



**Product:** [SMART6A](#) 

Category 6A Unbonded – PVC Jacket

## Product Description

26 AWG solid bare copper conductors, non-plenum, Polyolefin insulation, twisted pairs, central spline, overall cabling PET tape, Separation tape, CM, PVC jacket.

## Technical Specifications

### Product Overview

Suitable Applications:	Horizontal and building backbone Cable. Support current and future category 6 and 6A applications: such as 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100Base-T, 10Base-T, ISDN, ATM as well as PoE application etc.
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### Construction Details

#### Conductor

Size	Stranding	Stranding Class	Material	No. of Pairs	No. of Elements
26 AWG	Solid	Class 1	BC - Bare Copper	4	8

#### Insulation

Material	Nom. Insulation Diameter
PO - Polyolefin	0.83 mm (0.033 in)

Table Notes:	All Cores laid up together with Central Spline fillers & wrapped with Separator tape + PET Tape.
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#### Outer Jacket

Material
PVC - Polyvinyl Chloride

Overall Cable Diameter (Nominal):	5.7 mm (0.22 in)
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### Electrical Characteristics

#### Electricals

Max. Conductor DCR
148 Ohm/km @ 20 Deg. C

Table Notes:	The utilization of 26 AWG conductor which does not meet the 24 to 22 AWG conductor size of horizontal cable in ANSI/TIA-568.2-D, resulting in increased attenuation which derates the maximum permanent link of the cable to 60 meters.
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#### Delay

Max. Delay Skew	Nom. Velocity of Prop.
44 ns/60m	67%

#### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	1.9 dB/60m	65	62	64.2	61.2	19.1
4	3.5 dB/60m	64.1	61.8	52.1	49.1	21
8	5.0 dB/60m	59.4	57	46.1	43.1	21
10	5.5 dB/60m	57.8	55.5	44.2	41.2	21
16	7.0 dB/60m	54.6	52.2	40.1	37.1	20
20	7.8 dB/60m	53.1	50.7	38.2	35.2	19.5
25	8.8 dB/60m	51.5	49.1	36.2	33.2	19

31.25	9.8 dB/60m	50	47.5	34.3	31.3	18.5
100	18.8 dB/60m	41.8	39.3	24.2	21.1	14
200	26.1 dB/60m	36.9	34.3	18.2	15.2	11
250	29.5 dB/60m	35.3	32.7	16.2	13.2	10
300	32.7 dB/60m	34	31.4	14.6	11.6	9.2
400	38.4 dB/60m	29.9	27.1	12.1	9.1	8
500	43.8 dB/60m	26.7	23.8	10.2	7.2	8

#### Voltage

Voltage Rating	Breakdown Voltage
72 V DC	2.5 kV DC for 2 Sec.

### Mechanical Characteristics

#### Temperature

Operating	Storage
-20°C to + 75°C	-20°C to + 60°C

#### Bend Radius

Installation Min.
45 mm (1.8 in)

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	29 kg/km (19 lbs/1000ft)

### Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	UL1685
NEC / UL Compliance:	CM
CEC / C(UL) Compliance:	CM
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	IEC 61156-5, ISO/IEC 11801
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

### History

Update and Revision:	Revision Number: 0.12 Revision Date: 11-14-2024
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