



Synamic9GN

Halogen free extremely low loss multilayer PCB base material

FEATURES

- Extremely low Dk/Df(@10GHz): 3.34/0.0014
- High Tg, 210°C by DMA
- Higher heat resistance Td: >400°C, T288>60min
- Lower Z-axis CTE, offering superior PTH reliability
- Lower moisture absorption with excellent resistance against moisture and heat

APPLICATIONS

- Ultra-high speed network equipment (112G)
- AI server, switch, storage, routers and BBU of base station, etc.
- Super computing
- High frequency measuring instruments etc.

GENERAL PROPERTIES

| Test Items | Test Method | Test Condition | Unit | Typical Value |
|--------------------------|---------------------------|-----------------------|--------|---------------|
| Tg | IPC-TM-650 2.4.24.2 | DMA | °C | 210 |
| | IPC-TM-650 2.4.24.1 | TMA | | 180 |
| Td | IPC-TM-650 2.4.24.6 | 5% wt. loss | °C | 400 |
| T288 | IPC-TM-650 2.4.24.1 | TMA | min | >60 |
| T300 | IPC-TM-650 2.4.24.1 | TMA | min | >60 |
| Thermal Stress | IPC-TM-650 2.4.13.1 | 288°C, solder dipping | - | Pass |
| X/Y-CTE | IPC-TM-650 2.4.24.5 | TMA(30~120°C) | ppm/°C | 12/13 |
| CTE (Z-axis) | IPC-TM-650 2.4.24 | Before Tg | ppm/°C | 40 |
| | IPC-TM-650 2.4.24 | After Tg | ppm/°C | 140 |
| | IPC-TM-650 2.4.24 | 50-260°C | % | 1.5 |
| Dielectric Constant (Dk) | IPC-TM-650 2.5.5.9 (1GHz) | C-24/23/50 | - | 3.25 |
| | IEC61189-2-721 (10GHz) | C-24/23/50 | - | 3.34 |
| | BCDR (14GHz) | C-24/23/50 | - | 3.15 |
| Dissipation Factor (Df) | IPC-TM-650 2.5.5.9 (1GHz) | C-24/23/50 | - | 0.0005 |
| | IEC61189-2-721 (10GHz) | C-24/23/50 | - | 0.0014 |
| | BCDR (14GHz) | C-24/23/50 | - | 0.0014 |
| Peel Strength (1 oz) | IPC-TM-650 2.4.8 | 288°C/10s | N/mm | 0.53 |
| Water Absorption | IPC-TM-650 2.6.2.1 | D-24/23 | % | 0.06 |
| Flammability | UL94 | C-48/23/50 | Rating | V-0 |

Remarks:

1. All the typical value is based on the 0.76mm (10*1078 RC66%) thickness specimen, but not guarantee data.
2. All the typical value listed above is for your reference only, please turn to Shengyi Technology Co., Ltd. for detailed information, and all rights from this data sheet are reserved by Shengyi Technology Co., Ltd.