



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BVS 25.0004X**

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Certificate history:

Status: **Current**

Issue No: 2

[Issue 1 \(2025-04-07\)](#)

[Issue 0 \(2025-02-27\)](#)

Date of Issue: 2025-10-30

Applicant: **Motorola Solutions Systems Polska S.p.z.o.o.**
Ul. Czerwone Maki 82
30-392 Krakow
Poland

Equipment: **NS750Ex Remote Speaker Microphone type PMMN4163A**

Optional accessory:

Type of Protection: **Intrinsic safety "i"**

Marking: PMMN4163A
Ex ib I Mb
Ex ib IIC T4 Gb
Ex ib IIC T90°C Db

PMLN8643A (3.5mm audio earpiece)
Ex ib I Mb
Ex ib IIC T4 Gb
Ex ib IIC T135°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Dr Michael Wittler

Position:

Deputy Head of Certification Body

Signature:
(for printed version)

Date:
(for printed version)

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2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany





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Manufacturer: **Motorola Solutions Systems Polska S.p.z.o.o.**
Ul. Czerwone Maki 82
30-392 Krakow
Poland

Manufacturing locations: **Motorola Technology Sdn Bhd**
Plot 2 Bayan Lepas Technoplex
Industrial Park
Mukim 12 SWD
11900 Bayan Lepas
Penang
Malaysia

Sanmina-SCI Systems Malaysia Sdn. Bhd.
Plot 2, Industrial Park
Bayan Lepas Technoplex
Mukim 12 SWD
11900 Bayan Lepas Penang
Malaysia

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2023](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[DE/BVS/ExTR25.0009/02](#)

Quality Assessment Report:

[DE/BVS/QAR20.0004/07](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Description

See Annex

Parameters

See Annex

List of all components used with reference to older standards

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Connect and disconnect the Remote Speaker Microphones to the radio or the optional plug-in accessories only outside the potentially hazardous area.
2. When combining accessories, Remote Speaker Microphone and radio, the resulting IECEx classification for the system is always the lowest classification of the system elements. When using third party accessories, the conditions for safe use listed in the third party accessory certificates must be observed.
3. The Remoted Speaker Microphone (PMMN4163A), 3.5mm audio earpiece (PMLN8643A) and the accessories connected to the Nexus and 3.5mm jack are only protected to low risk of mechanical danger when used in Group I potentially hazardous area.
4. The interconnection of the remote speaker microphone for Group I applications and radio must be tested and certified separately in some countries.
5. The 3.5 mm audio earpiece PMLN8643A has to be used as intended on the body/head.
6. Ensure that the remote speaker microphone connector is tightly fastened to the radio accessory connector before entering the potentially hazardous area.
7. Do not leave the remote speaker microphone unattended in the potentially hazardous area. Use the remote speaker as intended on the hand or on the body.
8. Remove or replace the earbud to the 3.5 mm audio jack earpiece (PMLN8643A) only outside the potentially hazardous area.
9. Refer to safety instructions MN010393A01.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- The type item description was supplemented by NS750Ex
- The MT85**Ex radio was removed as aproved radio for PMMN4163A
- Some earbud replacements were removed
- IECEx Certificate Revision update for SAVOX headset (PMLN8631A & PMLN8632A)
- Add SAVOX headset (PMLN8765A & PMLN8766A) as approved IECEx accessories for use with RSM PMMN4163A
- Update of several documents



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Additional information:

For this product, the IEC 60079-11:2023 standard is equivalent to the IEC 60079-11:2011 standard in terms of safety. Therefore, the test report for IEC 60079-11, Ed. 6 has been omitted.

Annex:

[BVS_25_0004X_issue_2__Motorola_Annex.pdf](#)



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Annex
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General product information:

Description

The NS750Ex Remote Speaker Microphone types PMMN4163A is audio accessories for connection to the Motorola IECEx certified radios of the series R7Ex, XPR****Ex, XiR P****Ex, DP****Ex and DGP****Ex.

Model number	Description
PMMN4163A	NS750Ex IMPRESS OMNI ATEX RSM with large front PTT, Nexus 3.5mm

The PMMN4163A is designed to be connected to the 2 radio platforms listed below:

- R7Ex approved under IECEx BVS 25.0003X
- XPR **** Ex, XiR P**** Ex, DP**** Ex and DGP ****Ex approved under IECEx BVS 12.0070X

The Remote Speaker Microphones (RSM) are connected to the radios through the Motorola proprietary GCAI connector.

The Remote Speaker Microphones can only be connected or disconnected outside the potentially hazardous environment.

The RSM features two audio interfaces for connection additional IECEx certified accessories:

- a) Nexus connector for connection to talk and listen accessories
- b) 3.5mm audio jack for connection of listen only accessories

to a)

The following separately certified accessories can be used by the Nexus connector with the accessories:

Type (Motorola reference number)	IECEX Type Examination Certificate
MT7H79F-50 (PMLN6087A) Standard headset, with microphone and speaker (Ambient temperature range: -20 °C ≤ Ta ≤ +50 °C)	IECEX NEM 09.0004X (For Group II application)
MT1H7P3E2-07-51 (PMLN6089A) Headset series, Tactical XP (Ambient temperature range: -20 °C ≤ Ta ≤ +40 °C)	IECEX NEM 11.0010X (For Group I and II applications)
MT1H7F2-07-51 (PMLN6090A) Headset series, Tactical XP (Ambient temperature range: -20 °C ≤ Ta ≤ +40 °C)	IECEX NEM 11.0010X (For Group I and II applications)
MT7H79P3E-50 (PMLN6092A) Standard headset, with microphone and speaker (Ambient temperature range: -20 °C ≤ Ta ≤ +50 °C)	IECEX NEM 09.0004X (For Group II applications)
MT72H540P3E-50 (PMLN6333A) Headset with microphone and speaker, twin cup (Ambient temperature range: -20 °C ≤ Ta ≤ +50 °C)	IECEX NEM 09.0005X (For Group II applications)
MT7H79B-50 (PMLN7531A) PELTOR Basic Headset Neckband (Ambient temperature range: -20 °C ≤ Ta ≤ +50 °C)	IECEX NEM 09.0004X (For Group II applications)



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MT1H7B2-07-51 (PMLN7535A) IECEx NEM 11.0010X
PELTOR Tactical Headset Neckband (For Group I and II applications)
(Ambient temperature range: $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$)

PMLN8628A IECEx EESF 24.0034X Issue 0
HS700Ex Standard Over-the-Head Headset
(Ambient temperature range: $-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$)

PMLN8629A IECEx EESF 24.0034X Issue 0
HS700Ex Standard Helmet Attachment Headset
(Ambient temperature range: $-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$)

PMLN8631A IECEx EESF 24.0033X Issue 1
HS750Ex Active hearing protectors with speakers and
microphone
Motorola Description: Over-the-Head Headset with Ambient
Sound Control
(Ambient temperature range: $-30^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$)

PMLN8632A IECEx EESF 24.0033X Issue 1
HS750Ex Active hearing protectors with speakers and
microphone
Motorola Description: Helmet Attachment Headset with
Ambient Sound Control
(Ambient temperature range: $-30^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$)

PMLN8765A IECEx EESF 25.0003X Issue 2
(SAVOX ATEX HC-10 Headset, helmet
communication headset)
Motorola Description: SAVOX ATEX HC-10 Bone
Conduction Helmet Headset
(Ambient temperature range: $-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$)

PMLN8766A IECEx EESF 25.0003X Issue 2
(Savox ATEX HC-20 Helmet Com, helmet
communication headset)
Motorola Description: SAVOX ATEX HC-20 Bone
Conduction Helmet Headset
(Ambient temperature range: $-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$)

To b)

The earpiece type PMLN8643A can be connected to the 3.5 mm audio jack.

The accessories can only be connected or disconnected to the remote speaker microphone outside the potentially hazardous environment.

The ambient temperature range of the earpiece PMLN8643A is $-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$.

Optionally one of the colour PTT labels PMLN8464A, PMLN8465A, PMLN8466A, PMLN8469A, PMLN8523A, or PMLN8468A can be attached to RSM PTT listed above. 0104064J25 is the replacement part for the belt clip subassembly.

The following earbud replacement can be used with PMLN8643A:

RLN6242, RLN6282, RLN4760, RLN4761, RLN4762, RLN4763, RLN4764 and RLN4765.



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Parameters

1. Electrical data

1.1 Input parameters

The PMMN4163A is designed to be connected via GCAI Connector to the 2 radio platforms listed below:

- R7Ex approved under IECEx BVS 25.0003X
- XPR **** Ex, XiR P**** Ex, DP**** Ex and DGP ****Ex approved under IECEx BVS 12.0070X

1.2 Output parameters

Remote speaker microphone has the following output parameters for:

(a) Nexus Jack

Max. Output voltage	U_o	8.4	V_{DC}
Max. Output current	I_o	1.2	A
Max. Output power (linear characteristic)	P_o	< 0.650	W
Combined values for external capacitance with	C_o	1	μF
external inductance	L_o	46	μH

(b) 3.5 mm Audio Jack

Max. Output voltage	U_o	8.4	V_{DC}
Max. Output current	I_o	0.42	A
Max. Output power (linear characteristic)	P_o	< 0.650	W
Combined values for external capacitance with	C_o	0.5	μF
external inductance	L_o	380	μH

2. Ambient temperature range $-25^{\circ}C \leq T_a \leq +60^{\circ}C$
3. Ingress protection level RSM PMMN4163A IP 66/67 (acc. IEC 60079-0)

List of all components used with reference to older standards

No components used