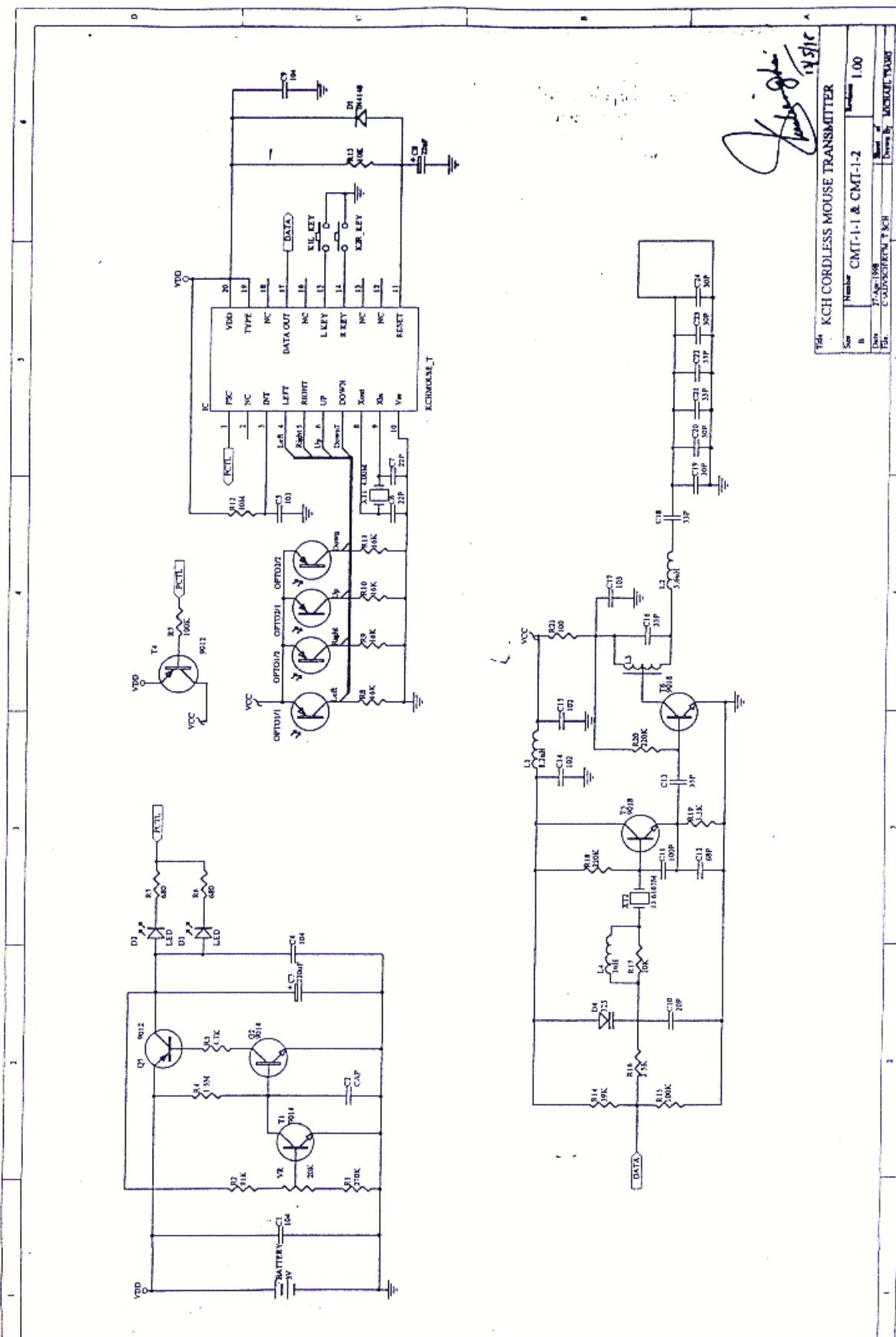
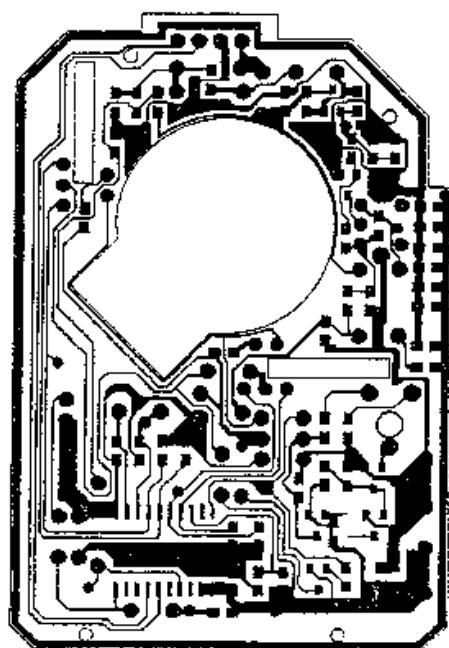


## Schematics for application N5HG2MOUSE-TX

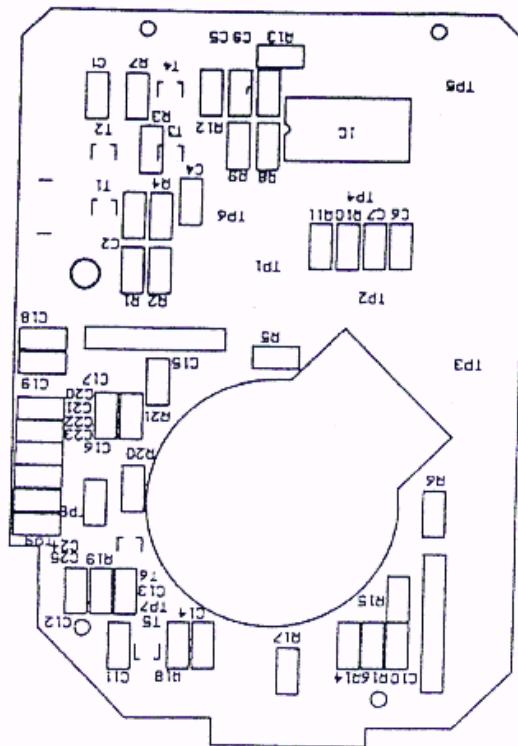


## **schematic #1**

|             |              |            |                 |
|-------------|--------------|------------|-----------------|
| MODEL       | KCMT-V1      | DRAWING NO |                 |
| DESCRIPTION | BOTTOM LAYER | DATE       | 18/11/97        |
| PCB NO.     | CMT-1-1      | PCB SIZE   | 75X52mm REV 1.0 |
| DRAWN BY    | MICHAEL      |            | <i>Michael</i>  |
| CHECK BY    | ZHENXIN      |            | <i>Zhenxin</i>  |



**schematic #2**

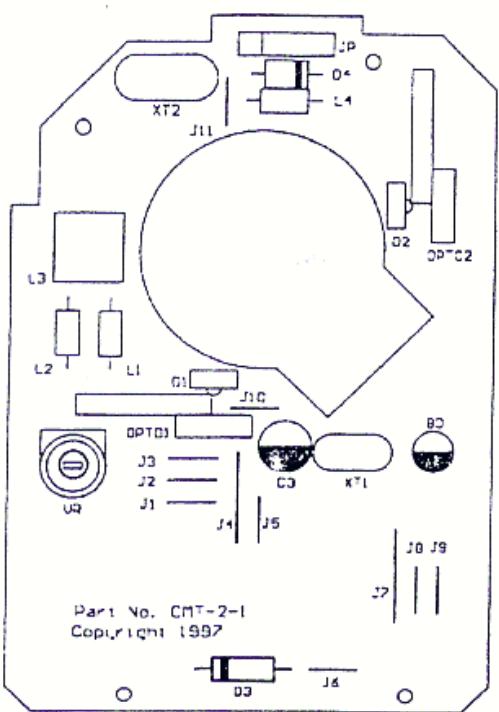


| PART NO. | COMPONENT VALUE | PART NO. | COMPONENT VALUE |
|----------|-----------------|----------|-----------------|
| 1 R1     | 91K             | 27 C7    | 20P             |
| 2 R2     | 270K            | 28 C9    | 0.1u            |
| 3 R3     | 10K             | 29 C10   | 10P             |
| 4 R4     | 1.5M            | 30 C11   | 100P            |
| 5 R5     | 680             | 31 C12   | 68P             |
| 6 R6     | 680             | 32 C13   | 33P             |
| 7 R7     | 100K            | 33 C14   | 0.001u          |
| 8 R8     | 16K             | 34 C15   | 0.001u          |
| 9 R9     | 16K             | 35 C16   | 35P             |
| 10 R10   | 16K             | 36 C17   | 0.01u           |
| 11 R11   | 16K             | 37 C18   | 33P             |
| 12 R12   | 10M             | 38 C19   | 33P             |
| 13 R13   | 10K             | 39 C20   | 33P             |
| 14 R14   | 39K             | 40 C21   | 33P             |
| 15 R15   | 100K            | 41 C22   | 33P             |
| 16 R16   | 2.5K            | 42 C23   | 33P             |
| 17 R17   | 10K             | 43 C24   | 33P             |
| 18 R18   | 220K            | 44 C25   | 33P             |
| 19 R19   | 3.3K            | 45 T1    | 8050            |
| 20 R20   | 270K            | 46 T2    | 8050            |
| 21 R21   | 100             | 47 T3    | 8550            |
| 22 C1    | 0.1u            | 48 T4    | 8550            |
| 23 C2    | 0.1u            | 49 T5    | 2SC2714         |
| 24 C4    | 0.1u            | 50 T6    | 2SC2714         |
| 25 C5    | 0.01u           | 51 IC    | KCH-2           |
| 26 C6    | 20P             | 52       |                 |

| MODEL       | KCMT-V1                 | DRAWING NO      |
|-------------|-------------------------|-----------------|
| DESCRIPTION | BOTTOM COMPONENT LAYOUT | DATE            |
| PCB NO.     | CMT-2-1                 | 75X52mm REV 1.0 |
| DRAWN BY    | MICHAEL                 |                 |
| CHECK BY    | ZHENXIN                 |                 |

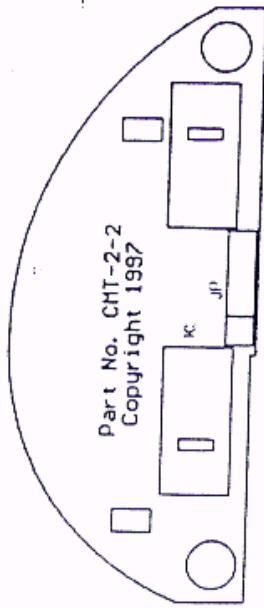
schematic #3

| PART NO. | COMPONENT VALUE | PART NO. | COMPONENT VALUE |
|----------|-----------------|----------|-----------------|
| 1 C3     | 220u            | 27       | JP              |
| 2 CR     | 22u             | 28       | J1              |
| 3 L1     | .6uH            | 29       | J2              |
| 4 L2     | 1.2uH           | 30       | J3              |
| 5 L3     | THP59527        | 31       | J4              |
| 6 L4     | .56uH           | 32       | J5              |
| 7 D1     | IR908-6C        | 33       | J6              |
| 8 D2     | IR908-6C        | 34       | J7              |
| 9 D3     | IN4148          | 35       | J8              |
| 10 D4    | ISV1043         | 36       | J9              |
| 11 OPTO1 | PT2259          | 37       | J10             |
| 12 OPTO2 | PT2259          | 38       | J11             |
| 13 VR    | 20K             | 39       |                 |
| 14 XT1   | 4.00M           | 40       |                 |
| 15 XT2   | 13.6/65M        | 41       |                 |



| MODEL       | KCMT-V1              | DRAWING NO      |
|-------------|----------------------|-----------------|
| DESCRIPTION | TOP COMPONENT LAYOUT | DATE            |
| PCB NO.     | CMT-2-1              | PCB SIZE        |
| DRAWN BY    | MICHAEL              | 75X52mm REV 1.0 |
| CHECK BY    | ZHENXIN              | 10/19/97        |

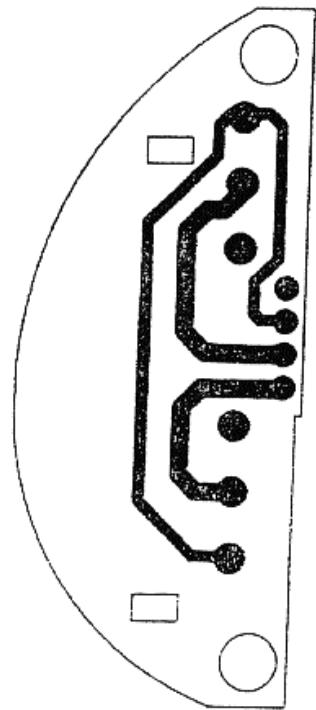
schematic #4



| PART NO. | COMPONENT VALUE | PART NO. | COMPONENT VALUE |
|----------|-----------------|----------|-----------------|
| 1 KL     | MICRO SWITCH    | 3        | JP              |
| 2 KR     | MICRO SWITCH    | 4        |                 |

| MODEL       | KCMT-V1              | DRAWING NO                |
|-------------|----------------------|---------------------------|
| DESCRIPTION | TOP COMPONENT LAYOUT | DATE                      |
| PCB NO.     | CMT-2-2              | PCB SIZE 75X52mm REV 1.0  |
| DRAWN BY    | MICHAEL              | <i>John Michael</i>       |
| CHECK BY    | ZHENXIN              | <i>Zhenxin</i><br>14/1/98 |

schematic #5



|             |              |                             |
|-------------|--------------|-----------------------------|
| MODEL       | KCM-V1       | DRAWING NO                  |
| DESCRIPTION | BOTTOM LAYER | DATE                        |
| PCB NO.     | CMT-1-2      | 53X22mm REV 1.0             |
| DRAWN BY    | MICHAEL      | <i>John Doe</i>             |
| CHECK BY    | ZHENXIN      | <i>John Doe</i><br>18/11/97 |

**schematic #6**

# BILL OF MATERIAL

| MODEL NO: KCMT-V1                           |             | REV: 1.00           | DATE: 26, APR. 1998 |           |     |         |
|---|-------------|---------------------|---------------------|-----------|-----|---------|
| DESCRIPTION: KCH CORDLESS MOUSE TRANSMITTER |             |                     |                     |           |     |         |
| No:   | Part Number | Description         | Package             | Precision | Qty | Remarks |
| 1   | KCH98P3-1   | Key Flip            |                     |           | 1   |         |
| 2   | KCH98P2-1   | Bottom Cover        |                     |           | 1   |         |
| 3   | KCH98P3-1   | Top Cover           |                     |           | 1   |         |
| 4   | KCH98P4-1   | Ball Cover          |                     |           | 1   |         |
| 5   | KCH98P5-1   | Battery Cover       |                     |           | 1   |         |
| 6   | TB22B       | Rubber Rolling Ball | 22mm                |           | 1   |         |
| 7   | KCH98P6-1   | Roller              |                     |           | 1   |         |
| 8   | KCH98P7-1   | Roller Housing      |                     |           | 1   |         |
| 9   | KCH98P8-1   | Wheel               |                     |           | 2   |         |
| 9   | TRP         | Roller Brass Pin    |                     |           | 1   |         |
| 10  | TPS         | Press Spring        |                     |           | 1   |         |
| 11  | CMT-2-1     | Main PCB Board      |                     |           | 1   |         |
| 12  | CMR-2-2     | Key PCB Board       |                     |           | 1   |         |
| 13  | TBCAB       | +&- Battery Connect |                     |           | 1   |         |
| 14  | TPEP        | PE Pad              |                     |           | 4   |         |
| 15  | TL001       | LABEL 1             |                     |           | 1   |         |
| 16  | TL002       | LABEL 2             |                     |           | 1   |         |
| 17  | S002        | Screw               |                     |           | 3   |         |
|   |             |                     |                     |           |     |         |
|   |             |                     |                     |           |     |         |
|   |             |                     |                     |           |     |         |
|   |             |                     |                     |           |     |         |
|   |             |                     |                     |           |     |         |



schematic #7

## **BILL OF MATERIAL**

PART NO: CMT-2-2 REV: 1.00

REV: 1.00

DATE: 26, APR. 1998

## DESCRIPTION: KCH CORDLESS MOUSE TRANSMITTER KEY PCB BOARD

## **schematic #8**

195/93

# BILL OF MATERIAL

| PART NO: CMT-2-1   |             | REV: 1.00             | DATE: 26, APR. 1998 |           |     |         |  |
|--|-------------|-----------------------|---------------------|-----------|-----|---------|--|
| DESCRIPTION: KCH CORDLESS MOUSE TRANSMITTER MAIN PCB BOARD |             |                       |                     |           |     |         |  |
| No:  | Part Number | Description           | Package             | Precision | Qty | Remarks |  |
| 1  | TR913SC     | 91 K Chip Resistor    | 0805                | 20%       | 1   |         |  |
| 2  | TR274SC     | 270 K Chip Resistor   | 0805                | 20%       | 1   |         |  |
| 3  | TRR103SC    | 10 K Chip Resistor    | 0805                | 20%       | 2   |         |  |
| 4  | TR155SC     | 1.5 M Chip Resistor   | 0805                | 20%       | 1   |         |  |
| 5  | TR681SC     | 680 Chip Resistor     | 0805                | 20%       | 2   |         |  |
| 6  | TRR104SC    | 100 K Chip Resistor   | 0805                | 20%       | 2   |         |  |
| 7  | TR163SC     | 16 K Chip Resistor    | 0805                | 20%       | 4   |         |  |
| 8  | TR106SC     | 10M Chip Resistor     | 0805                | 20%       | 1   |         |  |
| 9  | TR393SC     | 39K Chip Resistor     | 0805                | 20%       | 1   |         |  |
| 10   | TR252SC     | 2.5 K Chip Resistor   | 0805                | 20%       | 1   |         |  |
| 11   | TR224SC     | 220 K Chip Resistor   | 0805                | 20%       | 1   |         |  |
| 12   | TR332SC     | 3.3 K Chip Resistor   | 0805                | 20%       | 1   |         |  |
| 13   | TR274SC     | 270K Chip Resistor    | 0805                | 20%       | 1   |         |  |
| 14   | TR101SC     | 100 Chip Resistor     | 0805                | 20%       | 1   |         |  |
| 15   | TC100SA     | 10 pF Chip Capacitor  | 0805                | 5%        | 1   |         |  |
| 16   | TRC104SC    | 0.1uF Chip Capacitor  | 0805                | 20%       | 4   |         |  |
| 17   | TRC103SC    | 0.01uF Chip Capacitor | 0805                | 20%       | 2   |         |  |
| 18   | TC200SC     | 20pF Chip Capacitor   | 0805                | 20%       | 2   |         |  |
| 19   | TC102SC     | 1000pF Chip Capacitor | 0805                | 20%       | 2   |         |  |
| 20   | TC350SC     | 35pF Chip Capacitor   | 0805                | 20%       | 1   |         |  |
| 21   | TC330SA     | 33pF Chip Capacitor   | 0805                | 5%        | 9   |         |  |
| 22   | TRC226REC   | 22uF E-Capacitor      | 4x7 mm              | 20%       | 1   |         |  |
| 23   | TRC227REC   | 220uF E-Capacitor     | 5x10mm              | 20%       | 1   |         |  |

schematic #9



|    |           |                      |           |                    |     |  |
|----|-----------|----------------------|-----------|--------------------|-----|--|
| 24 | RIC3362S  | MC3362               | SOP 24    |                    | 1   |  |
| 25 | RICKCHS   | KCH-1                | SOP 20    |                    | 1   |  |
| 26 | TRL561RB  | 5.6 uH Inductor      | Axial 0.4 | 10%                | 1   |  |
| 27 | RL680RB   | 0.68 uH Inductor     | Axial 0.4 | 10%                | 3   |  |
| 28 | TRL121RB  | 1.2 uH Inductor      | Axial 0.4 | 10%                | 1   |  |
| 29 | RL223RB   | 220 uH Inductor      | Axial 0.4 | 10%                | 1   |  |
| 30 | RL222RB   | 22 uH Inductor       | Axial 0.4 | 10%                | 1   |  |
| 31 | RLQ5R     | 455K LC Resonator    | 5x5mm     |                    | 1   |  |
| 32 | TRT8050S  | 8050 Chip Transistor | SOT-23    |                    | 2   |  |
| 33 | TRT9018S  | 9018 Chip Transistor | SOT-23    |                    | 1   |  |
| 34 | RO400R    | 4.00M Resonator      | Standard  | $\pm 20\text{ppm}$ | 1   |  |
| 35 | RO3793R   | 37.933M Crystal      | HC-49U    | $\pm 20\text{ppm}$ | 1/4 |  |
| 36 | RO3779R   | 37.790M Crystal      | HC-49U    | $\pm 20\text{ppm}$ | 1/4 |  |
| 37 | RO3767R   | 37.670M Crystal      | HC-49U    | $\pm 20\text{ppm}$ | 1/4 |  |
| 38 | RO3776R   | 37.760M Crystal      | HC-49U    | $\pm 20\text{ppm}$ | 1/4 |  |
| 39 | RO1024R   | 10.245M Crystal      | HC-49U    | $\pm 20\text{ppm}$ | 1   |  |
| 40 | CMR-1-1-P | Plain PCB            |           |                    | 1   |  |
| 41 | TRTC4F    | Female Connector     | 4 Pin     |                    | 1   |  |
| 42 | RLEDS     | LED Sleeve           |           |                    | 1   |  |
| 43 | RS7P20R   | 7 Pin Socket         | 2.0 mm    |                    | 1   |  |
| 44 | TRJ10     | Jumper               | 10mm      |                    | 1   |  |
| 45 | RJ8       | Jumper               | 8 mm      |                    | 1   |  |

schematic #10



03/18

# Supplier List

|                            |         |  |            |
|----------------------------|---------|--|------------|
| MODEL NO.                  | REV NO. |  | ISSUE DAY: |
| KCM-I                      | 1       |  | 02/03/98   |
| PART NAME:                 | QTY:    |  |            |
| Cordless Mouse Transmitter |         |  |            |

## MATERIAL LIST

| No | Item                          | Description | Supplier  | Approval |
|----|-------------------------------|-------------|-----------|----------|
| 1  | Chip Resister                 | 0805        | TDK       |          |
| 2  | Chip Capacitor                | 0805        | TDK       |          |
| 3  | Electrolytic Capacitor        |             | Ztech     |          |
| 4  | Chip Transistor               | SOT-23      | Toshiba   |          |
| 5  | VariResister                  | 20k         | Ztech     |          |
| 6  | Switching Diode               | 1N4148      | Protex    |          |
| 7  | Light Emitting Diode          | Φ 3mm       | EVERLIGHT |          |
| 8  | Infrared Light Emitting Diode | IR908-6C    | EVERLIGHT |          |
| 9  | Photo Transistor              | PT2259 B/L1 | EVERLIGHT |          |
| 10 | Varicap Diode                 | 1SV1043     | Toshiba   |          |
| 11 | Ceramics Resonantor           | 4.00M       | TDK       |          |
| 12 | Crystal                       | HC-49U      | JINGFENG  |          |
| 13 | KCH-2                         |             | MOTOROLA  |          |
| 14 | Paper Pheonic PCB             | KCM-2-1     | Ztech     |          |
| 15 | Micro Switch                  |             | Panasonic |          |
| 16 | Press Spring                  |             | Ztech     |          |
| 17 | Batt. Connector               |             | Ztech     |          |
| 18 | Rubber Ball                   | 22mm        | Ztech     |          |
| 19 | KCMT-I Casing                 | ABS         |           |          |

schematic #11