



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BKI 15.0005X** Page 1 of 6 Certificate history:
Status: **Current** Issue No: 6 Issue 5 (2018-03-26)
Date of Issue: 2018-11-16 Issue 4 (2017-11-14)
Applicant: **Aegex Technologies LLC, Hungarian Branch Office** Issue 3 (2016-06-01)
H-7632 Pécs, Tildy Zoltán utca 27/1 Issue 2 (2016-03-08)
Hungary Issue 1 (2015-11-27)
Issue 0 (2015-11-18)
Equipment: **Intrinsically safe tablet**
Optional accessory: aegex10 XXXXX
Type of Protection: **General requirements, Intrinsically safe**
Marking:

Ex ib IIC T6 Gb

Ex ib IIIC T85°C Db IP6X

Ex ib I Mb

T_{amb} = -10°C...+50°C and -20°C...+50°C

Ex ib IIC T4 Gb

Ex ib IIIC T135°C Db IP6X

Ex ib I Mb

T_{amb} = -10°C...+50°C and -20°C...+50°C

Ex ib IIC T3 Gb

Ex ib IIIC T200°C Db IP6X

Ex ib I Mb

T_{amb} = -10°C...+55°C and -20°C...+55°C

Approved for issue on behalf of the IECEx
Certification Body:

Edit Molnár

Position:

Head of the Certification Body

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Testing Station for Explosion Proof Equipment
H 1037 BUDAPEST
MIKOVINY S.u. 2-4
Hungary





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Manufacturer: **Aegex Technologies LLC, Hungarian Branch Office**
H-7632 Pécs, Tildy Zoltán utca 27/1
Hungary

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[HU/BKI/ExTR15.0005/06](#)

Quality Assessment Report:

[HU/BKI/QAR15.0001/04](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The aegex10 is an intrinsically safe mobile tablet with WiFi and LTE connectivity is intended for use also in susceptible to firedamp mines with the equipment protection level „Mb“ besides Zone 1, Zone 2, Zone 21 and Zone 22 of potentially explosive atmospheres.

See details in Addendum to IECEx BKI 15.0005X, Addendum to 1st Amendment to IECEx BKI15.0005X, Addendum to 2nd Amendment to IECEx BKI15.0005X, Addendum to 3rd Amendment to IECEx BKI15.0005X and Addendum to 5th Amendment to IECEx BKI15.0005X.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The charging or replacing of the battery pack in potentially explosive atmospheres is forbidden.
2. The charging or replacing of the battery pack is only allowed according to the instructions of the user guide and the warning label of the product.
3. Replacing the SIM card in potentially explosive atmospheres is forbidden, the replace of the SIM card is only allowed outside of the potentially explosive atmospheres according to the instructions of the Manufacturer.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue6

- introduction new manufacturing location:

AEGEX TECHNOLOGIES LLC, Hungarian Branch Office

Address: H-7632 Pécs, Tildy Zoltán utca 27/1, Hungary

IECEx QAR of the new manufacturing location: HU/BKI/QAR15.0001/03

- modification of the construction of leather carry case – possibility to add cover AEG-PAC-0034-01 - and the possibility to change the colour of the leather carry case beside the black colour (with the same antistatic parameters)
- possibility to change the colour of the coating of the tablet with the same PUR composition
- update to T6 temperature class

Issue5

- introduction of the application of T77W676 Telit modem type LN940A9

- extending the ambient temperature range from $T_{amb} = -10\text{ °C}$ to $+50\text{ °C}$ to $T_{amb} = -20\text{ °C}$ to $+55\text{ °C}$

- the temperature class of the product is changed from T6 to T4 generally and from T6 to T3 in case of the upper ambient temperature limit is $+55\text{ °C}$ by the request of the Manufacturer.

See details in addendum to 5th amendment to IECEx BKI15.0005X

Issue4

introduction new manufacturing location to the certificate: ISMS-Aegex Kft.

Headquarter: H-1027 Budapest, II. kerület, Varsányi Irén utca 21. fsz. 1.,

Hungary Production Center: H-7632 Pécs, Littke József u. 26., Hungary

Issue 3

introducing the application of protective leather carry case for the tablet

See details in addendum to 3rd amendment to IECEx BKI15.0005X.

Issue2

- the address of the manufacturer is changed from 3475 Piedmont Road Suite 1000, Atlanta GA 30305, USA to Flatiron Building, 84 Peachtree Street NW, Atlanta, GA 30303 USA

- the type designation of the product changed from Aegex10 XXXXX to aegex10 XXXXX

- introducing the application of using the tablet in mine susceptible to firedamp with the equipment protection level Mb. By this the marking of the device is extended with Ex ib I Mb

- introducing the application of ESD protective case instead of ESD painting (see ECO-160301M file)

- resistor changes (see ECO-154101M and ECO-160303M file) See details in addendum to 2nd amendment to IECEx BKI15.0005X.

Issue1

- The ingress protection of the enclosure is IP 65, so the application of the intrinsically safe tablet type Aegex10 is extended, accordingly the mobile tablet with WiFi and LTE connectivity is intended for use also in Zone 21 and Zone 22 of potentially explosive atmospheres besides Zone 1 and Zone 2 of potentially explosive atmospheres.

- The type designation of the product changed from Aegex10 XXXX to Aegex10 XXXXX

See details in Addendum to 1st Amendment to IECEx BKI15.0005X

Annexes:

[Addendum to 1st Amendment to IECEx BKI 15.0005X.pdf](#)

[Addendum to 2nd Amendment to IECEx BKI 15.0005X.pdf](#)

[Addendum to 3rd Amendment to IECEx BKI 15.0005X.pdf](#)

[Addendum to 5th Amendment to IECEx BKI 15.0005X..pdf](#)



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[Addendum to IECEx BKI 15.0005X.pdf](#)



ADDENDUM TO IECEx CERTIFICATE OF CONFORMITY
IECEx BKI 15.0005X Am. 1.

1. Description

The intrinsically safe tablet type Aegex10 is revised with the following modification:

- The ingress protection of the enclosure is IP 65, so the application of the intrinsically safe tablet type Aegex10 is extended, accordingly the mobile tablet with WiFi and LTE connectivity is intended for use also in Zone 21 and Zone 22 of potentially explosive atmospheres besides Zone 1 and Zone 2 of potentially explosive atmospheres.
- The type designation of the product changed from Aegex10 XXXX to Aegex10 XXXXX (see point 2 of this addendum)

In all other aspects the product is unchanged.

2. Type mark

Aegex10 XXXXX

The „XXXXX” marking shows the different functional services, which does not influence the protection of the equipment. The detailed description of the types can be found in the products manual.

3. Modified documents

Title:	Drawing No.:	Rev. Level:	Date:
Manufacturer's declaration of conformity	DCL2015/001	02	2015.11.24
Aegex 10 combo label specification	AEG-ALA-0001-04	04.	2015.11.24
IP 65 Test Report	3887175	-	2015.10.30



ADDENDUM TO IECEx CERTIFICATE OF CONFORMITY

IECEx BKI 15.0005X Am. 2.

1. Description

The intrinsically safe tablet type is revised with the following modification:

- the type designation of the product changed from Aegex10 XXXXX to aegex10 XXXXX (see point 2 of this addendum)
- introducing the application of using the tablet in mine susceptible to firedamp with the equipment protection level Mb. By this the marking of the device is extended with Ex ib I Mb
- introducing the application of ESD protective case instead of ESD painting (see ECO-160301M file)
- resistor changes according to documentation nr. ECO-154101M and ECO-160303M file

In all other aspects the product is unchanged.

2. Type mark

aegex10 XXXXX

The „XXXXX” marking shows the different functional services, which does not influence the protection of the equipment. The detailed description of the types can be found in the products manual.

3. Modified documents

Title:	Drawing No.:	Rev. Level:	Date:
Manufacturer's declaration of conformity	DCL2015/001	04	2016.03.02
aegex 10 label specification	AEG-ALA-0001-08	08.	2016.02.26
aegex 10 back tempoprinting sepcification	AEG-DSP-009-06	06	2016.03.02
Engineering Change Order 154101M	ECO-154101M		2015.11.23
Engineering Change Order 160303M	ECO-160303M		2016.01.15
Engineering Change Order 160301M	ECO-160301M		2015.09.08
Schematics drawing (aegex mobile tablet) AM10000286.3	AEG-DSP-001-04 (AM10000286.3_AMME32 48.1)	502	2016.01.31
aegex 10 R1 Main board - assembly top	AEG-DSP-0002-03_02		
aegex 10 R1 Main board - assembly bottom	AEG-DSP-0002-03_01		



ADDENDUM TO IECEx CERTIFICATE OF CONFORMITY
IECEx BKI 15.0005X Am. 3.

1. Description

The intrinsically safe tablet type is revised with the following modification:

- introducing the application of protective leather carry case for the tablet

In all other aspects the product is unchanged.

2. Documents

Title:	Drawing No.:	Rev. Level:	Date:
aegex10 carry case	AEG-PAC-0029-01	01	2016.05.28



1. Description

The intrinsically safe tablet type aegex10 is revised with the following modification:

- introduction of the application of T77W676 Telit modem type LN940A9
- extending the ambient temperature range from $T_{amb} = -10\text{ °C}$ to $+50\text{ °C}$ to $T_{amb} = -20\text{ °C}$ to $+55\text{ °C}$
- the temperature class of the product is changed from T6 to T4 generally and from T6 to T3 in case of the upper ambient temperature limit is $+55\text{ °C}$ by the request of the Manufacturer.

2. Type mark

aegex10 XXXXX

According to the base certificate and its amendments it is unchanged.

3. Electrical data

According to the base certificate and its amendments it is unchanged adding the listed under:

Temperature range of battery: -20 °C ... $+70\text{ °C}$



ADDENDUM TO IECEx CERTIFICATE OF CONFORMITY

IECEx BKI 15.0005X

1. Description

The Aegex10 XXXX is an intrinsically safe mobile tablet with WiFi and LTE connectivity for use in Zone 1, 2 of potentially explosive atmospheres. The equipment's power source is a screw mounted 3.8 V battery pack with two cells of 8700 mAh in total.

All electronic parts are protected with either encapsulation, current limiting and separation, or with a combination of these. The enclosure has an anti-static surface, while the touch panel is covered with shock-proof glass to avoid charge generation and possible discharge hazard.

2. Type mark

Aegex10 XXXX

The „XXXX“ marking shows the different functional services, which does not influence the protection of the equipment. The detailed description of the types can be found in the products manual.

3. General parameters

Electrical data

Supply voltage:	3.8 V DC
Digital communication	900/1800/1900 MHz
The radiated max. power:	1.99 W at 850 MHz
Battery:	Li-ion polymer
Temperature range of battery:	-20 C ° - 60° C
Battery rating:	3.8 V, 8700 mAh... 060 mAh

4. Ambient temperature range

-10 °C...+50°C

5. Drawings

Title:	Drawing No.:	Rev. Level:	Date:
Manufacturer's declaration of conformity	DCL2015/001		2015.11.11.
Aegex 10 combo label specification	AEG-ALA-0001-01	03	2015.11.12.
Aegex10 User Guide and technical description	AEG-DPU-0001-01		
AEGEX10 schematic diagram of main circuits AEGEX10_MAIN_PWB_AM10000286_AMME3002_ SCHEMATIC	AEG-DSP-0001-01	500	2015.03.25.
AEGEX10 main board assembly drawing, bottom AEGEX10_MAIN_PWB_AM10000286_AMME3002_ ASSY_BOTTOM	AEG-DSP-0002-01_01	1	2015.03.25.
AEGEX10 main board assembly drawing, top AEGEX10_MAIN_PWB_AM10000286_AMME3002_ ASSY_TOP	AEG-DSP-0002-01_02	1	2015.03.25.
Clearances (table)	Clearances	1	2015.08.04.
Battery schematic diagram	F-SUN0-10.2.9-1-A0		
Aegex A10 battery specification	F-SUN0-10.2.7-2/A3	A0	2015.07.22.
Electrical parts list (bill of materials)	B101UAN01.7 BOM	EC 01	2014.07.17.
Parts list	AEG-SKU-A10I1-001	01.02	2015.07.07.
Assembly work and checking instructions	AEG-PPW-007	01.02	2015.08.19.