



[Figure 2] LCR-2000C Circuit Configuration

### Guide for Detail Design ; each part

1. Modulator(4MHz)

: + 32 = 125KHz(RF Modulate)

Running Microprocessor PIC16C74

2. Rectangular Pulse → Sign Wave (L2 : 1mH)



3. 125KHz Driver using "B" level Push-Pull amplifier

Q1 & Q2 are configured as symmetrical complementary type, and Q2 & Q3 are subordinately joined.

4. Antenna

- $f_0 = 125\text{KHz}$ , 25.66dB  $\mu\text{v}$ , Series Resonance( $Z = \phi$ )
- $f_0 = 1/2\pi\sqrt{LC}$
- $L1 = 1.62\text{mH}$
- $C12 = 1\text{nF}/200\text{v } 5\%$

5. LPF(Low Pass Filter) Part

Pass low frequency and scan data from appropriate frequency range, after receiving transmitted data from card.

6. Demodulator

Definite wave with amplifier (Demodulation part = Detecting pat)

7. Transform data to modified wave : 400 $\mu\text{s}$ /bit

8. Micro Processor : PIC16C74A

Internal Program Memory : 4Kbyte

Internal Data Memory : 192byte

9. Power ON 2 Color LED

11. External Memory

: 24LC65 Comm. port setting (using Jumper Line)

RS-232 or RS-485 Port

13. 12V/1A Relay

14. Input Port(Power Separated)

15. Power DC12V/1A