



[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 part)

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

#### 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