

Primitive	PublicKeySize	PrivateKeySize	CipherTextSize
X25519	32	32	32
Kyber512	800	1632	768
BIKE-L1	1541	5223	1573
HQC-128	2249	2289	4481
McEliece348864	261120	6492	96

Runtime (in millisecond)	Key Generation	Encapsulation	Decapsulation
kyber512	0.02	0.01	0.01
kyber768	0.03	0.02	0.02
HQC-128	0.03	0.05	0.09
BIKE-L1	0.13	0.03	0.5
mceliece348864f	51.88	0.35	19.70
mceliece460896f	166.49	0.66	43.96

Fig 1

Fig 3

Fig 2

Protocol	Initiation size (bytes)	Response size (bytes)	Time in microseconds		
			Server	Client	Total
WireGuard (original)	148	92	0.36	0.47	1.37
KEM-WireGuard (kyber512 only/time-optimal)	1700	1596	0.21	0.34	0.57
KEM-WireGuard (mcliece348864f only)	261348	252	20.82	91.47	133.36
KEM-WireGuard (BIKE-L1)	3246	3206	1.46	3.65	4.60
KEM-WireGuard (HQC-128)	6862	9022	0.49	0.61	0.84
KEM-WireGuard (M&K/size-optimal)	1028	252	20.40	20.95	41.47