

Mfactor nominal limits source: Mlucas/Mfactor V19 source file Mdata.h except as noted

CPU builds

Define	ifndef USE_FLOAT MAX BITS P	MAX BITS Q	ifndef USE_FLOAT MAX BITS P	MAX BITS Q	Note
NWORD	64000000	64000000	not supported	not supported	requires FACTOR_STANDALONE flag
P4WORD	242	256	128	192	requires FACTOR_STANDALONE flag
P3WORD	178	192	178	192	requires FACTOR_STANDALONE flag
P2WORD	114	128	not supported	not supported	requires FACTOR_STANDALONE flag
(1 word P)	50	96	50	78	-

Note, the restriction $k_{max} < 2^{64}$ also applies to all the above. (That restriction is from factor.c source code comments, and confirmed by ewmayer PM)

trial factor $q = 2k + 1$ So, $b_{max} = \log_2(Q_{max}) < \log_2(p) + 65$

The current code no longer requires the Mersenne number exponent to be prime for factoring attempts

GPU builds

API	MAX BITS P	MAX BITS Q	Source
CUDA	32	96?	https://www.mersenneforum.org/showpost.php?p=532411&postcount=10
OpenCL	na	na	
OpenGL	na	na	
Vulkan etc	na	na	