

# Hunt Test



Tue Mar 17 14:22:51 PDT 2020

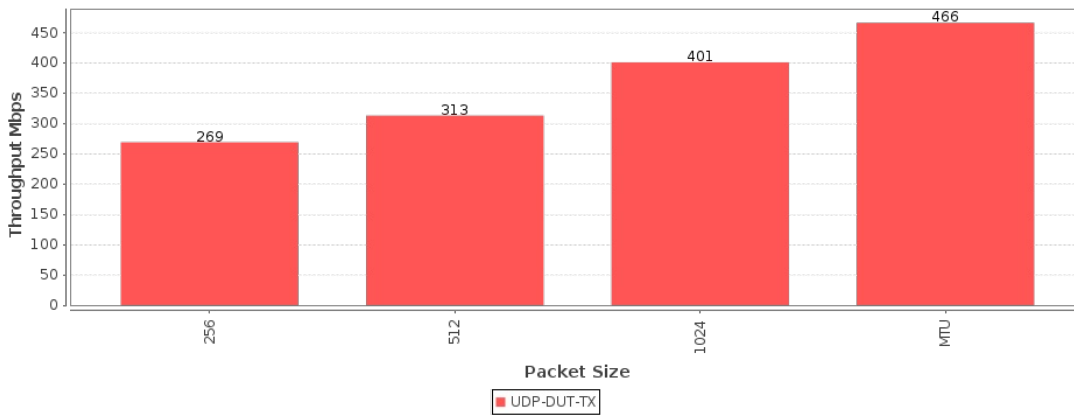
Test Setup Information		
Device Under Test	Name	TR398-DUT
	SSIDs	NETGEAR68-5G NETGEAR68
	BSSIDs	78:d2:94:4f:21:78 78:d2:94:4f:21:76

## Objective

The Candela WiFi Hunt test is designed to conduct an automatic testing of all combinations of Traffic types, Traffic direction, Frame sizes, Attenuation and Rotation. It will first hunt to find the best tx rate that causes the best throughput, and then re-run the throughput test with TX rate set to the best throughput rate. This should be a maximum load test, but not over-driving the system. Latency, Packet Loss and other reports are provided.

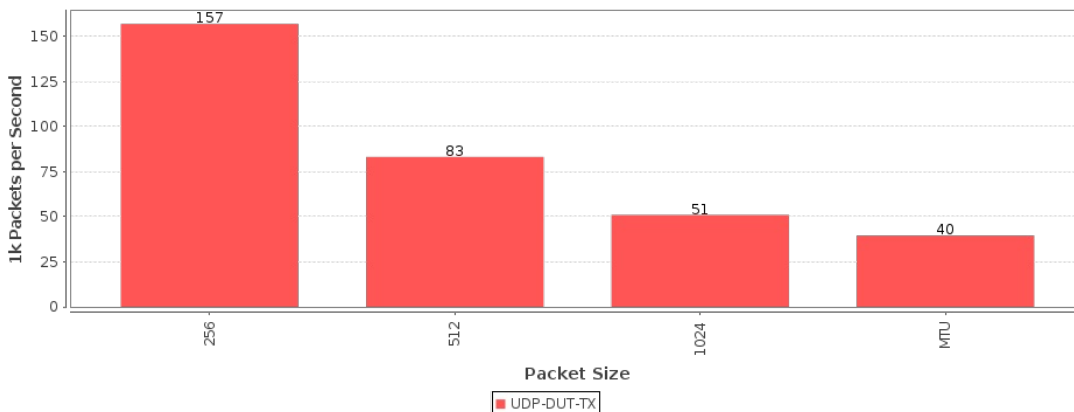
Throughput for each different traffic type. Datasets with names ending in '-LL' will include the IP, TCP, UDP and Ethernet header bytes in their calculation. For Armageddon traffic only, low-level throughput includes the Ethernet FCS and preamble. Other datasets report 'goodput' for the protocol.

### Throughput vs Packet Size



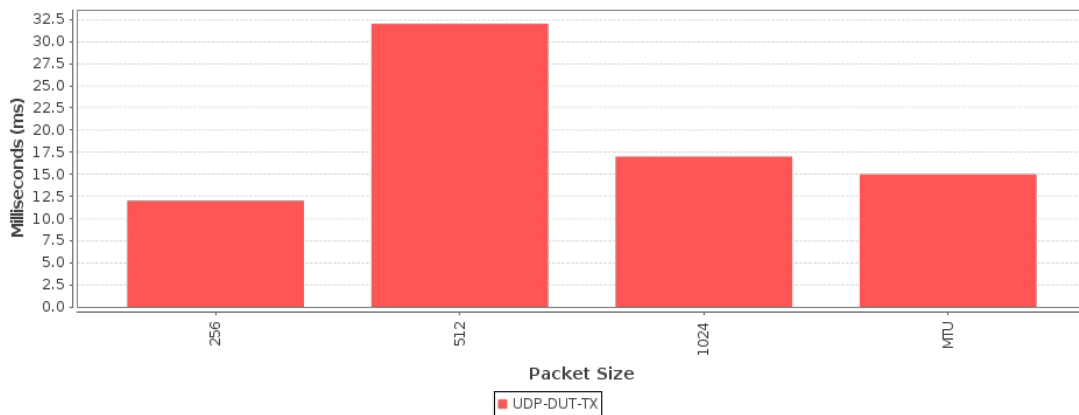
Pps throughput for each different traffic type. The values are estimated packets-per-second over the DUT, but some protocols such as TCP make this difficult to know for certain, so the value is extrapolated.

### RX Pps vs Packet Size



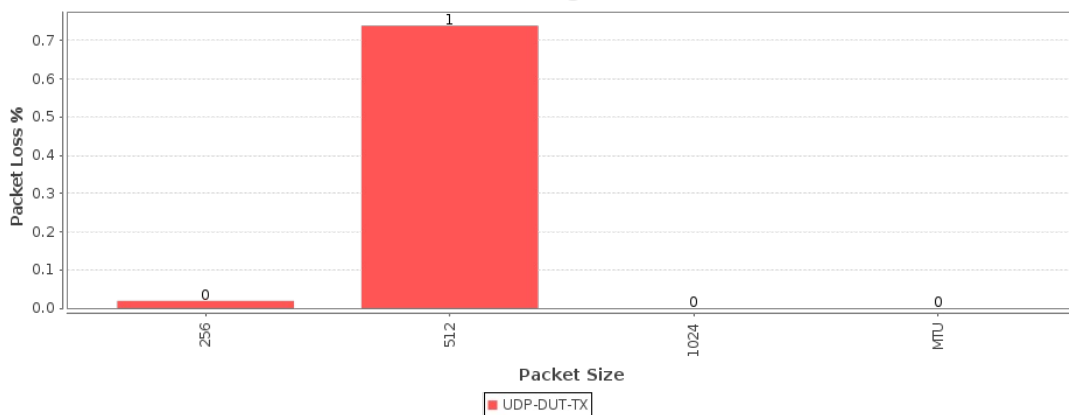
Latency in milli-seconds for each different traffic type. If opposite-direction traffic is non-zero, then round-trip time will be reported. Otherwise, one-way latency will be reported.

**Latency vs Packet Size**



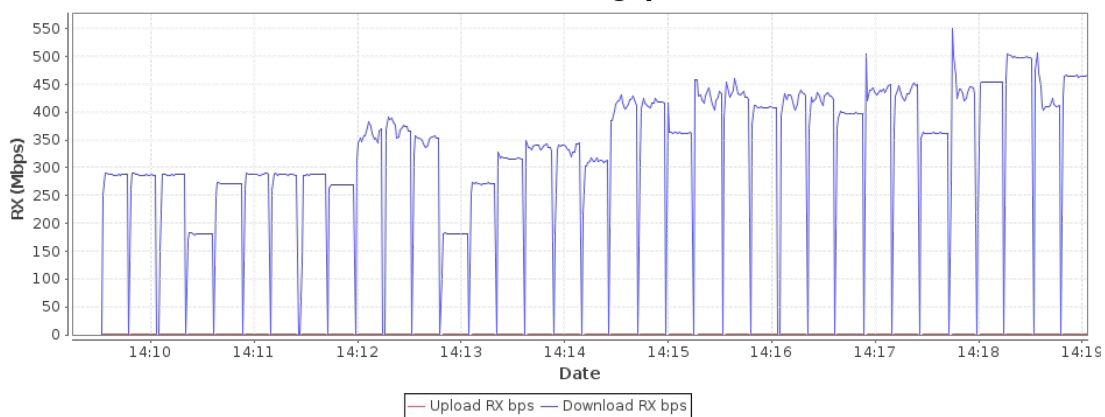
Packet loss percentage for each different traffic type.

**Packet Loss Percentage vs Packet Size**



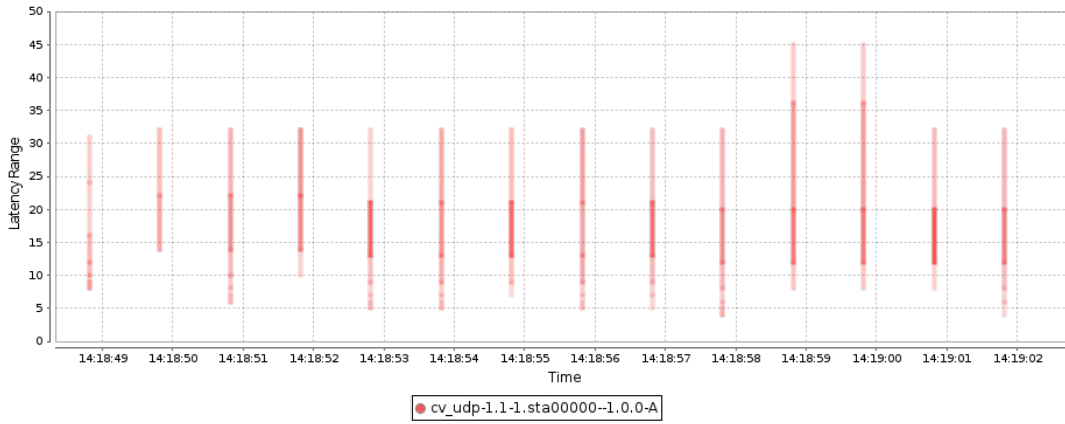
Realtime Graph shows summary download and upload RX Goodput rate of connections created by this test. Goodput does not include Ethernet, IP, UDP/TCP header overhead.

**Realtime Throughput**



Latency distribution over time (for the last hunt iteration only). Darker lines indicate greater amount of packets in that range. At least a small bit of opposite-direction traffic should be enabled to get accurate round-trip latency.

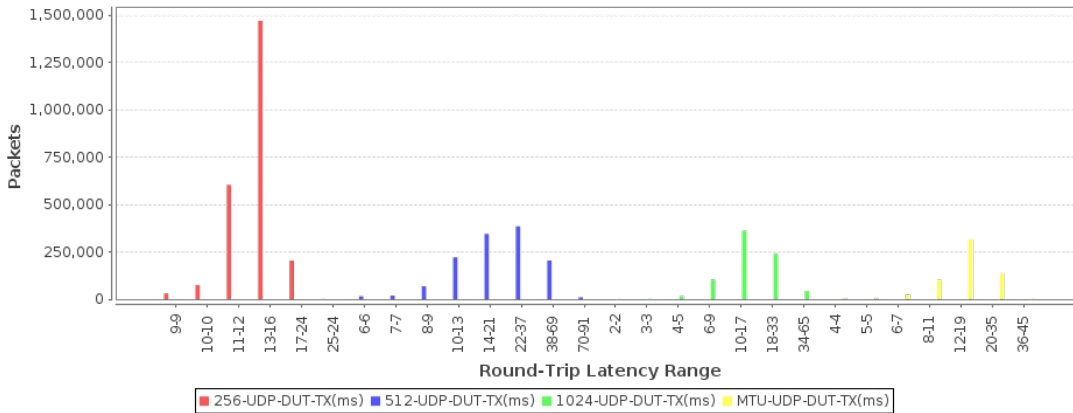
### Round-Trip Latency Distribution



Protocol Data Unit (PDU) latency distribution. When using multiple iterations, the bars may not be strictly ordered lowest to highest latency, so please pay attention to the latency range label under the bar charts.

256-UDP-DUT-TX(ms) Min: 9 Max: 24 Avg: 11  
 512-UDP-DUT-TX(ms) Min: 6 Max: 91 Avg: 33  
 1024-UDP-DUT-TX(ms) Min: 2 Max: 65 Avg: 14  
 MTU-UDP-DUT-TX(ms) Min: 4 Max: 45 Avg: 17

### Packets per Round-Trip Latency Range



### Test Information

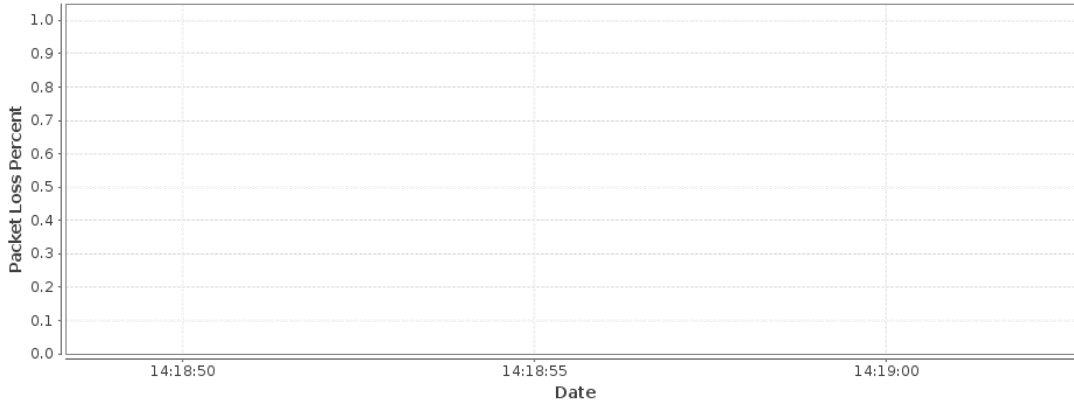
**Message**  
 Starting Hunt test with: 4 iterations.

Step	Chan	Pkt	Traffic-Type	Direction	Atten	Rotation	Duration	Requested	Offered-1m	Rx-Bps	Rx-Bps-1m	Rx-Bps-LL	Rx-Bps-3s	Theoretical	RSSI	Tx-Failed	Tx-Failed%	Pkt-Loss%	Latency(ms)	Tx-Rate	Rx-Rate	Mode
1	153	256	UDP	DUT-TX	NA	NA	15	737	438	288	289	345	289	1.733	-63	0 / 3480126	0	34.032	35.0	650 Mbps	650 Mbps	802.11an-AC
2	153	256	UDP	DUT-TX	NA	NA	15	368	438	288	289	346	289	1.733	-63	0 / 3416499	0	34.032	35.0	585.1 Mbps	650 Mbps	802.11an-AC
3	153	256	UDP	DUT-TX	NA	NA	15	184	365	287	289	346	288	1.733	-63	0 / 2847492	0	20.655	39.0	650 Mbps	650 Mbps	802.11an-AC
4	153	256	UDP	DUT-TX	NA	NA	15	276	181	181	181	217	182	1.733	-63	0 / 1438717	0	0.081	8.0	650 Mbps	650 Mbps	802.11an-AC
5	153	256	UDP	DUT-TX	NA	NA	15	322	272	271	272	325	272	1.733	-63	0 / 2532866	0	0.003	14.0	650 Mbps	650 Mbps	802.11an-AC
6	153	256	UDP	DUT-TX	NA	NA	15	299	318	288	289	346	288	1.733	-63	0 / 2518846	0	9.166	34.0	650 Mbps	650 Mbps	802.11an-AC
7	153	256	UDP	DUT-TX	NA	NA	15	311	296	288	289	345	288	1.733	-63	0 / 2304683	0	2.381	35.0	650 Mbps	650 Mbps	802.11an-AC
8	153	256	UDP	DUT-TX	NA	NA	15	273	308	288	290	347	287	1.733	-63	0 / 2420410	0	5.816	36.0	650 Mbps	650 Mbps	802.11an-AC
** 9	153	256	UDP	DUT-TX	NA	NA	15	273	269	269	269	321	269	1.733	-63	0 / 2152325	0	0.019	12.0	650 Mbps	650 Mbps	802.11an-AC
1	153	512	UDP	DUT-TX	NA	NA	15	737	878	366	367	399	391	1.733	-63	0 / 3101770	0	58.261	52.0	650 Mbps	650 Mbps	802.11an-AC
2	153	512	UDP	DUT-TX	NA	NA	15	368	726	371	373	406	369	1.733	-63	0 / 2607359	0	48.726	42.0	650 Mbps	650 Mbps	802.11an-AC
3	153	512	UDP	DUT-TX	NA	NA	15	184	365	350	352	384	355	1.733	-63	0 / 1304554	0	3.165	21.0	650 Mbps	650 Mbps	802.11an-AC
4	153	512	UDP	DUT-TX	NA	NA	15	276	183	181	183	199	182	1.733	-64	0 / 651679	0	0	10.0	650 Mbps	650 Mbps	802.11an-AC
5	153	512	UDP	DUT-TX	NA	NA	15	322	272	272	272	297	274	1.733	-64	0 / 1166281	0	0.055	13.0	650 Mbps	650 Mbps	802.11an-AC
6	153	512	UDP	DUT-TX	NA	NA	15	345	319	316	318	346	318	1.733	-63	0 / 1355521	0	0.131	20.0	650 Mbps	650 Mbps	802.11an-AC
7	153	512	UDP	DUT-TX	NA	NA	15	357	342	336	338	368	331	1.733	-63	0 / 1212546	0	1.135	44.0	650 Mbps	650 Mbps	802.11an-AC
8	153	512	UDP	DUT-TX	NA	NA	15	319	352	337	337	367	346	1.733	-64	0 / 1268745	0	4.102	33.0	650 Mbps	650 Mbps	802.11an-AC

** 9	153	512	UDP	DUT-TX	NA	NA	15	319	315	312	313	341	311	1,733	-64	0 / 1130699	0	0.739	32.0	650 Mbps	650 Mbps	802.11an-AC
1	153	1024	UDP	DUT-TX	NA	NA	15	737	945	416	418	435	401	1,733	-63	0 / 1917345	0	55.776	126.0	585 Mbps	650 Mbps	802.11an-AC
2	153	1024	UDP	DUT-TX	NA	NA	15	368	730	414	417	435	410	1,733	-63	0 / 1491135	0	42.988	93.0	650 Mbps	650 Mbps	802.11an-AC
3	153	1024	UDP	DUT-TX	NA	NA	15	552	363	363	363	379	363	1,733	-63	0 / 742995	0	0	14.0	650 Mbps	650 Mbps	802.11an-AC
4	153	1024	UDP	DUT-TX	NA	NA	15	460	546	424	426	444	430	1,733	-64	0 / 941071	0	21.926	101.0	650 Mbps	650 Mbps	802.11an-AC
5	153	1024	UDP	DUT-TX	NA	NA	15	414	456	434	437	456	423	1,733	-64	0 / 929424	0	3.772	71.0	650 Mbps	650 Mbps	802.11an-AC
6	153	1024	UDP	DUT-TX	NA	NA	15	437	408	408	408	426	411	1,733	-63	0 / 836488	0	0	14.0	650 Mbps	650 Mbps	802.11an-AC
7	153	1024	UDP	DUT-TX	NA	NA	15	449	432	426	427	445	428	1,733	-64	0 / 744367	0	1.006	35.0	650 Mbps	650 Mbps	802.11an-AC
8	153	1024	UDP	DUT-TX	NA	NA	15	404	444	424	426	444	417	1,733	-63	0 / 907395	0	4.281	70.0	650 Mbps	650 Mbps	802.11an-AC
** 9	153	1024	UDP	DUT-TX	NA	NA	15	404	401	398	401	418	397	1,733	-63	0 / 681967	0	0	17.0	650 Mbps	650 Mbps	802.11an-AC
1	153	MTU	UDP	DUT-TX	NA	NA	15	737	969	438	441	454	447	1,733	-63	0 / 1306201	0	54.444	130.0	650 Mbps	650 Mbps	802.11an-AC
2	153	MTU	UDP	DUT-TX	NA	NA	15	368	727	439	440	453	448	1,733	-64	0 / 830501	0	39.153	152.0	650 Mbps	650 Mbps	802.11an-AC
3	153	MTU	UDP	DUT-TX	NA	NA	15	552	364	363	364	374	363	1,733	-63	0 / 414398	0	0	14.0	650 Mbps	650 Mbps	802.11an-AC
4	153	MTU	UDP	DUT-TX	NA	NA	15	460	548	441	444	457	426	1,733	-64	0 / 619447	0	18.306	128.0	650 Mbps	650 Mbps	802.11an-AC
5	153	MTU	UDP	DUT-TX	NA	NA	15	506	454	453	454	467	453	1,733	-64	0 / 518486	0	0	14.0	650 Mbps	650 Mbps	802.11an-AC
6	153	MTU	UDP	DUT-TX	NA	NA	15	529	501	497	499	513	496	1,733	-64	0 / 573158	0	0	37.0	650 Mbps	650 Mbps	802.11an-AC
7	153	MTU	UDP	DUT-TX	NA	NA	15	472	525	418	421	433	408	1,733	-62	0 / 598652	0	19.393	107.0	650 Mbps	650 Mbps	802.11an-AC
** 8	153	MTU	UDP	DUT-TX	NA	NA	15	472	466	465	466	479	465	1,733	-64	0 / 531852	0	0	15.0	650 Mbps	650 Mbps	802.11an-AC

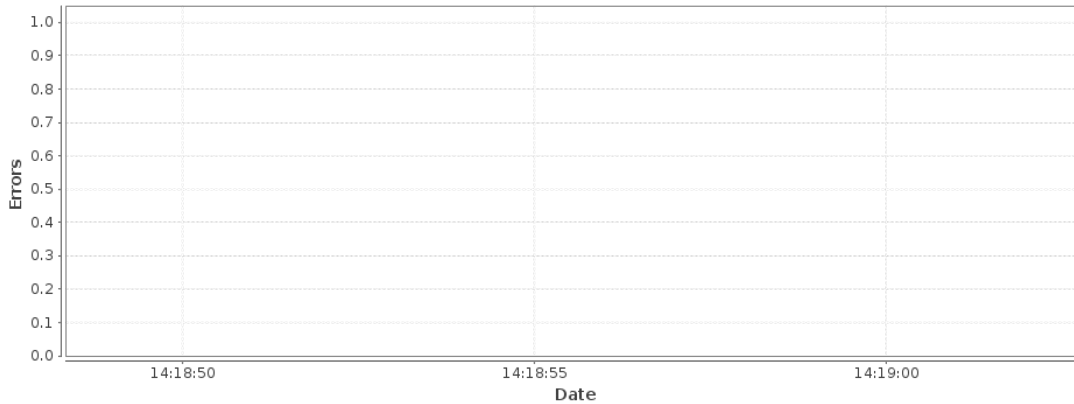
Packet Loss Percentage graph shows the percentage of lost packets as detected by the receiving endpoint due to packet gaps. If there is full packet loss, then this will not report any loss since there will be no gap to detect.

### Endpoint RX Packet Loss Percentage



Error Graph shows occurrences of packet errors.

### Rx Errors



Test configuration and LANforge software version	
Path Loss	25
Requested Speed	85%
Requested Opposite Speed	56Kbps
Multi-Conn	1
Armageddon Multi-Pkt	1000
ToS	0

Duration:	15 sec (15 s)
Hunt Rate Precision:	5% (5%)
Adjust Calculated Tx Speed:	95% (95%)
Allowed Overdrive Percentage:	5% (5%)
Attenuator-1	0
Attenuation-1	0..+50..950
Attenuator-2	0
Attenuation-2	0..+50..950
Turntable Chamber	0
Turntable Angles	0..+45..359
Packet Size	256, 512, 1024, MTU
Traffic Type	UDP
Direction	DUT Transmit
Upstream Port	1.1.1 eth1 Firmware: 0. 6-1 Resource: TR-398
WiFi Port	1.1.10 sta00000 Firmware: 10.4b-ct-9984-xtH-013-b63cea875 Resource: TR-398
Show Events	true
Auto Save Report	false
Build Date	Tue Mar 17 14:08:29 PDT 2020
Build Version	5.4.2
Git Version	7f2bd524e71d37b216a842d728cef2cbd6c888cd