



Volition™

Cat 6 cable

100 Ω, UTP

Belonging to the 3M copper cables portfolio, this 350 MHz UTP cat 6 cable is part of our best performance range when used with our K6 jacks, giving highest margins over Cat 6 / EIA/TIA 568 and Class E ISO 11801 and EN 50173 standards.

An integral cross separator structure ensures permanent stability of the physical structures for enhanced long term performance and reduced crushing risk at cable anchorage points.

The green sheath has distance marking which is easy and convenient for the installer and gives a clear identification of cable and link lengths.

A polyester tape between sheath and twisted pairs allows easier stripping.

As a 3M branded product, it offers 3M system identity for corporate and warranty approval.

Applications	Standards
IEEE 802.3-IEEE802.5	EN 50167, EN 50173
FDDI	ISO/IEC 11801
ATM	EIA/TIA 568-TSB 36
RNIS	PAS 61156-5

Installation Characteristics

Maximal pulling tension (N)	Minimum installed bend radius (mm)	Nominal weight	Temperature rating (°C)	
			Installation	Operation
90	55	38 kg/km	0 to +50	-20 to +60

Flammability Performance

Flammability Performance		Standards
Fire retardant	Halogen free (LSOH versions)	EIA/TIA 568-B - EN 50173 - ISO/IEC 11801
IEC 60332.1	IEC 60754-1	

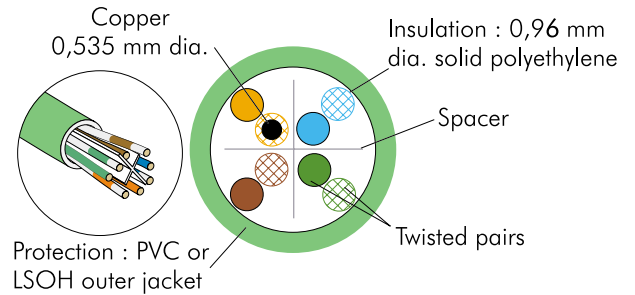


Technical Data

UTP Category 6 Twisted pair cable

Electrical characteristics at 20° C :

Conductor resistance at 20° C (max.)	98,6 Ω/km
Dielectric strength at 50 MHz	1 kV/1min
Insulation resistance (min.)	5000 MΩ*km
Velocity (nom.)	66%
Characteristic impedance	100 +/-15 Ω (1 to 100 MHz)
	100 +/- 18 Ω (100 to 250 MHz)
Mutual capacitance	<55 pF/nom.
Propagation delay skew	<20 ns/100m



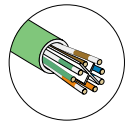
Cable Performance

Frequency [MHz]		1	4	10	16	20	31,25	62,5	100	200	250	300
Max attenuat. [dB/100 m]	Typical value	1,9	3,6	5,7	7,3	8,3	10,3	14,8	19	27,3	31	34
	Cat 6 (max.)	2,1	3,8	6	7,6	8,5	10,8	15,5	19,9	29,2	33	-
Min.Next [dB]	Typical value	77	68	62	59	57	55	50	47	42	41	40
	Cat 6 (min.)	75	66	60	57	56	53	48	45	41	39	-
Min.ACR [dB]	Typical value	75,1	64,4	56,3	51,7	48,7	44,7	35,2	28	14,7	10	6
	Cat 6 (min.)	73,3	62,5	54,3	49,7	47,3	42,2	32,9	25,4	11,6	6,3	-
PS Next [dB]	Typical value	74	65	59	56	54	52	47	44	39	38	37
	Cat 6 (min.)	72,3	63,3	57,3	54,3	52,8	49,9	45,4	42,3	37,8	36,3	-
ELFEXT [dB]	Typical value	80	73	65	61	59	55	49	45	39	37	35
	Cat 6 (min.)	68	56	48	44	42	38	32	28	22	20	-
PS ELFEXT [dB]	Typical value	77	70	62	58	56	52	46	42	36	34	32
	Cat 6 (min.)	65	53	45	41	39	35	29	25	19	17	-
Return Loss [dB]	Typical value	25	25	25	25	25	25	23,8	23	21	20	20
	Cat 6 (min.)	20	23	25	25	25	23,6	21,5	20,1	18	17,3	-

Type

Ref.

3M™ Volition™ • Cat 6 cable, 100 Ω, UTP PVC or LSOH



3M Volition • Cat 6 cable, 100 Ω, UTP PVC 4 pairs cable (305 m box)	VOL-6UP4-305
3M Volition • Cat 6 cable, 100 Ω, UTP PVC 4 pairs cable (1000 m drum)	VOL-6UP4-1000
3M Volition • Cat 6 cable, 100 Ω, UTP PVC 2*4 pairs cable (1000 m drum)	VOL-6UP8-1000
3M Volition • Cat 6 cable, 100 Ω, UTP 4 LSOH pairs cable (305 m box)	VOL-6UL4-305
3M Volition • Cat 6 cable, 100 Ω, UTP LSOH 4 pairs cable (1000 m drum)	VOL-6UL4-1000
3M Volition • Cat 6 cable, 100 Ω, UTP LSOH 2*4 pairs cable (1000 m drum)	VOL-UL8-1000

Item/unit: 1 box or drum

User shall ensure before using our product that it is suitable for the intended use. All questions of liability relating to our products are governed by 3M terms of sale subject where applicable to the prevailing law.

3M Quante Telecommunications Ltd

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