

## Coaxial Cable RG\_214\_/U

### Description

PE-50 Ohm - double screen - precision type



### Technical Data

#### Construction

|                  | Material               | Detail        | Diameter         |
|------------------|------------------------|---------------|------------------|
| Centre conductor | Copper, Silver plated  | Strand-07     | 2.25 mm          |
| Dielectric       | PE (Polyethylene)      |               | 7.28 mm          |
| Outer conductor  | Copper, Silver plated  | Braid, 90.7%  | 8 mm             |
| Outer conductor  | Copper, Silver plated  | Braid, 93.9 % | 8.7 mm           |
| Jacket           | PVC II (low migration) | RAL 9005 - bk | 10.8 mm +/- 0.15 |

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

#### Electrical Data

|                                |                 |                                      |
|--------------------------------|-----------------|--------------------------------------|
| Impedance                      |                 | 50 Ω +/- 1                           |
| Operating Frequency            |                 | 6 GHz                                |
| Capacitance                    |                 | 101 pF/m                             |
| Velocity of signal propagation |                 | 66 %                                 |
| Signal delay                   |                 | 5 ns/m                               |
| Insulation resistance          |                 | ≥ 1 x 10 <sup>8</sup> MΩm            |
| Min. screening effectiveness   |                 | ≥ 71 dB (up to 1 GHz)                |
| Max. 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... + 70°C |                                      |
| Phase vs Bending               |                 | 9 °/GHz                              |

#### Mechanical Data

|                     |                              |               |
|---------------------|------------------------------|---------------|
| Weight              |                              | 18.5 kg/100 m |
| Min. bending radius | static                       | 55 mm         |
|                     | repeated (for ≤ 50 bendings) | 108 mm        |

#### Environmental Data

|                          |                  |
|--------------------------|------------------|
| Temperature range        | -25 °C... +85 °C |
| Installation temperature | -20 °C... +60 °C |
| 2011/65/EU (RoHS)        | compliant        |

### Additional Information

#### Ordering Information

Order as RG\_214\_/U

#### 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 = 0.202

b = 0.063

f<sub>max</sub> = 6

P at 1GHz = 325

| 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>(watt)<br>sea level 40° C<br>ambient<br>temperature |
|--------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------|
| 0,3                | 0,13                                                                      | 0,039                                                                      | 593                                                                  |
| 0,6                | 0,19                                                                      | 0,059                                                                      | 420                                                                  |
| 0,9                | 0,25                                                                      | 0,076                                                                      | 343                                                                  |
| 1,2                | 0,3                                                                       | 0,090                                                                      | 297                                                                  |
| 1,5                | 0,34                                                                      | 0,104                                                                      | 265                                                                  |
| 1,8                | 0,38                                                                      | 0,117                                                                      | 242                                                                  |
| 2,1                | 0,43                                                                      | 0,130                                                                      | 224                                                                  |
| 2,4                | 0,46                                                                      | 0,141                                                                      | 210                                                                  |
| 2,7                | 0,5                                                                       | 0,153                                                                      | 198                                                                  |
| 3,0                | 0,54                                                                      | 0,164                                                                      | 188                                                                  |
| 3,3                | 0,57                                                                      | 0,175                                                                      | 179                                                                  |
| 3,6                | 0,61                                                                      | 0,186                                                                      | 171                                                                  |
| 3,9                | 0,64                                                                      | 0,196                                                                      | 165                                                                  |
| 4,2                | 0,68                                                                      | 0,207                                                                      | 159                                                                  |
| 4,5                | 0,71                                                                      | 0,217                                                                      | 153                                                                  |
| 4,8                | 0,74                                                                      | 0,227                                                                      | 148                                                                  |
| 5,1                | 0,78                                                                      | 0,237                                                                      | 144                                                                  |
| 5,4                | 0,81                                                                      | 0,247                                                                      | 140                                                                  |
| 5,7                | 0,84                                                                      | 0,256                                                                      | 136                                                                  |
| 6,0                | 0,87                                                                      | 0,266                                                                      | 133                                                                  |