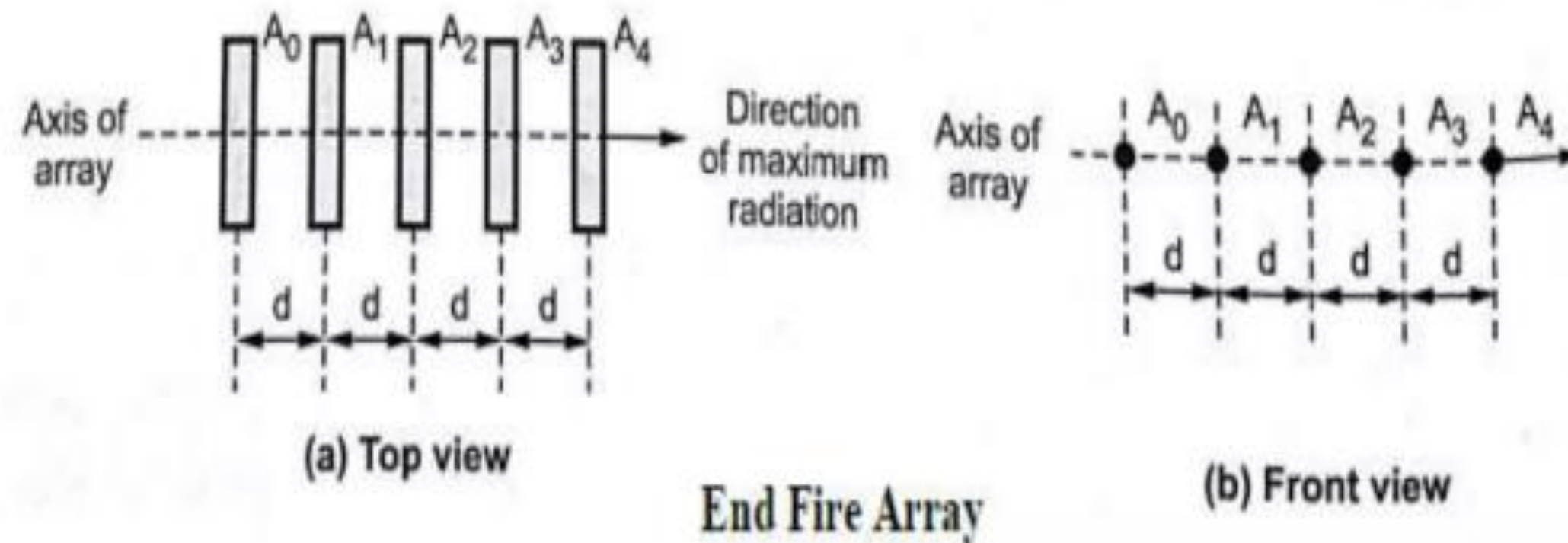




## End Fire Array :

- The end fire array is very much similar to the broadside array from the point of view of arrangement.
- But the main difference is in the direction of maximum radiation.

- In broadside array, the direction of the maximum radiation is perpendicular to the axis of array.
- While in the end fire array, the direction of the maximum radiation is along the axis of array.

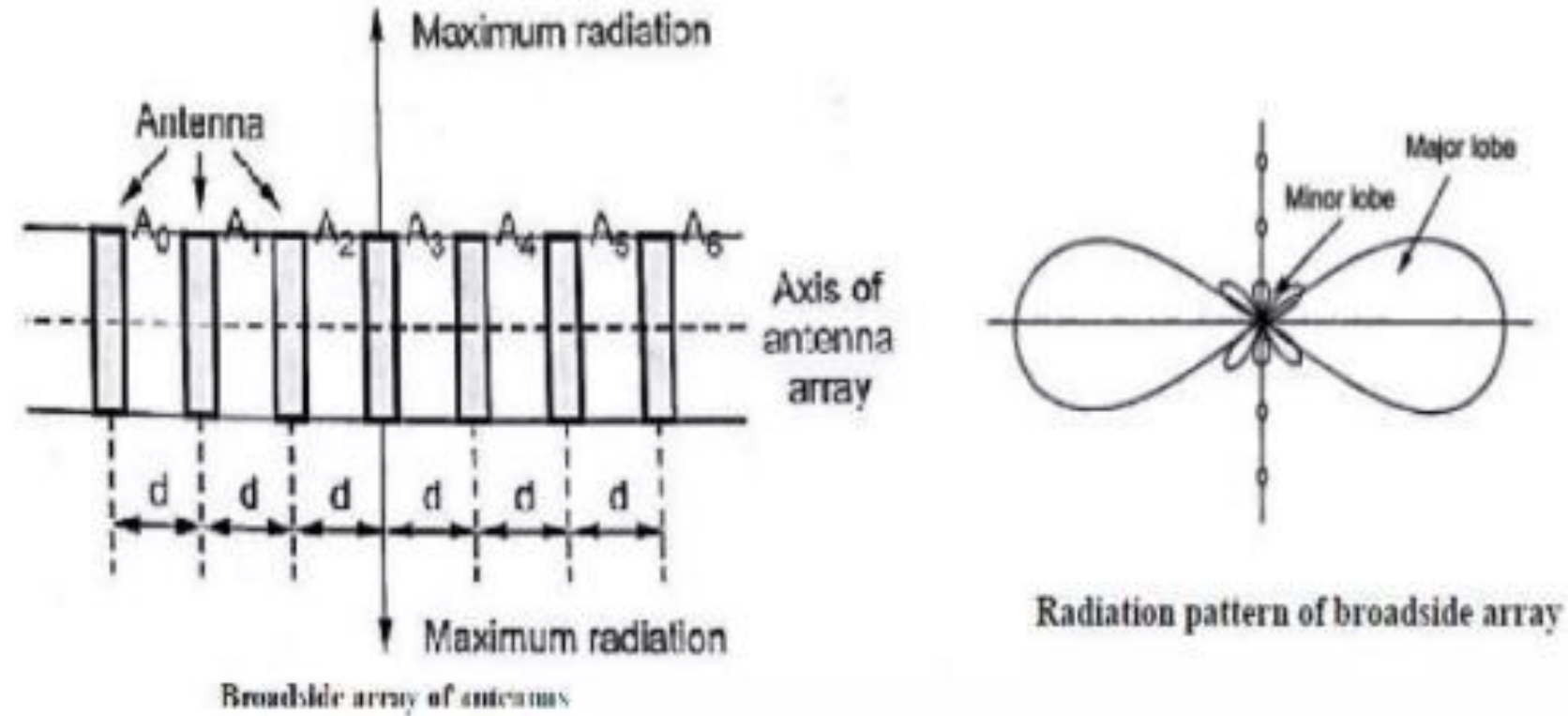




## Broadside Array :

- This is a type of array in which the number of identical elements is placed on a supporting line drawn perpendicular to their respective axes.
- The spacing between any two elements is denoted by  $d$ .
- All the elements are fed with currents with equal magnitude and same phase.
- The direction of maximum radiation is perpendicular to the array axis and to the plane containing the array element.

- Now consider two isotropic point sources spaced equally with respect to the origin of the co-ordinate system as shown in the Fig.





## ADVANTAGES:

No secondary lobes

## DISADVANTAGE:

High beam width

When designing array of large number of antennas layer amplitude ratio is required