SuMPO EPD JAPAN VERIFIED

SuMPO EPD Japan

Third party verified

Environmental Product Declaration

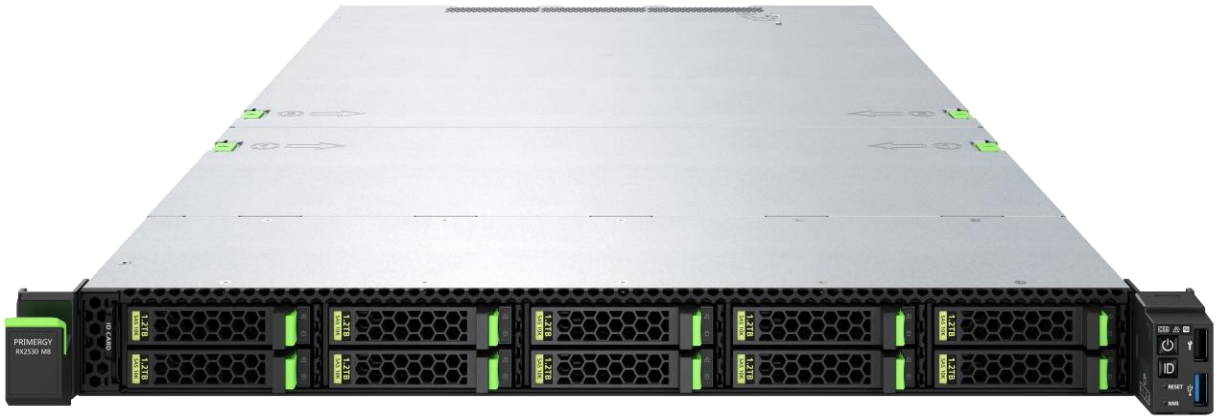
In Confromance with

ISO14025 | ISO14040 | ISO14044

Fsas Technologies

Fsas Technologies Inc.

PRIMERGY RX2530 M8



Registration number	Verificartion date	Publication date	Expiration date	EPD type
SuMPO-EPD-2512-48-1	2025/12/22	2026/01/14	2030/12/21	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EPD can be updated or withdrawn during the validity period.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	2023/08/15
PCR review panel chair	Ken Yamagishi（SuMPO）
PCR valid until	2028/08/14
PCR issuer	Sustainable Management Promotion Organization (SuMPO)

＞Verification

Verification Type	Third-party verification in conformance with ISO14025		
	☐ Internal	■ External	
	■ Third-party verification by individual verifier	☐ Third-party verification by verification body	☐ Third-party verification by system certification
Verifier	Isao Takeuchi		

＞Standards

Standards in conformance with;	■ ISO14040:2006	■ ISO14044:2006	☐ ISO14067:2018
	■ ISO14025:2006	☐ ISO21930:2007	☐ ISO21930:2017
	☐ EN15804+A2	☐ EN50693:2019	☐ 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	- 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 RX2530 M8		
Product /model number		PYR2538RAN		
Product sepcification	Function	20.23 kg	Conversion factor	-
	Mass	A computer designed to provide data to client systems over a network.		
	Applications	Providing stable business systems and web services to internal and external users.		
	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: Dual-socket Intel® Xeon® 6700P/6500P series processors Dimensions: 435 × 770 × 43 (1U) mm (excluding protrusions)		
Website		https://www.fsastech.com/ja-jp/products/primergy/lineup/rx2530m8/		

* TS: technical specifications,

Product Content

Product components	Propotion (%)	Mass (unit)	
Steel sheet	57.0	9.40	kg
Copper	5.1	0.85	kg
Aluminum	1.6	0.27	kg
PPS	3.5	0.57	kg
PC	2.8	0.47	kg
ABS	1.0	0.16	kg
PCBA	23.2	3.83	kg
2.5-inch HDD	2.4	0.40	kg
Cables	1.5	0.26	kg
Others	1.9	0.31	kg
Packaging materials	Propotion (%)	Mass (unit)	
Cardboard	92.4	3.47	kg
EPS	5.7	0.21	kg
LDPE	2.0	0.07	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	■ Single product EPD	☐ Multiple products EPD	☐ Industry-wide EPD	
	Site type	■ Single site	☐ Multiple sites		
	Value	■ Specific	☐ Average	☐ Representative	☐ Worst case
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)		20.23 kg	
Reference flow (number of products required to fulfil the function)		-	
System boundary		☐ Cradle-to Gate	☐ Cradle-to-Gate with options	■ 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		Fujitsu Technology Park	
Primary data collection period		From April 1, 2025, to October 31, 2025.	
Biogenic carbon		■ 0/0 approach	☐ -1/+1 approach
Information about electricity	Use	■ Average consumption mix	☐ Others
	Type	-	
	Purchase date	-	
	Issuing body	-	

＞Life Cycle Stages

Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
■	■	■	■	■

■ : declared stage　　－ : stage not declared

＞Allocation

In the manufacturing process for this product, physical quantity allocation was applied because the factory also produces other products, making it impractical to avoid allocation through process segmentation.

＞Cut-off rules

There are no significant processes subject to cutoff other than those specified in the PCR.

＞System Boundary

The settings were based on the PCR.
The consumables manufacturing process is outside the system boundary.
The temporal system boundary is set at 100 years.

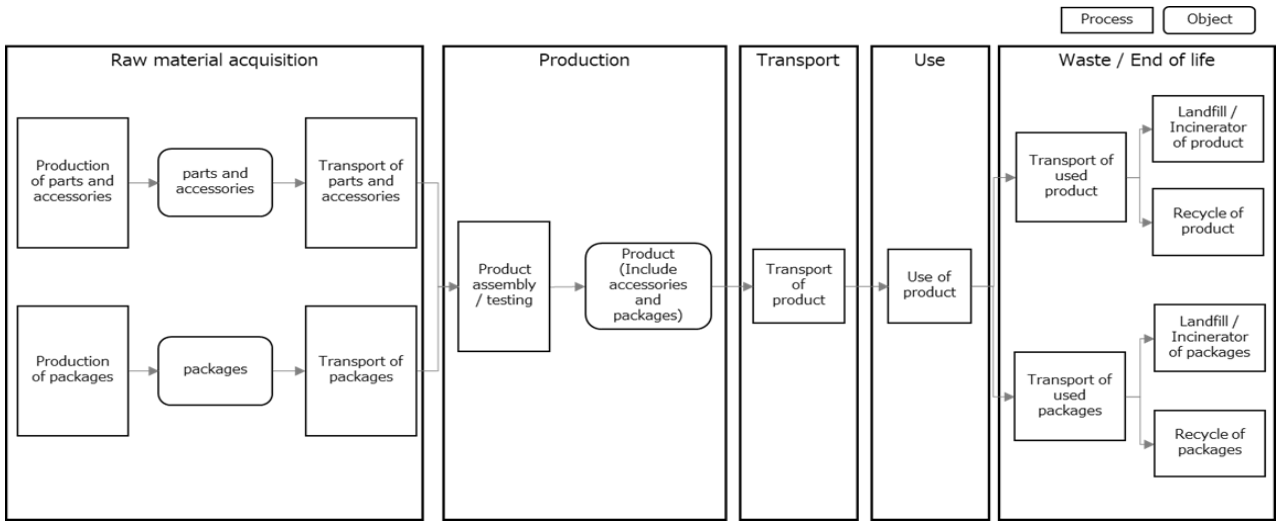
＞Scenario

Transportation distances were calculated according to the PCR scenario.
The disposal and recycling stages were modeled using calculations based on Fujitsu's recycling performance data.

＞Electricity Modelling

Calculations were performed using Japan's average grid electricity data from 2018 for all relevant life cycle stages.

＞Life Cycle Sytem Diagram



① Raw Material acquisition ② Production ③ Transport ④ Use ⑤ Waste / End of Life

※ Energy usage is omitted from the flowchart.

●LCA Result

＞LCIA Indicators

		Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
GWP	kg-CO_2eq	2.65E+02	5.50E+00	3.28E+00	6.91E+03	2.97E+00
Ozone layer depletion	kg-CFC-11eq	9.26E-05	1.33E-06	4.40E-11	1.67E-03	1.15E-07
Acidification	kg-SO_2eq	2.32E-01	5.40E-03	1.08E-02	6.78E+00	2.17E-03
Urban air pollution	kg-SO_2eq	1.63E-01	4.12E-03	4.06E-03	5.18E+00	1.32E-03
Photochemical oxidants	kg-C_2H_4eq	5.53E-03	1.06E-04	2.31E-05	1.33E-01	1.72E-05
Hazardous chem. - carcinogenic	kg-C_6H_6eq	4.41E-01	1.28E-04	1.63E-05	1.61E-01	7.78E-05
Hazardous chem. - chronic	kg-C_6H_6eq	3.91E-03	1.63E-05	1.06E-05	2.05E-02	5.03E-06
Aquatic ecotoxicity	kg-C_6H_6eq	1.61E+00	1.07E-02	5.21E-07	1.35E+01	1.01E-03
Terrestrial ecotoxicity	kg-C_6H_6eq	2.32E+01	2.60E-01	8.60E-06	3.27E+02	2.24E-02
Eutrophication	kg-PO_4^{3-}eq	9.47E-03	3.34E-07	3.37E-11	4.20E-04	9.92E-06
Land use - maintenance	m^2/year	5.15E+00	2.72E-02	2.75E-01	3.42E+01	3.05E-02
Land use - modification	m^2	6.21E-02	7.53E-04	5.49E-03	9.46E-01	6.27E-04
Resource consumption	kg-Sbeq	3.38E-02	3.73E-05	1.36E-05	4.69E-02	7.68E-06

＞LCI

		Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
Use of non-renewable resources	kg	2.73E+01	7.31E-02	3.29E-06	9.19E+01	6.32E-03
Use of non-renewable energy	kg	1.08E+02	2.07E+00	9.99E-01	2.60E+03	5.06E-01
Use of non-renewable energy	MJ	4.61E+03	8.52E+01	4.48E+01	1.07E+05	2.20E+01
Use of renewable resources	kg	2.81E+01	5.88E-03	8.35E-07	7.39E+00	5.56E-04
Use of renewable energy	MJ	6.86E+02	3.51E+01	1.14E-03	4.41E+04	3.02E+00
Consumption of freshwater resources	m^3	3.21E+00	7.90E-04	6.69E-05	9.92E-01	1.76E-04

＞Waste Indicators

		Raw materials acquisition stage	Production stage	Distribution stage	Use stage	End of life stage
hazardous waste disposed	kg	0	0	0	0	0
non-hazardous waste disposed	kg	9.13E-01	6.69E-04	2.85E-08	8.40E-01	7.65E+00
Municipal waste, landfill	kg	4.27E-03	2.55E-13	4.59E-17	3.20E-10	5.44E-14
Industrial waste, landfill	kg	9.08E-01	6.69E-04	2.85E-08	8.40E-01	7.65E+00

*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≧60%)		MJ	-	-	-	-	-
Incineration of waste (energy recovery efficiency ＜ 60%)	Waste disposed	kg	-	-	-	-	-
	Recovered energy	MJ	-	-	-	-	-
Waste disposed in landfill and energy recoved from landfill gas	Waste disposed	kg	-	-	-	-	-
	Recovered energy	MJ	-	-	-	-	-

＞Description of LCA Results

- Scenario Product Type: Computer Server (excluding the blade system)
- Product Name: PRIMERGY RX2530 M8 , Model Name: PYR2538RAN
- Measurement conditions: Power consumption during use shall be measured according to the method specified in PCR (PA-520000-BF-04).
- Use period: Assumed to be 5 years.
- Take-back rate: Shall be calculated assuming 100%.
- Use Location: Japan
- Product Configuration:
  CPU: Intel® Xeon® 6507P processors x2
  (Adjusted Peak Performance (APP): 0.192 WT, Gigaflops: 640 GFLOPS)
  DIMM: 16 GB RDIMM x16
  HDD: 2.5-inch 2.4 TB x2

●Additional Environmental Information

＞Additional Environmental Information not related to LCA

- This product is manufactured in a facility certified to ISO 14001.
- The product shall comply with the European RoHS Directive.
- The product shall comply 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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