

Throughput Test

2026-08-21-12-38-04



Objective

The Candela Client Capacity test is designed to measure an Access Point's client capacity and performance when handling different amounts of Real clients like android, Linux, windows, MacOS and IOS. The test allows the user to increase the number of clients in user-defined steps for each test iteration and measure the per client and the overall throughput for this test, we aim to assess the capacity of network to handle high volumes of traffic while each trial. Along with throughput other measurements made are client connection times, Station 4-Way Handshake time, DHCP times, and more. The expected behavior is for the AP to be able to handle several stations (within the limitations of the AP specs) and make sure all Clients get a fair amount of airtime both upstream and downstream. An AP that scales well will not show a significant overall throughput decrease as more Real clients are added.

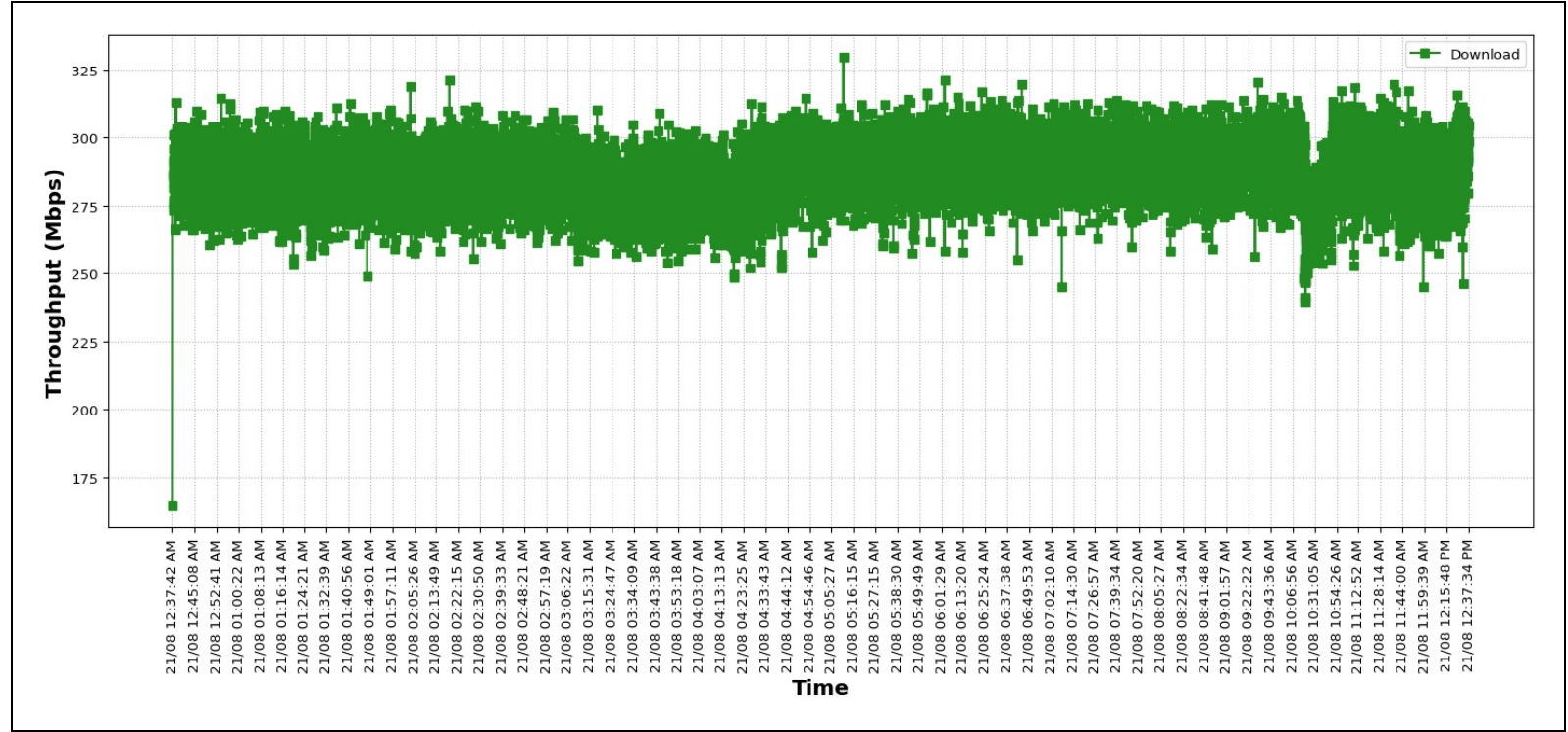
Input Parameters

The below tables provides the input parameters for the test

Test Configuration	Test name	tp_tcp_download_longrun
	Device List	dell(Linux), Win-int-103-ax210(Windows), Win-int-ac-104(Windows), Win-int-be200-106(Windows), Win-int-be200-lap-107(Windows), Win-int-108-be(Windows), Win-int-110-be200-lap(Windows), Win-int-116-be200(Windows), Win-int-ac-lap-117(Windows), Win-rttk-ac-lap-125(Windows), DESKTOP-C11DLA(Windows), DESKTOP-2JPI3O8(Windows), Win-159-be-lap(Windows), win-int-ac-163(Windows), Lin-int-be200-202(Linux), DESKTOP-78N5G1A(Windows), macs-MacBook-Air.local(Mac), candelas-MacBook-Air.local(Mac), RMX393(Android), oneplus(Android), Oneplus12R(Android), LAVA_LXX519(Android), LenovoTabM11(Android), Oppo_A38(Android), GalaxyTabs9E(Android), GalaxyA04S(Android), GalaxyS20(Android), Moto_g05(Android), Motorola_edge_5(Android), Nothing05(Android), ipad10gen(iOS)
	No of Devices	Total(31) Android(12) Windows(14) Linux(2) Mac(2) iOS(1)
	Increment	No Incremental values provided
	Traffic Duration in minutes	720.0
	Traffic Type	TCP
	Traffic Direction	Download

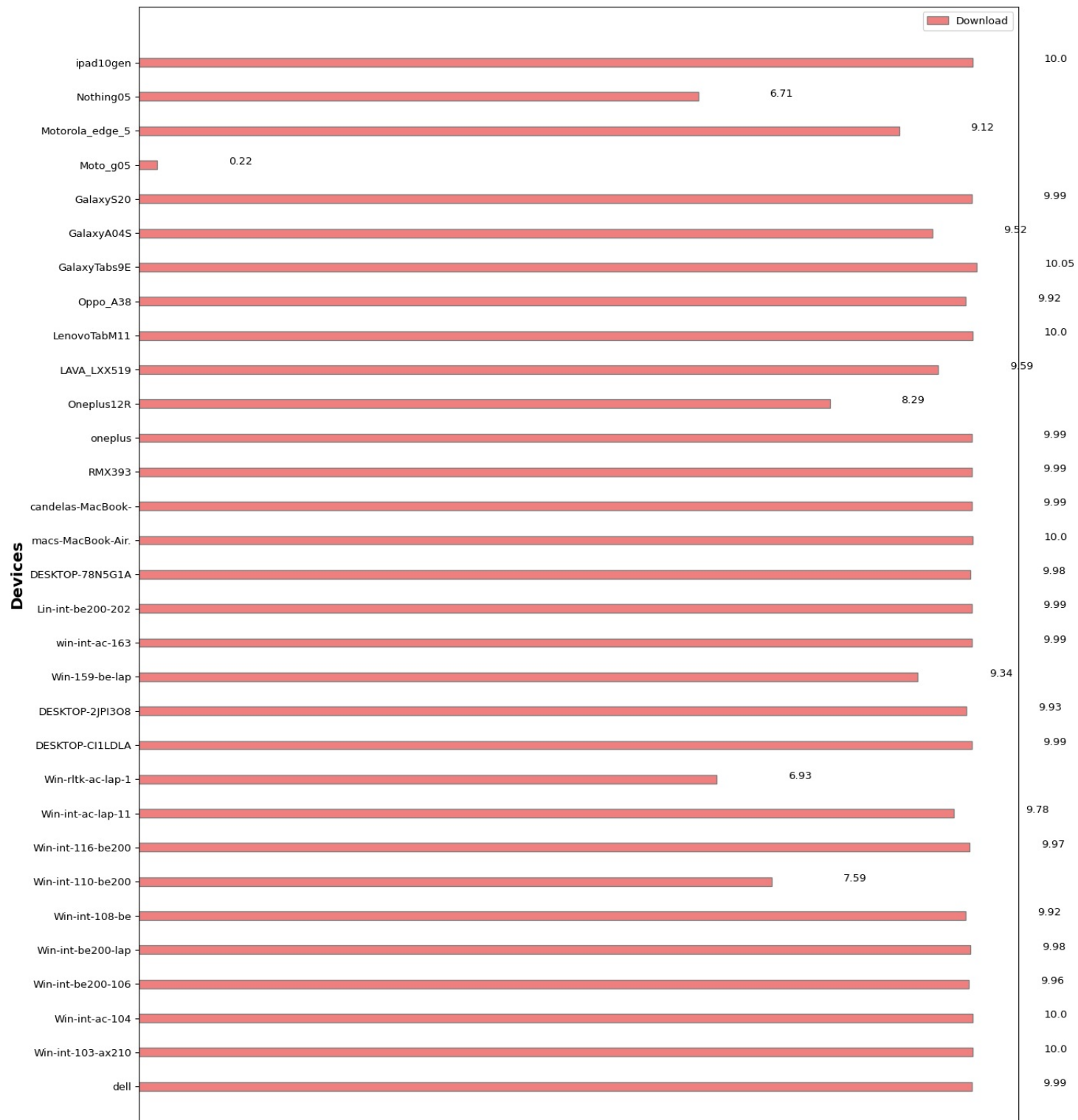
Upload Rate(Mbps)	0.0Mbps
Download Rate(Mbps)	10.0Mbps
Load Type	Per Client Load
Packet Size	1500 Bytes

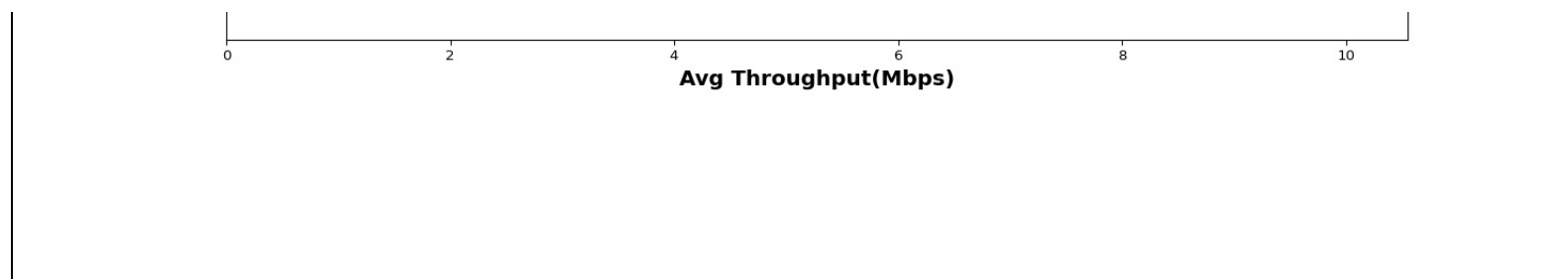
Real Time Throughput: Achieved Throughput: Download : 286.72 Mbps



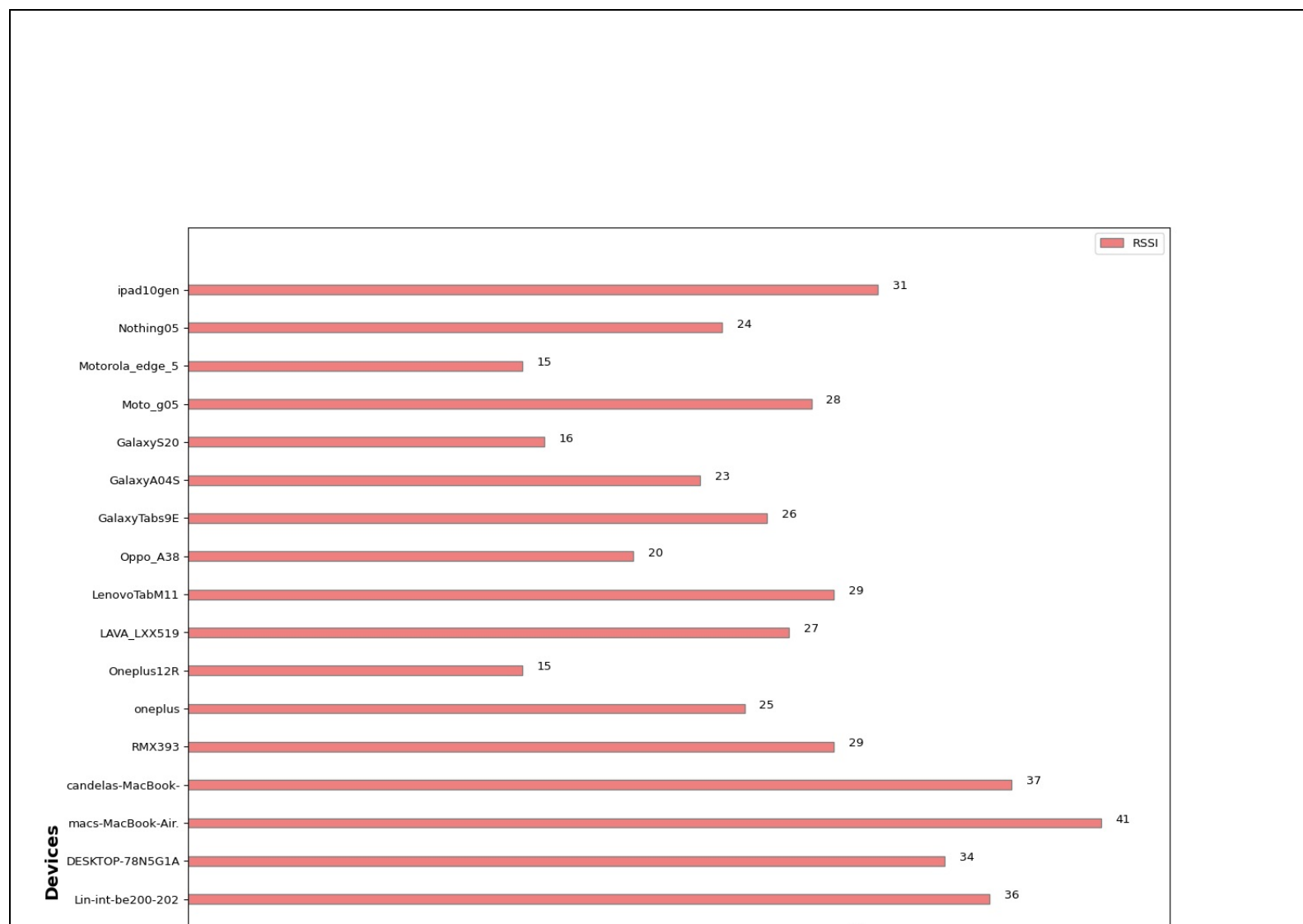
Per Client Avg-Throughput







RSSI Of The Clients Connected



Windows	Win-int-be200-106	NETGEAR_wpa2	70:15:fb:10:07:1b	116	802.11abgn-AX 20	10.0	9.96	0.0	0	-36	52	1500	0.00	0.0
Windows	Win-int-be200-lap-107	NETGEAR_wpa2	70:15:fb:10:07:a7	1	802.11abgn-AX 20	10.0	9.98	0.0	0	-38	62	1500	0.00	0.0
Windows	Win-int-108-be	NETGEAR_wpa2	24:eb:16:38:37:81	1	802.11abgn-AX 20	10.0	9.92	0.0	0	-33	44	1500	0.00	0.0
Windows	Win-int-110-be200-lap	NETGEAR_wpa2	70:15:fb:10:06:da	1	802.11abgn-AX 20	10.0	7.59	0.0	0	-42	78	1500	0.01	0.0
Windows	Win-int-116-be200	NETGEAR_wpa2	70:15:fb:10:3c:31	1	802.11abgn-AX 20	10.0	9.97	0.0	0	-37	56	1500	0.00	0.0
Windows	Win-int-ac-lap-117	NETGEAR_wpa2	f0:d5:bf:fa:bf:4f	1	802.11abgn-20	10.0	9.78	0.0	0	-34	38	1500	0.00	0.0
Windows	Win-rtk-ac-lap-125	NETGEAR_wpa2	c8:94:02:22:77:03	116	802.11abgn-AC 20	10.0	6.93	0.0	0	-36	1040	1500	0.01	0.0
Windows	DESKTOP-C11DLA	NETGEAR_wpa2	84:fd:d1:5d:76:f4	116	802.11abgn-AC 20	10.0	9.99	0.0	0	-31	39	1500	0.00	0.0
Windows	DESKTOP-2JPI3O8	NETGEAR_wpa2	a8:7e:ea:bc:50:16	116	802.11abgn-AX 20	10.0	9.93	0.0	0	-32	63	1500	0.00	0.0
Windows	Win-159-be-lap	NETGEAR_wpa2	24:eb:16:38:0b:b2	1	802.11abgn-AX 20	10.0	9.34	0.0	0	-41	70	1500	0.00	0.0
Windows	win-int-ac-163	NETGEAR_wpa2	60:f2:62:0d:e3:b4	116	802.11abgn-AC 20	10.0	9.99	0.0	0	-29	49	1500	0.00	0.0
Linux	Lin-int-be200-202	NETGEAR_wpa2	70:15:fb:05:69:1f	116	802.11bgn-AX 80 2x2	10.0	9.99	0.0	0	-36	63	1500	0.00	0.0
Windows	DESKTOP-78N5G1A	NETGEAR_wpa2	70:15:fb:0f:e9:a7	1	802.11abgn-AX 20	10.0	9.98	0.0	0	-34	44	1500	0.00	0.0
Mac	macs-MacBook-Air.local	NETGEAR_wpa2	70:ae:d5:33:88:11	NA	802.11abgn-AX 20 2x2	10.0	10.0	0.0	0	-41	78	1500	0.00	0.0
Mac	candelas-MacBook-Air.local	NETGEAR_wpa2	1c:91:80:d5:8a:88	116	802.11abgn-AX 20 2x2	10.0	9.99	0.0	0	-37	51	1500	0.00	0.0
Android	RMX393	NETGEAR_wpa2	16:4e:6a:87:03:71	116	802.11abgn-AC 40	10.0	9.99	0.0	0	-29	40	1500	32.05	0.0
Android	oneplus	NETGEAR_wpa2	e2:4d:5a:83:7f:db	1	802.11abgn-AX 40	10.0	9.99	0.0	0	-25	37	1500	31.55	0.0
Android	Oneplus12R	NETGEAR_wpa2	92:15:02:6e:db:c4	1	802.11abgn-AX 40	10.0	8.29	0.0	0	-15	73	1500	26.57	0.0
Android	LAVA_LXX519	NETGEAR_wpa2	3e:db:55:46:38:37	116	802.11abgn-AC 40	10.0	9.59	0.0	0	-27	190	1500	0.00	0.0
Android	LenovoTabM11	NETGEAR_wpa2	52:42:5d:ed:eb:d0	116	802.11abgn-	10.0	10.0	0.0	0	-29	132	1500	0.01	0.0

Android	LenovoTabM1T	NETGEAR_wpa2	32:42:3d:ed:ed:00	116	AC 40	10.0	10.0	0.0	0	-27	102	1500	0.01	0.0
Android	Oppo_A38	NETGEAR_wpa2	5e:c0:36:3b:74:b0	1	802.11abgn 20	10.0	9.92	0.0	0	-20	92	1500	31.73	0.0
Android	GalaxyTabs9E	NETGEAR_wpa2	32:89:9e:af:f3:d8	1	802.11abgn- AX 20	10.0	10.05	0.0	0	-26	45	1500	0.00	0.0
Android	GalaxyA04S	NETGEAR_wpa2	c6:de:e9:36:e9:4c	1	802.11abgn 20	10.0	9.52	0.0	0	-23	6053	1500	32.98	0.0
Android	GalaxyS20	NETGEAR_wpa2	be:37:0c:7e:22:6b	1	802.11abgn- AX 20	10.0	9.99	0.0	0	-16	42	1500	0.00	0.0
Android	Moto_g05	NETGEAR_wpa2	be:41:0f:04:c3:e0	116	802.11abg 20	10.0	0.22	0.0	0	-28	782394	1500	81.40	0.0
Android	Motorola_edge_5	NETGEAR_wpa2	f2:92:1f:9b:d2:4d	116	802.11abgn- BE 40	10.0	9.12	0.0	0	-15	609	1500	0.01	0.0
Android	Nothing05	NETGEAR_wpa2	e2:9e:00:eb:91:f1	116	802.11abgn- BE 40	10.0	6.71	0.0	0	-24	1370	1500	0.02	0.0
iOS	ipad10gen	NETGEAR_wpa2	42:ab:92:9c:47:70	116	AUTO 40	10.0	10.0	0.0	0	-31	66	1500	0.00	0.0

