

**MINI-EXPRESS2 S101**  
**HALF-MINI S101**  
**User's Manual**

**Bear Technologies**  
[www.beartech.com.tw](http://www.beartech.com.tw)

## Section 1 : Introduction

### 1. Product Feature

- A) MINI-EXPRESS2 S101 can be use to test Full Mini Card Slot
- B) HALF-MINI S101 can be use to test Half Mini Card Slot



### 2. Accessories

- MINI-EXPRESS2 S101 test card \* 1
- or
- HALF-MINI S101 test card \* 1

### 3. JMPER SETTING & LED

- 1> LED1 : 1.5V LED
- 2> LED2 : Reset LED
- 3> J1 : WAKE UP

## Section 2 : Common Program Syntax

### 2-1> Filename: PCI-E.COM

PCI-E [T1 .. T16]

PCI-E	:	TEST 1 PCI EXPRESS CARD
PCI-E T2	:	TEST 2 PCI EXPRESS CARD
PCI-E ?	:	HELP MESSAGE

## 2-2> Filename: USBT.COM

```
USBT [T1..T99][F0..F99][H0..H99][\U1][\U2][\B][\IN][\IS][?]  
      [K1..K10]  
K1           : USB Keyboard at Port 1  
K5           : USB Keyboard at Port 5  
\U1         : Skip Usb 1.1 Test  
\U2         : Skip Usb 2.0 Test  
\B         : Skip BULK MODE Test  
\IN        : Skip INTERRUPT MODE Test  
\IS        : Skip ISO MODE Test  
USBT T8     : 8 USB1.1 PORTS PASS & 8 USB2.0 PORTS PASS  
USBT F12 H8 : 12 USB1.1 PORTS PASS & 8 USB2.0 PORTS PASS  
USBT       : 2 USB1.1 PORTS PASS & 0 USB2.0 PORTS PASS  
USBT T8 \U1 : USB1.1 TEST SKIP & 8 USB2.0 PORTS PASS  
USBT T8 \U2 : 8 USB1.1 PORTS PASS & USB2.0 TEST SKIP  
USBT T8 \B  : 8 USB1.1/2.0 PORTS PASS & BULK MODE SKIP  
USBT T8 \IN : 8 USB1.1/2.0 PORTS PASS & INTERRUPT MODE SKIP  
USBT T8 \IS : 8 USB1.1/2.0 PORTS PASS & ISO MODE SKIP  
USBT T8 \IN \IS: 8 USB1.1/2.0 PORTS PASS & INTERRUPT/ISO  
                MODE SKIP  
USBT ?      : Help Message
```

### 2-2.1> Usbt.com Error Message:

```
Disconnect      ; Usb Port Disconnect  
Uhci Low       ; Low Speed Device (UHCI)  
Ohci Low       ; Low Speed Device (UHCI)  
Pass L_spd     ; Usb Low Speed Device Pass  
Skip L_spd     ; Usb Low Speed Device Skip  
EHCI_Reset     ; EHCI RESET  
Port Enabl     ; Usb Port Enable  
Port Disab    ; Usb Port Disable  
Set Addr       ; Usb is Setting Address  
Get Desc.     ; Usb Get Descriptor Test  
Get ID1       ; Bear ID1  
Get Id2       ; Bear ID2  
Get Config     ; Usb Get Configuration Test  
Set Config     ; Usb Set Configuration Test  
???????IRQ    ; IRQ  
Bulk Test     ; Usb Bulk Mode Test  
INT Test      ; Usb Interrupt Mode Test  
ISO Test      ; Usb ISO Mode Test
```

### 2-3> PCI-E.COM Screenshot

```
PCI Express Test (For PCI-E) Ver 2.3 12/07/2011 Bear Tech. (PCI-E ? ..Help)

Item DEU/VEN ID      Chip Set      PCI_Indext  Function  Card ID      Result
01  10421B21         ASM1042      80040000    Pass      (0)          Pass

                                PASS

104> PCI-E (Exp./Pass)(01/01): Pass

01/03/2012 13:31:01
```

### 2-4> USBT.COM Screenshot

```
USB1.1 & USB2.0 Test Ver 6.3 Bear Tech. 05/13/2009 (WIN) (USBT ? ..Help)

                                USB 1.1 Test
Base_addr Vendor  IRQ Result
01  B400h  Intel  09 Pass UHCI
02  B400h  Intel  09 Disconnect
03  B800h  Intel  11 Disconnect
04  B800h  Intel  11 Disconnect
05  BC00h  Intel  11 Disconnect
06  BC00h  Intel  11 Disconnect
07  C000h  Intel  05 Disconnect
08  C000h  Intel  05 Disconnect

                                USB 2.0 Test
Base_addr Vendor  IRQ Result
01  E20C4000h Intel  09 Pass EHCI
02  E20C4000h Intel  09 Disconnect
03  E20C4000h Intel  09 Disconnect
04  E20C4000h Intel  09 Disconnect
05  E20C4000h Intel  09 Disconnect
06  E20C4000h Intel  09 Disconnect
07  E20C4000h Intel  09 Disconnect
08  E20C4000h Intel  09 Disconnect

102> USB1.1 (Exp./Pass)(01/01): Pass 103> USB2.0 (Exp./Pass)(01/01): Pass
01/27/2010 06:57:20
```

## Section 3 : Testing Principle

### A. Fuction:

1. PCI express 1x , USB 1.1 ,USB 2.0 real test.
  - A. To wake use of PCI express TO USB Bridge capability by Asmedia ASM1042.
  - B. Using Cypress 68013 to transmission data realistically
2. The test signal as follow:  
3.3V , +1.5V, 3.3Vaux, Wake#, RX+, RX-, TX+, USBD+ , USBD- , CLKREQ# , REFCLK+ , REFCLK- .

### B. Compatibility:

1. The mother board with Mini Express Card .

### C. Efficiency and Completeness:

1. Only requires one test program ( PCI-E.COM ? Help Message ) to complete the 1~17 PCI Express slots and the process only test 1 second
2. Only require one test program ( USBT.COM ? Help Message ) to complete the usb 1.1 & usb 2.0

### D. Operating Procedure:

1. Connect test card to MINI EXPRESS Slot
2. Boot up the system to DOS platform
3. Execute **PCI-E.COM & USBT.COM**

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

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

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