

## EU Declaration of Conformity (DoC-15120100204-G)

This declaration of conformity is issued under the sole responsibility of the manufacturer. The object of the declaration is in conformity with the relevant Union harmonization legislation:

2014/53/EU Radio Equipment Directive  
2011/65/EU on RoHS-2 for Restriction of the use of Hazardous Substances  
2012/19/EU WEEE Waste Electrical and Electronic Equipment  
2013/35/EU on Occupational Exposure to Electromagnetic Fields  
ECE Regulation No. 10 for Electrical/Electronic-Subassembly (Automotive Directive)  
1999/5/EC on Radio Equipment and Telecommunications Terminal Equipment (Non-RED Countries)

**Object of the Declaration:** MOTOTRBO Subscriber DM4x00e mobile Radio series  
403-470MHz, TX:1-25W, 12.5/20/25kHz  
DM4400e, Type Designator: MBAR504D, numeric Display  
DM4600e, Type Designator: MBAR504N, alphanumeric Display  
National Licensed Frequencies Only

**Superseded Remarks:** This DoC supersedes DOC-15120100204-F

**Manufacturer:** Motorola Solutions Germany GmbH , Am Borsigturm 130, 13507 Berlin, Germany

### Conformity:

#### Radio Equipment, Article 3(2):

##### RED:

EN 300 086 V2.1.2, EN 300 113 V2.2.1, EN 300 219-2 v2.1.1, EN 300 720 V2.1.1

##### RTTE:

EN 300 086-1 V1.4.1, EN 300 086-2 V1.3.1,  
EN 300 113-1 V1.7.1, EN 300 113-2 V1.5.1,  
EN 300 219-1 V1.2.1, EN 300 219-2 V1.1.1,  
EN 300 720 V1.3.2

#### EMC, Article 3(1)b:

EN 301 489-1 V1.9.2, EN 301 489-5 V1.3.1, EN 60945:2002-10

For desktop applications: This is a EMC class A product according to EMC directive 2004/108/EC. This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce magnetic emissions to prevent interference to the reception of radio and television broadcast.

#### Safety, Article 3(1)a:

EN 60950-1:2006/A11:2009/A1:2010/A12:2011/AC:2011/A2:2013

Compliant with the ICNIRP (1998) Occupational / Controlled Exposure Limits  
EN 62311:2008

#### Others:

This product shows compliance with Automotive Regulation ECE10, marked with E24 10R-051847. Phoenix Testlab, NB# 0700, performed the assessment with regards to Maritime standards EN 300 720 V2.1.1, according to Article 3.2 of RE-D and issued EU type examination certificate 18-110237

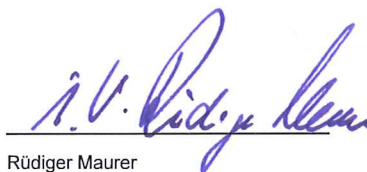
### Year of first application of CE mark: 2015

The essential radio test suites, as defined in the quoted harmonized standards, have been performed.

BERLIN, 21-FEB-2018



Andreas Scheunemann  
Managing Director Motorola Solutions Germany GmbH,  
Am Borsigturm 130, D-13507 Berlin, Germany



Rüdiger Maurer  
Director of Product Safety and Regulatory Compliance,  
Motorola Solutions Germany GmbH

**Rev. 1 Addendum to EU Declaration of Conformity (DoC-15120100204-G)**

This declaration of conformity is an addendum to above referenced product DoC and is issued under the sole responsibility of the manufacturer.

The accessories described below are in conformity with the relevant Union harmonisation legislation.

The listed accessories are certified and approved for use with the radios listed in the referenced DoC.

**ANTENNA**

PMAN4010A                      GPS/GLONASS MAG MOUNT

**AUDIO**

HKN4191B	POWER CABLE TO BATTERY, 3M (10 FT.), 20 AMP (1-25W)
HKN4192B	POWER CABLE TO BATTERY, 6M (20 FT.), 20 AMP (1-45W)
HMN4098A	TELEPHONE STYLE HANDSET
NNTN8143C	REMOTE PTT BLUETOOTH POD (NON-SECURE)
NNTN8191B	BLUETOOTH POD, NO CHARGER
NNTN8294A	OPERATIONS CRITICAL 1-WIRE EARBUD 29CM CORD BLACK
NNTN8295A	OPERATIONS CRITICAL 1-WIRE EARBUD 116CM CORD BLACK
NNTN8296A	WIRELESS COVERT KIT
NTN7374AR	3060665A05 EURO LINE CORD
PMKN4033A	CABLE, MOBILE MIC EXTENSION, 10 FEET
PMKN4034A	CABLE, MOBILE MIC EXTENSION, 20 FEET
PMLN5718AS	OPTION BOARD KIT
PMLN6053A	OPERATIONS CRITICAL WIRELESS EARPIECE, 12
PMLN6463A	BUSINESS WIRELESS ACCESSORY KIT
PMLN7052A	OPERATIONS CRITICAL WIRELESS 1-WIRE SURVEILLANCE KIT WITH TRANSLUCENT TUBE
PMLN7181A	FLEXIBLE-FIT SWIVEL EARPIECE W/ BOOM MIC
PMLN7203A	FLEXIBLE-FIT SWIVEL EARPIECE W/ BOOM MIC, MULTIPACK
PMMN4095	WIRELESS R2.17A LONG RANGE REMOTE SPEAKER
PMMN4097	WIRELESS R2.17 MOBILE MICROPHONE GATEWAY
RLN4922A	COMPLETELY DISCREET EARPIECE KIT
RLN4941A	RECEIVER-ONLY EARPIECE WITH TRANSLUCENT TUBE AND RUBBER EARTIP FOR REMOTE SPEAKER MICROPHONE
RLN5926A	PUSH BUTTON PTT
RLN6490A	XBT HEADSET BTN, HEAVY DUTY HEADSET, BT
RLN6491A	XBT HEADSET HB, HEAVY DUTY HEADSET, BT



## Rev. 1 Addendum to EU Declaration of Conformity (DoC-15120100204-G)

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### AUDIO

RMN5052A	COMPACT MICROPHONE
RMN5053A	HEAVY DUTY MICROPHONE WITH ENHANCED AUDIO
RMN5054B	VISOR MICROPHONE WITH ENHANCED AUDIO
RSN4002A	13 WATT EXTERNAL SPEAKER
RSN4003A	7.5 WATT EXTERNAL SPEAKER
RSN4004A	5 WATT EXTERNAL SPEAKER
RSN4005A	DESKTOP TRAY WITH SPEAKER

### CHARGER

NNTN8190B	BT ACCY KIT, SP, 9.5 CBL, NCHGR
PMKN4010	MAP PROGRAMMING CABLE
PMKN4016	MAP PROGRAMMING AND TEST CABLE
PMKN4018	MOBILE AND REPEATER REAR ACCESSORY CONNECTOR UNIVERSAL CABLE

### CABLE

PMKN4143A	MOTOTRBO REMOTE 3 METER CABLE KIT
PMKN4144A	MOTOTRBO REMOTE 5 METER CABLE KIT

### OTHERS

3002695B05	POWER CABLE, UK PLUG (STRAIGHT)
GKN6266	RADIO POWER CABLE FOR GPN6145
PMKN4070	IMPRES MOBILE MAP NON-PC ADAPTER
PMLN5072	HARDWARE KIT FOR REAR ACCESSORY CONNECTOR
PMLN6402	REMOTE MOUNT TRANSCEIVER INTERFACE
PMLN6403	REMOTE MOUNT CONTROL HEAD INTERFACE

### SOFTWARE

The installed radio software is under the full control of the manufacturer with no access by the user and is in compliance with the relevant directives.

The above accessories are shown with their global part numbers. In practice the accessory will have a regional prefix. Prefixes are purely done for regional kittings - primarily the manual (languages) and packaging. Prefixes are MD for European countries, AA of United States and AZ for Asia/Pacific region.

Note: A copy of the above referenced signed and dated Declaration of Conformity can be obtained either via your local Motorola help desk, via your dealer from where you purchased this radio or alternatively you can send an email request to [manufacturerdeclaration.eu@motorolasolutions.com](mailto:manufacturerdeclaration.eu@motorolasolutions.com), or via <http://www.motorolasolutions.com/Business/XU-EN/BMS+Resource+Library>



## Electromagnetic Energy (EME) Test Laboratory

### Conformity of models listed with applicable RF energy exposure limits

This declaration confirms compliance of Motorola Solutions mobile radio(s) with certified accessories

Model Number	Type Designator	Description
MDM28QNC9RA2AN	MBAR504DE	DM4401e, UHF1 403-470 MHz, 1-25W, 12.5/20/25kHz, numeric display, BT/GNSS/Wi-Fi
MDM28QNC9VA2AN	MBAR504D	DM4400e, UHF1 403-470 MHz, 1-25W, 12.5/20/25kHz, numeric display
MDM28QNN9RA2AN	MBAR504NE	DM4601e, UHF1 403-470 MHz, 1-25W, 12.5/20/25kHz, alphanumeric display, BT/GNSS/Wi-Fi
MDM28QNN9VA2AN	MBAR504N	DM4600e, UHF1 403-470 MHz, 1-25W, 12.5/20/25kHz, alphanumeric display

with the ICNIRP<sup>1</sup> limits for radio frequency (RF) energy exposure. The ICNIRP guidelines were developed by an independent scientific organization after thorough evaluations of relevant research studies, and have been endorsed by the World Health Organization (WHO). The ICNIRP guidelines are also referenced in the European Directive 2013/35/EU,<sup>2</sup> forming the basis of the applicable radio-frequency exposure framework for workers.

For these radio models, RF exposure evaluations were carried out in accordance with harmonised<sup>3</sup> standard EN 62311:2008,<sup>4</sup> following best practices defined in IEEE Std C95.3,<sup>5</sup> with the corresponding results scaled to the applicable highest certified power levels in all tested frequency bands.

RF exposure evaluations were performed at the Motorola Solutions Electromagnetic Energy (EME) laboratory, which has been certified to ISO/IEC Guide 17025 by an independent accrediting agency, the American Association for Laboratory Accreditation (A2LA), in accordance with the applicable ISO/IEC accreditation guidelines.

As certified in the Motorola Solutions EME lab, these radio models, at the highest applicable certified power levels, are compliant with the applicable exposure limits defined by ICNIRP.

Sincerely,

*Tiong*  
**Tiong Nguk Ing**  
Digitally signed by  
Tiong Nguk Ing  
DN: cn=Tiong Nguk Ing,  
o=Motorola Solutions,  
ou=Regulatory  
Compliance Lab,  
email=t.tiong@motor  
olasolutions.com, c=MY  
Date: 2017.06.01  
10:28:42 +08'00'

Tiong Nguk Ing on behalf of Pei Loo Tey  
Penang EME Laboratory Manager  
DATE : 01-JUN-2017

<sup>1</sup> ICNIRP (1998): International Commission on Non Ionizing Radiation Protection, "Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (Up to 300 GHz)" Health Physics, vol. 75, no. 4, pp. 494-522.

<sup>2</sup> Directive 2013/35/EU of the European Parliament and of the Council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (20th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) and repealing Directive 2004/40/EC.

<sup>3</sup> European Commission communication in the framework of the implementation of Directive 1999/5/EC of the European Parliament and of the Council on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity. Official Journal of the European Union 2016/C 249/01.

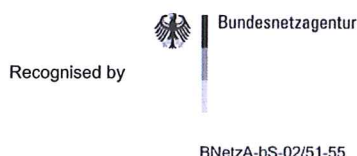
<sup>4</sup> EN 62311:2008 Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz). Although the standard is defined for the general public, it provides guidance for occupational exposures in Annex B.

<sup>5</sup> IEEE Std C95.3-2010 IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz to 100 kHz.

## EU-TYPE EXAMINATION (MODULE B) CERTIFICATE

**Radio Equipment Directive (RED) 2014/53/EU**

**PHOENIX TESTLAB**  
**Notified Body Number 0700**



This is to certify that:

PHOENIX TESTLAB did undertake the relevant type examination procedures for the radio equipment identified below which was found to be in compliance with the essential requirements of Radio Equipment Directive (RED) 2014/53/EU subject to any conditions in the annex attached hereto.

Certificate No.	18-110237
Manufacturer	Motorola Solutions
Address	Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D 11900 Bayan Lepas, Penang, Malaysia
Product Description	Mobile, mobile PMR (on-board vessels communication)
Brand Name / Model Name	Motorola Solutions / See annex of this Certificate

**The radio equipment meets the following essential requirements**

Article 3.1 a): Health and Safety **Not assessed**

Article 3.1 b): Electromagnetic Compatibility **Not assessed**

Article 3.2: Effective and Efficient Use of Radio Spectrum **Conform**

**Additional Essential Requirements:**

Article 3.3 a) Accessories, common chargers **not applicable**

Article 3.3 g) Access to emergency services

Date of issue **2018-02-20** Expiry date: **2023-02-19**

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached annex are complied with. The conditions for the validity of this certificate are listed in the Annex.

The attached Annex forms part of this certificate. This certificate consists of 3 pages.



  
20.02.2018 12:44  
Signed by Dieter Griep  
Notified Body

## Annex

### Technical description

Frequency Range	UHF 403-470 MHz (Channel Spacing 12.5/20/25 kHz)
Transmit Power	UHF: max. 2 W
Hardware Version	Tanapa Number: PMUE4125B; Serial number: 511TRMA966 / 511TRMA967
Software Version	---
Firmware Version	C02.17.55; Codeplug version 09.00.04

Model Name(s)	Type Designator	Design
DM4400e	MBAR504D	numeric Display
DM4600e	MBAR504N	alphanumeric Display

### Optional Components

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### Approval documentation

External / Internal Photos	provided
Operator's Manual	User Guide DM4400/DM4400e, DM4401/DM4401e User Guide DM4600/DM4600e, DM4601/DM4601e
Block Diagram, Circuit Diagram, PCB Layout, Operational Description, Parts Placement, Parts List	see Detailed Service Manual
EU Declaration of Conformity	Declaration of Conformity, 4 pages, 2017-06-19
Explanation of compliance Article 10(2) and Article 10(10)	provided in User Guide
Further Documents	Risk assessment of DM4000e Series UHF1 Mobiles, (on-board version)  Manufacturers Declaration, 2 pages, 2016-04-20  Detailed Service Manual MN002208A01-AB  based on Type Examination Certificate 17-112178






### Applied Standards and Test Reports

Specification	Laboratory	Test Report Number / Version
EN 300 086-1 V1.4.1 EN 300 086-2 V1.3.1	Motorola Solutions Malaysia	02017-RF-00009
EN 300 113-1 V1.7.1 EN 300 113-2 V1.5.1	Motorola Solutions Malaysia	02017-RF-00010
EN 300 328 V2.1.1	DM4601e	08852-RF-00009 Rev.B part 1 of 2
EN 300 328 V2.1.1	DM4601e	08852-RF-00009 Rev.B part 2 of 2
EN 300 720-1 V1.3.2 EN 300 720-2 V1.2.1	GCTCS	11196

### Limitations / Restrictions

- Restrictions for use shall be stated by the manufacturer, completed in the instructions accompanying the radio equipment. This could relate to frequency spectrum use and licence requirements.
- This device also contains frequency bands that are implemented by hardware, but not supported by software. Only the frequency bands stated in this Expertise are operable and have been assessed.
- The manufacturer shall provide information to the user concerning Health restriction.

### Notes

1. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with PHOENIX TESTLAB.
2. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/them being placed on the market.
3. The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure conformity of the manufactured radio equipment with the approved type described in the EU-type examination certificate and with the requirements of Directive 2014/53/EU that apply to it.
4.  The manufacturer shall affix the CE marking to each item of radio equipment that is in conformity with the type described in the EU-type examination certificate and satisfies the applicable requirements of the Directive.
5. The manufacturer shall draw up a written EU declaration of conformity for each radio equipment type and keep it at the disposal of the national authorities for 10 years after the radio equipment has been placed on the market. The EU declaration of conformity shall identify the radio equipment type for which it has been drawn up. A copy of the EU declaration of conformity shall be made available to the relevant authorities upon request.