

**RG187, 75 Ohm, 1 GHz, 205°C, ø2.65 mm, PFA jacket**

RG\_187\_A/U

**Properties**

- Mil standard RG cable
- Excellent RF performance for precision applications
- Suitable for use in application up to 1 GHz
- Extended temperature range
- 75 Ohm characteristic Impedance



| Construction     |                                |               |                    |
|------------------|--------------------------------|---------------|--------------------|
| Component        | Material                       | Detail        | Diameter           |
| Centre conductor | Steel, Copper + Silver plated  | Strand-07     | 0.31 mm            |
| Dielectric       | PTFE (Polytetrafluoroethylene) |               | 1.55 mm            |
| Outer conductor  | Copper, Silver plated          | Braid, 94%    | 2 mm               |
| Jacket           | PFA (Perfluoroalkoxy)          | RAL 9010 - wh | 2.65 mm +/- 0.1 mm |

| Electrical data                  |                                       |
|----------------------------------|---------------------------------------|
| Impedance                        | 75 Ω +/- 3Ω                           |
| Operating frequency              | ≤ 1 GHz                               |
| Capacitance                      | 63 pF/m                               |
| Velocity of signal propagation   | 69 %                                  |
| Signal delay                     | 4.83 ns/m                             |
| Screening effectiveness          | 41 dB at frequency 0.001 GHz ... 1GHz |
| Insulation resistance            | 100000000 MΩ*m                        |
| Operating Voltage (at sea level) | ≤ 1 kVrms                             |
| Test voltage (50 Hz/1 min)       | ≤ 2 kVrms                             |

| Mechanical data         |                |
|-------------------------|----------------|
| Weight                  | approx. 16 g/m |
| Static bending radius   | ≥ 15 mm        |
| Repeated bending radius | 26 mm          |
| Dynamic bending radius  | < 40 mm        |

| Environmental data         |                   |
|----------------------------|-------------------|
| Operation temperature      | -80 °C ... 205 °C |
| Installation temperature   | -20 °C ... 60 °C  |
| Flame propagation standard | IEC 60332-3       |

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| Environmental data   |                   |
|----------------------|-------------------|
| Fire characteristics | contains halogene |

| Suitable connectors |    |
|---------------------|----|
| Cable group         | U5 |

| Ordering information |                  |                            |
|----------------------|------------------|----------------------------|
| Item number          | Item description | Available as assembly only |
| 22510045             | RG_187_A/U       | No                         |

| Power Matrix                                                                                                                  |                                    |                                    |                                    |
|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Calculation: typical Attenuation [ formula: $(a \cdot f^{0.5} + b \cdot f)$ ] and maximum Power CW [ formula: $(p/f^{0.5})$ ] |                                    |                                    |                                    |
| a coefficient typical =                                                                                                       | <b>0.73</b>                        | b coefficient typical =            | <b>0.1014</b>                      |
| fmax =                                                                                                                        | <b>1</b>                           | P at 1 GHz =                       | <b>110</b>                         |
| Frequency<br>GHz                                                                                                              | Nom. attenuation<br>(dB/m)         | Nom. attenuation<br>(dB/ft)        | CW power<br>(W)                    |
|                                                                                                                               | sea level 25°C ambient temperature | sea level 25°C ambient temperature | sea level 40°C ambient temperature |
| 0.20                                                                                                                          | 0.347                              | 0.106                              | 246                                |
| 0.40                                                                                                                          | 0.502                              | 0.153                              | 174                                |
| 0.60                                                                                                                          | 0.626                              | 0.191                              | 142                                |
| 0.80                                                                                                                          | 0.734                              | 0.224                              | 123                                |
| 1.00                                                                                                                          | 0.831                              | 0.253                              | 110                                |

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