

## Flexible RF cable RG\_214\_HIFLEX

### Description

RG: RG type RF cables

RG214 High-flexible, 50 Ohm, 6 GHz, 85°C, ø10.8 mm, PVC jacket



### Technical Data

#### Construction

|                  | Material               | Detail        | Diameter         |
|------------------|------------------------|---------------|------------------|
| Centre conductor | Copper, Silver plated  | Strand-19     | 2.25 mm          |
| Dielectric       | TPO (Olefine TPE)      |               | 7.3 mm           |
| Outer conductor  | Copper, Silver plated  | Braid, 93%    | 8 mm             |
| Outer conductor  | Copper, Silver plated  | Braid, 95 %   | 8.7 mm           |
| Jacket           | PVC II (low migration) | RAL 9005 - bk | 10.8 mm +/- 0.15 |

Print: HUBER+SUHNER RG 214 HiFlex 50 Ohm (PA no.)

#### Electrical Data

|                                |                 |                                      |
|--------------------------------|-----------------|--------------------------------------|
| Impedance                      |                 | 50 Ω +/- 2                           |
| Operating Frequency            |                 | 6 GHz                                |
| Capacitance                    |                 | 101 pF/m                             |
| Velocity of signal propagation |                 | 66 %                                 |
| Signal delay                   |                 | 5.03 ns/m                            |
| Screening effectiveness        |                 | ≥ 70 dB (up to 1 GHz)                |
| Operating voltage              |                 | ≤ 5 kV <sub>rms</sub> (at sea level) |
| Test voltage                   |                 | 10 kV <sub>rms</sub> (50 Hz/1 min)   |
| Phase vs Temperature           | -40°C... + 80°C | 16200 ppm                            |
| Phase vs Bending               |                 | 5 °/GHz                              |

#### Mechanical Data

|                     |                                  |               |
|---------------------|----------------------------------|---------------|
| Weight              |                                  | 18.5 kg/100 m |
| Min. bending radius | static                           | 15 mm         |
|                     | repeated (for ≤ 250000 bendings) | 60 mm         |
|                     | dynamic                          | 100 mm        |

#### Environmental Data

|                          |                   |
|--------------------------|-------------------|
| Temperature range        | -25 °C ... +85 °C |
| Installation temperature | -20 °C... +60 °C  |
| Flame propagation test   | IEC 60332-1,      |
| Halogen free             | No                |
| 2011/65/EU (RoHS)        | compliant         |
| 2006/1907/EC (REACH)     | compliant         |

### Additional Information

#### Ordering Information

Order as RG\_214\_HIFLEX

#### Remarks

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

#### Suitable Connectors

Cable group U32 7 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 = 0.285

b = 0.0679

f<sub>max</sub> = 6

P at 1GHz = 320

| 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                | 0,18                                                                      | 0,054                                                                      | 584                                                               |
| 0,6                | 0,26                                                                      | 0,080                                                                      | 413                                                               |
| 0,9                | 0,33                                                                      | 0,101                                                                      | 337                                                               |
| 1,2                | 0,39                                                                      | 0,120                                                                      | 292                                                               |
| 1,5                | 0,45                                                                      | 0,137                                                                      | 261                                                               |
| 1,8                | 0,5                                                                       | 0,154                                                                      | 239                                                               |
| 2,1                | 0,56                                                                      | 0,169                                                                      | 221                                                               |
| 2,4                | 0,6                                                                       | 0,184                                                                      | 207                                                               |
| 2,7                | 0,65                                                                      | 0,199                                                                      | 195                                                               |
| 3,0                | 0,7                                                                       | 0,213                                                                      | 185                                                               |
| 3,3                | 0,74                                                                      | 0,226                                                                      | 176                                                               |
| 3,6                | 0,79                                                                      | 0,239                                                                      | 169                                                               |
| 3,9                | 0,83                                                                      | 0,252                                                                      | 162                                                               |
| 4,2                | 0,87                                                                      | 0,265                                                                      | 156                                                               |
| 4,5                | 0,91                                                                      | 0,277                                                                      | 151                                                               |
| 4,8                | 0,95                                                                      | 0,290                                                                      | 146                                                               |
| 5,1                | 0,99                                                                      | 0,302                                                                      | 142                                                               |
| 5,4                | 1,03                                                                      | 0,314                                                                      | 138                                                               |
| 5,7                | 1,07                                                                      | 0,325                                                                      | 134                                                               |
| 6,0                | 1,11                                                                      | 0,337                                                                      | 131                                                               |