

Based Material Line Up



ST115D/ST115DB

1. CORE (C-STAGE)

| Thickness | | ply-up | RC (%) | Dk | | | | Df | | | |
|-----------|-------|---------------------|--------|-------|-------|-------|--------|--------|--------|--------|--------|
| mil | mm | | | 1 MHz | 1 GHz | 5 GHz | 10 GHz | 1 MHz | 1 GHz | 5 GHz | 10 GHz |
| 2 | 0.051 | 1X106 | 82 | 5.31 | 5.13 | 5.41 | 5.36 | 0.0090 | 0.0122 | 0.0147 | 0.0141 |
| 3 | 0.076 | 1X106 | 87 | 5.40 | 5.23 | 5.36 | 5.30 | 0.0095 | 0.0131 | 0.0143 | 0.0144 |
| 4.3 | 0.110 | 2X106 | 82 | 5.31 | 5.13 | 5.41 | 5.36 | 0.0090 | 0.0122 | 0.0147 | 0.0141 |
| 4.3 | 0.110 | 1X106 | 90 | 5.48 | 5.33 | 5.33 | 5.27 | 0.0099 | 0.0137 | 0.0140 | 0.0146 |
| 5.0 | 0.127 | 1X1080 | 84 | 5.34 | 5.16 | 5.39 | 5.34 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |
| 6.0 | 0.152 | 2X106 | 87 | 5.40 | 5.23 | 5.36 | 5.30 | 0.0095 | 0.0131 | 0.0143 | 0.0144 |
| 7.0 | 0.178 | 2X106 | 89 | 5.45 | 5.29 | 5.34 | 5.28 | 0.0098 | 0.0135 | 0.0141 | 0.0145 |
| 8.0 | 0.203 | 2X106 | 90 | 5.48 | 5.33 | 5.33 | 5.27 | 0.0099 | 0.0137 | 0.0140 | 0.0146 |
| 10.0 | 0.254 | 2X1080 | 84 | 5.34 | 5.16 | 5.39 | 5.34 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |
| 12.0 | 0.305 | 3X106 | 90 | 5.47 | 5.32 | 5.33 | 5.27 | 0.0099 | 0.0137 | 0.0140 | 0.0146 |
| 14.0 | 0.356 | 1X1080+1X106+1X1080 | 84 | 5.40 | 5.23 | 5.36 | 5.30 | 0.0095 | 0.0131 | 0.0143 | 0.0144 |
| 16.0 | 0.406 | 1X1080+2X106+1X1080 | 84 | 5.36 | 5.22 | 5.37 | 5.32 | 0.0095 | 0.0128 | 0.0143 | 0.0144 |
| 18.0 | 0.457 | 5X106 | 89 | 5.45 | 5.29 | 5.34 | 5.28 | 0.0098 | 0.0135 | 0.0141 | 0.0145 |
| 20.0 | 0.508 | 4X1080 | 84 | 5.34 | 5.16 | 5.39 | 5.34 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |
| 24.0 | 0.610 | 2X1080+1X106+2X1080 | 84 | 5.36 | 5.22 | 5.37 | 5.32 | 0.0095 | 0.0128 | 0.0143 | 0.0144 |
| 28.0 | 0.711 | 2X1080+2X106+2X1080 | 84 | 5.36 | 5.22 | 5.37 | 5.32 | 0.0095 | 0.0128 | 0.0143 | 0.0144 |
| 30.0 | 0.762 | 6X1080 | 84 | 5.34 | 5.16 | 5.39 | 5.34 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |
| 32.0 | 0.800 | 8X106 | 90 | 5.47 | 5.32 | 5.33 | 5.27 | 0.0099 | 0.0137 | 0.0140 | 0.0146 |

Based Material Line Up



| | | | | | | | | | | | |
|------|-------|---------------------|----|------|------|------|------|--------|--------|--------|--------|
| 40.0 | 1.016 | 8X1080 | 84 | 5.34 | 5.16 | 5.39 | 5.34 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |
| 50.0 | 1.270 | 10X1080 | 84 | 5.34 | 5.16 | 5.39 | 5.34 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |
| 60.0 | 1.524 | 12X1080 | 84 | 5.34 | 5.16 | 5.39 | 5.34 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |
| 63.0 | 1.600 | 6X1080+1X106+6X1080 | 84 | 5.35 | 5.17 | 5.38 | 5.33 | 0.0092 | 0.0125 | 0.0145 | 0.0142 |

2. PREPREG (B-STAGE)

| Glass style | RC (%) Nominal | Thickness | | Dk | | | | Df | | | |
|-------------|-------------------|-----------|-----|------|------|------|-------|--------|--------|--------|--------|
| | | mm | mil | 1MHz | 1GHz | 5GHz | 10GHz | 1 MHz | 1 GHz | 5 GHz | 10 GHz |
| 1080 | 85 | 0.135 | 5.7 | 5.37 | 5.18 | 5.37 | 5.31 | 0.0094 | 0.0127 | 0.0144 | 0.0144 |
| 106 | 89 | 0.095 | 3.7 | 5.45 | 5.29 | 5.34 | 5.28 | 0.0098 | 0.0135 | 0.0141 | 0.0145 |
| 106 | 90 | 0.105 | 4.2 | 5.48 | 5.33 | 5.33 | 5.27 | 0.0099 | 0.0137 | 0.0140 | 0.0146 |
| 106 | 91 | 0.115 | 4.5 | 5.51 | 5.37 | 5.32 | 5.26 | 0.0100 | 0.0139 | 0.0139 | 0.0147 |
| 1027 | 90 | 0.080 | 3.2 | 5.48 | 5.33 | 5.33 | 5.27 | 0.0099 | 0.0137 | 0.0140 | 0.0146 |

3. REMARK

- 1) 5G, 10GHz data, test by SPDR method (IEC 61189-2-721).
- 2) 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.;
- 3) Last update: August, 2018.