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## **Letter of Explanation for Panasonic KX-HNK102 SAR Exemption**

FCC ID: ACJ96NKX-HNK102  
Product Type: DECT Keychain Remote

### **To Whom It May Concern**

#### **DECT Keychain Remote SAR Exemption for TCB Certification under Part 15D**

This DECT Keychain Remote uses TDMA technology and operates in the UPCS frequency band at 1.9GHz.

#### **Operational Description**

The equipment is a DECT Keychain Remote that operates in the frequency range of 1921.536 to 1928.448 MHz with 5 RF channels and channel separation of 1.7 MHz.

#### **RF Exposure Conditions**

The Keychain Remote is designed to be attached to a key chain and is intended for handheld use in the portable exposure condition and General Population Uncontrolled exposure environment.

#### **Transmission Mode**

Each RF frame is 10ms and the frame is divided into 24 transmit slots. The Keychain Remote transmits one packet of 416  $\mu$ s length per 10ms frame.

The duty cycle is  $(416\mu\text{s})/10\text{ms} = 4.16 \%$

### RF Output Power

TX Frequency Range: 1921.536 – 1928.448 MHz  
Pmax (incl. Tune-Up tolerance): 18.4 +1.0 = 19.4 dBm  
Maximum Duty Factor: 4.16 %  
Maximum Tune-Up Tolerance 1.0 dB  
Maximum source-based time-averaged output power,  
including Tune-Up Tolerance: 3.63 mW

Max. power of channel: 3.63 mW  
Min. separation distance: 5 mm  
Max. frequency: 1.925 GHz

$[(Pwr/Dist)*\sqrt{Freq.}] = 1.0$

The result of the above SAR threshold calculation demonstrates that the result is less than the 1-g numeric threshold of 3 and the 10-g numeric threshold of 7.5.

**Conclusion: The above analysis shows that the evaluated device qualifies for exemption from SAR testing.**



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Kjeller, 24-June-2015