

To Determine Microwave Wavelength from Standing Waves

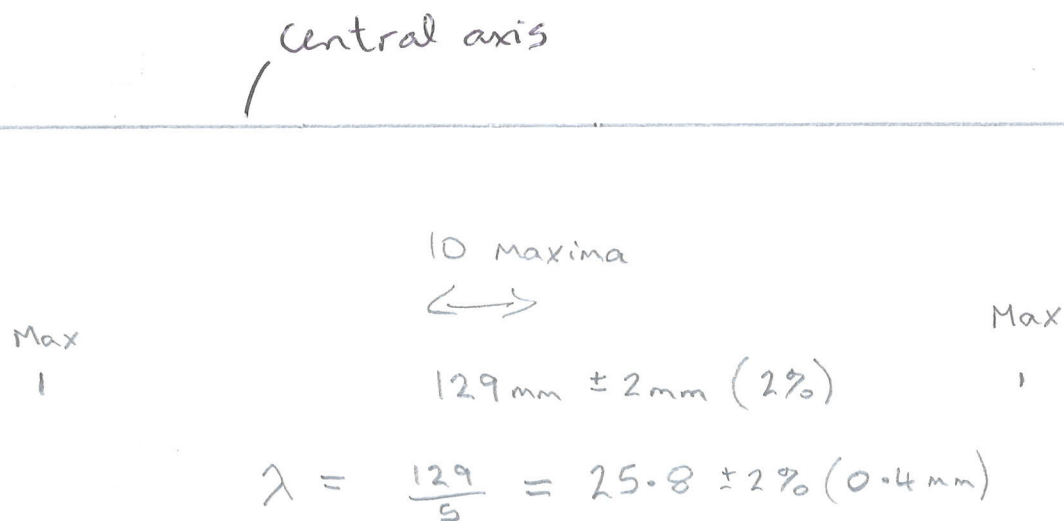
Date

Apparatus used: Edulab 2.8 cm Kit

Probe attached to receiver then voltmeter. Speaker on - max and min easily identified.

Voltmeter set to 0 - 2000 mV \pm 0.001 V
(Max voltage around 1.9 V)

Method as per lab manual.

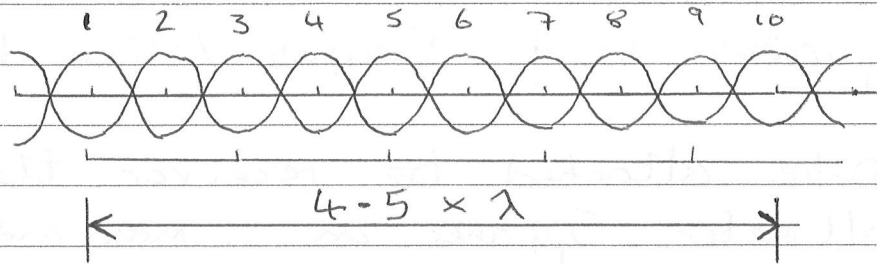


Dist between 10 maxima divided by 5x

Max value found here (2.62 cm) is less than the 2.8 cm stated on the kit.

Worth checking someone else's results and/or the kit specification for insight into the difference. Mistake spotted on date (pto)

$129 \text{ mm} \pm 2 \text{ mm} (2\%)$ over 10 maxima.



4.5 wavelengths not 5!

$$4.5\lambda = 129 \times 10^{-3} \text{ m}$$

$$\text{so } \underline{\lambda = 2.87 \text{ cm} \pm 0.06 \text{ cm} (2\%)}$$

This is in agreement with the 2.8 cm stated on the generator.