RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	1 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
30.42 MHz	41.15 Qp	0.43 / 20.22 / 27.4 / 0.0	34.4	V / 1.00 / 0	-61.10	-13.0
42.912 MHz	47.5 Qp	0.6 / 16.23 / 27.0 / 0.0	37.33	V / 1.00 / 0	-58.17	-13.0
44.73 MHz	43.8 Qp	0.6 / 15.72 / 27.06 / 0.0	33.06	V / 1.00 / 0	-62.44	-13.0
45.63 MHz	46.15 Qp	0.6 / 15.46 / 27.09 / 0.0	35.12	V / 1.00 / 0	-60.38	-13.0
46.53 MHz	44.45 Qp	0.6 / 15.2 / 27.1 / 0.0	33.15	V / 1.00 / 0	-62.35	-13.0
54.582 MHz	45.1 Qp	0.6 / 12.95 / 27.0 / 0.0	31.65	V / 1.00 / 0	-63.85	-13.0
69.72 MHz	52.4 Qp	0.7 / 9.33 / 27.0 / 0.0	35.43	V / 1.00 / 0	-60.07	-13.0
128.7 MHz	71.65 Qp	0.99 / 8.5 / 27.01 / 0.0	54.12	V / 1.00 / 0	-41.38	-13.0
118.002 MHz	57.9 Qp	0.9 / 9.25 / 27.1 / 0.0	40.95	V / 1.00 / 0	-54.55	-13.0
120.678 MHz	58.3 Qp	0.9 / 9.01 / 27.1 / 0.0	41.11	V / 1.00 / 0	-54.39	-13.0
123.36 MHz	57.45 Qp	0.92 / 8.77 / 27.08 / 0.0	40.07	V / 1.00 / 0	-55.43	-13.0
131.406 MHz	57.8 Qp	1.0 / 8.42 / 27.0 / 0.0	40.22	V / 1.00 / 0	-55.28	-13.0
139.458 MHz	50.4 Qp	1.0 / 9.0 / 27.0 / 0.0	33.4	V / 1.00 / 0	-62.10	-13.0
139.452 MHz	50.55 Qp	1.0 / 9.0 / 27.0 / 0.0	33.55	V / 1.00 / 0	-61.95	-13.0
142.146 MHz	42.7 Qp	1.0 / 9.45 / 26.97 / 0.0	26.18	V / 1.00 / 0	-69.32	-13.0
168.96 MHz	48.8 Qp	1.08 / 8.84 / 27.0 / 0.0	31.72	V / 1.00 / 0	-63.78	-13.0
171.642 MHz	54.6 Qp	1.1 / 8.94 / 27.0 / 0.0	37.64	V / 1.00 / 0	-57.86	-13.0
179.682 MHz	55.85 Qp	1.1 / 9.43 / 27.07 / 0.0	39.31	V / 1.00 / 0	-56.19	-13.0
182.37 MHz	48.85 Qp	1.1 / 9.64 / 27.09 / 0.0	32.5	V / 1.00 / 0	-63.00	-13.0
257.454 MHz	57.9 Qp	1.39 / 12.39 / 27.2 / 0.0	44.47	V / 1.00 / 0	-51.03	-13.0
265.506 MHz	58.85 Qp	1.43 / 12.31 / 27.26 / 0.0	45.33	V / 1.00 / 0	-50.17	-13.0
273.546 MHz	53.3 Qp	1.47 / 12.23 / 27.35 / 0.0	39.65	V / 1.00 / 0	-55.85	-13.0
300.366 MHz	63.0 Qp	1.5 / 13.22 / 27.5 / 0.0	50.22	V / 1.00 / 0	-45.28	-13.0
311.094 MHz	59.05 Qp	1.5 / 13.54 / 27.5 / 0.0	46.59	V / 1.00 / 0	-48.91	-13.0
343.278 MHz	58.85 Qp	1.6 / 14.61 / 27.6 / 0.0	47.46	V / 1.00 / 0	-48.04	-13.0
358.861 MHz	52.6 Qp	1.6 / 14.82 / 27.6 / 0.0	41.42	V / 1.00 / 0	-54.08	-13.0

Tested by: J. C. Sausen

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Reviewed by: G. Jakubowski

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	2 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
386.185 MHz	62.05 Qp	1.67 / 15.39 / 27.74 / 0.0	51.37	V / 1.00 / 0	-44.13	-13.0
395.293 MHz	49.9 Qp	1.7 / 16.0 / 27.8 / 0.0	39.79	V / 1.00 / 0	-55.71	-13.0
429.109 MHz	58.25 Qp	1.72 / 16.31 / 27.9 / 0.0	48.38	V / 1.00 / 0	-47.12	-13.0
472.009 MHz	54.1 Qp	1.86 / 16.7 / 27.9 / 0.0	44.76	V / 1.00 / 0	-50.74	-13.0
501.121 MHz	59.3 Qp	1.9 / 17.53 / 27.95 / 0.0	50.78	V / 1.00 / 0	-44.72	-13.0
557.834 MHz	50.25 Qp	2.0 / 18.4 / 28.1 / 0.0	42.55	V / 1.00 / 0	-52.95	-13.0
600.74 MHz	46.9 Qp	2.1 / 18.89 / 28.11 / 0.0	39.78	V / 1.00 / 0	-55.72	-13.0
643.652 MHz	48.9 Qp	2.12 / 19.34 / 28.18 / 0.0	42.18	V / 1.00 / 0	-53.32	-13.0
686.57 MHz	46.4 Qp	2.3 / 20.33 / 27.9 / 0.0	41.13	V / 1.00 / 0	-54.37	-13.0
729.488 MHz	45.35 Qp	2.3 / 21.01 / 27.99 / 0.0	40.67	V / 1.00 / 0	-54.83	-13.0
772.388 MHz	49.2 Qp	2.37 / 21.56 / 27.86 / 0.0	45.28	V / 1.00 / 0	-50.22	-13.0
777.578 MHz	45.45 Qp	2.38 / 21.51 / 27.84 / 0.0	41.5	V / 1.00 / 0	-54.00	-13.0
815.306 MHz	49.75 Qp	2.45 / 21.54 / 27.8 / 0.0	45.94	V / 1.00 / 0	-49.56	-13.0
824.426 MHz	36.9 Qp	2.46 / 21.55 / 27.8 / 0.0	33.12	V / 1.00 / 0	-62.38	-13.0
901.13 MHz	52.5 Qp	2.59 / 22.4 / 27.61 / 0.0	49.88	V / 1.00 / 0	-45.62	-13.0
902.03 MHz	42.55 Qp	2.59 / 22.4 / 27.61 / 0.0	39.93	V / 1.00 / 0	-55.57	-13.0
944.025 MHz	60.7 Qp	2.66 / 22.87 / 27.6 / 0.0	58.63	V / 1.00 / 0	-36.87	-13.0
986.943 MHz	51.4 Qp	2.72 / 23.33 / 27.58 / 0.0	49.88	V / 1.00 / 0	-45.62	-13.0
42.9 MHz	53.0 Qp	0.6 / 16.24 / 27.0 / 0.0	42.84	V / 1.00 / 180	-52.66	-13.0
44.73 MHz	44.75 Qp	0.6 / 15.72 / 27.06 / 0.0	34.01	V / 1.00 / 180	-61.49	-13.0
45.63 MHz	47.8 Qp	0.6 / 15.46 / 27.09 / 0.0	36.77	V / 1.00 / 180	-58.73	-13.0
46.53 MHz	45.9 Qp	0.6 / 15.2 / 27.1 / 0.0	34.6	V / 1.00 / 180	-60.90	-13.0
128.7 MHz	65.4 Qp	0.99 / 8.5 / 27.01 / 0.0	47.87	V / 1.00 / 180	-47.63	-13.0
142.146 MHz	47.6 Qp	1.0 / 9.45 / 26.97 / 0.0	31.08	V / 1.00 / 180	-64.42	-13.0
171.642 MHz	55.3 Qp	1.1 / 8.94 / 27.0 / 0.0	38.34	V / 1.00 / 180	-57.16	-13.0

Tested by: J. C. Sausen — Printed — Signature

Reviewed by: G. Jakubowski — Printed — Signature

RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	3 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
311.094 MHz	59.4 Qp	1.5 / 13.54 / 27.5 / 0.0	46.94	V / 1.00 / 180	-48.56	-13.0
343.278 MHz	63.9 Qp	1.6 / 14.61 / 27.6 / 0.0	52.51	V / 1.00 / 180	-42.99	-13.0
386.185 MHz	71.25 Qp	1.67 / 15.39 / 27.74 / 0.0	60.57	V / 1.00 / 180	-34.93	-13.0
395.293 MHz	54.1 Qp	1.7 / 16.0 / 27.8 / 0.0	43.99	V / 1.00 / 180	-51.51	-13.0
429.109 MHz	68.3 Qp	1.72 / 16.31 / 27.9 / 0.0	58.43	V / 1.00 / 180	-37.07	-13.0
472.009 MHz	63.8 Qp	1.86 / 16.7 / 27.9 / 0.0	54.46	V / 1.00 / 180	-41.04	-13.0
557.834 MHz	67.4 Qp	2.0 / 18.4 / 28.1 / 0.0	59.7	V / 1.00 / 180	-35.80	-13.0
600.74 MHz	60.1 Qp	2.1 / 18.89 / 28.11 / 0.0	52.98	V / 1.00 / 180	-42.52	-13.0
643.652 MHz	61.4 Qp	2.12 / 19.34 / 28.18 / 0.0	54.68	V / 1.00 / 180	-40.82	-13.0
729.488 MHz	49.75 Qp	2.3 / 21.01 / 27.99 / 0.0	45.07	V / 1.00 / 180	-50.43	-13.0
815.306 MHz	57.75 Qp	2.45 / 21.54 / 27.8 / 0.0	53.94	V / 1.00 / 180	-41.56	-13.0
44.73 MHz	46.05 Qp	0.6 / 15.72 / 27.06 / 0.0	35.31	V / 1.00 / 0	-60.19	-13.0
168.96 MHz	48.85 Qp	1.08 / 8.84 / 27.0 / 0.0	31.77	V / 1.00 / 270	-63.73	-13.0
171.642 MHz	59.0 Qp	1.1 / 8.94 / 27.0 / 0.0	42.04	V / 1.00 / 270	-53.46	-13.0
257.454 MHz	59.65 Qp	1.39 / 12.39 / 27.2 / 0.0	46.22	V / 1.00 / 270	-49.28	-13.0
686.57 MHz	47.25 Qp	2.3 / 20.33 / 27.9 / 0.0	41.98	V / 1.00 / 270	-53.52	-13.0
729.488 MHz	51.75 Qp	2.3 / 21.01 / 27.99 / 0.0	47.07	V / 1.00 / 270	-48.43	-13.0
986.943 MHz	54.1 Qp	2.72 / 23.33 / 27.58 / 0.0	52.58	V / 1.00 / 120	-42.92	-13.0
128.7 MHz	73.3 Qp	0.99 / 8.5 / 27.01 / 0.0	55.77	V / 1.00 / 120	-39.73	-13.0
168.96 MHz	53.35 Qp	1.08 / 8.84 / 27.0 / 0.0	36.27	V / 1.00 / 120	-59.23	-13.0
179.682 MHz	57.35 Qp	1.1 / 9.43 / 27.07 / 0.0	40.81	V / 1.00 / 120	-54.69	-13.0
182.37 MHz	53.3 Qp	1.1 / 9.64 / 27.09 / 0.0	36.95	V / 1.00 / 120	-58.55	-13.0
257.454 MHz	63.1 Qp	1.39 / 12.39 / 27.2 / 0.0	49.67	V / 1.00 / 120	-45.83	-13.0
686.57 MHz	48.1 Qp	2.3 / 20.33 / 27.9 / 0.0	42.83	V / 1.00 / 120	-52.67	-13.0
772.388 MHz	52.0 Qp	2.37 / 21.56 / 27.86 / 0.0	48.08	V / 1.00 / 120	-47.42	-13.0
772.388 MHz	52.8 Qp	2.37 / 21.56 / 27.86 / 0.0	48.88	V / 1.00 / 120	-46.62	-13.0

Tested by: J. C. Sausen

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	4 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
386 MHz maxed:						
386.169 MHz	71.6 Qp	1.67 / 15.39 / 27.74 / 0.0	60.92	V / 1.21 / 190	-34.58	-13.0
386.169 MHz	71.7 Pk	1.67 / 15.39 / 27.74 / 0.0	61.02	V / 1.21 / 190	-34.48	-13.0
30.42 MHz	41.1 Pk	0.43 / 20.22 / 27.4 / 0.0	34.35	V / 1.21 / 190	-61.15	-13.0
42.9 MHz	52.75 Pk	0.6 / 16.24 / 27.0 / 0.0	42.59	V / 1.21 / 190	-52.91	-13.0
45.63 MHz	52.05 Pk	0.6 / 15.46 / 27.09 / 0.0	41.02	V / 1.21 / 190	-54.48	-13.0
46.53 MHz	49.0 Pk	0.6 / 15.2 / 27.1 / 0.0	37.7	V / 1.21 / 190	-57.80	-13.0
54.582 MHz	46.4 Pk	0.6 / 12.95 / 27.0 / 0.0	32.95	V / 1.21 / 190	-62.55	-13.0
69.72 MHz	51.7 Pk	0.7 / 9.33 / 27.0 / 0.0	34.73	V / 1.21 / 190	-60.77	-13.0
118.002 MHz	54.1 Pk	0.9 / 9.25 / 27.1 / 0.0	37.15	V / 1.21 / 190	-58.35	-13.0
120.678 MHz	51.15 Pk	0.9 / 9.01 / 27.1 / 0.0	33.96	V / 1.21 / 190	-61.54	-13.0
123.36 MHz	50.8 Pk	0.92 / 8.77 / 27.08 / 0.0	33.42	V / 1.21 / 190	-62.08	-13.0
128.7 MHz	60.85 Pk	0.99 / 8.5 / 27.01 / 0.0	43.32	V / 1.21 / 190	-52.18	-13.0
131.406 MHz	48.05 Pk	1.0 / 8.42 / 27.0 / 0.0	30.47	V / 1.21 / 190	-65.03	-13.0
139.452 MHz	45.7 Pk	1.0 / 9.0 / 27.0 / 0.0	28.7	V / 1.21 / 190	-66.80	-13.0
171.642 MHz	58.35 Pk	1.1 / 8.94 / 27.0 / 0.0	41.39	V / 1.21 / 190	-54.11	-13.0
179.682 MHz	47.6 Pk	1.1 / 9.43 / 27.07 / 0.0	31.06	V / 1.21 / 190	-64.44	-13.0
182.37 MHz	48.65 Pk	1.1 / 9.64 / 27.09 / 0.0	32.3	V / 1.21 / 190	-63.20	-13.0
257.454 MHz	60.4 Pk	1.39 / 12.39 / 27.2 / 0.0	46.97	V / 1.21 / 190	-48.53	-13.0
265.506 MHz	44.1 Pk	1.43 / 12.31 / 27.26 / 0.0	30.58	V / 1.21 / 190	-64.92	-13.0
273.546 MHz	53.4 Pk	1.47 / 12.23 / 27.35 / 0.0	39.75	V / 1.21 / 190	-55.75	-13.0
300.366 MHz	58.4 Pk	1.5 / 13.22 / 27.5 / 0.0	45.62	V / 1.21 / 190	-49.88	-13.0
311.094 MHz	62.45 Pk	1.5 / 13.54 / 27.5 / 0.0	49.99	V / 1.21 / 190	-45.51	-13.0
343.278 MHz	61.25 Pk	1.6 / 14.61 / 27.6 / 0.0	49.86	V / 1.21 / 190	-45.64	-13.0
358.861 MHz	47.3 Pk	1.6 / 14.82 / 27.6 / 0.0	36.12	V / 1.21 / 190	-59.38	-13.0

Tested by: J. C. Sausen

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Reviewed by: G. Jakubowski

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	5 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
429.109 MHz	61.15 Pk	1.72 / 16.31 / 27.9 / 0.0	51.28	V / 1.21 / 190	-44.22	-13.0
472.009 MHz	62.4 Pk	1.86 / 16.7 / 27.9 / 0.0	53.06	V / 1.21 / 190	-42.44	-13.0
501.121 MHz	54.0 Pk	1.9 / 17.53 / 27.95 / 0.0	45.48	V / 1.21 / 190	-50.02	-13.0
557.834 MHz	58.75 Pk	2.0 / 18.4 / 28.1 / 0.0	51.05	V / 1.21 / 190	-44.45	-13.0
600.74 MHz	55.85 Pk	2.1 / 18.89 / 28.11 / 0.0	48.73	V / 1.21 / 190	-46.77	-13.0
643.652 MHz	62.0 Pk	2.12 / 19.34 / 28.18 / 0.0	55.28	V / 1.21 / 190	-40.22	-13.0
686.57 MHz	47.7 Pk	2.3 / 20.33 / 27.9 / 0.0	42.43	V / 1.21 / 190	-53.07	-13.0
729.488 MHz	54.45 Pk	2.3 / 21.01 / 27.99 / 0.0	49.77	V / 1.21 / 190	-45.73	-13.0
772.388 MHz	47.35 Pk	2.37 / 21.56 / 27.86 / 0.0	43.43	V / 1.21 / 190	-52.07	-13.0
815.306 MHz	58.05 Pk	2.45 / 21.54 / 27.8 / 0.0	54.24	V / 1.21 / 190	-41.26	-13.0
986.943 MHz	40.4 Pk	2.72 / 23.33 / 27.58 / 0.0	38.88	V / 1.21 / 190	-56.62	-13.0
686.57 MHz	48.6 Qp	2.3 / 20.33 / 27.9 / 0.0	43.33	V / 3.00 / 180	-52.17	-13.0
686.57 MHz	49.65 Pk	2.3 / 20.33 / 27.9 / 0.0	44.38	V / 3.00 / 180	-51.12	-13.0
772.388 MHz	48.85 Qp	2.37 / 21.56 / 27.86 / 0.0	44.93	V / 3.00 / 180	-50.57	-13.0
772.388 MHz	49.75 Pk	2.37 / 21.56 / 27.86 / 0.0	45.83	V / 3.00 / 180	-49.67	-13.0
986.943 MHz	46.35 Qp	2.72 / 23.33 / 27.58 / 0.0	44.83	V / 3.00 / 180	-50.67	-13.0
986.943 MHz	46.9 Pk	2.72 / 23.33 / 27.58 / 0.0	45.38	V / 3.00 / 180	-50.12	-13.0
179.682 MHz	50.15 Qp	1.1 / 9.43 / 27.07 / 0.0	33.61	V / 3.00 / 90	-61.89	-13.0
179.682 MHz	52.05 Pk	1.1 / 9.43 / 27.07 / 0.0	35.51	V / 3.00 / 90	-59.99	-13.0
257.454 MHz	60.15 Qp	1.39 / 12.39 / 27.2 / 0.0	46.72	V / 3.00 / 90	-48.78	-13.0
257.454 MHz	60.75 Pk	1.39 / 12.39 / 27.2 / 0.0	47.32	V / 3.00 / 90	-48.18	-13.0
120.678 MHz	53.2 Qp	0.9 / 9.01 / 27.1 / 0.0	36.01	V / 3.00 / 0	-59.49	-13.0
120.678 MHz	55.4 Pk	0.9 / 9.01 / 27.1 / 0.0	38.21	V / 3.00 / 0	-57.29	-13.0
128.7 MHz	66.5 Qp	0.99 / 8.5 / 27.01 / 0.0	48.97	V / 3.00 / 0	-46.53	-13.0
128.7 MHz	66.95 Pk	0.99 / 8.5 / 27.01 / 0.0	49.42	V / 3.00 / 0	-46.08	-13.0

Tested by: J. C. Sausen

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	6 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
901.13 MHz	44.55 Qp	2.59 / 22.4 / 27.61 / 0.0	41.93	V / 3.00 / 0	-53.57	-13.0
901.13 MHz	45.55 Pk	2.59 / 22.4 / 27.61 / 0.0	42.93	V / 3.00 / 0	-52.57	-13.0
643 MHz maxed:						
643.652 MHz	62.45 Qp	2.12 / 19.34 / 28.18 / 0.0	55.73	V / 1.00 / 195	-39.77	-13.0
643.652 MHz	62.65 Pk	2.12 / 19.34 / 28.18 / 0.0	55.93	V / 1.00 / 195	-39.57	-13.0
729.468 MHz	57.0 Qp	2.3 / 21.01 / 27.99 / 0.0	52.32	V / 1.00 / 195	-43.18	-13.0
729.468 MHz	57.3 Pk	2.3 / 21.01 / 27.99 / 0.0	52.62	V / 1.00 / 195	-42.88	-13.0
901.13 MHz	48.05 Qp	2.59 / 22.4 / 27.61 / 0.0	45.43	V / 1.00 / 195	-50.07	-13.0
901.13 MHz	48.95 Pk	2.59 / 22.4 / 27.61 / 0.0	46.33	V / 1.00 / 195	-49.17	-13.0
123.36 MHz	51.55 Qp	0.92 / 8.77 / 27.08 / 0.0	34.17	H / 1.00 / 195	-61.33	-13.0
123.36 MHz	53.55 Pk	0.92 / 8.77 / 27.08 / 0.0	36.17	H / 1.00 / 195	-59.33	-13.0
168.96 MHz	48.5 Qp	1.08 / 8.84 / 27.0 / 0.0	31.42	H / 1.00 / 195	-64.08	-13.0
168.96 MHz	50.85 Pk	1.08 / 8.84 / 27.0 / 0.0	33.77	H / 1.00 / 195	-61.73	-13.0
179.682 MHz	55.95 Qp	1.1 / 9.43 / 27.07 / 0.0	39.41	H / 1.00 / 195	-56.09	-13.0
179.682 MHz	56.55 Pk	1.1 / 9.43 / 27.07 / 0.0	40.01	H / 1.00 / 195	-55.49	-13.0
182.37 MHz	49.85 Qp	1.1 / 9.64 / 27.09 / 0.0	33.5	H / 1.00 / 195	-62.00	-13.0
257.454 MHz	68.85 Qp	1.39 / 12.39 / 27.2 / 0.0	55.42	H / 1.00 / 195	-40.08	-13.0
257.454 MHz	69.7 Pk	1.39 / 12.39 / 27.2 / 0.0	56.27	H / 1.00 / 195	-39.23	-13.0
265.506 MHz	50.9 Qp	1.43 / 12.31 / 27.26 / 0.0	37.38	H / 1.00 / 195	-58.12	-13.0
343.278 MHz	64.25 Qp	1.6 / 14.61 / 27.6 / 0.0	52.86	H / 1.00 / 195	-42.64	-13.0
686.57 MHz	48.6 Qp	2.3 / 20.33 / 27.9 / 0.0	43.33	H / 3.00 / 270	-52.17	-13.0
686.57 MHz	52.4 Qp	2.3 / 20.33 / 27.9 / 0.0	47.13	H / 3.00 / 180	-48.37	-13.0
686.57 MHz	53.5 Pk	2.3 / 20.33 / 27.9 / 0.0	48.23	H / 3.00 / 180	-47.27	-13.0

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	7 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
986.943 MHz	54.0 Qp	2.72 / 23.33 / 27.58 / 0.0	52.48	H / 3.00 / 180	-43.02	-13.0
986.943 MHz	54.65 Pk	2.72 / 23.33 / 27.58 / 0.0	53.13	H / 3.00 / 180	-42.37	-13.0
986.943 MHz	57.65 Pk	2.72 / 23.33 / 27.58 / 0.0	56.13	H / 1.96 / 180	-39.37	-13.0
986.943 MHz	56.95 Qp	2.72 / 23.33 / 27.58 / 0.0	55.43	H / 1.96 / 180	-40.07	-13.0
179.682 MHz	58.05 Qp	1.1 / 9.43 / 27.07 / 0.0	41.51	H / 1.96 / 180	-53.99	-13.0
179.682 MHz	59.45 Pk	1.1 / 9.43 / 27.07 / 0.0	42.91	H / 1.96 / 180	-52.59	-13.0
182.37 MHz	51.8 Qp	1.1 / 9.64 / 27.09 / 0.0	35.45	H / 1.96 / 180	-60.05	-13.0
182.37 MHz	52.95 Pk	1.1 / 9.64 / 27.09 / 0.0	36.6	H / 1.96 / 180	-58.90	-13.0
265.506 MHz	53.95 Qp	1.43 / 12.31 / 27.26 / 0.0	40.43	H / 1.96 / 180	-55.07	-13.0
265.506 MHz	55.3 Pk	1.43 / 12.31 / 27.26 / 0.0	41.78	H / 1.96 / 180	-53.72	-13.0
557.834 MHz	62.95 Qp	2.0 / 18.4 / 28.1 / 0.0	55.25	H / 1.96 / 180	-40.25	-13.0
557.834 MHz	63.7 Pk	2.0 / 18.4 / 28.1 / 0.0	56.0	H / 1.96 / 180	-39.50	-13.0
686.57 MHz	55.25 Qp	2.3 / 20.33 / 27.9 / 0.0	49.98	H / 1.96 / 180	-45.52	-13.0
686.57 MHz	55.95 Pk	2.3 / 20.33 / 27.9 / 0.0	50.68	H / 1.96 / 180	-44.82	-13.0
128.7 MHz	67.95 Qp	0.99 / 8.5 / 27.01 / 0.0	50.42	H / 1.96 / 90	-45.08	-13.0
171.642 MHz	60.5 Qp	1.1 / 8.94 / 27.0 / 0.0	43.54	H / 1.96 / 90	-51.96	-13.0
265.506 MHz	62.9 Qp	1.43 / 12.31 / 27.26 / 0.0	49.38	H / 1.96 / 90	-46.12	-13.0
131.406 MHz	48.65 Qp	1.0 / 8.42 / 27.0 / 0.0	31.07	H / 3.00 / 0	-64.43	-13.0
179.682 MHz	58.9 Qp	1.1 / 9.43 / 27.07 / 0.0	42.36	H / 2.00 / 0	-53.14	-13.0
171.642 MHz	59.6 Qp	1.1 / 8.94 / 27.0 / 0.0	42.64	H / 1.00 / 0	-52.86	-13.0
257 MHz maxed:						
257.432 MHz	70.8 Qp	1.39 / 12.39 / 27.2 / 0.0	57.37	H / 1.13 / 209	-38.13	-13.0
257.432 MHz	71.35 Pk	1.39 / 12.39 / 27.2 / 0.0	57.92	H / 1.13 / 209	-37.58	-13.0
600.74 MHz	55.95 Qp	2.1 / 18.89 / 28.11 / 0.0	48.83	H / 1.13 / 209	-46.67	-13.0

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	8 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
557 MHz maxed:						
557.822 MHz	69.8 Pk	2.0 / 18.4 / 28.1 / 0.0	62.1	H / 1.00 / 160	-33.40	-13.0
557.822 MHz	69.4 Qp	2.0 / 18.4 / 28.1 / 0.0	61.7	H / 1.00 / 160	-33.80	-13.0
171.642 MHz	63.05 Qp	1.1 / 8.94 / 27.0 / 0.0	46.09	H / 1.00 / 160	-49.41	-13.0
171.642 MHz	63.7 Pk	1.1 / 8.94 / 27.0 / 0.0	46.74	H / 1.00 / 160	-48.76	-13.0
273.546 MHz	56.0 Qp	1.47 / 12.23 / 27.35 / 0.0	42.35	H / 1.00 / 160	-53.15	-13.0
311.094 MHz	62.8 Qp	1.5 / 13.54 / 27.5 / 0.0	50.34	H / 1.00 / 160	-45.16	-13.0
600.74 MHz	60.7 Qp	2.1 / 18.89 / 28.11 / 0.0	53.58	H / 1.00 / 160	-41.92	-13.0
600.734 MHz	61.7 Qp	2.1 / 18.89 / 28.11 / 0.0	54.58	H / 1.00 / 160	-40.92	-13.0
986 MHz maxed:						
986.943 MHz	58.1 Pk	2.72 / 23.33 / 27.58 / 0.0	56.58	H / 1.72 / 163	-38.92	-13.0
986.943 MHz	57.3 Qp	2.72 / 23.33 / 27.58 / 0.0	55.78	H / 1.72 / 163	-39.72	-13.0
858.213 MHz	49.9 Qp	2.52 / 21.99 / 27.75 / 0.0	46.66	H / 1.72 / 163	-48.84	-13.0
319.141 MHz	59.75 Qp	1.5 / 13.76 / 27.5 / 0.0	47.51	H / 1.72 / 163	-47.99	-13.0
214.531 MHz	63.35 Qp	1.22 / 10.66 / 27.12 / 0.0	48.11	H / 1.72 / 163	-47.39	-13.0
1.03 GHz	56.05 Av	2.79 / 25.63 / 27.51 / 0.0	56.95	V / 1.00 / 180	-38.55	-13.0
1.03 GHz	56.7 Pk	2.79 / 25.63 / 27.51 / 0.0	57.6	V / 1.00 / 180	-37.90	-13.0
1.038 GHz	49.2 Pk	2.8 / 25.62 / 27.5 / 0.0	50.11	V / 1.00 / 180	-45.39	-13.0
1.073 GHz	49.45 Pk	2.84 / 25.58 / 27.54 / 0.0	50.33	V / 1.00 / 180	-45.17	-13.0
1.116 GHz	47.85 Pk	2.9 / 25.53 / 27.6 / 0.0	48.68	V / 1.00 / 180	-46.82	-13.0
1.159 GHz	47.2 Pk	2.96 / 25.48 / 27.54 / 0.0	48.09	V / 1.00 / 180	-47.41	-13.0
1.202 GHz	45.35 Pk	3.01 / 25.43 / 27.5 / 0.0	46.29	V / 1.00 / 180	-49.21	-13.0
1.244 GHz	45.05 Pk	3.06 / 25.39 / 27.5 / 0.0	45.99	V / 1.00 / 180	-49.51	-13.0
1.287 GHz	40.2 Pk	3.11 / 25.34 / 27.51 / 0.0	41.14	V / 1.00 / 180	-54.36	-13.0

Tested by: J. C. Sausen

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	9 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
1.33 GHz	48.25 Pk	3.15 / 25.29 / 27.55 / 0.0	49.14	V / 1.00 / 180	-46.36	-13.0
1.373 GHz	53.55 Pk	3.2 / 25.24 / 27.6 / 0.0	54.39	V / 1.00 / 180	-41.11	-13.0
1.416 GHz	55.75 Pk	3.29 / 25.19 / 27.6 / 0.0	56.63	V / 1.00 / 180	-38.87	-13.0
1.505 GHz	47.05 Pk	3.43 / 25.13 / 27.57 / 0.0	48.04	V / 1.00 / 180	-47.46	-13.0
1.545 GHz	46.0 Pk	3.47 / 25.38 / 27.53 / 0.0	47.32	V / 1.00 / 180	-48.18	-13.0
1.59 GHz	48.55 Pk	3.51 / 25.67 / 27.53 / 0.0	50.2	V / 1.00 / 180	-45.30	-13.0
1.631 GHz	54.7 Pk	3.55 / 25.92 / 27.6 / 0.0	56.57	V / 1.00 / 180	-38.93	-13.0
1.759 GHz	45.6 Pk	3.72 / 26.73 / 27.87 / 0.0	48.17	V / 1.00 / 180	-47.33	-13.0
1.802 GHz	44.3 Pk	3.79 / 27.0 / 27.98 / 0.0	47.1	V / 1.00 / 180	-48.40	-13.0
1.845 GHz	46.95 Pk	3.83 / 27.27 / 28.0 / 0.0	50.04	V / 1.00 / 180	-45.46	-13.0
1.888 GHz	45.15 Pk	3.86 / 27.54 / 28.0 / 0.0	48.55	V / 1.00 / 180	-46.95	-13.0
1.931 GHz	50.35 Pk	3.89 / 27.81 / 28.0 / 0.0	54.05	V / 1.00 / 180	-41.45	-13.0
1.974 GHz	45.45 Pk	3.9 / 28.08 / 28.05 / 0.0	49.38	V / 1.00 / 180	-46.12	-13.0
2.017 GHz	47.95 Pk	3.9 / 28.25 / 28.11 / 0.0	51.99	V / 1.00 / 180	-43.51	-13.0
2.06 GHz	42.45 Pk	3.9 / 28.29 / 28.17 / 0.0	46.47	V / 1.00 / 180	-49.03	-13.0
2.146 GHz	46.45 Pk	3.99 / 28.36 / 28.2 / 0.0	50.6	V / 1.00 / 180	-44.90	-13.0
2.317 GHz	41.8 Pk	4.21 / 28.49 / 28.09 / 0.0	46.41	V / 1.00 / 180	-49.09	-13.0
2.575 GHz	39.05 Pk	4.41 / 28.85 / 27.68 / 0.0	44.63	V / 1.00 / 180	-50.87	-13.0
2.615 GHz	39.9 Pk	4.43 / 28.97 / 27.64 / 0.0	45.66	V / 1.00 / 180	-49.84	-13.0
2.918 GHz	42.75 Pk	4.68 / 29.84 / 27.32 / 0.0	49.95	V / 1.00 / 180	-45.55	-13.0
3.175 GHz	37.2 Pk	4.92 / 30.47 / 27.68 / 0.0	44.91	V / 1.00 / 180	-50.59	-13.0
3.347 GHz	39.8 Pk	5.07 / 30.85 / 28.29 / 0.0	47.43	V / 1.00 / 180	-48.07	-13.0
3.347 GHz maxed:						
3.347 GHz	40.6 Pk	5.07 / 30.85 / 28.29 / 0.0	48.23	V / 1.80 / 184	-47.27	-13.0
3.479 GHz	35.6 Pk	5.27 / 31.14 / 28.57 / 0.0	43.44	V / 1.80 / 184	-52.06	-13.0

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	10 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
1.159 GHz	55.95 Pk	2.96 / 25.48 / 27.54 / 0.0	56.84	H / 1.80 / 184	-38.66	-13.0
1.287 GHz	45.45 Pk	3.11 / 25.34 / 27.51 / 0.0	46.39	H / 1.80 / 184	-49.11	-13.0
1.802 GHz	46.35 Pk	3.79 / 27.0 / 27.98 / 0.0	49.15	H / 1.80 / 184	-46.35	-13.0
1.974 GHz	51.15 Pk	3.9 / 28.08 / 28.05 / 0.0	55.08	H / 1.80 / 184	-40.42	-13.0
1.97 GHz maxed:						
1.974 GHz	58.55 Pk	3.9 / 28.08 / 28.05 / 0.0	62.48	H / 1.45 / 127	-33.02	-13.0
1.931 GHz	55.75 Pk	3.89 / 27.81 / 28.0 / 0.0	59.45	H / 1.45 / 127	-36.05	-13.0
1.802 GHz	48.2 Pk	3.79 / 27.0 / 27.98 / 0.0	51.0	H / 1.45 / 127	-44.50	-13.0
1.759 GHz	52.25 Pk	3.72 / 26.73 / 27.87 / 0.0	54.82	H / 1.45 / 127	-40.68	-13.0
1.631 GHz	56.0 Pk	3.55 / 25.92 / 27.6 / 0.0	57.87	H / 1.45 / 127	-37.63	-13.0
1.373 GHz	55.2 Pk	3.2 / 25.24 / 27.6 / 0.0	56.04	H / 1.45 / 127	-39.46	-13.0
1.33 GHz	52.0 Pk	3.15 / 25.29 / 27.55 / 0.0	52.89	H / 1.45 / 127	-42.61	-13.0
1.287 GHz	50.9 Pk	3.11 / 25.34 / 27.51 / 0.0	51.84	H / 1.45 / 127	-43.66	-13.0
1.244 GHz	48.3 Pk	3.06 / 25.39 / 27.5 / 0.0	49.24	H / 1.45 / 127	-46.26	-13.0
1.116 GHz	51.95 Pk	2.9 / 25.53 / 27.6 / 0.0	52.78	H / 1.45 / 127	-42.72	-13.0
2.317 GHz	48.85 Pk	4.21 / 28.49 / 28.09 / 0.0	53.46	H / 1.45 / 127	-42.04	-13.0
1.202 GHz	47.4 Pk	3.01 / 25.43 / 27.5 / 0.0	48.34	H / 1.45 / 127	-47.16	-13.0
3.519 GHz	37.85 Pk	5.33 / 31.24 / 28.63 / 0.0	45.79	H / 1.45 / 127	-49.71	-13.0
3.648 GHz	35.05 Pk	5.52 / 31.56 / 28.81 / 0.0	43.32	H / 1.45 / 127	-52.18	-13.0
3.862 GHz	33.65 Pk	5.69 / 32.1 / 28.89 / 0.0	42.54	H / 1.45 / 127	-52.96	-13.0
4.377 GHz	35.1 Pk	6.1 / 32.33 / 26.88 / 0.0	46.65	H / 1.45 / 127	-48.85	-13.0
4.377 GHz maxed:						
4.377 GHz	36.2 Pk	6.1 / 32.33 / 26.88 / 0.0	47.75	H / 1.40 / 126	-47.75	-13.0
4.554 GHz	34.35 Pk	6.16 / 32.41 / 26.01 / 0.0	46.92	H / 1.40 / 126	-48.58	-13.0

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RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	11 of 12

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
No further EUT emissions detected above noise floor, vert and hor ant.						
The following measurements are noise floor meausrements:						
5.1 GHz	35.15 Pk	6.56 / 33.53 / 44.66 / 0.0	30.58	V / 1.00 / 0	-64.92	-13.0
6.0 GHz	34.95 Pk	7.1 / 34.36 / 45.74 / 0.0	30.67	V / 1.00 / 0	-64.83	-13.0
7.0 GHz	33.75 Pk	8.1 / 35.36 / 45.8 / 0.0	31.41	V / 1.00 / 0	-64.09	-13.0
8.0 GHz	38.05 Pk	8.43 / 36.91 / 45.29 / 0.0	38.1	V / 1.00 / 0	-57.40	-13.0
9.0 GHz	37.25 Pk	9.28 / 37.34 / 44.57 / 0.0	39.31	V / 1.00 / 0	-56.19	-13.0
10.0 GHz	36.9 Pk	9.71 / 38.07 / 44.95 / 0.0	39.73	V / 1.00 / 0	-55.77	-13.0

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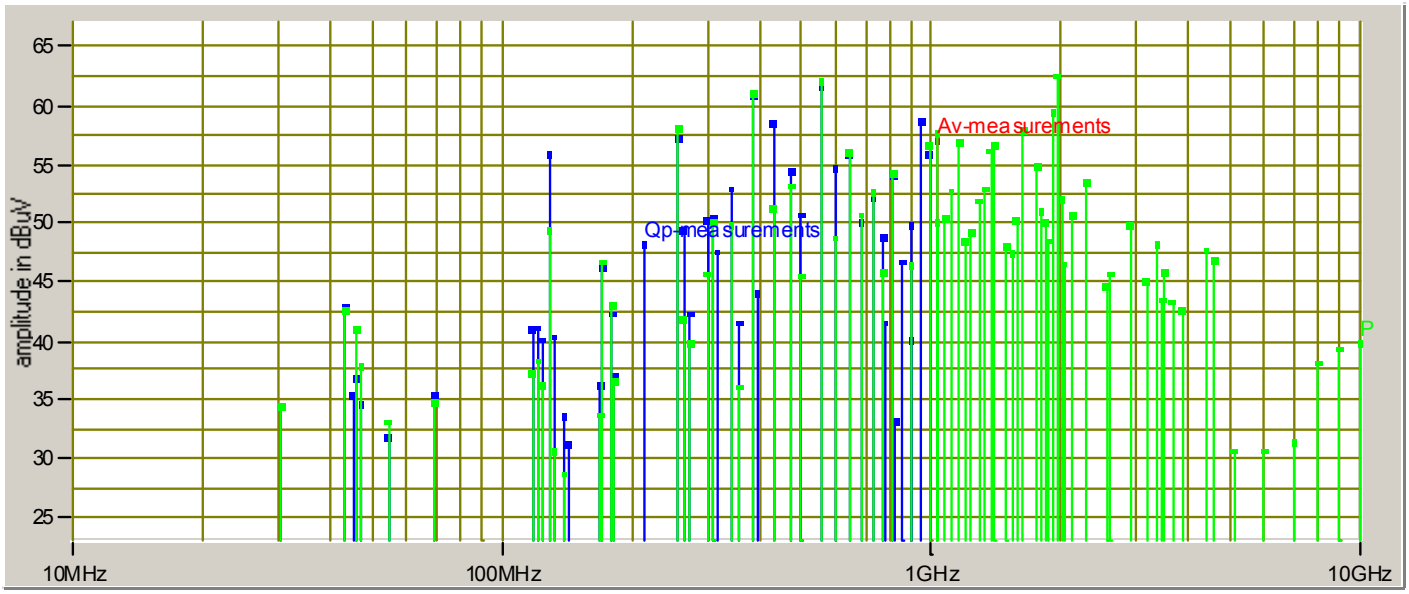
Reviewed by: G. Jakubowski — Printed — Signature

RADIATED EMISSIONS

Test Report #:	WC503856 Run 3	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/27/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC Part 90			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:	Remote and host units in test setup.				
Data File Name:	3856.dat			Page:	12 of 12

Graph:



Tested by: J. C. Sausen

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Reviewed by: G. Jakubowski

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CONDUCTED EMISSIONS

Test Report #:	WC503856 Run 2	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/26/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC A			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:					
Data File Name:	3856.dat			Page:	1 of 5

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 A Qp	DELTA2 EN55022 A Avg
169.531 kHz	60.38 Qp	0.1 / 2.61 / 0.0 / 0.0	63.09	L1	-15.91	n/a
169.531 kHz	49.19 Av	0.1 / 2.61 / 0.0 / 0.0	51.9	L1	n/a	-14.1
194.071 kHz	60.08 Qp	0.1 / 2.12 / 0.0 / 0.0	62.3	L1	-16.7	n/a
194.071 kHz	45.87 Av	0.1 / 2.12 / 0.0 / 0.0	48.09	L1	n/a	-17.91
343.996 kHz	53.25 Av	0.1 / 1.28 / 0.0 / 0.0	54.63	L1	n/a	-11.37
396.094 kHz	52.62 Qp	0.1 / 1.02 / 0.0 / 0.0	53.74	L1	-25.26	n/a
396.094 kHz	45.71 Av	0.1 / 1.02 / 0.0 / 0.0	46.83	L1	n/a	-19.17
634.239 kHz	55.12 Qp	0.1 / 0.63 / 0.0 / 0.0	55.85	L1	-17.15	n/a
634.239 kHz	16.95 Av	0.1 / 0.63 / 0.0 / 0.0	17.68	L1	n/a	-42.32
8.639 MHz	50.2 Qp	0.65 / 0.5 / 0.0 / 0.0	51.35	L1	-21.65	n/a
8.639 MHz	49.12 Av	0.65 / 0.5 / 0.0 / 0.0	50.27	L1	n/a	-9.73
18.728 MHz	30.98 Qp	0.9 / 0.72 / 0.0 / 0.0	32.6	L1	-40.4	n/a
18.728 MHz	22.02 Av	0.9 / 0.72 / 0.0 / 0.0	23.64	L1	n/a	-36.36
343.996 kHz	54.7 Qp	0.1 / 1.28 / 0.0 / 0.0	56.08	L1	-22.92	n/a
169.531 kHz	51.52 Qp	0.1 / 2.61 / 0.0 / 0.0	54.23	N	-24.77	n/a
169.531 kHz	50.29 Av	0.1 / 2.61 / 0.0 / 0.0	53.0	N	n/a	-13.0
194.071 kHz	58.74 Qp	0.1 / 2.12 / 0.0 / 0.0	60.96	N	-18.04	n/a
194.071 kHz	46.1 Av	0.1 / 2.12 / 0.0 / 0.0	48.32	N	n/a	-17.68
343.996 kHz	54.54 Qp	0.1 / 1.28 / 0.0 / 0.0	55.92	N	-23.08	n/a
343.996 kHz	52.25 Av	0.1 / 1.28 / 0.0 / 0.0	53.63	N	n/a	-12.37
396.094 kHz	51.12 Qp	0.1 / 1.02 / 0.0 / 0.0	52.24	N	-26.76	n/a
396.094 kHz	45.16 Av	0.1 / 1.02 / 0.0 / 0.0	46.28	N	n/a	-19.72
634.239 kHz	21.08 Qp	0.1 / 0.63 / 0.0 / 0.0	21.81	N	-51.19	n/a
634.239 kHz	9.66 Av	0.1 / 0.63 / 0.0 / 0.0	10.39	N	n/a	-49.61
8.639 MHz	47.16 Qp	0.65 / 0.5 / 0.0 / 0.0	48.31	N	-24.69	n/a

Tested by: J. C. Sausen

Printed | Signature

Reviewed by: G. Jakubowski

Printed | Signature

CONDUCTED EMISSIONS

Test Report #:	WC503856 Run 2	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/26/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC A			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:					
Data File Name:	3856.dat			Page:	2 of 5

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 A Qp	DELTA2 EN55022 A Avg
8.639 MHz	46.19 Av	0.65 / 0.5 / 0.0 / 0.0	47.34	N	n/a	-12.66
18.728 MHz	19.72 Qp	0.9 / 0.72 / 0.0 / 0.0	21.34	N	-51.66	n/a
18.728 MHz	13.43 Av	0.9 / 0.72 / 0.0 / 0.0	15.05	N	n/a	-44.95

Tested by: J. C. Sausen

Printed

Signature

Reviewed by: G. Jakubowski

Printed

Signature

CONDUCTED EMISSIONS

Test Report #:	WC503856 Run 2	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/26/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC A			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:					
Data File Name:	3856.dat			Page:	3 of 5

Measurement summary for limit1: EN55022 A Qp (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 A Qp
169.531 kHz	60.38 Qp	0.1 / 2.61 / 0.0 / 0.0	63.09	L1	-15.91
194.071 kHz	60.08 Qp	0.1 / 2.12 / 0.0 / 0.0	62.3	L1	-16.7
634.239 kHz	55.12 Qp	0.1 / 0.63 / 0.0 / 0.0	55.85	L1	-17.15
8.639 MHz	50.2 Qp	0.65 / 0.5 / 0.0 / 0.0	51.35	L1	-21.65
343.996 kHz	54.7 Qp	0.1 / 1.28 / 0.0 / 0.0	56.08	L1	-22.92
396.094 kHz	52.62 Qp	0.1 / 1.02 / 0.0 / 0.0	53.74	L1	-25.26
18.728 MHz	30.98 Qp	0.9 / 0.72 / 0.0 / 0.0	32.6	L1	-40.4

Tested by: J. C. Sausen — Printed — Signature

Reviewed by: G. Jakubowski — Printed — Signature

CONDUCTED EMISSIONS

Test Report #:	WC503856 Run 2	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/26/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC A			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:					
Data File Name:	3856.dat			Page:	4 of 5

Measurement summary for limit2: EN55022 A Avg (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA2 EN55022 A Avg
8.639 MHz	49.12 Av	0.65 / 0.5 / 0.0 / 0.0	50.27	L1	-9.73
343.996 kHz	53.25 Av	0.1 / 1.28 / 0.0 / 0.0	54.63	L1	-11.37
169.531 kHz	50.29 Av	0.1 / 2.61 / 0.0 / 0.0	53.0	N	-13.0
194.071 kHz	46.1 Av	0.1 / 2.12 / 0.0 / 0.0	48.32	N	-17.68
396.094 kHz	45.71 Av	0.1 / 1.02 / 0.0 / 0.0	46.83	L1	-19.17
18.728 MHz	22.02 Av	0.9 / 0.72 / 0.0 / 0.0	23.64	L1	-36.36
634.239 kHz	16.95 Av	0.1 / 0.63 / 0.0 / 0.0	17.68	L1	-42.32

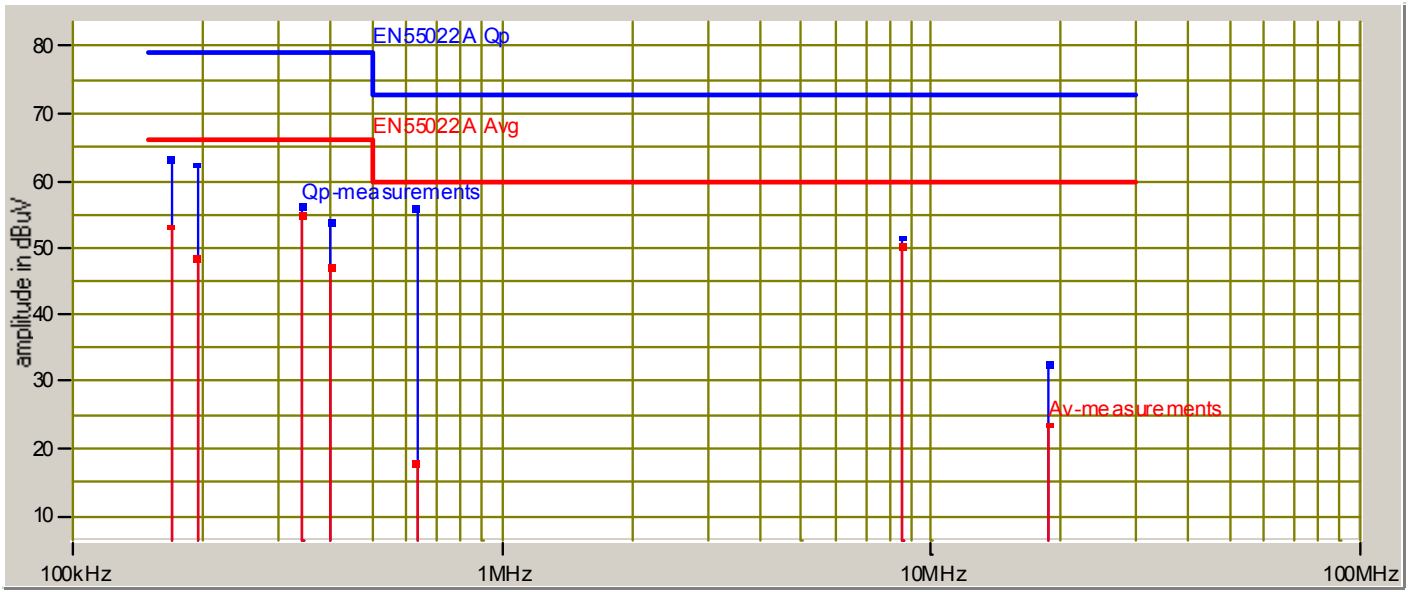
Tested by: J. C. Sausen — Printed — Signature

Reviewed by: G. Jakubowski — Printed — Signature

CONDUCTED EMISSIONS

Test Report #:	WC503856 Run 2	Test Area:	LTS		
EUT Model #:	CXD 800\900 SMR	Date:	7/26/2005		
EUT Serial #:	001	EUT Power:	60 Hz / 120 VAC	Temperature:	24.0 °C
Test Method:	FCC A			Air Pressure:	99.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	50.0 %
EUT Description:	SMR (800\900 MHZ) repeater				
Notes:					
Data File Name:	3856.dat			Page:	5 of 5

Graph:



Tested by: J. C. Sausen

Printed

Signature

Reviewed by: G. Jakubowski

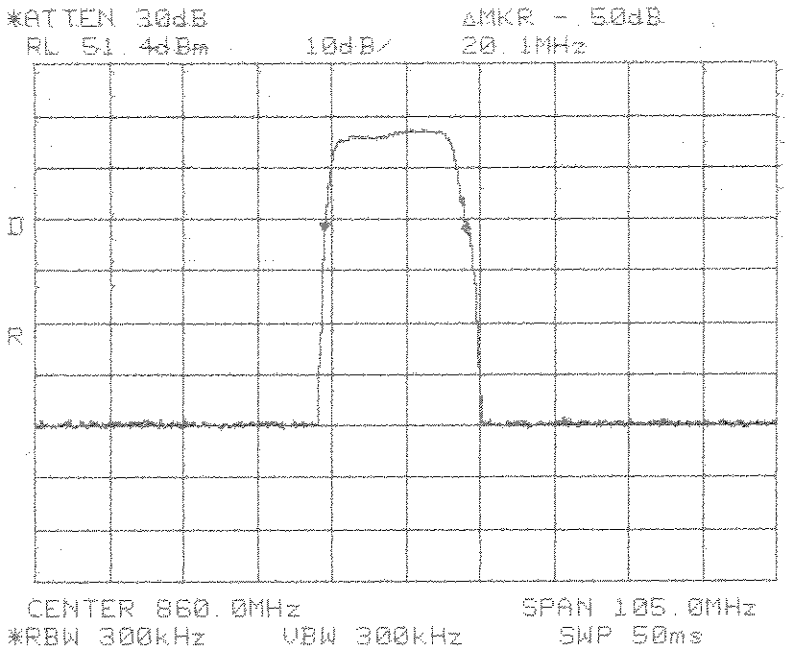
Printed

Signature

Industry Canada
Section 4.2 - 20 dB Passband Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

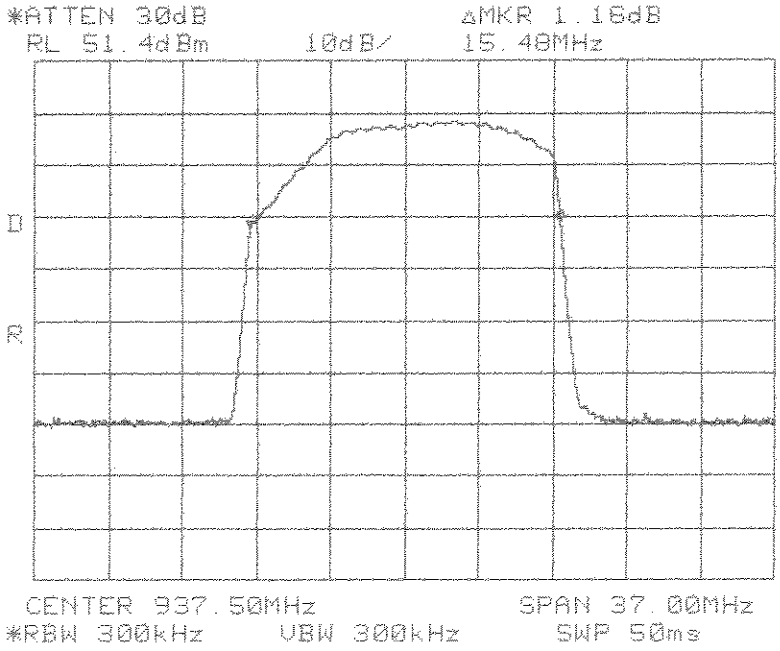
A plot of the 20 dB bandwidth was taken at the points when the gain had fallen by 20 dB. A measurement was taken to show the gain versus frequency response of the system from the midband frequency of the passband to the midband frequency +/- 250% of the 20 dB bandwidth.

Results:
Pass (See plots)



Center: 860.0 MHz
Span: 105 MHz
RBW/VBW: 300 kHz

Section 4.2
20 dB Passband
SMR 800 MHz



Section 4.2
20 dB Passband
SMR 900 MHz

Center: 937.5 MHz
Span: 37 MHz
RBW/VBW: 300 kHz

Frequency Tolerance Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

EUT SMR (800 MHz)

Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
102 VAC	851.000 MHz	851.000 MHz	Yes
120 VAC	851.000 MHz	851.000 MHz	Yes
138 VAC	851.000 MHz	851.000 MHz	Yes
102 VAC	858.500 MHz	858.500 MHz	Yes
120 VAC	858.500 MHz	858.500 MHz	Yes
138 VAC	858.500 MHz	858.500 MHz	Yes
102 VAC	866.000 MHz	866.000 MHz	Yes
120 VAC	866.000 MHz	866.000 MHz	Yes
138 VAC	866.000 MHz	866.000 MHz	Yes
Temperature	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C	851.000 MHz	851.000 MHz	Yes
-20 Deg. C	851.000 MHz	851.000 MHz	Yes
-10 Deg. C	851.000 MHz	851.000 MHz	Yes
0 Deg. C	851.000 MHz	851.000 MHz	Yes
10 Deg. C	851.000 MHz	851.000 MHz	Yes
20 Deg. C	851.000 MHz	851.000 MHz	Yes
30 Deg. C	851.000 MHz	851.000 MHz	Yes
40 Deg. C	851.000 MHz	851.000 MHz	Yes
50 Deg. C	851.000 MHz	851.000 MHz	Yes
-30 Deg. C	858.500 MHz	858.500 MHz	Yes
-20 Deg. C	858.500 MHz	858.500 MHz	Yes
-10 Deg. C	858.500 MHz	858.500 MHz	Yes
0 Deg. C	858.500 MHz	858.500 MHz	Yes
10 Deg. C	858.500 MHz	858.500 MHz	Yes
20 Deg. C	858.500 MHz	858.500 MHz	Yes
30 Deg. C	858.500 MHz	858.500 MHz	Yes
40 Deg. C	858.500 MHz	858.500 MHz	Yes
50 Deg. C	858.500 MHz	858.500 MHz	Yes
-30 Deg. C	866.000 MHz	866.000 MHz	Yes
-20 Deg. C	866.000 MHz	866.000 MHz	Yes
-10 Deg. C	866.000 MHz	866.000 MHz	Yes
0 Deg. C	866.000 MHz	866.000 MHz	Yes
10 Deg. C	866.000 MHz	866.000 MHz	Yes
20 Deg. C	866.000 MHz	866.000 MHz	Yes
30 Deg. C	866.000 MHz	866.000 MHz	Yes
40 Deg. C	866.000 MHz	866.000 MHz	Yes
50 Deg. C	866.000 MHz	866.000 MHz	Yes

Frequency Tolerance Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

EUT SMR (900 MHz)

Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
102 VAC	935.000 MHz	935.000 MHz	Yes
120 VAC	935.000 MHz	935.000 MHz	Yes
138 VAC	935.000 MHz	935.000 MHz	Yes
102 VAC	937.500 MHz	937.500 MHz	Yes
120 VAC	937.500 MHz	937.500 MHz	Yes
138 VAC	937.500 MHz	937.500 MHz	Yes
102 VAC	940.000 MHz	940.000 MHz	Yes
120 VAC	940.000 MHz	940.000 MHz	Yes
138 VAC	940.000 MHz	940.000 MHz	Yes
Temperature	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C	935.000 MHz	935.000 MHz	Yes
-20 Deg. C	935.000 MHz	935.000 MHz	Yes
-10 Deg. C	935.000 MHz	935.000 MHz	Yes
0 Deg. C	935.000 MHz	935.000 MHz	Yes
10 Deg. C	935.000 MHz	935.000 MHz	Yes
20 Deg. C	935.000 MHz	935.000 MHz	Yes
30 Deg. C	935.000 MHz	935.000 MHz	Yes
40 Deg. C	935.000 MHz	935.000 MHz	Yes
50 Deg. C	935.000 MHz	935.000 MHz	Yes
-30 Deg. C	937.500 MHz	937.500 MHz	Yes
-20 Deg. C	937.500 MHz	937.500 MHz	Yes
-10 Deg. C	937.500 MHz	937.500 MHz	Yes
0 Deg. C	937.500 MHz	937.500 MHz	Yes
10 Deg. C	937.500 MHz	937.500 MHz	Yes
20 Deg. C	937.500 MHz	937.500 MHz	Yes
30 Deg. C	937.500 MHz	937.500 MHz	Yes
40 Deg. C	937.500 MHz	937.500 MHz	Yes
50 Deg. C	937.500 MHz	937.500 MHz	Yes
-30 Deg. C	940.000 MHz	940.000 MHz	Yes
-20 Deg. C	940.000 MHz	940.000 MHz	Yes
-10 Deg. C	940.000 MHz	940.000 MHz	Yes
0 Deg. C	940.000 MHz	940.000 MHz	Yes
10 Deg. C	940.000 MHz	940.000 MHz	Yes
20 Deg. C	940.000 MHz	940.000 MHz	Yes
30 Deg. C	940.000 MHz	940.000 MHz	Yes
40 Deg. C	940.000 MHz	940.000 MHz	Yes
50 Deg. C	940.000 MHz	940.000 MHz	Yes

ADC Test Equipment List

Table 1 Test Equipment

Equipment	MFG/Model	ADC Serial Number	Calibration Due. (NIST)
Attenuator	Aeroflex / 49-30-33	N/A	CNR
Spectrum Analyzer	HP/HP8563E	MC27690	6-22-06
Power Meter	HP / EPM-441A	MC27670	9-16-05
Multimeter	Fluke 26III	MC22687	4-27-06
Freq. Counter	HP/5347A	MC27569	7-21-06
Temperature Chamber	Thermotron	MC18966	3-1-06
Variable Auto Transformer	Staco/1520CT	MC/44655	CNR
Signal Generator	Agilent / E4436B	963739	10-16-06
Signal Generator	Agilent / E4430B	MC34690	5-11-07
Signal Generator	Agilent / E4436B	MC 50601	12-29-06
DC Power Supply	Xantrex / HPD 60-5	MC27764	CNR

Note: Any equipment used in testing that has a Calibration Not Required (CNR) listing is verified and compensated for with NIST traceable calibrated equipment.

TUV Test Equipment used for Radiated Emissions

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3204	EM-6917B	Electro-Metrics	Biconicalog Periodic	102	21-Oct-05
2681	85650A	Hewlett-Packard	Quasi-Peak Adapter	2430A00562	03-Feb-06
8052	8566B	Hewlett-Packard	Spectrum Analyzer	2115A00853	24-Mar-06
8051	85662A	Hewlett-Packard	Analyzer Display	2112A02220	24-Mar-06
3961	ZHL-1042J	Mini-Circuits	Preamplifier	D120403-1	Code B
2075	3115	Electro-Mechanics (EMCO)	Ridge Guide Ant. 1-18 GHz	9001-3275	24-Nov-05
3958	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0002	Code B

Cal Code B = Calibration verification performed internally.

TUV Test Equipment used for Conducted Emissions

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
2416	3825/2	Electro-Mechanics (EMCO)	50 Ω LISN	8812-1437	Code B
3800	ESCS 30	Rhode & Schwarz	EMI Receiver	100312	18-Jan-06

Cal Code B = Calibration verification performed internally.

Form

EMC Test Plan and Constructional Data Form

PRODUCT SERVICE

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 SMR 800/900 MHz System

Model No.: DGVF-01000000XXCRN Serial No.: None

Product Options: Receive Diversity

Configurations to be tested: SMR 800/900 MHz

Test Objective

☐	EMC Directive 89/336/EEC (EMC)	☒	FCC:	Class	☐ A	☐ B	Part	90
	Std:	☐	VCCI:	Class	☐ A	☐ B		
☐	Machinery Directive 89/392/EEC (EMC	☐	BCIQ:	Class	☐ A	☐ B		
	Std:	☐	Canada:	Class	☐ A	☐ B		
☐	Medical Device Directive 93/42/EEC (EMC)	☐	Australia:	Class	☐ A	☐ B		
	Std:	☒	Other:	FCC Part 15 Class A				
☐	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

TÜV PRODUCT SERVICE

EUT Interface Ports and Cables

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

EMC Test Plan and Constructional Data Form

TÜV PRODUCT SERVICE

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-0100000001CRN	None	
Digivance CXD System consist of the HUB and RAN.		None	

EMC Test Plan and Constructional Data Form

TÜV PRODUCT SERVICE

Support Equipment -- List and describe all support equipment which is not part of the EUT. (i.e. peripherals, simulators, etc)

Description	*Model #*	*Serial #*	*FCC ID #*
Power Supply	Xantrex HPD 60-5	MC 27764	
Signal Generator	Agilent E4436B	963739	

Oscillator Frequencies

Frequency	*Derived Frequency*	*Component # / Location*	*Description of Use*

Power Supply

Manufacturer	*Model #*	*Serial #*	*Type*
			☐ Switched-mode: (Frequency) _____ ☐ Linear ☐ Other: _____
			☐ Switched-mode: (Frequency) _____ ☐ Linear ☐ Other: _____

Power Line Filters

Manufacturer	*Model #*	*Location in EUT*
None		

EMC Test Plan and Constructional Data Form

Critical EMI Components (Capacitors, ferrites, etc.)

Description	*Manufacturer*	*Part # or Value*	*Qty*	*Component # / Location*
None				

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

None

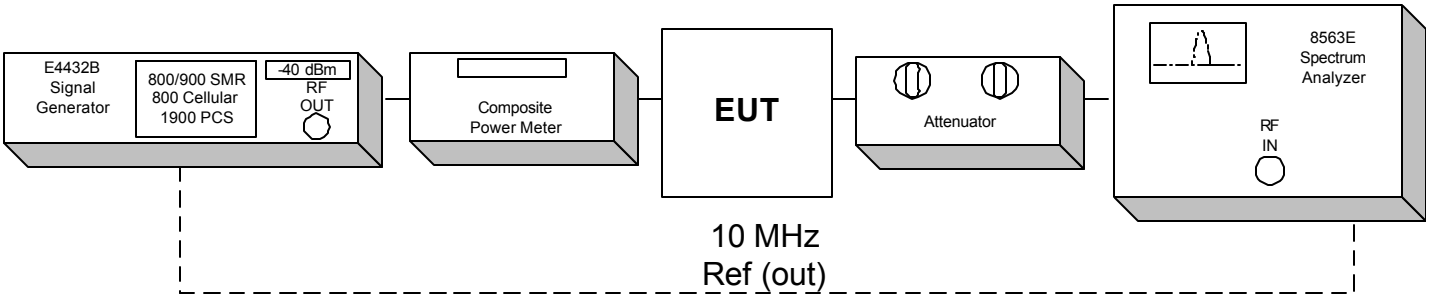
(PLEASE INSERT "**ELECTRONIC SIGNATURE**" BELOW IF POSSIBLE)

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

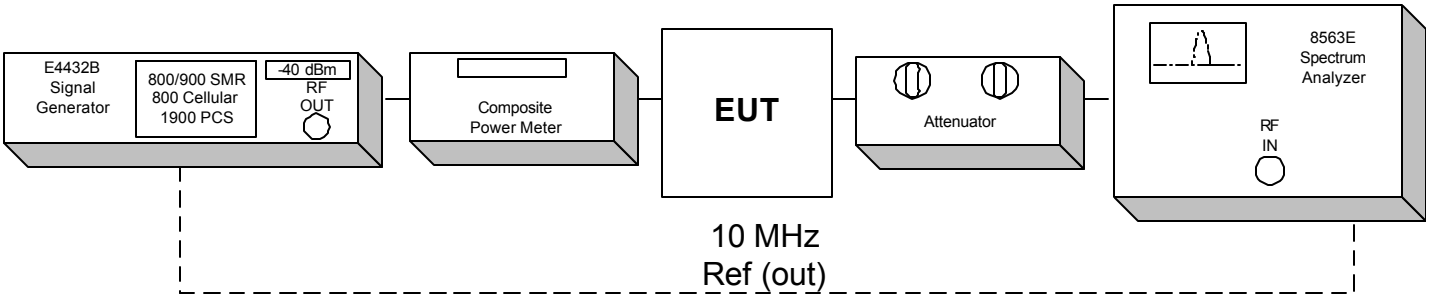
Conducted Emission Limits Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

Test Set-up



Effective Isotropic Radiated Power Limit Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

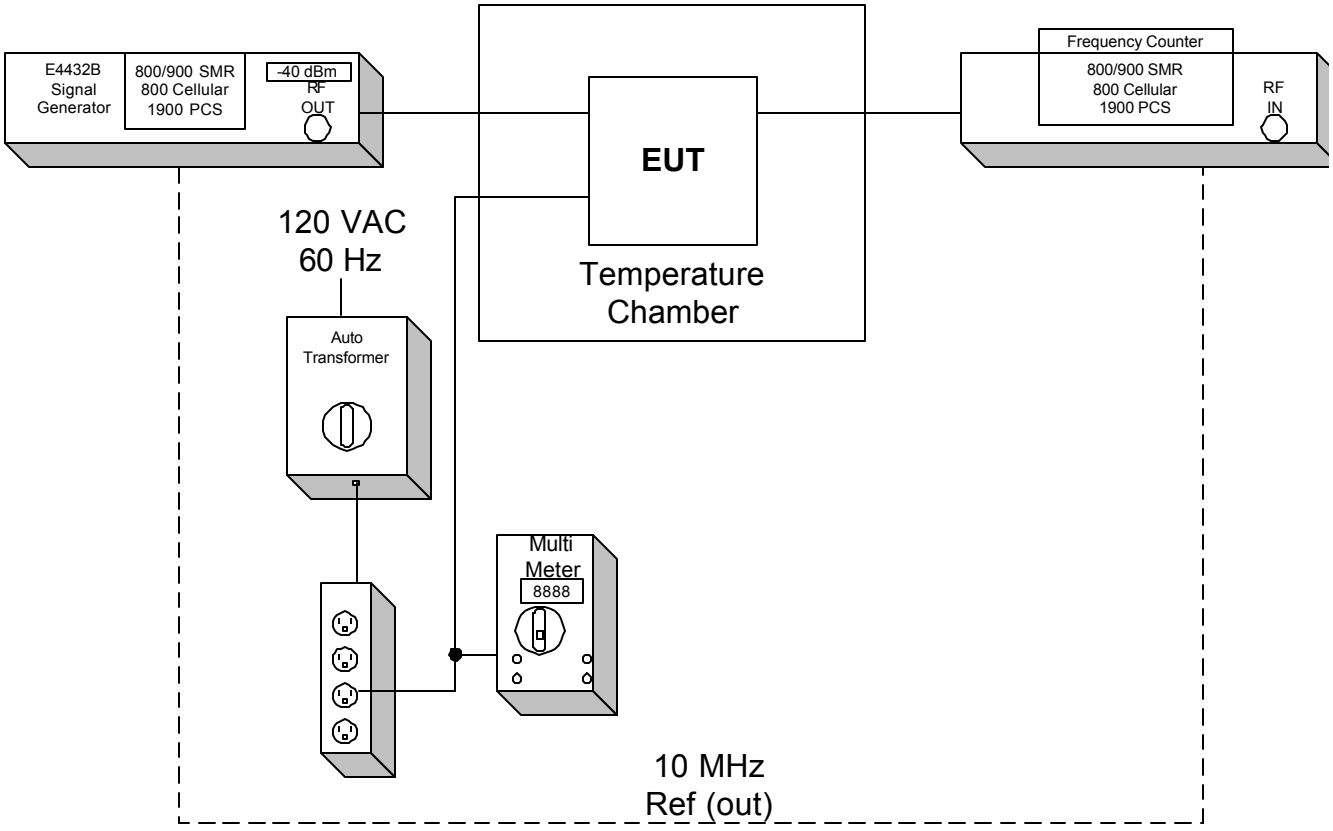
Test Set-up



Frequency Tolerance Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

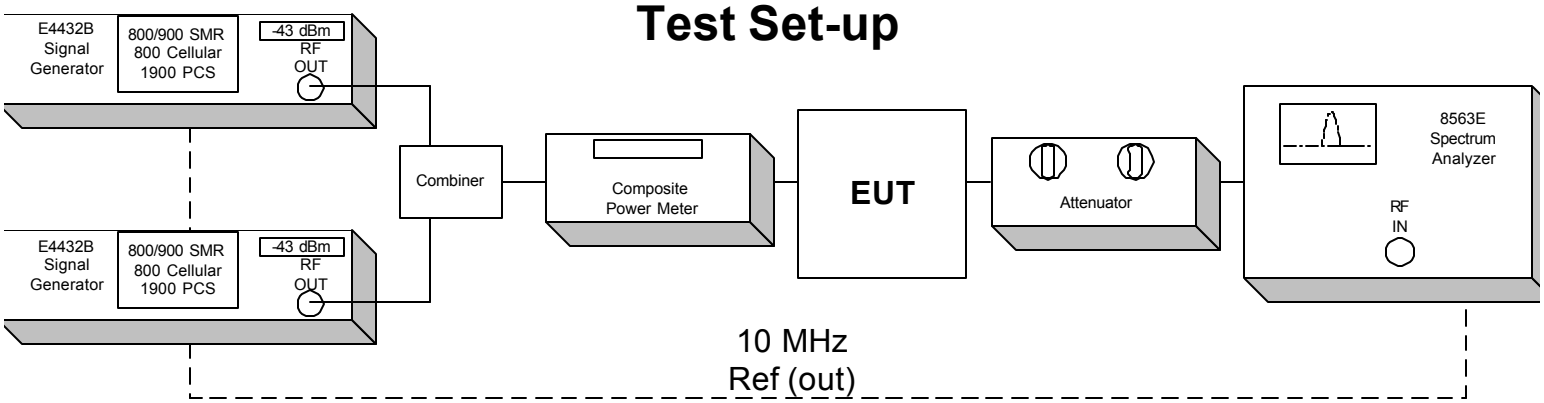
EUT Host is specified for indoor use only with temperature range of 0° to +50° C, and was tested with its range.
EUT Remote is specified with a temperature range of -30° to +50° C and was tested with its range.

Test Set-up



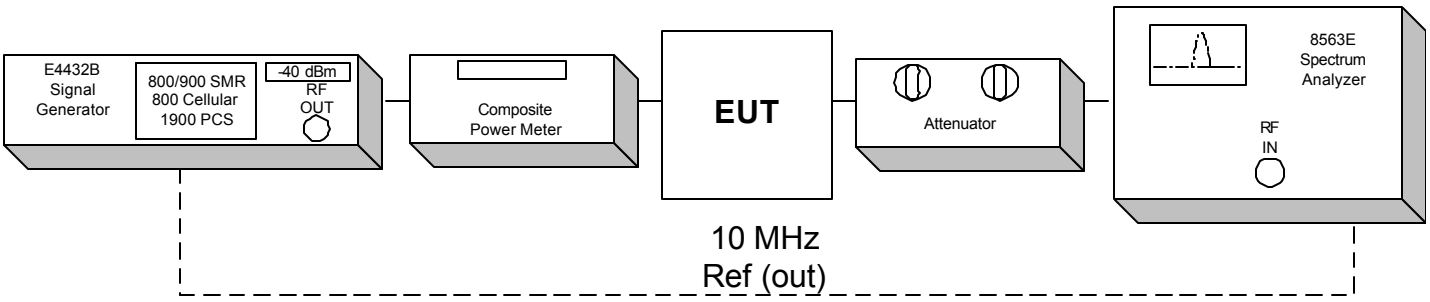
Inter-Modulation Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

Test Set-up



Occupied Bandwidth Modulation Test for ADC Inc.
Digivance CXD
Model Number DGVF-01000000XXCRN

Test Set-up



TEST SETUP FOR EMISSIONS TESTING

WILD RIVER LAB
Large Test Site

Notes:

1. Items shown in dotted lines are located on the floor below the test area. It is 5 meters vertically from the ground floor to the test area.

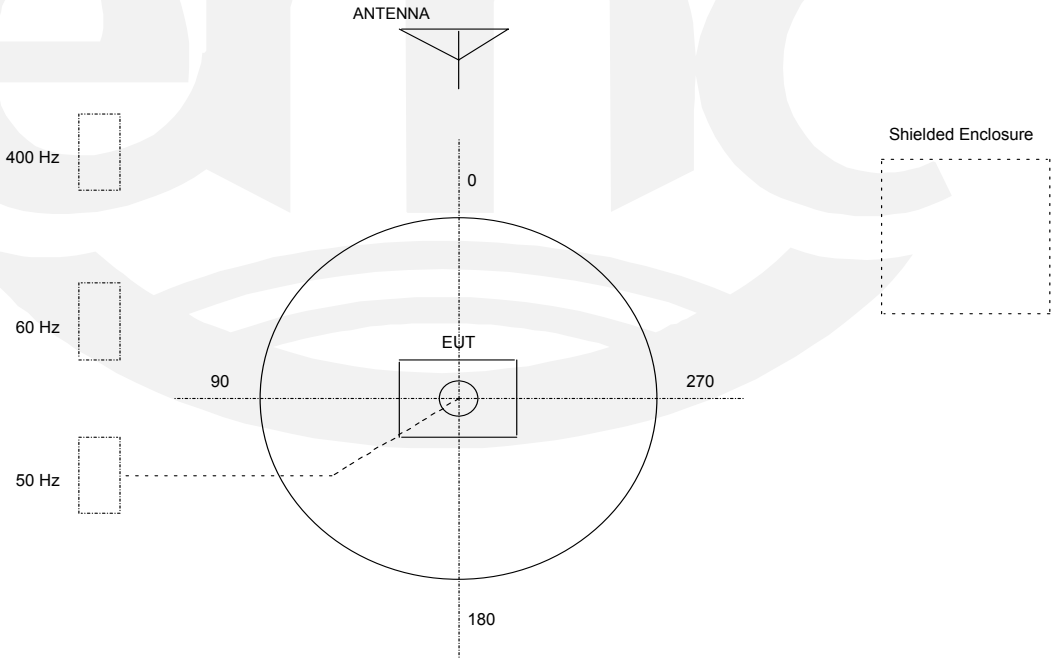
2. 50 Hz, 60 Hz, and 400 Hz are power panels for alternating current.

3. The antenna may be positioned horizontally 3, 10 or 30 meters from the center of the turntable.

4. The circle is a 6.7 meter diameter turntable.

5. A ground plane is in the plane of this sheet.

6. The test sample is shown in the azimuthal position representing zero degrees.



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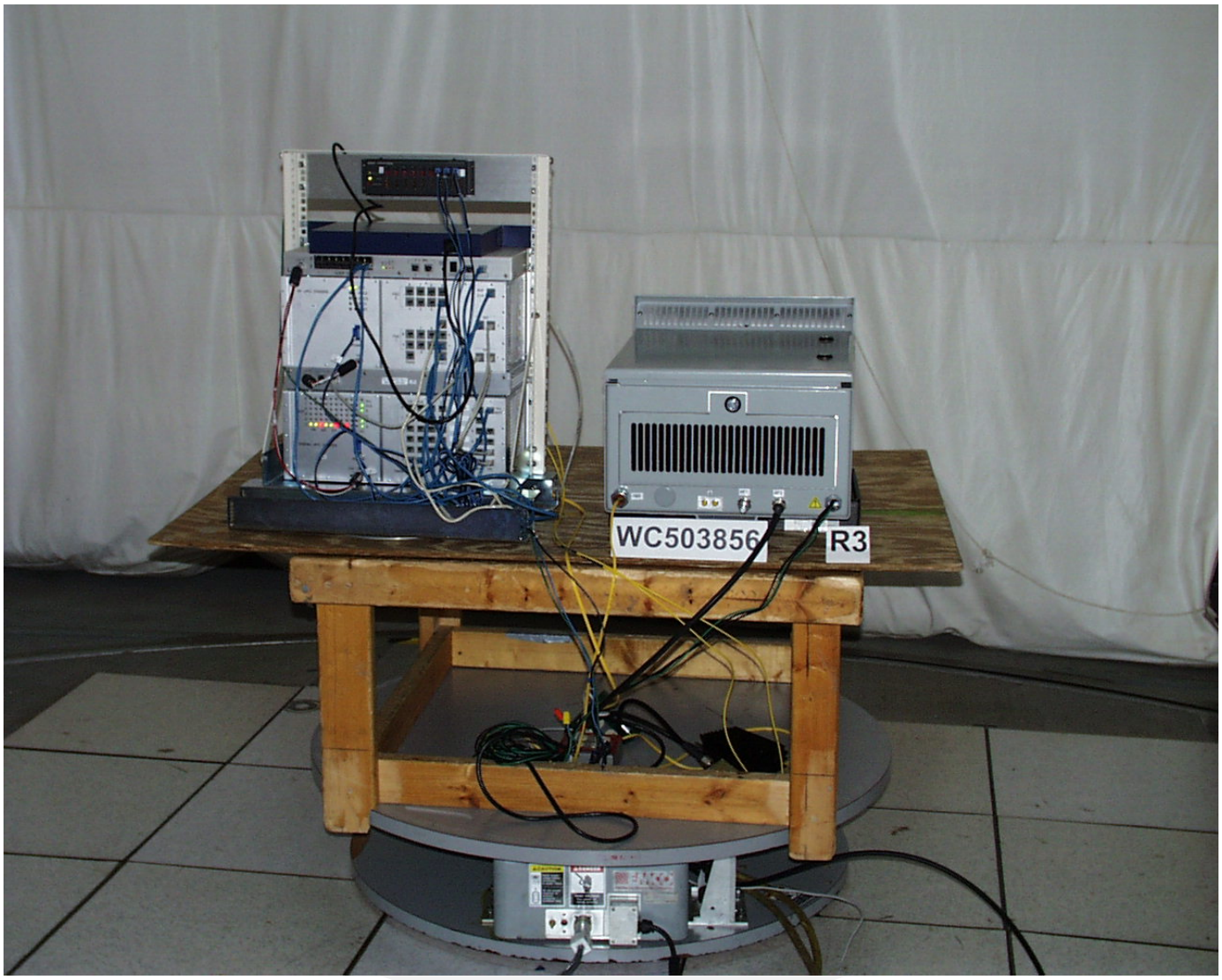
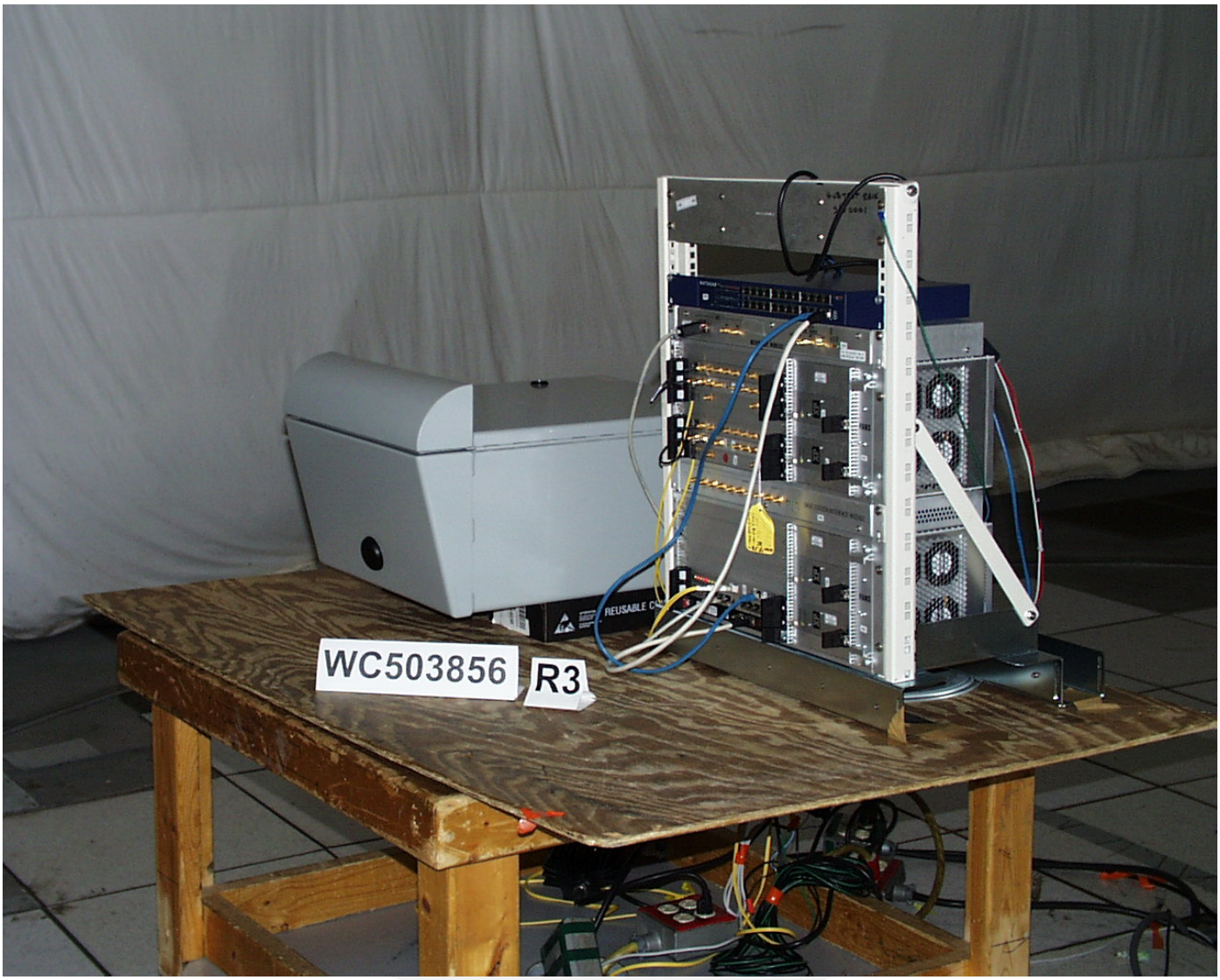
Radiated Emissions Test Set-up



TÜV AMERICA INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 Rev.No 1.0

Radiated Emissions Test Set-up



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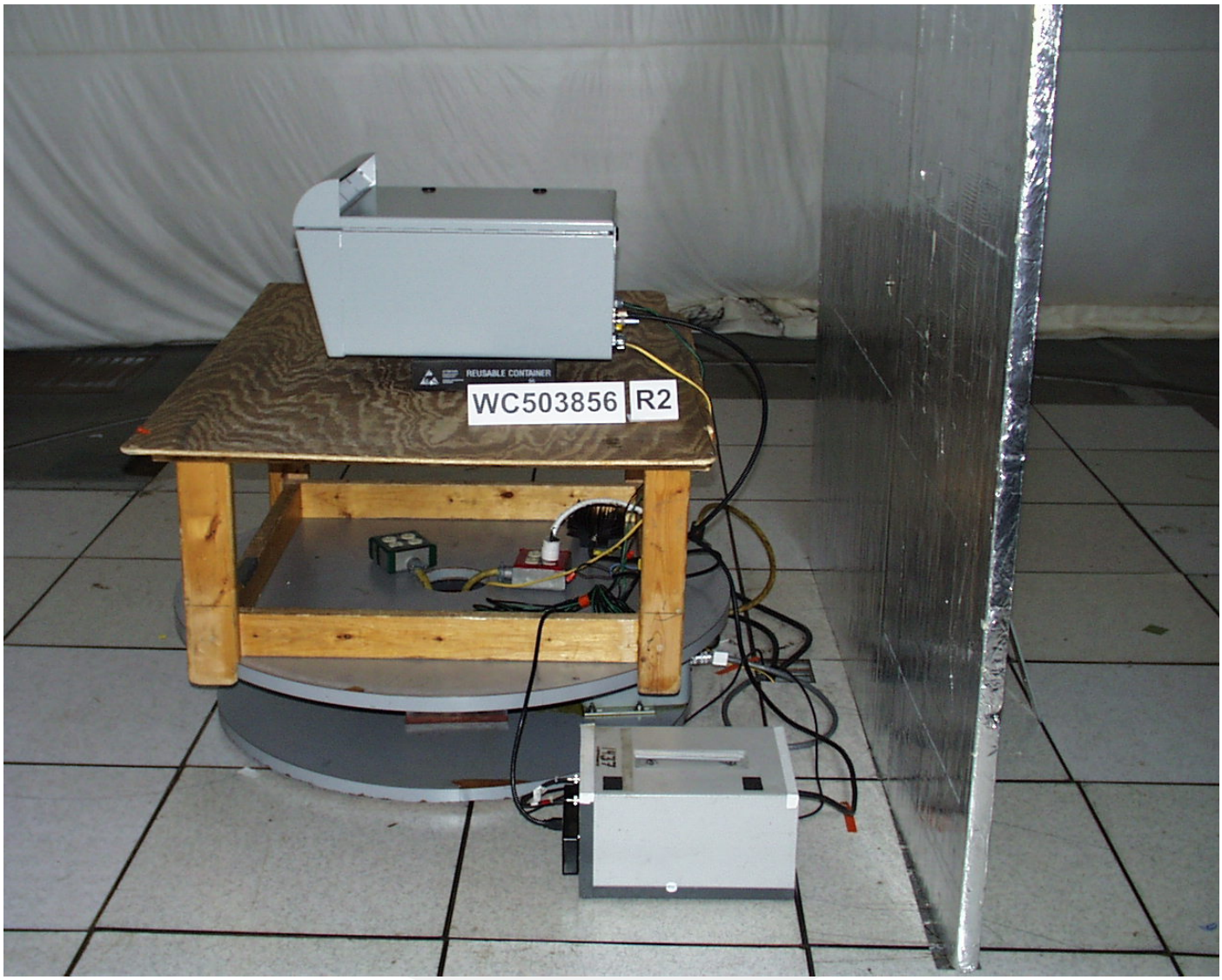
Conducted Emissions Test Set-up



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Conducted Emissions Test Set-up

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MEASUREMENT PROTOCOL
GENERAL INFORMATION

Environmental conditions in the lab, TUV America Large Test Site

Actual
Temperature: 24 °C
Relative Humidity: 50 %
Atmospheric pressure: 99.0 kPa
Power supply system: 60 Hz, 120 VAC;

The FCC guideline for measuring a device which draws its power from a device which connects to the AC mains, indicates that it must be demonstrated that it does not cause the device which connects to the AC mains to become non-compliant. If it can be demonstrated that it will be compliant in a representative host, it does not have to demonstrate compliance in every possible host. Thus, the testing proves the EUT's RF board, when connected to a compliant host connected to the AC mains, allows the host to remain compliant. The host that was provided for the testing operated at 60 Hz 220 VAC.

Equipment Under Test
The EUT was received 26 July 2005 in good condition. Testing was performed on 26 & 27 July 2005.

Test Methodology
Conducted and radiated emission 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 ±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 ±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.

Conducted Emissions
The final level, in dBμV, equals the EMI receiver level plus the cable loss and LISN factor.

Radiated Emissions
The final level, in dBμV/m, equals the reading from the spectrum analyzer (Level dBμV), 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 (dBuV)		CABLE (dB)	ANT (dB/m)	PREAMP (dB)		FINAL (dBuV/m)	POL	HGT (m)	AZ (deg)	DELTA1
60.80	42.5Qp	+	1.2	+ 10.9	- 25.5	=	29.1	V	1.0	0.0	-10.9

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

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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.