

EXHIBIT E

DESCRIPTION OF ELECTRICAL CIRCUITRY

A) When receiving a call to Portable Station

- (1) When there is an incoming call to Portable Station, PBX sends paging information to IC113 via cable. IC113 is responsible for wired data transmission between Cell Station and PBX.
- (2) Paging information is received at IC113 and sent to IC112. IC 112 is a HDLC protocol controller for high reliability data communication. Paging information is formatted at IC112.
- (3) IC102 (CPU) reads paging information in IC112 by bus access and writes paging information onto IC100 (Base Band IC). In IC100 paging information is combined with voice data, framed, and sent to RF circuit as TXDA signal.
- (4) Voice data (ADPCM) is also transferred to IC113 via cable. Voice data is fed to pin DSTI of IC101 and formatted to fit to IC100 data format. Then Voice data is fed to pin DDN of IC100. Voice data is combined with paging information in IC100 and fed to RF circuit as TXDA signal. TXDA signal is filtered at analog filter composed of FLT1, FLT2, R113, R114, R115, C120, C121 and C122 and fed to RF circuit.
- (5) The filtered TXDA signal is converted into 2.4GHz FSK (Frequency Sift Keying) modulation signal at the inside of RFIC (IC201). After amplified by RF Power Amp (IC101), FSK modulation signal goes through band pass filter (FIL101) and then outputs to the antenna.

B) When making a call from Portable Station

- (1) Portable Station sends call information to Cell Station by radio.
- (2) RF signal from Portable Station (KX-TD7690) is received by an antenna, passes through the 2.4GHz band pass filter FIL101, and then the signal is fed to pin (RF and RFX) of RF-IC (IC201).
- (3) The RF signal fed to RF-IC passes through LNA (Low Noise Amplifier) Low IF band pass filter and is demodulated to digital signal by demodulator. Then the demodulated signal is fed to base band IC (IC100) from RXDA pin.
- (4) In IC100 call information and voice data (ADPCM) is extracted from demodulated signal.
- (5) IC102 (CPU) reads call information from IC100 and writes call information onto IC112. Then call information is formatted and transferred to IC113. And Call information is transmitted to PBX via cable.
- (6) On the other hand voice data (ADPCM) is extracted at IC100 and fed to IC101 through pin DUP. Voice data is formatted to fit to IC113 data format and fed to pin DSTI of IC113. Voice data is transmitted from IC113 to PBX via cable.