



mmWave G

MMW, low loss, glass reinforced PCB base material

FEATURES

- Stable Dk/Df over frequency and temperature.
- Low dielectric tolerance +/-0.04.
- Low Moisture Absorption.
- Excellent thermal aging properties.

APPLICATIONS

Automotive radar applications
 Base Station Antenna
 Cellular telecommunications system
 Global positioning satellite antennas
 Direct broadcast satellites

GENERAL PROPERTIES

| Test Items | Test Method | Test Condition | Direction | Unit | Typical Value |
|---|---------------------------------------|----------------------------------|-----------|-------------------|-----------------------|
| Dielectric Constant | Balanced Type Circular Disk Resonator | 10GHz/23°C | Z | - | 3.00 |
| Dielectric Constant | IPC-TM-650 2.5.5.15 | 10GHz/23°C | Z | - | 3.16 |
| Dielectric Constant (Design Dk) | Resonator Ring | 77GHz/23°C | Z | - | 3.18 |
| Dissipation Factor, Df | Balanced Type Circular Disk Resonator | 10GHz/23°C | Z | - | 0.002 |
| Dissipation Factor, Df | IPC-TM-650 2.5.5.15 | 10GHz/23°C | Z | - | 0.002 |
| Tg | IPC-TM-650 2.4.24.4 | DMA | - | °C | 200 |
| Td | ASTM D3850 | TGA | - | °C | 395 |
| Coefficient of Thermal Expansion (50°C-150°C) | IPC-TM-650 2.4.41 | TMA 25°C, 50%RH | X | ppm/°C | 20 |
| | | | Y | ppm/°C | 20 |
| | | | Z | ppm/°C | 40 |
| Volume Resistivity | IPC-TM-650 2.5.17.1 | A | - | MΩ-cm | 1.32X10 ¹¹ |
| Surface Resistivity | IPC-TM-650 2.5.17.1 | A | - | MΩ | 1.04X10 ¹¹ |
| Peel Strength | IPC-TM-650 2.4.8 | after solder float HOz HVLP foil | - | N/mm [lb/in] | 0.60 [3.73] |
| Water Absorption | IPC-TM-650 2.6.2.1 | - | - | % | 0.06 |
| Thermal Conductivity | ASTM D5470 | 50°C | Z | W/m·K | 0.40 |
| Density | ASTM D792 | A | - | g/cm ³ | 1.52 |
| Flammability | UL94 | - | - | Rating | V-0 |

Remarks:

All the typical values listed above are for your reference only and not intended for specification. Please contact Shengyi Technology Co., Ltd. for detailed information. All rights from this data sheet are reserved by Shengyi Technology Co., Ltd.



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Product Specification

| STANDARD THICKNESS | STANDARD PANEL SIZE | COPPER FOIL |
|--------------------|--|--|
| 0.004" (0.102mm) | 18"×24" (457mm×610mm) 21"×24" (534mm×610mm) | 1/2 Oz (18 μ m) HVLP copper foil. 1 Oz (35 μ m) HVLP copper foil. |
| 0.005" (0.127mm) | | |
| 0.010" (0.254mm) | | |
| 0.020" (0.508mm) | | |
| 0.030" (0.762mm) | | |