

# HUBER+SUHNER® DATA SHEET

## Coaxial Cable: RG\_213\_U



### Description

Single screened coaxial cable



### Technical Data

#### Construction

|                  | Material                              | Detail        | Diameter        |
|------------------|---------------------------------------|---------------|-----------------|
| Centre conductor | Copper                                | Strand-07     | 2.25 mm         |
| Dielectric       | PE (Polyethylene)                     |               | 7.28 mm         |
| Outer conductor  | Copper                                | Braid, 96 %   | 8.1 mm          |
| Jacket           | PVC II (non migration)                | RAL 9005 - bk | 10.3 mm +/- 0.1 |
| Print            | HUBER+SUHNER RG 213 U 50 Ohm (PA no.) |               |                 |

#### Electrical Data

|                                |                                    |
|--------------------------------|------------------------------------|
| Impedance                      | 50 $\Omega$ +/- 2                  |
| Max. operating frequency       | 1 GHz                              |
| Capacitance                    | 100.7 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   | >40 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              | 15.3 kg/100 m                             |
| Min. bending radius | static<br>repeated (for max. 50 bendings) |
|                     | 55 mm                                     |
|                     | 100 mm                                    |

#### Environmental Data

|                          |                   |
|--------------------------|-------------------|
| Temperature range        | -40 °C... + 85 °C |
| Installation temperature | -20 °C... + 60 °C |

### Ordering Information

Order as RG\_213\_U

### Additional Information

#### Remarks

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

### Suitable Connectors

Cable group U29 / U28

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Rev.: B



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

Coefficients:

|    |                  |    |                                           |                    |                                           |                          |                                           |
|----|------------------|----|-------------------------------------------|--------------------|-------------------------------------------|--------------------------|-------------------------------------------|
| a= | 0.184            | b= | 0.0574                                    | f <sub>max</sub> = | 1                                         | p <sub>at</sub><br>1GHz= | 416                                       |
|    |                  |    |                                           |                    |                                           |                          |                                           |
|    | <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 |
|    |                  |    |                                           |                    |                                           |                          |                                           |
|    | 0.05             |    | 0.04                                      |                    | 0.012                                     |                          | 1860                                      |
|    | 0.10             |    | 0.06                                      |                    | 0.018                                     |                          | 1316                                      |
|    | 0.15             |    | 0.08                                      |                    | 0.024                                     |                          | 1074                                      |
|    | 0.20             |    | 0.09                                      |                    | 0.027                                     |                          | 930                                       |
|    | 0.25             |    | 0.11                                      |                    | 0.034                                     |                          | 832                                       |
|    | 0.30             |    | 0.12                                      |                    | 0.037                                     |                          | 760                                       |
|    | 0.35             |    | 0.13                                      |                    | 0.040                                     |                          | 703                                       |
|    | 0.40             |    | 0.14                                      |                    | 0.043                                     |                          | 658                                       |
|    | 0.45             |    | 0.15                                      |                    | 0.046                                     |                          | 620                                       |
|    | 0.50             |    | 0.16                                      |                    | 0.049                                     |                          | 588                                       |
|    | 0.55             |    | 0.17                                      |                    | 0.052                                     |                          | 561                                       |
|    | 0.60             |    | 0.18                                      |                    | 0.055                                     |                          | 537                                       |
|    | 0.65             |    | 0.19                                      |                    | 0.058                                     |                          | 516                                       |
|    | 0.70             |    | 0.19                                      |                    | 0.058                                     |                          | 497                                       |
|    | 0.75             |    | 0.20                                      |                    | 0.061                                     |                          | 480                                       |
|    | 0.80             |    | 0.21                                      |                    | 0.064                                     |                          | 465                                       |
|    | 0.85             |    | 0.22                                      |                    | 0.067                                     |                          | 451                                       |
|    | 0.90             |    | 0.23                                      |                    | 0.070                                     |                          | 439                                       |
|    | 0.95             |    | 0.23                                      |                    | 0.070                                     |                          | 427                                       |
|    | 1.00             |    | 0.24                                      |                    | 0.073                                     |                          | 416                                       |

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#### WAIVER!

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