EMC TEST REPORT

Report No.: 130300588SHA-001/amendment1

Applicant:	GlobTek, Inc.		
Address:	186 Veterans Dr. Northvale, NJ 07647 USA		
Product:	Medical Power Supply	Base report No.:	**130300588SHA-001**
Brand name:	--	Base test procedure:	EMC
Model(s):	GT*43004P-***-** (see annex for details)	Base testing laboratory:	
Ratings and principal characteristics:	see annex for details	Intertek Testing Services Shanghai	
Issued by:	Intertek Testing Services Shanghai	Test procedure:	EMC
Date of issue:	August 26, 2015	Standard:	*EN60601-1-2: 2007/AC:2010

Amendment 1:

The original report **130300588SHA-001**, dated June 14, 2013 was modified on August 26, 2015 and included the following changes and additions:

1. "*" means updated relative EMC standards to the latest version.

According to customer requirement, surge test for 4kV is conducted. For further information see the original test report No. **130300588SHA-001**.

	Signature	Print Name	Title
Evaluated by:	.....	John Jiang	Project Engineer
Approved by:	.....	Daniel Zhao	Reviewer

Standard: *EN60601-1-2: 2007/AC:2010		
No.1	Mains terminal continuous disturbance voltage	Pass
No.2	Mains terminal discontinuous disturbance voltage	NA
No.3	Radiated emission	Pass
No.4	Harmonic Currents	Pass
No.5	Flicks	Pass
No.6	Electrostatic Discharge (ESD)	Pass
No.7	Electric Fast Transient /Burst (EFT/B)	Pass
No.8	***Surge***	***Pass***
No.9	Injected Current	Pass
No.10	RF electromagnetic field susceptibility	Pass
No.11	Voltage dips and interruption	Pass
No.12	Magnetic Fields	NA

Note: The item(s) in “bold & italic” means the additional tests has been performed, and test result will be listed in the ANNEX of this amendment report.

12. Surge Immunity Test

Test result **Pass**

12.1 Severity Level
12.1.1 Test level

Level	Open-circuit test voltage +/-10% kV	
	A.C power line(s) to ground	A.C power line(s) to line(s)
1	0.5	0.5
2	1	1
3	2	Not applicable
4	4	4

Notes: 1. The gray rows were the test level which is demanded by customer.
2. The requirements above shall apply to equipment and systems used in all environments. When the expected electromagnetic characteristics of the intended use environment justify higher immunity test levels, these higher immunity test levels shall take precedence.
3. All other cables except AC power line are not tested directly. the determination of compliance with this requirement shall be based on the response of the equipment or system, considering each surge individually, taking into account the effects of any coupling between cables that are tested directly and cables that are not tested directly.

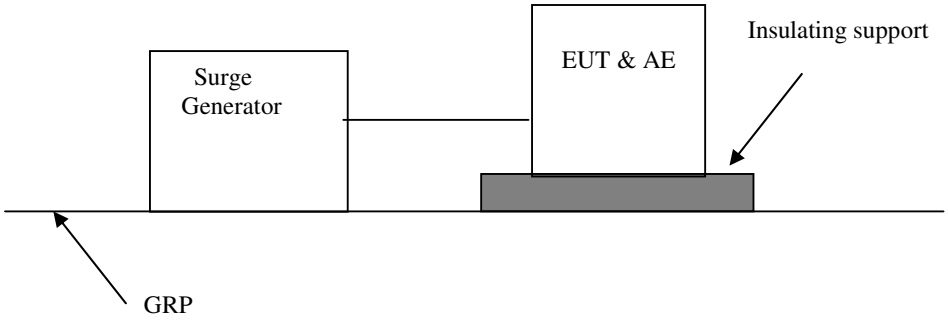
12.1.2 Compliance Level

Lower immunity compliance levels are allowed, provided they are justified based on significant physical, technological or physiological limitations.

Test Items	Highest Compliance Level	Electromagnetic Environment
A.C power line(s) to ground	2	All environments
	Others	Others
A.C power line(s) to line(s)	1	All environments
	Others	Others

Notes: The gray rows were the selected object.

12.2 Block Diagram of Test Setup



12.3 Test Setup and Test Procedure

Measurement was performed in shielded room.
Measurement and setting of EUT was applied according to IEC61000-4-5 clause 7.
The test method and equipment is specified by IEC61000-4-5 with modifications by IEC60601-1-2 clause 36.202.5(b).

12.4 Test Protocol

Temperature: 26°C
Relative Humidity: 45%

Test No.	Test level kV	Phase °	Polarity	Diff. / Com.	Result
1	0.5	0°,90°, 180°,270°	+/-, L-PE	Com.	NA
2	0.5	0°,90°, 180°,270°	+/-, N-PE	Com.	NA
3	1	0°,90°, 180°,270°	+/-, L-PE	Com.	NA
4	1	0°,90°, 180°,270°	+/-, N-PE	Com.	NA
5	2	0°,90°, 180°,270°	+/-, L-PE	Com.	NA
6	2	0°,90°, 180°,270°	+/-, N-PE	Com.	NA
7	4	0°,90°, *180°,270°*	+/-, L-N	Diff.	Pass
Notes: "NA" means not applicable.					

Observation: All the functions were operated as normal during and after test.
Conclusion: providing the essential performance and remaining safe

12.5 Measurement Uncertainty

The measurement uncertainty describes the overall uncertainty of the given measured value during the operation of the EUT.
Measurement uncertainty of surge test at main terminal is: ± 18.8%
Measurement uncertainty of surge test at signal/telecom terminal is: ± 19.3%
The measurement uncertainty is given with a confidence of 95%, k=2.
The measurement uncertainty is traceable to internal procedure TI-036.

12.6 Additions, deviations and exclusions from standards

None

********** END **********