

Maximal Permissible Exposure

FCC ID:

IC :

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy in excess limit for maximum permissible exposure.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 and RSS-102 this device has been defined as a mobile device whereby a distance of 0.2, normally can be maintained between the user and the device.

The following calculation presents the exposure value against the limits for occupational / controlled use.

Operating mode:

WLAN: 2,4 GHz

name		nature value	log value
max conducted power		182,389570 mW	22,61 dBm
max Antenna gain dBi		1,00	0,00 dBi
max Antenna gain dBd		0,61	0,00 dBd
calculated radiated power	EIRP	182,3896 mW	22,61 dBm
	ERP	111,2132 mW	22,61 dBm
measured radiated power	EIRP	mW	0,00 dBm
	ERP	mW	dBm
duty cycle factor			
frequency		2400 MHz	
dwel time		100,00 ms	
Time of occupancy/puls-train time		100,00 ms	
duty cycle factor	10log(dwel time/100 ms)	100,00%	0,00 dB
max source-based time-averaged power			
conducted power		182,39 mW	22,61 dB
calculated radiated power	EIRP	182,39 mW	22,61 dB
measured radiated power	EIRP	1,00 mW	0,00 dB
M P E			
$S = \frac{PG}{4\pi R^2}$		calculated with max source-based time-averaged power	
		measured conducted power	
		r [cm]	20 2,5 1,5 3,81
		S [mW/cm²]	0,0363 2,323 6,454 1,0
Limit general population		[mW/cm²]	1,0
Limit occupational population		[mW/cm²]	5,0 for f = 2400 MHz
$S = \frac{EIRP}{4\pi R^2} = \frac{1.64 ERP}{4\pi R^2} = \frac{0.41 ERP}{\pi R^2}$		calculated with max source-based time-averaged power	
		measured radiated power	
		r [cm]	20 2,5 1,5 n.a.
		S [mW/cm²]	n.a. = \$ 1,0

Test result: **complies**

WLAN: 5 GHz

name		nature value	log value
max conducted power		24,490632 mW	13,89 dBm
max Antenna gain dBi		1,00	0,00 dBi
max Antenna gain dBd		0,61	0,00 dBd
calculated radiated power	EIRP	24,4906 mW	13,89 dBm
	ERP	14,9333 mW	13,89 dBm
measured radiated power	EIRP	mW	0,00 dBm
	ERP	mW	dBm
duty cycle factor			
frequency	5000 MHz		
dwel time		100,00 ms	
Time of occupancy/puls-train time		100,00 ms	
duty cycle factor	10log(dwel time/100 ms)	100,00%	0,00 dB
max source-based time-averaged power			
conducted power		24,49 mW	13,89 dB
calculated radiated power	EIRP	24,49 mW	13,89 dB
measured radiated power	EIRP	1,00 mW	0,00 dB
M P E			
$S = \frac{PG}{4\pi R^2}$			
calculated with max source-based time-averaged power			
measured conducted power			
r [cm]	20	2,5	1,5
S [mW/cm ²]	0,0049	0,312	0,867
Limit general population	[mW/cm ²]	1,0	
Limit occupational population	[mW/cm ²]	5,0	for f = 5000 MHz
$S = \frac{EIRP}{4\pi R^2} = \frac{1.64 ERP}{4\pi R^2} = \frac{0.41 ERP}{\pi R^2}$			
calculated with max source-based time-averaged power			
measured radiated power			
r [cm]	20	2,5	1,5
S [mW/cm ²]	n.a.	=\$	1,0

Test result: **complies**