

# Poročilo o preskusu / Test Report

Št. / No.:

T211-0004/13

Datum / Date:

2013-01-03

<b>Proizvod / Product</b> Power supply Model: GTM91120 series	<b>Listov / Pages</b> 5
<b>Naročnik / Applicant</b> GlobTek, Inc 186 Veterans Dr, Northvale, NJ 07647 / USA	<b>Vrsta preskusa / Test procedure</b> IP52
<b>Proizvajalec / Manufacturer</b> GlobTek, Inc 186 Veterans Dr, Northvale, NJ 07647 / USA	<b>Št. Merjencev / No. of Items tested</b> 1
<b>Blagovna znamka / Trade Mark</b> GlobTek	<b>Mapa predmeta št. / Subject File No.</b> C20121856
<b>Standardi – predpisi / Standards - regulations</b> IEC 60529:2001	<b>Kraj preskusa / Place of test</b> SIQ - Slovenian Institute of Quality and Metrology, Tržaška 2, 1000 Ljubljana, Slovenia
	<b>Opomba / Remark</b> /

## Zaključek / Conclusion

**Tested product complies with the requirements of stated standards for protection degree IP 52.**

The test results relate only to the items tested.

Date of receipt of test items: 2012-12-21

Date of performance of tests: 2012-12-21 to 2012-12-28

Testni laboratorij je akreditiran pri Slovenski akreditaciji, reg.št.: LP-009 /  
Testing Laboratory is accredited by Slovenian Accreditation, Reg. No. LP-009

Odgovoren za preskušanje / Responsible for the test

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## 1 TEST EQUIPMENT

- Dust chamber - SIQ (2013-01-19),
- Test device for verification of protection against vertically falling water drops-drip box-SIQ,
- Digital protractor MITUTOYO; Model: PRO 360 (2013-01-27)

Note: The date of the recommended recalibration is given for each measuring instrument (in brackets).

## 2 EQUIPMENT UNDER TEST (EUT)

Power supply, model GTM91120 series was subjected to testing for IP52 degree of protection (Figures 1 to 3).



Figure 1



Figure 2



Figure 3

### IP52 numeric description:

The first characteristic numeral X indicates the degree of protection against solid foreign objects (degree 5-dust protected). The protection is satisfactory if 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.

The second characteristic numeral Y indicates the degree of protection provided by enclosures with respect to harmful effects on the equipment due to the ingress of water (degree 2-protected against dripping water). If any water has entered shall have no harmful effects.

### 3 TEST CONDITIONS

During the testing the power supply was connected to the socket outlet, see Figure 4. The plug part (Figure 5) with the socket outlet was not subject of the test. Test results do not relate to the whole power supply but only to the enclosure (without the plug part).



Figure 4: sample unit

Socket  
outlet



Figure 5: sample unit

Plug part

#### 3.1 Dust test-IP5Y (IEC 60529, tables 2 and 7, sub-cl. 13.4; 13.5)

- Test chamber-as specified in standard,
- Dust, used for the test: talcum powder,
- Environmental temperature 24<sup>0</sup>C,
- No under pressure inside the enclosure,
- Duration of the exposure: 8 hours



Figure 6: EUT before the dust test



Figure 7: EUT after the dust test

#### 3.2 Tests for protection against ingress of water-IPX2 (IEC 60529, tables 3 and 8, sub-cl. 14.2.2)

- Test device, drip box-as specified in standard,
- Water flow rate: 3 mm/min,
- The position of the test sample was fixed on 15<sup>0</sup> on either side of the vertical in two mutually perpendicular planes,
- The test sample was tested for 2.5 minutes in each of four fixed positions (Figures 8 to 11),
- The total duration of the exposure was 10 minutes



Figure 8



Figure 9

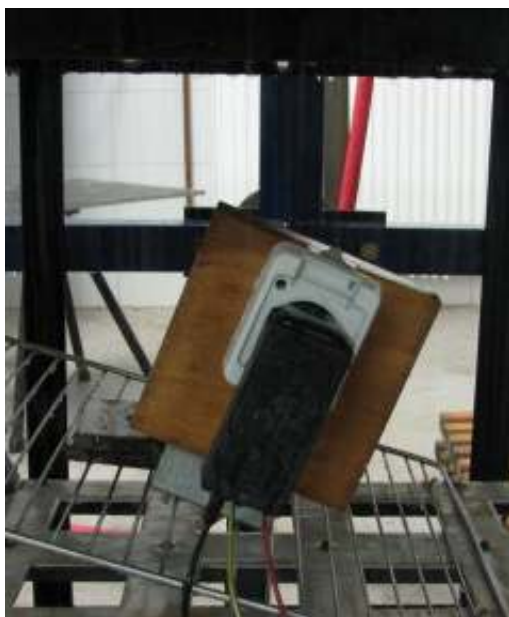


Figure 10



Figure 11

### 3.3 Electric strength test

Immediately following the water test the dielectric strength test with 4000 V a.c. has been conducted between primary and secondary terminals and between primary terminals and enclosure. The voltage was applied and maintained for a period of one minute between the points indicated. There was no break down.

**Conclusion:** After the tests the enclosure was opened. There was no dust and no water inside the enclosure (Figures 12 to 14).



Figure 12



Figure 13

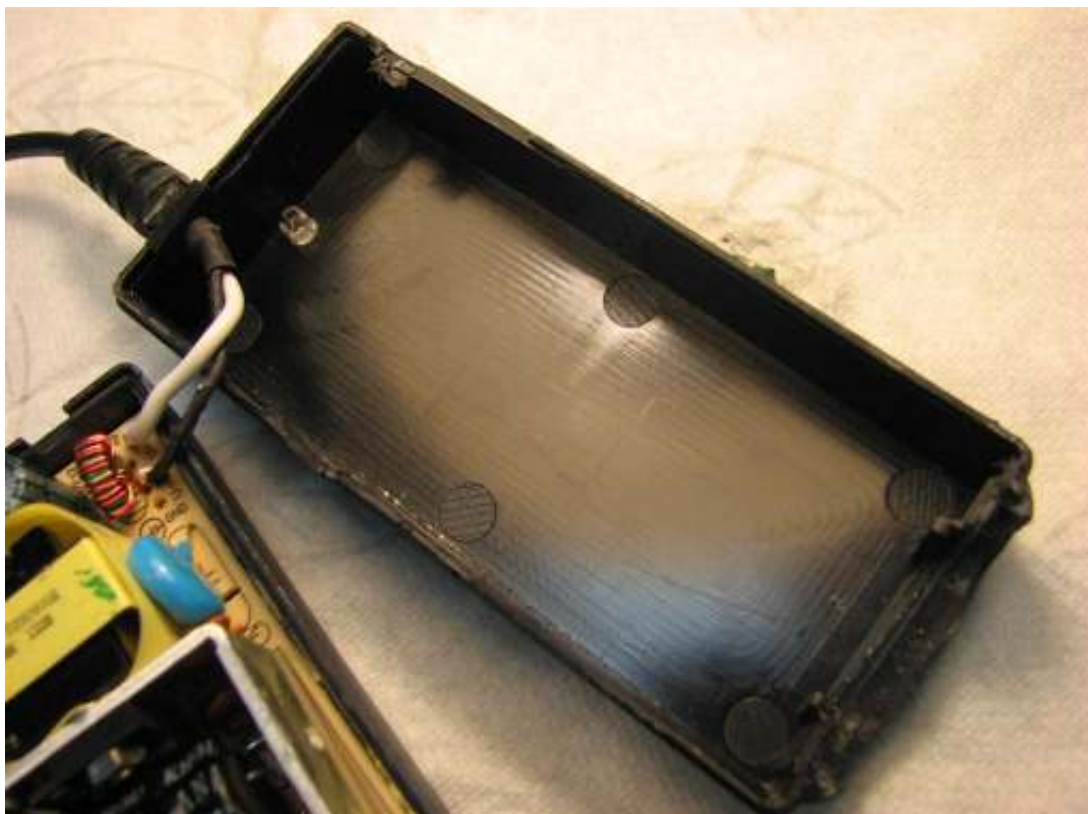


Figure 14

#### 4 CONCLUSIONS

After the exposure was concluded, the visual examination of the sample was performed. Results were obtained as follows:

- There was no dust and no water inside the enclosure.
- There was no break down during the dielectric strength test.

**Result: Following the acceptance conditions, the equipment under test sustained the test conditions for IP52 degree of protection. The test results relate to the enclosure of the power supply without the plug part.**