



According standards: C 90131 - France Télécom: C 12.21 H - Edition 2 - 06/98

Cable type	Standard:	707CRC8
Size: B4	Aerial:	F 707CRC8
	Units	Nominal

### Construction

<b>INNER CONDUCTOR</b>			
Material and construction	-	copper wire	
Diameter	mm	1.7	
<b>DIELECTRIC</b>			
Material	-	gas-injected cellular PE	
Diameter	mm	6.9	
<b>OUTER CONDUCTOR</b>			
Material and construction	-	smooth copper tape	
<b>OUTER SHEATH</b>			
Material	-	black HD-PE	
Thickness	mm	1.5	> 1.18
Overall diameter	mm	10.4	< 10.7

### Cable with messenger

<b>MESSENGER</b>			
Material	-	galvanized steel	
Construction	.. X mm	7 x 1	
Height of web	mm	2.5	
Wide of web	mm	1.8	
Diameter over messenger	mm	6	

### Mechanical characteristics

Minimum bending radius	1 x	cm	6
	10 x	cm	10
Maximum pulling strength (without messenger)		daN	70
Weight		kg/km	97

### Cable with messenger

Minimum breaking strength of messenger	daN	7160
Weight	kg/km	172

### Electrical characteristics

Characteristic impedance	Ω	75	+/- 2
Capacity	pF/m	50	
Relative propagation velocity (velocity ratio)	%	88	
DC-resistance of inner conductor at 20°C	Ω/km	7.6	< 7.8
DC-resistance of outer conductor at 20°C	Ω/km	6.6	< 6.8
Current rating (50 - 60) Hz	A	7	
Dielectric voltage strength	kV	2	
Longitudinal attenuation at 20°C	$\alpha(f_{[MHz]}) = a \cdot \sqrt{f_{[MHz]}} + b \cdot f_{[MHz]}$		
	a =	-	0.345
	b =	-	0.0008
	5 MHz	dB/100m	0.8 < 0.8
	10 MHz	dB/100m	1.1 < 1.2
	30 MHz	dB/100m	1.9 < 2.0
	50 MHz	dB/100m	2.5 < 2.6
	100 MHz	dB/100m	3.5 < 3.7
	200 MHz	dB/100m	5.0 < 5.3
	300 MHz	dB/100m	6.2 < 6.5
	400 MHz	dB/100m	7.2 < 7.6
	470 MHz	dB/100m	7.9 < 8.3
	600 MHz	dB/100m	8.9 < 9.4
	800 MHz	dB/100m	10.4 < 10.9
	860 MHz	dB/100m	10.8 < 11.4
	1000 MHz	dB/100m	11.7 < 12.3
Return loss (3 peak values up to 4 dB lower are permissible)			
	30 - 310 MHz	dB (VSWR)	23 > 19
	310 - 460 MHz	dB (VSWR)	21 > 17
	460 - 585 MHz	dB (VSWR)	19 > 15
	585 - 862 MHz	dB (VSWR)	18 > 14

