

Testing Laboratory 0659



# **Maximum Permissible Exposure Report**

FCC ID: EROTS1070

Report No. : BTL-FCCP-5-2003T099

**Equipment** : 10.1 inch Touch Screen Surface mount **Model Name** : M201923006, TS-1070-B-S, TS-1070-W-S

Brand Name : CRESTRON

**Applicant**: Crestron Electronics, Inc.

Address: 15 Volvo Drive, Rockleigh, NJ 07647

FCC Rule Part(s) : FCC Guidelines for Human Exposure IEEE C95.1

**Date of Receipt** : 2020/3/20

**Date of Test** : 2020/3/20 ~ 2020/4/15

**Issued Date** : 2020/5/4

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

Prepared by

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# REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	2020/5/4

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# **MPE CALCULATION METHOD:**

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

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

#### Table for Filed Antenna

# For BT, BLE, WLAN:

Ant.	Brand	Test Model	Antenna Type	Connector	Gain (dBi)
1	YAGEO	TS WLAN MAIN	PIFA	IPEX	-1.64

# For 5G RLAN:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1 YAGEO	VACEO	TO MALANIA AND	DIEA	IDEV	1.86	UNII-1
	TAGEO	TS WLAN MAIN	PIFA	IPEX	4.17	UNII-3

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# **TEST RESULTS**

#### For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
-1.64	0.6855	5.95	3.9355	0.00053697	1	Complies

#### For BLE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
-1.64	0.6855	1.10	1.2882	0.00017577	1	Complies

#### For 2.4G WLAN:

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
-1.64	0.6855	19.84	96.3829	0.01315075	1	Complies

#### For 5G RLAN:

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
4.17	2.6122	19.24	83.9460	0.04364660	1	Complies

# Note:

1. The calculated distance is 20 cm.

#### **COLLOCATED POWER DENSITY CACULATIONS**

So for BT, WIFI simultaneous transmission: 0.00053697/1+0.04364660/1=0.04418357<1

**End of Test Report** 

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