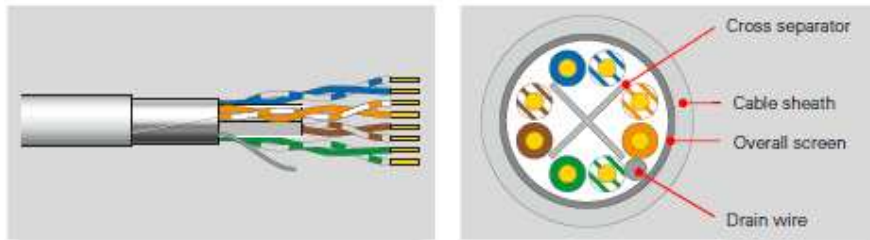


# R195712 R&M F/UTP Cat.6 250MHz



**Application:** Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
 IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;  
 IEEE 802.5 16 MB; ISDN; TPDDI; ATM

**Standards:** ISO/IEC 11801 2<sup>nd</sup> ed.; IEC 61156-5 2<sup>nd</sup> ed.  
 EN 50173-1; ANSI/TIA 568B.C.2

**Fire rating:** IEC 60332-1; IEC 60332-3-22 Cat.A; IEC 60754-2; IEC 61034;  
**LSZH**

## Construction

Conductor	bare copper wire AWG 23
Insulation	Polyethylene, Ø 1.20 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Overall screen	AL-laminated plastic foil
Sheath	LSZH ,grey RAL 7035

## Technical Data

Product code	Designation	Brand name	Outer diameter mm	Tensile force N
195712	4x2x0.55	R&M Cat.6 250MHz F/UTP 4P LSZH	7.0± 0.5	100

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## Mechanical Properties

Bending radius		≥ 35 mm without load ≥ 55 mm with load
Temperature range	during operation	-20°C...+ 70°C

## Electrical Properties (at 20°C ± 5°C)

DC loop resistance	≤ 9.38Ω/100m
Resistance unbalance	≤ 5 %
Insulation resistance (500 V)	≥ 2000 MΩ.km
Capacitance	56pF/m max.
Capacitance unbalance (pair to ground)	≤ 3300 pF/km max.
Mean characteristic impedance	(100 ± 15) Ω
Nominal velocity of propagation	approx. 69%
Propagation delay	≤ 536ns/100m
Delay skew	≤ 45ns/100m
Test voltage (DC, 1 min) Core/Core	1000 V

## Typical transmission characteristics (at 20 °C)

f (MHz)	Attenuation (dB/100m)		NEXT (dB)		PS-NEXT (dB)		ELFEXT (dB/100m)		PS-ELFEXT (dB/100m)		Return loss (dB)	
	Max	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ
1	2.1	2.0	66.0	78.3	64.0	75.3	66.0	67.0	64.0	65.0	20	20.0
10	6.0	5.6	59.3	63.3	57.3	60.3	50.0	47.0	47.0	45.0	25	25.0
16	7.6	7.0	56.2	60.2	54.2	57.2	45.9	43.0	43.0	41.0	25	25.0
20	8.5	7.8	54.8	58.8	52.8	55.8	44.0	41.0	41.0	39.0	25	25.0
31.25	10.8	10.1	51.9	55.9	49.9	52.9	40.1	37.0	37.1	35.0	23.6	24.0
62.5	15.5	14.8	47.4	51.4	45.4	48.4	34.1	31.0	31.1	29.0	21.5	22.0
100	19.9	18.5	44.3	48.3	42.3	45.3	30.0	27.0	27.0	25.0	20.1	20.0
250	33.0	30.4	38.3	42.3	36.3	39.3	22.0	19.0	19.0	17.0	17.3	17.3