

SAR-based exemption for FCC-ID: 2ACQM-HRC1-BT01-A

Regarding the rule changes per FCC 19-126 Order

Title 47 §1.1307(b)(3)(i):

(3) Determination of exemption. (i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);

Maximum time-averaged power exemption calculation

Frequency [MHz]	Maximum power EIRP [mW]	Effective radiated power (ERP) [mW]	P _{th} [mW]
2402	3.98	2.43	2.79
2440	4.26	2.60	2.75
2480	4.46	2.72	2.72

For the smallest distance of $d = 0.5 \text{ cm}$ all ERP values are below or equal P_{th}.

Declaration

I hereby declare that the device with FCC-ID 2ACQM-HRC1-BT01-A was determined to be exempt from routine evaluation as per Title 47 §1.1307(b)(3)(i)(B).

Dr. techn. Gerald Artner
TÜV AUSTRIA Services GmbH
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