Telephone cables

Solid Copper Conductor, PVC Insulated and PVC Sheathed

Technical Specifications:

- **Applications**
  Used for indoor installation and interconnection of transmission , telephone, telegraph and electronic equipment

- **Standard**
  IEC 189 Part 2

- **Conductor**
  Annealed solid plain copper as per IEC 60228 Class 1

- **Insulation**
  PVC temperature rating 70 °C as per IEC 189-2

- **Assembly**
  Insulated cores are twisted into pairs and pairs are twisted together to form the final assembly

Jacket

- PVC temperature rating 90 °C as per IEC 189-2, rip cord is provided under final jacket for easy stripping

- **Packing**
  Available in standard length of 100 and 90 yard coils. Other lengths available on request

Technical Data

Number of Pairs	Conductor Construction		Max. DC conductor Resistance at 20 °C	Minimum Insulation Thickness	Minimum Sheath Thickness	Approx. Overall Diameter	Approx. Net Weight	AES Code
No.	No.	mm	ohms/km	mm	mm	mm	kg / km	-
1	1	0.5	97.8	0.15	0.6	3	12	TEL01P50UGYXX[a]
2	1	0.5	97.8	0.15	0.6	4.3	21	TEL02P50UGYXX[a]
3	1	0.5	97.8	0.15	0.6	4.5	26	TEL03P50UGYXX[a]
4	1	0.5	97.8	0.15	0.6	4.9	32	TEL04P50UGYXX[a]
5	1	0.5	97.8	0.15	0.6	5.4	39	TEL05P50UGYXX[a]
6	1	0.5	97.8	0.15	0.7	6	48	TEL06P50UGYXX[a]
8	1	0.5	97.8	0.15	0.7	6.4	59	TEL08P50UGYXX[a]
10	1	0.5	97.8	0.15	0.7	7.2	72	TEL010P50UGYXX[a]
12	1	0.5	97.8	0.15	0.7	7.7	86	TEL012P50UGYXX[a]

The above data is approximate and subject to normal manufacturing tolerance.
XX[a] : Packing type (see AES Code Key - page 42- 45)

ELETRA Safety for Life

Coaxial cables (RG6 / U)

Solid Copper Clad Steel Conductor, Foam Polyethylene Insulated, Braid Shielded and PVC Jacketed

Technical Specifications:

- **Application**
  Used in all areas of the high frequency transmission technology (for TV aerials, satellite receivers, etc.)

- **Standard**
  MIL-C-17

- **Conductor**
  Annealed solid copper clad steel (CCS) with high conductivity

- **Insulation**
  Cellular physical foam polyethylene

- **Shield**
  Aluminum polyester tape with aluminium wire braids

Sheath

- PVC, flame retardant, temperature rating 85 °C and sunlight resistant

Packing

- Available in standard length of 1000 and 300 feet coils.
  Other lengths available on request

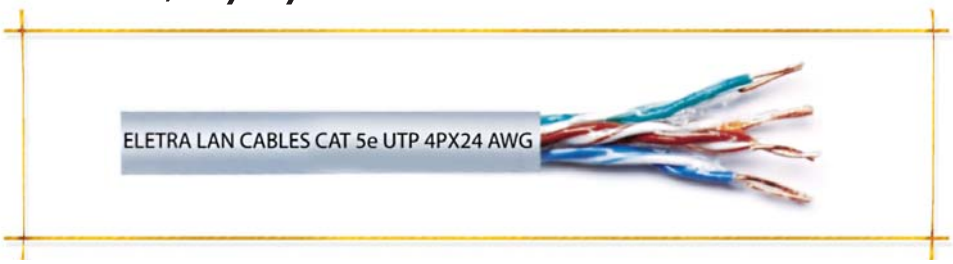
Technical Data

Conductor Diameter	Insulation Diameter	Shielding	Outer Diameter	Nominal Impedance	Nominal Capacitance	Nominal Attenuation at 20 °C.		AES Code
mm	mm	%	mm	Ω	pF/M	MHz	dB/100M	
1.02	4.8	100% AL / PET	7	75±3	53	100	6.3	RG06ZFBKXX[a]
		75% AL braid				200	8.65	
						400	12.23	
						700	16.56	
						900	18.99	
						1000	20.04	

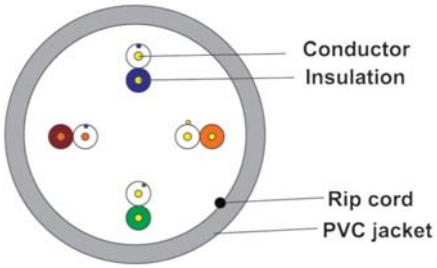
XX[a] : Packing type (see AES Code Key - page 42- 45)

CAT 5e UTP - 4Px 24 AWG CABLE SPECIFICATIONS

Solid Copper Conductor, Polyethylene Insulated and PVC Jacketed



Cross Section



Packing

305m/1000ft per pull box / spool box

Standard

TIA/EIA 568-B.2 & ISO/IEC 11801, UL444

Construction

Conductor	**Solid Bare Copper**
AWG	24
Conductor Dia.Nom(±0.005mm)	0.505
Insulation	**HDPE**
Average Thickness (±0.03mm)	0.20
Min. Point Thickness (mm)	0.17
Insulating Diameter(mm)	0.905
Twisting Pair Dia. (±0.01mm)	1.81
Jacket	**PVC**
average Thickness(±0.03)	0.50
Min. Point Thickness (mm)	0.47
Outer Dia. (±0.30mm)	4.72
Rip Cord	**YES**

Color

Insulation colors:
blue,white/blue
orange,white/orange
green,white/green
brown,white/brown

Jacket colors:
As per customers request

Marking

ELETRA LAN Cables CAT 5e UTP4P x 24 AWG
75 °C Verified To TIA / EIA 568-B.2 & ISO/IEC 11801

AES Code : CAT5e 4UGYXX[a]
XX[a] : Packing type (See AES code key -page 42 - 45)

Performance

Electrical Characteristics:

Frequency (MHz)	ATT(max) (dB/100m)	NEXT(min) (dB/100m)	EL FEXT(min.) (dB/100m)
1	2.2	60.0	58.6
4	3.9	54.8	46.6
8	5.5	50.0	40.6
10	6.2	48.5	38.6
16	7.9	45.2	34.5
20	8.9	43.7	32.6
25	10.0	42.1	30.7
31.25	11.2	40.5	28.7
62.5	16.2	35.7	22.7
100	21.0	32.3	18.6

Frequency (MHz)	Min. RL (dB/100m)	Min. PS NEXT (dB/100m)	Min. PS ELFEXT (dB)	Min. PS ACR (dB)
1	19.0	57.0	55.6	54.0
4	19.0	51.8	43.6	47.9
8	19.0	47.0	37.5	41.5
10	19.0	45.5	35.6	39.3
16	19.0	42.2	31.5	34.3
20	19.0	40.7	29.6	31.8
25	18.0	39.1	27.7	29.1
31.25	17.1	37.5	25.7	26.3
62.5	14.1	32.7	19.7	16.4
100	12.0	29.3	15.6	8.3

NVP@100MHz:68%

Impedance	100±15 Ohm
Max. Conductor DC Resistance 20 C (ohms/km)	<= 95
Resistance Unbalance(%)	< = 5
Dielectric Strength:	Dc.1.5kv , 1min

Mechanical Characteristics:

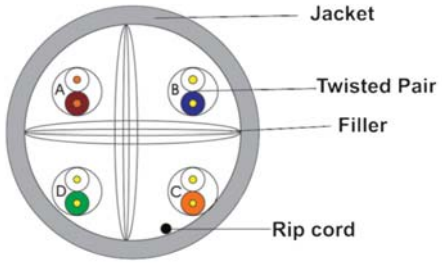
Test object		Jacket
Test Material		PVC
Before	Tensile Strength (mpa)	>=13.8
Aging	Elongation(%)	>=100
Aging Condition	(°Cxhrs)	100x240
After	Tensile Strength(mpa)	>=85% Of Unaged
Aging	Elongation(%)	>=85% Of Unaged
Cold Bend (-20±2 °Cx4hrs)		No Crack

ELETRA Safety for Life

CAT 6 UTP - 4Px 23 AWG CABLE SPECIFICATIONS

Solid Copper Conductor, Polyethylene Insulated and PVC Jacketed

Cross Section



Packing

305m/1000ft per pull box / spool box

Standard

TIA/EIA 568-B.2 & ISO/IEC 11801, UL444

Construction

Conductor	**Solid Bare Copper**
AWG	23AWG
Conductor Dia.Nom(±0.005mm)	0.570
Insulation	**HDPE**
Average Thickness (mm)	0.222
Min. Point Thickness(mm)	0.198
Insulating Dia.(±0.01mm)	1.02
Twisting Pair Dia.(±0.01mm)	2.04
Filler	polyester
Jacket	**PVC**
Average Thickness(mm)	0.60
Min. Point Thickness(mm)	0.55
Outer Dia.(±0.30mm)	6.20
Rip Cord	**YES**

Color

Insulation colors:
blue,white/blue
orange,white/orange
green,white/green
brown,white/brown

Jacket colors:
As per customer request

Marking

ELETRA LAN Cables CAT 6 UTP 4P x 23 AWG
75 °C Verified To TIA/ EIA 568-B.2 & ISO/IEC 11801

AES Code : CAT6 4UGYXX[a]
XX[a] : Packing type (See AES code key -page 42- 45)

Performance

Electrical Characteristics:

1.0-250.MHz Impedance	100+15
1.0-250.MHz Dealy skew (ns/100m)	<=45
Max. Conductor DC Resistance 20 °C (ohms/km)	70
Resistance Unbalance(%)	<=5

Frequency (MHz)	Return loss (Min dB)	Attenuation Max(dB/100m)	NEXT (Min dB)
1	19.1	1.90	65.0
4	21.0	3.5	64.1
8	21.0	5.0	59.4
10	21.0	5.5	57.8
16	20.0	7.0	54.6
20	19.5	7.9	53.1
25	19.0	8.9	51.5
31.25	18.5	10.0	50.0
62.5	16.0	14.4	45.1
100	14.0	18.6	41.8
200	11.0	27.4	36.9
250	10.0	31.1	35.3

Frequency (MHz)	PSNEXT Min(dB)	ELFEXT Min(dB/100m)	Delay Max(ns/100m)
1	62.0	64.2	570.0
4	61.8	52.1	552.0
8	57.0	46.1	546.0
10	55.5	44.2	545.0
16	52.2	40.1	543.0
20	50.7	38.2	542.0
25	49.1	36.2	541.0
31.25	47.5	34.3	540.0
62.5	42.7	28.3	538.0
100	39.3	24.2	537.0
200	34.3	18.2	536.0
250	32.7	16.2	536.0

NVP @ 250MHz:68%

Mechanical Characteristics:

Test object		Jacket
Test Material		PVC
Before	Tensile Strength (Mpa)	>=13.8
Aging	Elongation(%)	>=100
Aging Condition	(°Cxhrs)	100x240
After	Tensile Strength(mpa)	>=85% Of Unaged
Aging	Elongation(%)	>=85% Of Unaged
Cold Bend (-20±2 Cx4hrs)		No Crack