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EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 04 ATEX 138278X

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Description of Equipment or protective system

The NIROS 1012 is a portable communications radio. It covers the frequency ranges from 66 – 88 MHz, 146 – 174 MHz and 403 – 470 MHz. It is housed in a rugged metal housing. It features an alpha numeric backlit display, and a keyboard. The radio is powered by a rechargeable battery pack.

Type variants comprised by the certificate

TRX 1012
I II III

Where: I Designated Band:
B for VHF Band 68 – 88 MHz
C for VHF Band 146 – 174 MHz
D for UHF Band 403 – 470 MHz

II Designated Frequency range:
L for 403 – 445 MHz
H for 430 – 470 MHz

III Designated Channel spacing:
blank 25 kHz channel spacing
200 20 kHz channel spacing
125 12,5 kHz channel spacing

Accessories comprised by the certificate

Battery Charger Type CH110B, CH113B, CH114B, CH115B, CH116B, CH310B, CH313B, CH314B, CH315B, CH320B and CH 324B.

Auto charger Type CH105B.

Leather bags Type 9392, 9395 and 9396

Monofone Type 9260, 9261, 9262, 9263, 9264 and 9265

Earphone Type 9270 and 9271

Antenna Type 9406 frequency range 400 MHz - 470 MHz

Antenna Type 9429 frequency range 400 MHz - 420 MHz

Antenna Type 9426 frequency range 420 MHz - 450 MHz

Antenna Type 9430 frequency range 450 MHz - 470 MHz

Antenna Type 9408 frequency range 146 MHz - 155 MHz

Antenna Type 9409 frequency range 155 MHz - 164 MHz

Antenna Type 9410 frequency range 164 MHz - 174 MHz

Antenna Type 9431 frequency range 146 MHz - 155 MHz

Antenna Type 9432 frequency range 155 MHz - 164 MHz

Antenna Type 9433 frequency range 164 MHz - 174 MHz

Antenna Type 9011 frequency range 68 MHz – 87.5 MHz

Antenna Type 9012 frequency range 74 MHz – 87,5 MHz

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Report: 138278-01

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Antenna Type 9013 frequency range 74 MHz – 87,5 MHz
Antenna Type 9411 frequency range 67 MHz - 74 MHz
Antenna Type 9412 frequency range 74 MHz - 81 MHz
Antenna Type 9413 frequency range 81 MHz - 88 MHz

The accessories and radios comprised by this certificate may also be used together with equipment comprised by certificate DEMKO 03 ATEX 132883X dated 2003-08-07 and schedule dated 2004-06-18.

Temperature range

The relation between the assigned temperature class and ambient temperature is as follows:

Temperature class	Ambient temperature range
T6	-25°C to +40°C
T5	-25°C to +55°C

Electrical data

Intrinsically safe specifications:

Accessory Connector for connection of simple apparatus or certified electrical equipment:

Specification for Accessory connector:

Pin 1 to 10

U₀: 9.0 V

I₀: 1.4 A

P₀: 1.6 W

Co: 1.3 µF

Lo: 12 µH

The electrical specifications are valid under conditions of a single fault.

The accessory connector antenna pin shall not be activated under EEx conditions. Use only the normal antenna connection.

Installation instructions

Follow the manufacturer's instruction for safe use in the manual.

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Report No.

Project Report No.: 138278-01 (Hazardous Location Testing)

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Drawings:

1012B:

Number	Date	Description
0-9711-03-3 (4 Pages)	2004-03-30	Radio-Board TRX1012B-IS
0-9711-04-02	2003-02-14	Radio-Board TRX1012B-IS (Print layout wiring side)
0-9711-05-02	2003-02-14	Radio-Board TRX1012B-IS (Print layout comp. side)
0-9711-03-03 (11 pages)	2004-03-30	Part list for Radio-Board TRX1012B-IS
0-9711-03-2 (4 Pages)	2003-02-14	Radio-Board TRX1012B-IS
0-9711-03-02 (11 Pages)	2003-02-14	Part list for Radio-Board TRX1012B-IS
0-9711-03-1 (4 Pages)	1999-05-31	Radio-Board TRX1012B-IS
0-9711-04-1	1999-05-31	Radio-Board TRX1012B-IS (Print layout wiring side)
0-9711-05-1	1999-05-31	Radio-Board TRX1012B-IS (Print layout comp. side)
0-9711-03-01 (11 pages)	1999-05-31	Part list for Radio-Board TRX1012B-IS
0-9712-03-2	2003-02-14	VCO-Board TRX1012B-IS
0-9712-05-2	2003-02-14	VCO-Board (Print layout comp. side)
0-9712-03-2 (2 pages)	2003-02-14	Part list for VOC-Board TRX1012B-IS
0-9712-03-1	1999-06-04	VCO-Board TRX1012B-IS
0-9712-05-1	1999-06-04	VCO-Board (Print layout comp. side)
0-9712-03-1 (2 pages)	1999-06-04	Part list for VOC-Board TRX1012B-IS
0-9623-03-3	2004-03-30	Receiver board TRX1001B/TRX1012B/TRX1012B-IS
0-9623-03-3	2004-03-30	Part list for Rec. TRX1001B/TRX1012B/ TRX1012B-IS
0-9623-04-2	2003-02-14	Receiver TRX1001B/TRX1012B (Print layout wiring side)
0-9623-05-2	2003-02-14	Receiver TRX1001B/TRX1012B (Print layout comp. side)
0-9623-03-2	2003-02-14	Receiver board TRX1001B/TRX1012B/TRX1012B-IS
0-9623-03-2	2003-02-14	Part list for Rec. TRX1001B/TRX1012B/TRX1012B-IS
0-9623-03-1	1998-06-16	Receiver TRX1001B/TRX1012B
0-9623-03-1	1998-06-11	Partlist for receiver TRX1001B/TRX1012B
0-9623-04-1	1998-06-16	Receiver TRX1001B/TRX1012B (Print layout wiring side)
0-9623-05-1	1998-06-16	Receiver TRX1001B/TRX1012B (Print layout comp. side)

1012C:

Number	Date	Description
0-9709-03-3 (4 Pages)	2004-03-30	Radio-Board TRX1012C-IS
0-9709-04-2	2003-02-14	Radio-Board TRX1012C-IS (Print layout wiring side)
0-9709-05-2	2003-02-14	Radio-Board TRX1012C-IS (Print layout comp. side)
0-9709-03-3 (11 pages)	2004-03-30	Part list Radio-Board TRX1012C-IS
0-9709-03-2 (4 pages)	2003-02-14	Radio-Board TRX1012C-IS
0-9709-03-2 (11 pages)	2003-02-14	Part list Radio-Board TRX1012C-IS
0-9709-03-1 (4 Pages)	1999-05-28	Radio-Board TRX1012C-IS PA-stage
0-9709-04-1	1999-05-28	Radio-Board TRX1012C-IS (Print layout wiring side)
0-9709-05-1	1999-05-28	Radio-Board TRX1012C-IS (Print layout comp. side)

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0-9709-03-1 (11 pages)	1999-05-28	Part list Radio-Board TRX1012C-IS
0-9710-03-1	1997-07-16	VCO-Board TRX1012C-IS
0-9710-05-1	1997-07-16	VCO-Board (Print layout comp. side)
0-9710-03-1 (2 pages)	1997-07-16	Part list VCO-Board TRX1012C-IS
0-9615-03-2	1997-06-10	Receiver TRX1001C/TRX1012C/TRX1012C-IS
0-9615-03-2	1997-06-09	Partlist for receiver TRX1001C/TRX1012C
0-9615-04-2	1997-06-10	Receiver TRX1001C/TRX1012C/TRX1012C-IS (Print layout wiring side)
0-9615-05-2	1997-06-10	Receiver TRX1001C/TRX1012C/TRX1012C-IS (Print layout comp. side)

1012D . . .:

Number	Date	Description
0-9700-03-6 (4 pages)	2004-03-30	Radio-Board TRX1012D-IS
0-9700-04-5	2003-02-14	Radio-Board TRX1012D-IS (Print layout wiring side)
0-9700-05-5	2003-02-14	Radio-Board TRX1012D-IS (Print layout comp. side)
0-9700-03-6 (13 pages)	2004-03-30	Part list Radio-Board TRX1012D-IS
0-9700-03-5 (4 pages)	2003-02-14	Radio-Board TRX1012D-IS
0-9700-03-5 (13 pages)	2003-05-03	Part list Radio-Board TRX1012D-IS
0-9700-03-4 (4 pages)	2000-02-14	Radio-Board TRX1012D-IS
0-9700-03-4 (13 pages)	2000-02-14	Partlist for radioboard TRX1012D-IS
0-9700-04-4	2000-02-14	Radio-Board TRX1012D-IS (Print layout wiring side)
0-9700-05-4	2000-02-14	Radio-Board TRX1012D-IS (Print layout comp. side)
0-9700-03-4 (12 pages)	2000-02-14	Part list Radio-Board TRX1012D-IS
0-9602-03-1	1996-12-02	Receiver TRX1001D/TRX1012D/TRX1012D-IS
0-9602-03-1	1996-11-28	Partlist for receiver board TRX1001D/TRX1012D
0-9602-04-1	1996-12-02	Receiver TRX1001D/TRX1012D/TRX1012D-IS (Print layout wiring side)
0-9602-05-1	1996-12-02	Receiver TRX1001D/TRX1012D/TRX1012D-IS (Print layout comp. side)
0-9701-03-2	1999-06-04	VCO-Board TRX1012D-IS
0-9701-05-2	1999-06-04	VCO-Board TRX1012D-IS (Print layout comp. side)
0-9701-03-2 (3 pages)	1999-06-04	Part list VCO-Board TRX1012D-IS
0-9701-03-1	1997-03-12	VCO-Board TRX1012D-IS
0-9701-05-1	1997-03-12	VCO-Board TRX1012D-IS (Print layout comp. side)
0-9701-03-1 (3 pages)	1997-03-12	Part list VCO-Board TRX1012D-IS

Common for 1012B / C / D

Number	Date	Description
0-9702-03-6 (2 Pages)	2004-03-30	System-Board TRX1012-IS
0-9702-04-5	2003-04-29	System-Board TRX1012-IS (Print layout wiring side)
0-9702-05-5	2003-04-29	System-Board TRX1012-IS (Print layout comp. side)
0-9702-03-6 (12 pages)	2004-03-30	Part list for systemboard TRX1012-IS
0-9702-03-5 (2 Pages)	2003-04-29	System-Board TRX1012-IS
0-9702-03-5 (12 Pages)	2003-04-29	Part list for system-Board TRX1012-IS

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0-9702-03-4 (2 Pages)	2003-02-13	System-Board TRX1012-IS
0-9702-04-4	2003-02-13	System-Board TRX1012-IS (Print layout wiring side)
0-9702-05-4	2003-02-13	System-Board TRX1012-IS (Print layout comp. side)
0-9702-03-4 (10 pages)	2003-02-13	Part list for systemboard TRX1012-IS
0-9702-03-3 (2 pages)	1999-08-10	System-Board TRX1012-IS
0-9702-03-3 (10 pages)	1999-08-10	Partlist for systemboard TRX1012-IS
0-9702-04-3	1999-08-10	System-Board TRX1012-IS (Print layout wiring side)
0-9702-05-3	1999-08-10	System-Board TRX1012-IS (Print layout comp. side)
0-9704-03-0	1996-12-02	Front Keyboard TRX1012
0-9704-05-0	1996-12-02	Front Keyboard (Print layout Comp. Side)
0-9607-03-1	1997-02-05	Top Keyboard TRX1001/TRX1012
0-9607-04-1	1997-02-05	Top Keyboard (Print layout Wiring Side)
0-9607-05-1	1997-02-05	Top Keyboard (Print layout Comp. Side)
0-9608-03-0	1998-07-08	Flexboard TRX1001/TRX1012
0-9608-03-0	1996-11-28	Partlist for flexboard TRX1001/TRX1012
0-9608-05-0	1998-07-08	Flexboard (Print layout Comp. Side)
0-9703-03-1	1996-11-28	Display board TRX1012
0-9703-04-1	1996-11-28	Display board TRX1012 (Print layout wiring side)
0-9703-05-1	1996-11-28	Display board TRX1012 (Print layout comp. side)
92153SAM	1998-04-07	"Dead man" Control.
92153	1998-04-07	"Dead man" Control.
98607	1998-04-07	Tilt-switch.
0-9635-03-6	2004-03-30	IS Battery TRX1012
0-9635-04-5	1998-04-27	IS Battery TRX1012 (Print layout Wiring Side)
0-9635-05-5	1998-04-27	IS Battery TRX1012 (Print layout Comp. Side)
0-9635-03-6	2004-03-30	Part list IS Battery TRX1012
0-9635-03-5	1998-04-27	IS Battery TRX1012
0-9635-03-5	1998-04-27	Part list IS Battery TRX1012
1-9719-03-1	2004-04-02	NIROS Handmicrophone for TRX1012
1-9719-03-1	2004-04-02	Part list for NIROS Handmicrophone for TRX1012
0-9719-04-0	2003-05-21	OTTO hand microphone ATEX (Print layout wiring side)
0-9719-05-0	2003-05-21	OTTO hand microphone ATEX (Print layout comp. side)
0-9719-03-0	2003-05-21	OTTO hand microphone ATEX
0-9719-03-0 (2 pages)	2003-05-21	Part list for OTTO hand microphone ATEX
88335-1	2004-10-08	Marking plate (TRX 1012-ATEX: Label for OTTO-hand microphone - ATEX)
88336-1	2004-10-08	Marking plate (TRX 1012IS: Label for IS, ATEX)
88337-1	2004-10-08	Marking plate (TRX 1012IS:Label for battery,ATEX)
88338-1	2004-10-08	Marking plate (TRX 1012IS:Ericsson Label for battery)
55080, 2 pages	2004-06-16	OTTO Handmicrophone 1 switch, ledende maling
55088, 2 pages	2004-06-16	16 ohm OTTO Handmicrophone uden Switch, Ledende plast

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55089, 2 pages	2004-06-16	16 ohm OTTO Handmicrophone med 1 Switch, Ledende plast
55090, 2 pages	2004-06-16	16 ohm OTTO Handmicrophone med 2 Switch, Ledende plast
55098, 2 pages	2004-06-16	16 ohm OTTO Handmicrophone med 1 switch
55099, 2 pages	2004-06-14	16 ohm Otto Handmicrophone med 1 switch, ledende plast
-	2003-05-13	TRX 1012 Ex safety version 1.2
55096	2004-03-08	Earphone for OTTO Handmicrophone coiled cable
55097	2004-03-08	Earphone for OTTO Handmicrophone straight cable

[17] Special conditions for safe use:

- Do not change the battery in wet or humid environments
- Always keep battery connectors dry and clean
- Do NOT charge the battery in hazardous area
- For charge of battery use NIROS Battery Charger Type CH105B, CH110B, CH113B, CH114B, CH115B, CH116B, CH310B, CH313B, CH314B, CH315B, CH320B and CH 324B only.
- Use only Battery Pack Type NIROS 5673
- In case of accidental breakage of the display window send the radio to service

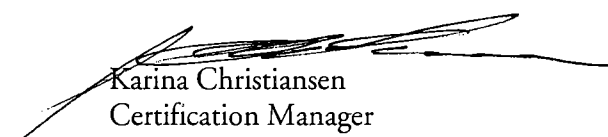
[18] Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

On behalf of UL International Demko A/S

Herlev, 2004-10-21


Karina Christiansen
Certification Manager

UL International Demko A/S

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