

Maximal Permissible Exposure

FCC ID: V9N106308900A1

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: UPCS

name			nature value	log value																														
max conducted power			109,14mW	20,38dBm																														
max Antenna gain dBi			1,58	2,00dBi																														
max Antenna gain dBd			0,97	-0,15dBd																														
calculated radiated power		EIRP	172,98mW	22,38dBm																														
		ERP	105,48mW	20,23dBm																														
measured radiated power		EIRP	0,40mW	-3,98dBm																														
		ERP	1,00mW	dBm																														
duty cycle factor																																		
frequency		1900MHz																																
dwel time			100ms																															
Time of occupancy/puls-train time			100ms																															
	10log(dwel time/100 ms)		100,00%	0,00dB																														
max source-based time-averaged power																																		
conducted power			109,14mW	20,38dB																														
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M P E																																		
<div><div><div>$S = \frac{PG}{4\pi R^2}$</div></div><div>calculated with max source-based time-averaged power measured conducted power</div><table><tr><td>r [cm]</td><td>20</td><td>2,5</td><td>1,5</td><td>3,711121</td></tr><tr><td>S [mW/cm²]</td><td>0,034</td><td>2,204</td><td>6,121</td><td>56</td></tr></table><div>power density</div><table><tr><td>Limit general population</td><td>[mW/cm²]</td><td>1,000</td><td colspan="2"></td></tr><tr><td>Limit occupational population</td><td>[mW/cm²]</td><td>5,00</td><td colspan="2">for f = 1900 MHz</td></tr></table><div>$S = \frac{EIRP}{4\pi R^2} = \frac{1.64 ERP}{4\pi R^2} = \frac{0.41 ERP}{\pi R^2}$</div><div>calculated with max source-based time-averaged power measured radiated power</div><table><tr><td>r [cm]</td><td>20</td><td>2,5</td><td>1,5</td><td>0,282166</td></tr><tr><td>S [mW/cm²]</td><td>0,000</td><td>0,013</td><td>0,035</td><td>32</td></tr></table></div>					r [cm]	20	2,5	1,5	3,711121	S [mW/cm²]	0,034	2,204	6,121	56	Limit general population	[mW/cm²]	1,000			Limit occupational population	[mW/cm²]	5,00	for f = 1900 MHz		r [cm]	20	2,5	1,5	0,282166	S [mW/cm²]	0,000	0,013	0,035	32
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