## Microwave Garnets

### Aluminum Doped

<table>
<thead>
<tr>
<th>Composition and Type Number</th>
<th>Magnetization 4mMs (Gauss)</th>
<th>Lande§(^{\dagger}) G-factor g-eff (Nominal Value)</th>
<th>Line Width§(^{\dagger}) (\Delta h) Oe @ -3 dB</th>
<th>Dielectric§(^{\dagger}) Constant (\varepsilon)</th>
<th>Dielectric Loss Tangent Tan (\delta=\varepsilon''/\varepsilon')</th>
<th>Curie Temperature (T_c) (°C) (Nominal Value)</th>
<th>Spin Wave Line Width (\Delta H_k) oe (Nominal Value)</th>
<th>Remanent Induction(^*) (B_r) (Gauss) (Nominal Value)</th>
<th>Coercive Force(^*) (H_c) (oe) (Nominal Value)</th>
<th>Initial Permeability† (\mu_0) (Nominal Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-1009</td>
<td>175 ± 25g</td>
<td>2.03</td>
<td>(\leq 50)</td>
<td>13.8 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>85</td>
<td>1.5</td>
<td>40</td>
<td>0.90</td>
<td>11</td>
</tr>
<tr>
<td>G-250</td>
<td>250 ± 25g</td>
<td>2.02</td>
<td>(\leq 45)</td>
<td>13.8 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>105</td>
<td>1.4</td>
<td>123</td>
<td>0.62</td>
<td>34</td>
</tr>
<tr>
<td>G-300</td>
<td>300 ± 25g</td>
<td>2.02</td>
<td>(\leq 45)</td>
<td>14.0 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>120</td>
<td>2</td>
<td>162</td>
<td>0.62</td>
<td>46</td>
</tr>
<tr>
<td>G-350</td>
<td>350 ± 25g</td>
<td>2.01</td>
<td>(\leq 45)</td>
<td>14.0 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>130</td>
<td>1.4</td>
<td>213</td>
<td>0.66</td>
<td>31</td>
</tr>
<tr>
<td>G-400</td>
<td>400 ± 25g</td>
<td>2.01</td>
<td>(\leq 45)</td>
<td>14.1 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>135</td>
<td>1.4</td>
<td>224</td>
<td>0.69</td>
<td>41</td>
</tr>
<tr>
<td>G-475</td>
<td>475 ± 25g</td>
<td>2.01</td>
<td>(\leq 45)</td>
<td>14.1 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>140</td>
<td>1.4</td>
<td>310</td>
<td>0.60</td>
<td>40</td>
</tr>
<tr>
<td>G-510</td>
<td>550 ± 5%</td>
<td>2.00</td>
<td>(\leq 48)</td>
<td>14.3 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>155</td>
<td>1.3</td>
<td>398</td>
<td>0.55</td>
<td>37</td>
</tr>
<tr>
<td>G-610</td>
<td>680 ± 5%</td>
<td>2.00</td>
<td>(\leq 48)</td>
<td>14.5 ± 5%</td>
<td>(\leq 0.0002)</td>
<td>185</td>
<td>1.5</td>
<td>515</td>
<td>0.70</td>
<td>50</td>
</tr>
</tbody>
</table>

§ Measured @ 9.4 GHz
\(^{\dagger}\) Measured @ 1 KHz
\(^*\) Measured @ 60 Hz or 2 KHz with \(H_{app} = 5xH_c\)

For any composition the minimum line width is fixed by \(K/\mu_0\). For some shapes and sizes, line widths even closer to the theoretical limit are possible. Typical value for this series is 20 oe, which is available in some shapes and sizes.

Bars and Rods are Available for All Material Types, as well as discs, triangles and composites.
## Gadolinium Doped

<table>
<thead>
<tr>
<th>Composition and Type Number</th>
<th>Magnetization (4\pi M_s) (Gauss)</th>
<th>Landé G-factor g-eff (Nominal Value)</th>
<th>Line Width(^\dagger) (\Delta H_{oe} @ -3) dB</th>
<th>Dielectric(^\dagger) Constant (\varepsilon'')</th>
<th>Dielectric Loss Tangent (\tan \delta = \varepsilon''/\varepsilon')</th>
<th>Curie Temperature (T_c) (°C) (Nominal Value)</th>
<th>Spin Wave Line Width (\Delta H_k) oe (Nominal Value)</th>
<th>Remanent Induction* (B_r) (Gauss) (Nominal Value)</th>
<th>Coercive Force* (H_c) (oe) (Nominal Value)</th>
<th>Initial Permeability† (\mu_0) (Nominal Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-1005</td>
<td>725 ± 5%</td>
<td>2.02</td>
<td>(&lt;300)</td>
<td>15.4 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>7.6</td>
<td>357</td>
<td>1.51</td>
<td>26</td>
</tr>
<tr>
<td>G-1003</td>
<td>870 ± 5%</td>
<td>2.00</td>
<td>(&lt;186)</td>
<td>15.4 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>6.4</td>
<td>543</td>
<td>1.10</td>
<td>36</td>
</tr>
<tr>
<td>G-1002</td>
<td>1000 ± 5%</td>
<td>1.99</td>
<td>(&lt;132)</td>
<td>15.4 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>5.8</td>
<td>672</td>
<td>0.93</td>
<td>48</td>
</tr>
<tr>
<td>G-1001</td>
<td>1200 ± 5%</td>
<td>1.99</td>
<td>(&lt;96)</td>
<td>15.2 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>4.3</td>
<td>717</td>
<td>1.00</td>
<td>72</td>
</tr>
<tr>
<td>G-1600</td>
<td>1600 ± 5%</td>
<td>1.98</td>
<td>(&lt;66)</td>
<td>15.1 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>3.8</td>
<td>986</td>
<td>0.83</td>
<td>116</td>
</tr>
</tbody>
</table>

\(^\dagger\) Measured @ 9.4 GHz

\(^*=\) Measured @ 1 KHz

For any composition the minimum line width is fixed by \(K/L_m\). For some shapes and sizes, line widths even closer to the theoretical limit are possible. Typical value for this series is 20oe, which is available in some shapes and sizes.

Bars and Rods are Available for All Material Types, as well as discs, triangles and composites.

## Gadolinium Aluminum Doped

<table>
<thead>
<tr>
<th>Composition and Type Number</th>
<th>Magnetization (4\pi M_s) (Gauss)</th>
<th>Landé G-factor g-eff (Nominal Value)</th>
<th>Line Width(^\dagger) (\Delta H_{oe} @ -3) dB</th>
<th>Dielectric(^\dagger) Constant (\varepsilon'')</th>
<th>Dielectric Loss Tangent (\tan \delta = \varepsilon''/\varepsilon')</th>
<th>Curie Temperature (T_c) (°C) (Nominal Value)</th>
<th>Spin Wave Line Width (\Delta H_k) oe (Nominal Value)</th>
<th>Remanent Induction* (B_r) (Gauss) (Nominal Value)</th>
<th>Coercive Force* (H_c) (oe) (Nominal Value)</th>
<th>Initial Permeability† (\mu_0) (Nominal Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-1006</td>
<td>400 ± 25g</td>
<td>2.01</td>
<td>(&lt;78)</td>
<td>14.2 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>150</td>
<td>4.2</td>
<td>185</td>
<td>1.00</td>
<td>23</td>
</tr>
<tr>
<td>G-500</td>
<td>550 ± 5%</td>
<td>2.00</td>
<td>(&lt;78)</td>
<td>14.4 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>180</td>
<td>3.5</td>
<td>280</td>
<td>0.80</td>
<td>28</td>
</tr>
<tr>
<td>G-600</td>
<td>680 ± 5%</td>
<td>2.00</td>
<td>(&lt;72)</td>
<td>14.6 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>200</td>
<td>4.0</td>
<td>375</td>
<td>0.69</td>
<td>347</td>
</tr>
<tr>
<td>G-1004</td>
<td>800 ± 5%</td>
<td>2.00</td>
<td>(&lt;90)</td>
<td>14.8 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>240</td>
<td>5.2</td>
<td>493</td>
<td>0.93</td>
<td>38</td>
</tr>
<tr>
<td>G-800</td>
<td>800 ± 5%</td>
<td>2.00</td>
<td>(&lt;66)</td>
<td>14.7 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>230</td>
<td>4.3</td>
<td>504</td>
<td>0.69</td>
<td>60</td>
</tr>
<tr>
<td>G-1000</td>
<td>1000 ± 5%</td>
<td>1.99</td>
<td>(&lt;66)</td>
<td>14.7 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>250</td>
<td>3.6</td>
<td>641</td>
<td>0.97</td>
<td>56</td>
</tr>
<tr>
<td>G-1021</td>
<td>1100 ± 5%</td>
<td>1.99</td>
<td>(&lt;108)</td>
<td>15.2 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>5.4</td>
<td>722</td>
<td>0.76</td>
<td>54</td>
</tr>
<tr>
<td>G-1200</td>
<td>1200 ± 5%</td>
<td>1.98</td>
<td>(&lt;60)</td>
<td>15.1 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>260</td>
<td>3.2</td>
<td>795</td>
<td>0.83</td>
<td>65</td>
</tr>
<tr>
<td>G-1400</td>
<td>1400 ± 5%</td>
<td>1.98</td>
<td>(&lt;60)</td>
<td>15.1 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>265</td>
<td>3.1</td>
<td>918</td>
<td>0.69</td>
<td>89</td>
</tr>
</tbody>
</table>

\(^\dagger\) Measured @ 60 Hz or 2 KHz with \(H_{opp} = 5xH_c\)

For any composition the minimum line width is fixed by \(K/L_m\). For some shapes and sizes, line widths even closer to the theoretical limit are possible. Typical value for this series is 20oe, which is available in some shapes and sizes.

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## Holmium Doped

<table>
<thead>
<tr>
<th>Composition and Type Number</th>
<th>Magnetization (4\pi M_s) (Gauss)</th>
<th>Landé G-factor g-eff (Nominal Value)</th>
<th>Line Width(^\dagger) (\Delta H_{oe} @ -3) dB</th>
<th>Dielectric(^\dagger) Constant (\varepsilon'')</th>
<th>Dielectric Loss Tangent (\tan \delta = \varepsilon''/\varepsilon')</th>
<th>Curie Temperature (T_c) (°C) (Nominal Value)</th>
<th>Spin Wave Line Width (\Delta H_k) oe (Nominal Value)</th>
<th>Remanent Induction* (B_r) (Gauss) (Nominal Value)</th>
<th>Coercive Force* (H_c) (oe) (Nominal Value)</th>
<th>Initial Permeability† (\mu_0) (Nominal Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-4260</td>
<td>550 ± 5%</td>
<td>2.00</td>
<td>(&lt;120)</td>
<td>14.4 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>180</td>
<td>8.5</td>
<td>280</td>
<td>0.80</td>
<td>28</td>
</tr>
<tr>
<td>G-4259</td>
<td>800 ± 5%</td>
<td>2.00</td>
<td>(&lt;132)</td>
<td>14.8 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>240</td>
<td>8.1</td>
<td>493</td>
<td>0.93</td>
<td>38</td>
</tr>
<tr>
<td>G-4258</td>
<td>1000 ± 5%</td>
<td>1.99</td>
<td>(&lt;156)</td>
<td>15.4 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>8.9</td>
<td>672</td>
<td>0.93</td>
<td>48</td>
</tr>
<tr>
<td>G-4257</td>
<td>1200 ± 5%</td>
<td>1.99</td>
<td>(&lt;120)</td>
<td>15.2 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>8.1</td>
<td>717</td>
<td>1.00</td>
<td>72</td>
</tr>
<tr>
<td>G-4256</td>
<td>1600 ± 5%</td>
<td>1.98</td>
<td>(&lt;84)</td>
<td>15.1 ± 5%</td>
<td>(&lt;0.0002)</td>
<td>280</td>
<td>5.4</td>
<td>986</td>
<td>0.83</td>
<td>116</td>
</tr>
</tbody>
</table>

\(^\dagger\) Measured @ 9.4 GHz

\(^*=\) Measured @ 1 KHz

For any composition the minimum line width is fixed by \(K/L_m\). For some shapes and sizes, line widths even closer to the theoretical limit are possible. Typical value for this series is 20oe, which is available in some shapes and sizes.

Bars and Rods are Available for All Material Types, as well as discs, triangles and composites.
### Narrow Line Width Series*

<table>
<thead>
<tr>
<th>Composition and Type Number</th>
<th>Magnetization $4\pi M_s$ (Gauss)</th>
<th>Landé $g$-factor $g_{-eff}$ (Nominal Value)</th>
<th>Line Width $\Delta h$ @ -3 dB</th>
<th>Dielectric Constant $\epsilon'$</th>
<th>Dielectric Loss Tangent $\tan \delta = \epsilon''/\epsilon'$</th>
<th>Curie Temperature $T_c$ (°C) (Nominal Value)</th>
<th>Spin Wave Line Width $\Delta H_k$ oe (Nominal Value)</th>
<th>Remanent Induction $B_r$ (Gauss) (Nominal Value)</th>
<th>Coercive Force $H_c$ (oe) (Nominal Value)</th>
<th>Initial Permeability $\mu_0$ (Nominal Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-113</td>
<td>1780 ± 5%</td>
<td>1.97</td>
<td>$\leq 25$</td>
<td>15.0 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>280</td>
<td>1.4</td>
<td>1277</td>
<td>0.45</td>
<td>134</td>
</tr>
<tr>
<td>G-810</td>
<td>800 ± 5%</td>
<td>1.99</td>
<td>$\leq 25$</td>
<td>14.6 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>200</td>
<td>1.5</td>
<td>543</td>
<td>0.62</td>
<td>46</td>
</tr>
<tr>
<td>G-1010</td>
<td>1000 ± 5%</td>
<td>1.99</td>
<td>$\leq 25$</td>
<td>14.7 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>210</td>
<td>1.4</td>
<td>694</td>
<td>1.55</td>
<td>66</td>
</tr>
<tr>
<td>G-1210</td>
<td>1200 ± 5%</td>
<td>1.86</td>
<td>$\leq 25$</td>
<td>14.8 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>220</td>
<td>1.3</td>
<td>784</td>
<td>0.69</td>
<td>87</td>
</tr>
</tbody>
</table>

### Calcium Vanadium Doped

<table>
<thead>
<tr>
<th>Composition and Type Number</th>
<th>Magnetization $4\pi M_s$ (Gauss)</th>
<th>Landé $g$-factor $g_{-eff}$ (Nominal Value)</th>
<th>Line Width $\Delta h$ @ -3 dB</th>
<th>Dielectric Constant $\epsilon'$</th>
<th>Dielectric Loss Tangent $\tan \delta = \epsilon''/\epsilon'$</th>
<th>Curie Temperature $T_c$ (°C) (Nominal Value)</th>
<th>Spin Wave Line Width $\Delta H_k$ oe (Nominal Value)</th>
<th>Remanent Induction $B_r$ (Gauss) (Nominal Value)</th>
<th>Coercive Force $H_c$ (oe) (Nominal Value)</th>
<th>Initial Permeability $\mu_0$ (Nominal Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTVG-800</td>
<td>800 ± 5%</td>
<td>2</td>
<td>$\leq 15$</td>
<td>13.9 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>192</td>
<td>2</td>
<td>560</td>
<td>0.6</td>
<td>129</td>
</tr>
<tr>
<td>TTVG-930</td>
<td>930 ± 5%</td>
<td>2</td>
<td>$\leq 10$</td>
<td>14.0 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>188</td>
<td>2</td>
<td>380</td>
<td>0.4</td>
<td>225</td>
</tr>
<tr>
<td>TTVG-1000</td>
<td>1000 ± 5%</td>
<td>2</td>
<td>$\leq 10$</td>
<td>14.0 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>199</td>
<td>2</td>
<td>320</td>
<td>0.3</td>
<td>210</td>
</tr>
<tr>
<td>TTVG-1100</td>
<td>1100 ± 5%</td>
<td>2</td>
<td>$\leq 10$</td>
<td>14.1 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>205</td>
<td>2</td>
<td>600</td>
<td>0.6</td>
<td>209</td>
</tr>
<tr>
<td>TTVG-1200</td>
<td>1200 ± 5%</td>
<td>2</td>
<td>$\leq 10$</td>
<td>14.4 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>208</td>
<td>2</td>
<td>635</td>
<td>0.3</td>
<td>221</td>
</tr>
<tr>
<td>TTVG-1400</td>
<td>1400 ± 5%</td>
<td>2</td>
<td>$\leq 10$</td>
<td>14.5 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>215</td>
<td>2</td>
<td>825</td>
<td>0.3</td>
<td>263</td>
</tr>
<tr>
<td>TTVG-1600</td>
<td>1600 ± 5%</td>
<td>2</td>
<td>$\leq 10$</td>
<td>14.6 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>220</td>
<td>2</td>
<td>1000</td>
<td>0.6</td>
<td>227</td>
</tr>
<tr>
<td>TTVG-1850</td>
<td>1850 ± 5%</td>
<td>2</td>
<td>$\leq 10$</td>
<td>14.8 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>200</td>
<td>2</td>
<td>1232</td>
<td>0.5</td>
<td>388</td>
</tr>
<tr>
<td>TTZ1950</td>
<td>1950 ± 5%</td>
<td>2</td>
<td>$\leq 15$</td>
<td>15.0 ± 5%</td>
<td>$\leq 0.0002$</td>
<td>235</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

---

*§ Measured @ 9.4 GHz
† Measured @ 1 kHz
* Measured @ 0 Hz or 2 kHz with $H_{app} = 5xH_c$

For any composition the minimum line width is fixed by $K/M_s$. For some shapes and sizes, line widths even closer to the theoretical limit are possible. Typical value for this series is 20 oe, which is available in some shapes and sizes.

Bars and Rods are Available for All Material Types, as well as discs, triangles and composites.
**G-1009 Aluminum Doped**

- **0.5" O.D. by 0.4" I.D. by 0.5" length toroid**
- **Temperature: 25 °C.**
- **Frequency: 2 KHz.**
- **Drive Field: 5.0 oe**

- $B_m = 84$
- $B_r = 40$
- $H_c = 0.90$

**Hysteresis Loop**

---

**G-250 Aluminum Doped**

- **0.5" O.D. by 0.4" I.D. by 0.5" length toroid**
- **Temperature: 25 °C.**
- **Frequency: 2 KHz.**
- **Drive Field: 5.0 oe**

- $B_m = 168$
- $B_r = 123$
- $H_c = 0.62$

**Hysteresis Loop**

---

**G-300 Aluminum Doped**

- **0.5" O.D. by 0.4" I.D. by 0.5" length toroid**
- **Temperature: 25 °C.**
- **Frequency: 2 KHz.**
- **Drive Field: 5.0 oe**

- $B_m = 207$
- $B_r = 162$
- $H_c = 0.62$

**Hysteresis Loop**
**G-350 Aluminum Doped**

- 0.5” O.D. by 0.4” I.D. by 0.5” length toroid
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe

- $B_m = 269$
- $B_r = 213$
- $H_c = 0.66$

**G-400 Aluminum Doped**

- 0.5” O.D. by 0.4” I.D. by 0.5” length toroid
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe

- $B_m = 291$
- $B_r = 224$
- $H_c = 0.69$

**G-475 Aluminum Doped**

- 0.5” O.D. by 0.4” I.D. by 0.5” length toroid
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe

- $B_m = 360$
- $B_r = 310$
- $H_c = 0.60$
### G-510 Aluminum Doped

- **Temperature:** 25 °C
- **Frequency:** 2 KHz
- **Drive Field:** 5.0 oe
- **Bm** = 448
- **Br** = 398
- **Hc** = 0.55

### G-610 Aluminum Doped

- **Temperature:** 25 °C
- **Frequency:** 2 KHz
- **Drive Field:** 5.0 oe
- **Bm** = 582
- **Br** = 515
- **Hc** = 0.70

### G-1005 Gadolinium Doped

- **Temperature:** 25 °C
- **Frequency:** 2 KHz
- **Drive Field:** 5.0 oe
- **Bm** = 439
- **Br** = 357
- **Hc** = 1.51
G-1003 Gadolinium Doped

Temperature: 25 °C.
Frequency: 2 KHz
Drive Field: 5.0 oe

\[ B_m = 616 \]
\[ B_r = 543 \]
\[ H_c = 1.10 \]

Hysteresis Loop

G-1002 Gadolinium Doped

Temperature: 25 °C.
Frequency: 2 KHz
Drive Field: 5.0 oe

\[ B_m = 756 \]
\[ B_r = 672 \]
\[ H_c = 0.93 \]

Hysteresis Loop

G-1001 Gadolinium Doped

Temperature: 25 °C.
Frequency: 2 KHz
Drive Field: 5.0 oe

\[ B_m = 851 \]
\[ B_r = 717 \]
\[ H_c = 1.0 \]

Hysteresis Loop
**G-1600 Gadolinium Doped**

0.5" O.D. by 0.4" I.D. by 0.5" length toroid
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe

$B_m = 1165$
$B_r = 986$
$H_c = 0.83$

**Hysteresis Loop**

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**G-1006 Gadolinium Aluminum Doped**

0.5" O.D. by 0.4" I.D. by 0.5" length toroid
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe

$B_m = 235$
$B_r = 185$
$H_c = 1.0$

**Hysteresis Loop**

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**G-500 Gadolinium Aluminum Doped**

0.5" O.D. by 0.4" I.D. by 0.5" length toroid
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 10 oe

$B_m = 336$
$B_r = 280$
$H_c = 1.4$

**Hysteresis Loop**
**G-600 Gadolinium Aluminum Doped**

- **Hysteresis Loop**
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe
- $B_m = 482$
- $B_r = 375$
- $H_c = 0.69$

**G-1004 Gadolinium Aluminum Doped**

- **Hysteresis Loop**
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe
- $B_m = 560$
- $B_r = 493$
- $H_c = 0.93$

**G-800 Gadolinium Aluminum Doped**

- **Hysteresis Loop**
- Temperature: 25 °C
- Frequency: 2 KHz
- Drive Field: 5.0 oe
- $B_m = 594$
- $B_r = 564$
- $H_c = 0.69$
G-1000 Gadolinium Aluminum Doped

0.5" O.D. by 0.4" I.D. by 0.5" length toroid
Temperature: 25 °C
Frequency: 2 KHz
Drive Field: 5.0 oe

\[ B_m = 729 \]
\[ B_r = 641 \]
\[ H_c = 0.97 \]

Hysteresis Loop

G-1021 Gadolinium Aluminum Doped

0.5" O.D. by 0.4" I.D. by 0.5" length toroid
Temperature: 25 °C
Frequency: 2 KHz
Drive Field: 5.0 oe

\[ B_m = 823 \]
\[ B_r = 722 \]
\[ H_c = 0.76 \]

Hysteresis Loop

G-1200 Gadolinium Aluminum Doped

0.5" O.D. by 0.4" I.D. by 0.5" length toroid
Temperature: 25 °C
Frequency: 2 KHz
Drive Field: 5.0 oe

\[ B_m = 930 \]
\[ B_r = 795 \]
\[ H_c = 0.83 \]

Hysteresis Loop
G-1400 Gadolinium Aluminum Doped

Hysteresis Loop

G-4260 Gadolinium & Aluminum Holmium Doped

Hysteresis Loop

G-4259 Gadolinium & Aluminum Holmium Doped

Hysteresis Loop
G-4258 Gadolinium & Aluminum Holmium Doped

Hysteresis Loop

G-4257 Gadolinium & Aluminum Holmium Doped

Hysteresis Loop

G-4256 Gadolinium & Aluminum Holmium Doped

Hysteresis Loop
**G-113 Yttrium**

- **Hysteresis Loop**
  - 0.5" O.D. by 0.4" I.D. by 0.5" length toroid
  - Temperature: 25 °C
  - Frequency: 2 KHz
  - Drive Field: 5.0 oe
  - \( B_m = 1449 \)
  - \( B_r = 1277 \)
  - \( H_c = 0.45 \)

**G-810 Aluminum Doped**

- **Hysteresis Loop**
  - 0.5" O.D. by 0.4" I.D. by 0.5" length toroid
  - Temperature: 25 °C
  - Frequency: 2 KHz
  - Drive Field: 5.0 oe
  - \( B_m = 644 \)
  - \( B_r = 543 \)
  - \( H_c = 0.62 \)

**G-1010 Aluminum Doped**

- **Hysteresis Loop**
  - 0.5" O.D. by 0.4" I.D. by 0.5" length toroid
  - Temperature: 25 °C
  - Frequency: 2 KHz
  - Drive Field: 5.0 oe
  - \( B_m = 773 \)
  - \( B_r = 694 \)
  - \( H_c = 0.55 \)
G-1210 Aluminum Doped

0.5” O.D. by 0.4” I.D. toroid
Temperature: 25 °C
Frequency: 2 KHz
Drive Field: 5.0 oe

\[ B_m = 896 \]
\[ B_r = 784 \]
\[ H_c = 0.69 \]

Hysteresis Loop

TTVG-800 Narrow Line Width Garnet

Hysteresis Loop

TTVG-930 Narrow Line Width Garnet

Hysteresis Loop

TTVG-1000 Narrow Line Width Garnet

Hysteresis Loop

TTVG-1400 Narrow Line Width Garnet

Hysteresis Loop