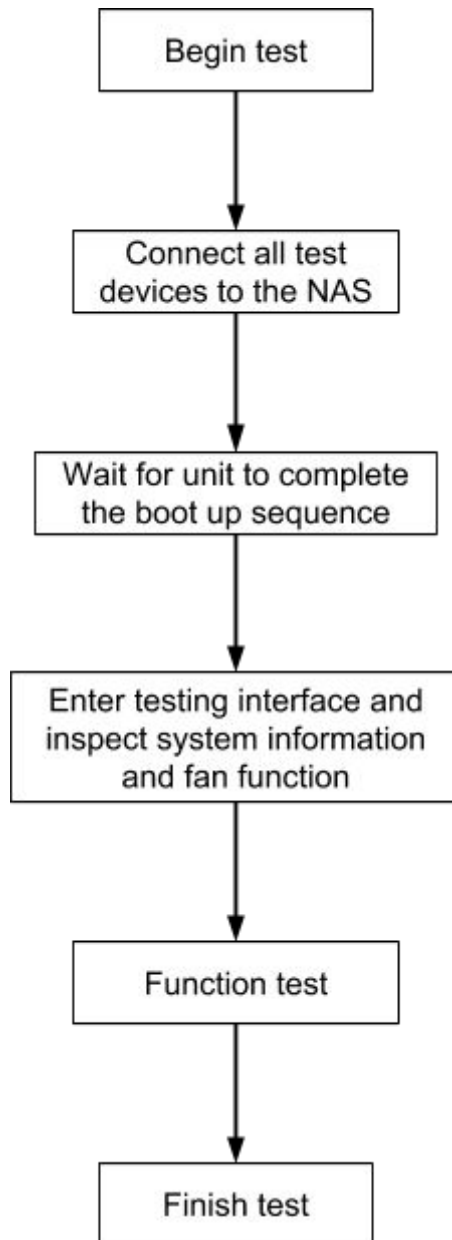


TS-EC1X79U-SAS-RP Test SOP

Flow Diagram



Testing device list

- LAN Cable (RJ-45) x4
- SAS HDD Fixture x1
- Power Cord x2
- USB 2.0 drive x4
- USB 3.0 drive x4
- Paper Clip x1
- SATA HDD x12~16
- GbE hub or switch x1
- HDMI Monitor x1
- PCIe card as necessary
- PC (for client testing)

QNAP 標準作業指導書
Standard Operation Procedure

產品名稱 Device Name	項目 Item	站別名稱 Station Name	版本 / Version
T5-EC1X7PU-SAS-RP	2	IO COM PORT連接圖	V1.1 製作者： Producer SAM

Cable 連接示意圖
 接上電源後先確認風扇是否正轉
 PCIe 治具必須在機器開機前裝入

主機接上 GIGA HUB
 接上4條LAN 到GIGA HUB
 Power接上電源線

PCIe接上治具 X 2

品名規格	數量
USB Mouse (滑鼠)	1
USB Keyboard (鍵盤)	1
LAN Cable	4
SAS HDD治具	1
POWER Cable	2
Sata 治具	0
USB 隨身碟	6
圖控針	1
SATA HDD	12~16
網路電線	1
POE 治具	1
UDMI 治具	1
PCI 治具	2

接上USB 2.0 X 4
 HDMI接上MONITOR
 接上3.0USB X 2
 接上SAS HDD治具

After Power on

1. Insert the HDDs in the slots

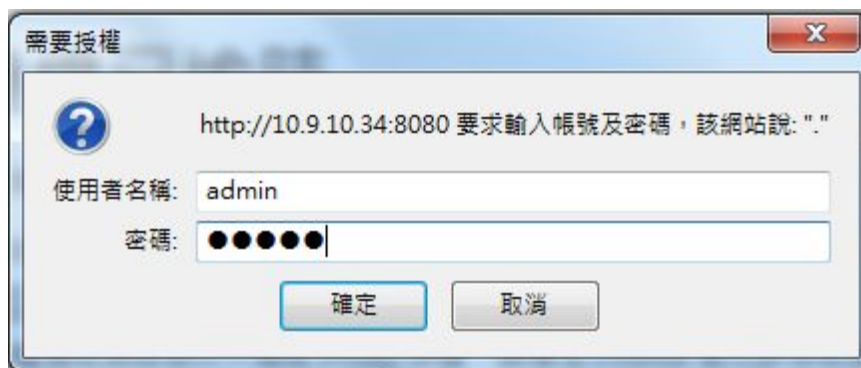


2. Install the testing devices



4. Enter the URL below in client PC (Edit the **red** section as the NAS IP)
<http://NAS-IP:8080/cgi-bin/hwtest/hwtest.cgi?func=start>

5. Enter the **username(admin)** & **Password(admin)**



Testing Interface

Select the test options and run it

測試選項

- 標準測試項目
- 加測 HDMI
- 加測 QR Code
- 加測 SPDIF Audio
- 寫入 VPD 資料

開始

測試選項	=	Test option
-標準測試項目	=	Standard Test Option
-加測 HDMI	=	Add HDMI test
-加測QR Code	=	Add QR Code test
-加測 SPDIF Audio	=	Add SPDIF Audio test
-寫入VPD資料	=	Write VPD data
開始	=	Start

Confirm:

1. System Model
2. CPU (Processor)
3. Firmware (System, SAS HBA, SAS Expander)
4. MAC Address

```
system model: TS-EC1279U-SAS-RP
CPU info: Intel(R) Xeon(R) CPU E3-1245 V2 @ 3.40GHz
system version: 1.2.7(build 20130820)
SAS HBA FW Version: 0d003900_0d430002
SAS Expander FW Version: 06.01
MAC1 Address: 00:08:9B:DA:EC:F0
MAC2 Address: 00:08:9B:DA:EC:F1
MAC3 Address: 00:08:9B:DA:EC:F2
MAC4 Address: 00:08:9B:DA:EC:F3
```

1. 檢查風扇電壓值
2. Redundant Power 測試
 - 拔出Power1，有長嗶聲且HDD1燈和HDD2燈皆亮紅燈，插入Power1，有長嗶聲且HDD1燈和HDD2燈皆亮綠燈
 - 拔出Power2，有長嗶聲且HDD3燈和HDD4燈皆亮紅燈，插入Power2，有長嗶聲且HDD3燈和HDD4燈皆亮綠燈
3. 按鈕測試
 - 按ResetButton，有長嗶聲且Status亮紅燈、HDD燈皆亮紅燈、10G燈亮綠燈
 - 按PowerButton，直到有短嗶聲且status亮綠燈、HDD燈皆亮綠燈、10G燈不亮燈
 - 按機殼Button，有短嗶聲且HDD1燈和HDD2燈皆亮紅，放開Button，有短嗶聲且HDD1燈和HDD2燈皆亮綠燈
4. HDMI to TV? (開機時，電視會顯示彩色的 QNAP logo)
 - Yes ○ No

設定MAC1 Address (XX:XX:XX:XX:XX:XX)

設定MAC2 Address (XX:XX:XX:XX:XX:XX)

設定MAC3 Address (XX:XX:XX:XX:XX:XX)

設定MAC4 Address (XX:XX:XX:XX:XX:XX)

設定Hardware Serial Number (限輸入最多20個英文字母或數字)

設定SAS HBA SAS Address

設定SAS Expander SAS Address

設定Country Code

Function Tests

Redundant Power Test:

Disconnect power cord 1; LED of HDD1,HDD2 light **Red**
Reconnect power cord 1; LED of HDD1,HDD2 light **Green**

Disconnect power cord 2; LED of HDD3,HDD4 light **Red**
Reconnect power cord 2; LED of HDD3,HDD4 light **Green**



Reset button test:

Use a paper clip to click the Reset Button (in the hole marked Reset)

You will

1. Hear **beep** sound once
2. See the Info, Alert and HDD Status LEDs light **Red**; 10G Status LED lights **Green**.



Power button test:

Press the Power Button and you will

1. Hear the beep sound once
2. See the Info, Alert and HDD Status LEDs light **Green**; 10G Status LED is **off**.

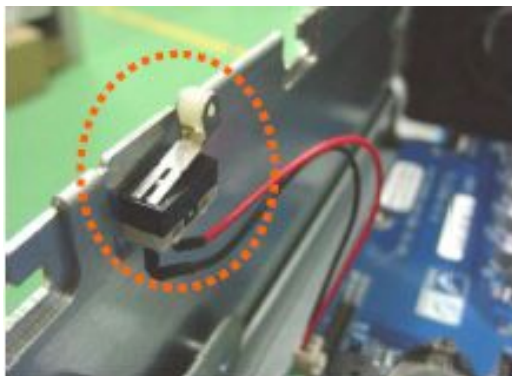


Top cover sensor test

Take off the top cover then press the sensor switch and hold. You will:

1. Hear the beep sound once
2. See the HDD1 and HDD2 LEDs light **Red**

Release the switch; the LEDs of HDD1 and HDD2 return to **Green**



Select options and fill in the blank fields

Item 1: Select “Yes” for displaying QNAP booting logo for HDMI display

Item 2&3: Fill them in order in the red frame

MAC1~4 Address, Hardware Serial Number, SAS HBA address, SAS Expander address and Country Code (Refer to the **green** box)

Click Next (button marked [下一步]) once all information is filled in

9. MAC address 轉錄: 在紅框中 MAC1 address~MAC4 address 輸入網路位址碼共12碼中間下畫符號 (工廠測試用)

系統資訊

```
system model: TS-EC1279U-SAS-RP
CPU info: Intel(R) Xeon(R) CPU E3-1245 V2 @ 3.40GHz
system version: 1.2.7(build 20130820)
SAS HBA FW Version: 0d003900 0d430002
SAS Expander FW Version: 06.01
MAC1 Address: 00:08:9B:DA:EC:F0
MAC2 Address: 00:08:9B:DA:EC:F1
MAC3 Address: 00:08:9B:DA:EC:F2
MAC4 Address: 00:08:9B:DA:EC:F3
```

在紅框中依序輸入MAC1~MAC4 address · Hardware Serial Number · SAS HBA address · SAS Expander address · Country Code
按下一步開始燒錄

1. 檢查電源電壓值
2. Redundant Power 測試
 - 拔出Power1 · 有長嗶聲且HDD1燈和HDD2燈皆亮紅燈 · 插入Power1 · 有長嗶聲且HDD1燈和HDD2燈皆亮綠燈
 - 拔出Power2 · 有長嗶聲且HDD3燈和HDD4燈皆亮紅燈 · 插入Power2 · 有長嗶聲且HDD3燈和HDD4燈皆亮綠燈
3. 按鈕測試
 - 按ResetButton · 有長嗶聲且Status亮紅燈 · HDD燈皆亮紅燈 · 10G燈亮綠燈
 - 按PowerButton · 直到有短嗶聲且status亮綠燈 · HDD燈皆亮綠燈 · 10G燈不亮燈
 - 按機型Button · 有短嗶聲且HDD1燈和HDD2燈皆亮紅 · 按開Button · 有短嗶聲且HDD1燈和HDD2燈皆亮綠燈
4. HDMI to TV? (開機時, 電視會顯示彩色的 QNAP logo)
Yes/No

1 4. HDMI to TV? (開機時, 電視會顯示彩色的 QNAP logo)
Yes/No

2

設定MAC1 Address (XX:XX:XX:XX:XX:XX)
00:08:9B:DA:EC:F0

設定MAC2 Address (XX:XX:XX:XX:XX:XX)
00:08:9B:DA:EC:F1

設定MAC3 Address (XX:XX:XX:XX:XX:XX)
00:08:9B:DA:EC:F2

設定MAC4 Address (XX:XX:XX:XX:XX:XX)
00:08:9B:DA:EC:F3

設定Hardware Serial Number (即輸入最多20個英文字母或數字)
00000000000000000000

設定SAS HBA SAS Address
00000000000000000000

設定SAS Expander SAS Address
00000000000000000000

3 設定Country Code
TW

The test results must all be OK after the test progress completed.
The NAS is judged as defective if any option test resulted in **fail**.

11. 測試完成後會顯示測試結果都必須為OK,以下任何一項要是顯示fail皆為不良

12. 檢查Model機器名稱,Version版本Mac1 Address-Mac4 Address與Hardware Serial Number序號是否與燒錄的相同,如不同請再燒錄一次,一樣又燒錄失敗請打入不良

測試結果

Model = TS-EC1279U-SAS-RP
CPU info = Intel(R) Xeon(R) CPU E3-1245 V2 @ 3.40GHz
Version = 1.2.7 (build 20130820)
RAM SIZE = 7865 MB

RAM TEST = ok
PCIe Slot1 = s4 ok
PCIe Slot2 = s8 ok
LAN1 = 1000

LAN2 = fail
LAN3 = fail
LAN4 = fail

CPU Temp = 36
System Temp = 36
SAS HBA FW Version = 0d003900_04430002

SAS Expander FW Version = 06-01
MAC1 Address = 00:08:9B:DA:EC:F0
MAC2 Address = 00:08:9B:DA:EC:F1
MAC3 Address = 00:08:9B:DA:EC:F2
MAC4 Address = 00:08:9B:DA:EC:F3

Power1 = ok
ResetBT = ok
First Power = ok
Second Power = ok

FAN1 = ok
FAN2 = ok
FAN3 = ok
CASE Sense = ok
HDMI Test = ok
date = 2013/09/04 14:02:52

RTC = ok
Hardware Serial Number = Q135107453
Country Code = 0:GLB:Global
SAS HBA Address = 5e843b6200001de8
SAS Expander Address = 5e843b610000ad7c

Internal_HDD_1 = ok
Internal_HDD_2 = ok
Internal_HDD_3 = ok
Internal_HDD_4 = ok
Internal_HDD_5 = ok
Internal_HDD_6 = ok
Internal_HDD_7 = ok
Internal_HDD_8 = ok
Internal_HDD_9 = ok
Internal_HDD_10 = ok
Internal_HDD_11 = ok
Internal_HDD_12 = ok
USB_1 = USB3.0 ok
USB_2 = USB3.0 ok
USB_3 = ok
USB_4 = ok
USB_5 = ok
USB_6 = ok
External_SAS_Port_0:0 = ok
External_SAS_Port_0:1 = ok
External_SAS_Port_0:2 = ok
External_SAS_Port_0:3 = ok
External_SAS_Port_1:0 = ok
External_SAS_Port_1:1 = ok
External_SAS_Port_1:2 = ok
External_SAS_Port_1:3 = ok
Exp Status = disable
Power Recovery Mode = Last State

關機

測試完成後會顯示測試結果,都必須為OK
任何一項要是顯示fail皆為不良。

檢查Model機器名稱、Version版本、
Mac1 Address-Mac4 Address與
Hardware Serial Number、SAS HBA Address、
SAS Expander Address、Country Code序號是否
與燒錄的相同,如不同請再燒錄一次。
一樣又燒錄失敗請打入不良。



13. 測試結果OK按關機後網頁會跳回finish後自動關機

Finish Test

Click the button marked [關機], the NAS will shutdown automatically.