

32 Red Series Plasma Grade video multicore



Van Damme Red Series Video multicores are 4 and 5 way versions of the Van Damme standard 75 Ohm coaxes. Designed for use in the Presentation and Broadcast industries, they are commonly used for the transmission of video signals such as RGBHV and RGB Sync over longer distances - up to 100 metres for analogue video signals. They are flexible but also very robust and are ideal for multiple rig and de-rig situations due to the attention paid to their construction, overall diameter and weight.

Applications

- Extended transmission of RGBHV and RGB Sync video signals
- Can be used with confidence at 100 metres

Application notes

- Suitable for SDI use up to 138 metres
- Uses RG59 type crimp connectors

Transmission length guidelines

- These transmission lengths have been calculated throughout to a maximum attenuation of -30dB at the frequency corresponding to half of the actual signal data rate for SMPTE 259. SMPTE and others advise that 90% of this cable length introduces an appropriate safety factor- the chart below includes an 80% safety factor as jitter and other factors can increase dramatically in the last 20% of a cable run.

	SMPTE 259			
Data rate (clock)	143Mb/s	177Mb/s	270Mb/s	360Mb/s
½ Clock Rate	72MHz	89MHz	135MHz	180MHz
Recommended transmission length	212m	191m	159m	138m

Mechanical Specifications - Individual Cores

Conductor	Material	Bare ultra pure oxygen free copper
	Stranding	7x 0.20mm (0.22mm ²) AWG 24/7
Dielectric	Material	Polyethylene
	Average thickness	1.55mm
	Diameter	3.73mm ± 0.03
Screen	Material	Bare oxygen free braided copper wire
	Coverage	95%
	Dimension	16x9x0.12mm
Overall Jacket	Material	Flexible PVC
	Average thickness	0.70mm
	Overall diameter	6.15mm

Mechanical Specifications - Multicore

	4-way	5-way
Stock Code	268-314-020	268-315-020
Coax Colours	Red, Green, Blue, Black	Red, Green, Blue, Black, Cream
Material	Flexible PVC Purple Red	RAL 3004
Average thickness	1.60mm	1.60mm
Overall diameter	18.0mm	20.0mm
Bend radius	15 x overall diameter	
Weight	350 Kg/Km	400 Kg/Km

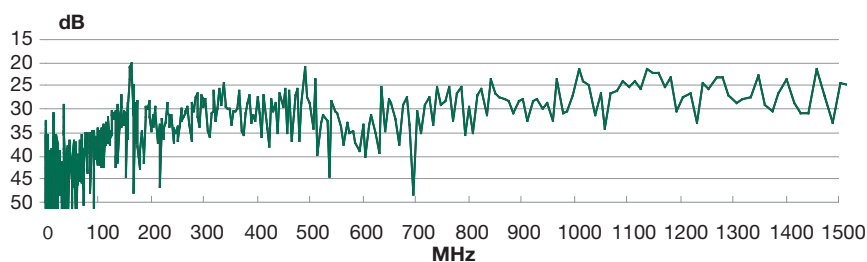
Physical properties unaged

Jacket (@ 60°C)	Tensile strength	> 10 N/mm ²
	Elongation	> 125 %
	Heat Shock Test	150°C x 1 hour / No cracks

Electrical Specifications

Resistance	Conductor	85 Ohm/Km		
	Shield	13 Ohm/Km		
	Insulation	> 5000 M Ohm/Km		
Voltage test	7000V DC 1 minute OK			
Capacitance	67 pF/m			
Velocity of propagation	66%			
Impedance at 10MHz	75 Ohms ± 2			
Attenuation	10 MHz	4.21 dB/100m	200 MHz	18.36 dB/100m
	100 MHz	13.32 dB/100m	400 MHz	28.11 dB/100m
	135 MHz	15.08 dB/100m	743 MHz	38.31 dB/100m
	180 MHz	17.42 dB/100m		

Structural return loss



Characteristics & description

Stock code	Description	Overall diameter	Jacket thickness	Weight Kg/km	Reel lengths
268-314-020	Van Damme Red Series Plasma Grade 4 way coax multicore	18.00mm	1.50mm	373	500m
268-315-020	Van Damme Red Series Plasma Grade 5 way coax multicore	20.00mm	2.50mm	448	500m