

Test photograph



3.2 RF output power measurement

A beaker of 1500ml water was placed in the center of the oven. The oven worked at maximum output power for 120 seconds. The temperature of the water before and after this operation was measured and recorded. Redo above test three times and get the average.

Model Number	Test	Temperature before test ()	Temperature after test ()	T ()
NN-SN667	1	10.9	31.7	20.8
	2	10.5	31.4	20.9
	3	10.4	31.2	20.8

Temp. Rise= (Temperature after test- Temperature before test)/3=18.23
 RF output power=[(4.187 joules/Cal) x (Volume in ml) x (Temp. Rise)] / Time in seconds
 =(4.187x1500x20.833)/120=1090.35W

The measured output was found to be above 500W. Therefore, in accordance with section 18.305 of subpart C, the measured out-of-band emissions were compared to the 25xSQRT(power/500)[µV/m] @ 300m limit.

Test instrumentation

Name/Model	Number
Programmable AC Power Source CIF-5000FP	979824
Warranty Label testo 106-T1	63236

3.3 Frequency measurement

Following the above test, a beaker of 1500ml water was placed in the center of the oven. The oven worked at maximum power.

3.3.1 Frequency vs Line voltage variation test

The operating frequency was monitored as the input voltage was varied between 80 to 125 percent of the nominal rating. The results of this test are as follows. Line voltage varied from 96Vac to 150Vac.

Model Number	Maximum frequency variation (96~150V/1500ml water load)
NN-SN667	Horizontal: 2445.99~2468.58MHz
	Vertical: 2437.1~2459.82MHz

3.3.2 Frequency vs Load variation test

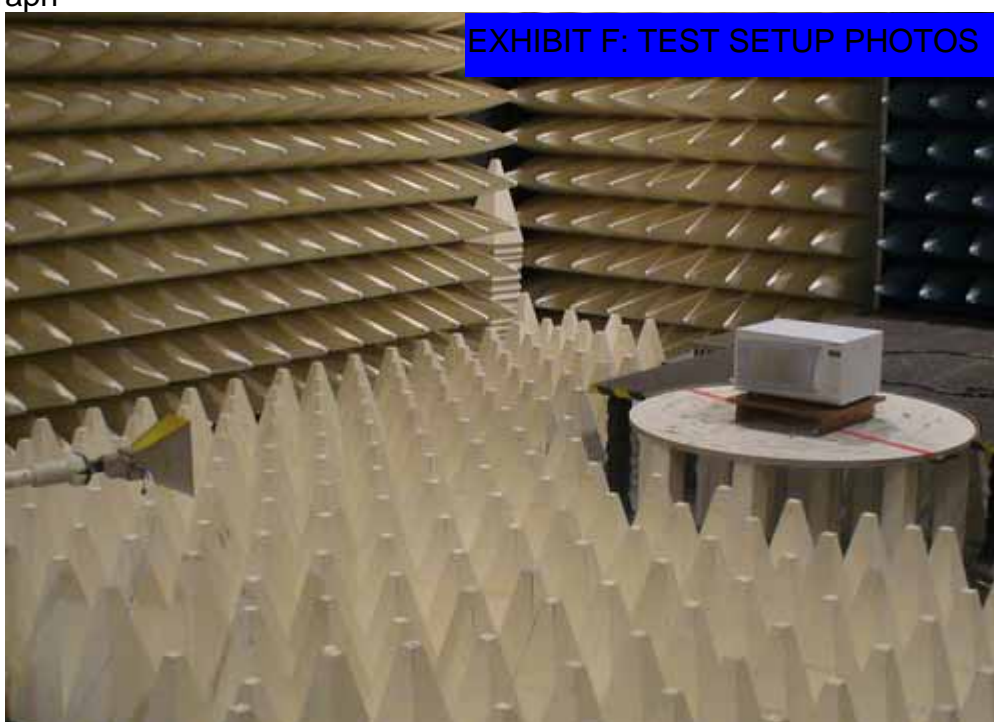
Initial load: 1500ml. Load at completion of test: 300ml.

Model Number	Maximum frequency variation (1500~300ml water load/ 120V)
NN-SN667	Horizontal: 2439.73~2465.09MHz
	Vertical: 2433.9~2461.06MHz

Test instrumentation

Name/Model	Number
Double-Ridged Waveguide Horn Antenna HF 906	容-001-04
Spectrum Analyzer R3162	容-001-33

Test photograph

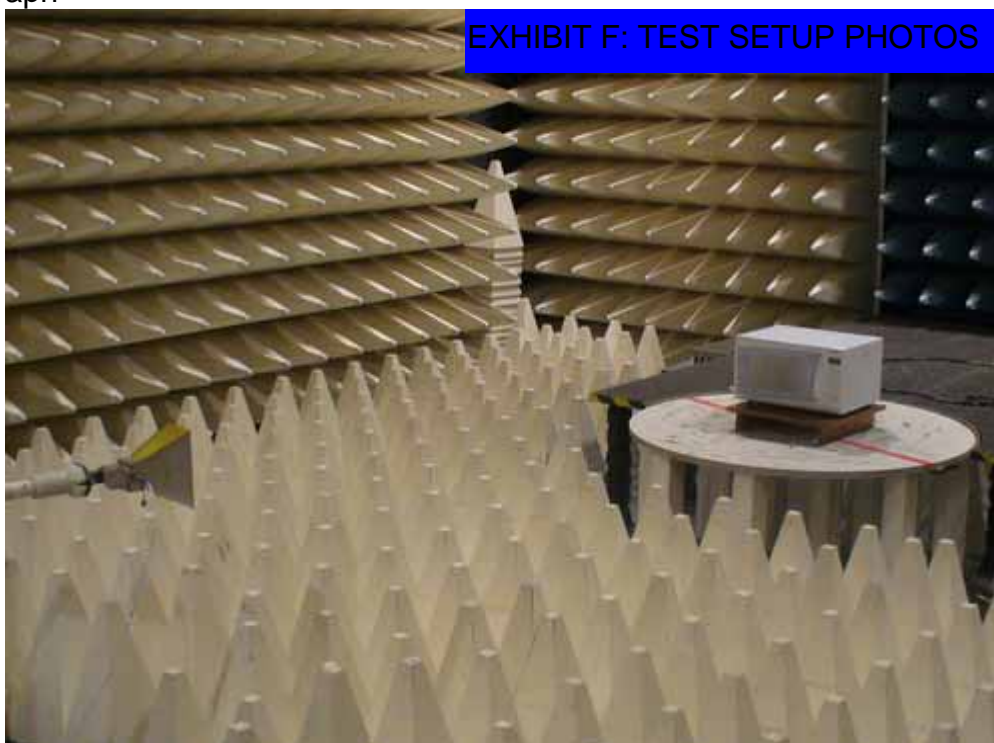


3nd.Harmonic (1050mlcorner)	7351.2	65.51	18.85818969	Vertical	36.92	18.06181031
3nd.Harmonic (1050mlcorner)	7362.9	66.64	21.47830474	Horizontal	36.92	15.44169526
3nd.Harmonic (450mlcentre)	7347.9	64.84	17.45822153	Vertical	36.92	19.46177847
3nd.Harmonic (450mlcentre)	7353.7	65.94	19.81527026	Horizontal	36.92	17.10472974
3nd.Harmonic (450mlcorner)	7360.3	64.53	16.84612427	Vertical	36.92	20.07387573
3nd.Harmonic (450mlcorner)	7354.6	63.88	15.63147643	Horizontal	36.92	21.28852357
4th.Harmonic (1050mlcentre)	9790.4	57.97	7.915894546	Vertical	36.92	29.00410545
4th.Harmonic (1050mlcentre)	9816.8	59.57	9.516998481	Horizontal	36.92	27.40300152
5th.Harmonic (1050mlcentre)	12278.8	61.92	12.47383514	Horizontal	36.92	24.44616486
5th.Harmonic (1050mlcentre)	12266.3	69.57	30.09539169	Vertical	36.92	6.824608311

Test instrumentation

Name/Model	Number
EMI Test Receiver ESI 26	容-001-01
Double-Ridged Waveguide Horn Antenna HF 906	容-001-04

Test photograph



3.5 Safety check

Model No.: NN-SN667	
At 275ml water load was placed in the center of the oven. The temperature of the water is 20 degree. The oven worked at maximum power. The radiation emission was moved at 2.5cm/s around the oven.	
Safety check	Left side: 0.1423mW/cm ² Front side: 0.1123mW/cm ² Top side: 0.2000mW/cm ² Right side: 0.1175mW/cm ² Back side: 0.2054mW/cm ² Maximum: Back side: 0.2054mW/cm ²

Test instrumentation

Name/Model	Number
E-Filed Sensor FMR-300	2244/31

Test photograph



Test instrumentation

Name/Model	Number
EMI TEST RECEIVER ESCS 30	容-003-01
ARTIFICIAL MAINS NETWORK ESH2-Z5	容-003-05

Test photograph



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