

## Flexible microwave cable

**MULTIFLEX\_53-02** Item: 85006318 Only as Assembly

### Description

Multiflex: Flexible alternatives to semi-rigid microwave cables

50 Ohm, 70 GHz, 165°C, ø1.74 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, 93 %	
Jacket	FEP (Fluorinated ethylene propylene)	RAL 5015 - bl	1.74 mm +/- 0.05

Print: HUBER+SUHNER MULTIFLEX 53-02 (production order number)

#### Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	70 GHz
Capacitance	95 pF/m
Velocity of signal propagation	70 %
Signal delay	4.8 ns/m
Screening effectiveness	≥ 90 dB (up to 18 GHz)
Operating voltage	≤ 0.75 kV <sub>rms</sub> (at sea level)
Test voltage	1.5 kV <sub>rms</sub> (50 Hz/1 min)

#### Mechanical Data

Weight		0.85 kg/100 m
Min. bending radius	static	3 mm
	dynamic	10 mm

#### Environmental Data

Temperature range	-55 °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 Y18 1 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 = 1.089

b = 0.032

f<sub>max</sub> = 70

P at 1GHz = 30

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (W) sea level 40° C ambient temperature
3,5	2,15	0,655	16
7,0	3,11	0,946	11
10,5	3,86	1,178	9
14,0	4,52	1,378	8
17,5	5,12	1,559	7
21,0	5,66	1,726	7
24,5	6,17	1,882	6
28,0	6,66	2,029	6
31,5	7,12	2,170	5
35,0	7,56	2,305	5
38,5	7,99	2,435	5
42,0	8,4	2,561	5
45,5	8,8	2,683	4
49,0	9,19	2,801	4
52,5	9,57	2,917	4
56,0	9,94	3,030	4
59,5	10,3	3,141	4
63,0	10,66	3,249	4
66,5	11,01	3,355	4
70,0	11,35	3,460	4