

Orange	Red	Red	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

Orange	Red	Red	Yellow	Yellow	Yellow
Yellow	Orange	Yellow	Yellow	Yellow	Yellow
Yellow	Orange	Yellow	Yellow	Yellow	Yellow
Yellow	Orange	Yellow	Yellow	Yellow	Yellow

Orange	Red	Red	Yellow	Yellow	
Yellow	Yellow	Yellow	Yellow	Yellow	
Yellow	Yellow	Yellow	Yellow	Yellow	
Yellow	Yellow	Yellow	Yellow	Yellow	

Orange	Dark Red	Red	Light Orange	Yellow	White
White	Yellow	White	White	Yellow	White
Yellow	Orange	Orange	White	Yellow	White
Yellow	Orange	Orange	White	Yellow	White

Red	Red	Orange	Orange	Orange	White
Orange	Orange	White	Orange	White	White
White	Orange	White	White	White	White
White	Orange	White	White	White	White

Orange	Red	Orange	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Orange	Orange	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

Orange	Red	Red-Orange	Yellow-Orange	Yellow	Light Yellow
Yellow-Orange	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

Red	Dark Red	Orange	Yellow	Light Yellow	White
Yellow	Light Yellow	White	White	White	White
Orange	Orange	Orange	White	White	White
Light Yellow	Light Yellow	Light Yellow	White	White	White

Orange	Red	Orange	Orange	Orange	Yellow
Orange	Orange	Yellow	Yellow	Yellow	Yellow
Orange	Orange	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

		Q12*:MPI Implementation					
		MPICH	OMPI	Intel	MVA	Cray	Fujitsu
Q22*:MPI+X	OMP	0	0.68	1.4	2	2.7	3.4
	Pthread	4.1	4.8	5.4	6.1	6.8	7.5
	CUDA	8.2	8.8	9.5	10	11	12
	No	12	13	14	14	15	16