

# Cables

## Category 6 U/UTP cables

### Category 6 UTP PVC cables

The Actassi 4-pair Category 6 cable is a superior product delivering excellent network performance when used in conjunction with other Actassi Category 6 products.

The Category 6 cable consists of 4 pairs of solid insulated copper 23 AWG and is UL listed with a CM or CMR fire rating.

It is designed for use in horizontal cabling situations and supplied in 305 m (1,000 ft) easy pull out boxes.

The Category 6 cable provides a significant margin above the minimum Category 6 near end crosstalk NEXT requirement of ANSI/TIA/EIA-568 and ISO/IEC 11801.

### Category 6 UTP LSZH cables

The availability of a central filler helps in delivering superior cross-talk isolation and therefore ensures excellent performance. This precision and unique manufacturing process design allows for easy removal, which maximises both performance and termination.

The Actassi Category 6 LSZH 4-pair cables are designed to carry high-bandwidth applications, including the IEEE 802.3AB 1000 Base-T (Gigabit ethernet), TIA/EIA 1000 Base-TX, 1.2Gb/s ATM and any future applications designed for Category 6/ Class E cabling, as well as analogue broadband video.

Insulated with non-halogen high-density polyethylene and covered with low smoke zero halogen compounds. It is designed for use in horizontal cabling situations where building smoke requirements mandate low smoke and zero halogen installation and supplied in 305 m (1,000 ft) easy pull out boxes.

The Actassi LSZH cable is IEC tested for low smoke and non-halogen emission and passes the following tests:

- IEC 60754 part 2, non-halogen based on pH and conductivity measurements
- IEC 61034 part 2, smoke emission
- IEC 60332-1, flammability and fire retardant.

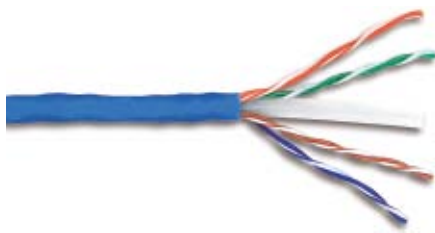
### Product features

- Centre filler to maintain pair twisting and optimum NEXT and ELFEXT performance.
- 23 AWG conductors for improved insertion loss performance.

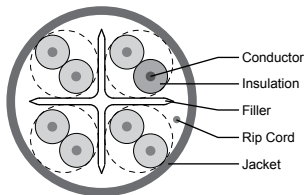
### Customer benefits

- Exceeds Category 6 ANSI/TIA/EIA-568-C2-1 and ISO/IEC 11801 standards
- Supports Gigabit ethernet (1000 Base-T and 1000 Base-TX) and beyond.

2046EIPV08\_Cat6 UTP



ACT4P6UCM3RBxx  
ACT4P6UCR3RBxx  
ACT4P6ULS3RBxx



Description	Ref. No
<b>PVC cables</b>	
Category 6, 4 pair UTP cable 305 m, CM	<b>ACT4P6UCM3RBxx</b>
Category 6, 4 pair UTP cable 305 m, CMR	<b>ACT4P6UCR3RBxx</b>
<b>LSZH cables</b>	
Category 6, 4 pair UTP cable 305 m, LSZH	<b>ACT4P6ULS3RBxx</b>

Where **xx** denotes the color of jacket: BU = blue, WE = white, BK = black, GY = grey, GR = green, RD = red, YL = yellow.

## Technical specifications

### Physical specifications

Rated temperature (°C)	75
Flammability test	CMR, CM, LSZH
Reference standards	UL Subject 444, EIA/TIA 568-C.2 & ISO/IEC 11801, IEC 61156-5

### Construction

Conductor	Solid bare copper
AWG	23
Conductor dia. nom. (mm)	0.565
Insulation	PE
Average thickness (mm)	0.22
Min. point thickness (mm)	0.18
Insulation diameter (± 0.10 mm)	1.04
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Filler	PE
Jacket	PVC
Average thickness (± 0.05 mm)	0.49
Min. point thickness (mm)	0.43
Outer diameter (± 0.2 mm)	6.00
Rip cord	Yes

### Electrical characteristics

1.0-100 MHz input impedance (ohms)	100 ± 6
100-250 MHz input impedance (ohms)	100 ± 6
1.0-250 MHz delay skew (ns/100 m)	≤ 45
Pair-to-ground capacitance unbalance (pf/100 m)	≤ 330
Max. conductor DC resistance 20°C (ohms/km)	73.2
Resistance unbalance (%)	≤ 5

Frequency MHz	Attenuation dB/100 m	NEXT dB/100 m	PSNEXT dB/100 m	ACRF dB/100 m	PSACRF dB/100 m	RL dB/100 m	DELAY ns/100 m
1	2.0	77.3	75.3	70.8	67.8	21	570
4	3.8	68.3	66.3	58.8	55.8	24	552
8	5.3	63.8	61.8	52.7	49.7	25.5	546.7
10	6.0	62.3	60.3	50.8	47.8	26	545.4
16	7.6	59.2	57.2	46.7	43.7	26	543
20	8.5	57.8	55.8	44.8	41.8	26	542
25	9.5	56.3	54.3	42.8	39.8	25.3	541.2
31.25	10.7	54.9	52.9	40.9	37.9	24.6	540.4
62.5	15.4	50.4	48.4	34.9	31.9	22.5	538.6
100	19.8	47.3	45.3	30.8	27.8	21.1	537.6
200	29.0	42.8	40.8	24.8	21.8	19	536.5
250	32.8	41.3	33.3	22.8	19.8	18.3	536.3