

## Coaxial Cable RG\_302\_/U

### Description

PTFE - 75 Ohm - single screen



### Technical Data

#### Construction

|                  | Material                             | Detail        | Diameter       |
|------------------|--------------------------------------|---------------|----------------|
| Centre conductor | Steel, Copper+Silver plated          | Wire          | 0.63 mm        |
| Dielectric       | PTFE (Polytetrafluoroethylene)       |               | 3.7 mm         |
| Outer conductor  | Copper, Silver plated                | Braid, 91%    | 4.35 mm        |
| Jacket           | FEP (Fluorinated ethylene propylene) | RAL 8015 - br | 5.1 mm +/- 0.1 |

Print: HUBER+SUHNER RG 302 /U 75 Ohm (PA no.)

#### Electrical Data

|                                |                                              |
|--------------------------------|----------------------------------------------|
| Impedance                      | 75 $\Omega$ +/- 3                            |
| Operating Frequency            | 1 GHz                                        |
| Capacitance                    | 63 pF/m                                      |
| Velocity of signal propagation | 71 %                                         |
| Signal delay                   | 4.7 ns/m                                     |
| Insulation resistance          | $\geq 1 \times 10^8$ MQm                     |
| Max. operating voltage         | $\leq 1.75$ kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 3.5 kV <sub>rms</sub> (50 Hz/1 min)          |

#### Mechanical Data

|                     |                              |              |
|---------------------|------------------------------|--------------|
| Weight              |                              | 5.4 kg/100 m |
| Min. bending radius | static                       | 30 mm        |
|                     | repeated (for ≤ 50 bendings) | 50 mm        |

#### Environmental Data

|                          |                   |
|--------------------------|-------------------|
| Temperature range        | -65 °C... +165 °C |
| Installation temperature | -20 °C... +60 °C  |
| Flammability             | IEC 60332-1,      |
| 2011/65/EU (RoHS)        | compliant         |

### Additional Information

#### Ordering Information

|          |           |
|----------|-----------|
| Order as | RG_302_/U |
|----------|-----------|

#### Remarks

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

#### Suitable Connectors

|             |                       |
|-------------|-----------------------|
| Cable group | U99 Customer Specific |
|-------------|-----------------------|

## Coaxial Cable RG\_302\_/U

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

Coefficients:

a = 0.3094

b = 0.0264

f<sub>max</sub> = 1

P at 1GHz = 385

| 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 |
|--------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------|
| 0,05               | 0,07                                                                      | 0,021                                                                      | 1722                                                                 |
| 0,1                | 0,1                                                                       | 0,031                                                                      | 1217                                                                 |
| 0,15               | 0,12                                                                      | 0,038                                                                      | 994                                                                  |
| 0,2                | 0,14                                                                      | 0,044                                                                      | 861                                                                  |
| 0,25               | 0,16                                                                      | 0,049                                                                      | 770                                                                  |
| 0,3                | 0,18                                                                      | 0,054                                                                      | 703                                                                  |
| 0,35               | 0,19                                                                      | 0,059                                                                      | 651                                                                  |
| 0,4                | 0,21                                                                      | 0,063                                                                      | 609                                                                  |
| 0,45               | 0,22                                                                      | 0,067                                                                      | 574                                                                  |
| 0,5                | 0,23                                                                      | 0,071                                                                      | 544                                                                  |
| 0,55               | 0,24                                                                      | 0,074                                                                      | 519                                                                  |
| 0,6                | 0,26                                                                      | 0,078                                                                      | 497                                                                  |
| 0,65               | 0,27                                                                      | 0,081                                                                      | 478                                                                  |
| 0,7                | 0,28                                                                      | 0,085                                                                      | 460                                                                  |
| 0,75               | 0,29                                                                      | 0,088                                                                      | 445                                                                  |
| 0,8                | 0,3                                                                       | 0,091                                                                      | 430                                                                  |
| 0,85               | 0,31                                                                      | 0,094                                                                      | 418                                                                  |
| 0,9                | 0,32                                                                      | 0,097                                                                      | 406                                                                  |
| 0,95               | 0,33                                                                      | 0,100                                                                      | 395                                                                  |
| 1,0                | 0,34                                                                      | 0,102                                                                      | 385                                                                  |