

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 transistor(Q101) begins to operate and its output is inputted to pin 27 of IC201(DSP).
- 2) To obtain a display synchronized with the bell signal, an IN USE signal is output from pin 70 of IC201(DSP) and INUSE LED(LED202) is lighted up.
- 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 57 of IC201, and passes through Q4 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 IC201.
- 2) In this time, an IN USE signal is output from pin 70 of IC201, and the IN USE LED (LED202) is lighted up.

C) RECIEVER UNIT OPERATION

- 1) A signal is received by the antenna, and passes through the 902 to 928MHz band pass filter L111, and is inputted to the pin 7 of IC101.
- 2) The received signal and local signal made by VCO (913.408~916.594MHz) are mixed by IC101 to obtain digitized audio signal.
- 3) The base band signal is fed to pin 66 of IC201.
- 4) This audio signal is transmitted to the telephone line by IC201.

D) TRANSMISSION UNIT OPERATION

- 1) An audio signal from the line passes through the interface transistor(Q64).
- 2) The audio signal is inputted to pin 36 and 44 of IC201.
- 3) This audio signal is coded by IC201 and output from pin 57 to IC101.
- 4) This modulated signal goes to the antenna.

EXHIBIT E
DESCRIPTION OF ELECTRICAL CIRCUITRY

PORTABLE UNIT:

A) RECEIVER UNIT OPERATION

- 1) A signal from the base unit is received by the antenna, and passes through the 902 to 928MHz band pass filter L111.
And the signal is fed to pin 7 of IC101.
- 2) An received signal and 1st local signal made by VCO(913.408~916.594MHz) are mixed to obtain digitized audio signal.
And this signal goes out from pin 66 of IC101.
- 3) This digitized audio signal is fed to pin 66 of IC201.
- 4) This audio signal goes to pin 33 and 34 of IC201, and output to speaker.

B) TRANSMISSION UNIT OPERATION

- 1) When selected TALK switch to TALK, the detect switch of IC201 becomes ON and get into TALK mode.
- 2) The audio signal from microphone is inputted to pin 46 and 47 of IC201.
- 3) This audio signal is coded by IC201 and output from pin 57 to IC101.
- 4) This modulated signal goes to the antenna.