

Application

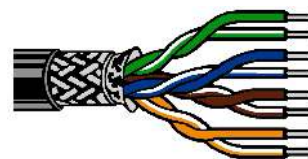
- Horizontal and building backbone cable.
- Support current **Category 5** and **Category 5 enhanced** applications, such as:
10 Base-T, 100 Base-T, 1000 Base-T (Gigabit Ethernet), FDDI, ATM

Standards

- General standards: **ISO/IEC 11801, EN 50173**
- Future standards like: ISO/IEC 11801 2nd edition, EN 50173 2nd edition und prEN 50288-3-1

Construction & Dimensions

- Construction: shielded 4 twisted pairs
- Conductor: solid bare copper
- Conductor diameter: AWG 24 (0,52 mm)
- Conductor insulation material: Polyethylene (PE)
- Diameter over insulation: 1.10 mm $\pm$ 0.05 mm
- Drain wire: AWG 26 tinned copper
- Shield: Aluminium/polyester foil & braid (coverage > 40%)
- Jacket material: PVC (Flame retardant)
- Outer diameter: 6.3 mm $\pm$ 0.3 mm



Colour code

- Pair 1 White-Blue/Blue
- Pair 2 White-Orange/Orange
- Pair 3 White-Green/Green
- Pair 4 White-Brown/Brown

Electrical characteristics (at 20 °C)

Attenuation

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Maximum ¹⁾	4.0	4.0	6.3	8.0	9.0	11.4	16.5	21.3	dB/100m
Typical	2.0	3.8	6.0	7.6	8.5	10.8	15.0	19.2	dB/100m

NEXT

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum ¹⁾	60.0	56.3	50.3	47.2	45.8	42.9	38.4	35.3	dB
Typical	70	62	57	54	52	49	45	43	dB

Power Sum NEXT

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum ¹⁾	57.0	53.3	47.3	44.2	42.8	39.9	35.4	32.3	dB
Typical	68	60	55	52	50	47	43	41	dB

Power Sum ELFEXT

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum ¹⁾	60.8	48.8	40.8	36.7	34.8	30.9	24.9	20.8	dB
Typical	73	61	53	47	45	41	37	33	dB

ACR

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum ¹⁾	56.0	52.3	44.0	39.2	36.8	31.5	21.8	14.0	dB/100m
Typical	68.0	58.2	51.0	46.4	43.5	38.2	30.0	23.8	dB/100m

Power Sum ACR

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum ¹⁾	53.0	49.3	41.0	36.2	33.8	28.5	18.8	11.0	dB/100m
Typical	66.0	56.2	49.0	44.4	41.5	36.2	28.0	21.8	dB/100m

¹⁾: Values according to cable requirements of ISO/IEC 11801 category 5 enhanced



Electrical characteristics (at 20 °C)

Nominal mutual capacitance at 1 kHz	50 nF/km
Maximum conductor DCR	93,5 Ohm/km
NVP - Nominal Velocity of Propagation	0.70 c
SKEW – Propagation delay difference (100 MHz)	typical ≤ 15 ns/100m
Impedance 1 - 100 MHz	100 $\pm$ 15 Ohm

General and environmental characteristics

Temperature range - operation	-20°C - +60°C
Temperature range - installation	+0°C - +50°C
Minimum bending radius - operation	25 mm
Minimum bending radius - installation	50 mm
Maximum pulling tension	80 N
Flame retardancy	IEC 332-1
Energy of flame	525 kJ/m
Weight (approx.)	55 kg/km
Maximum operating voltage	48 V rms
Maximum continuous current per conductor (25°C)	1.4 A

Ordering information

MARKING

Text on the cable jacket Inkjet printing

BELDEN 1633E PLUS STP CAT5E 4PR AWG24 ISO/IEC 11801 EN 50173 VERIFIED 100 OHM

Meter marking: Yes

JACKET COLOUR

Colour	RAL code	Belden colour code
Grey	RAL 7032	3253

PACKAGING (PUT UP)

Belden code	Delivery length	Weight	Remark
43141 xxxx 240	500 m	27,5 kg	Non returnable reel
43141 xxxx 241	1000 m	55.0 kg	Non returnable reel

xxxx: Belden colour code