WA8LMF TNC Test CD Results
a.k.a. Battle of the TNCs

Compiled by WB2OSZ, September 2015

It's not that hard to build to build something that receives perfect APRS / AX.25 Packet Radio signals. Building something that works well, with all of the less-than-ideal signals out there, takes some effort.

How can we compare how well different TNCs perform under real world conditions?

The de facto standard of measurement is the number of packets decoded from WA8LMF's TNC Test CD obtained from http://wa8lmf.net/TNCtest/index.htm.

Many have published the number of packets they have been able to decode from this test. Here they are, all gathered in one place, for your reading pleasure.

WARNING: Do not take these numbers too seriously.

There are a few things to keep in mind:

1. These tests were performed by different people, different times, different places, under different conditions.

2. Some information might be outdated. Newer versions of the same thing might be better.

3. Small differences are not significant. It all depends on the mix of packets in the test. If you took another collection of about 1000, the rankings might be a little different.

Reference	TNC	Packets decoded
KI4MCW https://sites.google.com/site/ki4mcw/Home/arduino-tnc	Arduino Duemilanove (328p)	871
	TNC-X	818
	Argent Data OpenTracker 1+	729
	AGWPE 2005.127	500
	Linux PC soundmodem	412
	Linux PC multimon	130
N4MSJ http://groups.yahoo.com/group/tnc-x/message/542	KPC-3	986
	MFJ-1274	883
	AEA PK90	728
	Early Beta TT4	920
4X6IZ http://www.tau.ac.il/~stoledo/Bib/Pubs/QEX-JulAug-2012.pdf	AX25 Java Soundcard Modem	964
N1VG http://www.tapr.org/pipermail/aprssig/2007-May/019449.html	Tracker 2	910
	KPC-3 (non-plus)	967
	uTNT	970
	Tracker 2 with TCM3105	991
	AEA PK-90	728
	MFJ-1274	883
Microsat http://microsat.com.pl/product_info.php?products_id=100	WX3in1 Plus 2.0	981
UZ7HO http://www.pe0sat.vgnet.nl/tag/uz7ho/	UZ7HO Sound-Modem 0.83b	1021
OZ7HVO & OZ1EKD http://www.kissoz.dk/	ARM32M4F TNC platform	994 - 998
WB2OSZ https://github.com/wb2osz/direwolf/blob/master/doc/A-Better-APRS-Packet-Demodulator-Part-1-1200-baud.pdf	Dire Wolf version 1.2 - Track 1 - Track 2	 1011 1004

Conclusions:

Don't be obsessed by very small differences. As mentioned earlier, these numbers didn't come from careful scientifically controlled circumstances.

However, one thing is quite clear. The "software" decoders are leading the pack, leaving the modem chips behind.