Panasonic
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Data Sheet

# High Speed, Low Loss Multi-layer Materials

# MEGTRON7

Any letters with parentheses ( ) at the end of a part number are for identification code in our company and are not included in the part numbers registered for UL certification.

| | | Guangzhou | Koriyama |
|---|---|---|---|
| E glass type | Laminate | R-578Y(GE) | R-578Y(1)* |
| | Prepreg | R-568Y(GE) | R-568Y(1)* |
| Low-Dk glass type | Laminate | R-578Y(GN) | R-578Y(2)** |
| | Prepreg | R-568Y(GN) | R-568Y(2)** |

*On the label, described as “GE type”

**On the label, described as “GN type”

Mar. 2026 No.260330

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# General Properties / Laminate R-578Y(GE) & R-578Y(GN)

| Items | | | Units | Test Method | Condition | Typical Values | |
|---|---|---|---|---|---|---|---|
| | | | | | | R-578Y(GE) E glass | R-578Y(GN) Low-Dk glass |
| THERMAL | Glass Transition Temp ( Tg ) | | C | DSC | As received | 200 | 200 |
| | | | | TMA | As received | 190 | 190 |
| | | | | DMA | As received | 210 | 210 |
| | Thermal Decomposition Temp ( Td ) | | C | TGA | As received | 400 | 400 |
| | Time to Delam ( T288 ) | Without Cu | Min | IPC TM-650 2.4.24.1 | As received | > 120 | > 120 |
| | | With Cu | Min | IPC TM-650 2.4.24.1 | As received | > 120 | > 120 |
| | CTE : α1 | X – axis | ppm / C | IPC TM-650 2.4.24 | < Tg | 14 - 16 | 14 - 16 |
| | | Y – axis | ppm / C | IPC TM-650 2.4.24 | < Tg | 14 - 16 | 14 - 16 |
| | | Z – axis | ppm / C | IPC TM-650 2.4.24 | < Tg | 42 | 42 |
| | CTE : α2 | Z – axis | ppm / C | IPC TM-650 2.4.24 | > Tg | 280 | 280 |
| ELECTRICAL | Volume Resistivity | | MΩ - cm | IPC TM-650 2.5.17.1 | C-96/35/90 | $1 \times 10^{9}$ | $1 \times 10^{9}$ |
| | Surface Resistivity | | MΩ | IPC TM-650 2.5.17.1 | C-96/35/90 | $1 \times 10^{8}$ | $1 \times 10^{8}$ |
| | Dielectric Constant ( Dk ) | @ 1GHz | - | IPC TM-650 2.5.5.9 | C-24/23/50 | 3.63 | 3.37 |
| | | @ 13, 14GHz | - | *Note 1 | C-24/23/50 | 3.60 @13GHz | 3.31 @14GHz |
| | Dissipation Factor ( Df ) | @ 1GHz | - | IPC TM-650 2.5.5.9 | C-24/23/50 | 0.002 | 0.001 |
| | | @ 13, 14GHz | - | *Note 1 | C-24/23/50 | 0.0034 @13GHz | 0.0023 @14GHz |
| PHYSICAL | Water Absorption | | % | IPC TM-650 2.6.2.1 | D-24/23 | 0.06 | 0.06 |
| | Peel Strength | 1oz ( H-VLP2 ) | kN / m | IPC TM-650 2.4.8 | As received | 0.8 | 0.8 |
| | Flammability | | - | UL 94V | C-48/23/50 | 94V-0 | 94V-0 |

Sample thickness : 29.5 mil = 0.750 mm ( Core Type 30 )

Note 1 : Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Laminate R-578Y(GE) : E glass

1GHz ; IPC TM650-2.5.5.9

13-58GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Core Type | Actual Thickness | | Cloth Style | ply | Typical Resin Content ( % ) | Core Labeling | Typical Dk | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mil | mm | | | | | 1GHz | 13GHz | 24GHz | 36GHz | 47GHz | 58GHz |
| 2 | 2.0 | 0.050 | 1035 | 1 | 65 | 0.05 | 3.37 | 3.34 | 3.34 | 3.34 | 3.34 | 3.34 |
| 2.6 | 2.6 | 0.065 | 1078 | 1 | 57 | 0.07 | 3.55 | 3.51 | 3.51 | 3.51 | 3.51 | 3.51 |
| 3 | 3.0 | 0.075 | 1078 | 1 | 63 | 0.08 | 3.41 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 |
| 3.5 | 3.5 | 0.090 | 1078 | 1 | 68 | 0.09 | 3.30 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 |
| 4 | 3.9 | 0.100 | 3313 | 1 | 53 | 0.1 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 4 | 3.9 | 0.100 | 1035 | 2 | 65 | 0.1 | 3.37 | 3.34 | 3.34 | 3.34 | 3.34 | 3.34 |
| 5 | 5.0 | 0.127 | 1078 | 2 | 57 | 0.12 | 3.55 | 3.51 | 3.51 | 3.51 | 3.51 | 3.51 |
| 5 | 4.9 | 0.125 | 2116 | 1 | 53 | 0.13 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 6 | 5.7 | 0.146 | 1078 | 2 | 63 | 0.14 | 3.41 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 |
| 7 | 7.0 | 0.178 | 1078 | 2 | 68 | 0.18 | 3.30 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 |
| 8 | 7.9 | 0.200 | 3313 | 2 | 53 | 0.2 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 10 | 9.8 | 0.250 | 2116 | 2 | 53 | 0.25 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 12 | 11.8 | 0.300 | 3313 | 3 | 53 | 0.3 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 16 | 15.7 | 0.400 | 3313 | 4 | 53 | 0.4 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 20 | 19.7 | 0.500 | 2116 | 4 | 53 | 0.5 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 25 | 24.6 | 0.625 | 2116 | 5 | 53 | 0.63 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |
| 30 | 29.5 | 0.750 | 2116 | 6 | 53 | 0.75 | 3.63 | 3.60 | 3.60 | 3.60 | 3.60 | 3.60 |

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Laminate R-578Y(GE) : E glass

1GHz ; IPC TM650-2.5.5.9

13-58GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Core Type | Actual Thickness | | Cloth Style | ply | Typical Resin Content ( % ) | Core Labeling | Typical Df | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mil | mm | | | | | 1GHz | 13GHz | 24GHz | 36GHz | 47GHz | 58GHz |
| 2 | 2.0 | 0.050 | 1035 | 1 | 65 | 0.05 | 0.002 | 0.0029 | 0.0032 | 0.0035 | 0.0038 | 0.0041 |
| 2.6 | 2.6 | 0.065 | 1078 | 1 | 57 | 0.07 | 0.002 | 0.0032 | 0.0035 | 0.0039 | 0.0043 | 0.0046 |
| 3 | 3.0 | 0.075 | 1078 | 1 | 63 | 0.08 | 0.002 | 0.0029 | 0.0033 | 0.0036 | 0.0039 | 0.0043 |
| 3.5 | 3.5 | 0.090 | 1078 | 1 | 68 | 0.09 | 0.002 | 0.0028 | 0.0031 | 0.0034 | 0.0037 | 0.0040 |
| 4 | 3.9 | 0.100 | 3313 | 1 | 53 | 0.1 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 4 | 3.9 | 0.100 | 1035 | 2 | 65 | 0.1 | 0.002 | 0.0029 | 0.0032 | 0.0035 | 0.0038 | 0.0041 |
| 5 | 5.0 | 0.127 | 1078 | 2 | 57 | 0.12 | 0.002 | 0.0032 | 0.0035 | 0.0039 | 0.0043 | 0.0046 |
| 5 | 4.9 | 0.125 | 2116 | 1 | 53 | 0.13 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 6 | 5.7 | 0.146 | 1078 | 2 | 63 | 0.14 | 0.002 | 0.0029 | 0.0033 | 0.0036 | 0.0039 | 0.0043 |
| 7 | 7.0 | 0.178 | 1078 | 2 | 68 | 0.18 | 0.002 | 0.0028 | 0.0031 | 0.0034 | 0.0037 | 0.0040 |
| 8 | 7.9 | 0.200 | 3313 | 2 | 53 | 0.2 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 10 | 9.8 | 0.250 | 2116 | 2 | 53 | 0.25 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 12 | 11.8 | 0.300 | 3313 | 3 | 53 | 0.3 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 16 | 15.7 | 0.400 | 3313 | 4 | 53 | 0.4 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 20 | 19.7 | 0.500 | 2116 | 4 | 53 | 0.5 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 25 | 24.6 | 0.625 | 2116 | 5 | 53 | 0.63 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |
| 30 | 29.5 | 0.750 | 2116 | 6 | 53 | 0.75 | 0.002 | 0.0034 | 0.0037 | 0.0041 | 0.0045 | 0.0049 |

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Prepreg R-568Y(GE) : E glass

1GHz ; IPC TM650-2.5.5.9

13-58GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Cloth Style | Resin Content ( % ) | Typical Thickness ( um ) | Prepreg labeling | Typical Dk | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 1GHz | 13GHz | 24GHz | 36GHz | 47GHz | 58GHz |
| 1035 | 70 | 60 | 0.04 | 3.26 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| | 73 | 68 | | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 | 3.20 |
| | 75 | 74 | | 3.18 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 |
| 1080 | 64 | 76 | 0.06 | 3.39 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 |
| | 68 | 87 | | 3.30 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 |
| | 72 | 101 | | 3.22 | 3.21 | 3.21 | 3.21 | 3.21 | 3.21 |
| | 75 | 115 | | 3.18 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 |
| 1078 | 64 | 77 | 0.06 | 3.39 | 3.36 | 3.36 | 3.36 | 3.36 | 3.36 |
| | 68 | 89 | | 3.30 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 |
| | 72 | 104 | | 3.22 | 3.21 | 3.21 | 3.21 | 3.21 | 3.21 |
| | 75 | 118 | | 3.18 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 |
| 3313 | 54 | 98 | 0.08 | 3.63 | 3.58 | 3.58 | 3.58 | 3.58 | 3.58 |
| | 57 | 106 | | 3.55 | 3.51 | 3.51 | 3.51 | 3.51 | 3.51 |
| 2116 | 56 | 132 | 0.1 | 3.57 | 3.53 | 3.53 | 3.53 | 3.53 | 3.53 |

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Prepreg R-568Y(GE) : E glass

1GHz ; IPC TM650-2.5.5.9

13-58GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Cloth Style | Resin Content ( % ) | Typical Thickness ( um ) | Prepreg labeling | Typical Df | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 1GHz | 13GHz | 24GHz | 36GHz | 47GHz | 58GHz |
| 1035 | 70 | 60 | 0.04 | 0.002 | 0.0027 | 0.0030 | 0.0033 | 0.0036 | 0.0039 |
| | 73 | 68 | | 0.002 | 0.0026 | 0.0028 | 0.0031 | 0.0034 | 0.0037 |
| | 75 | 74 | | 0.002 | 0.0025 | 0.0028 | 0.0031 | 0.0033 | 0.0036 |
| 1080 | 64 | 76 | 0.06 | 0.002 | 0.0029 | 0.0032 | 0.0036 | 0.0039 | 0.0042 |
| | 68 | 87 | | 0.002 | 0.0028 | 0.0031 | 0.0034 | 0.0037 | 0.0040 |
| | 72 | 101 | | 0.002 | 0.0026 | 0.0029 | 0.0032 | 0.0035 | 0.0038 |
| | 75 | 115 | | 0.002 | 0.0025 | 0.0028 | 0.0031 | 0.0033 | 0.0036 |
| 1078 | 64 | 77 | 0.06 | 0.002 | 0.0029 | 0.0032 | 0.0036 | 0.0039 | 0.0042 |
| | 68 | 89 | | 0.002 | 0.0028 | 0.0031 | 0.0034 | 0.0037 | 0.0040 |
| | 72 | 104 | | 0.002 | 0.0026 | 0.0029 | 0.0032 | 0.0035 | 0.0038 |
| | 75 | 118 | | 0.002 | 0.0025 | 0.0028 | 0.0031 | 0.0033 | 0.0036 |
| 3313 | 54 | 98 | 0.08 | 0.002 | 0.0033 | 0.0037 | 0.0041 | 0.0044 | 0.0048 |
| | 57 | 106 | | 0.002 | 0.0032 | 0.0035 | 0.0039 | 0.0043 | 0.0046 |
| 2116 | 56 | 132 | 0.1 | 0.002 | 0.0032 | 0.0036 | 0.0040 | 0.0043 | 0.0047 |

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Laminate R-578Y(GN) : Low-Dk glass

1GHz ; IPC TM650-2.5.5.9

14-59GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Core Type | Actual Thickness | | Cloth Style | ply | Typical Resin Content ( % ) | Core Labeling | Typical Dk | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mil | mm | | | | | 1GHz | 14GHz | 25GHz | 36GHz | 48GHz | 59GHz |
| 2 | 2.0 | 0.050 | 1035 | 1 | 67 | 0.05 | 3.21 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| 2.6 | 2.6 | 0.065 | 1078 | 1 | 59 | 0.07 | 3.32 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| 3 | 3.0 | 0.075 | 1078 | 1 | 65 | 0.08 | 3.24 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 |
| 3.2 | 3.2 | 0.080 | 1035 | 2 | 60 | 0.08 | 3.31 | 3.24 | 3.24 | 3.24 | 3.24 | 3.24 |
| 3.5 | 3.5 | 0.090 | 1078 | 1 | 70 | 0.09 | 3.18 | 3.11 | 3.11 | 3.11 | 3.11 | 3.11 |
| 3.5 | 3.5 | 0.090 | 1035 | 2 | 64 | 0.09 | 3.26 | 3.19 | 3.19 | 3.19 | 3.19 | 3.19 |
| 4 | 3.9 | 0.100 | 2013 | 1 | 55 | 0.1 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 4 | 3.9 | 0.100 | 1035 | 2 | 67 | 0.1 | 3.21 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| 4.5 | 4.5 | 0.114 | 1035 | 2 | 70 | 0.11 | 3.18 | 3.11 | 3.11 | 3.11 | 3.11 | 3.11 |
| 5 | 5.0 | 0.127 | 1078 | 2 | 59 | 0.12 | 3.32 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| 5 | 4.9 | 0.125 | 2116 | 1 | 55 | 0.13 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 5.2 | 5.2 | 0.135 | 1035 | 3 | 64 | 0.14 | 3.26 | 3.19 | 3.19 | 3.19 | 3.19 | 3.19 |
| 6 | 5.7 | 0.146 | 1078 | 2 | 65 | 0.14 | 3.24 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 |
| 7 | 7.0 | 0.178 | 1078 | 2 | 70 | 0.18 | 3.18 | 3.11 | 3.11 | 3.11 | 3.11 | 3.11 |
| 8 | 7.9 | 0.200 | 2013 | 2 | 55 | 0.2 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 10 | 9.8 | 0.250 | 2116 | 2 | 55 | 0.25 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 12 | 11.8 | 0.300 | 2013 | 3 | 55 | 0.3 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 16 | 15.7 | 0.400 | 2013 | 4 | 55 | 0.4 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 20 | 19.7 | 0.500 | 2116 | 4 | 55 | 0.5 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 25 | 24.6 | 0.625 | 2116 | 5 | 55 | 0.63 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |
| 30 | 29.5 | 0.750 | 2116 | 6 | 55 | 0.75 | 3.37 | 3.31 | 3.31 | 3.31 | 3.31 | 3.31 |

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Laminate R-578Y(GN) : Low-Dk glass

1GHz ; IPC TM650-2.5.5.9

14-59GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Core Type | Actual Thickness | | Cloth Style | ply | Typical Resin Content ( % ) | Core Labeling | Typical Df | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mil | mm | | | | | 1GHz | 14GHz | 25GHz | 36GHz | 48GHz | 59GHz |
| 2 | 2.0 | 0.050 | 1035 | 1 | 67 | 0.05 | 0.001 | 0.0021 | 0.0023 | 0.0026 | 0.0028 | 0.0030 |
| 2.6 | 2.6 | 0.065 | 1078 | 1 | 59 | 0.07 | 0.001 | 0.0022 | 0.0025 | 0.0027 | 0.0030 | 0.0032 |
| 3 | 3.0 | 0.075 | 1078 | 1 | 65 | 0.08 | 0.001 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0031 |
| 3.2 | 3.2 | 0.080 | 1035 | 2 | 60 | 0.08 | 0.001 | 0.0022 | 0.0024 | 0.0027 | 0.0029 | 0.0032 |
| 3.5 | 3.5 | 0.090 | 1078 | 1 | 70 | 0.09 | 0.001 | 0.0021 | 0.0023 | 0.0025 | 0.0028 | 0.0030 |
| 3.5 | 3.5 | 0.090 | 1035 | 2 | 64 | 0.09 | 0.001 | 0.0022 | 0.0024 | 0.0026 | 0.0029 | 0.0031 |
| 4 | 3.9 | 0.100 | 2013 | 1 | 55 | 0.1 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 4 | 3.9 | 0.100 | 1035 | 2 | 67 | 0.1 | 0.001 | 0.0021 | 0.0023 | 0.0026 | 0.0028 | 0.0030 |
| 4.5 | 4.5 | 0.114 | 1035 | 2 | 70 | 0.11 | 0.001 | 0.0021 | 0.0023 | 0.0025 | 0.0028 | 0.0030 |
| 5 | 5.0 | 0.127 | 1078 | 2 | 59 | 0.12 | 0.001 | 0.0022 | 0.0025 | 0.0027 | 0.0030 | 0.0032 |
| 5 | 4.9 | 0.125 | 2116 | 1 | 55 | 0.13 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 5.2 | 5.2 | 0.135 | 1035 | 3 | 64 | 0.14 | 0.001 | 0.0022 | 0.0024 | 0.0026 | 0.0029 | 0.0031 |
| 6 | 5.7 | 0.146 | 1078 | 2 | 65 | 0.14 | 0.001 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0031 |
| 7 | 7.0 | 0.178 | 1078 | 2 | 70 | 0.18 | 0.001 | 0.0021 | 0.0023 | 0.0025 | 0.0028 | 0.0030 |
| 8 | 7.9 | 0.200 | 2013 | 2 | 55 | 0.2 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 10 | 9.8 | 0.250 | 2116 | 2 | 55 | 0.25 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 12 | 11.8 | 0.300 | 2013 | 3 | 55 | 0.3 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 16 | 15.7 | 0.400 | 2013 | 4 | 55 | 0.4 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 20 | 19.7 | 0.500 | 2116 | 4 | 55 | 0.5 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 25 | 24.6 | 0.625 | 2116 | 5 | 55 | 0.63 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| 30 | 29.5 | 0.750 | 2116 | 6 | 55 | 0.75 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Prepreg R-568Y(GN) : Low-Dk glass

1GHz ; IPC TM650-2.5.5.9

14-59GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Cloth Style | Resin Content ( % ) | Typical Thickness ( um ) | Prepreg labeling | Typical Dk | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 1GHz | 14GHz | 25GHz | 36GHz | 48GHz | 59GHz |
| 1027 | 77 | 49 | 0.02 | 3.09 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 |
| 1035 | 72 | 60 | 0.04 | 3.15 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 |
| | 75 | 68 | | 3.11 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| | 77 | 74 | | 3.09 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 |
| 1080 | 66 | 77 | 0.06 | 3.23 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 |
| | 70 | 87 | | 3.18 | 3.11 | 3.11 | 3.11 | 3.11 | 3.11 |
| | 74 | 102 | | 3.12 | 3.06 | 3.06 | 3.06 | 3.06 | 3.06 |
| | 77 | 115 | | 3.09 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 |
| 1078 | 66 | 77 | 0.06 | 3.23 | 3.16 | 3.16 | 3.16 | 3.16 | 3.16 |
| | 70 | 89 | | 3.18 | 3.11 | 3.11 | 3.11 | 3.11 | 3.11 |
| | 74 | 104 | | 3.12 | 3.06 | 3.06 | 3.06 | 3.06 | 3.06 |
| | 77 | 118 | | 3.09 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 |
| 2013 | 56 | 100 | 0.08 | 3.37 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| | 59 | 109 | | 3.32 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| 2116 | 58 | 132 | 0.1 | 3.33 | 3.27 | 3.27 | 3.27 | 3.27 | 3.27 |

* The data in the above table represents typical values for your reference and are not guaranteed values.

# Dielectric Properties / Prepreg R-568Y(GN) : Low-Dk glass

1GHz ; IPC TM650-2.5.5.9

14-59GHz ; Balanced-type Circular Disk Resonance Method [ IEC 63185 (2020) ]

| Cloth Style | Resin Content ( % ) | Typical Thickness ( um ) | Prepreg labeling | Typical Df | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 1GHz | 14GHz | 25GHz | 36GHz | 48GHz | 59GHz |
| 1027 | 77 | 49 | 0.02 | 0.001 | 0.0020 | 0.0022 | 0.0024 | 0.0026 | 0.0028 |
| 1035 | 72 | 60 | 0.04 | 0.001 | 0.0020 | 0.0023 | 0.0025 | 0.0027 | 0.0029 |
| | 75 | 68 | | 0.001 | 0.0020 | 0.0022 | 0.0024 | 0.0027 | 0.0029 |
| | 77 | 74 | | 0.001 | 0.0020 | 0.0022 | 0.0024 | 0.0026 | 0.0028 |
| 1080 | 66 | 77 | 0.06 | 0.001 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0031 |
| | 70 | 87 | | 0.001 | 0.0021 | 0.0023 | 0.0025 | 0.0028 | 0.0030 |
| | 74 | 102 | | 0.001 | 0.0020 | 0.0022 | 0.0025 | 0.0027 | 0.0029 |
| | 77 | 115 | | 0.001 | 0.0020 | 0.0022 | 0.0024 | 0.0026 | 0.0028 |
| 1078 | 66 | 77 | 0.06 | 0.001 | 0.0021 | 0.0024 | 0.0026 | 0.0028 | 0.0031 |
| | 70 | 89 | | 0.001 | 0.0021 | 0.0023 | 0.0025 | 0.0028 | 0.0030 |
| | 74 | 104 | | 0.001 | 0.0020 | 0.0022 | 0.0025 | 0.0027 | 0.0029 |
| | 77 | 118 | | 0.001 | 0.0020 | 0.0022 | 0.0024 | 0.0026 | 0.0028 |
| 2013 | 56 | 100 | 0.08 | 0.001 | 0.0023 | 0.0025 | 0.0028 | 0.0030 | 0.0033 |
| | 59 | 109 | | 0.001 | 0.0022 | 0.0025 | 0.0027 | 0.0030 | 0.0032 |
| 2116 | 58 | 132 | 0.1 | 0.001 | 0.0022 | 0.0025 | 0.0027 | 0.0030 | 0.0032 |

* The data in the above table represents typical values for your reference and are not guaranteed values.


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