

Eco Mark Product Category No.166

“Smartphones and mobile phones Version 1.0”

Certification Criteria

- Applicable scope -

Category

A. Smartphones

B. Mobile phones

Established **June 1, 2024**
Expiration date **May 31, 2031**

Japan Environment Association
Eco Mark Office

NOTE: This document is a translation of the criteria written in Japanese. In the event of dispute, the original document should be taken as authoritative.

**Eco Mark Product Category No.166 “Smartphones and mobile phonesVersion1.0”
Certification Criteria**

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Criteria

Omitted.

2. Applicable Scope

Smartphones, mobile phones

This product category applies to products that fall into one of the following categories.

[Category]

A. Smartphone

A terminal that combines a mobile phone with a personal digital assistant (PDA), has the voice call and web browser function, is equipped with an OS whose specifications have been released and allows users to enhance or customize its functions by freely adding an application software. Excluding tablet terminals.

B. Mobile phone

A portable mobile station telephone device connected to a cellular radio base station.

3. Terminology

Omitted.

4. Certification Criteria and Certification Procedure

Fill out the input fields and check the boxes in the Attached Certificate, and submit it. The product should conform to all the corresponding **[Mandatory]** items to which the applying product is applicable and, simultaneously, the percentage of corresponding points in all the **[Optional]** items should satisfy those indicated in Table 1. **[Optional]** shall be 1point(p) unless otherwise stated.

Table 1, Percentage of conformance points in **[Optional]** items for certification

Date when the application made (New, addition of a model)	[Mandatory]		[Optional] percentage of conformance points	
	Smartphone	Mobile phone	Smartphone	Mobile phone

Product applying before May 31, 2026	Satisfies all items	40% or more	50% or more
Product applying between June 1, 2026 and May 31, 2028	Satisfies all items	45% or more	55% or more
Product applying after June 1, 2028	Satisfies all items	50% or more	60% or more

4-1. Environmental Criteria and Certification Procedure

4-1-1 Resource Saving and Resource Recycling

- (1) **[Mandatory]**, **[Optional]** <common>

The product shall conform to Appendix1 “Product Design Checklist”

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, Form 1 “Product Design Checklist” shall be submitted,

- (2) **[Mandatory]** <common>

Used products (that also shall be able to apply to applied products) shall be collected and recycled under a manufacturer’s or seller’s voluntary collection and material recycling systems, or other business operators’. Any part of a collected product that cannot be recycled shall be treated under a proper treatment system.

[Optional]

The total mass (tons) of products reuse and resource recycling (recycling rate) shall account for 95% or more of the total of collected products.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. Submit a published document that describes the establishment of treatment and disposition systems such as device collection, material and recycling. In addition, submit Form 2 “List of Materials for Main Components” concerning information on raw materials (including rare metals) of components.

For recycling rates in the [Optional], submit Form 3 “Reporting Format concerning Collection Amounts and Recycling Rates of Products.”

- (3) **[Mandatory]**, **[Optional]** <common>

An entrustment system for repair subcontracted by the manufacturer or seller (including the introduction of repair business operators that are certified by the

manufacturer and those registered by the Minister of Internal Affairs and Communication) is established, and these business operators repair device on request from device users (meaning the establishment of a repair system) and provide information on the reception of repairs. Supply of the spare parts (sparing parts to maintain the function and performance of the product) shall conform to Table 2.

Table 2. Supply of the spare parts

requirement	category
3 years after discontinued production	[Mandatory]
6 years after discontinued production	[Optional]

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc. describing this criteria item.

(4) **[Optional]** <smartphones>

Repairability classes of “Commission Delegated Regulation (EU) 2023/1669 with regard to the energy labelling of smartphones and slate tablets” shall conform to Table 3.

Table 3 Commission Delegated Regulation (EU) 2023/1669 with regard to the energy labelling of smartphones and slate tablets, ANNEX II Repairability classes

requirement	category
C class	[Optional]
B class	[Optional] 2p
A class	[Optional] 3p

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit test results and other supporting data that shows conformance to the requirements.

(5) **[Mandatory]**, **[Optional]** <common>

The device conforms to the grades of waterproof and dustproof in Table 4 that are specified by the IP (International Protection) standards.

Table 4. Grades of waterproof and dustproof that are specified by the IP (International Protection) standards

	requirement	category
Dustproof	IP4X (The product protects the ingress of any solids with a diameter of 1.0 mm or more.)	[Mandatory]
	IP5X (Dustproof type) or 6 (Dust tight type)	[Optional]
Fountain	IPX4 (The product is not adversely affected by airborne droplets from every direction.)	[Mandatory] *
	IPX5 (The product is not adversely affected by jet water from every direction.)	[Optional]
	IPX6 (The product is not adversely affected by strong jet water from every direction.)	
Submergence	IPX7 (Even if the product is temporarily submerged under a condition of constant pressure, water does not enter the inside of the device.)	
	IPX8 (Even if the product is continuously submerged, water does not enter the inside of the device.)	

*In the case of conformance to the requirement of IPX7 or 8, the product shall be deemed to meet the requirement.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit test results and other supporting data that shows conformance to the requirements.

(6) [Mandatory] <common>

Shock testing requirement of MIL-STD-810(Environmental Engineering Considerations and Laboratory Tests) of the U.S. Department of Defense shall be met.

[Optional] <smartphones>

The repeated free fall reliability classes in “Commission Delegated Regulation (EU) 2023/1669 with regard to the energy labelling of smartphones and slate tablets” shall conform to Table 5.

Table 5. Commission Delegated Regulation (EU) 2023/1669 with regard to the energy labelling of smartphones and slate tablets, Annex II Repeated free fall reliability classes

requirement	category
-------------	----------

C (90 (70 for foldable smartphone) falls or more without defects)	[Optional]
B (180 (140 for foldable smartphone) falls or more without defects)	[Optional] 2p
A (270 (210 for foldable smartphone) falls or more without defects)	[Optional] 3p

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit test results and other supporting data that shows conformance to the requirements.

(7) **[Mandatory]**, [Optional] <common>

The battery endurance in cycles which achieves at 80% remaining capacity of full charge cycles, set out in “COMMISSION REGULATION (EU) 2023/1670 laying down ecodesign requirements for smartphones, mobile phones other than smartphones, cordless phones and slate tablets” shall conform to Table 6. However, [Mandatory] applies to the application on and after June 1, 2025.

Table 6. Battery endurance in cycles set out in “COMMISSION REGULATION (EU) 2023/1670 laying down ecodesign requirements for smartphones, mobile phones other than smartphones, cordless phones and slate tablets”

requirement		category
Smartphone	Mobile phone	
800 cycles at minimum	500 cycles at minimum	[Mandatory]
1,100 cycles at minimum	800 cycles at minimum	[Optional]
1,400 cycles at minimum	1,100 cycles at minimum	[Optional] 2p

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit test results and other supporting data that shows conformance to the requirements.

(8) **[Mandatory]** <common>

The product has the long-life functions of a battery (such as the function of reducing a load on a battery and increasing the number of charge cycles without fully charging it).

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a

website, etc. describing this criteria item.

(9) **[Mandatory]** <smartphones>

The operating system mounted before shipment (security, modification, and function updating) can be updated.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc. describing this criteria item.

(10) **[Mandatory]**, **[Optional]** <common>

Packaging or packing of the product shall be as simple as possible and give considerations to ease of reuse and load reduction when they are disposed of. Specifically, the product shall comply with Appendix 2 “Packaging Material Check List”.

[Certification Procedure]

Compliance with this item shall be indicated in the Attached Certificate. In addition, Form4 “Packaging Material Check List” shall be submitted.

4-1-2 Prevention of Global Warming

(11) **[Mandatory]**, **[Optional]** <smartphones>

The energy efficiency class for energy efficiency index (EEI) of COMMISSION DELEGATED REGULATION (EU) 2023/1669 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to the energy labelling of smartphones and slate tablets shall meet Table 7. However, [Mandatory] applies to the application on and after June 1, 2025.

Table 7. “EU 2023/1669 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to the energy labelling of smartphones and slate tablets” Annex II Energy efficiency classes

requirement	category
D class or higher	[Mandatory]
C class	[Optional]
B class	[Optional] 2p
A class	[Optional] 3p

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit test results and other supporting data that shows conformance to the requirements.

(12) **[Mandatory]**, **<common>**

The product should have the function which enables to automatically reduce the power consumption by the screen according to the use (power-saving function). The power-saving function shall refer to the Automatic brightness control function, sleep timer function, etc.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc. describing this criteria item.

If the product has the power-saving function other than the Automatic brightness control function and sleep timer function, the method of setting the function as well as the materials evidencing the reduction of power consumption shall be submitted.

(13) **[Mandatory]**, **<common>**

The product is set that the time from inactivity to screen off (lock screen) is 30 seconds or less by default. Alternatively, the product should have the function that prompts to change the screen off time.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc. describing this criteria item.

(14) **[Optional]** **<common>**

A parts manufacturing factory or final assembly factory of the product uses renewable energy (and also has a certificate for the use of electricity generated from renewable energy sources or other similar certificates).

[Optional] **2p <common>**

The proportion of renewable energy used in the manufacture of the product is 12.5% of overall power consumption (and also has a certificate for the use of electricity generated from renewable energy sources or other similar certificates).

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit an explanatory document (e.g., certificate for the use of electricity

generated from renewable energy sources) that shows the use of renewable energy sources in the manufacturing factory.

If the product meets the requirement of 2p in the [Optional], submit data that showing the consumptions of overall power and renewable energy that are used in the manufacture of the product, in addition to the above certificate.

(15) [Optional] <common>

Quantitative environment information, which is determined after GHG emissions in a lifecycle from procurement of raw materials of a product to disposal and recycling of the product are converted to carbon dioxide equivalent based on a global warming potential, is disclosed.

[Optional] 2p <common>

Quantitative environment information, which is determined after GHG emissions in a lifecycle from procurement of raw materials of a product to disposal and recycling of the product are converted to carbon dioxide equivalent based on a global warming potential, is disclosed. The calculated result is verified by a third party.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit a copy of an applicable part of the published quantitative environment information. If the product meets the requirement of 2p in the [Optional], submit a document showing the result of verification by the third party.

4-1-3 Restriction and Control of Hazardous Substances

(16) [Mandatory], <common>

The content rate of lead, mercury, cadmium and those compounds, hexavalent chromium, Polybrominated biphenyl (PBB), Polybrominated diphenylether (PBDE) or Phthalates shall conform to Annex II of [Commission Delegated Directive (EU) 2015/863] amending Annex II RoHS(II) Directive (Table 8). However, substances specified in Annex III are exceptions.

Table 8. Content rate

Requirement	
Material	Content rate[wt%]
Lead and its compounds	≤ 0.1
Mercury and its compounds	≤ 0.1
Cadmium and its compounds	≤ 0.01
Hexavalent chromium compounds	≤ 0.1
Polybrominated biphenyl (PBB)	≤ 0.1

Polybrominated diphenylether (PBDE)	≤ 0.1
Bis (2-ethylhexyl) phthalate (DEHP)	≤ 0.1
Butyl benzyl phthalate (BBP)	≤ 0.1
Dibutyl phthalate (DBP)	≤ 0.1
Diisobutyl phthalate (DIBP)	≤ 0.1

* The content rate refers to the content proportion in a homogeneous substance (minimum unit that can be separated by rule with totally uniform composition)

[Certification Procedure]

Compliance with this item and the confirmation method shall be indicated in the Attached Certificate. It is recommended that checking is performed based on JIS Z 7201 “Management of chemical substances in products - Principles and guidelines”.

(17) **[Mandatory]**, <common>

Polymer containing halogen shall not be used for plastic casing parts. However, fluoroplastics, for example, PTFE, etc. are allowed to be used.

The product shall have no flame retardant of short-chain chlorinated paraffin (SCCPs) (the number of chained C is 10 to 13 and contained chloride concentration is 50% or over) and Hexabromocyclododecane (HBCD) added as prescriptive constituents in the plastic casing parts.

[Certification Procedure]

Compliance with this item and the confirmation method shall be indicated in the Attached Certificate. In addition, the list of plastic materials used (Form 5) shall be submitted. It is recommended that checking is performed based on JIS Z 7201 “Management of chemical substances in products - Principles and guidelines”.

(18) **[Optional]** <common>

The product shall have no flame retardant of organohalogen compounds as prescriptive constituents in the plastic casing parts. However, 0.5% or less fluoroorganic additives (for example, anti-dripping agents, etc.) are allowed to be used to improve the physical properties of plastics.

Compliance with this item and the confirmation method shall be indicated in the Attached Certificate. In addition, the list of plastic materials used (Form 5) shall be submitted. The manufacturer of the raw material and whether polymers containing halogens, and organohalogen compounds and the CAS number of the flame retardants used or the code number according to the “ISO1043-4 (JIS6899-4)” shall be indicated. It is recommended that checking is performed based on JIS

Z 7201 “Management of chemical substances in products - Principles and guidelines”.

(19) [Optional] <common>

Each substance listed in Table 9 below that are classified into CMR category 1A, 1B or 2 of Table 3 in Annex VI of Regulation (EC) No.1272/2008 shall not be added in plastic casing parts as prescribed constituents

Table 9. Restricted substances

Hazard class	Category	
	Hazard category code	CLP-regulation (EC) No. 1272/2008
Carcinogenicity	Carc. 1A, 1B	H350 May cause cancer
Carcinogenicity	Carc. 1A, 1B	H350i May cause cancer if inhaled
Carcinogenicity	Carc. 2	H351 Suspected of causing cancer
Germ cell mutagenicity	Muta. 1A, 1B	H340 May cause genetic damage
Germ cell mutagenicity	Muta. 2	H341 Suspected of causing genetic defects
Reproductive toxicity	Repr. 1A, 1B	H360 May damage fertility or the unborn child
Reproductive toxicity	Repr. 2	H361 Suspected of damaging fertility or the unborn child
Substances listed in REACH Article 59. Paragraph 1. (the so-called SVHC candidate list) shall apply.		

[Certification Procedure]

Compliance with this item and the confirmation method shall be indicated in the Attached Certificate. In addition, the list of plastic materials used (Form 5) shall be submitted. It is recommended that checking is performed based on JIS Z 7201 “Management of chemical substances in products - Principles and guidelines”.

(20) [Mandatory], <common>

A battery built in the product shall comply with the EU Regulation (EU) 2023/1542 (Table 10).

Table 10. criteria for heavy metals in batteries

	Mercury [wt%]	Cadmium [wt%]	Lead [wt%]
contains	≤ 0.0005	≤ 0.002	≤ 0.01

[Certification Procedure]

Compliance with this item and the confirmation method shall be indicated in the Attached Certificate. It is recommended that checking is performed based on JIS Z 7201 “Management of chemical substances in products - Principles and guidelines”.

(21) **[Mandatory], <common>**

In manufacturing the applying product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the last five years from the date of application (whether there is any violation) must be reported. If there is any violation, it is necessary that proper remedies and preventive measures have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

For soil contamination, this criteria item does not apply to the polluting activities before the said pollution control regulations were enforced.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the manufacturer of the applying product or the manager of the relevant plant (entry or attachment of the list of names of the Environmental Laws, etc.) must be submitted (Form 6).

In addition, it is necessary to report whether there is any violation during the last five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (making a series of progress clear);
- b. Following materials (copies of recording documents, and so on) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
 - 1) List of the Environmental Laws, etc. related to the area where the plant is located;
 - 2) Implementation system (organizational chart with entry of roles, etc.);
 - 3) Document stipulating retention of recording documents;
 - 4) Recurrence prevention measures (future preventive measures);
 - 5) State of implementation based on recurrence prevention measures (result

of checking of the state of compliance, including the result of onsite inspection).

4-1-4 Conservation of Biodiversity

(22) [Optional] <common>

The applicant (including cases where the entire group involves) develops and publishes “Action Agenda for Conservation of Biodiversity,” etc. and shall be proceeding with the initiatives.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc.

4-1-5 social actions

(23) [Mandatory] <common>

The applicant (including cases where the entire group involves) develops and publishes action guidelines for labor, health and safety and other matter in a supply chain and is advancing an approach to the guidelines.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc.

(24) [Mandatory] <common>

The applicant (including cases where the entire group involves) develops and publishes a responsible minerals procurement policy for tin, gold, tantalum and tungsten and is advancing an approach to the policy.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc.

4-1-6 Provision of Information to Users

(25) [Mandatory], [Optional] <common>

Provide information of Table 11 to electronic media, websites, leaflets and other media (information released by carriers, sellers or other business operators is acceptable). When the functions of the product such as a push notification, or a

standard feature of the product enable users to passively confirm the information, add 1p as **[Optional]**.

Table 11. Information to be provided to uses

Item	category
1) Information on collection and recycling	
a. Information on collection (collection method, collection contact, etc.)	[Mandatory]
b. Display of a product name and the name of company (or a brand name) on the body of the product	[Mandatory]
c. Information on manipulation matters at the disposal of the product that include data erasing procedures	[Mandatory]
d. Provision of information on recycling achievements	[Mandatory]
2) Information on repair etc. leading to the long-term use of the product	[Mandatory]
3) Information on how to use and set the product, and its functions leading to energy saving	[Mandatory]
4) Information on product specifications	
a. Information on the inclusion of specified chemicals (lead, mercury, cadmium, hexavalent chromium, PBB and PBDE)	[Mandatory]
b. Information on eco-friendly designs	[Mandatory]
c. Information on a percentage of recycled materials	[Optional]
d. Information on a percentage of biomass plastics	[Optional]
e. Information on a percentage of rare metals	[Optional]
f. Information on a percentage recyclable	[Optional]
g. Information on durability of a battery (number of charges)	[Mandatory]
h. Information on the long-life function of a battery	[Mandatory]
i. Information on battery replacement	[Mandatory]

*Applies application on or after June 1, 2025

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit copies of a corresponding part of information provided in a website, etc.

4-2. Quality criteria and certification procedures

(26) **[Mandatory]** <common>

The Technical Standards Conformity Certification or Technical Standards Conformity Accreditation under the Telecommunications Business Act is granted for the product.

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, submit a document showing that the Technical Standards Conformity Certification or Technical Standards Conformity Accreditation is granted for the product.

5. Product Classification, Indication and Others

(1) Product classification (application unit) shall be by a product model. Classification by memory capacity (internal memory) or casing color is not performed.

(2) Regarding products which correspond to designated procurement items under the "Act on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Green Purchasing Law)", conformity status for evaluation criteria will be announced on the website of the Eco Mark Office.

(3) In principle, the Eco Mark shown as below shall be indicated on the product, etc.



(Note for the indication)

*For indicating the logo, Eco Mark certification number (eight-digit number) or the name of the licensee using the logo shall be appeared.

* Such expression as “Eco Mark product” can be used following the 2.(2) of the Guide to Eco Mark Usage.

“Eco Mark product”, “#Eco Mark”, “www.ecomark.jp”, “Eco Mark Certificate”

* In accordance with “Environmental Labeling Guidelines” of the Ministry of the Environment of Japan, etc., the environmental claims of certified products may be indicated in association with Eco Mark.

(<https://www.env.go.jp/policy/hozen/green/ecolabel/guideline/>).

* The Guide to Eco Mark Usage shall be followed for any cases not listed above.

(<https://www.ecomark.jp/office/guideline/guide/>)

June 1, 2024

Established (Version1.0)

May 31, 2031

Expiration date

The certification criteria of this product category will be revised as necessary.

Appendix 1 Product Design Check List

■ Regarding Product Design Check List

It is important to work out the design for the resource saving of the products, reuse of parts or raw material recycling. This checklist indicates important indicators for realizing furthered “3Rs” (reduce, reuse and recycle).

■ Terminology

Casing part	Outer cover part that mainly forms the external appearance of the product. The casing part protects the device from environmental effects and ensures user safety. Displays, connectors, power switches, slide pads and other objects exposed on the surface of a casing are not considered as a casing part.
Rare metals	31 kinds of minerals (for rare earth, 17 elements are considered as one mineral type) defined in the Special Subcommittee on Rare Metal General Strategy, Mining Industry Council, Ministry of Economy, Trade and Industry in August 1984.
Reused parts	Parts that have previously been used, and reused.
Recycled plastic part	Plastic part which contains recycled plastics
Recycled plastic	Plastic containing post-consumer material and pre-consumer material
Pre-consumer material	Material or rejected product generated from a disposal route in a product manufacturing process, excluding those that are reused as raw materials within the same process (plant).
Post-consumer material	Materials or products disposed of after they have been used as goods.
Biomass plastic	Plastics that are produced from bio-based synthetic polymer derived from renewable organic resources such as plants. In particular, plant-derived plastics are also called plant-based plastics.
Biobased synthetic polymer	Polymer obtained through chemical and/or biological industrial process(es) wholly or partly from biomass resources. It refers bio-based synthetic polymer defined in ISO 16620-1 3.1.4.
Biobased synthetic polymer content	Amount of biobased synthetic polymer present in the product(or a part designated in the certification criteria) Not including natural polymers such as starch, etc.). It refers biobased synthetic polymer content defined in ISO 16620-1 3.1.5.

■ Applicable parts

Each requirement applies to specific assemblies listed in the column “Target part”

■ Category classification

Requirements are classified as either “Mandatory” or “Optional”.

Mandatory item	Requirements which must be met
Optional item	Requirements which should be met

■ Reference specification

Omitted

No	Requirement	Target part	Category	Conformity	Interpretation
A. Evaluation of reduce					
[resource saving in product]					

No	Requirement	Target part	Category	Conformity	Interpretation															
1	The product is designed giving consideration to weight reduction/volume reduction.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	To reduce the weight and volume of devices will lead to resources saving. It, however, is important to work out the design so that the use of the products over long terms will not be harmed, as reduction of weight or volume of devices will affect the product strength.															
2	Does the device use any of the following? a) reused part b) recycled plastic part c) recycled metal part (aluminum, etc.) d) biomass plastic part whose effect of reducing environmental burden has been confirmed*. e) recycled glass part The “biomass plastic whose effect of reducing the environmental burden has been confirmed” shall mean those for which the following viewpoints have been evaluated voluntarily, with reference to the “Handling of “bio-based plastics” in the Eco Mark certification criteria.” •Traceability of biomass plastic (Raw Resin) •Confirmation of the content rate of bio-based polymers. •Confirmation of the effect of reducing environmental burden. •Confirmation about hazardous matters. •Recyclability after use.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No <table border="1" data-bbox="927 555 1441 719"> <thead> <tr> <th>parts (material used)</th> <th>Part mass(g)</th> <th>content* (%)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	parts (material used)	Part mass(g)	content* (%)													* for d),biobased synthetic polymer content. It is required to be used in at least one part, without regard to the content rate. Submit a certificate showing the origin and content of recycled materials issued by a parts supplier (Sheet 7), a certificate showing the origin and content of bio-based synthetic polymer (Sheet 8) or a certificate showing the origin and content of reused parts/recycled metal parts/recycled glass parts (Sheet 9) that was issued by a parts supplier.
parts (material used)	Part mass(g)	content* (%)																		
3	The content of post-consumer recycled plastics in the plastics used in the devices relative to the total plastic mass (excluding printed circuit boards and electronic components) is equal to or more than 10%.	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No <table border="1" data-bbox="927 1106 1441 1211"> <thead> <tr> <th></th> <th>(%)</th> </tr> </thead> <tbody> <tr> <td>The content of post-consumer recycled plastics contained in the total mass of plastics</td> <td> </td> </tr> </tbody> </table>		(%)	The content of post-consumer recycled plastics contained in the total mass of plastics		* Only the corresponding parts may be filled out. The figure shall be the guaranteed minimum value. Submit a certificate showing the origin and content of recycled materials issued by a parts supplier (Sheet 7) and the result of calculating the content of a post-consumer recycled plastic in the overall mass of plastics (Sheet 10).											
	(%)																			
The content of post-consumer recycled plastics contained in the total mass of plastics																				
4	The biobased synthetic polymer content in the total plastics mass used in the devices (excluding printed circuit boards and electronic components) is equal to or more than 10%.	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No <table border="1" data-bbox="927 1435 1441 1541"> <thead> <tr> <th></th> <th>(%)</th> </tr> </thead> <tbody> <tr> <td>The biobased synthetic polymer content contained in the total plastic mass</td> <td> </td> </tr> </tbody> </table>		(%)	The biobased synthetic polymer content contained in the total plastic mass		* Only the corresponding parts may be filled out. The figure shall be the guaranteed minimum value. Submit a certificate showing the origin and content of bio-based synthetic polymer issued by a parts supplier (Sheet 8) and the result of calculating the content of a post-consumer recycled plastic in the overall mass of plastics (Sheet 10).											
	(%)																			
The biobased synthetic polymer content contained in the total plastic mass																				
B. Evaluation of reuse																				
[usability of reused part (easiness in assembly is covered by “C. Evaluation of recycle)]]																				
5	The product adopts reusable units and parts, and is structured for easy removal of parts eligible for reuse.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	It is necessary to also consider a trade-off with safety, so it will not apply to parts requiring safety.															
6	Batteries can be replaced?	Battery	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	If the structure allows easy replacement of batteries when the batteries run out, the lives of the appliances may become longer as															

No	Requirement	Target part	Category	Conformity	Interpretation
					disposal of the devices or the printed circuit boards can be avoided. The case where repairs can replace batteries when repairing devices shall be considered to be compliant with this item.
7	The battery charger (interface to an external power supply) is commonly used?	Battery charger	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	
[Criteria for reuse]					
8	The lives of the units or parts (MTBFs) or the dates of manufacture are well informed.	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	In making decisions for reuse of products, it is important to establish methods of predicting lives of the devices to be reused and of assessing reliability. It is therefore important to be informed of dates of manufacture of units or parts.
C. Evaluation of recycle					
[selection of recyclable material and parts]					
9	Each plastic part is composed of up to two types of mutually separable polymers or polymer blends.	Plastic part	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	
10	Parts are made of unified metallic or plastic materials within the range that their functions are not impeded.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	The smaller the varieties of materials are, the more efficient the separation and recycling processes are. This requirement does not apply to parts that have been certified as reused parts.
11	Metallic painting which may require treatment for removal (metal plating and conductive coating) is avoided for the plastic casing parts. Direct printing on plastic parts is limited to the minimum required level (example: manufacturer's name).	Casing part	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	Large-area coating layer on the surface of plastic parts require treatment for removal. Laser markings are not considered as "prints" referred to herein. This item does not apply to the coating using the same materials with the plastic parts.
12	Such surface processing as painting, resin coating and UV coating is avoided for the plastic casing parts.	Casing part	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	This is significant for the reduction of wastes produced during the recycling process of casing parts as well as for the improvement of recyclability.
[structure with easy disassembly and easy separation]					
13	An attachment connecting or fixing 2 or more components is removable.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	It is necessary to also consider a trade-off between removability and safety, so this requirement does not apply to parts requiring safety.
14	It has been considered that disassembly and separation man-hours are reduced with the cut of the number of components or screws.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	
15	Disassembly for recycling can be completed with common tools.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	"Common tools" mean commonly available tools in the market. Excludes wireless equipment defined by the Japan Radio Law and casing parts of an AC adapter.
16	Double-molding components and metal-insert molding components are avoided to use.	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	
17	In consideration with ISO1043-1 to 4 (corresponding standard JIS K6899-1 to 4), plastic parts shall be marked at least in accordance with ISO11469 (corresponding standard JIS K6999). However, this need not apply to the parts with weight less than 25g or flat area less than 200mm ² or wires, cables, connectors, electric parts and transparent parts.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	The marking of plastics shall enable all recycling companies to sort plastics by type.
18	The battery is identified in accordance with the Communications and Information	Battery	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	In order to promote the collection and recycling of batteries (secondary

No	Requirement	Target part	Category	Conformity	Interpretation
	Network Association of Japan “Guidelines for Identification of Communication Equipment Using Small Secondary Batteries <Part of Operation of Cellular Phones and PHS Terminals>,” the Battery Association of Japan “Guidelines for Identification of Small Rechargeable Batteries,” and other similar guidelines?				batteries), it is necessary to identify them.
D. evaluation of easy handling					
[recording of process, documentation of procedure]					
19	The manufacturer performed a trial disassembly in accordance with items 13 through 18 of this checklist, and kept its record.	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	It can be confirmed by actually trying to disassemble a prototype device whether or not the appliance is such structured that enables easy disassembly/recycling.
20	The documents on disassembly, maintenance and repair are prepared as an information disclosure on the handling.	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	
[sophistication of recycling]					
21	To facilitate recycling of rare metals (tantalum, neodymium, dysprosium, cobalt and tungsten) contained in the device, a system (provision of information, ease of part identification, etc.) that can identify parts containing many rare metals and provide the information to recycling operators (recyclers) is available.	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	It is required to know of the elements which are contained in the device in a relatively large amount and for which replacement or recycling technologies are being developed, and to recycle them efficiently. In this item, five elements (neodymium, dysprosium, cobalt, tungsten and tantalum) are highlighted, which are elements highly possibly used in devices listed in “types of mineral on which emphasis of recycling should be placed” in the “vision of recycling of useful metals in used products (second report)” (October 2012), and it is required to identify the part that contains much rare metals as well as the system to easily separate the corresponding parts, to display identification and to easily provide information to the recycling operators.
22	With regard to the rare metals other than those provided for in No.21 in this checklist, the parts which contain two or more rare metal elements are informed.	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/ <input type="checkbox"/> less than 2 metal element	In order to recycle rare metals, it is desirable to understand information in the product design stage. In this item, it is recommended to grasp the amount of such rare metals contained, although it is not included in the requirements.
23	Rare metals are used as a recycled material	Device	[Optional]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	In order to recycle rare metals, it is desirable to understand information in the product design stage. In this item, it is recommended to grasp the amount of such rare metals contained, although it is not included in the requirements.
[requirement for reuse, recycling]					
24	The product is equipped with the function of restoring it to factory settings or other similar function?	Device	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	
[conformance to Green Purchasing Law]					
25	Installed equipment and functions of the mobile phone are simplified or can the applications installed to its terminal be upgraded without replacement of its body?	Device (mobile phones)	[Mandatory]	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/ <input type="checkbox"/> Not subject	
All [mandatory] items are met and answered “Yes”				<input type="checkbox"/> Yes/ <input type="checkbox"/> No/	

No	Requirement	Target part	Category	Conformity	Interpretation
	Number of conformed [optional] items				Point conformed [] / Number of selected [optional] items []

Appendix 2 Packaging material checklist

■List of packaging material used for the product.

Indicate a name, mass, ratio of recycled materials in use of packaging materials that are used per product.

No.	Packaging material used for the product	mass[g]	Ratio of recycled material in product
1			%
2			%
3			%
Total			

Entry examples of the packaging materials used: cardboard, polyethylene, foamed polystyrene, pulp mold.

■Packaging material checklist

It is determined that the product complies with the criteria when it meets all of the mandatory requirements:

No.	Requirement	Compliance	Remarks
1	Is the product designed giving consideration to weight reduction/volume reduction?	[Mandatory] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	
2	Is the product designed giving consideration to use of recycled materials? (Waste paper, recycled plastic, etc.)	[Mandatory] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	“Consideration” shall mean to examine the possibility of use of recycled materials at the stage of selection of materials or designing of the packaging.
3	Is the recycled waste paper used 70% or more, or the paper made from forest certified wood used?	[Optional] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	Indicate any recycled material used in the above list.
4	Is the recycled plastic used 40% or more, or the biomass plastic (bio-based synthetic polymer content) used 25% or more?	[Optional] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	Indicate any recycled material used in the above list.
5	Is the ink containing biomass used?	[Optional] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	Ink containing biomass refers to ink containing recyclable bioorganic raw materials (containing plant-based oil and excluding fossil resources).
6	Is the common use (only two types of separable polymers or a polymer blend) or reduction of plastic materials implemented?	[Mandatory] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	It is desirable to unify materials by product of a same company or standardize packaging materials used for a same product.
7	Is the product designed giving consideration to selection of a material that is easy to recycle or reuse?	[Mandatory] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	It is desirable to select a material that consumers can easily send to recycling, etc.
8	If dissimilar materials are used in combination, is the product such designed that separation of parts is easy?	[Mandatory] <input type="checkbox"/> Yes/ <input type="checkbox"/> No <input type="checkbox"/> No combined use of dissimilar materials	Dissimilar materials herein stated refer to metals and plastics, paper and plastics, etc., and do not mean a difference by a type of plastic.
9	Are materials identified according to the regulations or JIS standard, etc., so that the product can be easily recycled or reused.	[Mandatory] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	It is necessary to provide an appropriate indication so that consumers can send the product to recycling, etc. In Japan, the Law for Promotion of Sorted Collection and Recycling of Containers and Packaging is in effect, according to which the Report of the Committee for Considering Identification of Container and Packaging, etc. provides for the identification marks and method of displaying materials. However, identification of materials may be omitted based on such provisions concerning the identification marks as

			“For the case of solid-color container and packaging” and “For the container and packaging on which the display cannot be attached.”
10	Are materials to be used in packaging selected so that use of any chemical substances which affect the environment is avoided or reduced? (Non-use of polymers containing halogens)	[Mandatory] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	If any chemical substance that affects the environment is used, it will be a problem when the product is recycled or disposed of.
11	Is there a system for collection and reuse or recycling of packaging materials?	[Optional] <input type="checkbox"/> Yes/ <input type="checkbox"/> No	As stated in the considerations of Green Purchasing Law, it is desirable that the product has a collection/recycling system.