Hi Mark,

When you run an alternative current through the coil you get extra impedance. The higher frequency, the higher impedance (resistance).
As I understand, that should not affect magnetic field strength.

One photon of higher frequency has higher energy. But then the energy of the created field depends on how many photons are emitted.
As you have fixed supplied energy to the coil total emitted energy will be constant, but if you have high frequency you will emit let's say 100 photons, with lower frequency you will emit 500 photons.

I just found this calculator for a regular
coil: https://www.accelinstruments.com/Magnetic/Magnetic-field-calculator.html

You can change Frequency (Note 5) and see that the Magnetic field stays the same for different values of the Frequency.

Maybe somehow frequency affects other elements in the circuit and that affects the current that goes through the coil.

Best regards, Anton