

Dielectric Constant(Dk) / Dissipation factor (Df) Table

Core Data

| Construction | Resin Content % | Standard/ Alternate | Thickness (inch) | Thickness (mm) | Dielectric Constant (DK)/ Dissipation Factor (DF) | | | | | |
|----------------|-----------------|---------------------|------------------|----------------|---|----------------|----------------|----------------|----------------|----------------|
| | | | | | 100 MHz | 500 MHz | 1 GHz | 2 GHz | 5 GHz | 10 GHz |
| 1x106 | 69.0% | Alternate | 0.0020 | 0.051 | 3.58 0.0150 | 3.54 0.0170 | 3.52 0.0200 | 3.49 0.0210 | 3.46 0.0220 | 3.46 0.0240 |
| 1x106 | 73.0% | Standard | 0.0025 | 0.064 | 3.51 0.0160 | 3.47 0.0180 | 3.45 0.0200 | 3.42 0.0210 | 3.39 0.0230 | 3.39 0.0250 |
| 1x1080 | 61.0% | Standard | 0.0030 | 0.076 | 3.73 0.0140 | 3.69 0.0160 | 3.68 0.0180 | 3.65 0.0190 | 3.62 0.0200 | 3.62 0.0220 |
| 2x106 | 66.0% | Standard | 0.0035 | 0.089 | 3.64 0.0150 | 3.60 0.0170 | 3.58 0.0190 | 3.55 0.0200 | 3.52 0.0210 | 3.52 0.0240 |
| 1x2116 | 43.0% | Standard | 0.0040 | 0.102 | 4.16 0.0120 | 4.13 0.0130 | 4.13 0.0150 | 4.10 0.0150 | 4.07 0.0160 | 4.07 0.0180 |
| 106/1080 | 58.0% | Alternate | 0.0042 | 0.107 | 3.78 0.0140 | 3.75 0.0160 | 3.73 0.0180 | 3.70 0.0190 | 3.68 0.0200 | 3.68 0.0220 |
| 106/1080 | 61.0% | Standard | 0.0045 | 0.114 | 3.73 0.0140 | 3.69 0.0160 | 3.68 0.0180 | 3.65 0.0190 | 3.62 0.0200 | 3.62 0.0220 |
| 106/1080 | 64.0% | Alternate | 0.0050 | 0.127 | 3.67 0.0150 | 3.64 0.0160 | 3.62 0.0190 | 3.59 0.0200 | 3.56 0.0210 | 3.56 0.0230 |
| 2x1080 | 56.0% | Standard | 0.0050 | 0.127 | 3.83 0.0140 | 3.80 0.1520 | 3.79 0.0170 | 3.76 0.0180 | 3.74 0.0190 | 3.74 0.0210 |
| 106/2113 | 53.0% | Standard | 0.0053 | 0.135 | 3.90 0.0130 | 3.86 0.0150 | 3.85 0.0170 | 3.82 0.0170 | 3.80 0.0180 | 3.80 0.0200 |
| 106/2116 | 49.0% | Standard | 0.0060 | 0.152 | 3.99 0.0130 | 3.96 0.0140 | 3.94 0.0160 | 3.92 0.0170 | 3.89 0.0170 | 3.89 0.0190 |
| 1080/2116 | 51.0% | Standard | 0.0070 | 0.178 | 3.94 0.0130 | 3.91 0.0140 | 3.89 0.0160 | 3.87 0.0170 | 3.84 0.0180 | 3.84 0.0200 |
| 2x1080/106 | 63.0% | Standard | 0.0080 | 0.203 | 3.69 0.0140 | 3.65 0.0160 | 3.64 0.0190 | 3.61 0.0190 | 3.58 0.0200 | 3.58 0.0230 |
| 2113/2116 | 47.0% | Standard | 0.0080 | 0.203 | 4.03 0.0120 | 4.00 0.0140 | 3.99 0.0160 | 3.97 0.0160 | 3.94 0.0170 | 3.94 0.0190 |
| 2x2113/106 | 54.0% | Standard | 0.0090 | 0.229 | 3.88 0.0130 | 3.84 0.0150 | 3.83 0.0170 | 3.80 0.0180 | 3.78 0.0180 | 3.78 0.0210 |
| 2x1080/2116 | 54.0% | Standard | 0.0100 | 0.254 | 3.88 0.0130 | 3.84 0.0150 | 3.83 0.0170 | 3.80 0.0180 | 3.78 0.0180 | 3.78 0.0210 |
| 1080/7628/1080 | 43.0% | Standard | 0.0120 | 0.305 | 4.16 0.0120 | 4.13 0.0130 | 4.13 0.0150 | 4.10 0.0150 | 4.07 0.0160 | 4.07 0.0180 |
| 2x7628 | 39.0% | Standard | 0.0140 | 0.356 | 4.23 0.0120 | 4.20 0.0120 | 4.19 0.0140 | 4.17 0.0150 | 4.11 0.0150 | 4.11 0.0170 |

| | | | | | | | | | | |
|----------------|-------|-----------|--------|-------|----------------|----------------|----------------|----------------|----------------|----------------|
| 2x7628/106 | 40.0% | Alternate | 0.0160 | 0.406 | 4.18 0.0120 | 4.15 0.0130 | 4.15 0.0140 | 4.12 0.0150 | 4.09 0.0150 | 4.09 0.0170 |
| 2x7628/2113 | 41.0% | Alternate | 0.0180 | 0.457 | 4.16 0.0120 | 4.13 0.0130 | 4.13 0.0150 | 4.10 0.0150 | 4.07 0.0160 | 4.07 0.0170 |
| 3x7628 | 38.0% | Alternate | 0.0200 | 0.508 | 4.24 0.0120 | 4.21 0.0120 | 4.20 0.0140 | 4.16 0.0140 | 4.13 0.0150 | 4.13 0.0170 |
| 3x7628/2116 | 40.0% | Alternate | 0.0240 | 0.610 | 4.18 0.0120 | 4.15 0.0130 | 4.15 0.0140 | 4.12 0.0150 | 4.09 0.0150 | 4.09 0.0170 |
| 4x7628 | 39.0% | Standard | 0.0280 | 0.711 | 4.23 0.0120 | 4.20 0.0120 | 4.19 0.0140 | 4.14 0.0150 | 4.11 0.0150 | 4.11 0.0170 |
| 4x7628/2116 | 39.0% | Standard | 0.0310 | 0.787 | 4.23 0.0110 | 4.20 0.0120 | 4.19 0.0140 | 4.14 0.0140 | 4.11 0.0150 | 4.11 0.0170 |
| 6x7628 | 37.0% | Standard | 0.0390 | 0.991 | 4.24 0.0120 | 4.21 0.0120 | 4.21 0.0140 | 4.18 0.0150 | 4.15 0.0150 | 4.15 0.0170 |
| 1x2116/ 8x7628 | 38.0% | Standard | 0.0590 | 1.499 | 4.24 0.0120 | 4.21 0.0120 | 4.20 0.0140 | 4.16 0.0140 | 4.13 0.0150 | 4.13 0.0170 |

Prepreg Dielectric Constant(Dk) / Dissipation factor (Df) Table

Prepreg Data

| Glass Style | Resin Content % | Thickness (inch) | Thickness (mm) | 100 MHz | Dielectric Constant (DK)/ Dissipation Factor (DF) | | | | |
|-------------|-----------------|------------------|----------------|----------------|---|----------------|----------------|----------------|----------------|
| | | | | | 500 MHz | 1 GHz | 2 GHz | 5 GHz | 10 GHz |
| 106 | 75.00% | 0.0024 | 0.061 | 3.48 0.0158 | 3.43 0.0180 | 3.41 0.0208 | 3.38 0.0218 | 3.35 0.0229 | 3.35 0.0259 |
| 1080 | 65.00% | 0.0032 | 0.081 | 3.66 0.0146 | 3.62 0.0165 | 3.60 0.0189 | 3.57 0.0198 | 3.54 0.0207 | 3.54 0.0233 |
| 2113 | 57.00% | 0.004 | 0.102 | 3.81 0.0136 | 3.78 0.0153 | 3.76 0.0174 | 3.74 0.0181 | 3.71 0.0190 | 3.71 0.0212 |
| 2116 | 54.00% | 0.005 | 0.127 | 3.88 0.0133 | 3.84 0.0148 | 3.83 0.0169 | 3.80 0.0175 | 3.78 0.0183 | 3.78 0.0205 |
| 7628 | 42.00% | 0.0078 | 0.198 | 4.14 0.0119 | 4.11 0.0129 | 4.11 0.0149 | 4.08 0.0151 | 4.05 0.0158 | 4.05 0.0175 |

NOTE

Revisions:

A-Original-4/17

B-Modified construction offering 6/19

C-Correct 31 mil core thickness 9/19

D-Corrected 20 mil construction 7/20

Standard-Commonly available with the best availability.

Alternate-Available, but not stocked with longer lead time

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