

## Flexible microwave cable

**MULTIFLEX\_86\_HE**

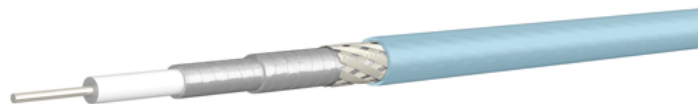
**Item: 84129072**

**Only as Assembly**

## Description

Multiflex: Flexible alternatives to semi-rigid microwave cables

RG405 dimension, 50 Ohm, 67 GHz, 165°C, ø2.65 mm, FEP jacket



## Technical Data

### Construction

|                  | Material                             | Detail              | Diameter        |
|------------------|--------------------------------------|---------------------|-----------------|
| Centre conductor | Copper, Silver plated                | Wire                |                 |
| Dielectric       | PTFE (Polytetrafluoroethylene)       |                     |                 |
| Outer conductor  | Copper, Silver plated                | wrapped Foil, 100%  |                 |
| Outer conductor  | Copper, Silver plated                | wrapped Foil, 100 % |                 |
| Outer conductor  | Copper, Silver plated                | Braid, 99 %         |                 |
| Jacket           | FEP (Fluorinated ethylene propylene) | RAL 5015 - bl       | 2.65 mm +/- 0.1 |

Print: HUBER+SUHNER MULTIFLEX\_86\_HE 50 OHM PA-Nr. PAT. GRANTED US9666335

### Electrical Data

|                                |                                        |
|--------------------------------|----------------------------------------|
| Impedance                      | 50 Ω +/- 2                             |
| Operating Frequency            | 67 GHz                                 |
| Capacitance                    | 94.6 pF/m                              |
| Velocity of signal propagation | 70.6 %                                 |
| Signal delay                   | 4.72 ns/m                              |
| Screening effectiveness        | ≥ 80 dB (up to 26.5 GHz)               |
| Operating voltage              | ≤ 1.5 kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 3.5 kV <sub>rms</sub> (50 Hz/1 min)    |

### Mechanical Data

|                     |         |              |
|---------------------|---------|--------------|
| Weight              |         | 2.1 kg/100 m |
| Min. bending radius | static  | 6 mm         |
|                     | dynamic | 20 mm        |

### Environmental Data

|                                                      |                                    |
|------------------------------------------------------|------------------------------------|
| Temperature range                                    | -60 °C ... +165 °C                 |
| Installation temperature                             | -20 °C... +60 °C                   |
| Flame propagation test                               | IEC 60332-1, UL 1581 § 1080 (VW-1) |
| Halogen free                                         | No                                 |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant                          |
| 1907/2006/EC (REACH)                                 | compliant                          |
| 2000/53/EC (ELV)                                     | compliant                          |
| 2012/19/EU (WEEE)                                    | no special marking needed          |

## 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 | Y11 2 mm / 50 Ohm |
|-------------|-------------------|

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Coefficients:

a = 0.68

b = 0.0374

f<sub>max</sub> = 67

P at 1GHz = 140

| Frequency | Nom. attenuation                          | Nom. attenuation                          | Max. CW power                             |
|-----------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| (GHz)     | (dB / m)                                  | (dB / ft)                                 | (W)                                       |
|           | sea level 25° C<br>ambient<br>temperature | sea level 25° C<br>ambient<br>temperature | sea level 40° C<br>ambient<br>temperature |
| 3,35      | 1,37                                      | 0,418                                     | 76                                        |
| 6,7       | 2,01                                      | 0,613                                     | 54                                        |
| 10,05     | 2,53                                      | 0,772                                     | 44                                        |
| 13,4      | 2,99                                      | 0,911                                     | 38                                        |
| 16,75     | 3,41                                      | 1,039                                     | 34                                        |
| 20,1      | 3,8                                       | 1,158                                     | 31                                        |
| 23,45     | 4,17                                      | 1,271                                     | 29                                        |
| 26,8      | 4,52                                      | 1,378                                     | 27                                        |
| 30,15     | 4,86                                      | 1,482                                     | 25                                        |
| 33,5      | 5,19                                      | 1,581                                     | 24                                        |
| 36,85     | 5,51                                      | 1,678                                     | 23                                        |
| 40,2      | 5,81                                      | 1,772                                     | 22                                        |
| 43,55     | 6,12                                      | 1,864                                     | 21                                        |
| 46,9      | 6,41                                      | 1,954                                     | 20                                        |
| 50,25     | 6,7                                       | 2,042                                     | 20                                        |
| 53,6      | 6,98                                      | 2,128                                     | 19                                        |
| 56,95     | 7,26                                      | 2,213                                     | 19                                        |
| 60,3      | 7,54                                      | 2,297                                     | 18                                        |
| 63,65     | 7,81                                      | 2,379                                     | 18                                        |
| 67,0      | 8,07                                      | 2,460                                     | 17                                        |