

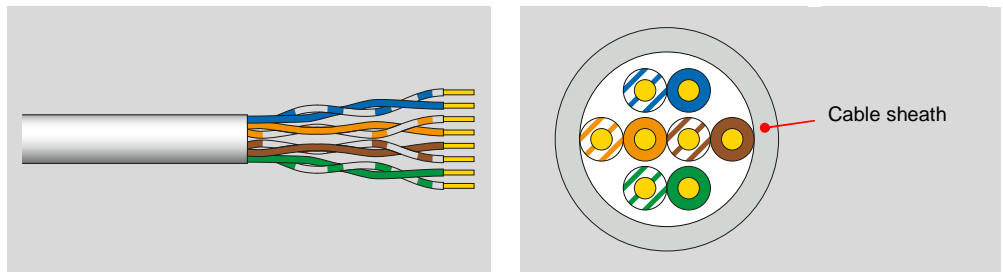
R&Mfreenet U/UTP Cat.5e 200 MHz



R&Mfreenet U/UTP Cat.5e 200MHz 4PxAWG24 PVC Eca NVP=70% ISO/IEC 11801 ANSI/TIA-568-C.2 Q <Part no> <batch no> <dd/mm/yy> <meter> m

Cable reference	Part number	R795524
	Source code	Q
	R&M positioning	Cat.5e, Level 1

Cable construction	Conductor	Bare solid copper wire AWG24 ($\geq \varnothing 0.50$ mm)
	Insulation	Polyethylene $\leq \varnothing 0.91$ mm
	Twisting	2 wires to the pair
	Cable lay up	4 paires to the core
	Pair screen	Non
	Overall screen	Non
	Sheath	PVC, pure white RAL 9010



Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
 IEEE 802.3an: 10Base-T; 100Base-TX; 1000Base-T
 IEEE 802.5 16 MB; ISDN; TPDDI; ATM
 IEEE 802.3af-2002: POE; IEEE 802.3at: POE+
 Confirming to European regulation "CPR" EN 50575

Standards

ISO/IEC 11801 2nd ed.; EN 50173-1; ANSI/TIA-568-C.2
 IEC 61156-5 2nd ed.; EN 50288-3-1

Fire rating

PVC
 IEC 60332-1
 EN50575; Eca; DOP E5031

Technical Data	Cable designation	U/UTP Cat.5e 200MHz 4PxAWG24
	Packaging	Box 305 m
	Outer diameter	Nominal 4.9 mm
	Weight	9.3kg / 305m (including Packing)
	Segregation class	A
	Tensile force	100 N

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



Convincing cabling solutions

Datasheets may change without prior notice



Convincing cabling solutions

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Electrical Properties
(at 20°C ± 5°C)





DC loop resistance		≤ 19.0 Ω / 100 m
Resistance unbalance		≤ 2 %
Test voltage	DC, 1 min, core/core	1000 V
Insulation resistance	500 V	≥ 5000 MΩ * m
Mutual Capacitance	At 1kHz	5.6 nF / 100m max.
Capacitance unbalance		≤ 1600 pF / km
Mean characteristic impedance	At 100 MHz	100 ± 5 Ω
Nominal velocity of propagation		Approx. 70%
Propagation delay	At 1 MHz	≤ 570 ns / 100 m
Delay skew		≤ 40 ns / 100 m
Coupling attenuation	30MHz ~100MHz	≥ 40dB
Balance TCL	At 1 MHz	≥ 40 dB
	At 10 MHz	≥ 30 dB
	At 100 MHz	≥ 20 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	4	4	56.3	59.3	53.3	56.3	51.8	51.8	48.8	48.8	23	25
10	6.3	6.3	50.3	53.3	47.3	50.3	43.8	43.8	40.8	40.8	25	25
20	9	9	45.8	48.8	42.8	45.8	37.8	37.8	34.8	34.8	25	25
62.5	16.5	16.5	38.4	41.4	35.4	38.4	27.9	27.9	24.9	24.9	21.5	21.5
100	21.3	21.3	35.3	38.3	32.3	35.3	23.8	23.8	20.8	20.8	20.1	20.1
200	-	32	-	33.8	-	30.8	-	17.8	-	14.8	-	18

¹⁾ ACR-F was formerly known as ELFEXT.

Recommended connection technique

Module		Perm. Link Class D	Perm. Link Class E	Channel Class E _A	Perm. Link Class E _A	Short Link Class E _A
	Cat.5e/u	✓	-	-	-	-
	Cat.6/u	✓	-	-	-	-
	Cat.6 Real10/u	✓	-	-	-	-
	Cat.6 _A /u	✓	-	-	-	-

Third party certificate ETL