



EMC Test Data

Client:	Electricity Metering, ABB Inc.	Job Number:	J47046
Model:	A0001SC4200	T-Log Number:	T47058
		Proj Eng:	Juan Martinez
Contact:	Bill A. Melvin		
Spec:	FCC 22H, Part 2.1091 Mobile	Class:	N/A

Section 2.1053 & RSS-133 (6.3): Field strength of Spurious emissions

Test Specifics

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 3/11/2003

Config. Used: 1

Test Engineer: jmartinez

Config Change: None

Test Location: SVOATS #4

EUT Voltage: 5 Vdc

General Test Configuration

The EUT was located on the turntable for radiated emissions testing.

On the OATS, the measurement antenna was located 3m from the EUT for the frequency range 1 - 20 GHz.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT. For any Spurious emission more than 20-dB substitution was performed. Substitution Method is not required for Spurious emissions 20-dB below the calculated field strength limit.

Ambient Conditions:

Temperature: 10°C

Rel. Humidity: 58%

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	RE, Preliminary Scan 30 - 1000 MHz	22.917(e)	Pass	Refer to individual runs

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



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Run #1: Maximized Radiated Emissions, Fundamental to 10th Harmonic

Frequency	Level	Pol	22.917(e)		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
			(dBm)	(dB)				
Middle Channel								
1673.870	-41.1	V	-13.0	-28.1	Pk	156	1.0	
2510.770	-30.3	V	-13.0	-17.3	Pk	145	1.0	
3345.803	-49.7	V	-13.0	-36.7	Pk	85	1.0	
1673.870	-26.4	H	-13.0	-13.4	Pk	307	1.4	
2504.913	-34.2	H	-13.0	-21.2	Pk	110	1.4	
3339.890	-35.3	H	-13.0	-22.3	Pk	198	1.3	
4174.908	-40.6	H	-13.0	-27.6	Pk	300	1.3	
4174.970	-33.0	V	-13.0	-20.0	Pk	320	1.2	
Low Channel								
1647.920	-25.5	H	-13.0	-12.5	Pk	155	1.2	
2472.045	-28.1	H	-13.0	-15.1	Pk	41	1.2	
2473.037	55.2	V	82.2	-27.0	Pk	112	1.0	
3297.420	54.8	V	82.2	-27.4	Pk	142	1.0	
4119.980	-42.2	H	-13.0	-29.2	Pk	60	1.3	
3296.837	51.2	H	82.2	-31.0	Pk	23	1.2	
4120.040	-44.5	V	-13.0	-31.5	Pk	327	1.4	
1648.528	47.5	V	82.2	-34.7	Pk	145	1.0	
High Channel								
1697.890	-30.2	H	-13.0	-17.2	Pk	259	1.1	
2546.870	-31.8	H	-13.0	-18.8	Pk	251	1.4	
4244.792	-47.0	H	-13.0	-25.7	Pk	0	0.0	
3395.850	-41.4	H	-13.0	-28.4	Pk	91	1.4	
3396.182	48.3	V	82.2	-33.9	Pk	225	1.0	
4244.860	-47.0	V	-13.0	-34.0	Pk	76	1.4	
2547.124	48.0	V	82.2	-34.2	Pk	320	1.0	
1697.950	47.2	V	82.2	-35.0	Pk	56	1.0	

Note 1: No emission close to 20-dB of the limit detected beyond the 4th harmonic.