

RG195, 95 Ohm, 1 GHz, 205°C, Ø3.7 mm, PFA jacket

RG_195_A/U

Properties

- Excellent RF performance for precision applications
- Suitable for use in application up to 1 GHz
- Extended temperature range

**Construction**

| Component | Material | Detail | Diameter |
|------------------|--------------------------------|---------------|--------------------|
| Centre conductor | Steel, Copper + Silver plated | Strand-07 | 0.3 mm |
| Dielectric | PTFE (Polytetrafluoroethylene) | | 2.52 mm |
| Outer conductor | Copper, Silver plated | Braid, 93% | 3.1 mm |
| Jacket | PFA (Perfluoroalkoxy) | RAL 9010 - wh | 3.7 mm +/- 0.15 mm |

Electrical data

| | |
|----------------------------------|----------------|
| Impedance | 95 Ω +/-3Ω |
| Operating frequency | ≤ 1 GHz |
| Capacitance | 50 pF/m |
| Velocity of signal propagation | 69 % |
| Signal delay | 4.79 ns/m |
| Screening effectiveness | ≥38dB |
| Insulation resistance | 100000000 MΩ*m |
| Operating Voltage (at sea level) | ≤ 1 kVrms |
| Test voltage (50 Hz/1 min) | ≤ 2 kVrms |

Mechanical data

| | |
|-------------------------|----------------|
| Weight | approx. 28 g/m |
| Static bending radius | 15 mm |
| Repeated bending radius | 37 mm |

Environmental data

| | |
|--------------------------|-------------------|
| Operation temperature | -65 °C ... 205 °C |
| Installation temperature | -20 °C ... 60 °C |
| Fire characteristics | contains halogene |

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Suitable connectors

| | |
|-------------|-----|
| Cable group | U99 |
|-------------|-----|

Ordering information

| Item number | Item description | Available as assembly only |
|-------------|------------------|----------------------------|
| 22510048 | RG_195_A/U | No |

Power MatrixCalculation: typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

| | | | |
|-------------------------|------------------------------------|------------------------------------|------------------------------------|
| a coefficient typical = | 0.6128 | b coefficient typical = | 0.0264 |
| fmax = | 1.0 | P at 1 GHz = | 35.0 |
| Frequency | Nom. attenuation | Nom. attenuation | CW power |
| GHz | (dB/m) | (dB/ft) | (W) |
| | sea level 25°C ambient temperature | sea level 25°C ambient temperature | sea level 40°C ambient temperature |
| 0.10 | 0.196 | 0.060 | 111 |
| 0.15 | 0.241 | 0.073 | 90 |
| 0.20 | 0.279 | 0.085 | 78 |
| 0.25 | 0.313 | 0.095 | 70 |
| 0.30 | 0.344 | 0.105 | 64 |
| 0.35 | 0.372 | 0.113 | 59 |
| 0.40 | 0.398 | 0.121 | 55 |
| 0.45 | 0.423 | 0.129 | 52 |
| 0.50 | 0.447 | 0.136 | 49 |
| 0.55 | 0.469 | 0.143 | 47 |
| 0.60 | 0.491 | 0.150 | 45 |
| 0.65 | 0.511 | 0.156 | 43 |
| 0.70 | 0.531 | 0.162 | 42 |
| 0.75 | 0.551 | 0.168 | 40 |
| 0.80 | 0.569 | 0.173 | 39 |
| 0.85 | 0.587 | 0.179 | 38 |
| 0.90 | 0.605 | 0.184 | 37 |
| 0.95 | 0.622 | 0.190 | 36 |
| 1.00 | 0.639 | 0.195 | 35 |

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