

Notified Body  
**TÜV Rheinland**  
**LGA Products GmbH**

Tillystraße 2  
90431 Nürnberg

notified by the

Bundesnetzagentur für Elektrizität, Gas,  
Telekommunikation, Post und Eisenbahnen

**under No. 0197**

herewith issues an

**EU-Type Examination Certificate**

within the meaning of Annex III Module B of the 2014/53/EU Radio Equipment Directive (RED)  
for compliance with the essential requirements of this directive



Registration Number: RT 60118682 0001

Evaluation Report Nr.: 17011905 001

Manufacturer: Intel Mobile Communications SAS  
Le Navigator B  
505 Routes des Lucioles  
06905 Sophia Antipolis Cedex  
France

Product: Radio Equipment  
Dual Band Wireless WLAN adapter including Dual Mode BT

Type Identification: 3160HMW

Essential requirements: 2014/53/EU (RED)  
Article 3.1a Health  
Article 3.1a Electrical Safety  
Article 3.1b EMC  
Article 3.2 Radio spectrum

The technical design of the assessed type has been verified based on the technical documentation presented by the manufacturer according to Annex III Module B of the Directive. As far as the essential requirements indicated, the Notified Body of TÜV Rheinland LGA Products GmbH confirms, that the technical design of the apparatus meets the essential requirements of the Directive 2014/53/EU Article 3.

This certificate consists of this page and Annex I.

Validity of the certificate is specified in the Annex I.



## Equipment

<b>Product</b>	:	Wireless Adapter
<b>Trademark</b>	:	Intel®
<b>Identification</b>	:	3160HMW
<b>Product description</b>	:	Intel® Dual Band Wireless-AC 3160 adapter Including Dual Mode Bluetooth 2.1 (+ EDR), 3.0 (+HS), 4.0 (BLE)
<b>System description</b>		
Frequency band(s) of operation	:	2.4 GHz and 5 GHz bands
Operating frequency	:	2400 – 2483.5 MHz 5150 – 5250 MHz, 5250 – 5350 MHz 5470 – 5725 MHz
Channel spacing / bandwidth	:	13 Ch for 2,4 GHz (5MHz overlap): 20/40 MHz 24 Ch for 5 Ghz (20MHz non overlap): 20/40/80/MHz BT: 79 Channels (1MHz wide) BLE 3/37 Channels
RF output power	:	20 dBm max. (2400 – 2483.5 MHz) IEEE802.11 b/g/n mode 10 dBm max. (2400 – 2483.5 MHz) Bluetooth/BLE 23 dBm max. (5150 – 5725 MHz) IEEE802.11 a/n/ac mode
Type of modulation	:	2.4GHz: DSSS/OFDM/FHSS 5 GHz: OFDM BT 2.1 (+ EDR), 3.0 (+HS), 4.0 (BLE): GFSK
Type of antenna	:	Dual band antenna (1 x 1) Referenced antenna is PIFA type
Mode of operation (simplex / duplex)	:	Duplex (Tx/Rx)
Duty cycle (access protocol, if applicable)	:	As in: IEEE 802.11 a/b/g/n/ac, BT 2.1 (+ EDR), 3.0 (+HS), 4.0 (BLE)
Version of firmware/software used	:	Software Intel® PROSet/Wireless WiFi Software 19.x and previous versions for WiFi/BT

## Technical Documentation

The following identified Technical Documentation has been reviewed and has been used to determine if the design of the mentioned radio equipment meets the essential requirements:

Technical File Identification	RED_TD_3160HMW
Version	Version 0, First Issue
Issue date:	20-03-2017
Other supporting evidence	Not applicable

The following information is available in the technical Documentation:

User information and installation instructions	<input checked="" type="checkbox"/>
Block diagram	<input checked="" type="checkbox"/>
Circuit diagram	<input checked="" type="checkbox"/>
Part list	<input checked="" type="checkbox"/>
PCB layout	<input checked="" type="checkbox"/>
Photo documentation	<input checked="" type="checkbox"/>
Versions of firmware/software used	<input checked="" type="checkbox"/>
Statement of compliance with art. 10.2 it can be operated in at least one Member State without infringing applicable requirements on the use of radio spectrum.	<input checked="" type="checkbox"/>
The technical Documentation included an analysis and assessment of the risk(s) as required by Annex III, Module B clause 3 (c).	<input checked="" type="checkbox"/>



**Conformity Assessment**

<b>Applied harmonised standards</b> (Referred to the publication of harmonised standards in the official Journal of the EU at the time of issuance)			
Article	Standard	Test Report No.	Issued by
3.1a Health			
3.1a Safety			
3.1b EMC			
3.2 Radio	EN 300 328 V2.1.1 (WLAN) EN 300 328 V2.1.1 (BT) EN 301 893 V2.1.1 (Rx blocking) EN 301 893 V1.8.1	17011806.r03a 17011806.r03c 17011806.r03b 15121701.r03b	TÜV Rheinland Nederland B.V
3.3 Others			

<b>Applied non-harmonised standards</b>			
Article	Standard	Test Report No.	Issued by
3.1a Health	EN 62311:2008	(NIE) 39151RRF001	AT4 wireless, S.A.
3.1a Safety	EN 62368-1:2014	Report No. 324820	Nemko USA Inc.
3.1b EMC	EN 301 489-1 V2.2.0 (draft) EN 301 489-17 V3.2.0 (draft)	17011807-5.e01	TÜV Rheinland Nederland B.V
3.2 Radio			
3.3 Others			

<b>Other solutions, adopted to meet the essential requirements</b>			
Article	Standard	Test Report No.	Issued by
3.1a Health			
3.1a Safety			
3.1b EMC			
3.2 Radio			
3.3 Others			

**Rationale for applied non-harmonised standards or other solutions:**

- Due to the absence of harmonized standards for safety, health and EMC the latest ETSI EN and CENELEC standards have been used. The differences between R&TTE versions and candidate versions under the RED have been re-assessed and additional measurements have been reviewed. Selections of actions and standards to cover all the essential requirements are also based on the Risk assessment of the Manufacturer..
- Previous assessments under the R&TTE have been validated with letters of opinion with reference 13070901. The manufacturer has included these previous evaluations as part of the Technical Documentation

**Remarks:**

- This Type Examination Certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.
- This Type Examination Certificate only relates to the assessment of technical documentation to verify that the technical design of radio equipment meets the essential requirements of the RED 2014/53/EU and will not show compliance with essential requirements of other possible applicable EU Directives.
- The manufacturer has declared in compliance with art. 10.2 that the Radio Equipment can be operated in at least one Member State without infringing applicable requirements on the use of radio spectrum.
- Validity of this Type Examination Certificate is limited to the versions of the applied standard. If versions of standards change or modifications are made to the product, this Certificate will be invalidated.

