

RADITEK

YIG SPHERES

HIGH Q FERRITE SINGLE CRYSTAL RESONATORS

Spherical Ferrite monocrystalline resonators have a high Q-factor, independent of resonance frequency geometry and can be tuned over a wide frequency range (octave – multioctave)

Used in Microwave devices such as

- bandpass,
- band-rejection filters,
- Harmonic converters
- broadband frequency generators

The main characteristics of the Raditek resonators exceed the similar products of Watkins-Johnson, Hewlett Packard and Crystal Sciences

Features:

- narrow linewidth
- high temperature stability deviation is no more than 50 KHz/°C
- -non-oriented (without rod)
- high time stability of parameters;

The ferromagnetic resonators are produced from monocrystalline materials of three different crystallographic structures: garnets (KG), spinels (KS) and hexaferrites or magnetoplumbite (KB). Parameters of ferrite resonators:

Type	Saturation magnetization $4\pi M_s$, Gauss	Minimum linewidth, ΔH , Oe	Measuring frequency, (GHz)	Curie temperature, T_c , °C	Operating frequency range, (GHz)
8KG	90	0.5	0.5	100	0.2-0.7
12KG	140	0.5	0.7	120	0.4-1.0
15KG	200	0.4	1	140	0.5-1.5
25KG	300	0.4	1	150	0.7-2.0
30KG	360	0.3	1	155	0.8-4.0
35KG	430	0.3	1.5	170	0.9-5.0
50KG	620	0.3	1.5	220	1.3-9.0
65KG	820	0.3	2	160	1.7-18.0
100KG	1200	0.4	9	230	2-30.0
120KG	1500	0.3	9	260	3.2-30.0
140KG	1750	0.2	9	280	4.0-37.0

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