



**Fig. 5.** (a) RF spectrum of the signal at the output of the  $f$ -to- $2f$  interferometer showing the beat note at the CEO frequency of  $\sim 21$  MHz with a SNR of higher than 30 dB in 25 kHz resolution bandwidth. (b) Detailed spectrum of the CEO beatnote frequency with 700-kHz frequency span and 1.6-kHz resolution bandwidth, showing a SNR of 47 dB and a full width at half maximum linewidth limited by the adopted resolution bandwidth (see inset in linear scale: red curve is a Gaussian fitting curve with 1.6 kHz linewidth).