

US Tech Test Report:
FCC ID:
IC:
Test Report Number:
Issue Date:
Customer:
Model:

FCC Part 15/IC RSS Certification
2BLAU-ATWR-V4
N/A
24-0179
September 9, 2024
Armillia Tech Ltd
ATWR-V4

Maximum Public Exposure to RF (MPE)

1.1310 Radiofrequency radiation exposure limits.

2.1093 Radiofrequency radiation exposure evaluation: portable devices.

General SAR test exclusion guidance, KDB 447498 D01, Section 4.3.1

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$\left[\frac{(\text{max. power of channel, (SBTA), mW})}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR, and } \leq 7.5 \text{ for 10-g extremity SAR, where:}$$

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as numeric thresholds per KDB 447498 D01

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) of KDB 447498 D01 is applied to determine SAR test exclusion.

In this case 5 mm was used as the worst case.

Max power of channel (SBTA) = $\frac{(20+1.57) * 10\%}{10} = 1.64 \text{ mW}$
 $f = 0.915 \text{ GHz}$

Result = $\frac{1.64}{5 * \sqrt{0.915}} = 0.31 << 3.0 \text{ and } 7.5$.

The EUT is determined to have met the General SAR test exclusion guidance.