Parameter				TPKE Time (ms)				RPKE Time (ms)		
λ	n	t	r	KeyGen	Encrypt	Decrypt	Combine	KeyGen	Encrypt	Decrypt
128	4	3	2	2.184	0.263	0.145	0.309	4.978	0.390	0.467
256	4	3	2	9.499	0.517	0.312	0.566	11.59	0.839	0.770
512	4	3	2	68.08	1.311	0.797	1.318	34.53	1.890	1.786

 $^{^{\}ddagger}$ $\lambda,~n,~t$ and r indicate the security parameter, the number of users, the threshold value, and the number of revoked users, respectively.