Translation

(1) EC-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC

(3) No. of EC-Type Examination Certificate: **BVS 12 ATEX E 117 X**

(4) Equipment: **Radio telephone type XPR **** Ex, type XiR P**** Ex, type DP**** Ex and type DGP ****EX**

(5) Manufacturer: **Motorola Solutions Germany GmbH**

(6) Address: **Am Borsigturm 130, 13507 Berlin, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council 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 and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test and assessment report BVS PP 12.2167 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

IEC 60079-0:2011 General requirements
EN 60079-11:2012 Intrinsic safety „i"

(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 appendix to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 2G Ex ib IIC T4 Gb
II 2D Ex ib IIIC T130 °C Db
I M2 Ex ib I Mb

DEKRA EXAM GmbH
Bochum, dated 05. November 2012

Signed: Simanski
Certification body

Signed: Wittler
Special services unit

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(13) Appendix to

(14) **EC-Type Examination Certificate**
BVS 11 ATEX E 117 X

(15) 15.1 Subject and type

Radio telephone

type XPR **** Ex,
type XiR P**** Ex,
type DP**** Ex and
type DGP ****EX

The asterix (*) in the type designation is replaced by numbers per the list below

VHF versions 136 to 174 MHz

name	model number	type description
XPR 7550 Ex	PMUD3214ABCNAA	North American Full Keypad Model (NAG FKP)
DP4801 Ex	PMUD3214ABCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
XiR P8668 Ex	PMUD3214ABCAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ABFAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ABEAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ABDAAA	Asia Pacific Full Keypad Model (APAC FKP)
DGP 8550EX	PMUD3214ABCLAA	Latin American Caribbean Region Full Keypad (LACR FKP)
DGP 8050EX	PMUD3212ABALAA	Latin American Caribbean Region Non Keypad (LACR NKP)
XiR P8608 Ex	PMUD3212ABAAAA	Asia Pacific Non Keypad Model (APAC NKP)
DP4401 Ex	PMUD3211AAAEAA	Europe, the Middle East, Africa, Australia and New Zealand Non Keypad Model (EMEA NKP)

UHF versions 403 to 470MHz

name	model number	type description
XPR 7550 Ex	PMUE3750ABCNAA	North American Full Keypad Model (NAG FKP)
DP4801 Ex	PMUE3750ABCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
XiR P8668 Ex	PMUE3750ABCAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ABFAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ABEAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ABDAAA	Asia Pacific Full Keypad Model (APAC FKP)
DGP 8550EX	PMUE3750ABCLAA	Latin American Caribbean Region Full Keypad (LACR FKP)
DGP 8050EX	PMUE3754ABALAA	Latin American Caribbean Region Non Keypad (LACR NKP)
XiR P8608 Ex	PMUE3754ABAAAA	Asia Pacific Non Keypad Model (APAC NKP)
DP4401 Ex	PMUE3755AAAEAA	Europe, the Middle East, Africa, Australia and New Zealand Non Keypad Model (EMEA NKP)

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15.2 Description

The radio telephones types XPR **** Ex, XiR P**** Ex, DP**** Ex and DGP ****EX are portable 2-way radios that serve communication in the VHF (136 to 174 MHz) and UHF (403 to 470 MHz) band.

The radios telephones are only used with the Battery NNTN8359A and the Dust Cover with the part number 15012157001 or one of the accessories listed in this certificate.

The antennas listed below can be connected to the radio telephones

For use with the 136 - 174MHz versions

Part No	Description
PMAD4126A	GPS helical antenna (136 – 147 MHz) Ex
PMAD4127A	GPS helical antenna (147 – 160 MHz) Ex
PMAD4128A	GPS helical antenna (160 – 174 MHz) Ex
PMAD4129A	Stubby antenna 11cm (136 – 147 MHz) Ex
PMAD4130A	Stubby antenna 11cm (147 – 160 MHz) Ex
PMAD4131A	Stubby antenna 11cm (160 – 174 MHz) Ex
PMAD4132A	Wideband antenna (136 – 174 MHz) Ex

For use with the 403 - 470 MHz versions

Part No	Description
PMAE4081A	DMR folded monopole (403 – 433 MHz) Ex
PMAE4082A	DMR folded monopole (430 – 470 MHz) Ex
PMAE4083A	DMR stubby antenna (403 – 433 MHz) Ex
PMAE4084A	DMR stubby antenna (430 – 470 MHz) Ex
PMAE4085A	DMR whip antenna (403 – 470 MHz) Ex

The following carry devises can be used with the radio telephones:

Part No	Description
PMLN6086A	ATEX Belt Clip 2.5-Inch Belt Width
PMLN6096A	Hard Leather Carry Case 2.5-Inch Swivel Belt Loop for Non-Keypad Radio
PMLN6097A	Hard Leather Carry Case 2.5-Inch Swivel Belt Loop for Full-Keypad Radio
PMLN6098A	Soft Leather Carry Case 2.5-Inch Swivel Belt Loop for Non-Keypad Radio
PMLN6099A	Soft Leather Carry Case 2.5-Inch Swivel Belt Loop for Full-Keypad Radio
PMLN5610A	2.5-Inch Replacement Swivel Belt Loop

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The following accessories with a separate certification can be used with the radio telephone:

Part No	Description	Certificate
PMMN4067B	ATEX CSA Remote Speaker Microphone	BVS 12 ATEX E 027 X
PMLN6047A	Audio Adapter with Molex jack	BVS 12 ATEX E 074 X

The Audio Adapter type PMLN6047A is only approved for use in Gas (Group II) and Dust (Group III) hazardous environments.

The accessories, the antenna and the battery can only be connected or disconnected outside the potentially hazardous environment.

The ambient temperature range for the radio and the battery type NNTN8359A is -20 °C ≤ Ta ≤ +55 °C.

The following chargers can be used with the battery type NNTN8359A outside the potentially hazardous environment:

Part No	Description
WPLN4255B	IMPRES Single-Unit Charger with Switch Mode Power Supply EU Cord, Level V
WPLN4254B	IMPRES Single-Unit Charger with Switch Mode Power Supply UK Cord, Level V
WPLN4245B	IMPRES Single-Unit Charger with Switch Mode Power Supply PRC Cord, Level V
WPLN4249B	IMPRES Single-Unit Charger with Switch Mode Power Supply KOREA Cord, Level V
WPLN4256B	IMPRES Single-Unit Charger with Switch Mode Power Supply AUST/NZ Cord, Level V
WPLN4247B	IMPRES Single-Unit Charger with Switch Mode Power Supply JAPAN Cord, Level V
WPLN4253B	IMPRES Single-Unit Charger with Switch Mode Power Supply NA Cord, Level V
WPLN4213A	IMPRES Multi-Unit Charger - EURO Plug
WPLN4214A	IMPRES Multi-Unit Charger - UK Plug
WPLN4215A	IMPRES Multi-Unit Charger - AUSTRALIA/NZ Plug
WPLN4217A	IMPRES Multi-Unit Charger - KOREAN Plug
WPLN4212A	IMPRES Multi-Unit Charger - US/NA Plug
WPLN4220A	IMPRES Multi-Unit Charger with Display - EURO Plug
WPLN4221A	IMPRES Multi-Unit Charger with Display - UK Plug
WPLN4222A	IMPRES Multi-Unit Charger with Display - AUSTRALIA/NZ Plug
WPLN4224A	IMPRES Multi-Unit Charger with Display - KOREAN Plug
WPLN4219A	IMPRES Multi-Unit Charger with Display - US/NA Plug

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 Frequency bands

VHF-versions	136 – 174 MHz
UHF-versions	403 - 470 MHz

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15.3.1.2	Transmitter output power	2W max (ib)
15.3.1.3	Supply voltage	
	The radio telephone is supplied by the battery type NNTN8359A with the following supply voltage	
	Nominal supply voltage	7.6 V DC
	Peak open voltage	8.4 V DC
15.3.1.4	When the Audio Adapter type PMLN6047A (BVS 12 ATEX E 074 X) is used with the battery type NNTN8359A the following interface parameters have to be considered for secondary audio devices connected to the audio adapter:	
	Max. output voltage	Uo= 8.4V DC
	Max. output current	Io= 75mA
	Max. output power	Po= 314mW (linear characteristic)
	Effective internal capacitance	Ci = negligible
	Effective internal inductance	Li = negligible
	Connectable values for the group IIC and IIIC in combination	
	Max. external capacitance	Co= 0.1µF
	Max. external inductance	Lo= 2mH
15.3.2	Ambient temperature range	-20 °C ≤ T_a ≤ +55 °C
15.3.3	IP Protection	IP64

(16) Test and assessment report

BVS PP 12.2167 EG as of 05.11.2012

(17) Special conditions for safe use

17.1 The antenna can connect or change only outside the potentially hazardous area.

17.2 The ATEX CSA Remote Speaker Microphone type PMMN4067B can be connected or change only outside the potentially hazardous area.

17.3 The Audio Adapter with Molex jack type PMLN6047A can be connected or change only outside the potentially hazardous area.

17.4 For the separate certified accessories see the conditions in these certificates.

17.5 When the Audio Adapter type PMLN6047A is connected, the radio can only be used in gas (Group II) and dust (Group III) hazardous environments.

17.6 The battery will only be changed or charged outside the potentially hazardous area.

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We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 08.11.2012
BVS-Ha/Koe A 20110063

Certification body

Special services unit

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