

# HUBER+SUHNER® DATA SHEET

## Coaxial Cable: RG\_214\_/U-01



### 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                                       |               | 7.28 mm          |
| Outer conductor  | Copper, Silver plated                    | Braid, 96 %   | 8 mm             |
| Outer conductor  | Copper, Silver plated                    | Braid, 93 %   | 8.7 mm           |
| Jacket           | PVC II (low migration)                   | RAL 9005 - bk | 10.8 mm +/- 0.15 |
| Print            | HUBER+SUHNER RG 214 U-01 50 Ohm (PA no.) |               |                  |

#### Electrical Data

|                                |                      |                                  |
|--------------------------------|----------------------|----------------------------------|
| Impedance                      | 50                   | $\Omega$ +/- 1                   |
| Max. operating frequency       | 6                    | GHz                              |
| Capacitance                    | 101                  | pF/m                             |
| Velocity of signal propagation | 66                   | %                                |
| Signal delay                   | 5.03                 | ns/m                             |
| Insulation resistance          | $\geq 1 \times 10^8$ | M $\Omega$ m                     |
| 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)  |

#### Mechanical Data

|                     |                                 |          |
|---------------------|---------------------------------|----------|
| Weight              | 18.9                            | kg/100 m |
| Min. bending radius | static                          | 55 mm    |
|                     | repeated (for max. 50 bendings) | 108 mm   |

#### Environmental Data

|                          |                   |
|--------------------------|-------------------|
| Temperature range        | -25 °C... + 85 °C |
| Installation temperature | -20 °C... + 60 °C |
| 2002/95/EC (RoHS)        | compliant         |

#### Ordering Information

Order as RG\_214\_/U-01

#### Additional Information

##### Remarks

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

**Cable group** U32 7 mm / 50 Ohm

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Rev.: H

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

Coefficients:

|    |                  |    |   |                     |   |                           |   |
|----|------------------|----|---|---------------------|---|---------------------------|---|
| a= | 0.1884           | b= | 0.0646                                    | f <sub>max.</sub> = | 6   | p <sub>at</sub><br>1GHz = | 325                                       |
|    |                  |    |   |                     |   |                           |   |
|    | <b>Frequency</b> |    | <b>Nom. attenuation</b>                   |                     | <b>Nom. attenuation</b>                   |                           | <b>Max. CW power</b>                      |
|    | <b>(GHz)</b>     |    | <b>(dB / m)</b>                           |                     | <b>(dB / ft)</b>                          |                           | <b>(watt)</b>                             |
|    |                  |    | sea level<br>25° C ambient<br>temperature |                     | sea level<br>25° C ambient<br>temperature |                           | sea level<br>40° C ambient<br>temperature |
|    |                  |    |   |                     |   |                           |   |
|    | 0.3              |    | 0.12                                      |                     | 0.037                                     |                           | 593                                       |
|    | 0.6              |    | 0.18                                      |                     | 0.055                                     |                           | 420                                       |
|    | 0.9              |    | 0.24                                      |                     | 0.073                                     |                           | 343                                       |
|    | 1.2              |    | 0.28                                      |                     | 0.085                                     |                           | 297                                       |
|    | 1.5              |    | 0.33                                      |                     | 0.101                                     |                           | 265                                       |
|    | 1.8              |    | 0.37                                      |                     | 0.113                                     |                           | 242                                       |
|    | 2.1              |    | 0.41                                      |                     | 0.125                                     |                           | 224                                       |
|    | 2.4              |    | 0.45                                      |                     | 0.137                                     |                           | 210                                       |
|    | 2.7              |    | 0.48                                      |                     | 0.146                                     |                           | 198                                       |
|    | 3.0              |    | 0.52                                      |                     | 0.158                                     |                           | 188                                       |
|    | 3.3              |    | 0.56                                      |                     | 0.171                                     |                           | 179                                       |
|    | 3.6              |    | 0.59                                      |                     | 0.180                                     |                           | 171                                       |
|    | 3.9              |    | 0.62                                      |                     | 0.189                                     |                           | 165                                       |
|    | 4.2              |    | 0.66                                      |                     | 0.201                                     |                           | 159                                       |
|    | 4.5              |    | 0.69                                      |                     | 0.210                                     |                           | 153                                       |
|    | 4.8              |    | 0.72                                      |                     | 0.219                                     |                           | 148                                       |
|    | 5.1              |    | 0.75                                      |                     | 0.229                                     |                           | 144                                       |
|    | 5.4              |    | 0.79                                      |                     | 0.241                                     |                           | 140                                       |
|    | 5.7              |    | 0.82                                      |                     | 0.250                                     |                           | 136                                       |
|    | 6.0              |    | 0.85                                      |                     | 0.259                                     |                           | 133                                       |

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