



Secretariat

**INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) SYSTEM FOR
CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN
EXPLOSIVE ATMOSPHERES (IECEX SYSTEM)**

Circulated to: ExMC

Title: Assessment Report of I.T.L Limited, Israel as an IECEx ExTL

Introduction

During 2014 Israel joined IECEx as the 33rd Member Country.

I.T.L. (Product Testing) of Israel submitted an applications concerning operation in the IECEx 02 Certified Equipment Scheme

- an ExCB
- an ExTL.

As part of the overall evaluation and qualification of applicant bodies ITL were subjected to an assessment according to IECEx 02 rules and OD 003-2. This included an on-site assessment as required by 11.1. of IECEx 02.

This document provides the formal report of the IECEx Site Assessment Team for the ITL application as an ExTL and is submitted for consideration by ExMC during the 2015 ExMC meeting in Christchurch 17+18 September 2015.

Report ExMC/1056/DV, is also issued as the report from the assessment team covering the application of ITL as an IECEx ExCB.

The Secretariat draws Members attention to the recommendations from the Assessment and the fact that in the absence of a separate national Ex Scheme in Israel are to address the ExMC meeting to inform of their use of the IECEx Scheme as their national scheme.

Members will be requested to consider this report at the ExMC 2015 meeting.

Chris Agius

IECEX Executive Secretary

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IECEX ASSESSMENT REPORT FOR Israel Testing Laboratories, LOD, Israel

(IECEX TEST LABORATORY)

Type of Assessment: (please mark)

Initial assessment for Candidate ExTL **X**

Re-Assessment of ExTL

Scope Extension of ExTL

Surveillance Audit

1. OBJECT AND FIELD OF APPLICATION

1.1. Country:

ISRAEL

1.2. Name of Candidate TL

I.T. L (Product Testing) Ltd.

1.3. Members of the Assessment Team

Heinz Berger – IECEx Lead Assessor
Vijay Varma – IECEx Expert Assessor

1.4. Place and Date of Assessment

1 Bat-Sheva St., POB 87, LOD, 7116002 Israel

February 10th to 12th, 2015
Additional follow up reviews until July 2015

1.5. Assessment References



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- i) IECEx 02 Equipment Scheme Rules (current version)
- ii) IECEx OD/003 Assessment Procedures (current version)
- iii) ISO/IEC 80079-34; Manufacturer Assessment (current version)
- iv) IECEx OD/009 Equipment Scheme Procedures(current version)
- v) IECEx OD/18 Checklist 17025 (current version)
- vi) IECEx OD/24 Witness Testing/manufacturer and users Facility
- vii) ISO/IEC 17025:2005
- viii) IECEx Technical Capability Document (TCD)
- ix) ExTAG decision sheets (DSs)
- x) OD's related to technical issues
- i) ExTL application documents 29.9.2014 and Email 6.1.2015 and follow up documents.

1.6. Scope of Application

Number	Title	Acceptance
60079-0 Edition(s)4;5;6	Explosive atmospheres - Part 0: Equipment - General requirements	YES Provide the first 3 projects for review
60079-11 Edition(s)4,5,6	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety 'i'	YES Provide the first 3 projects for review
60079-15 Edition(s)3,4	Explosive atmospheres - Part 15: Equipment protection by type of protection 'n'	YES Provide the first 3 projects for review
60079-18 Edition(s)1,2,3,4	Explosive atmospheres - Part 18: Equipment protection by encapsulation "m"	YES Provide the first 3 projects for review
60079-26 Edition(s)2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga	YES Provide the first 3 projects for review

1.7. Candidate TL Persons Interviewed

Name	Position
Ilan Cohen	Technical Director
Smuel Gnatt	Test Engineer
Yariv Keidar	Test Engineer
Vladimir Cheryck	Test Engineer

1.8. Legal Entity of The Candidate TL

ITL has a legal entity from the Israeli Corporation Authority (Ministry of Justice). The registration number is 511683609. The document was presented during the assessment and found to meet the requirements of the IECEx.

1.9. Associated ExCB

The ExCB is integral with the ExTL however the procedures and systems reviewed showed clear separation between testing and assessment and Certification Decisions as required by ISO/IEC 17065 and OD 009 .



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1.10. Financial Support

ITL derives its income from conformity assessment activities on a commercial fee for service basis.

1.11. History

ITL was established in 1992, to provide service of Product Safety and EMC Certification for Israeli Manufacturers and Importers wishing to market products internationally and locally, respectively.

Ownership of ITL by Adir Gamliel Holdings Ltd. as a private Holding company, registered in Israel.

ITL cooperated with the following Agencies as first recognized Third Party Test Laboratory in Israel:

- TUV Rheinland of North America Testing Laboratory in 1992,
- ETL-Intertek US in 2011

ITL achieved its initial Accreditations in Israel from the following Laboratory Accreditation Authorities:

- VCCI (EMC) in 2001.
- A2LA in 1995

ITL was further accepted as a Test Laboratory (CTL) in the IECEE CB Scheme in 2010

2. ORGANISATION

ITL constitutes a legal entity and bear legal responsibility for all their activities. ITL is a 100% privately owned organization.

The organization charts show the organizational structure of ITL and are attached herewith (Refer to **Annexes 1a and 1b**).

The testing activities performed by ITL comply with the requirements of ISO/IEC 17025, the requirements of the law, customer requirements, and the requirements of the accreditation Body (if applicable).

ITL has five departments:

- (a) Sales Department which provide sales and marketing support
- (b) EMC Department which provide third party EMC, Radio and Telecom testing
- (c) Safety Department which provide third party safety testing, which incorporates the Ex Hazardous Locations Department



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(d) QA and Certification Department maintaining quality system, document control, international assessment and certification; provide the certification activities inside ITL
(e) Administrative and Finance Department

The Safety and EMC departments operate within the scope of this assessment, with support as applicable by the QA Department and other departments for administrative functions.

ITL Ltd. has clearly defined technical and quality management structures with adequate personnel having appropriate qualifications and training. Testing is conducted by test engineers; the completed test report is independently reviewed.

Certification is conducted independently from the testing activities.

Quality management personnel are separate to those involved in technical operations.

2.1. Names, Titles and Experience of the Senior Executives

Name	Title	Experience Ex / Overall
Ophir Gamliel	CEO	22
Ilan Cohen	Technical Director	4/20

2.2. Name, Title and Experience of the Quality Management Representative

Name	Title	Experience Ex / Overall
Steli Loznen	QA and Certification Manager	2/38
Asher Nitzany	Deputy QA and Certification Manager	2/25



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2.3. Name and Title of Nominated Principal Contact

Name	Title	Comments
Ilan Cohen	Technical Director	icohen@itl.co.il

2.4. Employees

Name	Title	Experience in Ex
Shmuel Gnatt	Product Safety Engineer	5 years
Yariv Keidar	Product Safety Engineer	2 years
Vladimir Chernyck	Product Safety Engineer	2 years

2.5. Organizational Structure

The organizational structure is shown **ANNEX 1a and 1b**.

3. RESOURCES

Three persons are active in the ExTL. The operation is well resourced with appropriate facilities.

Total premises area	1400 m ²
Total testing laboratory area	1000 m ²
Total testing area in the scope of recognition	1000 m ²
Total office area in the scope of recognition	600 m ²

The electrical power distribution system is appropriate for the scope of recognition according to ISO/IEC 17025:2005, sub-clause 5.3.

When not otherwise specified in the testing standard, laboratory power sources used for testing meet the following criteria at the point where testing is performed under both loaded and no-load conditions :	
Voltage stability: +/- 3 percent maximum	<input checked="" type="checkbox"/>
Frequency stability: +/- 2 percent maximum	<input checked="" type="checkbox"/>
Total harmonic distortion: maximum 5 percent	<input checked="" type="checkbox"/>



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4. DOCUMENTATION

4.1. Quality Manual

The quality system of ITL consists of 2 manuals, the General Manual (QM) based on 17025 and the QM-2 based on ISO/IEC 17065. In the QM, the procedures are named QMPs and the work instructions PM.

4.2. Procedures

The Procedures identified as QMP series of procedures were reviewed as part of the assessment and found to meet requirements of ISO/IEC 17025 and IECEx rules and supporting Operational Documents .

4.3. Work Instructions

The Work Instructions identified as PM series were reviewed as part of the assessment. Following the initial site assessment some updating of WIs mainly in the area of surface temperature of cells was required.

A review of amended WIs was found to be acceptable to the assessment team.

4.4. Records

Records are described in Procedure QMP 4.13. The procedures was reviewed and found to meet the requirements of the IECEx.

4.5. Document Change Control

Document change control is described in Procedure QMP 4.3. The procedures was reviewed and found to meet the requirements of the IECEx.

4.6. Test Records

Test records are described in QMP 140 and QMP 150. The assessment team requested ITL to compile sample test reports using the IECEx ExTR Blanks.

These were subsequently reviewed by the assessment team and while general compliance with IECEx was noted, the assessment team recommend review of the first three completed ExTRs prior to issue of the ExTRs, given that ITL are new to the IECEx Scheme. This is included in the recommendation 14 below.



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5. TEST REPORTS

5.1. Test Reports Written and Reviewed

Number of **test reports** issued under **national schemes** in the preceding four years for each type of protection:

Note: . The Israeli Ministry of Economy approved ITL on 16.11.2014 as an Ex Certification & Testing Body after reviewing the ITL application.

Standards	Title	Number of test reports				Total
		2011	2012	2013	2014	
60079-0	Explosive atmospheres - Part 0: Equipment - General requirements	1*	1*		3	5
60079-11	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety 'i'		1*		2	3
60079-15	Explosive atmospheres - Part 15: Equipment protection by type of protection 'n'	1*			1	2
60079-18	Explosive atmospheres - Part 18: Equipment protection by encapsulation "m"				1**	1
60079-26	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga		1*		1**	2
* - Tests and reports done in cooperation with other labs. ** - Tests and evaluation covered by reports done to other standards						

6. CALIBRATION

Calibration is described in OM QMP 4.2.10. All test equipment used in ITL is listed in a database where all information is available. This database is well controlled and recalibration well organized. Several certification certificates were reviewed during the assessment and found to meet the requirements of the IECEX.

7. CONFIDENTIALITY

Confidentiality is described in QMP 4.2.10. All employees of ITL sign a confidentiality agreement. All agreements of personnel involved in IECEX activities were reviewed and found to meet the requirements of the IECEX.



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8. NATIONAL ACCREDITATION

ITL is approved by the Ministry of Economy, Commissioner of standardization, to act as a Certification Body in the Ex field. The certificate is shown in **Annex 2**. The permission number is 428. It is valid from 1.1.2015 until 31.12.2015. Full scope of A2LA Accreditation is available from the A2LA Website at <https://www.a2la.org>

ITL holds an accreditation from the “American Association for Laboratory Accreditation (A2LA)” for ISO/IEC 17025. The certificate is valid until 31.8.2015.

The following standards are listed in the scope: IEC 60079-0, -11 and -15.

The subsequent A2LA assessment for March/April 2015 is planned to address 60079-18 and 60069-26. Until accreditation is extended for these additional Standards annual surveillance assessments by IECEx will be required. See also the recommendations from the IECEx Assessment concerning the review of the first 3 projects prior to issue of the ExTR.

9. INTERNATIONAL ACCREDITATION, RECOGNITION AND AGREEMENTS

ITL hold agreements with other Bodies including

- TUV Rheinland of North America Testing Laboratory in 1992,
- ETL-Intertek US in 2011

and are also approved by the IECEE CB Scheme. The last approval date is 27.9.2013 / TL 331, and is valid.



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10. INTERNAL AUDIT AND PERIODIC REVIEW

The internal audit process was reviewed during the assessment and found to meet the requirements of the IECEx.

The internal audit plan for 2015 and 2016 was reviewed. IECEx appears in the 2. Quarter of 2015.

The minutes of past management review meetings were reviewed including those held on 16.12.2013 and on 26.12.2014.

11. COMPLAINTS AND APPEALS (Including appeals to IECEx)

Complaints and appeals are described in QM-2 OPM 7.13. The procedure was reviewed and found to meet the requirements of the IECEx.

12. SPECIAL FACTS TO BE NOTED

12.1. *Supporting Documentation*

Copies of additional supporting information for this assessment have been provided to the audited organization and the IECEx Secretariat. These include:

- Details of issues raised and how these have been resolved
- Checklist for ISO/IEC 17025
- Completed Technical Capability Document (TCD)
- Photos of the facilities

12.2. **Tests Witnessed or competence checked**

IEC 60079-0:

1. Clause 26.4.2: Resistance to impact on a plastic enclosure at lower ambient temperature (-20°C minimum)

Result: Satisfactory and in line with the standard.

2. Clause 26.4.5: Degree of protection (IP) by enclosures- Dust and water ingress tests

Result:

While found to be adequate in general, during the assessment, the assessment team raised concern over the adequacy of dust distribution. Subsequent modifications were made including installation of an additional vibrator motor and wiper for the window for ease of viewing. This was reviewed by the assessment team and found to be in line with the Standard.



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3. Clause 26.13: Surface resistance test of non-metallic parts
Result: Satisfactory and in line with the Standard

IEC 60079-11:

1. Clause 6.3.8: Creepage distances on a bare (unpopulated) PCB
Result: While satisfactory, an update of the Work Instructions was conducted as a result of the assessment team regarding the use of Gerber Files.
2. Clause 10.1: Use of spark ignition apparatus-
Calibration test was conducted using Group IIC gas.
Result: The assessment team found that ITL have a very good set up for their Spark Test apparatus which was found to be in line with the standard. The competence of staff in its use and understanding was sound.
3. Clause 10.5.3: Surface temperature of an alkaline or a lithium cell/battery
Result: while found to be Satisfactory, the Work Instruction required updating to reflect latest edition of the Standard. This was completed and reviewed by the Assessment Team and found satisfactory.

IEC 60079-18:

4. Clause 8.1.2: Dielectric strength test
Result Satisfactory. A test was conducted on the sample of an encapsulated item at 4 kV for 1 minute. This was found to meet the requirements of the standard.

13. COMMENTS (Including issues found during assessment)

The overall assessment of ITL involved a combination of both on-site assessments during February 2015 and off-site reviews following the February site assessment visit.

During the assessment issues were found in the area of impact test, IP Dust equipment and segregation measurements. All issues are were resolved to the satisfaction of the Assessment team.

At the time of the on-site assessment, ITL were using a subcontractor TL for testing according to IEC 60079-18, clause 8.2.6. While the contract and relevant accreditation information were reviewed, consultation among the Assessment Team, the Secretariat and ITL concluded that in light of work within ExMC WG2 to establish minimum test capabilities ITL agreed to develop their own facilities for testing according to 8.2.6 of IEC 60079-18

One important fact noted during the assessment was that Israel do not operate a national scheme for Ex but rather are accepting the IECEx at national level, thereby for ITL the IECEx Scheme acts as their national scheme.



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In terms of experience, ITL have cooperated with other bodies over past years to develop their expertise in Ex testing and certification. ITL also operate as an accepted Testing Laboratory, CTL, in the IECEE CB Scheme.

On this basis the Assessment in recommending acceptance of ITL also recommend that the first three IECEx Projects, including ExTRs are separately reviewed by an IECEx Assessor under direction from the IECEx Secretariat prior to release.

14. RECOMMENDATION

Based on the initial assessment performed from February 10th to 12th the ExTL of ITL, LOD, Israel, is recommended for acceptance in the IECEx Scheme as an IECEx Testing Laboratory (ExTL) according to the scope of the standards listed in this document on the following basis:

1. The Secretariat arranges for the first 3 ExTRs to be reviewed by an IECEx Assessor and only released if found satisfactory
2. In recognition of ITL being new to IECEx, that a surveillance assessment be conducted by an IECEx Assessor, 1 year from the date of acceptance of ITL.

Lead Assessor
Heinz Berger

Expert Assessor
Vijay Varma

Date: August 2015

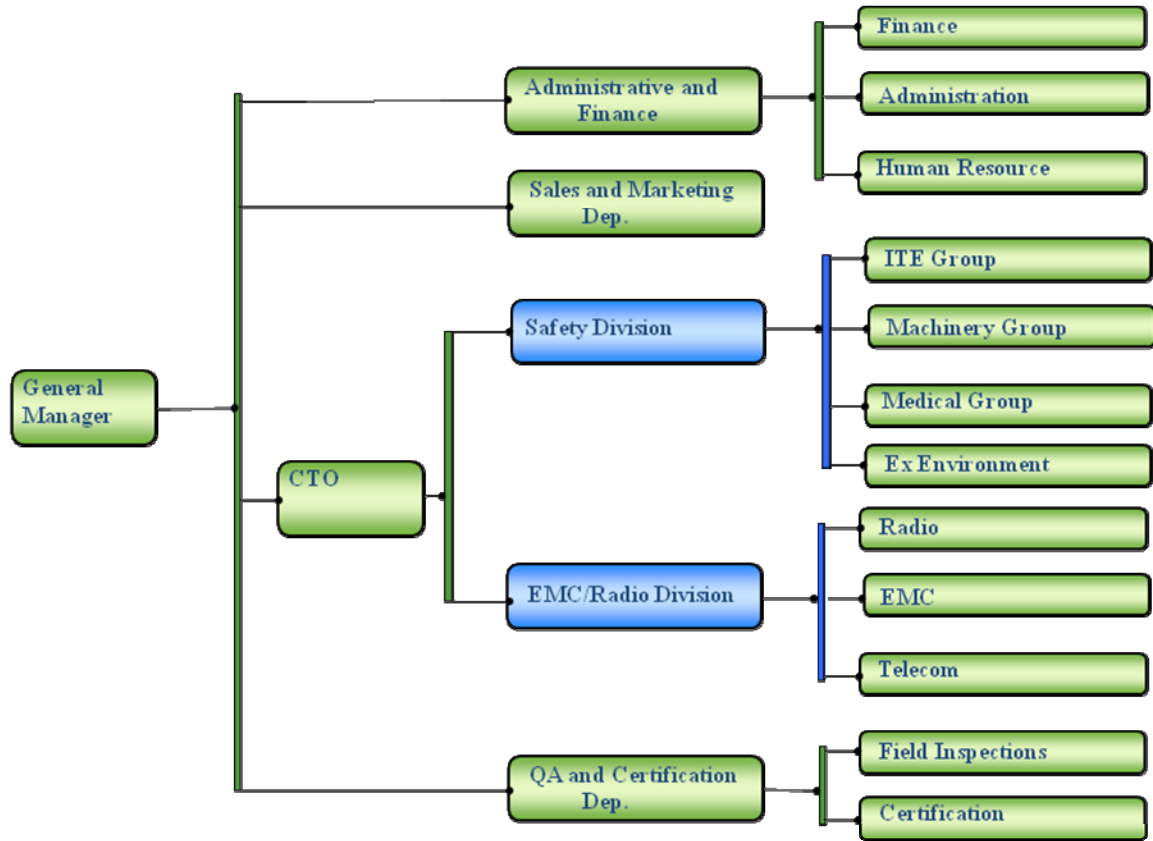
List of Annexes:

- ANNEX 1a:** Overall Organization Chart
- ANNEX 1b:** Organization Chart of ExCB and ExTL
- ANNEX 2:** National Accreditation
- ANNEX 3:** Accreditation Certificate according ISO/IEC 17025
- ANNEX 4:** Approval certificate from IECEE CB Scheme

ANNEX 1a:



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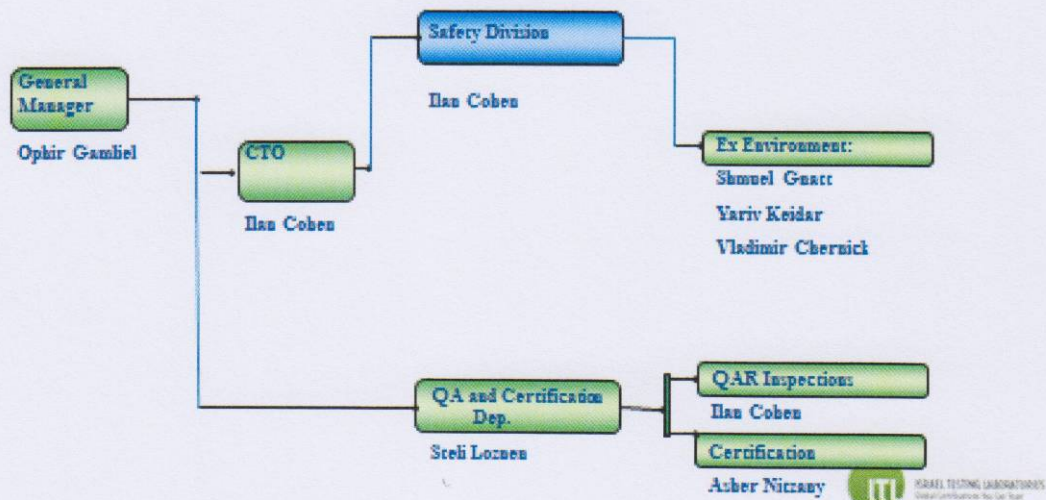


ANNEX 1b:



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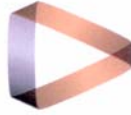
Organization Chart Ex-Environment





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ANNEX 2



State of Israel
Ministry of Economy
Commissioner of Standardization

To Whom it may Concern

We hereby confirm that

ITL(Product Testing) Ltd.

1 Bat-Sheva St., POB 87 Lod,71100 Israel,

has been approved according to the Standards Law of Israel for testing the degree of conformity of goods to standards and mandatory standards in the following fields:

1. Electromagnetic compatibility of domestic electrical appliances, electrical tools and similar electrical equipment, industrial, scientific and medical equipment, information technology equipment;
2. Safety of mains powered electronic equipment intended for domestic and for similar general use;
3. Safety of information technology equipment;
4. Safety of electrical equipment for domestic and similar uses: General requirements;
5. Electrical equipment for medical use: General safety requirements;
6. Safety of electrical equipment intended for measurement, for control and for laboratory use: General requirements;
7. Explosive atmospheres: Equipment-General requirements(*);
8. Safety of machinery-Electrical equipment of machines: General requirements(*);
9. Automatic electrical controls for household and similar use: General requirements(*);
10. Safety of laser products: Equipment classification and requirements(*),

and for issuing Test Certificates in respect thereof.

Permit Designation Number	428
Given on:	01 January, 2014
Valid through:	31 December, 2014

(*) – Extension dated by 16 November, 2014

This approval was granted in accordance with the "Criteria for Laboratory Approval by the Commissioner of Standardization (Director General's Circular No. 7.1)".

We also confirm that ITL (Product Testing) Ltd, is accredited by A2LA.

IGOR DOBROVOLICH
Commissioner of Standardization



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www.economy.gov.il/tkina

Annex 3



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American Association for Laboratory Accreditation

Accredited Laboratory
AZLA has accredited

ITL PRODUCT TESTING LTD
Lod, Israel
for technical competence in the field of
Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-LAF Communiqué dated 8 January 2009).

Presented this 13th day of September 2013.



Peter Rhyne
President & CEO
For the Accreditation Council
Certificate Number 1152.01
Valid to May 31, 2015

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.



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International Electrotechnical
Commission



Worldwide System for Conformity Testing
and Certification of Electrotechnical
Equipment and Components (IECEE)

CERTIFICATE OF ACCEPTANCE

TO PARTICIPATE IN THE IECEE CB-SCHEME

I.T.L. (PRODUCT TESTING) Ltd
1 Bat-Sheva St., POB 87, Lod 71100, Israel

has been assessed and determined to fully comply with the requirements of ISO/IEC 17025: 2005-05, The Basic Rules, IECEE 01: 2012-08 and Rules of Procedure IECEE 02: 2012-08, and the relevant IECEE CB-Scheme Operational Documents.

I.T.L. (PRODUCT TESTING) Ltd

is therefore entitled to operate as a CB Testing Laboratory under the responsibility of **Intertek Testing Services, N.A. Inc.** as National Certification Body and to carry out testing within the IECEE CB Scheme for the Scope (Product Category(ies) and Standard(s)) as listed in the relevant part of the IECEE Web Site at www.iecee.org, and is subject to all other terms as set forth in the IECEE Basic Rules and Rules of Procedure

This certificate remains valid until May 10th 2016 at which time it will be reissued by the IECEE Executive Secretary upon successful completion of the normally scheduled 3-year Reassessment Programme administered by the IECEE CB Scheme.

Date of Issue: 2013-06-27
TL331

Signed by:

Pierre de Ruvo
IECEE EXECUTIVE SECRETARY