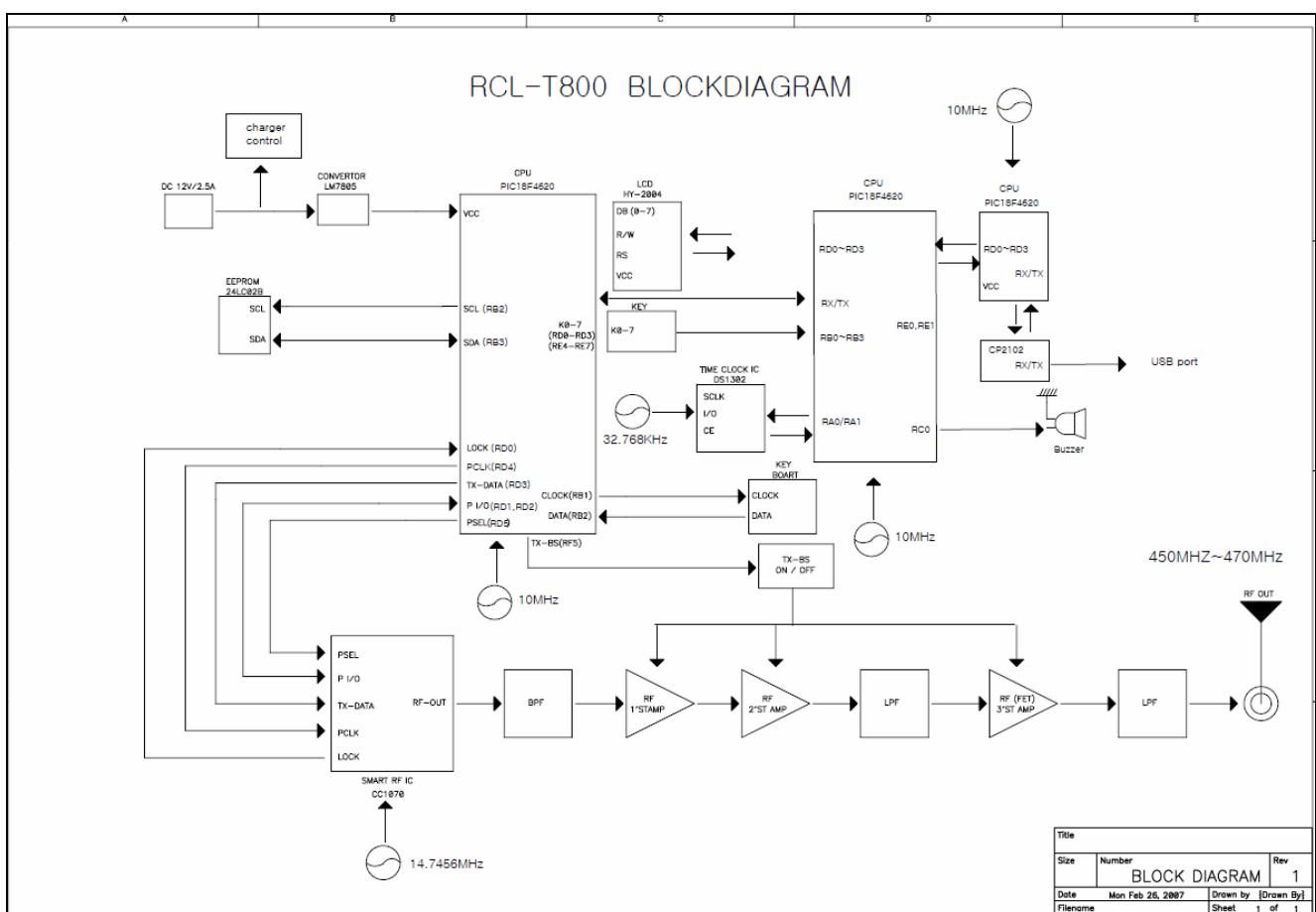# Operating Description

*Model : RCL-T800

*Product : Boomerang Transmitter

RCL-T800 BLOCKDIAGRAM

1. SPECIFICATION

- Pocsag Code
- Frequency Range : 450.0000 ~ 470.00MHz
- FM modulation & FSK (frequency shift keying)
- Deviation : 4.5 KHz

- FM Accuracy : +/-5%   4.275 < 4.5 < 4.725
- Date Rate : 1200BPS, 600Hz +/-5Hz
- Output power : 32.5.0dBm
- Message : Numeric - Max. 16 digits

  Alpha – Max. 128 characters
- Address Range : 0001 to 1249
- Dimension : W(165) X D(95) X H(35)

2. CIRCUIT DESCRIPTION

RCL-T700 uses 12V 2.5A DC Power Supply as its Power supply.

If the power is supplied into the DC Jack, it supplies the power to CPU and LCD by U5(7805) which converts the power to +5V, and it also supplies the power to RF(2SK3079) by U14(7810) which converts the power to +10V.

Input message by use of Keypad and press ENTER, and then CPU(RD0-RD5 / RE4-RE7) sends the data. With sending a data, it makes the TX On S/W work and supplies the power to RF module.

Max. 16 digits numeric numbers are able to be entered and 0000 up to 1249 are available with this system in the address range. If push the Enter button after inputting, CPU(microcontroller) will interface to CC1070 via the 4 wires serial configuration interface(PDI, PDO, PCLK and PSEL). Optionally, the microcontroller can do data encoding and the microcontroller can monitor the LOCK pin for frequency lock status or other status information.

This frequency is filtered by way of BPF (L1, L2, L3) and then amplified by Q4, Q5, Q6, Q7, Q8 and then filtered by LPF(L10, L11, L12, L13) and then amplified by FET Q9(2SK3079) and then filtered by LPF(L18, L17, L16) and transmitted to BNC connector.

USB port Only use PC program using CP2102(serial to USB chip)