

## Flexible RF cable

RG\_223\_/U Item: 22510072

### Description

RG: RG type RF cables

RG223, 50 Ohm, 6 GHz, 85°C, ø5.4 mm, PVC jacket



### Technical Data

#### Construction

|                  | Material               | Detail        | Diameter       |
|------------------|------------------------|---------------|----------------|
| Centre conductor | Copper, Silver plated  | Wire          | 0.88 mm        |
| Dielectric       | PE (Polyethylene)      |               | 2.95 mm        |
| Outer conductor  | Copper, Silver plated  | Braid, 96%    | 3.6 mm         |
| Outer conductor  | Copper, Silver plated  | Braid, 94 %   | 4.2 mm         |
| Jacket           | PVC II (low migration) | RAL 9005 - bk | 5.4 mm +/- 0.1 |

Print: HUBER+SUHNER RG 223 U 50 Ohm (production order number)

#### Electrical Data

|                                |  |
|--------------------------------|--|
| Impedance                      | 50 Ω +/- 1                             |
| Operating Frequency            | 6 GHz                                  |
| Capacitance                    | 101 pF/m                               |
| Velocity of signal propagation | 66 %                                   |
| Signal delay                   | 5 ns/m                                 |
| Screening effectiveness        | ≥ 85 dB (up to 1 GHz)                  |
| Operating voltage              | ≤ 2.5 kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 5 kV <sub>rms</sub> (50 Hz/1 min)      |

#### Mechanical Data

|                     |        |              |
|---------------------|--------|--------------|
| Weight              |        | 5.5 kg/100 m |
| Min. bending radius | static | 30 mm        |
|                     |        | 54 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: M17/194-00001 (former reference: M17/84-RG223)

#### Remarks

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

#### Suitable Connectors

Cable group U9 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 = 0.3756

b = 0.0749

f<sub>max</sub> = 6

P at 1GHz = 120

| Frequency<br>(GHz) | Nom. attenuation<br>(dB / m)<br>sea level 25° C<br>ambient<br>temperature | Nom. attenuation<br>(dB / ft)<br>sea level 25° C<br>ambient<br>temperature | Max. CW power<br>(W)<br>sea level 40° C<br>ambient<br>temperature |
|--------------------|---|--|---|
| 0,3                | 0,23  | 0,070  | 219   |
| 0,6                | 0,34  | 0,102  | 155   |
| 0,9                | 0,42  | 0,129  | 126   |
| 1,2                | 0,5   | 0,153  | 110   |
| 1,5                | 0,57  | 0,174  | 98  |
| 1,8                | 0,64  | 0,195  | 89  |
| 2,1                | 0,7   | 0,214  | 83  |
| 2,4                | 0,76  | 0,232  | 77  |
| 2,7                | 0,82  | 0,250  | 73  |
| 3,0                | 0,88  | 0,267  | 69  |
| 3,3                | 0,93  | 0,283  | 66  |
| 3,6                | 0,98  | 0,299  | 63  |
| 3,9                | 1,03  | 0,315  | 61  |
| 4,2                | 1,08  | 0,330  | 59  |
| 4,5                | 1,13  | 0,346  | 57  |
| 4,8                | 1,18  | 0,360  | 55  |
| 5,1                | 1,23  | 0,375  | 53  |
| 5,4                | 1,28  | 0,389  | 52  |
| 5,7                | 1,32  | 0,403  | 50  |
| 6,0                | 1,37  | 0,417  | 49  |