



RF Exposure Evaluation Declaration

Product Name : CLOUDGATE BASIC
WIRELESS WI-FI - 1 RS485
Model No. : GTW***MWT0
FCC ID : 2AJCX-CGMWW

Applicant : CAREL INDUSTRIES S.p.A.

Address : via dell'Industria, 11 - 35020 Brugine, PD -
ITALY

Date of Receipt : Jun. 01, 2020

Issued Date : Aug. 31, 2020

Report No. : 2060045R-RF-US-P20V01

Report Version : V1.0

The test results presented in this report relate only to the object tested.

The measurement result is considered in conformance with the requirement if it is within the prescribed limit,
It is not necessary to account the uncertainty associated with the measurement result, unless the
specification, standard or customer have special requirements

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Laboratory

This report is not used for social proof in China (or Mainland China) market.

Test Report Certification

Issued Date: Aug. 31, 2020

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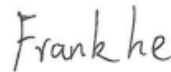
Product Name : CLOUDGATE BASIC WIRELESS WI-FI - 1 RS485
Applicant : CAREL INDUSTRIES S.p.A
Address : via dell'Industria, 11 - 35020 Brugine, PD - ITALY
Manufacturer : Jinan USR IOT Technology Limited
Address : Room 201,301 of East Building, No.889 Chonghua
Road, Jinan Free Trade Area, Shandong, 250101, China
Model No. : GTW***MWT0
Brand : CAREL
FCC ID : 2AJCX-CGMWW
EUT Voltage : 9~36 Vdc
Applicable Standard : KDB 447498D01V06
FCC Part 1.1310
Test Result : Complied
Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou,
215006, Jiangsu, China
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
FCC Designation Number: CN1199

Documented By :



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Reviewed By :



(Technical Supervisor: Frank He)

Approved By :



(Supervisor: Jack Zhang)

1. RF Exposure Evaluation

1.1.Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product	:	CLOUDGATE BASIC WIRELESS WI-FI - 1 RS485
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

Antenna Information:

Antenna model	N/A					
Antenna Delivery	☒	1*TX+1*RX	☐	2*TX+2*RX	☐	3*TX+3*RX
Antenna technology	☒	SISO				
	☐	MIMO	☐	Basic		
			☐	CDD		
			☐	Beam-forming		
Antenna Type	☒	External	☒	Dipole		
	☐	Internal	☐	PIFA		
			☐	PCB		
			☐	Ceramic Chip Antenna		
			☐	Stamping Antenna		
			☐	Metal antenna		
			☐	Monopole antenna		
Antenna Gain	3 dBi					

Power Density**Standalone mode:**

Test Mode	Frequency Band (MHz)	Maximum EIRP (dBm)	Power Density at R = 20cm (mW/cm ²)	Power Density Limit at R = 20 cm (mW/cm ²)
2.4G(Wi-Fi)	2400 ~ 2483.5	30.77	0.24	1.0

The safety distance is 20cm for installed for CLOUDGATE BASIC WIRELESS WI-FI - 1 RS485 without any other radio equipment.

_____ The End _____