

**SAR Test Exclusion Evaluation**  
DePuySynthes Power Tools

## 1. Requirement(s)

**FCC KDB Publication 447498 D01 v06, 4.3.1 a):**

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

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

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 in step b) below

The test exclusions are applicable only when the minimum *test separation distance* is  $\leq$  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) is applied to determine SAR test exclusion.

## 2. Calculation

$$f_{(\text{GHz})} = 2.475 \text{ GHz, } P_{\text{max}}^* = 4.64 \text{ dBm (2.911 mW), } d_{\text{min}} = 5 \text{ mm}$$

$$[(2.911)/(5)]^* [\sqrt{2.475}] = 0.9159 \leq 3.0 \text{ for 1-g SAR, and } \leq 7.5 \text{ for 10-g extremity SAR}$$

\*: Power data is taken from Intertek 10469BOX-018a test report

## 3. Conclusion

SAR Test Exclusion Threshold is satisfied. The device complies with SAR requirements without measurement.