Declaration of Conformity

Declaration of Conformity

According to

RoHS Directive 2011/65/EU

For the following

Product	:	**ImmunoActivating Water Purification System**
Model Name	:	**ZENIWELL-H110-5F H100-5F**
Variant Model Name	:	**-**
Company Name	:	**DMBIO CO., LTD.**
Company Address	:	**109-1, Geoma-ro, Nam-gu, Ulsan, 44625 Rep. of KOREA**
Manufactured Name	:	**DMBIO CO., LTD.**
Manufactured Address	:	**109-1, Geoma-ro, Nam-gu, Ulsan, 44625 Rep. of KOREA**

This declaration of conformity is issued under the sole responsibility of the manufacturer. The object of the declaration does not contain any of the substances in exceed of the maximum concentration values in EU Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011, unless the substances are in an application that is exempt under RoHS.

The standards relevant for the evaluation of RoHS requirements are as follows:

EN 50581:2012 : Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

EN 62321:2009 : Electrotechnical products - Determination of levels of six regulated substances(lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)

RoHS COMPLIANT

Date of issue:

(Name and signature of authorized person)

RoHS TEST REPORT

European Directive 2011/65/EU
Evaluation of RoHS Requirements for Electrical and Electronic Equipment

Test report No……..…..:RoHS-N1605002

Receipt of date ……: Apr 25, 2016

Issue of date ……: May 4, 2016

Test of period ……: Apr 26, 2016 ~ May 3, 2016

Applicant's name ..…… : DMBIO CO., LTD.

Address..……..:109-1, Geoma-ro, Nam-gu, Ulsan, 44625 Rep. of KOREA

Manufacturer's name ..……: Same as applicant

Address..……..: Same as applicant

Product name ……...……. : ImmunoActivating Water Purification System

Model(s)……...: Refer to see the page 5

Test Specifications ....…….:Directive 2011/65/EU

Test Standard(s)……..: EN 50581 : 2012, EN 62321 : 2009

Test Result : The equipment which was evaluated has fulfilled with requirement of 2011/65/EU Directive for the materials : Pb, Cd, Hg, Cr(VI), PBBs and PBDEs

Also this publication represent for the evaluation results of the issued test item only - any type of EEE, i.e. full product, module assembly, component or material including RoHS test result.

The evaluation results means only the tested item is complied with RoHS requirement according to the evaluation procedures which is described in this publication.

PREPARED and CHECKED by : AUTHORIZED by :

Dong Wha, Shin

Sang Min, Lee

REMARK: SEE ENCLOSED WORKSHEET(S) RESULT

INDEX

Clause	Requirement – Test	Result	Verdict
1	RoHS Compliance based on test reports		
1.1	Review of component's test reports according to BOM		P
1.1.1	Dose evaluated product is composed by components which is listed in BOM?	Checked	P
1.1.2	Dose each components is complied with the requirement of employed directive or manufacturer declared limits?	Checked	P
1.2	Review of verification test reports according to sampling		P
1.2.1	If it was performed the item 1.1, did sampling was performed in appropriate?	Refer to Appendix III	P
1.2.2	If it was not performed the item 1.1, did it was fully considered the materials of component and does it was performed the sampling which is enough to represent the characteristics of population?		N/A
1.2.3	Is it complied with the requirements of employed directive or manufacturer declares limits for sample tested?		P
1.3	Requirements of test report		P
1.3.1	Is it included the information of manufacturer, sample, test lab or etc?	Refer to Appendix II	P
1.3.2	Is it clearly specified the test object as the port of components or product?		P
1.3.3	Is it described the information of directive or standards of test methods?		P
1.3.4	Is it described the results with accurately for interpretation, using or etc?		P
1.3.5	Is it confirmed the validity of test equipment and information of calibration?		P
1.4	Other information		
	Directive 2011/65/EU EN 50581 : 2012 EN 62321 : 2009 EN 62474 : 2012 IEC/TR 62476 : 2010		

Appendix I
Photos of product

Front View

Inner View

Appendix II
Test method & Lab information

1. General

1.1 standard : EN 50581 : 2012, EN 62321 : 2009

1.2 Applied sampling criteria

- Kind of components could be disassembled mechanically by using disassembly tools
- High risk components

2. Laboratory Information

- Laboratory's Name : S&S EMC Laboratory
- Address : #09, #11, Daihyun technoworld, 19, Ojeongongeop-gil, Uiwang-si, Gyeonggi-do 437-753, Korea
- Tel.: +82-31-526-2001 - Fax : +82-31-455-2066
- Facilities used : i) X-Ray Fluorescence Spectrometer (XRF)

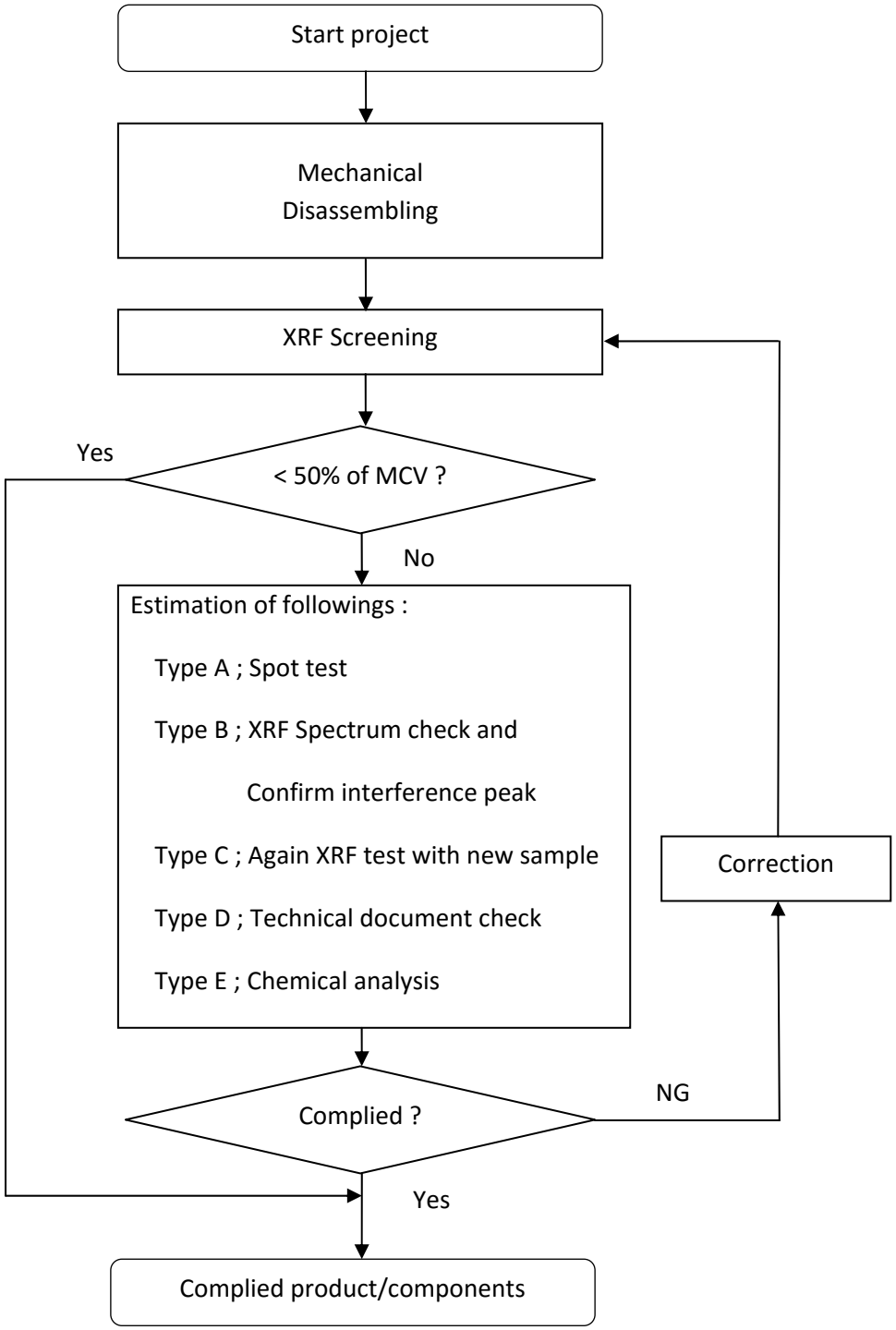
  ii) Maker : ISP

  iii) Model : iEDX-100A

3. Product Remark

Specification	Product	ImmunoActivating Water Purification System
	Model name	ZENIWELL-H110-5F

Appendix III
Verification Test Results

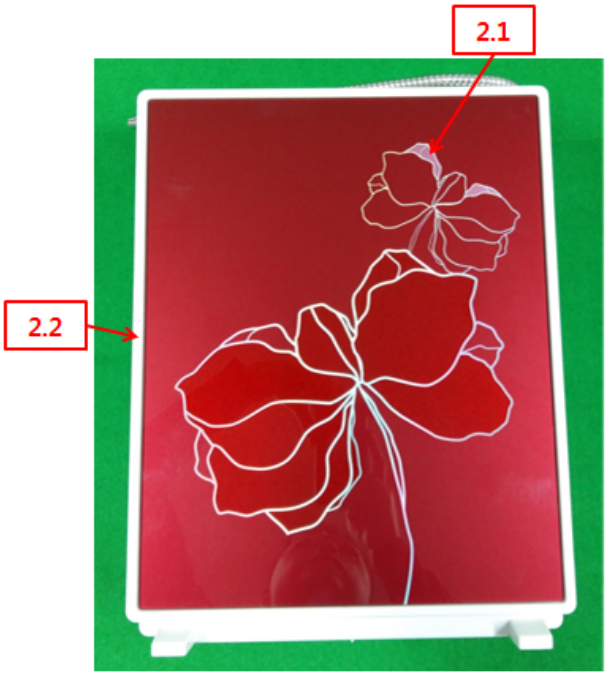


Appendix III
Verification XRF Test Results

No	Part name	Supplier	XRF Data (mg/kg)					Estimation	Result
			Cd	Pb	Hg	Br	Cr		
1.1	Elbow Fitting		0	0	0	0	0	N.A.	Pass
1.2	Tubing Line		0	0	0	0	0	N.A.	Pass
1.3	Filter		0	0	0	0	0	N.A.	Pass
1.4			0	0	0	0	0	N.A.	Pass
1.5			0	0	0	0	0	N.A.	Pass
1.6			0	0	0	0	0	N.A.	Pass
1.7			0	0	0	0	0	N.A.	Pass
1.8	Inlet Line		0	0	0	0	0	N.A.	Pass
1.9	Align ZIG		0	0	0	0	0	N.A.	Pass
1.10	Nozzle		0	255	240	0	179	N.A.	Pass
1.11	On-Off Valve		0	57	33	0	169	N.A.	Pass
1.12	PIN		0	0	0	0	0	N.A.	Pass
1.13	NUT		0	276	0	0	51	N.A.	Pass

Appendix III
Verification XRF Test Results

No	Part name	Supplier	XRF Data (mg/kg)					Estimation	Result
			Cd	Pb	Hg	Br	Cr		
1.14	Rubber		0	0	0	0	0	N.A.	Pass
1.15	Inlet _ ZIG		0	0	0	0	0	N.A.	Pass
1.16	SCREW		0	64	220	0	144	N.A.	Pass
2.1	Tempered Glass		0	0	0	0	0	N.A.	Pass
2.2	TOP COVER		0	0	0	0	0	N.A.	Pass



Appendix IV
Remark

1. Results are obtained by ED XRF in regulated substances according to EN 62321;2009 Sec. 6 & Annex D.

2. It is the result on total Br while test item on restricted substances is PBBs & PBDEs.
   Also, it is the result on total Cr while test item on restricted substance is hexavalent chromium.

3. Screening limits in mg/kg for regulated elements in various matrices

Element	Polymers	Metals	Composite material
Cd	BL ≤ (70-3σ)< X < (130+3σ) ≤ OL	BL ≤ (70-3σ)< X < (130+3σ) ≤ OL	LOD < X < (150+3σ) ≤ OL
Pb	BL ≤ (700-3σ)< X < (1 300+3σ) ≤ OL	BL ≤ (700-3σ)< X < (1 300+3σ) ≤ OL	BL ≤ (500-3σ)< X < (1 500+3σ) ≤ OL
Hg	BL ≤ (700-3σ)< X < (1 300+3σ) ≤ OL	BL ≤ (700-3σ)< X < (1 300+3σ) ≤ OL	BL ≤ (500-3σ)< X < (1 500+3σ) ≤ OL
Br	BL ≤ (300-3σ)< X	N.A	BL ≤ (250-3σ)< X
Cr	BL ≤ (700-3σ)< X	BL ≤ (700-3σ)< X	BL ≤ (500-3σ)< X

* note ; BL = Below limit, OL = Over limit, X = Inconclusive

4. The estimation criteria of XRF Screening result applied 50% of MCV (Maximum concentration value) which is defined in 2011/65/EU RoHS Directive.

Item	Cd	Pb	Hg	Br (PBBs, PBDEs)	Cr (Cr^{6+})
MCV	100	1 000	1 000	1 000	1 000
Estimation criteria	**50**	**500**	**500**	**500**	**500**

-The additional Investigation procedure is taken when doubtful test result detected more than 50% of MCV.

5. The type of estimation

Type A	Detected more than 50% of MCV of total Cr and confirmed absence of Cr^{6+} by diphenylcarbazide reagent.
Tyep B	Checked XRF spectrum and confirmed interference peak
Tyep C	Primary test result failed and replaced new sample. Finally confirmed through again XRF test.
Tyep D	Detected more than 50% of MCV on total Br and confirmed absence PBBs/PBDEs through technical document of detected parts or material.
Tyep E	Detected parts or material was conducted by chemical analysis

Appendix V
Reference document

1. Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

2. EN 50581 : 2012
Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

3. EN 62321 : 2009
Electrotechnical products–determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers.)

4. EN 62474 : 2012
Material declaration for products of and for the electrotechnical industry.

5. IEC/TR 62476 : 2010
Guidance for evaluation of products with respect to substance use restriction in electrical and electronic products.

~~ THE END ~~