TR-398 Issue 4

WiFi Performance Test Plan

Tue Jul 02 14:37:00 PDT 2024

Test Setup Information	
Device Under Test	[hidden]
Operator	Ben Greear
Estimated Run Time	9 m
Actual Run Time	15.409 m

Objective

The TR-398 Issue 4 WiFi Performance test plan by the Broadband forum provides a comprehensive set of tests to qualify the performance of WiFi access points (APs) designed for residential and small office environments. Radio performance, Throughput, Connection Stability, Airtime Fairness, AP Co-existence, Mu_MIMO Performance, Spatial Consistency, Long-term Stability and Mesh performance are some of the test areas covered in this test plan. The test plan is designed for service providers deploying in home WiFi APs to qualify the APs in the lab before deployment and for equipment makers to test during the development of the APs. Candela Technologies offers a fully automated TR-398 test system. The user can select from the list of tests available. Most tests can run fully automated, though some require user interaction. Measurements are made and compared to the specified PASS/FAIL criteria in the TR-398 test plan and this report will show the summary PASS/FAIL results followed by more detailed results for each test.

Summary Results

Test	Result	Candela Score	Elapsed	Info
6.5.5 Channel Puncturing Test	BW / n/AC / AX / BE 2.4Ghz 5Ghz 6Ghz Fail	0	14.733 m	Passed 3 / 4

6.5.5 Channel Puncturing Test

Summary

Puncturing test verifies DUT AP can use remaining bandwidth when part of it is congested with interfering traffic. For 6Ghz, the first and second 40Mhz bandwidth segments will be punctured consecutively. 5Ghz puncturing is optional. If used, the third and fourth 20Mhz bandwidth segments will be punctured consecutively.

Channels

Band	DUT Channel	Alien Channels	Punctured Bandwidth

5Ghz	36	44, 48	20MHz
6Ghz	37	1, 9	40MHz

Test Procedure

Interfering AP is used to create specified-bandwidth traffic to STA2 on selected interfering channel. Interfering AP should have signal between -30 to -65 as heard by the DUT AP. Interfering AP must NOT use BSS Coloring. Interfering AP may use any wifi mode appropriate for the band (n/ac/ax/be). Interfering STA2 should use 1 spatial stream. Interfering AP may be created by the Testbed, or may be an off-the-shelf AP

1. DUT AP is set to default TR398 test settings for 802.11BE 5Ghz.
2. Configure 0 AAV attenuation for the current band between test STA and DUT AP.
3. Configure STA to connect to the DUT AP.
4. Alien AP and STA2 are set to be admin down.
5. Measure the STA downlink TCP throughput, using a test time of 120 seconds. This is the baseline throughput. Record throughput as THROUGHPUT_DUT and stop traffic.
6. Configure Alien AP for the first Alien channel and bandwidth.
7. Configure DUT AP to puncture that Alien channel and bandwidth.
8. Configure Alien STA2 to use 1 NSS and to connect to the Alien AP.
9. Create TCP Downlink test between Alien AP and STA2.
10. Measure the Alien STA2 downlink TCP Throughput, using a test time of 120 seconds and record throughput as THROUGHPUT_ALIEN and stop traffic.
11. Concurrently run STA TCP downlink at maximum speed, and Alien STA2 UDP Downlink set to THROUGHPUT_ALIEN offered load for a period of 120 seconds. Record STA downlink traffic rate as THROUGHPUT_DUT_PUNC. Record Alien STA2 TCP Downlink traffic rate as THROUGHPUT_ALIEN_PUNC and stop traffic.
12. Repeat the steps 7 - 11 for Alien AP on each additional Alien Channel.
13. Repeat the steps 2 - 12 on the 6Ghz band.

Pass/Fail Criteria

Passing values for this test require that the traffic be at least some percentage of the baseline throughput.

1. For 5Ghz 80Mhz:
    1. THROUGHPUT_ALIEN_PUNC must be at least 40% of THROUGHPUT_ALIEN.
    2. THROUGHPUT_DUT_PUNC must be at least 70% of THROUGHPUT_DUT.
2. For 6Ghz 320Mhz:
    1. THROUGHPUT_ALIEN_PUNC must be at least 40% of THROUGHPUT_ALIEN.
    2. THROUGHPUT_DUT_PUNC must be at least 70% of THROUGHPUT_DUT.

Candela Score

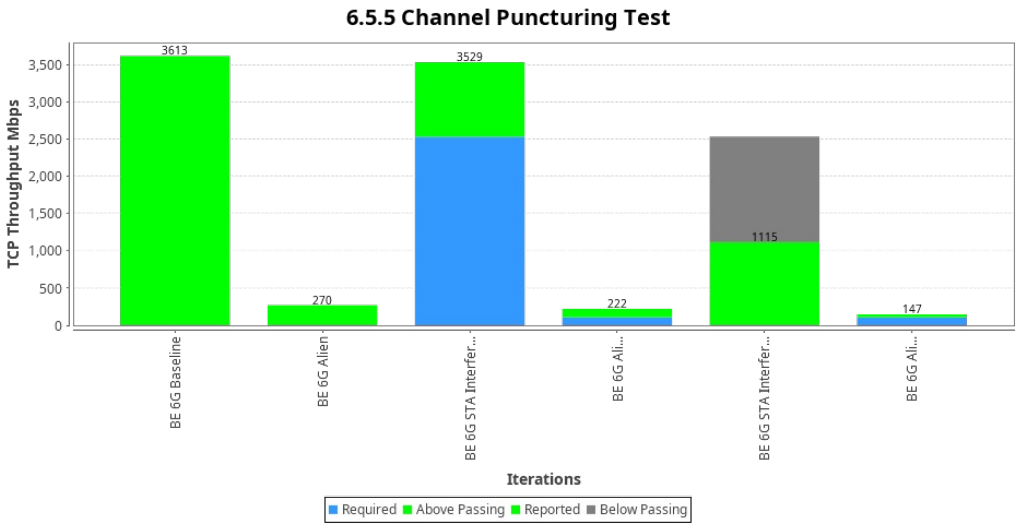
The score is ((total_alien_punc_tput + total_dut_punc_tput) * 150.0 / (total_alien_tput + total_dut_tput).

6.5.5 Channel Puncturing Test Results

Type	Result	Value	P/F Value	Notes
Configuration NOTE	INFO			Using LANforge AP for Alien Interferer.
Configuration NOTE	INFO			Configured to skip 5Ghz band test.
BE 6Ghz Baseline download rate	INFO			3,613.06 Mbps
BE 6Ghz ch: 227	INFO			Calibrated alien rate at: 269.89 Mbps STA-RSSI Data/Beacon: -51/-45 Rx-Rate: 344.1M Tx-Rate: 309.6M Activity: 0% 802.11a-BE-40-1x1
Config Puncturing Tue Jul 02 14:19:39 PDT 2024	INFO			/home/greearb/ssh_remote.py --ip 192.168.101.212 --remote_args r6g set=puncture:3 Response: Hidden: Anonymize-AP is enabled.
Reboot AP				/home/greearb/ssh_remote.py --ip 192.168.101.212 --

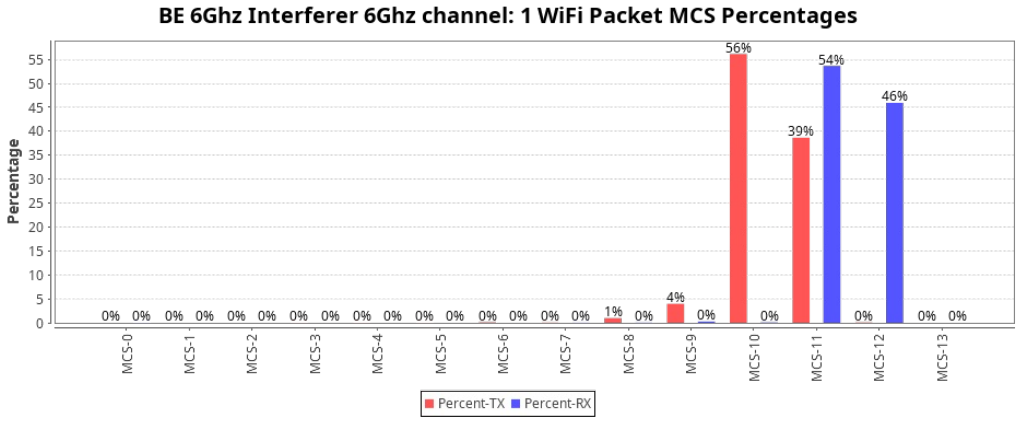
Tue Jul 02 14:19:39 PDT 2024	INFO			remote_args r6g set=reboot:1 Response: Hidden: Anonymize-AP is enabled.
BE 6Ghz STA Interferer 6Ghz channel: 1	PASS	3,529	2,529	STA Req: 2,529.14 Mbps Rpt: 3,529.22 Mbps STA-RSSI Data/Beacon: -38/-36 Rx-Rate: 5.187G Tx-Rate: 4.804G Activity: 0% 802.11a-BE-320-2x2 Alien Offered Load: 269.89 Mbps Alien Throughput: 221.55 Mbps Intf-STA-RSSI Data/Beacon: -50/-46 Rx-Rate: 344.1M Tx-Rate: 68.8M Activity: 0% 802.11a-BE-40-1x1
BE 6Ghz Alien Interferer 6Ghz channel: 1	PASS	222	108	Alien Req: 107.96 Mbps Rpt: 221.55 Mbps STA-RSSI Data/Beacon: -38/-36 Rx-Rate: 5.187G Tx-Rate: 4.804G Activity: 0% 802.11a-BE-320-2x2 Alien Offered Load: 269.89 Mbps Alien Throughput: 221.55 Mbps Intf-STA-RSSI Data/Beacon: -50/-46 Rx-Rate: 344.1M Tx-Rate: 68.8M Activity: 0% 802.11a-BE-40-1x1
Config Puncturing Tue Jul 02 14:24:34 PDT 2024	INFO			/home/greearb/ssh_remote.py --ip 192.168.101.212 --remote_args r6g set=puncture:12 Response: Hidden: Anonymize-AP is enabled.
Reboot AP Tue Jul 02 14:24:34 PDT 2024	INFO			/home/greearb/ssh_remote.py --ip 192.168.101.212 --remote_args r6g set=reboot:1 Response: Hidden: Anonymize-AP is enabled.
BE 6Ghz STA Interferer 6Ghz channel: 9	FAIL	1,115	2,529	STA Req: 2,529.14 Mbps Rpt: 1,115.02 Mbps STA-RSSI Data/Beacon: -34/-31 Rx-Rate: 4.323G Tx-Rate: 5.765G Activity: 0% 802.11a-BE-320-2x2 Alien Offered Load: 269.89 Mbps Alien Throughput: 146.60 Mbps Intf-STA-RSSI Data/Beacon: -50/-46 Rx-Rate: 258M Tx-Rate: 68.8M Activity: 0% 802.11a-BE-40-1x1
BE 6Ghz Alien Interferer 6Ghz channel: 9	PASS	147	108	Alien Req: 107.96 Mbps Rpt: 146.60 Mbps STA-RSSI Data/Beacon: -34/-31 Rx-Rate: 4.323G Tx-Rate: 5.765G Activity: 0% 802.11a-BE-320-2x2 Alien Offered Load: 269.89 Mbps Alien Throughput: 146.60 Mbps Intf-STA-RSSI Data/Beacon: -50/-46 Rx-Rate: 258M Tx-Rate: 68.8M Activity: 0% 802.11a-BE-40-1x1
Config Puncturing Tue Jul 02 14:30:33 PDT 2024	INFO			/home/greearb/ssh_remote.py --ip 192.168.101.212 --remote_args r5g set=puncturing:0 Response: Hidden: Anonymize-AP is enabled.
Config Puncturing Tue Jul 02 14:30:34 PDT 2024	INFO			/home/greearb/ssh_remote.py --ip 192.168.101.212 --remote_args r6g set=puncturing:0 Response: Hidden: Anonymize-AP is enabled.
Reboot AP Tue Jul 02 14:30:34 PDT 2024	INFO			/home/greearb/ssh_remote.py --ip 192.168.101.212 --remote_args r5g set=reboot:1 Response: Hidden: Anonymize-AP is enabled.

CSV Data for 6.5.5 Channel Puncturing Test



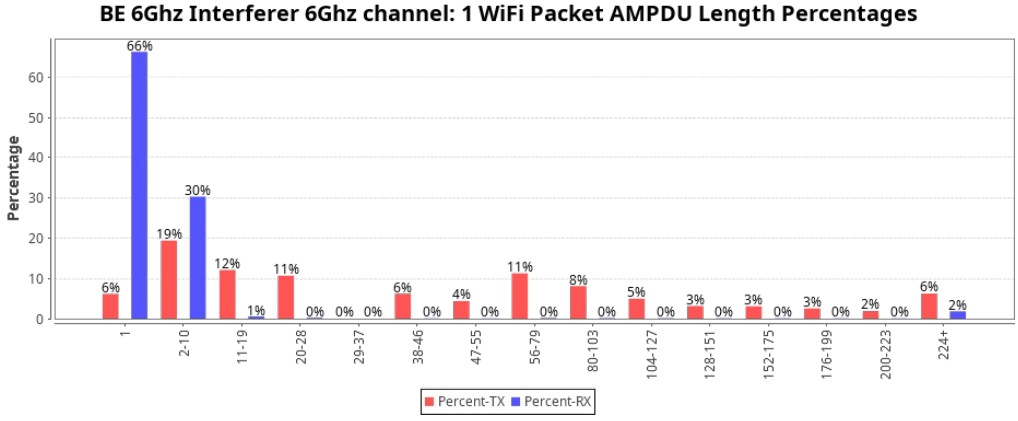
Histogram for WiFi MCS for packets sent and received by the wifi radios in the test.

CSV Data for BE 6Ghz Interferer 6Ghz channel: 1 WiFi Packet MCS Percentages



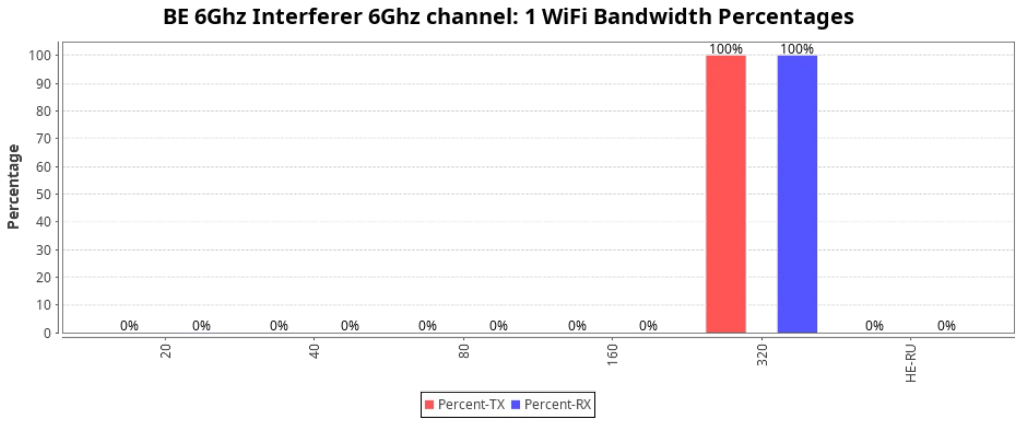
Block-Ack allows a series of frames to be sent in one transmit opportunity. This series of packets is known as a series of AMPDU frames. Having more frames in each AMPDU series normally improves throughput, but may increase latency or decrease airtime fairness. This histogram provides some visibility into the AMPDU chain length used in this test.

CSV Data for BE 6Ghz Interferer 6Ghz channel: 1 WiFi Packet AMPDU Length Percentages



Histogram for WiFi bandwidths for packets sent and received by the wifi radios in the test.

CSV Data for BE 6Ghz Interferer 6Ghz channel: 1 WiFi Bandwidth Percentages



Collected CSV Data: CSV: 6.5.5 Channel Puncturing Test 6Ghz BE Interferer 6Ghz channel: 1

Channel Puncturing: Snapshot BE 6Ghz Interferer 6Ghz channel: 1

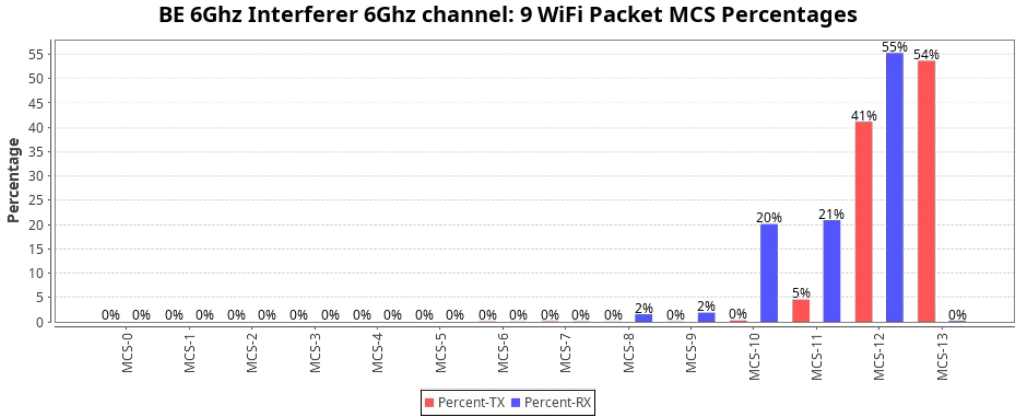
Port	Tx-Bps 1m	Rx-Bps 1m	Tx-Fail %	Tx Link-Rate	Rx Link-Rate	Mode	Channel	Last CX-Time (ms)	RSSI (dBm)	AP	IP	MAC
1.4.14 wlan0	5.42 Mbps	2.735 Gbps	6.328	4803.8 Mbps	5.187 Gbps	802.11a-BE 320 2x2	291	58	-38	[hidden]	192.168.1.202	e4:60:17:65:83:8f
1.3.28 wlan0	21 bps	146.365 Mbps	2.593	68.8 Mbps	344.1 Mbps	802.11a-BE 40 1x1	191	248	-50	[hidden]	172.17.0.51	e4:60:17:64:e0:33

Port	Tx-Bps 1m	Rx-Bps 1m	Link-Rate	IP	MAC
1.3.2 eth2 (LAN)	3.472 Gbps	5.573 Mbps	10 Gbps	192.168.1.220	9c:69:b4:63:76:c4

Endpoint	Tx-Bps 1m	Rx-Bps 1m	TxPkts	RxPkts	RX Latency (ms)	Round-Trip Latency (ms)	Jitter	Rx Packet Loss %	Rx OOO %
cv_tcp-3.2-4.wlan0--1.0.0-A	0 bps	1.633 Gbps	0	186947	861	861	302	0	0
cv_tcp-3.2-4.wlan0--1.0.0-B	1.637 Gbps	0 bps	187155	0	0	861	0	0	0
cv_tcp-3.2-4.wlan0--1.0.1-A	0 bps	1.897 Gbps	0	217284	363	363	328	0	0
cv_tcp-3.2-4.wlan0--1.0.1-B	1.897 Gbps	0 bps	217870	0	0	363	0	0	0
cv_udp-5.10-3.wlan0--1.0.3-A	0 bps	221.451 Mbps	0	1130273	193	193	0	4.197	0
cv_udp-5.10-3.wlan0--1.0.3-B	233.657 Mbps	0 bps	1179788	0	0	193	0	0	0

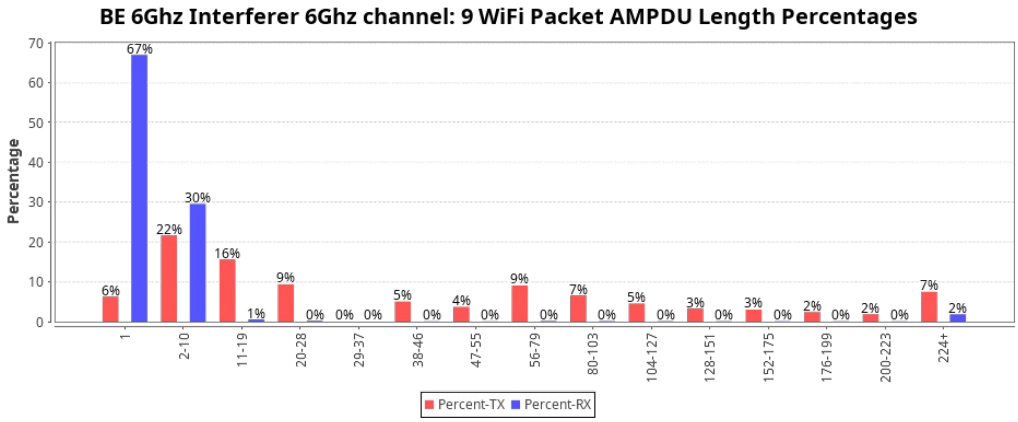
Histogram for WiFi MCS for packets sent and received by the wifi radios in the test.

CSV Data for BE 6Ghz Interferer 6Ghz channel: 9 WiFi Packet MCS Percentages



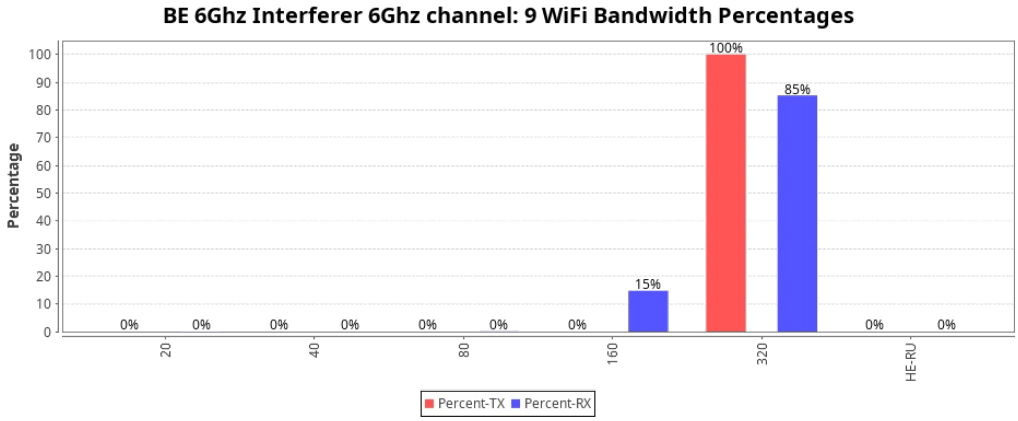
Block-Ack allows a series of frames to be sent in one transmit opportunity. This series of packets is known as a series of AMPDU frames. Having more frames in each AMPDU series normally improves throughput, but may increase latency or decrease airtime fairness. This histogram provides some visibility into the AMPDU chain length used in this test.

CSV Data for BE 6Ghz Interferer 6Ghz channel: 9 WiFi Packet AMPDU Length Percentages



Histogram for WiFi bandwidths for packets sent and received by the wifi radios in the test.

CSV Data for BE 6Ghz Interferer 6Ghz channel: 9 WiFi Bandwidth Percentages



Collected CSV Data: CSV: 6.5.5 Channel Puncturing Test 6Ghz BE Interferer 6Ghz channel: 9

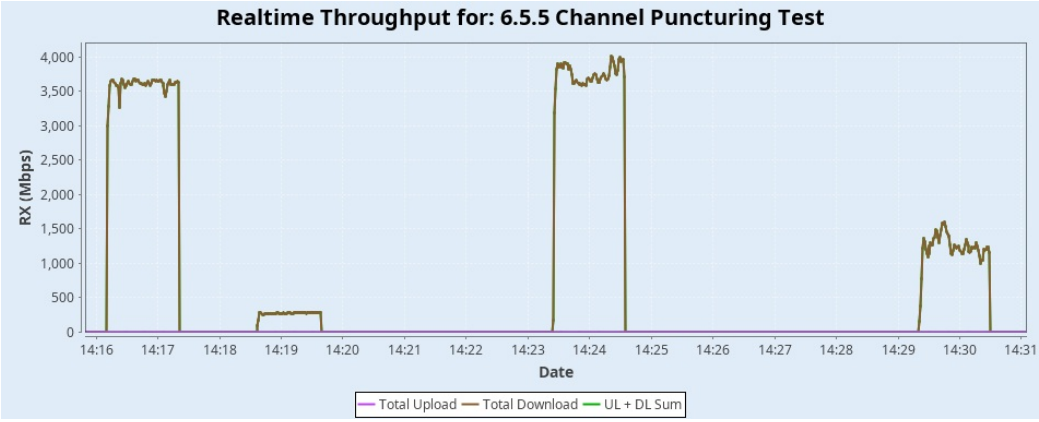
Channel Puncturing: Snapshot BE 6Ghz Interferer 6Ghz channel: 9

Port	Tx-Bps 1m	Rx-Bps 1m	Tx-Fail %	Tx Link-Rate	Rx Link-Rate	Mode	Channel	Last CX-Time (ms)	RSSI (dBm)	AP	IP	MAC
1.4.14 wlan0	3.862 Mbps	1.061 Gbps	6.05	5764.6 Mbps	4.323 Gbps	802.11a-BE 320 2x2	227	59	-34	[hidden]	192.168.1.202	e4:60:17:65:83:8f
1.3.28 wlan0	210 bps	109.032 Mbps	2.591	68.8 Mbps	258 Mbps	802.11a-BE 40 1x1	199	173	-50	[hidden]	172.17.0.51	e4:60:17:64:e0:33

Port	Tx-Bps 1m	Rx-Bps 1m	Link-Rate	IP	MAC
1.3.2 eth2 (LAN)	1.168 Gbps	3.267 Mbps	10 Gbps	192.168.1.220	9c:69:b4:63:76:c4

Endpoint	Tx-Bps 1m	Rx-Bps 1m	TxPkts	RxPkts	RX Latency (ms)	Round-Trip Latency (ms)	Jitter	Rx Packet Loss %	Rx OOO %
cv_tcp-3.2-4.wlan0--1.0.0-A	0 bps	552.467 Mbps	0	63286	1,781	1,781	690	0	0
cv_tcp-3.2-4.wlan0--1.0.0-B	552.586 Mbps	0 bps	63165	0	0	1,781	0	0	0
cv_tcp-3.2-4.wlan0--1.0.1-A	0 bps	562.047 Mbps	0	64423	1,962	1,962	484	0	0
cv_tcp-3.2-4.wlan0--1.0.1-B	562.322 Mbps	0 bps	64310	0	0	1,962	0	0	0
cv_udp-5.10-3.wlan0--1.0.3-A	0 bps	146.596 Mbps	0	747890	203	203	0	12.254	0
cv_udp-5.10-3.wlan0--1.0.3-B	170.355 Mbps	0 bps	852339	0	0	203	0	0	0

Realtime Throughput for: 6.5.5 Channel Puncturing Test



Key Performance Indicators CSV

Test configuration and LANforge software version	
Auto-Helper	true
Allow-11w (MFP/PMF)	false
SAE-PWE	2
Disable-MLO	true
Extra TxStatus	false
Extra RxStatus	false
TXS All	false
Skip 2.4Ghz Tests	true
Skip 5Ghz Tests	true
Duration-120	60
Duration-60	60
Channel 2Ghz	AUTO
Channel 5Ghz	AUTO
Channel 6Ghz	227
Calibrate against LANforge AP	true
Adjust UL Atten with DUT TxPower	false
Adjust UL Atten with STA TxPower	false
Attenuation Adjustment	0
Extra Download Path-loss	0
TX Power	20
DUT TX Power 2.4G	30
DUT TX Power 5G	30
LANforge Calibration TxPower-2.4G	20
LANforge Calibration TxPower-5G	20
Multi-Conn	10
Use-IPv6	false
UDP-Burst	false

UDP-GRO	false
Multiple Endpoints:	2
ToS	0
Pld Pattern	RANDOM_FIXED
UDP Send Buffer Size:	0
UDP Receive Buffer Size:	0
TCP Send Buffer Size:	0
TCP Receive Buffer Size:	0
Upstream Port	1.3.2 LAN Firmware: 0x80000aef, 1.1876.0 Resource: ct523c-2103
Alien Upstream Port	1.1.2 eth2 Firmware: 0x80000c67, 1.1276.0 Resource: ct523c-0b0b
Turn-Table Chamber	840B-Default-Chamber
Configured 2m 2.4Ghz RSSI	-25
Configured 2m 5Ghz RSSI	-30
Use Virtual AX Stations	false
Use AX Radios for AC tests	true
Virt-Sta Rotation 2.4Ghz	0
Virt-Sta Rotation 5Ghz	0
AX Rotation 2.4Ghz	45
AX Rotation 5Ghz	45
Opposite-Speed:	0
1Gbps Throughput Limit:	925000000
6.5.2 AP Coexistence Test	
LANforge-AP is Interferer	true
Use 40Mhz DUT to Avoid DFS	true
Use Node-1 STA	true
Auto-Calibrate Interferer	true
Interferer AP in Node-1	false
Calibrate Alien with DUT Down	true
Interferer DUT 5G:	
Interferer DUT 6G:	
Upstream Alien Port:	1.1.2 eth2
Interferer DUT 2.4G:	
2Ghz Alien STA Radio:	DEFAULT
5Ghz Alien STA Radio:	DEFAULT
2Ghz Alien AP Radio:	1.2.4 wiphy1
5Ghz Alien AP Radio:	1.2.4 wiphy1
Alien AP TxPower:	0
Alien STA TxPower:	0
Interferer AC 5G-80Mhz:	195000000
Interferer AC 5G-40Mhz:	90000000
Interferer AC 2.4G-20Mhz:	32000000

Interferer AX 5G-80Mhz:	195000000
Interferer AX 5G-40Mhz:	90000000
Interferer AX 2.4G-20Mhz:	32000000
Re-configure Timer:	30
6.5.5 Channel Puncturing Test	
LANforge-AP is Interferer	true
Use Node-1 STA	false
Interferer in Node-1	false
Manually Puncture AP	false
Disable ACS	false
AP Re-configure Timer:	30
5Ghz Alien STA Radio:	1.3.4 wiphy0
6Ghz Alien STA Radio:	1.3.4 wiphy0
5Ghz Alien AP Radio:	1.5.5 wiphy1
6Ghz Alien AP Radio:	1.5.6 wiphy2
Alien AP TxPower:	20
Alien STA TxPower:	20
Virt-Sta Radio 1	1.4.wiphy0 Firmware: 90.38c93dbc.0 gl-c0-fm-c0-90.uc Resource: ct523c-ccbc
AX Radio 0	1.4.wiphy0 Firmware: 90.38c93dbc.0 gl-c0-fm-c0-90.uc Resource: ct523c-ccbc
AX Radio 24	1.3.wiphy0 Firmware: 90.38c93dbc.0 gl-c0-fm-c0-90.uc Resource: ct523c-2103
Attenuator 0	rssi-0-2.4Ghz: -26 rssi-0-5Ghz: -47 atten: 1.2.3343.0
Attenuator 1	rssi-0-2.4Ghz: -26 rssi-0-5Ghz: -47 atten: 1.2.3343.1
Attenuator 4	rssi-0-2.4Ghz: -19 rssi-0-5Ghz: -36 atten: 1.2.3342.0
Attenuator 5	rssi-0-2.4Ghz: -19 rssi-0-5Ghz: -36 atten: 1.2.3342.1
Attenuator 8	rssi-0-2.4Ghz: -23 rssi-0-5Ghz: -33 atten: 1.2.3340.0
Attenuator 9	rssi-0-2.4Ghz: -23 rssi-0-5Ghz: -33 atten: 1.2.3340.1
AX Attenuator 0	AX rssi-0-2.4Ghz: -29 rssi-0-5Ghz: -36 atten: 1.2.7.2
AX Attenuator 1	AX rssi-0-2.4Ghz: -29 rssi-0-5Ghz: -36 atten: 1.2.7.3
AX Attenuator 4	AX rssi-0-2.4Ghz: -31 rssi-0-5Ghz: -37 atten: 1.2.3300.2
AX Attenuator 5	AX rssi-0-2.4Ghz: -31 rssi-0-5Ghz: -37 atten: 1.2.3300.3
AX Attenuator 8	AX rssi-0-2.4Ghz: -29 rssi-0-5Ghz: -38 atten: 1.2.7.0
AX Attenuator 9	AX rssi-0-2.4Ghz: -29 rssi-0-5Ghz: -38 atten: 1.2.7.1
AX Attenuator 12	AX rssi-0-2.4Ghz: -35 rssi-0-5Ghz: -46 atten: 1.2.3300.0
AX Attenuator 14	AX rssi-0-2.4Ghz: -35 rssi-0-5Ghz: -46 atten: 1.2.3300.1
AX Attenuator 16	AX rssi-0-2.4Ghz: -35 rssi-0-5Ghz: -46 atten: 1.2.3300.0
AX Attenuator 18	AX rssi-0-2.4Ghz: 5 rssi-0-5Ghz: -46 atten: 1.2.3300.1
AX Attenuator 20	AX rssi-0-2.4Ghz: -35 rssi-0-5Ghz: -46 atten: 1.2.3300.0
AX Attenuator 22	AX rssi-0-2.4Ghz: -35 rssi-0-5Ghz: -46 atten: 1.2.3300.1
AX Attenuator 24	AX rssi-0-2.4Ghz: -31 rssi-0-5Ghz: -43 atten: 1.2.3348.0
AX Attenuator 26	AX rssi-0-2.4Ghz: -31 rssi-0-5Ghz: -43 atten: 1.2.3348.1

AX Attenuator 28	AX rssi-0-2.4Ghz: -26 rssi-0-5Ghz: -27 atten: 1.2.3348.2
AX Attenuator 30	AX rssi-0-2.4Ghz: -26 rssi-0-5Ghz: -27 atten: 1.2.3348.2
Mesh Attenuator 0	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten: 1.2.3340.0
Mesh Attenuator 1	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten: 1.2.3340.1
Mesh Attenuator 2	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten: 1.2.3340.2
Mesh Attenuator 3	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten: 1.2.3340.3
Mesh Attenuator 4	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 5	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 6	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 7	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 8	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 9	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 10	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 11	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 12	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 13	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 14	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 15	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 16	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 17	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 18	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 19	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 20	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 21	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 22	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Mesh Attenuator 23	Mesh rssi-0-2.4Ghz: -25 rssi-0-5Ghz: -30 atten:
Details for Resource: 1.1	Hostname: ct523c-0b0b LANforge ver: 5.4.8 64bit Kernel-Version: 6.10.0-rc5+
Details for Resource: 1.3	Hostname: ct523c-2103 LANforge ver: 5.4.8 64bit Kernel-Version: 6.10.0-rc5+
Details for Resource: 1.4	Hostname: ct523c-ccbc LANforge ver: 5.4.8 64bit Kernel-Version: 6.10.0-rc5+
Show Events	true
Build Date	Tue Jul 2 02:05:28 PM PDT 2024
Git Version	b9f0eb47a25fa72b811f795cb0adeaa1c9ec38f9

CSV Data

META Information for TR-398 Issue 4