

Assessment Report of WEEE Recovery Rate

Applicant: Elite Screens Visual & Sound Co., Ltd.
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New Taipei City 242, Taiwan (R.O.C.)

Number : TWNC00867755

Issue Date : Mar 17, 2020

Sample Description:

One (1) Group of Submitted Samples Said To Be :
Sample Description : Ultra Short Throw Outdoor Portable LED Projector
Style / Item No. : MGFU
Date Sample Received : Mar 06, 2020
Date Test Started : Mar 06, 2020

Test Conducted :

As requested by the applicant, for details please refer to attached pages.

Assessment Result

The product mentioned above and on which the assessment is described in the following report is classified as **Category 5** product under Annex III of Directive 2012/19/EU. The sample was found to **fulfill the respective minimum recovery targets of Annex V Part 3**.

	Minimum Recovery Targets	Assessment Result	Result
Reuse/Recycling Rate	55 %	84.2 %	Pass
Recovery Rate	75 %	95.6 %	Pass

Remarks: The results reflect the findings during the assessment on the submitted samples.

Authorized By:
On behalf of Intertek Testing Services
Taiwan Limited

Matt Wang
Sr. Manager



Signed by:



Thomas Chou
Manager



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Test Conducted :

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Test Conducted :

Section 1 Definitions and General Remarks

- Reuse : Products or components thereof can continue to be used for the same purpose as they were conceived.
- Recycling : Reprocessing of the waste materials for the original purposes or for other purposes but excluding energy recovery.
- Recovery : Processes basically including reuse, recycling and heat recovery.

The above definitions are derived from WEEE Directive 2012/19/EU, Article 3 Definition.

- S.S.T. : Subject to selective treatment components and materials of waste electrical and electronic equipment in accordance with WEEE Directive 2012/19/EU, Annex VII.
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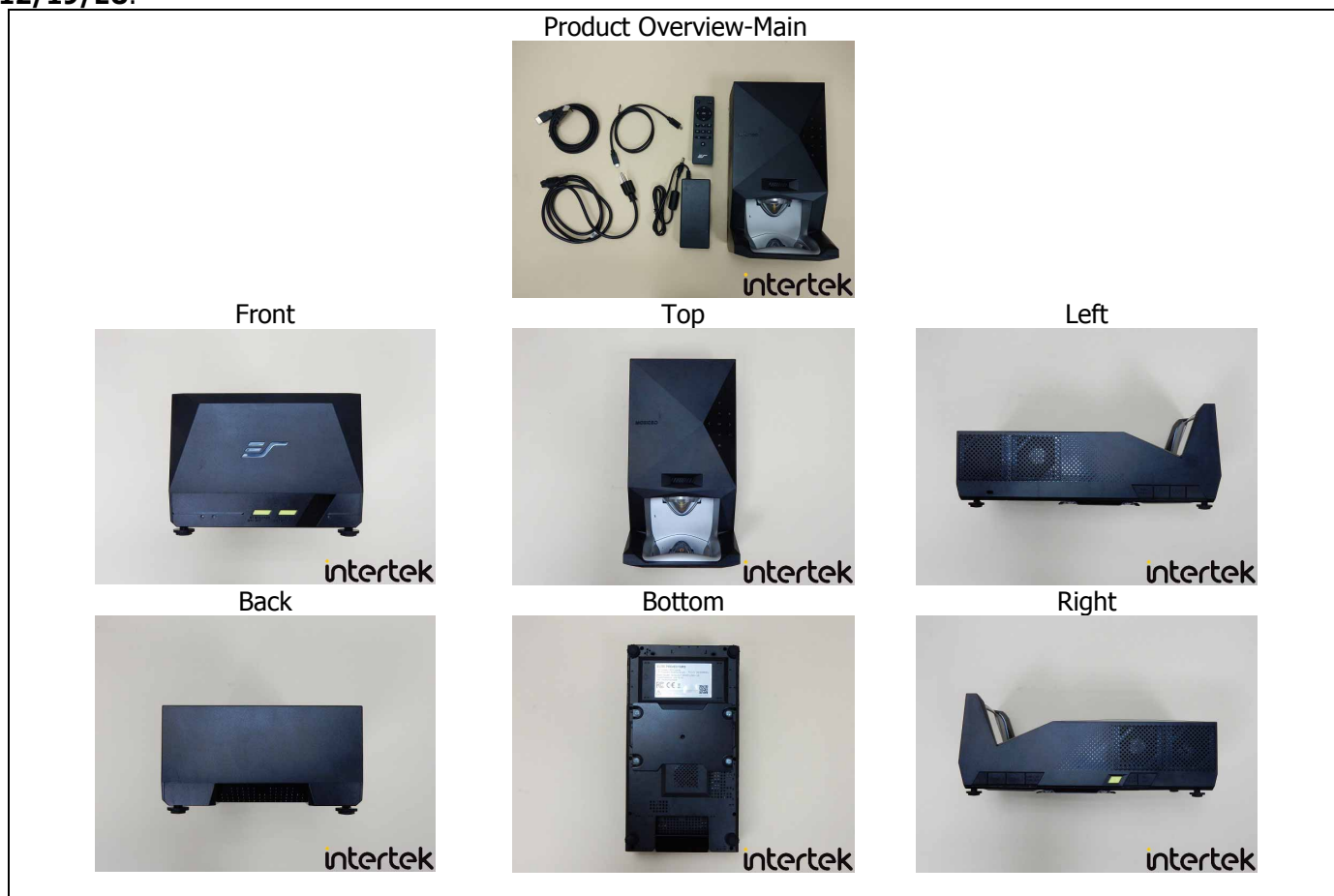


Test Conducted :

Section 2 Assessment on Disassembly

2.1 Description of the Sample Submitted for Assessment

The submitted sample was a **Portable LED Projector**. It is classified as **Category 5** under **Annex III of Directive 2012/19/EU**.



Test Conducted :



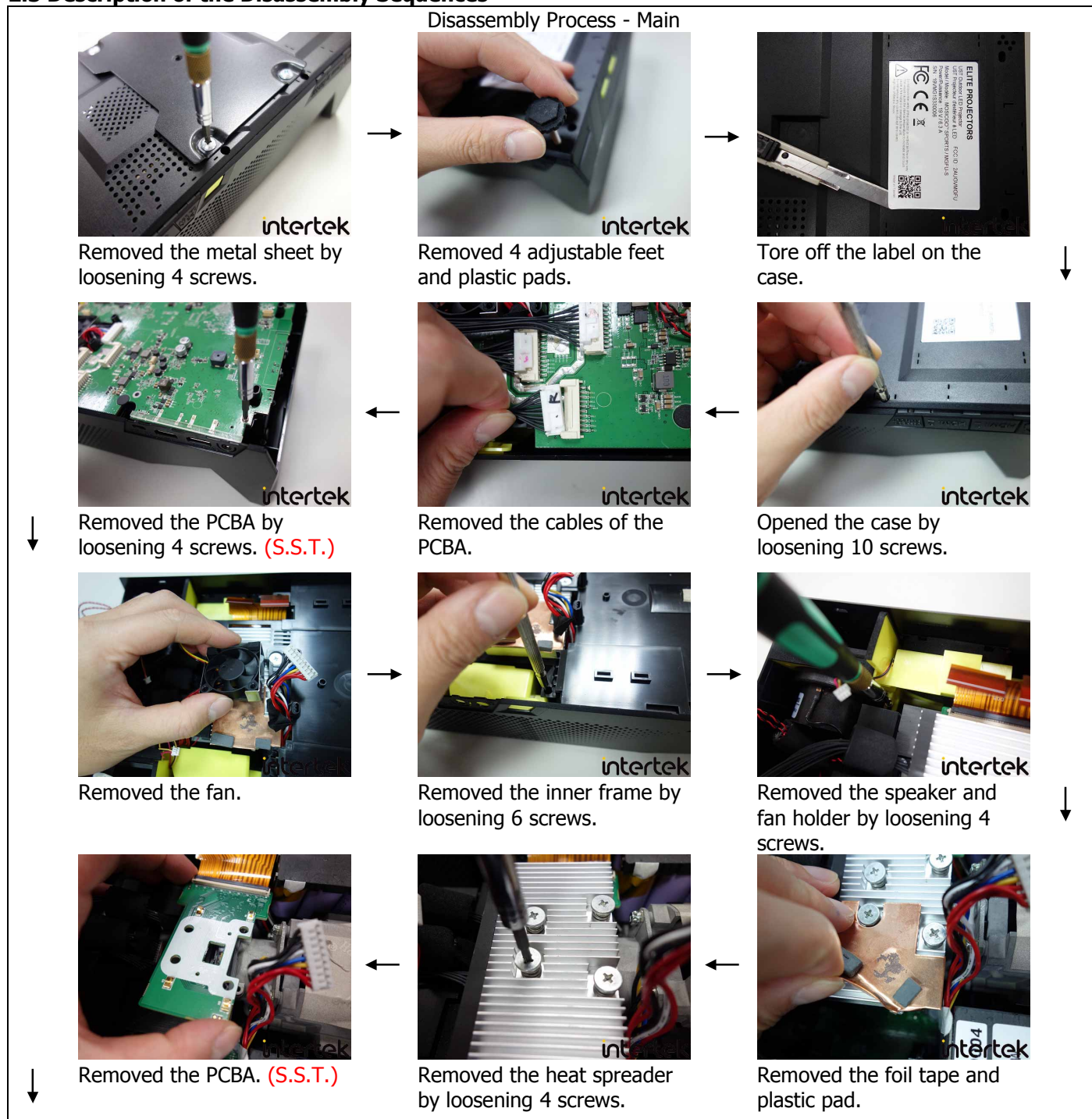
2.2 Assessment Method

The submitted sample is disassembled into different parts by using ordinary tools. Similar materials from each part were grouped and weighed. The recycling and recovery rates were calculated based on the treatment requirements as set up in the WEEE directive, followed by the status quo of best available technology for recycling and recovery technology available in Europe as well as Taiwan. Materials for which currently no recycling technology is available or where the recycling is not economically feasible, or which contain hazardous substances, are assumed to be disposed of in landfills without further use.



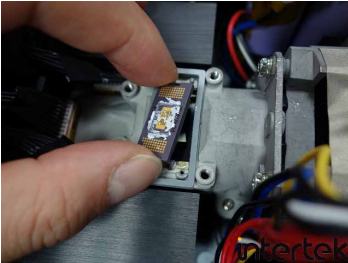
Test Conducted :

2.3 Description of the Disassembly Sequences



Test Conducted :

Disassembly Process - Main (Cont'd)



Removed the electronic component.



Removed the cables.



Removed the imaging module and optics module by loosening 3 screws.



Removed the foam pad.



Removed the PCBA. (S.S.T.)



Removed the battery package. (S.S.T.)



Removed the heat spreader by loosening 6 screws.



Removed the PCBA on the heat spreader.



Separated the imaging module and optics module by loosening 4 screws.



Removed the reflective plate by loosening 4 screws.



Tore off the conductive tape.



Removed the tape and foam pad.



Test Conducted :

Disassembly Process - Main (Cont'd)



Separated the lens module, plastic holder and metal holder by loosening 2 screws.



Separated the case of the lens module by loosening 7 screws.



Removed the lens module, case and metal ring.



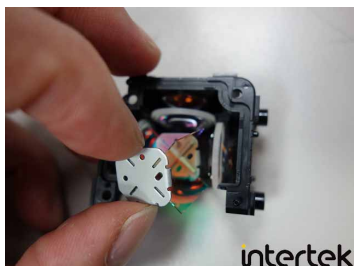
Removed the plastic case by loosening 1 screw.



Removed the metal sheet by loosening 3 screws.



Separated the metal tube and glass lens.



Removed the glass in the plastic case.



Removed the speaker by loosening 4 screws.



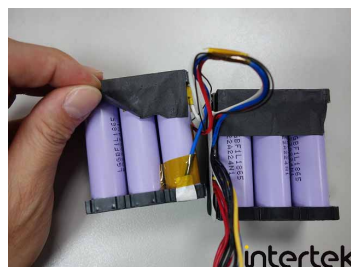
Removed the foam pad.



Cut off the cables.



Removed the PCBA, plastic case and metal sheet.



Removed the foam tape on the battery package.

(S.S.T.)



Test Conducted :

Disassembly Process - Main (Cont'd)



Completed disassembly (1).

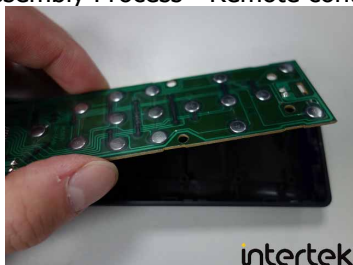


Completed disassembly (2).

Disassembly Process - Remote controller



Pried off the case.



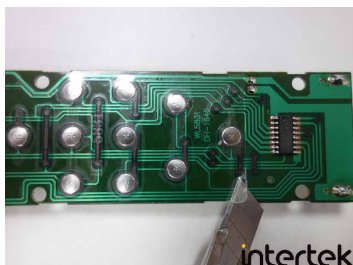
Removed the inner components. (S.S.T.)



Removed the battery contact.



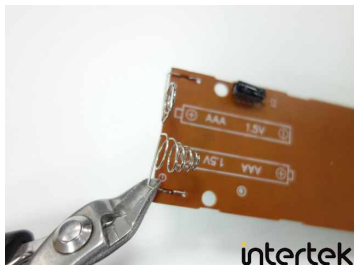
Separated the metal on the tape.



Removed the tape on the PCBA.



Tore off the label.



Cut off the battery contact.



Completed disassembly.



Test Conducted :

Disassembly Process - Adaptor



Tore off the label on the case.



Pried off the case.



Removed the inner components. (S.S.T.)



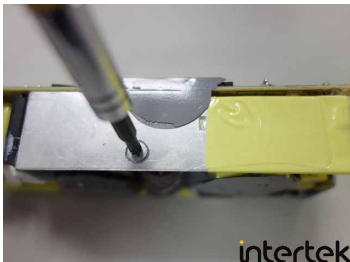
Cut off the cable on the PCBA.



Removed the plastic sheet.



Cut off the metal sheet



Removed the heat spreader by loosening 3 screws.



Removed the tape on the heat spreader.



Removed the stuffing on the PCBA.



Completed disassembly.

Remarks: S.S.T. : Subject to selective treatment components and materials of waste electrical and electronic equipment in accordance with WEEE Directive 2012/19/EU, Annex VII.



Test Conducted :

2.4 Summary of Disassembly Assessment

Item	Findings
Classified Category	5 Small equipment (no external dimension more than 50 cm)
Total Sample Weight	3472.7 g
Disassembly Time	145 minutes by manual disassembly
Tools Used for Manual Disassembly	<div> Side cutter Knife Slotted screwdriver Phillips screwdriver Corona Clipper </div> 
Connection Techniques Found on Submitted Sample	Adherence x 18 Combination x 1 Screw x 69



Test Conducted :

2.5 Photo of Disassembly Component Main

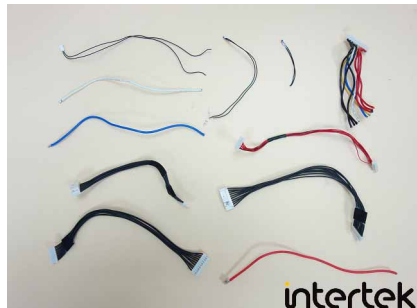
Metal



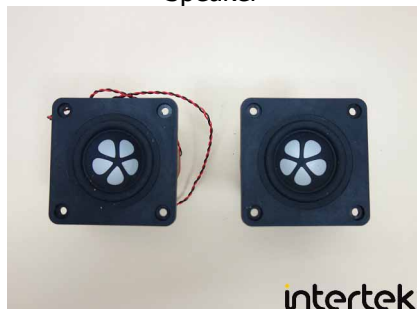
PCBA (S.S.T.)



Internal Cable



Speaker



Recyclable Plastic



Glass



External Cable (S.S.T.)



Non-recyclable Plastic



Battery (S.S.T.)



Fan



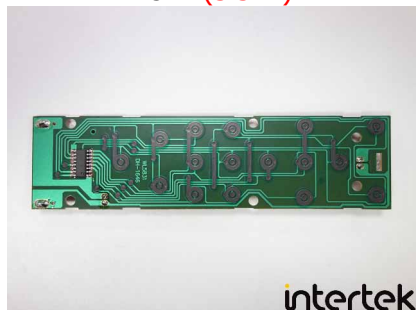
Test Conducted :

Remote controller

Metal



PCBA (S.S.T.)



Recyclable Plastic



Non-recyclable Plastic



Adaptor

Metal



PCBA (S.S.T.)



Recyclable Plastic



External Cable (S.S.T.)



Non-recyclable Plastic



Remarks: S.S.T. : Subject to selective treatment components and materials of waste electrical and electronic equipment in accordance with WEEE Directive 2012/19/EU, Annex VII.



Test Conducted :

Section 3 Assessment on Recovery Rate

The following assessment on the recoverability of materials was based on utilization of generally available recycling and recovery technologies. Later developments in material recovery technologies may lead to higher recovery rates.

3.1 Analyses of Recoverable Materials

Material	Total Weight (g)	Percent (%)	Recoverable Material Weight (g)			Disposal Only Material (g)	Remark
			Reusable	Recyclable	Heat Recoverable		
Metal	740.5	21.3		740.5			
Recyclable plastic	1017.4	29.2		1017.4			
Non-recyclable material	79.0	2.3			79.0		
PCBA	415.5	12.0		332.4	74.8	8.3	S.S.T. #1
Glass	62.0	1.8		62.0			
Battery	540.7	15.6		405.5		135.2	S.S.T. #2
Speaker	205.7	5.9		176.9	20.6	8.2	
Fan	72.2	2.1		65.7	6.5		
External cable	313.6	9.0		112.9	200.7		S.S.T. #1
Internal cable	26.1	0.8		9.4	16.7		
Total	3472.7	100.0		2922.7	398.3	151.7	

- Remarks: #1 = The dismantled component is within the Annex VII of Directive 2012/19/EU, the applicant needs to request selective treatment for materials and components of WEEE in accordance with Article 8(2) of 2012/19/EU.
- #2 = The battery is within the Annex VII of Directive 2012/19/EU and Battery Directive 2006/66/EC, the applicant needs to request selective treatment for materials and components of WEEE in accordance with Article 8(2) of 2012/19/EU and concern about the recovery rate of 2006/66/EC for various batteries.

3.2 Summary of Total Recovery Rate

	Total	Reuse/Recycling	Recovery	Disposal
Weight	3472.7 g	2922.7 g	3321.0 g	151.7 g
Respective Rate	100 %	84.2 %	95.6 %	4.4 %

End of Report

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