## Technical Documentation of (EU) No 617/2013

| Entry<br>No. | Product type   | Desktop computer   |   |                        |                        |
|--------------|--|--|---|------------------------|------------------------|
| 1            | Product category   | Α  | В   | С                      | D                      |
| 2            | Manufacturer name, address   | Acer Italy s.r.l, Viale delle Industrie 1/A, 20020 Arese (MI), Italy |   |                        |                        |
| 3            | Product model number   |  | VM4680G B<br>VM6680G B  | VM4680G C<br>VM6680G C | VM4680G D<br>VM6680G D |
| 4            | Year of manufacture  |  | 20  |                        |                        |
| 5            | E <sub>TEC</sub> allowance with capability<br>adjustments when discrete graphics cards<br>are disabled (from 1 January 2016) |  | 249 kWh/year  | 271 kWh/year           | 285 kWh/year           |
| 6            | E <sub>TEC</sub> allowance with capability<br>adjustments when discrete graphics cards<br>are enabled (from 1 January 2016)  |  | 321 kWh/year  | 343 kWh/year           | 357 kWh/year           |
| 7            | Whether all discrete graphics card are enabled during the test   |  | Yes   | Yes                    | Yes                    |
| 8            | Whether switchable graphics mode with UMA is driving the display during the test   |  | No  | No                     | No                     |
| 9            | E <sub>TEC</sub> of highest power-demanding configuration  |  | 108.20 kWh/year   | 171.98 kWh/year        | 171.98 kWh/year        |
| 10           | Idle state power demand  |  | 30.21 Watt  | 48.37 Watt             | 48.37 Watt             |
| 11           | Sleep mode power demand  |  | 1.83 Watt   | 1.83 Watt              | 1.83 Watt              |
| 12           | Sleep mode with WOL enabled power demand   |  | 1.83 Watt   | 1.83 Watt              | 1.83 Watt              |
| 13           | Off mode power demand  |  | 0.32 Watt   | 0.35 Watt              | 0.35 Watt              |
| 14           | Off mode with WOL enabled power demand   |  | 0.89 Watt   | 0.89 Watt              | 0.89 Watt              |
| 15           | Maximum power demand   |  | Not applicable  | Not applicable         | Not applicable         |
| 16           | Internal power supply (IPS) efficiency at 10 %, 20 %, 50 % and 100 % of rated output power                                   |  | 10% - 88.21%<br>20% - 91.78%<br>50% - 91.59%<br>100% - 87.91% | Same as left           | Same as left           |
| 17           | External power supply's (EPS) average active efficiency  |  | Not applicable  | Not applicable         | Not applicable         |
| 18           | Noise levels (the declared A-weighted sound power level, L <sub>WAd</sub> ) of idle mode                                     |  | 3.50 B  | Same as left           | Same as left           |
| 19           | Noise levels (the declared A-weighted sound power level, L <sub>WAd</sub> ) of "HDD random seek" mode                        |  | 3.60 B  | Same as left           | Same as left           |
| 20           | Minimum number of loading cycles that the batteries can withstand  |  | Not applicable  | Not applicable         | Not applicable         |
| 21           | Configuration of memory (unit: GB)   |  | 2 ~ 64  | 2 ~ 64                 | 4 ~ 64                 |

| 22 | Configuration of internal storage (unit: piece)   |  | 1 ~ 4          | 1 ~ 4          | 1 ~ 4          |
|----|---|--|----------------|----------------|----------------|
| 23 | Configuration of discrete television tuner (unit: piece)  |  | 0              | 0              | 0              |
| 24 | Configuration of discrete audio card (unit: piece)  |  | 0              | 0              | 0              |
| 25 | Configuration of discrete graphics cards (unit: piece)  |  | 0 ~1           | 0 ~1           | 0 ~1           |
| 26 | Configuration of discrete graphics cards category   |  | G5             | G5             | G5             |
| 27 | The external package of the notebook provides the information, "The battery in this product cannot be easily replaced by users themselves." |  | Not applicable | Not applicable | Not applicable |
| 28 | For products with an integrated display, the total content of mercury is  |  | Not applicable | Not applicable | Not applicable |
| 29 | Measurement methodology for $E_{\text{TEC}}$  | COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers:  ANNEX II Ecodesign requirements and timetable:  1.3.1. ETEC formula.                    |                |                |                |
| 30 | Measurement methodology for idle mode   | EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption:  5.2. Test setup;  5.3.4. Measuring long idle mode;  5.7. True RMS watt meter specification;  5.8. True RMS watt meter accuracy;  Appendix 5.2 (informative) ENERGY STAP® V5 compliant testing methodology.            |                |                |                |
| 31 | Measurement methodology for sleep mode  | Annex E.2 (informative) ENERGY STAR® V5 compliant testing methodology.  EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.3. Measuring sleep mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy. |                |                |                |
| 32 | Measurement methodology for off mode  | EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2. Measuring off mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.   |                |                |                |
| 33 | Measurement methodology for IPS efficiency  | Not applicable   |                |                |                |
| 34 | Measurement methodology for EPS efficiency  | EN 50563:2011 External a.c.—d.c. and a.c.—a.c. power supplies —  Determination of no-load power and average efficiency of active modes.  |                |                |                |
|    | <u> </u>  | L  |                |                |                |

|    |  | ECMA-109 2nd edition (December 1987) Declared Noise Emission Values of     |
|----|--|--|
|    |  | Computer and Business Equipment:   |
|    |  | Determination of the declared noise emission values.                       |
|    |  | ECMA-74 11th edition (December 2010) Measurement of Airborne Noise         |
|    |  | emitted by Information Technology and Telecommunications Equipment:        |
| 35 | Measurement methodology for noise level                | 5. Installation and operating instructions;                                |
|    |  | 6. Method for determination of sound power levels of equipment in          |
|    |  | reverberation test rooms;  |
|    |  | Method for determination of sound power levels of equipment under          |
|    |  | essentially free-field conditions over a reflecting plane;                 |
|    |  |  |
|    |  | Annex C.15 Equipment category: personal computers and workstations.        |
|    | Measurement methodology for battery                    | EN 61960:2011 Secondary cells and batteries containing alkaline or other   |
|    |  | non-acid electrolytes — Secondary lithium cells and batteries for portable |
| 36 |  | applications:  |
|    |  | 7.6.1 General;   |
|    |  | 7.6.3 Endurance in cycles (accelerated test procedure).                    |
|    |  | EN 62623:2013 — Desktop and notebook computers — Measurement of            |
|    |  | energy consumption:  |
|    | Sequence of steps for achieving a stable               | 5.2. Test setup;   |
| 37 | condition with respect to power demand                 | 5.3.2. Measuring off mode;   |
|    | condition with respect to power demand                 | 5.3.3. Measuring sleep mode;   |
|    |  |  |
|    |  | 5.3.4. Measuring long idle mode.   |
|    | Description of how sleep mode was                      | EN 62623:2013 — Desktop and notebook computers — Measurement of            |
|    |  | energy consumption:  |
| 38 | selected or programmed                                 | 5.2. Test setup;   |
|    | , , , , , , , , , , , , , , , , , , ,                  | 5.3.3. Measuring sleep mode.   |
|    |  | o.e.e. measaring cleap meas.   |
|    | Description of how off mode was selected or programmed | EN 62623:2013 — Desktop and notebook computers — Measurement of            |
| 20 |  | energy consumption:  |
| 39 |  | 5.2. Test setup;   |
|    |  | 5.3.2. Measuring off mode.   |
|    |  |  |
|    | Sequence of events required to reach the               | ENERGY STAR® Program Requirements Product Specification for                |
| 40 | mode where the equipment automatically                 | Computers, Eligibility Criteria Version 6.0, Rev. Oct-2013:                |
|    | changes to sleep mode                                  | 1.D.4 Sleep Mode.  |
|    | onanges to sleep mode                                  |  |
|    | Sequence of events required to reach the               |  |
| 41 |  | Not applicable   |
| 41 | mode where the equipment automatically                 | ινοι αργιισανίσ  |
|    | changes to off mode                                    |  |
|    | The duration of idle state condition before            |  |
|    | the computer automatically reaches sleep               |  |
| 42 | mode, or another condition which does                  | 30 minutes   |
|    | not exceed the applicable power demand                 |  |
|    | requirements for sleep mode                            |  |
|    |  |  |
|    | The length of time after a period of user              |  |
|    | inactivity in which the computer                       | 20   |
| 43 | automatically reaches a power mode that                | 30 minutes   |
|    | has a lower power demand requirement                   |  |
|    | than sleep mode  |  |
|    | The length of time before the display                  |  |
| 44 | sleep mode is set to activate after user               | 10 minutes   |
|    | inactivity   |  |
|    |  |  |

| 45 | User information on the energy-saving potential of power management functionality  | http://www.energystar.gov/index.cfm?c=power mgt.pr power mgt users |  |
|----|--|--|--|
| 46 | User information on how to enable the power management functionality   | http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_users |  |
| 47 | Test parameter for ambient temperature   | 25 °C  |  |
| 48 | Test parameter for test voltage  | 230 V  |  |
| 49 | Test parameter for frequency   | 50 Hz  |  |
| 50 | Test parameter for total harmonic distortion of the electricity supply system  | 3%   |  |
| 51 | Test parameter for information and documentation on the instrumentation, set-up and circuits used for electrical testing | Chroma 6530 (Ac Source) YOKOGAWA WT210 (Digital Meter)             |  |