

**1888ENC**

**Part Number:** 1888ENC

Category 7A Nonbonded-Pair ScTP Cable

## Product Description

CAT7A (1000MHz), 4-Pair, S/FTP shielded, Premise Horizontal Cable, 22 AWG solid bare copper conductors, Foam Polyolefin insulation, each pair with Beldfoil® shield, overall tinned copper braid shield (50% coverage), LSZH jacket (passes bundle flame test IEC60332-3-24)

## Product Specifications

## Technical Specifications

### Product Description

### Application

<b>Application 1:</b>	Horizontal and building backbone cable
<b>Application 2:</b>	Support current and future Category 6a, 7 and 7a applications: 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM

### Classification

### Construction and Dimensions

#### Conductor:

Element	AWG	Stranding	Material	No. of Pairs
Individual shielded pair	22	Solid	Bare copper	4

### Conductor

#### Insulation:

Element	Type	Material	Nominal Diameter
Individual shielded pair	Dielectric	Foamed polyethylene	1.54 mm

## Insulation

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### Color Chart 1:

Number	Color
Pair 1	White & Blue
Pair 2	White & Orange
Pair 3	White & Green
Pair 4	White & Brown

### Innershield:

Element	Type	Material	Coverage
Individual shielded pair	Tape	Aluminium / Polyester	100 %
Aluminum facing outside			

## InnerShield

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### Cabling<sup>1</sup>

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#### Outershield 1:

Type	Material	Min. Coverage
Braid	Tinned copper	30 in

#### Outerjacket 1:

Material	Nominal Diameter	Diameter +/- Tolerance	Ripcord
FRNC / LSNH	8.1 mm	0.3 mm	Yes

### OuterJacket<sup>1</sup>

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### OuterJacket<sup>2</sup>

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### Part Number

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### Static Ground

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### Tracer

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## Electrical Characteristics

### Conductor DCR:

Max. Conductor DCR	Max DCR Unbalanced Between Pairs	Max. DCR Unbalanced Within Pair
95 Ohm/100m	4 %	2 Ohm

### Capacitance:

Max. Capacitance Unbalanced	Max. Mutual Capacitance
1,600 pF/m	56 pF/m

## General Electrical Parameters

Min Insulation Resistance:	5000 mOhm/1000ft
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### Impedance:

Nominal Characteristic Impedance
100 mOhm/ft

### Delay:

Max. Delay Skew	Nominal Velocity of Propagation (VP)
25 ns/100m	0.78 ns/100m

### High Freq:

Element	Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT	Min. PSNEXT	Min. ACR	Min. PSACR	Min. ACRF (ELFEXT)	Min. PSACRF (PSELFEXT)	Min. RL (Return Loss)	Min. PSANEXT	Min. PSAACR	Min. CRFCL	Min. ELTCTL
	1 MHz	2.1 db/100m	78 dB	75 dB	75.9 dB	72.9 dB	78 dB	75 dB	20 dB	67 dB	67 dB	40 dB	23 dB
	4 MHz	3.7 db/100m	78 dB	75 dB	74.3 dB	71.3 dB	78 dB	75 dB	23 dB	67 dB	67 dB	34 dB	15 dB
	10 MHz	5.8 db/100m	78 dB	75 dB	72.2 dB	69.2 dB	75.3 dB	72.3 dB	25 dB	67 dB	67 dB	30 dB	10.9 dB
	16 MHz	7.3 db/100m	78 dB	75 dB	70.7 dB	67.7 dB	71.2 dB	68.2 dB	25 dB	67 dB	67 dB	28 dB	5.1 dB
	31.2 MHz	10.3 db/100m	78 dB	75 dB	67.7 dB	64.7 dB	65.4 dB	62.4 dB	23.6 dB	67 dB	63.3 dB	25.2 dB	
	62.5 MHz	14.6 db/100m	78 dB	75 dB	63.4 dB	60.4 dB	59.4 dB	56.4 dB	21.5 dB	67 dB	57.3 dB	22 dB	
	100 MHz	18.5 db/100m	75.4 dB	72.4 dB	56.9 dB	53.9 dB	55.3 dB	52.3 dB	20.1 dB	67 dB	53.2 dB	20 dB	

	155 MHz	23.2 db/100	72.5 dB	69.5 dB	49.3 dB	46.3 dB	51.5 dB	48.5 dB	18.8 dB	67 dB	49.4 dB	18.1 dB	
	250 MHz	29.7 db/100	69.4 dB	66.4 dB	39.7 dB	36.7 dB	47.3 dB	44.3 dB	17.3 dB	67 dB	45.2 dB	16 dB	
	500 MHz	42.8 db/100	64.9 dB	61.9 dB	22.2 dB	19.2 dB	41.3 dB	38.3 dB	17.3 dB	67 dB	39.2 dB		
	600 MHz	47.1 db/100	63.7 dB	60.7 dB	16.6 dB	13.6 dB	39.7 dB	36.7 dB	17.3 dB	65.8 dB	37.6 dB		
	1000 MHz	61.9 db/100	60.4 dB	57.4 dB	-1.5 dB	-4.5 dB	35.3 dB	32.3 dB	15.1 dB	62.5 dB	33.2 dB		
	1200 MHz	68.4 db/100	59.2 dB	56.2 dB	-9.1 dB	-12.1 dB	33.7 dB	30.7 dB	14.3 dB				

): Limits below 4MHz are for information only; ): Values at 1000 MHz are for information only

### Current:

#### Max. Recommended Current

1.5 A

### Voltage:

#### Voltage Rating

72 dB

### Coupling Attenuation:

#### Coupling Attenuation

Type IV

## Coupling Attenuation

## Screening

### Transfer Impedance:

Frequency [MHz]	Description	Transfer Impedance
1 Mhz	Grade 1	Max. 10 mOhm/m
10 Mhz		Max. 10 mOhm/m
30 Mhz		Max. 30 mOhm/m
100 Mhz		Max. 100 mOhm/m

## Transfer Impedance

## Use

Burning Load:	840 kJ/m
Max Recommended Pulling Tension:	105 lbs

## Material

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 MPa
Min Tensile Strength of Jacket:	9 lbs

## Safety

ISO/IEC Flammability:	IEC 60332-3-24
Amt of Halogen Acid Gas; MaxConductivity:	10 $\mu$ S/mm
Amt of Halogen Acid Gas; Min pH:	4.3
Smoke Density; Min Transmittance:	60 %
Amt of Halogen IEC 60754-1 /EN50267-1:	Zero

## Temperature Range

Installation Temp Range:	0 to +50 °C
Operating Temp Range:	-30 to +60 °C

## Mechanical Characteristics

### Bend Radius

Min Bend Radius During Installation:	70 mm
Min Bend Radius During Operation:	35 mm

### Crush Resistance

### Connectors

### Stripping Performance

### EU Directive

## Part Number

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## Applicable Patents

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## Standards

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ISO/IEC Compliance:	ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
CENELEC Compliance:	EN 50173-1 (2011)

## Contact Information

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## History

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Revision Date:	41024
Revision Number:	1

## Usage

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## Put Ups and Colors

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