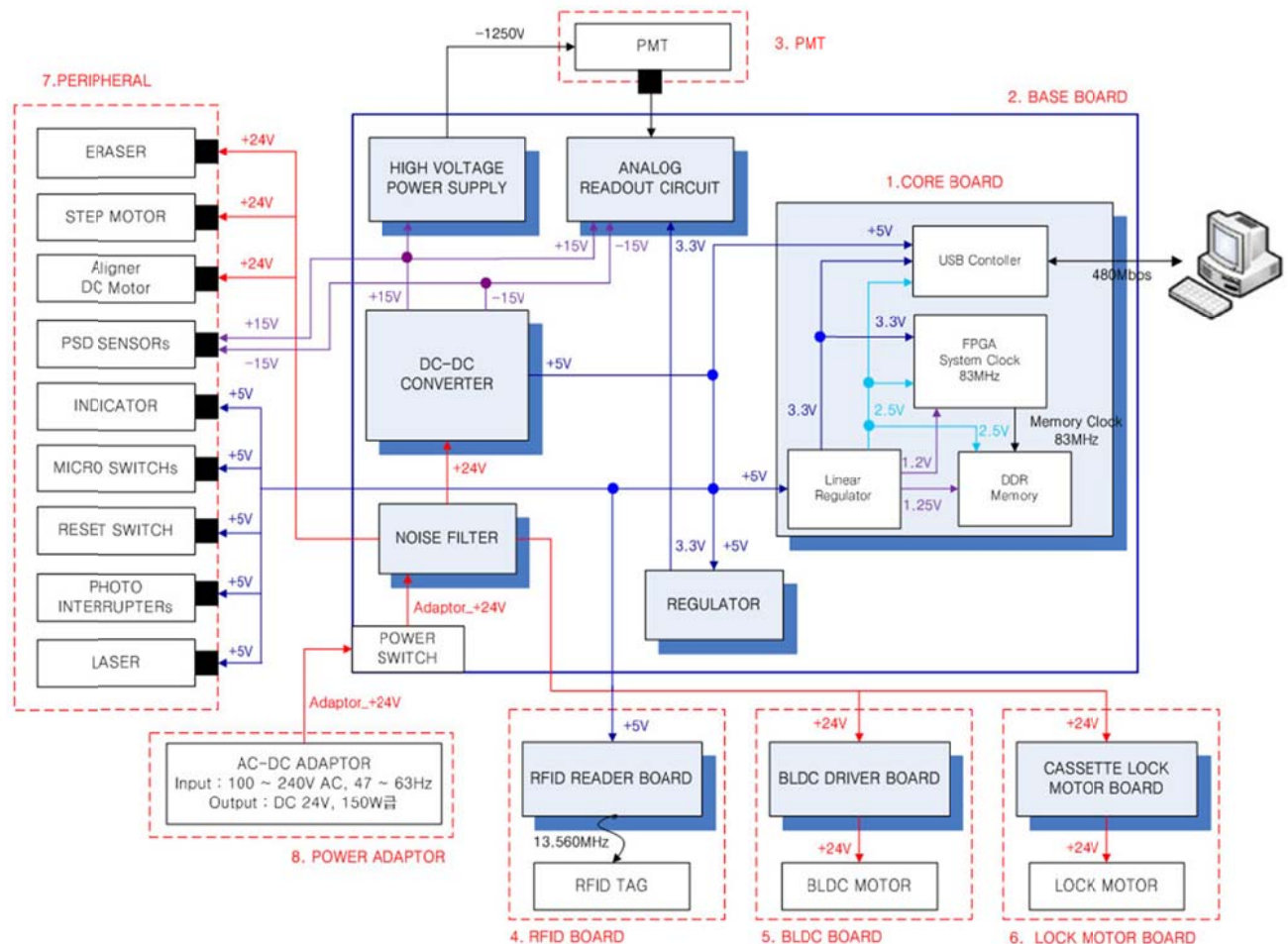# System Description

1. **CORE BOARD**
   - Control of all peripherals for acquisition of image data.
   - Transmit the image data to PC via USB communication.
2. **BASE BOARD**
   - Supply several kinds of power to peripherals.
   - Convert analog data of PMT to digital data.
   - Drivers for peripherals.
3. **PMT(PhotoMultiplier Tube)**
   - High sensitive detector of light.
   - Detect the light from IP (Imaging Plate).
4. **RFID BOARD**
   - Read the information of cassette.
   - Read the information of unit identity.
   - Transmit the information to COREBOARD.
5. **BLDC BOARD**
   - BLDC motor driver.
   - Control BLDC motor to maintain the same speed.
6. **LOCK MOTOR BOARD**

- DC motor driver.
- Control DC motor to hold and release cassettes.

7. PERIPHERAL
- ERASER : White LED array for erasing existing information in the IP(Imaging Plate).
- STEP MOTOR
- Aligner DC Motor : Adjust laser beam alignment.
- PSD Sensors : PSD (Position Sensitive Detector). Detect the laser beam.
- INDICATOR : Display the status of unit.
- MICRO SWITCHs : Detect the insertion of cassettes.
- RESET SWITCH : System reset button.
- PHOTO INTERRUPTERS : Make STEP MOTOR have a movement restrictions.
- LASER

8. POWER ADAPTER
- Generate the main power of system.
- Input : 100 – 240 Vac
- Output : 24V DC, max. 6.25A