

NP-175F (170Tg Phenolic FR4)

| Core (inches) | core (mm) | Construction | Resin Content | Dk±0.25 | | | | DF±0.0005 | | | |
|---------------|-----------|---------------|---------------|---------|------|--------|-------|-----------|-------|--------|-------|
| | | | | 1GHz | 2GHz | 2.5GHz | 10GHz | 1GHz | 2GHz | 2.5GHz | 10GHz |
| 0.002 | 0.05 | 106*1 | 68.00% | 3.87 | 3.85 | 3.85 | 3.83 | 0.016 | 0.016 | 0.016 | 0.016 |
| 0.0025 | 0.06 | 1080*1 | 54.00% | 4.14 | 4.09 | 4.08 | 4.07 | 0.015 | 0.015 | 0.015 | 0.015 |
| 0.003 | 0.08 | 1080*1 | 63.00% | 3.98 | 3.95 | 3.94 | 3.93 | 0.016 | 0.016 | 0.016 | 0.016 |
| 0.0035 | 0.09 | 2113*1 | 67.00% | 3.89 | 3.87 | 3.86 | 3.85 | 0.016 | 0.016 | 0.016 | 0.016 |
| 0.004 | 0.10 | 2116*1 | 44.00% | 4.35 | 4.31 | 4.30 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.0045 | 0.11 | 2116*1 | 44.00% | 4.35 | 4.31 | 4.30 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.005 | 0.13 | 1080*2 | 57.00% | 4.09 | 4.06 | 4.03 | 4.03 | 0.016 | 0.016 | 0.016 | 0.016 |
| 0.005 | 0.13 | 2116*1 | 50.50% | 4.22 | 4.19 | 4.16 | 4.15 | 0.015 | 0.015 | 0.015 | 0.015 |
| 0.006 | 0.15 | 1080*1+2113*1 | | 4.09 | 4.06 | 4.03 | 4.03 | 0.015 | 0.015 | 0.015 | 0.015 |
| 0.007 | 0.18 | 7628*1 | 40.00% | 4.47 | 4.38 | 4.37 | 4.36 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.008 | 0.20 | 7628*1 | 44.50% | 4.35 | 4.31 | 4.29 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.008 | 0.20 | 2116*2 | 44.00% | 4.35 | 4.31 | 4.29 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.009 | 0.23 | 2116*2 | 43.00% | 4.35 | 4.27 | 4.27 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.01 | 0.25 | 2116*2 | 50.50% | 4.22 | 4.19 | 4.16 | 4.15 | 0.015 | 0.015 | 0.015 | 0.015 |
| 0.012 | 0.30 | 1506*2 | 42.00% | 4.40 | 4.32 | 4.32 | 4.30 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.013 | 0.33 | 2116*3 | 44.00% | 4.28 | 4.26 | 4.24 | 4.21 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.014 | 0.36 | 7628*2 | 40.00% | 4.35 | 4.31 | 4.29 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.015 | 0.38 | 7628*2 | 42.50% | 4.35 | 4.27 | 4.27 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.016 | 0.41 | 7628*2 | 43.50% | 4.35 | 4.27 | 4.27 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.018 | 0.46 | 2116*1+7628*2 | | 4.35 | 4.27 | 4.27 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.019 | 0.48 | 2116*1+7628*2 | | 4.35 | 4.27 | 4.27 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.02 | 0.51 | 7628*3 | 40.00% | 4.47 | 4.38 | 4.38 | 4.36 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.021 | 0.53 | 7628*3 | 40.00% | 4.47 | 4.38 | 4.38 | 4.36 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.022 | 0.56 | 7628*3 | 42.00% | 4.40 | 4.32 | 4.32 | 4.30 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.023 | 0.58 | 7628*3 | 42.00% | 4.40 | 4.32 | 4.32 | 4.30 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.024 | 0.61 | 7628*3 | 42.50% | 4.35 | 4.27 | 4.27 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.028 | 0.71 | 7628*4 | 38.50% | 4.52 | 4.44 | 4.43 | 4.42 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.029 | 0.74 | 7628*4 | 41.50% | 4.41 | 4.32 | 4.32 | 4.30 | 0.014 | 0.014 | 0.014 | 0.014 |
| 0.031 | 0.79 | 7628*4 | 42.50% | 4.35 | 4.27 | 4.27 | 4.26 | 0.014 | 0.014 | 0.014 | 0.014 |

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|------------|-------------------------------------|---|---------|---------|---------|---------|---------|
| | MATERIAL SUPPLIER | | NAN YA | NAN YA | NAN YA | NAN YA | NAN YA |
| | MATERIAL CODE | | NP-175F | NP-175F | NP-175F | NP-175F | NP-175F |
| | MATERIAL THICKNESS | | 7628 | 2116 | 1506 | 1080 | 2112 |
| Electrical | Dielectric Constant Er at 1 | - | 4.33 | 4.13 | 4.21 | 3.77 | 3.86 |
| | Dielectric Constant Er at 2 | - | 4.28 | 4.06 | 4.18 | 3.65 | 3.79 |
| | Dielectric Constant Er at 5 | - | 4.19 | 4.03 | 4.13 | 3.61 | 3.72 |
| | Dielectric Constant Er at 10 | - | 4.13 | 3.98 | 4.08 | 3.56 | 3.7 |
| | Dissipation Factor at 1 GHz | - | 0.015 | 0.016 | 0.015 | 0.015 | 0.016 |
| | Dissipation Factor at 2 GHz | - | 0.015 | 0.016 | 0.016 | 0.015 | 0.016 |
| | Dissipation Factor at 5 GHz | - | 0.016 | 0.016 | 0.016 | 0.015 | 0.016 |
| | Dissipation Factor at 10 GHz | - | 0.016 | 0.016 | 0.016 | 0.015 | 0.016 |