EXHIBIT C

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

"Description of Circuit Functions"

Circuit Description

Model: 27923A

The following circuit description is for Model 27923A and base on the Circuit diagram and Block diagram.

Handset Unit

1. Receiving path

The receiving path is established by below sections:

RX Antenna

The Solid-wire RX antenna detects electro-magnetic signals at radio frequencies. These signals are further filtered into usable frequency for the receiving path through the 925MHz dielectric filter F1.

Low Noise Amplifier (LNA)

FM signal filtered by the 925MHz dielectric filter F1, is input to tuning amplifier Q3 before output to mixer.

Mixer, IF filter

Mixer has built in U1, which is controlled by PLL. The signal is then filtered by CF1 (10.7MHz) ceramic filter and feed into pin 30 of U1 for demodulation.

IF amplifier

IF amplifier has built in U1, amplified IF is filtering again by a ceramic filter CF2 (10.7MHz), the filtered IF will input to FM demodulator U1 pin 26.

FM demodulator and expander

The second IF signal and the recovered audio signal is demodulated and expand respectively by U1 for de-emphasis before output to the handset speaker through the audio amplifier (built in U1).

2. Transmitting path

The transmitting path is established by below stages:

Mic amplifier and compressor

Audio pick up by handset microphone is amplified by internal mic amplifier of U1, then input to compressor for pre-emphasis before input to the Modulator (Tx VCO).

Modulator and TX VCO

The transmit VCO is built in U1, which is controlled by PLL. Both audio and data signal input to the transmission VCO will cause a frequency modulation progress.

RF Power Amplifier and TX Antenna

FM signal amplified by Q2 & Q4 and the amplified Radio Frequency signal from the LC filter is fed into the Solid-wire, spring type TX Antenna then propagates the composite RF signal.

Base Unit

1. Receiving Path

The receiving path is established by below stages:

RX Antenna

The Solid-wire, spring type RX antenna detects electro-magnetic signals at radio frequencies. These signals are further filtered into usable frequency for the receiving path through the 2405MHz dielectric filter F21.

Low Noise Amplifier (LNA)

The filtered FM signal is inputted to tuning amplifier Q18 before output to mixer.

Mixer, Rx VCO, Tripler, IF filter

Mixer stage constructed by Q24, which is controlled by the Rx VCO build by Q20 and the Tripler Q2. The mixed IF signal is filtered by the 10.7MHz ceramic filter CF1 before passing into U1 pin 40 for demodulation.

IF Amplifier

IF amplifier constructed by Q1, amplified IF is filtering again by a ceramic filter CF2 (10.7MHz), the filtered IF will input to FM demodulator U1 pin 33.

FM Demodulator and Expander

The second IF signal is demodulated by quadrature coil T1, then the recovered audio signal is input to the expander stage in U1 for de-emphasis before output to MCU IC2 (TMP87C405) through the audio amplifier in U1.

2. Transmitting Path

The transmitting path is established by below sections.

Compressor, Splatter, Modulator

The received line audio and side tone signal from the hybrid will go to the audio input of the combo chip. It will pass through a compressor. From the output of the compressor, it will go to the splatter circuit. The audio will then modulate the Tx VCO (Transmit Voltage Controlled Oscillator) frequency of the modulator (Q13) which is controlled by the PLL of the combo IC.

Pre-amp, TX Antenna

The Tx VCO frequency is extracted and amplified by RF pre-amp Q12. The final Tx signal is provided to the Solid-wire, spring-type TX Antenna for transmission.

3.Telephone Line Interface

The telephone line interface circuit is established by below stages:

Audio Power Amplifier

Q1 & Q11 are built as an audio amplifier, according to high current output requirement for line interface.

Line Relay & Isolation

Line isolation mainly performed by two transistors (Q3 and Q8). Q8 also has a function of controlling the line-seize. Both audio input and output will through transistor Q3.

Ring Detect circuitry

Q12 and Q14 are used as AC amplifier for pick up the ring signal, which is input through resistor R42 (3.6M-ohm) and capacitor C32 (10nF, 500Volt) as DC isolation from the telephone line.