1 EU - TYPE EXAMINATION CERTIFICATE

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2 **Product or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU – Annex III**

3 EU - Type Examination Certificate No.: **TRAC09ATEX21205X (incorporating variations V1 to V5)**

4 Product: **Zone 1/21 Desktop Telephone**
Models DTT-50-Z; DTT-60-Z; DTR-51-Z; DTR-61-Z, DTT-50-Z-PTT

5 Manufacturer: **Guardian Telecom, A Division of Circa Enterprises Inc.**

6 Address: **#10 2256 – 29 Street North East, Calgary, Alberta, T1Y 7G4, Canada**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Element Materials Technology, Notified Body number 2812, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports **16-0024-004675-1, 16-0097-006458, 16-0097-006458-1, 16-0097-006458-2, TES-004147-16-00, TRA-016390-33-00A and TRA-037967-33-00A.**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-7:2015+A1:2018** **EN IEC 60079-11:2012**

EN 60079-18:2015+A1:2017

Except in respect of those requirements listed at section 18 of the schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

II 2G Ex eb ib mb IIC T5 Gb **-30 ºC ≤ Ta ≤ +60 ºC**
II 2D Ex ib mb IIIC T100 °C Db **-30 ºC ≤ Ta ≤ +60 ºC**
II 2G Ex eb ib mb IIC T6 Gb **-30 ºC ≤ Ta ≤ +45 ºC**
II 2D Ex ib mb IIIC T85 °C Db **-30 ºC ≤ Ta ≤ +45 ºC**

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.

S P Winsor, Certification Manager

Issue date: 2021-03-16

Element Materials Technology Rotterdam B.V.
Zekeringstraat 33, 1014 BV, Amsterdam, Netherlands
Registered in the Netherlands. Registered Office: PO Box 6854, 4802 HW, Breda, Netherlands
Company Reg No. 24170257

13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 CERTIFICATE NUMBER TRAC09ATEX21205X (incorporating variations V1 to V5)

15 Description of Product

The zone 1/21 hazardous area telephones are housed within a polymeric high impact enclosure and have an accessible terminal block for line connections. These units also have an internal ring detect relay which will activate an external warning device when a ring signal is activated. This relay provides volt free contacts for user connection.

The DTT-50-Z model (curly cord) and the DTT-60-Z (armoured cord) are standard with a speaker, LCD display and membrane keypad. The DTT-50-Z-PTT is identical to the DTT-50-Z but features ferrite cores wrapped around the handset cord and the incoming telephone wire inside the enclosure.

The DTR-51-Z (curly cord) and DTR-61-Z (armoured cord) models are ring down versions of the zone 1 telephone. Calls from these telephones are direct by PABX and the call is activated by lifting the hand set. The ring down telephones are not fitted with a keypad but have a volume control button on the hand set and have all of the other standard features of the key pad units.

The basis of safety for these telephones is achieved through a combination of increased safety, encapsulation, and intrinsic safety.

Table of entity parameters	
Parameter	Value
Um	178 V

16 Test Report No. (as added for this issue of the certificate): TRA-037967-33-00A.

17 Specific Conditions of Use

1. The enclosure must be opened in a non-hazardous location in order to make the necessary connections. The connecting cable must be suitable for use in the EX environment (see IEC 60079-14) and be secured using the cable gland provided.
2. The volt free contacts for the ring detect circuit must only be connected to external equipment suitably rated for its end-use EX environment (see IEC 60079-14) and be secured using the cable gland provided.
3. During installation, it must be ensured that external wiring to connectors J1 and J2 must be sheathed to within 10 mm of the terminals. External wiring shall be rated for a minimum of 250 V and run so that 50 mm separation is maintained between wiring and terminals / connectors other than J1 and J2.

Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

18 Essential Health and Safety Requirements (Directive Annex II)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

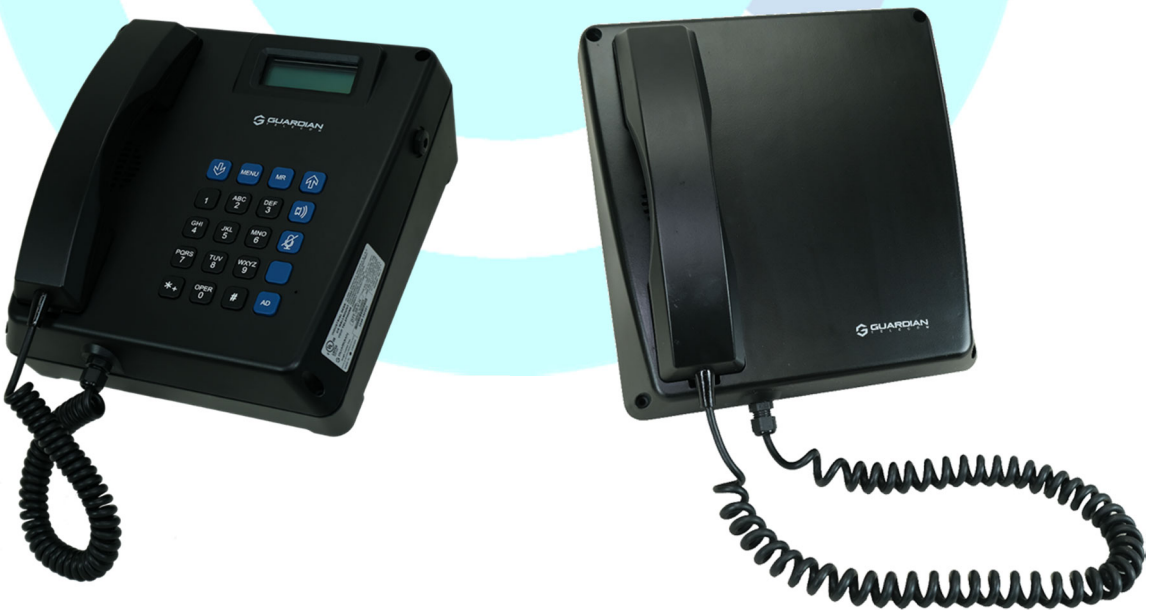
20 Routine Tests

1. The dielectric strength test shall be used to test the isolation of circuits from each other and from their environment. The test shall be carried out applying the voltage levels of 1500 Vac. The test voltage shall be applied for at least 1 second between:
   i. J2 terminals and the surface of the encapsulant (central area of assembly),
   and;
   ii. J2 terminals and J1 terminals.
2. Each piece of encapsulated apparatus shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure in adhesion or softening.
3. The values of the resistor components shall be inspected and confirmed as R1-R5 ≥ 2K2, R6 ≥ 91K, R7 ≥ 100R.

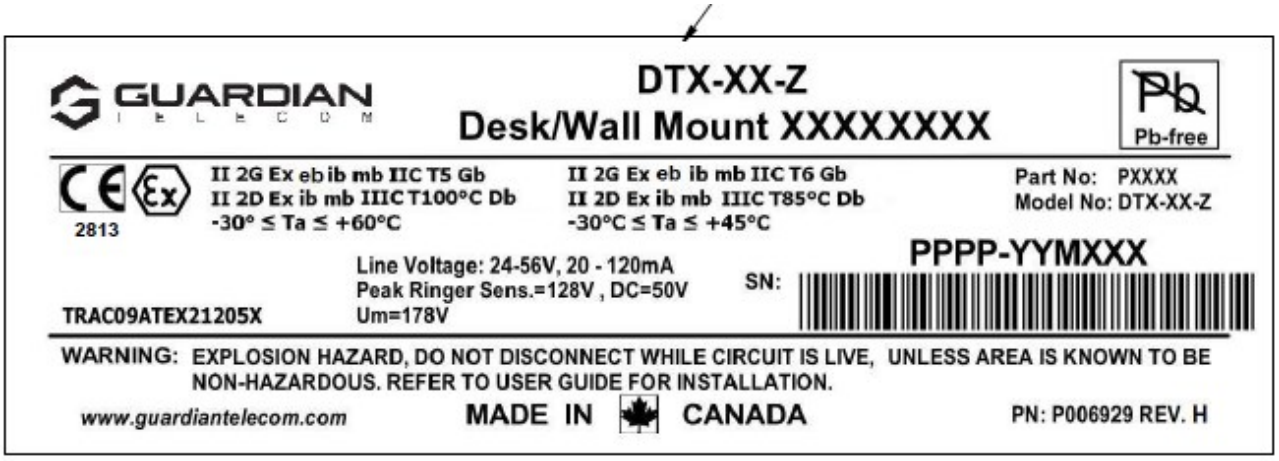
21 Specific Conditions for Manufacture

1. Only material type BMC-1 by Ningbo Yinzhou (UL file ref 241704) is permitted for use in the construction of the enclosure.
2. The critical spacings and track widths on the PWBs are detailed within Guardian design document DR-ENG-001 rev C. All manufactured PWBs must conform to the parameters laid out within this document.
3. Where specific manufacturers and types of zener diodes and thyristors are identified within this report then only these types may be used for production.
4. All wire conductors should be of minimum diameter 0.1 mm.

22 Photographs



23 Details of Markings



24 Certificate History

Original certificate	2009-05-27	First issue.
Variation V1	2010-06-11	Revision to intrinsically safe circuits for functional improvements; encapsulation of intrinsically safe circuits (mainly to reduce temperature class to T5); change of encapsulating compound; Reduction of lower ambient to -30 °C and inclusion of T6 variants at lower ambient of +45 °C.
Variation V2	2011-04-21	Revision to the intrinsically safe circuit components and documentation changes, deemed not to affect the safety aspects.
Variation V3	2014-01-23	Minor modifications to drawings and non-critical changes to the zone 1/21 desktop phone models DTT-(50/60)-Z and DTR-(51/61)-Z only and update of standards.
Variation V4	2014-08-28	Change of address
Variation V5	2021-03-16	1. This certificate was originally issued by Notified Body number 0891 under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body number 2812. 2. Manufacturer, applicant name and address changed. Update to applied standards. New housing design, a new model added DTT-50-Z-PTT. Marking label, instructions, conditions for manufacture and routine tests updated.

This certificate is a consolidated certificate and reflects the latest status of the certification, including all variations and amendments.

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: ERO032645P95 (NR-GTMQ-0001).

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variation certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

(i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.

(ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

APPENDIX A - TECHNICAL DOCUMENTS			
Title:	**Drawing No.:**	**Rev. Level:**	**Date:**
P006572 Rev 1 ANSI 60079-11 evaluation	DR-ENG-001	C	2020-05-19
PCB – DTT/DTR MAIN BOARD (6 sheets)	P006572	1.0	2020-01-14
KEYPAD, VOLUME CONTROL (Sheet 1 of 2)	P006687	C	2013-06-19
CORD – 24″	P006689	F	2021-01-21
GSKT-BETWEEN HOUSING & SPEAKER CONE	P006995	B	2020-12-01
SWCH-DTT KEYPAD (2 Sheets)	P007689	B	2020-12-01
FPLT-DTT, KEYPAD-LCD, COATED & ASBL (CC) (7 sheets)	P007692	A	2018-05-17
FPLT, DTR, COATED (CC) (3 sheets)	P007693	A	2018-05-17
HSG-DTT/R, W/GSKT & RB FT, COATED (CC) (4 sheets)	P007694	A	2018-05-17
HNDST-SHELL, M-STYLE, BOT NO VC (2 sheets)	P007695	A	2018-05-17
HNDST-M-STYLE, TOP SHELL, COATED(CC)	P007696	A	2018-05-17
HNDST-M-STYLE, BOT SHELL, VC, W/GSKT, COATED (CC) (2 sheets)	P007697	A	2018-05-17
PCBA-DTT/DTR MAIN BOARD (5 sheets)	P006573 (schematic)	A2	2020-01-14
PCBA-DTT/DTR MAIN BOARD BOM (2 sheets)	P006573 (BOM)	A	2020-01-30
SA-DTT/DTR MAIN BOARD POTTED	P007198 (potting layout)	F	2020-04-23
SA-DTT/DTR MAIN BOARD POTTED BOM	P007198 (BOM)	F	2020-01-31
PCBA-DTT KEYPAD SWITCHING BOARD (2 sheets)	P007746 (schematic)	A	2018-06-08
PCBA-DTT KEYPAD SWITCHING BOARD BOM	P007746 (BOM)	A	2018-06-12
PCB-SWITCHING BOARD KYPD, DTT (2 sheets)	P007743	1.0	2018-06-04
GA-DTT-CURLY CORD (CC) (5 sheets)	P007736 (assembly)	B	2020-01-22
GA-DTT-CURLY CORD (CC) BOM (2 sheets)	P007736 (BOM)	B	2020-01-28
GA-DTT-ARMORED CORD (CC) (5 sheets)	P007737 (assembly)	B	2020-01-28
GA-DTT-ARMORED CORD (CC) BOM (2 sheets)	P007737 (BOM)	B	2020-01-28
DTR CURLY CORD (CC) (6 sheets)	P007738 (assembly)	B	2020-01-24
DTR CURLY CORD (CC) BOM (2 sheets)	P007738 (BOM)	B	2020-01-23

GA – DTR ARMOURED CORD (CC) (6 sheets)	P007739 (assembly)	B	2020-01-24
GA – DTR ARMOURED CORD (CC) BOM (2 sheets)	P007739 (BOM)	B	2020-01-24
Installation & Operation Manual – DTT-50-Z & DTT-60-Z (30 sheets)	P006812	K	2020-08-31
Installation & Operation Manual – DTT-51-Z & DTR-61-Z (21 sheets)	P006813	I	2020-10-02
LABEL DTT-Z ZONE 1 & DTR-Z ZONE 1 (IH) DESK/WALL MOUNT TELEPHONE	P006929	I	2021-03-09
SWCH KEYPAD, DTT-DTR, PUSH TO TALK, SILICON	P007892	A	2019-12-19
Zone 1 / Zone 2 – Critical Components List	P007917	B	2020-09-31
FA-DTT-50-Z (ZONE 1) CURLY CORD, KEYPAD	P9051 (assembly)	A	2018-05-30
FA-DTT-50-Z (ZONE 1) CURLY CORD, KEYPAD BOM	P9051 (BOM)	A	2020-01-31
FA-DTT-60-Z (ZONE 1) ARMRD CORD, KEYPAD	P9052 (assembly)	A	2018-05-30
FA-DTT-60-Z (ZONE 1) ARMRD CORD, KEYPAD BOM	P9052 (BOM)	A	2020-01-31
FA-DTR-51 DESK TOP RINGDOWN CURLY CORD	P9053 (assembly)	A	2018-05-17
FA-DTR-51 DESK TOP RINGDOWN CURLY CORD BOM	P9053 (BOM)	A	2020-01-31
FA-DTR-61-Z (ZONE 1) ARMRD CRD, RNGDOWN	P9054 (assembly)	A	2018-05-30
FA-DTR-61-Z (ZONE 1) ARMRD CRD, RNGDOWN BOM	P9054 (BOM)	A	2020-01-31
FA DTT-50-Z c/w PTT HANDSET (5 sheets)	P9066 (assembly)	A	2020-02-26
FA DTT-50-Z c/w PTT HANDSET (2 sheets)	P9066 (BOM)	A	2020-02-26