



EcoLeaf

Type III Environmental Declaration (EPD)

Registration number : JR-BF-23004E

Japan EPD Program by SuMPO

Sustainable Management Promotion Organization

14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan

<https://ecoleaf-label.jp/>

Fujitsu Limited

Fujitsu Server PRIMERGY RX4770 M7



Functional unit

Per product

System boundary

final products intermediate products

Raw material acquisition, Production, Distribution,
Use & maintenance, End-of-Life

Main specifications of the product

Product: PYR4777RBT

Rack-mounted Server

CPU: Quad Socket

Intel® Xeon® Scalable Processors

Dimensions: 435 × 800 × 129.4 (3U) mm

(Dimensions without protrusions)

Use period: 5 years

Company Information

Fujitsu Limited

<https://www.fujitsu.com/jp/products/computing/servers/primergy/>

| | |
|------------------------------|--------------------------|
| Registration# | JR-BF-23004E |
| PCR number | PA-520000-BF-04 |
| PCR name | IT equipments |
| Publication date | 9/27/2023 |
| Verification date | 9/5/2023 |
| Verification method | Product-by-product |
| Verification# | JV-BF-23004 |
| Expiration date | 9/4/2028 |
| PCR review was conducted by: | |
| Approval date | 8/15/2023 |
| PCR review panel chair | Ken Yamagishi (SuMPO) |

Third party verifier*

Hiroyuki Uchida

Independent verification of data & declaration in accordance
with ISO14025

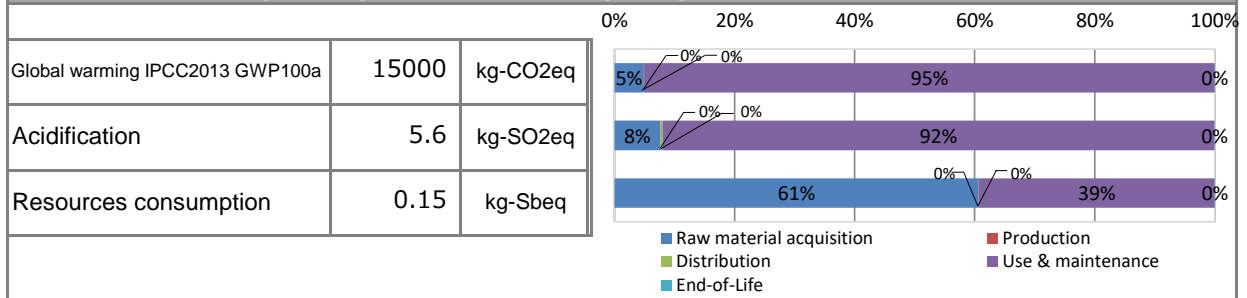
internal external

*Auditor's name is stated if system certification has been performed.

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1. Results of life cycle impact assessment (LCIA)



| Parameter | stage | Unit | Total | Raw material acquisition | Production | Distribution | Use & maintenance | End-of-Life |
|----------------------------------|-------|-------------------------------------|---------|--------------------------|------------|--------------|-------------------|-------------|
| Global warming IPCC2013 GWP100a | | kg-CO ₂ eq | 1.5E+04 | 7.4E+02 | 5.9E+00 | 5.6E+00 | 1.4E+04 | 2.7E+00 |
| Ozone layer destruction | | kg-CFC-11eq | 6.7E-05 | 6.7E-05 | 2.6E-11 | 4.6E-11 | 6.3E-08 | 1.6E-09 |
| Acidification | | kg-SO ₂ eq | 5.6E+00 | 4.3E-01 | 2.1E-03 | 1.8E-02 | 5.1E+00 | 3.2E-03 |
| Urban area air pollution | | kg-SO ₂ eq | 2.4E+00 | 2.5E-01 | 8.9E-04 | 6.9E-03 | 2.2E+00 | 1.8E-03 |
| Photochemical ozone | | kg-C ₂ H ₄ eq | 3.4E-01 | 9.0E-03 | 1.4E-04 | 3.4E-05 | 3.3E-01 | 3.2E-05 |
| Toxic chemicals(cancer) | | kg-C ₆ H ₆ eq | 2.7E-01 | 1.9E-01 | 3.3E-05 | 1.8E-09 | 8.0E-02 | 4.7E-06 |
| Toxic chemicals(chronic disease) | | kg-C ₆ H ₆ eq | 1.3E-02 | 8.6E-04 | 4.8E-06 | 2.7E-10 | 1.2E-02 | 6.9E-07 |
| Aquatic toxicity | | kg-C ₆ H ₆ eq | 1.9E+01 | 1.1E+00 | 7.4E-03 | 4.1E-07 | 1.8E+01 | 1.1E-03 |
| Biological toxicity | | kg-C ₆ H ₆ eq | 4.8E+02 | 4.0E+01 | 1.8E-01 | 9.9E-06 | 4.4E+02 | 2.6E-02 |
| Eutrophication | | kg-PO ₄ ³⁻ eq | 1.8E-04 | 9.3E-05 | 3.9E-14 | 3.9E-14 | 9.5E-11 | 8.3E-05 |
| Land use(Occupation) | | m ² /year | 3.3E+01 | 8.4E+00 | 1.0E-02 | 4.7E-01 | 2.4E+01 | 4.9E-02 |
| Land use(Transformation) | | m ² | 6.7E-01 | 1.7E-01 | 2.0E-04 | 9.4E-03 | 4.9E-01 | 9.9E-04 |
| Resources consumption | | kg-Sbeq | 1.5E-01 | 9.2E-02 | 2.5E-05 | 2.3E-05 | 6.0E-02 | 1.1E-05 |

2. Life cycle inventory analysis (LCI)

| Parameter | Value | Unit |
|---|---------|----------------|
| Non-renewable material resources | 3.9E+01 | kg |
| Non-renewable energy resources | 5.9E+03 | kg |
| Non-renewable energy resources | 2.5E+05 | MJ |
| Renewable material resources | 8.5E+01 | kg |
| Renewable primary energy | 8.4E+03 | MJ |
| Consumption of freshwater | 2.5E+00 | m ³ |
| Emissions, carbon dioxide (fossil), air, unspecified | 1.5E+04 | kg |
| Resources, crude oil, 44.7MJ/kg, ground, Non-renewable energy resources | 9.5E+02 | kg |
| Emissions, volatile organic compound, air, unspecified | 1.2E-03 | kg |

3. Material composition

| Material | Value | Unit |
|-----------------------|-------|------|
| Steel sheet | 44 | % |
| Aluminum | 2 | % |
| Copper | 8 | % |
| ABS | 1 | % |
| PC | 4 | % |
| PPE | 5 | % |
| Printed circuit board | 23 | % |
| Cardboard | 8 | % |
| Others | 6 | % |



5. Additional explanation

- Scenario Product Type: Computer Server (excluding the blade system)
- Product Name: PRIMERGY RX4770 M7 Model Name: PYR4777RBT
- Measurement conditions: Power consumption during use is measured by the measurement method specified by PCR (PA-520000-BF-04)
- Use period: 5 years
- Take-back rate: Calculated assuming 100%
- Use Location: Japan
- Product Configuration:
 - CPU: Intel® Xeon® Gold 6434H x4
(Adjusted Peak Performance(APP): 0.284160WT,Gigaflops: 947.2 GFLOPS)
 - DIMM : 16GB DDR5 x32
 - HDD : 2.5inch 900GB x2

6-1. Supplementary environmental information

Compliant with the International Energy Star Program Ver3.0. It also complies with the European RoHS Directive.

7. Assumptions of secondary data used

IDEA v2.1.3 and SuMPO Environmental Label Program Registration Data Ver 1.13 are used.

8. Remarks

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- For data quantification, please refer to PCR and Rules on quantification and declaration.
- Comparative assertion is permitted only when Rules on quantification and declaration are satisfied.
(Reference URL : <https://ecoleaf-label.jp/regulation/>)