



Third party verified

Environmental Product Declaration

In Conformance with

ISO14025

ISO14040

ISO14044



Fsas Technologies Inc.

PRIMERGY RX4770 M8



Registration number
SuMPO-EPD-2601-87-1

Verificartion date
2026/01/22

Publication date
2026/02/03

Expiration date
2031/1/21

EPD type
Single Product EPD

* First publication date

Additional standards in conformance
Not Applicable

EPD can be updated or withdrawn during the validity period. To confirm the validity of this EPD, check the following website:
<https://ecoleaf-label.jp/epd/search>

● General Information

> Programme

Programme name	SuMPO EPD Japan
Programme operator	Sustainable Management Promotion Organization (SuMPO)
Address	KANDA SQUARE GATE 4F, 14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo, 101-0047, Japan
Website	https://ecoleaf-label.jp

> GPI and PCR

GPI	SuMPO EPD Japan General Program Instructions v.2.1.1		
PCR name	IT equipments		
PCR registration number	PA-520000-BF-04		
PCR publication date	2023/8/15		
PCR review panel chair	Ken Yamagishi (SuMPO)		
PCR valid until	2028/8/14		
PCR issuer	Sustainable Management Promotion Organization (SuMPO)		

> Verification

Verification Type	Third-party verification in conformance with ISO14025		
	<input type="checkbox"/> Internal	<input checked="" type="checkbox"/> External	
	<input checked="" type="checkbox"/> Third-party verification by individual verifier	<input type="checkbox"/> Third-party verification by verification body	<input type="checkbox"/> Third-party verification by system certification
Verifier	Hirofumi Ino		

> Standards

Standards in conformance with;	<input checked="" type="checkbox"/> ISO14040:2006	<input checked="" type="checkbox"/> ISO14044:2006	<input type="checkbox"/> ISO14067:2018
	<input checked="" type="checkbox"/> ISO14025:2006	<input type="checkbox"/> ISO21930:2007	<input type="checkbox"/> ISO21930:2017
	<input type="checkbox"/> EN15804+A2	<input type="checkbox"/> EN50693:2019	<input type="checkbox"/> ISO/IEC63366:2025

EPD owner is responsible for the information contained in the EPD and for environmental claims related to the information. For any inquiries or requests regarding the content of the EPD, please contact the EPD owner.

EPDs are comparable only if they comply with this document, use the same sub-PCR where applicable, include all relevant information and are based on equivalent scenarios. Comparability of EPDs is limited to those applying a functional unit.

The LCIA results are relative expressions and do not predict impacts on category endpoints, the exceedance of thresholds, safety margins or risks.

When using weighted averages for calculation, the life cycle impact assessment results, life cycle inventory analysis-related information, waste-related information, and environmental information on output flows do not correspond to information about a specific product.

● EPD Owner's Information

Name of company and dept.	Fsas Technologies Inc.
Address	Fujitsu Technology Park, 4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, Japan
Contact	https://www.fsastech.com/ja-jp/contact/
LCA practitioner	Fsas Technologies Inc., Server & Storage Unit, Server Division
Company description	<ul style="list-style-type: none"> - Development, manufacturing, sales, and maintenance of servers and storage systems - Sales and maintenance of networking products - Sales of personal computers for corporate customers

● Product Information

Product name	PRIMERGY RX4770 M8	
Product /model number	PYR4778RBT	
Product specification	Mass	34.54 kg
	Function	A computer designed to provide data to client systems over a network.
	Applications	Providing stable business systems and web services to internal and external
	TS*	-
Service life	Service life	5 years
	In-use conditions	Use within the environmental conditions specified for the equipment.
	reference	The service life is determined based on the statutory useful life for electronic computers and similar devices (5 years) and does not represent durability or warranty coverage.
Manufacturing site(s)	Fukushima, Japan	
Product description	Rack-mounted server	
	CPU: Quad-socket Intel® Xeon® 6700P series processors Dimensions: 445 × 819 × 130 (3U) mm (excluding protrusions)	
Website	https://www.fsastech.com/ja-jp/products/primergy/lineup/rx4770m8/	

* TS: technical specifications,

● Product Content

Product components	Propotion (%)	Mass (unit)	
Steel sheet	47.1	14.37	kg
Copper	8.8	2.69	kg
Aluminum	1.9	0.57	kg
PBT	4.9	1.49	kg
PC	6.7	2.03	kg
ABS	1.2	0.35	kg
PCBA	25.7	7.83	kg
2.5-inch HDD	1.3	0.40	kg
Cables	1.6	0.48	kg
Others	1.0	0.32	kg
Packaging materials	Propotion (%)	Mass (unit)	
Cardboard	84.0	3.38	kg
EPS	15.9	0.64	kg
LDPE	0.1	0.00	kg

● Biogenic Carbon Content

Item	Content (kg-C)	Content (kg-CO ₂ eq)
Biogenic carbon content per product	-	-
Biogenic carbon content in packaging	-	-

● LCA-related Information

> EPD Type Information

EPD type	Product type	<input checked="" type="checkbox"/> Single product EPD	<input type="checkbox"/> Multiple products EPD	<input type="checkbox"/> Industry-wide EPD
	Site type	<input checked="" type="checkbox"/> Single site		<input type="checkbox"/> Multiple sites
	Value	<input checked="" type="checkbox"/> Specific	<input type="checkbox"/> Average	<input type="checkbox"/> Representative
Geographical coverage		Japan		
Description of representativeness for multiple-products/sites EPD		-		
Description of variation for multiple-products/sites EPD		-		
Description of products covered in the multiple products EPD		-		

> LCA Information

Declared unit	Per unit of product		
Mass per declared unit (Conversion factor to mass)	34.54 kg		
Reference flow (number of products required to fulfil the function)	-		
System boundary	<input type="checkbox"/> Cradle-to Gate <input type="checkbox"/> Cradle-to-Gate with options <input checked="" type="checkbox"/> Cradle-to-Grave		
LCA software	MiLCA for EPD		
LCI database	IDEA v3.1		
Characterization model	Climate Change: IPCC 2013 GWP 100a, Other Impact Areas: LIME2		
Use of other background data	None		
Secondary data quality	The calculation was performed using data that met the secondary data quality requirements specified by GPI.		
Primary data collection sites	Date-factory		
Primary data collection period	From April 1, 2025, to November 28, 2025. (For the production process, we used data collected from June 1 to December 31, 2021, after verifying its validity.)		
Biogenic carbon	<input checked="" type="checkbox"/> 0/0 approach		<input type="checkbox"/> -1/+1 approach
Information about electricity	Use	<input checked="" type="checkbox"/> Average consumption mix	<input type="checkbox"/> Others
	Type	-	
	Purchase date	-	
Issuing body		-	

> Life Cycle Stages

Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
<input checked="" type="checkbox"/>				

: declared stage

- : stage not declared

> Allocation

For the electricity used in the manufacturing process of this product, a physical quantity allocation approach was applied. Since the facility produces multiple products, allocation could not be avoided through further subdivision of the processes.

> Cut-off rules

No significant processes were excluded through cutoff, other than those specified in the following PCR requirements:

- Environmental burdens associated with the use of capital goods (e.g., production equipment) were excluded.
- Environmental burdens arising from the construction of production facilities were excluded.
- Environmental burdens related to generic auxiliary consumables (e.g., masks, work gloves) were excluded.
- Environmental burdens associated with indirect departments such as administration and research were excluded.

> System Boundary

The study parameters were established in accordance with the PCR.

The manufacturing processes of consumables are outside the system boundary.

A 100-year time horizon was applied as the temporal boundary.

> Scenario

Transportation distances were calculated in accordance with the PCR scenario.

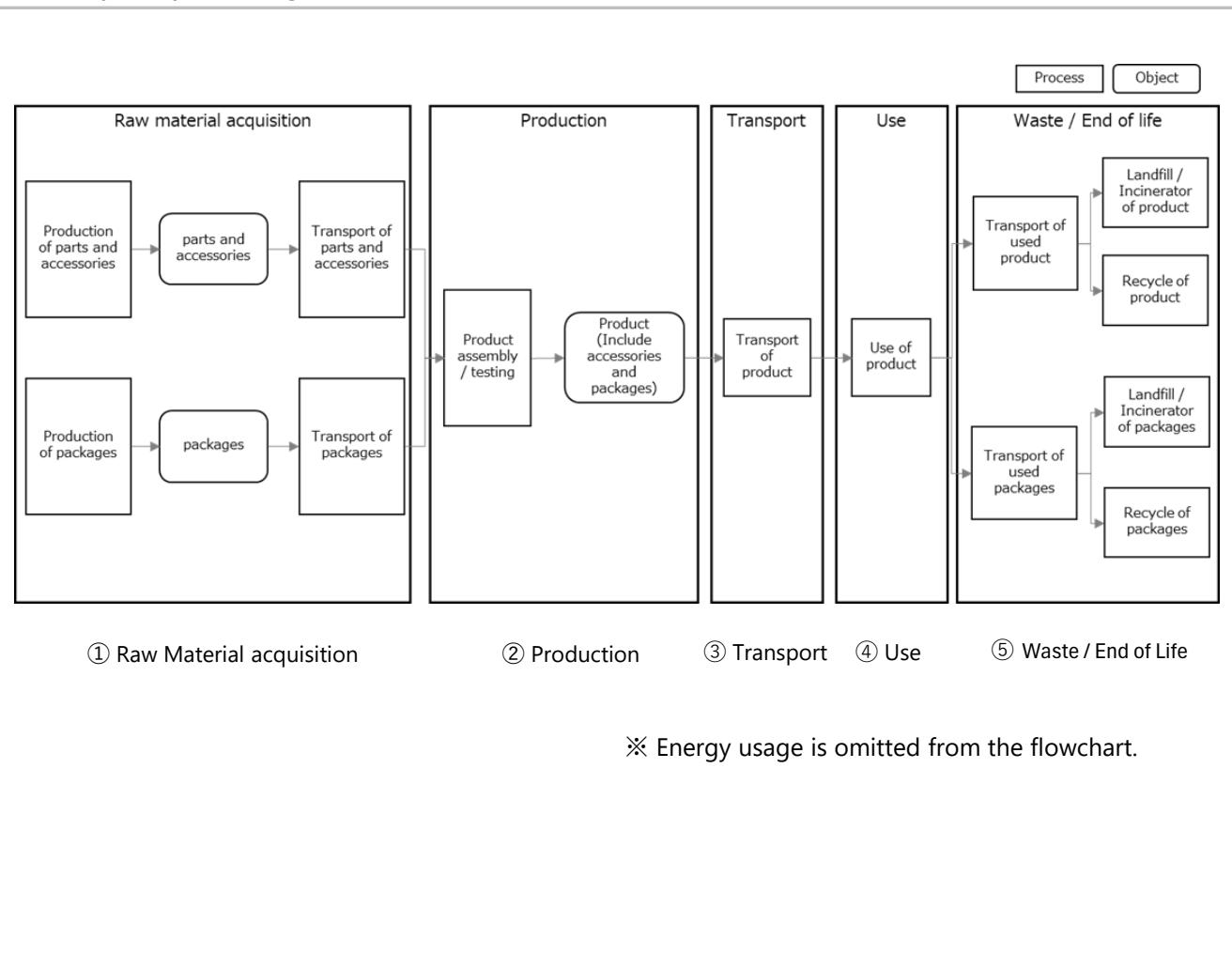
The disposal and recycling stages were modeled based on Fujitsu's recycling performance data. *1

*1: The company was established in April 2024 through the spin-off of Fujitsu's server business and continues to operate as a member of the Fujitsu Group.

> Electricity Modelling

Calculations were conducted using the 2018 average grid mix for Japan for all applicable life cycle stages.

> Life Cycle System Diagram



LCA Result

> LCIA Indicators

		Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
GWP	kg-CO ₂ eq	1.20E+03	5.50E+00	5.59E+00	1.30E+04	7.74E+00
Ozone layer depletion	kg-CFC-11eq	5.85E-04	1.33E-06	7.51E-11	3.13E-03	1.92E-07
Acidification	kg-SO ₂ eq	1.03E+00	5.40E-03	1.85E-02	1.27E+01	3.69E-03
Urban air pollution	kg-SO ₂ eq	7.23E-01	4.12E-03	6.94E-03	9.72E+00	2.24E-03
Photochemical oxidants	kg-C ₂ H ₄ eq	2.67E-02	1.06E-04	3.95E-05	2.50E-01	2.90E-05
Hazardous chem. - carcinogenic	kg-C ₆ H ₆ eq	9.92E-01	1.28E-04	2.78E-05	3.03E-01	1.30E-04
Hazardous chem. - chronic	kg-C ₆ H ₆ eq	2.15E-02	1.63E-05	1.81E-05	3.85E-02	8.53E-06
Aquatic ecotoxicity	kg-C ₆ H ₆ eq	5.76E+00	1.07E-02	8.89E-07	2.53E+01	1.69E-03
Terrestrial ecotoxicity	kg-C ₆ H ₆ eq	7.47E+01	2.60E-01	1.47E-05	6.13E+02	3.75E-02
Eutrophication	kg-PO ₄ ³⁻ eq	1.95E-02	3.34E-07	5.75E-11	7.88E-04	2.11E-05
Land use - maintenance	m ² /year	1.19E+01	2.72E-02	4.69E-01	6.41E+01	5.19E-02
Land use - modification	m ²	2.38E-01	7.53E-04	9.38E-03	1.77E+00	1.07E-03
Resource consumption	kg-Sbeq	1.71E-01	3.73E-05	2.33E-05	8.79E-02	1.30E-05

> LCI

		Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
Use of non-renewable resources	kg	5.83E+01	7.31E-02	5.61E-06	1.72E+02	1.06E-02
Use of non-renewable energy	kg	5.17E+02	2.07E+00	1.71E+00	4.87E+03	8.57E-01
Use of non-renewable energy	MJ	2.29E+04	8.52E+01	7.65E+01	2.01E+05	3.74E+01
Use of renewable resources	kg	1.36E+02	5.88E-03	1.43E-06	1.39E+01	9.33E-04
Use of renewable energy	MJ	3.14E+03	3.51E+01	1.94E-03	8.27E+04	5.05E+00
Consumption of freshwater resources	m ³	6.47E+00	7.90E-04	1.14E-04	1.86E+00	2.97E-04

> Waste Indicators

		Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
non-hazardous waste disposed	kg	1.04E+01	6.69E-04	4.86E-08	1.58E+00	1.32E+01
Municipal waste, landfill	kg	3.23E-02	2.55E-13	7.83E-17	6.00E-10	9.26E-14
Industrial waste, landfill	kg	1.03E+01	6.69E-04	4.86E-08	1.58E+00	1.32E+01

*It indicates the amount of waste generated throughout the lifecycle. Zero hazardous waste means the level of hazardous substances is below the thresholds specified by the WEEE Directive.

> Output Flow Indicators

		Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
Components for reuse	kg	-	-	-	-	-
Materials for recycling	kg	-	-	-	-	-
Material for energy recovery	kg	-	-	-	-	-
Exported energy from waste (energy recovery efficiency $\geq 60\%$)	MJ	-	-	-	-	-
Incineration of waste (energy recovery efficiency < 60%)	Waste disposed	kg	-	-	-	-
	Recovered energy	MJ	-	-	-	-
Waste disposed in landfill and energy recovered from landfill gas	Waste disposed	kg	-	-	-	-
	Recovered energy	MJ	-	-	-	-

> Description of LCA Results

- Scenario Product Type: Computer server (excluding blade systems)
- Product Name: PRIMERGY RX4770 M8
- Model Name: PYR4778RBT
- Measurement conditions: Power consumption during use and transport volume were calculated in accordance with the PCR scenario.
- Assumed Use period: 5 years (based on the statutory durable life for computers classified as "other," which is 5 years).
- Take-back rate: Calculated assuming 100%.
- Use Location: Japan
- Product Configuration:
 - CPU: Intel® Xeon® 6714P processors x 4
(Adjusted Peak Performance (APP): 0.22272 WT, Floating-point performance: 742.4 GFLOPS)
 - DIMM: 64 GB RDIMM x 32
 - HDD: 2.5-inch 2.4 TB x 2

● Additional Environmental Information

> Additional Environmental Information not related to LCA

- This product is manufactured in a facility that is certified to ISO 14001.
- The product complies with the European RoHS Directive.C11
- The product complies with the International ENERGY STAR® Program.

> Information on Hazardous Substances

Hazardous materials name	CAS No.	Standards or regulations
-	-	-
-	-	-
-	-	-

● Definitions of Terms

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● References

- ISO14025:2006 Environmental labels and declarations — Type III environmental declarations — Principles and procedures
- ISO14040:2006 Environmental management - Life Cycle Assessment - Principles and framework
- ISO14044:2006 Environmental management - Life Cycle Assessment - Requirements and guidelines

● Version History

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