



Wireless Transceiver Test Report



FCC ID: A94Z5GBT

IC: 3232A-Z5GBT

Certificate # 1514.1

6.9. RF exposure estimate

Although the device is a desktop unit in the mobile device exposure category ($d > 20\text{cm}$), the following calculation uses portable exposure low threshold limit for a more conservative estimate.

Based on the measured power output (see section 6.2)

Maximum peak conducted output	11.2 dBm (13.2mW)
Maximum antenna gain*	- 2.3 dBi
EIRP	8.9 dBm (7.8 mW) eirp

* Antenna gain is determined by measuring EIRP according to EN300328 and subtracting conducted output. Antenna gain and output power are not necessarily flat with frequency. For the purposes of this estimate the highest measured output power is combined with the highest measured antenna gain irrespective of frequency,

The device operates as a Bluetooth “data sink” with a duty cycle that does not exceed 5%. For a worst case estimate a 10% duty cycle is assumed in the calculation.

Source based time averaged conducted output power	$0.1 \times 13.2 = 1.32 \text{ mW}$
Source based time averaged EIRP	$0.1 \times 7.8 = 0.78 \text{ mW}$

The low threshold for SAR exemption is $60/f(\text{GHz}) = 60/2.441 = 24.6\text{mW}$

Since both conducted output power and E.I.R.P. (source based time averaged) are below the low threshold for SAR exemption, the device complies with FCC RF radiation exposure limits for general population as a portable device.

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