

WEEE Directive Compliance Report

Report No.: HS1604110087A-1

Date: 2016/10/11

Client : Onyx Healthcare Inc.

2F., No.135, Lane 235, Baoqiao Rd., Xindian Dist., New Taipei
City, Taiwan (R.O.C.)

Model No. : ONYX-BE182DT-F1-1010



Test Specification : WEEE Directive 2012/19/EU Article 11-Recovery Targets

Test Result : All disassembling parts were fitted the requirements of WEEE
Directive.

Test Laboratory : Integrated Service Technology Ltd.

Testing Location : 1F, No.31, Pu-Ding Rd., Hsin-Chu City, 30072, Taiwan,
R.O.C.

Grace Chen

Name of Analysis Institution

Wenston Lin

Report Review
On behalf of Integrated Service Technology



ONYX-BE182DT-F1-1010

Version :

01

Product Compliance Report

Date :

2016/10/11


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1、General Product Remark

1.1 Complementary Materials

This report applies especially to **ONYX-BE182DT-F1-1010** of Onyx Healthcare Inc.. The testing sample is classified as **Category 3** under Annex IA of Directive 2012/19/EU. The photos of the testing sample are shown as follows.

Equipment Name / Model No.	ONYX-BE182DT-F1-1010	
		
Front View		
Connection Technique	◆ Connector	◆ Screw ◆ Snap
Connection Tools	◆ Hand ◆ knife	◆ Philips Screwdriver ◆ Long Nose Pliers
Disassembly Time(sec)	259 sec	
Recommended Disassembly Sequence	See 4.1 Disassembly Sequence	
Derivative Summary	See 5.2 Product 3R Calculation (Table 6)	
Reuse/Recycling Rate	See 5.3 Test Result	
Recovery Rate	See 5.3 Test Result	
Estimated Treatment Value*	High	
*Note	The estimated treatment value is evaluated by the breaking even dismantling weight	



2、Background

2.1 RoHS, 2011/65/EU : See Table 1

Table 1: The Limit of Restraint Item

Restraint Item	Value (ppm)
Lead (Pb)	1,000
Cadmium (Cd)	100
Mercury (Hg)	1,000
Chromium VI (Cr ⁶⁺)	1,000
Polybrominated Biphenyls (PBBs)	1,000
Polybrominated Diphenylethers (PBDEs)	1,000

2.2 WEEE, 2012/19/EU : See Table 2

Table 2: Reuse & Recycling Rate

No	Classification	Reuse & Recycling	Recovery
III	IT and telecommunications equipment	70%	80%



3 、 Disassembly Principle

The product was disassembled into different parts which were major based on the treatment requirements as a set out in the WEEE Directive Annex VII. Material substances, of which a recycling technology is not available or the recycling is not economy and feasible at present, are an assumed to be shredded, incinerated or disposed for landfill without further usage.

3.1 Selectively Treatment

As a minimum the following substances, preparations and components have to be removed from any separately collected WEEE :

- Polychlorinated biphenyls (PCBs) containing capacitors in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCBs/PCTs)
- 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 centimeters
- 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 (CFCs), hydrochlorofluorocarbons (HCFCs) or hydrocarbons (HCs)
- Gas discharge lamps
- Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres 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 Directive 67/548/EEC relating to the classification, packaging and labeling of dangerous substances
- Components containing radioactive substances with the exception.



3.2 Material Classification

Table 3: Material Classification

Worksheets	The material definition	Recovery Attribute
Module Parts	Contained complex Material but with reused value through simple repair process	Reuse
Metal	Including metal of iron department , valuable alloy ,etc.	Recycling
Plastics	(1)Include pure plastics , mixed plastics ,etc.	Recycling & Recovery
	(2)Second surface Treatment (Without Hazardous Substance) or weight<25 g	Energy Recovery
Glass	(1)General glass	Recycling
	(2)Special-purpose processing glass (such as the leaded oxide glass)	Disposal

3.3 Directive 2012/19/EU Compliance Evaluation Flow

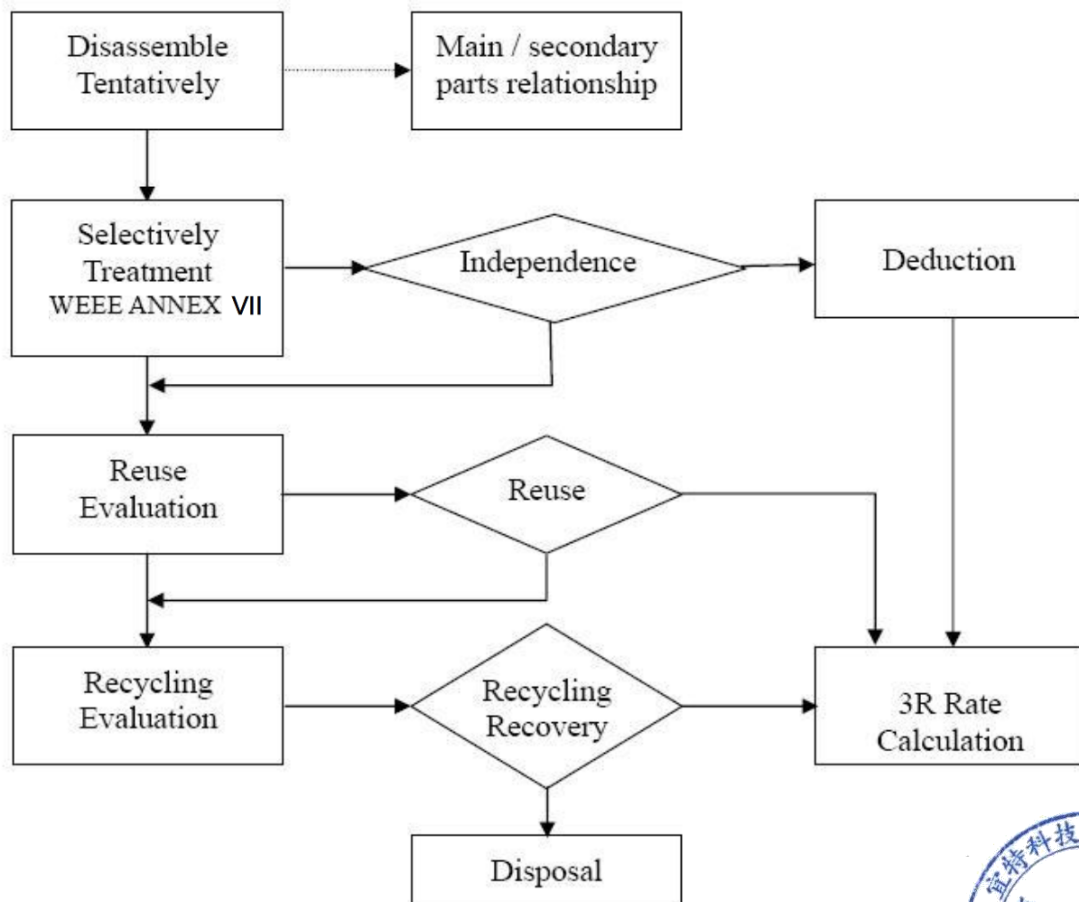


Figure 1: Directive 2012/19/EU Compliance Evaluation Flow




4 - Product Component Disassembly Assessment

4.1 Disassembly Sequence

The disassembly sequences of the eight sub-assemblies are shown as Table 4.

Table 4: Sub-assembly Assessments –ONYX-BE182DT-F1-1010

Name	ONYX-BE182DT-F1-1010	Characteristics
		<ul style="list-style-type: none"> • Component Numbers : 25 • Total Disassembly Time : 259 sec • Disassembly Sequence : From Step 1 to 18 • Connection Technique : <ul style="list-style-type: none"> Snap Connector Screw • Disassembly Tools : <ul style="list-style-type: none"> Philips Screwdriver Hand knife Long Nose Pliers

Component detailed information





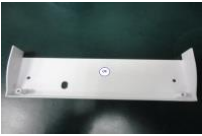



Dismantling Sequence / Part No.	Component Name & Photo	Weight (g)	Connection Technique	Reuse and recycling facilities	Disassembly Tools
1	Phone-Holder 	66.00	Screw & Snap	Pyrolysis and Catalysts recycling facilities	Philips Screwdriver
2	Accessory-Holder-T 	157.00	Screw & Snap		Philips Screwdriver
3	Metal.AL .EMI Cover 	206.00	Screw & Snap	Scrap metal recycling facilities	Philips Screwdriver
	Rear Cover ASS'Y Kit 	753.00	Screw & Snap	Pyrolysis and Catalysts recycling facilities	Philips Screwdriver

Table 4: Sub-assembly Assessments –ONYX-BE182DT-F1-1010

Component detailed information							
Dismantling Sequence / Part No.		Component Name & Photo		Weight (g)	Connection Technique	Reuse and recycling facilities	Disassembly Tools
5	5	Metal.AL .Cable BKT		40.00	Snap	Scrap metal recycling facilities	Hand & Long Nose Pliers
	6	*Smart card reader		31.00	Connector		Hand & knife
6	7	*OPM-T 013		6.00	Connector	PCBA crushers and high voltage electrostatic separation devices	Hand & knife
8	8	*LED Driving board		6.00	Connector		Hand & knife
9	9	SSD M3*6mm .IM		43.00	Screw		Philips Screwdriver
10	10	*SATA CABLE		30.00	Connector		Hand & knife
11	11	*2GB.DD R3L-1600		6.00	Connector		Hand

***location of materials that require special handling**

Table 4: Sub-assembly Assessments –ONYX-BE182DT-F1-1010

Component detailed information						
Dismantling Sequence / Part No.	Component Name & Photo		Weight (g)	Connection Technique	Reuse and recycling facilities	Disassembly Tools
12	12	*OMB-S 122 	388.00	Snap	PCBA crushers and high voltage electrostatic separation devices	Hand
	13	Display BKT 	329.00	Snap		Scrap recycling facilities
13	14	*OPM-T 013 	7.00	Connector	PCBA crushers and high voltage electrostatic separation devices	Hand & knife
	15	Metal.AL .HDD BKT 	24.00	Screw		Philips Screwdriver
14	16	*PER-T1 52 	12.00	Connector		Hand & knife
15	17	*OPM-T 005.LED Board 	6.00	Connector		Hand & knife
16	18	*2M Pixels. Module 	9.00	Connector	Hand & knife	

***location of materials that require special handling**

Table 4: Sub-assembly Assessments –ONYX-BE182DT-F1-1010

Component detailed information							
Dismantling Sequence / Part No.	Component Name & Photo		Weight (g)	Connection Technique	Reuse and recycling facilities	Disassembly Tools	
16	19	*Speaker 	12.00	Connector	Pyrolysis and Catalysts recycling facilities	Hand & knife	
	20	Metal.AL.A ssem BKT 	49.00	Screw	Scrap metal recycling facilities	Philips Screwdriver	
17	21	*Backplane .5 keys Lightproof mylar 	5.00	Screw	Pyrolysis and Catalysts recycling facilities	Philips Screwdriver	
	22	Backplane. 5 *keys Lightproof mylar 	5.00	Screw		Philips Screwdriver	
	23	*TOUCH PCBA 	4.00	Connector		Hand & knife	
	24	Front Cover ASS'Y Kit 	654.00	Screw		Pyrolysis and Catalysts recycling facilities	Philips Screwdriver
18	25	TFT LCD.18.5 	1170.00	Screw	Merck rotary kiln recycling facilities	Philips Screwdriver	
19	26	*External electric cables 	55g (220V), and 53g (110V)	Connector	Pyrolysis and Catalysts recycling facilities	Hand & knife	

***location of materials that require special handling**

5、3R Calculatio

5.1 Calculation Formula

The criteria calculation of WEEE 3R (Reuse, Recycling & Recovery) is adopted from the Department of Trade and Industry (DTI, UK.), as shown in Table 5.

Table 5: 3R Calculation Formula

Calculator to help companies assess compliance with WEEE target levels		
Weight of WEEE collected	Akg
Weight of whole appliances re-used for original purpose	Bkg
Weight of components, sub-assemblies and consumables which are re-used for their original purpose or recycled	Ckg
Target level of WEEE re-use and recycling	$\frac{C}{A - B}$%
Weight of WEEE where energy is recovered in a power plant	Dkg
Target level of WEEE recovery	$\frac{D + C}{A - B}$%

Reference : (A guide to marketing, product development and manufacturing actions you need to take)-- GG416 (DTI)

Reuse & Recycling Rate = (Reuse + Recyclable)/(Products Weight)×100% (1)

Recovery Rate = (Reuse + Recyclable +Energy recovery)/(Products Weight)×100% (2)



5.2 Product 3R Calculation

As a 3R calculating result, it is shown in Table 6.

Table 6: ONYX-BE182DT-F1-1010

Equipment Name/Type			AIO/ONYX-BE182DT-F1-1010			
Description	Derivative	Weight (g)	Reuse & Recycle	Energy Recovery	Disposal	Selectively Treatment (WEEE Annex VII)
ONYX-BE182 DT-F1-1010	Metal	452.0	✓		✓	
	Plastic	859.0	✓		✓	
	Glass	0				
	Complex Material	1407.0	✓	✓	✓	✓
	Other	1300.0	✓		✓	✓

5.3 Test Result

PASSED

Product Name	ONYX-BE182DT-F1-1010
Required Reuse And Recycling Rate %	Testing Reuse/Recycling Rate %
70%	80.11%
Required Recovery Rate %	Testing Recovery Rate %
80%	96.79 %

