

1 EU - Type Examination Certificate

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: ExVeritas 17 ATEX 0277 X Issue: 1

4 Equipment: ToughPIX DIGITHERM Cameras TP3aEx, TP3kEx, TP3rEx and EXTREME TP3Ex

5 Manufacturer: CorDEX Instruments Limited

6 Address: Unit 5A, Jacksons Yard, Showfield Lane Industrial Estate
Malton YO17 6BT UK

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

8 ExVeritas, Notified Body number 2585 in accordance with Article 9 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the Directive

9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with the following Standards and section 16 of this certificate:

EN 60079-0:2012+A11:2013 EN 60079-28:2015
EN 60079-11:2012

10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design, construction, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment shall include the following:



No. 8613

 II 2G

Ex ib op is IIC T4 Gb Ta = -10°C to +40°C



This certificate may only be reproduced in its entirety and without any change, schedule included.
The certificate is only valid when it carries an original signature.
For help or assistance relating to this certificate, contact info@exveritas.com.
ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.
ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.



Schedule

13 Description of Equipment or Protective System

The camera is a battery powered hand held dual-mode digital with auto-focus and IR camera with preview LCD. User interface is via joystick control. Images are stored on a removable memory card. Only the CorDEX SD card may be used.

External communication is with embedded WIFI and GPS capability included.

The IP54 enclosure is made from aluminium. Access is available to replace the battery and memory card.

The equipment is battery powered by single rechargeable Lithium-Ion cell in a battery pack. The battery is removed from the camera for charging. Both removal and charging of the battery are only permitted in safe areas. Only the CorDEX battery pack and memory card may be used.

Models description:

- TP3Ex ToughPIX EXTREME Intrinsically Safe Digital Camera
- TP3aEx ToughPIX DIGITHERM Intrinsically Safe Digital Thermal Camera
- TP3kEx ToughPIX DIGITHERM Intrinsically Safe Digital Thermal Camera
- TP3rEx ToughPIX DIGITHERM Intrinsically Safe Digital Thermal Camera

(All the camera models are software configured using the same hardware with population options)

Accessories used in the camera

- CDX16IS CorDEX 64Gb IS Memory Card
- CDX04IS CorDEX 16Gb IS Memory Card
- CDX08IS CorDEX 8Gb IS Memory Card
- CDX370 3.7V Lithium Battery Pack

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R1060/A/1	2017-10-13	0	Initial issue of the Prime Certificate
R1984/A/1	2019-04-30	1	<p>This evaluation covers the following design updating:</p> <ul style="list-style-type: none"> • Applicant and manufacturer address change • Addition of alternative SDCard or micro-SDCard under part number CDX8950-480 as an alternative approved accessory <ul style="list-style-type: none"> ◦ CDX08IS CorDEX 8GB IS Memory card added as a new permitted accessory. The current eMMC SDCard will still be used under the existing accessory part-numbers • Option to not populate GPS module (U15) from the CDX8950-211 Imager PCBA BOM • Models now known as follows: <ul style="list-style-type: none"> ◦ TP3Ex ToughPIX EXTREME Intrinsically Safe Digital Camera ◦ TP3aEx ToughPIX DIGITHERM Intrinsically Safe Digital Thermal Camera ◦ TP3kEx ToughPIX DIGITHERM Intrinsically Safe Digital Thermal Camera ◦ TP3rEx ToughPIX DIGITHERM Intrinsically Safe Digital Thermal Camera

Certificate: ExVeritas 17 ATEX 0277 X Issue 1

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

			<p>All the camera models are software configured using the same hardware with population options</p> <ul style="list-style-type: none"> • Updated label CDX8950-445 to add missing models: TP3aEx, TP3kEx and TP3rEx • Updates for TP3Ex model <ul style="list-style-type: none"> ○ TP3Ex is a visible only version known as EXTREME ○ CDX8950-480 DIGITHERM GA updated to show DIGITHERM and EXTREME no-populations ○ CDX8950-400 DIGITHERM HLA GA population options: <ul style="list-style-type: none"> ➢ CDX8950-443 lens guard replaced with single lens version ➢ CDX8950-211 Imager PCBA BOM no-populations: <ul style="list-style-type: none"> ▪ U10, U10_FCC ○ Updated label CDX8950-456 for the EXTREME TP3Ex model
--	--	--	---

14.2 Compliance Drawings:

Issue 0

Number	Date	Issue	Description
CDX8950-200	15/08/2017	Rev1.1	CorDEX IS-Camera IS/ATEX system schematic
CDX8950-201	28/08/2017	Rev1.1	CorDEX IS-Camera IS/ATEX system BOM
CDX8950-210	25/08/2017	Rev1.2	IS-Camera Imager PCB schematic
CDX8950-211	03/10/2017	Rev1.2b	IS-Camera Imager BOM
CDX8950-213	01/08/2017	Rev1.2	IS-Camera Imager PCB fabrication drawing
CDX8950-214	01/08/2017	Rev1.2	IS-Camera Imager PCB assembly drawing
NA	04/08/2017	Rev1.2	IS-Camera Imager RS274 (gerbers)
CDX8950-220	18/07/2017	Rev1.2	IS-Camera BatteryPack PCB schematic
CDX8950-221	17/07/2017	Rev1.2	IS-Camera BatteryPack BOM
CDX8950-223	18/07/2017	Rev1.2	IS-Camera BatteryPack PCB fabrication drwg
CDX8950-224	18/07/2017	Rev1.2	IS-Camera BatteryPack PCB assembly drawing
NA	18/07/2017	Rev1.2	IS-Camera BatteryPack RS274 (gerbers)
CDX8950-230	15/08/2017	Rev1.3	IS-Camera FlashLED PCB schematic
CDX8950-231	15/08/2017	Rev1.3	IS-Camera FlashLED BOM
CDX8950-233	15/08/2017	Rev1.3	IS-Camera FlashLED PCB fabrication drwg
CDX8950-234	15/08/2017	Rev1.3	IS-Camera FlashLED PCB assembly drawing
NA	15/08/2017	Rev1.3	IS-Camera FlashLED RS274 (gerbers)
CDX8950-240	07/07/2017	Rev1.1	IS-Camera BattConn PCB schematic
CDX8950-241	18/07/2017	Rev1.1	IS-Camera BattConn BOM
CDX8950-243	07/07/2017	Rev1.1	IS-Camera BattConn PCB fabrication drwg
CDX8950-244	07/07/2017	Rev1.1	IS-Camera BattConn PCB assembly drawing
NA	07/07/2017	Rev1.1	IS-Camera BattConn RS274 (gerbers)

Certificate: ExVeritas 17 ATEX 0277 X Issue 1

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

Number	Date	Issue	Description
CDX8950-250	14/03/2017	Rev1.0	IS-Camera SDCard PCB schematic
CDX8950-251	16/03/2017	Rev1.0	IS-Camera SDCard BOM
CDX8950-253	15/03/2017	Rev1.0	IS-Camera SDCard PCB fabrication drwg
CDX8950-254	15/03/2017	Rev1.0	IS-Camera SDCard PCB assembly drawing
NA	15/03/2017	Rev1.0	IS-Camera SDCard RS274 (gerbers)
CDX8950-260	01/08/2017	Rev1.1	IS-Camera NUCFFC PCB schematic
CDX8950-261	02/08/2017	Rev1.1	IS-Camera NUCFFC BOM
CDX8950-263	02/08/2017	Rev1.1	IS-Camera NUCFFC PCB fabrication drwg
CDX8950-264	02/08/2017	Rev1.1	IS-Camera NUCFFC PCB assembly drawing
NA	02/08/2017	Rev1.1	IS-Camera NUCFFC RS274 (gerbers)
CDX8950-270	18/07/2017	Rev1.1	IS-Camera Limiter PCB schematic
CDX8950-271	21/06/2017	Rev1.1a	IS-Camera Limiter BOM
CDX8950-273	21/06/2017	Rev1.1	IS-Camera Limiter PCB fabrication drwg
CDX8950-274	21/06/2017	Rev1.1	IS-Camera Limiter PCB assembly drawing
NA	21/06/2017	Rev1.1	IS-Camera Limiter RS274 (gerbers)
CDX8950-400	01/08/2017	Rev B	IS-Camera General Assembly
CDX9850-401	26/09/2017	Rev 0.1b	IS-Camera GA Material BOM
CDX8950-405	22/06/2017	Rev A	IS-Camera Surface areas (non-metallic)
CDX8950-406	01/08/2017	Rev B	IS-Camera Component Insulators
CDX8950-407	27/06/2017	Rev A	IS-Camera FlashLED potting
CDX8950-409	18/07/2017	Rev A	IS-Camera BatteryPack X-section
CDX8950-445	18/09/2017	Rev A	IS-Camera rating plate
CDX8950-448	18/07/2017	Rev A	IS-Camera Infallible GND wire drwg
CDX8950-450	15/03/2017	Rev A	IS-Camera Door Assembly GA
CDX8950-470	22/06/2017	Rev A	IS-Camera BatteryPack GA
CDX8950-511	29/09/2017	Rev A	IS-Camera Safe Operations Manual
CDX1830-054	23/06/2017	Rev A	IS-Camera FFC Insulation (for FlashLED)
SOM15A	25/09/2017	Rev A	EC Declaration of Conformity (DIGITHERM)

Issue 1

Number	Date	Issue	Description
CDX8950-201	15/01/2019	Rev1.2	CorDEX IS-Camera IS/ATEX system BOM
CDX8950-445	20/02/2019	Rev C	IS-Camera rating plate(DIGITHERM)
CDX8950-456	20/03/2019	Rev B	IS-Camera rating plate(EXTREME)
CDX8950-400	27/02/2019	Rev C	IS-Camera General Assembly
CDX8950-511	04/04/2019	Rev C	IS-Camera Safe Operations Manual
CDX8950-405	20/03/2019	Rev B	IS-Camera Surface areas (non-metallic)

Certificate: ExVeritas 17 ATEX 0277 X Issue 1

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.



Schedule

Number	Date	Issue	Description
CDX8950-407	21/03/2019	Rev B	IS-Camera FlashLED potting

15 Conditions of Certification

15.1 Special Conditions for Safe Use

- *Only CorDEX approved accessories (battery pack and memory card) are permitted to be used in the ToughPIX DIGITHERM Cameras. The use of others accessories invalidate the approval for explosive atmospheres.*
- *The capacitance of the non-earthed exposed metallic parts of the enclosure exceeds the values given in Table 9 of IEC 60079-0 (which is 3pF for Gas group IIC). It is the responsibility of the user to determine the suitability of the maximum device enclosure's capacitance to ground, measured/tested to be 82.3 pF, when using this equipment for its intended purpose in accordance with the operating/instruction manual.*

15.2 Conditions for Use
(Routine Tests)

None.

16 Essential Health and Safety Requirements

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1

The manufacturer shall inform the Notified Body of any modifications to the design of the product described by this schedule.

Certificate: ExVeritas 17 ATEX 0277 X Issue 1

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.