Certificate of Compliance

Certificate:	80226565	**Master Contract:**	268548
Project:	80226565	**Date Issued:**	2025-03-14

Issued to: **Tektelic Communications Inc.**
7657 10th Street NE
Calgary, Alberta T2E 8X2
Canada

Attention: Shawn Morrison

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: *Himadri Raj*
Himadri Raj

C US

PRODUCTS

Class 2258 02 PROCESS CONTROL EQUIPMENT - For Hazardous Locations
Class 2258 03 PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations
Class 2258 82 PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards
Class 2258 83 PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations - Certified to US Standards

Model(s)
T000906x, T000907x

Class I, Division 1 Groups B, C, D T6
Class II, Division 1 Groups E, F,G T85 °C

Ex db [ia Ga] IIB+H2 T6 Gb;
Ex tb [ia Da] IIIC T85 °C Db;

Class I, Zone 1 AEx db [ia Ga] IIB+H2 T6 Gb;
Zone 21 AEx tb [ia Da] IIIC T85 °C Db;
Enclosure Type 4X;
IP 66;
-40 °C to +60 °C

Input Ratings:

48Vdc Nominal, 0.6A

Kona Macro Ex Gateway; Model: T000906x, T000907x

Kona Macro Ex Gateway Models	
Models	**Descriptions**
T0009060	North America 915 MHz FDD, Cellular, Geolocation
T0009061	Europe 868 MHz TDD, Cellular, Geolocation
T0009062	Australia 915 MHz TDD, Cellular, Geolocation
T0009063	Australia 923 MHz TDD, Cellular, Geolocation
T0009064	Brazil 915 MHz TDD, Cellular, Geolocation
T0009065	Singapore 923 MHz TDD, Cellular, Geolocation
T0009066 – T0009079	See note below

Note: The models numbers above can be shown as T000906x, T000907x.

where x = 0 thru 9 are options on the Gateway PCBA in support of different geographic regions (RF frequencies, FDD/TDD operating modes, geolocation, etc.)

The differences between models are limited to the internal Gateway PCBA with RF filter with respect to RF regions and functional capabilities.

APPLICABLE REQUIREMENTS

CSA C22.2 No. 25:17 - Fourth Edition - Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations

CSA C22.2 No. 30-20 - Fourth edition - Explosion-proof equipment

CSA C22.2 No. 60079-0:19 - Explosive atmospheres — Part 0: Equipment -General requirements

CAN/CSA C22.2 No. 60079-1:16 - Explosive atmospheres - Part 1: Equipment protection by flameproof enclosure “d”

CAN/CSA C22.2 No. 60079-11:14 - Second Edition - Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i”

CAN/CSA C22.2 No 60079-31:15 - Second Edition - Explosive atmospheres — Part 31: Equipment dust ignition protection by enclosure "t"

UL 1203 (Sixth Edition) - UL Standard for Safety ExplosionProof and Dust-IgnitionProof Electrical Equipment for Use in Hazardous (Classified) Locations

ANSI/UL 913-2022 Eighth Edition - Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations

ANSI/UL 60079-0 (Seventh Edition) - UL Standard for Explosive Atmospheres - Part 0: Equipment - General Requirements

ANSI/UL 60079-1-2020 Seventh Edition - Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures 'd'

ANSI/UL 60079-11-2018 (R2023) Sixth Edition - Explosive Atmospheres - Part 11: Equipment Protection by Intrinsic Safety 'i'

ANSI/UL 60079-31:2015 - Second Edition - Explosive Atmospheres - Part 31: Equipment Dust Ignition Protection by Enclosure 't'

CSA C22.2 No. 94.2:20 (Third Edition) - Enclosures for electrical equipment, environmental considerations

ANSI/UL 50E, 3rd Edition - Enclosures for Electrical Equipment, Non-Environmental Considerations

CSA C22.2 No. 62368-1:19 - Third Edition - Audio/video, information and communication technology equipment — Part 1: Safety requirements

UL 62368-1:2019 - Third Edition - Including revisions through October 22, 2021 - UL Standard for Safety Audio/video, information and communication technology equipment – Part 1: Safety requirements

Certificate: 80226565 **Master Contract**: 268548

Project: 80226565 **Date Issued**: 2025-03-14

Conditions Of Acceptability

1. The equipment supply shall be powered with an approved ES1, PS2 Power over Ethernet (PoE) IEEE 802.3at (Type 2 Class 4) or ES1 (SELV), PS2 Limited Power Source (LPS) power adaptor or DC input source earthed suitable for use at altitude 4000m. This external power supply is not part of evaluation.

2. The Cable selection and provisioning along with required entry hardware such as cable glands, adapters, mating connector to RF connectors and conduit fittings are to be site selected and provided. All cables and hardware are not a part of certification and shall be suitably approved and shall be in compliance with NFPA 70, National Electrical Code, CSA C22.1, Canadian Electrical Code, providing and maintaining a degree of protection of at least IP66 / Type 4X.

3. The equipment shall be reliably earthed in final installation through a permanently connected Protective Earth (PE) Ground conductor. The Protective Earth Ground connection is made through a double hole lug to the termination point located on the side of the enclosure as illustrated in Figure 8. The cable lug musthave 6.35 mm ø holes on 16 mm centers (0.25” ø on 0.63” centers). The required ground cable gauge is #10 AWG (4 mm2) minimum. This ground connection to earth is always required. It shall be in compliance with local and National Electrical Code. Follow steps from the Manual for Ground cable installation.

4. External fasteners used for securing flameproof joints shall have a minimum property class of A4-70.

5. The flameproof joints are not intended to be repaired.

6. The fixed installation equipment is coated with paint finish and may generate an ignition capable level of electrostatic charge under certain extreme conditions. The user shall ensure that the equipment is not installed in a location where it might be subjected to external conditions of high airflow rate that might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment shall be done only with damp cloth.

7. For the DC input power connector, the DC positive pin must be at a positive potential relative to the DC negative pin. If the polarity is reversed, the unit will not sustain damage but will not operate until the connection polarity is corrected.

8. The interfaces between the male thread of the Ex-component – Breather and Stopping Plug and an associated enclosure and female thread of the products and the cable entry device cannot be defined. Therefore, it is the user's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.

9. The threaded spigots of Type 'Bd' Breather Drains are not permitted to protrude into the associated enclosure to maintain their ingress protection ratings.

10. The threads of the internal plug of the Type 'Bd' Breather Drains must be fully tightened within the main body and not protrude above the body surface.

11. Type 'Bd' breather/drains are only suitable for bottom entry.

12. Stopping Plug (U5.a.b.c.d) is not to be used in conjunction with any other cable entry device.

13. End users may select their own antenna and it is end users’ responsibility to choose the antenna that meets the requirement of Simple Apparatus as per Clause 5.7, CSA / UL 60079-11.

14. End users may select their own RF cable and it is end users’ responsibility to choose cable with following limits:
Maximum RF cable length = 42 m
Maximum RF cable capacitance = 250 pF/m

Maximum RF cable inductance = 0.6 µH/m

15. The antenna shall be fed by a minimum 50 Ω source impendence.

16. End users may select their own antenna, but it must provide isolation from earth when required and be installed according to the instructions provided in the manual. Additionally, the radio frequency threshold power (9 kHz to 60 GHz) must not exceed 2W, in compliance with Clause 6.6.2 of CSA / UL 60079-0:2019.

17. The Maximum Um shall not exceed 60Vdc.

Markings

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Method of Marking: The metallic (Aluminum) nameplate is used for marking attached to the side of the metallic Enclosure. The marking is permanently laser engraved to the metal nameplate and secured to the equipment with the blind screws.

- Manufacturer’s name: “Tektelic”, or CSA Master Contract Number “268548”, adjacent to the CSA Mark in lieu of manufacturer’s name.
- Model designation: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date, or serial number, traceable to year and month of manufacture.
- Enclosure ratings: As specified in the PRODUCTS section, above.
- The CSA Mark, as shown on the Certificate of Conformity.
- The designation “CSA 25CA80226565X” indicating issuer (“CSA”), year of issue (“zz”), followed by “CA”, followed by the CSA Certificate number (“yyyyyyyy”), followed by an “X” if there are Specific Conditions of Use.
- Hazardous Location designation: As specified in the PRODUCTS section, above. The word “Class” may be abbreviated “CL”, the word “Division” may be abbreviated “DIV”, and the word “Groups” may be abbreviated “GRP” or “GP”, and
- Temperature code: As specified in the PRODUCTS section, above.
- The manufacturing location shall be identified if the equipment can be produced in more than one facility.
- The following optional additional markings may be used.

The following is the other required markings added to the enclosure, but not on the nameplate.

- ISO 60417, Symbol 5019 shall be permanently marked adjacent to the equipment ground (protective conductor) terminal.

- Equipment having metric threaded entries for the field wiring shall have a permanent marking which
- includes the thread size and type (e.g., M25)

Warning

The following words, or suitable equivalent, in English and French:

- The words: “WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS” and “AVERTISSEMENT - RISQUE DE CHARGE ÉLECTROSTATIQUE POTENTIEL - VOIR LES INSTRUCTIONS”, or suitable equivalent.

- “WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT” and “AVERTISSEMENT – NE PAS OUVRIR EN PRÉSENCE D’UNE ATMOSPHÈRE EXPLOSIVE”

- “WARNING – “SEAL ENTRIES WITHIN ’18 INCH’ OF ENCLOSURE” and “ATTENTION – SCELLER LES ENTRÉES À MOINS DE ’18 INCH’ DE L’ENCEINTE”

- “WARNING - ENTRY CONDUCTORS OR CABLE AND CABLE GLANDS SUITABLE FOR 70°C REQUIRED” and “ ATTENTION - CONDUCTEURS D'ENTRÉE OU CÂBLE ET PRESSE-ÉTOUPES CONVENANT À 70 °C REQUIS”

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Notes:

Products certified under Class(es) C225802, C225803, C225882, C225883 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

Supplement to Certificate of Compliance

Certificate: 80226565 **Master Contract:** 268548

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80226565	2025-03-14	Original cCSAus certification of IoT Gateway Models T000906x, T000907x where x = 0 thru 9 are options on the Gateway PCBA in support of different geographic regions.