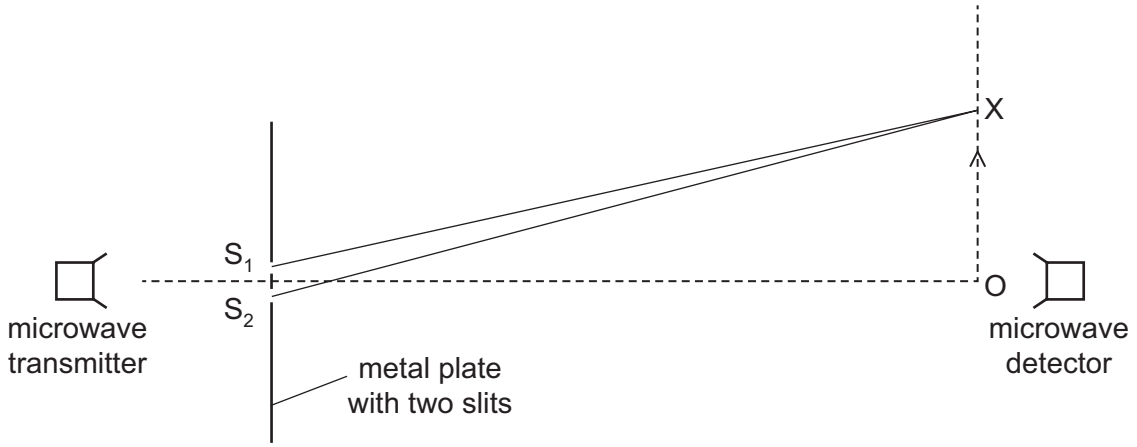
27 The diagram shows an experiment which has been set up to demonstrate two-source interference. Microwaves of wavelength λ pass through two slits S_1 and S_2.



The detector is moved from point O in the direction of the arrow. The signal detected decreases until the detector reaches point X, and then starts to increase again as the detector moves beyond X.

Which equation correctly determines the position of X?

A $OX = \lambda$

B $OX = \lambda / 2$

C $S_2X - S_1X = \lambda$

D $S_2X - S_1X = \lambda / 2$

Space for working