TE-205 RF BOARD BLOCK DIAGRAM

Power Regulator

5V

3.0V

Power contrl

12.8MHz

DIGITAL BOARD

FSK DATA OUT

MOD IN

5V

PLL

RF Signal

BUFFER

Pre Driver

450MHz ~ 470MHz

PLL Contrl line

ANT

LOW PASS FILTER

POWER
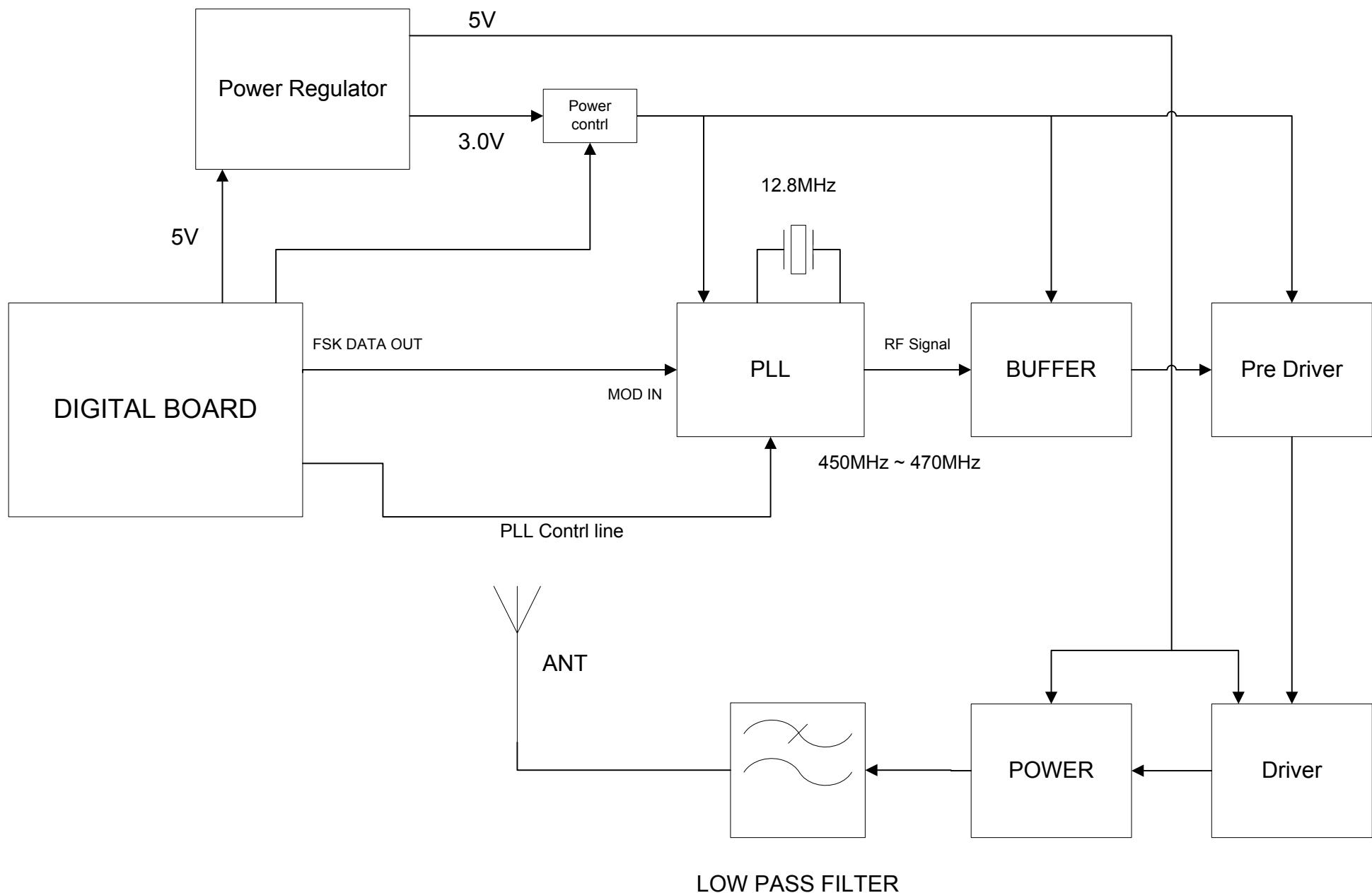
Driver

TE-205 BLOCK DIAGRAM OF DIGITAL BOARD

```
            ┌──────────┐              ┌──────────────┐
            │  EEPROM  │─────────────▶│ RS-232 Driver│
            └────┬─────┘              │  & Receiver  │
                 │  ◀─────────┐       └──────────────┘
                 ▼            │
┌──────────┐  ┌──────────────────┐  ┌──────────────┐
│ Power    │  │                  │  │  Buzzer &    │
│ & Reset  │──│      MCU         │─▶│  LCD Display │
│ IC       │  │                  │  └──────────────┘
└──────────┘  └──────┬──────┬────┘
                     ▼      ▼
              ┌──────────┐ ┌──────────────┐
              │Key Matrix│ │RF Control Port│
              └──────────┘ └──────────────┘
```
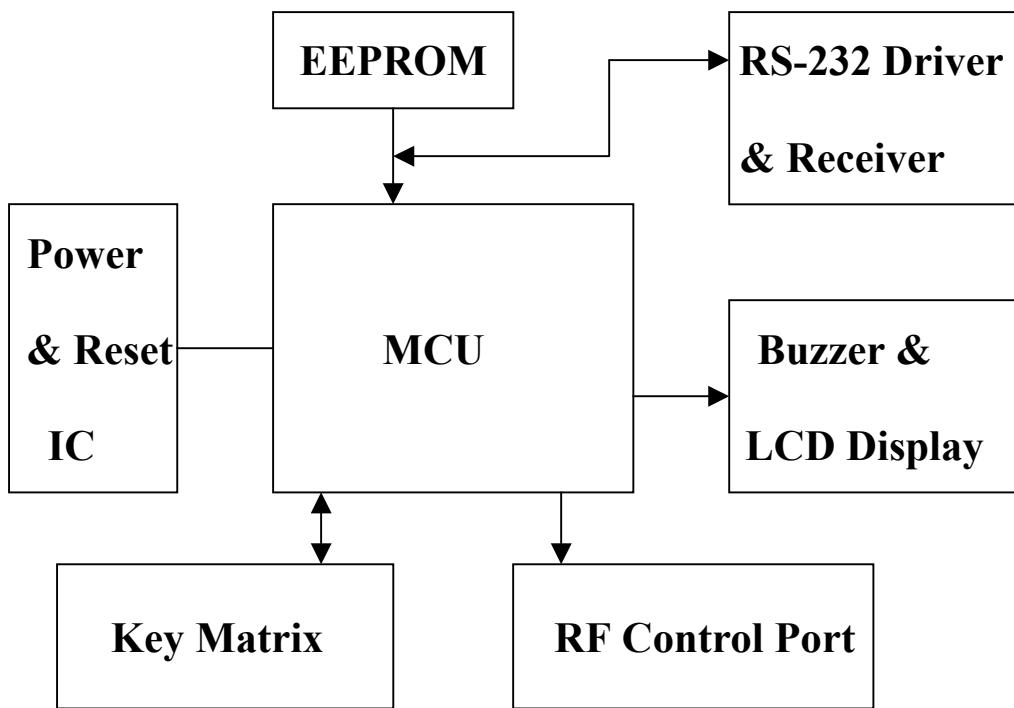
1. MCU: Mitsubishi 8-bit single-chip microcomputer 74 family
   M38223 has the LCD drive control circuit, A-D converter
   and the serial I/O. The main clock is 4.9152MHz and the
   sub-clock is 32.768KHz.

2. EEPROM: The EEPROM is for storing some parameters like
   CAPS CODE, Baud Rate, Function bit. During RESET
   procedure, the contents of EEPROM will be read into RAM
   of MCU.

3. Power & Reset IC: There is Regulator 7805 to convert external plug-in DC power into 5-V for whole system. The Reset IC is a voltage detector. When voltage rising above the trigger voltage, it will send out Reset signal to MCU.

4. Key Matrix: There have 15 keys at the front panel of the case, 10 numeric keys from 0 ~ 9, +,-,C,AC and SEND key.

5. RF Control Port: These control signals have been used as Setting RF transmitter on and PLL programming.

6. Buzzer & LCD Display: There are key tone and some warming tone generating from buzzer and LCD Display Will show the Pager no. or numerical message on the screen.

7. RS-232 Driver & Receiver: The line Driver/Receiver is intended for RS-232 communications interface between this device and PC, used for writing EEPROM and transmitting message via this device from PC.