

**EXHIBIT B**

[FCC Ref. 2.1033(b)(4)]

"Description of Circuit Functions"

# Circuit Description

Model: 21008B

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The following circuit description for model 21008B is based on the circuit diagram and block diagram of 21008B

## Handset Unit

### 1. Receiving Path

The receiving path is established as below sections

#### **Antenna, Mixer, Demodulator**

RF signal is pick up by a solid wire antenna and then filtered by the PCB filter, and input to RX of U1 (DH24RF17B) transceiver IC. Then through mixer and FSK data output from demodulator

#### **FSK data demodulate**

The FSK data is output from DH24RF17B transceiver IC, then go to EDCT controller chip DLH36107 for decode to an audio signal before output to the handset speaker through audio amplifier.

### 2. Transmitting Path

The transmitting path is established as below sections

#### **Mic amplifier and encoder**

Audio signal pick up by handset microphone is amplified by internal mic amplifier of U2 DLH36107 EDCT controller, then go to encoding.

#### **Modulator and RF Power amplifier**

The FSK data is output from the EDCT controller chip, then input to transceiver IC DH24RF17. The modulated signals go to PCB Filter, and then pass through the TX/RX Switch CR1 (BAR64-02V). Finally, the RF signal propagates through a solid wire antenna.

## Base Unit

### 1. Receiving Path

The receiving path is established as below sections

#### **Antenna, Mixer, Demodulator**

RF signal is picked up by either one of the two solid wire antennas and then filtered by the PCB filter and input to RX of U1 (DH24RF17B) transceiver IC. Then through mixer and ADFSK data output from demodulator

#### **FSK data demodulate**

The FSK data is output from DH24RF17B transceiver IC, then go to EDCT controller chip DLH36119 for decode to an audio signal before output to the handset speaker through audio amplifier.

### **2. Transmitting Path**

The transmitting path is established as below sections

#### **Mic amplifier and encoder**

Audio signal pick up by handset microphone is amplified by internal mic amplifier of U2 DLH36119 EDCT controller, then go to encoding.

#### **Antenna, Modulator and RF Power amplifier**

The FSK data is output from the EDCT controller chip, then input to transceiver IC DH24RF17. The modulated signals go to PCB Filter, and then pass through the TX/RX Switch CR1 (BAR64-02V). Finally, the RF signal propagates through either one of the two solid wire antennas.

### **3. Antenna Diversity**

Antenna diversity is implemented by CR2, CR3 (BAR64-02V) to select alternately the two antennas ANT\_A, ANT\_B respectively for TX/RX.

### **4. Telephone Line interface**

The telephone line interface circuit is established by below sections

#### **Line seize and isolation**

Line isolation is mainly performed by Q10, Q13 and Q12. Q12 also has a function of controlling Line-seize. Both audio input and output will through Q10 and Q13.

#### **Ring detect and CID circuit.**

The ring and CID signal will input through R113, R114 470K ohm and C43, C44 1nF/500V as DC isolation from telephone line.