1 # EU - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

3	EU - Type Examination Certificate Number:	**Baseefa18ATEX0152X – Issue 8**
4	Product:	**Handheld Radio Transceiver DTEx Series**
5	Manufacturer:	**Entel UK Limited**
6	Address:	**320 Centennial Avenue, Centennial Park, Elstree, Hertfordshire, WD6 3TJ, United Kingdom**

7 This re-issued certificate extends EU Type Examination Certificate No. Baseefa18ATEX0152X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, 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.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History**

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

EN IEC 60079-0:2018 **EN 60079-11:2012**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the 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 the product shall include the following:

See Schedule

SGS Fimko Oy Customer Reference No. **7222** Project File No. **20/0268**

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13 # Schedule

14 ## Certificate Number Baseefa18ATEX0152X – Issue 8

15 Description of Product

The Handheld Radio Transceiver DTEx Series is comprised of a range of hand-held, battery powered, portable, two-way radios. Each model has a plastic enclosure containing printed circuit boards and, optionally, a keypad and an OLED (organic light emitting diode) display. A transmit/receive antenna is mounted externally by a screw connection. The battery supply is contained in a separate pack which is attached to the main enclosure by plastic clips and secured by a locking screw. The battery supply comprises two, rechargeable, lithium ion cells connected in series. The battery pack maintains intrinsic safety when separated, permitting removal in an explosive atmosphere. The battery pack shall not be recharged in an explosive atmosphere.

The only external user connections are to the battery charging terminals for the charger; the side connector for the audio accessories; and the USB connector for the USB Programming Lead.

The following is a list of the UHF model numbers and associated certification coding covered by this certificate:

DT882, DT885	Ⓔx II 2G Ex ib IIA T4 Gb (-20°C ≤ Ta ≤ +40°C)
DT882FF, DT882M, DT885FF, DT885M	Ⓔx II 2G Ex ib IIB T4 Gb (-20°C ≤ Ta ≤ +40°C)
DT952, DT953, DT981, DT982, DT985, DT982M, DT982FF, DT985FF, DT985M	Ⓔx II 2G Ex ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C)

The following is a list of the VHF model numbers and associated certification coding covered by this certificate:

DT822, DT825,	Ⓔx II 2G Ex ib IIA T4 Gb (-20°C ≤ Ta ≤ +40°C)
DT842, DT842FF, DT844, DT844FF	Ⓔx II 2G Ex ib IIB T4 Gb (-20°C ≤ Ta ≤ +40°C)
DT922, DT925, DT925E, DT942, DT942FF, DT944, DT944FF	Ⓔx II 2G Ex ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C)

The following is a list of the Upband model numbers and associated certification coding covered by this certificate:

DT982U, DT985U, DT985U/CB	Ⓔx II 2G Ex ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C)

The following electrical accessories are certified and approved for use with the DTEx Series Portable radios:

Accessory	Description
CMP/DT9	Submersible Speaker/Microphone
CHP950D	Ear defender headset
CHP950HD	Double sided ear defender
CHP950HS	Single sided ear defender
PTT-E/DT9	Push To Talk (PTT) switch for CHP series
PTT-C/DT9	Push To Talk (PTT) switch for CXR series
CXR5	Bone conductive skull microphone
CXR16	Bone conductive throat microphone
CPROG-DTEx	USB programming box
CXR5/DT9	CXR5 and PTT-C/DT9
CXR16/DT9	CXR16 and PTT-C/DT9
CHPD/DT9	CHP950D and PTT-E/DT9
CHPHD/DT9	CHP950HD and PTT-E/DT9
CHPHS/DT9	CHP950HS and PTT-E/DT9
EA12/DT9	Earpiece D-shape, microphone & PTT
C-C550/DT	Remote Speaker Microphone with FPS-COM 5000/DT or MSA C1 Plug in accessories

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. Only suitably certified accessories may be connected to the micro-USB and Accessory connectors located under the side connector cover.
2. The battery pack shall not be recharged in an explosive atmosphere.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product:

Clause	Subject	Compliance
1.2.7	LVD type requirements	Manufacturer's responsibility
1.2.8	Overloading of equipment (protection relays, etc.)	Manufacturer's Instructions
1.4.1	External effects	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions
1.4.2	Aggressive substances, etc.	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
None				

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
EDN000	1 of 1	1.6	22/03/2022	DT Model Specific Drawings
EDN001	1 of 1	4	31/May/2021	DTEX Main and OLED PCB assembly
EDN002	1 of 1	2	28/11/2019	DTEX Cabinet OLED area encapsulation
EDN003	1 of 1	4	29/Oct/2021	DTEX Radio general assembly
EDN004	1 of 1	7	02/Nov/2021	DTEX Labels
EDN005	1 of 1	2	23/Jun/2021	DTEX Cabinet main
EDN006	1 of 1	2.0	09/04/2019	Projected Areas
EDN007	1 of 1	2	13/Dec/2019	Battery Pack Labels
EDN008	1 of 1	3	02/Nov/2021	VHF Main and OLED PCB assembly
EDN009	1 of 1	2	29/Oct/2021	DTEX Radio general assembly (non-display)
EDN010	1 to 2	3	31/05/2019	CMP/DTx General Assembly
EDN011	1 of 1	2	13/Dec/2019	CMP/DTx Labels
EDN012	1 of 1	2	31/05/2019	CMP/DTx Projected Areas
EDN013	1 of 1	3	19/Jul/2021	CMP/DTx Cable Details

Number	Sheet	Issue	Date	Description
EDN020	1 to 2	1	21/05/2019	PTT-x/DT9 General Assembly
EDN021	1 of 1	1	21/05/2019	PTT-x/DT9 Label
EDN022	1 of 1	1	21/05/2019	PTT-x/DT9 Projected Areas
EDN023	1 of 1	2	19/Jul/2021	PTT-x/DT9 Cable Details
EDN030	1 to 2	1	30/05/2019	Programming Lead/DTEX - General Assembly
EDN031	1 of 1	1	30/05/2019	Programming Lead/DTEX - Label
EDN033	1 of 1	2	19/Jul/2021	Programming Lead/DTEX - Cable Details
EDN040	1 of 1	1.0	12/Dec/2019	General Assembly (EA12/DT)
EDN041	1 of 1	2	19/Jul/2021	Cable Details (EA12/DT)
EDN042	1 of 1	2	13/Dec2019	Tag Labels (EA12/DT9)
EDN100	1 of 1	3.0	26/06/2019	DTEX Radio USB Cable (Schematic)
EDN101	1 of 1	3.1	11/06/2019	DT Authentication Schematics
EDN102	1 to 4	3.1	02/01/2019	DT Authentication PCB (Artwork)
EDN103	1 to 16	4.18	17_Mar_2022	DTEX Radio Main Board Schematics (UHF)
EDN103	1 to 16	4.27	13_01_2022	DT UHF Main Schematics
EDN104	1 to 9	4.17	10-Mar-2022	DT Main BOM (UHF)
EDN104	1 to 32	4.27	13-Jan-22	DT UHF Main BoM
EDN105	1 to 15	4.14	07/07/2021	DT Main Board (UHF)
EDN106	1 of 1	6.02	13/Jan/2022	DT OLED PCB Schematics
EDN107	1 of 1	6.0	17/01/2022	DT_OLED_BoM
EDN108	1 to 8	6.0	17/01/2022	DT OLED Board
EDN109	1 of 1	1.1	31/12/2018	DT Keypad board Schematics
EDN110	1 of 1	1.1	31/12/2018	DT Keypad BoM
EDN111	1 to 7	2.1	31/12/2018	DT Keypad board
EDN112	1 of 1	5.0	26/Mar/2021	DT Accessory Flexi Schematics
EDN113	1 to 7	5.0	26/03/2021	DT Accessory Flex
EDN114	1 of 1	3.0	16/Apr/2020	DT Alarm Flexi PCB Schematics
EDN115	1 to 6	3.0	08/04/2020	DT Alarm Flex Rev 3.0
EDN116	1 of 1	5.0	08/Jan/2021	DT Highway Flexi PCB Schematics
EDN117	1 to 7	5.1	22/10/2021	DT Highway Flex
EDN118	1 of 1	4.0	16/Apr/2020	DT PTT Flexi Schematics
EDN119	1 to 6	4.0	03/04/2020	DT PTT Flex
EDN120	1 to 5	1.7	4th Jan 2022	DT Accessory Interface Specification
EDN121	1 of 1	2.1	31/01/2019	CMPx50/DT Schematic
EDN122	1 of 1	1.0	10/08/2018	CMPx50/DT_BOM
EDN123	1 to 7	2.0	09/01/2019	CMPx50/DT PCB (Artwork)

Number	Sheet	Issue	Date	Description
EDN124	1 of 1	3.0	07/01/2019	DT Authentication BOM
EDN128	1 of 1	2.0	21/03/2019	DT USB Cable BOM
EDN129	1 to 7	3.0	26/06/2019	DT USB Cable PCB (Artwork)
EDN130	1 to 2	3.0	24/10/2019	PTT951C-DT Schematic
EDN131	1 to 2	3.0	24/10/2019	PTT950/DT Schematic
EDN132	1 of 1	3.0	24/10/2019	PTT951C/DT BOM
EDN133	1 of 1	3.0	24/10/2019	PTT950/DT BOM
EDN134	1 to 7	3.0	24/10/2019	PTT/DT PCB (Artwork)
EDN135	1 of 1	1.0	14/10/2019	EA12 PTT Schematic
EDN136	1 to 7	2.0	13 Dec 2019	EA12 PTT PCB (Artwork)
EDN137	1 of 1	1.0	24/10/2019	EA12 PTT BOM
EDN150	1 to 15	3.1a	04/10/2021	DT VHF Main
EDN151	1 to 16	2.8.7	17_03_2022	DT Main Board VHF Schematics
EDN151	1 to 17	3.15	18/01/2022	DT Main Board VHF Schematics
EDN152	1 to 17	2.8.7	17-Mar-22	DT VHF Main BOM
EDN152	1 to 17	3.15	18-Jan-22	DT VHF Radio Main Board BOM
EDN160	1 to 17	2.10	18/01/2022	DT Main Board Upband Schematics
EDN161	1 to 15	2.0a	05/10/2021	DT Main Board Upband
EDN162	1 to 39	2.10	19-Jan-22	DT Upband Main BoM
ATEX-CHP950-01	1 of 1	01	22/07/2011	CHP950 General Assembly
ATEX-CHP950-02	1 of 1	01	30/11/2011	CHP950 to PTT951 Connection Schematic
ATEX-CHP950-05	1 of 1	04	15/07/2019	CHP950 Series Label
ATEX-CXR-950-01 *1	1 of 1	01	30/11/2011	CXR General Assembly
ATEX-CXR-950-02 *1	1 of 1	01	30/112011	CXRxx/950 to PTT951 Connection Schematic
ATEX-TAG-LAB-05	2 of 2	06	15 Oct 19	Accessory Tag Labels
Ex-CNB950E V2-01*1	1 of 1	03	07 Mar 2017	CNB950E V2 Block Diagram
Ex-CNB950E V2-02 *1	1 of 1	02	07 Mar 2017	CNB950E V2 General Assembly
Ex-CNB950E V2-03 *1	1 of 1	01	29/01/2014	CNB950E V2 External Connections
Ex-CNB950E V2-04 *1	1 of 1	02	07 Mar 2017	CNB950E V2 Battery Pack Internal Assembly
Ex-CNB950E V2-05 *1	1 of 1	01	17/02/2015	CNB950E V2 Inter-board Flexi Schematic
Ex-CNB950E V2-06 *1	1 of 1	01	17/02/2015	CNB950E V2 Battery Pack Inter-board Flexi PCB
Ex-CNB950E V2-07 *1	1 of 1	01	17/02/2015	CNB950E V2 Charging Flexi Schematic
Ex-CNB950E V2-08 *1	1 to 2	01	18/02/2015	CNB950E V2 Battery Pack Charging Input Flexible PCB
Ex-CNB950E V2-09 *1	1 of 1	3	25-11-2016	CNB950E V2 Limiter PCB (Schematic)
Ex-CNB950E V2-10 *1	1 to 3	03	07 Mar 2017	CNB950E V2 Limiter PCB (Artwork)
Ex-CNB950E V2-11 *1	1 of 1	3	04/12/2016	CNB950E V2 Charge Control Schematic

Number	Sheet	Issue	Date	Description
Ex-CNB950E V2-12 *1	1 to 4	02	07 Mar 2017	CNB950E V2 Charging Control PCB (Artwork)
Ex-CNB950E V2-14 *1	1 to 2	3.0	07 Mar 2017	CNB950E V2 Charging Control Board BOM
Ex-CNB950E V2-15 *1	1 of 1	3.0	07 Mar 2017	CNB950E V2 Limiter PCB BOM
Ex-CNB950E V2-16 *1	1 to 3 5 to 7	02	07 Mar 2017	CNB950E V2 Battery Pack Charging PCB Layer Separations
Ex-CNB950E V2-17 *1	1 to 4	02	07 Mar 2017	CNB950E V2 Limiter PCB Layer Separations
Ex-CNB950E V2-18 *1	1 to 4	01	11/02/2014	CNB950E V2 Assembly Separations

These drawings are also associated, and held with, IECEx BAS 18.0094X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa18ATEX0152X	14 February 2019	The release of the prime certificate. The associated test and assessment against the requirements of BS EN IEC 60079-0:2018 and EN 60079-11:2011 is documented in Test Report No. GB/BAS/ExTR18.0295/00 Project Number 16/0533.
Baseefa18ATEX0152X Issue 1	25 April 2019	This issue of the certificate incorporates previously issued primary certificate and permits the following changes: • Minor circuit changes that do not affect the original assessment • Minor Main PCB changes that do not affect the original assessment • Minor mechanical changes that do not affect the original assessment • Models DT882M, DT885M, DT982M, DT985M, DT882FF, DT885FF, DT982FF & DT985FF added. These changes are documents in Test Report No. GB/BAS/ExTR18.0295/01, Project Number 19/0614.
Baseefa18ATEX0152X Issue 2	15 July 2019	This issue of the certificate incorporates previously issued primary certificate and permits the following changes: • Introduction of the accessories listed on page 2 of this certificate. These changes are documented in Test Report No.: GB/BAS/ExTR18.0296/00, Project Number 16/0533 • Introduction of the VHF radio variants listed on page 2 of this certificate. These changes are documented in Test Report No.: GB/BAS/ExTR19.0186/00, Project Number 19/0268
Baseefa18ATEX0152X Issue 3	7 May 2020	This issue of the certificate incorporates previously issued primary certificate and permits the following changes: • To permit the addition of various models. • Introduction of minor component changes to the UHF versions of the Handheld Radio Transceiver. • Introduction of minor changes to the DT USB Cable PCB artwork. • Permit the removal of encapsulation from some shielding cans on the VHF Main PCB. • Permit changes to the PTT951-C/DT9 Speaker Microphone • Introduction of the EA12/DT9 PTT Accessory.

Certificate No.	Date	Comments
		• Introduction of the Accessory Interface as a User connection facility. • Correction to the drawing revision only of drawings EDN112 & EDN113. These changes are documented in Test Report No.: GB/BAS/ExTR20.0053/00 for project 19/0289
Baseefa18ATEX0152X Issue 4	11 October 2021	This issue of the certificate permits the following changes: • component changes to the UHF & VHF versions of the Handheld Radio Transceiver. • Remove encapsulant from the RX IF and FGen shielding cans on the main PCB of the UHF versions of the DTEx. • Changes to the UHF Main PCB layout (EDN105). • Other minor changes not affecting the original assessment. These changes are documented in Test Report No.: GB/BAS/ExTR21.0182/00 for project 21/0570.
Baseefa18ATEX0152X Issue 5	31 January 2022	This issue of the certificate permits the following changes: • Update to the OLED Protection module for use in both the UHF and VHF radios (EDN106, EDN107, EDN108). • Update to DT UHF Radio to change fuses and two Zener Diodes. • Updated to DT VHF Radio to change fuses and two Zener Diodes These changes are documented in Test Report No.: GB/BAS/ExTR22.0007/00 for project 22/0033.
Baseefa18ATEX0152X Issue 6	21 March 2022	This issue of the certificate permits the following changes: • Add GPS circuit to the DTEx Handheld Radio Transceiver (VHF versions) • Addition of DT Upband models based on the VHF versions • An extensive range of various circuit changes These changes are documented in Test Report No.: GB/BAS/ExTR22.0048/00 for project 22/0034.
Baseefa18ATEX0152X Issue 7	6 June 2022	This issue of the certificate permits the following changes: • Alternative processor for the DT UHF Model D radio plus other component changes. • Alternative processor for the DT VHF Model B radio • Update to the parameters associated with the Accessory and USB ports of the DT UHF model D radio These changes are documented in Test Report No.: GB/BAS/ExTR22.0096/00 for project 22/0237.
Baseefa18ATEX0152X Issue 8	30 November 2022	This issue of the certificate permits the following changes: • The introduction of the C-C550/DT Remote Microphone Speaker accessory with FPS-COM 5000/DT & MSA C1 plug in accessories. The Schedule on page 2 of this certificate was revised to add the accessory to the current list. These changes are documented in Test Report No. GB/BAS/ExTR22.0198/00 for project 20/0268.
For drawings applicable to each issue, see original of that issue.		