

RF EXPOSURE EVALUATION EUT Specification

EUT	Projector
Model Name	C16,C6,C7,C8,C9,C10,C11,C12,C13,C15,C17,C18,C19,C20,C21,C22,C23,C25,C26,C27,C28,C29,C30,C32,C33,C36,C39,C40,C50,C55,C56,C58,C60,C70,C80,C90,C92,C98,CL760,CL770,CL780,CL790,F1,F2,F3
Frequency band (Operating)	<input checked="" type="checkbox"/> BLE: 2402 ~ 2480 MHz <input type="checkbox"/> WiFi 2.4G: 2412 ~ 2462 MHz <input checked="" type="checkbox"/> WiFi 5.2G: 5180 ~ 5240 MHz <input checked="" type="checkbox"/> WiFi 5.8G: 5745 ~ 5825 MHz <input type="checkbox"/> Others
Device category	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others
Antenna diversity	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity
Max. output power	BLE: 1.31dBm WiFi 5.2G: 14.31dBm WiFi 5.8G: 10.74dBm
Antenna gain	BLE: 1.56 dBi WiFi 5.2G: 2.27 dBi WiFi 5.8G: 7.62 dBi
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> SAR Evaluation

Standard Requirement

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
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = Power density in mW/cm^2

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

$\pi = 3.1416$

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

P_d the limit of MPE, $1mW/cm^2$.

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

Measurement Result

Operating Mode	Measured Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Antenna Gain (dBi)	Power density at 20cm (mW/ cm2)	Power density Limits (mW/cm2)
BLE	1.31	1.31 ±1	2.31	1.56	0.0005	1
WiFi 5.2G	14.31	14.31 ±1	15.31	2.27	0.0114	1
WiFi 5.8G	10.74	10.74 ±1	11.74	7.62	0.0172	1

WiFi 5G and BLE cannot support simultaneous transmission.

Result: No Standalone SAR test is required.