

Flexible RF cable

RG_58_C/U Item: 22510015

Description

RG: RG type RF cables

RG58, 50 Ohm, 1 GHz, 85°C, ø4.95 mm, PVC jacket



Technical Data

Construction

| | Material | Detail | Diameter |
|------------------|------------------------|---------------|------------------|
| Centre conductor | Copper, Tin plated | Strand-19 | 0.9 mm |
| Dielectric | PE (Polyethylene) | | 2.95 mm |
| Outer conductor | Copper, Tin plated | Braid, 96% | 3.6 mm |
| Jacket | PVC II (low migration) | RAL 9005 - bk | 4.95 mm +/- 0.15 |

Print: HUBER+SUHNER RG 58 C/U 50 Ohm (production order number)

Electrical Data

| | |
|--------------------------------|--|
| Impedance | 50 Ω +/- 2 |
| Operating Frequency | 1 GHz |
| Capacitance | 101 pF/m |
| Velocity of signal propagation | 66 % |
| Signal delay | 5.03 ns/m |
| Screening effectiveness | ≥ 38 dB (up to 1 GHz) |
| Operating voltage | ≤ 2.5 kV _{rms} (at sea level) |
| Test voltage | 5 kV _{rms} (50 Hz/1 min) |

Mechanical Data

| | | |
|---------------------|--------|--------------|
| Weight | | 3.7 kg/100 m |
| Min. bending radius | static | 25 mm |
| | | 50 mm |

Environmental Data

| | |
|--|-------------------|
| Temperature range | -25 °C ... +85 °C |
| Installation temperature | -20 °C... +60 °C |
| Halogen free | No |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant |
| 1907/2006/EC (REACH) | compliant |

Additional Information

MIL reference: M17/183-00001 (former reference: M17/28-RG058)

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

| | |
|-------------|------------------|
| Cable group | U7 3 mm / 50 Ohm |
|-------------|------------------|

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

Coefficients:

a = 0.3455

b = 0.2373

f_{max} = 1

P at 1GHz = 105

| Frequency (GHz) | Nom. attenuation (dB / m) sea level 25° C ambient temperature | Nom. attenuation (dB / ft) sea level 25° C ambient temperature | Max. CW power (W) sea level 40° C ambient temperature |
|--------------------|---|--|---|
| 0,05 | 0,09 | 0,027 | 470 |
| 0,1 | 0,13 | 0,041 | 332 |
| 0,15 | 0,17 | 0,052 | 271 |
| 0,2 | 0,2 | 0,062 | 235 |
| 0,25 | 0,23 | 0,071 | 210 |
| 0,3 | 0,26 | 0,079 | 192 |
| 0,35 | 0,29 | 0,088 | 177 |
| 0,4 | 0,31 | 0,096 | 166 |
| 0,45 | 0,34 | 0,103 | 157 |
| 0,5 | 0,36 | 0,111 | 148 |
| 0,55 | 0,39 | 0,118 | 142 |
| 0,6 | 0,41 | 0,125 | 136 |
| 0,65 | 0,43 | 0,132 | 130 |
| 0,7 | 0,46 | 0,139 | 125 |
| 0,75 | 0,48 | 0,145 | 121 |
| 0,8 | 0,5 | 0,152 | 117 |
| 0,85 | 0,52 | 0,159 | 114 |
| 0,9 | 0,54 | 0,165 | 111 |
| 0,95 | 0,56 | 0,171 | 108 |
| 1,0 | 0,58 | 0,178 | 105 |