

# **EMC TEST REPORT**

## No.905918-1

## Electromagnetic disturbances

## **EQUIPMENT UNDER TEST**

Equipment:

Microwave oven

Type / model:

**APHHRODITE 1006** 

Manufacturer:

WHIRLPOOL SWEDEN AB

Tested by request of:

WHIRLPOOL SWEDEN AB

#### SUMMARY

Conducted emission has been tested.

Referring to the emission limits and the operating mode during the tests specified in this report the equipment complies with the requirements according to the following standards.

FCC, part 18 (2008): Industrial, Scientific & Medical Equipment







Tested by:

Date of issue: 15 May, 2009

Jörgen Wahlström

Approved by:

Niklas Boström

Wikles Jorta





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## 1. CLIENT INFORMATION

The EUT has been tested by request of

Company: WHIRLPOOL SWEDEN AB

Box 763

601 17 Norrköping

**SVERIGE** 

Name of contact: Tony Lindström

## 2. EQUIPMENT UNDER TEST (EUT)

## 2.1 Identification of the EUT

Equipment: Microwave oven

Type/Model: APHHRODITE 1006

Brand name: WHIRLPOOL

Serial number:

Manufacturer: WHIRLPOOL SWEDEN AB

Rating: 120 V AC.I 60 Hz

Class:

#### 2.2 Additional information about the EUT

The EUT was tested in a table top configuration.

The EUT was tested with a three-core mains power cable of 1.2 m

#### 3. TEST SPECIFICATIONS

#### 3.1 Standards

#### Requirements:

47 CFR, Telecommunication, Chapter I – FCC Part 18 – Industrial, Scientific and Medical equipment (2008)

#### Test methods:

ANSI C.63.4-2003 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 MHz

FCC/OST MP-5 (1986): FCC methods of measurements of radio noise emissions from industrial, scientific, and medical equipment

## 3.2 Additions, deviations and exclusions from standards

No additions, deviations or exclusions have been made from standards. Only conducted emission has been tested by request of client.

## 3.3 Mode of operation during the test

The EUT was supplied with 120 V AC, 60 Hz. The heating level was set at maximum during the tests. The EUT was operating with a non-conductive glass beaker (1 litre) with 700/300 ml water.

#### 3.4 Compliance

Purpose of test: To determine whether the Equipment Under Test (EUT) fulfils the conducted emission requirements of FCC part 18, subpart C.

#### Conducted emission:

Frequency range	Quasi-Peak	Average
(MHz)	(dBµV)	(dBµV)
0.009-0.050	110	-
0.05-0.15	90-80	-
0.15-0.50	66-56	56-46
0.50-5.00	56	46
5.00-30.0	60	50

## 4. TEST SUMMARY

The test has been carried out at the Intertek Semko AB premises in Kista, Sweden. The results in this report apply only to sample tested:

Basic standard	Description	Result
Emission		
FCC part 18 (2008)	AC power port continuous disturbance voltage in the frequency range 0.15 MHz to 30 MHz	PASS
	The EUT complies with Class B limits. The margin to the quasi-peak limit was at least 15,0 dB, found at 22.915 MHz. The margin to the average limit was at least 12.1 dB, found at 22.995 MHz. See diagram 1 and table 1.	

## 5. TABLES AND DIAGRAMS

## Diagram 1, Conducted emission, AC power port Line N, Peak overview sweep

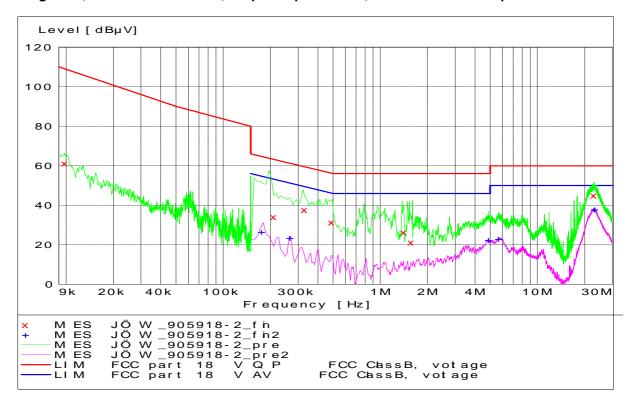


Table 1, Conducted emission, AC power ports Line N/L, Measurement results

	Quasi-Peak		
Frequency	Disturbance level	Limit	Margin
[MHz]	[dBµV]	[dBµV]	[dB]
0.009	61.2	110	47.8
0.210	34.1	63	29.1
0.330	37.7	60	21.8
0.490	31.5	56	24.7
1.410	26.3	56	29.7
1.570	21.2	56	34.8
22.915	45.0	60	15.0

	Average		
Frequency	Disturbance Level	Limit	Margin
[MHz]	[dBµV]	[dBµV]	[dB]
0.175	26.5	55	28.2
0.265	23.4	51	27.9
4.865	22.5	46	23.5
5.630	22.9	50	27.1
22.140	37.8	50	12.1
23.140	37.8	50	12.2

6. PHOTOS

AC power port continuous disturbance voltage









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## 7. INTERTEK SEMKO EMC CENTER MEASUREMENT UNCERTAINTIES

All uncertainties are given with a level of confidence of approximately 95% (k=2) and are the maximum values within the complete range. Measurement uncertainties are calculated in accordance with EA-4/02:1997.

Continuous conducted disturbances with AMN in the frequency range 9 kHz to 30 MHz

± 3.6 dB