

HPC-2009-3 © HiPERiSM Consulting, LLC, 2009

Table 1: AERMOD-HPCS 1.8.2 on 32-bit and 64-bit Linux

Platform	NODE11	NODE12	NODED3	NODE14	NODE17	NODE100	speed-up of node17 versus other nodes				
Processor	Intel IA32	Intel IA32	Opteron	Intel IA32	Intel IA32	Intel IA64					
OS	Linux 32	Linux 32	Linux 64	Linux 64	Linux 64	Linux IA64					
CPUs/cores	dual CPU	dual CPU	dual quad	dual CPU	dual quad	single CPU					
Clock	3.06GHz	3.06GHz	2.30GHz	3.4GHz	3GHz	1.5GHz					
FSB	533MHz	533MHz	1000MHz	800MHz	1333MHz						
L1 cache	8KB	8KB	256KB	16KB							
L2 cache	0.512MB	0.512MB	2MB	1MB	12MB	1MB					
L3 cache	1MB	none	2MB	none	none	4MB					
							11/17	12/17	D3/17	14/17	100/17
AERMOD-HPCS v1.8.2											
CASE 1	222.8	222.1	265.0	182.9	91.7	521.0	2.4	2.4	2.9	2.0	5.7
CASE 2	384.0	384.4	436.6	323.3	160.7	969.7	2.4	2.4	2.7	2.0	6.0
CASE 4	4411.9	4360.7	5236.5	3960.7	2043.3	9675.6	2.2	2.1	2.6	1.9	4.7
CASE 5	25204.2	24989.0	29229.2	21562.8	11054.1	58513.1	2.3	2.3	2.6	2.0	5.3
total seconds	30223.0	29956.1	35167.3	26029.6	13349.7	69679.4	2.3	2.2	2.6	1.9	5.2
total hours	8.4	8.3	9.8	7.2	3.7	19.4	2.3	2.2	2.6	1.9	5.2