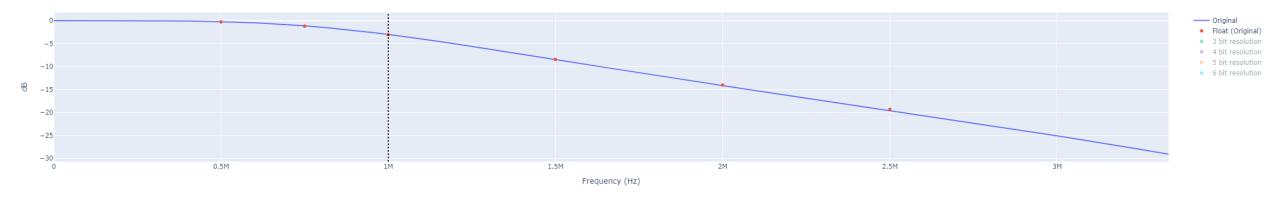
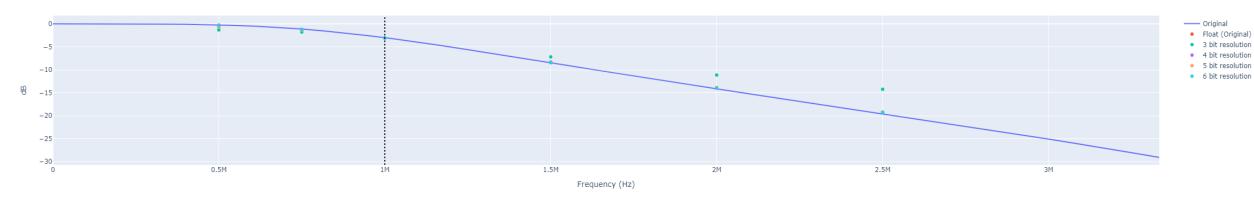
## Effect of Bit Resolution on Low Pass Filter

David Nguyen

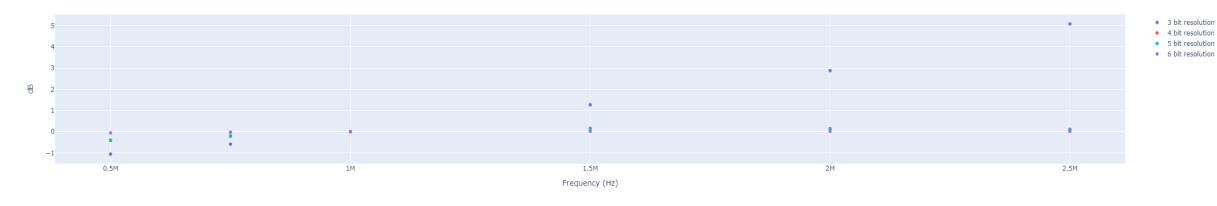
Frequency Response of Low Pass Filter (critical f. = 1 MHz, sampling f. = 10 MHz)



Frequency Response of Low Pass Filter (critical f. = 1 MHz, sampling f. = 10 MHz)

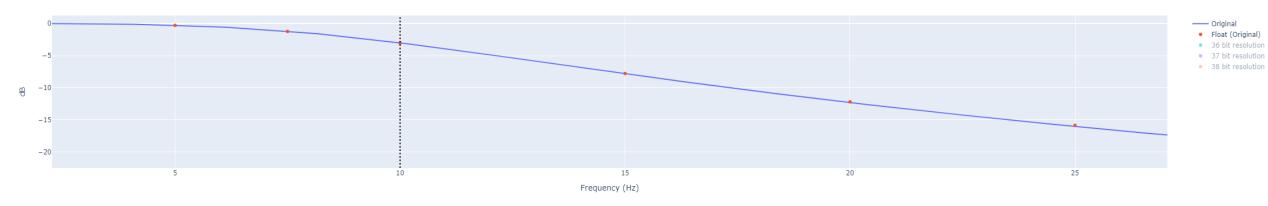


Difference Between Lower Bit Resolutions & Float (critical f. = 1 MHz, sampling f. = 10 MHz)

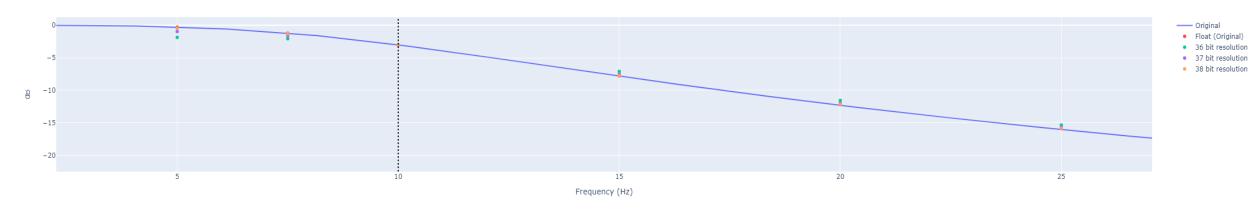


Bit Resolution	Slope (dB/decade)
Float	-40.4800
3	-28.1308
4	-40.2068
5	-40.2068
6	-40.4479

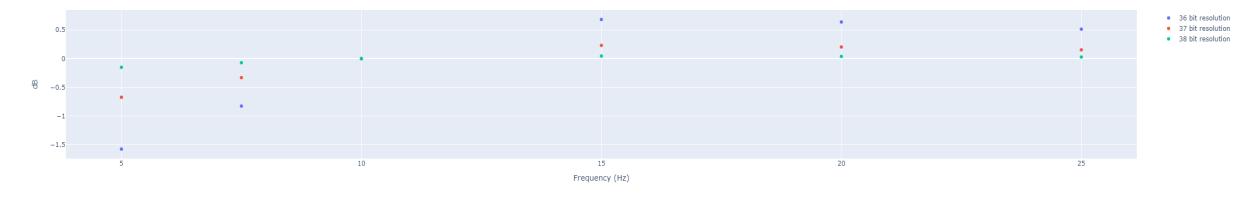
Frequency Response of Low Pass Filter (critical f. = 10 Hz, sampling f. = 10 MHz)



Frequency Response of Low Pass Filter (critical f. = 10 Hz, sampling f. = 10 MHz)



Difference Between Float and Lower Bit Resolutions (critical f. = 10 Hz, sampling f. = 10 MHz)



Bit Resolution	Slope (dB/decade)
Float	-32.1674
36	-30.8629
37	-31.7793
38	-32.0971