

Radiation frequency, $f = 45 \text{ MHz}$
 $=$ Cyclotron frequency.

$$f_{\text{cyc}} = \frac{qB}{2\pi m} = \frac{eB}{2\pi m}$$

So: $B = \frac{2\pi f_{\text{cyc}} m}{e}$

$m = 9.11 \times 10^{-31} \text{ kg}$
(electron mass)

$= 0.00161 \text{ T}$