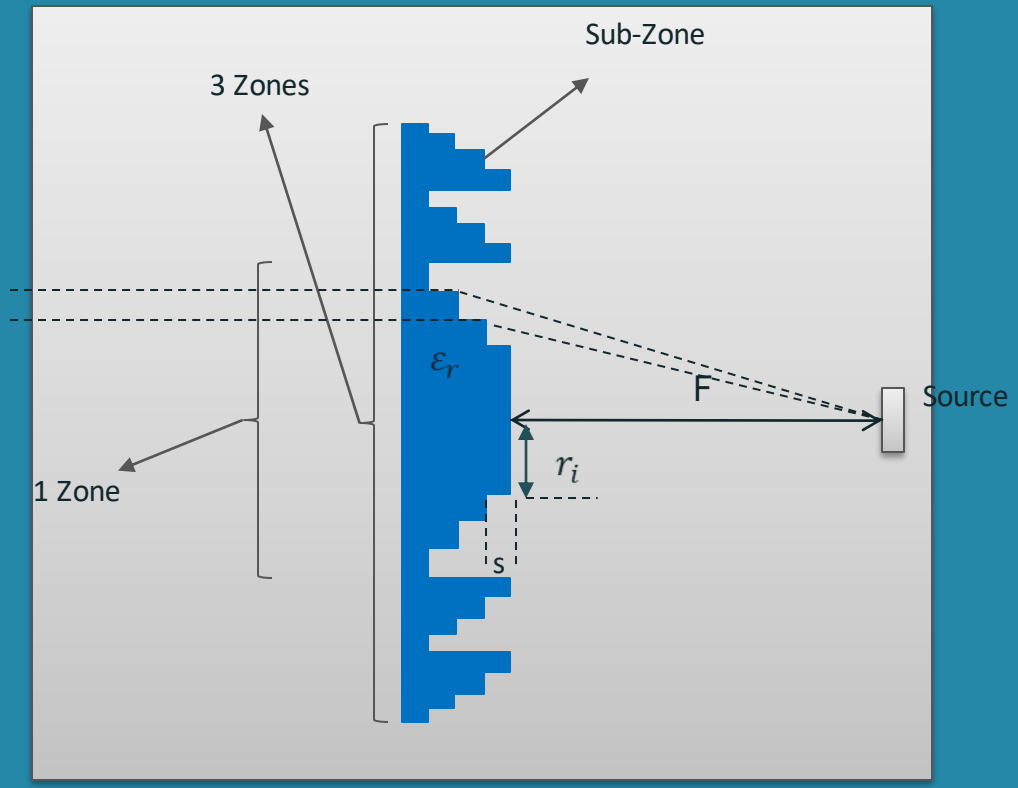
Explore the next sense

FZP Lens Design Guidlines

2019

Guidelines



$$r_i = \sqrt{2Fi\frac{\lambda}{p} + i\left(\frac{\lambda}{p}\right)^2}\ , i = 1,2, \ldots$$

$$s = \frac{\lambda}{p(\sqrt{\varepsilon} - 1)}$$

F: Focal point, input parameter
P: number of steps
λ: Wavelength in free-space: 5 mm
ε: Dielectric constant of the material at 60 Ghz

Example

F: 10 mm
P: 4
λ: Wavelength in free-space: 5 mm
ε: 2.6 (ABS plastic)
Number of zones: 1

- $r_1 = 5.1\ mm$
- $r_2 = 7.46\ mm$
- $r_3 = 9.39\ mm$
- $r_4 = 11.12\ mm$

- s= 2.06 mm (thickness of each ring),
- Total thickness= s*p =8 mm