

RADIATED EMISSIONS



Test Report #: WC904857 Run 3 Test Area: LTS

EUT Model #: 764 Date: 6/17/2009

EUT Serial #: 021 EUT Power: 12VDC Temperature: 22.0 °C

Test Method: FCC 15.247 Air Pressure: 98.0 kPa

Customer: Landis & GYR Rel. Humidity: 43.0 %

EUT Description: TS2 plus ZigBee

Notes: Rx Mode.

Data File Name: 4857.dat

Page: 1 of 7

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
Start of Scan 30-1000 MHz.						
49.411 MHz	42.35 Qp	0.35 / 14.26 / 29.7 / 0.0	27.27	V / 1.00 / 0	-12.73	n/a
56.882 MHz	40.6 Qp	0.41 / 12.25 / 29.7 / 0.0	23.56	V / 1.00 / 0	-16.44	n/a
62.894 MHz	44.4 Qp	0.46 / 10.81 / 29.63 / 0.0	26.03	V / 1.00 / 0	-13.97	n/a
68.895 MHz	42.9 Qp	0.51 / 9.77 / 29.6 / 0.0	23.58	V / 1.00 / 0	-16.42	n/a
74.899 MHz	45.55 Qp	0.56 / 8.96 / 29.7 / 0.0	25.37	V / 1.00 / 0	-14.63	n/a
82.033 MHz	40.45 Qp	0.61 / 8.0 / 29.7 / 0.0	19.36	V / 1.00 / 0	-20.64	n/a
95.876 MHz	48.3 Qp	0.72 / 8.43 / 29.62 / 0.0	27.83	V / 1.00 / 0	-15.67	n/a
113.855 MHz	35.05 Qp	0.82 / 9.81 / 29.7 / 0.0	15.98	V / 1.00 / 0	-27.52	n/a
119.826 MHz	39.7 Qp	0.84 / 9.56 / 29.7 / 0.0	20.4	V / 1.00 / 0	-23.1	n/a
122.896 MHz	33.95 Qp	0.85 / 9.35 / 29.7 / 0.0	14.44	V / 1.00 / 0	-29.06	n/a
131.806 MHz	37.6 Qp	0.87 / 8.72 / 29.7 / 0.0	17.49	V / 1.00 / 0	-26.01	n/a
134.789 MHz	37.8 Qp	0.88 / 8.51 / 29.7 / 0.0	17.49	V / 1.00 / 0	-26.01	n/a
140.787 MHz	41.6 Qp	0.89 / 9.37 / 29.73 / 0.0	22.13	V / 1.00 / 0	-21.37	n/a
149.787 MHz	39.05 Qp	0.91 / 9.62 / 29.8 / 0.0	19.78	V / 1.00 / 0	-23.72	n/a
161.759 MHz	39.2 Qp	0.95 / 8.91 / 29.8 / 0.0	19.26	V / 1.00 / 0	-24.24	n/a
182.736 MHz	35.15 Qp	1.0 / 10.23 / 29.8 / 0.0	16.58	V / 1.00 / 0	-26.92	n/a
206.042 MHz	31.4 Qp	1.06 / 10.94 / 29.8 / 0.0	13.61	V / 1.00 / 0	-29.89	n/a
215.668 MHz	33.9 Qp	1.09 / 10.93 / 29.8 / 0.0	16.11	V / 1.00 / 0	-27.39	n/a
221.669 MHz	35.15 Qp	1.1 / 11.15 / 29.8 / 0.0	17.6	V / 1.00 / 0	-28.4	n/a
239.645 MHz	33.9 Qp	1.15 / 11.84 / 29.7 / 0.0	17.18	V / 1.00 / 0	-28.82	n/a
245.633 MHz	39.35 Qp	1.16 / 12.06 / 29.73 / 0.0	22.84	V / 1.00 / 0	-23.16	n/a
281.579 MHz	36.0 Qp	1.23 / 12.7 / 29.83 / 0.0	20.09	V / 1.00 / 0	-25.91	n/a
305.55 MHz	38.5 Qp	1.25 / 13.42 / 29.9 / 0.0	23.27	V / 1.00 / 0	-22.73	n/a
341.49 MHz	40.1 Qp	1.29 / 14.49 / 30.0 / 0.0	25.89	V / 1.00 / 0	-20.11	n/a
344.496 MHz	41.45 Qp	1.3 / 14.58 / 30.0 / 0.0	27.33	V / 1.00 / 0	-18.67	n/a
368.455 MHz	38.0 Qp	1.33 / 15.3 / 30.0 / 0.0	24.63	V / 1.00 / 0	-21.37	n/a
449.342 MHz	32.6 Qp	1.42 / 16.56 / 30.01 / 0.0	20.57	V / 1.00 / 0	-25.43	n/a
473.289 MHz	31.5 Qp	1.45 / 17.16 / 30.16 / 0.0	19.95	V / 1.00 / 0	-26.05	n/a

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Test Report #: WC904857 Run 3 Test Area: LTS

EUT Model #: 764 Date: 6/17/2009

EUT Serial #: 021 EUT Power: 12VDC Temperature: 22.0 °C

Test Method: FCC 15.247 Air Pressure: 98.0 kPa

Customer: Landis & GYR Rel. Humidity: 43.0 %

EUT Description: TS2 plus ZigBee

Notes: Rx Mode.

Data File Name: 4857.dat

Page: 2 of 7

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
131.806 MHz	41.55 Qp	0.87 / 8.72 / 29.7 / 0.0	21.44	V / 1.00 / 90	-22.06	n/a
161.759 MHz	42.8 Qp	0.95 / 8.91 / 29.8 / 0.0	22.86	V / 1.00 / 90	-20.64	n/a
221.669 MHz	37.45 Qp	1.1 / 11.15 / 29.8 / 0.0	19.9	V / 1.00 / 90	-26.1	n/a
473.289 MHz	32.75 Qp	1.45 / 17.16 / 30.16 / 0.0	21.2	V / 1.00 / 90	-24.8	n/a
56.882 MHz	41.8 Qp	0.41 / 12.25 / 29.7 / 0.0	24.76	V / 1.00 / 180	-15.24	n/a
68.895 MHz	45.1 Qp	0.51 / 9.77 / 29.6 / 0.0	25.78	V / 1.00 / 180	-14.22	n/a
122.812 MHz	38.1 Qp	0.84 / 9.35 / 29.7 / 0.0	18.6	V / 1.00 / 180	-24.9	n/a
221.669 MHz	38.55 Qp	1.1 / 11.15 / 29.8 / 0.0	21.0	V / 1.00 / 180	-25.0	n/a
239.645 MHz	35.2 Qp	1.15 / 11.84 / 29.7 / 0.0	18.48	V / 1.00 / 180	-27.52	n/a
281.579 MHz	37.6 Qp	1.23 / 12.7 / 29.83 / 0.0	21.69	V / 1.00 / 180	-24.31	n/a
341.49 MHz	44.35 Qp	1.29 / 14.49 / 30.0 / 0.0	30.14	V / 1.00 / 180	-15.86	n/a
344.496 MHz	44.4 Qp	1.3 / 14.58 / 30.0 / 0.0	30.28	V / 1.00 / 180	-15.72	n/a
473.289 MHz	36.55 Qp	1.45 / 17.16 / 30.16 / 0.0	25.0	V / 1.00 / 180	-21.0	n/a
128.8 MHz	41.25 Qp	0.86 / 8.93 / 29.7 / 0.0	21.34	V / 1.00 / 180	-22.16	n/a
152.8 MHz	38.45 Qp	0.92 / 9.38 / 29.8 / 0.0	18.95	V / 1.00 / 180	-24.55	n/a
233.645 MHz	39.25 Qp	1.13 / 11.61 / 29.74 / 0.0	22.25	V / 1.00 / 180	-23.75	n/a
269.621 MHz	35.6 Qp	1.21 / 12.66 / 29.8 / 0.0	19.67	V / 1.00 / 180	-26.33	n/a
311.538 MHz	35.15 Qp	1.26 / 13.6 / 29.9 / 0.0	20.11	V / 1.00 / 180	-25.89	n/a
323.532 MHz	40.6 Qp	1.27 / 13.96 / 29.93 / 0.0	25.9	V / 1.00 / 180	-20.1	n/a
329.526 MHz	42.85 Qp	1.28 / 14.14 / 29.96 / 0.0	28.31	V / 1.00 / 180	-17.69	n/a
335.526 MHz	45.95 Qp	1.29 / 14.32 / 29.98 / 0.0	31.57	V / 1.00 / 180	-14.43	n/a
383.413 MHz	34.1 Qp	1.34 / 15.42 / 30.0 / 0.0	20.86	V / 1.00 / 180	-25.14	n/a
443.354 MHz	34.95 Qp	1.41 / 16.41 / 30.0 / 0.0	22.77	V / 1.00 / 180	-23.23	n/a
461.318 MHz	36.35 Qp	1.43 / 16.86 / 30.08 / 0.0	24.56	V / 1.00 / 180	-21.44	n/a
547.06 MHz	34.7 Qp	1.55 / 18.17 / 30.2 / 0.0	24.22	V / 1.00 / 180	-21.78	n/a
449.342 MHz	33.5 Qp	1.42 / 16.56 / 30.01 / 0.0	21.47	V / 1.00 / 315	-24.53	n/a
215.668 MHz	35.2 Qp	1.09 / 10.93 / 29.8 / 0.0	17.41	V / 1.00 / 315	-26.09	n/a

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Test Report #: WC904857 Run 3 Test Area: LTS

EUT Model #: 764 Date: 6/17/2009

EUT Serial #: 021 EUT Power: 12VDC Temperature: 22.0 °C

Test Method: FCC 15.247 Air Pressure: 98.0 kPa

Customer: Landis & GYR Rel. Humidity: 43.0 %

EUT Description: TS2 plus ZigBee

Notes: Rx Mode.

Data File Name: 4857.dat

Page: 3 of 7

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
134.789 MHz	40.15 Qp	0.88 / 8.51 / 29.7 / 0.0	19.84	V / 1.00 / 315	-23.66	n/a
Start of Maximizing Vertically.						
49.411 MHz	44.5 Qp	0.35 / 14.26 / 29.7 / 0.0	29.42	V / 1.00 / 185	-10.58	n/a
335.526 MHz	46.69 Qp	1.29 / 14.32 / 29.98 / 0.0	32.31	V / 1.00 / 180	-13.69	n/a
End of Vertical Scan						
Start of Horizontal Scan						
140.787 MHz	37.05 Qp	0.89 / 9.37 / 29.73 / 0.0	17.58	H / 3.00 / 0	-25.92	n/a
221.669 MHz	37.35 Qp	1.1 / 11.15 / 29.8 / 0.0	19.8	H / 3.00 / 0	-26.2	n/a
59.924 MHz	33.85 Qp	0.44 / 11.52 / 29.7 / 0.0	16.11	H / 3.00 / 0	-23.89	n/a
125.805 MHz	37.15 Qp	0.85 / 9.14 / 29.7 / 0.0	17.45	H / 3.00 / 1800	-26.05	n/a
164.752 MHz	35.4 Qp	0.95 / 9.1 / 29.8 / 0.0	15.65	H / 3.00 / 0	-27.85	n/a
275.591 MHz	32.75 Qp	1.22 / 12.52 / 29.8 / 0.0	16.69	H / 3.00 / 0	-29.31	n/a
287.592 MHz	35.6 Qp	1.23 / 12.88 / 29.86 / 0.0	19.85	H / 3.00 / 0	-26.15	n/a
347.473 MHz	36.1 Qp	1.3 / 14.67 / 30.0 / 0.0	22.08	H / 3.00 / 0	-23.92	n/a
356.473 MHz	36.7 Qp	1.31 / 14.94 / 30.0 / 0.0	22.96	H / 3.00 / 0	-23.04	n/a
245.633 MHz	39.5 Qp	1.16 / 12.06 / 29.73 / 0.0	22.99	H / 3.00 / 90	-23.01	n/a
275.591 MHz	35.6 Qp	1.22 / 12.52 / 29.8 / 0.0	19.54	H / 3.00 / 90	-26.46	n/a
287.592 MHz	37.9 Qp	1.23 / 12.88 / 29.86 / 0.0	22.15	H / 3.00 / 90	-23.85	n/a
182.736 MHz	37.2 Qp	1.0 / 10.23 / 29.8 / 0.0	18.63	H / 3.00 / 180	-24.87	n/a
221.669 MHz	39.7 Qp	1.1 / 11.15 / 29.8 / 0.0	22.15	H / 3.00 / 180	-23.85	n/a
245.633 MHz	41.75 Qp	1.16 / 12.06 / 29.73 / 0.0	25.24	H / 3.00 / 180	-20.76	n/a
Start of Maximizing Horizontally.						
245.633 MHz	43.2 Qp	1.16 / 12.06 / 29.73 / 0.0	26.69	H / 2.40 / 130	-19.31	n/a
End of Horizontal Scan						

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Test Report #: WC904857 Run 3 Test Area: LTS
EUT Model #: 764 Date: 6/17/2009
EUT Serial #: 021 EUT Power: 12VDC Temperature: 22.0 °C
Test Method: FCC 15.247 Air Pressure: 98.0 kPa
Customer: Landis & GYR Rel. Humidity: 43.0 %

EUT Description: TS2 plus ZigBee

Notes: Rx Mode.

Data File Name: 4857.dat Page: 4 of 7

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
End of Scan 30 - 1000 MHz.						

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RADIATED EMISSIONS



Test Report #: WC904857 Run 3 Test Area: LTS

EUT Model #: 764 Date: 6/17/2009

EUT Serial #: 021 EUT Power: 12VDC Temperature: 22.0 °C

Test Method: FCC 15.247 Air Pressure: 98.0 kPa

Customer: Landis & GYR Rel. Humidity: 43.0 %

EUT Description: TS2 plus ZigBee

Notes: Rx Mode.

Data File Name: 4857.dat

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Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
49.411 MHz	44.5 Qp	0.35 / 14.26 / 29.7 / 0.0	29.42	V / 1.00 / 185	-10.58
335.526 MHz	46.69 Qp	1.29 / 14.32 / 29.98 / 0.0	32.31	V / 1.00 / 180	-13.69
62.894 MHz	44.4 Qp	0.46 / 10.81 / 29.63 / 0.0	26.03	V / 1.00 / 0	-13.97
68.895 MHz	45.1 Qp	0.51 / 9.77 / 29.6 / 0.0	25.78	V / 1.00 / 180	-14.22
74.899 MHz	45.55 Qp	0.56 / 8.96 / 29.7 / 0.0	25.37	V / 1.00 / 0	-14.63
56.882 MHz	41.8 Qp	0.41 / 12.25 / 29.7 / 0.0	24.76	V / 1.00 / 180	-15.24
95.876 MHz	48.3 Qp	0.72 / 8.43 / 29.62 / 0.0	27.83	V / 1.00 / 0	-15.67
344.496 MHz	44.4 Qp	1.3 / 14.58 / 30.0 / 0.0	30.28	V / 1.00 / 180	-15.72
341.49 MHz	44.35 Qp	1.29 / 14.49 / 30.0 / 0.0	30.14	V / 1.00 / 180	-15.86
329.526 MHz	42.85 Qp	1.28 / 14.14 / 29.96 / 0.0	28.31	V / 1.00 / 180	-17.69
245.633 MHz	43.2 Qp	1.16 / 12.06 / 29.73 / 0.0	26.69	H / 2.40 / 130	-19.31
323.532 MHz	40.6 Qp	1.27 / 13.96 / 29.93 / 0.0	25.9	V / 1.00 / 180	-20.1
82.033 MHz	40.45 Qp	0.61 / 8.0 / 29.7 / 0.0	19.36	V / 1.00 / 0	-20.64
161.759 MHz	42.8 Qp	0.95 / 8.91 / 29.8 / 0.0	22.86	V / 1.00 / 90	-20.64
473.289 MHz	36.55 Qp	1.45 / 17.16 / 30.16 / 0.0	25.0	V / 1.00 / 180	-21.0
140.787 MHz	41.6 Qp	0.89 / 9.37 / 29.73 / 0.0	22.13	V / 1.00 / 0	-21.37
368.455 MHz	38.0 Qp	1.33 / 15.3 / 30.0 / 0.0	24.63	V / 1.00 / 0	-21.37
461.318 MHz	36.35 Qp	1.43 / 16.86 / 30.08 / 0.0	24.56	V / 1.00 / 180	-21.44
547.06 MHz	34.7 Qp	1.55 / 18.17 / 30.2 / 0.0	24.22	V / 1.00 / 180	-21.78
131.806 MHz	41.55 Qp	0.87 / 8.72 / 29.7 / 0.0	21.44	V / 1.00 / 90	-22.06
128.8 MHz	41.25 Qp	0.86 / 8.93 / 29.7 / 0.0	21.34	V / 1.00 / 180	-22.16
305.55 MHz	38.5 Qp	1.25 / 13.42 / 29.9 / 0.0	23.27	V / 1.00 / 0	-22.73
356.473 MHz	36.7 Qp	1.31 / 14.94 / 30.0 / 0.0	22.96	H / 3.00 / 0	-23.04
119.826 MHz	39.7 Qp	0.84 / 9.56 / 29.7 / 0.0	20.4	V / 1.00 / 0	-23.1
443.354 MHz	34.95 Qp	1.41 / 16.41 / 30.0 / 0.0	22.77	V / 1.00 / 180	-23.23
134.789 MHz	40.15 Qp	0.88 / 8.51 / 29.7 / 0.0	19.84	V / 1.00 / 315	-23.66
149.787 MHz	39.05 Qp	0.91 / 9.62 / 29.8 / 0.0	19.78	V / 1.00 / 0	-23.72
233.645 MHz	39.25 Qp	1.13 / 11.61 / 29.74 / 0.0	22.25	V / 1.00 / 180	-23.75
221.669 MHz	39.7 Qp	1.1 / 11.15 / 29.8 / 0.0	22.15	H / 3.00 / 180	-23.85

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Test Report #: WC904857 Run 3 Test Area: LTS

EUT Model #: 764 Date: 6/17/2009

EUT Serial #: 021 EUT Power: 12VDC Temperature: 22.0 °C

Test Method: FCC 15.247 Air Pressure: 98.0 kPa

Customer: Landis & GYR Rel. Humidity: 43.0 %

EUT Description: TS2 plus ZigBee

Notes: Rx Mode.

Data File Name: 4857.dat

Page: 6 of 7

Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
287.592 MHz	37.9 Qp	1.23 / 12.88 / 29.86 / 0.0	22.15	H / 3.00 / 90	-23.85
59.924 MHz	33.85 Qp	0.44 / 11.52 / 29.7 / 0.0	16.11	H / 3.00 / 0	-23.89
347.473 MHz	36.1 Qp	1.3 / 14.67 / 30.0 / 0.0	22.08	H / 3.00 / 0	-23.92
281.579 MHz	37.6 Qp	1.23 / 12.7 / 29.83 / 0.0	21.69	V / 1.00 / 180	-24.31
449.342 MHz	33.5 Qp	1.42 / 16.56 / 30.01 / 0.0	21.47	V / 1.00 / 315	-24.53
152.8 MHz	38.45 Qp	0.92 / 9.38 / 29.8 / 0.0	18.95	V / 1.00 / 180	-24.55
182.736 MHz	37.2 Qp	1.0 / 10.23 / 29.8 / 0.0	18.63	H / 3.00 / 180	-24.87
122.812 MHz	38.1 Qp	0.84 / 9.35 / 29.7 / 0.0	18.6	V / 1.00 / 180	-24.9
383.413 MHz	34.1 Qp	1.34 / 15.42 / 30.0 / 0.0	20.86	V / 1.00 / 180	-25.14
311.538 MHz	35.15 Qp	1.26 / 13.6 / 29.9 / 0.0	20.11	V / 1.00 / 180	-25.89
125.805 MHz	37.15 Qp	0.85 / 9.14 / 29.7 / 0.0	17.45	H / 3.00 / 1800	-26.05
215.668 MHz	35.2 Qp	1.09 / 10.93 / 29.8 / 0.0	17.41	V / 1.00 / 315	-26.09
269.621 MHz	35.6 Qp	1.21 / 12.66 / 29.8 / 0.0	19.67	V / 1.00 / 180	-26.33
275.591 MHz	35.6 Qp	1.22 / 12.52 / 29.8 / 0.0	19.54	H / 3.00 / 90	-26.46
113.855 MHz	35.05 Qp	0.82 / 9.81 / 29.7 / 0.0	15.98	V / 1.00 / 0	-27.52
239.645 MHz	35.2 Qp	1.15 / 11.84 / 29.7 / 0.0	18.48	V / 1.00 / 180	-27.52
164.752 MHz	35.4 Qp	0.95 / 9.1 / 29.8 / 0.0	15.65	H / 3.00 / 0	-27.85
206.042 MHz	31.4 Qp	1.06 / 10.94 / 29.8 / 0.0	13.61	V / 1.00 / 0	-29.89

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Test Report #: WC904857 Run 3 Test Area: LTS

EUT Model #: 764 Date: 6/17/2009

EUT Serial #: 021 EUT Power: 12VDC Temperature: 22.0 °C

Test Method: FCC 15.247 Air Pressure: 98.0 kPa

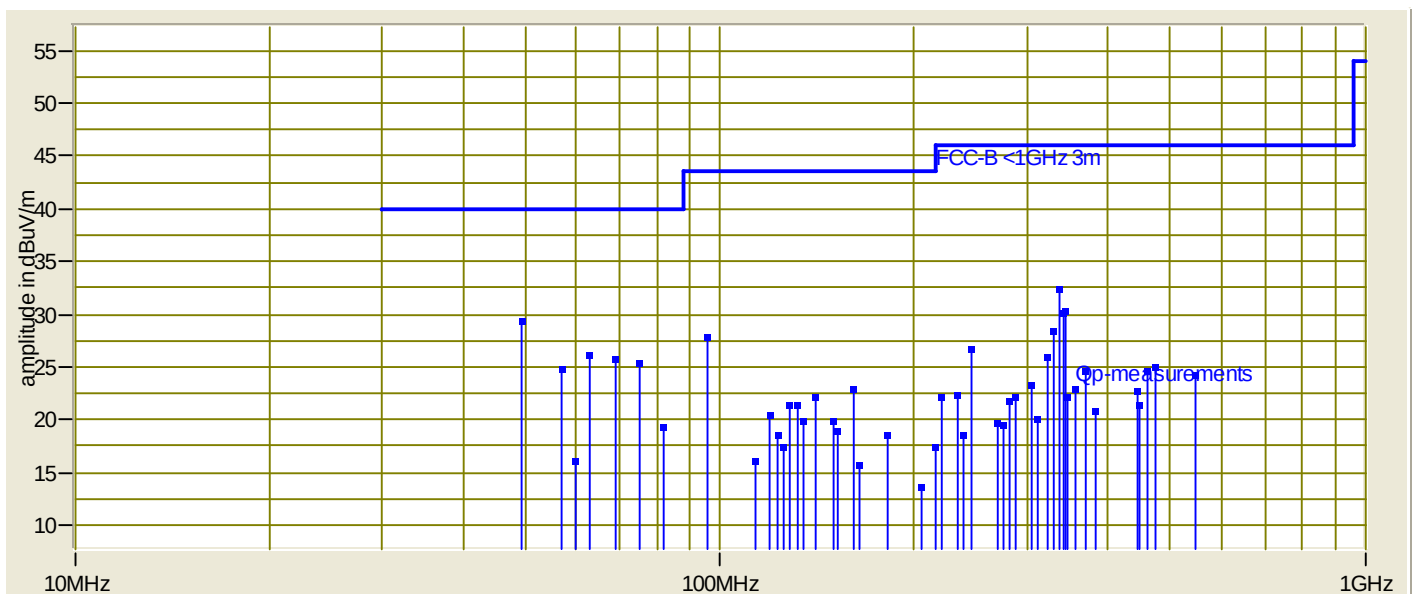
Customer: Landis & GYR Rel. Humidity: 43.0 %

EUT Description: TS2 plus ZigBee

Notes: Rx Mode.

Data File Name: 4857.dat Page: 7 of 7

Graph:



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