

Sheet1

Binary	Total CPU	Net FPGA	Arguments Set	Results Awaited	Total FPGA	Comms Share	Efficiency	Pipeline Overhead	Improvement
trenz_1024_bit_FSharpParallelAlgorithm	41786	209,7942	0	204	215	0,00%	98%	0%	19335%
trenz_1024_bit_Fix64Calculator	878	769,2309	1	770	778	0,13%	99%	0%	13%
trenz_1024_bit_GenomeMatcher	0	0,1561	0	1	3	0,00%	5%	0%	-100%
trenz_1024_bit_ImageProcessingAlgorithms	2780	28,7338	13	38	56	23,21%	51%	31%	4864%
trenz_1024_bit_Loopback	0	0,0001	0	1	12	0,00%	0%	0%	-100%
trenz_1024_bit_MemoryTest	0	0,0001	0	0	3	0,00%	0%	0%	-100%
trenz_1024_bit_MonteCarloPiEstimator	3236	31,1449	1	26	37	2,70%	84%	0%	8646%
trenz_1024_bit_ObjectOrientedShowcase	0	0,0009	0	1	3	0,00%	0%	0%	-100%
trenz_1024_bit_ParallelAlgorithm	66273	209,7939	0	210	216	0,00%	97%	0%	30582%
trenz_1024_bit_Posit32AdvancedCalculator	0	0,0255	1	1	3	33,33%	1%	0%	-100%
trenz_1024_bit_Posit32Calculator	113	521,6813	1	521	532	0,19%	98%	0%	-79%
trenz_1024_bit_Posit32FusedCalculator	82	44,4477	1	42	50	2,00%	89%	0%	64%
trenz_1024_bit_PositCalculator	46594	6875,0092	1	6881	6904	0,01%	100%	0%	575%
trenz_1024_bit_PrimeCalculator	0	0,0003	0	1	6	0,00%	0%	0%	-100%
trenz_1024_bit_RecursiveAlgorithms	0	0,0006	0	1	3	0,00%	0%	0%	-100%
trenz_1024_bit_SimdCalculator	0	0,0135	1	1	6	16,67%	0%	0%	-100%
trenz_1024_bit_UnumCalculator	20	4,7977	1	10	51	1,96%	9%	100%	-61%

<u>Legend</u>	
Time in ms	
Net FPGA	reported by hardware
Arguments Set	data upload into device
Results Awaited	from kernel scheduled to data returned
Total FPGA	duration in the communication service
Percentage	
Comms Share	timeshare of data transfer (upload)
Efficiency	timshare of processing (net over total)
Kernel Pipeline Overhead	additional time from execution to response compared to Net FPGA
Improvement	total FPGA speedup over total CPU
Improvement Colors	
Green	speed improvement, examples of beleficial use-case
Red	speed loss, further investigation is advised
Grey	the algorithm is so simple that CPU time is less than 1ms, invalid use-cases where it will never be worth it due to the communication/infrastructure overhead