



1/2"

STANDARD

Cable type : 5128

Reference : EC4-50

Cable with standard UV resistant PE jacket, halogen free according to IEC 60754

CHARACTERISTICS

Construction

<b>• Inner conductor</b>	
Material	copper clad aluminium wire
Diameter (mm) (in)	4.8 (0.19)
<b>• Dielectric</b>	
Material	gas-injected cellular polyethylene
Diameter (mm) (in)	12.4 (0.49)
<b>• Outer conductor</b>	
Material	corrugated copper tube
Diameter (mm) (in)	13.8 (0.54)
<b>• Outer sheath</b>	
Thickness (mm) (in)	1.1 (0.04)
Diameter (mm) (in)	16.0 (0.63)

Mechanical characteristics

<b>• Minimum bending radius</b>	
a) single bending (cm) (in)	7 (2.8)
b) 15 repeated bends (cm) (in)	12 (4.7)
<b>• Maximum pulling strength (daN) (lb)</b>	<b>94 (211)</b>
<b>• Recommended temperature range</b>	
- Storage	-70 to +85 °C (-94 to +185 °F)
- Installation	-40 to +60 °C (-40 to +140 °F)
- Operation	-55 to +85 °C (-67 to +185 °F)
<b>• Max. length per hoisting grip (m) (ft)</b>	<b>70 (230)</b>
<b>• Maximum hanger spacing (m) (ft)</b>	<b>1 (3.3)</b>
<b>• Flat plate crush res. (kg/mm) (lb/in)</b>	<b>1.5 (87)</b>
<b>• Bending moment (Nm) (lb-ft)</b>	<b>3.4 (2.5)</b>
<b>• Approximate weight (kg/km) (lb/ft)</b>	<b>225 (0.152)</b>

VSWR characteristics

<b>• VSWR<sub>max</sub></b>	<b>600 - 1000 MHz</b>	<b>&lt; 1.15</b>
<b>• VSWR<sub>max</sub></b>	<b>1700 - 2700 MHz</b>	<b>&lt; 1.15</b>
<b>• VSWR<sub>max</sub></b>	<b>3400 - 4200 MHz</b>	<b>&lt; 1.15</b>
<b>• VSWR<sup>[3]</sup><sub>max</sub></b>	<b>5150 - 5925 MHz</b>	<b>&lt; 1.25</b>

Electrical characteristics

• Characteristic impedance (Ω)	<b>50 ± 1</b>
• Nominal capacity (pF/m) (pF/ft)	<b>76 (23.2)</b>
• Relative propagation velocity (%)	<b>88</b>
• Inductance (μH/m) (μH/ft)	<b>0.189 (0.058)</b>
• DC-resistance at 20°C (68°F)	
- inner conductor (Ω/km) (Ω/1000ft)	<b>1.48 (0.45)</b>
- outer conductor (Ω/km) (Ω/1000ft)	<b>2.14 (0.65)</b>
• RF peak voltage (kV)	<b>1.6</b>
• RF peak power (kW)	<b>25.6</b>
• Cut-off-frequency (GHz)	<b>9.8</b>
• Insulation resistance (MΩ.km)	<b>&gt;&gt; 5000</b>
<b>• Attenuation<sup>[1]</sup> and power rating</b>	

Frequency (MHz)	Attenuation at 20°C (68°F) <sup>[2]</sup>		Mean power rating <sup>[3]</sup> (kW)
	(dB/100m)	(dB/100ft)	
10	0.67	0.204	11.79
20	0.95	0.290	8.31
30	1.17	0.357	6.77
80	1.92	0.585	4.11
100	2.15	0.655	3.67
150	2.65	0.808	2.98
200	3.07	0.936	2.57
300	3.79	1.155	2.08
400	4.41	1.345	1.79
450	4.69	1.430	1.68
500	4.96	1.512	1.59
600	5.46	1.665	1.45
700	5.92	1.805	1.33
800	6.36	1.939	1.24
894	6.74	2.055	1.17
960	7.01	2.137	1.13
1000	7.16	2.183	1.10
1500	8.91	2.716	0.89
1700	9.54	2.909	0.83
1800	9.85	3.003	0.80
1880	10.08	3.073	0.78
2000	10.43	3.180	0.76
2170	10.91	3.326	0.72
2200	10.99	3.351	0.72
2300	11.27	3.436	0.70
2400	11.54	3.518	0.68
2500	11.80	3.598	0.67
2700	12.32	3.756	0.64
3000	13.06	3.982	0.60
4000	15.36	4.683	0.51
6000	19.39	5.912	0.41

[1] The attenuation can be approximated by the formula:

$$\alpha(f[\text{MHz}]) = A \cdot \sqrt{f[\text{MHz}]} + B \cdot f[\text{MHz}] \quad (\text{dB}/100\text{m})$$

A = 0.21  
B = 0.00052

[2] Nominal values

[3] Ambient temperature = 40°C (104°F); temperature of inner conductor = 100°C (212°F); VSWR = 1.0; no solar loading

