

# **Bear Technologies**

www.beartech.com.tw

## Section 1: Introduction

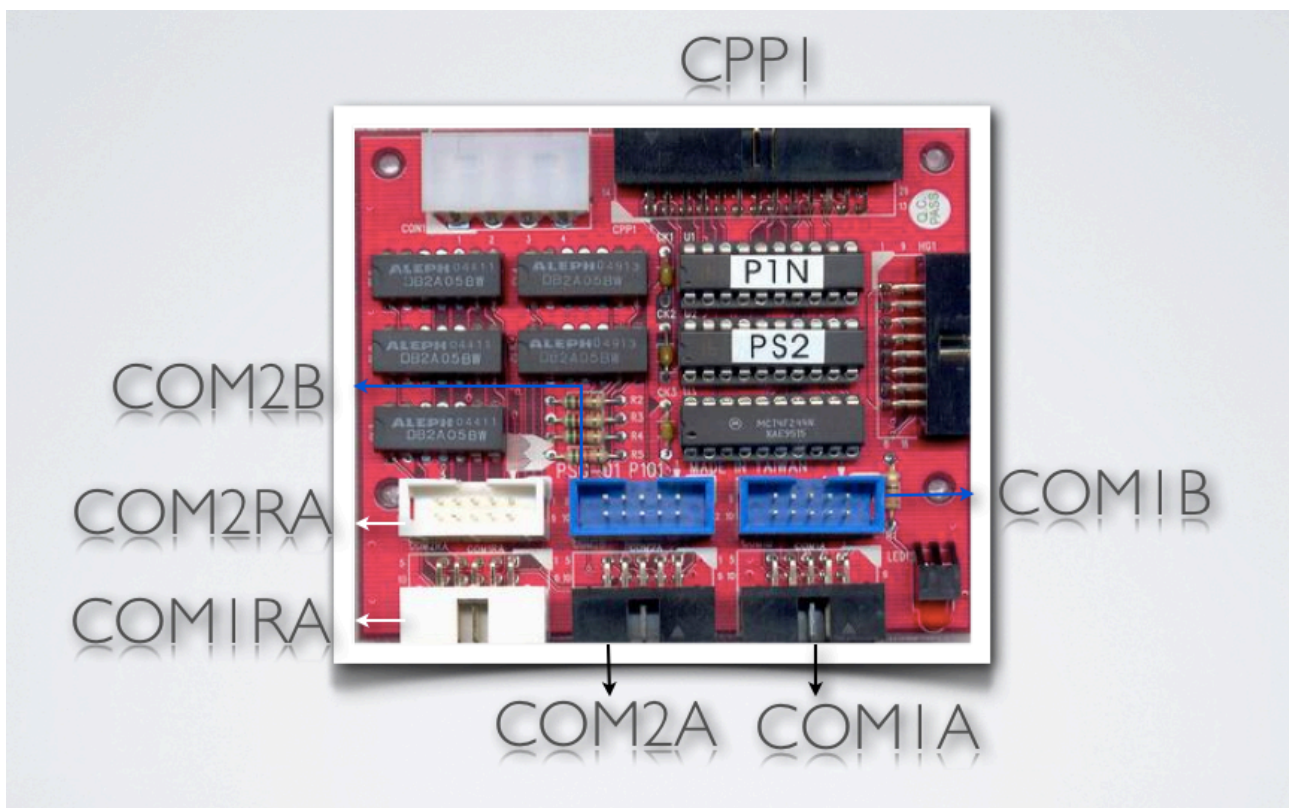
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### 1. Product Feature

- 1.1. Motherboard Parallel Port Test
- 1.2. Motherboard COM Port Test

### 2. Accessories

- 2.1. PSG-01 Test Card \* 1



#### 2.2. PSG-01 Cables

- 2.2.1. Parallel Port Cable \* 1  
(PIN Header To D-SUB Male (25 Pins))
- 2.2.2. Parallel Port Cable \* 1  
(PIN Header (2\*13) To PIN Header (2\*13))
- 2.2.3. RS232 Cable \* 1  
(A Type To D-Sub)
- 2.2.4. RS232 Cable \* 1  
(PIN Header(2\*5) To D-Sub (Female, 9 Pins))
- 2.2.5. Power Cable \* 1

## (4 Pin Molex Male To two 4 Pin Molex Females)

### 3.Cable Installation

#### 1. UART (COM1/COM2)

\* Since UART testing requires using Parallel port to control the relay, CPP1 has to be connected during the testing procedure.

> Generally, PIN Header can be categorized as A-Type and B-Type

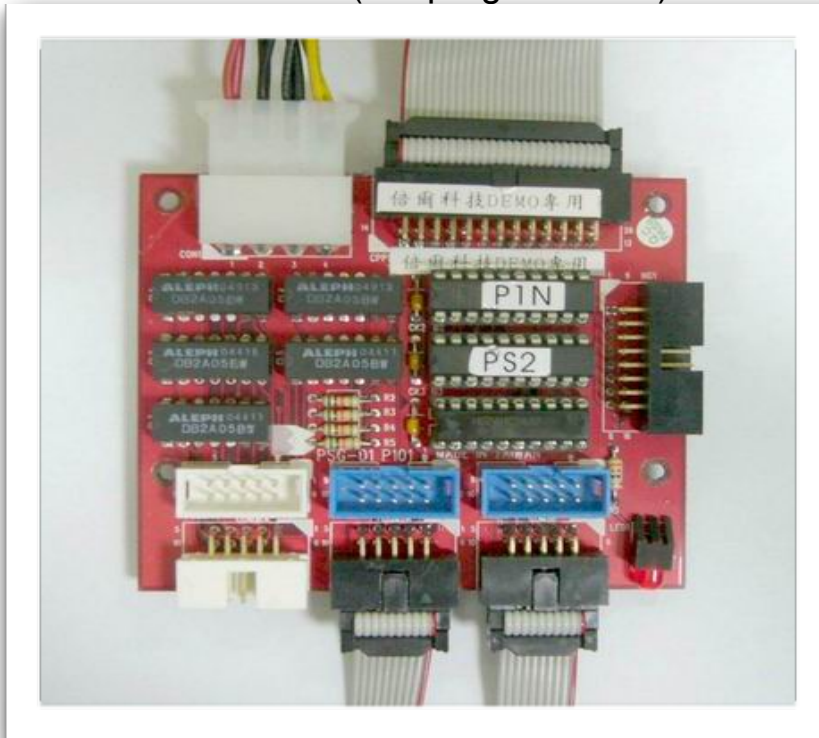
A\_TYPE : ( COM1A, COM2A, COM1RA, COM2RA )

1	⊙ ⊙	6
2	⊙ ⊙	7
3	⊙ ⊙	8
4	⊙ ⊙	9
5	⊙	

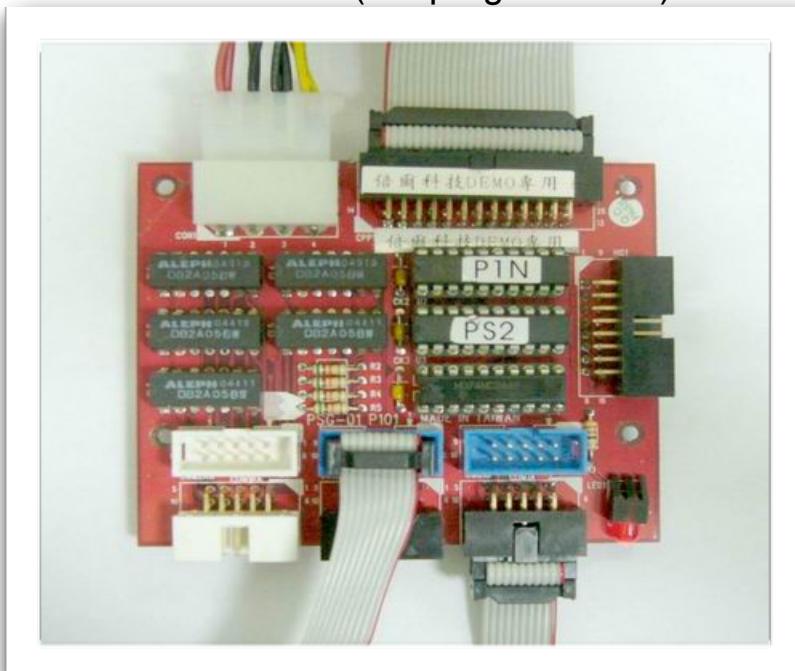
B\_TYPE : ( COM1B, COM2B )

1	⊙ ⊙	2
3	⊙ ⊙	4
5	⊙ ⊙	6
7	⊙ ⊙	8
9	⊙	

- > For COM1 (A-TYPE) and COM2 (A-TYPE) Communication Test  
---Connect the RS232 cable from the Motherboard to PSG-01  
COM1A and COM2A (run program comt)



- > For COM1 (B-TYPE) and COM2 (B-TYPE) Communication Test  
--- Connect the RS232 cable from the Motherboard to PSG-01  
COM1B and COM2B (run program comt)
- > For COM1 (A-TYPE) and COM2 (B-TYPE) Communication Test  
--- Connect the RS232 cable from the Motherboard to PSG-01  
COM1A and COM2B (run program comt)



- > For COM1 (B-TYPE) and COM2 (A-TYPE) Communication Test
  - Connect the RS232 cable from the Motherboard to PSG-01 COM1B and COM2A (run program comt)
- >For COM1 (A-TYPE) Single Port Test
  - Connect the RS232 cable from the Motherboard to PSG-01 COM1RA or COM2RA (run program comt c1)
- >For COM2 (A-TYPE) Single Port Test
  - Connect the RS232 cable from the Motherboard to PSG-01 COM1RA or COM2RA (run program comt c1)



## 2. Parallel Port

- > Connect PIN Header (2\*13) cable from the Motherboard to PSG-01 CPP1 (run program mt p1n)

## 4. Operating Method

1. Test Card PSG-01 can be used to test the Parallel Port and COM Port on a Motherboard.
2. By connecting motherboard's parallel port to PSG-01 CPP1 and running mt.exe (mt p1n), all the pins on the printer port can be tested.
3. While testing COM port, Parallel Port has to be connected to PSG-01 CPP1. Communication test between two COM Port or Single Port test can be done by
  - a. using two RS232 cables (A-TYPE) to connect COM1A and COM2A
  - b. using two RS232 cables (B-TYPE) to connect COM1B and COM2B
  - c. using one RS232 cable (A-TYPE) and one RS232 cable (B-TYPE) to connect either COM1A COM2B or COM1B COM2A and run **comt.exe**
  - d. For Motherboards with only one single port, connect it to COM1RA or COM2RA and run **comt c1**

## Section 2: Common Program Syntax

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### 1-1> Filename: MT.EXE

```
mt [P1N][P1F][P5][P0]
P1N      : PRN1 TEST ENABLE
P1F      : PRN1 TEST ENABLE (NO DELAY)
P5       : PRIN IRQ5
P0       : PRIN IRQ SKIP
```

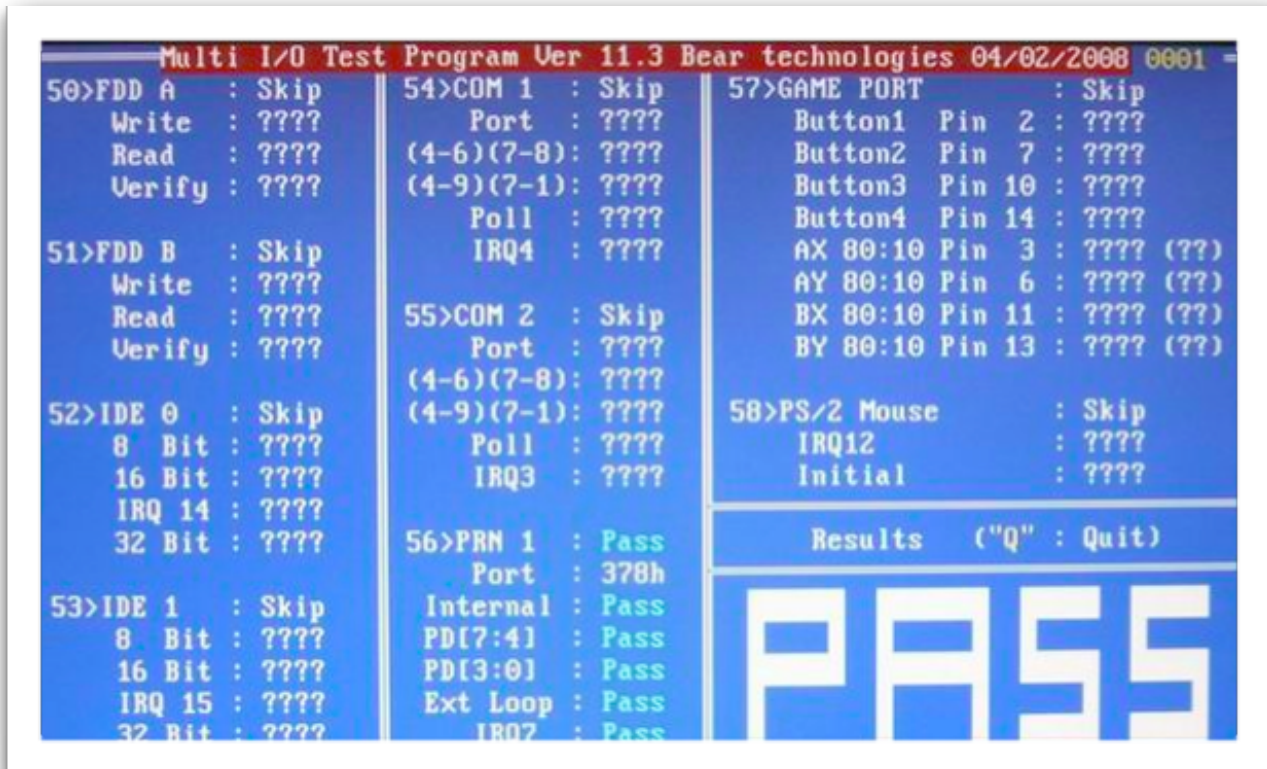
### 1-2> Filename: COMT.EXE

```
comt [C?@????I??] [C?@????I?][\I][\K][\CT][\CD][\DS][\RI][\M][\L]
\I      : IRQ Test Skip
\K      : Return Error Level
\CT     : RTS <-> CTS Test Skip
\CD     : RTS <-> CD Test Skip
\DS     : DTR <-> DSR Test Skip
\RI     : DTR <-> RI Test Skip
\M      : Modem Status test Skip
\L      : Internal loop Test Skip
```

```
COMT      : COM1(IRQ04) <-> COM2(IRQ03)
COMT C3 C4 : COM3(IRQ04) <-> COM4(IRQ03)
COMT C1 C4 : COM1(IRQ04) <-> COM4(IRQ03)
COMT C3I09 C4I10 : COM3(IRQ09) <-> COM4(IRQ10)
COMT C5@3468I10 C6@1230I11 : COM5(IRQ10) <-> COM6(IRQ11)
          I/O:3468H      I/O:1230H
COMT C1    : COM1(IRQ04) I/O→40H:[0]
COMT C2    : COM2(IRQ03) I/O→40H:[2]
COMT C3I09 : COM3(IRQ09) I/O→40H:[4]
COMT C4I10 : COM4(IRQ10) I/O→40H:[6]
COMT C5@1238I11 : COM5(IRQ11) I/O→1238H
COMT ?     : Help Message
```

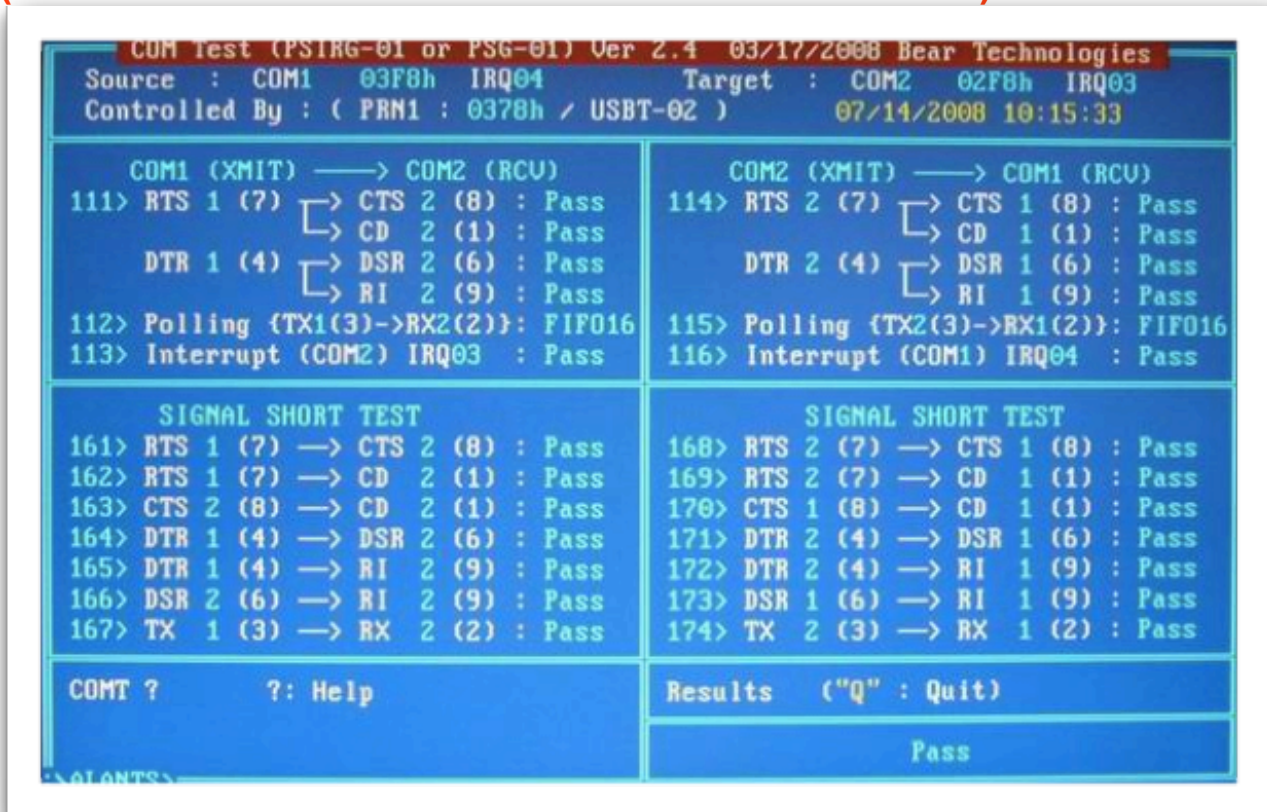


### 1-3> MT.exe Test Screen (mt p1n)

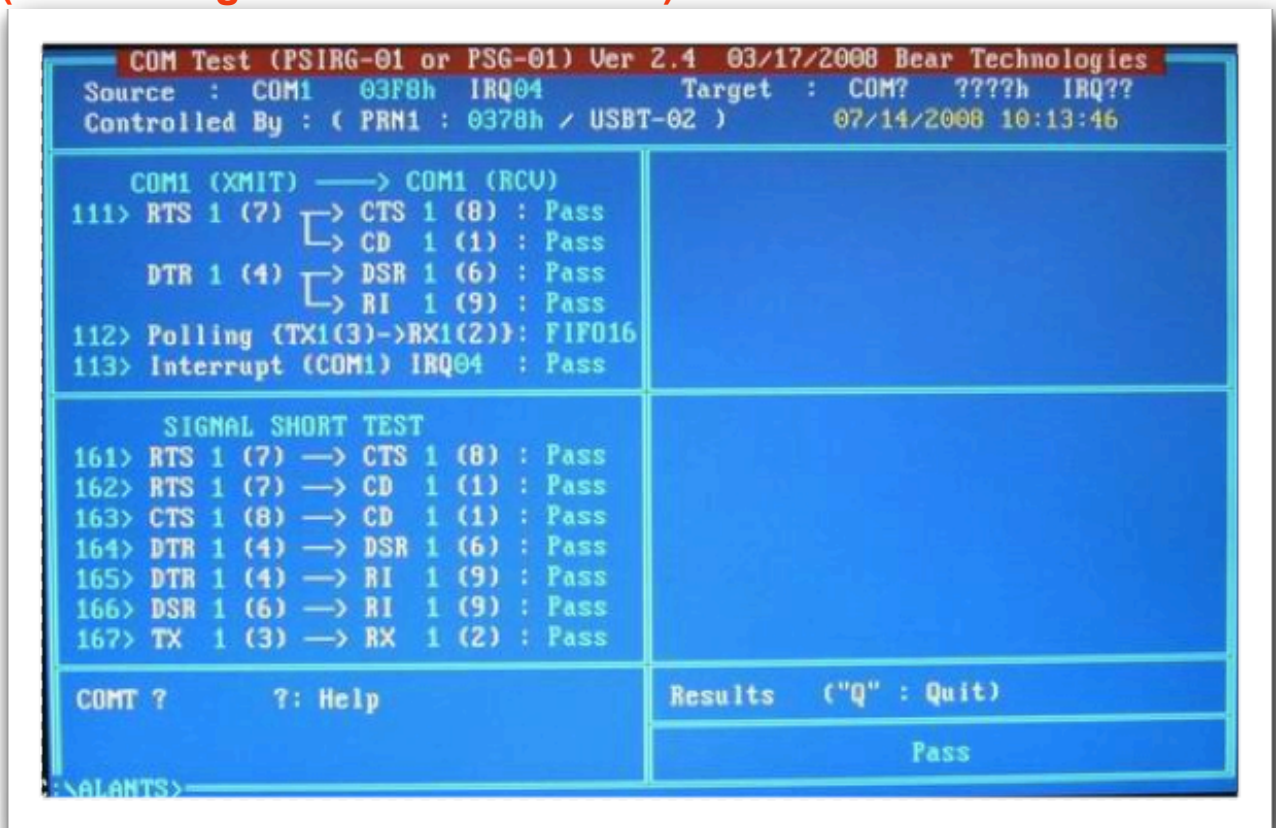


### 1-3> COMT.exe Test Screen

(COM1<->COM2 Communication Test/ comt.com)



### 1-5> COMT.exe Test Screen (COM1 Single Port Test/ Comt c1)



## Section 4: Support

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Program updates and product related information can be viewed and downloaded at:

<http://www.beartech.com.tw>

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