



# FCC SAR Exemption Evaluation Report

Report No. : W7L-P23040005SA01  
 Applicant : Marquardt GmbH  
 Address : Schloss-str.16,78604 Rietheim-Weilheim,Germany  
 Product : Geely UWB module  
 FCC ID : IYZGU1  
 Brand : Marquardt  
 Model No. : GU1  
 Standards : FCC 47 CFR Part 2 (2.1093) / IEEE C95.1:1992  
                   KDB 447498 D04 v01  
 Sample Received Date : May. 10, 2023  
 Date of Testing : May. 10, 2023 ~ Aug. 23 2023

**CERTIFICATION:** The above equipment have been tested by **Huarui 7layers High Technology (Suzhou) Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by A2LA or any government agencies.

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### Release Control Record

Report No.	Reason for Change	Date Issued
W7L-P23040005SA01	Initial release	Aug. 23, 2023



## 1. Description of Equipment Under Test

<b>EUT Type*</b>	Geely UWB module
<b>FCC ID*</b>	IYZGU1
<b>Brand Name*</b>	Marquardt
<b>Model Name*</b>	GU1
<b>Tx Frequency Bands (Unit: MHz) *</b>	UWB : CH5: 6489.6MHz/ CH9: 7987.2MHz
<b>Uplink Modulations*</b>	UWB : BPSK
<b>Antenna Type*</b>	UWB :PCB Antenna
<b>Equipment Type</b>	Hand-held Communication Devices
<b>EUT Stage*</b>	Production Unit

**Note:**

- \*Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
- The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.
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List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
PCB Antenna	Marquardt GmbH	Schloss-str.16,78604 Rietheim-Weilheim,Germany	UWB : MQUANTK	Size : 25.6mm* 16.3mm



## 2. SAR Exemption Evaluation

### Following FCC 447498 D04 Interim General RF Exposure Guidance v01

#### Blanket 1 mW Blanket Exemption:

The 1 mW Blanket Exemption of § 1.1307(b) (3) (i) (A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

The 1 mW blanket exemption applies at separation distances less than 0.5 cm, including where there is no separation. This exemption shall not be used in conjunction with other exemption criteria other than those for multiple RF sources in paragraph § 1.1307(b) (3) (ii) (A).

The 1 mW exemption is independent of service type and covers the full range of 100 kHz to 100 GHz, but it shall not be used in conjunction with other exemption criteria or in devices with higher-power transmitters operating in the same time-averaging period. Exposure from such higher-power transmitters would invalidate the underlying assumption that exposure from the lower-power transmitter is the only contributor to SAR in the relevant volume of tissue.

#### 2.1 Maximum Output Power (declared by manufacturer)

Mode	Tune-up Power
UWB CH5	-19.66(dBm)
UWB CH9	-17.17(dBm)

#### 2.2 SAR Test Exclusion Thresholds

Mode	Frequency (MHz)	Minimum separation distance (mm)	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Exception Limit (mW)	Verdict
UWB CH5	6489.6	0	-19.66	0.011	1	Exempt from SAR
UWB CH9	7987.2	0	-17.17	0.019	1	Exempt from SAR

#### Conclusion

According to the table above, the device can meet the SAR test exclusion thresholds requirement of FCC KDB 447498 D04 v01 and SAR evaluation is not required.

Therefore this device complies with FCC’s RF radiation exposure limits for general population without SAR evaluation.



BUREAU  
VERITAS



### **3. Information on the Testing Laboratories**

We, Huarui 7layers High Technology (Suzhou) Co., Ltd., were founded in 2020 to provide our best service in EMC, Radio, Telecom and Safety consultation.

If you have any comments, please feel free to contact us at the following:

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The road map of all our labs can be found in our web site also

Web: <http://www.7Layers.com>

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