

Accelerated Capital Allowances Eligibility Criteria

Category: Information and Communications Technology (ICT)**Technology: Rack Mounted Servers**

A Rack Mounted Server is defined as a server computer which is designed to provide services and manage networked resources for client devices in a highly energy efficient manner. It is designed to function as a standalone server and is configured for installation in a central framework called a rack. Rack Mounted Servers typically contain amongst others such components as processors, integrated network controllers, memory, input/output (IO) ports, storage disks and power supplies.

Rack Mounted Server Eligibility Criteria:

In order to be included on the ACA Specified List, a Rack Mounted Server must meet *all* of the requirements set out below.

Note: Supporting documentation that clearly demonstrates ACA compliance according to the conditions below will be required as part of the ACA checking process. Detailed information on the types of documents accepted can be found in the separate Supporting Documentation guidelines.

No.	Condition
1.	Marketed and sold as an enterprise Rack Mounted Server.
2.	Designed for, and listed as, supporting enterprise Server operating Systems and/or Hypervisors, and targeted to run user-installed enterprise applications.
3.	Be capable of remote power-down.
4.	Meet the relevant minimum performance to power ratios in Table 1.
5.	Be supplied with a software management system which renders the server virtualisation capable.

Table 1: Minimum server performance to power ratios

Server application	Minimum Ratio*
Performance at low utilisation of less than or equal to 30%.	> 700
Performance at moderate utilisation of greater than 30%, but less than 70%.	> 1650
Performance at high utilisation of greater than or equal to 70%.	> 2150

Note: Only the ratio calculation method detailed below can be used

***Performance to Power Ratio:**

The ratio is based on the Standard Performance Evaluation Corporation (SPEC) industry standard benchmark performance test, SPECpower_ssj2008. Under this test the energy use of a server is tracked (plug power) while the server performs a defined sequence of operational tasks.

Calculation method - Performance to power ratio:

The metric required is calculated using the sum of outputs (Throughput per Watt of power) and power consumed at 10% utilisation intervals as shown overleaf:

- Performance to power ratio measured at low utilisation
= $\sum \text{ssj_ops}(0\%+10\%+20\%+30\%) / \sum \text{power}(0\%+10\%+20\%+30\%)$
- Performance to power ratio measured at moderate utilisation
= $\sum \text{ssj_ops}(40\%+50\%+60\%) / \sum \text{power}(40\%+50\%+60\%)$
- Performance to power ratio measured at high utilisation
= $\sum \text{ssj_ops}(70\%+80\%+90\%+100\%) / \sum \text{power}(70+80\%+90\%+100\%)$

Where:

- ssj_ops = Workload at the specified utilisation level.
- Power = Energy consumed in Watts at specified utilisation level.

----- End of ACA eligibility criteria -----
Please see next section for technical detail submission and supporting documentation guidance

The following information is not part of the official criteria document published within the relevant statutory Instrument; it has been added here for guidance purposes only in order to provide assistance with the submission of product details and the provision of the required supporting documentation.

Note: All information contained within this guidance document is subject to change without notice

Technical information required in product submission

The following are the specific technical values required as part of the product submission for this technology:

Power ratio at low utilisation

The power ratio at low utilisation for the product is required as a value for the product submission. It must be entered as number only without units. There should also be no spaces or full stops after the number submitted. The figure must comply with the criteria requirements for maximum power ratio at low utilisation values.

Power ratio at medium utilisation

The power ratio at medium utilisation for the product is required as a value for the product submission. It must be entered as number only without units. There should also be no spaces or full stops after the number submitted. The figure must comply with the criteria requirements for maximum power ratio at medium utilisation values.

Power ratio at high utilisation

The power ratio at high utilisation for the product is required as a value for the product submission. It must be entered as number only without units. There should also be no spaces or full stops after the number submitted. The figure must comply with the criteria requirements for maximum power ratio at high utilisation values.

Supporting documentation required

Described below is the list of documents that are accepted as proof of compliance for the specific Enterprise Server conditions.

Note: This information will only be requested **AFTER** you submit your product's basic details online.

Important Notes to Product Providers

Please ensure that you read the "Important Notes to Product Providers" section at the end of this document prior to submitting documentation.

No.	Condition	Supporting Documentation Requirement
1.	Marketed and sold as an enterprise Rack Mounted Server.	Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition.
2.	Designed for, and listed as, supporting Enterprise Server operating Systems and/or Hypervisors, and targeted to run user-installed enterprise applications.	Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition.
3.	Be capable of remote power-down.	Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition.
4.	Meet the relevant minimum performance to power ratios in Table 1.	Test report completed according to the Standard Performance Evaluation Corporation (SPEC) industry standard benchmark performance test, SPECpower_ssj2008. Test reports must be of the format as required by SPECpower <u>and published</u> on the SPECpower website.
5.	Be supplied with a software management system which renders the server virtualisation capable.	Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition.

Important Notes to Product Providers

General

There should be a clear link between all supporting documentation supplied and the product being submitted. This will typically take the form of a product code or product name that can be cross referenced between the submitted product and relevant supporting documentation. If product codes / names have been changed since publication of the supporting documentation, then official evidence of this must be provided with the supporting documentation supplied.

Any deviation from these requirements will result in the supporting documentation not being considered adequate for the purposes of demonstrating compliance with the criteria conditions. This will in turn delay the submission and/or result in the product not being considered eligible.

Where the ACA criteria or help documentation reference compliance to appropriate rather than specific standards, the onus is on the product provider to ensure that supporting documentation supplied references recognised standards that apply to the submitted product, i.e. the product must be covered under the scope of a recognised standard.

If any product submitted is later found not to meet the performance or specification criteria, then this product will cease to be considered eligible for the ACA.

Note: When supplying the supporting documentation through the online process you must ensure that the correct page number(s) of the document is referenced when compliance with the relevant condition is being demonstrated. An explanatory note should also be given where more than one page number is referenced.