

G-T1020

PTFE High Frequency Copper-Clad-Laminate



Product Overview

G-T1020 copper-clad-laminate (CCL) composed with PTFE and special enforcement by special glass fiber, which can provide excellent electricity and mechanical stability. It is a kind of special microwave high dielectric constant circuit board material which can carry out a lot of information processing under UHF (GHz). Its high Dk and low Df can meet the performance of the design, which is applicable to the circuit miniaturization, the heat dissipation treatment and so on.

Combined with glass fabric, the lamination surface is smooth that PTFE can use the standard PTFE printed circuit board to process the treatment technologies.

Main Features

- High Dielectric Constant
- Miniaturization RF Device
- High Thermal Conductivity
- Satellite Communications Device
- Excellent Machining Property
- Mini type Power Amplifier, Filter

Technical Specifications

| Physical | | |
|--------------------|--------------------------|-------------------------|
| Standard Thickness | Standard Size | Standard Copper Foil |
| 0.127mm (0.005") | 1220mm x 914mm (48 x 36) | 18μm (½ oz.), HTE (H/H) |
| 0.254mm (0.010") | 610mm x 457mm (24 x 18) | 18μm (1 oz.), HTE (H/H) |
| 0.635mm (0.025") | 457mm x 305mm (18 x 12) | 18μm (½ oz.), RTF (H/H) |
| 1.270mm (0.050") | | 35μm (1 oz.), RTF (1/1) |

| Test Performance | | | | |
|-------------------------------|---------------------|--------------------|---------------------|---------------------|
| Test Parameters | Typical Value | Unit | Treatment Condition | Test Method |
| | GT1020 | | | |
| DK | 10.2±0.05 | - | 10 GHz/23°C | IPC-TM-650 2.5.5.5 |
| DF | 0.0035 | | | |
| | 0.0045 | - | 10 GHz/23°C | IPC-TM-650 2.5.5.5 |
| Temperature Coefficient of Dk | -459 | ppm/°C | -50 to 150°C | IPC-TM-650 2.5.5.5 |
| Volume Resistivity | 1.8x10 ⁵ | MΩ*cm | COND A | IPC-TM-650 2.5.17.1 |
| Surface Resistivity | 2.3x10 ⁵ | MΩ | COND A | IPC-TM-650 2.5.17.Q |
| Tensile Strength | 240 | Mpa(kpsi) | RT | ASTM D638 |
| | 34 | | | |
| Bending Strength | 293 | Mpa(kpsi) | | IPC-TM-650 2.4.4 |
| | 42 | | | |
| Dimensional Stability | <0.3 | mm/m | | IPC-TM-650 2.4.39A |
| CTE | 13/13/17 | ppm/°C | -55 to 288°C | IPC-TM-650 2.4.41 |
| TD | 500 | | | ASTM D3850 |
| Thermal Conductivity | 0.9 | W/m/K | 80°C | ASTM C518 |
| Water Absorption | <0.10 | % | D24/23 | ASTM D570 |
| Density | 2.8 | gm/cm ³ | 23°C | ASTM D792 |
| Typical Peel Strength | >1.4 | N/mm | Hoz | IPC-TM-650 2.4.8 |
| Flammability Rating | V-0 | | | UL 94 |
| Lead-Free Process Compatible | Yes | | | |

For More Information

Please visit our website: <http://www.gospell.com> or contact your local sales representative:

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