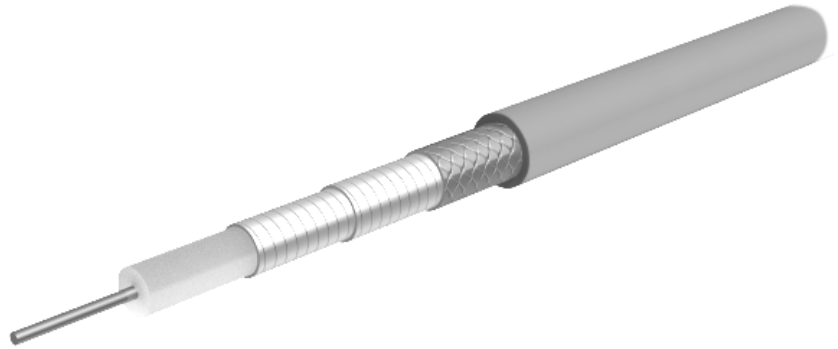


Flexible, 50 Ohm, 40 GHz, 200°C, ø3.8 mm, FEP jacket

MULTIFLEX_141_CT-02

Properties

- Flexible alternative to semi-rigid cables
- Wide temperature range
- Excellent phase vs. temperature performance for phase stable applications



Construction			
Component	Material	Detail	Diameter
Centre conductor	Aluminium, Copper clad, Silver plated	Wire	0.912 mm
Dielectric	Low density fluorine polymer		2.46 mm
Outer conductor	Copper, Silver plated	Wrapped foil, 100%	2.67 mm
Outer conductor	Copper, Silver plated	Wrapped foil, 100%	2.78 mm
Outer conductor	Copper, Silver plated	Braid, 84%	3.23 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 5015 - bl	3.8 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 40 GHz
Capacitance	79.5 pF/m
Velocity of signal propagation	84 %
Signal delay	3.97 ns/m
Screening effectiveness	90 dB at frequency 0.1 GHz ... 18GHz
Insulation resistance	1000000 MΩ*m
Operating Voltage (at sea level)	≤ 0.4 kVrms
Phase vs temperature	300 ppm within the temperature range -55 ... 125 °C
Test voltage (50 Hz/1 min)	≤ 1 kVrms

Mechanical data	
Weight	approx. 30.7 g/m
Static bending radius	≥ 12 mm
Dynamic bending radius	≥ 40 mm

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Environmental data	
Operation temperature	-65 °C ... 200 °C
Fire characteristics	contains halogene

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
85215603	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	
	REACH 1907/2006 Article 33 SVHC	Free of SVHC >0,1%	

Suitable connectors	
Cable group	Y34

Ordering information		
Item number	Item description	Available as assembly only
85215603	MULTIFLEX_141_CT-02	Yes

Power Matrix			
Calculation: typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]			
a coefficient typical =	0.38	b coefficient typical =	0.02
fmax =	40	P at 1 GHz =	330
Frequency GHz	Nom. attenuation (dB/m)	Nom. attenuation (dB/ft)	CW power (W)
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.20	0.174	0.053	738
0.40	0.248	0.076	522
0.60	0.306	0.093	426
0.80	0.356	0.108	369
1.00	0.400	0.122	330
1.20	0.440	0.134	301
1.40	0.478	0.146	279
1.60	0.513	0.156	261
1.80	0.546	0.166	246
2.00	0.577	0.176	233
4.00	0.840	0.256	165
6.00	1.051	0.320	135
8.00	1.235	0.376	117
10.00	1.402	0.427	104
20.00	2.099	0.640	74
30.00	2.681	0.817	60
40.00	3.203	0.976	52

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