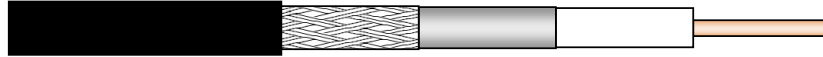




213RT5(V)

Flexible 50 Ohms low loss coaxial cable



CHARACTERISTICS

Construction

• Inner conductor	
Material	copper wire
Construction	-
Diameter (mm)	2.7
• Dielectric	
Material	gas-injected cellular polyethylene
Diameter (mm)	7.25
• Outer conductor	
Tape	aluminium tape
Diameter over tape (mm)	7.35
Braid	tinned copper braid
Diameter over braid (mm)	7.9
• Outer sheath	
Material	Black/Grey PE/PVC
Thickness (mm)	1.1
Diameter (mm)	10.1

Mechanical characteristics

• Minimum bending radius	
a) single bending (cm)	2.5
b) 15 repeated bends (cm)	5
• Maximum pulling strength (daN)	
	35
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Weight (kg/km)	
	110 (PE) / (-) PVC

Electrical characteristics

• Characteristic impedance (Ω)	50 ± 2
• Nominal capacity (pF/m)	78.5
• Relative propagation velocity (%)	83
• Inductance (μH/m)	0.201
• DC-resistance at 20°C	
- inner conductor (Ω/km)	2.95
- outer conductor (Ω/km)	9.95
• RF peak voltage (kV)	1.0
• RF peak power (kW)	10
• Cut-off-frequency (GHz)	16
• Insulation resistance (MΩ.km)	>> 5000
• Screening attenuation (dB)	> 75
• Attenuation^[1] and power rating	

Frequency	Attenuation at 20°C ^[2]	Mean power rating ^[3]
(MHz)	(dB/100m)	(kW)
10	1.69	3.63
20	2.19	2.81
30	2.57	2.39
80	3.92	1.57
100	4.33	1.42
150	5.23	1.17
200	6.00	1.02
300	7.31	0.84
400	8.44	0.73
450	8.96	0.69
500	9.45	0.65
600	10.38	0.59
700	11.25	0.55
800	12.07	0.51
894	12.80	0.48
960	13.29	0.46
1000	13.58	0.45
1500	16.92	0.36
1700	18.13	0.34
1800	18.72	0.33
1880	19.17	0.32
2000	19.85	0.31
2170	20.78	0.30
2200	20.94	0.29
2300	21.48	0.29
2400	22.00	0.28
2500	22.52	0.27
3000	25.00	0.25

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

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

A = 0.367
B = 0.001459
C = 0.519

[2] Nominal values

[3] Ambient temperature = 40°C; temperature of inner conductor = 100°C; VSWR = 1.0; no solar loading

