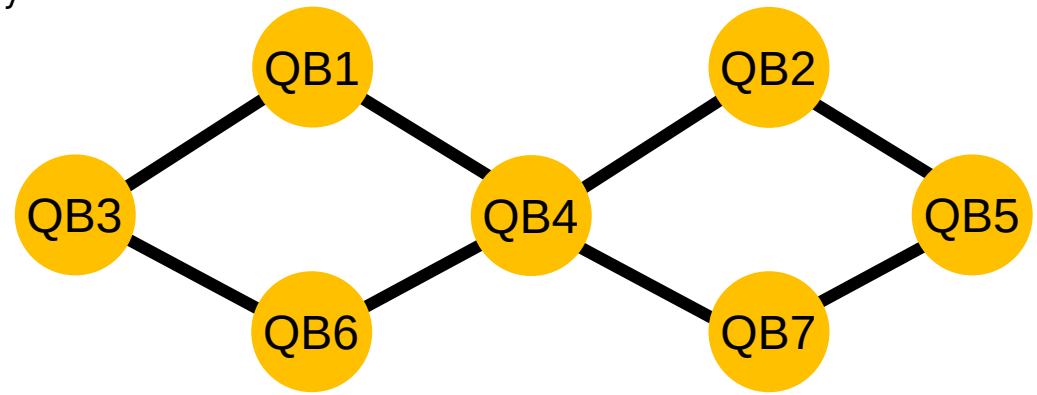
ETH 7 qubit device

Single qubit gates:

- Rotations about X- and Y-axis by angles typically π and $\pi/2$. Arbitrary rotation angles possible. Gate duration typically 50ns, down to 30ns possible.
- Zero-duration (virtual) Z-rotations (McKay et al, PRA 2017)
- >99.5% fidelity per Clifford from RB*

Two-qubit C-Phase (CZ) gate U=diag(1,1,1,-1) for all pairs of qubits connected by a black line (see schematic).

- 200 ns long*
- Fidelity: ~98% from interleaved RB*



(*) These values have been measured on a different device with 4 qubits. Gate error characterization on current 7Q device remains to be done.

ETH 7Q device, chip iteration #1	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Qubit Frequency (GHz)	5.731	5.849	4.919	5.142	5.299	4.361	4.562
Qubit Lifetime, T1 (us)	19	14.3	20	2.7	22	14.5	14.3
Qubit Coherence time, T2* (us)	12.7	21.2	16.5	2.9	14	24.2	14.9
Correct readout state assignment probability (%)	91.4	96.3	97.8	98.0	95.0	97.9	95.1