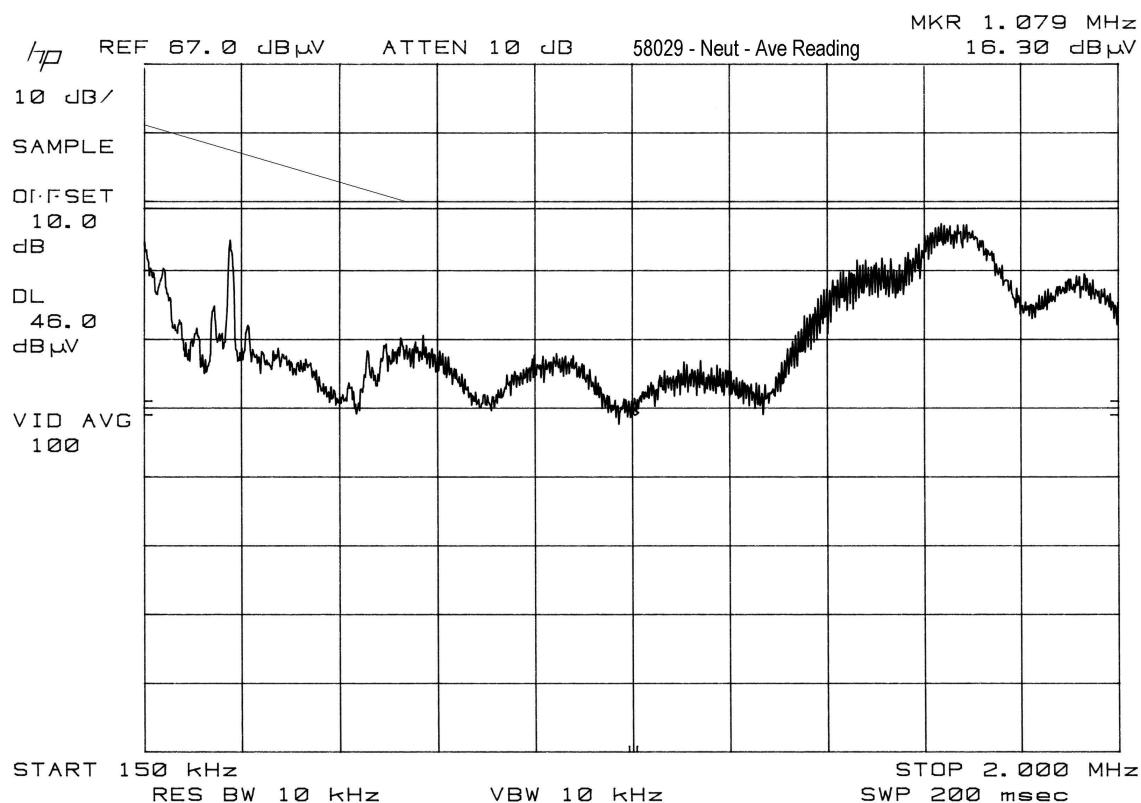




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Conducted Emissions

DNB Job Number:	58029	Date:	24 Sep 2004	Specification [X] 15.207
Customer:	ConectiSys Corp.			
Model Number:	HNET 5.0 WLAN card	Serial Number:		
Description:	Wireless Power Usage Monitoring System			
	Neutral - Average			

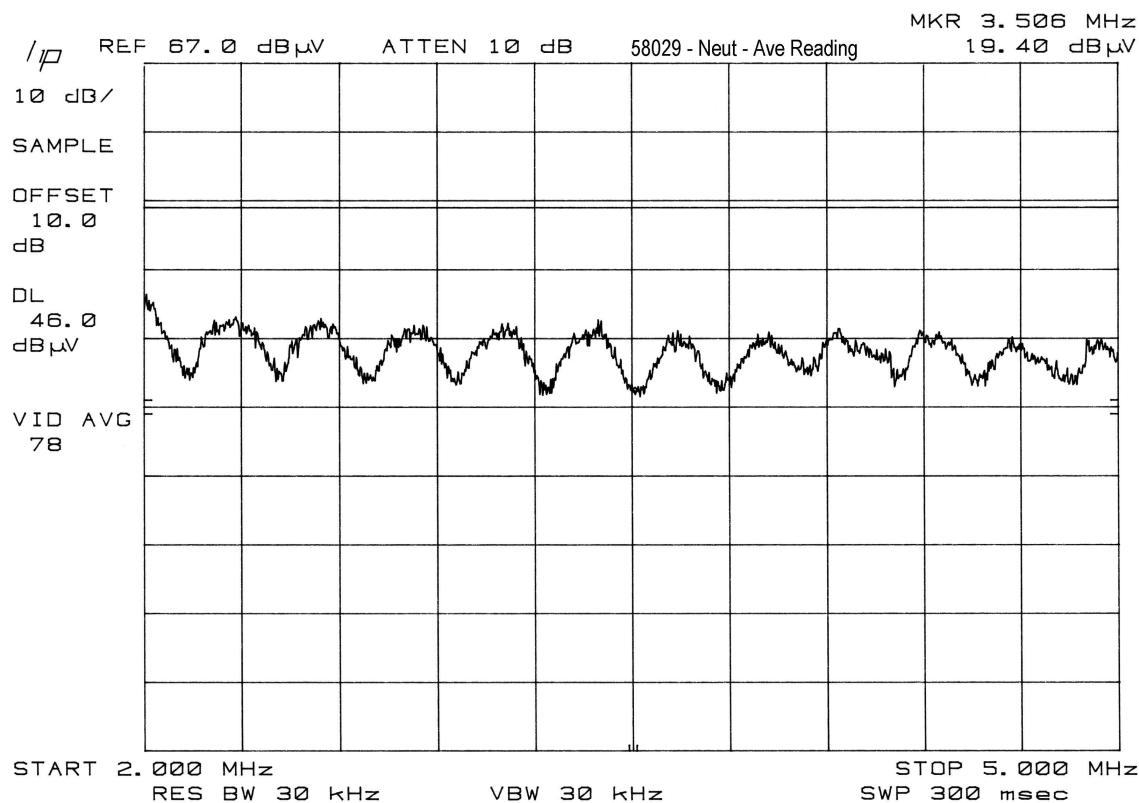




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Conducted Emissions

DNB Job Number:	58029	Date:	24 Sep 2004	Specification [X] 15.207
Customer:	ConectiSys Corp.			
Model Number:	HNET 5.0 WLAN card	Serial Number:		
Description:	Wireless Power Usage Monitoring System			
	Neutral - Average			



15.209 Radiated Emissions (General Provisions)

Test Procedure:

The EUT was measured on an open area test site (OATS).

A measuring distance of at least 3 m shall be used for measurements at frequencies up to 1 GHz. For frequencies above 1 GHz, any suitable measuring distance may be used. The equipment size (excluding the antenna) shall be less than 20 % of the measuring distance.

Sufficient precautions shall be taken to ensure that reflections from extraneous objects adjacent to the site do not degrade the measurement results, in particular:

- no extraneous conducting objects having any dimension in excess of a quarter wavelength of the highest frequency tested shall be in the immediate vicinity of the site;
- all cables shall be as short as possible; as much of the cables as possible shall be on the ground plane or preferably below; and the low impedance cables shall be screened.

The EUT shall be placed upon a non-conductive table 1.5 meters above the ground plane and shall be placed in the “worst case” transmitting mode. The EUT shall be rotated 360 degrees to find the azimuth maxima. The receive antenna shall then be raised and lowered between 1 to 4 meters to find the maximum signal emanating from the EUT. This signal strength is then recorded on the data sheets.

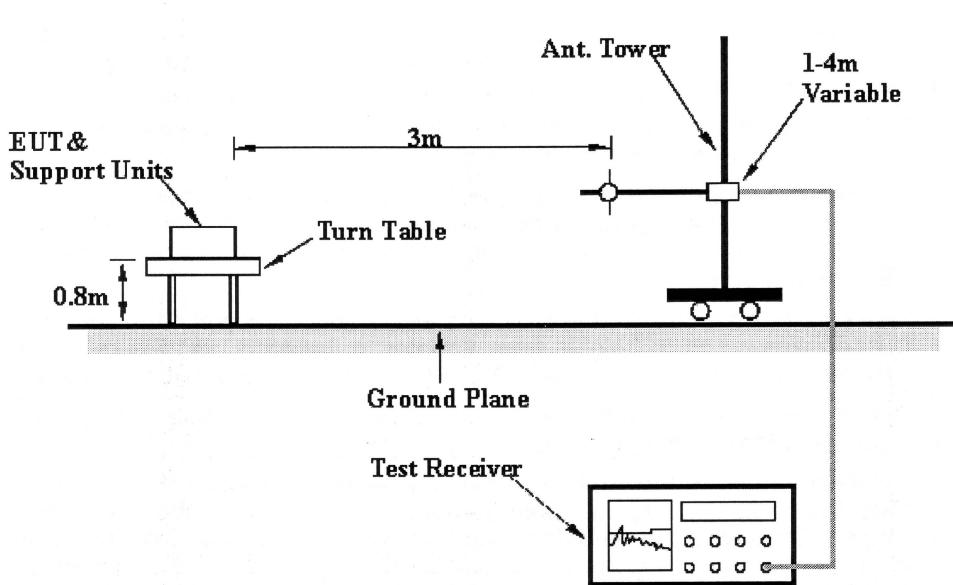
Frequency (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measurement Distance (meters)
.0009 - 0.490	2400/F(kHz)	$20 * (\log_{10}(2400/F(kHz)))$	300
0.490 - 1.705	24000/F(kHz)	$20 * (\log_{10}(24000/F(kHz)))$	30
1.705 - 30.0	30	29.5	30
30 - 88	100	40.0	3
88 - 216	150	43.5	3
216 - 960	200	46.0	3
Above 960	500	54.0	3



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Radiated Emissions (Spurious)

DNB Job Number:	58029	Date:	8 Sep 2004	Specification [X] 15.209
Customer:	ConectiSys Corp.			
Model Number:	HNET 5.0 WLAN card	Serial Number:		
Description:	Wireless Power Usage Monitoring System			
	Test Set Up			



	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Radiated Emissions (Spurious)	
DNB Job Number:	58029	Date:	8 Sep 2004
Customer:	ConectiSys Corp.		
Model Number:	HNET 5.0 module	Serial Number:	
Description:	Wireless Power Usage Monitoring System		
Test Set Up - Bicon Antenna			



	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Radiated Emissions (Spurious)	
DNB Job Number:	58029	Date:	8 Sep 2004
Customer:	ConectiSys Corp.	Specification [X] 15.209	
Model Number:	HNET 5.0 module	Serial Number:	
Description:	Wireless Power Usage Monitoring System		
Test Set Up - Log Periodic			





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Radiated Emissions (General)

DNB Job Number:	58029	Date:	8 Sep 2004	Specification [X] 15.209	
Customer:	ConectiSys Corp.				
Model Number:	HNET 5.0 module	Serial Number:			
Description:	Wireless Power Usage Monitoring System				

EUT is in conformance with FCC 15.209 YES NO Signed *Tom Elders*

FREQ (Mhz)	Meter	Correction Factors			dBuV/m			Positions			
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt
32.314	26.3	12.2	0.6	-24.4	14.7	30	-15.3	PK	158	H	3.05
119.814	23.1	11.1	1.5	-24.2	11.5	30	-18.5	PK	184	H	2.79
221.314	20.3	14.7	2.2	-24.2	13	30	-17	PK	108	H	1.88
227.924	21.5	12.4	2.2	-24.2	11.9	30	-18.1	PK	0	H	1.59
259.748	37.8	12.4	2.4	-24.3	28.3	37	-8.7	PK	97	H	3.81
266.382	29.7	12.5	2.4	-24.4	20.2	37	-16.8	PK	104	H	4.00
269.739	30.1	12.5	2.4	-24.4	20.6	37	-16.4	PK	110	H	4.00
273.068	32.3	12.6	2.4	-24.4	22.9	37	-14.1	PK	110	H	4.00
279.702	37.2	12.8	2.4	-24.4	28	37	-9	PK	101	H	4.00
286.376	33.3	13.2	2.5	-24.4	24.6	37	-12.4	PK	101	H	4.00
293.035	30.4	13.5	2.5	-24.4	22	37	-15	PK	250	H	4.00
345.612	36.2	14.9	2.8	-24.5	29.4	37	-7.6	PK	250	H	4.00
359.635	31.0	15.0	2.9	-24.5	24.4	37	-12.6	PK	271	H	4.00
364.764	37.2	14.9	2.9	-24.5	30.5	37	-6.5	PK	271	H	4.00
32.114	22.3	12.2	0.6	-24.4	10.7	30	-19.3	PK	120	V	1.44
119.314	21.3	11.0	1.5	-24.2	9.6	30	-20.4	PK	120	V	1.44
224.900	21.5	14.8	2.2	-24.2	14.3	30	-15.7	PK	0	V	2.81
229.778	29.6	12.4	2.2	-24.2	20	30	-10	PK	156	V	1.57
259.752	33.2	12.4	2.4	-24.3	23.7	37	-13.3	PK	0	V	1.17
262.416	32.2	12.4	2.4	-24.4	22.6	37	-14.4	PK	10	V	1.00

15.247 (a,1) Channel Separation

Test Procedure:

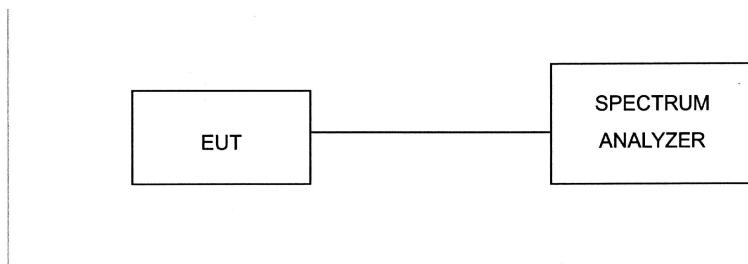
The transmitter output was connected to the spectrum analyzer. The bandwidth of the single hopping channel frequency was measured with a 100kHz RBW and a 100kHz VBW.

Requirement: Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

EUT operating conditions:

The software provided by the client to enable the EUT to transmit continuously.

Test Set Up: (Note following set up was used for all antenna conducted measurements)





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Measurement Test Set Up

DNB Job Number:	58029	Date:	25 Sep 2004	Conformance Standard		
Customer:	ConectiSys Corp. Inc					
Model Number:	HNET 5.0	Serial Number: Proto		FCC Part 15		
Description:	Wireless Power Usage Monitoring System			Clause 15.247		

Antenna Conducted Measurement Set Up





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20 dB Single Channel Bandwidth

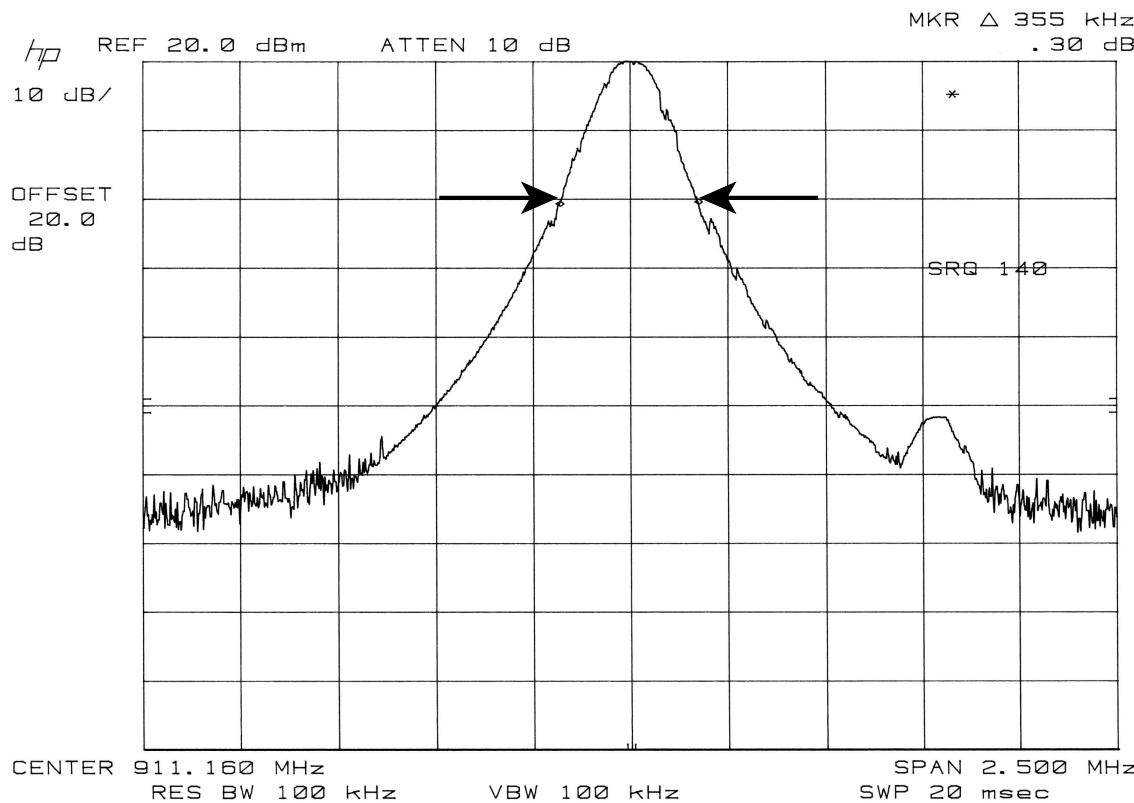
DNB Job Number:	58029	Date: 25 Sep 2004	Conformance Standard
Customer:	ConectiSys Corp. Inc		
Model Number:	HNET 5.0	Serial Number: Proto	FCC Part 15
Description:	Wireless Power Usage Monitoring System		Clause 15.247(a,1)

Environmental Conditions

Ambient Temperature	Relative Humidity	Barometric Pressure
23 °C	38 %	98.8 kPa

EUT performed within the requirements of the applicable standard Yes No *Les Payne*

Chl Freq (MHz)	20dB BW (kHz)	Limit	Pass/Fail
911.160	355 kHz	500 kHz	Pass





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Channel Separation

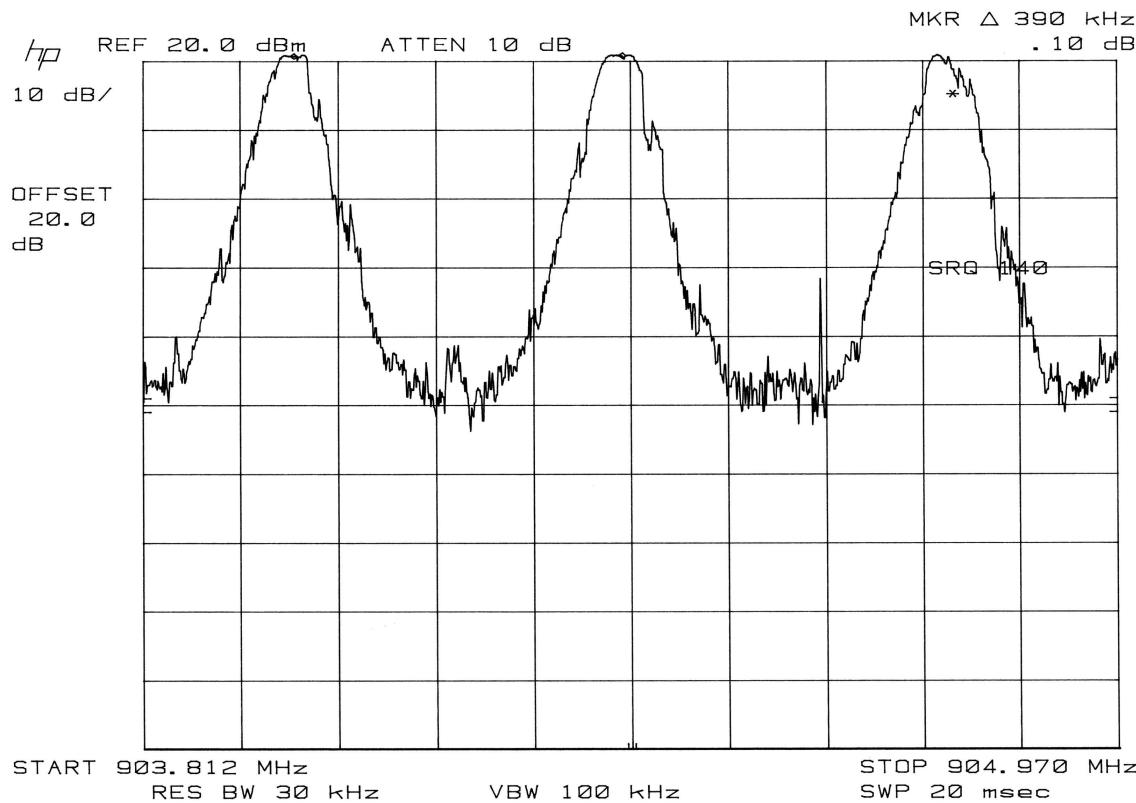
DNB Job Number:	58029	Date: 25 Sep 2004	Conformance Standard
Customer:	ConectiSys Corp. Inc		
Model Number:	HNET 5.0	Serial Number: Proto	FCC Part 15
Description:	Wireless Power Usage Monitoring System		Clause 15.247(a,1)

Environmental Conditions

Ambient Temperature	Relative Humidity	Barometric Pressure
23 °C	38 %	98.8 kPa

EUT performed within the requirements of the applicable standard Yes No *Les Payne*

Hopping Channel 1	Hopping Channel 2	Delta	Limit	Pass/Fail
904.001	904.391	390 kHz	355 kHz	Pass





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Hopping Channels

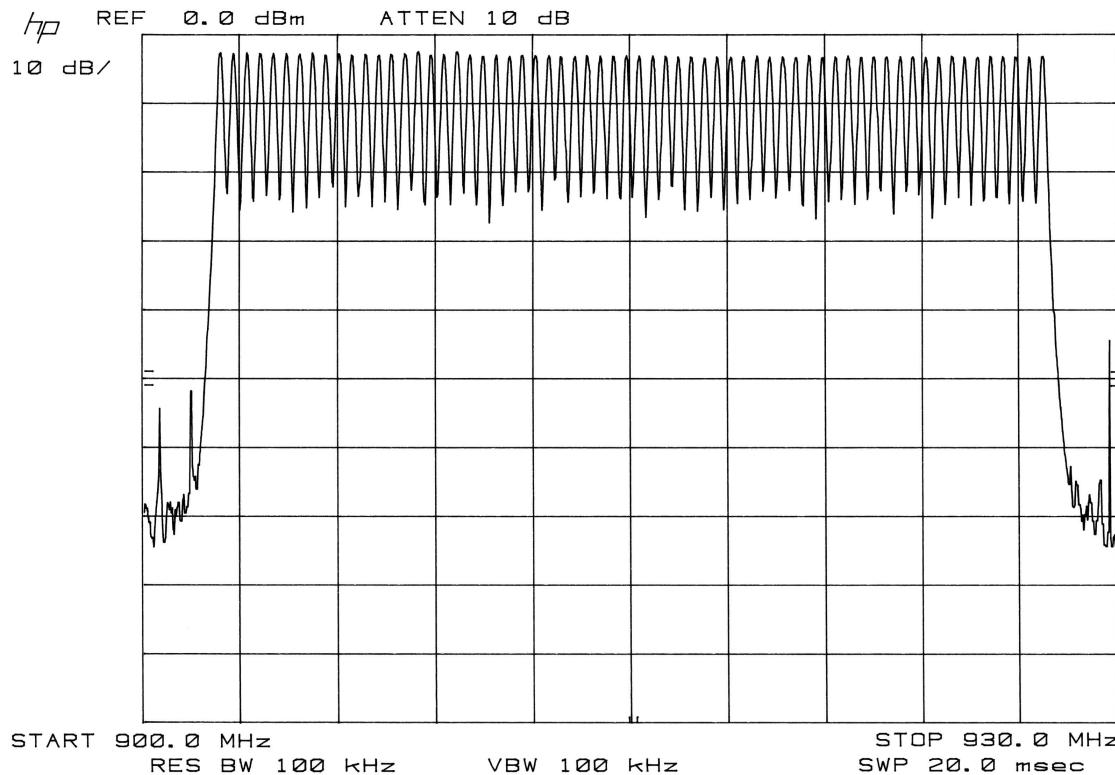
DNB Job Number:	58029	Date:	25 Sep 2004	Conformance Standard
Customer:	ConectiSys Corp. Inc			
Model Number:	HNET 5.0		Serial Number: Proto	FCC Part 15
Description:	Wireless Power Usage Monitoring System			Clause 15.247(a,1,i)

Environmental Conditions

Ambient Temperature	Relative Humidity	Barometric Pressure
23 °C	38 %	98.8 kPa

EUT performed within the requirements of the applicable standard Yes No *Les Payne*

Center Frequency	Frequency Span	Hopping Channels	Min Limit	Pass/Fail
915.000 MHz	30.000 MHz	64	25	Pass





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Max Time on Channel Freq

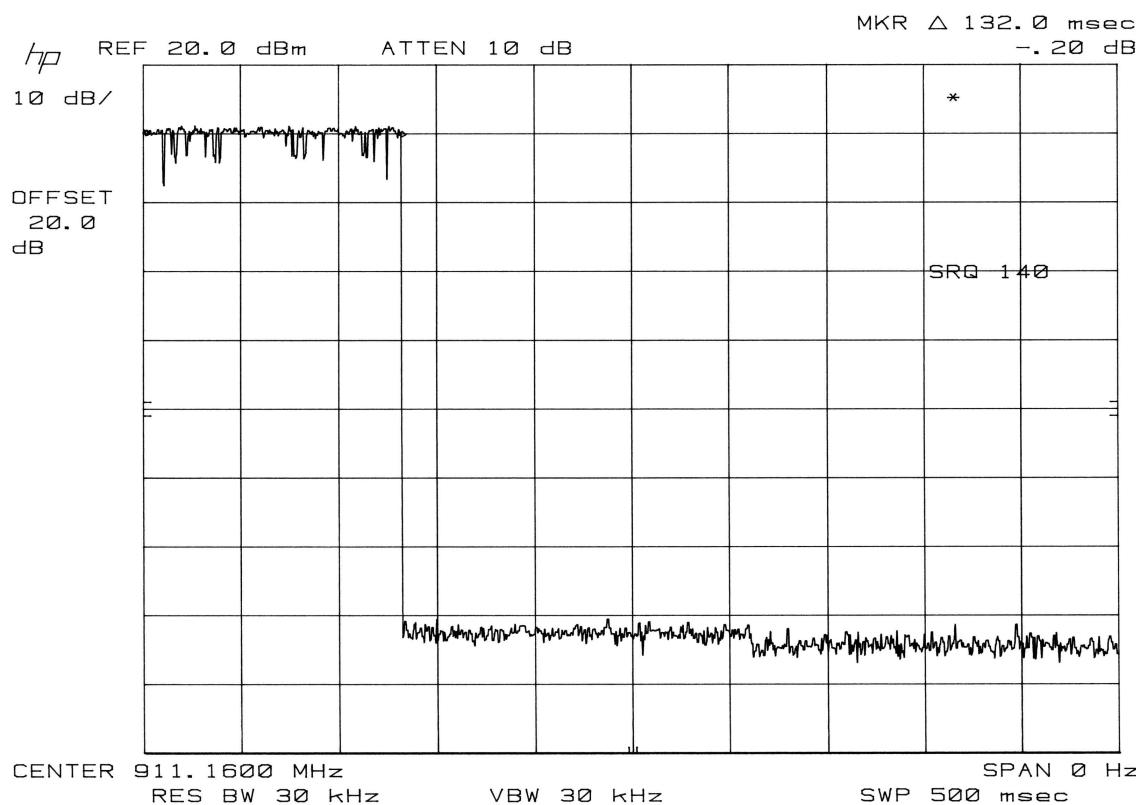
DNB Job Number:	58029	Date: 25 Sep 2004	Conformance Standard
Customer:	ConectiSys Corp. Inc		
Model Number:	HNET 5.0	Serial Number: Proto	FCC Part 15
Description:	Wireless Power Usage Monitoring System		Clause 15.247(a,1,i)

Environmental Conditions

Ambient Temperature	Relative Humidity	Barometric Pressure
23 °C	38 %	98.8 kPa

EUT performed within the requirements of the applicable standard Yes No *Les Payne*

Center Freq Chl	On Duration	Time to Next Pulse	Allowed On Time	Pass/Fail
911.160 MHz	0.132 Sec	15.0 Sec	0.4 Sec / 10 Sec	Pass



15.247 (b,2) Maximum Peak Output Power (Conducted)

Test Procedure:

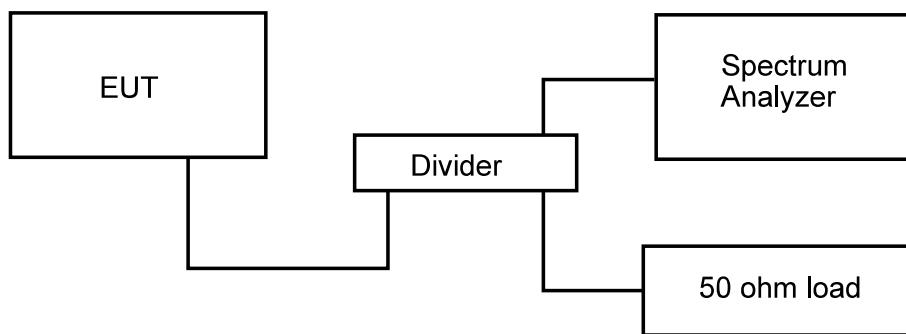
The transmitter output was connected to a spectrum analyzer.

Requirement: The maximum peak output power shall not exceed 1W (30dBm)

EUT operating conditions:

The software provided by the client to enable the EUT to transmit continuously at the low, mid, and upper channels respectively.

Test Set Up:





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Peak Output Power (Cond)

DNB Job Number:	58029	Date: 25 Sep 2004	Conformance Standard
Customer:	ConectiSys Corp. Inc		
Model Number:	HNET 5.0	Serial Number: Proto	FCC Part 15
Description:	Wireless Power Usage Monitoring System		Clause 15.247(b,2)
	Test Set Up		

Environmental Conditions

Ambient Temperature	Relative Humidity	Barometric Pressure
23 °C	38 %	98.8 kPa

EUT performed within the requirements of the applicable standard Yes No *Les Payne*

Freq MHz	Meas Peak Pwr (dBm)	Limit (dBm)	Delta (dBm)	Meas Peak Pwr (W)	Limit (W)	Delta (W)	Pass/Fail
911.160	20.0	30.0	-10.0	0.100	1	-0.900	Pass

