



Volition™

Category 5e cable 100 Ω, FTP



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Part of the 3M™ Volition™ Network Solutions, this 250 MHz FTP cable is a Category 5e TIA / EIA 568 and ISO 11801 and EN 50173 Class D compliant.

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

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

Applications

- IEEE 802.3-IEEE802.5
- FDDI
- ATM
- RNIS

Standards

- EN 50288-1
- EN 50173
- ISO/IEC 11801
- TIA/EIA 568
- IEC 61156-5

Flammability Performances

- | | |
|------------------------------|-------------|
| Fire retardant | IEC 60332-1 |
| Halogen free (LSOH versions) | IEC 60754-1 |

Installation Characteristics

Maximum pulling tension (N)	80
Minimum bend radius during installation (mm):	50
Minimum installed bend radius (mm):	25
Nominal weight	38 kg/km
Temperature rating (°C)	
Transport and storage	0 to +50
Operation	-20 to +60

Features

- Excellent electrical performance - tested to 250 MHz
- Length markings on the cable sheath
- Low smoke, zero halogen (LSOH) and PVC versions available

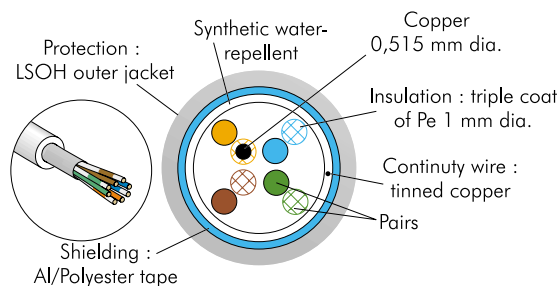
Benefits

- Good headroom over Category 5e performance
- Installer friendly
- Solutions for all levels of fire protection

Specifications

Electrical characteristics at 20° C :

Conductor resistance at 20° C (max.)	98.6 Ω /km
Dielectric strength at 50 Hz	1 kV/1min
Insulation resistance (min.)	5000 MΩ/km
Velocity (nom.)	78%
Characteristic impedance (1 to 100 MHz)	100 +/-15 Ω
Mutual capacitance (nom)	< 55 pF/m
Propagation delay skew	20 ns/100 m



5.9 mm dia.

Cable Performance

Frequency (MHz)		1	4	10	16	20	31.25	62.5	100	155	200
Max attenuat. (dB/100 m)	Typical value	1.9	3.8	6.0	7.5	8.5	10.6	15.2	19.5	25.0	28.0
	Cat 5e (max.)	2.1	4.1	6.5	8.3	9.3	11.7	17.0	22.0	-	-
Min.NEXT (dB)	Typical value	72.0	63.0	57.0	54.0	52.0	49.0	45.0	42.0	39.0	37.0
	Cat 5e (min.)	65.3	56.3	50.3	47.3	45.8	42.9	38.4	35.3	-	-
Min.ACR (dB)	Typical value	70.1	59.2	51.0	46.5	43.5	38.4	29.8	22.5	14.0	9.0
	Cat 5e (min.)	63.2	52.2	43.8	39.0	36.5	31.2	21.4	13.3	-	-
PS NEXT (dB)	Typical value	69.0	60.0	54.0	51.0	49.0	46.0	42.0	39.0	36.0	34.0
	Cat 5e (min.)	62.3	53.3	47.3	44.3	42.8	39.9	35.4	32.3	-	-
ELFEXT (dB)	Typical value	75.0	63.0	55.0	51.0	48.0	45.0	39.0	35.0	31.0	29.0
	Cat 5e (min.)	64.0	52.0	44.0	40.0	38.0	34.0	28.0	24.0	-	-
PS ELFEXT (dB)	Typical value	72.0	60.0	52.0	48.0	46.0	42.0	36.0	32.0	28.0	26.0
	Cat 5e (min.)	61.0	49.0	41.0	37.0	35.0	31.0	25.0	21.0	-	-
Return Loss (dB)	Typical value	25.0	25.0	25.0	25.0	25.0	25.0	23.8	23.0	22.0	21.0
	Cat 5e (min.)	20.0	23.0	25.0	25.0	25.0	23.6	21.5	20.1	-	-

Ordering Information

Volition™, Category 5e cable, 100 Ω

- Volition™ Cat 5e Cable, FTP, PVC, 4 pairs, 305 m Box
- Volition™ Cat 5e Cable, FTP, PVC, 4 pairs, 1000 m Drum
- Volition™ Cat 5e Cable, FTP, LSOH, 4 pairs, 305 m Box
- Volition™ Cat 5e Cable, FTP, LSOH, 4 pairs, 500 m Drum
- Volition™ Cat 5e Cable, FTP, LSOH, 4 pairs, 1000 m Drum
- Volition™ Cat 5e Cable, FTP, LSOH, 2x4 pairs, 500 m Drum
- Volition™ Cat 5e Cable, FTP, LSOH, 2x4 pairs, 1000 m Drum

Item/unit: 1 box or drum

Ref.-No.

- VOL-5EFP4-305
- VOL-5EFP4-1000
- VOL-5EFL4-305
- VOL-5EFL4-500
- VOL-5EFL4-1000
- VOL-5EFL8-500
- VOL-5EFL8-1000

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