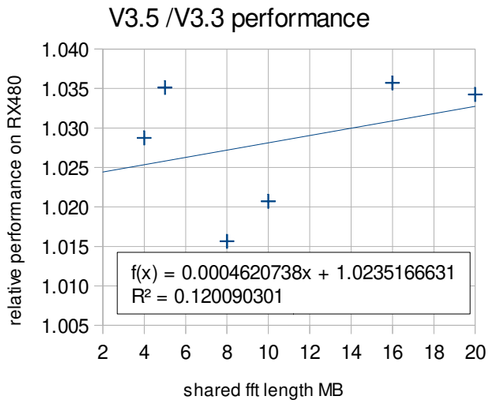
	http://www.mersenneforum.org/showpost.php?p=491835&postcount=505					slow/fast/est.	V3.5	RX480 timings for all columns here	V3.6		V3.8-91c52fa		V3.9		V4.6-bb691cb		V5.0 (**PRP-1**) or PRP	
fft size M	maxExp M	W	H	M	test exponent	RX480 ms/it	est run time	notes	ms/it	est run time	ms/it	est run time	ms/it	est run time	ms/it	est run time	ms/it	est run time
0.5	10.3	512	512	1							0.52						0.51	0.06d
1	20.3	1024	512	1														
1	20.3	512	1024	1				Specify by -fft +1										
2	39.8	1024	1024	1														
2	39.8	512	2048	1				Specify by -fft +1										
2	39.8	2048	512	1				specify by -fft +2										
2.5	49.4	512	512	5	48500017	2.22	1d 6h	49300259 errors immediately			2.22	1d 6h	2.32	1d 7h	2.32	1d 7h	**2.32**	1d 7h
4	78	1024	2048	1	77500079	3.13	2d 19h											
4	78	2048	1024	1	77500079	3.53		Specify by -fft +1										
4	78	4096	512	1	77500079	3.68		specify by -fft +2										
4.5	87.5	512	512	9	87000833	3.86	3d 21h	error at 160k	3.86	3d 21h	3.86	3d 22h	4.09	4d 3h	4.09	4d 3h (EE)	4.49	4d 12h
5	96.9	1024	512	5	96000193	4.27	4d 18h											
5	96.9	512	1024	5	96000193	4.85		Specify by -fft +1										
8	153	2048	2048	1	152000249	7.03	12d 9h				7.03	12d 9h	7.15	12d 14h	7.16	12d 14h	7.91	13d 22h
8	153	4096	1024	1	152000249	7.55		Specify by -fft +1										
9	171.6	1024	512	9	171000041	7.52	14d 21h										7.91	
9	171.6	512	1024	9	171000041	8.65		Specify by -fft +1 Err @ 160k										
10	190	1024	1204	5	189000073	9.60												
10	190	512	2048	5	189000073	10.03		Specify by -fft +1										
10	190	2048	512	5	189000073	9.17	20d 0h	specify by -fft +2										
16	300	4096	2048	1	299000059	14.28	49d 10h				14.23	49d 7h	14.90	51d 12h	14.96	51d 18h	16.94	58d 15h
18	336.3	1024	1024	9	335000377	16.87											16.94	
18	336.3	512	2048	9	335000377	18.09		Specify by -fft +1										
18	336.3	2048	512	9	335000377	16.29	63d 2h	specify by -fft +2			16.30	63d 5h						
20	372.5	1024	2048	5	371000039	18.98	81d 15hr				18.96	81d 12h			19.36	83d 1h	37.71	162d
20	372.5	2048	1024	5	371000039	20.75		Specify by -fft +1										
20	372.5	4096	512	5	371000039	19.51		specify by -fft +2										
32	*588*				*588163741*	*29*	*197*	*hypothetical, not actually available*										
36	659	1024	2048	9	658000139	34.26	261d				34.16	260d	35.05	267d	35.06	267d	41.19	313d
36	659	2048	1024	9	658000139	34.81		Specify by -fft +1										
36	659	4096	512	9	658000139	34.38		specify by -fft +2										
40	730	2048	2048	5	728000017	41.47	349d				41.31	347d			41.24	347d	41.19	
40	730	4096	1024	5	728000017	43.84		Specify by -fft +1										
64	*1153*				*1156978321*	*59*	*787*	*hypothetical, not actually available*										
72	1290.9	2048	2048	9	999999937	72.93	844d	mersenne.org limit 10^9			72.95	844d			74.87	867d	75.09	869d
80	1429.8	4096	2048	5														
144	2527.5	4096	2048	9	1500000041						158	2740d	164	2848d	164.5	2856d	164.5	2856d

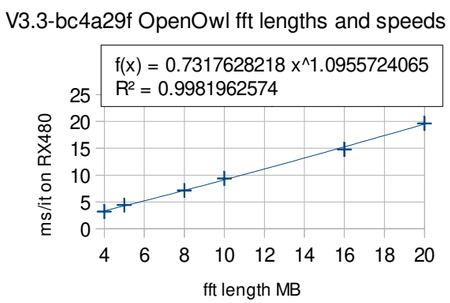
underlined actually @
next larger fft length

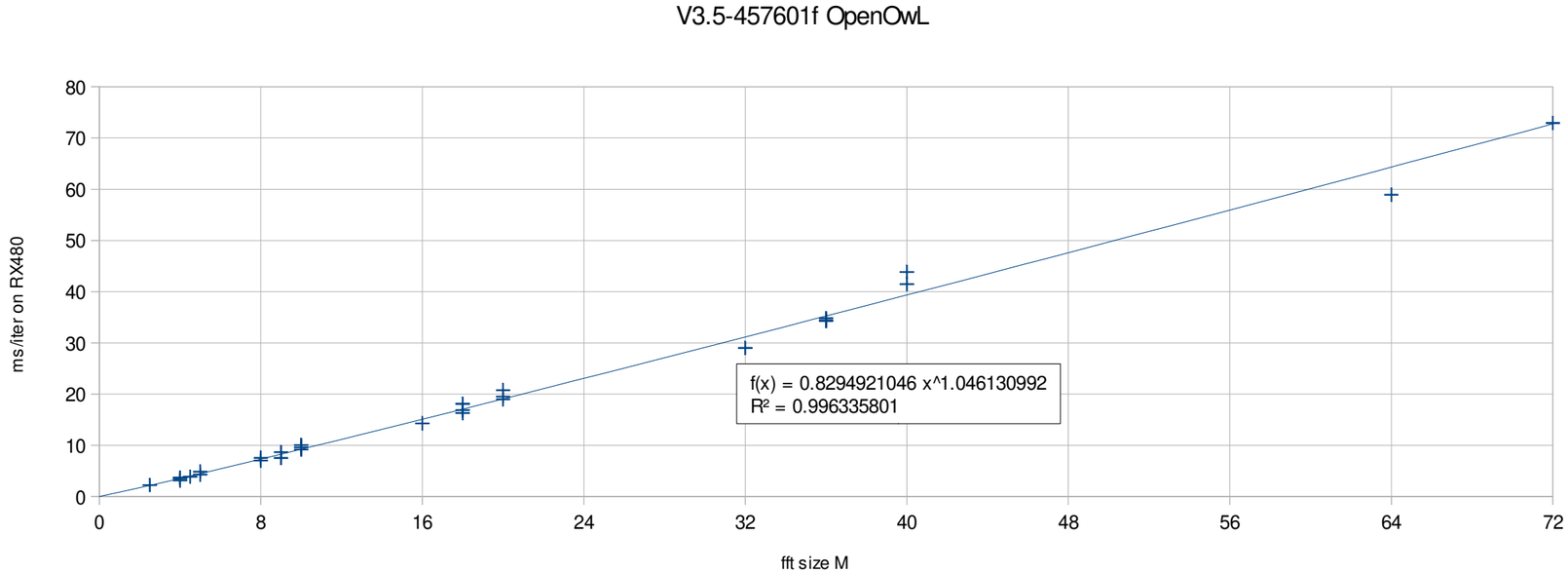
V3.3-bc4a: OpenOwL fft lengths and speeds			
fft size	test exponent	RX480 ms/it	est run time
4	77500079	3.22	2d 21h
5	96000193	4.42	4d 20h
8	152000249	7.14	12d 14h
10	189000073	9.36	20d 12h
16	299000059	14.79	51d 3h
20	369000029	19.63	83d 20h

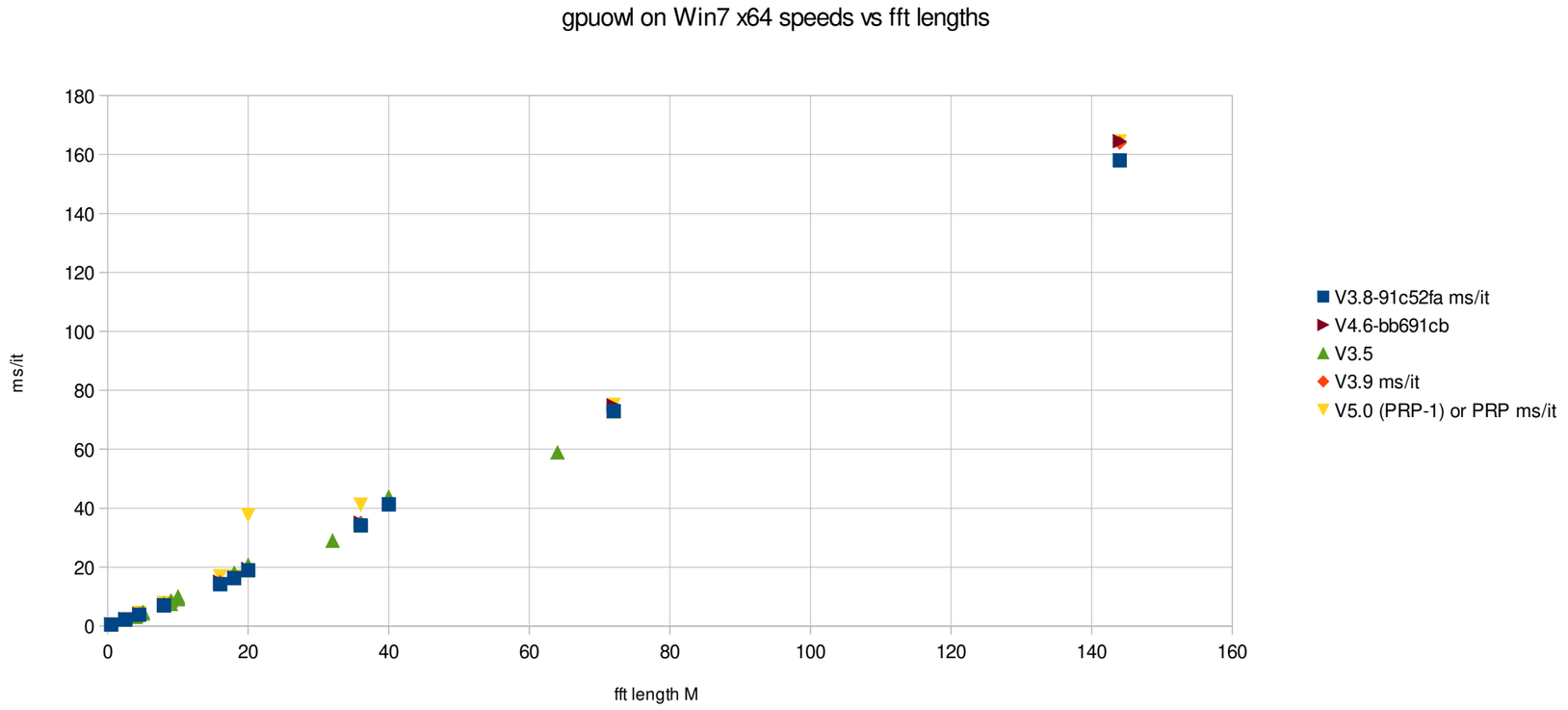
In V3.3: 370m max;
It was necessary to force the fft size or it would go +1

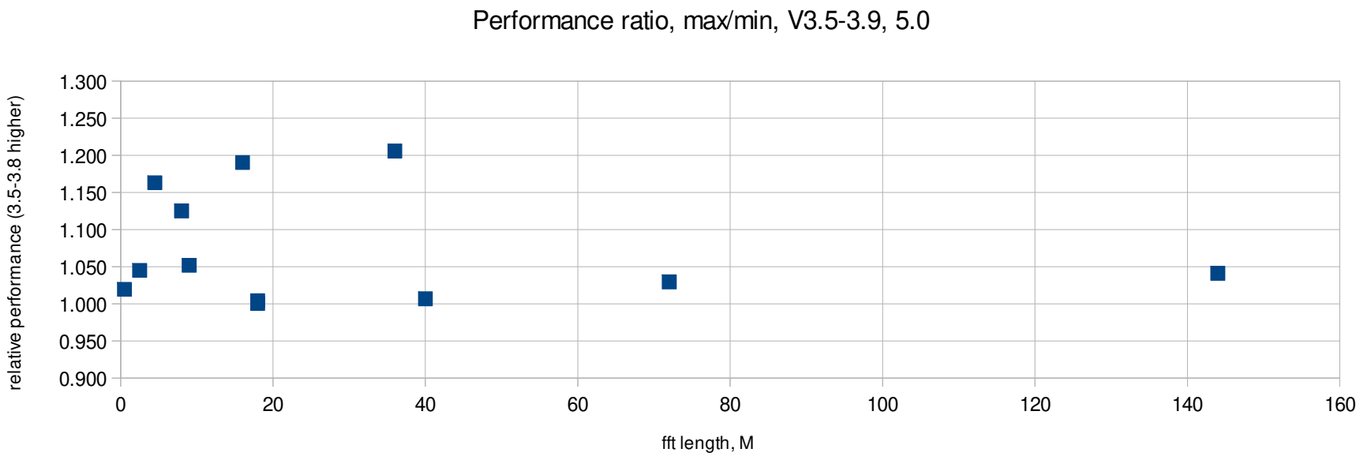
fft sizes shared	V3.3	V3.5	perf V3.5/3.3
4	3.22	3.13	1.029
5	4.42	4.27	1.035
8	7.14	7.03	1.016
10	9.36	9.17	1.021
16	14.79	14.28	1.036
20	19.63	18.98	1.034


V3.5 /V3.3 performance
relative performance on RX480
1.040
1.035
1.030
1.025
1.020
1.015
1.010
1.005
2 4 6 8 10 12 14 16 18 20
shared fft length MB
f(x) = 0.0004620738x + 1.0235166631
R² = 0.120090301


V3.3-bc4a29f OpenOwl fft lengths and speeds
ms/ft on RX480
25
20
15
10
5
0
4 6 8 10 12 14 16 18 20
fft length MB
f(x) = 0.7317628218 x^1.0955724065
R² = 0.9981962574


V3.5-457601f OpenOwL
ms/iter on RX480
80
70
60
50
40
30
20
10
0
0 8 16 24 32 40 48 56 64 72
fft size M
f(x) = 0.8294921046 x^1.046130992
R² = 0.996335801





To ~1.04x is same fft length, above that ratio is fft length switching larger in V5.0