

# RTA-03F, RTA-03B

## USER'S MANUAL

### CHAPTER 1. INTRODUCTION

#### 1) OVERVIEW

THE RTA-03F(V2) IS A FLEXIBLE AND POWERFUL MULTIFUNCTION ENHANCEMENT PRODUCT FOR THE IBM PERSONAL COMPUTER 286, 386, 486 & 586. IT IS ALSO A POWERFUL DATA I/O ACCESSORY, STANDARD FEATURES INCLUDE THE TWO RS-232C ASYNCHRONOUS SERIAL COMMUNICATION PORT, ONE PRINTER PORT, AND ONE GAME PORT.

IN THE STANDARD SERIAL PORT, IT CAN BE CHANGE UART CHIP (16C450) TO HIGH SPEED UART (16C550) AND CHANGE CHIP (86C451) TO CHIP (86C551) WITHOUT REPAIR ANY CIRCUIT, AND GET THE BETTER DATA INPUT/OUTPUT. OR CHANGE UART (16C450) TO UART (16C650) FOR SPECIAL PURPOSE TO ENHANCE COMMUNICATION.

#### 2) FEATURES

- \* 2 STANDARD ASYNCHRONOUS SERIAL PORT.
- \* SERIAL ADDRESS SELECTABLE: COM1 - COM4 OR COM5 - COM8.
- \* SERIAL INTERRUPT SELECTABLE: IRQ 3, 4, 5, 6, 7, 9.
- \* 1 PRINTER PORT.
- \* PRINTER ADDRESS SELECTABLE: LPT1(\$3BC), LPT2(\$378), LPT3(\$278).
- \* PRINTER INTERRUPT SELECTABLE: IRQ5, IRQ7.
- \* 1 GAME PORT. (OR OPTIONAL)
- \* ALL PORTS CAN BE ENABLE/DISABLE.

#### 3) PACKING

- \* RTA-03F(V2) ADAPTER x 1.
- \* 10 PIN TO 25 PIN (MALE) FLAT CABLE x 1. (OR OPTIONAL)
- \* 16 PIN TO 15 PIN (FEMALE) FLAT CABLE x 1. (OR OPTIONAL)
- \* COMPLETE USER'S MANUAL x 1.
- \* DRIVER DISKETTE. (WHEN 16C650 CHIP USE ONLY).

# CHAPTER 2 . HARDWARE SETTING

## 1) LABEL ASSIGNMENT

GS -- SERIAL PORT GROUP A OR GROUP B SELECT  
S1 -- 1st SERIAL PORT  
S2 -- 2nd SERIAL PORT  
ADD -- SERIAL ADDRESS LABEL  
(GROUP A -- COM1,2,3,4 OR GROUP B -- COM5,6,7,8)  
IRQ -- SERIAL INTERRUPT LABEL  
P1 -- PRINTER PORT  
LPT -- PRINTER ADDRESS SELECT  
LI -- PRINTER INTERRUPT SELECT  
GAME -- GAME PORT  
GE -- GAME ENABLE/DISABLE  
CLK -- FUTURE CLOCK SELECT FOR 16650

## 2) SERIAL ADDRESS & INTERRUPT SETTING

### 2.1) SERIAL ADDRESS SETTING

#### SERIAL PORT ASSIGNMENT:

GROUP A (COM1 - COM4) AND GROUP B (COM5 - COM8) ARE SELECTED BY GS JUMPER. USE GS JUMPER TO SELECT SUITABLE GROUP A OR B. WHEN GROUP B IS SELECTED BY GS JUMPER, THE ADD (ADDRESS) WILL BE CHANGED FROM COM1,2,3,4 TO COM5,6,7,8.

#### 2.1.a) GROUP A : GS --- 1 CLOSE (DEFAULT)

(ADD) 1 --- COM1 (&H3F8-3FF)  
(ADD) 2 --- COM2 (&H2F8-2FF)  
(ADD) 3 --- COM3 (&H3E8-3EF)  
(ADD) 4 --- COM4 (&H2E8-2EF)

#### 2.1.b) GROUP B : GS --- 0 CLOSE

(ADD) 1 --- COM5 (&H3E0-3E7)  
(ADD) 2 --- COM6 (&H2E0-2E7)  
(ADD) 3 --- COM7 (&H2F0-2F7)  
(ADD) 4 --- COM8 (&H260-267)

### 2.2) SERIAL INTERRUPT SETTING

(IRQ) 9 --- INTERRUPT 9  
(IRQ) 3 --- INTERRUPT 3 (COM2 DEFAULT)  
(IRQ) 4 --- INTERRUPT 4 (COM1 DEFAULT)  
(IRQ) 5 --- INTERRUPT 5  
(IRQ) 6 --- INTERRUPT 6  
(IRQ) 7 --- INTERRUPT 7

### 2.3) S1 CONNECTOR AND PINOUTS

| SIGNAL NAME | CONNECTOR DB9P | PIN # |
|-------------|----------------|-------|
| CD (IN)     |                | 1     |
| RX (IN)     |                | 2     |
| TX (OUT)    |                | 3     |
| DTR (OUT)   |                | 4     |
| SG          |                | 5     |
| DSR (IN)    |                | 6     |
| RTS (OUT)   |                | 7     |
| CTS (IN)    |                | 8     |
| RI (IN)     |                | 9     |

### 2.4) S2 CONNECTOR AND PINOUTS

| SIGNAL NAME | PIN # | CABLE OUTPUT DB25P | PIN # |
|-------------|-------|--------------------|-------|
| TX (OUT)    | 3     |                    | 2     |
| RX (IN)     | 2     |                    | 3     |
| RTS (OUT)   | 7     |                    | 4     |
| CTS (IN)    | 8     |                    | 5     |
| DSR (IN)    | 6     |                    | 6     |
| SG          | 5     |                    | 7     |
| CD (IN)     | 1     |                    | 8     |
| DTR (OUT)   | 4     |                    | 20    |
| RI (IN)     | 9     |                    | 22    |

## 3) PRINTER ADDRESS & INTERRUPT SETTING

### 3.1) PRINTER ADDRESS SETTING

LPT 1 --- &H3BC - 3BE  
LPT 2 --- &H378 - 37A  
LPT 3 --- &H278 - 27A

### 3.2) PRINTER INTERRUPT SETTING

LI 5 --- INTERRUPT 5. ( FOR &H278 USE )  
LI 7 --- INTERRUPT 7. ( DEFAULT FOR &H378 USE )

### 3.3) PRINTER PORT PINS ASSIGNMENT

| LINE NAME | P1 CONNECTOR PIN# | IBM MATRIX PRINTER  |
|-----------|-------------------|---------------------|
| -STROBE   | 1                 | 1                   |
| D0        | 2                 | 2                   |
| D1        | 3                 | 3                   |
| D2        | 4                 | 4                   |
| D3        | 5                 | 5                   |
| D4        | 6                 | 6                   |
| D5        | 7                 | 7                   |
| D6        | 8                 | 8                   |
| D7        | 9                 | 9                   |
| -ACK      | 10                | 10                  |
| BUSY      | 11                | 11                  |
| PE        | 12                | 12                  |
| SLCT      | 13                | 13                  |
| -AUTOFD   | 14                | 14                  |
| -ERROR    | 15                | 32                  |
| -INIT     | 16                | 31                  |
| -SLCT IN  | 17                | 36                  |
| GROUND    | 18-25             | ( 16 , 19-30 , 33 ) |

### 4) GAME PORT -- GE : CLOSE (ENABLE) OPEN (DISABLE)

| LINE NAME  | GAME PIN# | CABLE OUTPUT DB15S PIN# |
|------------|-----------|-------------------------|
| +5VDC      | 1         | 1                       |
| BUTTON 4   | 2         | 2                       |
| POSITION 0 | 3         | 3                       |
| GROUND     | 4         | 4                       |
| GROUND     | 5         | 5                       |
| POSITION 1 | 6         | 6                       |
| BUTTON 5   | 7         | 7                       |
| +5VDC      | 8         | 8                       |
| +5VDC      | 9         | 9                       |
| BUTTON 6   | 10        | 10                      |
| POSITION 2 | 11        | 11                      |
| GROUND     | 12        | 12                      |
| POSITION 3 | 13        | 13                      |
| BUTTON 7   | 14        | 14                      |
| +5VDC      | 15        | 15                      |