

Product Sheet, GEEA Criteria 2007

Workstations



Scope

For the purposes of this specification, to qualify as a workstation, a computer must:

- Be marketed as a workstation;
- Have a mean time between failures (MTBF) of at least 15,000 hours based on either Bell-core TR-NWT-000332, issue 6, 12/97 or field collected data; and
- Support error-correcting code (ECC) and/or buffered memory.

In addition, a workstation must meet three of the following six optional characteristics:

- Have supplemental power support for high end graphics (i.e., PCI-E 6-pin 12V supplemental power feed);
- System is wired for greater than 4x PCI-E on motherboard in addition to graphics slot(s) and/or PCI-X support;
- Does not support Uniform Memory Access (UMA) graphics;
- Includes 5 or more PCI, PCIe or PCI-X slots;
- Capable of multi-processor support for two or more processors (must support physically separate processor packages/sockets, i.e., not met with support for a single multi core processor); and/or
- Be qualified by at least 2 Independent Software Vendor (ISV) product certifications; these certifications can be in process, but must be completed within 3 months of qualification.

The models concerned must be available through the trade in Europe in the same configuration as indicated in the registration. The product as sold to the customer should be able to operate on mains voltage (230 V AC). This includes portable equipment that is sold with an external power supply.

Criteria

Workstations comply with GEEA criteria if the following criteria are met:

Category	Criteria	Basis for criteria
Workstations	The TEC* (typical electricity consumption, P_{TEC}) is less than or equal to: $0.35 \cdot (P_{Max}^{**} + (\# \text{ of HDDs}^{***} \cdot 5)) \text{ W}$	ENERGY STAR

* Defined in ENERGY STAR Program Requirements for Computers: Version 4.0, Energy Efficiency and Power Management Criteria. $P_{TEC} = 0.1 \cdot P_{Standby} + 0.2 \cdot P_{Sleep} + 0.7 \cdot P_{Idle}$

** P_{Max} is the maximum power drawn by the system as tested per test procedure.

*** # of HDDs is the number of installed hard disk drives in the system

Definition

Term	Definition
Off / standby mode	The power consumption level in the lowest power mode which cannot be switched off (influenced) by the user and that may persist for an indefinite time when the appliance is connected to the main electricity supply and used in accordance with the manufacturer's instructions. For purposes of this specification, Standby correlates to ACPI System Level S4 or S5 states, where applicable.
Sleep mode	A low power mode that the computer is capable of entering automatically after a period of inactivity or by manual selection. A computer with sleep capability can quickly "wake" in response to network connections or user interface devices. For the purposes of this specification, Sleep mode correlates to ACPI System Level S3 (suspend to RAM) state, where applicable.
On mode (idle)	This is the state in which the operating system and other software have completed loading, the machine is not asleep, and activity is limited to those basic applications that the system starts by default.



Test Method

Test method for personal computers are equal to current ENERGY STAR definition and test method with this supplement: For portable computers with rechargeable battery, no charging takes place.

Test method

Test procedures for measuring operation modes (off / standby mode, sleep, on mode (idle) and maximum power) must comply with the test protocol described in ENERGY STAR Program Requirements for Computers: Final Draft Version 4.0 'Appendix A'.

Test procedures for measuring power supply efficiency must comply with IPS: Internal Power Supply Efficiency Protocol (www.efficientpowersupplies.org) and ENERGY STAR Test Method for External Power Supplies (www.energystar.gov/powersupplies).

Basis for criteria

ENERGY STAR: ENERGY STAR Program Requirements for Computers: Version 4.0, Eligibility Criteria