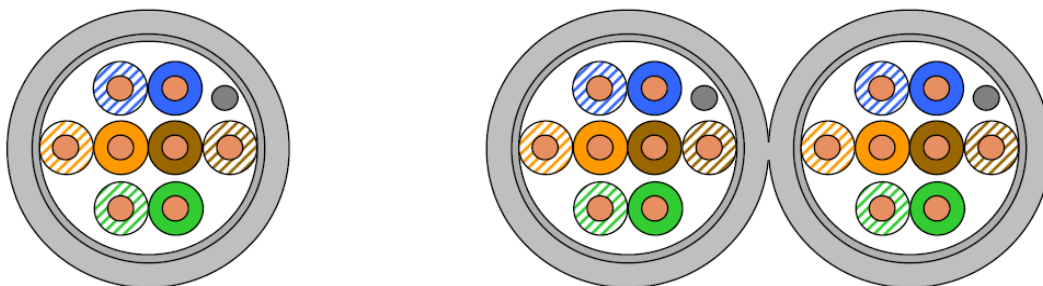


R&M freenet F/UTP Cat.5e 200MHz

Source Code: M



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 2nd ed.; IEC 61156-5 2nd ed.
EN 50173-1; EN 50288-2-1
EIA/TIA 568B.2

Fire rating:
PVC IEC 60332-1
LSZH IEC 60332-1; IEC 60754-2; IEC 61034;

Construction

Conductor	bare copper wire Ø 0.51 mm (AWG24)
Insulation	Polyethylene, Ø 0.98 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Screen	Aluminium/polyester tape, Drain wire AWG 26 tinned
Sheath	PVC alt. LSZH, grey RAL 7035 Duplex sheath: two cables parallel, separable

Technical Data

Product code	Designation	Brand name	Outer diameter mm	Tensile force N
R35048 R300317	4x2x0.5 4x2x0.5 Box	R&M freenet Cat.5e 200MHz F/UTP 4P PVC	5.9	80
R35049 R300316	4x2x0.5 4x2x0.5 Box	R&M freenet Cat.5e 200MHz F/UTP 4P LSZH		
R35050	2x(4x2x0.5)	R&M freenet Cat.5e 200MHz F/UTP 2x4P PVC	5.9/12.2	160
R35051	2x(4x2x0.5)	R&M freenet Cat.5e 200MHz F/UTP 2x4P LSZH		



Convincing cabling solutions

Reichle & De-Massari AG
Binzstrasse 31
CHE – 8622 Wetzikon
Telephone CO: +41 44 933 81 11
Telefax CO: +41 44 930 49 41
www.rdm.com

R&M freenet F/UTP Cat.5e 200MHz

Mechanical Properties

Bending radius		≥ 35 mm without load ≥ 50 mm with load
Temperature range	during operation during installation	-20°C...+ 60°C 0°C...+ 50°C

Electrical Properties (at 20°C ± 5°C)

DC loop resistance	≤ 19 Ω/100m
Resistance unbalance	≤ 2 %
Insulation resistance (500 V)	≥ 5000 MΩ.km
Capacitance	45 pF/m max.
Capacitance unbalance (pair to ground)	≤ 1600 pF/km max.
Mean characteristic impedance	(100 ± 5) Ω
Nominal velocity of propagation	approx. 78%
Propagation delay	≤ 538 ns/100m
Delay skew	≤ 40 ns/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	2.1	68.4	72.3	65.4	69.3	63.8	70.0	60.8	67.0	-	-
4	4.0	3.8	59.5	63.0	56.5	60.0	51.8	63.0	48.8	60.0	23.0	25.0
10	6.3	6.0	53.4	57.0	50.4	54.0	43.8	55.0	40.8	52.0	25.0	25.0
16	8.0	7.5	50.3	54.0	47.3	51.0	39.7	50.9	36.7	47.9	25.0	25.0
30	11.2	10.6	46.0	49.0	43.0	46.0	34.3	45.0	31.3	42.5	23.8	25.0
62,5	16.5	15.2	41.5	45.0	38.5	42.0	27.9	39.0	24.9	36.0	21.5	23.8
100	21.3	19.5	38.3	42.0	35.3	39.0	23.8	35.0	20.8	32.0	20.1	23.0
155	-	25.0	-	39.0	-	36.0	-	31.0	-	28.0	-	22.0
200	-	28.0	-	37.0	-	34.0	-	29.0	-	26.0	-	21.0



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