Band Steering Test

AP Automated Test Plan

Mon Oct 10 14:41:02 PDT 2022

Test Setup Information	
Device Under Test	TR-398_DUT asus-ax11000 f0:2f:74:57:db:b4 (2) TR-398_DUT asus-ax11000 f0:2f:74:57:db:b0 (1)
Estimated Run Time	10 m
Actual Run Time	4.353 m

Summary Results

Test	Result	Candela Score	Elapsed	Info
Band-Steering	2.4Ghz PASS 5Ghz FAIL	50	3.876 m	Band Steering Check: 1/2

Band-Steering

Summary

The Band Steering test brings up stations on the selected Bands, starts traffic, and then associates a single station on another radio, with expectations that AP will cause it to associate on the least loaded radio, or if all are loaded, then on a 5Ghz radio. The number of stations created is based on the configured amount of stations per band but decreased a bit to make sure that the AP can support at least a few stations on any band to give a chance for the AP to make the right (and wrong) bandsteering decision.

The test is considered passed if the dual-band station connects to the expected BSSID. When 2.4Ghz band is loaded, this test expects that the dual-band station will connect to 5Ghz. When 5Ghz band is loaded, this test expects that the dual-band station will connect to secondary 5Ghz radio if that exists, or 2.4Ghz otherwise. When the secondary 5Ghz band is loaded, this test expects that the dual-band station will connect to 5Ghz radio.

The Candela Score for the Band-Steering test is calculated as the percentage of the dual band stations that connect to the expected DUT radio:

- 100%: connected-to-correct-bssid / total-station-connects

Band-Steering Results

Type	Result	Notes
2.4Ghz DUT: TR-398_DUT asus-ax11000 f0:2f:74:57:db:b0 (1)	PASS	Passed 1 stations.
5Ghz DUT: TR-398_DUT asus-ax11000 f0:2f:74:57:db:b4 (2)	FAIL	Failed 1 / 1 stations.
Configuration NOTE	INFO	Configured to skip Dual band test.

Configuration NOTE	INFO	Configured to skip 5Ghz-B band test.
Configuration NOTE	INFO	Configured to skip Tri band test.
Configuration NOTE	INFO	Skipping DUT idx: 1: No 2.4Ghz DUT configured.
Configuration NOTE	INFO	Skipping DUT idx: 1: No 5Ghz DUT configured.
Configuration NOTE	INFO	Configured to skip Dual band test.
Configuration NOTE	INFO	Configured to skip 5Ghz-B band test.
Configuration NOTE	INFO	Configured to skip Tri band test.
Configuration NOTE	INFO	Skipping DUT idx: 2: No 2.4Ghz DUT configured.
Configuration NOTE	INFO	Skipping DUT idx: 2: No 5Ghz DUT configured.
Configuration NOTE	INFO	Configured to skip Dual band test.
Configuration NOTE	INFO	Configured to skip 5Ghz-B band test.
Configuration NOTE	INFO	Configured to skip Tri band test.

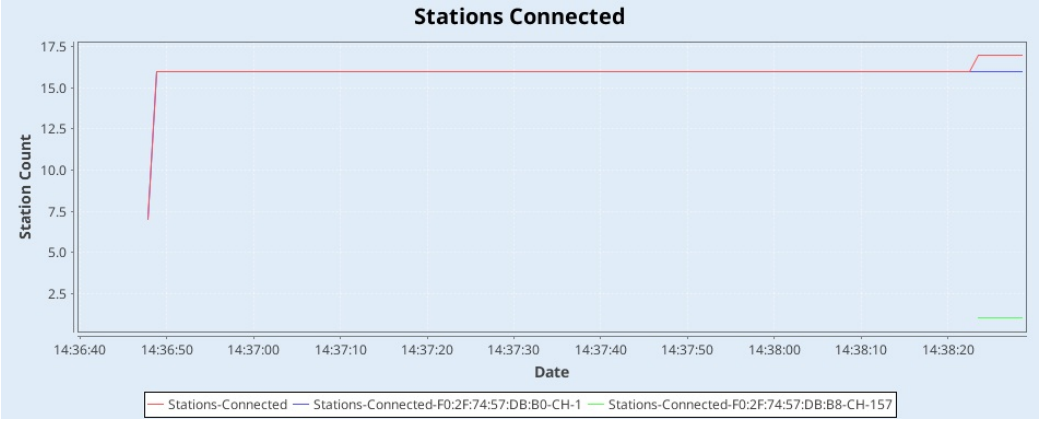
Band-Steering Results for 2.4Ghz

Type	Result	Notes
2.4Ghz DUT: TR-398_DUT asus-ax11000 f0:2f:74:57:db:b0 (1)	Passed	2.4Ghz band loaded, sta: wlan4 connected on 5Ghz

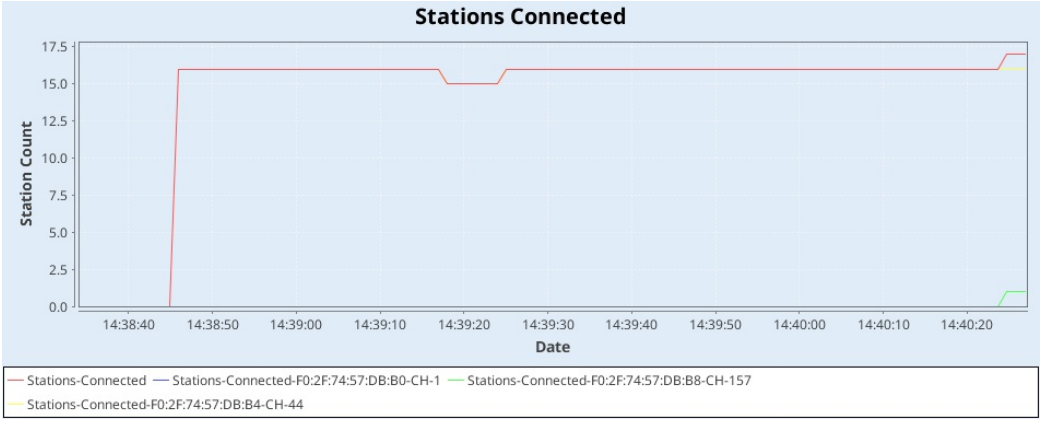
Band-Steering Results for 5Ghz

Type	Result	Notes
5Ghz DUT: TR-398_DUT asus-ax11000 f0:2f:74:57:db:b4 (2)	Failed	5Ghz band loaded, sta: wlan4 did NOT connect on 2.4Ghz

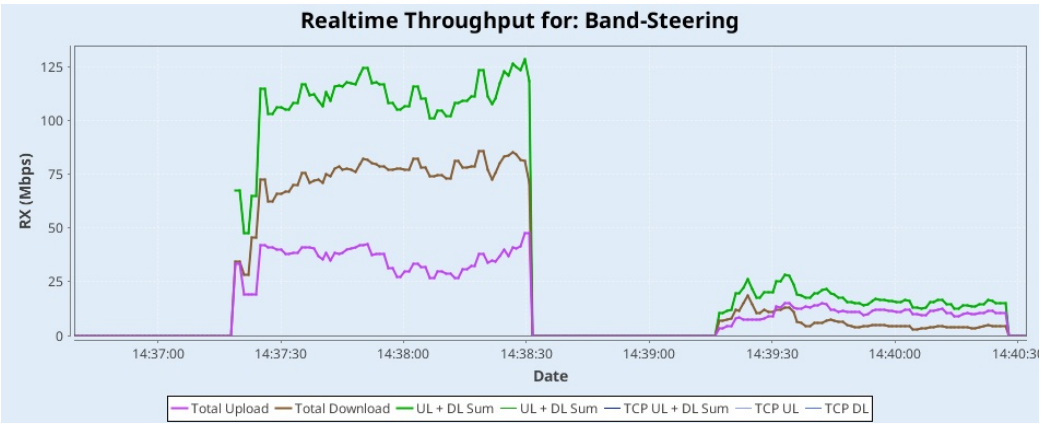
Number of stations that are connected over time, for band: 2.4Ghz



Number of stations that are connected over time, for band: 5Ghz



Realtime Throughput for: Band-Steering



Key Performance Indicators CSV

Test configuration and LANforge software version	
Auto-Helper	true
Skip 2.4Ghz Tests	false
Skip 5Ghz Tests	false
Skip 5Gzh-B Tests	true
Skip Dual-Band Tests	true
Skip Tri-Band Tests	true
Use BSSID	true
Set Radio TxPower to Default	true
Loop Iterations:	1
2.4Ghz Station Count:	16
5Ghz Station Count:	16
Dual-Band Station Count:	32
5Ghz-B Station Count:	64
Tri-Band Station Count:	64
Duration-20	20
Hunt Retries:	1
Maximum Hunt Iterations:	100
Multi-Conn	1

ToS	0
Upstream Port	1.1.3 eth3 Firmware: 0x80000aef, 1.1876.0 Resource: ct523c-2101
Stability Duration:	1 m
Concurrent Ports to Reset:	0
Minimum Time between Resets:	10000
Maximum Time between Resets:	60000
Long-Term Station Count:	8
VOIP Call Count:	1
Percent:	1000000
Open:	25
PSK:	60
Enterprise:	120
Stability stall threshold UDP Upload:	0
Stability stall threshold UDP Download:	768000
Stability stall threshold TCP Upload:	0
Stability stall threshold TCP Download:	0
Stability stall threshold Video:	0
Stability stall threshold VOIP:	0
Stability Helper Script:	
Stability Multicast Min Download Rate:	0
Stability Multicast Max Download Rate:	0
Stability UDP Min Download Rate:	1000000000
Stability UDP Max Download Rate:	0
Stability UDP Min Upload Rate:	0
Stability UDP Max Upload Rate:	0
Stability TCP Min Download Rate:	0
Stability TCP Max Download Rate:	0
Stability TCP Min Upload Rate:	0
Stability TCP Max Upload Rate:	0
2.4Ghz Legacy%	0
2.4Ghz N%	0
2.4Ghz AC%	0
2.4Ghz AX/AUTO%	100
5Ghz Legacy%	0
5Ghz N%	0

5Ghz AC%	0
5Ghz AX/AUTO%	100
Long-Term Duration:	5 m
Long-Term Graph Interval:	30
Long-Term Download Rate:	100Mbps
Video Emulation Rate:	500000
Video Buffer Size:	500000
Long-Term Upload Rate:	100Mbps
Use Packet Sizes	false
Reset Radios	false
Use Packet Sizes	false
Always expect 5g	false
Spatial Streams	AUTO
Bandwidth	AUTO
Modes	Auto
WiFi Radio 0	1.1.4 wiphy0 Firmware: 10.4b-ct-9984-xtH-14-f853d52e7a Resource: ct523c-2101
WiFi Radio 0	Resource: ct523c-2101
WiFi Radio 0	1.1.8 wiphy4 Firmware: release/core69::daa05125 Resource: ct523c-2101
Show Events	true
Build Date	Mon 26 Sep 2022 02:56:23 PM PDT
Build Version	5.4.5
Git Version	87350330889a86988c8816a52d097f1ebba1d625

CSV Data

META Information for Band Steering Test