APPLICATION FOR TEST REPORT
On Behalf of

DANA INNOVATIONS

VPXT6R/VPXT6R SST, VPXT8R, VPXT6

Model No. : 93339/93340, 93341, 93338

Prepared for : DANA INNOVATIONS
991 Calle Amanecer San Clemente, CA 92673

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Report Number : TR18010333-L-001

Date of Test : Jan. 20, 2018 – Jan. 25, 2018

Date of Report : Jan. 25, 2018

TEST REPORT IEC 60529 Degrees of protection provided by enclosures (IP Code)	
Report reference No. .....:	TR18010333-L-001
Tested by (+ signature) .....:	Jason Dong
Reviewed by (+ signature) .....:	Faker Guo
Approved by (+ signature).....:	Carl Huang
Date of issue .....:	Jan.25, 2018
Total page .....:	12
Testing laboratory .....:	Guangdong Keyway Testing Technology Co., Ltd.
Location.....:	No. 2, 1st Industrial Road, Hengjiangsha Village, Changping Town, Dongguan City, Guangdong, China
Applicant .....:	DANA INNOVATIONS
Address .....:	991 Calle Amanecer San Clemente, CA 92673
Manufacturer .....:	
Address .....:	
Standards.....:	IEC 60529:1989+A1:1999+A2:2013
Procedure deviation .....:	N/A
Non-standard test meth .....:	N/A
Test item description .....:	VPXT6R/VPXT6R SST, VPXT8R, VPXT6
Trademark .....:	--
Model and/or type reference .....:	93339/93340, 93341, 93338
Rating(s) .....:	--
Test items particulars:	IP66
Test case verdicts	--
Test case does not apply to the test object .....:	N/A
Test item does meet the requirement .....:	P(ass)
Test item does not meet the requirement:	F(ail)
Testing	--
Date of receipt of test item .....:	Jan. 20, 2018
Date(s) of performance of test .....:	Jan. 20, 2018 – Jan. 25, 2018

General remarks

This report shall not be reproduced except in full without the written approval of the testing laboratory.
The test results presented in this report relate only to the item(s) tested.
" (see remark #)" refers to a remark appended to the report.
"(See Annex #)" refers to an annex appended to the report.

Summary of testing:

1. Full tests were performed on each model. They passed the IP66 test.

2. The tests results complied with the requirements of the standards mentioned in page one.

IEC 60529			
Clause	Requirement + Test	Result - Remark	**Verdict**

IEC 60529 Degrees of protection provided by enclosures (IP Code)			
Clause	**Requirement**	**Result**	**Verdict**
4	Designations	IP66	**P**
5	Degrees of protection against access to hazardous parts and against solid foreign objects indicated by the first characteristic numeral		**P**
5.1	Protection against access to hazardous parts		P
5.2	Protection against solid foreign objects		P
6	Degrees of protection against ingress of water indicated by the second characteristic numeral		**P**
7	Degrees of protection against access to hazardous parts indicated by the additional letter		**N/A**
8	Supplementary letters		**N/A**
10	Marking		**P**
11	General requirements for tests		**P**
11.1	Atmospheric conditions for water or dust tests	Temperature range: 15℃ to 30℃ Relative humidity: 25% to 75% Air pressure: 86kPa to 106kPa	P
11.2	Test samples	Clean and new condition, practicable to test the complete equipment	P
11.3	Application of test requirements and interpretation of test results	Apply this standard	P
11.4	Combination of test conditions for the first characteristic numeral		P
11.5	Empty enclosures	Not applicable	N/A
12	Tests for protection against access to hazardous parts indicated by the first characteristic numeral	No openings	**N/A**
12.1	Access probes		N/A
12.2	Test conditions		N/A
12.3	Acceptance conditions		N/A
12.3.1	For low-voltage equipment		N/A
13	Tests for protection against solid foreign objects indicated by the first characteristic numeral		**P**

IEC 60529			
Clause	Requirement + Test	Result - Remark	**Verdict**
13.1	Test means		P
13.2	Test conditions for first characteristic numerals 1,2,3,4		N/A
13.3	Acceptance conditions for first characteristic numerals 1,2,3,4		N/A
13.4	Dust test for first characteristic numerals 5 and 6		P
13.5	Special conditions for first character ristic numeral 5		N/A
13.6	Special conditions for first characteristic numeral 6		N/A
14	Tests for protection against water indicated by the second characteristic numeral		**P**
14.1	Test means		P
14.2	Test conditions		P
14.2.1	Test for second characteristic numeral 1 with the drip box		N/A
14.2.2	Test for second characteristic numeral 2 with the drip box		N/A
14.2.3	Test for second characteristic numeral 3 with oscillating tube or spray nozzle		N/A
14.2.4	Test for second characteristic numeral 4 with oscillating tube or spray nozzle		N/A
14.2.5	Test for second characteristic numeral 5 with the 6.3mm nozzle		N/A
14.2.6	Test for second characteristic numeral 6 with the 12.5mm nozzle	No water into	P
14.2.7	Test for second characteristic number 7: temporary immersion between 0.15m and 1m		N/A
14.2.8	Test for second characteristic number 8: continuous immersion subject to agreement		N/A
14.3	Acceptance conditions		N/A
15	Test for protection against access to hazardous parts indicated by the additional letter	No additional letter	**N/A**

IEC 60529			
Clause	Requirement + Test	Result - Remark	**Verdict**

Test Equipment：							
Lab No.	Equipment Name	Model	Manufacturer	Factory number	Technical parameters	Precision	Calibration Cetificate No
KWL-078	Water proof test device	HY-IPX1-1-7	HaiYu	Q2009-056	IPX1~7	(k=2)	ZJ201705151456
KWL-079	Dustproof test device	GK-SC1800	GBTE	20090102313	ϕ12MM	1m³	ZJ201705153767

Photos

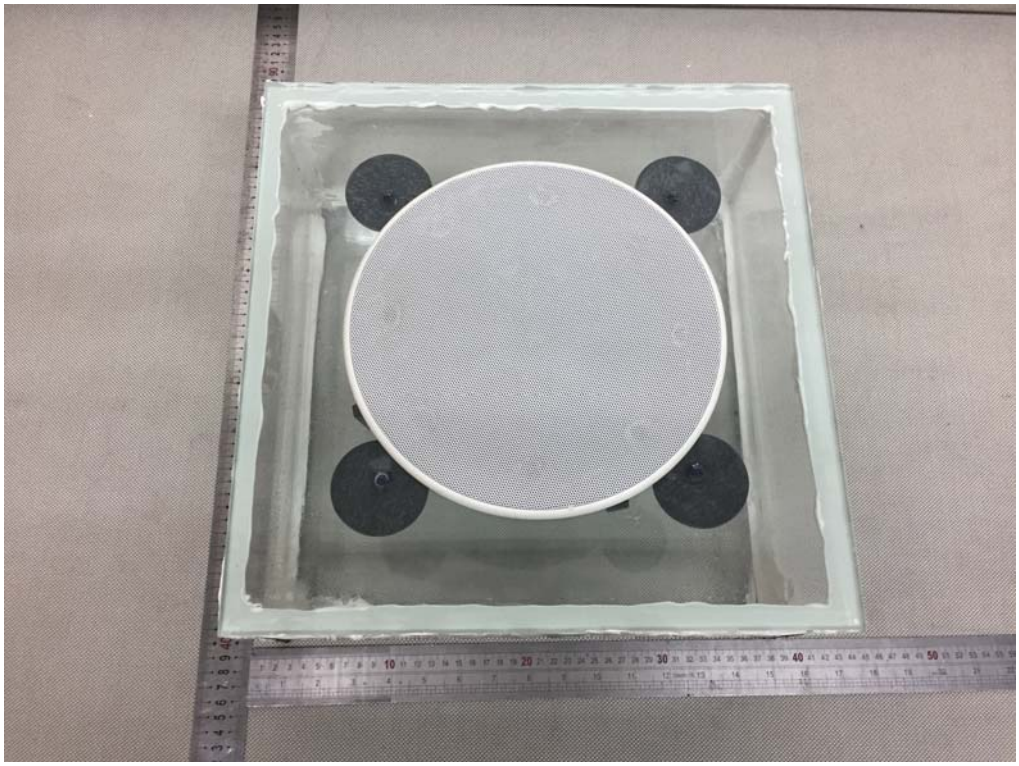

Figure.1: 93339/93340

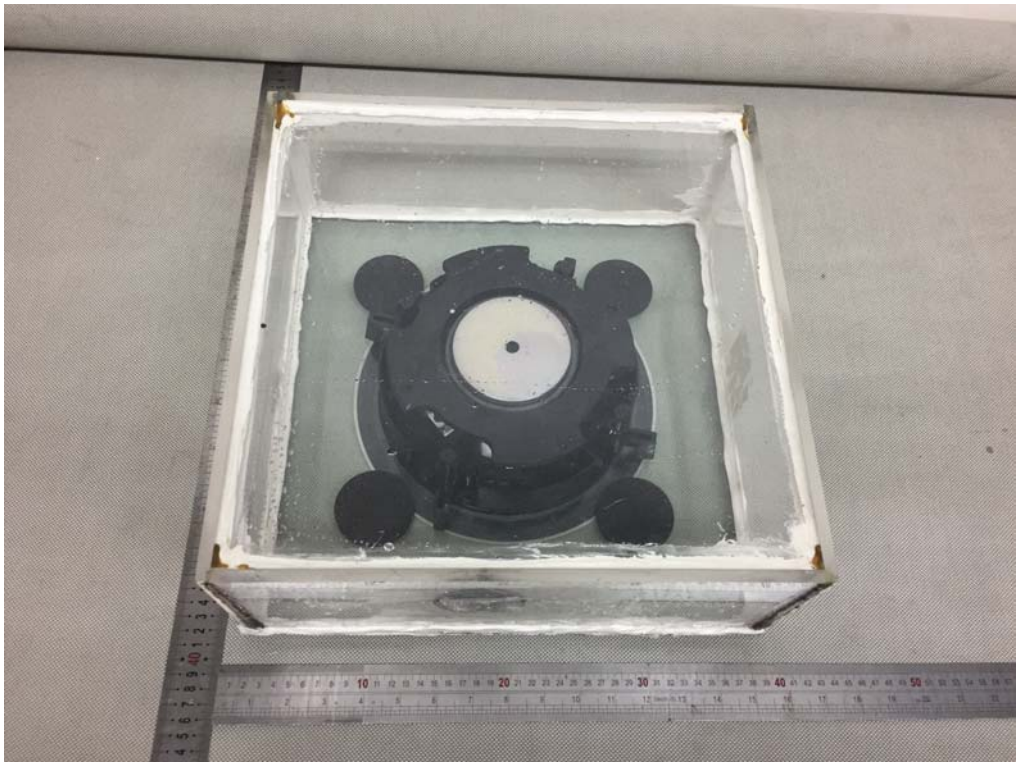

Figure.2: 93339/93340

Photos

Figure.3: 93339/93340

Figure.4: 93339/93340

Photos

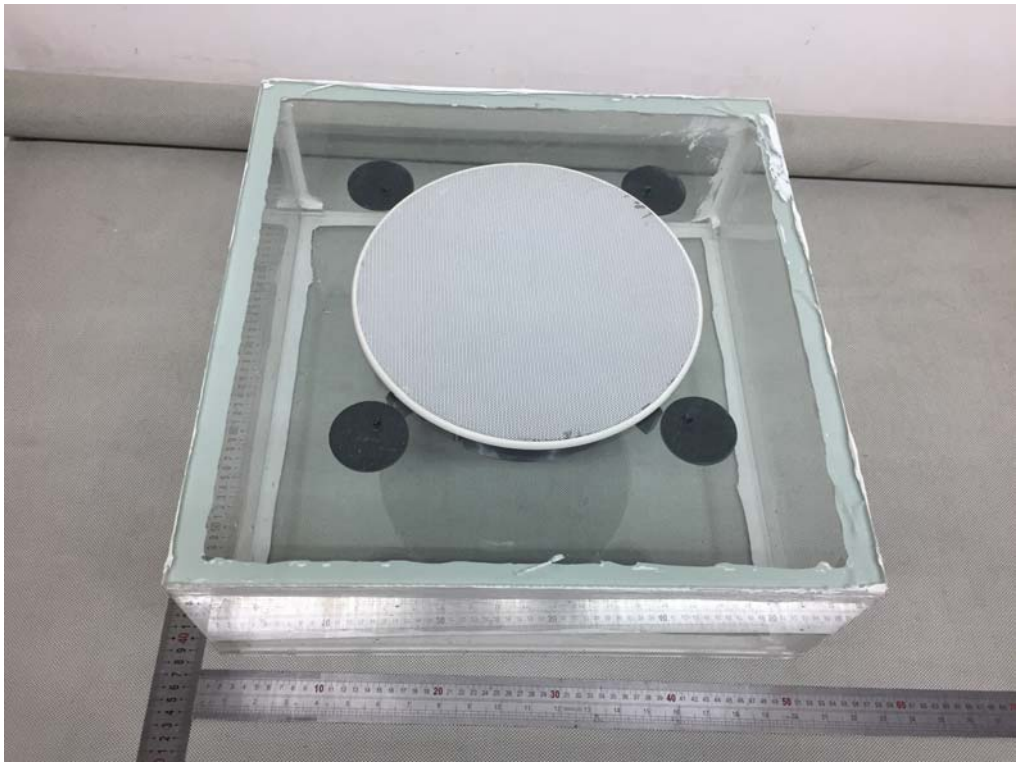

Figure.5: 93341

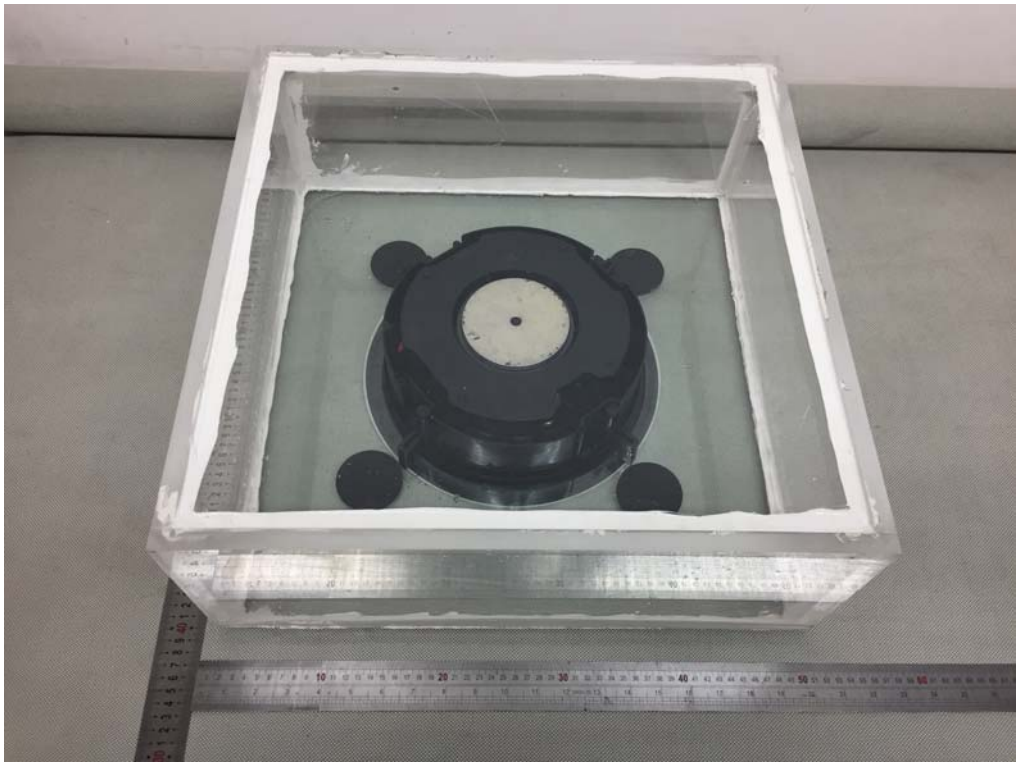

Figure.6: 93341

Photos

Figure.7: 93341

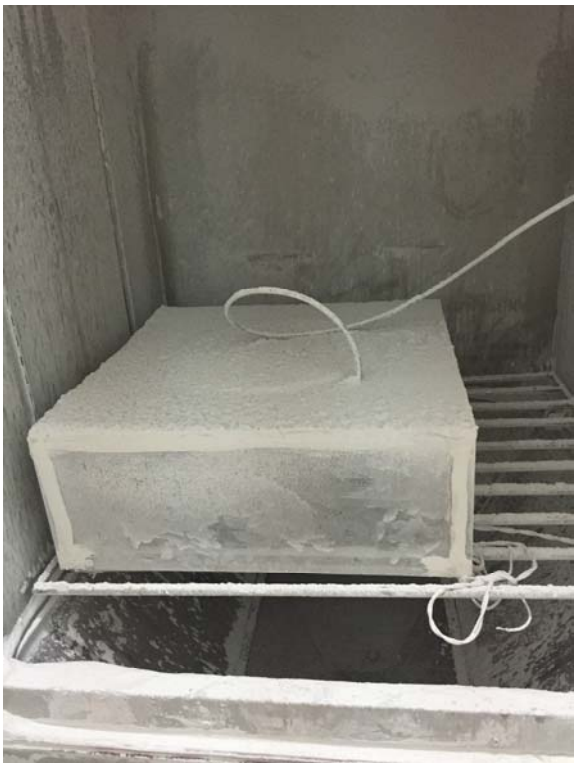

Figure.8: 93341

Photos

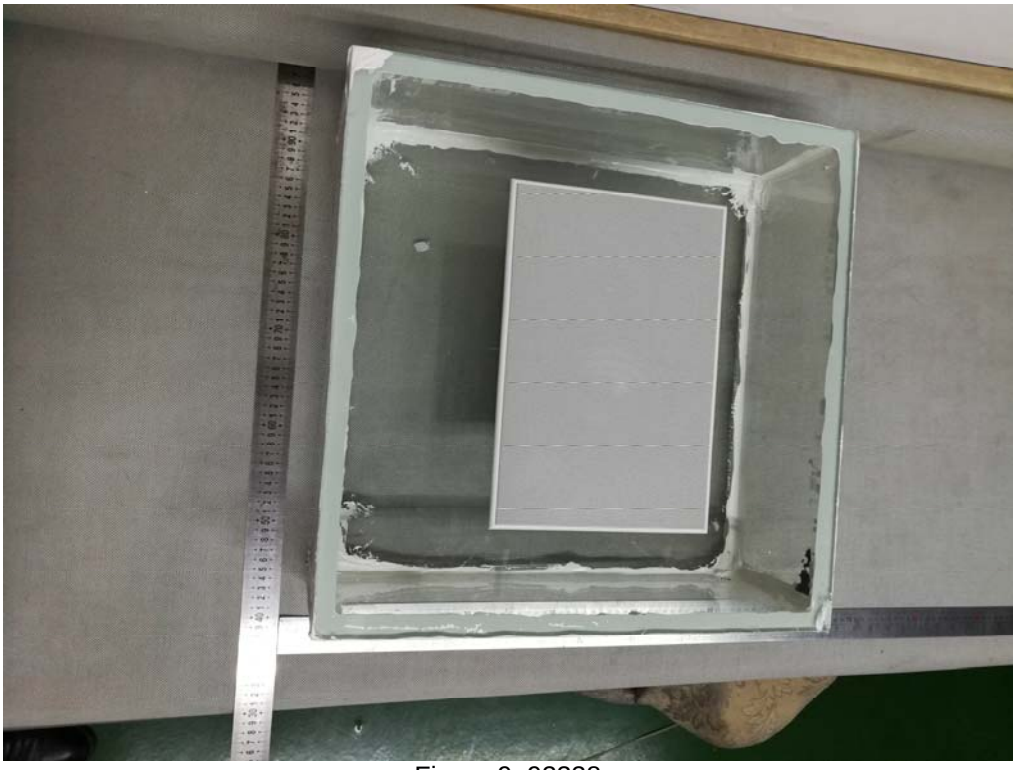

Figure.9: 93338

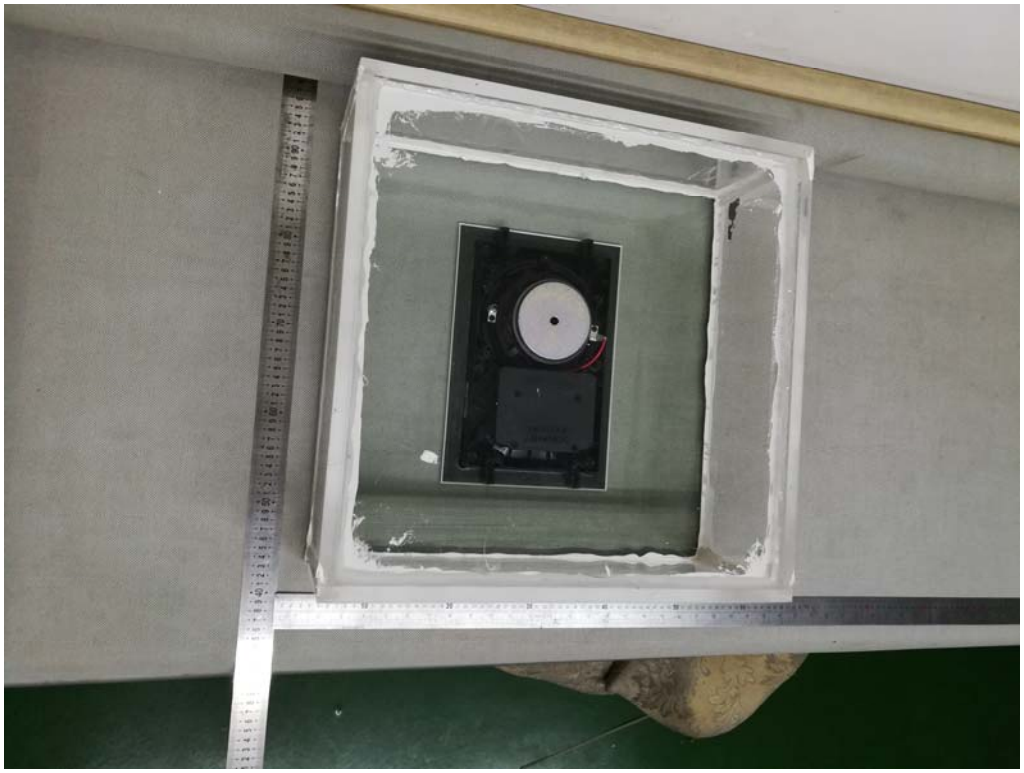

Figure.10: 93338

Photos

Figure.11: 93338

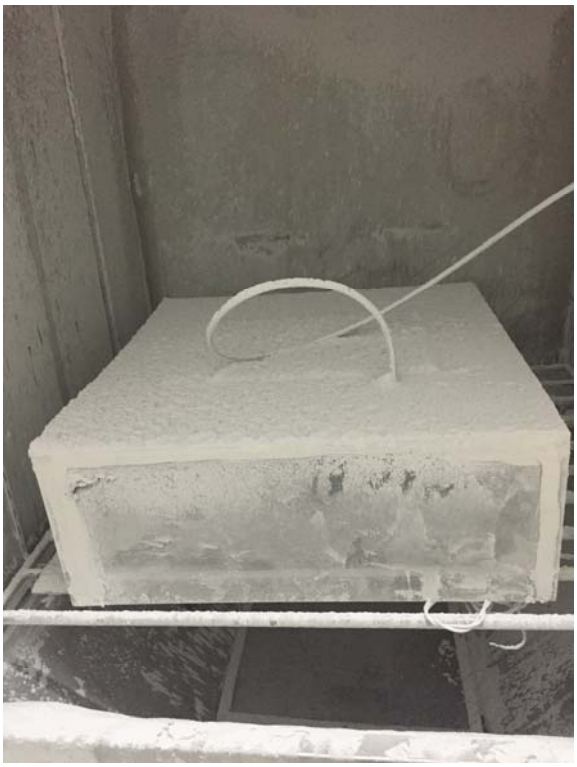

Figure.12: 93338

===END OF TEST REPORT===