

RF Exposure Assessment

Report Reference: MDE_TERA_2105_MPEa

on

BLE Module

BLEM0288

FCC ID: QLXBLEM0288

IC: 4430A-BLEM0288

Test Laboratory:

7layers GmbH
Borsigstrasse 11
40880 Ratingen
Germany

Note:

The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

7layers GmbH
Borsigstraße 11
40880 Ratingen, Germany
T +49 (0) 2102 749 0
F +49 (0) 2102 749 350

Geschäftsführer/
Managing Directors:
Frank Spiller
Bernhard Retka
Alexandre Norré-Oudard

Registergericht/registered:
Düsseldorf HRB 75554
USt-Id.-Nr./VAT-No. DE203159652
Steuer-Nr./TAX-No. 147/5869/0385

*a Bureau Veritas
Group Company*

www.7layers.com

Administrative Data:

Testing Laboratory

Company Name: 7layers GmbH
Address: Borsigstr. 11
40880 Ratingen
Germany

Project Data

Responsible for report: Mr. Abdellah Ahakki
Date of Report: 2022-06-02
Testing Period: 2022-04-08 to 2022-05-27

Applicant Data

Company Name: TeraTron GmbH
Address: Gewerbegebiet Sonnenberg
Martin-Siebert-Str. 5
51647 Gummersbach
Germany
Contact Person: Mr. Stephan Althoff

Manufacturer Data

Company Name: please see Applicant data
Address: -
-
-
Contact Person: -

Test object Data

General Description of Radio Device

Kind of Device product description	BLE Module
Product name	BLEM0288
Type	BLEM0288
Declared EUT data by the supplier	
Voltage Type	DC
Voltage Level	3.0 V
Antenna / Gain	External / 3 dBi
Tested Modulation Type	GFSK
Output Power Settings	5 dBm
General product description	Bluetooth Low Energy module
Specific product description for the EUT	The EUT is a BTLE Transceiver operating in the 2.4 GHz ISM band. It supports all 40 Bluetooth Low Energy Channels.
EUT ports (connected cables during testing):	Enclosure DC Power Antenna

RF Exposure evaluation

Model: CMWA6600

FCC ID: 2AVQ2-CMWA6600

IC: 25894-CMWA6600

Standards
OET Bulletin 65 Edition 97-01 August 1997
FCC 47 CFR §1.1307
FCC 47 CFR §1.1310

Test limits

As specified in Table 1B of 47 CFR 1.1310 – Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure.

Frequency range (MHz)	Power density (mW/cm ²)
300 – 1,500	f/1500
1,500 – 100,000	1.0

Equation OET bulletin 65, page 18, edition 97-01: $S = \frac{PG}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$

Where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna terminal: +1.9 dBm (1.548 mW)

Antenna gain: 3 dBi

Prediction distance: 20cm

MPE limit for General Population/Uncontrolled Exposure: 1 mW/cm²

Intermediate results:

Power density reached value: **0.0006 mW/cm²**

Yours sincerely,



Abdellah Ahakki