

Layer Type	conv11	pool11	tanh11	conv12	conv13	conv21	pool21
Kernel Size / Stride	$25 \times 8 \times 8 / 1$	$2 \times 2 / 2$	-	$50 \times 8 \times 8 / 1$	$32 \times 1 \times 1 / 1$	$25 \times 8 \times 8 / 1$	$2 \times 2 / 2$
Sliding Window Fwd. Prop. (ms)	39485.6	1960.2	693.0	59017.2	6473.1	63548.4	332.2
Our Method Fwd. Prop. (ms)	4.398	0.854	0.337	24.42	2.466	28.90	0.70
Speedup by Ours Fwd. Prop.	8978.1	2295.3	2056.4	2416.8	2631.3	2198.9	474.6
Sliding Window Bwd. Prop. (ms)	73961.5	10054.8	602.6	146019.3	25206.7	133706.2	1623.8
Our Method Bwd. Prop. (ms)	8.193	1.428	0.282	66.55	6.778	71.69	0.844
Speedup by Ours Bwd. Prop.	9027.4	7041.2	2136.9	2194.1	3718.9	1865.1	1923.9
Layer Type	conv22	conv23	conv31	pool31	tanh31	conv32	conv33
Kernel Size / Stride	$50 \times 8 \times 8 / 1$	$32 \times 1 \times 1 / 1$	$25 \times 8 \times 8 / 1$	$2 \times 2 / 2$	-	$50 \times 8 \times 8 / 1$	$32 \times 1 \times 1 / 1$
Sliding Window Fwd. Prop. (ms)	14765.3	2433.4	17059.8	32.15	13.81	17015.4	2069.7
Our Method Fwd. Prop. (ms)	18.98	1.920	20.55	0.488	0.164	10.76	1.080
Speedup by Ours Fwd. Prop.	777.9	1267.4	830.2	65.9	84.2	1581.4	1916.4
Sliding Window Bwd. Prop. (ms)	28744.1	8522.3	16727.5	128.358	15.91	8657.7	2793.6
Our Method Bwd. Prop. (ms)	52.35	5.368	50.89	0.630	0.180	29.47	3.117
Speedup by Ours Bwd. Prop.	549.1	1587.6	328.7	203.7	88.4	293.8	896.2