

Environmental Compliance Evaluation Report

Product Name : SOLAR INVERTER

SUN5000-150K-MG0-ZH,
SUN2000-150K-MG0-ZH,
Product Model :
SUN2000-150K-MG0,
SUN5000-150K-MG0

Report Number : SYBH(G)10592558

Reliability Laboratory of Huawei Technologies Co., Ltd.

(Global Compliance and Testing Center of Huawei Technologies Co., Ltd.)

No.2, New City Avenue, Songshan Lake Sci. & Tech. Industry Park, Dongguan, 523808, P.R.C

Tel: +86 769 23830808

Fax: +86 769 23837628

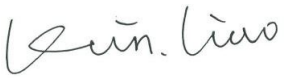
Notice

1. The laboratory (Reliability Lab of Huawei Technologies Co., Ltd) is also named “Global Compliance and Testing Center of Huawei Technologies Co., Ltd”, the both names have coexisted since 2009.
2. The evaluation report is invalid if not marked with the signatures of the persons responsible for preparing and approving the report.
3. The evaluation report is invalid if there is any evidence of erasure and/or falsification.
4. The evaluation report is based on the quality and trustworthiness of the documents for materials, parts, and/or sub-assemblies provided by the suppliers. Huawei has established procedures to evaluate the documents in order to determine their quality and trustworthiness according to European Standard EN IEC 63000: 2018.
5. Content of the evaluation report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

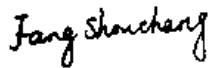
Applicant : Huawei Technologies Co., Ltd.
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C
Product Name : SOLAR INVERTER
Product Model : SUN5000-150K-MG0-ZH, SUN2000-150K-MG0-ZH, SUN2000-150K-MG0, SUN5000-150K-MG0

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
EU WEEE (2012/19/EU) Annex V & UK WEEE Schedule 11 Part 2	Complies
EU POPs ((EU) 2019/1021) & UK POPs	Complies
China RoHS (Decree No. 32 of the Chinese Ministry of Industry and Information Technology)	See Annex I

Approved by Senior Engineer: 2024-04-18 Liao Meixiong 

Date Name Signature

Prepared by: 2024-04-18 Fang Shouchang 

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	3R	Recovery, Reuse and Recycling
6	POPs	Persistent Organic Pollutants
7	MCD	Material Composition Declaration
8	BOM	Bill of Materials
9	PDM	Product Data Management
10	Insight	Huawei Product Compliance Management Platform
11	ppm	parts per million
12	ppb	parts per billion
13	NA	Not Applicable
14	ND	Not Detected (Less than the method limits for the test lab)

Contents

1	GENERAL INFORMATION	7
1.1	APPLIED STANDARD	7
1.2	EVALUATION LOCATION	7
2	PRODUCT PHOTO	8
3	REVIEW OF DOCUMENTS OF CONFORMITY	8
4	ROHS EVALUATION	8
4.1	ROHS REQUIREMENTS.....	8
4.2	EVALUATION OF MATERIALS / SAMPLES	9
4.3	TEST ITEMS AND METHODS OF THE HIGH RISK MATERIALS	10
5	REACH EVALUATION	10
5.1	REACH REQUIREMENTS OF ARTICLE IN PRODUCT	10
5.2	REACH SVHC EVALUATION.....	11
5.3	EVALUATION OF REACH ANNEX XVII.....	11
6	POPS EVALUATION	13
6.1	REQUIREMENTS OF POPS.....	13
6.2	CONTENTS OF RESTRICTED SUBSTANCES.....	13
6.3	CONCLUSION	14
7	WEEE 3R (RECOVERY, RECYCLING & REUSE) EVALUATION	14
7.1	PREPARATION OF PRODUCT 3R EVALUATION	14
7.2	WEEE 3R CALCULATION OF PRODUCT	15
7.3	WEEE 3R CONCLUSION.....	17
7.4	SKETCH FIGURE OF SAMPLE DISASSEMBLY.....	17
7.5	WEEE 3R DEFINITION.....	18
	ANNEX I CHINA ROHS HAZARDOUS SUBSTANCES INFORMATION EVALUATION	19
	ANNEX II CONFIGURATION OF PRODUCT	19

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)
2012/19/EU (EU WEEE) Annex V
The Waste Electrical and Electronic Equipment Regulations 2013 (UK WEEE) Schedule11 Part 2
(EU) 2019/1021 (EU POPs)
The Persistent Organic Pollutants Regulations 2007 (UK POPs)
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 the supplier declarations (*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 the restricted substances requirements of EU RoHS, REACH, POPs, and Battery Regulation) 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

4 RoHS Evaluation

4.1 RoHS Requirements

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

Table 2 Limits of Restricted Substances in EU RoHS and UK RoHS

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)

4.2 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 amendments (EU RoHS Directive), and UK RoHS, the evaluation results were summarized in table below based on the product's Bill of Materials (BOM) and tested results provided by the applicant.

(1) High Risk Materials / Samples Information

Table 3 Evaluation results of high risk materials / samples for RoHS

Item	Evaluation of High Risk Materials / Samples ^{#1}		
	Amount		
High Risk Material Information	High Risk Samples in Product ^{#2}	Tested Samples	Failed Samples
SUN5000-150K-MG0-ZH, SUN5000-150K-MG0	49	49	0
SUN2000-150K-MG0-ZH, SUN2000-150K-MG0	48	48	0
Result ^{#3}	Complies		

Remark:

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

#2 : As per Huawei's "Guide to Grading RoHS Compliance Risk Levels of Materials", 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

According to the information from environmental attributes of parts in Huawei PDM System, MCD and test report in Huawei Insight system submitted by suppliers and applicant, the contents of restricted substances in EU RoHS and UK RoHS are listed in table below.

Table 4 Contents of Restricted Substances in Failed Sample

Material	Content of Restricted Substances (ppm)
----------	--

Descriptions	Report No.	Cd	Pb	Hg	Cr(VI)	PBB	PBDE	DEHP	DBP	BBP	DIBP
-	-	-	-	-	-	-	-	-	-	-	-

4.3 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 5 Test Methods of High Risk Materials for RoHS

Testing Item	Test Method
Cadmium (Cd)	With reference to EN/IEC 62321-5, by acid digestion and determined by ICP-OES
Lead (Pb)	
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 62321-7-1& EN/IEC 62321-7-2 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 diphenyl 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)	

5 REACH Evaluation

5.1 REACH Requirements of article in product

5.1.1 SVHC Requirements

In accordance with paragraph 2 and 4 of Article 7 in Regulation (EC) No 1907/2006(REACH), any producer or importer of articles shall notify ECHA, 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 totalling over one tonne per producer 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. The following information has to be submitted for notification:

- the identity and contact details of the producer or importer;
- the registration number(s), if available;
- the identity of the substance;
- the classification of the substance(s);
- the classification of the substance(s) and of the uses of the article(s);
- the tonnage range of the substance(s).

As per article 33 of 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% weight by weight.

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 REACH, a substance on its own, in a mixture 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% weight by weight of article

According to the supplier declarations and/or contractual agreements, the MCD and test report in Huawei Insight System submitted by suppliers and the applicant, the SVHC (Substances of Very High Concern) in a concentration above 0.1% weight by weight of "article" in the product 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
OCTAMETHYLCYCLOTETRASILOXANE	556-67-2
1,3,5-TRIGLYCIDYL-S-TRIAZINETRIONE	2451-62-9
1,2-DIMETHOXYETHANE	110-71-4
HEXAHYDROMETHYLPHTHALIC-ANHYDRIDE	25550-51-0

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% weight by weight 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 REACH, 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 historical

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 Restricted Substances in REACH Annex XVII

Material Descriptions	Restricted Substances	Limit	Content in material / sample
All Materials	Monomethyl – tetrachlorodiphenylmethane (Ugilec 141)	Prohibited	ND
All Materials	Monomethyl-dichloro-diphenyl methane (Ugilec 121, Ugilec 21)	Prohibited	ND
All Materials	Monomethyl - dibromo - diphenylmethane, bromobenzyl toluene (DBBT)	Prohibited	ND
All Materials	Dimethyl fumarate (DMF)	0.1ppm	ND
All Materials	Asbestos fiber	Prohibited	ND
All Materials	Organotin compounds	total content < 1000 ppm	ND
All Materials	Benzene	Prohibited	ND
All Materials	Polychlorinated terphenyls and their derivatives (PCTs)	50ppm	ND
Dye or colorant for plastics, textiles, leather products	Azo dyes	30ppm	ND
Direct and long contact with the skin of the electroplating, corrosion-resistant alloy materials	Nickel and its compounds	0.5 µg/cm ² / week	ND
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- (aziridiny) phosphine oxide (TEPA)	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;DBAaA;Benzo [g,h,i]perylene;Indeno[1,2,3-cd]pyrene) < 1ppm	ND
Thermal paper	Bisphenol A	200ppm	NA

All materials	Phenylmercury	100ppm(the concentration of mercury)	ND
All materials	Perfluorocarboxylic acids (C9-C14 PFCA)	25ppb (sum of C9-C14 PFCAs and their salts) 260ppb (sum of C9-C14 PFCA-related substances)	ND

Remark:

1. 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 POPs Evaluation

6.1 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 using 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 presented as an unintentional trace contaminant, as specified in the relevant entries of (EU) 2019/1021 Annex I or II, in substances, mixtures or articles.

6.2 Contents of Restricted Substances

The evaluation of restricted substances was based on the statistic of material / sample from the historical 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 8 Contents of Restricted Substances in POPs Annex I

Material Descriptions	Restricted Substances	Limit	Content in material / sample
All Materials	Short-chain Chlorinated Paraffins (SCCPs, C ₁₀₋₁₃)	1500ppm	ND
All Materials	Hexachlorobutadiene(HCBD)	-	ND
All Materials (except coatings)	Perfluorooctane sulfonic acid and its derivatives (PFOS)	1000ppm	ND
Coatings		1 µg/m ²	ND
All Materials	Polychlorinated Biphenyls (PCB)	Shall not be used	ND
All Materials	Polychlorinated naphthalenes (PCNs)	Shall not be used	ND

All Materials	Hexabromocyclododecane (HBCDD)	100ppm	ND
All Materials	PFOA or any of its salts	25ppb	ND
All Materials	PFOA-related compound or a combination of PFOA-related compounds	1ppm	ND
All Materials	Pentachlorophenol and its salts and esters	5ppm	ND
All Materials	Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds	25ppb (PFHxS and its salts) 1000 ppb (sum of PFHxS-related compounds)	ND

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

6.3 Conclusion

As per the results as above (Clause 6.2), the contents of restricted substances in submitted sample comply with the requirements of POPs Annex I (if applicable).

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

7.1 Preparation of Product 3R Evaluation

According to Article 8 and Annex VII of EU WEEE (Directive 2012/19/EU) and the DEFRA document of UK WEEE (The Waste Electrical and Electronic Equipment Regulations 2013), the WEEE contains the following substances, mixtures and components have to be removed and be separately treated in table below.

Table 9 Results of Separately Treated Materials and Components for Evaluated Product

Descriptions of Parts and Materials	Remarks	Quantity
Polychlorinated biphenyls (PCB) containing capacitors	In accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT)	0
Mercury containing components	Such as switches or backlighting lamps	0
Batteries	All types 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	Including the cartridges, print heads, tubes, vent chambers, and service stations and so on	0

Plastics containing Brominated Flame Retardants	All brominated Flame Retardants including 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 square centimeters, includes background illuminated displays with gas discharge lamps	1
External electric cables	Externally connected and removable	0
Components, parts and materials containing refractory ceramic fibers	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	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	0
Electrolyte capacitors containing substances of concern	Height > 25 mm, diameter > 25 mm or proportionately similar volume	0

7.2 WEEE 3R Calculation of Product

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

Table 10 Results of WEEE 3R for Evaluated Product

Material / Part Description	Weight Ratio (%)	Recoverability Rate (%)	Reuse and Recyclability Rate (%)	Weight Ratio of Recovery (%)	Weight Ratio of Reuse & Recycling (%)
(1) Parts required selective treatment					
Power Cable	8.98%	90%	85%	8.08%	7.63%
Capacitor (containing polychlorinated biphenyls)	0.00%	90%	85%	0.00%	0.00%

PCB (Printed Circuit Board assembly)	24.22%	90%	70%	21.80%	16.96%
BFR (brominated flame retardant) plastics	0.00%	90%	0%	0.00%	0.00%
LCD (liquid crystal display)	0.00%	0%	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	2.31%	0%	0%	0.00%	0.00%
Transformer (MWO: microwave oven transformer)	18.80%	90%	90%	16.92%	16.92%
(3) Parts with a single recyclable material					
ABS (Acrylonitrile Butadiene Styrene)	0.00%	90%	90%	0.00%	0.00%
PC (Polycarbonate)	0.08%	90%	90%	0.07%	0.07%
PET (Polyethylene Terephthalate)	0.00%	90%	90%	0.00%	0.00%
PP (Polypropylene)	0.44%	90%	90%	0.40%	0.40%
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	8.35%	98%	98%	8.18%	8.18%
Aluminum	36.76%	98%	98%	36.03%	36.03%
Copper	0.00%	98%	98%	0.00%	0.00%
Rubber	0.03%	90%	0%	0.03%	0.00%
Fiberglass	0.00%	80%	80%	0.00%	0.00%
Others	0.01%	60%	60%	0.01%	0.01%
Total	100.00%	-	-	91.51%	86.19%

Remarks:

3R = Recovery, Reuse and Recycling

WEEE = Waste Electrical and Electronic Equipment

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

7.3 WEEE 3R Conclusion

According to the evaluation process of WEEE 3R described above clause 7.2, the below conclusion can be gotten in table below.

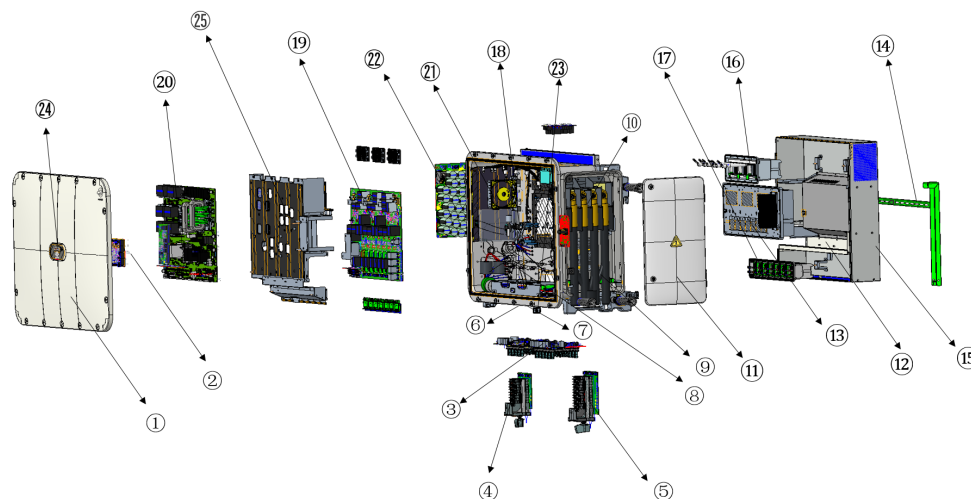
Table 11 Conclusion of WEEE 3R for Evaluated Product

Product Name	SOLAR INVERTER	
Reuse/recycling/recovery (3R)	Recovery (%)	Reuse & Recycling (%)
Evaluation Result	91.51%	86.19%
3R targets of WEEE	85%	80%
3R Compliance for the Product	Complies	Complies

7.4 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) Power chamber door | (2) Monitor board |
| (3) PV terminal | (4) 9P switch |
| (5) 12P switch | (6) USB terminal |
| (7) Signal terminal | (8) Power cavity shell |
| (9) Maintenance cavity shell | (10) 3P AC terminal |
| (11) Maintenance cavity door | (12) External fan |
| (13) Heat sink | (14) Back cover |
| (15) Back mounting bracket | (16) INV inductor component |
| (17) BST inductor component | (18) PV relay board component |
| (19) Power board | (20) Output board |
| (21) 30 W fan | (22) Electrolytic capacitor board |
| (23) 5 W fan | (24) Logo panel |
| (25) Middle partition | |

7.5 WEEE 3R Definition

According to EU WEEE& UK WEEE, Reuse, Recycling & Recovery Rate using in the report are calculated as following formulas.

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

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

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.

表 1 产品中有害物质的名称及含量

部件名称	有害物质					
	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	○	×	○	○	○	○
电缆	○	×	○	○	○	○
金属部件	○	×	○	○	○	○
聚合物部件	○	○	○	○	○	○
电池	○	×	○	○	○	○

本表格依据SJ/T 11364的规定编制。
 ○：表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。
 ×：表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

Annex II Configuration of Product

Board list		
Board Name	Description	Qty.
ENE9PWRH	Power board	1
ENE9FLTM	Output Board	1
ENE9PDBN	PV EMI Board(left)	1
ENE9PDBM	PV EMI Board(right)	1
ENE9PDBKL	DC Switch Board(left)	1
ENE9PDBLR	DC Switch Board(right)	1
ENE9FLTO	Electrolytic Capacitor Plate	1
NE9COMA01	Monitoring Communication Board	1
ENE9AUPB	PID Power Board	1
ENE9FLTN	AC Output EMI Board	1

END