

0659



# **Maximum Permissible Exposure Report**

FCC ID: EROTSW1070

**Report No.** : BTL-FCCP-5-1911T046

**Equipment**: 10.1 inch Touch Screen wall mount

Model Name : M201923003, TSW-1070-B-S, TSW-1070-W-S, TSW-1070P-B-S,

TSW-1070P-W-S, TSS-1070-B-S, TSS-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** : 2018/11/28

**Date of Test** : 2018/11/28 ~ 2019/12/18

**Issued Date** : 2020/3/24

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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Approved by

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# **REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	2020/1/21
R01	Revised report to address TCB's comments.	2020/3/24

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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	TSW WLAN MAIN	PIFA	IPEX	-3.92

#### For 5G RLAN:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	TOM/ MAIL AND MAINE	DIEA	IDEV	2.23	UNII-1	
ı	YAGEO	(AGEO TSW WLAN MAIN PIFA IPE	IPEX	3.95	UNII-3	

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# **TEST RESULTS**

#### For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-3.92	0.4055	5.55	3.5892	0.00028970	1	Complies

#### For BLE:

. 0. DLL.						
Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-3.92	0.4055	2.01	1.5885	0.00012822	1	Complies

#### For 2.4G WLAN:

0.2.10 1.2.11.							
Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm²)	Test Result	
-3.92	0.4055	19.72	93.7562	0.00756746	1	Complies	

#### For 5G RLAN:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
3.95	2.4831	19.16	82.4138	0.04073337	1	Complies

#### Note:

1. The calculated distance is 20 cm.

# **COLLOCATED POWER DENSITY CACULATIONS**

So for BT, WIFI simultaneous transmission: 0.0002897/1+0.04073337/1=0.04102307<1

**End of Test Report**