

Throughput Test

2025-09-03-15-51-04



Objective

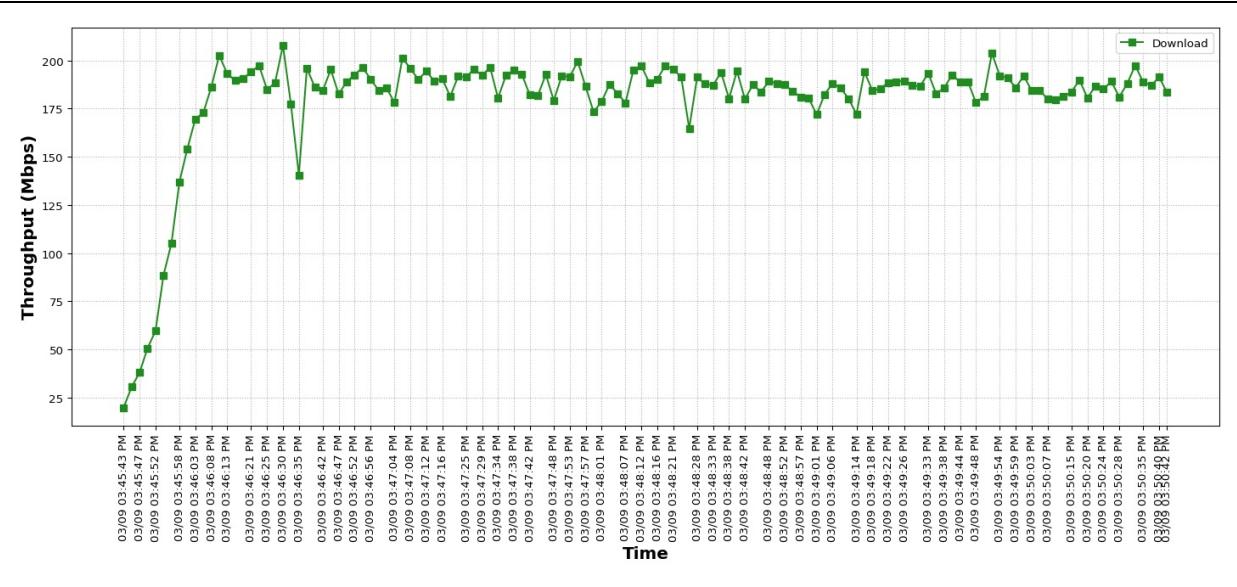
The Candela Client Capacity test is designed to measure an Access Point's client capacity and performance when handling different amounts of Real clients like Android, Linux, Windows, MacOS and IOS. The test allows the user to increase the number of clients in user-defined steps for each test iteration 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

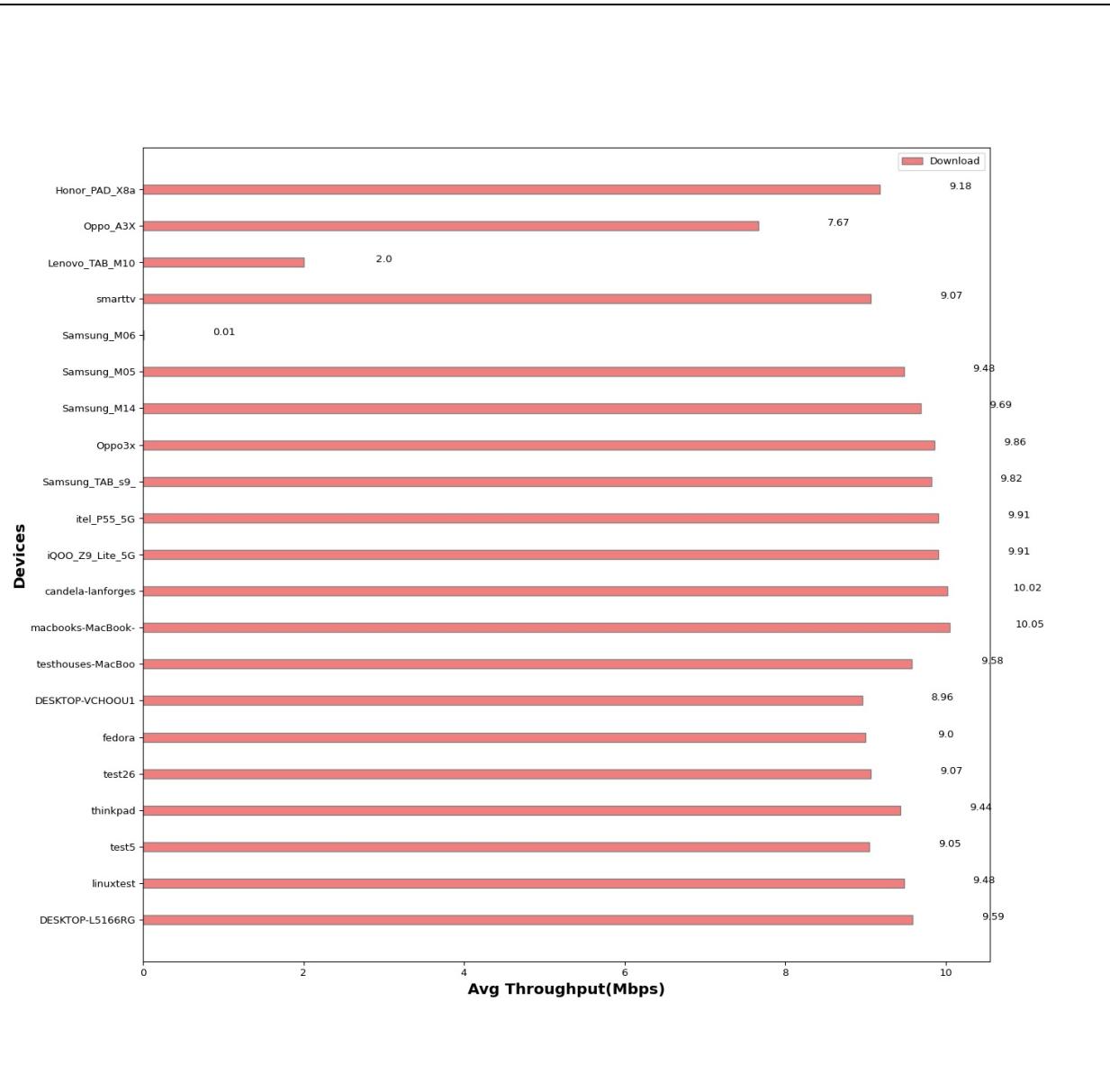
The below tables provides the input parameters for the test

Test Configuration	Test name	throughput_5mins
	Device List	DESKTOP-L5166RG(Windows), linuxtest(Linux), test5(Linux), thinkpad(Linux), test26(Linux), fedora(Linux), DESKTOP-VCHOOU1(Windows), testhouses-MacBook-Air.local(Mac), macbooks-MacBook-Air.local(Mac), candela-lanforges-MacBook-Pro.!(Mac), iQOO_Z9_Lite_5G(Android), itel_P55_5G(Android), Samsung_TAB_s9_(Android), Oppo3x(Android), Samsung_M14(Android), Samsung_M05(Android), Samsung_M06(Android), smarttv(Android), Lenovo_TAB_M10(Android), Oppo_A3X(Android), Honor_PAD_X8a(Android)
	No of Devices	Total(21) Android(11) Windows(2) Linux(5) Mac(3)
	Increment	No Incremental values provided
	Traffic Duration in minutes	5.0
	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

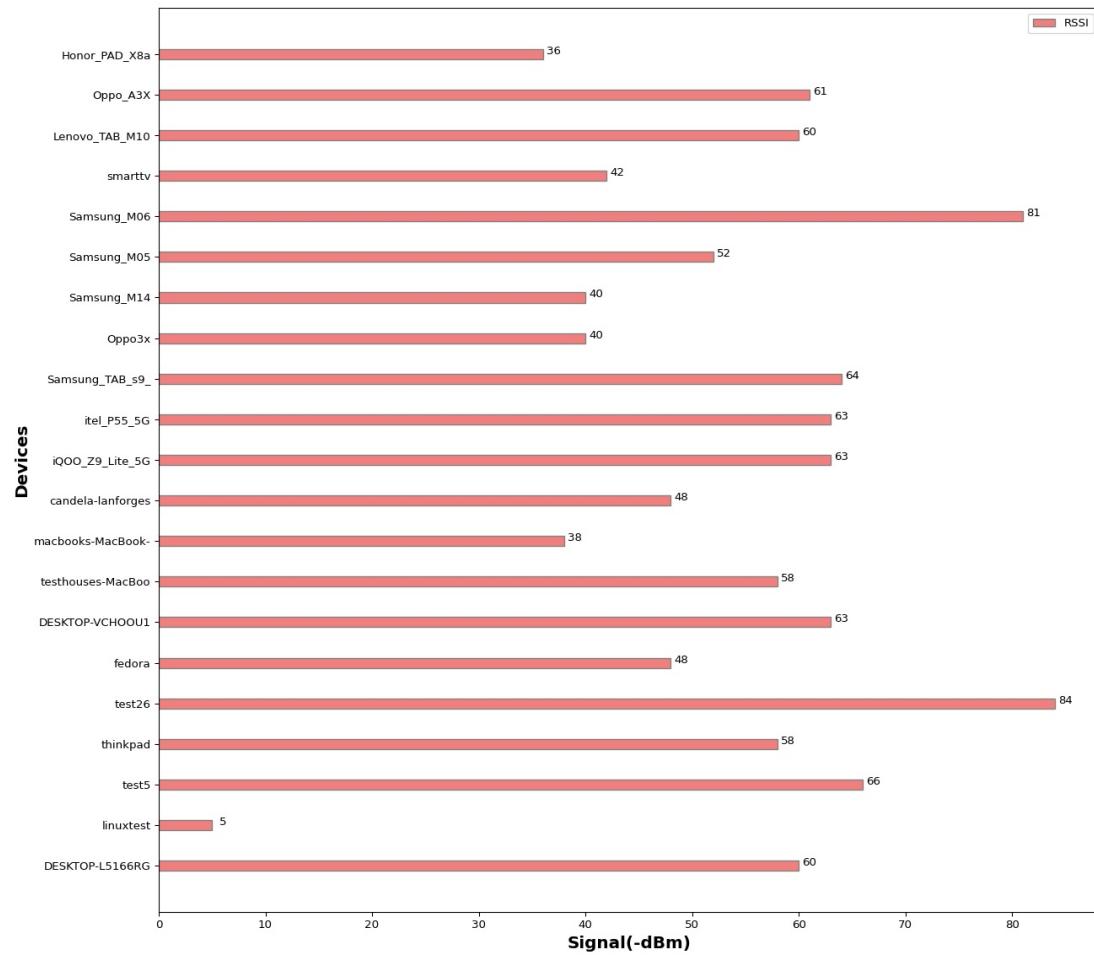
Real Time Throughput: Achieved Throughput: Download : 180.84 Mbps



Per Client Avg-Throughput

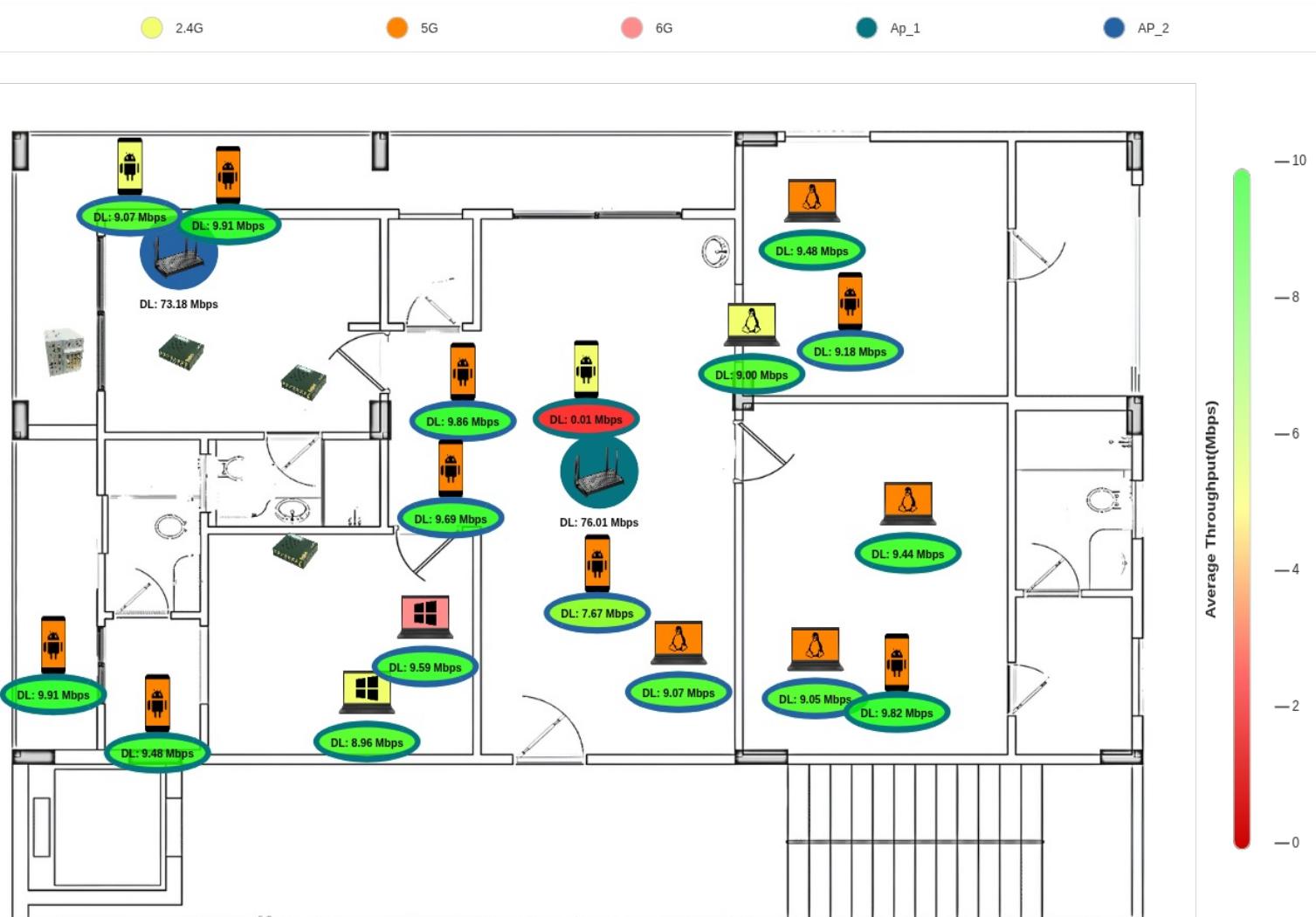


RSSI Of The Clients Connected



Achieved Average TCP Download Throughput

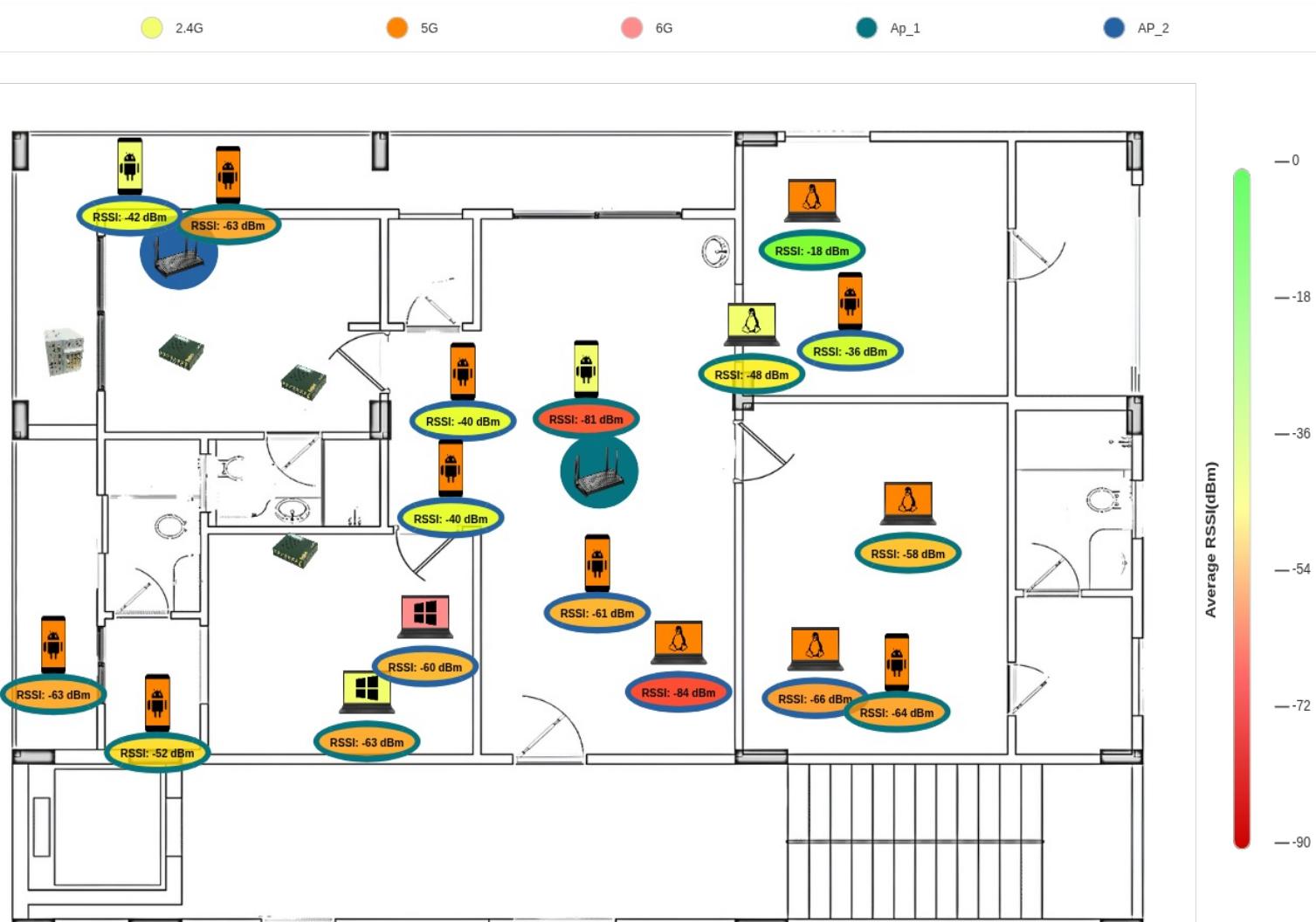
Floor Name: floor1



Average Throughput(Mbps)

Achieved Average RSSI

Floor: floor1



Detailed Result Table

The below tables provides detailed information for the throughput test on each device.

Device Type	Username	SSID	MAC	Channel	Mode	Offered download rate (Mbps)	Observed Average download rate (Mbps)	Offered upload rate (Mbps)	Observed Average upload rate (Mbps)	RSSI (dBm)	Average RTT (ms)	Packet Size(Bytes)	Average Rx Drop %	Average Tx Drop %
Windows	DESKTOP-L5166RG	Testhouse	70:15:fb:0f:e9:ac	307	802.11abgn-BE 20 1x1	10.0	9.59	0.0	0	-60	27	1500	0.02	0.0

Linux	linuxtest	Testhouse	c:ba:ef:57:98:7	100	802.11an-AC 80 2x2	10.0	9.48	0.0	0	-5	35	1500	0.02	0.0
Linux	test5	Testhouse	44:85:00:9e:0a:cd	100	802.11an-AC 80 2x2	10.0	9.05	0.0	0	-66	2924	1500	0.20	0.0
Linux	thinkpad	Testhouse	0c:54:15:55:d8:3	100	802.11an-AC 80 2x2	10.0	9.44	0.0	0	-58	59	1500	0.03	0.0
Linux	test26	Testhouse	4:6:e:e0:6e:00:e	100	802.11an-AX 160 2x2	10.0	9.07	0.0	0	-84	125	1500	0.02	0.0
Linux	fedora	Testhouse	dc:1b:a1:ac:7b:d3	11	802.11bgn 20 2x2	10.0	9.0	0.0	0	-48	21	1500	0.08	0.0
Windows	DESKTOP-VCHOOU1	Testhouse	f8:e4:e3:9a:98:8	100	802.11abgn- AX 20 1x1	10.0	8.96	0.0	0	-63	161	1500	0.44	0.0
Mac	testhouses-MacBook-Air.local	Testhouse	b2:ff:17:fc:8a:aa	-1	802.11abgn- AX 20 1x1	10.0	9.58	0.0	0	-58	121	1500	0.00	0.0
Mac	macbooks-MacBook-Air.local	Testhouse	7e:52:28:1e:d4:5c	-1	802.11abgn- AX 20 1x1	10.0	10.05	0.0	0	-38	37	1500	0.00	0.0
Mac	candela-lanforges-MacBook-Pro.I	Testhouse	a4:cf:99:5b:1c:a7	100	802.11abgn- AX 80 1x1	10.0	10.02	0.0	0	-48	124	1500	0.01	0.0
Android	iQOO_Z9_Lite_5G	Testhouse	ee:e2:95:b0:74:43	100	802.11abgn- AC 80	10.0	9.91	0.0	0	-63	118	1500	0.02	0.0
Android	itel_P55_5G	Testhouse	5a:f3:d2:a5:60:59	100	802.11abgn- AC 80	10.0	9.91	0.0	0	-63	34	1500	0.01	0.0
Android	Samsung_TAB_s9_	Testhouse	d6:b1:ee:7b:4f:aa	100	802.11abgn- AX 80	10.0	9.82	0.0	0	-64	97	1500	0.03	0.0
Android	Oppo3x	Testhouse	fe:95:48:cb:a8:80	100	802.11abgn- AC 80	10.0	9.86	0.0	0	-40	115	1500	0.04	0.0
Android	Samsung_M14	Testhouse	2a:ec:5c:bf:0b:c6	100	802.11abgn- AC 80	10.0	9.69	0.0	0	-40	71	1500	0.00	0.0
Android	Samsung_M05	Testhouse	22:61:45:ff:1d:d3	100	802.11abgn- AC 80	10.0	9.48	0.0	0	-52	100	1500	0.02	0.0
Android	Samsung_M06	Testhouse	42:cb:81:0c:05:15	11	802.11abgn 20	10.0	0.01	0.0	0	-81	71496	1500	90.75	0.0
Android	smarttv	Testhouse	38:c8:04:58:cc:23	11	802.11abg 20	10.0	9.07	0.0	0	-42	315	1500	0.15	0.0
Android	Lenovo_TAB_M10	Testhouse	86:c4:53:a6:fa:0f	11	802.11abgn 20	10.0	2.0	0.0	0	-60	17656	1500	50.34	0.0
Android	Oppo_A3X	Testhouse	2e:68:2d:99:ac:d0	100	802.11abgn- AC 80	10.0	7.67	0.0	0	-61	1575	1500	0.31	0.0
Android	Honor_PAD_X8a	Testhouse	de:f8:f7:eb:ad:44	100	802.11abgn- AC 80	10.0	9.18	0.0	0	-36	107	1500	0.00	0.0