

Test Plan

For

ASGvOLT64

Revision 1.0

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Accton Technology Corporation

Telecommunication Business Unit

No. 1, Creation Rd. III, Science-Based Industrial Park,

Hsinchu 300, Taiwan, R.O.C.

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Revision History

[illegible]

1 INTRODUCTION

1.1 Scope and Purpose

This document specifies the test cases for ASGvOLT64 in the development phase. The general Software components of ASGvOLT64 is defined as the Device Under Test (DUT) which is installed in Open Network Linux in the ASGvOLT64.

The test cases description in this document includes the Test Name of the Test Cases, Test Purpose, Test Configuration, Test Procedure and Expected Result

These test cases are designed to verify if the design of the ASGvOLT64 Software Components, such as, Redfish Server or ASGvOLT64-BAL package, meets the functionality and performance requirements of the design specifications. All test procedures are provided here as a guideline for performing software design validation test.

1.2 References

- | | | |
|-----|--|--------------------------------|
| [1] | Hardware Specification 16 Port GPON vOLT | Accton ASFX816BBX-0716-EC V1.3 |
| [2] | ASGvOLT64 Redfish Commands Reference | Accton |
| | VOLT_RF_EIT_TEST_2_23.xlsx | |
| [3] | Software Install Guide ASGvOLT64 | Edge-Core |

2 TEST CASES

The test cases are designed to verify the major functions which the DUT can work normally as the production specification. These tests are designed to cover as much as possible for the software design and implementation verification.

2.1 Redfish Function

2.1.1 Redfish Server Setup

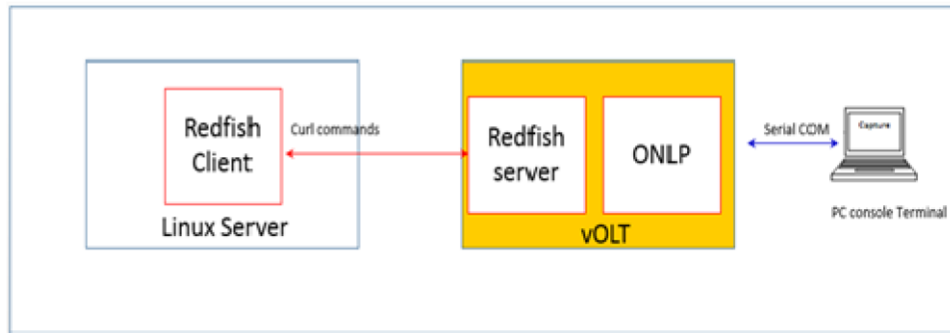


Fig 2.1.1-1

1. To pre-configure AXSvOLT16 with the Redfish Server is enable as default at next booting. Be sure to Redfish package installed properly.
 - 1.1 Assume Redfish package in “sfvolt16_rf_packages-yyyy-mmdd.tar.gz”, and untar the package to /rmm

```
$ tar zxvf sfvolt16_rf_packages-yyyy-mmdd.tar.gz -d /rmm
```

```
$ cd /rmm
```
 - 1.2 To install Redfish package:

```
$ dpkg -i *.deb
```
 - 1.3 To start Redfish service.

```
$ service psme start
```
 - 1.4 To start psme at boot time.

```
$ service psme start
```
2. To boot ASFVOLT-16 device via command.

```
$ reboot
```
3. As AXSvOLT16 is booting-up, you could refer to [2] the Redfish commands to check the Redfish server.

2.1.2 Redfish Sever Function

The Redfish Sever is the extra package installed in the vOLT.

The vOLT support the features:

1. HW Reboot
2. SW Reboot
3. PSU Test PSU Module #1 ~#2
4. FAN Test in PSU Module #1 ~#2
5. FAN Test in FAN module#1 ~#6
6. System Thermal Temperature Test

To apply the commands, please refer to [2] for more information.

2.1.2.1 Reboot vOLT

A. Test Purpose.

To verify that the vOLT can be reboot via RF client. There are two type of reboot command in Redfish Server.

1. HW Reboot-

When the vOLT is in HW reboot, the vOLT will not prompt any message to reboot the vOLT.

2. SW Reboot

When the vOLT in SW reboot, the vOLT will prompt the rebooting message before reboot the vOLT.

B. Test Configuration

To conduct the Resfish feature, the Redfish Server package is to be installed in the vOLT.

Testing environment:

To configure the testing environment as Fig 2.1.1-1.

C. Test Procedure and Expected Result

1. To reboot the vOLT via Redfish HW Reboot command in the Redfish client.

1.1 Check the serial COM console of the vOLT, it does not prompt any message and reboot the OLT.

2. To reboot the vOLT via Redfish SW Reboot command in the Redfish client

2.1 Check the serial COM console of the vOLT, it does prompt any message and reboot the OLT. D. Test Result.

1.1 –Pass/NG

1.2 –Pass/NG

2.1.2.2 OLT PSU Status function**A. Test Purpose.**

To verify that the specified PSU#n of the vOLT Redfish Server will reply the correct status information while the PSU in the following conditions:

a. When PSU#n is attached with power Cable to vOLT, we expect to observe the following information for PSU#n:

Status.Health="OK"

Status.State="Enabled"

b. When PSU#n is attached without power Cable to vOLT, we expect to observe the following information for PSU#n:

Status.Health=null

Status.State="UnavailableOffline"

c. When PSU#n is unattached to vOLT, we expect to observe the following information for PSU#n:

Status.Health=null

Status.State="Absent"

B. Test Configuration

Testing environment:

To configure the testing environment as Fig 2.1.1-1.

C. Test Procedure and Expected Result

1. Make sue the PSU#1 and PSU#2 are attached with power Cable to vOLT.

1.1 Check the status shall show Status.Health="OK",Status.State="Enabled"

2. Remove the power cable from PSU#n,

2.1 Check the status shall show Status.State="UnavailableOffline"

3. Re-insert the power cable into PSU#n,

3.1 Check the status shall show Status.Health="OK",Status.State="Enabled"

4. Remove the PSU#1 from vOLT,

4.1 Check the status shall show Status.State="Absent"

5. Re-insert the power cable into PSU#n,

5.1 Check the status shall show Status.Health="OK",Status.State="Enabled"

6. Stop

D. Test Result.

Test Case	For PSU#1	For PSU#2
1.1	Pass/NG	Pass/NG

2.1		
3.1		
4.1		
5.1		

2.1.2.3 OLT FAN Status Function

A. Test Purpose.

FAN#n can be applied to FAN#1, FAN#2, FAN#3, FAN#4, FAN#5, FAN#6, FAN/PSU#1 and FAN/PSU#2.

To verify that the specified FAN#1 or FAN/PSU#n of the vOLT Redfish Srever will reply the correct status information while the FAN in the following conditions:

a. When FAN#n is attached to vOLT, we expect to observe the following information for FAN#n:

Status.Health="OK"

Status.State="Enabled"

b. When FAN#n is unattached to vOLT, we expect to observe the following information for FAN#n:

Status.Health=null

Status.State="Absent"

c. When FAN#n is attached to vOLT and stopper is blocked in FAN#n , we expect to observe the following logging information for FAN#n:

Status.Health="Warning"

Status.State="Enabled"

B. Test Configuration

Testing environment:

To configure the testing environment as Fig 2-1.

C. Test Procedure and Expected Result

1. Make sue the FAN#1 ~ FAN#6 FAN/PSU#1 and FAN/PSU2 are attached to vOLT.

1.1 Check the status shall show Status.Health="OK",Status.State="Enabled"

2. Remove FAN#n from the vOLT,

2.1 Check the status shall show Status.State="Absent"

3. Re-insert the FAN#n into vOLT,

3.1 Check the status shall show Status.Health="OK",Status.State="Enabled"

4. Remove the FAN#n from vOLT,

4.1 Check the status shall show Status.State="Absent"

5. Re-insert FAN#n with fan-stopper,

5.1 Check the status shall show Status.State="Enabled"

6. Only Remove the fan-stopper from FAN#n, .

6.1 Check the status shall show Status.Health="OK",Status.State="Enabled"

7. Stop.

D. Test Result.

Test Case	FAN#1	FAN#2	FAN#3	FAN#4	FAN#5	FAN#6
1.1						
2.1						
3.1						

4.1						
5.1						
6.1						

Test Case	FAN/PSU#1	FAN/PSU#2
1.1		
2.1		
3.1		
4.1		
5.1		
6.1		

2.1.2.4 System Thermal Temperature Test

A. Test Purpose.

To verify that System Thermal Temperature can be detected when fan are remove

B. Test Configuration

Testing environment:

To configure the testing environment as Fig 2-1.

C. Test Procedure and Expected Result

1. Make sure all fans are attached to vOLT.

1.1 Read the System Thermal Temperature

2. Remove all fans from vOLT for 30 s 2.1 Read the System Thermal Temperature

3. Attach all fans to vOLT to stop the case.

D. Test Result.

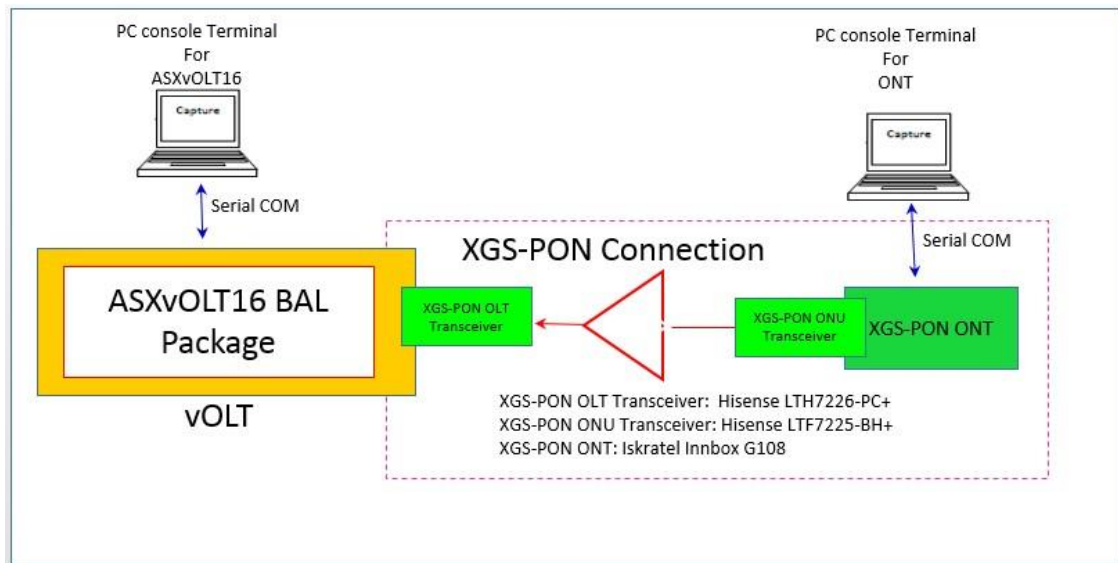
If observe the Temperature at 2.1 is higher than 1.1 which is Pass

2.2 Stand-alone GPON Active test

A. Test Purpose.

To verify the built ASGvOLT64-BAL package is able to setup Active GPON test with well-tested GPON Connection environment.

B. Test Configuration Testing environment:



To Install ASGvOLT BAL package, please refer to [3].

Note that the GPON Connection is well-tested configuration with specified GPON ONU, ONU Transceiver, Splitter and ONT Transceiver.

C. Test Procedure and Expected Result

A. Procedures at Console Terminal for ASGvOLT64

1. Reboot vOLT

2. Procedures at Console Terminal for ASGvOLT64. 2.1 In the ONL,

```
root@localhost:/broadcom# ./bal_cli
```

```
ACC.0>
```

2.2 . In ACC prompt, enter the following:

2.2.1

```
ACC.0> b/s object=access_terminal admin_state=up
```

2.2.2

```
ACC.0> b/s object=interface intf_id=0 intf_type=pon admin_state=up
```

2.2.3a For BAL version below: 2.4.8, apply

```
ACC.0>b/s object=subscriber_terminal sub_term_id=100 intf_id=0
serial_number.vendor_id=49534B54 serial_number.vendor_specific=71E80110
```

2.2.3 b For BAL version below: 2.4.8, apply

Where the command assume ONU device vendor serial is ISKT71E80110

3.1 Login ONT

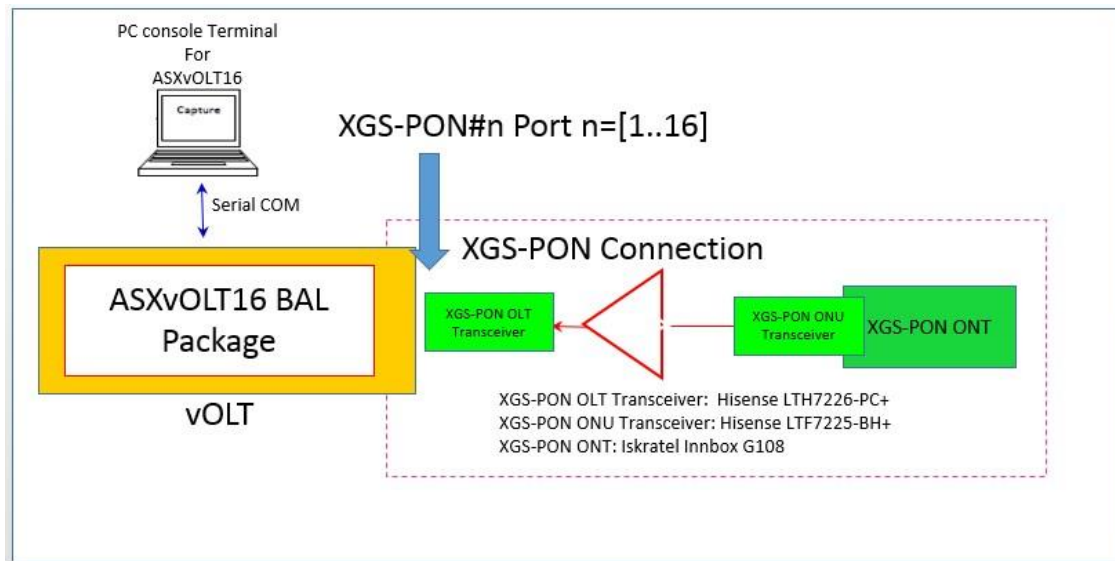
3.2 Check ONT Status

Observe the ONU status at 3.2, if the ONU is in Operation (05) which is Pass.

A. Test Purpose.

Where GPON#n, n=[1..16] B.

environment:



To Install ASXvOLT BAL package, please refer to [3].

Note that the GPON Connection is well-tested configuration with specified GPON ONU, ONU Transceiver, Splitter and ONT Transceiver.

C. Test Procedure and Expected Result

A. Procedures at Console Terminal for ASGvOLT64 1.

Reboot vOLT

2. Procedures at Console Terminal for ASGvOLT64. 2.1

In the ONL,

```
root@localhost:/broadcom# ./bal_cli
```

```
ACC.0>
```

2.2 . In ACC prompt, enter the following:

2.2.1

```
ACC.0> b/s object=access_terminal admin_state=up
```

Where the command assume ONU device vendor serial is ISKT71E80110

3. Plug in GPON OLT transceiver to GPON#n , repeat n=[1..16]

3.1 Observe the LED Link is ON when OLT Transceiver is plugged into GPON#n.

3.2 Observe the LED Link is OFF when OLT transceiver is unplugged from GPON#n**D. Test Result.**

Test Case	3.1	3.2
GPON#1		
GPON#2		
GPON#3		
GPON#4		
GPON#5		
GPON#6		
GPON#7		
GPON#8		
GPON#9		
GPON#10		
GPON#11		
GPON#12		
GPON#13		
GPON#14		
GPON#15		

GPON#16		
GPON#17-64		

3. TEST MATRIX AND SUMMARY

TBD

4. APPENDIX

TBD