

gpuowl v1.9 74f1a38		transform								
test gpu: RX550 2GB		-fft DP				-fft M61 (needs nttshared.h present)				
Kernel	fft size	ms/iter	GPU mem use MB	min exponent	max exponent	ms/iter	GPU mem use MB	min exponent	max exponent	test exponent
Default	2	6.04	177	<u>27,262,976</u>		9.96	146			37156667
"	4	12.04	291	<u>54,525,952</u>		18.99	226			77231809
"	8	27.27	517	<u>109,051,904</u>	<~153.9M	36.51	388			153900001,...
-legacy	2	5.01	177	<u>4,194,304</u>	~40M	9.96	146			37156667
"	4	10.88	291	<u>8,388,608</u>	~78M	18.94	226			77231809
"	8	21.4	516	<u>16,777,216</u>	~155M?	36.36	388			153900001,...

Per Preda, a <http://www.mersenneforum.org/showthread.php?t=22204> Post 223  
 the default set is only usable for bits-per-word >= 13. The "legacy" kernels have 32-words carry propagation, and this allows as low as 2-bits-per-word.  
 Underlined minima above are computed from that guidance, assuming it applies to the -fft transform (only).

Per Preda, a <http://www.mersenneforum.org/showthread.php?t=22204> Post 224  
 M61 has deeper word bits than DP.

GPU memory usage tabulated above is the usual usage, total of dedicated and dynamic per GPU-Z V2.7.0, after startup and many iterations, not peak.  
 Mesas during some operation have been observed, 32MB dynamic memory use above usual, -fft M61 -legacy at 4M size autoselected  
 Additional level 48MB dynamic memory above usual was observed for -fft DP default (might have gone unnoticed for -legacy), for 4M size.  
 For 2M, mesas of 16MB and 24MB; for 8M, 64 MB and 96MB.

Looks like -legacy may be for DP only, having little to no effect on -fft M61. SP and M31 have not been tested, since their bits/word are too small.