

Table 1: EMNIST averaged accuracy for the backdoor attack under different settings.

LR	ϵ	t	$a \rightarrow j$				$b \rightarrow h$			
			Clean accuracy	Backdoor accuracy	Source class accuracy	Target class backdoor accuracy	Clean accuracy	Backdoor accuracy	Source class accuracy	Target class backdoor accuracy
0.01	0.1	1	84.09	76.91	45.47	67.26	84.45	77.52	30.61	81.04
0.01	0.1	10	85.81	84.54	26.23	88.91	85.49	84.04	21.34	95.44
0.01	0.1	25	85.87	86.19	14.58	89.94	86.01	85.77	21.83	96.58
0.01	0.1	50	85.79	86.88	10.30	90.16	85.73	86.48	17.77	96.78
0.01	0.1	75	85.67	87.40	8.65	90.32	85.49	86.91	13.51	96.96
0.01	0.1	90	85.68	87.55	8.15	89.89	85.35	87.07	11.85	96.97
0.01	0.1	100	85.38	87.45	8.19	90.19	84.99	86.94	11.21	97.01
0.01	0.01	1	85.72	74.51	86.02	39.74	86.30	75.16	88.35	51.69
0.01	0.01	10	87.90	83.58	89.98	82.99	88.26	83.59	93.09	90.88
0.01	0.01	25	88.64	85.84	89.46	87.89	88.70	85.43	93.68	94.37
0.01	0.01	50	88.64	86.71	88.04	88.21	88.62	86.30	94.48	95.89
0.01	0.01	75	88.48	87.14	87.56	88.72	88.49	86.73	94.29	96.07
0.01	0.01	90	88.24	87.26	86.56	89.29	88.39	86.85	94.30	96.41
0.01	0.01	100	88.16	87.16	85.78	89.07	88.19	86.75	93.90	96.31
0.01	0.001	1	85.90	74.49	90.92	39.13	85.89	73.90	92.83	43.95
0.01	0.001	10	87.96	80.12	91.55	40.06	87.96	79.73	93.94	48.63
0.01	0.001	25	88.67	82.37	91.47	46.08	88.63	82.58	94.44	60.11
0.01	0.001	50	88.77	84.18	90.99	56.73	88.79	84.61	95.30	74.79
0.01	0.001	75	88.50	84.93	89.15	62.86	88.48	85.16	95.56	76.23
0.01	0.001	90	88.33	85.06	89.32	62.87	88.32	85.42	95.46	78.87
0.01	0.001	100	88.36	85.48	89.36	65.56	88.19	85.58	95.31	79.94
0.001	0.1	1	84.92	70.20	69.08	42.13	86.17	69.53	83.51	46.15
0.001	0.1	10	84.21	76.92	46.07	67.84	84.24	77.10	33.04	79.39
0.001	0.1	25	85.17	80.89	40.27	83.11	84.59	80.37	24.50	89.49
0.001	0.1	50	85.50	82.84	33.56	87.53	84.96	82.12	22.50	93.45
0.001	0.1	75	85.60	83.73	29.44	88.53	85.22	83.02	23.02	94.56
0.001	0.1	90	85.64	84.05	27.21	89.07	85.36	83.39	23.10	95.05
0.001	0.1	100	85.65	84.39	25.35	89.44	85.44	83.63	23.58	95.11
0.001	0.01	1	85.50	69.84	84.70	37.73	85.81	68.82	91.39	41.28
0.001	0.01	10	85.81	74.45	86.98	40.03	86.16	74.56	88.76	50.21
0.001	0.01	25	86.62	77.60	88.21	51.03	86.81	77.90	88.85	65.80
0.001	0.01	50	87.30	81.02	89.49	71.82	87.47	80.76	91.59	81.90
0.001	0.01	75	87.61	82.39	89.46	79.45	87.80	82.18	92.56	88.52
0.001	0.01	90	87.73	83.09	89.59	82.07	87.99	82.76	92.93	90.09
0.001	0.01	100	87.77	83.26	89.75	82.03	88.10	82.97	93.08	90.72
0.001	0.001	1	85.50	69.22	87.45	35.58	85.58	68.41	92.81	39.91

0.001	0.001	10	85.90	74.29	91.05	38.95	85.99	73.91	92.90	44.07
0.001	0.001	25	86.78	76.72	90.85	39.48	86.77	76.32	93.09	45.75
0.001	0.001	50	87.41	78.35	91.61	40.22	87.48	78.10	93.21	46.96
0.001	0.001	75	87.74	79.25	91.59	40.41	87.78	79.00	93.68	47.77
0.001	0.001	90	87.74	79.56	91.50	40.32	87.83	79.36	93.87	48.65
0.001	0.001	100	87.90	79.87	91.31	40.66	87.96	79.64	93.89	48.93
1e-05	0.1	1	87.94	72.08	86.75	35.69	87.98	70.82	94.38	46.02
1e-05	0.1	10	88.23	72.98	85.64	38.61	88.47	71.55	93.61	45.74
1e-05	0.1	25	87.30	71.69	81.11	40.39	87.89	70.36	90.80	44.22
1e-05	0.1	50	85.84	70.32	75.17	40.84	86.71	69.15	87.06	43.84
1e-05	0.1	75	85.29	70.16	72.01	41.48	86.36	69.12	85.56	44.78
1e-05	0.1	90	85.14	70.39	70.39	41.89	86.30	69.45	84.78	45.59
1e-05	0.1	100	85.00	70.45	69.39	42.16	86.26	69.69	83.64	46.29
1e-05	0.01	1	87.97	71.88	86.75	35.44	87.98	70.70	94.38	46.22
1e-05	0.01	10	88.28	72.61	88.31	36.76	88.33	71.49	94.21	44.91
1e-05	0.01	25	87.55	71.26	86.92	37.03	87.64	70.12	93.24	42.36
1e-05	0.01	50	86.30	69.72	85.77	36.60	86.50	68.65	92.03	40.74
1e-05	0.01	75	85.75	69.58	84.70	37.19	86.05	68.53	91.73	40.95
1e-05	0.01	90	85.60	69.72	84.58	37.51	85.94	68.72	91.55	41.15
1e-05	0.01	100	85.49	69.70	84.72	37.46	85.82	68.74	91.44	41.35
1e-05	0.001	1	87.97	71.89	86.75	35.56	87.97	70.75	94.38	46.00
1e-05	0.001	10	88.22	72.51	89.35	36.12	88.23	71.42	94.38	44.49
1e-05	0.001	25	87.53	71.00	88.23	35.69	87.53	69.95	93.70	41.92
1e-05	0.001	50	86.29	69.36	87.24	34.68	86.31	68.32	92.75	39.62
1e-05	0.001	75	85.83	69.23	87.61	34.93	85.85	68.27	92.76	39.39
1e-05	0.001	90	85.65	69.27	87.55	35.34	85.67	68.29	92.81	39.73
1e-05	0.001	100	85.56	69.40	87.49	35.75	85.58	68.49	92.83	39.77
1e-06	0.1	1	87.86	71.82	86.37	35.24	87.85	70.60	94.38	46.31
1e-06	0.1	10	87.95	71.95	86.75	35.54	87.98	70.72	94.38	46.17
1e-06	0.1	25	88.16	72.32	86.50	36.33	88.16	71.01	94.25	45.97
1e-06	0.1	50	88.18	72.66	86.43	37.38	88.31	71.35	94.12	46.09
1e-06	0.1	75	88.34	72.84	86.86	37.90	88.56	71.45	94.12	45.77
1e-06	0.1	90	88.30	72.98	86.11	38.28	88.50	71.57	94.00	45.73
1e-06	0.1	100	88.22	72.97	85.67	38.62	88.46	71.55	93.64	45.60
1e-06	0.01	1	87.85	71.80	86.37	35.20	87.85	70.58	94.38	46.16
1e-06	0.01	10	87.97	71.93	86.75	35.57	87.98	70.77	94.38	46.19
1e-06	0.01	25	88.09	72.23	86.75	35.87	88.10	71.02	94.38	45.89
1e-06	0.01	50	88.22	72.52	87.65	36.20	88.23	71.31	94.25	45.56
1e-06	0.01	75	88.31	72.66	88.24	36.75	88.33	71.48	94.25	45.32
1e-06	0.01	90	88.28	72.76	88.46	36.58	88.30	71.56	94.25	44.97
1e-06	0.01	100	88.29	72.72	88.33	36.81	88.33	71.51	94.24	44.81
1e-06	0.001	1	87.85	71.70	86.37	35.36	87.85	70.56	94.38	46.18
1e-06	0.001	10	87.97	71.97	86.75	35.25	87.97	70.72	94.38	45.98

1e-06	0.001	25	88.08	72.18	86.87	35.71	88.08	71.05	94.50	45.86
1e-06	0.001	50	88.21	72.47	88.16	35.76	88.21	71.35	94.25	45.44
1e-06	0.001	75	88.24	72.54	88.75	36.01	88.23	71.45	94.38	45.07
1e-06	0.001	90	88.25	72.56	89.17	36.13	88.26	71.49	94.38	44.72
1e-06	0.001	100	88.23	72.52	89.34	36.13	88.23	71.47	94.38	44.67