DATATWIST® 350 - 1700E

Cat 5 enhanced UTP PVC

Application

- Horizontal and building backbone cable.
- Support current and future **Category 5 enhanced** applications, such as:
  100 Base TX, 100 Base VG AnyLan, 155 ATM and 1000 Base-T (***Gibabit Ethernet***), FDDI.

Key features and Standards

- General standards: **FCD ISO/IEC 11801 (October 2001), prEN 50288-3-1, ANSI/TIA/EIA 568-b.2 (enhanced)**
- Future standards like: **ISO/IEC 11801 2nd edition, EN 50173 2nd edition**
- Provides extended performance far in excess of industry standards
- Ideal for use in high bandwidth applications up to 350 MHz

Construction & Dimensions

- Construction: Unshielded 4 twisted bonded pairs
- Conductor: solid bare copper
- Conductor diameter: AWG 24 (0,51 mm)
- Conductor insulation material: Polyolefine
- Diameter over insulation: 0,95 mm ± 0.05 mm
- Ripcord: Polyester
- Jacket material: Flame retardant PVC
- Outer diameter: 5,0 mm ± 0.30 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	31.2	62.5	100	155	200	250	350	MHz
Spec. (Max.)[1)]	4.0	4.0	6.3	8.0	9.0	11.4	16.5	21.3	27.2	31.5	35.8	43.5	dB/100m
Typical	1.9	3.9	6.2	7.9	8.9	11.2	16	19.8	25.0	28.5	32.0	38.5	dB/100m

NEXT (Near end crosstalk)

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	250	350	MHz
Spec. (Min.)[1)]	65.3	56.3	50.3	47.3	45.8	42.9	38.4	35.3	32.4	30.8	29.3	27.1	dB/100m
Typical	73	64	58	55	54	51	47	44	40	38	37	35	dB/100m

Power sum NEXT

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	250	350	MHz
Spec. (Min.)[1)]	62.3	53.3	47.3	44.3	42.5	39.9	38.4	32	29.4	27.8	26.3	24.1	dB/100m
Typical	71	62	56	53	52	49	45	42	38	36	35	33	dB/100m

Power sum ELFEXT

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	250	350	MHz
Spec. (Min.)[1)]	60.8	48.8	40.8	36.7	34.8	30.9	24.9	20.8	17	14.8	12.8	9.9	dB/100m
Typical	71	59	51	46	43	39	33	28	25	23	21	18	dB/100m

Power sum ACR

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	250	350	MHz
Spec. (Min.)[1)]	58	49	41	36	34	28	19	11	-	-	-	-	dB/100m
Typical	69	59	50	46	43	38	29	22	-	-	-	-	dB/100m

[1)]: Specification values according to cable requirements of FCD ISO/IEC 11801 category 5 enhanced, Oct. 2001.

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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 ≤ 10 ns/100m
Impedance 1-100 MHz	100 ± 15 Ohm
Impedance 100-200 MHz	100 ± 18 Ohm
Impedance 200-310 MHz	100 ± 20 Ohm
Impedance 310-350 MHz	100 ± 22 Ohm

General and environmental characteristics

Temperature range - operation	-20°C - +60°C
Temperature range - installation	+0°C - +50°C
Minimum bending radius - operation	20 mm
Minimum bending radius - installation	40 mm
Maximum pulling tension	80 N
Flame retardancy	IEC 332-1
Energy of flame	350 kJ/m
Weight (approx.)	30 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 1700E UTP CAT5E 4PR AWG24 ISO/IEC 11801 EN50173 VERIFIED 100 OHM

Meter marking: Yes

JACKET COLOUR

Colour	RAL code	Belden colour code
Grey	RAL 7032	3329
Blue	RAL 5015	3348

PACKAGING (PUT UP)

Belden code	Delivery length	Weight	Remark
46173 xxxx 178	305 m	9 kg	Unreel box
46173 xxxx 028	305 m	9 kg	Non returnable reel
46173 xxxx 011	500 m	15 kg	Non returnable reel
46173 xxxx 240	1000 m	30 kg	Non returnable reel

xxxx: Belden colour code