

Interoperability Test

Test starttime:19/10 06:21:08 PM

Test Endtime:19/10 07:35:18 PM

Objective

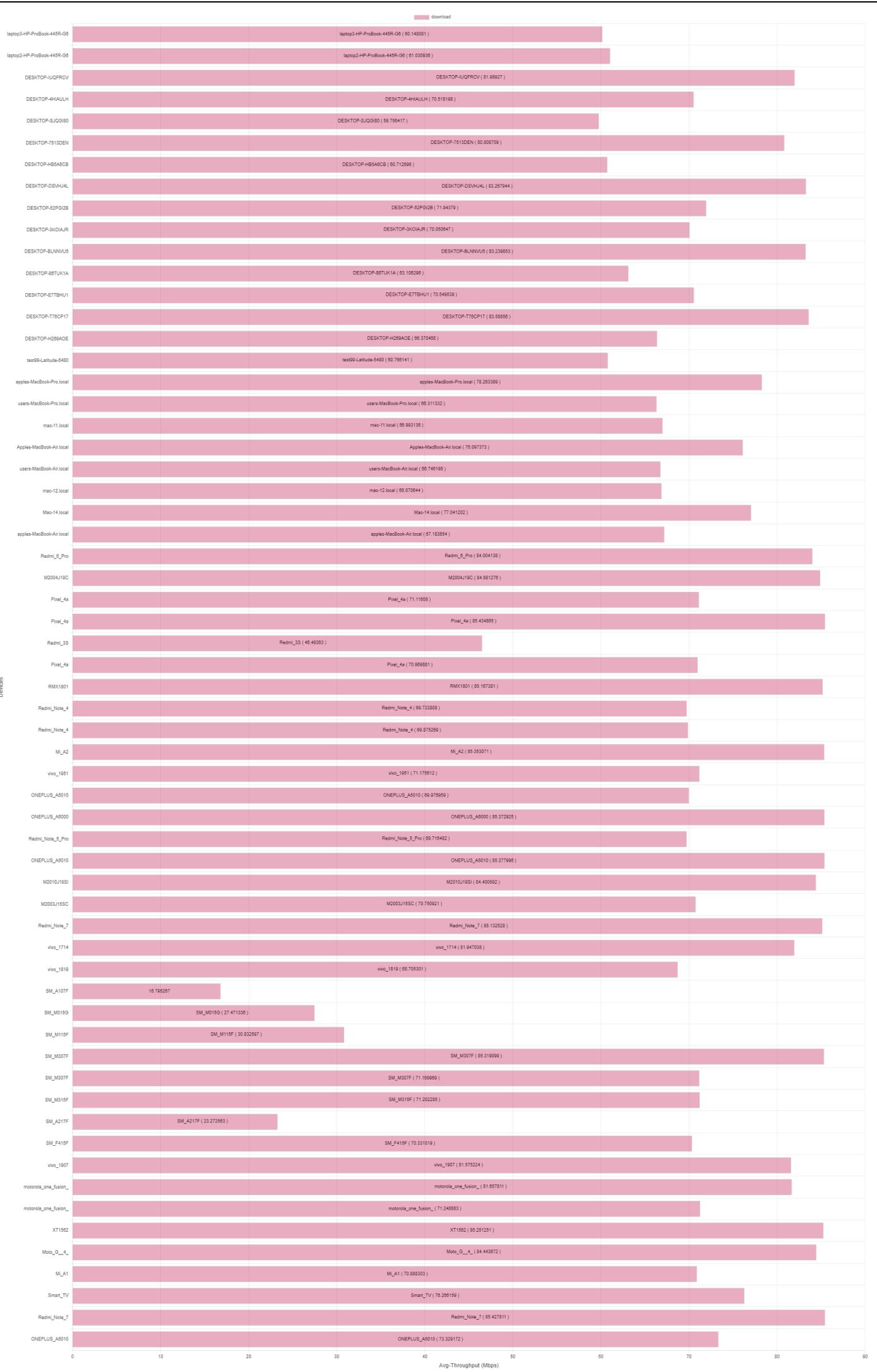
The Candela Interoperability test is designed to measure an Access Point's client performance when handling different amounts of Real clients like android, Linux, windows, and IOS. The test allows the user to increase the number of clients in user-defined steps for each test iteration and measure the per-client throughput for 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

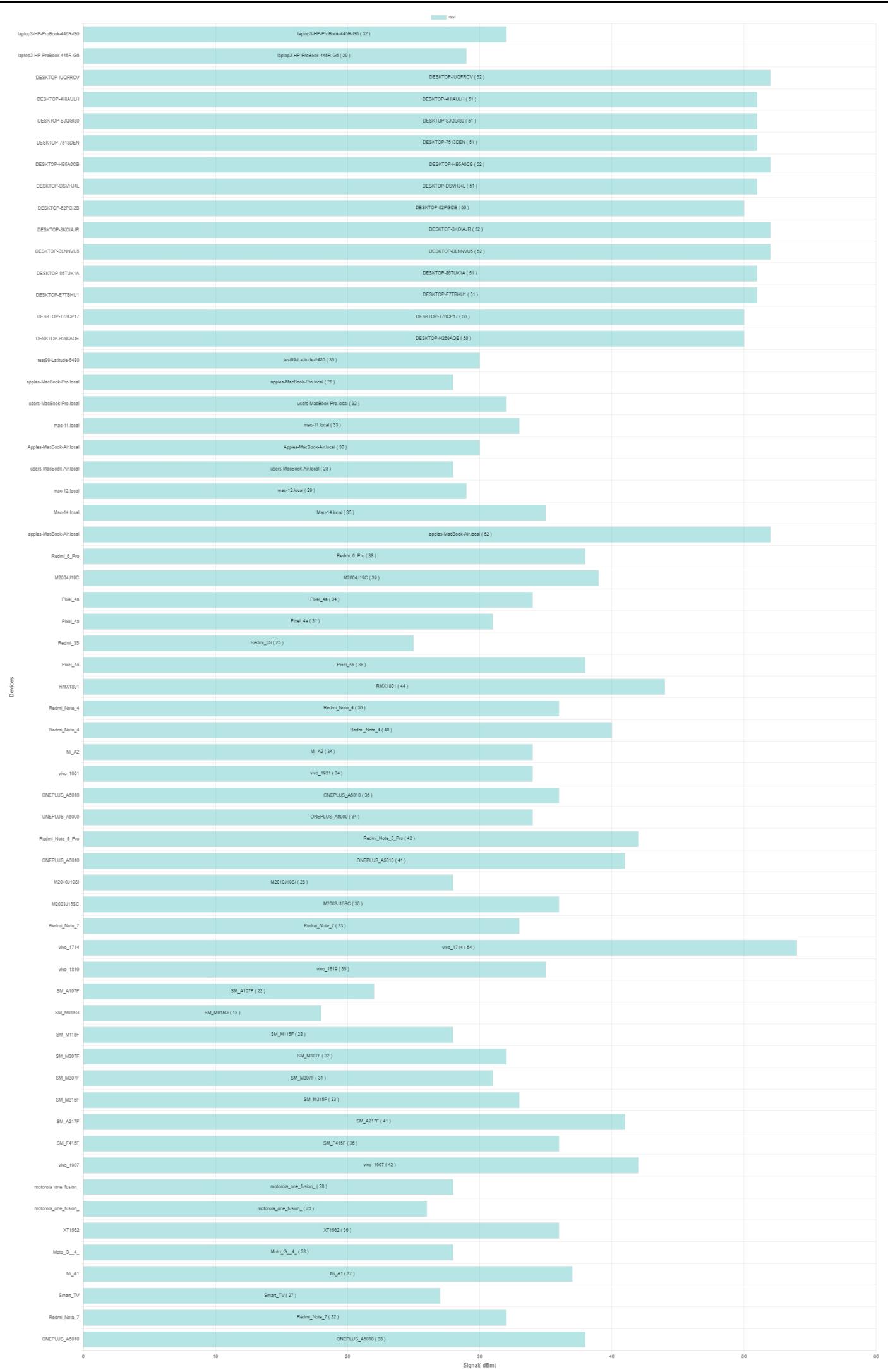
The below tables provides the input parameters for the test.

Testname	testing_interop
Device List	laptop3-HP-ProBook-445R-G6(Linux),laptop2-HP-ProBook-445R-G6(Linux),DESKTOP-IUQFRCV(Windows),DESKTOP-4HIAULH(Windows),DESKTOP-SJQQ180(Windows),DESKTOP-7513DEN(Windows),DESKTOP-HB5A6CB(Windows),DESKTOP-DSVHJ4L(Windows),DESKTOP-52PGI2B(Windows),DESKTOP-3KOIAJR(Windows),DESKTOP-BLNNUV5(Windows),DESKTOP-86TUK1A(Windows),DESKTOP-E7TBHU1(Windows),DESKTOP-T76CP17(Windows),DESKTOP-H269AOE(Windows),test99-Latitude-5480(Linux),apple-MacBook-Pro.local(Mac),users-MacBook-Pro.local(Mac),mac-11.local(Mac),Apples-MacBook-Air.local(Mac),users-MacBook-Air.local(Mac),mac-12.local(Mac),Mac-14.local(Mac),apple-MacBook-Air.local(Mac),Redmi_6_Pro(Android),M2004J19C(Android),Pixel_4a(Android),Pixel_4a(Android),Redmi_3S(Android),Pixel_4a(Android),RMX1801(Android),Redmi_Note_4(Android),Redmi_Note_4(Android),Mi_A2(Android),vivo_1951(Android),ONEPLUS_A5010(Android),ONEPLUS_A6000(Android),Redmi_Note_5_Pro(Android),ONEPLUS_A5010(Android),M2010J19S1(Android),M2003J15SC(Android),Redmi_Note_7(Android),vivo_1714(Android),vivo_1819(Android),SM_A107F(Android),SM_M015G(Android),SM_M115F(Android),SM_M307F(Android),SM_M307F(Android),SM_M315F(Android),SM_A217F(Android),SM_F415F(Android),vivo_1907(Android),motorola_one_fusion_(Android),motorola_one_fusion_(Android),XT1562(Android),Moto_G_4_(Android),Mi_A1(Android),Smart_TV(Android),Redmi_Note_7(Android),ONEPLUS_A5010(Android)
No of Devices	61
Upstream Port	eth2
Duration(min)	1
TrafficType	UDP
Traffic Direction	DOWNLOAD
Upload Rate(mbps)	0.00256
Download Rate(mbps)	100
SSID	-
Encryption	-
Password	-

Per Client Throughput



RSSI of Clients Connected



Detailed Result Table

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

Device Type	Username	SSID	Mac	Channel	Mode	Protocol	Direction	Dl Avg Throughput	Ul Avg Throughput	Dl Expected Throughput	Ul Expected Throughput	RSSI	Link Speed
Linux	laptop3-HP-ProBook-445R-G6	VINTROP_wpa2	d8:12:65:f5:fc:59	-1	802.11bgn-AC 80 2x2	UDP	download	60.148081714285716 Mbps	0.001666 Mbps	100 Mbps	0.00256 Mbps	-32 dBm	866.7 Mbps
Linux	laptop2-HP-ProBook-445R-G6	VINTROP_wpa2	28:cd:c4:21:39:bb	-1	802.11bgn-AC 80 2x2	UDP	download	61.030936857142855 Mbps	0.001663857142857143 Mbps	100 Mbps	0.00256 Mbps	-29 dBm	866.7 Mbps
Windows	DESKTOP-IUQFRCV	VINTROP_wpa2	24:ee:9a:39:2e:61	48	AUTO 20 1x1	UDP	download	81.98927 Mbps	0.0019697142857142856 Mbps	100 Mbps	0.00256 Mbps	-52 dBm	866 Mbps
Windows	DESKTOP-4HIAULH	VINTROP_wpa2	00:bb:60:37:87:af	136	AUTO 20 1x1	UDP	download	70.51819885714285 Mbps	0.0016334285714285713 Mbps	100 Mbps	0.00256 Mbps	-51 dBm	866 Mbps
Windows	DESKTOP-SJQGI80	VINTROP_wpa2	74:e5:f9:f6:d1:f0	136	AUTO 20 1x1	UDP	download	59.756417 Mbps	0.0014384285714285714 Mbps	100 Mbps	0.00256 Mbps	-51 dBm	866 Mbps
Windows	DESKTOP-7513DEN	VINTROP_wpa2	b8:08:cf:59:2f:c8	48	AUTO 20 1x1	UDP	download	80.80870942857143 Mbps	0.0019087142857142857 Mbps	100 Mbps	0.00256 Mbps	-51 dBm	866 Mbps
Windows	DESKTOP-HB5A6CB	VINTROP_wpa2	dc:8b:28:28:d7:64	48	AUTO 20 1x1	UDP	download	60.71269614285714 Mbps	0.0017134285714285713 Mbps	100 Mbps	0.00256 Mbps	-52 dBm	866 Mbps
Windows	DESKTOP-DSVHJ4L	VINTROP_wpa2	34:f3:9a:eb:46:b4	48	AUTO 20 1x1	UDP	download	83.26794485714285 Mbps	0.0019422857142857143 Mbps	100 Mbps	0.00256 Mbps	-51 dBm	866 Mbps
Windows	DESKTOP-52PGI2B	VINTROP_wpa2	28:cd:c4:ca:b5:a3	48	AUTO 20 1x1	UDP	download	71.94379057142856 Mbps	0.00153 Mbps	100 Mbps	0.00256 Mbps	-50 dBm	866 Mbps
Windows	DESKTOP-3KOIAJR	VINTROP_wpa2	f4:8c:50:e2:01:67	48	AUTO 20 1x1	UDP	download	70.05064771428572 Mbps	0.0016911428571428572 Mbps	100 Mbps	0.00256 Mbps	-52 dBm	866 Mbps
Windows	DESKTOP-BLNINV5	VINTROP_wpa2	34:41:5d:51:d1:96	48	AUTO 20 1x1	UDP	download	83.23985342857144 Mbps	0.001883142857142857 Mbps	100 Mbps	0.00256 Mbps	-52 dBm	866 Mbps
Windows	DESKTOP-86TUK1A	VINTROP_wpa2	ac:ed:5c:36:a6:1e	136	AUTO 20 1x1	UDP	download	63.10629614285714 Mbps	0.0016858571428571428 Mbps	100 Mbps	0.00256 Mbps	-51 dBm	866 Mbps
Windows	DESKTOP-E7TBHU1	VINTROP_wpa2	b4:69:21:62:bf:3d	136	AUTO 20 1x1	UDP	download	70.54953942857144 Mbps	0.0016555714285714288 Mbps	100 Mbps	0.00256 Mbps	-51 dBm	866 Mbps
Windows	DESKTOP-T76CP17	VINTROP_wpa2	28:cd:c4:9a:80:33	48	AUTO 20 1x1	UDP	download	83.58856 Mbps	0.0018597142857142857 Mbps	100 Mbps	0.00256 Mbps	-50 dBm	866 Mbps
Windows	DESKTOP-H269AOE	VINTROP_wpa2	d8:12:65:b7:82:eb	48	AUTO 20 1x1	UDP	download	66.37046871428572 Mbps	0.001528142857142857 Mbps	100 Mbps	0.00256 Mbps	-50 dBm	866 Mbps
Linux	test99-Latitude-5480	VINTROP_wpa2	00:24:d6:df:e7:f1	-1	802.11bgn-AC 80 2x2	UDP	download	60.766141 Mbps	0.00165 Mbps	100 Mbps	0.00256 Mbps	-30 dBm	866.7 Mbps
Mac	apples-MacBook-Pro.local	VINTROP_wpa2	98:01:a7:b6:7f:91	48	802.11abgn-AC 80 3x3	UDP	download	78.26338957142856 Mbps	0.0017765714285714286 Mbps	100 Mbps	0.00256 Mbps	-28 dBm	1300 Mbps
Mac	users-MacBook-Pro.local	VINTROP_wpa2	60:f8:1d:b6:71:70	48	802.11abgn-80 3x3	UDP	download	66.31133285714286 Mbps	0.0015812857142857143 Mbps	100 Mbps	0.00256 Mbps	-32 dBm	1053 Mbps
Mac	mac-11.local	VINTROP_wpa2	ac:bc:32:77:dc:99	48	802.11abg-80	UDP	download	66.99313657142858 Mbps	0.001561142857142857 Mbps	100 Mbps	0.00256 Mbps	-33 dBm	351 Mbps
Mac	Apples-MacBook-Air.local	VINTROP_wpa2	64:76:ba:9e:71:08	48	802.11abgn-AC 80 2x2	UDP	download	76.09737342857143 Mbps	0.0016125714285714287 Mbps	100 Mbps	0.00256 Mbps	-30 dBm	867 Mbps
Mac	users-MacBook-Air.local	VINTROP_wpa2	48:bf:6b:d4:60:5a	48	802.11abgn-80 2x2	UDP	download	66.74619857142858 Mbps	0.0015781428571428572 Mbps	100 Mbps	0.00256 Mbps	-28 dBm	585 Mbps
Mac	mac-12.local	VINTROP_wpa2	84:38:35:55:58:3c	48	802.11abgn-80 2x2	UDP	download	66.870644 Mbps	0.0015902857142857142 Mbps	100 Mbps	0.00256 Mbps	-29 dBm	702 Mbps
Mac	Mac-14.local	VINTROP_wpa2	a0:99:9b:1c:ff:69	48	802.11abgn-AC 80 3x3	UDP	download	77.04120228571428 Mbps	0.0018262857142857143 Mbps	100 Mbps	0.00256 Mbps	-35 dBm	1300 Mbps
Mac	apples-MacBook-Air.local	VINTROP_wpa2	94:f6:d6:1d:0f:12	48	802.11abg-80	UDP	download	67.183654 Mbps	0.0015798571428571428 Mbps	100 Mbps	0.00256 Mbps	-52 dBm	234 Mbps
Android	Redmi_6_Pro	VINTROP_wpa2	20:a6:0:c:bd:3c:38	48	AUTO 20	UDP	download	84.004138 Mbps	0.0019607142857142857 Mbps	100 Mbps	0.00256 Mbps	-38 dBm	
Android	M2004J19C	VINTROP_wpa2	dc:b7:2e:21:d7:fc	48	AUTO 20	UDP	download	84.881276 Mbps	0.0019402857142857143 Mbps	100 Mbps	0.00256 Mbps	-39 dBm	433 Mbps
Android	Pixel_4a	VINTROP_wpa2	02:00:00:00:00:00	136	802.11abgn-AC 80	UDP	download	71.11608 Mbps	0.0017034285714285712 Mbps	100 Mbps	0.00256 Mbps	-34 dBm	780 Mbps
Android	Pixel_4a	VINTROP_wpa2	02:00:00:00:00:00	48	802.11abgn-AC 80	UDP	download	85.43486585714285 Mbps	0.001433142857142857 Mbps	100 Mbps	0.00256 Mbps	-31 dBm	866 Mbps
Android	Redmi_3S	VINTROP_wpa2	74:23:44:40:e7:93	1	AUTO 20	UDP	download	46.49363014285714 Mbps	0.001646 Mbps	100 Mbps	0.00256 Mbps	-25 dBm	
Android	Pixel_4a	VINTROP_wpa2	02:00:00:00:00:00	48	802.11abgn-AC 80	UDP	download	70.96988185714285 Mbps	0.0014497142857142857 Mbps	100 Mbps	0.00256 Mbps	-38 dBm	866 Mbps
Android	RMX1801	VINTROP_wpa2	b6:77:75:64:9a:20	48	AUTO 20	UDP	download	85.167381 Mbps	0.002022142857142857 Mbps	100 Mbps	0.00256 Mbps	-44 dBm	433 Mbps
Android	Redmi_Note_4	VINTROP_wpa2	f4:f5:db:a2:93:8b	48	AUTO 20	UDP	download	69.73380842857144 Mbps	0.001683 Mbps	100 Mbps	0.00256 Mbps	-36 dBm	
Android	Redmi_Note_4	VINTROP_wpa2	e4:46:da:16:78:5b	48	AUTO 20	UDP	download	69.87526957142856 Mbps	0.001763142857142857 Mbps	100 Mbps	0.00256 Mbps	-40 dBm	
Android	Mi_A2	VINTROP_wpa2	16:16:76:b2:61:e3	136	AUTO 20	UDP	download	85.35307157142857 Mbps	0.001988142857142857 Mbps	100 Mbps	0.00256 Mbps	-34 dBm	433 Mbps
Android	vivo_1951	VINTROP_wpa2	f2:39:2c:aa:d9:dd	136	802.11abgn-AC 80	UDP	download	71.175612 Mbps	0.0016845714285714287 Mbps	100 Mbps	0.00256 Mbps	-34 dBm	433 Mbps
Android	ONEPLUS_A5010	VINTROP_wpa2	6e:26:77:b0:58:fd	136	AUTO 20	UDP	download	69.97695985714284 Mbps	0.0014537142857142858 Mbps	100 Mbps	0.00256 Mbps	-36 dBm	866 Mbps
					802.11abgn-			85.37292571428571 Mbps	0.0014047142857142858 Mbps			-34	866

Android	ONEPLUS_A6000	VINTROP_wpa2	a6:c9:9c:9d:b9:c8	48	AC 80	UDP	download	Mbps	Mbps	100 Mbps	0.00256 Mbps	dBm	Mbps
Android	Redmi_Note_5_Pro	VINTROP_wpa2	d8:32:e3:4d:57:ce	48	AUTO 20	UDP	download	69.716482 Mbps	0.0017512857142857141 Mbps	100 Mbps	0.00256 Mbps	-42 dBm	
Android	ONEPLUS_A5010	VINTROP_wpa2	e6:47:0a:32:bb:cc	48	AUTO 20	UDP	download	85.377996 Mbps	0.0019515714285714286 Mbps	100 Mbps	0.00256 Mbps	-41 dBm	866 Mbps
Android	M2010J19SI	VINTROP_wpa2	8c:d9:d6:78:d3:d8	48	802.11abgn-AC 80	UDP	download	84.40059285714285	0.0018938571428571429 Mbps	100 Mbps	0.00256 Mbps	-28 dBm	433 Mbps
Android	M2003J15SC	VINTROP_wpa2	9c:28:f7:b4:4d:05	48	AUTO 20	UDP	download	70.75092114285715	0.0014557142857142859 Mbps	100 Mbps	0.00256 Mbps	-36 dBm	433 Mbps
Android	Redmi_Note_7	VINTROP_wpa2	20:34:fb:41:3f:a5	136	AUTO 20	UDP	download	85.13252842857143	0.0019232857142857142 Mbps	100 Mbps	0.00256 Mbps	-33 dBm	433 Mbps
Android	vivo_1714	VINTROP_wpa2	94:14:7a:a0:3e:03	48	AUTO 20	UDP	download	81.94703828571429	0.0019544285714285714 Mbps	100 Mbps	0.00256 Mbps	-54 dBm	
Android	vivo_1819	VINTROP_wpa2	8a:84:d1:f8:44:90	48	802.11abgn-AC 80	UDP	download	68.70530142857143	0.0014005714285714288 Mbps	100 Mbps	0.00256 Mbps	-35 dBm	433 Mbps
Android	SM_A107F	VINTROP_wpa2	a2:64:8e:a3:62:91	1	802.11abgn_20	UDP	download	16.795267142857142	0.0018677142857142857 Mbps	100 Mbps	0.00256 Mbps	-22 dBm	78 Mbps
Android	SM_M015G	VINTROP_wpa2	a6:ca:6c:00:db:b6	1	802.11abgn_20	UDP	download	27.47133657142857	0.0017185714285714287 Mbps	100 Mbps	0.00256 Mbps	-18 dBm	72 Mbps
Android	SM_M115F	VINTROP_wpa2	88:a3:03:da:a4:4a	1	802.11abgn_20	UDP	download	30.83259771428571	0.0017122857142857141 Mbps	100 Mbps	0.00256 Mbps	-28 dBm	72 Mbps
Android	SM_M307F	VINTROP_wpa2	76:85:75:13:cd:f8	48	802.11abgn-AC 80	UDP	download	85.31909957142857	0.002082714285714286 Mbps	100 Mbps	0.00256 Mbps	-32 dBm	433 Mbps
Android	SM_M307F	VINTROP_wpa2	ba:aa:a5:21:96:04	48	802.11abgn-AC 80	UDP	download	71.16996971428571	0.0016894285714285713 Mbps	100 Mbps	0.00256 Mbps	-31 dBm	433 Mbps
Android	SM_M315F	VINTROP_wpa2	8e:5a:0b:9b:b1:47	48	AUTO 20	UDP	download	71.20228514285715	0.0017694285714285713 Mbps	100 Mbps	0.00256 Mbps	-33 dBm	433 Mbps
Android	SM_A217F	VINTROP_wpa2	04:bd:bf:17:2e:b6	136	802.11abgn-AC 80	UDP	download	23.27256385714286	0.001998428571428571 Mbps	100 Mbps	0.00256 Mbps	-41 dBm	433 Mbps
Android	SM_F415F	VINTROP_wpa2	56:5d:95:3f:99:4b	48	802.11abgn-AC 80	UDP	download	70.33101971428572	0.001701142857142857 Mbps	100 Mbps	0.00256 Mbps	-36 dBm	433 Mbps
Android	vivo_1907	VINTROP_wpa2	08:7f:98:a4:68:fb	48	802.11abgn-AC 80	UDP	download	81.57522471428571	0.0014274285714285712 Mbps	100 Mbps	0.00256 Mbps	-42 dBm	390 Mbps
Android	motorola_one_fusion_-	VINTROP_wpa2	58:d9:c3:87:d8:04	48	802.11abgn-AC 80	UDP	download	81.65781171428571	0.0019085714285714287 Mbps	100 Mbps	0.00256 Mbps	-28 dBm	433 Mbps
Android	motorola_one_fusion_-	VINTROP_wpa2	90:73:5a:d2:f2:f6	136	802.11abgn-AC 80	UDP	download	71.248883	0.001752142857142857 Mbps	100 Mbps	0.00256 Mbps	-26 dBm	433 Mbps
Android	XT1562	VINTROP_wpa2	88:79:7e:bd:bc:f6	48	AUTO 20	UDP	download	85.25125128571429	0.001433857142857143 Mbps	100 Mbps	0.00256 Mbps	-36 dBm	
Android	Moto_G_4_-	VINTROP_wpa2	88:79:7e:72:7d:82	48	AUTO 20	UDP	download	84.44367242857143	0.001876142857142857 Mbps	100 Mbps	0.00256 Mbps	-28 dBm	
Android	Mi_A1	VINTROP_wpa2	38:e6:0a:d1:22:ba	136	AUTO 20	UDP	download	70.88830328571429	0.0016967142857142858 Mbps	100 Mbps	0.00256 Mbps	-37 dBm	
Android	Smart_TV	VINTROP_wpa2	38:c8:04:57:c2:ef	48	802.11abg_20	UDP	download	76.26615957142857	0.0014508571428571428 Mbps	100 Mbps	0.00256 Mbps	-27 dBm	300 Mbps
Android	Redmi_Note_7	VINTROP_wpa2	20:34:fb:72:46:c5	136	AUTO 20	UDP	download	85.42781128571428	0.001924 Mbps	100 Mbps	0.00256 Mbps	-32 dBm	433 Mbps
Android	ONEPLUS_A5010	VINTROP_wpa2	06:25:b4:f4:97:0b	48	AUTO 20	UDP	download	73.3291725	0.00177525 Mbps	100 Mbps	0.00256 Mbps	-38 dBm	866 Mbps

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