

#### **TEST REPORT**

### Implementing Directive 2009/125/EC

### **COMMISSION REGULATION (EC) No 1275/2008**

### Ecodesign requirement of electrical household and office equipment

Report reference No...... PTC18120704102S-ER01

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Reviewer

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**Testing laboratory** 

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**Applicant** 

Name..... Microtech S.r.I

Address...... Via Aldo Moro,9 20090 Buccinasco (Mi) Italy

Test specification

Standard.....: Commission Regulation (EC) No. 1275/2008;

EN50564: 2011 in excerpt

(Electrical and electronic househood and office

equipment-Measurement of low power consumption)

Test Category .....: Entrusted Test

Non-standard test method.....: N/A

Test item Description...... e-cube Mini PC

Trademark..... N/A

Model and/or type reference..... EC19ALB

Manufacturer : Same as applicant
Address : Same as applicant

Rating(s)...... Input: 12Vdc, 4.0A



### Possible test case verdicts:

### **Testing**

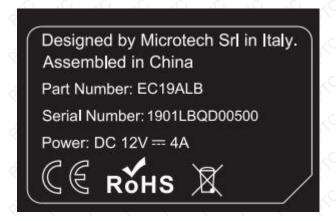
Date of receipt of test item...... Dec. 25, 2018

Date(s) of performance of tests...... Dec. 25 – Dec. 28, 2018

#### Attachments:

N/A

### Copy of marking plate and summary of test results (information/comments):



### **General product information:**

- 1. The submitted samples were found to comply with the above standard.
- This test results relate only to the submit samples.

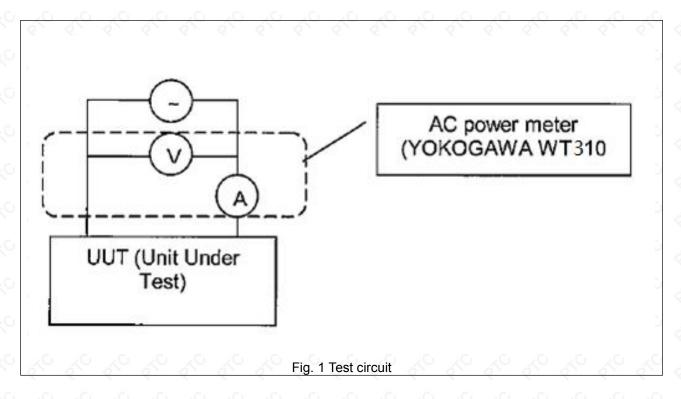
Note: This report shall not be reproduced except for authorized by testing laboratory.



## Test and verification results:

| Clause   | Requirement – Test  | Measuring result – Remark                        | Verdict |  |  |  |
|--|---|--|---------|--|--|--|
| 0.   | General   | V V V V V  | Р       |  |  |  |
| 0.1  | Power source meets requirement of: Frequency 50Hz±1% THD value <2% ratio of peak value of test voltage to rms of 1.33 to 1.49   | Frequency: 50Hz<br>THD: max 1.44%<br>Ratio: 1.43 | P       |  |  |  |
| 0.2  | Ambient condition meets requirement of: Ambient temperature (23±5)°C Airspeed≤0.5m/s  Ambient: 25.2°C Airspeed: 0.2m/s  |  |         |  |  |  |
| 0.3  | Test approach used  |  |         |  |  |  |
| 20 20  | - Stable mode   | 7  | N/A     |  |  |  |
| <del>(1)                                    </del> | - Average power approach  |  | N/A     |  |  |  |
| \$ \$  | - Average energy approach   |  | P       |  |  |  |
| 0.4  | Power measurement accuracy  |  |         |  |  |  |
|  | Measurements of power of 0.5 W or greater shall be made with an uncertainty of less than or equal to 2% at the 95% confidence level.  Measurements of power of less than 0.5 W shall be made with an uncertainty of less than or equal to 0,01W at the 95% confidence level.  The power measurement instrument shall have a resolution of:  - 0,01 W or better for power measurements of 10 W or less |  | P       |  |  |  |
| 0.5  | Test circuit  | 0 20 20 20 20 20                                 | 20 2    |  |  |  |
| 6, 6,  | - Test circuit acc. To Fig.1 is used  | री री री री री                                   | ₹ P₹    |  |  |  |
|  | - Other test circuit is used  | See attachment                                   | N/A     |  |  |  |







# Limited value according to EC Regulation 1275/2008 :

# Stage I

| Clause | Requirement – Test   | Measuring result - Remark | Verdict                       |  |  |
|--------|--|---------------------------|-------------------------------|--|--|
| 1.     | Off-mode   |                           |                               |  |  |
| 1.1    | Measured power consumption in Off mode:  | See table 1               | é <sup>©</sup> Pé             |  |  |
| 1.1.1  | Power consumption in any off mode function   |                           | χ <sup>O</sup> P <sub>×</sub> |  |  |
| XO XC  | Limit: ≤1.00W 0.18W  |                           |                               |  |  |
| 2.     | Standby mode   | 4, 4, 4, 4, 4,            | P                             |  |  |
| 2.1    | Measured power consumption in standby mode:  See table 2   |                           |                               |  |  |
| 2.1.1  | Product only with reactivation or with reactivation and a mere indication:   |                           | P                             |  |  |
|        | Limit: ≤1.00W 0.30W  |                           |                               |  |  |
| 2.1.2  | Product with only information or status display or only a combination of reactivation and information or status display: |                           | N/A                           |  |  |
| 6, 6,  | Limit: ≤2.00W  | 4, 4, 4, 4, 4,            | N/A                           |  |  |
| 3.     | Availability of off mode and/or standby mode   |                           |                               |  |  |
| de de  | Inappropriate for intended use to provide Standby and or OFF-mode  |                           |                               |  |  |
| 40 4c  | Standby-mode available   | o see see see see         | é <sup>C</sup> P€             |  |  |
| KO KO  | Off-mode available   | 0 0 0 0 0 0               | χ <sup>©</sup> P χ            |  |  |



# Stage II

| Clause  | Requirement – Test Measuring result – Rema   |                                       | Verdict |  |
|---------|--|---------------------------------------|---------|--|
| 1. 0    | Off-mode   | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |         |  |
| 1.1     | Measured power consumption in Off mode:  | onsumption in Off mode: See table 1   |         |  |
| 1.1.1   | Power consumption in any off mode function   | 10 10 10 10 10 1                      | О       |  |
| 20 ZO   | Limit: ≤0.50W 0.18W  |                                       | В       |  |
| 2.      | Standby mode   | 5, 4, 4, 4, 4, 4, 4,                  | Р       |  |
| 2.1     | Measured power consumption in standby mode:  | See table 2                           | Р       |  |
| 2.1.1   | Product only with reactivation or with reactivation and a mere indication:   |                                       | Р       |  |
|         | Limit: ≤0.50W  | 0.30W                                 | Р       |  |
| 2.1.2   | Product with only information or status display or only a combination of reactivation and information or status display: |                                       | N/A     |  |
|         | Limit: ≤1.00W  |                                       | N/A     |  |
| 3.      | Availability of off mode and/or standby mode   |                                       |         |  |
| Se Se   | Inappropriate for intended use to provide Standby and or OFF-mode  |                                       |         |  |
|         | Standby-mode available   |                                       | Р       |  |
| ero ero | Off-mode available   |                                       | P       |  |
| 4.0     | Power management (only Stage 2)  |                                       |         |  |
| x6 x6   | Switch to standby mode   | t: min                                | N/A     |  |
| 6, 6,   | Switch to off mode   | t: min                                | N/A     |  |
| 10 10 C | Another condition meeting to Standby or Off mode:  |                                       | N/A     |  |
| ST ST   | Inappropriate for intended use to provide Power Management for Standby and or OFF-mode                                   | 12 42 42 42 42 42 4                   | N/A     |  |



# Table 1

| TABLE 1:            | Off mode             |                   | 100      |                                       | P |
|---------------------|----------------------|-------------------|----------|---------------------------------------|---|
| 10 10 C             | Voltage (230±1%)(V): |                   | 230VAC   |                                       |   |
|                     | Temp                 | (°C):             | 25.2     |                                       |   |
| Operation condition |                      | Power measured(W) |          | Remark                                |   |
| OFF mode            |                      | 0.18W             |          | 1 6 6 6                               |   |
| Suppleme            | ntary information    |                   | \$ \$ \$ | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |   |

## Table 2

| TABLE 2: Standby mode |                     |                   | 0 0 0                |             | P          |
|-----------------------|---------------------|-------------------|----------------------|-------------|------------|
| δ, δ,                 | Voltage(230±1%)(V): |                   | 230VAC               |             |            |
| 8) 8)<br>80 80        | Temp                | (°C):             | 25.2                 | 8, 8, 8, 8, |            |
| Operation condition   |                     | Power measured(W) | Υ.Ο. Υ.Ο.<br>6., 6., | Remark      | 2          |
| Standby mode          |                     | 0.30W             | 40 40<br>6, 6,       | 5, 6, 6,    | 2 YO YO YO |
| Supplemen             | ntary information   |                   | X0 X0                | XO XO X     | 2          |



## **Photo documentation**



Fig. 1



Fig. 2



## Test equipment list

| Equipment           | Model/Type          | Cal. Date     | Valid Date    | Uncertainty (%)                                  |
|---------------------|---------------------|---------------|---------------|--|
| Digital Power Meter | WT310<br>(YOKOGAWA) | Jun. 01, 2018 | May. 31, 2019 | Voltage: 0.10%<br>Current: 0.14%<br>Power: 0.16% |
| Stopwatch           | TA228               | Sep. 20, 2018 | Sep. 19, 2019 | 0.01s  |
| Hygrothermograph    | TA-138              | Sep. 20, 2018 | Sep. 19, 2019 | Temp: U=0.4°C<br>Humidity: 3%RH                  |

----- End of test report -----