Environmental Compliance Evaluation Report

Product Name : Smart PCS

Product Model : LUNA2000-200KTL-H0

Report Number : SYBH(G)07788015

Reliability Laboratory of Huawei Technologies Co., Ltd.

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Applicant	:	Huawei Technologies Co., Ltd.
Address	:	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C
Product Name	:	Smart PCS
Product Model	:	LUNA2000-200KTL-H0
Date of Receipt Sample	:	2021-07-04
Start Date of Evaluation	:	2021-07-04
End Date of Evaluation	:	2021-07-07

Evaluation Result :

Regulation/Directive	Conclusion
EU RoHS(2011/65/EU& (EU) 2015/863) & UK RoHS	**Complies**
SVHC in accordance with Article 59(1) of the Regulation (EC) No 1907/2006 (REACH)	**See Clause 5.2.2**
Regulation (EC) No 1907/2006 (REACH) Annex XVII	**Complies**
94/62/EC & 2004/12/EC for Packaging Material & The Packaging (Essential Requirements) Regulations 2015	**Complies**
EU WEEE (2012/19/EU) ANNEX V & UK WEEE SCHEDULE 11 PART 2	**Complies**
EU POPs ((EU) 2019/1021) & UK POPs	**Complies**
2006/66/EC & 2013/56/EU on batteries and accumulators & The Batteries and Accumulators (Placing on the Market) Regulations 2008	**Complies**
China RoHS (Decree No. 32 of the Chinese Ministry of Industry and Information Technology)	**See Annex I**

Approved by Senior Engineer:	2021-07-09	Zhang Jiaojiao	Zhang Jiaojiao
	Date	Name	Signature
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	Date	Name	Signature

Modification Record

No.	Last Report No.	Modification Description
1	N/A	First report

List of abbreviations

No.	Abbreviations	Full spelling
1	RoHS	the Restriction of the use of certain hazardous substances in electrical and electronic equipment
2	REACH	REGULATION concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
3	SVHC	Substances of Very High Concern
4	WEEE	Waste Electrical and Electronic Equipment
5	MCD	Material Composition Declaration
6	BOM	Bill of Material
7	PDM	Product Data Management
8	Insight	Huawei Product Compliance Management Platform
9	ppm	parts per million
10	NA	Not Applicable
11	ND	Not detected (Less than the method limits for the test lab)
12	3R	Recovery, Reuse and Recycling

Contents

1 General Information

1.1 Applied Standard

Applied Product Directives & Standards	:	2011/65/EU & (EU) 2015/863 (EU RoHS) & The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (UK RoHS) EN IEC 63000: 2018 & BS EN IEC 63000: 2018 Regulation (EC) No 1907/2006 (REACH) 2006/66/EC & 2013/56/EU (EU Battery Directive) The Batteries and Accumulators (Placing on the Market) Regulations 2008 (UK Battery Regulations) 94/62/EC (EU Packaging Directive) The Packaging (Essential Requirements) Regulations 2015 (UK Packaging Regulations) (EU) 2019/1021 (EU POPs) The Persistent Organic Pollutants Regulations 2007 (UK POPs) 2012/19/EU (EU WEEE) ANNEX V The Waste Electrical and Electronic Equipment Regulations 2013 (UK WEEE) SCHEDULE 11 PART 2 China RoHS (Decree No. 32 of the Chinese Ministry of Industry and Information Technology)
Test Methods	:	See detailed evaluation contents

1.2 Evaluation Location

Evaluation Location	:	Reliability Laboratory of Huawei Technologies Co., Ltd.
Address	:	No.2, New City Avenue, Songshan Lake Sci. & Tech. Industry Park, Dongguan, 523808, P.R.C

2 Product Photo

3 Review of Documents of Conformity

According to European Standard EN IEC 63000: 2018 and UK Standard BS EN IEC 63000: 2018, the manufacturer should collect supplier declarations and/or contractual agreements, and/or material declarations and/or analytical test results from all suppliers. As per Huawei's requirements of material compliance, all suppliers should sign *Quality and Environment Assurance Agreement* and *Indemnity Agreement for Quality and Environment Problems of Supplier's Materials* and/or provide *Declaration of Non-use of Restricted Substances* which declare suppliers' products meet Huawei's environmental requirement, including RoHS requirements, REACH requirements, packaging requirements, battery requirements and POPs requirements, and provide MCD (Material Composition Declaration) and the test reports of high-risk materials to prove that their products comply with the requirements of Huawei.

In the process of environmental compliance evaluation, all suppliers' documents were evaluated according to Huawei's requirements, and all results were described in table below.

Table 1 Evaluation Results of Documents of Conformity

Material Descriptions	Reason of Non-compliance	Conclusion
All Materials	NA	**Complies**

Remark: NA = Not Applicable

4 RoHS Evaluation of Product

4.1 Evaluation of Materials / Samples

According to the European Standard EN IEC 63000: 2018 and UK Standard BS EN IEC 63000: 2018, the high-risk materials should be tested during the RoHS certification process and all materials (the non-risk

materials and high-risk materials) were evaluated according to Huawei's requirements (See clause 3). As per the Directive 2011/65/EU and their amendments (RoHS Directive), UK RoHS, the evaluation results were summarized in table below based on the product's Bill of Material (BOM) and tested results provided by the applicant.

(1) High Risk Materials / Samples Information

Table 2 Evaluation results of high risk materials / samples for RoHS

Item	**Evaluation of High Risk Materials / Samples[#1]**		
High Risk Material Information	Amount		
	High Risk Samples in Product[#2]	Tested Samples	Failed Samples
	46	46	0
Result[#3]	**Complies**		

Remark:

#1 : Evaluation results were based on the configuration of the product (See Annex Ⅱ).

#2 : As per Huawei's "*Product RoHS Certification Guide", "Annex A in IEC 62321"* and *"Annex D in GB/T 26572"*, the high risk materials include solder (Pb), plating layer (Pb, Cr(VI)), plastic colorant (Pb, Cd and Cr(VI)), ABS (Acrylonitrile Butadiene Styrene) plastic (PBDE), PVC (Polyvinyl Chloride) plastic (Pb, Cd), PP (Polypropylene) plastic (PBDE), PET (Polyester Terephthalate) plastic (PBDE), PBT (Polybutylene Terephthalate) plastic (PBDE), coatings (Pb), cable jacketing and other soft plastics (phthalate substances DEHP, BBP, DBP and DIBP) and alloy (Pb, Cd and Cr(VI)).

#3 : The results based on the evaluation results and the exemptions in EU RoHS & UK RoHS, and all exemptions applied to the evaluated product materials were taken as "Pass" for the evaluation results.

(2) Information of Failed Sample

From the part fulfil RoHS attribute in Huawei PDM System, MCD in Huawei Insight (Product Environmental Compliance Management Platform) system and the test report submitted by suppliers and applicant, the contents of restricted substances in EU RoHS and UK RoHS are listed in table below.

Table 3 Contents of Restricted Substance in Failed Sample

Material Descriptions	**Report No.**	**Content of Restricted Substances (ppm)**									
		Cd	**Pb**	**Hg**	**Cr(VI)**	**PBB**	**PBDE**	**DEHP**	**DBP**	**BBP**	**DIBP**
-	-	-	-	-	-	-	-	-	-	-	-

Remark:

ppm = parts per million

4.2 Test Items and Methods of the High Risk Materials

As per the information provided by the applicant, the high risk materials were tested by the following methods.

Table 4 Test Methods of High Risk Materials for RoHS

Testing Item	**Test Method**
Cadmium (Cd)	With reference to EN/IEC 62321-5, by acid

Lead (Pb)	digestion and determined by ICP-OES
Mercury (Hg)	With reference to EN/IEC 62321-4, by acid digestion and determined by ICP-OES
Hexavalent chromium [Cr(VI)]	With reference to EN/IEC 62321-7, by solvent extraction and determined by UV-VIS
Polybrominated biphenyls (PBB)	With reference to EN/IEC 62321-6, by solvent extraction and determined by GC/MS
Polybrominated biphenyl ethers (PBDE)	
Bis(2-ethylhexyl) phthalate (DEHP)	With reference to EN/IEC 62321-8, by solvent extraction and determined by GC/MS
Butyl benzyl phthalate (BBP)	
Dibutyl phthalate (DBP)	
Diisobutyl phthalate (DIBP)	

4.3 RoHS Requirements

The limits of restricted substances were quoted from EU RoHS and UK RoHS for homogeneous material.

Table 5 Limits of RoHS Restricted Substances

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 ppm)
Lead (Pb)	0.1% (1000 ppm)
Mercury (Hg)	0.1% (1000 ppm)
Hexavalent chromium [Cr(VI)]	0.1% (1000 ppm)
Polybrominated Biphenyls (PBB)	0.1% (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE)	0.1% (1000 ppm)
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% (1000 ppm)
Butyl benzyl phthalate (BBP)	0.1% (1000 ppm)
Dibutyl phthalate (DBP)	0.1% (1000 ppm)
Diisobutyl phthalate (DIBP)	0.1% (1000 ppm)

5 REACH Evaluation

5.1 REACH Requirements of article in product

5.1.1 SVHC Requirements

In accordance with Regulation (EC) No 1907/2006, any EU manufacturer or importer of articles shall notify ECHA, in accordance with paragraph 2 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per manufacturer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).The following information has to be submitted for notification:

a. Identification of the registrant and the substance,
b. Classification and labeling of the substance,
c. Description of use of the substance and the article,
d. Registration number, if available,

e. Tonnage range.

As per article 33 of regulation (EC) No 1907/2006 (REACH), recipients of product must be provided with sufficient information, as a minimum, the name of that substance, to allow safe use if the concentration of any SVHC is above 0.1% (w/w). A product meets the requirement of article 33(1) by default when no SVHC exceeds 0.1% (w/w).

The SVHC (Substances of very high concern) are listed on ECHA (European Chemical Agency) website (https://echa.europa.eu/candidate-list-table).

5.1.2 REACH Annex XVII Requirements

In accordance with article 67 of Regulation (EC) No 1907/2006, a substance on its own, in a preparation or in an article, for which Annex XVII contains a restriction shall not be manufactured, placed on the market or used unless it complies with the conditions of that restriction. According to article 68, when there is an unacceptable risk to human health or the environment, arising from the manufacture, use or placing on the market of substances, which needs to be addressed on a Community-wide basis, Annex XVII shall be amended in accordance with the procedure referred to in Article 133(4) by adopting new restrictions, or amending current restrictions in Annex XVII.

5.2 REACH SVHC Evaluation

5.2.1 SVHCs in a concentration above 0.1% (w/w) of article

From the supplier declarations and/or contractual agreements, the MCD in Huawei Insight System and the test report submitted by suppliers and the applicant, the SVHC (Substances of Very High Concern) in a concentration above 0.1% (w/w) of “article” in the product (including battery and package) are listed as below.

Table 6 SVHCs in a concentration above 0.1% weight by weight

SVHCs in a concentration above 0.1% weight by weight	CAS No.
LEAD	7439-92-1
HEXAHYDROMETHYLPHTHALIC ANHYDRIDE	25550-51-0
1,3,5-TRIS(OXIRAN-2-YLMETHYL)-1,3,5-TRIAZINANE-2,4,6-TRIONE (TGIC)	2451-62-9
1, 2-DIMETHOXYETHANE; ETHYLENE GLYCOL DIMETHYL ETHER (EGDME)	110-71-4

Remark:

1. The results were based on the configuration of the product (See Annex Ⅱ).
2. “Article” in product means an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition (According to Regulation (EC) No 1907/2006). The limit of 0.1% (w/w) applies to every article in the product. The results were calculated to an article defined by decision C-106/14 of EuGH of 10th September 2015.

5.2.2 Conclusion

According to specified evaluation processes in this report, SVHC in candidate list promulgated by ECHA, which are defined in article 57 of regulation (EC) No 1907/2006 (REACH regulation), are listed in table 6.

5.3 Evaluation of REACH Annex XVII

5.3.1 Evaluation Results of REACH Annex XVII

The evaluation of restricted substances was based on the statistic of material / sample from the history data, and the supplier was evaluated by the material categories, tested data, and so on. All suppliers should provide supplier declarations and/or sign contractual agreements to prove that their products complied with the requirements of REACH Annex XVII (if applicable).As per the data from Huawei Insight system, test report, MCD and supplier declarations provided by supplier, and according to the requirements of REACH Annex XVII of restricted substances (if applicable), the contents of restricted substances in material or sample are described in table below.

Table 7 Contents of REACH Annex XVII Restricted Substances

Material Descriptions	Restricted Substances	Limit	Content in material / sample
All Materials	Monomethyl – tetrachlorodiphenylmethane (Ugilec 141)	Prohibited	NA
All Materials	Monomethyl-dichloro-diphenyl methane (Ugilec 121, Ugilec 21)	Prohibited	NA
All Materials	Monomethyl - dibromo - diphenylmethane, bromobenzyl toluene (DBBT)	Prohibited	NA
All Materials	Dimethyl fumarate (DMF)	0.1ppm	NA
All Materials	Asbestos fiber	Prohibited	NA
All Materials	Organotin compounds	total content < 1000 ppm	NA
All Materials	Benzene	Prohibited	NA
All Materials	Polychlorinated terphenyls and their derivatives (PCTs)	50ppm	NA
Dye or colorant for plastics, textiles, leather products	Azo dyes	30ppm	NA
Direct and long contact with the skin of the electroplating, corrosion-resistant alloy materials	Nickel and its compounds	0.5 μg/cm^2/ week	NA
textiles, leather products	Pentachlorophenol and its salts and esters	5ppm	NA
textiles, leather products	Nonylphenol (NP) Nonylphenol polyoxyethylene ether (NPEO)	100ppm	NA

textiles	Tris (2,3-dibromopropyl) phosphate (TRIS)	Shall not be used	NA
textiles	Tri- (aziridinyl) phosphine oxide (TEPA)	Shall not be used	NA
Wooden packaging material	Arsenic and its compounds	Shall not be used	NA
Wooden packaging material	Creosote, naphthalene oil, anthracene oil, tar acid, alkaline low temperature tar etc.	Shall not be used	NA
Rubber or plastic material on the exterior or user contact surface of the product	Polycyclic Aromatic Hydrocarbons (PAHs)	Single PAHs substance (BaP;BeP;BaA;BbFA;BjFA ;BkFA;CHR;DBAhA;Benzo [g,h,i]perylene;Indeno[1,2, 3-cd]pyrene) < 1ppm	NA

Remark: The evaluation results were based on the configuration of the product (See Annex Ⅱ).

5.3.2 Conclusion

As per the results as above (Clause 5.3.1), the contents of restricted substances in submitted sample **comply with** the requirements of REACH Annex XVII (if applicable).

6 Evaluation of Packaging Material

6.1 Requirements of packaging material for restricted substance

According to EU Packaging Directive (94/62/EC) & UK Packaging Regulations (The Packaging (Essential Requirements) Regulations 2015), the sum of contents of restricted substances ((Cd, Pb, Hg and Cr (VI)) in packaging material (such as packaging, instruction, guideline and other packaging materials in medium) should be less than 100ppm.

6.2 Evaluation Results of Packaging Material

From the supplier declarations and/or contractual agreements and the MCD in Huawei Insight system and the test report submitted by suppliers and applicant, the contents of restricted and notification substances for Packaging Directive in packaging material are listed in table below.

Table 8 Contents of Restricted Substance in Packaging Material

Material Descriptions	**Report No.**	**Content of Restricted Substances (ppm)**				
		Cd	**Pb**	**Hg**	**Cr(VI)**	**Sum**
All materials	-	ND	ND	ND	ND	<100
Conclusion		**Complies**				

Remark:

ppm = parts per million

ND = Not detected (Less than the method limits for the test lab)

7 Evaluation of Battery

7.1 Requirements of battery for restricted substance

According to EU Battery Directive (2006/66/EC& 2013/56/EU) and UK Battery Regulations (The Batteries and Accumulators (Placing on the Market) Regulations 2008), EU and UK shall prohibit the placing on the market of a) all batteries or accumulators, whether or not incorporated into appliances, that contain more than 0,0005 % of mercury by weight; and that contain more than 0,002 % of cadmium by weight. All batteries containing more than 0,004 % lead, shall be marked with the chemical symbol for the metal concerned: Pb.

7.2 Evaluation Results of Battery

From the supplier declarations and/or contractual agreements and the MCD in Huawei Insight system and the test report submitted by suppliers and applicant, the contents of restricted and notification substances for battery directive and SVHC (List is described in clause 5.2) in battery are listed in table below.

Table 9 Contents of Restricted / Notification Substance in Battery

Material Descriptions	Report No.	Content of Restricted Substances (ppm)		
		Cd	Pb	Hg
Battery	-	ND	ND	ND
Conclusion		**Complies**		

Remark:

ppm = parts per million

ND = Not detected (Less than the method limits for the test lab)

8 POPs Evaluation

8.1 Requirements of POPs

According to EU POPs Regulation (EU) 2019/1021 & UK POPs (The Persistent Organic Pollutants Regulations 2007), the manufacturing, placing on the market and use of substances listed in Annex I& Annex II, whether on their own, in mixtures or in articles, shall be prohibited. Unless it complies with the following conditions:

(a) a substance used for laboratory-scale research or as a reference standard;
(b) a substance present as an unintentional trace contaminant, as specified in the relevant entries of Annex I or II, in substances, mixtures or articles.

8.2 Contents of Restricted Substances

The evaluation of restricted substances was based on the statistic of material / sample from the history data, and the supplier was evaluated by the material categories, tested data, and so on. All suppliers should provide supplier declarations and/or sign contractual agreements to prove that their products complied with the requirements of POPs Annex I (if applicable). As per the data from Huawei Insight system, test report, MCD and supplier declarations provided by supplier, and the requirements of POPs Annex I of restricted substances (if applicable), the contents of restricted substances in material or sample are described in table below.

Table 10 Contents of POPs Annex I Restricted Substances

Material Descriptions	Restricted Substances	Limit	Content in material / sample
All Materials	Short Chlorinated Paraffins (SCCPs, C_{10-13})	1500ppm	NA
All Materials	Hexachlorobutadiene	-	NA
All Materials (except coatings)	Perfluorooctane sulfonic acid and its derivatives (PFOS)	1000ppm	NA
Coatings		1 μg/m^2	NA
All Materials	Polychlorinated Biphenyls (PCB)	Shall not be used	NA
All Materials	Polychlorinated terphenyls and their derivatives (PCTs)	50ppm	NA
All Materials	Polychlorinated naphthalenes (PCNs)	Shall not be used	NA
All Materials	Hexabromocyclododecane (HBCDD)	1000ppm	NA
All Materials	PFOA or any of its salts	25ppb	NA
All Materials	PFOA-related compound or a combination of PFOA-related compounds	1ppm	NA
Packaging Materials, Transport Materials	The restrictions on the use of pesticides	Shall not be used	NA

Remark: The evaluation results were based on the configuration of the product (See Annex Ⅱ).

8.3 Conclusion

As per the results as above (Clause 5.2.2), the contents of restricted substances in submitted sample **comply with** the requirements of POPs Annex I (if applicable).

9 WEEE 3R (Recovery, Recycling & Reuse) Evaluation

9.1 Preparation of Product 3R Evaluation

According to Articles 8 and the Annex VII of Directive 2012/19/EU (WEEE), the product contains the following substances, preparations and components have to be removed and be selective treated in table below.

Table 11 Removed Components in Product

Descriptions of Parts and Materials	Remarks	Quantity
Capacitors / condensers (Containing PCB/PCT)	Polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT)	0
Mercury-containing components	Such as mercury in lamps, display backlights, scanner lamps, switches, batteries	0
Batteries	All types including standard alkaline and lithium coin or button style batteries	1

Printed Circuit Boards (PCB) or Printed Circuit Board Assemblies (PCBA)	Printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimeters	10
Components and parts containing toner and ink, including liquids, semi-liquids (gel/paste) and toner	Include the cartridges, print heads, tubes, vent chambers, and service stations	0
Plastics containing Brominated Flame Retardants	Brominated Flame Retardants include PBB, PBDE, HBCDD and so on	0
Components and waste containing asbestos	-	0
Cathode Ray Tubes (CRT)	-	0
Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC)	-	0
Gas Discharge Lamps	-	0
Liquid Crystal Displays (LCD)	With a surface greater than 100 sq cm, includes background illuminated displays with gas discharge lamps	0
External electrical cables and cords	-	6
Components, parts and materials containing refractory ceramic fibres	Described in Commission Directive 97/69/EC adapting to technical progress Council Directive 67/548/EEC relating to the classification, packaging and labeling of dangerous substances (2)	0
Components, parts and materials containing radioactive substances	With the exception of components that are below the exemption thresholds set in Article 3 of an Annex I to Council Directive 96/29/Euratom laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation (3)	0
Electrolyte capacitors containing substances of concern	Height > 25 mm, diameter > 25 mm or proportionately similar volume	0

9.2 WEEE 3R Calculation of Product

As per the evaluation instructions of WEEE 3R and Huawei Insight system, according to IEC: TR merge 62635-62650 and actual 3R data of EEE products, the results of 3R were listed in table below:

Table 12 Results of WEEE 3R for Evaluated Product

Material / Part	Weight Ratio	Recoverability	Reuse and	Weight Ratio	Weight Ratio

Description	(%)	Rate (%)	Recyclability Rate (%)	of Recovery (%)	of Reuse & Recycling (%)
(1) Parts required selective treatment					
Power Cable	2.22%	90%	85%	2.00%	1.89%
Capacitor (PCB/PCT)	0.00%	90%	85%	0.00%	0.00%
PCB (Printed Circuit Board)	22.22%	90%	70%	20.00%	15.55%
BFR* Plastics	0.00%	90%	0%	0.00%	0.00%
Electrolyte Capacitors	0.00%	0%	0%	0.00%	0.00%
(2) Parts difficult to process					
Compressors	0.00%	90%	90%	0.00%	0.00%
AC Motor	0.00%	90%	90%	0.00%	0.00%
Resin Motor	0.00%	0%	0%	0.00%	0.00%
Transformer (MWO)	0.00%	90%	90%	0.00%	0.00%
(3) Parts which go to separation process					
ABS (Acrylonitrile Butadiene Styrene)	0.00%	90%	90%	0.00%	0.00%
PC (Polycarbonate)	0.33%	90%	90%	0.30%	0.30%
PET (Polyethylene Terephthalate)	0.00%	90%	90%	0.00%	0.00%
PP (Polypropylene)	0.00%	90%	90%	0.00%	0.00%
PS (Polystyrene)	0.00%	90%	90%	0.00%	0.00%
PBT (Polybutylene terephthalate)	0.00%	90%	90%	0.00%	0.00%
PVC (Polyvinyl chloride)	0.00%	90%	0%	0.00%	0.00%
POM (Polyoxymethylene)	0.00%	90%	90%	0.00%	0.00%
EP (Epoxy Resin)	0.00%	90%	0%	0.00%	0.00%
Steel	5.39%	98%	98%	5.28%	5.28%
Aluminum	21.33%	98%	98%	20.90%	20.90%
Copper	21.67%	98%	98%	21.24%	21.24%
Rubber	0.11%	90%	0%	0.10%	0.00%
Fiberglass	0.01%	80%	80%	0.01%	0.01%
Others	26.72%	60%	60%	16.03%	16.03%
Total	**100.00%**	**-**	**-**	85.86%	81.20%

Remarks：

3R = Recovery, Reuse and Recycling

WEEE = Waste Electrical and Electronic Equipment

BFR* = Brominated Flame Retardants

The evaluation results were based on the configuration of the product (See Annex Ⅱ).

9.3 WEEE 3R Conclusion

According to the evaluation process of WEEE 3R described above clause 9.1.2, the below conclusion can be gotten in table below.

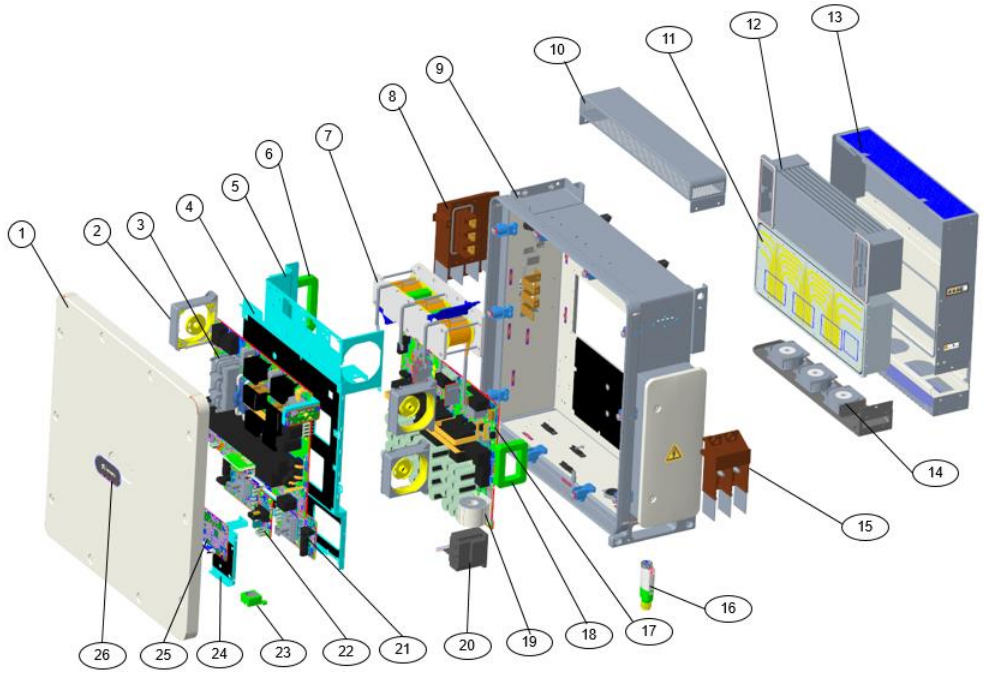
Table 13 Conclusion of WEEE 3R for Evaluated Product

Product Name	Smart PCS	
Product Category	Large equipment excluding photovoltaic panels	
Reuse/recycling/recovery (3R)	Recovery (%)	Reuse & Recycling (%)
Evaluation Result	85.86%	81.20%
3R Requirements in WEEE for the Product	85%	80%
3R Compliance for the Product	**Complies**	**Complies**

9.4 Sketch Figure of Sample Disassembly

The disassembly procedure taken here is in accordance with the treatment requirements under EU WEEE & UK WEEE, and based on economic and efficiency factor, disassembly tools, and current state of the art of recycling and recovery technology. The detailed information for sample disassembly can be described as below in Figure 1.

Figure 1 Sketch Figure of Evaluated Sample Disassembly



Remarks: (All information is from the installation instruction)

(1) Top cover	(2) Fan component	(3) Output board	(4) Intermediate separator
(5) Inductor separator	(6) Magnet ring	(7) Inductor	(8) AC terminal
(9) Chassis component	(10) Top shield	(11) Heatsink	(12) Heat exchanger
(13) Back shield	(14) Outside fan component	(15) DC terminal	(16) Dongle

(17) Power board (18) Magnet ring (19) Magnet ring (20) DC contactor
(21) Auxiliary power board (22) Slowly start board (23) Fan component (24) Monitor board separator
(25) Monitor board (26) Logo panel

9.5 WEEE 3R Requirements

As per WEEE Directive (2012/19/EU& (EU) 2019/2193) & The Waste Electrical and Electronic Equipment Regulations 2013 (UK WEEE), all products sold in EU should comply with the requirements of recovery, recycling and reuse (3R) for their design. Detailed requirements for 3R are described in table below.

Table 14 Requirements of WEEE 3R for Products

Category No.	WEEE Category	Rate of Recovery	Rate of Reuse & Recycling
1	Temperature exchange equipment	85%	80%
2	Screens, monitors, and equipment containing screens having a surface greater than 100 cm^2	80%	70%
3	Lamps	80%	80%
4	Large equipment	85%	80%
4a	**Large equipment excluding photovoltaic panels**	**85%**	**80%**
4b	Photovoltaic panels	85%	80%
5	Small equipment	75%	55%
6	Small IT and telecommunication equipment (no external dimension more than 50 cm)	75%	55%

9.6 WEEE 3R Definition

According to directive 2012/19/EU (WEEE) & The Waste Electrical and Electronic Equipment Regulations 2013 (UK WEEE), Reuse, Recycling & Recovery Rate using in the report are calculated as following formulas.

$$\text{Recovery Rate (\%)} = \frac{Reuse\ \&Recycling\ Weight + Energy\ Recovery\ Weight}{Product\ Tatal\ Weight} \times 100\%$$

$$\text{Reuse \& Recycling Rate (\%)} = \frac{Reuse\ \&\ Recycling\ Weight}{Product\ Tatal\ Weight} \times 100\%$$

Remark: Total weight of the product includes the main product and accessories weight.

Annex Ⅰ China RoHS Hazardous Substances Information Evaluation

According to China RoHS (the Administrative Measures for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products on Jan 21, 2016, with it coming into effect on July 1, 2016., Decree No. 32 of the Chinese Ministry of Industry and Information Technology), a Hazardous Substance table must also be supplied with the product that lists each part that is out of compliance. As per the evaluation process and the data in Huawei InSight System, the below table was made for the product and its fittings.

Table 1 Hazardous Substances Table in Product

部件名称 Part Descriptions	有害物质 Hazardous Substances					
	镉 Cd	铅 Pb	汞 Hg	六价铬 Cr(VI)	多溴联苯 PBB	多溴二苯醚 PBDE
印制电路板组件 PCBA	○	×	○	○	○	○
电缆 Cables	○	×	○	○	○	○
金属部件 Metal Parts	○	×	○	○	○	○
聚合物部件 Polymeric Parts	○	○	○	○	○	○
电池 Batteries	○	×	○	○	○	○

Remark: The table is prepared in accordance with SJ/T 11364.

○ : It means that the content of the restricted substance in all materials of part is less than the limit defined in GB/T 26572 and other similar directives in other countries.

× : It means that the content of the restricted substance in at least one homogenous material of part is not less than the limit defined in GB/T 26572 and other similar directives in other countries.

The "×" in the above table indicates that one or more exemptions are applied in these parts.

Annex Ⅱ Configuration of Product

Board list	
Board Name	Description
ENE8FLTS	AC Filter Board
ENE8COMD	Monitoring Communication Board
ENF1LEDA	Commercial PV & Energy Storage Light Board
ENE8AUPB	Auxiliary Power Supply Board
ENE8PWRR02	Power Board
ENE8DRVE	Drive Board
ENE8FLTP	Output Board
ENF1CTLC	Control Board
ENE8FLTQ	DC Filter Board

ENE8FLTR	Soft-start Board
Subassembly list	
Subassembly Name	Description
Adapter	Input voltage: ⎓ 1180-1500 Vdc, 207.6A Output voltage: ~800Vac /50-60 Hz Rate power: 200kW

END