

HIGH-EPSILON MICROWAVE FERRITE

NEW

EPSILON 21

Introducing our latest innovation: a new groundbreaking high epsilon microwave ferrite designed specifically for isolator and circulator applications.

With the ability to reduce the size of current circulators, it offers a compact solution without compromising performance.

Available in multiple power levels, it caters to diverse needs, ensuring versatility and adaptability in various applications of microwave ferrites.

DESCRIPTION:

Yttrium - Bismuth - Calcium - Zirconium garnet ceramic ferrite with high permittivity/dielectric constant

Also available in assembly with dielectric material (availability of several dielectric material: $\epsilon_r = 10 ; 16 ; 20 ; 37 ; 44$).

APPLICATIONS:

Circulators, isolators, phase-shifters, filters, diplexers.

SPECIFICATIONS:

Type	Ms (Gauss) ±5%	Tc (°C)	g _{eff}	ΔH (Oe) ±20%	ΔHk (Oe) ±1%	ε ±5%	Tgδ 10 ⁻³ max.	α 10 ⁻³ /°C ±0.2
YK21-19	1900	255	2.1	100	4.5	21	1	2.7
DK21-19	1850	255	2.1	100	8.5	21	1	2.7
YK21-18	1800	250	2.1	100	4.5	21	1	3.0
YK21-16	1600	250	2.1	100	4.5	21	1	2.7
DK21-16	1550	250	2.1	100	8.5	21	1	2.7
YK21-13	1300	245	2.1	100	4.5	21	1	2.6
DK21-13	1250	245	2.1	100	8.5	21	1	2.6

$$* \quad d = k \frac{\lambda}{2} \quad \lambda = \frac{\lambda_0}{\sqrt{\epsilon\mu}}$$

λ = wavelength in the material μ = permeability
 λ₀ = wavelength in the air d = dimension
 ε = permittivity

HOW TO ORDER :

Exemple: **YK21-16 S50.8x50.8x0.635 M**

YK21-16	S	50.8	50.8	0.635	M
Material type	Shape D : Disk S : Square T : Triangle	Dimension 1 Diameter for D Length for S Incircle diam. for T	Dimension 2 Thickness for D Width for S Height for T	Dimension 3 Thickness for D Thickness for S Thickness for T	Option M : Metallization CF : Chamfer



FEATURES:

- High permittivity (Eps 21) ferrite for designing smaller microwave devices
- 15%* the size reduction of your circulator for the same frequency (vs Eps 18 ferrites)
- Two power levels available (ΔHk = 4.5 and ΔHk = 8.5)
- Frequency applications up to X band (12GHz)

Ms(T) under saturated magnetic field of 0.5 Tesla

