

Accelerated Capital Allowances Eligibility Criteria

Category: Information and Communications Technology (ICT)

***Technology:* Blade Servers**

A blade server is an optimised server computer of modular design for use in a shared blade chassis which can house multiple blade servers resulting in reduced space and energy usage. It will typically contain processors, memory, integrated network controllers, an optional fibre channel host bus adaptor (HBA) and other input/output (IO) ports. Blade servers can also optionally contain internal storage disks and cooling systems.

Eligibility criteria

To be included on the ACA Specified List, a Blade Server must meet *all* 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	Must be marketed and sold as an enterprise Blade Server
2	Designed for, and listed as, supporting Blade Server operating systems and/or hypervisors, and targeted to run user-installed enterprise applications
3	Be capable of remote power-down
4	Must meet the relevant minimum performance to power ratios listed in Table 1, or scientifically equivalent measure
5	Must be supplied with a software management system that 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%	> 900
Performance at moderate utilisation of greater than 30%, but less than 70%	> 1900

Performance at high utilisation of greater than or equal to 70%	> 2500
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* Performance to Power Ratio *

The ratio is based on the Standard Performance Evaluation Corporation (SPEC) industry standard benchmark performance test, SPECpower_ssj2008 V1.10. Under this test the energy use of a blade server is tracked (plug power) while the server performs a defined sequence of operational tasks.

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

- 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 guidance on:

1. **Technical details required in product submission**
2. **Supporting documentation required**

Guidance on product details and supporting documentation

NOTE: *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 help you to provide (a) product details and (b) the required supporting documentation.*

All information contained in 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 Blade Servers condition.

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 for Product Providers" section at the end of this document prior to submitting documentation.

No.	Condition	Supporting Documentation Requirement
1.	Must be marketed and sold as an enterprise Blade Server	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.
2	Designed for, and listed as, supporting Blade 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 the requirements of the condition.
3	Be capable of remote power-down	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.
4	Must meet the relevant minimum performance to power ratios listed in Table 1, or scientifically equivalent measure	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 SPEC and be published on the SPEC website.
5	Must be supplied with a software management system that renders the server virtualisation capable	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.

Important notes for product providers

General

There should be a clear link between the product submitted and all supporting documentation. This will typically take the form of a *product code* or *product name* that can be cross-referenced between the submitted product and the relevant supporting documentation.

If product codes/names have been changed since publication of the supporting documentation, then you must provide official evidence of this with the supporting documentation supplied.

If there is any deviation from these requirements, the supporting documentation will not be 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 makes reference to compliance with appropriate rather than specific standards, the onus is on the product provider to ensure that the 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 it is subsequently found that any product submitted does not meet the performance or specification criteria, it will cease to be considered eligible for the ACA.

Note: When supplying the supporting documentation through the online process, you must ensure, when demonstrating compliance with the relevant condition, that the correct page number(s) of the document is referenced. When referencing more than one page number, add an explanatory note.

Test report

Test reports must be of the format as set out by SPEC

All documentation must be in English, or include adequate translation.

Certification

Where certificates are provided, all tests must be carried out by an organisation that is accredited by a national accreditation body, recognised via the European Cooperation for Accreditation (preferred) or the International Accreditation Forum. **All documentation must be in English**, or include adequate translation.