

COMMERCIAL-IN-CONFIDENCE

SAR EXCLUSION DOCUMENT

Document 75944487-06 Issue 01

Sepura SC2124 Bluetooth 2.4 GHz Transmitter:

FCC Standalone SAR Test Exclusion Considerations (KDB 447498 D01) Section 4.3.1 a)

100 MHz – 6 GHz – Separation Distance $\leq$ 50 mm

The 1g SAR Test exclusion thresholds for 100 MHz to 6 GHz test separation distances $\leq$ 50 mm are determined by:

$[(\text{max power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] [\sqrt{f} \text{ (GHz)}] \leq 3.0$ for 1g SAR and ≤ 7.5 for 10g extremity SAR.

- f (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
- When the maximum test separation distance is < 5 mm, a distance of 5 mm is applied.

SAR Exclusion Result:

Frequency (GHz)	Maximum Power (Tune up Value) * (mW)	Test Separation Distance (mm)	SAR Test Exclusion Threshold	Limit**	SAR Test Exclusion (Yes/No)
2.402	7	50	0.2	3.0	Yes
2.480	7	50	0.2	3.0	Yes

*Tune-up value is the maximum declared output power of the device (conducted output power).

** Select ≤ 3.0 for 1g SAR and ≤ 7.5 for 10g extremity SAR.

The SAR exclusion threshold has been evaluated using the formula described above from information supplied by the manufacturer below. Based on the calculation above, the EUT is categorically excluded from SAR testing.

Approved by


Simon Bennett
Authorised Signatory

Date 12 February 2019



Manufacturer's Declaration of Product Information (Bluetooth):

Product Description:	Portable TETRA terminal
Model number:	SC2124

If more than one Frequency Band is supported please confirm which combinations of bands are capable of Simultaneous Transmit.

Frequency Band 1: Bluetooth

Antenna length (cm):	Integral and internal	Centimetres (cm)
Frequency range:	2402 - 2480	
Bottom frequency:	2402	MHz
Middle frequency:	2441	MHz
Top frequency:	2480	MHz

Maximum power (input to the antenna including a tolerance):	0.00655	W
Antenna gain (or maximum gain allowed):	2.5	dBi

Separation distance from antenna to the user/bystander:	~5cm	cm
Transmitter Duty Cycle:	77.54	%