DATA SHEET

Hand formable (RG401) 50Ohm, 18GHz, 165°C, ø6.3mm, no jacket

SUCOFORM_250-01

Properties

- Hand-formable alternative to semi-rigid cables
- Small bend radius allows for space saving routing and packaging
- Performance comparable to semi-rigid cables



Construction			
Component	**Material**	**Detail**	**Diameter**
Centre conductor	Copper, Silver plated	Wire	1.67 mm
Dielectric	PTFE (Polytetrafluoroethylene)		5.24 mm
Outer conductor	Copper, Tin plated	Tin soaked braid, 100%	6.3 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 18 GHz
Capacitance	95 pF/m
Velocity of signal propagation	71 %
Signal delay	4.7 ns/m
Screening effectiveness	100 dB at frequency 0.1 GHz ... 18GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	8 Ω/km
Operating Voltage (at sea level)	≤ 3.5 kVrms
Test voltage (50 Hz/1 min)	≤ 7.5 kVrms

Mechanical data	
Weight	approx. 125 g/m
Static bending radius	≥ 30 mm
Repeated bending radius	120 mm

Environmental data	
Operation temperature	-65 °C ... 165 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1
	UL 1581 § 1080 (VW-1)

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Environmental data	
Fire characteristics	contains halogene

Suitable connectors	
Cable group	Y14

Ordering information		
Item number	Item description	Available as assembly only
84007938	SUCOFORM_250-01	No

Power Matrix			
Calculation: typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]			
a coefficient typical =	**0.21**	b coefficient typical =	**0.031**
fmax =	**18**	P at 1 GHz =	**920**
Frequency	**Nom. attenuation**	**Nom. attenuation**	**CW power**
GHz	**(dB/m)**	**(dB/ft)**	**(W)**
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.20	0.100	0.031	2057
0.40	0.145	0.044	1455
0.60	0.181	0.055	1188
0.80	0.213	0.065	1029
1.00	0.241	0.073	920
1.20	0.267	0.081	840
1.40	0.292	0.089	778
1.60	0.315	0.096	727
1.80	0.338	0.103	686
2.00	0.359	0.109	651
4.00	0.544	0.166	460
6.00	0.700	0.213	376
8.00	0.842	0.257	325
10.00	0.974	0.297	291
15.00	1.278	0.390	238
18.00	1.449	0.442	217

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