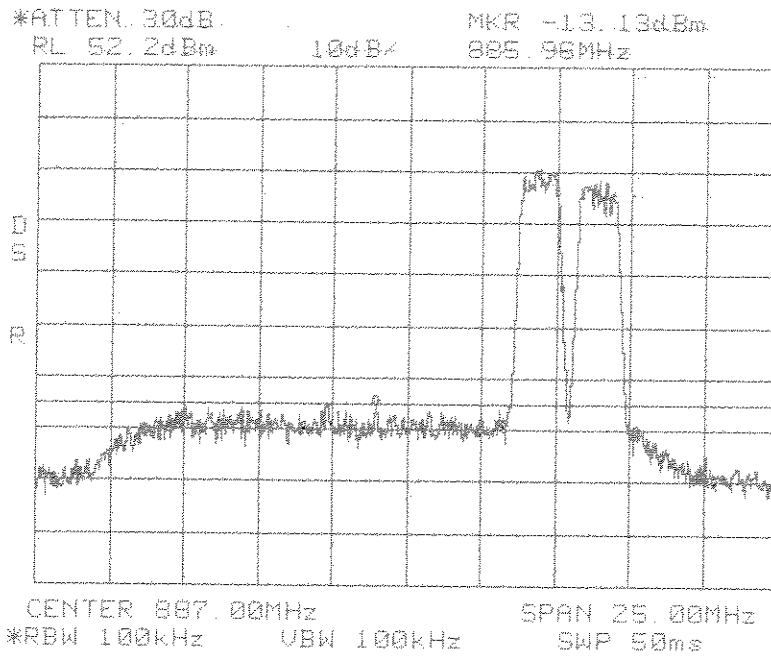
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

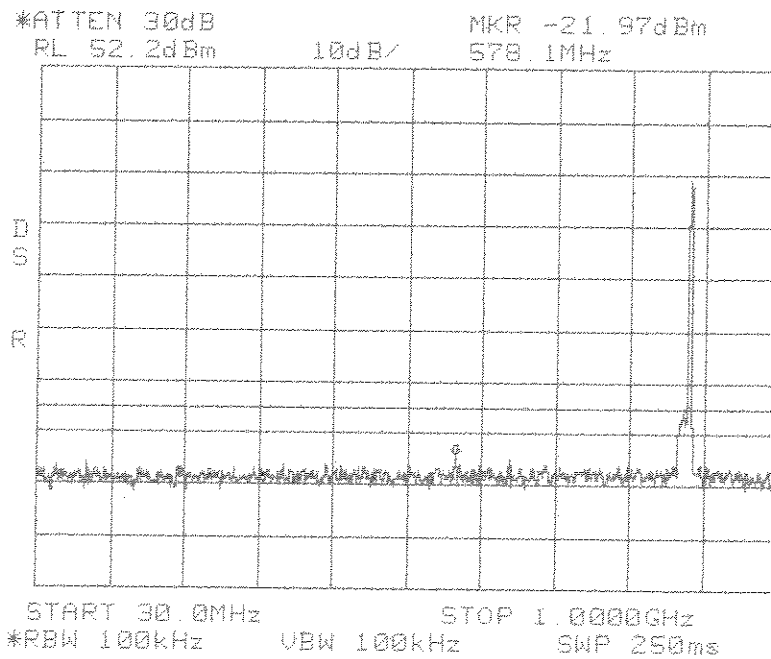


**Intermodulation  
Close  
Lower  
CDMA  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



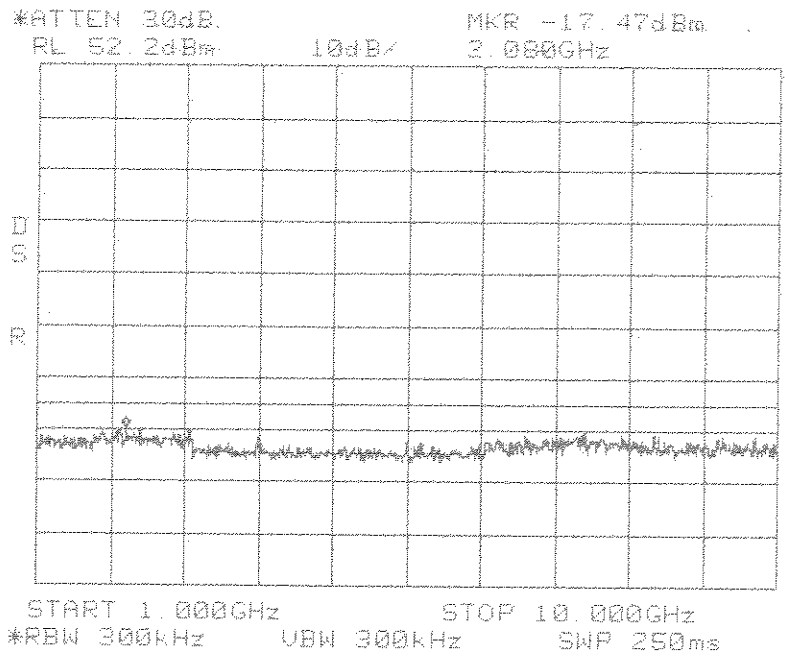
**Intermodulation  
Close  
Upper  
CDMA  
Cellular 800 MHz  
B Band**



**Intermodulation  
Close  
Upper  
CDMA  
Cellular 800 MHz  
B Band**

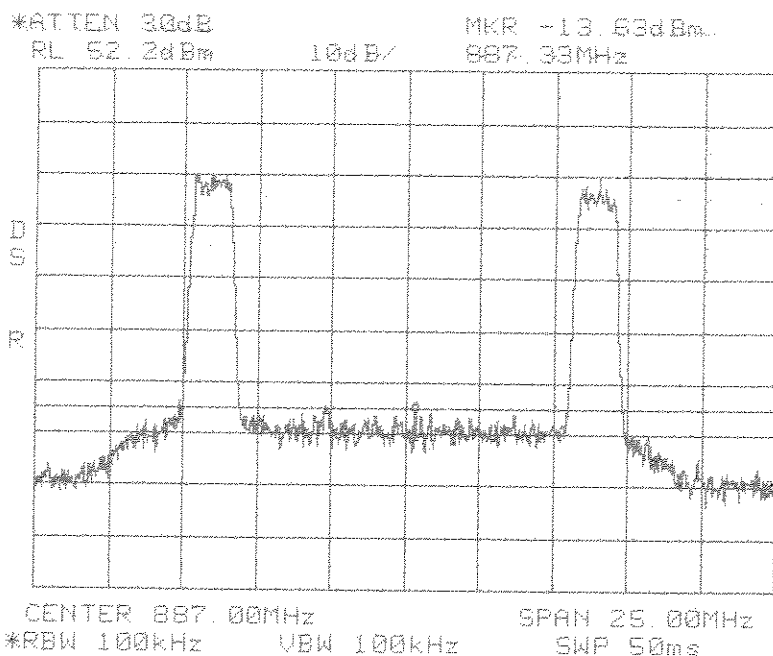
Span: 30 MHz to 1 GHz  
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz

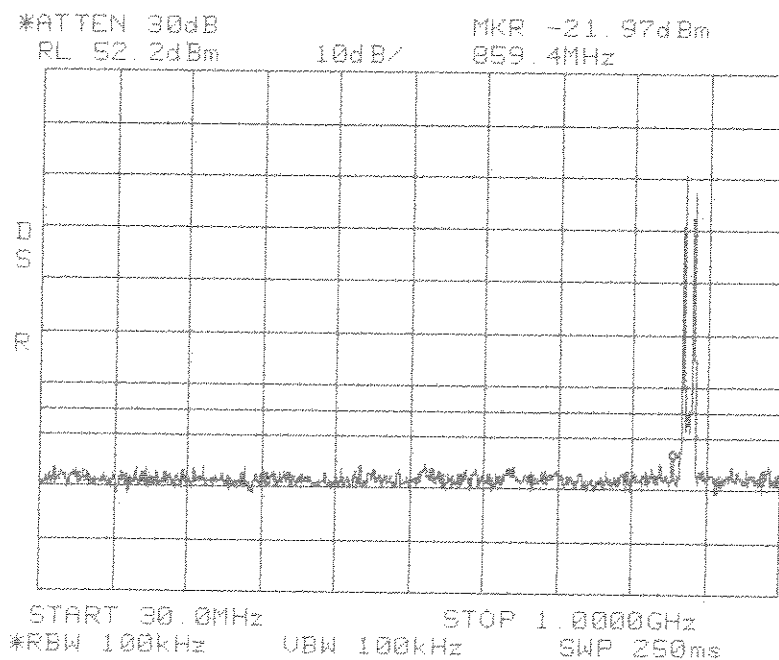


**Intermodulation  
Close  
Upper  
CDMA  
Cellular 800 MHz  
B Band**

Center: 887.0 MHz  
Span: 25 MHz  
RBW/VBW: 100 kHz



**Intermodulation  
Apart  
CDMA  
Cellular 800 MHz  
B Band**

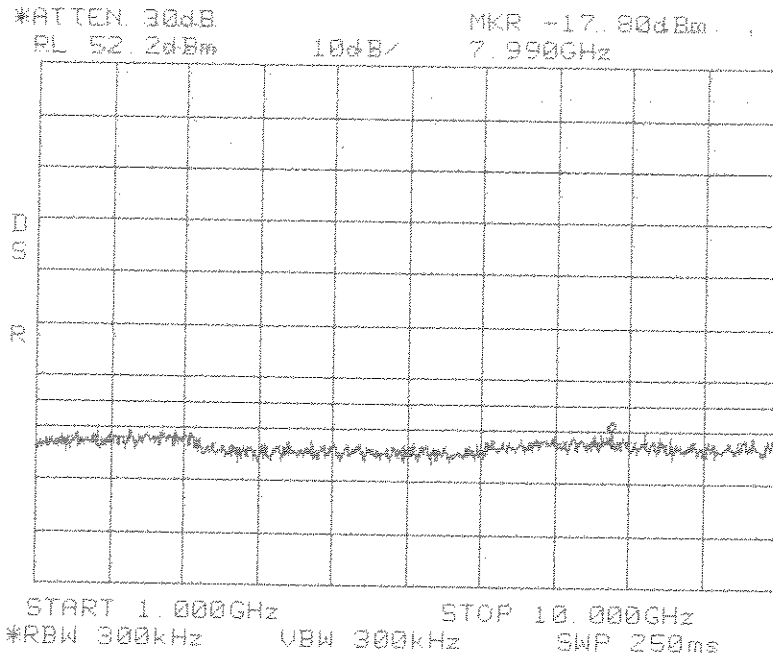


**Intermodulation  
Apart  
CDMA  
Cellular 800 MHz  
B Band**

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



Span: 1 GHz to 10 GHz  
RBW/VBW: 300 kHz



**Intermodulation  
Apart  
CDMA  
Cellular 800 MHz  
B Band**

## Appendix B

Constructional Data Form



# EMC Test Plan and Constructional Data Form

PLEASE COMPLETE THIS DOCUMENT IN FULL, ENTERING N/A IF THE FIELD IS NOT APPLICABLE.

**Applicant** -- *NOTE: This information will be input into your test report as shown below. Press the F1 key at any time to get HELP for the current field selected.*

Company: ADC Inc.  
 Address: P.O. Box 1101  
Minneapolis, MN 55440-1101  
 Contact: Mark F. Miska Position: Compliance Engineer  
 Phone: 952-403-8340 Fax: 952-403-8858  
 E-mail Address: mark.miska@adc.com

**General Equipment Description** -- *NOTE: This information will be input into your test report as shown below.*

EUT Description Transports RF between a remote antenna and base station.  
 EUT Name Digivance® CXD 800 MHz A and B Band  
 Model No.: DGVF-02000000XXCRN Serial No.: None  
 Product Options: Receive Diversity  
 Configurations to be tested: Cellular 800 MHz A and B Band

**Test Objective**

- EMC Directive 89/336/EEC (EMC)  FCC: Class  A  B Part 22  
 Std:  VCCI: Class  A  B
- Machinery Directive 89/392/EEC (EMC)  BCIC: Class  A  B  
 Std:  Canada: Class  A  B
- Medical Device Directive 93/42/EEC (EMC)  Australia: Class  A  B  
 Std:  Other: \_\_\_\_\_
- Vehicle Directive 72/245/EEC (EMC)  
 Std: \_\_\_\_\_
- FDA Reviewers Guidance for Premarket Notification Submissions (EMC)

**TÜV Product Service Certification Requested**

- Attestation of Conformity (AoC)  International EMC Mark (IEM)
- Certificate of Conformity (CoC)  Compliance Document
- Protection Class (N/A for vehicles)  Class I  Class II  Class III

# EMC Test Plan and Constructional Data Form

(Press **F1** when field is selected to show additional information on Protection Class.)

### Attendance

Test will be:  Attended by the customer     Unattended by the customer

### Failure - Complete this section if testing will not be attended by the customer.

If a failure occurs, TUV Product Service should:

- Call contact listed above, if not available then stop testing. (After hrs phone): \_\_\_\_\_
- Continue testing to complete test series.
- Continue testing to define corrective action.
- Stop testing.

### EUT Specifications and Requirements

Length: 18"    Width: 11"    Height: 23"    Weight: 95 LBS

### Power Requirements

*Regulations require testing to be performed at typical power ratings in the countries of intended use. (i.e., European power is typically 230 VAC 50 Hz or 400 VAC 50 Hz, single and three phase, respectively)*

Voltage: 176-238 VAC (If battery powered, make sure battery life is sufficient to complete testing.)

# of Phases: 1

Current (Amps/phase(max)): 6/4    Current (Amps/phase(nominal)): 4

Other: \_\_\_\_\_

### Other Special Requirements

none

### Typical Installation and/or Operating Environment

(ie. Hospital, Small Business, Industrial/Factory, etc.)

Host indoor only with Remote Unit indoor or outdoor. System is typically employed as a Microcell.



**EMC Test Plan and Constructional Data Form**

**EUT Power Cable**

- Permanent    OR     Removable                      Length (in meters):   1
- Shielded        OR     Unshielded
- Not Applicable

# EMC Test Plan and Constructional Data Form

EUT Interface Ports and Cables												
Interface			Shielding									
Type	Analog	Digital	Qty	Yes	No	Type	Termination	Connector Type	Port Termination	Length (in meters)	Removable	Permanent
<b>EXAMPLE:</b>												
RS232	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Foil over braid	Coaxial	Metallized 9-pin D-Sub	Characteristic Impedance	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RF "N" type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Braid	Coaxial	N	50 Ohms	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RF "SMA" type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	63	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Braid	Coaxial	SMA	50 Ohms	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12V DC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	3 Pin Standoff		3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fiber	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	SC	N/A	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PA CNTRL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	8 Pin Standoff		3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AC power	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A				3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Battery Connection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	2 Pin Standoff		1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RJ-45	<input checked="" type="checkbox"/>	<input type="checkbox"/>	117	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	RJ-45		1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RS-232	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	9 Pin D-Sub		1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fan Power	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	18 Pin Standoff		1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
USB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	USB		1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>

## EMC Test Plan and Constructional Data Form

### EUT Software.

Revision Level: SNMP v1 & v2

Description: Digivance Element Management System (DEMS). System Management and Interface Matching Software.

**EUT Operating Modes to be Tested** -- list the operating modes to be used during test. It is recommended the equipment be tested while operating in a typical operation mode. FCC testing of personal computers and/or peripherals requires that a simple program generate a complete line of upper case H's. Provide a general description of all software, firmware, and PLD algorithms used in the equipment. List all code modules as described above, with the revision level used during testing. Consult with your TÜV Product Service Representative if additional assistance is required.

1. Max composite out
  
- 2.
  
- 3.

**EUT System Components** -- List and describe all components which are part of the EUT. For FCC testing a minimum configuration is required. (ie. Mouse, Printer, Monitor, External Disk Drive, Motherboard, etc.)

Description	Model #	Serial #	FCC ID #
HUB	OP-DC-DIGCH2	None	
RAN	DGVF-0204000023CRN	None	
Digivance CXD System consist of the HUB and RAN.		None	

## EMC Test Plan and Constructional Data Form

<b>Support Equipment</b> -- List and describe all support equipment which is not part of the EUT. (i.e. peripherals, simulators, etc)			
<i>Description</i>	<i>Model #</i>	<i>Serial #</i>	<i>FCC ID #</i>
Power Supply	Xantrex HPD 60-5	MC 27764	
Signal Generator	Agilent E4436B	963739	
Ethernet Switch	Netgear	N/A	

<b>Oscillator Frequencies</b>			
<i>Frequency</i>	<i>Derived Frequency</i>	<i>Component # / Location</i>	<i>Description of Use</i>

<b>Power Supply</b>			
<i>Manufacturer</i>	<i>Model #</i>	<i>Serial #</i>	<i>Type</i>
			<input type="checkbox"/> Switched-mode: (Frequency) _____ <input type="checkbox"/> Linear <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Switched-mode: (Frequency) _____ <input type="checkbox"/> Linear <input type="checkbox"/> Other: _____

<b>Power Line Filters</b>		
<i>Manufacturer</i>	<i>Model #</i>	<i>Location in EUT</i>
None		



Form

## EMC Test Plan and Constructional Data Form



### Critical EMI Components (Capacitors, ferrites, etc.)

<i>Description</i>	<i>Manufacturer</i>	<i>Part # or Value</i>	<i>Qty</i>	<i>Component # / Location</i>
None				

### EMC Critical Detail -- Describe other EMC Design details used to reduce high frequency noise.

None

(PLEASE INSERT "ELECTRONIC SIGNATURE" BELOW IF POSSIBLE)

### Authorization Signatures

\_\_\_\_\_  
Customer authorization to perform tests  
according to this test plan.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Test Plan/CDF Prepared By (please print)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Reviewed by TÜV Product Service Associate

\_\_\_\_\_  
Date

## Appendix C

### Measurement Protocol



## MEASUREMENT PROTOCOL

### Environmental conditions in the lab, (TUV)

Temperature: 22 °C  
 Relative Humidity: 22 %  
 Atmospheric pressure: 98.0 kPa

### Test Methodology

Emissions testing is performed according to the procedures in ANSI C63.4-2003.

### Measurement Uncertainty

The test system for conducted emissions is defined as the LISN, tuned receiver or spectrum analyzer, and coaxial cable. The test system has a measurement uncertainty of  $\pm 1.8$  dB. The test system for radiated emissions is defined as the antenna, the pre-amplifier, the spectrum analyzer and the coaxial cable. The test system has a measurement uncertainty of  $\pm 4.8$  dB. The equipment comprising the test systems is calibrated on an annual basis.

### Justification

The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into its characteristic impedance or left unterminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

### Radiated Emissions

The final level, in  $\text{dB}\mu\text{V}/\text{m}$ , equals the reading from the spectrum analyzer (Level  $\text{dB}\mu\text{V}$ ), adding the antenna correction factor and cable loss factor (Factor dB) to it, and subtracting the preamp gain (and duty cycle correction factor, if applicable). This result then has the limit subtracted from it to provide the Delta, which gives the tabular data as shown in the data sheets in Attachment A.

Example:

FREQ (MHz)	LEVEL ( $\text{dB}\mu\text{V}$ )	CABLE/ANT/PREAMP (dB) (dB/m) (dB)	FINAL ( $\text{dB}\mu\text{V}/\text{m}$ )	POL/HGT/AZ (m) (deg)	DELTA1
60.80	42.5Qp +	1.2 + 10.9 - 25.5 =	29.1	V 1.0 0.0	-10.9

### Substitution Method

A radiated emission scan was also made, at TUV America's Wild River Lab Large Test Site, with the EUT's antenna replaced with a termination to demonstrate case radiation compliance to the  $-13$  dBm requirement. Radiated emissions from the EUT are measured in the frequency range of 30 to 10000 MHz using a spectrum analyzer and appropriate broadband linearly polarized antennas. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimeters above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Interface cables that are closer than 40 centimeters to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimeters from the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screen room located outside the test area. The antenna is positioned 3 meters horizontally from the EUT. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 meters, measurement scans are made with both horizontal and vertical antenna polarizations and the EUT are rotated 360 degrees. The field strength levels were measured per ANSI C63.4. The EUT is then replaced with a tuned dipole antenna (below 1 GHz) or horn antenna (above 1 GHz). The substitute antenna was placed in the same polarization as the test antenna. A signal generator was used to generate a signal level that matched the highest level measured from the EUT. The signal generator level minus the cable loss from the signal generator to the substitute antenna plus the substitute antenna gain equals the spurious power level.

### Test Equipment

All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.