

# Sideband Frequencies for Arm Length Stabilization

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# ALS Sideband Frequencies

- We have to decide by Sept 19, 2016 for ALS table-top experiment at University of Toyama
- ALS sidebands shouldn't be multiples or simple integer ratio of IMC FSR (5.62698725 MHz), since we use  $f_1$  (FSR\*3),  $f_2$  (FSR\*8),  $f_3$  (FSR\*10),  $f_3-f_1$  (FSR\*7),  $f_3-f_2$  (FSR\*2) for IR locking
- ALS sidebands shouldn't be multiples or simple integer ratio of IMC sideband frequency (13.78 MHz)
- ALS sidebands shouldn't degenerate with higher order modes resonances
- How about 32 MHz for ALSX and 33 MHz for ALSY?

# HOM Structure

