

# Residential Cat 6 UTP Cat6 25 AWG

**Caleb Cable**

**Caleb Cable Industrial Limited**

## Revision History

Part No:	Price NO:
Prepared by: CXY	Date: 2015/8/5
Approved by:	Page: 1 of 1

**Product Code:** Residential Cat 6 UTP Cat6 25 AWG

## Product Description

### 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+

### Reference Standard

ISO/IEC 11801: 2011; IEC61156-5:2009; ANSI/TIA-568-C.2  
 EN50173; EN50288

### Multi-construction

4 Pair

## Cable Construction

<b>1. Conductor</b>	Bare Copper
Construction (mm)	0.44±0.01
<b>2. Insulation</b>	HDPE
Insulation Dia.(mm)	0.78±0.08×2C Twist
<b>3. Filler</b>	Corss Member
<b>4. Jacket</b>	LSZH
Dia.(mm)	4.60±0.20
Jacket Color	According to customer
<b>Color</b>	
Insulation color are:	
Blue, White/Blue	Orange, White/Orange
Green, White/Green	Brown, White/Brown

### Marking

According to customer.

### Packaging

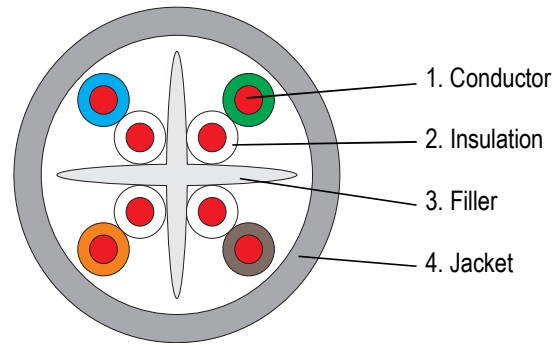
305M/EasyReel Box

### Note

1. Supports IEEE 802.3af: POE (12.95W) ; IEEE 802.3at: POE+ (25.5W);

2. Max.channel resistance (including horizontal cable, patch cable and connecting hardware etc.) is rated at 20 Ω for 802.3af: POE, and 12.5 Ω for 802.3at: POE+ respectively. Mearsured DC resistance at 118.7 Ω/Km for 25 AWG UTP Cat6 at 20° C; Pls adjust the cable length accordingly for POE usage, along with other factors. It's tested up to 150 meters with our UTP Cat6 25 AWG for signal and power of IP camera with standard POE switch.

## Design



## Electrical Characteristics

### Performance

Frequency (MHz)	ATTENUATION (dB/80m)	NEXT (dB)	PSNEXT (dB)	RETURN LOSS (dB)
4.0	5.8	66.3	63.3	23.0
10.0	9.0	60.3	57.3	25.0
16.0	11.4	57.2	54.2	25.0
20.0	12.8	55.8	52.8	25.0
31.3	16.1	52.9	49.9	23.6
62.5	23.3	48.4	45.4	21.5
100.0	29.9	45.3	42.3	20.1
155.5	38.1	42.4	39.4	18.8
175.0	40.7	41.7	38.7	18.4
200.0	43.8	40.8	37.8	18.0
250.0	49.7	39.3	36.3	17.3

Frequency (MHz)	ELFEXT (dB/80m)	PEELFEXT (dB/80m)
4.0	56.0	53.0
10.0	48.0	45.0
16.0	43.9	40.9
20.0	42.0	39.0
31.3	38.1	35.1
62.5	32.1	29.1
100.0	28.0	25.0
155.5	24.2	21.2
175.0	23.1	20.1
200.0	22.0	19.0
250.0	20.0	17.0

**Note: The inspection will be according to TIA Cat 6 Perm.Link & ISO 11801 PL Class E of Fluke at 80m**

Max.Conductor DC Resistance at 20°C (Ω/Km)	<132.4
Rated Temperature(°C)	60
Velocity ratio	70%
Impedance(Ω)	1-100MHz: 100±15 100-250MHz: 100±20

Fire Performance: IEC60332-1

Smoke Density: IEC61034

Halogen Free: IEC60754

