

### Yttrium Iron Garnet

- **Characteristic**

The material has excellent electromagnetic performance, narrow resonance line width, small dielectric loss and high Curie temperature.

- **Applications**

Ferrite isolator and circulator for communication frequency band

- **Product brand and technical index**

TYPES	$4\pi M_s$ (G) $\pm 5\%$	$\Delta H$ (Oe)	$\epsilon'$ $\pm 5\%$	$\tan\delta_e$	$T_c$ (°C)	$\Delta H_k$ (Oe) $\pm 2\%$
FXY178	1780	$\leq 35$	14.5	$\leq 0.0002$	280	2.0

### BiCaV Garnet Series

- **Characteristic**

Low cost, low magnetic moment, low h, high Curie temperature

- **Applications**

Ferrite isolator and circulator for communication frequency band

- **Product brand and technical index**

TYPES	$4\pi M_s$ (G) $\pm 5\%$	$\Delta H$ (Oe)	$\epsilon'$ $\pm 5\%$	$\tan\delta_e$	$T_c$ (°C)	$\Delta H_k$ (Oe) $\pm 2\%$
FXB58	580	$\leq 55$	13.7	$\leq 0.0002$	220	2.0

### Y-Al Garnets Series

- **Characteristic**

1. The adjustable range of saturation magnetization  $M_s$  is large;
2. The magnetic loss and dielectric loss of the material are small.

- **Applications**

Isolator and circulator for P-X frequency band

- **Product brand and technical index**

TYPES	$4\pi M_s$ (G) $\pm 5\%$	$\Delta H$ (Oe)	$\epsilon'$ $\pm 5\%$	$\tan\delta_e$	$T_c$ (°C)	$\Delta H_k$ (Oe) $\pm 2\%$
FXA160	1600	$\leq 40$	14.0	$\leq 0.0002$	250	2.0
FXA140	1400	$\leq 40$	14.0	$\leq 0.0002$	230	2.0
FXA120	1200	$\leq 40$	13.9	$\leq 0.0002$	220	2.0
FXA100	1000	$\leq 40$	13.9	$\leq 0.0002$	205	2.0
FXA80	800	$\leq 40$	13.8	$\leq 0.0002$	190	2.0
FXA60	600	$\leq 40$	13.8	$\leq 0.0002$	160	2.0
FXA30	300	$\leq 40$	13.6	$\leq 0.0002$	140	2.0

### Yttrium Gadolinium Garnet Series

- **Characteristic**

1. Low temperature coefficient, good temperature stability and high Curie temperature.
2. Can withstand medium power or high peak power.

- **Applications**

Wideband and medium power for microwave frequency band; High power coaxial, strip line, micro strip, waveguide isolator, circulator and other devices

- **Product brand and technical index**

#### YGdIG

TYPES	$4\pi M_s$ (G)±5%	$\Delta H$ (Oe)	$\epsilon'$ ±5%	$\tan\delta_e$	$T_c$ (°C)	$\Delta H_k$ (Oe)±2%
FXG140	1400	≤70	14.2	≤0.0002	260	6.0
FXG120	1200	≤70	14.0	≤0.0002	250	8.0
FXG100	1000	≤80	14.0	≤0.0002	240	9.0
FXG80	800	≤90	13.8	≤0.0002	220	10.0
FXG60	600	≤100	13.8	≤0.0002	180	10.0
FXG30	300	≤120	13.6	≤0.0002	140	10.0
FXG180P	1800	≤35	14.2	≤0.0002	255	4.0
FXG160P	1600	≤35	14.1	≤0.0002	265	5.0
FXG140P	1400	≤45	13.8	≤0.0002	255	6.0
FXG120P	1200	≤50	13.7	≤0.0002	260	7.0
FXG100P	1000	≤50	13.6	≤0.0002	240	7.2
FXG80P	800	≤50	13.4	≤0.0002	235	8.5

### YCaV Narrow Line Width Garnet

- **Characteristic**

1. The line width of ferromagnetic resonance is small;
2. Low dielectric loss.
3. High apparent density and good compactness.

- **Applications**

Used for low loss coaxial, stripline, microstrip, waveguide isolator, circulator and other devices.

- **Product brand and technical index**

#### YCaV Narrow line width garnet

TYPES	$4\pi M_s$ (G)±5%	$\Delta H$ (Oe)	$\epsilon'$ ±5%	$\tan\delta_e$	$T_c$ (°C)	$\Delta H_k$ (Oe)±2%
FXC195	1950	≤ 16	14.5	≤ 0.0002	235	2.0
FXC190	1900	≤ 16	14.5	≤ 0.0002	240	2.0
FXC185	1850	≤ 16	14.3	≤ 0.0002	260	2.0
FXC180	1800	≤ 16	14.2	≤ 0.0002	270	2.0
FXC160	1600	≤ 16	14.0	≤ 0.0002	240	2.0
FXC140	1400	≤ 16	13.8	≤ 0.0002	220	2.0
FXC120	1200	≤ 16	13.6	≤ 0.0002	210	2.0
FXC100	1000	≤ 16	13.4	≤ 0.0002	200	2.0
FXC800	800	≤ 16	13.2	≤ 0.0002	190	2.0

## Ni Series Ferrite Materials

### ■ Characteristic

1.  $M_s$  is high, adjustable range is large, spin wave line width is high;
2. Curie temperature is high and temperature stability is good.
3. High density and good compactness

### ■ Applications

Use for above X band and millimeter wave coaxial, strip line, micro strip, waveguide isolator, circulator and other devices.

### ■ Product brand and technical index

Ni series ferrite

TYPES	$4\pi M_s$ (G)±5%	$\Delta H$ (Oe)	$\epsilon'$ ±5%	$\tan\delta_e$	$T_c$ (°C)	$\Delta H_k$ (Oe)±2%
FXN520	5200	≤100	13.5	≤0.0005	400	8.0
FXN420	4200	≤250	13.0	≤0.0005	400	8.0
FXN400	4000	≤250	13.0	≤0.0005	400	12.0
FXN350	3500	≤250	13.0	≤0.0005	400	12.0
FXN300	3000	≤300	13.0	≤0.0005	400	12.0
FXN250	2500	≤240	12.6	≤0.0005	400	12.0
FXN210	2100	≤240	12.6	≤0.0005	400	12.0
FXN450P	4500	≤200	12.5	≤0.0005	400	20.0
FXN400P	4000	≤200	12.5	≤0.0005	400	20.0
FXN330P	3300	≤200	12.5	≤0.0005	400	20.0
FXN300P	3000	≤200	12.5	≤0.0005	400	20.0
FXN250P	2500	≤200	12.5	≤0.0005	400	20.0
FXN230P	2300	≤200	12.5	≤0.0005	400	20.0
FXN210P	2100	≤200	12.5	≤0.0005	400	20.0

### Li Series Ferrite Materials

- **Characteristic**

1.  $M_s$  is high, adjustable range is large, and losses are low.
2. Curie temperature is high and temperature stability is good.
3. High remanence ratio with rectangular hysteresis loop.

- **Applications**

Used in phase shifter and low field and low loss coaxial, stripline isolator, circulator and other devices.

- **Product brand and technical index**

#### Li series ferrite

TYPES	$4\pi M_s$ (G) $\pm 5\%$	$\Delta H$ (Oe)	$\epsilon'$ $\pm 5\%$	$\tan\delta_e$	$T_c$ ( $^{\circ}\text{C}$ )	$\Delta H_k$ (Oe) $\pm 2\%$
FXL400	4000	$\leq 250$	15.0	$\leq 0.001$	570	2.8
FXL380	3800	$\leq 250$	15.4	$\leq 0.001$	450	2.8
FXL320	3200	$\leq 250$	15.5	$\leq 0.001$	400	2.8
FXL300	3000	$\leq 250$	15.3	$\leq 0.001$	400	2.8
FXL280	2800	$\leq 250$	15.8	$\leq 0.001$	350	2.8
FXL260	2600	$\leq 250$	15.6	$\leq 0.001$	350	2.8
FXL230	2300	$\leq 250$	15.5	$\leq 0.001$	350	2.8
FXL210	2100	$\leq 250$	15.7	$\leq 0.001$	350	2.8



### Microwave Dielectric Ceramic Products

- **Dielectric Constant Commonly Used in Microwave Dielectric Ceramics**

1: K20-dielectric constant 20;

2: K30-dielectric constant 30;

3: K50-dielectric constant 50;

- **Common Dimensions of Microwave Dielectric Ceramic Rings**

NO	Outer Diameter (mm)	Inner Diameter (mm)
1	D5	d3.8
2	D5.5	d4.4
3	D6	d4.8
4	D7	d5.8-d6.2
5	D8-D9	d5.5-d6.5
6	D10	d7.8-d8
7	D11-D13	d9.5-d10
8	D15	d11.3-d12.5
9	D19-D20	d17-d18
10	D20-D25	d15.4-d18.5

Note: It can be customized according to customer's requirements.