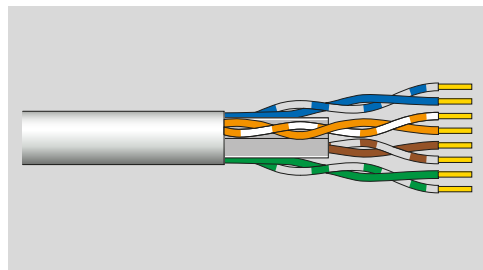


R&M Cat6A UTP LSZH Cable 500 Mhz

Cable reference	Part number	R195718
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Cable construction	Conductor	Bare solid copper wire AWG23
	Insulation	Polyethylene $\leq \varnothing 1.22$ mm
	Twisting	2 wires to the pair
	Cable lay up	4 paires to the core with cross separator
	Pair screen	Non
	Overall screen	Non
	Sheath	LSZH, gray



Application	Primary (Campus), Secondary (Riser), Tertiary (Horizontal) IEEE 802.3an: 10Base-T; 100Base-TX; 1000Base-T; 10GBase-T IEEE 802.5 16 MB; ISDN; TPDDI; ATM IEEE 802.3af-2002: POE; IEEE 802.3at: POE+
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Standards	ISO/IEC 11801 2 nd ed.; EN 50173-1; ANSI/TIA-568-C.2 IEC 61156-5 2 nd ed.; EN 50288-6-1
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Fire rating	LSZH IEC 60332-1; IEC 60754-2; IEC 61034
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Technical Data	Cable designation	Cat6A U/UTP
	Packaging	Box 305 m
	Outer diameter	Nominal 7.0 +/- 0.8 mm
	Weight	58 kg / km
	Thermal load	1090 MJ / km
	Segregation class	B
	Tensile force	100 N

Mechanical Properties	Bending radius	≥ 35 mm during operation (without load) ≥ 55 mm during installation (with load)
	Temperature range	During operation -20°C...+ 60°C During installation 0°C...+ 50°C

Electrical Properties
(at 20°C ± 5°C)

DC resistance		≤ 9.38 Ω / 100 m
Resistance unbalance		≤ 2 %
Test voltage	DC, 1 min, core/core	1000 V
Insulation resistance	500 V	≥ 5000 MΩ * km
Capacitance		56 pF / m max.
Capacitance unbalance		≤ 1600 pF / km
Mean characteristic impedance		100 ± 15 Ω
Nominal velocity of propagation		Approx. 67 %
Propagation delay	At 1 MHz	≤ 570 ns / 100 m
Delay skew		≤ 45 ns / 100 m
Coupling attenuation		N/A
Balance TCL	At 1 MHz	≥ 40 dB
	At 10 MHz	≥ 40 dB
	At 100 MHz	≥ 30 dB
PS-Alien NEXT	At 100 MHz	Min. 63 dB
		Typ. 69 dB

Typical transmission characteristics (at 20°C)

f (MHz)	Attenuation (dB/100 m)		NEXT (dB)		PS-NEXT (dB)		ACR-F ¹⁾ (dB/100 m)		PS-ACR-F ¹⁾ (dB/100 m)		Return loss (dB)	
	Max	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ
4	3.8		66.3		63.3		56.0		53.0		23.0	
10	5.9	5.5	60.3	80	57.3	77	48.0	70	45.0	67	25.0	30
20	8.4		55.8		52.8		42.0		39.0		25.0	
62.5	15.0	14.5	48.4	62	45.4	59	32.1	50	29.1	47	21.5	30
100	19.1	18.5	45.3	60	42.3	57	28.0	42	25.0	39	20.1	30
250	31.1	29.6	39.3	50	36.3	47	20.0	37	17.0	34	17.3	28
500	45.3	42.9	34.8	47	31.8	44	14.0	31	11.0	28	15.2	27
600	-		-		-		-		-		-	
650	-		-		-		-		-		-	

¹⁾ ACR-F was formerly known as ELFEXT.