



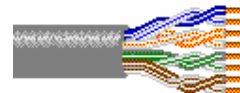
**TECHNICAL DATA SHEET
DRAFT**

code **46077**
vers **V2**
date **2000-03-09**
page **1/2**

1583E CAT 5E UTP PVC

APPLICATION

General according to ISO/IEC 11801, EN50173 and TIA/EIA 568A Draft 12.



Horizontal and building backbone cable.

CONSTRUCTION

Category 5E UTP cable with ISO/IEC quality (characterised up to 100 MHz. With 4 twisted pairs with 24 AWG bare copper conductors and PE insulation. Jacket of flame retardant PVC material.

REQUIREMENTS AND TEST METHODS

(All measurements and measurement methods according to IEC 1156-2, prEN50288-3-1 and TIA/EIA-568A, category 5E)

Cable construction and dimensions

- Conductor
 - Material bare copper ETP
 - Dimension conductor 0.51 mm (24 AWG)
 - Conductor insulation material polyethylene
 - Diameter over insulated conductor 0.90 ± 0.05 mm
- Colour code
 - Pair 1 White-Blue/Blue
 - Pair 2 White-Orange/Orange
 - Pair 3 White-Green/Green
 - Pair 4 White-Brown/Brown
- Sheath
 - Material PVC
 - Diameter over sheath 4.70 ± 0.30 mm

Electrical characteristics

Nominal mutual capacitance at 1 kHz 50 nF/km
 Maximum conductor DCR at 20 °C 93.5 Ohm/km
 Nominal velocity of propagation (NVP) 0.68 c
 Propagation delay difference (skew) (100 MHz) typical ≤ 10 ns/100m
 Input impedance 1-100 MHz 100 ± 15 Ohm

Longitudinal attenuation

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Maximum	2.1	4.3	6.6	8.2	9.2	11.8	17.1	22.0	dB/100m
Typical	2.0	4.0	6.3	8.0	9.0	11.3	16.2	20.7	dB/100m

Near-end crosstalk (NEXT)

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	65.3	56.3	50.3	47.3	45.8	42.9	38.4	35.3	dB
Typical	73	64	58	55	54	51	47	44	dB



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page **2/2**

Power sum ACR *)

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	60	49	41	36	34	28	19	11	dB/100m
Typical	69	59	50	46	43	38	29	22	dB/100m

Power sum ELFEXT *)

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	60.8	48.7	40.8	36.7	34.7	30.9	24.8	20.8	dB/100m
Typical	71	59	51	46	43	39	33	28	dB/100m

Power sum NEXT *)

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	62.3	53.3	47.3	44.3	42.8	39.9	35.4	32.3	dB/100m
Typical	71	62	56	53	52	49	45	42	dB/100m

*) : Minimum values according to ANSI/TIA/EIA-568-A-5 proposal SP-4195-B, draft 12 category 5 enhanced.

Environmental and overall characteristics

Temperature range operation	-20°C - +60°C
Temperature range installation	+0°C - +50°C
Minimum bending radius operation	19 mm
Minimum bending radius installation	38 mm
Maximum installation tension	80 N
Flame propagation	IEC 332-1
Burning load	410 kJ/m
Total weight (typical)	28 kg/km
Maximum operating voltage	48 V rms
Maximum cont. current per conductor (25°C)	1.4 A

MARKING

Text on cable:

BELDEN 1583E UTP CAT5E 4PR AWG24 ISO/IEC 11801 EN50173 EC VERIFIED 100
OHM (date)

Metermarking: Yes

Colour sheath:

Colour RAL number Colour code

Grey RAL 7032 2830

Blue RAL 5015 2873

PACKAGING

Boxes or non returnable neutral reels with 1 length on each reel.

Belden code	Delivery length	Remark
46077 XXXX 172	100 m	Carton box
46077 XXXX 178	305 m	Unreel box
46077 XXXX 011	500 m	Reel

XXXX = colour code