

## **Risk Assessment and Risk Reduction for DIRECTIVE 2014/53/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

Applicant: Lumi United Technology Co., Ltd  
Manufacturer: Lumi United Technology Co., Ltd  
Product name: Hub M2  
Brand name: Aqara  
Model name: HM2-G01  
Software version: 3.0.6\_0005.0515  
Hardware version: V1.1.0

We Lumi United Technology Co., Ltd have performed the risk assessment procedure and found that our product in the case of a transmitter, when the transmitter is properly installed, maintained and used for its intended purpose it generates radio waves emissions that do not create harmful interference, while unwanted radio waves emissions generated by the transmitter (e.g. in adjacent channels) with a potential negative impact on the goals of radio spectrum policy should be limited to such a level that, according to the state of the art, harmful interference is avoided; and, in the case of a receiver, it has a level of performance that allows it to operate as intended and protects it against the risk of harmful interference, in particular from shared or adjacent channels, and, in so doing, supports improvements in the efficient use of shared or adjacent channels and also evaluated the health and safety risk and other aspects of public interest protection.

We have tried to avoid the risk by designing inherent benign, pre-testing against relevant requirement and adding more precaution steps to enhance the quality, also will adding warning statement in the relevant documents to avoid non-proper installation which will cause non- intended purpose or usage.

We also seek to the professional authority to test and evaluate our products to get the official certificate, which will prove that our product meet the relevant essential requirements, helping the user to understand that our product is low risk.

## Risk Analysis

		Risk Item	Analysis
<b>Environmental Condition</b>	1	Operating Temperature-5°C ~ +50 °C	Meet the requirement of User manual
	2	Operating Humidity 0% ~ 95%	Meet the requirement of User manual
	3	Operating Voltage 5VDC, 1A or 5VDC, 2A	Meet the requirement of manufacturer's design
	4	Intended Used	Office or Home used
<b>RF (ZIGBEE)</b>	1	RF Output Power	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	2	Power Spectral Density	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	3	Occupied Channel Bandwidth	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	4	Transmitter unwanted emissions in the out-of-band domain	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	5	Transmitter unwanted emissions in the spurious domain	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	6	Receiver Blocking	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	7	Receiver spurious emission	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
<b>RF (Bluetooth)</b>	1	RF Output Power	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	2	Power Spectral Density	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	3	Occupied Channel Bandwidth	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	4	Transmitter unwanted emissions in the out-of-band domain	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	5	Transmitter unwanted emissions in the spurious domain	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	6	Receiver Blocking	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	7	Receiver spurious emission	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
<b>RF (Wi-Fi)</b>	1	RF Output Power	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	2	Power Spectral Density	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	3	Occupied Channel Bandwidth	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	4	Transmitter unwanted emissions in the out-of-band domain	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	5	Transmitter unwanted emissions in the spurious domain	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	6	Adaptivity	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	7	Receiver Blocking	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
	8	Receiver spurious emission	Meet the requirements of Test Standards ETSI EN 300 328 V2.2.2
<b>EMC</b>	1	EMI Performance	Meet the requirements of Test Standards ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4 (2020-09)
	2	EMS Performance	Meet the requirements of Test Standards ETSI EN 301 489-1 V2.2.3

			ETSI EN 301 489-17 V3.2.4 (2020-09)
	3	Under Vehicular Environment	Meet the requirements of Test Standards
<b>Safety</b>	1	Electric Shock Hazards	Inherent Regulating Network Protected (Meet Test Standard EN 62368-1: 2014 + A11: 2017
	2	Mechanical Hazards	Inherent Regulating Network Protected (Meet Test Standard EN 62368-1: 2014 + A11: 2017
	3	Fire Hazards	Inherent Regulating Network Protected (Meet Test Standard EN 62368-1: 2014 + A11: 2017
<b>RF Exposure</b>	4	RF Health	Fulfilled the requirements of Test Standards EN 50665:2017 EN IEC 62311: 2020
<b>No List On Designated Standards</b>	1	The compliance assessment uses designated standards where possible, Application of harmonised and “target to be harmonised” standards, The test suite for each product ensures compliance with the normative requirements of designated standards, and Approved body review of Art 6.1a, 6.1b and 6.2 compliance. Some Designated Standard have not published and evaluated by AB;	N/A

After evaluation, our product is found to satisfy all the technical regulations applicable to the product within the scope of Council Directives 2014/53/EU , according to 3.1a, 3.1b and 3.2 of the Directive. Some Harmonized Standard have not published, based on the Non-Harmonized Standard and evaluated by NB, when the harmonized standards published, we will renew them.

### List of the Followed Test Standards for Assessment of RED Requirement

EN 62368-1: 2014 + A11: 2017

EN IEC 62311: 2020

EN 50665:2017

ETSI EN 301 489-1 V2.2.3

ETSI EN 301 489-17 V3.2.4 (2020-09)

EN 300 328 V2.2.2

Yours sincerely,

Signed by or for the Applicant:

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