TEST REPORT

Product Name:Universal Telecom Hub

Model:UTH101

Company Name: Yaofu Metal Company

Service Agency:TJTest Technology (Shanghai) Co., Ltd.

APPLICANT IDENTIFICATION:

Applicant: Yaofu Metal Company
Add: #8922 Hunan road,Pudong New Area Shanghai China.

SAMPLE DESCRIPTION:

Sample name:Universal Telecom Hub
Color:Refer to the sample photo
Test period:2025.05.28-2025.05.29
Issued date:2025.05.29(Valid for one year)

Test standard:IEC 60529:2013 Degrees of protection provided by enclosure (IP code)

TEST RESULT:

IEC 60529:2013			
Clause	Requirement-Test	Result-Remark	Verdict
5	Degrees of protection against access to hazardous parts and against solid foreign objects indicated by the first characteristic numeral	IP6X	
5.1	Protection against access to hazardous parts		
	First characteristic numeral 0. Non-protected		N/A
	First characteristic numeral 1. Protected against access to hazardous parts with the back of a hand. The access probe, sphere of 50 mm Ø, shall have adequate clearance from hazardous parts The sphere of 50 mm Ø shall not fully penetrate and adequate clearance shall be kept.		N/A
	First characteristic numeral 2. Protected against access to hazardous parts with a finger. The joint test finger of 12 mm Ø, 80 mm length, shall have adequate clearance from hazardous parts The jointed test finger may penetrate up to its 80 mm length, but adequate clearance shall be kept		N/A
	First characteristic numeral 3. Protected against access to hazardous parts with a tool. The access probe of 2.5 mm Ø shall not penetrate. The test rod of 2.5 mm Ø shall not penetrate and adequate clearance shall be kept		N/A

	First characteristic numeral 4. Protected against access to hazardous parts with a wire. The access probe of 1.0 mm Ø shall not penetrate. The test wire of 1.0 mm Ø shall not penetrate and adequate clearance shall be kept		N/A
	First characteristic numeral 5. Protected against access to hazardous parts with a wire. The access probe of 1.0 mm Ø shall not penetrate. The test wire of 1.0 mm Ø shall not penetrate and adequate clearance shall be kept		P
	First characteristic numeral 6. Protected against access to hazardous parts with a wire. The access probe of 1.0 mm Ø shall not penetrate. The test wire of 1.0 mm Ø shall not penetrate and adequate clearance shall be kept	1 mm test wire cannot enter the shell.	P
5.2	Protection against solid foreign objects		
	First characteristic numeral 0. Non-protected		N/A
	First characteristic numeral 1. Protected again solid foreign objects of 50 mm Ø and greater. The object probe, sphere of 50 mm Ø, shall not fully penetrate The sphere of 50 mm Ø shall not fully penetrate and adequate clearance shall be kept. Test force 50N ± 10%		N/A

	First characteristic numeral 2. Protected again solid foreign objects of 12.5 mm Ø and greater. The object probe, sphere of 12.5 mm Ø, shall not fully penetrate The sphere of 12.5 mm Ø shall not fully penetrate. Test force. Test force 30N ± 10%.		N/A
	First characteristic numeral 3. Protected again solid foreign objects of 2.5 mm Ø and greater. The object probe, sphere of 2.5 mm Ø, shall not penetrate at all The test rod of 2.5 mm Ø shall not penetrate and adequate clearance shall be kept. Test force 3N ± 10%		N/A
	First characteristic numeral 4. Protected again solid foreign objects of 1.0 mm Ø and greater. The object probe of 1.0 mm Ø, shall not penetrate at all The test wire of 1.0 mm Ø shall not penetrate and		N/A

	adequate clearance shall be kept. Test force 1 N ± 10%		
	First characteristic numeral 5. Dust-protected. Ingress of dust is not totally prevented, but dust shall not penetrate in a quantity to interfere with satisfactory operation of the apparatus or to impair safely. 1) Category 1 The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. a) If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2h b) If, with a maximum depression of 2kPa(20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8h has elapsed 2) Category 2(unless the relevant product standard for the equipment specifies the enclosure is category 2) The enclosure under is supported in its normal operating position inside the chamber, but is not connected to a vacuum pump. Any drain-hole normally open shall be left open for the duration of the test. The test shall be continued for a period of 8h.		N/A
	The protection is satisfactory if, on inspection, talcum powder has not accumulated in a quantity or location such that, as with any other kind of dust, it could interfere with the correct operation of the equipment or impair safety. Except for special cases to be clearly specified in the relevant product standard, not dust shall deposit where it could lead to tracking along the creepage distances.		

	First characteristic numeral 6. Dust-tight. No ingress of dust. The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2h If, with a maximum depression of 2kPa(20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8h has elapsed The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test.	According to 1) Category 1, test 2h. After the test, there is no dust inside the sample.	P
6	Degrees of protection against water indicated by the second characteristic numeral	IP X6	P
	Second characteristic numeral 0. Non-protected		N/A
	Second characteristic numeral 1. Protected against vertically falling water drops. Vertically falling drops shall have no harmful effects. Drip box. Enclosure on turntable. Water flow rate $1^{0.5}_{0}$mm/min Duration of test: 10min		N/A
	Second characteristic numeral 2. Protected against vertically falling water drops when enclosure tilted up to 15°. Vertically falling drops shall have no harmful effects when the enclosure is tilted at an angle up to 15°on either side of the vertical Drip box. Enclosure in 4 fixed positions of 15°tilt. Water flow rate: $3^{0.5}_{0}$mm/min Duration of test: 2.5min for each position of tilt		N/A
	Second characteristic numeral 3. Protected against spraying water. Water sprayed at an angle up to 60° on either side of the vertical shall have no harmful effects a) Oscillating tube. Spray ±60°from vertical, distance max.200 mm. Water flow rate: 0.07 l/min ±5 % per hole, multiplied by number of holes Duration of test: 10min b) Spray nozzle. Spray ±60°from vertical. Water flow rate: 10 l/min ±5 % Duration of test: 1min/m^2 at least 5 min		N/A

	Second characteristic numeral 4. Protected against spraying water. Water splashed against the enclosure from any direction shall have no harmful effects As for numeral 3. Spray ± 180°from vertical		N/A
	Second characteristic numeral 5. Protected against water jets. Water projected in jets against the enclosure from any direction shall have no harmful effects Water jet hose nozzle. Nozzle 6.3 mm diameter, distance 2.5 m to 3 m. Water flow rate: 12.5 l/min ±5 % Duration of test: 1min/m^2 at least 3 min		N/A
	Second characteristic numeral 6. Protected against powerful water jets. Water projected in powerful jets against the enclosure from any direction shall have no harmful effects Water jet hose nozzle. Nozzle 12.5 mm diameter, distance 2.5 m to 3 m. Water flow rate: 100 l/min ±5 % Duration of test: 1min/m^2 at least 3 min	Nozzle 12.5 mm diameter, distance 3 m, test for 3min. After the test, there is no water inside the sample	P
	Second characteristic numeral 7. Protected against the effects of temporary immersion in water. Ingress of water in quantities causing harmful effects shall no be possible when the enclosure is temporarily immersed in water under standardized conditions of pressure and time Immersion tank. Water-level on enclosure: 0.15 m above top, 1m above bottom Duration of test: 30min		N/A
	Second characteristic numeral 8. Protected against the effects of continuous immersion in water. Ingress of water in quantities causing harmful effects shall no be possible when the enclosure is continuously immersed in water under conditions which shall be agreed between manufacturer and user but which are more server than for numeral 7 Immersion tank. Water-level: by agreement Duration of test: by agreement		N/A

	Second characteristic numeral 9. Protected against high pressure and temperature water jets. Water protected at high pressure and high temperature against the enclosure from any direction shall not have harmful effects 2023) Fan jet nozzle. Test of small enclosure on turntable. Turntable speed(5±1) r/min. Spray at 0°,30°,60°,90°. Water flow rate:（15±1）l/min Duration of test: 30s per position b) Test of large enclosures as per intended use. Spray from all practical directions. Distance （175±25）mm. Water flow rate:（15±1）l/min Duration of test: 1min/m^2 at least 3 min		N/A
7	Degrees of protection against access to hazardous parts indicated by the additional letter		N/A
	Additional letter A. Protected against access with the back of the hand. The access probe, sphere of 50 mm Ø, shall have adequate clearance from hazardous parts		N/A
	Additional letter B. Protected against access with a finger. The jointed test finger of 12 mm Ø, 80 mm length, shall have adequate clearance from hazardous parts		N/A
	Additional letter C. Protected against access with a tool. The access probe of 2.5 mm Ø, 100 mm length, shall have adequate clearance from hazardous parts		N/A
	Additional letter D. Protected against access with a wire. The access probe of 1.0 mm Ø, 100 mm length, shall have adequate clearance from hazardous parts		N/A
8	Supplementary letters		N/A
	Supplementary letter H. High-voltage apparatus		N/A
	Supplementary letter M. Tested for harmful effects due to the ingress of water when the movable parts of the equipment are in motion		N/A
	Supplementary letter S. Tested for harmful effects due to the ingress of water when the movable parts of the equipment are stationary		N/A
	Supplementary letter M. Suitable for use under specified weather conditions and provide with additional protective features or processes		N/A

DETERMINATION:

P(Pass):Test object does meet the requirement.

F(Fail) :Test object does not meet the requirement.

N/A:Test case does not apply to the test object.

Test conclusion:

After the test, it meets the standard requirements.

APPARATUS LIST

NO.	Name	Model	Serial Number	Calibration Valid Until	Use (√)
1	Sand and dust test chamber	PT8024	S19111000	2025.10.24	√
2	Water spray test chamber	JPS	S04110379	2025.05.30	√
3	Probe (1mm probe D)	ILT-I04(IP4X)	S13050773-4	2026.12.07	√
4	Push pull meter(10N)	PS10N	S99020282	2025.12.05	√

SAMPLE PHOTOS:

	
INITIAL	During the test(IPX6)
	
After the test (IPX6)	During the test(IP6X)

	
During the test(IP6X)	After the test (IP6X)

END*

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服务专用章
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