



1 **TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **CSANe 24ATEX1284X** Issue: **0**

4 Equipment: **Explosion-proof radio BF-TD511**

5 Applicant: **Fujian BeIFone Communications Technology Co., Ltd.**

6 Address: **A-15, Shuangyang Huaqiao Economic and Development, Zone, Luojiang District, Quanzhou, Fujian, 362012, China.**

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

8 CSA Group Netherlands B.V., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 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 IEC 60079-0:2018 EN 60079-11:2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This Type Examination Certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured. 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:



II 3GD

Ex ic IIC T4 Gc

Ex ic IIIC T100°C Dc

-10 °C ≤ Tamb ≤ +55 °C

Signed:

M Halliwell

Title: Senior Director of Operations

Project Number 80197820

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SCHEDULE

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Issue 0

13 DESCRIPTION OF EQUIPMENT

The BF-TD511 Explosion-proof radio is a portable communication device. It is powered by an internally fitted user-replaceable Li-Ion battery, whose rating is 7.40Vdc/1500mAh. The product consists of a display, speakers and microphones, divergent LED flashlight and intercom.

The enclosure and LCD lens are constructed from PC. On the shell it is fitted with encoder, volume switch and function keys and to operate the product. The equipment has an antenna port for connection to a passive antenna. There is an accessory port for connection to a headset and a charging socket for charger input in the non-hazardous area only. The equipment is only allowed to be charged outside of hazardous location, the maximum charging parameters are $U_m = 8.4Vdc$, $I_m = 0.75A$.

The equipment has been tested in accordance with the test of enclosure section of EN 60079-0 and meets the requirements of IP65.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	01 April 2025	R80197819A	The release of the prime certificate.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The BF-TD511 Explosion-proof radio shall only be charged in safe area using a charger approved as SELV or Class 2 equipment against EN 62368 or an equivalent EN standard. The maximum voltage and current from the charger U_m and I_m shall not exceed 8.4 VDC and 0.75A respectively. The ambient temperature during charging shall be in the range 5°C to +45°C.

15.2 When using, the headset cover must be properly installed. The device cannot be connected with any accessories such like a headset in hazardous location.

15.3 Only a passive headset could be connected via the headset port in the non-hazardous area.

15.4 The equipment shall only be used in locations where there is a low risk of mechanical impact.

15.5 Only a passive Antenna could be connected via the Antenna port

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 MANUFACTURE

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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SCHEDULE

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- 17.3 The adapter (for DC charger) supplied with the Explosion-proof radio BF-TD511 shall be approved as SELV equipment (complying with the EN 62368, or a technically equivalent standard. The maximum charging voltage shall not exceed $U_m = 8.4$ VDC, and the maximum charging current shall not exceed $I_m = 0.75$ A.

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Certificate Annexe



Certificate Number: CSANe 24ATEX1284X

Equipment: Explosion-proof radio BF-TD511

Applicant: Fujian Belfone Communications Technology Co., Ltd.

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
BF-TD511-000	1 of 1	A0	13 Jan 25	General Assembly Drawing
1SRJS0A01410	1 of 1	A0	13 Jan 25	Upper cover
1SXMDOC10260	1 of 1	A0	13 Jan 25	Battery O-ring
1SXKS0A10440	1 of 1	A0	13 Jan 25	Digital key rubber
1SRJH0A10120	1 of 1	A0	13 Jan 25	Flashlight light guide column
1SXSE0A10470	1 of 1	A0	13 Jan 25	Headset plug O-ring
1SRJFOR11020	1 of 1	A0	13 Jan 25	LCD lens
1SXMJOC10230	1 of 1	A0	13 Jan 25	Main O-ring
1SXSE0C10040	1 of 1	A0	13 Jan 25	O-ring of encoder or volume switch
1SXMQOC10020	1 of 1	A0	13 Jan 25	Screw O-ring
1SXKPOA10510	1 of 1	A0	13 Jan 25	Side key rubber
1SXQAOR10310	1 of 1	A0	13 Jan 25	Signal light guide column
1SXSE0C10050	1 of 1	A0	13 Jan 25	SMA connector O-ring
1SXMLOC10010	1 of 1	A0	13 Jan 25	Speaker O-ring
1SRDS0A10820	1 of 1	A0	13 Jan 25	Upper cover of battery
1SRQ00A10830	1 of 1	A0	13 Jan 25	Headset cover
1SXKB0C10060	1 of 1	A0	13 Jan 25	Emergency key
1SRDXOA10790	1 of 1	A0	13 Jan 25	Bottom cover of battery
1PBJ1005190A	1 of 1	A0	13 Jan 25	Nameplate
A2024-TD511-59	1 of 1	A0	13 Jan 25	Battery nameplate
BFGL-BF074H7A2-1	1 to 5	V1.0	13 Jan 25	Schematic of main board
BFGL-BF074H7A2-2	1 to 8	V1.0	13 Jan 25	Layout of main board
BF074H7A0	1 to 2	V1.0	13 Jan 25	BOM of main board
BFGL-BF074E4-1	1 of 1	V1.0	13 Jan 25	Schematic of volume switch and encoder interface board
BFGL-BF074E4-2	1 to 4	V1.0	13 Jan 25	Layout of Volume switch and encoder interface board
BFGL-BF074E4-3	1 of 1	V1.0	13 Jan 25	BOM of volume switch and encoder interface board
BFGL-BF074E2-1	1 of 1	V1.0	13 Jan 25	Schematic of connecting plate board
BFGL-BF074E2-2	1 to 4	V1.0	13 Jan 25	Layout of connecting plate board
BFGL-BF074E2-3	1 of 1	V1.0	13 Jan 25	BOM of connecting plate board
BFGL-BF074GFB2-1	1 of 1	V1.0	13 Jan 25	Schematic of lithium battery protection board
BFGL-BF074GFB2-2	1 to 6	V1.0	13 Jan 25	Layout of lithium battery protection board
BFGL-BF074GFB2-3	1 of 1	V1.0	13 Jan 25	BOM of lithium battery protection board
BFGL-BF074E3-1	1 of 1	V1.0	13 Jan 25	Schematic of side key interface board
BFGL-BF074E3-2	1 to 2	V1.0	13 Jan 25	Layout of side key interface board
BFGL-BF074E3-3	1 of 1	V1.0	13 Jan 25	BOM of side key interface board
BFGL-BF074C1-1	1 of 1	V1.0	13 Jan 25	Schematic of digital key board
BFGL-BF074C1-2	1 to 3	V1.0	13 Jan 25	Layout of digital key board
BFGL-BF074C1-3	1 of 1	V1.0	13 Jan 25	BOM of digital key board
BFGL-BF074E1-1	1 of 1	V1.0	13 Jan 25	Schematic of M6 interface board
BFGL-BF074E1-2	1 to 3	V1.0	13 Jan 25	Layout of M6 interface board
BFGL-BF074E1-3	1 of 1	V1.0	13 Jan 25	BOM of M6 interface board

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