

Applicant: Mettler Toledo (Changzhou) Measurement Technology Ltd.

Product Name: Bluetooth Module ACW520

Model Number: ACW520-BT

FCC ID: 2ALAI2018MT102

RADIO FREQUENCY EXPOSURE COMPLIANCE RESULT:

Test Standard: FCC CFR 47 § 1.1310 : Radiofrequency radiation exposure limits.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

Note:

(1) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

(2) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

MPE Calculation Standard:

$$MPE(S) = PG/(4\pi R^2)$$

where: S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

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 (appropriate units, e.g., cm)

Calculation Result:

For this EUT, General population/uncontrolled exposure limits applied.

The limit value 1.0mW/cm^2 is available for this EUT.

Modulation	Peak Output Power		Antenna Gain		MPE	Limit
	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm^2)	(mW/cm^2)
BLE	4.32	2.701469	3	1.995	0.001072	1.0

For R = 20cm