

EXHIBIT B

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

"Description of Circuit Functions"

## **Picard Headset Circuit Description**

### **1. RF Transmitter**

It modulates (FM) the voice or data onto a carrier frequency. It then amplifies the carrier power and feeds it to the antenna.

### **2. RF Receiver**

It receives the modulated RF signal from the base through the antenna. It then demodulates it to recover the voice or data.

### **3. Audio Amplifiers**

There are two main paths of audio amplifiers. The transmit audio amplifiers are used to provide audio signal amplification from the microphone before being modulated onto the RF. The receive audio amplifiers are used to provide audio signal amplification to the recovered audio before it is fed to the ear piece.

### **4. PLL**

Frequency synthesizer to lock to predefined channel frequencies.

### **5. Data Transfer and Battery Charge Circuitry**

The data transfer and battery charge circuitry are connected to three metal pins. These pins allow the base unit to charge the headset battery and to transfer the security data to headset microprocessor.

### **6. Power Management**

The power management circuitry is controlled by the microprocessor. It turns on or off the power supply to the transmitter or receiver.

### **7. Low Battery Detect**

It provides a feedback when the battery voltage is below a certain level.

### **8. Reset Circuitry**

It resets the microprocessor to a known state during power up or when the headset is in cradle.

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### **6. Power Management**

The power management circuitry is controlled by the microprocessor. It turns on or off the power supply to the transmitter or receiver.

### **7. Low Battery Detect**

It provides a feedback when the battery voltage is below a certain level.

### **8. Reset Circuitry**

It resets the microprocessor to a known state during power up or when the headset is in cradle.

## **Picard Base Circuit Description**

### **1. RF Transmitter**

It modulates (FM) the voice or data onto a carrier frequency. It then amplifies the carrier power and feeds it to the antenna.

### **2. RF Receiver**

It receives the modulated RF signal from the handset through the antenna. It then demodulates it to recover the voice or data. The data will be fed to microprocessor while the voice will be directed to the network interface circuit.

### **3. Audio Amplifiers**

There are two main paths of audio amplifiers that are interfacing with the RF circuitry. The base transmit audio amplifiers are used to provide audio signal amplification from the tip/ring line before being modulated onto the RF. The receive audio amplifiers are used to provide audio signal amplification to the recovered audio before it is fed to tip/ring via a transformer. There are also audio amplifiers to support the speakerphone which provide the amplifications for the audio signals from microphone to tip/ring and from tip/ring to speaker.

### **4. PLL**

Frequency synthesizer to lock to predefined channel frequencies.

### **5. Data Transfer and Battery Charge Circuitry**

The data transfer and battery charge circuitry are connected to three metal pins. These pins allow the base unit to charge the handset battery and to transfer the security data to handset microprocessor. The base can charge two handsets simultaneously.

### **6. Codit**

The main function of the network interface is to provide audio interface signal between the base transmitter/receiver and the handset RJ9 Jack. Also to compensate the Tx and Rx audio gain of different phones.

### **7. Voltage Regulator**

It is providing a regulated 5Vdc for some of the base circuitry operation.

### **8. Power Adaptor**

It converts 120Vac to 12Vdc.

### **9. Learn Button**

To set up CODIT to the telephone connected to the unit.

## ***10. Digital Security Coding***

There is a 16-Bit pseudo-random security code generate by the MCU to headset when headset is cradle to base. This is done through the center pin