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

Continuously TX is a CLI command which will help control power continuously transmit. It is an useful tool to conduct power regulation and certification test for different country can region.

# Test Objectives

The continuously TX CLI can be implemented by various combination.

# 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

### Execute "\_test in wifi0/wifi1 cont-tx" to check if AP start transmit power

### Execute "no \_test in wifi0/wifi1 cont-tx" to check if AP stop transmit

### Execute "\_test in wifi0/wifi1 cont-tx channel-width 20/40" to check if AP start transmit as pointed power

### Execute "\_test in wifi0/wifi1 cont-tx guard-interval long/short" to check if AP start transmit as pointed power

### Execute "\_test in wifi0/wifi1 cont-tx cw" to check if AP start transmit as pointed power

### Execute "\_test in wifi0/wifi1 cont-tx payload-fill XXXX" to check if AP start transmit as pointed power

### Execute "\_test in wifi0/wifi1 cont-tx tx-chain-mask XXXX" to check if AP start transmit as pointed power

### Execute "\_test in wifi0/wifi1 cont-tx bit-rate XXXX" to check if AP start transmit as pointed power

### Execute "\_test in wifi0/wifi1 rx-only" to check if AP start receive frames

### Execute "no \_test in wifi0/wifi1 rx-only" to check if AP stop receive frames

### Execute "\_test in wifi0/wifi1 rx-only tx-chain-mask XXXX" to check if AP receive frames as specific chains

### Sniffer continuously transmit packet to check if obey 802.11 protocol

### During Continuously transmit, check if AP happen beacon stuck and recover after TX stop

### During continuously transmit, check if AP stop Bgscan and recover after TX stop

### During continuously transmit, check self and neighbors CU/IU/CRC

### During continuously transmit, check self and neighbors airtime

### When bind with muti VAP, check if con-tx power affected

### Duration: Check if any crash or TX stopped after 24 hours transmit

## Stress Test

## Performance test

# Test Case

## Continuously TX Function check

### Execute "\_test in wifi0/wifi1 cont-tx" to check if AP start transmit power

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_01 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "\_test in wifi0/wifi1 cont-tx" to check if AP start transmit power | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10 and check acsp power   “in wifi0/wifi1 radio power 10”  “show acsp”   1. Set continuously transmit to check if get power   “**"\_test in wifi0/wifi1 cont-tx"** | | |
| Expect result | Wifi0/wifi1 will transmit power | | |
| Test Result | AH-0c7200#in wifi0 radio power 10  AH-0c7200#sh acsp  Interface Channel select state Channel Power ctrl state Tx power(dbm)  --------- --------------------- -------- --------------------- -------------  Wifi0 Disable(User disable) 10 Disable(User disable) 10  Wifi1 Disable(User disable) 149 Enable 20  AH-0c7200#\_test in wifi0 con  AH-0c7200#\_test in wifi0 cont-tx  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 40 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started! | | |

### Execute "no \_test in wifi0/wifi1 cont-tx" to check if AP stop transmit

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_02 | | |
| Priority | Accept | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "no \_test in wifi0/wifi1 cont-tx" to check if AP start transmit power | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”  “show acsp”   1. Set continuously transmit to check if get power   “**\_test in wifi0/wifi1 cont-tx"**   1. **Stop transmit power by CLI to check if power can be stoped**   “no **\_test in wifi0/wifi1 cont-tx"** | | |
| Expect result | Wifi0/wifi1 will not transmit power | | |
| Test Result | AH-0c7200#in wifi0 radio power 10  AH-0c7200#sh acsp  Interface Channel select state Channel Power ctrl state Tx power(dbm)  --------- --------------------- -------- --------------------- -------------  Wifi0 Disable(User disable) 10 Disable(User disable) 10  Wifi1 Disable(User disable) 149 Enable 20  AH-0c7200#\_test in wifi0 co  AH-0c7200#\_test in wifi0 cont-tx  CW setting 0 data->cw 0  AH-0c7200#  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started!  AH-0c7200#no \_test in wifi0 con  AH-0c7200#no \_test in wifi0 cont-tx  AH-0c7200#cont tx stopped | | |

### Execute "\_test in wifi0/wifi1 cont-tx channel-width 20/40" to check if AP start transmit as pointed power

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_03 | | |
| Priority | High | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "\_test in wifi0/wifi1 cont-tx channel-width 20/40" to check if AP start transmit as pointed power | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Set continuously transmit to check if get power   “**"\_test in wifi0/wifi1 cont-tx** channel-width 20/40**"**   1. **Sniffer capture to check if it transmit as HT20/HT40 mode** | | |
| Expect result | Wifi0/wifi1 will transmit power as pointed | | |
| Test Result | AH-0c7200#in wifi0 radio power 10  AH-0c7200#sh acsp  Interface Channel select state Channel Power ctrl state Tx power(dbm)  --------- --------------------- -------- --------------------- -------------  Wifi0 Disable(User disable) 10 Disable(User disable) 10  Wifi1 Disable(User disable) 149 Enable 20  AH-0c7200#\_test in  AH-0c7200#\_test interface wifi0 con  AH-0c7200#\_test interface wifi0 cont-tx  <cr>  bit-rate Set bit rate in 500Kb/s (MCS rate starts with mcs  prefix)  channel-width Set channel width in MHZ  cw Single carrier wave  guard-interval Set guard internal  payload-fill Set payload fill pattern in hex  payload-size Set payload size  tx-chain-mask Set tx chain mask  AH-0c7200#\_test interface wifi0 cont-tx cha  AH-0c7200#\_test interface wifi0 cont-tx channel-width  20 Set channel width to 20 (Default: 20)  40 Set channel width to 40 (Default: 20)  AH-0c7200#\_test interface wifi0 cont-tx channel-width 40  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started! | | |

### Execute "\_test in wifi0/wifi1 cont-tx guard-interval long/short" to check if AP start transmit as pointed power

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_04 | | |
| Priority | Middle | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "\_test in wifi0/wifi1 cont-tx guard-interval long/short" to check if AP start transmit as pointed power | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”  “show acsp”   1. Set continuously transmit to check if get power   “**"\_test in wifi0/wifi1 cont-tx** guard-interval long/short **"**   1. **Sniffer capture to check if AP transmit with long or short guard interval** | | |
| Expect result | Wifi0/wifi1 will transmit power with long/short guard interval | | |
| Test Result | AH-0c7200#in wifi0 radio power 10  AH-0c7200#  AH-0c7200#  AH-0c7200#sh acsp  Interface Channel select state Channel Power ctrl state Tx power(dbm)  --------- --------------------- -------- --------------------- -------------  Wifi0 Disable(User disable) 10 Disable(User disable) 10  Wifi1 Disable(User disable) 149 Enable 20  AH-0c7200#  AH-0c7200#\_test in wifi0 con  AH-0c7200#\_test in wifi0 cont-tx  <cr>  bit-rate Set bit rate in 500Kb/s (MCS rate starts with mcs  prefix)  channel-width Set channel width in MHZ  cw Single carrier wave  guard-interval Set guard internal  payload-fill Set payload fill pattern in hex  payload-size Set payload size  tx-chain-mask Set tx chain mask  AH-0c7200#\_test in wifi0 cont-tx gua  AH-0c7200#\_test in wifi0 cont-tx guard-interval  long Set guard interval to long (Default: long)  short Set guard interval to short (Default: long)  AH-0c7200#\_test in wifi0 cont-tx guard-interval long  AH-0c7200#\_test in wifi0 cont-tx guard-interval long  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started! | | |

### Execute "\_test in wifi0/wifi1 cont-tx cw" to check if AP start transmit as single carrier wave

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_05 | | |
| Priority | Middle | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "\_test in wifi0/wifi1 cont-tx cw" to check if AP start transmit as single carrier wave | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”  “show acsp”   1. Set continuously transmit to check if get power   “**"\_test in wifi0/wifi1 cont-tx** CW   1. **Sniffer capture to check if AP transmit with CW** | | |
| Expect result | Wifi0/wifi1 will transmit power with CW. And packet can not be sniffer | | |
| Test Result | AH-0c7200#\_test in wifi0 cont-tx cw  CW setting 1 data->cw 1  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  ah\_ath\_cont\_tx drive CW to radio  contx started!  AH-0c7200#no \_test in wifi0 con  AH-0c7200#no \_test in wifi0 cont-tx  AH-0c7200#cont tx stopped | | |

### Execute "\_test in wifi0/wifi1 cont-tx payload-fill XXXX" to check if AP start transmit as pointed power

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_06 | | |
| Priority | Middle | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "\_test in wifi0/wifi1 cont-tx payload-fill XXXX" to check if AP start transmit as pointed power | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Set continuously transmit to check if get power   “**"\_test in wifi0/wifi1 cont-tx** payload-fill 8888”   1. **Sniffer capture to check if AP transmit with payload 8888** | | |
| Expect result | Wifi0/wifi1 will transmit power with payload 8888. | | |
| Test Result | AH-0c7200#\_test in wifi0 cont-tx payload-fill 7777  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started!  AH-0c7200#no \_test in wifi0 con  AH-0c7200#no \_test in wifi0 cont-tx  AH-0c7200#cont tx stopped  AH-0c7200# | | |

### Execute "\_test in wifi0/wifi1 cont-tx tx-chain-mask XXXX" to check if AP start transmit as pointed power

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_07 | | |
| Priority | High | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "\_test in wifi0/wifi1 cont-tx tx-chain-mask XXXX" to check if AP start transmit as pointed power | | |
| Pre-condition | Chain mask: 1/3/7  Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. th wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Set continuously transmit to check if get power   “**"\_test in wifi0/wifi1 cont-tx** tx-chain-mask XXXX”   1. **Sniffer capture to check if AP transmit with specified chain mask** | | |
| Expect result | Wifi0/wifi1 will transmit power with specified chain mask | | |
| Test Result | AH-0c7200#\_test in wifi0 cont-tx tx-chain-mask  <hex> Enter tx chain mask (Default: depend on platform, range: 0x01,  0x03, 0x07)  AH-0c7200#\_test in wifi0 cont-tx tx-chain-mask 01  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started!  AH-0c7200#no \_test in wifi0 con  AH-0c7200#no \_test in wifi0 cont-tx  AH-0c7200#cont tx stopped | | |

### Execute "\_test in wifi0/wifi1 cont-tx bit-rate XXXX" to check if AP start transmit as pointed power

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_08 | | |
| Priority | High | Automation Flag | YES |
| Topology to use | AP------Power Meter | | |
| Description | Execute "\_test in wifi0/wifi1 cont-tx bit-rate XXXX" to check if AP start transmit as pointed power | | |
| Pre-condition | Bit-rate mcs0/mcs 23/1/11/5 Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na 4 | | |
| Test procedure | 1. wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Set continuously transmit to check if get power   “**"\_test in wifi0/wifi1 cont-tx** tx- bit-rate XXXX”   1. **Sniffer capture to check if AP transmit with specified** bit-rate XXXX | | |
| Expect result | Wifi0/wifi1 will transmit power with specified bit-rate XXXX | | |
| Test Result | AH-0c7200#\_test in wifi0 cont-tx bi  AH-0c7200#\_test in wifi0 cont-tx bit-rate  <string> Enter bit rate (Default: 12)  AH-0c7200#\_test in wifi0 cont-tx bit-rate mcs0  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx use HT SS rate 0x0 ratecode 0x80  ah\_ath\_cont\_tx setup 20 tx desc  contx started!  AH-0c7200#no \_test in wifi0 con  AH-0c7200#no \_test in wifi0 cont-tx  AH-0c7200#cont tx stopped  AH-0c7200#\_test in wifi0 con  AH-0c7200#\_test in wifi0 cont-tx bi  AH-0c7200#\_test in wifi0 cont-tx bit-rate 2  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started!  AH-0c7200#no \_test in wifi0 con  AH-0c7200#no \_test in wifi0 cont-tx  AH-0c7200#cont tx stopped | | |

### Execute "\_test in wifi0/wifi1 rx-only" to check if AP start receive frames

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_09 | | |
| Priority | High | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Execute "\_test in wifi0/wifi1 rx-only" to check if AP start receive frames | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. **Set rx-only mode to receive packets and show the result**   **“\_test in wifi0/wifi1 rx-only”**  **“no \_test in wifi0/wifi1 rx-only”**   1. **Check CRC error and phy error and compare with counter value** | | |
| Expect result | Wifi0/wifi1 CRC error and phy error rate should be similar with counter value | | |
| Test Result | AH-0c7200#\_test in wifi0 rx-only  <cr>  tx-chain-mask Set tx chain mask  AH-0c7200#\_test in wifi0 rx-only  ah\_ieee80211\_set\_rx\_only start rx only test req served  AH-0c7200#ah\_contx\_stop\_vap stop vap av\_if\_id 0  ah\_ath\_set\_rxonly  AH-0c7200#no \_test in wifi0 rs  ^-- unknown keyword or invalid input  AH-0c7200#no \_test in wifi0 rx  AH-0c7200#no \_test in wifi0 rx-only  [wifi]: wifi0: awe\_ieee80211\_ioctl\_generic\_param AH\_IEEE80211\_CLR\_RX\_ONLY  ah\_ieee80211\_set\_rx\_only stop RX only req served  AH-0c7200#ah\_ieee80211\_stop\_rxonly RX Only test stopped, rx stats:  RX good pkts 3070 Max sig strength 0  Avg sig strength 0  Min sig strength 0  Noise floor -96  CRC errors 465  PHY errors 303  AH-0c7200# | | |

### Execute "no \_test in wifi0/wifi1 rx-only" to check if AP stop receive frames

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_10 | | |
| Priority | Middle | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Execute "\_test in wifi0/wifi1 rx-only " to check if AP can transmit frames under rx-only mode | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. **Set rx-only mode to receive packets and check if any beacon send out**   **“clear in wifi0/wifi1 counter”**  **“\_test in wifi0/wifi1 rx-only”**  **“show in wifi0/wifi1 counter | in beacon”**   1. **After 1 minutes, check if AP beacon counter increase**   **“show in wifi0/wifi1 counter | in beacon”**   1. **Stop wifi0/wifi1 continuously receive mode and check if beacon send out**   **“no \_test in wifi0/wifi1 rx-only”**  **“show in wifi0/wifi1 counter | in beacon”** | | |
| Expect result | Wifi0/wifi1 will re-start send beacon | | |
| Test Result | AH-0c7200#clear in wifi0 counter  AH-0c7200#sh in wifi0 cou  AH-0c7200#sh in wifi0 counter | in beacon  5 tx management frames other than beacon  65 tx beacon frames  AH-0c7200#\_test in wifi0 rx  AH-0c7200#\_test in wifi0 rx-only  ah\_ieee80211\_set\_rx\_only start rx only test req served  AH-0c7200#ah\_contx\_stop\_vap stop vap av\_if\_id 0  ah\_ath\_set\_rxonly  AH-0c7200#sh in wifi0 cou  AH-0c7200#sh in wifi0 counter | in beacon  9 tx management frames other than beacon  0 tx beacon frames  AH-0c7200#  *(remark: waiting for 1 minutes)*  AH-0c7200#sh in wifi0 counter | in beacon  37 tx management frames other than beacon  0 tx beacon frames  AH-0c7200#  AH-0c7200#no \_test in wifi0 rx  AH-0c7200#no \_test in wifi0 rx-only  [wifi]: wifi0: awe\_ieee80211\_ioctl\_generic\_param AH\_IEEE80211\_CLR\_RX\_ONLY  ah\_ieee80211\_set\_rx\_only stop RX only req served  AH-0c7200#ah\_ieee80211\_stop\_rxonly RX Only test stopped, rx stats:  RX good pkts 14804 Max sig strength 0  Avg sig strength 0  Min sig strength 0  Noise floor -95  CRC errors 1751  PHY errors 1373  AH-0c7200#sh in wifi0 counter | in beacon  50 tx management frames other than beacon  98 tx beacon frames  *(remark: waiting for 1 minutes)*  AH-0c7200#sh in wifi0 counter | in beacon  64 tx management frames other than beacon  226 tx beacon frames  AH-0c7200# | | |

### Execute "\_test in wifi0/wifi1 rx-only tx-chain-mask XXXX" to check if AP receive frames as specific chains

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_11 | | |
| Priority | Middle | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | Execute "\_test in wifi0/wifi1 rx-only tx-chain-mask XXXX" to check if AP receive frames as specific chains | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. **Set rx-only mode to receive packets with chain 1/2/3/4/5/6/7**   **“in wifi0 radio channel 1/36”**  **“\_test in wifi0/wifi1 rx-only tx-chain-mask 1/2/3/4/5/6/7 ”**  **“no \_test in wifi0/wifi1 rx-only”** | | |
| Expect result | AP can use different chain to receive packets and more chain’s CRC error will lower than one chain’s | | |
| Test Result | AH-0c7200#\_test in wifi0 rx-only tx-chain-mask  <hex> Enter tx chain mask (Default: 0x07, range: 0x01-0x07)  AH-0c7200#\_test in wifi0 rx-only tx-chain-mask 01  ah\_ieee80211\_set\_rx\_only start rx only test req served  AH-0c7200#ah\_contx\_stop\_vap stop vap av\_if\_id 0  ah\_ath\_set\_rxonly  AH-0c7200#no \_test in wifi0 rx  AH-0c7200#no \_test in wifi0 rx-only  [wifi]: wifi0: awe\_ieee80211\_ioctl\_generic\_param AH\_IEEE80211\_CLR\_RX\_ONLY  ah\_ieee80211\_set\_rx\_only stop RX only req served  AH-0c7200#ah\_ieee80211\_stop\_rxonly RX Only test stopped, rx stats:  RX good pkts 1972 Max sig strength 0  Avg sig strength 0  Min sig strength 0  Noise floor -95  CRC errors 196  PHY errors 224  AH-0c7200# | | |

### Sniffer continuously transmit packet to check if obey 802.11 protocol

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_12 | | |
| Priority | Low | Automation Flag | N/A |
| Topology to use | AP------SW | | |
| Description | Sniffer continuously transmit packet to check if obey 802.11 protocol | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Set continuously transmit to check if get power   **"\_test in wifi0/wifi1 cont-tx"**   1. **Sniffer continuously transmit packet to check if obey 802.11 protocol** | | |
| Expect result | Should obey 802.11 protocol | | |
| Test Result |  | | |

### During Continuously transmit, check if AP happen beacon stuck and recover after TX stop

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_13 | | |
| Priority | Middle | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | During Continuously transmit, check if AP happen beacon stuck and recover after TX stop | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Set continuously transmit to check if get power   **"\_test in wifi0/wifi1 cont-tx"**   1. During Continuously transmit, check if AP happen beacon stuck and recover after TX stop   **“show in wifi0/wifi1 counter | in beacon”**  **“show logging buffer | in stuck”**  **“no \_test in wifi0/wifi1 cont-tx”**  **“show in wifi0/wifi1 counter | in beacon”** | | |
| Expect result | Beacon stuck but can be recovered | | |
| Test Result | AH-0c7200#  AH-0c7200#\_test in wifi0 rx  AH-0c7200#\_test in wifi0 rx-only  ah\_ieee80211\_set\_rx\_only start rx only test req served  AH-0c7200#ah\_contx\_stop\_vap stop vap av\_if\_id 0  ah\_ath\_set\_rxonly  AH-0c7200#sh in wifi0 cou  AH-0c7200#sh in wifi0 counter | in beacon  11 tx management frames other than beacon  0 tx beacon frames  AH-0c7200#  AH-0c7200#sh in wifi0 counter | in beacon  19 tx management frames other than beacon  0 tx beacon frames  AH-0c7200#  AH-0c7200#no \_test in wifi0 rx  AH-0c7200#no \_test in wifi0 rx-only  [wifi]: wifi0: awe\_ieee80211\_ioctl\_generic\_param AH\_IEEE80211\_CLR\_RX\_ONLY  ah\_ieee80211\_set\_rx\_only stop RX only req served  AH-0c7200#ah\_ieee80211\_stop\_rxonly RX Only test stopped, rx stats:  RX good pkts 5063 Max sig strength 0  Avg sig strength 0  Min sig strength 0  Noise floor -96  CRC errors 660  PHY errors 387  AH-0c7200#sh in wifi0 cou  AH-0c7200#sh in wifi0 counter | in beacon  26 tx management frames other than beacon  0 tx beacon frames  AH-0c7200#  AH-0c7200#sh in wifi0 counter | in beacon  26 tx management frames other than beacon  0 tx beacon frames  AH-0c7200#  AH-0c7200#  AH-0c7200#sh in wifi0 counter | in beacon  53 tx management frames other than beacon  191 tx beacon frames  AH-0c7200#sh in wifi0 counter | in beacon  53 tx management frames other than beacon  212 tx beacon frames  AH-0c7200#sh log  AH-0c7200#sh logging bu  AH-0c7200#sh logging buffered | in stuck  2012-08-06 15:17:12 info kernel: [wifi]: wifi0 recover beacon interrupt stuck by resetting radio  AH-0c7200# | | |

### During continuously transmit, check if AP stop Bgscan and recover after TX stop

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_14 | | |
| Priority | High | Automation Flag | YES |
| Topology to use | AP------SW | | |
| Description | During continuously transmit, check if AP stop Bgscan and recover after TX stop | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Enable bgscan and set interval to 1 minute   “radio profile ng/na phymode 11ng/11na”  “radio profile ng/na scan access”  “radio profile ng/na scan access interval 1”   1. Set continuously transmit to check if get power   **"\_test in wifi0/wifi1 cont-tx"**   1. During continuously transmit, check if AP stop Bgscan and recover after TX stop   **“\_kdebug wifi-driver wifi0.1/1.1 scan”**  **“show logging buffer | in scan”**  **“show in wifi0 | in scan”**  **(remark: need waiting for 3 minutes to check if BGScan counter increase.)**   1. **Check if BGscan state recovered to enable mode after disable continuously transmit.**   **“no \_test in wifi0 cont-tx”**  **“show in wifi0 | in scan”**  **“show logging buffer | in self”** | | |
| Expect result | BGscan can be recovered. BUG18780 | | |
| Test Result | AH-0c7200#sh in wifi0 | in scan  IDP=Intrusion detection and prevention; BGSCAN=background scan; PS=Power save;  BGSCAN allow=enabled; BGSCAN during voice=disabled; BGSCAN interval=1 minutes;  BGSCAN CTS-to-Self=enabled; BGSCAN with client=enabled; BGSCAN with PS client=disabled;  Number of BGSCAN=1210; Number of BGSCAN requested=0; Number of BGSCAN missed=0;  Spectral scan=off  AH-0c7200#  AH-0c7200#  AH-0c7200#\_kdebug wifi-  AH-0c7200#\_kdebug wifi-driver wifi0.1 sc  AH-0c7200#\_kdebug wifi-driver wifi0.1 scan  AH-0c7200#  AH-0c7200#clear log  AH-0c7200#clear log bu  AH-0c7200#clear log buffered  Buffered log cleared  AH-0c7200#  AH-0c7200#sh clo  AH-0c7200#sh clock  2012-08-06 15:21:32 Monday  AH-0c7200#\_test in wifi0 con  AH-0c7200#\_test in wifi0 cont-tx  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started!  *(Remark:waiting for 3 minutes)*  AH-0c7200#sh clo  AH-0c7200#sh clock  2012-08-06 15:23:16 Monday  AH-0c7200#  AH-0c7200#sh in wifi0 | in scan  IDP=Intrusion detection and prevention; BGSCAN=background scan; PS=Power save;  BGSCAN allow=disabled; BGSCAN during voice=disabled; BGSCAN interval=1 minutes;  BGSCAN CTS-to-Self=enabled; BGSCAN with client=enabled; BGSCAN with PS client=disabled;  Number of BGSCAN=1210; Number of BGSCAN requested=0; Number of BGSCAN missed=0;  Spectral scan=off  AH-0c7200#  AH-0c7200#sh log  AH-0c7200#sh logging bu  AH-0c7200#sh logging buffered | in scan  AH-0c7200#  AH-0c7200#sh clo  AH-0c7200#sh clock  2012-08-06 15:25:00 Monday  AH-0c7200#sh in wifi0 | in scan  IDP=Intrusion detection and prevention; BGSCAN=background scan; PS=Power save;  BGSCAN allow=disabled; BGSCAN during voice=disabled; BGSCAN interval=1 minutes;  BGSCAN CTS-to-Self=enabled; BGSCAN with client=enabled; BGSCAN with PS client=disabled;  Number of BGSCAN=1210; Number of BGSCAN requested=0; Number of BGSCAN missed=0;  Spectral scan=off  AH-0c7200#sh logging buffered | in scan  2012-08-06 15:24:30 info kernel: [wifi]: wifi1: background scan done, num\_bgscans 1753, num\_req\_bgscans 0  2012-08-06 15:24:29 info kernel: [wifi]: wifi1: trigger background scan: chans scanned 1748, cont periodic scan  AH-0c7200#  AH-0c7200#no \_test in wifi0 con  AH-0c7200#no \_test in wifi0 cont-tx  AH-0c7200#cont tx stopped  AH-0c7200#  *(Remark:waiting for 3 minutes)*  AH-0c7200#sh in wifi0 | in scan  IDP=Intrusion detection and prevention; BGSCAN=background scan; PS=Power save;  BGSCAN allow=enabled; BGSCAN during voice=disabled; BGSCAN interval=1 minutes;  BGSCAN CTS-to-Self=enabled; BGSCAN with client=enabled; BGSCAN with PS client=disabled;  Number of BGSCAN=17; Number of BGSCAN requested=0; Number of BGSCAN missed=0;  Spectral scan=off  AH-0c7200#  AH-0c7200#sh logging buffered | in self  2012-08-06 16:20:32 debug kernel: scan:Tx Self-CTS (next foreign channel 12, dur:28000)  2012-08-06 16:20:32 debug kernel: scan:Tx Self-CTS (next foreign channel 10, dur:28000)  2012-08-06 16:20:31 debug kernel: scan:Tx Self-CTS (next foreign channel 9, dur:28000)  2012-08-06 16:20:31 debug kernel: scan:Tx Self-CTS (next foreign channel 8, dur:28000)  2012-08-06 16:20:31 debug kernel: scan:Tx Self-CTS (next foreign channel 5, dur:28000)  2012-08-06 16:20:31 debug kernel: scan:Tx Self-CTS (next foreign channel 4, dur:28000)  2012-08-06 16:20:30 debug kernel: scan:Tx Self-CTS (next foreign channel 3, dur:28000)  2012-08-06 16:20:30 debug kernel: scan:Tx Self-CTS (next foreign channel 2, dur:28000)  2012-08-06 16:20:30 debug kernel: scan:Tx Self-CTS (next foreign channel 13, dur:28000)  2012-08-06 16:20:30 debug kernel: scan:Tx Self-CTS (next foreign channel 7, dur:28000)  2012-08-06 16:20:29 debug kernel: scan:Tx Self-CTS (next foreign channel 11, dur:28000)  2012-08-06 16:20:29 debug kernel: scan:Tx Self-CTS (next foreign channel 6, dur:28000)  2012-08-06 16:20:29 debug kernel: scan:Tx Self-CTS (next foreign channel 1, dur:28000) | | |

### During continuously transmit, check self and neighbors CU/IU/CRC

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_15 | | |
| Priority | Low | Automation Flag |  |
| Topology to use | AP1------SW--------AP2 | | |
| Description | During continuously transmit, check self and neighbors CU/RU/TU/IU/CRC | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP1/AP2 with wifi0/wifi1 with channel 10/power 10 and enable interference map.   “in wifi0/wifi1 radio channel 10”  “in wifi0/wifi1 radio power 10”  “radio profile ng/na interference-map enable”   1. After 10 minutes later, check the CU/RU/TU/IU/CRC before cont-tx:   “show in wifi0 | in cu”   1. Set continuously transmit in AP1 to check if get power   **"\_test in wifi0/wifi1 cont-tx"**   1. During continuously transmit, check self and neighbors AP2 CU/IU/CRC   **“show in wifi0/wifi1”** | | |
| Expect result | AP2 RU will be higher than before | | |
| Test Result | Before cont-tx:  AP2:  AH-0c0e00#sh acsp  Interface Channel select state Channel Power ctrl state Tx power(dbm)  --------- --------------------- -------- --------------------- -------------  Wifi0 Disable(User disable) 10 Enable 14  Wifi1 Enable 165 Enable 20  AH-0c0e00#sh in wifi0 | in inter  AIFS=Arbitration Inter-Frame Space; Txoplimit=transmission opportunity limit;  CU=Channel interference;  Beacon interval=100; Max clients number=100;  A-MPDU=enabled; Short guard interval=disabled;  BGSCAN allow=enabled; BGSCAN during voice=disabled; BGSCAN interval=10 minutes;  Tx utilization=3%; Rx utilization=52%; Interference utilization=1%; Total utilization=56%;  Running average Tx CU=2%; Rx CU=51%; Interference CU=2%; Noise floor=-81dBm;  Short term means average Tx CU=2%; Rx CU=51%; Interference CU=2%; Noise floor=-83dBm;  Snapshot Tx CU=2%; Rx CU=51%; Interference CU=2%; Noise floor=-83dBm;  AP1:  AH-0c7200#sh acsp  Interface Channel select state Channel Power ctrl state Tx power(dbm)  --------- --------------------- -------- --------------------- -------------  Wifi0 Disable(User disable) 10 Disable(User disable) 10  Wifi1 Disable(User disable) 149 Enable 20  AH-0c7200#sh in wifi0 | in inter  AIFS=Arbitration Inter-Frame Space; Txoplimit=transmission opportunity limit;  CU=Channel interference;  Beacon interval=100; Max clients number=100;  A-MPDU=enabled; Short guard interval=disabled;  BGSCAN allow=enabled; BGSCAN during voice=disabled; BGSCAN interval=1 minutes;  Tx utilization=1%; Rx utilization=26%; Interference utilization=4%; Total utilization=31%;  Running average Tx CU=1%; Rx CU=35%; Interference CU=12%; Noise floor=-88dBm;  Short term means average Tx CU=1%; Rx CU=21%; Interference CU=6%; Noise floor=-88dBm;  Snapshot Tx CU=1%; Rx CU=21%; Interference CU=6%; Noise floor=-88dBm;  After cont-tx:  AP1:  Waiting for 3 minutes:  AH-0c7200#\_test in wifi0 con  AH-0c7200#\_test in wifi0 cont-tx  CW setting 0 data->cw 0  AH-0c7200#ah\_ath\_contx\_txq  ah\_ath\_cont\_tx txpower 20 ic\_data\_tpbo 0  ah\_ath\_cont\_tx setup 20 tx desc  contx started!  AH-0c7200#  AH-0c7200#sh in wifi0 | in inter  AIFS=Arbitration Inter-Frame Space; Txoplimit=transmission opportunity limit;  CU=Channel interference;  Beacon interval=100; Max clients number=100;  A-MPDU=enabled; Short guard interval=disabled;  BGSCAN allow=disabled; BGSCAN during voice=disabled; BGSCAN interval=1 minutes;  Tx utilization=3%; Rx utilization=0%; Interference utilization=0%; Total utilization=3%;  Running average Tx CU=1%; Rx CU=31%; Interference CU=10%; Noise floor=-88dBm;  Short term means average Tx CU=1%; Rx CU=20%; Interference CU=5%; Noise floor=-88dBm;  Snapshot Tx CU=1%; Rx CU=20%; Interference CU=5%; Noise floor=-88dBm;  AP2:  AH-0c0e00#sh in wifi0 | in inter  AIFS=Arbitration Inter-Frame Space; Txoplimit=transmission opportunity limit;  CU=Channel interference;  Beacon interval=100; Max clients number=100;  A-MPDU=enabled; Short guard interval=disabled;  BGSCAN allow=enabled; BGSCAN during voice=disabled; BGSCAN interval=10 minutes;  Tx utilization=2%; Rx utilization=77%; Interference utilization=6%; Total utilization=85%;  Running average Tx CU=2%; Rx CU=51%; Interference CU=2%; Noise floor=-81dBm;  Short term means average Tx CU=2%; Rx CU=52%; Interference CU=2%; Noise floor=-83dBm;  Snapshot Tx CU=2%; Rx CU=53%; Interference CU=3%; Noise floor=-83dBm; | | |

### During continuously transmit, check self and neighbors airtime

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_16 | | |
| Priority | Low | Automation Flag | N/A |
| Topology to use | AP1------SW--------AP2 | | |
| Description | During continuously transmit, check self and neighbors airtime | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP1/AP2 with wifi0/wifi1 with channel 10/power 10 and enable interference map.   “in wifi0/wifi1 radio channel 10”  “in wifi0/wifi1 radio power 10”  “radio profile ng/na interference-map enable”   1. After 10 minutes later, check the airtime before cont-tx:   “show in wifi0 | in air”   1. Set continuously transmit in AP1 to check if get power   **"\_test in wifi0/wifi1 cont-tx"**   1. During continuously transmit, check self and neighbors AP2 airtime   **“show in wifi0/wifi1”** | | |
| Expect result | From 5.1r1 image, airtime percentage have been disabled for bug | | |
| Test Result |  | | |

### When bind with muti VAP, check if con-tx power affected

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_17 | | |
| Priority | Low | Automation Flag | N/A |
| Topology to use | AP1-------power meter | | |
| Description | When bind with muti VAP, check if con-tx power affected | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Bind many ssid in wifi0/wifi1:   “in wifi0/wifi1 ssid test01/test02/test03/test04”   1. Set continuously transmit to check if get power   **"\_test in wifi0/wifi1 cont-tx"** | | |
| Expect result | Power will not be affected | | |
| Test Result |  | | |

### Duration: Check if any crash or TX stopped after 24 hours transmit

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | ContinuouslyTX\_Check\_18 | | |
| Priority | Low | Automation Flag | N/A |
| Topology to use | AP1-------power meter | | |
| Description | Duration: Check if any crash or TX stopped after 24 hours transmit | | |
| Pre-condition | Radio profile ng phymode 11ng  Radio profile na phymode 11na  In wifi0 radio profile ng  In wifi1 radio profile na | | |
| Test procedure | 1. Set AP with wifi0/wifi1 with power 10   “in wifi0/wifi1 radio power 10”   1. Set continuously transmit to check if get power   **"\_test in wifi0/wifi1 cont-tx"**   1. Duration: Check if any crash or TX stopped after 24 hours transmit | | |
| Expect result | No crash | | |
| 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>