With inherent simplicity, mutual phase coherence, and a high degree of user control, electro-optic frequency combs are amenable to both dual-comb spectroscopy\textsuperscript{a} and cavity-enhanced comb spectroscopy.\textsuperscript{b} This combination of fast, multiplexed spectroscopy, with an effective absorption pathlength $>1$ km, is used here to perform line-by-line metrology of the gas-phase absorption spectra of CO$_2$, H$_2$O, and N$_2$O in the near-infrared. We report absolute transition frequency with precision better than 1 MHz in 1 s of spectral acquisition per transition using a comb with an instantaneous optical bandwidth of 6 GHz, tunable over the entire 6240-6370 cm$^{-1}$ range. A full model for the electric field transmitted through the enhancement cavity (even in the presence of strong molecular absorption and dispersion) will be discussed.

\textsuperscript{a}I. Coddington et al., \textit{Optica} \textbf{3}, 414 (2016)
\textsuperscript{b}B. Berhardt et al., \textit{Nat. Photonics} \textbf{4}, 55 (2010)