

EQUIPMENT: Legic LPR-10M reader

Powerline Conducted Emissions

Para. No.: 15.207

Test Performed By: Kevin Carr	Date of Test: 12 Sept. 2003
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Minimum Standard:

Limits For Conducted Disturbance At The Mains Ports Of Class B: Paragraph No. 15.107

Frequency Range MHz	Limits dB(µV)		Result
	Quasi-Peak	Average	
0.15 to 0.50	66 to 56	56 to 46	Complies
0.5 to 5	56	46	
5 to 30	60	50	

Note:
 1. The lower limit shall apply at the transition frequency.
 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50MHz.

Measurement Data: See attached Chart/graph(s).

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Conducted Disturbance at Mains Port Test Data:

Test Date: 12 Sept. 03					
Engineer's Name: Kevin Carr					
Temperature (C°): 22			Humidity %: 54		
Tested as per: Table Top					
Spectrum plots for each frequency band can be found at the back of this section. Any Emissions that were above or within 5 dB of the average limits were re-measured with a receiver and recorded. *All plots were generated with a peak detector.					
Port under test: AC Power Port			Test Voltage: 120VAC, 60 Hz		
Results: (Refer to Plots/Receiver Results)					
Conductor	Frequency (MHz)	Detector	Level dB(μV)	Limit dB(μV)	Margin dB
Phase	0.15	Quasi-Peak	55.4	66.0	10.6
Phase	0.15	Average	5.2	56.0	50.8
Phase	0.2	Quasi-Peak	54.7	63.6	8.9
Phase	0.2	Average	17.5	53.6	36.1
Phase	0.25	Quasi-Peak	52	61.8	9.8
Phase	0.25	Average	1.8	51.8	50.0
Phase	0.3	Quasi-Peak	49.3	60.2	10.9
Phase	0.3	Average	1	50.2	49.2
Phase	0.35	Quasi-Peak	48.4	59.0	10.6
Phase	0.35	Average	0.6	49.0	48.4
Phase	0.4	Quasi-Peak	47	57.9	10.9
Phase	0.4	Average	13.9	47.9	34.0
Phase	0.45	Quasi-Peak	46.7	56.9	10.2
Phase	0.45	Average	13.6	46.9	33.3
Phase	0.5	Quasi-Peak	34.4	56.0	21.6
Phase	0.5	Average	-0.9	46.0	46.9
Phase	0.687	Quasi-Peak	41.1	56.0	14.9
Phase	0.687	Average	-0.7	46.0	46.7
Phase	0.82	Quasi-Peak	35.9	56.0	20.1
Phase	0.82	Average	-1	46.0	47.0
Phase	0.582	Quasi-Peak	32.4	56.0	23.6
Phase	0.582	Average	16.5	46.0	29.5
Phase	0.95	Quasi-Peak	33.4	56.0	22.6
Phase	0.95	Average	-1.4	46.0	47.4
Phase	13.58	Quasi-Peak	34.3	60.0	25.7
Phase	13.58	Average	2.2	50.0	47.8
Notes:	Power Cube used: MP International P/N: W48D-J1000-5/1, 120AC, 60Hz to 12VDC, 30W, Class 2 Transformer. S/N: MPI9230				

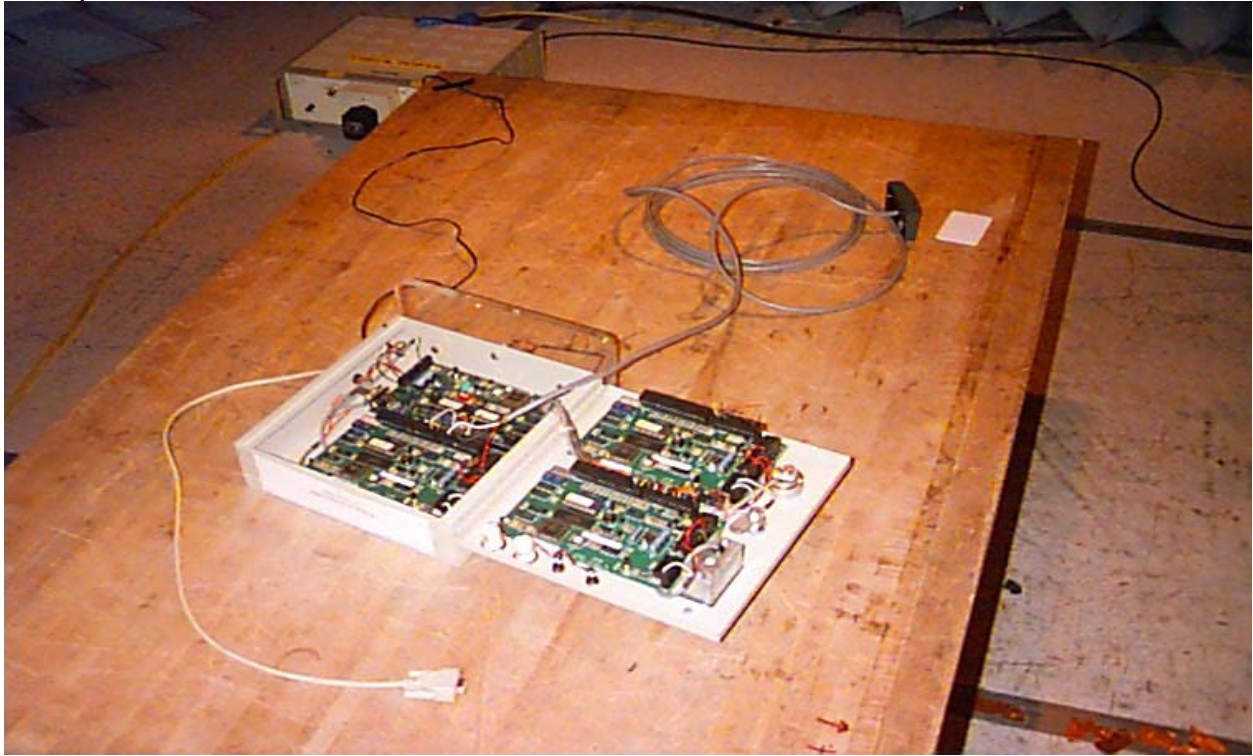
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Conducted Disturbance at Mains Port Test Data:

Test Date: 12 Sept. 03					
Engineer's Name: Kevin Carr					
Temperature (C°): 22			Humidity %: 54		
Tested as per: Table Top					
Spectrum plots for each frequency band can be found at the back of this section. Any Emissions that were above or within 5 dB of the average limits were re-measured with a receiver and recorded. *All plots were generated with a peak detector.					
Port under test: AC Power Port			Test Voltage: 120VAC, 60 Hz		
Results: (Refer to Plots/Receiver Results)					
Conductor	Frequency (MHz)	Detector	Level dB(µV)	Limit dB(µV)	Margin dB
Neut.	0.15	Quasi-Peak	55.5	66.0	10.5
Neut.	0.15	Average	1.3	56.0	54.7
Neut.	0.2	Quasi-Peak	55	63.6	8.6
Neut.	0.2	Average	19.5	53.6	34.1
Neut.	0.25	Quasi-Peak	51.9	61.8	9.9
Neut.	0.25	Average	1.1	51.8	50.7
Neut.	0.3	Quasi-Peak	49.6	60.2	10.6
Neut.	0.3	Average	0.7	50.2	49.5
Neut.	0.35	Quasi-Peak	48.8	59.0	10.2
Neut.	0.35	Average	0.7	49.0	48.3
Neut.	0.4	Quasi-Peak	46.7	57.9	11.2
Neut.	0.4	Average	16.2	47.9	31.7
Neut.	0.45	Quasi-Peak	41.1	56.9	15.8
Neut.	0.45	Average	0.3	46.9	46.6
Neut.	0.5	Quasi-Peak	33.9	56.0	22.1
Neut.	0.5	Average	-0.5	46.0	46.5
Neut.	0.687	Quasi-Peak	34.7	56.0	21.3
Neut.	0.687	Average	0.8	46.0	45.2
Neut.	0.82	Quasi-Peak	35.6	56.0	20.4
Neut.	0.82	Average	-0.7	46.0	46.7
Neut.	0.582	Quasi-Peak	30.3	56.0	25.7
Neut.	0.582	Average	-0.6	46.0	46.6
Neut.	0.95	Quasi-Peak	32.6	56.0	23.4
Neut.	0.95	Average	-1.2	46.0	47.2
Neut.	13.58	Quasi-Peak	32.3	60.0	27.7
Neut.	13.58	Average	1.6	50.0	48.4
Notes:	Power Cube used: MP International P/N: W48D-J1000-5/1, 120AC, 60Hz to 12VDC, 30W, Class 2 Transformer. S/N: MPI9230				

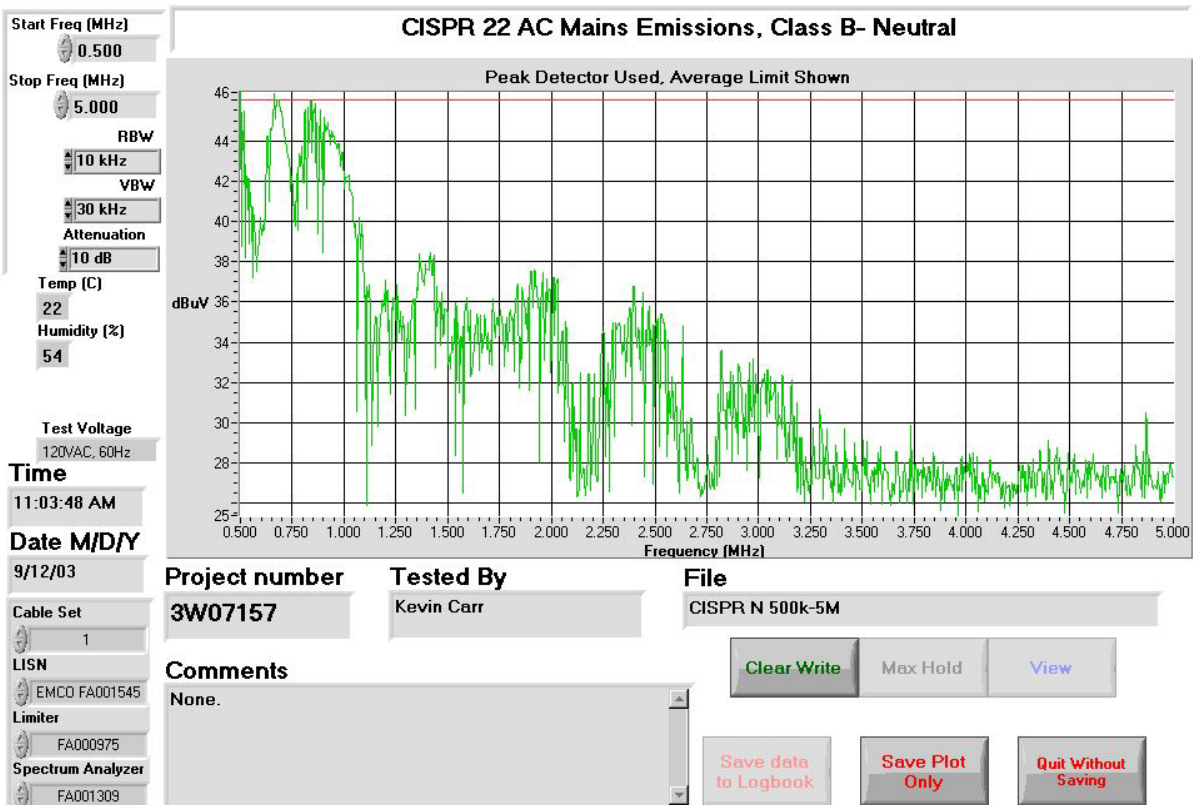
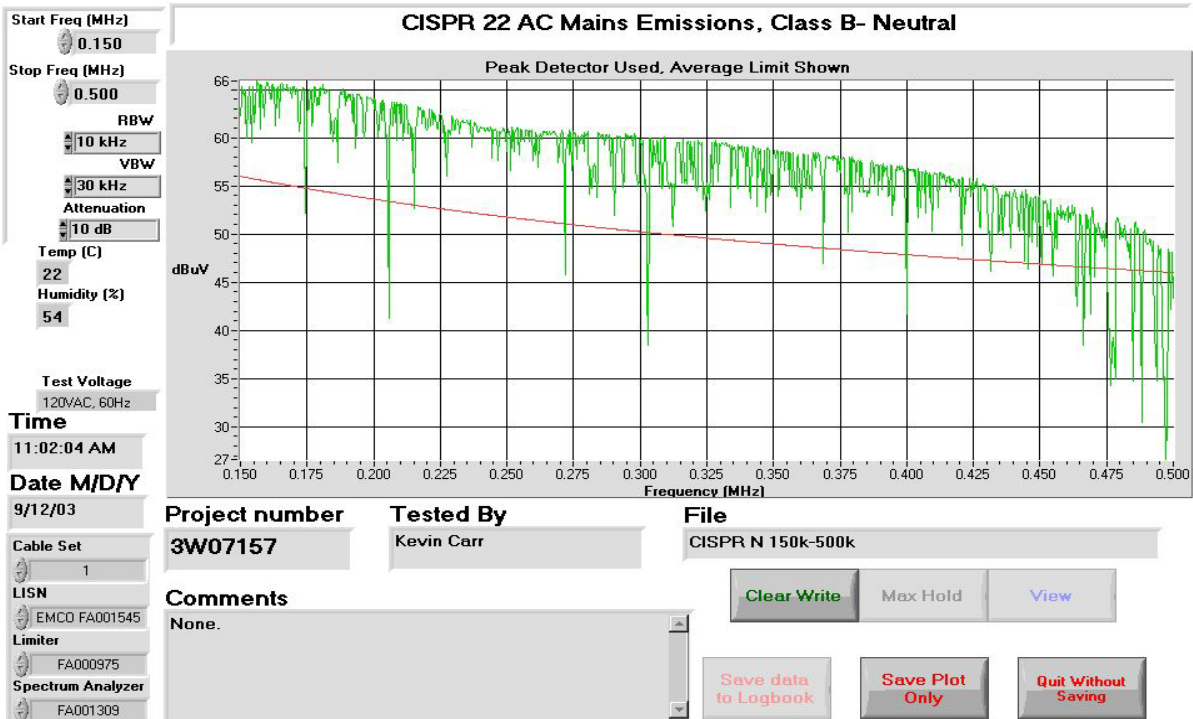
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Set-Up Photo's

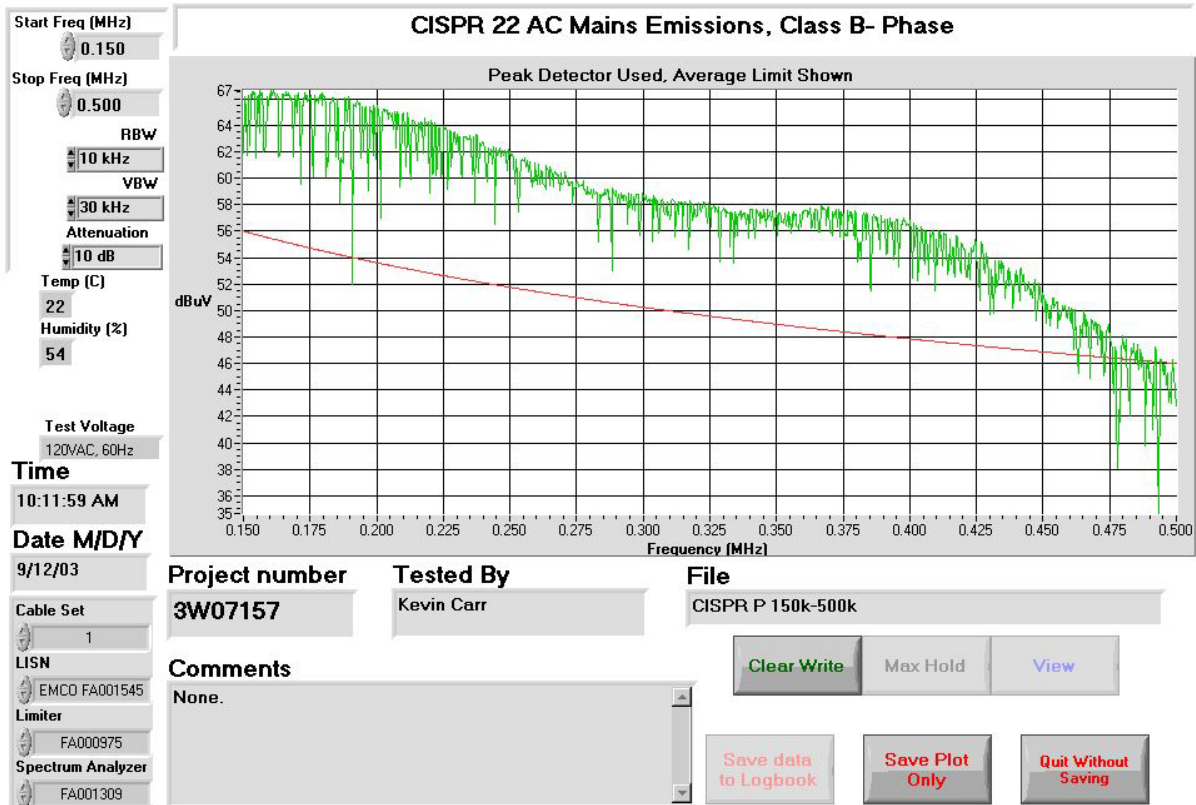
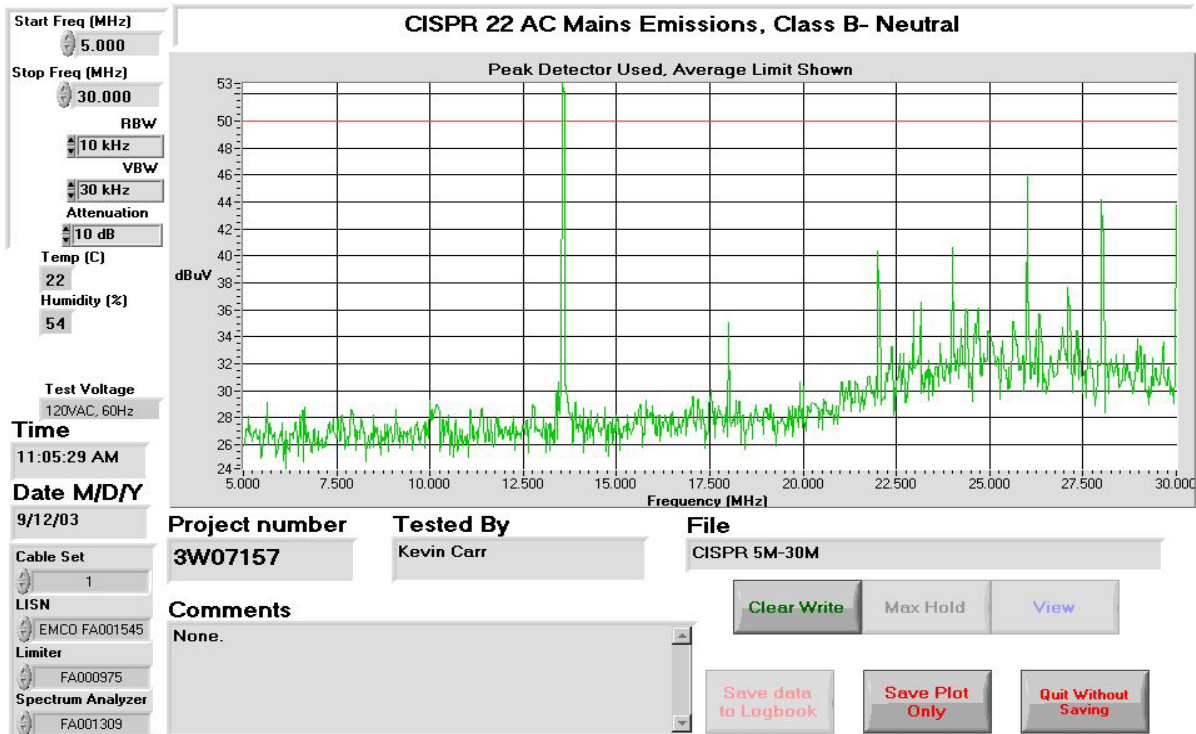


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AC Power Line Conducted Emission Plots



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