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### **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Sira 10ATEX2066X Issue: 4 Certificate Number:

Handheld Radio Transceiver HT Series HT8XX and HT9XX 4 Equipment:

5 Applicant: **Entel UK Ltd** 

6 Address: 320 Centennial Avenue

Centennial Park

Elstree

Borehamwood Herts. WD6 3TJ

- This equipment and any acceptable variation thereto is specified in the schedule to this certificate and 7 the documents therein referred to.
- 8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment 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 listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2006 EN 60079-11:2007 EN 60079-0:2009 (used for guidance in respect of marking)

- 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 EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- 12 The marking of the equipment shall include the following:

HT8XX

II 2G

Ex ib IIA T4 Gb

Ta = -20°C to +40°C

HT9XX

II 2G

Ex ib IIC T4 Gb

Ta = -20°C to +40°C

**Project Number** 70004821

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**Deputy Certification Manager** 

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# 13 **DESCRIPTION OF EQUIPMENT**

The Handheld Radio Transceiver HT 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 a keypad. Radios not fitted with a liquid crystal display are indicated below in the list of the models below. 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 a hazardous area. The battery pack shall not be recharged in a hazardous area.

The complete range is comprised of the following models:

Gas Group IIC UHF(400-520MHz)		and	Gas Group IIA UHF(400-520MHz)	
7-key, LCD	HT981, HT981S		3-key, no LCD	HT882IIA,HT882SIIA, HT882TIIA,HT882RIIA, HT882UIIA,HT882SUIIA, HT882TUIIA,HT882RUIIA
3-key, no LCD	HT952, HT982, HT982S, HT982T, HT982R, HT982U, HT982SU, HT982TU, HT982RU, HT982HUR		3-key, LCD	HT883IIA, HT883UIIA, HT883SIIA, HT883SUIIA
3-key, LCD	HT953, HT983, HT983U, HT983S, HT983SU		8-key, LCD	HT885IIA, HT885TIIA, HT885RIIA, HT885UIIA, HT885TUIIA, HT885RUIIA
8-key, LCD	HT985, HT985T, HT985R, HT985U, HT985TU HT985RU		8-key + 0-9, LCD	HT886IIA, HT886TIIA, HT886RIIA, HT886UIIA, HT886TUIIA, HT886RUIIA
8-key + 0-9, LCD	HT986, HT986T, HT986R, HT986U, HT986TU, HT986RU			
VHF (mid band 66-88M			VHF (66-88MHz)	
3-key, no LCD	HT912, HT912S,		3-key, no LCD	HT812IIA, HT812SIIA,
	HT912T, HT912R			HT812TIIA, HT812RIIA
3-key, LCD	HT913, HT913S		3-key, LCD	HT813IIA, HT813SIIA
8-key, LCD	HT915, HT915T,		8-key, LCD	HT815IIA, HT815TIIA,
	HT915R			HT815RIIA
8-key + 0-9, LCD	HT916, HT916T, HT916R		8-key + 0-9, LCD	HT816IIA, HT816TIIA, HT816RIIA
VHF band (136-174MH	z)		VHF band (136-174MHz)	
3-key, no LCD	HT922, HT922S, HT922T HT922R, HT942, HT942 ATIS		3-key, no LCD	HT822IIA, HT822SIIA, HT822TIIA, HT822RIIA, HT842IIA, HT842IIA ATIS
3-key, LCD	HT923 HT923S		3-key, LCD	HT823IIA HT823SIIA
7-key, LCD	HT944, HT944 ATIS		7-key, LCD	HT844IIA, HT844IIA ATIS
8-key, LCD	HT925, HT925T HT925R		8-key, LCD	HT825IIA, HT825TIIA HT825RIIA
8-key + 0-9, LCD	HT926, HT926T HT926R		8-key + 0-9, LCD	HT826IIA, HT826TIIA HT826RIIA

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An external multi-pin screw threaded connector is provided for earphone and microphone accessories. Only the specified types of accessories are permitted for use in hazardous areas.

The following accessories are permitted for use with all models:

CMP950 microphone EA/19/950 earpiece microphone EA15/950 ear/microphone

CHP950HD ear defender CHP950HS ear defender

SAVOX C-C500 microphone/speaker unit (Certificate VTT 06 ATEX 043X)

The following accessories are permitted for use **only** with the ATEX certified models, HT981, HT981S:

SAVOX 100+ Radio microphone/speaker unit (Certificate VTT 06 ATEX 036X)

SAVOX 400 microphone/speaker unit (Certificate VTT 05 ATEX 009X)

### **Variation 1 -** This variation introduced the following change:

 The introduction of a new VHF RF printed circuit board which is a variation of the original VHF Board.

## **Variation 2** - This variation introduced the following change:

- i. The use of the following accessories was recognised; these may **only** be used with the models HT981, HT981S, HT983U, HT983S and HT983SU:
  - Savox, FPS-COM.
     Scott Health and Safety Ltd, SABRE-COM.
     (Certificate number ITS08ATEX25772X).
     (Certificate number ITS03ATEX21290X).

# **Variation 3** - This variation introduced the following change:

- The inclusion of the following previously certified accessory, this accessory can be used with any, ATEX certified model.
  - FPS-COM-Plus VA R-C (Certificate number ITS11ATEX27318X).

### **Variation 4 -** This variation introduced the following change:

i. The following accessories were recognised for use with all models:

PTT951 push to talk switch EA12/950 earphone/microphone

PTT951C push to talk switch EHP9 earphone PTT951E push to talk switch EHP950 earphone

CHP950D ear defender headset EPT40 earphone/microphone CXR16 throat earphone/microphone CXR5 skull earphone/microphone

ii. The following currently listed accessories were updated and their description changed:

From To

CMP950 microphone
CHP950HD ear defender
CHP950HS ear defender
CHP950HS ear defender
CHP950HS ear defender
CHP950HS ear defender headset
EA15/950 ear/microphone
EA/19/950 earpiece microphone
EA/19/950 earphone/microphone

iii. The SAVOX C-C500 microphone/speaker unit (Certificate VTT 06 ATEX 043X) previously restricted to use with radio models HT981, HT981S may now be used with all radio models. The Description of Equipment and Special Conditions for Safe Use, 15.1, were amended accordingly.

iv. The introduction of an additional Special Condition For Safe Use.

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**Variation 5** - This variation introduced the following changes:

- ii. A revision of the battery pack circuits to form a new battery pack to replace the existing battery pack, marketed as types CNB950E V2, CNB850E V2, were approved. The marking was amended and the Special Condition For Safe Use was removed as a result of this change.
- iii. The current limit from the battery has been increased from 2.0 A to 2.14 A by the active current limiting circuit.
- iv. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2009 and EN 60079-11:2007 were replaced by EN 60079-0:2012 and EN 60079-11:2012.

#### 14 **DESCRIPTIVE DOCUMENTS**

### 14.1 **Drawings**

Refer to Certificate Annexe.

## 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	11 May 2010	R21484A/00	The release of the prime certificate (Associated with
		R21484B/00	R21484A/00) including Variation 1 (Associated with
			R21484B/00).
1	22 December 2010	R23211A/00	The introduction of Variation 2.
2	20 December 2011	R25998A/00	The introduction of Variation 3.
3	10 September 2012	R25998B/00	The introduction of Variation 4.
4	28 May 2015	R70004821A	The introduction of Variation 5

### 15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)

15.1 These Handheld Radio Transceivers shall only be used with the specific, permitted accessories that are detailed in the table below:

Accessory	Permitted models
CMP950 speaker/microphone	All
CHP950HD ear defender headset	All
CHP950HS ear defender headset	All
EA15/950 earphone/microphone	All
EA19/950 earphone/microphone	All
SAVOX C-C500 microphone/speaker unit (Cert. no.VTT 06 ATEX 043X)	All
SAVOX 100+ Radio microphone/speaker unit (Cert. no. VTT 06 ATEX 036X)	HT981, HT981S
SAVOX 400 microphone/speaker unit (Cert. no. VTT 05 ATEX 009X)	HT981, HT981S
Savox, FPS-COM (Cert. no.ITS08ATEX25772X)	HT981, HT981S, HT983, HT983U, HT983S & HT983SU
Scott Health and Safety Ltd, SABRE-COM (Cert. no. ITS03ATEX21290X)	HT981, HT981S, HT983, HT983U, HT983S & HT983SU
FPS-COM-Plus VA R-C (Cert. no. ITS11ATEX27318X)	All

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Accessory	Permitted models
PTT951 push to talk switch	All
PTT951C push to talk switch	All
PTT951E push to talk switch	All
EHP950 earphone	All
CHP950D ear defender headset	All
CXR16 throat earphone/microphone	All
CXR5 skull earphone/microphone	All
EA12/950 earphone/microphone	All
EHP9 earphone	All
EPT40 earphone/microphone	All

- 15.2 The equipment battery pack shall only be recharged with the dedicated, Entel, battery re-charging equipment supplied.
- 15.3 The equipment battery pack shall not be recharged in a hazardous atmosphere.
- 15.4 This equipment may incorporate previously certified accessories, therefore, when in operation, the user shall take into account any restrictions or special conditions for safe use that are applicable to these accessories.
- 15.5 No precautions against electrostatic discharge are necessary for portable equipment that has an enclosure made of plastic, metal or a combination of the two, except where a significant static-generating mechanism has been identified. Activities such as placing the item in a pocket or on a belt, operating a keypad or cleaning with a damp cloth, do not present a significant electrostatic risk. However, where a static-generating mechanism is identified, such as repeated brushing against clothing, then suitable precautions shall be taken, e.g. the use of anti-static footwear.
- 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

### 17 **CONDITIONS OF CERTIFICATION**

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 The manufacturer shall take all reasonable steps to ensure that the user complies with any restrictions and special conditions for certification associated with the previously certified accessories that are employed in the particular piece of equipment they have supplied, in addition, the manufacturer shall provide the user with an appropriate copy of the certificate for each certified accessory that is involved.

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