



# KB-6165F/KB-6065F Line up

## Electrical Properties

### 1) CORE (KB-6165F)

| Thickness<br>(mil)±10% | Thickness<br>(mm)±10% | Layup         | Dk±0.2 |      |      |       | Df±10% |       |       |       |
|------------------------|-----------------------|---------------|--------|------|------|-------|--------|-------|-------|-------|
|                        |                       |               | 1GHz   | 2GHz | 5GHz | 10GHz | 1GHz   | 2GHz  | 5GHz  | 10GHz |
| 2.0                    | 0.051                 | 106×1         | 4.1    | 4.0  | 3.9  | 3.9   | 0.017  | 0.017 | 0.018 | 0.019 |
| 2.5                    | 0.064                 | 1067×1        | 4.1    | 4.1  | 4.0  | 3.9   | 0.017  | 0.017 | 0.018 | 0.019 |
| 3.0                    | 0.076                 | 1080×1        | 4.2    | 4.2  | 4.1  | 4.0   | 0.017  | 0.017 | 0.018 | 0.018 |
| 3.5                    | 0.089                 | 3313×1        | 4.5    | 4.4  | 4.4  | 4.3   | 0.015  | 0.015 | 0.016 | 0.017 |
| 4.0                    | 0.102                 | 2116×1        | 4.6    | 4.5  | 4.5  | 4.4   | 0.017  | 0.018 | 0.019 | 0.019 |
| 4.5                    | 0.114                 | 2116×1        | 4.5    | 4.5  | 4.4  | 4.3   | 0.015  | 0.015 | 0.016 | 0.017 |
| 5.0                    | 0.127                 | 2165×1        | 4.6    | 4.5  | 4.4  | 4.4   | 0.015  | 0.015 | 0.016 | 0.017 |
| 5.5                    | 0.140                 | 1506*1        | 4.7    | 4.6  | 4.6  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
| 6.0                    | 0.152                 | 1506*1        | 4.6    | 4.6  | 4.5  | 4.4   | 0.014  | 0.014 | 0.015 | 0.016 |
| 7.5                    | 0.191                 | 7628*1        | 4.6    | 4.6  | 4.5  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
| 8.0                    | 0.203                 | 7628*1        | 4.6    | 4.5  | 4.4  | 4.4   | 0.015  | 0.015 | 0.016 | 0.017 |
| 10.0                   | 0.254                 | 2165*2        | 4.5    | 4.5  | 4.4  | 4.4   | 0.015  | 0.015 | 0.016 | 0.017 |
| 12.0                   | 0.305                 | 1506×2        | 4.7    | 4.6  | 4.6  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
| 15.0                   | 0.381                 | 7628*2        | 4.8    | 4.8  | 4.7  | 4.6   | 0.015  | 0.016 | 0.016 | 0.017 |
| 18.0                   | 0.457                 | 7628×2+1080×1 | 4.6    | 4.5  | 4.5  | 4.4   | 0.014  | 0.015 | 0.016 | 0.017 |
| 21.0                   | 0.533                 | 7628*3        | 4.7    | 4.6  | 4.6  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
| 25.0                   | 0.635                 | 7628*3        | 4.5    | 4.5  | 4.4  | 4.4   | 0.015  | 0.015 | 0.016 | 0.017 |
| 30.0                   | 0.762                 | 7628*4        | 4.8    | 4.7  | 4.7  | 4.6   | 0.015  | 0.015 | 0.016 | 0.016 |
| 35.0                   | 0.889                 | 7628*5        | 4.7    | 4.6  | 4.6  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
| 40.0                   | 1.016                 | 7628*5        | 4.7    | 4.7  | 4.6  | 4.5   | 0.015  | 0.016 | 0.016 | 0.017 |
| 47.0                   | 1.194                 | 7628*6        | 4.7    | 4.6  | 4.5  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
| 59.0                   | 1.499                 | 7628*8        | 4.8    | 4.7  | 4.7  | 4.6   | 0.014  | 0.015 | 0.016 | 0.017 |

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### 2) PREPREG (KB-6065F)

| Glass style | Thickness<br>(mil)±10% | Thickness<br>(mm)±10% | RC% | Dk±0.2 |      |      |       | Df±10% |       |       |       |
|-------------|------------------------|-----------------------|-----|--------|------|------|-------|--------|-------|-------|-------|
|             |                        |                       |     | 1GHz   | 2GHz | 5GHz | 10GHz | 1GHz   | 2GHz  | 5GHz  | 10GHz |
| 106         | 1.80                   | 0.046                 | 68  | 4.1    | 4.1  | 4.0  | 3.9   | 0.017  | 0.017 | 0.018 | 0.019 |
|             | 1.90                   | 0.048                 | 70  | 4.0    | 4.0  | 3.9  | 3.9   | 0.017  | 0.018 | 0.018 | 0.019 |
|             | 2.10                   | 0.053                 | 72  | 3.9    | 3.9  | 3.8  | 3.8   | 0.018  | 0.018 | 0.019 | 0.019 |
| 1067        | 2.20                   | 0.056                 | 68  | 4.1    | 4.0  | 4.0  | 3.9   | 0.017  | 0.017 | 0.018 | 0.019 |
|             | 2.40                   | 0.061                 | 70  | 4.0    | 4.0  | 3.9  | 3.9   | 0.017  | 0.017 | 0.018 | 0.019 |
|             | 2.60                   | 0.066                 | 72  | 4.0    | 4.0  | 3.9  | 3.9   | 0.017  | 0.018 | 0.018 | 0.019 |
| 1080/1078   | 2.90                   | 0.074                 | 63  | 4.3    | 4.2  | 4.2  | 4.1   | 0.016  | 0.016 | 0.017 | 0.018 |
|             | 3.10                   | 0.079                 | 65  | 4.2    | 4.2  | 4.1  | 4.0   | 0.017  | 0.017 | 0.018 | 0.018 |
|             | 3.40                   | 0.086                 | 68  | 4.2    | 4.1  | 4.0  | 4.0   | 0.017  | 0.017 | 0.018 | 0.019 |
| 1086        | 3.30                   | 0.084                 | 64  | 4.3    | 4.2  | 4.1  | 4.1   | 0.016  | 0.016 | 0.017 | 0.018 |
|             | 3.50                   | 0.089                 | 66  | 4.3    | 4.2  | 4.1  | 4.1   | 0.016  | 0.016 | 0.017 | 0.018 |
|             | 3.80                   | 0.097                 | 68  | 4.2    | 4.2  | 4.1  | 4.0   | 0.016  | 0.016 | 0.017 | 0.018 |
| 3313        | 3.40                   | 0.086                 | 50  | 4.5    | 4.4  | 4.4  | 4.3   | 0.015  | 0.015 | 0.016 | 0.017 |
|             | 3.50                   | 0.089                 | 52  | 4.4    | 4.4  | 4.3  | 4.3   | 0.015  | 0.015 | 0.016 | 0.017 |
|             | 3.70                   | 0.094                 | 54  | 4.4    | 4.3  | 4.2  | 4.2   | 0.016  | 0.016 | 0.017 | 0.018 |
| 2116        | 4.60                   | 0.117                 | 52  | 4.5    | 4.4  | 4.4  | 4.3   | 0.015  | 0.015 | 0.016 | 0.017 |
|             | 4.80                   | 0.122                 | 54  | 4.5    | 4.4  | 4.3  | 4.3   | 0.016  | 0.015 | 0.016 | 0.017 |
|             | 5.10                   | 0.130                 | 56  | 4.4    | 4.4  | 4.3  | 4.2   | 0.016  | 0.015 | 0.016 | 0.017 |
| 2165        | 5.30                   | 0.135                 | 52  | 4.6    | 4.6  | 4.5  | 4.5   | 0.015  | 0.015 | 0.016 | 0.017 |
|             | 5.80                   | 0.147                 | 55  | 4.6    | 4.5  | 4.5  | 4.4   | 0.016  | 0.016 | 0.016 | 0.017 |
|             | 6.30                   | 0.160                 | 58  | 4.5    | 4.5  | 4.5  | 4.4   | 0.016  | 0.016 | 0.016 | 0.017 |
| 1506        | 6.50                   | 0.165                 | 48  | 4.7    | 4.6  | 4.5  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
|             | 6.80                   | 0.173                 | 50  | 4.6    | 4.6  | 4.5  | 4.4   | 0.015  | 0.015 | 0.016 | 0.016 |
|             | 7.10                   | 0.180                 | 52  | 4.6    | 4.5  | 4.4  | 4.4   | 0.015  | 0.015 | 0.016 | 0.017 |
| 7628        | 8.30                   | 0.211                 | 48  | 4.7    | 4.6  | 4.5  | 4.5   | 0.014  | 0.014 | 0.015 | 0.016 |
|             | 8.70                   | 0.221                 | 50  | 4.6    | 4.5  | 4.5  | 4.4   | 0.015  | 0.015 | 0.016 | 0.017 |
|             | 9.20                   | 0.234                 | 52  | 4.6    | 4.5  | 4.4  | 4.4   | 0.015  | 0.015 | 0.016 | 0.017 |