

RF Exposure

Test Requirement:	FCC 47CFR 15.247(i)
FCC ID:	2AZD4-BOOST
Test Date:	2026-03-15
Mode of Operation:	BT/5.2G/5.8G Tx mode

Requirements:

In 15.247(i), an equipment shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the limits in §§ 1.1310 and 2.1093 of this chapter.

Applications to the Commission for construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities must contain a statement confirming compliance with the limits unless the facility, operation, or transmitter is categorically excluded, as discussed below. Technical information showing the basis for this statement must be submitted to the Commission upon request.

According to KDB447498 D04 General RF Exposure Guidance v01, Appendix C
Simultaneous Transmission SAR Test Exemption with Respect to Multiple Exemption Criteria

Appendix C

Simultaneous Transmission SAR Test Exemption with Respect to Multiple Exemption Criteria

Either SAR-based or MPE-based exemption may be considered for test exemption for fixed, mobile, or portable device exposure conditions; therefore, the contributions from each exemption in conjunction with the measured SAR (*Evaluated_k* term) shall be used to determine exemption for simultaneous transmission according to Formula (C.1) [repeated from § 1.1307(b)(3)(ii)(B)].

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1 \quad (C.1)$$

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|------------|---|
| a | number of fixed, mobile, or portable RF sources claiming exemption using the § 1.1307(b)(3)(i)(B) formula for P_{th} , including existing exempt transmitters and those being added. |
| b | number of fixed, mobile, or portable RF sources claiming exemption using the applicable § 1.1307(b)(3)(i)(C) Table 1 formula for Threshold ERP, including existing exempt transmitters and those being added. |
| c | number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance. |
| P_i | the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive). |
| $P_{th,i}$ | the exemption threshold power (P_{th}) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source i . |

ERP_j	the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source j .
ERP_{thj}	exemption threshold ERP for fixed, mobile, or portable RF source j , at a distance of at least $\lambda/2\pi$, according to the applicable § 1.1307(b)(3)(i)(C) Table 1 formula at the location in question.
$Evaluated_k$	the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation.
$Exposure Limit_k$	either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable sources, as applicable

The sum of the ratios of the applicable terms for SAR-based, MPE-based and measured SAR or MPE shall be less than 1, to determine simultaneous transmission exposure compliance.

11/29/2021

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

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

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B. 1})$$

Test Result of wireless Tx mode:

RF Exposure Evaluation

1. test result EIRP is 3.87dBm+2.25dBi=6.12dBm (at frequency = 2.441 GHz With BT)

The Maximum ERP = 6.12dBm -2.15dB= 3.97dBm=2.495mW

BT antenna gain :2.25dBi

2. test result EIRP is 6.878dBm+1.26dBi=8.138dBm (at frequency = 5.195 GHz With 5.2G Band Antenna 1)

The Maximum ERP = 8.138dBm-2.15dB=5.988dBm = 3.970mW

5.2G Antenna1 gain :1.26dBi

3. test result EIRP is 4.778dBm+3.25dBi=8.028dBm (at frequency = 5.730 GHz With 5.8G Band Antenna 3)

The Maximum ERP = 8.028dBm-2.15dB =5.878dBm= 3.871mW

5.2G Antenna1 gain :3.25dBi

SAR Test Exclusion Thresholds: 2.495mW/3060mW

+3.970mW/3060mW+3.871mW/3060mW=0.00338≤1

The separation distance $d > 20 \text{ cm}$