



EMC Test Data

Client:	Moteiv Corporation	Job Number:	J61193
Model:	Tmote Sky	T-Log Number:	T61218
		Account Manager:	Esther Zhu
Contact:	Robert Szewczyk		
Emissions Spec:	FCC 15.247, RSS-210 / FCC	Class:	Radio / B
Immunity Spec:		Environment:	

EMC Test Data

For The

Moteiv Corporation

Model

Tmote Sky

Date of Last Test: 9/22/2005



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Conducted Emissions - Power Ports

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: 11/2/2005

Config. Used: 1

Test Engineer: Jmartinez

Config Change: None

Test Location: SVOATS #2

EUT Voltage: Host System

General Test Configuration

The EUT was located on a wooden table, 40 cm from a vertical coupling plane and 80cm from the LISN. A second LISN was used for all local support equipment.

Ambient Conditions: Temperature: 20 °C
Rel. Humidity: 58 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	CE, AC Power, 230V/50Hz	EN55022 Class B	Pass	40.7dBμV @ 22.025MHz (-9.3dB)
2	CE, AC Power,120V/60Hz	FCC 15.207	Pass	48.8dBμV @ 0.225MHz (-13.8dB)
3	CE, AC Power,120V/60Hz	RSS 210	Pass	48.8dBμV @ 0.225MHz (-13.8dB)

Pre-liminary measurements were made in Tx and Rx. No difference in emissions level from either mode, so AC conducted emissions final measurements were made with the EUT operating at 2437 MHz, Tx mode.

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.

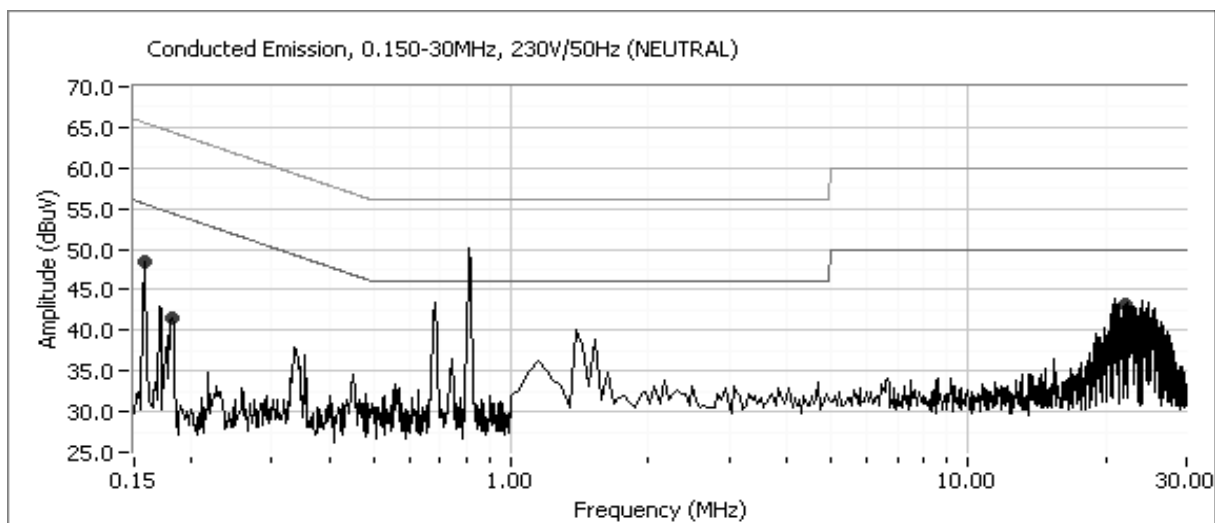
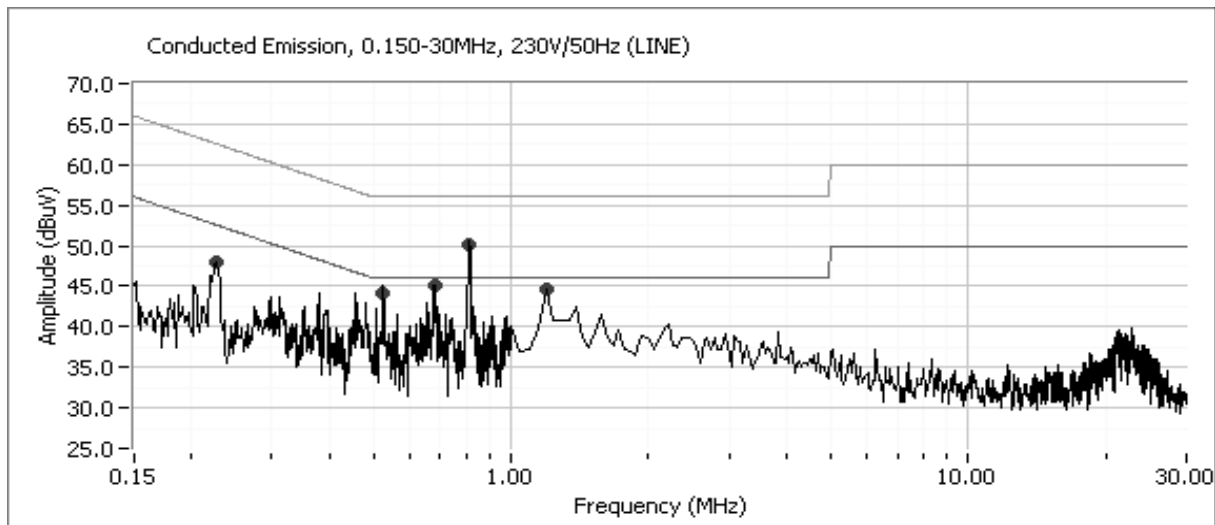


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Run #1: AC Power Port Conducted Emissions, 0.15 - 30MHz, 230V/50Hz

Configuration: 2437 MHz and Tx Mode





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Run #1: AC Power Port Conducted Emissions, 0.15 - 30MHz, 230V/50Hz

Configuration: 2437 MHz and Tx Mode

Frequency MHz	Level dB μ V	AC Line	EN55022 Class B		Detector QP/Ave	Comments
			Limit	Margin		
22.025	40.7	Neutral	50.0	-9.3	Average	
0.225	45.2	Line	62.6	-17.4	QP	
22.025	42.4	Neutral	60.0	-17.6	QP	
0.223	40.8	Neutral	62.7	-21.9	QP	
0.223	29.1	Neutral	52.7	-23.6	Average	
0.225	28.5	Line	52.6	-24.1	Average	
0.561	18.5	Line	46.0	-27.5	Average	
0.561	26.6	Line	56.0	-29.4	QP	
0.813	43.0	Line	56.0	-13.0	QP	Ambient
0.813	39.6	Line	46.0	-6.4	Average	Ambient
0.680	42.4	Line	56.0	-13.6	QP	Ambient
0.680	39.1	Line	46.0	-6.9	Average	Ambient
1.168	40.5	Line	56.0	-15.5	QP	Ambient
1.168	35.9	Line	46.0	-10.1	Average	Ambient

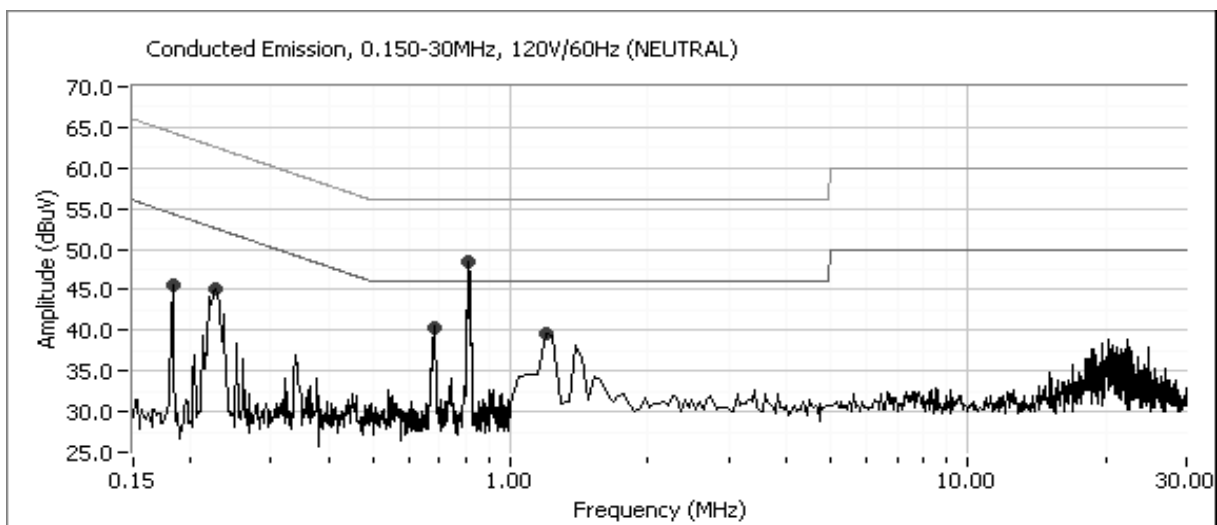
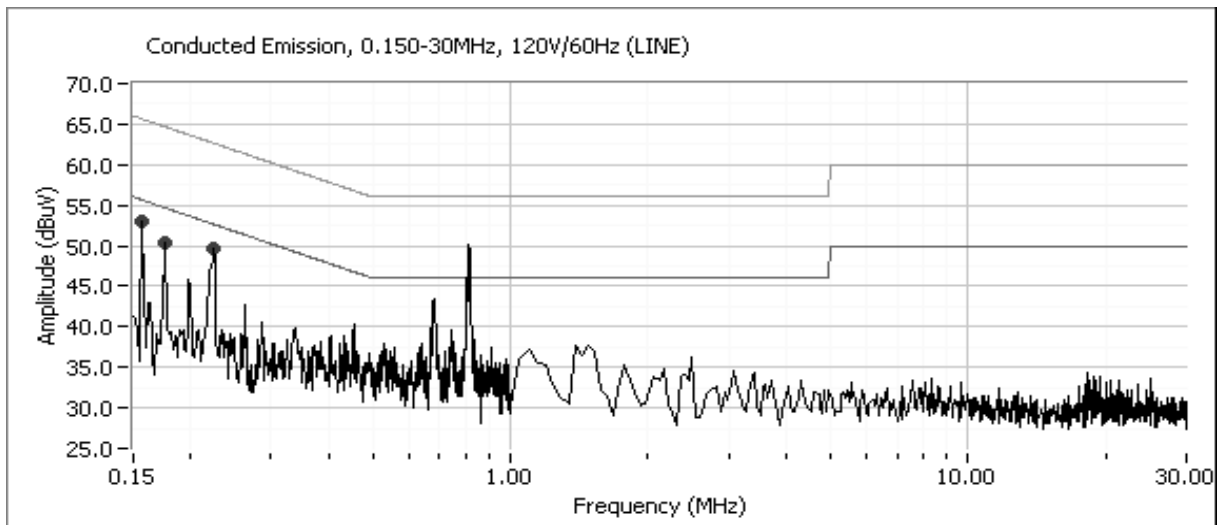


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Spec: FCC 15.247, RSS-210 / FCC	Class: Radio / B

Run #2: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz

Configuration: 2437 MHz and Tx Mode





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Spec:	FCC 15.247, RSS-210 / FCC	Class:	Radio / B

Run #2: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz

Configuration: 2437 MHz and Tx Mode

Frequency MHz	Level dB μ V	AC Line	FCC 15.207		Detector QP/Ave	Comments
			Limit	Margin		
0.225	48.8	Line	62.6	-13.8	QP	
0.225	34.5	Line	52.6	-18.1	Average	
0.227	43.2	Neutral	62.6	-19.4	QP	
0.227	31.4	Neutral	52.6	-21.2	Average	
0.157	42.6	Line	65.6	-23.0	QP	
0.176	40.1	Line	64.7	-24.6	QP	
0.181	34.8	Neutral	64.4	-29.6	QP	
0.668	13.6	Neutral	46.0	-32.4	Average	
0.668	19.1	Neutral	56.0	-36.9	QP	
0.176	11.2	Line	54.7	-43.5	Average	
0.157	12.0	Line	55.6	-43.6	Average	
0.181	6.5	Neutral	54.4	-47.9	Average	

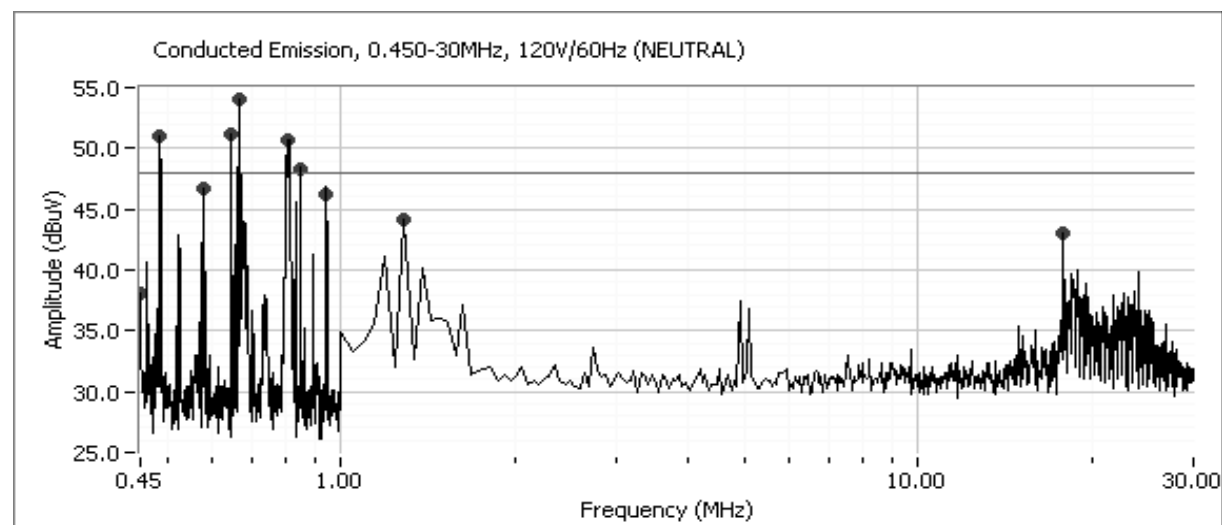
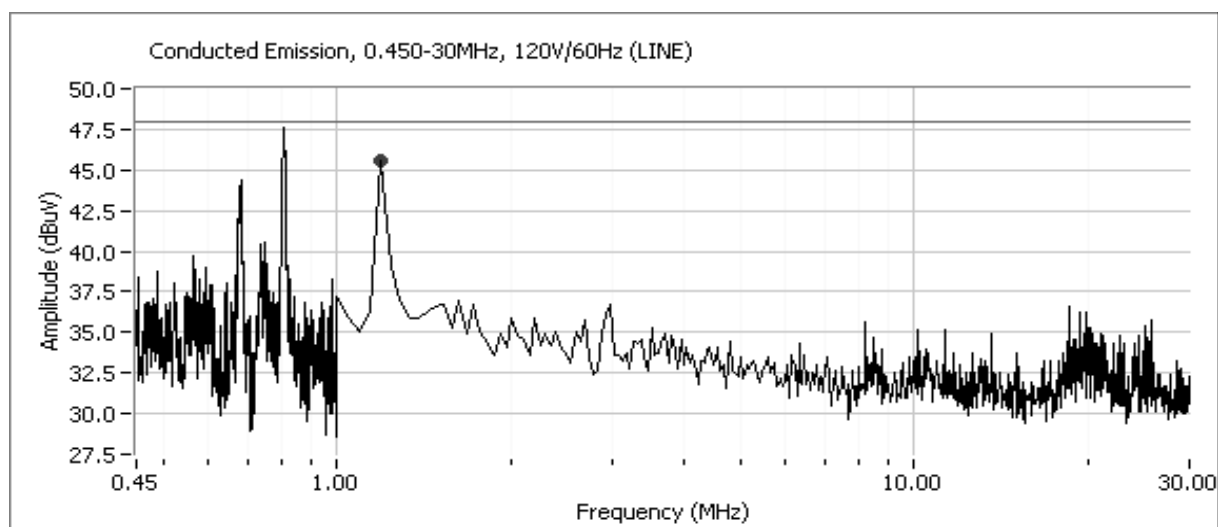


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Run #3: AC Power Port Conducted Emissions, 0.45 - 30MHz, 120V/60Hz

Configuration: 2437 MHz and Tx Mode





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Run #3: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz

Configuration: 2437 MHz and Tx Mode

Frequency MHz	Level dB μ V	AC Line	RSS 210		Detector QP/Ave	Comments
			Limit	Margin		
17.820	29.8	Neutral	48.0	-18.2	QP	
0.450	28.4	Line	48.0	-19.6	QP	
0.450	26.6	Neutral	48.0	-21.4	QP	
0.559	24.3	Line	48.0	-23.7	QP	
0.563	24.3	Neutral	48.0	-23.7	QP	
0.677	16.5	Neutral	48.0	-31.5	QP	
0.487	15.0	Neutral	48.0	-33.0	QP	
1.238	12.3	Line	48.0	-35.7	QP	
1.290	10.6	Neutral	48.0	-37.4	QP	
0.648	9.4	Neutral	48.0	-38.6	QP	
0.943	8.0	Neutral	48.0	-40.0	QP	
0.808	45.0	Neutral	48.0	-3.0	QP	Ambient