BR200 PSE Support Test Case

Revision History

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| --- | --- | --- | --- |
| Version | Date | Author | Description |
| 0.1 | 12/8/2011 | Tiezhu Zhu | Initial Version |
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Glossary and Abbreviations

# Introduction

Noise floor is a basic RF specification which related RSSI/RX performance/client connectivity .

# Test Objectives

To keep noise floor in a normal value, we should maintain a noise floor base line for each platform.

# Test Acceptance Criterion from Development

* Approved – MRD

The link to MRD

* Approved – Functional Specifications

The link to function spec：

* Approved – Unit Test Plans

The link to unit test report of dev

# Product Pass Criterion

Meet all objects in marketing requirement or function spec which may include key function objectives, capacity objectives, performance objectives and so on.

# Test Bed/Topo Design

<List topo and topo ID>

# Test Point

## Function Test

### Check if na bind to wifi0 and ng bind to wifi1, 2.4g can work in wifi1/5g work in wifi0

### Check if ng/na can bind to wifi0 band when AP is single radio

### Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if client can connect to AP

### Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if interface counter work normally

### Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if mcs rate correct base on chain set

### Under a/bg/ng mode, check if chain can be set

### Under a/bg/ng/na mode, check if client can be connected and run charrot

### Under default mode, check if radio mode can be changed as required (access/dual/backhaul)

### Bind muti ssid in wifi0/wifi1, shutdown or up some VAP, check if work normally or any beacon stuck

### Bind muti ssid in wifi0/wifi1, shutdown or up some VAP under client traffic, check if any up/down fail and beacon stuck

### In lab environment, check wifi0/wifi1 RF airtime value

### In screen room, run continuously transmit check if airtime calculate well

### Under dual mode mesh state, check if airtime value distorted under some traffic

### Under DFS channel mesh state, check if airtime any abnormal

### In lab environment, check wifi0/wifi1 channel Utilization with previously release version

### In screen room, run traffic in neighbor AP and check cu

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### Run traffic in adjacent channel, check iu

### In lab environment, check CRC with previously release version

### Run traffic in adjacent channel, check CRC

### In lab check ACSP neighbor with RSSI/OUI/channel/CU/CRC/Station/ChannelWidth

### In screen room, run traffic in neighbor AP and check mesh/state/SNR/power/ssid/HVPW

### Under diversity mode, check if mcs rate and performance decreased

### Under diversity mode, check if RSSI and coverage have been improved

### 

## Stress Test

## Performance test

# Test Case

## RF Driver check

### Check if na bind to wifi0 and ng bind to wifi1, 2.4g can work in wifi1/5g work in wifi0

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Band\_Check\_01 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Check if na bind to wifi0 and ng bind to wifi1, 2.4g can work in wifi1/5g work in wifi0 | | |
| Pre-condition | AP120/AP320/AP340/AP330/AP350 | | |
| Test procedure | 1. Bind na radio profile na to wifi0 (2.4G)   “radio profile na phymode 11na”  “in wifi0 radio profile na”   1. Bind ng radio profile ng to wifi1 (5G)   “radio profile ng phymode 11ng”  “in wifi0 radio profile ng” | | |
| Expect result | wifi0 support 5g channel and wifi1 can not work in 2.4g channel | | |
| Test Result | AH-0c47c0#  AH-0c47c0#int w0 ra pr na  AH-0c47c0#  AH-0c47c0#int w1 ra pr ng  radio chip doesn't support current phymode/turbo setting of radio profile  AH-0c47c0# | | |

### Check if ng/na can bind to wifi0 band when AP is single radio

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Band\_Check\_02 | | |
| Priority | High | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Check if ng/na can bind to wifi0 band when AP is single radio | | |
| Pre-condition | AP110/BR200/BR100 | | |
| Test procedure | 1. Bind na radio profile to wifi0   “radio profile na phymode 11na”  “in wifi0 radio profile na”   1. Check if wifi0 can support 5g channel   “Show in wifi0 channel” result 1   1. Bind ng radio profile to wifi0   “radio profile ng phymode 11ng”  “in wifi0 radio profile ng”   1. Check if wifi0 can support 2.4g channel   “Show in wifi1 channel” result 2 | | |
| Expect result | For Single radio card with removed BPF, it can support both wifi0/wifi1 | | |
| Test Result | Result 1:all wifi0 channel are subset of channel:36,40,44,48,52,56,60,100,104,108,112,116,120,124,128,132,136,140,149,153,157,161,165.  Result 2:all wifi0 channel are subset of channel:1,2,3,4,5,6,7,8,9,10,11,12,13. | | |

### Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if client can connect to AP

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Chain\_Check\_01 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if client can connect to AP | | |
| Pre-condition |  | | |
| Test procedure | 1. Set radio profile to chain 1\*1   “radio profile ng phymode 11ng”  “radio profile ng transmit-chain 1”  “radio profile ng transmit chain 1”   1. Connect client to AP,show station,result 1. 2. Loop test step 1 to step 3 by chain setting: 1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3 3. Set radio profile to chain 1\*1   “radio profile na phymode 11na”  “radio profile na transmit-chain 1”  “radio profile na transmit chain 1”   1. Connect client to AP,show station,result 2. 2. Loop test step 1 to step 3 by chain setting: 1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3 | | |
| Expect result | Client can connect with AP and get normal traffic  Result 1:phymode is 11ng  Result 2:phymode is 11na | | |
| Test Result |  | | |

### Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if interface counter work normally

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Chain\_Check\_02 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if interface counter work normally | | |
| Pre-condition |  | | |
| Test procedure | 1. Set radio profile to chain 1\*1   “radio profile ng phymode 11ng/na”  “radio profile ng transmit-chain 1”  “radio profile na transmit chain 1”   1. Connect client to AP with low traffic 2. Check if wifi0/wifi1 counter management/data frame increase in concomitancy   “show in wifi0/wifi1 counter”   1. Loop test step 1 to step 3 by chain setting: 1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3 | | |
| Expect result | Management/data frames will increase | | |
| Test Result |  | | |

### Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if mcs rate correct base on chain set

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Chain\_Check\_03 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under chain 1\*1/1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3, check if mcs rate correct base on chain set | | |
| Pre-condition |  | | |
| Test procedure | 1. Set radio profile to chain 1\*1   “radio profile ng phymode 11ng/na”  “radio profile ng transmit-chain 1”  “radio profile na transmit chain 1”   1. Connect client to AP with low traffic 2. Check if mcs rate change according with chain setting   “show ssid XXX station mac XXX:XXX:XXX”   1. Loop test step 1 to step 3 by chain setting: 1\*2/1\*3/2\*1/2\*2/2\*3/3\*1/3\*2/3\*3 | | |
| Expect result | Mcs rate will change with chain vary | | |
| Test Result |  | | |

### Under a/bg/ng mode, check if chain can be set

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Chain\_Check\_04 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under a/bg/ng mode, check if chain can be set | | |
| Pre-condition |  | | |
| Test procedure | 1. Set AP to wifi0 11bg mode   Radio profile bg phymode 11b/g  In wifi0 radio profile bg   1. Set Rx/tx chain to 1\*1/1\*2/1\*3/2\*1/2\*2/3\*3, check if it be set   “radio profile bg transmit-chain 2”  “radio profile bg transmit chain 2”  “show in wifi0”   1. Loop test step 1 to step 2 in wifi1 band by 11a mode | | |
| Expect result | Legacy mode does not support HT chain mode, suggest to disable chain setting for that | | |
| Test Result |  | | |

### Under a/bg/ng/na mode, check if client can be connected and run charrot

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ClientConnectivity\_Check\_01 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Under a/bg/ng/na mode, check if client can be connected and run iperf | | |
| Pre-condition |  | | |
| Test procedure | 1. Wifi1 access mode,creat a ssid,bind to wifi1.   “interface wifi1 mode access”  “ssid test”  “interface wifi1 ssid test”   1. Creat a radio profile a,phymode 11a,bind to wifi1.   “radio profile a phymode 11a”  “interface wifi1 radio profile a”   1. Connect a client to ssid test.   “show station” result 1.   1. AP as iperf server.   “iperf server”   1. Client as iperf client.run traffic.result 2. 2. Creat a radio profile na,phymode 11a,bind to wifi1.   “radio profile na phymode 11na”  “interface wifi1 radio profile na”   1. Connect a client to ssid test.   “show station” result 3.   1. AP as iperf server.   “iperf server”   1. Client as iperf client.run traffic.result 2. 2. Unbind ssid to wifi1.   “no int w1 ssid test”   1. Wifi0 access mode,creat a ssid,bind to wifi0.   “interface wifi0 mode access”  “ssid test”  “interface wifi0 ssid test”   1. Creat a radio profile bg,phymode 11b/g,bind to wifi0.   “radio profile bg phymode 11b/g”  “interface wifi0 radio profile bg”   1. Connect a client to ssid test.   “show station” result 4.   1. AP as iperf server.   “iperf server”   1. Client as iperf client.run traffic.result 2. 2. Creat a radio profile ng,phymode 11ng,bind to wifi0.   “radio profile ng phymode 11ng”  “interface wifi0 radio profile ng”   1. Connect a client to ssid test.   “show station” result 5.   1. AP as iperf server.   “iperf server”   1. Client as iperf client.run traffic.result 2. | | |
| Expect result | All mode can be connected.  Result 1:phymode should be 11a.  Result 2:Thoughtput should greater than 1M.  Result 3:phymode should be 11na.  Result 4:phymode should be 11bg.  Result 5:phymode should be 11ng. | | |
| Test Result |  | | |

### Under default mode, check if radio mode can be changed as required (access/dual/backhaul)

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | RadioMode\_Check\_01 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Under default mode, check if radio mode can be changed as required (access/dual/backhaul) | | |
| Pre-condition |  | | |
| Test procedure | 1. Creat a ssid test,bind on wifi0.   “interface wifi0 mode access”  “ssid test”  “int w0 ssid test”   1. Check wifi0 manager frame count,result 1.   execute CLI 5 times,1 second per time.  “show interface wifi0 counter | include beacon”   1. Change wifi0 mode to backhaul   “no interface wifi0 ssid test”  “interface wifi0 mode backhaul”   1. Check wifi0 manager frame count,result 1.   execute CLI 5 times,1 second per time.  “show interface wifi0 counter | include beacon”   1. Change wifi0 mode to backhaul.   “no int w0 ssid test”  “int w0 mode backhaul”   1. Check wifi0 manager frame count,result 1.   execute CLI 5 times,1 second per time.  “show interface wifi0 counter | include beacon”   1. Change wifi0 mode to dual.   “interface wifi0 mode dual”   1. Check wifi0 manager frame count,result 1.   execute CLI 5 times,1 second per time.  “show interface wifi0 counter | include beacon”   1. Repeat step 1~8 on wifi1. | | |
| Expect result | All mode change can be successful and management frame will increase unaffected  Result 1:beacon frame increase 10 per second. | | |
| Test Result |  | | |

### Bind muti ssid in wifi0/wifi1, shutdown or up some VAP, check if work normally or any beacon stuck

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | RadioMode\_Check\_02 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Bind muti ssid in wifi0/wifi1, shutdown or up some VAP, check if work normally or any beacon stuck | | |
| Pre-condition |  | | |
| Test procedure | 1. Bind 8 ssid to wifi0   “ in wifi0 ssid test01”  “in wifi0 ssid test02”  ….  “ in wiif0 ssid test08”   1. Connect a client to test01. 2. Shutdown ssid test02~test07 3. Check if beacon stuck：   “show logging buffered| include stuck” result 1  “show int w0 counter | in beacon” execute 5 times,interval 1s.result 2.  After ping finished,check packet loss rate result 3.   1. Unbind 8 ssid on wifi0,change wifi1 mode access,bind 8 ssid on wifi1.   “no in wifi0 ssid test01”  “no in wifi0 ssid test02”  ….  “no in wiif0 ssid test08”  “interface wifi1 mo access”  “ in wifi1 ssid test01”  “in wifi1 ssid test02”  ….  “ in wiif1 ssid test08”  Repeat step 1~4 | | |
| Expect result | No beacon stuck and VAP up/down normally  No beacon stuck and VAP up/down normally  Result 1:no stuck info.  Result 2:10 beacon frames per second. | | |
| Test Result |  | | |

### Bind muti ssid in wifi0/wifi1, shutdown or up some VAP under client traffic, check if any up/down fail and beacon stuck

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | RadioMode\_Check\_03 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Bind muti ssid in wifi0/wifi1, shutdown or up some VAP under client traffic, check if any up/down fail and beacon stuck | | |
| Pre-condition |  | | |
| Test procedure | 1. Bind 8 ssid to wifi0   “ in wifi0 ssid test01”  “in wifi0 ssid test02”  ….  “ in wiif0 ssid test08”   1. Connect a client to test01. 2. Ping client for count 100 3. Shutdown ssid test02~test07 4. Check if beacon stuck：   “show logging buffered| include stuck” result 1  “show int w0 counter | in beacon” execute 5 times,interval 1s.result 2.  After ping finished,check packet loss rate result 3.   1. Unbind 8 ssid on wifi0,change wifi1 mode access,bind 8 ssid on wifi1.   “no in wifi0 ssid test01”  “no in wifi0 ssid test02”  ….  “no in wiif0 ssid test08”  “interface wifi1 mo access”  “ in wifi1 ssid test01”  “in wifi1 ssid test02”  ….  “ in wiif1 ssid test08”   1. Repeat step 1~5 | | |
| Expect result | No beacon stuck and VAP up/down normally  Result 1:no stuck info.  Result 2:10 beacon frames per second.  Result 3: should less than 1%. | | |
| Test Result |  | | |

### In lab environment, check wifi0/wifi1 RF airtime value

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Airtime\_Check\_01 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | In lab environment, check wifi0/wifi1 RF airtime value | | |
| Pre-condition |  | | |
| Test procedure | 1. Set wifi0 with channel 6 wifi1 with channel 36   “in wifi0 radio channel 6”  “in wifi1 radio channel 36”  “in wifi0/wifi1 ssid test”   1. After 10 minutes later, check if airtime normal compare with cu   “show in wifi0/wifi1”   1. Run traffic in wifi0/wifi1 band, check if airtime normal compare with cu   “show in wifi0/wifi1”   1. Put AP in lab for 24 hours and check airtime from HM, normally the airtime should be consistency | | |
| Expect result |  | | |
| Test Result |  | | |

### In screen room, run continuously transmit check if airtime calculate well

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Airtime\_Check\_02 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | In screen room, run continuously transmit check if airtime calculate well | | |
| Pre-condition | AP1----SW------AP2(Cordless phone) | | |
| Test procedure | 1. In screen room, set two AP with same channel   “in wifi0 radio channel 1”  “in wifi1 radio channel 36”  “in wifi0/wifi1 ssid test”   1. Run continuously transmit in neighbor AP2 wifi0/wifi1 band , check if AP1’s airtime will be affected or any calculate error   “\_test interface wifi0/wifi1 cont-tx”  “show in wifi0/wifi1”   1. Keep continuously communication in cordless phone, check if AP1’s airtime will be affected or any calculate error. | | |
| Expect result | No abnormal | | |
| Test Result |  | | |

### Under dual mode mesh state, check if airtime value distorted under some traffic

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Airtime\_Check\_03 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under dual mode mesh state, check if airtime value distorted under some traffic | | |
| Pre-condition | AP1----SW------AP2  MP  |  Client | | |
| Test procedure | 1. Set AP1/AP2 with same radio channel and AP1/AP2/MP with same hive   “in wifi1 mode dual”  “in wifi1 radio channel 36”  “in mgt0 hive tzzhu”   1. MP/AP1/AP2 will mesh in same channel   “show hive tzzhu neighbor”   1. Connect one client to MP and run traffic between client and AP1 2. Check MP/AP1/AP2 airtime   “show in wifi1” | | |
| Expect result | Mesh state airtime should be normal with access mode | | |
| Test Result |  | | |

### Under DFS channel mesh state, check if airtime any abnormal

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Airtime\_Check\_04 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under DFS channel mesh state, check if airtime any abnormal | | |
| Pre-condition | AP1----SW------AP2  MP  |  Client | | |
| Test procedure | 1. Set AP1/AP2 with same radio channel and AP1/AP2/MP with same hive   “in wifi1 mode dual”  “in wifi1 radio channel 52”  “in mgt0 hive tzzhu”   1. MP/AP1/AP2 will mesh in same channel   “show hive tzzhu neighbor”   1. Connect one client to MP and run traffic between client and AP1 2. Check MP/AP1/AP2 airtime   “show in wifi1   1. Change AP1 to access mode, check the airtime   “in wifi1 mode access”  “in wifi1 ssid test”  “in wifi1 radio channel 60” | | |
| Expect result | DFS channel is very clear and airtime should be very low | | |
| Test Result |  | | |

### In lab environment, check wifi0/wifi1 channel Utilization with previously release version

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CU\_Check\_01 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | In lab environment, check wifi0/wifi1 channel Utilization with previously release version | | |
| Pre-condition | AP1----SW------AP2 | | |
| Test procedure | 1. Put AP in lab environment, enable acsp and open debug mode   “in wifi0/wifi1 ssid test”  “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”   1. After AP enter run state, check ap all channel’s CU:   “show acsp channel-info detail”   1. Enable interference map in wifi0/wifi1 and check channel utilization   “radio profile ng/na interference-map enable”  “show in wifi0/wifi1”   1. Downgrade image to previously release version and check cu by step 1 to step 3 2. Compare Channel utilization with the different version | | |
| Expect result | The two version’s channel utilization should be similar | | |
| Test Result |  | | |

### in screen room, run traffic in neighbor AP and check cu

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CU\_Check\_02 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | in screen room, run traffic in neighbor AP and check cu | | |
| Pre-condition | AP1----SW------AP2  |  client | | |
| Test procedure | 1. Put two AP in screen room and run traffic in AP2 and client in static channel 1/36 2. Enable AP1 acsp and check cu   “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”  “show acsp channel-info detail”   1. Set AP1 with static channel 1/36, enable interference map to check cu   “”in wifi0/wifi1 channel 1/36”  “radio profile ng/na interference-map enable”  “show in wifi0/wifi1” | | |
| Expect result | 1. The CU will reflect the traffic 2. Static channel and auto channel CU should be similar | | |
| Test Result |  | | |

### Under DFS Channel check CU in lab

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CU\_Check\_03 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under DFS Channel check CU in lab | | |
| Pre-condition | AP1----SW------AP2  |  client | | |
| Test procedure | 1. Put two AP in lab room 2. Enable AP1 DFS and acsp, then check cu   “radio profile na dfs”  “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”  “show acsp channel-info detail”   1. And run traffic in AP2 and client in DFS channel 52 2. Set AP1 with static channel 52, enable interference map to check cu   “”in wifi0/wifi1 channel 52”  “radio profile ng/na interference-map enable”  “show in wifi1” | | |
| Expect result | 1. The CU will reflect the traffic 2. Static channel and auto channel CU should be similar | | |
| Test Result |  | | |

### In lab environment, check IU with previously release version

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | IU\_Check\_01 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | In lab environment, check IU with previously release version | | |
| Pre-condition | AP1----SW------AP2 | | |
| Test procedure | 1. Put AP in lab environment, enable acsp and open debug mode   “in wifi0/wifi1 ssid test”  “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”   1. After AP enter run state, check ap all channel’s IU:   “show acsp channel-info detail”   1. Enable interference map in wifi0/wifi1 and check interference utilization   “radio profile ng/na interference-map enable”  “show in wifi0/wifi1”   1. Downgrade image to previously release version and check iu by step 1 to step 3 2. Compare interference utilization with the different version | | |
| Expect result | The two version’s interference utilization should be similar | | |
| Test Result |  | | |

### Run traffic in adjacent channel, check iu

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | IU\_Check\_02 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Run traffic in adjacent channel, check iu | | |
| Pre-condition | AP1----SW------AP2  |  client | | |
| Test procedure | 1. Put two AP in screen room and run traffic in AP2 and client in static channel 2/40 2. Enable AP1 acsp and check Iu   “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”  “show acsp channel-info detail”   1. Set AP1 with static channel 1/36, enable interference map to check Iu   “”in wifi0/wifi1 channel 1/40”  “radio profile ng/na interference-map enable”  “show in wifi0/wifi1” | | |
| Expect result | Static channel and auto channel IU should be different | | |
| Test Result |  | | |

### In lab environment, check CRC with previously release version

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CRC\_Check\_01 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | In lab environment, check CRC with previously release version | | |
| Pre-condition | AP1----SW------AP2 | | |
| Test procedure | 1. Put AP in lab environment, enable acsp and open debug mode   “in wifi0/wifi1 ssid test”  “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”   1. After AP enter run state, check ap all channel’s CRC:   “show acsp channel-info detail”   1. Enable interference map in wifi0/wifi1 and check channel utilization   “radio profile ng/na interference-map enable”  “show in wifi0/wifi1”   1. Downgrade image to previously release version and check cRC by step 1 to step 3 2. Compare CRC with the different version | | |
| Expect result | The two version’s CRC should be similar | | |
| Test Result |  | | |

### Run traffic in adjacent channel, check CRC

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CRC\_Check\_02 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Run traffic in adjacent channel, check CRC | | |
| Pre-condition | AP1----SW------AP2  |  client | | |
| Test procedure | 1. Put two AP in screen room and run traffic in AP2 and client in static channel 2/40 2. Enable AP1 acsp and check CRC   “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”  “show acsp channel-info detail”   1. Set AP1 with static channel 1/36, enable interference map to check Iu   “”in wifi0/wifi1 channel 1/40”  “radio profile ng/na interference-map enable”  “show in wifi0/wifi1” | | |
| Expect result | Static channel and auto channel CRC should be different | | |
| Test Result |  | | |

### In lab check ACSP neighbor with RSSI/OUI/channel/CU/CRC/Station/ChannelWidth

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Neighbor\_Check\_01 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | In lab check ACSP neighbor with RSSI/OUI/channel/CU/CRC/Station/ChannelWidth | | |
| Pre-condition | AP1----SW------AP2 | | |
| Test procedure | 1. Put AP in lab environment, enable acsp and open debug mode   “in wifi0/wifi1 ssid test”  “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”   1. After AP enter run state, show acsp neighbor:   “show acsp neighbor”  “show acsp \_nbr”   1. Downgrade image to previously release version and check cRC by step 1 to step 3 2. Compare acsp neighbor with previously version | | |
| Expect result | RSSI/OUI/channel/CU/CRC/Station/ChannelWidth should be reasonable | | |
| Test Result |  | | |

### In screen room, run traffic in neighbor AP and check mesh/state/SNR/power/ssid/HVPW

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Neighbor\_Check\_02 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | In screen room, run traffic in neighbor AP and check mesh/state/SNR/power/ssid/HVPW | | |
| Pre-condition | AP1----SW------AP2  |  client | | |
| Test procedure | 1. Put two AP in screen room and run traffic in AP2 and client in static channel 1/40 2. Enable AP1 acsp and check CRC   “in wifi0/wifi1 radio channel auto”  “\_debug dcd chnl”  “debug co”  “show acsp neighbor”  “show acsp \_nbr”   1. Set AP1 with channel 1/40 and enter dual mode, check acsp neighbor mesh state   “in wifi0 mode dual”  “in wifi1 mode dual”  “show hive tzzhu neighbor”  Show acsp neighbor  “show acsp \_nbr” | | |
| Expect result | mesh/state/SNR/power/ssid/HVPW should be reasonable | | |
| Test Result |  | | |

### Under diversity mode, check if mcs rate and performance decreased

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Diversity\_Check\_01 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under diversity mode, check if mcs rate and performance decreased | | |
| Pre-condition | SW------AP  |  client | | |
| Test procedure | 1. Put AP in screen room and run traffic in AP and client, check mcs rate and performance   “show ssid test staion mac XXXX:XXX:XXX”   1. Set ap with diversity mode and check mcs rate and performance   “in wifi0/wifi1 radio antenna diversity”  “show ssid test staion mac XXXX:XXX:XXX” | | |
| Expect result | Mcs rate and performance should be decreased | | |
| Test Result |  | | |

### Under diversity mode, check if RSSI and coverage have been improved

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Diversity\_Check\_02 | | |
| Priority | Accept | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Under diversity mode, check if RSSI and coverage have been improved | | |
| Pre-condition | SW------AP  |  client | | |
| Test procedure | 1. Put AP in screen room and run traffic in AP and client, check mcs rate and performance   “show ssid test staion mac XXXX:XXX:XXX”   1. Set ap with diversity mode and check RSSI and coverage   “in wifi0/wifi1 radio antenna diversity”  “show ssid test staion mac XXXX:XXX:XXX” | | |
| Expect result | RSSI and coverage should be improved | | |
| Test Result |  | | |

## Capacity Test Case

## Compatibility Test Case

## CLI Management (Automation Status: Yes/No)

<firstly, list all cli that this feature has one by one>

<CLI test case>

## GUI Management-HiveManager

<List HM test case or test log>

## GUI Management-HiveUI

<List HiveUI test case or test log>