

EXHIBIT E
DESCRIPTION OF ELECTRICAL CIRCUITRY

BASE UNIT:

A) WHEN A BELL SIGNAL ENTERS FROM TEL LINE

- 1) The bell detection circuit, i.e., the photocoupler (PC102) on Analogue board begins to operate and its output is inputted to pin 124 of IC501(ASIC) on Digital board.
- 2) And then IC501(ASIC) on Digital board inform of bell signal to IC501(DSP) on Cordless Base board by serial communication.
- 3) A portable phone receives a bell from the base station.
When the portable phone is switched from the STANDBY to TALK, the base station receives a carrier modulated by data indicating the switch from STANDBY to TALK.
The data demodulated at the base station is inputted to pin 66 of IC501(DSP), and passes through IC501(ASIC) on Digital board and RL101 on Analogue board to make the circuit relay, then, release the muting and enables talk.

B) WHEN A LINE LOOP IS MADE BY A PORTABLE PHONE

- 1) When the operator of the portable phone switches STANDBY to TALK, the TALK mode data enters the base station and is demodulated at the RF Unit of the base station, and is inputted to pin 66 of IC501(DSP).
- 2) In this time, an IN USE signal is output and the LCD indicates "CORDLESS IN USE".

C) RECIEVER UNIT OPERATION

- 1) A signal is received by the antenna, and passes through the 2400 to 2483.5MHz band pass filter FL111, and is inputted to the pin 3 of IC101 on RF UNIT.
- 2) The received signal and local signal made by VCO (2400.768~2478.592MHz) are mixed by IC101 to obtain digitized audio signal.
- 3) The base band signal is fed to pin 66 of IC501(DSP).
- 4) This audio signal is transmitted to the telephone line by IC501(DSP).

D) TRANSMISSION UNIT OPERATION

- 1) An audio signal from the line passes through the interface transfer(T101) on Analogue board to IC520 on Digital board.
- 2) The audio signal is inputted to pin 36 of IC501(DSP).
- 3) This audio signal is coded by IC501(DSP) and output from pin 57 to IC501(DSP).
- 4) This modulated signal goes to the antenna.