



Fig. 2. (a) Experimental setup. LD, laser diode; AWG, arbitrary waveform generator; EOM, electro-optic intensity modulator; FBG, fiber Bragg grating; PD, photo detector; DAQ, data acquisition. (b) Measured absorption spectrum of the  $P(27)$  line of the  $\nu_1 + \nu_3$  band of  $C_2H_2$  at 100-MHz spectral resolution over a 20-GHz span.