WEEE REPORT

Applicant	:	Orbbec Inc.
Product Name	:	Femto Bolt
Model Name	:	F00364-152
Brand Name	:	ORBBEC
Test Request	:	As specified by client, to assess the reuse/recycle/recovery of the submitted sample under article 7 of Directive 2012/19/EU
Receipt Date	:	2023-08-29
Test Date	:	2023-08-29 to 2023-09-11
Issue Date	:	2023-09-12
Conclusion	:	This report is true and effective and the results of the test meet the requirements of WEEE, this product is qualified.

Edited by : Tao Qing

Tao Qing (Rapporteur)

Approved by : Kenny Li

Kenny Li (Supervisor)

MORLAB
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DIRECTORY

Change History		
Version	**Date**	**Reason for Change**
1.0	2023-09-12	First edition

1. Applicant Information

Applicant	:	Orbbec Inc.
Applicant Address	:	12/F, Hi-Tech Zone Union Headquarters Building, No.63 Xuefu Road, Nanshan District, Shenzhen, Guangdong P. R. China
Manufacturer	:	Orbbec Inc.
Manufacturer Address	:	12/F, Hi-Tech Zone Union Headquarters Building, No.63 Xuefu Road, Nanshan District, Shenzhen, Guangdong P. R. China

2. General Information

Product Model	F00364-152
Product Size	113.54mm×65.03mm×39.78mm
Category under the WEEE Directive	5th category（Small electrical and electronic devices）
Product Photo	

3. Result of Preparing for Re-Use/Recycling/Recovery Assessment

A Femto Bolt

Reuse/Recycling/Recovery	Reuse/Recycling Rate (%)	Recovery (%)
Reuse/Recycling/Recovery Targets under the 2012/19/EU WEEE Directive	55	75
Result of Assessment	95.80	95.80
WEEE Requirement Compliance	Yes	Yes

B Adapter

Reuse/Recycling/Recovery	Reuse/Recycling Rate (%)	Recovery (%)
Reuse/Recycling/Recovery Targets under the 2012/19/EU WEEE Directive	55	75
Result of Assessment	89.72	89.72
WEEE Requirement Compliance	Yes	Yes

C USB Cable

Reuse/Recycling/Recovery	Reuse/Recycling Rate (%)	Recovery (%)
Reuse/Recycling/Recovery Targets under the 2012/19/EU WEEE Directive	55	75
Result of Assessment	91.31	91.31
WEEE Requirement Compliance	Yes	Yes

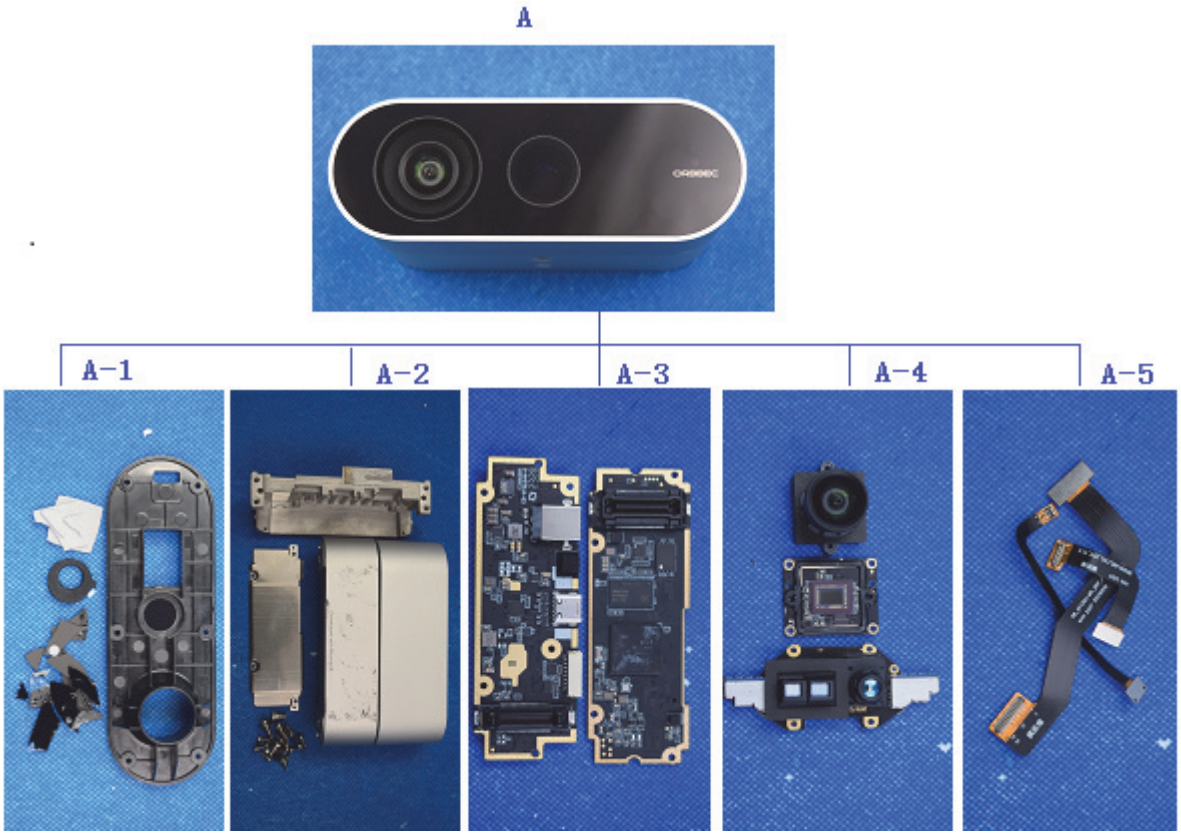
4.Appearance of the Product

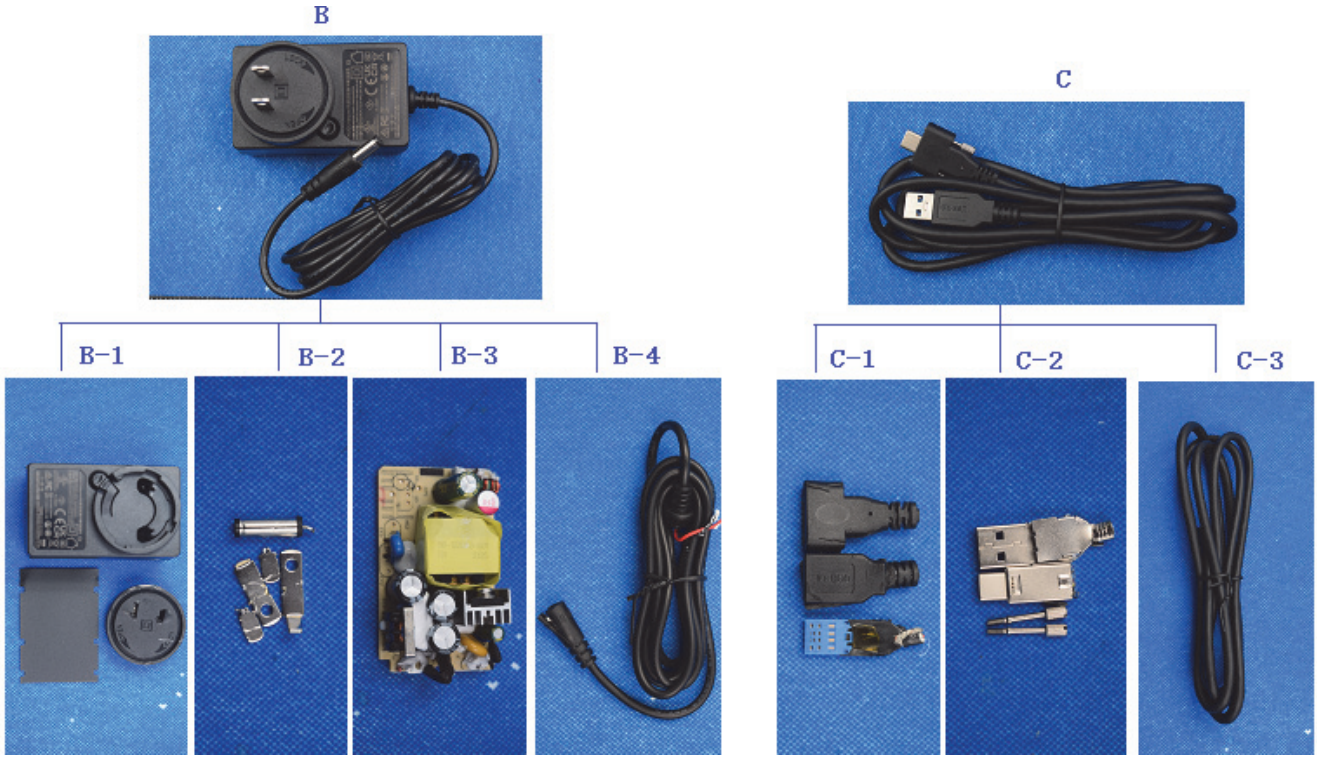
5.Selective Treatment for Materials and Components

According to Articles 8(2) and the Annex Ⅶ of the WEEE Directive, this product contains components and material items are described in the following table.

Component/Material	Photo No.	Size	Quantity	Weight (g)
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	A-3	9.00cm*3.13cm	2	34.38
	B-3	6.61cm*3.85cm	1	53.22

6. Disassembly Tree





7.Disassembly Procedure

The disassembly procedure taken here is in accordance with the treatment requirements under the Annex Ⅶ of the WEEE Directive. In addition, to consider economic and efficiency factors, manual operation and disassembly tools have been applied to separate the components and materials from this product in order to simulate the scenario at the treatment facility, and to achieve the objective that the separated components and materials can be reused, recycled and recovered.

7.1 Connection Technique

For this product, the connection technology including as following :

Screw : 31
Glue : 5
Pressing Fits : 3

7.2 Disassembly Tool

The disassembly tools used for this product show as following :

Disassembly Tool	Pictures	Disassembly Tool	Pictures
Flat headed screwdriver		Cross screwdriver	

7.3 Disassembly Time

45 Minutes 30 Seconds

7.4 Loss During Disassembly

A Femto Bolt
Product weight before disassembly：345.99g
Product weight after disassembly：344.25g
Lost rate：0.50%
B Adapter
Product weight before disassembly：129.66g
Product weight after disassembly：128.97g
Lost rate：0.53%
C USB Cable
Product weight before disassembly：67.10g
Product weight after disassembly：66.57g
Lost rate：0.79%

8.Material and Recycling Information

According to the information declared by the applicant company, the material and recycling information for this product is described in the following table.

The reuse, recycling and recovery assessment for this product is based upon economic and efficiency considerations, and the waste treatment technologies and equipment that are most frequently available to the market.

A Femto Bolt

Photo No.	Component/Material Composition	Weight(g)	Percent Weight(%)	Reuse/Recycling Rate (%)	Energy Recovery (%)	Recovery Rate (%)
A-1	Plastic parts	17.57	5.08	4.47	0.00	4.47
A-2	Metal parts	274.65	79.38	77.79	0.00	77.79
A-3	PCB	34.38	9.94	8.94	0.00	8.94
A-4	Electronic parts	16.60	4.80	4.32	0.00	4.32
A-5	FPC	1.05	0.30	0.27	0.00	0.27
Total		344.25	99.50	95.80	0.00	95.80

B Adapter

Photo No.	Component/Material Composition	Weight(g)	Percent Weight(%)	Reuse/Recycling Rate (%)	Energy Recovery (%)	Recovery Rate (%)
B-1	Plastic parts	38.63	29.79	26.22	0.00	26.22
B-2	Metal parts	4.82	3.72	3.64	0.00	3.64
B-3	PCB	53.22	41.05	36.94	0.00	36.94
B-4	Wire materials	32.30	24.91	22.92	0.00	22.92
Total		128.97	99.47	89.72	0.00	89.72

C Adapter

Photo No.	Component/Material Composition	Weight(g)	Percent Weight(%)	Reuse/Recycling Rate (%)	Energy Recovery (%)	Recovery Rate (%)
C-1	Plastic parts	9.24	13.77	12.12	0.00	12.12
C-2	Metal parts	6.59	9.82	9.62	0.00	9.62
C-3	Wire materials	50.74	75.62	69.57	0.00	69.57
Total		66.57	99.21	91.31	0.00	91.31

Note:

-Due to their insignificant weight and the difficulty of their separation in a manual operation, sticker, solder, paint and printing materials are not included in this assessment.

-Plastic containing brominated flame retardants is not assessed in the list.

9. Recycling and Recovery Rate Calculation

Reuse, Recycling & Recovery Rate using in the report are calculated as following formulas :

$$\text{Reuse \& Recycling Rate} = \frac{\text{Reuse \& Recycling Weight}}{\text{Product Total Weight}} \%$$

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

Total weight of the product is including the main product and accessories.

10.ANNEX Ⅶ of WEEE Directive

Selective treatment for materials and components of waste electrical and electronic equipment:

— Polychlorinated biphenyls (PCB) containing capacitors in accordance with Council Directive 96/59/EC of 16 September1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) ,

— Mercury containing components, such as switches or backlighting lamps,

— Batteries,

— Printed circuit boards of mobile phones generally, and of other devices if the surface of the Printed circuit board is greater than 10 square centimetres,

— Toner cartridges, liquid and pasty, as well as colour toner,

—Plastic containing brominated flame retardants,

— Asbestos waste and components which contain asbestos,

— Cathode ray tubes,

— Chlorofluorocarbons(CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons(HC),

— Gas discharge lamps,

—Liquid crystal displays (together with their casing where appropriate) of as surface greater than100 square centimeters and all those back-lighted with gas discharge lamps,

— External electric cables.

— Components containing refractory ceramic fibres as described in Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress Council Directive67/548/EEC relating to the

classification, packaging and labeling of dangerous substances,

— Components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article3 of and Annex I to Council Directive 96/29/EU of 13 May1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation,

— Electrolyte capacitors containing substances of concern (height >25 mm, diameter>25 mm or proportionately similar volume).

11.Recommendations for WEEE Directive Compliance

— In order to avoid the product not meeting the reuse/recycling/recovery targets regulated under the WEEE Directive and the regulations of EU countries, the applicant company should, when selecting material and components design, consider they can be easy to reuse and recycle. This consideration will lessen the impact of the required international environmental directives and also improve the product's competitiveness.

— It is recommended that the applicant company, when designing new product, especially where components and materials have a large weight ratio, should consider using recyclable materials in order to increase the product's reuse/recycling/recover ratio.

— The product should apply to the RoHS Directive (Directive2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronics equipment). The hazardous substance specification in the Directive should be controlled in the homogenous material of this product.

— If a product has changed its product design, or materials or components employed, then the product should be reassessed and retested in accordance with the WEEE Directive for reuse/recycling/recovery assessment and RoHS for restricted/banned substances requirements.

Annex A General Information

1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
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1.2 Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

***** END OF REPORT *****