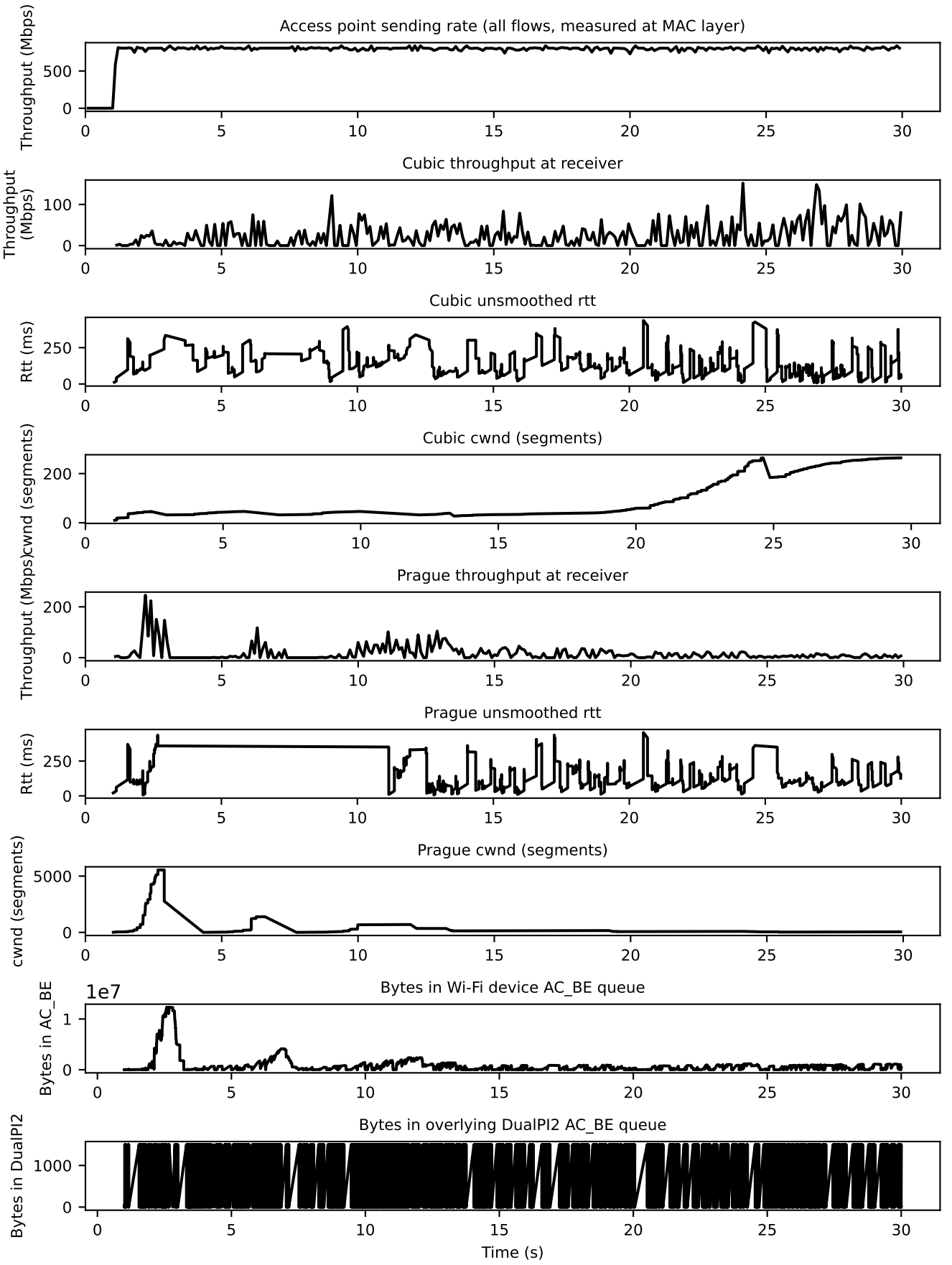Simulation ED1-MS2-AP0-LS3-TC4-TS1