

MINI-EXPRESS3 S101

User's Manual

Bear Technologies
www.beartech.com.tw

Section 1 : Introduction

1. Product Feature

MINI-EXPRESS3 S101 can be use to test Full Mini Card Slot
PCI-EXPRESS x1 Gen3 & USB2.0



2. Accessories

MINI-EXPRESS2 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-XP.COM

```
PCI Express Test Ver 3.1 09/16/2015 Bear Technologies ( PCI-XP ? ..Help)
Port PciIndex Bus ChipSet Width/Speed Width/Speed Card ID Result
01 80010000 001 ASM1142 (X 1/Gen3) (X 1/Gen3) (0) Pass

          PASS

105> Ports (Exp./Pass)(01/01): Pass

09/17/2015 16:59:36
C:\NPIC>
```

```
PCI Express Test Ver 3.1 09/16/2015 Bear Technologies ( PCI-XP ? ..Help)

PCI-XP [T1..T16][N][K][L][K][I][+S][[-Width][[+Gen][P??X??][P??G?][Self]
[-P??W][[-P??G][\NG]
/K : Any key to continue +S : Add Error Status Test
-Width: Skip Link Width Test +Gen : Add Link Speed Test
P??X??: Expected Which Port Link Width
P??G? : Expected Which Port Link Speed
-P??W : Which Port To Skip Link Width Test
-P??G : Which Port To Skip Link Speed Test
\NG : Skip Gate A20 Eenable Self : Self Link Width & Speed

PCI-XP : Test 1 PCI-Express Slot
PCI-XP T2 : Test 2 PCI-Express Slot
PCI-XP -Width : Skip Link Width
PCI-XP +Gen : Add Link Speed
PCI-XP P1X1 : Expected Port 1 Link Width = X1
PCI-XP P2X4 : Expected Port 2 Link Width = X4
PCI-XP P6X8 : Expected Port 6 Link Width = X8
PCI-XP P10X16 : Expected Port 10 Link Width = X16
PCI-XP +Gen P1G1: Expected Port 1 Link Speed = Gen1
PCI-XP +Gen -P2G: Skip Port 2 Link Speed

C:\NPIC>
```

2-2> Filename: USBT20.COM

```

USB1.1 & USB2.0 Test Ver 7.7 Bear Tech. 09/17/2014 (WIN) (USBT ? ..Help)
      USB 1.1 Test
Base_addr Vendor IRQ:SW Result
      USB 2.0 Test
      Base_addr Vendor IRQ:SW Result
01 F7D3B000h 123456 11 Pass Hub 2
02 F7D3B000h Intel 11 Disconnect
03 F7D3A000h 1234567811 HubDisconn
04 F7D3A000h Intel 11 Disconnect

102> USB1.1 (Exp./Pass)(00/00): ????
05/12/2016 07:01:14
103> USB2.0 (Exp./Pass)(02/02): Pass

C:\NPIC>_

```

```

USB1.1 & USB2.0 Test Ver 7.7 Bear Tech. 09/17/2014 (WIN) (USBT ? ..Help)

USBT [T1:T99][F0:F99][H0:H99][B4:BF][\U1]\U2]\NL]\NB]\IN]\IS][?]
  B5: Scan Bus[0:5]  BF: Scan Bus[0:F]  Default: Scan Bus[0:3]
 \U1 :Skip USB 1.1 Test  \U2 :Skip USB 2.0 Test  S: SWAP
 \NL :Skip Low Speed Device Test  \NB :Skip Bulk Mode Test
 \IN :Skip Interrupt Mode Test  \IS :Skip ISO Mode Test  \I:Ignore IRQ
 +K : Auto Restore USB Keyboard  /K : Any Key to Continue ...

USBT T6 +K          : 6 USB Ports Pass & Auto Restore USB Keyboard
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 F6 H10       : 6 USB1.1 Ports Pass & 10 USB2.0 Ports Pass
USBT              : 2 USB2.0 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 \NB       : 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 USB Ports Pass & Interrupt/ISO Mode Skip
USBT ?           : Help Message

C:\NPIC>_

```

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

Section 3 : Testing Principle

A. Fuction:

PCI express x1 Gen3 & USB 2.0 real test.

- A. To wake use of PCI express TO USB Bridge capability by ASM1142.
- B. Using ASM1051 to transmission data realistically

B. Compatibility:

1. The mother board with Mini Express Gen3

C. Efficiency and Completeness:

1. Only requires one test program (PCI-XP.COM ? Help Message) to complete the 1~16 PCI Express slots and the process only test 1 second
2. Only require one test program (USBT20.COM ? Help Message) to complete the 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-XP.COM & USBT20.COM**

Bear Technologies
TEL : (02)2649-9000
<http://www.beartech.com.tw>