

Based Material Line Up



mmWave G/mmWave GB

1. CORE: mmWave G

| Thickness | | ply-up | RC (%) | Dk | | | | | | |
|-----------|-----|--------|--------|-------|-------|-------|-------|-------|--------|--------|
| mm | mil | | | 14GHz | 25GHz | 37GHz | 49GHz | 61GHz | 73 GHz | 85 GHz |
| 0.102 | 4 | 1*1035 | 83 | 3.00 | 3.00 | 2.99 | 2.99 | 2.98 | 2.98 | 2.98 |
| 0.102 | 4 | 1*1078 | 73 | 3.10 | 3.10 | 3.09 | 3.09 | 3.08 | 3.08 | 3.08 |
| 0.127 | 5 | 2*1035 | 73 | 3.10 | 3.10 | 3.09 | 3.09 | 3.08 | 3.08 | 3.08 |
| 0.127 | 5 | 1*1078 | 78 | 3.05 | 3.05 | 3.04 | 3.04 | 3.03 | 3.03 | 3.03 |
| 0.254 | 10 | 2*1078 | 78 | 3.05 | 3.05 | 3.04 | 3.04 | 3.03 | 3.03 | 3.03 |
| 0.508 | 20 | 4*1078 | 78 | 3.05 | 3.05 | 3.04 | 3.04 | 3.03 | 3.03 | 3.03 |
| 0.762 | 30 | 6*1078 | 78 | 3.05 | 3.05 | 3.04 | 3.04 | 3.03 | 3.03 | 3.03 |

| Thickness | | ply-up | RC (%) | Df | | | | | | |
|-----------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| mm | mil | | | 14GHz | 25GHz | 37GHz | 49GHz | 61GHz | 73 GHz | 85 GHz |
| 0.102 | 4 | 1*1035 | 83 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |
| 0.102 | 4 | 1*1078 | 73 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |
| 0.127 | 5 | 2*1035 | 73 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |
| 0.127 | 5 | 1*1078 | 78 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |
| 0.254 | 10 | 2*1078 | 78 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |
| 0.508 | 20 | 4*1078 | 78 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |
| 0.762 | 30 | 6*1078 | 78 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |

Based Material Line Up



2. PREPREG: mmWave GB

| Glass style | Glass Weight (g/m ²) | RC (%) Nominal | Thickness | | Dk | | | | | | |
|-------------|----------------------------------|----------------|-----------|-----|-------|-------|-------|-------|-------|--------|-------|
| | | | mm | mil | 14GHz | 25GHz | 37GHz | 49GHz | 61GHz | 73 GHz | 85GHz |
| 1035 | 27 | 83 | 0.102 | 4 | 3.00 | 3.00 | 2.99 | 2.99 | 2.98 | 2.98 | 2.98 |
| 1078 | 43 | 78 | 0.127 | 5 | 3.05 | 3.05 | 3.04 | 3.04 | 3.03 | 3.03 | 3.03 |

| Glass style | Glass Weight (g/m ²) | RC (%) Nominal | Thickness | | Df | | | | | | |
|-------------|----------------------------------|----------------|-----------|-----|--------|--------|--------|--------|--------|--------|--------|
| | | | mm | mil | 14GHz | 25GHz | 37GHz | 49GHz | 61GHz | 73 GHz | 85GHz |
| 1035 | 27 | 83 | 0.102 | 4 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |
| 1078 | 43 | 78 | 0.127 | 5 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0030 | 0.0034 | 0.0037 |

3. REMARK

- 1) Dk/Df test method: Balanced Type Circular Disk Resonator Method
- 2) Copper foil: HVLP3 18, 35μm.
- 3) All the values listed above are for your reference only. Please contact Shengyi Technology Co., Ltd. for detailed information. All rights from this line up are reserved by Shengyi Technology Co., Ltd.
- 4) Updated date: October, 2021