



TÜVRheinland®
Precisely Right.

RF Exposure Exhibit

EUT Name: PillCam

EUT Model: Colon 2

CFR47 Part 2.1093

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1.1 Maximum Permissible Exposure

1.1.1 Test Methodology

In this section, we try to prove the safety of radiation harmfulness to the human body for our product. The KDB 447498 D01v06 General RF Exposure Guidance is followed. The Gain of the antenna used in this calculation is declared by the manufacturer, and the maximum power input to the antenna is measured. Using the general SAR test exclusion guidance in Section 4.2.4 of KDB 447498 D01v06, we show the device meeting the SAR exemption.

1.1.2 FCC KDB 447498 D01 – General SAR Test Exclusion Guidance

According to the KDB 447498 D01 Section 4.2.4, implanted transmitter is exempted from RF exposure requirement when the transmitting power is ≤ 1.0 mW;

“When the aggregate of the maximum power available at the antenna port and radiating structures of an implanted transmitter, under all operating circumstances, is ≤ 1.0 mW, SAR test exclusion may be applied.²⁷ The maximum available output power requirement and worst case operating conditions must be supported by power measurement results, based on device design and implementation requirements, and fully justified in a SAR analysis report according to KDB Publication 865664 D02, in lieu of SAR measurement or numerical simulation.”

1.1.3 EUT Operating Condition

The EUT is designed for ingestion with the transmitter operates at 434.1MHz.

1.1.4 Classification

The antenna of the product, under normal use condition, is less than 5 mm away from the body of the user. This device is classified as a **implanted Device**.

1.1.5 SAR Test Exclusion Threshold

FCC SAR Exclusion Threshold Calculation

Classification	Meas. Configuration	Frequency (MHz)	Max. E-Field @ 3m (dBuV)	EIRP (uW)	Limit (mW)	Result
Implant	Inside Body Fluid	434.1	28.8	0.0003	≤ 1.0	Exempted *
Implant	None/ Open Air	434.1	46.4	0.0131	≤ 1.0	Exempted *

Note:

1. Since EUT can operate as an implanted device, the measured field strength used to calculate for maximum output power.
2. Field strength was measured inside the body simulated liquid and outside without any solution.
3. (*) EUT is exempted from RF exposure requirement.