

MAXIMUM PERMISSIBLE EXPOSURE

KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

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)

EUT Specification

FCC ID	2A2Y8-PAVOSLIM240C
EUT	LED RGBWW Panel Light
Frequency band (Operating)	☐ BT: 2.402GHz ~ 2.480GH ☐ WLAN: 2.412GHz ~ 2.462GHz ☒ RLAN: 5.180GHz ~ 5.240GHz ☐ RLAN: 5.260GHz ~ 5.320GHz ☐ RLAN: 5.500GHz ~ 5.700GHz ☐ RLAN: 5.745GHz ~ 5.825GHz ☐ Others: BLE: 2402 MHz ~2480 MHz SRD: 2402 MHz ~2480 MHz
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others _____
Exposure classification	☐ Occupational/Controlled exposure ☒ General Population/Uncontrolled exposure
Antenna diversity	☐ Single antenna ☒ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Max. output power	BLE: 1.27dBm(0.0013W) SRD: 18.63dBm(0.0729W)
Antenna gain (Max)	BLE: 2.32dBi SRD: 3.20dBi
Evaluation applied	☒ MPE Evaluation ☐ SAR Evaluation



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	30
1500-100000	--	--	1	30

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

Where

P_d = Power density in mW/cm²

P_{out} =output power to antenna in Mw

G= gain of antenna in linear scale

Pi=3.1416

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

P_d the limit of MPE. 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	Channel Frequency (MHz)	Maximum output power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Antenna Gain (dBi)	Power density at 20cm (mW/cm ²)	Power density Limits (mW/cm ²)
BLE_1M	2402	0.83	0.83 ±1	1.83	2.32	0.0005	1
	2440.00	0.99	0.99 ±1	1.99	2.32	0.0005	1
	2480	0.51	0.51 ±1	1.51	2.32	0.0005	1
BLE_2M	2402	0.85	0.85 ±1	1.85	2.32	0.0005	1
	2440.00	1.27	1.27 ±1	2.27	2.32	0.0006	1
	2480	0.77	0.77 ±1	1.77	2.32	0.0005	1

SRD:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.20	2.0893	18.63	72.9458	0.03034	1	Complies

Note: The device does not support simultaneous transmission of BLE & 2.4G SRD.

Result: No Standalone SAR test is required.

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